



CALORIFIERS
& BUFFER TANKS



MADE IN ITALY

C A T A L O G U E
2016

Cordivari company has a proven industrial tradition and is now one of the most important manufacturers in the heating and plumbing industry in Italy.

Founded in 1972 by Ercole Cordivari, the company is producing calorifiers & buffer tanks, solar thermal systems, compressed air receivers, design radiators, chimney flues and food containers. Cordivari plants are situated on an area of 220.000 square meters and employ more than 500 employees. Thanks to its development strategies, all addressed to the new technologies and to the training of new human resources, Cordivari is equipped with modern structures and advanced production processes. All the products are designed and produced in Italy and the technological, ergonomic and ecological choices allow to work respecting the human being and its environment. UNI EN ISO 14001:2004 environment managing systems and UNI EN ISO 9001:2008 Quality system are perfectly integrated to grant and ensure company's main goals and values.

The highly qualified management, the constant research for innovative solutions and the extremely customer-oriented company policy stand for the leading market position and the exclusive know-how in the field of integrated heating systems that the Cordivari group has acquired. All this is the result of a continuous commitment to achieving Customer Satisfaction.



Cav. Ercole Cordivari

WELLNESS

and **SAVING**

Solutions for your Home





CHIMNEY PIPES



FOOD CONTAINERS



CORDIVARI DESIGN RADIATORS



RADIATORS



FORCED VENTILATED RADIATORS



WATER TREATMENT



SOLAR THERMAL SYSTEMS



INTEGRATED COLLECTOR STORAGE STRATOS®



CALORIFIERS & BUFFER TANKS

SISTEMA STRATOS®
COMPACT THERMAL SOLAR SYSTEM



RADIATOR GIULY®

TOWEL RAIL CLAUDIA INOX®

STAINLESS STEEL CHIMNEY PIPES

HEATING WATER BUFFER TANK PUFFERMAS® CTS POWER

BIOMASS GENERATOR CAL PE

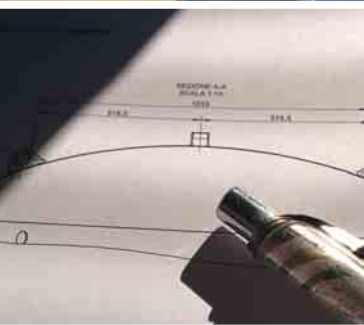
Food container JOLLY®

MODEL "ANFORA"



WATER TREATMENT





Technologies for Wellness

Development, design and innovation studies are key points in Cordivari production process. Each proposed solution conveys technical reliability, design, ergonomics and ease use and installation. The continuous development of our product offer, wants to witness the company's attention to the market needs. Similarly, the research and development of new solutions follows the trends of an efficiency and energy savings oriented market.

The different phases of production are in perfect harmony with the best techniques for industrial automation, robotics and advanced craftsmanship.

Every product undergoes several times during the production stages, a rigorous control, manual and visual.

Cordivari products meet the most important certifications, such as the PED (Pressure Equipment Directive) and the Directive 2009/125/CE (ErP – eco-friendly planning regulations) in compliance with the cylinders and other pressure vessels manufactured. All items for Domestic Hot Water storage are certified for drinkable water use in accordance with the strictest Italian and foreign regulations (ACS, SSICA – DVGW W270 – UBA, WRAS).

In Cordivari quality care and attention to the environment has always been home. In fact we were the first company of the heating sector to obtain the certification according to UNI EN ISO 9001: 2008 integrated with environmental management certification UNI EN ISO 14001: 2004. This production philosophy, which is now a way of life for us, means reduction of emissions and energy inefficiencies, waste reduction and recycling over 60% and allows us to operate in a sustainable and environmentally friendly way, using clean energy from renewable sources, using only eco-friendly materials from raw materials to packaging.

CERTIFICATIONS



Quality systems certified UNI EN ISO 9001:2008



Environment certification UNI EN ISO 14001:2004



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.

CORDIVARI Lab



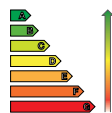
PRODUCT CERTIFICATIONS



Italian Stainless Steel Association



97/23/CE-P.E.D.
87/404/CE



ErP

Products in conformity to EUP Directive Energy Using Products - 2005/32/CE



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

CERTIFICATES OF CONFORMITY



Internal treatment for food use Polywarm® in accordance with D.M. nr. 174 del 06/04/2004 granted by SSICA Laboratory of Parma - Italy.



A.C.S. Certification (Attestation de Conformité Sanitaire) granted by CARSO – Laboratoire Santé Environnement Hygiène De Lyon about Polywarm® anti-corrosion treatment

DVGW W270

UBA KTW

on Polywarm® internal coating



Water Regulation Advisory Scheme certificate



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



Heating Water Production



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

GUIDE WHEN CHOOSING A CALORIFIER

A calorifier is an indirect water heating appliance (i.e. one that features at least one heat exchanger) which accumulates heat so as to handle 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 and buffers, to provide the most suitable product to any need and also 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 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 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 a number of heat exchangers are used with the design ensuring that excellent thermal stratification will be achieved with minimal interference between the various heat sources.



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 heat pumps:

Calorifiers operating in conjunction with air-to-water or water-to-water heat pumps must have extremely 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 secondary stored water. This will maximise the COP (coefficient of performance) of the heat pump.



Calorifiers operating with renewable energies

D.H.W. production system connected to renewable energies, exploiting natural resources coming from air, water and ground.



Calorifiers with condensing boilers:

Condensing boilers are highly efficient and ecologically friendly. They operate at optimum performance when the flow water temperature is limited which results in the return water temperature being as low as possible. This will ensure that the latent heat is extracted out of the combustion products which will maximise the efficiency of the system.



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 characterised 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.



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.



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

GUIDE WHEN CHOOSING STORAGE TANKS

A storage tank is a well insulated tank that is inserted in heating systems powered by a biomass generator. It has 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 improving working comfort considerably.

Cordivari offers a wide range of storage tanks, which include both standard versions and a number of combined versions to be used as a single appliance, acting both as a storage tank and to produce domestic hot water.



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

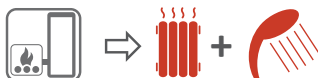


Central heating systems with one or more boilers which are plumbed together in conjunction with solar power which is connected to either one or two coil type heat exchangers. Domestic hot water is not generated in these tanks.

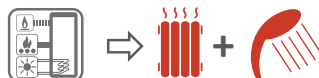


Heating systems with one or more sources hydraulically divided, with the exploitation of the solar power and without DHW production.

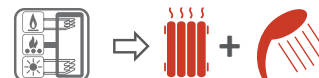
These are heating systems powered by a biomass generator or more generators that are hydraulically divided. The preparation of the DHW is done without involving the heating hot water storage tank.



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.



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

PRODUCT NEWS 2016

RANGE OF CALORIFIERS FOR HEAT PUMPS

Installations with heat pumps represent one of the most developed segments in single or multi use systems. Cordivari extends the range of calorifiers for heat pumps. In this edition of the catalogue they have an entire section dedicated, which is enriched with more models and each one is specialized for its own application. Cordivari offers calorifiers that can satisfy every possible application concerning accumulations for heat pumps, from buffers to multi-heat energy buffers used both for DHW production and for heating, and also tanks used only for DHW production. Made to be combined with heat pumps, high performance tanks can optimize the working process and performances thanks to systems and exchange surfaces specific for those applications. Tanks for heat pump range includes tanks from the series Bolly® XL and Bolly® PDC, and also multi-heat energy buffers from the series Eco-Combi® PDC and Puffermas® PDC.



NEW BOLLY® PDC RANGE

New Bolly® PDC tanks represent the most advanced of tanks for heat pumps evolution, with a higher level of comfort and performances.

Cordivari presents the new DHW preparation and storage tanks range, expressly designed to use heat pumps as primary energy source. They work through a group of heat exchange, properly dimensioned in order to guarantee several benefits and minimize the heating time.

Its main feature is a higher efficiency and a constant exchanged power during the pre-heating phase rather than traditional tanks, where the exchanged power decreases as the storage temperature increases. Many performance benefits derive from it, such as an important decrease of the starting time of 25% than a traditional tank.

This advantage is even bigger in combined systems with heat pump (for DHW and heating), where a higher level of comfort is produced by reducing the time to prepare the domestic water in order to dedicate more time to heat the environment.

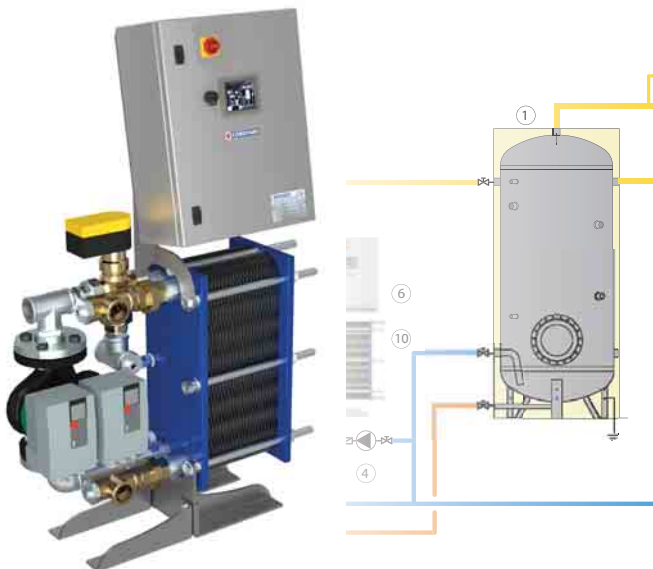
Compared to a traditional tank, the exchange system of the new Bolly® PDC improves the working conditions of the generator. Such result is due to the constant exchanged power that reduces the turning on and off cycles, it produces a higher overall performance and extends the heat pump lifecycle.

The Bolly® PDC range is available as multi-heat models (employing many energy sources) to integrate the solar thermal system or a traditional/condensing tank by using big exchangers.



PRS MODULE – FOR IMMEDIATE DHW PREPARATION

PRS modules extend the range of immediate DHW production system to afford a higher flow rate or to cope with systems for many users. The new PRS modules are made for immediate preparation (without storage) or semi-immediate (combined with a DHW accumulator) to be installed in medium or big systems. They guarantee high performances for continuous DHW production with high flow rates. PRS modules work separately from the primary system energy circuit, so to be used with different heat generators (traditional, condensing, biomass, district heating, etc). Thanks to an advanced electronic control unit they are able to automatically control several system models, punctually managing the anti-legionellosis cycles, recording data and their results. PRS modules are equipped with a plate heat exchanger, high efficiency primary circulation pump (single or double to guarantee the supply even in case of breakdowns), primary mixing valve to avoid calcareous deposits, electronic panel for PLC management and control, besides a temperature feeler system.



ErP 2017 READY TANK RANGE

From September, 26th 2017, the "Energy Related Products" 2009/125/CE ErP directive will introduce strict laws concerning water storage, both for DHW and heating, in order to face an increasing demand of more efficient products and higher heat performances. As from that date, storage tank till 2000 lt. must belong to C-energy efficiency class.

This is the reason why Cordivari has already chosen to offer a complete tank and multi-energy range conformed to the European standard that will be effective on September, 26th 2017.

All the products included in the HE tanks and multi-heat energy buffers series represent a higher performance range and they are designed for those who prefer to choose quality and efficiency as from now.





READY TO SUPPORT YOU!

ECODESIGN ERP DIRECTIVE 2009/125/CE

The ErP directive “Energy Related Products” 2009/125/CE is about several actions to reduce energy costs of the products used for heating and to produce DHW through an eco-friendly planning.

As from September 26th 2015 the directive will represent an important change in the European Union regarding these products.

It has been created to help the EU to achieve the goals established in the plan 20-20-20, which states that we will reduce 20% of the CO2 emissions, increase 20% of the renewable energies use and obtain 20% of energy saving.

THE PRODUCTS INVOLVED

All of them are products used for heating and to produce DHW, limited to the nominal thermal power of the system and/or the accumulation capacity related to the type of product. According to the legislation, these products can be part of the market only if they have an energetic label and/or clear specifications about the energetic performances and/or the energy efficiency class. Besides the documents about the product information (labels and specifications), there will be energetic labels which highlight the general energy efficiency class of a group made by many components.

Thanks to this identification the consumer will be able to easily identify the efficiency of a product or a system and compare them, as well as technologies, so to choose more and more efficient products.

WHAT WILL BE DIFFERENT AS FROM SEPTEMBER 26TH 2015?

As from September 26th, 2015, the products must have the energetic label. For tanks and multi-heat energy buffers, all the models till 500 lt need the label, while for the models till 2000 lt the information about the energy efficiency is indicated on the technical data sheet of the product. From September 26th, 2015 there will be more restrictive measures, before this date no minimum energy efficiency class is demanded.

When the ErP directive will come into force, Cordivari products will show their quality, performances and reliability as always and also their energy performance. So you can see how Cordivari’s eco-friendly planning helps you to obtain a growing efficiency that produces wellness and energy saving.

ALL OUR SUPPORT AT YOUR DISPOSAL

As from September 26th 2015 all the necessary tools will be at your disposal

in order to be conform to the legislation through a series of services which will involve the professionals of this field, such as installers, sellers or engineers.

The information about the energetic performances will be on each product as stated by the directive, but also on catalogues, brochures and price lists. Moreover, all the documents will be available online visiting www.cordivari.it to easily and quickly see or download them.

Thanks to the brand new online tool on our website and using a computer or a mobile device, you can get all the documents and generate product labels or system labels in case of systems with many components. You can save all the settings and the documents in your personal page, always use or modify them wherever you are.

Furthermore, the Cordivari technical department is always ready to support you in case of dimensioning of complex systems or customized configurations.





APPROVED

CORDIVARI Lab

CERTIFIED QUALITY

CHOOSE SERENITY



Today, more than ever, who choose Cordivari products choose to be peaceful! By introducing the new Ecodesign ErP standards, we choose to offer you guaranteed performances and reliability. The construction of the new building Cordivari LAB is the result of this choice. As from the beginning of this year, the company is equipped with a laboratory and an advanced test room which allow to test any product or system, measuring and certifying its performances. Thanks to its strict procedures, conformed to European standards, and sophisticated tools, nowadays Cordivari

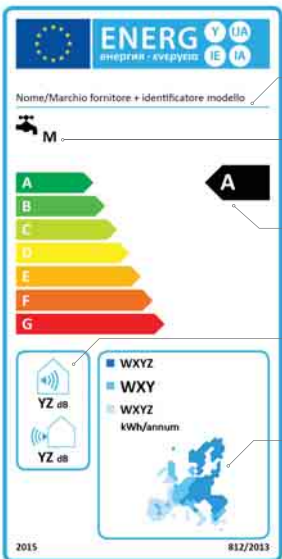
is the only Italian manufacturer able to carry out accurate tests on every product in its own laboratory. As a consequence, research and development on performance and energy efficiency are always running towards the best solutions, in order to guarantee you reliability, savings and high results.

Cordivari LAB is the only qualified laboratory inside a manufacturing

company, approved by the TÜV. Choose to be safe with certified quality!



EXAMPLE OF LABEL FOR TANK WITH HEAT PUMP



Manufacturer - Model name

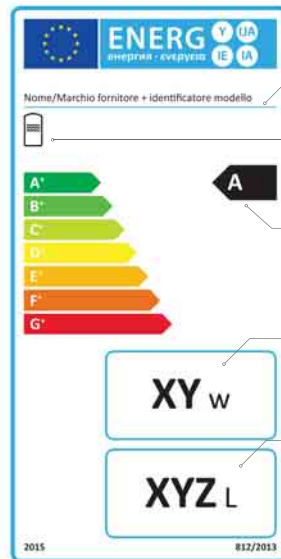
DHW – Load profile

Energy efficiency class

Sound power level

Consumption in different climatic levels per year

EXAMPLE OF LABEL FOR TANK/MULTI-HEAT ENERGY BUFFERS



Manufacturer-Model name

Hot water tank

Energy efficiency class

Heat Loss

Net volume

HOT WATER

CALORIFIERS

EXTRA CALORIFIERS

BOLLY® AND INTERKA CALORIFIERS

316L STAINLESS STEEL CALORIFIERS

BOILERS FOR HEAT PUMP

NEW

BUFFER TANKS

BUFFER TANKS

NEW

MULTIFUEL ENERGY CYLINDERS

HYDRONIC

MACS® MODULE - PRS MODULE - PLATE HEAT EXCHANGERS

COLD/HOT WATER

INERTIAL TANKS

HEAT PUMP ENERGY BUFFER TANK - CHILLED WATER AND HEATING TANKS

WATER PRESSURIZED CYLINDERS

PRESSURE VESSEL / EXPANSION VESSEL

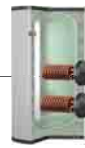
AIR

COMPRESSED AIR RECEIVERS

COMPRESSED AIR RECEIVERS (97/23CE – 2009/105/CE)

ACCESSORIES AND SPARE PARTS

EXAMPLE OF INSTALLATION- CERTIFICATES- REGULATIONS- GENERAL SALES CONDITIONS AND WARRANTY



PAG. 12



PAG. 68



PAG. 106



NEW



NEW



NEW

PAG. 122



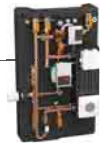
NEW



PAG. 144



PAG. 160



NEW



PAG. 196



NEW



PAG. 214



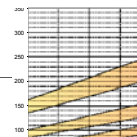
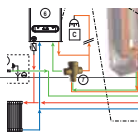
PAG. 224



PAG. 234



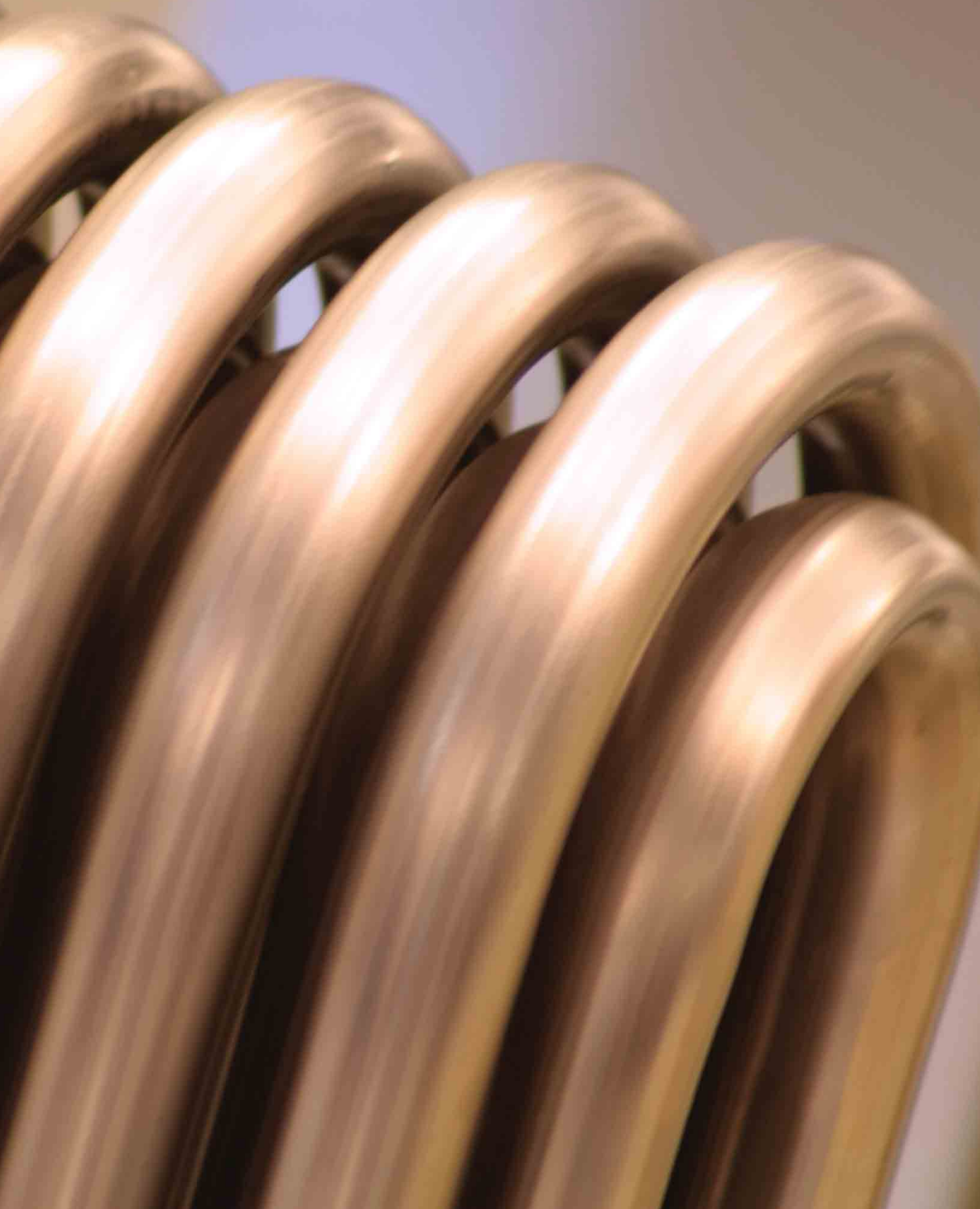
PAG. 240



PAG. 254



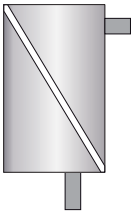
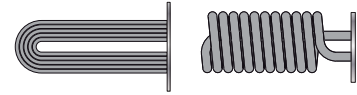
CALORIFIERS



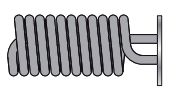
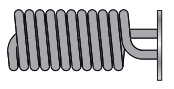
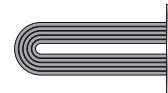
EXTRA CALORIFIERS RANGE →



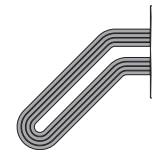
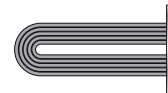
CALORIFIERS WITH 1 EXTRACTABLE EXCHANGER



CALORIFIERS WITH 2 EXTRACTABLE EXCHANGERS



CALORIFIERS WITH 3 EXTRACTABLE EXCHANGERS



ACCUMULATION TANKS

DOMESTIC HOT WATER STORAGE



EXTRA



EXTRA COMPACT



EXTRA Plus



EXTRA VAPORE

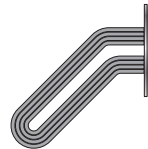


PIASTRATERM®



HEAT EXCHANGERS RANGE

Antilegionella® Heat Exchanger, with tubes bent to the bottom STAINLESS STEEL 316L or COPPER



Straight heat exchanger STAINLESS STEEL 316L or COPPER



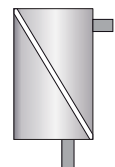
Straight heat exchanger STAINLESS STEEL 316L (for steam generators)



Straight double spiral finned heat exchangers COPPER



Plate heat exchangers inspectionable or braze-welded STAINLESS STEEL 316L



VASO INERZIALE



VASO INERZIALE A1



P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

EXTRA 1

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

- Galvanized Steel

HEAT EXCHANGER:

Antilegionella® Heat Exchanger, with tubes bent to the bottom (available on Stainless Steel 316L or Copper).

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard

polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Magnesium anode (Galvanized) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > It 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

- 5 years (Polywarm®) - 2 years (Galvanized) - See general sales conditions and warranty.

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

EXTRA 1 WXC VT

ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	Art. Nr.	ErP
200		3072162360102	E
300		3072162360103	E
500		3072162360104	E
800		3072162360105	F
1000		3072162360106	F
1500		3072162360107	F
2000		3072162360108	G
2500		3072162360113	
3000		3072162360109	
4000		3072162360110	
5000		3072162360112	

EXTRA 1 WRC VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	Art. Nr.	ErP	Lower
				[m²]
200		3072162350102	E	0,5
300		3072162350103	E	0,75
500		3072162350104	E	1
800		3072162350105	F	1,5
1000		3072162350106	F	2
1500		3072162350107	F	3
2000		3072162350108	G	4
2500		3072162350113		5
3000		3072162350109		6
4000		3072162350110		8
5000		3072162350112		10



STOCK AVAILABILITY
grey



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

EXTRA 1 ZRC VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: GALVANIZED coated Heat Exchanger: COPPER	Art. Nr.	ErP	Lower
				[m²]
200		3072162040102	E	0,5
300		3072162040103	E	0,75
500		3072162040104	E	1
800		3072162040105	F	1,5
1000		3072162040106	F	2
1500		3072162040107	F	3
2000		3072162040108	G	4
2500		3072162040113		5
3000		3072162040109		6
4000		3072162040110		8
5000		3072162040112		10

EXTRA 1 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 1 WXB HE VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	Art. Nr.	ErP	Lower
				[m²]
200		3072162360122	C	0,5
300		3072162360123	C	0,75
500		3072162360124	C	1
800		3072162360125	C	1,5
1000		3072162360126	C	2
1500		3072162360127	C	3
2000		3072162360128	C	4

Also available customized versions with copper exchanger both for Polywarm and galvanized coated models.

Accessories

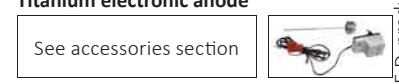
"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES

Monophase and Threephase electric resistances



Titanium electronic anode

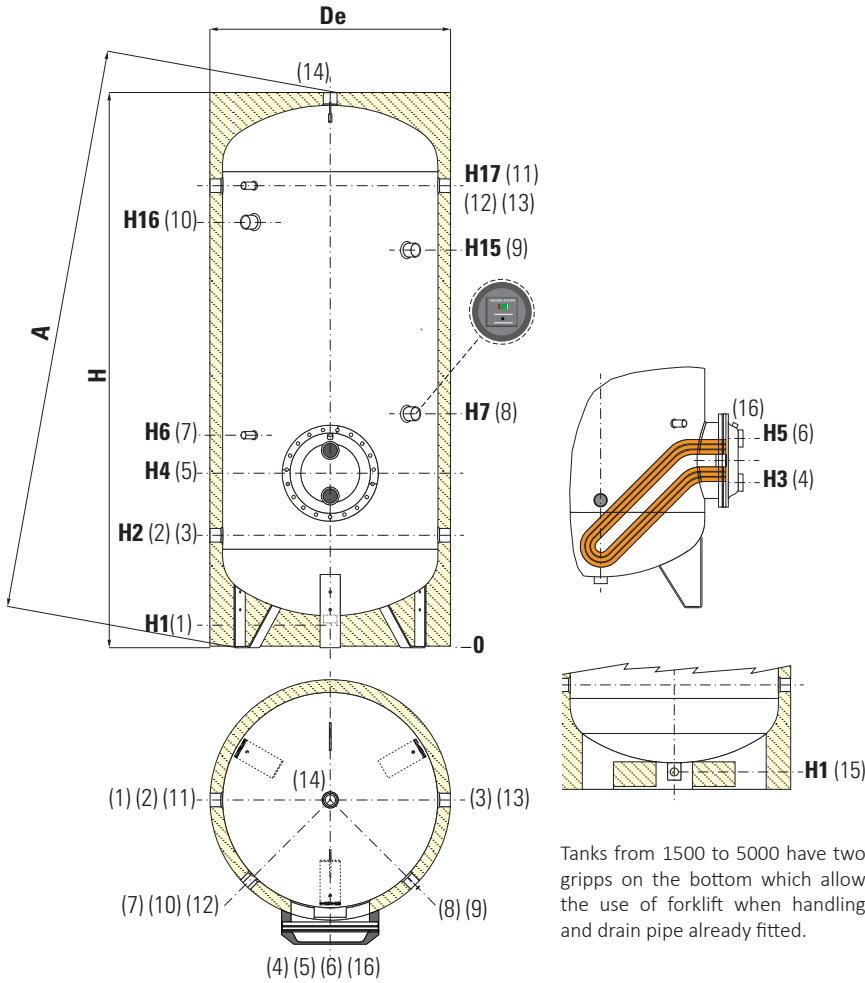
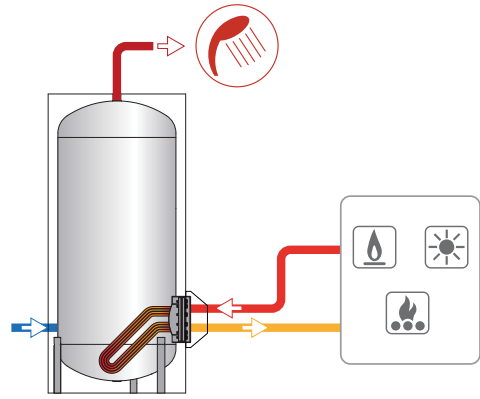


EXTRA1

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER

Model	FINISHING	STORAGE		HEAT EXCHANGERS	
		Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	POLYWARM*	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	POLYWARM*	6 bar			
200 ÷ 1000	GALVANIZED	8 bar	60 °C	12 bar	110 °C
1500 ÷ 5000	GALVANIZED	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.



Tanks from 1500 to 5000 have two grippos on the bottom which allow the use of forklift when handling and drain pipe already fitted.

1	Drain
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Heating water back to the buffer
5	Heat exchanger flange
6	Entry heating water from the buffer
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1"1/2 Gas F - for models > 800 connections 2" Gas F
11	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
14	Domestic hot water outlet
15	Drain 1" Gas F (only for models > di 1000)
16	Air spurge heat exchanger 3/8" Gas F

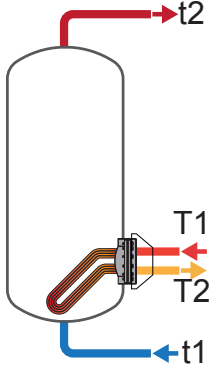
Model	Net Volume [litres]	Weight [kg]	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7
200	189	52	550	550	1441	1542	77	316	351	401	451	511	701
300	290	65	650	650	1549	1680	135	400	435	485	535	595	785
500	499	83	750	750	1841	1988	101	416	451	501	551	611	801
800	791	139	850	900	2163	2343	113	433	478	568	658	718	898
1000	1037	181	950	1000	2217	2432	101	454	499	589	679	739	989
1500	1440	224	1050	1100	2415	2654	109	440	585	675	765	825	1075
2000	1980	279	1200	1300	2492	2811	91	467	587	692	797	867	842
2500	2314	328	1350	//	2311	2627	140	551	671	776	881	951	976
3000	2921	384	1350	//	2811	3076	140	551	731	836	941	1011	1036
4000	3766	521	1500	//	2875	3198	114	570	750	855	960	1030	1035
5000	4986	657	1700	//	2915	3325	94	580	750	855	960	1030	1035

Model	H15	H16	H17	5	1	2 3 11 13	4 6	7 12	8	9	10	14
200	//	1066	1176	∅e 300	1"1/4	1"1/4	1"	1/2"	1"1/4	//	1"1/2	1"1/4
300	//	1150	1260	∅e 300	1"1/4	1"1/4	1"	1/2"	1"1/4	//	1"1/2	1"1/4
500	//	1370	1526	∅e 300	1"1/4	1"1/4	1"	1/2"	1"1/4	//	1"1/2	1"1/4
800	//	1638	1793	∅e 380	1"1/4	1"1/4	2"	1/2"	1"1/4	//	1"1/2	1"1/2
1000	//	1660	1814	∅e 380	1"1/2	1"1/2	2"	1/2"	1"1/4	//	2"	2"
1500	//	1895	2050	∅e 380	//	1"1/2	2"	1/2"	1"1/4	//	2"	2"
2000	1952	1877	2057	∅e 430	//	2"	2"	1/2"	1"1/4	1"1/4	2"	2"
2500	1816	1732	1891	∅e 430	//	2"	2"	1/2"	1"1/4	1"1/4	2"	2"
3000	2316	2232	2391	∅e 430	//	2"	2"	1/2"	1"1/4	1"1/4	2"	2"
4000	2315	2238	2410	∅e 430	//	2"	2"	1/2"	1"1/4	1"1/4	2"	2"
5000	2335	2265	2420	∅e 430	//	2"	2"	1/2"	1"1/4	1"1/4	2"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/73/CE

EXTRA1 - HEAT EXCHANGERS TECHNICAL DATA

Cordivari Heat Exchangers, with tubes bent to the bottom, is able to heat the complete quantity of volume in an homogeneous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in a traditional straight heat exchangers equipped calorifires, a range between 9-17% of Volume remain cold.



CURVED HEAT EXCHANGERS

Model	Storage Volume [[litres]	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	190	113	113	77	49	7,3	11,5	13,7	18	178	283	338	455
		147	148	102	65	5,8	8,9	10,5	13,9	141	218	258	344
300	285	112	113	76	48	11,1	17	21	28	274	435	520	701
		145	146	102	65	8,9	13,8	16,3	21,6	219	339	402	534
500	485	139	140	96	60	15	23,8	28,5	38	369	587	702	947
		180	181	125	80	12,1	18,7	22,1	29,4	297	460	545	725
800	790	146	147	101	64	23	36	44	59	570	908	1087	1465
		186	188	130	83	18	29	34	46	465	721	854	1136
1000	995	128	128	86	54	33	53	63	86	814	1309	1571	2127
		157	157	107,9	69	27	43	51	69	687	1077	1281	1711
1500	1440	120	119	82	51	51	81	98	133	1256	2022	2428	3290
		145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	1980	121	122	83	52	69	111	133	180	1699	2738	3288	4453
		146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	2313	118	119	81	51	84	134	160	216	2066	3309	3964	5352
		145	146	101	65	71	111	131	174	1755	2734	3244	4314
3000	2921	128	127	87	55	100	159	190	255	2461	3926	4694	6321
		456	157	110	70	84	130	154	204	2082	3224	3817	5053
4000	3765	126	127	87	56	131	207	247	330	3236	5121	6105	8168
		159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	4985	137	138	96	61	162	253	301	401	3992	6270	7450	9921
		176	179	125	82	135	204	239	312	3332	5049	5923	7727

PRESSURE LOSS - CURVED HEAT EXCHANGERS



Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

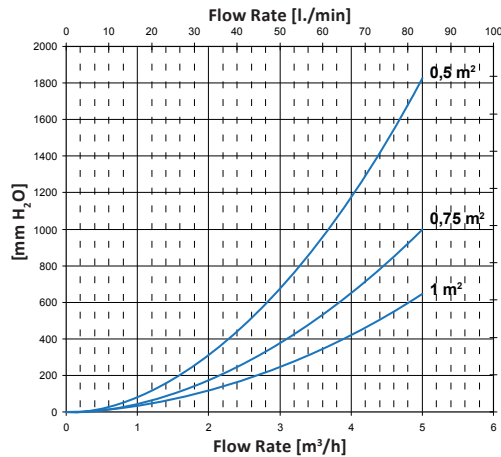
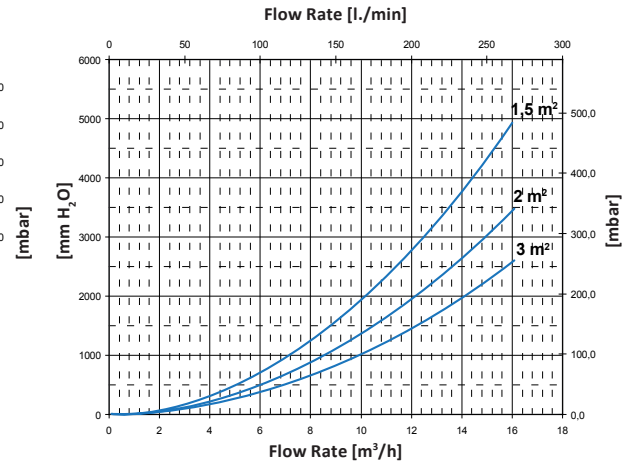


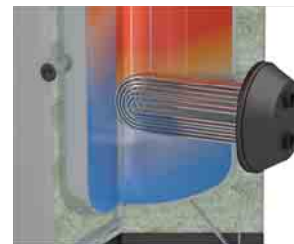
Chart for surfaces of: 1,5 m² / 2 m² / 3 m²



INCREASED STORAGE CAPACITY OF CURVED ANTILEGIONELLA® HEAT EXCHANGER



Model	Storage volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in stored volume	Advantage in percentage
	[litres]	[litres]	[litres]	[%]
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%



STANDARD HEAT EXCHANGER



100% VOLUME HEATED WITH ANTILEGIONELLA® HEAT EXCHANGERS

Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at 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.

