



CALORIFIERS

THERMAL STORAGE

CATALOGUE 10



Cordivari boasts of a consolidated industrial tradition and is one of the most important Italian companies in the plumbing and heating sector. Founded in 1972 by Ercole Cordivari, the company specializes in the production of Calorifiers, Pressure Vessels, Solar Thermal and Heat Pumps Systems, Storage and Water Treatment Tanks, Chimney Pipes Systems, Decorative Radiators and Food storage containers.

The four Cordivari manufacturing facilities cover an area of over 370,000 square meters and employ over 700 people.

To guarantee the total quality of our products, all of them are designed and Made in Italy, in the Cordivari's plants.

Thanks to development strategies oriented towards technological innovation and continuous staff training, Cordivari is equipped with modern systems and cutting-edge production processes. The technological, ergonomic and ecological choices allow to operate in full respect of people and environment, according to UNI EN ISO 14001 Environmental Management System and the UNI EN ISO Quality System 9001, which guarantees the full quality and reliability of our products.

Cordivari's highly qualified management, the continuous search for innovative solutions and a strongly customer oriented approach, brought us today to serve more than 2,000 customers in 72 countries around the world, a market leadership position and an exclusive know-how in the production of Integrated Hydrothermal Systems.

The testimony of a continuous commitment aimed at achieving Customer Satisfaction.



Cav. Ercole Cordivari

MANUFACTURING PHILOSOPHY FOR THE SAKE OF THE ENVIRONMENT



Cordivari was the first among the companies of the Heating and Plumbing sector to obtain the certification integrated management system according to UNI EN ISO 9001, together with the UNI EN ISO environmental management certification 14001.

This manufacturing philosophy, which today is a lifestyle for the company, means reducing emissions and energy inefficiencies, waste reduction through differentiation and recycling.

Thanks to these choices, the company can operate without harming people and environment. In compliance with the Quality & Environment management system, Cordivari exploit clean energy from renewable sources and uses only recyclable and environmentally friendly resources, from raw materials to packaging.

**CARING ABOUT
QUALITY, COMBINED
WITH ATTENTION TO
THE ENVIRONMENT,
HAVE ALWAYS
BEEN CONSIDERED
STRATEGIC
ACTIVITIES.**

50 YEARS OF TECHNOLOGIES IN THE SERVICE OF WELL-BEING

Each proposed solution has always represented the synthesis of consumer needs through reliable technical choices, ergonomic design, attention for final installation and ease of use.

The continuous evolution of the product offer testifies the company's attention to the needs of the market. Likewise, the research and development of new solutions align with the evolutionary trends of a market oriented to the themes of efficiency and energy saving.

The different stages of production involve the best techniques of industrial automation, advanced robotics and craftsmanship, and each product is subjected more times during the production phases to a rigorous automated, manual, and visual control.

**CONTINUOUS INNOVATION,
DEVELOPMENT
AND DESIGN STUDIES
ARE CENTRAL BELIEFS
IN THE CORDIVARI
PRODUCTIO NPROCESS.**



MADE IN ITALY SKILLS AND PRODUCTION INNOVATIONS



The company has always invested in technology and automation of all production processes.

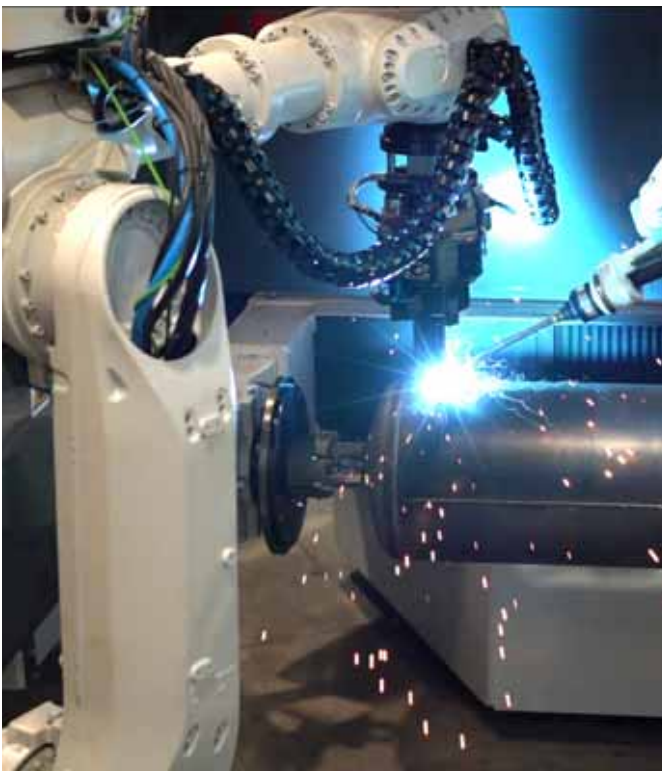
The production facilities have been redesigned according to the guidelines of the most modern Industry 4.0 to ensure the control and reliability of each individual stage of the process.

Knowledge and experience, gained over 50 years of activities, combine with technology and artificial intelligence, to translate our work into total quality.

The importance of people is always at the center of production processes.

Experience, professionalism and orientation to quality, integrate with the Company's objectives and vision for environment and safety.

All Cordivari products have always been Made In Italy, made with passion and competence in our factories in Abruzzo.



CERTIFIED QUALITY

Calorifiers, thermal storages, pressurized water tanks, membrane vessels and tanks for compressed air, are all manufactured in compliance with the most important international certifications and approvals, such as P.E.D. (Pressure Equipment Directive) and Directive 2009/125 / EC (ErP -Specifications for Eco-compatible Design).

All items intended for the containment of sanitary water are certified for use with drinking water according to the most stringent Italian and foreign regulations (ACS -SSICA - DVGW W270 - WRAS).



SYSTEM CERTIFICATES

UNI EN ISO 9001 Quality Management System

Environmental Management System
UNI EN ISO 14001



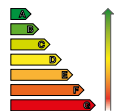
PRODUCT CERTIFICATES



The Centro Inox brand distinguishes the STAINLESS STEEL material, a durable, hygienic and ecological material



2014/68/UE - 2014/29/CE
Products compliant with CE and PED standards



ErP - Energy Related Products Directive -2009 / 125 / UE



POLITECNICO DI MILANO
Dipartimento di Energia
RELAB- Renewable Heating and Cooling LAB

CERTIFICATES OF CONFORMITY FOR DRINKING WATER



Potability certificates obtained from the prestigious SSICA laboratory in Parma



A.C.S. Certification (Attestation de Conformité Sanitaire) obtained from CARSO - Laboratoire Santé Environnement Hygiène De Lyon on the Polywarm® anticorrosive coating.



EN 16421
on the Polywarm® anticorrosive coating



on the Polywarm® anticorrosive coating

CORDIVARI LAB: RELIABILITY AND PERFORMANCE



Today, more than ever, those who choose a Cordivari product choose serenity!

With the introduction of the new ErP Ecodesign standards, we have chosen to offer you the certainty of performance and reliability.

The creation of the Cordivari LAB represents this precise choice. Since 2015, the company has equipped itself with a state-of-the-art laboratory and testing area, capable of testing any product or system, measuring and certifying its performance.



ENERGY EFFICIENCY

Through strict procedures and sophisticated instrumentation, Cordivari is today the only Italian manufacturer able to perform accurate tests internally, on all products, in compliance with the provisions of European regulations.

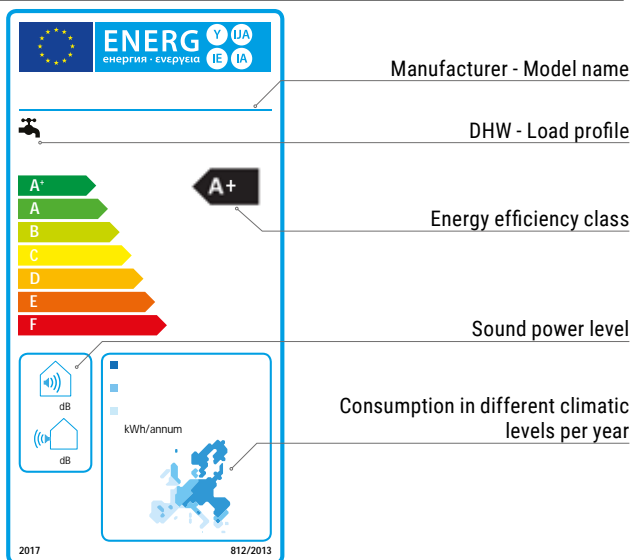
This translates into a continuous flow of research and development around performance and energy efficiency, aimed at improving the solutions proposed by the company, to guarantee reliability, savings and high performance every day.

Cordivari LAB is the only qualified structure supplied to a production company, approved, and accredited by the TUV.

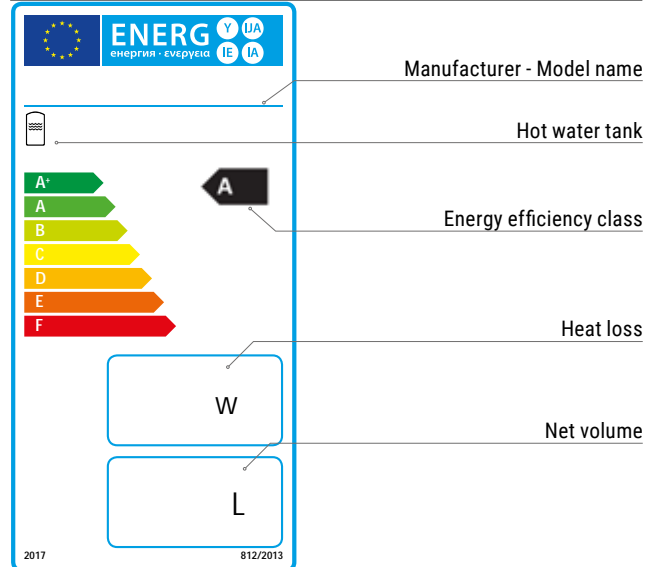
Choose the safety of certified quality!



EXAMPLE OF LABEL FOR WATER HEATER PUMP



EXAMPLE OF LABEL FOR TANK/MULTI-HEAT ENERGY BUFFERS



INTEGRATED SOLUTIONS FOR WELLBEING AND EFFICIENCY



Cordivari offers the reliability of integrated solutions for your habitat.

From calorifiers for heat pumps to solar thermal systems, from radiators with high thermal efficiency to heating and cooling fancoil units, from wastewater treatment to rainwater recovery, all the products offered represent a complete range that works in synergy for your home well-being and savings.



RADIATORS AND
TOWEL RAILS



WATER TANKS



SOLAR THERMAL SYSTEMS



CORDIVARI DESIGN
RADIATORS



CALORIFIERS AND
BUFFER TANKS



HIGH EFFICIENCY
RADIATORS



CHIMNEY PIPES



HEATING / COOLING
VENTILATION RADIATORS

INTEGRATED HEAT PUMP SYSTEMS

Our offer is the perfect match for complete systems, designed to work in synergy with the heat generator and the terminals, expressing the maximum performance of each component to ensure only the best in efficiency and energy savings for the home, according to everyone's lifestyle.

Cordivari's products for heat pump thermal systems represent a unique solution on the market. Designed to have the maximum yields exclusively from renewable sources, they have been designed, developed, and sized to offer the best comfort experience.

Savings, efficiency, and maximum comfort can be achieved by establishing the perfect balance between heating / cooling and the production of



DHW. With the integration of a solar thermal system Cordivari allows you to maximize the efficiency of your home, to give you energy savings and living comfort.



ICONS



Domestic Hot Water production (D.H.W.)



Heating Water Production



Heating / Cooling



STOCK AVAILABILITY
Grey highlighted products are available on stock and can be dispatched in 1-5 working days.

How To CHOOSE YOUR CALORIFIER

A calorifier is an indirect water heating appliance (i.e. one that features at least one heat exchanger) which accumulates heat so to control consumption rates that may vary greatly over a period of time, while also limiting the power used by the generators.

Cordivari offers a wide and varied range of calorifiers, thermal storages and heating components, to provide the most suitable product for different installations and also to allow simultaneous use of more energy sources.



Calorifiers with traditional boilers:

These products are designed for use with conventional boilers which use water as a heating medium in a sealed or open expansion circuit. The heat exchangers are designed to handle high flow rates on the primary side to ensure that the heat transfer will be efficient while at the same time avoiding excessively low return water temperatures.



Calorifiers with biomass boilers:

The selection of a calorifier while operating in conjunction with a biomass boiler must take account of fact that excessively low return water temperatures could reduce the lifespan of the boiler. In addition, a calorifier with a larger accumulation volume than normal will be more suitable as it will act as a buffer which will be beneficial to the biomass boiler.



Calorifiers with condensing boilers:

Condensing boilers are highly efficient and ecologically friendly. To obtain the best performance, the primary circuit should work at a limited temperature, and the return water temperature being as low as possible. This will ensure that the latent heat is extracted out of the combustion.



Calorifiers with solar systems:

The heat exchange coil surface area is a critical issue when interfacing solar thermal systems with calorifiers, due to limited primary flow rates and temperatures. The calorifier must also be capable of acting as a buffer to harness the solar energy throughout daylight hours.



Calorifiers with heat pumps:

Calorifiers operating in conjunction with air-to-water or water-to-water heat pumps must have oversized heat exchange surface areas to ensure that heat exchange will take place even when there is a limited difference in temperature between the primary circuit and stored water. This will maximise the COP (coefficient of performance) of the heat pump.



Calorifiers with steam boilers:

The use of saturated steam as a heating medium to produce domestic hot water, although little used in the housing sector, is a solution which is still employed in industrial environments where the steam is already in use for the manufacturing process. Technically speaking, steam calorifiers are characterized by relatively small heat exchangers, as on one hand the steam gives high heat exchange coefficients and on the other hand the exchangers usually operate with considerable differences in temperature between the primary and secondary circuits. The use of steam demands a more stringent safety regime than the use of low pressure hot water systems as steam boilers, depending on their capacity and design pressures, are classified as higher risk and therefore must comply with the European Pressure Equipment Directive.



Domestic hot water production (D.H.W.)



Calorifiers operating with more than one energy source

The demand to heat a calorifier using more than one energy source, while at the same time keeping the various circuits separate, has become much more common in recent times with the advent of renewable technologies which usually need to be backed-up with conventional boilers. In these cases, calorifiers with more heat exchangers are used, ensuring that excellent thermal stratification will be achieved with minimal interference between the various heat sources.



Calorifiers operating with electrical power

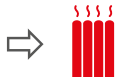
Cordivari products designed for working with electricity can be connected to A/C power supply. Combined with a renewable energy power supply system (fotovoltaic, wind energy, and so on), it allows to have an environmental friendly system.

How To CHOOSE YOUR STORAGE TANKS

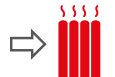
Insulated storages are used in heating with the dual function of allowing the generator to operate in a regular manner, restricting the number of stoppages, and of creating a thermal stabiliser for the heating system, thus considerably improving efficiency.

several combined versions to be used as the same time as storage tank and to produce domestic hot water.

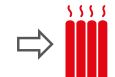
Cordivari offers a wide range of storage tanks, which include both standard versions and



Central heating systems with one or more boilers which are plumbed together and do not generate domestic hot water.



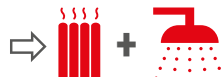
Central heating systems with one or more boilers which are plumbed together in conjunction with solar power which is connected to either one or two coil type heat exchangers. Domestic hot water is not generated in these tanks.



Heating systems with one or more sources hydraulically divided, with the exploitation of the solar power and without DHW production. These are heating systems powered by a biomass generator or more generators that are hydraulically divided. The preparation of the DHW is done without involving the hot water storage tank.



Combined central heating system and domestic hot water production with one or more boilers which are plumbed together.



Combined central heating system and domestic hot water production with one or more boilers which are plumbed together, with solar thermal integration



Combined central heating system and domestic hot water production with one or more sources hydraulically divides and solar thermal integratio.

NEW PRODUCTS

ACQUAMAS®

Acquamas® is the new thermal accumulator for instant DHW production designed for use with a heat pump.

Acquamas® Cordivari stands out for its specific characteristics that make it a high-performance thermal storage for heat pumps. In particular, this device guarantees excellent performances both with low and high flow rates of domestic hot water, thanks to the electronic control of the heat exchange.

The buffer tank is available in 3 configurations: the basic version for use with the heat pump only (or with a single main generator), the Acquamas® 2 version with only the upper coil for the correct integration of an auxiliary heat source in the systems without solar thermal integration, and finally the most complete version Acquamas® 3 CTS® with the internal heat exchange system, with stratified loading from the top of the heat of the solar system, which allows an optimized internal stratification of the storage.



BOLLY® HY

Bolly® HY is the ideal compact solution for heat pump systems developed to unify in a single appliance the production and storage of domestic hot water and the inertial storage necessary for the correct operation of the heat pump.

Bolly® HY integrates the boiler with fixed heat exchanger for HP in the upper part and the heating/cooling buffer tank in the lower part. The main advantage of this solution is ergonomic, ensuring optimal use of space in the technical rooms and fast and easy installations. The Bolly® HY range is the most complete and has been designed to meet all plant requirements through the availability of versions with 1 or 2 fixed exchangers, sized for use with a heat pump as the main heat generator to guarantee the system maximum performance at low temperatures. Particular attention is paid to the aspect of overall efficiency thanks to the availability of the highest energy efficiency class.



HEAT MANAGER®

Cordivari Heat Manager® is the new smart Wi-Fi controller for remote management from smartphone (IOS or Android) of the electric heaters.

From the app it is possible to manage, program and monitor, conveniently from your mobile phone, the operation of the electric heaters by setting their temperature and operating time bands.

Heat Manager® is practical and intuitive, it is in fact sufficient to install the app and connect the smart controller to your home Wi-Fi network.

It is also available in web application mode, so to allow access also via web browser from anywhere. With Cordivari Heat Manager® it is possible to manage electric heaters connected to any calorifier or compact solar thermosyphon systems.



HEATING-COOLING INERTIAL ACCUMULATORS FOR HEAT PUMPS

The new range of Cordivari inertial accumulators is today the most complete proposal on the market. A range of solutions designed for use in all types of heating and cooling systems.

Cordivari inertial accumulators range from domestic solutions with accumulations starting from 8 liters, up to solutions for large systems. Similarly, there are specific solutions and accumulators, intended for use with any type of heating / cooling generator, from domestic heat pumps to industrial chillers.

Maximum storage efficiency and great versatility of application and integration in each system are the distinctive features of this complete range of inertial accumulators.



Index

HOT WATER



EXTRA

VASO INERZIALE - VASO STORAGE



BOLLY®

BOLLYTERM® WATER HEATER



CALORIFIERS FOR HEAT PUMPS



EXTRA INOX - BOLLY® INOX

VASO INERZIALE - COMBI INOX



HYDRONIC

DHW INSTANTANEOUS SYSTEMS



PUFFER

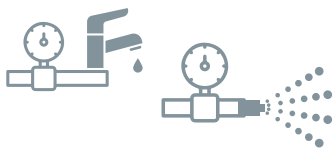
BUFFER AND COMBINED TANKS

HEATING
COOLING



HEATING / COOLING BUFFER TANKS

PRESSURIZED
TANKS



PRESSURE VESSELS AND EXPANSION VESSELS

COMPRESSED AIR RECEIVERS



ACCESSORIES

TECHNICAL SUPPORT



16

60



76

122



136



202

222



282

300



316

332



370



388

404

416

436



EXTRA CALORIFIERS AND D.H.W. ACCUMULATION TANKS



EXTRA CALORIFIERS RANGE



Domestic Hot Water
production
(D.H.W.)



EXTRA



EXTRA Compact



EXTRA Horizontal

<i>Heat exchanger model</i>	STAINLESS STEEL 316L extractable heat exchangers		
<i>Number of heat exchangers</i>			
<i>Energy source</i>			
<i>Energy efficiency class</i>	B-C	C	C
<i>Insulation</i>	- Polyurethane hard foam - Dismountable polyester fleece	Dismountable polyester fleece	Dismountable polyester fleece
<i>Available range</i>	200 ÷ 5000	1500 ÷ 4000	200 ÷ 5000
<i>Installation</i>	floor standing	floor standing	floor standing
<i>Suggested Application</i>	Traditional and solar installations	Traditional and solar installations limited height spaces	Traditional and solar installations



EXTRA STEAM

EXTRA Plus

VASO STORAGE

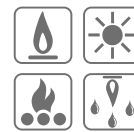
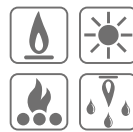
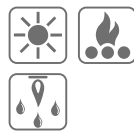
VASO Inerziale

STAINLESS STEEL 316L
extractable
straight heat exchangers

Extractable finned
copper heat exchangers

with blind flange

with handhole
(from 1500)



B-C

B-C

B-C

B-C

- Polyurethane hard foam
- Dismountable polyester fleece

- Polyurethane hard foam
- Dismountable polyester fleece

- Polyurethane hard foam
- Dismountable polyester fleece
- Class A1 fireproof mineral wool

- Polyurethane hard foam
- Dismountable polyester fleece

500 ÷ 5000

200 ÷ 5000

200 ÷ 5000

200 ÷ 5000

floor standing

floor standing

floor standing

floor standing

Industrial installations/ installa-
tions with steam generators

Solar, biomass and
condensation installations

Traditional, solar, biomass and
condensation installations

Traditional, solar, biomass and
condensation installations

EXTRA 1 WX

POLYWARM® COATED CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS - WRAS)

HEAT EXCHANGER

Stainless steel 316L Antilegionella® heat exchanger, with tubes bent to the bottom

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

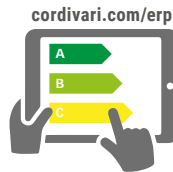
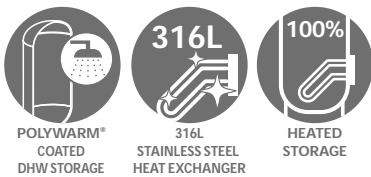
GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS: See Accessories section for the entire list.



On line ErP label tool



EXTRA 1 WXB

Model	Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3072162360122	0,5	B
300	3072162360123	0,75	C
500	3072162360124	1	C
800	3072162360125	1,5	B
1000	3072162360126	2	C
1500	3072162360127	3	C
2000	3072162360128	4	B



EXTRA 1 WXC

Model	Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500	3072162360134	1	C
800	3072162360135	1,5	C
1000	3072162360136	2	C
1500	3072162360137	3	C
2000	3072162360138	4	C
2500	3072162360113	5	
3000	3072162360109	6	
4000	3072162360110	8	
5000	3072162360112	10	

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

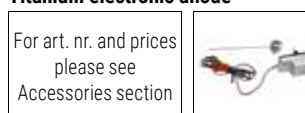
THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Titanium electronic anode



For art. nr. and prices please see Accessories section

Thermometer

Art. Nr.
5032240000107
5 units box



EXTRA 1 WX

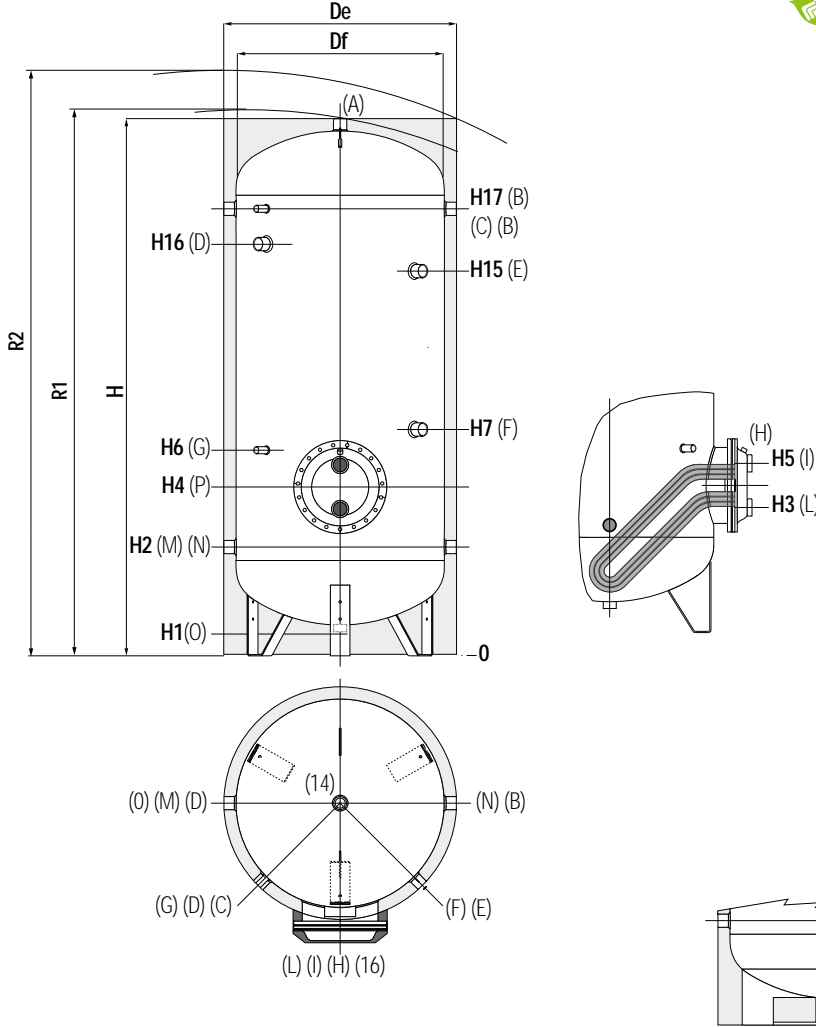
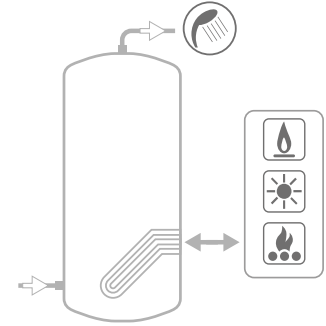
POLYWARM® COATED CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	6 bar			



CORDIVARI Lab
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 1 1/2" F. For models > 800 connection 2" F
- E** Connection for 2nd magnesium anode 1 1/4" F (only for models > 1500)
- F** Connection for magnesium anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- H** Heat exchanger drain 3/8" F
- I** Primary circuit inlet 1" F. For models > 500 connection 2" F
- L** Primary circuit outlet 1" F. For models > 500 connection 2" F
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks in series
- O** Drain
- P** Heat exchanger flange

Only the models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

EXTRA 1 WXB - HARD FOAM INSULATION

Model	Volume Weight		De	H	R2	H1	H2	H3	H4	H5	H6	H7	H15	H16	H17	P	B		
	[lt]	[kg]															M-N	A	O
	[mm]																Connections F		
200	191	52	550	1449	1560	85	325	360	410	460	520	650	//	1075	1185	Øi220/Øe300	1"1/4	1"1/4	1"1/4
300	292	65	650	1499	1640	85	350	385	435	485	545	735	//	1100	1210	Øi220/Øe300	1"1/4	1"1/4	1"1/4
500	500	83	750	1800	1960	85	375	410	460	510	570	760	//	1329	1485	Øi220/Øe300	1"1/4	1"1/4	1"1/4
800	794	139	900	2135	2330	85	405	450	540	630	690	870	//	1610	1765	Øi300/Øe380	1"1/4	1"1/2	1"1/4
1000	1042	181	1000	2221	2450	105	458	503	593	683	743	993	//	1664	1818	Øi300/Øe380	1"1/2	2"	1"1/2
1500	1445	224	1100	2415	2660	109	440	585	675	765	825	1075	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"
2000	1978	279	1300	2492	2820	91	467	587	692	797	867	842	1952	1877	2057	Øi350/Øe430	2"	2"	1"

EXTRA 1 WXC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Vol. Weight		De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H15	H16	H17	P	B		
	[lt]	[kg]																	M-N	A	O
	[mm]																Connections F				
500	500	90	870	650	1841	1998	2090	101	416	451	501	551	611	801	//	1370	1526	Øi220/Øe300	1"1/4	1"1/2	1"1/4
800	794	139	970	750	2188	2220	2400	113	433	478	568	658	718	898	//	1638	1793	Øi300/Øe380	1"1/4	1"1/2	1"1/4
1000	1042	181	1070	850	2242	2270	2490	101	454	499	589	679	739	989	//	1660	1814	Øi300/Øe380	1"1/2	2"	1"1/2
1500	1445	224	1210	950	2440	2495	2730	109	440	585	675	765	825	1075	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"
2000	1978	279	1360	1100	2492	2570	2850	91	467	587	692	797	867	842	1952	1877	2057	Øi350/Øe430	2"	2"	1"
2500	2315	328	1350	1250	2311	2480	2690	140	551	671	776	881	951	976	1816	1732	1891	Øi350/Øe430	2"	2"	1"
3000	2921	384	1350	1250	2811	2950	3130	140	551	731	836	941	1011	1036	2316	2232	2391	Øi350/Øe430	2"	2"	1"
4000	3769	521	1500	1400	2875	3050	3250	114	570	750	855	960	1030	1035	2315	2238	2410	Øi350/Øe430	2"	2"	1"
5000	4982	657	1700	1600	2915	3130	3380	94	580	750	855	960	1030	1035	2335	2265	2420	Øi350/Øe430	2"	2"	1"

EXTRA 1 WX

HEAT EXCHANGERS TECHNICAL DATA

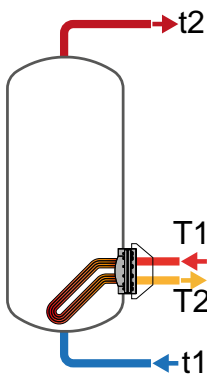


Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
200	2	113	113	77	49	7,3	11,5	13,7	18	178	283	338	455
	1	147	148	102	65	5,8	8,9	10,5	13,9	141	218	258	344
300	3	112	113	76	48	11,1	17	21	28	274	435	520	701
	1,5	145	146	102	65	8,9	13,8	16,3	21,6	219	339	402	534
500	4	139	140	96	60	15	23,8	28,5	38	369	587	702	947
	2	180	181	125	80	12,1	18,7	22,1	29,4	297	460	545	725
800	6	146	147	101	64	23	36	44	59	570	908	1087	1465
	3	186	188	130	83	18	29	34	46	465	721	854	1136
1000	10	128	128	86	54	33	53	63	86	814	1309	1571	2127
	5	157	157	107,9	69	27	43	51	69	687	1077	1281	1711
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	20	118	119	81	51	84	134	160	216	2066	3309	3964	5352
	10	145	146	101	65	71	111	131	174	1755	2734	3244	4314
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	457	110	70	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
200	2	247	319	328	347	360	498	542	635	309	30,3
	1	241	308	314	329	330	446	478	547	84,74	8,3
300	3	371	480	494	524	545	755	823	968	372	36,5
	1,5	362	464	474	496	501	678	729	834	101,02	9,9
500	4	616	791	810	851	849	1162	1254	1450	419	41,1
	2	604	770	784	814	792	1061	1129	1273	113,381	11,1
800	6	998	1280	1310	1373	1359	1855	1998	2301	718	70,4
	3	980	1249	1271	1318	1275	1705	1812	2037	189,22	18,6
1000	10	1273	1640	1683	1776	1788	2469	2678	3123	1380	135,3
	5	1252	1601	1635	1707	1687	2283	2446	2790	358,5	35,2
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
2500	20	2988	3856	3965	4196	4296	5951	6475	7586	2436	238,9
	10	2936	3760	3845	4023	4047	5491	5899	6755	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

MAXIMUM STORAGE EXPLOITATION WITH CURVED ANTILEGIONELLA® HEAT EXCHANGER



Model	Heated volume: Standard heat exchanger [lt]	Storage volume: Heat exchanger for 100% heated volume [lt]	Advantage in exploited volume [lt]	Advantage in percentage [%]
200	165	190	25	13%
300	251	285	34	12%
500	438	485	47	10%
800	694	790	96	12%
1000	907	995	88	9%

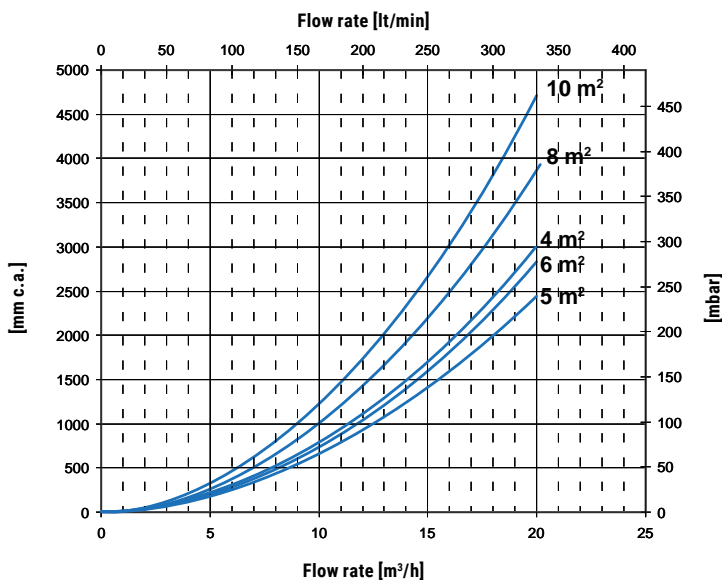
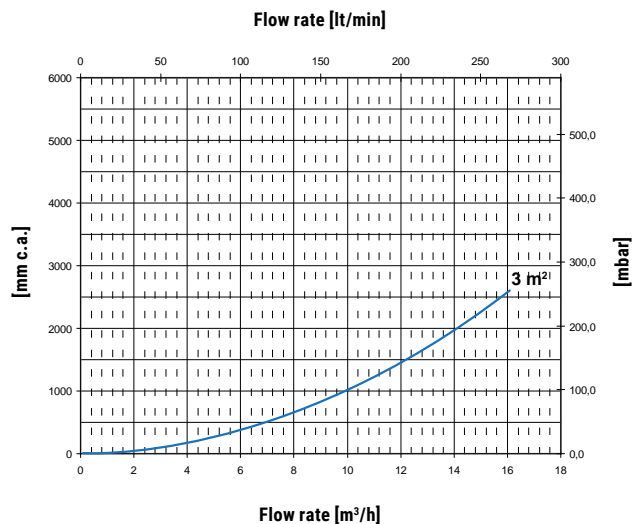
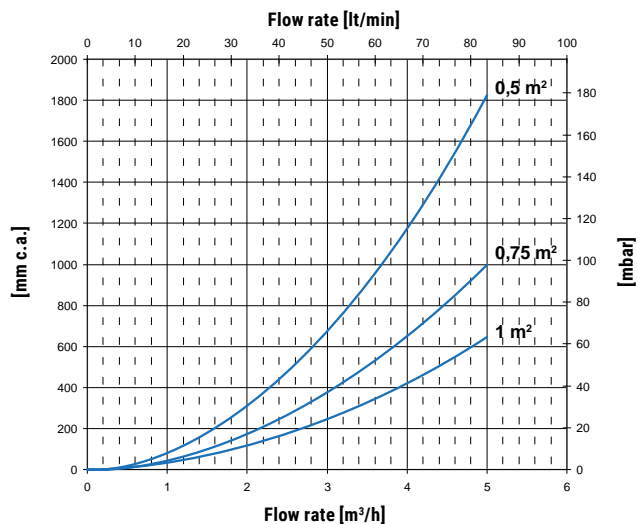
Model	Heated volume: Standard heat exchanger [lt]	Storage volume: Heat exchanger for 100% heated volume [lt]	Advantage in exploited volume [lt]	Advantage in percentage [%]
1500	1224	1445	221	15%
2000	1684	1978	294	15%
2500	1905	2315	410	18%
3000	2438	2921	483	17%
4000	3113	3769	656	17%
5000	4116	4982	866	17%

EXTRA 1 WX

HEAT EXCHANGERS PRESSURE DROP

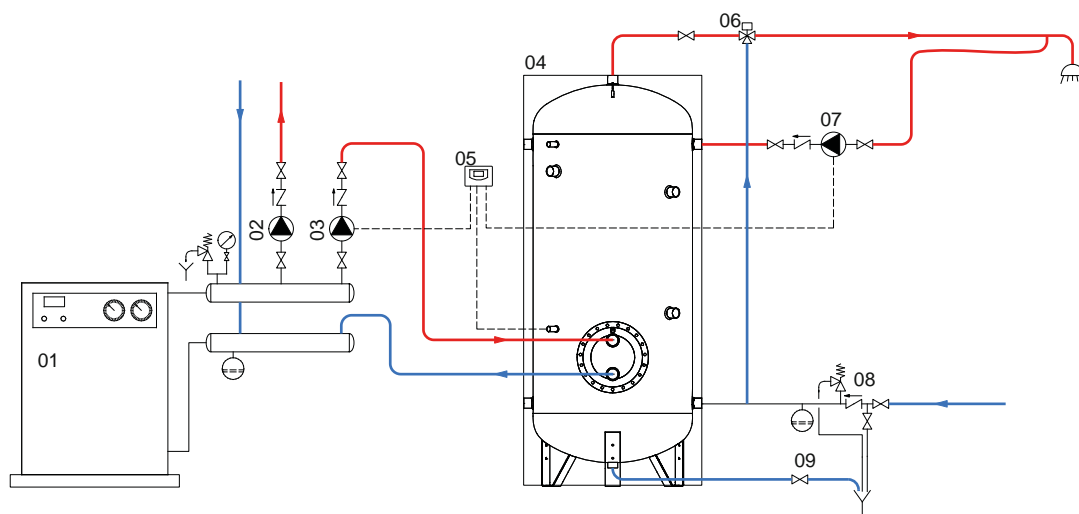


EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 1



1 Generator	4 EXTRA 1	7 D.H.W. recirculation group
2 Heating system circulation group	5 Electronic control /thermostat	8 Hydraulic safety group
3 D.H.W. circulation group	6 Thermostatic mixing valve	9 Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 1 COMPACT

POLYWARM® COATED CALORIFIERS, SUITABLE FOR LOW-CEILINGED ROOM,
WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).
Suitable for low-ceilinged room.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Stainless steel 316L Antilegionella® heat exchanger, with tubes bent to the bottom

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

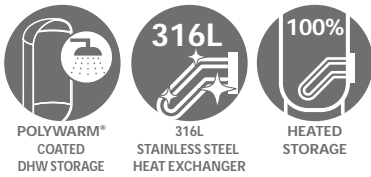
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

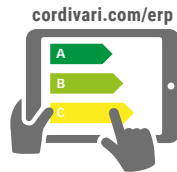
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 1 COMPACT WXC

Model	DISMOUNTABLE SOFT FLEECE insulation		HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
	Art. Nr.			
1500	3072162360537		3	C
2000	3072162360538		4	C
2500	3072162360513		5	
3000	3072162360509		6	
4000	3072162360510		8	



On line ErP label tool

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE			THREEPHASE					
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW	
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031	
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]								
1500	443	793	595	396	297	238	198	132	99	
2000	577	1033	775	517	387	310	258	172	129	
2500	797	1428	1071	714	535	428	357	238	178	
3000	874	1565	1173	782	587	469	391	261	196	
4000	924	1655	1241	828	621	497	414	276	207	

Thermometer

Art. Nr.	5032240000107
	5 units box



Titanium electronic anode

Art. Nr.	Model	
5200000000011	1500	
5200000000013	2000+4000	

EXTRA 1 COMPACT

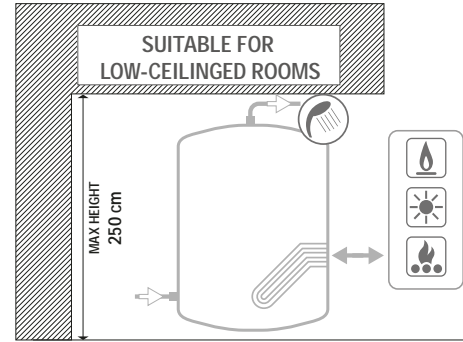
POLYWARM® COATED CALORIFIERS, SUITABLE FOR LOW-CEILINGED ROOM, WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	12 bar	110 °C

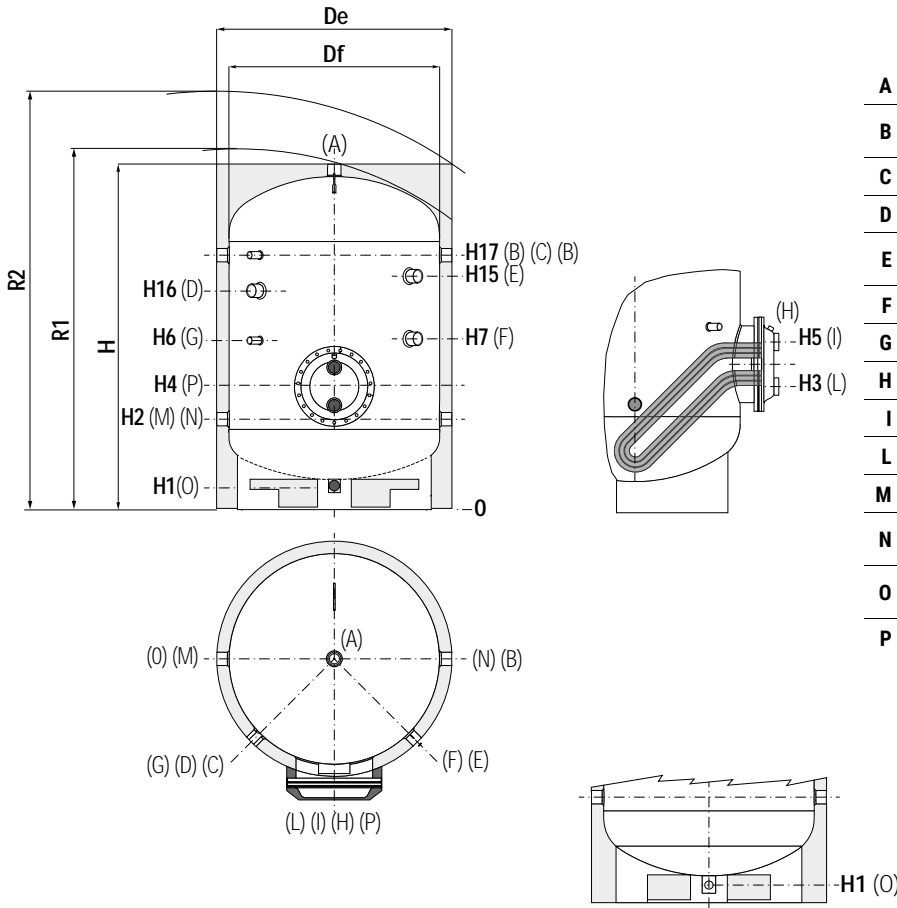


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND DHW ACCUMULATION TANKS



A	Domestic hot water outlet 2" G F
B	Recirculation / Domestic hot water outlet 2" G F
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 2" G F
E	Connection for 2nd magnesium anode 1 1/4" G F (only for models > 1500)
F	Connection for magnesium anode 1" 1/4" G F
G	Connection for instrumentation 1/2" G F
H	Heat exchanger drain 3/8" F
I	Primary circuit inlet 2" G F
L	Primary circuit outlet 2" G F
M	Domestic cold water circuit inlet 2" G F
N	Alternative domestic cold water circuit inlet or connection for more tanks in series 2" G F
O	Drain 1" F
P	Flange

All models are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Model	Volume	Weight	De	DF	H	R1	R2	H1	H2
	[lt]	[kg]							
1500	1509	221	1360	1100	1992	2104	2420	91	467
2000	2012	300	1510	1250	2111	2251	2610	140	551
2500	2627	393	1500	1400	2125	2363	2610	114	570
3000	3029	472	1600	1500	2140	2410	2680	109	575
4000	3990	565	1700	1600	2415	2678	2960	94	580

Model	H4	H5	H6	H7	H15	H16	H17	P
	[mm]							
1500	692	782	867	942	//	1377	1557	Connections F Øi300/Øe380
2000	776	881	951	976	1566	1482	1641	Øi350/Øe430
2500	795	900	970	975	1585	1488	1660	Øi350/Øe430
3000	800	905	975	980	1600	1520	1675	Øi350/Øe430
4000	835	940	1010	1015	1855	1765	1920	Øi350/Øe430

EXTRA 1 COMPACT

HEAT EXCHANGERS TECHNICAL DATA

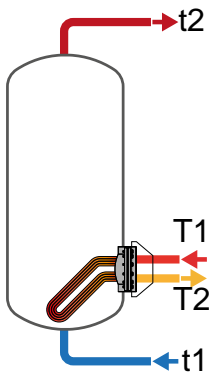


Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
1500	15	125	125	85	54	51	81	98	133	1256	2022	2428	3290
	7,5	152	152	105	67	44	68	81	108	1075	1687	2008	2684
2000	20	123	123	84	53	69	111	133	180	1699	2738	3288	4453
	10	148	148	103	65	59	93	111	148	1465	2302	2741	3665
2500	20	134	134	92	58	69	111	133	180	1699	2738	3288	4453
	10	164	164	114	73	59	93	111	148	1465	2302	2741	3665
3000	20	130	130	90	57	100	159	190	255	2461	3926	4694	6321
	10	162	162	113	73	84	130	154	204	2082	3224	3817	5053
4000	20	133	133	92	59	131	207	247	330	3236	5121	6105	8168
	10	170	170	119	77	110	168	198	260	2718	4151	4903	6443

LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1500	15	1927	2484	2552	2695	2723	3765	4090	4779	2295	225,1
	7,5	1897	2428	2482	2594	2578	3497	3754	4294	589,6	57,8
2000	20	2573	3319	3411	3605	3649	5053	5493	6425	2996	293,8
	10	2534	3247	3320	3474	3462	4704	5056	5795	766,42	75,2
2500	20	3276	4198	4289	4484	4352	5932	6372	7304	2436	238,9
	10	3237	4125	4198	4352	4165	5583	5934	6673	624	61,2
3000	20	3862	4969	5097	5368	5420	7455	8069	9371	2836	278,1
	10	3798	4852	4950	5156	5117	6893	7368	8357	723	70,9
4000	20	5090	6542	6706	7050	7140	9785	10573	12223	3896	382,1
	10	5004	6380	6506	6762	6725	9009	9611	10843	989	97,0

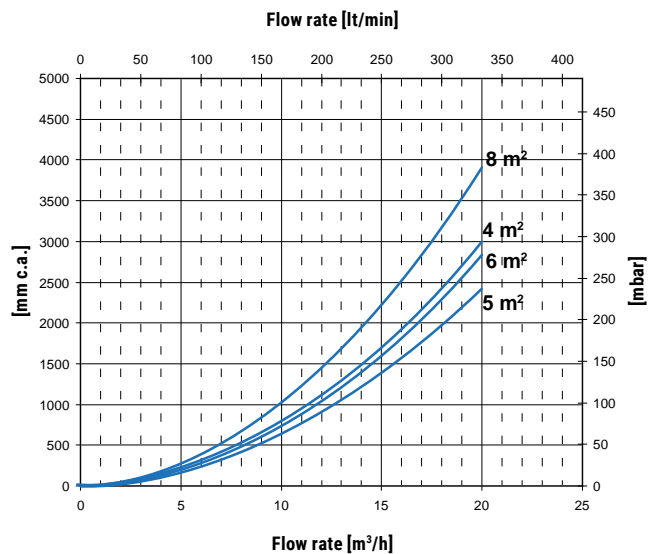
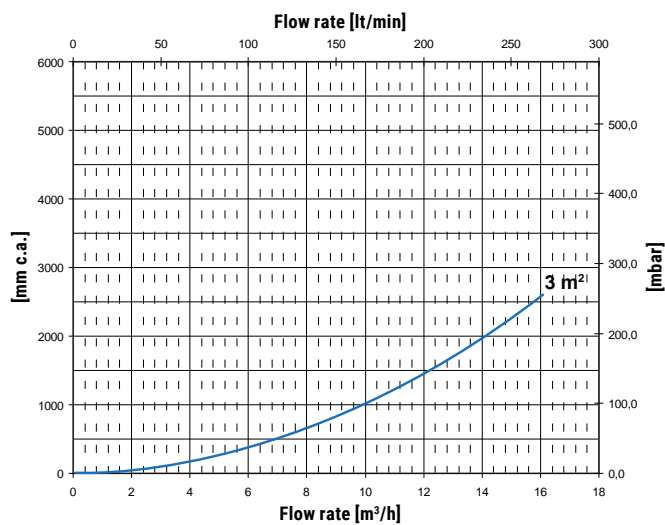
MAXIMUM STORAGE EXPLOITATION WITH CURVED ANTILEGIONELLA® HEAT EXCHANGER



Model	Heated volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in exploited volume	Advantage in percentage
	[lt]	[lt]	[lt]	[%]
1500	1224	1445	221	15%
2000	1684	1978	294	15%
2500	1905	2315	410	18%
3000	2438	2921	483	17%
4000	3113	3769	656	17%

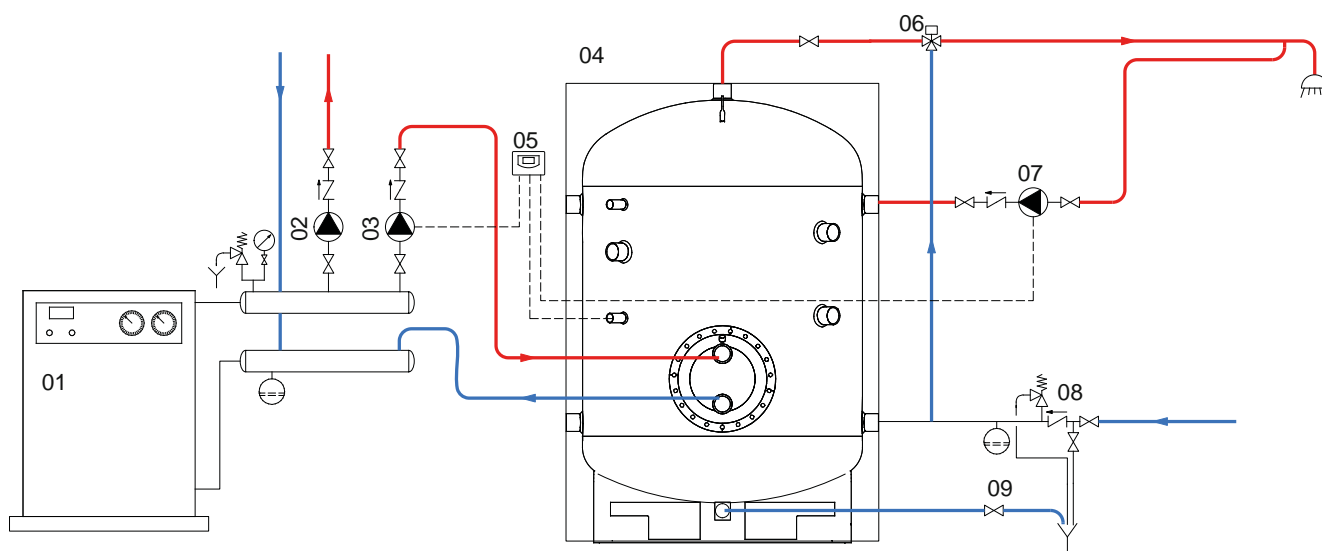
EXTRA 1 COMPACT

HEAT EXCHANGERS PRESSURE DROP



PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 1 COMPACT



01	Generator	04	EXTRA 1 COMPACT	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 2 WX

POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 2 Stainless steel 316L heat exchangers (upper: straight - lower: Antilegionella® with tubes bent to the bottom)

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

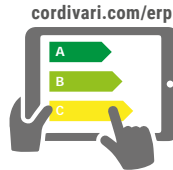
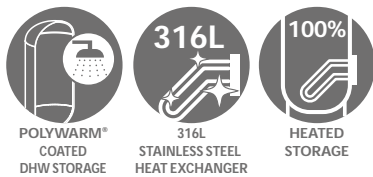
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



EXTRA 2 WXB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
		Lower	Upper	
200	3084162360001	0,5	0,5	B
300	3084162360002	0,75	0,75	C
500	3084162360003	1,5	1,5	C
800	3084162360004	2	2	B
1000	3084162360005	3	2	C
1500	3084162360006	3	3	C
2000	3084162360007	4	4	B



EXTRA 2 WXC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
		Lower	Upper	
500	3082162360133	1,5	1,5	C
800	3082162360134	2	2	C
1000	3082162360135	3	2	C
1500	3082162360136	3	3	C
2000	3082162360137	4	4	C
2500	3082162360113	5	5	
3000	3082162360108	6	6	
4000	3082162360110	8	8	
5000	3082162360112	10	10	

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031

Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

Thermometer

Art. Nr.
5032240000107
5 units box

Titanium electronic anode

For art. nr. and prices please see Accessories section
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See Accessories section

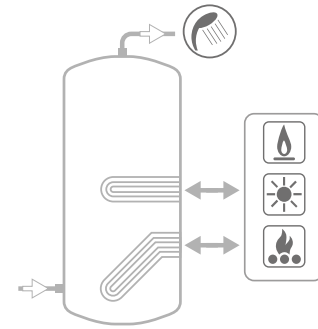


EXTRA 2 WX

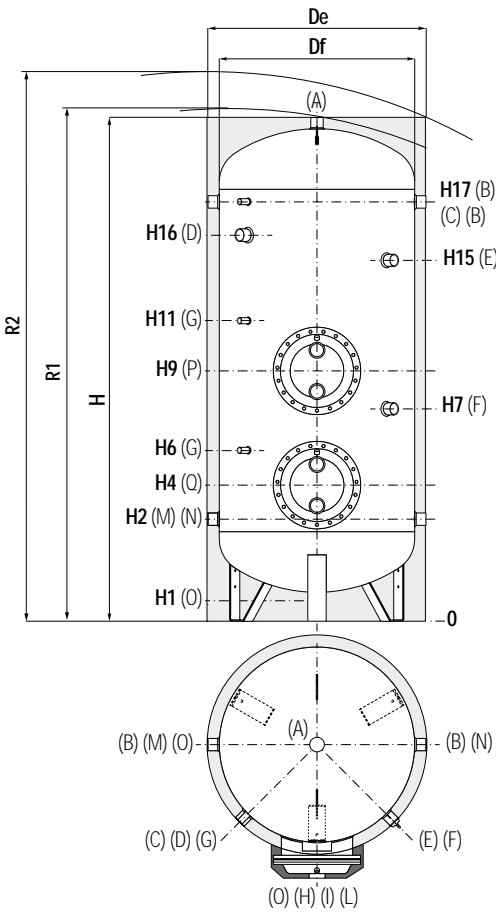
POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	6 bar			

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1" 1/2 F For models > 800 connections 2" G F
E	Connection for 2nd magnesium anode 1" 1/4 G F (Only for models > 1500)
F	Connection for magnesium anode 1" 1/4 F
G	Connection for instrumentation 1/2" F
H	Heat exchangers drain 3/8" G F
I	Primary circuit outlet of the exchanger 2" F
L	Primary circuit inlet of the exchanger 2" F
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Upper heat exchanger flange
Q	Lower heat exchanger flange

Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

EXTRA 2 WXB - HARD FOAM INSULATION

Model	Volume [lt]	Weight [kg]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H15	H16	H17	P - Q	M - N B	A	O
200	193	70	550	1449	1560	85	325	360	410	460	520	650	810	860	910	970	//	1075	1185	Øi220/Øe300	1"1/4	1"1/4	1"1/4
300	295	84	650	1499	1640	85	350	385	435	485	545	735	835	885	935	995	//	1100	1210	Øi220/Øe300	1"1/4	1"1/4	1"1/4
500	503	112	750	1800	1960	85	375	410	460	510	570	760	860	910	960	1020	//	1329	1485	Øi220/Øe300	1"1/4	1"1/4	1"1/4
800	799	177	900	2135	2330	85	405	450	540	630	690	870	1000	1090	1180	1240	//	1610	1765	Øi300/Øe380	1"1/4	1"1/4	1"1/4
1000	1047	226	1000	2221	2450	105	458	503	593	683	743	993	1053	1143	1233	1293	//	1664	1818	Øi300/Øe380	1"1/2	1"1/2	1"1/2
1500	1450	269	1100	2415	2660	109	440	585	675	765	825	1075	1160	1250	1340	1400	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"
2000	1985	337	1300	2492	2820	91	467	587	692	797	867	842	1157	1262	1367	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"

EXTRA 2 WXC - DISMOUNTABLE SOFT FLEECE INSULATION

Mod.	Vol. [lt]	Weight [kg]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H15	H16	H17	P - Q	M - N B	A	O
500	503	105	870	650	1841	1998	2090	101	416	451	501	551	611	801	901	951	1001	1061	//	1370	1526	Øi220/Øe300	1"1/4	1"1/4	1"1/4
800	799	177	970	750	2188	2220	2400	113	433	478	568	658	718	898	1028	1118	1208	1268	//	1638	1793	Øi300/Øe380	1"1/4	1"1/4	1"1/4
1000	1047	226	1070	850	2242	2270	2490	101	454	499	589	679	739	989	1049	1139	1229	1289	//	1660	1814	Øi300/Øe380	1"1/2	1"1/2	1"1/4
1500	1450	269	1210	950	2440	2495	2730	109	440	585	675	765	825	1075	1160	1250	1340	1400	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"1/4
2000	1985	337	1360	1100	2492	2570	2850	91	467	587	692	797	867	842	1157	1262	1367	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"1/2
2500	2322	399	1350	1250	2311	2480	2690	140	551	671	776	881	951	976	1271	1376	1481	1551	1816	1732	1891	Øi350/Øe430	2"	2"	1"
3000	2928	464	1350	1250	2811	2950	3130	140	551	731	836	941	1011	1036	1371	1476	1581	1651	2316	2232	2391	Øi350/Øe430	2"	2"	1"
4000	3776	618	1500	1400	2875	3050	3250	114	570	750	855	960	1030	1035	1390	1495	1600	1670	2315	2238	2410	Øi350/Øe430	2"	2"	1"
5000	4990	768	1700	1600	2915	3130	3380	94	580	750	855	960	1030	1035	1400	1505	1610	1680	2335	2265	2420	Øi350/Øe430	2"	2"	1"

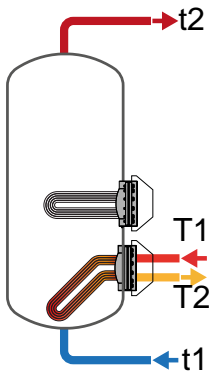
EXTRA 2 WX

HEAT EXCHANGERS TECHNICAL DATA

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

LOWER
HEAT EXCHANGER



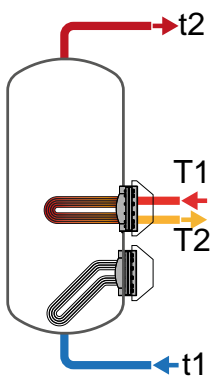
Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	113	113	77	49	7,3	12	14	18	178	283	338	455
	1	147	148	102	65	6	9	11	13,9	141	218	258	344
300	3	112	113	76	48	11	17	21	28	274	435	520	701
	1,5	145	146	102	65	9	14	16	21,6	219	339	402	534
500	6	90	90	62	39	23	37	44	59	571	909	1088	1467
	3	114	115	80	51	19	29	35	46	466	722	856	1137
800	10	101	101	69	44	33	53	64	86	815	1310	1572	2128
	5	124	125	86	55	28	44	52	69	688	1077	1282	1712
1000	15	82	83	56	36	51	82	98	133	1257	2024	2429	3293
	7,5	101	100	69	44	44	68	81	108	1076	1689	2010	2685
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	20	118	119	81	51	69	111	133	180	1699	2738	3288	4453
	10	145	146	101	65	59	93	111	148	1465	2302	2741	3665
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	457	110	70	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	247	319	328	347	360	498	542	635	309	30,3
	1	241	308	314	329	330	446	478	547	84,74	8,3
300	3	371	480	494	524	545	755	823	968	372	36,5
	1,5	362	464	474	496	501	678	729	834	101,02	9,9
500	6	649	844	874	937	1011	1420	1563	1866	718	70,4
	3	632	813	836	882	927	1270	1378	1602	189,22	18,6
800	10	1039	1347	1391	1483	1555	2177	2386	2831	1380	135,3
	5	1018	1308	1342	1414	1453	1990	2154	2498	358,5	35,2
1000	15	1347	1759	1826	1970	2143	3041	3365	4056	2295	225,1
	7,5	1316	1703	1756	1869	1998	2773	3029	3569	589,6	57,8
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
2500	20	2927	3761	3852	4046	4003	5495	5935	6867	2436	238,9
	10	2888	3688	3761	3915	3815	5146	5497	6236	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

EXTRA 2 WX

HEAT EXCHANGERS TECHNICAL DATA

UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	57	57	39	25	7	11	14	18	179	283	339	456
	1	74	75	52	33	6	9	11	14	142	219	259	344
300	3	57	57	39	25	11	18	21	28	275	436	521	702
	1,5	73	73	52	33	9	14	16	22	220	340	403	535
500	6	52	52	36	23	23	37	44	59	573	911	1090	1468
	3	66	55	46	30	19	29	35	46	468	724	857	1139
800	10	62	62	42	27	33	53	64	86	817	1312	1573	2129
	5	75	76	53	34	28	44	52	69	690	1079	1284	1715
1000	10	80	80	55	35	32	51	61	82	783	1252	1501	2029
	5	100	100	70	45	26	41	48	65	647	1008	1198	1599
1500	15	68	68	47	30	51	82	98	133	1259	2026	2430	3295
	7,5	82	83	57	37	44	68	81	109	1077	1690	2011	2687
2000	20	70	70	48	30	69	111	133	180	1702	2741	3293	4463
	10	84	85	59	37	59	93	111	148	1468	2306	2744	3668
2500	20	59	59	40	25	84	134	160	216	2069	3313	3969	5358
	10	71	72	50	32	71	111	131	174	1758	2738	3249	4318
3000	20	71	72	49	31	100	159	190	255	2465	3931	4698	6325
	10	88	89	62	40	84	130	154	204	2086	3229	3821	5057
4000	20	71	72	50	32	131	207	247	330	3242	5126	6112	8179
	10	89	90	63	41	110	168	198	260	2723	4167	4909	6448
5000	20	78	78	54	35	162	253	301	400	3998	6275	7459	9924
	10	99	100	71	46	135	204	239	312	3338	5055	5930	7735

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	140	184	194	213	253	364	408	502	294,35	28,9
	1	133	174	180	194	223	312	344	412	80,5	7,9
300	3	215	284	298	328	389	560	628	773	355,7	34,9
	1,5	206	268	279	301	345	483	534	639	95,97	9,4
500	6	418	555	585	648	781	1132	1275	1577	682	66,9
	3	400	524	546	593	697	982	1088	1314	179	17,6
800	10	689	910	954	1046	1207	1741	1950	2395	1311	128,6
	5	668	871	905	977	1105	1555	1719	2063	341	33,4
1000	10	816	1066	1107	1195	1312	1859	2058	2480	1311	128,6
	5	794	1025	1057	1124	1203	1664	1816	2136	341	33,4
1500	15	1149	1512	1579	1723	1947	2795	3118	3810	2181	213,9
	7,5	1119	1456	1509	1622	1801	2526	2783	3324	560	54,9
2000	20	1595	2095	2187	2382	2672	3831	4273	5209	2846	279,1
	10	1556	2023	2096	2250	2485	3483	3834	4573	728	71,4
2500	20	1652	2186	2296	2527	2963	4285	4809	5921	2314	226,9
	10	1600	2091	2176	2354	2714	3825	4233	5089	592	58,1
3000	20	2303	3021	3149	3420	3865	5511	6124	7426	2745	269,2
	10	2240	2904	3003	3209	3561	4949	5423	6411	700	68,6
4000	20	2972	3894	4059	4403	5026	7141	7930	9583	3701	362,9
	10	2886	3735	3858	4115	4610	6374	6967	8198	939	92,1
5000	20	3882	5066	5263	5674	6414	9040	9987	11959	4472	438,6
	10	3772	4863	5008	5309	5886	8064	8764	10208	1132	111,0

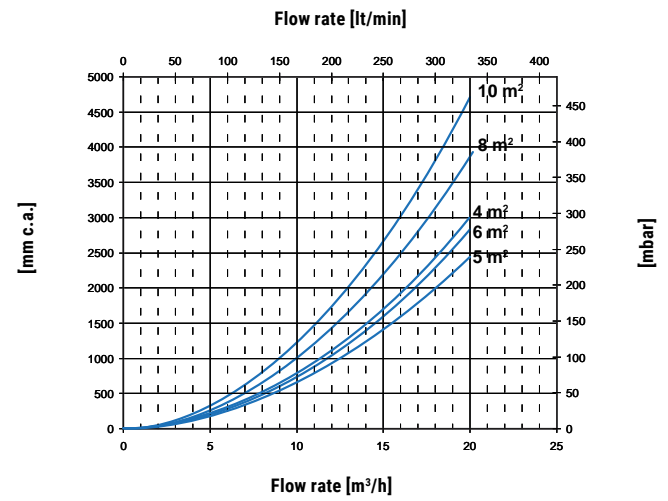
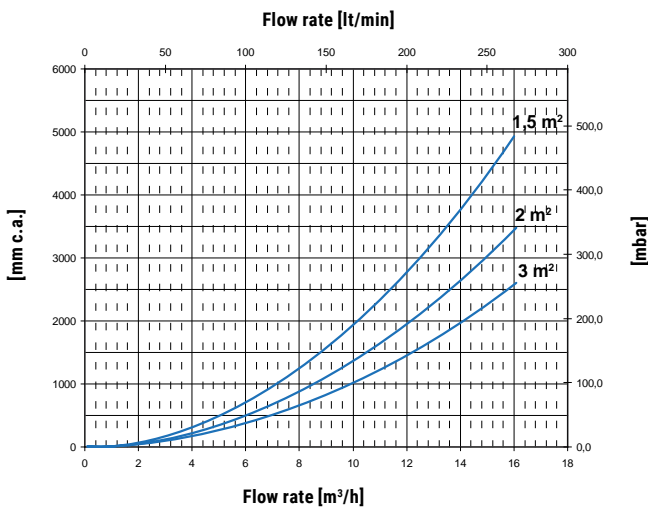
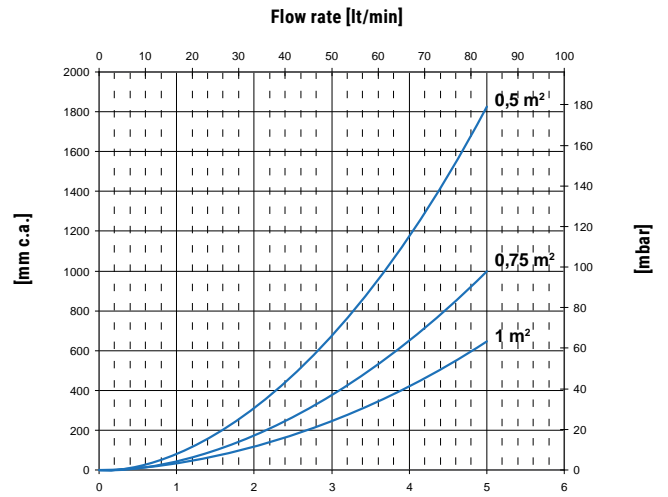
EXTRA 2

HEAT EXCHANGERS PRESSURE DROP



Lower heat exchangers surface
[m²]

200	0,5
300	0,75
500	1,5
800	2
1000	3
1500	3
2000	4
2500	5
3000	6
4000	8
5000	10



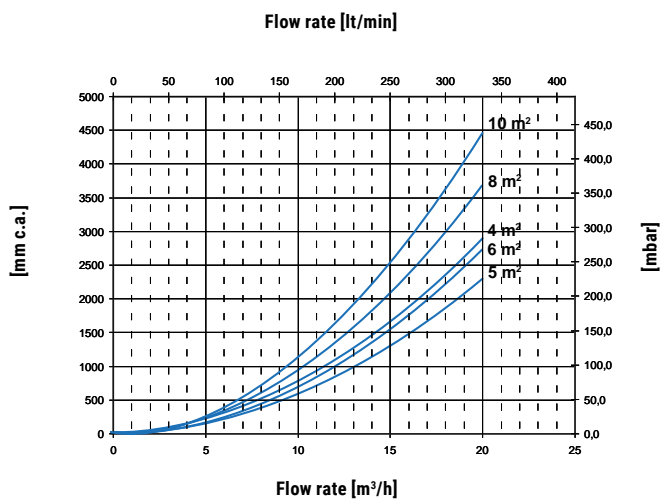
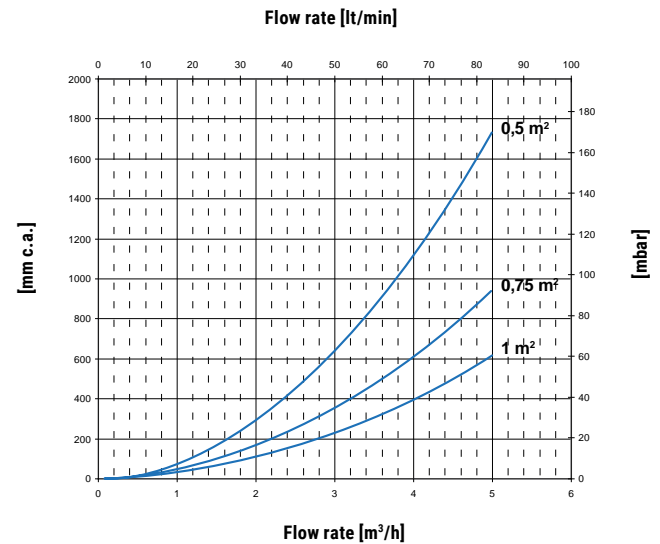
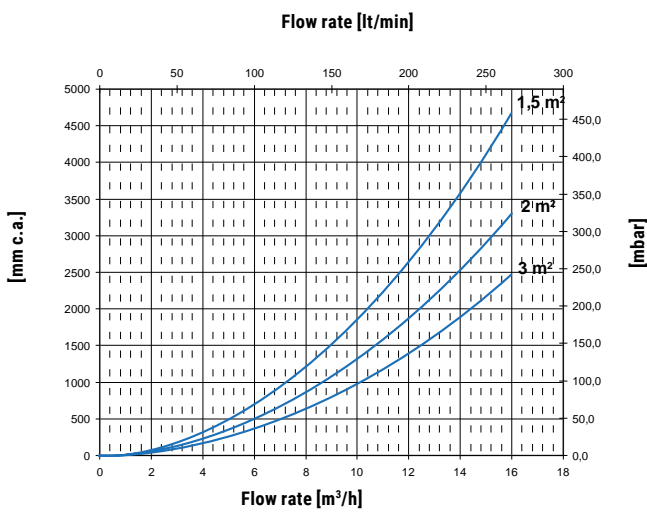
EXTRA 2

HEAT EXCHANGERS PRESSURE DROP



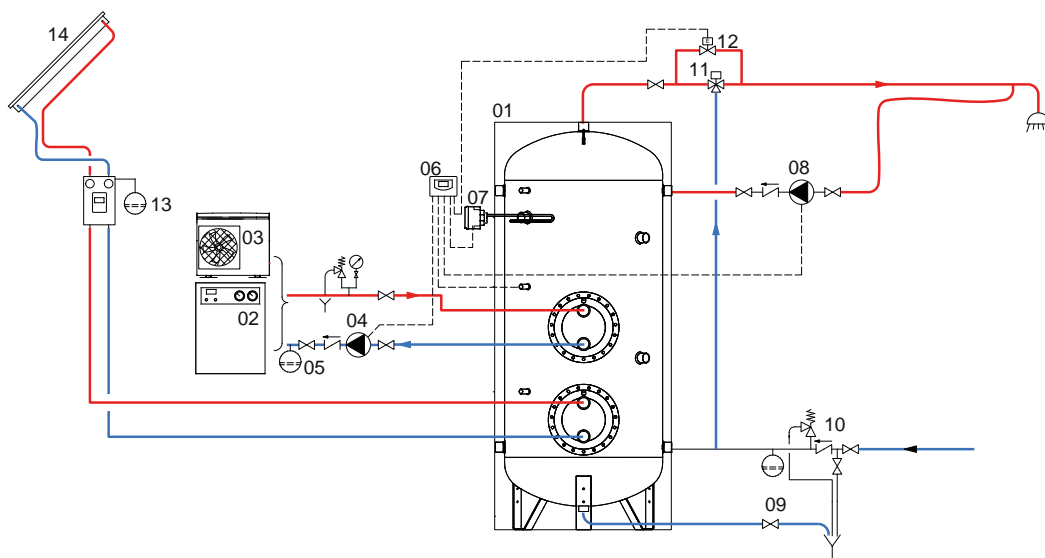
Upper heat exchangers surface
[m²]

200	0,5
300	0,75
500	1,5
800	2
1000	2
1500	3
2000	4
2500	5
3000	6
4000	8
5000	10



PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 2



1 EXTRA 2	5 Expansion vessel	9 Blowdown valve	13 Solar system circulation group
2 Generator	6 Electronic control /thermostat	10 Hydraulic safety group	14 Solar panels
3 Heat pump generator	7 Electric immersion heater (optional)	11 Thermostatic mixing valve	
4 Circulation group	8 D.H.W. recirculation group	12 By-pass solenoid valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 3 WX

POLYWARM® COATED CALORIFIERS WITH 3 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 3 Stainless steel 316L heat exchangers (upper and middle: straight - lower: Antilegionella® with tubes bent to the bottom)

INSULATION

- *SOFT: NOFIRE®* polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

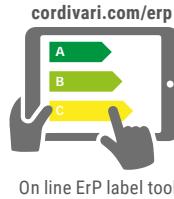
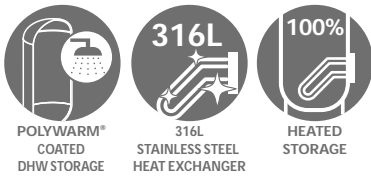
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 3 WXC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE			ENERGY EFFICIENCY CLASS
		Lower	Middle [m²]	Upper	
1500	3092162360136	3	3	1,5	C
2000	3092162360137	4	4	2	C
3000	3092162360109	6	6	3	
5000	3092162360112	10	10	5	

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000011	1500
5200000000013	2000÷5000



EXTRA 3 WX

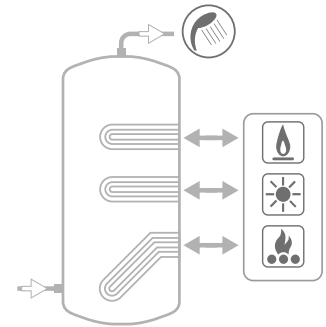
POLYWARM® COATED CALORIFIERS WITH 3 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	12 bar	110 °C

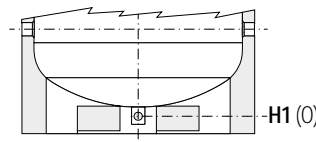
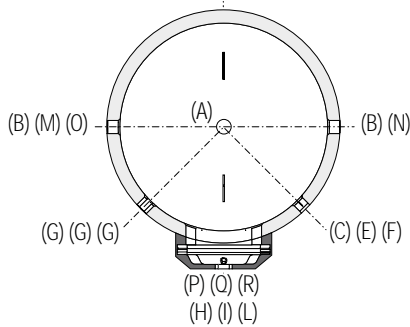
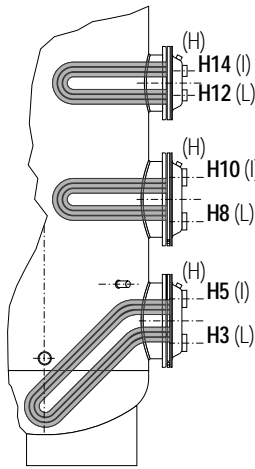
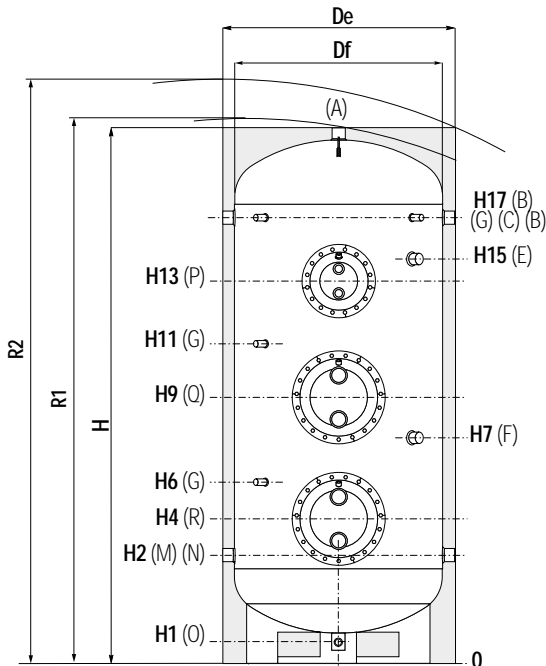


CORDIVARI Lab

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EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



A	Domestic hot water outlet 2" F
B	Recirculation / Domestic hot water outlet 1 1/2" F For models > 1500 connections 2" F
C-G	Connection for instrumentation 1/2" F
E	Connection for 2nd magnesium anode 1 1/4" F (Only for models > 1500)
F	Connection for magnesium anode 1 1/4" F
H	Heat exchangers drain 3/8" G F
I	Primary circuit outlet of the upper exchanger 2" F
L	Primary circuit outlet of the upper exchanger 2" F
M	Domestic cold water circuit inlet 1 1/2" F For models > 1500 connections 2" F
N	Alternative domestic cold water circuit inlet or connection for more tanks 1 1/2" F For models > 1500 connections 2" F
O	Drain 1" F
P	Upper heat exchanger flange
Q	Middle heat exchanger flange
R	Lower heat exchanger flange

All models are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Model	Volume [lt]	Weight [kg]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8
1500	1455	291	1210	950	2440	2495	2730	109	440	585	675	765	825	1075	1160
2000	1991	430	1360	1100	2492	2570	2850	91	467	587	692	797	867	842	1157
3000	2933	557	1350	1250	2811	2950	3130	140	551	731	836	941	1011	1036	1371
5000	4996	882	1700	1600	2915	3130	3380	94	580	750	855	960	1030	1035	1400

Model	H9	H10	H11	H12	H13	H14	H15	H17	Q - R	P
1500	1250	1340	1400	1785	1875	1965	//	2050	Øi300/Øe380	Øi300/Øe380
2000	1262	1367	1437	1727	1817	1907	1592	2057	Øi350/Øe430	Øi300/Øe380
3000	1476	1581	1651	2086	2176	2266	1926	2391	Øi350/Øe430	Øi300/Øe380
5000	1505	1610	1680	2010	2115	2220	1855	2420	Øi350/Øe430	Øi350/Øe430

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

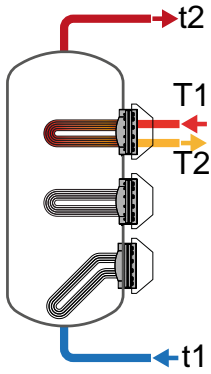
EXTRA 3 WX

HEAT EXCHANGERS TECHNICAL DATA

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

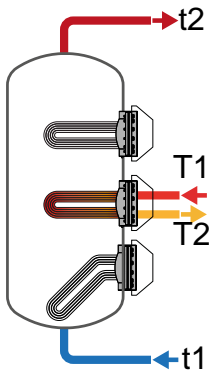
UPPER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
1500	6	69	68	48	30	23	37	44	59	571	909	1088	1466
	3	88	89	61	39	19	29	35	46	465	722	855	1137
2000	10	76	77	52	33	33	53	64	86	815	1309	1572	2128
	5	93	94	65	41	28	44	52	69	688	1077	1281	1712
3000	15	63	63	43	27	51	82	98	133	1256	2023	2429	3293
	7,5	77	77	54	34	44	68	81	109	1075	1688	2009	2685
5000	20	81	81	56	35	84	134	160	216	2066	3965	5353	
	10	99	100	69	44	71	111	131	174	1755	2734	3244	4314

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1500	6	520	683	713	776	882	1259	1402	1704	682	66,9
	3	503	652	674	721	797	1109	1215	1441	179	17,6
2000	10	811	1062	1106	1199	1327	1891	2102	2547	1311	128,6
	5	790	1024	1058	1130	1226	1706	1869	2214	341	33,4
3000	15	1081	1427	1495	1639	1877	2708	3033	3724	2181	213,9
	7,5	1051	1371	1425	1538	1732	2440	2697	3238	560	54,9
5000	20	2152	2282	2921	3152	3461	2367	5432	6542	2314	226,9
	10	2101	2716	2801	2979	3212	4447	4855	5711	592	58,1

MIDDLE HEAT EXCHANGER



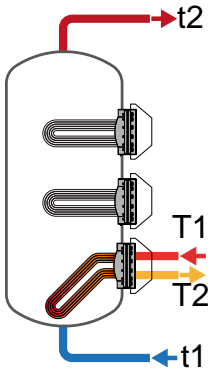
Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
1500	15	68	68	47	30	51	82	98	133	1259	2026	2430	3295
	7,5	82	83	57	37	44	68	81	109	1077	1690	2011	2687
2000	20	70	70	48	30	69	111	133	180	1702	2741	3293	4463
	10	84	85	59	37	59	93	111	148	1468	2306	2744	3668
3000	20	71	72	49	31	100	159	190	255	2465	3931	4698	6325
	10	88	89	62	40	84	130	154	204	2086	3229	3821	5057
5000	20	78	78	54	35	162	253	301	400	3998	6275	7459	9924
	10	99	100	71	46	135	204	239	312	3338	5055	5930	7735

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1500	15	1149	1512	1579	1723	1947	2795	3118	3810	2181,03	213,9
	7,5	1119	1456	1509	1622	1801	2526	2783	3324	560,28	54,9
2000	20	1595	2095	2187	2382	2672	3831	4273	5209	2846,25	279,1
	10	1556	2023	2096	2250	2485	3483	3834	4573	728,1	71,4
3000	20	2303	3021	3149	3420	3865	5511	6124	7426	2745,34	269,2
	10	2240	2904	3003	3209	3561	4949	5423	6411	700,69	68,7
5000	20	3882	5066	5263	5674	6414	9040	9987	11959	4472,31	438,6
	10	3772	4863	5008	5309	5886	8064	8764	10208	290,29	28,5

EXTRA 3 WX

HEAT EXCHANGERS TECHNICAL DATA

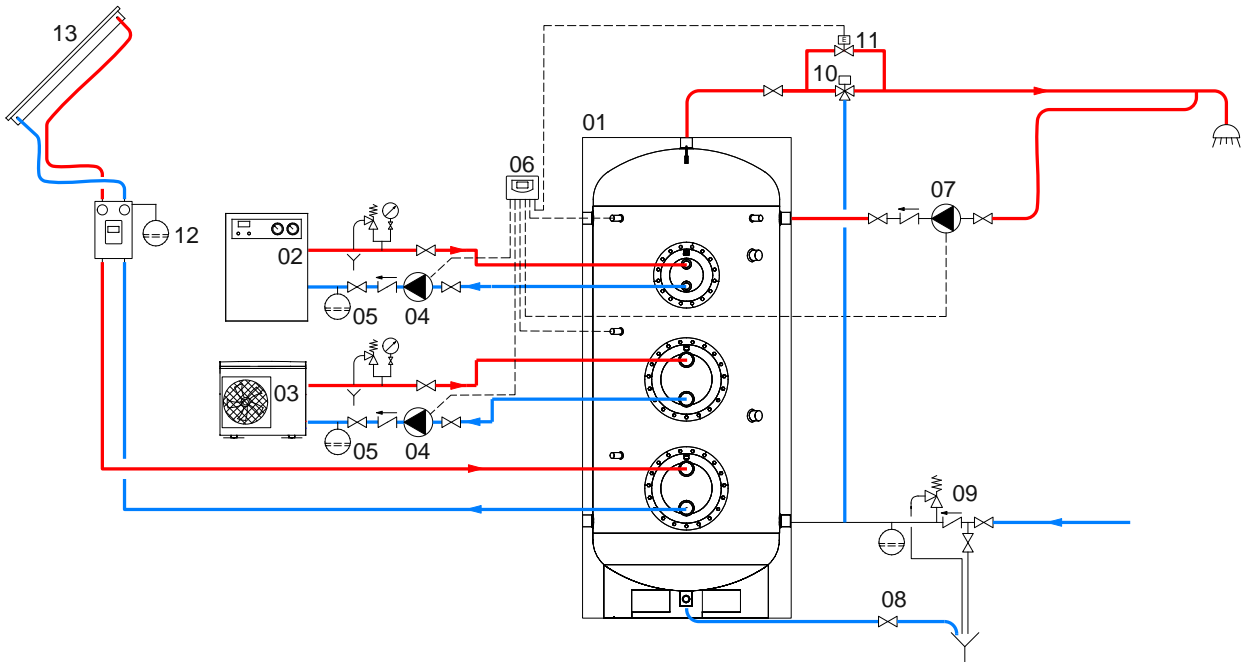
LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	157	110	70	84	130	154	204	2082	3224	3817	5053
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

EXAMPLE OF INSTALLATION WITH EXTRA 3



1	Extra 3	5	Expansion vessel	9	Hydraulic safety group	13	Solar panels
2	Generator	6	Electronic control /thermostat	10	Thermostatic mixing valve		
3	Heat pump generator	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Circulation group	8	Blowdown valve	12	Solar system circulation group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 3 WX

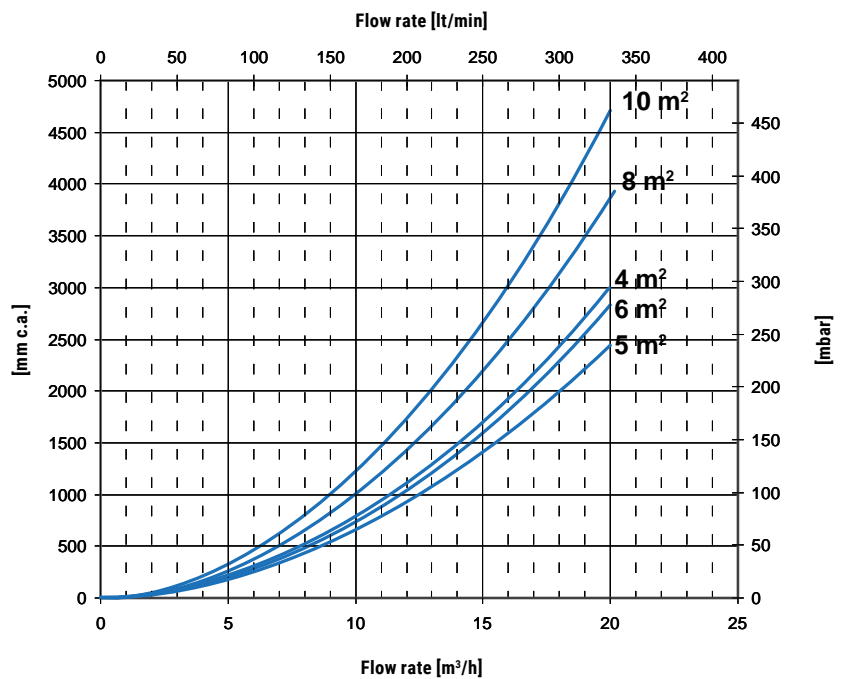
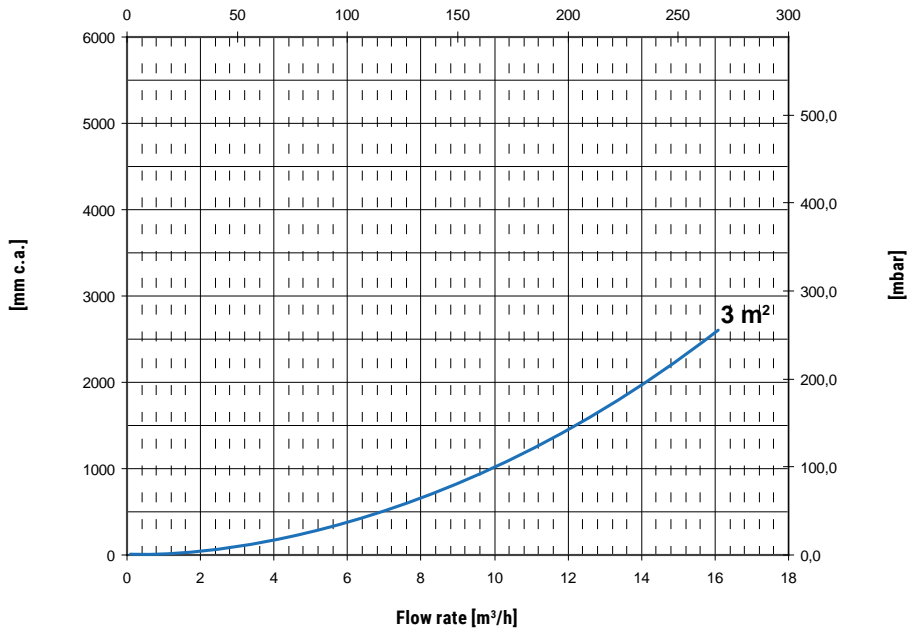
HEAT EXCHANGERS PRESSURE DROP



Lower heat exchangers surface
[m²]

1500	3
2000	4
3000	6
5000	10

Flow rate [lt/min]

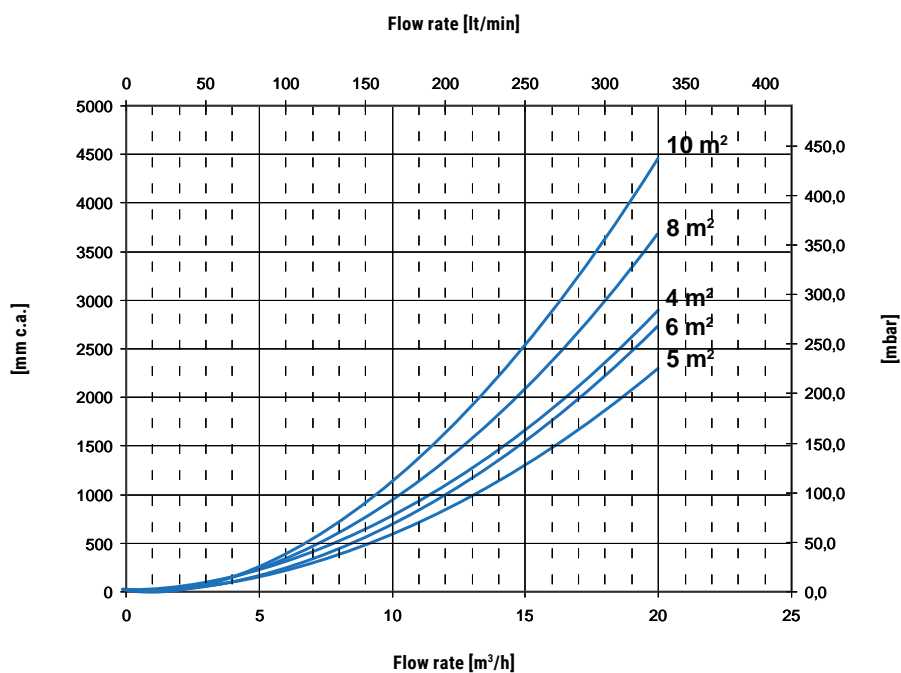
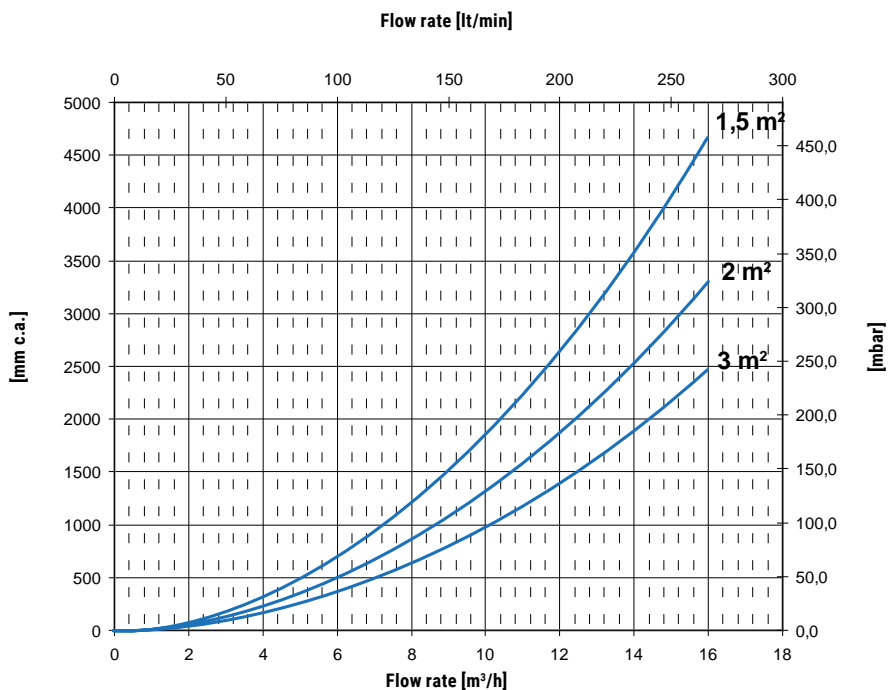


EXTRA 3 WX

HEAT EXCHANGERS PRESSURE DROP



	Heat exchangers surface [m ²]	
	Middle	Upper
1500	3	1,5
2000	4	2
3000	6	3
5000	10	5

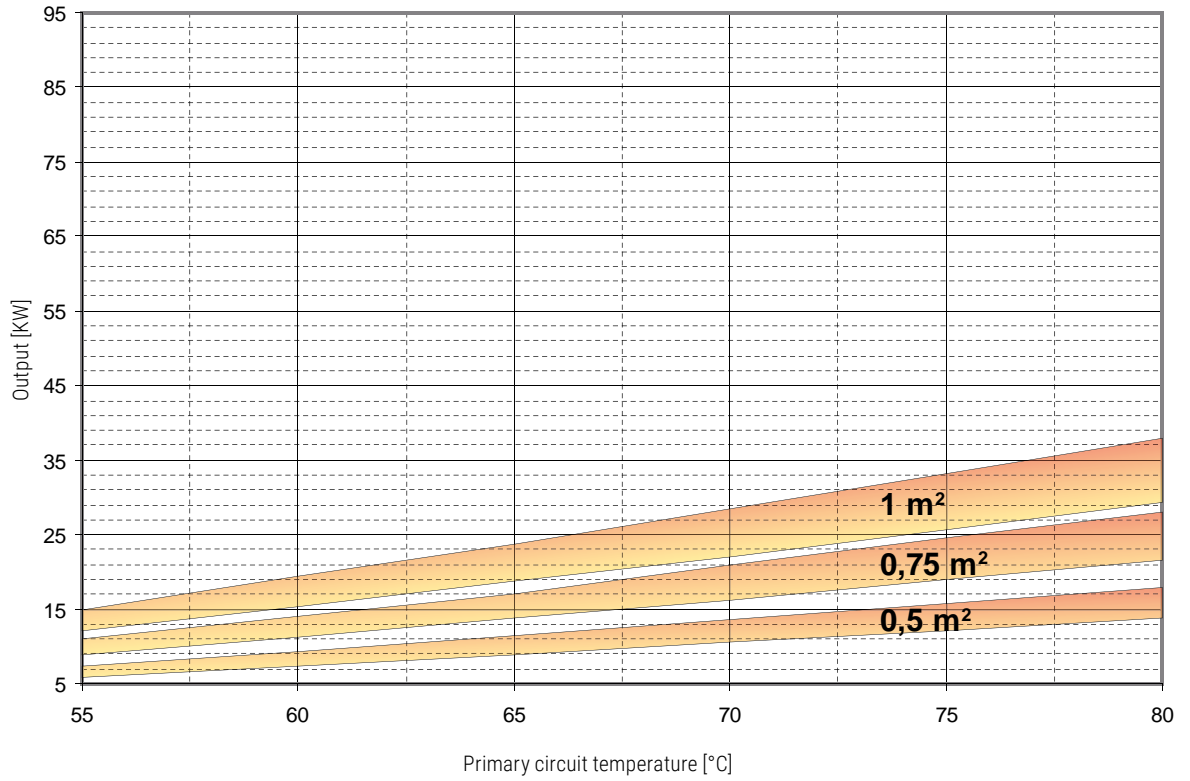


PERFORMANCE CHARTS - SEE PAGE 38-39

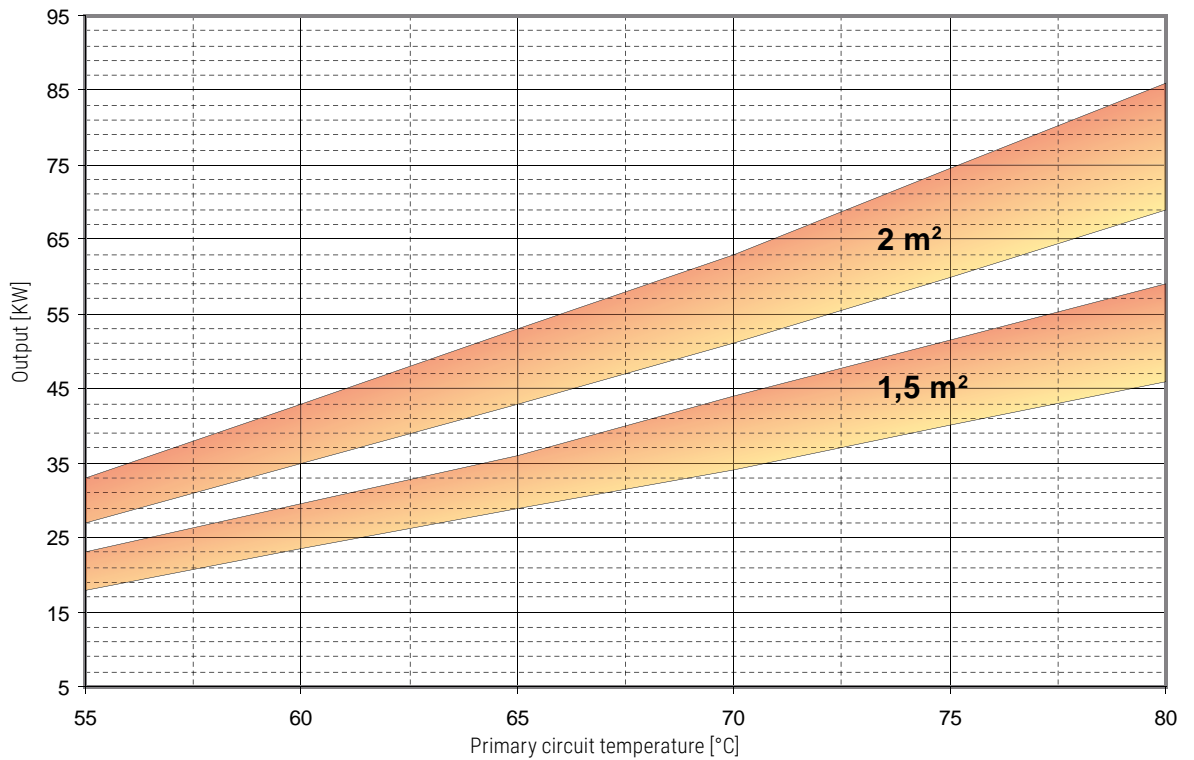
EXTRA 1-2-3 WXC-XXC / EXTRA 1 COMPACT

HEAT EXCHANGERS TECHNICAL DATA

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Extractable heat exchanger surface	0,5 m ²		0,75 m ²		1 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	3	1,5	4	2

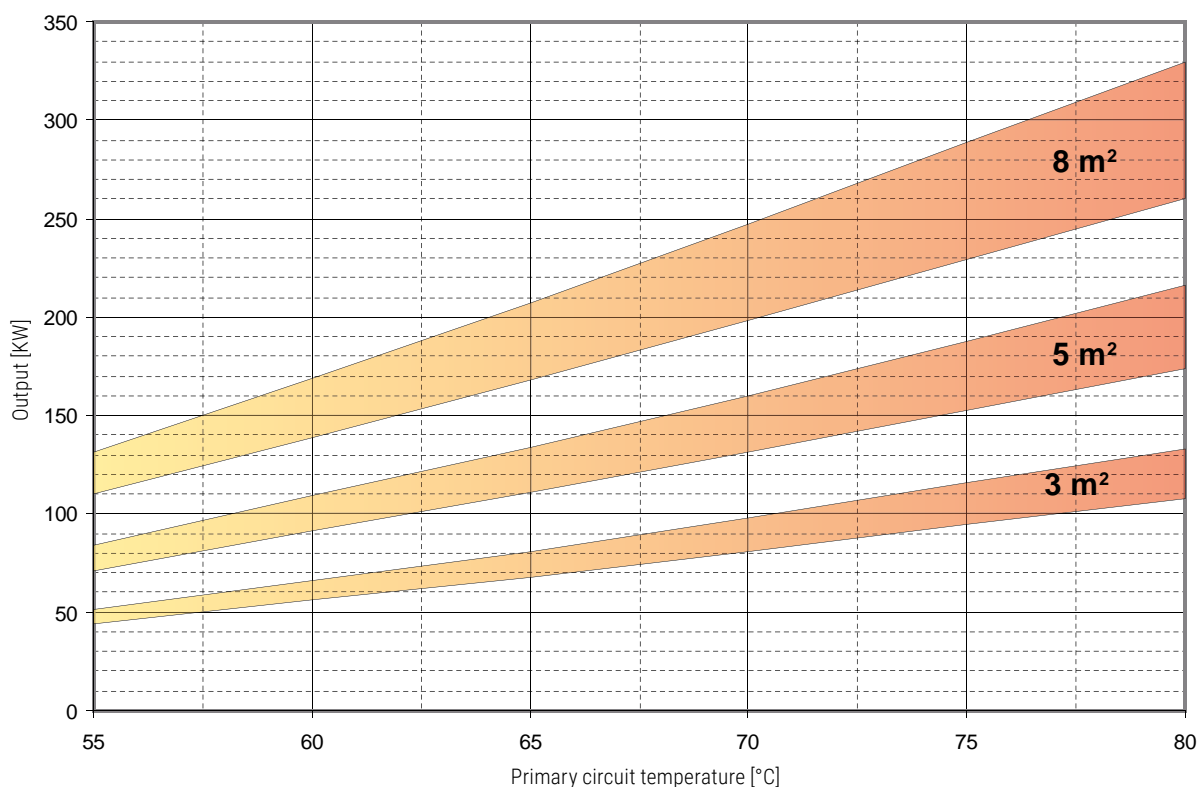


Extractable heat exchanger surface	1,5 m ²		2 m ²	
	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	6	3	10	5

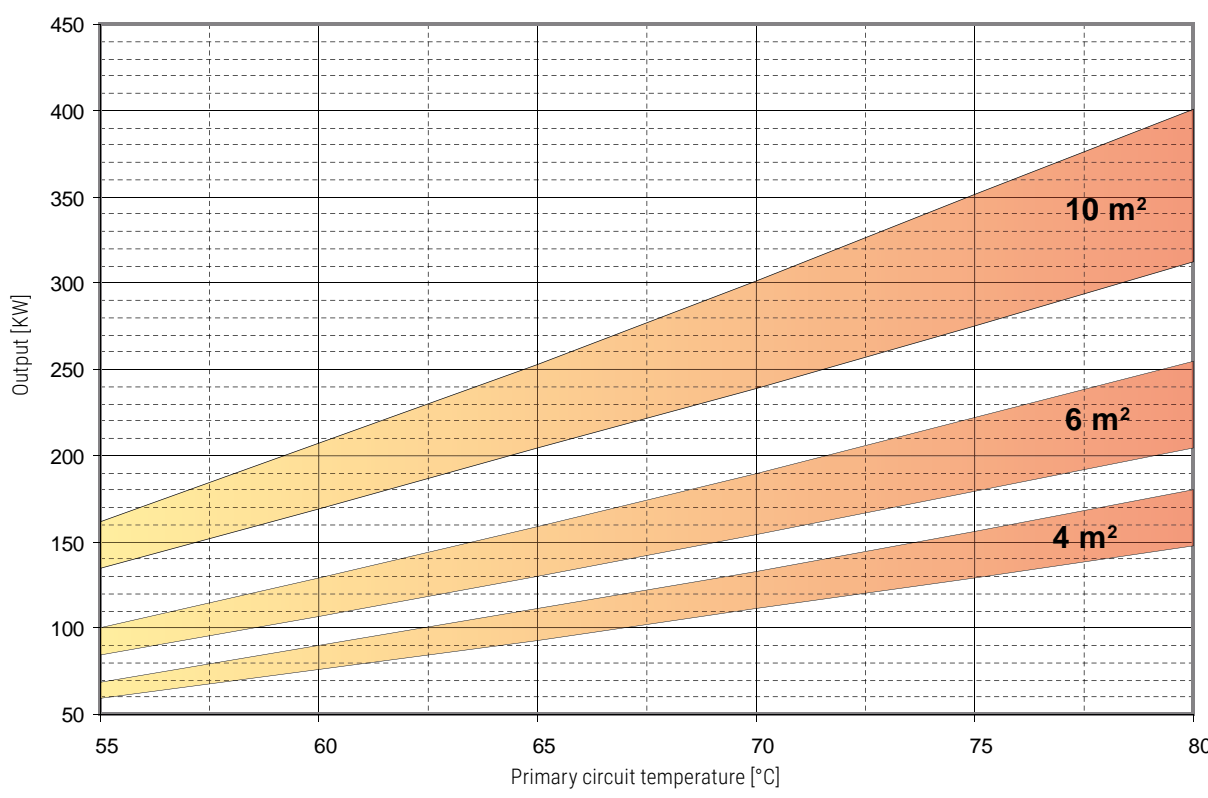
EXTRA 1-2-3 WXC-XXC / EXTRA 1 COMPACT

HEAT EXCHANGERS TECHNICAL DATA

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



Extractable heat exchanger surface	3 m ²		5 m ²		8 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	15	7,5	20	10	20	10



Extractable heat exchanger surface	4 m ²		6 m ²		10 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	20	10	20	10	20	10

EXTRA 1 HORIZONTAL

POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Stainless steel 316L heat exchanger

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

GASKET- FLANGE PLATE

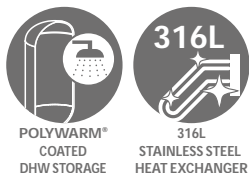
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

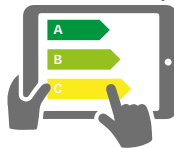
See Accessories section for the entire list.



EXTRA 1 WXC OR

Model	DISMOUNTABLE SOFT FLEECE insulation		HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
	Art. Nr.	[m²]		
200	3072161430031	0,5	C	
300	3072161430032	0,75	C	
500	3072161430033	1	C	
800	3072161430034	1,5	C	
1000	3072161430035	2	C	
1500	3072161430036	3	C	
2000	3072161430037	4	C	
3000	3072161430008	5		
4000	3072161430009	8		
5000	3072161430011	10		

cordivari.com/erp



On line ErP label tool



Data have been calculated on following basis: Primary circuit at 80 °C, and proper energy source; Production of DHW in continue way from 10 °C to 45 °C; DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C; Sanitary water according to UNI CTI 8065. Even if tanks are tested to resist till max temperature, the local legislation has always to be observed during the use.

Model	Ignition Time [min]	Output [Kw]	Continous production of DHW [lt/h]	DHW produced in the first	DHW produced	Primary flow rate [m³/h]	Exchanger pressure drop	
				10 Min. [lt/10']	in the first hour [lt/60']		[mm.c.a.]	[mbar]
200	49	18	455	347	635	2	309	30,3
300	48	28	701	524	968	3	372	36,5
500	60	38	947	844	1443	4	419	41,1
800	59	59	1466	1301	2230	6	718	70,4
1000	54	86	2127	1776	3123	10	1380	135,3
1500	53	133	3290	2677	4761	15	2295	225,1
2000	52	180	4453	3564	6384	20	2996	293,8
3000	65	216	5361	5144	8539	20	2436	238,9
4000	57	330	8168	6918	12092	20	3896	382,1
5000	60	401	9921	8639	14923	20	4707	461,6

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500, 800
5200000000011	1000, 1500
5200000000013	2000+5000



Electric heaters

See Accessories section



EXTRA 1 HORIZONTAL

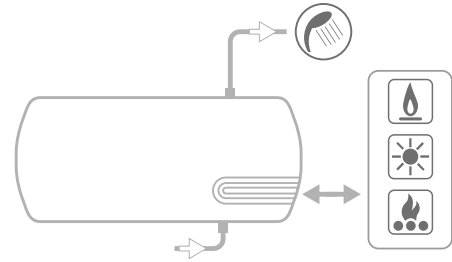
POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
8 bar	90 °C	12 bar	110 °C

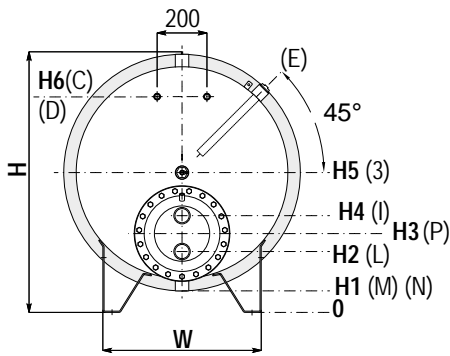
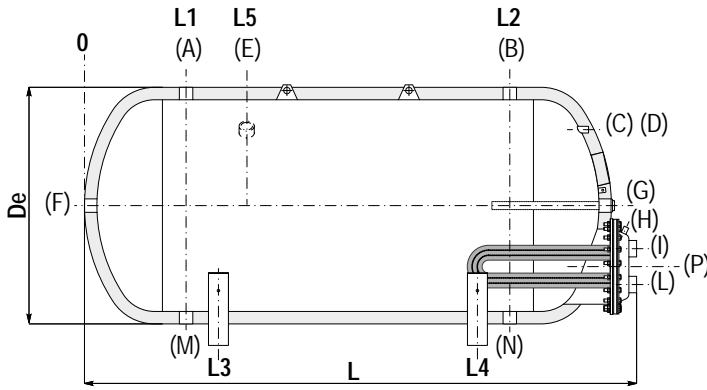


CORDIVARI Lab

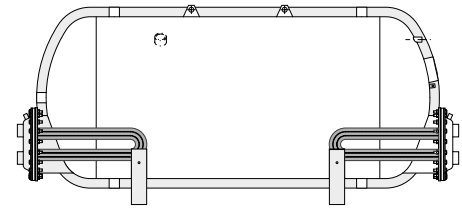
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A	Domestic hot water outlet
B	Recirculation
C-D	Connection for instrumentation 1/2" G F
E	Connection for 2nd magnesium anode 1 1/4" G F (Only for models > 1500)
F-G	Connection for magnesium anode / recirculation
H	Heat exchanger drain 3/8" F
I	Primary circuit inlet
L	Primary circuit outlet
M-N	Domestic water inlet / Drain
P	Heat exchanger flange



VERSION WITH 2 EXTRACTABLE HEAT EXCHANGERS IS AVAILABLE UPON REQUEST

Model	Volume [lit]	De	L	H	L1	L2	L3	L4	L5	H1
200	191	670	1594	693	344	1144	409	1079	//	43
300	292	770	1645	849	370	1170	440	1100	//	99
500	500	870	1934	946	395	1445	490	1350	//	96
800	795	970	2251	1042	425	1725	555	1595	//	92
1000	1045	1070	2281	1137	458	1758	588	1628	//	87
1500	1498	1210	2651	1240	474	2024	629	1869	//	90
2000	2064	1360	2706	1380	520	2070	660	1930	908	80
3000	2997	1350	2956	1524	495	2295	695	2095	945	154
4000	4184	1550	3066	1707	560	2360	665	2255	1010	137
5000	5131	1700	3107	1845	583	2383	783	2183	1033	125

Model	H2	H3	H4	H5	H6	W	P	L1	F-G	B	A-M-N	E
200	243	293	343	368	498	364	Ø1220/Øe300	1"	1 1/4"	1 1/4"	1 1/4"	-
300	336	386	436	474	668	404	Ø1220/Øe300	1"	1 1/4"	1 1/4"	1 1/4"	-
500	383	433	483	521	715	455	Ø1220/Øe300	1"	1 1/4"	1 1/4"	1 1/4"	-
800	348	438	528	567	817	583	Ø1300/Øe380	2"	1 1/4"	1 1/4"	1 1/2"	-
1000	277	367	457	612	917	644	Ø1300/Øe380	2"	1 1/2"	1 1/2"	1 1/2"	-
1500	315	405	495	665	1020	759	Ø1300/Øe380	2"	2"	2"	2"	-
2000	330	435	540	730	1085	848	Ø1350/Øe430	2"	2"	2"	2"	1 1/4"
3000	324	429	534	829	1184	981	Ø1350/Øe430	2"	2"	2"	2"	1 1/4"
4000	307	412	517	912	1267	1101	Ø1350/Øe430	2"	2"	2"	3"	1 1/4"
5000	305	410	515	975	1330	1189	Ø1350/Øe430	2"	2"	2"	3"	1 1/4"

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

EXTRA 1 STEAM

POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER FOR STEAM GENERATOR



APPLICATION

Production and storage of domestic hot water. Suitable for steam generators.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Stainless steel 316L straight heat exchanger suitable for steam power (P.E.D. directive compliant).

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Asbestos-free fiber gaskets.

Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list



POLYWARM®
COATED
DHW STORAGE

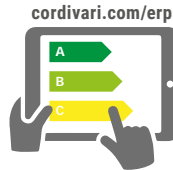


316L
STAINLESS STEEL
HEAT EXCHANGER



EXTRA 1 VAPORE WXB

Model	Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500	3069162360123	1	C
800	3069162360124	1,5	B
1000	3069162360125	2	C
1500	3069162360126	3	C
2000	3069162360127	3	B



On line ErP label tool



EXTRA 1 VAPORE WXC

Model	Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500	3069162360133	1	C
800	3069162360134	1,5	C
1000	3069162360135	2	C
1500	3069162360136	3	C
2000	3069162360137	3	C
2500	3069162360111	3	
3000	3069162360108	3	
4000	3069162360109	4	
5000	3069162360110	5	

HEAT EXCHANGERS FOR STEAM GENERATOR TECHNICAL DATA

Heat exchangers performance calculated with primary circuit at **6 bar** saturated steam and production of DHW from 10° to 45°C

Heat exchangers performance calculated with primary circuit at **3 bar** saturated steam and production of DHW from 10° to 45°C

Model	PED	6 bar				3 bar			
		Output	DHW production		Ignition time	Output	DHW production		Ignition time
		[KW]	[l/h]	[l/10']	[min]	[KW]	[l/h]	[l/10']	[min]
500	Art. 4.3	141	3464	1189	9	114	2793	1077	11
800	Cat. I	212	5196	1869	9	171	4189	1701	12
1000	Cat. I	282	6928	2463	9	227	5585	2239	11
1500	Cat. I	423	10393	3554	9	341	8378	3218	11
2000	Cat. I	423	10393	4228	12	341	8378	3892	15
2500	Cat. I	423	10393	4571	13	341	8378	4235	17
3000	Cat. I	423	10393	5438	17	341	8378	5102	22
4000	Cat. I	564	13857	7031	17	455	11171	6583	21
5000	Cat. I	705	17321	9097	17	568	13963	8537	22

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000009	500, 800
5200000000011	1000, 1500
5200000000013	2000+5000



Electric heaters

See Accessories section



EXTRA 1 STEAM

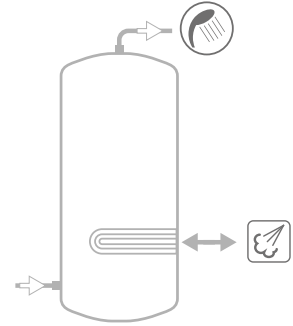
POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER FOR STEAM GENERATOR

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
500 ÷ 1000	8 bar	90 °C	6 bar	165 °C
1500 ÷ 5000	6 bar			

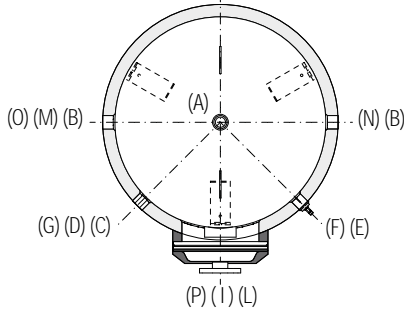
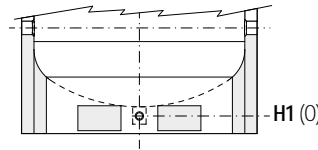
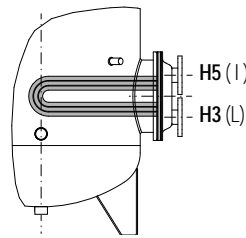
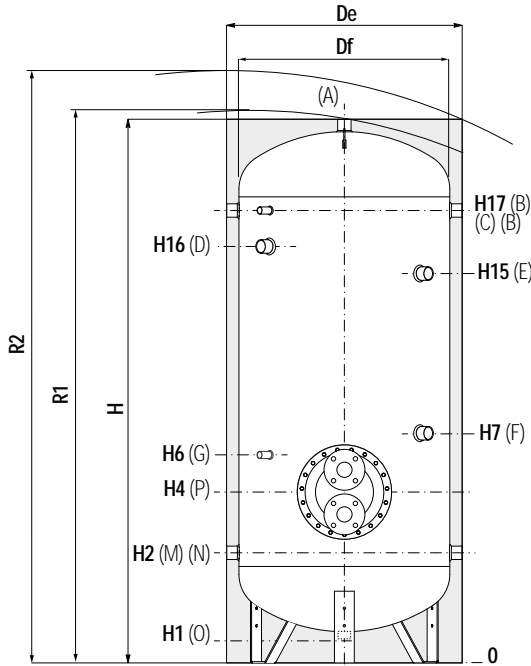


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



All models are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation 1/2" F
D	Connection for electric immersion heater 1" 1/2 F For models > 800 connections 2" F
E	Connection for 2nd magnesium anode 1"1/4 F (Only for models > 1000)
F	Connection for magnesium anode 1" 1/4 F
G	Connection for instrumentation 1/2" F
I	Steam circuit inlet
L	Outlet for condense
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Heat exchanger flange

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

EXTRA 1 VAPORE WXB - HARD FOAM INSULATION

Model	Vol. [lt]	Weight [kg]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H15	H16	H17	P	B-N M	I-L	A	O
500	500	99	750	1800	1960	85	375	410	460	510	570	760	//	1329	1485	Øi220/Øe300	1"1/4	DN25 PN16	1"1/4	1"1/4
800	794	161	900	2135	2330	85	405	450	540	630	690	870	//	1610	1765	Øi300/Øe380	1"1/4	DN50 PN16	1"1/4	1"1/4
1000	1042	204	1000	2221	2450	105	458	503	593	683	743	993	//	1664	1818	Øi300/Øe380	1"1/4	DN50 PN16	1"1/2	1"1/2
1500	1445	250	1100	2415	2660	109	440	485	575	665	725	1075	//	1895	2050	Øi300/Øe380	1"1/2	DN50 PN16	1"1/2	1"
2000	1977	288	1300	2492	2820	91	467	602	692	782	867	842	1952	1877	2057	Øi300/Øe380	2"	DN50 PN16	2"	1"

EXTRA 1 VAPORE WXC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Vol. [lt]	Weight [kg]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H15	H16	H17	P	B-N M	I-L	A	O
500	500	90	870	650	1891	1870	2090	126	416	451	501	551	611	801	//	1370	1526	Øi220/Øe300	1"1/4	DN25 PN16	1"1/4	1"1/4
800	794	161	970	750	2188	2220	2400	113	433	478	568	658	718	898	//	1638	1793	Øi300/Øe380	1"1/4	DN50 PN16	1"1/4	1"1/4
1000	1042	204	1070	850	2242	2270	2490	101	454	499	589	679	739	989	//	1660	1814	Øi300/Øe380	1"1/4	DN50 PN16	1"1/4	1"1/2
1500	1445	250	1210	950	2440	2495	2730	109	440	485	575	665	725	1075	//	1895	2050	Øi300/Øe380	1"1/4	DN50 PN16	1"1/2	1"
2000	1977	288	1360	1100	2492	2570	2850	91	467	602	692	782	867	842	1952	1877	2057	Øi350/Øe430	1"1/2	DN50 PN16	1"1/2	1"
2500	2312	331	1350	1250	2311	2480	2690	140	551	686	776	866	951	976	1816	1732	1891	Øi350/Øe430	2"	DN50 PN16	2"	1"
3000	2918	377	1350	1250	2811	2950	3130	140	551	686	776	866	951	1036	2316	2232	2391	Øi350/Øe430	2"	DN50 PN16	2"	1"
4000	3769	530	1500	1400	2875	3050	3250	114	570	690	795	900	970	1035	2315	2238	2410	Øi350/Øe430	2"	DN50 PN16	2"	1"
5000	4982	663	1700	1600	2915	3130	3380	94	580	700	805	910	980	1035	2335	2265	2420	Øi350/Øe430	2"	DN50 PN16	2"	1"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 2 STEAM

POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS FOR STEAM GENERATOR



APPLICATION

Production and storage of domestic hot water. Suitable for steam generators.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

2x Stainless steel 316L straight heat exchanger suitable for steam power (P.E.D. directive compliant).

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Asbestos-free fiber gaskets.

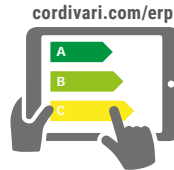
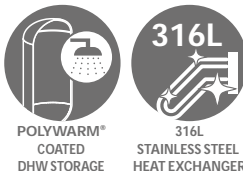
Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list



On line ErP label tool



EXTRA 2 VAPORE WXC

DISMOUNTABLE SOFT FLEECE insulation

HEAT EXCHANGER SURFACE

Model	Art. Nr.	HEAT EXCHANGER SURFACE	
		Lower	Middle
3000	3069162363008	3	3
4000	3069162363009	4	4
5000	3069162363010	5	5

HEAT EXCHANGERS FOR STEAM GENERATOR TECHNICAL DATA

HEAT EXCHANGER	Model	PED	Heat exchangers performances calculated with primary circuit at 6 bar saturated steam and production of DHW from 10° to 45°C				Heat exchangers performances calculated with primary circuit at 3 bar saturated steam and production of DHW from 10° to 45°C			
			Output	DHW production		Ignition time	Output	DHW production		Ignition time
			[KW]	[l/h]	[l/10']	[min]	[KW]	[l/h]	[l/10']	[min]
MIDDLE	3000	Cat. I	423	10393	4098	11	341	8378	3762	14
	4000	Cat. I	564	13857	5349	11	455	11171	4902	13
	5000	Cat. I	705	17321	6907	11	568	13963	6347	14
LOWER	3000	Cat. I	423	10393	5438	17	341	8378	5102	22
	4000	Cat. I	564	13857	7031	17	455	11171	6583	21
	5000	Cat. I	705	17321	9097	17	568	13963	8537	22

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000013	3000÷5000



Electric heaters

See Accessories section



EXTRA 2 STEAM

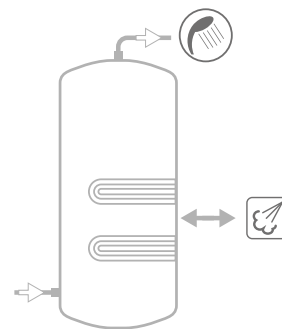
POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS FOR STEAM GENERATOR

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	6 bar	165 °C



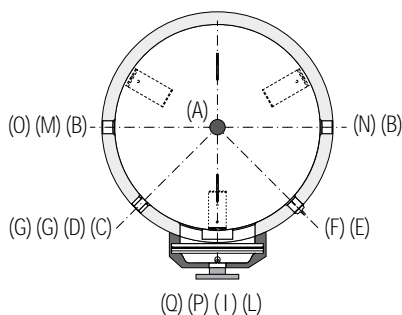
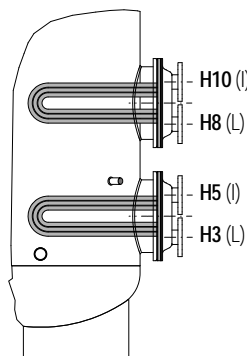
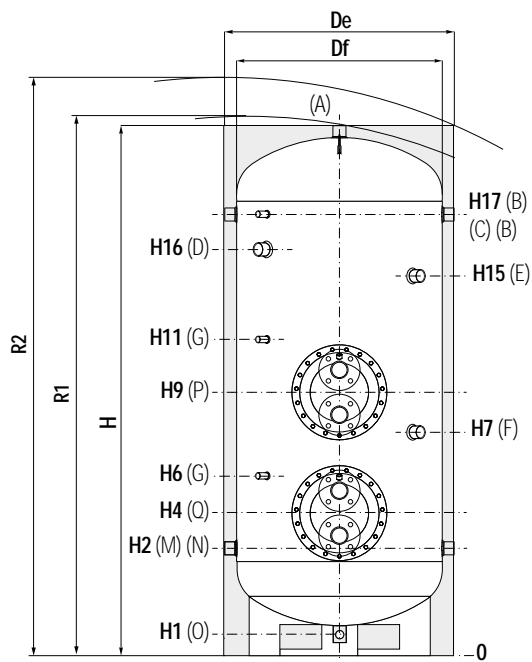
CORDIVARI Lab

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See **TECHNICAL SUPPORT** chapter for example of installation

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



All models are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

- A** Domestic hot water outlet 2" G F
- B** Recirculation / Domestic hot water outlet 2" G F
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 2" G F
- E** Connection for 2nd magnesium anode 1 1/4" G F
- F** Connection for magnesium anode 1 1/4" G F
- G** Connection for instrumentation 1/2" G F
- I** Steam circuit inlet DN50 PN16
- L** Outlet for condense DN50 PN16
- M** Domestic cold water circuit inlet 2" G F
- N** Alternative domestic cold water inlet or connection for more tanks 2" G F
- O** Drain 1" G F
- P** Upper heat exchanger flange
- Q** Lower heat exchanger flange

Model	Volume	Weight	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7
	[lt]	[Kg]												
3000	2923	440	1350	1250	2811	2950	3130	140	551	686	776	866	951	1036
4000	3776	620	1500	1400	2875	3050	3250	114	570	690	795	900	970	1035
5000	4990	763	1700	1600	2915	3130	3380	94	580	700	805	910	980	1035

Model	H8	H9	H10	H11	H15	H16	H17	P-Q
3000	1386	1476	1566	1651	2316	2232	2391	Ø1300/Øe380
4000	1390	1495	1600	1670	2315	2238	2410	Ø1350/Øe430
5000	1400	1505	1610	1680	2335	2265	2420	Ø1350/Øe430

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 1 PLUS

POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE FINNED COPPER HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

1 copper finned and tinned heat exchanger.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

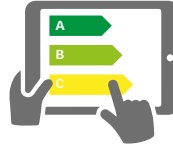
See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



cordivari.com/erp



On line ErP label tool



EXTRA 1 PLUS WRB

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
	Art. Nr.		
200	3074162352302	0,76	B
300	3074162352303	0,94	C
500	3074162352304	1,58	C
800	3074162352310	2,63	B
1000	3074162352311	3,17	C
1500	3074162352312	4,54	C
2000	3074162352313	5,26	B



EXTRA 1 PLUS WRC

Model	DISMOUNTABLE SOFT FLEECE insulation	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
	Art. Nr.		
500	3072162352334	1,58	C
800	3072162352340	2,63	C
1000	3072162352341	3,17	C
1500	3072162352342	4,54	C
2000	3072162352343	5,26	C
2500	3072162352344	6,34	
3000	3072162352345	6,34	
4000	3072162352346	6,34	
5000	3072162352347	6,34	

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

Mod.	THREEPHASE				
	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
	33	//	//	//	//
	51	//	//	//	//
	85	68	57	//	//
	120	96	80	//	//
	163	131	109	73	54
	194	155	129	86	65
	297	238	198	132	99
	387	310	258	172	129
	387	310	258	172	129
	535	428	357	238	178
	699	559	466	311	233

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500, 800
5200000000011	1000, 1500
5200000000013	2000+5000



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

EXTRA 1 PLUS

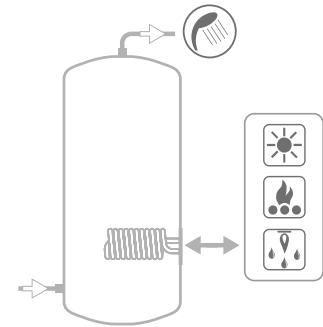
POLYWARM® COATED CALORIFIERS WITH 1 EXTRACTABLE FINNED COPPER HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	6 bar			

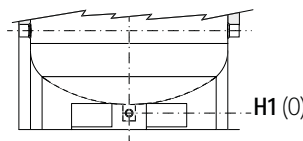
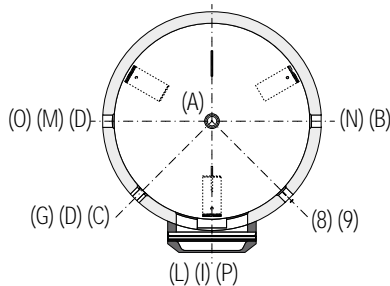
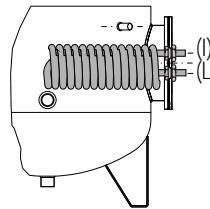
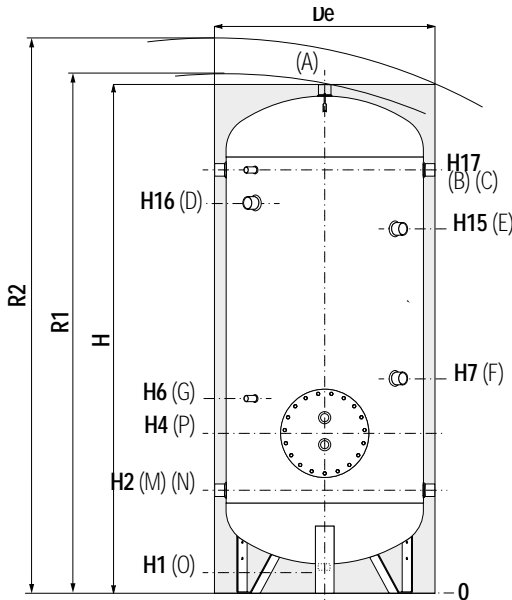


CORDIVARI Lab

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EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1" 1/2 G F For models > 800 connections 2" G F
E	Connection for 2nd magnesium anode 1" 1/4 F (only for models > 1500)
F	Connection for magnesium anode 1" 1/4 G F
G	Connection for instrumentation 1/2" G F
I	Primary circuit inlet
L	Primary circuit outlet
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Heat exchanger flange

EXTRA 1 PLUS WRB - HARD FOAM INSULATION

Model	Volume [lt]	De	H	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	B-M-N	A	O	I-L
200	191	550	1449	1560	85	325	410	520	650	//	1075	1185	Øi220/Øe300	Connections F			
300	292	650	1499	1640	85	350	435	545	735	//	1100	1210	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"
500	500	750	1800	1960	85	375	460	570	760	//	1329	1485	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"
800	791	900	2135	2330	85	405	490	600	870	//	1610	1765	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"
1000	1040	1000	2221	2450	105	458	543	653	993	//	1664	1818	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/2	1"
1500	1442	1100	2415	2660	109	440	525	635	1075	//	1895	2050	Øi300/Øe380	1" 1/2	2"	1"	1" 1/4
2000	1974	1300	2492	2820	91	467	542	652	842	1952	1877	2057	Øi350/Øe430	2"	2"	1"	1" 1/4

EXTRA 1 PLUS WRC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	B-M-N	A	O	I-L
500	500	870	650	1841	1998	2090	101	416	501	611	801	//	1370	1526	Øi220/Øe300	Connections F			
800	791	970	750	2188	2220	2400	113	433	518	628	898	//	1638	1793	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"
1000	1040	1070	850	2242	2270	2490	101	454	539	649	989	//	1660	1814	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/4	1"
1500	1442	1210	950	2440	2495	2730	109	440	525	635	1075	//	1895	2050	Øi300/Øe380	1" 1/2	2"	1" 1/4	1" 1/4
2000	1974	1360	1100	2492	2570	2850	91	467	542	652	842	1952	1877	2057	Øi350/Øe430	2"	2"	1" 1/2	1" 1/4
2500	2310	1350	1250	2311	2480	2690	140	551	626	736	976	1816	1732	1891	Øi350/Øe430	2"	2"	1"	1" 1/4
3000	2916	1350	1250	2811	2950	3130	140	551	626	736	876	2316	2232	2391	Øi350/Øe430	2"	2"	1"	1" 1/4
4000	3764	1500	1400	2875	3050	3250	114	570	645	755	895	2315	2238	2410	Øi350/Øe430	2"	2"	1"	1" 1/4
5000	4978	1700	1600	2915	3130	3380	94	580	655	765	935	2335	2265	2420	Øi350/Øe430	2"	2"	1"	1" 1/4

EXTRA 1 PLUS

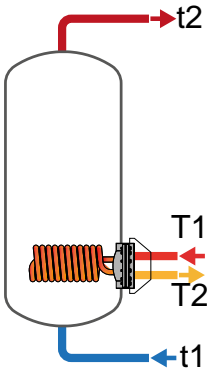
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

LOWER HEAT EXCHANGER

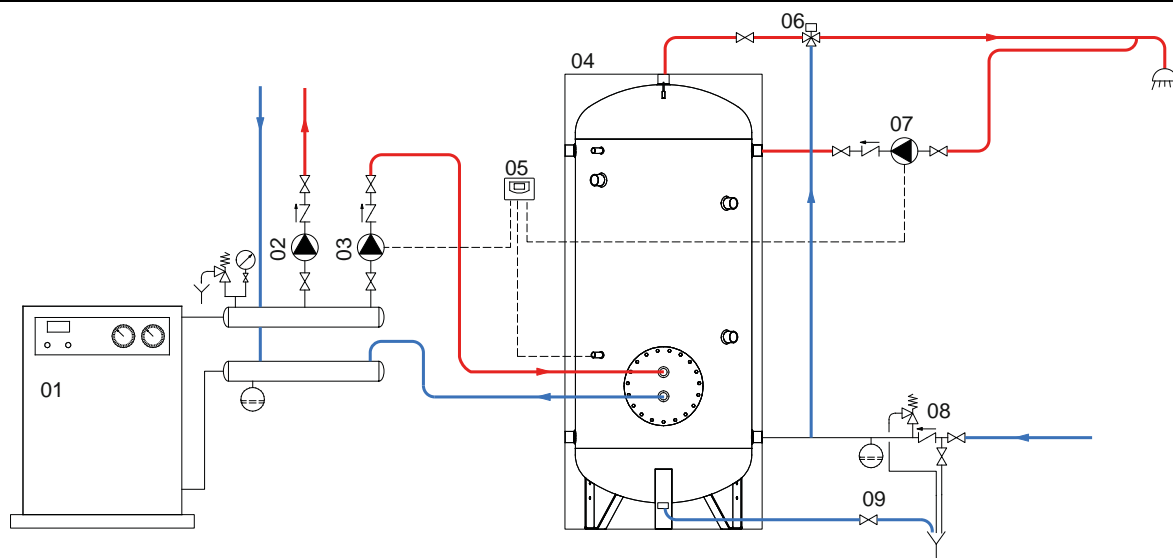


Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	1,4	95	97	65	40	7	11	14	19	172	270	342	467
	0,7	106	107	72	45	6	10	12	17	147	246	295	418
300	1,4	119	118	79	49	9	14	17	24	214	353	428	586
	0,7	130	131	87	54	8	13	16	21	203	329	396	535
500	1,4	132	132	89	55	14	23	28	37	347	565	680	923
	0,7	150	151	103	65	13	21	25	33	321	509	606	809
800	1,4	137	138	94	59	23	36	44	56	562	900	1076	1443
	0,7	164	167	115	73	21	32	38	49	510	789	931	1222
1000	1,4	154	155	105	67	27	43	51	68	668	1062	1265	1688
	0,7	187	191	132	85	24	37	44	57	602	921	1082	1409
1500	3	139	140	95	59	40	65	77	104	988	1594	1910	2577
	1,5	162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	3	168	169	115	72	46	74	88	118	1133	1820	2177	2925
	1,5	199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	3	163	164	112	71	55	87	104	139	1349	2150	2564	3428
	1,5	197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	3	214	216	147	93	55	87	104	139	1349	2150	2564	3428
	1,5	258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3	274	276	187	118	55	87	104	139	1349	2150	2564	3428
	1,5	330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	3	361	364	247	156	55	87	104	139	1349	2150	2564	3428
	1,5	436	445	305	196	50	76	89	117	1221	1876	2206	2881

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	1,4	212	274	285	306	320	445	502	602	895	88
	0,7	207	270	278	298	301	425	464	563	223	22
300	1,4	313	406	418	445	449	630	690	816	1936	190
	0,7	312	402	413	436	440	610	664	775	484	47
500	1,4	547	706	725	765	767	1063	1155	1350	1861	183
	0,7	543	696	712	746	746	1019	1096	1259	465	46
800	1,4	896	1153	1182	1243	1252	1723	1864	2157	3097	304
	0,7	887	1134	1158	1207	1210	1634	1748	1980	774	76
1000	1,4	1158	1486	1519	1590	1581	2158	2321	2659	3733	366
	0,7	1147	1462	1489	1543	1528	2045	2174	2436	933	91
1500	3	1622	2087	2140	2251	2248	3097	3349	3883	2878	282
	1,5	1608	2058	2101	2191	2182	2955	3164	3596	720	71
2000	3	2185	2799	2859	2983	2903	3952	4237	4836	2878	282
	1,5	2169	2763	2812	2911	2823	3780	4012	4490	720	71
2500	3	2496	3197	3266	3410	3350	4559	4890	5581	4588	450
	1,5	2474	3151	3206	3319	3248	4339	4603	5143	1147	112
3000	3	3189	4064	4133	4277	4044	5426	5757	6448	5530	542
	1,5	3168	4018	4073	4186	3941	5207	5471	6011	1382	136
4000	3	4002	5080	5149	5293	4856	6441	6773	7464	5530	542
	1,5	3981	5034	5089	5202	4754	6222	6486	7026	1382	136
5000	3	5193	6568	6637	6781	6047	7930	8261	8952	5530	542
	1,5	5172	6523	6578	6690	5945	7711	7975	8515	1382	136



EXAMPLE OF INSTALLATION WITH EXTRA 1 PLUS



1	Generator	04	EXTRA 1 PLUS	07	D.H.W. recirculation group
2	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
3	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

FOR PRESSURE DROP AND EXCHANGER POWER, SEE PAGE 58-59

EXTRA 2 PLUS

POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

2 copper finned and tinned heat exchangers.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

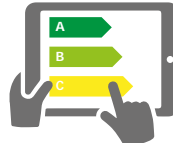
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



cordivari.com/erp



On line ErP label tool



EXTRA 2 PLUS WRB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Middle	
		[m²]		
200	3084162352301	0,76	0,76	B
300	3084162352302	0,94	0,76	C
500	3084162352303	1,58	0,76	C
800	3084162352310	2,63	0,94	B
1000	3084162352311	3,17	1,58	C
1500	3084162352312	4,54	2,63	C
2000	3084162352313	5,26	3,17	B

EXTRA 2 PLUS WRC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Middle	
		[m²]		
500	3082162352333	1,58	0,76	C
800	3082162352340	2,63	0,94	C
1000	3082162352341	3,17	1,58	C
1500	3082162352342	4,54	2,63	C
2000	3082162352343	5,26	3,17	C
2500	3082162352344	6,34	4,54	
3000	3082162352345	6,34	5,26	
4000	3082162352346	6,34	6,34	
5000	3082162352347	6,34	6,34	

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500, 800
5200000000011	1000, 1500
5200000000013	2000=5000



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

EXTRA 2 PLUS

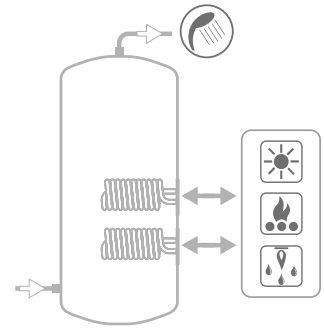
POLYWARM® COATED CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	6 bar			

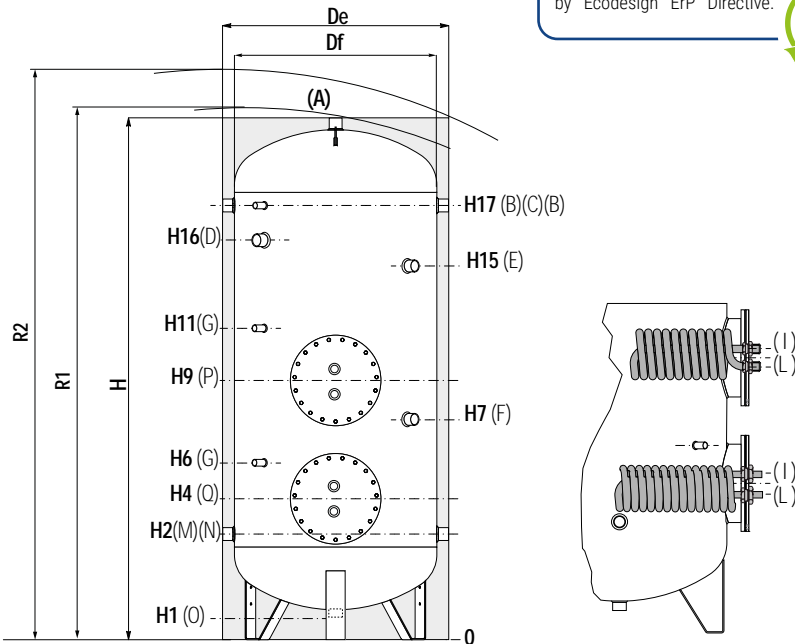


CORDIVARI Lab

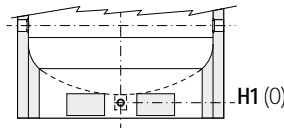
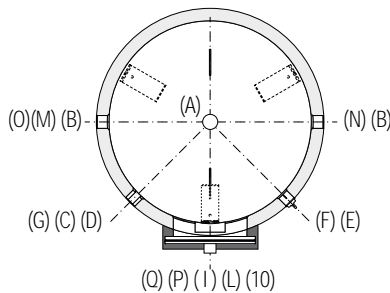
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C-G	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1" 1/2 G F (for models >800 connections 2" G F)
E	Connection for 2nd magnesium anode 1" 1/4 G F (Only for models > 1500)
F	Connection for magnesium anode 1" 1/4 G F
I	Primary circuit inlet heat exchanger
L	Primary circuit outlet heat exchanger
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Upper heat exchanger flange
Q	Lower heat exchanger flange



Models from 1500 to 5000 are equipped with a practical **skirt support** which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

EXTRA 2 PLUS WRB - HARD FOAM INSULATION

Model	Vol. [lt]	De	H	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P Q	Connections F				
		[mm]														A	B-M-N	O	I-L lower	I-L upper
200	193	550	1449	1560	85	325	410	520	650	860	970	//	1075	1185	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
300	295	650	1499	1640	85	350	435	545	735	885	995	//	1100	1210	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
500	503	750	1800	1960	85	375	460	570	760	910	1020	//	1329	1485	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
800	794	900	2135	2330	85	405	540	690	870	1090	1240	//	1610	1765	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"	1"
1000	1043	1000	2221	2450	105	458	593	743	993	1143	1293	//	1664	1818	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/2	1"	1"
1500	1445	1100	2415	2660	109	440	675	825	1075	1250	1400	//	1895	2050	Øi300/Øe380	2"	1" 1/2	1"	1" 1/4	1"
2000	1977	1300	2492	2820	91	467	692	867	842	1262	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"	1" 1/4	1"

EXTRA 2 PLUS WRC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Vol. [lt]	De	Df	H	R1	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P Q	Connections F				
		[mm]																A	B-M-N	O	I-L lower	I-L upper
500	503	870	650	1841	1990	2090	101	416	501	611	801	951	1061	//	1370	1526	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4	1"	1"
800	794	970	750	2188	2220	2400	113	433	518	628	898	1118	1228	//	1638	1793	Øi300/Øe380	1" 1/4	1" 1/4	1" 1/4	1"	1"
1000	1043	1070	850	2242	2270	2490	101	454	539	649	989	1139	1249	//	1660	1814	Øi300/Øe380	1" 1/2	1" 1/2	1" 1/4	1"	1"
1500	1445	1210	950	2440	2495	2730	109	440	525	635	1075	1250	1360	//	1895	2050	Øi300/Øe380	2"	1" 1/2	1" 1/4	1" 1/4	1"
2000	1977	1360	1100	2492	2570	2850	91	467	542	652	842	1262	1372	1952	2057	2057	Øi350/Øe430	2"	2"	1" 1/2	1" 1/4	1"
2500	2313	1350	1250	2311	2480	2690	140	551	626	736	876	1201	1311	1816	1732	1891	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
3000	2919	1350	1250	2811	2950	3130	140	551	626	736	876	1476	1586	2316	2232	2391	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
4000	3767	1500	1400	2875	3050	3250	114	570	645	755	895	1495	1605	2315	2238	2410	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4
5000	4981	1700	1600	2915	3130	3380	94	580	655	765	935	1505	1615	2335	2265	2420	Øi350/Øe430	2"	2"	1"	1" 1/4	1" 1/4

EXTRA 2 PLUS

HEAT EXCHANGERS TECHNICAL DATA

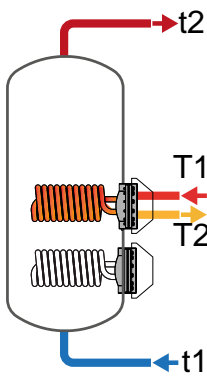


Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	1,4	58	58	39	24	7	11	14	19	172	270	342	467
	0,7	64	64	43	27	6	10	12	17	147	246	295	418
300	1,4	89	89	59	36	7	11	14	19	172	270	342	467
	0,7	96	96	64	40	6	10	12	17	147	246	295	418
500	1,4	175	175	115	70	7	11	14	19	172	270	342	467
	0,7	192	193	127	79	6	10	12	17	147	246	295	418
800	1,4	247	248	162	99	9	14	17	24	214	353	428	586
	0,7	274	276	182	112	8	13	16	21	203	329	396	535
1000	1,4	187	187	125	77	14	23	28	37,4	347	565	680	923
	0,7	213	216	145	91	13	21	25	33	321	509	606	809
1500	1,4	168	170	115	72	23	36	44	56	562	900	1076	1443
	0,7	204	208	142	91	21	32	38	49	510	789	931	1222
2000	1,4	201	203	138	87	27	43	51	68	668	1062	1265	1688
	0,7	249	254	174	112	24	37	44	57	602	921	1082	1409
2500	3	126	126	85	53	40	65	77	104	988	1594	1910	2577
	1,5	146	148	102	65	37	57	68	90	906	1417	1678	2218
3000	3	160	161	109	69	46	74	88	118	1133	1820	2177	2925
	1,5	190	193	132	85	42	65	77	101	1033	1605	1895	2493
4000	3	176	178	121	76	55	87	104	139	1349	2150	2564	3428
	1,5	212	217	149	96	50	76	89	117	1221	1876	2206	2881
5000	3	234	236	160	101	55	87	104	139	1349	2150	2564	3428
	1,5	282	288	198	127	50	76	89	117	1221	1876	2206	2881

UPPER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	1,4	138	182	194	215	247	353	410	511	895	88
	0,7	134	178	186	207	228	334	373	471	223	22
300	1,4	198	256	268	289	307	428	485	585	895	88
	0,7	194	252	261	281	287	408	447	546	223	22
500	1,4	351	448	460	481	460	619	676	776	895	88
	0,7	347	444	452	472	440	599	639	737	223	22
800	1,4	519	663	676	702	655	887	947	1073	1936	190
	0,7	517	659	670	693	646	867	921	1032	484	47
1000	1,4	744	951	970	1011	963	1309	1401	1596	1861	183
	0,7	739	942	958	992	943	1264	1342	1504	465	46
1500	1,4	1033	1324	1354	1415	1389	1894	2035	2329	3097	304
	0,7	1024	1306	1329	1378	1347	1805	1919	2152	774	76
2000	1,4	1422	1816	1849	1920	1845	2488	2651	2989	3733	366
	0,7	1411	1792	1819	1873	1792	2375	2504	2766	933	91
2500	3	1472	1900	1953	2064	2098	2909	3162	3696	2878	282
	1,5	1458	1870	1914	2004	2032	2768	2977	3409	720	71
3000	3	2081	2669	2729	2853	2799	3822	4107	4706	2878	282
	1,5	2065	2633	2682	2781	2719	3650	3882	4360	720	71
4000	3	2657	3398	3467	3611	3511	4760	5091	5782	5530	542
	1,5	2636	3353	3408	3520	3409	4541	4805	5345	1382	136
5000	3	3441	4378	4447	4591	4295	5740	6071	6762	5530	542
	1,5	3420	4333	4388	4500	4193	5521	5785	6325	1382	136

FOR PRESSURE DROP AND EXCHANGER POWER, SEE PAGE 58-59

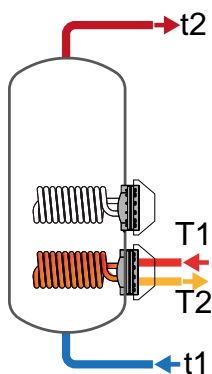
EXTRA 2 PLUS

HEAT EXCHANGERS TECHNICAL DATA



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

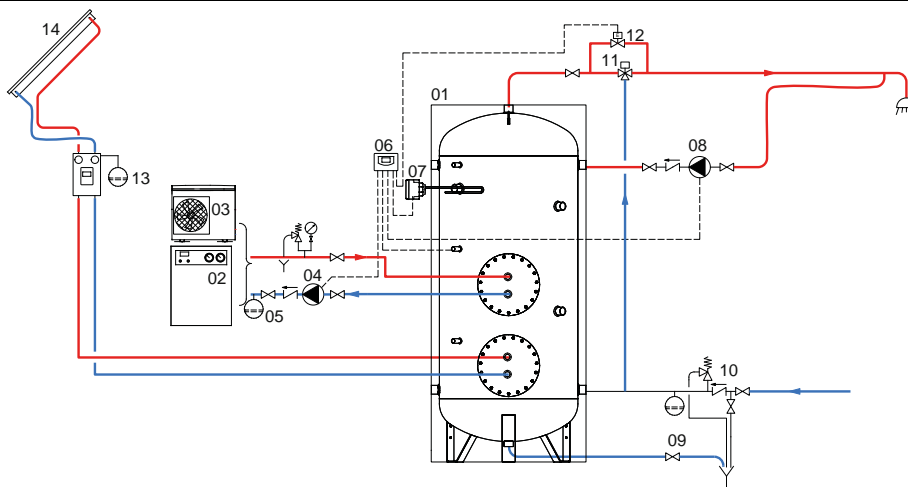
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	1,4	95	97	65	40	7	11	14	19	172	270	342	467
	0,7	106	107	72	45	6	10	12	17	147	246	295	418
300	1,4	119	118	79	49	9	14	17	24	214	353	428	586
	0,7	130	131	87	54	8	13	16	21	203	329	396	535
500	1,4	132	132	89	55	14	23	28	37	347	565	680	923
	0,7	150	151	103	65	13	21	25	33	321	509	606	809
800	1,4	137	138	94	59	23	36	44	56	562	900	1076	1443
	0,7	164	167	115	73	21	32	38	49	510	789	931	1222
1000	1,4	154	155	105	67	27	43	51	68	668	1062	1265	1688
	0,7	187	191	132	85	24	37	44	57	602	921	1082	1409
1500	3	139	140	95	59	40	65	77	104	988	1594	1910	2577
	1,5	162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	3	168	169	115	72	46	74	88	118	1133	1820	2177	2925
	1,5	199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	3	163	164	112	71	55	87	104	139	1349	2150	2564	3428
	1,5	197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	3	214	216	147	93	55	87	104	139	1349	2150	2564	3428
	1,5	258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3	274	276	187	118	55	87	104	139	1349	2150	2564	3428
	1,5	330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	3	361	364	247	156	55	87	104	139	1349	2150	2564	3428
	1,5	436	445	305	196	50	76	89	117	1221	1876	2206	2881

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	1,4	212	274	285	306	320	445	502	602	895	88
	0,7	207	270	278	298	301	425	464	563	223	22
300	1,4	313	406	418	445	449	630	690	816	1936	190
	0,7	312	402	413	436	440	610	664	775	484	47
500	1,4	547	706	725	765	767	1063	1155	1350	1861	183
	0,7	543	696	712	746	746	1019	1096	1259	465	46
800	1,4	896	1153	1182	1243	1252	1723	1864	2157	3097	304
	0,7	887	1134	1158	1207	1210	1634	1748	1980	774	76
1000	1,4	1158	1486	1519	1590	1581	2158	2321	2659	3733	366
	0,7	1147	1462	1489	1543	1528	2045	2174	2436	933	91
1500	3	1622	2087	2140	2251	2248	3097	3349	3883	2878	282
	1,5	1608	2058	2101	2191	2182	2955	3164	3596	720	71
2000	3	2185	2799	2859	2983	2903	3952	4237	4836	2878	282
	1,5	2169	2763	2812	2911	2823	3780	4012	4490	720	71
2500	3	2496	3197	3266	3410	3350	4559	4890	5581	4588	450
	1,5	2474	3151	3206	3319	3248	4339	4603	5143	1147	112
3000	3	3189	4064	4133	4277	4044	5426	5757	6448	5530	542
	1,5	3168	4018	4073	4186	3941	5207	5471	6011	1382	136
4000	3	4002	5080	5149	5293	4856	6441	6773	7464	5530	542
	1,5	3981	5034	5089	5202	4754	6222	6486	7026	1382	136
5000	3	5193	6568	6637	6781	6047	7930	8261	8952	5530	542
	1,5	5172	6523	6578	6690	5945	7711	7975	8515	1382	136

EXAMPLE OF INSTALLATION WITH EXTRA 2 PLUS



1	EXTRA 2 PLUS	5	Expansion vessel	9	Blowdown valve	13	Solar system circulation group
2	Generator	6	Electronic control /thermostat	10	Hydraulic safety group	14	Solar panels
3	Heat pump generator	7	Electric immersion heater (optional)	11	Thermostatic mixing valve		
4	Circulation group	8	D.H.W. recirculation group	12	By-pass solenoid valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 3 PLUS

POLYWARM® COATED CALORIFIERS WITH 3 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

3 copper finned and tinned heat exchangers.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

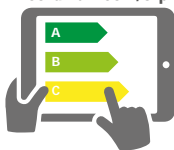
See Accessories section for the entire list.



EXTRA 3 PLUS WRC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE			ENERGY EFFICIENCY CLASS
		Lower	Middle	Upper	
500	3092162352340	1,58	0,76	0,76	C
1000	3092162352341	3,17	1,58	0,94	C
1500	3092162352342	4,54	2,63	1,58	C
2000	3092162352343	5,26	4,54	2,63	C
3000	3092162352345	6,34	5,26	3,17	
5000	3092162352347	6,34	6,34	5,26	

cordivari.com/erp



On line ErP label tool

ACCESSORIES

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

Titanium electronic anode

Art. Nr.	Model
5200000000011	1500
5200000000013	2000÷5000



Thermometer

Art. Nr.
5032240000107
5 units box



Electric heaters

See Accessories section



EXTRA 3 PLUS

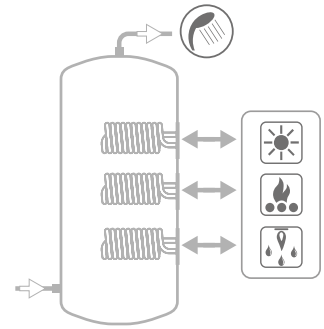
POLYWARM® COATED CALORIFIERS WITH 3 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
P _{max}	T _{max}	P _{max}	T _{max}
6 bar	90 °C	12 bar	110 °C

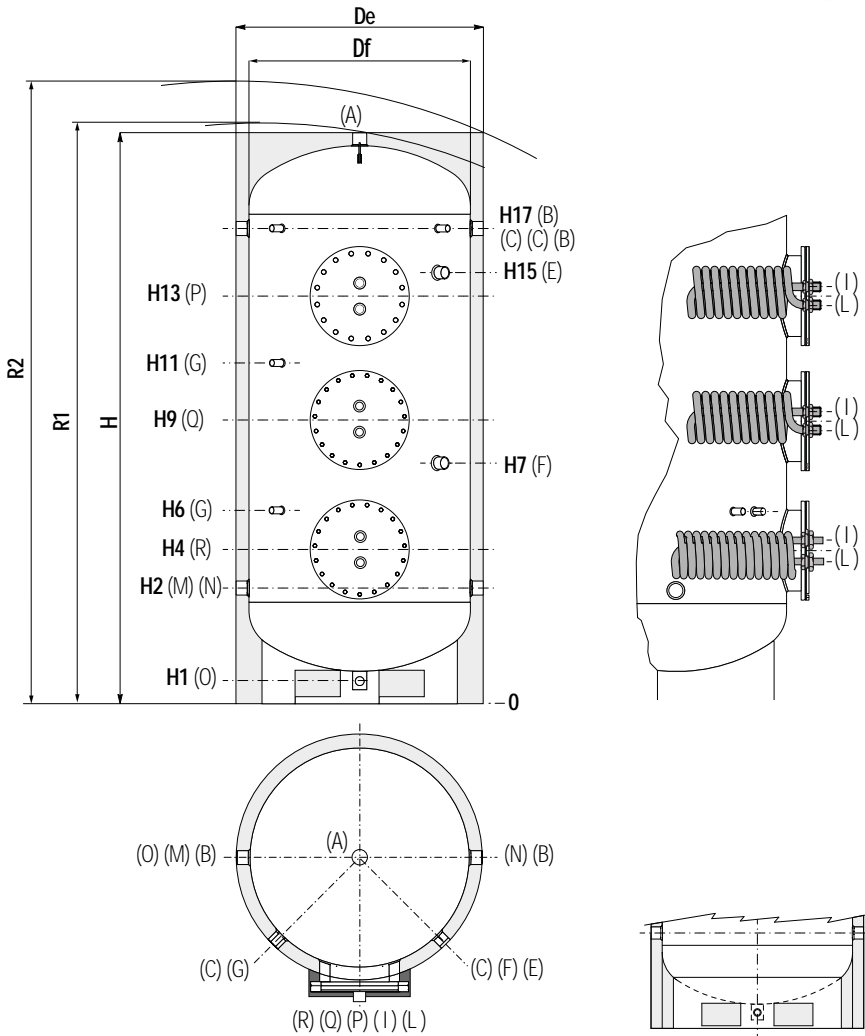


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet 1" 1/2 F
C-G	Connection for instrumentation 1/2" F
E	Connection for 2nd magnesium anode 1"1/4 F (Only for models > 1500)
F	Connection for magnesium anode 1"1/4 F
I	Primary circuit inlet heat exchanger
L	Primary circuit outlet heat exchanger
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Upper heat exchanger flange
Q	Middle heat exchanger flange
R	Lower heat exchanger flange

Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Mod.	Vol.	Weight	De	Df	H	R1	R2	H1	H2	H4	H6	H7	H9
	[lt]	[kg]											
500	500	120	870	650	1891	1990	2090	126	416	501	611	801	951
1000	1360	220	1070	850	2198	2240	3140	89	454	562	649	989	1112
1500	1455	227	1210	950	2440	2495	2730	109	440	675	825	1075	1250
2000	1991	278	1360	1100	2492	2570	2850	91	467	692	867	842	1262
3000	2933	377	1350	1250	2811	2950	3130	140	551	836	1011	1036	1476
5000	4996	634	1700	1600	2915	3130	3380	94	580	855	1030	1035	1505

Mod.	H9	H11	H15	H16	H17	R-Q	P	A-B-M-N	O	I-L		
										lower	middle	upper
	[mm]											
500	951	1061	1401	//	1526	Ø1220/Øe300	Øi220/Øe300	1"1/4	1"1/4	1"	1"	1"
1000	1112	1249	1612	//	1760	Ø1300/Øe380	Øi300/Øe380	1"1/2	1"1/2	1"	1"	1"
1500	1250	1400	1875	//	2050	Ø1300/Øe380	Øi300/Øe380	2"	1"	1"1/4	1"	1"
2000	1262	1437	1817	1592	2057	Ø1350/Øe430	Øi300/Øe380	2"	1"	1"1/4	1"1/4	1"
3000	1476	1651	2176	1926	2391	Ø1350/Øe430	Øi300/Øe380	2"	1"	1"1/4	1"1/4	1"
5000	1505	1680	2115	1855	2420	Ø1350/Øe430	Øi300/Øe430	2"	1"	1"1/4	1"1/4	1"1/4

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 3 PLUS

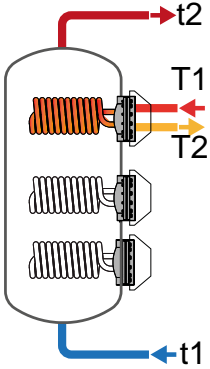
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

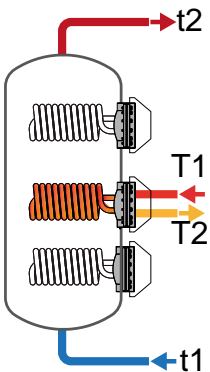
UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
500	1,4	175	175	115	70	7	11	14	19	172	270	342	467
	0,7	192	193	127	79	6	10	12	17	147	246	295	418
1000	1,4	247	248	162	99	9	14	17	24	214	353	428	586
	0,7	274	276	182	112	8	13	16	21	203	329	396	535
1500	1,4	122	122	81	50	14,1	22,9	27,6	37,4	562	900	1076	1443
	0,7	142	144	96	60	13	21	25	33	510	789	931	1222
2000	1,4	122	123	83	52	23	36	44	56	668	1062	1265	1688
	0,7	148	151	103	66	21	32	38	49	602	921	1082	1409
3000	1,4	128	129	87	56	27	43	51	68	668	1062	1265	1688
	0,7	156	159	110	71	24	37	44	57	602	921	1082	1409
5000	3	154	156	105	66	46	74	88	118	1349	2150	2564	3428
	1,5	183	186	127	81	42	65	77	101	1221	1876	2206	2881

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
500	1,4	178	232	244	265	287	403	460	561	895	88
	0,7	174	228	236	257	268	384	423	521	223	22
1000	1,4	325	420	433	459	460	644	704	830	1936	190
	0,7	323	416	427	451	452	625	678	789	484	47
1500	1,4	456	603	632	693	812	1173	1314	1607	1861	182,5
	0,7	447	584	608	657	770	1084	1198	1430	465	45,6
2000	1,4	694	906	939	1010	1117	1578	1741	2079	3097	303,7
	0,7	683	882	909	963	1064	1465	1594	1856	774	75,9
3000	1,4	902	1166	1199	1270	1325	1838	2001	2339	3733	366
	0,7	891	1142	1169	1223	1272	1725	1854	2116	933	91,5
5000	3	1831	2365	2434	2578	2685	3727	4058	4750	2878	282,2
	1,5	1809	2320	2375	2487	2583	3508	3772	4312	720	70,6

MIDDLE
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
500	1,4	175	175	115	70	7	11	14	19	172	270	342	467
	0,7	192	193	127	79	6	10	12	17	147	246	295	418
1000	1,4	187	187	125	77	14	23	28	37	347	565	680	923
	0,7	213	216	145	91	13	21	25	33	321	509	606	809
1500	1,4	168	170	115	72	23	36	44	56	562	900	1076	1443
	0,7	204	208	142	91	21	32	38	49	510	789	931	1222
2000	3	136	134	91	57	40	65	77	104	988	1594	1910	2577
	1,5	162	165	113	71	37	57	68	90	906	1417	1678	2218
3000	3	160	161	109	69	46	74	88	118	1133	1820	2177	2925
	1,5	190	193	132	85	42	65	77	101	1033	1605	1895	2493
5000	3	234	236	160	101	55	87	104	139	1349	2150	2564	3428
	1,5	282	288	198	127	50	76	89	117	1221	1876	2206	2881

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
500	1,4	346	442	454	475	455	613	670	771	1861	183
	0,7	342	438	446	467	436	594	633	731	465	46
1000	1,4	684	877	896	937	904	1235	1327	1521	3733	366
	0,7	680	868	884	918	883	1190	1268	1430	933	91
1500	1,4	1033	1324	1354	1415	1389	1894	2035	2329	3097	303,7
	0,7	1024	1306	1329	1378	1347	1805	1919	2152	774	75,9
2000	3	1476	1904	1957	2068	2101	2914	3167	3700	2878	282,2
	1,5	1462	1875	1918	2008	2036	2772	2981	3413	720	70,6
3000	3	2081	2669	2729	2853	2799	3822	4107	4706	2878	282,2
	1,5	2065	2633	2682	2781	2719	3650	3882	4360	720	70,6
5000	3	3441	4378	4447	4591	4295	5740	6071	6762	5530	542,3
	1,5	3420	4333	4388	4500	4193	5521	5785	6325	1382	135,5

FOR PRESSURE DROP AND EXCHANGER POWER, SEE PAGE 58-59

EXTRA 3 PLUS

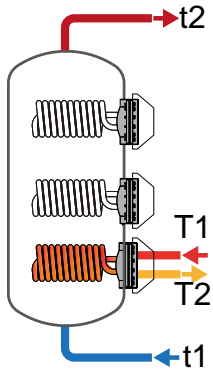
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

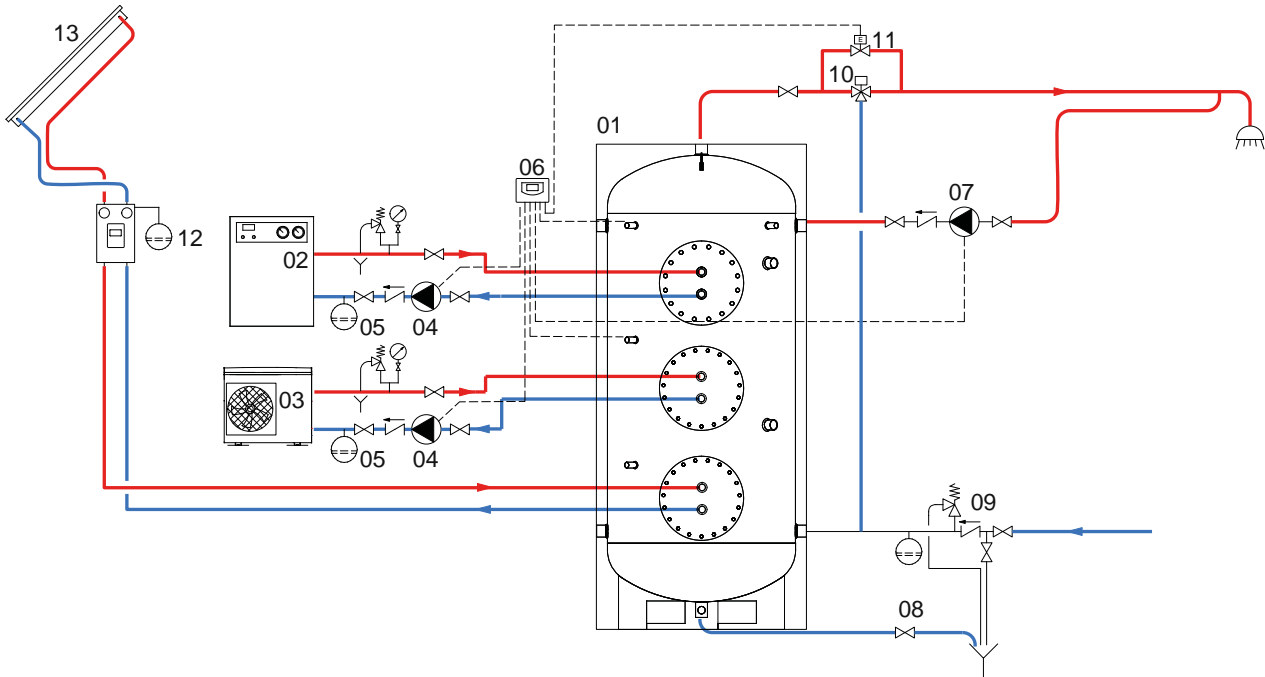
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
500	1,4	132	132	89	55	14	23	28	37	347	565	680	923
	0,7	150	151	103	65	13	21	25	33	321	509	606	809
1000	1,4	154	155	105	67	27	43	51	68	668	1062	1265	1688
	0,7	187	191	132	85	24	37	44	57	602	921	1082	1409
1500	3	139	140	95	59	40	65	77	104	988	1594	1910	2577
	1,5	162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	3	168	169	115	72	46	74	88	118	1133	1820	2177	2925
	1,5	199	202	139	89	42	65	77	101	1033	1605	1895	2493
3000	3	214	216	147	93	55	87	104	139	1349	2150	2564	3428
	1,5	258	263	181	117	50	76	89	117	1221	1876	2206	2881
5000	3	361	364	247	156	55	87	104	139	1349	2150	2564	3428
	1,5	436	445	305	196	50	76	89	117	1221	1876	2206	2881

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
500	1,4	549	708	728	768	769	1066	1158	1353	1861	183
	0,7	545	699	715	749	748	1021	1099	1261	465	46
1000	1,4	1096	1408	1442	1513	1520	2081	2243	2582	3733	366
	0,7	1085	1385	1412	1466	1467	1968	2097	2359	933	91
1500	1,4	1622	2087	2140	2251	2248	3097	3349	3883	2878	282,2
	0,7	1608	2058	2101	2191	2182	2955	3164	3596	720	70,6
2000	1,4	2185	2799	2859	2983	2903	3952	4237	4836	2878	282,2
	0,7	2169	2763	2812	2911	2823	3780	4012	4490	720	70,6
3000	1,4	3189	4064	4133	4277	4044	5426	5757	6448	5530	542,3
	0,7	3168	4018	4073	4186	3941	5207	5471	6011	1382	135,5
5000	3	5193	6568	6637	6781	6047	7930	8261	8952	5530	542,3
	1,5	5172	6523	6578	6690	5945	7711	7975	8515	1382	135,5

EXAMPLE OF INSTALLATION WITH EXTRA 3 PLUS



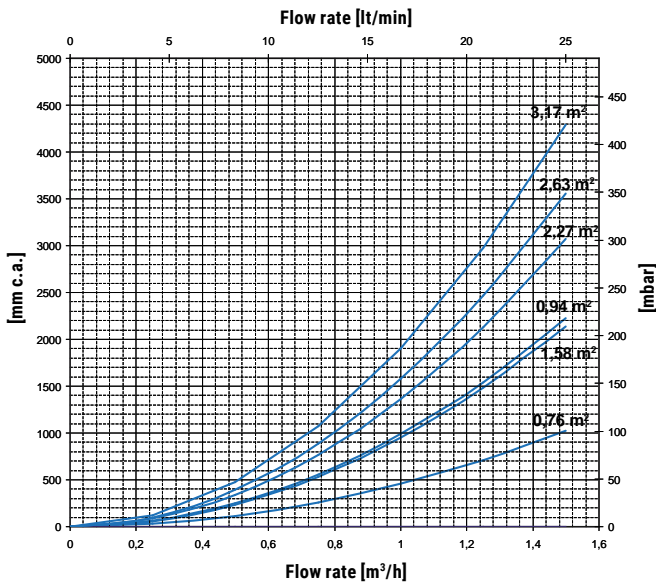
1	EXTRA 3 PLUS	5	Expansion vessel	9	Hydraulic safety group	13	Solar panels
2	Generator	6	Electronic control /thermostat	10	Thermostatic mixing valve		
3	Heat pump generator	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Circulation group	8	Blowdown valve	12	Solar system circulation group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

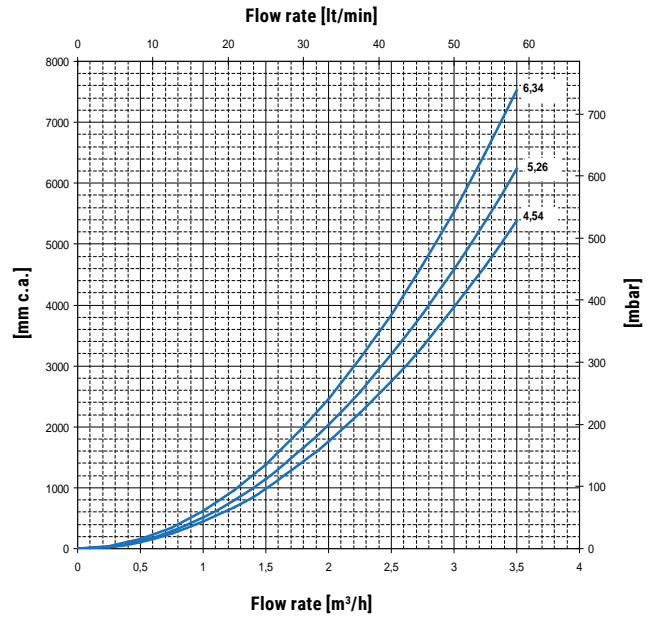
EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat exchanger surface [m²]:
0,76 - 0,94 - 1,58 - 2,63 - 3,17



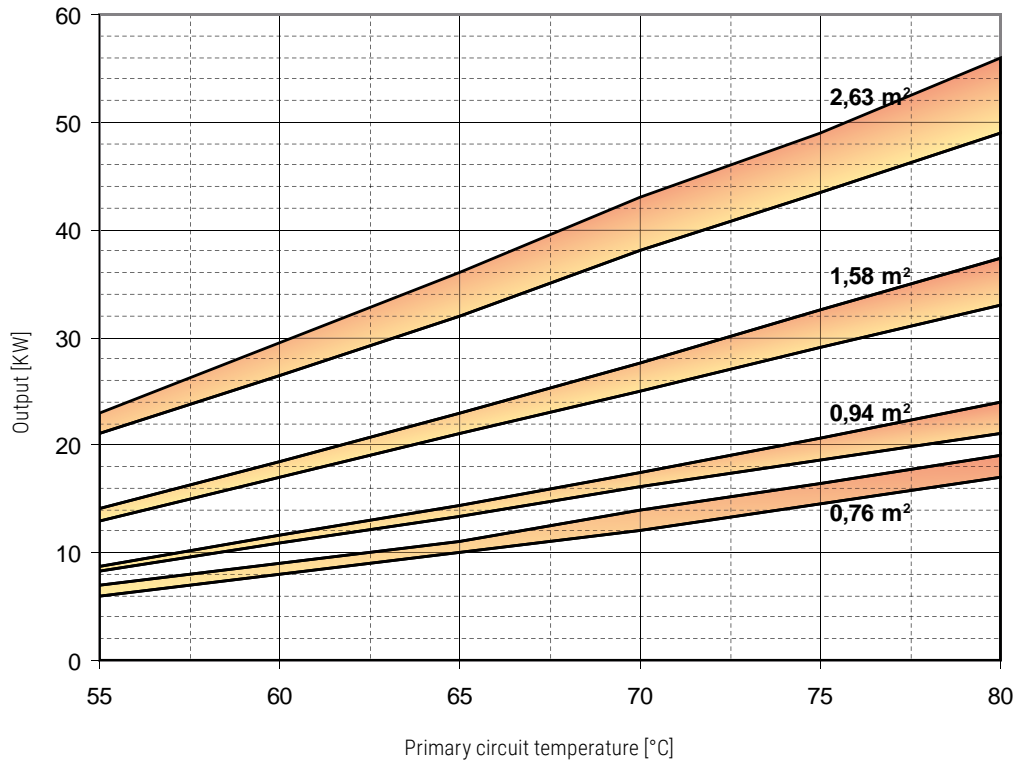
Heat exchanger surface [m²]:
4,54 - 5,26 - 6,34



EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curve refers to the minimum primary flow rate)

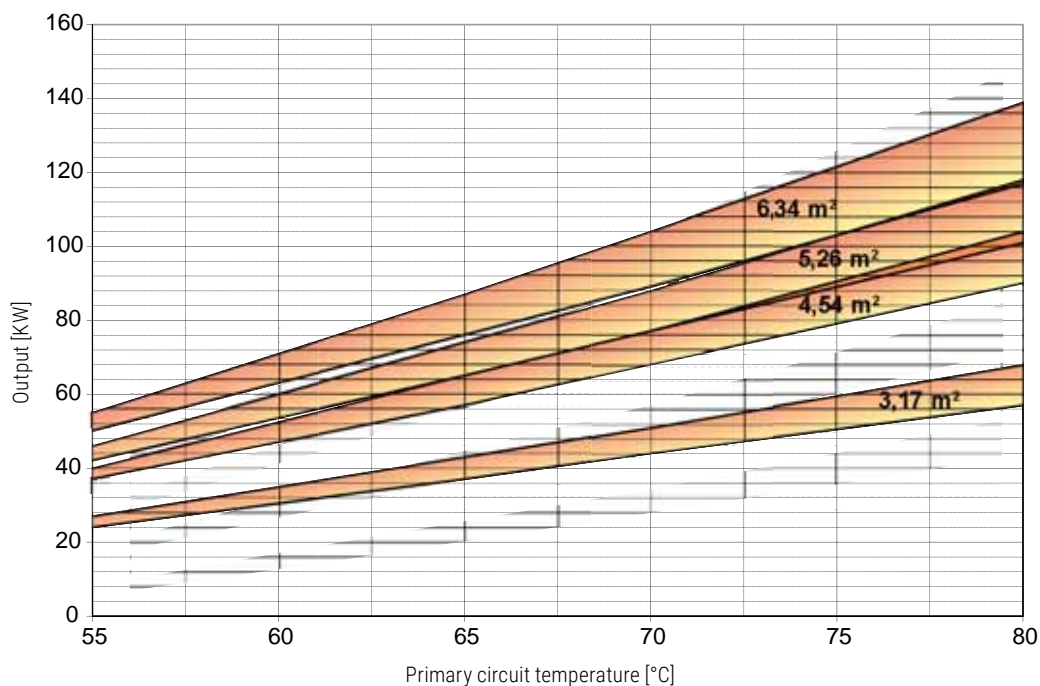


Heat exchanger surface	0,76 m ²		0,94 m ²		1,58 m ²		2,63 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	1,4	0,7	1,4	0,7	1,4	0,7	1,4	0,7

EXTRA PLUS

HEAT EXCHANGERS TECHNICAL DATA

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curve refers to the minimum primary flow rate)



Heat exchanger surface	3,17 m ²		4,54 m ²		5,26 m ²		6,34 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	1,4	0,7	3	1,5	3	1,5	3	1,5

VASO INERZIALE

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK



APPLICATION

Domestic hot water storage.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

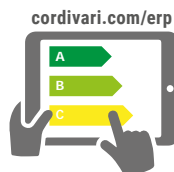
See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



STOCK
AVAILABILITY



cordivari.com/erp
On line ErP label tool



VASO INERZIALE WB

Model _____ HARD FOAM INSULATION
Art. Nr.

Model	Art. Nr.	ENERGY EFFICIENCY CLASS
200	3060162310110	B
300	3060162310111	C
500	3060162310112	C
800	3060162310113	B
1000	3060162310114	C
1500	3060162310115	C
2000	3060162310116	B

ENERGY EFFICIENCY CLASS



VASO INERZIALE WC

Model _____ DISMOUNTABLE SOFT FLEECE insulation
Art. Nr.

Model	Art. Nr.	ENERGY EFFICIENCY CLASS
500	3060161620166	C
800	3060161620167	C
1000	3060161620168	C
1500	3060161620169	C
2000	3060161620170	C
2500	3060161620171	
3000	3060161620172	
4000	3060161620173	
5000	3060161620174	

ENERGY EFFICIENCY CLASS



ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	87	65	44
300	136	102	68
500	228	171	114
800	318	239	159
1000	436	327	218
1500	516	387	258
2000	793	595	396
2500	1033	775	517
3000	1033	775	517
4000	1428	1071	714
5000	1864	1398	932

THREEPHASE

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



Electric heaters

See Accessories section



See Accessories section



VASO INERZIALE

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK

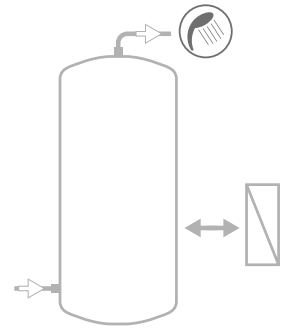
STORAGE

Model	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C
1500 ÷ 5000	6 bar	

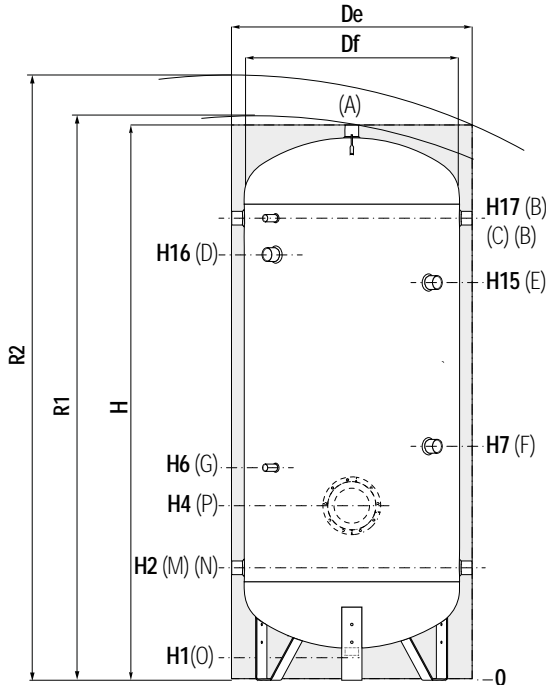


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

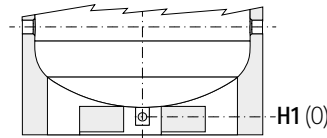
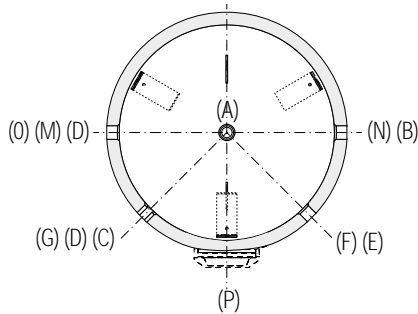


COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 1 1/2" F For models > 800 connections 2" G F
- E** Connection for 2nd magnesium anode 1 1/4" F (only for models > 1500)
- F** Connection for magnesium anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks
- O** Drain
- P** Flange (only for models > 1000)



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

VASO INERZIALE WB - HARD FOAM INSULATION

Mod.	Vol. Weight		De	H	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	Connections F		
	[lt]	[kg]													A	B-M-N	O
200	192	41	550	1449	1560	85	325	//	520	650	//	1075	1185	//	1 1/4	1 1/4	1 1/4
300	293	52	650	1499	1640	85	350	//	545	735	//	1100	1210	//	1 1/4	1 1/4	1 1/4
500	501	69	750	1800	1960	85	375	//	570	760	//	1329	1485	//	1 1/4	1 1/4	1 1/4
800	792	111	900	2135	2330	85	405	//	600	870	//	1610	1765	//	1 1/4	1 1/4	1 1/4
1000	1041	150	1000	2221	2450	105	458	//	653	993	//	1664	1818	//	1 1/2	1 1/2	1 1/2
1500	1443	186	1100	2415	2660	109	440	525	635	1075	//	1895	2050	Øi170/Øe240	1 1/2	2"	1"
2000	1975	223	1300	2492	2820	91	467	542	652	842	1952	1877	2057	Øi170/Øe240	2"	2"	1"

VASO INERZIALE WC - DISMOUNTABLE SOFT FLEECE INSULATION

Mod.	Vol. Weight		De	Df	H	R1	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	Connections F		
	[lt]	[kg]															A	B-M-N	O
500	500	83	870	650	1891	1998	2090	101	416	//	611	801	//	1370	1526	//	1 1/4	1 1/4	1 1/4
800	792	111	970	750	2188	2220	2400	113	433	//	628	898	//	1638	1793	//	1 1/4	1 1/4	1 1/4
1000	1041	150	1070	850	2242	2270	2490	101	454	//	649	989	//	1660	1814	//	1 1/2	1 1/2	1 1/4
1500	1443	186	1210	950	2440	2495	2730	109	440	525	635	1075	//	1895	2050	Øi170/Øe240	1 1/2	2"	1 1/4
2000	1975	223	1360	1100	2492	2570	2850	91	467	542	652	842	1952	1877	2057	Øi170/Øe240	2"	2"	1 1/2
2500	2311	267	1350	1250	2311	2480	2690	140	551	626	736	976	1816	1732	1891	Øi170/Øe240	2"	2"	1"
3000	2917	313	1350	1250	2811	2950	3130	140	551	626	736	876	2316	2232	2391	Øi170/Øe240	2"	2"	1"
4000	3765	435	1500	1400	2875	3050	3250	114	570	645	755	895	2315	2238	2410	Øi170/Øe240	2"	2"	1"
5000	4979	558	1700	1600	2915	3130	3380	94	580	655	765	935	2335	2265	2420	Øi170/Øe240	2"	2"	1"



VASO STORAGE A1 W

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH FIREPROOF INSULATION AND ALUMINIUM EXTERNAL COVER



APPLICATION

Domestic hot water storage.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION

Complete fireproof class A1 insulation in compliance with EN 13501, consisting of:

- Glass/rock wool high thermal insulation

- Aluminium cover hinged and removable.

The models 3000-4000-5000 are supplied with non-assembled insulation.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

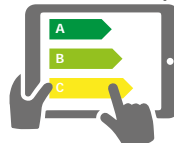
See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



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VASO INERZIALE A1 W



Model	NON-REMOVABLE metallic cover	Energy Efficiency Class
	Art. Nr.	
300	3060161621403	C
500	3060161621174	C
800	3060161621175	C
1000	3060161621176	C
1500	3060161621177	C
2000	3060161621178	C



VASO INERZIALE A1 W

Model	REMOVABLE metallic cover	Energy Efficiency Class
	Art. Nr.	
2500	3060161621409	C
3000	3060161621411	C
5000	3060161621414	C



VASO INERZIALE A1 W

Model	REMOVABLE metallic cover	Energy Efficiency Class
	Art. Nr.	
Lowered models 2500	3060161621410	C
3000	3060161621412	C
4000	3060161621413	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater (lt)

300	229
500	411
800	640
1000	718
1500	1031
2000	1345
2500	1652
3000	2266
4000	2810
5000	3814

THREEPHASE

	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Heating time with electric resistances from 10 °C to 60 °C					
	51	//	//	//	//
	85	68	57	//	//
	120	96	80	//	//
	163	131	109	73	54
	194	155	129	86	65
	297	238	198	132	99
	387	310	258	172	129
	387	310	258	172	129
	535	428	357	238	178
	699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



See Accessories section



VASO STORAGE A1 W

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH FIREPROOF INSULATION AND ALUMINIUM EXTERNAL COVER

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

STORAGE	
Pmax	Tmax
7 bar	90 °C

COMPLETE YOUR SYSTEM WITH
THE NEW PRS MODULE (FOR
IMMEDIATE DHW PREPARATION)

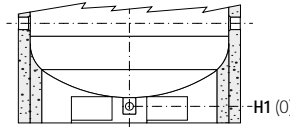
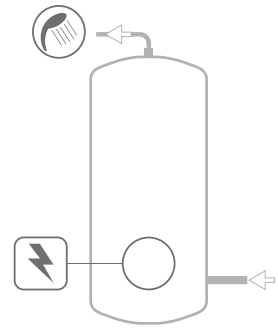


SEE HYDRONIC SECTION

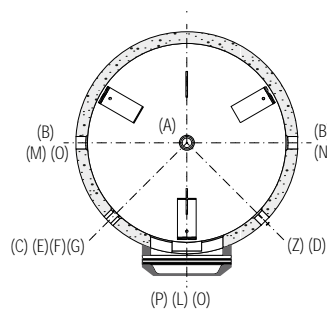


CORDIVARI Lab

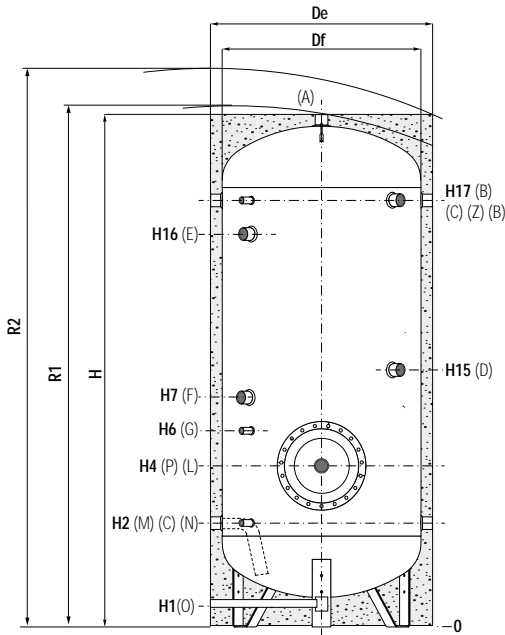
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.



- A** Domestic hot water outlet
- B** Backflow external heat exchanger / Recirculation
- C-G** Connection for instrumentation 1/2" G F
- D-L** Connection for electric immersion heater
- E** Connection for 2nd magnesium anode 1" 1/4 G F (Models >1500)
- F** Connection for magnesium anode 1" 1/4 G F
- M** Domestic cold water circuit inlet
- N** Delivery to external heat exchanger
- O** Drain
- P** Flange for inspection
- Z** Connection for electric immersion heater 1" 1/2 G F



Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H1	H2	H4	
											[mm]
300	289	52	//	750	1599	//	1770	135	400	485	
500	501	69	//	850	1901	//	2080	126	416	501	
800	789	111	//	950	2188	//	2390	113	433	568	
1000	1007	150	//	1050	2188	//	2430	101	454	739	
1500	1421	186	//	1200	2228	//	2530	107	458	743	
2000	2005	223	//	1450	2111	//	2560	140	551	826	
2500	2308	267	1250	1450	2361	2670	2770	140	551	826	
3000	2913	313	1250	1450	2861	3120	3210	140	551	826	
5000	4975	558	1600	1800	2965	3370	3470	94	580	855	
Lowered models	2500	2620	450	1400	1600	2175	2590	2700	114	570	845
	3000	3021	491	1500	1700	2190	2660	2770	109	575	850
	4000	3983	665	1600	1800	2465	2940	3050	94	580	855

Model	H6	H7	H15	H16	H17	P	O	M-N-B	D	L	A	
												[mm]
300	595	735	835	//	1260	Øi220/Øe300	1"1/4	1"1/4	1"1/2	2"	1"1/4	
500	611	881	981	//	1536	Øi220/Øe300	1"1/4	1"1/4	1"1/2	2"	1"1/4	
800	718	1018	1118	//	1793	Øi300/Øe380	1"1/4	1"1/4	1"1/2	2"	1"1/4	
1000	939	1139	1239	//	1760	Øi430/Øe512	1"1/2	1"1/2	2"1/2	2"1/2	1"1/2	
1500	943	1143	1243	//	1818	Øi430/Øe512	1"	1"1/2	2"1/2	2"1/2	2"	
2000	1026	1176	1286	1491	1641	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"	
2500	1026	1221	1321	1666	1891	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"	
3000	1026	1376	1476	2166	2391	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"	
5000	1055	1355	1475	2195	2420	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"	
Lowered models	2500	1045	1195	1295	1510	1660	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"
	3000	1050	1200	1300	1515	1665	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"
	4000	1055	1205	1325	1770	1920	Øi430/Øe512	1"	2"	2"1/2	2"1/2	2"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

VASO STORAGE 1

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 1 BLIND FLANGE



APPLICATION

Domestic hot water storage.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

1 blind flange

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

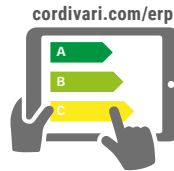
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



On line ErP label tool



VASO STORAGE 1 WB

Model	HARD FOAM INSULATION		ENERGY EFFICIENCY CLASS ErP
	Art. Nr.		
200	3072162360540		B
300	3072162360541		C
500	3072162360542		C
800	3072162360543		B
1000	3072162360544		C
1500	3072162360545		C
2000	3072162360546		B



VASO STORAGE 1 WC

Model	DISMOUNTABLE SOFT FLEECE insulation		ENERGY EFFICIENCY CLASS ErP
	Art. Nr.		
500	3072162360547		C
800	3072162360548		C
1000	3072162360549		C
1500	3072162360550		C
2000	3072162360551		C
2500	3072162360552		
3000	3072162360553		
4000	3072162360554		
5000	3072162360555		

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Titanium electronic anode

For art. nr. and prices please see Accessories section



Thermometer

Art. Nr.
5032240000107
5 units box



VASO STORAGE 1

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 1 BLIND FLANGE

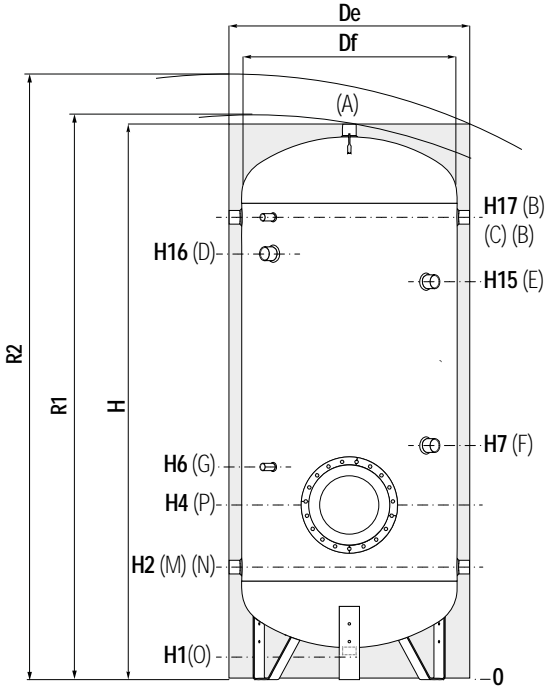
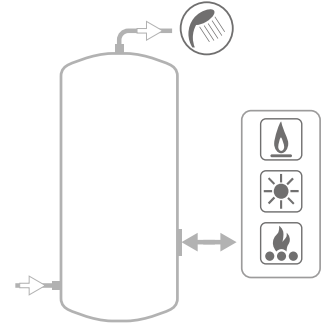
EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

STORAGE		
Model	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C
1500 ÷ 5000	6 bar	



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

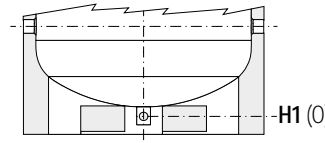
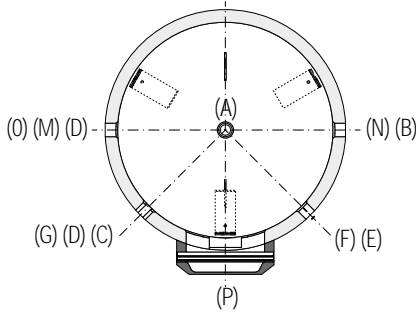


COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 1 1/2" F For models > 800 connections 2" G F
- E** Connection for 2nd magnesium anode 1 1/4" F (only for models > 1500)
- F** Connection for magnesium anode 1" 1/4" G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks
- O** Drain
- P** Flange



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

VASO STORAGE 1 WB - HARD FOAM INSULATION

Model	Volume [lt]	Weight [kg]	De	H	R1	H1	H2	H4	H6	H7	H15	H16	H17	P	B-M-N A O		
															Connections F		
200	191	51	550	1449	1560	85	325	410	520	650	//	1075	1185	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4
300	292	64	650	1499	1640	85	350	435	545	735	//	1100	1210	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4
500	500	89	750	1800	1960	85	375	460	570	760	//	1329	1485	Øi220/Øe300	1" 1/4	1" 1/4	1" 1/4
800	794	149	900	2135	2330	85	405	540	690	870	//	1610	1765	Øi300/Øe380	1" 1/4	1" 1/2	1" 1/4
1000	1042	170	1000	2221	2450	105	458	593	743	993	//	1664	1818	Øi300/Øe380	1" 1/2	2"	1" 1/2
1500	1445	231	1100	2415	2660	109	440	675	825	1075	//	1895	2050	Øi300/Øe380	1" 1/2	2"	1"
2000	1978	367	1300	2492	2820	91	467	692	867	842	1952	1877	2057	Øi350/Øe430	2"	2"	1"

VASO STORAGE 1 WC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Weight [kg]	De	DF	H	R1	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	B-M-N A O		
																	Connections F		
500	500	94	870	650	1891	1998	2090	101	416	501	611	801	//	1370	1526	Øi220/Øe300	1" 1/4	1" 1/2	1" 1/4
800	792	147	970	750	2188	2220	2400	113	433	568	718	898	//	1638	1793	Øi300/Øe380	1" 1/4	1" 1/2	1" 1/4
1000	1041	167	1070	850	2242	2270	2490	101	454	589	739	989	//	1660	1814	Øi300/Øe380	1" 1/2	2"	1" 1/4
1500	1443	228	1210	950	2440	2495	2730	109	440	675	825	1075	//	1895	2050	Øi300/Øe380	1" 1/2	2"	1" 1/4
2000	1975	352	1360	1100	2492	2570	2850	91	467	692	867	842	1952	1877	2057	Øi350/Øe430	2"	2"	1" 1/2
2500	2311	366	1350	1250	2311	2480	2690	140	551	776	951	976	1816	1732	1891	Øi350/Øe430	2"	2"	1"
3000	2917	432	1350	1250	2811	2950	3130	140	551	836	1011	1036	2316	2232	2391	Øi350/Øe430	2"	2"	1"
4000	3765	555	1500	1400	2875	3050	3250	114	570	855	1030	1035	2315	2238	2410	Øi350/Øe430	2"	2"	1"
5000	4979	732	1700	1600	2915	3130	3380	94	580	855	1030	1035	2335	2265	2420	Øi350/Øe430	2"	2"	1"

VASO STORAGE 2

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 2 BLIND FLANGES



APPLICATION

Domestic hot water storage.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

2 blind flanges

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

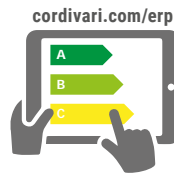
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



On line ErP label tool



VASO STORAGE 2 WB

Model	HARD FOAM INSULATION		ENERGY EFFICIENCY CLASS
	Art. Nr.		
200	3084162360010		B
300	3084162360011		C
500	3084162360012		C
800	3084162360013		B
1000	3084162360014		C
1500	3084162360015		C
2000	3084162360016		B



VASO STORAGE 2 WC

Model	DISMOUNTABLE SOFT FLEECE insulation		ENERGY EFFICIENCY CLASS
	Art. Nr.		
500	3082162360140		C
800	3082162360141		C
1000	3082162360142		C
1500	3082162360143		C
2000	3082162360144		C
2500	3082162360145		
3000	3082162360146		
4000	3082162360147		
5000	3082162360148		

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Titanium electronic anode

For art. nr. and prices please see Accessories section



Thermometer

Art. Nr.
5032240000107
5 units box



VASO STORAGE 2

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 2 BLIND FLANGES

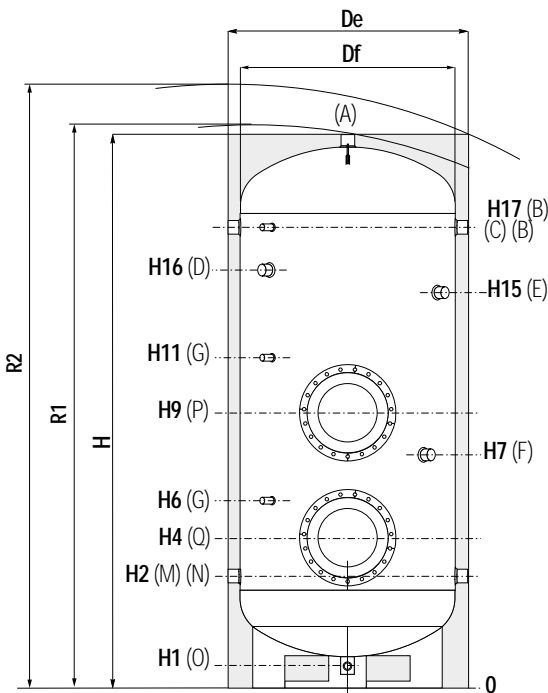
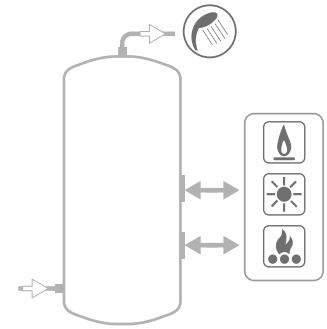
EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

STORAGE		
Model	Pmax	Tmax
200 ÷ 1000	8 bar	90 °C
1500 ÷ 5000	6 bar	



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

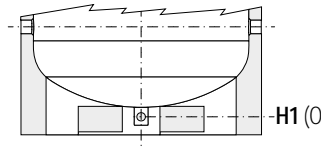
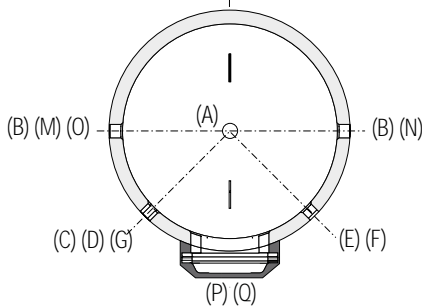


COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 1"1/2 F For models > 800 connections 2" G F
- E** Connection for 2nd magnesium anode 1"1/4 F (only for models > 1500)
- F** Connection for magnesium anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks
- O** Drain
- P-Q** Flange



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

VASO STORAGE 2 WB - HARD FOAM INSULATION

Model	Volume Weight		De	H	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P-Q	B-M-N A O		
	[lt]	[kg]															Connections F		
200	193	54	550	1449	1560	85	325	410	520	650	860	970	//	1075	1185	Øi220/Øe300	1"1/4	1"1/4	1"1/4
300	295	68	650	1499	1640	85	350	435	545	735	885	995	//	1100	1210	Øi220/Øe300	1"1/4	1"1/4	1"1/4
500	503	95	750	1800	1960	85	375	460	570	760	910	1020	//	1329	1485	Øi220/Øe300	1"1/4	1"1/4	1"1/4
800	799	154	900	2135	2330	85	405	540	690	870	1090	1240	//	1610	1765	Øi300/Øe380	1"1/4	1"1/4	1"1/4
1000	1047	176	1000	2221	2450	105	458	593	743	993	1143	1293	//	1664	1818	Øi300/Øe380	1"1/2	1"1/2	1"1/2
1500	1450	236	1100	2415	2660	109	440	675	825	1075	1250	1400	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"
2000	1985	374	1300	2492	2820	91	467	692	867	842	1262	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"

VASO STORAGE 2 WC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume Weight		De	DF	H	R1	R2	H1	H2	H4	H6	H7	H9	H11	H15	H16	H17	P-Q	B-M-N A O		
	[lt]	[kg]																	Connections F		
500	500	100	870	650	1891	1998	2090	101	416	501	611	801	951	1061	//	1370	1526	Øi220/Øe300	1"1/4	1"1/4	1"1/4
800	798	153	970	750	2188	2220	2400	113	433	568	718	898	1118	1268	//	1638	1793	Øi300/Øe380	1"1/4	1"1/4	1"1/4
1000	1047	173	1070	850	2242	2270	2490	101	454	589	739	989	1139	1289	//	1660	1814	Øi300/Øe380	1"1/2	1"1/2	1"1/4
1500	1450	234	1210	950	2440	2495	2730	109	440	675	825	1075	1250	1400	//	1895	2050	Øi300/Øe380	1"1/2	2"	1"1/4
2000	1985	359	1360	1100	2492	2570	2850	91	467	692	867	842	1262	1437	1952	1877	2057	Øi350/Øe430	2"	2"	1"1/2
2500	2322	373	1350	1250	2311	2480	2690	140	551	776	951	976	1376	1551	1816	1732	1891	Øi350/Øe430	2"	2"	1"
3000	2928	439	1350	1250	2811	2950	3130	140	551	836	1011	1036	1476	1651	2316	2232	2391	Øi350/Øe430	2"	2"	1"
4000	3776	561	1500	1400	2875	3050	3250	114	570	855	1030	1035	1495	1670	2315	2238	2410	Øi350/Øe430	2"	2"	1"
5000	4990	739	1700	1600	2915	3130	3380	94	580	855	1030	1035	1505	1680	2335	2265	2420	Øi350/Øe430	2"	2"	1"

VASO STORAGE 3

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 3 BLIND FLANGES



APPLICATION

Domestic hot water storage.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

3 blind flanges

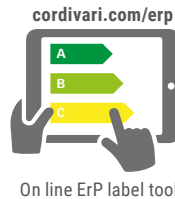
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



VASO STORAGE 3 WC

DISMOUNTABLE SOFT FLEECE insulation



Model	Art. Nr.	ENERGY EFFICIENCY CLASS
500	3092162360140	C
1000	3092162360141	C
1500	3092162360142	C
2000	3092162360143	C
3000	3092162360144	
5000	3092162360145	

ACCESSORIES

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



Thermometer

Art. Nr.
5032240000107
5 units box



See Accessories section

VASO STORAGE 3

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH 3 BLIND FLANGES

EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS

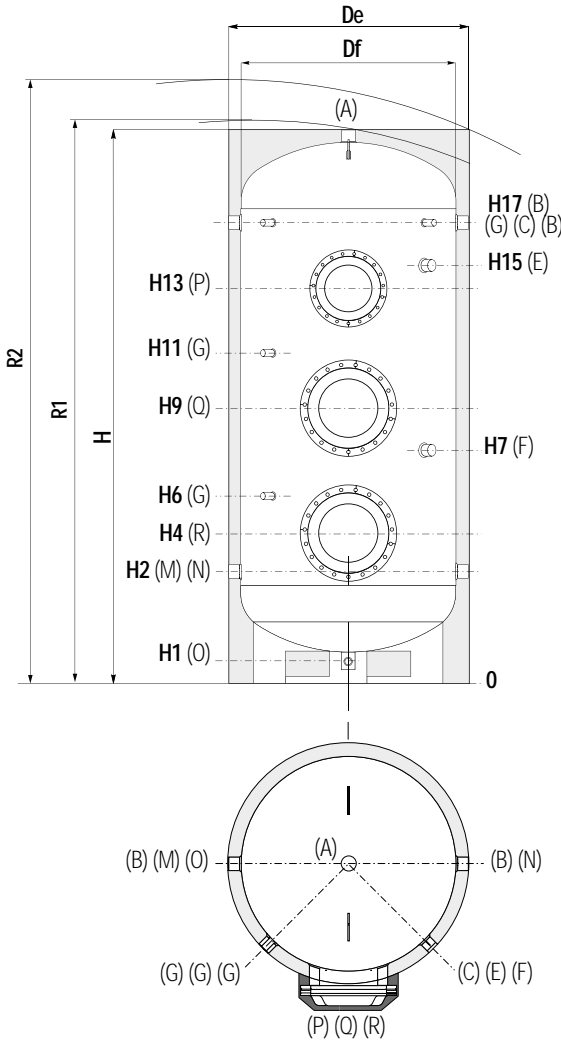
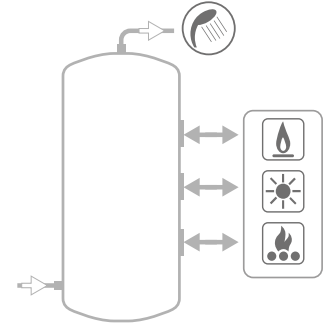
STORAGE

Model	Pmax	Tmax
500 ÷ 1000	8 bar	90 °C
1500 ÷ 5000	6 bar	



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

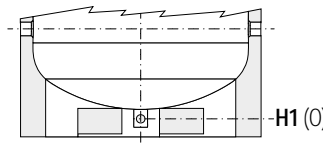


COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet 2" G F
- B** Recirculation / Domestic hot water outlet 1" 1/2 G F. For models > 1500 2" G F
- C** Connection for instrumentation 1/2" G F
- E** Connection for 2nd magnesium anode 1"1/4 F (only for models > 1500)
- F** Connection for magnesium anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet 1" 1/2 G F. For models > 1500 2" G F
- N** Alternative domestic cold water circuit inlet or connection for more tanks 1" 1/2 G F. For models > 1500 2" G F
- O** Drain
- P-Q-R** Flange



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Model	Volume [lt]	Weight [kg]	De	Df	H	R1	R2	[mm]				
								H1	H2	H4	H6	H7
500	500	500	870	650	1891	1990	2090	126	416	501	611	801
1000	1360	1360	1070	850	2198	2240	3140	89	454	562	649	989
1500	1455	1455	1210	950	2440	2495	2730	109	440	675	825	1075
2000	1991	1991	1360	1100	2492	2570	2850	91	467	692	867	842
3000	2933	2933	1350	1250	2811	2950	3130	140	551	836	1011	1036
5000	4996	4996	1700	1600	2915	3130	3380	94	580	855	1030	1035

Model	H9	H11	H13	H15	H17	Q-R	P	O
500	951	1061	1401	//	1526	Ø1220/Øe300	Ø1220/Øe300	1"1/4
1000	1112	1249	1612	//	1760	Ø1300/Øe380	Ø1300/Øe380	1"1/2
1500	1250	1400	1875	//	2050	Ø1300/Øe380	Ø1300/Øe380	1"
2000	1262	1437	1817	1592	2057	Ø1350/Øe430	Ø1300/Øe380	1"
3000	1476	1651	2176	1926	2391	Ø1350/Øe430	Ø1300/Øe380	1"
5000	1505	1680	2115	1855	2420	Ø1350/Øe430	Ø1350/Øe430	1"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

VASO STORAGE COMPACT

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK
SUITABLE FOR LOW-CEILINGED ROOMS



APPLICATION

Domestic hot water storage.
Suitable for low-ceilinged rooms.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

1 blind flange

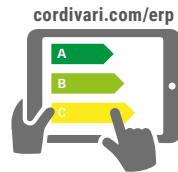
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



VASO STORAGE COMPACT WC

DISMOUNTABLE SOFT FLEECE

insulation

Model _____ Art. Nr. _____

1500 3072162360556 **C**

2000 3072162360557 **C**

2500 3072162360558

3000 3072162360559

4000 3072162360560



ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

1500	443
2000	577
2500	797
3000	874
4000	924

MONOPHASE

1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
793	595	396
1033	775	517
1428	1071	714
1565	1173	782
1655	1241	828

THREEPHASE

4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
297	238	198	132	99
387	310	258	172	129
535	428	357	238	178
587	469	391	261	196
621	497	414	276	207

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000011	1500
5200000000013	2000+4000



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

VASO STORAGE COMPACT

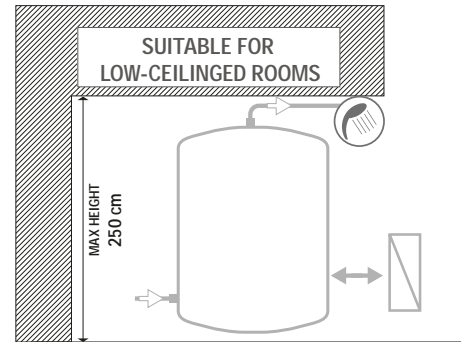
POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK
SUITABLE FOR LOW-CEILINGED ROOMS

STORAGE	
Pmax	Tmax
6 bar	90 °C

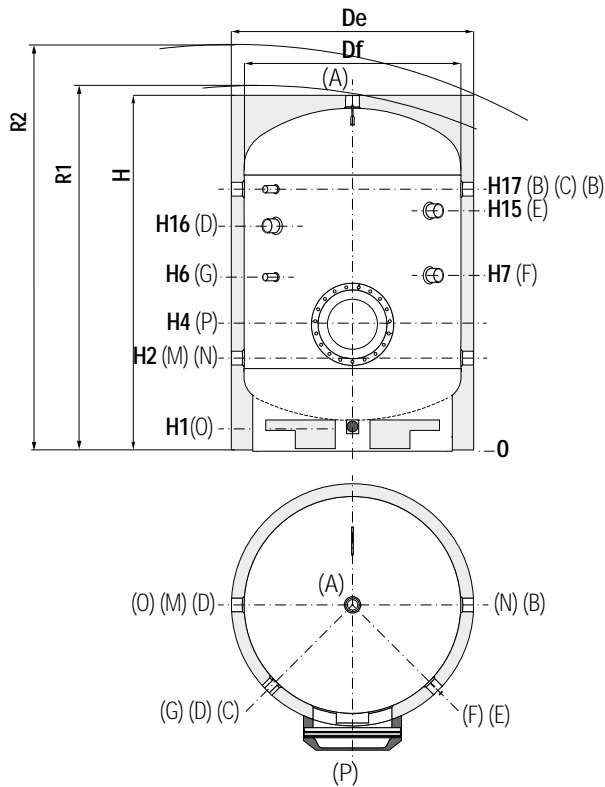


CORDIVARI Lab

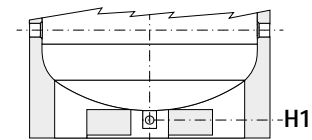
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



EXTRA CALORIFIERS AND
DHW ACCUMULATION
TANKS



- A** Domestic hot water outlet 2" G F
- B** Recirculation / Domestic hot water outlet 2" G F
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 1"1/2 F
For models > 800 connections 2" G F
- E** Connection for 2nd magnesium anode 1"1/4 G F
- F** Connection for magnesium anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet 2" G F
- N** Alternative domestic cold water circuit inlet or connection for more tanks 2" G F
- O** Drain 1" G F
- P** Flange



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Model	Volume	Weight	De	Df	H	R1	R2	H1
	[lt]	[kg]						
1500	1506	221	1360	1100	1992	2104	2420	91
2000	2012	300	1510	1250	2111	2251	2610	140
2500	2627	393	1500	1400	2125	2363	2610	114
3000	3029	472	1600	1500	2140	2410	2680	109
4000	3990	565	1700	1600	2415	2678	2960	94

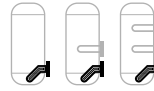
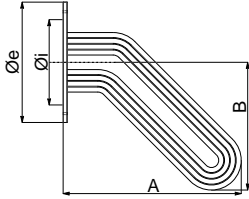
Model	H2	H4	H6	H7	H15	H16	H17	P
	[mm]							
1500	467	692	867	942	//	1377	1557	Øi300/Øe380
2000	551	776	951	976	1566	1482	1641	Øi350/Øe430
2500	570	795	970	975	1585	1488	1660	Øi350/Øe430
3000	575	800	975	980	1600	1520	1675	Øi350/Øe430
4000	580	835	1010	1015	1855	1765	1920	Øi350/Øe430

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

INTEGRATIVE COMPONENTS FOR VASO STORAGE

COMPATIBILITY TABLES VASO STORAGE/HEAT EXCHANGERS

ANTILEGIONELLA® HEAT EXCHANGER KIT

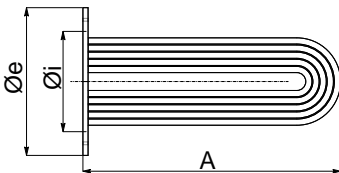


Antilegionella® heat exchanger kit + gaskets + bolts and insulated bushes.

ANTILEGIONELLA® HEAT EXCHANGER

Heat exchanger surface	Øi / Øe flange	A	B	Art. Nr.	Storage 1 - 2		Storage 1-2-3	Storage 1-2	Storage 1-2-3	Storage COMPACT					Storage 1-2-3	
					Model										5000	
					200	300	500	800	1000	1500	2000	2500	3000	4000		
[m²]	[mm]															
0,5	Ø1220/Øe300	350	240	5221000010100	✓	✓	✓									
0,75	Ø1220/Øe300	350	240	5221000010101	✓	✓	✓									
1	Ø1220/Øe300	371	261	5221000010102			✓									
1,5	Ø1220/Øe300	561	311	5221000010113			✓									
1,5	Ø1300/Øe380	496	336	5221000010103				✓	✓	✓						
2	Ø1300/Øe380	496	336	5221000010104				✓	✓	✓						
3	Ø1300/Øe380	607	452	5221000010105					✓	✓						
4	Ø1350/Øe430	636	457	5221000010106							✓	✓	✓	✓	✓	✓
5	Ø1350/Øe430	678	498	5221000010107							✓	✓	✓	✓	✓	✓
6	Ø1350/Øe430	828	585	5221000010123									✓	✓	✓	✓
8	Ø1350/Øe430	1250	598	5221000010108										✓	✓	✓
10	Ø1350/Øe430	1550	538	5221000010109												✓

STRAIGHT HEAT EXCHANGER KIT



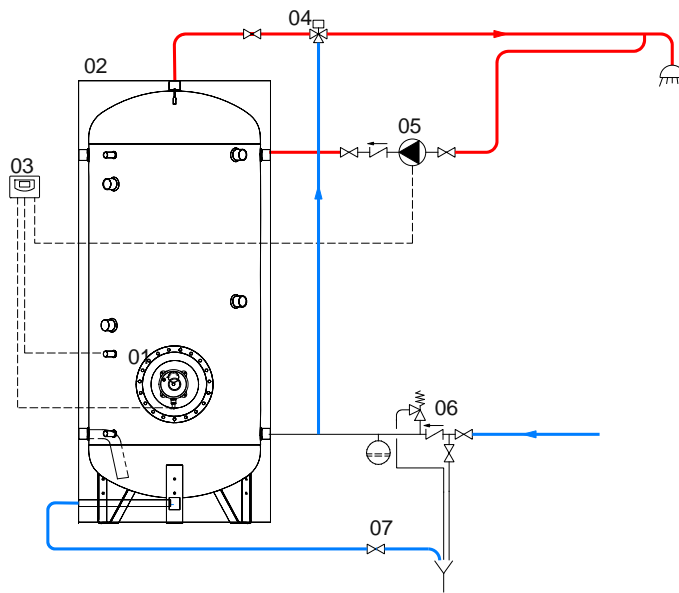
Straight heat exchanger kit + gaskets + bolts and insulated bushes.

MIDDLE HEAT EXCHANGER

UPPER HEAT EXCHANGER

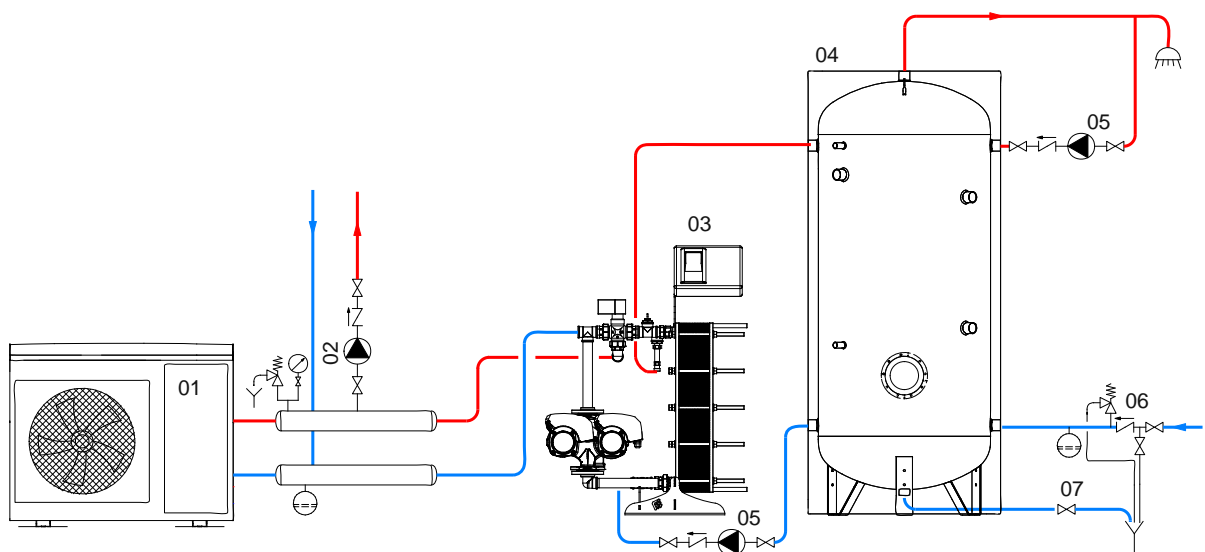
Heat exchanger surface	Øi / Øe flange	A	Art. Nr.	Storage 2-3											Storage 2-3					
				Model																
				200	300	500	800	1000	1500	2000	2500	3000	4000	5000	500	1000	1500	2000	3000	5000
[m²]	[mm]																			
0,5	Ø1220/Øe300	445	5221000010074	✓	✓	✓											✓			
0,75	Ø1220/Øe300	445	5221000010075	✓	✓	✓											✓			
1	Ø1220/Øe300	475	5221000010076	✓	✓	✓											✓			
1,5	Ø1220/Øe300	690	5221000010077			✓											✓			
1,5	Ø1300/Øe380	600	5221000010078				✓	✓	✓								✓	✓	✓	✓
2	Ø1300/Øe380	560	5221000010079				✓	✓	✓								✓	✓	✓	✓
3	Ø1300/Øe380	720	5221000010080				✓	✓	✓								✓	✓	✓	✓
4	Ø1350/Øe430	750	5221000010081							✓	✓	✓	✓	✓						✓
5	Ø1350/Øe430	780	5221000010082							✓	✓	✓	✓	✓						✓
6	Ø1350/Øe430	890	5221000010122							✓	✓	✓	✓	✓						✓
8	Ø1350/Øe430	1250	5221000010083								✓	✓	✓	✓						✓
10	Ø1350/Øe430	1510	5221000010084										✓							✓

EXAMPLE OF INSTALLATION WITH VASO INERZIALE A1



01	Electric heater	03	Electronic control /thermostat	05	DHW recirculation group	07	Blowdown valve
02	VASO INERZIALE A1	04	Thermostatic mixing valve	06	Hydraulic safety group		

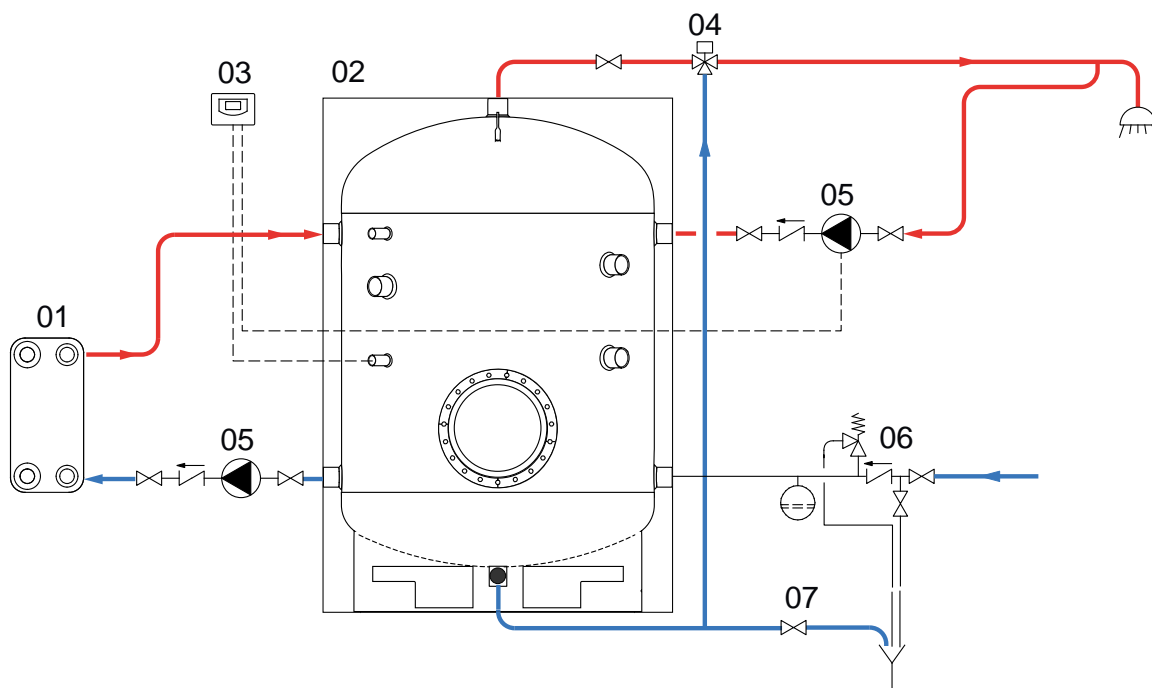
EXAMPLE OF INSTALLATION WITH PRS MODULE - FOR DHW ACCUMULATION



01	Generator	04	VASO INERZIALE	07	Blowdown valve
02	Heating system circulation group	05	D.H.W. recirculation group		
03	PRS module	06	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXAMPLE OF INSTALLATION WITH VASO STORAGE COMPACT



01	Generator / Plate heat exchanger	03	Electronic control /thermostat	05	D.H.W. circulation group	07	Blowdown valve
02	VASO STORAGE COMPACT	04	Thermostatic mixing valve	06	Hydraulic safety group		



BOLLY®



BOLLY® RANGE



Bolly® ST



Bolly® ST FB



Bolly® AP

<i>Heat exchanger model</i>	Fixed coil	Fixed coil	Fixed coil
<i>Number of heat exchangers</i>			
<i>Energy source</i>	 	 	
<i>Energy efficiency class</i>	B-C	B-C	A-B-C
<i>Insulation</i>	Polyurethane hard foam	- Polyurethane hard foam - Dismountable polyester fleece	Polyurethane hard foam
<i>Available range</i>	150 ÷ 500	150 ÷ 1500	150 ÷ 500
<i>Installation</i>	floor standing	floor standing	floor standing
<i>Suggested Application</i>	Traditional and solar installations	Traditional, solar, condensation and biomass installations	Traditional, solar, condensation and heat pump installations



BOLLY®
AND BOLLYTERM®



Bolly® XL

**Bolly® Murale
Bolly® Primo**

Interka

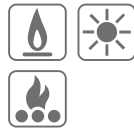
Interka Solar

Fixed coil

Fixed coil

Double wall

Double wall



A-B-C

C

C

B

- Polyurethane hard foam
- Dismountable polyester fleece

Polyurethane hard foam

Polyurethane hard foam

Polyurethane hard foam

200 ÷ 1000

80 ÷ 300

80 ÷ 300

150 ÷ 300

floor standing
- vertical / horizontal wall mounted
(Bolly® Murale)
- vertical / horizontal wall mounted
(Bolly® Primo)
- floor standing

wall mounted
(vertical/horizontal)

on carpentry of solar thermosyphon systems with natural circulation

Solar, condensation and heat pump installations

Traditional, solar and biomass installations

Biomass and traditional installations

Solar thermosyphon system

BOLLY® 1 ST

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

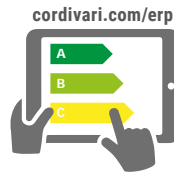
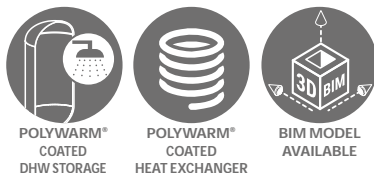
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 ST WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
150	3105162321101	0,6	B
200	3105162321102	0,8	B
300	3105162321103	1,2	B
400	3105162321104	1,5	C
500	3105162321105	1,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [l]	MONOPHASE		
		1,5 kW	2 kW	3 kW
150	39	5240000000051	5240000000052	5240000000053
200	67			
300	106			
400	159			
500	174			

THREEPHASE		
4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
45	//	//
71	57	//
107	85	//
117	93	78

Electric immersion heater flange plate

See Accessories section



Titanium electronic anode

See Accessories section



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 1 ST

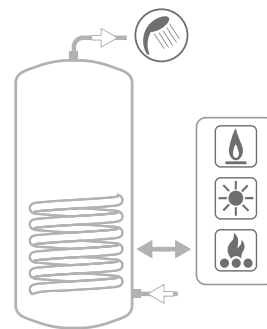
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

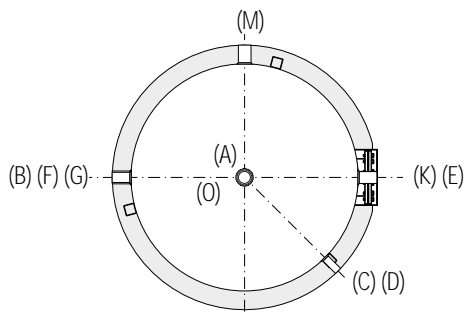
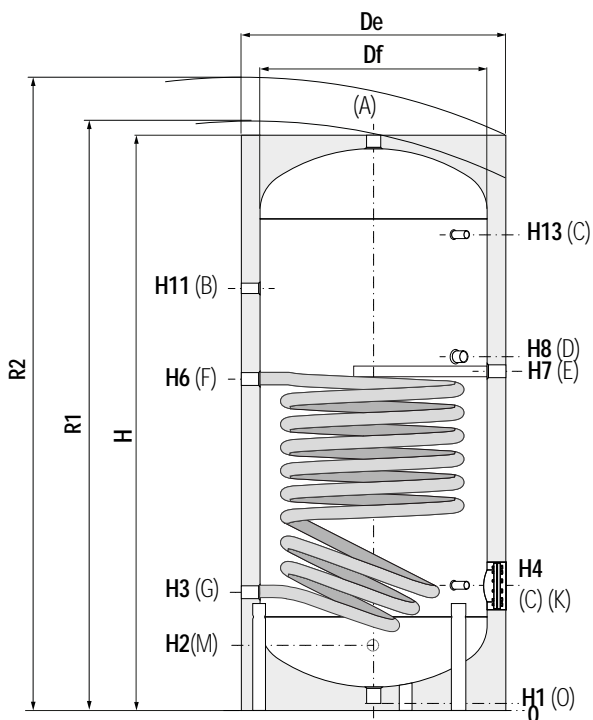


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



BOLLY® AND BOLLYTERM®



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Heat exchanger inlet 1"1/4 G F
G	Heat exchanger outlet 1"1/4 G F
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

Model	Volume	Weight	De	H	R1	R2	H1	H2	H3	H4	H6
	[l]	[kg]									
150	148	49	500	1414	-	1505	71	210	275	315	888
200	189	55	550	1434	-	1540	71	220	285	325	811
300	291	67	650	1486	-	1630	71	246	311	381	832
400	422	88	700	1766	-	1905	71	261	326	396	988
500	498	120	750	1786	-	1945	71	271	346	411	1036

Model	H6	H7	H8	H11	H13	K	M	B
	150	888	956	1011	1065	1185	Øi120/Øe180	3/4"
200	811	855	915	1089	1195	Øi120/Øe180	3/4"	3/4"
300	832	871	931	1101	1221	Øi120/Øe180	1"	1"
400	988	1033	1091	1286	1486	Øi120/Øe180	1"	1"
500	1036	1076	1144	1331	1476	Øi120/Øe180	1"	1"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 1 ST FB - WITH ALIGNED FRONT / BACK CONNECTIONS

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection. Models > 500 external confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

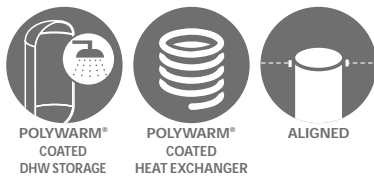
WARRANTY

5 years (See general sales conditions and warranty)

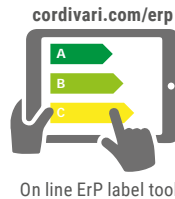
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

NEW



STOCK
AVAILABILITY



BOLLY® 1 ST FB WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
150	3104162330041	0,6	B
200	3104162330042	0,8	B
300	3104162330043	1,2	B
400	3104162330044	1,5	C
500	3104162330045	1,8	C
800	3104162330046	2,7	B
1000	3104162330047	3,5	B
1500	3104162330048	3,8	C



BOLLY® 1 ST FB WC

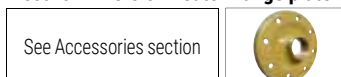
Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
800	3103162321162	2,7	C
1000	3103162321163	3,5	C
1500	3103162321164	3,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS

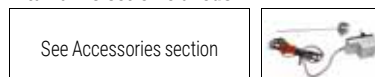
Mod.	MONOPHASE			THREEPHASE				
	1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]							
150	30	53	40	27	20	//	//	//
200	56	100	75	50	38	//	//	//
300	89	159	119	79	60	48	//	//
400	137	245	184	123	92	74	//	//
500	152	272	204	136	102	82	68	//
800	279	500	375	250	187	150	125	83
1000	345	618	464	309	232	185	155	103
1500	510	914	686	457	343	274	229	152

Electric immersion heater flange plate



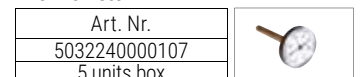
See Accessories section

Titanium electronic anode



See Accessories section

Thermometer



Art. Nr.
5032240000107
5 units box

BOLLY® 1 ST FB - WITH ALIGNED FRONT / BACK CONNECTIONS

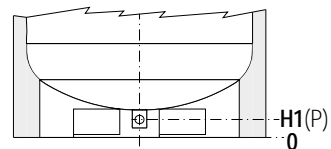
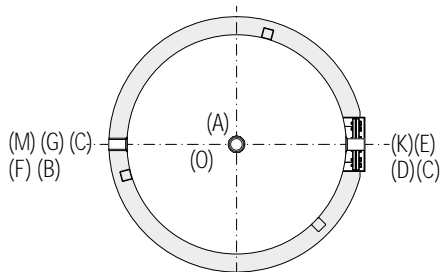
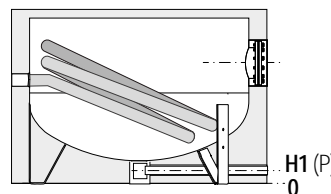
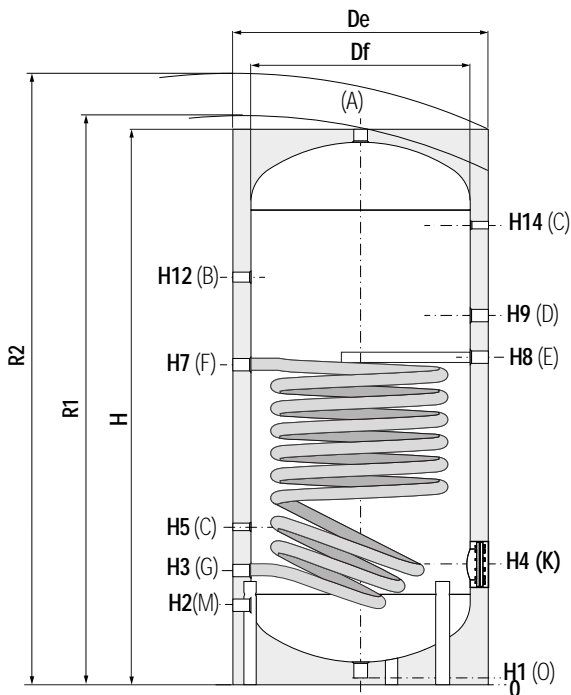
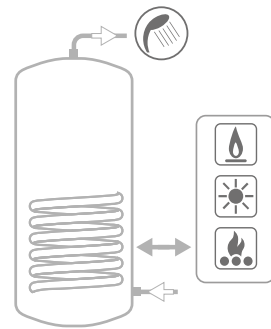
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
150 ÷ 800	10 bar	90 °C	12 bar	110 °C
1000 ÷ 1500	8 bar			



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1" 1/4 G F
F	Lower heat exchanger inlet 1" 1/4 G F
G	Lower heat exchanger outlet 1" 1/4 G F
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F - For models ≤ 500
P	Drain - For models > 500

Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

BOLLY® 1 ST FB WB - HARD FOAM INSULATION

Model	Volume Weight		De	H	R2	H1	H2	H3	H4	H5	H7	H8	H9	H12	H14	K	P	M	D	B	A
	[t]	[kg]																			
			[mm]																		
150	148	49	500	1414	1505	71	210	275	315	395	888	956	1086	1065	1185	Øi120/Øe180	-	3/4"	1" 1/2"	3/4"	1" 1/4"
200	189	55	550	1434	1540	71	220	285	325	405	811	855	985	1089	1195	Øi120/Øe180	-	3/4"	1" 1/2"	3/4"	1" 1/4"
300	291	67	650	1486	1630	71	246	311	381	431	832	871	1006	1101	1221	Øi120/Øe180	-	1"	1" 1/2"	1"	1" 1/4"
400	422	88	700	1766	1905	71	261	326	396	446	988	1033	1170	1286	1486	Øi120/Øe180	-	1"	1" 1/2"	1"	1" 1/4"
500	498	120	750	1786	1945	71	271	346	411	466	1036	1076	1211	1331	1476	Øi120/Øe180	-	1"	1" 1/2"	1"	1" 1/4"
800	789	184	900	2162	2350	101	338	428	483	548	1181	1243	1378	1598	1788	Øi170/Øe240	3/4"	1"	2"	1"	1" 1/4"
1000	1038	215	1000	2217	2440	89	359	439	499	559	1279	1309	1444	1584	1819	Øi170/Øe240	3/4"	1" 1/4"	2"	1"	1" 1/2"
1500	1443	389	1100	2415	2660	109	340	425	575	545	1403	1450	1585	1825	2065	Øi300/Øe380	1"	1" 1/2"	2"	1"	2"

BOLLY® 1 ST FB WC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume Weight		DF	DE	H	R1	R2	H1	H2	H3	H4	H5	H7	H8	H9	H12	H14	K	P	M	D	B	A
	[t]	[kg]																					
			[mm]																				
800	789	184	750	950	2158	2194	2365	101	493	428	483	368	1181	1243	1378	1598	1788	Øi170/Øe240	3/4"	1"	2"	1"	1" 1/4"
1000	1038	215	850	1050	2192	2258	2435	89	524	439	499	389	1279	1309	1444	1584	1819	Øi170/Øe240	3/4"	1" 1/4"	2"	1"	1" 1/2"
1500	1443	389	950	1150	2440	2483	2705	109	450	425	575	375	1403	1450	1585	1825	2065	Øi300/Øe380	1"	1" 1/2"	2"	1"	2"

BOLLY® 1 ST / 1 ST FB

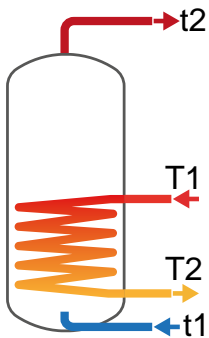
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

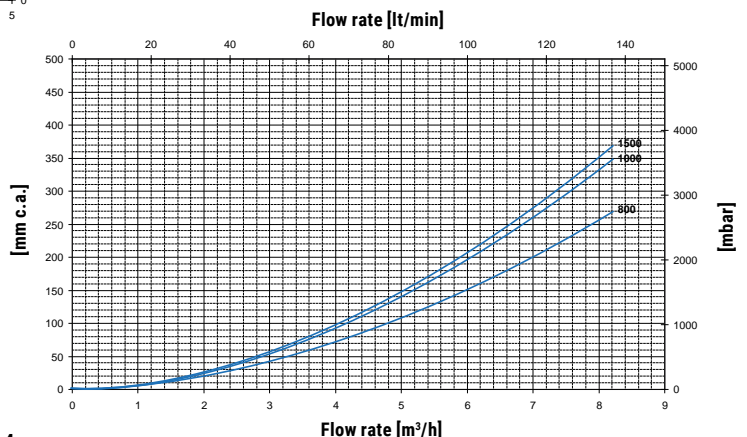
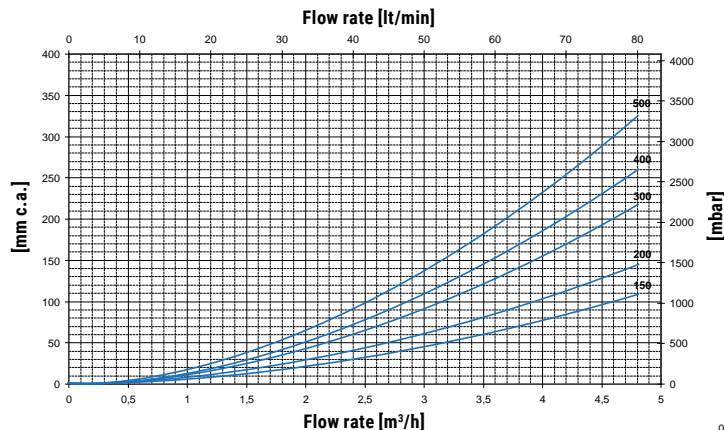
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	99	102	71	46	6,6	10	11,7	15,2	162	246	288	371
	1	111	116	81	53	6,1	9,1	10,6	13,2	149	223	260	336
200	2,5	92	95	66	43	9	13,5	15,8	20,5	220	332	389	506
	1,25	103	107	75	49	8,3	12,3	14,4	18,5	203	303	354	456
300	3	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
	1,5	106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
400	3,5	105	110	76	50	16,9	25,4	29,6	38,3	416	625	731	947
	1,75	117	122	86	57	15,4	23,2	26,9	34,5	387	571	664	853
500	3,5	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
	1,75	126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000
800	6	116	120	84	55	30,3	45,4	53	68,6	746	1120	1309	1695
	3	131	136	96	64	28,2	41,4	48,1	61,6	692	1021	1186	1521
1000	6	114	119	84	56	38,9	57,9	67,5	87	958	1429	1667	2151
	3	132	138	98	65	35,5	52,2	60,4	77	882	1288	1492	1903
1500	6	162	168	119	78	41	61	71	91,5	1009	1504	1753	2261
	3	189	197	139	92	37,7	54,9	63,4	80,7	927	1352	1564	1993

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	195	251	258	272	298	407	440	507	218,85	21,46
	1	193	247	253	266	287	388	418	479	60,62	5,95
200	2,5	253	325	335	354	392	536	581	675	441,12	43,26
	1,25	250	321	329	346	378	512	553	635	122,19	11,98
300	3	388	499	513	542	597	814	882	1021	927,45	90,95
	1,5	384	492	504	529	578	780	839	960	256,91	25,19
400	3,5	550	706	723	759	814	1101	1186	1359	1480,67	145,20
	1,75	546	697	712	744	791	1058	1133	1284	410,16	40,22
500	3,5	651	834	855	897	965	1304	1404	1607	1850,84	181,50
	1,75	645	822	840	877	935	1249	1336	1510	512,70	50,28
800	6	1026	1314	1345	1410	1499	2023	2174	2483	1538,50	150,87
	3	1017	1297	1325	1381	1455	1944	2076	2344	426,18	41,79
1000	6	1345	1720	1759	1840	1952	2625	2815	3202	1994,35	195,58
	3	1332	1696	1730	1799	1891	2512	2675	3004	552,45	54,18
1500	6	1870	2378	2419	2504	2509	3330	3530	3936	2108,31	206,75
	3	1856	2352	2388	2459	2443	3209	3378	3722	584,02	57,27

HEAT EXCHANGERS PRESSURE DROP

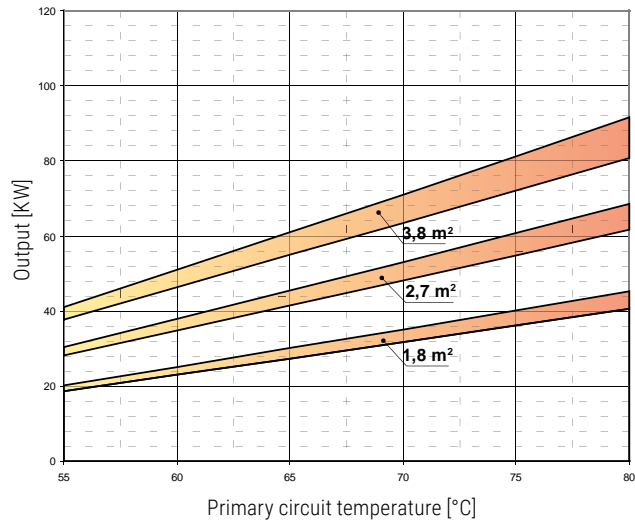
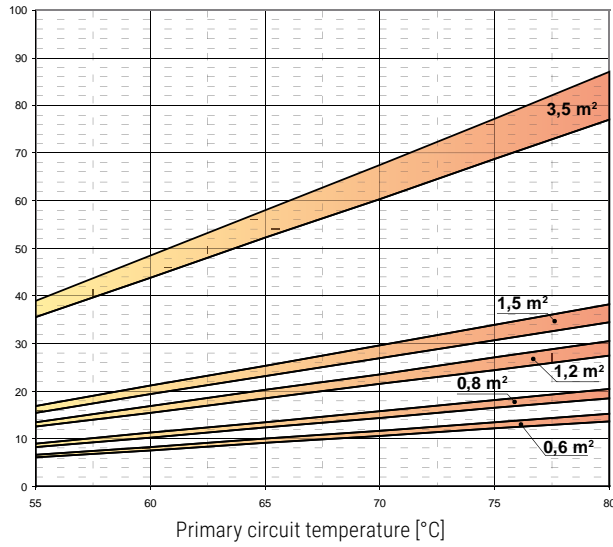


BOLLY® 1 ST / 1 ST FB

HEAT EXCHANGERS TECHNICAL DATA



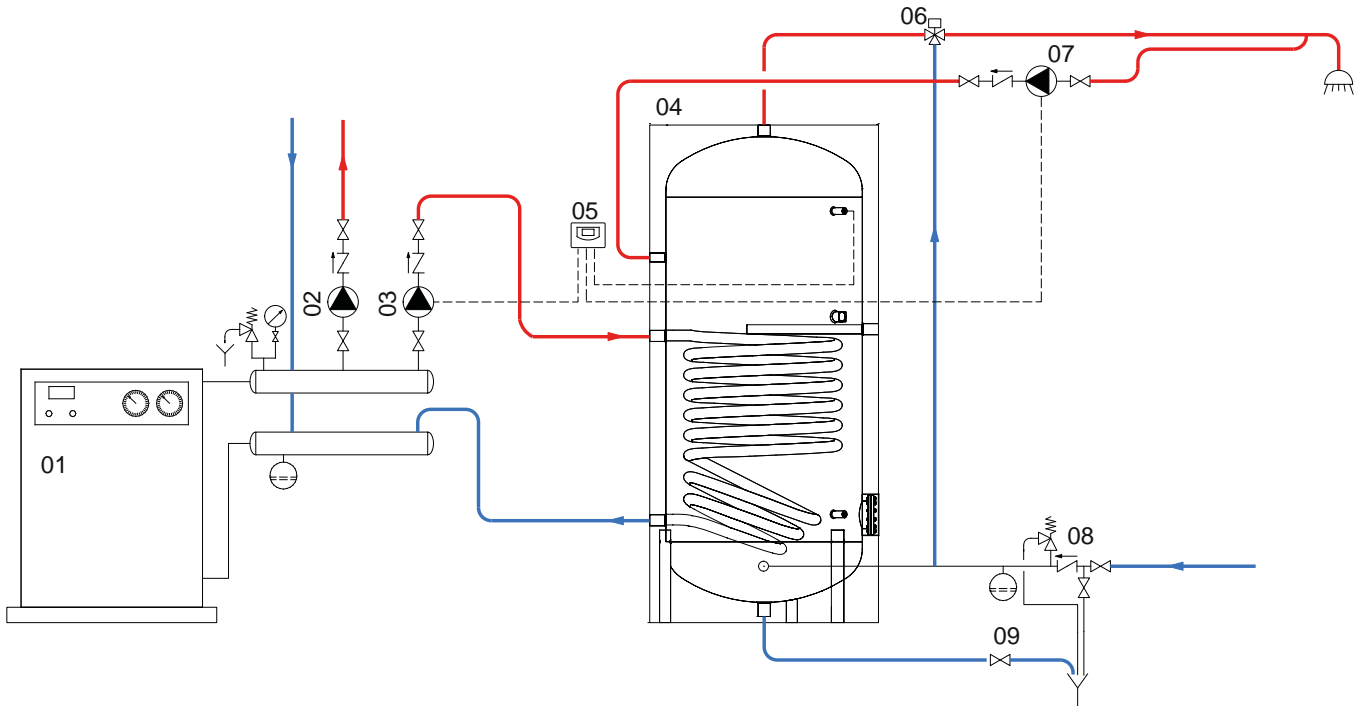
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).



Heat exchanger surface	0,6 m ²		0,8 m ²		1,2 m ²		1,5 m ²		3,5 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75	6	3

Heat exchanger surface	1,8 m ²		2,7 m ²		3,8 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3,50	1,75	6	3	6	3

EXAMPLE OF INSTALLATION WITH BOLLY® 1 ST / 1 ST FB



01	Generator	04	BOLLY® 1 ST / 1 ST FB	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control / thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 ST

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



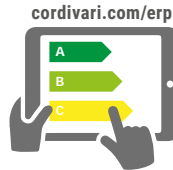
POLYWARM® COATED DHW STORAGE



POLYWARM® COATED HEAT EXCHANGER




BIM MODEL AVAILABLE



On line ErP label tool



BOLLY® 2 ST WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS 
		Upper	Lower	
150	3135162321201	0,4	0,6	B
200	3135162321202	0,5	0,8	B
300	3135162321203	0,7	1,2	B
400	3135162321204	1	1,5	C
500	3135162321205	1	1,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
150	54	97	73
200	67	120	90
300	106	190	143
400	159	285	213
500	174	312	234

THREEPHASE		
4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
45	//	//
71	57	//
107	85	//
117	93	78

Electric immersion heater flange plate

See Accessories section



Titanium electronic anode

See Accessories section



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 2 ST

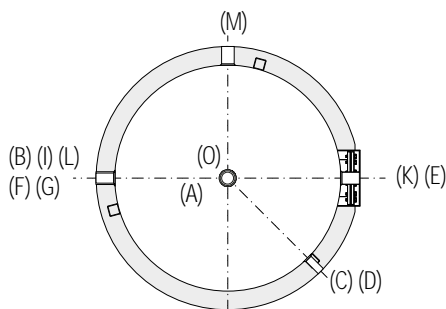
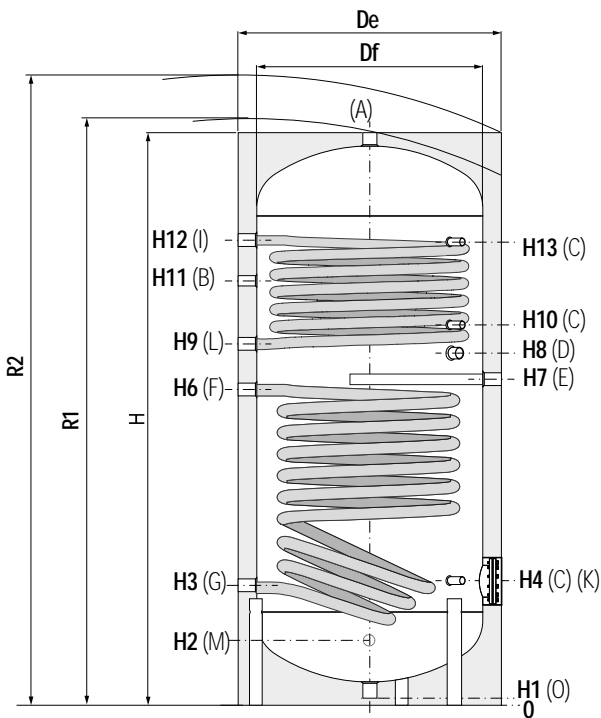
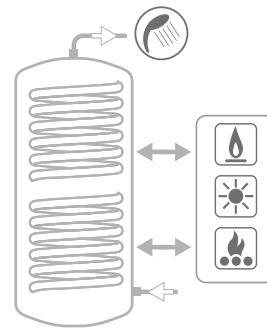
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

Model	Volume [lt]	Weight [kg]	De	H	R2	H1	H2	H3	H4	H6	H7	H8
150	148	54	500	1414	1500	70	210	275	315	759	815	885
200	189	65	550	1434		70	220	285	325	811	855	915
300	291	83	650	1486	1622	70	246	311	381	832	871	931
400	422	112	700	1766	1900	70	261	326	396	988	1033	1091
500	498	134	750	1786	1937	70	271	346	411	1036	1076	1144

Model	H9	H10	H11	H12	H13	K	M	D	B	A
150	945	1035	1065	1185	1185	Øi120/Øe180	3/4"	1"1/2	3/4"	1"1/4
200	960	1105	1089	1195	1195	Øi120/Øe180	3/4"	1"1/2	3/4"	1"1/4
300	981	1076	1101	1221	1221	Øi120/Øe180	1"	1"1/2	1"	1"1/4
400	1143	1286	1286	1486	1486	Øi120/Øe180	1"	1"1/2	1"	1"1/4
500	1186	1296	1331	1476	1476	Øi120/Øe180	1"	1"1/2	1"	1"1/4

BOLLY® 2 ST FB - WITH ALIGNED FRONT / BACK CONNECTIONS

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection. Models > 500 external confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

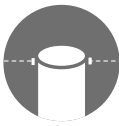
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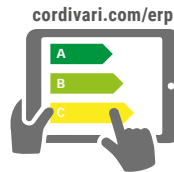
POLYWARM® COATED DHW STORAGE



POLYWARM® COATED HEAT EXCHANGER



ALIGNED



On line ErP label tool



BOLLY® 2 ST FB WB

HEAT EXCHANGER SURFACE

ENERGY EFFICIENCY CLASS

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper [m²]	Lower [m²]	
150	3134162330011	0,4	0,6	B
200	3134162330012	0,5	0,8	B
300	3134162330013	0,7	1,2	B
400	3134162330014	1	1,5	C
500	3134162330015	1	1,8	C
800	3134162330016	1,6	2,7	B
1000	3134162330017	1,8	3,5	B
1500	3134162330018	1,9	3,8	C



BOLLY® 2 ST FB WC

HEAT EXCHANGER SURFACE

ENERGY EFFICIENCY CLASS

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper [m²]	Lower [m²]	
800	3138162320112	1,6	2,7	C
1000	3138162320113	1,8	3,5	C
1500	3138162320114	1,9	3,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lit]

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
150	54	97	73
200	67	120	90
300	106	190	143
400	159	285	213
500	174	312	234
800	310	554	416
1000	390	698	524
1500	559	1002	751

MONOPHASE		
1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053

Ignition time from 10 °C to 45 °C with electric immersion heaters [min]

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031

Ignition time from 10 °C to 45 °C with electric immersion heaters [min]

37	//	//	//	//
45	//	//	//	//
71	57	//	//	//
107	85	//	//	//
117	93	78	//	//
208	166	139	92	69
262	210	175	116	87
376	301	250	167	125

Electric immersion heater flange plate

See Accessories section



Titanium electronic anode

See Accessories section



Thermometer

Art. Nr.
5032240000107
5 units box



BOLLY® 2 ST FB - WITH ALIGNED FRONT / BACK CONNECTIONS

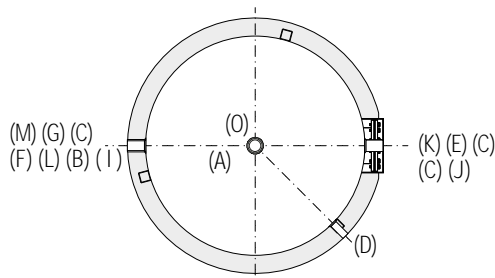
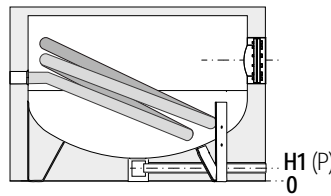
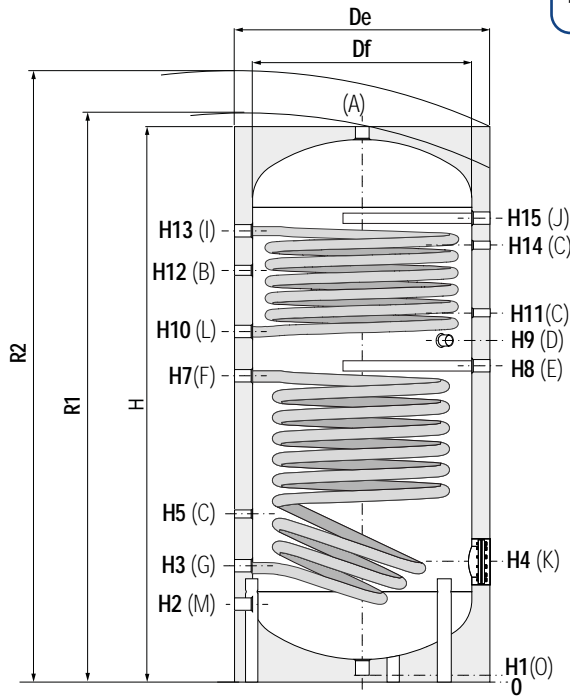
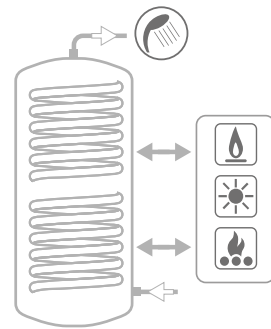
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
150 ÷ 800	10 bar	90 °C	12 bar	110 °C
1000 ÷ 1500	8 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
J	Connection for 2nd magnesium anode 1"1/4 G F (only for models >500)
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F - For models ≤ 500
P	Drain - For models > 500

Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitate the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

BOLLY® 2 ST FB WB - HARD FOAM INSULATION

Model	Vol. Weight		DF	DE	H	R2	H1	H2	H3	H4	H5	H7	H8	H9	H10	H11	H12	H13	H14	H15	K	P	M	D	B	A				
	[lt]	[kg]																												
			[mm]																							Connections F				
150	148	54	-	500	1414	1505	71	210	275	315	395	765	815	885	945	975	1065	1185	1185	//	Øi120/Øe180	-	3/4"	1"1/2	3/4"	1"1/4				
200	189	65	-	550	1434	1540	71	220	285	325	405	811	855	915	960	985	1089	1195	1195	//	Øi120/Øe180	-	3/4"	1"1/2	3/4"	1"1/4				
300	291	83	-	650	1486	1630	71	246	311	381	431	832	871	931	981	1011	1101	1221	1221	//	Øi120/Øe180	-	1"	1"1/2	1"	1"1/4				
400	422	112	-	700	1766	1905	71	261	326	396	446	988	1033	1091	1143	1166	1286	1486	1486	//	Øi120/Øe180	-	1"	1"1/2	1"	1"1/4				
500	498	134	-	750	1786	1945	71	271	346	411	466	1036	1076	1144	1186	1206	1331	1476	1476	//	Øi120/Øe180	-	1"	1"1/2	1"	1"1/4				
800	789	232	750	900	2163	2350	101	338	428	483	548	1181	1243	1308	1362	1378	1598	1770	1708	1818	Øi170/Øe240	3/4"	1"	2"	1"	1"1/4				
1000	1038	272	850	1000	2217	2440	89	359	439	499	559	1279	1309	1364	1399	1444	1584	1819	1729	1839	Øi170/Øe240	3/4"	1"1/4	2"	1"	1"1/2				
1500	1443	351	950	1100	2440	2685	109	340	425	575	545	1403	1450	1515	1550	1585	1825	2045	1965	2075	Øi300/Øe380	1"	1"1/2	2"	1"	2"				

BOLLY® 2 ST FB WC - DISMOUNTABLE SOFT FLEECE

Model	Vol. Weight		DF	DE	H	R1	R2	H1	H2	H3	H4	H5	H7	H8	H9	H10	H11	H12	H13	H14	H15	K	P	M	D	B	A			
	[lt]	[kg]																												
			[mm]																							Connections F				
800	789	232	750	950	2163	2205	2365	101	338	428	483	548	1181	1243	1308	1362	1378	1598	1770	1708	1818	Øi170/Øe240	3/4"	1"	2"	1"	1"1/4			
1000	1038	272	850	1050	2217	2270	2455	89	359	439	499	559	1279	1309	1364	1399	1444	1584	1819	1729	1839	Øi170/Øe240	3/4"	1"1/4	2"	1"	1"1/2			
1500	1443	351	950	1150	2440	2500	2700	109	340	425	575	545	1403	1450	1515	1550	1585	1825	2045	1965	2075	Øi300/Øe380	1"	1"1/2	2"	1"	2"			

BOLLY® AND BOLLYTERM®

BOLLY® 2 ST / 2 ST FB

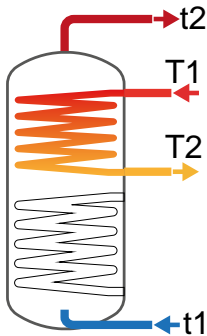
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

UPPER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	47	49	34	22	4,5	6,8	7,9	10,3	109	165	194	254
	1	52	64	38	24	4,1	6,2	7,2	9,4	100	151	177	231
200	2,5	46	48	33	21	5,7	8,6	10	13,1	138	210	247	322
	1,25	51	53	37	24	5,3	7,9	9,3	12	129	194	227	296
300	3	51	53	37	24	8	12,1	14,1	18,4	195	296	347	453
	1,5	57	59	41	27	7,5	11,2	13,1	16,9	183	274	321	416
400	3,5	55	57	40	26	11,4	17,2	20,2	26,2	279	423	496	646
	1,75	61	63	44	29	10,7	16	18,6	24	262	392	458	592
500	3,5	61	64	44	29	11,4	17,2	20,2	26,2	279	423	496	646
	1,75	68	70	49	32	10,7	16	18,6	24	262	392	458	592
800	6	68	71	49	32	18,3	27,6	32,3	41,9	447	677	794	1034
	3	75	78	54	36	17,2	25,6	29,8	38,5	419	628	733	949
1000	6	79	82	57	37	20,5	30,9	36,1	46,9	501	759	889	1157
	3	87	91	64	42	19,2	28,5	33,3	42,9	469	701	818	1057
1500	6	87	90	63	41	26	39	45,6	59,1	636	959	1123	1457
	3	97	102	71	46	24,2	35,8	41,6	53,6	592	879	1024	1318

Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	73	96	101	111	142	201	224	272	145,90	14,31
	1	72	94	98	107	135	189	210	253	40,41	3,96
200	2,5	92	121	127	139	179	254	283	343	275,70	27,04
	1,25	90	118	124	135	172	241	267	323	76,37	7,49
300	3	141	185	194	211	265	373	413	498	541,01	53,06
	1,5	139	181	189	205	255	355	393	469	149,87	14,70
400	3,5	211	276	288	313	388	544	603	723	1028,24	100,84
	1,75	208	271	282	304	374	519	572	679	284,83	27,93
500	3,5	229	299	311	336	406	567	625	745	1028,24	100,84
	1,75	227	294	305	327	392	542	595	702	284,83	27,93
800	6	401	521	541	581	684	950	1044	1236	911,70	89,41
	3	397	513	531	567	662	911	995	1168	252,55	24,77
1000	6	508	657	678	723	825	1137	1241	1456	1025,66	100,58
	3	502	647	666	706	799	1091	1184	1376	284,12	27,86
1500	6	691	891	919	974	1094	1499	1630	1897	1310,57	128,52
	3	684	878	902	951	1059	1435	1551	1786	363,04	35,60

BOLLY® 2 ST / 2 ST FB

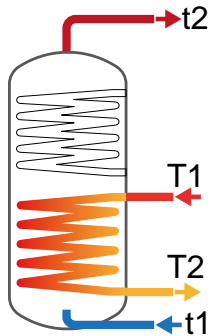
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	99	102	71	46	6,6	10	11,7	15,2	162	246	288	371
	1	111	116	81	53	6,1	9,1	10,6	13,2	149	223	260	336
200	2,5	92	95	66	43	9	13,5	15,8	20,5	220	332	389	506
	1,25	103	107	75	49	8,3	12,3	14,4	18,5	203	303	354	456
300	3	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
	1,5	106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
400	3,5	105	110	76	50	16,9	25,4	29,6	38,3	416	625	731	947
	1,75	117	122	86	57	15,4	23,2	26,9	34,5	387	571	664	853
500	3,5	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
	1,75	126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000
800	6	116	120	84	55	30,3	45,4	53	68,6	746	1120	1309	1695
	3	131	136	96	64	28,2	41,4	48,1	61,6	692	1021	1186	1521
1000	6	114	119	84	56	38,9	57,9	67,5	87	958	1429	1667	2151
	3	132	138	98	65	35,5	52,2	60,4	77	882	1288	1492	1903
1500	6	162	168	119	78	41	61	71	91,5	1009	1504	1753	2261
	3	189	197	139	92	37,7	54,9	63,4	80,7	927	1352	1564	1993

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	195	251	258	272	298	407	440	507	218,85	21,46
	1	193	247	253	266	287	388	418	479	60,62	5,95
200	2,5	253	325	335	354	392	536	581	675	441,12	43,26
	1,25	250	321	329	346	378	512	553	635	122,19	11,98
300	3	388	499	513	542	597	814	882	1021	927,45	90,95
	1,5	384	492	504	529	578	780	839	960	256,91	25,19
400	3,5	550	706	723	759	814	1101	1186	1359	1480,67	145,20
	1,75	546	697	712	744	791	1058	1133	1284	410,16	40,22
500	3,5	651	834	855	897	965	1304	1404	1607	1850,84	181,50
	1,75	645	822	840	877	935	1249	1336	1510	512,70	50,28
800	6	1026	1314	1345	1410	1499	2023	2174	2483	1538,50	150,87
	3	1017	1297	1325	1381	1455	1944	2076	2344	426,18	41,79
1000	6	1345	1720	1759	1840	1952	2625	2815	3202	1994,35	195,58
	3	1332	1696	1730	1799	1891	2512	2675	3004	552,45	54,18
1500	6	1870	2378	2419	2504	2509	3330	3530	3936	2108,31	206,75
	3	1856	2352	2388	2459	2443	3209	3378	3722	584,02	57,27

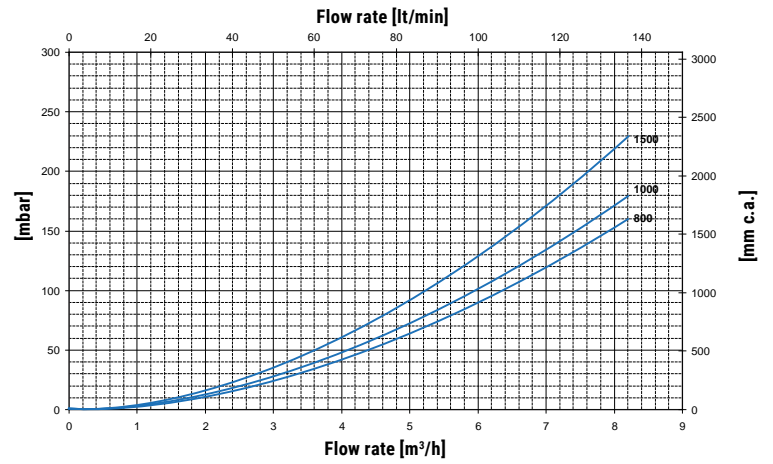
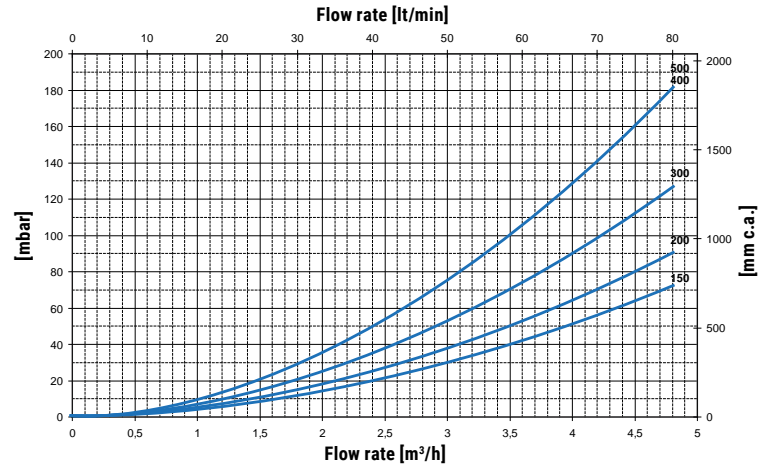
BOLLY®
AND BOLLITERM®

BOLLY® 2 ST / 2 ST FB

HEAT EXCHANGERS PRESSURE DROP - UPPER

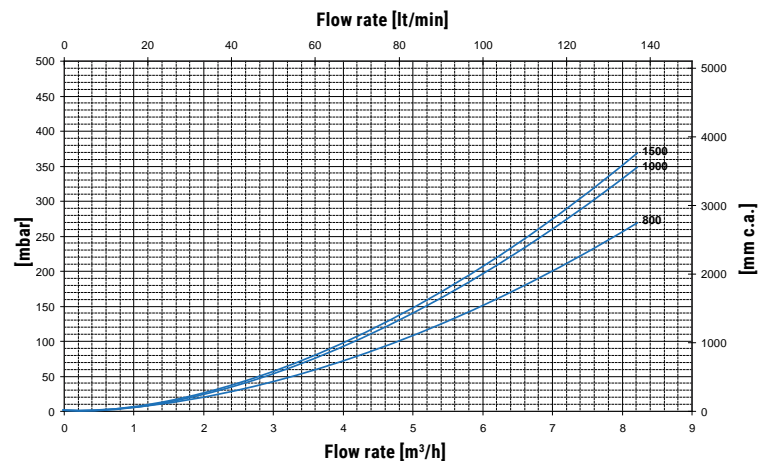
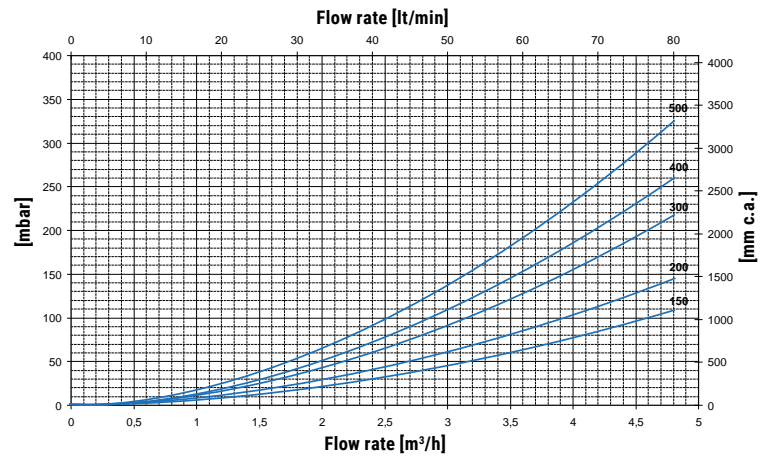


Heat exchangers surface [m ²]	
150	0,4
200	0,5
300	0,7
400	1
500	1
800	1,6
1000	1,8
1500	1,9



HEAT EXCHANGERS PRESSURE DROP - LOWER

Heat exchangers surface [m ²]	
150	0,6
200	0,8
300	1,2
400	1,5
500	1,8
800	2,7
1000	3,5
1500	3,8



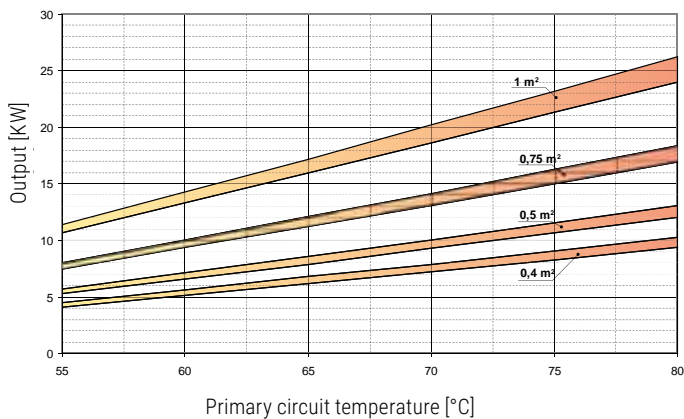
BOLLY® 2 ST / 2 ST FB

HEAT EXCHANGERS TECHNICAL DATA - UPPER

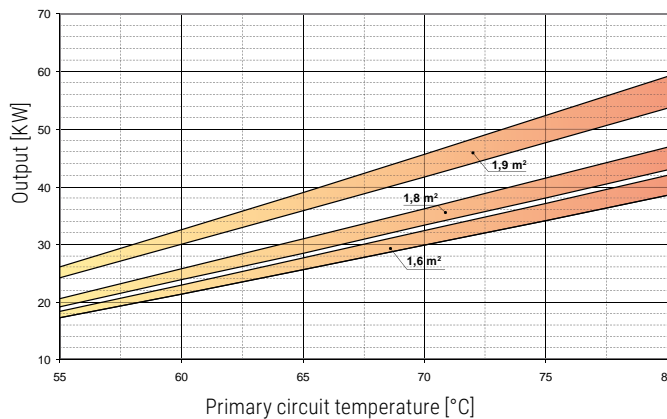


Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).

For Lower heat exchangers technical data- see BOLLY® 1 ST

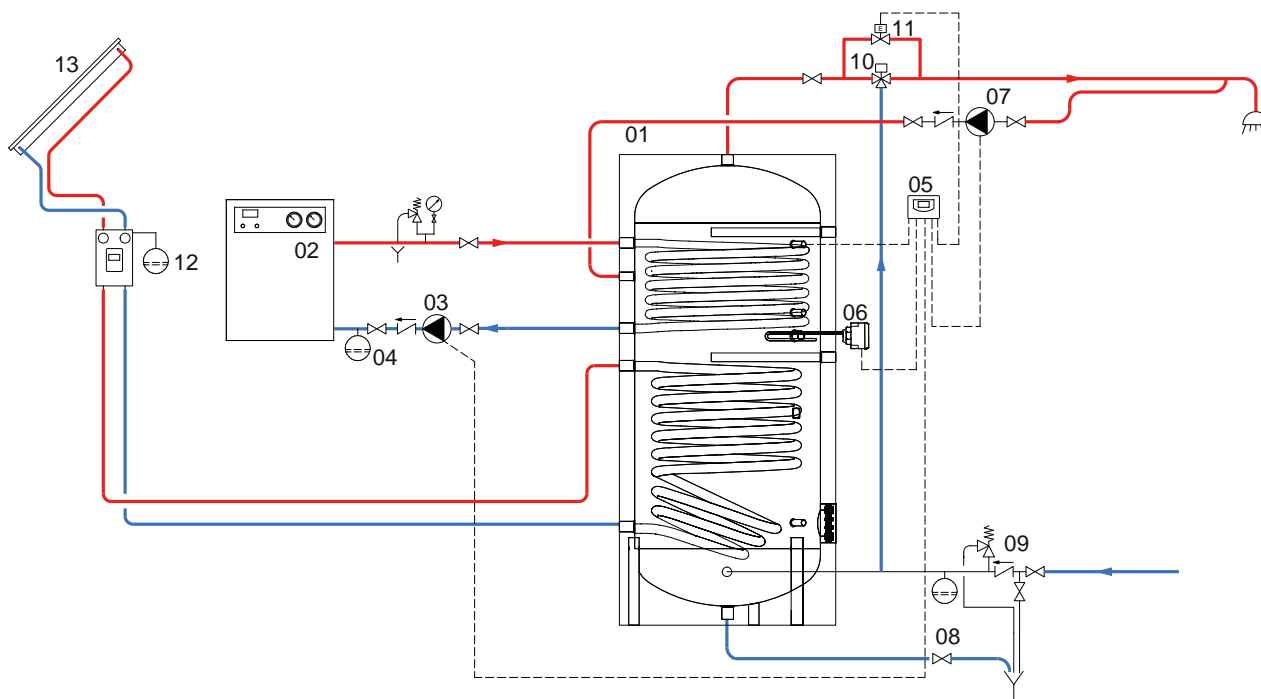


Heat exchanger surface	0,4 m ²		0,5 m ²		0,75 m ²		1 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75



Heat exchanger surface	1,6 m ²		1,8 m ²		1,9 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	6	3	6	3	6	3

EXAMPLE OF INSTALLATION WITH BOLLY® 2 ST / 2 ST FB



1 BOLLY® 2 ST	5 Electronic control /thermostat	9 Hydraulic safety group	13 Solar panels
2 Generator	6 Electric immersion heater (optional)	10 Thermostatic mixing valve	
3 Circulation group	7 D.H.W. recirculation group	11 By-pass solenoid valve	
4 Expansion vessel	8 Blowdown valve	12 Solar system circulation group	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 AP - HIGH PERFORMANCES

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.
- HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

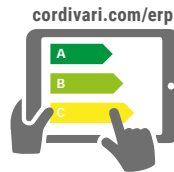
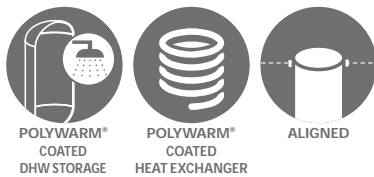
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS:

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 AP WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3104162330032	1,3	B
300	3104162330033	1,8	B
400	3104162330034	2	C
500	3104162330035	2,6	C



BOLLY® 1 AP WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
300	3104162330055	1,8	A
500	3104162330056	2,6	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]
150	1	125
	2	48
200	1	159
	2	62
300	1	235
	2	73
400	1	353
	2	132
500	1	413
	2	150

MONOPHASE		
1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
223	167	112
86	65	43
285	214	142
111	83	56
421	316	210
132	99	66
632	474	316
237	178	119
741	555	370
269	202	135

THREEPHASE		
4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
32	//	//
//	//	//
42	//	//
158	//	//
49	39	//
237	//	//
89	71	//
278	222	//
101	81	67

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 1 AP - HIGH PERFORMANCES

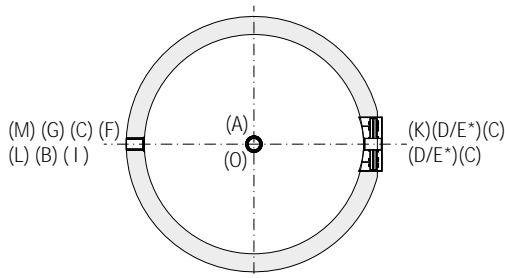
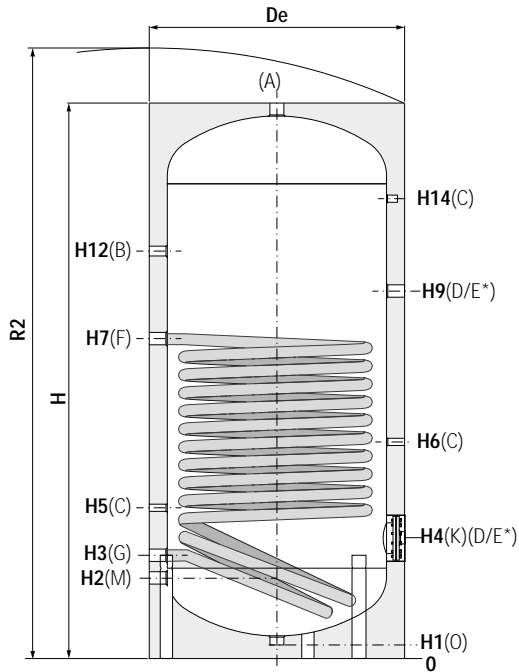
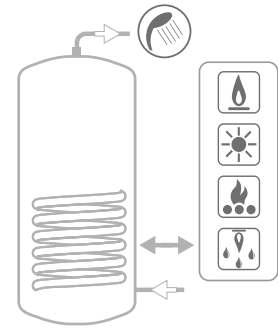
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E*	Connection for magnesium anode 1"1/4 G F- Use a reduction 1"1/2 -> 1"1/4
F	Heat exchanger inlet 1"1/4 G F
G	Heat exchanger outlet 1"1/4 G F
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

BOLLY® 1 AP WB +AP WB CLASS A (HARD FOAM INSULATION)

Model	Volume [lt]	Weight [Kg]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H9
150	148	54	500	1416	1510	72	206	276	316	396	526	871	936
200	189	63	550	1436	1550	71	216	286	326	406	536	874	946
300	291	75	650	1486	1630	71	241	311	381	431	561	1021	1071
400	422	93	700	1766	1910	71	256	336	396	456	586	1116	1186
500	498	118	750	1786	1950	71	266	346	411	466	596	1136	1216

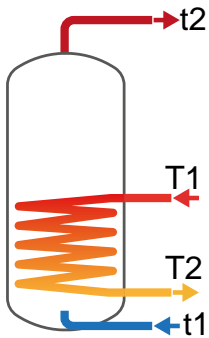
Model	H10	H11	H12	H13	H14	K	Connections F				
							O	M	D	B	A
150	//	//	1066	//	1186	Øi120/Øe180	1"1/4	3/4"	1"1/2	3/4"	1"1/4
200	//	//	1116	//	1196	Øi120/Øe180	1"1/4	3/4"	1"1/2	3/4"	1"1/4
300	//	//	1141	//	1231	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4
400	//	//	1386	//	1466	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4
500	//	//	1331	//	1476	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

LOWER
HEAT EXCHANGER



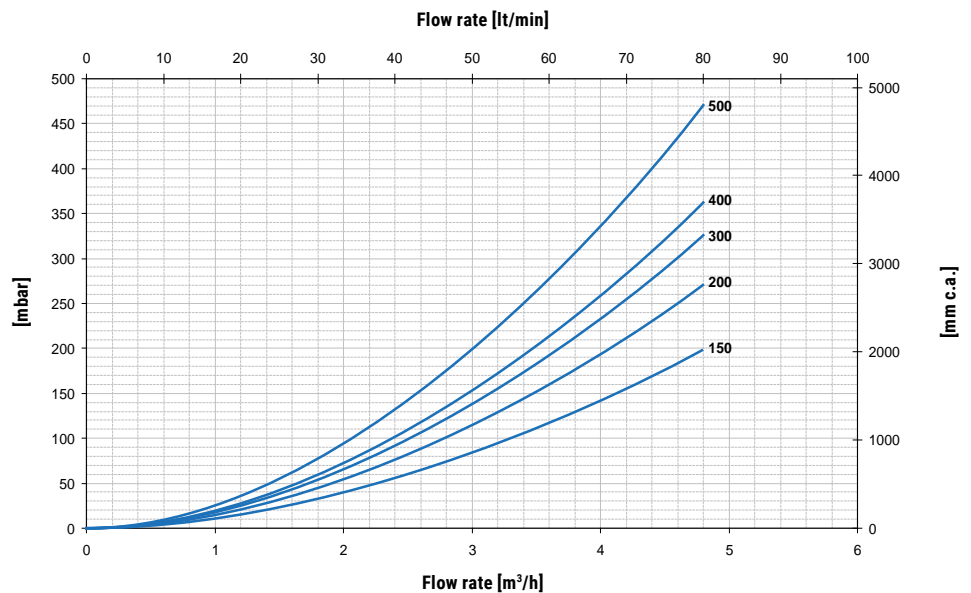
Mod.	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum exchangeable power in KW with primary at T1, secondary from 10°C to t2 and continuous withdrawal of the DHW produced					Continuous DHW production in l/h between 10°C and t2 and primary at temperature T1				
		T1/t2				T1/t2					T1/t2				
		55/50	65/60	70/60	80/60	55/45	65/45	70/45	80/45	80/60	55/45	65/45	70/45	80/45	80/60
150	2	56	58	41	27	12	18	21	27	22	294	439	512	662	378
	1	65	68	48	32	11	16	18	23	19	266	390	452	577	334
200	2,5	62	65	46	30	13	20	23	30	25	327	488	569	735	439
	1,25	72	76	54	35	12	18	20	26	23	433	433	503	644	393
300	3	65	67	48	31	20	30	35	44	38	490	731	852	1099	666
	1,5	75	79	56	37	18	27	31	39	34	449	656	759	968	596
400	3,5	80	83	58	38	22	33	39	50	43	549	820	956	1234	745
	1,75	92	96	68	45	21	30	35	44	39	506	741	858	1095	672
500	3,5	79	82	58	38	29	42	49	63	54	705	1045	1216	1563	948
	1,75	93	98	69	46	26	38	44	55	49	645	933	1076	1365	847

Mod.	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	218	285	297	322	404	563	621	741	401	39
	1	213	276	287	308	382	523	573	673	11	11
200	2,5	271	351	365	393	478	660	725	858	827	81
	1,25	288	342	354	377	562	616	672	785	229	22
300	3	414	538	558	599	725	1001	1097	1295	1391	136
	1,5	407	525	542	577	692	941	1023	1190	385	38
400	3,5	574	740	762	809	921	1259	1368	1590	2056	202
	1,75	567	726	746	785	887	1196	1289	1479	570	56
500	3,5	687	886	914	972	1133	1547	1684	1962	262	2673
	1,75	677	867	891	939	1085	1458	1572	1803	73	741

HEAT EXCHANGERS PRESSURE DROP

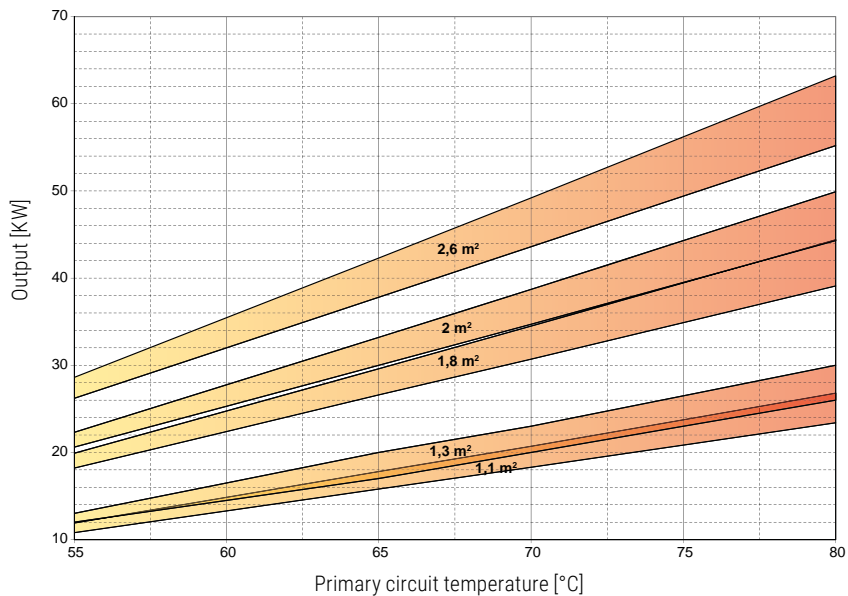
Heat exchangers surface
[m²]

150	1,1
200	1,3
300	1,8
400	2
500	2,6



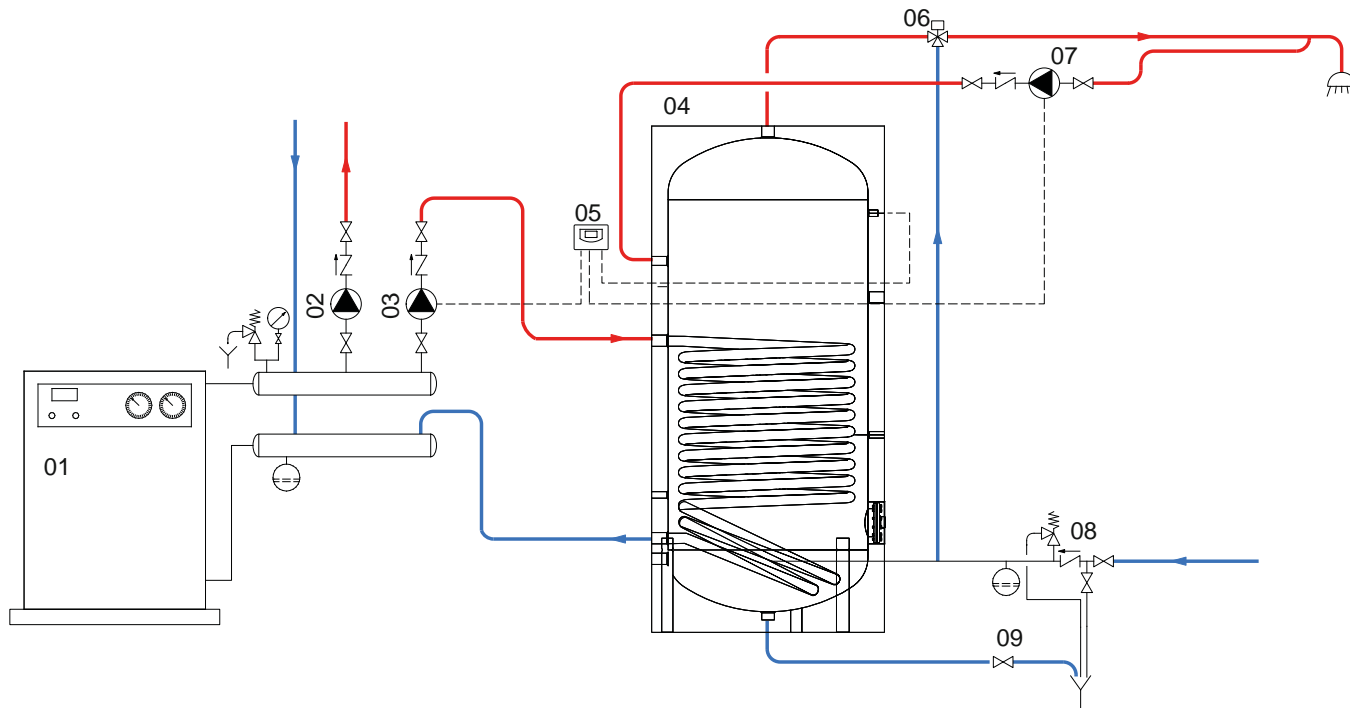


Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Heat exchanger surface	1,1 m ²		1,3 m ²		1,8 m ²		2 m ²		2,6 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

EXAMPLE OF INSTALLATION WITH BOLLY® 1 AP



01 Generator

02 Heating system circulation group

03 D.H.W. circulation group

04 BOLLY® 1 AP

05 Electronic control /thermostat

06 Thermostatic mixing valve

07 D.H.W. recirculation group

08 Hydraulic safety group

09 Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 AP - HIGH PERFORMANCES

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.
- HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

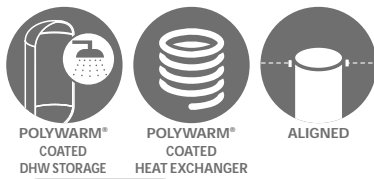
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

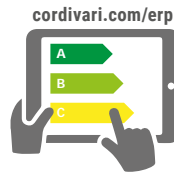
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 2 AP WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
200	3134162320006	0,4	1,4	B
300	3134162320007	0,9	1,4	B
500	3134162320008	1,3	2,2	C



On line ErP label tool



BOLLY® 2 AP WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
200	3134162330024	0,4	1,4	A
300	3134162330025	0,9	1,4	A
500	3134162330026	1,3	2,2	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]
200	1	159
	2	58
300	1	235
	2	112
500	1	413
	2	185

MONOPHASE		
1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
285	214	142
104	78	52
421	316	210
201	151	100
741	555	370
331	248	165

THREEPHASE		
4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
39	//	//
158	//	//
75	60	//
278	222	//
124	99	83

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

BOLLY® 2 AP - HIGH PERFORMANCES

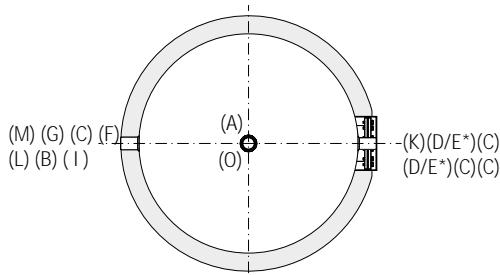
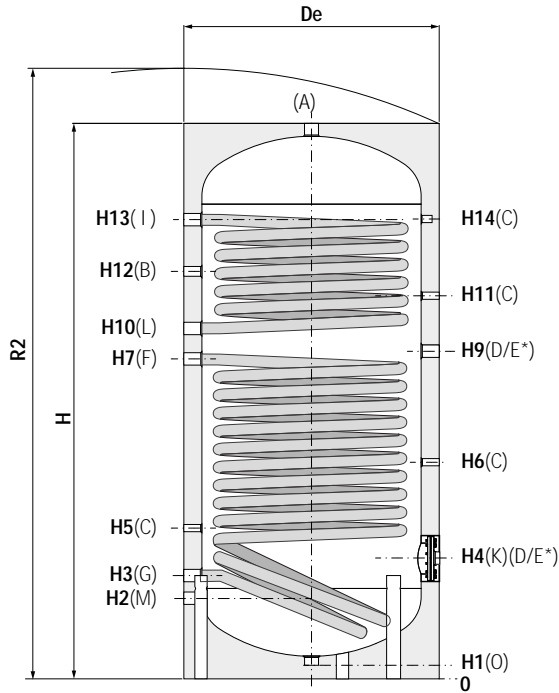
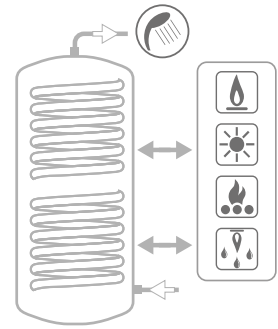
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E*	Connection for magnesium anode Use a reduction 1 1/2" → 1 1/4"
F	Lower heat exchanger inlet 1 1/4 G F
G	Lower heat exchanger outlet 1 1/4 G F
I	Upper heat exchanger inlet 1 1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1 1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F

BOLLY® AND BOLLYTERM®

BOLLY® 2 AP WB +AP WB CLASS A (HARD FOAM INSULATION)

Model	Volume [lt]	Weight [Kg]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9
200	189	65	550	1434	1540	71	215	285	325	405	535	925	//	970
300	291	83	650	1486	1630	71	241	311	381	431	561	832	//	906
500	498	134	750	1786	1950	71	266	346	411	466	586	1036	//	1111

Model	H10	H11	H12	H13	H14	K	Connections F				
							O	M	D	B	A
200	1015	1080	1115	1205	1195	Øi120/Øe180	1 1/4"	3/4"	1 1/2"	3/4"	1 1/4"
300	981	1021	1101	1221	1221	Øi120/Øe180	1 1/4"	1"	1 1/2"	1"	1 1/4"
500	1186	1246	1331	1476	1476	Øi120/Øe180	1 1/4"	1"	1 1/2"	1"	1 1/4"

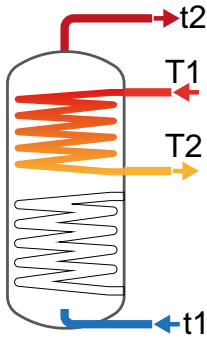
P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

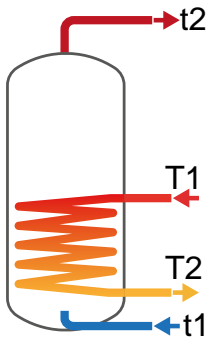
UPPER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum exchangeable power in KW with primary at T1, secondary from 10°C to t2 and continuous withdrawal of the DHW produced					Continuous DHW production in l/h between 10°C and t2 and primary at temperature T1				
		T1/t2				T1/t2					T1/t2				
		55/50	65/60	70/60	80/60	55/45	65/45	70/45	80/45	80/60	55/45	65/45	70/45	80/45	80/60
200	2	54	56	39	25	4	7	8	10	8	107	162	190	247	145
	1	61	63	44	29	4	6	7	9	8	97	146	170	221	131
300	3	41	43	30	20	10	15	18	23	17	243	368	432	562	290
	1,5	47	48	34	22	9	14	16	20	15	223	333	389	503	267
500	3,5	49	51	35	23	14	23	26	32	24	353	532	623	809	419
	1,75	55	57	40	26	13	20	23	29	22	326	482	562	724	385

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in l/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in l/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	234	297	302	311	302	400	422	468	150	15
	1	232	294	298	307	294	387	406	447	50	5
300	3	373	477	488	509	527	710	761	865	830	81
	1,5	370	471	481	500	511	682	727	818	243	24
500	3,5	628	800	815	846	852	1137	1210	1359	1264	124
	1,75	623	792	805	832	830	1097	1161	1291	371	36

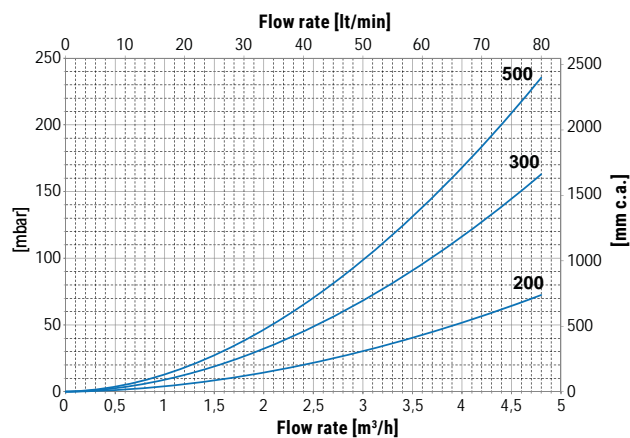
LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum exchangeable power in KW with primary at T1, secondary from 10°C to t2 and continuous withdrawal of the DHW produced					Continuous DHW production in l/h between 10°C and t2 and primary at temperature T1				
		T1/t2				T1/t2					T1/t2				
		55/50	65/60	70/60	80/60	55/45	65/45	70/45	80/45	80/60	55/45	65/45	70/45	80/45	80/60
200	3	54	56	40	26	16	23	27	36	29	384	576	673	871	500
	1,5	62	65	46	31	15	21	25	32	26	354	522	607	778	455
300	3	82	85	60	39	16	23	27	36	29	384	576	673	871	500
	1,5	94	98	69	45	15	21	25	32	26	354	522	607	778	455
500	3,5	100	104	73	48	22	33	39	50	41	549	820	956	1234	711
	1,75	115	120	85	56	21	30	35	44	37	506	741	858	1095	643

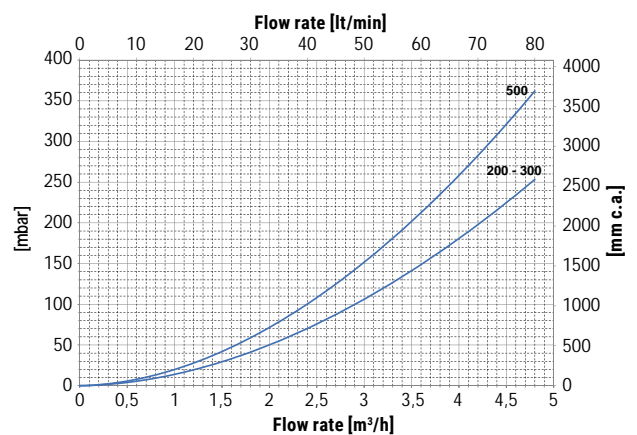
Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in l/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in l/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	3	280	366	382	415	523	731	808	967	830	81
	1,5	275	357	371	400	499	688	756	892	243	24
300	3	397	512	528	561	640	877	954	1113	830	81
	1,5	392	503	517	545	616	833	901	1038	243	24
500	3,5	661	848	871	917	1008	1367	1476	1699	1264	124
	1,75	653	835	854	894	974	1304	1398	1587	371	36

HEAT EXCHANGERS PRESSURE DROP



UPPER

Heat exchangers surface [m²]	
200	0,4
300	0,9
500	1,3

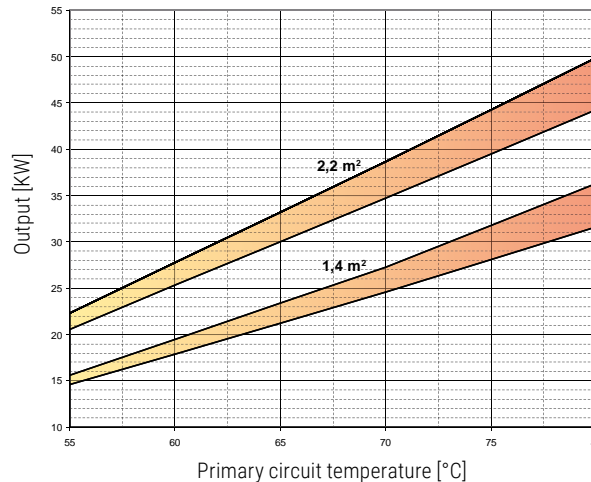
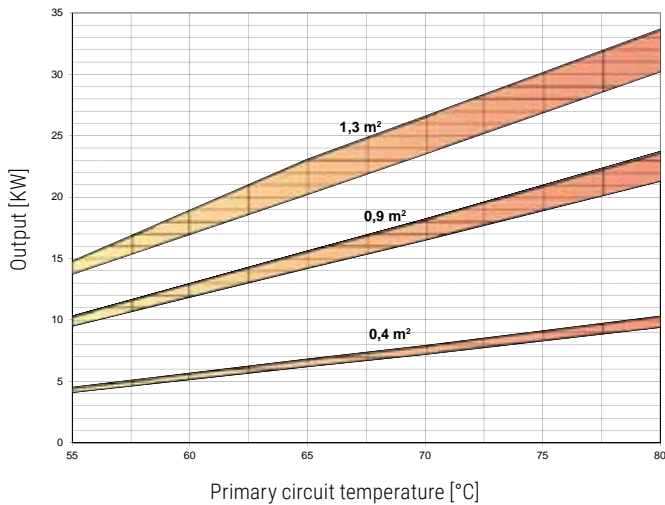


LOWER

Heat exchangers surface [m²]	
200	1,4
300	1,4
500	2,2



Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)

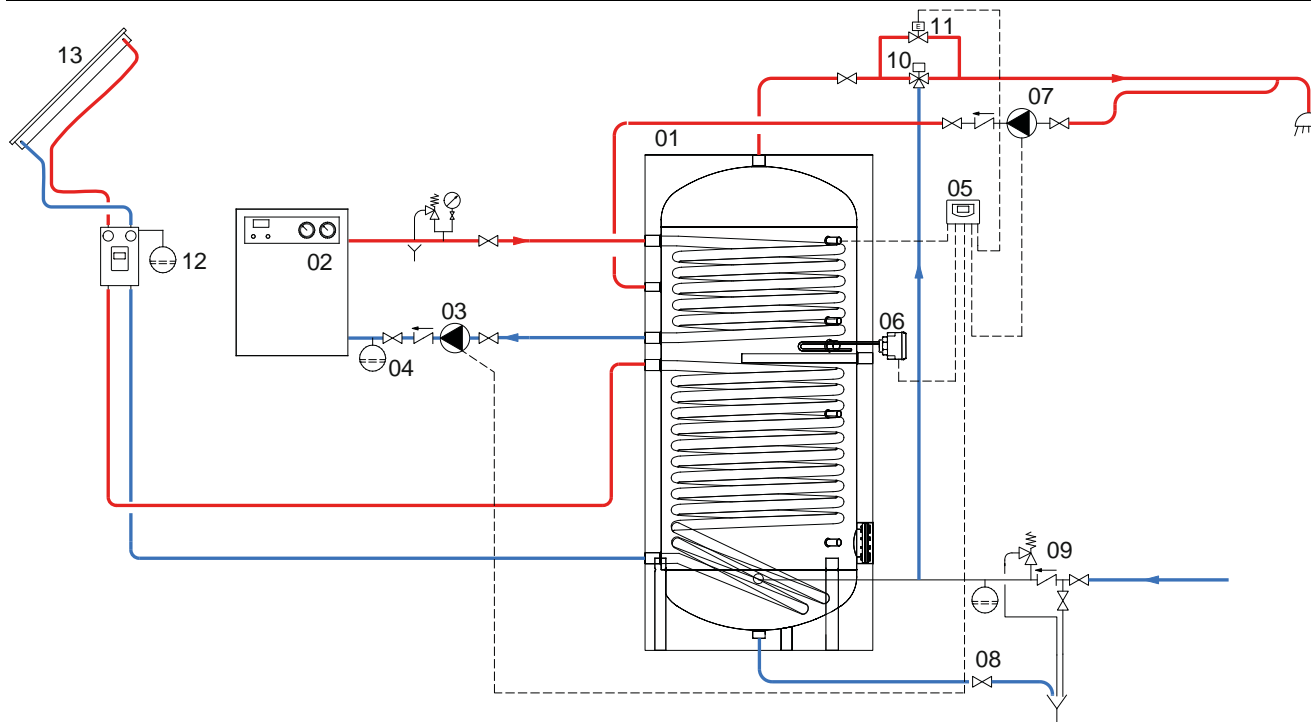


Heat exchanger surface	0,4 m ²		0,9 m ²		1,3 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	3	1,5	3,5	1,75

Heat exchanger surface	1,4 m ²		2,2 m ²	
	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3	1,5	3,5	1,75



EXAMPLE OF INSTALLATION WITH BOLLY® 2 AP

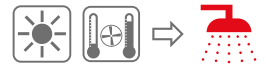


1 BOLLY® 2 AP	5 Electronic control /thermostat	9 Hydraulic safety group	13 Solar panels
2 Generator	6 Electric immersion heater (optional)	10 Thermostatic mixing valve	
3 Circulation group	7 D.H.W. recirculation group	11 By-pass solenoid valve	
4 Expansion vessel	8 Blowdown valve	12 Solar system circulation group	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

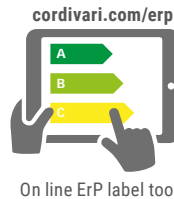
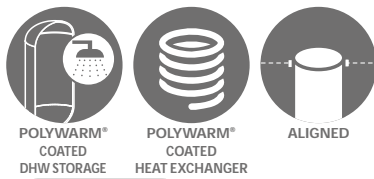
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® and connection for electric heater.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 XL WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3104162330011	2	B
300	3104162330012	3,4	B
400	3104162330013	4,4	C
500	3104162330014	5,4	C
800	3104162330015	6,0	B
1000	3104162330016	6,5	B



BOLLY® 1 XL WC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
800	3104162320007	6,0	C
1000	3104162320008	6,5	C



BOLLY® 1 XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3104162330051	2	A
300	3104162330052	3,4	A
500	3104162330053	5,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	159	285	214
300	235	421	316
400	353	632	474
500	413	741	555
800	668	1197	898
1000	874	1565	1174

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
//	//	//	//	//
158	//	//	//	//
237	//	//	//	//
278	222	//	//	//
449	359	299	199	//
587	470	391	261	196

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

Titanium electronic anode

For art. nr. and prices please see Accessories section	
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BOLLY® 2 XL

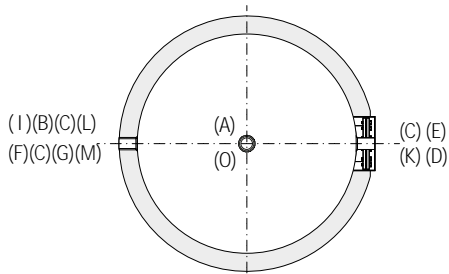
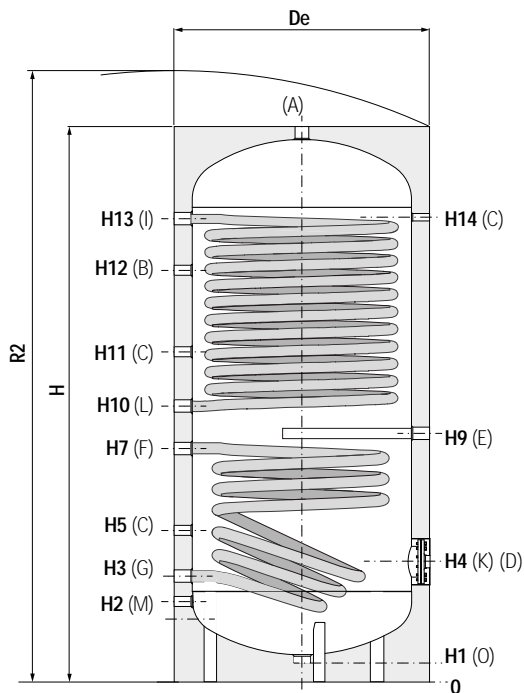
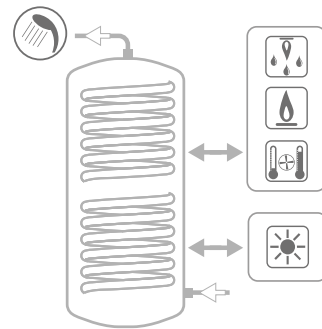
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet 1"1/4
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1"1/2 G F
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1"1/4 F

BOLLY® 2 XL WB +XL WB CLASS A (HARD FOAM INSULATION)

Model	Volume Weight		De	H	R2	H1	H2	H3	H4	H5	H7
	[lt]	[Kg]									
200	189	65	550	1434	1540	65	215	285	325	405	475
300	291	83	650	1486	1620	65	241	311	381	431	596
500	498	134	750	1786	1940	65	266	346	411	466	671

Model	H8	H9	H10	H11	H12	H13	H14	K	M		B
									Connections F		
	[mm]										
200	520	//	570	690	1089	1200	1200	Ø1120/Øe180	3/4"	3/4"	
300	641	//	686	806	1090	1226	1226	Ø1120/Øe180	1"	1"	
500	716	//	761	881	1091	1476	1476	Ø1120/Øe180	1"	1"	

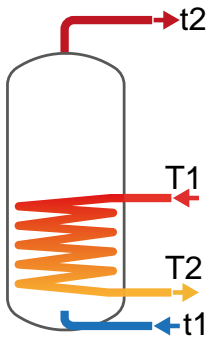
BOLLY® AND BOLLYTERM®



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	40	42	30	20	21	31	36	47	522	773	899	1153
	1,25	49	52	36	24	19	28	32	40	468	677	780	990
300	3	44	46	32	22	30	45	52	66	751	1104	1281	1640
	1,5	55	57	41	27	27	39	44	56	664	951	1093	1377
400	3,5	47	49	35	23	42	61	71	90	1033	1510	1747	2229
	1,75	59	62	44	30	37	53	60	75	915	1298	1486	1863
500	3,5	49	51	36	24	48	70	81	103	1198	1740	2009	2551
	1,75	62	65	47	31	43	60	68	85	1060	1487	1696	2114
800	5	59	61	43	29	64	93	107	136	1571	2291	2650	3372
	2,5	72	76	55	37	57	80	92	115	1412	1993	2277	2845
1000	8	65	68	48	32	72	106	124	158	1780	2632	3058	3925
	4	76	80	57	38	66	95	110	139	1642	2364	2720	3436

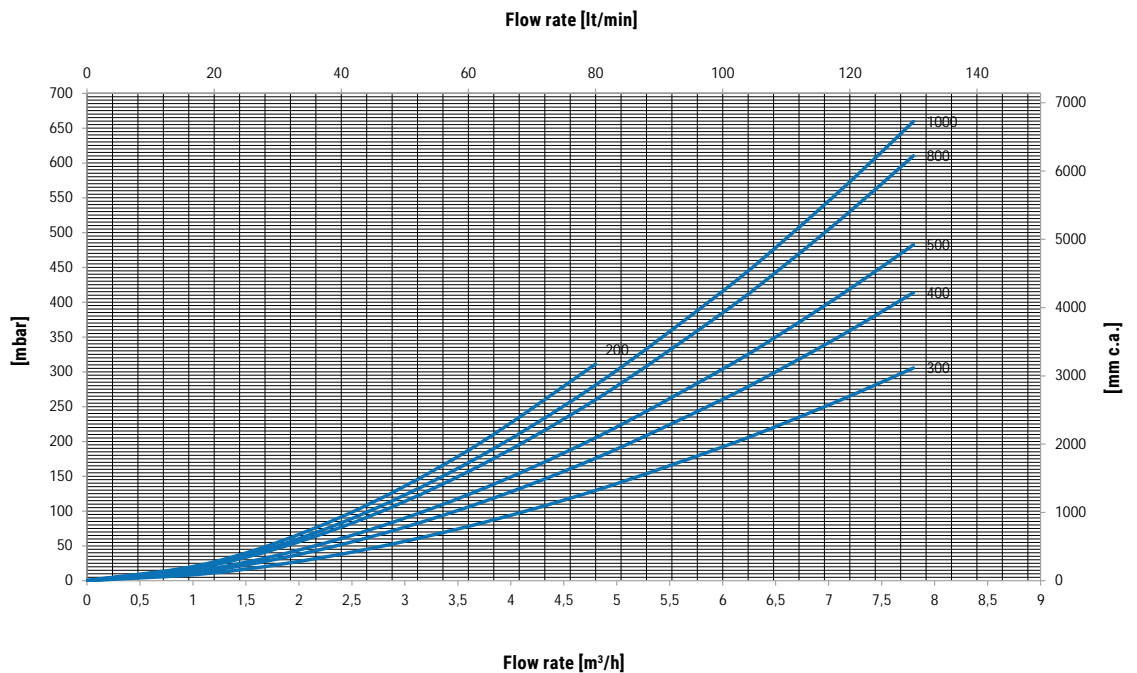


Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	221	399	420	462	241	888	989	1193	1062,3	104,2
	1,25	221	383	400	435	238	811	894	1062	309,7	30,4
300	3	340	600	629	689	368	1299	1441	1728	830,2	81,4
	1,5	339	574	598	645	363	1176	1290	1517	243,2	23,8
400	3,5	492	855	894	974	531	1811	2001	2386	1263,9	123,9
	1,75	491	819	850	913	524	1641	1791	2093	370,8	36,4
500	3,5	581	1001	1046	1137	625	2103	2319	2752	1263,9	123,9
	1,75	579	959	994	1064	617	1901	2068	2403	370,8	36,4
800	5	918	1510	1570	1691	977	2962	3249	3826	2976,1	291,9
	2,5	916	1461	1508	1603	967	2723	2950	3405	874,7	85,8
1000	8	1203	1920	1991	2136	1270	3587	3928	4621	7358,7	721,6
	4	1201	1875	1935	2054	1261	3372	3657	4230	2161,9	212,0

HEAT EXCHANGER PRESSURE DROP

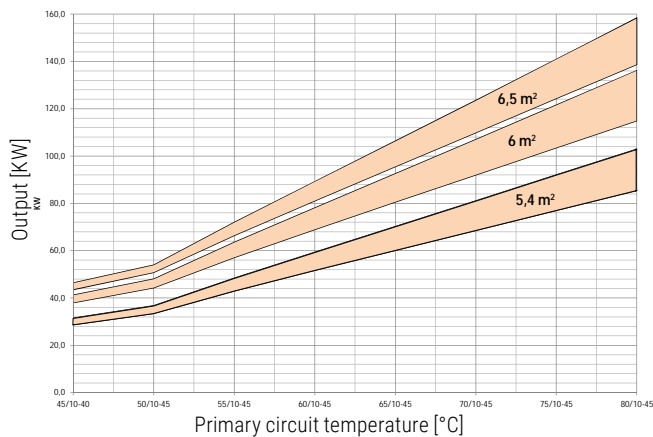
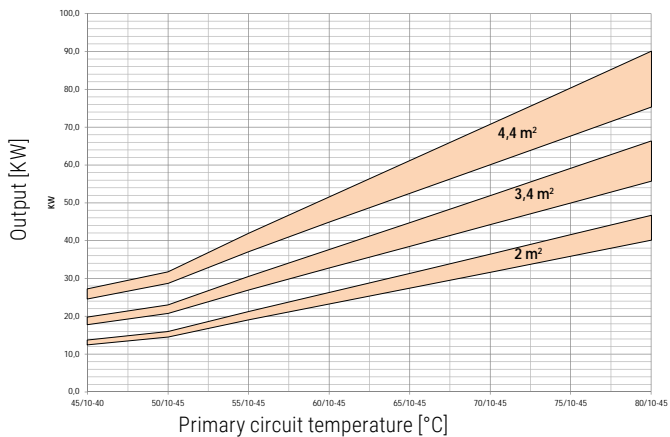
Heat exchangers surface
[m²]

200	2
300	3,4
400	4,4
500	5,4
800	6
1000	6,5





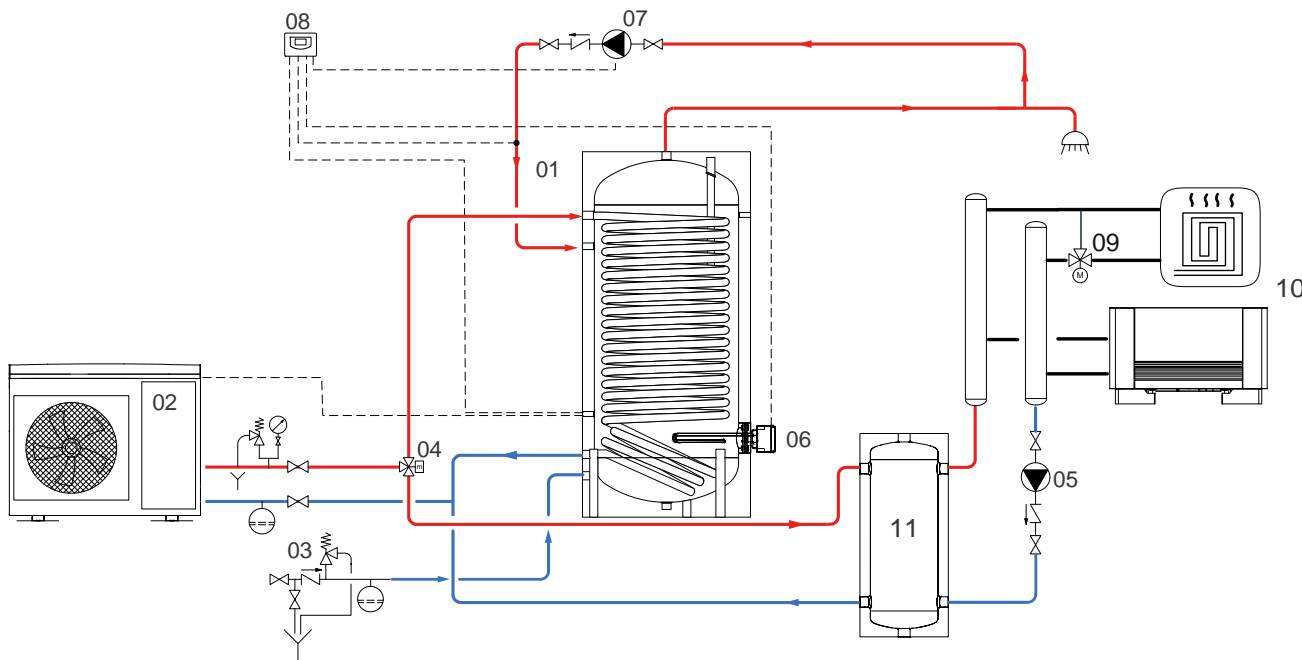
Heat Exchanger output referred TO TEMPERATURE and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Heat exchanger surface	2 m ²		3,4 m ²		4,4 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

Heat exchanger surface	5,4 m ²		6 m ²		6,5 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3,5	1,75	5	2,5	8	4

EXAMPLE OF INSTALLATION WITH BOLLY® 1 XL



- | | | | |
|--------------------------|--|----------------------------------|------------------|
| 1 BOLLY® 1 XL | 4 Motorized three-way valve | 7 DHW recirculation | 10 Heating units |
| 2 Generator (Heat pump) | 5 Circulation group for heating/cooling system | 8 Electronic control /thermostat | 11 Buffer tank |
| 3 Hydraulic safety group | 6 Electric immersion heater (optional) | 9 Thermostatic mixing valve | |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.
- HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

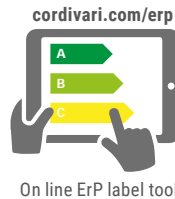
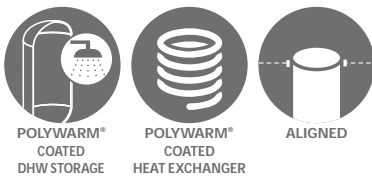
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 2 XL WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
200	3134162320001	1,4	0,4	B
300	3134162320002	1,9	0,9	B
500	3134162320003	3,1	1,4	C



BOLLY® 2 XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
200	3134162330021	1,4	0,4	A
300	3134162330022	1,9	0,9	A
500	3134162330023	3,1	1,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE		
	1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
	285	214	142	//	//	//
200	159					
300	235	421	316	158	//	//
500	413	741	555	278	222	//

Electric immersion heater flange plate



See Accessories section

Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

BOLLY® 2 XL

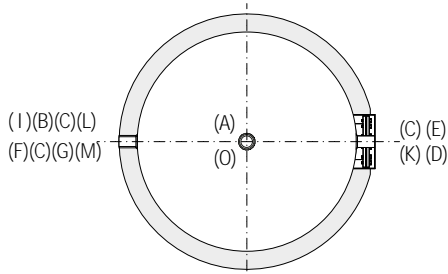
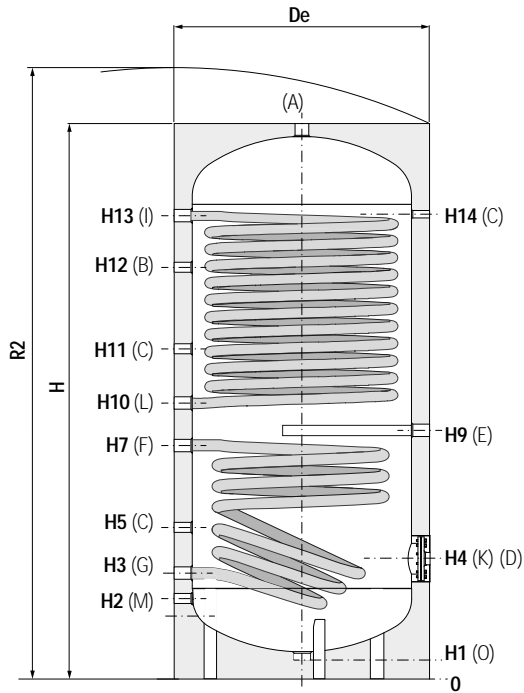
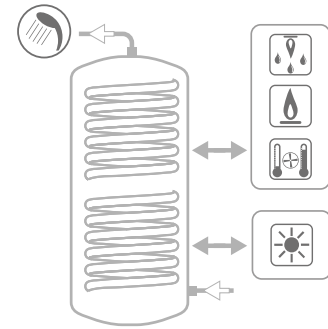
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet 1"1/4
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 1"1/2 G F
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1"1/4 F

BOLLY® 2 XL WB +XL WB CLASS A (HARD FOAM INSULATION)

Model	Volume Weight		De	H	H (cl. A)	R2	R2 (cl. A)	H1	H2	H3	H4	H5	H6	H7
	[lt]	[Kg]												
200	189	65	550	1434	1434	1540	1540	65	215	285	325	405	//	475
300	291	83	650	1486	1486	1620	1620	65	241	311	381	431	//	596
500	498	134	750	1786	1836	1940	1980	65	266	346	411	466	//	671

Model	H8	H9	H10	H11	H12	H13	H14	K	M	B
	[mm]									
200	520	//	570	690	1089	1200	1200	Ø1120/Øe180	3/4"	3/4"
300	641	//	686	806	1090	1226	1226	Ø1120/Øe180	1"	1"
500	716	//	761	881	1091	1476	1476	Ø1120/Øe180	1"	1"

BOLLY® AND BOLLYTERM®

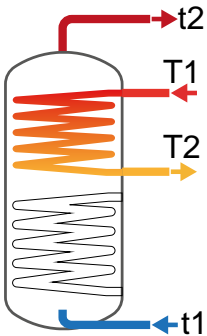


Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

UPPER
HEAT EXCHANGER

Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	37	38	27	18	15	23	27	34	377	564	659	851
	1,25	42	44	31	21	14	21	24	30	346	507	586	749
300	3	43	45	31	20	20	30	35	46	501	747	871	1123
	1,5	50	52	37	24	18	27	31	39	454	661	765	975
500	3,5	46	48	34	22	33	49	56	72	812	1198	1392	1786
	1,75	47	49	35	23	30	42	49	62	732	1050	1208	1525



Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	149	275	291	323	163	633	708	862	163,5	16,0
	1,25	149	266	279	306	162	587	651	781	45,6	4,5
300	3	226	400	421	463	245	873	972	1174	88,4	8,7
	1,5	225	386	403	438	242	805	888	1056	24,5	2,4
500	3,5	329	601	633	699	360	1360	1515	1830	70,2	6,9
	1,75	328	576	603	656	355	1242	1368	1621	20,9	2,0

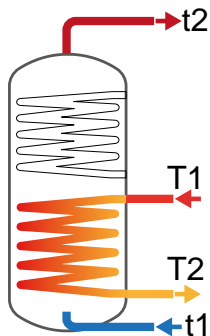


Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

LOWER
HEAT EXCHANGER

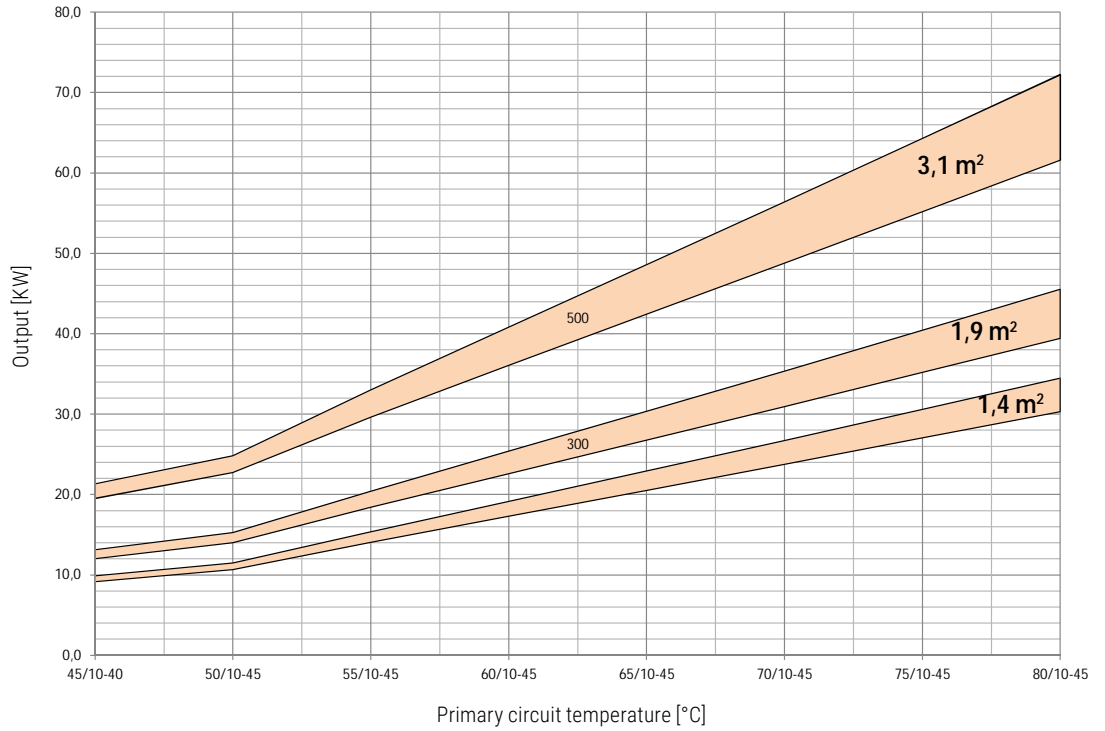
Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	182	189	130	84	4,8	6,9	8,1	10,5	110	168	198	259
	1,25	225	241	151	95	4,4	6,4	7,5	9,7	99	152	179	235
300	3	127	132	92	60	9,9	15,0	17,5	22,8	243	368	431	561
	1,5	150	157	107	69	9,1	13,6	15,8	20,4	220	330	385	499
500	3,5	141	146	102	67	15,5	23,2	27,1	35,1	380	572	669	868
	1,75	139	145	101	66	14,2	21,0	24,4	31,3	346	514	598	771



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	217	298	303	313	222	405	428	477	92,7	9,1
	1,25	217	295	300	309	221	392	413	458	24,5	2,4
300	3	335	477	488	509	345	710	761	865	61,5	6,0
	1,5	335	471	480	499	343	679	724	815	16,5	1,6
500	3,5	486	698	714	748	501	1060	1138	1297	100,1	9,8
	1,75	486	688	703	731	499	1014	1082	1219	27,4	2,7



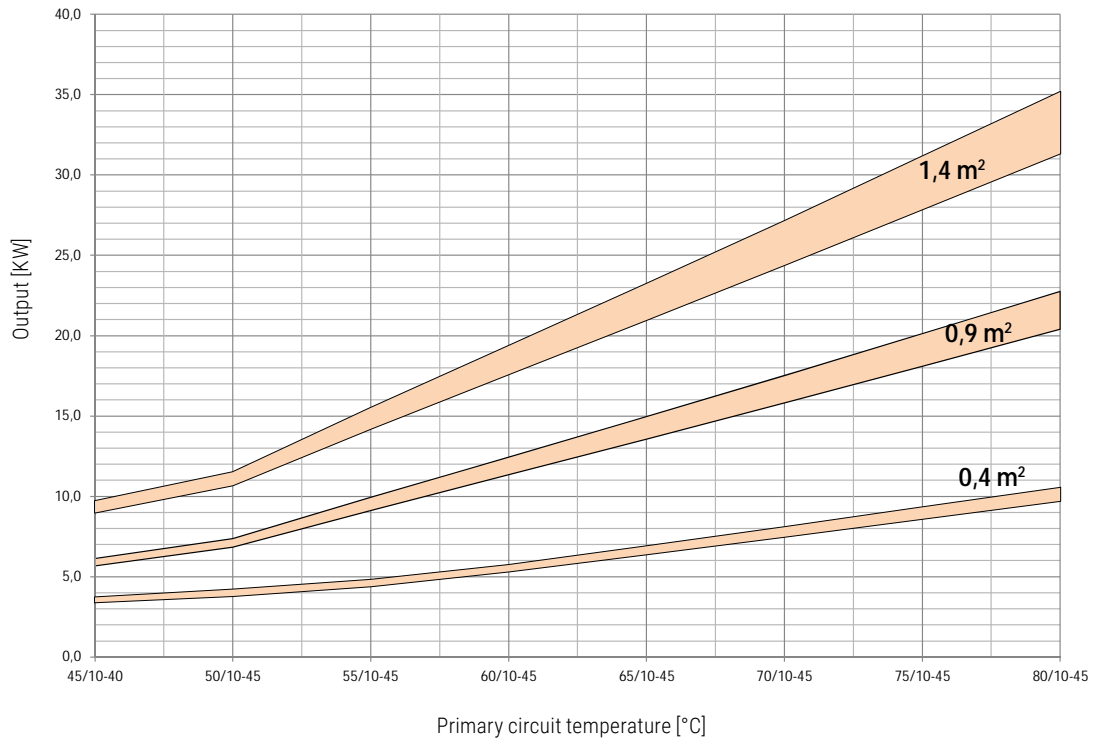
Heat exchangers surface [m ²]	
Upper	
200	1,4
300	1,9
500	3,1



Upper heat exchangers	1,4 m ²		1,9 m ²		3,1 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

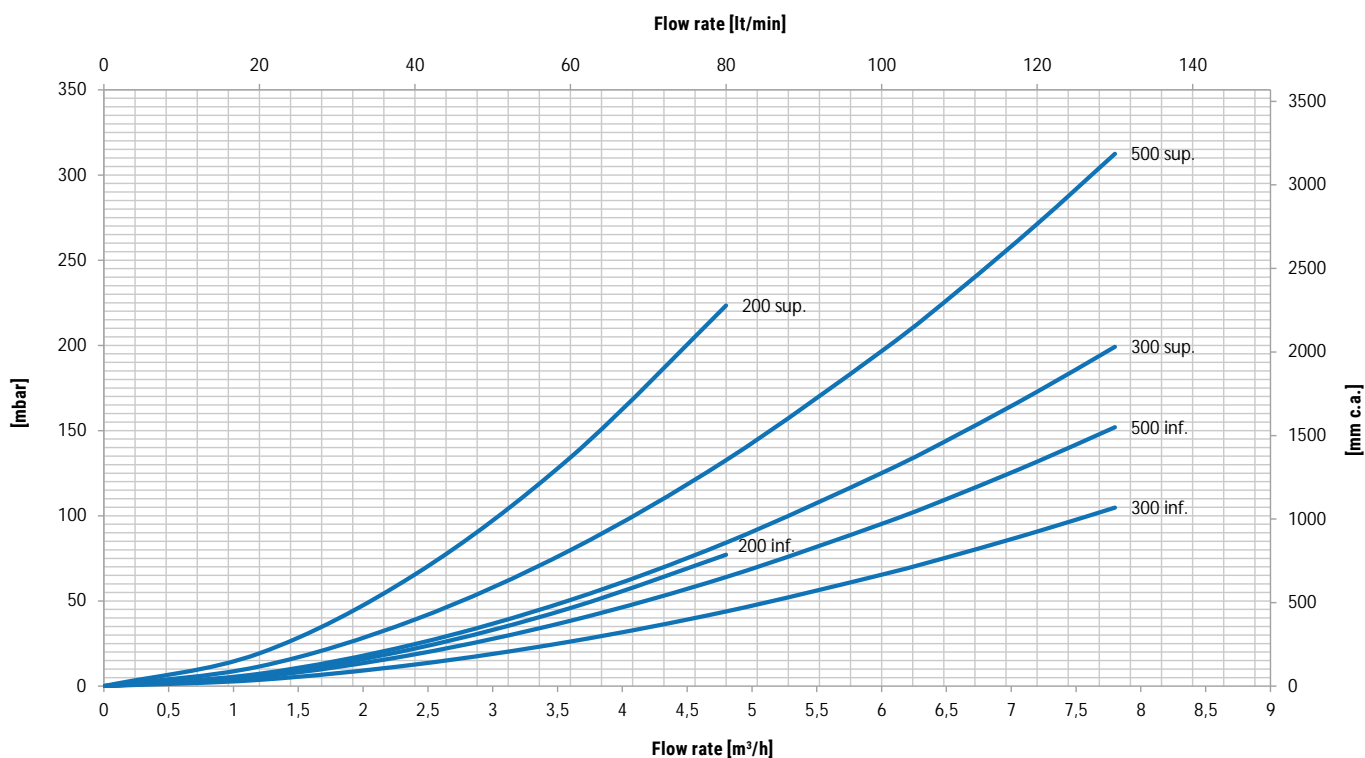
LOWER HEAT EXCHANGERS TECHNICAL DATA

Heat exchangers surface [m ²]	
Upper	
200	0,4
300	0,9
500	1,4



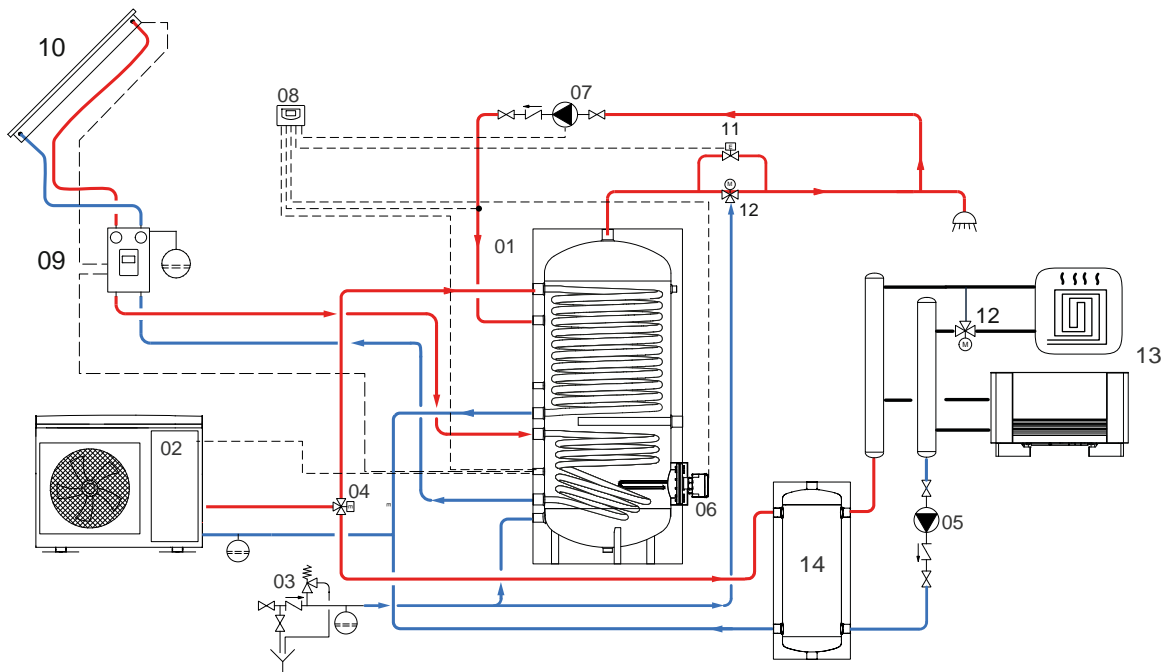
Lower heat exchangers	0,4 m ²		0,9 m ²		1,4 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



BOLLY®
AND BOLLYTERM®

EXAMPLE OF INSTALLATION WITH BOLLY® 2 XL



1 BOLLY® 2 XL	5 Circulation group for heating/cooling system	9 Solar system circulation group	13 Heating units
2 Generator (Heat pump)	6 Electric immersion heater (optional)	10 Solar panels	14 Buffer tank
3 Hydraulic safety group	7 D.H.W. recirculation group	11 By-pass solenoid valve	
4 Motorized three-way valve	8 Electronic control /thermostat	12 Mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® MURALE

HANGED POLYWARM® COATED CALORIFIER FOR D.H.W. PRODUCTION WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS).

Complete with wall brackets

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

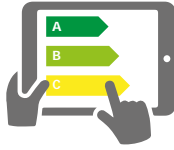


POLYWARM®
COATED
DHW STORAGE

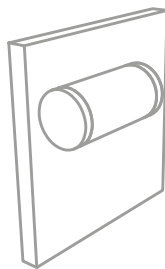
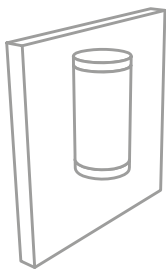


POLYWARM®
COATED
HEAT EXCHANGER

cordivari.com/erp



On line ErP label tool



Vertical or horizontal wall hanged



BOLLY® MURALE WB

HEAT EXCHANGER SURFACE ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation Art. Nr.	[m ²]	ErP
80	3104160900031	0,44	C
100	3104160900032	0,44	C
150	3104160900033	0,63	C
200	3104160900034	0,84	C
300	3104160900035	1,22	C

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Magnesium anode

ART. NR.	Model
5200000041015	80=150
5200000041010	200=300
2 units box	



Electric immersion heater with thermostat

Art. Nr.	Output	Connection
5240000000051	1,5 kW	1"1/2
5240000000052	2 kW	1"1/2
5240000000053	3 kW	1"1/2



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® MURALE

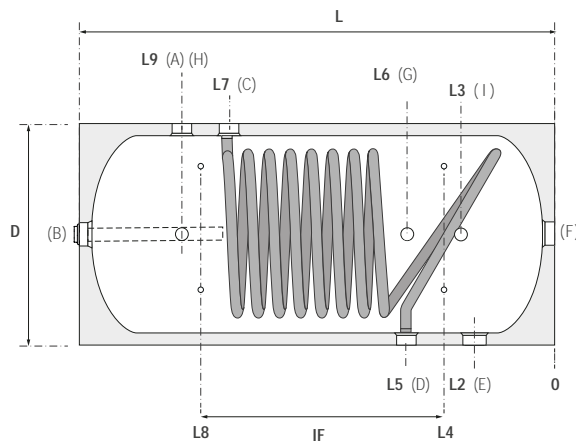
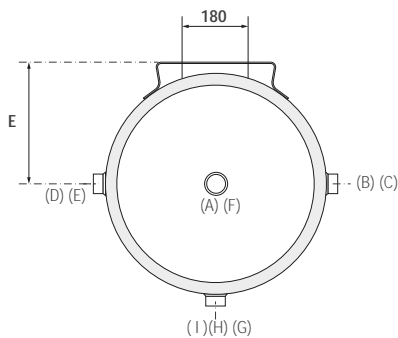
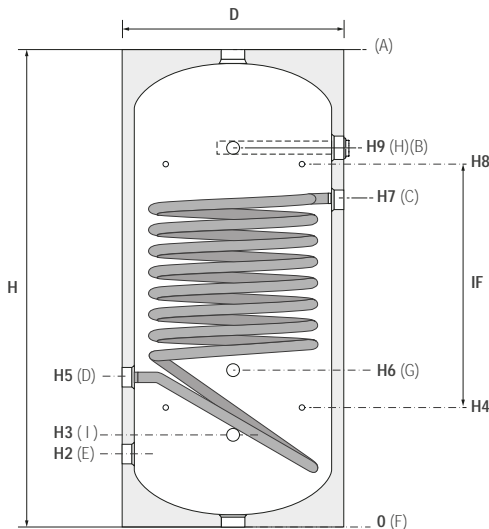
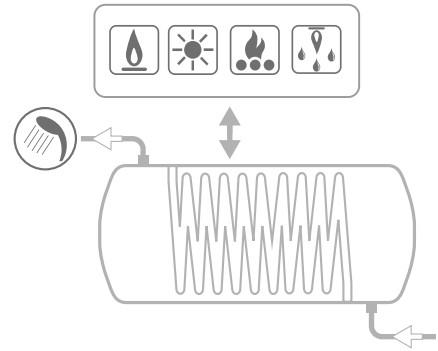
HANGED POLYWARM® COATED CALORIFIER FOR D.H.W. PRODUCTION WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet 1"1/4 G
- B** Magnesium anode 1"1/4 G F
- C** Primary circuit inlet 1"1/4 G F
- D** Primary circuit outlet 1"1/4 G F
- E** Domestic cold water circuit inlet 1"1/4 G F
- F** Connection 1"1/4 G F
- G** Instrumentation 1/2" G F
- H** Instrumentation 1/2" G F
- I** Connection for electrical resistance 1"1/2 G F

Model	Volume [lt]	Weight [Kg]	DE	H/L	H2/L2	H3/L3	H4/L4	H5/L5	H6/L6	H7/L7	H8/L8	H9/L9	IF	E
80	84	25	456	800	195	205	218	290	330	510	583	605	220	250
100	103	29	456	954	205	215	223	300	340	655	733	750	510	250
150	149	40	456	1330	205	215	330	300	340	1030	1000	1125	570	250
200	191	47	510	1350	215	225	318	310	350	1040	1033	1135	730	275
300	293	62	610	1400	240	250	343	335	375	1065	1058	1160	730	325

BOLLY® AND BOLLYTERM®

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® PRIMO

POLYWARM® COATED CALORIFIER FOR D.H.W. PRODUCTION

WITH 1 FIXED HEAT EXCHANGER FOR WALL OR FLOOR STANDING INSTALLATION



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

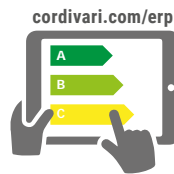
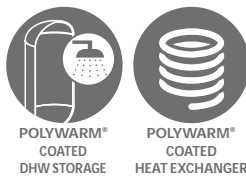
External confluence through drain connection (versione verticale).

WARRANTY

2 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

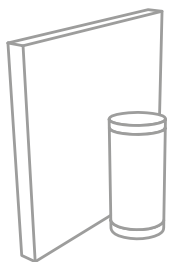


BOLLY® PRIMO WB

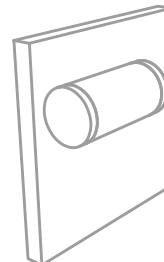
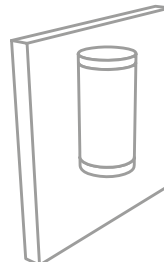
HEAT EXCHANGER SURFACE ENERGY EFFICIENCY CLASS

HARD FOAM INSULATION

Model	Pallet Art. Nr.	PIECES per pallet	[m ²]	ErP
100	310416090005606	6	0,44	C
150	310416090005706	6	0,63	C
200	310416090005804	4	0,84	C
300	310416090005904	4	1,22	C



Standard installation floor standing



With the wall mounting kit (optional) it is possible to install the tank vertically or horizontally

ACCESSORIES

Electric immersion heater with thermostat

Art. Nr.	Output	Connection
5240000000051	1,5 kW	1"1/2
5240000000052	2 kW	1"1/2
5240000000053	3 kW	1"1/2

Magnesium anode

ART. NR.	Model
5200000041015	100=150
5200000041010	200=300
2 units box	

Thermometer

Art. Nr.
5032240000107
5 units box

Wall fixing kit

Art. Nr.	For model
5221000000069	100
5221000000070	150
5221000000071	200
5221000000072	300
Galvanized brackets +PVC bottom cover	

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

BOLLY® PRIMO

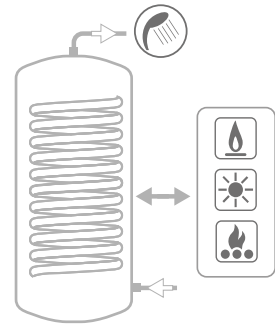
POLYWARM® COATED CALORIFIER FOR D.H.W. PRODUCTION
WITH 1 FIXED HEAT EXCHANGER FOR WALL OR FLOOR STANDING INSTALLATION

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

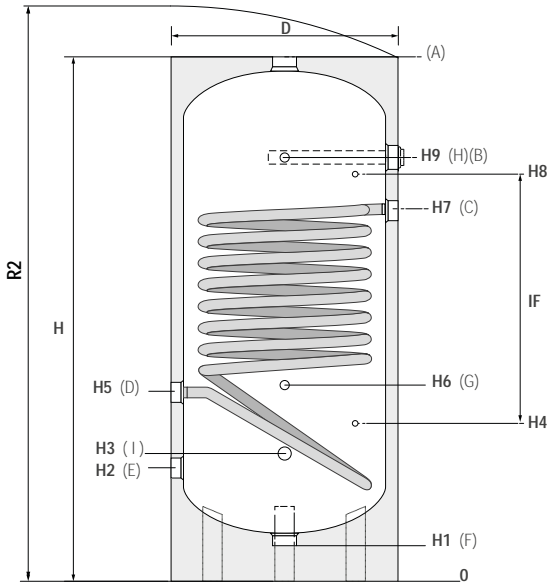


CORDIVARI® Lab

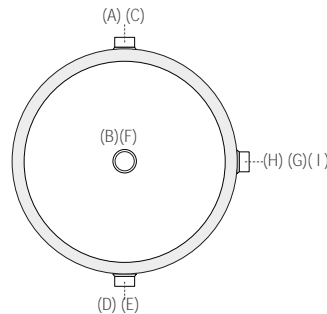
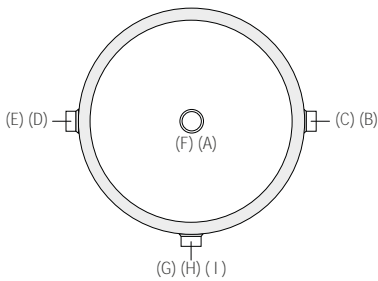
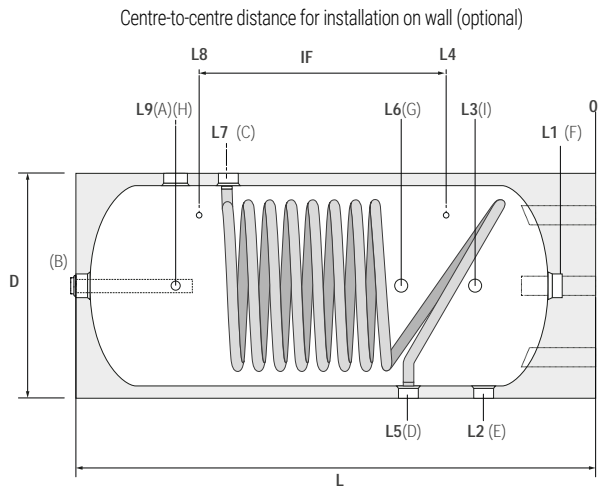
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



BOLLY® AND BOLLYTERM®



Centre-to-centre distance for installation on wall (optional)



- A** Domestic hot water outlet 1"1/4 G F
- B** Magnesium anode 1"1/4 G F
- C** Primary circuit inlet 1" G F
- D** Primary circuit outlet 1" G F
- E** Domestic cold water circuit inlet 1"1/4 G F
- F** Connection 1"1/4 G F
- G** Instrumentation 1/2" G F
- H** Instrumentation 1/2" G F
- I** Connection for for electric immersion heater 1"1/2 F

Model	Volume [lt]	Weight [kg]	DE	R1	H/L	H1/L1	H2/L2	H3/L3	H4/L4	H5/L5	H6/L6	H7/L7	H8/L8	H9/L9	IF
			[mm]												
100	103	29	456	1130	1025	72	276	286	294	371	411	726	804	821	510
150	149	40	456	1410	1330	72	276	286	401	371	411	1101	1071	1196	570
200	191	47	510	1450	1350	69	283	293	386	378	418	1108	1101	1203	730
300	293	62	610	1535	1400	70	310	320	413	405	445	1135	1128	1230	730

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® MURALE - PRIMO

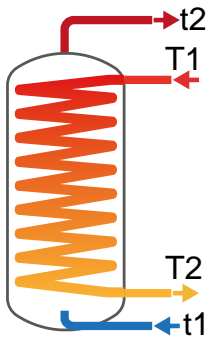
HEAT EXCHANGER TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

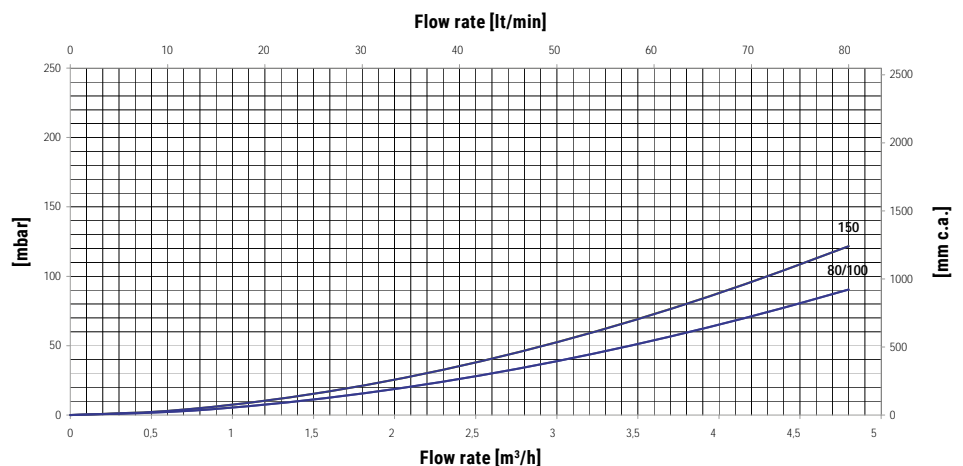
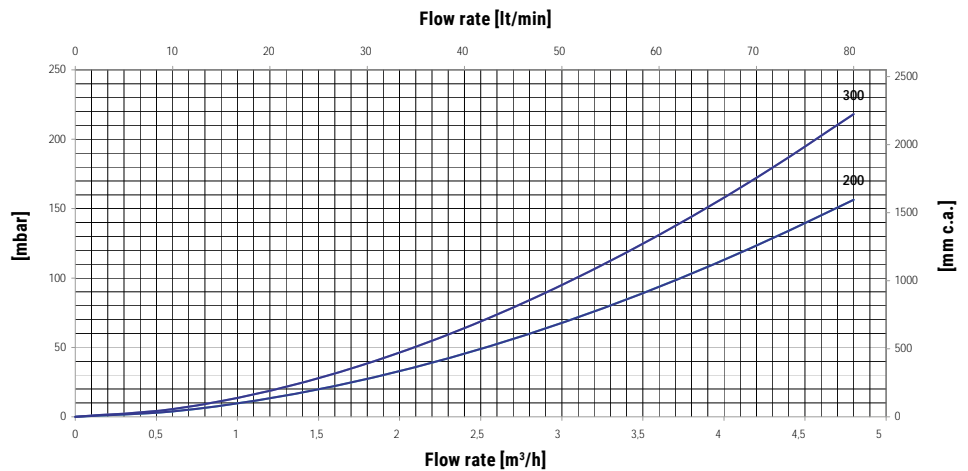
Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
80	2	80	85	55	35	4,9	7,3	8,6	11,2	114	175	207	270
	1	90	96	61	39	4,5	6,7	7,9	10,2	105	160	188	245
100	2	99	105	68	43	4,9	7,3	8,6	11,2	114	175	207	270
	1	111	119	76	48	4,5	6,7	7,9	10,2	105	160	188	245
150	2	105	111	74	47	6,5	9,7	11,3	14,7	154	234	275	358
	1	119	126	84	54	6	8,8	10,3	13,2	141	218	248	322
200	2,5	91	95	65	42	9,2	13,8	16,2	21	223	337	395	513
	1,25	102	108	73	48	8,6	12,7	14,7	19	206	308	359	464
300	3	98	102	70	46	13,1	19,6	22,9	29,6	318	479	561	727
	1,5	110	115	80	52	12,2	17,9	20,8	26,7	296	438	510	656



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
80	2	110	143	149	159	183	254	280	330	175	17
	1	109	141	146	155	175	242	265	310	51	5
100	2	133	172	177	188	205	283	308	359	175	17
	1	132	170	174	184	198	271	293	339	51	5
150	2	191	246	253	267	289	394	427	494	229	22
	1	189	243	248	261	279	382	406	465	67	7
200	2,5	249	320	330	350	390	534	580	675	472	46
	1,25	246	316	324	342	376	511	551	635	139	14
300	3	379	487	501	528	580	790	856	989	908	89
	1,5	375	480	492	516	563	758	815	932	268	26

HEAT EXCHANGER PRESSURE DROP

Heat exchangers surface [m²]	
80	0,44
100	0,44
150	0,63
200	0,84
300	1,22

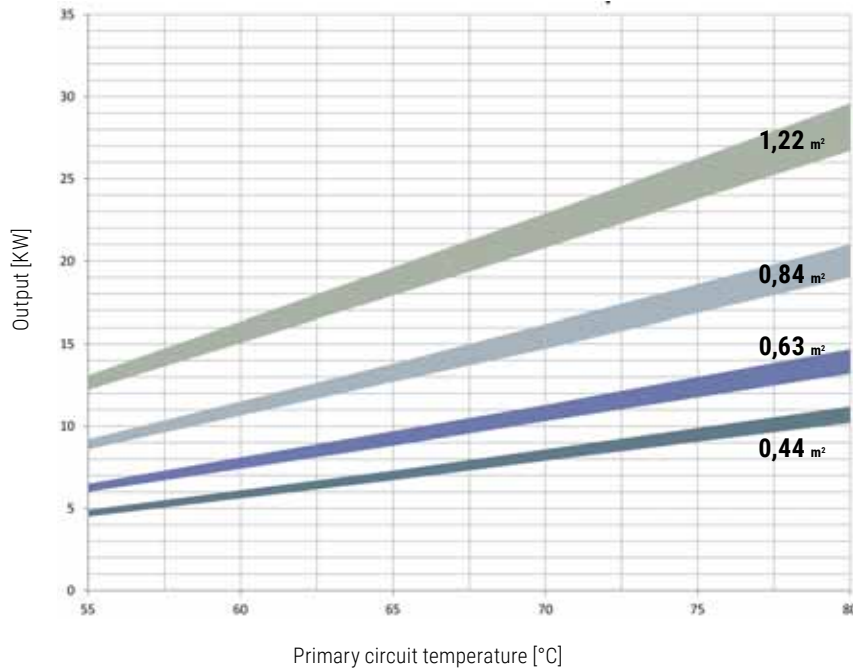


BOLLY® MURALE - PRIMO

HEAT EXCHANGER TECHNICAL DATA

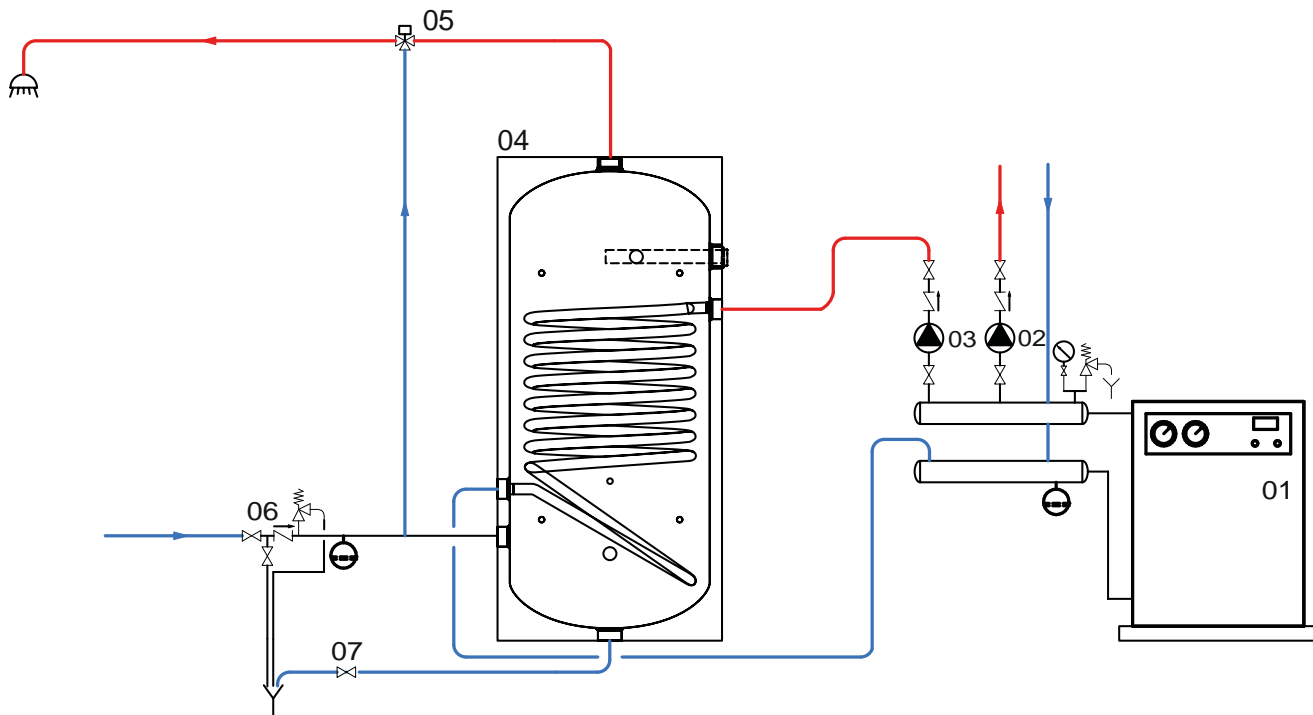


Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Heat exchanger surface [m²]	0,44		0,63		0,84		1,22	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	2	1	2,5	1,25	3	1,5

EXAMPLE OF INSTALLATION WITH BOLLY® MURALE - PRIMO



01	Generator	03	D.H.W. circulation group	05	Thermostatic mixing valve	07	Blowdown valve
02	Heating system circulation group	04	BOLLY® MURALE / PRIMO	06	Hydraulic safety group		



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS).

HEAT EXCHANGER

Double wall heat exchanger.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

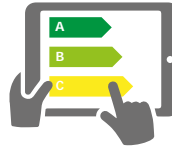


INTERKA WB

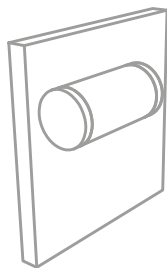
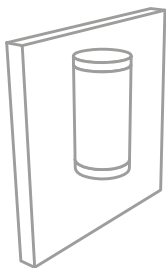
Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
80	3203160310001	0,36	C
100	3203160310002	0,54	C
150	3203160310003	0,82	C
200	3203160310004	1,00	C
300	3203160310015	1,40	C



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On line ErP label tool



Vertical or horizontal wall hanged

Model	Output [KW]	Ignition time [min]	Production of D.H.W.		Weight [Kg]
			[lt/h]	[lt/10']	
80	8	27	190	112	24
100	11	24	263	144	30
150	15	26	372	212	41
200	20	25	508	285	49
300	24	31	606	401	65

Data have been calculated with primary water at 80 °C - DHW production from 10°C to 45°C, and storage at 60 °C

ACCESSORIES

Thermometer

Art. Nr.	5032240000107
5 units box	



Electric immersion heater with thermostat

Art. Nr.	Output	Connection
5240000000042	1,5kW	1" 1/4



Magnesium anode

ART. NR.	Model
5200000041015	80+150
5200000041010	200+300
2 units box	



Kit HEAT MANAGER + electrical resistance 1,5 kW with probe and 3m cable

Art. Nr.	5240000000077
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INTERKA

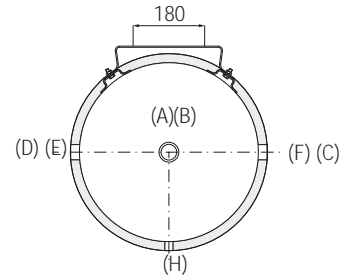
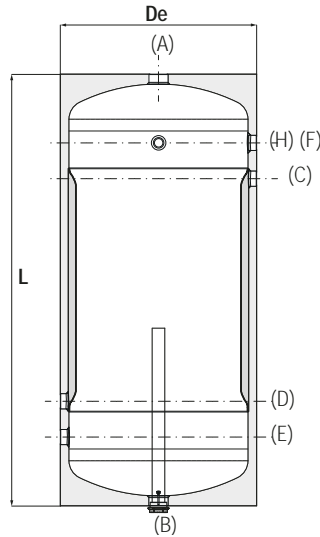
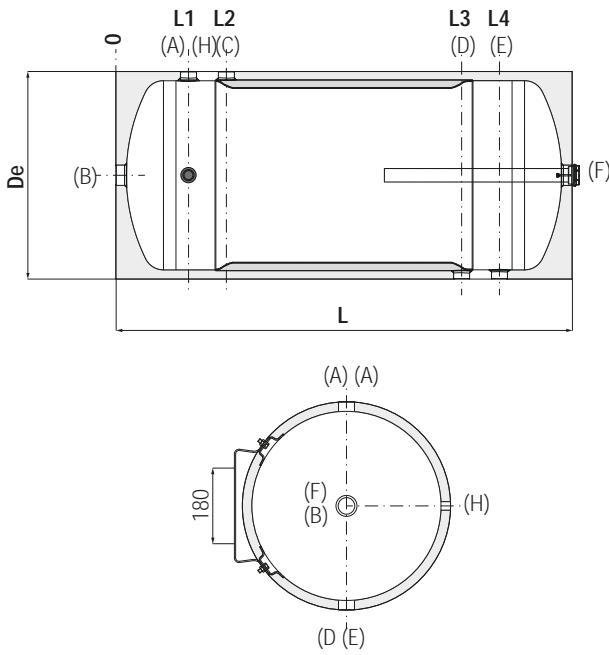
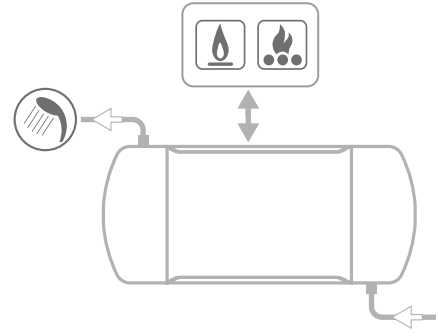
POLYWARM® COATED DOUBLE WALLED CALORIFIERS FOR D.H.W. PRODUCTION

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	1,5 bar	99 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet 1"1/4 G
- B** Magnesium anode 1"1/4 G F
- C** Primary circuit inlet 1"1/4 G F
- D** Primary circuit outlet 1"1/4 G F
- E** Domestic cold water circuit inlet 1"1/4 G F
- F** Connection 1"1/4 G F
- G** Instrumentation 1/2" G F
- H** Instrumentation 1/2" G F

POSSIBLE VERTICAL INSTALLATION

NOTE:
THIS INSTALLATION MAY REDUCE THE D.H.W. STORAGE AVAILABILITY.

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

Model	Volume [lt]	De	L	L1	L2	L3	L4	C-D Connections F
				[mm]				
80	82	456	770	165	260	510	605	1"
100	100	456	920	165	260	660	755	1"
150	152	510	1086	173	268	818	913	1"
200	203	560	1170	190	285	885	980	1"
300	293	610	1399	230	325	1075	1170	1"

INTERKA SOLAR

POLYWARM® CALORIFIER WITH DOUBLE WALL EXCHANGER SPECIFIC FOR THERMOSYPHON SOLAR THERMAL SYSTEMS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS).

HEAT EXCHANGER

Double wall heat exchanger.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

External coating in metal sheet protected by a particular anticorrosive treatment.

CATHODE PROTECTION

Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS


See Accessories section for the entire list.



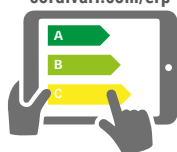
POLYWARM®
COATED
DHW STORAGE



INTERKA SOLARE WB

Model	HARD FOAM INSULATION Art. Nr.	DOUBLE WALL EXCHANGER		ENERGY EFFICIENCY CLASS 
		Surface [m²]	Volume [lt]	
150	3068160980166	0,80	8,0	B
200	3068160980167	1,20	12,0	B
300	3068160980168	2,05	21,0	B


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On line ErP label tool

ACCESSORIES

Electric immersion heater with cover


Art. Nr.	Output	Con- nection	
5240000000062	1,5 kW	1" 1/4	
See CORDIVARI INTEGRATED THERMAL SOLAR SYSTEMS catalogue			

HEAT MANAGER

See CORDIVARI INTEGRATED THERMAL SOLAR SYSTEMS catalogue



Magnesium anode

ART. NR.	Model	
5200000041008	150	
5200000041009	200,300	
2 units box		

INTERKA SOLARE

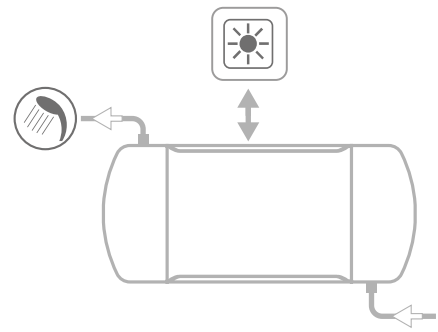
POLYWARM® CALORIFIER WITH DOUBLE WALL EXCHANGER
SPECIFIC FOR THERMOSYPHON SOLAR THERMAL SYSTEMS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	2,5 bar	99 °C

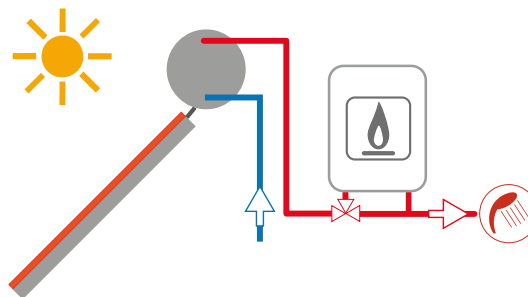
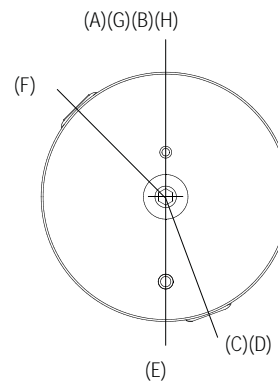
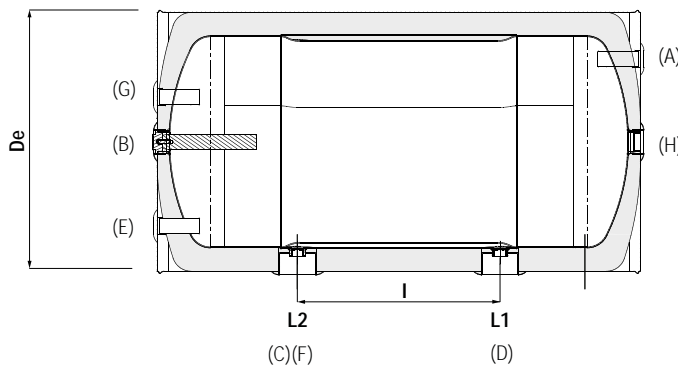


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet 3/4" G F
- B** Connection for magnesium anode
- C** Solar collector connection 3/4" G F
- D** Solar collector connection 3/4" G F
- E** Domestic water inlet 3/4" G F
- F** Overflow volume 1/2" G F
- G** Instrumentation 1/2" GAS F
- H** Electric immersion heater 1" 1/4 G F (optional)



Model	Volume [lt]	De	L	l [mm]	L1	L2
150	143	550	1026	430	298	728
200	183	550	1286	640	323	963
300	270	550	1840	1090	375	1465

BOLLY® AND BOLLYTERM®



BOLLYTERM[®] HEAT PUMP WATER HEATERS



BOLLYTERM® RANGE



Bollyterm® HP



Bollyterm® HP 1

<i>Heat exchanger model</i>	Water heater with integrated heat pump	- Water heater with integrated heat pump - 1 fixed coil
<i>Number of heat exchangers</i>		
<i>Energy source</i>		
<i>Energy efficiency class</i>	A+	A+
<i>Insulation</i>	Polyurethane hard foam	Polyurethane hard foam
<i>Available range</i>	200 - 300	200 - 300
<i>Installation</i>	floor standing	floor standing
<i>Suggested Application</i>	Traditional installations	Traditional, solar and condensation installations



Bollyterm® HP 2



Bollyterm® HOME

- Water heater with integrated heat pump
- 2 fixed coils

- Water heater with integrated heat pump



A+

A+

Polyurethane hard foam

Polyurethane hard foam+painting metallic lining

300

80 - 110

floor standing

wall hanging

Traditional, solar and condensation installations

Traditional installations

BOLLYTERM® HP

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT PUMP

The water inside the tank is warmed up by an integrated heat pump, equipped with external condensing coil. A 1500 Watt electric resistance with "BOOST" option is already installed.

Electronic central unit with graphic display allows controlling and scheduling.

INSULATION

High thermal insulation with ecological polyurethane hard foam. Upper cover and flange cover in ABS.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

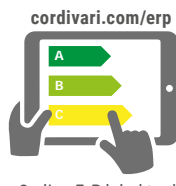
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel Polywarm® coated flange plate with electrical immersion resistance.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

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BOLLYTERM® HP

ENERGY EFFICIENCY CLASS



Model	HARD FOAM INSULATION		Energy Efficiency Class
	Art. Nr.		
200	3180162330102		A+
300	3180162330103		A+



Model	Net volume heated by heat pump [lt]	Room temperature output [°C]	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	Ignition time (air temperature 20 °C - Water temperature from 15 °C to 55 °C) [min]	Electric integration power [W]	Maximum absorption [W]	
							Heat pump	Total
200	176	-5/+43	2,98(*)	A+	236'	1500	805	2305
300	264		2,91(*)	A+	353'			

(*) Data obtained under the following conditions (T air 20 °C - T water from 15 °C to 55 °C)

INTEGRATED HEAT PUMP

The Bollyterm® HP produces DHW thanks to the heat energy naturally present in the air, allowing considerable energy savings. The functioning of the heat pump is based on the exploitation of R134a ecological gas that, through its compression and expansion, ensures high performance and cost efficiency.

The energy (heat) is transferred from the air to the water through a condenser coil wrapped outside the tank, avoiding any possible contact between the fluid and the sanitary water, ensuring therefore maximum hygiene and safety.

The output is indicated by the coefficient of performance C.O.P. indicating the relation between used and obtained energy.



HEAT PUMP TECHNICAL DATA

Power supply	Max water temperature	Coolant type	Refrigerant charge	Max ducts length / Max static P	Minimum diameter pressure for duct	Acoustic level
[V / Ph / Hz]	[°C]	[type]	[g]	[m / Pa]	[mm]	[dB]
220-240 / 1 / 50	60	R134a	800	8 / 60	180	59 (*)

(*) Test in compliance with European standard EN 12102 – EN ISO 3741

ACCESSORIES

Electric immersion heater

Art. Nr.	Output	Ø connection
5221000000103	1,5 kW	75-140 mm
5221000000064	2 kW	1" 1/2
5221000000066	3 kW	75-140 mm

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

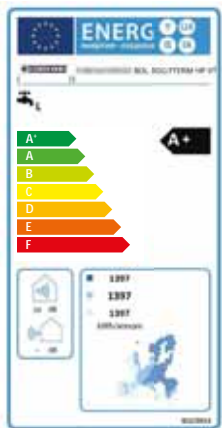
See Accessories section



BOLLYTERM® HP

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP

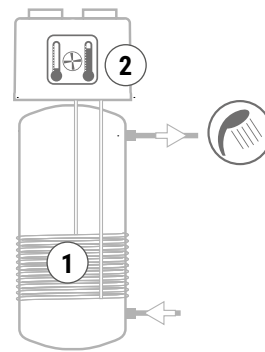
STORAGE	
Pmax	Tmax
10 bar	90 °C



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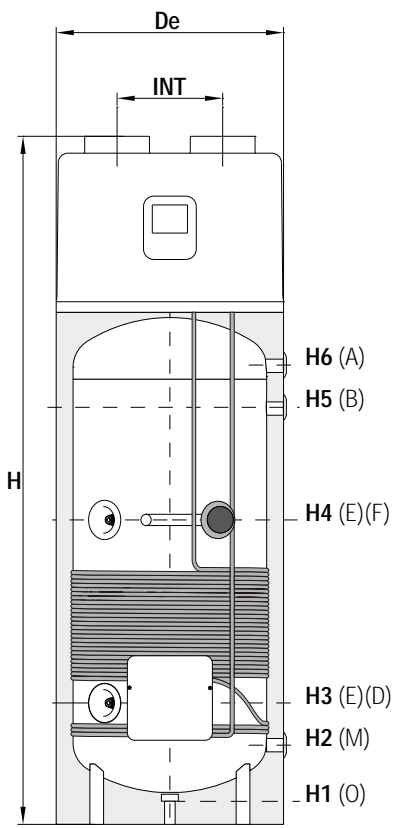


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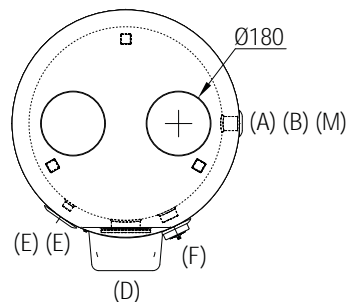


See TECHNICAL SUPPORT chapter for example of installation

- 1 External to the storage, condenser coil avoiding any contact between coolant - D.H.W.
- 2 Electronic central unit (included):
 - set point hot water
 - self check
 - anti-legionellosis treatment
 - operating programs
 - "BOOST" mode



A	Domestic hot water circuit outlet 1" F
B	Recirculation 1" F
D	Flange for inspection Ø 75 mm / Electric immersion heater
E	Probe 1/2" F
F	Magnesium anode 1"1/4 F
M	Domestic cold water circuit inlet 1" F
O	Drain 1" 1/4 F



Model	Volume [lt]	De	INT	H	[mm]					
					H1	H2	H3	H4	H5	H6
200	205	640	340	1585	71	240	350	800	815	925
300	293	640	340	1960	71	240	350	860	1190	1300

BOLLYTERM® HP 1

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP AND 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT PUMP

The water inside the tank is warmed up by an integrated insulated compressor heat pump, equipped with external condensing coil. A 1500 Watt electric resistance with "BOOST" option is already installed. Electronic central unit with graphic display allows controlling and planning.

INTEGRATIVE HEAT EXCHANGER:

1 Polywarm® coated steel heat exchanger

INSULATION

High thermal insulation with ecological polyurethane hard foam. Upper cover and flange cover in ABS.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

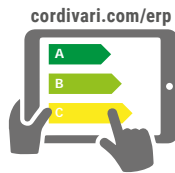
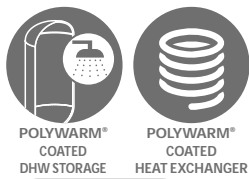
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel Polywarm® coated flange plate with electrical immersion resistance.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



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BOLLYTERM® HP 1

HEAT EXCHANGER SURFACE ENERGY EFFICIENCY CLASS

Model	HARD FOAM INSULATION	[m²]	ErP
200	3181162330102	0,8	A+
300	3181162330103	1,2	A+

Model	Net volume heated by heat pump [lt]	Room temperature output [°C]	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	Ignition time (air temperature 20 °C - Water temperature from 15 °C to 55 °C) [min]	Electric integration power [W]	Maximum absorption [W]	
							Heat pump	Total
200	176	-5/+43	2,98(*)	A+	236'	1500	805	2305
300	264		2,91(*)	A+	353'			

(*) Data obtained under the following conditions (T air 20 °C - T water from 15 °C to 55 °C)

INTEGRATED HEAT PUMP

The Bollyterm® HP produces DHW thanks to the heat energy naturally present in the air, allowing considerable energy savings. The functioning of the heat pump is based on the exploitation of R134a ecological gas that, through its compression and expansion, ensures high performance and cost efficiency.

The energy (heat) is transferred from the air to the water through a condenser coil wrapped outside the tank, avoiding any possible contact between the fluid and the sanitary water, ensuring therefore maximum hygiene and safety.

The output is indicated by the coefficient of performance C.O.P. indicating the relation between used and obtained energy.



HEAT PUMP TECHNICAL DATA

Power supply	Max water temperature	Coolant type	Refrigerant charge	Max ducts length / Max static P	Minimum diameter pressure for duct	Acoustic level
[V / Ph / Hz]	[°C]	[type]	[g]	[m / Pa]	[mm]	[dB]
220-240 / 1 / 50	60	R134a	800	8 / 60	180	59 (*)

(*) Test in compliance with European standard EN 12102 – EN ISO 3741

ACCESSORIES

Electric immersion heater

Art. Nr.	Output	Ø connection
5221000000103	1,5 kW	75-140 mm
5221000000064	2 kW	1" 1/2
5221000000066	3 kW	75-140 mm

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

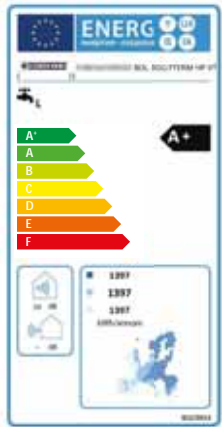
See Accessories section



BOLLYTERM® HP 1

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP AND 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

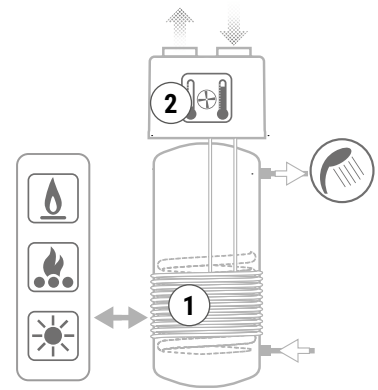


CORDIVARI® Lab

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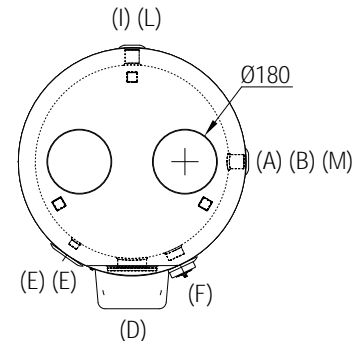
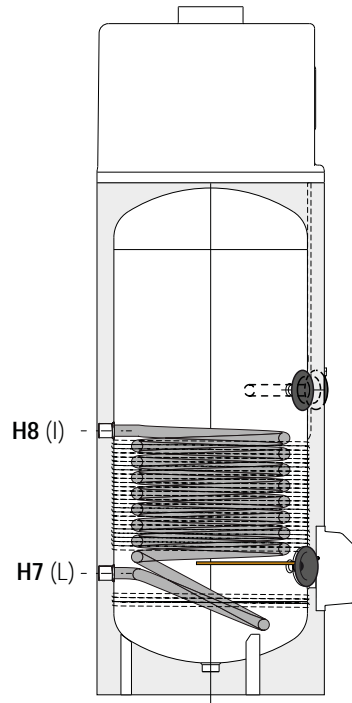
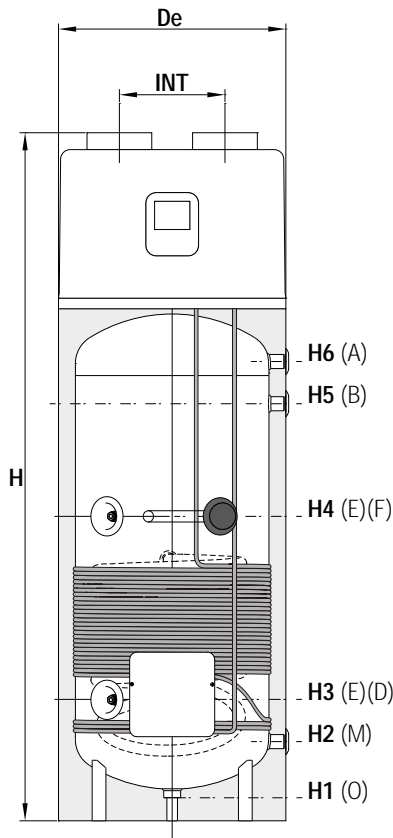
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DIPARTIMENTO DI ENERGIA
REALAB- RENEWABLE
HEATING AND COOLING LAB



See **TECHNICAL SUPPORT** chapter for example of installation

- 1 External to the storage, condensator coil avoiding any contact between coolant - D.H.W.
- 2 Electronic central unit (included):
 - set point hot water
 - self check
 - anti-legionellosis treatment
 - operating programs
 - "BOOST" mode

A	Domestic hot water circuit outlet 1" F
B	Recirculation 1" F
D	Flange for inspection Ø 75 mm / Electric immersion heater
E	Probe 1/2" F
F	Magnesium anode 1"1/4 F
I	Heat exchanger inlet 1"1/4 G F
L	Heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet 1" F
O	Drain 1" 1/4 F



Model	Volume [lt]	De	INT	H	[mm]							
					H1	H2	H3	H4	H5	H6	H7	H8
200	205	640	340	1585	71	240	350	800	815	925	345	765
300	293	640	340	1960	71	240	350	860	1190	1300	351	755

BOLLYTERM® HP 2

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT PUMP

The water inside the tank is warmed up by an integrated insulated compressor heat pump equipped with external condensing coil. A 1500 Watt electric resistance with "BOOST" option is already installed. Electronic central unit with graphic display allows controlling and planning.

INTEGRATIVE HEAT EXCHANGER:

N° 2 Polywarm® coated fixed heat exchangers

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Upper cover and flange cover in ABS.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

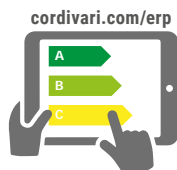
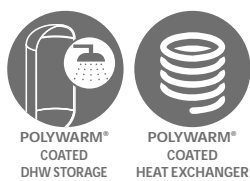
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel Polywarm® coated flange plate with electrical immersion resistance.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

Percorso
Efficienza Innovazione
MCE - EXPOCOMFORT



BOLLYTERM® HP 2

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Upper	
300	3180162330013	1,2	0,67	A+

Model	Net volume heated by heat pump [lt]	Room temperature output [°C]	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	Ignition time (air temperature 20 °C - Water temperature from 15 °C to 55 °C) [min]	Electric integration power [W]	Maximum absorption	
							PDC	Total
300	264	-5/+43	2,91(*)	A+	353'	1500	805	2305

(*) Data obtained under the following conditions (T air 20 °C - T water from 15 °C to 55 °C)

INTEGRATED HEAT PUMP

The Bollyterm® HP produces DHW thanks to the heat energy naturally present in the air, allowing considerable energy savings. The functioning of the heat pump is based on the exploitation of R134a ecological gas that, through its compression and expansion, ensures high performance and cost efficiency. The energy (heat) is transferred from the air to the water through a condenser coil wrapped outside the tank, avoiding any possible contact between the fluid and the sanitary water, ensuring therefore maximum hygiene and safety. The output is indicated by the coefficient of performance C.O.P. indicating the relation between used and obtained energy.



HEAT PUMP TECHNICAL DATA

Power supply	Max water temperature	Coolant type	Refrigerant charge	Max ducts length / Max static P	Minimum diameter pressure for duct	Acoustic level
[V / Ph / Hz]	[°C]	[type]	[g]	[m / Pa]	[mm]	[dB]
220-240 / 1 / 50	60	R134a	800	8 / 60	180	59 (*)

(*) Test in compliance with European standard EN 12102 – EN ISO 3741

ACCESSORIES

Electric immersion heater

Art. Nr.	Output	Ø connection
522100000103	1,5 kW	75-140 mm
522100000064	2 kW	1" 1/2
522100000066	3 kW	75-140 mm

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

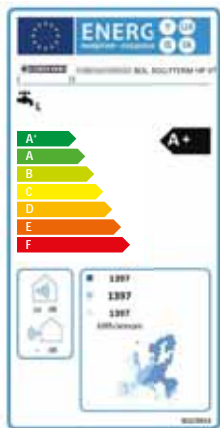
See Accessories section



BOLLYTERM® HP 2

POLYWARM® COATED WATER HEATER WITH INTEGRATED HEAT PUMP
AND 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

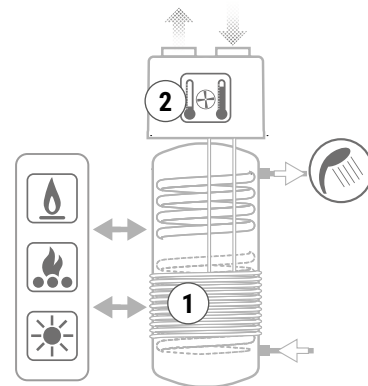


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



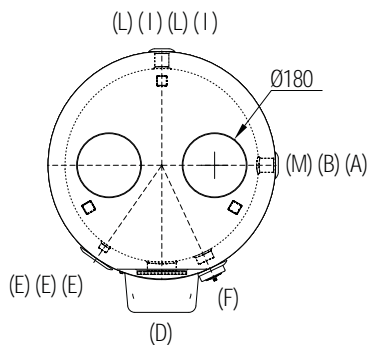
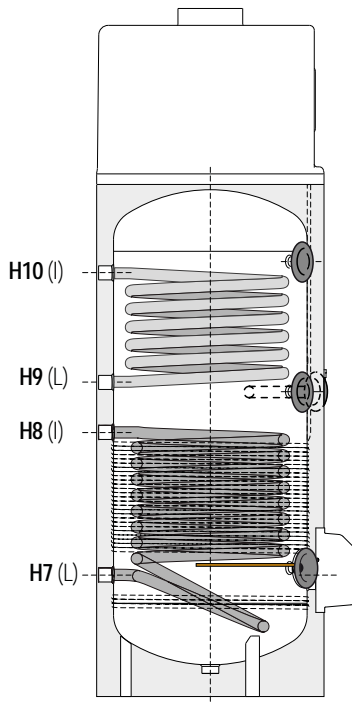
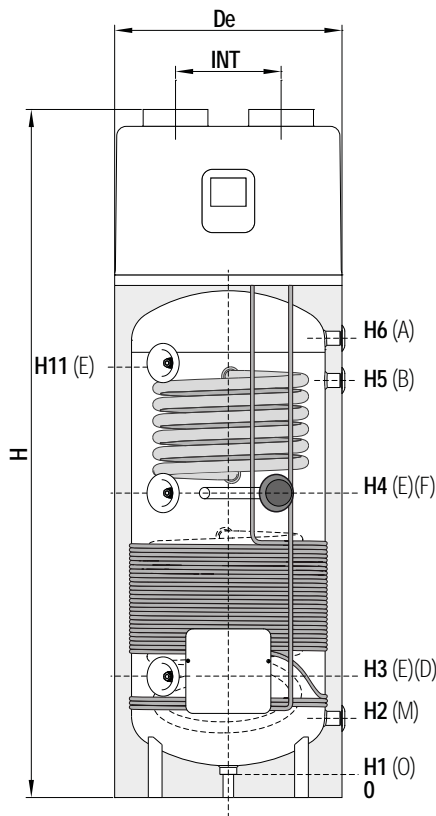
POLITECNICO DI MILANO
DIPARTIMENTO DI ENERGIA
REALAB- RENEWABLE
HEATING AND COOLING LAB



See TECHNICAL SUPPORT chapter for example of installation

- External to the storage, condensator coil avoiding any contact between coolant - D.H.W.
- Electronic central unit (included):
 - set point hot water
 - self check
 - anti-legionellosis treatment
 - operating programs
 - "BOOST" mode

A	Domestic hot water circuit outlet 1" F
B	Recirculation 1" F
D	Flange for inspection Ø 75 mm / Electric immersion heater
E	Probe 1/2" F
F	Magnesium anode 1"1/4 F
I	Heat exchanger inlet 1"1/4 G F
L	Heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet 1" F
O	Drain 1" 1/4 F



Model	Volume [lt]	De	INT	H	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11
300	293	640	340	1960	71	240	350	860	1190	1300	351	755	900	1140	1210

BOLLYTERM® HOME

WALL HANGING WATER HEATER WITH INTEGRATED HEAT PUMP



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT PUMP

The water inside the tank is warmed up by an integrated insulated compressor heat pump, equipped with external condensing coil. A 1500 Watt electric resistance with "BOOST" option is already installed. Electronic central unit with graphic display allows controlling and planning.

INSULATION

High thermal insulation with ecological polyurethane hard foam. Painted metallic external cover.

DRAIN

External confluence through drain connection.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

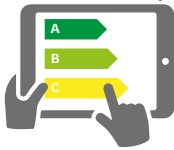
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE

cordivari.com/erp



On line ErP label tool



STOCK
AVAILABILITY



Integrated heat pump

External to the storage, condensator coil avoiding any contact between coolant - D.H.W.

Electronic Central Unit (included):

- set point hot water
- self check
- anti-legionellosis treatment
- operating programs
- "BOOST" mode



BOLLYTERM® HOME

ENERGY
EFFICIENCY
CLASS



Model	HARD FOAM INSULATION		Energy Efficiency Class
	Art. Nr.		
80	3180162330050		A+
110	3180162330051		A+

TECHNICAL DATA						
Model	Net volume heated by heat pump [lt]	Room temperature output [°C]	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	IGNITION TIME (heat pump)	IGNITION TIME (heat pump+electric immersion heater)
					[min]	[min]
80	80	-5/+43	2,83(*)	A+	255' (4h:10')(*)	104' (1 h: 44')(**)
110	102,5		2,60(*)	A+	377' (6h:17')(*)	142' (2 h: 22')(**)

(*) Data obtained under the following conditions: T air 20 °C - T water from 10 °C to 55 °C, according to EN 16147

(**) Data obtained under the following conditions: T air 20 °C - T water from 15 °C to 55 °C, according to EN 16147



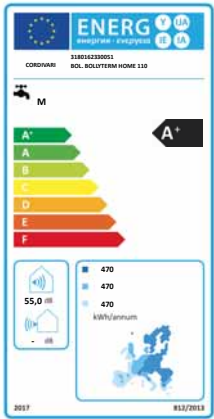
TECHNICAL DATA								
Power supply	Output	Maximum absorption (heat pump+electric immersion heater) [W]	Max water temperature [°C]		Coolant	Coolant charge	Max ducts length	Acoustic level
			heat pump	heat pump+electric immersion heater				
[V / Ph / Hz]	[W]	[W]			[type]	[g]	[mm]	[dB]
220-240 / 1 / 50	1000	430 (+1500)	60	80	R134a	500	125	55 (*)

(*) Test in compliance with European standard EN 12102 - EN ISO 3741

BOLLYTERM® HOME

WALL HANGING WATER HEATER WITH INTEGRATED HEAT PUMP

STORAGE	
Pmax	Tmax
10 bar	90 °C

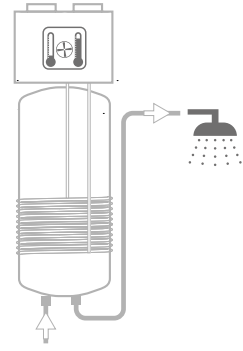


—CORDIVARI®Lab

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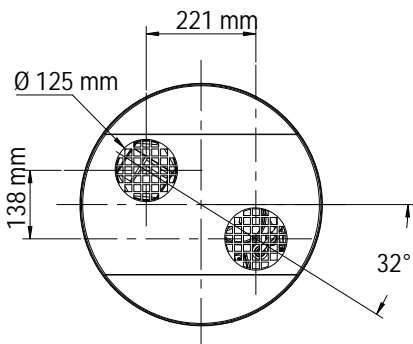
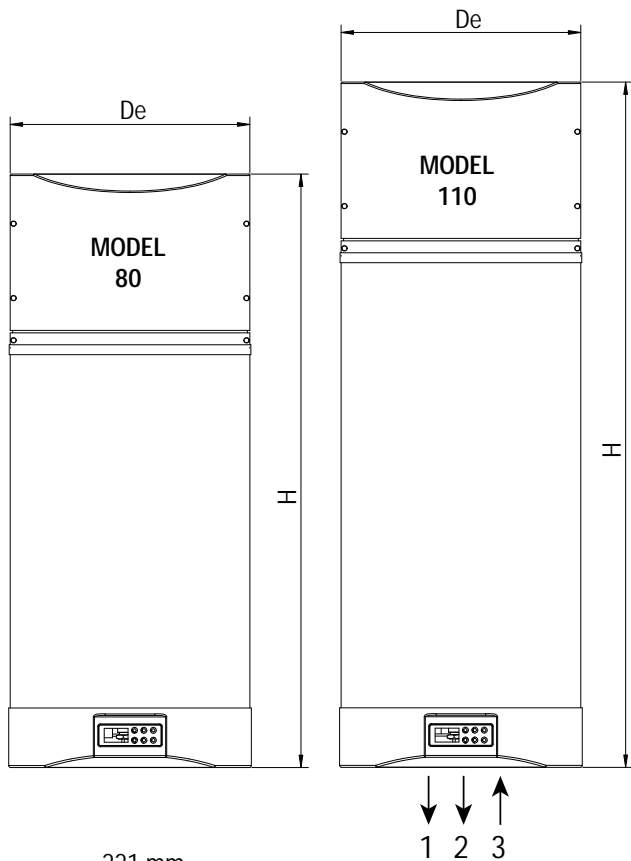


Department of industrial engineering and science.
Università Politecnica delle Marche



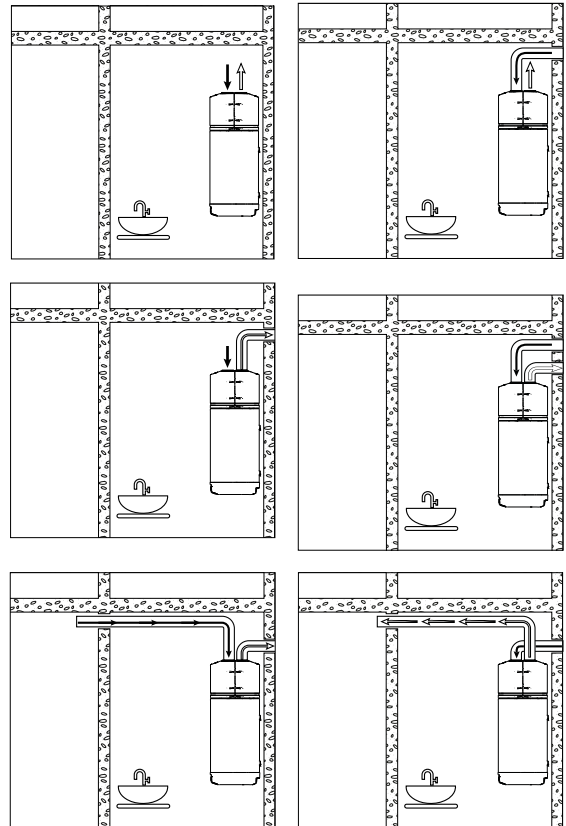
BOLLYTERM®
AND BOLLYTERM®

- | | |
|---|--|
| 1 | Domestic hot water circuit outlet 1/2" M |
| 2 | Drain/Condensate |
| 3 | Domestic cold water circuit inlet 1/2" M |

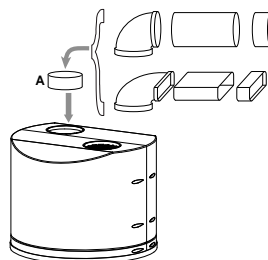


Model	Volume	De	H
	[lt]		
80	80	483	1208
110	102,5	483	1392

Canalization examples

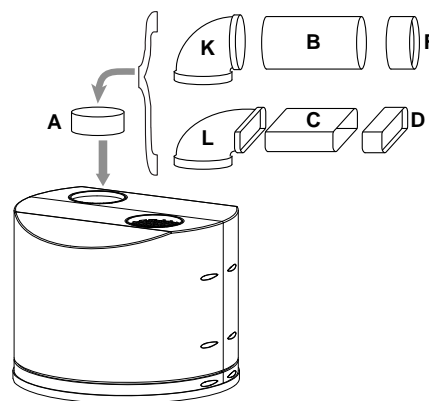












See ACCESSORIES section for complete elements range for canalization.