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

Chart for surfaces of: 4 m² / 5 m² / 6 m²

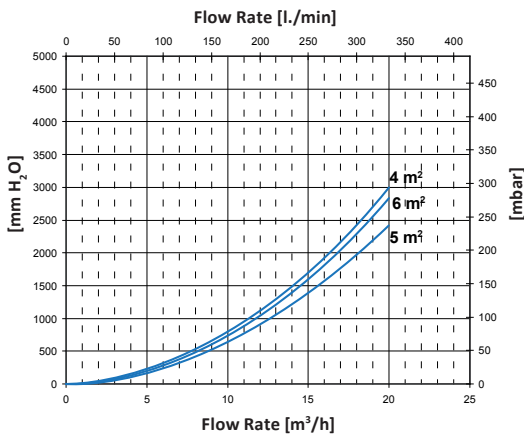
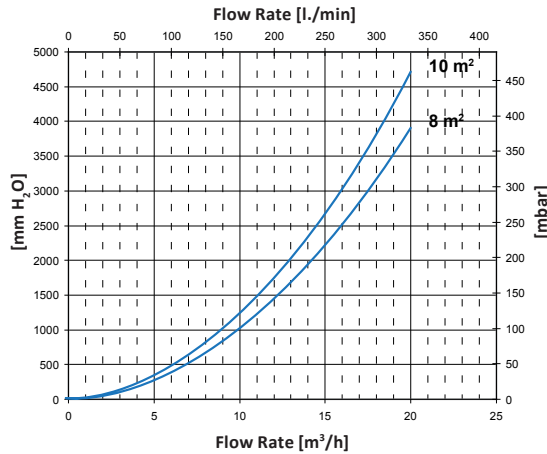


Chart for surfaces of: 8 m² / 10 m²



Model	Storage volume: Standard heat exchanger	Storage volume: Heat exchanger for 100% heated volume	Advantage in stored volume	Advantage in percentage
	[litres]	[litres]	[litres]	[%]
1500	1224	1440	216	15%
2000	1684	1980	297	15%
2500	1905	2314	409	18%
3000	2438	2921	483	17%
4000	3113	3765	652	17%
5000	4116	4985	869	17%

EXTRA1 COMPACT

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER SUITABLE FOR LOW-CEILINGED ROOMS



APPLICATION

Production and storage of sanitary hot water suitable for low-ceilinged rooms.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS)

HEAT EXCHANGER:

Antilegionella® Heat Exchanger, with tubes bent to the bottom (available on Stainless Steel 316L or Copper).

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

n° 2 magnesium anodes with Anoden Tester (Polywarm®).

DRAIN

External confluence through drain connection.

Models > lt 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

- 5 years (Polywarm®)

See general sales conditions and warranty.

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

POLYWARM®



EXTRA 1 WXC VT COMPACT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	Art. Nr.	Energy Efficiency Class	Heat Exchanger Surface [m²]
1500	3072162360507	F	3	
2000	3072162360508	G	4	
2500	3072162360513		5	
3000	3072162360509		6	
4000	3072162360510		8	

POLYWARM®



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



EXTRA 1 WRC VT COMPACT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	Art. Nr.	Energy Efficiency Class	Heat Exchanger Surface [m²]
1500	3072162350507	F	3	
2000	3072162350508	G	4	
2500	3072162350513		5	
3000	3072162350509		6	
4000	3072162350510		8	

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000011	1000, 1500
5200000000013	2000÷4000



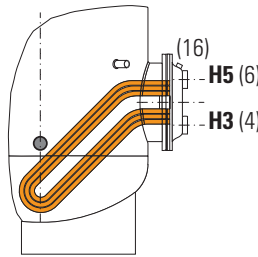
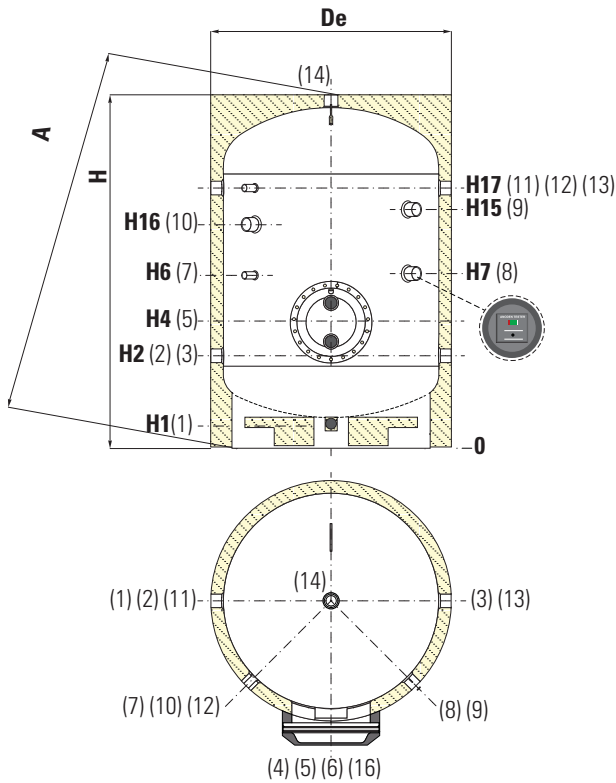
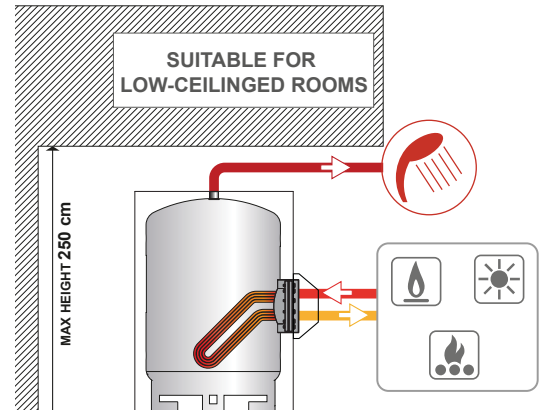
Suitable for Polywarm® coated models

EXTRA1 COMPACT

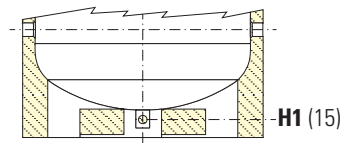
CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER SUITABLE FOR LOW-CEILINGED ROOMS

FINISHING	STORAGE		HEAT EXCHANGERS	
	Pmax	Tmax	Pmax	Tmax
POLYWARM*	6 bar	90 °C	12 bar	110 °C

TÜV Rheinland CERTIFIED
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.



1	Drain 1" Gas F
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Heating water back to the buffer
5	Heat exchanger flange
6	Entry heating water from the buffer
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion
11	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
14	Domestic hot water outlet 2" Gas F
16	Air spurge heat exchanger 3/8" Gas F



The calorifier has two grips on the bottom which allows the use of forklift when handling and already equipped with mounted drainage tube.

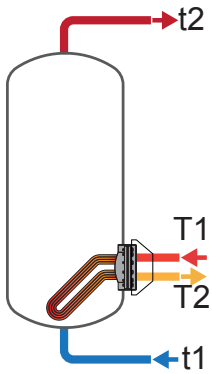
Model	Net Volume	Weight	De	H	A	H1	H2	H3	H4	H5
	[litres]	[kg]								
1500	1510	221	1200	1942	2232	91	467	602	692	782
2000	2010	300	1350	2061	2410	140	551	671	776	881
2500	2624	393	1500	2125	2545	114	570	690	795	900
3000	3021	472	1600	2140	2613	109	575	695	800	905
4000	3990	565	1700	2415	2897	94	580	730	835	940

Model	H6	H7	H15	H16	H17	5	2 3 11 13	4 6	7 12	8	9
	[mm]						Connections Gas F				
1500	867	842	//	1377	1557	Øe 380	2"	2"	1/2"	1"1/4	//
2000	951	976	1566	1482	1641	Øe 430	2"	2"	1/2"	1"1/4	1"1/4
2500	970	975	1585	1488	1660	Øe 430	2"	2"	1/2"	1"1/4	1"1/4
3000	975	980	1600	1520	1675	Øe 430	2"	2"	1/2"	1"1/4	1"1/4
4000	1010	1015	1855	1765	1920	Øe 430	2"	2"	1/2"	1"1/4	1"1/4

EXTRA1 COMPACT- HEAT EXCHANGERS TECHNICAL DATA

Cordivari Heat Exchangers, with tubes bent to the bottom, are able to heat the complete quantity of volume in an homogenous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in a traditional straight heat exchangers equipped calorifires, a range between 9-17% of Volume remain cold.

CURVED HEAT EXCHANGERS



Model	Storage Volume [litres]	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	1503	125	125	85	54	51	81	98	133	1256	2022	2428	3290
		152	152	105	67	44	68	81	108	1075	1687	2008	2684
2000	2004	123	123	84	53	69	111	133	180	1699	2738	3288	4453
		148	148	103	65	59	93	111	148	1465	2302	2741	3665
2500	2619	134	134	92	58	69	111	133	180	1699	2738	3288	4453
		164	164	114	73	59	93	111	148	1465	2302	2741	3665
3000	3020	130	130	90	57	100	159	190	255	2461	3926	4694	6321
		162	162	113	73	84	130	154	204	2082	3224	3817	5053
4000	3982	133	133	92	59	131	207	247	330	3236	5121	6105	8168
		170	170	119	77	110	168	198	260	2718	4151	4903	6443

PRESSURE LOSS - CURVED HEAT EXCHANGERS



PRESSURE LOSS - CURVED HEAT EXCHANGERS

Chart for surfaces of: 3 m²

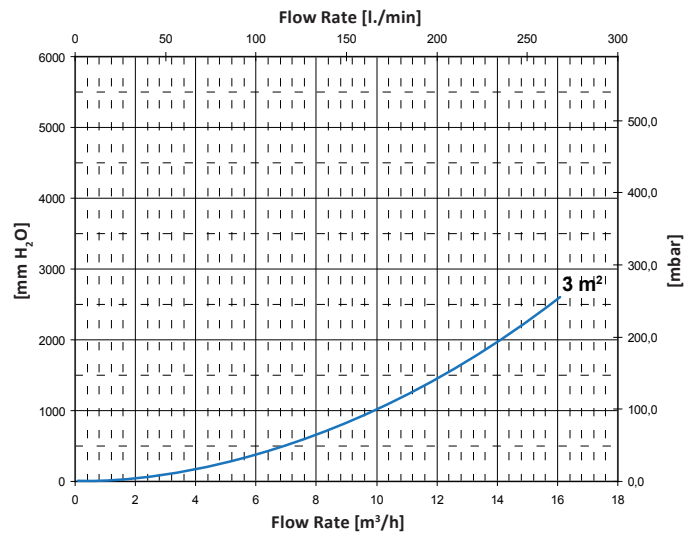


Chart for surfaces of: 4 m²

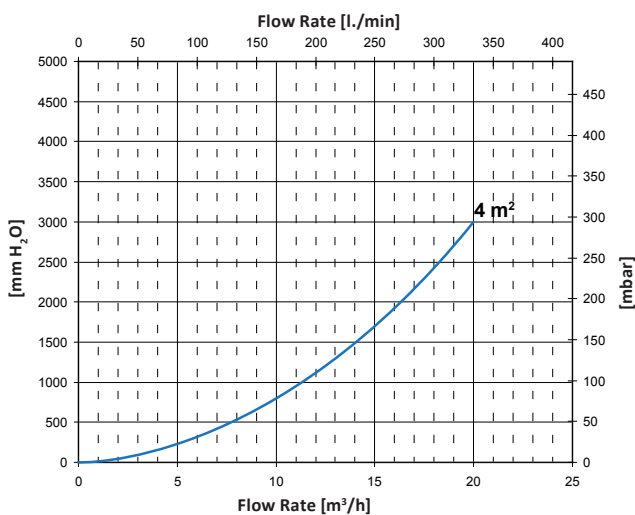
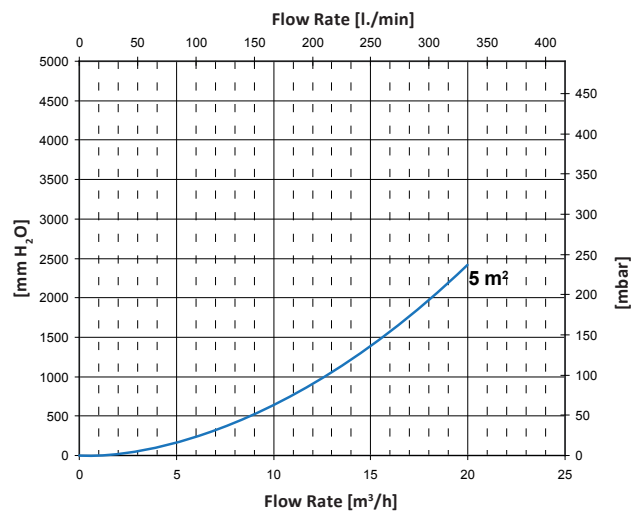


Chart for surfaces of: 5 m²



EXTRA1 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 continue way from 10 °C at 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.

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1927	2484	2552	2695	2723	3765	4090	4779	15	2295	225,1
1897	2428	2482	2594	2578	3497	3754	4294	7,5	589,6	57,8
2573	3319	3411	3605	3649	5053	5493	6425	20	2996	293,8
2534	3247	3320	3474	3462	4704	5056	5795	10	766,42	75,2
3276	4198	4289	4484	4352	5932	6372	7304	20	2436	238,9
3237	4125	4198	4352	4165	5583	5934	6673	10	624	61,2
3862	4969	5097	5368	5420	7455	8069	9371	20	2836	278,1
3798	4852	4950	5156	5117	6893	7368	8357	10	723	70,9
5090	6542	6706	7050	7140	9785	10573	12223	20	3896	382,1
5004	6380	6506	6762	6725	9009	9611	10843	10	989	97,0

PRESSURE LOSS - CURVED HEAT EXCHANGERS



PRESSURE LOSS - CURVED HEAT EXCHANGERS

Chart for surfaces of: 6 m²

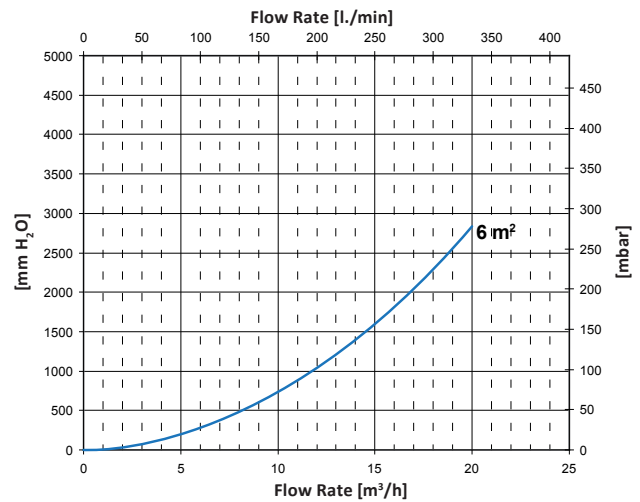
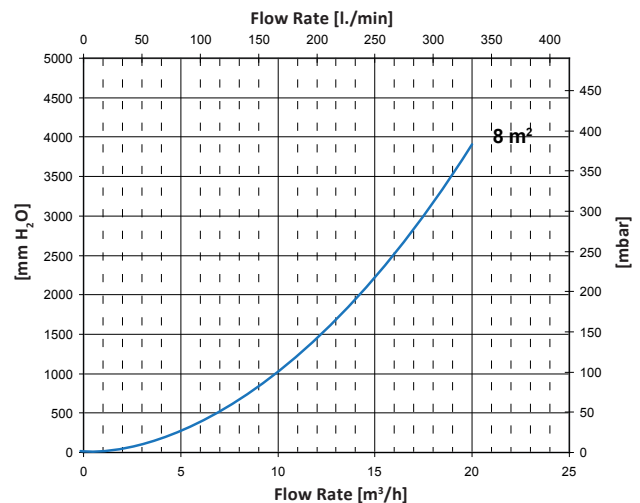
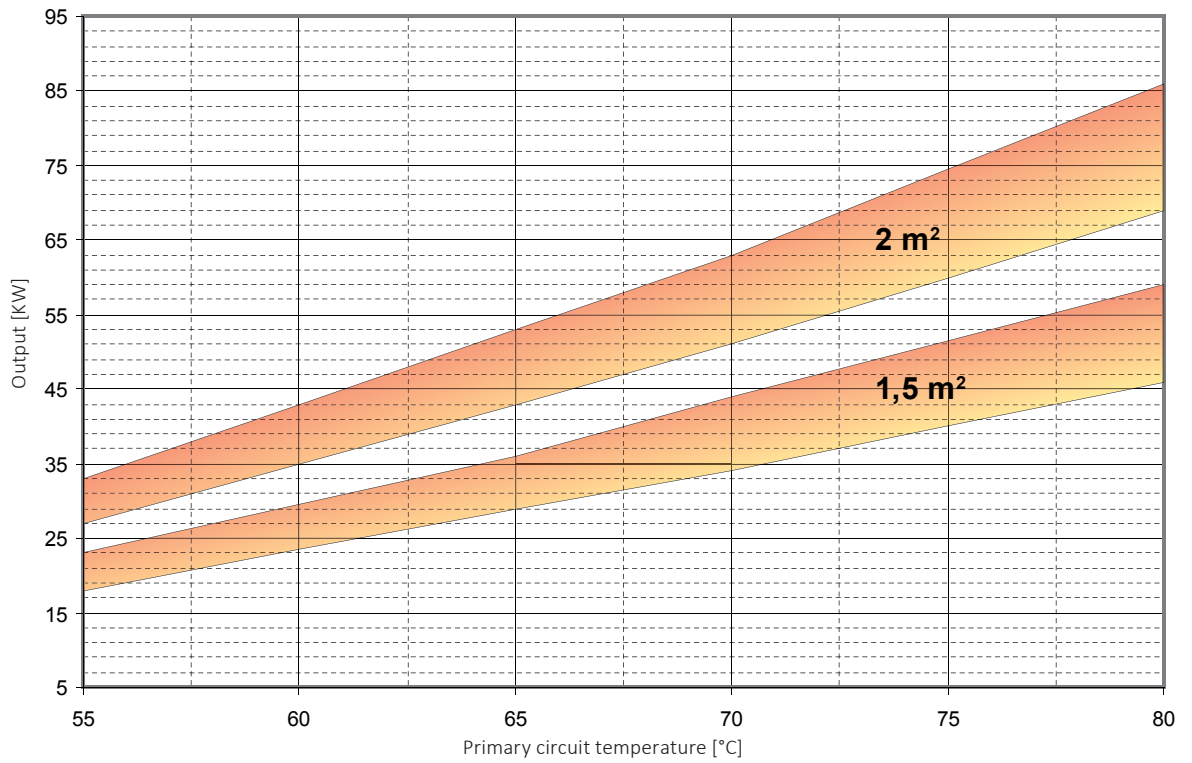


Chart for surfaces of: 8 m²

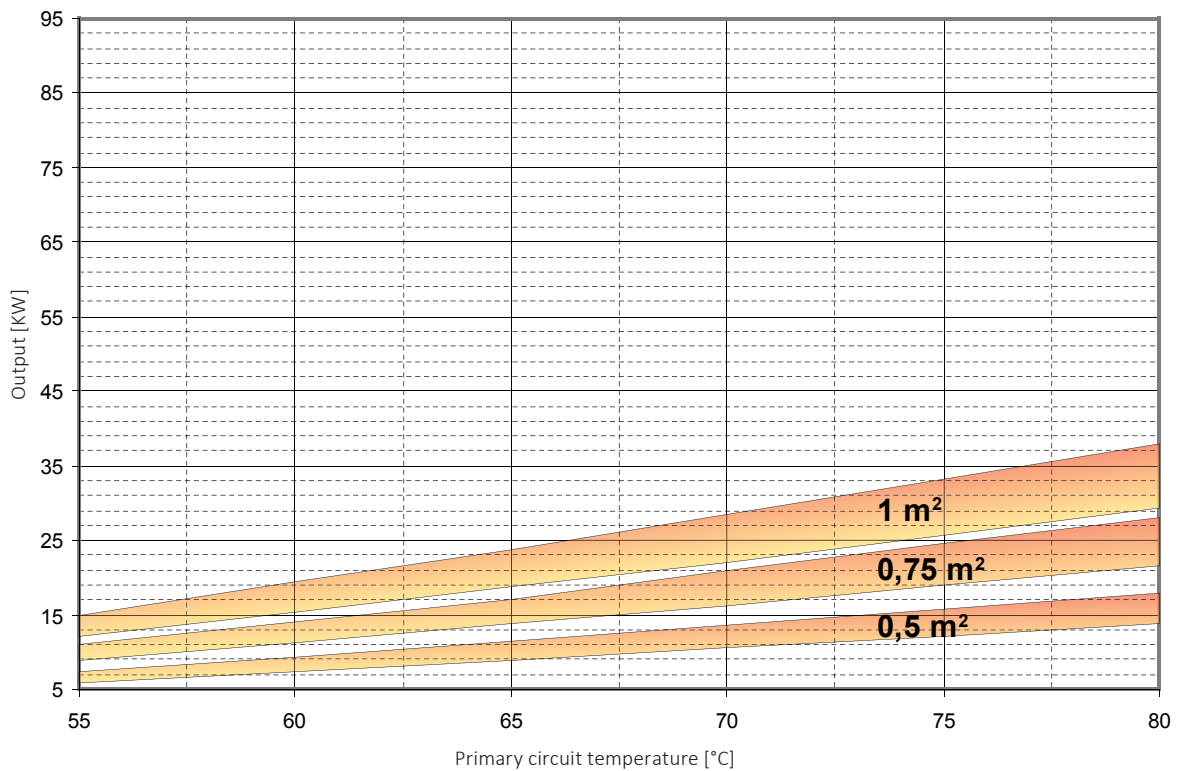


EXTRA - HEAT EXCHANGERS OUTPUT CHART

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)

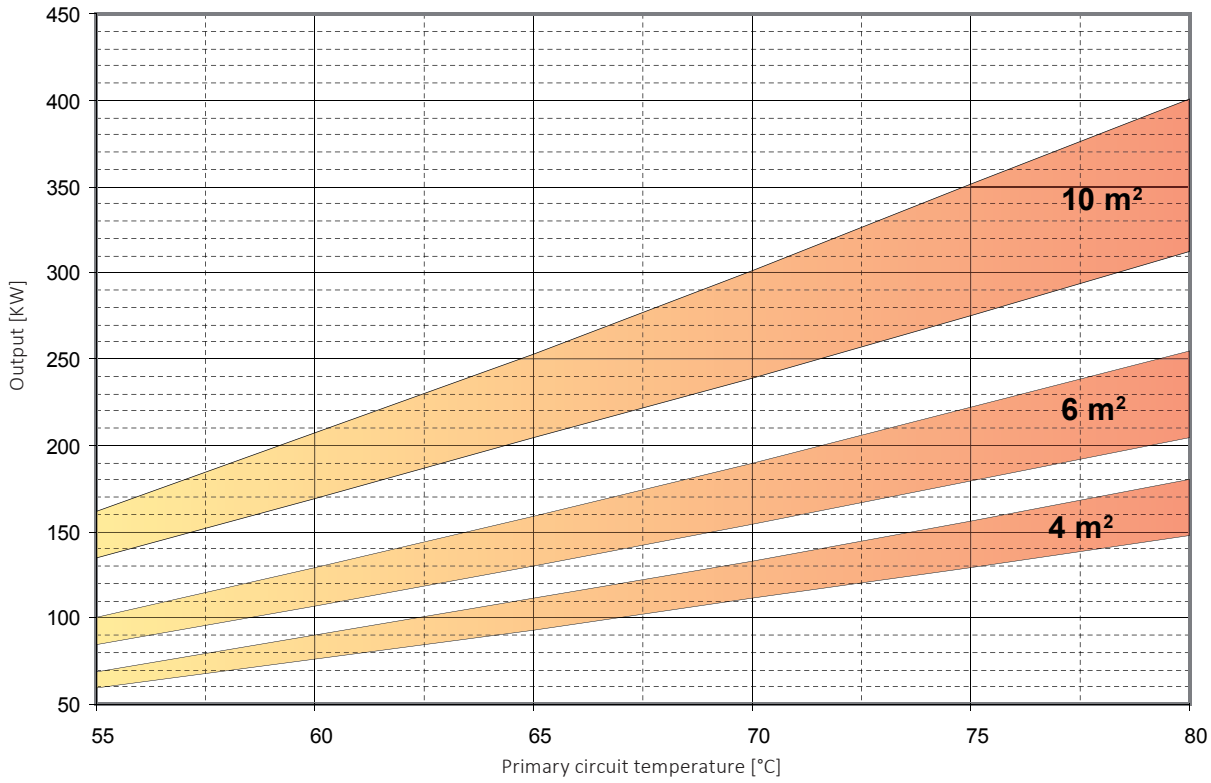


Extractable heat exchanger surface	1,5 m ²		2 m ²	
	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	6	3	10	5

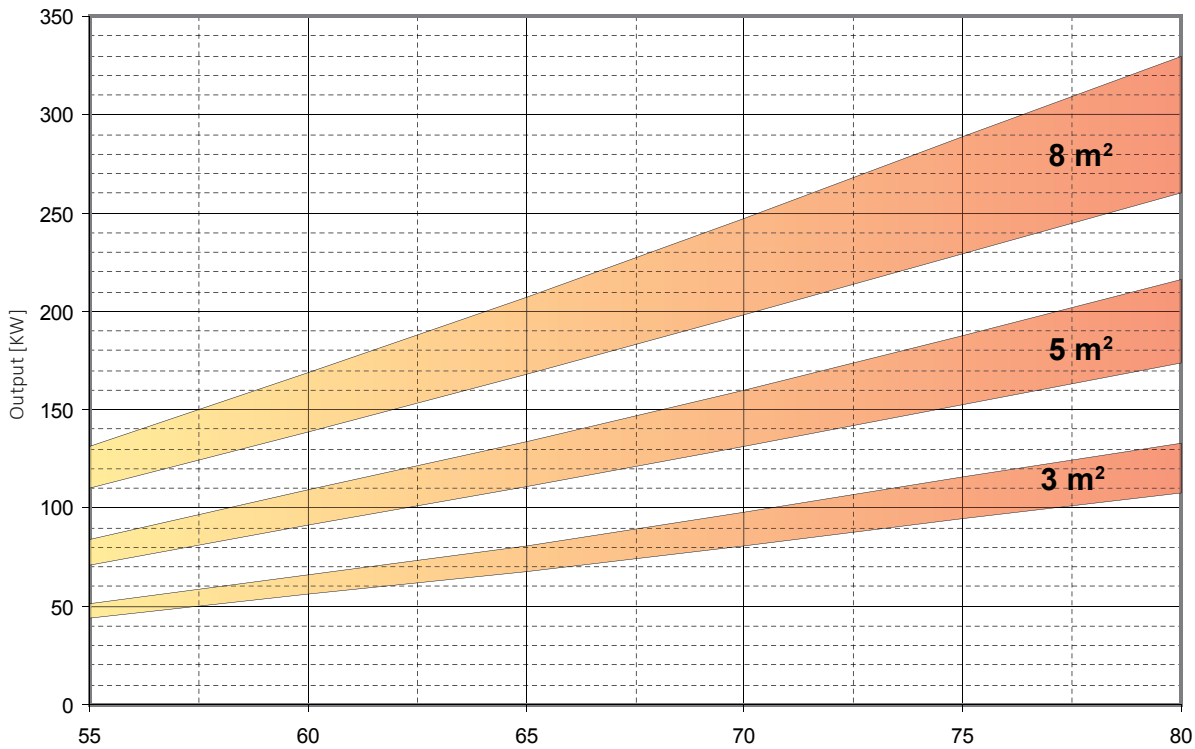


Extractable heat exchanger surface	0,5 m ²		0,75 m ²		1 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	2	1	3	1,5	4	2

EXTRA - HEAT EXCHANGERS OUTPUT CHART



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



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

EXTRA2

CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

2 heat exchangers, (upper: straight - lower: Antilegionella® with tubes bent to the bottom - available on stainless steel 316L or copper.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > lt 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for 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 2 WXC VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Lower	Upper
Art. Nr.			[m²]	[m²]
200	3082162360101	E	0,5	0,5
300	3082162360102	E	0,75	0,75
500	3082162360103	E	1,5	1,5
800	3082162360104	F	2	2
1000	3082162360105	F	3	2
1500	3082162360106	F	3	3
2000	3082162360107	G	4	4
2500	3082162360113		5	5
3000	3082162360108		6	6
4000	3082162360110		8	8
5000	3082162360112		10	10



EXTRA 2 WRC VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Lower	Upper
Art. Nr.			[m²]	[m²]
200	3082162350101	E	0,5	0,5
300	3082162350102	E	0,75	0,75
500	3082162350103	E	1,5	1,5
800	3082162350104	F	2	2
1000	3082162350105	F	3	2
1500	3082162350106	F	3	3
2000	3082162350107	G	4	4
2500	3082162350113		5	5
3000	3082162350108		6	6
4000	3082162350110		8	8
5000	3082162350112		10	10

EXTRA 2 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 2 WXB HE VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Lower	Upper
Art. Nr.			[m²]	[m²]
200	3084162360001	C	0,5	0,5
300	3084162360002	C	0,75	0,75
500	3084162360003	C	1,5	1,5
800	3084162360004	C	2	2
1000	3084162360005	C	3	2
1500	3084162360006	C	3	3
2000	3084162360007	C	4	4

Also available on request customized versions with copper exchanger for Polywarm® model.

— Accessories on request —

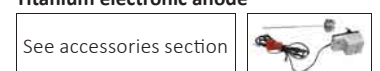
“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES

Monophase and Threephase electric resistances



Titanium electronic anode

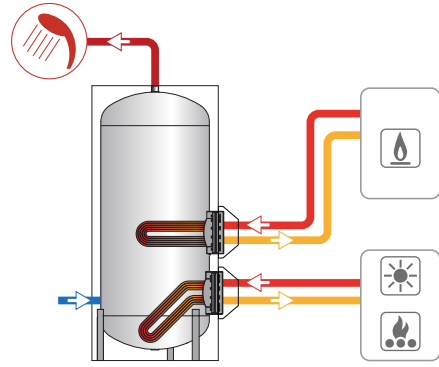
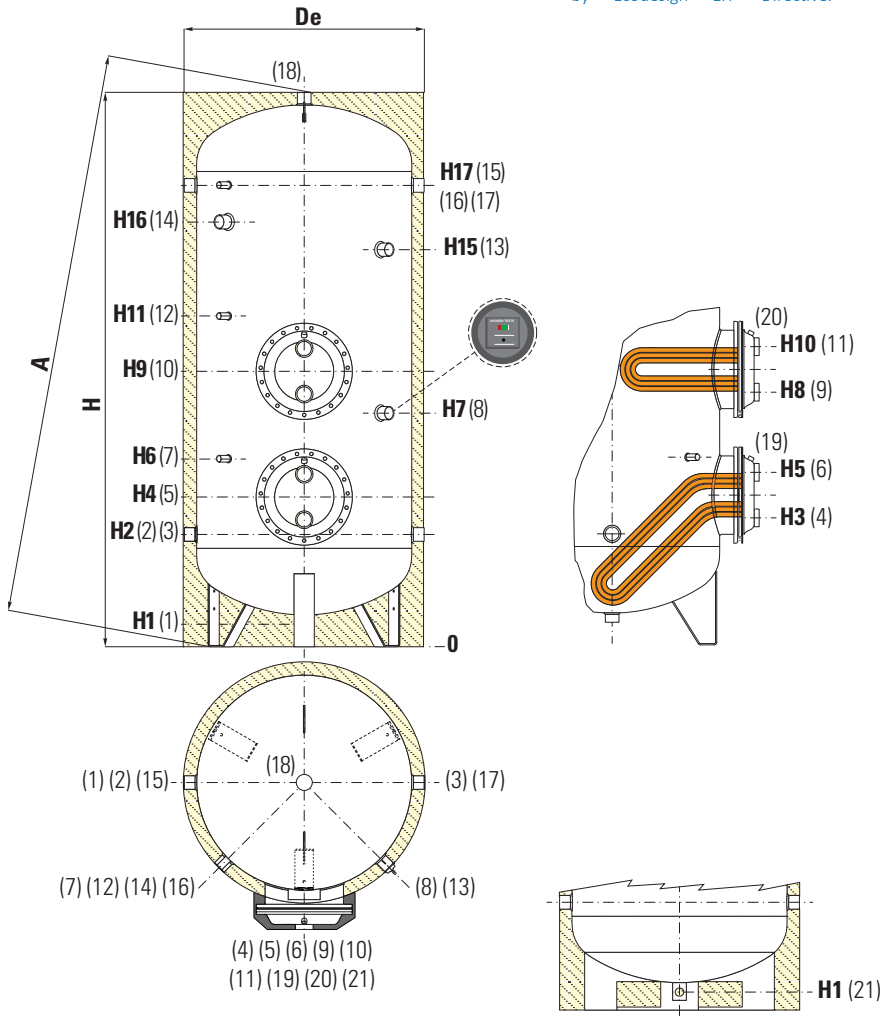


EXTRA2

CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS

Model	FINISHING	STORAGE		HEAT EXCHANGERS	
		Pmax	Tmax	Pmax	Tmax
200 ÷ 1000	POLYWARM*	8 bar	90 °C	12 bar	110 °C
1500 ÷ 5000	POLYWARM*	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.



1	Drain (models from 200 to 1000)
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Lower heat exchanger outlet
5	Heat exchanger flange
6	Lower heat exchanger inlet
7-12	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Lower heat exchanger outlet
10	Upper heat exchanger flange
11	Fixed upper heat exchanger inlet
13	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
14	Connection for electrical immersion 1"1/2 Gas F - for models > 800 connections 2" Gas F
15-17	Connection for recirculation or for domestic hot water
16	Connection for instrumentation 1/2" Gas F
18	Domestic hot water outlet
19-20	Air spurge heat exchanger 3/8" Gas F
21	Drain 1" Gas F (only for models > di 1000)

Tanks from 1500 to 5000 liters have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

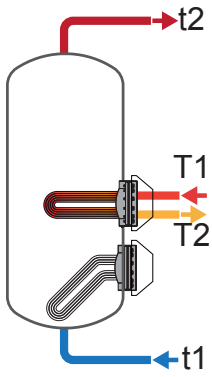
Model	Net Volume	Weight	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7
	[litres]	[kg]	[mm]										
200	189	70	550	550	1441	1542	77	316	351	401	451	511	701
300	290	84	650	650	1549	1680	135	400	435	485	535	595	785
500	499	112	750	750	1841	1988	101	416	451	501	551	611	801
800	791	177	850	900	2163	2343	113	433	478	568	658	718	898
1000	1037	226	950	1000	2217	2432	101	454	499	589	679	739	989
1500	1440	269	1050	1100	2415	2654	109	440	585	675	765	825	1075
2000	1980	337	1200	1300	2492	2811	91	467	587	692	797	867	842
2500	2314	399	1350	//	2311	2627	140	551	671	776	881	951	976
3000	2921	464	1350	//	2811	3076	140	551	731	836	941	1011	1036
4000	3766	618	1500	//	2875	3198	114	570	750	855	960	1030	1035
5000	4986	768	1700	//	2915	3325	94	580	750	855	960	1030	1035

Model	H8	H9	H10	H11	H15	H16	H17	5-10	1	2 3 15 17	4 6 9 11	21	18
	[mm]								Connections Gas F				
200	801	851	901	961	//	1066	1176	Øe 300	1"1/4	1"1/4	1"	//	1"1/4
300	885	935	985	1045	//	1150	1260	Øe 300	1"1/4	1"1/4	1"	//	1"1/4
500	901	951	1001	1061	//	1370	1526	Øe 300	1"1/4	1"1/4	1"	//	1"1/4
800	1028	1118	1208	1268	//	1638	1793	Øe 380	1"1/4	1"1/4	2"	//	1"1/4
1000	1049	1139	1229	1289	//	1660	1814	Øe 380	1"1/2	1"1/2	2"	//	1"1/2
1500	1160	1250	1340	1400	//	1895	2050	Øe 380	//	1"1/2	2"	1"	2"
2000	1157	1262	1367	1437	1952	1877	2057	Øe 430	//	2"	2"	1"	2"
2500	1271	1376	1481	1551	1816	1732	1891	Øe 430	//	2"	2"	1"	2"
3000	1371	1476	1581	1651	2316	2232	2391	Øe 430	//	2"	2"	1"	2"
4000	1390	1495	1600	1670	2315	2238	2410	Øe 430	//	2"	2"	1"	2"
5000	1400	1505	1610	1680	2335	2265	2420	Øe 430	//	2"	2"	1"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/73/CE

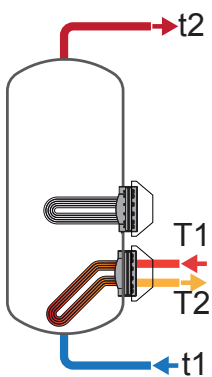
EXTRA2 - HEAT EXCHANGERS TECHNICAL DATA

Cordivari Heat Exchangers, with tubes bent to the bottom, are able to heat the complete quantity of volume in an homogenous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in a traditional straight heat exchangers equipped calorifires, a range between 9-17% of Volume remain cold.