PLASTIC ELEMENTS FOR CANALIZATION

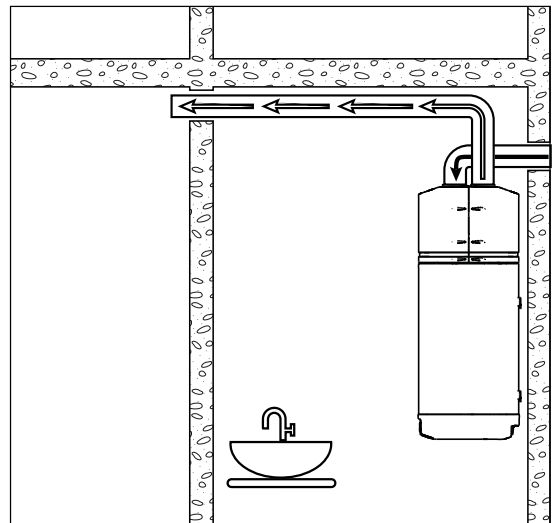
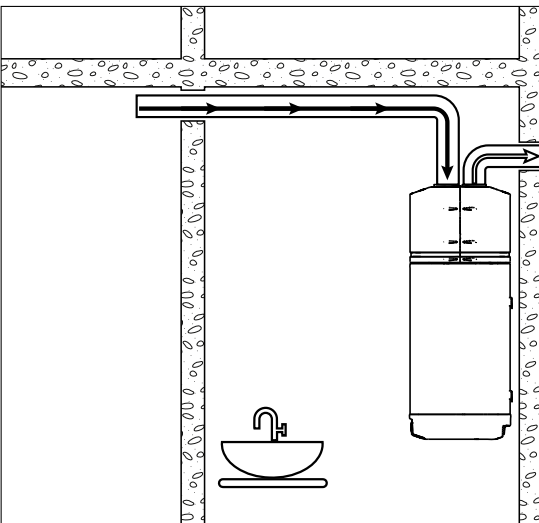
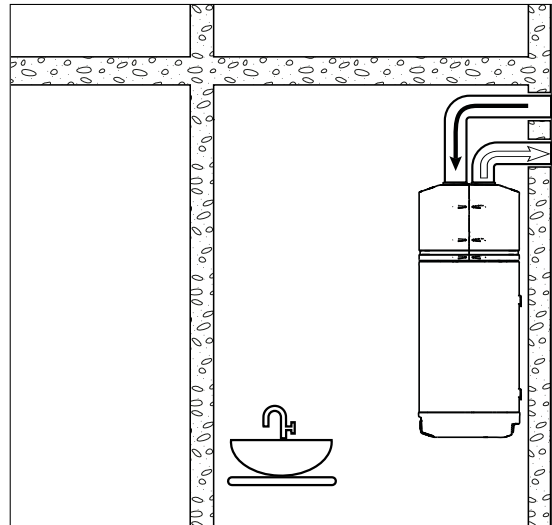
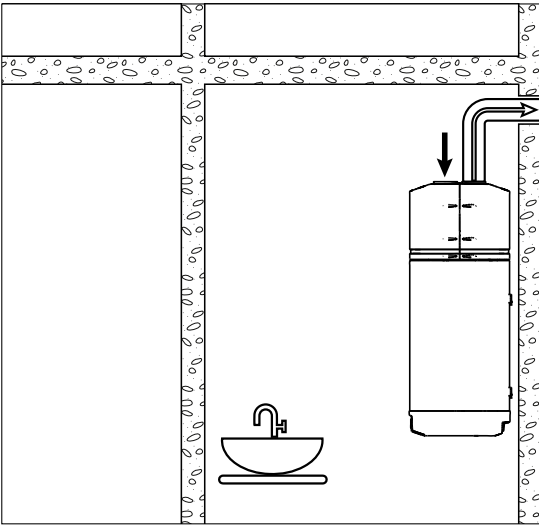
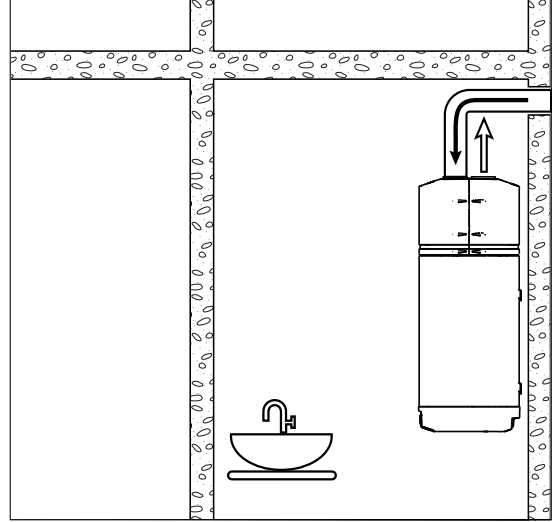
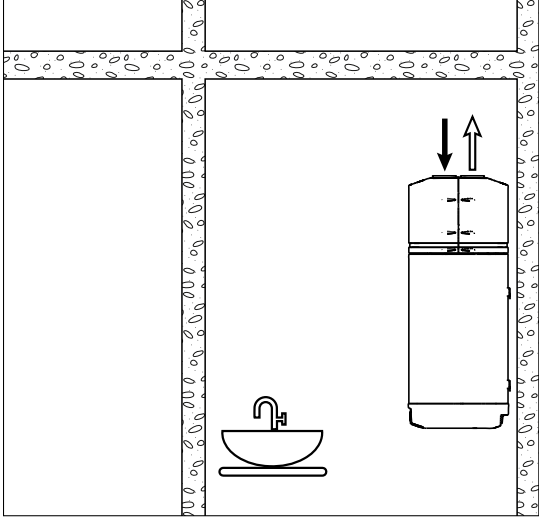


	Art. Nr.	Description
	A 5221000000085	Stub pipe of Ø 125 mm Length 75 mm
	B 5221000000086	Tube of Ø 125 Mm Length 1200 mm
	C 5221000000087	Rectangular tube of Ø 150x70 mm Length 1200 mm
	D 5221000000088	Rectangular plastic joint Ø 150x70 mm
	5221000000089	Horizontal joint from round pipe of Ø125 mm Rectangular Ø 150x70 mm
	F 5221000000090	Round joint Ø 125 mm
	5221000000091	Flexible tube Ø 125 mm Length 1000 mm
	5221000000092	Flexible rectangular tube Ø 150x70 mm Length 1000 mm
	5221000000093	Rectangular curve Ø 150x70 mm horizontal
	5221000000107	Sound pressure reduction Ø 125 L 120 mm

	Art. Nr.	Description
	5221000000094	Rectangular curve Ø 150x70 mm vertical
	K 5221000000095	Round elbow curve Ø125 mm
	L 5221000000096	Vertical curve from round Ø 125 mm to rectangular Ø 150x70 mm
	5221000000097	Pair of pipe clamps Ø 150 mm
	5221000000098	Pair of brackets for rectangular tubes Ø 150x70 mm
	5221000000099	Plastic grid with fixed fins for tubes of Ø 125 mm
	5221000000100	Roll of adhesive white tape for tubes, width 50 x length 10 mt
	5221000000101	Plastic pipe flange for tubes of Ø 125 mm

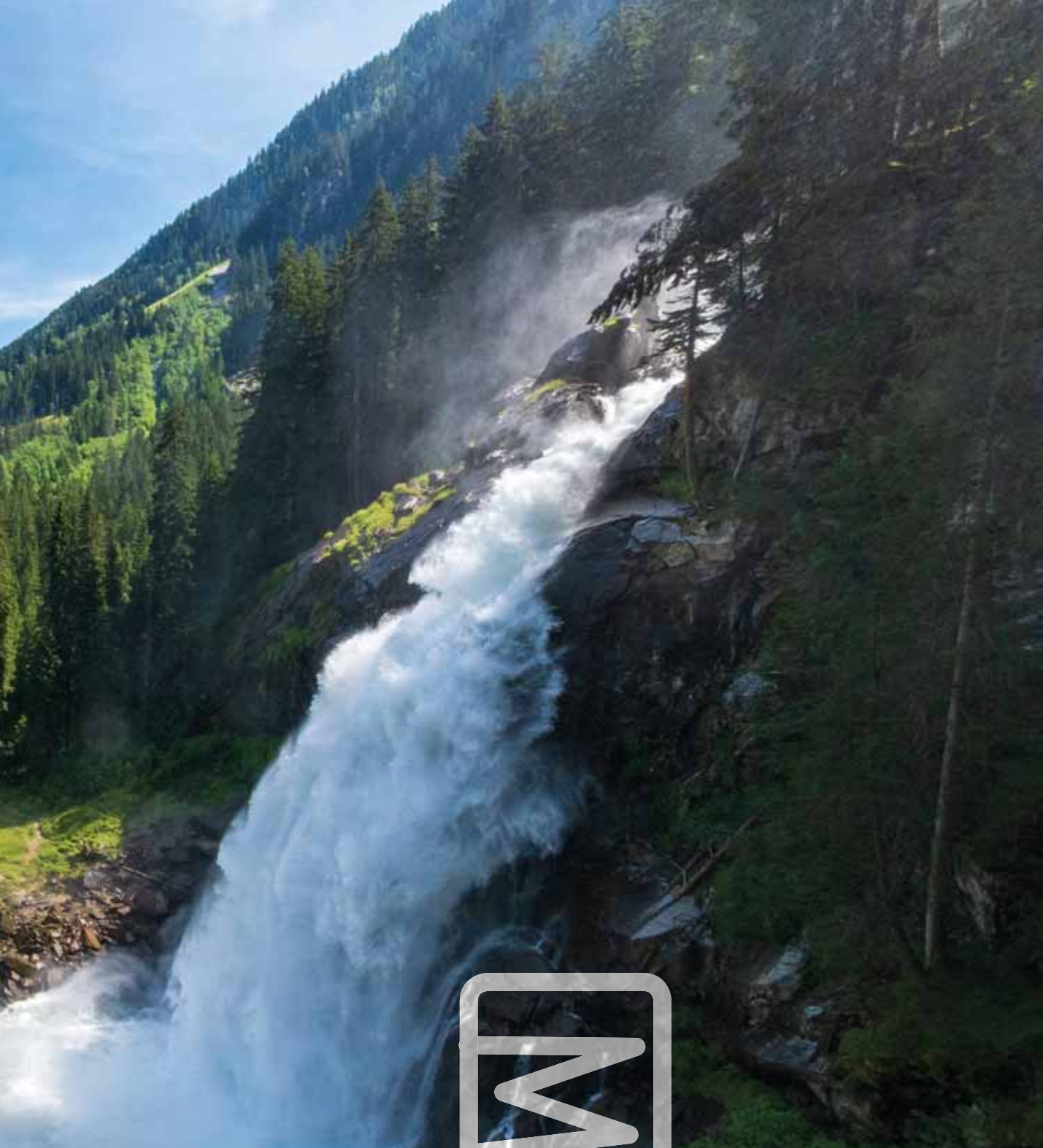


CANALIZATION EXAMPLES





CALORIFIERS FOR HEAT PUMPS



CALORIFIERS FOR
HEAT PUMPS



CALORIFIERS FOR HEAT PUMP RANGE



BOLLY® PDC



**BOLLY® 2 AP
(Polywarm®)**



**BOLLY® XL
(Polywarm®)**

<i>Heat exchanger model</i>	- Patented heat-exchange module - Additional fixed coil heat exchanger	Fixed coil heat exchanger	Fixed coil heat exchanger
<i>Number of heat exchangers</i>			
<i>Energy source</i>			
<i>Energy efficiency class</i>	A-B-C	A-B-C	B-C
<i>Insulation</i>	- Polyurethane hard foam	Polyurethane hard foam	- Polyurethane hard foam - Dismountable polyester fleece
<i>Available range</i>	300 ÷ 800	200 ÷ 500	200 ÷ 1000
<i>Installation</i>	floor standing	floor standing	floor standing
<i>Suggested Application</i>	Heat pump and other energy source installations	Heat pump and other energy source installations	Heat pump and other energy source installations



BOLLY® HY
(Polywarm®)

- Fixed coil heat exchanger
- Integrated buffer tank for primary circuit



ACQUAMAS®

- MACS® module for DHW production



PUFFERMAS®
DOMUS

- Integrated MACS® module for DHW production



ECO-COMBI PDC

- Corrugated Stainless steel 316L coil for D.H.W. production
- Additional fixed coil heat exchangers



B-C

C

B

C

Polyurethane hard foam

Polyurethane hard foam

Polyurethane hard foam

Polyurethane hard foam

200 ÷ 500

500, 600

200,300

300 ÷ 800

floor standing

floor standing

floor standing

floor standing

Heat pump and other energy source installations

Heat pump and other energy source installations

Heat pump and other energy source installations

Heat pump and other energy source installations

BOLLY® 1 PDC

POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

EXCHANGE MODULE

Counter-flow heat exchanger system with heat load from the top

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

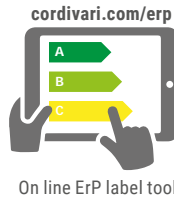
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Inspection flange.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 PDC WB

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	ENERGY EFFICIENCY CLASS ErP
300	3104162330022	15	B
500	3104162330023	22	C
800	3104162330024	26	B



BOLLY® 1 PDC WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	ENERGY EFFICIENCY CLASS ErP
300	3104162330025	15	A
500	3104162330026	22	A

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500
5200000000011	800



Electric immersion heater

Art. Nr.	Output [kW]
5240000000051	1,5
5240000000052	2
5240000000053	3



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 1 PDC

POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP

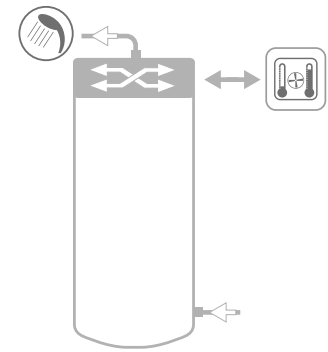
STORAGE EXCHANGE MODULE

Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	10 bar	110 °C

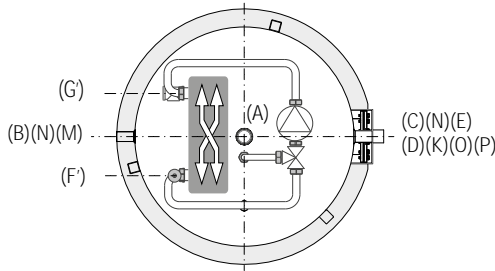
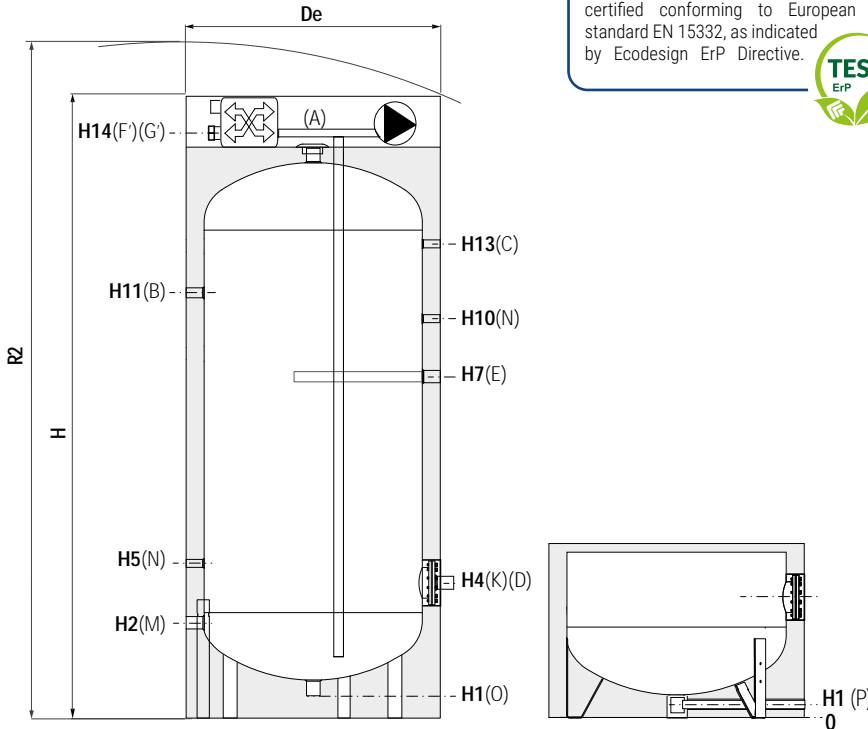


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Domestic hot water outlet 1"1/4 G F

- B** Recirculation 1" G F

- C** Connection for instrumentation 1/2" G F

- D** Connection for electric immersion heater

- E** Connection for magnesium anode 1"1/4 G F

- F'** Primary circuit inlet

- G'** Primary circuit outlet

- K** Flange for inspection

- M** Domestic cold water circuit inlet 1" G F

- N** Connection for instrumentation 1/2" G F

- O** Drain

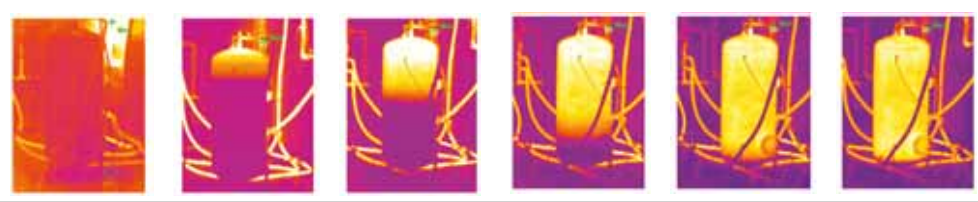
- P** Drain (Only for models > 500)

CALORIFIERS FOR HEAT PUMPS

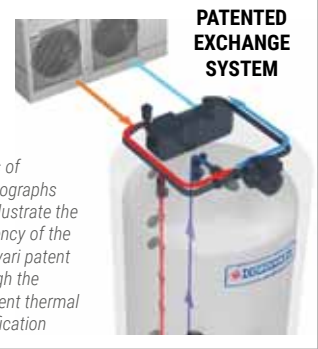
Model	Volume [lt]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
300	291	650	1680	1810	71	241	//	381	431	//	871	//
500	497	750	1970	2115	71	266	//	411	466	//	1076	//
800	789	900	2360	2530	101	338	//	483	548	//	1243	//

Model	H9	H10	H11	H12	H13	H14	O-P	K	D	F'-G'
300	//	991	1101	//	1221	1522	1"1/4	Øi1200e180	1"1/2	1"
500	//	1196	1331	//	1476	1812	1"1/4	Øi1200e180	1"1/2	1"
800	//	1573	1598	//	1788	2196	3/4"	Øi1200e180	2"	1"

- -30% reduction of the D.H.W. production time for major comfort
- 70lt of DHW (45 °C) in only 15 min, with the possibility of heating only the necessary volume of water
- More time for the heat pump to be dedicated to heating or cooling
- Energy focused where needed: all the energy produced with the heat pump concentrated in the upper part of the tank.



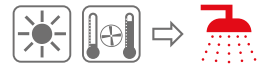
Series of thermographs that illustrate the efficiency of the Cordivari patent through the excellent thermal stratification



P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 2 PDC

POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP AND WITH 1 FIXED HEAT EXCHANGER FOR INTEGRATION OF A SECOND SOURCE



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

EXCHANGE MODULE

Counter-flow heat exchanger system with heat load from the top

INTEGRATIVE HEAT EXCHANGER

N° 1 Mild steel Polywarm® coated heat exchanger.

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

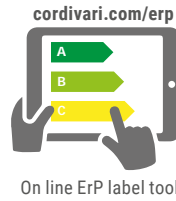
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Inspection flange.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 2 PDC WB

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
500	3134162320017	22	1,8	C
800	3134162320018	26	2,7	B



BOLLY® 2 PDC WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
500	3134162320022	22	1,8	A

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	



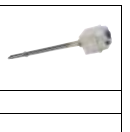
Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500
5200000000011	800



Electric immersion heater

Art. Nr.	Output [kW]
5240000000051	1,5
5240000000052	2
5240000000053	3



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 2 PDC

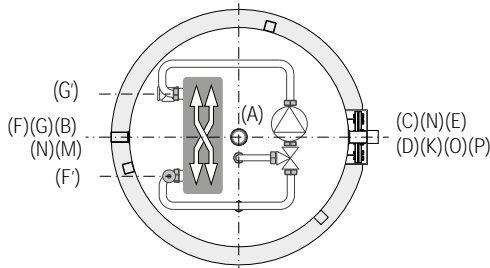
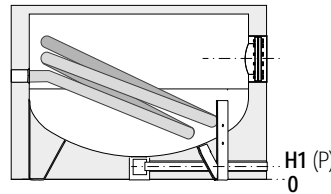
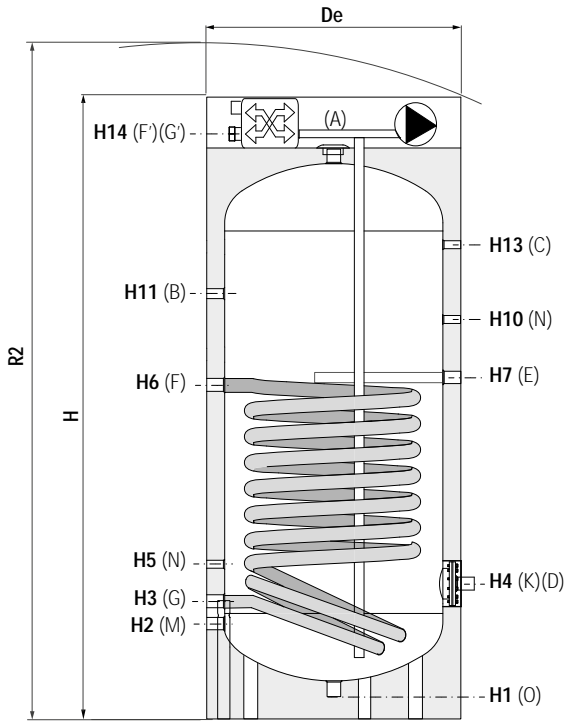
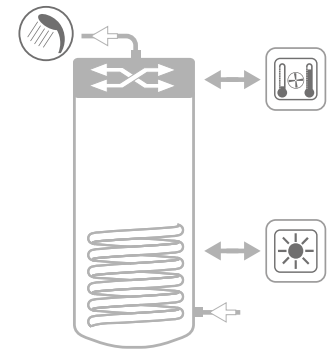
POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP AND WITH 1 FIXED HEAT EXCHANGER FOR INTEGRATION OF A SECOND SOURCE

STORAGE		EXCHANGE MODULE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	10 bar	110 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



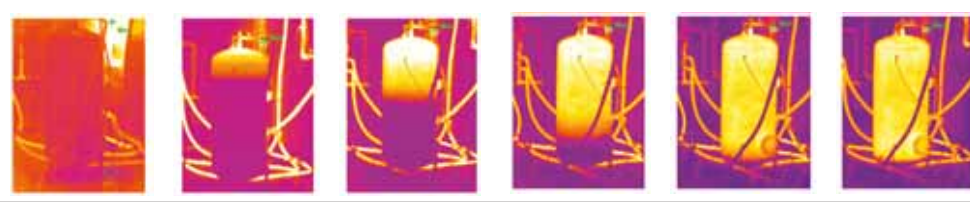
- A** Domestic hot water outlet 1"1/4 G F
- B** Recirculation 1" G F
- C** Connection for thermometer 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1"1/4 G F
- F** Primary circuit inlet
- G** Primary circuit outlet
- F'** Heat pump primary circuit inlet
- G'** Heat pump primary circuit outlet
- K** Flange for inspection
- M** Domestic cold water circuit inlet 1" G F
- N** Connection for instrumentation 1/2" G F
- O** Drain
- P** Drain (Only for models > 500)

CALORIFIERS FOR HEAT PUMPS

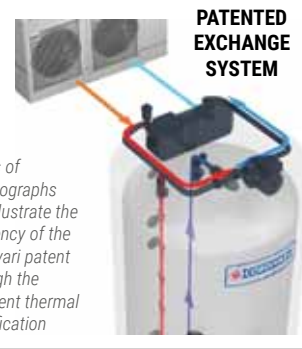
Model	Volume [lt]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
300	291	650	1680	1810	71	241	311	381	431	832	871	//
500	497	750	1970	2115	71	266	346	411	466	1036	1076	//
800	789	900	2360	2530	101	338	428	483	548	1181	1243	//

Model	H9	H10	H11	H12	H13	H14	O-P	K	D	F-G	F'-G'
300	//	991	1101	//	1221	1522	1"1/4	Øi120Øe180	1"1/2	1"1/4	1"
500	//	1196	1331	//	1476	1812	1"1/4	Øi120Øe180	1"1/2	1"1/4	1"
800	//	1573	1598	//	1788	2196	3/4"	Øi120Øe180	2"	1"1/4	1"

- -30% reduction of the D.H.W. production time for major comfort
- 70lt of DHW (45 °C) in only 15 min, with the possibility of heating only the necessary volume of water
- More time for the heat pump to be dedicated to heating or cooling
- Energy focused where needed: all the energy produced with the heat pump concentrated in the upper part of the tank.



Series of thermographs that illustrate the efficiency of the Cordivari patent through the excellent thermal stratification



PATENTED EXCHANGE SYSTEM

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 3 PDC

POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP AND WITH 2 FIXED HEAT EXCHANGERS FOR INTEGRATION WITH 2 SOURCES



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

EXCHANGE MODULE

Counter-flow heat exchanger system with heat load from the top

INTEGRATIVE HEAT EXCHANGERS

2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

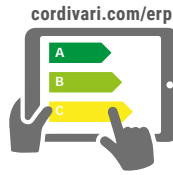
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Inspection flange.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 3 PDC WB

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320019	15	0,7	1,2	B
500	3134162320020	22	1,2	1,8	C



BOLLY® 3 PDC WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320023	15	0,7	1,2	B
500	3134162320024	22	1,2	1,8	C

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	



Electric immersion heater

Art. Nr.	Output [kW]
5240000000052	2



Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 3 PDC

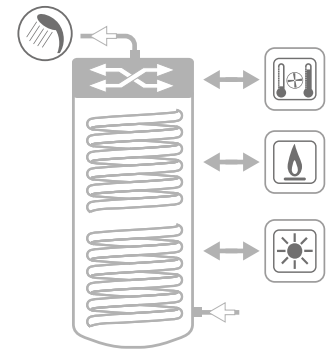
POLYWARM® COATED TANK FOR DHW ACCUMULATION SPECIFIC FOR COMBINATION WITH HEAT PUMP AND WITH 2 FIXED HEAT EXCHANGERS FOR INTEGRATION WITH 2 SOURCES

STORAGE		EXCHANGE MODULE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	10 bar	110 °C	12 bar	110 °C

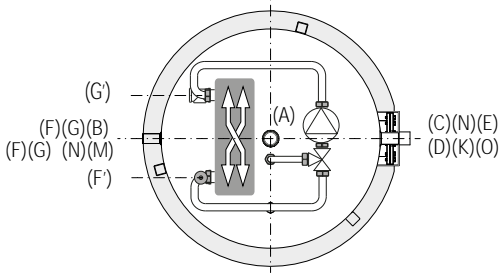
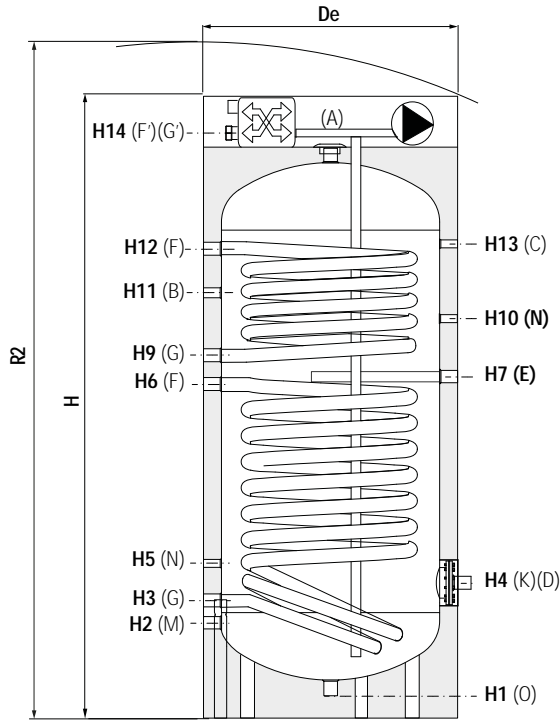


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



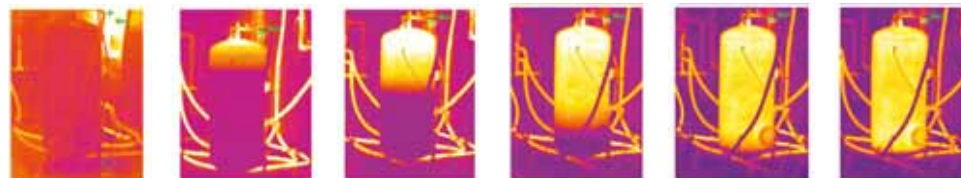
- A** Domestic hot water outlet 1 1/4" G F
- B** Recirculation 1" G F
- C** Connection for thermometer 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1 1/4" G F
- F** Primary circuit inlet
- G** Primary circuit outlet
- F'** Heat pump primary circuit inlet
- G'** Heat pump primary circuit outlet
- K** Flange for inspection
- M** Domestic cold water circuit inlet 1" G F
- N** Connection for instrumentation 1/2" G F
- O** Drain

CALORIFIERS FOR HEAT PUMPS

Model	Volume [lt]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
300	291	650	1680	1810	71	241	311	381	431	832	871	//
500	497	750	1970	2115	71	266	346	411	466	1036	1076	//

Model	H9	H10	H11	H12	H13	H14	O	K	D	F-G	F'-G'
300	981	991	1101	1221	1221	1522	1 1/4"	Ø1200e180	1 1/2"	1 1/4"	1"
500	1186	1196	1331	1476	1476	1812	1 1/4"	Ø1200e180	1 1/2"	1 1/4"	1"

- -30% reduction of the D.H.W. production time for major comfort
- 70lt of DHW (45 °C) in only 15 min, with the possibility of heating only the necessary volume of water
- More time for the heat pump to be dedicated to heating or cooling
- Energy focused where needed: all the energy produced with the heat pump concentrated in the upper part of the tank.

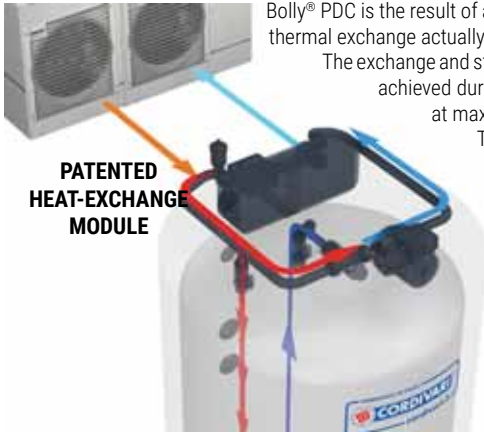


Series of thermographs that illustrate the efficiency of the Cordivari patent through the excellent thermal stratification



BOLLY® PDC

TECHNICAL DATA AND EXAMPLE OF INSTALLATION



Bolly® PDC is the result of a continuous research aimed to develop a unique calorifier in its field. It is in fact the only patented system of thermal exchange actually on the market, specifically conceived for installation with heat pumps.

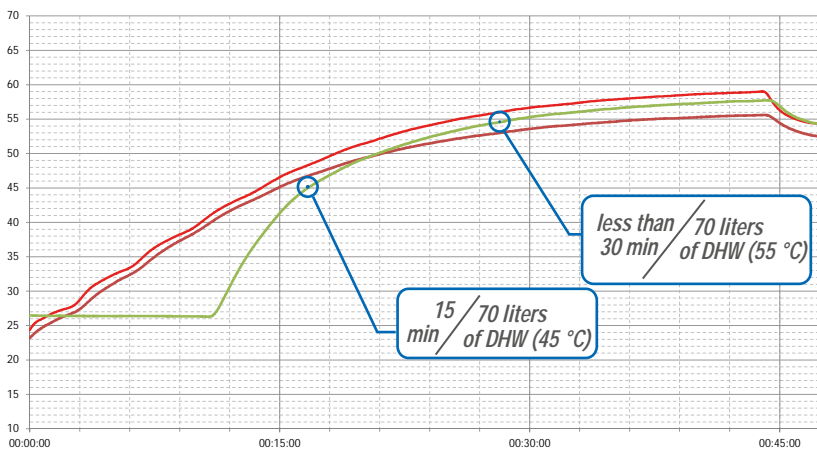
The exchange and stratification system is conceived to self-balance: only part of the heated water, proportionate to the temperature achieved during the thermal exchange, is pushed in the tank from the top. This way the water added in the upper part is at maximum desired temperature while fresh water coming from the lower part of the tank goes to the exchanger.

This leads to many advantages such as the increased efficiency of the heat pump C.o.p, the achievement of a perfect thermal stratification, that allows to profit immediately of the hot water. This also allows to heat only part of the tank reducing energy waste.

The innovative Bolly® PDC, combined with a heat pump, thanks to the new patented exchange group is able to guarantee 30 % higher performances compared to a generic, traditional calorifier in terms of ignition time and thermal exchange efficiency.

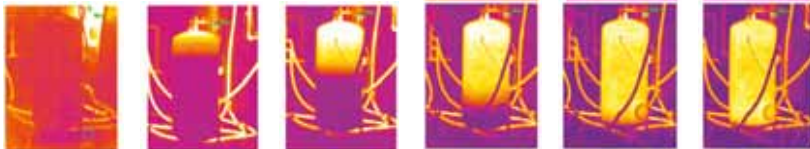
Laboratory tests and researches conducted on the stratification process confirm that the use of Bolly® PDC in a heat pump installation means an increased comfort and about a 15% reduction of electric consumption while extending the generator lifecycle, reducing its on/off.

Bolly® PDC (model 500), connected to 12kW heat pump

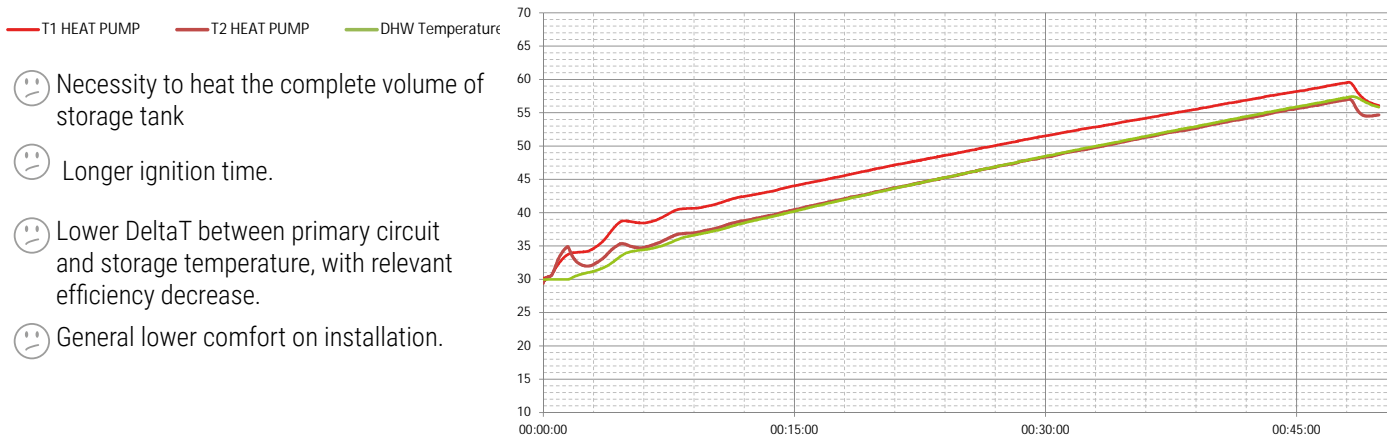


— T1 HEAT PUMP — T2 HEAT PUMP — DHW Temperature

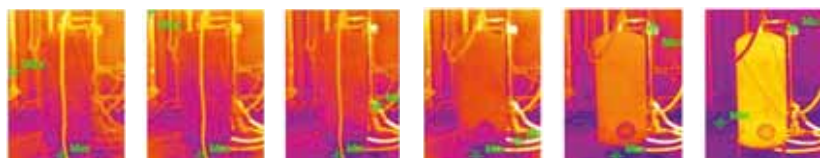
- 😊 -30% ignition time and consequent better efficiency of HP in heating/cooling phase.
- 😊 70 L. of DHW at 55 °C in just 30 minutes, with possibility to heat only the necessary required water volume.
- 😊 Optimizing the time necessary for the HP for heating and cooling the room.
- 😊 The energy produced by Heat pump is concentrated in the Domestic hot water in the upper part of the storage volume



Standard tank (model 500 with fixed coil exchanger) heating, connected to 12kW heat pump



- ☹️ Necessity to heat the complete volume of storage tank
- ☹️ Longer ignition time.
- ☹️ Lower DeltaT between primary circuit and storage temperature, with relevant efficiency decrease.
- ☹️ General lower comfort on installation.





The peculiarity of the Bolly® PDC heat exchange module consists in the possibility of loading the thermal power in the DHW storage from above, in order to prepare hot water for the user at the right temperature after few minutes of operation. Obviously, the quantity of DHW available will depend on the actual time of operation, the initial temperature of the sanitary cold water, and the thermal output of the generator.

The typical operating condition of an hydronic heat pump generator is to provides 55 °C at the primary inlet with 5 °C deltaT on the return side. The presence of a thermostatic mixer on the domestic circuit allows the appliance to adjust the performance and the efficiency in the heating phase. With the mixer at minimum (in practice with the mixer excluded) the maximum performance is obtained in terms of exchangeable output at the beginning of the heating process (values shown in the catalog). But under these conditions, as the temperature rises on the secondary side the exchanged output will go down.

Much more interesting is to examine the behavior of the exchange module with the mixer in position "2" which corresponds to primary at 55 °C and production of DHW at 50 °C, with the peculiarity that this value of 50 °C is independent from the temperature of the cold water.

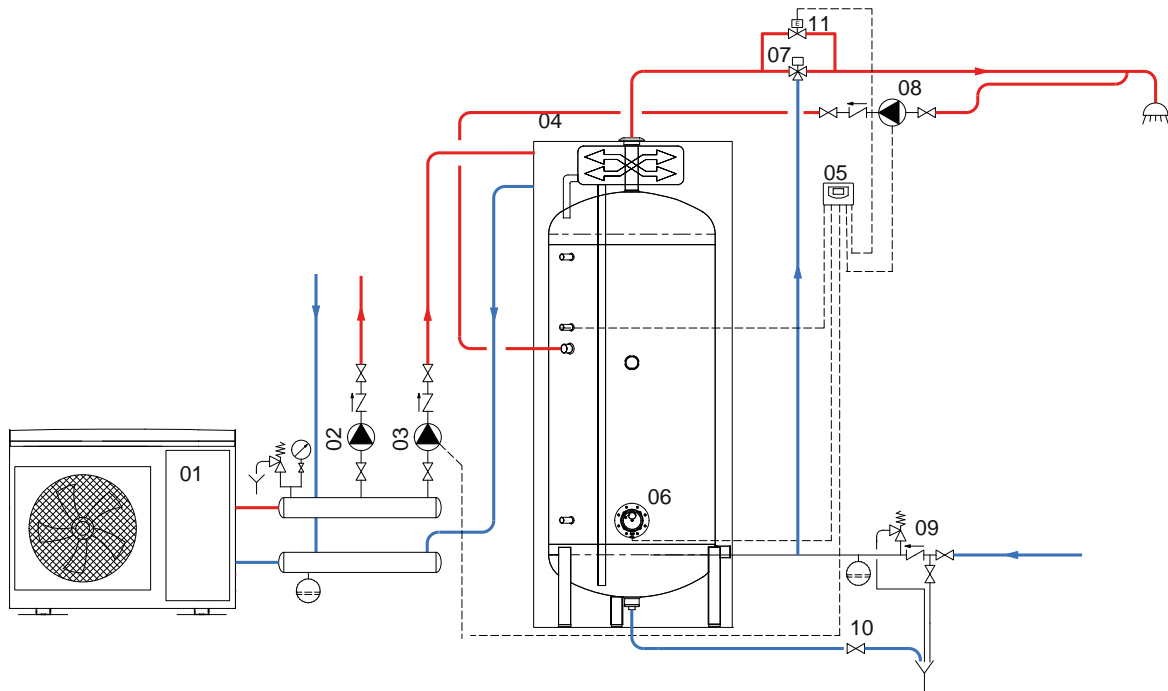
Under these conditions the exchanged output remains constant for all the time necessary to heat the storage volume and, independently of the initial storage temperature. Summing up:

- Primary Inlet= 55 °C
- Mixer position = 2
- DHW inlet temperature into the storage from exchange module = 50 °C
- Bolly® PDC 300 Exchangeable output = 15 kW
- Bolly® PDC 500 Exchangeable output = 22 kW
- Bolly® PDC 800 Exchangeable output = 26 kW
- DeltaT at primary = 5 °C (return to Generator 50 °C)

Under these conditions the producibility of DHW (and therefore the storage heating time) will depend on the initial storage temperature which corresponds to the network water temperature.

Model Bolly® PDC	Primary circuit inlet temperature T1 [°C]	Mixer position	Output [kW]	Initial storage temperature 10°C		Initial storage temperature 20°C		Initial storage temperature 25°C	
				DHW production at 50°C [lt/min]	Storage heating time [min]	DHW production at 50°C [lt/min]	Storage heating time [min]	DHW production at 50°C [lt/min]	Storage heating time [min]
300			15	5,1	57	6,8	43	8,2	36
500	55	2	22	6,8	73	9,1	55	10,9	46
800			26	8,8	89	11,8	67	14,2	56

EXAMPLE OF INSTALLATION WITH BOLLY® 1 PDC

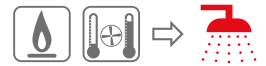


01	Generator (Heat pump)	04	Bolly® 1 PDC	07	Thermostatic mixing valve	10	Blowdown valve
02	Heating system circulation group	05	Electronic control /thermostat	08	D.H.W. recirculation group	11	By-pass solenoid valve
03	D.H.W. circulation group	06	Electric immersion heater (optional)	09	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 AP - HIGH PERFORMANCES

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

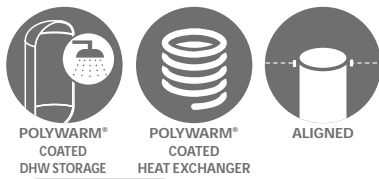
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

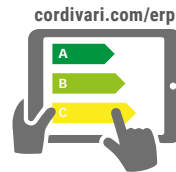
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 2 AP WB

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
			Upper	Lower	
200	3134162320006	7-9	0,4	1,4	B
300	3134162320007	7-12	0,9	1,4	B
500	3134162320008	12-16	1,3	2,2	C



On line ErP label tool



BOLLY® 2 AP WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
			Upper	Lower	
200	3134162330024	7-9	0,4	1,4	A
300	3134162330025	7-12	0,9	1,4	A
500	3134162330026	12-16	1,3	2,2	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]	MONOPHASE			THREEPHASE		
			1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW
			5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049
			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	1	159	285	214	142	//	//	//
	2	58	104	78	52	39	//	//
300	1	235	421	316	210	158	//	//
	2	112	201	151	100	75	60	//
500	1	413	741	555	370	278	222	//
	2	185	331	248	165	124	99	83

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

BOLLY® 2 AP - HIGH PERFORMANCES

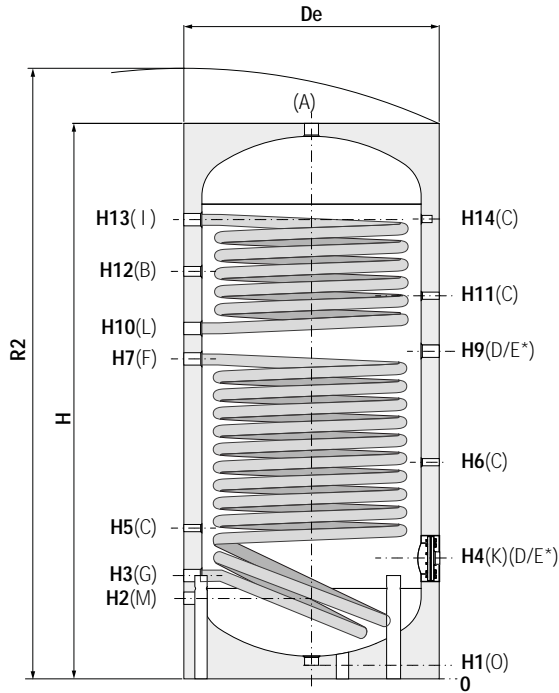
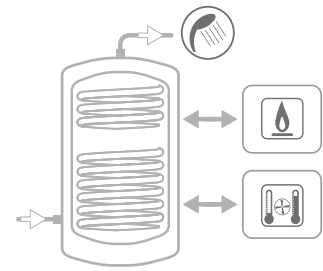
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C

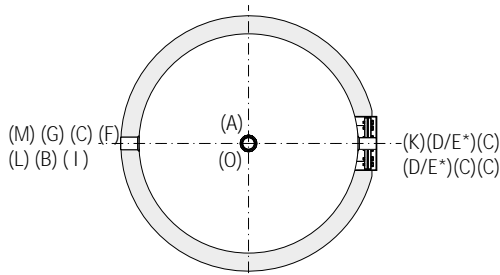


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E*	Connection for magnesium anode Use a reduction 1"1/2 → 1"1/4
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	Drain 1" 1/4 F



CALORIFIERS FOR HEAT PUMPS

BOLLY® 2 AP WB +AP WB CLASS A (HARD FOAM INSULATION)

Model	Volume [lt]	Weight [Kg]	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9
200	189	65	550	1434	1540	71	215	285	325	405	535	925	//	970
300	291	83	650	1486	1630	71	241	311	381	431	561	832	//	906
500	498	134	750	1786	1950	71	266	346	411	466	586	1036	//	1111

Model	H10	H11	H12	H13	H14	K	Connections F				
							O	M	D	B	A
200	1015	1080	1115	1205	1195	Øi120/Øe180	1"1/4	3/4"	1"1/2	3/4"	1"1/4
300	981	1021	1101	1221	1221	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4
500	1186	1246	1331	1476	1476	Øi120/Øe180	1"1/4	1"	1"1/2	1"	1"1/4

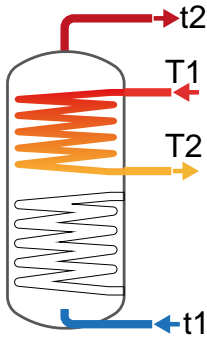
P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

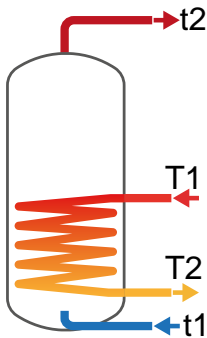
UPPER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	54	56	39	25	4,4	6,6	7,7	10	107	162	190	247
	1	61	63	44	29	4	6	7	9	97	146	170	221
300	3	41	43	30	20	9,9	15	17,5	22,8	243	368	432	562
	1,5	47	48	34	22	9,1	13,6	15,8	20,4	223	333	389	503
500	3,5	49	51	35	23	14,4	22,5	25,9	32,8	353	532	623	809
	1,75	55	57	40	26	13,3	19,6	22,8	29,3	326	482	562	724

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	234	297	302	311	302	400	422	468	150	15
	1	232	294	298	307	294	387	406	447	50	5
300	3	149	197	208	229	303	430	481	585	194,65	19,09
	1,5	146	191	201	220	287	402	447	538	53,92	5,29
500	3,5	242	317	332	363	465	654	727	876	316,51	31,04
	1,75	237	309	322	349	444	614	678	808	87,68	8,60

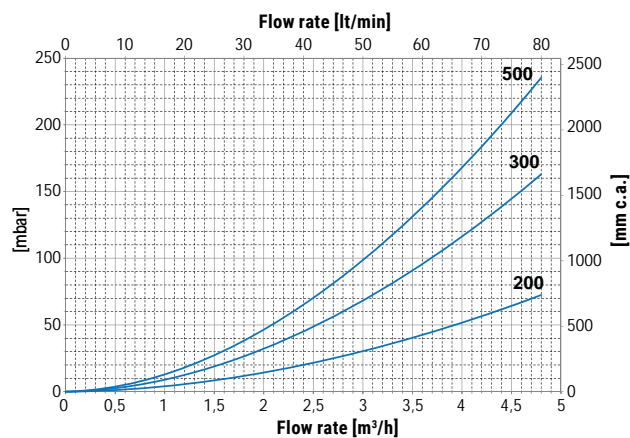
LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	3	54	56	40	26	16	23	27	36	384	576	673	871
	1,5	62	65	46	31	15	21	25	32	354	522	607	778
300	3	82	85	60	39	15,6	23,4	27,3	36,3	384	576	673	871
	1,5	94	98	69	45	14,6	21,2	24,6	31,6	354	522	607	778
500	3,5	100	104	73	48	22,3	33,2	38,7	49,9	549	820	956	1234
	1,75	115	120	85	56	20,6	30	34,7	44,3	506	741	858	1095

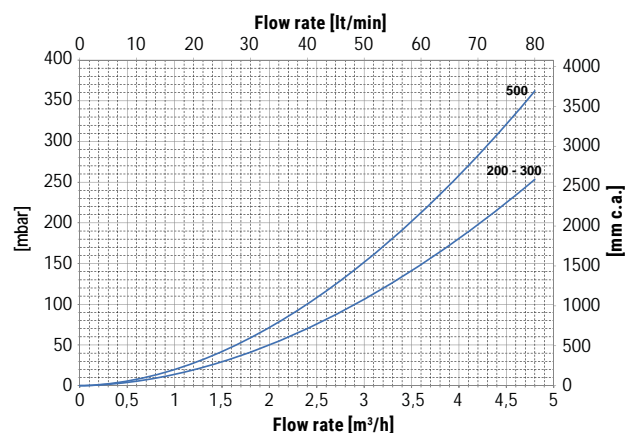
Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	3	280	366	382	415	523	731	808	967	830	81
	1,5	275	357	371	400	499	688	756	892	243	24
300	3	397	512	528	561	640	877	954	1113	1082,03	106,11
	1,5	392	503	517	545	616	833	901	1038	299,73	29,39
500	3,5	660	847	869	916	1007	1366	1475	1697	2056,48	201,67
	1,75	652	834	853	893	973	1303	1396	1586	569,66	55,86

HEAT EXCHANGERS PRESSURE DROP



UPPER

Heat exchangers surface [m²]	
200	0,4
300	0,9
500	1,3



LOWER

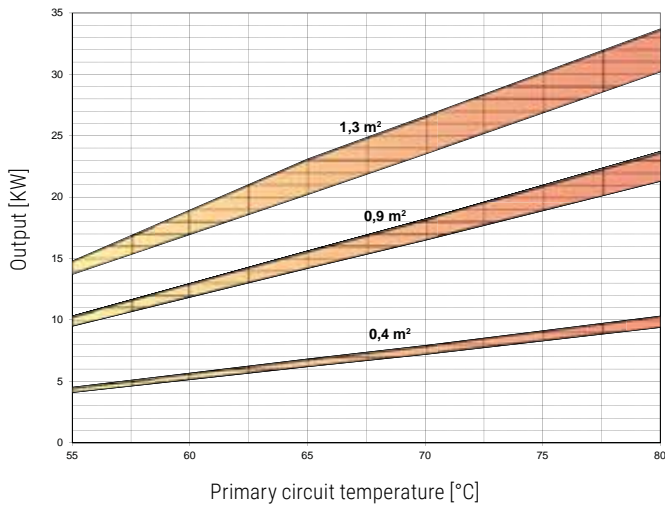
Heat exchangers surface [m²]	
200	1,4
300	1,4
500	2,2

BOLLY® 2 AP

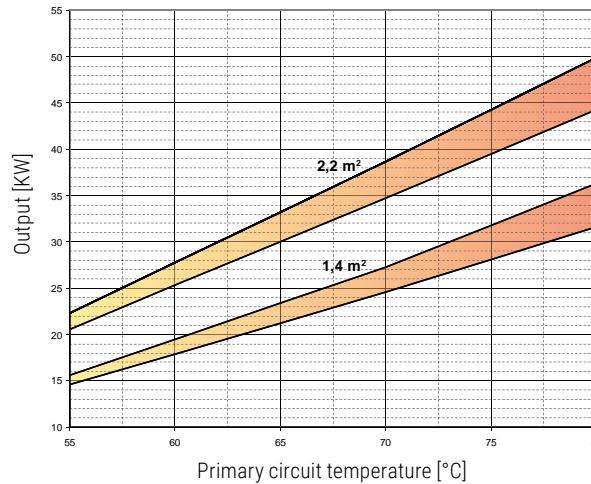
UPPER HEAT EXCHANGERS TECHNICAL DATA



Bolly® 2 AP heat exchanger output depending on the temperature and flow rate of the primary circuit and with secondary 10/45 °C at the maximum withdrawal of DHW. The upper curve that delimits the operating area of each exchanger corresponds to the "MAX" flow rate of the primary indicated in the table; the lower curve corresponds to the "MIN" flow rate.



Heat exchanger surface	0,4 m ²		0,9 m ²		1,3 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2	1	3	1,5	3,5	1,75

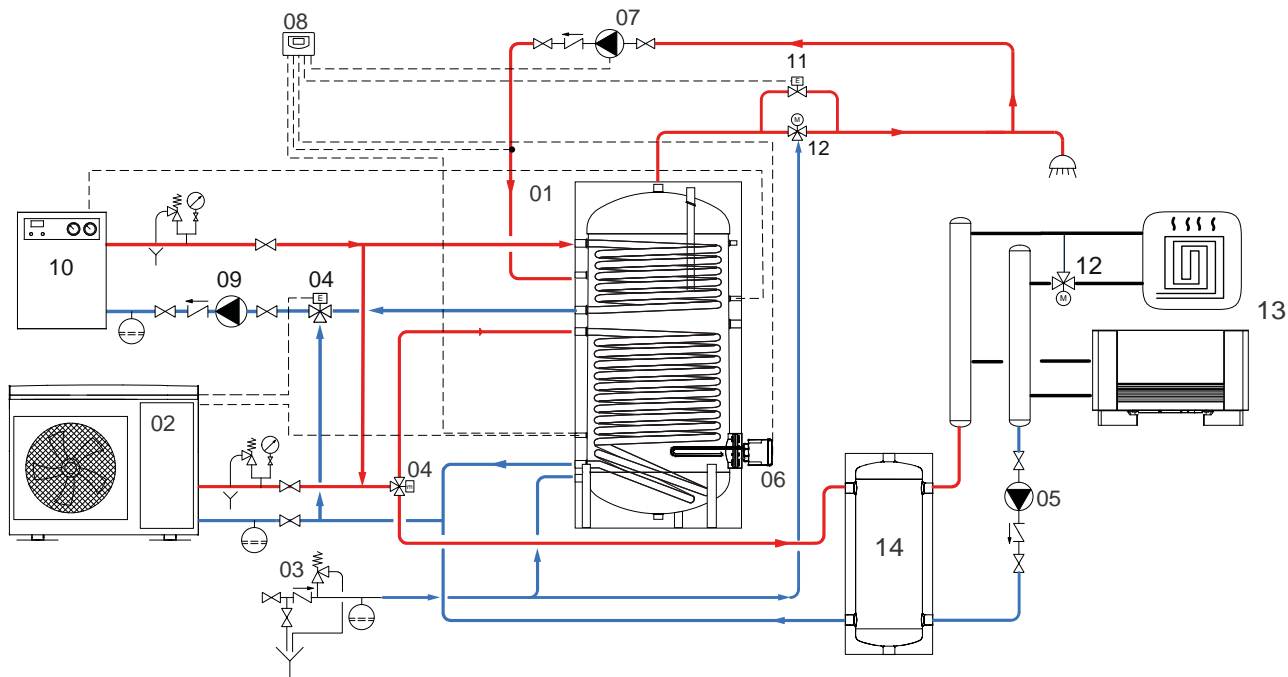


Heat exchanger surface	1,4 m ²		2 m ²	
	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3	1,5	3,5	1,75



CALORIFIERS FOR
HEAT PUMPS

EXAMPLE OF INSTALLATION WITH BOLLY® 2 AP

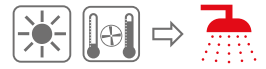


1	BOLLY® 2 AP	5	Circulation group for heating/cooling system	9	Circulation group (boiler)	13	Heating units
2	Generator (Heat pump)	6	Electric immersion heater (optional)	10	Auxiliary generator (Boiler)	14	Buffer tank
3	Hydraulic safety group	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Motorized three-way valve	8	Electronic control /thermostat	12	Mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. **SOFT:** NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

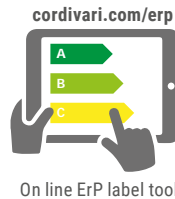
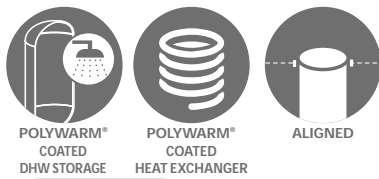
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® and connection for electric heater.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 XL WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3104162330011	2	B
300	3104162330012	3,4	B
400	3104162330013	4,4	C
500	3104162330014	5,4	C
800	3104162330015	6,0	B
1000	3104162330016	6,5	B



BOLLY® 1 XL WC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
800	3104162320007	6,0	C
1000	3104162320008	6,5	C



BOLLY® 1 XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
200	3104162330051	2	A
300	3104162330052	3,4	A
500	3104162330053	5,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
200	159	285	214	142
300	235	421	316	210
400	353	632	474	316
500	413	741	555	370
800	668	1197	898	598
1000	874	1565	1174	783

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
//	//	//	//	//
158	//	//	//	//
237	//	//	//	//
278	222	//	//	//
449	359	299	199	//
587	470	391	261	196

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

Titanium electronic anode

For art. nr. and prices please see Accessories section

BOLLY® 1 XL

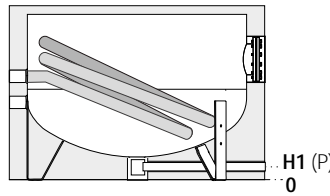
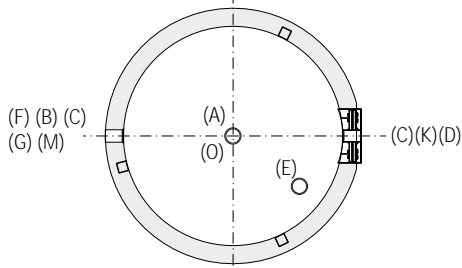
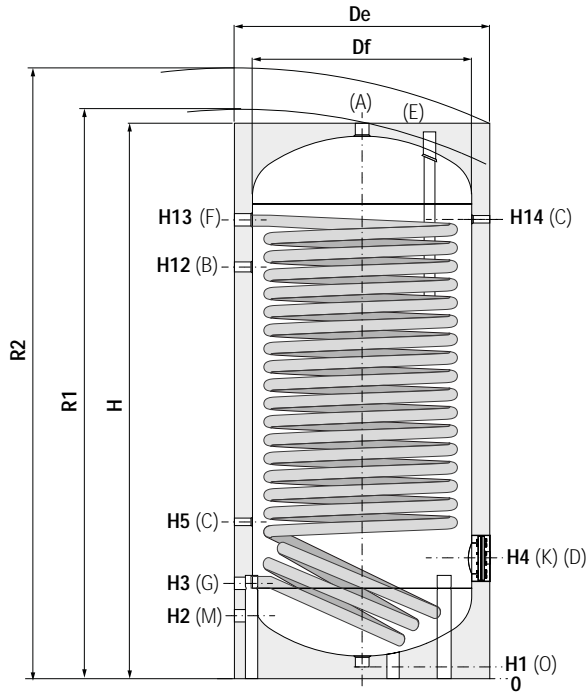
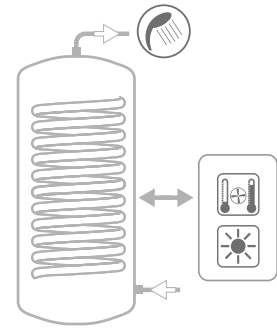
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGER	
	Pmax	Tmax	Pmax	Tmax
200 ÷ 800	10 bar	90 °C	12 bar	110 °C
1000	8 bar			



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1 1/4" G F
F	Primary circuit inlet 1 1/4" G F
G	Primary circuit outlet 1 1/4" G F
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Drain 1 1/4" G F
P	Drain for >500 Lt 3/4" G F

CALORIFIERS FOR HEAT PUMPS

BOLLY® 1 XL WB +XL WB CLASS A (HARD FOAM INSULATION)

Model	Volume [lt]	Weight [Kg]	Df	H	H (cl.A)	De	R2	R2 (cl.A)	H1	H2	H3	H4	H5	H12	H13	H14	K	M	B	A	D
200	188,8	96	//	1440	1440	550	1560	1560	71	215	285	325	405	1055	1190	1190	Øi120/Øe180	3/4"	3/4"	1 1/4"	1 1/2"
300	290,5	130	//	1500	1500	650	1650	1650	71	241	321	381	431	1091	1211	1211	Øi120/Øe180	1"	1"	1 1/4"	1 1/2"
400	422	154	//	1780	//	700	1930	//	71	256	336	396	446	1316	1471	1471	Øi120/Øe180	1"	1"	1 1/4"	1 1/2"
500	497,4	174	//	1800	1850	750	1960	2010	71	266	346	411	466	1326	1486	1486	Øi120/Øe180	1"	1"	1 1/4"	1 1/2"
800	789,4	264	750	2170	//	900	2360	//	101	338	418	483	538	1548	1808	1808	Øi170/Øe240	1"	1"	1 1/4"	2"
1000	1037,9	303	850	2230	//	1000	2460	//	89	359	439	499	559	1584	1829	1829	Øi170/Øe240	1 1/4"	1"	1 1/2"	2"

BOLLY® 1 XL WC - DISMOUNTABLE SOFT FLEECE INSULATION

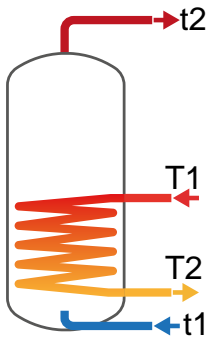
Model	Volume [lt]	Weight [Kg]	Df	H	De	R1	R2	H1	H2	H3	H4	H5	H12	H13	H14	K	M	B	A	D
800	789,4	226	750	2190	950	2330	2400	101	338	418	483	538	1548	1808	1808	Øi170/Øe240	1"	1"	1 1/4"	2"
1000	1037,9	255	850	2250	1050	2420	2500	89	359	439	499	559	1584	1829	1829	Øi170/Øe240	1 1/4"	1"	1 1/2"	2"



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	40	42	30	20	21	31	36	47	522	773	899	1153
	1,25	49	52	36	24	19	28	32	40	468	677	780	990
300	3	44	46	32	22	30	45	52	66	751	1104	1281	1640
	1,5	55	57	41	27	27	39	44	56	664	951	1093	1377
400	3,5	47	49	35	23	42	61	71	90	1033	1510	1747	2229
	1,75	59	62	44	30	37	53	60	75	915	1298	1486	1863
500	3,5	49	51	36	24	48	70	81	103	1198	1740	2009	2551
	1,75	62	65	47	31	43	60	68	85	1060	1487	1696	2114
800	5	59	61	43	29	64	93	107	136	1571	2291	2650	3372
	2,5	72	76	55	37	57	80	92	115	1412	1993	2277	2845
1000	8	65	68	48	32	72	106	124	158	1780	2632	3058	3925
	4	76	80	57	38	66	95	110	139	1642	2364	2720	3436

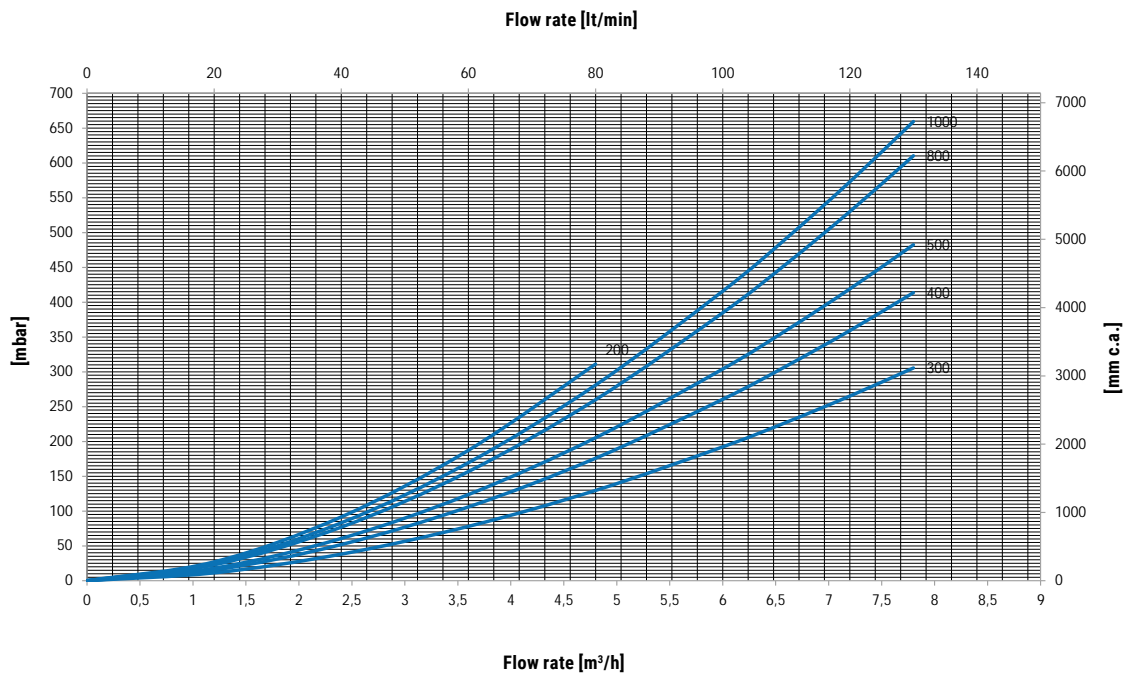


Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	221	399	420	462	241	888	989	1193	1062,3	104,2
	1,25	221	383	400	435	238	811	894	1062	309,7	30,4
300	3	340	600	629	689	368	1299	1441	1728	830,2	81,4
	1,5	339	574	598	645	363	1176	1290	1517	243,2	23,8
400	3,5	492	855	894	974	531	1811	2001	2386	1263,9	123,9
	1,75	491	819	850	913	524	1641	1791	2093	370,8	36,4
500	3,5	581	1001	1046	1137	625	2103	2319	2752	1263,9	123,9
	1,75	579	959	994	1064	617	1901	2068	2403	370,8	36,4
800	5	918	1510	1570	1691	977	2962	3249	3826	2976,1	291,9
	2,5	916	1461	1508	1603	967	2723	2950	3405	874,7	85,8
1000	8	1203	1920	1991	2136	1270	3587	3928	4621	7358,7	721,6
	4	1201	1875	1935	2054	1261	3372	3657	4230	2161,9	212,0

HEAT EXCHANGERS PRESSURE DROP

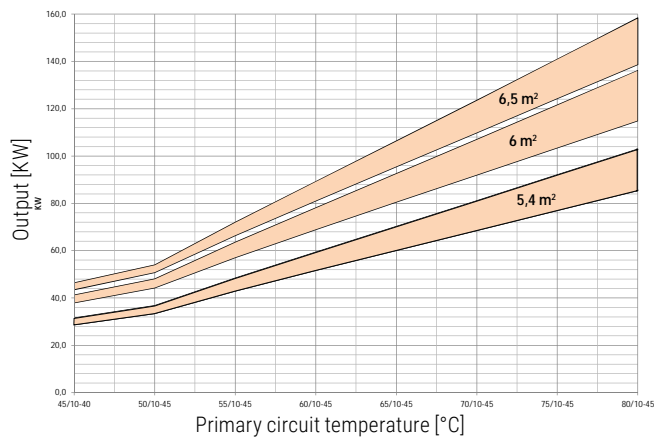
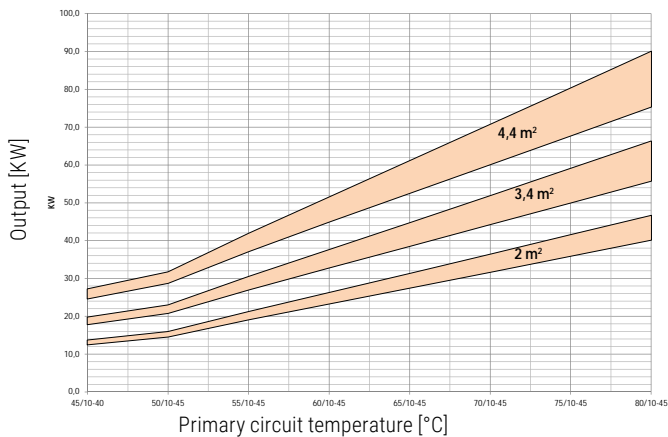
Heat exchangers surface
[m²]

200	2
300	3,4
400	4,4
500	5,4
800	6
1000	6,5





Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)

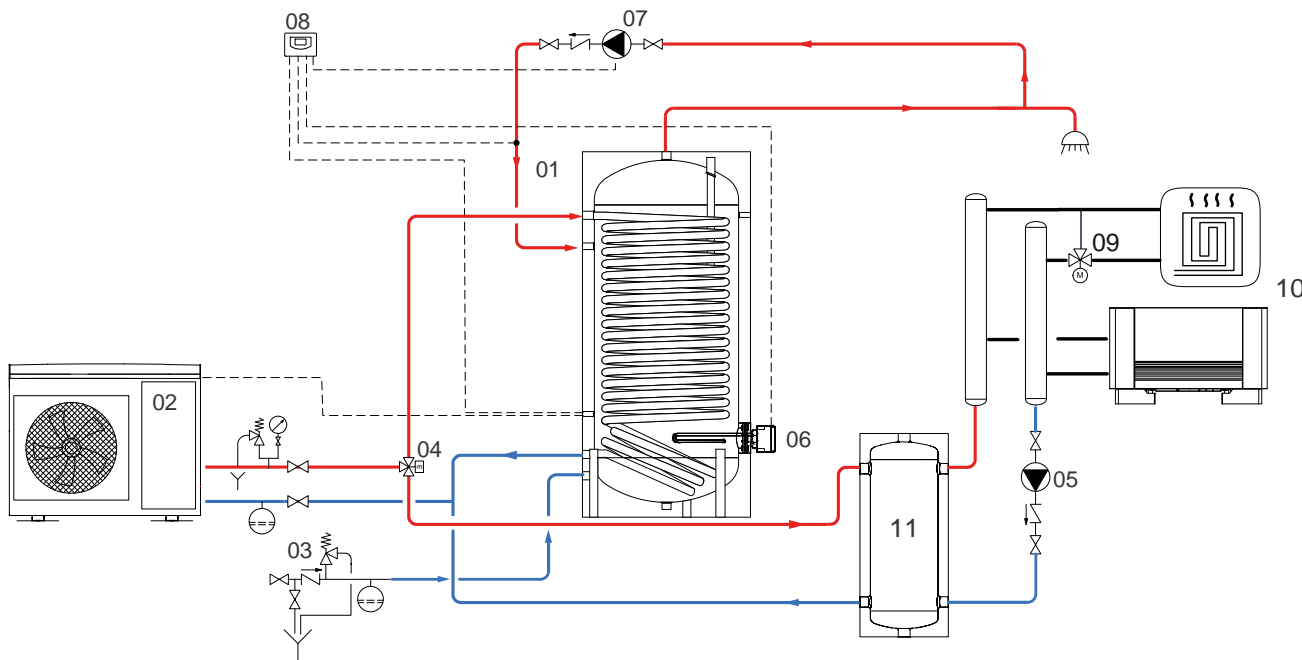


Heat exchanger surface	2 m ²		3,4 m ²		4,4 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

Heat exchanger surface	5,4 m ²		6 m ²		6,5 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3,5	1,75	5	2,5	8	4

CALORIFIERS FOR HEAT PUMPS

EXAMPLE OF INSTALLATION WITH BOLLY® 1 XL



1 BOLLY® 1 XL	4 Motorized three-way valve	7 DHW recirculation	10 Heating units
2 Generator (Heat pump)	5 Circulation group for heating/cooling system	8 Electronic control /thermostat	11 Buffer tank
3 Hydraulic safety group	6 Electric immersion heater (optional)	9 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

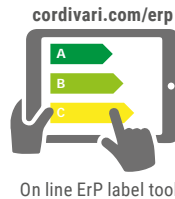
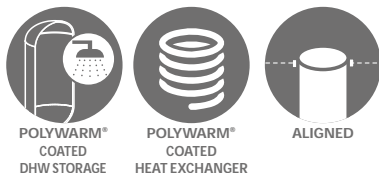
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 2 XL WB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
200	3134162320001	1,4	0,4	B
300	3134162320002	1,9	0,9	B
500	3134162320003	3,1	1,4	C



BOLLY® 2 XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
200	3134162330021	1,4	0,4	A
300	3134162330022	1,9	0,9	A
500	3134162330023	3,1	1,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE	
	1,5 kW	2 kW	3 kW	4 kW	5 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
	259	194	129	//	//
	383	287	191	144	//
	673	505	337	252	202

Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



BOLLY® 2 XL

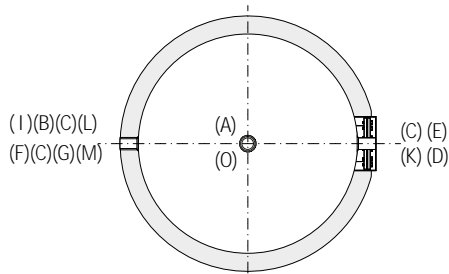
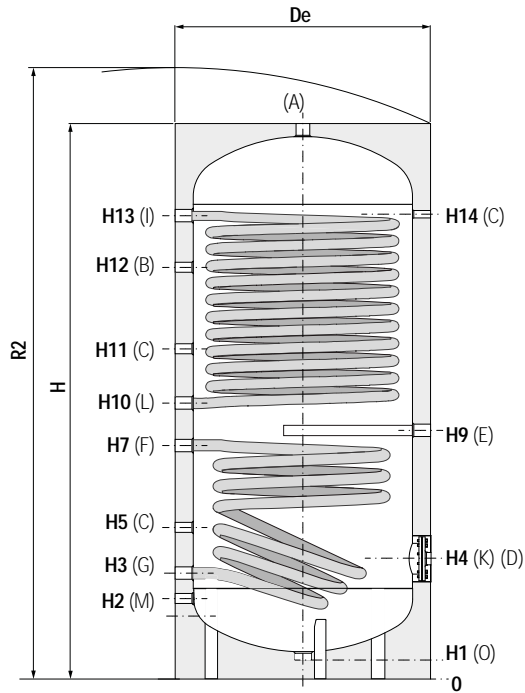
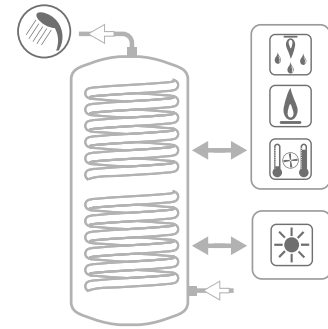
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 bar	110 °C



CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet 1"1/4
B	Recirculation
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet 1"1/4 G F
G	Lower heat exchanger outlet 1"1/4 G F
I	Upper heat exchanger inlet 1"1/4 G F
K	Blind flange for inspection
L	Upper heat exchanger outlet 1"1/4 G F
M	Domestic cold water circuit inlet
O	"Drain 1"1/4 F

CALORIFIERS FOR HEAT PUMPS

BOLLY® 2 XL WB +XL WB CLASS A (HARD FOAM INSULATION)

Model	Volume Weight		De	H	H (cl. A)	R2	R2 (cl. A)	H1	H2	H3	H4	H5	H6	H7
	[t]	[Kg]												
200	189	65	550	1434	1434	1540	1540	65	215	285	325	405	//	475
300	291	83	650	1486	1486	1620	1620	65	241	311	381	431	//	596
500	498	134	750	1786	1836	1940	1980	65	266	346	411	466	//	671

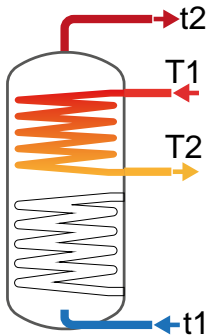
Model	H8	H9	H10	H11	H12	H13	H14	K	Connections F	
									M	B
200	520	//	570	690	1089	1200	1200	Ø1120/Øe180	3/4"	3/4"
300	641	//	686	806	1090	1226	1226	Ø1120/Øe180	1"	1"
500	716	//	761	881	1091	1476	1476	Ø1120/Øe180	1"	1"



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

UPPER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	37	38	27	18	15	23	27	34	377	564	659	851
	1,25	42	44	31	21	14	21	24	30	346	507	586	749
300	3	43	45	31	20	20	30	35	46	501	747	871	1123
	1,5	50	52	37	24	18	27	31	39	454	661	765	975
500	3,5	46	48	34	22	33	49	56	72	812	1198	1392	1786
	1,75	47	49	35	23	30	42	49	62	732	1050	1208	1525

Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	149	275	291	323	163	633	708	862	163,5	16,0
	1,25	149	266	279	306	162	587	651	781	45,6	4,5
300	3	226	400	421	463	245	873	972	1174	88,4	8,7
	1,5	225	386	403	438	242	805	888	1056	24,5	2,4
500	3,5	329	601	633	699	360	1360	1515	1830	70,2	6,9
	1,75	328	576	603	656	355	1242	1368	1621	20,9	2,0

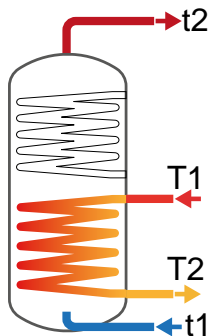


Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

LOWER
HEAT EXCHANGER

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2,5	182	189	130	84	4,8	6,9	8,1	10,5	110	168	198	259
	1,25	225	241	151	95	4,4	6,4	7,5	9,7	99	152	179	235
300	3	127	132	92	60	9,9	15,0	17,5	22,8	243	368	431	561
	1,5	150	157	107	69	9,1	13,6	15,8	20,4	220	330	385	499
500	3,5	141	146	102	67	15,5	23,2	27,1	35,1	380	572	669	868
	1,75	139	145	101	66	14,2	21,0	24,4	31,3	346	514	598	771

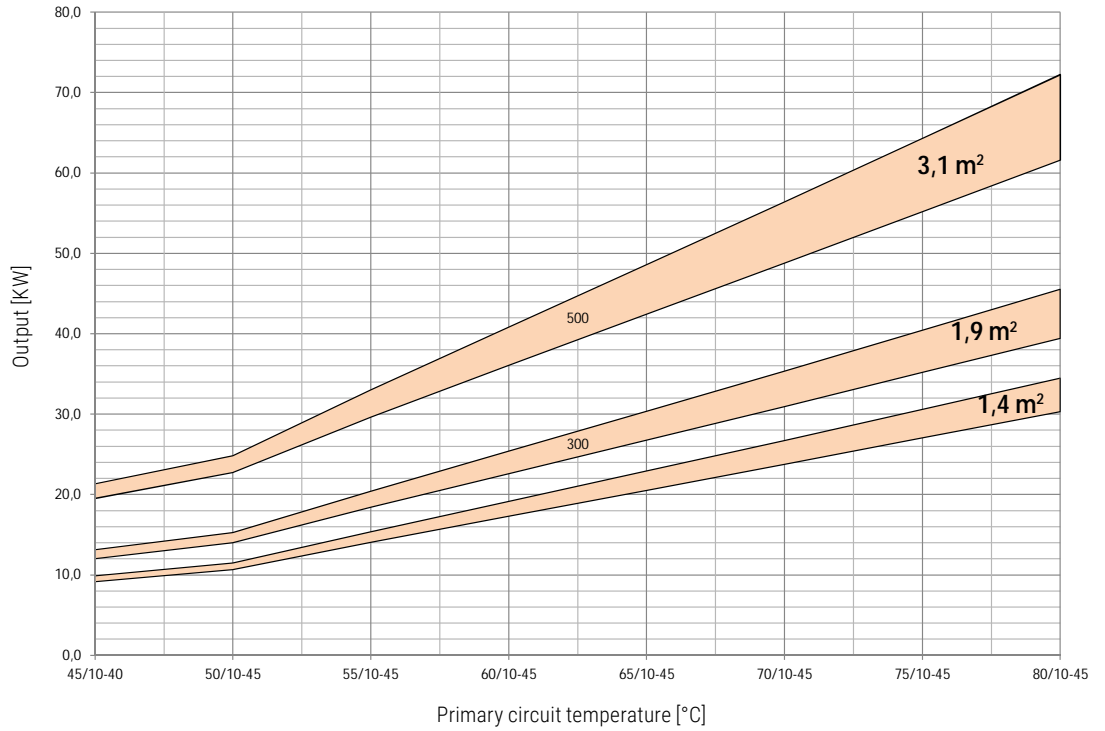


Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2,5	217	298	303	313	222	405	428	477	92,7	9,1
	1,25	217	295	300	309	221	392	413	458	24,5	2,4
300	3	335	477	488	509	345	710	761	865	61,5	6,0
	1,5	335	471	480	499	343	679	724	815	16,5	1,6
500	3,5	486	698	714	748	501	1060	1138	1297	100,1	9,8
	1,75	486	688	703	731	499	1014	1082	1219	27,4	2,7

CALORIFIERS FOR
HEAT PUMPS



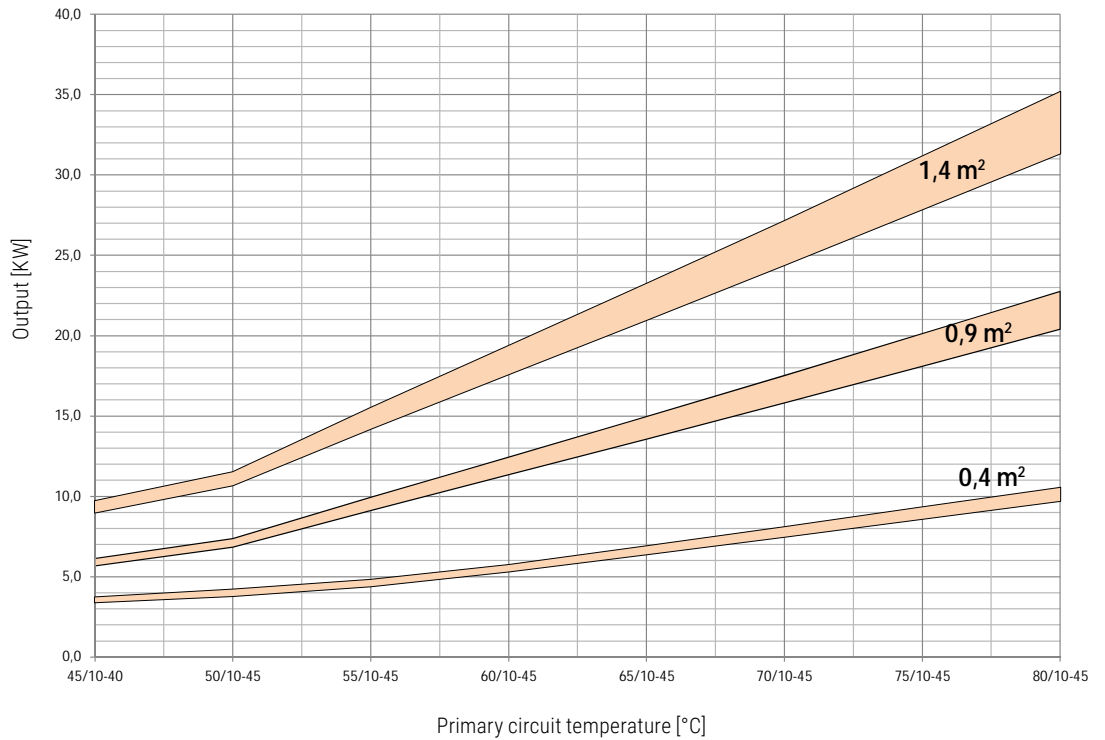
Heat exchangers surface [m ²]	
Upper	
200	1,4
300	1,9
500	3,1



Upper heat exchangers	1,4 m ²		1,9 m ²		3,1 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

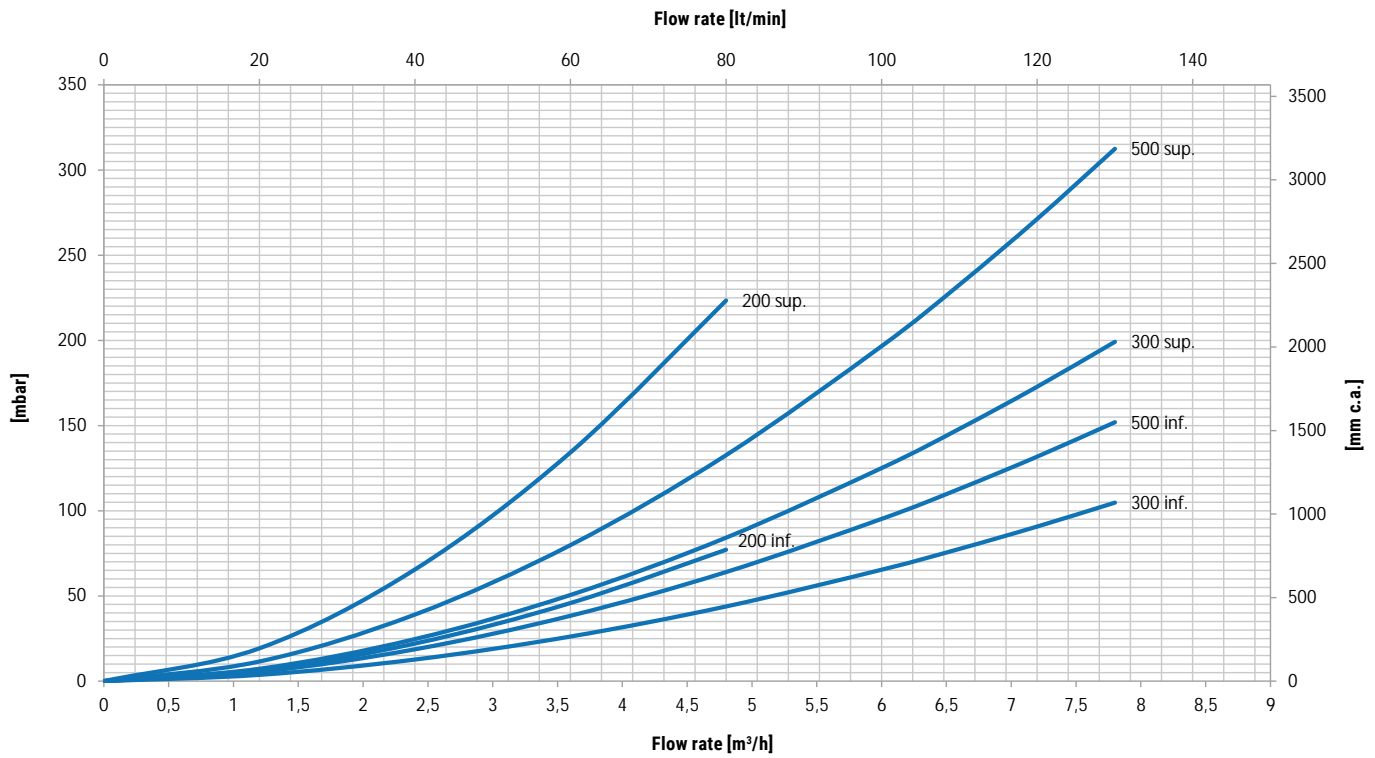
LOWER HEAT EXCHANGERS TECHNICAL DATA

Heat exchangers surface [m ²]	
Upper	
200	0,4
300	0,9
500	1,4



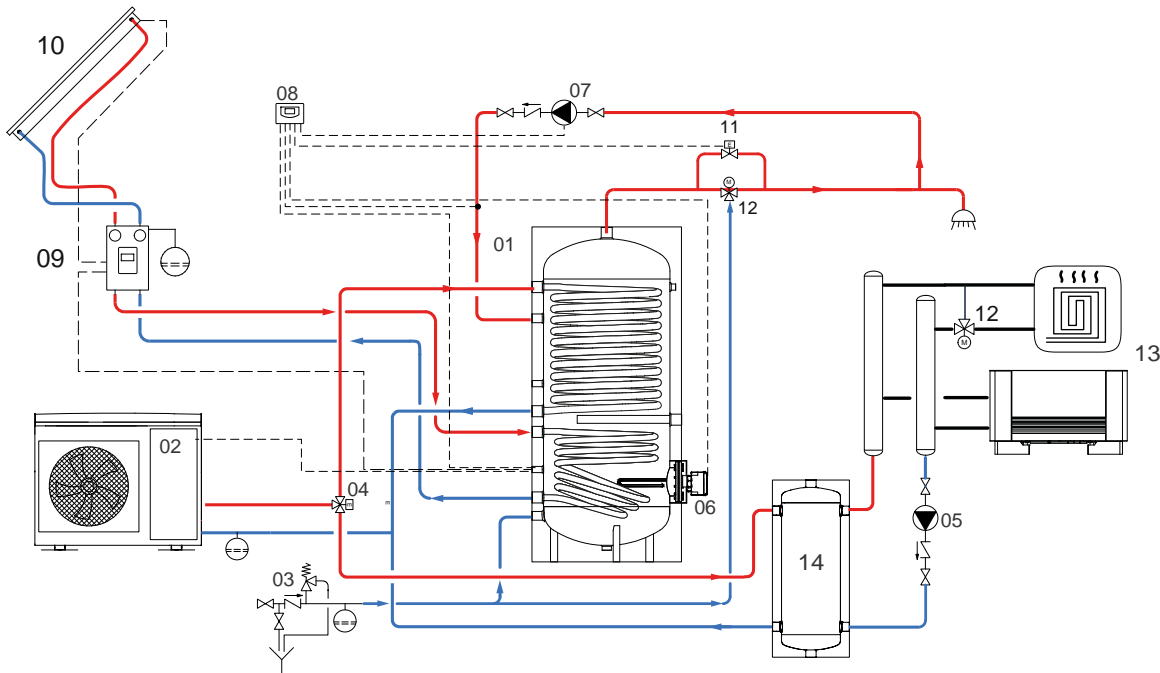
Lower heat exchangers	0,4 m ²		0,9 m ²		1,4 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	2,5	1,25	3	1,5	3,5	1,75

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



CALORIFIERS FOR
HEAT PUMPS

EXAMPLE OF INSTALLATION WITH BOLLY® 2 XL



1	BOLLY® 2 XL	5	Circulation group for heating/cooling system	9	Solar system circulation group	13	Heating units
2	Generator (Heat pump)	6	Electric immersion heater (optional)	10	Solar panels	14	Buffer tank
3	Hydraulic safety group	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Motorized three-way valve	8	Electronic control /thermostat	12	Mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 HY XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

- **ENERGY BUFFER hot-cold:** Mild steel.

HEAT EXCHANGER

Mild steel Polywarm® coated heat exchanger.

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. **HARD FOAM (CLASS "A" MODELS):** rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION (DHW STORAGE)

Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

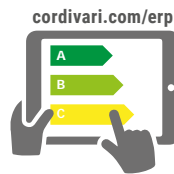
See Accessories section for the entire list.



POLYWARM® COATED DHW STORAGE



POLYWARM® COATED HEAT EXCHANGER



On line ErP label tool



BOLLY® 1 HY XL WB

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
250	3104162330019	9-14	2,1	C
300	3104162330017	9-14	3,4	C
500	3104162330018	14-20	5,4	C



BOLLY® 1 HY XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
300	3104162330020	9-14	3,4	A
500	3104162330021	14-20	5,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
250	179	320	240
300	235	421	316
500	413	741	555
			160
			210
			370

THREEPHASE	
4 kW	5 kW
5240000000047	5240000000048
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
120	//
158	//
278	222

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 1 HY XL

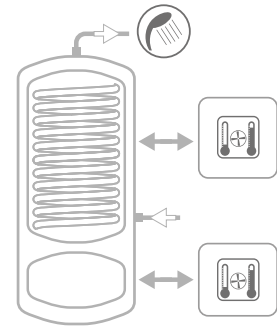
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED HEAT EXCHANGER AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	90 °C	12 bar	110 °C	4 bar	-10/+95 °C

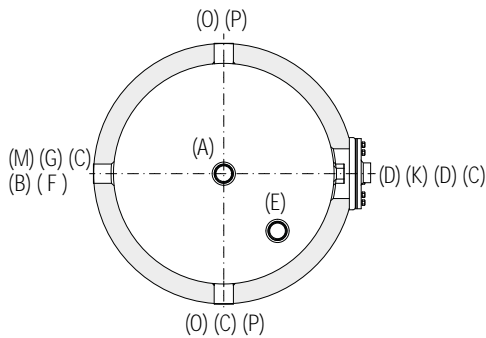
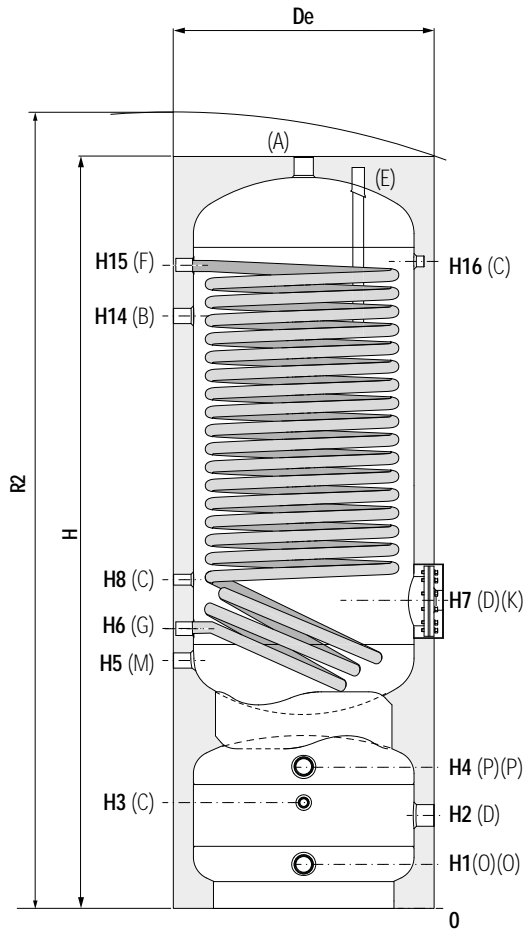


—CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Primary circuit inlet
G	Primary circuit outlet
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

CALORIFIERS FOR HEAT PUMPS

Model	DHW storage volume	Buffer tank volume	De	H	R2	H1	H2	H3	H4	H5	H6
	[lit]										
250	235	86	650	1635	1770	110	232	264	354	618	708
300	291	86	650	1875	1990	110	232	264	354	618	708
500	498	108	750	2225	2360	125	230	245	335	639	729

Model	H7	H8	H14	H15	H16	A-F-G	B-M	C	D	P-O
	[mm]									
250	768	818	1233	1363	1368	1"1/4	1"	1/2"	1"1/2	1"1/4
300	768	818	1478	1598	1598	1"1/4	1"	1/2"	1"1/2	1"1/4
500	794	849	1709	1869	1869	1"1/4	1"	1/2"	1"1/2	1"1/4

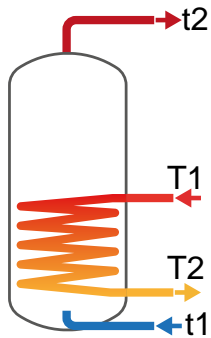
BOLLY® 1 HY XL

HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.



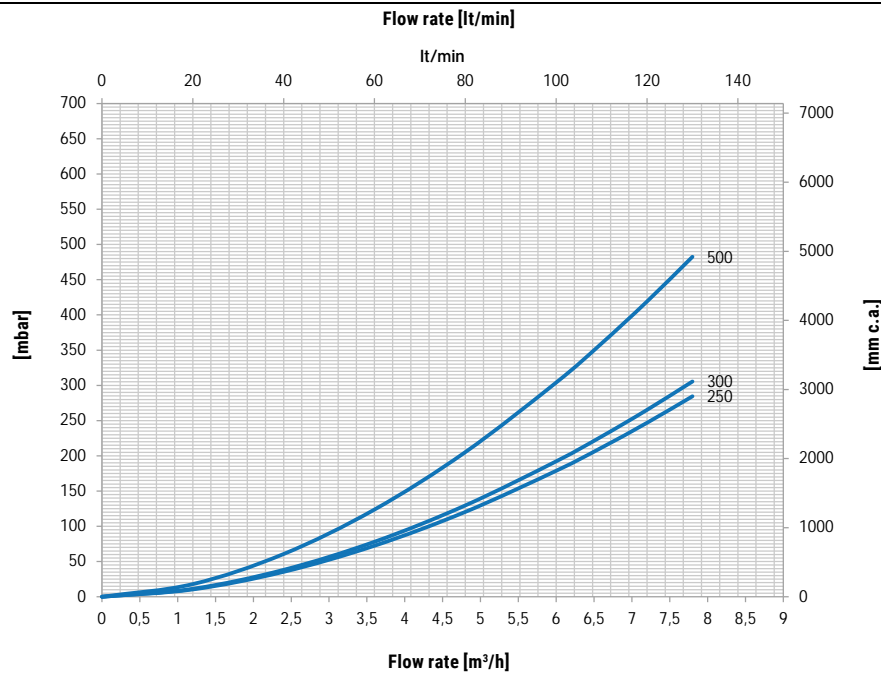
Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	44	46	32	22	30	45	52	66	751	1104	1281	1640
	1,5	55	57	41	27	27	39	44	56	664	951	1093	1377
250	3	47	49	34	23	22	33	39	50	554	821	956	1229
	1,5	55	58	41	27	20	29	34	43	501	725	837	1062
500	3,5	49	51	36	24	48	70	81	103	1198	1740	2009	2551
	1,75	62	65	47	31	43	60	68	85	1060	1487	1696	2114

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	3	340	600	629	689	368	1299	1441	1728	830,2	81,4
	1,5	339	574	598	645	363	1176	1290	1517	243,2	23,8
250	3	360	471	494	539	711	991	1099	1317	525	53
	1,5	351	455	474	511	668	914	1004	1184	154	15
500	3,5	581	1001	1046	1137	625	2103	2319	2752	1263,9	123,9
	1,75	579	959	994	1064	617	1901	2068	2403	370,8	36,4

HEAT EXCHANGERS PRESSURE DROP

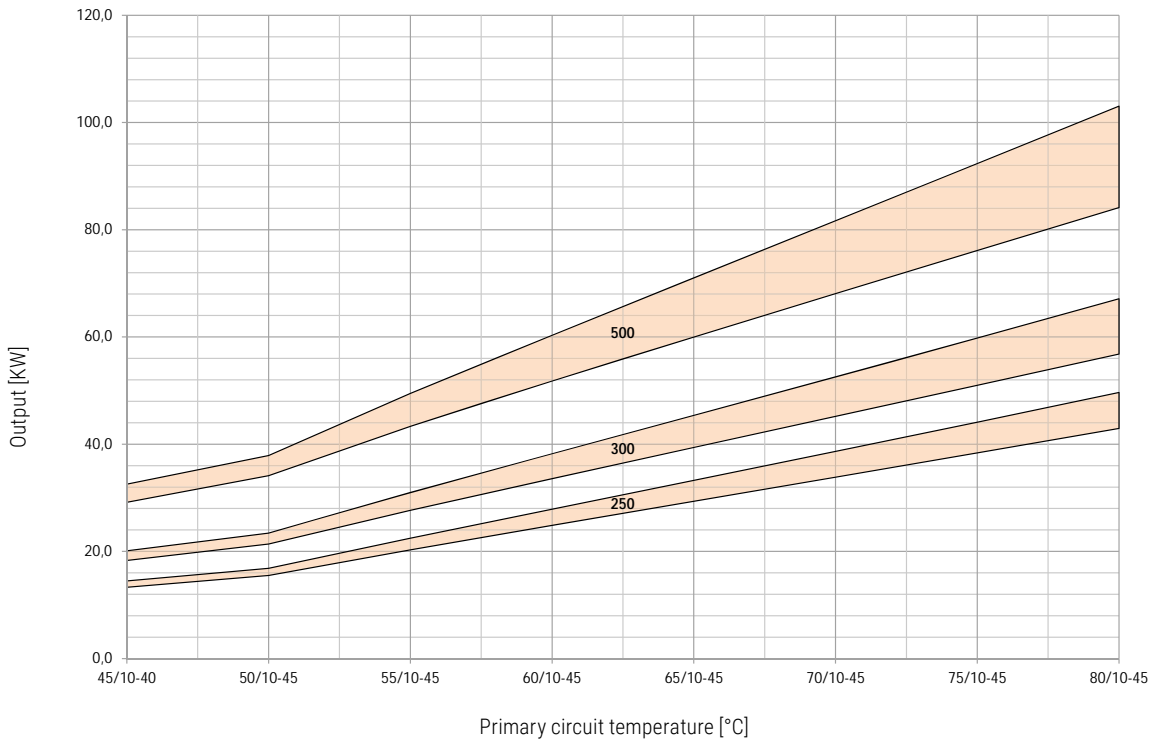
Heat exchangers surface
[m²]

250	2,1
300	3,4
500	5,4





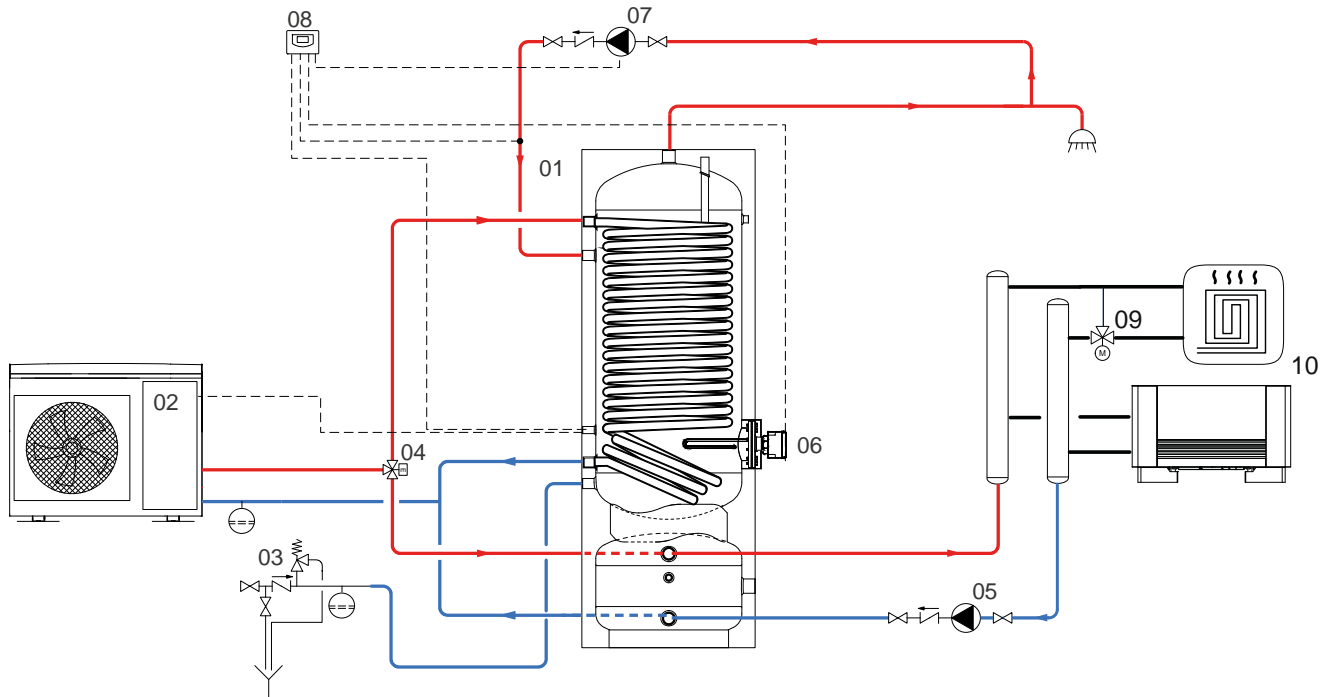
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Model	250		300		500	
	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m³/h]	3	1,5	3	1,5	3,5	1,75

CALORIFIERS FOR
HEAT PUMPS

EXAMPLE OF INSTALLATION WITH BOLLY® 1 HY XL



01 BOLLY® 1 HY XL	04 Motorized three-way valve	07 D.H.W. recirculation group	10 Heating units
02 Generator (Heat pump)	05 Circulation group for heating/cooling system	08 Electronic control /thermostat	
03 Hydraulic safety group	06 Electric immersion heater (optional)	09 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 HY XL

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

- **ENERGY BUFFER hot-cold:** Mild steel.

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. **HARD FOAM (CLASS "A" MODELS):** rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION (DHW STORAGE)

Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

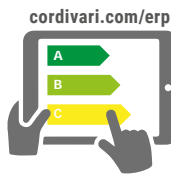
NEW



POLYWARM® COATED DHW STORAGE



POLYWARM® COATED HEAT EXCHANGER



On line ErP label tool



BOLLY® 2 HY XL WB

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320004	9-14	1,9	0,9	C
500	3134162320005	14-20	3,1	1,4	C



BOLLY® 2 HY XL WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320012	9-14	1,9	0,9	A
500	3134162320013	14-20	3,1	1,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

300 235
500 413

MONOPHASE		
1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
421	316	210
741	555	370

THREEPHASE	
4 kW	5 kW
5240000000047	5240000000048
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
158	//
278	222

Thermometer

Art. Nr.	
5032240000107	
5 units box	

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 2 HY XL

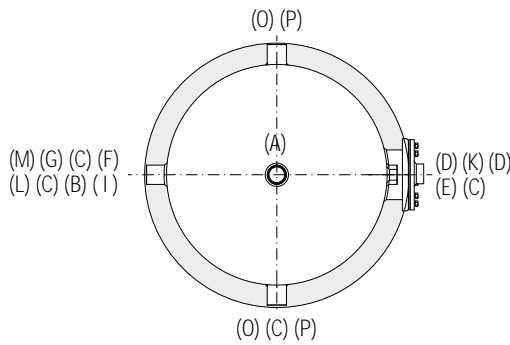
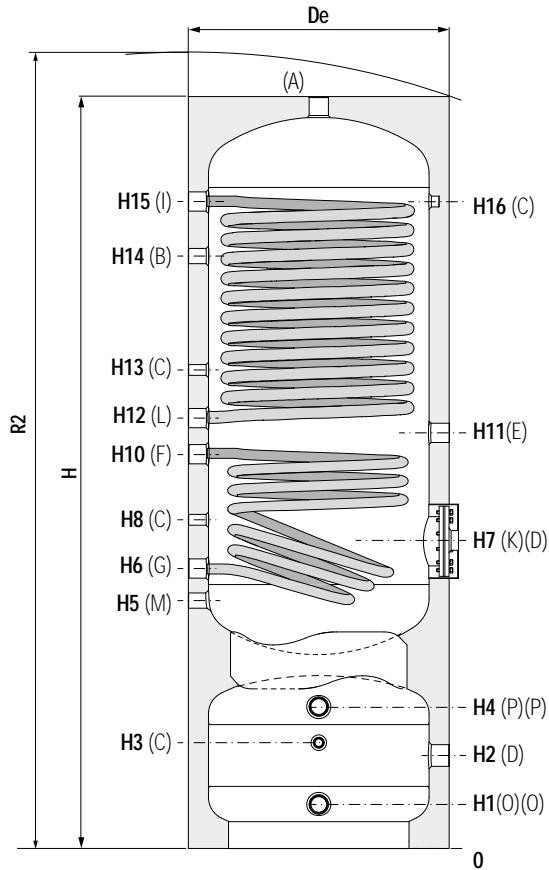
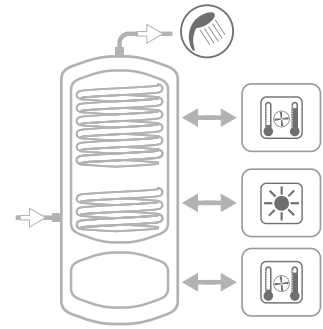
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C



—CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet
G	Lower heat exchanger outlet
I	Upper heat exchanger inlet
L	Upper heat exchanger outlet
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

CALORIFIERS FOR HEAT PUMPS

Model	DHW storage volume	Buffer tank volume	Weight	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
	[l]	[l]												
300	291	86	116	650	1875	1990	110	232	264	354	618	698	768	818
500	498	108	194	750	2225	2360	125	230	245	335	639	729	794	849

Model	H10	H11	H12	H13	H14	H15	H16	K	Connections F				
	[mm]												
300	983	993	1073	1193	1477	1613	1613	Ø1120/Øe180	1"	1"	1"1/2	1"1/2	1"1/4
500	1054	106	1144	1264	1474	1859	1859	Ø1120/Øe180	1"	1"	1"1/2	1"1/2	1"1/4

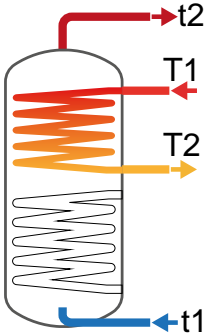
P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

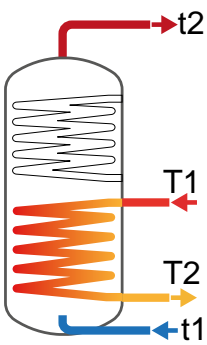
UPPER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
300	3	43	45	31	20	20	30	35	46	501	747	871	1123
	1,5	50	52	37	24	18	27	31	39	454	661	765	975
500	3,5	46	48	34	22	33	49	56	72	812	1198	1392	1786
	1,75	47	49	35	23	30	42	49	62	732	1050	1208	1525

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
300	3	226	400	421	463	245	873	972	1174	88,4	8,7
	1,5	225	386	403	438	242	805	888	1056	24,5	2,4
500	3,5	329	601	633	699	360	1360	1515	1830	70,2	6,9
	1,75	328	576	603	656	355	1242	1368	1621	20,9	2,0

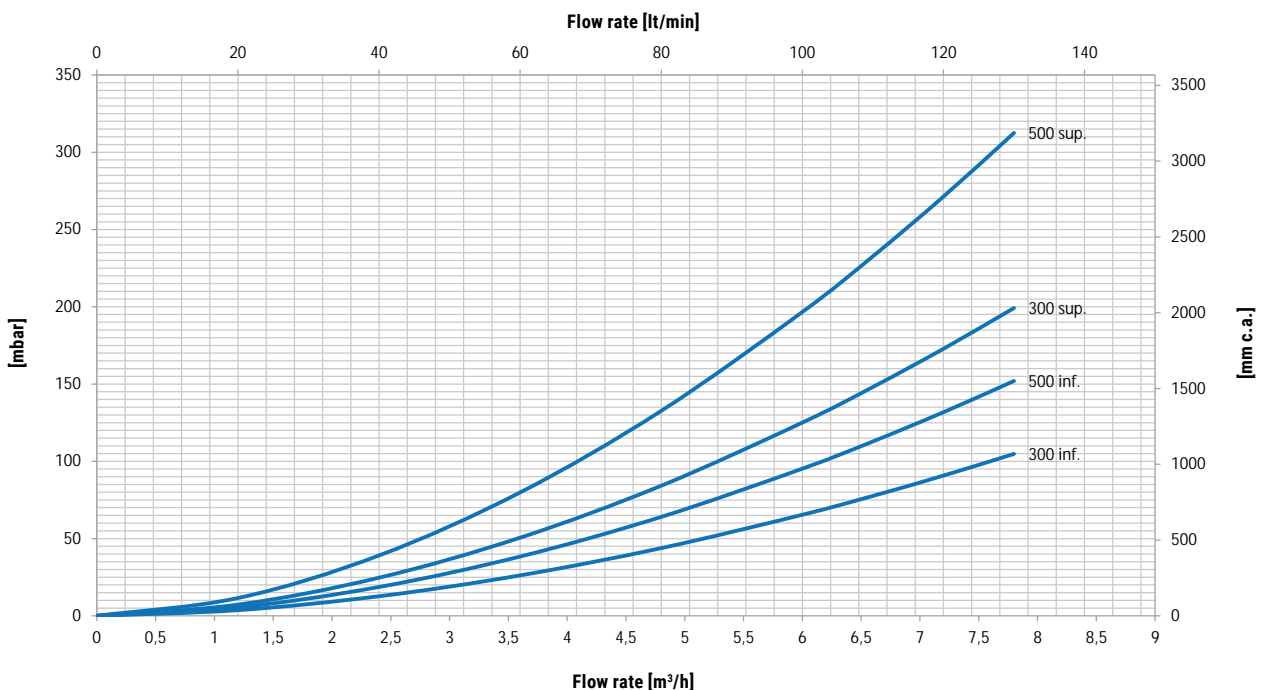
LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
300	3	127	132	92	60	9,9	15,0	17,5	22,8	243	368	431	561
	1,5	150	157	107	69	9,1	13,6	15,8	20,4	220	330	385	499
500	3,5	141	146	102	67	15,5	23,2	27,1	35,1	380	572	669	868
	1,75	139	145	101	66	14,2	21,0	24,4	31,3	346	514	598	771

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
300	3	335	477	488	509	345	710	761	865	61,5	6,0
	1,5	335	471	480	499	343	679	724	815	16,5	1,6
500	3,5	486	698	714	748	501	1060	1138	1297	100,1	9,8
	1,75	486	688	703	731	499	1014	1082	1219	27,4	2,7

HEAT EXCHANGERS PRESSURE DROP

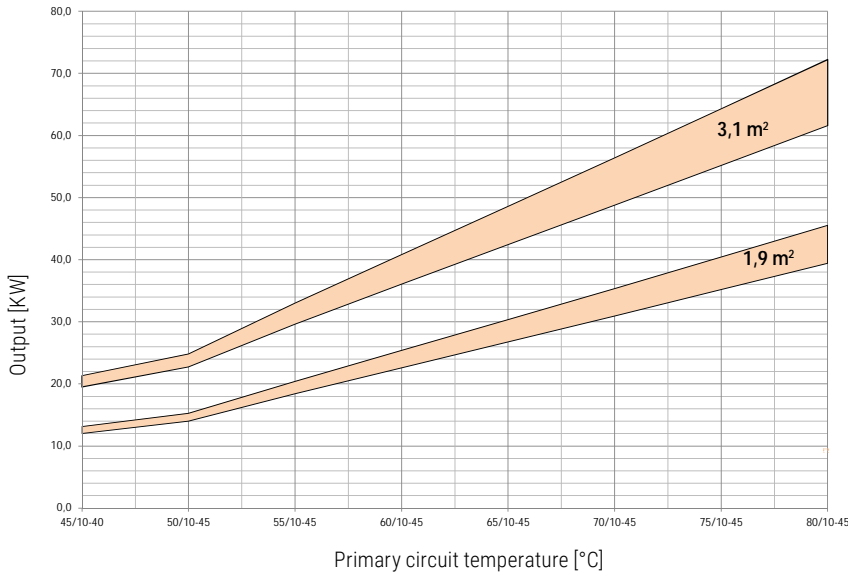


BOLLY® 2 HY XL

HEAT EXCHANGERS TECHNICAL DATA

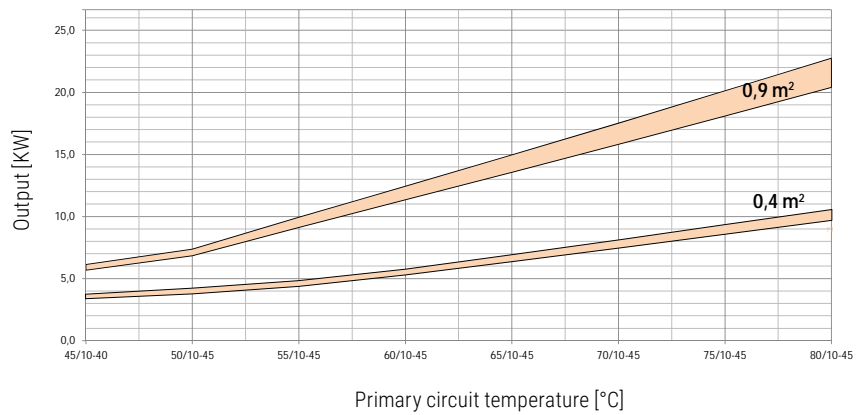


BOLLY® 2 HY XL heat exchanger output depending on the temperature and flow rate of the primary circuit and with secondary 10/45 °C at the maximum withdrawal of DHW. The upper curve that delimits the operating area of each exchanger corresponds to the "MAX" flow rate of the primary indicated in the table; the lower curve corresponds to the "MIN" flow rate.

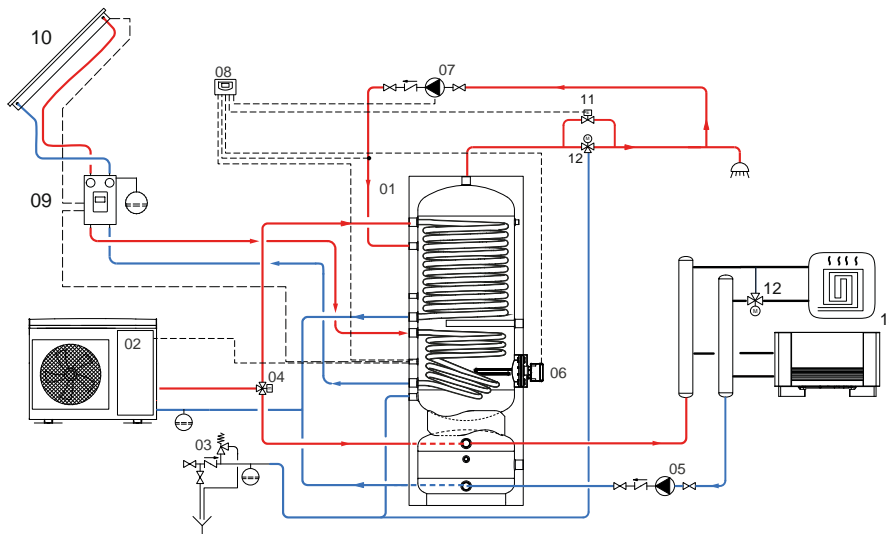


Upper heat exchangers	1,9 m ²		3,1 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

Lower heat exchangers	0,4 m ²		0,9 m ²	
Flow rate [m ³ /h]	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5



EXAMPLE OF INSTALLATION WITH BOLLY® 2 HY XL



01 BOLLY® 2 HY XL	05 Circulation group for heating/cooling system	09 Solar system circulation group	13 Heating units
02 Generator (Heat pump)	06 Electric immersion heater (optional)	10 Solar panels	
03 Hydraulic safety group	07 D.H.W. recirculation group	11 By-pass solenoid valve	
04 Motorized three-way valve	08 Electronic control /thermostat	12 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 HY AP

POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED BUFFER TANK SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

- **ENERGY BUFFER hot-cold:** Mild steel.

HEAT EXCHANGER

N° 2 Mild steel Polywarm® coated heat exchangers

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. **HARD FOAM (CLASS "A" MODELS):** rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.

Grey PVC external lining.

CATHODE PROTECTION (DHW STORAGE)

Magnesium anode.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

NEW

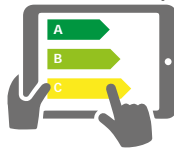


POLYWARM®
COATED
DHW STORAGE



POLYWARM®
COATED
HEAT EXCHANGER

cordivari.com/erp



On line ErP label tool



BOLLY® 2 HY AP WB

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320010	7-12	0,9	1,4	C
500	3134162320011	12-16	1,3	2,2	C



BOLLY® 2 HY AP WB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper	Lower	
300	3134162320014	7-12	0,9	1,4	A
500	3134162320015	12-16	1,3	2,2	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]
300	1	235
	2	112
500	1	413
	2	185

MONOPHASE

1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
421	316	210
201	151	100
741	555	370
331	248	165

THREEPHASE

4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
158	//	//
75	60	//
278	222	//
124	99	83

Thermometer

Art. Nr.
5032240000107
5 units box



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 2 HY AP

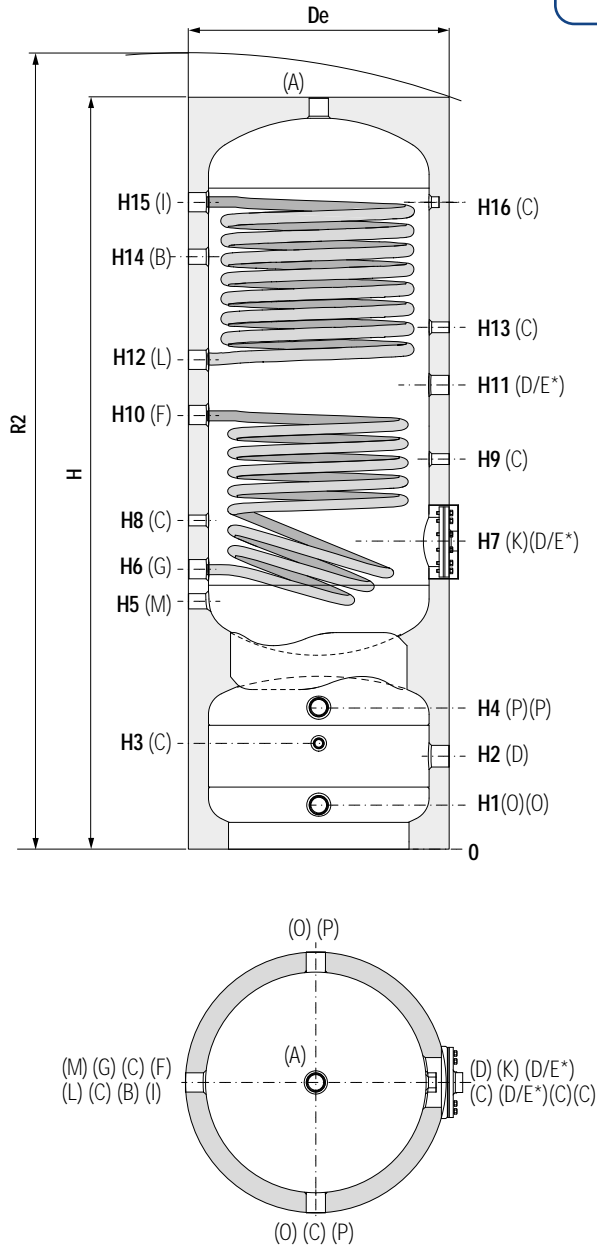
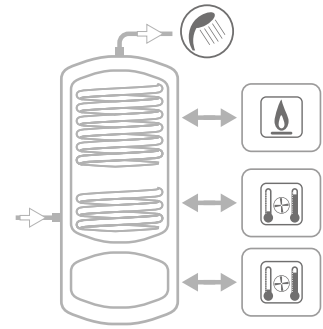
POLYWARM® COATED DOMESTIC HOT WATER CALORIFIER WITH 2 FIXED HEAT EXCHANGERS AND ENERGY BUFFER FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater
E*	Connection for magnesium anode Use a reduction 1"1/2 → 1"1/4
F	Lower heat exchanger inlet
G	Lower heat exchanger outlet
I	Upper heat exchanger inlet
L	Upper heat exchanger outlet
K	Flange for inspection
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

CALORIFIERS FOR HEAT PUMPS

BOLLY® 2 HY AP WB / 2 HY AP WB CLASS A (HARD FOAM INSULATION)

Model	DHW storage volume	Buffer tank volume	Weight	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8
	[lit]	[kg]												
300	291	81	103	650	1875	1990	110	232	264	354	628	698	738	818
500	498	108	168	750	2225	2360	125	230	245	335	649	729	794	849

Model	H9	H10	H11	H12	H13	H14	H15	H16	K	Connections F				
	[mm]													
300	948	1219	1318	1368	1463	1488	1608	1608	Øi120/Øe180	1"1/4	1"	1/2"	1"1/2	1"1/4
500	969	1419	1527	1569	1679	1714	1859	1859	Øi120/Øe180	1"1/4	1"	1/2"	1"1/2	1"1/4

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 2 HY AP

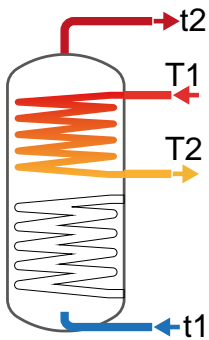
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

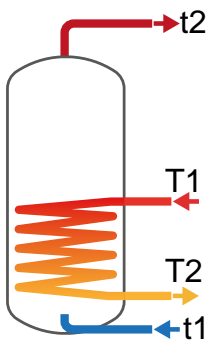
UPPER HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	41	43	30	20	9,9	15	17,5	22,8	243	368	432	562
	1,5	47	48	34	22	9,1	13,6	15,8	20,4	223	333	389	503
500	3,5	49	51	35	23	14,4	22,5	25,9	32,8	353	532	623	809
	1,75	55	57	40	26	13,3	19,6	22,8	29,3	326	482	562	724

Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
	[m³/h]	T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	3	149	197	208	229	303	430	481	585	194,65	19,09
	1,5	146	191	201	220	287	402	447	538	53,92	5,29
500	3,5	242	317	332	363	465	654	727	876	316,51	31,04
	1,75	237	309	322	349	444	614	678	808	87,68	8,60

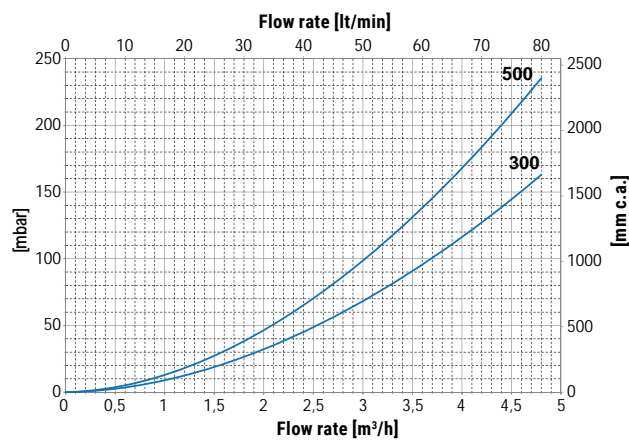
LOWER HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
	[m³/h]	T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	3	82	85	60	39	15,6	23,4	27,3	36,3	384	576	673	871
	1,5	94	98	69	45	14,6	21,2	24,6	31,6	354	522	607	778
500	3,5	100	104	73	48	22,3	33,2	38,7	49,9	549	820	956	1234
	1,75	115	120	85	56	20,6	30	34,7	44,3	506	741	858	1095

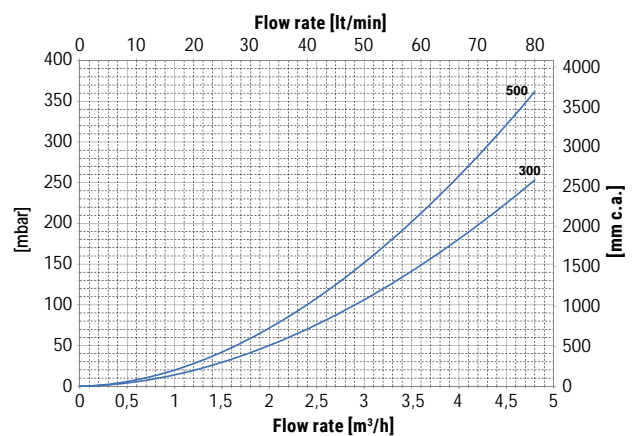
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
	[m³/h]	T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	3	397	512	528	561	640	877	954	1113	1082,03	106,11
	1,5	392	503	517	545	616	833	901	1038	299,73	29,39
500	3,5	660	847	869	916	1007	1366	1475	1697	2056,48	201,67
	1,75	652	834	853	893	973	1303	1396	1586	569,66	55,86

HEAT EXCHANGERS PRESSURE DROP



UPPER

Heat exchangers surface [m²]	
300	0,9
500	1,3



LOWER

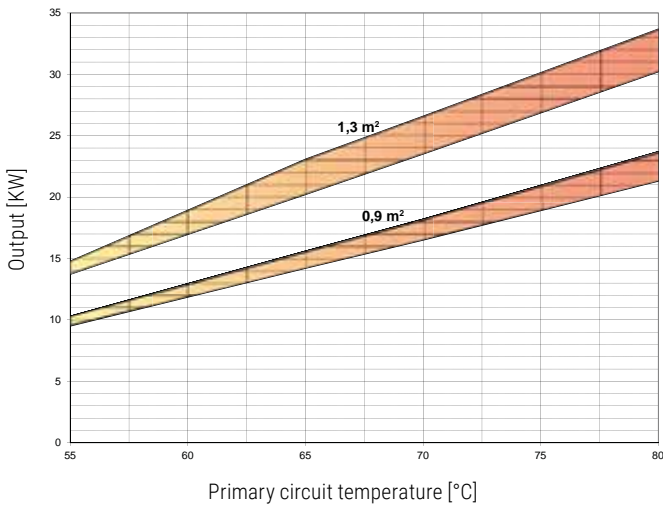
Heat exchangers surface [m²]	
300	1,4
500	2,2

BOLLY® 2 HY AP

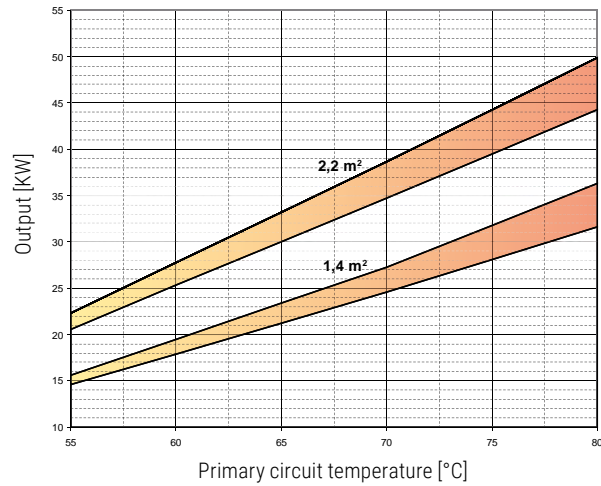
HEAT EXCHANGERS TECHNICAL DATA



Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Heat exchanger surface	0,9 m ²		1,3 m ²	
	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3	1,5	3,5	1,75

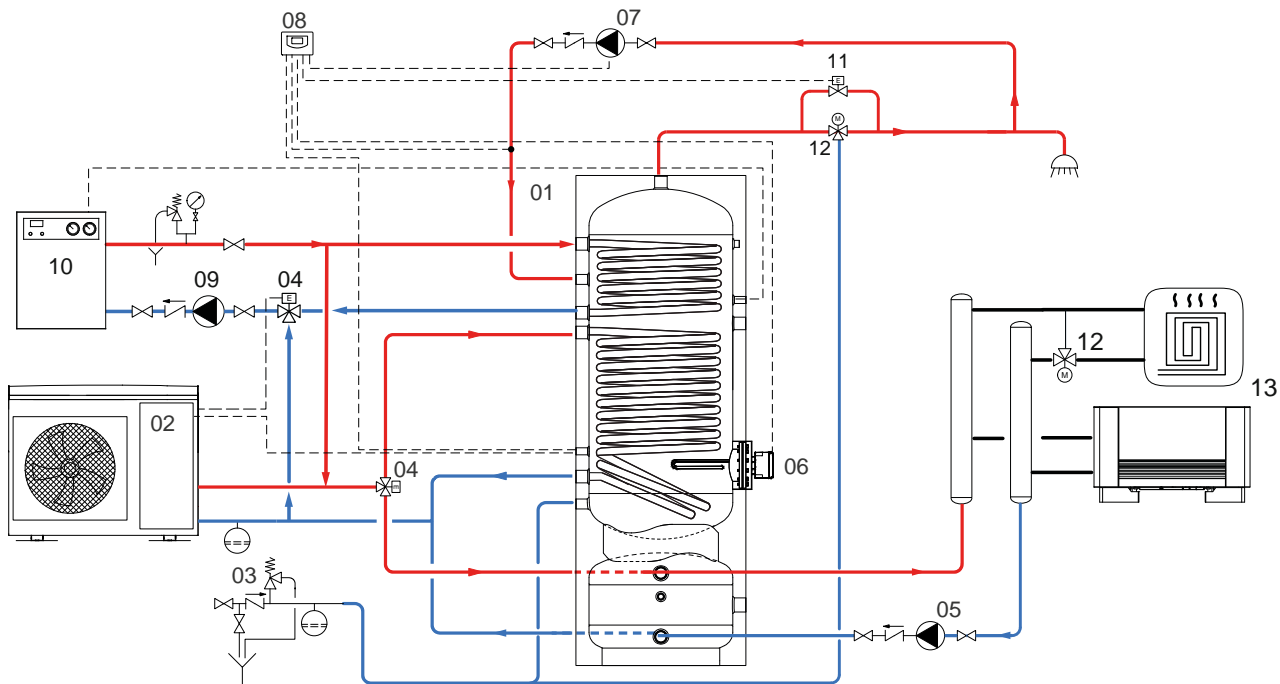


Heat exchanger surface	1,4 m ²		2,2 m ²	
	MAX	MIN	MAX	MIN
Flow rate [m ³ /h]	3	1,5	3,5	1,75



CALORIFIERS FOR
HEAT PUMPS

EXAMPLE OF INSTALLATION WITH BOLLY® 2 HY AP

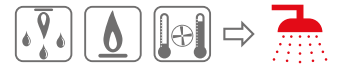


01 BOLLY® 2 HY AP	05 Circulation group for heating/cooling system	09 Circulation group (boiler)	13 Heating units
02 Generator (Heat pump)	06 Electric immersion heater	10 Auxiliary generator (Boiler)	
03 Hydraulic safety group	07 D.H.W. recirculation group	11 By-pass solenoid valve	
04 Motorized three-way valve	08 Electronic control /thermostat	12 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

ACQUAMAS® 1

Thermal storage with ACQUAMAS® MODULE
FOR INSTANTANEOUS PRODUCTION OF DHW SPECIFIC FOR HEAT PUMPS



APPLICATION

Stratified storage of technical water, for instantaneous production of domestic hot water (DHW) with high flow rates and efficiency in systems with low temperature generators such as heat pumps (HP).

MATERIAL

Mild steel, painted externally and untreated internally.

INSTANTANEOUS DHW PRODUCTION MODULE:

External ACQUAMAS® MODULE with 316L stainless steel plate heat exchanger for instantaneous production of domestic hot water (DHW), equipped with electronic control unit.

INSULATION

Thermal storage: High thermal insulation with ecological polyurethane hard foam.

ACQUAMAS® MODULE: contained within the EPP structure, with the function of housing and insulation.

Grey PVC external lining.

TECHNICAL DESCRIPTION

ACQUAMAS® thermal storage, specific for the accumulation of the heat produced by the thermal system and the instantaneous production of DHW, therefore without accumulation of domestic hot water, with the following advantages:

- ease of maintenance
- maximum hygiene in anti-legionella function.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts



NEW



ACQUAMAS® 1

ENERGY EFFICIENCY CLASS



Model	ACQUAMAS® MODULE (with stainless steel brazed plates)	HARD FOAM INSULATION Art. Nr.	ENERGY EFFICIENCY CLASS
500	120	3251162314850	C
600		3251162314851	C

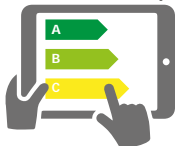


ACQUAMAS® MODULE

Labyrinth spreader (Patented)

PATENTED

cordivari.com/erp




On line ErP label tool


Model	DHW module	DHW production (10-45°C) with accumulation at 60°C	Maximum availability of DHW (10-45°C) with accumulation at 80°C
		[l/min]	[liters]
500	ACQUAMAS® MODULE	40	570
600		40	670

ACCESSORIES


Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ACQUAMAS® 1

THERMAL STORAGE WITH ACQUAMAS® MODULE

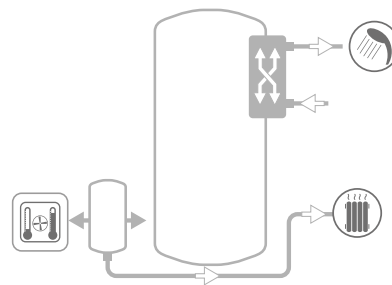
FOR INSTANTANEOUS PRODUCTION OF DHW SPECIFIC FOR HEAT PUMPS

STORAGE		FIXED HEAT EXCHANGER		HEAT EXCHANGER A STAINLESS STEEL PLATES (MACS®)		HARDNESS OF DHW
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

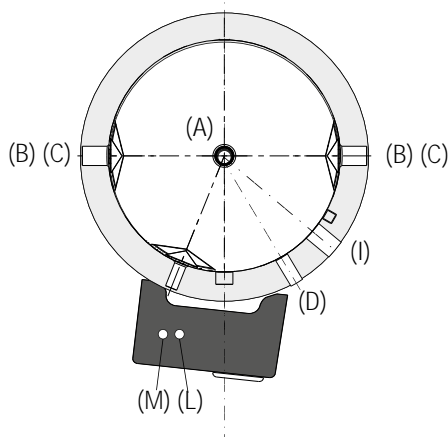
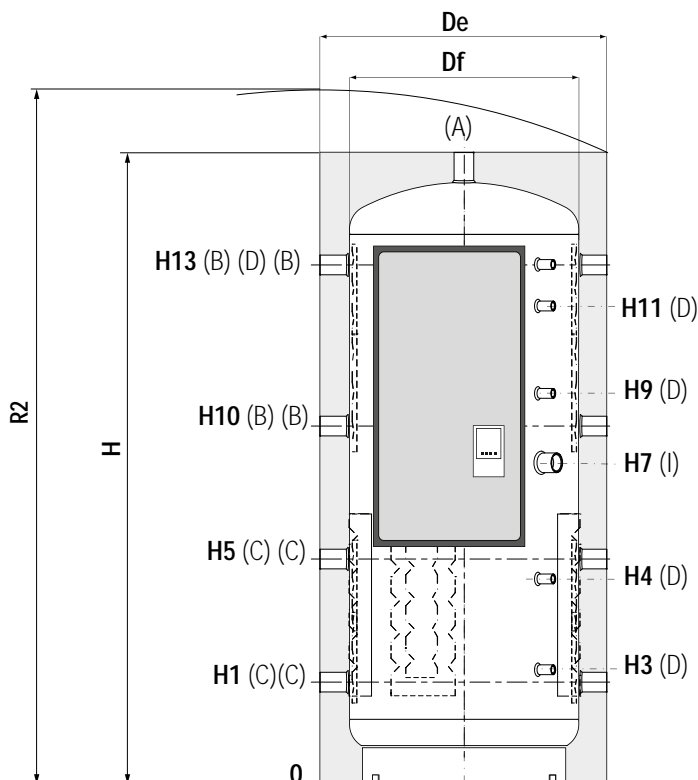


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A From generator / vent 1"1/2 G F

B From the generator 1"1/2 G F

C To the generator 1"1/2 G F

D Connection for instrumentation 1/2 "G F

I Connection for for electric immersion heater 1"1/2 F

L Domestic hot water outlet 1" G M

M Domestic cold water circuit inlet 1" G M

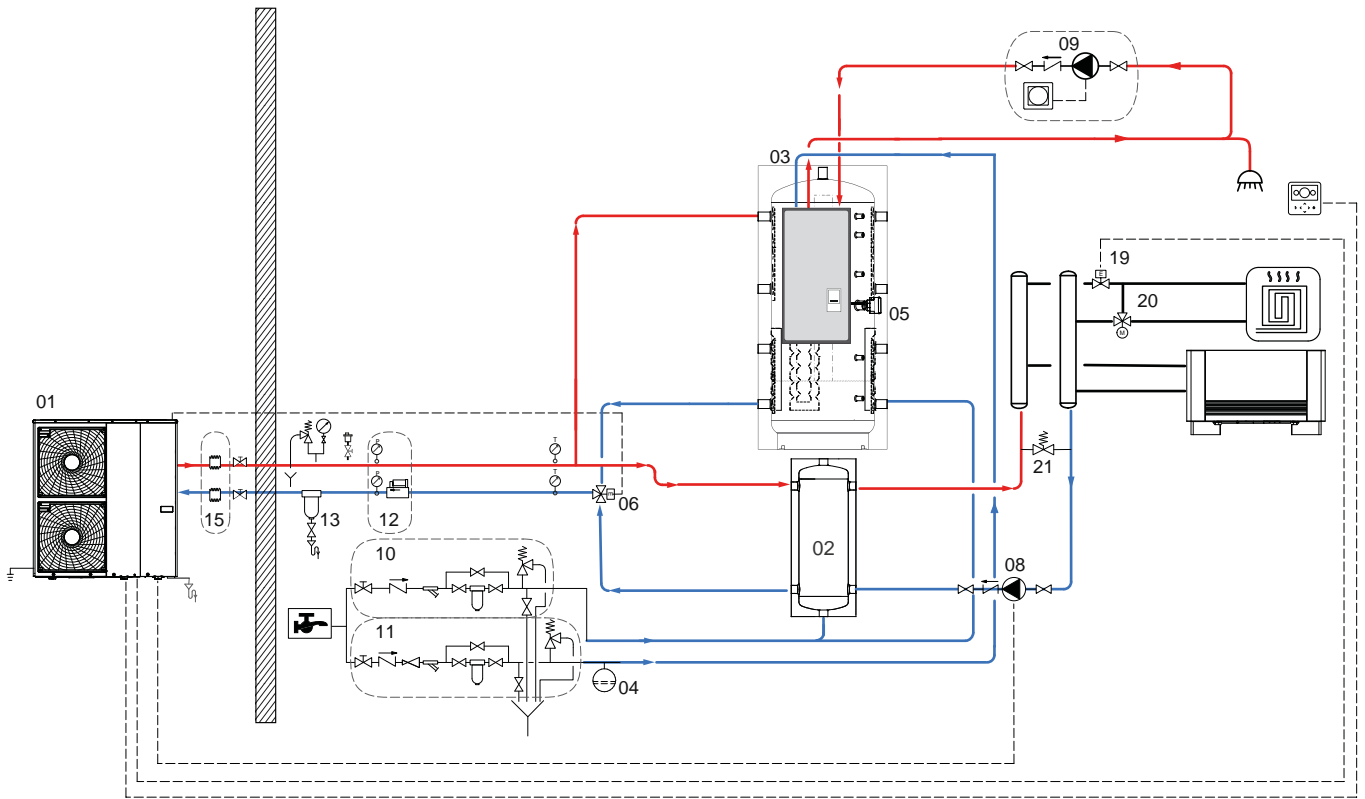
CALORIFIERS FOR
HEAT PUMPS

ACQUAMAS® 1

Model	Volume [lt]	De	Df	H	R2	H1	H3	H4	H5	H7	H9	H10	H11	H13
500	478	750	650	1619	1785	247	360	425	533	870	1025	1011	1130	1343
600	560	750	650	1870	2015	247	360	582	695	970	1200	1144	1485	1593



EXAMPLE OF INSTALLATION WITH ACQUAMAS® 1



- | | |
|----|---|
| 1 | Heat Pump |
| 2 | Heating/cooling buffer tank Buffer tank PDC |
| 3 | Thermal storage ACQUAMAS® 1 |
| 4 | Expansion Vessel |
| 5 | DHW Electric Resistance |
| 6 | 3-way motorized valve |
| 8 | Circulation group |
| 9 | DHW Recirculation Kit |
| 10 | Compulsory components for the compliance of Sanitary Water with current regulations (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 11 | Compulsory components for the compliance of the System Water with the regulations in force (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 12 | Flow meter or pair of pressure gauges |
| 13 | Magnetic dirt separator |
| 15 | Anti-vibration joints |
| 19 | Zone valve |
| 20 | Low Temperature System Mixing |
| 21 | By-pass valve |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

ACQUAMAS® 1

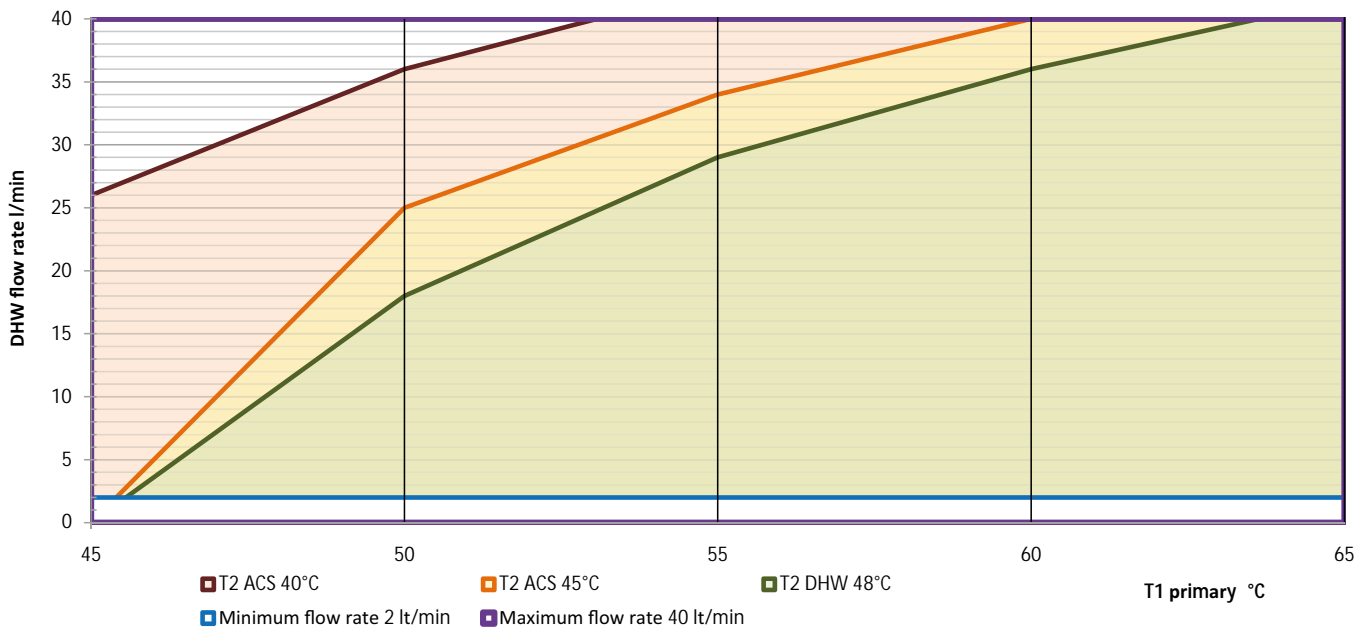
MAXIMUM DHW FLOW RATE THAT CAN BE PRODUCED WITH COLD SANITARY WATER AT 10 °C



ACQUAMAS® MODULE FOR INSTANT PRODUCTION OF DHW

- 2-40 LITERS/MINUTE
- BRAZED PLATES EXCHANGER IN STAINLESS 316L
- STAINLESS DHW FITTINGS
- ELECTRONIC MANAGEMENT UNIT

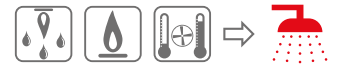
CALORIFIERS FOR
HEAT PUMPS



ACQUAMAS® 2

Thermal storage with ACQUAMAS® MODULE

FOR INSTANTANEOUS PRODUCTION OF DHW AND 1 HEAT EXCHANGER FOR AN AUXILIARY GENERATOR



APPLICATION

Stratified storage of technical water, for instantaneous production of domestic hot water (DHW) with high flow rates and efficiency in systems with low temperature generators such as heat pumps (HP) and with integration of an auxiliary heat source.

MATERIAL

Mild steel, painted externally and untreated internally.

INSTANTANEOUS DHW PRODUCTION MODULE:

External ACQUAMAS® MODULE with 316L stainless steel plate heat exchanger for instantaneous production of domestic hot water (DHW), equipped with electronic control unit.

HEAT EXCHANGER (TECHNICAL WATER STORAGE):

The thermal storage is equipped with 1 fixed heat exchanger in mild steel to integrate an auxiliary generator.

INSULATION

Thermal storage: High thermal insulation with ecological polyurethane hard foam.

ACQUAMAS® MODULE: contained within the EPP structure, with the function of housing and insulation.

Grey PVC external lining.

TECHNICAL DESCRIPTION

ACQUAMAS® thermal storage, specific for the accumulation of the heat produced by the thermal system and the instantaneous production of DHW, therefore without accumulation of domestic hot water, with the following advantages:

- ease of maintenance
- maximum hygiene in anti-legionella function.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts



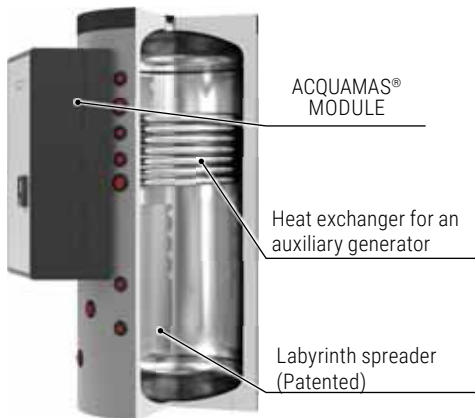
IMMEDIATE
DHW
PRODUCTION

NEW



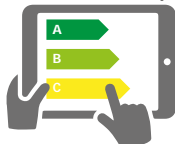
ACQUAMAS® 2

Model	ACQUAMAS® MODULE (with stainless steel brazed plates)	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE Upper [m²]	ENERGY EFFICIENCY CLASS
500	120	3251162314860	1,3	C
600		3251162314861	1,3	C



PATENTED

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On line ErP label tool

Model	DHW module	DHW production (10-45°C) with accumulation at 60°C [l/min]	Maximum availability of DHW (10-45°C) with accumulation at 80°C [liters]
500	ACQUAMAS® MODULE	40	570
600		40	670

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ACQUAMAS® 2

Thermal storage with ACQUAMAS® module

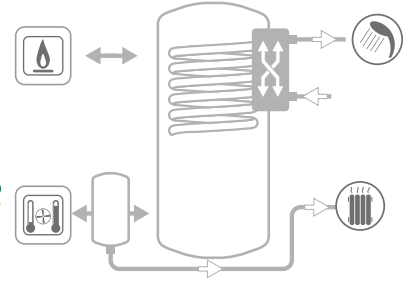
for instantaneous production of DHW and 1 heat exchanger for an auxiliary generator

STORAGE		FIXED HEAT EXCHANGER		HEAT EXCHANGER A STAINLESS STEEL PLATES (MACS®)		HARDNESS OF DHW
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

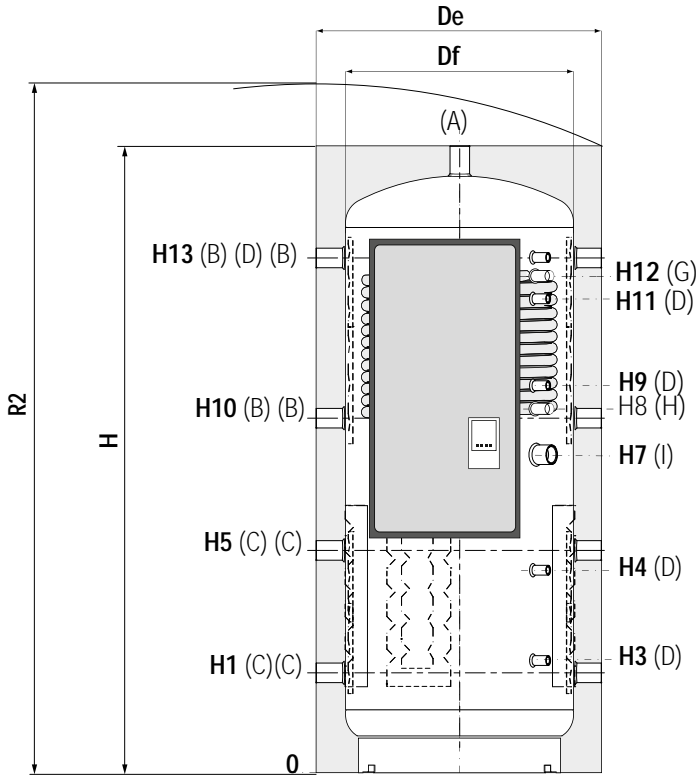


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

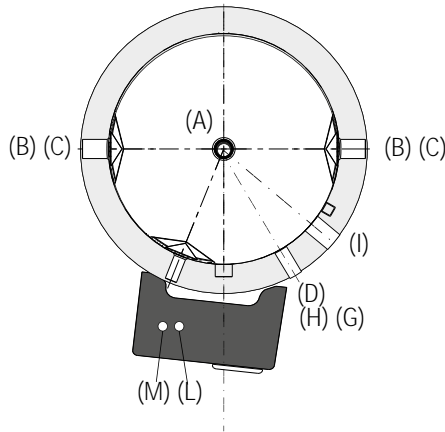


See TECHNICAL SUPPORT chapter for example of installation



- A** From generator / vent 1"1/2 G F
- B** From the generator 1"1/2 G F
- C** To the generator 1"1/2 G F
- D** Connection for instrumentation 1/2" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 1" G M
- M** Domestic cold water circuit inlet 1" G M

CALORIFIERS FOR HEAT PUMPS



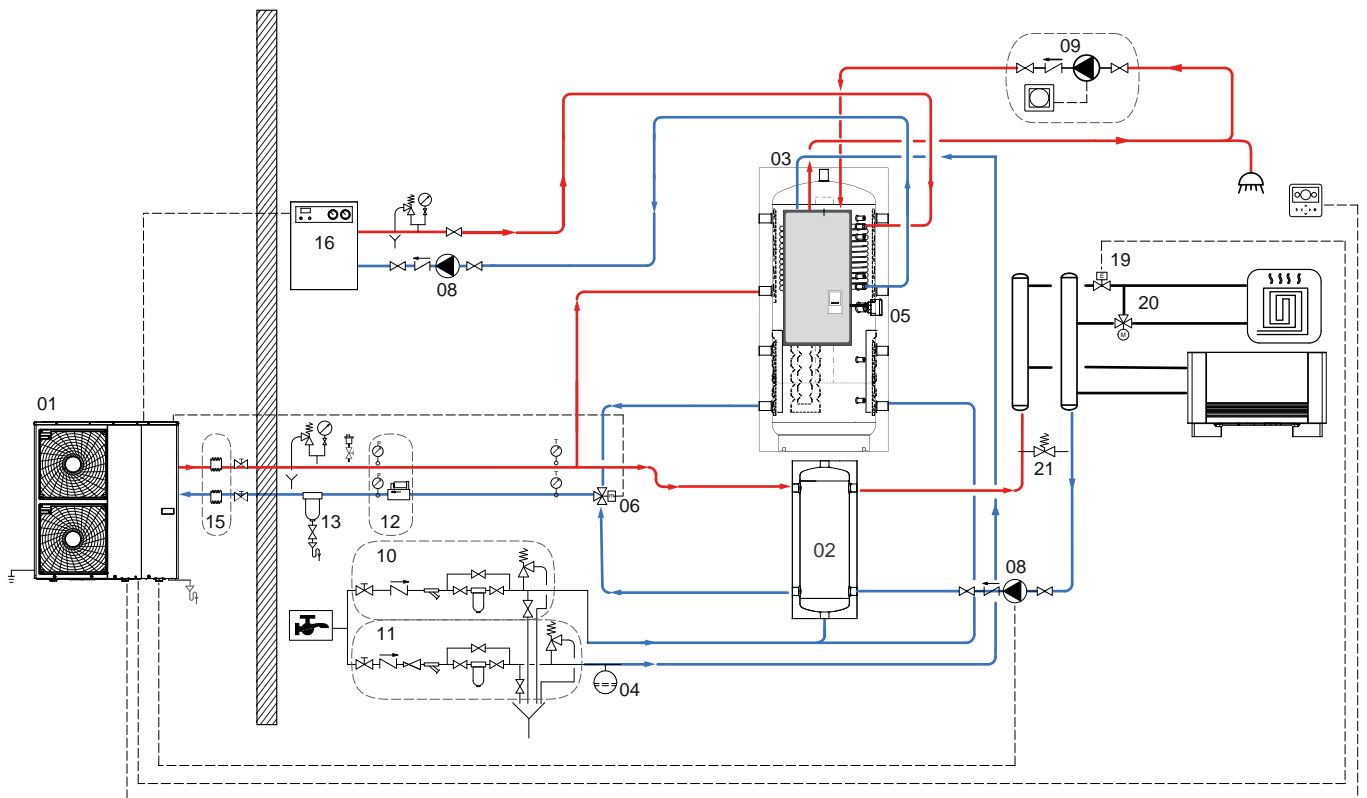
ACQUAMAS® 2

Model	Volume [lt]	De	Df	H	R2	H1	H3	H4	H5	H7	H8	H9	H10	H11	H12	H13
		[mm]														
500	478	750	650	1619	1785	247	360	425	533	870	930	1025	1011	1130	1231	1343
600	560	750	650	1870	2015	247	360	582	695	970	1090	1200	1144	1485	1391	1593

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE



EXAMPLE OF INSTALLATION WITH ACQUAMAS® 2



- | | |
|----|---|
| 1 | Heat Pump |
| 2 | Heating/cooling buffer tank Buffer tank PDC |
| 3 | Thermal storage ACQUAMAS® 2 |
| 4 | Expansion Vessel |
| 5 | DHW Electric Resistance |
| 6 | 3-way motorized valve |
| 8 | Circulation group |
| 9 | DHW Recirculation Kit |
| 10 | Compulsory components for the compliance of Sanitary Water with current regulations (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 11 | Compulsory components for the compliance of the System Water with the regulations in force (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 12 | Flow meter or pair of pressure gauges |
| 13 | Magnetic dirt separator |
| 15 | Anti-vibration joints |
| 16 | Integrative generator |
| 19 | Zone valve |
| 20 | Low Temperature System Mixing |
| 21 | By-pass valve |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

ACQUAMAS® 2

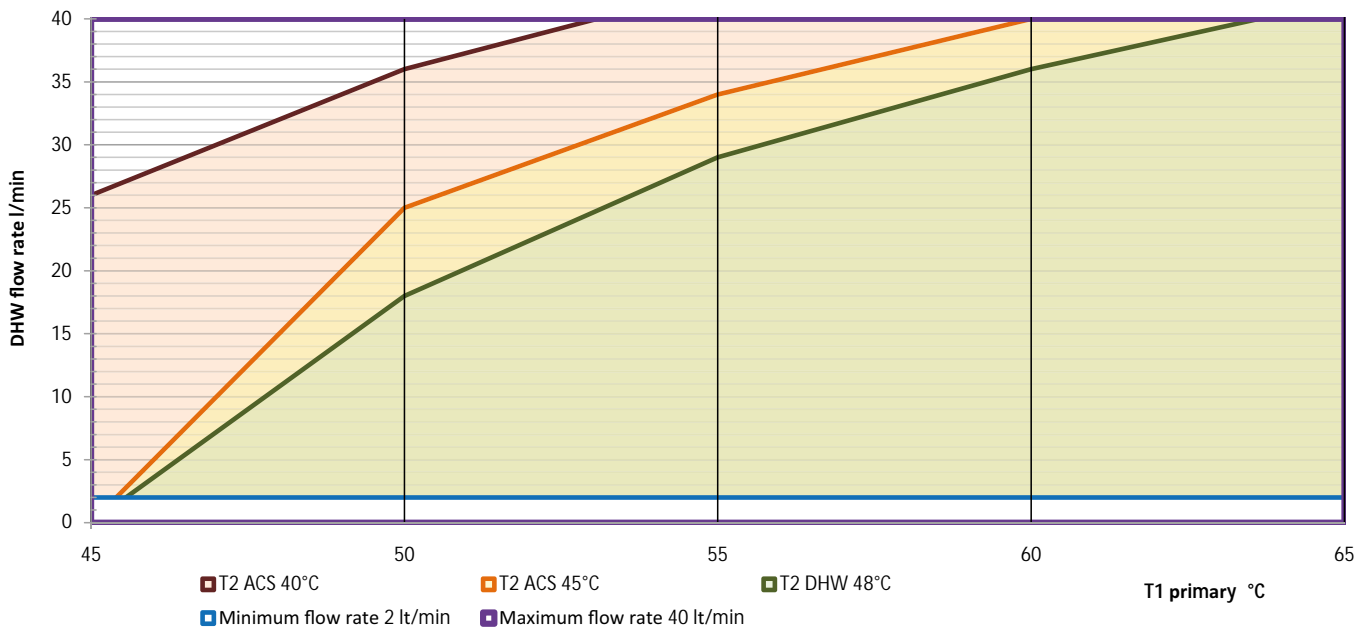
MAXIMUM DHW FLOW RATE THAT CAN BE PRODUCED WITH COLD SANITARY WATER AT 10 °C



ACQUAMAS® MODULE FOR INSTANT PRODUCTION OF DHW

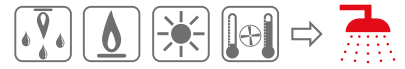
- 2-40 LITERS/MINUTE
- BRAZED PLATES EXCHANGER IN STAINLESS 316L
- STAINLESS DHW FITTINGS
- ELECTRONIC MANAGEMENT UNIT

CALORIFIERS FOR
HEAT PUMPS



ACQUAMAS® 3 CTS®

Thermal storage with ACQUAMAS® module for instantaneous production of DHW and 2 heat exchangers for two auxiliary generators



APPLICATION

Stratified storage of technical water, for instantaneous production of domestic hot water (DHW) with high flow rates and efficiency in systems with low temperature generators such as heat pumps (HP), with integration of an auxiliary heat source plus a solar thermal system with thermal loading system from above.

MATERIAL

Mild steel, painted externally and untreated internally.

INSTANTANEOUS DHW PRODUCTION MODULE:

External ACQUAMAS® MODULE with 316L stainless steel plate heat exchanger for instantaneous production of domestic hot water (DHW), equipped with electronic control unit.

HEAT EXCHANGER (TECHNICAL WATER STORAGE):

The thermal storage is equipped with 2 fixed heat exchangers in mild steel: an upper one to integrate an auxiliary generator and a lower one, with a CTS® thermal loading system from above, which allows to make the most of solar energy.

INSULATION

Thermal storage: High thermal insulation with ecological polyurethane hard foam.

ACQUAMAS® MODULE: contained within the EPP structure, with the function of housing and insulation.

Grey PVC external lining.

TECHNICAL DESCRIPTION

ACQUAMAS® thermal storage, specific for the accumulation of the heat produced by the thermal system and the instantaneous production of DHW, therefore without accumulation of domestic hot water, with the following advantages:

- ease of maintenance
- maximum hygiene in anti-legionella function.

WARRANTY

5 years (tank). See general sales conditions and warranty for electrical parts



IMMEDIATE
DHW
PRODUCTION

NEW



ACQUAMAS® 3 CTS®

Model	ACQUAMAS® MODULE (with stainless steel brazed plates)	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper [m²]	Lower [m²]	
500	120	3251162314870	1,9	2,1	C
600		3251162314871	1,9	2,1	C



ACQUAMAS®
MODULE

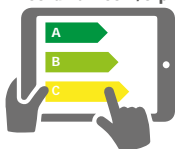
Heat exchanger for an
auxiliary generator

Lower exchanger model
CTS®, thermal loading
from the top.

Model	DHW module	DHW production (10-45°C) with accumulation at 60°C	Maximum availability of DHW (10-45°C) with accumulation at 80°C
		[l/min]	[liters]
500	ACQUAMAS® MODULE	40	570
600		40	670

PATENTED

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On line ErP label tool

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ACQUAMAS® 3 CTS®

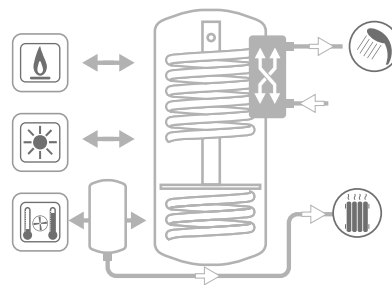
THERMAL STORAGE WITH ACQUAMAS® MODULE FOR INSTANTANEOUS PRODUCTION OF DHW AND 2 HEAT EXCHANGERS FOR TWO AUXILIARY GENERATORS

STORAGE		FIXED HEAT EXCHANGER		HEAT EXCHANGER A STAINLESS STEEL PLATES (MACS®)		HARDNESS OF DHW
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

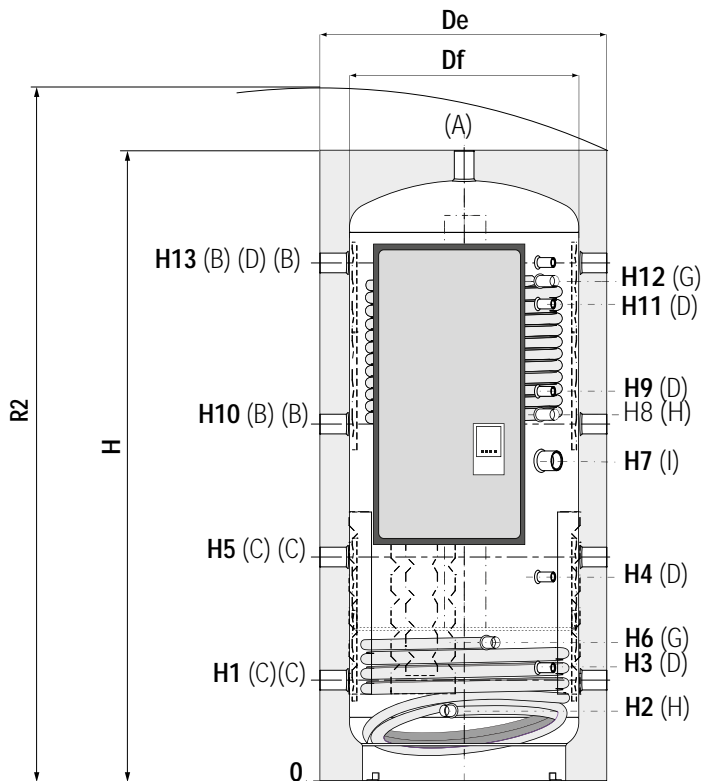


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

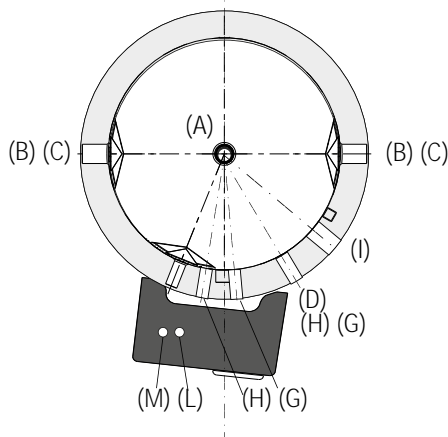


See TECHNICAL SUPPORT chapter for example of installation



- A** From generator / vent 1"1/2 G F
- B** From the generator 1"1/2 G F
- C** To the generator 1"1/2 G F
- D** Connection for instrumentation 1/2" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 1" G M
- M** Domestic cold water circuit inlet 1" G M

CALORIFIERS FOR HEAT PUMPS

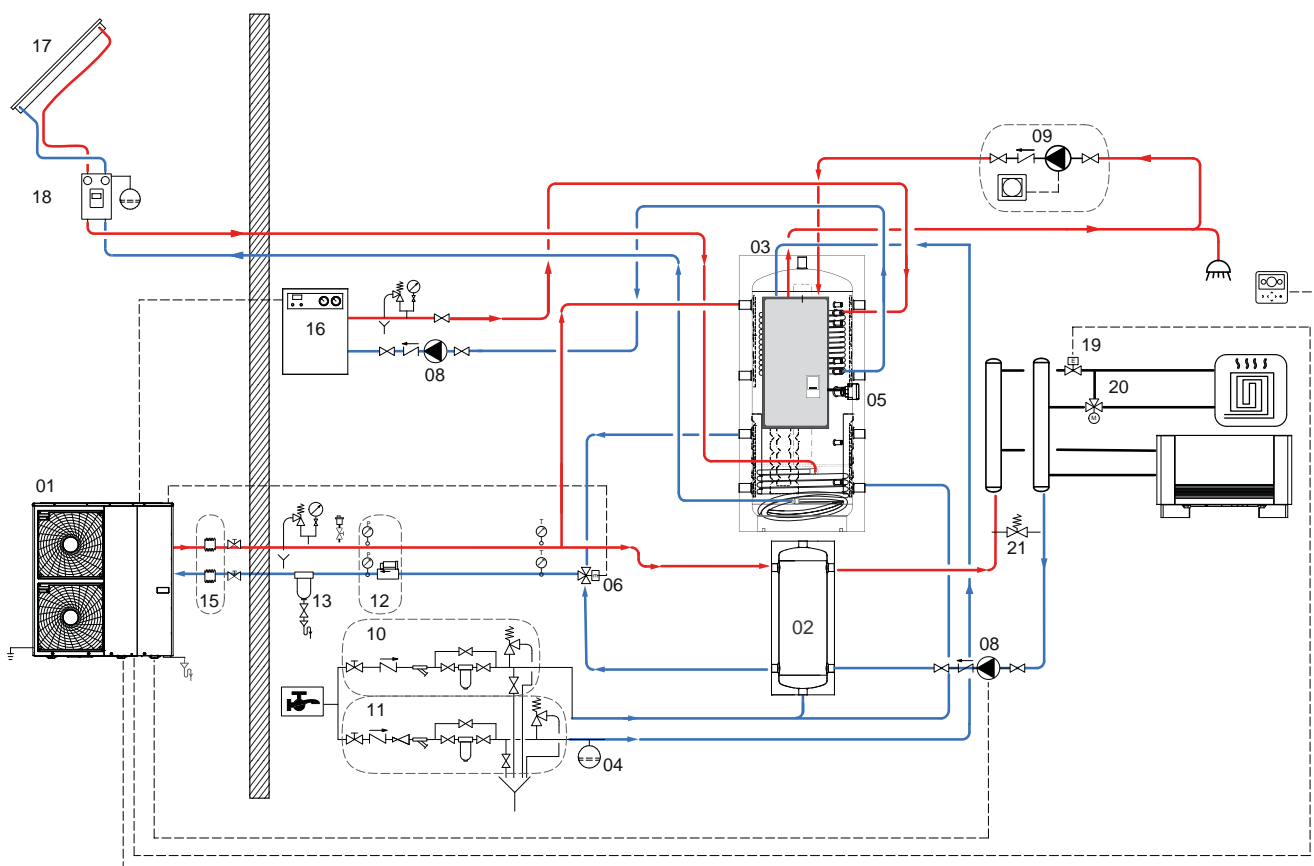


ACQUAMAS® 3 CTS®

Model	Volume [lt]	De	Df	H	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
500	478	750	650	1619	247	215	360	425	533	425	870	930	1025	1011	1130	1231	1343
600	560	750	650	1870	247	215	360	582	695	425	970	1090	1200	1144	1485	1391	1593



EXAMPLE OF INSTALLATION WITH ACQUAMAS® 3 CTS®



- | | |
|----|---|
| 1 | Heat Pump |
| 2 | Heating/cooling buffer tank Buffer tank PDC |
| 3 | Thermal storage ACQUAMAS® 3 CTS® |
| 4 | Expansion Vessel |
| 5 | DHW Electric Resistance |
| 6 | 3-way motorized valve |
| 8 | Circulation group |
| 9 | DHW Recirculation Kit |
| 10 | Compulsory components for the compliance of Sanitary Water with current regulations (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 11 | Compulsory components for the compliance of the System Water with the regulations in force (Legislative Decree 31/2001, UNI 8065/2019, etc) and with the system requirements for the warranty conditions. |
| 12 | Flow meter or pair of pressure gauges |
| 13 | Magnetic dirt separator |
| 15 | Anti-vibration joints |
| 16 | Integrative generator |
| 17 | Thermal solar collectors |
| 18 | Circulation group Solare |
| 19 | Zone valve |
| 20 | Low Temperature System Mixing |
| 21 | By-pass valve |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

ACQUAMAS® 3 CTS®

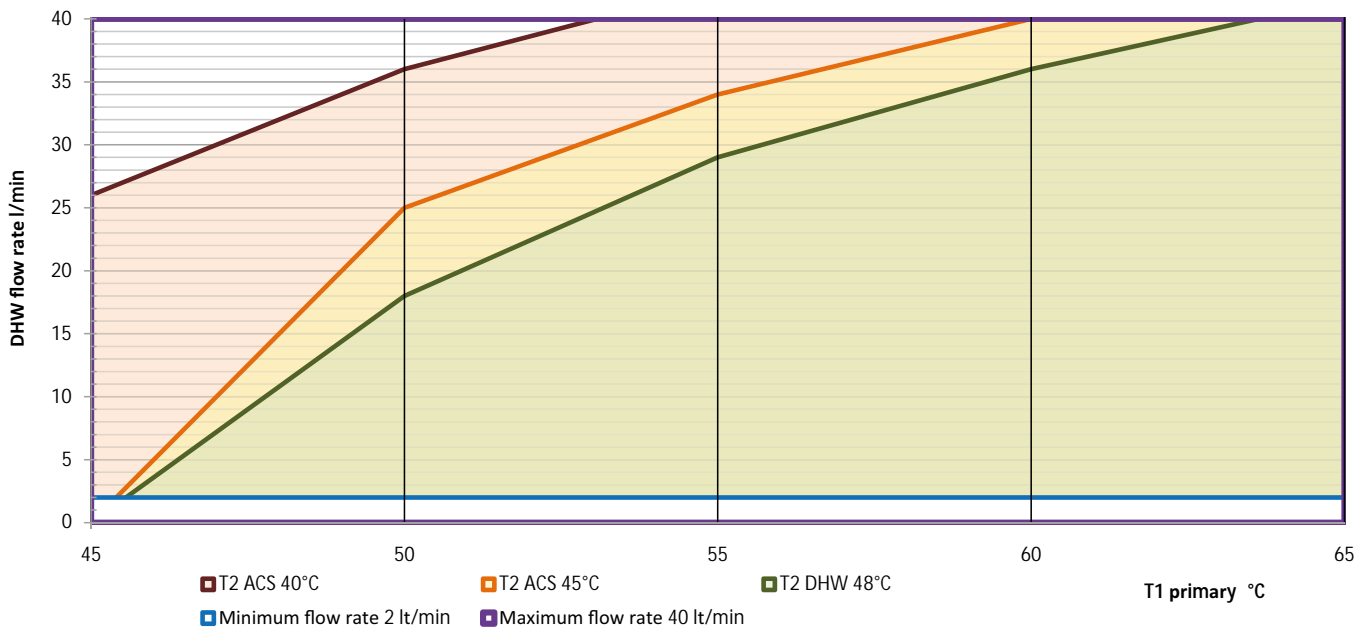
MAXIMUM DHW FLOW RATE THAT CAN BE PRODUCED WITH COLD SANITARY WATER AT 10 °C



ACQUAMAS® MODULE FOR INSTANT PRODUCTION OF DHW

- 2-40 LITERS/MINUTE
- BRAZED PLATES EXCHANGER IN STAINLESS 316L
- STAINLESS DHW FITTINGS
- ELECTRONIC MANAGEMENT UNIT

CALORIFIERS FOR
HEAT PUMPS



PUFFERMAS® 1 DOMUS

THERMAL STORAGE WITH ACQUAMAS® MODULE FOR INSTANTANEOUS PRODUCTION OF DHW AND 2 HEAT EXCHANGERS FOR TWO AUXILIARY GENERATORS



APPLICATION

Storage by stratification of technical water and immediate production of domestic hot water (DHW) with high flow rates and performances.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

DHW HEAT EXCHANGER MODULE:

Integrated immediate DHW production module with Stainless steel 316L brazed plate heat exchanger.

TECHNICAL DESCRIPTION

Puffermas® 1 DOMUS combines the characteristic use of a buffer with those of a rapid DHW producer, without the accumulation of domestic hot water. The DHW heat exchanger module ensures excellent performances even at a low flow rate of domestic hot water.

INSULATION

Thermal storage: High thermal insulation with ecological polyurethane hard foam.

Dhw module: insulating PST cover.

Grey PVC external lining.

WARRANTY

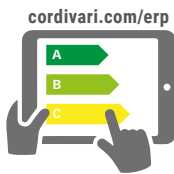
5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



IMMEDIATE
DHW
PRODUCTION



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On line ErP label tool

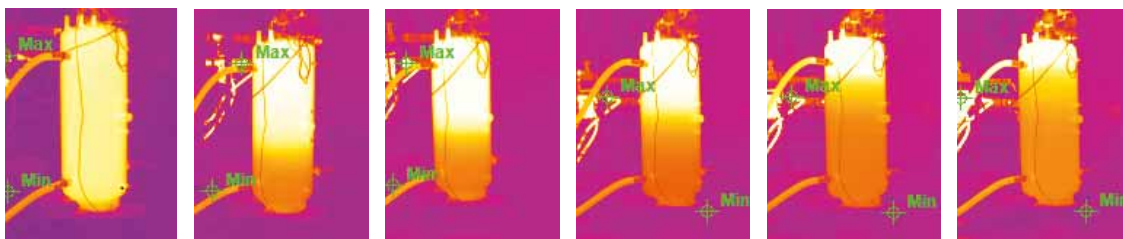


PUFFERMAS® 1 DOMUS VB

Model	HARD FOAM INSULATION	DHW module max/min flow rate	ENERGY EFFICIENCY CLASS
200		2/40	B
300		2/40	B



- *SUITABLE FOR ANY TYPE OF HEAT GENERATOR; IDEAL FOR HEAT PUMPS*
- *HIGH EXCHANGE EFFICIENCY WITH HIGH ENERGY YIELD FOR DHW*
- *OPTIMIZED INTERNAL STORAGE STRATIFICATION*
- *MAXIMUM COMFORT WITH CONSTANT DHW TEMPERATURE AT ANY FLOW RATE*
- *HIGH SENSIBILITY AND HIGH FLOW RATES (FROM 2 UP TO 40 LT/MIN)*
- *MAXIMUM SAFETY AND ECONOMICITY*




Series of thermographs that illustrate the perfect thermal stratification of the PUFFERMAS® DOMUS during the production of DHW through the integrated module

ACCESSORIES


Electric immersion heaters

	
Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculationkit for PUFFERMAS® DOMUS

Art. Nr.	
5221000000102	
DHW recirculation group	

PUFFERMAS® 1 DOMUS

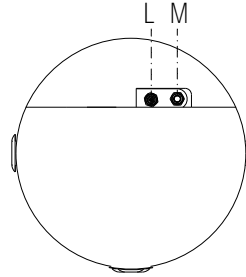
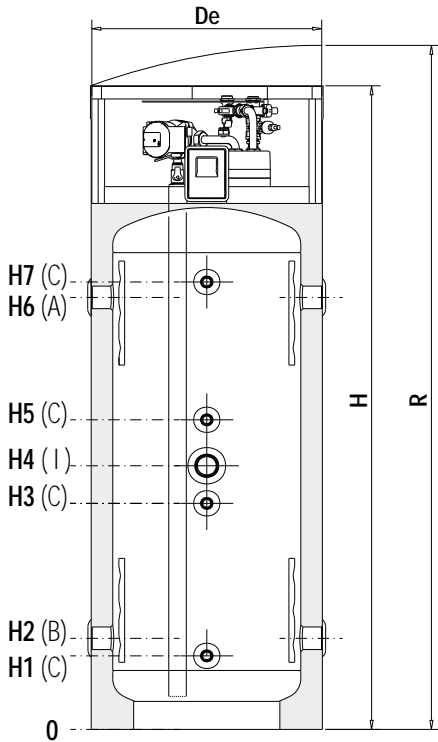
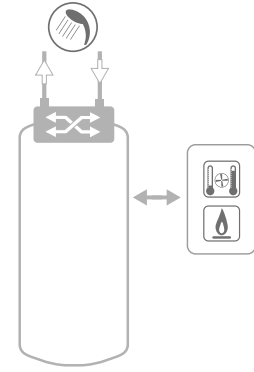
BUFFER TANK FOR HEAT PUMP WITH COMPACT DHW INSTANT PREPARATION UNIT

STORAGE		EXCHANGE MODULE	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	99 °C



CORDIVARI Lab

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A	Heating delivery/from generator
B	Heating return/to generator
C	Probe
I	Connection for electric immersion heater
L	Domestic hot water outlet.
M	Domestic cold water circuit inlet.

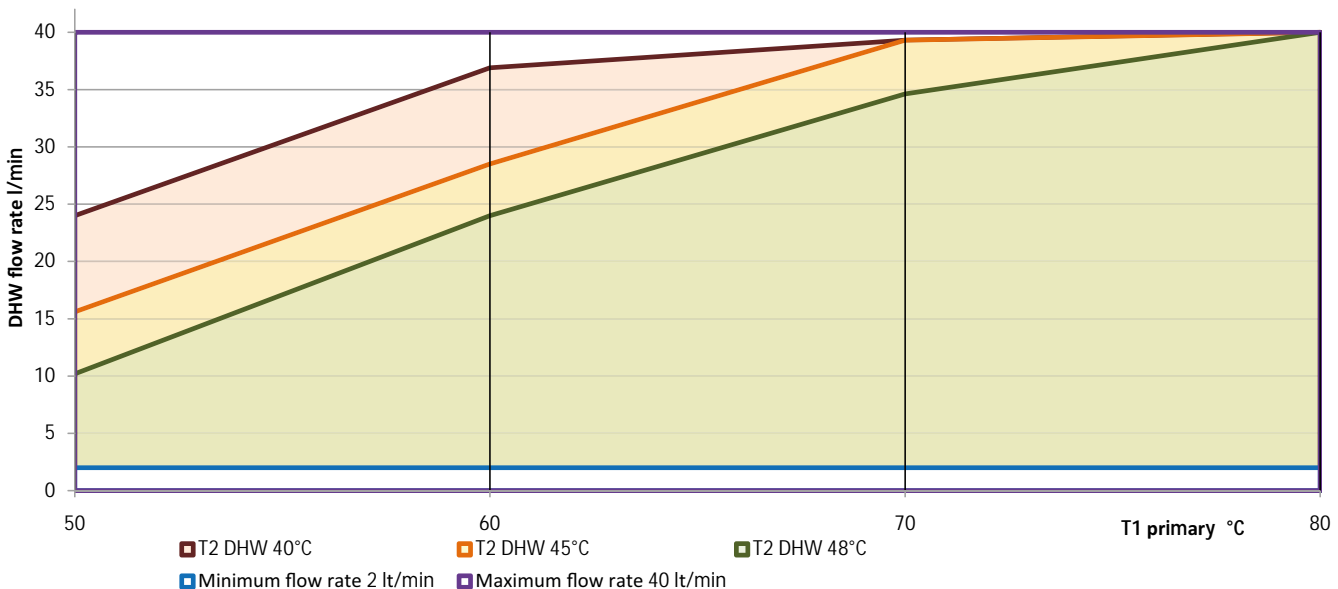
CALORIFIERS FOR HEAT PUMPS

Model	Volume [lt]	De	H	R	H1	H2	H3	H4	H5	H6	H7	Connections F		
												A-B-I	C	D-H-L-M
200	180	550	1539	1650	176	218	541	631	741	1034	1071	1 1/2"	1/2"	3/4"
300	278	650	1580	1720	190	232	555	645	755	1048	1085	1 1/2"	1/2"	3/4"

FLOW RATE PERFORMANCE OF DHW

The curves shown in these graphs allow to obtain the flow rate of domestic hot water (DHW) which can be produced by the integrated DHW production module, depending on the temperature of the storage tank / primary circuit (value on the horizontal axis).

The curves are parameterized based on the desired temperature of the DHW and indicate the maximum DHW flow rate that can be produced at that temperature (with inlet temperature at 10°C). The MACS Modules are able to produce all the DHW flow rates included in the area between the minimum activation flow rate and the maximum flow curve of each temperature.



PUFFERMAS® 2 DOMUS

BUFFER TANK FOR HEAT PUMP WITH COMPACT DHW INSTANT PREPARATION UNIT AND 1 FIXED HEAT EXCHANGER



APPLICATION

Storage by stratification of technical water and immediate production of domestic hot water (DHW) with high flow rates and performances.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

DHW HEAT EXCHANGER MODULE:

Integrated immediate DHW production module with Stainless steel 316L brazed plate heat exchanger.

HEATING WATER HEAT EXCHANGER:

The tank is equipped with 1 fixed heat exchanger in Mild steel to allow the integration with a solar thermal system.

TECHNICAL DESCRIPTION

Puffermas® 2 DOMUS combines the characteristic use of a buffer with those of a rapid DHW producer, without the accumulation of domestic hot water. The DHW heat exchanger module ensures excellent performances even at a low flow rate of domestic hot water.

INSULATION

Thermal storage: High thermal insulation with ecological polyurethane hard foam.

Dhw module: insulating PST cover.

Grey PVC external lining.

WARRANTY

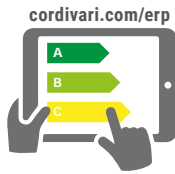
5 years (tank). See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



IMMEDIATE
DHW
PRODUCTION



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On line ErP label tool

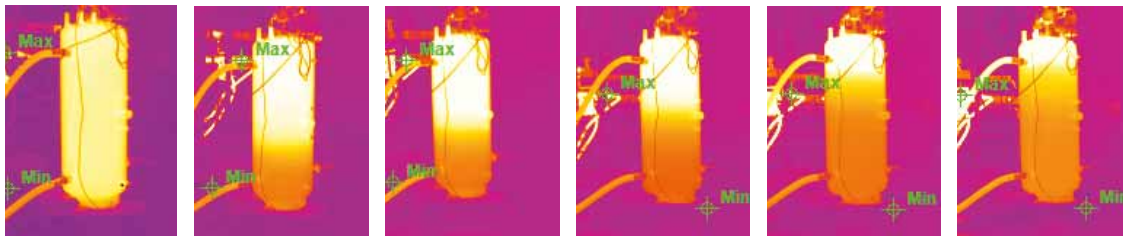


PUFFERMAS® 2 DOMUS VB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	DHW module max/min flow rate [l/min]	ENERGY EFFICIENCY CLASS
200	3251162314782	1,20	2/40	B
300	3251162314783	1,40	2/40	B



- *SUITABLE FOR ANY TYPE OF HEAT GENERATOR; IDEAL FOR HEAT PUMPS*
- *HIGH EXCHANGE EFFICIENCY WITH HIGH ENERGY YIELD FOR DHW*
- *OPTIMIZED INTERNAL STORAGE STRATIFICATION*
- *MAXIMUM COMFORT WITH CONSTANT DHW TEMPERATURE AT ANY FLOW RATE*
- *HIGH SENSIBILITY AND HIGH FLOW RATES (FROM 2 UP TO 40 LT/MIN)*
- *MAXIMUM SAFETY AND ECONOMICITY*



Series of thermographs that illustrate the perfect thermal stratification of the PUFFERMAS® DOMUS during the production of DHW through the integrated module

ACCESSORIES

Electric immersion heaters

Available kit:	
[Kw] from 1,5 to 3	Tensione [V] 220 - MONOPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculationkit for PUFFERMAS® DOMUS

Art. Nr.	
5221000000102	
DHW recirculation group	

PUFFERMAS® 2 DOMUS

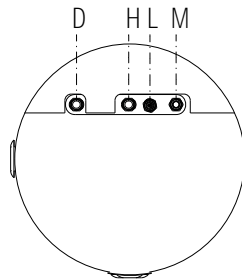
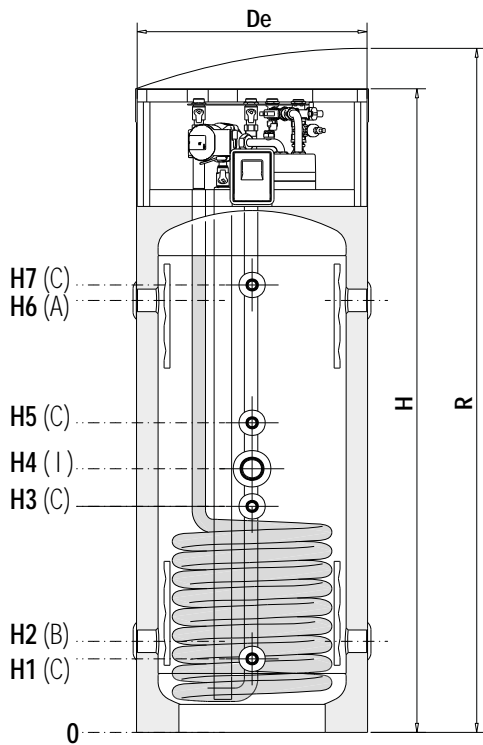
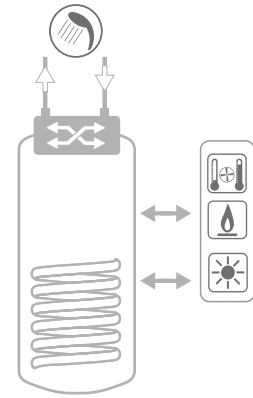
BUFFER TANK FOR HEAT PUMP WITH COMPACT DHW INSTANT PREPARATION UNIT AND 1 FIXED HEAT EXCHANGER

STORAGE		EXCHANGE MODULE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	99 °C	12 bar	110 °C



CORDIVARI Lab

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- A** Heating delivery/from generator
- B** Heating return/to generator
- C** Probe
- D** Fixed heat exchanger inlet
- H** Fixed heat exchanger outlet
- I** Connection for electric immersion heater
- L** Domestic hot water outlet.
- M** Domestic cold water circuit inlet.

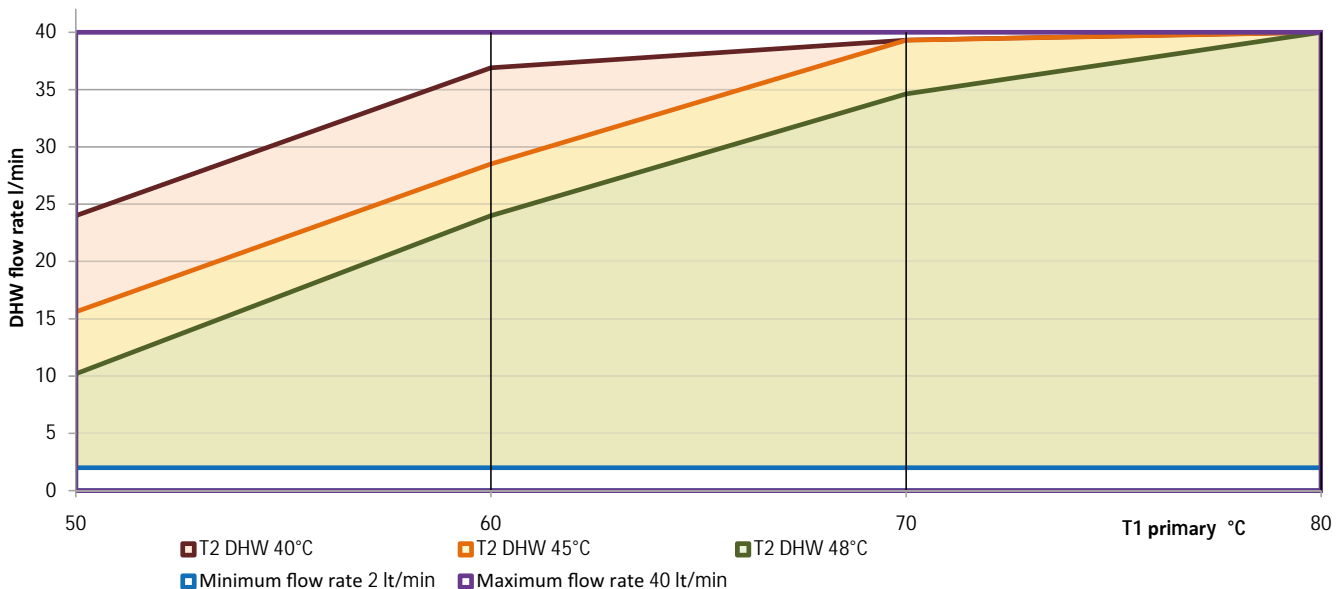
CALORIFIERS FOR HEAT PUMPS

Model	Volume [lt]	De	H	R	[mm]							Connections F		
					H1	H2	H3	H4	H5	H6	H7	A-B-I	C	D-H-L-M
200	180	550	1539	1650	176	218	541	631	741	1034	1071	1 1/2"	1/2"	3/4"
300	278	650	1580	1720	190	232	555	645	755	1048	1085	1 1/2"	1/2"	3/4"

FLOW RATE PERFORMANCE OF DHW

The curves shown in these graphs allow to obtain the flow rate of domestic hot water (DHW) which can be produced by the integrated DHW production module, depending on the temperature of the storage tank / primary circuit (value on the horizontal axis).

The curves are parameterized based on the desired temperature of the DHW and indicate the maximum DHW flow rate that can be produced at that temperature (with inlet temperature at 10°C). The MACS Modules are able to produce all the DHW flow rates included in the area between the minimum activation flow rate and the maximum flow curve of each temperature.



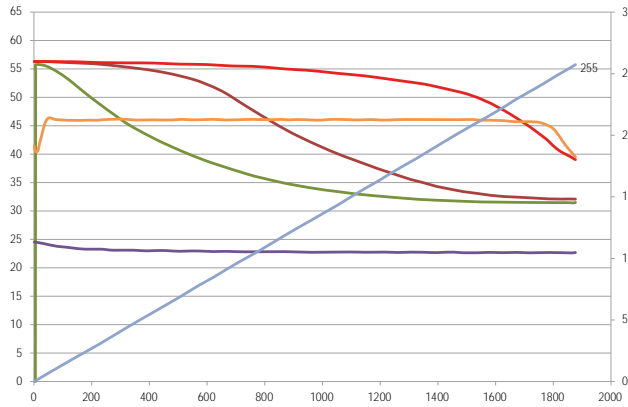
P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

PUFFERMAS® 2 DOMUS

PERFORMANCES DURING DHW PRODUCTION PHASE



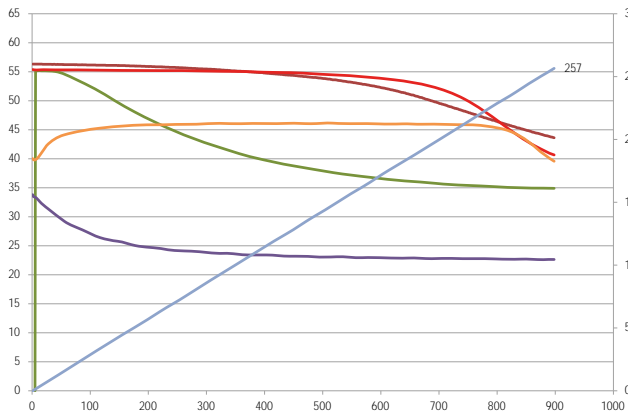
DHW WITHDRAWAL 255 lt T > 40 °C 61% of the accumulated energy



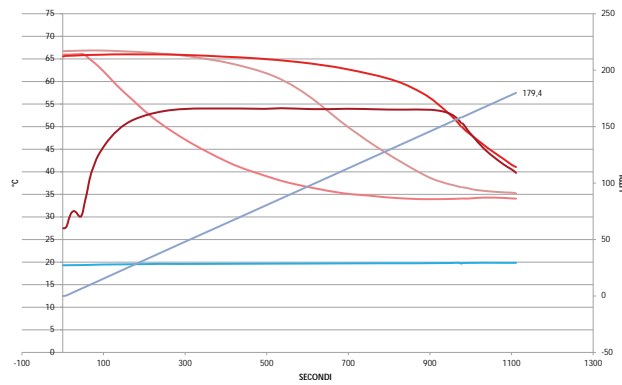
PUFFERMAS® 2 DOMUS Model 300



DHW WITHDRAWAL 255 lt T > 40 °C 58% of the accumulated energy



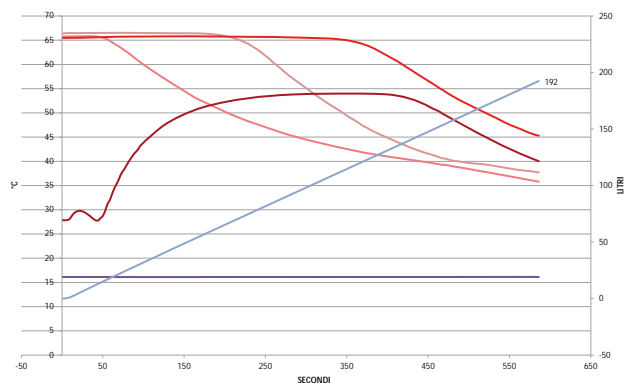
DHW WITHDRAWAL 179 lt T > 40 °C 60% of the accumulated energy



PUFFERMAS® 2 DOMUS MODEL 200

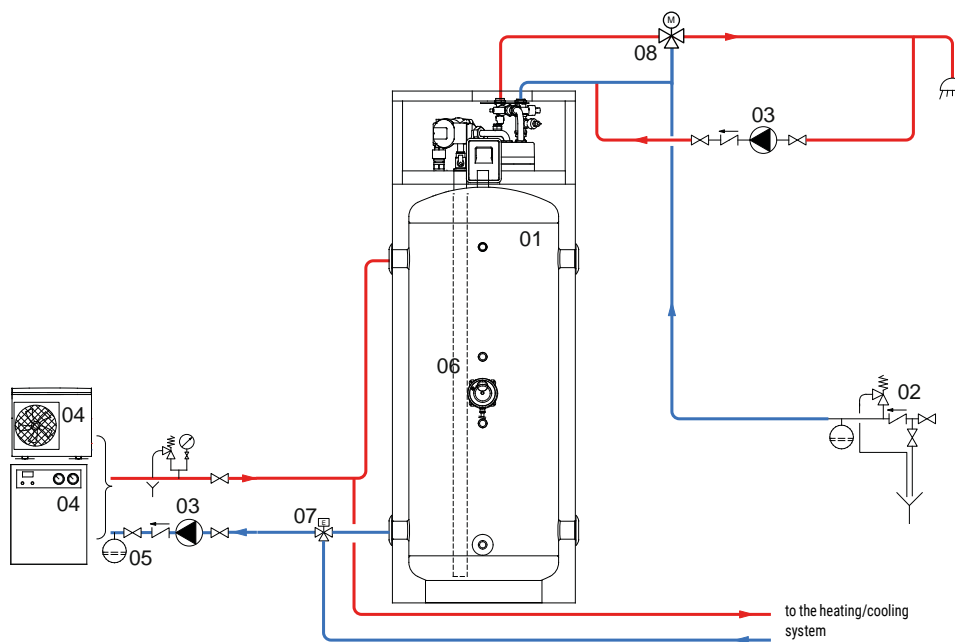


DHW WITHDRAWAL 192 lt T > 40 °C 58% of the accumulated energy





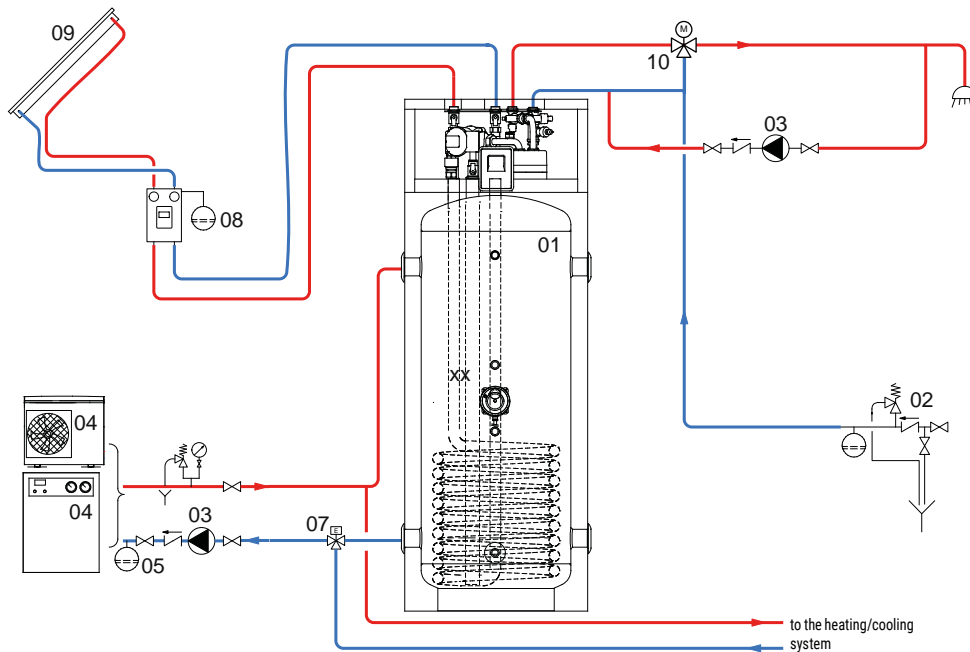
EXAMPLE OF INSTALLATION WITH PUFFERMAS® 1 DOMUS



CALORIFIERS FOR
HEAT PUMPS

1	PUFFERMAS® 1 DOMUS	4	Generator	7	3-way valve
2	Hydraulic safety group	5	Expansion vessel	8	Thermostatic mixing valve
3	Circulation group	6	Electric immersion heater (optional)		

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 2 DOMUS



1	PUFFERMAS® 2 DOMUS	4	Generator	7	3-way valve	10	Thermostatic mixing valve
2	Hydraulic safety group	5	Expansion vessel	8	Solar system circulation group		
3	Circulation group	6	Electric immersion heater (optional)	9	Solar panels		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

ECO COMBI 1 PDC

MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP WITH STAINLESS STEEL 316L DHW CORRUGATED COIL



APPLICATION

Technical hot water storage and D.H.W. production.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided. Stainless steel 316L corrugated coil, suitable for D.H.W. according to D.M. n. 174 dated 06.04.04

TECHNICAL DESCRIPTION

Designed for systems powered by heat pump heat source. ECO COMBI 1 PDC, at the typical temperatures of heat pumps, guarantees excellent DHW production thanks to the specially designed and dimensioned corrugated stainless steel 316L heat exchanger.

INSULATION

- **HARD:** High thermal insulation with ecological polyurethane hard foam. Model 800 available with di Dismountable hard foam insulation.
- **SOFT (Dismountable) :** NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

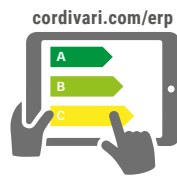
Grey PVC external lining.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

HARD: High thermal insulation with ecological polyurethane hard foam.

Dismountable soft: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.



ECO COMBI 1 PDC VB

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		ENERGY EFFICIENCY CLASS
			Volume [lt]	Surface [m²]	
300	3270162310002	26	26,6	4,5	B
500	3270162310003	26	31	5,3	C



DISMOUNTABLE HARD FOAM INSULATION

Model	Art. Nr.	[kW]	Volume [lt]	Surface [m²]	ENERGY EFFICIENCY CLASS
800	3270162282267	35	45	7,7	B



ECO COMBI 1 PDC VC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	Heat pump max output [kW]	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		ENERGY EFFICIENCY CLASS
			Volume [lt]	Surface [m²]	
800	3270162282268	35	45	7,7	B

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000019
Connection 3/4"



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE	
5240000000074	1,5 kW	
5240000000075	2 kW	
5240000000076	3 kW	

See Accessories section

ECO COMBI 1 PDC

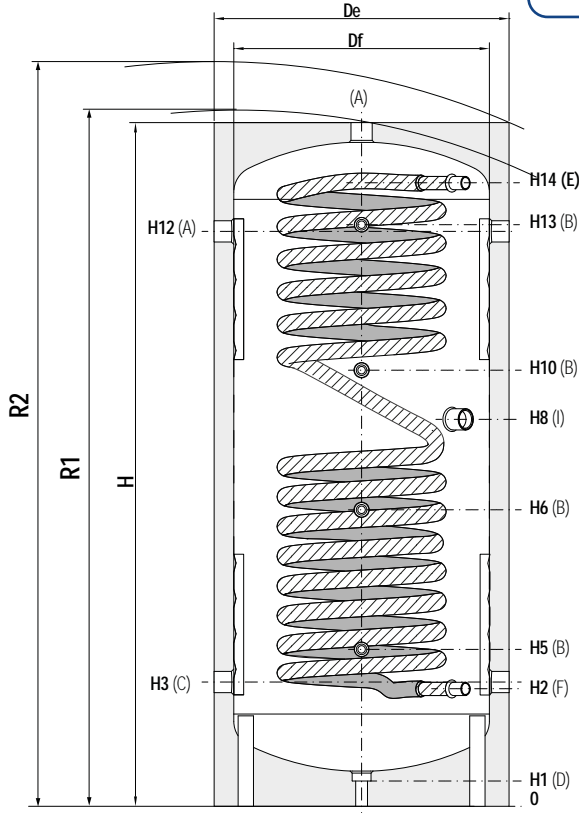
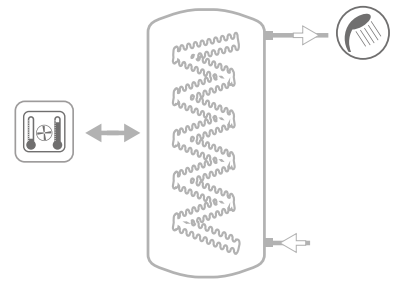
MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP
WITH STAINLESS STEEL 316L DHW CORRUGATED COIL

STORAGE		CORRUGATED DHW STAINLESS STEEL 316L COIL
Pmax	Tmax	Pmax
3 bar	99 °C	6 bar

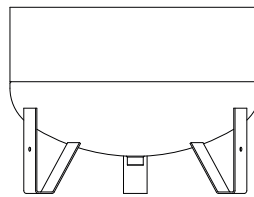


CORDIVARI Lab

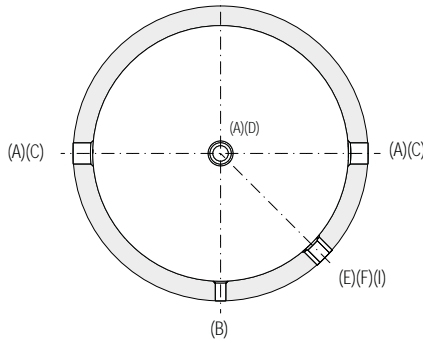
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Heating delivery/from generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Drain 1"1/4 G F
- E** Domestic hot water circuit outlet
- F** Domestic water inlet
- I** Connection for electric immersion heater 1"1/2 F



Only for model 800



CALORIFIERS FOR HEAT PUMPS

ECO COMBI 1 PDC VB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H5	H6	H8	H10	H12	H13	H14	E-F
		[mm]															Connections
300	291	-	650	1585	-	1713	70	297	330	390	745	970	1100	1280	1315	1415	1/2" F
500	454	-	750	1745	-	1899	70	305	322	405	760	990	1115	1468	1485	1585	1" M
800	748	790	940	1940	2030	2156	70	325	342	425	780	935	1135	1618	1635	1735	1" M

ECO COMBI 1 PDC VC - DISMOUNTABLE SOFT FLEECE

Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H5	H6	H8	H10	H12	H13	H14	E-F
		[mm]															Connections
800	748	1010	790	1940	2030	2190	70	325	342	425	780	935	1135	1618	1635	1735	1" M

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

ECO COMBI 3 PDC

MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP

WITH STAINLESS STEEL 316L DHW CORRUGATED COIL AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

Stainless steel 316L corrugated coil, suitable for D.H.W. according to D.M. n. 174 dated 06.04.04

HEAT EXCHANGERS:

N° 2 mild steel fixed heat exchangers.

TECHNICAL DESCRIPTION

Designed for systems powered by heat pump heat source, with the possibility of integrating two additional heat generators (for example solar and boiler). ECO COMBI 3 PDC, at the typical temperatures of heat pumps, guarantees excellent DHW production thanks to the specially designed and dimensioned corrugated stainless steel 316L heat exchanger.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Model 800 available with di Dismountable hard foam insulation.

- SOFT (Dismountable) : NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

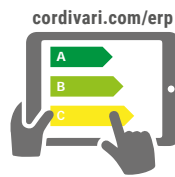
Grey PVC external lining.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



ECO COMBI 3 PDC VB

Model	HARD FOAM INSULATION Art. Nr.	Heat pump max output [kW]	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
			Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
300	3270162310202	26	26,6	4,5	4,4	0,7	7,9	1,2	B
500	3270162310203	26	31	5,3	7,7	1,2	14,5	2,2	C



DISMOUNTABLE HARD FOAM INSULATION

Model	Art. Nr.	Heat pump max output [kW]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	ENERGY EFFICIENCY CLASS
800	3270162282287	35	45	7,7	11,3	1,7	16,9	2,6	B



ECO COMBI 3 PDC VB

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	Heat pump max output [kW]	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
			Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
800	3270162282288	35	45	7,7	11,3	1,7	16,9	2,6	B

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000019
Connection 3/4"



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE	
5240000000074	1,5 kW	
5240000000075	2 kW	
5240000000076	3 kW	

See Accessories section

ECO COMBI 3 PDC

MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP

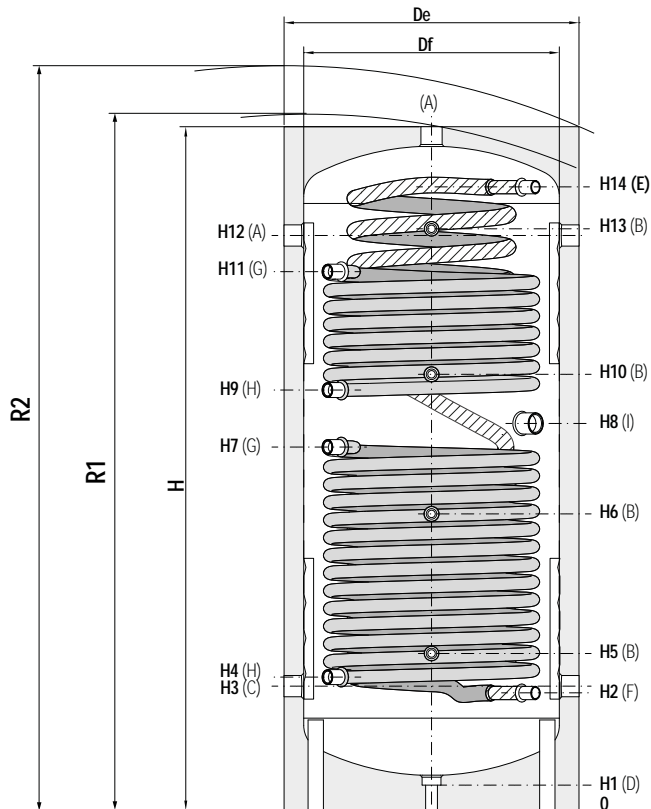
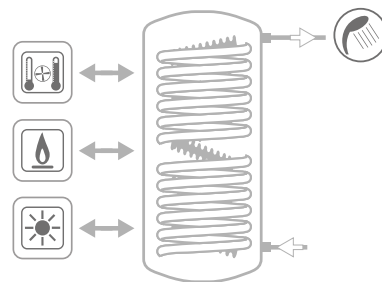
WITH STAINLESS STEEL 316L DHW CORRUGATED COIL AND 2 FIXED HEAT EXCHANGERS

STORAGE		CORRUGATED DHW STAINLESS STEEL 316L COIL	FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Pmax	Tmax
3 bar	99 °C	6 bar	12 bar	110 °C

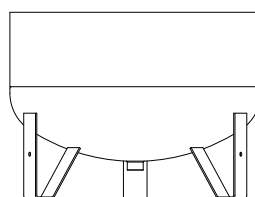


CORDIVARI Lab

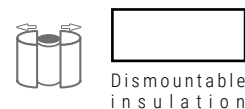
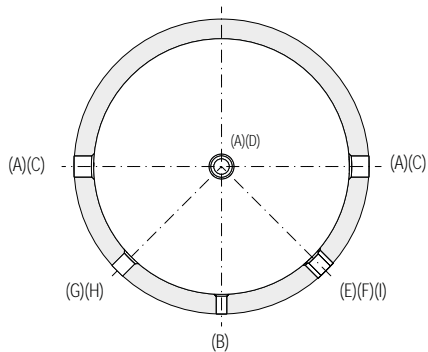
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Heating delivery/from generator 1"1/2 G F
B	Connection for instrumentation 1/2" G F
C	Heating return/to generator 1"1/2 G F
D	Drain 1"1/4 G F
E	Domestic hot water circuit outlet
F	Domestic water inlet
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for electric immersion heater 1"1/2 F



Only for model 800



ECO COMBI 3 PDC VB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	E-F
		[mm]																			Connections
300	291	-	650	1585	-	1713	70	297	330	330	390	745	870	970	1040	1100	1280	1280	1315	1415	1/2" F
500	454	-	750	1745	-	1899	70	305	322	345	405	760	930	990	1075	1115	1376	1468	1485	1585	1" M
800	748	790	940	1940	2030	2156	70	325	342	365	425	780	905	935	1065	1135	1409	1618	1635	1735	1" M

ECO COMBI 3 PDC VC - DISMOUNTABLE SOFT FLEECE

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	E-F
		[mm]																			Connections
800	748	790	1010	1940	2030	2190	70	325	342	365	425	780	905	935	1065	1135	1409	1618	1635	1735	1" M

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

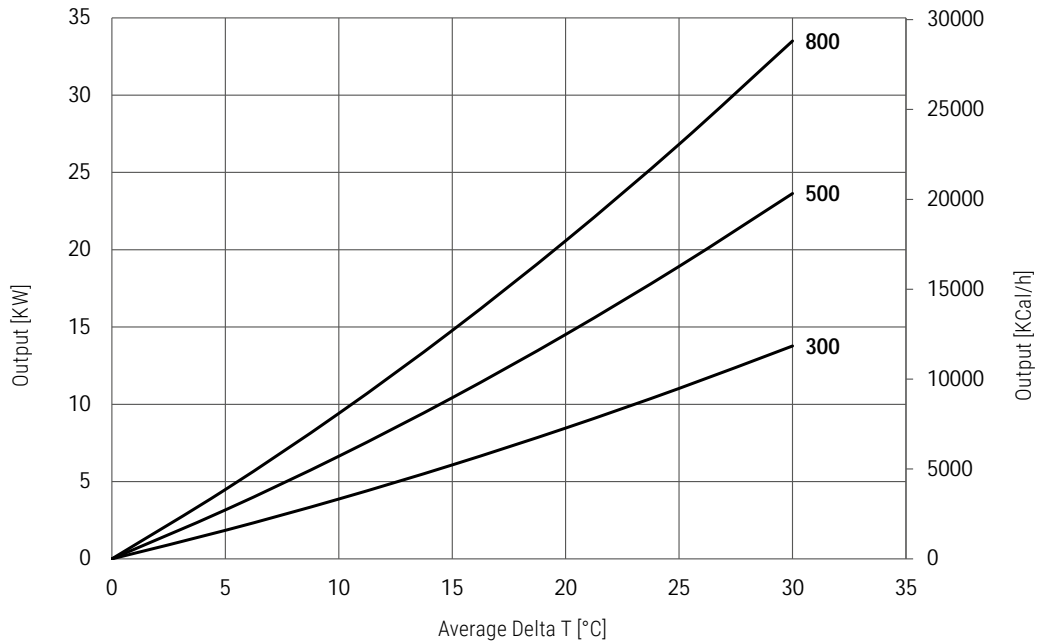
CALORIFIERS FOR
HEAT PUMPS



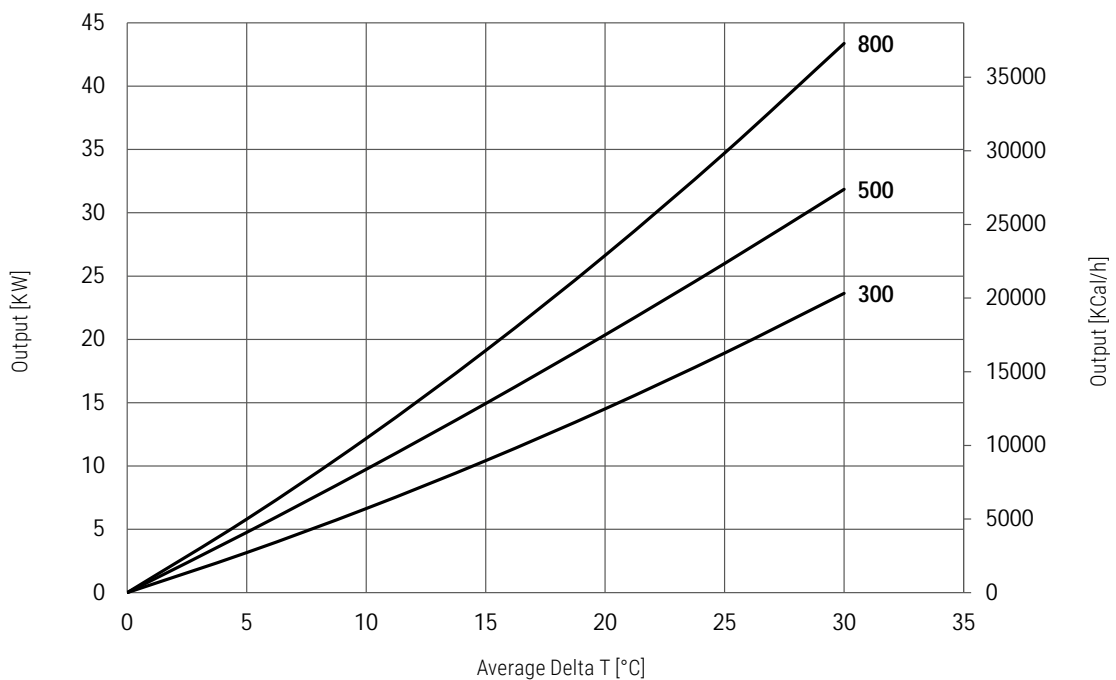
EcoCombi PDC exchanged power according to average Delta T between primary and storage (flow rate of 3 m³/h circulating in the exchanger)

Exchangeable thermal powers are expressed both in kW and Kcal/h according to the average temperature difference between primary and secondary, having a primary flow rate of 3 m³/h.

UPPER HEAT EXCHANGER



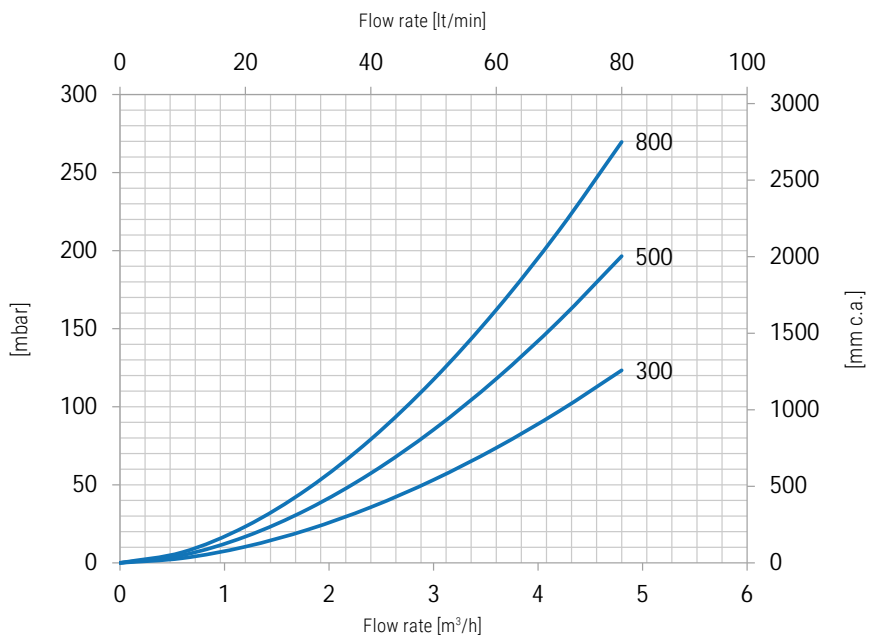
LOWER HEAT EXCHANGER





UPPER HEAT EXCHANGER

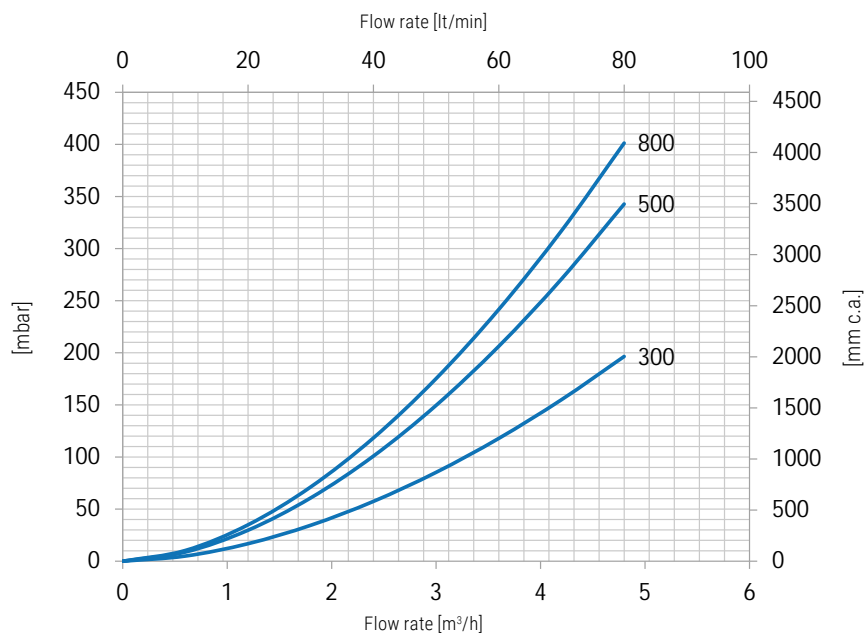
Upper heat exchanger surface [m ²]	
300	0,7
500	1,2
800	1,7



CALORIFIERS FOR
HEAT PUMPS

LOWER HEAT EXCHANGER

Lower heat exchanger surface [m ²]	
300	1,2
500	2,2
800	2,6



ECO COMBI PDC

PERFORMANCES DURING DHW PRODUCTION PHASE



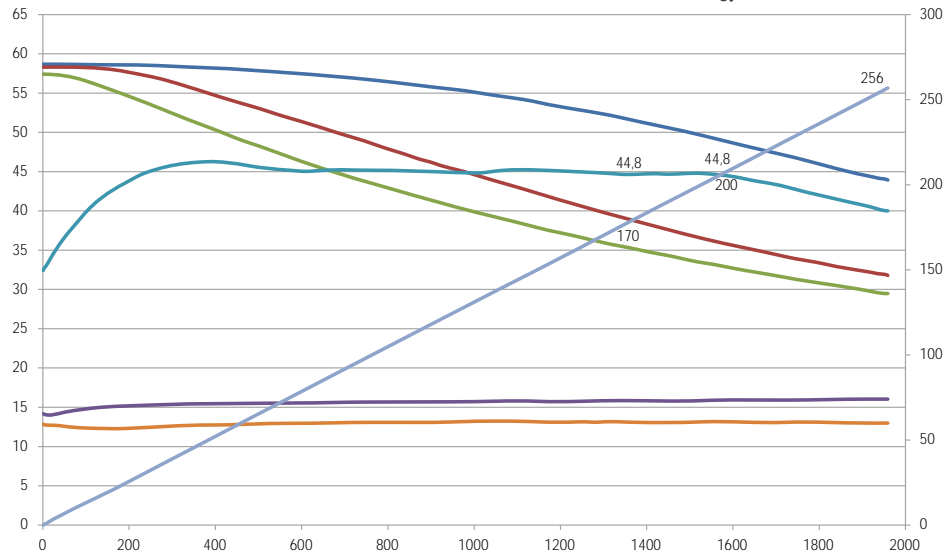
DHW IN LITERS, WHICH CAN BE WITHDRAWN STARTING FROM HOT ACCUMULATION AT THE TEMPERATURE AND FLOW RATES CONDITIONS INDICATED BELOW

Model	Buffer storage 55 °C - DHW 10/45 °C			Buffer storage 55 °C - Acs 15/42 °C		
	DHW withdrawal flow rate [lt/min]			DHW withdrawal flow rate [lt/min]		
	8	16	24	8	16	24
300	125	77	//	193	131	//
500	216	151	128	331	246	217
800	357	249	212	546	405	358

**BELOW CHARTS REFER TO THE MODEL
ECO COMBI 1 PDC - 300**

DHW WITHDRAWAL 256 lt T > 40 °C

58% of the accumulated energy

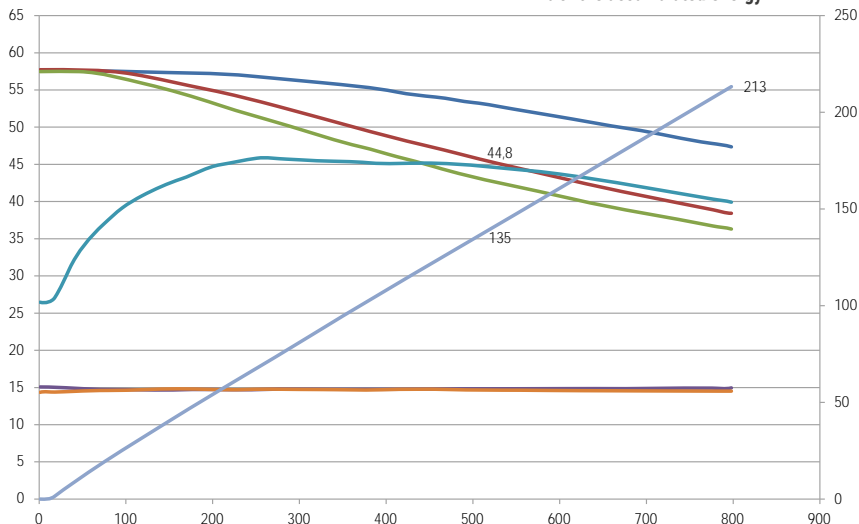


STORAGE: 58 °C
WITHDRAWAL: 45-40 °C
FLOW RATE: 8 l/min

- T1
- T2
- T3
- Tin DHW
- Tout DHW
- Ta
- total liters

DHW WITHDRAWAL 213 lt T > 40 °C

47% of the accumulated energy

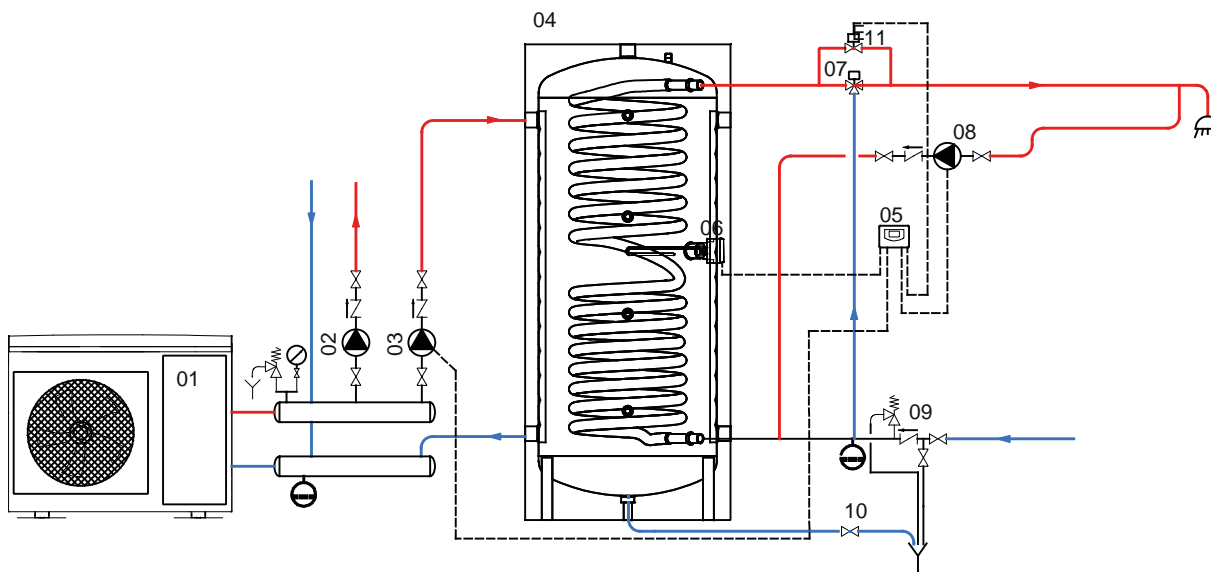


STORAGE: 57,5 °C
WITHDRAWAL: 45-40 °C
FLOW RATE: 16 l/min

- T1
- T2
- T3
- Tin DHW
- Tout DHW
- Ta
- total liters



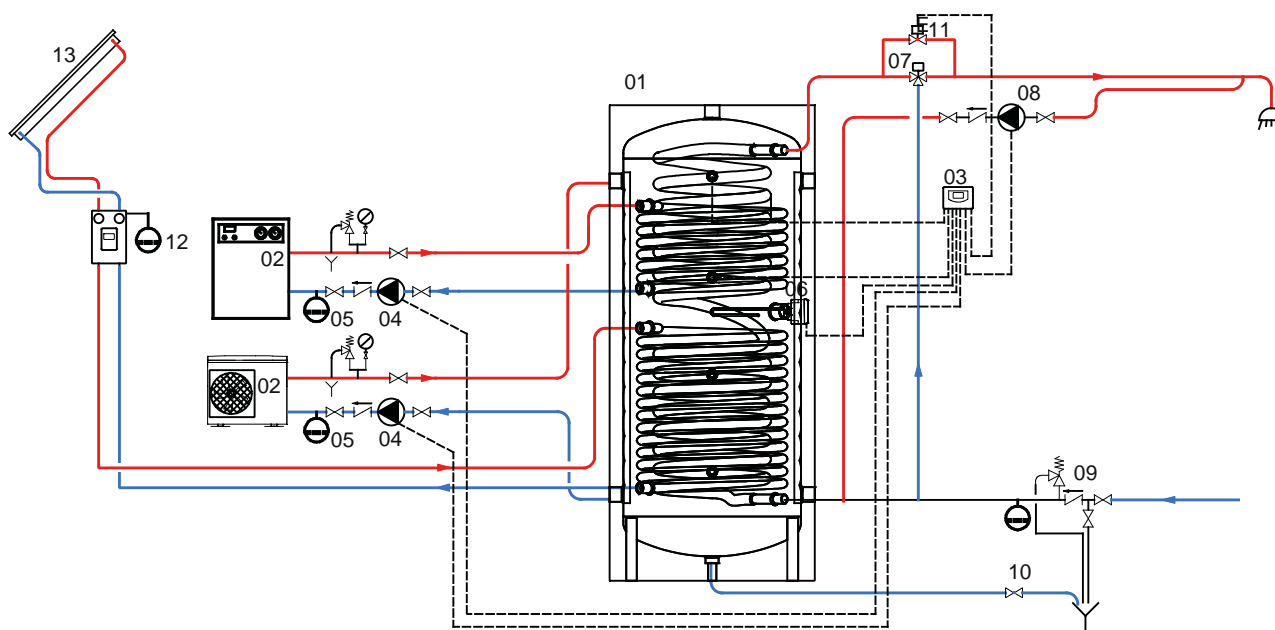
EXAMPLE OF INSTALLATION WITH ECO-COMBI 1 PDC



CALORIFIERS FOR
HEAT PUMPS

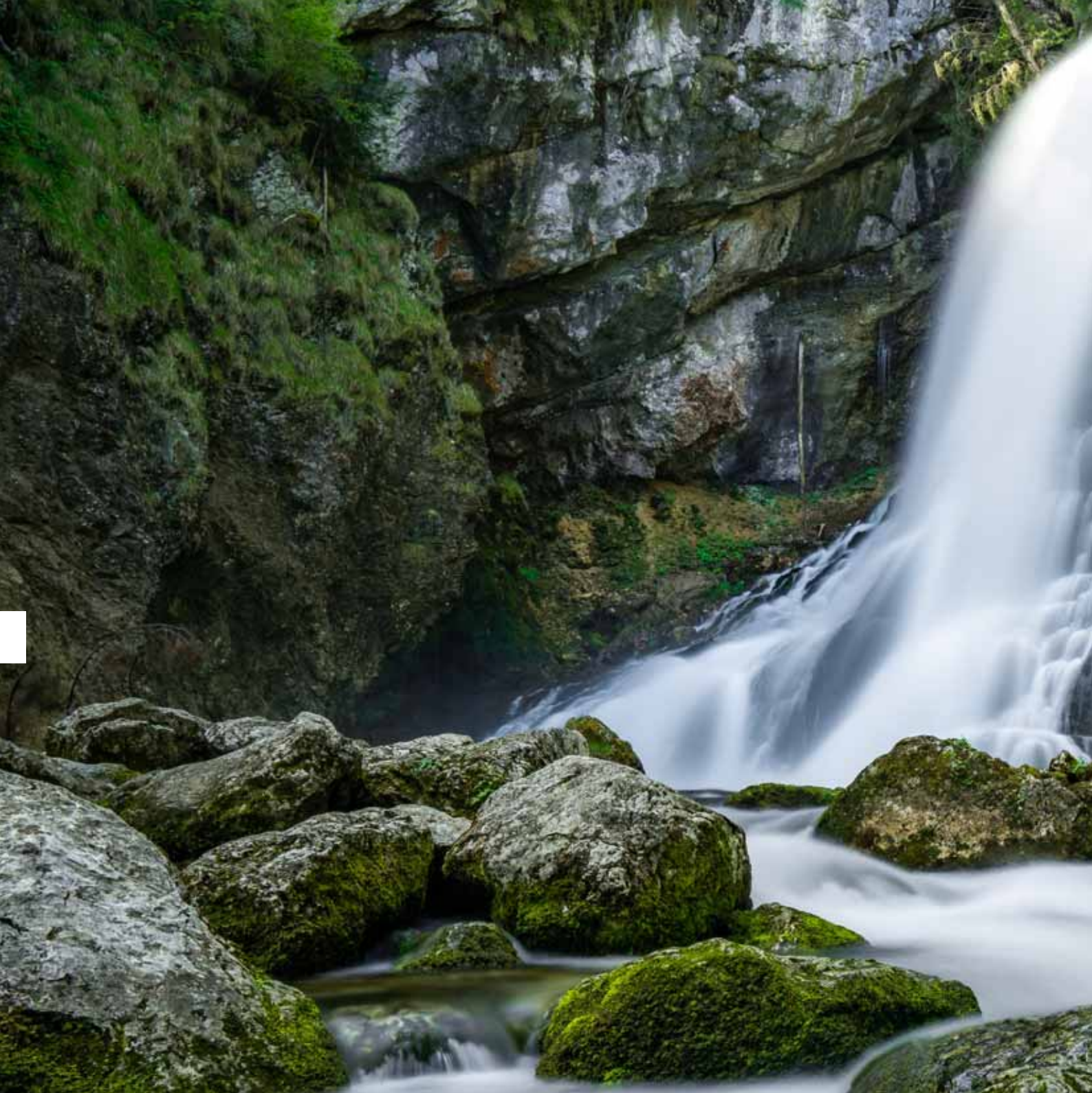
01	Generator (Heat pump)	04	ECO COMBI 1 PDC	07	Thermostatic mixing valve	10	Blowdown valve
02	Heating system circulation group	05	Electronic control /thermostat	08	D.H.W. recirculation group	11	By-pass solenoid valve
03	D.H.W. circulation group	06	Electric immersion heater (optional)	09	Hydraulic safety group		

EXAMPLE OF INSTALLATION WITH ECO-COMBI 3 PDC



01	ECO COMBI 3 PDC	05	Expansion vessel	09	Hydraulic safety group	13	Solar panels
02	Generator	06	Electric immersion heater (optional)	10	Blowdown valve		
03	Electronic control /thermostat	07	Thermostatic mixing valve	11	By-pass solenoid valve		
04	Circulation group	08	D.H.W. recirculation group	12	Solar system circulation group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.



CALORIFIERS IN STAINLESS STEEL



CALORIFIERS IN
STAINLESS STEEL

EXTRA 1 INOX

STAINLESS STEEL 316L CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Stainless Steel 316L suitable for domestic hot water

HEAT EXCHANGER

Stainless steel 316L Antilegionella® heat exchanger, with tubes bent to the bottom

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.
Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode - Models > 1500 n° N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

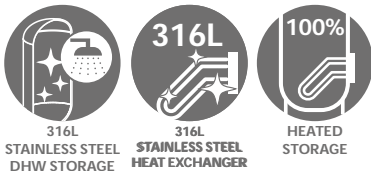
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE

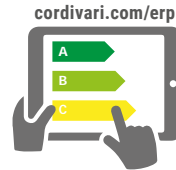
316L
STAINLESS STEEL
HEAT EXCHANGER

100%
HEATED
STORAGE



EXTRA 1 XXB

Model	HARD FOAM INSULATION		HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
	Art. Nr.			
200	3072052300422		0,5	B
300	3072052300423		0,75	C
500	3072052300424		1	C



On line ErP label tool



EXTRA 1 XXC

Model	DISMOUNTABLE SOFT FLEECE INSULATION		HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
	Art. Nr.			
800	3072052300430		1,5	C
1000	3072052300435		2	C
1300	3072052300432		3	C
1500	3072052300433		3	C
2000	3072052300434		4	C
2500	3072052300410		5	
3000	3072052300412		6	
4000	3072052300414		8	
5000	3072052300416		10	

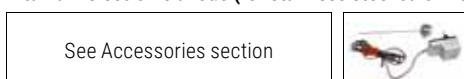
ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	49	87	65
300	76	136	102
500	127	228	171
800	178	318	239
1000	243	436	327
1300	274	450	340
1500	288	516	387
2000	443	793	595
2500	577	1033	775
3000	577	1033	775
4000	797	1428	1071
5000	1040	1864	1398

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233
699	559	466	311	233

Titanium electronic anode (for stainless steel calorifiers)



EXTRA 1 INOX

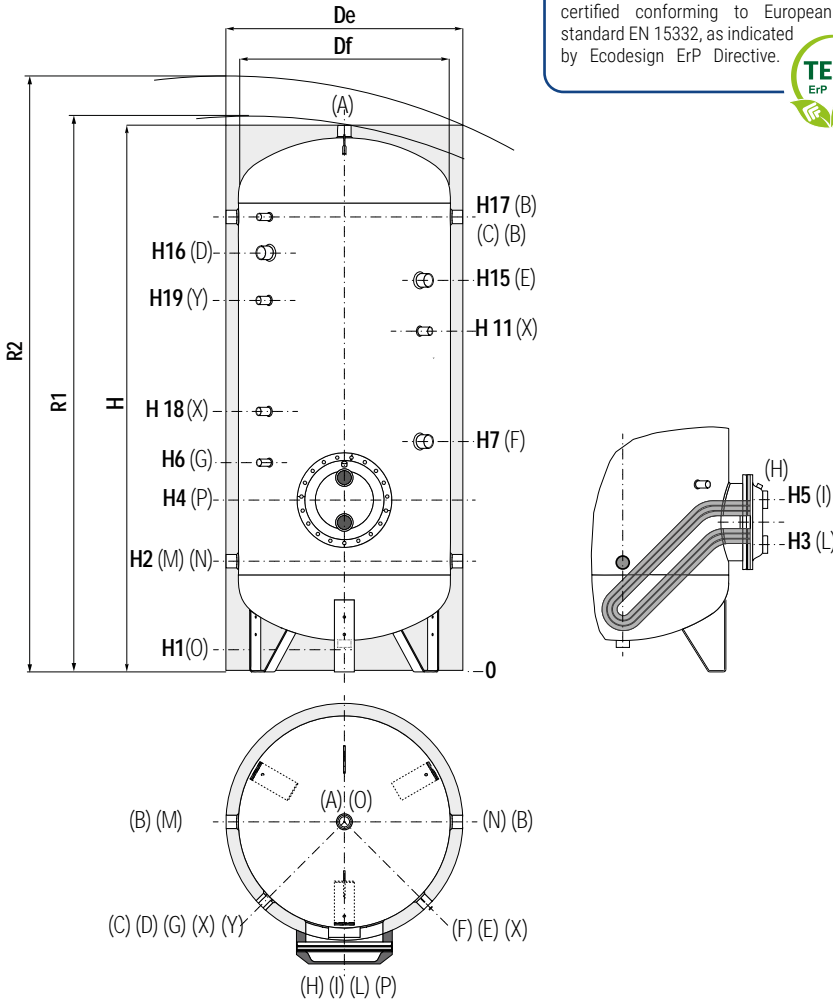
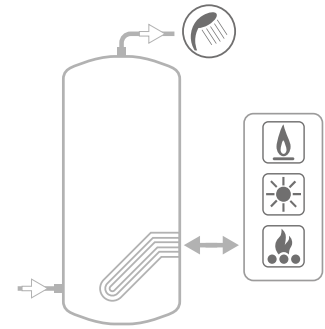
STAINLESS STEEL 316L CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for 2nd magnesium anode 1"1/4 F (only for models > 1500)
- F** Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- H** Heat exchanger drain 3/8" F
- I** Primary circuit inlet
- L** Primary circuit outlet
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks
- O** Drain. For model 1000 Connection 1"1/2 G F. For models > 1000 1" G F
- P** Flange
- X** Connection for Titanium electronic anode 3/4" G F (>1500)
- Y** Connection for titanium electronic anode 3/4" G F (>3000)

CALORIFIERS IN STAINLESS STEEL

Model	Volume [lt]	Weight [kg]	Df (vers. XXC) (vers. XXC)		De (vers. XXB)	H	R1	R2	H1	H2	H3	H4	H5	H6
			[mm]	[mm]										
200	192	57	//	//	550	1451	//	1552	81	316	351	401	451	511
300	294	72	//	//	650	1569	//	1698	149	409	444	494	544	604
500	504	98	//	//	750	1861	//	2006	141	426	461	511	561	621
800	762	137	790	1010	//	1943	2008	2200	113	428	473	563	653	713
1000	905	159	790	1010	//	2212	2270	2450	112	437	482	572	662	722
1300	1277	199	950	1210	//	2193	2275	2510	118	433	578	668	758	818
1500	1403	208	1000	1260	//	2177	2266	2530	112	447	592	682	772	832
2000	2024	332	1250	1510	//	2099	2231	2600	134	529	649	754	859	929
2500	2320	396	1250	1350	//	2299	2396	2680	134	529	649	754	859	929
3000	2925	466	1250	1350	//	2799	2879	3120	134	529	709	814	919	989
4000	3776	568	1400	1500	//	2872	2968	3250	117	557	737	842	947	1017
5000	4995	734	1600	1700	//	2909	3031	3380	94	564	734	839	944	1014

Model	H7	H11	H15	H16	H17	H18	H19	P
300	794	//	//	1159	1269	//	//	Ø1220/Øe300
500	811	//	//	1380	1536	//	//	Ø1220/Øe300
800	863	//	//	1382	1538	//	//	Ø1300/Øe380
1000	922	//	//	1642	1797	//	//	Ø1300/Øe380
1300	918	//	//	1638	1793	//	//	Ø1300/Øe380
1500	982	1522	//	1602	1757	1057	//	Ø1300/Øe380
2000	1004	//	1524	1473	1629	1159	//	Ø1300/Øe380
2500	954	1529	1794	1710	1879	1179	//	Ø1350/Øe430
3000	1014	1629	2294	2210	2369	1279	//	Ø1350/Øe430
4000	1022	1657	2302	2225	2397	1307	2090	Ø1350/Øe430
5000	1019	1664	2319	2159	2404	1314	2024	Ø1350/Øe430

O	BMN	LI	D	A
3/4"	1"1/4	1"	1"1/2	1"1/4
3/4"	1"1/4	1"	1"1/2	1"1/4
3/4"	1"1/4	1"	1"1/2	1"1/4
3/4"	1"1/4	2"	1"1/2	1"1/2
3/4"	1"1/2	2"	2"	1"1/2
1"	1"1/2	2"	2"	2"
1"	1"1/2	2"	2"	2"
1"	2"	2"	2"	2"
1"	2"	2"	2"	2"
1"	2"	2"	2"	2"
1"	2"	2"	2"	2"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 1 INOX

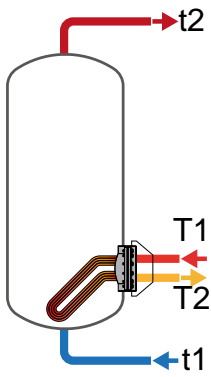
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	113	113	77	49	7,3	11,5	13,7	18	178	283	338	455
	1	147	148	102	65	5,8	8,9	10,5	13,9	141	218	258	344
300	3	112	113	76	48	11,1	17	21	28	274	435	520	701
	1,5	145	146	102	65	8,9	13,8	16,3	21,6	219	339	402	534
500	4	139	140	96	60	15	23,8	28,5	38	369	587	702	947
	2	180	181	125	80	12,1	18,7	22,1	29,4	297	460	545	725
800	6	146	147	101	64	23	36	44	59	570	908	1087	1465
	3	186	188	130	83	18	29	34	46	465	721	854	1136
1000	10	128	128	86	54	33	53	63	86	814	1309	1571	2127
	5	157	157	107,9	69	27	43	51	69	687	1077	1281	1711
1300	10	147	152	107	70	31	39	51	72	674	683	884	1253
	5	158	164	116	76	30	38	49	69	659	669	858	1201
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	20	118	119	81	51	84	134	160	216	2066	3309	3964	5352
	10	145	146	101	65	71	111	131	174	1755	2734	3244	4314
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	157	110	70	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	247	319	328	347	360	498	542	635	309	30,3
	1	241	308	314	329	330	446	478	547	84,74	8,3
300	3	371	480	494	524	545	755	823	968	372	36,5
	1,5	362	464	474	496	501	678	729	834	101,02	9,9
500	4	616	791	810	851	849	1162	1254	1450	419	41,1
	2	604	770	784	814	792	1061	1129	1273	113,381	11,1
800	6	998	1280	1310	1373	1359	1855	1998	2301	718	70,4
	3	980	1249	1271	1318	1275	1705	1812	2037	189,22	18,6
1000	10	1273	1640	1683	1776	1788	2469	2678	3123	1380	135,3
	5	1252	1601	1635	1707	1687	2283	2446	2790	358,5	35,2
1300	10	1572	1938	1972	2033	1999	2006	2167	2462	1380	135
	5	1569	1936	1967	2024	1987	1995	2146	2420	358	35
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
2500	20	2988	3856	3965	4196	4296	5951	6475	7586	2436	238,9
	10	2936	3760	3845	4023	4047	5491	5899	6755	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

MAXIMUM STORAGE EXPLOITATION WITH CURVED ANTILEGIONELLA® HEAT EXCHANGER



Model	Heated volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in exploited volume	Advantage in percentage
	[lt]	[lt]	[lt]	[%]
200	165	190	25	13%
300	251	285	34	12%
500	438	485	47	10%
800	680	750	70	10%
1000	800	900	100	13%
1300	1150	1260	110	10%

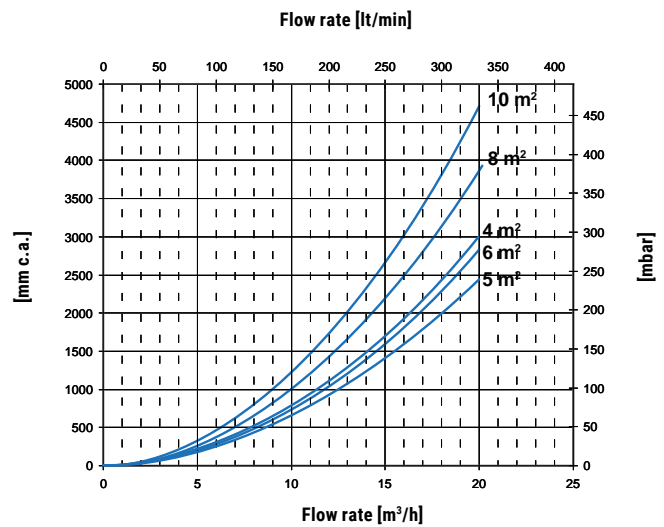
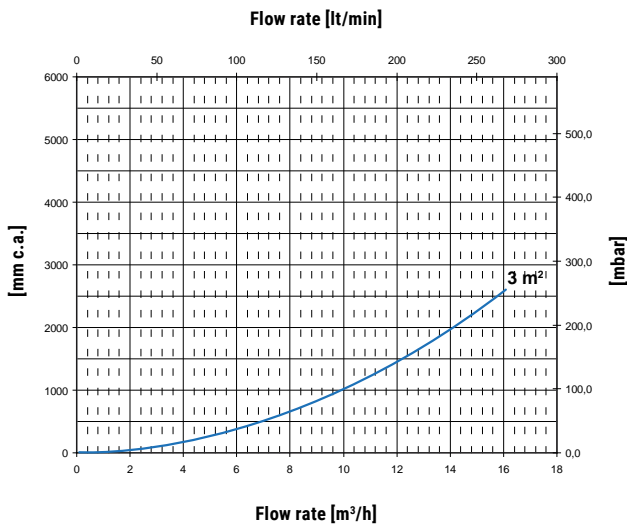
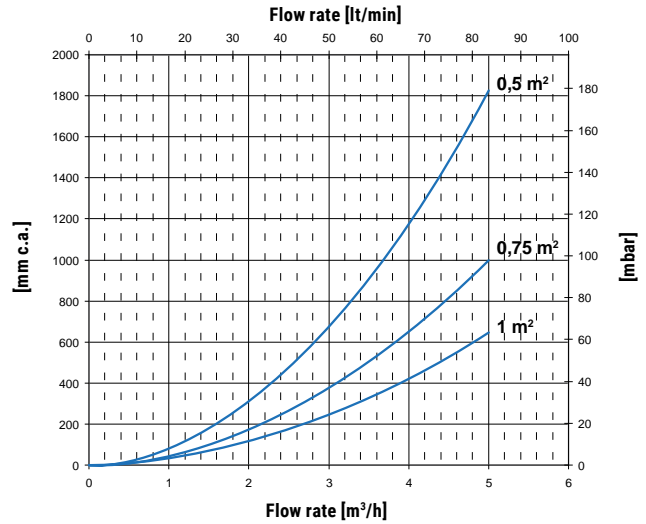
Model	Heated volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in exploited volume	Advantage in percentage
	[lt]	[lt]	[lt]	[%]
1500	1224	1445	221	15%
2000	1684	1978	294	15%
2500	1905	2315	410	18%
3000	2438	2921	483	17%
4000	3113	3769	656	17%
5000	4116	4982	866	17%

EXTRA 1 INOX

HEAT EXCHANGERS PRESSURE DROP



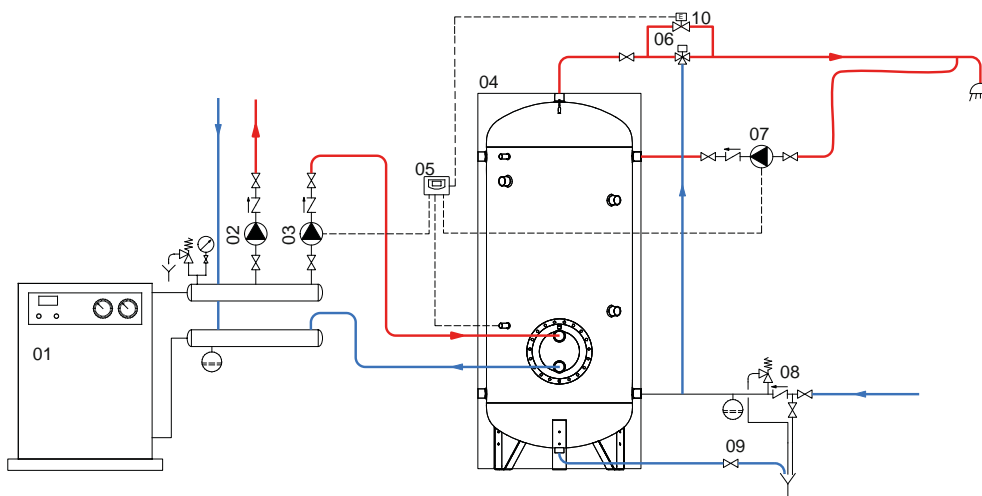
Lower heat exchangers surface [m ²]	
200	0,5
300	0,75
500	1,5
800	2
1000	3
1300	3
1500	3
2000	4
2500	5
3000	6
4000	8
5000	10



CALORIFIERS IN
STAINLESS STEEL

PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 1 INOX



- | | | | |
|------------------------------------|----------------------------------|------------------------------|---------------------------|
| 1 Generator | 4 EXTRA 1 INOX | 7 D.H.W. recirculation group | 10 By-pass solenoid valve |
| 2 Heating system circulation group | 5 Electronic control /thermostat | 8 Hydraulic safety group | |
| 3 D.H.W. circulation group | 6 Thermostatic mixing valve | 9 Blowdown valve | |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 1 INOX COMPACT

STAINLESS STEEL 316L CALORIFIERS, SUITABLE FOR LOW-CEILINGED ROOM,
WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).
Suitable for low-ceilinged room.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

Stainless steel 316L. Antilegionella® heat exchanger, with tubes bent to the bottom

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.
Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

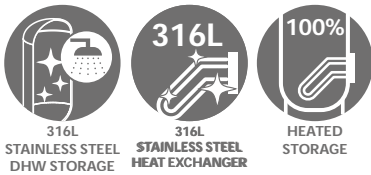
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

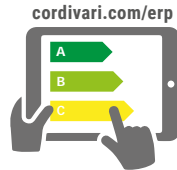


EXTRA 1 COMPACT XXC

DISMOUNTABLE SOFT FLEECE INSULATION

HEAT EXCHANGER SURFACE

Model	Art. Nr.	[m ²]
2500	3072052300411	5
3000	3072052300413	6
4000	3072052300415	8



On line ErP label tool

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [l]	MONOPHASE			THREEPHASE					
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW	
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031	
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]								
2500	797	1428	1071	714	535	428	357	238	178	
3000	874	1565	1173	782	587	469	391	261	196	
4000	924	1655	1241	828	621	497	414	276	207	

Thermometer

Art. Nr.	
5032240000107	
5 units box	



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



EXTRA 1 INOX COMPACT

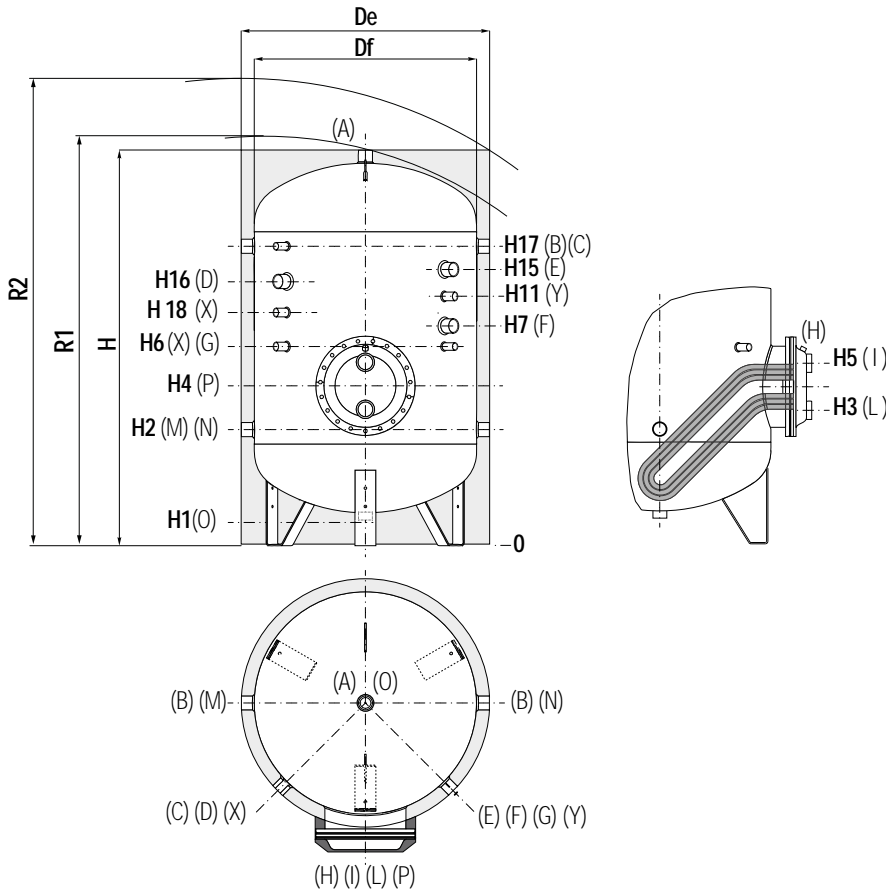
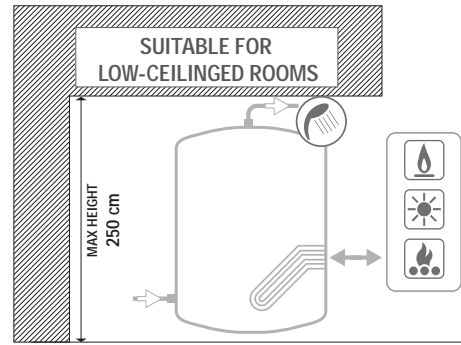
STAINLESS STEEL 316L CALORIFIERS, SUITABLE FOR LOW-CEILINGED ROOM, WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet 2" G F
- B** Recirculation / Domestic hot water outlet 2" G F
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 2" G F
- E** Connection for 2nd magnesium anode/Titanium electronic anode 1"1/4 G F
- F** Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- H** Heat exchanger drain 3/8" F
- I** Primary circuit inlet 2" G F
- L** Primary circuit outlet 2" G F
- M** Domestic cold water circuit inlet 2" G F
- N** Alternative domestic cold water circuit inlet or connection for more tanks 2" G F
- O** Drain 1" G F
- P** Flange
- X** Connection for titanium electronic anode 3/4" G F
- Y** Connection for titanium electronic anode 3/4" G F (only 4000)

CALORIFIERS IN STAINLESS STEEL

Model	Volume	Weight	Df	De	H	R1	R2	H1	H2	H3
	[lt]	[kg]								
2500	2627	382	1400	1500	2122	2251	2610	117	557	677
3000	3029	415	1500	1600	2131	2276	2670	106	556	736
4000	3990	553	1600	1700	2409	2555	2960	94	564	744

Model	H4	H5	H6	H7	H11	H15	H16	H17	H18	P
	[mm]									
2500	782	887	957	982	//	1552	1501	1657	1180	Øi350/Øe430
3000	841	946	1016	981	//	1551	1500	1656	1180	Øi350/Øe430
4000	849	954	1024	1029	1611	1809	1732	1904	1250	Øi350/Øe430

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 1 INOX COMPACT

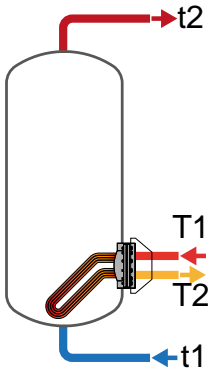
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
2500	20	134	134	92	58	69	111	133	180	1699	2738	3288	4453
	10	164	164	114	73	59	93	111	148	1465	2302	2741	3665
3000	20	130	130	90	57	100	159	190	255	2461	3926	4694	6321
	10	162	162	113	73	84	130	154	204	2082	3224	3817	5053
4000	20	133	133	92	59	131	207	247	330	3236	5121	6105	8168
	10	170	170	119	77	110	168	198	260	2718	4151	4903	6443

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
2500	20	3276	4198	4289	4484	4352	5932	6372	7304	2436	238,9
	10	3237	4125	4198	4352	4165	5583	5934	6673	624	61,2
3000	20	3862	4969	5097	5368	5420	7455	8069	9371	2836	278,1
	10	3798	4852	4950	5156	5117	6893	7368	8357	723	70,9
4000	20	5090	6542	6706	7050	7140	9785	10573	12223	3896	382,1
	10	5004	6380	6506	6762	6725	9009	9611	10843	989	97,0

MAXIMUM STORAGE EXPLOITATION WITH CURVED ANTILEGIONELLA® HEAT EXCHANGER

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifers, a range between 9-17% of the volume remains cold.



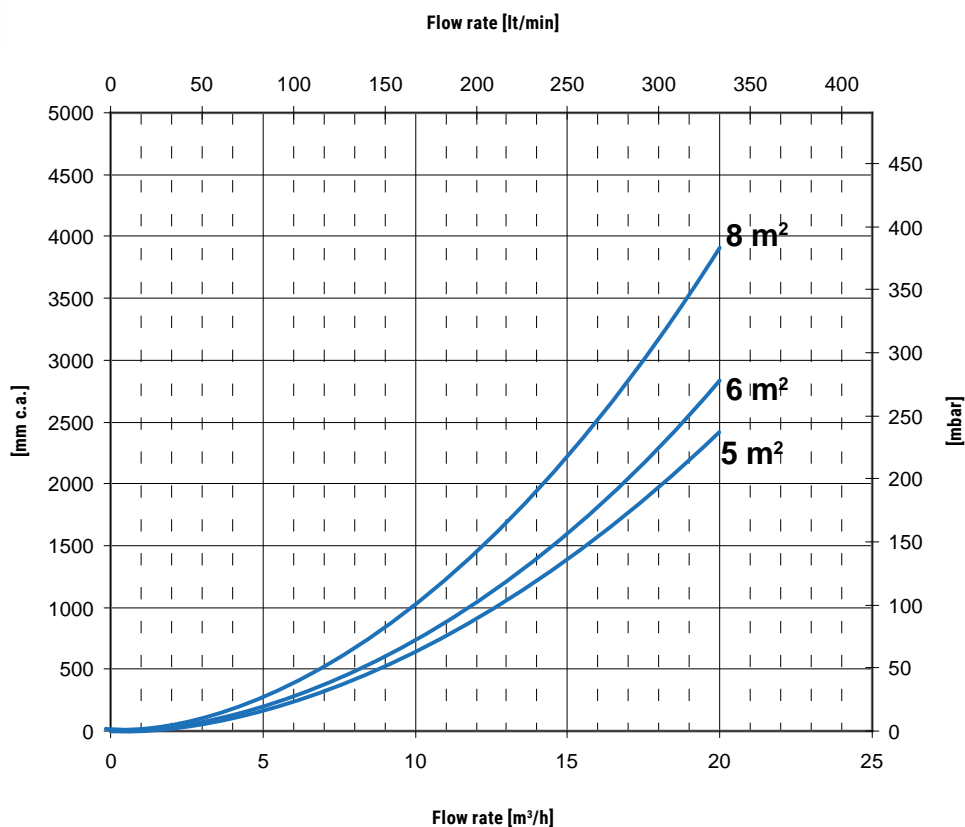
Model	Heated volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in exploited volume	Advantage in percentage
	[lt]	[lt]	[lt]	[%]
2500	1905	2315	410	18%
3000	2438	2921	483	17%
4000	3113	3769	656	17%

EXTRA 1 INOX COMPACT

HEAT EXCHANGERS PRESSURE DROP **ANTILEGIONELLA®**



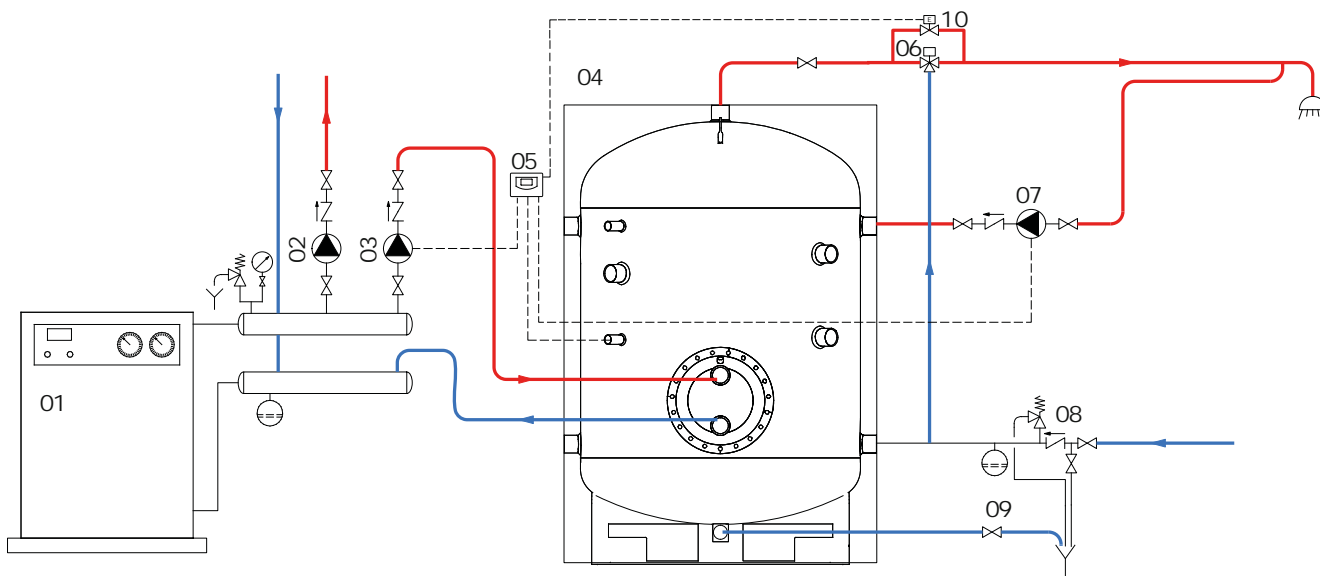
Lower heat exchangers surface [m ²]	
2500	5
3000	6
4000	8



CALORIFIERS IN STAINLESS STEEL

PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 1 INOX COMPACT



1 Generator	4 EXTRA 1 INOX COMPACT	7 D.H.W. recirculation group	10 By-pass solenoid valve
2 Heating system circulation group	5 Electronic control /thermostat	8 Hydraulic safety group	
3 D.H.W. circulation group	6 Thermostatic mixing valve	9 Blowdown valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 2 INOX

STAINLESS STEEL 316L CALORIFIER WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

N° 2 Stainless steel 316L Antilegionella® heat exchangers (upper exchanger is straight and the lower is bent to the bottom)

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode - Models > 1500 n° N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

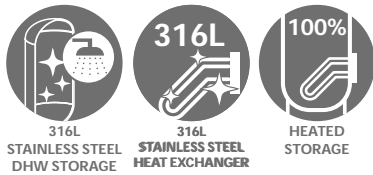
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

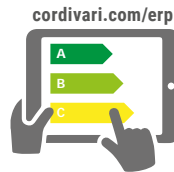
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 2 XXB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Upper	
200	3082052300222	0,5	0,5	B
300	3082052300223	0,75	0,75	C
500	3082052300224	1,5	1,5	C



On line ErP label tool



EXTRA 2 XXC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Lower	Upper	
800	3082052300230	2	2	C
1000	3082052300235	3	2	C
1300	3082052300232	3	3	C
1500	3082052300233	3	3	C
2000	3082052300234	4	4	C
2500	3082052300210	5	5	C
3000	3082052300212	6	6	C
4000	3082052300214	8	8	C
5000	3082052300216	10	10	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [l]

200	49
300	76
500	127
800	178
1000	243
1300	274
1500	288
2000	443
2500	577
3000	577
4000	797
5000	1040

MONOPHASE		
1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
87	65	44
136	102	68
228	171	114
318	239	159
436	327	218
450	340	230
516	387	258
793	595	396
1033	775	517
1033	775	517
1428	1071	714
1864	1398	932

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233
699	559	466	311	233

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



EXTRA 2 INOX

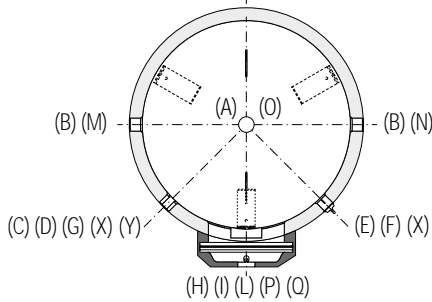
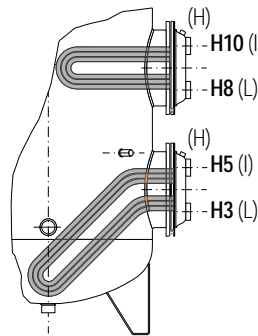
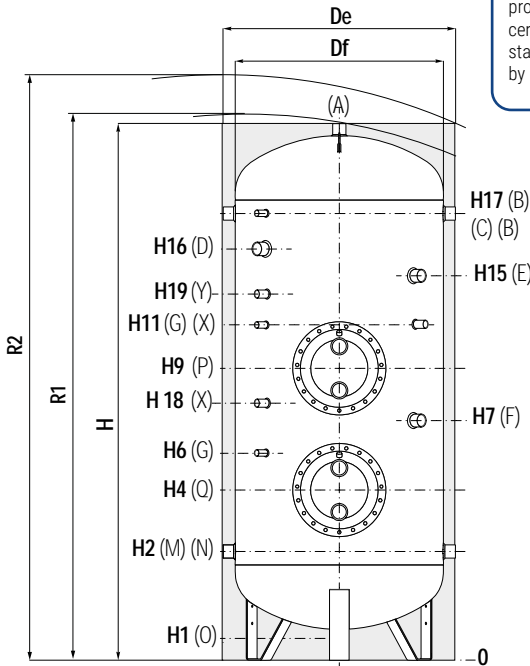
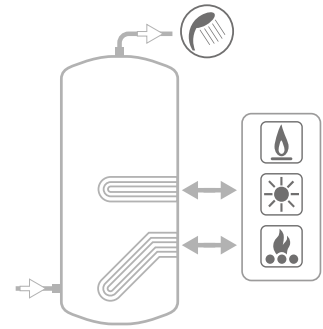
STAINLESS STEEL 316L CALORIFIER WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C

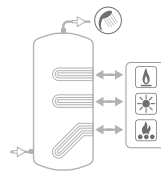


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



Models with 3 heat exchangers are available on request



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet 2" G F
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for 2nd magnesium anode/Titanium electronic anode 1"1/4 G F (only for models > 1500)
F	Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
G	Connection for instrumentation 1/2" G F
H	Heat exchanger drain 3/8" F
I	Primary circuit inlet
L	Primary circuit outlet
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain. For model 1000 Connection 1"1/2 G F. For models > 1000 1" G F
P	Flange
X	Connection for titanium electronic anode 3/4" G F (>1300)
Y	Connection for titanium electronic anode 3/4" G F (>2500)

CALORIFIERS IN STAINLESS STEEL

Model	Volume [lit]	Weight [kg]	Df (vers. XXC)		De (vers. XXC)		De (vers. XXB)		H	R1	R2	H1	H2	H3	H4	H5	H6	H7
			[mm]	[mm]	[mm]	[mm]												
200	195	73	//	//	//	//	550	1451	-	1560	81	316	351	401	451	511	701	
300	297	91	//	//	//	//	650	1569	-	1700	149	409	444	494	544	604	794	
500	507	119	//	//	//	//	750	1861	-	2010	141	426	461	511	561	621	811	
800	768	161	790	1010	//	//	//	1943	2008	2190	113	428	473	563	653	713	863	
1000	910	185	790	1010	//	//	//	2212	2270	2440	112	437	482	572	662	722	922	
1300	1283	228	950	1210	//	//	//	2193	2275	2510	118	433	578	668	758	818	918	
1500	1409	237	1000	1260	//	//	//	2177	2266	2520	112	447	592	682	772	832	982	
2000	2032	370	1250	1510	//	//	//	2099	2231	2590	134	529	649	754	859	929	1004	
2500	2320	383	1250	1350	//	//	//	2299	2396	2670	134	529	649	754	859	929	954	
3000	2925	518	1250	1350	//	//	//	2799	2879	3110	134	529	709	814	919	989	1014	
4000	3776	634	1400	1500	//	//	//	2872	2968	3250	117	557	737	842	947	1017	1022	
5000	4995	820	1600	1700	//	//	//	2909	3031	3370	94	564	734	839	944	1014	1019	

Model	H8	H9	H10	H11	H12	H15	H16	H17	H18	H19	QP	Connections F					
												O	BMN	IL	D	A	
200	801	851	901	961	//	//	1066	1176	//	//	Ø1220/Øe300	3/4"	1"1/4	1"	1"1/2	1"1/4	
300	894	944	994	1054	//	//	1159	1269	//	//	Ø1220/Øe300	3/4"	1"1/4	1"	1"1/2	1"1/4	
500	911	961	1011	1071	//	//	1380	1536	//	//	Ø1220/Øe300	3/4"	1"1/4	1"	1"1/2	1"1/4	
800	1003	1093	1183	1243	//	//	1382	1538	//	//	Ø1300/Øe380	3/4"	1"1/4	2"	1"1/2	1"1/2	
1000	1032	1122	1212	1272	//	//	1642	1797	//	//	Ø1300/Øe380	3/4"	1"1/2	2"	2"	1"1/2	
1300	1078	1168	1258	1318	//	//	1638	1793	//	//	Ø1300/Øe380	1"	1"1/2	2"	2"	2"	
1500	1142	1232	1322	1382	//	//	1552	1602	1757	1057	//	Ø1300/Øe380	1"	1"1/2	2"	2"	2"
2000	1229	1334	1439	1404	//	//	1524	1473	1629	1159	//	Ø1350/Øe430	1"	2"	2"	2"	2"
2500	1249	1354	1459	1529	//	//	1794	1710	1879	1179	//	Ø1350/Øe430	1"	2"	2"	2"	2"
3000	1349	1454	1559	1629	//	//	2294	2210	2369	1279	2075	Ø1350/Øe430	1"	2"	2"	2"	2"
4000	1377	1482	1587	1657	1980	2302	2225	2397	1307	2090	Ø1350/Øe430	1"	2"	2"	2"	2"	
5000	1384	1489	1594	1664	1992	2319	2159	2404	1314	2024	Ø1350/Øe430	1"	2"	2"	2"	2"	

EXTRA 2 INOX

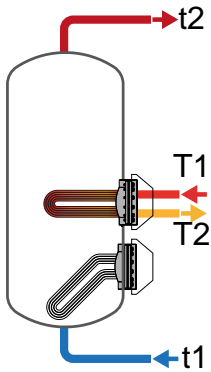
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	113	113	77	49	7,3	12	14	18	178	283	338	455
	1	147	148	102	65	6	9	11	13,9	141	218	258	344
300	3	112	113	76	48	11	17	21	28	274	435	520	701
	1,5	145	146	102	65	9	14	16	21,6	219	339	402	534
500	6	90	90	62	39	23	37	44	59	571	909	1088	1467
	3	114	115	80	51	19	29	35	46	466	722	856	1137
800	10	101	101	69	44	33	53	64	86	815	1310	1572	2128
	5	124	125	86	55	28	44	52	69	688	1077	1282	1712
1000	15	82	83	56	36	51	82	98	133	1257	2024	2429	3293
	7,5	101	100	69	44	44	68	81	108	1076	1689	2010	2685
1300	15	66	68	48	31	32	40	52	73	680	688	893	1272
	7,5	70	72	50	33	31	39	50	71	669	678	875	1235
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	20	118	119	81	51	69	111	133	180	1699	2738	3288	4453
	10	145	146	101	65	59	93	111	148	1465	2302	2741	3665
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	457	310	210	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	247	319	328	347	360	498	542	635	309	30,3
	1	241	308	314	329	330	446	478	547	84,74	8,3
300	3	371	480	494	524	545	755	823	968	372	36,5
	1,5	362	464	474	496	501	678	729	834	101,02	9,9
500	6	649	844	874	937	1011	1420	1563	1866	718	70,4
	3	632	813	836	882	927	1270	1378	1602	189,22	18,6
800	10	1039	1347	1391	1483	1555	2177	2386	2831	1380	135,3
	5	1018	1308	1342	1414	1453	1990	2154	2498	358,5	35,2
1000	15	1347	1759	1826	1970	2143	3041	3365	4056	2295	225,1
	7,5	1316	1703	1756	1869	1998	2773	3029	3569	589,6	57,8
1300	15	786	956	990	1053	1217	1224	1388	1691	2295	225
	7,5	785	954	987	1047	1208	1216	1373	1661	590	58
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
2500	20	2927	3761	3852	4046	4003	5495	5935	6867	2436	238,9
	10	2888	3688	3761	3915	3815	5146	5497	6236	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

EXTRA 2 INOX

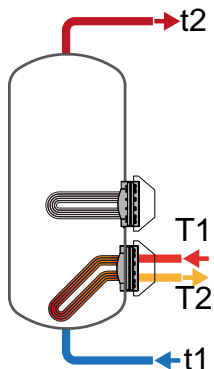
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

LOWER HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	2	113	113	77	49	7,3	11,5	13,7	18	178	283	338	455
	1	147	148	102	65	5,8	8,9	10,5	13,9	141	218	258	344
300	3	112	113	76	48	11,1	17	21	28	274	435	520	701
	1,5	145	146	102	65	8,9	13,8	16,3	21,6	219	339	402	534
500	4	139	140	96	60	15	23,8	28,5	38	369	587	702	947
	2	180	181	125	80	12,1	18,7	22,1	29,4	297	460	545	725
800	6	146	147	101	64	23	36	44	59	570	908	1087	1465
	3	186	188	130	83	18	29	34	46	465	721	854	1136
1000	10	128	128	86	54	33	53	63	86	814	1309	1571	2127
	5	157	157	107,9	69	27	43	51	69	687	1077	1281	1711
1300	10	147	152	107	70	31	39	51	72	674	683	884	1253
	5	158	164	116	76	30	38	49	69	659	669	858	1201
1500	15	120	119	82	51	51	81	98	133	1256	2022	2428	3290
	7,5	145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	20	121	122	83	52	69	111	133	180	1699	2738	3288	4453
	10	146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	20	118	119	81	51	84	134	160	216	2066	3309	3964	5352
	10	145	146	101	65	71	111	131	174	1755	2734	3244	4314
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	157	110	70	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	20	137	138	96	61	162	253	301	401	3992	6270	7450	9921
	10	176	179	125	82	135	204	239	312	3332	5049	5923	7727

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	2	247	319	328	347	360	498	542	635	309	30,3
	1	241	308	314	329	330	446	478	547	84,74	8,3
300	3	371	480	494	524	545	755	823	968	372	36,5
	1,5	362	464	474	496	501	678	729	834	101,02	9,9
500	4	616	791	810	851	849	1162	1254	1450	419	41,1
	2	604	770	784	814	792	1061	1129	1273	113,381	11,1
800	6	998	1280	1310	1373	1359	1855	1998	2301	718	70,4
	3	980	1249	1271	1318	1275	1705	1812	2037	189,22	18,6
1000	10	1273	1640	1683	1776	1788	2469	2678	3123	1380	135,3
	5	1252	1601	1635	1707	1687	2283	2446	2790	358,5	35,2
1300	10	1572	1938	1972	2033	1999	2006	2167	2462	1380	135
	5	1569	1936	1967	2024	1987	1995	2146	2420	358	35
1500	15	1855	2394	2462	2605	2651	3675	4000	4689	2295	225,1
	7,5	1825	2338	2392	2504	2506	3407	3664	4204	589,6	57,8
2000	20	2546	3285	3377	3571	3622	5019	5459	6391	2996	293,8
	10	2507	3212	3285	3439	3435	4670	5021	5761	766,42	75,2
2500	20	2988	3856	3965	4196	4296	5951	6475	7586	2436	238,9
	10	2936	3760	3845	4023	4047	5491	5899	6755	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0
5000	20	6362	8166	8363	8775	8891	12137	13081	15058	4707	461,6
	10	6252	7963	8109	8409	8363	11161	11860	13303	1192	116,9

CALORIFIERS IN STAINLESS STEEL

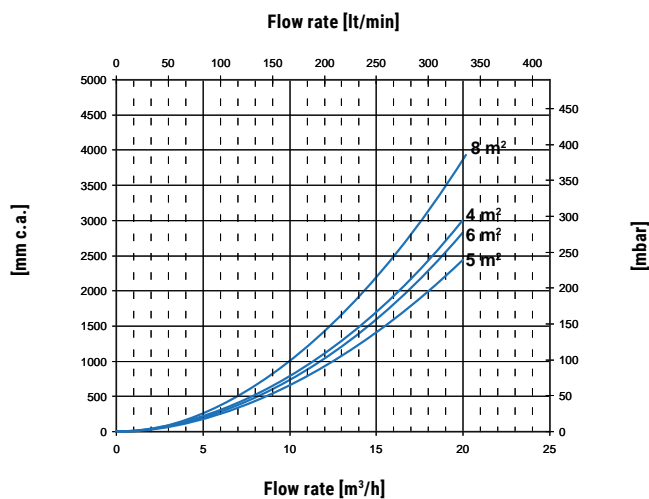
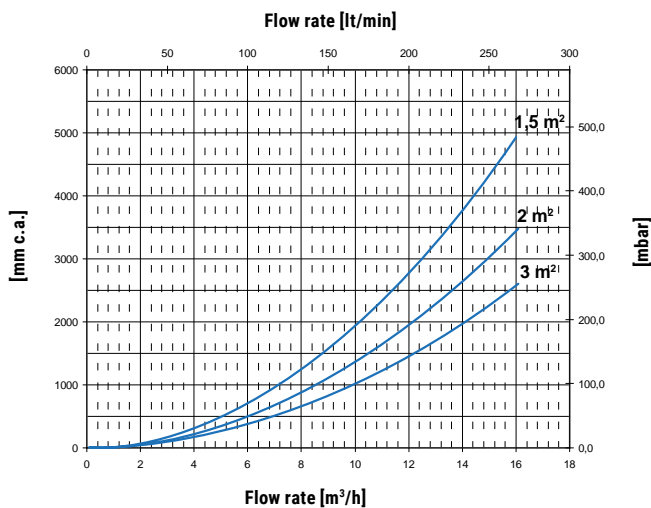
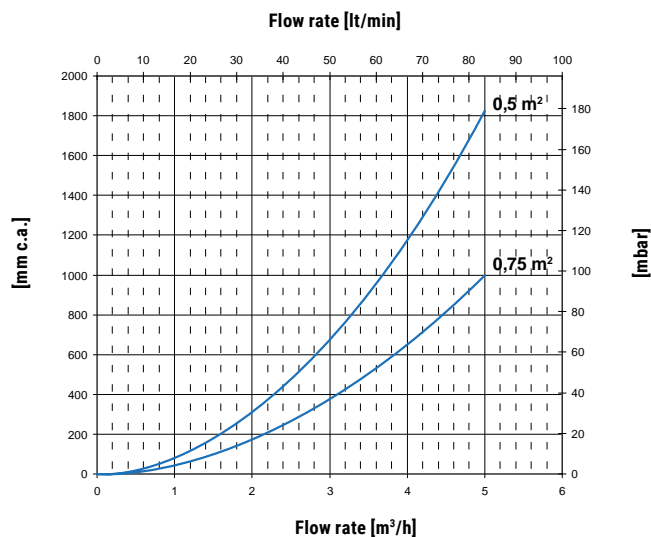
EXTRA 2 INOX

HEAT EXCHANGERS PRESSURE DROP (ANTILEGIONELLA®)



Lower heat exchangers surface
[m²]

200	0,5
300	0,75
500	1,5
800	2
1000	3
1300	3
1500	3
2000	4
2500	5
3000	6
4000	8
5000	10



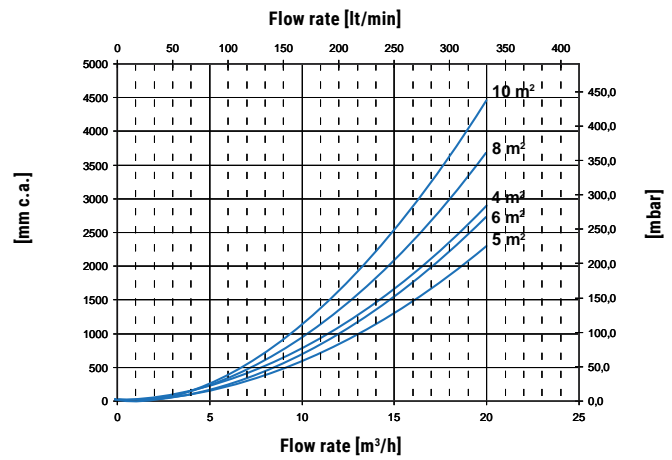
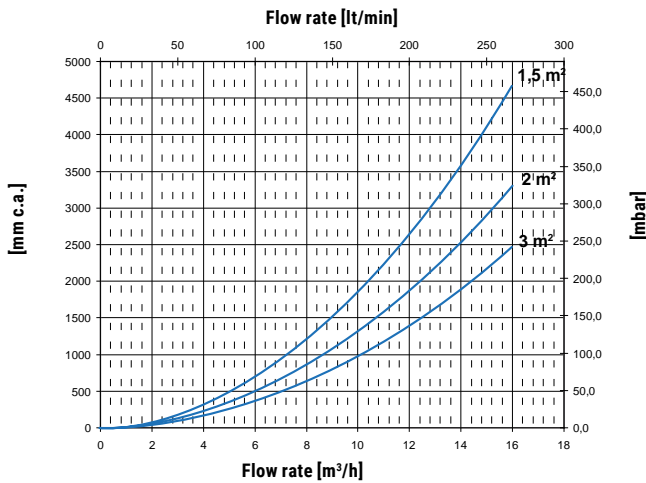
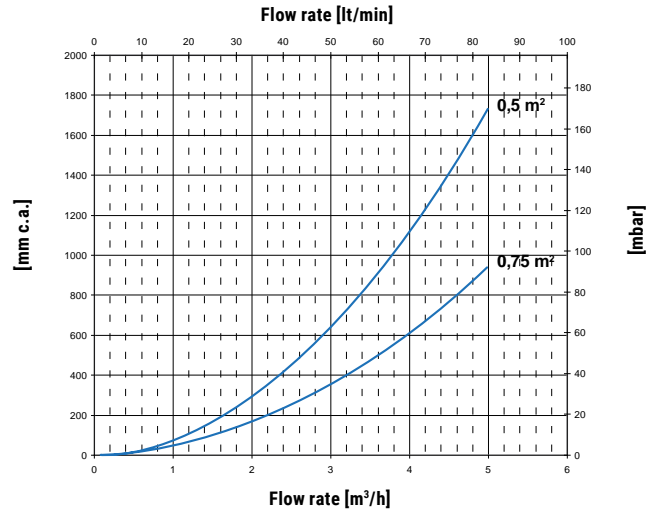
EXTRA 2 INOX

UPPER HEAT EXCHANGERS PRESSURE DROP



Upper heat exchangers surface
[m²]

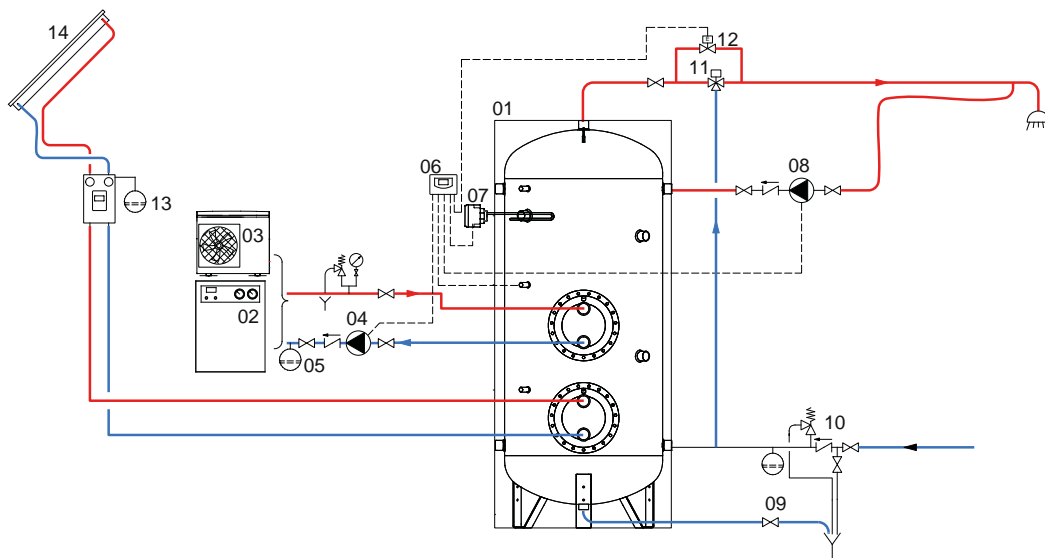
200	0,5
300	0,75
500	1,5
800	2
1000	2
1300	3
1500	3
2000	4
2500	5
3000	6
4000	8
5000	10



CALORIFIERS IN
STAINLESS STEEL

PERFORMANCE CHARTS AT PAGE 38-39

EXAMPLE OF INSTALLATION WITH EXTRA 2 INOX



1 EXTRA 2 INOX	5 Expansion vessel	9 Blowdown valve	13 Solar system circulation group
2 Generator	6 Electronic control /thermostat	10 Hydraulic safety group	14 Solar panels
3 Heat pump generator	7 Electric immersion heater (optional)	11 Thermostatic mixing valve	
4 Circulation group	8 D.H.W. recirculation group	12 By-pass solenoid valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 2 INOX COMPACT

STAINLESS STEEL 316L CALORIFIER, SUITABLE FOR LOW-CEILINGED ROOMS,
WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).
Suitable for low-ceilinged room.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

N° 2 Stainless steel 316L Antilegionella® heat exchangers (upper exchanger is straight and the lower is bent to the bottom)

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

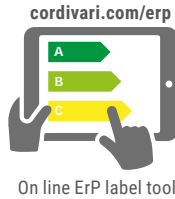
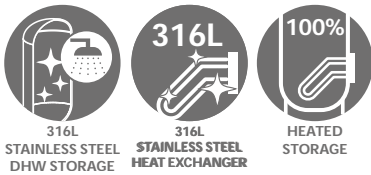
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 2 COMPACT XXC

DISMOUNTABLE SOFT FLEECE INSULATION

HEAT EXCHANGER SURFACE

Model	Art. Nr.	HEAT EXCHANGER SURFACE	
		Lower	Upper
		[m ²]	
2500	3082052300211	5	5
3000	3082052300213	6	6
4000	3082052300215	8	8

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE				
	1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]							
	1428	1071	714	535	428	357	238	178
	1565	1173	782	587	469	391	261	196
	1655	1241	828	621	497	414	276	207

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



EXTRA 2 INOX COMPACT

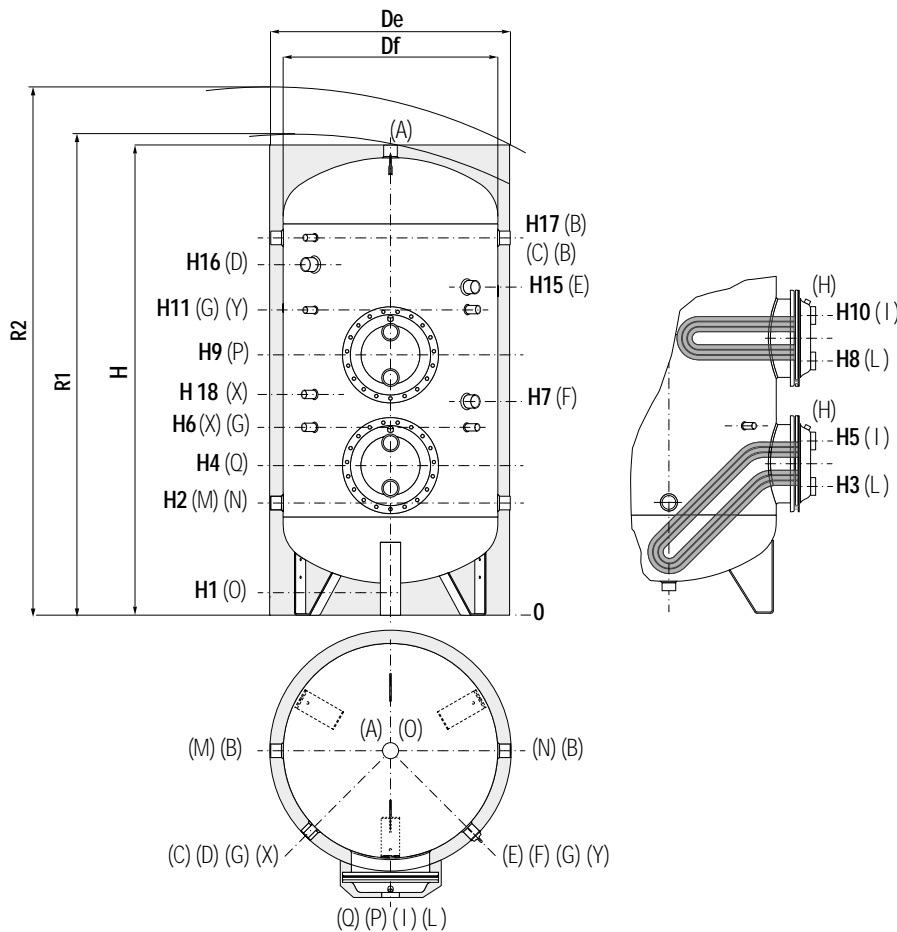
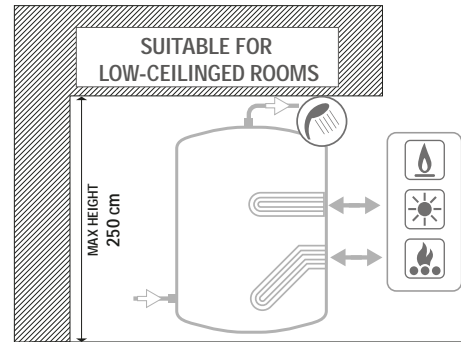
STAINLESS STEEL 316L CALORIFIER, SUITABLE FOR LOW-CEILINGED ROOMS, WITH 2 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet 2" G F
B	Recirculation / Domestic hot water outlet 2" G F
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater 2" G F
E	Connection for 2nd magnesium anode/Titanium electronic anode 1"1/4 G F
F	Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
G	Connection for instrumentation 1/2" G F
H	Heat exchanger drain 3/8" F
I	Primary circuit inlet 2" G F
L	Primary circuit outlet 2" G F
M	Domestic cold water circuit inlet 2" G F
N	Alternative domestic cold water circuit inlet or connection for more tanks 2" G F
O	Drain 1" G F
P	Flange
X	Connection for titanium electronic anode 3/4" G F
Y	Connection for titanium electronic anode 3/4" G F (only 4000)

CALORIFIERS IN STAINLESS STEEL

Model	Volume	Weight	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6
	[lt]	[kg]											
2500	2635	450	1400	1500	2122	2251	2610	117	557	677	782	887	957
3000	3038	472	1500	1600	2131	2276	2670	106	556	736	841	946	956
4000	4002	620	1600	1700	2409	2555	2960	94	564	744	849	954	1024

Model	H7	H8	H9	H10	H11	H12	H15	H16	H17	H18	PQ
	[mm]										
2500	1077	1257	1362	1537	1432	1177	1552	1501	1657	1180	Øi350/Øe430
3000	1076	1256	1361	1466	1431	1176	1551	1500	1656	1180	Øi350/Øe430
4000	1144	1331	1436	1716	1611	1251	1809	1732	1904	1250	Øi350/Øe430

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

EXTRA 2 INOX COMPACT

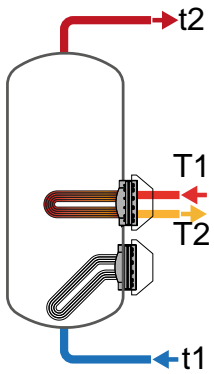
HEAT EXCHANGERS TECHNICAL DATA



Cordivari heat exchangers, with tubes bent to the bottom, are able to heat the complete volume in an homogeneous way.

Energy storing is therefore improved and ignition time data refer to the complete volume of the tank, while in traditional straight heat exchangers equipped calorifires, a range between 9-17% of the volume remains cold.

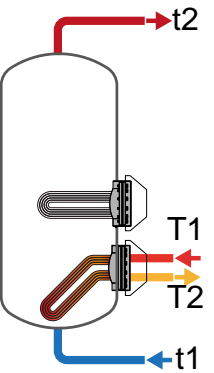
UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
2500	20	118	119	81	51	69	111	133	180	1699	2738	3288	4453
	10	145	146	101	65	59	93	111	148	1465	2302	2741	3665
3000	20	128	127	87	55	100	159	190	255	2461	3926	4694	6321
	10	456	157	110	70	84	130	154	204	2082	3224	3817	5053
4000	20	126	127	87	56	131	207	247	330	3236	5121	6105	8168
	10	159	161	112	73	110	168	198	260	2718	4151	4903	6443

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
2500	20	2927	3761	3852	4046	4003	5495	5935	6867	2436	238,9
	10	2888	3688	3761	3915	3815	5146	5497	6236	624	61,2
3000	20	3748	4827	4955	5226	5307	7314	7928	9230	2836	278,1
	10	3685	4710	4809	5015	5004	6752	7226	8215	723	70,9
4000	20	4842	6232	6396	6740	6892	9475	10263	11913	3896	382,1
	10	4756	6070	6196	6452	6477	8699	9301	10533	989	97,0

LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
2500	20	59	59	40	25	84	134	160	216	2069	3313	3969	5358
	10	71	72	50	32	71	111	131	174	1758	2738	3249	4318
3000	20	71	72	49	31	100	159	190	255	2465	3931	4698	6325
	10	88	89	62	40	84	130	154	204	2086	3229	3821	5057
4000	20	71	72	50	32	131	207	247	330	3242	5126	6112	8179
	10	89	90	63	41	110	168	198	260	2723	4167	4909	6448

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
2500	20	1652	2186	2296	2527	2963	4285	4809	5921	2314	226,9
	10	1600	2091	2176	2354	2714	3825	4233	5089	592	58,1
3000	20	2303	3021	3149	3420	3865	5511	6124	7426	2745	269,2
	10	2240	2904	3003	3209	3561	4949	5423	6411	700	68,6
4000	20	2972	3894	4059	4403	5026	7141	7930	9583	3701	362,9
	10	2886	3735	3858	4115	4610	6374	6967	8198	939	92,1

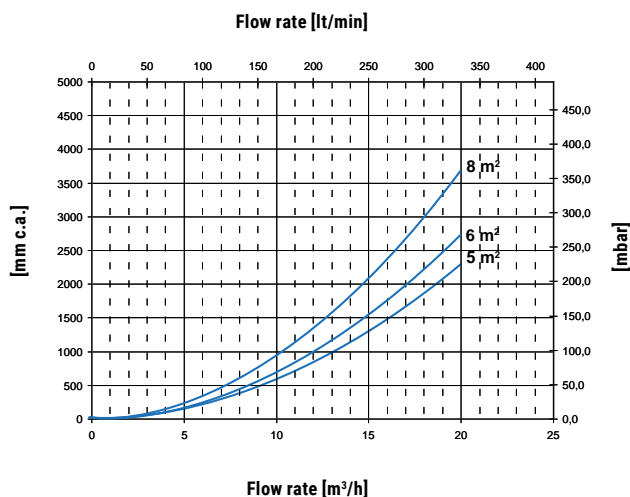
EXTRA 2 INOX COMPACT

UPPER HEAT EXCHANGERS PRESSURE DROP



Upper heat exchangers surface

	[m ²]
2500	5
3000	6
4000	8

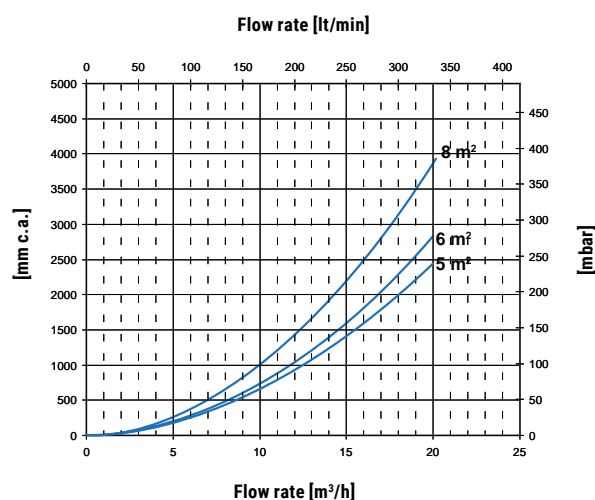


HEAT EXCHANGERS PRESSURE DROP (ANTILEGIONELLA®)



Lower heat exchangers surface

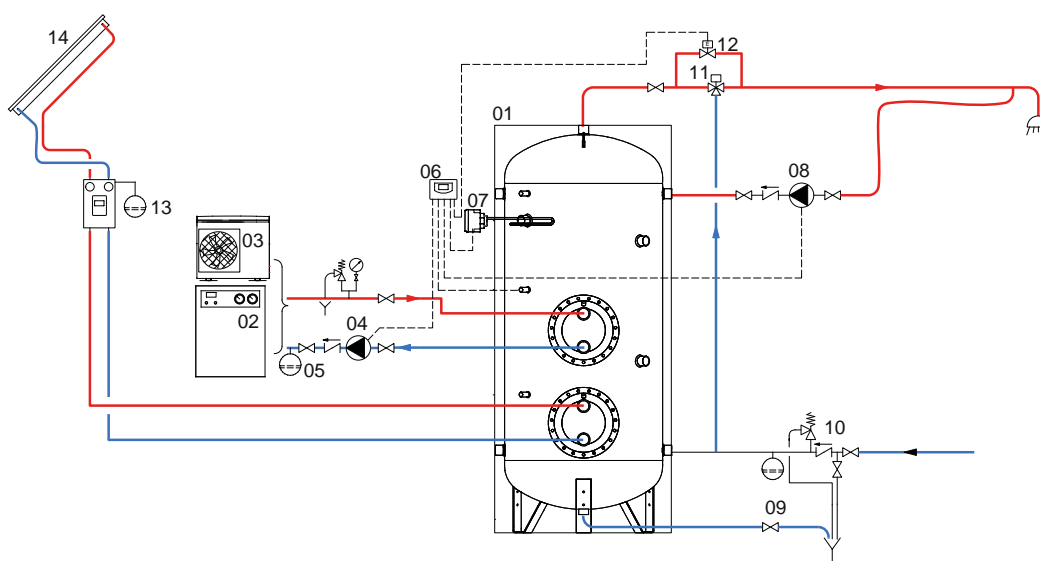
	[m ²]
2500	5
3000	6
4000	8



PERFORMANCE CHARTS AT PAGE 38-39

CALORIFIERS IN
STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH EXTRA 2 INOX COMPACT



1 EXTRA 2 INOX COMPACT	5 Expansion vessel	9 Blowdown valve	13 Solar system circulation group
2 Generator	6 Electronic control /thermostat	10 Hydraulic safety group	14 Solar panels
3 Heat pump generator	7 Electric immersion heater (optional)	11 Thermostatic mixing valve	
4 Circulation group	8 D.H.W. recirculation group	12 By-pass solenoid valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXTRA 1 INOX STEAM

STAINLESS STEEL 316L CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS SPECIFIC FOR STEAM GENERATORS



APPLICATION

Production and storage of domestic hot water. Suitable for steam generators.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

Stainless steel 316L straight heat exchanger suitable for steam power (P.E.D. directive compliant).

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

Asbestos-free fiber gaskets.

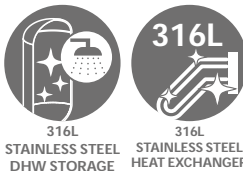
Mild steel exchanger head with anticorrosion treatment.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list



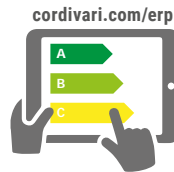
316L
STAINLESS STEEL
DHW STORAGE

316L
STAINLESS STEEL
HEAT EXCHANGER



EXTRA 1 VAPORE XXB

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE [m ²]	ENERGY EFFICIENCY CLASS
500	3069052300123	1	C



On line ErP label tool



EXTRA 1 VAPORE XXC

Model	DISMOUNTABLE SOFT FLEECE insulation	HEAT EXCHANGER SURFACE [m ²]	ENERGY EFFICIENCY CLASS
800	3069052300134	1,5	C
1000	3069052300139	2	C
1300	3069052300136	3	C
1500	3069052300137	3	C
2000	3069052300138	3	C
2500	3069052300109	3	
3000	3069052300111	3	
4000	3069052300113	4	
5000	3069052300115	5	

Heat exchangers for steam generator technical data

Heat exchangers performance calculated with primary circuit at 6 bar saturated steam and production of DHW from 10° to 45°C

Heat exchangers performance calculated with primary circuit at 3 bar saturated steam and production of DHW from 10° to 45°C

Model	PED	6 bar saturated steam				3 bar saturated steam			
		Output	DHW production		Ignition time	Output	DHW production		Ignition time
		[KW]	[l/h]	[l/10']	[min]	[KW]	[l/h]	[l/10']	[min]
500	Art. 4.3	141	3464	1189	9	114	2793	1077	11
800	Cat. I	212	5196	1869	9	171	4189	1701	12
1000	Cat. I	282	6928	2463	9	227	5585	2239	11
1300	Cat. I	423	10393	3340	7	341	8378	3030	9
1500	Cat. I	423	10393	3554	9	341	8378	3218	11
2000	Cat. I	423	10393	4228	12	341	8378	3892	15
2500	Cat. I	423	10393	4571	13	341	8378	4235	17
3000	Cat. I	423	10393	5438	17	341	8378	5102	22
4000	Cat. I	564	13857	7031	17	455	11171	6583	21
5000	Cat. I	705	17321	9097	17	568	13963	8537	22

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



EXTRA 1 INOX STEAM

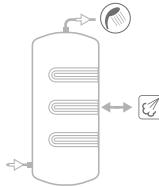
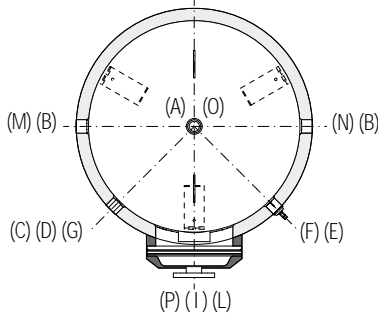
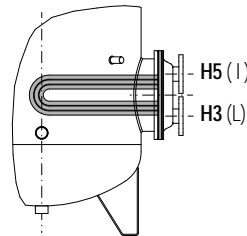
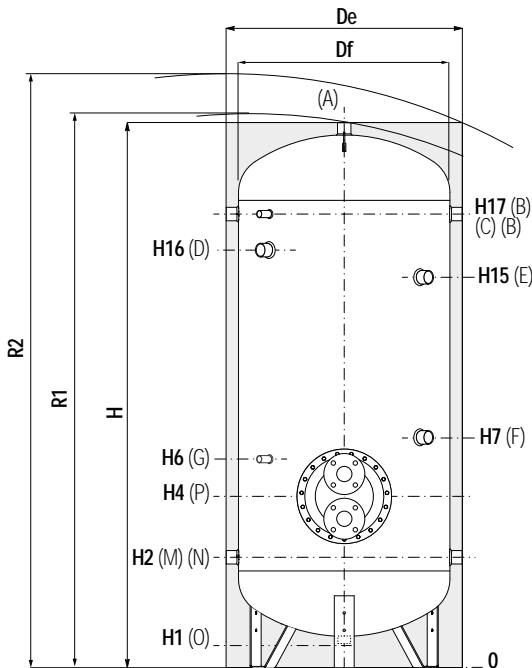
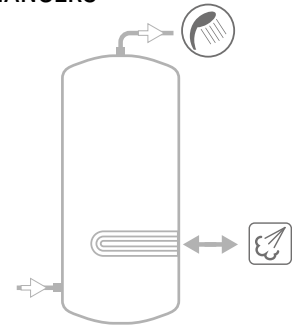
STAINLESS STEEL 316L CALORIFIER WITH 1 EXTRACTABLE STAINLESS STEEL HEAT EXCHANGERS SPECIFIC FOR STEAM GENERATORS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	6 bar	165 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



Models with 2 or 3 heat exchangers are available on request

A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for 2nd magnesium anode/Titanium electronic anode 1" 1/4 G F (only for models > 1500)
F	Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
G	Connection for instrumentation 1/2" G F
I	Steam circuit inlet DN50 PN16
L	Outlet for condense DN50 PN16
M	Domestic cold water circuit inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain
P	Flange

CALORIFIERS IN STAINLESS STEEL

Model	Volume [lt]	Weight [kg]	Df	De	De (vers. XXB)	H	R1	R2	H1	H2	H3	H4
			(vers. XXC)	(vers. XXC)								
500	504	99	//	//	750	1861	2006	2010	141	426	421	511
800	762	139	790	1010	//	1893	2008	2190	113	428	473	563
1000	905	161	790	1010	//	2212	2270	2440	112	437	482	572
1300	1277	204	950	1210	//	2193	2275	2510	118	433	478	568
1500	1403	209	1000	1260	//	2177	2266	2520	112	447	592	682
2000	2024	333	1250	1510	//	2099	2231	2590	134	529	664	754
2500	2320	398	1250	1350	//	2299	2396	2670	134	529	664	754
3000	2925	466	1250	1350	//	2799	2879	3110	134	529	664	754
4000	3776	570	1400	1500	//	2872	2968	3250	117	557	737	842
5000	4995	741	1600	1700	//	2909	3031	3370	94	564	639	789

Model	H5	H6	H7	H15	H16	H17	P	Connections F						
								A	O	B	M	N	D	
500	601	621	811	//	1380	1536	Øi220/Øe300	1"1/4	3/4"	1"1/4	1"1/2			
800	653	713	863	//	1382	1538	Øi300/Øe380	1"1/2	3/4"	1"1/4	1"1/2			
1000	662	722	922	//	1642	1797	Øi300/Øe380	1"1/2	3/4"	1"1/2	2"			
1300	658	718	918	//	1638	1793	Øi300/Øe380	2"	1"	1"1/2	2"			
1500	772	832	982	//	1602	1757	Øi300/Øe380	2"	1"	1"1/2	2"			
2000	844	904	1004	1524	1473	1629	Øi300/Øe380	2"	1"	2"	2"			
2500	844	904	954	1794	1710	1879	Øi300/Øe380	2"	1"	2"	2"			
3000	844	904	1014	2294	2210	2369	Øi300/Øe380	2"	1"	2"	2"			
4000	992	1017	1022	2302	2225	2397	Øi350/Øe430	2"	1"	2"	2"			
5000	939	964	1019	2319	2159	2404	Øi350/Øe430	2"	1"	2"	2"			

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

VASO INERZIALE INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK



APPLICATION

Domestic hot water storage

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.

SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode - Models > 1500 n° N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head (>1000).

WARRANTY

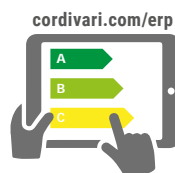
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE



On line ErP label tool



VASO INERZIALE XB

ENERGY
EFFICIENCY
CLASS

HARD FOAM
insulation



Model	Art. Nr.	Energy Efficiency Class
200	3060052140435	B
300	3060052140436	B
500	3060052140437	C



VASO INERZIALE XC

ENERGY
EFFICIENCY
CLASS

DISMOUNTABLE SOFT FLEECE
insulation



Model	Art. Nr.	Energy Efficiency Class
800	3060052140441	C
1000	3060052140443	C
1300	3060052140432	C
1500	3060052140433	C
2000	3060052140434	C
2500	3060052140410	C
3000	3060052140412	C
4000	3060052140414	C
5000	3060052140416	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

200	49
300	76
500	127
800	178
1000	243
1300	274
1500	288
2000	443
2500	577
3000	577
4000	797
5000	1040

MONOPHASE

1,5 kW	2 kW	3 kW
52400000000051	52400000000052	52400000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
87	65	44
136	102	68
228	171	114
318	239	159
436	327	218
450	340	230
516	387	258
793	595	396
1033	775	517
1033	775	517
1428	1071	714
1864	1398	932

THREEPHASE

4 kW	5 kW	6 kW	9 kW	12 kW
52400000000047	52400000000048	52400000000049	52400000000050	52400000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
33	//	//	//	//
51	//	//	//	//
85	68	57	//	//
120	96	80	//	//
163	131	109	73	54
194	155	129	86	65
297	238	198	132	99
387	310	258	172	129
387	310	258	172	129
535	428	357	238	178
699	559	466	311	233
699	559	466	311	233

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



VASO INERZIALE INOX

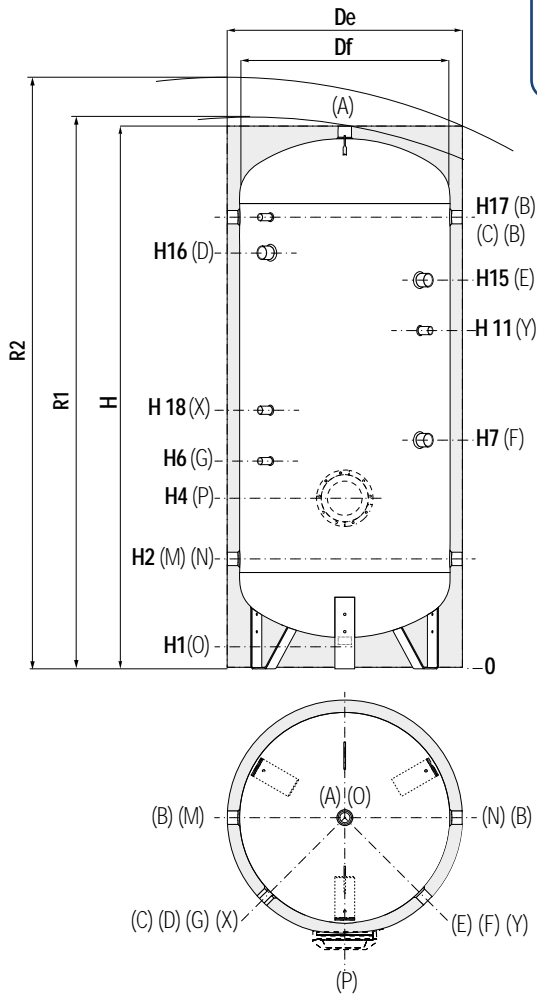
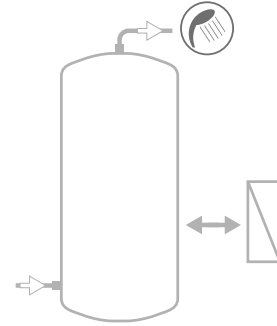
STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK

STORAGE	
Pmax	Tmax
6 bar	95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet
- B** Recirculation / Domestic hot water outlet
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for 2nd magnesium anode/Titanium electronic anode 1"1/4 G F (only for models > 1500)
- F** Connection for magnesium anode/ Titanium electronic anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet
- N** Alternative domestic cold water circuit inlet or connection for more tanks
- O** Drain
- P** Flange (>1000)
- X** Connection for titanium electronic anode 3/4" G F (>1500)
- Y** Connection for titanium electronic anode 3/4" G F (> 3000)

CALORIFIERS IN STAINLESS STEEL

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

Model	Volume [lt]	Weight [kg]	Df (vers. XC) [mm]	De (vers. XC) [mm]	De (vers. XB) [mm]	H	R1	R2	H1	H2	H4	H6	H7
200	191	45	//	//	550	1451	-	1560	81	316	341	511	701
300	293	52	//	//	650	1569	-	1700	149	409	434	604	794
500	502	71	//	//	750	1861	-	2010	141	426	451	621	811
800	760	112	790	1010	//	1943	2040	2190	113	428	483	623	863
1000	902	148	790	1010	//	2212	2300	2440	112	437	492	632	922
1300	1274	151	950	1210	//	2193	2310	2510	118	433	488	628	918
1500	1399	181	1000	1260	//	2177	2310	2520	112	447	502	642	982
2000	2019	220	1250	1510	//	2099	2300	2590	134	529	574	714	1004
2500	2320	269	1250	1350	//	2299	2490	2670	134	529	574	714	954
3000	2925	315	1250	1350	//	2799	2960	3110	134	529	574	714	1014
4000	3776	665	1400	1500	//	2872	3060	3250	117	557	602	742	1022
5000	4995	558	1600	1700	//	2909	3150	3370	94	564	609	749	1019

Model	H11	H15	H16	H17	H18	P
200	//	//	1066	1176	//	//
300	//	//	1159	1269	//	//
500	//	//	1380	1536	//	//
800	//	//	1382	1538	//	//
1000	//	//	1642	1797	//	//
1300	//	//	1638	1793	//	Øi170/Øe240
1500	//	//	1602	1757	//	Øi170/Øe240
2000	//	1524	1473	1629	1159	Øi170/Øe240
2500	//	1794	1710	1879	1179	Øi170/Øe240
3000	//	2294	2210	2369	1279	Øi170/Øe240
4000	1657	2302	2225	2397	1307	Øi170/Øe240
5000	1664	2319	2159	2404	1314	Øi170/Øe240

O	MNB	CG	F	E	D	A
3/4"	1"1/4	1/2"	1"1/4	//	1"1/2	1"1/4
3/4"	1"1/4	1/2"	1"1/4	//	1"1/2	1"1/4
3/4"	1"1/4	1/2"	1"1/4	//	1"1/2	1"1/4
3/4"	1"1/4	1/2"	1"1/4	//	1"1/2	1"1/2
3/4"	1"1/2	1/2"	1"1/4	//	2"	1"1/2
1"	1"1/2	1/2"	1"1/4	//	2"	2"
1"	1"1/2	1/2"	1"1/4	1"1/4	2"	2"
1"	2"	1/2"	1"1/4	1"1/4	2"	2"
1"	2"	1/2"	1"1/4	1"1/4	2"	2"
1"	2"	1/2"	1"1/4	1"1/4	2"	2"
1"	2"	1/2"	1"1/4	1"1/4	2"	2"

VASO STORAGE INOX A1

STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK WITH FIREPROOF INSULATION AND ALUMINIUM EXTERNAL COVER



APPLICATION

Domestic hot water storage.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

INSULATION

Complete fireproof class A1 insulation in compliance with EN 13501, consisting of:

- Glass/rock wool with high thermal insulation
- Removable aluminium cover for models > 2000.

The models 3000-4000-5000 are supplied with non-assembled insulation.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); max temperature up to 200°C. Mild steel inspection flange with Polywarm® coating.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE



SAFE UNLOADING
(from 3000 to 5000)

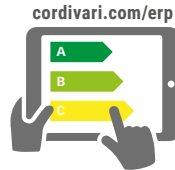


VASO STORAGE A1 X

ENERGY
EFFICIENCY
CLASS



Model	NOT DISMOUNTABLE ALUMINIUM COVER	ErP
	Art. Nr.	
800	3060052140330	C
1000	3060052140335	C
1500	3060052140332	C
2000	3060052140333	C



On line ErP label tool



VASO STORAGE A1 X

DISMOUNTABLE
ALUMINIUM COVER

Model	Art. Nr.
2500	3060052140310
3000	3060052140312
5000	3060052140315



VASO STORAGE A1 X COMPACT

REMOVABLE
ALUMINIUM COVER

Compact models	Model	Art. Nr.
	2500	3060052140311
3000	3060052140313	
4000	3060052140314	

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

800	640
1000	718
1500	1031
2000	1345
2500	1652
3000	2266
4000	2810
5000	3814

	5 kW	6 kW	9 kW	12 kW
	5240000000048	5240000000049	5240000000050	5240000000031
Heating time with electric resistances from 10 °C to 60 °C [min]				
	447	372	248	-
	501	418	278	209
	719	600	400	300
	939	782	521	391
	1153	961	640	480
	1581	1318	878	659
	1961	1634	1089	817
	2661	2218	1479	1109

VASO STORAGE INOX A1

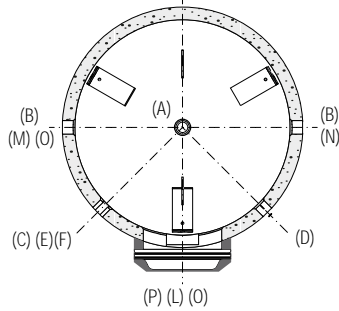
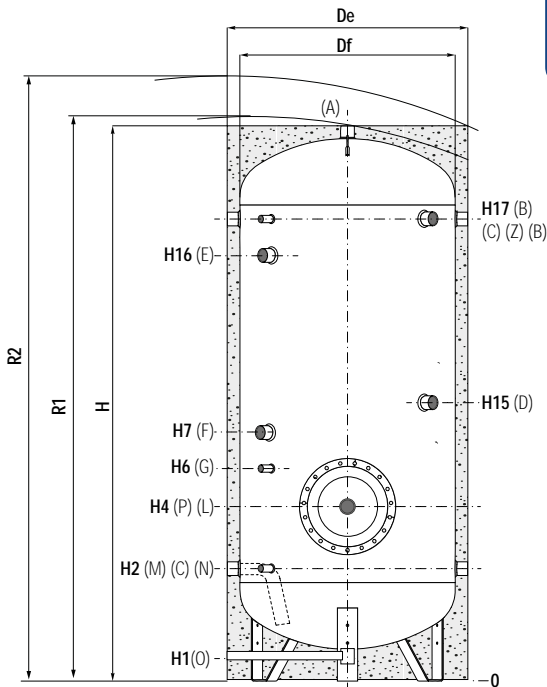
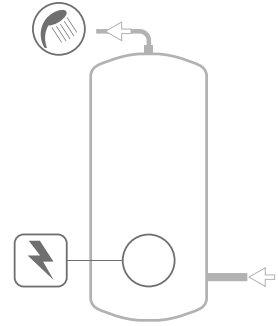
STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK WITH FIREPROOF INSULATION AND ALUMINIUM EXTERNAL COVER

STORAGE	
Pmax	Tmax
7 bar	95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

- A** Domestic hot water outlet
- B** Backflow external heat exchanger / Recirculation
- C-G** Connection for instrumentation 1/2" G F
- D-L** Connection for electric immersion heater
- E** Connection for 2nd magnesium anode 1" 1/4 G F (Models >1500)
- F** Connection for magnesium anode 1" 1/4 G F
- M** Domestic cold water circuit inlet
- N** Delivery to external heat exchanger
- O** Drain
- P** Blind flange for inspection
- Z** Connection for electric immersion heater 1/2" G F

CALORIFIERS IN STAINLESS STEEL

Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H1	H2	H4
800	793	161	750	950	2188	//	2390	89	433	568
1000	112	191	790	990	2188	//	2430	84	437	722
1500	1427	312	1000	1200	2228	//	2530	74	447	732
2000	2017	374	1250	1450	2111	//	2560	96	529	804
2500	2319	443	1250	1450	2361	2670	2770	96	529	804
3000	2925	477	1250	1450	2861	3120	3210	96	529	804
5000	4995	755	1600	1800	2965	3370	3470	56	564	839
Compact models										
2500	2635	469	1400	1600	2175	2590	2700	79	557	832
3000	3039	515	1500	1700	2190	2660	2770	106	556	831
4000	4002	648	1600	1800	2465	2940	3050	56	564	839

Model	H6	H7	H15	H16	H17	P	O	M-N-B	D-L	A
	[mm]						Connections F			
800	718	1018	1118	//	1793	Øi300/Øe380	1"1/4	1"1/4	1"1/2	1"1/4
1000	922	1122	1222	//	1743	Øi430/Øe512	1"1/2	1"1/2	2"1/2	1"1/2
1500	932	1132	1232	//	1807	Øi430/Øe512	1"	1"1/2	2"1/2	2"
2000	1004	1154	1264	1469	1619	Øi430/Øe512	1"	2"	2"1/2	2"
2500	1004	1199	1299	1644	1869	Øi430/Øe512	1"	2"	2"1/2	2"
3000	1004	1354	1454	2144	2369	Øi430/Øe512	1"	2"	2"1/2	2"
5000	1039	1339	1459	2179	2404	Øi430/Øe512	1"	2"	2"1/2	2"
Compact models										
2500	1032	1182	1282	1507	1657	Øi430/Øe512	1"	2"	2"1/2	2"
3000	1031	1181	1281	1506	1656	Øi430/Øe512	1"	2"	2"1/2	2"
4000	1039	1189	1309	1764	1914	Øi430/Øe512	1"	2"	2"1/2	2"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

VASO INERZIALE INOX COMPACT

STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK
SUITABLE FOR LOW-CEILINGED ROOMS



APPLICATION

Domestic hot water storage.
Suitable for low-ceilinged room.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

INSULATION (DISMOUNTABLE)

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

N° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



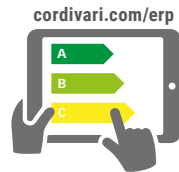
316L
STAINLESS STEEL
DHW STORAGE



VASO STORAGE COMPACT XC

DISMOUNTABLE SOFT FLEECE INSULATION

Model	Art. Nr.
2500	3060052140411
3000	3060052140413
4000	3060052140415



On line ErP label tool

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE				
	1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
2500	797	1428	1071	535	428	357	238	178
3000	874	1565	1173	587	469	391	261	196
4000	924	1655	1241	621	497	414	276	207

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode (for stainless steel calorifiers)

See Accessories section



VASO INERZIALE INOX COMPACT

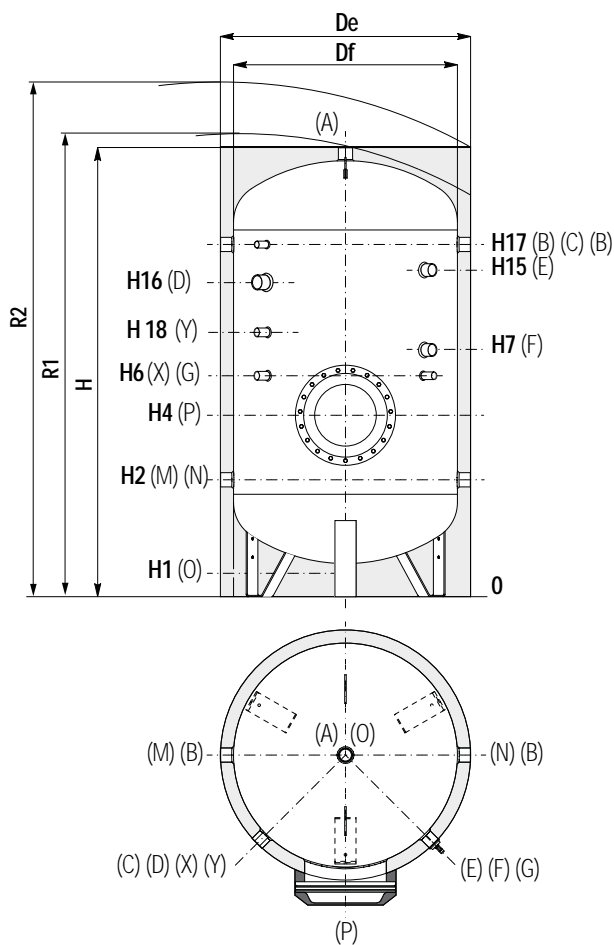
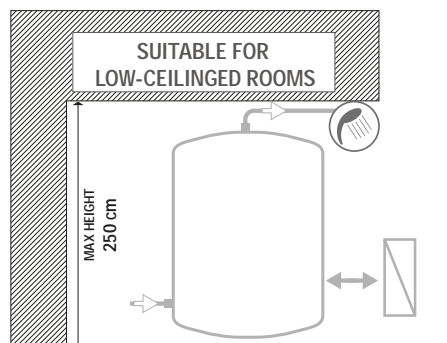
STAINLESS STEEL 316L DOMESTIC HOT WATER ACCUMULATION TANK
SUITABLE FOR LOW-CEILINGED ROOMS

STORAGE	
P _{max}	T _{max}
6 bar	95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet 2" G F
- B** Recirculation / Domestic hot water outlet 2" G F
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater 2" G F
- E** Connection for 2nd magnesium anode/Titanium electronic anode 1" 1/4 G F
- F** Connection for magnesium anode/Titanium electronic anode 1" 1/4 G F
- G** Connection for instrumentation 1/2" G F
- M** Domestic cold water circuit inlet 2" G F
- N** Alternative domestic cold water circuit inlet or connection for more tanks 2" G F
- O** Drain 1" G F
- P** Flange
- X** Connection for titanium electronic anode 3/4" G F
- Y** Connection for titanium electronic anode 3/4" G F (Only 4000)

COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

CALORIFIERS IN STAINLESS STEEL

Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H1	H2	H4	H6	H7
[mm]												
2500	2635	269	1400	1500	2122	2542	2600	117	557	602	742	982
3000	3038	315	1500	1600	2131	2606	2670	106	556	601	741	981
4000	4002	665	1600	1700	2409	2892	2950	94	564	609	749	1029

Model	H15	H16	H17	H18	P
[mm]					
2500	1552	1501	1657	//	Ø1170/Øe240
3000	1551	1500	1656	//	Ø1170/Øe240
4000	1809	1732	1904	1261	Ø1170/Øe240

BOLLY® 1 ST INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

1 Fixed stainless steel 316L heat exchanger

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode - Models > 800 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

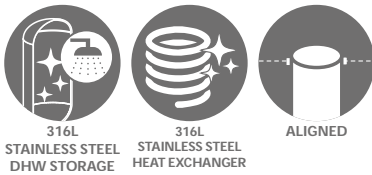
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head.

WARRANTY

5 years (See general sales conditions and warranty)

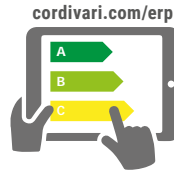
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L STAINLESS STEEL DHW STORAGE 316L STAINLESS STEEL HEAT EXCHANGER

ALIGNED



On line ErP label tool



BOLLY® 1 ST XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
200	3104052010002	0,7	B
300	3104052010003	1	B
400	3104052010004	1,4	C
500	3104052010005	1,7	C



BOLLY® 1 ST XC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS ErP
1000	3103052010282	2,9	C
1500	3103052010283	3,6	C
2000	3103052010284	3,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
150	46	82	62
200	53	95	71
300	83	148	111
400	138	247	185
500	150	269	202
800	279	500	375
1000	381	682	511
1500	640	1147	860
2000	919	1646	1235

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
31	//	//	//	//
36	//	//	//	//
56	45	//	//	//
93	74	//	//	//
101	81	67	//	//
188	150	125	83	63
256	205	170	114	85
430	344	287	191	143
617	494	412	274	206

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 1 ST INOX

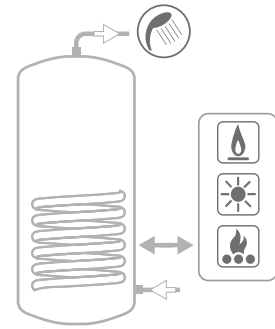
STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C

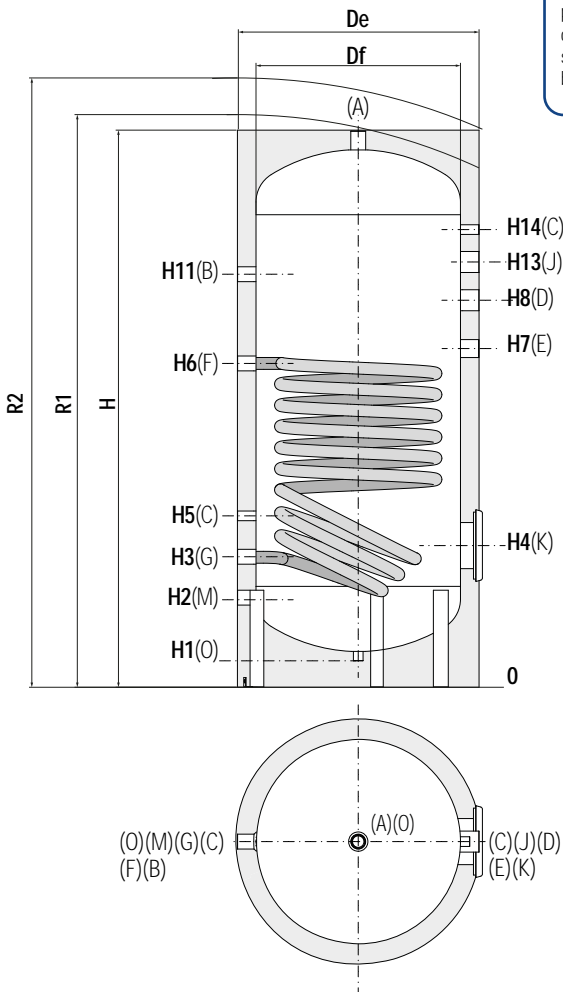


CORDIVARI® Lab

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- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1"1/4 G F
- F** Primary circuit inlet 1" G F
- G** Primary circuit outlet 1" G F
- J** Connection for 2nd magnesium anode 1"1/4 G F (Models > 800)
- K** Flange for inspection
- M** Domestic cold water circuit inlet
- O** Drain



CALORIFIERS IN STAINLESS STEEL

BOLLY® 1 ST INOX - HARD FOAM INSULATION (XB)

Model	Volume	Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H11	H14
	[lt]	[kg]														
150	150	31	400	500	1420	1510	65	200	310	310	420	799	830	960	1060	1180
200	192	35	450	550	1440	1540	65	210	320	320	430	847	880	1010	1094	1200
300	293	56	550	650	1495	1638	70	240	350	380	460	870	910	1040	1110	1230
400	425	73	600	700	1770	1907	65	250	360	390	470	1010	1040	1170	1325	1480
500	503	81	650	750	1796	1950	65	260	370	405	480	1060	1090	1220	1335	1490

Model	A	B	C	D	E	F	G	K	M	O
	Connections F									
150	1"	3/4"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	3/4"	1/2"
200	1"	3/4"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	3/4"	1/2"
300	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"
400	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"
500	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	Øi120/Øe180	1"	1/2"

BOLLY® 1 ST INOX - DISMOUNTABLE SOFT FLEECE (XC)

Model	Volume	Weight	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H11	H13	H14
	[lt]	[kg]																
800	759	140	790	990	1943	1968	2185	114	323	443	473	563	998	1033	1193	1413	//	1563
1000	902	160	790	990	2193	2231	2415	114	318	443	473	563	996	1047	1233	1493	1683	1813
1500	1398	238	1000	1240	2197	2260	2530	114	327	462	492	582	1012	1042	1182	1432	1652	1782
2000	2018	346	1250	1470	2070	2204	2555	85	350	485	515	605	939	965	1105	1305	1485	1605

Model	A	B	C	D	E	F	G	J	K	M	O
	Connections F										
800	1"1/4"	1"	1/2"	1"1/2"	1"1/4"	1"1/4"	1"1/4"	//	Øi120/Øe180	1"	3/4"
1000	1"1/4"	1"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi120/Øe180	1"	3/4"
1500	2"	2"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi170/Øe240	2"	1"
2000	2"	2"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	Øi170/Øe240	2"	1"

BOLLY® 1 ST INOX

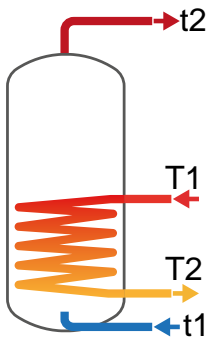
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

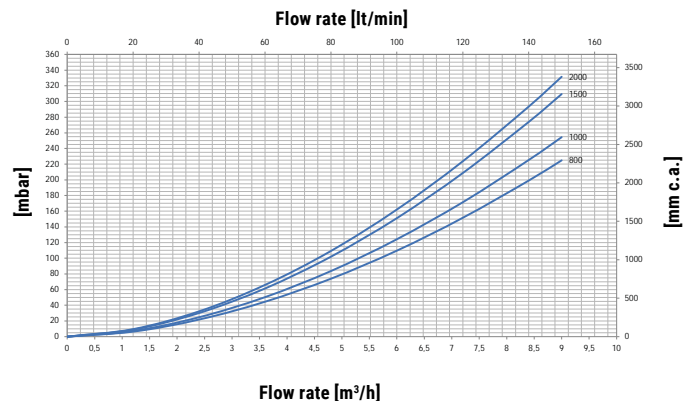
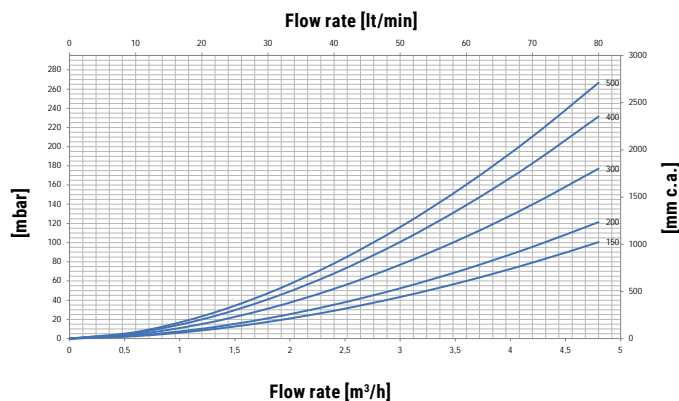
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	112	118	79	50	5,3	6,6	8,5	12,0	108	110	142	203
	1	128	135	89	57	4,9	6,2	7,9	11,0	100	102	131	185
200	2,5	111	116	79	51	6,7	8,4	10,8	15,2	139	141	182	259
	1,25	124	131	88	57	6,3	7,9	10,1	14,0	130	132	169	238
300	3	108	112	78	50	10,3	13,0	16,7	23,4	218	221	285	403
	1,5	121	127	87	57	9,7	12,3	15,6	21,6	206	209	266	371
400	3,5	115	120	83	55	13,9	17,6	22,5	31,5	297	301	386	544
	1,75	130	136	95	62	13,2	16,6	21,0	29,0	280	284	361	501
500	3,5	118	123	86	56	16,2	20,4	26,0	36,4	345	350	449	630
	1,75	135	141	99	65	15,2	19,3	24,3	33,4	325	330	418	577
800	6	121	126	89	58	23,3	29,3	37,4	52,2	500	506	647	906
	3	136	142	100	66	22,0	27,8	35,1	48,3	473	480	607	837
1000	6	127	132	93	61	26,6	33,4	42,6	59,3	571	578	738	1031
	3	144	150	106	70	25,1	31,7	39,8	54,6	539	547	690	948
1500	6	163	169	120	79	32,6	41,1	52,1	72,4	703	711	905	1259
	3	187	195	139	92	30,7	38,7	48,5	66,1	660	671	842	1149
2000	6	220	229	162	107	35,0	44,1	56,0	77,5	755	765	972	1349
	3	254	265	189	126	32,9	41,6	52,0	70,6	709	720	902	1228

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	188	231	237	247	257	258	284	333	213	21
	1	187	230	235	244	250	252	275	318	62	6
200	2,5	241	296	303	316	329	331	364	425	413	40
	1,25	240	295	301	313	322	324	353	409	120	12
300	3	371	455	466	486	509	512	563	657	782	77
	1,5	369	453	463	480	500	502	548	632	229	23
400	3,5	535	657	671	698	723	727	795	921	1345	132
	1,75	532	654	667	691	710	713	775	887	395	39
500	3,5	632	777	793	824	851	855	934	1079	1551	152
	1,75	629	774	788	815	835	839	909	1036	456	45
800	6	951	1169	1192	1235	1267	1272	1385	1592	1118	110
	3	946	1164	1185	1224	1246	1251	1353	1537	328	32
1000	6	1126	1385	1412	1460	1488	1493	1621	1856	1266	124
	3	1121	1380	1404	1447	1462	1468	1583	1789	375	36
1500	6	1715	2116	2148	2207	2160	2167	2322	2605	1542	151
	3	1708	2109	2137	2189	2126	2135	2271	2517	454	45
2000	6	2432	3010	3045	3108	2910	2918	3084	3385	1653	162
	3	2424	3003	3033	3088	2873	2882	3028	3289	487	48

HEAT EXCHANGERS PRESSURE DROP

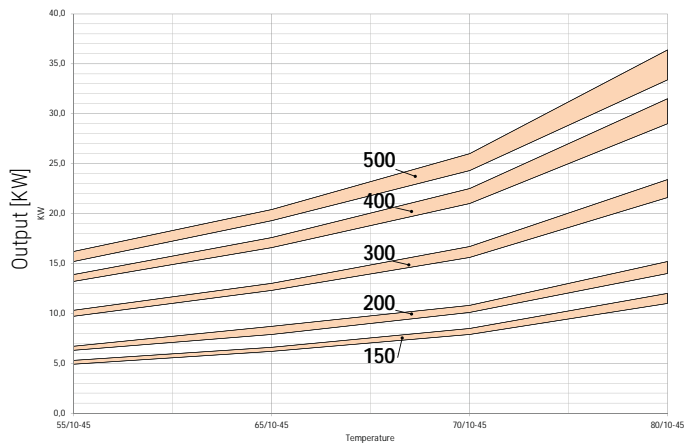


BOLLY® 1 ST INOX

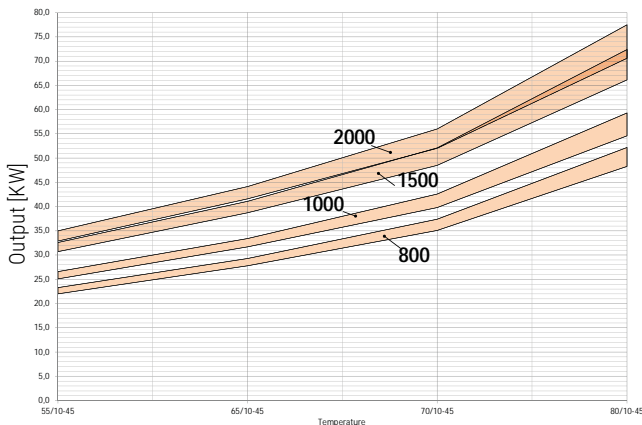
HEAT EXCHANGERS TECHNICAL DATA



Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).



Primary circuit temperature [°C]



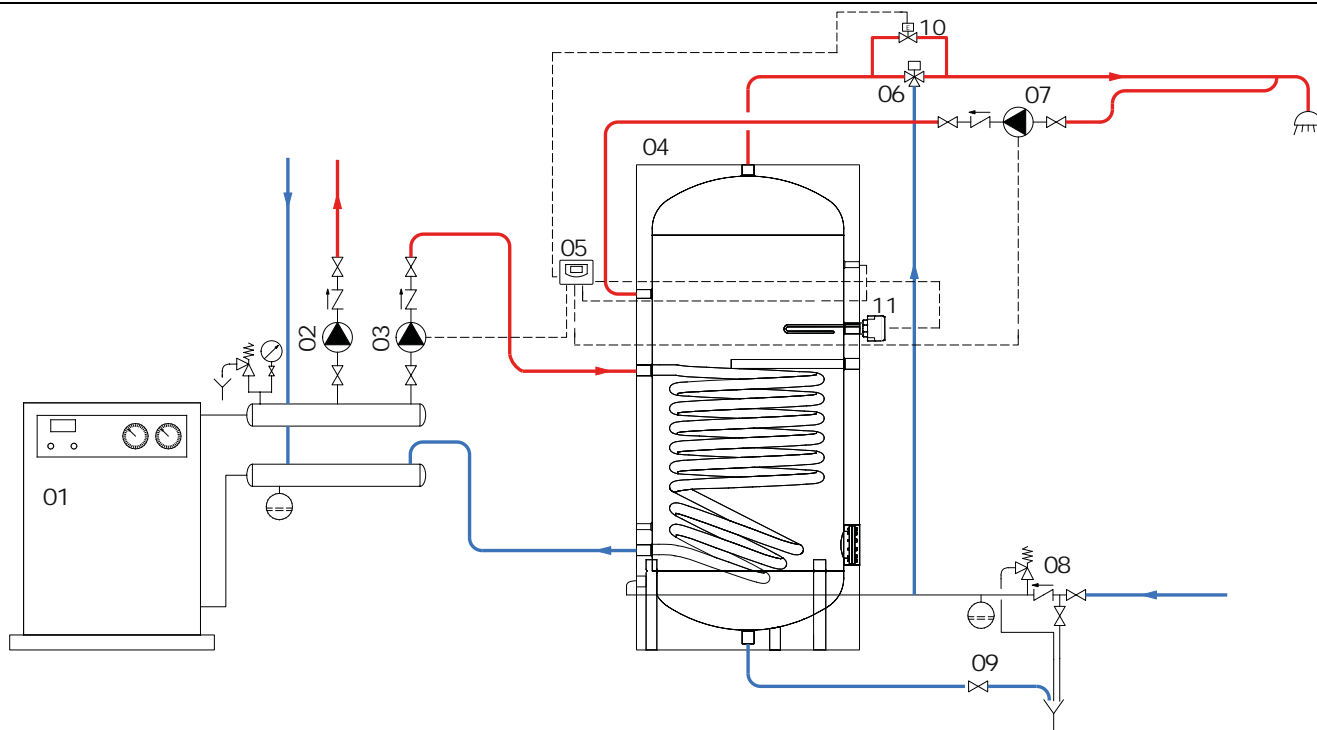
Primary circuit temperature [°C]

MODEL	150		200		300		400		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

MODEL	800		1000		1500		2000	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	6	3	6	3	6	3	6	3

CALORIFIERS IN STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH BOLLY® 1 ST INOX



01	Generator	04	BOLLY® 1 ST INOX	07	D.H.W. recirculation group	10	By-pass solenoid valve
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group	11	Electric immersion heater (optional)
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 ST INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).
All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

2 fixed stainless steel 316L heat exchanger

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode - Models > 800 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

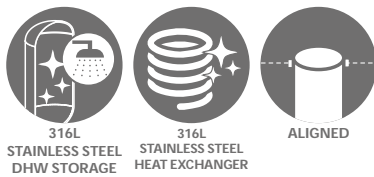
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head.

WARRANTY

5 years (See general sales conditions and warranty)

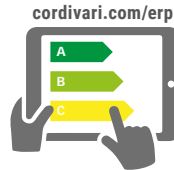
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L STAINLESS STEEL DHW STORAGE
316L STAINLESS STEEL HEAT EXCHANGER

ALIGNED



On line ErP label tool

BOLLY® 2 ST XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
150	3134052010200	0,4	0,6	B
200	3134052010201	0,5	0,7	B
300	3134052010202	0,7	1	B
400	3134052010203	1,1	1,4	C
500	3134052010204	1,2	1,7	C

BOLLY® 2 ST XC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
800	3138052010200	1,6	2,4	C
1000	3138052010201	1,7	2,9	C
1500	3138052010202	2,1	3,6	C
2000	3138052010203	2,3	3,8	C

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
150	55	98	73
200	65	117	88
300	113	203	152
400	171	307	230
500	188	337	253
800	279	500	375
1000	381	682	511
1500	640	1147	860
2000	919	1646	1235

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
37	//	//	//	//
44	//	//	//	//
76	61	//	//	//
115	92	//	//	//
126	101	84	//	//
188	150	125	83	63
256	205	170	114	85
430	344	287	191	143
617	494	412	274	206

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

Titanium electronic anode

For art. nr. and prices please see Accessories section

BOLLY® 2 ST INOX

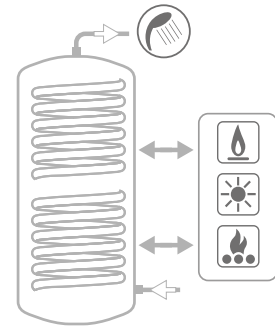
STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C

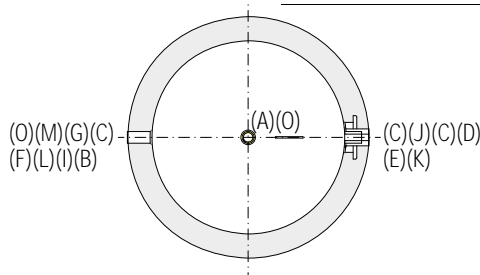
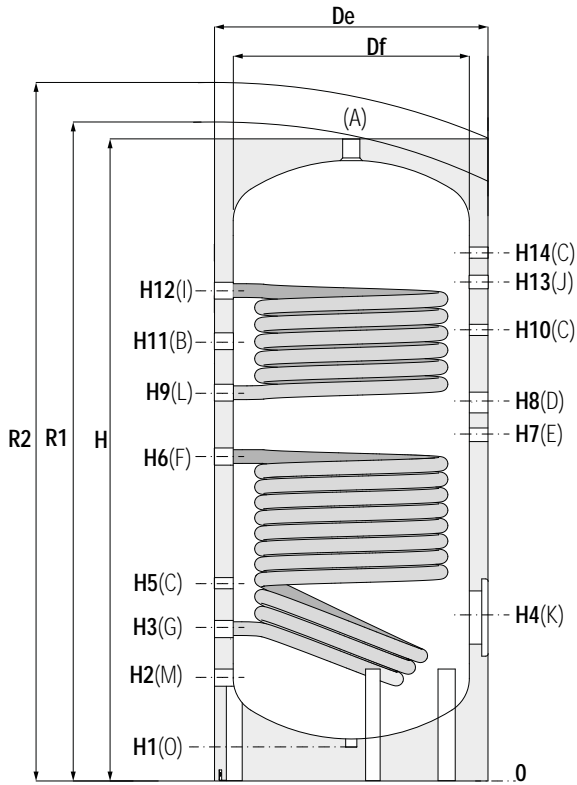


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1 1/4 G F
- F** Lower heat exchanger inlet 1" G F
- G** Lower heat exchanger outlet 1" G F
- J** Connection for 2nd magnesium anode 1 1/4 G F (Models > 800)
- K** Flange for inspection
- M** Domestic cold water circuit inlet
- L** Upper heat exchanger outlet 1 1/4 G F
- I** Upper heat exchanger inlet 1 1/4 G F
- O** Drain



BOLLY® 2 ST INOX - HARD FOAM INSULATION (XB)

Model	Volume [lt]	Weight [kg]	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H14
150	150	35	400	500	1420	1510	65	200	310	340	480	718	750	890	935	1030	1060	1180	1180
200	192	43	450	550	1440	1540	65	210	320	310	430	788	810	930	962	1070	1094	1200	1200
300	293	69	550	650	1495	1638	70	240	350	380	460	755	780	910	957	1050	1110	1230	1230
400	425	85	600	700	1770	1907	65	250	360	390	470	895	925	1050	1082	1190	1325	1469	1480
500	503	99	650	750	1796	1950	65	260	370	400	480	923	970	1105	1155	1268	1335	1479	1490

Model	A	B	C	D	E	Connections F									
						[mm]									
150	1"	3/4"	1/2"	1 1/2"	1 1/4"	1"	1"	3/4"	1/2"	1"	1"	Øi120/Øe180			
200	1"	3/4"	1/2"	1 1/2"	1 1/4"	1"	1"	3/4"	1/2"	1"	1"	Øi120/Øe180			
300	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	Øi120/Øe180			
400	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	Øi120/Øe180			
500	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	Øi120/Øe180			

BOLLY® 2 ST INOX - DISMOUNTABLE SOFT FLEECE (XC)

Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14
800	759	156	790	990	1943	1968	2185	114	323	443	473	563	998	1033	1193	1413	1339	1413	1563	//	1563
1000	902	193	790	990	2193	2231	2415	114	318	443	473	563	996	1043	1233	1333	1412	1493	1633	1683	1813
1500	1398	271	1000	1240	2197	2260	2530	114	327	462	492	582	1012	1042	1182	1217	1381	1432	1637	1652	1782
2000	2018	381	1250	1470	2070	2204	2555	85	350	485	515	605	939	965	1105	1155	1258	1305	1455	1485	1605

Model	A	B	C	D	E	Connections F										
						[mm]										
800	1 1/4"	1"	1/2"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	//	Øi120/Øe180				1"	3/4"	1 1/4"	1 1/4"
1000	1 1/4"	1"	1/2"	2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Øi120/Øe180				1"	3/4"	1 1/4"	1 1/4"
1500	2"	2"	1/2"	2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Øi170/Øe240				2"	1"	1 1/4"	1 1/4"
2000	2"	2"	1/2"	2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Øi170/Øe240				2"	1"	1 1/4"	1 1/4"

CALORIFIERS IN STAINLESS STEEL

BOLLY® 2 ST INOX

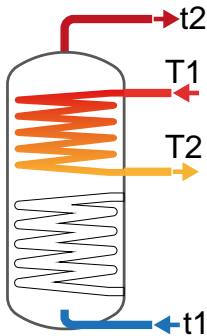
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
150	2	57	62	38	24	3,3	4,2	5,4	7,6	66	67	87	126
	1	65	70	43	27	3,1	3,9	5,0	7,0	61	62	81	116
200	2,5	47	49	32	21	4,9	6,2	7,9	11,2	100	101	132	189
	1,25	52	55	36	23	4,6	5,8	7,4	10,4	94	95	123	175
300	3	50	52	35	23	6,8	8,5	10,9	15,4	140	142	185	263
	1,5	55	58	39	25	6,4	8,1	10,3	14,4	133	135	173	245
400	3,5	57	59	41	26	10,2	12,8	16,4	23,1	214	217	280	397
	1,75	63	66	45	29	9,6	12,2	15,5	21,5	203	206	264	369
500	3,5	54	56	39	25	11,2	14,1	18,1	25,4	237	240	310	438
	1,75	60	63	43	28	10,6	13,4	17,0	23,6	224	228	291	406
800	6	60	62	43	28	15,0	18,9	24,2	34,0	320	324	416	588
	3	65	68	48	31	14,3	18,0	22,9	31,8	305	309	394	550
1000	6	49	51	36	23	15,7	19,7	25,2	35,4	334	338	435	613
	3	54	57	40	26	14,9	18,8	23,9	33,1	318	322	411	573
1500	6	82	85	60	39	19,6	24,7	31,6	44,2	421	425	545	766
	3	91	95	67	44	18,6	23,5	29,7	41,1	399	404	513	711
2000	6	98	101	71	47	21,5	27,0	34,5	48,2	460	466	596	836
	3	109	114	80	53	20,3	25,7	32,4	44,7	436	442	560	775

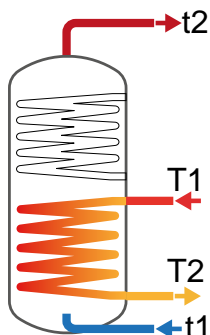
Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
150	2	62	75	79	85	104	105	121	152	146	14
	1	62	75	78	84	100	101	116	144	42	4
200	2,5	83	100	105	114	146	147	172	217	295	29
	1,25	82	99	103	112	141	142	165	206	85	8
300	3	124	149	157	170	213	214	249	311	533	52
	1,5	123	148	155	167	207	209	239	297	155	15
400	3,5	211	255	265	285	346	348	399	492	1002	98
	1,75	209	253	263	280	337	340	386	470	293	29
500	3,5	224	270	282	303	374	376	432	534	1096	107
	1,75	221	268	279	298	363	366	417	509	321	31
800	6	331	401	416	445	534	537	611	748	749	73
	3	329	399	413	439	522	525	593	718	218	21
1000	6	296	356	373	402	507	510	588	730	777	76
	3	293	354	369	396	494	498	569	698	227	22
1500	6	566	691	711	748	833	836	932	1109	954	94
	3	563	687	706	739	815	819	906	1065	279	27
2000	6	722	885	906	946	1014	1019	1123	1315	1036	102
	3	718	881	900	936	995	999	1094	1266	304	30



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

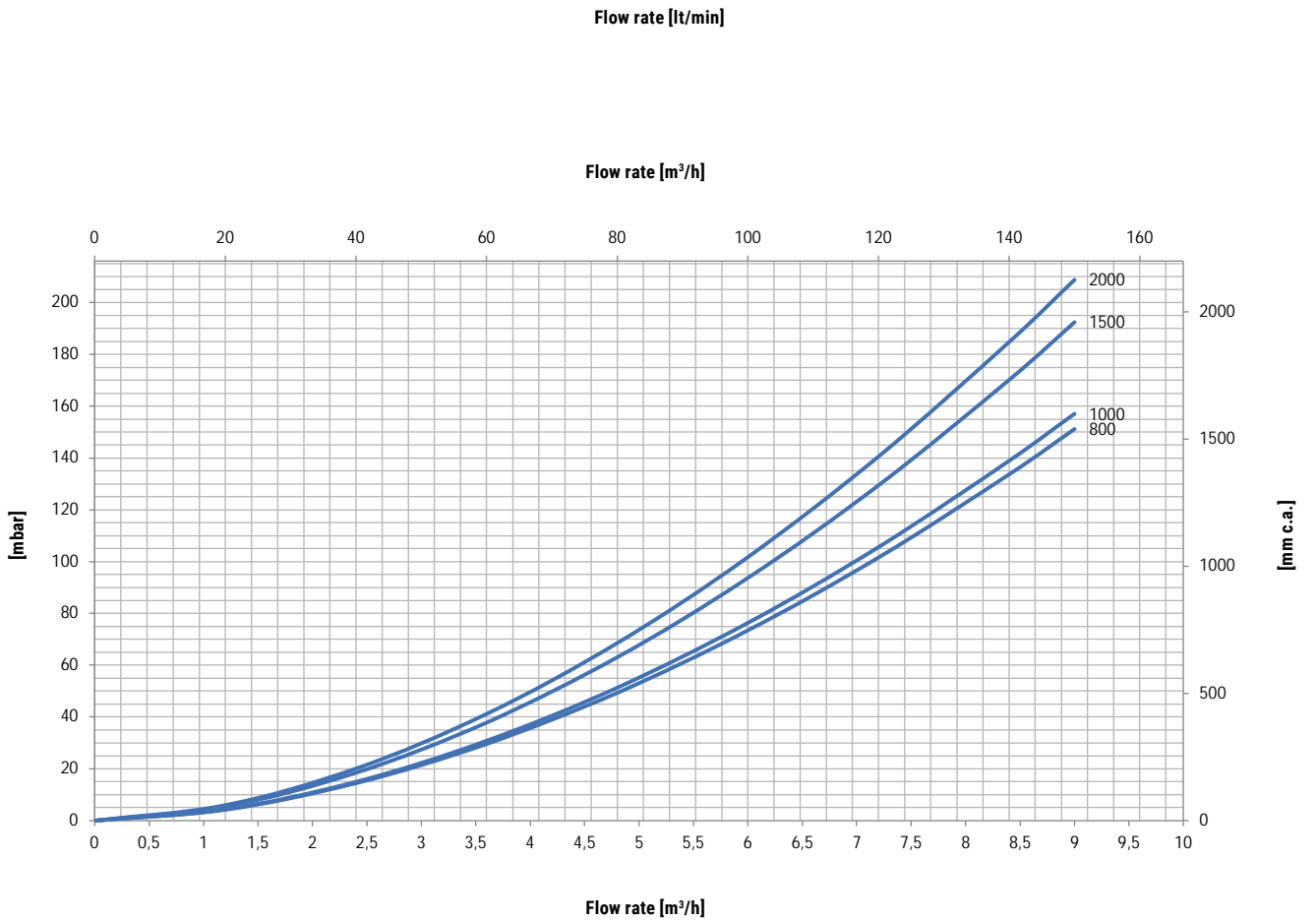
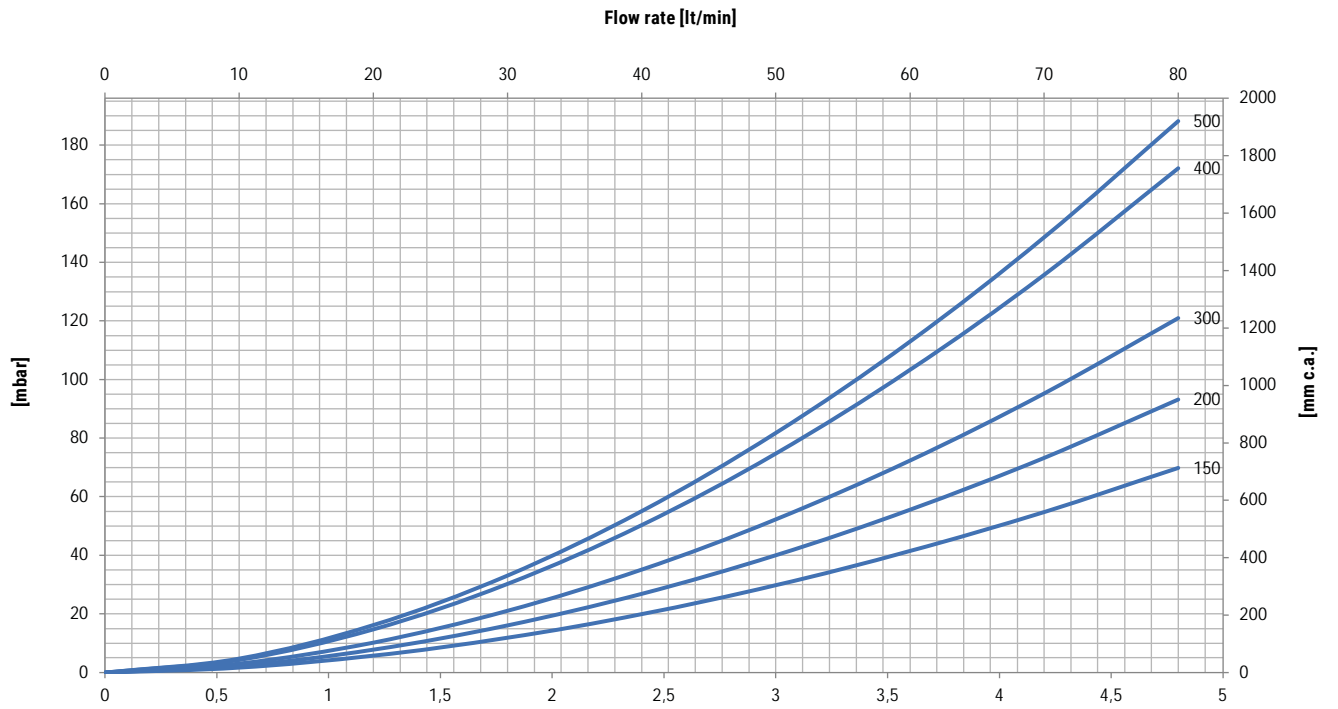
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	112	118	79	50	5,3	6,6	8,5	12,0	108	110	142	203
	1	128	135	89	57	4,9	6,2	7,9	11,0	100	102	131	185
200	2,5	111	116	79	51	6,7	8,4	10,8	15,2	139	141	182	259
	1,25	124	131	88	57	6,3	7,9	10,1	14,0	130	132	169	238
300	3	108	112	78	50	10,3	13,0	16,7	23,4	218	221	285	403
	1,5	121	127	87	57	9,7	12,3	15,6	21,6	206	209	266	371
400	3,5	115	120	83	55	13,9	17,6	22,5	31,5	297	301	386	544
	1,75	130	136	95	62	13,2	16,6	21,0	29,0	280	284	361	501
500	3,5	118	123	86	56	16,2	20,4	26,0	36,4	345	350	449	630
	1,75	135	141	99	65	15,2	19,3	24,3	33,4	325	330	418	577
800	6	121	126	89	58	23,3	29,3	37,4	52,2	500	506	647	906
	3	136	142	100	66	22,0	27,8	35,1	48,3	473	480	607	837
1000	6	127	132	93	61	26,6	33,4	42,6	59,3	571	578	738	1031
	3	144	150	106	70	25,1	31,7	39,8	54,6	539	547	690	948
1500	6	163	169	120	79	32,6	41,1	52,1	72,4	703	711	905	1259
	3	187	195	139	92	30,7	38,7	48,5	66,1	660	671	842	1149
2000	6	220	229	162	107	35,0	44,1	56,0	77,5	755	765	972	1349
	3	254	265	189	126	32,9	41,6	52,0	70,6	709	720	902	1228

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	188	231	237	247	257	258	284	333	213	21
	1	187	230	235	244	250	252	275	318	62	6
200	2,5	241	296	303	316	329	331	364	425	413	40
	1,25	240	295	301	313	322	324	353	409	120	12
300	3	371	455	466	486	509	512	563	657	782	77
	1,5	369	453	463	480	500	502	548	632	229	23
400	3,5	535	657	671	698	723	727	795	921	1345	132
	1,75	532	654	667	691	710	713	775	887	395	39
500	3,5	632	777	793	824	851	855	934	1079	1551	152
	1,75	629	774	788	815	835	839	909	1036	456	45
800	6	951	1169	1192	1235	1267	1272	1385	1592	1118	110
	3	946	1164	1185	1224	1246	1251	1353	1537	328	32
1000	6	1126	1385	1412	1460	1488	1493	1621	1856	1266	124
	3	1121	1380	1404	1447	1462	1468	1583	1789	375	36
1500	6	1715	2116	2148	2207	2160	2167	2322	2605	1542	151
	3	1708	2109	2137	2189	2126	2135	2271	2517	454	45
2000	6	2432	3010	3045	3108	2910	2918	3084	3385	1653	162
	3	2424	3003	3033	3088	2873	2882	3028	3289	487	48

CALORIFIERS IN
STAINLESS STEEL



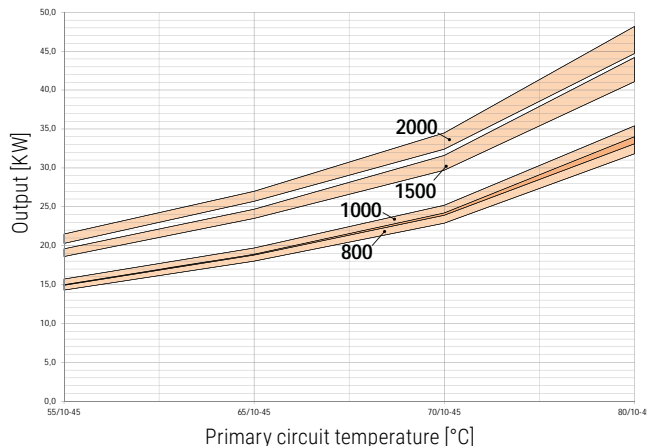
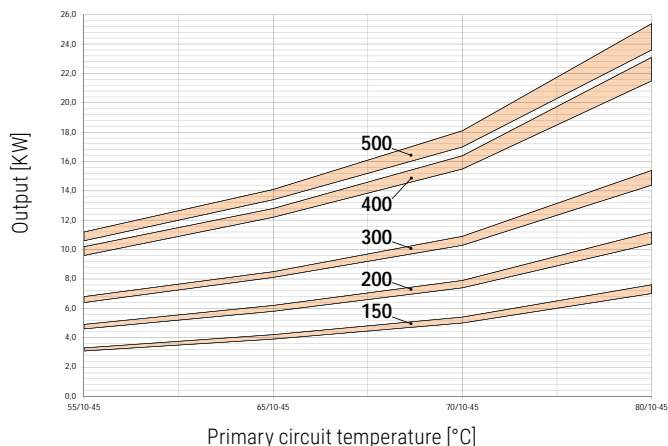
PLEASE NOTE: FOR HEAT EXCHANGERS PRESSURE DROP SEE BOLLY® 1 ST

BOLLY® 2 ST INOX

UPPER HEAT EXCHANGERS TECHNICAL DATA



Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).
For Lower upper heat exchangers technical data- see BOLLY® 1 ST

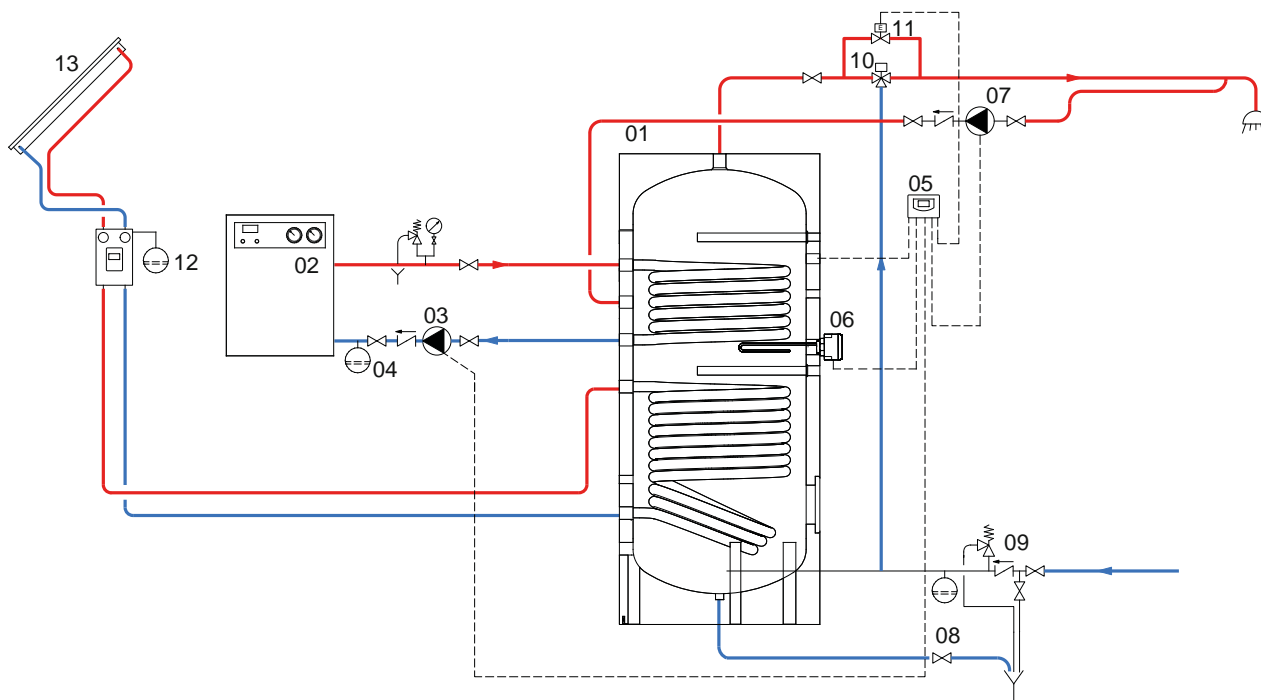


Model Bolly® 2 ST inox	150		200		300		400		500	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m³/h]	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

Model Bolly® 2 ST inox	800		1000		1500		2000	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m³/h]	6	3	6	3	6	3	6	3

CALORIFIERS IN
STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH BOLLY® 2 ST INOX



1 BOLLY® 2 ST INOX	5 Electronic control /thermostat	9 Hydraulic safety group	13 Solar panels
2 Generator	6 Electric immersion heater (optional)	10 Thermostatic mixing valve	
3 Circulation group	7 D.H.W. recirculation group	11 By-pass solenoid valve	
4 Expansion vessel	8 Blowdown valve	12 Solar system circulation group	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 AP INOX - HIGH PERFORMANCES

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER FOR DHW PRODUCTION



APPLICATION

Production and storage of domestic hot water (DHW).
All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

1 Fixed stainless steel 316L heat exchanger

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.
Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

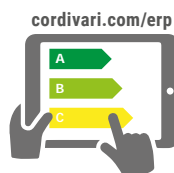
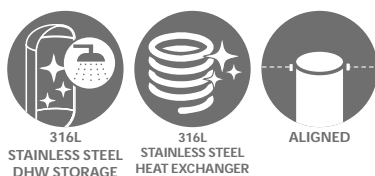
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS:

See Accessories section for the entire list.



On line ErP label tool



BOLLY® 1 AP XB

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE	ENERGY EFFICIENCY CLASS
	Art. Nr.	[m ²]	
150	3104052010100	1,0	B
200	3104052010101	1,2	B
300	3104052010102	1,5	B
400	3104052010103	2,0	C
500	3104052010104	2,2	C



BOLLY® 1 AP XB CLASS A

Model	HARD FOAM INSULATION	HEAT EXCHANGER SURFACE	ENERGY EFFICIENCY CLASS
	Art. Nr.	[m ²]	
200	3104052010110	1,2	A
300	3104052010111	1,5	A
500	3104052010112	2,2	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]
150	1	126
	2	46
200	1	161
	2	53
300	1	237
	2	83
400	1	356
	2	138
500	1	417
	2	150

MONOPHASE

1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
225	169	113
82	61	41
288	216	144
94	71	47
425	319	213
148	111	74
637	478	318
247	185	124
746	560	373
269	202	135

THREEPHASE

4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
31	//	//
//	//	//
35	//	//
159	//	//
56	45	//
239	//	//
93	74	//
280	224	//
101	81	67

Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 1 AP INOX - HIGH PERFORMANCES

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER

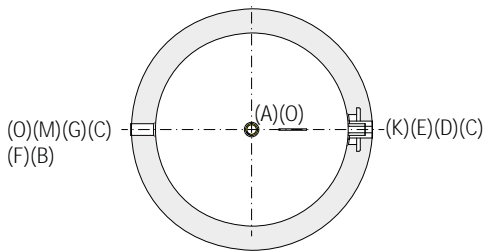
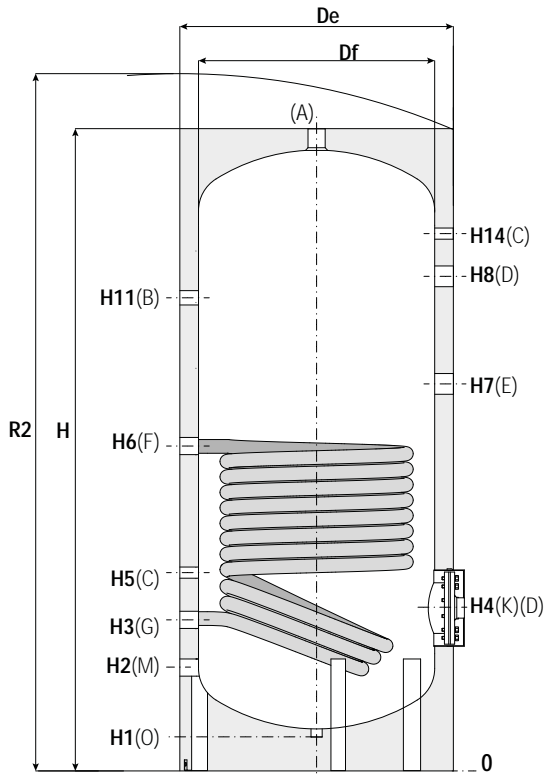
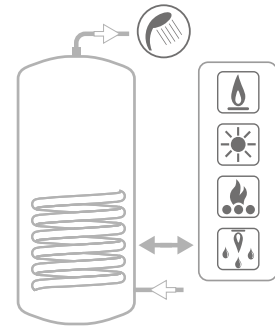
WITH 1 FIXED STAINLESS STEEL HEAT EXCHANGER FOR DHW PRODUCTION

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1"1/4 G F
- F** Primary circuit inlet 1" G F
- G** Primary circuit outlet 1" G F
- K** Flange for inspection
- M** Domestic cold water circuit inlet
- O** Drain

CALORIFIERS IN STAINLESS STEEL

BOLLY® 1 AP INOX - 1 AP INOX CLASS A (HARD FOAM INSULATION-XB)

Model	Volume [lt]	Weight [kg]	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H11	H14	Connections F							
																	F	G	K	M	O			
150	150	35	400	500	1420	1510	65	205	310	310	420	719	830	960	1060	1180	1"	3/4"	1/2"	1"	1"	Øi120/Øe180	3/4"	1/2"
200	192	41	450	550	1440	1540	65	215	320	320	430	780	880	1010	1094	1200	1"	3/4"	1/2"	1"	1"	Øi120/Øe180	3/4"	1/2"
300	293	59	550	650	1495	1638	70	245	350	380	460	750	910	1040	1110	1230	1"	1"	1/2"	1"	1"	Øi120/Øe180	1"	1/2"
400	425	79	600	700	1770	1907	65	255	360	390	470	895	1040	1170	1325	1480	1"	1"	1/2"	1"	1"	Øi120/Øe180	1"	1/2"
500	503	84	650	750	1796	1950	65	265	370	480	405	1060	1090	1220	1335	1490	1"	1"	1/2"	1"	1"	Øi120/Øe180	1"	1/2"

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 1 AP INOX - HIGH PERFORMANCES

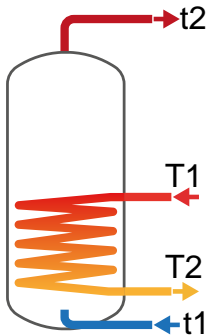
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

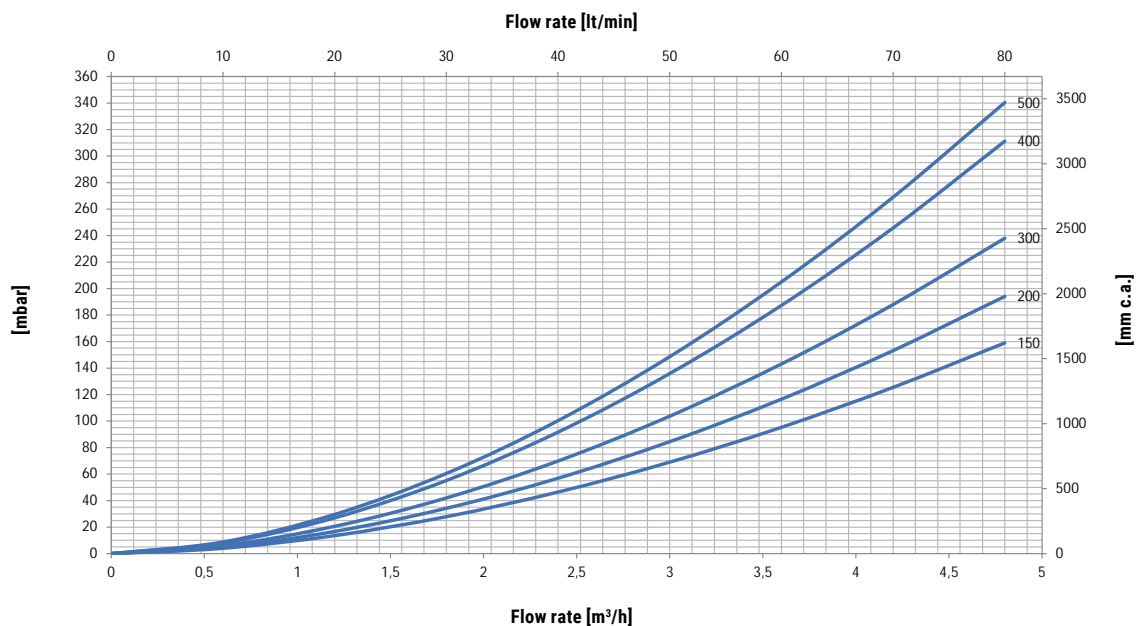
LOWER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	65	68	47	30	8,9	11,3	14,4	20,1	188	191	245	345
	1	76	78	55	36	8,3	10,5	13,2	18,1	173	176	224	310
200	2,5	65	68	47	31	11,3	14,3	18,2	25,4	240	243	315	438
	1,25	75	78	55	36	10,6	13,4	16,8	23,1	223	227	287	397
300	3	79	82	57	37	14,3	18,0	22,9	32,0	304	308	394	553
	1,5	90	94	66	43	13,4	16,9	21,3	29,2	284	289	366	504
400	3,5	85	89	62	41	19,1	24,0	30,1	42,7	408	414	529	739
	1,75	99	103	72	48	17,9	22,6	28,4	38,9	383	389	491	673
500	3,5	93	96	68	45	20,9	26,4	33,6	46,6	448	454	580	809
	1,75	108	113	80	53	19,6	24,8	31,1	42,3	420	427	537	734

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	202	245	254	270	321	323	366	446	342	34
	1	199	242	250	265	309	311	349	418	100	10
200	2,5	258	313	325	346	410	413	470	569	623	61
	1,25	255	311	321	339	397	400	448	536	183	18
300	3	386	470	484	511	578	581	650	777	1057	104
	1,5	382	467	480	503	562	566	628	738	311	30
400	3,5	554	676	695	730	812	817	909	1077	1817	178
	1,75	550	672	689	719	792	797	879	1024	536	53
500	3,5	650	794	815	853	933	938	1039	1222	1989	195
	1,75	645	790	808	841	911	916	1004	1162	587	58

HEAT EXCHANGERS PRESSURE DROP

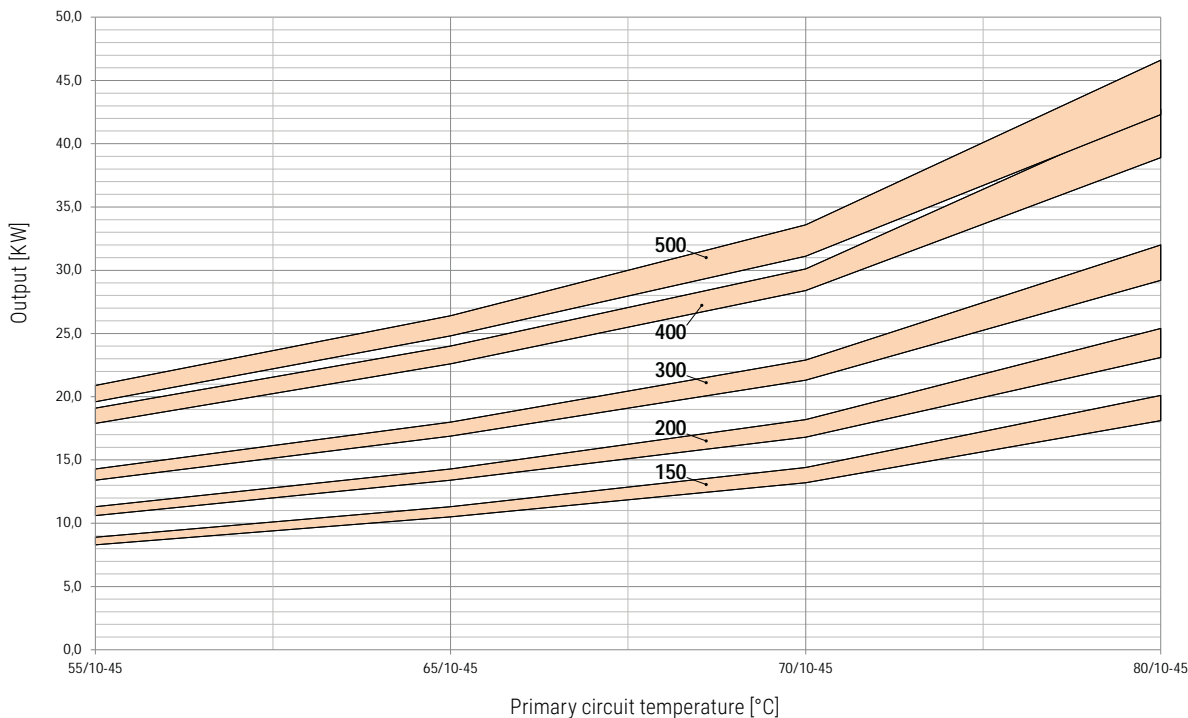


BOLLY® 1 AP INOX - HIGH PERFORMANCES

HEAT EXCHANGERS TECHNICAL DATA



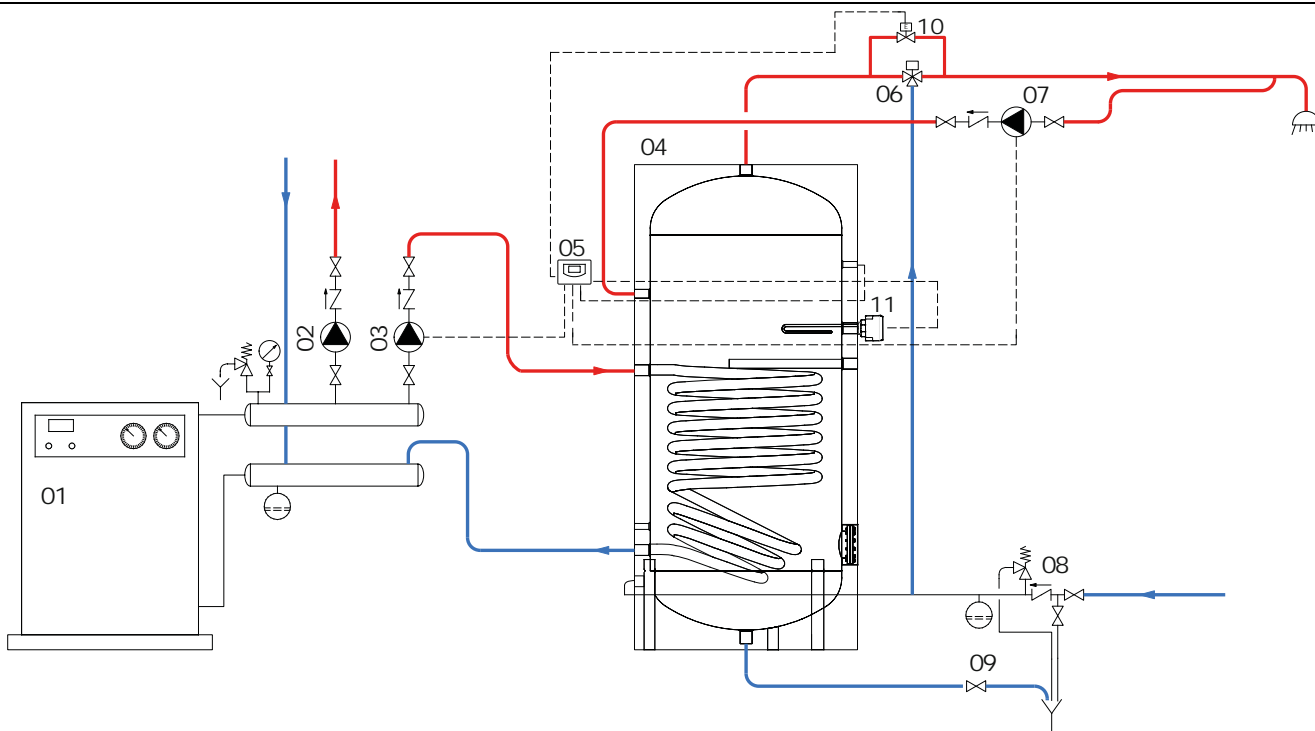
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).



Model Bolly® 1 AP XB	150		200		300		400		500	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Flow rate [m³/h]	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

CALORIFIERS IN
STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH BOLLY® 1 AP INOX - HIGH PERFORMANCES



01	Generator	04	BOLLY® 1 AP INOX	07	D.H.W. recirculation group	10	By-pass solenoid valve
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group	11	Electric immersion heater (optional)
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 AP INOX - HIGH PERFORMANCES

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW).
All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

2 fixed stainless steel 316L heat exchanger

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.
Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Stainless steel exchanger head.