UPPER STRAIGHT HEAT EXCHANGERS

Model	Storage Volume [litres]	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	96	57	57	39	25	7	11	14	18	179	283	339	456
		74	75	52	33	6	9	11	14	142	219	259	344
300	148	57	57	39	25	11	18	21	28	275	436	521	702
		73	73	52	33	9	14	16	22	220	340	403	535
500	282	52	52	36	23	23	37	44	59	573	911	1090	1468
		66	55	46	30	19	29	35	46	468	724	857	1139
800	484	62	62	42	27	33	53	64	86	817	1312	1573	2129
		75	76	53	34	28	44	52	69	690	1079	1284	1715
1000	600	80	80	55	35	32	51	61	82	783	1252	1501	2029
		100	100	70	45	26	41	48	65	647	1008	1198	1599
1500	822	68	68	47	30	51	82	98	133	1259	2026	2430	3295
		82	83	57	37	44	68	81	109	1077	1690	2011	2687
2000	1147	70	70	48	30	69	111	133	180	1702	2741	3293	4463
		84	85	59	37	59	93	111	148	1468	2306	2744	3668
2500	1144	59	59	40	25	84	134	160	216	2069	3313	3969	5358
		71	72	50	32	71	111	131	174	1758	2738	3249	4318
3000	1656	71	72	49	31	100	159	190	255	2465	3931	4698	6325
		88	89	62	40	84	130	154	204	2086	3229	3821	5057
4000	2128	71	72	50	32	131	207	247	330	3242	5126	6112	8179
		89	90	63	41	110	168	198	260	2723	4167	4909	6448
5000	2814	78	78	54	35	162	253	301	400	3998	6275	7459	9924
		99	100	71	46	135	204	239	312	3338	5055	5930	7735



CURVED HEAT EXCHANGERS

Model	Storage Volume [litres]	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	190	113	113	77	49	7,3	12	14	18	178	283	338	455
		147	148	102	65	6	9	11	13,9	141	218	258	344
300	285	112	113	76	48	11	17	21	28	274	435	520	701
		145	146	102	65	9	14	16	21,6	219	339	402	534
500	485	90	90	62	39	23	37	44	59	571	909	1088	1467
		114	115	80	51	19	29	35	46	466	722	856	1137
800	790	101	101	69	44	33	53	64	86	815	1310	1572	2128
		124	125	86	55	28	44	52	69	688	1077	1282	1712
1000	995	82	83	56	36	51	82	98	133	1257	2024	2429	3293
		101	100	69	44	44	68	81	108	1076	1689	2010	2685
1500	1440	120	119	82	51	51	81	98	133	1256	2022	2428	3290
		145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	1980	121	122	83	52	69	111	133	180	1699	2738	3288	4453
		146	147	101	65	59	93	111	148	1465	2302	2741	3665
2500	2313	118	119	81	51	69	111	133	180	1699	2738	3288	4453
		145	146	101	65	59	93	111	148	1465	2302	2741	3665
3000	2921	128	127	87	55	100	159	190	255	2461	3926	4694	6321
		456	157	110	70	84	130	154	204	2082	3224	3817	5053
4000	3765	126	127	87	56	131	207	247	330	3236	5121	6105	8168
		159	161	112	73	110	168	198	260	2718	4151	4903	6443
5000	4985	137	138	96	61	162	253	301	401	3992	6270	7450	9921
		176	179	125	82	135	204	239	312	3332	5049	5923	7727

EXTRA2 - 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 continue way from 10 °C at 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.

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

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

EXTRA2 - PRESSURE LOSS - LOWER CURVED HEAT EXCHANGERS



Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

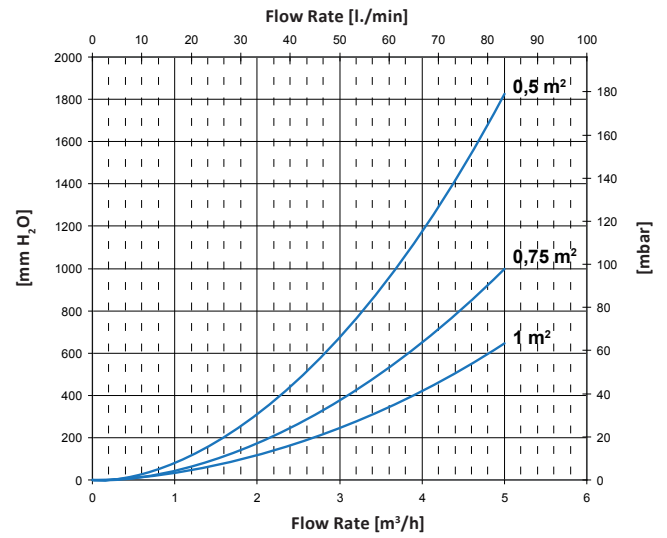


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

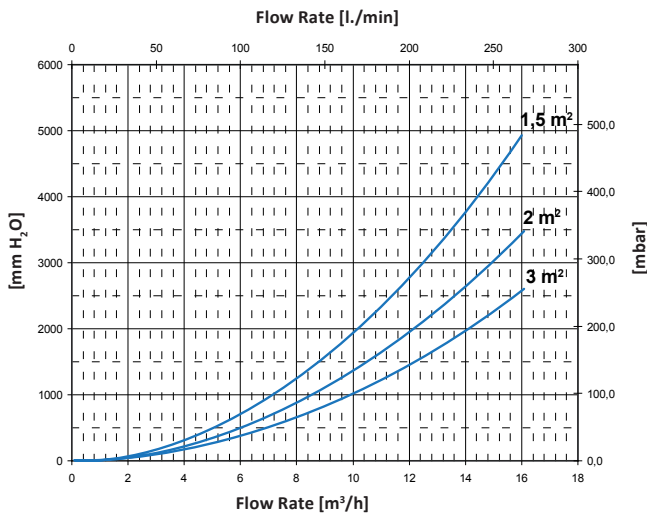


Chart for surfaces of: 4 m² / 5 m²

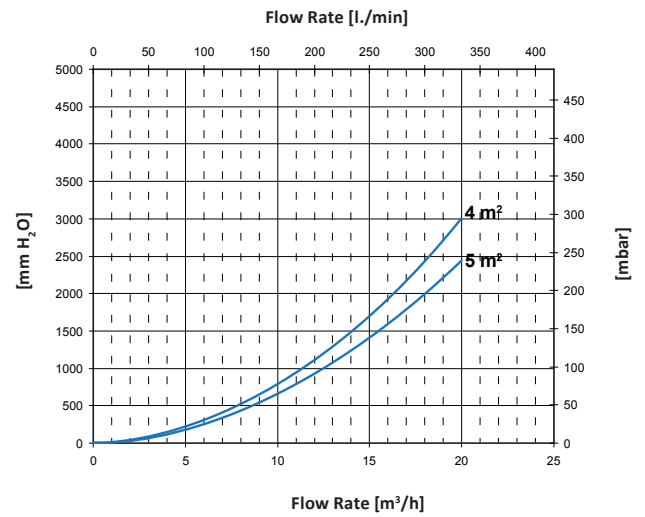


Chart for surfaces of: 6 m² / 8 m²

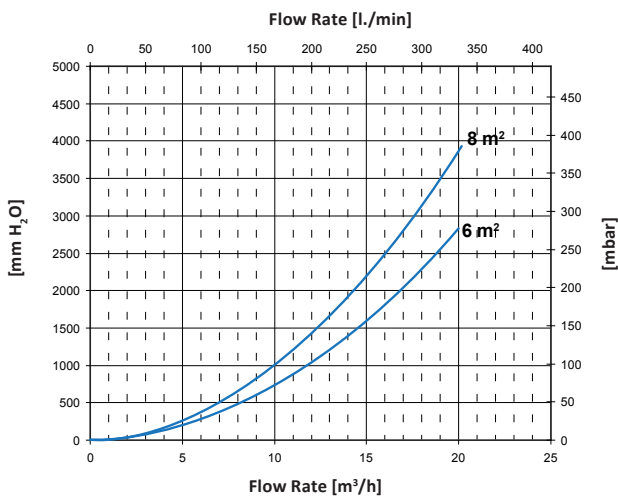
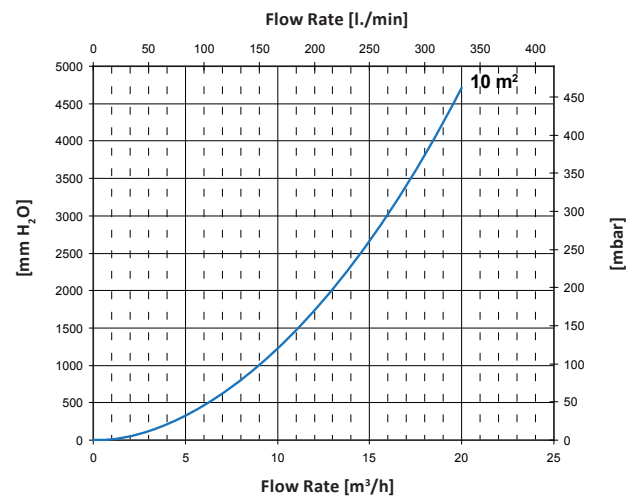


Chart for surfaces of: 10 m²



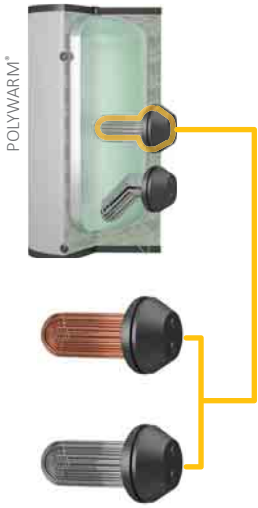


Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

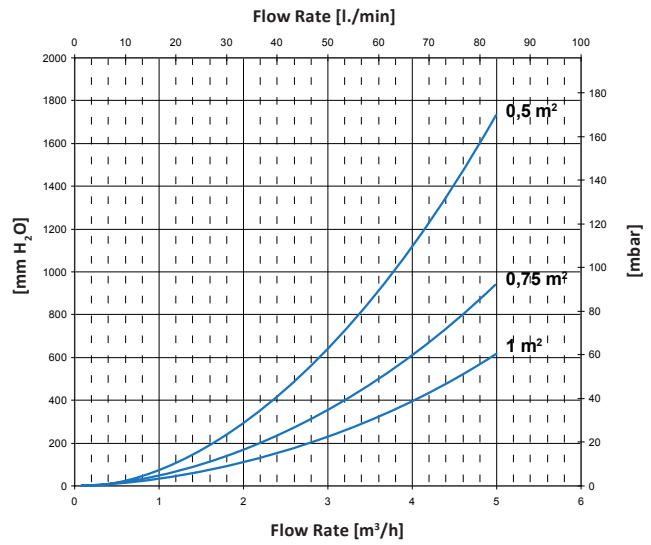


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

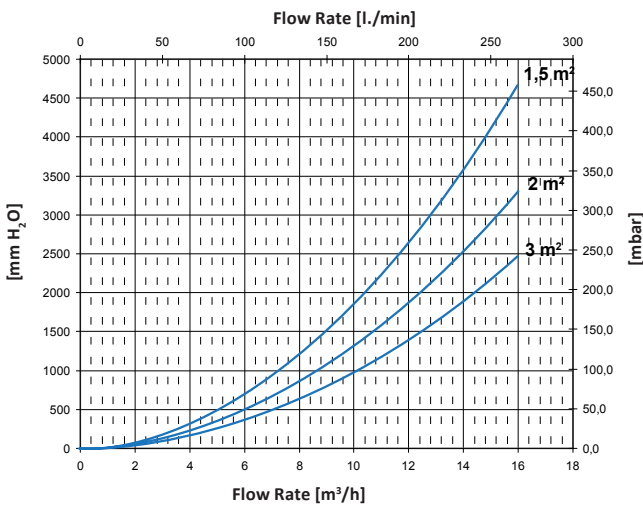


Chart for surfaces of: 4 m² / 5 m²

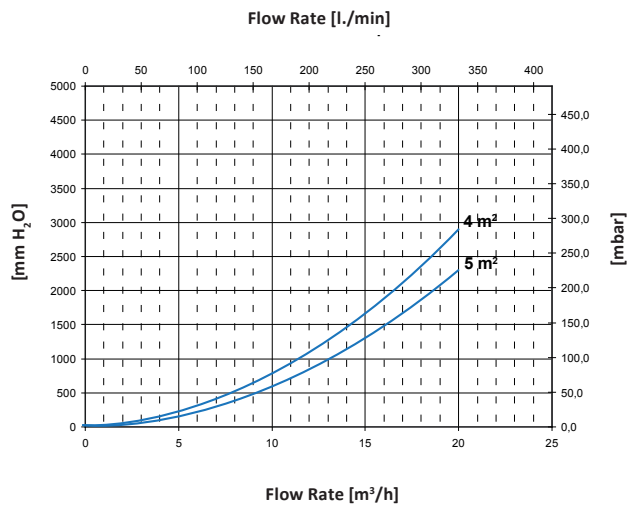


Chart for surfaces of: 6 m² / 8 m²

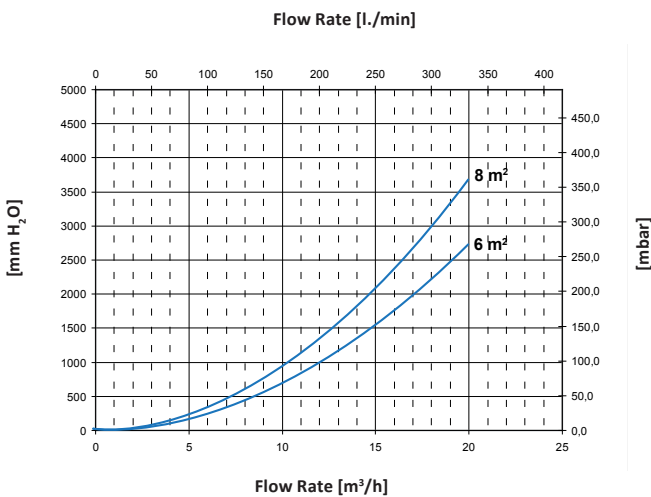
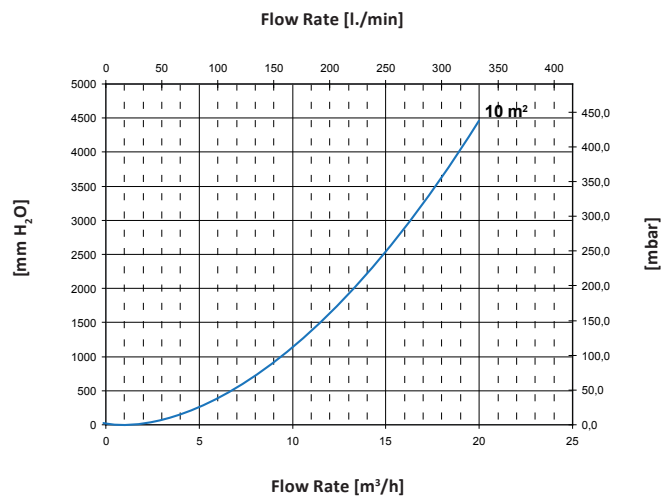


Chart for surfaces of: 10 m²



EXTRA3

CALORIFIERS WITH 3 EXTRACTABLE HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

HEAT EXCHANGER:

3 heat exchangers, (upper, middle: straight - lower: Antilegionella®) with tubes bent to the bottom - available on stainless steel 316L or copper.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > It 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate 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 VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE		
			Lower	Middle	Upper
	Art. Nr.		[m²]	[m²]	[m²]
1500	3092162360106		3	3	1,5
2000	3092162360107		4	4	2
3000	3092162360109		6	6	3
5000	3092162360112		10	10	5

EXTRA 3 WRC VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE		
			Lower	Middle	Upper
	Art. Nr.		[m²]	[m²]	[m²]
1500	3092162350106		3	3	1,5
2000	3092162350107		4	4	2
3000	3092162350109		6	6	3
5000	3092162350112		10	10	5

EXTRA 3 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 3 WXB HE VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE		
			Lower	Middle	Upper
	Art. Nr.		[m²]	[m²]	[m²]
1500	3094162360106		3	3	1,5
2000	3094162360107		4	4	2

Also available on request customized versions with copper exchanger for Polywarm model*.

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES

Thermometer

Art. Nr.
5032240000107
5 units box

Titanium electronic anode

Art. Nr.	Model
5200000000011	1500
5200000000013	2000÷5000

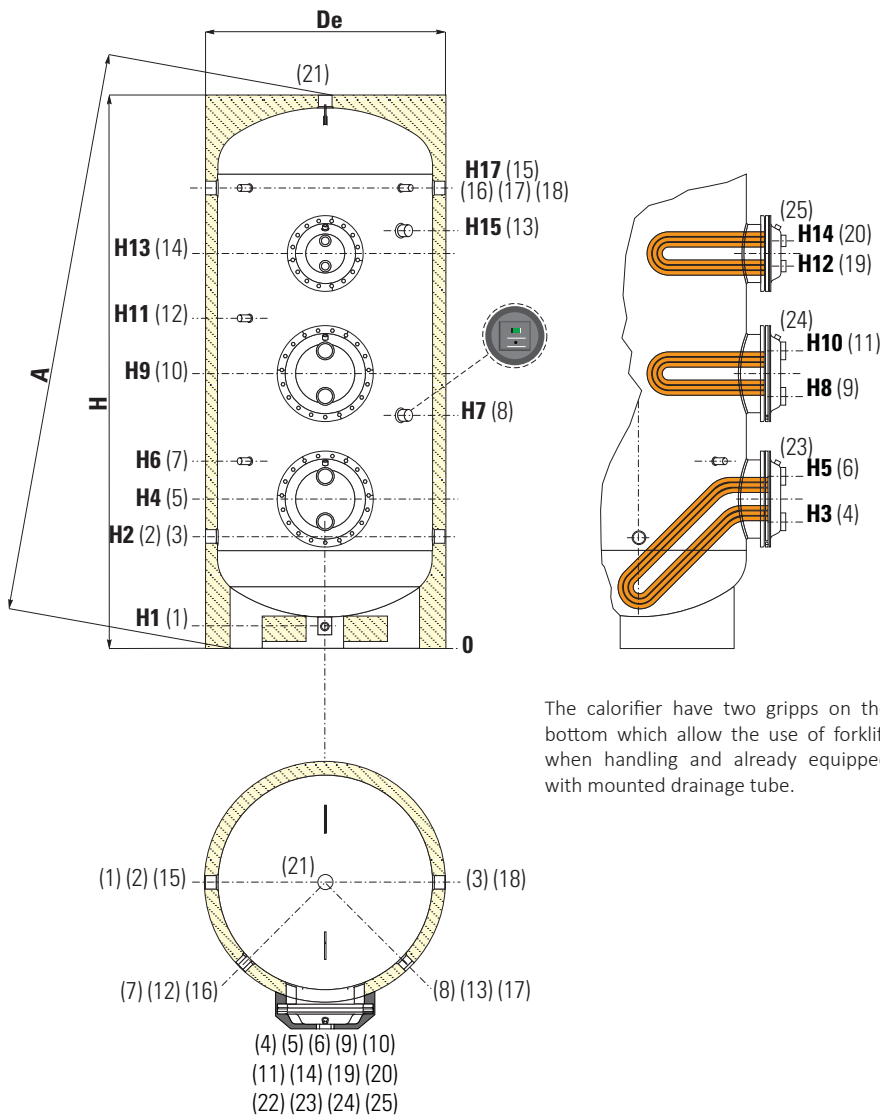
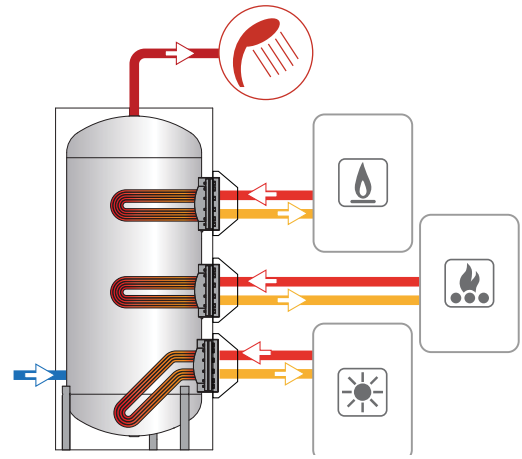
Suitable for Polywarm® coated models

EXTRA3

CALORIFIERS WITH 3 EXTRACTABLE HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.



The calorifier have two grips on the bottom which allow the use of forklift when handling and already equipped with mounted drainage tube.

1	Drain 1" Gas F
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Lower heat exchanger outlet
5	Heat exchanger flange
6	Lower heat exchanger inlet
7-12	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Middle heat exchanger outlet
10	Middle Heat exchanger flange
11	Middle heat exchanger inlet
13	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
14	Upper heat exchanger flange
15-18	Connection for recirculation or for domestic hot water
16-17	Connection for instrumentation 1/2" Gas F
19	Lower heat exchanger outlet
20	Fixed upper heat exchanger inlet
21	Domestic hot water outlet
23-24	Air spurge heat exchanger 3/8" Gas F
25	

Model	Net Volume	Weight	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9
	[litres]														
1500	1440	291	1050	1100	2415	2654	109	440	585	675	765	825	1075	1160	1250
2000	1980	430	1200	1300	2492	2811	91	467	587	692	797	867	842	1157	1262
3000	2921	557	1350	//	2811	3076	140	551	731	836	941	1011	1036	1371	1476
5000	4986	882	1700	//	2915	3325	94	580	750	855	960	1030	1035	1400	1505

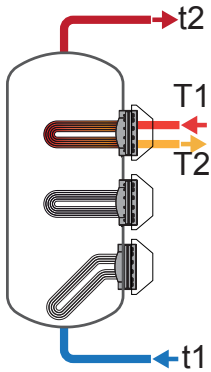
Model	H10	H11	H12	H13	H14	H15	H17	5 10	14	2 3 15 18	4 6 9 11 19 20	7 12 16 17	8	13	21
	[mm]										Connections Gas F				
1500	1340	1400	1785	1875	1965	//	2050	øe 380	øe 380	1"1/2	2"	1/2"	1"1/4	//	2"
2000	1367	1437	1727	1817	1907	1952	2057	øe 430	øe 380	2"	2"	1/2"	1"1/4	1"1/4	2"
3000	1581	1651	2086	2176	2266	2316	2391	øe 430	øe 380	2"	2"	1/2"	1"1/4	1"1/4	2"
5000	1610	1680	2010	2115	2220	2335	2420	øe 430	øe 430	2"	2"	1/2"	1"1/4	1"1/4	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

EXTRA CALORIFIERS
D.H.W. STORAGE

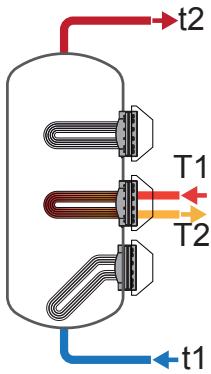
EXTRA3 - HEAT EXCHANGERS TECHNICAL DATA

Cordivari Heat Exchangers, with tubes bent to the bottom, are able to heat the complete quantity of volume in an homogenous way. Energy storing is therefore improved and Ignition time data have to be referred to the complete volume of the tank, while in a traditional straight heat exchangers equipped calorifires, a range between 9-17% of Volume remain cold.



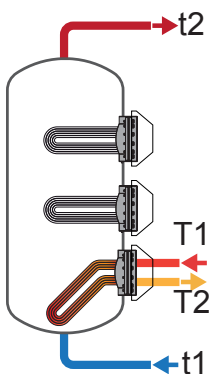
UPPER STRAIGHT HEAT EXCHANGERS

Model	Storage Volume [litres]	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	372	69	68	48	30	23	37	44	59	571	909	1088	1466
		88	89	61	39	19	29	35	46	465	722	855	1137
2000	591	76	77	52	33	33	53	64	86	815	1309	1572	2128
		93	94	65	41	28	44	52	69	688	1077	1281	1712
3000	763	63	63	43	27	51	82	98	133	1256	2023	2429	3293
		77	77	54	34	44	68	81	109	1075	1688	2009	2685
5000	1582	81	81	56	35	84	134	160	216	2066	3134	3965	5353
		99	100	69	44	71	111	131	174	1755	2734	3244	4314



MIDDLE STRAIGHT HEAT EXCHANGERS

Model	Storage Volume [litres]	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	822	68	68	47	30	51	82	98	133	1259	2026	2430	3295
		82	83	57	37	44	68	81	109	1077	1690	2011	2687
2000	1147	70	70	48	30	69	111	133	180	1702	2741	3293	4463
		84	85	59	37	59	93	111	148	1468	2306	2744	3668
3000	1656	71	72	49	31	100	159	190	255	2465	3931	4698	6325
		88	89	62	40	84	130	154	204	2086	3229	3821	5057
5000	2814	78	78	54	35	162	253	301	400	3998	6275	7459	9924
		99	100	71	46	135	204	239	312	3338	5055	5930	7735



CURVED HEAT EXCHANGERS

Model	Storage Volume [litres]	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	1440	120	119	82	51	51	81	98	133	1256	2022	2428	3290
		145	146	100	64	44	68	81	108	1075	1687	2008	2684
2000	1980	121	122	83	52	69	111	133	180	1699	2738	3288	4453
		146	147	101	65	59	93	111	148	1465	2302	2741	3665
3000	2921	128	127	87	55	100	159	190	255	2461	3926	4694	6321
		456	157	110	70	84	130	154	204	2082	3224	3817	5053
5000	4985	137	138	96	61	162	253	301	401	3992	6270	7450	9921
		176	179	125	82	135	204	239	312	3332	5049	5923	7727

EXTRA3 - 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 continue way from 10 °C at 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.

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
520	683	713	776	882	1259	1402	1704	6	682	66,9
503	652	674	721	797	1109	1215	1441	3	179	17,6
811	1062	1106	1199	1327	1891	2102	2547	10	1311	128,6
790	1024	1058	1130	1226	1706	1869	2214	5	341	33,4
1081	1427	1495	1639	1877	2708	3033	3724	15	2181	213,9
1051	1371	1425	1538	1732	2440	2697	3238	7,5	560	54,9
2152	2282	2921	3152	3461	2367	5432	6542	20	2314	226,9
2101	2716	2801	2979	3212	4447	4855	5711	10	592	58,1

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1149	1512	1579	1723	1947	2795	3118	3810	15	2181,03	213,9
1119	1456	1509	1622	1801	2526	2783	3324	7,5	560,28	54,9
1595	2095	2187	2382	2672	3831	4273	5209	20	2846,25	279,1
1556	2023	2096	2250	2485	3483	3834	4573	10	728,1	71,4
2303	3021	3149	3420	3865	5511	6124	7426	20	2745,34	269,2
2240	2904	3003	3209	3561	4949	5423	6411	10	700,69	68,7
3882	5066	5263	5674	6414	9040	9987	11959	20	4472,31	438,6
3772	4863	5008	5309	5886	8064	8764	10208	10	290,29	28,5

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1855	2394	2462	2605	2651	3675	4000	4689	15	2295	225,1
1825	2338	2392	2504	2506	3407	3664	4204	7,5	589,6	57,8
2546	3285	3377	3571	3622	5019	5459	6391	20	2996	293,8
2507	3212	3285	3439	3435	4670	5021	5761	10	766,42	75,2
3748	4827	4955	5226	5307	7314	7928	9230	20	2836	278,1
3685	4710	4809	5015	5004	6752	7226	8215	10	723	70,9
6362	8166	8363	8775	8891	12137	13081	15058	20	4707	461,6
6252	7963	8109	8409	8363	11161	11860	13303	10	1192	116,9



Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

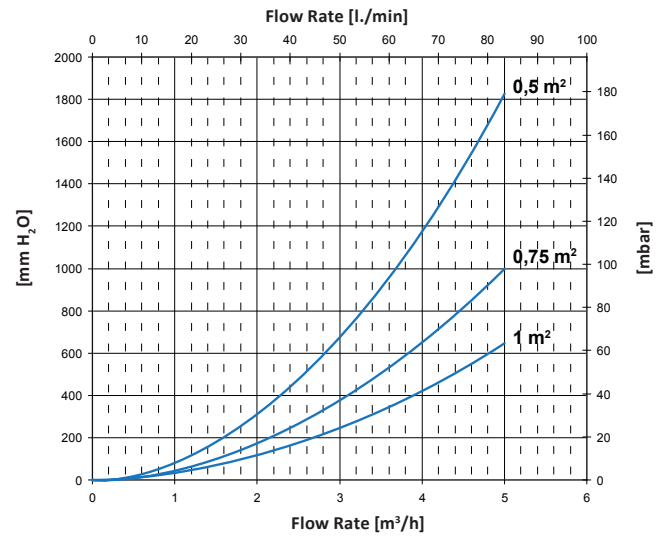


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

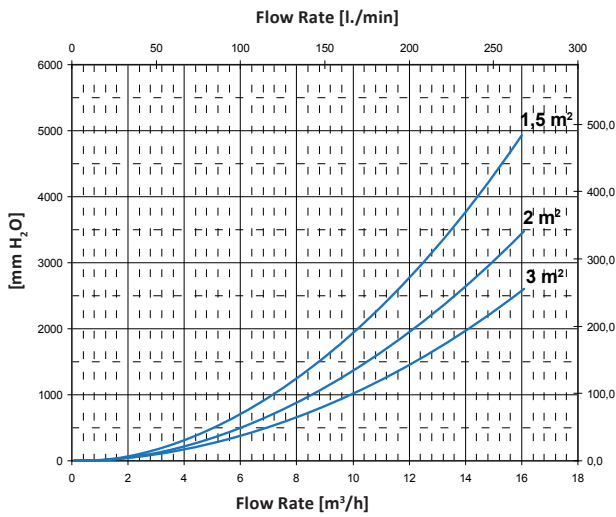


Chart for surfaces of: 4 m² / 5 m²

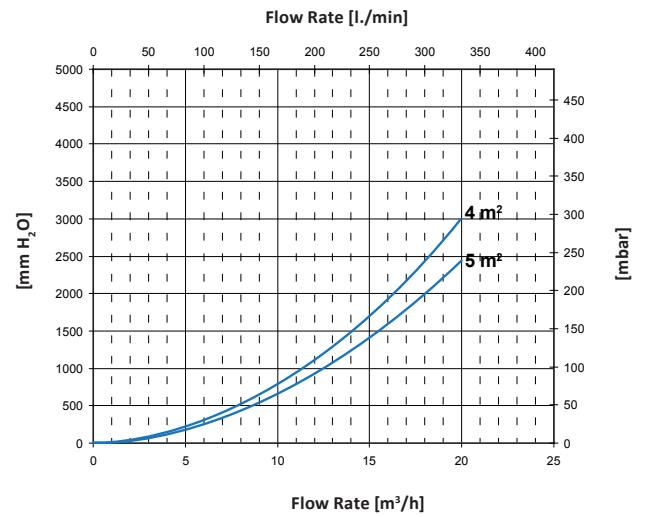


Chart for surfaces of: 6 m² / 8 m²

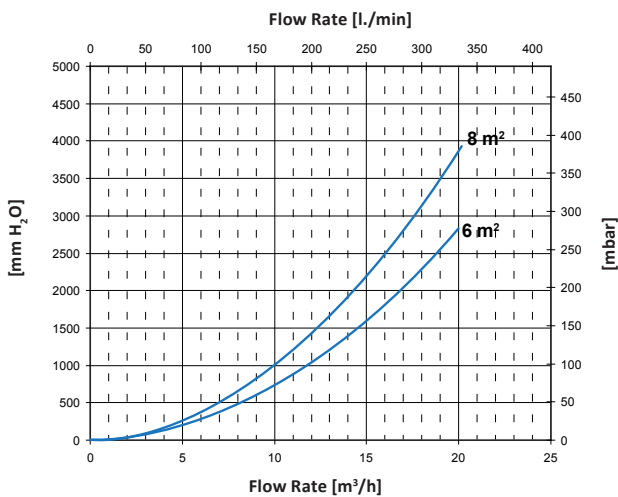


Chart for surfaces of: 10 m²

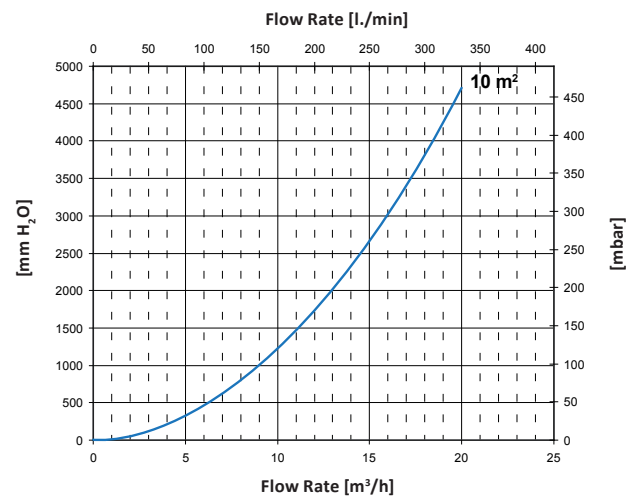




Chart for surfaces of: 0,5 m² / 0,75 m² / 1 m²

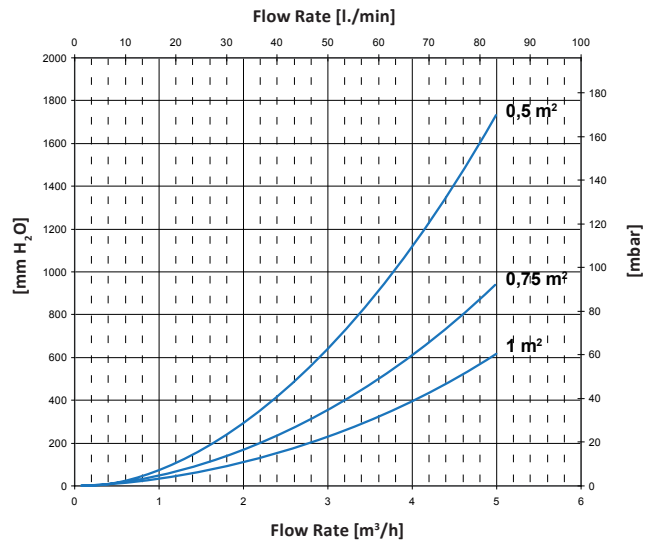


Chart for surfaces of: 1,5 m² / 2 m² / 3 m²

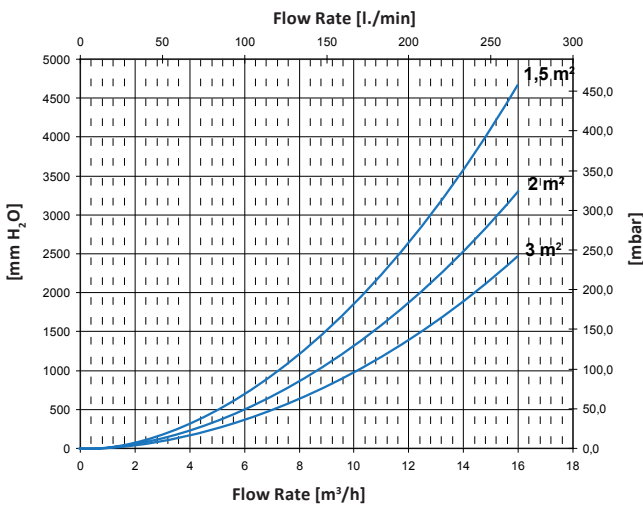


Chart for surfaces of: 4 m² / 5 m²

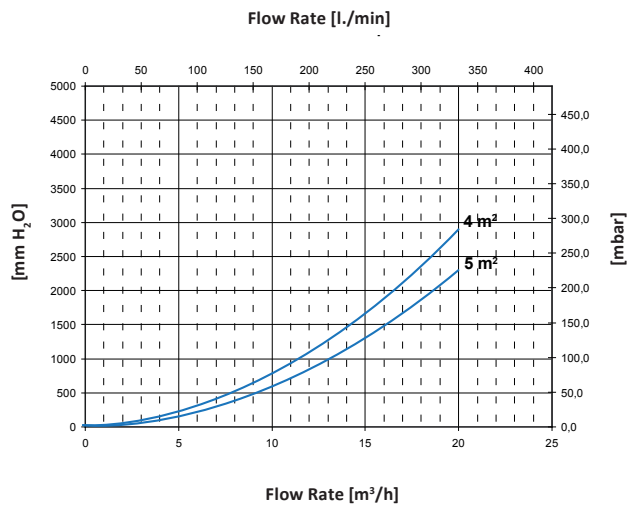


Chart for surfaces of: 6 m² / 8 m²

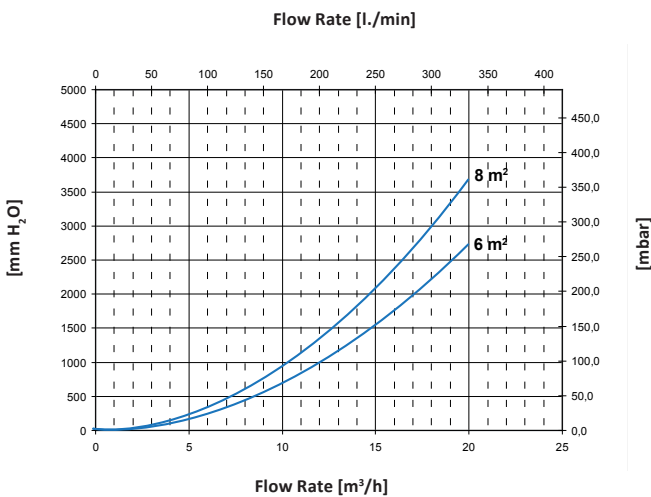
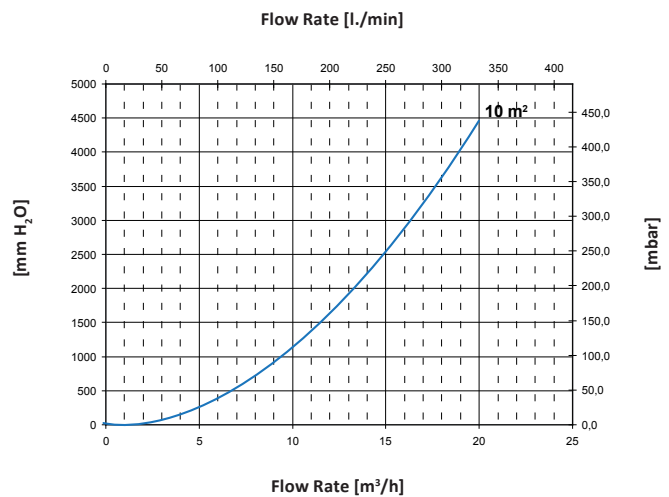


Chart for surfaces of: 10 m²



EXTRA1 HORIZONTAL

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

HEAT EXCHANGER:

1 heat exchanger with 316L stainless steel or copper tubes.