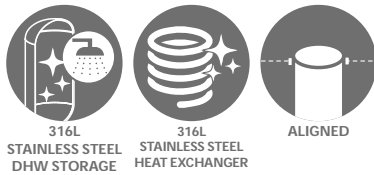
WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

NEW



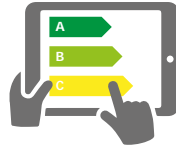
316L
STAINLESS STEEL
DHW STORAGE

316L
STAINLESS STEEL
HEAT EXCHANGER

ALIGNED



cordivari.com/erp



On line ErP label tool

BOLLY® 2 AP XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
150	3134052010300	0,6	1,0	B
200	3134052010301	0,7	1,2	B
300	3134052010302	0,9	1,5	B
400	3134052010303	1,3	2,0	C
500	3134052010304	1,4	2,2	C

BOLLY® 2 AP XB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS ErP
		Upper	Lower	
200	3134052010310	0,7	1,2	A
300	3134052010311	0,9	1,5	A
500	3134052010312	1,4	2,2	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod.	Position of the electric heater	Heated volume by electric immersion heater [lt]
150	1	126
	2	54
200	1	161
	2	65
300	1	237
	2	113
400	1	356
	2	171
500	1	417
	2	188

MONOPHASE

1,5 kW	2 kW	3 kW
5240000000051	5240000000052	5240000000053
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
225	169	113
97	73	49
288	216	144
117	88	58
425	319	213
203	152	101
637	478	318
307	230	154
746	560	373
337	253	168

THREEPHASE

4 kW	5 kW	6 kW
5240000000047	5240000000048	5240000000049
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
//	//	//
37	//	//
//	//	//
44	//	//
159	//	//
76	61	//
239	//	//
115	92	//
280	224	//
126	101	84

Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 2 AP INOX - HIGH PERFORMANCES

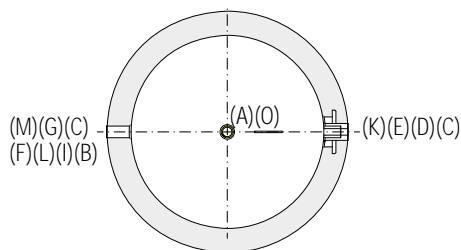
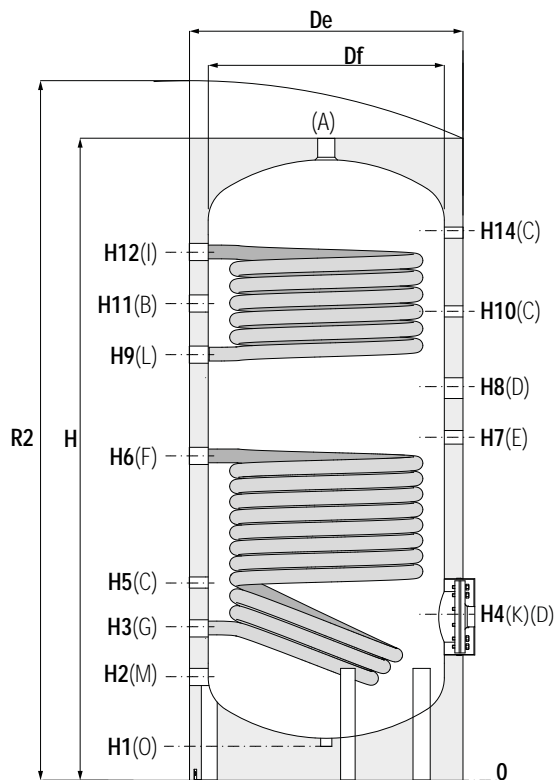
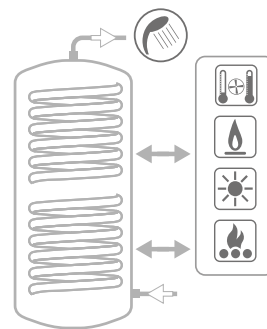
STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1 1/4" G F
- F** Lower heat exchanger inlet 1" G F
- G** Lower heat exchanger outlet 1" G F
- K** Flange for inspection
- M** Domestic cold water circuit inlet
- L** Upper heat exchanger outlet 1" G F
- I** Upper heat exchanger inlet 1" G F
- O** Drain

CALORIFIERS IN STAINLESS STEEL

BOLLY® 2 AP INOX - 2 AP INOX CLASS A (HARD FOAM INSULATION-XB)

Model	Volume		Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H14
	[lt]	[kg]																		
150	150	42		400	500	1420	1510	65	205	310	340	480	718	750	890	935	1030	1060	1180	1180
200	192	49		450	550	1440	1540	65	215	320	310	430	488	810	930	962	1070	1094	1200	1200
300	293	70		550	650	1495	1638	70	245	350	380	460	755	780	910	957	1050	1110	1230	1230
400	425	95		600	700	1770	1907	65	255	360	390	470	895	925	1050	1082	1190	1325	1480	1480
500	503	101		650	750	1796	1950	65	265	370	400	480	923	970	1105	1155	1266	1335	1479	1490

Model	A	B	C	D	E	Connections F					L	I	K
						F	G	M	O	[mm]			
150	1"	3/4"	1/2"	1 1/2"	1 1/4"	1"	1"	3/4"	1/2"	1"	1"	1"	Øi120/Øe180
200	1"	3/4"	1/2"	1 1/2"	1 1/4"	1"	1"	3/4"	1/2"	1"	1"	1"	Øi120/Øe180
300	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	1"	Øi120/Øe180
400	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	1"	Øi120/Øe180
500	1"	1"	1/2"	1 1/2"	1 1/4"	1"	1"	1"	1/2"	1"	1"	1"	Øi120/Øe180

BOLLY® 2 AP INOX - HIGH PERFORMANCES

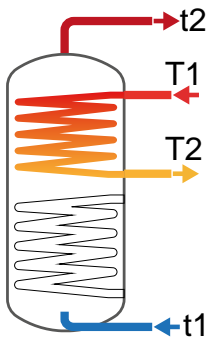
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

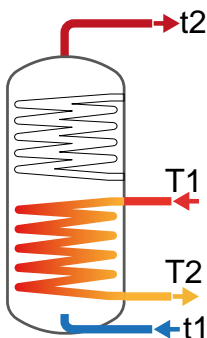
UPPER
HEAT EXCHANGER



Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	32	33	22	14	5,6	7,1	9,1	12,8	116	118	153	218
	1	36	38	25	16	5,3	6,6	8,4	11,7	108	110	141	198
200	2,5	36	38	25	16	6,2	7,8	10,0	14,1	128	130	169	241
	1,25	40	42	28	18	5,8	7,4	9,4	13,1	120	122	157	222
300	3	39	40	28	18	8,6	10,9	14,0	19,7	182	184	238	337
	1,5	43	45	31	20	8,2	10,3	13,1	18,2	171	174	223	312
400	3,5	46	48	33	22	12,5	15,8	20,2	28,4	266	269	347	489
	1,75	52	54	37	24	11,9	15,0	19,0	26,2	251	255	325	452
500	3,5	45	47	33	21	13,5	17,0	21,7	30,4	286	290	373	526
	1,75	51	53	37	24	12,7	16,1	20,3	28,1	270	275	349	485

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	71	84	90	101	144	146	174	226	226	22
	1	69	83	88	97	138	139	164	210	65	6
200	2,5	88	105	111	123	169	170	201	259	361	35
	1,25	86	103	109	120	162	164	192	244	105	10
300	3	131	156	165	182	246	248	291	370	664	65
	1,5	129	155	163	178	237	240	279	350	194	19
400	3,5	219	263	276	300	388	390	452	566	1217	119
	1,75	217	261	273	294	376	379	435	536	357	35
500	3,5	232	278	292	318	413	416	482	605	1302	128
	1,75	229	276	288	311	400	404	463	572	382	37

LOWER
HEAT EXCHANGER

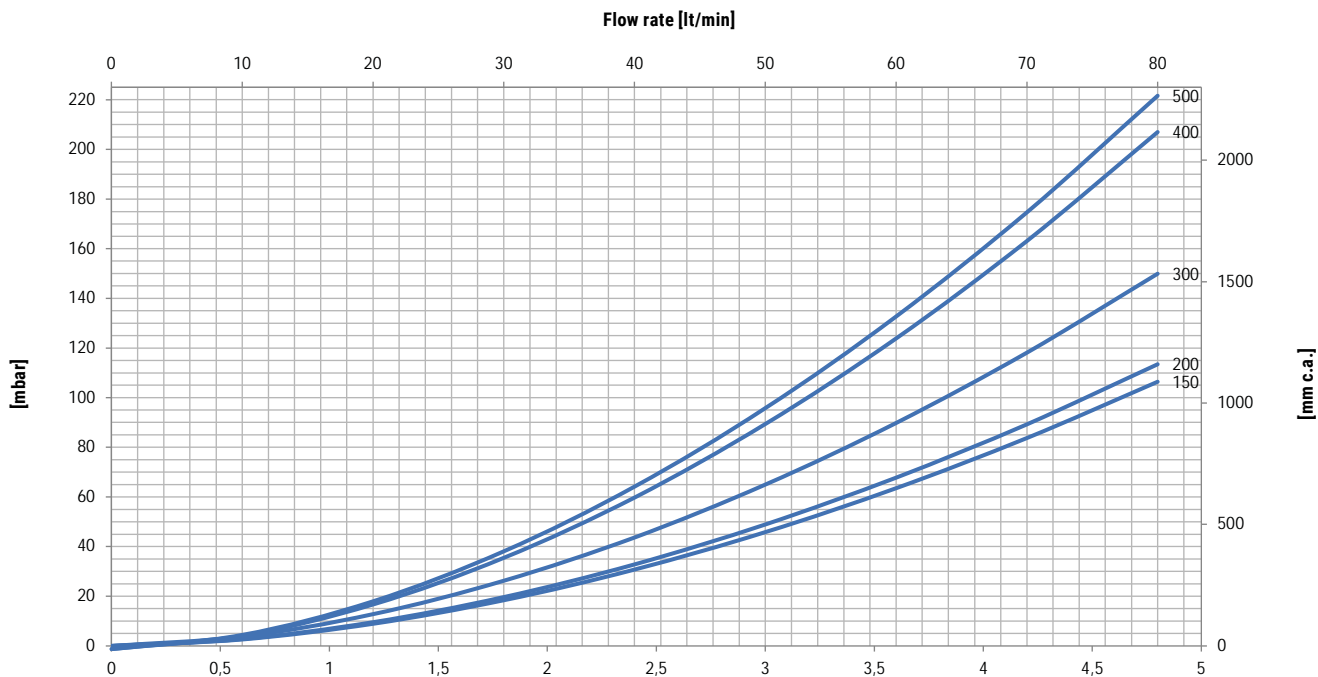


Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	2	65	68	47	30	8,9	11,3	14,4	20,1	188	191	245	345
	1	76	78	55	36	8,3	10,5	13,2	18,1	173	176	224	310
200	2,5	65	68	47	31	11,3	14,3	18,2	25,4	240	243	315	438
	1,25	75	78	55	36	10,6	13,4	16,8	23,1	223	227	287	397
300	3	79	82	57	37	14,3	18,0	22,9	32,0	304	308	394	553
	1,5	90	94	66	43	13,4	16,9	21,3	29,2	284	289	366	504
400	3,5	85	89	62	41	19,1	24,0	30,1	42,7	408	414	529	739
	1,75	99	103	72	48	17,9	22,6	28,4	38,9	383	389	491	673
500	3,5	93	96	68	45	20,9	26,4	33,6	46,6	448	454	580	809
	1,75	108	113	80	53	19,6	24,8	31,1	42,3	420	427	537	734

Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
150	2	202	245	254	270	321	323	366	446	342	34
	1	199	242	250	265	309	311	349	418	100	10
200	2,5	258	313	325	346	410	413	470	569	623	61
	1,25	255	311	321	339	397	400	448	536	183	18
300	3	386	470	484	511	578	581	650	777	1057	104
	1,5	382	467	480	503	562	566	628	738	311	30
400	3,5	554	676	695	730	812	817	909	1077	1817	178
	1,75	550	672	689	719	792	797	879	1024	536	53
500	3,5	650	794	815	853	933	938	1039	1222	1989	195
	1,75	645	790	808	841	911	916	1004	1162	587	58

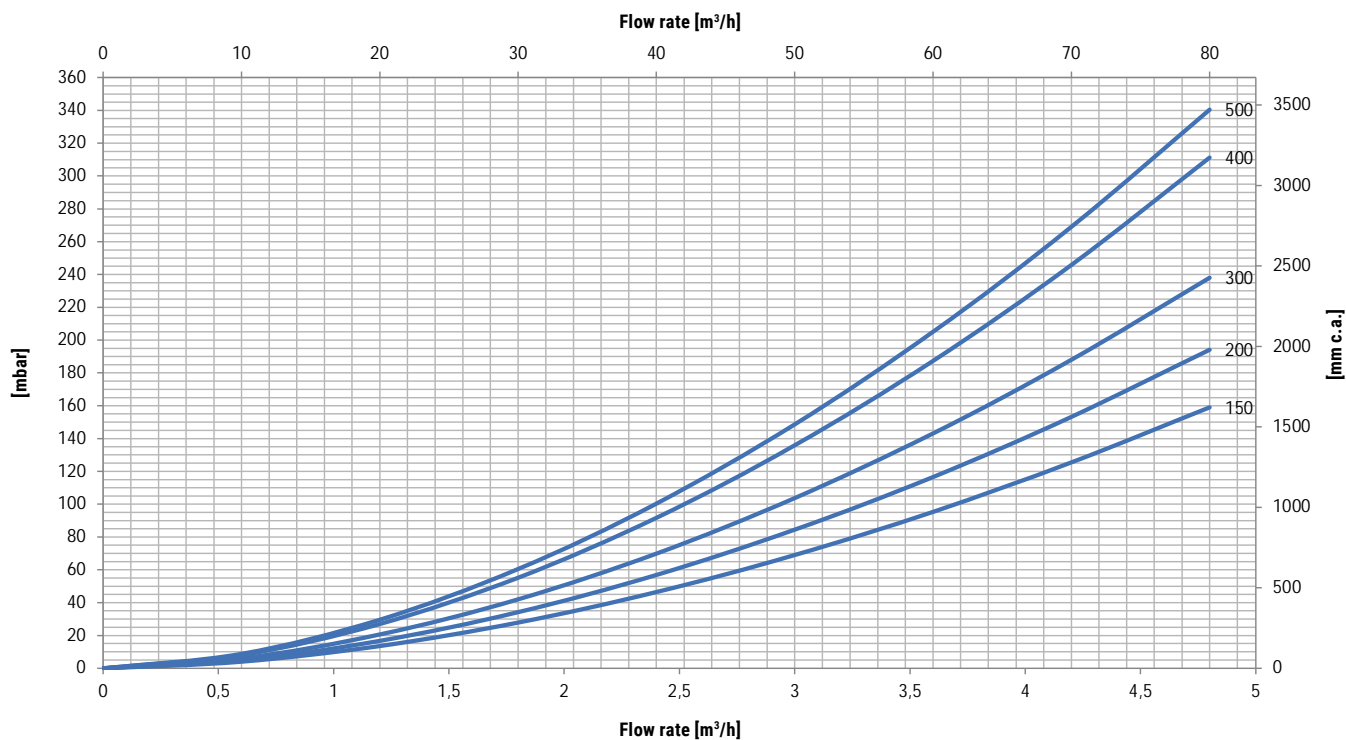
BOLLY® 2 AP INOX - HIGH PERFORMANCES

UPPER HEAT EXCHANGERS PRESSURE DROP



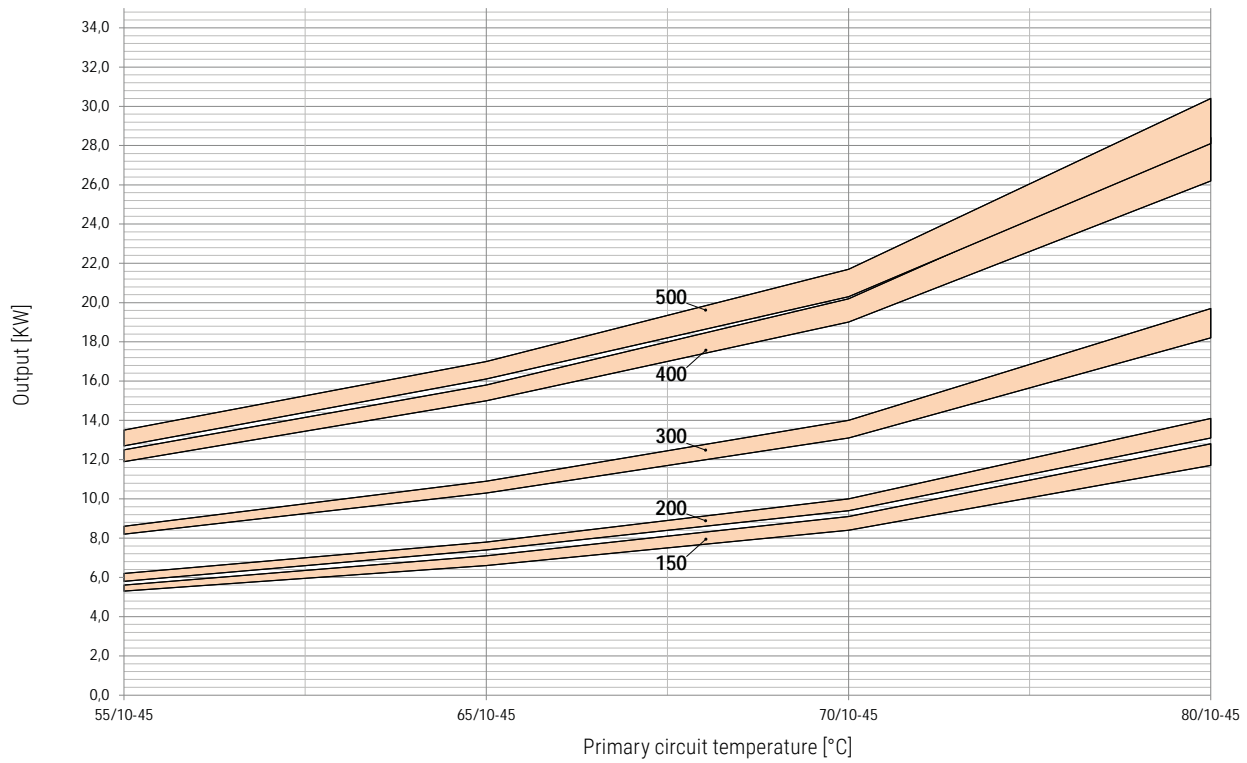
CALORIFIERS IN
STAINLESS STEEL

LOWER HEAT EXCHANGERS PRESSURE DROP



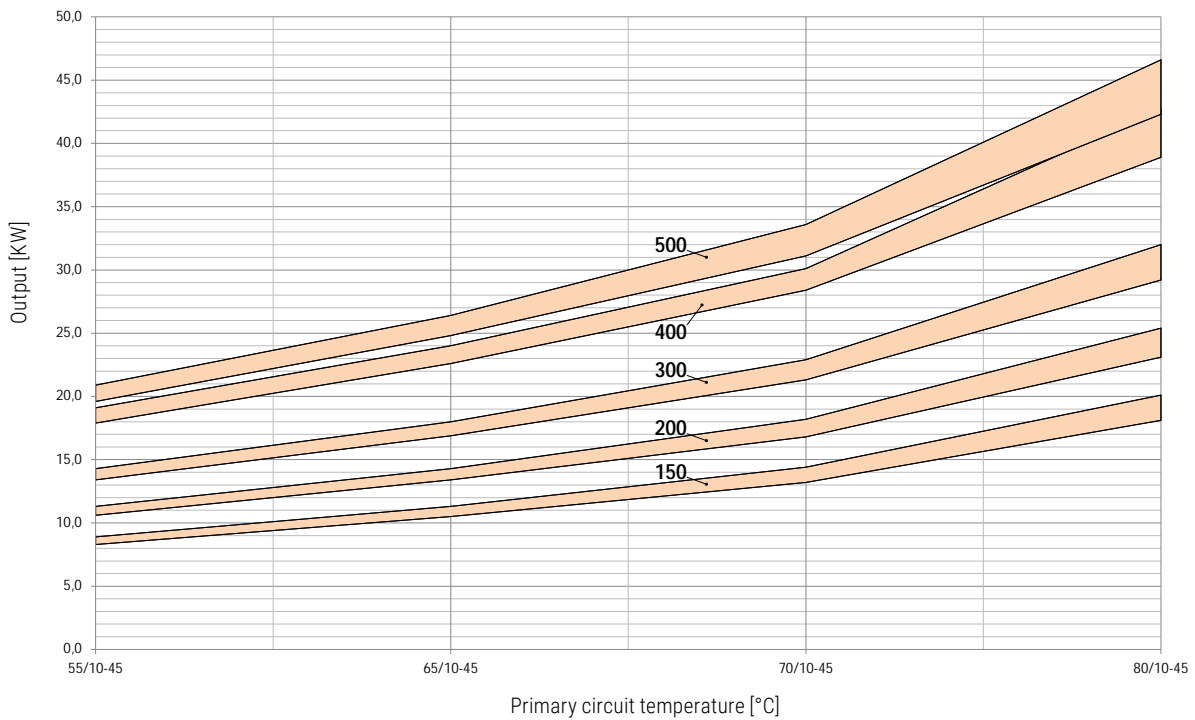
BOLLY® 2 AP INOX - HIGH PERFORMANCES

UPPER HEAT EXCHANGERS TECHNICAL DATA



Model Bolly® 2 AP INOX	150		200		300		400		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

LOWER HEAT EXCHANGERS TECHNICAL DATA

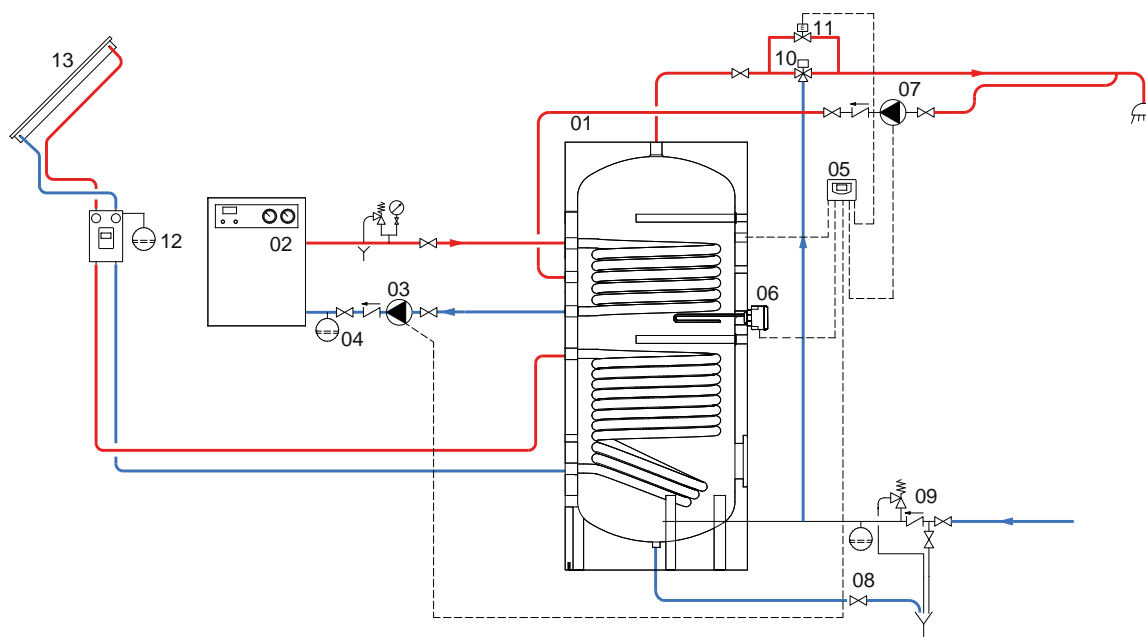


Model Bolly® 2 AP INOX	150		200		300		400		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate).



EXAMPLE OF INSTALLATION WITH BOLLY® 2 AP INOX



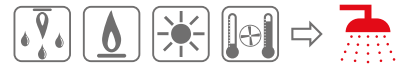
1	Bolly® 2 AP inox	5	Electronic control /thermostat	9	Hydraulic safety group	13	Solar panels
2	Generator	6	Electric immersion heater (optional)	10	Thermostatic mixing valve		
3	Circulation group	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Expansion vessel	8	Blowdown valve	12	Solar system circulation group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

CALORIFIERS IN
STAINLESS STEEL

BOLLY® 1 XL INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER WITH 1 FIXED OVERSIZE STAINLESS STEEL HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

1 fixed oversize stainless steel heat exchanger with double spiral coil

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode

Only on standard models > 800 n° N° 2 magnesium anodes.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

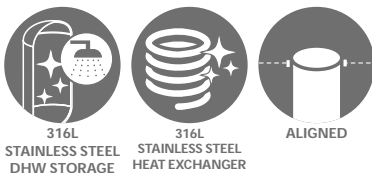
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Flange for inspection and counterflange (standard) with provision for electrical resistance 1"1/2

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

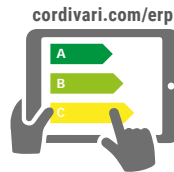
See Accessories section for the entire list.



316L STAINLESS STEEL DHW STORAGE

316L STAINLESS STEEL HEAT EXCHANGER

ALIGNED



On line ErP label tool



BOLLY® 1 XL XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS	
			ErP	Class
200	3104052010200	1,7	B	B
300	3104052010201	2,7	B	B
500	3104052010202	4	C	C



BOLLY® 1 XL XC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS	
			ErP	Class
800	3103052010485	5,8	C	C
1000	3103052010486	5,8	C	C



BOLLY® 1 XL XB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS	
			ErP	Class
200	3104052010220	1,7	A	A
300	3104052010221	2,7	A	A
500	3104052010222	4	A	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000051	5240000000052	5240000000053
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	161	288	216	144
300	237	425	319	213
500	417	746	560	373
800	668	1197	898	598
1000	874	1565	1174	783

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
//	//	//	//	//
159	//	//	//	//
280	224	//	//	//
449	359	299	199	//
587	470	391	261	196

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 1 XL INOX

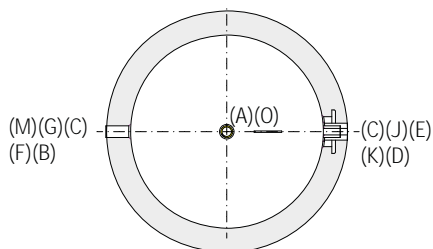
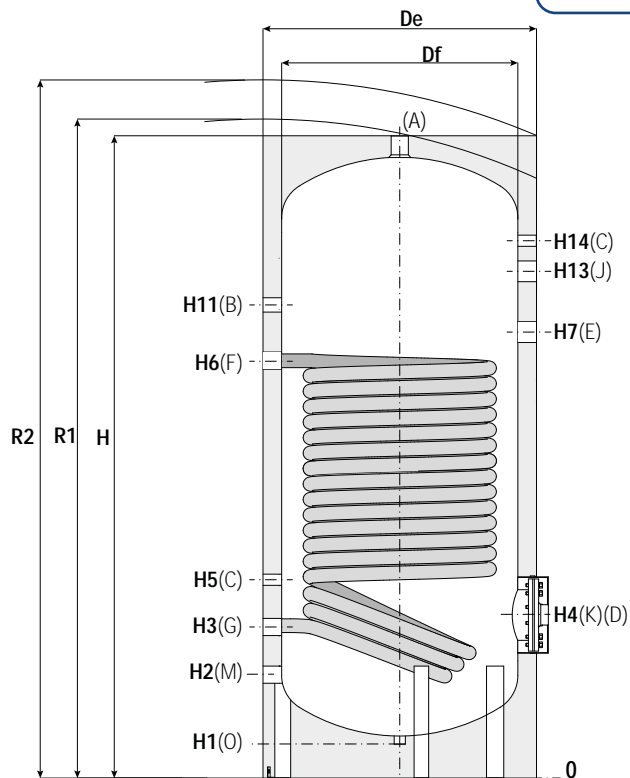
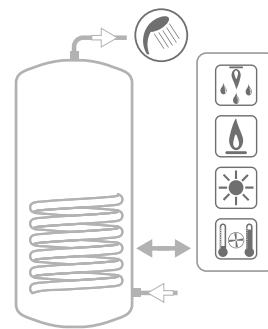
STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 1 FIXED OVERSIZE STAINLESS STEEL HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" G F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1"1/4 G F
- F** Primary circuit inlet 1" G F
- G** Primary circuit outlet 1" G F
- J** Connection for 2nd magnesium anode 1"1/4 G F (Only for models standard > 800)
- K** Flange for inspection and counterflange (standard) with provision for electrical resistance 1"1/2
- M** Domestic cold water circuit inlet
- O** Drain

CALORIFIERS IN STAINLESS STEEL

BOLLY® 1 XL INOX - 1 XL INOX CLASS A (HARD FOAM INSULATION-XB)

Model	Volume		Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H11	H14
	[lt]	[kg]														
200	192	47		450	550	1440	1510	65	210	320	320	430	845	900	1090	1190
300	293	75		550	650	1495	1630	70	240	350	380	460	1059	1110	1170	1220
500	503	110		650	750	1796	1950	65	260	370	405	480	1285	1380	1400	1490

Model	A	B	C	D	Connections F					K
					F	G	M	O	[mm]	
200	1"	3/4"	1"1/2	1"1/2	1"1/4	1"	1"	3/4"	1/2"	Ø120/Øe180
300	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1/2"	Ø120/Øe180
500	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1/2"	Ø120/Øe180

BOLLY® 1 XL INOX - DISMOUNTABLE SOFT FLEECE (XC)

Model	Volume		Weight	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H11	H13	H14
	[lt]	[kg]																
800	759	169		790	990	1943	2180	2195	114	323	443	478	553	1403	1483	1513	//	1563
1000	902	183		790	990	2193	2410	2425	114	323	443	478	553	1613	1463	1613	1703	1813

Model	A	B	C	D	Connections F					K	
					F	G	J	M	O		[mm]
800	1"1/4	1"	1"1/2	2"	1"1/4	1"	1"	//	1"	3/4"	Ø120/Øe180
1000	1"1/2	1"	1"1/2	2"	1"1/4	1"	1"	1"1/4	1"1/4	3/4"	Ø120/Øe180

BOLLY® 1 XL INOX

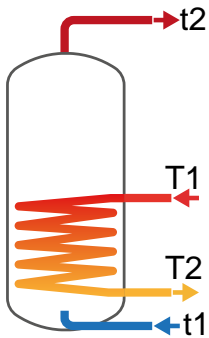
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

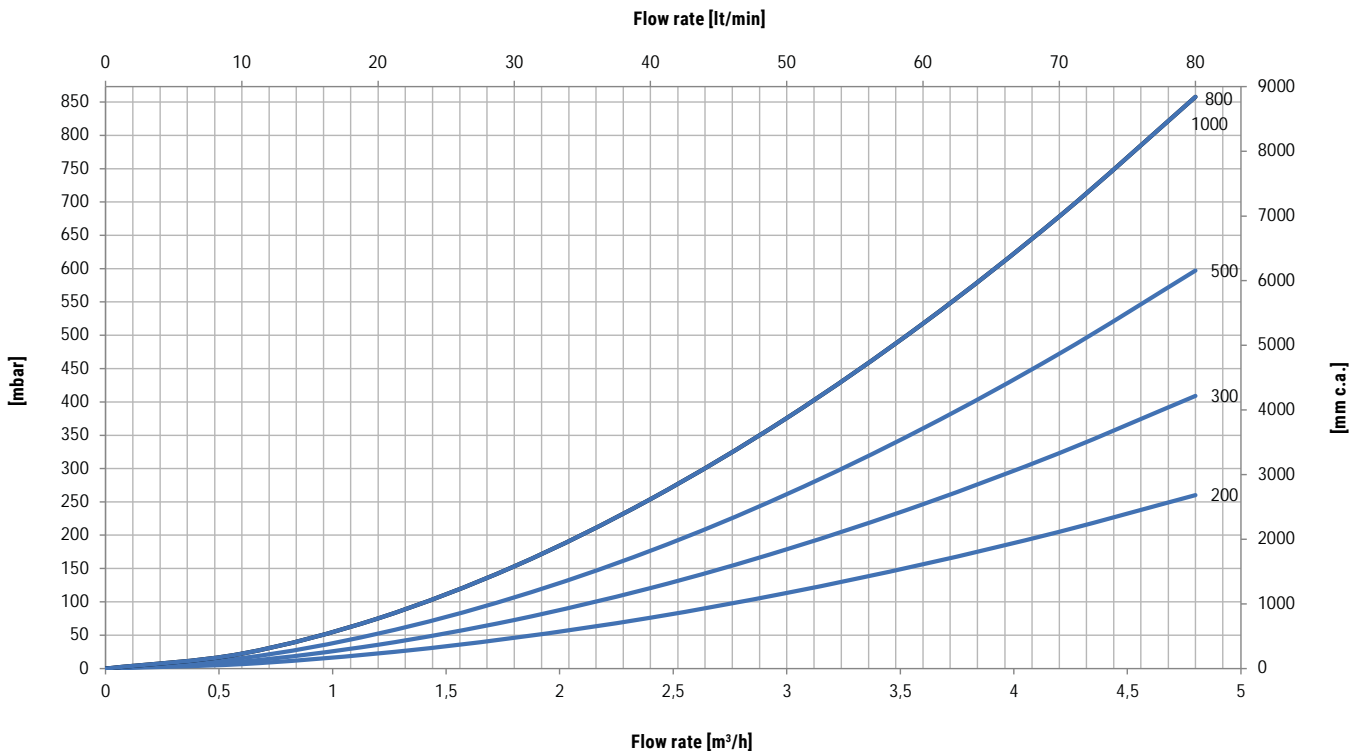
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80	
200	3	47	49	34	22	15,6	19,7	25,1	35,0	334	338	433	606
	1,5	54	57	40	26	14,6	18,5	23,3	31,8	312	317	400	550
300	4	44	46	32	21	25,7	32,4	41,3	57,2	553	561	715	994
	2	51	54	38	25	24,0	30,6	38,3	52,0	519	528	663	902
500	5	52	54	38	25	38,1	48,1	61,0	84,3	823	835	1060	1468
	2,5	61	64	45	30	35,8	45,4	56,6	76,4	773	787	983	1329
800	6	55	57	41	27	55,1	69,6	87,9	120,9	1192	1210	1531	2107
	3	66	69	49	33	51,7	65,5	81,3	108,9	1118	1139	1416	1897
1000	6	65	68	48	32	55,1	69,6	87,9	120,9	1192	1210	1531	2107
	3	78	82	59	39	51,7	65,5	81,3	108,9	1118	1139	1415	1897



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
200	3	274	329	345	374	485	543	619	758	1155	113
	1,5	270	326	340	365	468	526	593	713	340	33
300	4	427	512	538	584	777	867	991	1214	3059	299
	2	421	507	529	569	750	841	949	1140	903	88
500	5	712	858	895	963	1233	1387	1567	1893	6614	648
	2,5	704	850	882	940	1193	1348	1505	1782	1957	192
800	6	1066	1286	1339	1435	1821	2052	2309	2770	13081	1283
	3	1054	1274	1320	1400	1762	1995	2217	2602	3875	380
1000	6	1230	1490	1544	1640	1984	2257	2513	2974	13081	1283
	3	1217	1478	1524	1605	1925	2200	2421	2806	3875	380

HEAT EXCHANGERS PRESSURE DROP

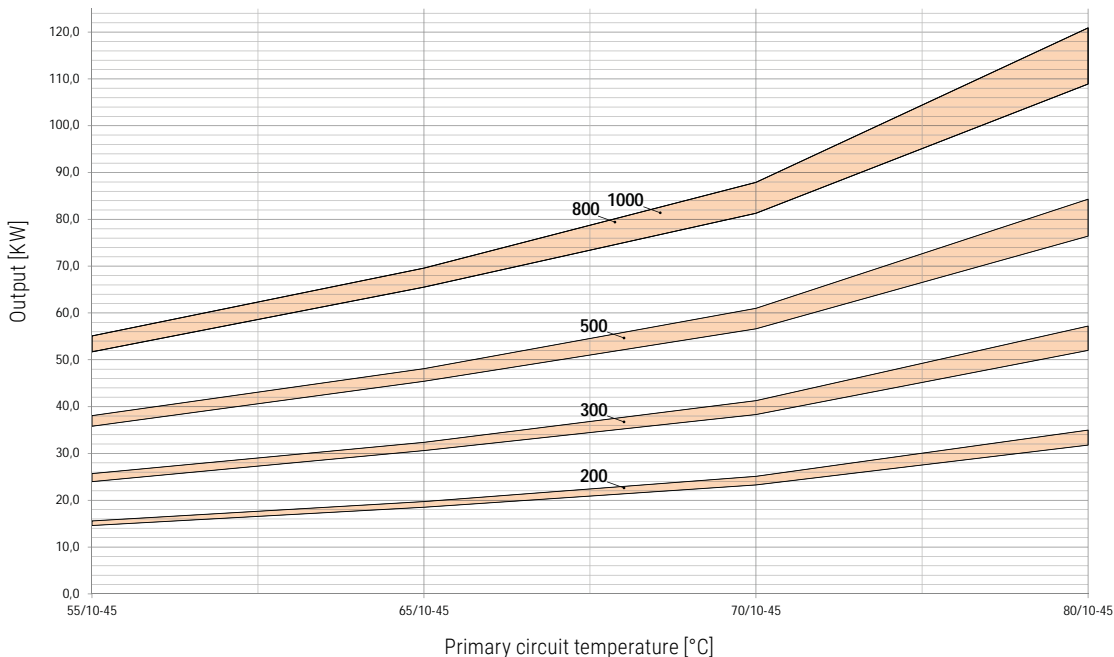


BOLLY® 1 XL INOX

HEAT EXCHANGERS TECHNICAL DATA

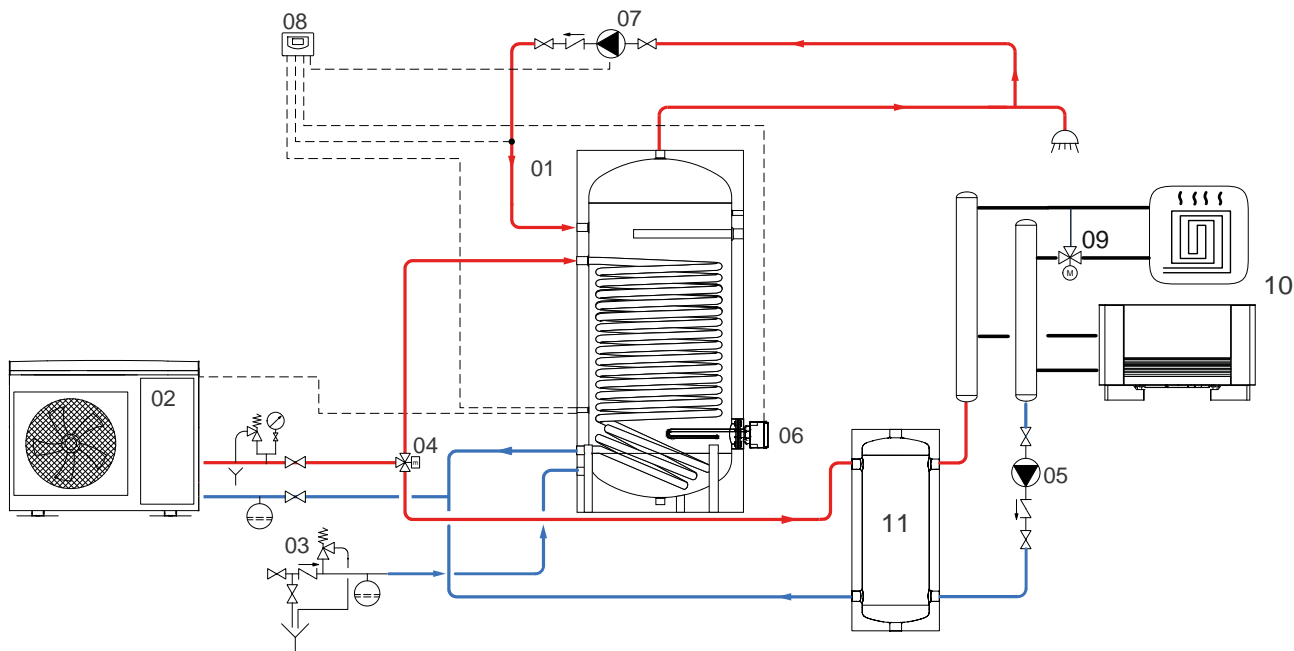


Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Model Bolly® 1 XL inox	200		300		500		800		1000	
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5	3,5	1,75	6	3	6	3

EXAMPLE OF INSTALLATION WITH BOLLY® 1 XL INOX

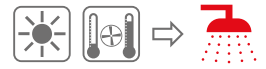


1 BOLLY® 1 XL INOX	4 Motorized three-way valve	7 DHW recirculation	10 Heating units
2 Generator (Heat pump)	5 Circulation group for heating/cooling system	8 Electronic control /thermostat	11 Buffer tank
3 Hydraulic safety group	6 Electric immersion heater	9 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 XL INOX

STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED OVERSIZE STAINLESS STEEL HEAT EXCHANGERS



APPLICATION

Production and storage of domestic hot water (DHW). All the connections are aligned on the front and on the back for quick and easy installation.

MATERIAL

Stainless Steel 316 L suitable for domestic hot water

HEAT EXCHANGER

2 fixed oversize stainless steel heat exchanger with double spiral coil

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam. SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode

Only on standard models > 800 n° N° 2 magnesium anodes.

DRAIN

External confluence through drain connection

GASKET- FLANGE PLATE

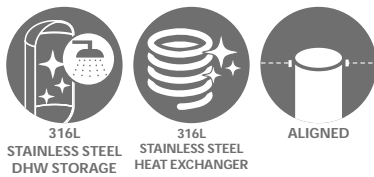
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Flange for inspection and counterflange (standard) with provision for electrical resistance 1"1/2

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

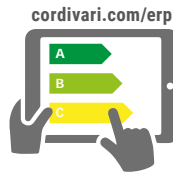
See Accessories section for the entire list.



316L STAINLESS STEEL DHW STORAGE

316L STAINLESS STEEL HEAT EXCHANGER

ALIGNED



On line ErP label tool



BOLLY® 2 XL XB

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
200	3134052010000	1,4	0,6	B
300	3134052010001	2,5	0,8	B
500	3134052010002	4,1	1,42	C



BOLLY® 2 XL XC

Model	DISMOUNTABLE SOFT FLEECE INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
800	3138052010050	5	1,8	C
1000	3138052010051	5,2	2	C



BOLLY® 2 XL XB CLASS A

Model	HARD FOAM INSULATION Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
200	3134052010020	1,4	0,6	A
300	3134052010021	2,5	0,8	A
500	3134052010022	4,1	1,42	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS



Mod. Heated volume by electric immersion heater [lt]

Mod.	MONOPHASE		
	1,5 kW	2 kW	3 kW
	5240000000051	5240000000052	5240000000053
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]		
200	161	288	216
300	237	425	319
500	417	746	560
800	668	1197	898
1000	874	1565	1174

THREEPHASE				
4 kW	5 kW	6 kW	9 kW	12 kW
5240000000047	5240000000048	5240000000049	5240000000050	5240000000031
Ignition time from 10 °C to 45 °C with electric immersion heaters [min]				
//	//	//	//	//
159	//	//	//	//
280	224	//	//	//
449	359	299	199	//
587	470	391	261	196

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



Titanium electronic anode

For art. nr. and prices please see Accessories section



BOLLY® 2 XL INOX

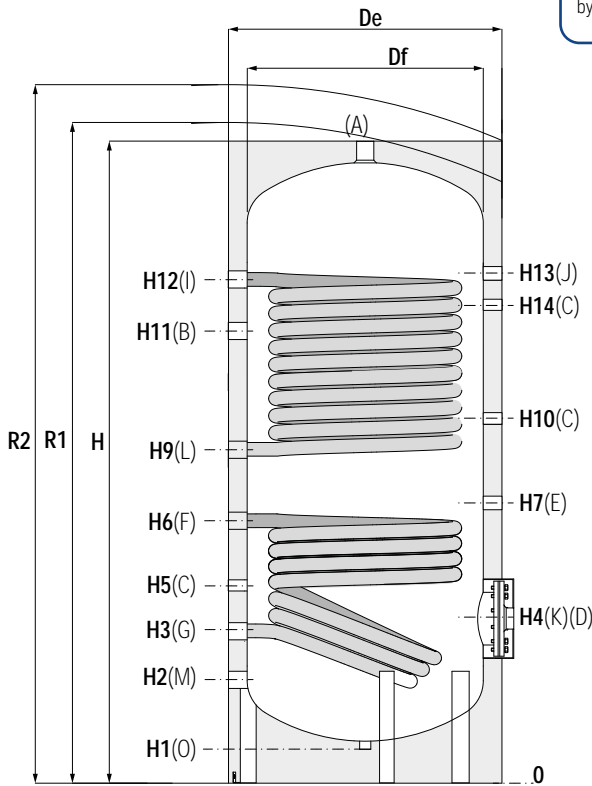
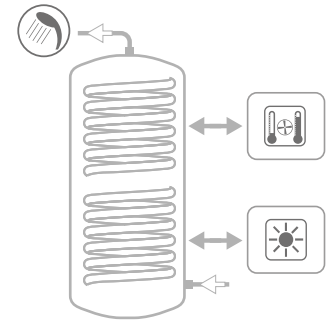
STAINLESS STEEL 316L DOMESTIC HOT WATER CALORIFIER
WITH 2 FIXED OVERSIZE STAINLESS STEEL HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C

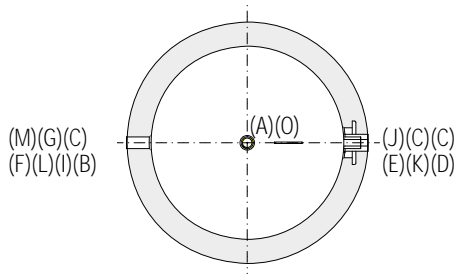


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Domestic hot water outlet
- B** Recirculation
- C** Connection for instrumentation 1/2" F
- D** Connection for electric immersion heater
- E** Connection for magnesium anode 1"1/4 F
- F** Lower heat exchanger inlet 1" F
- G** Lower heat exchanger outlet 1" F
- J** Connection for 2nd magnesium anode 1"1/4 F (Only for models > 800)
- K** Inspection flange and counter flange (included in the price) with connection for electric immersion heater 1"1/2
- L** Upper heat exchanger outlet 1"1/4 F
- M** Domestic cold water circuit inlet
- I** Upper heat exchanger inlet 1"1/4 F
- O** Drain



CALORIFIERS IN STAINLESS STEEL

BOLLY® 2 XL INOX - 2 XL INOX CLASS A (HARD FOAM INSULATION-XB)

Model	Volume		Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H12	H14
	[lt]	[kg]																	
200	192	47		450	550	1440	1510	65	210	320	320	430	539	660	705	886	1094	1190	1200
300	293	75		550	650	1495	1630	70	240	345	380	459	559	590	669	896	1109	1219	1230
500	503	110		650	750	1796	1950	65	260	480	400	480	666	690	795	1099	1355	1479	1490

Model	A	B	C	D	E	Connections F					L	I	K
						F	G	M	O				
200	1"	3/4"	1/2"	1"1/2"	1"1/4"	1"	1"	3/4"	1/2"	1"	1"	Øi120/Øe180	
300	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	1"	1/2"	1"	1"	Øi120/Øe180	
500	1"	1"	1/2"	1"1/2"	1"1/4"	1"	1"	1"	1/2"	1"	1"	Øi120/Øe180	

BOLLY® 2 XL INOX - DISMOUNTABLE SOFT FLEECE (XC)

Model	Volume		Weight	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H12	H13	H14
	[lt]	[kg]																			
800	759	156		790	990	1943	2180	2195	114	323	443	473	553	718	763	825	1163	1163	1573	//	1573
1000	902	193		790	990	2193	2410	2425	114	323	443	473	553	802	862	918	1162	1557	1792	1822	1712

Model	A	B	C	D	E	Connections F					J	M	O	L	I	K
						F	G									
800	1"1/4"	1"	1/2"	1"1/2"	1"1/4"	1"1/4"	1"1/4"	//	1"	3/4"	1"1/4"	1"1/4"	Øi120/Øe180			
1000	1"1/4"	1"	1/2"	2"	1"1/4"	1"1/4"	1"1/4"	1"1/4"	1"	3/4"	1"1/4"	1"1/4"	Øi120/Øe180			

BOLLY® 2 XL INOX

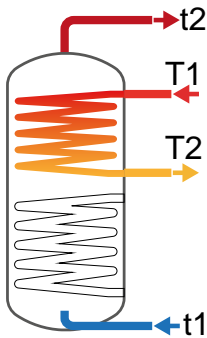
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

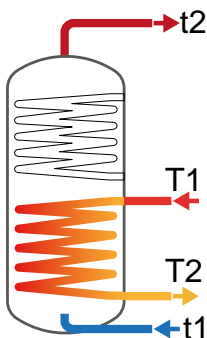
UPPER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	3	29	31	21	14	13,3	16,8	21,5	30,0	284	287	369	518
	1,5	34	35	25	16	12,5	15,8	19,9	27,4	266	270	342	473
300	4	30	31	22	14	20,4	25,8	32,8	45,7	438	444	567	792
	2	35	36	26	17	18,8	23,9	29,9	40,9	403	410	517	709
500	5	35	36	26	17	32,7	41,2	52,3	72,5	704	714	908	1261
	2,5	41	43	31	20	30,2	38,3	47,8	64,9	651	663	830	1128
800	6	41	42	30	20	46,7	59,0	74,7	103,1	1010	1025	1300	1796
	3	49	51	37	24	43,4	54,9	68,4	92,1	936	954	1189	1604
1000	6	42	44	31	21	48,5	61,3	77,5	106,9	1049	1065	1349	1861
	3	50	53	38	25	45,0	57,0	70,8	95,3	972	990	1232	1660

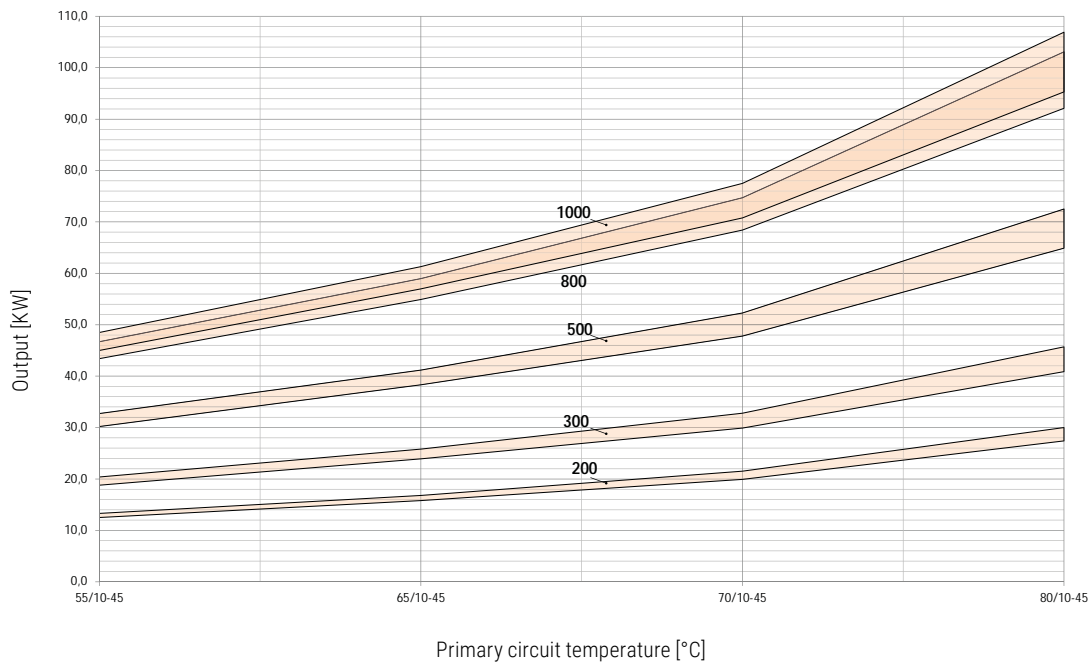
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	3	194	195	209	233	374	377	442	562	992	97
	1,5	191	192	204	226	360	363	421	526	291	29
300	4	302	303	323	361	579	584	682	862	2517	247
	2	296	297	315	347	551	557	642	796	742	73
500	5	539	540	573	632	985	993	1148	1430	5813	570
	2,5	530	532	560	609	942	952	1085	1324	1719	169
800	6	867	869	915	998	1507	1519	1739	2135	11318	1110
	3	855	858	897	966	1447	1462	1650	1982	3351	329
1000	6	919	922	969	1054	1583	1596	1823	2233	11759	1153
	3	906	909	950	1021	1522	1536	1730	2072	3482	341

LOWER
HEAT EXCHANGER



Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	3	127	134	90	57	5,8	7,3	9,4	13,3	120	121	158	225
	1,5	140	147	98	63	5,5	6,9	8,9	12,4	113	115	148	210
300	4	147	153	104	67	7,6	9,5	12,2	17,3	158	160	208	296
	2	163	171	116	75	7,1	8,9	11,4	15,9	147	150	192	272
500	5	138	143	100	65	13,5	17,1	21,9	30,8	288	292	376	532
	2,5	154	160	111	73	12,7	16,1	20,4	28,4	270	274	350	490
800	6	162	168	117	76	17,3	21,8	27,9	39,3	370	374	482	681
	3	179	187	131	85	16,3	20,6	26,2	36,4	349	354	452	630
1000	6	174	180	126	82	19,2	24,2	31,0	43,5	411	416	535	754
	3	194	201	141	93	18,1	22,9	29,0	40,2	387	393	500	696

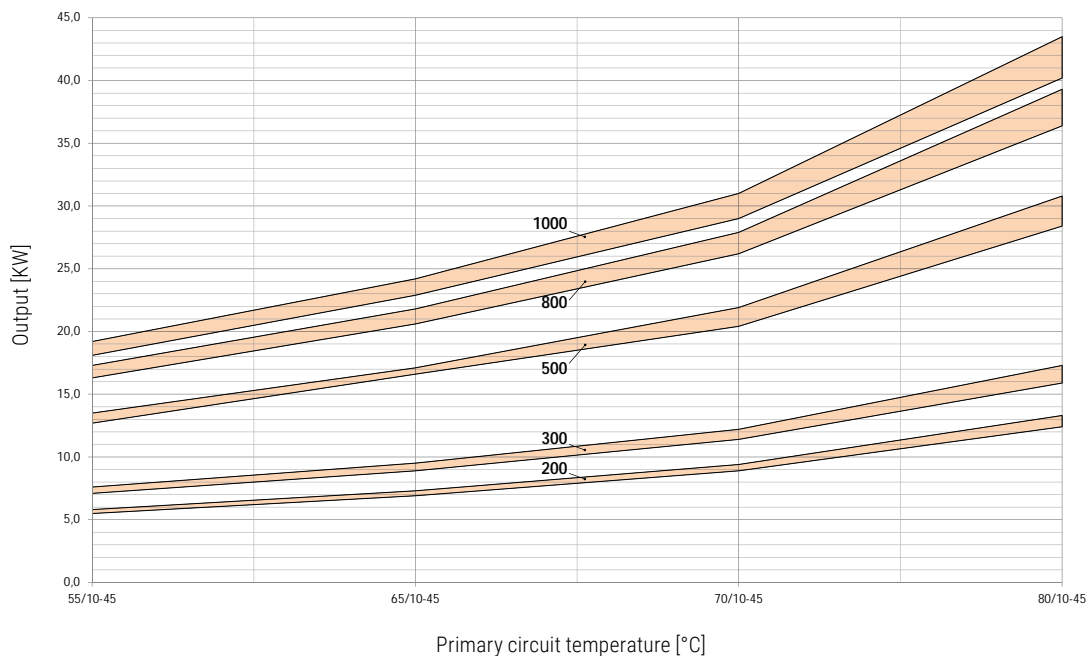
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
200	3	293	293	299	310	369	370	399	453	467	46
	1,5	292	292	298	308	363	365	391	441	135	13
300	4	445	445	453	468	545	547	585	655	999	98
	2	443	444	451	464	536	539	572	636	291	28
500	5	767	767	781	807	949	952	1019	1144	2481	243
	2,5	764	764	777	800	935	938	999	1111	728	71
800	6	1146	1147	1165	1198	1380	1383	1470	1629	4264	418
	3	1142	1143	1160	1189	1363	1367	1446	1588	1253	123
1000	6	1357	1358	1378	1414	1617	1621	1717	1892	4705	461
	3	1353	1354	1372	1405	1598	1603	1689	1845	1385	136



Model	200		300		500		800		1000	
Bolly® 2 XL inox										
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5	3,5	1,75	6	3	6	3

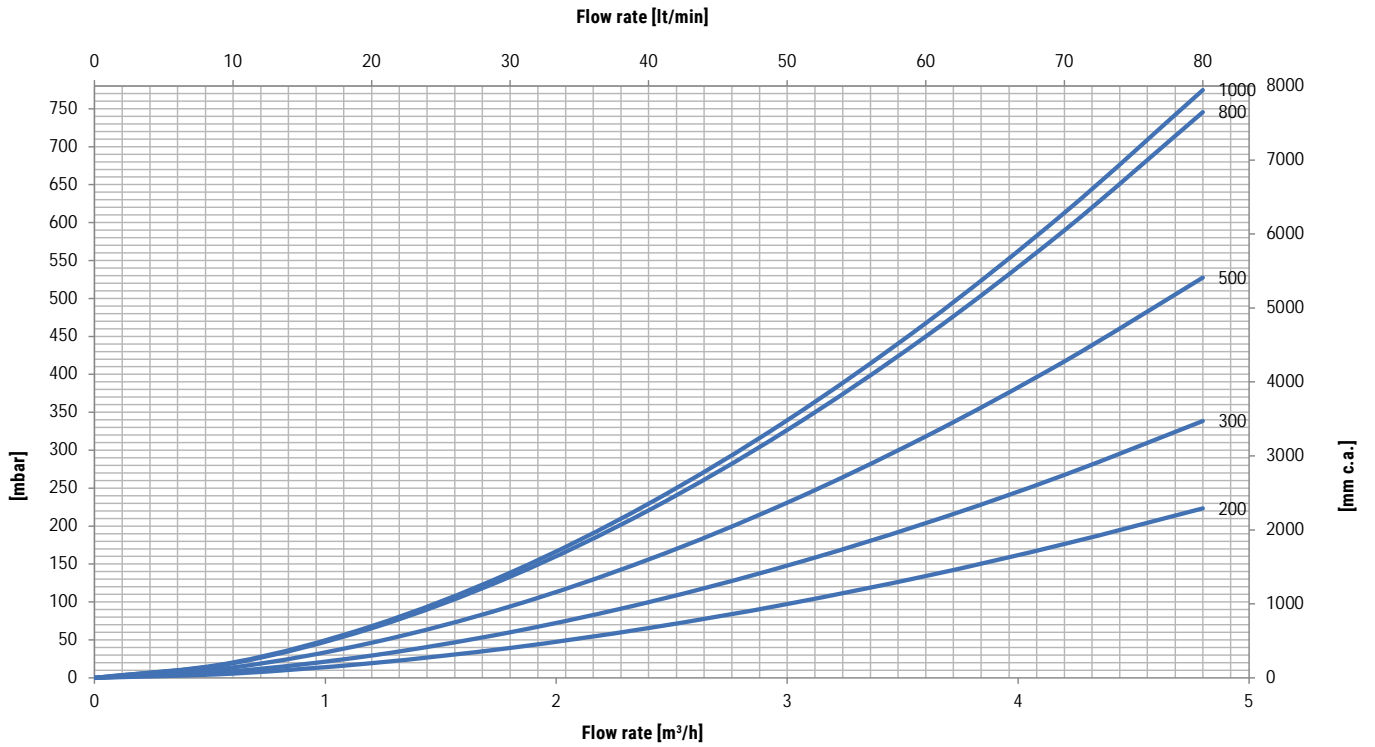
CALORIFIERS IN STAINLESS STEEL

LOWER HEAT EXCHANGERS TECHNICAL DATA

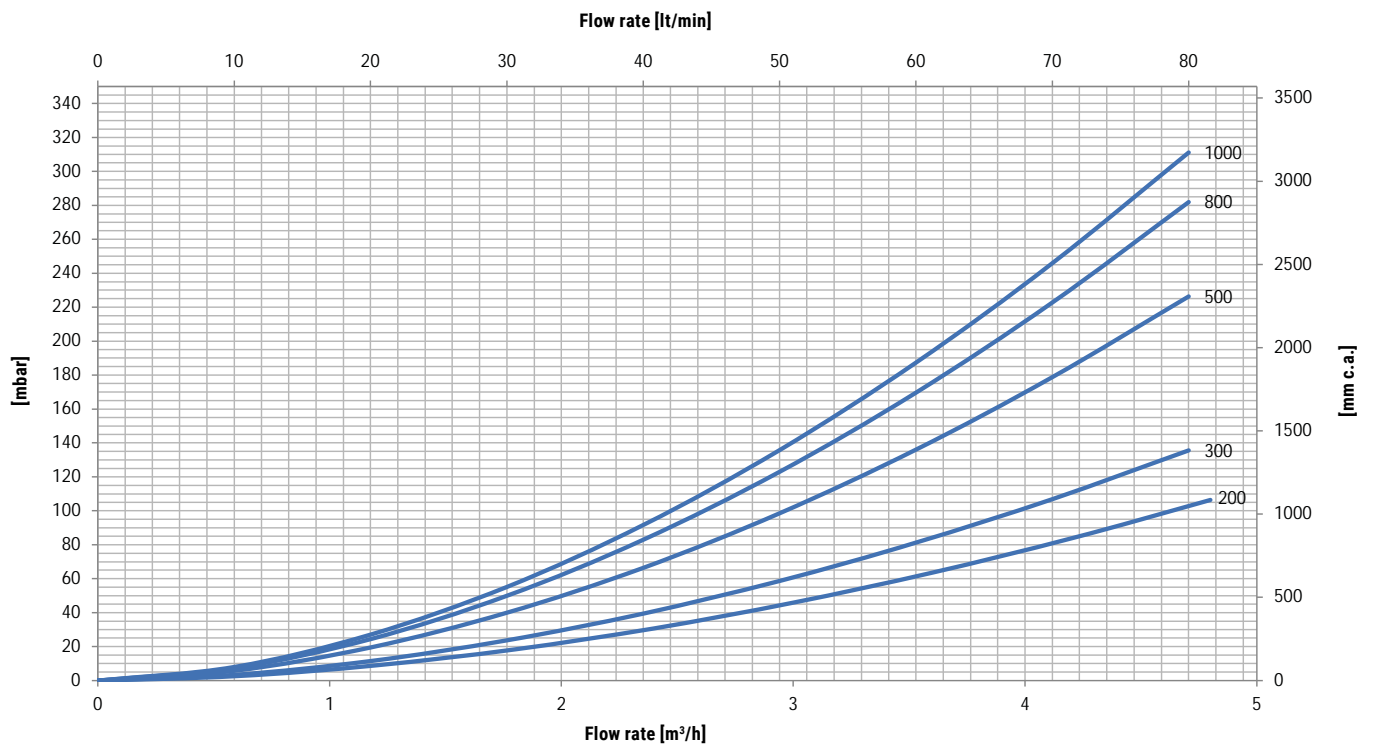


Model	200		300		500		800		1000	
Bolly® 2 XL inox										
Flow rate [m³/h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	2,5	1,25	3	1,5	3,5	1,75	6	3	6	3

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)

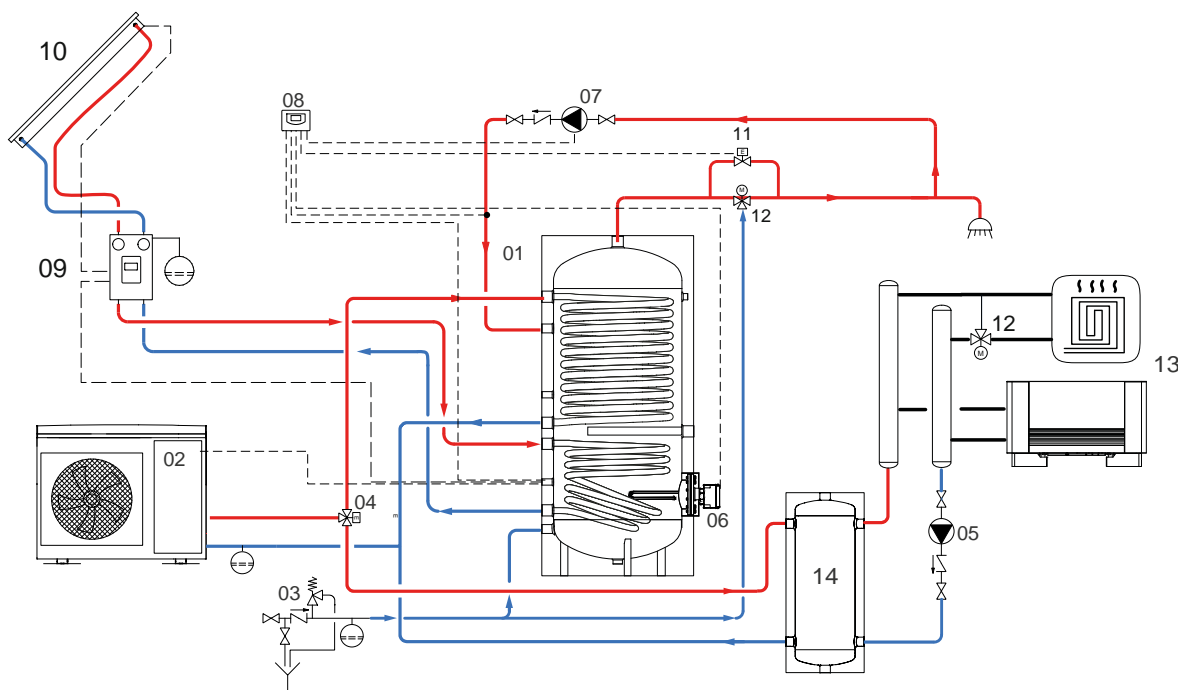


LOWER HEAT EXCHANGERS PRESSURE DROP





EXAMPLE OF INSTALLATION WITH BOLLY® 2 XL INOX



1	Bolly® 2 XL inox	5	Circulation group for heating/cooling system	9	Solar system circulation group	13	Heating units
2	Generator (Heat pump)	6	Electric immersion heater	10	Solar panels	14	Buffer tank
3	Hydraulic safety group	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Motorized three-way valve	8	Electronic control /thermostat	12	Mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 1 HY XL INOX

STAINLESS STEEL 316L CALORIFIER FOR DHW PRODUCTION

WITH 1 HEAT EXCHANGER AND INTEGRATED BUFFER SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Stainless Steel 316 L suitable for domestic hot water
- **Buffer tank:** Mild steel, internamente non trattato.

HEAT EXCHANGER

Fixed oversize stainless steel heat exchanger with double spiral coil

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.
Grey PVC external lining.

CATHODE PROTECTION (DHW STORAGE)

Magnesium anode.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Flange for inspection and counterflange (standard) with provision for electrical resistance 1"1/2

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

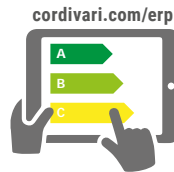
NEW



316L
STAINLESS STEEL
DHW STORAGE



316L
STAINLESS STEEL
HEAT EXCHANGER



On line ErP label tool



BOLLY® 1 HY XL INOX

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m ²]	ENERGY EFFICIENCY CLASS
300	3104052010500	9-14	2,7	B
500	3104052010501	14-20	4,0	C



BOLLY® 1 HY XL INOX CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE [m ²]	ENERGY EFFICIENCY CLASS
300	3104052010505	9-14	2,7	A
500	3104052010506	14-20	4,0	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE	
	1,5 kW	2 kW	3 kW	4 kW	5 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
300	237	319	213	159	//
500	417	746	560	280	224

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Thermometer

Art. Nr.
5032240000107
5 units box

BOLLY® 1 HY XL INOX

STAINLESS STEEL 316L CALORIFIER FOR DHW PRODUCTION

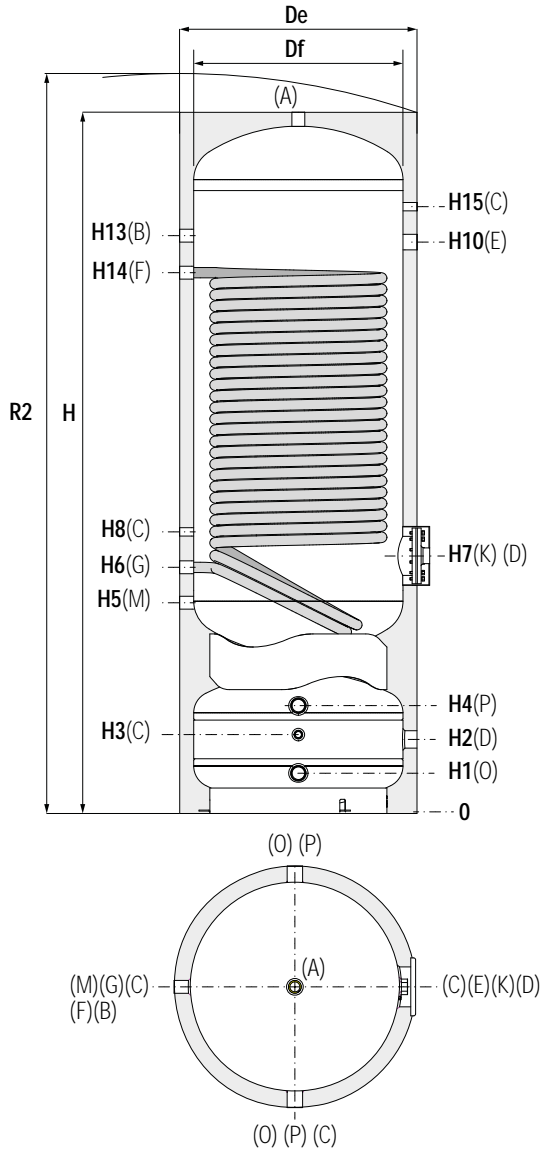
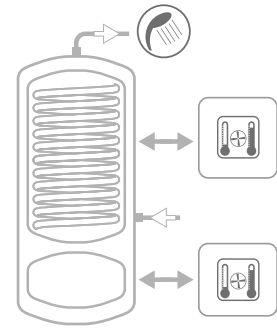
WITH 1 HEAT EXCHANGER AND INTEGRATED BUFFER SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater
E	Connection for magnesium anode
F	Primary circuit inlet
G	Primary circuit outlet
K	Flange for inspection and counterflange with provision for electrical resistance 1"1/2
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator

CALORIFIERS IN STAINLESS STEEL

Model	DHW storage volume	Buffer tank volume	Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H10	H13	H14	H15
	[lt]	[kg]																	
300	300	85	95	650	750	1895	1990	110	232	264	354	640	750	780	860	1510	1570	1459	1620
500	500	115	144	650	750	2185	2310	125	230	245	335	665	765	800	875	1775	1795	1680	1885

Model	A	B	C	D	E	F	G	M	O	P	K
	Connections F										
300	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1"1/4	1"1/4	Øi120/Øe180
500	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1"1/4	1"1/4	Øi120/Øe180

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BOLLY® 1 HY XL INOX

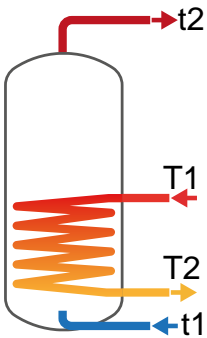
HEAT EXCHANGERS TECHNICAL DATA



Data have been calculated on following basis:

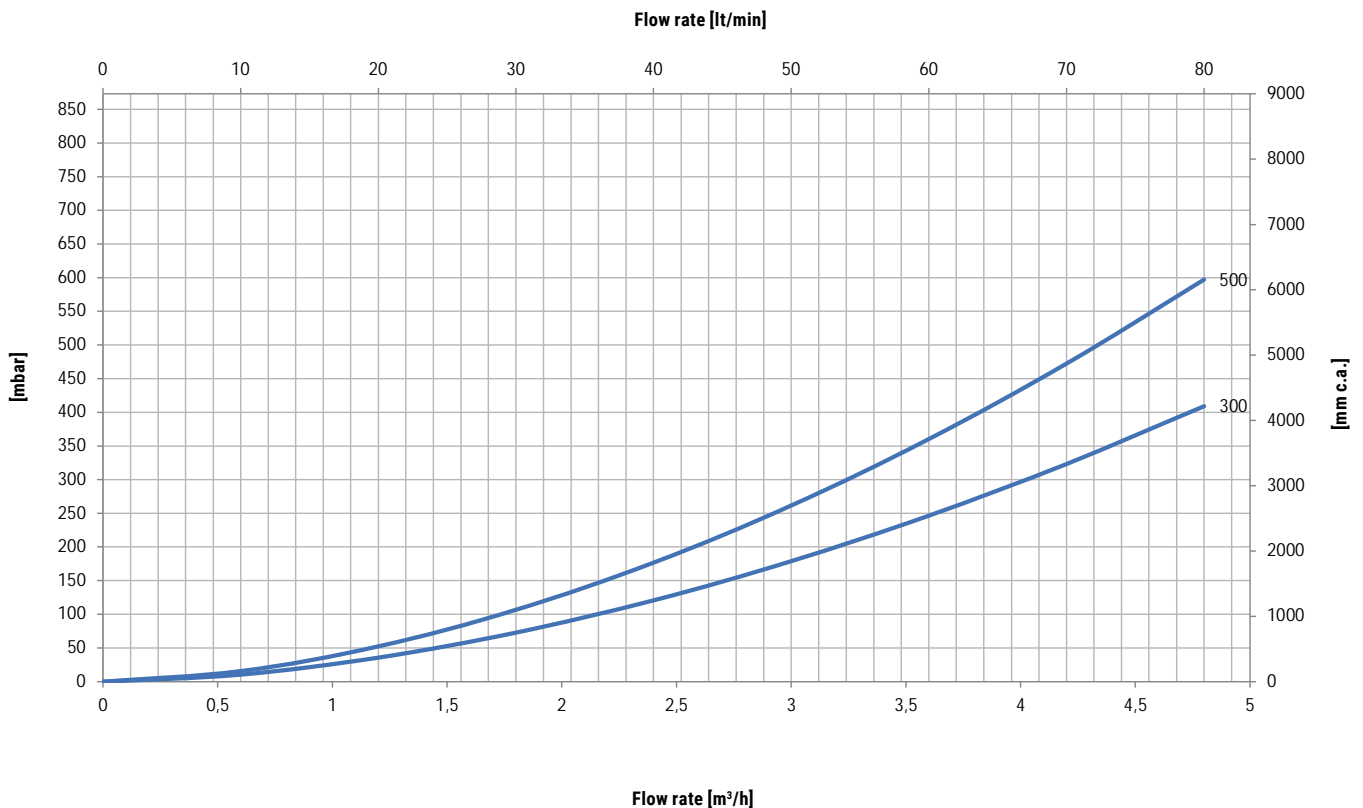
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

Model	Primary Flow rate [m³/h]	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	4	44	46	32	21	25,7	32,4	41,3	57,2	553	561	715	994
	2	51	54	38	25	24,0	30,6	38,3	52,0	519	528	663	902
500	5	52	54	38	25	38,1	48,1	61,0	84,3	823	835	1060	1468
	2,5	61	64	45	30	35,8	45,4	56,6	76,4	773	787	983	1329



Model	Primary Flow rate [m³/h]	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
		55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	4	427	512	538	584	777	867	991	1214	3059	299
	2	421	507	529	569	750	841	949	1140	903	88
500	5	712	858	895	963	1233	1387	1567	1893	6614	648
	2,5	704	850	882	940	1193	1348	1505	1782	1957	192

HEAT EXCHANGERS PRESSURE DROP

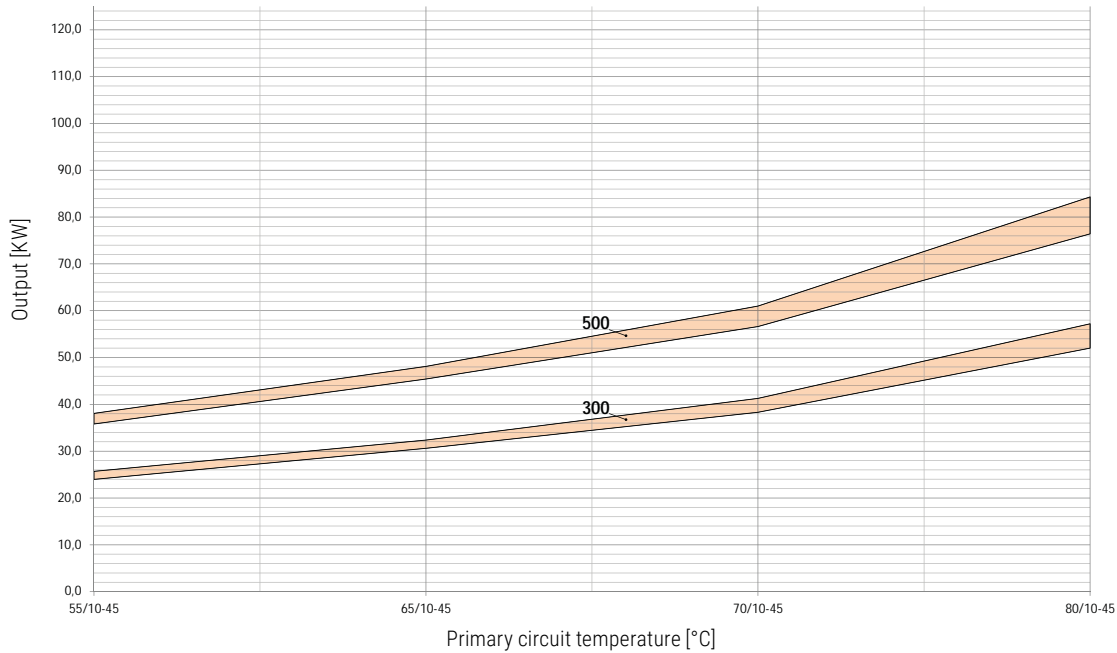


BOLLY® 1 HY XL INOX

HEAT EXCHANGERS TECHNICAL DATA



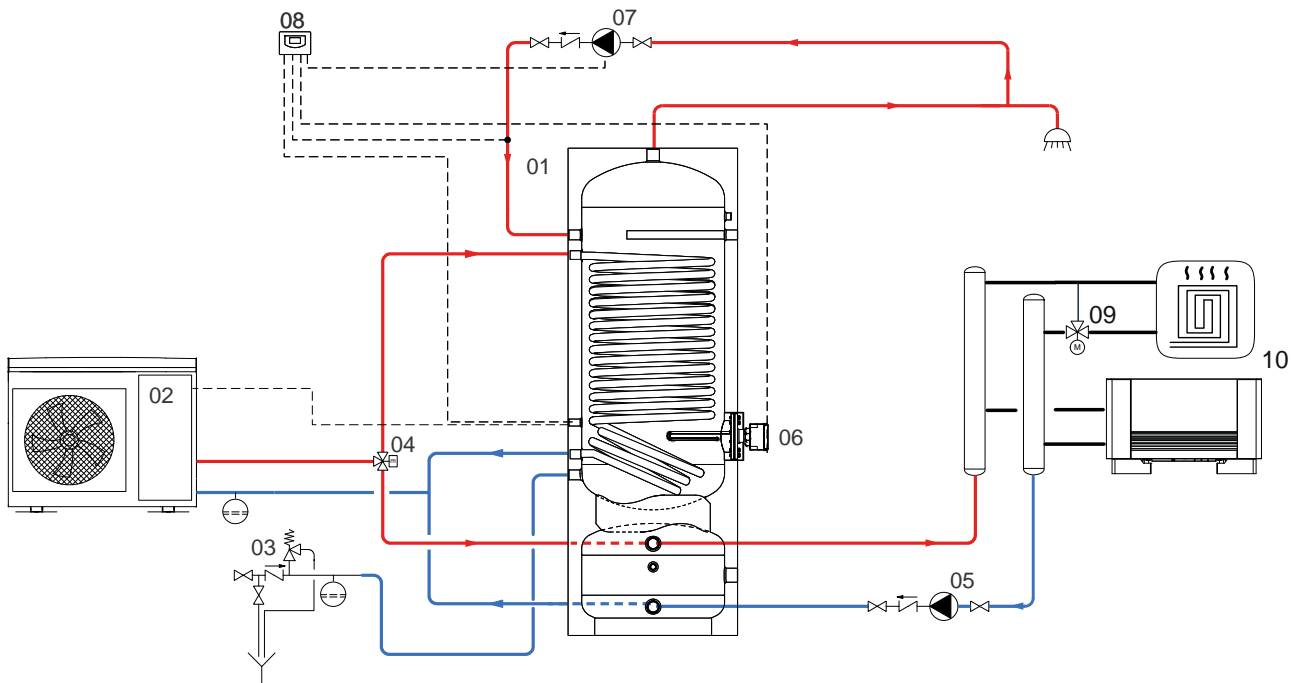
Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)



Model Bolly® 1 XL inox	300		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

CALORIFIERS IN
STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH BOLLY® 1 HY XL INOX



01 Bolly® 1 HY XL	04 Motorized three-way valve	07 D.H.W. recirculation group	10 Heating units
02 Generator (Heat pump)	05 Circulation group of the heating/ cooling system	08 Electronic control /thermostat	
03 Hydraulic safety group	06 Electric immersion heater	09 Thermostatic mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

BOLLY® 2 HY XL INOX

STAINLESS STEEL 316L CALORIFIER FOR DHW PRODUCTION

WITH 2 FIXED EXCHANGERS AND INTEGRATED BUFFER SPECIFIC FOR HEAT PUMPS



APPLICATION

Production and storage of domestic hot water (DHW). Heating/cooling buffer tank for heat pumps.

MATERIAL

- **DHW STORAGE:** Stainless Steel 316 L suitable for domestic hot water
- **Buffer tank:** Mild steel, internamente non trattato.

HEAT EXCHANGER

2 fixed oversize stainless steel heat exchanger with double spiral coil

INSULATION

HARD: High thermal insulation with ecological polyurethane hard foam.
HARD FOAM (CLASS "A" MODELS): rigid polyurethane foam for high thermal insulation with a vacuum sheet of highly insulating material.
Grey PVC external lining.

CATHODE PROTECTION (DHW STORAGE)

Magnesium anode.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE); Flange for inspection and counterflange (standard) with provision for electrical resistance 1"1/2

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

NEW

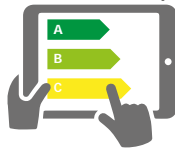


316L
STAINLESS STEEL
DHW STORAGE



316L
STAINLESS STEEL
HEAT EXCHANGER

cordivari.com/erp



On line ErP label tool



BOLLY® 2 HY XL INOX

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper [m²]	Lower	
300	3134052010100	9-14	2,7	0,8	B
500	3134052010101	14-20	4,0	1,4	C

BOLLY® 2 HY XL INOX CLASS A

Model	HARD FOAM INSULATION Art. Nr.	Power of combinable heat pump [kWt]	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
			Upper [m²]	Lower	
300	3134052010105	9-14	2,7	0,8	A
500	3134052010106	14-20	4,0	1,4	A

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	MONOPHASE			THREEPHASE	
	1,5 kW	2 kW	3 kW	4 kW	5 kW
	5240000000051	5240000000052	5240000000053	5240000000047	5240000000048
	Ignition time from 10 °C to 45 °C with electric immersion heaters [min]			Ignition time from 10 °C to 45 °C with electric immersion heaters [min]	
300	237	319	213	159	//
500	417	746	560	280	224

HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW

See Accessories section

Thermometer

Art. Nr.
5032240000107
5 units box

BOLLY® 2 HY XL INOX

STAINLESS STEEL 316L CALORIFIER FOR DHW PRODUCTION

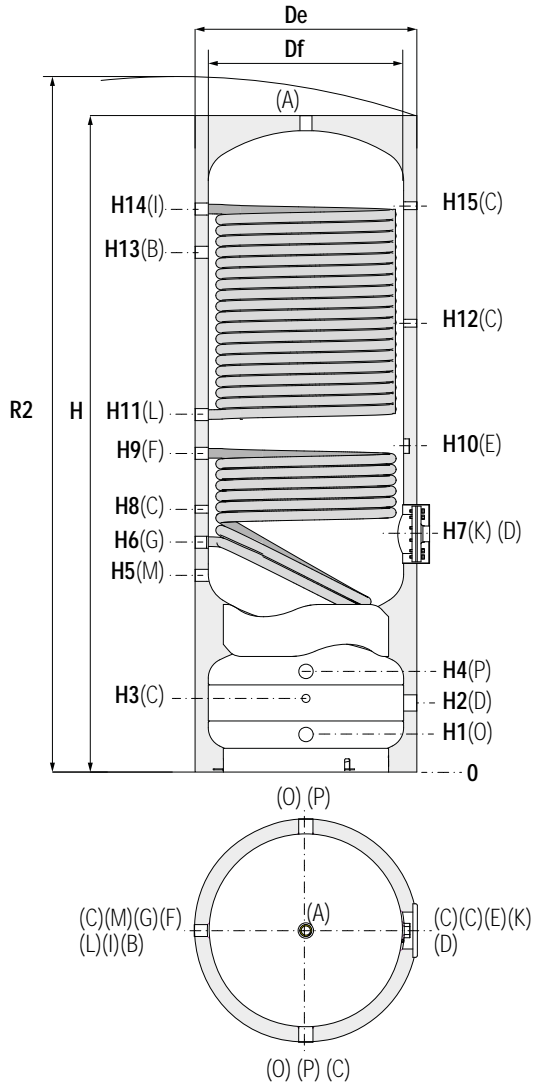
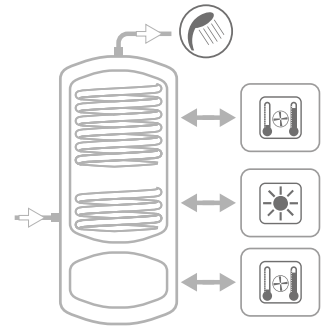
WITH 2 FIXED EXCHANGERS AND INTEGRATED BUFFER SPECIFIC FOR HEAT PUMPS

STORAGE		HEAT EXCHANGER		Buffer tank	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C	4 bar	-10/+95 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation
D	Connection for electric immersion heater (buffer tank)
E	Connection for magnesium anode 1"1/4 G F
F	Lower heat exchanger inlet
G	Lower heat exchanger outlet
K	Flange for inspection and counterflange with provision for electrical resistance 1"1/2
M	Domestic cold water circuit inlet
O	Heating return/to generator
P	Heating delivery/from generator
L	Upper heat exchanger outlet
I	Upper heat exchanger inlet

CALORIFIERS IN STAINLESS STEEL

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

Model	DHW storage volume	Buffer tank volume	Weight	Df	De	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13	H14	H15
	[l]	[l]																				
300	300	85	101	650	750	1895	2000	110	232	264	354	640	746	780	860	960	990	1070	1296	1510	1620	1630
500	500	115	152	650	750	2185	2310	125	230	245	335	655	765	795	875	1061	1085	1190	1494	1730	1874	1885

Model	A	B	C	D	E	F	G	M	O	P	L	I	K
	Connections F												
300	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1"1/4	1"1/4	1"	1"	Ø1120/Øe180
500	1"	1"	1"1/2	1"1/2	1"1/4	1"	1"	1"	1"1/4	1"1/4	1"	1"	Ø1120/Øe180

BOLLY® 2 HY XL INOX

HEAT EXCHANGERS TECHNICAL DATA

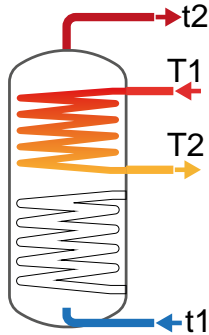


Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continuous from 10 °C to t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at t2, input 10 °C and output 45 °C;
- 4) Sanitary water according to UNI CTI 8065 (<15°fr).

UPPER HEAT EXCHANGER

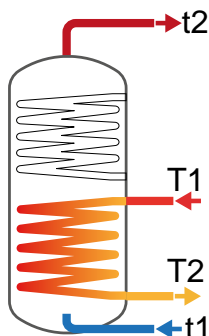
Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	4	30	31	22	14	20,4	25,8	32,8	45,7	438	444	567	792
	2	35	36	26	17	18,8	23,9	29,9	40,9	403	410	517	709
500	5	35	36	26	17	32,7	41,2	52,3	72,5	704	714	908	1261
	2,5	41	43	31	20	30,2	38,3	47,8	64,9	651	663	830	1128



Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	4	302	303	323	361	579	584	682	862	2517	247
	2	296	297	315	347	551	557	642	796	742	73
500	5	539	540	573	632	985	993	1148	1430	5813	570
	2,5	530	532	560	609	942	952	1085	1324	1719	169

LOWER HEAT EXCHANGER

Model	Primary Flow rate	Ignition time (minutes) from 10 °C to t2 and primary at T1				Maximum power exchange (kW) with primary at T1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at T1			
		T1/t2				T1				T1			
	[m³/h]	55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
300	4	147	153	104	67	7,6	9,5	12,2	17,3	158	160	208	296
	2	163	171	116	75	7,1	8,9	11,4	15,9	147	150	192	272
500	5	138	143	100	65	13,5	17,1	21,9	30,8	288	292	376	532
	2,5	154	160	111	73	12,7	16,1	20,4	28,4	270	274	350	490



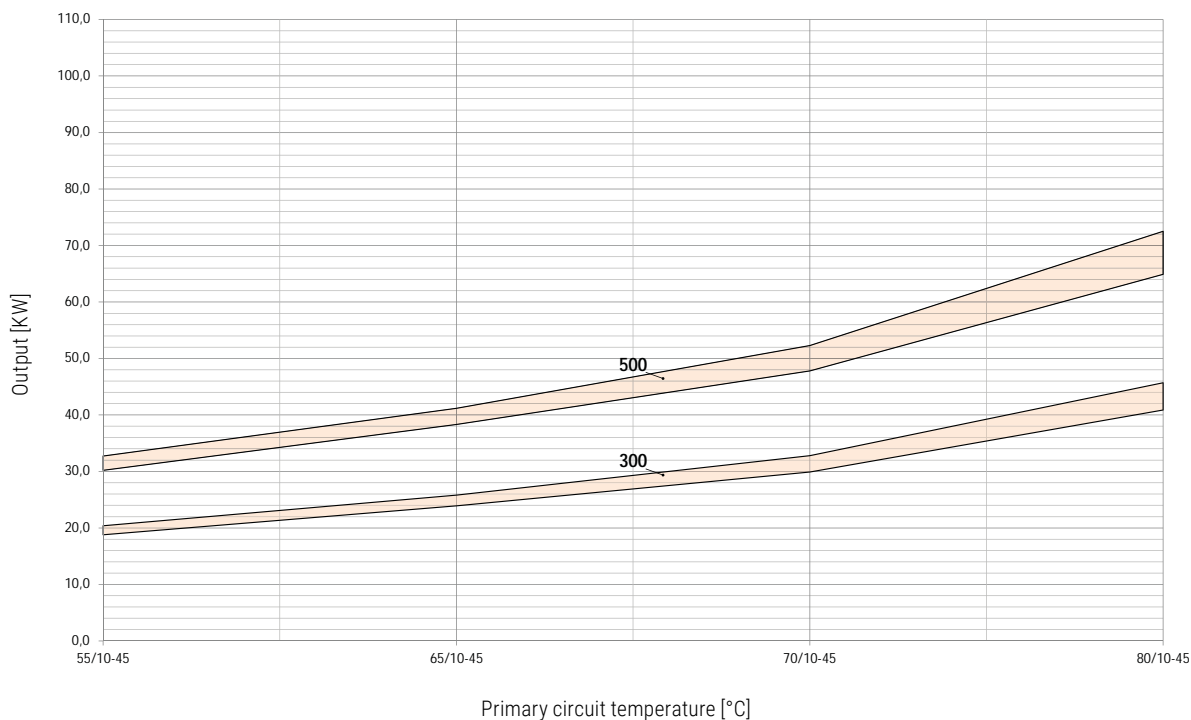
Model	Primary Flow rate	DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Heat exchanger pressure drop	
		T1/t2				T1/t2				[mm.c.a.]	[mbar]
	[m³/h]	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60		
300	4	445	445	453	468	545	547	585	655	999	98
	2	443	444	451	464	536	539	572	636	291	28
500	5	767	767	781	807	949	952	1019	1144	2481	243
	2,5	764	764	777	800	935	938	999	1111	728	71

BOLLY® 2 HY XL INOX

UPPER HEAT EXCHANGERS TECHNICAL DATA

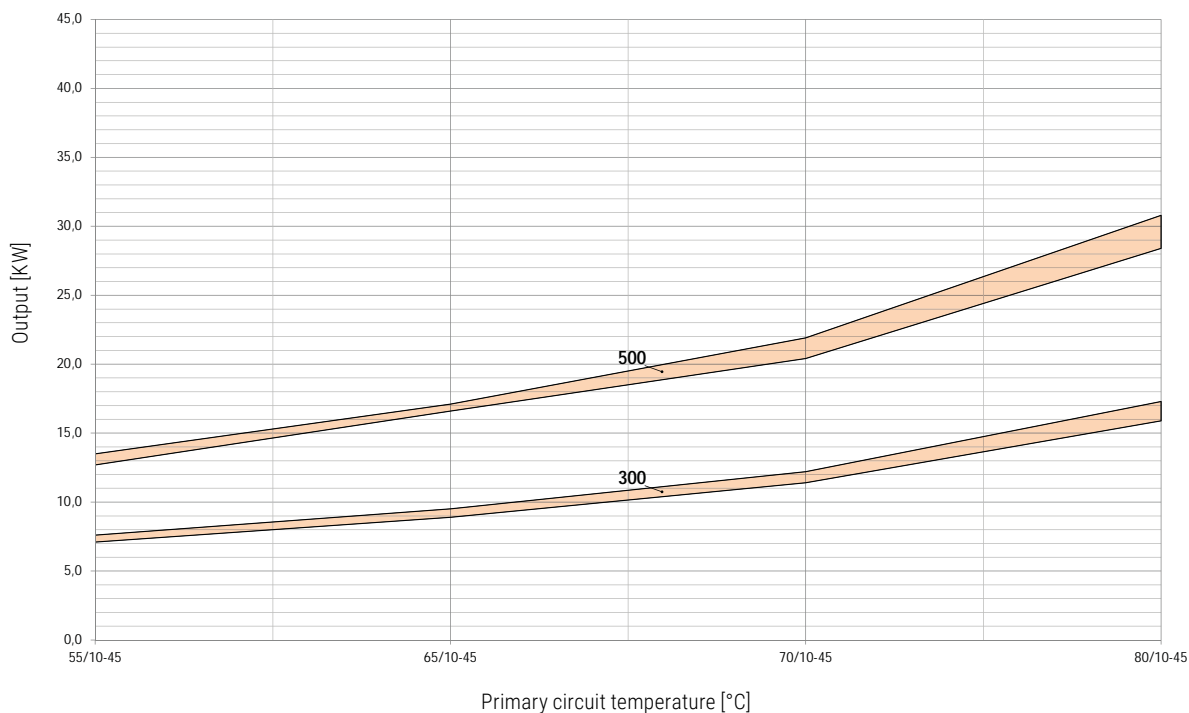


CALORIFIERS IN
STAINLESS STEEL



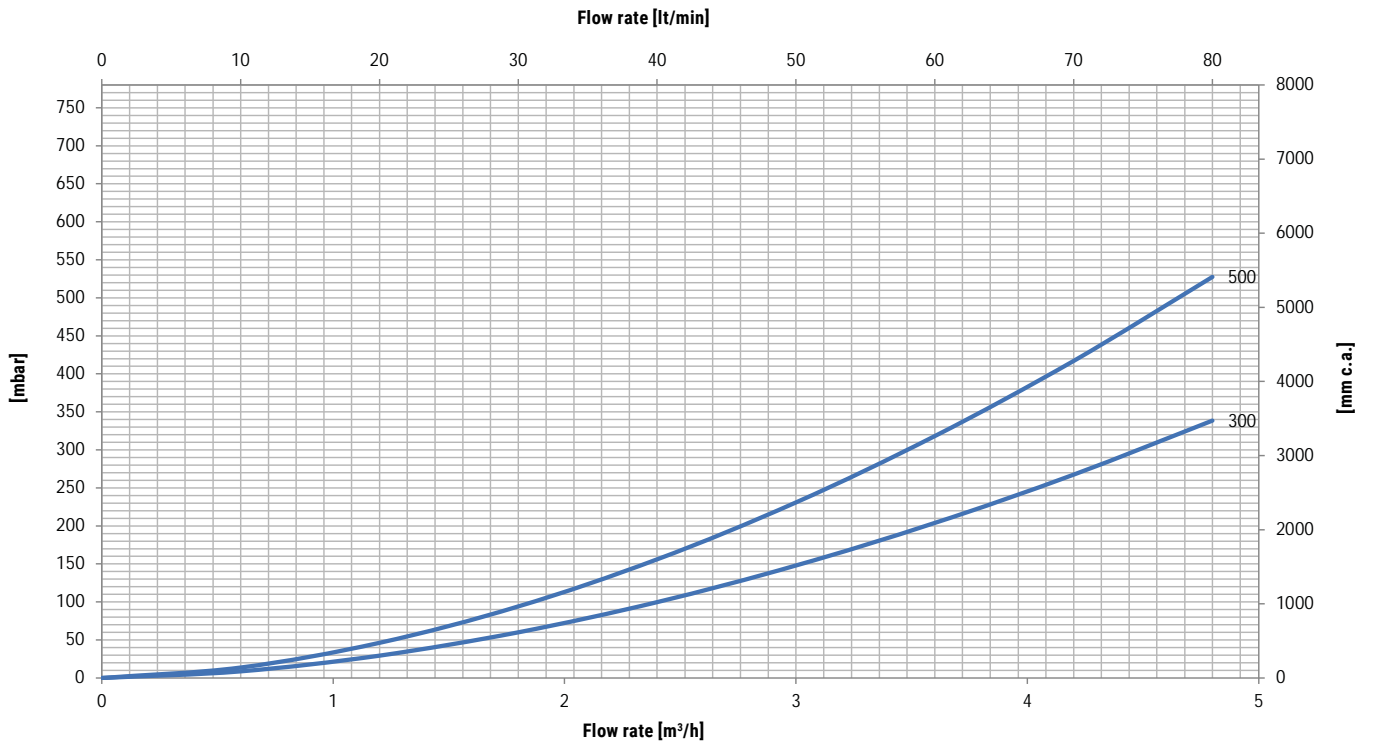
Model Bolly® 2 HY XL INOX	300		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

LOWER HEAT EXCHANGERS TECHNICAL DATA

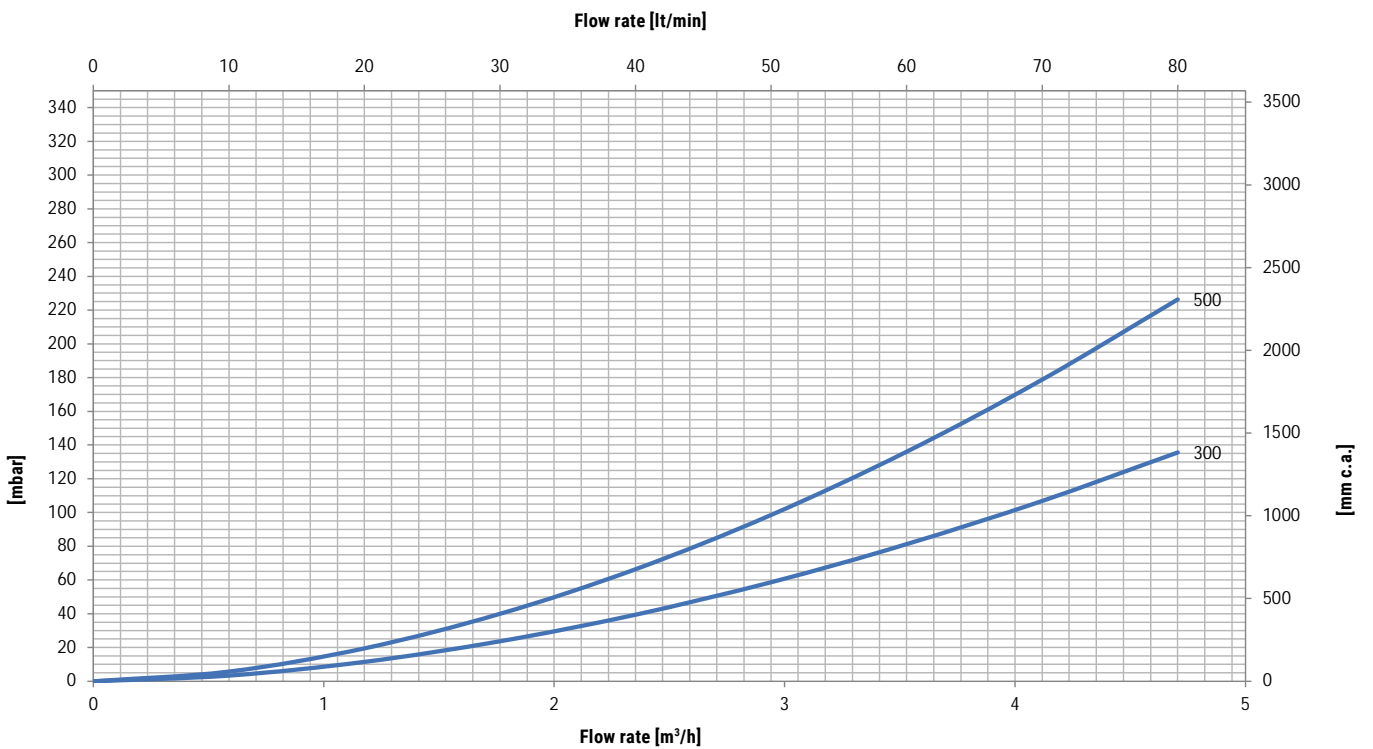


Model Bolly® 2 HY XL INOX	300		500	
Flow rate [m³/h]	MAX	MIN	MAX	MIN
	3	1,5	3,5	1,75

Heat Exchanger output referred to temperature and flow rate of primary circuit and with secondary at 10/45°C at maximum withdrawal of producible DHW (Upper limit of the curves referred to maximum primary flow rate in the heat exchanger, while the lower limit in the curves refer to the minimum primary flow rate)

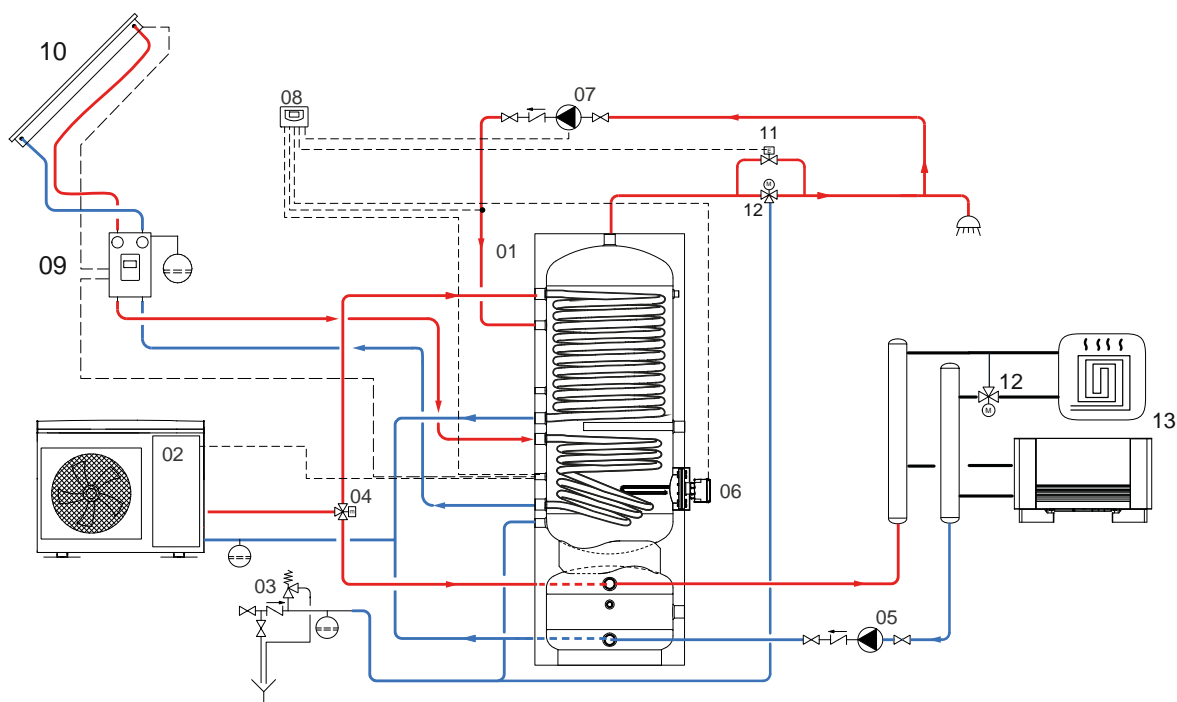


LOWER HEAT EXCHANGERS PRESSURE DROP





EXAMPLE OF INSTALLATION WITH BOLLY® 2 HY XL INOX



1	Bolly® 2 HY XL	5	Circulation group for heating/cooling system	9	Solar system circulation group	13	Heating units
2	Generator (Heat pump)	6	Electric immersion heater (optional)	10	Solar panels		
3	Hydraulic safety group	7	D.H.W. recirculation group	11	By-pass solenoid valve		
4	Motorized three-way valve	8	Electronic control /thermostat	12	Thermostatic mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

COMBI 1 INOX

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel, painted externally and untreated internally.

D.H.W. storage: Stainless steel 316L suitable for drinking water according to D. M. n. 174 of 06.04.04

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks COMBI 1 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

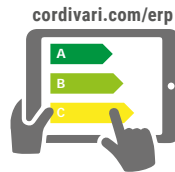
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE



On line ErP label tool



COMBI 1 XB

Model	HARD FOAM INSULATION Art. Nr.	STAINLESS STEEL 316L DHW STORAGE		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	
500	3270162314051	99	1,1	C
600	3270162314052	146	1,3	C



COMBI 1 XB

Model	DISMOUNTABLE HARD FOAM INSULATION Art. Nr.	STAINLESS STEEL 316L DHW STORAGE		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	
800	3270162314053	191	1,6	C
1000	3270162314054	226	1,8	C

ACCESSORIES

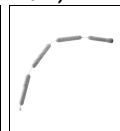
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800,1000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 1 INOX

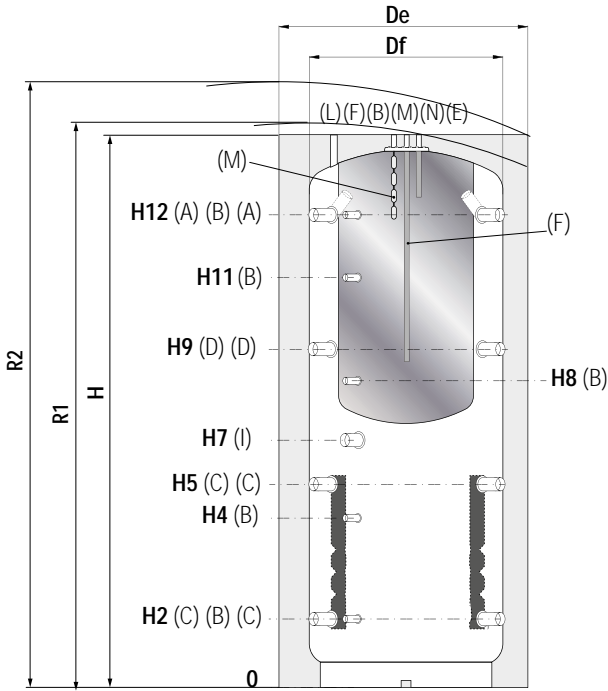
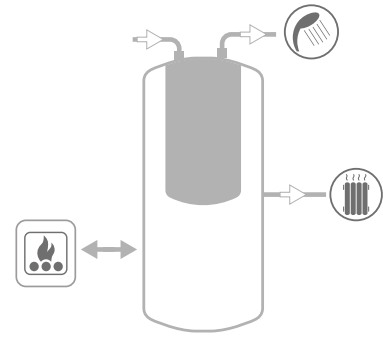
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER

TECHNICAL STORAGE		D.H.W. STORAGE	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °C

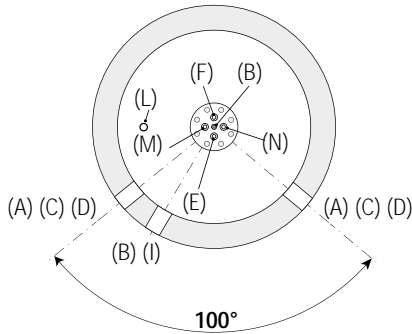


CORDIVARI Lab

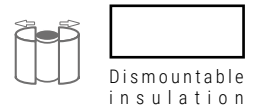
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Heating delivery/From generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Heating delivery 1"1/2 G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Air purge 1/2" G F
- M** Chain magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



CALORIFIERS IN STAINLESS STEEL



Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H2	H4	H5	H7	H8	H9	H11	H12
			[mm]												
500	478	98	//	750	1650	//	1820	247	533	629	841	930	1011	1231	1343
600	560	101	//	750	1900	//	2050	247	582	695	915	1060	1144	1382	1593
800	805	116	790	950	1855	2030	2090	265	584	690	823	988	1115	1332	1541
1000	946	159	790	950	2160	2310	2370	265	656	787	998	1188	1309	1588	1831

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

COMBI 1 INOX

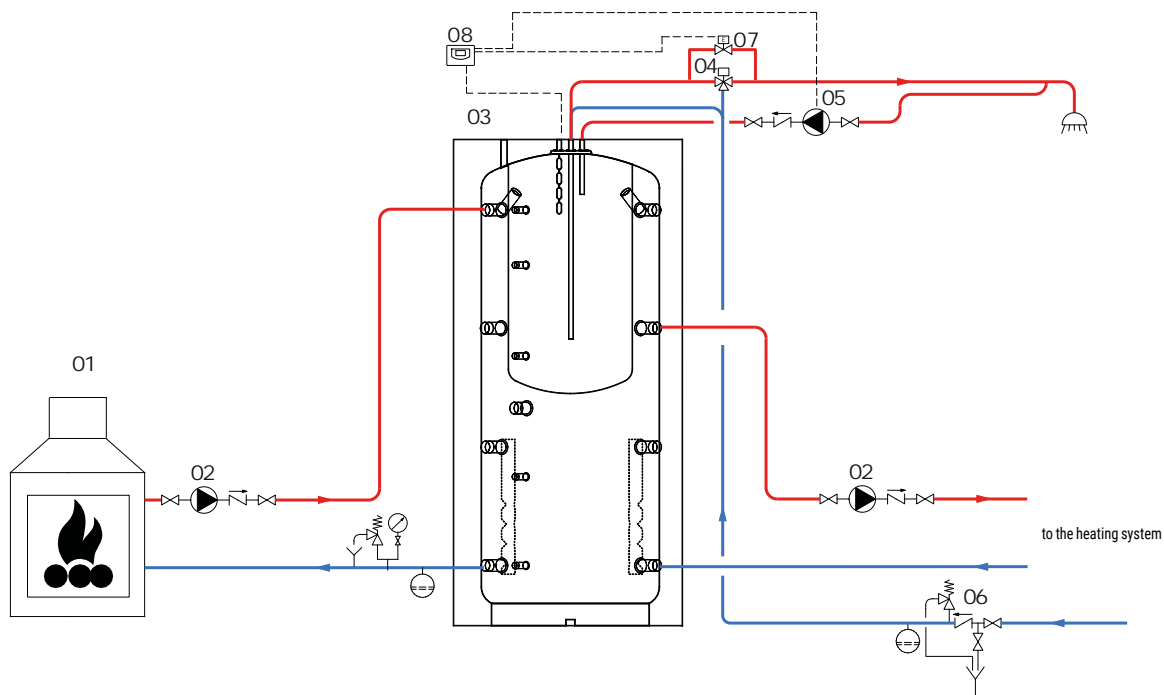
D.H.W. STORAGE PERFORMANCES



Model	COMPLETE HEATED STORAGE VOLUME			UPPER PART HEATED STORAGE VOLUME		
	DHW Volume	DHW exchanger surface	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m ²]	[lt/min]	[lt]	[lt/min]	[lt]
500	99	1,1	2,5	10 lt/min: 198 lt	1,57	10 lt/min: 148 lt
				25 lt/min: 176 lt		25 lt/min: 132 lt
600	146	1,3	3,0	10 lt/min: 239 lt	1,86	10 lt/min: 179 lt
				25 lt/min: 213 lt		25 lt/min: 160 lt
800	191	1,6	3,5	10 lt/min: 320 lt	2,17	10 lt/min: 240 lt
				25 lt/min: 280 lt		25 lt/min: 210 lt
1000	226	1,8	4,1	10 lt/min: 389 lt	2,26	10 lt/min: 291 lt
				25 lt/min: 330 lt		25 lt/min: 250 lt



EXAMPLE OF INSTALLATION WITH COMBI 1 INOX



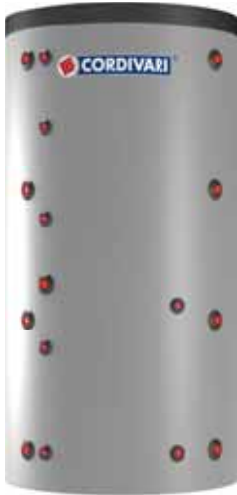
01	Generator	03	Combi 1	05	D.H.W. recirculation group	07	By-pass solenoid valve
02	Heating system circulation group	04	Thermostatic mixing valve	06	Hydraulic safety group	08	Electronic control /thermostat

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

CALORIFIERS IN
STAINLESS STEEL

COMBI 2 INOX

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel, painted externally and untreated internally.

D.H.W. storage: Stainless steel 316L suitable for drinking water according to D. M. n. 174 of 06.04.04

HEAT EXCHANGER

1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi 2 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

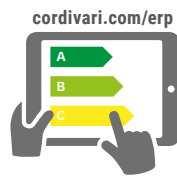
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE



On line ErP label tool



COMBI 2 XB

Model	Art. Nr.	STAINLESS STEEL 316L DHW STORAGE		FIXED HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	Volume [lt]	Surface [m ²]	
500	3270162314151	99	1,1	11,5	1,9	C
600	3270162314152	146	1,3	18	2,8	C



Model	Art. Nr.	DISMOUNTABLE HARD FOAM INSULATION		FIXED HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	Volume [lt]	Surface [m ²]	
800	3270162314153	191	1,6	20	3,1	C
1000	3270162314154	226	1,8	24	3,7	C

ACCESSORIES

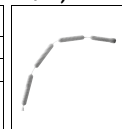
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800,1000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 2 INOX

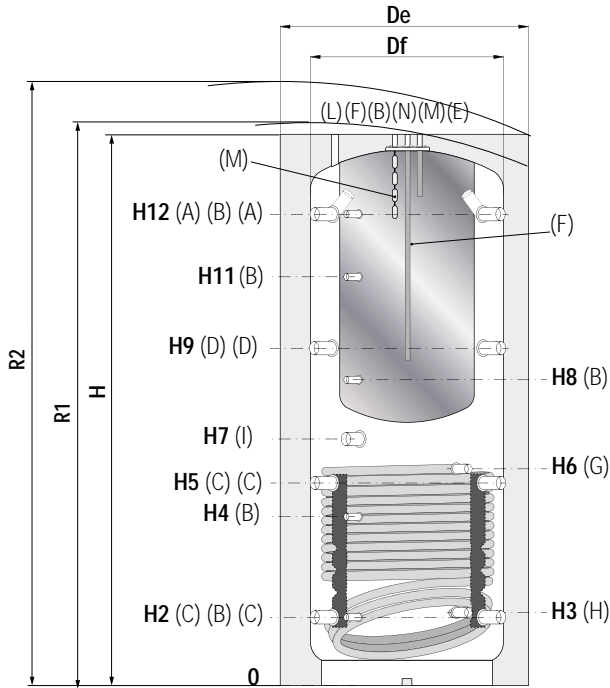
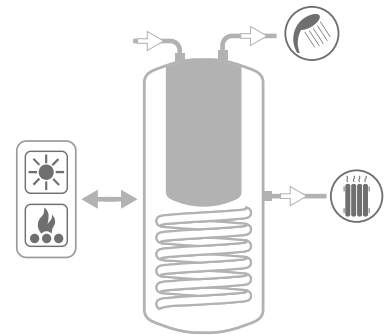
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER AND 1 FIXED HEAT EXCHANGER

TECHNICAL STORAGE		D.H.W. STORAGE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °C	12 bar	110 °C

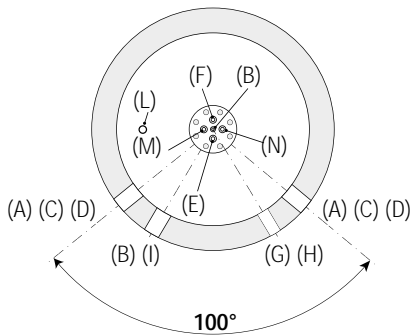


CORDIVARI Lab

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- A** Heating delivery/From generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Heating delivery 1"1/2 G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Air purge 1/2" G F
- M** Chain magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



CALORIFIERS IN STAINLESS STEEL



Dismountable insulation

Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H2	H3	H4	H5	H6	H7	H8	H9	H11	H12
			[mm]														
500	478	105	//	750	1650	//	1820	247	260	533	629	744	841	930	1011	1231	1343
600	560	122	//	750	1900	//	2050	247	260	582	695	855	915	1060	1144	1382	1593
800	805	140	790	950	1855	2030	2090	265	278	584	690	762	823	988	1115	1332	1541
1000	946	201	790	950	2160	2310	2370	265	284	656	787	953	998	1188	1309	1588	1831

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

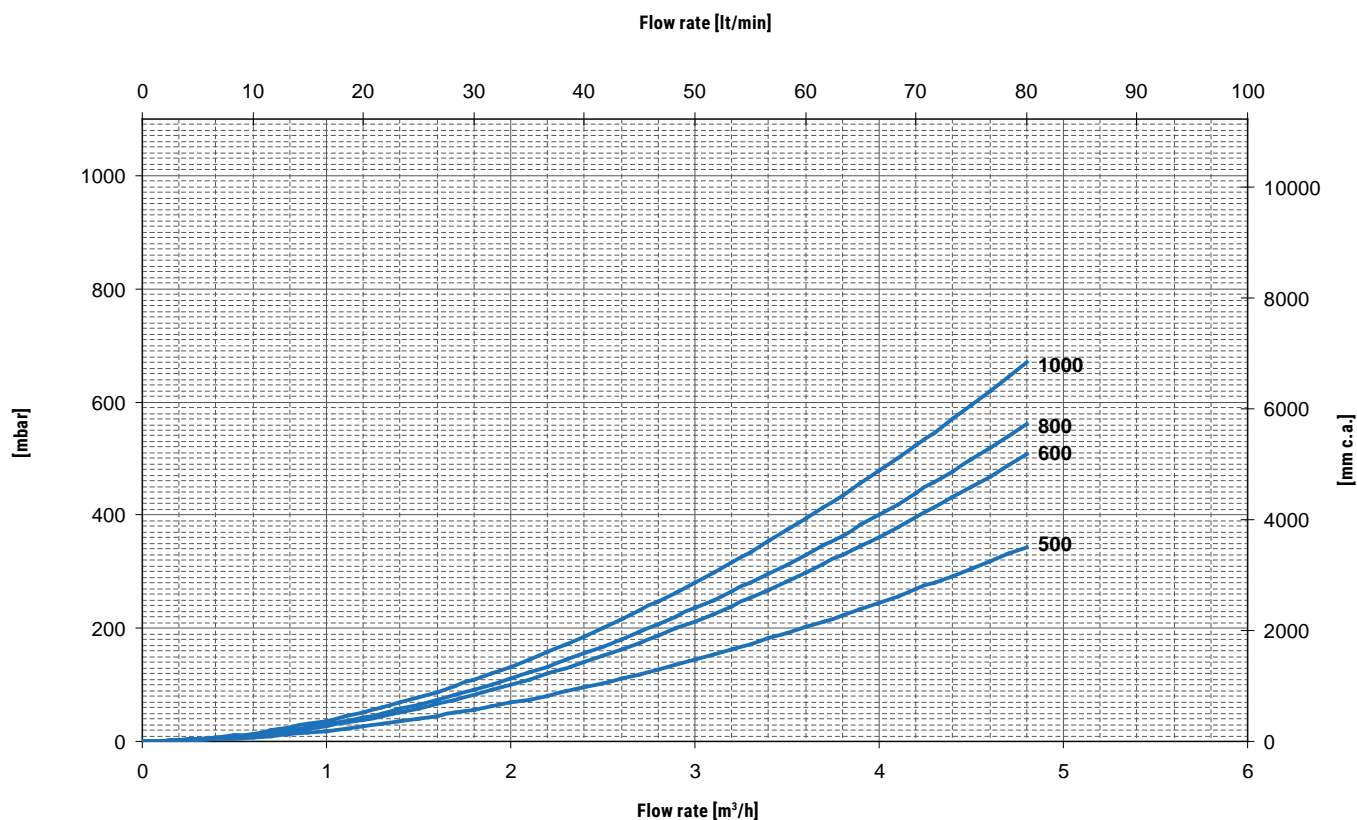
COMBI 2 INOX

D.H.W. STORAGE PERFORMANCES



Model	COMPLETE HEATED STORAGE VOLUME			UPPER PART HEATED STORAGE VOLUME		
	DHW Volume	DHW exchanger surface	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m ²]	[lt/min]	[lt]	[lt/min]	[lt]
500	99	1,1	2,5	10 lt/min: 198 lt 25 lt/min: 176 lt	1,57	10 lt/min: 148 lt 25 lt/min: 132 lt
600	146	1,3	3,0	10 lt/min: 239 lt 25 lt/min: 213 lt	1,86	10 lt/min: 179 lt 25 lt/min: 160 lt
800	191	1,6	3,5	10 lt/min: 320 lt 25 lt/min: 280 lt	2,17	10 lt/min: 240 lt 25 lt/min: 210 lt
1000	226	1,8	4,1	10 lt/min: 389 lt 25 lt/min: 330 lt	2,26	10 lt/min: 291 lt 25 lt/min: 250 lt

LOWER HEAT EXCHANGERS PRESSURE DROP



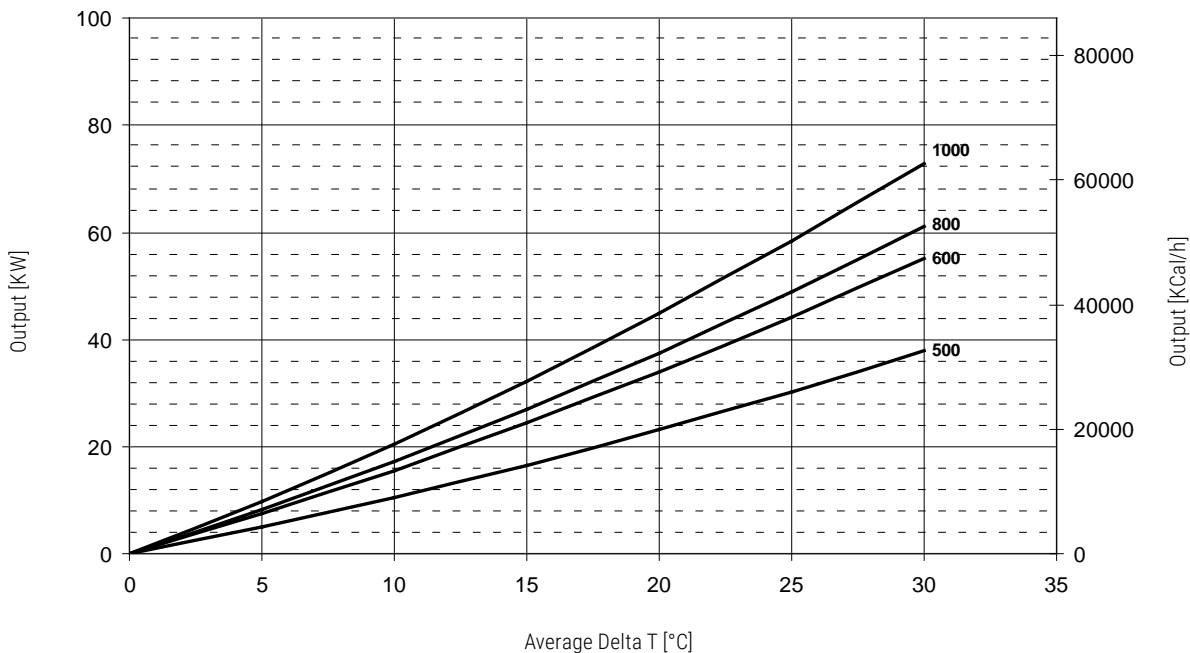
COMBI 2 INOX

LOWER HEAT EXCHANGERS TECHNICAL DATA



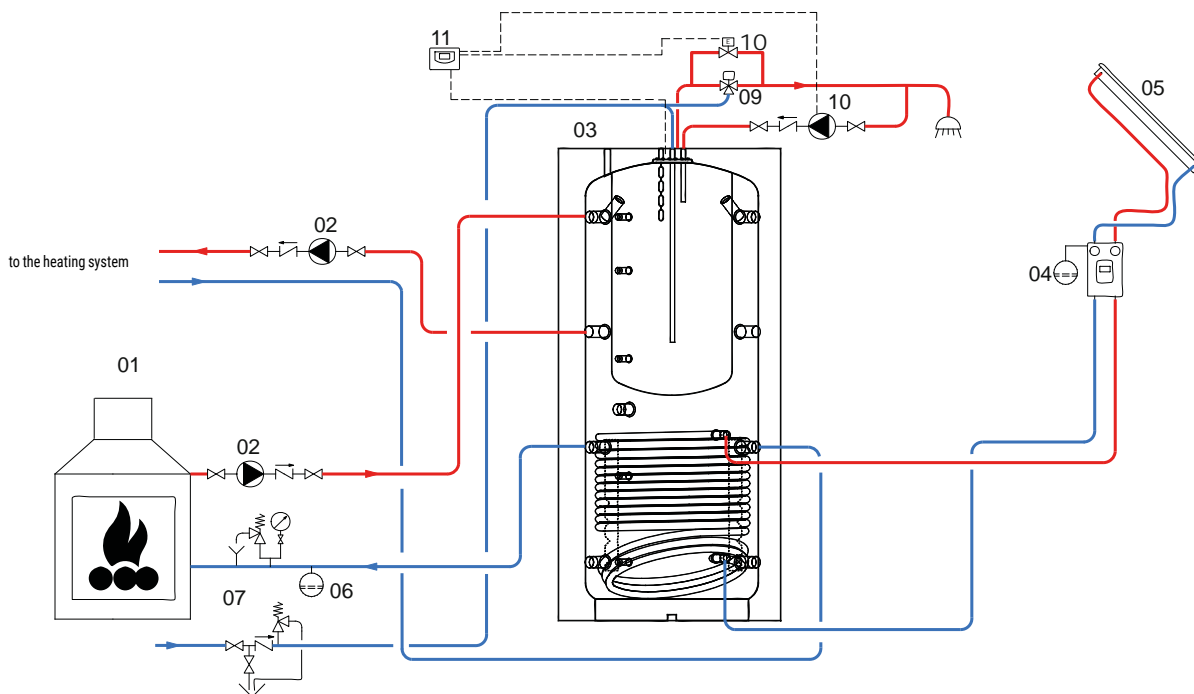
Output of the Combi 2 lower heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

Thermal output is given in both kW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h. For example, a 1000 liters COMBI 2 with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the main difference of temperature will be: $(80 + 70) / 20 - 60 = 15$ °C and therefore you can exchange up to approximately 32 kW.



CALORIFIERS IN
STAINLESS STEEL

EXAMPLE OF INSTALLATION WITH COMBI 2 INOX

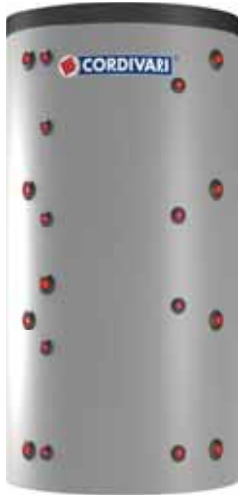


01	Generator	04	Solar system circulation group	07	Hydraulic safety group	10	By-pass solenoid valve
02	Heating system circulation group	05	Solar panels	08	D.H.W. recirculation group	11	Electronic control /thermostat
03	Combi 2	06	Expansion vessel	09	Thermostatic mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

COMBI 3 INOX

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel, painted externally and untreated internally.

D.H.W. storage: Stainless steel 316L suitable for drinking water according to D. M. n. 174 of 06.04.04

HEAT EXCHANGERS:

N° 2 fixed heat exchangers.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi 3 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

Grey PVC external lining.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

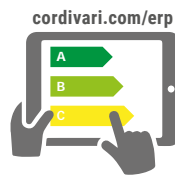
5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L
STAINLESS STEEL
DHW STORAGE



On line ErP label tool



COMBI 3 XB

Model	HARD FOAM INSULATION Art. Nr.	STAINLESS STEEL 316L DHW STORAGE		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS ErP
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
500	3270162314251	99	1,1	8	1,3	11,5	1,9	C
600	3270162314252	146	1,3	12	1,9	18	2,8	C



Model	DISMOUNTABLE HARD FOAM INSULATION Art. Nr.	Volume	Surface	Volume	Surface	Volume	Surface	ENERGY EFFICIENCY CLASS ErP
		[lt]	[m²]	[lt]	[m²]	[lt]	[m²]	
800	3270162314253	191	1,6	16	2,4	20	3,1	C
1000	3270162314254	226	1,8	20	3,1	24	3,7	C

ACCESSORIES

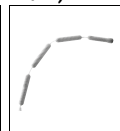
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800,1000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 3 INOX

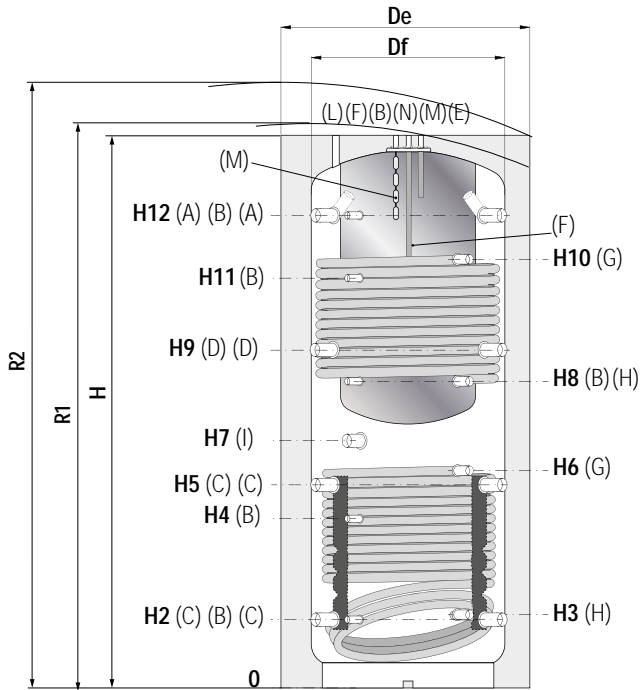
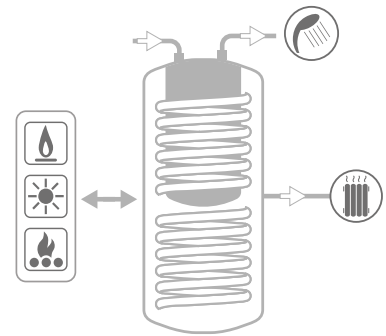
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L TANK IN TANK CALORIFIER AND 2 FIXED HEAT EXCHANGERS

TECHNICAL STORAGE		D.H.W. STORAGE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °C	12 bar	110 °C

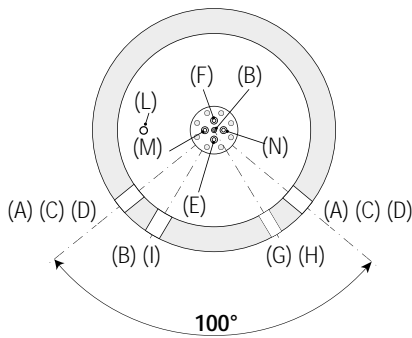


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Heating delivery/From generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Heating delivery 1"1/2 G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Air purge 1/2" G F
- M** Chain magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



Model	Volume [lt]	Weight [kg]	Df	De	H	R1	R2	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
			[mm]															
500	478	120	//	750	1650	//	1820	247	260	533	629	744	841	930	1011	1231	1231	1343
600	560	150	//	750	1900	//	2050	247	260	582	695	855	915	1060	1144	1500	1382	1593
800	805	198	790	950	1855	2030	2090	265	278	584	690	762	823	988	1115	1428	1332	1541
1000	946	240	790	950	2160	2310	2370	265	284	656	787	953	998	1188	1309	1748	1588	1831

CALORIFIERS IN STAINLESS STEEL

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

COMBI 3 INOX

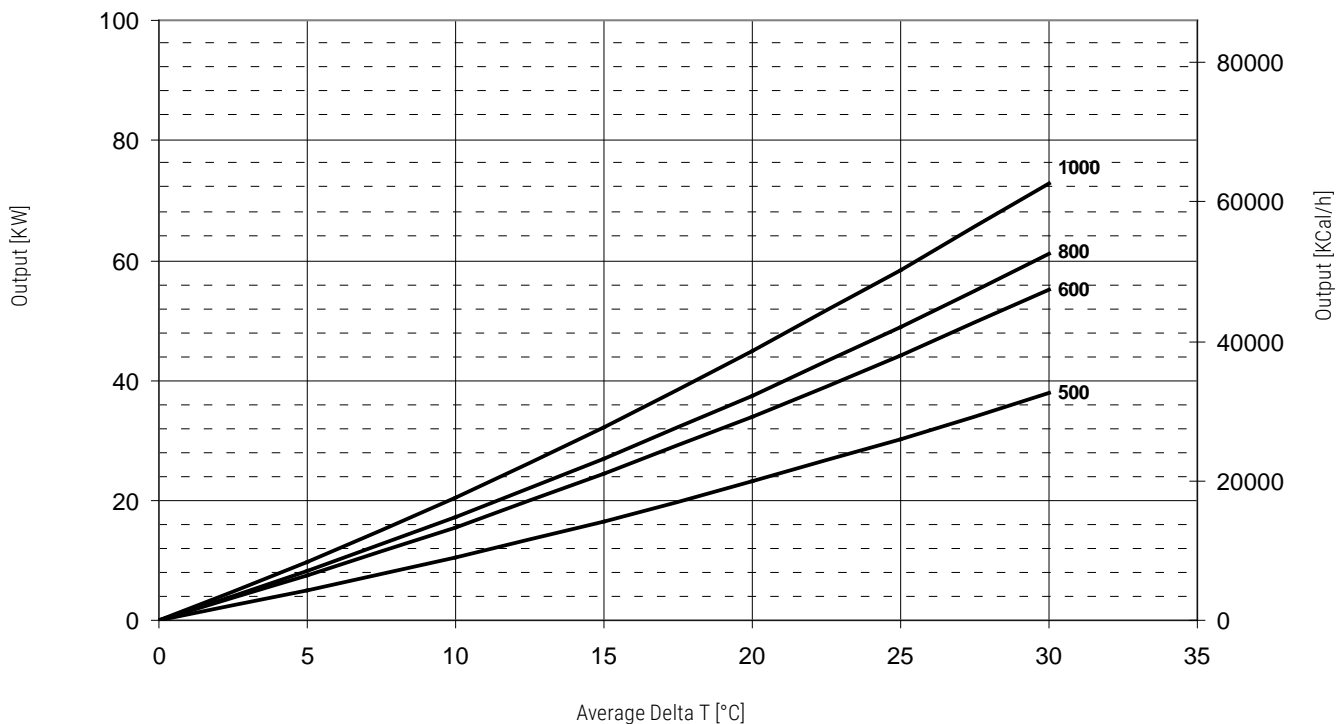
D.H.W. STORAGE PERFORMANCES



Model	COMPLETE HEATED STORAGE VOLUME				UPPER PART HEATED STORAGE VOLUME	
	DHW Volume	DHW exchanger surface	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m ²]	[lt/min]	[lt]	[lt/min]	[lt]
500	99	1,1	2,5	10 lt/min: 198 lt	1,57	10 lt/min: 148 lt
				25 lt/min: 176 lt		25 lt/min: 132 lt
600	146	1,3	3,0	10 lt/min: 239 lt	1,86	10 lt/min: 179 lt
				25 lt/min: 213 lt		25 lt/min: 160 lt
800	191	1,6	3,5	10 lt/min: 320 lt	2,17	10 lt/min: 240 lt
				25 lt/min: 280 lt		25 lt/min: 210 lt
1000	226	1,8	4,1	10 lt/min: 389 lt	2,26	10 lt/min: 291 lt
				25 lt/min: 330 lt		25 lt/min: 250 lt

UPPER HEAT EXCHANGERS TECHNICAL DATA

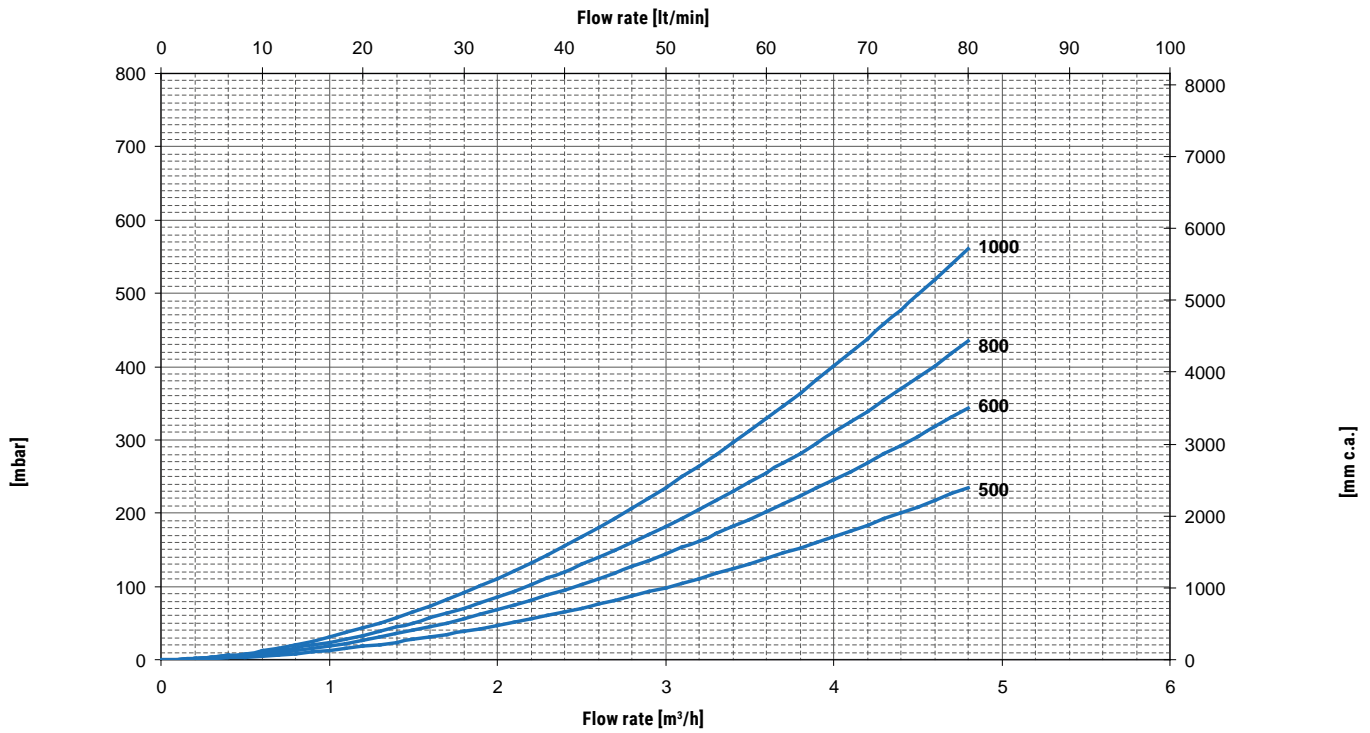
Output of the Combi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.



Please note: for LOWER heat exchangers see technical data of model Combi 2 INOX

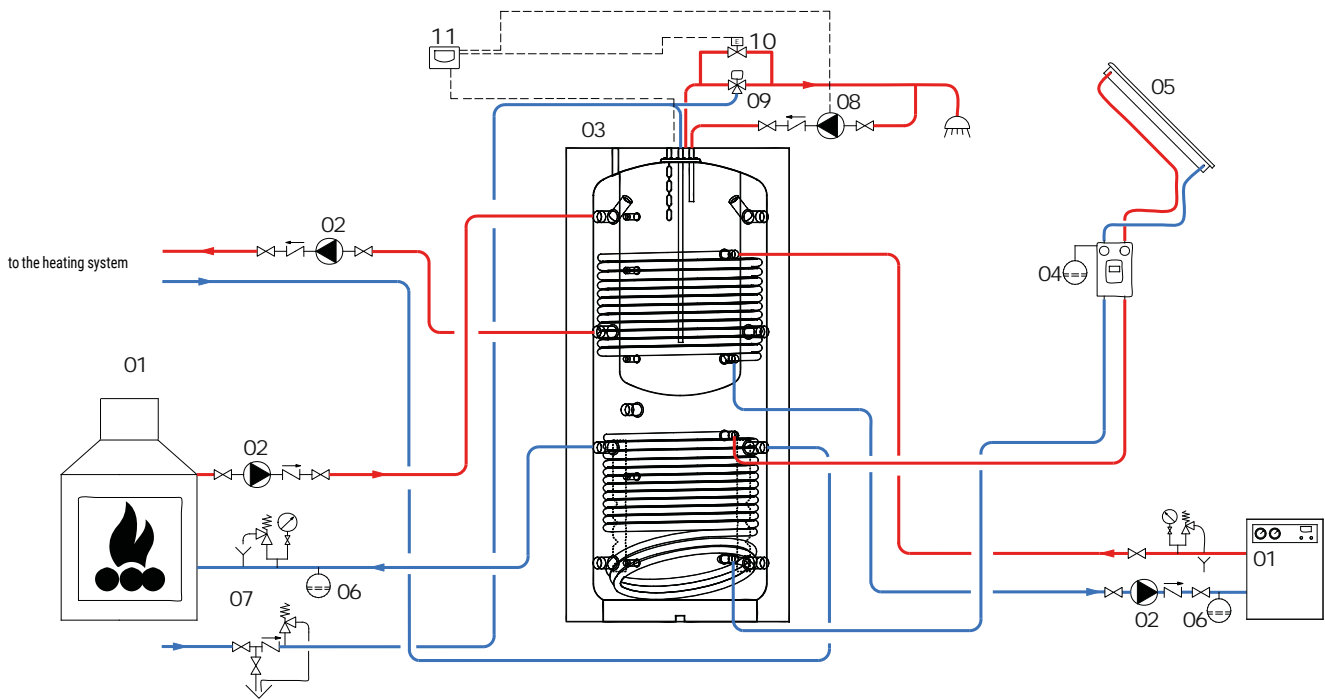
COMBI 3 INOX

UPPER HEAT EXCHANGERS PRESSURE DROP



Please note: for LOWER heat exchangers see pressure drop of model Combi 2 INOX

EXAMPLE OF INSTALLATION WITH COMBI 3 INOX



01	Generator	04	Solar system circulation group	07	Hydraulic safety group	10	By-pass solenoid valve
02	Heating system circulation group	05	Solar panels	08	D.H.W. recirculation group	11	Electronic control /thermostat
03	Combi 3	06	Expansion vessel	09	Thermostatic mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.



HYDRONIC AND D.H.W. INSTANTANEOUS SYSTEMS

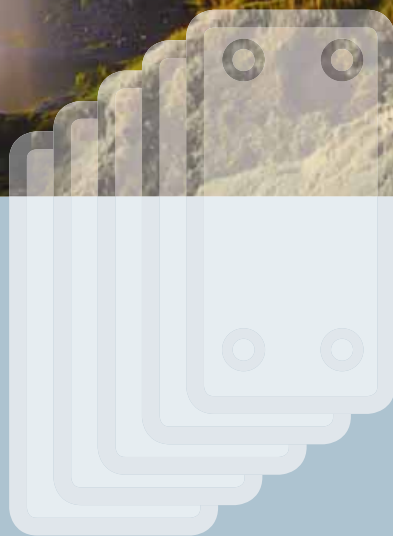


PLATE HEAT EXCHANGER



Cordivari plate heat exchangers, are offering now a complete range of solutions for domestic, residential and commercial applications. A wide and flexible proposal, both for brazed exchangers of small dimensions, or plate-to-plate exchangers for larger application. New range of exchangers, thanks to various dimensions and types, connections from DN32 to DN100, different and with extended working pressure limits, allows to meet any plant requirements or plumbing needs. From small single-family house sourced by boiler or pellet stove, to big plants, every installation finds today the most suitable Cordivari solution thanks to the new on-line professional dimensioning tool, where you can always find the best performing and the most economical solution.



PHC INSPECTABLE PLATE HEAT EXCHANGERS

PHC heat exchangers are used in all domestic and industrial installations where a fluid exchange is required.

They are suitable for D.H.W production, (immediate or with a storage tank), for the heating of swimming pools using different energy sources (traditional boiler, biomass, solar thermal systems). PHC heat exchangers can also be applied in district heating installations, in heat recovery systems, for the hydraulic separation of installations.

The new range offers 6 main models that combines the variability of the plates number, of the gaskets, of the working pressure limits, which allows to meet any plant requirements or plumbing needs.

Being inspectable, the PHC exchangers are recommended for all plants where an efficient but flexible heat exchanger is required, allowing maintenance and cleaning.

PHC exchangers are designed for all applications stated on Art. 4.3 of the Pressure Equipment Directive (P.E.D.) 2014/68/UE.



SLB BRAZED PLATE HEAT EXCHANGERS

SLB Plate Heat Exchangers provide the most compact and economical solution in all domestic and industrial installations, where a heat exchange is required.

The technology is based on the joining by 99% pure copper brazing of multiple Stainless steel 316L plates.

The new range offers 4 main models available in insulated or not-insulated version, designed to satisfy all possible thermal exchange needs.

SLB Heat Exchangers are designed for D.H.W. production or for heating , refrigeration, evaporation, industrial processing, cooling.



ON-LINE PLATE EXCHANGERS TOOL

ON-LINE SOFTWARE TO SIZE THE
CORDIVARI PLATE EXCHANGERS

A PROFESSIONAL TOOL:
USER FRIENDLY, FAST AND FOR FREE

http://www.cordivari.com/configurator_plate_exchangers

HEAT EXCHANGERS PHC PLATE

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



WORKING CONDITIONS

Gaskets model	Max pressure	Temperature [max/min]
EPDM	10/16 bar	140 /20 °C (*)
NBR	10/16 bar	110/-4°C (*)

(*) Is intended as maximum working temperature of Gaskets. The maximum operating temperature must be lower between those corresponding to the vapor pressure of 0.5 bar above the pressure in normal atmospheres considered for two circulating fluids. For a use of temperatures above 110 °C please see the TECHNICAL SUPPORT section

APPLICATION

PHC Heat exchangers are used in domestic and industrial installations. In particular they're suitable for production of D.H.W., as well as for heating of swimming pools, using different energy sources (traditional boiler, solid fuel, solar thermal systems). For domestic application, the PHC are suitable for district heating installations.

MATERIAL

- Frame (not in contact with fluids) in painted mild steel
- Guide for Heat exchanger plates, bolts and screw nuts (not in contact with fluids) in galvanized mild steel
- Nipples and plates (in contact with fluid) in Stainless steel 316L
- EPDM Gaskets.

TECHNICAL DESCRIPTION

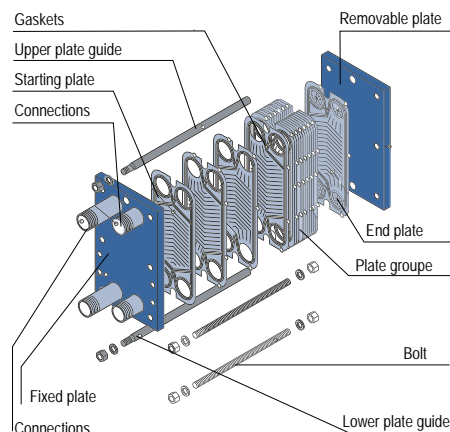
PHC exchangers are inspectionable plate to plate type. Their shape ensures the possibility of opening the exchanger for cleaning. The modular design allows you to change the configuration of the exchanger even after a period of use (within certain limits).

PHC exchangers are designed for the use stated on Art. 3.3 of PED 97/23/CE. In particular, they are intended to be used with non-dangerous liquids with steam pressure at maximum operating temperature not exceeding 0.5 bar above normal atmospheric pressure. Every Exchanger has serial number, label and end-user manual.

CHEMICAL COMPATIBILITY

Material used for PHC Exchangers are suitable for following liquids:

- Water • Swimming pool water • Milk • Whisky • Acetone • Glycole • Glycoled Water • Mineral Water • Wine • Wine Vinegar • Etanol • Etilenic Glycole • Demineralized Water • Acetic Acid • Beer • Liquors • Methanol • Propylenic Glycol

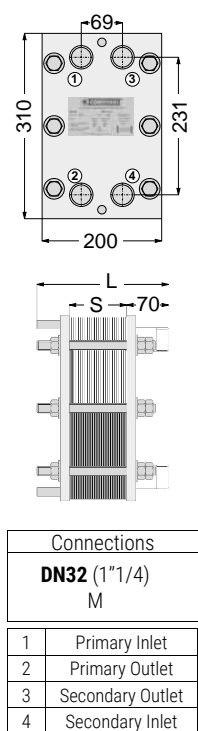


HEAT EXCHANGERS PHC 3120 - DN32

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



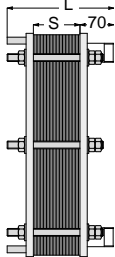
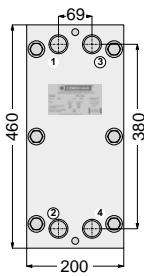
N° of Plates	With EPDM gaskets PN10 VERSION		With NBR gaskets PN10 VERSION		S Fixing quote [mm]	L [mm]	Primary Vol. = Art. Nr. Secondary Vol. Insulation	
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE			[l]	
9	3175056654151	3175056654151	3175056654121	3175056654181	27	220	0,2	565500610001
11	3175056654152	3175056654152	3175056654122	3175056654182	33		0,3	
13	3175056654153	3175056654153	3175056654123	3175056654183	39		0,3	
15	3175056654154	3175056654154	3175056654124	3175056654184	45		0,4	
17	3175056654155	3175056654155	3175056654125	3175056654185	51		0,4	
19	3175056654156	3175056654156	3175056654126	3175056654186	57		0,5	
21	3175056654157	3175056654157	3175056654127	3175056654187	63		0,5	
23	3175056654158	3175056654158	3175056654128	3175056654188	69		0,6	
25	3175056654159	3175056654159	3175056654129	3175056654189	75		0,6	
27	3175056654160	3175056654160	3175056654130	3175056654190	81		0,7	
29	3175056654161	3175056654161	3175056654131	3175056654191	87	0,7		
31	3175056654162	3175056654162	3175056654132	3175056654192	93	0,8		
33	3175056654163	3175056654163	3175056654133	3175056654193	99	0,8		
35	3175056654164	3175056654164	3175056654134	3175056654194	105	0,9		
37	3175056654165	3175056654165	3175056654135	3175056654195	111	0,9		
39	3175056654166	3175056654166	3175056654136	3175056654196	117	1,0		
41	3175056654167	3175056654167	3175056654137	3175056654197	123	1,0		
43	3175056654168	3175056654168	3175056654138	3175056654198	129	1,1		
45	3175056654169	3175056654169	3175056654139	3175056654199	135	1,1		
47	3175056654170	3175056654170	3175056654140	3175056654200	141	1,2		
49	3175056654171	3175056654171	3175056654141	3175056654201	147	1,2		
51	3175056654172	3175056654172	3175056654142	3175056654202	153	1,3		
53	3175056654173	3175056654173	3175056654143	3175056654203	159	1,3		
55	3175056654174	3175056654174	3175056654144	3175056654204	165	1,4		
57	3175056654175	3175056654175	3175056654145	3175056654205	171	1,4		
59	3175056654176	3175056654176	3175056654146	3175056654206	177	1,5		
61	3175056654177	3175056654177	3175056654147	3175056654207	183	1,5		
63	3175056654178	3175056654178	3175056654148	3175056654208	189	1,6		
65	3175056654179	3175056654179	3175056654149	3175056654209	195	1,6		
67	3175056654180	3175056654180	3175056654150	3175056654210	201	1,7		



Supporting feet available upon request - see accessories
For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

HEAT EXCHANGERS PHC 4620 - DN32

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



Connections	
DN32 (1"1/4)	
M	

1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

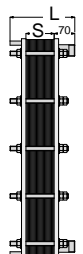
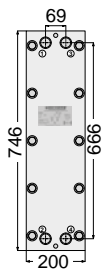
N° of Plates	With EPDM gaskets PN10 VERSION		With NBR gaskets PN10 VERSION		S Fixing quote [mm]	L [mm]	Primary Vol. = Art. Nr. Secondary Vol. Insulation	
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE			[t]	
9	3175056654271	3175056654331	3175056654241	3175056654301	27	220	0,4	5655000610003
11	3175056654272	3175056654332	3175056654242	3175056654302	33		0,4	
13	3175056654273	3175056654333	3175056654243	3175056654303	39		0,5	
15	3175056654274	3175056654334	3175056654244	3175056654304	45		0,6	
17	3175056654275	3175056654335	3175056654245	3175056654305	51		0,7	
19	3175056654276	3175056654336	3175056654246	3175056654306	57		0,8	
21	3175056654277	3175056654337	3175056654247	3175056654307	63		0,8	
23	3175056654278	3175056654338	3175056654248	3175056654308	69		0,9	
25	3175056654279	3175056654339	3175056654249	3175056654309	75		1,0	
27	3175056654280	3175056654340	3175056654250	3175056654310	81		1,1	
29	3175056654281	3175056654341	3175056654251	3175056654311	87	1,2		
31	3175056654282	3175056654342	3175056654252	3175056654312	93	1,2		
33	3175056654283	3175056654343	3175056654253	3175056654313	99	1,3		
35	3175056654284	3175056654344	3175056654254	3175056654314	105	1,4		
37	3175056654285	3175056654345	3175056654255	3175056654315	111	1,5		
39	3175056654286	3175056654346	3175056654256	3175056654316	117	1,6		
41	3175056654287	3175056654347	3175056654257	3175056654317	123	1,6		
43	3175056654288	3175056654348	3175056654258	3175056654318	129	1,7		
45	3175056654289	3175056654349	3175056654259	3175056654319	135	1,8		
47	3175056654290	3175056654350	3175056654260	3175056654320	141	1,9		
49	3175056654291	3175056654351	3175056654261	3175056654321	147	2,0		
51	3175056654292	3175056654352	3175056654262	3175056654322	153	2,0		
53	3175056654293	3175056654353	3175056654263	3175056654323	159	2,1		
55	3175056654294	3175056654354	3175056654264	3175056654324	165	2,2		
57	3175056654295	3175056654355	3175056654265	3175056654325	171	2,3		
59	3175056654296	3175056654356	3175056654266	3175056654326	177	2,4		
61	3175056654297	3175056654357	3175056654267	3175056654327	183	2,4		
63	3175056654298	3175056654358	3175056654268	3175056654328	189	2,5		
65	3175056654299	3175056654359	3175056654269	3175056654329	195	2,6		
67	3175056654300	3175056654360	3175056654270	3175056654330	201	2,7		

Supporting feet available upon request - see accessories

For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

HEAT EXCHANGERS PHC 7420 - DN32

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



Connections	
DN32 (1"1/4)	

1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of Plates	With EPDM gaskets PN10 VERSION		With NBR gaskets PN10 VERSION		S Fixing quote [mm]	L [mm]	Primary Vol. = Art. Nr. Secondary Vol. Insulation	
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE			[t]	
9	3175056654391	3175056654451	3175056654361	3175056654421	27	220	0,8	5655000610005
11	3175056654392	3175056654452	3175056654362	3175056654422	33		0,9	
13	3175056654393	3175056654453	3175056654363	3175056654423	39		1,1	
15	3175056654394	3175056654454	3175056654364	3175056654424	45		1,3	
17	3175056654395	3175056654455	3175056654365	3175056654425	51		1,4	
19	3175056654396	3175056654456	3175056654366	3175056654426	57		1,6	
21	3175056654397	3175056654457	3175056654367	3175056654427	63		1,8	
23	3175056654398	3175056654458	3175056654368	3175056654428	69		2,0	
25	3175056654399	3175056654459	3175056654369	3175056654429	75		2,1	
27	3175056654400	3175056654460	3175056654370	3175056654430	81		2,3	
29	3175056654401	3175056654461	3175056654371	3175056654431	87	2,5		
31	3175056654402	3175056654462	3175056654372	3175056654432	93	2,6		
33	3175056654403	3175056654463	3175056654373	3175056654433	99	2,8		
35	3175056654404	3175056654464	3175056654374	3175056654434	105	3,0		
37	3175056654405	3175056654465	3175056654375	3175056654435	111	3,1		
39	3175056654406	3175056654466	3175056654376	3175056654436	117	3,3		
41	3175056654407	3175056654467	3175056654377	3175056654437	123	3,5		
43	3175056654408	3175056654468	3175056654378	3175056654438	129	3,7		
45	3175056654409	3175056654469	3175056654379	3175056654439	135	3,8		
47	3175056654410	3175056654470	3175056654380	3175056654440	141	4,0		
49	3175056654411	3175056654471	3175056654381	3175056654441	147	4,2		
51	3175056654412	3175056654472	3175056654382	3175056654442	153	4,3		
53	3175056654413	3175056654473	3175056654383	3175056654443	159	4,5		
55	3175056654414	3175056654474	3175056654384	3175056654444	165	4,7		
57	3175056654415	3175056654475	3175056654385	3175056654445	171	4,8		
59	3175056654416	3175056654476	3175056654386	3175056654446	177	5,0		
61	3175056654417	3175056654477	3175056654387	3175056654447	183	5,2		
63	3175056654418	3175056654478	3175056654388	3175056654448	189	5,4		
65	3175056654419	3175056654479	3175056654389	3175056654449	195	5,5		
67	3175056654420	3175056654480	3175056654390	3175056654450	201	5,7		

Supporting feet available upon request - see accessories

For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

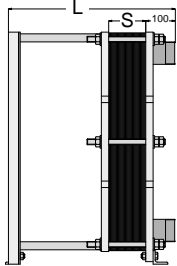
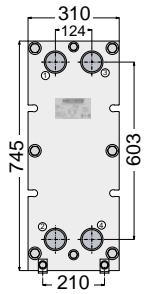
HYDRONIC AND FRESH WATER SYSTEMS

HEAT EXCHANGERS PHC 7431 - DN65

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



SUPPORTING FEET INCLUDED



Connections	
DN65 2"1/2	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of Plates	With EPDM gaskets		PN16 VERSION WITH SURCHARGE		With NBR gaskets		PN16 VERSION WITH SURCHARGE		S Fixing quote	L [mm]	Primary Vol. = Art. Nr. Secondary Vol. Insulation	
	Art. Nr.	Art. Nr.	Art. Nr.	Art. Nr.	[mm]	[mm]	[lt]	[lt]				
13	3175056654533	3175056654637	3175056654481	3175056654585	44		1,8					
15	3175056654534	3175056654638	3175056654482	3175056654586	51		2,1					
17	3175056654535	3175056654639	3175056654483	3175056654587	58		2,4					
19	3175056654536	3175056654640	3175056654484	3175056654588	65		2,7					
21	3175056654537	3175056654641	3175056654485	3175056654589	71		2,9					
23	3175056654538	3175056654642	3175056654486	3175056654590	78		3,2					
25	3175056654539	3175056654643	3175056654487	3175056654591	85		3,5					
27	3175056654540	3175056654644	3175056654488	3175056654592	92		3,8					
29	3175056654541	3175056654645	3175056654489	3175056654593	99		4,1					
31	3175056654542	3175056654646	3175056654490	3175056654594	105		4,3					
33	3175056654543	3175056654647	3175056654491	3175056654595	112		4,6					
35	3175056654544	3175056654648	3175056654492	3175056654596	119		4,9					
37	3175056654545	3175056654649	3175056654493	3175056654597	126		5,2					
39	3175056654546	3175056654650	3175056654494	3175056654598	133		5,5					
41	3175056654547	3175056654651	3175056654495	3175056654599	139		5,7					
43	3175056654548	3175056654652	3175056654496	3175056654600	146		6,0					
45	3175056654549	3175056654653	3175056654497	3175056654601	153		6,3					
47	3175056654550	3175056654654	3175056654498	3175056654602	160		6,6					
49	3175056654551	3175056654655	3175056654499	3175056654603	167		6,9					
51	3175056654552	3175056654656	3175056654500	3175056654604	173		7,1					
53	3175056654553	3175056654657	3175056654501	3175056654605	180		7,4					
55	3175056654554	3175056654658	3175056654502	3175056654606	187		7,7					
57	3175056654555	3175056654659	3175056654503	3175056654607	194		8,0					
59	3175056654556	3175056654660	3175056654504	3175056654608	201		8,3					
61	3175056654557	3175056654661	3175056654505	3175056654609	207		8,5					
63	3175056654558	3175056654662	3175056654506	3175056654610	214		8,8					
65	3175056654559	3175056654663	3175056654507	3175056654611	221		9,1					
67	3175056654560	3175056654664	3175056654508	3175056654612	228		9,4					
69	3175056654561	3175056654665	3175056654509	3175056654613	235		9,7					
71	3175056654562	3175056654666	3175056654510	3175056654614	241		9,9					
73	3175056654563	3175056654667	3175056654511	3175056654615	248		10,2					
75	3175056654564	3175056654668	3175056654512	3175056654616	255		10,5					
77	3175056654565	3175056654669	3175056654513	3175056654617	262		10,8					
79	3175056654566	3175056654670	3175056654514	3175056654618	269		11,1					
81	3175056654567	3175056654671	3175056654515	3175056654619	275		11,3					
83	3175056654568	3175056654672	3175056654516	3175056654620	282		11,6					
85	3175056654569	3175056654673	3175056654517	3175056654621	289		11,9					
87	3175056654570	3175056654674	3175056654518	3175056654622	296		12,2					
89	3175056654571	3175056654675	3175056654519	3175056654623	303		12,5					
91	3175056654572	3175056654676	3175056654520	3175056654624	309		12,7					
93	3175056654573	3175056654677	3175056654521	3175056654625	316		13,0					
95	3175056654574	3175056654678	3175056654522	3175056654626	323		13,3					
97	3175056654575	3175056654679	3175056654523	3175056654627	330		13,6					
99	3175056654576	3175056654680	3175056654524	3175056654628	337		13,9					
101	3175056654577	3175056654681	3175056654525	3175056654629	343		14,1					
103	3175056654578	3175056654682	3175056654526	3175056654630	350		14,4					
105	3175056654579	3175056654683	3175056654527	3175056654631	357		14,7					
107	3175056654580	3175056654684	3175056654528	3175056654632	364		15,0					
109	3175056654581	3175056654685	3175056654529	3175056654633	371		15,3					
111	3175056654582	3175056654686	3175056654530	3175056654634	377		15,5					
113	3175056654583	3175056654687	3175056654531	3175056654635	384		15,8					
115	3175056654584	3175056654688	3175056654532	3175056654636	391		16,1					
117	3175056655625	3175056655177	3175056655105	3175056655697	409		16,4					
119	3175056655626	3175056655178	3175056655106	3175056655698	416		16,7					
121	3175056655627	3175056655179	3175056655107	3175056655699	423		16,9					
123	3175056655628	3175056655180	3175056655108	3175056655700	430		17,2					
125	3175056655629	3175056655181	3175056655109	3175056655701	437		17,5					
127	3175056655630	3175056655182	3175056655110	3175056655702	444		17,8					
129	3175056655631	3175056655183	3175056655111	3175056655703	451		18,1					
131	3175056655632	3175056655184	3175056655112	3175056655704	458		18,3					
133	3175056655633	3175056655185	3175056655113	3175056655705	465		18,6					
135	3175056655634	3175056655186	3175056655114	3175056655706	472		18,9					
137	3175056655635	3175056655187	3175056655115	3175056655707	479		19,2					
139	3175056655636	3175056655188	3175056655116	3175056655708	486		19,5					
141	3175056655637	3175056655189	3175056655117	3175056655709	493		19,7					
143	3175056655638	3175056655190	3175056655118	3175056655710	500		20,0					
145	3175056655639	3175056655191	3175056655119	3175056655711	507		20,3					
147	3175056655640	3175056655192	3175056655120	3175056655712	514		20,6					
149	3175056655641	3175056655193	3175056655121	3175056655713	521		20,9					
151	3175056655642	3175056655194	3175056655122	3175056655714	528		21,1					
153	3175056655643	3175056655195	3175056655123	3175056655715	535		21,4					
155	3175056655644	3175056655196	3175056655124	3175056655716	542		21,7					
157	3175056655645	3175056655197	3175056655125	3175056655717	549		22,0					
159	3175056655646	3175056655198	3175056655126	3175056655718	556		22,3					
161	3175056655647	3175056655199	3175056655127	3175056655719	563		22,5					
163	3175056655648	3175056655200	3175056655128	3175056655720	570		22,8					
165	3175056655649	3175056655201	3175056655129	3175056655721	577		23,1					

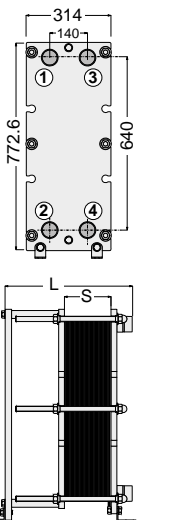
N° of Plates	With EPDM gaskets		With NBR gaskets		S Fixing quote [mm]	L [mm]	Primary Vol. = Secondary Vol. [lt]	Art. Nr. Insulation
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE				
167	3175056655650	3175056655202	3175056655130	3175056655722	584	1700	23,4	N.A.
169	3175056655651	3175056655203	3175056655131	3175056655723	591		23,7	
171	3175056655652	3175056655204	3175056655132	3175056655724	598		23,9	
173	3175056655653	3175056655205	3175056655133	3175056655725	605		24,2	
175	3175056655654	3175056655206	3175056655134	3175056655726	612		24,5	
177	3175056655655	3175056655207	3175056655135	3175056655727	619		24,8	
179	3175056655656	3175056655208	3175056655136	3175056655728	626		25,1	
181	3175056655657	3175056655209	3175056655137	3175056655729	633		25,3	
183	3175056655658	3175056655210	3175056655138	3175056655730	640		25,6	
185	3175056655659	3175056655211	3175056655139	3175056655731	647		25,9	
187	3175056655660	3175056655212	3175056655140	3175056655732	654		26,2	
189	3175056655661	3175056655213	3175056655141	3175056655733	661		26,5	
191	3175056655662	3175056655214	3175056655142	3175056655734	668		26,7	
193	3175056655663	3175056655215	3175056655143	3175056655735	675		27,0	
195	3175056655664	3175056655216	3175056655144	3175056655736	682		27,3	
197	3175056655665	3175056655217	3175056655145	3175056655737	689		27,6	
199	3175056655666	3175056655218	3175056655146	3175056655738	696		27,9	
201	3175056655667	3175056655219	3175056655147	3175056655739	703		28,1	
203	3175056655668	3175056655220	3175056655148	3175056655740	710		28,4	
205	3175056655669	3175056655221	3175056655149	3175056655741	717		28,7	
207	3175056655670	3175056655222	3175056655150	3175056655742	724		29,0	
209	3175056655671	3175056655223	3175056655151	3175056655743	731		29,3	
211	3175056655672	3175056655224	3175056655152	3175056655744	738		29,5	
213	3175056655673	3175056655225	3175056655153	3175056655745	745		29,8	
215	3175056655674	3175056655226	3175056655154	3175056655746	752		30,1	
217	3175056655675	3175056655227	3175056655155	3175056655747	759		30,4	
219	3175056655676	3175056655228	3175056655156	3175056655748	766		30,7	
221	3175056655677	3175056655229	3175056655157	3175056655749	773		30,9	
223	3175056655678	3175056655230	3175056655158	3175056655750	780		31,2	
225	3175056655679	3175056655231	3175056655159	3175056655751	787		31,5	
227	3175056655680	3175056655232	3175056655160	3175056655752	794		31,8	
229	3175056655681	3175056655233	3175056655161	3175056655753	801		32,1	
231	3175056655682	3175056655234	3175056655162	3175056655754	808		32,3	
233	3175056655683	3175056655235	3175056655163	3175056655755	815		32,6	
235	3175056655684	3175056655236	3175056655164	3175056655756	822		32,9	
237	3175056655685	3175056655237	3175056655165	3175056655757	829		33,2	
239	3175056655686	3175056655238	3175056655166	3175056655758	836		33,5	
241	3175056655687	3175056655239	3175056655167	3175056655759	843		33,7	
243	3175056655688	3175056655240	3175056655168	3175056655760	850		34,0	
245	3175056655689	3175056655241	3175056655169	3175056655761	857		34,3	
247	3175056655690	3175056655242	3175056655170	3175056655762	864		34,6	
249	3175056655691	3175056655243	3175056655171	3175056655763	871		34,9	
251	3175056655692	3175056655244	3175056655172	3175056655764	878		35,1	
253	3175056655693	3175056655245	3175056655173	3175056655765	885		35,4	
255	3175056655694	3175056655246	3175056655174	3175056655766	892		35,7	
257	3175056655695	3175056655247	3175056655175	3175056655767	899		36,0	
259	3175056655696	3175056655248	3175056655176	3175056655768	906		36,3	

For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

HYDRONIC AND FRESH WATER SYSTEMS

HEAT EXCHANGERS PHC 8031 - DN50

SUPPORTING FEET INCLUDED



Connections	
DN50 (2")	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

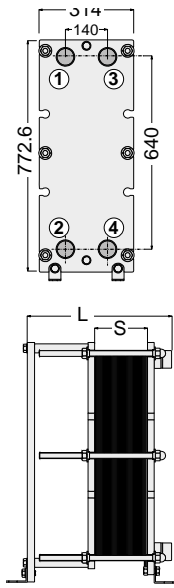
N° of Plates	With EPDM gaskets		With NBR gaskets		S Fixing quote [mm]	L [mm]	Primary Vol. = Secondary Vol. [lt]	Art. Nr. Insulation
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE				
13	3175056654741	3175056654845	3175056654689	3175056654793	45	405	2,5	5655000610009
15	3175056654742	3175056654846	3175056654690	3175056654794	52		2,9	
17	3175056654743	3175056654847	3175056654691	3175056654795	59		3,2	
19	3175056654744	3175056654848	3175056654692	3175056654796	66		3,6	
21	3175056654745	3175056654849	3175056654693	3175056654797	73		4,0	
23	3175056654746	3175056654850	3175056654694	3175056654798	80		4,4	
25	3175056654747	3175056654851	3175056654695	3175056654799	87		4,8	
27	3175056654748	3175056654852	3175056654696	3175056654800	94		5,1	
29	3175056654749	3175056654853	3175056654697	3175056654801	101		5,5	
31	3175056654750	3175056654854	3175056654698	3175056654802	108		5,9	
33	3175056654751	3175056654855	3175056654699	3175056654803	115		6,3	
35	3175056654752	3175056654856	3175056654700	3175056654804	122		6,7	
37	3175056654753	3175056654857	3175056654701	3175056654805	129	7,0		
39	3175056654754	3175056654858	3175056654702	3175056654806	136	7,4		
41	3175056654755	3175056654859	3175056654703	3175056654807	143	7,8		
43	3175056654756	3175056654860	3175056654704	3175056654808	150	8,2		
45	3175056654757	3175056654861	3175056654705	3175056654809	157	8,6		
47	3175056654758	3175056654862	3175056654706	3175056654810	164	8,9		
49	3175056654759	3175056654863	3175056654707	3175056654811	171	9,3		
51	3175056654760	3175056654864	3175056654708	3175056654812	178	9,7		
53	3175056654761	3175056654865	3175056654709	3175056654813	185	10,1		
55	3175056654762	3175056654866	3175056654710	3175056654814	192	10,5		
57	3175056654763	3175056654867	3175056654711	3175056654815	199	10,8		
59	3175056654764	3175056654868	3175056654712	3175056654816	206	11,2		
61	3175056654765	3175056654869	3175056654713	3175056654817	213	11,6		
63	3175056654766	3175056654870	3175056654714	3175056654818	220	12,0		

HEAT EXCHANGERS PHC 8031 - DN50

INSPECTIONABLE PLATE -TO- PLATE HEAT EXCHANGERS



SUPPORTING FEET INCLUDED



Connections	
DN50 (2")	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of Plates	With EPDM gaskets PN10 VERSION		With NBR gaskets PN10 VERSION		S Fixing quote [mm]	L [mm]	Primary Vol. = Secondary Vol. [lt]	Art. Nr. Insulation
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE				
65	3175056654767	3175056654871	3175056654715	3175056654819	227	605	12,4	5655000610010
67	3175056654768	3175056654872	3175056654716	3175056654820	234		12,7	
69	3175056654769	3175056654873	3175056654717	3175056654821	241		13,1	
71	3175056654770	3175056654874	3175056654718	3175056654822	248		13,5	
73	3175056654771	3175056654875	3175056654719	3175056654823	255		13,9	
75	3175056654772	3175056654876	3175056654720	3175056654824	262		14,3	
77	3175056654773	3175056654877	3175056654721	3175056654825	269		14,6	
79	3175056654774	3175056654878	3175056654722	3175056654826	276		15,0	
81	3175056654775	3175056654879	3175056654723	3175056654827	283		15,4	
83	3175056654776	3175056654880	3175056654724	3175056654828	290		15,8	
85	3175056654777	3175056654881	3175056654725	3175056654829	297		16,2	
87	3175056654778	3175056654882	3175056654726	3175056654830	304		16,5	
89	3175056654779	3175056654883	3175056654727	3175056654831	311		16,9	
91	3175056654780	3175056654884	3175056654728	3175056654832	318	855	17,3	
93	3175056654781	3175056654885	3175056654729	3175056654833	325		17,7	
95	3175056654782	3175056654886	3175056654730	3175056654834	332		18,1	
97	3175056654783	3175056654887	3175056654731	3175056654835	339		18,4	
99	3175056654784	3175056654888	3175056654732	3175056654836	346		18,8	
101	3175056654785	3175056654889	3175056654733	3175056654837	353		19,2	
103	3175056654786	3175056654890	3175056654734	3175056654838	360		19,6	
105	3175056654787	3175056654891	3175056654735	3175056654839	367		20,0	
107	3175056654788	3175056654892	3175056654736	3175056654840	374		20,3	
109	3175056654789	3175056654893	3175056654737	3175056654841	381		20,7	
111	3175056654790	3175056654894	3175056654738	3175056654842	388		21,1	
113	3175056654791	3175056654895	3175056654739	3175056654843	395		21,5	
115	3175056654792	3175056654896	3175056654740	3175056654844	402		21,9	
117	3175056655294	3175056655398	3175056655249	3175056655353	409		22,2	
119	3175056655295	3175056655399	3175056655250	3175056655354	416		22,6	
121	3175056655296	3175056655400	3175056655251	3175056655355	423		23,0	
123	3175056655297	3175056655401	3175056655252	3175056655356	430		23,4	
125	3175056655298	3175056655402	3175056655253	3175056655357	437		23,8	
127	3175056655299	3175056655403	3175056655254	3175056655358	444		24,1	
129	3175056655300	3175056655404	3175056655255	3175056655359	451		24,5	
131	3175056655301	3175056655405	3175056655256	3175056655360	458		24,9	
133	3175056655302	3175056655406	3175056655257	3175056655361	465		25,3	
135	3175056655303	3175056655407	3175056655258	3175056655362	472		25,7	
137	3175056655304	3175056655408	3175056655259	3175056655363	479		26,0	
139	3175056655305	3175056655409	3175056655260	3175056655364	486		26,4	
141	3175056655306	3175056655410	3175056655261	3175056655365	493		26,8	
143	3175056655307	3175056655411	3175056655262	3175056655366	500		27,2	
145	3175056655308	3175056655412	3175056655263	3175056655367	507		27,6	
147	3175056655309	3175056655413	3175056655264	3175056655368	514		27,9	
149	3175056655310	3175056655414	3175056655265	3175056655369	521		28,3	
151	3175056655311	3175056655415	3175056655266	3175056655370	528		28,7	
153	3175056655312	3175056655416	3175056655267	3175056655371	535		29,1	
155	3175056655313	3175056655417	3175056655268	3175056655372	542		29,5	
157	3175056655314	3175056655418	3175056655269	3175056655373	549		29,8	
159	3175056655315	3175056655419	3175056655270	3175056655374	556		30,2	
161	3175056655316	3175056655420	3175056655271	3175056655375	563	1200	30,6	
163	3175056655317	3175056655421	3175056655272	3175056655376	570		31,0	
165	3175056655318	3175056655422	3175056655273	3175056655377	577		31,4	
167	3175056655319	3175056655423	3175056655274	3175056655378	584		31,7	
169	3175056655320	3175056655424	3175056655275	3175056655379	591		32,1	
171	3175056655321	3175056655425	3175056655276	3175056655380	598		32,5	
173	3175056655322	3175056655426	3175056655277	3175056655381	605		32,9	
175	3175056655323	3175056655427	3175056655278	3175056655382	612		33,3	
177	3175056655324	3175056655428	3175056655279	3175056655383	619		33,6	
179	3175056655325	3175056655384	3175056655280	3175056655384	626		34,0	
181	3175056655326	3175056655385	3175056655281	3175056655385	633		34,4	
183	3175056655327	3175056655386	3175056655282	3175056655386	640		34,8	
185	3175056655328	3175056655387	3175056655283	3175056655387	647		35,2	
187	3175056655329	3175056655388	3175056655284	3175056655388	654		35,5	
189	3175056655330	3175056655389	3175056655285	3175056655389	661		35,9	
191	3175056655331	3175056655390	3175056655286	3175056655390	668		36,3	
193	3175056655332	3175056655391	3175056655287	3175056655391	675		36,7	
195	3175056655333	3175056655392	3175056655288	3175056655392	682		37,1	
197	3175056655334	3175056655393	3175056655289	3175056655393	689		37,4	
199	3175056655335	3175056655394	3175056655290	3175056655394	696		37,8	
201	3175056655336	3175056655395	3175056655291	3175056655395	703		38,2	
203	3175056655337	3175056655396	3175056655292	3175056655396	710		38,6	
205	3175056655338	3175056655397	3175056655293	3175056655397	717		39,0	

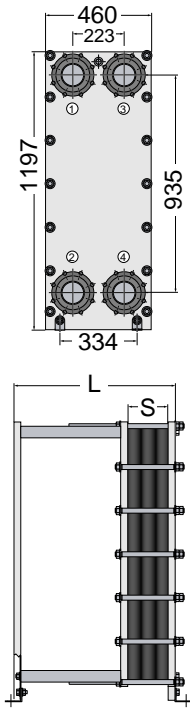
For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

HEAT EXCHANGERS PHC 12046 - DN100

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



SUPPORTING FEET INCLUDED



Connections	
DN100 PN16 FLANGED	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of Plates	With EPDM gaskets		With NBR gaskets		S Fixing quote [mm]	L [mm]	Primary Vol. = Secondary Vol. = Art. Nr. Insulation	
	Art. Nr.	PN16 VERSION WITH SURCHARGE	Art. Nr.	PN16 VERSION WITH SURCHARGE			[lt]	
13	3175056654949	3175056655053	3175056654897	3175056655001	37	550	5,5	5655000610011
15	3175056654950	3175056655054	3175056654898	3175056655002	43		6,3	
17	3175056654951	3175056655055	3175056654899	3175056655003	48		7,2	
19	3175056654952	3175056655056	3175056654900	3175056655004	54		8,0	
21	3175056654953	3175056655057	3175056654901	3175056655005	60		8,9	
23	3175056654954	3175056655058	3175056654902	3175056655006	66		9,7	
25	3175056654955	3175056655059	3175056654903	3175056655007	72		10,6	
27	3175056654956	3175056655060	3175056654904	3175056655008	77		11,4	
29	3175056654957	3175056655061	3175056654905	3175056655009	83		12,3	
31	3175056654958	3175056655062	3175056654906	3175056655010	89		13,1	
33	3175056654959	3175056655063	3175056654907	3175056655011	95	13,9		
35	3175056654960	3175056655064	3175056654908	3175056655012	100	14,8		
37	3175056654961	3175056655065	3175056654909	3175056655013	106	15,6		
39	3175056654962	3175056655066	3175056654910	3175056655014	112	16,5		
41	3175056654963	3175056655067	3175056654911	3175056655015	118	17,3		
43	3175056654964	3175056655068	3175056654912	3175056655016	123	18,2		
45	3175056654965	3175056655069	3175056654913	3175056655017	129	19,0		
47	3175056654966	3175056655070	3175056654914	3175056655018	135	19,9		
49	3175056654967	3175056655071	3175056654915	3175056655019	141	20,7		
51	3175056654968	3175056655072	3175056654916	3175056655020	146	21,5		
53	3175056654969	3175056655073	3175056654917	3175056655021	152	22,4		
55	3175056654970	3175056655074	3175056654918	3175056655022	158	23,2		
57	3175056654971	3175056655075	3175056654919	3175056655023	164	24,1		
59	3175056654972	3175056655076	3175056654920	3175056655024	169	24,9		
61	3175056654973	3175056655077	3175056654921	3175056655025	175	25,8		
63	3175056654974	3175056655078	3175056654922	3175056655026	181	26,6		
65	3175056654975	3175056655079	3175056654923	3175056655027	187	27,5		
67	3175056654976	3175056655080	3175056654924	3175056655028	192	28,3		
69	3175056654977	3175056655081	3175056654925	3175056655029	198	29,2		
71	3175056654978	3175056655082	3175056654926	3175056655030	204	30,0		
73	3175056654979	3175056655083	3175056654927	3175056655031	210	30,8		
75	3175056654980	3175056655084	3175056654928	3175056655032	216	31,7		
77	3175056654981	3175056655085	3175056654929	3175056655033	221	32,5		
79	3175056654982	3175056655086	3175056654930	3175056655034	227	33,4		
81	3175056654983	3175056655087	3175056654931	3175056655035	233	34,2		
83	3175056654984	3175056655088	3175056654932	3175056655036	239	35,1		
85	3175056654985	3175056655089	3175056654933	3175056655037	244	35,9		
87	3175056654986	3175056655090	3175056654934	3175056655038	250	36,8		
89	3175056654987	3175056655091	3175056654935	3175056655039	256	37,6		
91	3175056654988	3175056655092	3175056654936	3175056655040	262	38,4		
93	3175056654989	3175056655093	3175056654937	3175056655041	267	39,3		
95	3175056654990	3175056655094	3175056654938	3175056655042	273	40,1		
97	3175056654991	3175056655095	3175056654939	3175056655043	279	41,0		
99	3175056654992	3175056655096	3175056654940	3175056655044	285	41,8		
101	3175056654993	3175056655097	3175056654941	3175056655045	290	42,7		
103	3175056654994	3175056655098	3175056654942	3175056655046	296	43,5		
105	3175056654995	3175056655099	3175056654943	3175056655047	302	44,4		
107	3175056654996	3175056655100	3175056654944	3175056655048	308	45,2		
109	3175056654997	3175056655101	3175056654945	3175056655049	313	46,1		
111	3175056654998	3175056655102	3175056654946	3175056655050	319	46,9		
113	3175056654999	3175056655103	3175056654947	3175056655051	325	47,7		
115	3175056655000	3175056655104	3175056654948	3175056655052	331	48,6		
117	3175056655478	3175056655576	3175056655429	3175056655527	336	49,4		
119	3175056655479	3175056655577	3175056655430	3175056655528	342	50,3		
121	3175056655480	3175056655578	3175056655431	3175056655529	348	51,1		
123	3175056655481	3175056655579	3175056655432	3175056655530	354	52,0		
125	3175056655482	3175056655580	3175056655433	3175056655531	360	52,8		
127	3175056655483	3175056655581	3175056655434	3175056655532	365	53,7		
129	3175056655484	3175056655582	3175056655435	3175056655533	371	54,5		
131	3175056655485	3175056655583	3175056655436	3175056655534	377	55,3		
133	3175056655486	3175056655584	3175056655437	3175056655535	383	56,2		
135	3175056655487	3175056655585	3175056655438	3175056655536	388	57,0		
137	3175056655488	3175056655586	3175056655439	3175056655537	394	57,9		
139	3175056655489	3175056655587	3175056655440	3175056655538	400	58,7		
141	3175056655490	3175056655588	3175056655441	3175056655539	406	59,6		
143	3175056655491	3175056655589	3175056655442	3175056655540	411	60,4		
145	3175056655492	3175056655590	3175056655443	3175056655541	417	61,3		
147	3175056655493	3175056655591	3175056655444	3175056655542	423	62,1		
149	3175056655494	3175056655592	3175056655445	3175056655543	429	63,0		
151	3175056655495	3175056655593	3175056655446	3175056655544	434	63,8		
153	3175056655496	3175056655594	3175056655447	3175056655545	440	64,6		
155	3175056655497	3175056655595	3175056655448	3175056655546	446	65,5		
157	3175056655498	3175056655596	3175056655449	3175056655547	452	66,3		
159	3175056655499	3175056655597	3175056655450	3175056655548	457	67,2		
161	3175056655500	3175056655598	3175056655451	3175056655549	463	68,0		
163	3175056655501	3175056655599	3175056655452	3175056655550	469	68,9		
165	3175056655502	3175056655600	3175056655453	3175056655551	475	69,7		

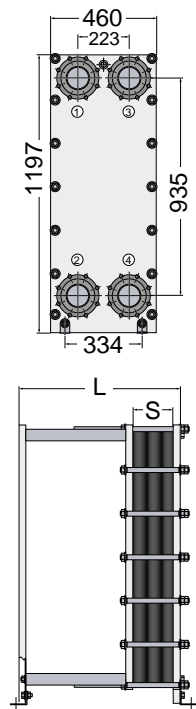
HYDRONIC AND FRESH WATER SYSTEMS

HEAT EXCHANGERS PHC 12046 - DN100

INSPECTIONABLE PLATE -TO PLATE HEAT EXCHANGERS



SUPPORTING FEET INCLUDED



N° of Plates	With EPDM gaskets PN10 VERSION		PN16 VERSION WITH SURCHARGE	With NBR gaskets PN10 VERSION		PN16 VERSION WITH SURCHARGE	S Fixing quote [mm]	L [mm]	Primary Vol. = Secondary Vol. [lt]	Art. Nr. Insulation
	Art. Nr.			Art. Nr.						
167	3175056655503	3175056655601	3175056655454	3175056655552	480	1250	70,6	N.A.		
169	3175056655504	3175056655602	3175056655455	3175056655553	486		71,4			
171	3175056655505	3175056655603	3175056655456	3175056655554	492		72,2			
173	3175056655506	3175056655604	3175056655457	3175056655555	498		73,1			
175	3175056655507	3175056655605	3175056655458	3175056655556	504		73,9			
177	3175056655508	3175056655606	3175056655459	3175056655557	509		74,8			
179	3175056655509	3175056655607	3175056655460	3175056655558	515		75,6			
181	3175056655510	3175056655608	3175056655461	3175056655559	521		76,5			
183	3175056655511	3175056655609	3175056655462	3175056655560	527		77,3			
185	3175056655512	3175056655610	3175056655463	3175056655561	532		78,2			
187	3175056655513	3175056655611	3175056655464	3175056655562	538		79,0			
189	3175056655514	3175056655612	3175056655465	3175056655563	544		79,9			
191	3175056655515	3175056655613	3175056655466	3175056655564	550		80,7			
193	3175056655516	3175056655614	3175056655467	3175056655565	555		81,5			
195	3175056655517	3175056655615	3175056655468	3175056655566	561		82,4			
197	3175056655518	3175056655616	3175056655469	3175056655567	567		83,2			
199	3175056655519	3175056655617	3175056655470	3175056655568	573		84,1			
201	3175056655520	3175056655618	3175056655471	3175056655569	578		84,9			
203	3175056655521	3175056655619	3175056655472	3175056655570	584		85,8			
205	3175056655522	3175056655620	3175056655473	3175056655571	590		86,6			
207	3175056655523	3175056655621	3175056655474	3175056655572	596		87,5			
209	3175056655524	3175056655622	3175056655475	3175056655573	601	88,3				
211	3175056655525	3175056655623	3175056655476	3175056655574	607	89,1				
213	3175056655526	3175056655624	3175056655477	3175056655575	613	90,0				

For operating conditions please consult our online tool www.cordivari.com/configurator_plate_exchangers

Connections	
DN100	PN16 FLANGED
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

INSULATION FOR PHC EXCHANGERS

Insulation with practical velcro closure for quick and easy assembly / disassembly; made in closed cell expanded cross-linked polymeric material with low thermal conductivity. Designed to completely contain the exchanger and its linkage and ensure complete insulation, in order to reduce heat loss and improve the efficiency of the system.
Fire reaction class B2 (DIN 4102)



Description	For model	N° plates	Art. Nr.
Kit INSULATION PHC	PHC 3120	up to 31	5655000610001
Kit INSULATION PHC	PHC 3120	from 33 to 67	5655000610002
Kit INSULATION PHC	PHC 4620	up to 31	5655000610003
Kit INSULATION PHC	PHC 4620	from 33 to 67	5655000610004
Kit INSULATION PHC	PHC 7420	up to 31	5655000610005
Kit INSULATION PHC	PHC 7420	from 33 to 67	5655000610006
Kit INSULATION PHC	PHC 7431	up to 49	5655000610007
Kit INSULATION PHC	PHC 7431	from 51 to 115	5655000610008
Kit INSULATION PHC	PHC 8031	up to 49	5655000610009
Kit INSULATION PHC	PHC 8031	from 51 to 115	5655000610010
Kit INSULATION PHC	PHC 12046	up to 61	5655000610011
Kit INSULATION PHC	PHC 12046	from 63 to 115	5655000610012

SUPPORTING FEET



Description	For model	Art. Nr.
Supporting feet for PHC exchangers	PHC 3120	5601000030001
	PHC 4620	
	PHC 7420	

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ON-LINE SOFTWARE TO SIZE THE CORDIVARI PLATE EXCHANGERS

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BRAZED PLATE EXCHANGERS SLB 15

BRAZED PLATE EXCHANGERS



TECHNICAL DESCRIPTION

New brazed Plate Exchangers SLB Cordivari, provides the most compact and economical solution suitable for many applications.

The SLB plate exchangers are designed for different needs in heating, refrigeration, evaporation, industrial processing, cooling.

MAIN ADVANTAGES:

- High Efficiency
- Long lifetime
- Savings
- High reliability
- Huge possibility to modify the relation between storage volume and Heat exchange.

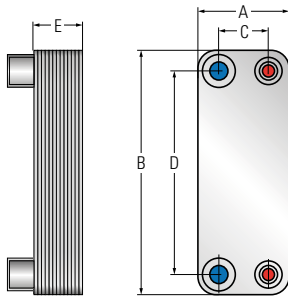
TECHNICAL CHARACTERISTIC:

Stainless steel AISI 316L brazed plate, braze-welded with 99,99% pure copper

WORKING CONDITIONS

Max pressure	Max temperature
10 bar	190 °C (*)

(*) For temperature above 110°C, see technical support chapter



Connections 3/4" M	Max. Flow Rate
[mm]	[m³/h]
A 74	3,6
B 207	
C 42	
D 172	

N° of plates	NOT INSULATED VERSION	INSULATED VERSION	E [mm]	Weight [Kg]
	Art. Nr.	Art. Nr.		
10	5250410010008	5250410011008	25	0,62
20	5250410010009	5250410011009	47	1,02
30	5250410010010	5250410011010	70	1,42
40	5250410010011	5250410011011	93	1,82



PERFORMANCE DATA (PRIMARY AND SECONDARY FLUID, WATER, PRESSURE DROP < 50 KPA)

N° of plates	Thermal output exchanged [KW]	Primary 80/70 °C	Secondary 60/70 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	5	0,442	0,440
20	15	1,326	1,320
30	24	2,121	2,112
40	32	2,828	2,816

N° of plates	Thermal output exchanged [KW]	Primary 80/65 °C	Secondary 60/70 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	1,5	0,088	0,132
20	4	0,235	0,352
30	7	0,412	0,616
40	10	0,588	0,880

N° of plates	Thermal output exchanged [KW]	Primary 80/65 °C	Secondary 55/70 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	3	0,177	0,176
20	7	0,412	0,410
30	12	0,706	0,703
40	17	1,000	0,996

N° of plates	Thermal output exchanged [KW]	Primary 80/65 °C	Secondary 10/60 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	21	1,236	0,364
20	45	2,648	0,781
30	60	3,531	1,041
40	71	4,178	1,232

N° of plates	Thermal output exchanged [KW]	Primary 80/60 °C	Secondary 10/50 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	28	1,235	0,606
20	58	2,557	1,255
30	80	3,527	1,731
40	95	4,189	2,056

N° of plates	Thermal output exchanged [KW]	Primary 70/60 °C	Secondary 10/50 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	16	1,408	0,346
20	30	2,640	0,649
30	40	3,521	0,866
40	47	4,137	1,017

N° of plates	Thermal output exchanged [KW]	Primary 65/50 °C	Secondary 10/50 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	10	0,585	0,216
20	24	1,403	0,519
30	38	2,221	0,822
40	55	3,215	1,190

N° of plates	Thermal output exchanged [KW]	Primary 60/40 °C	Secondary 10/50 °C
		Primary flow rate [m³/h]	Secondary flow rate [m³/h]
10	10	0,585	0,216
20	24	1,403	0,519
30	38	2,221	0,822
40	55	3,215	1,190

BRAZED PLATE EXCHANGERS SLB 20

BRAZED PLATE EXCHANGERS



TECHNICAL DESCRIPTION

New brazed Plate Exchangers SLB Cordivari, provides the most compact and economical solution suitable for many applications.

The SLB plate exchangers are designed for different needs in heating, refrigeration, evaporation, industrial processing, cooling.

MAIN ADVANTAGES:

- High Efficiency
- Long lifetime
- Savings
- High reliability
- Huge possibility to modify the relation between storage volume and Heat exchange.

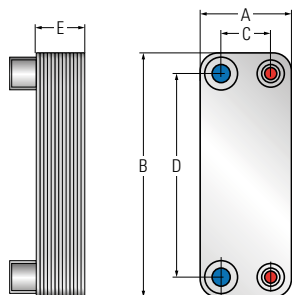
TECHNICAL CHARACTERISTIC:

Stainless steel AISI 316L brazed plate, braze-welded with 99,99% pure copper

WORKING CONDITIONS

Max pressure	Max temperature
10 bar	190 °C (*)

(*) For temperature above 110°C, see technical support chapter



Connections 3/4" M	Max. Flow Rate
[mm]	[m³/h]
A 73	3,6
B 311	
C 40	
D 278	

N° of plates	NOT INSULATED VERSION	INSULATED VERSION	E [mm]	Weight [Kg]
	Art. Nr.	Art. Nr.		
12	5250410010001	5250410011001	37	1,10
16	5250410010002	5250410011002	46	1,13
20	5250410010003	5250410011003	55	1,16
24	5250410010004	5250410011004	64	1,19
30	5250410010005	5250410011005	78	1,24
34	5250410010006	5250410011006	87	1,27
40	5250410010007	5250410011007	101	1,32



PERFORMANCE DATA (PRIMARY AND SECONDARY FLUID, WATER, PRESSURE DROP < 50 KPA)

N° of plates	Primary 80/70 °C		Secondary 60/70 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	10	0,884	0,880	
16	16	1,414	1,408	
20	20	1,768	1,760	
24	24	2,121	2,112	
30	30	2,651	2,640	
34	33	2,916	2,904	
40	37	3,270	3,257	

N° of plates	Primary 80/65 °C		Secondary 60/70 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	11	0,647	0,968	
16	16	0,941	1,408	
20	20	1,177	1,760	
24	24	1,412	2,112	
30	30	1,765	2,640	
34	34	2,001	2,992	
40	37	2,177	3,257	

N° of plates	Primary 80/65 °C		Secondary 55/70 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	16	0,941	0,938	
16	24	1,412	1,406	
20	30	1,765	1,758	
24	36	2,118	2,110	
30	45	2,648	2,637	
34	50	2,942	2,930	
40	55	3,236	3,223	

N° of plates	Primary 80/65 °C		Secondary 10/60 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	24	1,412	0,417	
16	35	2,059	0,607	
20	45	2,648	0,781	
24	52	3,060	0,902	
30	60	3,531	1,041	
34	65	3,825	1,128	
40	71	4,178	1,232	

N° of plates	Primary 80/60 °C		Secondary 10/50 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	28	1,235	0,606	
16	38	1,676	0,822	
20	46	2,028	0,996	
24	52	2,293	1,125	
30	62	2,734	1,342	
34	66	2,910	1,428	
40	71	3,131	1,537	

N° of plates	Primary 70/60 °C		Secondary 10/50 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	18	1,584	0,390	
16	24	2,112	0,519	
20	30	2,640	0,649	
24	35	3,080	0,757	
30	40	3,521	0,866	
34	44	3,873	0,952	
40	47	4,137	1,017	

N° of plates	Primary 65/50 °C		Secondary 10/50 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	13	0,760	0,281	
16	18	1,052	0,390	
20	24	1,403	0,519	
24	30	1,754	0,649	
30	38	2,221	0,822	
34	44	2,572	0,952	
40	54	3,157	1,169	

N° of plates	Primary 60/40 °C		Secondary 10/50 °C	
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Thermal output exchanged [KW]	Secondary flow rate [m³/h]
12	4	0,175	0,087	
16	6	0,262	0,130	
20	8	0,350	0,173	
24	10	0,437	0,216	
30	12	0,524	0,260	
34	14	0,612	0,303	
40	17	0,743	0,368	

HYDRONIC AND FRESH WATER SYSTEMS

BRAZED PLATE EXCHANGERS SLB 30

BRAZED PLATE EXCHANGERS



TECHNICAL DESCRIPTION

New brazed Plate Exchangers SLB Cordivari, provides the most compact and economical solution suitable for many applications.

The SLB plate exchangers are designed for different needs in heating, refrigeration, evaporation, industrial processing, cooling.

MAIN ADVANTAGES

- High Efficiency
- Long lifetime
- Savings
- High reliability
- Huge possibility to modify the relation between storage volume and Heat exchange.

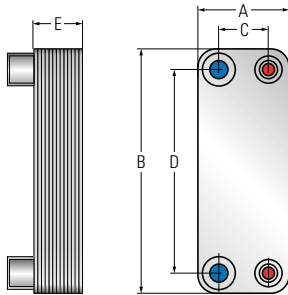
TECHNICAL CHARACTERISTIC :

Stainless steel AISI 316L brazed plate, braze-welded with 99,99% pure copper

WORKING CONDITIONS

Max pressure	Max temperature
30 bar	190 °C (*)

(*) For temperature above 110°C, see TECHNICAL SUPPORT CHAPTER



Connections 1" M	Max. Flow Rate
[mm]	[m³/h]
A 106	8,1
B 306	
C 50	
D 250	

N° of plates	NOT INSULATED VERSION	INSULATED VERSION	E [mm]	Weight [Kg]
	Art. Nr.	Art. Nr.		
14	5250410010101	5250410011101	43	2,98
20	5250410010102	5250410011102	57	3,70
30	5250410010103	5250410011103	81	4,90
40	5250410010104	5250410011104	104	6,10
50	5250410010105	5250410011105	128	7,30



PERFORMANCE DATA (PRIMARY AND SECONDARY FLUID, WATER, PRESSURE DROP < 50 KPA)

N° of plates	Primary 80/70 °C		Secondary 60/70 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	23	2,033	2,024
20	33	2,916	2,904
30	50	4,419	4,401
40	68	6,010	5,985
50	83	7,335	7,305

N° of plates	Primary 80/65 °C		Secondary 60/70 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	12	0,706	1,056
20	18	1,059	1,584
30	30	1,765	2,640
40	41	2,413	3,609
50	52	3,060	4,577

N° of plates	Primary 80/65 °C		Secondary 55/70 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	18	1,059	1,055
20	30	1,765	1,758
30	48	2,824	2,813
40	65	3,825	3,809
50	80	4,707	4,688

N° of plates	Primary 80/65 °C		Secondary 10/60 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	38	2,236	0,660
20	50	2,942	0,868
30	80	4,707	1,388
40	105	6,178	1,822
50	130	7,649	2,256

N° of plates	Primary 80/60 °C		Secondary 10/50 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	50	2,205	1,082
20	75	3,307	1,623
30	110	4,850	2,381
40	145	6,393	3,138
50	170	7,496	3,679

N° of plates	Primary 70/60 °C		Secondary 10/50 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	24	2,112	0,519
20	36	3,169	0,779
30	55	4,841	1,190
40	72	6,337	1,558
50	85	7,481	1,840

N° of plates	Primary 65/50 °C		Secondary 10/50 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	40	2,338	0,866
20	65	3,800	1,407
30	82	4,794	1,775
40	105	6,138	2,272
50	130	7,599	2,813

N° of plates	Primary 60/40 °C		Secondary 10/50 °C
	Thermal output exchanged [KW]	Primary flow rate [m³/h]	Secondary flow rate [m³/h]
14	22	0,962	0,476
20	35	1,530	0,757
30	55	2,404	1,190
40	78	3,409	1,688
50	100	4,371	2,164

BRAZED PLATE EXCHANGERS SLB 40

BRAZED PLATE EXCHANGERS



TECHNICAL DESCRIPTION

New brazed Plate Exchangers SLB Cordivari, provides the most compact and economical solution suitable for many applications.