INSULATION

NOFIRE® polyester fibre 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 with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

- 5 years (Polywarm®) - See general sales conditions and warranty.

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



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

EXTRA 1 WXC OR

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m²]
200	3072161430001		E	0,5
300	3072161430002		E	0,75
500	3072161430003		E	1
800	3072161430004		F	1,5
1000	3072161430005		F	2
1500	3072161430006		F	3
2000	3072161430007		G	4
3000	3072161430008			5
4000	3072161430009			8
5000	3072161430011			10

EXTRA 1 WRC OR

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m²]
200	3072161420001		E	0,5
300	3072161420002		E	0,75
500	3072161420003		E	1
800	3072161420004		F	1,5
1000	3072161420005		F	2
1500	3072161420006		F	3
2000	3072161420007		G	4
3000	3072161420008			5
4000	3072161420009			8
5000	3072161420011			10

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 at t2; 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	Output	Continous production of DHW	DHW produced in the first 10 Min.	DHW produced in the first hour	Flow rate	Exchanger pressure loss	
	[min]	[Kw]	[lt/h]	[lt/10']	[lt/60']	[m³/h]	[mm.H ₂ O]	[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 on request —

“Easy Control” Electronic Display

ART. NR.	
5005000310002	

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	

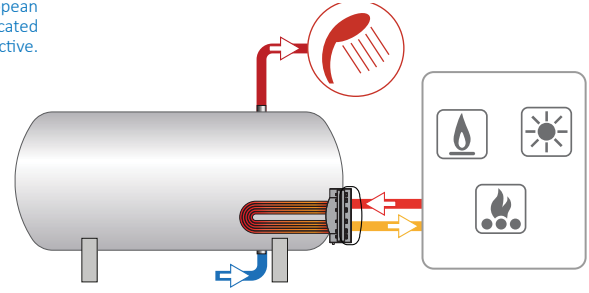
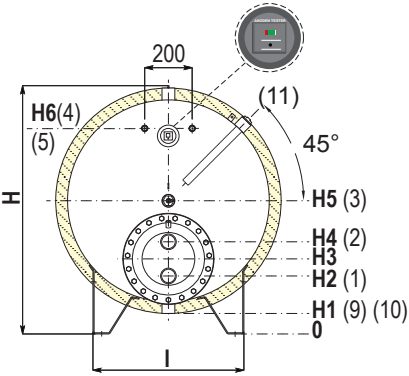
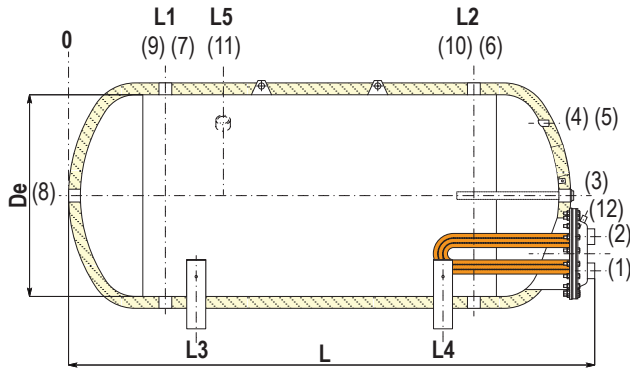
Suitable for Polywarm® coated models

EXTRA1 HORIZONTAL

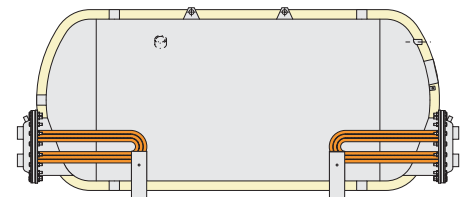
CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
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.



1	Heating water back to the buffer
2	Entry heating water from the buffer
3	Connection for magnesium anode
4-5	Connection for instrumentation 1/2" Gas F
6-7	Domestic hot water outlet
8	Recirculation
9-10	Sanitary water inlet / DRAIN
11	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
12	Air spurge heat exchanger 3/8" Gas F



VERSION WITH 2 EXTRACTABLE HEAT EXCHANGERS AVAILABLE ON REQUEST

Model	Net Volume [litres]	De	L	H	L1	L2	L3	L4	L5	H1	H2
200	190	450	1534	601	294	1094	359	1029	-	41	191
300	285	550	1585	760	320	1120	390	1050	-	100	287
500	480	650	1874	855	345	1395	440	1300	-	95	332
800	740	750	2191	951	375	1675	505	1545	-	91	297
1000	995	850	2201	1046	408	1708	538	1578	-	86	226
1500	1490	950	2571	1142	424	1974	579	1819	-	72	247
2000	1975	1100	2626	1283	470	2020	610	1880	858	63	263
3000	2975	1250	2956	1524	495	2295	695	2095	945	154	324
4000	3890	1450	3066	1707	560	2360	665	2255	1010	137	307
5000	4890	1600	3107	1845	583	2383	783	2183	1033	125	305

Model	H3	H4	H5	H6	I	1-2	4-5	3-8	6-7-9-10	11
	[mm]					Connections Gas F				
200	241	291	446	446	364	1"	1/2"	1"1/4	1"1/4	-
300	337	387	555	619	419	1"	1/2"	1"1/4	1"1/4	-
500	382	432	600	664	477	1"	1/2"	1"1/4	1"1/4	-
800	387	477	666	766	577	2"	1/2"	1"1/4	1"1/2	-
1000	316	406	561	866	636	2"	1/2"	1"1/2	1"1/2	-
1500	337	427	597	952	760	2"	1/2"	2"	2"	-
2000	368	473	663	1018	849	2"	1/2"	2"	2"	1"1/4
3000	429	534	829	1184	981	2"	1/2"	2"	2"	1"1/4
4000	412	517	912	1267	1101	2"	1/2"	2"	3"	1"1/4
5000	410	515	975	1330	1189	2"	1/2"	2"	3"	1"1/4

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

EXTRA 1 VAPORE

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER FOR STEAM GENERATOR



APPLICATION

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

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

1 stainless steel 316L straight heat exchanger suitable for steam power.

INSULATION

NOFIRE® polyester fibre 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.

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > lt 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 192°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.



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



EXTRA 1 WXC VT VAPORE

ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE [m²]
500	3069162360103	E	1
800	3069162360104	F	1,5
1000	3069162360105	F	2
1500	3069162360106	F	3
2000	3069162360107	G	3
2500	3069162360111		3
3000	3069162360108		3
4000	3069162360109		4
5000	3069162360110		5

STEAM HEAT EXCHANGERS TECHNICAL DATA

Model	PED	Connection for electrical immersion 1"1/2 Gas F for models > 800 connection 2" Gas F				Lower 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]
500	Art. 3.3	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

EXTRA 1 VAPORE HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 1 VAPORE WXB HE VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE [m²]
500	3069162360123	C	1
800	3069162360124	C	1,5
1000	3069162360125	C	2
1500	3069162360126	C	3
2000	3069162360127	C	3

Also available on request customized versions with copper exchanger for Polywarm model*.

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

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

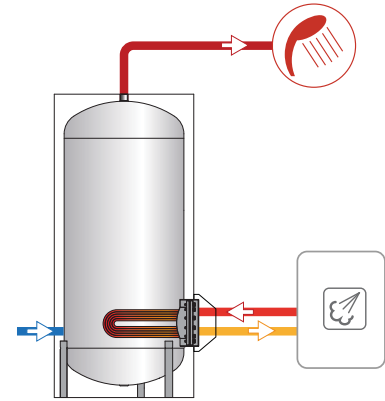
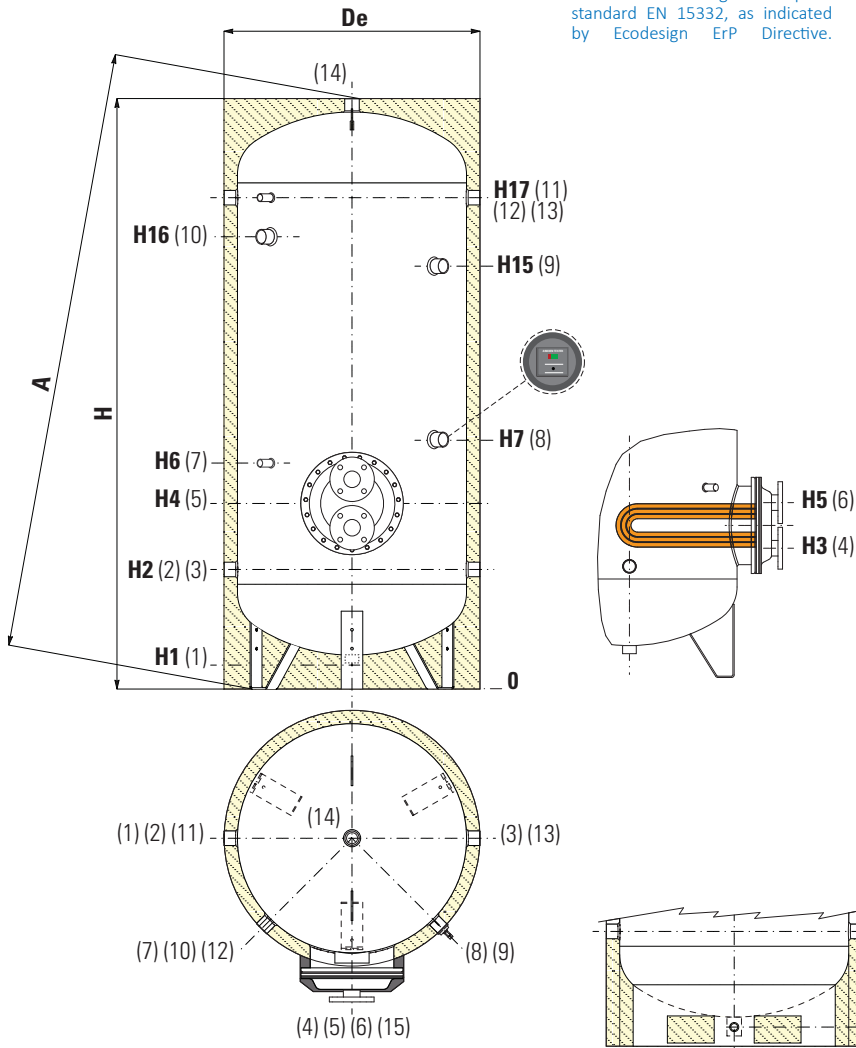


EXTRA1 VAPORE

CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER FOR STEAM GENERATOR

Model	STORAGE		HEAT EXCHANGERS	
	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.



1	Drain
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Outlet for condense
5	Heat exchanger flange
6	Steam circuit inlet
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11-13	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
14	Domestic hot water outlet
15	Drain

Tanks from 1500 to 5000 liters have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

Model	Net Volume [litres]	Weight [Kg]	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6
500	499	99	750	750	1841	1988	101	416	451	501	551	611
800	791	161	850	900	2163	2343	113	433	478	568	658	718
1000	1037	204	950	1000	2217	2432	101	454	499	589	679	739
1500	1440	250	1050	1100	2415	2654	109	440	485	575	665	725
2000	1980	288	1200	1300	2492	2811	91	467	602	692	782	867
2500	2314	331	1350	//	2311	2627	140	551	686	776	866	951
3000	2921	377	1350	//	2811	3076	140	551	686	776	866	951
4000	3766	530	1500	//	2875	3198	114	570	690	795	900	970
5000	4986	663	1700	//	2915	3325	94	580	700	805	910	980

Model	H7	H15	H16	H17	5	1	2 3 11 13	4 6	7 12	8	9	15
Connections Gas F												
500	801	//	1370	1526	∅e 300	1"1/4	1"1/4	DN25 PN16	1/2"	1"1/4	//	//
800	898	//	1638	1793	∅e 380	1"1/4	1"1/4	DN50 PN16	1/2"	1"1/4	//	//
1000	989	//	1660	1814	∅e 380	1"1/2	1"1/2	DN50 PN16	1/2"	1"1/4	//	//
1500	1075	//	1895	2050	∅e 380	//	1"1/2	DN50 PN16	1/2"	1"1/4	//	1"
2000	842	1952	1877	2057	∅e 380	//	2"	DN50 PN16	1/2"	1"1/4	1"1/4	1"
2500	976	1816	1732	1891	∅e 380	//	2"	DN50 PN16	1/2"	1"1/4	1"1/4	1"
3000	1036	2316	2232	2391	∅e 380	//	2"	DN50 PN16	1/2"	1"1/4	1"1/4	1"
4000	1035	2315	2238	2410	∅e 430	//	2"	DN50 PN16	1/2"	1"1/4	1"1/4	1"
5000	1035	2335	2265	2420	∅e 430	//	2"	DN50 PN16	1/2"	1"1/4	1"1/4	1"

EXTRA2 VAPORE



CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS FOR STEAM GENERATOR



APPLICATION

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

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

HEAT EXCHANGER:

2 stainless steel 316L straight heat exchangers suitable for steam power

INSULATION

NOFIRE® polyester fibre 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

Magnesium anode with anoden tester. Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 192°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 2 WXC VT VAPORE

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: STAINLESS STEEL		Lower	Middle
			[m²]	[m²]
3000	3069162363008		3	3
4000	3069162363009		4	4
5000	3069162363010		5	5

Heat exchangers for steam generator technical data

Heat Exchangers	Model	PED	Upper heat Exchangers performances calculated with primary circuit at 6 bar saturated steam and production of DHW from 10° to 45°C				Upper 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 on request —

“Easy Control” Electronic Display

ART. NR.
5005000310002



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

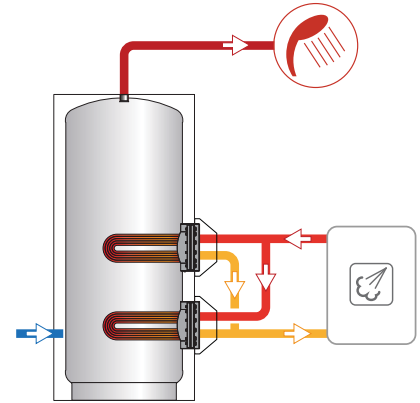
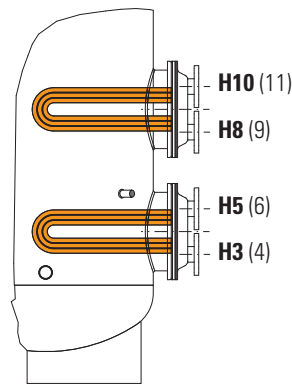
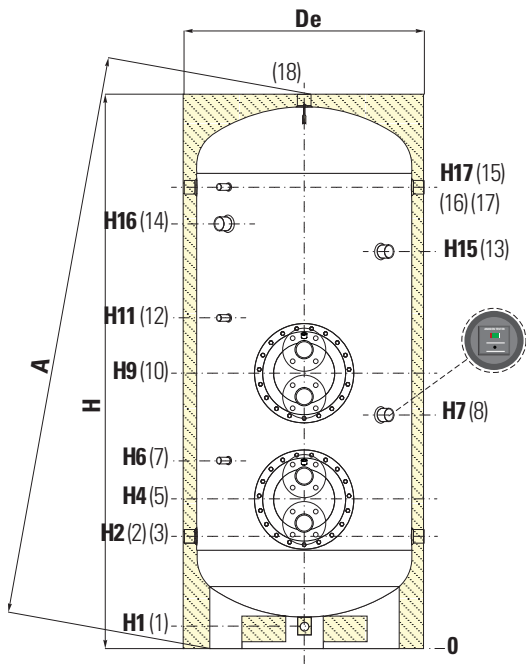
Art. Nr.	Model
5200000000013	3000÷5000



EXTRA2 VAPORE

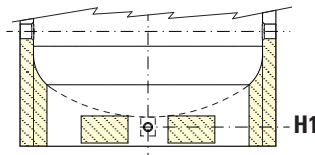
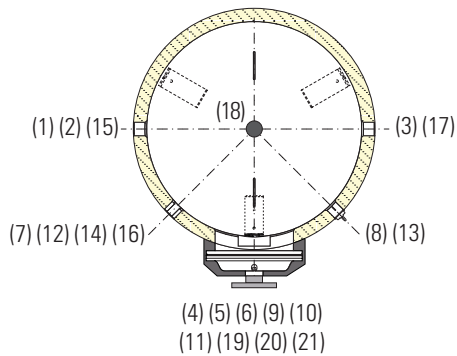
CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS FOR STEAM GENERATOR

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



1	Drain 1" Gas F
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Outlet for condensate
5	Heat exchanger flange
6	Steam circuit inlet
7-12	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Outlet for condensate
10	Upper heat exchanger flange
11	Steam circuit inlet
13	Connection for 2nd anode 1"1/4 Gas F
14	Connection for electrical immersion 2" Gas F
15-17	Connection for recirculation or for domestic hot water
16	Connection for instrumentation 1/2" Gas F
18	Domestic hot water outlet

The calorifier have two grips on the bottom which allow the use of forklift when handling and already equipped with mounted drainage tube.



Model	Net Volume	Weight	De	H	A	H1	H2	H3	H4	H5	H6	H7
	[litres]	[Kg]										
3000	2921	440	1350	2811	3076	140	551	686	776	866	951	1036
4000	3766	620	1500	2875	3198	114	570	690	795	900	970	1035
5000	4986	763	1700	2915	3325	94	580	700	805	910	980	1035

Model	H8	H9	H10	H11	H15	H16	H17	5 10	2 3 15 17 18	4 6 9 11	7 12 16	8 13	21
	[mm]								Connections Gas F				
3000	1386	1476	1566	1651	2316	2232	2391	Øe 380	2"	DN50 PN16	1/2"	1"1/4	1"
4000	1390	1495	1600	1670	2315	2238	2410	Øe 430	2"	DN50 PN16	1/2"	1"1/4	1"
5000	1400	1505	1610	1680	2335	2265	2420	Øe 430	2"	DN50 PN16	1/2"	1"1/4	1"

EXTRA 1 PLUS

CALORIFIERS WITH 1 EXTRACTABLE FINNED COPPER HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS).

HEAT EXCHANGER:

1 copper finned and tinned heat exchanger.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard

polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > lt 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

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



TECHNICAL DATA AND ECODEIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

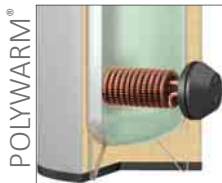
EXTRA 1 PLUS WRC VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m²]
200		3072162352302	E	0,76
300		3072162352303	E	0,94
500		3072162352304	E	1,58
800		3072162352305	F	2,63
1000		3072162352306	F	3,17
1500		3072162352307	F	4,54
2000		3072162352308	G	5,26
2500		3072162352313		6,34
3000		3072162352309		6,34
4000		3072162352310		6,34
5000		3072162352312		6,34

EXTRA 1 PLUS HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 1 PLUS WRB HE VT

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER	Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m²]
200		3074162352302	C	0,76
300		3074162352303	C	0,94
500		3074162352304	C	1,58
800		3074162352305	C	2,63
1000		3074162352306	C	3,17
1500		3074162352307	C	4,54
2000		3074162352308	C	5,26

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



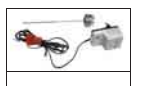
Monophase and Threephase electric resistances



See accessories section

Titanium electronic anode

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



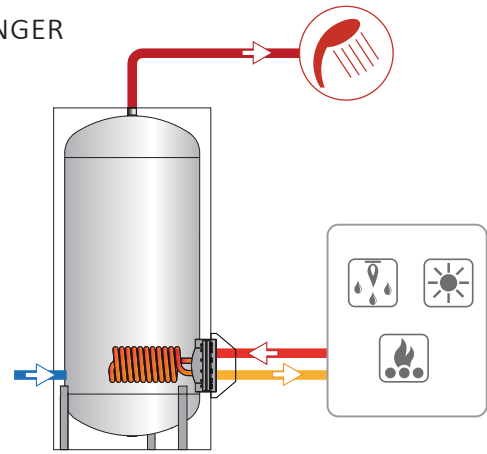
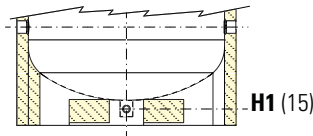
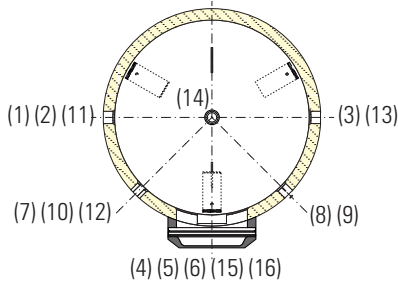
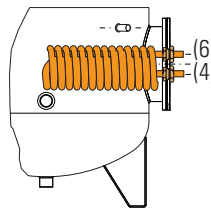
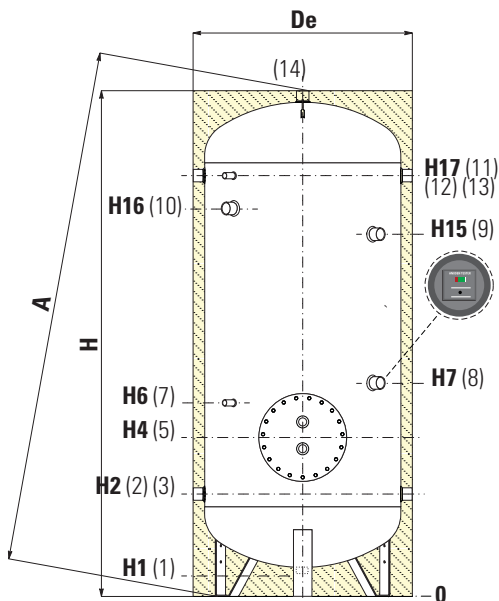
Suitable for Polywarm® coated models

EXTRA1PLUS

CALORIFIERS WITH 1 EXTRACTABLE FINNED COPPER HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGERS	
	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.



1	Drain
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Heating water back to the buffer
5	Heat exchanger flange
6	Entry heating water from the buffer
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1"1/2 Gas F - for models > 800 connections 2" Gas F
11- 13	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
14	Domestic hot water outlet
15	Drain 1" Gas F (only for models > di 1000)

Tanks from 1500 to 5000 liters have two gripps on the bottom which allow the use of forklift when handling and drain pipe already fitted.

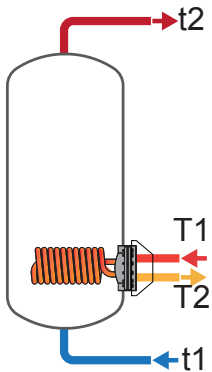
Model	Net Volume [litres]	Weight [kg]	De	De (HE SERIE)	H	A	[mm]				
							H1	H2	H4	H6	H7
200	189	43	550	550	1441	1542	77	316	401	511	701
300	290	55	650	650	1549	1680	135	400	485	595	785
500	499	74	750	750	1841	1988	101	416	501	611	801
800	791	317	850	900	2163	2343	113	433	518	628	898
1000	1037	160	950	1000	2217	2432	101	454	539	649	989
1500	1440	202	1050	1100	2415	2654	109	440	525	635	1075
2000	1980	242	1200	1300	2492	2811	91	467	542	652	842
2500	2314	289	1350	//	2311	2627	140	551	626	736	976
3000	2921	335	1350	//	2811	3076	140	551	626	736	876
4000	3766	458	1500	//	2875	3198	114	570	645	755	895
5000	4986	580	1700	//	2915	3325	94	580	655	765	935

Model	H15	H16	H17	5	1	2 3 11 13	7 12	9	10	14	15
Connections Gas F											
200	//	1066	1176	∅e 300	1"1/4	1"1/4	1/2"	//	1"1/2	1"1/4	//
300	//	1150	1260	∅e 300	1"1/4	1"1/4	1/2"	//	1"1/2	1"1/4	//
500	//	1370	1526	∅e 300	1"1/4	1"1/4	1/2"	//	1"1/2	1"1/4	//
800	//	1638	1793	∅e 300	1"1/4	1"1/4	1/2"	//	1"1/2	1"1/4	//
1000	//	1660	1814	∅e 300	1"1/2	1"1/2	1/2"	//	2"	1"1/2	//
1500	//	1895	2050	∅e 300	//	1"1/2	1/2"	//	2"	2"	1"
2000	1952	1877	2057	∅e 300	//	2"	1/2"	1"1/4	2"	2"	1"
2500	1816	1732	1891	∅e 300	//	2"	1/2"	1"1/4	2"	2"	1"
3000	2316	2232	2391	∅e 300	//	2"	1/2"	1"1/4	2"	2"	1"
4000	2315	2238	2410	∅e 300	//	2"	1/2"	1"1/4	2"	2"	1"
5000	2335	2265	2420	∅e 300	//	2"	1/2"	1"1/4	2"	2"	1"

EXTRA1PLUS - HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

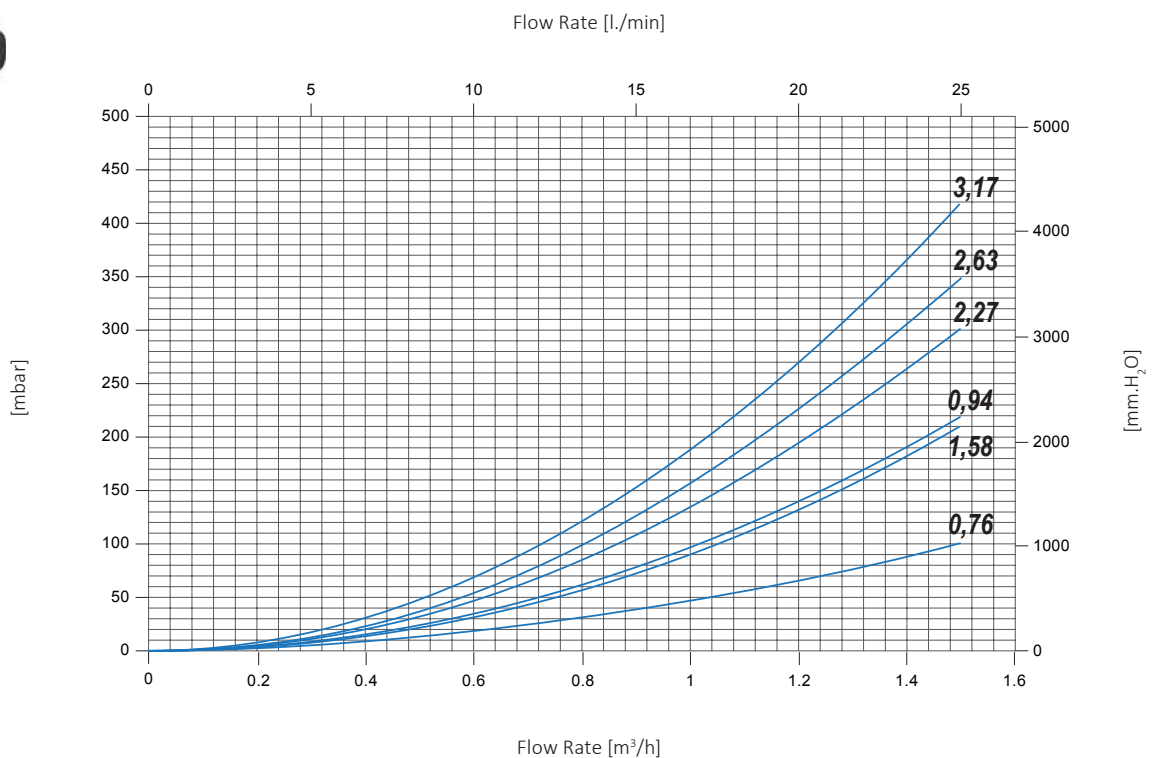
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.