The SLB plate exchangers are designed for different needs in heating, refrigeration, evaporation, industrial processing, cooling.

MAIN ADVANTAGES

- High Efficiency
- Long lifetime
- Savings
- High reliability
- Huge possibility to modify the relation between storage volume and Heat exchange.

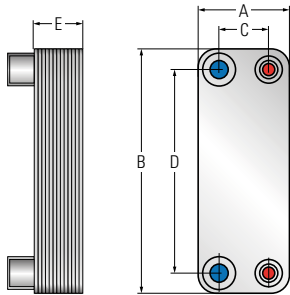
TECHNICAL CHARACTERISTIC :

Stainless steel AISI 316L brazed plate, braze-welded with 99,99% pure copper

WORKING CONDITIONS

Max pressure	Max temperature
30 bar	190 °C (*)

(*) For temperature above 110°C, see TECHNICAL SUPPORT CHAPTER



Connections 1" M	Max. Flow Rate
[mm]	[m³/h]
A 106	12,7
B 522	
C 50	
D 466	

N° of plates	NOT INSULATED VERSION	INSULATED VERSION	E [mm]	Weight [Kg]
	Art. Nr.	Art. Nr.		
30	5250410010201	5250410011201	81	8,3
40	5250410010202	5250410011202	104	10,2
50	5250410010203	5250410011203	128	12,1
60	5250410010204	5250410011204	151	14



PERFORMANCE DATA (PRIMARY AND SECONDARY FLUID, WATER, PRESSURE DROP < 50 KPA)

N° of plates	Primary 80/70 °C		Secondary 60/70 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	43	3,800	3,785	
40	57	5,037	5,017	
50	71	6,275	6,249	
60	83	7,335	7,305	

N° of plates	Primary 80/65 °C		Secondary 60/70 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	42	3,712	3,697	
40	55	4,861	4,841	
50	70	6,186	6,161	
60	82	7,247	7,217	

N° of plates	Primary 80/65 °C		Secondary 55/70 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	64	3,766	3,750	
40	85	5,002	4,981	
50	105	6,178	6,153	
60	122	7,179	7,149	

N° of plates	Primary 80/65 °C		Secondary 10/60 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	68	4,001	1,180	
40	88	5,178	1,527	
50	105	6,178	1,822	
60	128	7,532	2,222	

N° of plates	Primary 80/60 °C		Secondary 10/50 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	90	3,968	1,948	
40	120	5,291	2,597	
50	145	6,393	3,138	
60	170	7,496	3,679	

N° of plates	Primary 70/60 °C		Secondary 10/50 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	45	3,961	0,974	
40	60	5,281	1,299	
50	72	6,337	1,558	
60	85	7,481	1,840	

N° of plates	Primary 65/50 °C		Secondary 10/50 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	65	3,800	1,407	
40	88	5,144	1,904	
50	110	6,430	2,381	
60	125	7,307	2,705	

N° of plates	Primary 60/40 °C		Secondary 10/50 °C	
	Thermal output exchanged	Primary flow rate	Secondary flow rate	
	[KW]	[m³/h]	[m³/h]	
30	90	3,933	1,948	
40	120	5,245	2,597	
50	145	6,337	3,138	
60	170	7,430	3,679	

HYDRONIC AND FRESH WATER SYSTEMS

PIASTRATERM® SLB

POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK WITH STAINLESS STEEL BRAZED PLATE HEAT EXCHANGER



APPLICATION

Production and storage of domestic hot water (DHW).

MATERIAL

Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

SLB brazed plate exchanger in stainless steel 316L, insulated, supplied not mounted on the tank.

INSULATION

Models 200 ÷ 500 (HARD FOAM): High thermal insulation with ecological polyurethane hard foam.

Models 800 ÷ 2000 (DISMOUNTABLE SOFT): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

CATHODE PROTECTION

Magnesium anode. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection. Models > 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C. Mild steel inspection flange plate with Polywarm®.

WARRANTY

5 years on the tank (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

CIRCULATOR INCLUDED IN THE PRICE



INSULATION

PIASTRATERM® SLB WB - WC

ENERGY EFFICIENCY CLASS

Model	Art. Nr.	(WB) HARD FOAM: 200 ÷ 300 / (WC) DISMOUNTABLE SOFT FLEECE: 500 ÷ 2000					ErP	
		Nr. of plates (model SLB30)						
		14	20	30	40	50		
HARD FOAM	200	Art. Nr.	3170161722201					B
	300	Art. Nr.	3170161722211	3170161722212				C
DISMOUNTABLE SOFT FLEECE	500	Art. Nr.	3170161722221	3170161722222	3170161722223	3170161722224	3170161722225	C
	800	Art. Nr.		3170161722232	3170161722233	3170161722234	3170161722235	C
	1000	Art. Nr.			3170161722243	3170161722244	3170161722245	C
	1500	Art. Nr.				3170161722254	3170161722255	C
	2000	Art. Nr.					3170161722265	C
80	10/45	Pot. KW	38	72	120	150	200	
		D.H.W. lt./h	887	1680	2801	3501	4668	
65	10/45	Pot. KW	21	42	74	95	129	
		D.H.W. lt./h	483	972	1722	2228	3019	

ACCESSORIES

ELECTRIC IMMERSION HEATERS

Mod.	Heated volume by electric immersion heater [lit]	MONOPHASE			THREEPHASE					
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW	
		5240000000051	5240000000052	5240000000053	5240000000047	5240000000048	5240000000049	5240000000050	5240000000031	
		Ignition time from 10 °C to 45 °C with electric immersion heaters [min]								
200	49	87	65	44	33	//	//	//	//	
300	76	136	102	68	51	//	//	//	//	
500	127	228	171	114	85	68	57	//	//	
800	178	318	239	159	120	96	80	//	//	
1000	243	436	327	218	163	131	109	73	54	
1500	288	516	387	258	194	155	129	86	65	
2000	443	793	595	396	297	238	198	132	99	

Thermometer

Art. Nr.	5032240000107
5 units box	



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500, 800
5200000000011	1000, 1500
5200000000013	2000



HEAT MANAGER kit + electric resistance with probe and 3m cable

Art. Nr.	ELECTRICAL RESISTANCE
5240000000074	1,5 kW
5240000000075	2 kW
5240000000076	3 kW



See Accessories section

PIASTRATERM® SLB

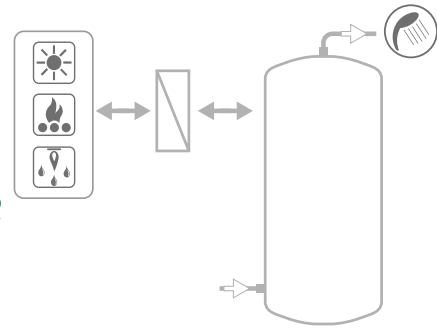
POLYWARM® COATED DOMESTIC HOT WATER ACCUMULATION TANK
WITH STAINLESS STEEL BRAZED PLATE HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGER		DUREZZA A.C.S.
	Pmax	Tmax	Pmax	Tmax	F max
200 ÷ 1000	8 bar	90 °C	10 bar	99 °C	30 °f
1500 ÷ 2000	6 bar				

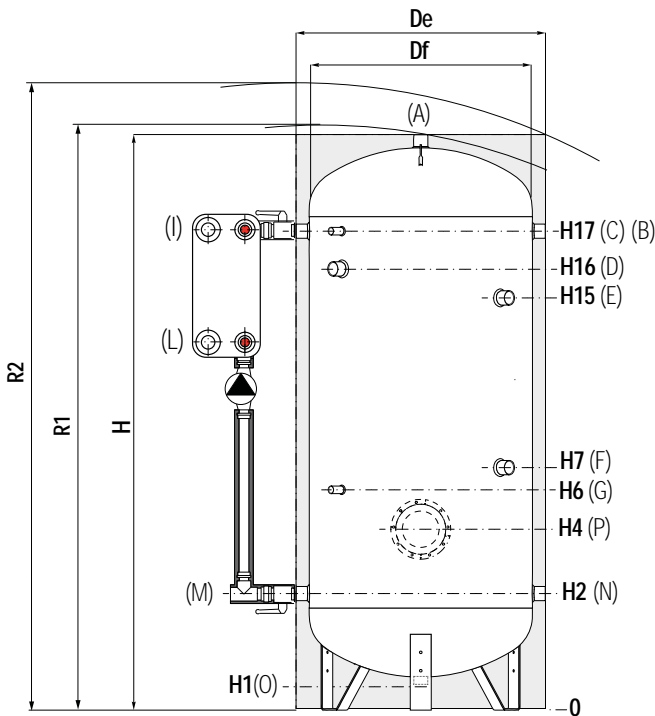


CORDIVARI Lab

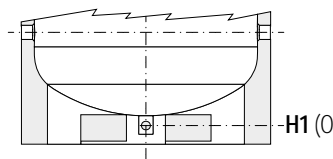
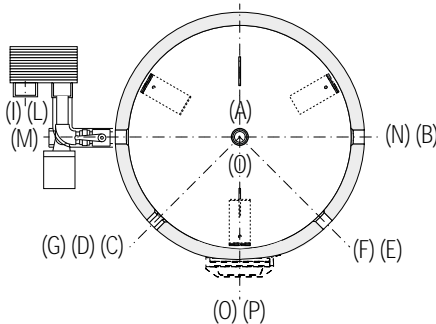
Tüv Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A	Domestic hot water outlet
B	Recirculation / Domestic hot water outlet
C	Connection for instrumentation 1/2" G F
D	Connection for electric immersion heater
E	Connection for 2nd magnesium anode 1"1/4 F (only for models > 1500)
F	Connection for magnesium anode 1" 1/4 G F
G	Connection for instrumentation 1/2" G F
I	Primary circuit Inlet 1" 1/4 G F
L	Primary circuit Outlet 1" 1/4 G F
M	Domestic cold water inlet
N	Alternative domestic cold water circuit inlet or connection for more tanks
O	Drain 1" 1/4 F. For model 1000 Connection 1"1/2 G F
P	Flange (only for models > 1000)



Models from 1500 to 5000 are equipped with a practical **skirt** support which facilitates the handling with transpallets and forklifts. Also, discharge piping already mounted to allow **total emptying**.

Model	Volume [lt]	De	DF	H	R1	R2	H1	H2	H4	H6	H7	H15	H16	H17	P	A	B	M	D
		[mm]														Connections F			
200	192	550	//	1449	//	1560	85	325	//	520	650	//	1075	1185	//	1"1/4	1"1/4	1"1/2	
300	293	650	//	1499	//	1640	85	350	//	545	735	//	1100	1210	//	1"1/4	1"1/4	1"1/2	
500	501	870	650	1891	1998	2090	101	416	//	611	801	//	1370	1526	//	1"1/4	1"1/4	1"1/2	
800	792	970	750	2188	2220	2400	113	433	//	628	898	//	1638	1793	//	1"1/4	1"1/4	1"1/2	
1000	1041	1070	850	2242	2270	2490	101	454	//	649	989	//	1660	1814	//	1"1/2	1"1/2	2"	
1500	1443	1210	950	2440	2495	2730	109	440	525	635	1075	//	1895	2050	Øi170/Øe240	2"	1"1/2	2"	
2000	1975	1360	1100	2492	2570	2850	91	467	542	652	842	1952	1877	2057	Øi170/Øe240	2"	2"	2"	

FRESH WATER MODULE MACS®

MODULE FOR IMMEDIATE D.H.W. PRODUCTION WITH ELECTRONIC CONTROL UNIT



APPLICATION

MACS® module produces instantly D.H.W. with high flow rate.

HEAT EXCHANGER, MATERIAL

Copper primary pipes, Stainless steel 316L DHW sanitary circuit; brass fittings and valves.

Stainless steel 316L brazed plate heat exchanger.

PPE module case housing and insulating the exchangers circuits.

TECHNICAL DESCRIPTION

MACS® module produces instantly D.H.W. with high flow rate without storage.

Thanks to a variable flow rate on the primary the risk of limescale formation on the sanitary side is highly reduced

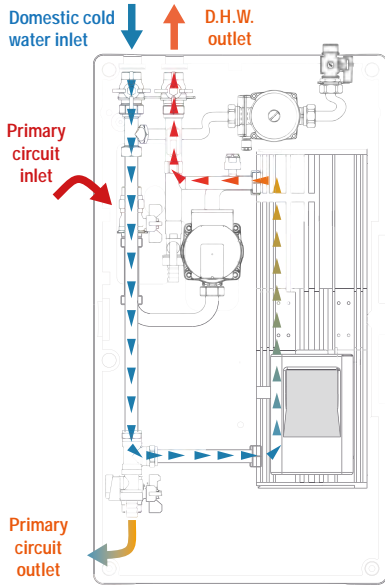
The immediate and fast production of D.H.W. granted by the external plate exchanger system allows the following benefits:

- reduced dimensions of the tank for DHW productions
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by water heater with similar capacity, thanks to the heating water stored at an higher temperature than DHW.

WARRANTY

2 years - 1 year on electronic parts.

See general sales conditions and warranty

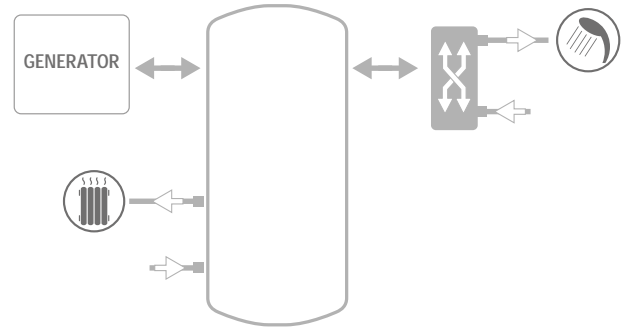
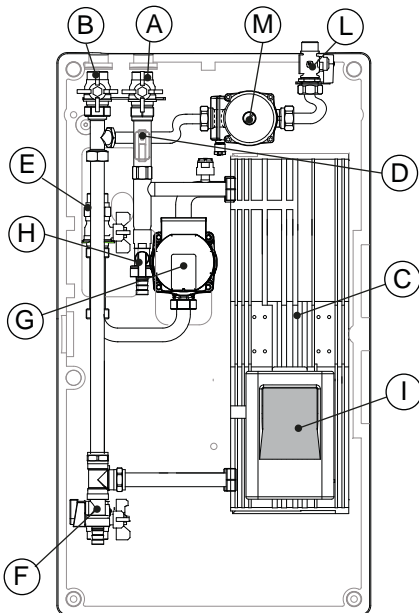


NEW

ELECTRONIC MACS® MODULE

Model	Stainless steel 316L Plate Exchanger
Art. Nr.	
70	3316006700007
120	3316006700008
180 HP	3316006700019

TECHNICAL DATA MODULO MACS®	MACS® 70	MACS® 120	MACS® 180 HP
D.H.W. Operation range	2-40 lt/min	5-100 lt/min	5-100 lt/min
DHW production (10-45°C) with accumulation at 80°C	40 lt/min	75 lt/min	86 lt/min
Maximum working temperature	90°C	90°C	90°C
Maximum working pressure	8 bar	8 bar	8 bar
Electric supply and characteristic	230 V AC, 43 W	230 V AC, 50 W	230 V AC, 75 W
Dimension of the case (BxHxP) mm	L 500 x H 905 x P 310	L 500 x H 905 x P 310	L 500 x H 905 x P 310
Connections	1" F / 3/4" F	1" F / 3/4" F	1" F / 3/4" F



A	Domestic hot water outlet (DHW)	F	Primary Outlet
B	Domestic Water inlet	G	"Energy Savings" Circulation Pump
C	Stainless Steel Plate Exchanger	H	Valves In/Out for DHW
D	Flow rate/ temperature probe	I	Electronic control unit
E	Primary Inlet		

DHW recirculation kit for MACS® module (optional)

L	Connection for D.H.W. recirculation (optional)
M	D.H.W. recirculation pump (optional)

ACCESSORIES

DHW recirculation group

ART. NR.	
522100000073	

The recirculation kit for Electronic MACS® module allows the implementation of a sanitary recirculation circuit on the system where modules are installed.

The main advantage of such sanitary recirculation circuit is to improve comfort and speed in achieving and enjoying the desired DHW temperature, reducing energy waste.

The control unit included as standard with the electronic MACS® modules allow the complete management of all settings of the recirculation circuit, such as temperature, setting etc.

FRESH WATER MODULE **MACS®**

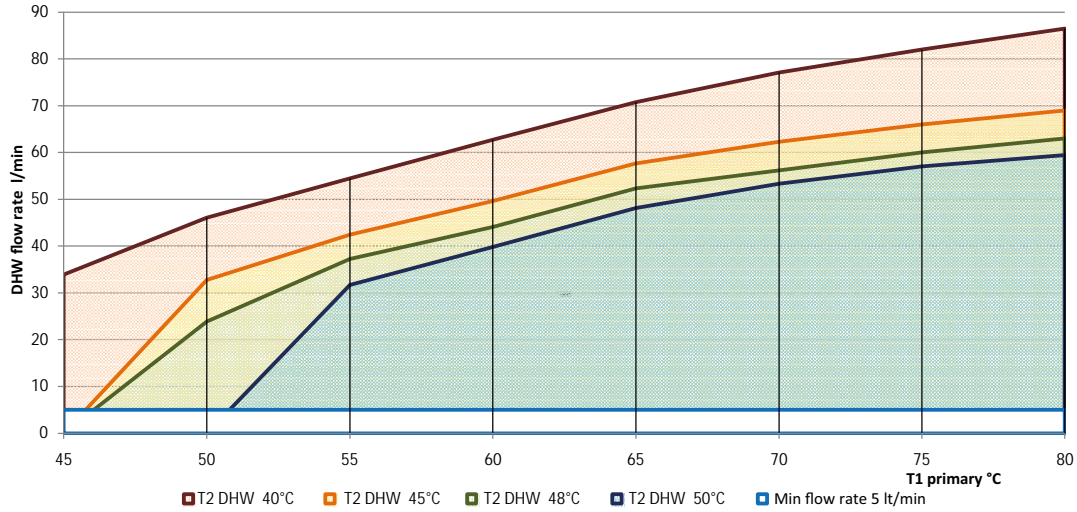
MODULE FOR IMMEDIATE D.H.W. PRODUCTION WITH ELECTRONIC CONTROL UNIT

ELECTRONIC MACS® TECHNICAL DATA CHART

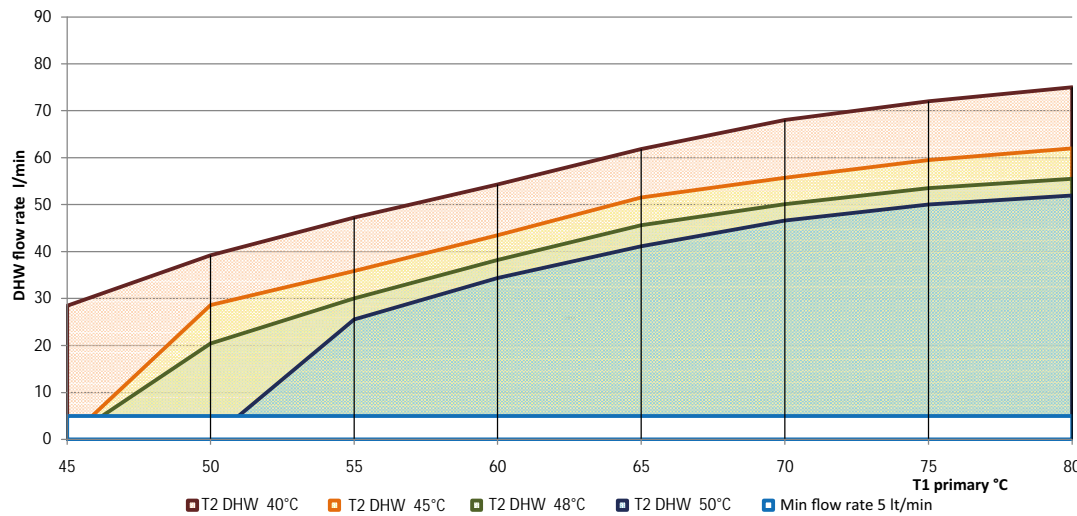
The curves shown in these charts allow to obtain the DHW flow rate that can be produced by the individual MACS® module according to the storage / primary circuit temperature (value on the horizontal axis). The curves are parameterized based on the desired DHW temperature and indicate the maximum DHW flow rate that can be produced at that

temperature (with cold water inlet temperature at 10°C) The MACS modules can produce all the DHW flow rates included in the area between the minimum activation flow rate and maximum flow curve of each temperature.

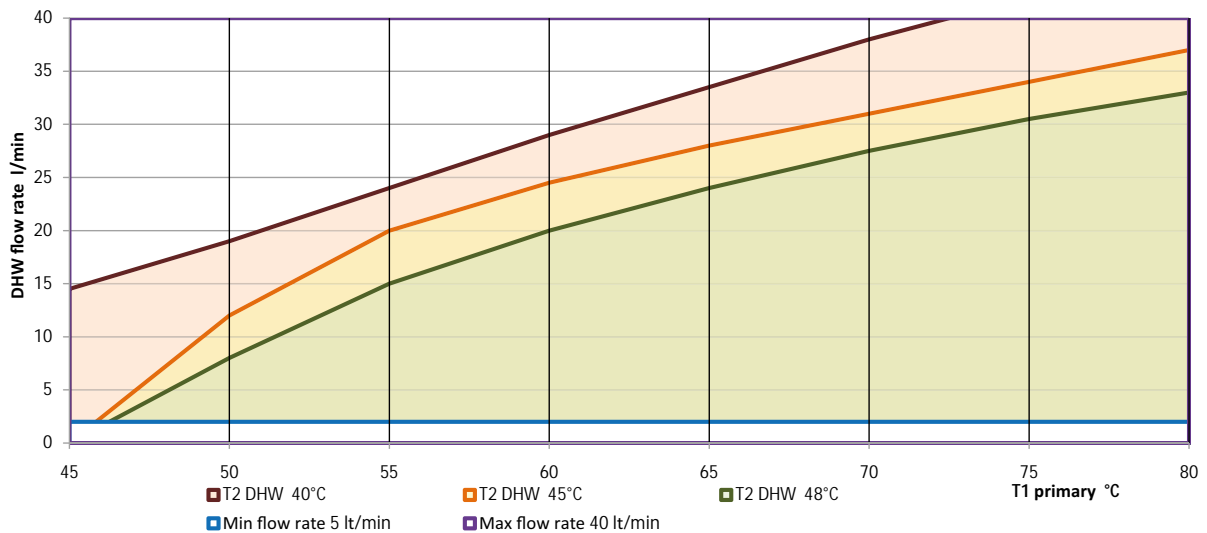
MACS® 180 HP



MACS® 120



MACS® 70



HYDRONIC AND FRESH WATER SYSTEMS

FRESH WATER MODULE MACS® CASCADE SETUP

CASCADE MACS® SYSTEM WITH ELECTRONIC CONTROL UNIT FOR IMMEDIATE DHW PRODUCTION ON LARGE INSTALLATIONS



APPLICATION

MACS® module produces instantly D.H.W. with high flow rate even if there is installed a limited power thermal generator.

EXCHANGER, MATERIAL

Copper primary pipes, Stainless steel 316L DHW sanitary circuit; brass fittings and valves.
Stainless steel 316L brazed plate heat exchanger.
PPE module case housing and insulating the exchangers circuits.

TECHNICAL DESCRIPTION

The management of additional MACS® modules in cascade allows to meet high DHW requirements.

The complete system manages through the electronic control unit, the working of each module following the DHW request from the users.

The cascade configuration can eventually also manage the link of the DHW recirculation. The use of the MACS module in

cascade takes all the benefits from the MACS module also in big installation where large DHW flows are needed to produce immediate DHW without the necessity to accumulate it.

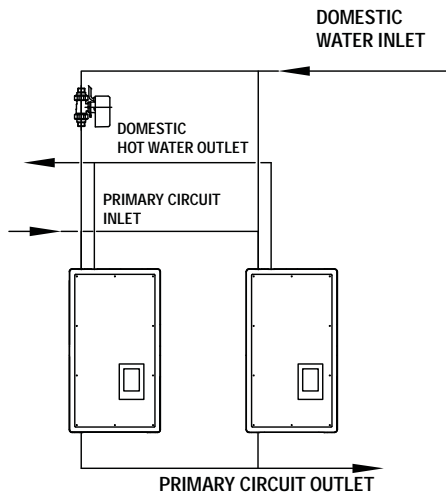
WARRANTY

2 years
1 year electrical parts
See general sales conditions and warranty

CASCADE MACS® SYSTEM

N° of MACS® 120 modules	Stainless steel 316L Plate Exchanger Art. Nr.
120 x2	3316006700015
120 x3	3316006700016
180 x2	3316006700020
180 x3	3316006700021

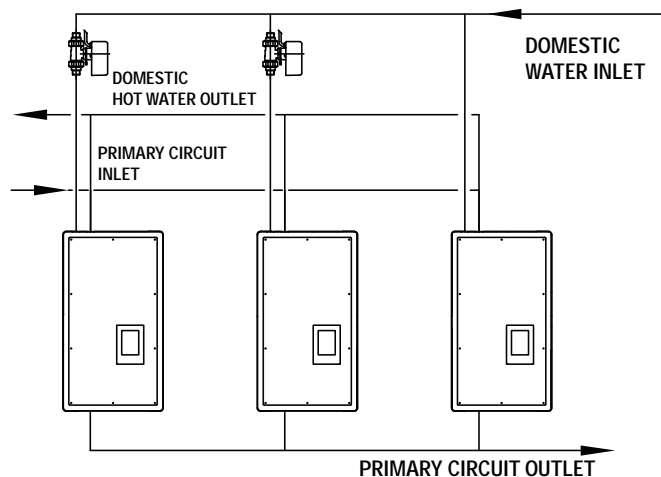
CASCADE SETUP WITH 2x MACS® 120 MODULES



The system includes:

MACS® 120 module	2-ways valve - 1"
 x 2	 x 1

CASCADE SETUP WITH 3x MACS® 180 MODULES



The system includes:

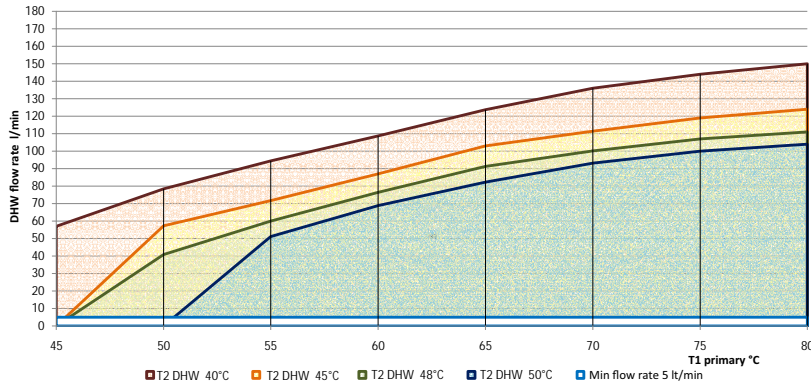
MACS® 180 module	2-ways valve - 1"
 x 3	 x 2

FRESH WATER MODULE MACS® CASCADE SETUP

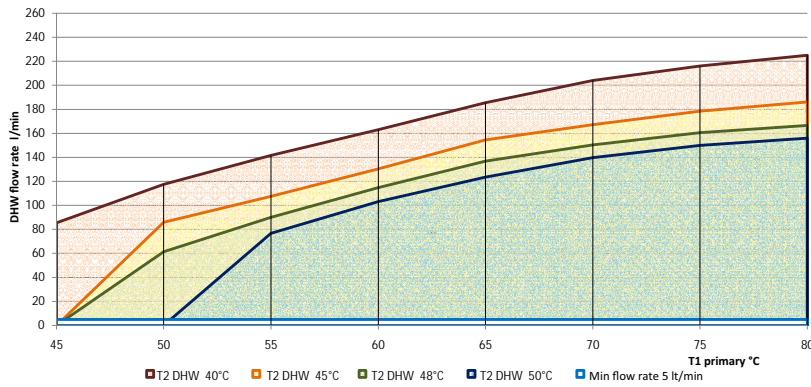
CASCADE MACS® SYSTEM WITH ELECTRONIC CONTROL UNIT FOR IMMEDIATE DHW PRODUCTION ON LARGE INSTALLATIONS

ELECTRONIC MACS® 120 TECHNICAL DATA CHART

x2

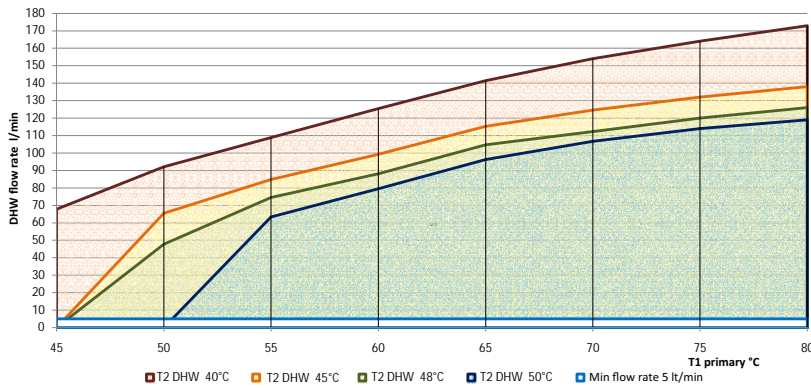


x3

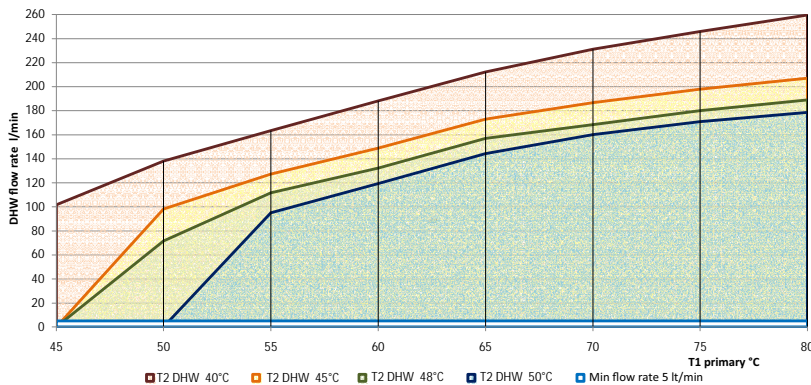


ELECTRONIC MACS® 180 TECHNICAL DATA CHART

x2



x3



HYDRONIC AND FRESH WATER SYSTEMS

FRESH WATER STATION PRS

MODULE FOR IMMEDIATE DHW PRODUCTION



DESCRIPTION

The new PRS modules are designed to rapidly prepare Domestic Hot Water for medium and large-scale facilities; they can work both with accumulation (semi-immediate mode) or without (immediate mode).

COMPONENTS

- Inspectable plate heat exchanger with steel structure and exchanger plates made in stainless steel AISI 316L with EPDM gaskets
- Single or double pump for primary circuit
- Motorized 3-way mixing valve (only on high temperature version)
- Electrical control panel with control unit for programming
- Temperature probes
- Galvanized steel frame
- 230V AC single phase supply.

OPTIONAL

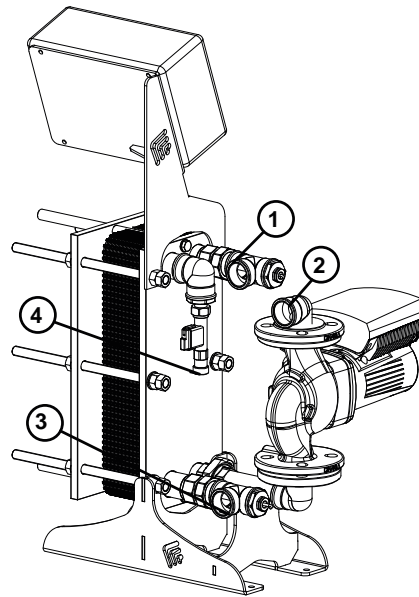
- Insulation for the heat exchanger in aluminium and mineral wool (M0-A1 reaction to fire class)
- Data Logger

OPERATING CONDITIONS

Maximum Working pressure = 10 bar
Maximum temperature of the gaskets = 140 °C

WARRANTY

2 years – See general sales conditions and warranty on the Calorifiers catalogue in force.



1	Primary Inlet
2	Primary Outlet
3	Domestic water inlet
4	Domestic hot water circuit outlet


FEATURES AND FUNCTIONS OF THE PRS CONTROL UNIT

- Back-lighted display with representation of graphs and texts
- Self-explanatory menu with captions
- Simple visualization of the measured values
- Temperature maintenance of the DHW inlet and of the DHW accumulation, set from the controller
- High operational efficiency thanks to the proportional control of primary pumps speed
- Performance of a series of anti-legionella disinfection cycles, schedulable at preferred time and day of the week, final result showed on the display
- DHW recirculation function control
- Analysis and monitoring of the system through statistics
- Computation of the exchanged heat, on a daily and weekly basis
- Diagnostic unit function for temperature and flow probes

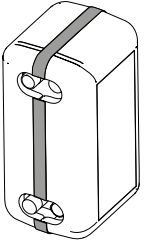


ACCESSORIES

DATA LOGGER

Art. Nr.	
5755280000029	
<ul style="list-style-type: none"> • Remote monitoring • Historical anti-legionella cycles data recording on Micro SD card • Registration of the temperatures achieved in the system <p>Kit includes: transformer 5 V DC, Micro SD card, CAN-bus cable, terminating resistors and wall plugs.</p>	

INSULATION

Art. Nr.	PRS Model	
5655000610013	4620 (up to 31 plates)	
5655000610014	4620 (up to 67 plates)	
5655000610015	7420 (up to 29 plates)	
5655000610016	7420 (up to 67 plates)	
5655000610017	8031 (up to 47 plates)	
5655000610018	8031 (from 49 to 57 plates)	

Insulation with practical velcro closure for quick and easy assembly / disassembly; made in closed cell expanded cross-linked polymeric material with low thermal conductivity. Designed to completely contain the exchanger and its linkage and ensure complete insulation, in order to reduce heat loss and improve the efficiency of the system.
Fire reaction class B2 (DIN 4102)

FRESH WATER STATION PRS

MODULE FOR IMMEDIATE DHW PRODUCTION

MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.
				[mm]	
4620 SINGLE PUMP	9	400	906	760	596
	13				
	17				
	21				
	25				
	29				
	33				
	37				
	41				
45					
				780	617

MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.			
				[mm]				
7420 SINGLE PUMP	9	400	1192	760	596			
	13							
	17							
	21							
	25							
	29							
	33							
	37							
	41							
	45							
							780	617

MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.
				[mm]	
8031 SINGLE PUMP	13	493	1156	1085	990
	17				
	21				
	25	532		1091	996
	29				
	33	542		1111	1016
	37				
	41				
	45	545		1113	1018
	49				
	53				
	57				
57					
				1363	1268

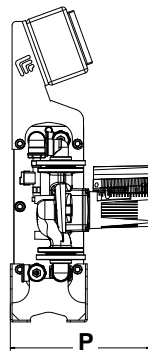
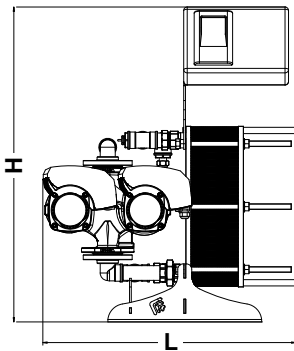
MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.
				[mm]	
4620 SINGLE PUMP	9	403	906	868	703
	13				
	17				
	21				
	25				
	29				
	33				
	37				
	41				
45					
				888	724

MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.			
				[mm]				
7420 DOUBLE PUMP	9	403	1192	868	703			
	13							
	17							
	21							
	25							
	29							
	33							
	37							
	41							
	45							
							888	724

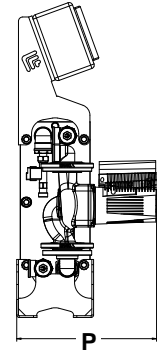
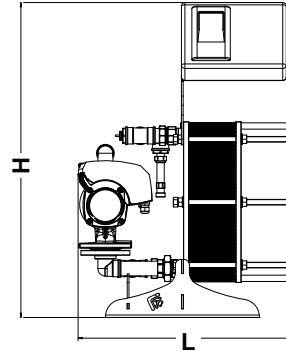
MOD.	N° of Plates	P	H	L mod. HIGH temp.	L mod. LOW temp.
				[mm]	
8031 DOUBLE PUMP	13	535	1156	1205	1110
	17				
	21				
	25	535		1220	1125
	29				
	33	542		1236	1141
	37				
	41				
	45	551		1471	1376
	49				
	53				
	57				
57					
				1471	1376

PRS – FOR LOW TEMPERATURE SYSTEMS

with **DOUBLE** pump

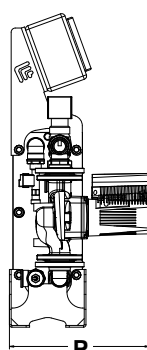
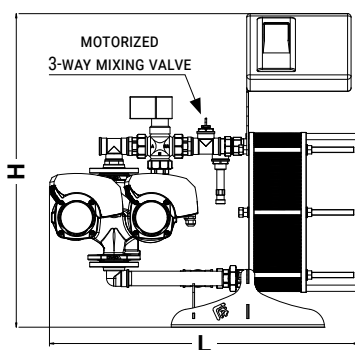


with **SINGLE** pump

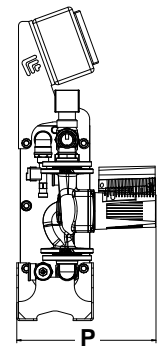
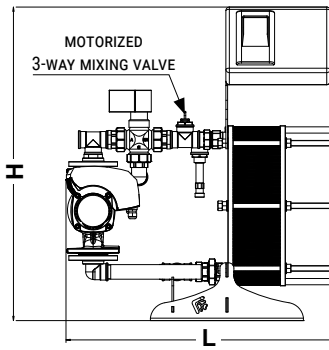


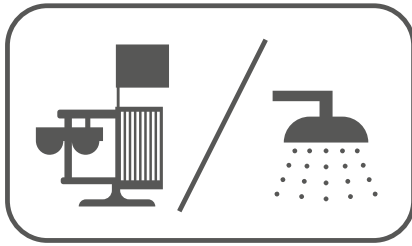
PRS - FOR HIGH TEMPERATURE SYSTEMS

with **DOUBLE** pump



with **SINGLE** pump

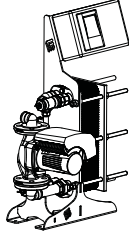







CONFIGURATION WITHOUT DHW ACCUMULATION

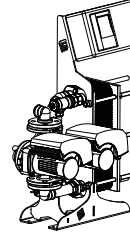
LOW TEMPERATURE




SINGLE PUMP

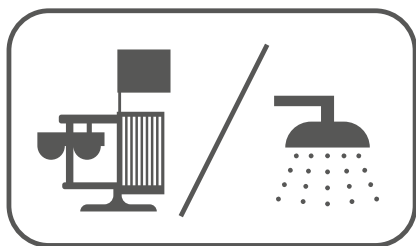


Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701090
	13	3435316701091
	17	3435316701092
	21	3435316701093
	25	3435316701094
	29	3435316701095
	33	3435316701096
	37	3435316701097
	41	3435316701098
45	3435316701099	
 PHC 7420	17	3435316701170
	21	3435316701171
	25	3435316701172
	29	3435316701173
	33	3435316701174
	37	3435316701175
	41	3435316701176
45	3435316701177	
 PHC 8031	13	3435316701234
	17	3435316701235
	21	3435316701236
	25	3435316701237
	29	3435316701238
	33	3435316701239
	37	3435316701240
	41	3435316701241
	45	3435316701242
	49	3435316701243
	53	3435316701244
	57	3435316701245

DOUBLE PUMP



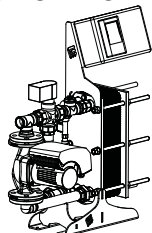
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	17	3435316701102
	21	3435316701103
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	29	3435316701105
	33	3435316701106
	37	3435316701107
	41	3435316701108
45	3435316701109	
 PHC 7420	17	3435316701178
	21	3435316701179
	25	3435316701180
	29	3435316701181
	33	3435316701182
	37	3435316701183
	41	3435316701184
45	3435316701185	
 PHC 8031	13	3435316701246
	17	3435316701247
	21	3435316701248
	25	3435316701249
	29	3435316701250
	33	3435316701251
	37	3435316701252
	41	3435316701253
	45	3435316701254
	49	3435316701255
	53	3435316701256
	57	3435316701257



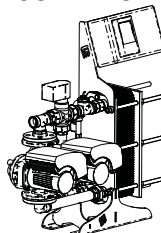
CONFIGURATION WITHOUT DHW ACCUMULATION


HIGH TEMPERATURE


SINGLE PUMP





DOUBLE PUMP





Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701130
	13	3435316701131
	17	3435316701132
	21	3435316701133
	25	3435316701134
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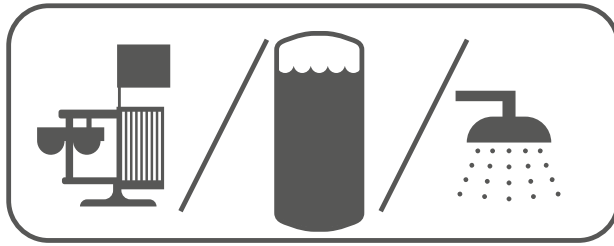
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	17	3435316701142
	21	3435316701143
	25	3435316701144
	29	3435316701145
	33	3435316701146
	37	3435316701147
	41	3435316701148
	45	3435316701149

 PHC 7420	17	3435316701202
	21	3435316701203
	25	3435316701204
	29	3435316701205
	33	3435316701206
	37	3435316701207
	41	3435316701208
	45	3435316701209

 PHC 7420	17	3435316701210
	21	3435316701211
	25	3435316701212
	29	3435316701213
	33	3435316701214
	37	3435316701215
	41	3435316701216
	45	3435316701217

 PHC 8031	13	3435316701282
	17	3435316701283
	21	3435316701284
	25	3435316701285
	29	3435316701286
	33	3435316701287
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	49	3435316701291
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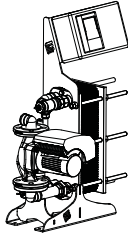
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	25	3435316701297
	29	3435316701298
	33	3435316701299
	37	3435316701300
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CONFIGURATION FOR DHW ACCUMULATION

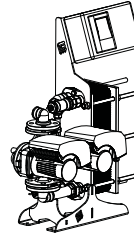
LOW TEMPERATURE


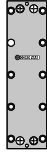

SINGLE PUMP

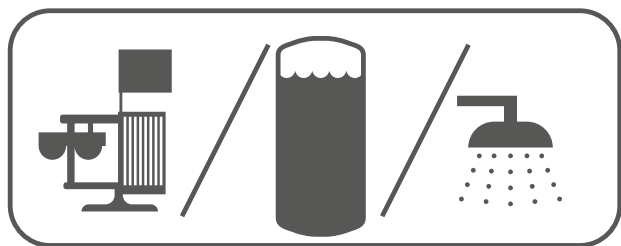


Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701110
	13	3435316701111
	17	3435316701112
	21	3435316701113
	25	3435316701114
	29	3435316701115
	33	3435316701116
	37	3435316701117
	41	3435316701118
	45	3435316701119
 PHC 7420	17	3435316701186
	21	3435316701187
	25	3435316701188
	29	3435316701189
	33	3435316701190
	37	3435316701191
	41	3435316701192
	45	3435316701193
 PHC 8031	13	3435316701258
	17	3435316701259
	21	3435316701260
	25	3435316701261
	29	3435316701262
	33	3435316701263
	37	3435316701264
	41	3435316701265
	45	3435316701266
	49	3435316701267
	53	3435316701268
	57	3435316701269

DOUBLE PUMP



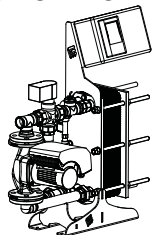
Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701120
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	17	3435316701122
	21	3435316701123
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 PHC 7420	17	3435316701194
	21	3435316701195
	25	3435316701196
	29	3435316701197
	33	3435316701198
	37	3435316701199
	41	3435316701200
	45	3435316701201
 PHC 8031	13	3435316701270
	17	3435316701271
	21	3435316701272
	25	3435316701273
	29	3435316701274
	33	3435316701275
	37	3435316701276
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	45	3435316701278
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	57	3435316701281



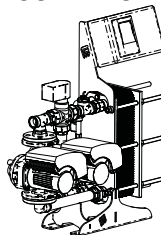
CONFIGURATION FOR DHW ACCUMULATION


HIGH TEMPERATURE


SINGLE PUMP





DOUBLE PUMP





Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701150
	13	3435316701151
	17	3435316701152
	21	3435316701153
	25	3435316701154
	29	3435316701155
	33	3435316701156
	37	3435316701157
	41	3435316701158
45	3435316701159	

Model	N° plates	Art. Nr.
 PHC 4620	9	3435316701160
	13	3435316701161
	17	3435316701162
	21	3435316701163
	25	3435316701164
	29	3435316701165
	33	3435316701166
	37	3435316701167
	41	3435316701168
45	3435316701169	

 PHC 7420	17	3435316701218
	21	3435316701219
	25	3435316701220
	29	3435316701221
	33	3435316701222
	37	3435316701223
	41	3435316701224
45	3435316701225	

 PHC 7420	17	3435316701226
	21	3435316701227
	25	3435316701228
	29	3435316701229
	33	3435316701230
	37	3435316701231
	41	3435316701232
45	3435316701233	

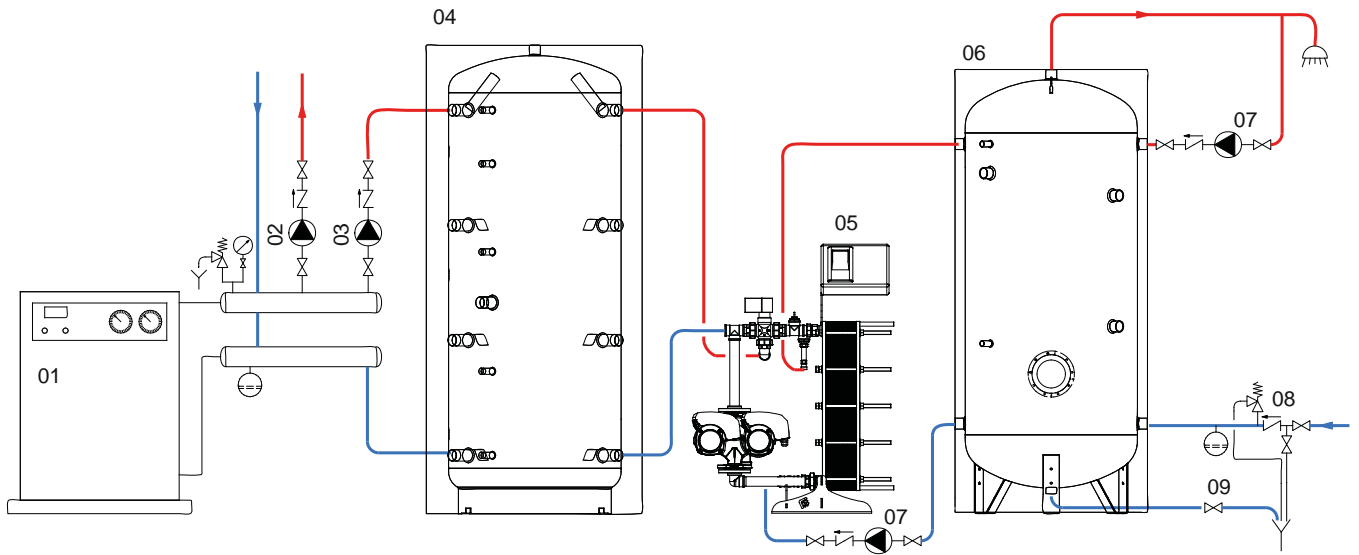
 PHC 8031	13	3435316701306
	17	3435316701307
	21	3435316701308
	25	3435316701309
	29	3435316701310
	33	3435316701311
	37	3435316701312
	41	3435316701313
	45	3435316701314
	49	3435316701315
53	3435316701316	
57	3435316701317	

 PHC 8031	13	3435316701318
	17	3435316701319
	21	3435316701320
	25	3435316701321
	29	3435316701322
	33	3435316701323
	37	3435316701324
	41	3435316701325
	45	3435316701326
	49	3435316701327
53	3435316701328	
57	3435316701329	

FRESH WATER STATION PRS

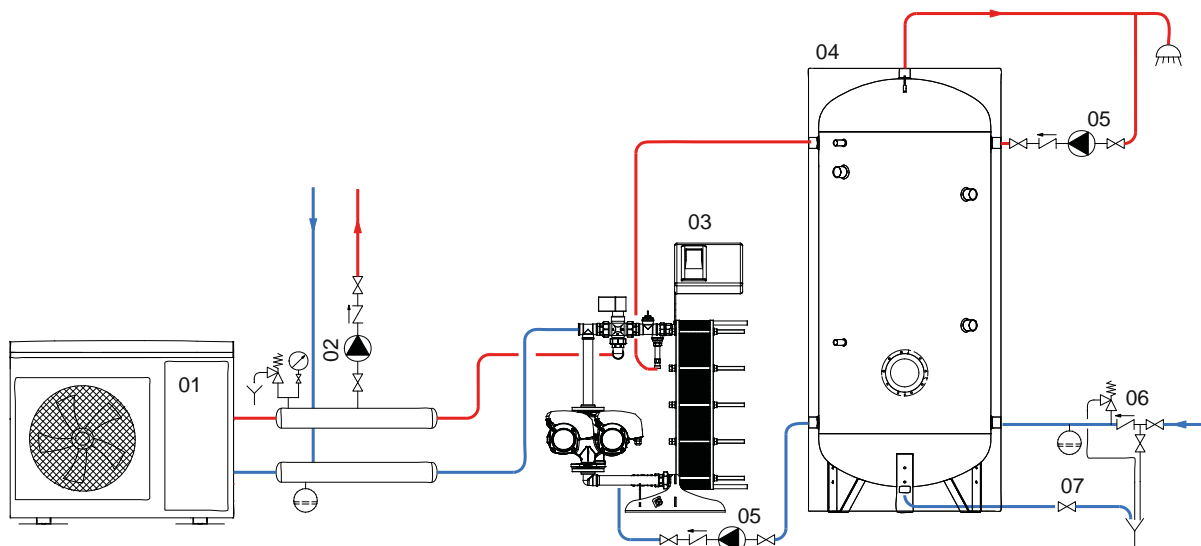


EXAMPLE OF INSTALLATION WITH PRS - FOR DHW ACCUMULATION



01	Generator	04	PUFFER (Buffer tank)	07	D.H.W. recirculation group
02	Heating system circulation group	05	PRS Module	08	Hydraulic safety group
03	Primary circulation group	06	VASO INERZIALE (D.H.W.)	09	Blowdown valve

EXAMPLE OF INSTALLATION WITH PRS - FOR DHW ACCUMULATION



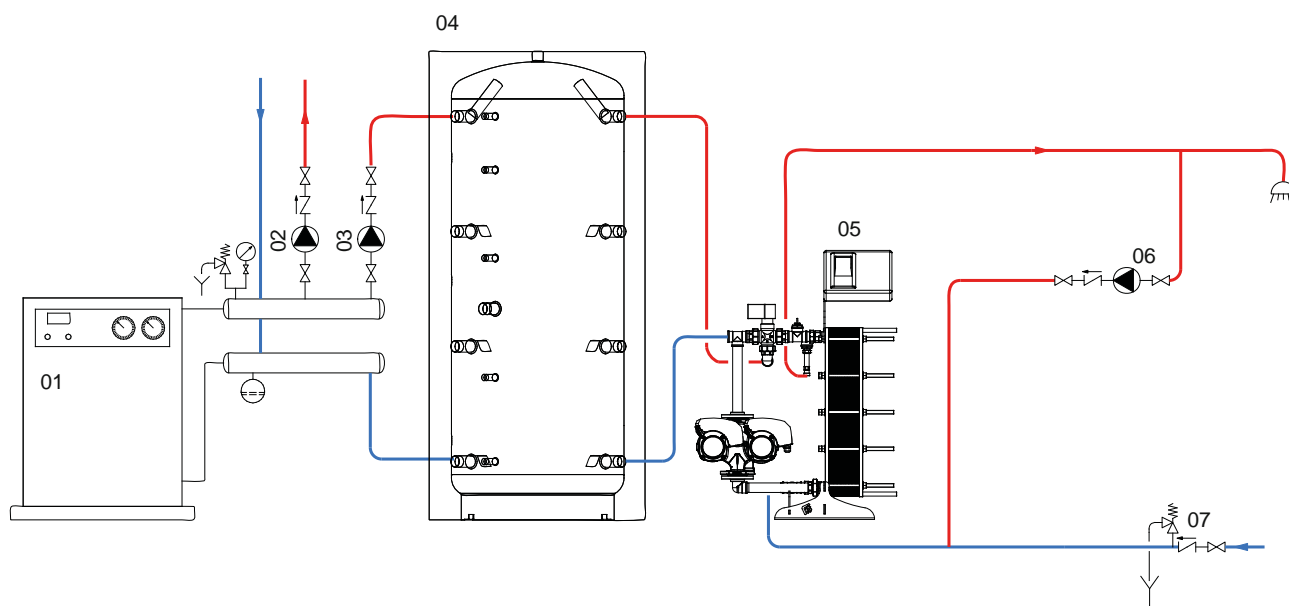
01	Generator	04	VASO INERZIALE (D.H.W.)	07	Blowdown valve
02	Heating system circulation group	05	D.H.W. recirculation group		
03	PRS Module	06	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

FRESH WATER STATION PRS



EXAMPLE OF INSTALLATION WITH PRS - WITHOUT D.H.W. STORAGE



01	Generator	03	Primary circulation group	05	PRS Module	07	Hydraulic safety group
02	Heating system circulation group	04	PUFFER (Buffer tank)	06	D.H.W. recirculation group		

OPEN EXPANSION VESSEL

STAINLESS STEEL 304 / GALVANIZED / POLYETHYLENE

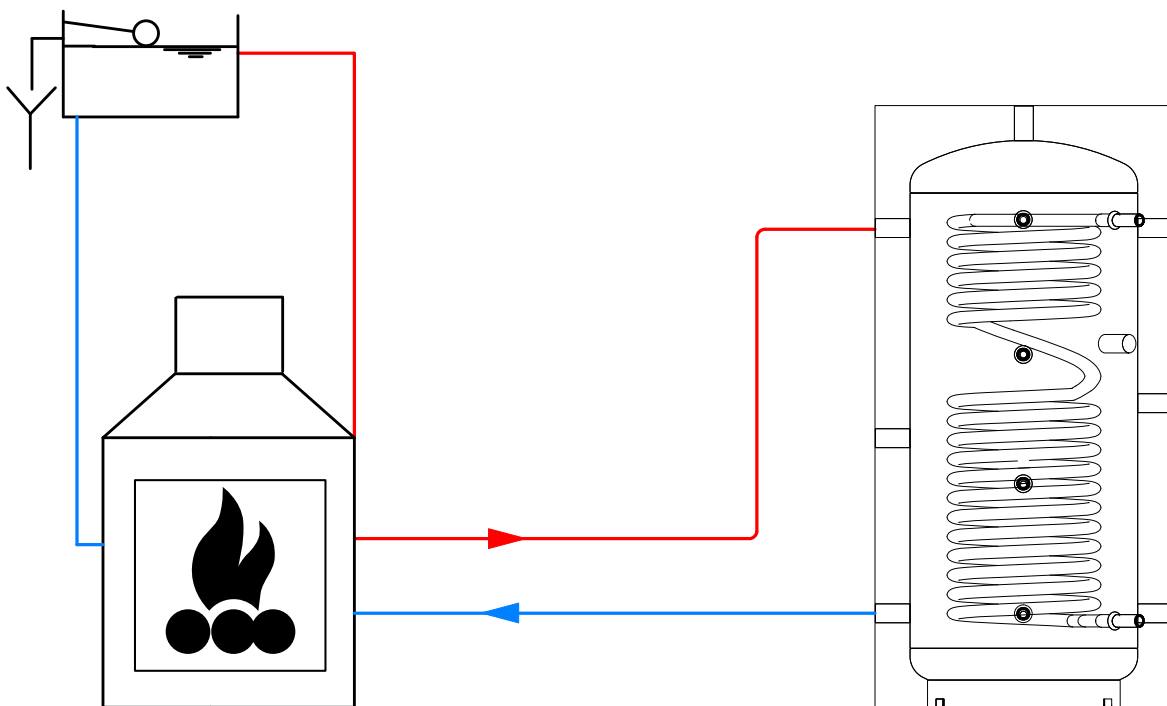


Open expansion tanks are used as safety accessories in the heating systems where, due to legal reason it is forbidden to install closed expansion tank systems. Expansion tank is composed by a cover unit where all the security piping of outlet pipe for too full, supplying and systems charge, should arrive. Its rule is to merge the water in excess caused by temperature increase. Expansion Tank should be placed on the highest point reached by the water and should have an expanding volume not less than the expansion volume developed by all the water contained in the system, whose value should be declared in the project.

Expansion volume needed in the system is calculated by the following formula:
"Ve = C x e"

Where C is the water contained in the system and "e" is equal to the difference between the expansion factor of the water at the minimum conceivable temperature with sleeping system and the expansion factor of the water at boiling temperature of atmospheric pressure. Considering the first water temperature equal to 10°C and the boiling one at 100°C
"e" = 0.0431

It is possible to connect more than one tank together.



OPEN EXPANSION VESSEL

STAINLESS STEEL 304 / GALVANIZED / POLYETHYLENE



Stainless steel 304

STAINLESS STEEL 304 - EXPANSION VESSEL

Model	Stainless steel AISI 304	Dimensions	Expansion volume
	Art. Nr.	HxLxP [mm]	
30	3941014010001	275x455x245	7,5
50	3941014010002	276x455x430	30



Galvanized

GALVANIZED - EXPANSION VESSEL

Model	GALVANIZED	Dimensions	Expansion volume
	Art. Nr.	HxLxP [mm]	
30	3941164010001	275x455x245	7,5
50	3941164010002	276x455x430	30



Polyethylene

POLYETHYLENE - EXPANSION VESSEL

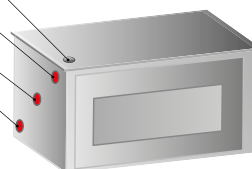
Model	POLYETHYLENE	Dimensions	Expansion volume
	Art. Nr.	HxLxP [mm]	
30	3500264011001	319x491x280	7,5

Security hole Ø 30

Too full /purge 1" F

Floating ½" F

System Inlet 1" F



HYDRONIC AND FRESH
WATER SYSTEMS



PUFFER



BUFFER AND
COMBINED TANKS

PUFFER

HEATING WATER BUFFER TANK



APPLICATION

Efficient storage of hot water for heating purpose.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

TECHNICAL DESCRIPTION

Used to improve flexibility and performance of pellets, stoves and burners. PUFFER are used in units with a typically discontinuous energy source.

Available models with 3 or 6 bar working pressure.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

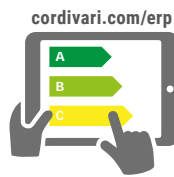
Grey PVC external lining.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool



STORAGE	
Pmax	Tmax
6 bar	99 °C



PUFFER VB 6 BAR

Model	HARD FOAM insulation	ENERGY EFFICIENCY CLASS
Art. Nr.		
500	3251162312531	C



PUFFER VC 6 BAR

Model	DISMOUNTABLE SOFT FLEECE insulation	ENERGY EFFICIENCY CLASS
Art. Nr.		
800	3251162282611	C
1000	3251162282612	C
1500	3251162282613	C
2000	3251162282614	C
3000	3251162282615	
5000	3251162282616	



PUFFER VB

Model	HARD FOAM insulation	ENERGY EFFICIENCY CLASS
Art. Nr.		
200	3251162312501	B
300	3251162312502	B
500	3251162312503	C
600	3251162312504	C
750	3251162312525	B
800	3251162312526	B
1000	3251162312527	C
1250	3251162312508	B
1500	3251162312509	C
2000	3251162312510	B



PUFFER VB

Model	DISMOUNTABLE HARD FOAM insulation	ENERGY EFFICIENCY CLASS
Art. Nr.		
750	3251162312505	B
800	3251162312506	B
1000	3251162312507	C



PUFFER VC

Model	DISMOUNTABLE SOFT FLEECE insulation	ENERGY EFFICIENCY CLASS
Art. Nr.		
750	3251162282804	C
800	3251162282805	C
1000	3251162282806	C
1500	3251162282807	C
2000	3251162282808	C
3000	3251162282608	
5000	3251162282610	

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFER

HEATING WATER BUFFER TANK

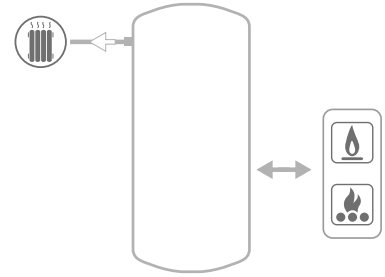
STORAGE

Pmax	Tmax
3 bar	99 °C

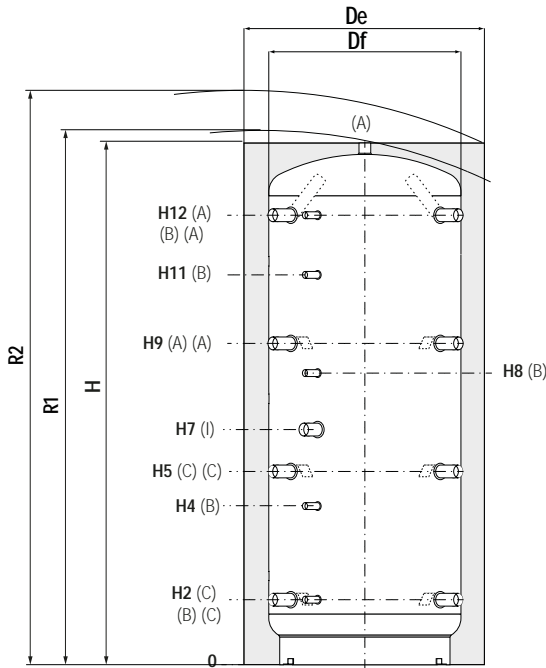


CORDIVARI Lab

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See **TECHNICAL SUPPORT** chapter for example of installation



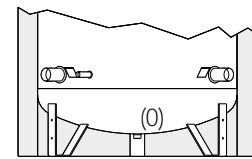
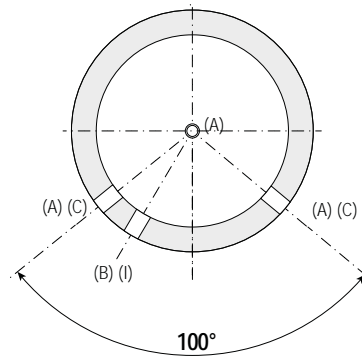
A Heating delivery/from generator

B Connection for instrumentation 1/2" G F

C Heating return/to generator

I Connection for electric immersion heater.

O Drain only for models 3000 e 5000



Standard supporting feet for models 3000 and 5000. Drain welded on the bottom.

Model	Volume [lit]	Df (vers. VC)	De (vers. VC)	De (vers. VB)	H	R1	R2	H2	H4
		[mm]		[mm]					
200	180	//	//	550	1299	//	1415	218	430
300	279	//	//	650	1340	//	1495	232	444
500	478	//	//	750	1645	//	1815	259	545
600	560	//	//	750	1870	//	2020	247	582
750	717	790	1010	950	1658	1710	1915	265	584
800	805	790	1010	950	1840	1890	2075	265	584
1000	946	790	1010	950	2130	2175	2340	265	656
1250	1248	//	//	1050	2201	//	2445	313	705
1500	1454	950	1210	1100	2250	2305	2510	313	736
2000	1973	1100	1360	1300	2320	2390	2665	347	770
3000	2915	1250	1450	//	2814	2890	3170	556	1017
5000	4985	1600	1800	//	2929	3045	3445	586	1047

Model	H5	H7	H8	H9	H11	H12	A - C - I		O
							Connections F		
200	500	576	711	782	871	1064	1"1/2	//	
300	514	590	725	796	885	1078	1"1/2	//	
500	641	853	942	1023	1243	1355	1"1/2	//	
600	695	915	1060	1144	1382	1593	1"1/2	//	
750	630	823	938	995	1180	1371	1"1/2	//	
800	690	823	988	1115	1332	1541	1"1/2	//	
1000	787	998	1188	1309	1588	1831	1"1/2	//	
1250	835	986	1168	1357	1568	1879	1"1/2	//	
1500	845	1061	1286	1377	1653	1909	1"1/2	//	
2000	879	1060	1300	1411	1687	1943	1"1/2	//	
3000	1071	1693	1879	1786	2140	2402	2"	1"	
5000	1101	1691	1889	1816	2159	2432	2"	2"	

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND
COMBINED TANKS

PUFFER COMPACT

HEATING WATER BUFFER TANK SUITABLE FOR LOW-CEILINGED ROOMS



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

TECHNICAL DESCRIPTION

Used to improve flexibility and performance of pellets, stoves and burners. PUFFER COMPACT are used in units with a typically discontinuous energy source.

Suitable for low-ceilinged rooms.

INSULATION

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

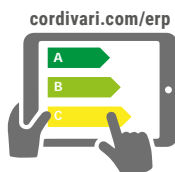
Grey PVC external lining.

WARRANTY

5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



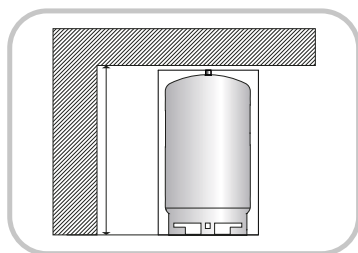
On line ErP label tool



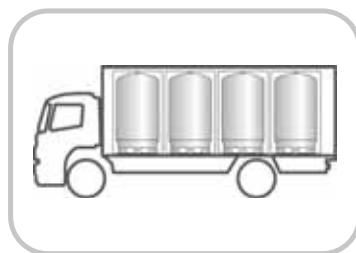
PUFFER COMPACT VC

DISMOUNTABLE HARD FOAM insulation

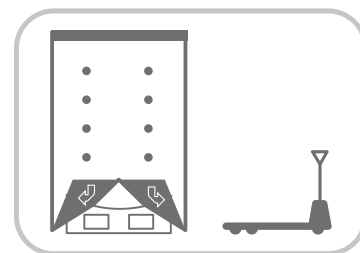
Model	Art. Nr.
2500	3251162280370
3000	3251162282658
4000	3251162282659
4500	3251162282660
5000	3251162282661
6000	3251162282662
8000	3251162282663



SUITABLE FOR
LOW-CEILINGED ROOMS



EASY TO
TRANSPORT



EASY TO MOVE

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

PUFFER COMPACT

HEATING WATER BUFFER TANK SUITABLE FOR LOW-CEILINGED ROOMS

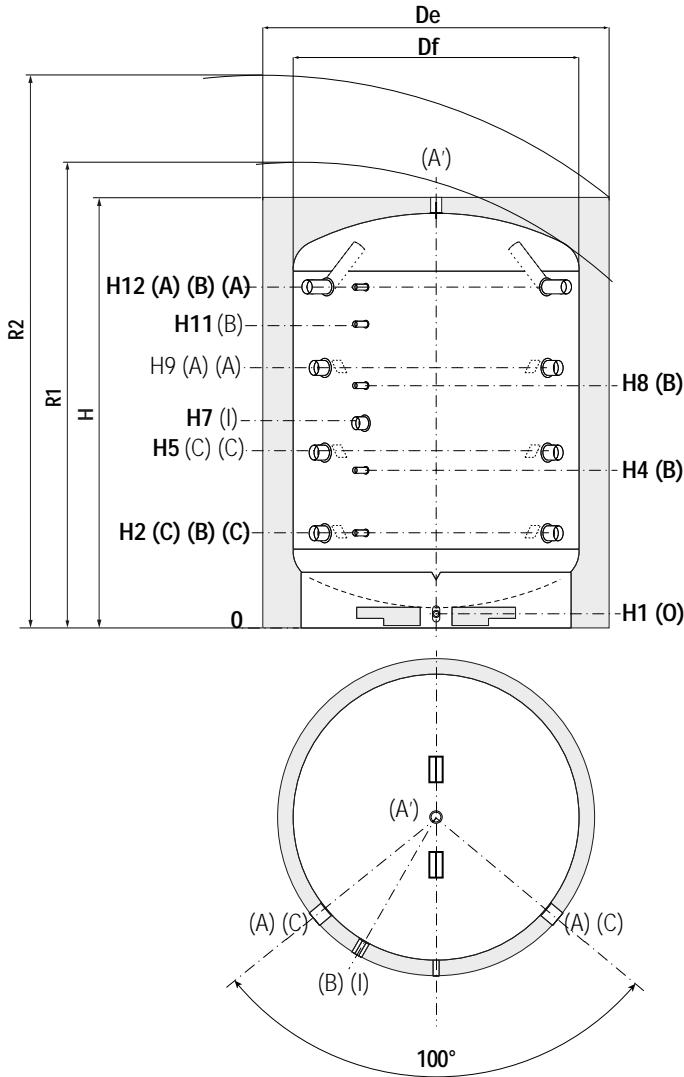
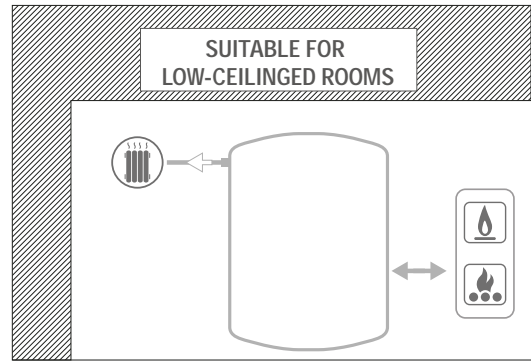
STORAGE

P _{max}	T _{max}
3 bar	99 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A'	Heating delivery
A	Heating delivery/from generator
B	Connection for instrumentation 1/2" G F
C	Heating return/to generator
I	Connection for electric immersion heater.
O	Drain

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND COMBINED TANKS

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H4
2500	2306	1250	1450	2351	2465	2770	140	556	886
3000	3017	1500	1700	2180	2372	2770	109,5	567	841
4000	3986	1600	1800	2456	2643	3050	94,5	574	910
4500	4411	1800	2000	2230	2565	3000	90	582	856
5000	5042	1800	2000	2480	2758	3190	90	583	919
6000	5672	1800	2000	2730	2960	3390	90	605	1005
8000	7564	1800	2000	3480	3650	4020	90	606	1066

Model	H5	H7	H8	H9	H11	H12	A - C	A' - I	O
2500	996	1051	1216	1436	1546	1876	1 1/2"	1 1/2"	-
3000	932	1252	1115	1297	1389	1662	2"	2"	1"
4000	1022	1414	1246	1470	1582	1918	2"	2"	1"
4500	947	1267	1130	1312	1404	1677	2"	2"	1"
5000	1031	1423	1255	1479	1591	1927	2"	2"	1"
6000	1114	1295	1535	1646	1922	2155	3"	2"	1"
8000	1372	1526	1986	2138	2446	2904	3"	2"	1"

PUFFER FLANGED CONNECTIONS

HEATING WATER BUFFER TANKS WITH 90° AND 180° FLANGED CONNECTIONS



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

TECHNICAL DESCRIPTION

Used to improve flexibility and performance of pellets, stoves and burners. PUFFER FLANGED are used in units with a typically discontinuous energy source.

PUFFER FLANGED have been conceived for medium/large biomass heating plants where flanged connections are required.

PUFFER FLANGED have reduced height for maximum installation flexibility.

INSULATION

NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. Grey PVC external lining.

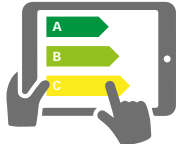
WARRANTY

5 years - See general sales conditions and warranty

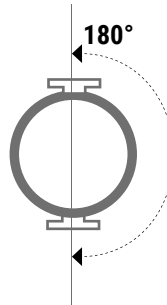
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

cordivari.com/erp



On line ErP label tool



PUFFER FLANGIATI VC (180°)

DISMOUNTABLE SOFT FLEECE insulation

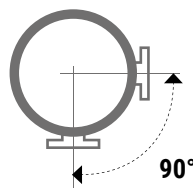
Model	Art. Nr.
2500	3251162282680
3000	3251162282681
4000	3251162282682
4500	3251162282683
5000	3251162282684
6000	3251162282685
8000	3251162282686
10000	3251162282620
12000	3251162282621
20000	3251162282697



PUFFER FLANGIATI VC (90°)


DISMOUNTABLE SOFT FLEECE insulation

Model	Art. Nr.
2500	3251162282690
3000	3251162282691
4000	3251162282692
4500	3251162282693
5000	3251162282694
6000	3251162282695
8000	3251162282696
10000	3251162282622
12000	3251162282623
20000	3251162282698



ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

PUFFER FLANGED CONNECTIONS

HEATING WATER BUFFER TANKS WITH 90° AND 180° FLANGED CONNECTIONS

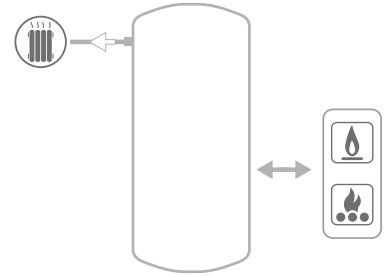
STORAGE

P _{max}	T _{max}
3 bar	99 °C



CORDIVARI Lab

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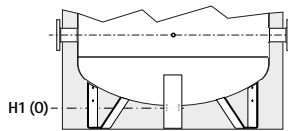
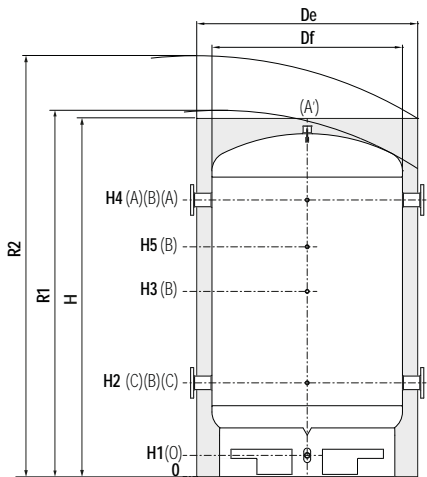


180° flanged connections

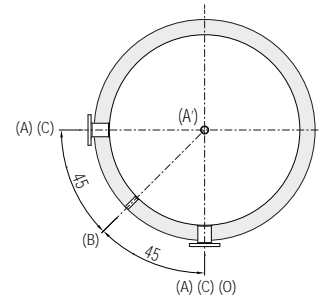
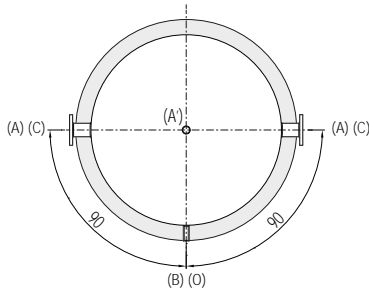
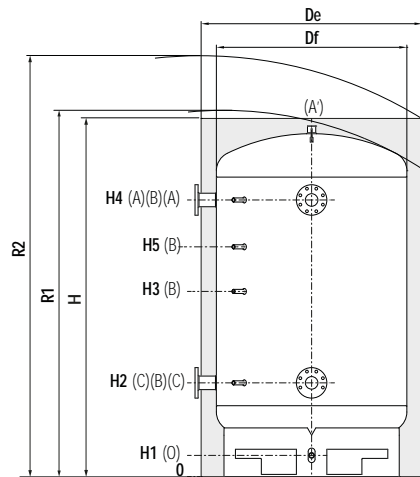
- A' Heating delivery
- A Heating delivery/from generator
- B Connection for instrumentation 1/2" G F
- C Heating return/to generator
- O Drain



90° flanged connections



Standard supporting feet for models > 8000



BUFFER AND COMBINED TANKS

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	Connections F		
												A - C	A'	O
2500	2306	1250	1450	2351	2460	2770	140	616	1216	1816	//	PN16 DN80	1 1/2"	1"
3000	3017	1500	1700	2180	2375	2770	109	640	1115	1590	//	PN16 DN80	2"	1"
4000	3986	1600	1800	2456	2655	3050	95	646	1246	1846	//	PN16 DN80	2"	1"
4500	4411	1800	2000	2230	2560	3000	89	655	1130	1605	//	PN16 DN80	2"	1"
5000	5042	1800	2000	2480	2755	3190	89	675	1255	1835	//	PN16 DN100	2"	1"
6000	5672	1800	2000	2730	2985	3390	89	675	1380	2085	//	PN16 DN100	2"	1"
8000	7564	1800	2000	3480	3665	4020	89	675	1705	2835	//	PN16 DN100	2"	1"
10000	10455	2200	2200	3916	4180	4500	191	826	1636	3256	2446	PN16 DN100	2"	2"
12000	12010	2200	2200	4461	4650	4980	191	826	1803	3756	2779	PN16 DN100	2"	2"
20000	19984	2400	2600	5060	5240	5695	140	840	1990	3140	4290	PN16 DN100	2"	2"

PUFFER 1

HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

HEAT EXCHANGER

N° 1 mild steel fixed heat exchanger.

TECHNICAL DESCRIPTION

Used to improve flexibility and performance of pellets, stoves and burners. PUFFER 1 are used in units with a typically discontinuous energy source.

PUFFER 1 allows the solar energy system integration.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

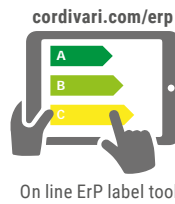
Grey PVC external lining, complete with top and flange cover..

WARRANTY

5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFER 1 VB

HARD FOAM insulation

Model	Art. Nr.	[m ²]	HEAT EXCHANGER SURFACE	ENERGY EFFICIENCY CLASS
300	3251162312201	1,0		B
500	3251162312202	1,9		C
600	3251162312203	2,1		C
750	3251162312214	2,3		B
800	3251162312215	2,5		B
1000	3251162312216	3,1		C
1250	3251162312207	3,4		B
1500	3251162312208	3,8		C
2000	3251162312209	4,6		B



PUFFER 1 VB

DISMOUNTABLE HARD FOAM insulation

Model	Art. Nr.	[m ²]	HEAT EXCHANGER SURFACE	ENERGY EFFICIENCY CLASS
750	3251162312204	2,3		B
800	3251162312205	2,5		B
1000	3251162312206	3,1		C






PUFFER 1 VC

DISMOUNTABLE SOFT FLEECE insulation

Model	Art. Nr.	[m ²]	HEAT EXCHANGER SURFACE	ENERGY EFFICIENCY CLASS
750	3251162282814	2,3		C
800	3251162282815	2,5		C
1000	3251162282816	3,1		C
1500	3251162282817	3,8		C
2000	3251162282818	4,6		C
3000	3251162282308	6,2		
5000	3251162282309	7,5		

ACCESSORIES

Electric immersion heaters

		
Available kit:		
[Kw]	Tensione [V]	
from 1,5 to 3	220 - MONOPHASE	
from 4 to 12	400 - THREEPHASE	
See accessories		

Thermometer

Art. Nr.
5032240000107
5 units box



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFER 1

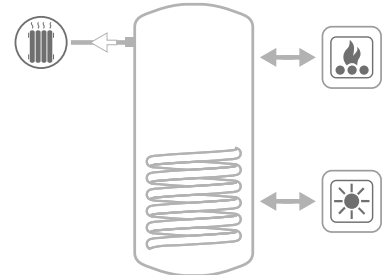
HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	12 bar	110 °C

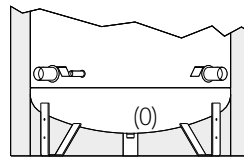
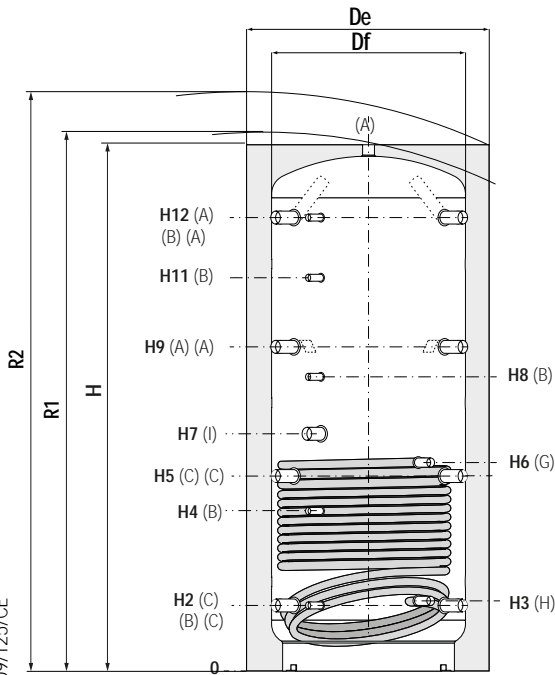


CORDIVARI Lab

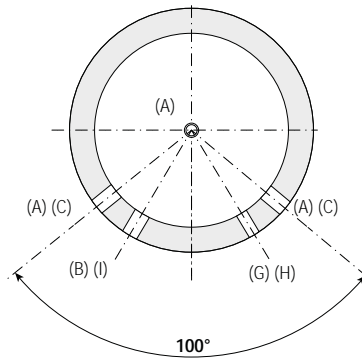
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



Standard supporting feet for models 3000 and 5000. Drain welded on the bottom.



- A** Heating delivery/from generator
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator
- I** Connection for electric immersion heater.
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- O** Drain only for models 3000 e 5000

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

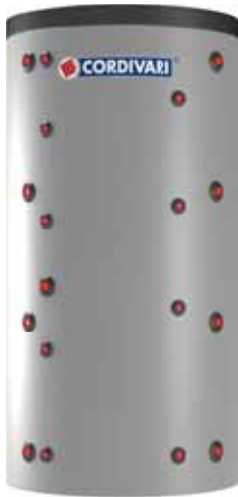
Model	Volume [lt]	Df (vers. VC)	De (vers. VC)	De (vers. VB)	H	R1	R2	H2	H3	H4
300	279	//	//	650	1340	//	1495	232	217	444
500	478	//	//	750	1645	//	1815	259	272	545
600	560	//	//	750	1870	//	2020	247	260	582
750	717	790	1010	950	1658	1665	1915	265	278	584
800	805	790	1010	950	1840	1845	2075	265	278	584
1000	946	790	1010	950	2130	2135	2340	265	284	656
1250	1248	//	//	1050	2201	//	2445	313	326	705
1500	1454	950	1210	1100	2250	2255	2510	313	336	736
2000	1973	1100	1360	1300	2320	2325	2665	347	370	770
3000	2915	1250	1450	//	2814	2820	3170	556	569	1017
5000	4985	1600	1800	//	2929	2935	3445	586	609	1047

Model	H5	H6	H7	H8	H9	H11	H12	A - C - I	O
300	514	514	590	725	796	885	1078	1"1/2	//
500	641	756	853	942	1023	1243	1355	1"1/2	//
600	695	855	915	1060	1144	1382	1593	1"1/2	//
750	630	679	823	938	995	1180	1371	1"1/2	//
800	690	762	823	988	1115	1332	1541	1"1/2	//
1000	787	953	998	1188	1309	1588	1831	1"1/2	//
1250	835	884	986	1168	1357	1568	1879	1"1/2	//
1500	845	1006	1061	1286	1377	1653	1909	1"1/2	//
2000	879	1001	1060	1300	1411	1687	1943	1"1/2	//
3000	1071	1551	1693	1879	1786	2140	2402	2"	1"
5000	1101	1522	1691	1889	1816	2159	2432	2"	2"

BUFFER AND COMBINED TANKS

PUFFER 2

HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

HEAT EXCHANGERS

N° 2 mild steel fixed heat exchangers.

TECHNICAL DESCRIPTION

Used to improve flexibility and performance of pellets, stoves and burners. PUFFER 1 are used in units with a typically discontinuous energy source.

PUFFER 2 allows the solar energy system integration as well as another heat source.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam.

- SOFT: NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

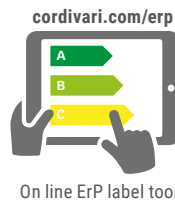
Grey PVC external lining, complete with top and flange cover.

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFER 2 VB

Model	HARD FOAM insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
		[m ²]		
500	3251162312703	1,3	1,9	C
600	3251162312704	1,3	2,1	C
750	3251162312715	1,5	2,3	B
800	3251162312716	1,8	2,5	B
1000	3251162312717	2,5	3,1	C
1500	3251162312709	2,8	3,8	C
2000	3251162312710	2,8	4,6	B



PUFFER 2 VB

Model	DISMOUNTABLE HARD FOAM insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
		[m ²]		
750	3251162312705	1,5	2,3	B
800	3251162312706	1,8	2,5	B
1000	3251162312707	2,5	3,1	C



PUFFER 2 VC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
		Upper	Lower	
		[m ²]		
750	3251162282824	1,5	2,3	C
800	3251162282825	1,8	2,5	C
1000	3251162282826	2,5	3,1	C
1500	3251162282827	2,8	3,8	C
2000	3251162282828	2,8	4,6	C

ACCESSORIES

Electric immersion heaters

Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
from 4 to 9	400 - THREEPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFER 2

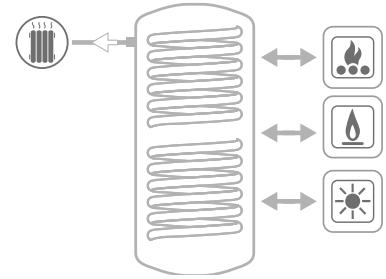
HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	12 bar	110 °C

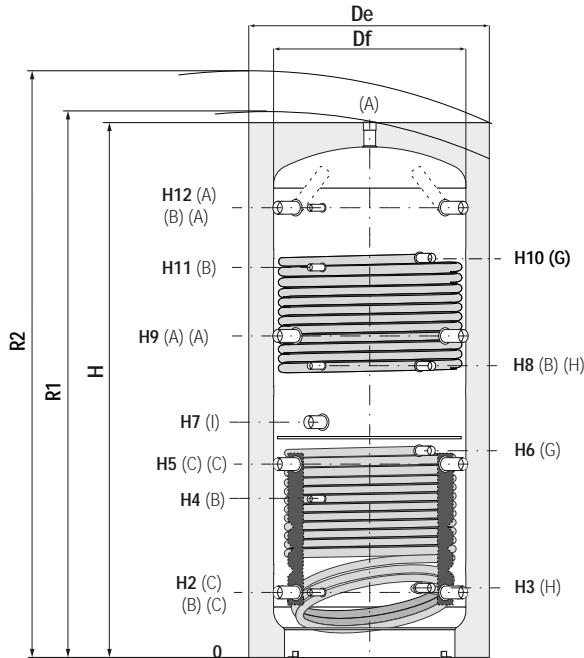


CORDIVARI Lab

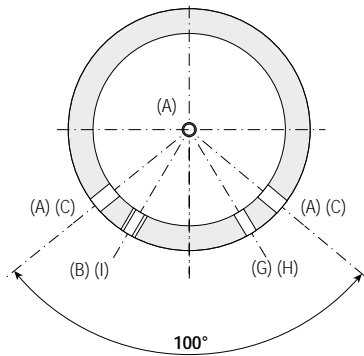
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/from generator
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator
- I** Connection for electric immersion heater.
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F



Model	Volume [lt]	Df (vers. VC) [mm]	De (vers. VC) [mm]	De (vers. VB) [mm]	H [mm]	R1 [mm]	R2 [mm]	H2 [mm]	H3 [mm]
500	478	//	//	750	1620	//	1790	247	260
600	560	//	//	750	1870	//	2020	247	260
750	717	790	1010	950	1658	1710	1915	265	278
800	805	790	1010	950	1840	1890	2075	265	278
1000	946	790	1010	950	2130	2175	2340	265	284
1500	1435	950	1210	1100	2250	2305	2510	313	336
2000	1973	1100	1360	1300	2320	2390	2665	347	370

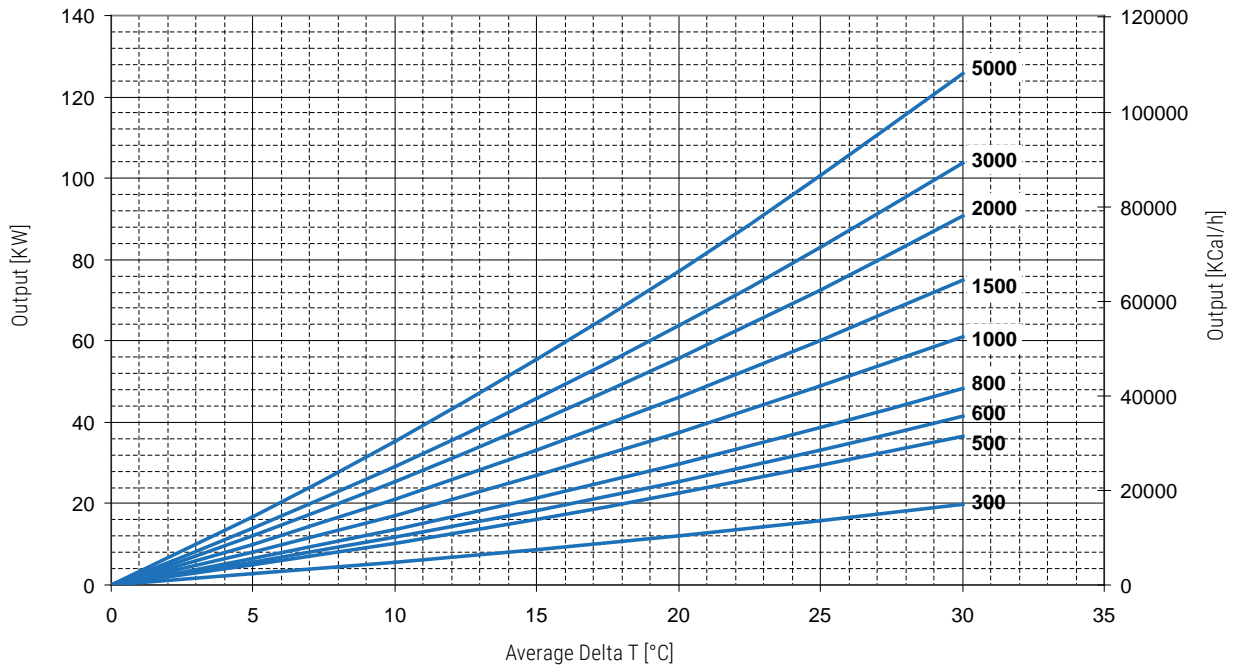
Model	H4 [mm]	H5 [mm]	H6 [mm]	H7 [mm]	H8 [mm]	H9 [mm]	H10 [mm]	H11 [mm]	H12 [mm]	A - C - I Connections F
500	533	629	745	841	930	1011	1231	1231	1343	1"1/2
600	582	695	855	915	1060	1144	1361	1382	1593	1"1/2
750	584	630	679	823	938	995	1196	1180	1371	1"1/2
800	584	690	762	823	988	1115	1332	1332	1541	1"1/2
1000	656	787	953	998	1188	1309	1661	1588	1831	1"1/2
1500	736	845	1006	1061	1286	1377	1672	1653	1909	1"1/2
2000	770	879	1001	1060	1300	1411	1687	1687	1943	1"1/2

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND COMBINED TANKS

PUFFER 1

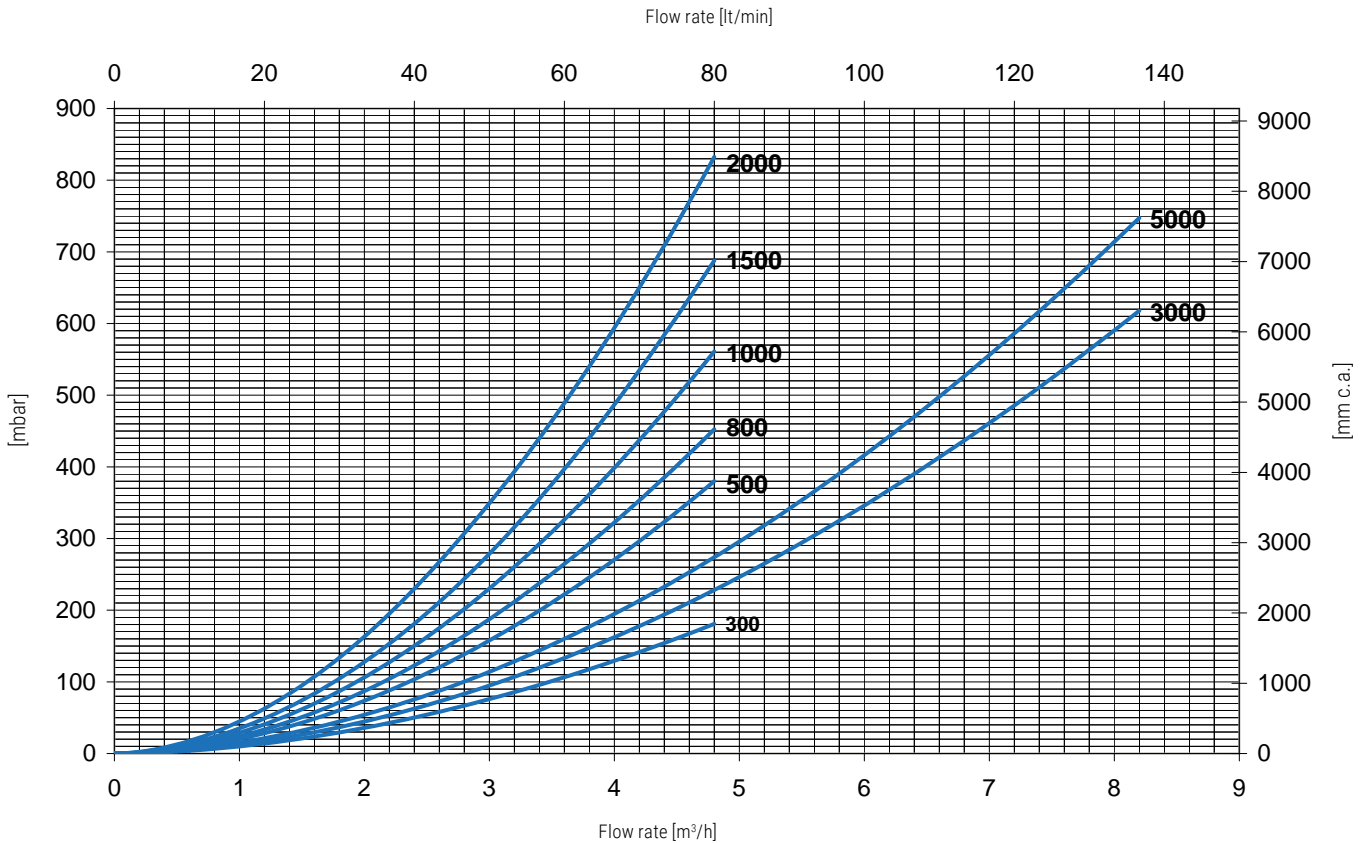
LOWER HEAT EXCHANGER POWER



Thermal output is given in both kW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h. For example, a PUFFER 1 T of 1000 liters capacity with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the main difference of temperature will be: (80 + 70) / 20 - 60 = 15 °C and therefore you can exchange up to approximately 34 kW.

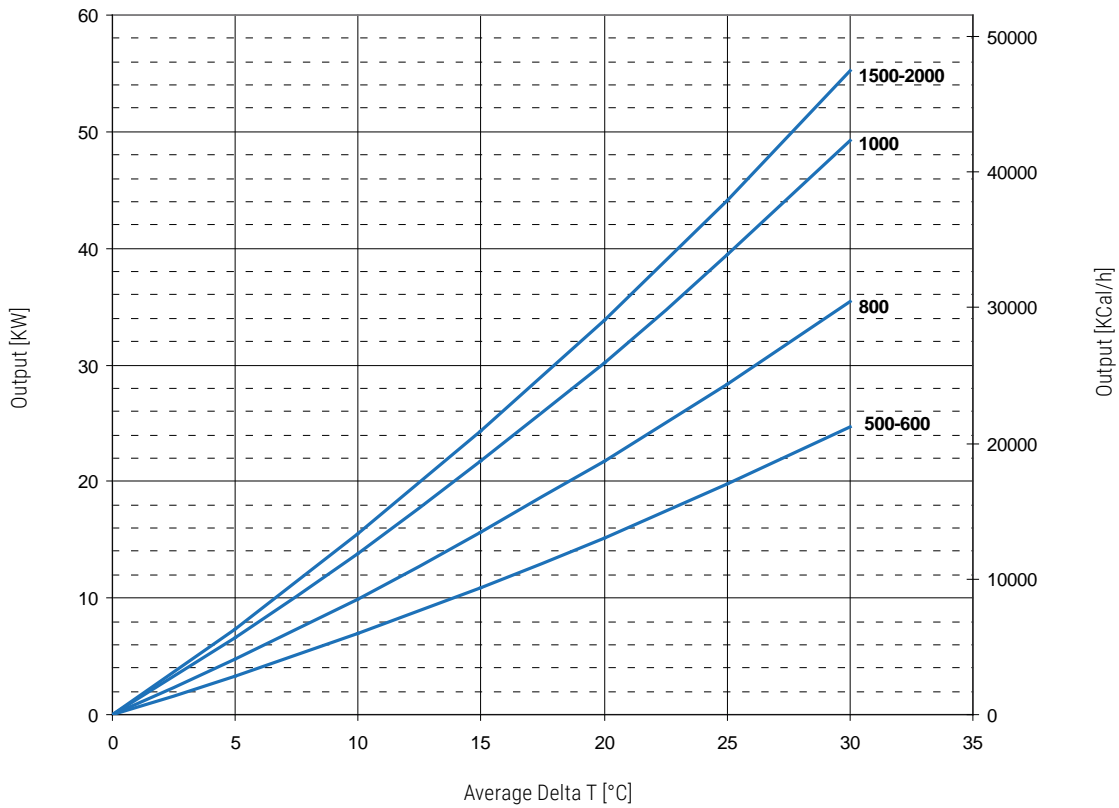
Output of the lower heat exchangers PUFFER 1 depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

LOWER HEAT EXCHANGER PRESSURE DROP



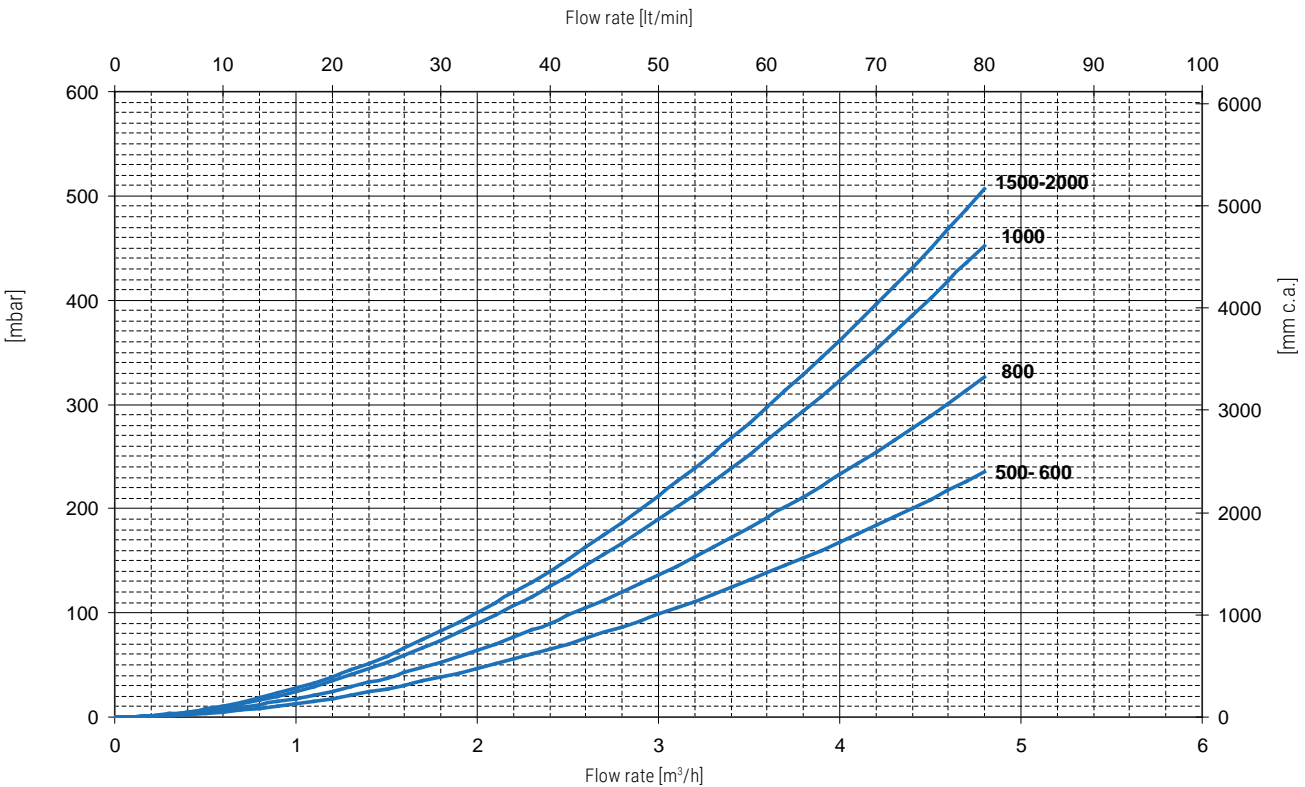
PUFFER 2

UPPER HEAT EXCHANGER POWER



Output of the upper heat exchangers PUFFER 2 depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

UPPER HEAT EXCHANGER PRESSURE DROP



BUFFER AND COMBINED TANKS

For lower exchanger power data see PUFFER 1

PUFFER 1 CTS®

STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 1 FIXED HEAT EXCHANGER



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

HEAT EXCHANGER

N° 1 mild steel fixed heat exchanger with CTS® stratificator system.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER 1 CTS® are used in units with a typically discontinuous energy source such as biomass boiler and solar thermal systems.

PUFFER 1 CTS® is characterized by multiple stratification system based on the combination of Cordivari Labyrinth spreader for returning heating water with a new stratification device that conveys in the upper part of the tank the heated water up by the lower fixed exchanger. This combination ensures a perfect natural stratification inside the tank with no valve or additional external device.

The lower fixed exchanger can be connected with a solar system. Positioned at the bottom lower part of the buffer tank and with very small footprint, it increases the volume available for the storage.

INSULATION

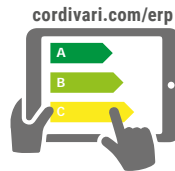
High thermal insulation with ecological hard polyurethane foam. Dismountable hard foam insulation available for 800-1000. Grey PVC external lining.

WARRANTY

5 years - See general sales conditions and warranty

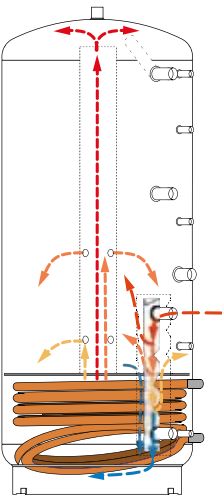
ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

CTS® stratificator system



SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL NEEDED ENERGY RAPIDLY AVAILABLE



PUFFER 1 CTS® VB

HEAT EXCHANGER SURFACE ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation Art. Nr.	[m²]	ErP
500	3251162313002	1,9	C
600	3251162313003	2,1	C
800	3251162313014	2,5	B
1000	3251162313015	3,1	C
1500	3251162313006	3,8	C
2000	3251162313007	4,6	B





PUFFER 1 CTS® VB

HEAT EXCHANGER SURFACE ENERGY EFFICIENCY CLASS

Model	DISMOUNTABLE HARD FOAM insulation Art. Nr.	[m²]	ErP
800	3251162313004	2,5	B
1000	3251162313005	3,1	C

ACCESSORIES

Electric immersion heaters

	
Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
from 4 to 9	400 - THREEPHASE
See accessories	

Thermometer

Art. Nr.
5032240000107
5 units box



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFER 1 CTS®

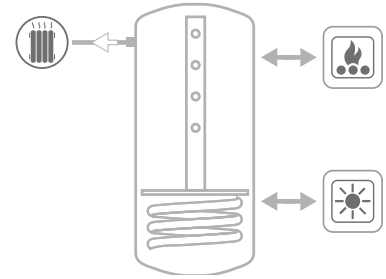
STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	12 bar	110 °C

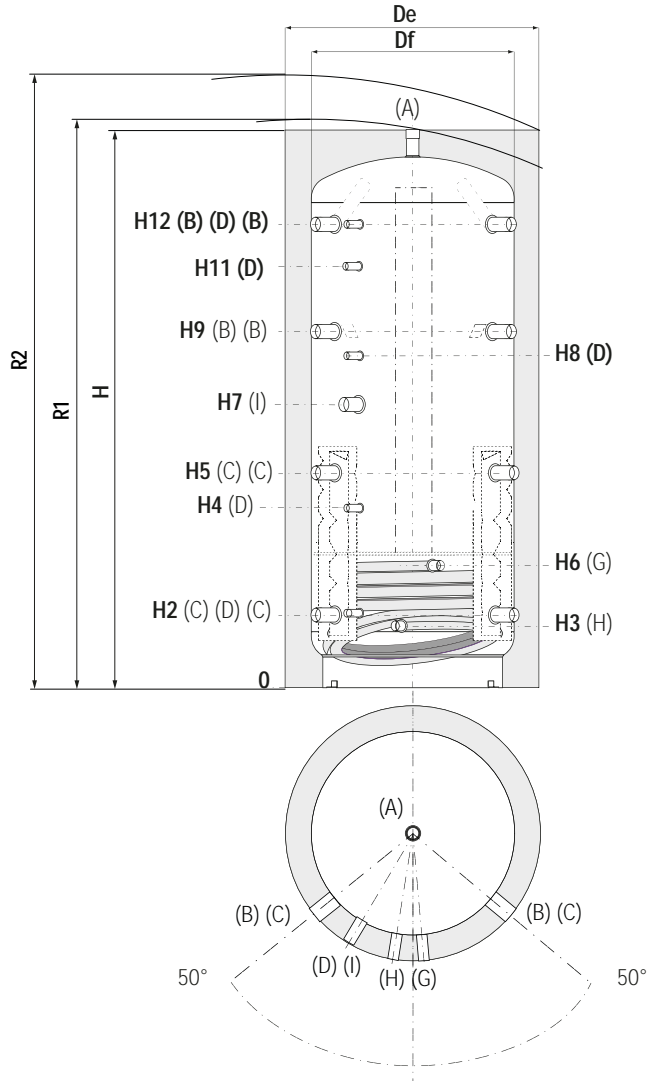


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/to generator 1"1/2 G F
- D** 1/2 °G probe F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for for electric immersion heater 1"1/2 F

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND COMBINED TANKS

Model	Volume [lt]	De	Df	H	R1	R2	[mm]									
							H2	H3	H4	H5	H7	H8	H9	H11	H12	
500	478	750	//	1620	//	1790	247	215	533	629	841	930	1011	1231	1343	
600	560	750	//	1870	//	2020	247	215	582	695	915	1060	1144	1382	1593	
800	805	950	790	1840	1890	2075	265	233	584	690	823	988	1115	1332	1541	
1000	946	950	790	2130	2175	2340	265	233	656	787	998	1188	1309	1588	1831	
1500	1435	1100	//	2250	//	2510	313	281	736	845	1061	1286	1377	1653	1909	
2000	1973	1300	//	2320	//	2665	347	315	770	879	1060	1300	1411	1687	1943	



BUFFER AND COMBINED TANKS



BUFFER AND
COMBINED TANKS

BUFFERS AND COMBINED TANKS RANGE



COMBI

ECO-COMBI

ECO-COMBI "DOMUS"

<i>Heat exchanger model</i>	-Fixed coil heat exchanger - DHW storage material: Stainless steel 316L / Polywarm®	- Fixed coil heat exchanger - Corrugated Stainless steel 316L coil for DHW Production	- Fixed coil heat exchanger - Corrugated Stainless steel 316L coil for DHW Production
<i>Number of heat exchangers</i>			
<i>Energy source</i>			
<i>Energy efficiency class</i>	B-C	B-C	B-C
<i>Insulation</i>	- Polyurethane hard foam - Dismountable polyester fleece	- Polyurethane hard foam - Dismountable polyester fleece	Polyurethane hard foam
<i>Available range</i>	500 ÷ 2000	500 ÷ 2000	200 - 300
<i>Installation</i>	floor standing	floor standing	floor standing
<i>Suggested Application</i>	Biomass with possible integration with other source	Biomass with possible integration with other source	Biomass with possible integration with other source



PUFFERMAS®

- MACS® module for DHW production



C

Polyurethane hard foam

500 ÷ 1500

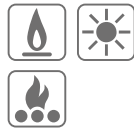
floor standing

Biomass with possible integration with other source



PUFFERMAS® CTS

- Patented stratification module
- MACS® module for DHW production



C

Polyurethane hard foam

500 ÷ 1500

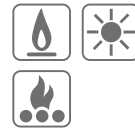
floor standing

Ideal for installations combining biomass and solar installations with possible integration with other source



PUFFERMAS® CTS POWER

- Patented stratification module
- MACS® module for DHW production
- Integrated solar station



C

Polyurethane hard foam

500 ÷ 1500

floor standing

Ideal for installations combining biomass and solar installations with possible integration with other source

COMBI 1

MULTI-HEAT ENERGY BUFFER WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W.



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. storage: Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks COMBI 1 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismantlable hard foam insulation.

- SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining, complete with top and flange cover.

CATHODE PROTECTION

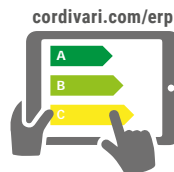
Chain magnesium anode

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



On line ErP label tool

COMBI 1 WB

D.H.W. STORAGE

ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation Art. Nr.	Volume [lt]	Surface [m²]	ErP CLASS
600	3270162314002	146	1,3	C
800	3270162314003	191	1,6	B
1000	3270162314004	226	1,8	C
1500	3270162314005	412	2,5	C
2000	3270162314006	566	3,1	B



COMBI 1 WC

D.H.W. STORAGE

ENERGY EFFICIENCY CLASS

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	Volume [lt]	Surface [m²]	ErP CLASS
1000	3270162284013	226	1,8	C
1500	3270162284014	412	2,5	C
2000	3270162284015	566	3,1	C



AVAILABLE IN STAINLESS STEEL 316L MODELS
SEE STAINLESS STEEL CHAPTER

ACCESSORIES

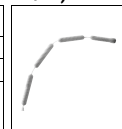
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800÷2000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 1

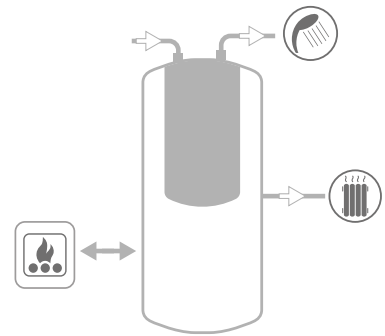
MULTI-HEAT ENERGY BUFFER WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W.

TECHNICAL STORAGE		D.H.W. STORAGE	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	90 °C

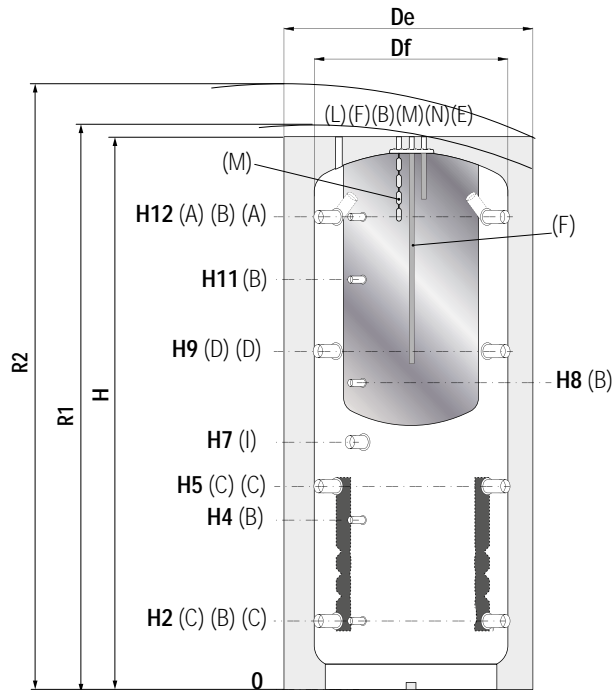


CORDIVARI Lab

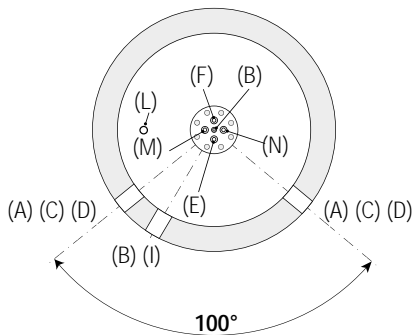
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/From generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Heating delivery 1"1/2 G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Air purge 1/2" G F
- M** Magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



Dismountable insulation

COMBI 1 WB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H2	H4	H5	H7	H8	H9	H11	H12
500	478	//	750	1670	//	1835	247	533	629	841	930	1011	1231	1343
600	560	//	750	1920	//	2070	247	582	695	915	1060	1144	1382	1593
800	805	790	950	1855	1900	2120	265	584	690	823	988	1115	1332	1541
1000	946	790	950	2150	2180	2380	265	656	787	998	1188	1309	1588	1831
1500	1454	//	1100	2280	//	2590	313	736	845	1061	1286	1377	1653	1909
2000	1973	//	1300	2345	//	2715	347	770	879	1060	1300	1411	1687	1943

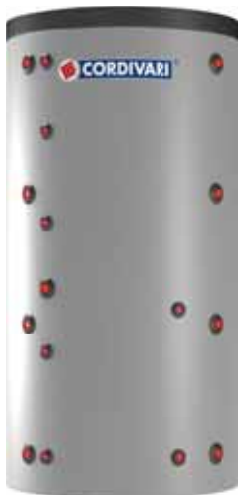
COMBI 1 WC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H2	H4	H5	H7	H8	H9	H11	H12
800	805	790	1010	1855	1900	2090	265	584	690	823	988	1115	1332	1541
1000	946	790	1010	2150	2180	2355	265	656	787	998	1188	1309	1588	1831
1500	1454	950	1210	2280	2315	2540	313	736	845	1061	1286	1377	1653	1909
2000	1973	1100	1360	2345	2400	2690	347	770	879	1060	1300	1411	1687	1943

COMBI 2

MULTI-HEAT ENERGY BUFFER

WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W. AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. storage: Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGER

1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi 2 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismantlable hard foam insulation.

- SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining, complete with top and flange cover.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

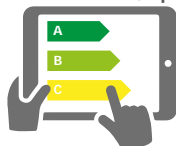
See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



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On line ErP label tool



COMBI 2 WB

Model	HARD FOAM insulation Art. Nr.	D.H.W. STORAGE		FIXED HEAT EXCHANGER		ENERGY EFFICIENCY CLASS ErP
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
500	3270162314101	99	1,1	11,5	1,9	C
600	3270162314102	146	1,3	18	2,8	C
800	3270162314103	191	1,6	20	3,1	B
1000	3270162314104	226	1,8	24	3,7	C
1500	3270162314105	412	2,5	32	4,9	C
2000	3270162314106	566	3,1	35	5,4	B



COMBI 2 WC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	D.H.W. STORAGE		FIXED HEAT EXCHANGER		ENERGY EFFICIENCY CLASS ErP
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
800	3270162284112	191	1,6	20	3,1	C
1000	3270162284113	226	1,8	24	3,7	C
1500	3270162284114	412	2,5	32	4,9	C
2000	3270162284115	566	3,1	35	5,4	C

ACCESSORIES

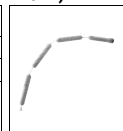
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800÷2000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 2

MULTI-HEAT ENERGY BUFFER

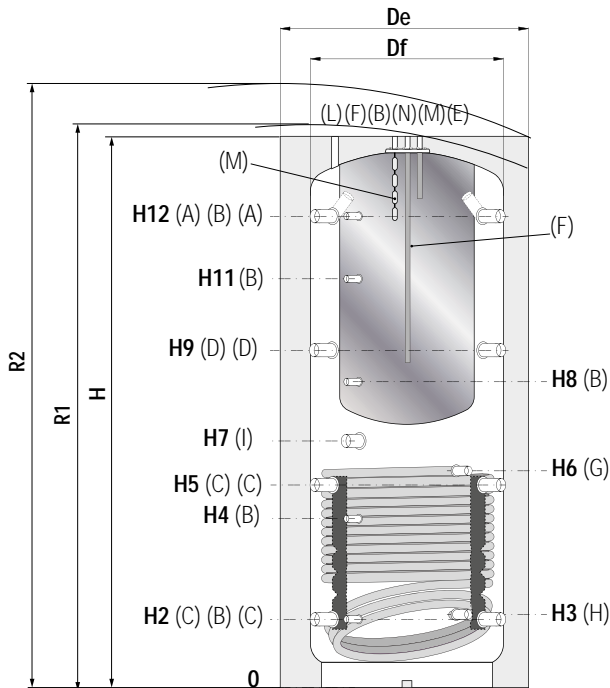
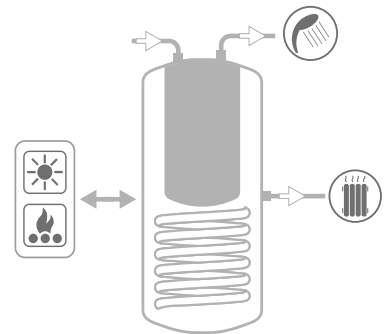
WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W. AND 1 FIXED HEAT EXCHANGER

TECHNICAL STORAGE		D.H.W. STORAGE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	90 °C	12 bar	110 °C

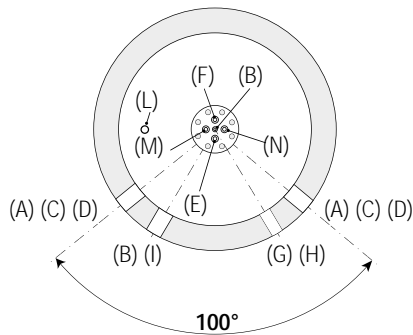


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



- A** Heating delivery/From generator 1 1/2" G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1 1/2" G F
- D** Heating delivery 1 1/2" G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1 1/2" G F
- L** Air purge 1/2" G F
- M** Magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



COMBI 2 WB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	[mm]									
							H2	H3	H4	H5	H6	H7	H8	H9	H11	H12
500	478	//	750	1670	//	1835	247	260	533	629	744	841	930	1011	1231	1343
600	560	//	750	1920	//	2070	247	260	582	695	855	915	1060	1144	1382	1593
800	805	790	950	1855	1900	2120	265	278	584	690	762	823	988	1115	1332	1541
1000	946	790	950	2150	2180	2380	265	284	656	787	953	998	1188	1309	1588	1831
1500	1454	//	1100	2280	//	2590	313	336	736	845	1006	1061	1286	1377	1653	1909
2000	1973	//	1300	2345	//	2715	347	370	770	879	1001	1060	1300	1411	1687	1943

COMBI 2 WC - DISMOUNTABLE SOFT FLEECE INSULATION

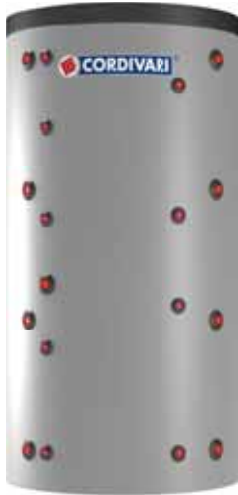
Model	Volume [lt]	Df	De	H	R1	R2	[mm]									
							H2	H3	H4	H5	H6	H7	H8	H9	H11	H12
800	805	790	1010	1855	1900	2090	265	278	584	690	762	823	988	1115	1332	1541
1000	946	790	1010	2150	2180	2355	265	284	656	787	953	998	1188	1309	1588	1831
1500	1454	950	1210	2280	2315	2540	313	336	736	845	1006	1061	1286	1377	1653	1909
2000	1973	1100	1360	2345	2400	2690	347	370	770	879	1001	1060	1300	1411	1687	1943

BUFFER AND COMBINED TANKS

COMBI 3

MULTI-HEAT ENERGY BUFFER

WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W. AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

Buffer tank: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. storage: Mild steel Polywarm® coated (Attestation ACS - SSICA - EN 16421 - WRAS)

HEAT EXCHANGERS:

N° 2 mild steel fixed heat exchangers.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi 3 are used in units with a typically discontinuous energy source for double use: heating systems and domestic hot water systems.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismantlable hard foam insulation.

- SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining, complete with top and flange cover.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

5 years (See general sales conditions and warranty)

ACCESSORIES AND SPARE PARTS

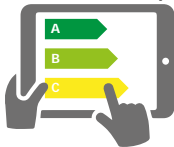
See Accessories section for the entire list.



POLYWARM®
COATED
DHW STORAGE



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On line ErP label tool



COMBI 3 WB

Model	HARD FOAM insulation Art. Nr.	D.H.W. STORAGE		HEAT EXCHANGER SURFACE SUPERIORE		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS ErP
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
500	3270162314201	99	1,1	8	1,3	11,5	1,9	C
600	3270162314202	146	1,3	12	1,9	18	2,8	C
800	3270162314203	191	1,6	16	2,4	20	3,1	B
1000	3270162314204	226	1,8	20	3,1	24	3,7	C
1500	3270162314205	412	2,5	23	3,5	32	4,9	C
2000	3270162314206	566	3,1	27	4,1	35	5,4	B



COMBI 3 WC

Model	DISMOUNTABLE SOFT FLEECE insulation Art. Nr.	D.H.W. STORAGE		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS ErP
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
800	3270162284212	191	1,6	16	2,4	20	3,1	C
1000	3270162284213	226	1,8	20	3,1	24	3,7	C
1500	3270162284214	412	2,5	23	3,5	32	4,9	C
2000	3270162284215	566	3,1	27	4,1	35	5,4	C

ACCESSORIES

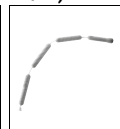
Thermometer

Art. Nr.	
5032240000107	
5 units box	



Chain magnesium anode (Connection 3/4")

Art. Nr.	For models
5200000041007	800÷2000
5200000041016	500,600
N° 2 chain anodes + insulated cap + gasket	



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



COMBI 3

MULTI-HEAT ENERGY BUFFER

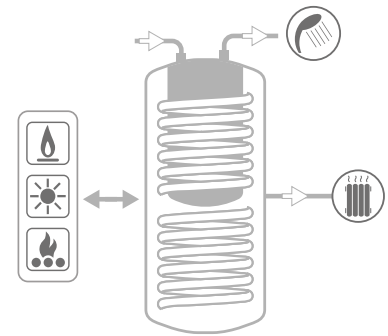
WITH POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W. AND 2 FIXED HEAT EXCHANGERS

TECHNICAL STORAGE		D.H.W. STORAGE		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	90 °C	12 bar	110 °C

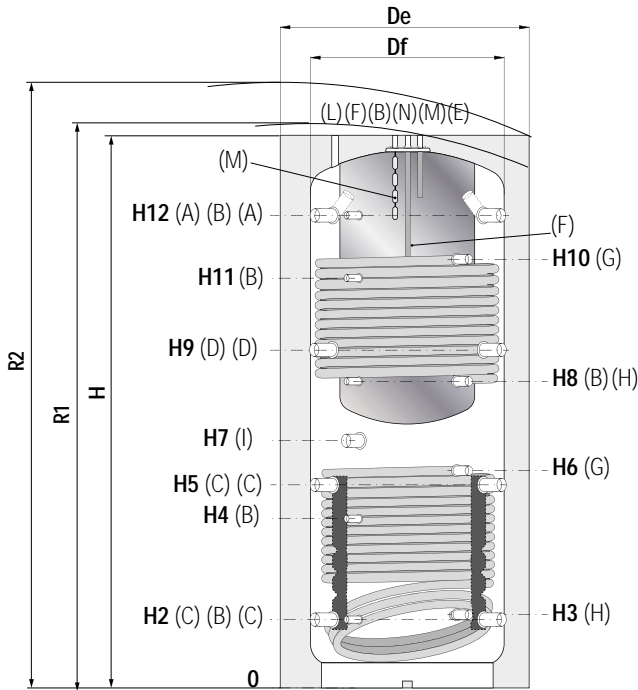


CORDIVARI Lab

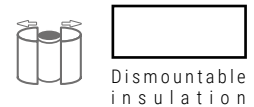
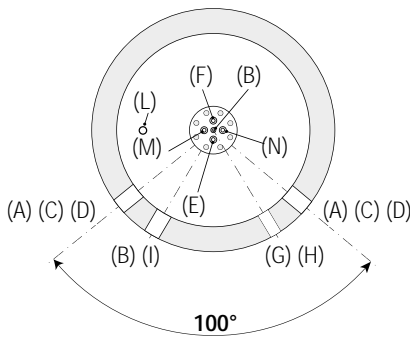
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/From generator 1"1/2 G F
- B** Connection for instrumentation 1/2" G F
- C** Heating return/to generator 1"1/2 G F
- D** Heating delivery 1"1/2 G F
- E** Domestic hot water outlet 3/4" G F
- F** Domestic cold water circuit inlet 3/4" G F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for electric immersion heater 1"1/2 G F
- L** Air purge 1/2" G F
- M** Magnesium anode 3/4" G F
- N** Recirculation 3/4" G F



COMBI 3 WB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
		[mm]															
500	478	//	750	1670	//	1835	247	260	533	629	744	841	930	1011	1231	1231	1343
600	560	//	750	1920	//	2070	247	260	582	695	855	915	1060	1144	1500	1382	1593
800	805	790	950	1855	1900	2120	265	278	584	690	762	823	988	1115	1428	1332	1541
1000	946	790	950	2150	2180	2380	265	284	656	787	953	998	1188	1309	1748	1588	1831
1500	1454	//	1100	2280	//	2590	313	336	736	845	1006	1061	1286	1377	1805	1653	1909
2000	1973	//	1300	2345	//	2715	347	370	770	879	1001	1060	1300	1411	1820	1687	1943

COMBI 3 WC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
		[mm]															
800	805	790	1010	1855	1900	2090	265	278	584	690	762	823	988	1115	1428	1332	1541
1000	946	790	1010	2150	2180	2355	265	284	656	787	953	998	1188	1309	1748	1588	1831
1500	1454	950	1210	2280	2315	2540	313	336	736	845	1006	1061	1286	1377	1805	1653	1909
2000	1973	1100	1360	2345	2400	2690	347	370	770	879	1001	1060	1300	1411	1820	1687	1943



Model	COMPLETE HEATED STORAGE VOLUME				UPPER PART HEATED STORAGE VOLUME	
	DHW Volume	DHW exchanger surface	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m ²]	[lt/min]	[lt]	[lt/min]	[lt]
500	99	1,1	2,5	10 lt/min: 198 lt	1,57	10 lt/min: 148 lt
				25 lt/min: 176 lt		25 lt/min: 132 lt
600	146	1,3	3,0	10 lt/min: 239 lt	1,86	10 lt/min: 179 lt
				25 lt/min: 213 lt		25 lt/min: 160 lt
800	191	1,6	3,5	10 lt/min: 320 lt	2,17	10 lt/min: 240 lt
				25 lt/min: 280 lt		25 lt/min: 210 lt

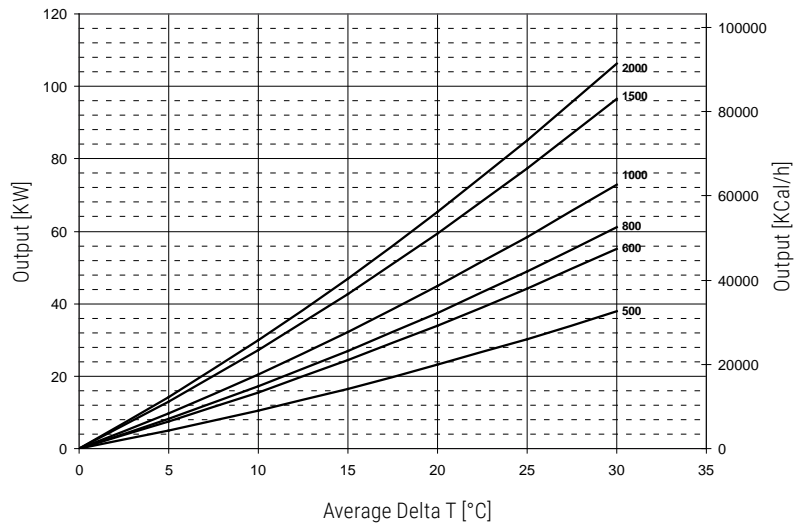
LOWER HEAT EXCHANGER POWER COMBI 2 - COMBI 3

Output of the Combi 2 - Combi 3 lower heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

Thermal output is given in both kW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h.

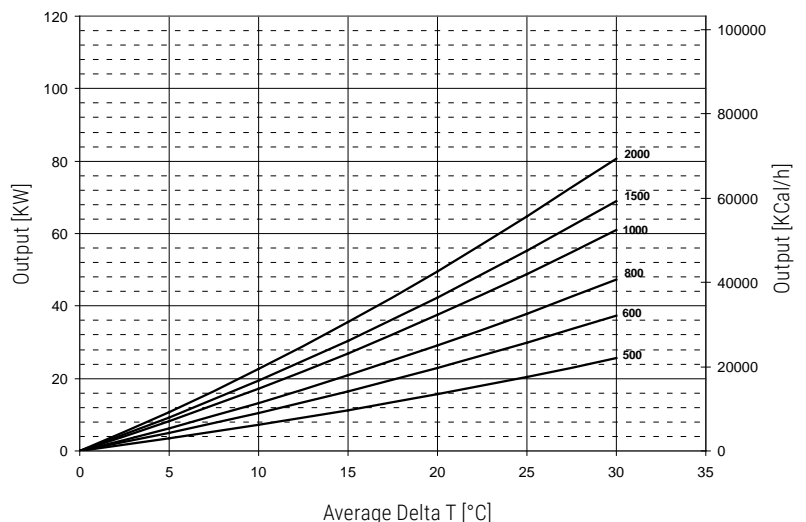
For example, a 1000 liters COMBI 2 with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the main difference of temperature will be:

$(80 + 70) / 20 - 60 = 15$ °C and therefore you can exchange up to approximately 32 kW.



UPPER HEAT EXCHANGER POWER COMBI 3

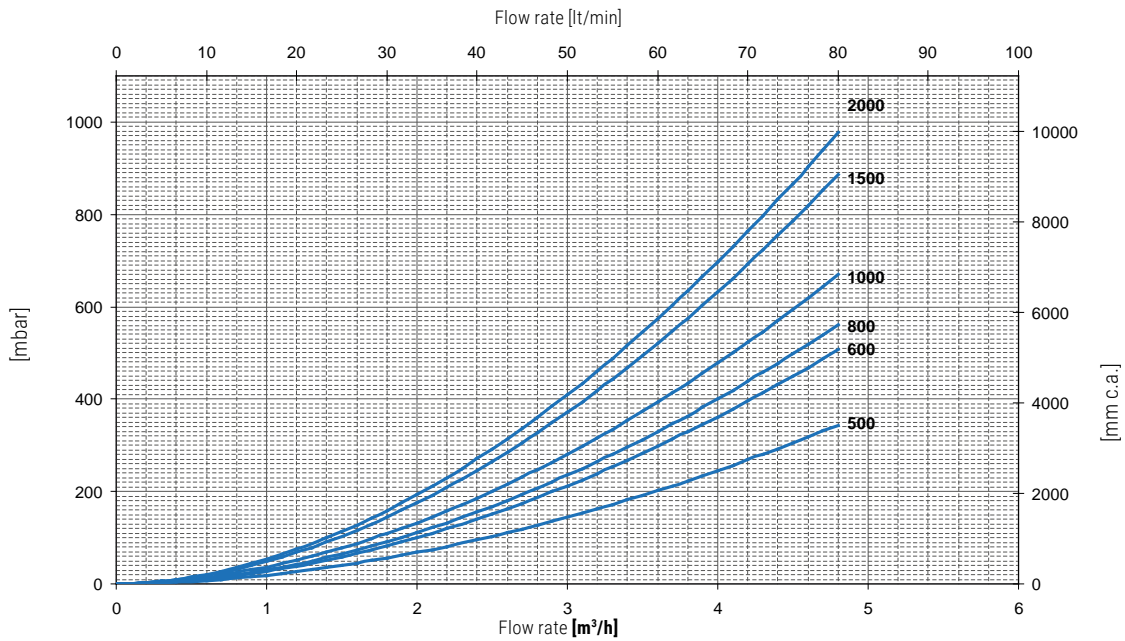
Output of the Combi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.



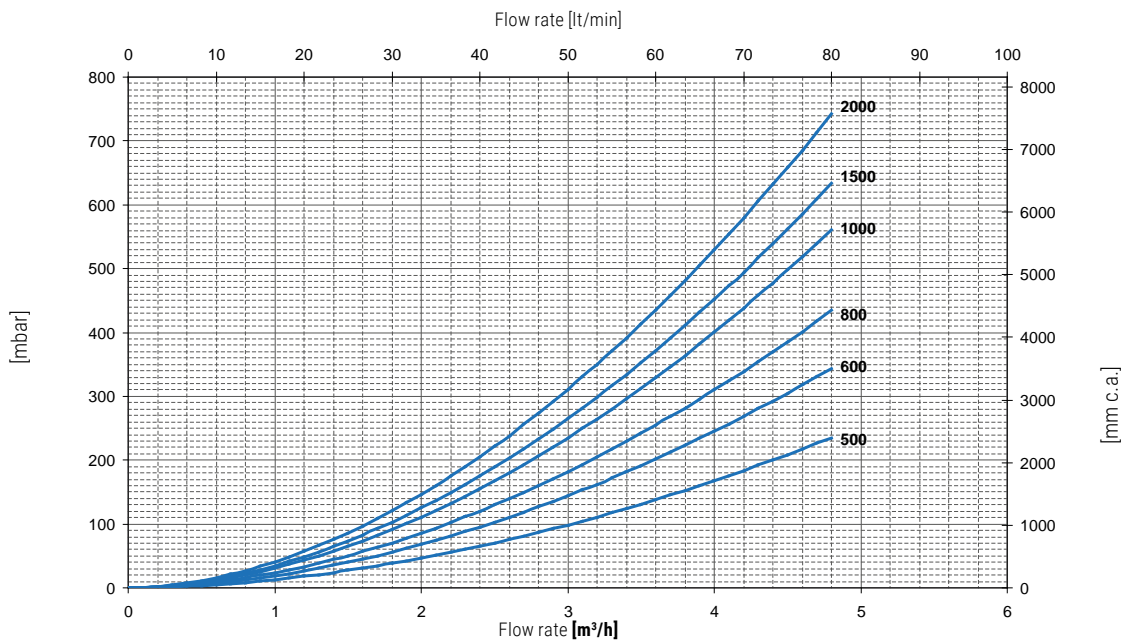


Model	COMPLETE HEATED STORAGE VOLUME				UPPER PART HEATED STORAGE VOLUME	
	DHW Volume	DHW exchanger surface	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max flowrate of sanitary water sustained from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m ²]	[lt/min]	[lt]	[lt/min]	[lt]
1000	226	1,8	4,1	10 lt/min: 389 lt	2,26	10 lt/min: 291 lt
				25 lt/min: 330 lt		25 lt/min: 250 lt
1500	412	2,5	5,6	10 lt/min: 753 lt	3,36	10 lt/min: 565 lt
				25 lt/min: 614 lt		25 lt/min: 461 lt
2000	566	3,1	6,8	10 lt/min: 1083 lt	4,08	10 lt/min: 812 lt
				25 lt/min: 852 lt		25 lt/min: 639 lt

LOWER HEAT EXCHANGER PRESSURE DROP COMBI 2 - COMBI 3



UPPER HEAT EXCHANGER PRESSURE DROP COMBI 3



ECO-COMBI 1

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL



APPLICATION

Heating hot water storage and rapid D.H.W. production.

MATERIAL

- BUFFER TANK: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.
- D.H.W. STORAGE : Stainless steel 316L corrugated coil, suitable for D.H.W. according to D. M. n. 174 dated 06.04.04

TECHNICAL DESCRIPTION

- Thermal storage, combining the possibility to produce hot water for sanitary use. In such case , storage heating volume allows the generator to regularly work , limiting number of stops due to the inadequate energy request of the heating system. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smoke side).
 - Domestic hot water production system for domestic and sanitary use where heating water is stored. In this system, the high potentiality of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e using heat pumps as primary source and solar source as support)
- The particular shape of the corrugated coil is avoiding any problem relating to the storage of domestic hot water and ensure high heat

exchange performances.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismantlable hard foam insulation.
 - SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.
- Grey PVC external lining, complete with top and flange cover.

WARRANTY

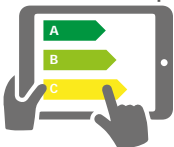
5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



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On line ErP label tool



ECO-COMBI 1 VB

316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION

ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation		Volume [lt]	Surface [m ²]	ErP
	Art. Nr.				
500	3270162316010		26,6	4,5	C
600	3270162316011		31,0	5,3	C
800	3270162316012		33,4	5,8	B
1000	3270162316013		45,5	7,8	C
1250	3270162316014		45,5	7,8	B
1500	3270162316015		55,3	9,5	C
2000	3270162316016		72,2	12,3	B



ECO-COMBI 1 VC

316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION

ENERGY EFFICIENCY CLASS

Model	DISMOUNTABLE SOFT FLEECE insulation		Volume [lt]	Surface [m ²]	ErP
	Art. Nr.				
800	3270162282262		33,4	5,8	C
1000	3270162282263		45,5	7,8	C
1250	3270162282264		45,5	7,8	C
1500	3270162282265		55,3	9,5	C
2000	3270162282266		72,2	12,3	C

ACCESSORIES

Electric immersion heaters

Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
from 4 to 9	400 - THREEPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ECO-COMBI 1

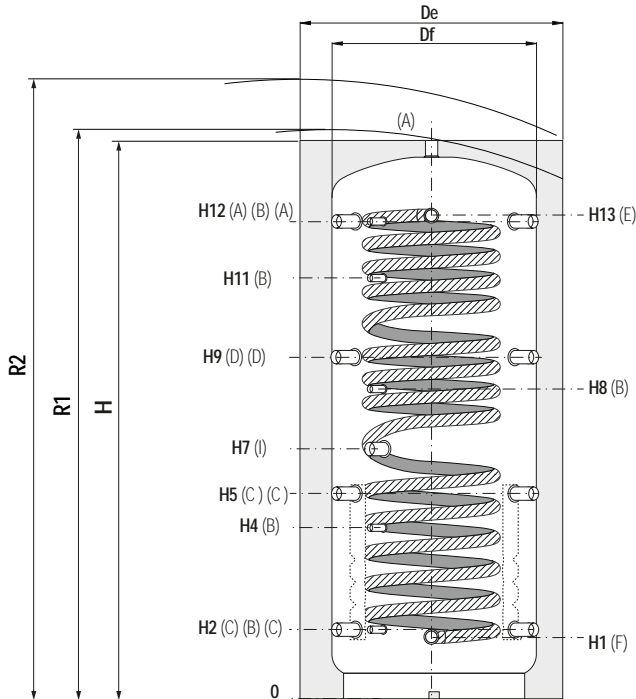
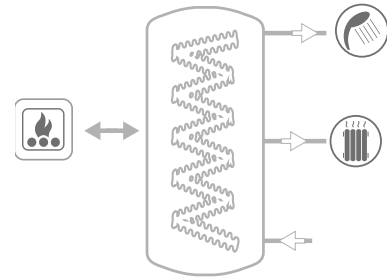
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL

STORAGE		CORRUGATED DHW STAINLESS STEEL COIL
Pmax	Tmax	Pmax
3 bar	99 °C	6 bar

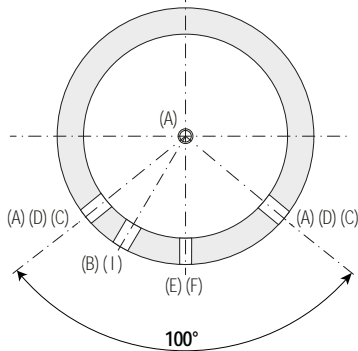


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Heating delivery/From generator / vent 1"1/2 G F
B	1/2 °G probe F
C	Heating return/to generator
D	Heating delivery/From generator 1"1/2 G F
E	Domestic hot water outlet 1" G
F	Domestic cold water circuit inlet 1" G M
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for for electric immersion heater 1"1/2 F



BUFFER AND COMBINED TANKS

ECO-COMBI 1 VB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H4	H5	H7	H8	H9	H11	H12	H13
		[mm]														
500	478	//	750	1620	//	1800	230	247	533	629	841	930	1011	1231	1343	1360
600	560	//	750	1870	//	2025	230	247	582	695	915	1060	1144	1382	1593	1610
800	803		790	1840	1895	2070	248	265	584	690	823	988	1115	1332	1541	1558
1000	944		790	2130	2180	2340	248	265	656	787	998	1188	1309	1588	1831	1843
1250	1248		//	1100	2202	//	2475	296	313	705	835	986	1068	1357	1586	1879
1500	1432		//	1100	2250	//	2505	296	313	736	845	1061	1286	1377	1653	1909
2000	1970		//	1300	2320	//	2670	330	347	770	879	1060	1300	1411	1687	1955

ECO-COMBI 1 VC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H4	H5	H7	H8	H9	H11	H12	H13
		[mm]														
800	803		790	1010	1840	1895	2100	248	265	584	690	823	988	1115	1332	1541
1000	944		790	1010	2130	2180	2370	248	265	656	787	998	1188	1309	1588	1831
1250	1248		900	1120	2202	2262	2475	296	313	705	835	986	1068	1357	1586	1879
1500	1432		950	1210	2250	2315	2565	296	313	736	845	1061	1286	1377	1653	1909
2000	1970		1100	1360	2320	2400	2700	330	347	770	879	1060	1300	1411	1687	1955

ECO-COMBI 2

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and rapid D.H.W. production.

MATERIAL

- BUFFER TANK: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.
- D.H.W. STORAGE : Stainless steel 316L corrugated coil, suitable for D.H.W. according to D. M. n. 174 dated 06.04.04

HEAT EXCHANGER

N° 1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 2 are used in units with a typically discontinuous energy source for double use: heating system and sanitary hot water system.

- Thermal storage, combining the possibility to produce hot water for sanitary use. In such case, storage heating volume allows the generator to regularly work, limiting number of stops due to the inadequate energy request of the heating system. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smoke side).
- Domestic hot water production system for domestic and sanitary use where heating water is stored. In this system, the high potentiality

of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e. using heat pumps as primary source and solar source as support).

The particular shape of the corrugated coil is avoiding any problem relating to the storage of domestic hot water and ensure high heat exchange performances.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismountable hard foam insulation.

- SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining, complete with top and flange cover.

WARRANTY

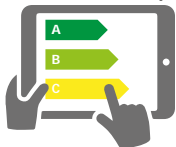
5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



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On line ErP label tool



ECO-COMBI 2 VB

316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION

LOWER HEAT EXCHANGER

ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation		Volume		Surface		ErP
	Art. Nr.	[lt]	[m ²]	[lt]	[m ²]		
500	3270162316101	26,6	4,5	11,5	1,9	C	
600	3270162316102	31,0	5,3	13	2,1	C	
800	3270162316103	33,4	5,8	16,3	2,5	B	
1000	3270162316104	45,5	7,8	20,7	3,1	C	
1250	3270162316105	45,5	7,8	22,3	3,4	B	
1500	3270162316106	55,3	9,5	25,3	3,8	C	
2000	3270162316107	72,2	12,3	29,6	4,6	B	



ECO-COMBI 2 VC

316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION

LOWER HEAT EXCHANGER

ENERGY EFFICIENCY CLASS

Model	DISMOUNTABLE SOFT FLEECE insulation		Volume		Surface		ErP
	Art. Nr.	[lt]	[m ²]	[lt]	[m ²]		
800	3270162282272	33,4	5,8	16,3	2,5	C	
1000	3270162282273	45,5	7,8	20,7	3,1	C	
1250	3270162282274	45,5	7,8	22,3	3,4	C	
1500	3270162282275	55,3	9,5	25,3	3,8	C	
2000	3270162282276	72,2	12,3	29,6	4,6	C	

ACCESSORIES

Electric immersion heaters

Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
from 4 to 9	400 - THREEPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ECO-COMBI 2

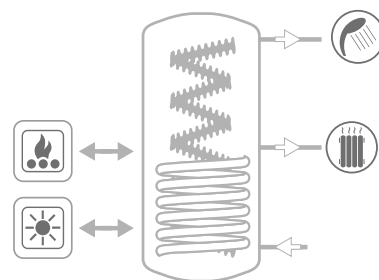
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 1 FIXED HEAT EXCHANGER

STORAGE	CORRUGATED DHW STAINLESS STEEL COIL	FIXED HEAT EXCHANGER
Pmax Tmax	Pmax	Pmax Tmax
3 bar 99 °C	6 bar	12 bar 110 °C

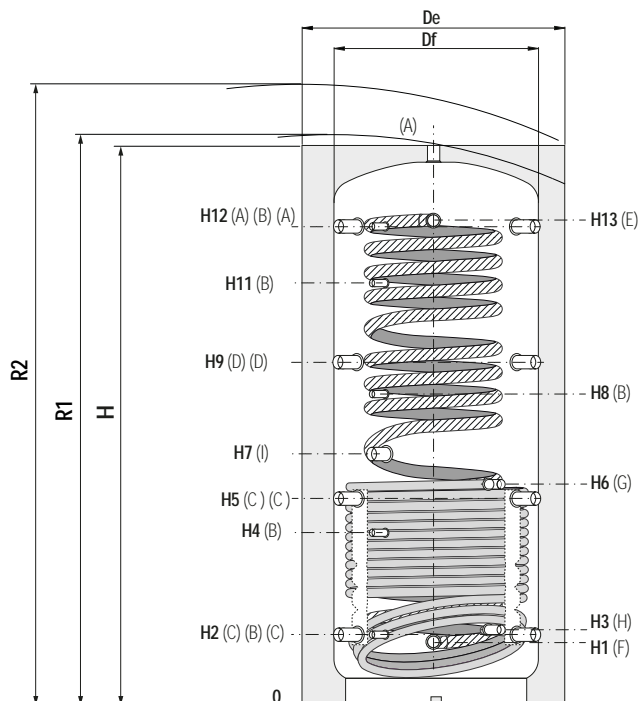


CORDIVARI Lab

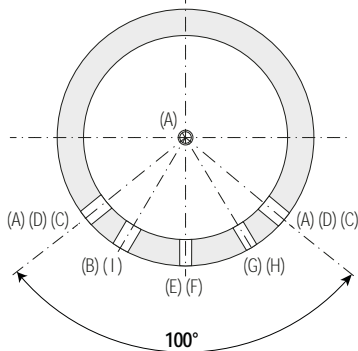
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A	Heating delivery/From generator / vent 1"1/2 G F
B	1/2 °G probe F
C	Heating return/to generator
D	Heating delivery/From generator 1"1/2 G F
E	Domestic hot water outlet 1" G
F	Domestic cold water circuit inlet 1" GM
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for for electric immersion heater 1"1/2 F



Dismantlable insulation

ECO-COMBI 2 VB - HARD FOAM INSULATION

Model	Volume [lt]	Dimensions [mm]																
		Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H11	H12	H13
500	478	//	750	1620	//	1800	230	247	260	533	629	744	841	930	1011	1231	1343	1360
600	560	//	750	1870	//	2025	230	247	260	582	695	855	915	1060	1144	1382	1593	1610
800	803	790	940	1840	1895	2070	248	265	278	584	690	762	823	988	1115	1332	1541	1558
1000	944	790	940	2130	2180	2340	248	265	284	656	787	953	998	1188	1309	1588	1831	1843
1250	1248	//	1100	2202	//	2475	296	313	326	705	835	884	986	1068	1357	1586	1879	1896
1500	1432	//	1100	2250	//	2505	296	313	336	736	845	1006	1061	1286	1377	1653	1909	1921
2000	1970	//	1300	2320	//	2670	330	347	370	770	879	1001	1060	1300	1411	1687	1943	1955

ECO-COMBI 2 VC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Dimensions [mm]																
		Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H11	H12	H13
800	803	790	1010	1840	1895	2100	248	265	278	584	690	762	823	988	1115	1332	1541	1558
1000	944	790	1010	2130	2180	2370	248	265	284	656	787	953	998	1188	1309	1588	1831	1843
1250	1248	900	1120	2202	2262	2475	296	313	326	705	835	884	986	1068	1357	1586	1879	1896
1500	1432	950	1210	2250	2315	2565	296	313	336	736	845	1006	1061	1286	1377	1653	1909	1921
2000	1970	1100	1360	2320	2400	2700	330	347	370	770	879	1001	1060	1300	1411	1687	1943	1955

BUFFER AND COMBINED TANKS

ECO-COMBI 3

MULTI-HEAT ENERGY BUFFER

WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and rapid D.H.W. production.

MATERIAL

- BUFFER TANK: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.
- D.H.W. STORAGE : Stainless steel 316L corrugated coil, suitable for D.H.W. according to D. M. n. 174 dated 06.04.04

HEAT EXCHANGER

N° 2 fixed heat exchangers.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 3 are used in units with a typically discontinuous energy source for double use: heating system and sanitary hot water system .

- Thermal storage, combining the possibility to produce hot water for sanitary use. In such case , storage heating volume allows the generator to regularly work , limiting number of stops due to the inadequate energy request of the heating system. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smoke side).
- Domestic hot water production system for domestic and sanitary use where heating water is stored. In this system , the high potentiality

of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e using heat pumps as primary source and solar source as support)

The particular shape of the corrugated coil is avoiding any problem relating to the storage of domestic hot water and ensure high heat exchange performances.

INSULATION

- HARD: High thermal insulation with ecological polyurethane hard foam. Models 800-1000 available with dismountable hard foam insulation.

- SOFT (Dismountable): NOFIRE® polyester fleece 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

Grey PVC external lining, complete with top and flange cover.

WARRANTY

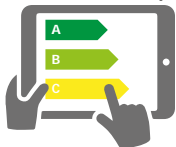
5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



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On line ErP label tool

ECO-COMBI 3 VB



HARD FOAM insulation

Model	Art. Nr.	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
500	3270162316201	26,6	4,5	8	1,3	11,5	1,9	C
600	3270162316202	31,0	5,3	8	1,3	13	2,1	C
800	3270162316203	33,4	5,8	11,8	1,8	16,3	2,5	B
1000	3270162316204	45,5	7,8	16,3	2,5	20,7	3,1	C
1250	3270162316205	45,5	7,8	16,3	2,5	22,3	3,4	B
1500	3270162316206	55,3	9,5	16,8	2,8	25,3	3,8	C
2000	3270162316207	72,2	12,3	19,1	2,8	29,6	4,6	B



ECO-COMBI 3 VC



DISMOUNTABLE SOFT FLEECE insulation

Model	Art. Nr.	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	Volume [lt]	Surface [m²]	
800	3270162282282	33,4	5,8	11,8	1,8	16,3	2,5	C
1000	3270162282283	45,5	7,8	16,3	2,5	20,7	3,1	C
1250	3270162282284	45,5	7,8	16,3	2,5	22,3	3,4	C
1500	3270162282285	55,3	9,5	16,8	2,8	25,3	3,8	C
2000	3270162282286	72,2	12,3	19,1	2,8	29,6	4,6	C

ACCESSORIES

Electric immersion heaters

Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
from 4 to 9	400 - THREEPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

ECO-COMBI 3

MULTI-HEAT ENERGY BUFFER

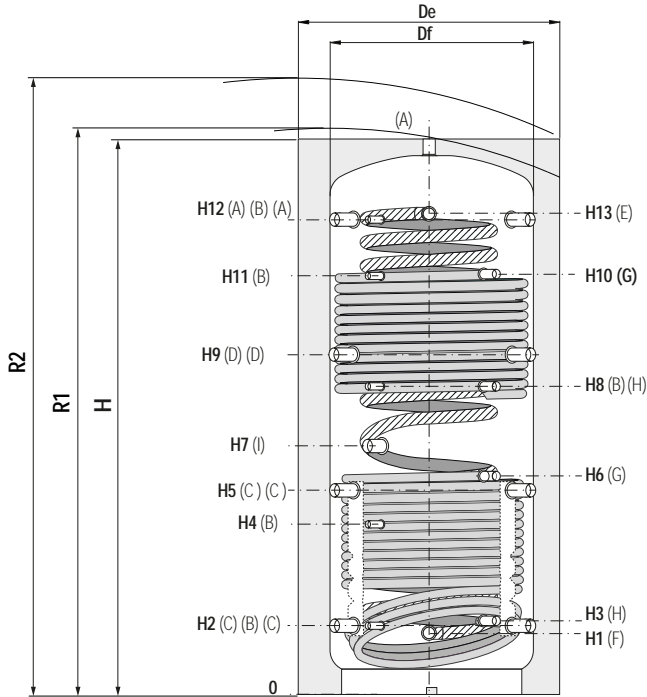
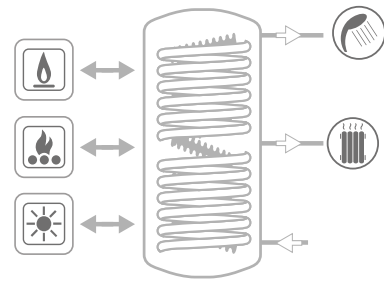
WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 2 FIXED HEAT EXCHANGERS

STORAGE	CORRUGATED DHW STAINLESS STEEL COIL	FIXED HEAT EXCHANGER	
Pmax Tmax	Pmax	Pmax	Tmax
3 bar 99 °C	6 bar	12 bar	110 °C



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A Heating delivery/From generator / vent 1"1/2 G F

B 1/2 °G probe F

C Heating return/to generator

D Heating delivery/From generator 1"1/2 G F

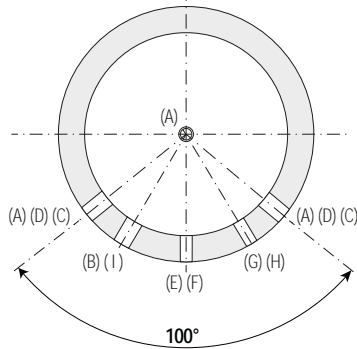
E Domestic hot water outlet 1" G

F Domestic cold water circuit inlet 1" GM

G Fixed heat exchanger inlet 1" G F

H Fixed heat exchanger outlet 1" G F

I Connection for for electric immersion heater 1"1/2 F



BUFFER AND
COMBINED TANKS

ECO-COMBI 3 VB - HARD FOAM INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
		[mm]																	
500	478	//	750	1620	//	1800	230	247	260	533	629	744	841	930	1011	1231	1231	1343	1360
600	560	//	750	1870	//	2025	230	247	260	582	695	855	915	1060	1144	1361	1382	1593	1610
800	803	790	940	1840	1895	2070	248	265	278	584	690	762	823	988	1115	1332	1332	1541	1558
1000	944	790	940	2130	2180	2340	248	265	284	656	787	953	998	1188	1309	1661	1588	1831	1843
1250	1248	//	1100	2202	//	2475	296	313	326	705	835	884	986	1068	1357	1641	1586	1879	1896
1500	1432	//	1100	2250	//	2505	296	313	336	736	845	1006	1061	1286	1377	1673	1653	1909	1921
2000	1970	//	1300	2320	//	2670	330	347	370	770	879	1001	1060	1300	1411	1687	1687	1943	1955

ECO-COMBI 3 VC - DISMOUNTABLE SOFT FLEECE INSULATION

Model	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
		[mm]																	
800	803	790	1010	1840	1895	2100	248	265	278	584	690	762	823	988	1115	1332	1332	1541	1558
1000	944	790	1010	2130	2180	2370	248	265	284	656	787	953	998	1188	1309	1661	1588	1831	1843
1250	1248	900	1120	2202	2262	2475	296	313	326	705	835	884	986	1068	1357	1641	1586	1879	1896
1500	1432	950	1210	2250	2315	2565	296	313	336	736	845	1006	1061	1286	1377	1673	1653	1909	1921
2000	1970	1100	1360	2320	2400	2700	330	347	370	770	879	1001	1060	1300	1411	1687	1687	1943	1955

ECO-COMBI

CORRUGATED COIL - PERFORMANCES DURING DHW PRODUCTION PHASE



WITH STORAGE AT 65°			COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
Model	DHW Volume	DHW exchanger surface	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off
	[lt]	[m²]	[lt/min]	[lt]	[lt/min]	[lt]
500	26,6	4,5	29	10 lt/min: 354 lt 25 lt/min: 227 lt	15	10 lt/min: 102 lt 25 lt/min: 75 lt
600	31	5,3	34	10 lt/min: 400 lt 25 lt/min: 257 lt	18	10 lt/min: 115 lt 25 lt/min: 85 lt
800	33,4	5,8	37	10 lt/min: 587 lt 25 lt/min: 377 lt	23	10 lt/min: 218 lt 25 lt/min: 160 lt
1000	45,5	7,8	50	10 lt/min: 800 lt 25 lt/min: 541 lt	27	10 lt/min: 294 lt 25 lt/min: 216 lt
1250	45,5	7,8	50	10 lt/min: 922 lt 25 lt/min: 592 lt	27	10 lt/min: 310 lt 25 lt/min: 230 lt
1500	55,3	9,5	57	10 lt/min: 1144 lt 25 lt/min: 735 lt	34	10 lt/min: 345 lt 25 lt/min: 258 lt
2000	72,2	12,3	74	10 lt/min: 1657 lt 25 lt/min: 1142 lt	44	10 lt/min: 463 lt 25 lt/min: 340 lt

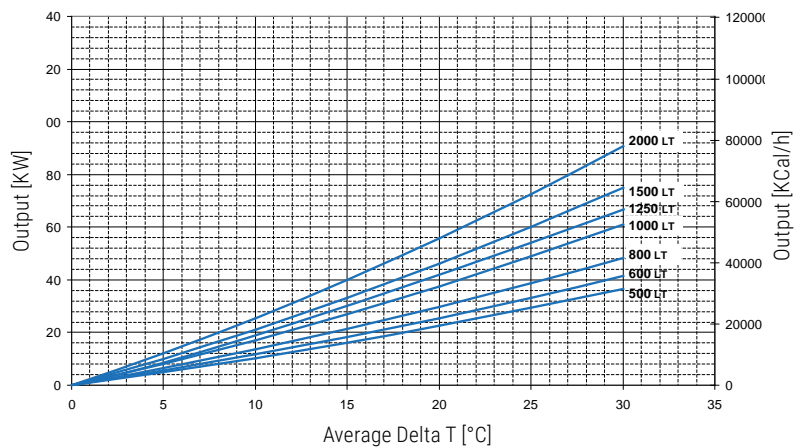
LOWER HEAT EXCHANGER POWER - ECO COMBI 2 - ECO COMBI 3

Output of the EcoCombi 2 - EcoCombi 3 lower heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

Thermal output is given in both kW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h.

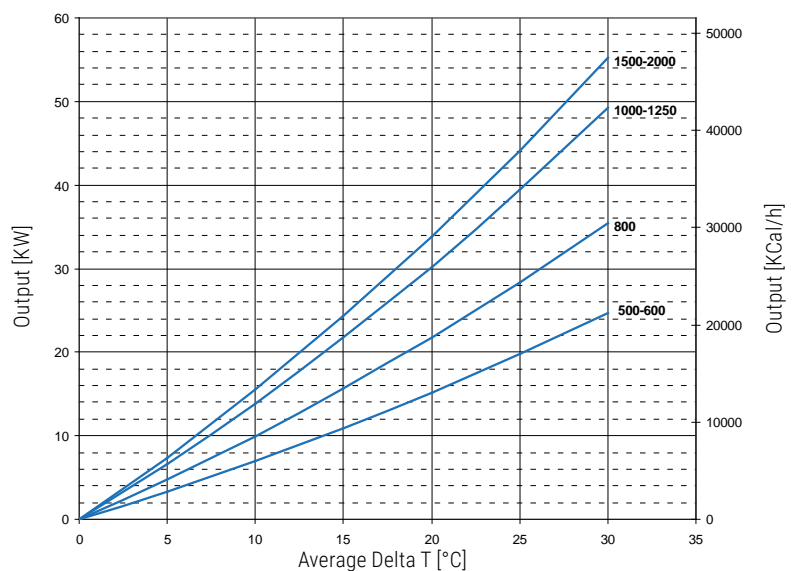
For example, a 1000 liters ECOCOMBI 2 with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the main difference of temperature will be:

$(80 + 70) / 20 - 60 = 15$ °C and therefore you can exchange up to approximately 32 kW.



UPPER HEAT EXCHANGER POWER - ECO COMBI 3

Output of the EcoCombi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.



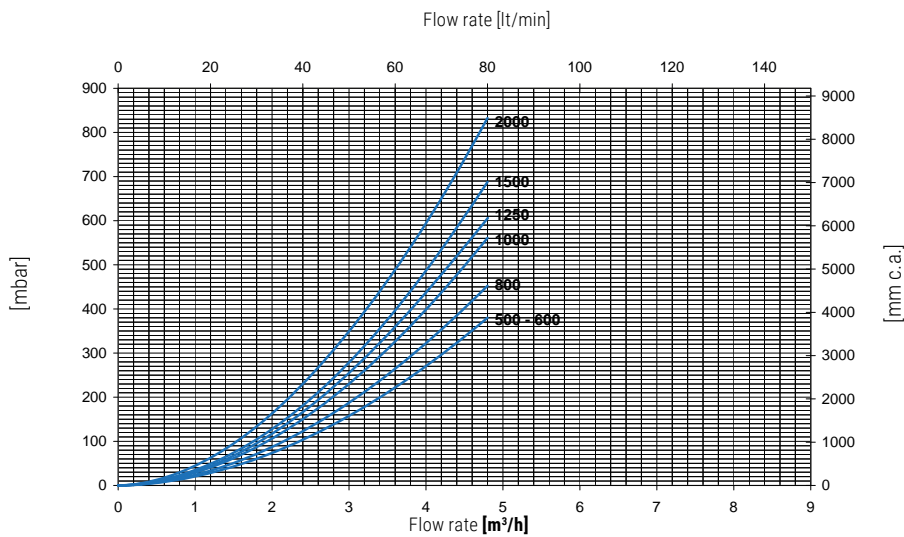
ECO-COMBI

CORRUGATED COIL - PERFORMANCES DURING DHW PRODUCTION PHASE

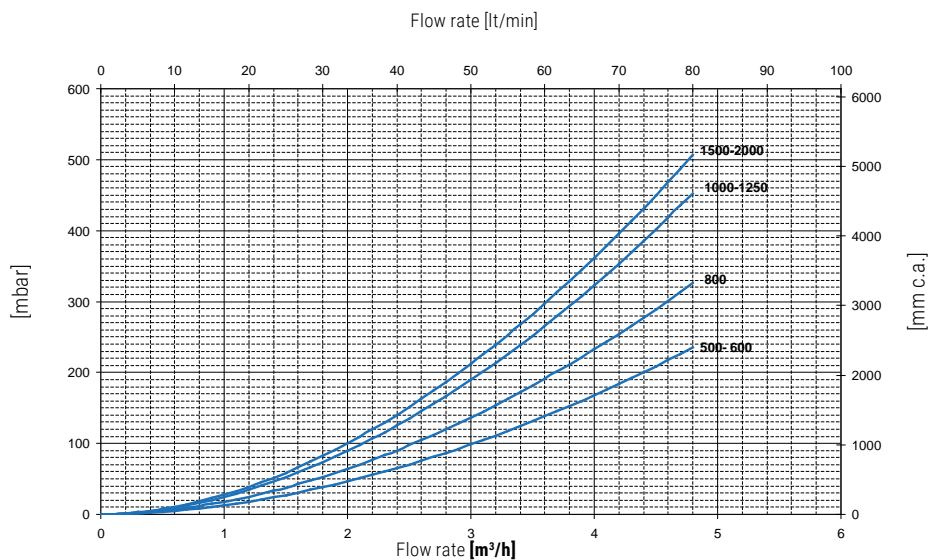


Model	WITH STORAGE AT 55°		COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
	DHW Volume	DHW exchanger surface	Max sanitary water produced from 10°C to 45°C with storage at 55°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 55°C and boiler off	Max sanitary water produced from 10°C to 45°C with storage at 55°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 55°C and boiler off
	[lt]	[m²]	[lt/min]	[lt]	[lt/min]	[lt]
500	26,6	4,5	24	10 lt/min: 260 lt 25 lt/min: 166 lt	14	10 lt/min: 75 lt 25 lt/min: 55 lt
600	31	5,3	28	10 lt/min: 293 lt 25 lt/min: 188 lt	17	10 lt/min: 84 lt 25 lt/min: 62 lt
800	33,4	5,8	31	10 lt/min: 430 lt 25 lt/min: 276 lt	19	10 lt/min: 160 lt 25 lt/min: 216 lt
1000	45,5	7,8	42	10 lt/min: 587 lt 25 lt/min: 397 lt	25	10 lt/min: 158 lt 25 lt/min: 216 lt
1250	45,5	7,8	42	10 lt/min: 676 lt 25 lt/min: 434 lt	25	10 lt/min: 158 lt 25 lt/min: 227 lt
1500	55,3	9,5	51	10 lt/min: 539 lt 25 lt/min: 1215 lt	30	10 lt/min: 253 lt 25 lt/min: 189 lt
2000	72,2	12,3	65	10 lt/min: 539 lt 25 lt/min: 1215 lt	39	10 lt/min: 340 lt 10 lt/min: 249

LOWER HEAT EXCHANGER PRESSURE DROP - ECO COMBI 2 - ECO COMBI 3



UPPER HEAT EXCHANGER PRESSURE DROP - ECO COMBI 3



BUFFER AND COMBINED TANKS

ECO-COMBI 1 DOMUS

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL



APPLICATION

Heating hot water storage and rapid D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.
- **D.H.W. STORAGE :** Stainless steel 316L corrugated coil, suitable for D.H.W. according to D. M. n. 174 dated 06.04.04

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 1 Domus are used in units with a typically discontinuous energy source for double use: heating system and domestic hot water systems.

- Thermal storage, combining the possibility to produce hot water for sanitary use. In such case, storage heating volume allows the generator to regularly work, limiting number of stops due to the inadequate energy request of the heating systems. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smoke side).
- Domestic hot water production system for domestic and sanitary use where heating water is stored. In this system, the high potentiality of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e. using heat pumps as primary source and solar source as support).

The particular shape of the corrugated pipe avoids any problem relating to the storage of domestic hot water and ensures high heat exchange performances.

INSULATION

High thermal insulation with ecological hard polyurethane foam. Grey PVC external lining complete with top cover.

WARRANTY

5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

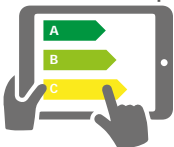
See Accessories section for the entire list.



316L STAINLESS STEEL D.H.W. CORRUGATED COIL



cordivari.com/erp



On line ErP label tool



ECO-COMBI 1 DOMUS VB

316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION

ENERGY EFFICIENCY CLASS

Model	HARD FOAM insulation Art. Nr.	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	
200	3270162316021	2,9	1,4	B
300	3270162316022	5,1	2,5	B


Model	Max sanitary water produced from 10°C to 45°C with storage at 60°C	Max sanitary water produced from 10°C to 45°C with storage at 50°C
	[lt/min]	[lt/min]
200	11	8
300	23	16

ACCESSORIES

Electric immersion heaters

	
Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

ECO-COMBI 1 DOMUS

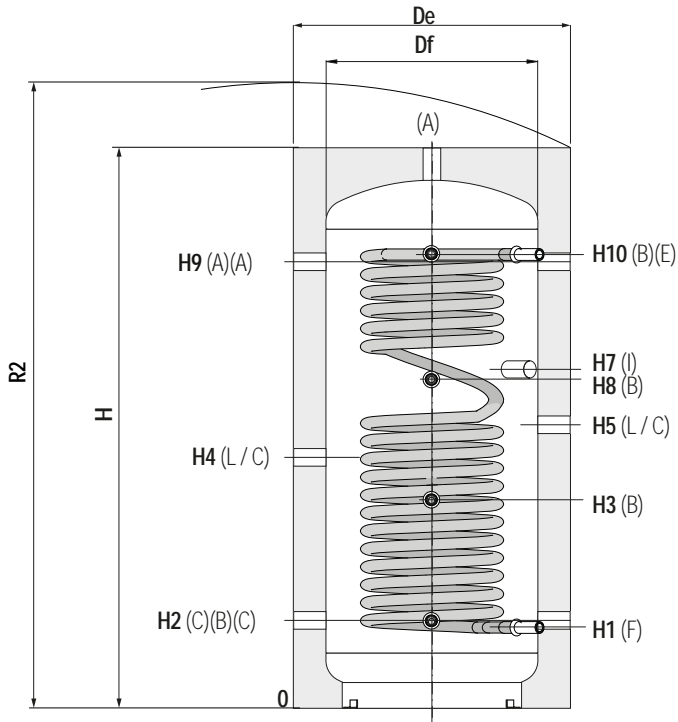
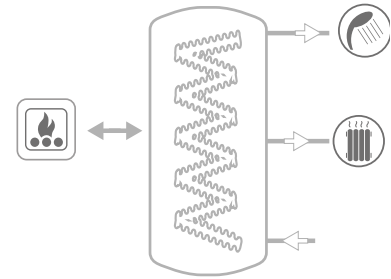
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL

STORAGE		CORRUGATED DHW STAINLESS STEEL COIL
Pmax	Tmax	Pmax
3 bar	99 °C	6 bar

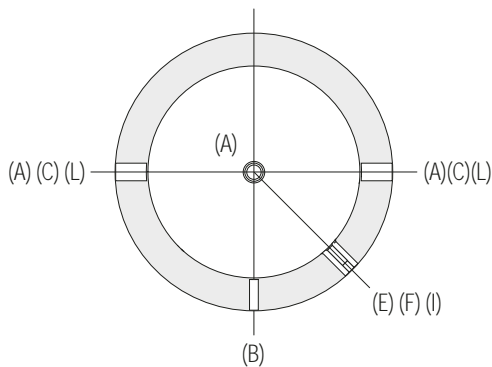


CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Heating delivery/From generator / vent 1"1/2 G F
B	1/2 °G probe F
C	Heating return/to generator
E	Domestic hot water outlet 1/2" G F
F	Domestic cold water circuit inlet 1/2" G F
I	Connection for for electric immersion heater 1"1/2 F
L	Heating delivery 1"1/2 G F



Model	Volume [lt]	DE	H	R2	H1	H2	H3	H4	H5	H7	H8	H9	H10
		[mm]											
200	180	590	1310	1445	227	252	552	602	702	852	822	1052	1079
300	279	690	1360	1530	257	272	572	622	722	872	812	1072	1084

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND
COMBINED TANKS

ECO-COMBI 2 DOMUS

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and rapid D.H.W. production.

MATERIAL

- BUFFER TANK: Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.
- D.H.W. STORAGE : Stainless steel 316L corrugated coil, suitable for D.H.W. according to D. M. n. 174 dated 06.04.04

HEAT EXCHANGER

N° 1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks EcoCombi 2 Domus are used in units with a typically discontinuous energy source for double use: heating system and domestic hot water systems.

- Thermal storage, combining the possibility to produce hot water for sanitary use. In such case, storage heating volume allows the generator to regularly work, limiting number of stops due to the inadequate energy request of the heating systems. Moreover, it limits the emission of smoke and the creation of corrosive condensate (smoke side).

- Domestic hot water production system for domestic and sanitary use where heating water is stored. In this system , the high potentiality

of the Eco Combi allows to obtain a good production of hot sanitary water even if temperatures of the primary system are not so high (i.e using heat pumps as primary source and solar source as support).

The particular shape of the corrugated pipe avoids any problem relating to the storage of domestic hot water and ensures high heat exchange performances.

INSULATION

High thermal insulation with ecological hard polyurethane foam. Grey PVC external lining complete with top cover.

WARRANTY

5 years - See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



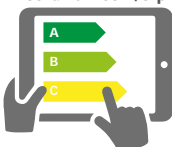
316L STAINLESS STEEL D.H.W. CORRUGATED COIL



STOCK AVAILABILITY



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On line ErP label tool



ECO-COMBI 2 DOMUS VB

Model	HARD FOAM insulation Art. Nr.	316L STAINLESS STEEL CORRUGATED COIL FOR D.H.W. PRODUCTION		FIXED HEAT EXCHANGER	ENERGY EFFICIENCY CLASS
		Volume [lt]	Surface [m ²]	Surface [m ²]	
200	3270162282501	2,9	1,4	1	B
300	3270162282502	5,1	2,5	1,2	B


Model	Max solar collectors surface	Max sanitary water produced from 10°C to 45°C with storage at 60°C	Max sanitary water produced from 10°C to 45°C with storage at 50°C
	[m ²]	[lt/min]	[lt/min]
200	5	11	8
300	7,5	23	16

ACCESSORIES

Electric immersion heaters

	
Available kit:	
[Kw]	Tensione [V]
from 1,5 to 3	220 - MONOPHASE
See accessories	

Thermometer

Art. Nr.	
5032240000107	
5 units box	

ECO-COMBI 2 DOMUS

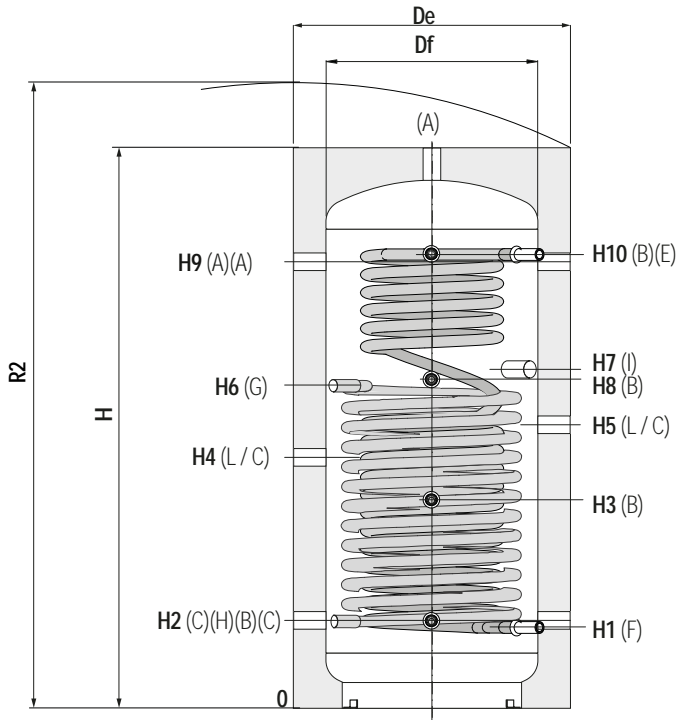
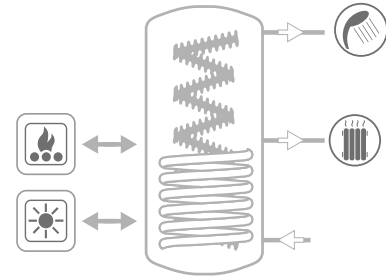
MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL 316L D.H.W. CORRUGATED COIL AND 1 FIXED HEAT EXCHANGER

STORAGE	CORRUGATED DHW STAINLESS STEEL COIL	FIXED HEAT EXCHANGER	
Pmax Tmax 3 bar 99 °C	Pmax 6 bar	Pmax 12 bar	Tmax 110 °C

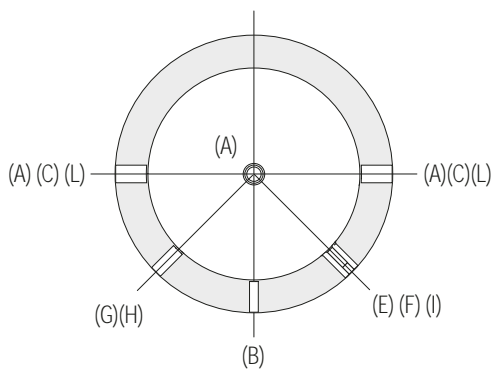


CORDIVARI Lab

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A	Heating delivery/From generator / vent 1*1/2 G F
B	1/2 °G probe F
C	Heating return/to generator
E	Domestic hot water outlet 1/2" G F
F	Domestic cold water circuit inlet 1/2" G F
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for for electric immersion heater 1*1/2 F
L	Heating delivery 1*1/2 G F



P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

BUFFER AND COMBINED TANKS

Model	Volume [lt]	DE	H	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
		[mm]												
200	180	590	1310	1445	227	252	552	602	702	822	852	822	1052	1079
300	279	690	1360	1530	257	272	572	622	722	812	872	812	1072	1084

PUFFERMAS® 1

HEATING WATER BUFFER TANK WITH MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water and immediate production of D.H.W. high flow rate.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation

MACS® module: insulating PPE cover. Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



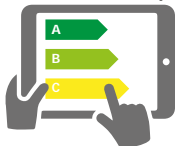
IMMEDIATE
DHW
PRODUCTION



Electronic MACS®
module

PATENTED

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On line ErP label tool



PUFFERMAS® 1 VB

Model	MACS® module model	HARD FOAM insulation	SLB heat exchanger model / plates nr.	ENERGY EFFICIENCY CLASS
		Art. Nr.		
500		3251162314803		C
600		3251162314804		C
800	70	3251162314805	SLB20 / 34	B
1000		3251162314806		C
1500		3251162314807		C
1000	120	3251162314808	SLB40/ 40	C
1500		3251162314809		C

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C	Maximum availability of DHW (10-45°C) with accumulation at 80°C
		[l/min]	[l/min]
500		37	680
600		37	800
800	70	37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFERMAS® 1

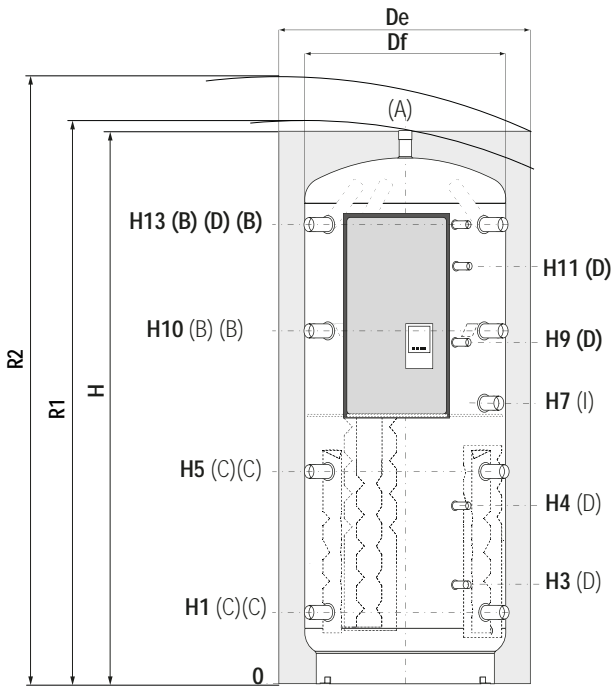
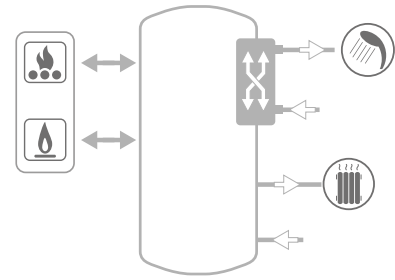
HEATING WATER BUFFER TANK WITH MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		STAINLESS STEEL 316L BRAZED PLATE EXCHANGER (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	6 bar	99 °C	30 °f

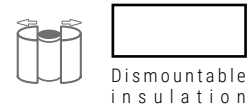
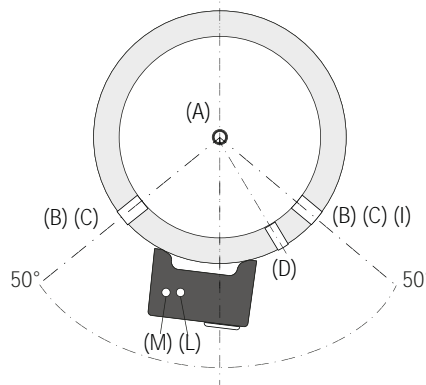


CORDIVARI® Lab

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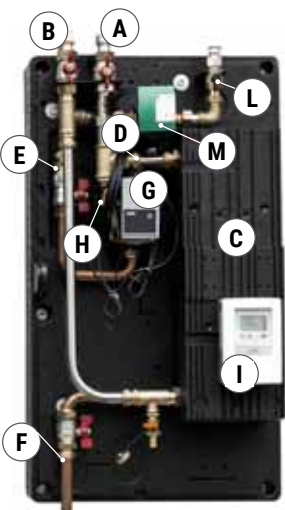


- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/to generator 1"1/2 G F
- D** 1/2 "G probe F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



Model	Volume [lt]	De	Df	H	R1	R2	H1	H3	H4	H5	H7	H9	H10	H11	H13
		[mm]													
500	478	750	650	1619	//	1785	247	360	533	629	870	1025	1011	1130	1343
600	560	750	650	1870	//	2015	247	360	582	695	970	1200	1144	1485	1593
800	805	940	790	1840	1880	2067	265	378	584	690	918	1115	1115	1442	1541
1000	946	940	790	2130	2165	2329	265	384	656	787	1145	1388	1309	1588	1831
1500	1454	1100	950	2250	//	2505	313	432	736	845	1236	1396	1377	1783	1909

MACS® ELECTRONIC MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic hot water outlet (DHW)
B	Domestic Water inlet
C	Stainless steel 316L brazed plate exchanger
D	Flow rate/ temperature probe
E	Primary Inlet
F	Primary Outlet
G	"Energy Savings" Circulation Pump
H	Valves In/Out for DHW
I	Electronic control unit

D.H.W. recirculation kit (optional)

L	Connection for D.H.W. recirculation (optional)
M	D.H.W. recirculation pump (optional)

FOR DHW FLOW RATE CHARTS REFER TO HYDRONIC SECTION - ELECTRONIC MACS® MODULE

The MACS® module is an external unit that immediately produces D.H.W., using the heat energy stored in the Buffer thanks to the stainless steel plate exchanger, granting safety and comfort with the possibility to regulate outlet temperature.

With the new electronic regulation system, the management of the temperature on the DHW side is guaranteed and maintained in an optimal manner and with immediate response times from the electronic control unit on the module.

BUFFER AND COMBINED TANKS

PUFFERMAS® 2

HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water and immediate production of D.H.W. high flow rate.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

N° 1 fixed heat exchanger suitable for solar thermal systems.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation

MACS® module: insulating PPE cover. Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



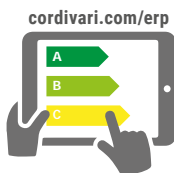
PUFFERMAS® 2 VB

Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500		3251162314823		1,9	C
600		3251162314824		2,1	C
800	70	3251162314825	SLB20 / 34	2,5	B
1000		3251162314826		3,1	C
1500		3251162314827		3,8	C
1000	120	3251162314828	SLB40/ 40	3,1	C
1500		3251162314829		3,8	C



Electronic MACS® module

PATENTED



On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C [l/min]	Maximum availability of DHW (10-45°C) with accumulation at 80°C [l/min]
500		37	680
600		37	800
800	70	37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFERMAS® 2

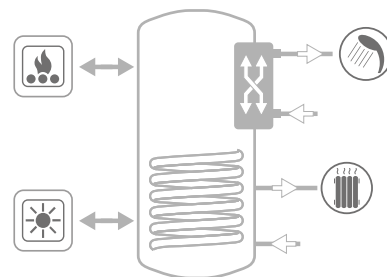
HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f



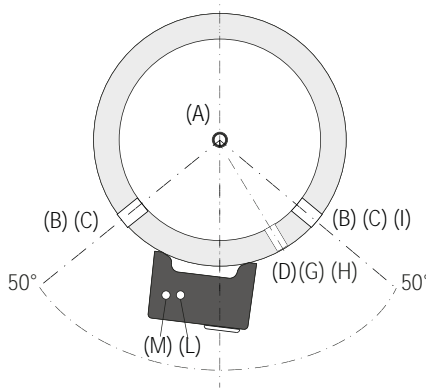
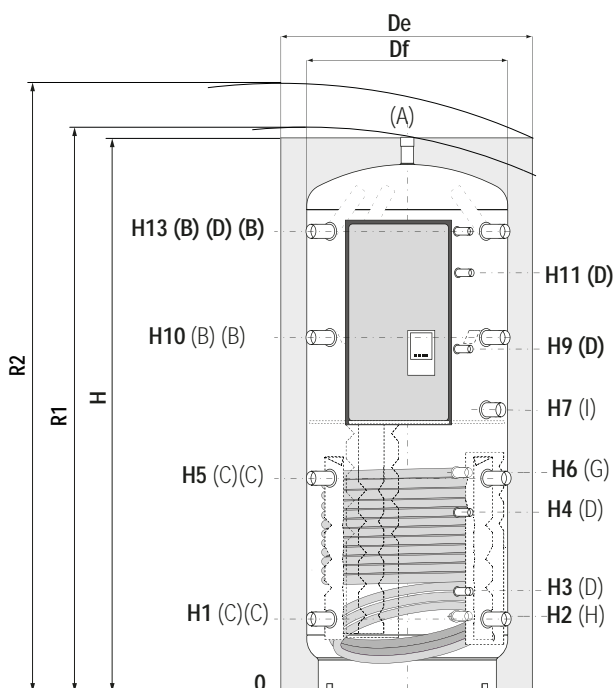
CORDIVARI® Lab

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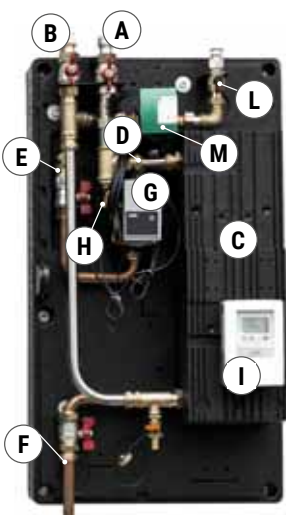
See TECHNICAL SUPPORT chapter for example of installation

- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/to generator 1"1/2 G F
- D** 1/2 °G probe F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H13
							[mm]										
500	478	750	650	1619	//	1785	247	260	360	533	629	744	870	1025	1011	1130	1343
600	560	750	650	1870	//	2015	247	260	360	582	695	855	970	1200	1144	1485	1593
800	805	940	790	1840	1880	2067	265	278	378	584	690	762	918	1115	1115	1442	1541
1000	946	940	790	2130	2165	2329	265	284	384	656	787	953	1145	1388	1309	1588	1831
1500	1454	1100	950	2250	//	2505	313	336	432	736	845	1006	1236	1396	1377	1783	1909

MACS® ELECTRONIC MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic hot water outlet (DHW)
B	Domestic Water inlet
C	Stainless steel 316L brazed plate exchanger
D	Flow rate/ temperature probe
E	Primary Inlet
F	Primary Outlet
G	"Energy Savings" Circulation Pump
H	Valves In/Out for DHW
I	Electronic control unit

D.H.W. recirculation kit (optional)

L	Connection for D.H.W. recirculation (optional)
M	D.H.W. recirculation pump (optional)

FOR DHW FLOW RATE CHARTS REFER TO HYDRONIC SECTION - ELECTRONIC MACS® MODULE

The MACS® module is an external unit that immediately produces D.H.W., using the heat energy stored in the Buffer thanks to the stainless steel plate exchanger, granting safety and comfort with the possibility to regulate outlet temperature.

With the new electronic regulation system, the management of the temperature on the DHW side is guaranteed and maintained in an optimal manner and with immediate response times from the electronic control unit on the module.

BUFFER AND COMBINED TANKS

PUFFERMAS® 3

HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water and immediate production of D.H.W. high flow rate.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

N° 2 fixed heat exchangers suitable for solar thermal systems and other heat source.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismantlable hard foam insulation

MACS® module: insulating PPE cover.

Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



IMMEDIATE
DHW
PRODUCTION



PUFFERMAS® 3 VB

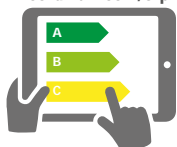
Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper [lt]	Lower [m²]	
500	70	3251162314843	SLB20 / 34	1,3	1,9	C
600		3251162314844		1,3	2,1	C
800		3251162314845		1,8	2,5	B
1000		3251162314846		2,5	3,1	C
1500		3251162314847		2,8	3,8	C
1000	120	3251162314848	SLB40/ 40	2,5	3,1	C
1500		3251162314849		2,8	3,8	C



Electronic MACS® module

PATENTED

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On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C	Maximum availability of DHW (10-45°C) with accumulation at 80°C
		[l/min]	[l/min]
500	70	37	680
600		37	800
800		37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000073
DHW recirculation group



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFERMAS® 3

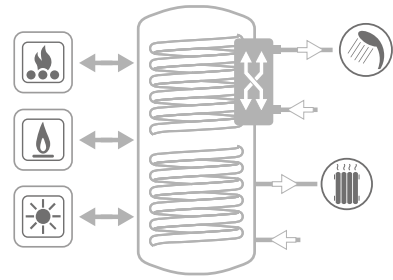
HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

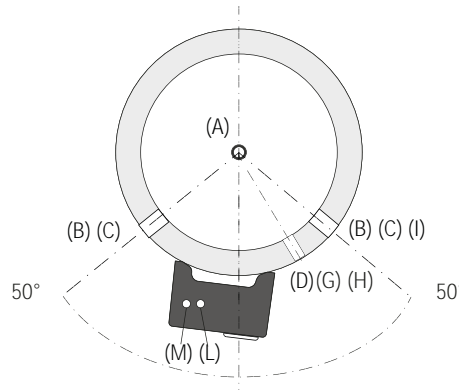
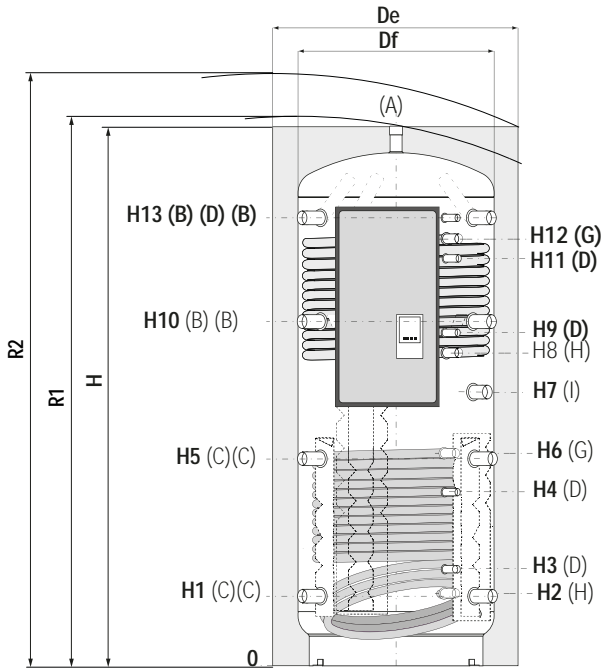


CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.

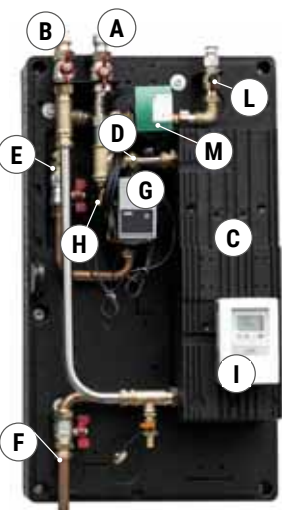


- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/to generator 1"1/2 G F
- D** 1/2" G probe F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
		[mm]																	
500	478	750	650	1619	//	1785	247	260	360	533	629	744	870	930	1025	1011	1130	1231	1343
600	560	750	650	1870	//	2015	247	260	360	582	695	855	970	1090	1200	1144	1485	1391	1593
800	805	940	790	1840	1880	2067	265	278	378	584	690	762	918	1003	1115	1115	1442	1347	1541
1000	946	940	790	2130	2165	2329	265	284	384	656	787	953	1145	1188	1388	1309	1588	1661	1831
1500	1454	1100	950	2250	//	2505	313	336	432	736	845	1006	1236	1286	1396	1377	1783	1673	1909

MACS® ELECTRONIC MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic hot water outlet (DHW)
B	Domestic Water inlet
C	Stainless steel 316L brazed plate exchanger
D	Flow rate/ temperature probe
E	Primary Inlet
F	Primary Outlet
G	"Energy Savings" Circulation Pump
H	Valves In/Out for DHW
I	Electronic control unit

D.H.W. recirculation kit (optional)

L	Connection for D.H.W. recirculation (optional)
M	D.H.W. recirculation pump (optional)

The MACS® module is an external unit that immediately produces D.H.W., using the heat energy stored in the Buffer thanks to the stainless steel plate exchanger, granting safety and comfort with the possibility to regulate outlet temperature.

With the new electronic regulation system, the management of the temperature on the DHW side is guaranteed and maintained in an optimal manner and with immediate response times from the electronic control unit on the module.

FOR DHW FLOW RATE CHARTS REFER TO HYDRONIC SECTION - ELECTRONIC MACS® MODULE

BUFFER AND COMBINED TANKS

PUFFERMAS® 2 CTS

HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water and immediate production of D.H.W. high flow rate.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

N° 1 fixed heat exchanger and CTS® straticator system, suitable for solar thermal systems.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by calorifier with similar capacity because hot water is stored at a higher temperature than DHW.

Puffermas 2 CTS® is characterized by multiple thermal stratification

system based on the combination of Cordivari Labyrinth spreader for returning heating water (both from heating installation and from MACS® DHW station) with a new stratification device that conveys in the upper part of the tank the heated water up by the lower fixed exchanger. This combination ensures a perfect natural stratification inside the tank with no valve or additional external device.

The lower fixed exchanger can be connected with a solar system. Being positioned at the bottom lower part of the buffer tank and with very small footprint, it increases the volume available for the storage.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation.

MACS® module: insulating PPE cover.

Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFERMAS® 2 CTS VB

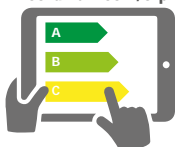
Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500	70	3251162316503	SLB20 / 34	1,9	C
600		3251162316504		2,1	C
800		3251162316505		2,5	B
1000		3251162316506		3,1	C
1500	120	3251162316507	SLB40/ 40	3,8	C
1000		3251162316508		3,1	C
1500		3251162316509		3,8	C



Electronic MACS® module

PATENTED

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On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C [l/min]	Maximum availability of DHW (10-45°C) with accumulation at 80°C [l/min]
500	70	37	680
600		37	800
800		37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000073
DHW recirculation group



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFERMAS® 2 CTS

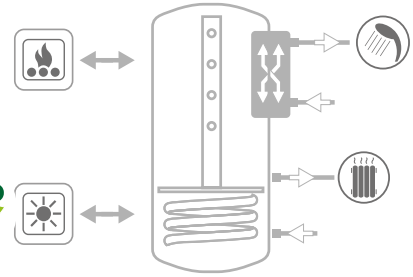
HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

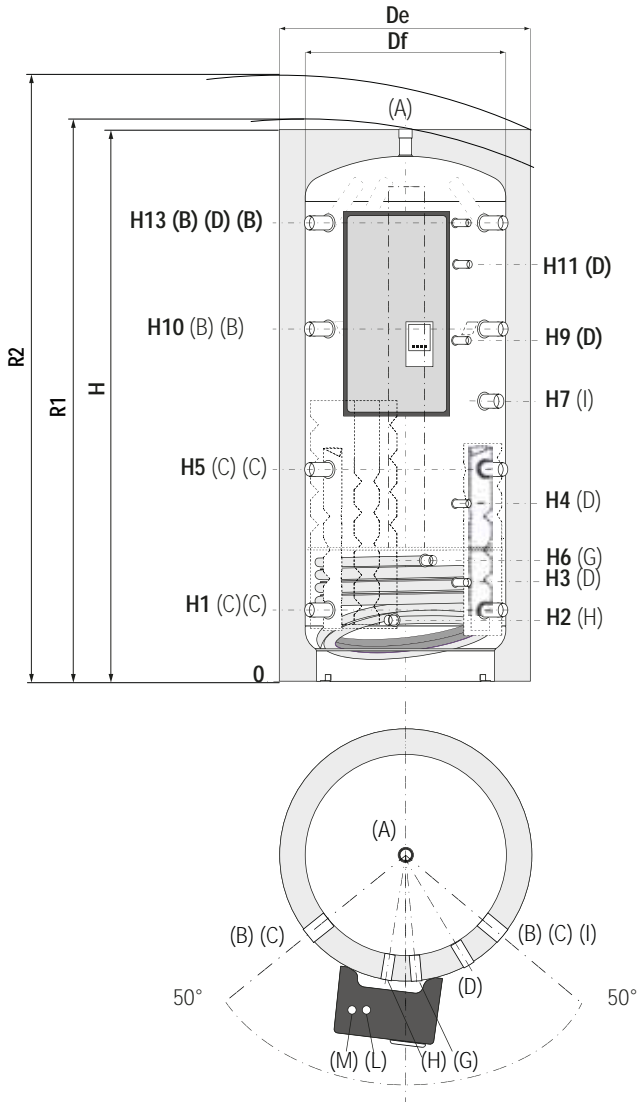


CORDIVARI® Lab

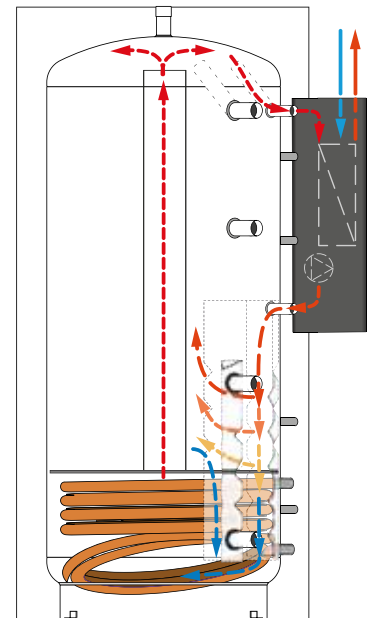
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



A	Heating delivery/From generator / vent 1"1/2 G F
B	Heating delivery/From generator 1"1/2 G F
C	Heating return/to generator 1"1/2 G F
D	1/2" G probe F
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for for electric immersion heater 1"1/2 F
L	Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
M	Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



BUFFER AND COMBINED TANKS

SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL NEEDED ENERGY RAPIDLY AVAILABLE



Dismountable insulation

Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
		[mm]																	
500	478	750	650	1619	//	1785	247	215	360	533	629	425	870	//	1025	1011	1130	//	1343
600	560	750	650	1870	//	2015	247	215	360	582	695	425	970	//	1200	1144	1485	//	1593
800	805	940	790	1840	1880	2067	265	233	378	584	690	443	918	//	1115	1115	1442	//	1541
1000	946	940	790	2130	2165	2329	265	233	384	656	787	443	1145	//	1388	1309	1588	//	1831
1500	1454	1100	950	2250	//	2505	313	281	432	736	845	491	1236	//	1396	1377	1783	//	1909

PUFFERMAS® 3 CTS

HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 2 FIXED HEAT EXCHANGERS AND MACS®
MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water with stratification device and D.H.W immediate production with high flow rate. Ideal for solar thermal solutions and for heating systems with mixed energy sources such as biomass and solar and even allowing the integration of a third energy source.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

N° 2 fixed heat exchangers and CTS® stratificator system, suitable for solar thermal systems and other generator.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the MACS® module allows the following benefits:

- to reduce dimensions of the water heater needed
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by calorifier with similar capacity because hot water is stored at a higher temperature

than DHW.

Puffermas 3 CTS® is characterized by multiple thermal stratification system based on the combination of Cordivari Labyrinth spreader for returning heating water (both from heating installation and from MACS® DHW station) with a new stratification device that conveys in the upper part of the tank the heated water up by the lower fixed coil. This combination ensures a perfect natural stratification inside the tank with no valve or additional external device.

The lower fixed coil allows the possibility of connecting with a solar system. Being positioned at the bottom lower part of the buffer tank and with very small footprint, it increases the volume available for the storage. Puffermas® 3 CTS is able to integrate the use of a third separate heat source in addition to solar and biomass.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation

MACS® module: insulating PPE cover. Grey PVC external lining.

WARRANTY

5 years (tank)


See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFERMAS® 3 CTS VB

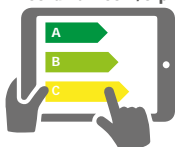
Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS 
				Upper [lt]	Lower [m²]	
500	70	3251162316543	SLB20 / 34	1,3	1,9	C
600		3251162316544		1,3	2,1	C
800		3251162316545		1,8	2,5	B
1000		3251162316546		2,5	3,1	C
1500		3251162316547		2,8	3,8	C
1000	120	3251162316548	SLB40/ 40	2,5	3,1	C
1500		3251162316549		2,8	3,8	C



Electronic MACS®
module

PATENTED

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On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C	Maximum availability of DHW (10- 45°C) with accumulation at 80°C
		[l/min]	[l/min]
500	70	37	680
600		37	800
800		37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000073
DHW recirculation group



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFERMAS® 3 CTS

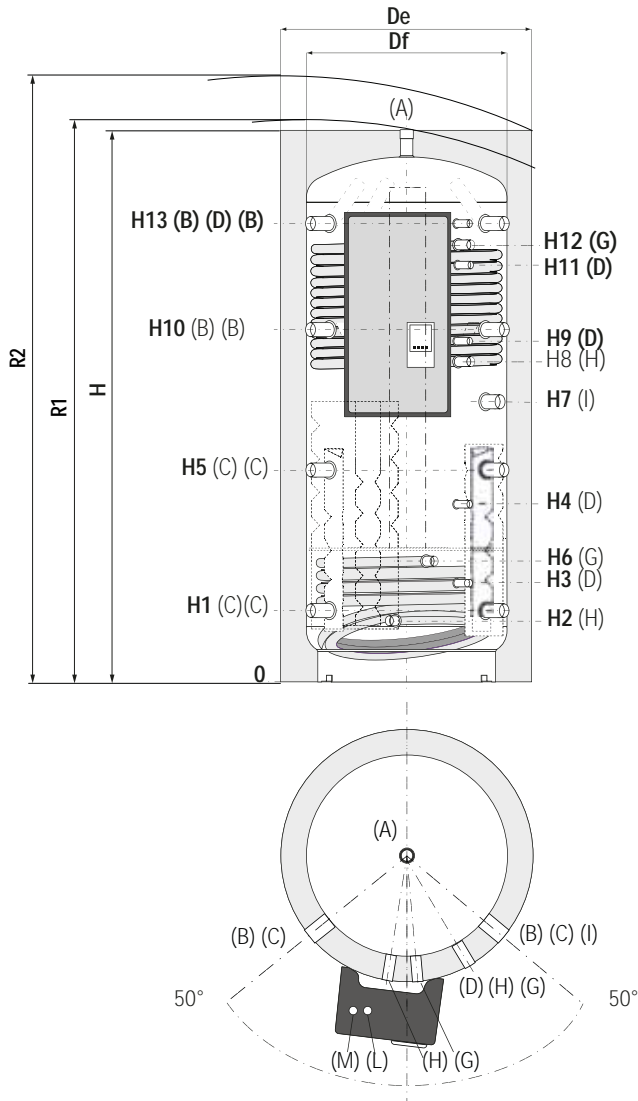
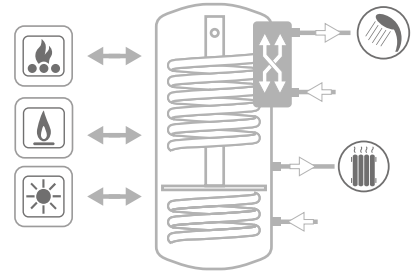
HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 2 FIXED HEAT EXCHANGERS AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max	
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f	



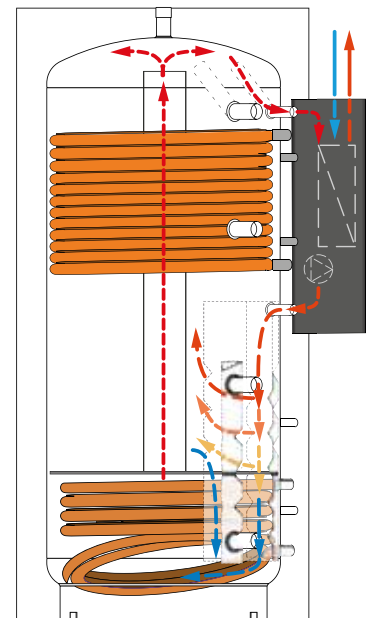
CORDIVARI® Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



A	Heating delivery/From generator / vent 1"1/2 G F
B	Heating delivery/From generator 1"1/2 G F
C	Heating return/to generator 1"1/2 G F
D	1/2" G probe F
G	Fixed heat exchanger inlet 1" G F
H	Fixed heat exchanger outlet 1" G F
I	Connection for for electric immersion heater 1"1/2 F
L	Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
M	Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)

P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE



BUFFER AND COMBINED TANKS

SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL NEEDED ENERGY RAPIDLY AVAILABLE



Model	Volume [lt]	De	Df	H	R1	R2	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
		[mm]																	
500	478	750	650	1619	//	1785	247	215	360	533	629	425	870	930	1025	1011	1130	1231	1343
600	560	750	650	1870	//	2015	247	215	360	582	695	425	970	1090	1200	1144	1485	1391	1593
800	805	940	790	1840	1880	2067	265	233	378	584	690	443	918	1003	1115	1115	1442	1347	1541
1000	946	940	790	2130	2165	2329	265	233	384	656	787	443	1145	1188	1388	1309	1588	1661	1831
1500	1454	1100	950	2250	//	2505	313	281	432	736	845	491	1236	1286	1396	1377	1783	1673	1909

PUFFERMAS® 2 CTS POWER

HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 1 FIXED HEAT EXCHANGER, MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION AND INTEGRATED SOLAR STATION



APPLICATION

Storage by stratification of heating water, immediate production of domestic hot water (DHW) with high flow rates and performances and management of the solar circulation, in solar thermal system / biomass boiler.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

SOLAR STATION

Complete with electronic control unit with 5 temperatures probes able to manage up to 27 types of system and complete circulation group.

HEATING WATER HEAT EXCHANGER

N° 1 fixed heat exchanger and CTS® stratificator system, suitable for solar thermal systems.

TECHNICAL DESCRIPTION

Specific for accumulation and management of the heat produced by the thermal solar system, combines the use of the Puffer's characteristics with the ones of a fast DHW producer without the storage of domestic hot water, with the following advantages:

- to reduce dimensions of the needed water heater
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation.

MACS® module and solar circulation group: insulating PPE cover.

Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

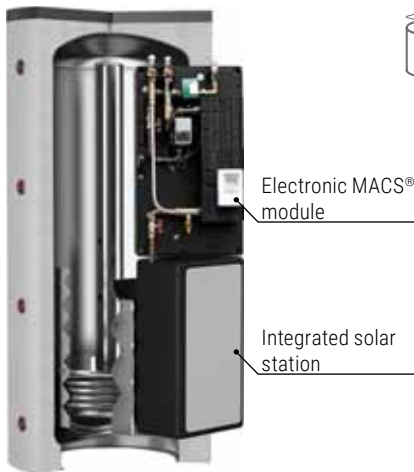
See Accessories section for the entire list.



PUFFERMAS® 2 CTS POWER VB

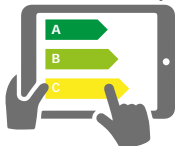
HEAT EXCHANGER SURFACE [m²]
ENERGY EFFICIENCY CLASS

Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE [m²]	ENERGY EFFICIENCY CLASS
500		3251162316523		1,9	C
600		3251162316524		2,1	C
800	70	3251162316525	SLB20 / 34	2,5	B
1000		3251162316526		3,1	C
1500		3251162316527		3,8	C
1000	120	3251162316528	SLB40/ 40	3,1	C
1500		3251162316529		3,8	C



PATENTED

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On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C [l/min]	Maximum availability of DHW (10-45°C) with accumulation at 80°C [l/min]
500		37	680
600		37	800
800	70	37	1150
1000		37	1350
1500		37	2080
1000	120	61	1680
1500		61	2580

ACCESSORIES

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000073	
DHW recirculation group	

Buffer tanks connecting kit

Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFERMAS® 2 CTS POWER

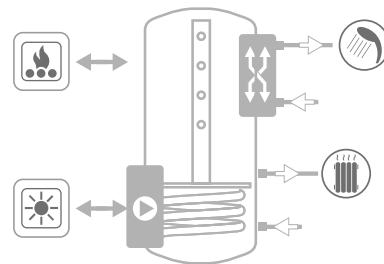
HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 1 FIXED HEAT EXCHANGER, MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION AND INTEGRATED SOLAR STATION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

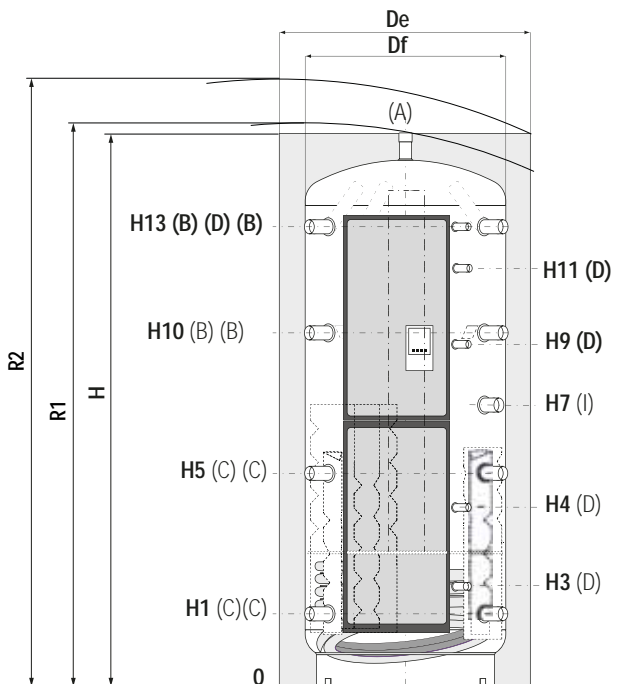


CORDIVARI® Lab

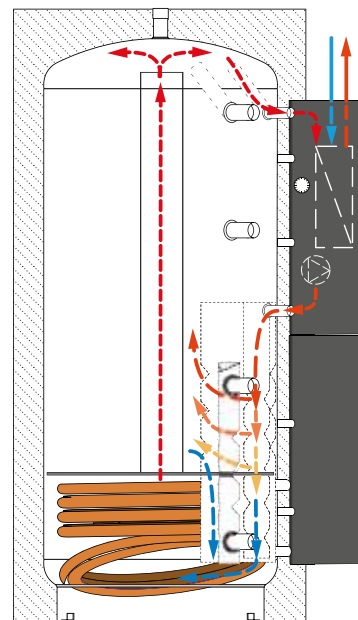
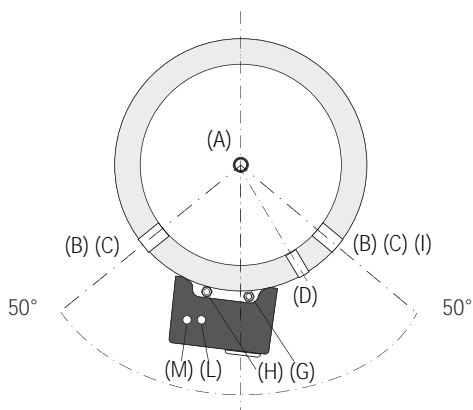
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/To the generator 1"1/2 G F
- D** 1/2 "G probe F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



BUFFER AND COMBINED TANKS

SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL NEEDED ENERGY RAPIDLY AVAILABLE



Model	Volume [lt]	De	Df	H	R1	R2	[mm]									
							H1	H3	H4	H5	H7	H9	H10	H11	H13	
500	478	750	650	1619	//	1785	247	360	533	629	870	1025	1011	1130	1343	
600	560	750	650	1870	//	2015	247	360	582	695	970	1200	1144	1485	1593	
800	805	940	790	1840	1880	2067	265	378	584	690	918	1115	1115	1442	1541	
1000	946	940	790	2130	2165	2329	265	384	656	787	1145	1388	1309	1588	1831	
1500	1454	1100	950	2250	//	2505	313	432	736	845	1236	1396	1377	1783	1909	

PUFFERMAS® 3 CTS POWER

HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 2 FIXED HEAT EXCHANGERS, MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION AND INTEGRATED SOLAR STATION



APPLICATION

Storage by stratification of heating water, immediate production of domestic hot water (DHW) with high flow rates and performances and management of the solar circulation, in solar thermal system / biomass boiler.

MATERIAL

Mild steel painted on the outside. Buffer intended for closed circuit installation, so no anti-corrosion treatment is provided.

D.H.W. HEAT EXCHANGER

External MACS® module with Stainless steel 316L brazed plate exchanger for immediate D.H.W. production.

SOLAR STATION

Complete with electronic control unit with 5 temperatures probes able to manage up to 27 types of system and complete circulation group.

HEATING WATER HEAT EXCHANGER

N° 2 fixed heat exchangers and CTS® stratificator system, suitable for solar thermal systems and other generator.

TECHNICAL DESCRIPTION

Specific for accumulation and management of the heat produced by the thermal solar system, combines the use of the Puffer's characteristics with the ones of a fast DHW producer without the storage of domestic hot water, with the following advantages:

- to reduce dimensions of the needed water heater

- easy maintenance

- maximum hygiene for anti-legionellosis bacteria's

- to produce more DHW than the quantity obtained by boiler with similar capacity because hot water is stored at a higher temperature than DHW.

Puffermas® 3 CTS POWER is able to integrate the use of a third separate heat source in addition to solar and biomass.

INSULATION

Buffer tank: High thermal insulation with ecological hard polyurethane foam. Models 800-1000 available with dismountable hard foam insulation.

MACS® module and solar circulation group: insulating PPE cover.

Grey PVC external lining.

WARRANTY

5 years (tank)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PUFFERMAS® 3 CTS POWER VB

Model	MACS® module model	HARD FOAM insulation Art. Nr.	SLB heat exchanger model / plates nr.	HEAT EXCHANGER SURFACE		ENERGY EFFICIENCY CLASS
				Upper [lt]	Lower [m²]	
500	70	3251162316563	SLB20 / 34	1,3	1,9	C
600		3251162316564		1,3	2,1	C
800		3251162316565		1,8	2,5	B
1000		3251162316566		2,5	3,1	C
1500	120	3251162316567	SLB40/ 40	2,8	3,8	C
1000		3251162316568		2,5	3,1	C
1500		3251162316569		2,8	3,8	C

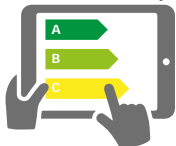


Electronic MACS®
module

Integrated solar
station

PATENTED

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On line ErP label tool

Model	MACS® module model	DHW production (10-45°C) with accumulation at 80°C		Maximum availability of DHW (10- 45°C) with accumulation at 80°C	
		[l/min]	[l/min]	[l/min]	[l/min]
500	70	37	680	37	800
600		37	1150	37	1350
800		37	2080	61	1680
1000		61	2580	61	2580

ACCESSORIES

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000073
DHW recirculation group



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	



PUFFERMAS® 3 CTS POWER

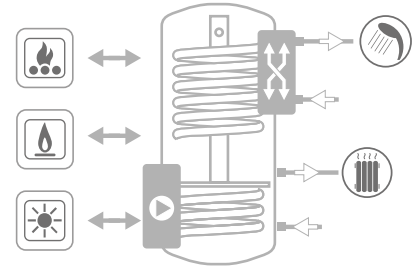
HEATING WATER BUFFER TANK WITH STRATIFICATION DEVICE, 2 FIXED HEAT EXCHANGERS, MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION AND INTEGRATED SOLAR STATION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL 316L BRAZED PLATE EXCHANGE® (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °C	12 bar	110 °C	6 bar	99 °C	30 °f

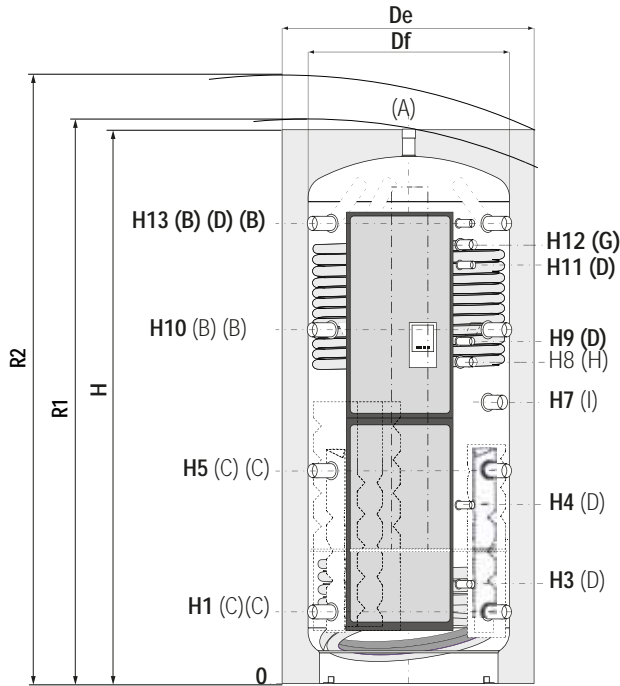


CORDIVARI® Lab

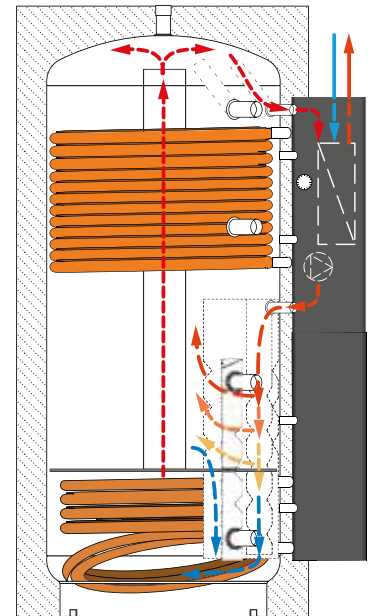
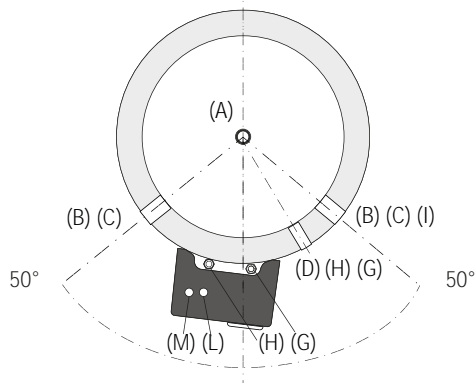
TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



See TECHNICAL SUPPORT chapter for example of installation



- A** Heating delivery/From generator / vent 1"1/2 G F
- B** Heating delivery/From generator 1"1/2 G F
- C** Heating return/To the generator 1"1/2 G F
- D** 1/2 "G probe F
- G** Fixed heat exchanger inlet 1" G F
- H** Fixed heat exchanger outlet 1" G F
- I** Connection for for electric immersion heater 1"1/2 F
- L** Domestic hot water outlet 3/4" G M (1" G M for models with MACS® 120)
- M** Domestic cold water circuit inlet 3/4" G M (1" G M for models with MACS® 120)



BUFFER AND COMBINED TANKS

SUITABLE FOR SOLAR THERMAL SYSTEMS

THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL NEEDED ENERGY RAPIDLY AVAILABLE



Model	Volume [lt]	De	Df	H	R1	R2	H1	H3	H4	H5	H7	H8	H9	H10	H11	H12	H13
		[mm]															
500	478	750	650	1619	//	1785	247	360	533	629	870	930	1025	1011	1130	1231	1343
600	560	750	650	1870	//	2015	247	360	582	695	970	1090	1200	1144	1485	1391	1593
800	805	940	790	1840	1880	2067	265	378	584	690	918	1003	1115	1115	1442	1347	1541
1000	946	940	790	2130	2165	2329	265	384	656	787	1145	1188	1388	1309	1588	1661	1831
1500	1454	1100	950	2250	//	2505	313	432	736	845	1236	1286	1396	1377	1783	1673	1909



HEATING / COOLING BUFFER TANKS



HEATING/COOLING
BUFFER TANKS

HEATING / COOLING BUFFER TANKS RANGE











Heating
Cooling

**VOLANO TERMICO
PDC - HANGING**















**VOLANO TERMICO
PDC**

**VOLANO TERMICO
GREZZO**

**VOLANO TERMICO
PDC REVERSO**

Insulation	Polyurethane hard foam	Polyurethane hard foam	Polyethylene anti-condensation + Polyester fleece	Anti-condensation insulation + Polyester fleece + aluminium cover
Material	Stainless steel / Mild steel 	Mild steel 	Mild steel 	Mild steel 
Working temperature Working pressure	-10 / +95 °C 4 bar	-10 / +95 °C 4 bar	-10 / +90 °C 6 bar	-10 / +90 °C 4 bar
Application	 Heating Cooling	 Heating Cooling	 Heating Cooling	 Heating Cooling
Energy efficiency class	B-C	B-C	C	N.A.
Installation	Indoor	Indoor	Indoor	Indoor/Outdoor
Available range	8 ÷ 100	100 ÷ 500	500 ÷ 5000	2500 ÷ 4000
Installation	wall hanging	floor standing	floor standing	floor standing (flanged connections)
Suggested Application	Domestic Heat Pumps (heating/cooling)	Heat pumps (heating/cooling)	Large chiller installations VRV / VRF	Heat pumps (heating/cooling)



VOLANO TERMICO R/C GB	VOLANO TERMICO R/C - POLYWARM WB	CHILLED WATER GALVANIZED ZB	CHILLED WATER STAINLESS STEEL 304 XB	CHILLED WATER GC 20	CHILLED WATER GALVANIZED ZC 20
Polyurethane hard foam + painted metallic lining	Polyurethane hard foam + painted metallic lining	Polyurethane hard foam + painted metallic lining	Polyurethane hard foam + painted metallic lining	Polyethylene anti-condensation	Polyethylene anti-condensation
Mild steel 	Polywarm [®] coated 	Galvanized mild steel 	Stainless steel 	Mild steel 	Galvanized mild steel 
-10 / +90 °C 6 bar	-10 / +90 °C 6 bar	-10 / +60 °C 6 bar	-30 / +60 °C 6 bar	-10 / +90 °C 6 bar	-10 / +60 °C 6 bar
 Heating  Cooling	 Heating  Cooling	 Cooling	 Cooling	 Cooling	 Cooling
B-C	C	N.A.	N.A.	N.A.	N.A.
Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor	Indoor
100 ÷ 2000	100 ÷ 1000	100 ÷ 2000	100 ÷ 1000	100 ÷ 5000	100 ÷ 5000
floor standing	floor standing	floor standing	floor standing	floor standing	floor standing
Heat pumps (heating/cooling)	Heat pumps (heating/cooling)	Chiller	- Chiller - Heat pumps (heating/cooling) - Industrial installations	Chiller installations VRV / VRF	Chiller installations VRV / VRF

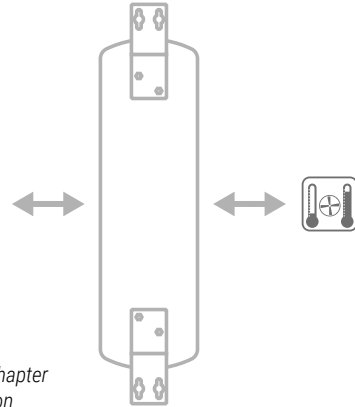
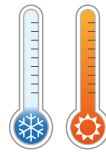
HEATING/COOLING
BUFFER TANKS

VOLANO TERMICO PDC - HANGING

HANGING BUFFER TANK FOR HEAT PUMP



PRESSURE	TEMPERATURE
Pmax 4 bar	Tmax -10 / +95 °C



See TECHNICAL SUPPORT chapter for example of installation

TECHNICAL DESCRIPTION

Buffers either for hot or cold water have two main functions: they work both as hydraulic separator and buffer tank.

The hydraulic separator makes the heat pump flow rates and terminals flow rates unconnected. The buffer function reduces the heat pump on/off switchings.

Hanging energy buffer tanks are designed for wall installation.

MATERIAL

Mild steel.

EXTERNAL LINING

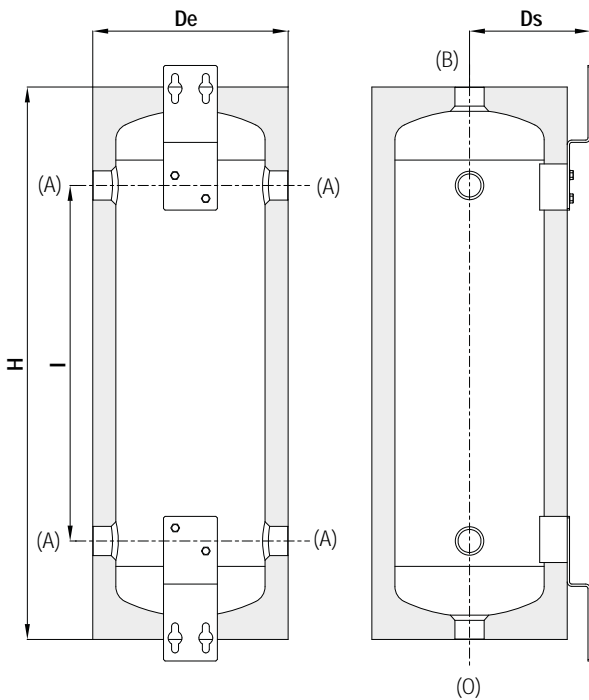
Grey PVC.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.



- A** To the System
- B** Safety Valve
- O** Drain



VOLANO TERMICO PDC (12 unit box)

Mild steel
12 unit box
Art. Nr.



8	307016092000612	B
12	307016092000412	B

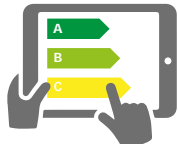
VOLANO TERMICO PDC

Mild steel
Art. Nr.



12	3070160920004	B
25	3070160920001	B
50	3070160920003	B
80	3070160920018	C
100	3070160920019	C

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NEW

VOLANO TERMICO PDC INOX

AISI 304 stainless steel
Art. Nr.



25	3001012310021	B
50	3001012310022	B

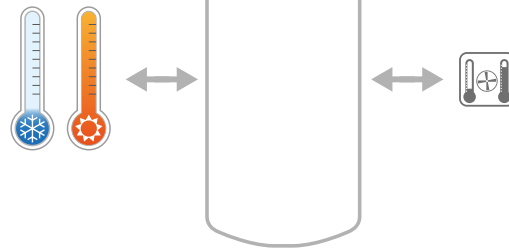
Model	Volume [lt]	Weight [Kg]	De	Ds	H	I	IF	C	B-O	A
					[mm]			Connections F		
8	8,3	6,5	260	153	382	126	368	40	1"	1"
12	12,4	7,5	254	152	526	270	512	40	1"	1"
25	25	11	290	166	790	450	776	40	1"	1 1/4"
50	51	16	343	192	1008	600	996	40	1"	1 1/4"
80	81	18	450	252	745	395	695	70	1 1/4"	1 1/4"
100	95	24	450	252	870	525	825	70	1 1/4"	1 1/4"

VOLANO TERMICO PDC

BUFFER TANK FOR HEAT PUMP



PRESSURE	TEMPERATURE
Pmax	Tmax
4 bar	-10 / +95 °C



See TECHNICAL SUPPORT chapter for example of installation

TECHNICAL DESCRIPTION

Buffer either for hot or cold water provided by heat pump, in order to limit the generator on/off switchings.

MATERIAL

Mild steel.

EXTERNAL LINING

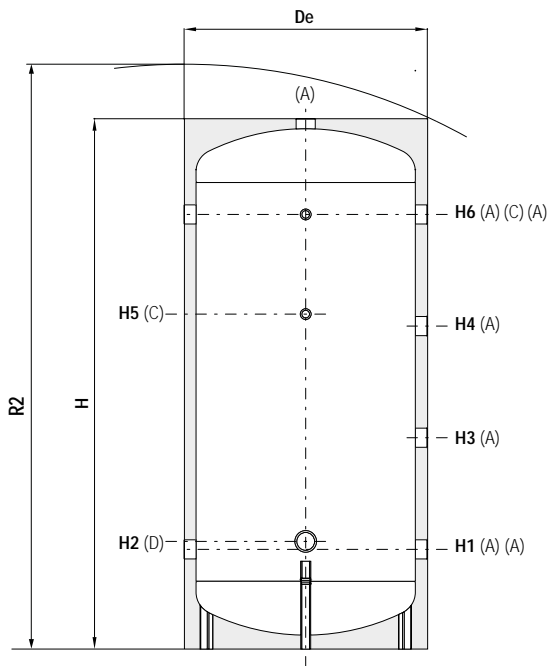
Grey PVC.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.



- A** To the System
- C** Connection for instrumentation 1/2" F
- D** Connection for electric immersion heater 1" 1/2 F

VOLANO TERMICO PDC

ENERGY EFFICIENCY CLASS

Model	MILD STEEL BUFFER TANK (suitable for heat pump)	ErP
Art. Nr.		
100	3001162311001	C
200	3001162311002	C
300	3001162311003	C
500	3001162311004	C

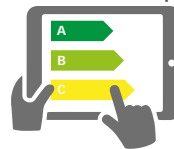
Model	12 unit box	ErP
Art. Nr.		
100	300116231100712	C

VOLANO TERMICO PDC (B class)

ENERGY EFFICIENCY CLASS

Model	MILD STEEL BUFFER TANK (suitable for heat pump)	ErP
Art. Nr.		
500	3001162311014	B

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Model	Volume [lt]	Weight [Kg]	De	H	R2	H1 [mm]	H2	H3	H4	H5	H6	A
100	95	23	461	990	1100	206	246	374	543	511	711	1"
200	180	41	517	1289	1395	206	246	489	793	836	1086	1"
300	280	51	624	1346	1490	256	276	536	816	846	1096	1"1/4
500	478	76	725	1641	1800	271	291	634	998	1091	1361	1"1/4

Model	Volume [lt]	Weight [Kg]	De	H	R2	H1 [mm]	H2	H3	H4	H5	H6	A
500 (B)	478	76	750	1641	1810	271	291	634	998	1091	1361	1"1/4

HEATING/COOLING BUFFER TANKS

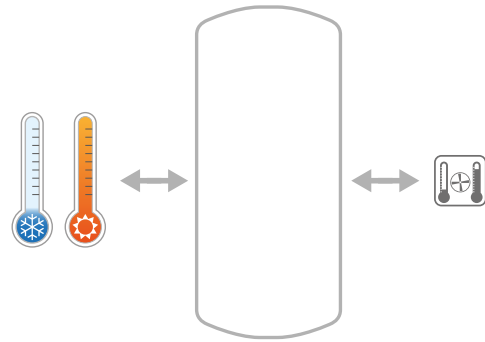
P.E.D. product designed and produced in conformity to the article 4.3 of directive 2014/68/UE - ErP Ecodesign directive 2009/125/CE

VOLANO TERMICO GREZZO GC VT

BUFFER TANK FOR HEATING AND COOLING SYSTEMS WITH INCREASED INSULATION



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C



APPLICATION AND TECHNICAL DESCRIPTION

The buffer tanks VOLANO TERMICO GREZZO GC VT with increased insulation for reversible heating/cooling systems are intended for systems that work for the whole year, in which in Summer there is the need to accumulate chilled water and in Winter hot heating water.

These accumulators improve the efficiency of the system by limiting the number of hourly ignitions of the generator (whether chiller, heat pump or conventional generator) and, increasing the thermal inertia of the circuit, allowing to obtain more stable operating temperatures.

MATERIAL

Mild steel painted on the outside.

EXTERNAL LINING

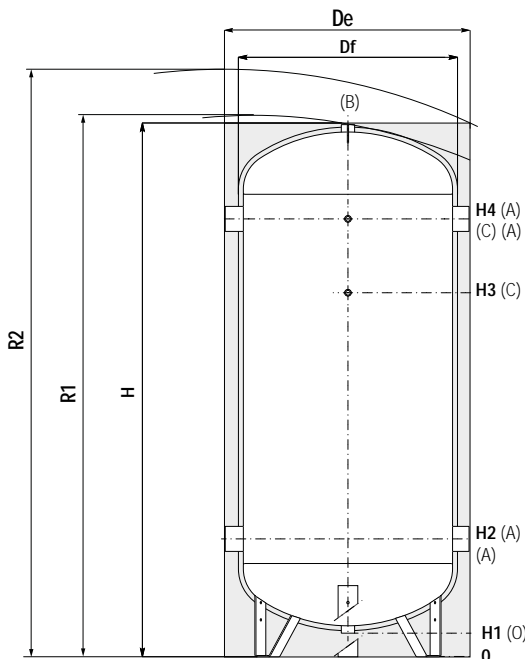
Grey PVC external lining with plastic black caps for connections.

INSULATION

Increased insulation: Internal insulation layer with closed cell polyethylene of 20 mm not self-extinguishing fixed to the tank body (not removable) coupled with an external layer of insulation of polyester fiber, thickness with high thermal insulation, material with fire resistance class B s2d0 in accordance with EN13501

WARRANTY

2 years-See general sales conditions and warranty.



VOLANO TERMICO GREZZO GC VT

ENERGY EFFICIENCY CLASS

Model	INSULATION 20 mm NOT SELF-EXTINGUISHING + Polyester fleece	Art. Nr.	ErP
500		3001162150004	C
800		3001162150005	C
1000		3001162150006	C
1500		3001162150007	C
2000		3001162150008	C
2500		3001162150009	
3000		3001162310510	
4000		3001162310511	
5000		3001162310512	

A	To the System
B	Safety Valve
C	Connection for instrumentation 1/2" F
O	Drain

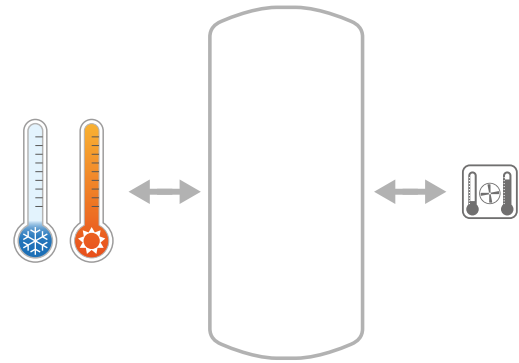
Model	Weight [Kg]	Volume [lt]	Df	De	H	R1	R2	H1	H2	H3	H4	Connections F	
												B-O	A
500	101	501	690	910	1810	1821	2030	121	441	1241	1491	1 1/4"	3"
800	147	788	790	1010	2108	2119	2340	108	458	1458	1758	1 1/4"	3"
1000	170	1034	890	1110	2162	2178	2440	96	479	1479	1779	1 1/2"	3"
1500	183	1432	990	1250	2351	2386	2670	121	490	1700	2000	2"	3"
2000	219	1970	1140	1400	2421	2437	2800	105	509	1719	2019	2"	3"
2500	274	2300	1290	1390	2289	2304	2680	149	619	1519	1819	2"	4"
3000	321	2908	1290	1390	2804	2826	3130	149	619	1919	2319	2"	4"
4000	442	3749	1440	1540	2878	2904	3270	133	648	1948	2348	2"	4"
5000	565	4964	1640	1740	2916	2948	3400	111	656	1956	2356	2"	4"

VOLANO TERMICO PDC REVERSO

BUFFER TANK FOR HEATING AND COOLING INSTALLATIONS



PRESSURE	TEMPERATURE
Pmax	Tmax
4 bar	-10 / +90 °C



TECHNICAL DESCRIPTION

VOLANO TERMICO PDC REVERSO is used in cooling systems to store cold water and also in heating systems to store hot water at high flow rate.

MATERIAL

Mild steel.

APPLICATION

Buffer either for hot or cold water.

ANTI-CORROSION TREATMENT

The anti-corrosion treatment is not necessary being installed in closed systems.

INSULATION

One layer of anti-condensation insulation plus a second layer of polyester fiber, all covered by an aluminium external cover (which can be disassembled to facilitate passage)

EXTERNAL LINING

Aluminium external cover.

CONNECTION FOR ELECTRIC IMMERSION HEATERS

1 1/2" connection for low temperature electric immersion heater (thermostat from 0 to +50 °C) - see the table below.

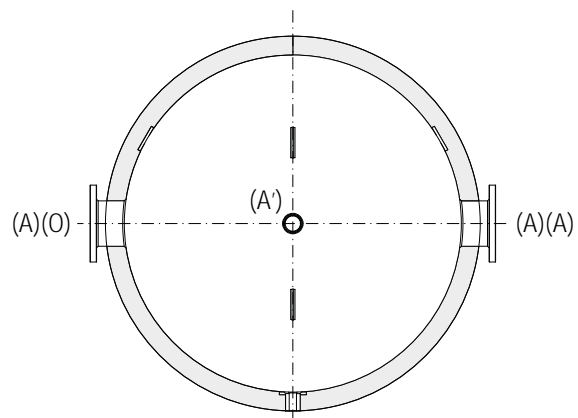
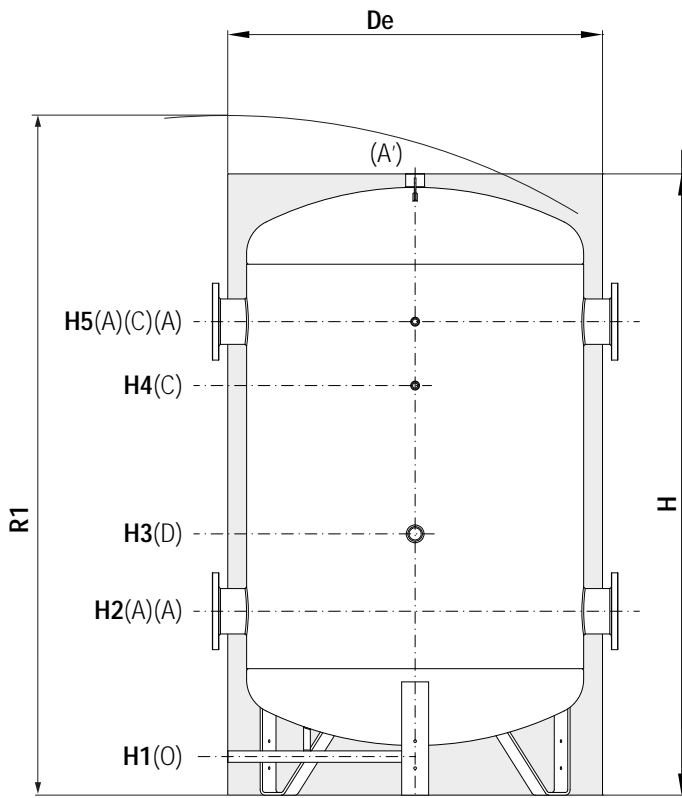
WARRANTY

2 years-See general sales conditions and warranty.

VOLANO TERMICO PDC REVERSO

Model	HARD FOAM insulation
	Art. Nr.
2500	3001162310559
3000	3001162310560
4000	3001162310561
5000	3001162310562

A	To the System
A'	To the System
C	Connection for instrumentation 1/2" F
D	Connection for electric immersion heater 1 1/2" F
O	Drain



Model	Weight	Volume	De	H	R1	H1	H2	H3	H4	H5	A'	A	D
	[Kg]	[lt]											
2500	397	2294	1390	2304	2630	143	682	969	1519	1756	1"	DN150 PN16	2"
3000	432	2988	1540	2378	2770	127	711	998	1448	1785	1"	DN150 PN16	2"
4000	494	3914	1740	2386	2880	105	719	996	1426	1763	1"	DN150 PN16	2"
5000	714	4970	1740	2950	3360	105	719	1166	1991	2293	1"	DN150 PN16	2"

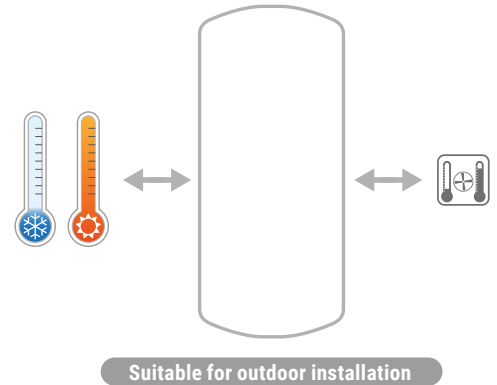
HEATING/COOLING
BUFFER TANKS

VOLANO TERMICO CALDO-FREDDO R/C GB VT

VERTICAL INERTIAL HOT/COLD WATER TANK



PRESSURE	TEMPERATURE
Pmax 6 bar	Tmax -10 / +90 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled or hot water for inverter installations. These buffers have a high thermal insulation and external lining with galvanized and painted metallic cover. The anti-corrosion treatment is not necessary being installed in closed systems. They are suited for installations that work with cold water during summer and hot water during winter. They also allow to limit the number of switch on/off of the generator (either heat pump, chilled system or standard Generator) increasing the thermic inertia of the system and to have more stable temperatures.

MATERIAL

Mild steel

EXTERNAL LINING

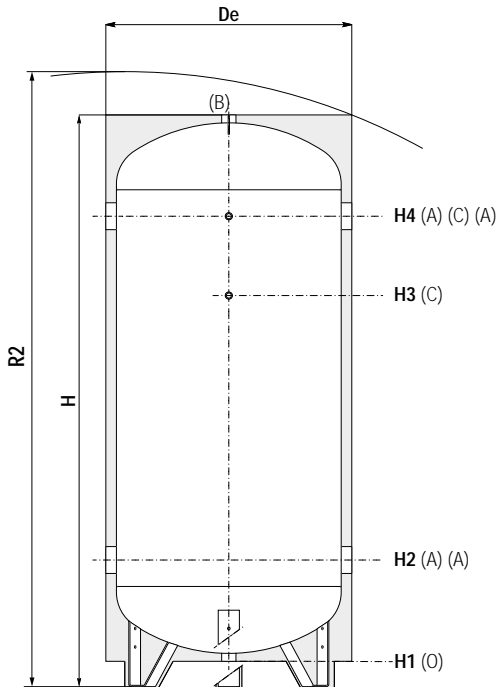
Galvanized and painted metallic cover.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.



- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain



VOLANO TERMICO CALDO-FREDDO

ENERGY EFFICIENCY CLASS

Model _____ Art. Nr. _____

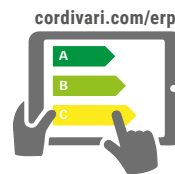
Model	Art. Nr.	ErP
100	3001162310501	C
200	3001162310502	C
300	3001162310503	C
500	3001162310524	C
800	3001162310529	C
1000	3001162310530	C
1500	3001162310527	C
2000	3001162310528	C

VOLANO TERMICO CALDO-FREDDO

ENERGY EFFICIENCY CLASS

Model _____ Art. Nr. _____

Model	Art. Nr.	ErP
800	3001162310525	B
1000	3001162310526	B



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TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



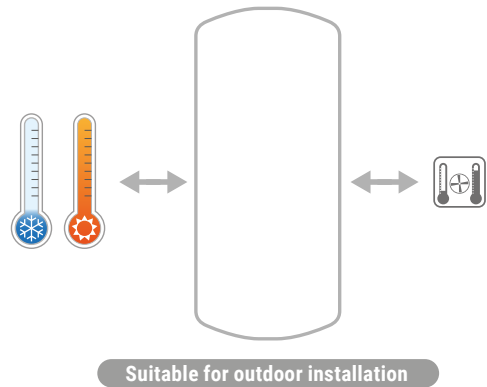
Model	Weight [Kg]	Volume [lt]	De	H	R2	H1	H2	H3	H4	B-O	Connections F	
100	32	101	460	1006	1115	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	510	1407	1505	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	610	1518	1640	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	750	1790	1945	80	400	1200	1450	1"1/4	3"	1/2"
800	147	788	850	2100	2270	80	430	1437	1730	1"1/4	3"	1/2"
1000	170	1034	950	2166	2370	80	463	1463	1763	1"1/2	3"	1/2"
1500	183	1432	1100	2366	2615	100	471	1681	1981	2"	3"	1/2"
2000	219	1970	1300	2436	2770	100	506	1716	2016	2"	3"	1/2"
800 (B)	147	788	900	2100	2290	80	430	1437	1730	1"1/4	3"	1/2"
1000 (B)	170	1034	1000	2166	2390	80	463	1463	1763	1"1/2	3"	1/2"

VOLANO TERMICO CALDO-FREDDO R/C - POLYWARM WB VT

POLYWARM® COATED VERTICAL INERTIAL HOT/COLD WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled or hot water for inverter installations. These buffers have a high thermal insulation and external lining with galvanized and painted metallic cover. Internal Polywarm® coated for clean systems installation. They are suited for installations that work with cold water during summer and hot water during winter. They also allow to limit the number of switch on/off of the generator (either heat pump, chilled system or standard Generator) increasing the thermic inertia of the system and to have more stable temperatures.

MATERIAL

Mild steel outside - Polywarm® coated inside

EXTERNAL LINING

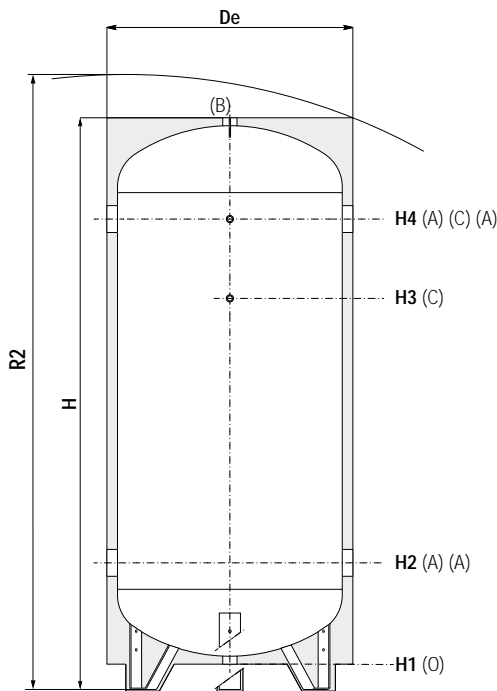
Galvanized and painted metallic cover.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.



- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain



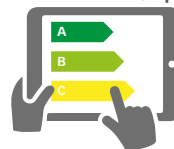
VOLANO TERMICO CALDO-FREDDO WB

ENERGY EFFICIENCY CLASS



Model	Art. Nr.	ENERGY EFFICIENCY CLASS
100	3001162330001	C
200	3001162330002	C
300	3001162330003	C
500	3001162330004	C
800	3001162330005	C
1000	3001162330006	C

cordivari.com/erp



On line ErP label tool



CORDIVARI Lab

TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



HEATING/COOLING BUFFER TANKS

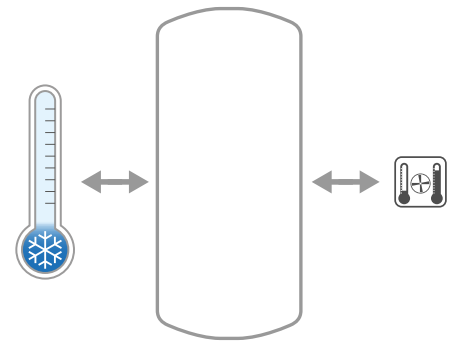
Model	Weight [Kg]	Volume [lit]	De	H	R2	H1	H2	H3	H4	B-O	Connections F	
100	32	101	460	1006	1115	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	510	1407	1505	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	610	1518	1640	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	750	1790	1945	80	400	1200	1450	1"1/4	3"	1/2"
800	147	788	900	2100	2290	80	430	1437	1730	1"1/4	3"	1/2"
1000	170	1034	1000	2166	2390	80	463	1463	1763	1"1/2	3"	1/2"

CHILLED WATER STORAGE TANK - GALVANIZED ZB

VERTICAL GALVANIZED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +60 °C



Suitable for outdoor installation

APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled water for cooling systems. These buffers have rigid insulation and external galvanized and painted metallic cover.

They are used to increase the thermal inertia and, for those installations with low water-capacity, avoiding that the chilling generator is continuously working.

EXTERNAL LINING

Galvanized and painted metallic cover.

MATERIAL

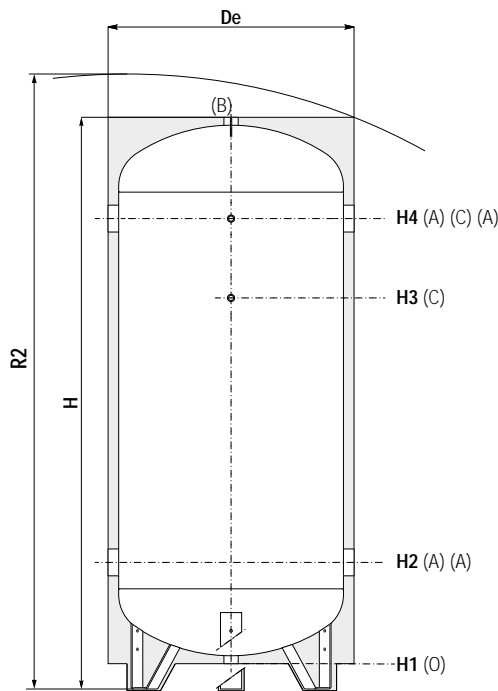
Galvanized mild steel

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.



ACQ. REF. ZB VT

Model	Art. Nr.
100	3001162310001
200	3001162310002
300	3001162310003
500	3001162310004
800	3001162310005
1000	3001162310006
1500	3001162310007
2000	3001162310008

SUITABLE FOR OUTDOOR INSTALLATION

- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain

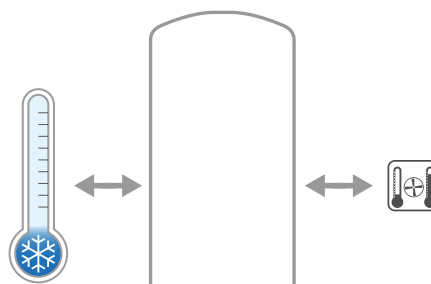
Model	Weight [Kg]	Volume [lit]	De	H	R2	H1	H2	H3	H4	B-O	A	C	
						[mm]						Connections F	
100	32	101	450	1010	1110	73	287	592	792	1"1/4	1"1/2	1/2"	
200	53	190	510	1410	1505	68	297	927	1177	1"1/4	1"1/2	1/2"	
300	67	292	620	1520	1650	129	404	994	1244	1"1/4	2"	1/2"	
500	101	501	730	1810	1960	121	441	1241	1491	1"1/4	3"	1/2"	
800	147	788	830	2105	2270	113	458	1458	1758	1"1/4	3"	1/2"	
1000	170	1034	940	2165	2365	96	479	1479	1779	1"1/2	3"	1/2"	
1500	183	1432	1130	2355	2620	102	471	1681	1981	2"	3"	1/2"	
2000	219	1970	1280	2425	2750	102	506	1716	2016	2"	3"	1/2"	

CHILLED WATER STORAGE TANK - STAINLESS STEEL 304 XB

VERTICAL STAINLESS STEEL 304 CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-30 / +60 °C



Suitable for outdoor installation

TECHNICAL DESCRIPTION

The chilled water accumulation tanks are designed to be installed in air conditioning systems to increase inertia and in those with low water content, to minimize the number of hourly starts of the refrigeration unit to save its duration

MATERIAL

Stainless steel 304

EXTERNAL LINING

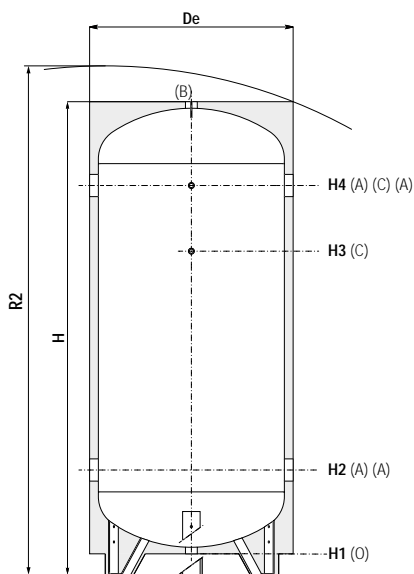
Galvanized and painted metallic cover.

INSULATION

High thermal insulation with ecological polyurethane hard foam.

WARRANTY

2 years-See general sales conditions and warranty.

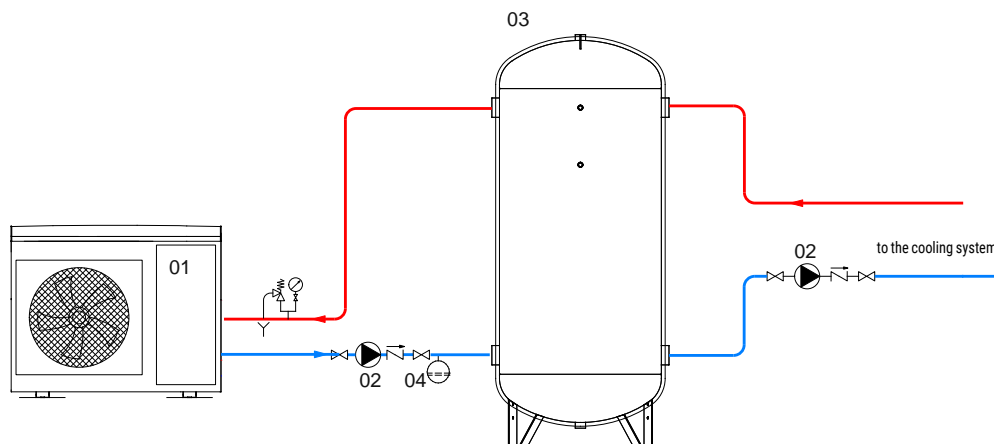


ACQ. REF. XB 20 VT

Model	Art. Nr.
100	3001012310001
200	3001012310002
300	3001012310003
500	3001012310004
800	3001012310005
1000	3001012310006

- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain

Model	Weight [Kg]	Volume [lt]	De	H	R2	H1	H2	H3	H4	B-O	A	C
												Connections F
100	27	100	450	1006	1110	85	296	601	801	1"1/4	1"1/2	1/2"
200	40	188	500	1407	1505	80	301	931	1181	1"1/4	1"1/2	1/2"
300	51	289	610	1515	1640	69	336	926	1176	1"1/4	2"	1/2"
500	87	495	730	1803	1955	58	370	1170	1420	1"1/4	3"	1/2"
800	121	788	830	2110	2275	116	458	1458	1758	1"1/4	3"	1/2"
1000	140	1036	930	2160	2360	102	480	1480	1780	1"1/2	3"	1/2"



- 01 Generator
- 02 Air conditioning system circulation group
- 03 Chilled water tank
- 04 Expansion vessel

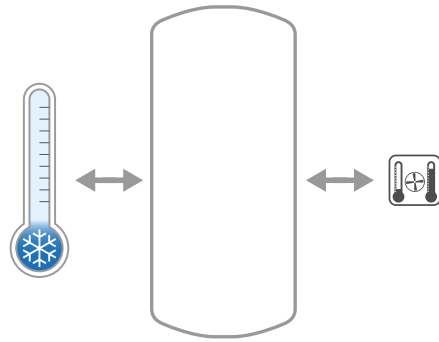
HEATING/COOLING BUFFER TANKS

CHILLED WATER STORAGE TANK GC 20 VT

VERTICAL NOT TREATED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax 6 bar	Tmax -10 / +90 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled water for cooling systems. Vertical inertial water tanks are used to increase the thermal inertia and, for those installations with a low water-capacity, to avoid that the chiller is continuously working.

MATERIAL

Mild steel outside painted

EXTERNAL LINING

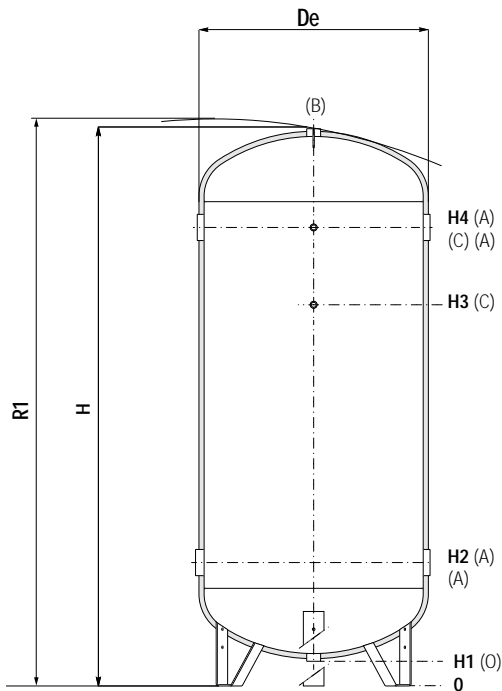
Blue PVC with plastic black caps for connections.

INSULATION

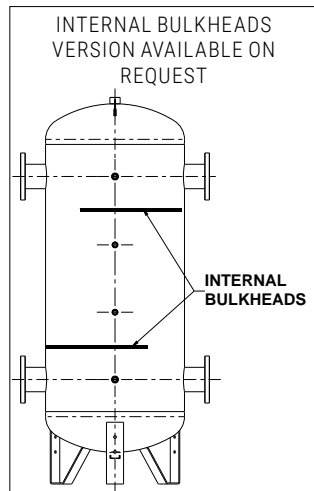
20 mm fixed polyethylene anti-condensation. Not self-extinguishing version. Not removable from the tank.

WARRANTY

2 years-See general sales conditions and warranty.



- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain



ACQ. REF. GC 20 VT

(INSULATION 20 mm
Not self-extinguishing)

Model	Art. Nr.
100	3001162131101
200	3001162131102
300	3001162131103
500	3001162131104
800	3001162131105
1000	3001162131106
1500	3001162131107
2000	3001162131108
2500	3001162131113
3000	3001162131109
4000	3001162131110
5000	3001162131112

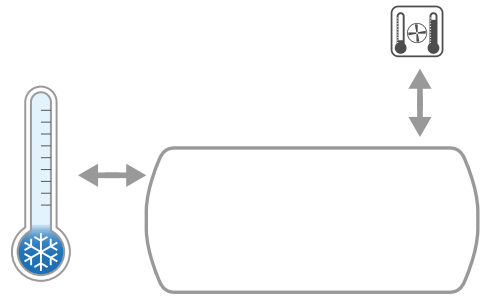
Model	Weight	Volume	DE	H	R1	H1	H2	H3	H4	B-O	Connections F	
	[Kg]	[lt]									A	C
100	32	101	440	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	490	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	590	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	690	1810	1821	121	441	1241	1491	1"1/4	3"	1/2"
800	147	788	790	2108	2119	108	458	1458	1758	1"1/4	3"	1/2"
1000	170	1034	890	2162	2178	96	479	1479	1779	1"1/2	3"	1/2"
1500	183	1432	990	2351	2386	121	490	1700	2000	2"	3"	1/2"
2000	219	1970	1140	2421	2437	105	509	1719	2019	2"	3"	1/2"
2500	274	2300	1290	2289	2304	149	619	1519	1819	2"	4"	1/2"
3000	321	2908	1290	2804	2826	149	619	1919	2319	2"	4"	1/2"
4000	442	3749	1440	2878	2904	133	648	1948	2348	2"	4"	1/2"
5000	565	4964	1640	2916	2948	111	656	1956	2356	2"	4"	1/2"

CHILLED WATER STORAGE TANK GC 20 HORIZONTAL

VERTICAL NOT TREATED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled water for cooling systems. Horizontal inertial water tanks are used to increase the thermal inertia and, for those installations with a low water-capacity, to avoid that the chiller is continuously working.

MATERIAL

Mild steel outside painted

EXTERNAL LINING

Blue PVC with plastic black caps for connections.

INSULATION

20 mm fixed polyethylene anti-condensation. Not self-extinguishing version. Not removable from the tank.

WARRANTY

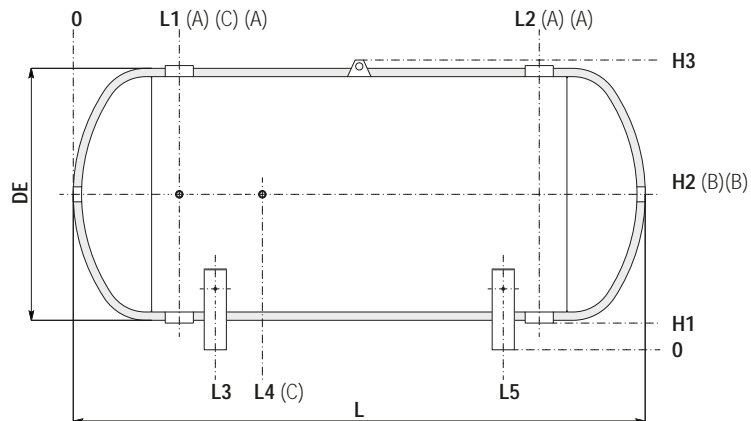
2 years-See general sales conditions and warranty.

ACQ. REF. GC 20 OR

(INSULATION 20 mm
Not self-extinguishing)

Model	Art. Nr.
100	3001161031001
200	3001161031002
300	3001161031003
500	3001161031004
800	3001161031005
1000	3001161031006
1500	3001161031007
2000	3001161031008
2500	3001161031013
3000	3001161031009
4000	3001161031010
5000	3001161031012

- A** To the System
- B** Safety Valve/Additional connection
- C** Connection for instrumentation 1/2" F



Model	Weight [Kg]	Volume [lt]	DE	L	L1	L2	[mm]			H1	H2	H3	Connections F		
							L3	L4	L5				B	A	C
100	32	99	440	934	215	720	290	415	645	63	293	523	1"1/4	1"1/2	1/2"
200	53	187	490	1339	230	1110	335	480	1005	61	316	571	1"1/4	1"1/2	1/2"
300	68	288	590	1389	275	1115	365	525	1025	115	425	760	1"1/4	2"	1/2"
500	102	496	690	1689	320	1370	415	570	1275	107	472	857	1"1/4	3"	1/2"
800	148	788	790	2000	350	1650	480	650	1520	101	516	951	1"1/4	3"	1/2"
1000	170	1034	890	2066	383	1683	513	683	1553	96	561	1046	1"1/2	3"	1/2"
1500	184	1432	990	2250	370	1880	505	670	1745	82	597	1142	2"	3"	1/2"
2000	220	1970	1140	2320	405	1915	525	705	1795	73	663	1283	2"	3"	1/2"
2500	284	2300	1290	2140	470	1670	620	770	1520	154	829	1524	2"	4"	1/2"
3000	330	2908	1290	2640	470	2170	620	870	2020	154	829	1524	2"	4"	1/2"
4000	452	3749	1440	2730	515	2215	665	915	2065	142	892	1662	2"	4"	1/2"
5000	574	4964	1640	2790	545	2245	695	945	2095	125	975	1845	2"	4"	1/2"

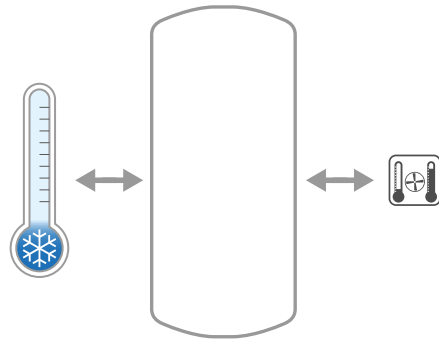
HEATING/COOLING
BUFFER TANKS

CHILLED WATER STORAGE TANK GALVANIZED ZC 20 VT

VERTICAL GALVANIZED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax 6 bar	Tmax -10 / +60 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled water for cooling systems. Vertical inertial water tanks are used to increase the thermal inertia and, for those installations with a low water-capacity, to avoid that the chiller is continuously working. These tanks are made in galvanized mild steel.

EXTERNAL LINING

Blue PVC with plastic black caps for connections.

MATERIAL

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with pureness not below 99,99% (Uni EN 1179).

INSULATION

20 mm fixed polyethylene anti-condensation. Not self-extinguishing version. Not removable from the tank.

WARRANTY

2 years-See general sales conditions and warranty.



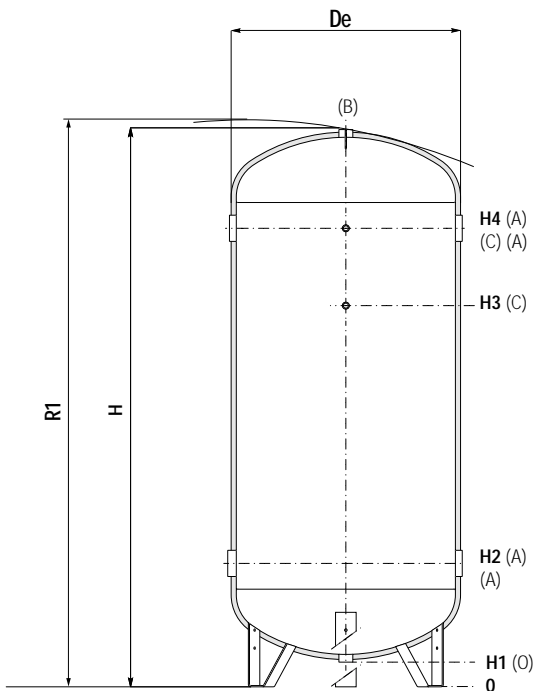
ACQ. REF. ZC 20 VT

(INSULATION 20 mm
Not self-extinguishing)

Model

Art. Nr.	
100	3001162130001
200	3001162130002
300	3001162130003
500	3001162130004
800	3001162130005
1000	3001162130006
1500	3001162130107
2000	3001162130108
2500	3001162130113
3000	3001162130109
4000	3001162130110
5000	3001162130112

- A** To the System
- B** Safety Valve
- C** Connection for instrumentation 1/2" F
- O** Drain



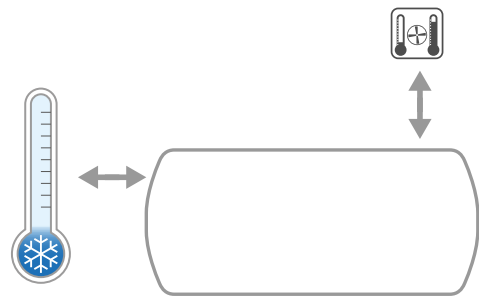
Model	Weight [Kg]	Volume [lt]	DE	H	R1	H1 [mm]	H2	H3	H4	B-O	A	C
100	32	101	440	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	490	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	590	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	690	1810	1821	121	441	1241	1491	1"1/4	3"	1/2"
800	147	788	790	2108	2119	108	458	1458	1758	1"1/4	3"	1/2"
1000	170	1034	890	2162	2178	96	479	1479	1779	1"1/2	3"	1/2"
1500	183	1432	990	2351	2386	121	490	1700	2000	2"	3"	1/2"
2000	219	1970	1140	2421	2437	105	509	1719	2019	2"	3"	1/2"
2500	274	2300	1290	2289	2304	149	619	1519	1819	2"	4"	1/2"
3000	321	2908	1290	2804	2826	149	619	1919	2319	2"	4"	1/2"
4000	442	3749	1440	2878	2904	133	648	1948	2348	2"	4"	1/2"
5000	565	4964	1640	2916	2948	111	656	1956	2356	2"	4"	1/2"

CHILLED WATER STORAGE TANK GALVANIZED ZC 20 HORIZONTAL

HORIZONTAL GALVANIZED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +60 °C



APPLICATION AND TECHNICAL DESCRIPTION

Storage of chilled water for cooling systems. Horizontal inertial water tanks are used to increase the thermal inertia and, for those installations with a low water-capacity, to avoid that the chiller is continuously working. These tanks are made in galvanized mild steel.

EXTERNAL LINING

Blue PVC with plastic black caps for connections.

MATERIAL

Galvanized mild steel

INSULATION

20 mm fixed polyethylene anti-condensation. Not self-extinguishing version. Not removable from the tank.

WARRANTY

2 years-See general sales conditions and warranty.

ACQ. REF. ZC 20 OR

(INSULATION 20 mm
Not self-extinguishing)

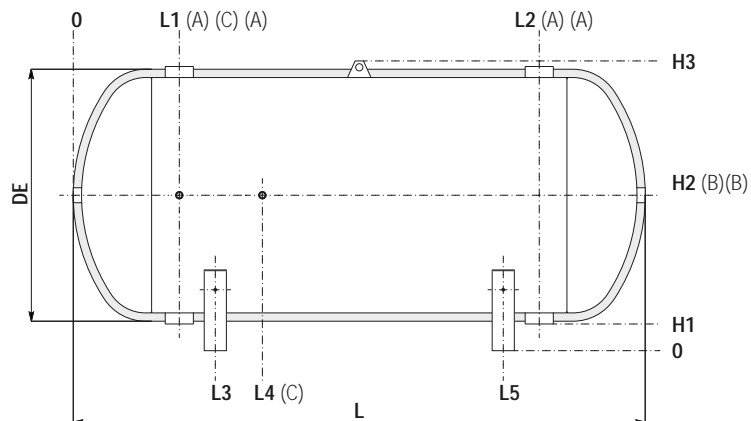
Art. Nr.

Model	Art. Nr.
100	3001161030001
200	3001161030002
300	3001161030003
500	3001161030004
800	3001161030005
1000	3001161030006
1500	3001161030107
2000	3001161030108
2500	3001161030113
3000	3001161030109
4000	3001161030110
5000	3001161030112

A To the System

B Safety Valve/Additional connection

C Connection for instrumentation 1/2" F



Model	Weight	Volume	DE	L	L1	L2	L3	L4	L5	H1	H2	H3	B	A	C
	[Kg]	[lit]													
100	32	99	440	934	215	720	290	415	645	63	293	523	1"1/4	1"1/2	1/2"
200	53	187	490	1339	230	1110	335	480	1005	61	316	571	1"1/4	1"1/2	1/2"
300	68	288	590	1389	275	1115	365	525	1025	115	425	760	1"1/4	2"	1/2"
500	102	496	690	1689	320	1370	415	570	1275	107	472	857	1"1/4	3"	1/2"
800	148	788	790	2000	350	1650	480	650	1520	101	516	951	1"1/4	3"	1/2"
1000	170	1034	890	2066	383	1683	513	683	1553	96	561	1046	1"1/2	3"	1/2"
1500	184	1432	990	2250	370	1880	505	670	1745	82	597	1142	2"	3"	1/2"
2000	220	1970	1140	2320	405	1915	525	705	1795	73	663	1283	2"	3"	1/2"
2500	284	2300	1290	2140	470	1670	620	770	1520	154	829	1524	2"	4"	1/2"
3000	330	2908	1290	2640	470	2170	620	870	2020	154	829	1524	2"	4"	1/2"
4000	452	3749	1440	2730	515	2215	665	915	2065	142	892	1662	2"	4"	1/2"
5000	574	4964	1640	2790	545	2245	695	945	2095	125	975	1845	2"	4"	1/2"

HEATING/COOLING
BUFFER TANKS



PRESSURIZED WATER



PRESSURIZED WATER
AND COMPRESSED AIR

WATER PRESSURE TANKS

TESTED PRESSURIZED TANKS P.E.D.

CE marked storage tanks for pressurized water in compliance with Directive 2014/68/UE P.E.D.

The range of tested pressurized tanks **PED** includes all the pressurized storages designed for water-lifting systems, for accumulation of compressed air or for closed expansion vessels.

Air-cushion pressure vessels and membrane expansion vessels are part of this family. These products are manufactured according the European Directive for pressurized devices (2014/68/UE Pressure Equipment Device) and are designed to contain dangerous fluids at high pressure and/or temperature.



SIMPLE PRESSURE VESSEL DIRECTIVE (SPVD)

The SPVD directive is applicable to pressurized tanks for air or nitrogen, made in steel or aluminium alloy. The working pressure range must be between 0,5 bar and 30 bar. The result of the multiplication of the maximum working pressure and the volume of the tank ($PS \times V$) must be between 50 bar*lt and 10.000 bar*lt. The working temperature range is -50°C to +300°C for steel and max 100°C for aluminium.



WATER PRESSURE TANKS

THE PRESSURE EQUIPMENT DEVICE (P.E.D.) DIRECTIVE

Any device that overcomes the maximum working pressure limit of **0,5 BAR** is subject to design and manufacture indications according to the directive 2014/68/EU.

This directive establishes an index of hazardousness of the equipment (tanks in our case), determined according to the type of fluid contained, the maximum temperature admissible, the pressure and the capacity of the tank.

Fluids are categorized in 2 groups:

- **GROUP 1**, hazardous fluids (explosive, flammable, easily flammable, highly flammable, oxidizer, toxic and highly toxic)
- **GROUP 2**, not hazardous fluids (all fluids that are not included in **GROUP 1**)

Note: all the Cordivari products involved in the application of the **PED** directive are intended to contain fluids belonging to GROUP 2 (water, steam, compressed air). The categorization of the equipment in accordance with the level of hazardousness is established in the Annex II of the directive that defines six classes:

Category	Application of the PED directive	CE Marking	Reference
PS ≤ 0,5 and specific exceptions	Not applicable	No	Art. 1.1 e 1.2
PS ≥ 0,5 in conditions of low hazard level	Applicable	No	Art. 4.3
Category I	Applicable	Yes	Table from 1 to 9 Annex II
Category II	Applicable	Yes	
Category III	Applicable	Yes	
Category IV	Applicable	Yes	

USE OF PRESSURE EQUIPMENT ACCORDING TO ITALIAN LAWS AND REGULATIONS

The use of pressure equipment is regulated in Italy by Ministerial Decree No. 329/2004.

This decree establishes requirements for the correct operation of pressure equipments both during installation and start-up and in terms of subsequent periodic checks. On this regard, following activities are defined:

- **DECLARATION OF COMMISSIONING:** Is intended the declaration to be submitted to National Labour Security Institute and to the competent for the territory Sanitary Office, containing the following annexes according to the provisions of art. 6.1 of Ministerial Decree no. 329/2004.
- **FIRST INSTALLATION COMMISSIONING:** control consisting in verifying by competent approved body (Labour or Medical Institute) that the tank has been correctly installed in compliance with user manual and maintenance issued by the manufacturer of the equipment and in compliance with the local laws in force.
- **PERIODICAL RE-QUALIFICATION:** compulsory periodic checks to be carried out by authorised bodies on pressure equipments in service under responsibility of user, in order to check the compliance for a continuous operation.
- **OPERATION CHECK:** performed to assess the compliance of the actual conditions of use of the equipment with what is reported in the declaration of commissioning and in manual. During this phase, the safety accessories are also subjected to a functional check.
- **INTEGRITY CHECK:** this is carried out through a visual examination both inside and outside the pressure equipment and through instrumental checks that determine whether the equipment is still within the limits set by the manufacturer, e.g. by checking the thickness.

DECREE 329 states exclusions cases (total or partial) from the operational checks, according to following scheme.

CAPACITY V [litri]	MAXIMUM OPERATING PRESSURE PS [bar]	PS x V [bar x litro]	POTENTIAL CORROSION INTERNAL OR EXTERNAL (*)	DECLARATION OF COMMISSIONING	COMMISSIONING CHECK	PERIODIC REQUALIFICATION
≤ 25	whatever	-	-	No	No	
25 < V ≤ 50	≤ 12	-	-	No	No	No (**)
> 50	≤ 12	≤ 8000	No	Yes	No	
	≤ 12	≤ 8000	Yes	Yes	No	Yes (***)
	≤ 12	≤ 12000	No	Yes	Yes	No (**)

(*) The absence of corrosive phenomena inside or outside the equipments can be declared by the designer in the declaration of commissioning only for fluid under Group 2, except steam.

(**) The user must always follow the instructions in the operating and maintenance manual.

(***) Always to be carried out by an approved body.

Categories I and II Functional check Four-yearly - Integrity check Ten-yearly

Categories III and IV Operation check Every four years - Integrity check: Every ten years

We recommend always to check the national laws in force at place of installation for the use of pressure equipment.

PRESSURE VESSEL GALVANIZED Z PED VT

CERTIFIED VERTICAL GALVANIZED PRESSURE VESSEL (DIRECTIVE 2014/68/UE)



PRESSURE	TEMPERATURE
Pmax	Tmax
[see table chart]	-10 / +50 °C



Model	AUTOCL. Z VT	Working Pressure [Bar]
	Art. Nr.	
100	3052171990001	8
200	3052171990022	
300	3052171990003	
500	3052171990004	
750	3052171990025	
1000	3052171990026	
1500	3051171990015	
2000	3051171990016	
2500	3051171990017	
3000	3051171990068	
4000	3051171990019	
5000 ø1450	3051171990020	
8000	3051172020021	
10000	3051172020022	

Models from 100 to 1000 are provided with safety valve and pressure gauge.

Model	AUTOCL. Z VT	Working Pressure [Bar]
	Art. Nr.	
100	3052171990015	11,76
200	3051171990074	
300	3051171990025	
500	3051171990026	
750	3051171990077	
1000	3051171990078	12
1500	3051171990029	
2000	3051171990030	
2500	3051171990031	
3000	3051171990082	
4000	3051171990033	
5000 ø1450	3051171990035	
8000	3051172020018	
10000	3051172020019	

Models from 100 and 500 are provided with safety valve and pressure gauge.

Model	AUTOCL. Z VT WITH MANHOLE	Working Pressure [Bar]
	Art. Nr.	
5000 ø1600	3051172020007	8
8000	3051172020011	
10000	3051172020012	

Model	AUTOCL. Z VT WITH MANHOLE	Working Pressure [Bar]
	Art. Nr.	
4000	3051172020008	12
5000 ø1450	3051172020004	
8000	3051172020013	
10000	3051172020014	

APPLICATION AND TECHNICAL DESCRIPTION

Air cushion pressure vessels. Suitable to supply water to the highest floors of the buildings and to compensate the water shortage of the water-works. The air cushion pressure vessels Z PED VT are made for water pumping and they work as a pressured water lung that, if correctly dimensioned, can limit the self-starting of the pump. These products are made in galvanized mild steel.

ANTI-CORROSION TREATMENT

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with purity not below than 99,99% (Uni EN 1179)

DOCUMENTS ATTACHED

- CE certification
- User Instructions

CERTIFICATIONS

The Z PED VT pressure vessels are made according to the security policy of the standard 2014/68/UE that rules the pressurized products. Under surveillance of the Notified Body, a CE mark is stuck on them as well as the following project data that characterize the product:

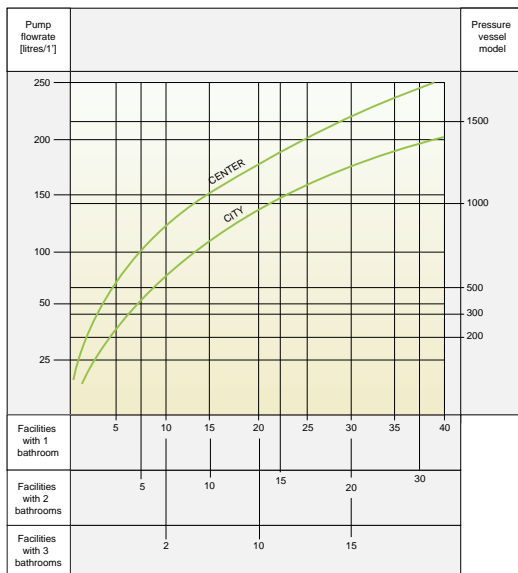
- Pressurized fluid: water + air or nitrogen
- Fluid group: 2
- Max operating pressure: see the table chart
- Temperature: -10/+50 °C

INSULATION (on request)

Closed cell anti-condensation polyethylene foam glued to the body of the tank (not removable). Non self-extinguishing version, thickness 20 mm.

WARRANTY

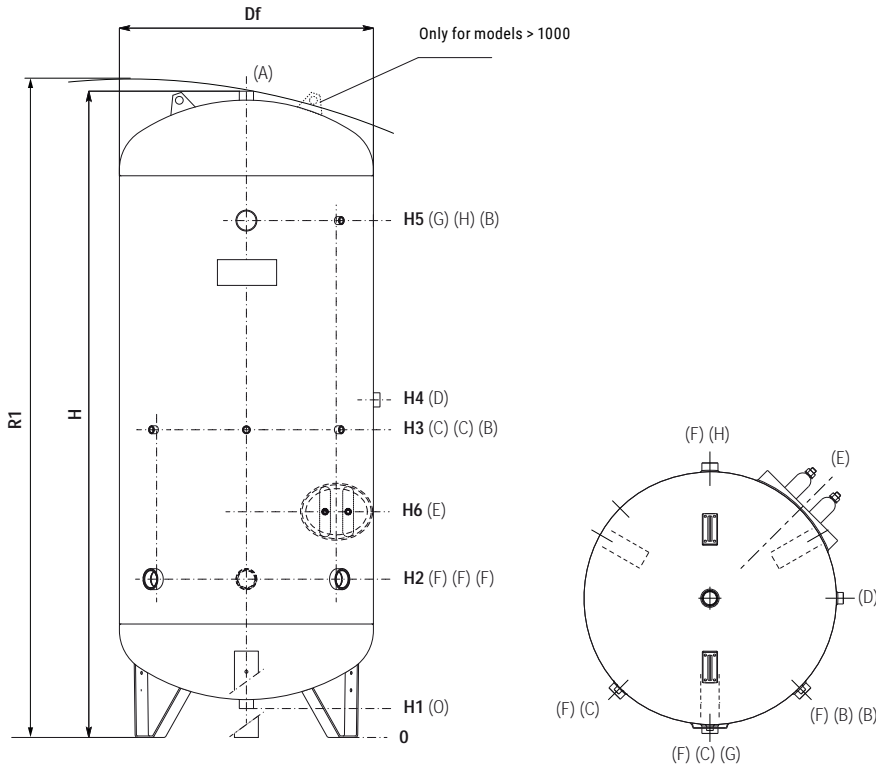
2 years-See general sales conditions and warranty.



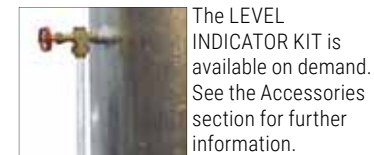
To quickly determine both the capacity of the pressure vessel and the pump according to the number of the flats, you can use the following chart (always valid for 15 self-starting per hour).

PRESSURE VESSEL GALVANIZED Z PED VT

CERTIFIED VERTICAL GALVANIZED PRESSURE VESSEL (DIRECTIVE 2014/68/UE)



- A** Safety Valve
- B** Visual level indicator
- C** Instrumentation
- D** Level switch - Pressure switch
- E** Manhole (only on models > 4000)
- F** Input - use
- G** Instrumentation 2" (only on models > 5000)
- H** Level switch - Pressure switch (only on models > 3000)
- O** Drain



Model	Df	De*	H	R1	H1	H2	H3	H4	H5	H6	O-A	F	H	B-C	D	G
	[mm]										Connections F					
WORKING PRESSURE 8 bar	100	400	440	1055	1065	90	350	500	600	800	1"1/4	1"	-	1/2"	1"1/4	-
	200	450	490	1420	1435	85	355	655	755	1155	1"1/4	1"	-	1/2"	1"1/4	-
	300	550	590	1530	1555	140	435	735	835	1235	1"1/4	1"1/4	-	1/2"	1"1/4	-
	500	650	690	1825	1840	135	455	855	955	1505	1"1/4	1"1/2	-	1/2"	1"1/4	-
	750	790	830	1865	1880	110	510	960	1060	1460	1"1/4	1"1/2	-	1/2"	1"1/4	-
	1000	790	830	2380	2395	110	510	1010	1110	1960	1"1/4	1"1/2	-	1/2"	1"1/4	-
	1500	950	990	2470	2490	110	570	1070	1170	2020	2"	2"	-	1/2"	1"1/4	-
	2000	1100	1140	2535	2560	100	595	1095	1195	2045	2"	2"	-	1/2"	1"1/4	-
	2500	1200	1240	2660	2690	140	680	1280	1380	2130	2"	3"	-	1/2"	1"1/4	-
	3000	1200	1240	3000	3075	135	700	1300	1400	2400	2"	3"	-	1/2"	2"	-
	4000	1450	1490	3000	3030	115	710	1310	1410	2410	2"	3"	2"	1/2"	2"	-
	5000	1450	1490	3500	3525	115	710	1610	1710	2910	2"	3"	2"	1/2"	2"	-
5000	1600	1640	3050	3090	100	725	1325	1425	2425	1025	2"	3"	2"	1/2"	2"	-
8000	1650	1690	4205	4270	200	905	1905	2033	3506	1155	2"	4"	2"	1/2"	2"	2"
10000	1650	1690	5205	5270	200	905	2255	2478	4506	1155	2"	4"	2"	1/2"	2"	2"

Models from 100 to 1000 are provided with security valve and pressure gauge. 5000 lt (Ø 1600) included with manhole.
(*De = diameter with insulation on request)

Model	Df	De*	H	R1	H1	H2	H3	H4	H5	H6	O-A	F	H	B-C	D	G	
	[mm]										Connections F						
WORKING PRESSURE 11,76 bar	100	400	440	1055	1065	90	350	500	600	800	1"1/4	1"	-	1/2"	1"1/4	-	
	200	450	490	1420	1435	85	355	655	755	1155	1"1/4	1"	-	1/2"	1"1/4	-	
	300	550	590	1530	1555	140	435	735	835	1235	1"1/4	1"1/4	-	1/2"	1"1/4	-	
	500	650	690	1825	1840	135	455	855	955	1505	1"1/4	1"1/2	-	1/2"	1"1/4	-	
	750	790	830	1865	1880	110	510	960	1060	1460	1"1/4	1"1/2	-	1/2"	1"1/4	-	
	1000	790	830	2380	2395	110	510	1010	1110	1960	1"1/4	1"1/2	-	1/2"	1"1/4	-	
	1500	950	990	2470	2490	110	570	1070	1170	2020	2"	2"	-	1/2"	1"1/4	-	
	2000	1100	1140	2535	2560	100	595	1095	1195	2045	2"	2"	-	1/2"	1"1/4	-	
	2500	1200	1240	2660	2690	140	680	1280	1380	2130	2"	3"	-	1/2"	1"1/4	-	
	3000	1200	1240	3000	3075	135	700	1300	1400	2400	2"	3"	-	1/2"	2"	-	
	4000	1450	1490	3000	3030	115	710	1310	1410	2410	1010	2"	3"	2"	1/2"	2"	-
	5000	1450	1490	3500	3525	115	710	1610	1710	2910	1010	2"	3"	2"	1/2"	2"	-
8000	1650	1690	4205	4270	200	905	1905	2033	3506	1155	2"	4"	2"	1/2"	2"	2"	
10000	1650	1690	5205	5270	200	905	2255	2478	4506	1155	2"	4"	2"	1/2"	2"	2"	

Models from 100 to 500 are provided with security valve and pressure gauge.
(*De = diameter with insulation on request)

PRESSURIZED WATER AND COMPRESSED AIR

PRESSURE VESSEL GALVANIZED Z PED HORIZONTAL

CERTIFIED HORIZONTAL GALVANIZED PRESSURE VESSEL (DIRECTIVE 2014/68/UE)



PRESSURE	TEMPERATURE
Pmax	Tmax
[see table chart]	-10 / +50 °C

ON REQUEST:

Closed cell anti-condensation polyethylene foam glued to the body of the tank (not removable). Thickness 20 mm, anti-condensation. Surcharge +15%

APPLICATION AND TECHNICAL DESCRIPTION

Air cushion pressure vessels. Suitable to supply water to the highest floors of the buildings and to compensate the water shortage of the water-works. The air cushion pressure vessels Z PED OR are made for water pumping and they work as a pressurized water lung that, if correctly dimensioned, can limit the self-starting of the pump. These products are made in galvanized mild steel.

ANTI-CORROSION TREATMENT

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with purity not below than 99,99% (Uni EN 1179)

DOCUMENTS ATTACHED

- CE certification
- User Instructions

Model	AUTOCL. Z OR Art. Nr.	Max Pressure [Bar]
100	3052170990001	8
200	3052170990022	
300	3052170990003	
500	3052170990004	
750	3052170990025	
1000	3052170990026	
1500	3051170990015	
2000	3051170990016	
3000	3051170990068	
4000	3051170990019	
5000	3051170990020	

Model	AUTOCL. Z OR Art. Nr.	Max Pressure [Bar]
100	3052170990015	11,76
200	3051170990072	
300	3051170990025	
500	3051170990026	
750	3051170990077	
1000	3051170990078	12
1500	3051170990040	
2000	3051170990030	
2500	3051170990041	
3000	3051170990082	
4000	3051170990042	
5000	3051170990044	

Models from 100 to 1000 are provided with safety valve and pressure gauge.

Models from 100 to 500 are provided with safety valve and pressure gauge.

CERTIFICATIONS

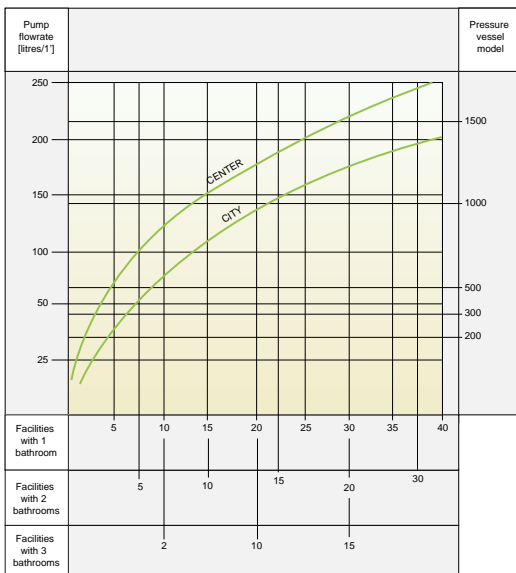
The Z PED OR pressure vessels are made according to the security policy of the standard 2014/68/UE that rules the pressurized products. Under surveillance of the Notified Body, a CE mark is stuck on them as well as the following project data that characterize the product:

- Pressurized fluid: water + air or nitrogen
- Fluid group: 2
- Max operating pressure: see the table chart
- Temperature: -10/+50 °C

WARRANTY

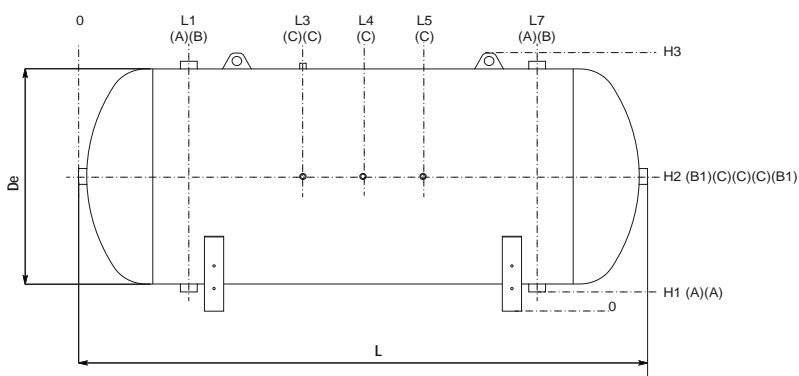
2 years-See general sales conditions and warranty.

To quickly determine both the capacity of the pressure vessel and the pump according to the number of the flats, you can use the following chart (always valid for 15 self-starting per hour).

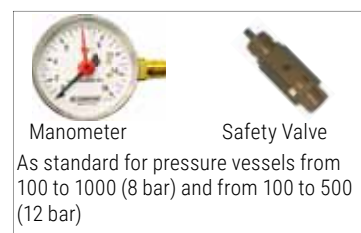


PRESSURE VESSEL GALVANIZED Z PED HORIZONTAL

CERTIFIED HORIZONTAL GALVANIZED PRESSURE VESSEL (DIRECTIVE 2014/68/UE)



- A** Input - use
- B** Safety Valve/Instrumentation
- B1** Safety Valve/Instrumentation
- C** Instrumentation



Model	De	L	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	B1	A-B	C	
																[mm]
WORKING PRESSURE 8 bar	100	400	955	230	300	338	478	618	655	725	69	294	518	Connections F		
	200	450	1350	240	340	475	675	875	1010	1110	67	317	568	1" 1/4	1"	1/2"
	300	550	1399	285	370	500	700	900	1030	1115	119	424	762	1" 1/4	1" 1/4	1/2"
	500	650	1700	325	420	650	850	1050	1280	1375	115	470	870	1" 1/4	1" 1/2	1/2"
	750	790	1750	350	520	675	875	1075	1230	1400	107	532	987	1" 1/4	1" 1/2	1/2"
	1000	790	2250	350	520	900	1150	1400	1730	2000	107	532	987	1" 1/4	1" 1/2	1/2"
	1500	950	2340	415	565	1020	1170	1420	1775	1945	143	643	1196	2"	2"	1/2"
	2000	1100	2450	470	615	975	1225	1475	1835	1980	100	683	1280	2"	2"	1/2"
	3000	1200	2770	550	685	1085	1385	1685	2085	2220	140	784	1480	3"	2"	1/2"
	4000	1450	2890	600	745	1065	1445	1825	2145	2290	122	887	1670	3"	2"	1/2"
5000	1450	3390	600	745	1315	1695	2075	2645	2790	122	887	1670	3"	2"	1/2"	

Models from 100 to 1000 are provided with security valve and pressure gauge.

Model	De	L	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	B1	A-B	C	
																[mm]
WORKING PRESSURE 11,76 bar	100	400	960	240	310	345	480	615	650	720	75	305	535	Connections F		
	200	450	1340	268	350	470	670	870	990	1072	75	330	615	1" 1/4	1"	1/2"
	300	550	1400	295	375	500	700	900	1025	1105	120	430	765	1" 1/4	1" 1/4	1/2"
	500	650	1700	320	450	650	850	1050	1250	1380	115	480	890	1" 1/4	1" 1/2	1/2"
	750	790	1750	330	550	675	875	1075	1200	1420	107	532	987	1" 1/4	1" 1/2	1/2"
	1000	790	2250	330	550	875	1125	1375	1700	1920	107	532	987	1" 1/4	1" 1/2	1/2"
	1500	950	2360	420	570	930	1180	1430	1790	1940	117	622	1196	2"	2"	1/2"
	2000	1100	2450	470	615	975	1225	1475	1835	1980	100	683	1280	2"	2"	1/2"
	2500	1200	2520	510	650	1010	1260	1510	1870	2010	140	784	1480	3"	2"	1/2"
	3000	1200	2770	550	685	1085	1385	1685	2085	2220	140	784	1480	3"	2"	1/2"
4000	1450	2890	600	745	1065	1445	1825	2145	2290	122	887	1670	3"	2"	1/2"	
5000	1450	3390	600	745	1315	1695	2075	2645	2790	122	887	1670	3"	2"	1/2"	

Models from 100 to 500 are provided with security valve and pressure gauge.

PRESSURIZED WATER AND COMPRESSED AIR

PRESSURE VESSEL STAINLESS STEEL 316L X PED VT

CERTIFIED VERTICAL STAINLESS STEEL 316L PRESSURE VESSEL (DIRECTIVE 2014/68/UE)



PRESSURE	TEMPERATURE
Pmax	Tmax
8 bar	-10 / +50 °C

ON REQUEST:
Insulation version with elastolen 20 mm – anti-condensation

AUTOCL. X PED VT

Model	Art. Nr.
	100
200	3051052010022
300	3051052010023
500	3051052010024
750	3051052010025
1000	3051052010026
1500	3051052010027
2000	3051052010028
3000	3051052010029
4000	3051052010030
5000	3051052010031

APPLICATION AND TECHNICAL DESCRIPTION

Air cushion pressure vessels.
Suitable to supply water to the highest floor of the buildings and to compensate the water shortage of the water-works.
The air cushion pressure vessels X PED VT are made for the water pumping and they work as a pressured water lung that, if correctly dimensioned, can limit the self-starting of the pump. These products are entirely made in Stainless steel 316L.

DOCUMENTS ATTACHED

- CE certification
- User Instructions

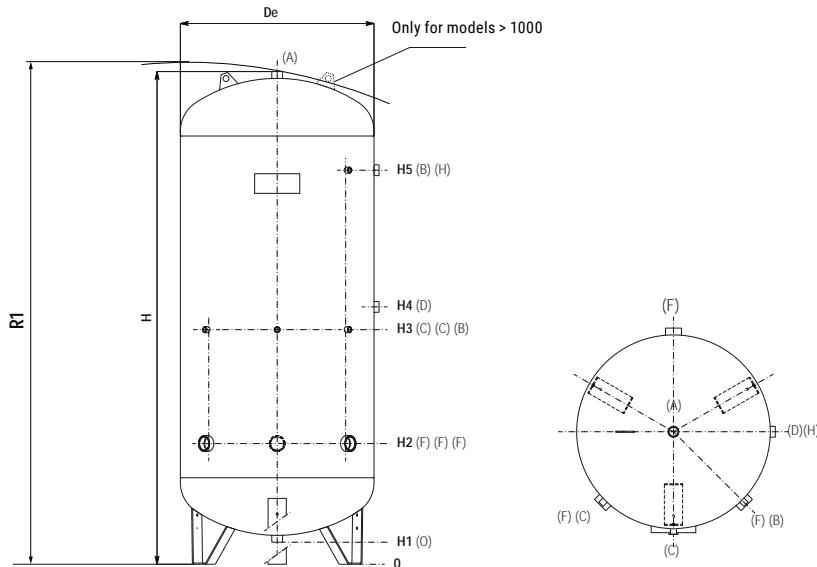
CERTIFICATIONS

The X PED VT pressure vessels are made according to the security policy of the standard 2014/68/UE that rules the pressurized products. Under surveillance of the Notified Body, a CE mark is stuck on them as well as the following project data that characterize the product:

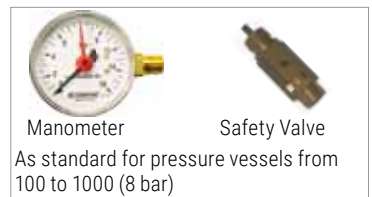
- Pressurized fluid: water + air or nitrogen
- Fluid group: 2
- Max operating pressure: see the table chart
- Temperature: -10/+50 °C

WARRANTY

2 years
See general sales conditions and warranty.



- | | |
|----------|--------------------------------|
| A | Safety Valve |
| B | Visual level indicator |
| C | Instrumentation |
| D | Level switch – Pressure switch |
| F | Input - use |
| H | Level switch – Pressure switch |
| O | Drain |



Model	De	H	R1	H1	H2	H3	H4	H5	A-D-O	Connections F		
										F	B-C	H
100	400	1050	1095	76	350	500	600	770	1"1/4	1"	1/2"	-
200	450	1450	1490	71	350	650	750	1150	1"1/4	1"	1/2"	-
300	550	1550	1585	135	440	740	840	1240	1"1/4	1"1/4	1/2"	-
500	650	1840	1880	131	460	860	960	1510	1"1/4	1"1/2	1/2"	1"
750	750	2130	2170	108	510	960	1068	1718	1"1/4	2"	1/2"	1"
1000	750	2630	2665	108	510	960	1100	1600	1"1/4	2"	1/2"	1"
1500	1000	2290	2350	100	590	1100	1200	1800	1"1/4	2"	1/2"	1"
2000	1000	2790	2840	100	590	1100	1200	2100	1"1/4	2"	1/2"	1"
3000	1200	2940	2955	115	675	1275	1380	2380	1"1/4	3"	1/2"	1"
4000	1450	2973	3070	84	679	1279	1379	2379	1"1/4	3"	1/2"	1"
5000	1450	3473	3555	84	679	1579	1679	2879	1"1/4	3"	1/2"	1"

PRESSURIZED WATER TANK GALVANIZED Z SC VT

VERTICAL GALVANIZED TANK FOR PRESSURIZED COLD WATER STORAGE



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	0 / +50 °C



SERB. Z SC VT

Model

Art. Nr.

50	3251161990001
100	3251161990002
200	3251161990003
300	3251161990004
500	3251161990005
750	3251161990006
1000	3251161990007
1500	3251161990008
2000	3251161990009

ON REQUEST:

Insulation version with elastolen 20 mm – anti-condensation

APPLICATION AND TECHNICAL DESCRIPTION

Pressurized cold water storage.

Tanks for pressurized water storage are designed for those water systems that need to store pressurized cold water. They cannot work as pressure vessels. These products are made in galvanized mild steel.

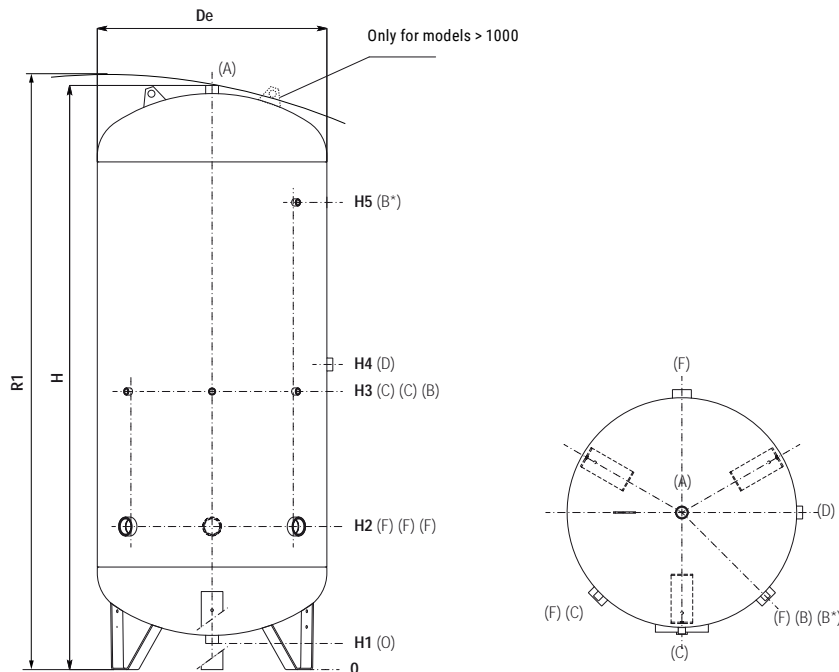
MATERIAL

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with pureness not below than 99,99% (Uni EN 1179)

WARRANTY

2 years

See general sales conditions and warranty.



A	Safety Valve
B	Visual level indicator / Instrumentation 1/2" (only for model 50)
B*	Visual level indicator (For models > 50)
C	Instrumentation 1/2"
D	Level switch – Pressure switch (For models > 50)
F	Input - use (For models > 50)
O	Drain

Model	De	H	R1	H1	H2	H3	H4	H5
				[mm]				
50	400	602	635	82	237	327	-	-
100	400	1007	1020	73	327	477	567	752
200	450	1407	1420	68	337	537	737	1137
300	550	1519	1530	129	424	724	824	1224
500	650	1811	1825	121	441	841	941	1491
750	750	2108	2125	108	508	958	1058	1708
1000	850	2162	2180	96	529	979	1079	1729
1500	950	2473	2495	113	568	1068	1168	2018
2000	1100	2544	2570	95	594	1094	1194	2044

A-O	F	B*	D
Connections F			
1"	-	-	-
1 1/4"	1"	1/2"	1 1/4"
1 1/4"	1"	1/2"	1 1/4"
1 1/4"	1 1/4"	1/2"	1 1/4"
1 1/4"	1 1/2"	1/2"	1 1/4"
1 1/4"	1 1/2"	1/2"	1 1/4"
2"	2"	1/2"	1 1/4"
2"	2"	1/2"	1 1/4"

PRESSURIZED WATER TANK GALVANIZED Z SC HORIZONTAL

HORIZONTAL GALVANIZED TANK FOR PRESSURIZED COLD WATER STORAGE



SERB. Z SC OR	
Model	Art. Nr.
100	3251160990001
200	3251160990002
300	3251160990003
500	3251160990004
750	3251160990005
1000	3251160990006
1500	3251160990007
2000	3251160990008

PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	0 / +50 °C

APPLICATION AND TECHNICAL DESCRIPTION

Pressurized cold water storage.
Tanks for pressurized water storage are designed for those water systems that need to store pressurized cold water. They cannot work as pressure vessels. These products are made in galvanized mild steel.

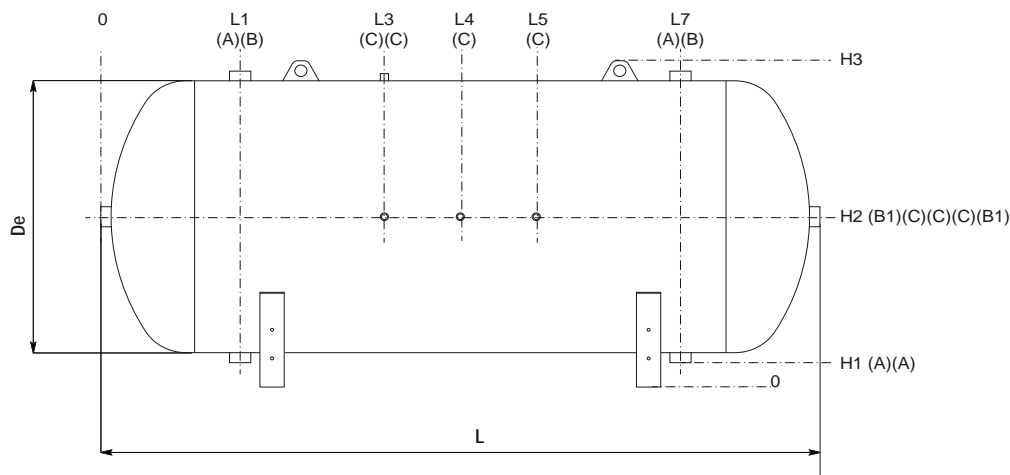
MATERIAL

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with purity not below than 99,99% (Uni EN 1179)

WARRANTY

2 years
See general sales conditions and warranty.

A	Alimentazione-utilizzo
B-B1	Safety Valve/Instrumentation
C	Instrumentation



Model	De	L	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	Connections F		
													B1	A-B	C
100	400	955	230	300	338	478	618	655	725	69	294	518	1" 1/4	1"	1/2"
200	450	1350	240	340	475	675	875	1010	1110	67	317	568	1" 1/4	1"	1/2"
300	550	1399	285	370	500	700	900	1030	1115	119	424	762	1" 1/4	1" 1/4	1/2"
500	650	1700	325	420	650	850	1050	1280	1375	115	470	870	1" 1/4	1" 1/2	1/2"
750	750	2010	355	485	805	1005	1205	1525	1655	108	513	948	1" 1/4	1" 1/2	1/2"
1000	850	2060	380	510	830	1030	1230	1550	1680	102	557	1042	1" 1/2	1" 1/2	1/2"
1500	950	2368	460	565	935	1185	1435	1805	1910	85	595	1140	2"	2"	1/2"
2000	1100	2450	500	590	975	1225	1475	1860	1950	72	657	1277	2"	2"	1/2"

PRESSURIZED WATER
AND COMPRESSED AIR

PRESSURIZED WATER TANK **STAINLESS STEEL 304 X SC VT**

VERTICAL STAINLESS STEEL 304 TANK FOR PRESSURIZED COLD WATER STORAGE



Model **SERB. X SC VT**

Model	Art. Nr.
100	3251012010001
200	3251012010002
300	3251012010003
500	3251012010004
1000	3251012010006
1500	3251012010007
2000	3251012010008
2500	3251012010009
3000	3251012010010
4000	3251012010011
5000 ø1600	3251012010013



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	0 / +50 °C

APPLICATION AND TECHNICAL DESCRIPTION

Pressurized cold water storage. Tanks for pressurized water storage are designed for those water systems that need to store pressurized cold water.

They cannot work as pressure vessels.

These products are made in Stainless steel AISI 304.

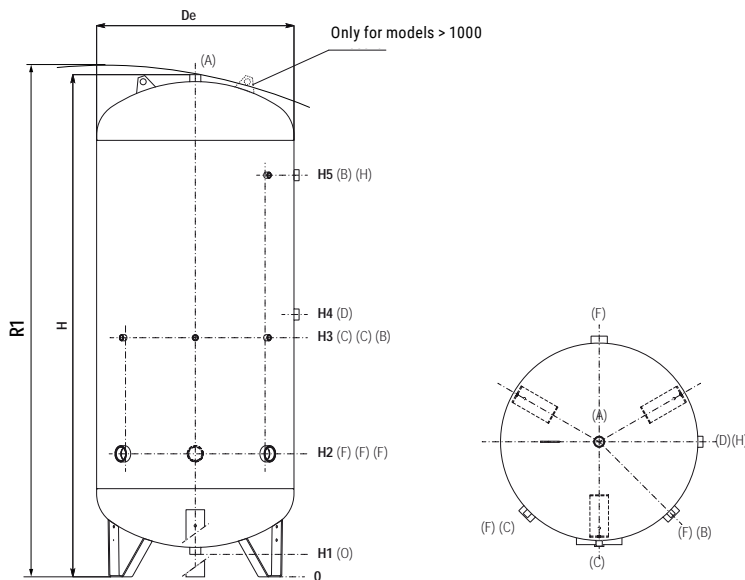
MATERIAL

Stainless steel AISI 304 suitable for D.H.W. according to D.M. n.174 dated 06.04.04.

WARRANTY

2 years

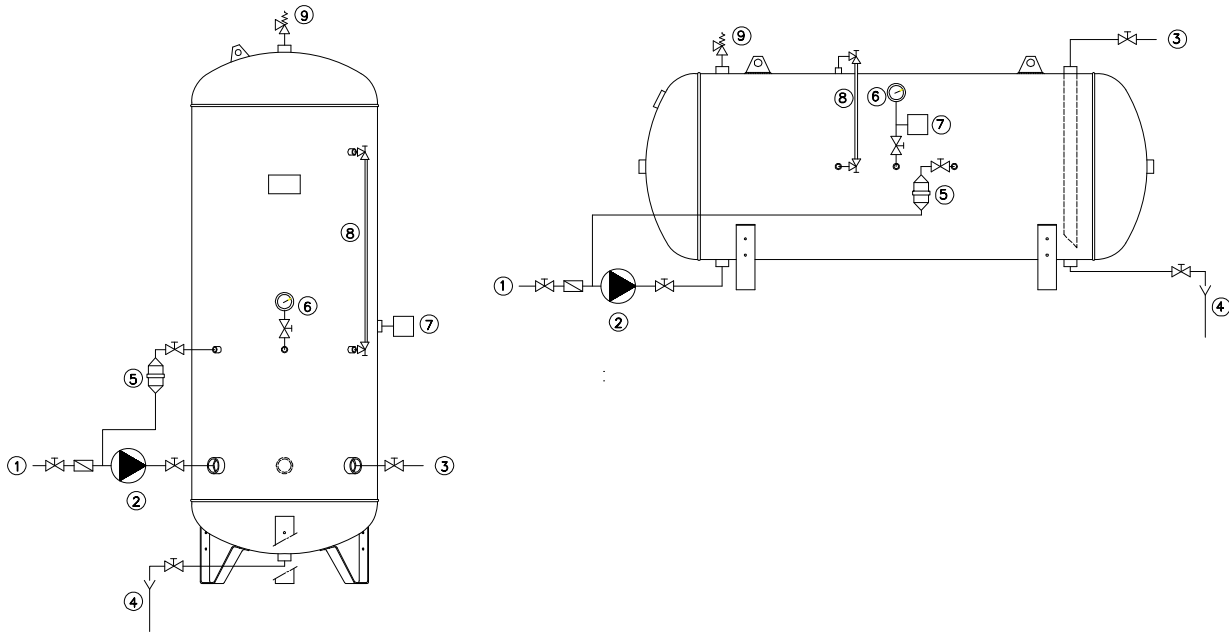
See general sales conditions and warranty.



- A** Safety Valve
- B** Visual level indicator
- C** Instrumentation
- D** Level switch - Pressure switch
- F** Input - use
- H** Level switch - Pressure switch
- O** Drain

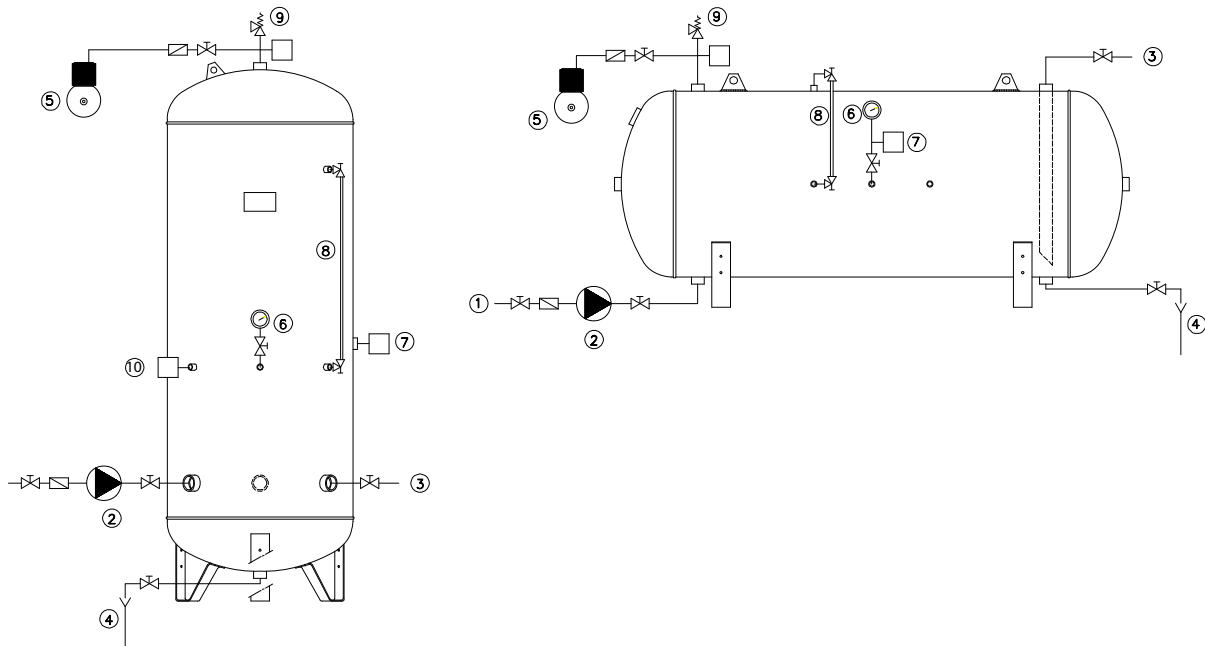
Model	De	H	R1	H1	H2	H3	H4	H5	A-D-O	Connections F			H
										F	B-C	H	
100	400	1026	1040	82	341	491	581	766	1"1/4	1"	1/2"	-	
200	450	1417	1430	77	347	547	747	1147	1"1/4	1"	1/2"	-	
300	550	1529	1545	139	434	734	834	1234	1"1/4	1"1/4"	1/2"	-	
500	650	1821	1835	131	451	851	951	1501	1"1/4	1"1/2"	1/2"	-	
1000	850	2163	2180	97	530	1030	1130	1730	1"1/4	2"	1/2"	1"	
1500	1000	2260	2285	100	580	1040	1180	1780	1"1/4	2"	1/2"	1"	
2000	1000	2760	2780	100	580	1080	1430	2280	1"1/4	2"	1/2"	1"	
2500	1200	2628	2655	118	648	1198	1373	2098	1"1/4	3"	1/2"	1"	
3000	1250	2875	2905	116	645	1295	1395	2345	1"1/4	3"	1/2"	1"	
4000	1450	2970	3005	90	710	1330	1530	2380	1"1/4	3"	1/2"	1"	
5000 ø1600	1600	3005	3045	69	717	1337	1537	2387	1"1/4	3"	1/2"	1"	

INSTALLATION WITH AIR SUPPLY FOR PRESSURE VESSEL GALVANIZED Z PED



01	Aspiration	04	Drain	07	Pressure switch
02	Pump group (s)	05	Air feeder	08	Visual level indicator
03	Delivery to utilities	06	Manometer	09	Safety Valve

INSTALLATION WITH COMPRESSOR FOR PRESSURE VESSEL GALVANIZED Z PED



01	Aspiration	04	Drain	07	Pressure switch	10	Pump level switch
02	Pump group (s)	05	Compressor	08	Visual level indicator	11	Safety level switch
03	Delivery to utilities	06	Manometer	09	Safety Valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXPANSION VESSELS-MEMBRANE PAINTED PED VT

VERTICAL PAINTED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)



VASO MEMB. V PED VT	
Model	Art. Nr.
50	3911162241007
80	3911162241008
100	3911162241003
200	3911162241004
300	3911162241011
500	3911162241012

VASO MEMB. V PED 50 LT (9 unit box)

9 unit box	
Model	Art. Nr.
50	3911162241007 09

TECHNICAL DESCRIPTION

Vertical V PED expansion vessels with membrane are used for lifted water systems and they represent a pressurised water lung that, if duly dimensioned, reduces pump cycling. The peculiarity of this product is the physic separation between water and air made by the membrane.

APPLICATION

Perfect to ensure water deliveries to the top floors of the building or to work in case of insufficient water supplied by waterworks, or to stabilize pressure in the domestic water supply by absorbing expansion when the water is heated.

MATERIAL

Painted mild steel.

MEMBRANE

Elastic EPDM membrane suitable for drinking water.

CERTIFICATIONS

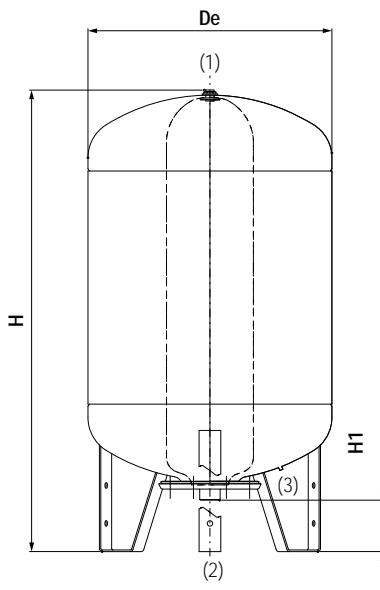
V PED VT expansion vessels with membrane are produced in accordance with safety disposal of European Directive 2014/68/UE in terms of pressurized devices.

They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

DOCUMENTS ATTACHED

- CE certification
- User Instructions



Model	De [mm]	H [mm]	H1 [mm]	1	2	3	WORKING CONDITIONS	
							min/max Temp. [°C]	max Press. [bar]
50	400	627	91	Air inlet valve	1" M	-	-10/+99	10
80	450	717	88		1" M	Water in/out	-	-10/+99
100	450	872	88	1/2"	1" M		Air inlet valve	-10/+99
200	550	1187	151	1/2" Instrumentation	1" 1/4 F	-10/+99		10

Model	De [mm]	H [mm]	H1 [mm]	1	2	3	Used as air cushion pressure vessel		Used as expansion vessel	
							min/max Temp. [°C]	max Press. [bar]	min/max Temp. [°C]	max Press. [bar]
300	650	1254	150	1/2"	1" 1/4 F	Water in/out	-10/+50	10	-10/+99	6
500	750	1511	144	Instrumentation	1" 1/4 F		Air inlet valve	-10/+50	10	-10/+99

EXPANSION VESSEL-MEMBRANE PAINTED PED 24 LT

PAINTED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)



PRESSURE	TEMPERATURE
Pmax 8 bar	Tmax -10/+99 °C

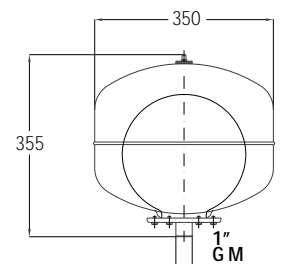


VASO MEMB. V PED 24 LT (36 unit box)

36 unit box	
Model	Art. Nr.
24	3901190610001 36

VASO MEMB. V PED 24 LT

Model	Art. Nr.
24	3901190610001



EXPANSION VESSELS-MEMBRANE PAINTED PED HORIZONTAL

HORIZONTAL PAINTED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)

VASO MEMB. V PED OR

Model	Art. Nr.
50	3911161341007
80	3911161341008
100	3911161341003
200	3911161341004
300	3911161341011
500	3911161341012



TECHNICAL DESCRIPTION

Horizontal V PED expansion vessels with membrane are used for lifted water systems and they represent a pressurised water lung that, if duly dimensioned, reduces pump cycling. The peculiarity of this product is the physic separation between water and air made by the membrane.

APPLICATION

Perfect to ensure water deliveries to the top floors of the building or to work in case of insufficient water supplied by waterworks, or to stabilize pressure in the domestic water supply by absorbing expansion when the water is heated.

MATERIAL

Painted mild steel.

MEMBRANE

Elastic EPDM membrane suitable for drinking water.

CERTIFICATIONS

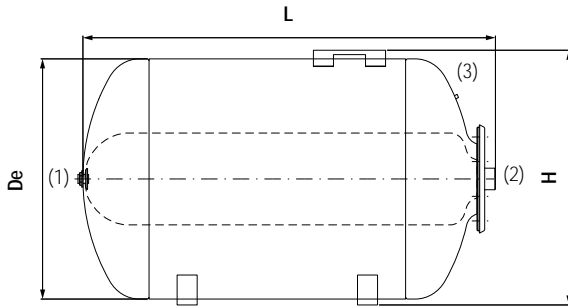
V PED OR expansion vessels with membrane are produced in accordance with safety disposal of European Directive 2014/68/UE in terms of pressurized devices.

They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

DOCUMENTS ATTACHED

- CE certification
- User Instructions

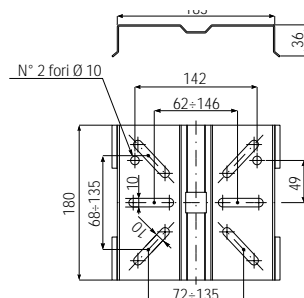


Model	De	H	H1	Connections G			WORKING CONDITIONS		
				1	2	3	min/max Temp. [°C]	max Press. [bar]	
50	400	424	583	Air inlet valve	1" M	Water in/out	-	-10/+99	10
80	450	473	598		1" M		-	-10/+99	10
100	450	473	783	1/2"	1" M	Air inlet valve	-	-10/+99	10
200	550	583	1066	1/2" Instrumentation	1" 1/4 F		-10/+99	10	

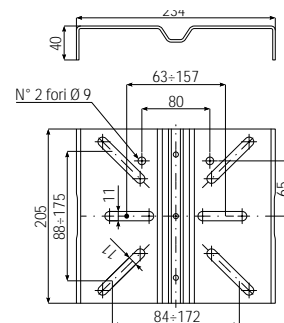
Model	De	H	H1	Connections G			Used as air cushion pressure vessel		Used as expansion vessel		
				1	2	3	min/max Temp. [°C]	max Press. [bar]	min/max Temp. [°C]	max Press. [bar]	
300	650	807	1080	1/2" Instrumentation	1" 1/4 F	Water in/out	Air inlet valve	-10/+50	10	-10/+99	6
500	750	900	1350		1" 1/4 F			-10/+50	10	-10/+99	6

MOTOR SUPPORT PLATE

MOTOR SUPPORT PLATE
50/80/100/200 liters



MOTOR SUPPORT PLATE
300/500 liters



EXPANSION VESSELS-MEMBRANE GALVANIZED PED VT

VERTICAL GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)



VASO MEMB. Z PED VT	
Model	Art. Nr.
50	3911161991007
80	3911161991008
100	3911161991003
200	3911161991004
300	3911161991011
500	3911161991012

VASO MEMB. Z PED 50 LT (9 unit box)

9 unit box	
Model	Art. Nr.
50	3911161991007 09

TECHNICAL DESCRIPTION

Vertical Z PED expansion vessels with membrane are used for lifted water systems and they represent a pressurised water lung that, if duly dimensioned, reduces pump cycling.

The peculiarity of this product is the physic separation between water and air made by the membrane.

APPLICATION

Perfect to ensure water deliveries to the top floors of the building or to work in case of insufficient water supplied by waterworks, or to stabilize pressure in the domestic water supply by absorbing expansion when the water is heated.

MATERIAL

Galvanized mild steel.

MEMBRANE

Elastic EPDM foodstuff membrane suitable for drinking water.

CERTIFICATIONS

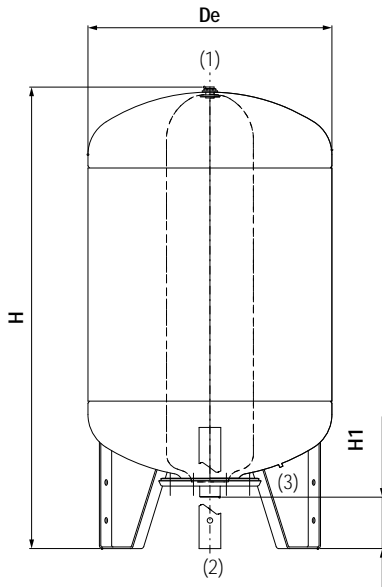
Z PED VT expansion vessels with membrane are produced in accordance with safety disposal of European Directive 2014/68/UE in terms of pressurized devices.

They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

DOCUMENTS ATTACHED

- CE certification
- User Instructions



Model	De [mm]	H [mm]	H1 [mm]	1	2	3	WORKING CONDITIONS	
							min/max Temp. [°C]	max Press. [bar]
50	400	627	91	Air inlet valve	1" M	-	-10/+99	10
80	450	717	88		1" M	Water in/out	-	-10/+99
100	450	872	88	1/2"	1" M		Air inlet valve	-10/+99
200	550	1187	151	1/2" Instrumentation	1" 1/4 F	-10/+99		10

Model	De [mm]	H [mm]	H1 [mm]	1	2	3	Used as air cushion pressure vessel		Used as expansion vessel	
							min/max Temp. [°C]	max Press. [bar]	min/max Temp. [°C]	max Press. [bar]
300	650	1254	150	1/2"	1" 1/4 F	Water in/out	-10/+50	10	-10/+99	6
500	750	1511	144	Instrumentation	1" 1/4 F		Air inlet valve	-10/+50	10	-10/+99

EXPANSION VESSEL-MEMBRANE GALVANIZED PED 24 LT

GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)

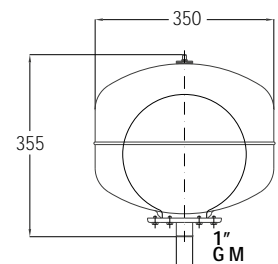


VASO MEMB. Z PED 24 LT (36 unit box)

36 unit box	
Model	Art. Nr.
24	3901190600001 36

VASO MEMB. Z PED 24 LT

Model	Art. Nr.
24	3901190600001



PRESSURE	TEMPERATURE
Pmax 8 bar	Tmax -10/+99 °C



EXPANSION VESSELS-MEMBRANE GALVANIZED PED HORIZONTAL

HORIZONTAL GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIRECTIVE 2014/68/UE)

VASO MEMB. Z PED OR

Model	Art. Nr.
50	3911160991007
80	3911160991008
100	3911160991003
200	3911160991004
300	3911160991011
500	3911160991012



TECHNICAL DESCRIPTION

Horizontal Z PED expansion vessels with membrane are used for lifted water systems and they represent a pressurised water lung that, if duly dimensioned, reduces pump cycling. The peculiarity of this product is the physic separation between water and air made by the membrane.

APPLICATION

Perfect to ensure water deliveries to the top floors of the building or to work in case of insufficient water supplied by waterworks, or to stabilize pressure in the domestic water supply by absorbing expansion when the water is heated.

MATERIAL

Galvanized mild steel.

MEMBRANE

Elastic EPDM foodstuff membrane suitable for drinking water.

CERTIFICATIONS

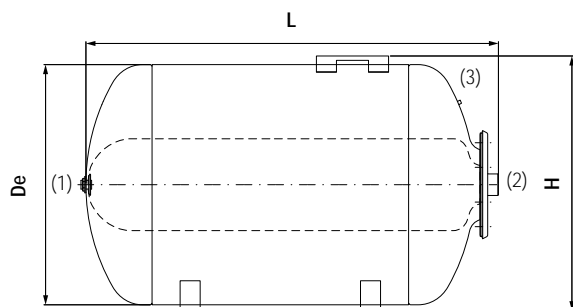
Z PED OR expansion vessels with membrane are produced in accordance with safety disposal of European Directive 2014/68/UE in terms of pressurized devices.

They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

DOCUMENTS ATTACHED

- CE certification
- User Instructions

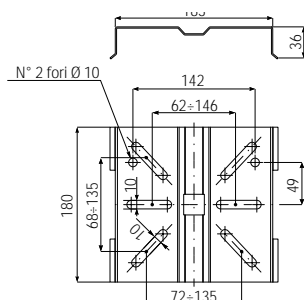


Model	De	H	H1	Connections G			WORKING CONDITIONS		
				1	2	3	min/max Temp. [°C]	max Press. [bar]	
50	400	424	583	Air inlet valve	1" M	Water in/out	-	-10/+99	10
80	450	473	598				-	-10/+99	10
100	450	473	783	1/2"	1" M	Air inlet valve	-	-10/+99	10
200	550	583	1066	1/2" Instrumentation	1" 1/4 F		-10/+99	10	

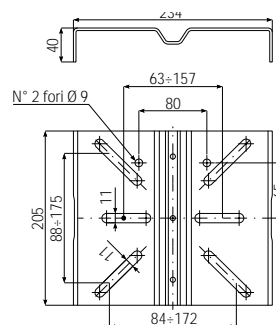
Model	De	H	H1	Connections G			Used as air cushion pressure vessel		Used as expansion vessel		
				1	2	3	min/max Temp. [°C]	max Press. [bar]	min/max Temp. [°C]	max Press. [bar]	
300	650	807	1080	1/2" Instrumentation	1" 1/4 F	Water in/out	Air inlet valve	-10/+50	10	-10/+99	6
500	750	900	1350		1" 1/4 F			-10/+50	10	-10/+99	6

MOTOR SUPPORT PLATE

MOTOR SUPPORT PLATE
50/80/100/200 liters



MOTOR SUPPORT PLATE
300/500 liters





COMPRESSED AIR



PRESSURIZED WATER
AND COMPRESSED AIR

COMPRESSED AIR RECEIVERS **P.E.D.**

TESTED PRESSURIZED TANKS FOR COMPRESSED AIR

CE marked storage tanks for pressurized air in compliance with Directive 2014/68/UE P.E.D.

The range of tested pressurized tanks PED includes all the pressurized storages designed for accumulation of compressed air.

These products are manufactured according to the European Directive for pressurized devices (2014/68/UE Pressure Equipment Device) and are designed to contain fluids at high pressure and/or temperature.



SIMPLE PRESSURE VESSEL DIRECTIVE (SPVD)

The SPVD Directive applies to pressure vessels for air or nitrogen made of steel or aluminium alloy, with a maximum working pressure higher than 0.5 bar and less than 30 bar and with the product of the maximum working pressure and the capacity of the vessel ($PS \times V$) between 50 bar*l and 10,000 bar*l and with an operating temperature between -50 °C and +300 °C for steel and max. 100 °C for aluminium.



COMPRESSED AIR RECEIVERS **P.E.D.**

THE PRESSURE EQUIPMENT DEVICE (P.E.D.) DIRECTIVE

Any device that overcomes the maximum working pressure limit of **0,5 BAR** is subject to design and manufacture indications according to the directive 2014/68/EU.

This directive establishes an index of hazardousness of the equipment (tanks in our case), determined according to the type of fluid contained, the maximum temperature admissible, the pressure and the capacity of the tank.

Fluids are categorized in 2 groups:

- **GROUP 1**, hazardous fluids (explosive, flammable, easily flammable, highly flammable, oxidizer, toxic and highly toxic)
- **GROUP 2**, not hazardous fluids (all fluids that are not included in **GROUP 1**)

Note: all the Cordivari products involved in the application of the **PED** directive are intended to contain fluids belonging to GROUP 2 (water, steam, compressed air). The categorization of the equipment in accordance with the level of hazardousness is established in the Annex II of the directive that defines six classes:

Category	Application of the PED directive	CE Marking	Reference
PS ≤ 0,5 and specific exceptions	Not applicable	No	Art. 1.1 e 1.2
PS ≥ 0,5 in conditions of low hazard level	Applicable	No	Art. 4.3
Category I	Applicable	Yes	Table from 1 to 9 Annex II
Category II	Applicable	Yes	
Category III	Applicable	Yes	
Category IV	Applicable	Yes	

USE OF PRESSURE EQUIPMENT ACCORDING TO ITALIAN LAWS AND REGULATIONS

The use of pressure equipment is regulated in Italy by Ministerial Decree No. 329/2004.

This decree establishes requirements for the correct operation of pressure equipments both during installation and start-up and in terms of subsequent periodic checks. On this regard, following activities are defined:

- **DECLARATION OF COMMISSIONING:** Is intended the declaration to be submitted to National Labour Security Institute and to the competent for the territory Sanitary Office, containing the following annexes according to the provisions of art. 6.1 of Ministerial Decree no. 329/2004.
- **FIRST INSTALLATION COMMISSIONING:** control consisting in verifying by competent approved body (Labour or Medical Institute) that the tank has been correctly installed in compliance with user manual and maintenance issued by the manufacturer of the equipment and in compliance with the local laws in force.
- **PERIODICAL RE-QUALIFICATION:** compulsory periodic checks to be carried out by authorised bodies on pressure equipments in service under responsibility of user, in order to check the compliance for a continuous operation.
- **OPERATION CHECK:** performed to assess the compliance of the actual conditions of use of the equipment with what is reported in the declaration of commissioning and in manual. During this phase, the safety accessories are also subjected to a functional check.
- **INTEGRITY CHECK:** this is carried out through a visual examination both inside and outside the pressure equipment and through instrumental checks that determine whether the equipment is still within the limits set by the manufacturer, e.g. by checking the thickness.

DECREE 329 states exclusions cases (total or partial) from the operational checks, according to following scheme.

CAPACITY V [litri]	MAXIMUM OPERATING PRESSURE PS [bar]	PS x V [bar x litro]	POTENTIAL CORROSION INTERNAL OR EXTERNAL (*)	DECLARATION OF COMMISSIONING	COMMISSIONING CHECK	PERIODIC REQUALIFICATION
≤ 25	whatever	-	-	No	No	
25 < V ≤ 50	≤ 12	-	-	No	No	No (**)
> 50	≤ 12	≤ 8000	No	Yes	No	
	≤ 12	≤ 8000	Yes	Yes	No	Yes (***)
	≤ 12	≤ 12000	No	Yes	Yes	No (**)

(*) The absence of corrosive phenomena inside or outside the equipments can be declared by the designer in the declaration of commissioning only for fluid under Group 2, except steam.

(**) The user must always follow the instructions in the operating and maintenance manual.

(***) Always to be carried out by an approved body.

Categories I and II Functional check Four-yearly - Integrity check Ten-yearly

Categories III and IV Operation check Every four years - Integrity check: Every ten years

We recommend always to check the national laws in force at place of installation for the use of pressure equipment.

COMPRESSED AIR RECEIVERS **SPVS**

COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/29/CE)

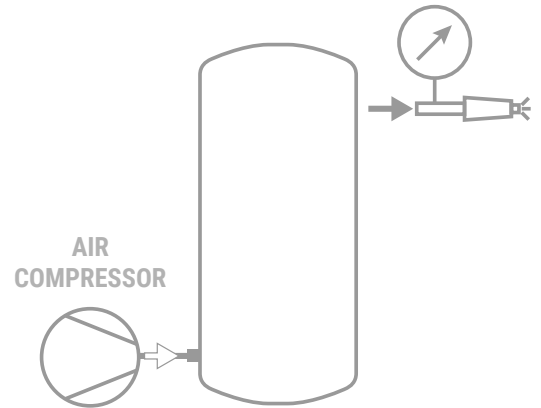


CE

WORKING TEMPERATURE

Tmax

-10/+100 °C



TECHNICAL DESCRIPTION

Compressed air receivers allows to extract more air than the quantity produced by compressor, this without causing an under-pressure in the unit.

Built in mild steel, either painted, galvanized and painted with internal Polywarm® coating according to D.M. nr. 174 dated 06/04/2004.

APPLICATION

Storage and distribution of compressed air.

MATERIAL

- Painted mild steel (standard colour RAL 5002-Blue). Other colours on demand: RAL 5015 - Light Blue / RAL 3000 - Red / RAL 1021 - Yellow
- Galvanized mild steel.
- Painted mild steel version with internal Polywarm® coating.

DOCUMENTS ATTACHED

- CE certification - User Instructions

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 2014/29/CE for items with a "volume x pressure" minor than 10.000 Bar x Liter. These tanks are marked CE under the monitoring of an external control agency.

- Liquid in pressure: air
- Liquid group: 2
- Maximum working pressure: (See tab)
- Temperature: -10/+100°C

GALVANIZED / PAINTED



(* Other colours on demand:

RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2014/29/CE

VERTICAL COMPRESSED AIR RECEIVER

Model	Pressure [Bar]	Galvanized	PAINTED - RAL 5002 BLUE (*)
		Art. Nr.	Art. Nr.
100	11	3053171990001	3053172240001
200		3053171990022	3053172240022
270		3053171990003	3053172240003
500		3053171990004	3053172240004
710		3053171990025	3053172240025
900		3053171990026	3053172240026
270	15	3053171990034	3053172240034
500		3053171990014	3053172240014

FOOD INTERNAL COATING



(* Other colours on demand:

RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

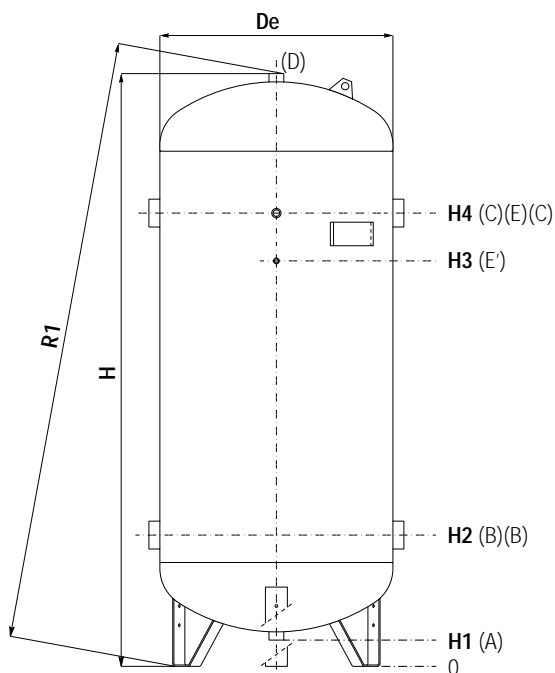
2014/29/CE

VERTICAL COMPRESSED AIR RECEIVER

Model	Pressure [Bar]	PAINTED RAL 5002 BLUE (*)	FOOD INTERNAL COATING
100	11		
200			
270			
500			on request
710			
900			
270	15		
500			on request

COMPRESSED AIR RECEIVERS SPVS

COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/29/CE)



A	Drain
B	Air inlet
C	Air outlet
D	Safety Valve
E-E'	Instrumentation

Model	Working Pressure [bar]	De	H	R1	H1	H2	H3	H4	A-D	B-C	E	E'
100	11	400	1105	1125	145	380	790	870	2"	1"	3/8"	3/8"
200		450	1470	1490	145	385	1125	1225	2"	1"	3/8"	3/8"
270		500	1760	1780	150	410	1330	1450	2"	1"	3/8"	3/8"
500		650	1850	1870	170	485	1285	1485	2"	2"	3/8"	3/4"
710		790	1900	1930	135	585	1360	1460	2"	2"	3/8"	3/4"
900	790	2130	2160	145	490	1390	1590	2"	2"	3/8"	3/4"	
270	15	500	1760	1780	150	410	1330	1450	2"	1"	3/8"	3/8"
500		650	1850	1870	170	485	1285	1485	2"	2"	3/8"	3/4"

EXAMPLE OF INSTALLATION

In compressed air production and distribution systems, tanks are used in production plants for the following functions:

- to store compressed air in order to use it when needed
- to ensure network air flow and constant pressure by limiting interventions to adjust the flow;
- to favour the separation of condensation through the release of the flow coming from the compressor in the bottom of the tank and connecting delivery in the upper.

Furthermore, the tanks are located near uses characterised by highly variable air requirements in order to limit pressure fluctuations along the distribution lines.

Optimum tank volume in a production system depends on the type of compressor, environmental conditions of operation and type of use.

In systems characterised by max operating pressure of 10 bar and flow rates from 1 to 100 Nm³/min, tank capacity is calculated, as a first approximation, with the following relationship:

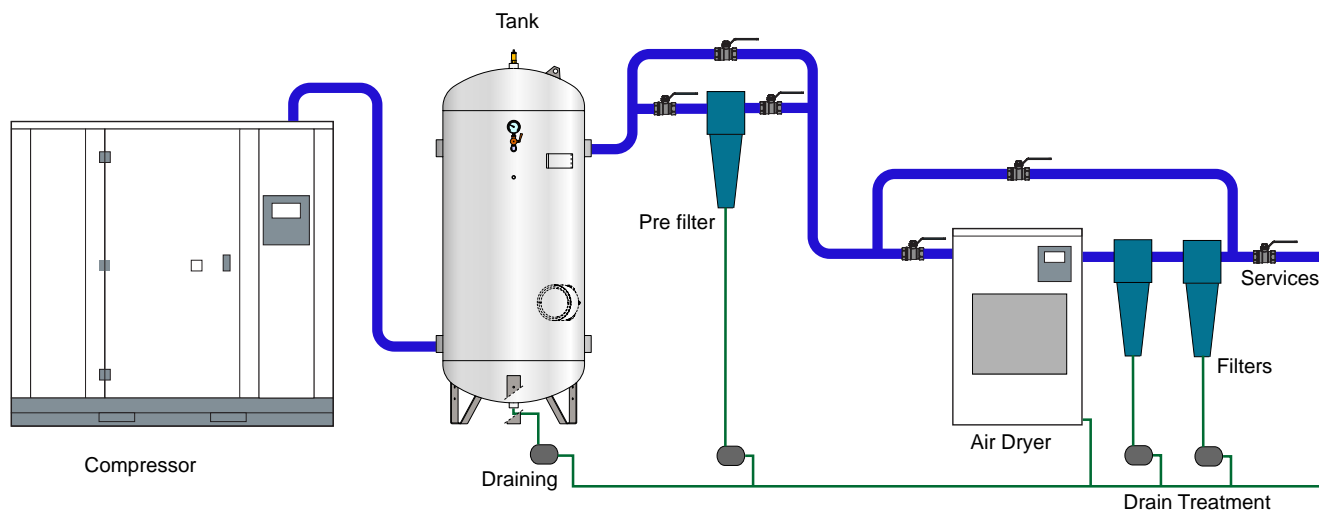
$$V = 0.2 \text{ to } 0.6 Q$$

V = theoretical volume of the tank in m³

Q = intake flow rate from the compressor in m³/min

0.2 = coefficient for large plants

0.6 = coefficient for small plants



The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

COMPRESSED AIR RECEIVERS P.E.D. VT

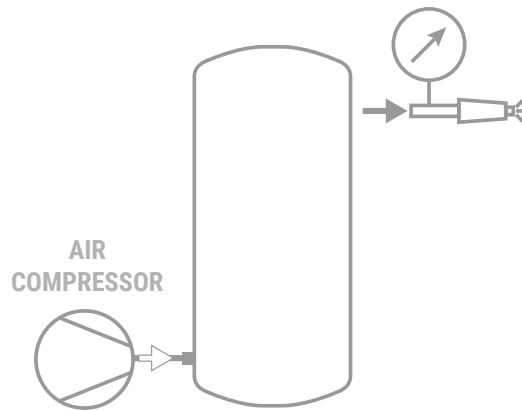
COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)



CE

WORKING TEMPERATURE

Tmax
-10/+100 °C



TECHNICAL DESCRIPTION

Compressed air receivers allows to extract more air than the quantity produced by compressor, this without causing an under-pressure in the unit.

Built in mild steel, either painted, galvanized and painted with internal Polywarm® coating according to D.M. nr. 174 dated 06/04/2004.

APPLICATION

Storage and distribution of compressed air.

MATERIAL

- Painted mild steel (standard colour RAL 5002-Blue). Other colours on demand: RAL 5015 - Light Blue / RAL 3000 - Red / RAL 1021 - Yellow
- Galvanized mild steel.
- Painted mild steel version with internal Polywarm® coating.

DOCUMENTS ATTACHED

- CE certification - User Instructions

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 2014/29/CE for items with a "volume x pressure" minor than 10.000 Bar x Liter. These tanks are marked CE under the monitoring of an external control agency.

- Liquid in pressure: air
- Liquid group: 2
- Maximum working pressure: (See tab)
- Temperature: -10/+100°C

GALVANIZED / PAINTED



(*) Other colours on demand:
RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2014/68/CE-P.E.D.

VERTICAL COMPRESSED AIR RECEIVER

Model	Pressure [Bar]	Galvanized	PAINTED - RAL 5002 BLUE (*)
		Art. Nr.	Art. Nr.
1500	8	3054171990001	3054172240001
2000		3054171990002	3054172240002
3000		3054171990005	3054172240005
4000		3054171990004	3054172240004
5000		3054171990006	3054172240006
8000		3054171990032	/
10000		3054171990033	/
1000		3054171990067	3054172240067
1500		3054171990011	3054172240011
2000		3054171990012	3054172240012
2500	12	3054171990013	3054172240013
3000		3054171990064	3054172240064
4000		3054171990015	3054172240015
5000		3054171990016	3054172240016
8000		3054171990030	/
10000		3054171990031	/
1000		3054171990167	3054172240151
1500		3054171990118	3054172240102
2000	15	3054171990168	3054172240152

2014/68/CE-P.E.D.

VERTICAL COMPRESSED AIR RECEIVER + MANHOLE

Model	Pressure [Bar]	ZINCATO
		Art. Nr.
8000	8	3054171990007
10000		3054171990008
8000	12	3054171990027
10000		3054171990028

FOOD INTERNAL COATING



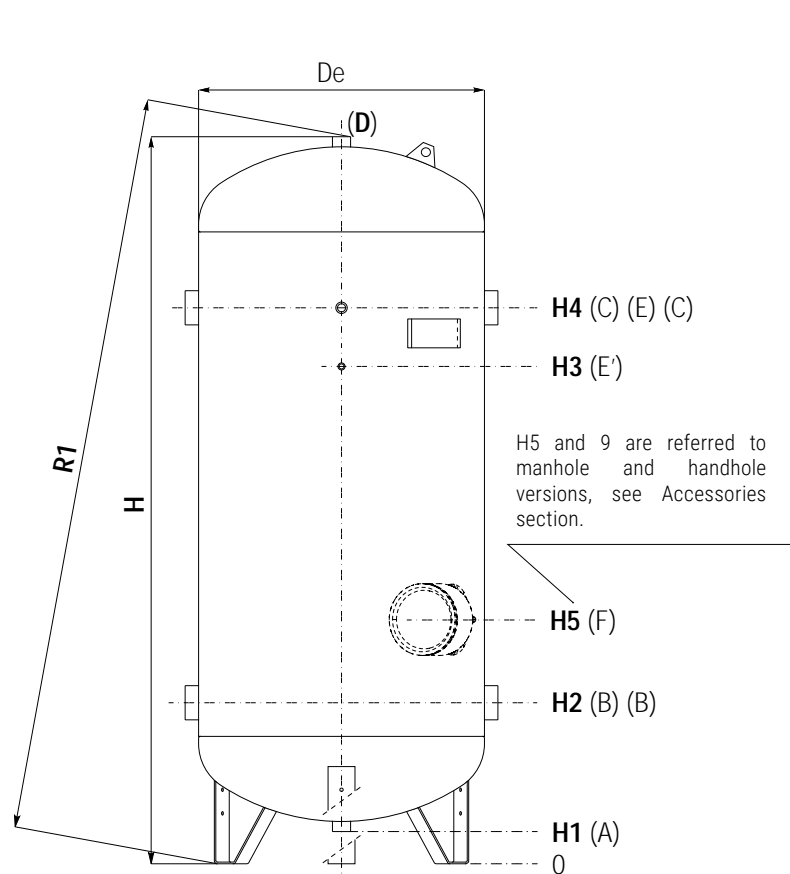
(*) Other colours on demand:
RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

VERTICAL COMPRESSED AIR RECEIVER - POLYWARM® (2014/68/CE-P.E.D.)

Pressure [Bar]	PAINTED RAL 5002 BLUE (*) - FOOD INTERNAL COATING
8	(on request) from 1500 to 5000
12	(on request) from 1000 to 5000
15	(on request) from 1000 to 2000

COMPRESSED AIR RECEIVERS **P.E.D. VT**

COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)



- A** Drain

- B** Air inlet

- C** Air outlet

- D** Safety Valve

- E-E'** Instrumentation

- F** Manhole / handhole (on request)

Model	Working Pressure	De	H	R1	H1	H2	H3	H4	H5	A-D	B-C	E	E'
	[bar]												
1500	8	950	2470	2510	115	520	1480	1680	860	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	890	2"	2"	3/8"	3/4"
3000		1200	2950	3075	140	680	1580	1780	985	2"	3"	3/8"	3/4"
4000		1450	3010	3100	115	710	1610	1810	1010	2"	3"	3/8"	3/4"
5000		1450	3510	3585	115	710	2100	2300	1010	2"	3"	3/8"	3/4"
8000		1650	4200	4280	200	905	3310	3510	1150	2"	4"	3/8"	3/4"
10000	1650	5200	5270	200	905	4310	4510	1150	2"	4"	3/8"	3/4"	
1000	12	790	2440	2470	180	575	1625	1825	870	2"	2"	3/8"	3/4"
1500		950	2470	2510	115	520	1480	1680	860	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	890	2"	2"	3/8"	3/4"
2500		1200	2660	2760	140	680	1580	1780	985	2"	3"	3/8"	3/4"
3000		1200	2950	3075	140	680	1580	1780	985	2"	3"	3/8"	3/4"
4000		1450	3010	3100	115	710	1610	1810	1010	2"	3"	3/8"	3/4"
5000	1450	3510	3585	115	710	2100	2300	1010	2"	3"	3/8"	3/4"	
8000	1650	4200	4280	200	905	3310	3510	1150	2"	4"	3/8"	3/4"	
10000	1650	5200	5270	200	905	4310	4510	1150	2"	4"	3/8"	3/4"	
1000	15	790	2440	2470	180	575	1625	1825	870	2"	2"	3/8"	3/4"
1500		950	2470	2510	115	520	1480	1680	860	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	890	2"	2"	3/8"	3/4"

PRESSURIZED WATER AND COMPRESSED AIR

COMPRESSED AIR RECEIVERS P.E.D. VT 11-15 BAR

COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)

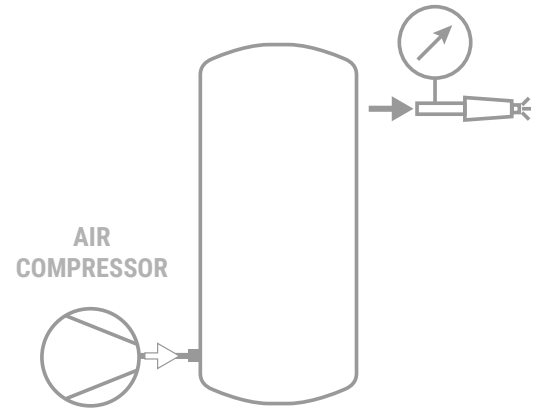


CE

WORKING TEMPERATURE

Tmax

-10/+100 °C



TECHNICAL DESCRIPTION

Compressed air receivers allow to extract more air than the quantity produced by compressor, this without causing an under-pressure in the unit.

Built in mild steel, either painted, galvanized and painted with internal Polywarm® coating according to D.M. nr. 174 dated 06/04/2004.

APPLICATION

Storage and distribution of compressed air.

MATERIAL

- Painted mild steel (standard colour RAL 5002-Blue). Other colours on demand: RAL 5015 - Light Blue / RAL 3000 - Red / RAL 1021 - Yellow
- Galvanized mild steel.
- Painted mild steel version with internal Polywarm® coating.

DOCUMENTS ATTACHED

- CE certification - User Instructions

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 2014/29/CE for items with a "volume x pressure" minor than 10.000 Bar x Liter. These tanks are marked CE under the monitoring of an external control agency.

- Liquid in pressure: air
- Liquid group: 2
- Maximum working pressure: (See tab)
- Temperature: -10/+100°C

GALVANIZED / PAINTED



(*) Other colours on demand:

RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2014/68/CE-P.E.D.

VERTICAL COMPRESSED AIR RECEIVER

Model	Pressure [Bar]	Galvanized	PAINTED - RAL 5002 BLUE (*)
		Art. Nr.	Art. Nr.
100	11	3053171990101	3053172240110
200		3053171990102	3053172240111
270		3053171990103	3053172240112
500		3053171990104	3053172240113
710		3053171990105	3053172240114
900	15	3053171990106	3053172240115
200		3053171990107	3053172240116
270		3053171990108	3053172240117
500		3053171990109	3053172240118

FOOD INTERNAL COATING



(*) Other colours on demand:

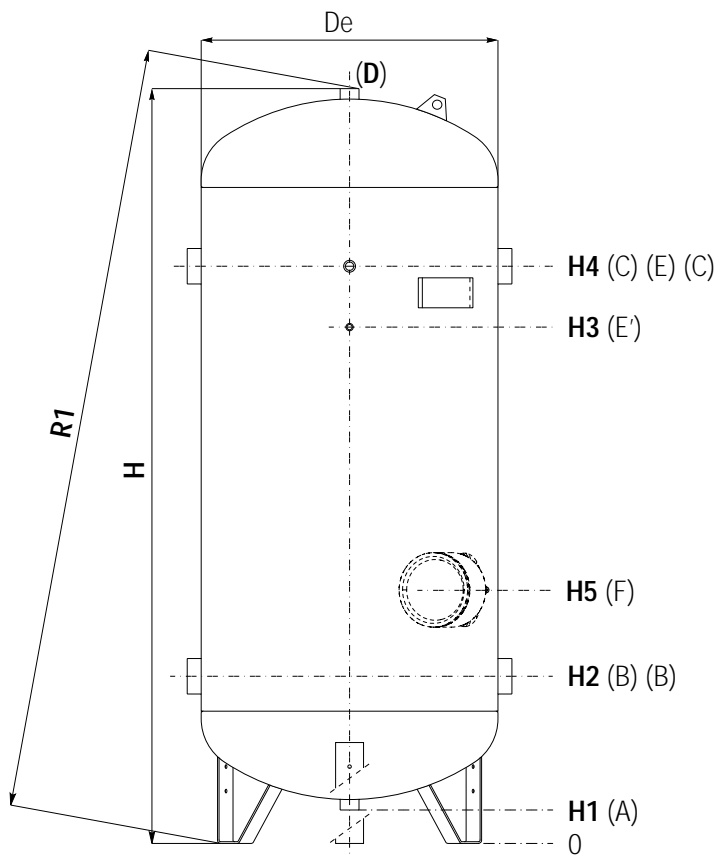
RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

VERTICAL COMPRESSED AIR RECEIVER - POLYWARM® (2014/68/CE-P.E.D.)

Model	Pressure [Bar]	PAINTED RAL 5002 BLUE (*)
		FOOD INTERNAL COATING
100	11	
200		
270		
500		on request
710		
900	15	
270		
200		on request
500		

COMPRESSED AIR RECEIVERS **P.E.D. VT 11-15 BAR**

COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)



A	Drain
B	Air inlet
C	Air outlet
D	Safety Valve
E-E'	Instrumentation
F	Manhole / handhole (on request)

Model	Working Pressure [bar]	De	H	R1	H1 [mm]	H2	H3	H4	A-D	Connections F		
										B-C	E	E'
100	11	400	1105	1125	145	380	790	870	2"	1"	3/8"	3/8"
200		450	1470	1490	145	385	1125	1225	2"	1"	3/8"	3/8"
270		500	1760	1780	150	410	1330	1450	2"	1"	3/8"	3/8"
500		650	1850	1870	170	485	1285	1485	2"	2"	3/8"	3/4"
710		790	1900	1930	135	585	1360	1460	2"	2"	3/8"	3/4"
900		790	2130	2160	145	490	1390	1590	2"	2"	3/8"	3/4"
200	15	450	1470	1490	145	385	1125	1225	2"	1"	3/8"	3/8"
270		500	1760	1780	150	410	1330	1450	2"	1"	3/8"	3/8"
500		650	1850	1870	170	485	1285	1485	2"	2"	3/8"	3/4"

PRESSURIZED WATER
AND COMPRESSED AIR

COMPRESSED AIR RECEIVERS P.E.D. HORIZONTAL

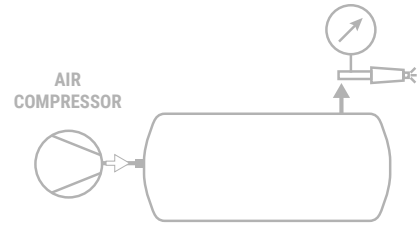
COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)



CE

WORKING TEMPERATURE

Tmax
-10/+100 °C



TECHNICAL DESCRIPTION

Compressed air receivers allows to extract more air than the quantity produced by compressor, this without causing an under-pressure in the unit. Built in mild steel, either painted, galvanized and painted with internal Polywarm® coating according to D.M. nr. 174 dated 06/04/2004.

APPLICATION

Storage and distribution of compressed air.

MATERIAL

- Painted mild steel (standard colour RAL 5002-Blue). Other colours on demand: RAL 5015 - Light Blue / RAL 3000 - Red / RAL 1021 - Yellow
- Galvanized mild steel.
- Painted mild steel version with internal Polywarm® coating.

DOCUMENTS ATTACHED

- CE certification - User Instructions

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 2014/29/CE for items with a "volume x pressure" minor than 10.000 Bar x Liter. These tanks are marked CE under the monitoring of an external control agency.

- Liquid in pressure: air
- Liquid group: 2
- Maximum working pressure: (See tab)
- Temperature: -10/+100°C

GALVANIZED / PAINTED



(* Other colours on demand:
RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

FOOD INTERNAL COATING



(* Other colours on demand:
RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2014/68/CE-P.E.D.

HORIZONTAL COMPRESSED AIR RECEIVER

Model	Pressure [Bar]	Galvanized	PAINTED - RAL 5002 BLUE (*)
		Art. Nr.	Art. Nr.
1500	8	3054170990001	3054171340001
2000		3054170990002	3054171340002
3000		3054170990004	3054171340054
4000		3054170990005	3054171340005
5000		3054170990006	3054171340006
8000		3054170990007	/
10000		3054170990008	/
100		11	3053170990101
200	3053170990102		3053171340111
270	3053170990103		3053171340112
500	3053170990104		3053171340113
710	3053170990105		3053171340114
900	3053170990106		3053171340115
1000	3054170990611		3054171340067
1500	3054170990011		3054171340011
2000	12	3054170990012	3054171340012
2500		3054170990013	3054171340013
3000		3054170990020	3054171340064
4000		3054170990015	3054171340015
5000		3054170990016	3054171340016
8000		3054170990017	/
10000		3054170990018	/
200		15	3053170990107
270	3053170990108		3053171340117
500	3053170990109		3053171340118

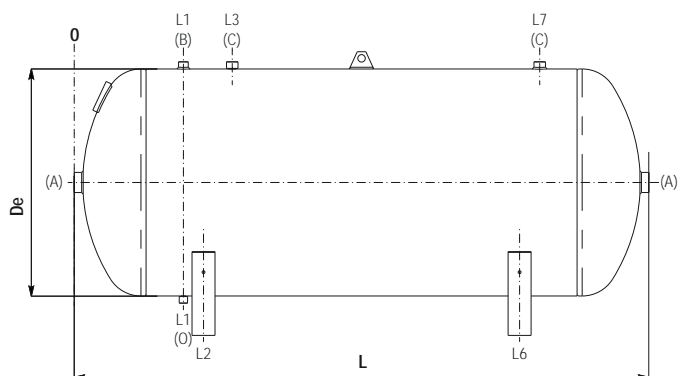
HORIZONTAL COMPRESSED AIR RECEIVER - POLYWARM® (2014/68/CE-P.E.D.)

Pressure [Bar]	PAINTED RAL 5002 BLUE (*) - FOOD INTERNAL COATING
8	(on request) from 1500 to 5000
11	(on request) from 100 to 900
12	(on request) from 1000 to 5000
15	(on request) from 200 to 500

COMPRESSED AIR RECEIVERS P.E.D. HORIZONTAL

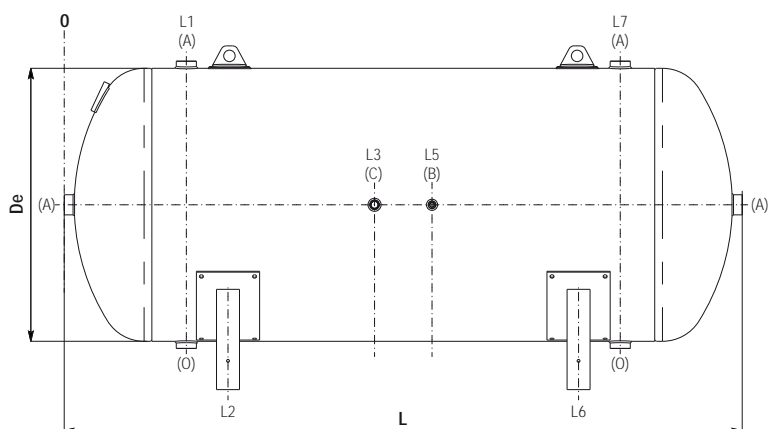
COMPRESSED AIR / NITROGEN RECEIVERS (DIRECTIVE 2014/68/UE - P.E.D.)

models from 100 to 900



- A** Input - use
- B** Safety Valve/Instrumentation
- C** Safety Valve/Instrumentation
- O** Instrumentation

models from 1000 to 5000



Model	Working Pressure [bar]	De	L	L1	L2	L3	L5	L6	L7	H1	H2	H3	Connections F			
													A	B	C	
1500	8	950	2360	420	565	1080	1280	1795	1940	117	640	1196	2"	2"	3/8" 3/4"	
2000		1100	2450	470	615	1125	1325	1835	1980	100	700	1330	2"	2"	3/8" 3/4"	
3000		1200	2770	550	700	1285	1485	2070	2220	140	784	1480	2"	3"	3/8" 3/4"	
4000		1450	2890	600	750	1345	1545	2140	2290	122	887	1670	2"	3"	3/8" 3/4"	
5000		1450	3390	600	750	1595	1795	2640	2790	122	887	1670	2"	3"	3/8" 3/4"	
8000		1650	3990	700	860	2495	2745	3130	3290	240	1100	2100	2"	4"	3/8" 3/4"	
10000		1650	4990	700	860	3150	3400	4130	4290	240	1100	2100	2"	4"	3/8" 3/4"	
100		11	400	950	225	310	340	-	640	725	80	305	566	2"	1/2"	3/8" 3/4"
200			450	1340	235	350	390	-	990	1105	80	330	615	2"	1/2"	3/8" 3/4"
270			500	1620	250	365	405	-	1255	1370	130	407	717	2"	1/2"	3/8" 3/4"
500	650		1700	295	400	440	-	1300	1405	130	480	870	2"	1/2"	3/8" 1"	
710	790		1700	380	450	500	-	1250	1320	110	532	987	2"	1"	3/8" 1/2"	
900	790		2000	380	450	550	-	1550	1620	110	532	987	2"	1"	3/8" 1/2"	
1000	790		2250	350	570	1025	1225	1680	1900	110	532	987	2"	2"	3/8" 3/4"	
1500	950		2360	420	565	2260	2460	1795	1940	117	640	1196	2"	2"	3/8" 3/4"	
2000	1100		2450	470	615	2350	2550	1835	1980	100	700	1330	2"	2"	3/8" 3/4"	
2500	1200		2520	510	655	2420	2620	1865	2010	140	800	1480	2"	3"	3/8" 3/4"	
3000	1200	2770	550	700	2670	2870	2070	2220	140	784	1480	2"	3"	3/8" 3/4"		
4000	1450	2890	600	750	2790	2990	2140	2290	122	887	1670	2"	3"	3/8" 3/4"		
5000	1450	3390	600	750	3290	3490	2640	2790	122	887	1670	2"	3"	3/8" 3/4"		
8000	1650	3990	700	860	2495	2745	3130	3290	240	1100	2100	2"	4"	3/8" 3/4"		
10000	1650	4990	700	860	3150	3400	4130	4290	240	1100	2100	2"	4"	3/8" 3/4"		
200	15	450	1340	235	350	390	-	990	1105	80	330	615	2"	1/2"	3/8" 3/4"	
270		500	1620	250	365	405	-	1255	1370	130	407	717	2"	1/2"	3/8" 3/4"	
500		650	1700	295	400	440	-	1300	1405	130	480	870	2"	1/2"	3/8" 1"	

PRESSURIZED WATER
AND COMPRESSED AIR



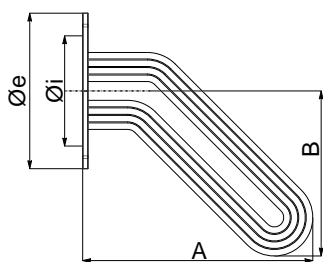
ACCESSORIES



ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

LOWER HEAT EXCHANGER FOR EXTRA 1,2 AND 3 VT CALORIFIERS



The Antilegionella® coil, which is the heat exchanger with tubes bent to the bottom is an efficient innovation installed as a standard on every Cordivari's Extra calorifiers. This reduces the diffusion of legionellosis bacterium.

Advantages:

- The Antilegionella® curved heat exchanger can heat the complete quantity of water in an homogenous way. Even in the bottom area of the boiler which is impossible with traditional heat exchanger.
- Possibility of using lower capacity boilers for the same quantity of hot water needed.

Kit including: exchanger, gaskets, bolts and insulated bushes.

MAX WORKING PRESSURE: 12 bar

MAX WORKING TEMPERATURE: 110 °C

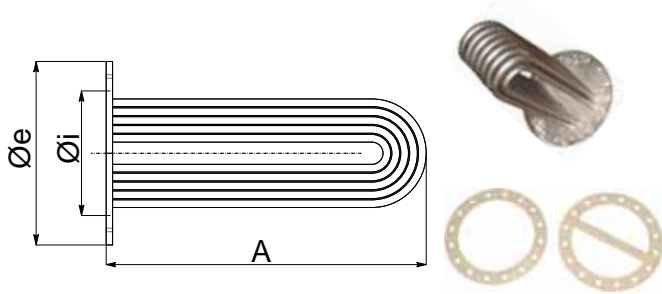
STAINLESS STEEL 316L ANTILEGIONELLA® HEAT EXCHANGER WITH SILICONE GASKET

Heat exchanger surface	Øi/Øe	A	B	Art. Nr.	AVAILABLE FOR		
[m ²]		[mm]					
0,5	Øi220/Øe300	350	240	5221000010100	• EXTRA1 WXC 200 - EXTRA1 XXC 200	• EXTRA2 WXC 200 - EXTRA2 XXC 200	
0,75	Øi220/Øe300	350	240	5221000010101	• EXTRA1 WXC 300 - EXTRA1 XXC 300	• EXTRA2 WXC 300 - EXTRA2 XXC 300	
1	Øi220/Øe300	371	261	5221000010102	• EXTRA1 WXC 500 - EXTRA1 XXC 500		
1,5	Øi220/Øe300	561	311	5221000010113	• EXTRA2 WXC 500 - EXTRA2 XXC 500		
1,5	Øi300/Øe380	496	336	5221000010103	• EXTRA1 WXC 800 - EXTRA1 XXC 800		
2	Øi300/Øe380	496	336	5221000010104	• EXTRA1 WXC 1000 - EXTRA1 XXC 1000	• EXTRA2 WXC 800 - EXTRA2 XXC 800	
3	Øi300/Øe380	607	452	5221000010105	• EXTRA1 WXC 1500 - EXTRA1 XXC 1500	• EXTRA1 WXC 1500 COMPACT	• EXTRA2 WXC 1000 - EXTRA2 WXC 1500
					• EXTRA2 XXC 1000 - EXTRA2 XXC 1500	• EXTRA3 WXC 1500	
4	Øi350/Øe430	636	457	5221000010106	• EXTRA1 WXC 2000 - EXTRA1 XXC 2000	• EXTRA1 WXC 2000 COMPACT	• EXTRA2 WXC 2000 - EXTRA2 XXC 2000
					• EXTRA3 WXC 2000		
5	Øi350/Øe430	678	498	5221000010107	• EXTRA1 WXC 2500 - EXTRA1 XXC 2500	• EXTRA1 WXC 2500 COMPACT	• EXTRA2 WXC 2500 - EXTRA2 XXC 2500
6	Øi350/Øe430	828	585	5221000010123	• EXTRA1 WXC 3000 - EXTRA1 XXC 3000	• EXTRA1 WXC 3000 COMPACT	• EXTRA2 WXC 3000 - EXTRA3 WXC 3000
					• EXTRA2 XXC 3000		
8	Øi350/Øe430	1250	598	5221000010108	• EXTRA1 WXC 4000 - EXTRA1 XXC 4000	• EXTRA1 WXC 4000 COMPACT	• EXTRA2 WXC 4000 - EXTRA2 XXC 4000
10	Øi350/Øe430	1550	538	5221000010109	• EXTRA1 WXC 5000 - EXTRA1 XXC 5000	• EXTRA2 WXC 5000 - EXTRA2 XXC 5000	• EXTRA3 WXC 5000

ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

MIDDLE AND UPPER HEAT EXCHANGERS FOR CALORIFIERS EXTRA 2 AND 3 VT AND EXTRA 1 OR



316L Stainless steel straight heat exchangers
 Kit including: exchanger, gaskets, bolts and insulated bushes.
MAX WORKING PRESSURE: 12 bar
MAX WORKING TEMPERATURE: 110 °C

STRAIGHT EXCHANGER STAINLESS STEEL 316L WITH SILICONE GASKET

Heat exchanger surface [m ²]	Øi/Øe [mm]	A [mm]	Art. Nr.	AVAILABLE FOR		
0,5	Øi220/Øe300	445	5221000010074	• EXTRA1 WXC OR 200 • EXTRA1 XXC OR 200	• EXTRA2 WXC 200 • EXTRA2 XXC 200	---
0,75	Øi220/Øe300	445	5221000010075	• EXTRA1 WXC OR 300 • EXTRA1 XXC OR 300	• EXTRA2 WXC 300 • EXTRA2 XXC 300	---
1	Øi220/Øe300	475	5221000010076	• EXTRA1 WXC OR 500 • EXTRA1 XXC OR 500	---	---
1,5	Øi220/Øe300	690	5221000010077	---	• EXTRA2 WXC 500 • EXTRA2 XXC 500	---
1,5	Øi300/Øe380	600	5221000010078	• EXTRA1 WXC OR 800 • EXTRA1 XXC OR 800	---	• EXTRA3 WXC 1500
2	Øi300/Øe380	560	5221000010079	• EXTRA1 WXC OR 1000 • EXTRA1 XXC OR 1000	• EXTRA2 WXC 800 • EXTRA2 WXC 1000 • EXTRA2 XXC 800-1000	• EXTRA3 WXC 2000
3	Øi300/Øe380	720	5221000010080	• EXTRA1 WXC OR 1500 • EXTRA1 XXC OR 1500	• EXTRA2 WXC 1500 • EXTRA2 XXC 1500 • EXTRA3 WXC 1500	• EXTRA3 WXC 3000
4	Øi350/Øe430	750	5221000010081	• EXTRA1 WXC OR 2000 • EXTRA1 XXC OR 2000	• EXTRA2 WXC 2000 • EXTRA2 XXC 2000 • EXTRA3 WXC 2000	---
5	Øi350/Øe430	780	5221000010082	• EXTRA1 WXC OR 3000 • EXTRA1 XXC OR 3000	• EXTRA2 WXC 2500 • EXTRA2 XXC 2500	• EXTRA3 WXC 5000
6	Øi350/Øe430	890	5221000010122	---	• EXTRA2 WXC 3000 • EXTRA2 XXC 3000	---
8	Øi350/Øe430	1250	5221000010083	• EXTRA1 WXC OR 4000 • EXTRA1 XXC OR 4000	• EXTRA2 WXC 4000 • EXTRA2 XXC 4000 • EXTRA3 WXC 4000	---
10	Øi350/Øe430	1510	5221000010084	• EXTRA1 WXC OR 5000 • EXTRA1 XXC OR 5000	• EXTRA2 WXC 5000 • EXTRA2 XXC 5000 • EXTRA3 WXC 5000	---

COMPATIBILITY TABLES VASO STORAGE/HEAT EXCHANGERS

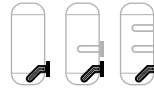
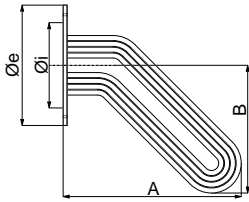
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ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

ANTILEGIONELLA® HEAT EXCHANGER KIT

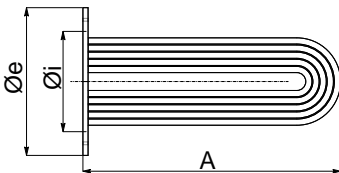


Antilegionella® heat exchanger kit + gaskets + bolts and insulated bushes.

ANTILEGIONELLA® HEAT EXCHANGER

Heat exchanger surface	Øi / Øe flange	A	B	Art. Nr.	Storage 1 - 2		Storage 1-2-3	Storage 1-2	Storage 1-2-3	Storage 1-2-3		Storage 1-2	Storage 1-2-3	Storage 1-2-3	
					Model										Storage COMPACT
[m²]	[mm]				200	300	500	800	1000	1500	2000	2500	3000	4000	5000
0,5	Ø1220/Øe300	350	240	5221000010100	✓	✓	✓								
0,75	Ø1220/Øe300	350	240	5221000010101	✓	✓	✓								
1	Ø1220/Øe300	371	261	5221000010102			✓								
1,5	Ø1220/Øe300	561	311	5221000010113			✓								
1,5	Ø1300/Øe380	496	336	5221000010103				✓	✓	✓					
2	Ø1300/Øe380	496	336	5221000010104				✓	✓	✓					
3	Ø1300/Øe380	607	452	5221000010105					✓	✓					
4	Ø1350/Øe430	636	457	5221000010106							✓	✓	✓	✓	✓
5	Ø1350/Øe430	678	498	5221000010107							✓	✓	✓	✓	✓
6	Ø1350/Øe430	828	585	5221000010123									✓	✓	✓
8	Ø1350/Øe430	1250	598	5221000010108										✓	✓
10	Ø1350/Øe430	1550	538	5221000010109											✓

STRAIGHT HEAT EXCHANGER KIT



Straight heat exchanger kit + gaskets + bolts and insulated bushes.

MIDDLE HEAT EXCHANGER

UPPER HEAT EXCHANGER

Heat exchanger surface	Øi / Øe flange	A	Art. Nr.	Storage 2-3											Storage 2-3					
				Model											Model					
[m²]		[mm]		200	300	500	800	1000	1500	2000	2500	3000	4000	5000	500	1000	1500	2000	3000	5000
0,5	Ø1220/Øe300	445	5221000010074	✓	✓	✓									✓					
0,75	Ø1220/Øe300	445	5221000010075	✓	✓	✓									✓					
1	Ø1220/Øe300	475	5221000010076	✓	✓	✓									✓					
1,5	Ø1220/Øe300	690	5221000010077			✓									✓					
1,5	Ø1300/Øe380	600	5221000010078				✓	✓	✓							✓	✓	✓	✓	
2	Ø1300/Øe380	560	5221000010079				✓	✓	✓							✓	✓	✓	✓	
3	Ø1300/Øe380	720	5221000010080				✓	✓	✓							✓	✓	✓	✓	
4	Ø1350/Øe430	750	5221000010081							✓	✓	✓	✓	✓						✓
5	Ø1350/Øe430	780	5221000010082							✓	✓	✓	✓	✓						✓
6	Ø1350/Øe430	890	5221000010122							✓	✓	✓	✓	✓						✓
8	Ø1350/Øe430	1250	5221000010083								✓	✓	✓	✓						✓
10	Ø1350/Øe430	1510	5221000010084										✓							✓

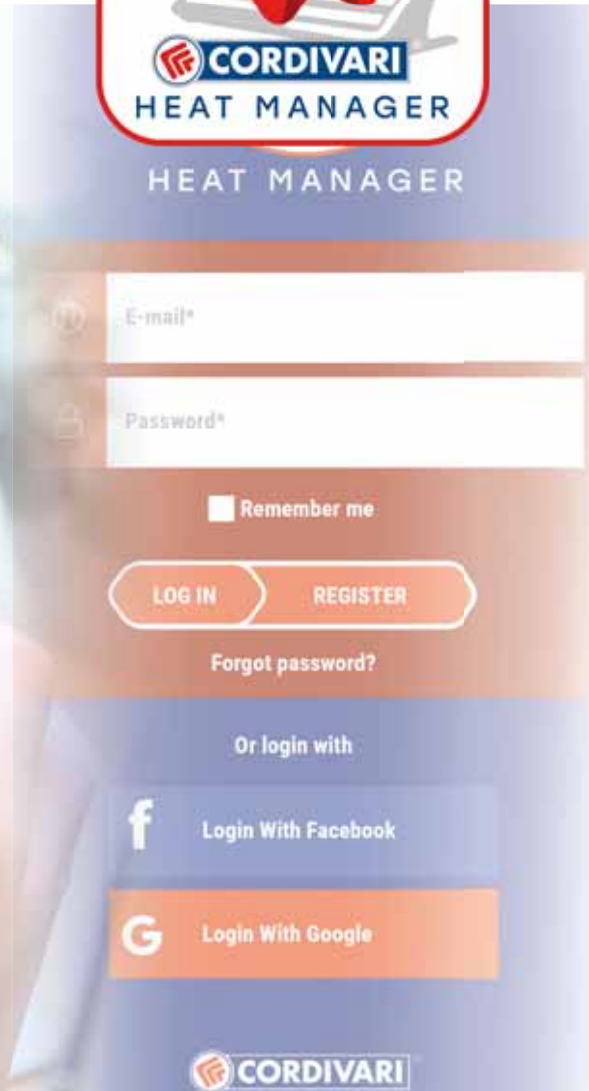
ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

HEAT MANAGER - SMART CONTROLLER WITH TEMPERATURE PROBE

Cordivari Heat Manager® is the new smart Wi-Fi controller for management remote from smartphone IOS or Android of the electric heaters. Thanks to the application it is possible to manage, program and monitor, conveniently from your mobile phone, the operation of the electric heaters by setting their temperature and operating time bands.

Heat Manager® is practical and intuitive, it is in fact sufficient to install the application and connect the smart controller to your home Wi-Fi network. The management application is also available in web application mode, so to allow access also via web browser from anywhere. With Cordivari Heat Manager® it is possible to manage electric heaters connected to any boiler or to a compact solar thermosiphon systems.



Main Features: Relay max 230V 16 A Wi-Fi 2,4 GHz; protection grade IP20. The measuring temperature range is from -55°C to + 125°, with temperature range adjustable -55°C +100°C.

	Art. Nr.
Kit HEAT MANAGER + 1,5 kW electric immersion heater + temperature probe with 3 mt cable	5240000000074
Kit HEAT MANAGER + 2 kW electric immersion heater + temperature probe with 3 mt cable	5240000000075
Kit HEAT MANAGER + 3 kW electric immersion heater + temperature probe with 3 mt cable	5240000000076
Kit HEAT MANAGER + 1,5 kW electric immersion heater + temperature probe with 3 mt cable (for Interka)	5240000000077

www.cordivariheatmanager.com

ACCESSORIES AND SPARE PARTS

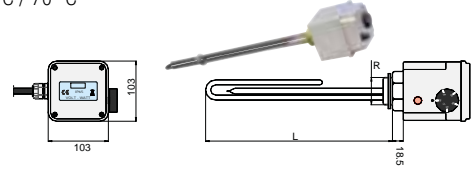
CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

ELECTRIC IMMERSION HEATERS KIT

ELECTRIC IMMERSION HEATERS from 1,5 to 3 kW

ELECTRIC IMMERSION HEATERS can be used as integration on calorifiers and tanks, stainless steel heaters, protection class min IP44, supplied with thermostat, safety thermostat reset user and 2 mt of electrical cable wired and without plug. Temperature range: 30 °C / 70 °C

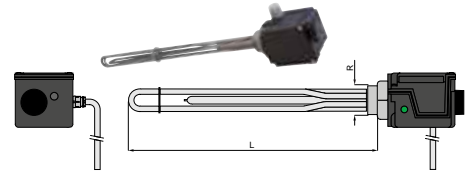
Art. Nr.	Tension	Output	Length L	Connection R
	Volt	[kW]	[mm]	M
5240000000051	230 V MONOPHASE	1,5	320	1"1/2
5240000000052		2	320	
5240000000053		3	320	



ELECTRIC IMMERSION HEATERS from 4 to 9 kW

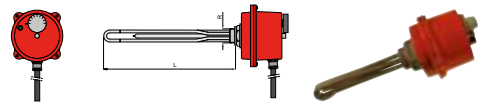
ELECTRIC IMMERSION HEATERS can be used as integration on calorifiers and tanks, heating elements compliant for use with drinking water, protection class min IP44 supplied with thermostat, safety thermostat manual reset and 2 mt of electrical cable wired and without plug.

Art. Nr.	Tension	Output	Length L	Connection R
	Volt	[kW]	[mm]	M
5240000000047	400 V THREEPHASE	4	415	1"1/2
5240000000048		5	500	
5240000000049		6	600	
5240000000050		9	750	



ELECTRIC IMMERSION HEATERS - 12 kW

Art. Nr.	Tension	Output	Length L	Connection R
	Volt	[kW]	[mm]	M
5240000000031	400 V THREEPHASE	12	750	2"



ELECTRIC IMMERSION HEATERS kit (available on BOLLYTERM® HP models)

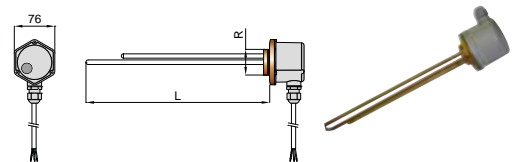
Art. Nr.	Tension	Output	Length L	Connection Ø
	Volt	[kW]	[mm]	[mm]
5221000000103	230 V MONOPHASE	1,5	275	75-140
5221000000066		3	290	75-140
5221000000064		2	320	1" 1/2



ELECTRIC IMMERSION HEATERS kit (available on INTERKA models)

ELECTRIC IMMERSION HEATERS can be used as integration on calorifiers and tanks, cooper heaters, protection class IP45 supplied with thermostat, safety thermostat reset user and 2 mt of electrical cable wired and without plug. Specific for Interka model.

Art. Nr.	Tension	Output	Length L	Connection R
	Volt	[kW]	[mm]	M
5240000000042	230 V MONOPHASE	1,5	340	1"1/4



ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

EXCHANGER HEAD FOR EXTRA 1,2,3 CALORIFIERS AND VASI STORAGE



Art. Nr.	Connection	Ø outer [mm]
5206000000001	1"	300
5206000000002	2"	380
5206000000003	2"	430

Includes 2 gaskets, bolts and bushes.
Version for pipes heat exchanger.

The Flange plate includes 2 sleeve collars for the connection to the operating system. This allows the circulation of the liquid within the heat exchanger's serpentine doing the real separation between the incoming liquid and the outgoing one. The flange plate is in mild steel. Blind flange for accumulation tank in Polywarm® available also with 1 connection. Including: gaskets, bolts and bushes

FLANGE PLATE FOR D.H.W. STORAGE TANKS (VASI STORAGE)



Art. Nr.	Connection	Ø outer [mm]
52060000000051	1"1/2	300
52060000000054	1"1/2	380
52060000000056	1"1/2	430
52060000000053	2"	430

Includes 1 gasket and bolts
1 connection for electric immersion heater (available on storage tanks)



Art. Nr.	Ø outer [mm]
5206000000101	300
5206000000102	380
5206000000103	430

Includes 1 gasket and bolts
Blind flange available (available on storage tanks)

GASKET FOR FLANGE PLATE

PAIR OF GASKET FOR EXTRA CALORIFIERS- includes bolts and bushes.



Art. Nr.	Ø outer [mm]
5021220401001	300
5021220401002	380
5021220401003	430

One gasket with crosspiece and one without. Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C.

PAIR OF GASKET FOR EXTRA STEAM CALORIFIERS- includes bolts and bushes.



Art. Nr.	Ø outer [mm]
5021220460111	300
5021220460112	380
5021220460113	430

One gasket with crosspiece and one without.
Made in material for max. temperature up to 192°C

PAIR OF GASKET FOR EXTRA PLUS CALORIFIERS - VASI STORAGE



Art. Nr.	Confezione da	Ø outer [mm]
5021220401013	5 pz	300
5021220401016	10 pz	380
5021220401015	10 pz	430

One gasket with crosspiece and one without. Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C.

PAIR OF GASKET FOR BOLLY® POLYWARM® (800 - 1000) / VASI INERZIALI INOX AND POLYWARM® > 1000



Art. Nr.	Confezione da	Ø outer [mm]
5021220401012	5 pz	240

One gasket with crosspiece and one without.
Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C.

PAIR OF GASKET FOR BOLLY® POLYWARM® (150÷500) / COMBI



Art. Nr.	Confezione da	Ø outer [mm]
5021220401011	5 pz	190

One gasket with crosspiece and one without. Silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C.

FLANGE PLATE WITH CONNECTION FOR ELECTRIC AVAILABLE ON BOLLY® 1 - 2 -VASO INERZIALE

Electric immersion heater flange plate - Kit includes bolts, bushes and user manual.



Art. Nr.	POLYWARM® VERSION	
5212000910017	1" 1/2 Flange ø 190 mm-with connection for electrical immersion + flange plate (Bolly® 150÷500)	
5212000910018	2" Flange ø 190 mm-with connection for electrical immersion + flange plate (Bolly® 150÷500)	
5212000910020	1" 1/2 Flange ø 240 mm-with connection for electrical immersion + flange plate (Bolly® 800÷1000) (Vaso inerziale W >1000)	
5212000910019	2" Flange ø 240 mm-with connection for electrical immersion + flange plate (Bolly® 800÷1000) (Vaso inerziale W >1000)	
5206000000054	1" 1/2 Flange ø 380 mm-with connection for electrical immersion + flange plate (Bolly® 1500)	
5206000000052	2" Flange ø 380 mm-with connection for electrical immersion + flange plate (Bolly® 1500)	



Art. Nr.	STAINLESS STEEL 316L VERSION	
5212000000004	1" 1/2 Flange ø 180mm with connection for electrical immersion + flange plate (Bolly® 150÷1000)	
5212000000005	2" Flange ø 180mm with connection for electrical immersion + flange plate (Bolly® 150÷1000)	
5212000000006	1" 1/2 Flange ø 240mm with connection for electrical immersion + flange plate (Bolly® 1500÷2000) (Vaso inerziale X >1000)	
5212000000007	2" Flange ø 240mm with connection for electrical immersion + flange plate (Bolly® 1500÷2000) (Vaso inerziale X >1000)	

ACCESSORIES AND SPARE PARTS

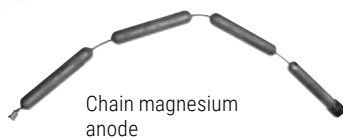
CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

MAGNESIUM ANODES (FOR POLYWARM® COATED ONLY)

The calorifiers corrosion protection is guaranteed not only by the internal coating material but also by the anodes.



Anode with insulated cap



Chain magnesium anode

Art. Nr.	Description	Dimen. [mm]	SUITABLE FOR - (nr. of anodes)					COMBI
			Extra 1,2,3, Vasi Inerziali, Vasi Storage	Interka Solare	Interka, Bolly® Murale	BOLLY® RANGE (ST, AP, BC, PDC, CLASS A), Bollyterm® HP	Bolly® XL, Bolly® HY	
5200000041007	N° 2 chain anodes + insulated cap + gasket - 3/4" M	22 x 631	-	-	-	-	-	800 (1), 1000 (1), 1500 (1), 2000 (1)
5200000041016	N° 2 chain anodes + insulated cap + gasket - 3/4" M	22 x 450	-	-	-	-	-	500 (1), 600 (1)
5200000041018	N° 1 chain anode + insulated cap + gasket - 1" 1/4 M	32 x 1900	-	-	-	-	Bolly® 1 400 (1), Bolly® 1 500 (1), 800(1), 1000(1)	-
5200000041008	N° 2 anodes M8	32 x 200	-	150 (1)	-	-	-	-
5200000041009	N° 2 anodes M8	32 x 400	-	200 (1), 300 (1)	-	-	-	-
5200000041010	N° 2 anodes + insulated cap 1" 1/4 M	32 x 350	200 (1), 300 (1)	300(1)	200 (1), 300 (1)	150 (1), 200 (1)	-	-
5200000041011	N° 2 anodes + insulated cap 1" 1/4 M	32 x 450	-	-	-	300(1)	200 (1)	-
5200000041012	N° 2 anodes + insulated cap 1" 1/4 M	32 x 650	800 (1), 1000 (1), 2000 (2)	-	-	500(1), 800(1), Bolly® 2 1000 (2)	Bolly® 1 300(1), Bolly® 2 XL 500(1)	-
5200000041013	N° 2 anodes + insulated cap 1" 1/4 M	32 x 850	1300 (1), 1500(1), 2500(2), 3000(2), 4000(2), 5000(2)	-	-	Bolly® 1 1500 (1), Bolly® 2 1500 (2), 2000 (2)	Bolly® 1 400 (1), Bolly® 1 500 (1)	-
5200000041017	N° 2 anodes + insulated cap 1" 1/4 M	32 x 800	-	-	-	Bolly® 1000 (1)	-	-
5200000041014	N° 2 anodes + insulated cap 1" 1/4 M	32 x 520	500 (1)	-	-	400 (1), Bolly® 2 800 (2)	Bolly® 2 XL 300(1)	-
5200000041015	N° 2 anodes + insulated cap 1" 1/4 M	32 x 200	-	150(1), 200(1)	80 (1), 100 (1), 150 (1)	-	-	-

MAGNESIUM ANODE + ELECTRIC IMMERSION HEATER KIT FOR BOLLYTERM® HOME

Magnesium anode + electric immersion heater kit for Bollyterm® HOME

Art. Nr.	Kit includes:	AVAILABLE ON
5200000041019	- N° 1 magnesium anode 1" 1/4 M - N° 1 electric immersion heater (1,5 kW - 230 V)	Bollyterm® Home range

ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

ELECTRONIC ANODE WITH TITANIUM IMPRESSED ELECTRICITY (FOR POLYWARM® COATED ONLY)



SUITABLE FOR

Art. Nr.	Anode length [mm]	Conn. M	Extra1,2,3 Vasi Inerz. e Storage Polywarm®	Interka, Interka Solare, Bolly® Murale	BOLLY® RANGE (ST, AP, PDC, BC, CLASS A) Bollyterm® HP	Bolly® XL, Bolly® HY
5200000000008	200		200, 300	80, 100, 120, 150, 200, 300	150, 200, 300	200
5200000000009	500		500, 800	-	-	400, 500
5200000000011	400	1"1/4	1000, 1500	-	400, 500, 800, 1000.	300
5200000000012	2x 400		-	-	1500, Bolly® 2 800, 1000	-
5200000000013	2x 800		2000, 2500, 3000, 4000, 5000	-	Bolly® 2 1500	-

• Use

The Titanium electronic anode is, by opposite to the normal one, not subject to consumption and doesn't need any maintenance or replacement. The protection against corrosion is obtained ensuring the electrolyte power through the continuous energy produced by the titanium bar.

• Material

The anode is composed by a Titanium rod, with its active final part, that has to be connected to the vessel. This system ensures the good working and a long life both to the anode and the cylinder.

• Operating conditions

The input disposal is positioned in a insulated box and it's equipped with a light

led, located on front side. Green light=working OK – Red light = Wrong working. In this last case it's necessary to take the electrical plug away and get in touch with an installer, that will provide to put everything in good order.

• Advantage

1. Active protection through the power given by the titanium anode.
2. High level working flexibility, in order to fit to the different internal coatings and to the water capacity, ensured by an automatic regulation of the working electricity
3. Definitive and easy protection. It is important anyway to check that the electricity is constantly working.
4. Cancellation of any worries and maintenance problems and costs.

ELECTRONIC ANODE WITH TITANIUM IMPRESSED ELECTRICITY (FOR STAINLESS STEEL CALORIFIERS)

In normal use conditions of drinking water (European directive 98 / 83 CE) the standard cathodic protection (using magnesium anode) of the tanks is adequately enough. However, depending on the place of installation, the drinking water conditions may differ significantly from the standard reference. In these cases, when the chloride content exceeds 150 mg/lit, it is advisable to install a permanent Correx UP cathodic system on the tank, which is maintenance-free.