COPPER FINNED AND TINNED HEAT EXCHANGER

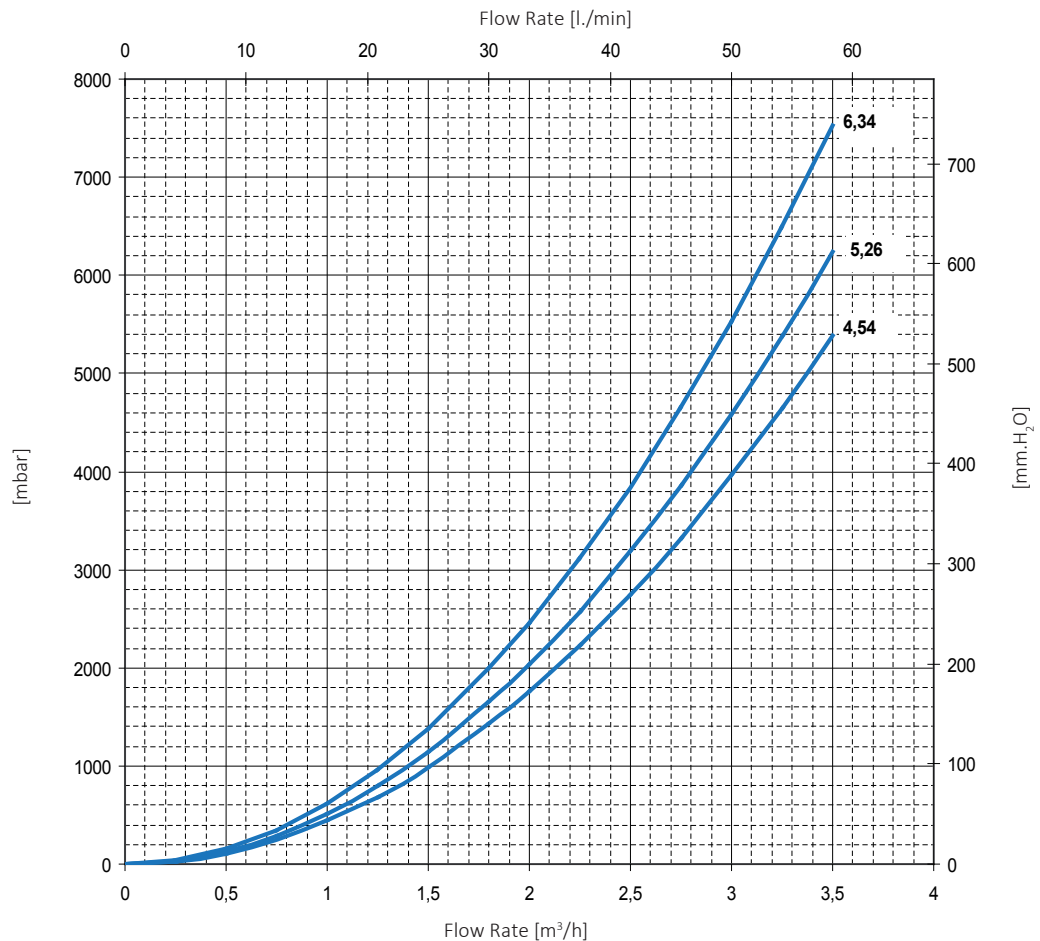
Model	Storage Volume [litres]	Ignition time (minutes) from 10 °C to t2 and primary at t1				Maximum power exchange (kw) with primary at t1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at t1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
200	190	95	97	65	40	7	11	13,9	19	171	226	342	470
		106	107	72	45	6	10	12	17	161	262	315	427
300	285	119	118	79	49	8,7	14,4	17,4	24	214	353	428	586
		130	131	87	54	8,3	13,4	16,1	21	203	329	396	535
500	485	132	132	89	55	14,1	22,9	27,6	37,4	347	565	680	923
		150	151	103	65	13	21	25	33	321	509	606	809
800	790	137	138	94	59	23	36	44	56	562	900	1076	1443
		164	167	115	73	21	32	38	49	510	789	931	1222
1000	995	154	155	105	67	27	43	51	68	668	1062	1265	1688
		187	191	132	85	24	37	44	57	602	921	1082	1409
1500	1440	139	140	95	59	40	65	77	104	988	1594	1910	2577
		162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	1980	168	169	115	72	46	74	88	118	1133	1820	2177	2925
		199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	2313	163	164	112	71	55	87	104	139	1349	2150	2564	3428
		197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	2921	214	216	147	93	55	87	104	139	1349	2150	2564	3428
		258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3765	274	276	187	118	55	87	104	139	1349	2150	2564	3428
		330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	4985	361	364	247	156	55	87	104	139	1349	2150	2564	3428
		436	445	305	196	50	76	89	117	1221	1876	2206	2881

PRESSURE LOSS - COPPER FINNED AND TINNED HEAT EXCHANGER



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				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
211	266	286	307	320	409	502	605	1,4	895	87,8
210	272	281	300	312	438	481	570	0,7	223	21,9
313	406	418	445	449	630	690	816	1,4	1936	189,9
312	402	413	436	440	610	664	775	0,7	484	47,5
547	706	725	765	767	1063	1155	1350	1,4	1861	182,5
543	696	712	746	746	1019	1096	1259	0,7	465	45,6
896	1153	1182	1243	1252	1723	1864	2157	1,4	3097	303,7
887	1134	1158	1207	1210	1634	1748	1980	0,7	774	75,9
1158	1486	1519	1590	1581	2158	2321	2659	1,4	3733	366,1
1147	1462	1489	1543	1528	2045	2174	2436	0,7	933	91,5
1622	2087	2140	2251	2248	3097	3349	3883	3	2878	282,2
1608	2058	2101	2191	2182	2955	3164	3596	1,5	720	70,6
2185	2799	2859	2983	2903	3952	4237	4836	3	2878	282,2
2169	2763	2812	2911	2823	3780	4012	4490	1,5	720	70,6
2496	3197	3266	3410	3350	4559	4890	5581	3	4588	449,9
2474	3151	3206	3319	3248	4339	4603	5143	1,5	1147	112,5
3189	4064	4133	4277	4044	5426	5757	6448	3	5530	542,3
3168	4018	4073	4186	3941	5207	5471	6011	1,5	1382	135,5
4002	5080	5149	5293	4856	6441	6773	7464	3	5530	542,3
3981	5034	5089	5202	4754	6222	6486	7026	1,5	1382	135,5
5193	6568	6637	6781	6047	7930	8261	8952	3	5530	542,3
5172	6523	6578	6690	5945	7711	7975	8515	1,5	1382	135,5

PRESSURE LOSS - COPPER FINNED AND TINNED HEAT EXCHANGER



EXTRA2 PLUS



CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

2 copper finned and tinned heat exchangers.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > It 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

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



EXTRA PLUS 2 WRC VT

ENERGY EFFICIENCY CLASS

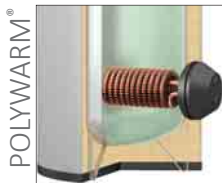
HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER		HEAT EXCHANGER SURFACE	
			Lower	Middle
Art. Nr.			[m ²]	
200	3082162352301	E	0,76	0,76
300	3082162352302	E	0,94	0,76
500	3082162352303	E	1,58	0,76
800	3082162352304	F	2,63	0,94
1000	3082162352305	F	3,17	1,58
1500	3082162352306	F	4,54	2,63
2000	3082162352307	G	5,26	3,17
2500	3082162352313		6,34	4,54
3000	3082162352309		6,34	5,26
4000	3082162352310		6,34	6,34
5000	3082162352312		6,34	6,34

EXTRA 2 PLUS HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 2 PLUS WRB HE VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER		HEAT EXCHANGER SURFACE	
			Lower	Middle
Art. Nr.			[m ²]	
200	3084162352301	C	0,76	0,76
300	3084162352302	C	0,94	0,76
500	3084162352303	C	1,58	0,76
800	3084162352304	C	2,63	0,94
1000	3084162352305	C	3,17	1,58
1500	3084162352306	C	4,54	2,63
2000	3084162352307	C	5,26	3,17

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES

Monophase and Threephase electric resistances



See accessories section

Titanium electronic anode

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



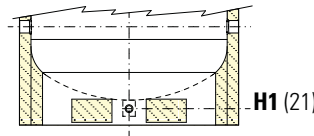
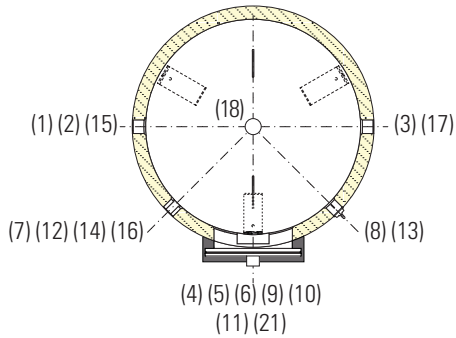
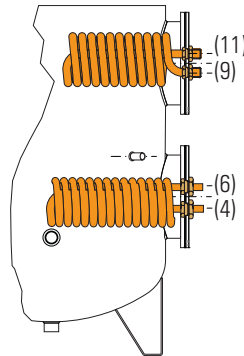
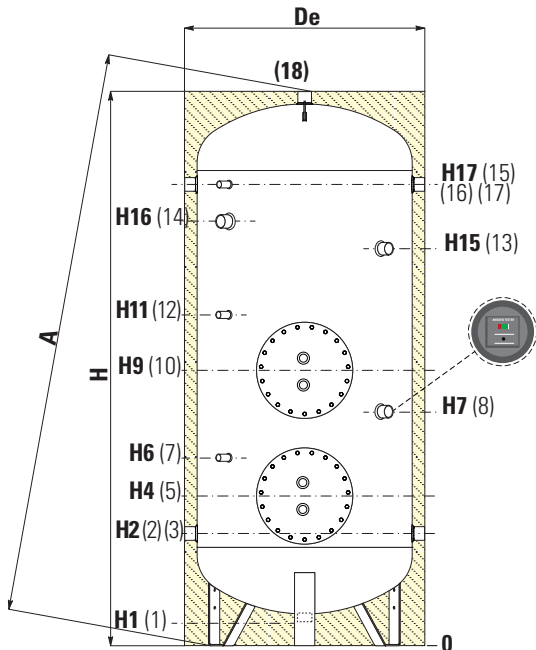
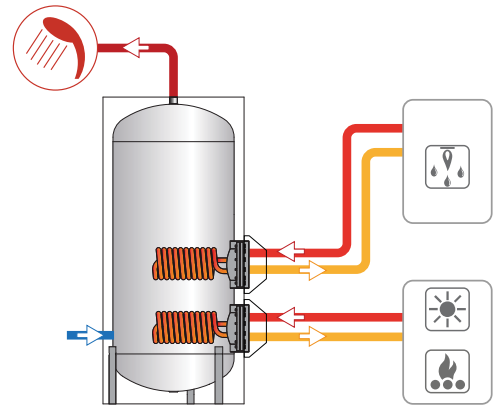
Suitable for Polywarm® coated models

EXTRA2 PLUS

CALORIFIERS WITH 2 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS

Model	STORAGE		HEAT EXCHANGERS	
	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.



1	Drain
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Lower heat exchanger outlet
5	Heat exchanger flange
6	Lower heat exchanger inlet
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Lower heat exchanger outlet
10	Upper heat exchanger flange
11	Fixed upper heat exchanger inlet
12 16	Connection for instrumentation 1/2" Gas F
13	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
14	Connection for electrical immersion 1"1/2 Gas F - for models > 800 connections 2" Gas F
15 17	Connection for recirculation or for domestic hot water
18	Domestic hot water outlet
21	Drain 1" Gas F (only for models > di 1000)

Tanks from 1500 to 5000 liters have two grippos on the bottom which allow the use of forklift when handling and drain pipe already fitted.

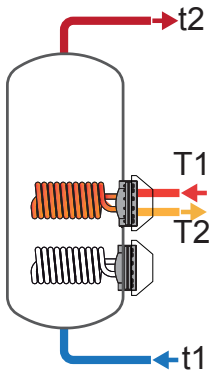
Model	Net Volume [litres]	Weight [kg]	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7	H9
200	189	48	550	550	1441	1542	77	316	401	511	701	851
300	290	60	650	650	1549	1680	135	400	485	595	785	935
500	499	79	750	750	1841	1988	101	416	501	611	801	951
800	791	525	850	900	2163	2343	113	433	518	628	898	1118
1000	1037	172	950	1000	2217	2432	101	454	539	649	989	1139
1500	1440	216	1050	1100	2415	2654	109	440	525	635	1075	1250
2000	1980	258	1200	1300	2492	2811	91	467	542	652	842	1262
2500	2314	312	1350	//	2311	2627	140	551	626	736	976	1201
3000	2921	361	1350	//	2811	3076	140	551	626	736	876	1476
4000	3766	487	1500	//	2875	3198	114	570	645	755	895	1495
5000	4986	609	1700	//	2915	3325	94	580	655	765	935	1505

Model	H11	H15	H16	H17	5 10	1	2 3 15 17	13	14	18	21					
												[mm]				
												Connections Gas F				
200	961	//	1066	1176	∅e 300	1"1/4	1"1/4	//	1"1/2	1"1/4	//					
300	1045	//	1150	1260	∅e 300	1"1/4	1"1/4	//	1"1/2	1"1/4	//					
500	1061	//	1370	1526	∅e 300	1"1/4	1"1/4	//	1"1/2	1"1/4	//					
800	1228	//	1638	1793	∅e 300	1"1/4	1"1/4	//	1"1/2	1"1/4	//					
1000	1249	//	1660	1814	∅e 300	1"1/2	1"1/2	//	2"	1"1/2	//					
1500	1360	//	1895	2050	∅e 300	//	1"1/2	//	2"	2"	1"					
2000	1372	1952	1877	2057	∅e 300	//	2"	1"1/4	2"	2"	1"					
2500	1311	1816	1732	1891	∅e 300	//	2"	1"1/4	2"	2"	1"					
3000	1586	2316	2232	2391	∅e 300	//	2"	1"1/4	2"	2"	1"					
4000	1605	2315	2238	2410	∅e 300	//	2"	1"1/4	2"	2"	1"					
5000	1615	2335	2265	2420	∅e 300	//	2"	1"1/4	2"	2"	1"					

EXTRA2 PLUS - HEAT EXCHANGERS TECHNICAL DATA

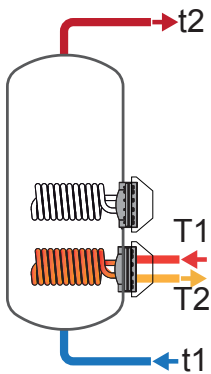
Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at 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 COPPER FINNED AND TINNED HEAT EXCHANGERS

Model	Storage Volume [litres]	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	96	58	58	39	24	7	11	14	19	171	226	342	470
		64	64	43	27	6	10	12	17	161	262	315	427
300	148	89	89	59	36	7	11	14	19	171	226	342	470
		96	96	64	40	6	10	12	17	161	262	315	427
500	282	175	175	115	70	7	11	14	19	171	226	342	470
		192	193	127	79	6	10	12	17	161	262	315	427
800	484	247	248	162	99	9	14	17	24	214	353	428	586
		274	276	182	112	8	13	16	21	203	329	396	535
1000	600	187	187	125	77	14	23	28	37,4	347	565	680	923
		213	216	145	91	13	21	25	33	321	509	606	809
1500	822	168	170	115	72	23	36	44	56	562	900	1076	1443
		204	208	142	91	21	32	38	49	510	789	931	1222
2000	1147	201	203	138	87	27	43	51	68	668	1062	1265	1688
		249	254	174	112	24	37	44	57	602	921	1082	1409
2500	1144	126	126	85	53	40	65	77	104	988	1594	1910	2577
		146	148	102	65	37	57	68	90	906	1417	1678	2218
3000	1656	160	161	109	69	46	74	88	118	1133	1820	2177	2925
		190	193	132	85	42	65	77	101	1033	1605	1895	2493
4000	2128	176	178	121	76	55	87	104	139	1349	2150	2564	3428
		212	217	149	96	50	76	89	117	1221	1876	2206	2881
5000	2814	234	236	160	101	55	87	104	139	1349	2150	2564	3428
		282	288	198	127	50	76	89	117	1221	1876	2206	2881



COPPER FINNED AND TINNED HEAT EXCHANGER

Model	Storage Volume [litres]	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	190	95	97	65	40	7	11	13,9	19	171	226	342	470
		106	107	72	45	6	10	12	17	161	262	315	427
300	285	119	118	79	49	8,7	14,4	17,4	24	214	353	428	586
		130	131	87	54	8,3	13,4	16,1	21	203	329	396	535
500	485	132	132	89	55	14,1	22,9	27,6	37,4	347	565	680	923
		150	151	103	65	13	21	25	33	321	509	606	809
800	790	137	138	94	59	23	36	44	56	562	900	1076	1443
		164	167	115	73	21	32	38	49	510	789	931	1222
1000	995	154	155	105	67	27	43	51	68	668	1062	1265	1688
		187	191	132	85	24	37	44	57	602	921	1082	1409
1500	1440	139	140	95	59	40	65	77	104	988	1594	1910	2577
		162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	1980	168	169	115	72	46	74	88	118	1133	1820	2177	2925
		199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	2313	163	164	112	71	55	87	104	139	1349	2150	2564	3428
		197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	2921	214	216	147	93	55	87	104	139	1349	2150	2564	3428
		258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3765	274	276	187	118	55	87	104	139	1349	2150	2564	3428
		330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	4985	361	364	247	156	55	87	104	139	1349	2150	2564	3428
		436	445	305	196	50	76	89	117	1221	1876	2206	2881

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
138	175	194	215	247	318	411	513	1,4	895	87,8
137	181	190	208	239	347	389	479	0,7	223	21,9
198	249	268	290	306	392	485	587	1,4	895	87,8
196	255	264	283	298	421	463	553	0,7	223	21,9
351	441	460	481	459	584	676	779	1,4	895	87,8
349	447	455	474	451	612	655	744	0,7	223	21,9
589	750	763	789	724	974	1034	1160	1,4	1936	189,9
587	746	757	781	716	955	1008	1119	0,7	484	47,5
744	951	970	1011	963	1309	1401	1596	1,4	1861	182,5
739	942	958	992	943	1264	1342	1504	0,7	465	45,6
1033	1324	1354	1415	1389	1894	2035	2329	1,4	3097	303,7
1024	1306	1329	1378	1347	1805	1919	2152	0,7	774	75,9
1422	1816	1849	1920	1845	2488	2651	2989	1,4	3733	366,1
1411	1792	1819	1873	1792	2375	2504	2766	0,7	933	91,5
1472	1900	1953	2064	2098	2909	3162	3696	3	2878	282,2
1458	1870	1914	2004	2032	2768	2977	3409	1,5	720	70,6
2081	2669	2729	2853	2799	3822	4107	4706	3	2878	282,2
2065	2633	2682	2781	2719	3650	3882	4360	1,5	720	70,6
2657	3398	3467	3611	3511	4760	5091	5782	3	5530	542,3
2636	3353	3408	3520	3409	4541	4805	5345	1,5	1382	135,5
3441	4378	4447	4591	4295	5740	6071	6762	3	5530	542,3
3420	4333	4388	4500	4193	5521	5785	6325	1,5	1382	135,5

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
211	266	286	307	320	409	502	605	1,4	895	87,8
210	272	281	300	312	438	481	570	0,7	223	21,9
313	406	418	445	449	630	690	816	1,4	1936	189,9
312	402	413	436	440	610	664	775	0,7	484	47,5
547	706	725	765	767	1063	1155	1350	1,4	1861	182,5
543	696	712	746	746	1019	1096	1259	0,7	465	45,6
896	1153	1182	1243	1252	1723	1864	2157	1,4	3097	303,7
887	1134	1158	1207	1210	1634	1748	1980	0,7	774	75,9
1158	1486	1519	1590	1581	2158	2321	2659	1,4	3733	366,1
1147	1462	1489	1543	1528	2045	2174	2436	0,7	933	91,5
1622	2087	2140	2251	2248	3097	3349	3883	3	2878	282,2
1608	2058	2101	2191	2182	2955	3164	3596	1,5	720	70,6
2185	2799	2859	2983	2903	3952	4237	4836	3	2878	282,2
2169	2763	2812	2911	2823	3780	4012	4490	1,5	720	70,6
2496	3197	3266	3410	3350	4559	4890	5581	3	4588	449,9
2474	3151	3206	3319	3248	4339	4603	5143	1,5	1147	112,5
3189	4064	4133	4277	4044	5426	5757	6448	3	5530	542,3
3168	4018	4073	4186	3941	5207	5471	6011	1,5	1382	135,5
4002	5080	5149	5293	4856	6441	6773	7464	3	5530	542,3
3981	5034	5089	5202	4754	6222	6486	7026	1,5	1382	135,5
5193	6568	6637	6781	6047	7930	8261	8952	3	5530	542,3
5172	6523	6578	6690	5945	7711	7975	8515	1,5	1382	135,5

EXTRA3 PLUS



CALORIFIERS WITH 3 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

HEAT EXCHANGER:

3 copper finned and tinned heat exchangers.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

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



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



EXTRA 3 PLUS WRC VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER		HEAT EXCHANGER SURFACE		
			Lower	Middle	Upper
	Art. Nr.		[m²]		
1500	3092162352306	G	4,54	2,63	1,58
2000	3092162352307	G	5,26	4,54	2,63
2500	3092162352313		6,34	4,54	2,63
3000	3092162352309		6,34	5,26	3,17
4000	3092162352310		6,34	5,26	4,54
5000	3092162352312		6,34	6,34	5,26

EXTRA 3 PLUS HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



EXTRA 3 PLUS WRB HE VT

ENERGY EFFICIENCY CLASS

HEAT EXCHANGER SURFACE

Model	D.H.W. Storage: POLYWARM® coated Heat Exchanger: COPPER		HEAT EXCHANGER SURFACE		
			Lower	Middle	Upper
	Art. Nr.		[m²]		
1500	3094162352306	C	4,54	2,63	1,58
2000	3094162352307	C	5,26	4,54	2,63

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000011	1500
5200000000013	2000÷5000



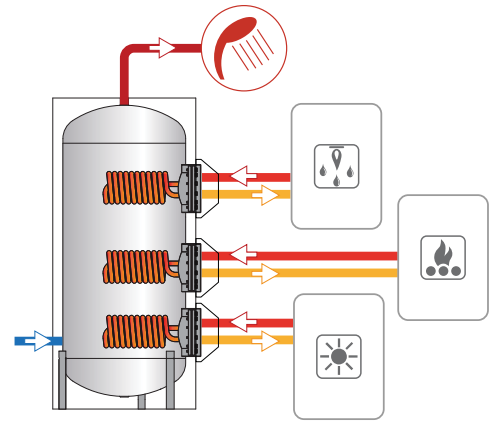
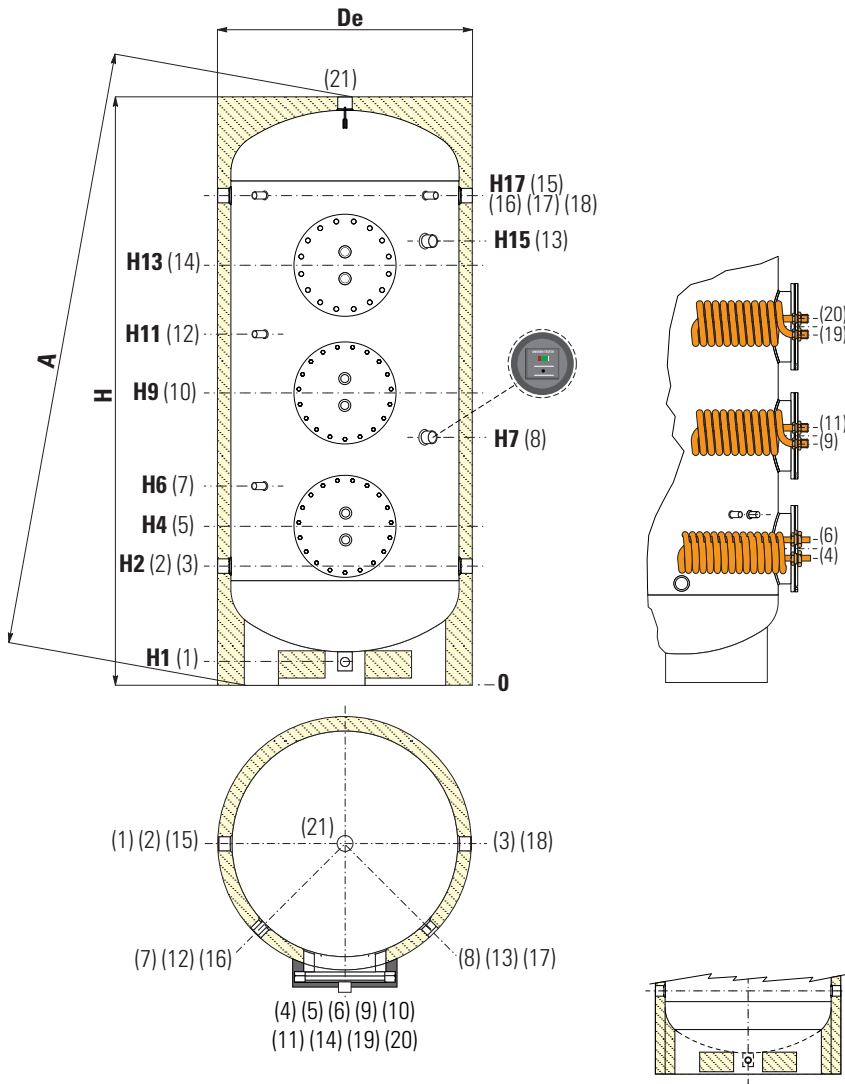
Suitable for Polywarm® coated models

EXTRA3 PLUS

CALORIFIERS WITH 3 EXTRACTABLE FINNED COPPER HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.



1	Drain 1" Gas F
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Lower heat exchanger outlet
5	Heat exchanger flange
6	Lower heat exchanger inlet
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Middle heat exchanger outlet
10	Middle Heat exchanger flange
11	Middle heat exchanger inlet
12	Connection for instrumentation 1/2" Gas F
13	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
14	Upper heat exchanger flange
15	Connection for recirculation or for domestic hot water
16	Connection for instrumentation 1/2" Gas F
17	Connection for instrumentation 1/2" Gas F
19	Lower heat exchanger outlet
20	Fixed upper heat exchanger inlet
21	Domestic hot water outlet

The calorifier have two gripps on the bottom which allow the use of forklift when handling and already equipped with mounted drainage tube.

Model	Net Volume	Weight	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
	[litres]										
1500	1440	227	1050	1100	2415	2654	109	440	525	635	1075
2000	1980	278	1200	1300	2492	2811	91	467	542	652	842
2500	2314	326	1350	//	2311	2627	140	551	626	736	976
3000	2921	377	1350	//	2811	3076	140	551	626	736	876
4000	3766	504	1500	//	2875	3198	114	570	645	755	895
5000	4986	634	1700	//	2915	3325	94	580	655	765	935

Model	H9	H11	H13	H15	H17	5 10 14	2 3 15 18	7 12 16 17	8	13	21
	[mm]						Connections Gas F				
1500	1250	1360	1875	//	2050	∅e 300	1"1/2	1/2"	1"1/4	//	2"
2000	1262	1372	1812	1952	2057	∅e 300	2"	1/2"	1"1/4	1"1/4	2"
2500	1201	1311	1751	1816	1891	∅e 300	2"	1/2"	1"1/4	1"1/4	2"
3000	1476	1586	2176	2316	2391	∅e 300	2"	1/2"	1"1/4	1"1/4	2"
4000	1495	1605	2175	2315	2410	∅e 300	2"	1/2"	1"1/4	1"1/4	2"
5000	1505	1615	2185	2335	2420	∅e 300	2"	1/2"	1"1/4	1"1/4	2"

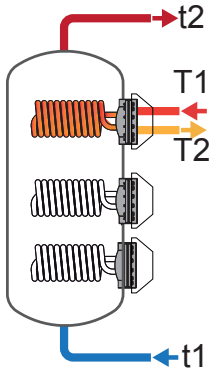
P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

EXTRA3 PLUS - HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

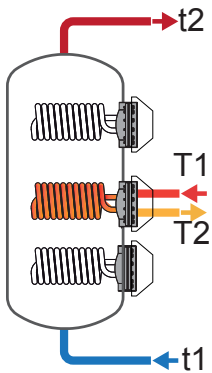
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.

UPPER STRAIGHT HEAT EXCHANGERS



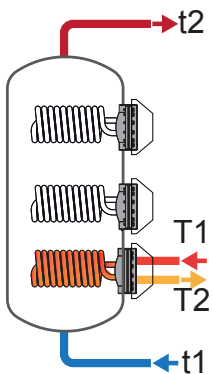
Model	Storage Volume [litres]	Ignition time (minutes) from 10 °C to t2 and primary at t1				Maximum power exchange (kw) with primary at t1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at t1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
1500	372	122	122	81	50	14,1	22,9	27,6	37,4	562	900	1076	1443
		142	144	96	60	13	21	25	33	510	789	931	1222
2000	591	122	123	83	52	23	36	44	56	668	1062	1265	1688
		148	151	103	66	21	32	38	49	602	921	1082	1409
2500	637	116	116	77	48	23	36	44	56	988	1594	1910	2577
		130	132	90	57	21	32	38	49	906	1417	1678	2218
3000	763	117	117	78	48	40	65	77	104	1133	1820	2177	2925
		133	134	90	57	37	57	68	90	1033	1605	1895	2493
4000	1002	111	112	75	47	40	65	77	104	1349	2150	2564	3428
		130	132	90	57	37	57	68	90	1221	1876	2206	2881
5000	1582	154	156	105	66	46	74	88	118	1349	2150	2564	3428
		183	186	127	81	42	65	77	101	1221	1876	2206	2881

MIDDLE STRAIGHT HEAT EXCHANGERS



Model	Storage Volume [litres]	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	822	168	170	115	72	23	36	44	56	562	900	1076	1443
		204	208	142	91	21	32	38	49	510	789	931	1222
2000	1147	149	152	104	66	40	65	77	104	668	1062	1265	1688
		192	198	137	89	37	57	68	90	602	921	1082	1409
2500	1144	126	126	85	53	40	65	77	104	988	1594	1910	2577
		146	148	102	65	37	57	68	90	906	1417	1678	2218
3000	1656	160	161	109	69	46	74	88	118	1133	1820	2177	2925
		190	193	132	85	42	65	77	101	1033	1605	1895	2493
4000	2128	207	208	141	88	46	74	88	118	1349	2150	2564	3428
		245	249	170	109	42	65	77	101	1221	1876	2206	2881
5000	2814	234	236	160	101	55	87	104	139	1349	2150	2564	3428
		282	288	198	127	50	76	89	117	1221	1876	2206	2881

LOWER COPPER FINNED AND TINNED HEAT EXCHANGERS



Model	Storage Volume [litres]	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	1440	139	140	95	59	40	65	77	104	988	1594	1910	2577
		162	164	113	72	37	57	68	90	906	1417	1678	2218
2000	1980	168	169	115	72	46	74	88	118	1133	1820	2177	2925
		199	202	139	89	42	65	77	101	1033	1605	1895	2493
2500	2313	163	164	112	71	55	87	104	139	1349	2150	2564	3428
		197	200	139	102	50	76	89	117	1221	1876	2206	2881
3000	2921	214	216	147	93	55	87	104	139	1349	2150	2564	3428
		258	263	181	117	50	76	89	117	1221	1876	2206	2881
4000	3765	274	276	187	118	55	87	104	139	1349	2150	2564	3428
		330	337	232	149	50	76	89	117	1221	1876	2206	2881
5000	4985	361	364	247	156	55	87	104	139	1349	2150	2564	3428
		436	445	305	196	50	76	89	117	1221	1876	2206	2881

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
519	681	711	772	875	1251	1392	1686	1,4	1861	182,5
510	663	687	735	833	1163	1276	1509	0,7	465	45,6
787	1021	1055	1126	1210	1694	1856	2195	1,4	3097	303,7
776	998	1025	1079	1157	1581	1710	1971	0,7	774	75,9
893	1176	1228	1340	1518	2185	2438	2972	1,4	3097	303,7
879	1146	1190	1280	1453	2044	2252	2684	0,7	774	75,9
1061	1393	1453	1578	1778	2546	2832	3430	3	2878	282,2
1044	1358	1406	1506	1698	2374	2606	3084	1,5	720	70,6
1370	1790	1859	2003	2224	3151	3483	4174	3	2878	282,2
1349	1744	1799	1912	2122	2932	3196	3736	1,5	720	70,6
2033	2618	2687	2831	2887	3980	4311	5002	3	2878	282,2
2012	2573	2628	2740	2785	3761	4025	4565	1,5	720	70,6

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1033	1324	1354	1415	1389	1894	2035	2329	1,4	3097	303,7
1024	1306	1329	1378	1347	1805	1919	2152	0,7	774	75,9
1422	1816	1849	1920	1845	2488	2651	2989	3	2878	282,2
1411	1792	1819	1873	1792	2375	2504	2766	1,5	720	70,6
1472	1900	1953	2064	2098	2909	3162	3696	3	2878	282,2
1458	1870	1914	2004	2032	2768	2977	3409	1,5	720	70,6
2081	2669	2729	2853	2799	3822	4107	4706	3	2878	282,2
2065	2633	2682	2781	2719	3650	3882	4360	1,5	720	70,6
2657	3398	3467	3611	3511	4760	5091	5782	3	2878	282,2
2636	3353	3408	3520	3409	4541	4805	5345	1,5	720	70,6
3441	4378	4447	4591	4295	5740	6071	6762	3	5530	542,3
3420	4333	4388	4500	4193	5521	5785	6325	1,5	1382	135,5

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				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
1622	2087	2140	2251	2248	3097	3349	3883	3	2878	282,2
1608	2058	2101	2191	2182	2955	3164	3596	1,5	720	70,6
2185	2799	2859	2983	2903	3952	4237	4836	3	2878	282,2
2169	2763	2812	2911	2823	3780	4012	4490	1,5	720	70,6
2496	3197	3266	3410	3350	4559	4890	5581	3	4588	449,9
2474	3151	3206	3319	3248	4339	4603	5143	1,5	1147	112,5
3189	4064	4133	4277	4044	5426	5757	6448	3	5530	542,3
3168	4018	4073	4186	3941	5207	5471	6011	1,5	1382	135,5
4002	5080	5149	5293	4856	6441	6773	7464	3	5530	542,3
3981	5034	5089	5202	4754	6222	6486	7026	1,5	1382	135,5
5193	6568	6637	6781	6047	7930	8261	8952	3	5530	542,3
5172	6523	6578	6690	5945	7711	7975	8515	1,5	1382	135,5

EXTRA PLUS - PRESSURE LOSS - COPPER FINNED AND TINNED HEAT EXCHANGERS



Chart for surfaces of: 0,76 m² / 0,94 m² / 1,58 m²

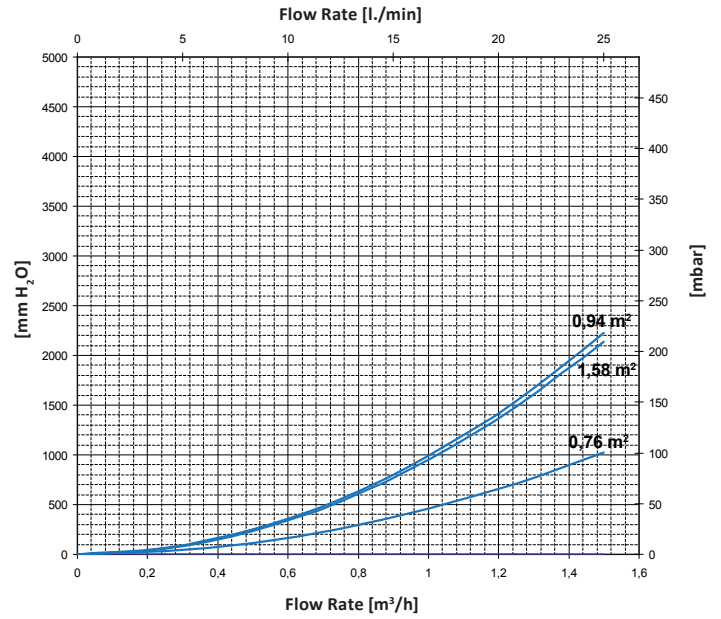


Chart for surfaces of: 2,27 m² / 2,63 m² / 3,17 m²

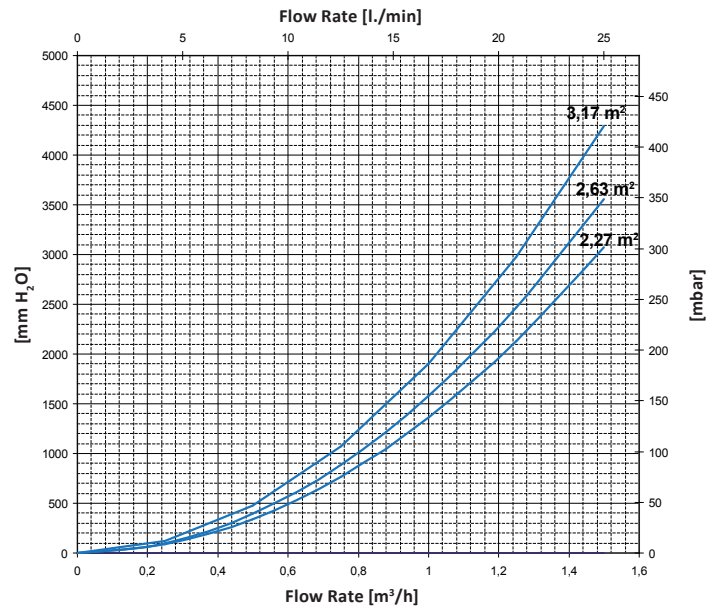
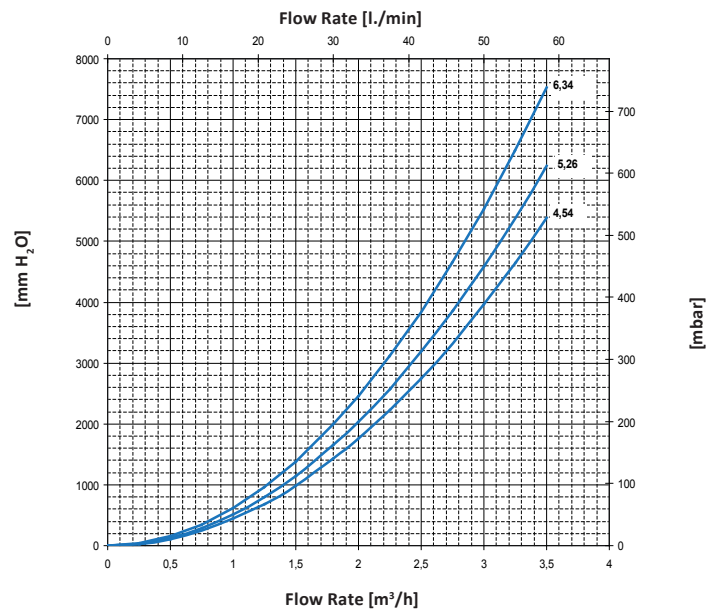
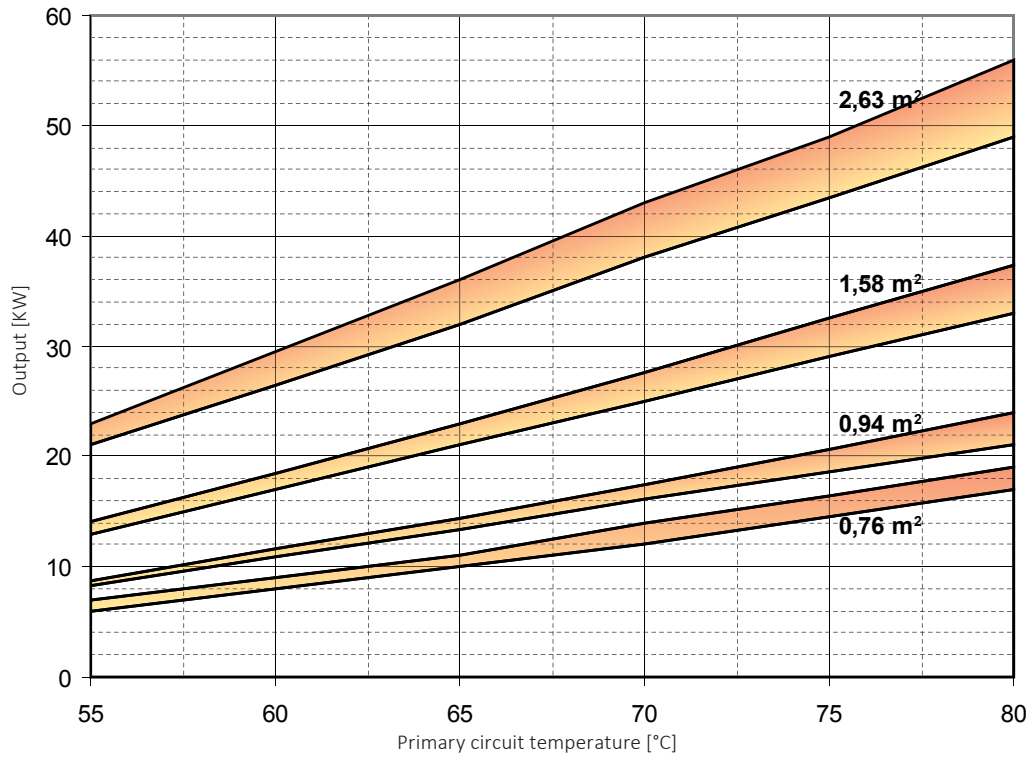


Chart for surfaces of: 4,54 m² / 5,26 m² / 6,34 m²

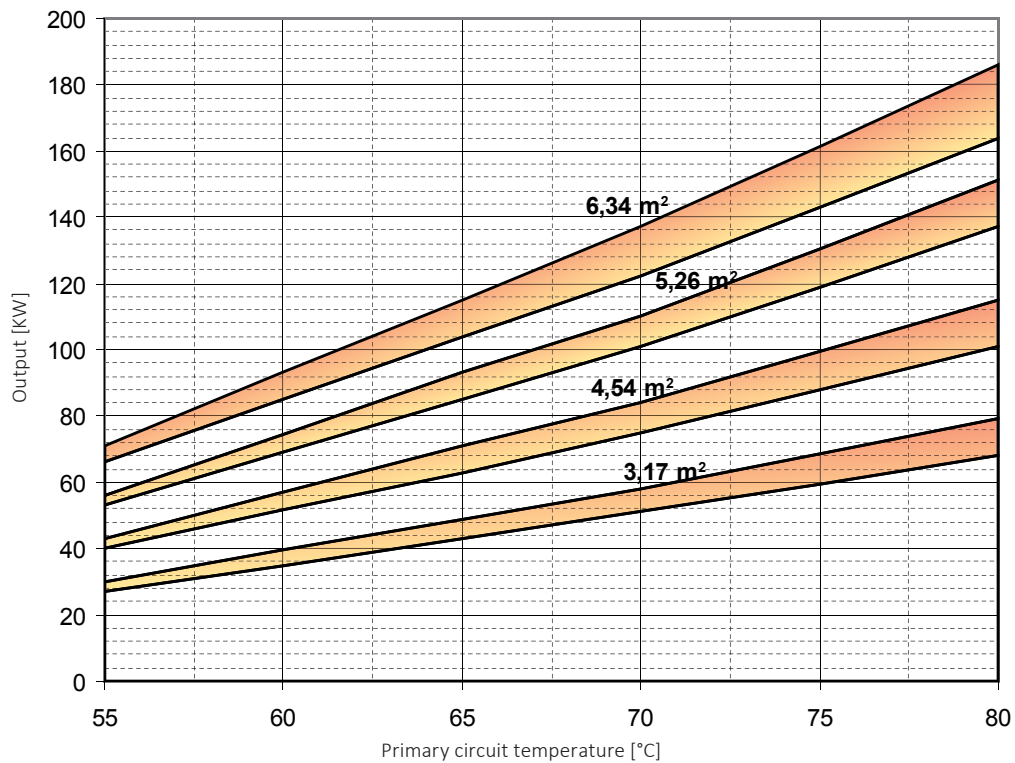


EXTRA PLUS - HEAT EXCHANGERS OUTPUT CHART

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)



Extractable heat exchanger surface	0,76 m ²		0,94 m ²		1,58 m ²		2,63 m ²	
Primary 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



Extractable heat exchanger surface	3,17 m ²		4,54 m ²		5,26 m ²		6,34 m ²	
Primary 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

EXTRA - MODELS AVAILABLE ON REQUEST

For your comfortable choice, Cordivari offers the possibility to realize special customized products. Below you find a list of common requested customized Extra calorifiers and relevant pricelist.

EXTRA 1 PLUS WRC - WITH INCREASED HEAT EXCHANGER SURFACE

Model	Calorifier diameter	Flange diameter	Heat exchanger surface	
	[mm]	[mm]	[m ²]	[m ²]
200	450	220-300	0,94	1,58
300	550	220-300	1,58	2,27
500	650	220-300	2,27	2,63
800	750	220-300	3,17	/
1000	850	220-300	4,54	5,26
1500	950(D)	220-300	5,26	6,34
2000	1100 (D)	220-300	6,34	/



EXTRA 2 WXC

(POLYWARM® CALORIFIER / STAINLESS STEEL HEAT EXCHANGER) - WITH 1 BLIND FLANGE

Model	Calorifier diameter	Flange diameter	Heat exchanger surface 1	Heat exchanger surface 2
	[mm]	[mm]	[m ²]	[m ²]
200	450	220-300	0,5	Blind flange
300	550	220-300	0,75	Blind flange
500	650	220-300	1.5	Blind flange
800	750	300-380	2	Blind flange
1000	850	300-380	3	Blind flange
1500	950	300-380	3	Blind flange
2000	1100	380-430	4	Blind flange
2500	1250	380-430	5	Blind flange
3000	1250	380-430	6	Blind flange
4000	1400	380-430	8	Blind flange
5000	1600	380-430	10	Blind flange



EXTRA - MODELS AVAILABLE ON REQUEST

EXTRA 3 WXC

(POLYWARM® CALORIFIER / STAINLESS STEEL HEAT EXCHANGER) - WITH UPPER BLIND FLANGE

Model	Calorifier diameter	Flange diameter	Heat exchanger surface 1	Heat exchanger surface 2	Heat exchanger surface 3
	[mm]	[mm]	[m ²]	[m ²]	[m ²]
1500	950(D)	300-380	3	3	Blind flange
2000	1100 (D)	350-430	4	4	Blind flange
3000	1250 (D)	350-430	6	6	Blind flange
5000	1600 (D)	350-430	10	10	Blind flange



EXTRA 3 WXC

(POLYWARM® CALORIFIER / STAINLESS STEEL HEAT EXCHANGER) - WITH UPPER AND MIDDLE BLIND FLANGE

Model	Calorifier diameter	Flange diameter	Heat exchanger surface 1	Heat exchanger surface 2	Heat exchanger surface 3
	[mm]	[mm]	[m ²]	[m ²]	[m ²]
1500	950	300-380	3	Blind flange	Blind flange
2000	1100	350-430	4	Blind flange	Blind flange
3000	1250	350-430	6	Blind flange	Blind flange
5000	1600	350-430	10	Blind flange	Blind flange



EXTRA 3 WXC

(POLYWARM® CALORIFIER / STAINLESS STEEL HEAT EXCHANGER) - WITH MIDDLE BLIND FLANGE

Model	Calorifier diameter	Flange diameter	Heat exchanger surface 1	Heat exchanger surface 2	Heat exchanger surface 3
	[mm]	[mm]	[m ²]	[m ²]	[m ²]
1500	950	300-380	3	Blind flange	1,5
2000	1100	350-430	4	Blind flange	2
3000	1250	350-430	6	Blind flange	3
5000	1600	350-430	10	Blind flange	5



VASO INERZIALE

D.H.W. ACCUMULATION TANK



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270-UBA - WRAS)
- Galvanized Steel

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Magnesium anode (Galvanized)- Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > It 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® or anticorrosion treatment (for galvanized version).

WARRANTY

- 5 years (Polywarm®) - 2 years (Galvanized)-See general sales conditions and warranty.

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



VASO INERZIALE WC VT

ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: POLYWARM® coated	ErP
	Art. Nr.	
200	3060161620102	E
300	3060161620103	E
500	3060161620104	E
800	3060161620105	F
1000	3060161620106	F
1500	3060161620107	F
2000	3060161620108	G
2500	3060161620113	
3000	3060161620109	
4000	3060161620110	
5000	3060161620112	

VASO INERZIALE ZC VT

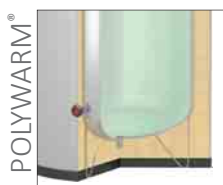
ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: GALVANIZED coated	ErP
	Art. Nr.	
200	3060161600202	E
300	3060161600203	E
500	3060161600204	E
800	3060161600205	F
1000	3060161600206	F
1500	3060161600207	F
2000	3060161600208	G
2500	3060161600213	
3000	3060161600209	
4000	3060161600210	
5000	3060161600212	

VASO INERZIALE HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



VASO INERZIALE WB HE VT

ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: POLYWARM® coated	ErP
	Art. Nr.	
200	3060162310102	C
300	3060162310103	C
500	3060162310104	C
800	3060162310105	C
1000	3060162310106	C
1500	3060162310107	C
2000	3060162310108	C

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



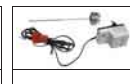
Monophase and Threephase electric resistances



See accessories section

Titanium electronic anode

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



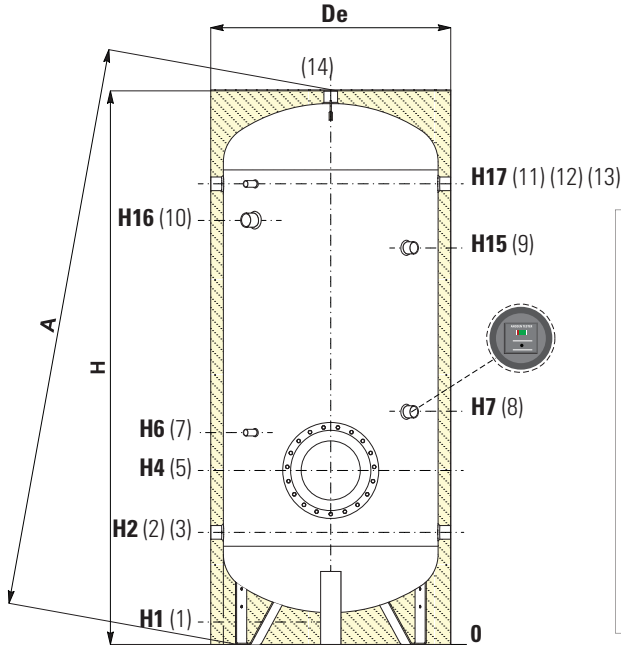
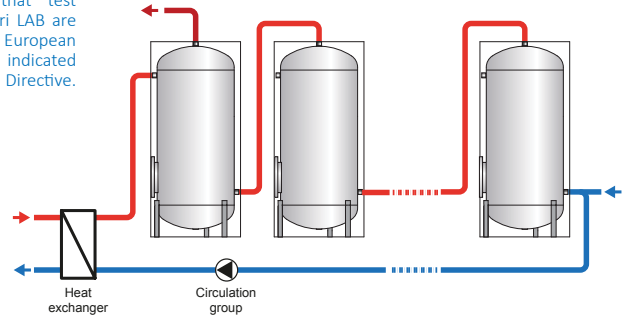
Suitable for Polywarm® coated models

VASO INERZIALE

D.H.W. ACCUMULATION TANK

Model	FINISHING	STORAGE	
		Pmax	Tmax
200 ÷ 1000	POLYWARM*	8 bar	90 °C
1500 ÷ 5000	POLYWARM*	6 bar	
200 ÷ 1000	Galvanized	8 bar	60 °C
1500 ÷ 5000	Galvanized	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.

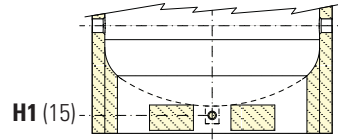
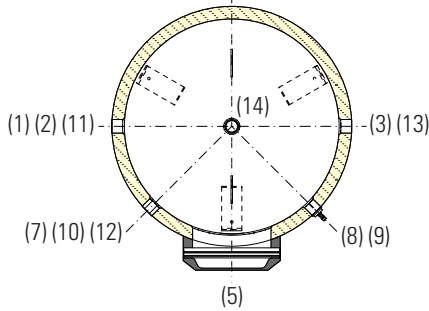


COMPLETE YOUR SYSTEM WITH THE NEW PRS MODULE (FOR IMMEDIATE DHW PREPARATION)



SEE HYDRONIC SECTION

1	Drain for models > 1000 1" Gas F
2	Domestic cold water circuit inlet
3	Delivery to external heat exchanger
5	Blind flange for inspection
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11	Recirculation
12	Connection for instrumentation 1/2" Gas F
13	Backflow external heat exchanger
14	Domestic hot water outlet
15	Drain 1" Gas F (only for models > 1000)



Tanks from 1500 to 5000 liters have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

Model	Net Volume [litres]	Weight [kg]	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
							[mm]				
200	189	41	550	550	1441	1542	77	316	401	511	701
300	290	52	650	650	1549	1680	135	400	485	595	785
500	499	69	750	750	1841	1988	101	416	501	611	801
800	791	111	850	900	2163	2343	113	433	518	628	898
1000	1037	150	950	1000	2217	2432	101	454	539	649	989
1500	1440	186	1050	1100	2415	2654	109	440	525	635	1075
2000	1980	223	1200	1300	2492	2811	91	467	542	652	842
2500	2314	267	1350	//	2311	2627	140	551	626	736	976
3000	2921	313	1350	//	2811	3076	140	551	626	736	876
4000	3766	435	1500	//	2875	3193	114	570	645	755	895
5000	4986	558	1700	//	2915	3325	94	580	655	765	935

Model	H15	H16	H17	5	1	2 3 11 13	7 12	8	9	14	15
				[mm]							
				Connections Gas F							
200	//	1066	1176	∅e 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4	//
300	//	1150	1260	∅e 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4	//
500	//	1370	1526	∅e 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4	//
800	//	1638	1793	∅e 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4	//
1000	//	1660	1814	∅e 300	1"1/2	1"1/2	1/2"	1"1/4	//	1"1/2	//
1500	//	1895	2050	∅e 300	//	1"1/2	1/2"	1"1/4	//	2"	1"
2000	1952	1877	2057	∅e 300	//	2"	1/2"	1"1/4	1"1/4	2"	1"
2500	1816	1732	1891	∅e 300	//	2"	1/2"	1"1/4	1"1/4	2"	1"
3000	2316	2232	2391	∅e 300	//	2"	1/2"	1"1/4	1"1/4	2"	1"
4000	2315	2238	2410	∅e 300	//	2"	1/2"	1"1/4	1"1/4	2"	1"
5000	2335	2265	2420	∅e 300	//	2"	1/2"	1"1/4	1"1/4	2"	1"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/73/CE

VASO INERZIALE A1

D.H.W. ACCUMULATION TANK



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

INSULATION

Fire resistance class A1 according to EN-13501 made by:

- high thermal insulation fibreglass

- demountable hinged aluminium external lining.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

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



VASO INERZIALE A1 WC VT

ENERGY EFFICIENCY CLASS

Model	D.H.W. Storage: POLYWARM® coated	ErP
	Art. Nr.	
300	3060161621403	E
500	3060161621404	E
800	3060161621405	F
1000	3060161621406	F
1500	3060161621407	F
2000	3060161621408	F
2500	3060161621409	
3000	3060161621411	
4000	3060161621413	
5000	3060161621414	



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

COMPACT MODELS

Model	D.H.W. Storage: POLYWARM® coated	ErP
	Art. Nr.	
1500	3060161621415	F
2500	3060161621410	
3000	3060161621412	

Accessories on request

"Easy Control" Electronic Display

ART. NR.
5220280000001



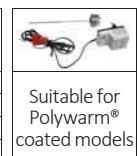
Monophase and Threephase electric resistances



See accessories section

Titanium electronic anode

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



Suitable for Polywarm® coated models


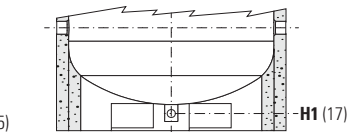
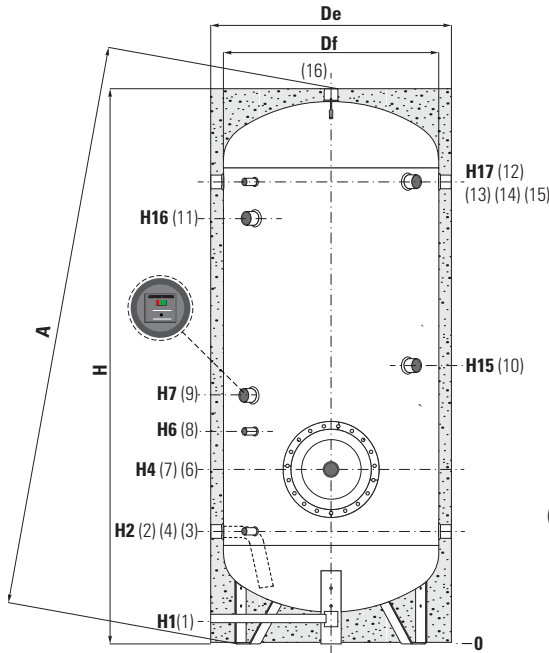
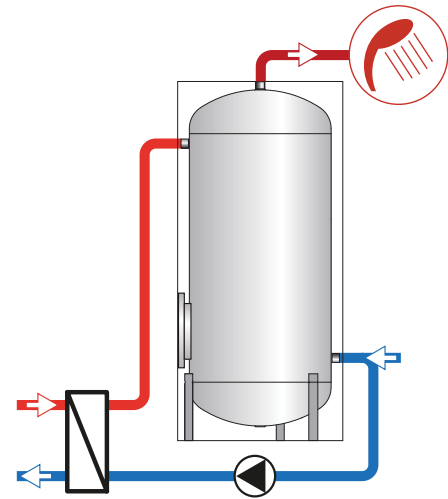
VASO INERZIALE A1

D.H.W. ACCUMULATION TANK

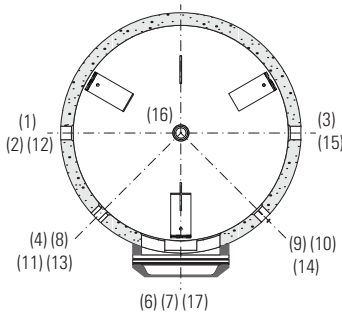
STORAGE		
Model	Pmax	Tmax
300 ÷ 1000	8 bar	90 °C
1500 ÷ 5000	6 bar	

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

Tanks from 1500 to 5000 liters have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.



1	Drain
2	Domestic cold water circuit inlet
3	Delivery to external heat exchanger
4	Connection for instrumentation 1/2" Gas F
6	Connection for electrical resistance
7	Blind flange for inspection
8	Connection for instrumentation 1/2" Gas F
9	Connection for magnesium anode 1"1/4 Gas F
10	Connection for electrical resistance
11	Connection for 2nd anode 1"1/4 Gas F (for models > 1500)
12	Exchanger return
13	Connection for instrumentation 1/2" Gas F
14	Connection for electrical resistance 1" 1/2 Gas F
15	Recirculation
16	Domestic hot water outlet
17	Drain 1" Gas F (for models > 1000)

Model	Net Volume [litres]	Weight [kg]	Df	De	H	A	H1	H2	H4
300	289	94	550	750	1599	1766	123	400	485
500	501	125	650	850	1901	2082	114	416	501
800	789	185	750	950	2188	2385	101	433	568
1000	1007	228	850	1050	2188	2427	89	454	739
1500	1421	300	1000	1200	2228	2531	107	458	743
2000	2004	352	1250	1450	2111	2561	140	551	826
2500	2308	386	1250	1450	2361	2771	140	551	826
3000	2913	469	1250	1450	2861	3207	140	551	826
4000	3983	642	1600	1800	2465	3052	94	580	855
5000	4975	749	1600	1800	2965	3469	94	580	855

Model	Net Volume [litres]	Weight [kg]	Df	De	H	A	H1	H2	H4
1500	1503	309	1100	1300	1992	2379	91	457	742
2500	2620	441	1400	1600	2175	2700	114	570	845
3000	3021	487	1500	1700	2190	2772	109	575	850

Model	H6	H7	H15	H16	H17	7	Connections Gas F			
							2-3-12-15	6	10	16
[mm]										
300	595	735	835	//	1260	∅e 300	1"1/4	1"1/2	2"	1" 1/4
500	611	881	981	//	1536	∅e 300	1"1/4	1"1/2	2"	1" 1/4
800	718	1018	1118	//	1793	∅e 380	1"1/4	1"1/2	2"	1" 1/4
1000	939	1139	1239	//	1760	∅e 512	1"1/2	2" 1/2	2"1/2	1" 1/2
1500	943	1143	1243	//	1818	∅e 512	1"1/2	2" 1/2	2"1/2	2"
2000	1026	1176	1286	1491	1641	∅e 512	2"	2" 1/2	2"1/2	2"
2500	1026	1221	1321	1666	1891	∅e 512	2"	2" 1/2	2"1/2	2"
3000	1026	1376	1476	2166	2391	∅e 512	2"	2" 1/2	2"1/2	2"
4000	1055	1205	1325	1770	1920	∅e 512	2"	2" 1/2	2"1/2	2"
5000	1055	1355	1475	2195	2420	∅e 512	2"	2" 1/2	2"1/2	2"

Model	H6	H7	H15	H16	H17	7	Connections Gas F			
							2-3-12-15	6	10	16
[mm]										
1500	942	1142	1242	//	1567	∅e 512	1"1/2	2" 1/2	2"1/2	2"
2500	1045	1195	1295	1510	1660	∅e 512	2"	2" 1/2	2"1/2	2"
3000	1050	1200	1300	1515	1665	∅e 512	2"	2" 1/2	2"1/2	2"

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/23/CE

EXTRA CALORIFIERS
D.H.W. STORAGE

PIASTRATERM® ISP



CALORIFIERS WITH STAINLESS STEEL D.H.W. PLATE TO PLATE HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS)

HEAT EXCHANGER:

Stainless steel 316L plate to plate heat exchanger.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard

polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > lt 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ENERGY EFFICIENCY CLASS

PIASTRATERM® ISP

Model	Art. Nr.	D.H.W. Storage: POLYWARM® coated - STAINLESS STEEL 316L- plate to plate heat exchanger (PHC 3120)							ErP
		Nr. of plates							
		9	13	17	21	25	29	33	
200	Art. Nr.	3170161701101	3170161701102	3170161701103	3170161701104	3170161701105		E	
300	Art. Nr.	3170161701111	3170161701112	3170161701113	3170161701114	3170161701115			
500	Art. Nr.	3170161701121	3170161701122	3170161701123	3170161701124	3170161701125	3170161701126	3170161701127	E
800	Art. Nr.	3170161701131	3170161701132	3170161701133	3170161701134	3170161701135	3170161701136	3170161701137	F
1000	Art. Nr.	3170161701141	3170161701142	3170161701143	3170161701144	3170161701145	3170161701146	3170161701147	F
1500	Art. Nr.			3170161701153	3170161701154	3170161701155	3170161701156	3170161701157	F
2000	Art. Nr.			3170161701163	3170161701164	3170161701165	3170161701166	3170161701167	G
80	Therm. output KW	43	76	109	143	176	210	244	
10/45	A.C.S. lt./h	1054	1862	2671	3504	4312	5145	5978	
65	Therm. output KW	38	60	91	110	131	165	182	
10/45	A.C.S. lt./h	931	1470	2230	2695	3210	4043	4459	

PIASTRATERM® ISP HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



ENERGY EFFICIENCY CLASS

PIASTRATERM® ISP HE

Model	Art. Nr.	D.H.W. Storage: POLYWARM® coated - STAINLESS STEEL 316L- plate to plate heat exchanger (PHC 3120)							ErP
		Nr. of plates							
		9	13	17	21	25	29	33	
200	Art. Nr.	3170161721001	3170161721002	3170161721003	3170161721004	3170161721005		C	
300	Art. Nr.	3170161721011	3170161721012	3170161721013	3170161721014	3170161721015			
500	Art. Nr.	3170161721021	3170161721022	3170161721023	3170161721024	3170161721025	3170161721026	3170161721027	C
800	Art. Nr.	3170161721031	3170161721032	3170161721033	3170161721034	3170161721035	3170161721036	3170161721037	C
1000	Art. Nr.	3170161721041	3170161721042	3170161721043	3170161721044	3170161721045	3170161721046	3170161721047	C
1500	Art. Nr.			3170161721053	3170161721054	3170161721055	3170161721056	3170161721057	C
2000	Art. Nr.			3170161721063	3170161721064	3170161721065	3170161721066	3170161721067	C
80	Therm. output KW	43	76	109	143	176	210	244	
10/45	A.C.S. lt./h	1054	1862	2671	3504	4312	5145	5978	
65	Therm. output KW	38	60	91	110	131	165	182	
10/45	A.C.S. lt./h	931	1470	2230	2695	3210	4043	4459	

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

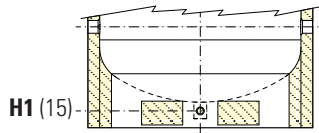
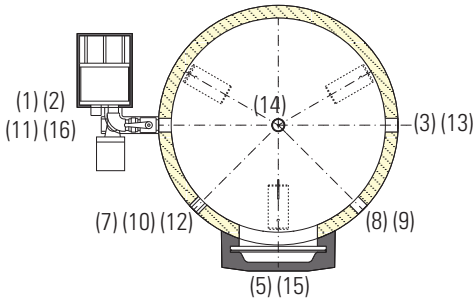
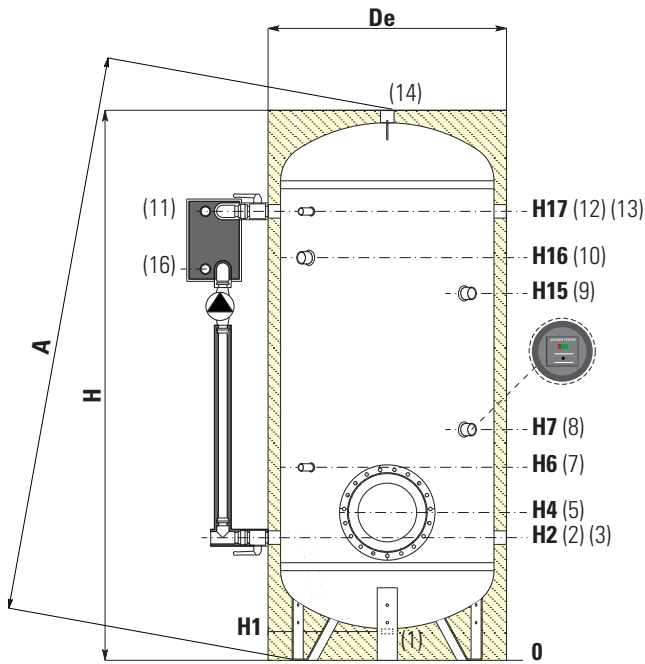
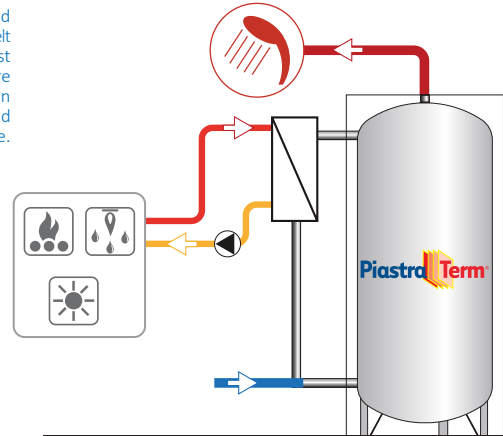
PIASTRATERM® ISP

CALORIFIERS WITH STAINLESS STEEL D.H.W. PLATE TO PLATE HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGERS		D.H.W. HARDNESS
	Pmax	Tmax	Pmax	Tmax	F max
200 ÷ 1000	8 bar	90 °C	12 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.



1	Drain
2	Domestic cold water circuit inlet
3	Alternative Sanitary water inlet or connection for more boilers
5	Blind flange for inspection
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1" 1/4 Gas F
9	Connection for 2nd anode 1" 1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11	Entry heating water from the buffer 1" 1/4 Gas F
12	Connection for instrumentation 1/2" Gas F
13	Recirculation
14	Domestic hot water outlet
15	DRAIN 1" Gas F (for models > 1000)
16	Heating water back to the buffer 1" 1/4 Gas F

Tanks from 1500 to 2000 have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

Model	Net Volume [litres]	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
200	189	550	550	1441	1542	77	316	401	511	701
300	290	650	650	1549	1680	135	400	485	595	785
500	499	750	750	1841	1988	101	416	501	611	801
800	791	850	900	2163	2343	113	433	518	628	898
1000	1037	950	1000	2217	2432	101	454	539	649	989
1500	1440	1050	1100	2415	2654	109	440	525	635	1075
2000	1980	1200	1300	2492	2811	91	467	542	652	842

Model	H15	H16	H17	5	1	2 3 13	7 12	8	9	14
Connections Gas F										
200	//	1066	1176	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
300	//	1150	1260	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
500	//	1370	1526	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
800	//	1638	1793	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
1000	//	1660	1814	Øe 300	1"1/2	1"1/2	1/2"	1"1/4	//	1"1/2
1500	//	1895	2050	Øe 300	//	1"1/2	1/2"	1"1/4	//	2"
2000	1952	1877	2057	Øe 300	//	2"	1/2"	1"1/4	1"1/4	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

EXTRA CALORIFIERS
D.H.W. STORAGE

PIASTRATERM® SLB



CALORIFIERS WITH STAINLESS STEEL D.H.W. BRAZED PLATE HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS)

HEAT EXCHANGER:

Stainless steel 316L brazed plate heat exchanger.

INSULATION

NOFIRE® polyester fibre 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

HE SERIES: High thermal insulation with ecological hard

polyurethane foam.

CATHODE PROTECTION

Magnesium anode with anoden tester (Polywarm®) - Models > 1500 n° 2 magnesium anodes.

DRAIN

External confluence through drain connection.

Models > It 1000 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



PIASTRATERM® SLB

ENERGY EFFICIENCY CLASS

Model		D.H.W. Storage: POLYWARM® - STAINLESS STEEL 316L brazed plate heat exchanger					ErP
		Nr. of plates					
		14	20	30	40	50	
200	Art. Nr.	3170161702101					E
300	Art. Nr.	3170161702111	3170161702112				E
500	Art. Nr.	3170161702121	3170161702122	3170161702123			E
800	Art. Nr.		3170161702132	3170161702133	3170161702134		E
1000	Art. Nr.			3170161702143	3170161702144	3170161702145	E
1500	Art. Nr.				3170161702154	3170161702155	F
2000	Art. Nr.					3170161702165	G
80 10/45	Therm. output KW	38	72	120	150	200	
	A.C.S. lt./h	887	1680	2801	3501	4668	
65 10/45	Therm. output KW	21	42	74	95	129	
	A.C.S. lt./h	483	972	1722	2228	3019	

PIASTRATERM® SLB HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PIASTRATERM® SLB HE

ENERGY EFFICIENCY CLASS

Model		D.H.W. Storage: POLYWARM® - STAINLESS STEEL 316L brazed plate heat exchanger					ErP
		Nr. of plates					
		14	20	30	40	50	
200	Art. Nr.	3170161722101					C
300	Art. Nr.	3170161722111	3170161722112				C
500	Art. Nr.	3170161722121	3170161722122	3170161722123			C
800	Art. Nr.		3170161722132	3170161722133	3170161722134		C
1000	Art. Nr.			3170161722143	3170161722144	3170161722145	C
1500	Art. Nr.				3170161722154	3170161722155	C
2000	Art. Nr.					3170161722165	C
80 10/45	Therm. output KW	38	72	120	150	200	
	A.C.S. lt./h	887	1680	2801	3501	4668	
65 10/45	Therm. output KW	21	42	74	95	129	
	A.C.S. lt./h	483	972	1722	2228	3019	

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	STANDARD
5005000310003	HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

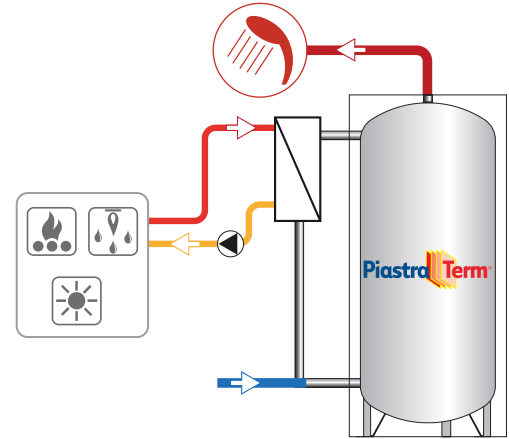
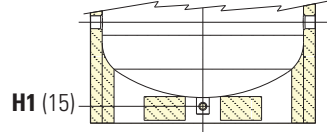
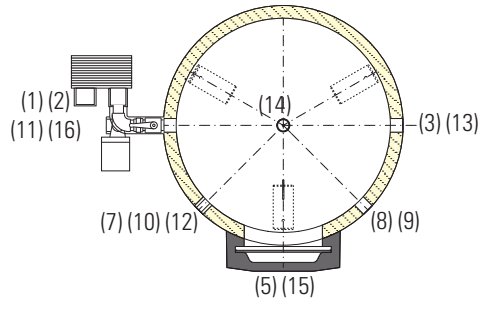
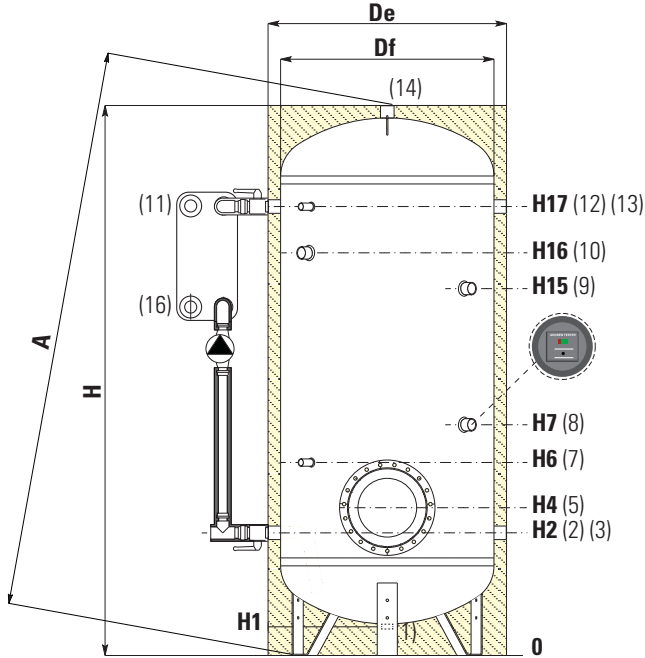
PIASTRATERM® SLB

CALORIFIERS WITH STAINLESS STEEL D.H.W. BRAZED PLATE HEAT EXCHANGER

EXTRA CALORIFIERS
D.H.W. STORAGE

Model	STORAGE		HEAT EXCHANGERS		D.H.W. HARDNESS
	Pmax	Tmax	Pmax	Tmax	F max
200 ÷ 1000	8 bar	90 °C	12 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.