Art. Nr.	Description / Anodes lenght [mm]	AVAILABLE ON									
		Vaso Inerziale - Vaso Inerz. Compact			Extra 1 - Extra 1 Compact- Extra 1 Steam		Extra 2			Extra 2 Compact	
5200000000015	N.2 Anodes/ 1X800/1x400	1500	-	-	-	-	-	-	-	-	-
5200000000016	N.3 Anodes/800	2000	2500	3000	1500	2000	-	-	-	-	-
5200000000017	N.4 Anodes/800	4000	5000	-	2500	3000	1500	2000	2500	2500	3000
5200000000018	N.5 Anodes/800	-	-	-	4000	5000	3000	4000	5000	4000	-

ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

MAGNESIUM ANODES KIT AVAILABLE ON ANODEN TESTER



Anode with insulated cap

The calorifiers corrosion protection is guaranteed not only by the internal coating material but also by the anodes.

Art. Nr.	Description	Dimensions [mm]	AVAILABLE ON		
			Extra 1,2,3, Vasi Inerziali, Vasi Storage	GAMMA Bolly® (ST,BC,PDC Class.A) Bollyterm® HP	Bolly® XL, Bolly® HY
5200000041001	N° 3 anodes + insulated cap + gasket - 1"1/4	32x 350	200 (1), 300 (1)	150 (1), 200 (1)	
5200000041002	N° 3 anodes + insulated cap + gasket - 1"1/4	32 x 450	-	300(1)	200 (1)
5200000041003	N° 3 anodes + insulated cap + gasket - 1"1/4	32 x 520	500 (1)	400 (1), Bolly® 2 800 (2)	Bolly®2 XL 300(1)
5200000041004	N° 3 anodes + insulated cap + gasket - 1"1/4	32 x 650	1000 (1), 800 (1), 2000(2)	500(1), 800(1) Bolly® 2 1000 (2)	Bolly® 1 300(1), Bolly®2 XL 500(1)
5200000041005	N° 2 anodes + insulated cap + gasket - 1"1/4	32 x 800	1300 (1), 3000(2)	Bolly® 1000 (1), Bolly® 2 1500 (2)	
5200000041006	N° 2 anodes + insulated cap + gasket - 3/4"	32 x 900	1500(1), 2500(2), 4000(2), 5000(2)	Bolly® 1 1500 (1), 2000 (2).	Bolly® 1 500(1) Bolly® 1XL 800(1) Bolly® 1XL 1000(1)

ANODEN-TESTER



Art. Nr.	Description
5221000000031	Anoden Tester (2 units box)

ANODEN TESTER KIT

It is the new system to keep easily under control by seeing the consumption of the magnesium anode. You have just to push the button to check if the anode has to be replaced. Included with the anoden-tester, cap and boss.

ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

RECIRCULATION KIT FOR CALORIFIERS AND BUFFER TANKS



The use of Cordivari's recirculation kit allows to improve the comfort of the user and to reduce the waste and produce DHW immediately at the right temperature.

In particular, the Cordivari electronic recirculation kit allows to:

- Maximize the energy saving by programming the recirculation temperature on basis of our own habits.
- Daily and weekly scheduling to manage until 8 time slots for each day of the week
- Constantly monitoring the working and the efficiency of the recirculation thanks to the self-diagnostics of the system
- Works also without the temperature's probe into system where the probe is not foreseen, through programmable temporary actions.

ART. NR.	Control display + pump (for D.H.W.)
5221000000038	

VALVES KIT

RECYCLE KIT - ECO COMBI



Art. Nr.
5221000000019
3/4" Connection

RECYCLE KIT AND MIXER - ECO COMBI



Art. Nr.
5221000000020
3/4" Connection

SAFETY VALVE PRIMARY CIRCUIT



Art. Nr.	calibration
5302000000021	2,5 bar
1/2" M x 1/2" F Connection Interka solare	

See catalogue INTEGRATED SOLAR THERMAL SYSTEM

TEMPERATURE AND PRESSURE SAFETY VALVE



Art. Nr.	calibration
5302000000020	90°C/6bar
1/2" M x 1/2" F. Connection (Avoiding over temperature when there is no withdrawing of DHW.)	

See catalogue INTEGRATED SOLAR THERMAL SYSTEM

BUFFER TANKS CONNECTING KIT

Stainless steel extensible connecting hose



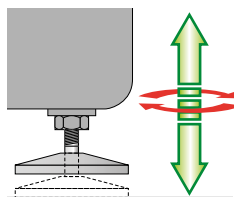
Art. Nr.	Connection	Length
5006170001001	1" 1/2	200 ÷ 400 mm

ACCESSORIES AND SPARE PARTS

CALORIFIERS - MULTYFUEL ENERGY CYLINDERS

ADJUSTABLE SUPPORTING FEET

3 adjustable supporting feet, allowing a correct positioning of the tanks at not in-level floor. Suitable only for the model with feet.



Art. Nr.	Description
5221000000029	Kit 3 adjustable supporting feet

BOLLY® PRIMO WALL FIXING KIT

Fixing kit for wall mounting (vertical or horizontal) for Bolly® PRIMO, including galvanized steel brackets and PVC bottom caps.



ART. NR.	Bolly® Primo Model
5221000000069	100
5221000000070	150
5221000000071	200
5221000000072	300



HYDRAULIC SAFETY GROUP

This accessory includes, a 8 bar safety valve, nonreturn valve, 2 on-off valves.

Its function is to protect the sanitary circuit from overpressure (according to Italian national regulation), fully covered inside the carter.



Art. Nr.	Connection	Pressure
5760000001001	1"	8 bar
5760000001002	3/4"	8 bar

THERMOMETER

1/2" connection Thermometer- - from 0°-120°C



Art. Nr.	Description	Diameter [mm]
5032240000107	5 units box	60

ACCESSORIES AND SPARE PARTS

HYDRONIC SYSTEMS

RECIRCULATION KIT FOR MACS[®] ELECTRONIC MODULE



The recirculation kit for Electronic MACS[®] module allows the implementation of a sanitary recirculation ring on the system where modules are installed.
The main advantage of such sanitary recirculation ring is to improve comfort and speed in achieving and enjoying the desired DHW temperature, reducing energy waste.
The control unit included as standard with electronic MACS[®] modules allow the complete management of all settings of the recirculation ring, such as temperature, setting etc...

ART. NR.

5221000000073

DHW recirculation group

RECIRCULATION KIT FOR PUFFERMAS[®] DOMUS



The use of Cordivari's recirculation kit allows to manage on the system a link of the DHW recirculation. The benefit is to improve the comfort of the user and to reduce the waste and produce DHW immediately at the right temperature.

ART. NR.

5221000000102

DHW recirculation group

THERMOSTATIC SWITCH VALVE



Auto-operated thermostatic switch valve, calibrated at 45°C. It can easily integrate solar thermal systems for DHW production with a boiler.

ART. NR. Connections

5046000000007 3/4"

5046000000008 1"

See catalogue INTEGRATED SOLAR THERMAL SYSTEM

ACCESSORIES AND SPARE PARTS

HYDRONIC SYSTEMS

PHC - STAINLESS STEEL 316L PLATES SPARE PARTS



Description	Suitable for	Art. Nr.
N° 2 316L stainless steel plates + gaskets already mounted (until stocks are exhausted)	PHC 3120	5250400000001
	PHC 4620	5250400000002
	PHC 7420	5250400000003
	PHC 7431	5250400000004
	PHC 12046	5250400000005

Description	Suitable for	Art. Nr.
N° 2 plates in Stainless steel 316L	PHC 3120	5250400000011
N° 2 plates in Stainless steel 316L	PHC 4620	5250400000012
N° 2 plates in Stainless steel 316L	PHC 7420	5250400000013
N° 2 plates in Stainless steel 316L TIPO H	PHC 7431	5250400000014
N° 2 plates in Stainless steel 316L TIPO L	PHC 7431	5250400000015
N° 2 plates in Stainless steel 316L TIPO H	PHC 8031	5250400000016
N° 2 plates in Stainless steel 316L TIPO L	PHC 8031	5250400000017
N° 2 plates in Stainless steel 316L TIPO H	PHC 12046	5250400000018
N° 2 plates in Stainless steel 316L TIPO L	PHC 12046	5250400000019

PHC - INSULATION KIT



INSULATION

Insulation with practical velcro closure for quick and easy assembly / disassembly; made in closed cell expanded cross-linked polymeric material with low thermal conductivity. Designed to completely contain the exchanger and its linkage and ensure complete insulation, in order to reduce heat loss and improve the efficiency of the system.

Fire reaction class B2 (DIN 4102)

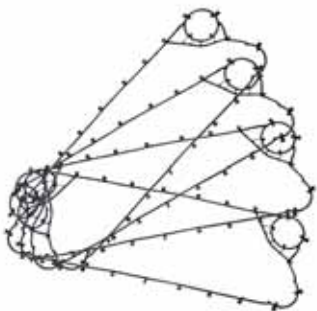
Description	Suitable for	N° plates	Art. Nr.
PHC Insulation kit	PHC 3120	up to 31	5655000610001
PHC Insulation kit	PHC 3120	from 33 to 67	5655000610002
PHC Insulation kit	PHC 4620	up to 31	5655000610003
PHC Insulation kit	PHC 4620	from 33 to 67	5655000610004
PHC Insulation kit	PHC 7420	up to 31	5655000610005
PHC Insulation kit	PHC 7420	from 33 to 67	5655000610006
PHC Insulation kit	PHC 7431	up to 49	5655000610007
PHC Insulation kit	PHC 7431	from 51 to 115	5655000610008
PHC Insulation kit	PHC 8031	up to 49	5655000610009
PHC Insulation kit	PHC 8031	from 51 to 115	5655000610010
PHC Insulation kit	PHC 12046	up to 61	5655000610011
PHC Insulation kit	PHC 12046	from 63 to 115	5655000610012

PHC - SUPPORTING FEET



Description	For model	Art. Nr.
Supporting feet for PHC exchanger	PHC 3120	5601000030001
	PHC 4620	
	PHC 7420	

PHC - GASKETS



Description	Suitable for	Art. Nr.
NBR gaskets - 10 units box	PHC 3120	5019220401011
EPDM gaskets - 10 units box		5019220401012
NBR gaskets - 10 units box	PHC 4620	5019220401013
EPDM gaskets - 10 units box		5019220401014
NBR gaskets - 10 units box	PHC 7420	5019220401015
EPDM gaskets - 10 units box		5019220401016
NBR gaskets - 14 units box	PHC 7431	5019220401017
EPDM gaskets - 14 units box		5019220401018
NBR gaskets - 14 units box	PHC 8031	5019220401019
EPDM gaskets - 14 units box		5019220401020
NBR gaskets - 14 units box	PHC 12046	5019220401021
EPDM gaskets - 14 units box		5019220401022

ACCESSORIES AND SPARE PARTS

WATER PRESSURE TANKS

PRESSURE VESSELS VISUAL LEVEL INDICATOR



The level indicator includes: transparent tube, two brass faucets and gaskets.

Art. Nr.	Pressure vessel model	Tube length [m]
5303000000040	From 100 to 2500 (stainless steel 1000 and 2000 excluded)	1
5303000000041	From 3000 to 5000 (stainless steel 1000 and 2000 included)	2
5303000000042	>5000 on request	3

SAFETY VALVES FOR COMPRESSED AIR RECEIVERS

Applied to compressed air and liquid lift tanks prevent the maximum working pressure from being exceeding the limits of designed conditions. The choice of the safety valve should be assessed, in addition to the maximum pressure, in relation to the discharge flow rate and is therefore closely linked to the origin of the system of which the tank is part of and the causes which may lead to the intervention of such devices. For these reasons, the choice of the safety valve to be used is the responsibility of the system designer. All safety valves supplied are accompanied by an EC certificate of conformity issued by a notified body and their installation is regulated by the national regulations on pressure equipment in force.



Safety Valve

Art. Nr.	Units box	Connection	Calibration [Bar]
5302000001001	5 pcs	3/8"	4,6
5302000001002		3/8"	5,6
5302000001003		3/8"	7,4
5302000001004		3/8"	9,3
5302000001005		3/8"	10,4
5302000001006	3 pcs	3/8"	11,2
5302000001010		3/4"	4,6
5302000001011		3/4"	5,6
5302000001012		3/4"	7,4
5302000001013		3/4"	10,4
5302000001014	1 pcs	3/4"	11,2
5302000000012		1"	5,6
5302000000007		1"	7,4
5302000000016		1"	10,4
5302000000008		1"	11,2

PRESSURE GAUGE



Instruments installed on pressure equipment to indicate at any time the pressure which the vessel is subjected.

All pressure gauges are supplied with an adjustable indicator for maximum pressure.

Bottom connection

Art. Nr.	Units box	Connection	[Bar]
5300000001001	5 pezzi	1/4"	0/10
5300000001002	5 pezzi	1/4"	0/16

ELASTIC EPDM MEMBRANE

The elastic membrane in EPDM use are mounted on expansion vessels in order to divide the liquid from the gaseous phase. Doing so the circulating water is pure giving to the system the warranty to be suitable for drinking.



Art. Nr.	Description
5700000410106	for vessel of 24 lt - 10 units box
5700000410107	for vessels 100 lt with flange Ø137 mm - 5 units box
5700000410003	for vessels 200-300 liters and 100 liters with flange Ø 254 mm
5700000410004	for vessels 500 liters
5700000410108	for vessel from 50-60 liters - produced up to 2003 - 5 units box
5700000410109	for vessel from 80 liters - produced up to 2003 - 5 units box

ACCESSORIES AND SPARE PARTS

WATER PRESSURE TANKS

SURCHARGE FOR MANHOLE AND HANDHOLE (FOR COMPRESSED AIR RECEIVERS P.E.D. 2014/68/UE)

Model	Working Pressure [bar]	Manhole (elliptical)		Handole (elliptical)	
		H5	9	H5	9
		[mm]		[mm]	
1500	8	860	400x300	818	150x100
2000		890	400x300	845	150x100
3000		985	400x300	985	150x100
4000 (*)		1010	400x300	1010	150x100
5000 (*)		1010	400x300	1010	150x100
8000	12	//	//	1150	150x100
10000		//	//	1150	150x100
1000		870	400x300	840	150x100
1500		860	400x300	818	150x100
2000		890	400x300	845	150x100
2500		985	400x300	985	150x100
3000		985	400x300	985	150x100
4000 (*)		1010	400x300	1010	150x100
5000 (*)		1010	400x300	1010	150x100
8000		//	//	1150	150x100
10000	//	//	1150	150x100	
1000	15	870	400x300	840	150x100
1500		860	400x300	818	150x100
2000		890	400x300	845	150x100

(*) Manhole standard on 4000 - 5000 lt Polywarm® version

SURCHARGE FOR MANHOLE AND HANDHOLE (FOR AIR RECEIVERS P.E.D. 2014/68/UE)

Model	Working Pressure [bar]	Manhole (elliptical)		Handole (elliptical)	
		H6	E	H6	E
		[mm]		[mm]	
1500	8	860	400x300	818	150x100
2000		890	400x300	845	150x100
3000		985	400x300	985	150x100
4000		1010	400x300	1010	150x100
1000	12	870	400x300	840	150x100
1500		860	400x300	818	150x100
2000		890	400x300	845	150x100
2500		985	400x300	978	150x100
3000		985	400x300	985	150x100

AIR COMPRESSOR RECEIVERS KIT

Includes a safety valve, a gauge (manometer) and its tap-tray.

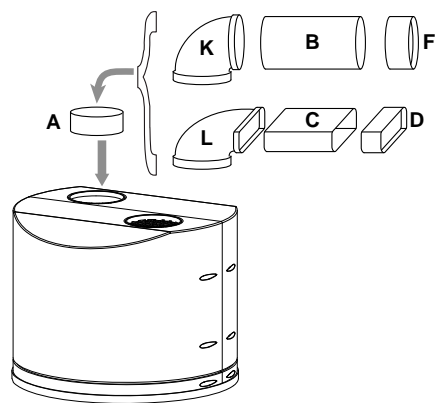












Right-side connection









Art. Nr.	Description
5303000000001	Kit for 200 up to 710 lt compressed air receivers (11 bar), with security valve of 7.000 l./min P calibration 10,4 bar
5303000000002	Kit for 900 lt compressed air receivers (11 bar), with security valve of 30.000 l./min P calibration 10,4 bar
5303000000003	Kit for 1.000 up to 10.000 lt compressed air receivers (12 bar), with security valve of 32.000 l./min P calibration 11,2 bar
5303000000004	Kit for 1.000 up to 10.000 lt compressed air receivers (8 bar), with security valve of 22.000 l./min P calibration 7,4 bar
5303000000005	Kit for 270 up to 2.000 lt compressed air receivers (15 bar), with security valve of 9.000 l./min P calibration 13,5 bar

CANALIZATION FOR BOLLYTERM® HOME

PLASTIC ELEMENTS FOR CANALIZATION

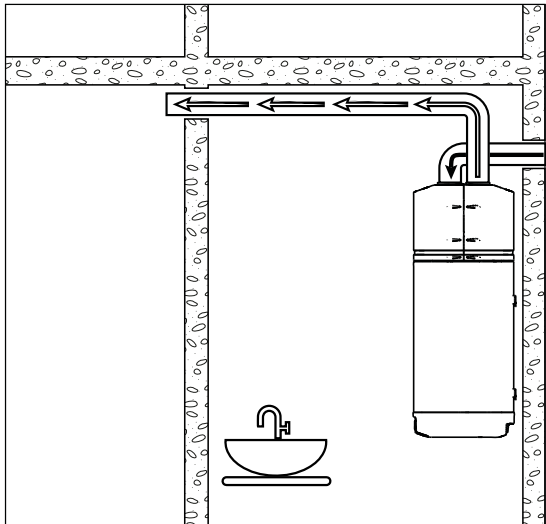
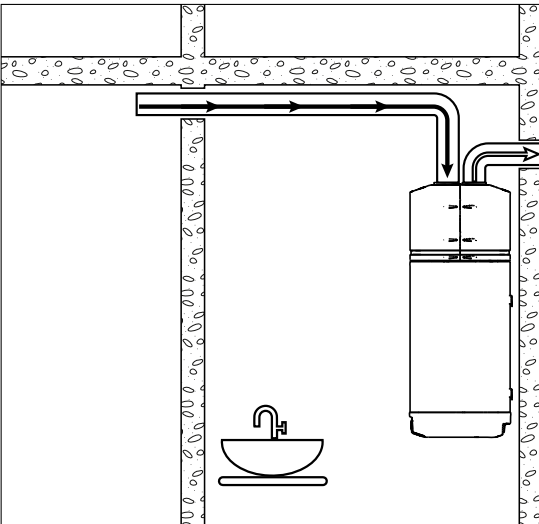
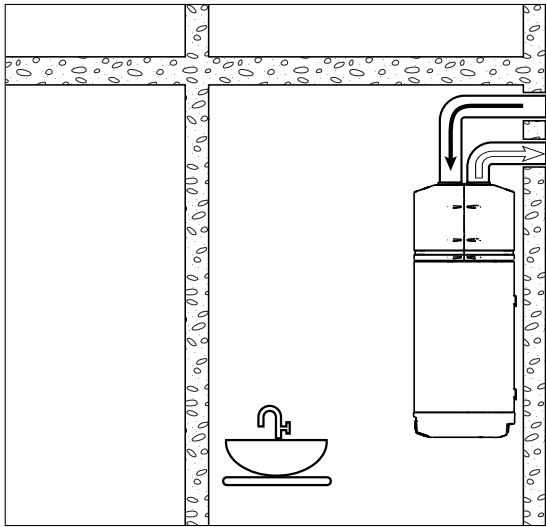
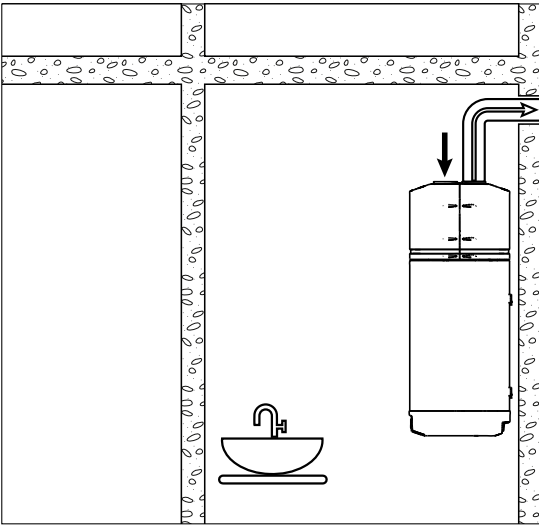
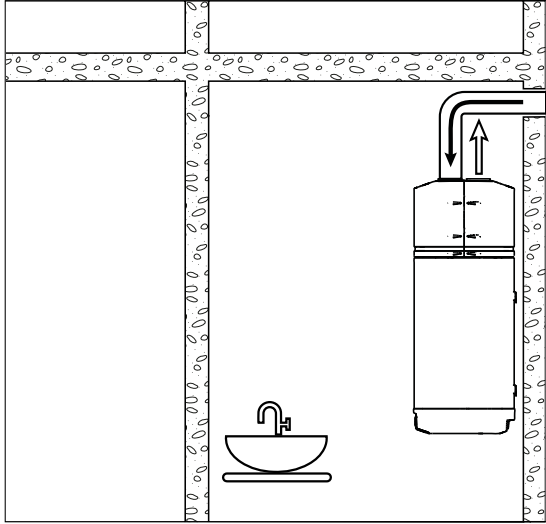
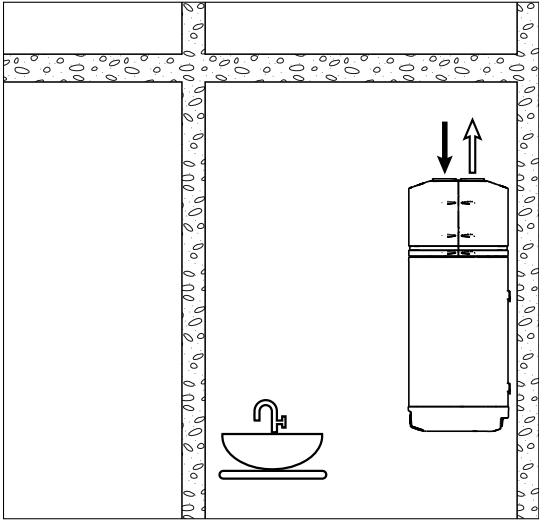


	Art. Nr.	Description
	A 5221000000085	Stub pipe of Ø 125 mm Length 75 mm
	B 5221000000086	Tube of Ø 125 Mm Length 1200 mm
	C 5221000000087	Rectangular tube of Ø 150x70 mm Length 1200 mm
	D 5221000000088	Rectangular plastic joint Ø 150x70 mm
	5221000000089	Horizontal joint from round pipe of Ø125 mm Rectangular Ø 150x70 mm
	F 5221000000090	Round joint Ø 125 mm
	5221000000091	Flexible tube Ø 125 mm Length 1000 mm
	5221000000092	Flexible rectangular tube Ø 150x70 mm Length 1000 mm
	5221000000093	Rectangular curve Ø 150x70 mm horizontal
	5221000000107	Sound pressure reduction Ø 125 L 120 mm

	Art. Nr.	Description
	5221000000094	Rectangular curve Ø 150x70 mm vertical
	K 5221000000095	Round elbow curve Ø125 mm
	L 5221000000096	Vertical curve from round Ø 125 mm to rectangular Ø 150x70 mm
	5221000000097	Pair of pipe clamps Ø 150 mm
	5221000000098	Pair of brackets for rectangular tubes Ø 150x70 mm
	5221000000099	Plastic grid with fixed fins for tubes of Ø 125 mm
	5221000000100	Roll of adhesive white tape for tubes, width 50 x length 10 mt
	5221000000101	Plastic pipe flange for tubes of Ø 125 mm

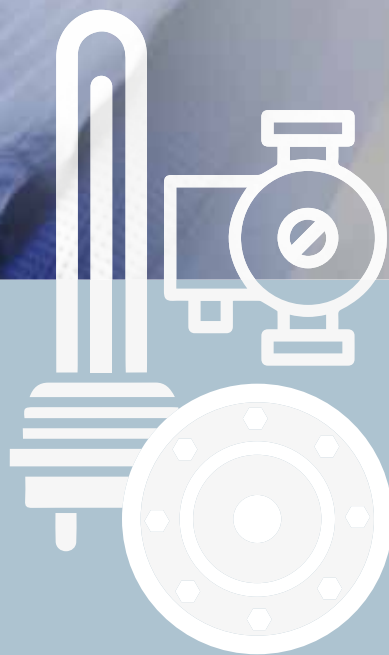
CANALIZATION FOR BOLLYTERM® HOME

CANALIZATION EXAMPLES





TECHNICAL SUPPORT



INSULATIONS

THERMAL INSULATION

Thermal efficiency of calorifiers and buffer tanks Cordivari is optimized with special insulations, that are essential components for every hot water storage, keeping the temperature stable with low heat loss.

Cordivari insulations reduce at minimum level temperature losses, with consequently energy savings.

Insulation on calorifiers and buffer tanks are manufactured using the best available materials.

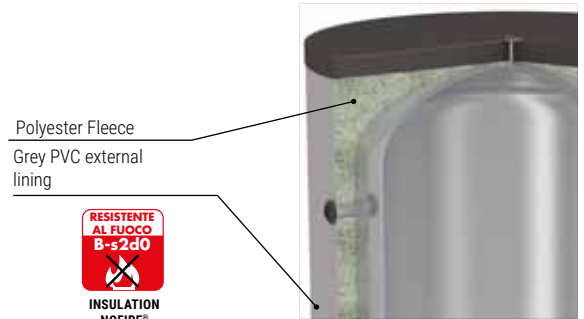


NOFIRE® POLYESTER FLEECE

Material with low thermal conductivity. From an energetical and ecological point of view, the polyester fleece is one of the best performer, obtained using recycled and environmental friendly material.

The polyester fleece is unalterable at high temperatures, flexible, durable, non-toxic, insensitive to chemicals, it doesn't rot, hygienic and transpiring.

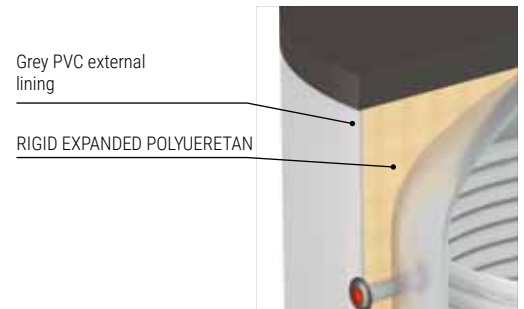
High insulation capacity with a thermal conductivity λ of 0.039 W/mk and a fire resistance class of B-s2d0, according to european standard EN 13501.



RIGID EXPANDED POLYURETAN

The term polyurethane refers to a vast family of polymers, which are used for different purposes. In thermo-hydraulics the use of expanded polyurethane as thermal insulation is widespread, since it has excellent insulating properties.

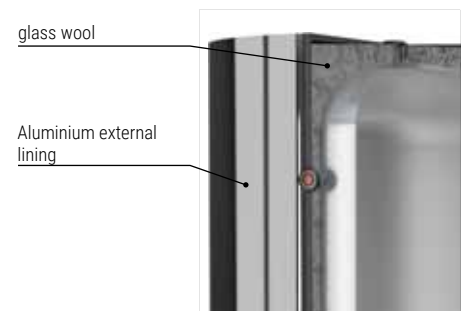
The Cordivari tanks have a thermal insulation of rigid polyurethane foam based on the models that differ from each other for different purposes. This layer is foamed directly on the body of the tank, whose surface is treated with a special release agent which facilitates its removal at the end of this technical life. This insulating layer has a high insulating capacity and high polymer density.



GLASS WOOL INSULATION AND ALUMINIUM EXTERNAL LINING

The D.H.W. Storage Tanks with insulation A1 represents the most advanced solution in terms of preventing fire risks on thermal power plants or technical rooms.

With glass wool and an external lining completely made in Aluminium material, this insulation combines the high thermal insulations properties with a fire proofing resistance class A1, according to european standard EN 13501.



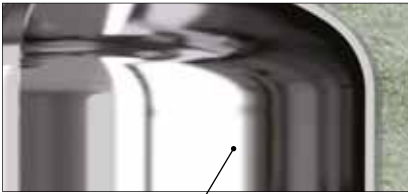
INSULATIONS - FIRE REACTION CLASS (EN 13501)

Fire Reaction		Smoke release			(drops)		
A1	FIRE PROOF	NO TEST REQUIRED			NO TEST REQUIRED		
A2	Fireproof	s1	None	d0	No in the first 10 minutes		
B	Limited	s2	Limited	d1	Limited Dripping of incandescent materials in the last 10 seconds		
C	Decreasing performance levels from C to E reaction class	s3	High	d2	High		
D		E	NO TEST	E	NO INDICATION or d2		
E	High	No performance declared					
F	No performance declared						

MATERIALS

All Cordivari Products are manufactured using high level quality of raw materials and internal finishes:

STAINLESS STEEL 316L



Stainless steel 316L

The choice of stainless steel material on calorifiers aims for an absolute quality result. Material with high performances, entirely hygienic and atossic, suitable for



Domestic Hot Water, resistant to low and high temperatures, 100% recyclable. Cordivari is leader in the production of Stainless steel 316L (EN 1.4404) calorifiers with high quality standard levels.

POLYWARM®



Polywarm®

WATER HYGIENE AND PROTECTION

- **Drinkability and Hygiene at 100%;**
- **Elasticity E>20%;**
- **Capacities up to 6000 lt;**
- **Temperature resistance till 130°C;**
- **Thickness >200 µm for a total protection to corrosion.**



Our customer oriented approach and our long tradition as cylinder manufacturer allow us to offer cutting edge solutions for production and storage of Domestic Hot Water Cylinders.

Polywarm® properties have passed the adherence tests according to BS3900-E6 and DIN 53151, hardness tests according to ASTM D 3363-74 (matite), Impact resistance test (2 Joule) according to BS3900-E6 and at 10 kg x cm (UNI 8901). Polywarm® has excelled in chemical and durability testing (>1000 hours) in salt spray testing according to UNI 5687-73 and Humidity cycle according to UNI 8744.

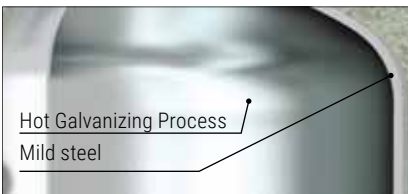
Drinkability and Hygiene at 100%, elasticity E>20%, capacities up to 6000 litres,

temperature resistance till 130°C. Thickness >200 µm for a total protection to corrosion.

Polywarm® Hygienic Certifications:

- Certificate of conformity for Domestic Hot Water of organic coating for food uses Polywarm® granted by IPL (Institut Pasteur de Lille - France).
- Test report of internal treatment for food use Polywarm® in accordance with D.M. nr. 174 del 06/04/2004 granted by SSICA Laboratory of Parma - Italy.
- Certificate OFI - Vienna, Austria, according to DVGW W270.
- WRAS - Water Regulation Advisory Scheme certificate

HOT GALVANIZING PROCESS



Hot Galvanizing Process
Mild steel



The galvanizing process protect the steel from corrosion, granting a long life product.

Thank to the high temperatures of the treatment, the galvanizing process helps to get better performances.

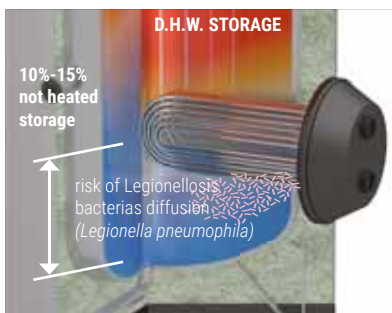
Cordivari premises are equipped with a high-tech hot galvanizing system.

The tank is dipped in a melted zinc bath (99,99% pure) according to European standard UNI EN 1179, lead percentage 100 times less than the maximal value permitted by D.M. n.174 dated 06/04/2004. Cordivari galvanizing process does not contain dangerous material, so to be certified for D.H.W. use.

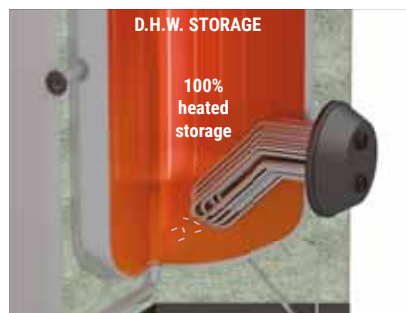
HIGH PERFORMANCES ANTI-LEGIONELLA® HEAT EXCHANGER

D.H.W. OPTIMIZED ACCUMULATION

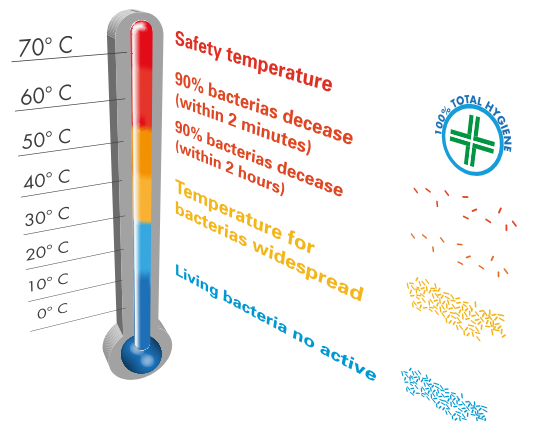
Cordivari Heat Exchanger, with tubes bent to the bottom, are able to heat the complete quantity of water in an homogenous way, also in the lower part of the calorifier. This will ensure total production of the storage of D.H.W. in the calorifier. (10%-15% more than standard heat exchangers). Maximal hygiene will be guaranteed.



STRAIGHT HEAT EXCHANGER: between 10% - 15% of storage volume is not heated with relevant thermal inefficiencies and risk of Legionellosis bacteria diffusion.



BENDED HEAT EXCHANGER: 100% volume will be heated with relevant thermal efficiency and D.H.W. healthiness increase.

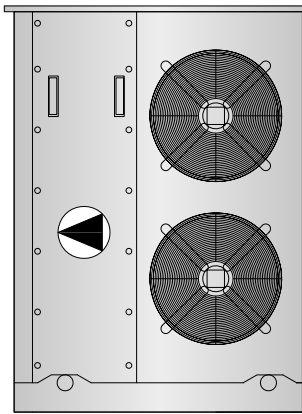


DIMENSIONING OF BUFFER TANKS

The calculation of a buffer tank's volume depends on the type and on the potential of the heat generators. The installation of a buffer tank has a double function, as it allows the generator to work regularly by limiting the number of interruptions, and it also constitute a thermal flywheel for the heating system, improving the overall comfort of the installation. Cordivari offers a wide range of buffer tanks, providing besides the mainstream version also combined solutions ideal for production of domestic hot water. The wide spectrum of products available is characterized by advanced technology that allow a strong thermal stratification, to consistently reduce the energy consumption.

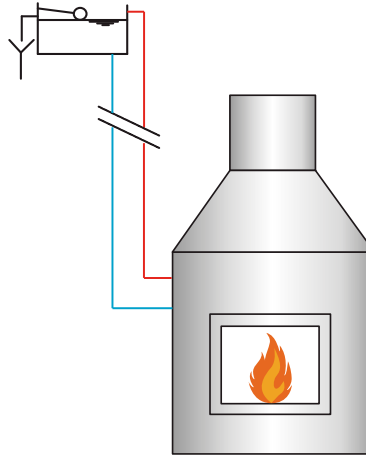
For calculation purposes we give an indication of the volumetric ratios according to the thermal potential of various sources with non-continuous operation. These suggestions are merely indicative and cannot substitute a closer evaluation made by a qualified technician.

HEAT PUMP



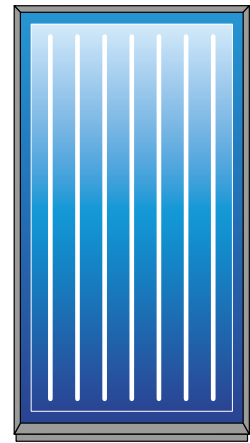
1 kWt~10÷15 LITERS

FIREPLACE STOVE



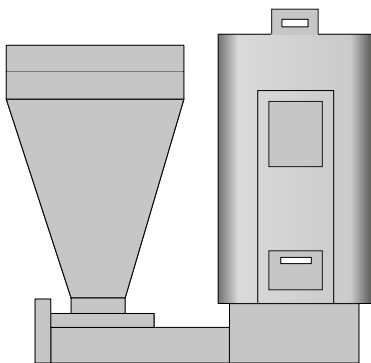
1 kWt~30 LITERS

FLAT SOLAR COLLECTOR



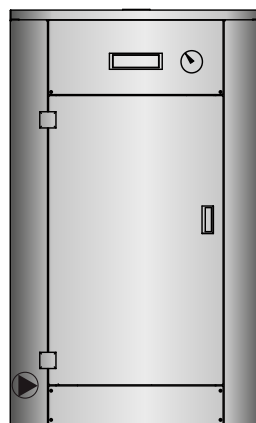
1 MQ~60÷70 LITERS

POLYCOMBUSTIBLE BOILER



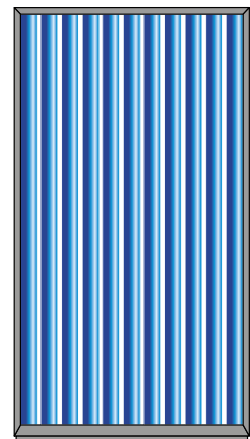
1 kWt~20 LITERS

PELLET STOVE



1 kWt~20 LITERS

VACUUM SOLAR COLLECTOR



1 MQ~60÷70 LITERS

DIMENSIONING OF THE EXPANSION VESSEL FORCED CIRCULATION SYSTEMS

The expansion vessel has a key function for the primary circuit of a solar thermal system with forced circulation (generally speaking, expansion vessels are important in any heating system). To calculate the nominal volume of the vessel refer to the following formula:

$$Vn = (Vu * (Pf + 1)) / (Pf - Pi)$$

Where :

VN = nominal volume of the Expansion vessel [lt]

VU = useful volume of the Expansion vessel = $Vu = (\Delta V + Vc) * 1,1$ [lt]

PF = maximum working pressure of the solar thermal system: to be considered in the designing phase of the project according to the characteristics of the materials used and the safety devices installed = 5,5 [bar]

PI = loading pressure of the solar thermal system: linked to the difference in level between solar collectors and expansion vessel (approximately 1 bar each 10 meters) plus a safety coefficient; in domestic systems the cold water loading pressure is about 2,5 [bar]

With:

ΔV = variation of the volume of the fluid = $e * Vf$ [lt]

VC = fluid contained in the solar collectors [lt]

In which:

E = heat transfer fluid coefficient of cubic expansion = 0,07

VF = heat transfer fluid contained in the system

The heat transfer fluid contained in the system is given by the sum of:

fluid content in solar collectors
fluid content in pipes
fluid content in heat exchangers
fluid content in other components

$$\frac{VC + VT + VS + VA}{VF}$$



The preload value of the expansion vessel will be 0,3-0,5 bar less than pressure Pi.

EXAMPLE

SOLAR THERMAL SYSTEM 500B2-10 TF

- 4 SOLAR COLLECTORS 2,5 MQ
- 1 CALORIFIER BOLLY® 2 500 LT
- 1 BASIC CIRCULATION GROUP
- 30 MT COPPER PIPE (SUPPLY + RETURN) D. 22 MM

To determine the necessary volume of the expansion vessel

$$VF = (VC + VT + VS + VA) \sim 31 \text{ LT}$$

$$\Delta V = EXVF = (0,07 * 31) = 2,17 \text{ LITERS}$$

$$VU = (\Delta V + VC) * 1,1 = (2,17 + 3,8) * 1,1 = 10,75 \text{ LITERS}$$

$$VN = VU * (PF + 1) / (PF - PI) = 6,56 * (5,5 + 1) / (5,5 - 2,5) = 23,30 \text{ LITERS} \rightarrow \mathbf{24 \text{ LITERS EXPANSION VESSEL}}$$



THERMAL STRATIFICATION

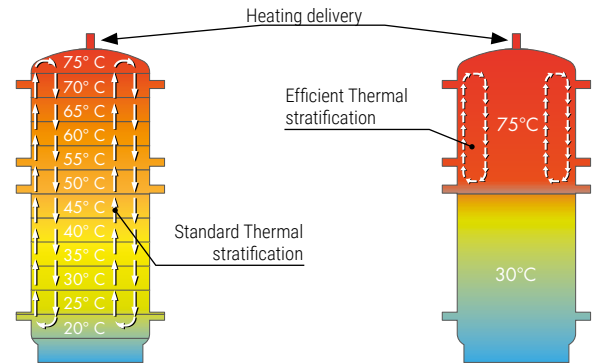
Thermal stratification is a physical process in which an hot fluid naturally tends to position itself higher than the cold one.

The fluid (water) is always moving, and tends to remix, therefore the natural process of stratification must be supported to maintain an increasing temperature gradient from bottom to upper part and avoid the mixing of liquid at different temperatures.

To allow stratification into the tanks means to create a remarkable difference in temperature storing volume from upper to lower part. With important positive effects in terms of efficiency.

A proper stratificated storing means to have quantities of hot water available in short time. Example of stratification:

Heat received during the day is accumulated in the higher part of the tank, reaching a suitable temperature for end user, while in the lower part temperature remains cold and even when solar collectors have a temperature below the one needed (afternoon-evening), the heat exchanger continues and tanks is storing further energy.

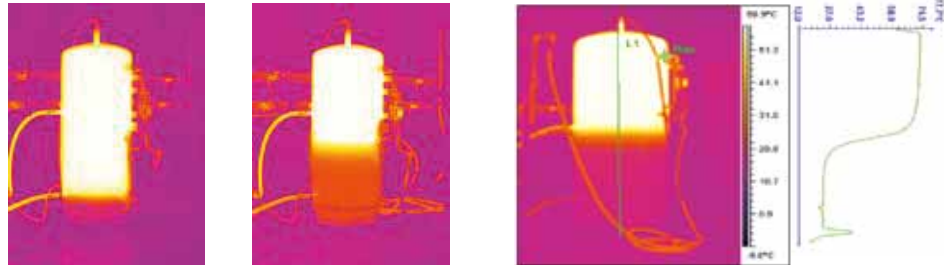


THE TECHNICAL SOLUTIONS FOR THE OPTIMIZATION OF THERMAL STRATIFICATION

“LABYRINTH SPREADER” (CORDIVARI PATENT)

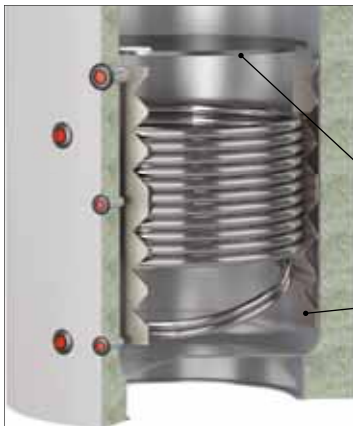


Performances are optimized thanks to the “Labyrinth Spreader” (Cordivari Patent). Its spread shape allows a perfect stratification of the water that returns back from the plate exchange to the tank. Heating installation efficiency is guaranteed.

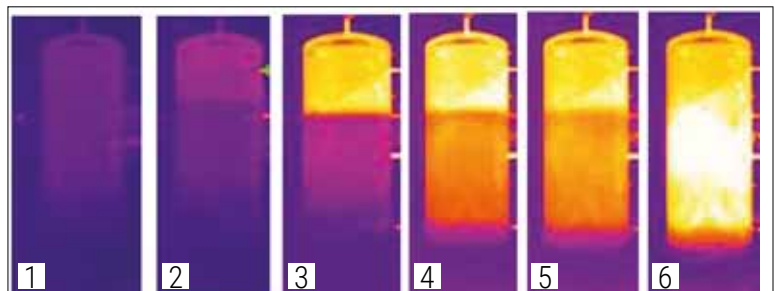


Sequence of thermographic images that show how Labyrinth Spreader works.

EASY STRATIFICATION BUFFERS (CORDIVARI PATENT)

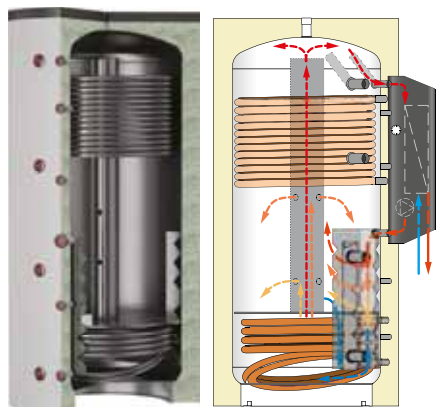


The heating return stratification system (Cordivari patent), avoid any turbulences, that would affect the thermal stratification inside the buffer tank. Thanks to this optimized solution, efficiency and energy savings are continuously improved.



Sequence of thermographic images that show how a system works with the easy stratification Buffer.

NEW BUFFER TANKS CTS®



The new range of Buffer Tanks CTS® are Cordivari’s last innovative storage tanks designed for Solar Thermal Systems.

The exclusive Stratification device CTS® allows to have a prompt delivery of energy suitable for the production of hot water.

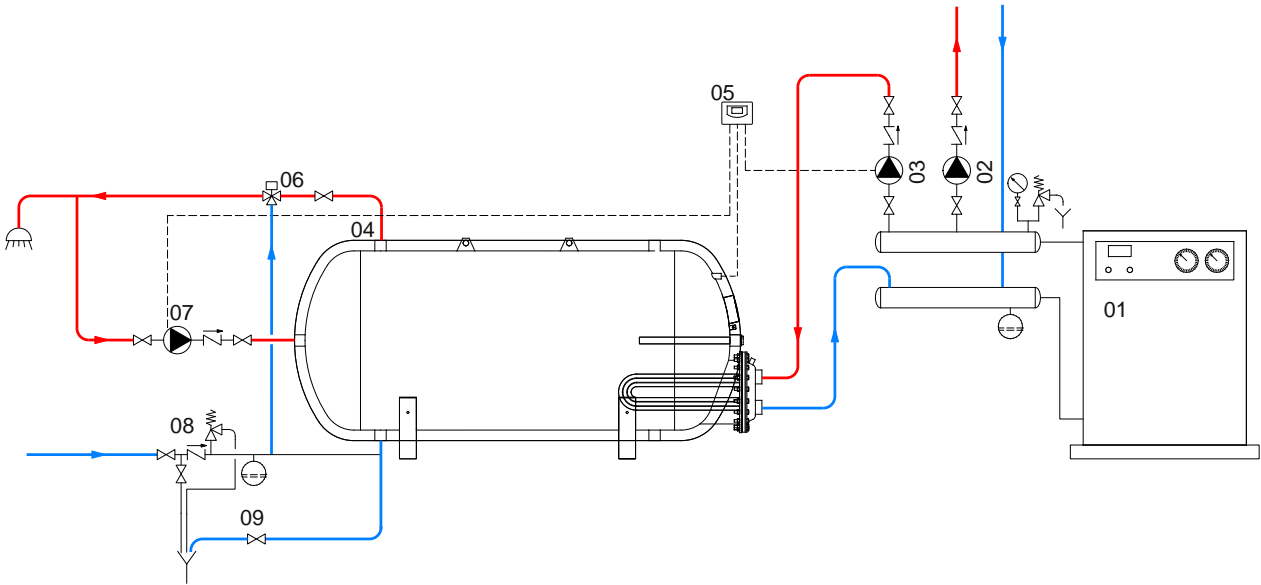
The energy absorbed from the Solar Collectors is efficiently stratified in the upper part of the tank through the CTS® stratification device and separation plate already assembled in Buffer CTS®.

The thermal stratification inside the Buffer tanks will be then improved naturally, without any external valves thanks to the mixed combination of:

1. Labyrinth Spreader that allows a perfect stratification of the water that returns back from user thanks to its spread shape avoiding mixes of temperatures of stored water
2. Upper thermal loading systems that concentrates in the upper part of the tank hot water produced by the lower solar fixed coil in short time and high temperature.
3. Lower fixed Heat Exchanger designed for an optimal relation between space and efficiency.

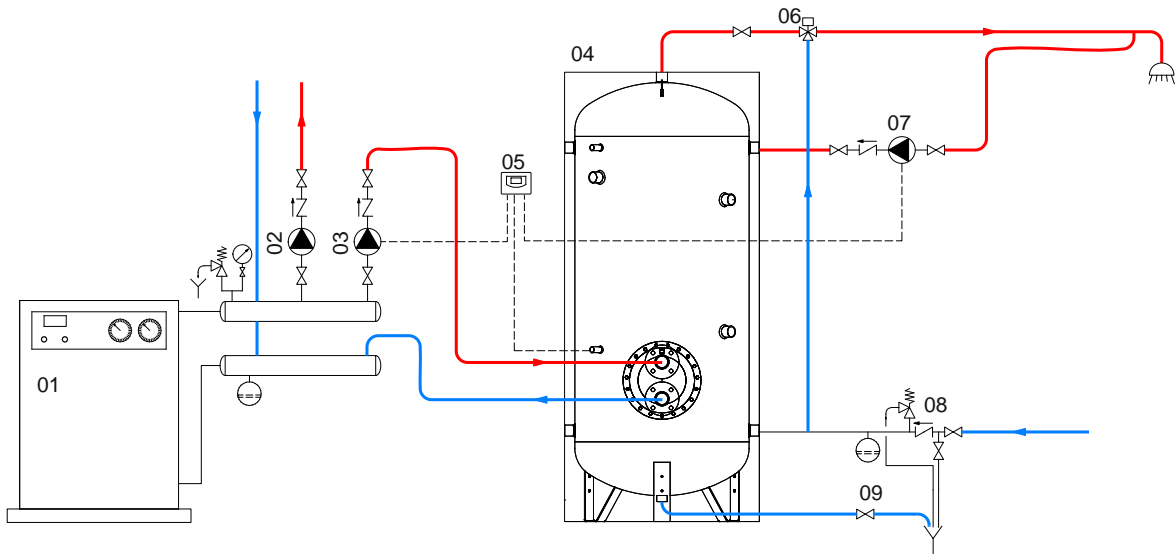
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH **EXTRA HORIZONTAL**



01	Generator	04	EXTRA Horizontal	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

EXAMPLE OF INSTALLATION WITH **EXTRA 1 STEAM**

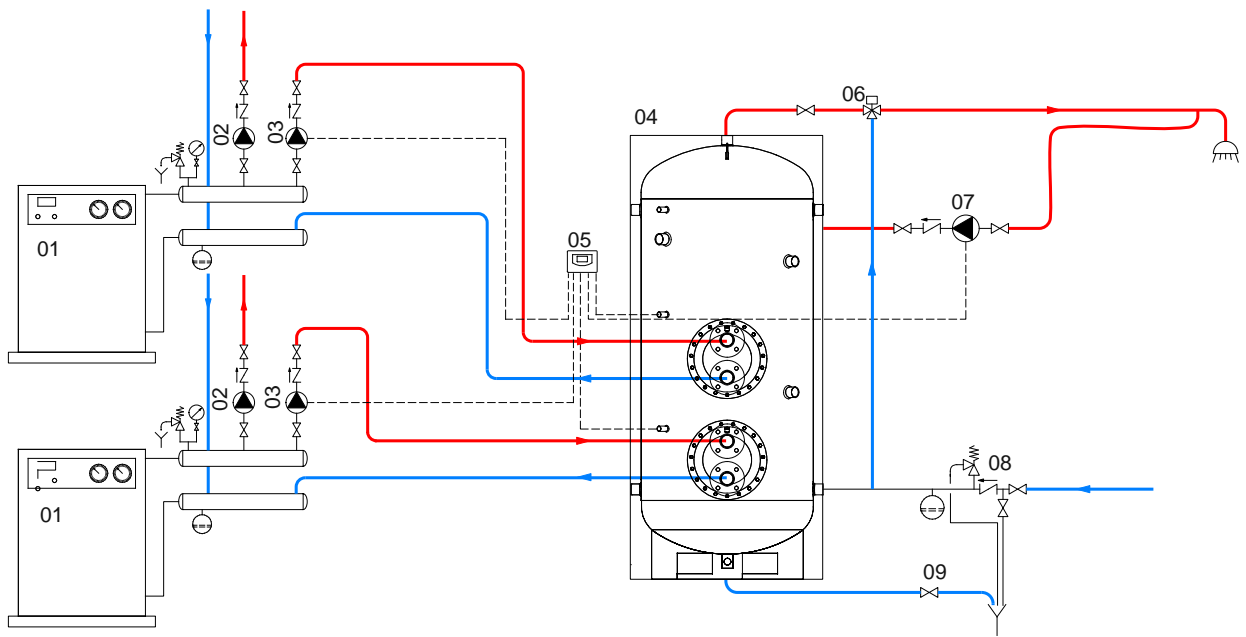


01	Generator	04	EXTRA 1 STEAM	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

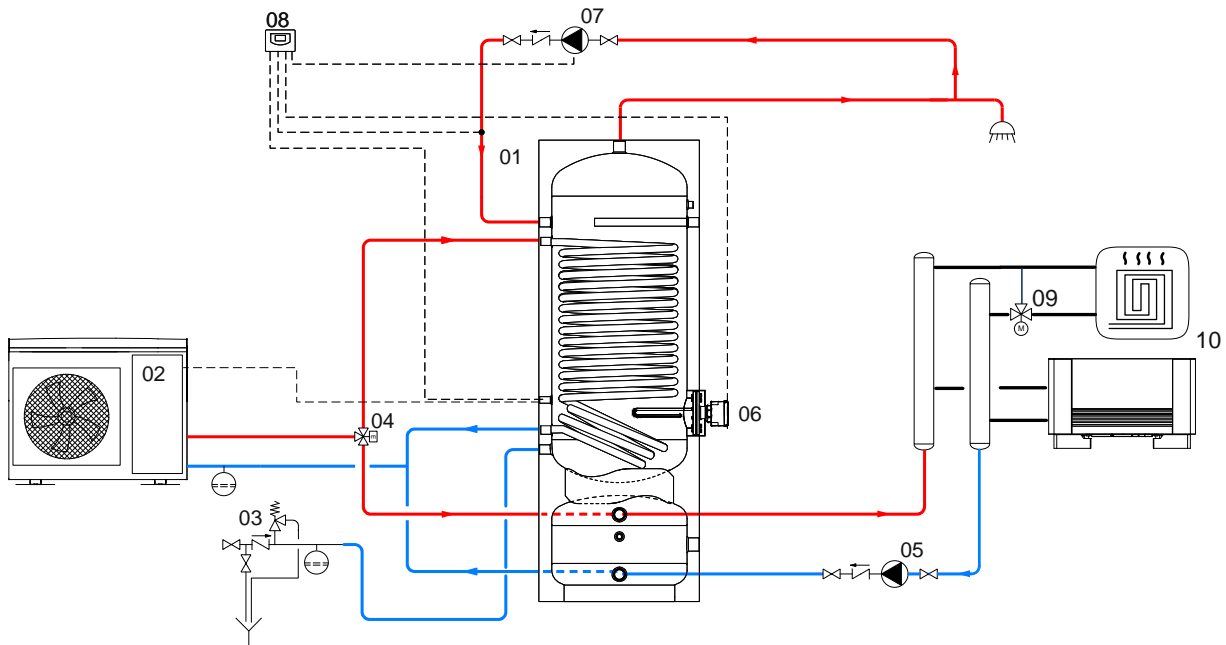
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH EXTRA 2 STEAM



01	Generator	04	EXTRA 2 STEAM	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

EXAMPLE OF INSTALLATION WITH BOLLY® 1 HY INOX

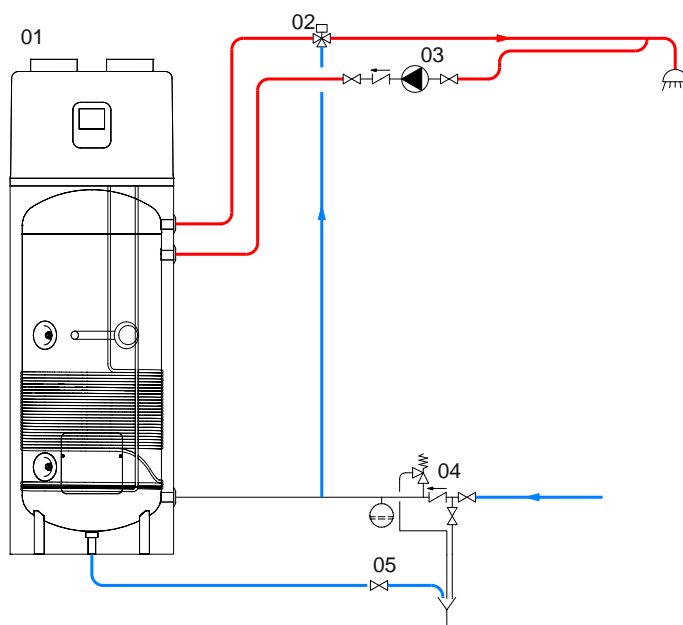


01	Bolly® HY	04	Motorized three-way valve	07	D.H.W. recirculation group	10	Heating units
02	Generator (Heat pump)	05	Circulation group of the heating/cooling system	08	Electronic control /thermostat		
03	Hydraulic safety group	06	Electric immersion heater (optional)	09	Thermostatic mixing valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

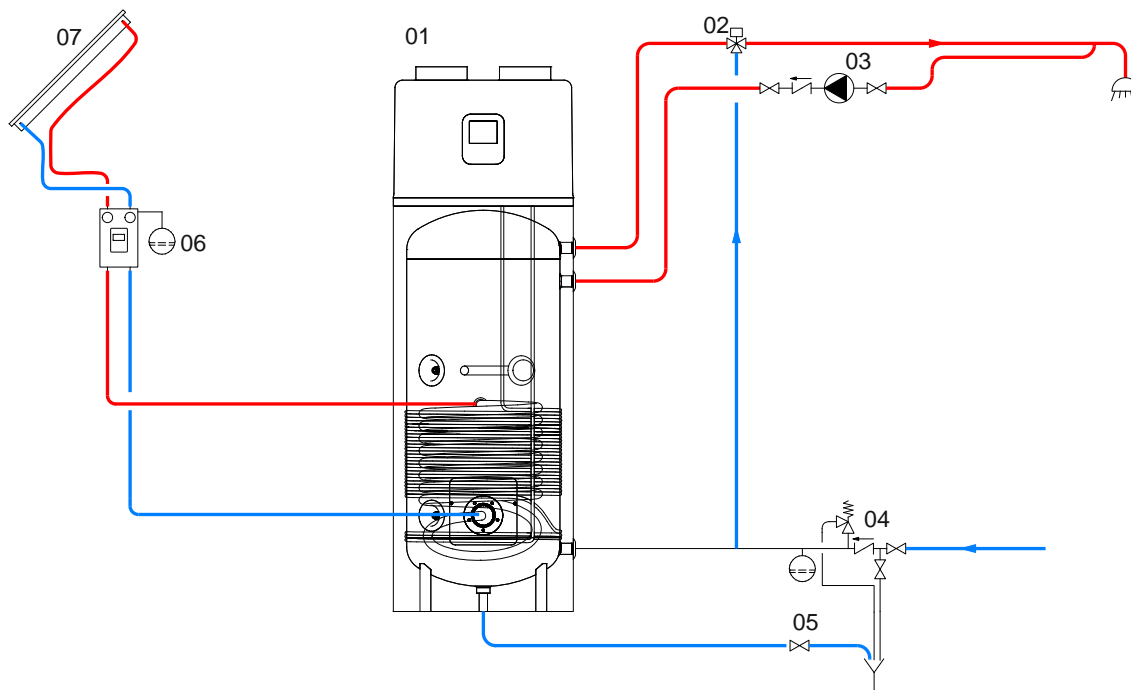
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH **BOLLYTERM® HP**



01	Bollyterm® HP	03	D.H.W. recirculation group	05	Blowdown valve
02	Thermostatic mixing valve	04	Hydraulic safety group		

EXAMPLE OF INSTALLATION WITH **BOLLYTERM® HP 1**

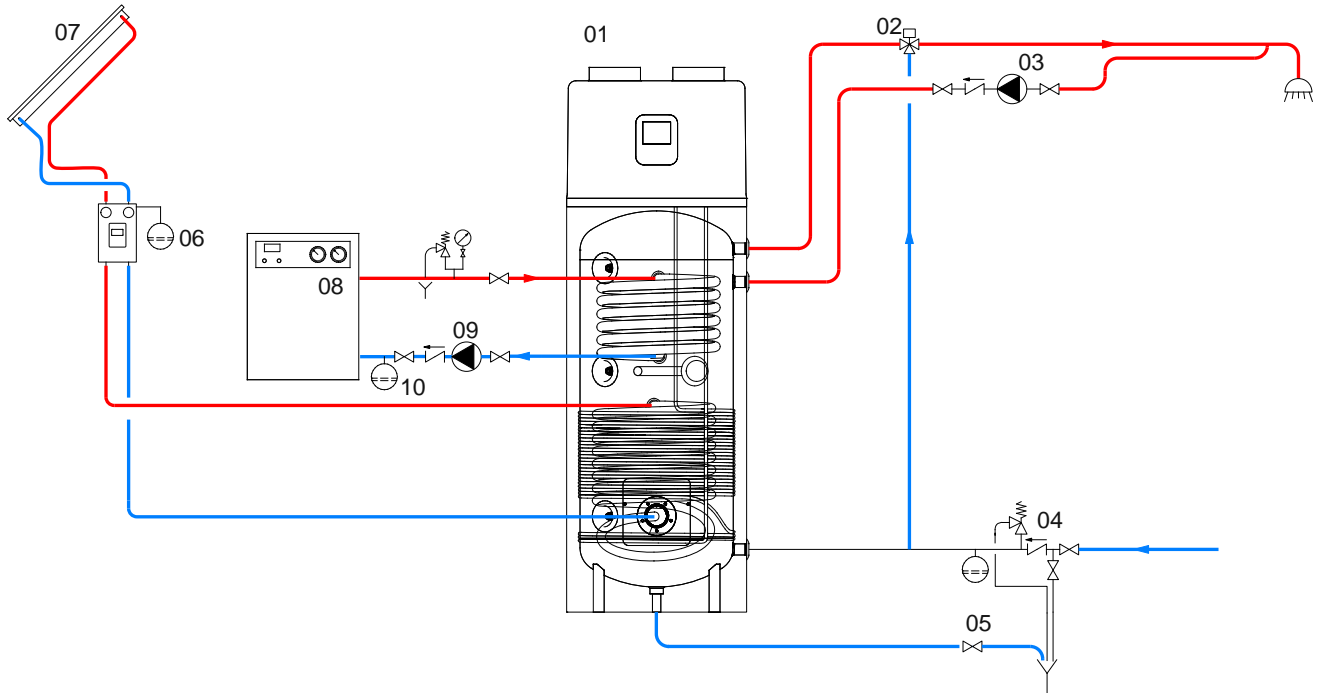


01	Bollyterm® HP 1	03	D.H.W. recirculation group	05	Blowdown valve	07	Solar panels
02	Thermostatic mixing valve	04	Hydraulic safety group	06	Solar system circulation group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

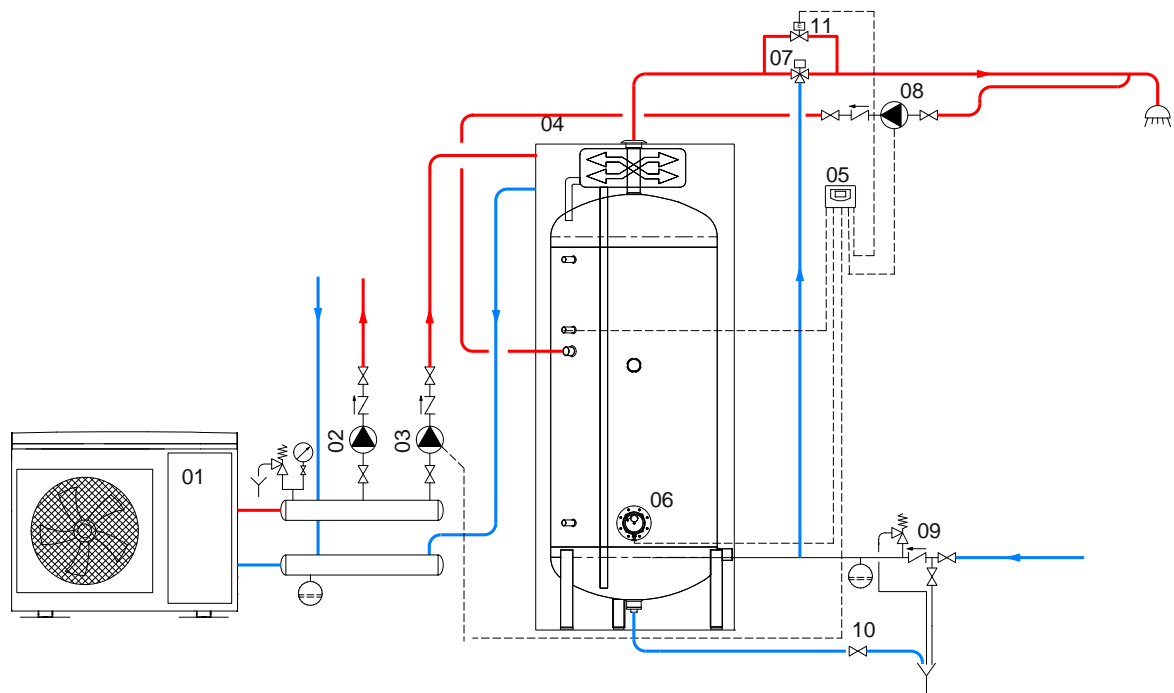
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH BOLLYTERM® HP 2



01	Bollyterm® HP 2	04	Hydraulic safety group	07	Solar panels	10	Expansion vessel
02	Thermostatic mixing valve	05	Blowdown valve	08	Generator		
03	D.H.W. recirculation group	06	Solar system circulation group	09	Circulation group		

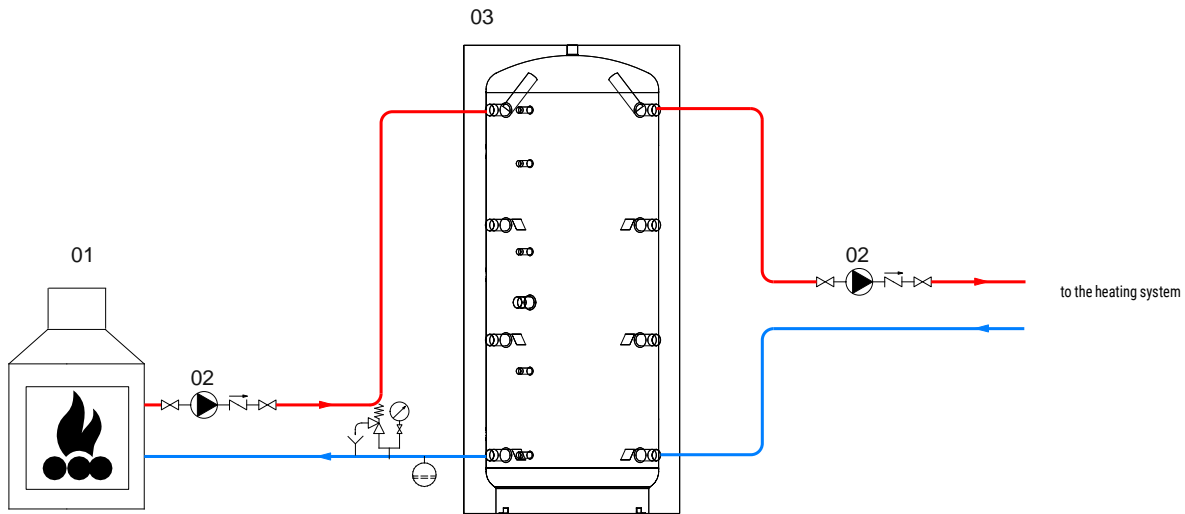
EXAMPLE OF INSTALLATION WITH BOLLY® 1 PDC



01	Generator (Heat pump)	04	Bolly® PDC	07	Thermostatic mixing valve	10	Blowdown valve
02	Heating system circulation group	05	Electronic control / thermostat	08	D.H.W. recirculation group	11	By-pass solenoid valve
03	D.H.W. circulation group	06	Electric immersion heater (optional)	09	Hydraulic safety group		

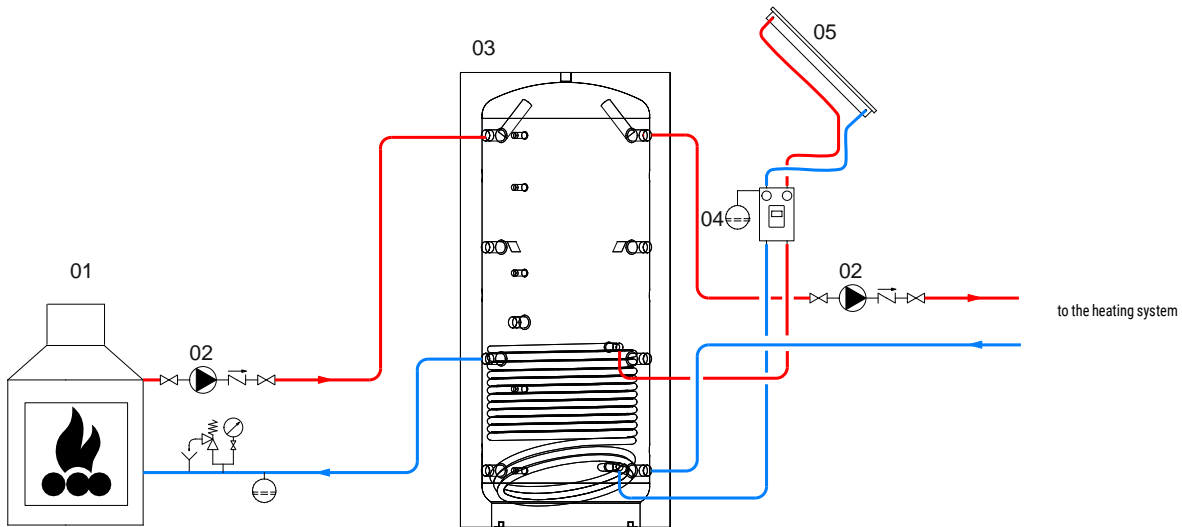
The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXAMPLE OF INSTALLATION WITH PUFFER



- | | | | |
|----|----------------------------------|----|--------|
| 01 | Generator | 03 | Puffer |
| 02 | Heating system circulation group | | |

EXAMPLE OF INSTALLATION WITH PUFFER 1

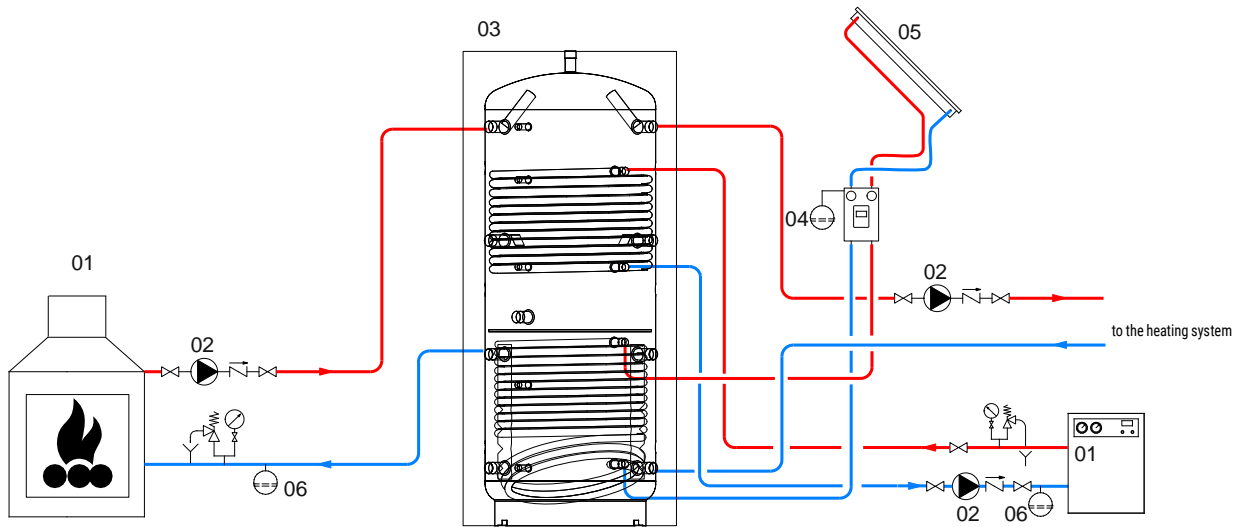


- | | | | | | |
|----|----------------------------------|----|----------|--------------------------------|--------------|
| 01 | Generator | 03 | Puffer 1 | 05 | Solar panels |
| 02 | Heating system circulation group | | 04 | Solar system circulation group | |

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

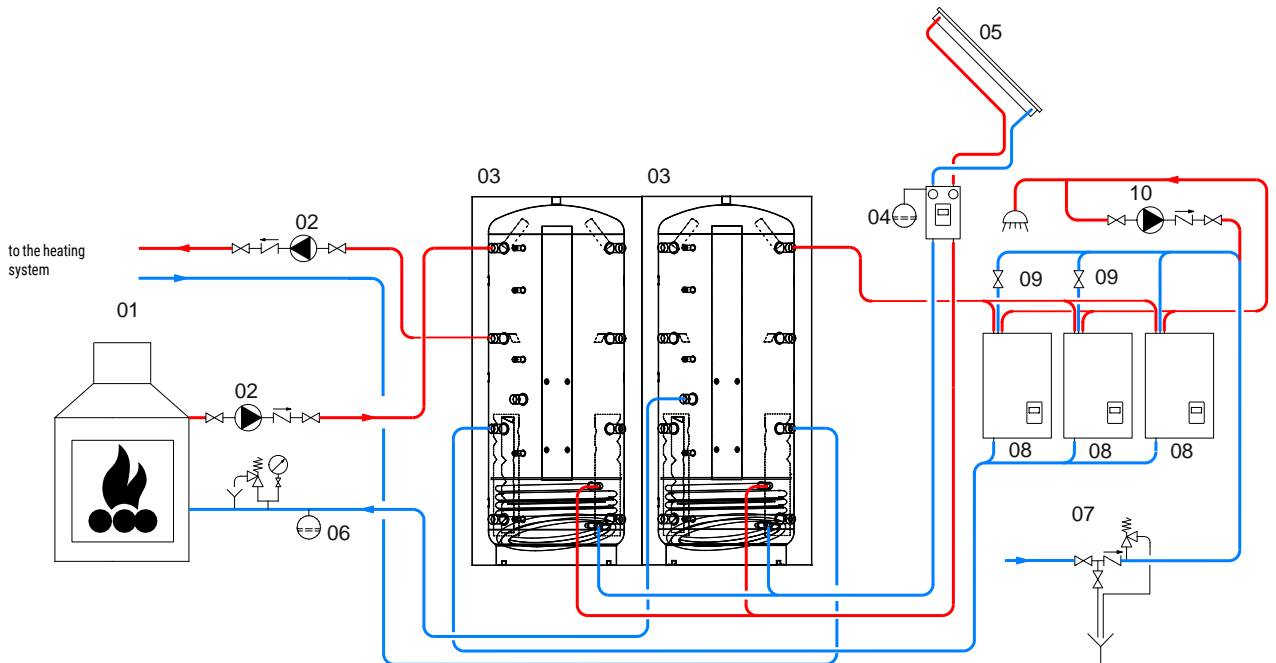
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH PUFFER 2



01	Generator	03	Puffer 2	05	Solar panels
02	Heating system circulation group	04	Solar system circulation group	06	Expansion vessel

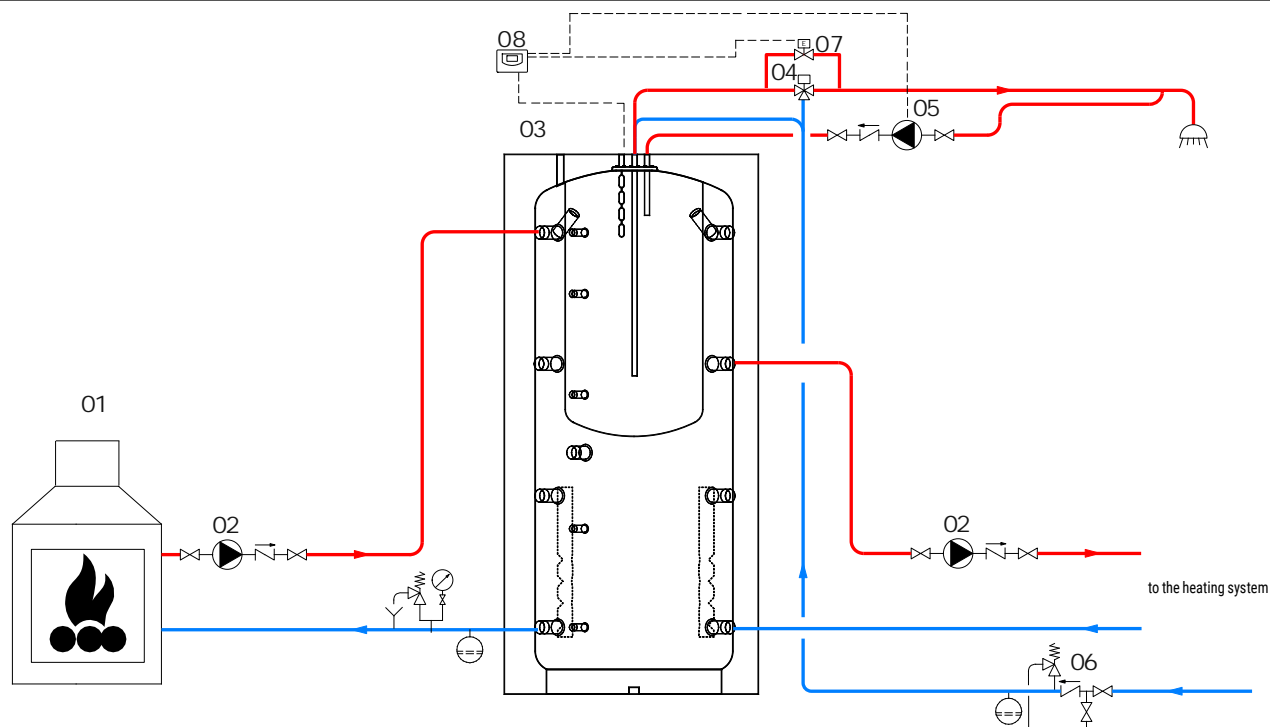
EXAMPLE OF INSTALLATION WITH CONNECTED PUFFER 1 CTS® AND CASCADE MACS® MODULES



01	Generator	04	Solar system circulation group	07	Hydraulic safety group	10	D.H.W. recirculation group
02	Heating system circulation group	05	Solar panels	08	Cascade MACS® modules		
03	Puffer® 1 CTS	06	Expansion vessel	09	Solenoid valve		

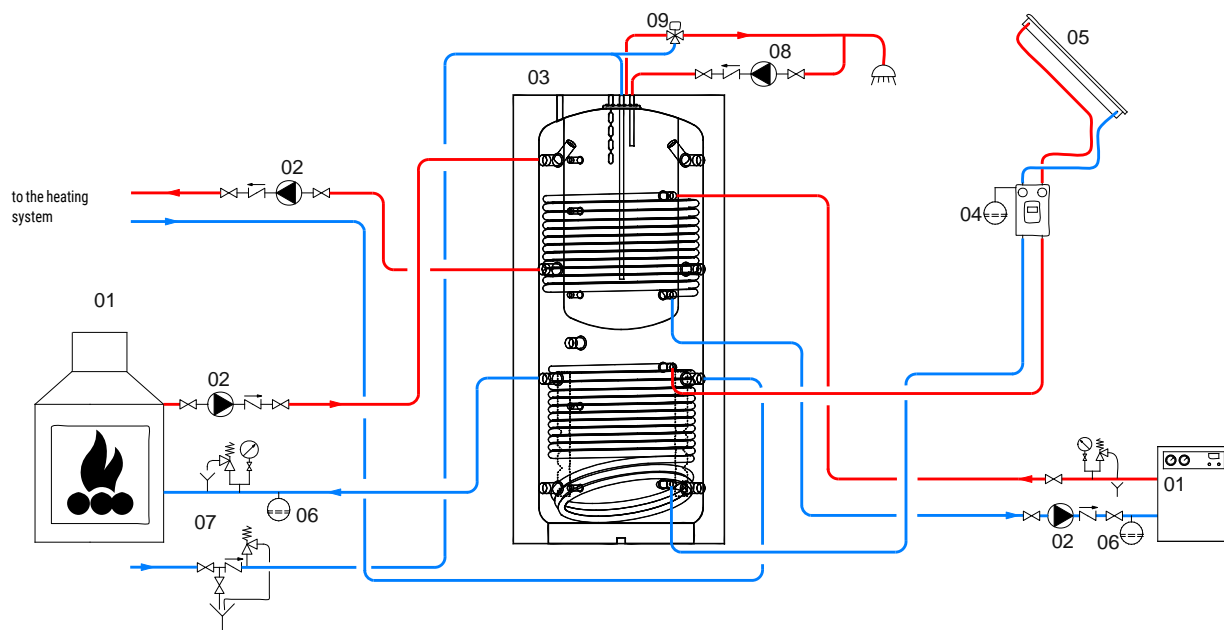
The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

EXAMPLE OF INSTALLATION WITH COMBI 1



01	Generator	03	Term. Combi 1	05	D.H.W. recirculation group
02	Heating system circulation group	04	Thermostatic mixing valve	06	Hydraulic safety group

EXAMPLE OF INSTALLATION WITH COMBI 3

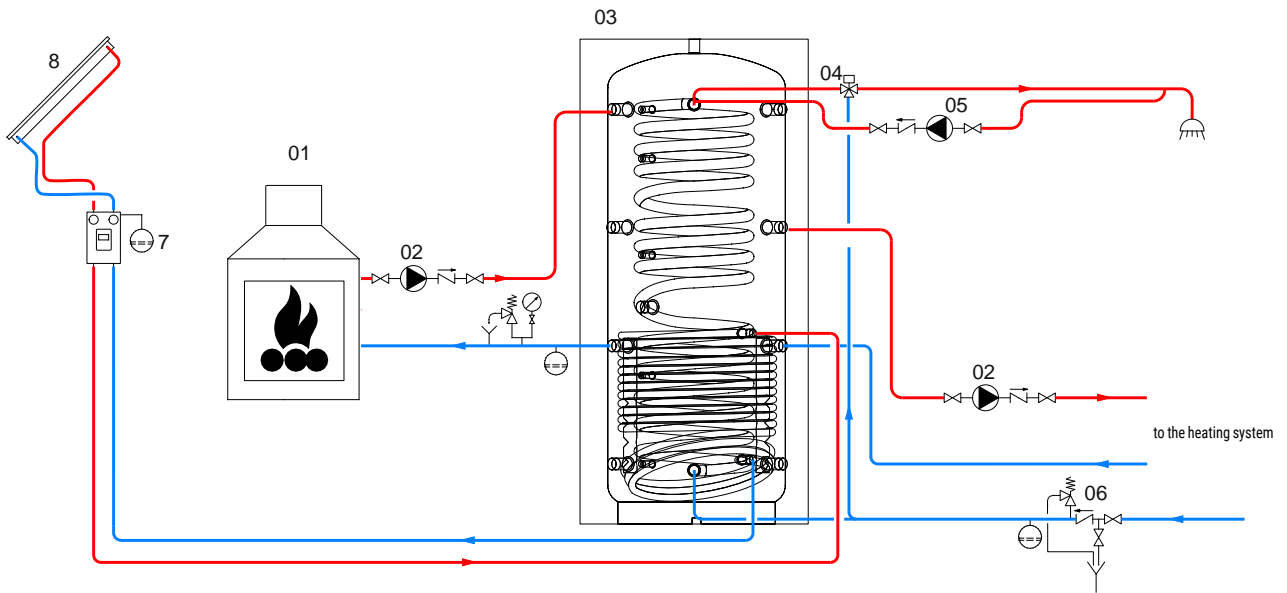


01	Generator	04	Solar system circulation group	07	Hydraulic safety group
02	Heating system circulation group	05	Solar panels	08	D.H.W. recirculation group
03	Term. Combi 3	06	Expansion vessel	09	Thermostatic mixing valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

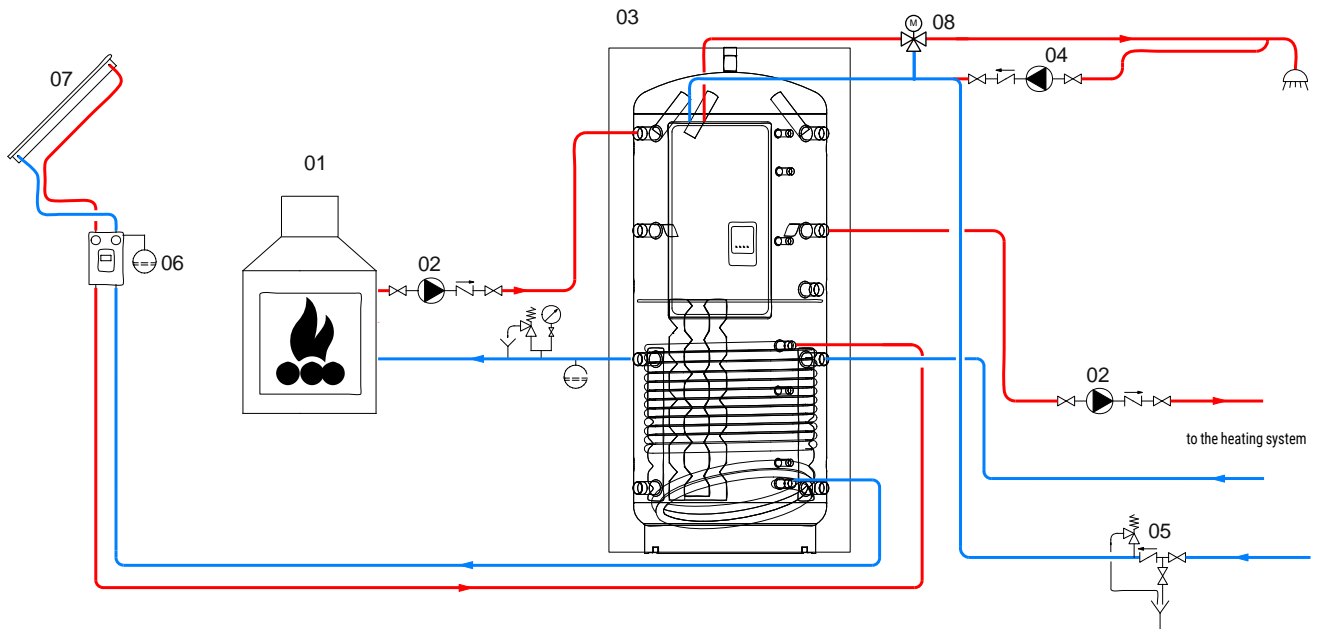
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH ECO-COMBI 2



01	Generator	03	Term. Eco Combi 2	05	D.H.W. recirculation group	07	Solar system circulation group
02	Heating system circulation group	04	Thermostatic mixing valve	06	Hydraulic safety group	08	Solar panels

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 2

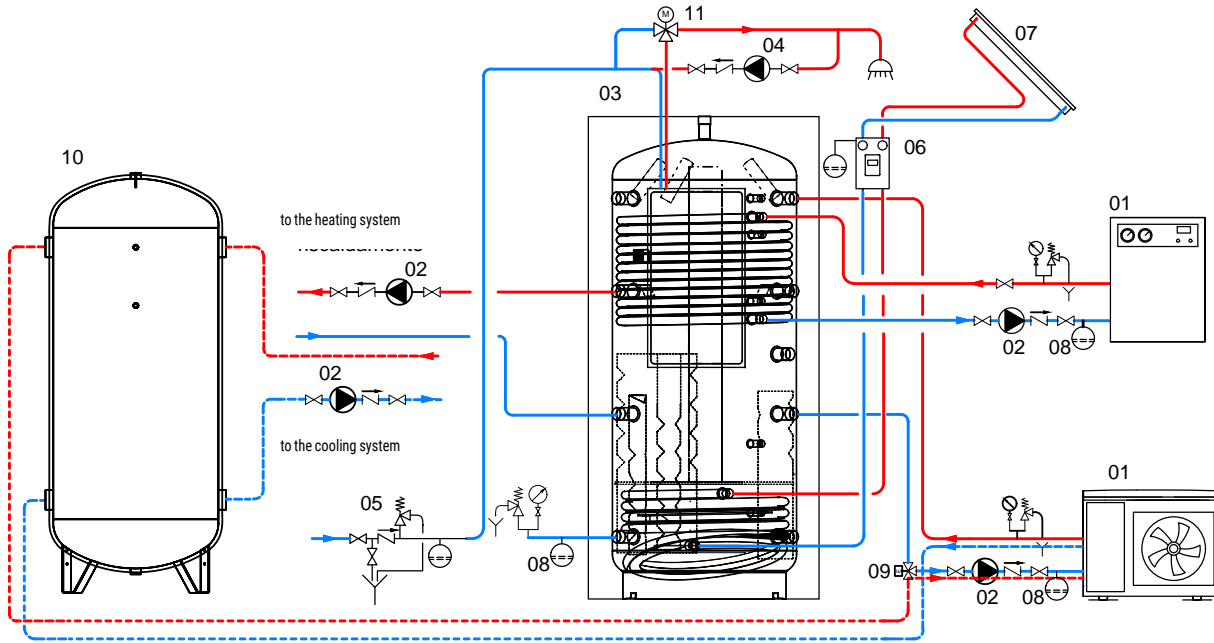


01	Generator	03	PUFFERMAS® 2	05	Hydraulic safety group	07	Solar panels
02	Heating system circulation group	04	D.H.W. recirculation group	06	Solar system circulation group	08	Thermostatic mixing valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

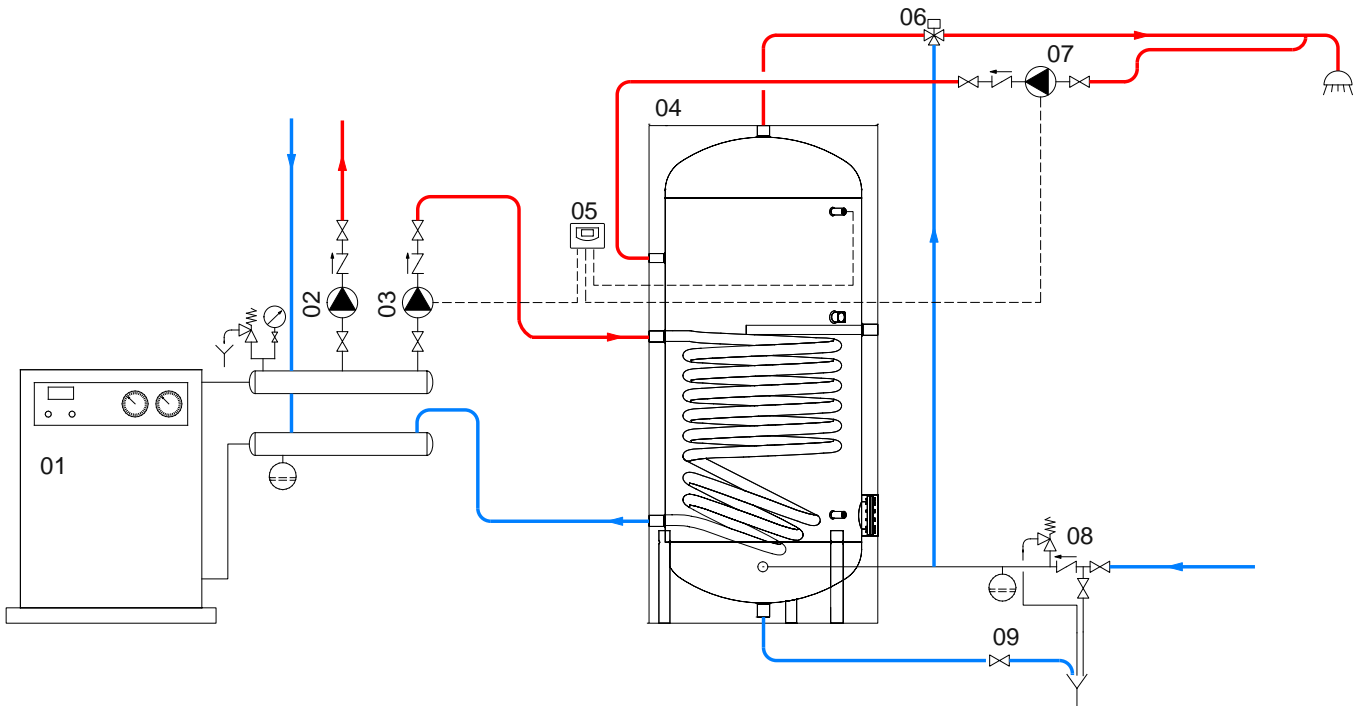
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 3 CTS AND CHILLED WATER TANK



01	Generator	04	D.H.W. recirculation group	07	Solar panels	10	Chilled water tank
02	Heating system circulation group	05	Hydraulic safety group	08	Expansion vessel	11	Thermostatic mixing valve
03	Term. Puffermas® 3	06	Solar system circulation group	09	Solenoid valve		

EXAMPLE OF INSTALLATION WITH BOLLY® 1 ST / 1 ST FB

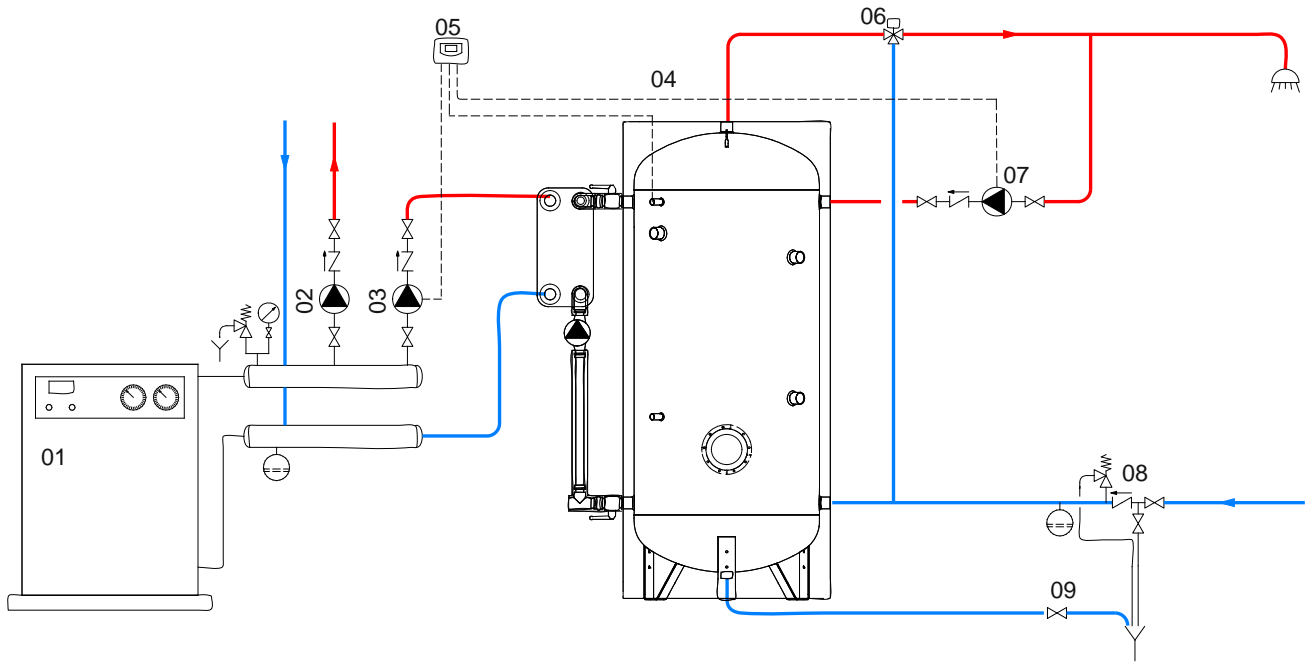


01	Generator	04	BOLLY® 1 ST / 1 ST FB	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. circulation group	06	Thermostatic mixing valve	09	Blowdown valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

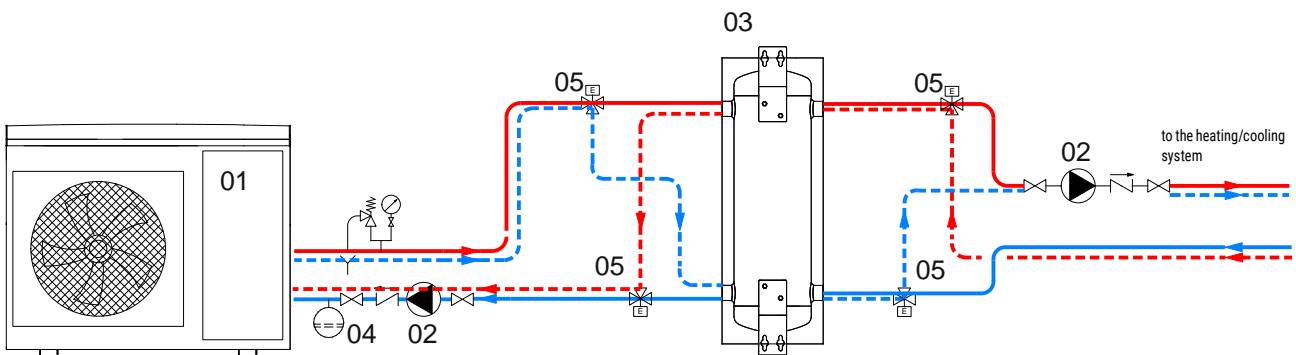
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH **PIASTRATERM®**



01	Generator	04	PIASTRATERM®	07	D.H.W. recirculation group
02	Heating system circulation group	05	Electronic control /thermostat	08	Hydraulic safety group
03	D.H.W. recirculation group	06	Thermostatic mixing valve	09	Blowdown valve

EXAMPLE OF INSTALLATION WITH **BUFFER TANK PDC PENSILE**

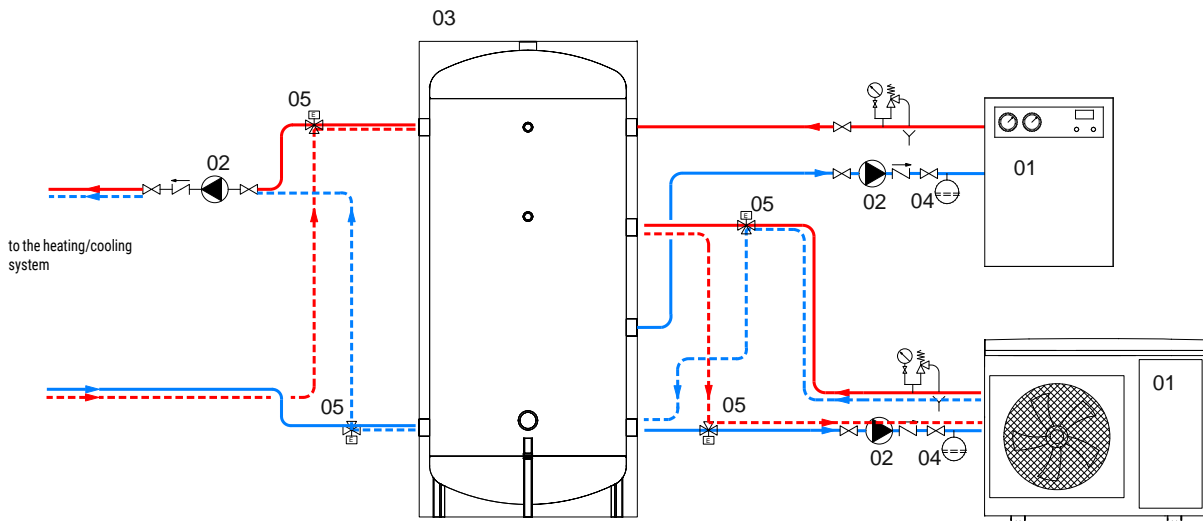


01	Generator	03	Buffer tank PDC wall hanging	05	3-way valve
02	Circulation group for heating/cooling system	04	Expansion vessel		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

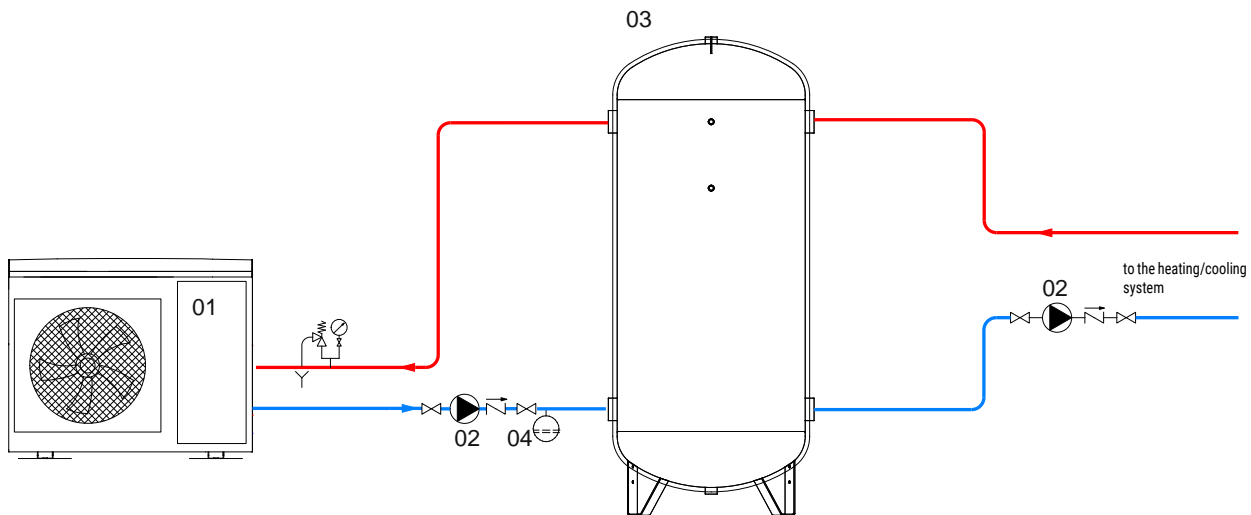
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH **BUFFER TANK PDC**



01	Generator	03	Buffer tank PDC	05	3-way valve
02	Circulation group	04	Expansion vessel		

EXAMPLE OF INSTALLATION WITH **CHILLED WATER**

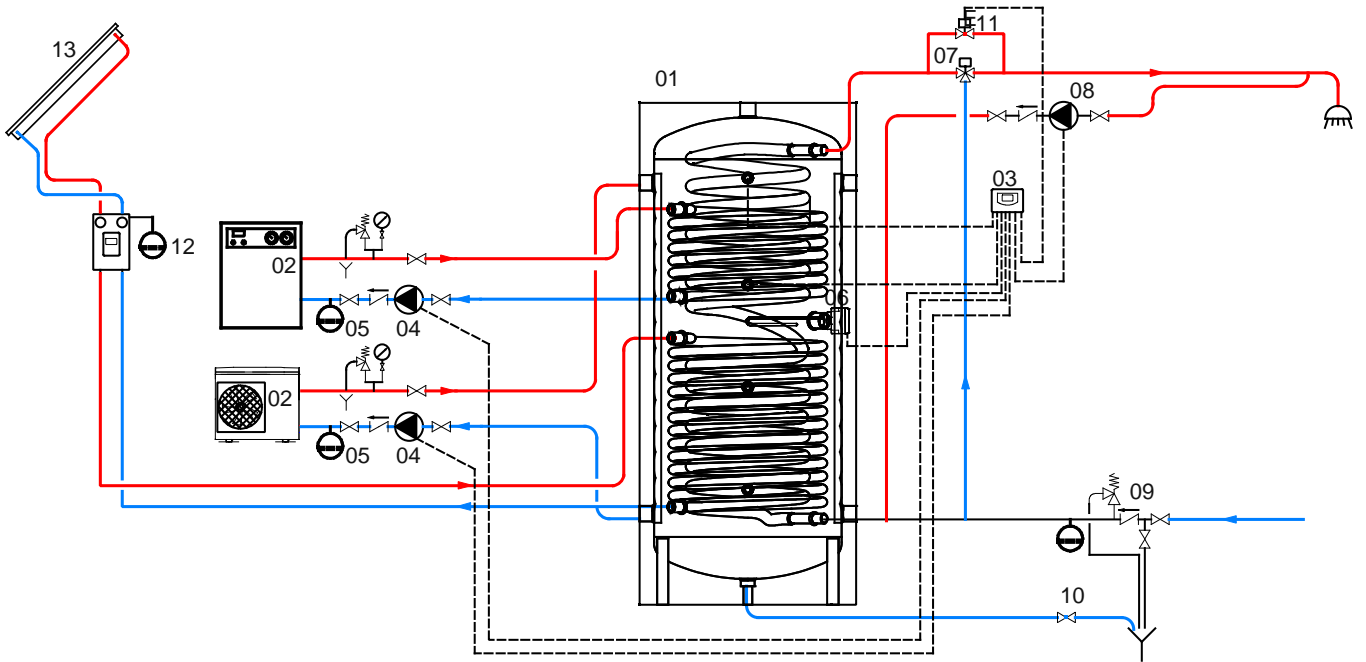


01	Generator	02	Air conditioning system circulation group	03	Chilled water tank	04	Expansion vessel
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The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

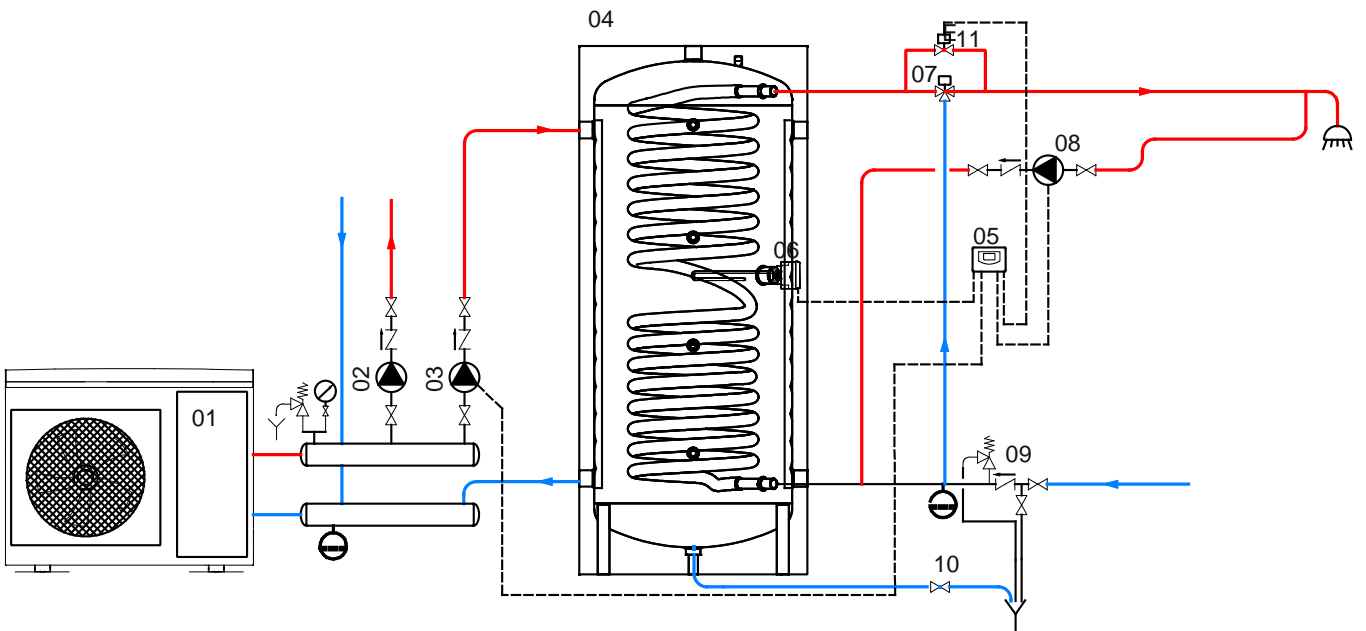
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH ECO-COMBI 3 PDC



01	Eco Combi 3 PDC	05	Expansion vessel	09	Hydraulic safety group	13	Solar panels
02	Generator	06	Electric immersion heater (optional)	10	Blowdown valve		
03	Electronic control /thermostat	07	Thermostatic mixing valve	11	By-pass solenoid valve		
04	Circulation group	08	D.H.W. recirculation group	12	Solar system circulation group		

EXAMPLE OF INSTALLATION WITH ECO-COMBI 1 PDC

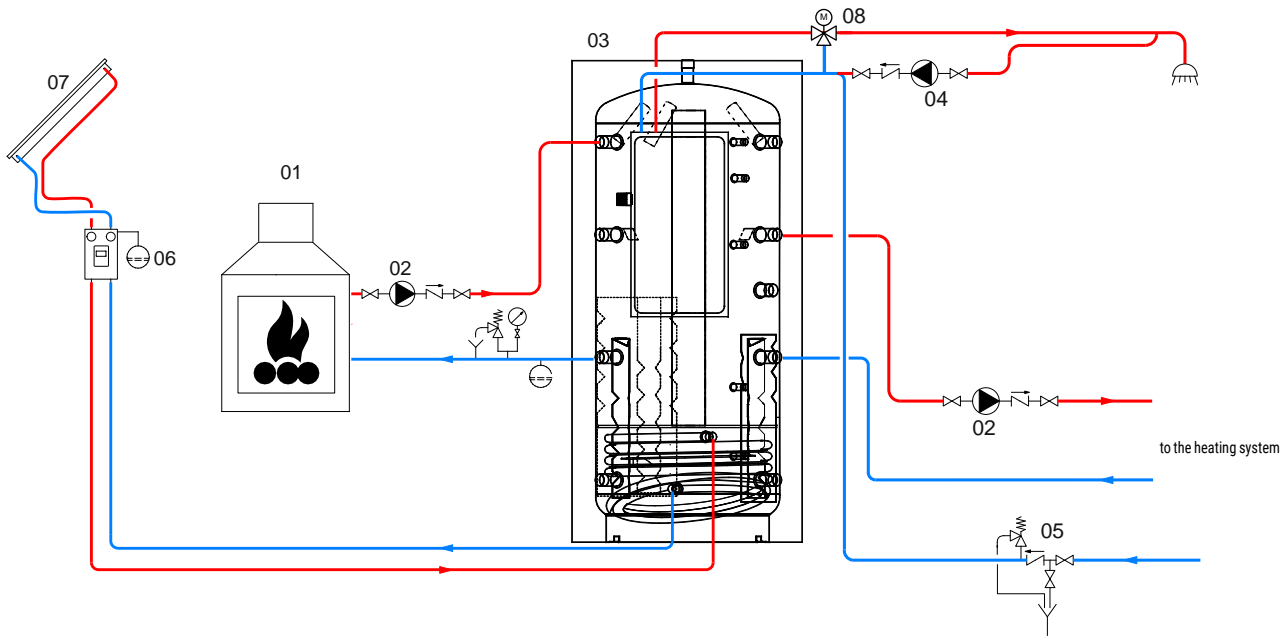


01	Generator (Heat pump)	04	Term. Eco Combi 1 PDC	07	Thermostatic mixing valve	10	Blowdown valve
02	Heating system circulation group	05	Electronic control /thermostat	08	D.H.W. recirculation group	11	By-pass solenoid valve
03	D.H.W. circulation group	06	Electric immersion heater (optional)	09	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

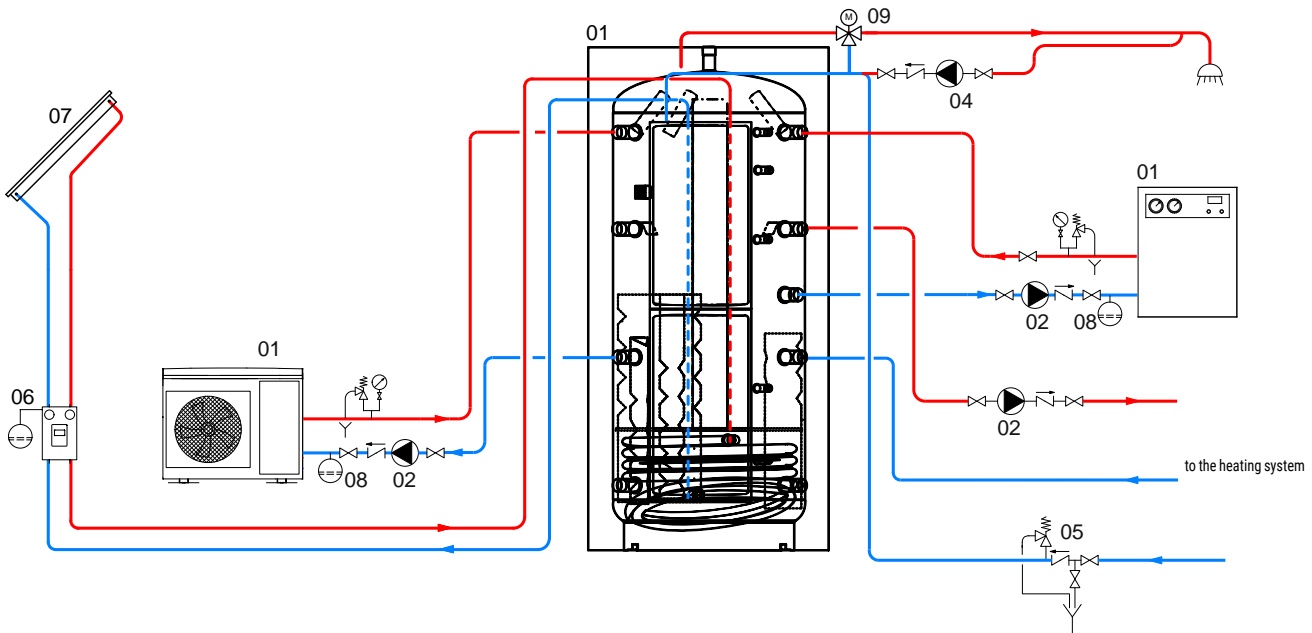
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 2 CTS



01	Generator	03	Term. Puffermas 2 CTS	05	Hydraulic safety group	07	Solar panels
02	Heating system circulation group	04	D.H.W. recirculation group	06	Solar system circulation group	08	Thermostatic mixing valve

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 2 CTS POWER

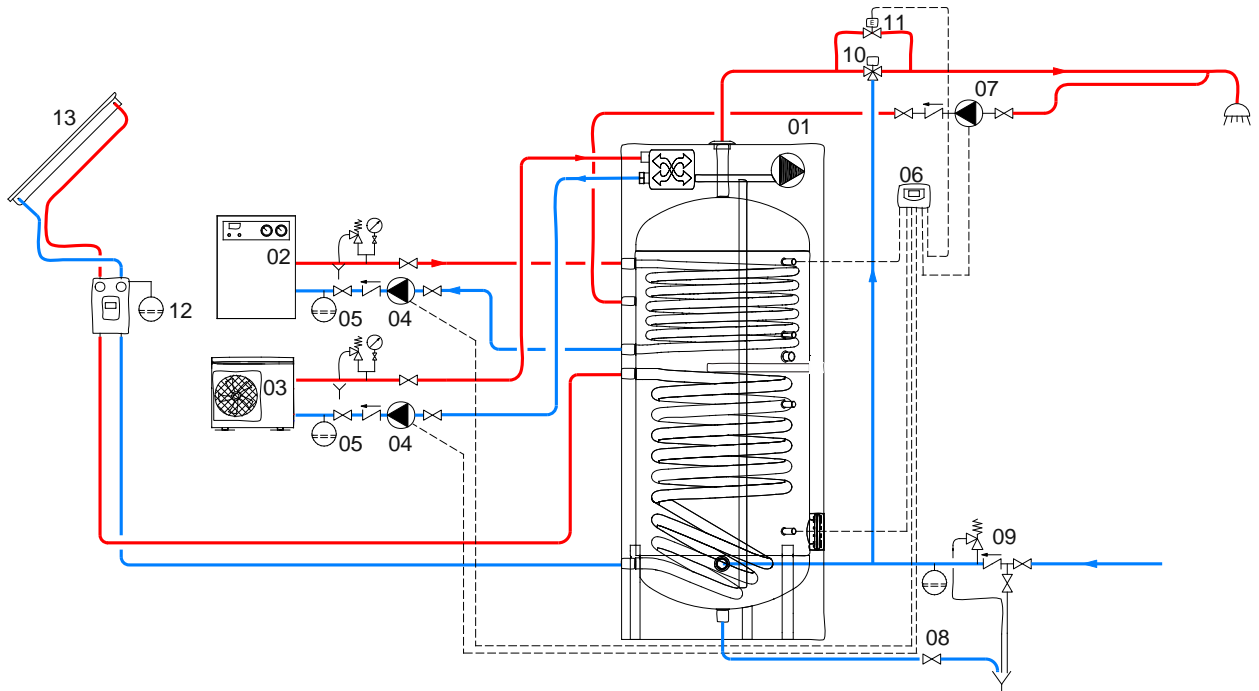


01	Generator	04	D.H.W. recirculation group	07	Solar panels
02	Heating system circulation group	05	Hydraulic safety group	08	Expansion vessel
03	Term. Puffermas 2 CTS POWER	06	Solar system circulation group	09	Thermostatic mixing valve

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

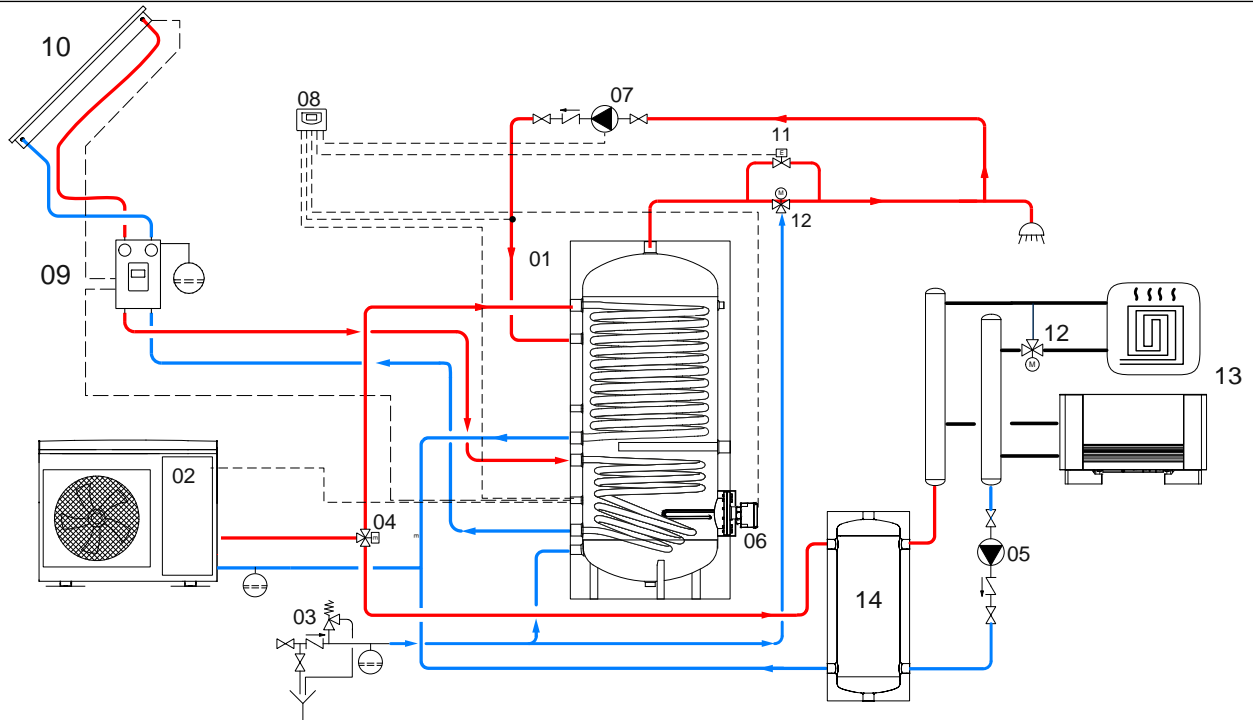
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH BOLLY® 3 PDC



01 BOLLY® 3 PDC	05 Expansion vessel	09 Hydraulic safety group	13 Solar panels
02 Generator	06 Electronic control /thermostat	10 Thermostatic mixing valve	
03 Heat Pump	07 D.H.W. recirculation group	11 By-pass solenoid valve	
04 Circulation group	08 Blowdown valve	12 Solar system circulation group	

EXAMPLE OF INSTALLATION WITH BOLLY® 2 XL INOX

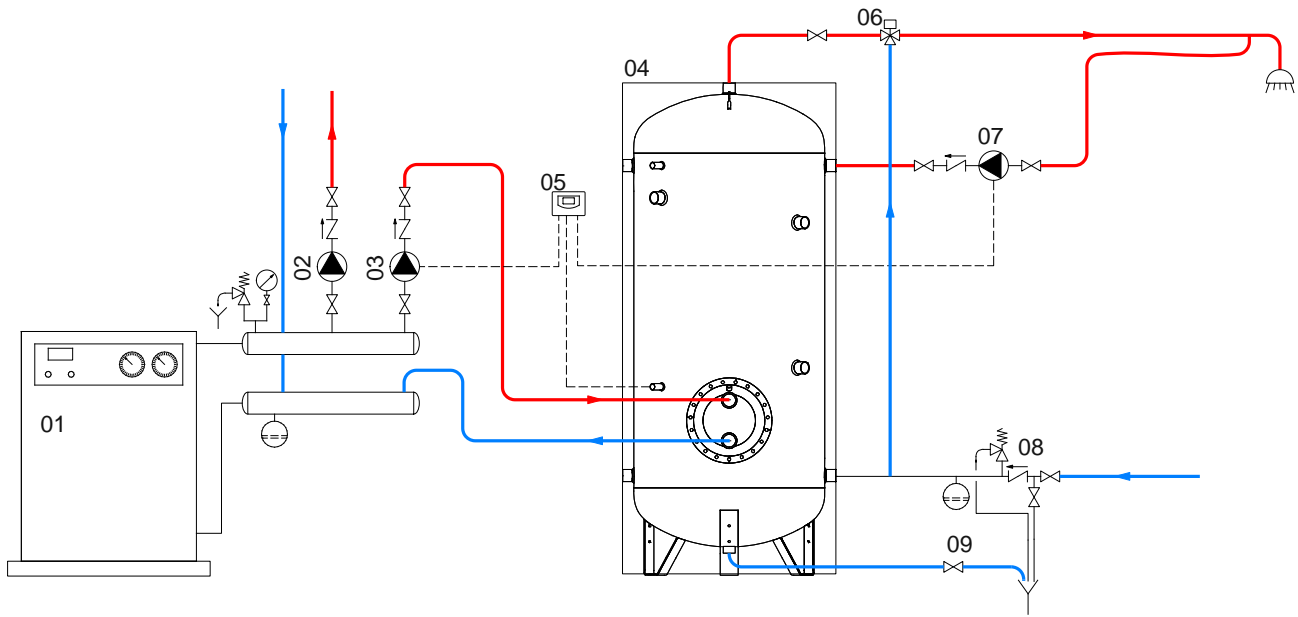


01 Bolly® 2 XL	05 Circulation group for heating/cooling system	09 Solar system circulation group	13 Heating units
02 Generator (Heat pump)	06 Electric immersion heater (optional)	10 Solar panels	14 Buffer tank
03 Hydraulic safety group	07 D.H.W. recirculation group	11 By-pass solenoid valve	
04 Motorized three-way valve	08 Electronic control /thermostat	12 Mixing valve	

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

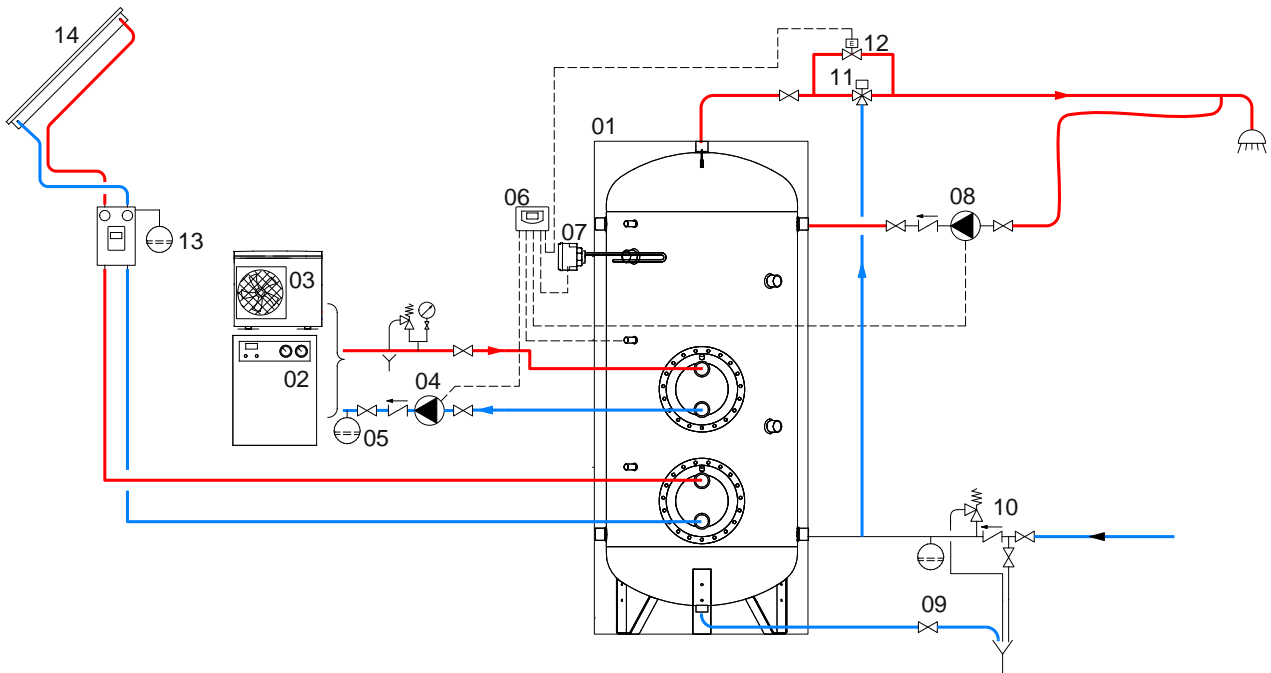
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH EXTRA 1



1	Generator	4	EXTRA 1	7	D.H.W. recirculation group
2	Heating system circulation group	5	Electronic control /thermostat	8	Hydraulic safety group
3	D.H.W. circulation group	6	Thermostatic mixing valve	9	Blowdown valve

EXAMPLE OF INSTALLATION WITH EXTRA 2

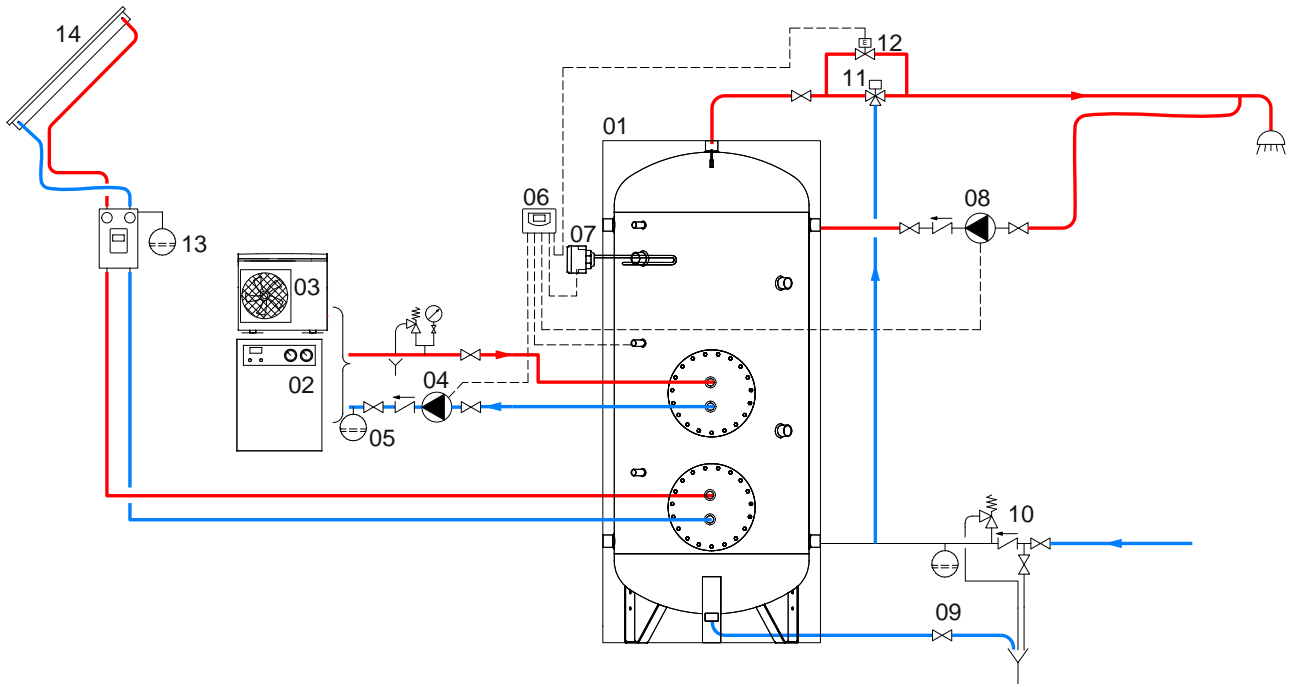


1	EXTRA 2	5	Expansion vessel	9	Blowdown valve	13	Solar system circulation group
2	Generator	6	Electronic control /thermostat	10	Hydraulic safety group	14	Solar panels
3	Heat pump generator	7	Electric immersion heater (optional)	11	Thermostatic mixing valve		
4	Circulation group	8	D.H.W. recirculation group	12	By-pass solenoid valve		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

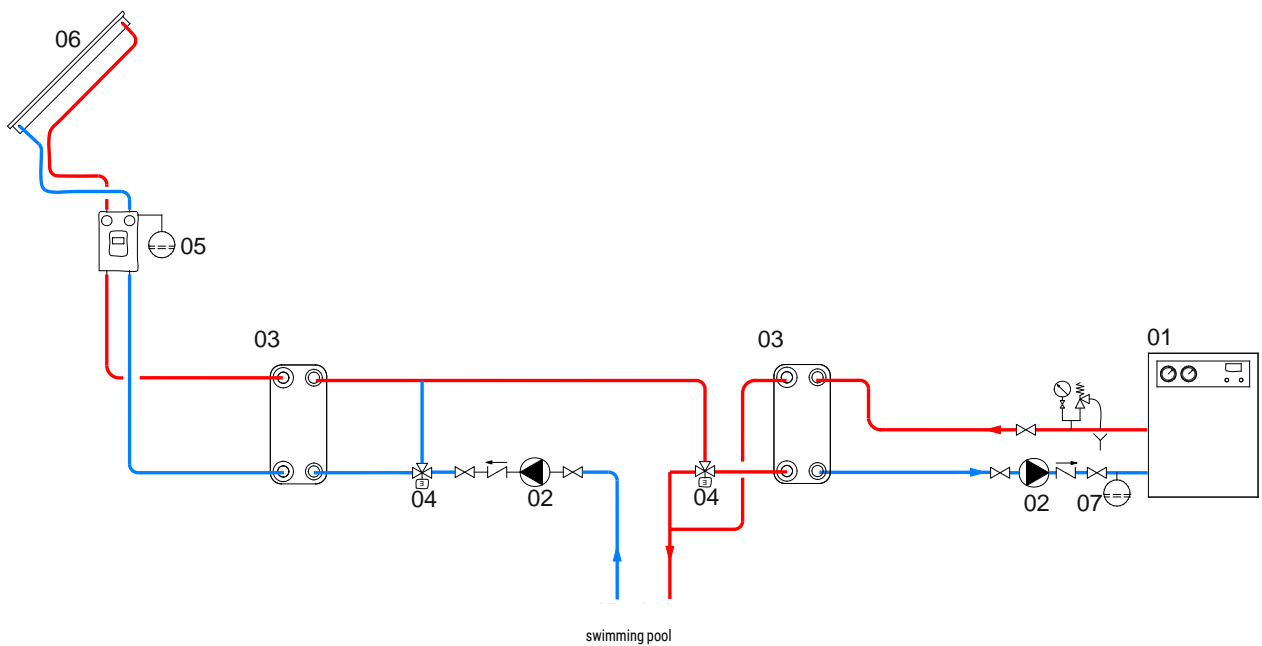
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH EXTRA 2 PLUS



1	EXTRA 2 PLUS	5	Expansion vessel	9	Blowdown valve	13	Solar system circulation group
2	Generator	6	Electronic control /thermostat	10	Hydraulic safety group	14	Solar panels
3	Heat pump generator	7	Electric immersion heater (optional)	11	Thermostatic mixing valve		
4	Circulation group	8	D.H.W. recirculation group	12	By-pass solenoid valve		

EXAMPLE OF INSTALLATION WITH PHC EXCHANGERS AND SOLAR THERMAL SYSTEM FOR SWIMMING POOL HEATING

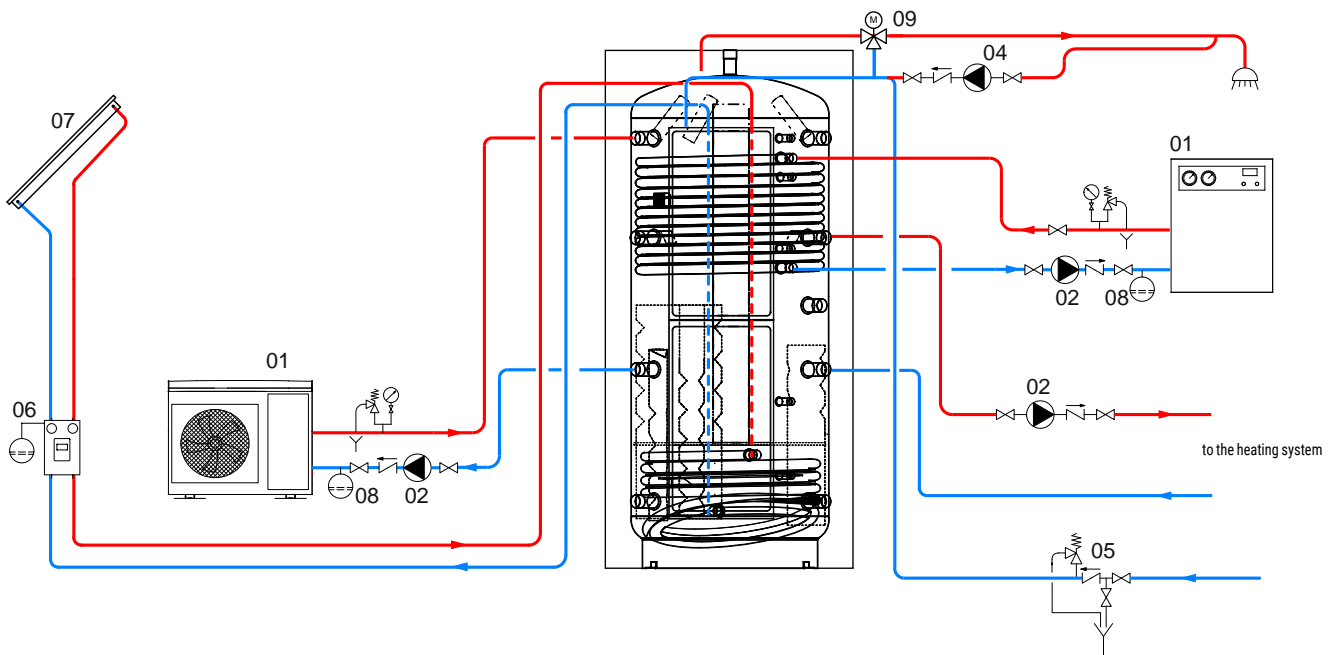


01	Generator	03	PHC exchanger	05	DHW recirculation group	07	Expansion vessel
02	Heating system circulation group	04	3-way valve	06	Solar panels		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

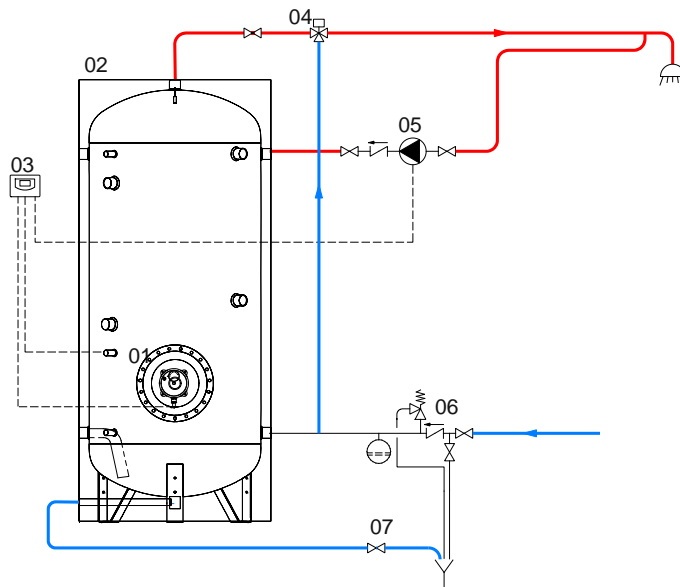
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH PUFFERMAS® 3 CTS POWER



01	Generator	04	D.H.W. recirculation group	07	Solar panels
02	Heating system circulation group	05	Hydraulic safety group	08	Expansion vessel
03	Term. Puffermas 3 CTS POWER	06	Solar system circulation group	09	Thermostatic mixing valve

EXAMPLE OF INSTALLATION WITH VASO INERZIALE A1

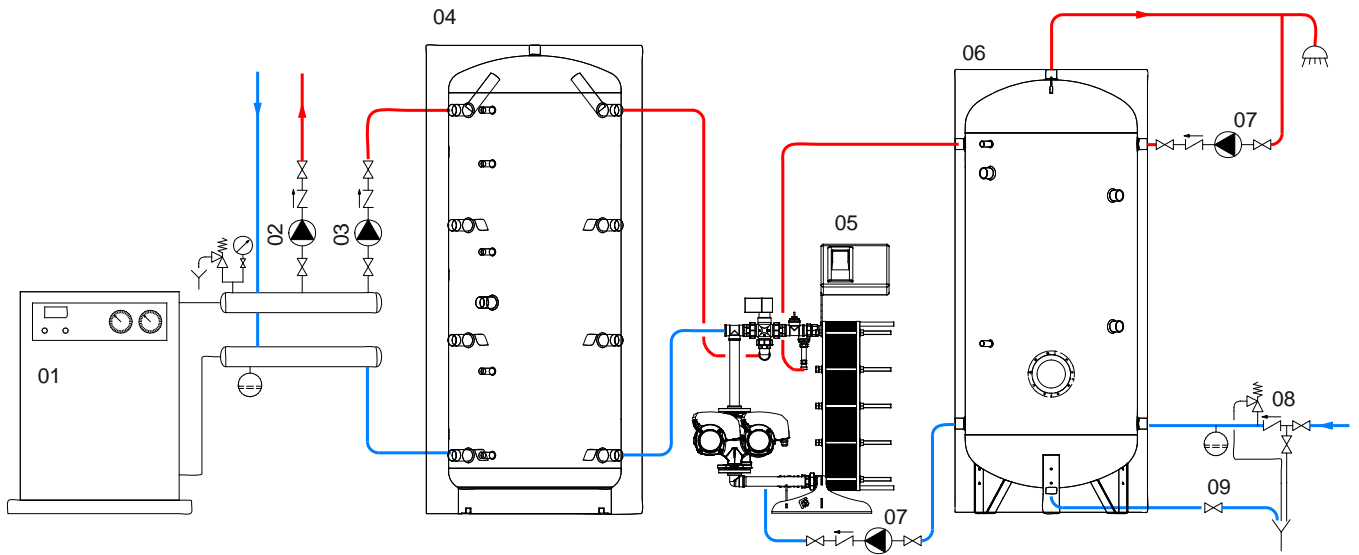


01	Generator	03	Electronic control /thermostat	05	DHW recirculation group	07	Blowdown valve
02	VASO INERZIALE A1	04	Thermostatic mixing valve	06	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

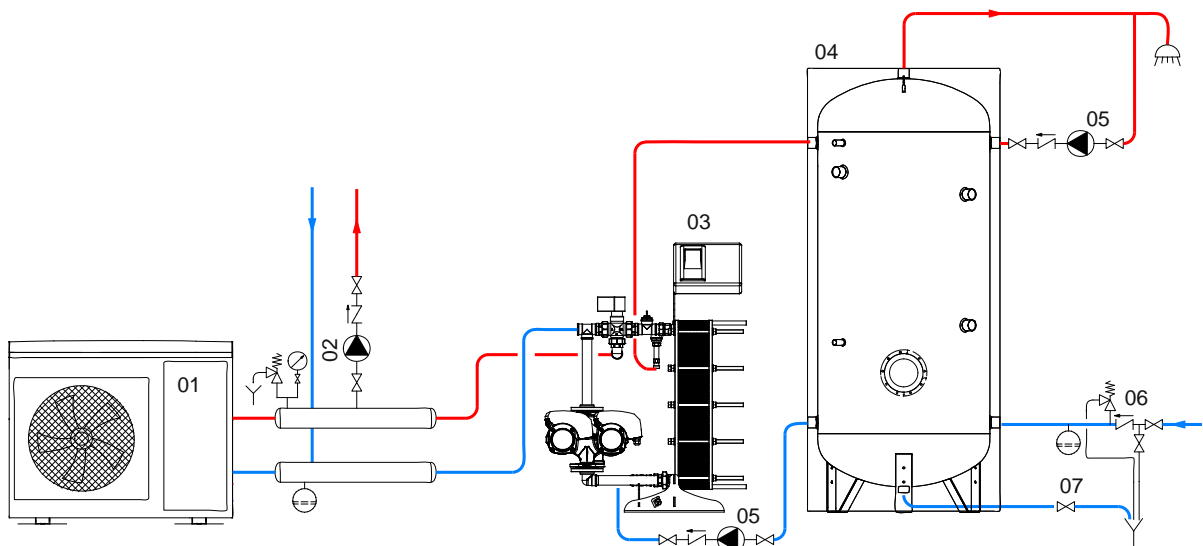
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH PRS MODULE - FOR DHW STORAGE



01	Generator	04	PUFFER (Inertial tank)	07	D.H.W. recirculation group
02	Heating system circulation group	05	PRS Module	08	Hydraulic safety group
03	Primary circulation group	06	VASO INERZIALE	09	Blowdown valve

EXAMPLE OF INSTALLATION WITH PRS MODULE - FOR DHW STORAGE

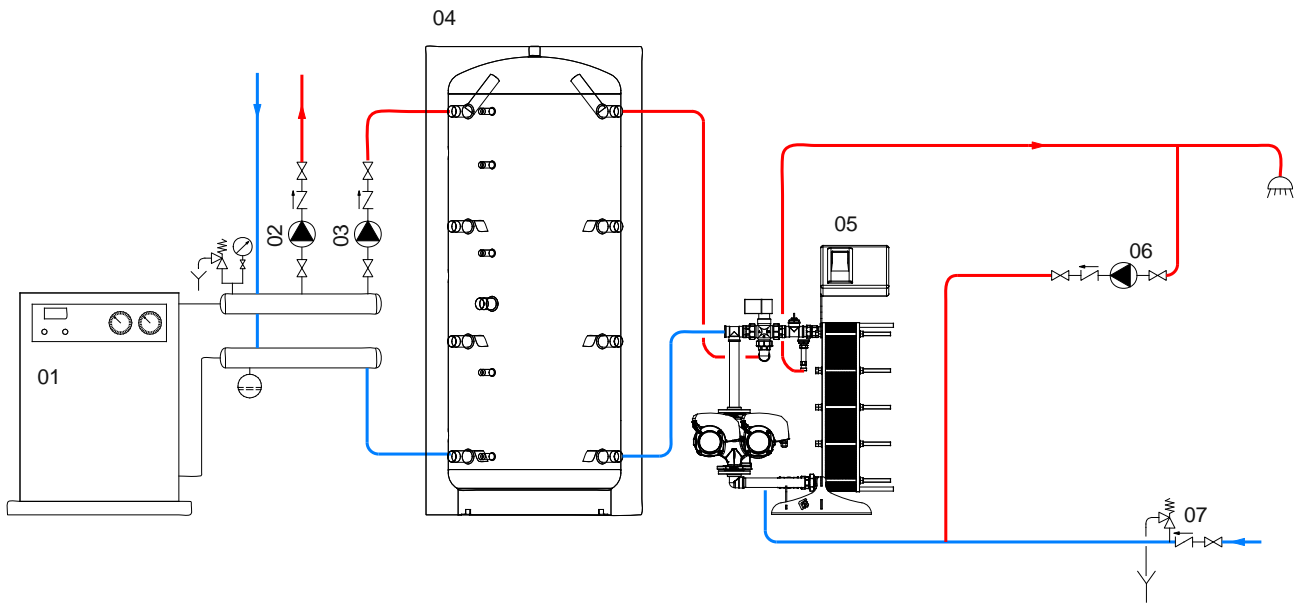


01	Generator	04	VASO INERZIALE	07	Blowdown valve
02	Heating system circulation group	05	D.H.W. recirculation group		
03	PRS Module	06	Hydraulic safety group		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.

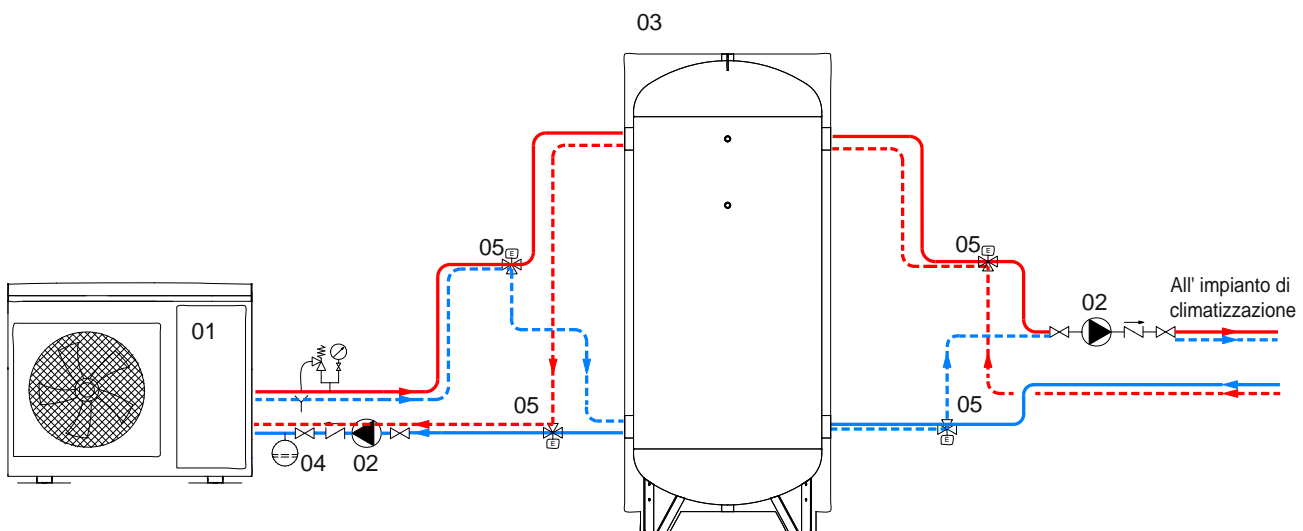
EXAMPLES OF INSTALLATION

EXAMPLE OF INSTALLATION WITH **PRS MODULE** - WITHOUT DHW STORAGE



01	Generator	03	Primary circulation group	05	PRS Module	07	Hydraulic safety group
02	Heating system circulation group	04	PUFFER (Inertial tank)	06	D.H.W. recirculation group		

EXAMPLE OF INSTALLATION WITH **BUFFER TANK**



01	Generator	03	VOLANO TERMICO	05	3-way valve
02	Cooling system circulation group	04	Expansion vessel		

The following schemes are purely illustrative. To realize the installation, always refer to a qualified technician.



Quality Certificate UNI EN ISO 9001



Environmental managing System Certificate UNI EN ISO 14001:2004

Cordivari has always placed among its main goals:

- The continuous improvement of the products manufactured;
- The commitment to use low environmental impact materials that can be almost 100% recycled;
- The achievement of the total quality

According to that, Cordivari has worked to obtain the most significant certifications that attest the commitment of the Company on the inside and outwards.

ITALIANS AND EUROPEAN LAWS AND REGULATIONS

Main laws and regulations concerning production and installation of pressurised tanks:

ErP Energy Related Products – Ecodesign Directive 2009/125/CE

UNI EN 12897:2016 - technical details for storage of sanitary hot water and indirect heating systems.

Disposals 2014/68/UE for pressurized equipment

DGLS 15 february 2016, n. 26 - Application of Directive 2014/68/UE Pressure Equipment.

Decrete 1/12/2004 n. 329 - Installation of equipment and pressurized ensemble.

Law January 9th 1991, n. 10 – National energy plan, for energy saving and energy development for renewable energy source

D.P.R. 26-8-1993 n. 412 – applying regulation law 10/91

D.L. 25/01/1992, n.108 – application of disposal n. 89/109/CEE concerning material and object destined to get in touch with food products.

DPR 777 del 23/08/1982 - application of European Directive 76/893

D.M. 21/03/1973 – Decree Law concerning water for human consumption

D.M. 174 del 06/04/2004 Decree Law concerning water for human consumption

Disposals 2014/29/CE – air compressor tanks planning and production.

UNI CTI 8065 - Water Treatment

“Raccolta R ed. 2009 cap. R.1.A.” - Expansion System



CE certification in accordance with 2014/68/UE Pressure Equipment regulations relevant to pressure vessels



CE certification in accordance with requirements of 2014/68/UE Pressure Equipment regulations for pressurized tanks (equipped pressure vessel)



CE certification in accordance with requirements of 2014/68/UE Pressure Equipment regulations for pressurized tanks (exchanging diaphragm pressure vessels).



Test certification of the silicone gaskets suitable for water intended for human consumption (tested according to 98/83/CE), max temperature up to 200°C.

TEST REPORT N°
ITAH18011510/E1 - Amendment of 31/08/2018

START DATE: 06/08/2018
END DATE: 31/08/2018

intertek
Total Quality Assured.

Standard	Parameter	Method	Unit	Result	Limit	Pass	Fail	NA
Overall Migration Item for regulated use Reg. CE 1831/2003 + CE 1831/2004 + Reg. CE 1935/2004	Simulant	Ethanol 10%						ITA
	Test Conditions	4h, 100°C						ITA
	Amount	< 1	mg/dm²	10	1			ITA
	Sample Area/Simulant	0.3	dm²/dL					ITA
	Volume Ratio							ITA
	Simulant	Acetic Acid 3%						ITA
	Test Conditions	4h, 100°C						ITA
	Amount	< 1	mg/dm²	10	1			ITA
	Sample Area/Simulant	0.3	dm²/dL					ITA
	Volume Ratio							ITA
	Simulant	Ethanol 95%						ITA
	Test Conditions	7h, 60°C						ITA
Amount	1.3	mg/dm²	10	1			ITA	
Sample Area/Simulant	0.3	dm²/dL					ITA	
Volume Ratio							ITA	
Simulant	Isocitrate							ITA
Test Conditions	2h, 60°C							ITA
Amount	< 1	mg/dm²	10	1			ITA	
Sample Area/Simulant	0.3	dm²/dL						ITA
Volume Ratio								ITA
Heavy Metals Migration Council of Europe Resolution ENV(1970)10 - Reg. CE 1935/2004	Simulant	Acetic acid 3%						ITA
	Test Conditions	10 days, 40°C						ITA
	Bismuth	< 0.1	mg/kg	1	0.1			ITA
	Cadmium	< 0.04	mg/kg	0.05	0.04			ITA
	Copper	< 1	mg/kg	5	1			ITA
	Iron	< 5	mg/kg	48	5			ITA
	Manganese	< 0.1	mg/kg	0.6	0.1			ITA
	Plc	< 2.0	mg/kg	5	2.0			ITA
	Lithium	< 0.1	mg/kg	0.6	0.1			ITA
	Aluminium	< 0.1	mg/kg	1	0.1			ITA
	Simulant	Acetic acid 3%						ITA
	Test Conditions	4 h, 100°C						ITA
FAA - Sum of Primary Aromatic Amines	< 0.01	mg/kg	0.01	0.01			ITA	
Eject Migration D.M. 54 of 21.3.73 and Amendments - Reg. CE 1935/2004	Simulant	Ethanol 10%						ITA
	Test Conditions	4h, 100°C						ITA
	Optical Transmittance	98	%	>95				ITA
	Simulant	Acetic Acid 3%						ITA
	Test Conditions	4h, 100°C						ITA
	Optical Transmittance	98	%	>95				ITA
	Simulant	Ethanol 20%						ITA
	Test Conditions	4h, 100°C						ITA
	Optical Transmittance	97	%	>95				ITA

ACCREDITIA
LAB N° 2016

Norvik Italia S.p.A.
Administrative Office Via Magenta, 2/A - 20050 Corsico (MI) - Italy
Operational Office Via G. Spadolini, 11/C - 20090 Sesto San Giovanni (MI) - Italy
Tel. 02/90570071 Fax 02/90579116

page 3 of 4

Test report of internal treatment for food use Polywarm® in accordance with D.M. nr. 174 del 06/04/04

Approval Number: 1805517
Test Report: MA6274K

WRAS
APPROVED MATERIAL

Water Regulations Advisory Scheme Ltd
Unit 13,
Willow Road,
Pen y Fan Industrial Estate,
Cwmist,
Gwent,
NP11 4EG

23rd May 2018
Cordivari Srl,
ZI Pagliare - 64020 Morro Doro (Teramo),
Italy

**WATER REGULATIONS ADVISORY SCHEME LTD. (WRAS)
MATERIAL APPROVAL**

The material referred to in this letter is suitable for contact with wholesome water for domestic purposes having met the requirements of BS6920-1:2000 and/or 2014 'Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water'.

The reference relates solely to its effect on the quality of the water with which it may come into contact and does not signify the approval of its mechanical or physical properties for any use.

COATINGS, PAINTS & LININGS - FACTORY APPLIED PIPE & FITTINGS COATINGS. 5030

'Polywarm'. Factory applied, brown coloured enamel powder coating. Apply as per manufacturer's instructions '1024'. Cure for 20 minutes @ 240°C. For use with water up to 85°C.

APPROVAL NUMBER: 1805517
APPROVAL HOLDER: CORDIVARI SRL

The Scheme reserves the right to review approval.
Approval 1805517 is valid between May 2018 and May 2023

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, 'Materials which have passed full tests of effect on water quality'.

The Directory may be found at: www.wrass.co.uk/directory

Yours faithfully

Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme

The Water Regulations Advisory Scheme Ltd. Registered in England No. 0862330 Registered office: 40 Latch Close, Harewood, Stockport, SK7 3ED
Tel: +44(0)1625 207 920 Fax: +44(0)1625 245 540 Email: info@wrass.co.uk Website: www.wrass.co.uk

WRAS-Water Regulation Advisory Scheme certificate for Polywarm® coating

ofi
OFFICE OF HYGIENE

Test Report

Report No.: 2100650 / 13621 / 1H Date: 2021-08-10

Client / Producer: Cordivari s.r.l.
Zona Industriale Pagliare
IT - 64025 Morro d'Oro

Subject: Test plates coated with POLYWARMP

Task: Test according to EN 18421:2015 method 2
'Influence of materials on water for human consumption - Enhancement of microbial growth (EMG)'

Order: M: Marin, 2021-03-10

Date of sampling: No samples taken by OFI staff, samples provided by the client

Location of sampling: No samples taken by OFI staff, samples provided by the client

Receipt of samples: 2021-03-28



OFI - Office of Hygiene
Via S. Maria Maddalena, 1 - 00187 Roma
Tel. 06/49810000 - Fax 06/49810001
www.ofi.gov.it

Certificate of Conformity for Polywarm® according to EN 16421.

NARODOWY INSTYTUT ZDROWIA PUBLICZNEGO
- Państwowy Zakład Higieny
Zakład Bezpieczeństwa Zdrowotnego Środowiska
ATEST HIGIENICZNY BK/W/1199/WJ/2018
HYGIENIC CERTIFICATE
OFI/0204

NATIONAL INSTITUTE OF PUBLIC HEALTH - NATIONAL INSTITUTE OF HYGIENE

Wyroby / product: POLYWARMP - powłoka do podgrzewaczy ciepłej wody - rozzerz handlowe: Boly 1.0/L1, Murale/POC, Extra 1/2/3, Vaso Isotermale

Zawierający / containing: etanol, ceramika

Przeznaczony do / destined: stosowania w domostwach i obiektach publicznych do podgrzewania i magazynowania ciepłej wody

Wymieniony wyroby produkt odpowiada wymaganien higienicznym przy spełnieniu następujących warunków / The above-mentioned product is acceptable according to hygienic criteria with the following conditions:
Above hygienic use delivery parameters technological - warunki użytkowych wyrobów higienicznych dane nie apply to technical parameters and utility value

Wytwórca / producer: Cordivari Srl
Z.S. Pagliare
64020 Morro d'Oro (TR), Włochy
Niniejszy dokument wydano na wniosek / This certificate issued for: Cordivari Srl
64020 Morro d'Oro (TR), Włochy

Atest może być stosowany lub wykorzystany po przedłożeniu stosownych dowodów przez przedsiębiorstwa, które wyroby atest testowano od 2022-01-01 lub w przyszłości zmienić w przypadku atest w technologii wytwarzania wyrobów

The certificate may be corrected or cancelled after appropriate notification. The certificate loses its validity after 2022-01-01 or in the case of changes in composition or in technology of production.

Data wydania atestu higienicznego: 31 stycznia 2018
The date of issue of the certificate: 31 January 2018



Wytwórca / producer: Cordivari Srl
Z.S. Pagliare
64020 Morro d'Oro (TR), Włochy
Zakład Bezpieczeństwa Zdrowotnego Środowiska (ZBZS) / Department of Environmental Health and Safety (EHS) - 02-781 Warszawa, ul. Chłodnia 10 / 101 781 Warszawa, Chłodnia 10, Poland
e-mail: sek.ozn@pzh.gov.pl; tel: +48 (0) 22 341-354; fax: +48 (0) 22 341-345

Certificate of Conformity for Polywarm® according to NIZP - National Institute of Public Health - Poland.

POLITECNICO DI MILANO
 Dipartimento di Energia
RELAB - Renewable Heating and Cooling LAB

5. **RISULTATI DELLE PROVE ED EVENTUALI OSSERVAZIONI SUL FUNZIONAMENTO DELLE UNITA' SOTTOPOSTE A PROVA**

RISULTATI TEST EN 16147: 2011			
Data test		15/07/2015	
Quantità misurata		Valore	Unità di misura
Tempo di riscaldamento	t_r	04:52:57	hh:mm:ss
Energia di riscaldamento assorbita	W_{rh}	2,48	kWh
Durata di un ciclo di attivazione-disattivazione	t_{sa}	19:14:48	hh:mm:ss
Energia assorbita durante l'ultimo ciclo di attivazione-disattivazione	W_{sa}	0,49	kWh
Potenza assorbita in standby	P_{sa}	25,69	W
Prestazioni			
Classe del ciclo di spillamento		L	
Energia termica utile PdC	Q_{TC}	11,67	kWh
Periodo di tempo ciclo di prova	t_{TC}	35:55:49	hh:mm:ss
Consumo energia elettrica per l'intero ciclo di prelievo	$W_{ELM,TC}$	4,05	kWh
En. termica calcolata prodotta tramite elettricità	$Q_{EL,TC}$	0,18	kWh
Consumo totale energia elettrica per un ciclo di prelievo	$W_{EL,TC}$	3,92	kWh
Coefficiente di prestazione	COP_{DWH}	2,98	-
Temperatura di riferimento dell'acqua calda	θ_{RH}	47,48	°C
Volume max acqua calda utilizzabile	V_{max}	208,15	l
Campo di esercizio			
Temp. minima fonte di calore		-	°C
Temp. minima acqua calda sanitaria		-	°C
Temp. massima fonte di calore		-	°C
Temp. massima acqua calda sanitaria		-	°C

Reporto di Prova: ENE-RE-C1015-RP-01
 Laboratorio RELAB - Politecnico di Milano - Dipartimento di Energia
 Via R. Lambruschini 4 - 20156 - Milano - tel. 02 2399 3835 - fax 02 2399 3868

Pagina 9 di 10

BOLLYTERM® HP calorifier with heat pump performance test granted by RELAB Energy Department (Politecnico of Milan) according to EN-16147 related to Ecodesign ErP Directive 2009/125/CE - EU Regulation 812/2013-814/2013.

Report n° 15057MAL-07CM272

IMQ CLIMA
 Centro di Innovazione Tecnologica Agemont S.p.A.

Asses. 27/08/2015

Test report n° 15057MAL-07CM272
MULTIFUNCTION ROOM
 Performance test

Date of reception of the unit: 02/07/2015
 Date of test: from 07/08/2015 to 11/08/2015

DATA OF THE TESTED UNIT

> Customer: **CORDIVARI S.r.l.**
 Zona Industriale Pagliare
 64020 Morro d'Oro (TE)
 Bollyterm HP VT V14

> Test unit model: **BTHP 1063**

> Serial number: **230 (V)**

> Voltage: **50 (Hz)**

> Frequency: **Single-Phase**

> Pressure source: **R134A**

> Refrigerant type: **0.80 kg**

> Required Tapping cycle: **I.**

The tests are performed in accordance with the requirements of EN 16147:2011 - Heat pumps with electrically driven compressors. Testing and requirements for marking of domestic hot water units. Commission Delegated Regulation (EU) No. 812/2013 and of Commission Regulation (EU) No. 814/2013

The results presented in this report are valid only for the tested unit.

Executed by: **Lab Technician**
 Ing. Nicola Di Meis

Approved by: **Technical Manager**
 Ing. Andrea Mazzolini

This report consists of 11 pages.
 The serial unit has been chosen by the customer/manufacturer.
 Any reproduction of this report must contain all pages. The reproduction of this report must be authorized by IMQ CLIMA Centro di Innovazione Tecnologica Agemont S.p.A.

IMQ CLIMA Centro di Innovazione Tecnologica Agemont S.p.A.
 Via J. Lismano 1
 00026 Anagni (LT) - Italy
 Tel. +39 0432 498007
 Fax +39 0432 498002

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BOLLYTHERM® HP calorifier with heat pump performance test granted by IMQ CLIMA (Centro di Innovazione Tecnologica Agemont) according to EN-16147 related to Ecodesign ErP Directive 2009/125/CE - EU Regulation 812/2013-814/2013.

CORDIVARI Lab

Zona Industriale Pagliare - 64020 MORRO D'ORO (TE) Italia
 Tel. +39 085 804017 r.a. - Fax: 085 8041418 - Fax CENTR. +39 085 8041280
 C.F. - P. IVA - REG. IMPRESE TE N. IT 00735570673 - R.E.A. TE N. 92310 - CAP. SOC. € 4.000.000,00 i.v.
www.cordivari.it - info@cordivari.it

RAPPORTO DI PROVA

VERIFICA DISPERSIONE TERMICA AI FINI DELL'ETICHETTATURA ENERGETICA PREVISTA DAL REGOLAMENTO (UE) N. 814/2013 DELLA COMMISSIONE DEL 2 AGOSTO 2013 RECANTE MODALITÀ DI APPLICAZIONE DELLA DIRETTIVA 2009/125/CE DEL PARLAMENTO EUROPEO E DEL CONSIGLIO IN MERITO ALLE SPECIFICHE PER LA PROGETTAZIONE ECOCOMPATIBILE DEGLI SCALDACQUA E DEI SERBATOI PER L'ACQUA CALDA.

Reporto di prova n°	BO-CLEN 02.15
Data di emissione	21/08/2015
N° di pagine totale	7
Laboratorio di prova	Cordivari LAB
Nome del richiedente	Cordivari srl
Specifiche di prova	EN15332:2007/5.4
Scopo della prova	Determinare la dispersione termica nelle condizioni previste dalla norma al fine di caratterizzare il prodotto oggetto della prova nell'ambito delle classi energetiche previste dal Regolamento UE 814/2013
Descrizione dell'oggetto in prova	Bollitore (preparatore di acqua calda ad uso igienico sanitario) ad accumulo con scambiatore di calore interno fisso. Materiale del corpo e dello scambiatore: acciaio al carbonio. Esecuzione cilindrica verticale, trattamento anticorrosivo delle membrature a contatto con l'acqua sanitaria e coibentazione in schiuma di poliuretano espanso realizzata "di corpo" sul bollitore.
Marchio	CORDIVARI
Costruttore	Cordivari SRL
Indirizzo costruttore	Zona Industriale Pagliare 64020 Morro D'Oro (TE) Italia
Modello	BOLLY 1 ST 200
Data del ricevimento oggetto in prova	06/08/2015
Periodo di prova	Dal 19 al 21 AGOSTO 2015

Questo rapporto non può essere riprodotto, se non integralmente, senza l'autorizzazione del laboratorio di prova che lo rilascia. I risultati esposti in questo rapporto di prova si riferiscono esclusivamente all'oggetto testato. Cordivari LAB non assume nessuna responsabilità per danni derivanti dall'interpretazione dei dati del presente documento riprodotto al di fuori del suo contesto.

0 Revisione	 P.I. Giovanni D'Agidino Esecuzione Test	 Ing. Ann. Roberto Direzione Tecnica
----------------	--	--

BOLLY® test report granted by "CORDIVARI LAB" according to EN-15332 related to Ecodesign ErP Directive 2009/125/CE.

REGULATIONS FOR A CORRECT INSTALLATIONS OF PRESSURE TANKS

OVERPRESSURE PROTECTION:

If the sanitary water installation exceeds the admissible values of pressure of the calorifier, a pressure regulator as far away as possible from the calorifier has to be installed.

• Calorifier with primary circuits fluid with temperature below 110°C

To avoid damages on products due to sudden changes of pressure, it is always necessary to provide an expansion system, according to local regulations.

Although some local standards and regulations state that this expansion system can simply consist of a safety valve with appropriate dimensions, the installation of a closed type expansion tank with non-toxic diaphragm is recommended to avoid frequent openings of the safety valve and to avoid any unnecessary overload of the DHW tank.

Cordivari heat exchangers are manufactured in accordance with 2014/68/EU directive and in reference to art. n. 4.3 of this directive they do not have to be marked CE.

• Calorifiers with primary circuit supplied by fluid with temperature exceeding 110°C (steam or hot water)

Water Heaters with primary circuit temperature above to boiling secondary fluid at 0.5 bar pressure must have safety devices (thermostat, pressure switch, level/min. pressure protection).

The provision on pressure working equipment shall be applied to primary circuit on Heat exchangers.

• Calorifiers for solar thermal systems

For calorifiers that not have to be marked CE, make sure that:

- Primary Circuit Temperature never exceeds 140°C (that can be reached only for limited periods of time).

- Maximum working pressure meets following restrictions: the result Pressure x Volume of exchanger must not exceed 50bar/liter:

$$P \times V \leq 50 \text{ [bar} \times \text{liter]}$$

given the volume of fluid in the heat exchanger, is then possible to calculate with the above formula, the maximum permissible operating pressure for each heat exchanger

- surface of collectors does not exceed 50m² and the potentiality is lower than the total usable at 35Kw

Above these limits, the exchanger (as well as the installation) is subject to requirements so as stated in provisions for in pressure working equipments (design, and plant testing also when in operation, periodic restructuring) it is therefore necessary to use designed and tested exchangers according to 2014/68/UE Pressure Equipment.

CORROSION PROTECTION

To avoid electro-chemical corrosion - and in order to comply with the warranty's conditions too - the cylinder has to be installed always with its cathode protection. Cordivari Srl gives according to the tank version:

• Anoden-tester magnesium bar, which allows to check the real consumption of the magnesium bar just pushing on the "tester button".

• Standard anode, where it is necessary the visual checking of the magnesium bar.

As accessory is also available the electronic anode which do not need to be replaced and need only an uninterrupted electricity. It is also necessary, for warranty purposes, that the water never exceeds the values of chemical and chemical-physical parameters recommended by regulations on subject. To avoid any galvanic currents tank grounding have to be done.

LEGIONELLOSIS PROTECTION

Legionellosis can widespread with temperatures between 30°C and 45°C. To avoid any risk water tank has to be accumulated at 60°C and never reach temperature lower than 50°C.

CALORIFIERS & BUFFERTANKS

Must always be installed protected from atmospheric agents on a base of proper solidity, checking before making the connections that there is sufficient space for extracting the heat exchanger, magnesium anode, eventual electric heater and other technical components specific to the various products, and for an easy opening of any inspection flange.

Make sure that the premises, or technical rooms intended to contain the tanks are provided with sufficient openings to facilitate the passage of the tanks by considering overall dimensions and avoiding therefore any demolition both when installing and removing the tanks.

For all cylinders with plate heat exchangers the hardness of the sanitary water inlet must be less than 30 ° f (French degrees).

It is necessary to install the storage tank / buffer tank providing appropriate and adequate drainage for any water leaks.

CHILLED WATER AND INERTIAL TANKS

Make sure that the premises, or technical rooms intended to contain the tanks are provided with sufficient openings to facilitate the passage of the tanks by considering overall dimensions and avoiding therefore any demolition both when installing and removing the tanks.



REQUEST MODULE FOR BESPOKE TANKS

DATE:

REFERENCE PERSON:

TYPE OF PRODUCT

- DHW TANK COMPRESSED AIR CHILLED WATER COMBI
- AUTOCLAVE VASO INERZIALE VOLANO TERMICO PUFFER
- ECOCOMBI VASO STORAGE PRESSURE TANK S/C INTERKA

PRODUCT DESCRIPTION

DESCRIPTION

SPACE FOR DRAWING IN ABSENCE OF TECHNICAL SCHEME

PLEASE ENCLOSE TECHNICAL DRAWING/LAYOUT

TECHNICAL DETAILS	
VOLUME (lt)	
DIAMETER (mm)	
HEIGHT (mm)	
VERTICAL	
HORIZONTAL	
GALVANIZED	
POLYWARM	
PAINTED	
STAINLESS STEEL 304	
STAINLESS STEEL 316	
WORKING PRESSURE	TEMPERATURE
PRIMARY CIRCUIT	
FLUID	PRESSURE
SECONDARY CIRCUIT	
FLUID	PRESSURE

QUANTITY

INSULATION

NOTE

Large empty box for drawing or technical scheme.

SEND TO THE ATTENTION OF COMMERCIAL DEPARTMENT

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ACCESSORIES AND TECHNICAL SUPPORT

GENERAL SALES CONDITIONS AND WARRANTY

Sales of Cordivari products are made in accordance with the General Conditions of Sale and Warranty listed below. Any exception to these conditions is subject to written acceptance by Cordivari Srl.

1. SHIPPING

The goods travel at the Customer's risk and peril, even if they are shipped carriage paid. The goods must be checked upon delivery in the presence of the carrier, checking the integrity of the packaging, missing items, or replacements. Any dispute must be reported immediately to the carrier / courier by signing the transport document with reserve and communicate any discrepancy by registered letter or certified email within eight days from receipt of the goods.

2. TERMS OF DELIVERY

The delivery terms are purely indicative and, in any case, if the delivery deadline could not be met for any reason, the Client will not be entitled to claim any compensation, payment of penalties, cancellation or modification of the order given to us. In the case of extraordinary events such as natural disasters, strikes, lack of raw materials, and causes of force majeure, Cordivari Srl reserves the right to choose the measures to be adopted. If the ordered goods are not collected within the agreed period, they will be invoiced and stored with costs, risk and danger borne by the Customer.

3. WEIGHTS, MEASURES, SURFACES

Weights, measurements, surfaces, shapes, dimensions, images and other data are indicative and not binding and may be subject to modifications or variations that Cordivari Srl reserves the right to make to its products without prior notice.

4. CANCELLATION OR ORDER CHANGES

Without the written consent of Cordivari Srl, the orders placed cannot be canceled or modified neither partially nor totally. No variations or modifications are possible when the order has already been processed. Any costs arising from the cancellation or modification of the order will be invoiced to the Client.

5. WARRANTY

- Cordivari Srl warrants 5 years for all tanks in stainless steel 316 L.
- Cordivari warrants 2 years for the Bolly® PRIMO calorifiers.
- Cordivari Srl warrants 5 years for all calorifiers with internal anti-corrosion treatment in Polywarm®.
- Cordivari Srl warrants 2 years for all containers with anti-corrosive hot galvanizing treatment.
- For all removable and plate heat exchangers (inspectable and brazed), both mounted on the calorifiers and sold individually, Cordivari Srl warrants 2 years.
- Cordivari Srl warrants 5 years for all PUFFER and COMBINED THERMO ACCUMULATORS.
- Cordivari Srl warrants 2 years for accessories and residual items in this catalog not covered by the general conditions of sale, with the exception of technical, electrical and electronic components, where the warranty is 12 months.
- For all non-standard items, special products made to customer specifications, Cordivari Srl warrants 2 years.
- The products and systems in this catalog are designed and manufactured in compliance with the reference directives CE-EN-UNI and PED.
- The warranty and conformity of said products and systems are valid only in those countries where such standards are recognized and implemented. In non-European countries or in any case in countries that do not implement these regulations, Cordivari assumes no responsibility for warranty and compliance.
- The warranty covers manufacturing defects, if all the points of Article 5 are respected. It must be proven that the installation of the products has complied with the criteria of protection from overpressure, corrosion, legionella and installation and use rules and requirements described in this catalog and any applicable plant engineering standards. In domestic hot water production systems, as well as in heating ones, for the purposes of the warranty, comply with the provisions of the UNI CTI 8065 standard which provides for various types of water treatments according to its characteristics. The warranty does not cover damage deriving from non-compliance with the requirements of the UNI CTI 8065 standard.

The commitment to lend the warranty exists provided that:

- The product has been stored in good condition and protected from bad weather before installation;
- The product has not been damaged during transport, handling or installation;;
- No tampering or repairs have been carried out by persons not authorized by

Cordivari Srl;

- The installation has been carried out by authorized personnel, in compliance with the instructions and standards indicated on the technical documentation provided by Cordivari Srl, and in compliance with all provisions of laws and prescriptions contained in this catalog;

- The accessories used are those regularly supplied by Cordivari Srl;

- The buyer has settled the balance of the payments within the established terms;

- No aggressive chemicals have been added to the water;

- The operating pressure and temperature indicated in the catalog correspond to the operating pressure and temperature limit of use.

Those parts subject to natural wear are always excluded from any warranty (eg anodes, gaskets, bolts, etc.).

The warranty starts from the date of the sales invoice of Cordivari Srl and is not renewed in any case in the event of a replacement of the product.

The warranty does not cover costs due to demolitions, works for the passage of products both inbound and outbound, and labor for any product replacements.

Cordivari Srl undertakes during the warranty period to replace the returned product recognized as defective due to ascertained production defects, in addition to this, the Customer cannot claim any other compensation - deriving from said defects - for direct or indirect damage costs of any kind to people and / or things.

6. PAYMENTS

The payments of the invoices relating to the supplies must be settled within the established deadlines. The delay in the payment of invoices, even if partial, gives rise to the start of interest on arrears at the current rate, in addition to the immediate suspension of shipments in progress and the processing of any orders.

7. RESERVE OF OWNERSHIP

The products remain the property of Cordivari Srl until the payment of the last installment of the price of the goods delivered. In the event of even partial non-fulfillment by the buyer, Cordivari Srl may request the immediate return of the goods while retaining the installments paid by way of indemnity, except for greater damage.

8. PRICES

Prices are not binding and can be changed without notice. Prices can be revised according to the changes that may occur up to the time of delivery.

The prices are intended ex works in Morro D'Oro (TE), unless otherwise agreed. Prices are always shown in the price list net of VAT.

For bulky models, Cordivari Srl reserves the right to ask for a share in the costs of packaging and transport.

9. ORDERS / DELIVERY

The orders given definitively bind the Client who must declare to know and accept all the conditions of sale. In the event that the Client draws up the order by name or on behalf of others, signing the order undertakes jointly and severally to fulfill what it has been agreed. Delivery is intended exclusively at the headquarters / warehouse of the Customer. Particular requests of the Client such as: express deliveries, delivery other than the headquarters / warehouse, etc. will have additional costs that will be communicated from time to time to our sales department.

10. JURISDICTION

Foro Competente. Per qualsiasi controversia derivante dal presente contratto o collegata allo stesso è competente il Foro di Teramo.

11. ORIGINAL VERSION

Translation of Cordivari General Sales Conditions and Warranty Terms, reported in this page, derives from the Italian version. In case of possible controversy, the official Cordivari General Sales Conditions and Warranty Terms are the one reported in the Italian language, stated at the back of the Italian catalogs.

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CONDIZIONI GENERALI DI VENDITA E GARANZIA

Le vendite dei prodotti della Cordivari Srl sono effettuate conformemente alle sotto elencate Condizioni Generali di Vendita e Garanzia. Ogni deroga a queste condizioni è subordinata all'accettazione scritta da parte della Cordivari Srl.

1. SPEDIZIONE

La merce viaggia a rischio e pericolo del Committente, anche se viene spedita franco destino. La merce deve essere verificata all'atto della consegna, controllando l'integrità dell'imballo, articoli mancanti o sostituzioni in presenza del trasportatore. Ogni contestazione dovrà essere segnalata immediatamente al trasportatore/corriere firmando con riserva il DDT e confermando tale riserva a mezzo lettera raccomandata o posta certificata entro otto giorni dal ricevimento merce.

2. TERMINI DI CONSEGNA

I termini di consegna si intendono puramente indicativi e comunque se il termine di consegna non potesse essere rispettato per qualsiasi motivo, il Committente non avrà diritto a esigere alcun indennizzo, pagamento di penali, annullamento o modifica all'ordine conferitoci. In caso di eventi straordinari quali calamità naturali, scioperi, mancanza di materie prime, e cause di forza maggiore, la Cordivari Srl si riserva la scelta delle misure da adottare. Se la merce ordinata non viene ritirata nel periodo concordato, questa verrà fatturata e immagazzinata con costi, rischio e pericolo a carico del Committente.

3. PESI, MISURE, SUPERFICI

Pesi, misure, superfici, forme, dimensioni, immagini e altri dati sono indicativi e non impegnativi e possono subire delle modifiche o variazioni che la Cordivari Srl si riserva di apportare ai suoi prodotti senza preavviso.

4. ANNULLAMENTO O MODIFICHE ORDINE

Senza il consenso scritto della Cordivari Srl, le ordinazioni conferite non possono essere né parzialmente né totalmente annullate o modificate. Non si accordano variazioni o modifiche quando è già stata intrapresa la lavorazione. Eventuali spese derivanti dall'annullamento o modifica dell'ordine saranno fatturate al Committente.

5. GARANZIA

- Per tutti i bollitori in acciaio inox 316 L la Cordivari Srl garantisce anni 5.
- Per i bollitori della serie Bolly® PRIMO la Cordivari garantisce 2 anni.
- Per tutti i bollitori con trattamento anticorrosivo interno in Polywarm® la Cordivari Srl garantisce anni 5.
- Per tutti i recipienti con trattamento anticorrosivo di zincatura a caldo la Cordivari Srl garantisce anni 2.
- Per tutti gli scambiatori di calore estraibili e a piastre (ispezionabili e saldabrasati), sia montati sui bollitori sia venduti singolarmente la Cordivari Srl garantisce anni 2.
- Per tutti i termoaccumulatori PUFFER e TERMOACCUMULATORI COMBINATI la Cordivari Srl garantisce anni 5.
- Per gli accessori e per gli articoli residuali del presente catalogo non contemplati nelle condizioni generali di vendita la Cordivari Srl garantisce anni 2 ad eccezione di componenti tecnici, elettrici ed elettronici, dove la garanzia è di 12 mesi.
- Per tutti gli articoli fuori standard, i prodotti speciali realizzati su specifica del Cliente, la Cordivari Srl garantisce anni 2.
- I prodotti ed i sistemi presenti in questo catalogo sono progettati e realizzati in conformità alle direttive di riferimento CE-EN-UNI-e PED.
- La garanzia e la conformità di detti prodotti e sistemi hanno valenza esclusivamente in quei paesi dove tali norme sono riconosciute e recepite. In paesi extra-europei o comunque in paesi che non recepiscono tali norme la Cordivari non assume responsabilità per garanzia e conformità.
- La garanzia copre i difetti di fabbricazione. Essa decade se non vengono rispettati i punti dell'art.5. Sussiste a condizione che l'installazione dei prodotti abbia rispettato i criteri della protezione dalla sovrappressione, corrosione, legionella e norme e prescrizioni di installazione e utilizzo descritte nel presente catalogo e tutte le eventuali norme in materia impiantistica. Negli impianti di produzione di acqua calda sanitaria, così come in quelli di riscaldamento, attenersi, ai fini della garanzia, a quanto disposto dalla norma UNI CTI 8065 che prevede vari tipi di trattamenti dell'acqua in funzione delle sue caratteristiche. La garanzia non copre danni derivanti da inadempienze alle prescrizioni della norma UNI CTI 8065.

L'impegno di prestare la garanzia sussiste a condizione che:

- Il prodotto sia stato immagazzinato in buone condizioni e al riparo dalle intemperie prima dell'installazione;

- Il prodotto non abbia subito danneggiamenti durante il trasporto, le movimentazioni o l'installazione;
- Non siano state compiute manomissioni o riparazioni da persone non autorizzate dalla Cordivari Srl;
- L'installazione sia stata realizzata da personale autorizzato, in conformità alle istruzioni e alle norme indicate sulla documentazione tecnica fornita dalla Cordivari Srl e alle norme e prescrizioni di installazione e utilizzo riportate nel presente catalogo e che siano state rispettate eventuali disposizioni di leggi o norme tecniche specifiche;
- Gli accessori utilizzati siano quelli regolarmente forniti dalla Cordivari Srl;
- Il compratore abbia effettuato il saldo dei pagamenti nei termini prestabiliti;
- Non siano state eseguite aggiunte di sostanze chimiche aggressive all'acqua;
- La pressione e la temperatura di esercizio indicate sul catalogo corrispondano alla pressione e alla temperatura limite di utilizzo.

Sono esclusi sempre da qualsiasi garanzia quei particolari soggetti a naturale usura (es. anodi, guarnizioni, bulloni ecc.).

La garanzia decorre dalla data della fattura di vendita della Cordivari Srl e non si rinnova in alcun caso nell'eventualità di una sostituzione del prodotto.

La garanzia non copre costi dovuti a demolizioni, lavori per il passaggio dei prodotti sia in ingresso che in uscita e la manodopera per eventuali sostituzioni di prodotto. Cordivari Srl si impegna durante il periodo di garanzia alla sostituzione del prodotto reso riconosciuto difettoso per accertati difetti di produzione, oltre a ciò il Committente non potrà vantare alcun altro risarcimento per spese di danno, diretti o indiretti di qualsiasi natura a persone e/o a cose derivanti da detti difetti.

6. PAGAMENTI

I pagamenti delle fatture relative alle forniture dovranno essere effettuati entro i termini di scadenza stabiliti. Il ritardo nel pagamento delle fatture, anche se parziale, dà luogo alla decorrenza degli interessi di mora nella misura del tasso corrente, oltre alla sospensione immediata delle spedizioni in corso e del processamento di eventuali ordini.

7. RISERVA DI PROPRIETÀ

I prodotti restano di proprietà della Cordivari Srl fino al pagamento dell'ultima rata di prezzo di merce consegnata. In caso di inadempimento anche parziale del compratore la Cordivari Srl potrà chiedere l'immediata restituzione della merce trattenendo comunque le rate pagate a titolo di indennità salvo il maggior danno.

8. PREZZI

I prezzi non sono impegnativi e possono essere modificati senza preavviso. I prezzi sono revisionabili in funzione delle variazioni che dovessero intervenire fino al momento della consegna.

I prezzi si intendono resa franco stabilimento di Morro D'Oro (TE), salvo diversi accordi.

I prezzi sono sempre riportati nel listino al netto di IVA.

Per modelli ingombranti la Cordivari Srl si riserva di chiedere una partecipazione alle spese di imballaggio e trasporto.

9. ORDINI/CONSEGNA

Per gli ordini con consegna unica con valore imponibile di minimo Euro 1000, la spedizione è esente da contributi di trasporto; per ordini di valore inferiori alla somma di Euro 1.000, e/o richiesta di spedizione parziale il cui valore è inferiore alla somma di Euro 1000, il contributo è del 6% con addebito minimo di Euro 25,00 per ogni singola spedizione. Gli ordini impartiti impegnano definitivamente il Committente che deve dichiarare di conoscere e accettare tutte le condizioni di vendita. Nel caso in cui il Committente rediga l'ordine per nome e per conto e in nome di altri, con la firma dell'ordine si impegna in solido all'adempimento di quanto da egli convenuto. La consegna si intende esclusivamente presso la sede/magazzino del Committente. Richieste particolari del Committente come: consegne espresso, consegna diversa dalla sede/magazzino, etc. avranno costi addizionali che verranno comunicati di volta in volta al nostro ufficio commerciale.

10. FORO COMPETENTE

Foro Competente. Per qualsiasi controversia derivante dal presente contratto o collegata allo stesso è competente il Foro di Teramo.

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S I S T E M A
STRATOS® 4s

**365
DAYS
OF
SUN**




archiproducts
DESIGN AWARDS
WINNER 2019


GERMAN
DESIGN
AWARD
WINNER
2020







Percorso
Efficienza  Innovazione

PATENTED - PATENTED

- Maximum efficiency in every climatic conditions:
- Ideal for all seasons of the year and for any latitudes
 - Domestic hot water all year round
 - Minimum dispersion and no risk of overheating
 - Natural self-protection without the use of electricity thanks to the patent ROTOSHIELD® SYSTEM
 - Perfect insulation
 - Ultra-compact contemporary design

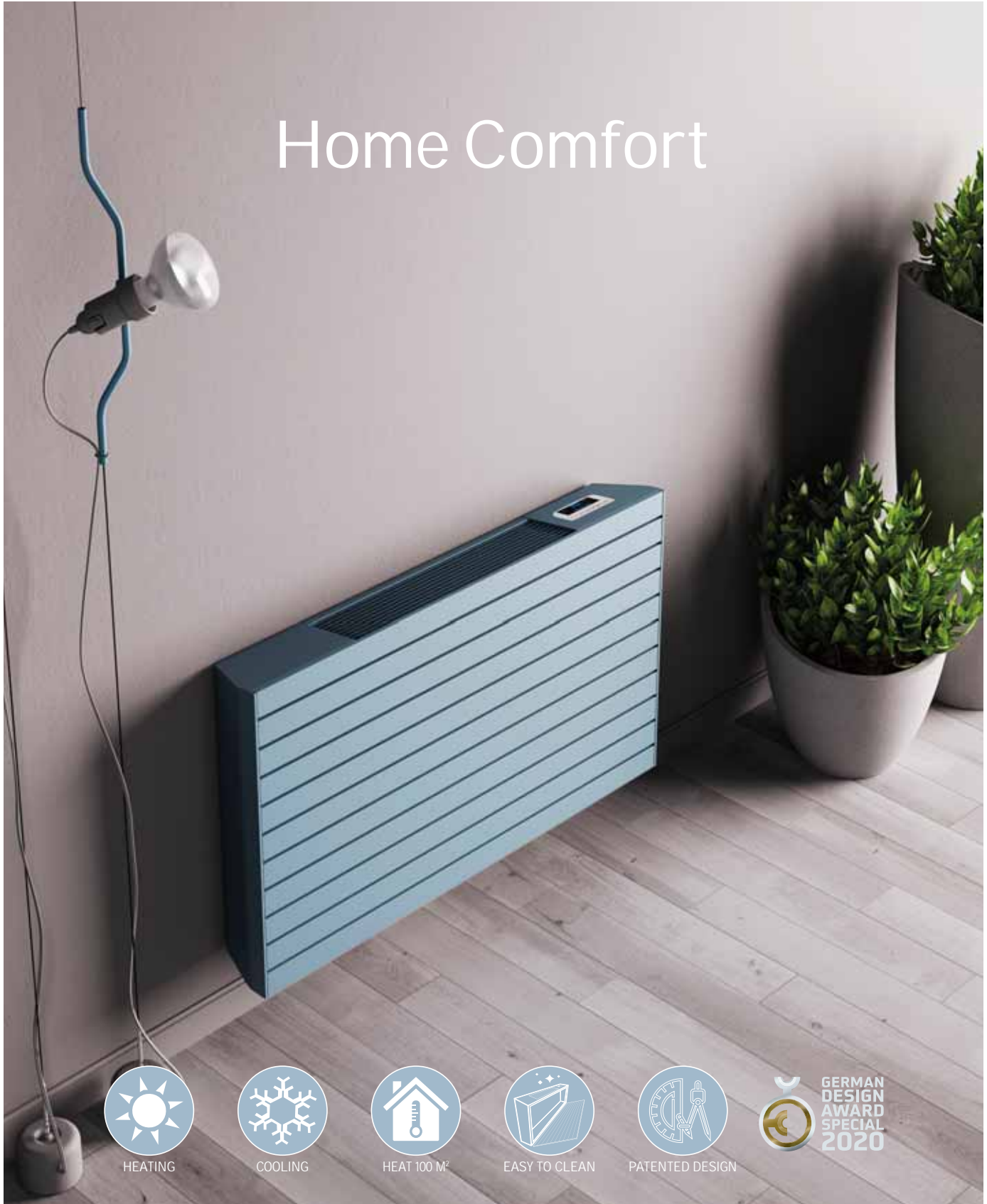
STRATOS® 4S ROTOSHIELD SYSTEM
The first and only compact solar termosyphon system that produces Domestic hot water all year round



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Home Comfort



HEATING



COOLING



HEAT 100 M²



EASY TO CLEAN



PATENTED DESIGN



GERMAN
DESIGN
AWARD
SPECIAL
2020

This extremely powerful and efficient ventilation radiator combines the characteristics and aesthetics of a traditional radiator with the functionality and performance of a fan coil, both in heating and in cooling.

Ideal for low temperature systems with heat pump, Sofi® HC is the perfect solution to obtain maximum comfort and significant energy and economic savings.

SOFI® HC

The high efficiency ventilation radiator for heating and cooling



Model

A	ACQUAMAS® 1		
	ACQUAMAS® 2		
	ACQUAMAS® 3 CTS®		
B	BOLLY® 1 AP		
	BOLLY® 1 AP INOX		
	BOLLY® 1 HY XL		
	BOLLY® 1 HY XL INOX		
	BOLLY® 1 PDC		
	BOLLY® 1 ST		
	BOLLY® 1 ST FB		
	BOLLY® 1 ST INOX		
	BOLLY® 1 XL		
	BOLLY® 1 XL INOX		
	BOLLY® 2 AP		
	BOLLY® 2 AP INOX		
	BOLLY® 2 HY AP		
	BOLLY® 2 HY XL		
	BOLLY® 2 HY XL INOX		
	BOLLY® 2 PDC		
	BOLLY® 2 ST		
	BOLLY® 2 ST FB		
	BOLLY® 2 ST INOX		
	BOLLY® 2 XL		
	BOLLY® 2 XL INOX		
	BOLLY® 3 PDC		
	BOLLY® MURALE		
	BOLLY® PRIMO		
	BOLLYTERM® HOME		
	BOLLYTERM® HP		
	BOLLYTERM® HP 1		
	BOLLYTERM® HP 2		
C	CHILLED WATER STORAGE TANK - GALVANIZED ZB		
	CHILLED WATER STORAGE TANK - STAINLESS STEEL 304 XB		
	CHILLED WATER STORAGE TANK GALVANIZED ZC 20 HORIZONTAL		
	CHILLED WATER STORAGE TANK GALVANIZED ZC 20 VT		
	CHILLED WATER STORAGE TANK GC 20 HORIZONTAL		
	CHILLED WATER STORAGE TANK GC 20 VT		
	COMBI 1		
	COMBI 1 INOX		
	COMBI 2		
	COMBI 2 INOX		
	COMBI 3		
	COMBI 3 INOX		
	COMPRESSED AIR RECEIVERS P.E.D. HORIZONTAL		
	COMPRESSED AIR RECEIVERS P.E.D. VT		
	COMPRESSED AIR RECEIVERS P.E.D. VT 11-15 BAR		
	COMPRESSED AIR RECEIVERS SPVS		
E	ECO COMBI 1 PDC		
	ECO COMBI 3 PDC		
	ECO-COMBI 1		
	ECO-COMBI 1 DOMUS		
	ECO-COMBI 2		
	ECO-COMBI 2 DOMUS		
	ECO-COMBI 3		
	EXPANSION VESSEL-MEMBRANE GALVANIZED PED 24 LT		
	EXPANSION VESSEL-MEMBRANE PAINTED PED 24 LT		
	EXPANSION VESSELS-MEMBRANE GALVANIZED PED HORIZONTAL		
	EXPANSION VESSELS-MEMBRANE GALVANIZED PED VT		
	EXPANSION VESSELS-MEMBRANE PAINTED PED HORIZONTAL		
	EXPANSION VESSELS-MEMBRANE PAINTED PED VT		
	EXPANSION VESSEL - OPEN		



NEW	174
NEW	178
NEW	182
	94
	238
	162
NEW	258
	140
	80
NEW	82
	228
	102
	248
	98
	242
NEW	170
NEW	166
	262
	142
	86
NEW	88
	232
	106
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	404
	192
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Model

	EXTRA 1 COMPACT		
	EXTRA 1 HORIZONTAL		
	EXTRA 1 INOX		
	EXTRA 1 INOX COMPACT		
	EXTRA 1 INOX STEAM		
	EXTRA 1 PLUS		
	EXTRA 1 STEAM		
	EXTRA 1 WX		
	EXTRA 2 INOX		
	EXTRA 2 INOX COMPACT		
	EXTRA 2 PLUS		
	EXTRA 2 STEAM		
	EXTRA 2 WX		
	EXTRA 3 PLUS		
	EXTRA 3 WX		
F	FRESH WATER MODULE MACS®	NEW	
	FRESH WATER MODULE MACS® CASCADE SETUP		
	FRESH WATER STATION PRS		
H	HEAT EXCHANGERS PHC PLATE		
	HEAT EXCHANGERS SLB BRAZED		
I	INTERKA		
	INTERKA SOLAR		
P	PIASTRATERM® SLB		
	PRESSURE VESSEL GALVANIZED Z PED HORIZONTAL		
	PRESSURE VESSEL GALVANIZED Z PED VT		
	PRESSURE VESSEL GALVANIZED Z PED VT		
	PRESSURE VESSEL STAINLESS STEEL 316L X PED HORIZONTAL		
	PRESSURE VESSEL STAINLESS STEEL 316L X PED VT		
	PRESSURIZED WATER TANK GALVANIZED Z SC HORIZONTAL		
	PRESSURIZED WATER TANK GALVANIZED Z SC VT		
	PRESSURIZED WATER TANK STAINLESS STEEL 304 X SC VT		
	PUFFER		
	PUFFER 1		
	PUFFER 1 CTS®		
	PUFFER 2		
	PUFFER COMPACT		
	PUFFER FLANGED CONNECTIONS		
	PUFFERMAS® 1		
	PUFFERMAS® 1 DOMUS		
	PUFFERMAS® 2		
	PUFFERMAS® 2 CTS		
	PUFFERMAS® 2 CTS POWER		
	PUFFERMAS® 2 DOMUS		
	PUFFERMAS® 3		
	PUFFERMAS® 3 CTS		
	PUFFERMAS® 3 CTS POWER		
V	VASO INERZIALE		
	VASO INERZIALE INOX		
	VASO INERZIALE INOX COMPACT		
	VASO STORAGE 1		
	VASO STORAGE 2		
	VASO STORAGE 3		
	VASO STORAGE A1 W		
	VASO STORAGE COMPACT		
	VASO STORAGE INOX A1		
	VOLANO TERMICO CALDO-FREDDO R/C - POLYWARM WB VT		
	VOLANO TERMICO CALDO-FREDDO R/C GB VT		
	VOLANO TERMICO GREZZO GC VT		
	VOLANO TERMICO PDC		
	VOLANO TERMICO PDC - HANGING	NEW	
	VOLANO TERMICO PDC REVERSO		



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