1	Drain
2	Domestic cold water circuit inlet
3	Alternative Sanitary water inlet or connection for more boilers
5	Blind flange for inspection
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1" 1/4 Gas F
9	Connection for 2nd anode 1" 1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11	Entry heating water from the buffer 1" 1/4 Gas F
12	Connection for instrumentation 1/2" Gas F
13	Recirculation
14	Domestic hot water outlet
15	Drain 1" Gas F (for models > 1000)
16	Heating water back to the buffer 1" 1/4 Gas F

Tanks from 1500 to 2000 have two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/23/CE

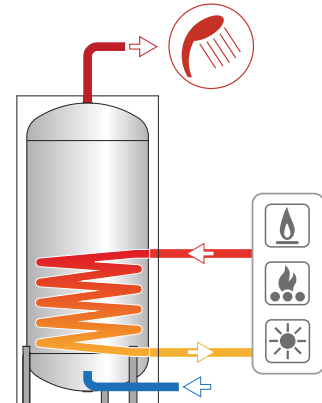
Model	Net Volume [litres]	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
200	189	550	550	1441	1542	77	316	401	511	701
300	290	650	650	1549	1680	135	400	485	595	785
500	499	750	750	1841	1988	101	416	501	611	801
800	791	850	900	2163	2343	113	433	518	628	898
1000	1037	950	1000	2217	2432	101	454	539	649	989
1500	1440	1050	1100	2415	2654	109	440	525	635	1075
2000	1980	1200	1300	2492	2811	91	467	542	652	842

Model	H15	H16	H17	5	1	2 3 13	7 12	8	9	14
	[mm]									
Connections Gas F										
200	//	1066	1176	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
300	//	1150	1260	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
500	//	1370	1526	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
800	//	1638	1793	Øe 300	1"1/4	1"1/4	1/2"	1"1/4	//	1"1/4
1000	//	1660	1814	Øe 300	1"1/2	1"1/2	1/2"	1"1/4	//	1"1/2
1500	//	1895	2050	Øe 300	//	1"1/2	1/2"	1"1/4	//	2"
2000	1952	1877	2057	Øe 300	//	2"	1/2"	1"1/4	1"1/4	2"

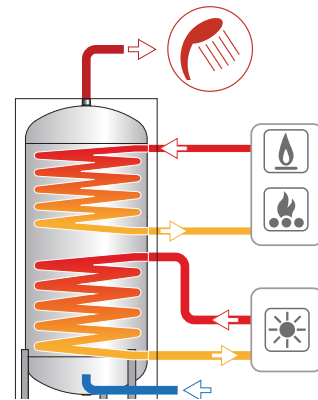
BOLLY® Calorifiers ⇒



WITH 1 FIXED HEAT EXCHANGER



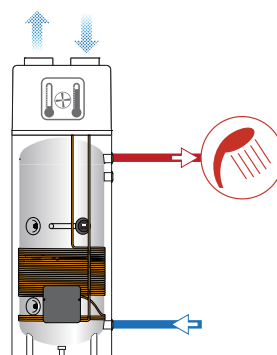
WITH 2 FIXED HEAT EXCHANGERS



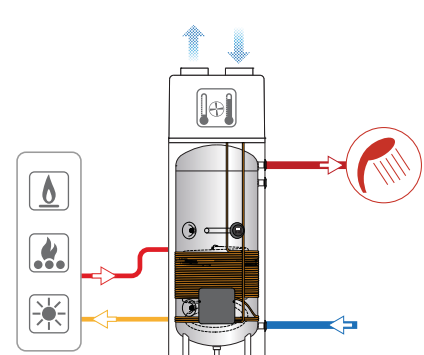
BOLLYTERM® HP THERMODYNAMIC CALORIFIER WITH HEAT PUMP



BOLLYTERM® HP



BOLLYTERM® HPI FLEX



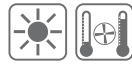
BOLLY® ST



BOLLY® AP



BOLLY® XL



BOLLY® PDC



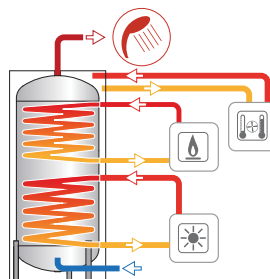
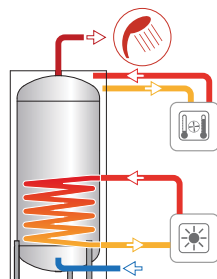
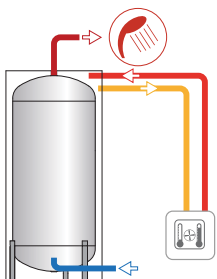
NEW



BOLLY® PDC FOR HEAT PUMP (see page 124)

THE FIRST HIGH PERFORMANCE TANK FOR HEAT PUMP.
THE ONLY ONE HAVING INTEGRATED HEAT EXCHANGER WITH UPPER THERMAL LOADING SYSTEM.

- IT REDUCES HEAT PUMP STARTINGS
- IT EXTENDS HEAT PUMP LIFECYCLE
- IT REDUCES IGNITION TIME OF THE TANK



SEE CALORIFIERS FOR HEAT PUMP SECTION

BOLLY® 1 ST

POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

- For models up to 500: Ecological hard polyurethane foam with high thermal insulation.
- For models from 800: NOFIRE® polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Magnesium anode (Polywarm®).

DRAIN

External confluence through drain connection.

Models > 500 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 1 ST WB / WC

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			ErP	[m²]
150		3105162321101	C	0,6
200		3105162321102	C	0,8
300		3105162321103	C	1,2
400		3105162321104	C	1,5
500		3105162321105	C	1,8
800		3103162321106	E	2,7
1000		3103162321107	E	3,5
1500		3103162321108	E	3,8

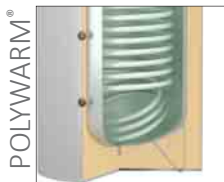


TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

BOLLY® 1 ST HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



BOLLY® 1 ST WB HE

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			ErP	[m²]
800		3104162331106	C	2,7
1000		3104162331107	C	3,5
1500		3104162331108	C	3,8

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	800÷1500 STANDARD
5005000310003	150÷500 STANDARD
	800÷1500 HE SERIES



Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	150 ÷ 300
5200000000009	400, 500
5200000000011	1000, 1500

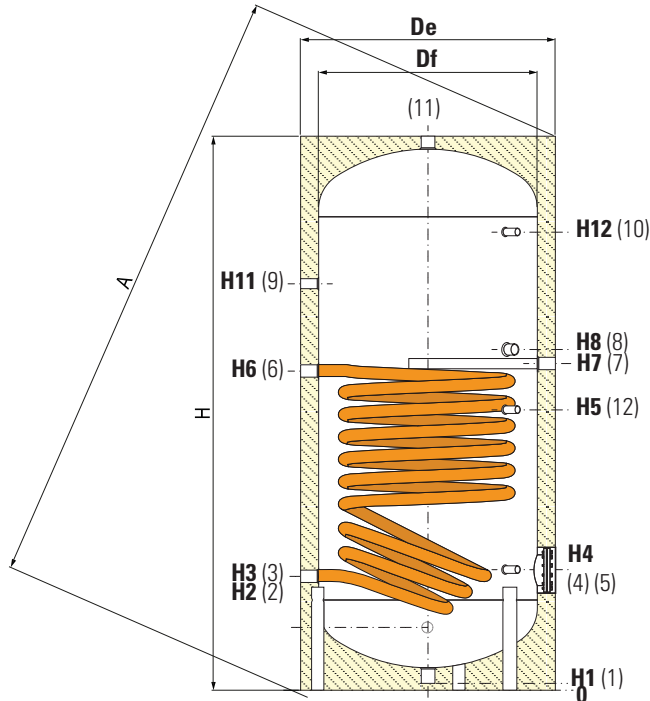
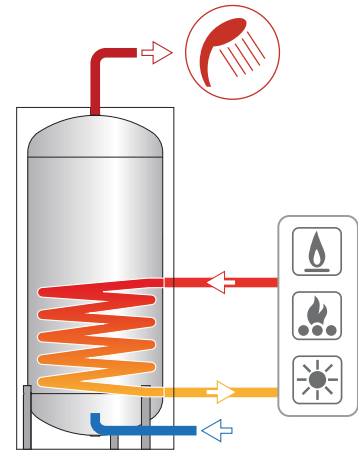


BOLLY® 1 ST

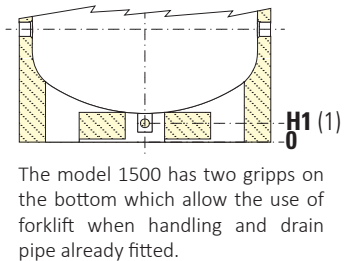
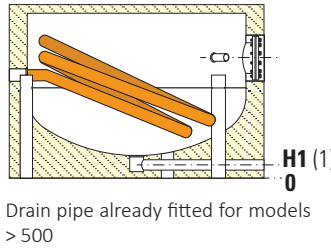
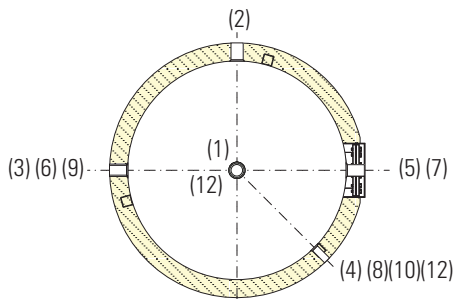
POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER

Model	STORAGE		HEAT EXCHANGERS	
	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.



1	Drain 1"1/4 Gas F (3/4" for models 800 and 1000) (1" for model 1500)
2	Domestic cold water circuit inlet
3	Heating water back to the buffer 1" Gas F (1"1/4 for models 800÷1500)
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection (Øi 120 mm for models 150÷500 lt) (Øi 160 mm for models 800÷1000 lt) (Øi 300 mm for models 1500 lt)
6	Entry heating water from the buffer 1" Gas F (1"1/4 for models 800÷1500)
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion 1"1/2 Gas F (2" gas F for models 1000÷1500 lt)
9	Recirculation
10	Connection for instrumentation 1/2" Gas F
11	Domestic hot water outlet
12	Connection for instrumentation 1/2" Gas F



Model	Net Volume [litres]	Weight [Kg]	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4
150	147	49	400	500	//	1414	1500	70	210	275	315
200	189	55	450	550	//	1434	1536	70	220	285	325
300	291	67	550	650	//	1486	1622	70	246	311	381
400	421	88	600	700	//	1766	1900	70	261	326	396
500	497	120	650	750	//	1786	1937	70	271	346	411
800	789	184	750	950	900	2189	2367	101	493	328	483
1000	1037	215	850	1050	1000	2223	2438	89	524	439	499
1500	1489	389	950	1150	1100	2471	2705	115	456	431	581

Model	H5	H6	H7	H8	H11	H12	Connections Gas F		
							2	9	11
	[mm]								
150	//	888	956	1011	1065	1185	3/4"	3/4"	1"1/4
200	//	811	855	915	1089	1195	3/4"	3/4"	1"1/4
300	//	832	871	931	1101	1221	1"	1"	1"1/4
400	//	988	1033	1091	1286	1486	1"	1"	1"1/4
500	//	1036	1076	1144	1331	1476	1"	1"	1"1/4
800	//	1181	1243	1308	1598	1788	1"	1"	1"1/4
1000	//	1279	1309	1364	1584	1819	1"1/4	1"	1"1/2
1500	1241	1409	1456	1521	1831	2071	1"1/2	1"	2"

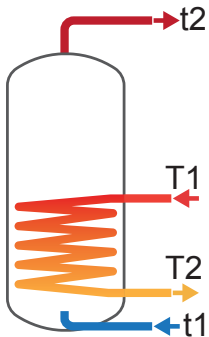
BOLLY® - INTERKA CALORIFIERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® 1 ST- HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

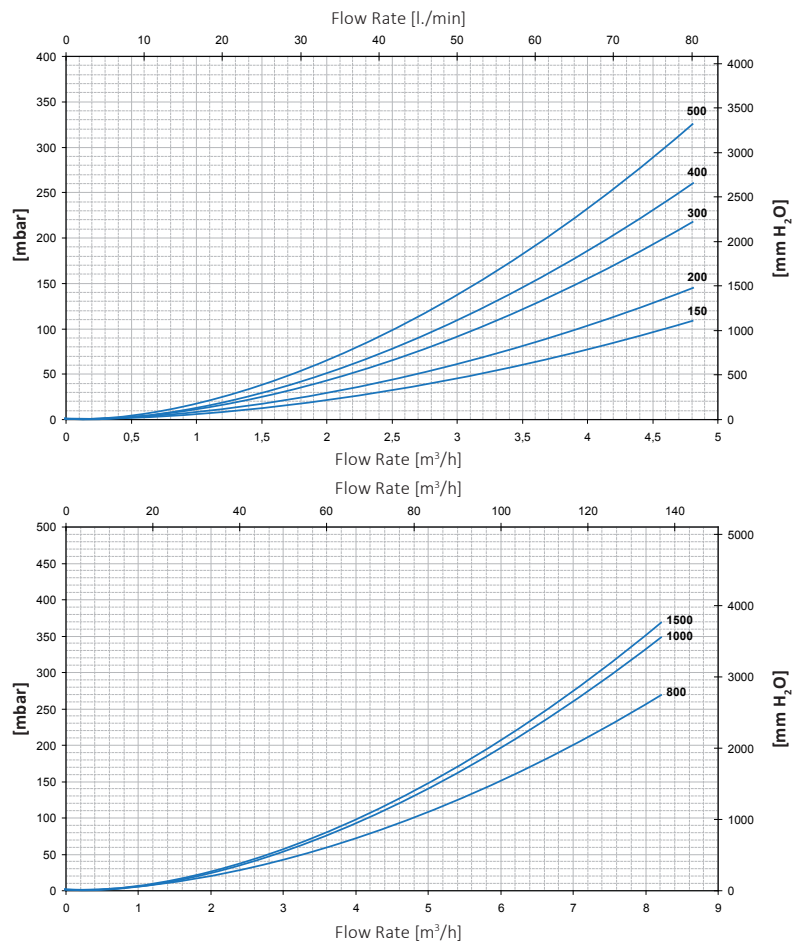
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.



FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	147	99	102	71	46	6,6	10	11,7	15,2	162	246	288	371
		111	116	81	53	6,1	9,1	10,6	13,2	149	223	260	336
200	189	92	95	66	43	9	13,5	15,8	20,5	220	332	389	506
		103	107	75	49	8,3	12,3	14,4	18,5	203	303	354	456
300	291	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
		106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
400	421	105	110	76	50	16,9	25,4	29,6	38,3	416	625	731	947
		117	122	86	57	15,4	23,2	26,9	34,5	387	571	664	853
500	497	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
		126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000
800	789	116	120	84	55	30,3	45,4	53	68,6	746	1120	1309	1695
		131	136	96	64	28,2	41,4	48,1	61,6	692	1021	1186	1521
1000	1037	114	119	84	56	38,9	57,9	67,5	87	958	1429	1667	2151
		132	138	98	65	35,5	52,2	60,4	77	882	1288	1492	1903
1500	1489	162	168	119	78	41	61	71	91,5	1009	1504	1753	2261
		189	197	139	92	37,7	54,9	63,4	80,7	927	1352	1564	1993

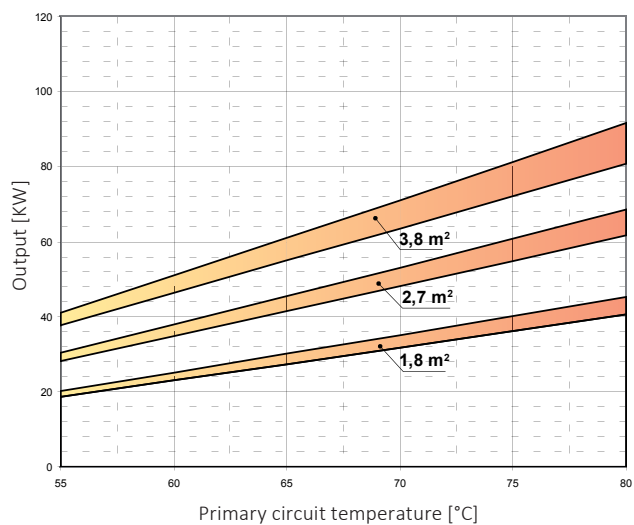
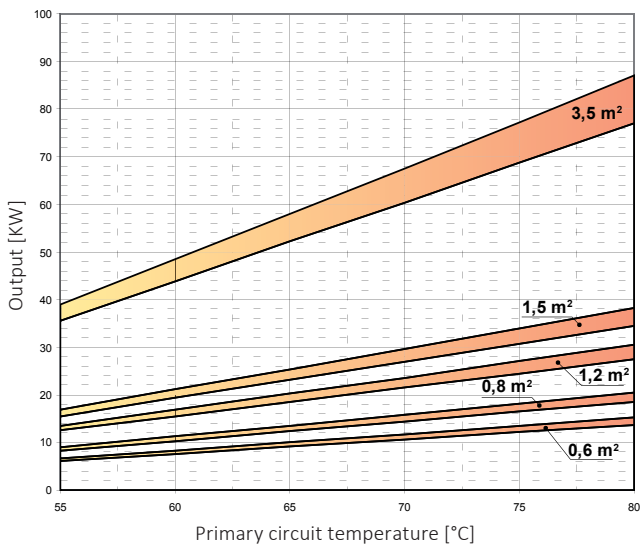
PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY® 1 ST



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

HEAT EXCHANGERS OUTPUT CHART BOLLY® 1 ST

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	0,6 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
Primary flow rate [m³/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
Primary flow rate [m³/h]	3,50	1,75	6	3	6	3

BOLLY® 2 ST

POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS)

HEAT EXCHANGER:

2 Polywarm® coated fixed heat exchangers.

INSULATION

- For models up to 500: Ecological hard polyurethane foam with high thermal insulation
- For models from 800: NOFIRE® polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

HE SERIES: High thermal insulation with ecological hard

polyurethane foam.

CATHODE PROTECTION

Magnesium anode (Polywarm®)

DRAIN

External confluence through drain connection.

Models > 500 external confluence through drain pipe.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

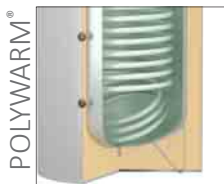
BOLLY® 2 ST WB / WC

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m²]	
150	3135162321201	C	0,4	0,6
200	3135162321202	C	0,5	0,8
300	3135162321203	C	0,7	1,2
400	3135162321204	C	1	1,5
500	3135162321205	C	1	1,8
800	3138162321206	E	1,6	2,7
1000	3138162321207	E	1,8	3,5
1500	3138162321208	E	1,9	3,8

BOLLY® 2 ST HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



BOLLY® 2 ST WB HE

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m²]	
800	3134162331206	C	1,6	2,7
1000	3134162331207	C	1,8	3,5
1500	3134162331208	C	1,9	3,8

Accessories on request

"Easy Control" Electronic Display

ART. NR.	FOR MODELS
5005000310002	800÷1500 STANDARD
5005000310003	150÷500 STANDARD
	800÷1500 HE SERIES



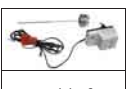
Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	150 ÷ 300
5200000000009	400, 500
5200000000011	1000, 1500



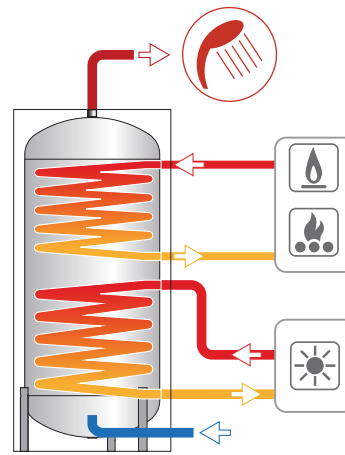
Suitable for Polywarm® coated models

BOLLY® 2 ST

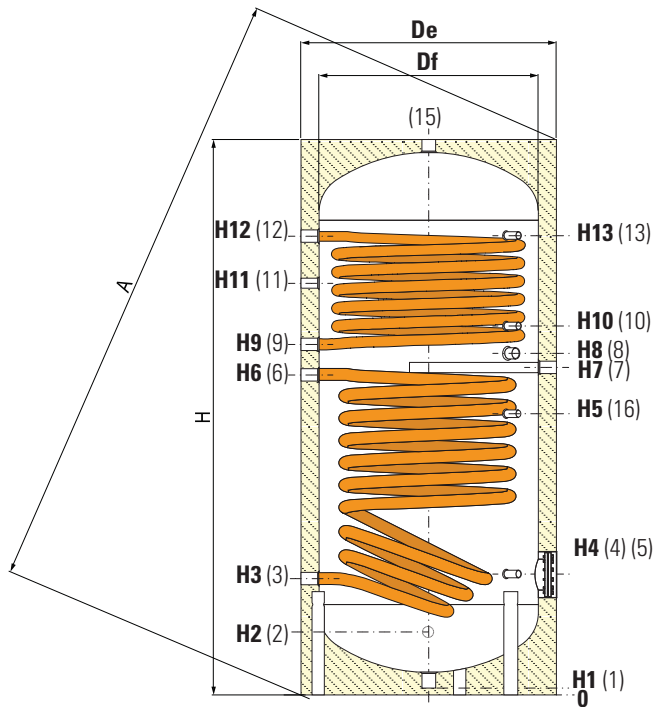
POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS

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

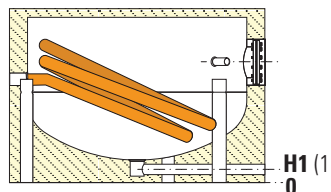
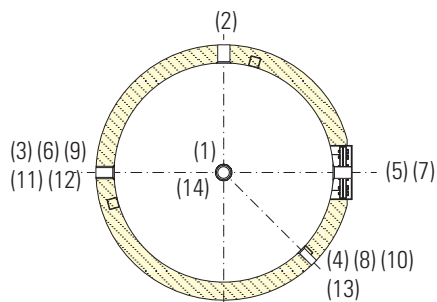
CORDIVARI® Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
 procedures and Cordivari LAB are
 certified conforming to European
 standard EN 15332, as indicated
 by Ecodesign ErP Directive.



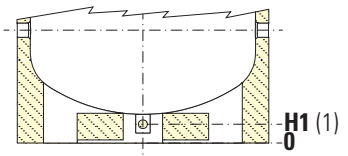
BOLLY® - INTERKA
CALORIFIERS



1	Drain 1"1/4 Gas F (3/4" for models 800 e 1000 lt.) (1" for models 1500 lt.)
2	Domestic cold water circuit inlet
3	Heating water back to the buffer 1" Gas F (1"1/4 for models 800 ÷ 1500 lt.)
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection (Øi 120 mm for models 150÷500 lt) (Øi 160 mm for models 800÷1000 lt) (Øi 300 mm for models 1500 lt)
6	Entry heating water from the buffer 1" Gas F (1"1/4 for models 800÷1500 lt.)
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion 1"1/2 Gas F (2" gas F for models 1000÷1500 lt)
9	Lower heat exchanger outlet 1" Gas F (1"1/4 for models 800÷1500 lt.)
10	Connection for instrumentation 1/2" Gas F
11	Recirculation
12	Fixed upper heat exchanger inlet 1" Gas F (1"1/4 for models 800÷1500 lt.)
13	Connection for instrumentation 1/2" Gas F
15	Domestic hot water outlet
16	Connection for instrumentation 1/2" Gas F



Drain pipe already fitted for models >500



The model 1500 has two grips on the bottom which allow the use of forklift when handling and drain pipe already fitted.

Model	Net Volume [litres]	Weight [Kg]	Df	De	De (HE SERIE)	[mm]						
						H	A	H1	H2	H3	H4	H5
150	147	54	400	500	//	1414	1500	70	210	275	315	/
200	189	65	450	550	//	1434	1536	70	220	285	325	/
300	291	83	550	650	//	1486	1622	70	246	311	381	/
400	421	112	600	700	//	1766	1900	70	261	326	396	/
500	497	134	650	750	//	1786	1937	70	271	346	411	/
800	789	232	750	950	900	2189	2367	101	493	428	483	/
1000	1037	272	850	1050	1000	2223	2438	89	524	439	499	/
1500	1489	351	950	1150	1100	2471	2705	115	456	431	581	1241

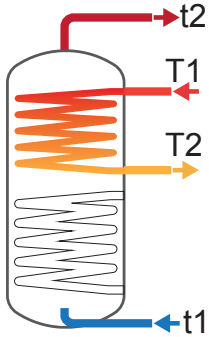
Model	H6	H7	H8	H9	H10	H11	H12	H13	2	11	15
200	811	855	915	960	1105	1089	1195	1195	3/4"	3/4"	1"1/4
300	832	871	931	981	1076	1101	1221	1221	1"	1"	1"1/4
400	988	1033	1091	1143	1286	1286	1486	1486	1"	1"	1"1/4
500	1036	1076	1144	1186	1296	1331	1476	1476	1"	1"	1"1/4
800	1181	1243	1308	1362	1579	1598	1770	1788	1"	1"	1"1/4
1000	1279	1309	1364	1399	1609	1584	1819	1819	1"1/4	1"	1"1/2
1500	1409	1456	1521	1596	1741	1831	2051	2071	1"1/2	1"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® 2 ST- HEAT EXCHANGERS TECHNICAL DATA

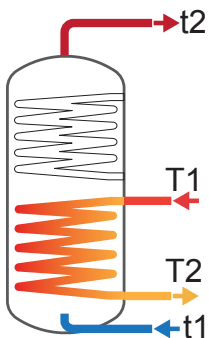
Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at 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 FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	48	47	49	34	22	4,5	6,8	7,9	10,3	109	165	194	254
		52	64	38	24	4,1	6,2	7,2	9,4	100	151	177	231
200	60	46	48	33	21	5,7	8,6	10	13,1	138	210	247	322
		51	53	37	24	5,3	7,9	9,3	12	129	194	227	296
300	95	51	53	37	24	8	12,1	14,1	18,4	195	296	347	453
		57	59	41	27	7,5	11,2	13,1	16,9	183	274	321	416
400	144	55	57	40	26	11,4	17,2	20,2	26,2	279	423	496	646
		61	63	44	29	10,7	16	18,6	24	262	392	458	592
500	160	61	64	44	29	11,4	17,2	20,2	26,2	279	423	496	646
		68	70	49	32	10,7	16	18,6	24	262	392	458	592
800	286	68	71	49	32	18,3	27,6	32,3	41,9	447	677	794	1034
		75	78	54	36	17,2	25,6	29,8	38,5	419	628	733	949
1000	371	79	82	57	37	20,5	30,9	36,1	46,9	501	759	889	1157
		87	91	64	42	19,2	28,5	33,3	42,9	469	701	818	1057
1500	512	87	90	63	41	26	39	45,6	59,1	636	959	1123	1457
		97	102	71	46	24,2	35,8	41,6	53,6	592	879	1024	1318



FIXED HEAT EXCHANGER

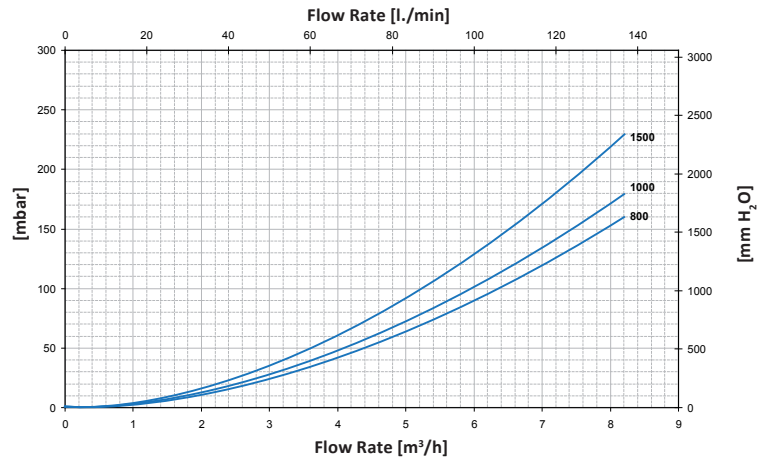
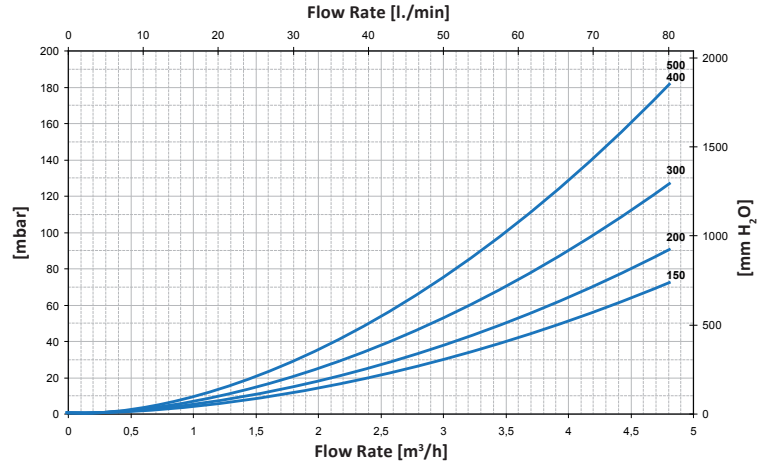
Model	Storage Volume [litres]	Ignition time (minutes) from 10 °C to t2 and primary at t1				Maximum power exchange (kw) with primary at t1, secondary within 10-45 °C and constant use of DHW production				DHW continuous production lt/h within 10-45 °C and primary at t1			
		T1/t2				T1				T1			
		55/50	65/60	70/60	80/60	55	65	70	80	55	65	70	80
150	147	99	102	71	46	6,6	10	11,7	15,2	162	246	288	371
		111	116	81	53	6,1	9,1	10,6	13,2	149	223	260	336
200	189	92	95	66	43	9	13,5	15,8	20,5	220	332	389	506
		103	107	75	49	8,3	12,3	14,4	18,5	203	303	354	456
300	291	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
		106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
400	421	105	110	76	50	16,9	25,4	29,6	38,3	416	625	731	947
		117	122	86	57	15,4	23,2	26,9	34,5	387	571	664	853
500	497	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
		126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000
800	789	116	120	84	55	30,3	45,4	53	68,6	746	1120	1309	1695
		131	136	96	64	28,2	41,4	48,1	61,6	692	1021	1186	1521
1000	1037	114	119	84	56	38,9	57,9	67,5	87	958	1429	1667	2151
		132	138	98	65	35,5	52,2	60,4	77	882	1288	1492	1903
1500	1489	162	168	119	78	41	61	71	91,5	1009	1504	1753	2261
		189	197	139	92	37,7	54,9	63,4	80,7	927	1352	1564	1993

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

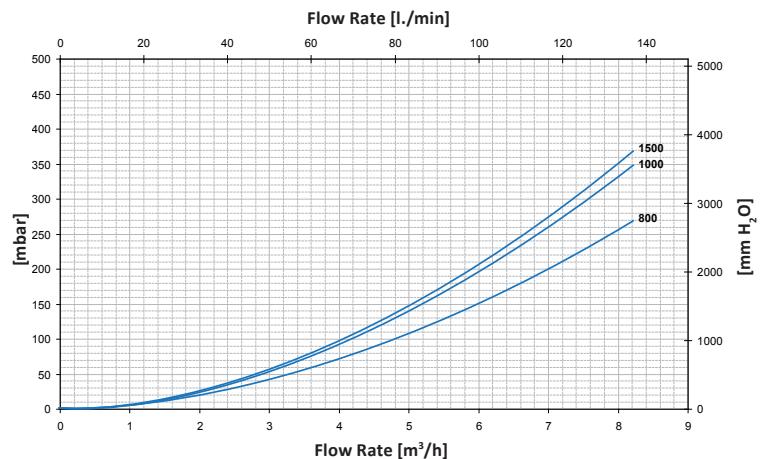
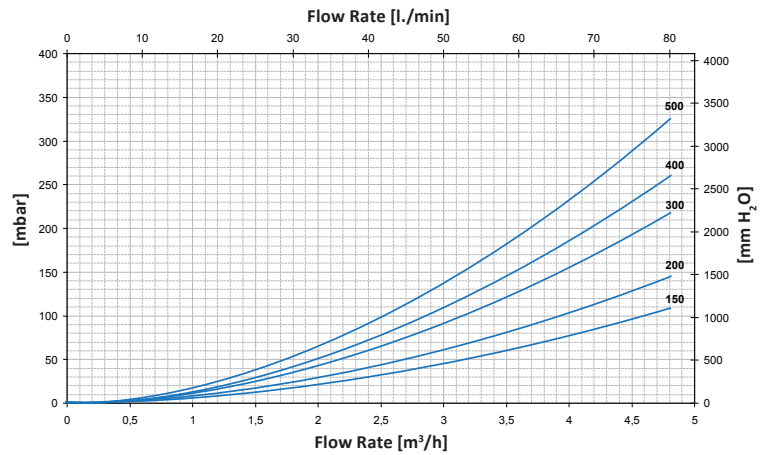
DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate	Exchanger pressure loss	
T1/t2				T1/t2					[m³/h]	[mm.H ₂ O]
55/50	65/60	70/60	80/60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

BOLLY® 2 ST - PRESSURE LOSS

PRESSURE LOSS - UPPER FIXED HEAT EXCHANGER

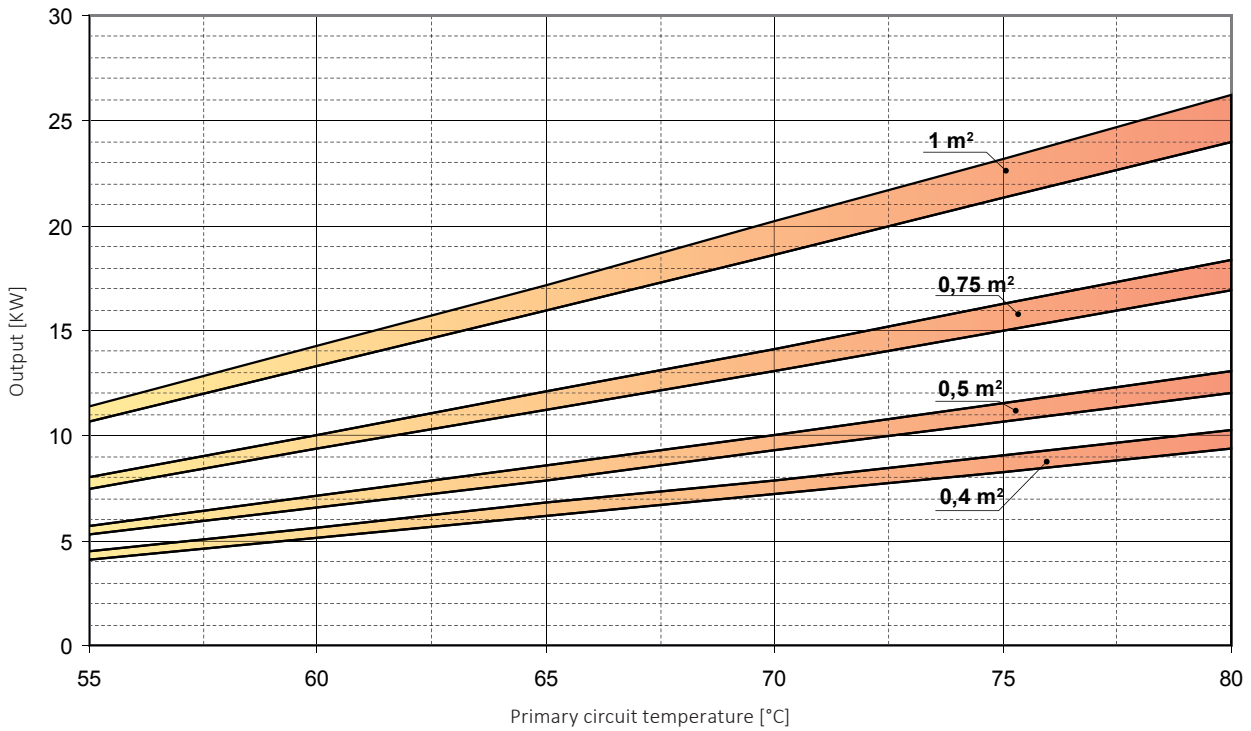


PRESSURE LOSS - LOWER FIXED HEAT EXCHANGER

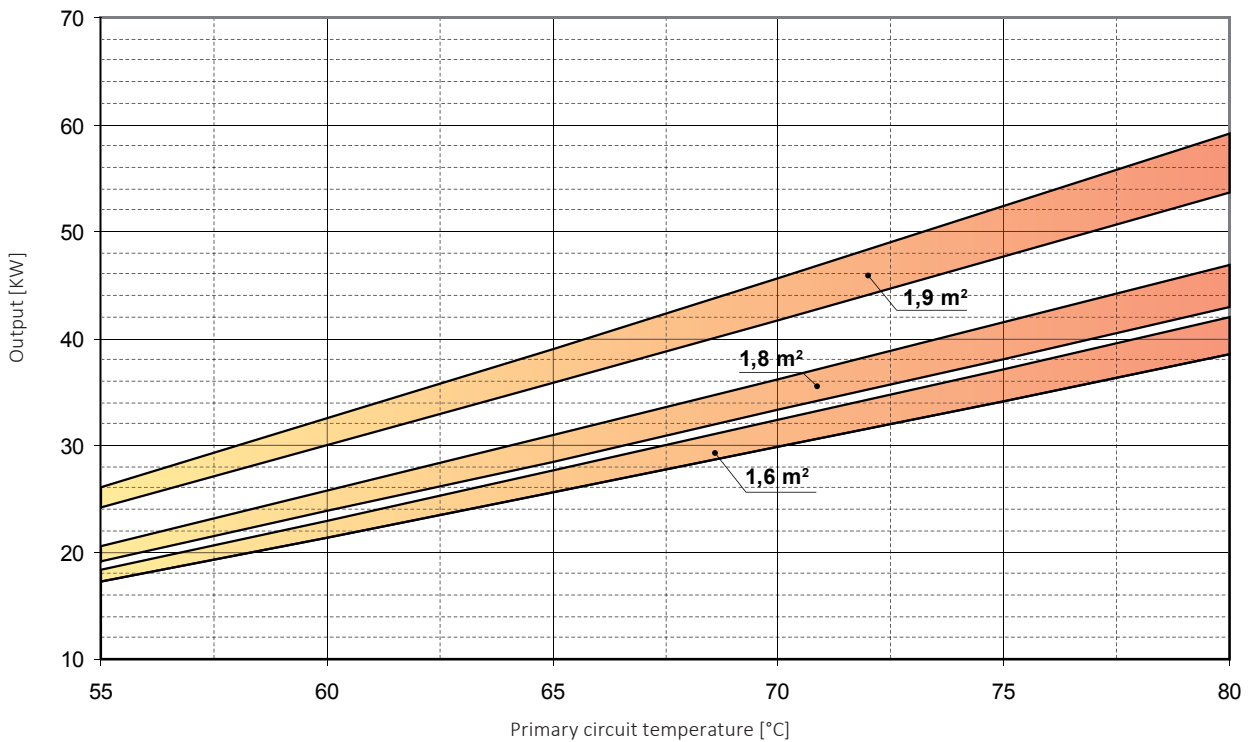


BOLLY® 2 ST - UPPER HEAT EXCHANGER OUTPUT CHART

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	0,4 m ²		0,5 m ²		0,75 m ²		1 m ²	
Primary flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	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	
Primary flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN
	6	3	6	3	6	3

LOWER HEAT EXCHANGER TECHNICAL DATA- SEE BOLLY® 1 ST

BOLLY® 1 AP - HIGH PERFORMANCES

POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270 - UBA - WRAS)

HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode with anoden tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY 1 AP WB

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
150	3105162320501	C	1,1
200	3105162320502	C	1,5
300	3105162320503	C	1,8
400	3105162320504	C	2
500	3105162320505	C	2,6



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310003	150÷500



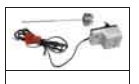
Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	150 ÷ 300
5200000000009	400, 500



Suitable for Polywarm® coated models



ELECTRICAL IMMERSIONS KIT AVAILABLE

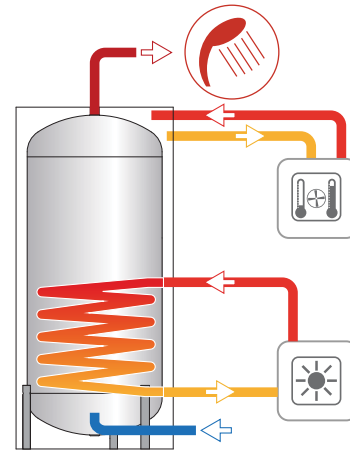
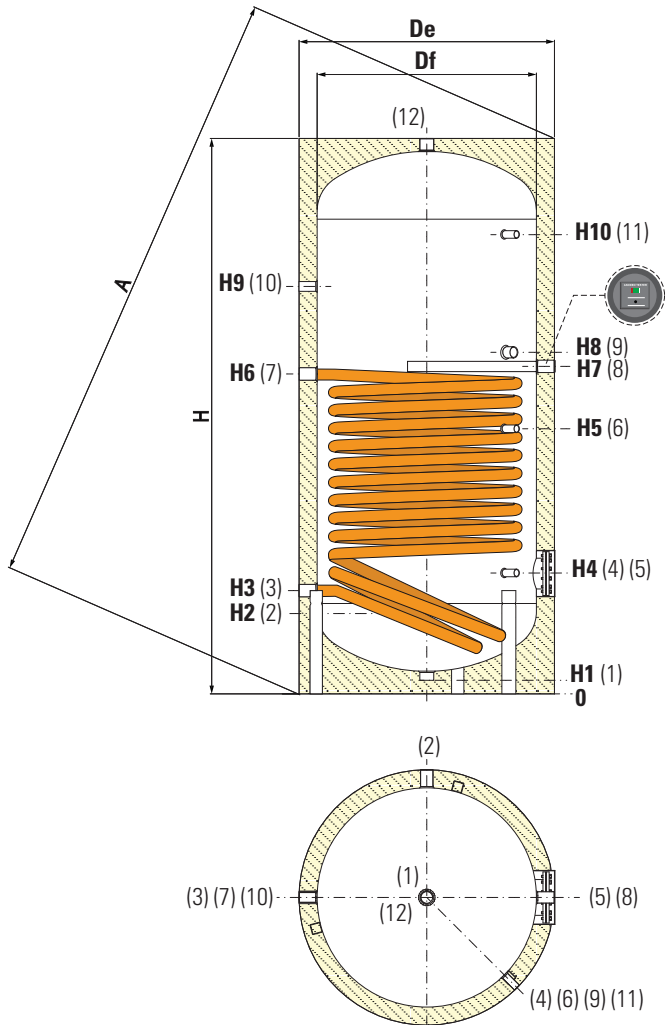
Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		52400000000034	52400000000035	52400000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
150	42	76	57	38
200	44	78	59	39
300	80	143	107	71
400	126	226	170	113
500	185	331	248	165

BOLLY® 1 AP - HIGH PERFORMANCES

POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
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.



1	Drain 1"1/4 Gas F
2	Domestic cold water circuit inlet
3	Fixed heat exchanger outlet 1" Gas F
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection ø120 mm
6	Connection for instrumentation 1/2" Gas F
7	Fixed heat exchanger inlet 1" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for electrical immersion 1"1/2 Gas F
10	Recirculation
11	Connection for instrumentation 1/2" Gas F
12	Domestic hot water outlet 1" 1/4 Gas F

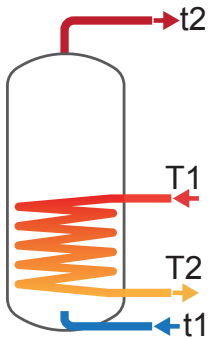
Model	Net Volume	Weight	Df	De	H	A	H1	H2	H3
	[litres]								
150	147	54	400	500	1414	1500	71	210	275
200	189	63	450	550	1434	1536	71	220	285
300	291	75	550	650	1486	1622	71	246	311
400	421	93	600	700	1766	1900	71	261	339
500	497	118	650	750	1786	1937	71	271	346

Model	H4	H5	H6	H7	H8	H9	H10	2-10
	[mm]							Conn. Gas F
150	315	725	888	956	1011	1065	1185	3/4"
200	325	735	1041	1155	1090	915	1195	3/4"
300	381	671	1020	1136	1071	1146	1221	1"
400	401	886	1116	1166	1236	1386	1486	1"
500	411	896	1135	1174	1142	1346	1486	1"

BOLLY® 1 AP- HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

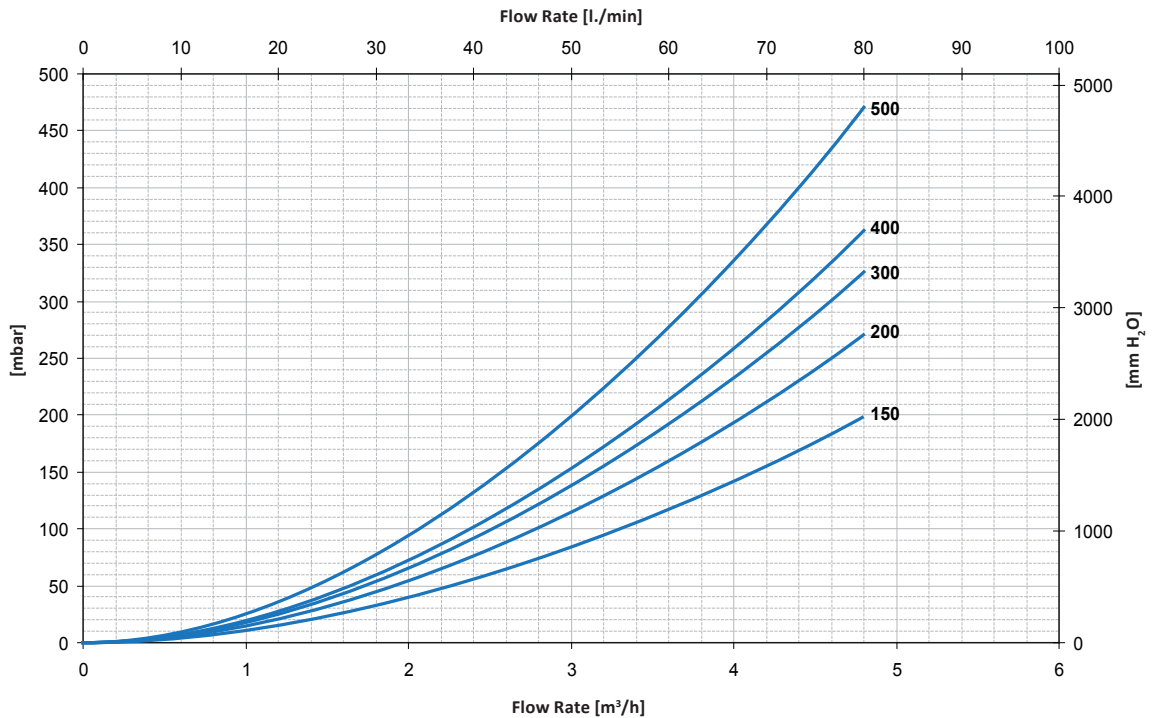
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.



FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	147	56	58	41	27	11,9	17,8	20,7	26,8	294	439	512	662
		65	68	48	32	10,8	15,8	18,3	23,4	266	390	452	577
200	189	51	53	37	25	16,4	24,4	28,5	36,7	405	603	703	908
		60	62	44	29	15	21,8	25,2	32,1	369	539	623	795
300	291	65	67	48	31	19,9	29,6	34,5	44,4	490	731	852	1099
		75	79	56	37	18,2	26,6	30,7	39,1	449	656	759	968
400	421	80	83	58	38	22,3	33,2	38,7	49,9	549	820	956	1234
		92	96	68	45	20,6	30	34,7	44,3	506	741	858	1095
500	497	79	82	58	38	28,6	42,3	49,2	63,2	705	1045	1216	1563
		93	98	69	46	26,2	37,8	43,6	55,2	645	933	1076	1365

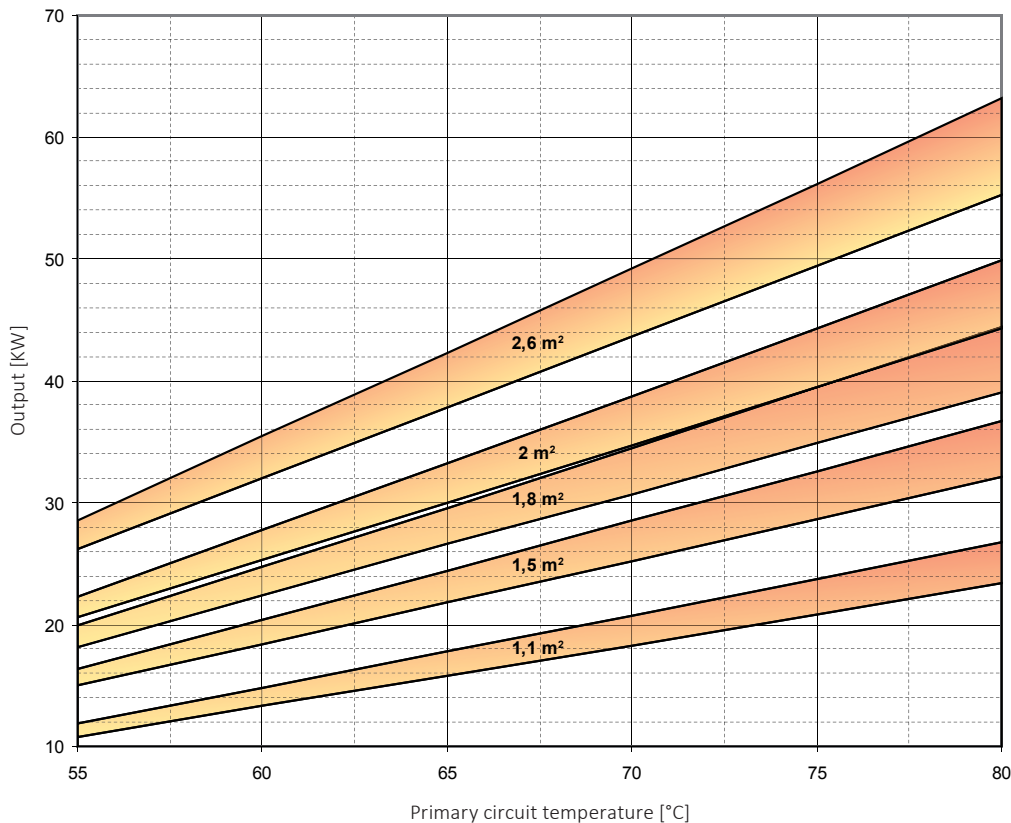
PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY® 1 AP



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				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
217	283	295	320	403	561	620	740	2	401,22	39,35
212	275	285	306	381	522	572	672	1	111,14	10,90
284	371	387	421	540	752	832	996	2,5	827,10	81,11
278	360	374	403	511	701	768	906	1,25	229,11	22,47
414	538	558	599	725	1001	1097	1295	3	1391,18	136,43
407	525	542	577	692	941	1023	1190	1,5	385,37	37,79
573	738	761	807	920	1257	1366	1589	3,5	2056,48	201,67
565	725	744	784	886	1194	1288	1477	1,75	569,66	55,86
686	884	913	971	1132	1546	1683	1960	3,5	262,17	2673,43
676	866	889	938	1084	1456	1571	1802	1,75	72,62	740,56

HEAT EXCHANGERS OUTPUT CHART BOLLY® 1 AP

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	1,1 m ²		1,5 m ²		1,8 m ²		2 m ²		2,6 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m³/h]	2	1	2,5	1,25	3	1,5	3,5	1,75	3,5	1,75

BOLLY® 2 AP-HIGH PERFORMANCES

POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW - W270- UBA- WRAS).

HEAT EXCHANGER:

2 Polywarm® coated fixed heat exchangers.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode with anoden tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY 2 AP WB

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m ²]	
200	3135162325102	C	0,4	1,4
300	3135162320503	C	0,9	1,4
500	3135162320505	C	1,3	2



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310003	200÷500



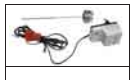
Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200,300
5200000000009	500



Suitable for Polywarm® coated models



Electrical immersions kit available

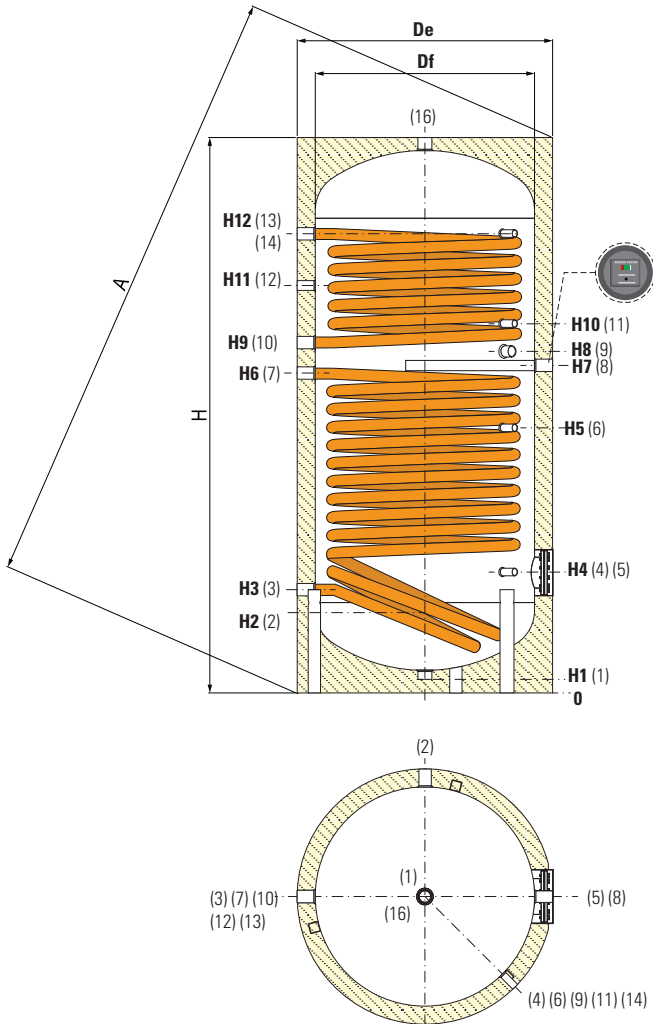
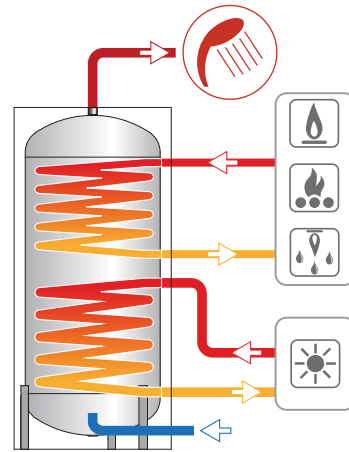
Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000034	5240000000035	5240000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
200	54	88	60	44
300	105	188	141	94
500	172	307	230	154

BOLLY® 2 AP-HIGH PERFORMANCES

POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.



1	Drain 1"1/4 Gas F
2	Domestic cold water circuit inlet 1" Gas F
3	Lower heat exchanger outlet 1"1/4 Gas F
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection Øi 120 mm
6	Connection for instrumentation 1/2" Gas F
7	Lower heat exchanger inlet 1"1/4 Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for electrical immersion 1"1/2 Gas F
10	Lower heat exchanger outlet 1"1/4 Gas F
11	Connection for instrumentation 1/2" Gas F
12	Recirculation 1" Gas F
13	Fixed upper heat exchanger inlet 1"1/4 Gas F
14	Connection for instrumentation 1/2" Gas F
16	Domestic hot water outlet 1"1/4 Gas F

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/23/CE

Model	Net Volume	Weight	Df	De	H	A	H1	H2	H3
	[litres]								
200	189	67	450	550	1434	1535	71	220	285
300	291	82	550	650	1486	1622	71	246	311
500	497	131	650	750	1786	1937	71	271	346

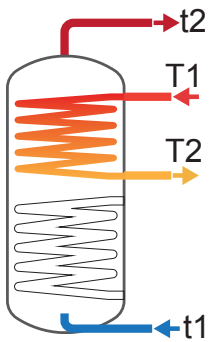
Model	H4	H5	H6	H7	H8	H9	H10	H11	H12
	[mm]								
200	325	//	760	955	995	1015	1105	1115	1205
300	381	671	832	871	931	981	1076	1101	1221
500	411	896	1036	1076	1144	1186	1296	1331	1476

BOLLY® - INTERKA
CALORIFIERS

BOLLY® 2 AP- HEAT EXCHANGERS TECHNICAL DATA

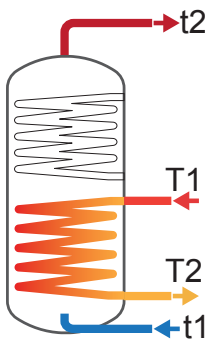
Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at 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 FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	52	51	53	37	24	4,5	6,8	7,9	10,3	109	165	194	254
		57	59	41	26	4,1	6,2	7,2	9,4	100	151	177	231
300	95	41	43	30	20	9,9	15	17,5	22,8	243	368	432	562
		47	48	34	22	9,1	13,6	15,8	20,4	223	333	389	503
500	160	49	51	35	23	14,4	22,5	25,9	32,8	353	532	623	809
		55	57	40	26	13,3	19,6	22,8	29,3	326	482	562	724



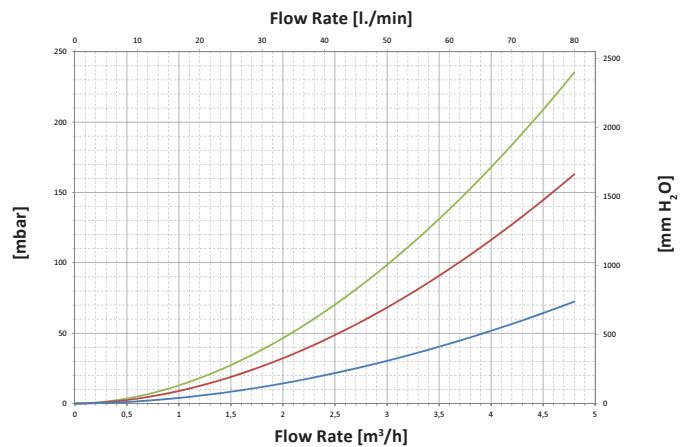
FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	179	50	52	36	24	15,6	23,4	27,3	36,3	384	576	673	871
		57	59	42	28	14,6	21,2	24,6	31,6	354	522	607	778
300	291	82	85	60	39	15,6	23,4	27,3	36,3	384	576	673	871
		94	98	69	45	14,6	21,2	24,6	31,6	354	522	607	778
500	497	100	104	73	48	22,3	33,2	38,7	49,9	549	820	956	1234
		115	120	85	56	20,6	30	34,7	44,3	506	741	858	1095

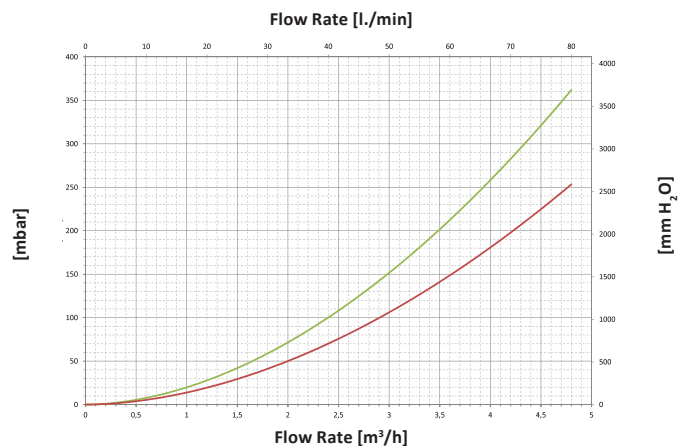
PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY® 2 AP



UPPER



LOWER

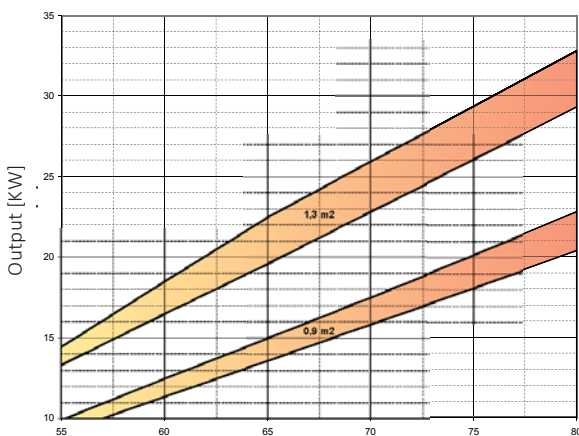


DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
85	102	107	117	176	239	268	328	2	145,90	14,31
84	99	104	113	167	225	251	305	1	40,41	3,96
149	197	208	229	303	430	481	585	3	194,65	19,09
146	191	201	220	287	402	447	538	1,5	53,92	5,29
242	317	332	363	465	654	727	876	3,5	316,51	31,04
237	309	322	349	444	614	678	808	1,75	87,68	8,60

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				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
294	352	368	401	614	832	929	1127	3	1082,03	106,11
289	343	357	385	584	778	863	1034	1,5	299,73	29,39
397	512	528	561	640	877	954	1113	3	1082,03	106,11
392	503	517	545	616	833	901	1038	1,5	299,73	29,39
660	847	869	916	1007	1366	1475	1697	3,5	2056,48	201,67
652	834	853	893	973	1303	1396	1586	1,75	569,66	55,86

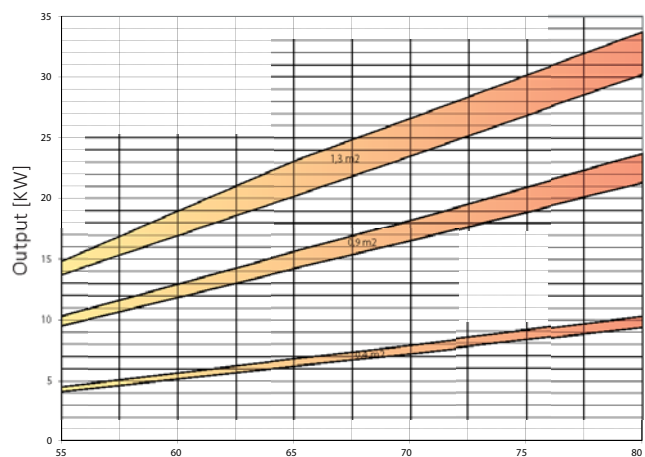
HEAT EXCHANGERS OUTPUT CHART BOLLY® 2 AP

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)



Primary circuit temperature [°C]

Heat exchanger surface	0,9 m ²		1,3 m ²	
	MAX	MIN	MAX	MIN
Primary flow rate [m³/h]	3	1,5	3,5	1,75



Primary circuit temperature [°C]

Heat exchanger surface	0,4 m ²		0,9 m ²		1,3 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m³/h]	2	1	3	1,5	3,5	1,75



POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

Ecological hard polyurethane foam with high thermal insulation.

Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode with anoden tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY XL WB

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			ErP	Lower
200		3105162320702	C	2 [m²]
300		3105162320703	C	3,4
500		3105162320705	C	5,4



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310003	200÷500



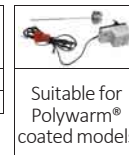
Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



Suitable for Polywarm® coated models



Electrical immersions kit available

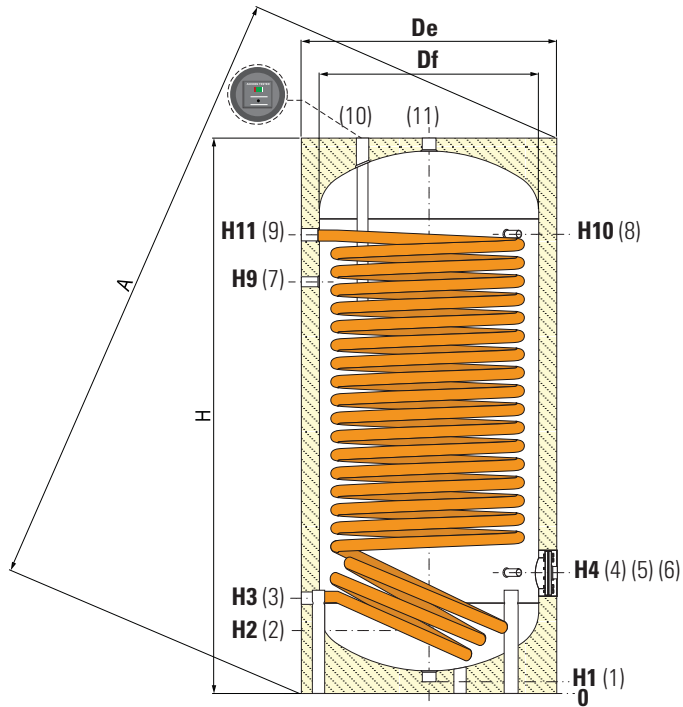
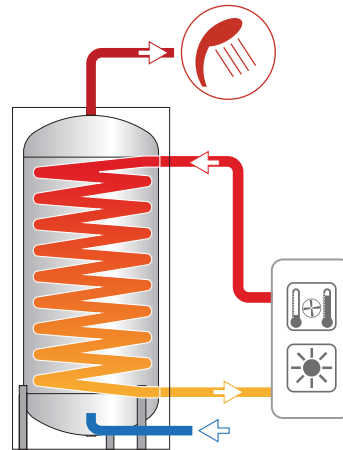
Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		52400000000034	52400000000035	52400000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
200	166	298	223	149
300	245	439	329	219
500	424	759	569	380

BOLLY® XL

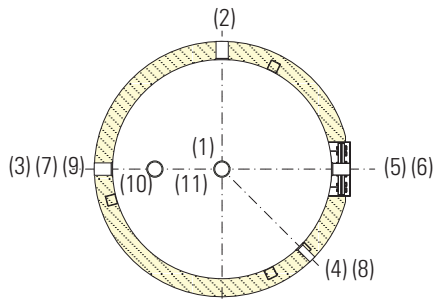
POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
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.



1	Drain 1"1/4 Gas F
2	Domestic cold water circuit inlet
3	Primary circuit heat exchanger outlet
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection \varnothing i 120 mm
6	Connection for electrical immersion 1"1/2 Gas F
7	Recirculation
8	Connection for instrumentation 1/2" Gas F
9	Primary circuit heat exchanger inlet
10	Connection for magnesium anode 1"1/4 Gas F
11	Domestic hot water outlet 1"1/4 Gas F



Model	Net Volume	Weight	Df	De	H	A	H1	H2
	[litres]							
200	189	71	450	550	1440	1541	71	220
300	291	93	550	650	1492	1627	71	246
500	497	150	650	750	1792	1943	71	271

Model	H3	H4	H9	H10	H11	2-7	3-9
	[mm]					Connections Gas F	
200	285	325	1055	1190	1190	3/4"	1"
300	321	381	1091	1211	1211	1"	1" 1/4
500	346	411	1326	1486	1486	1"	1" 1/4

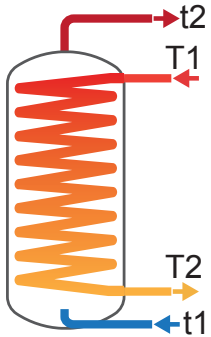
BOLLY® - INTERKA
CALORIFIERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® XL - HEAT EXCHANGERS TECHNICAL DATA

Data have been calculated on following basis:

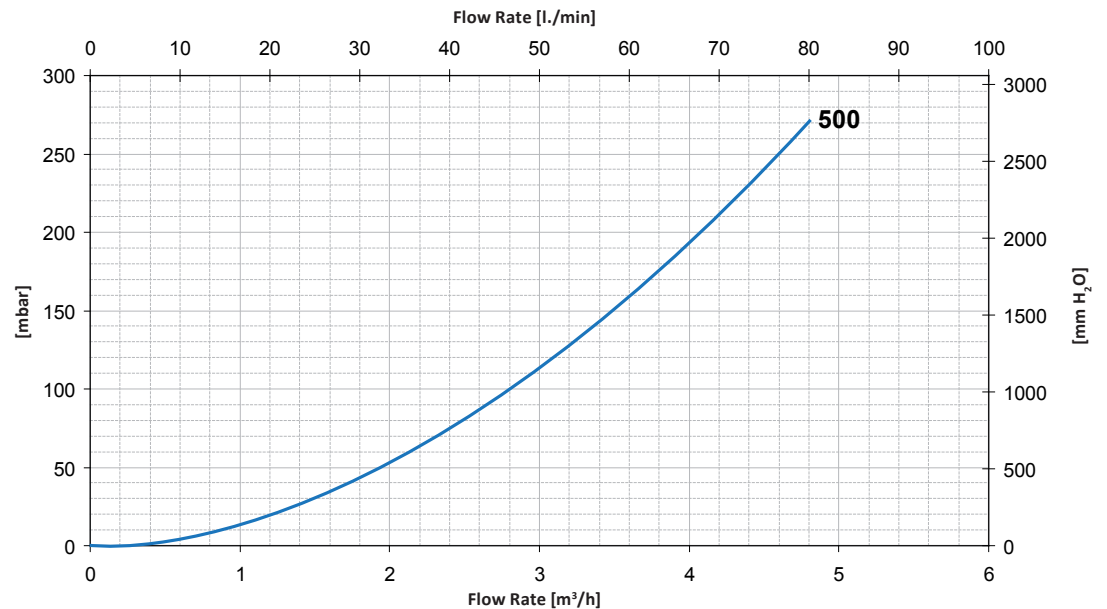
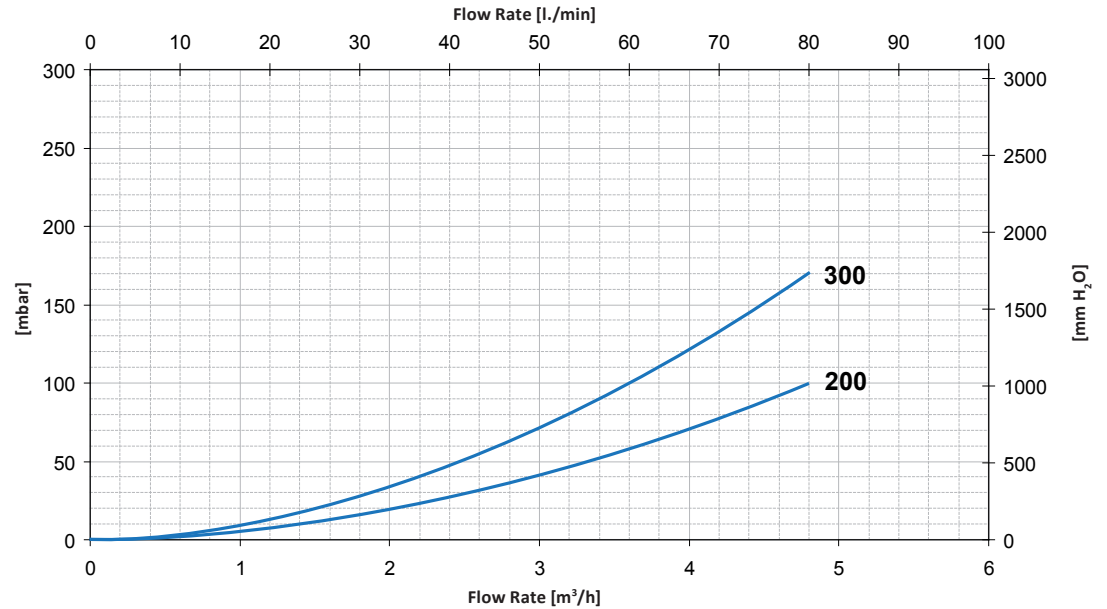
- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at t2;
- 3) DHW that can be taken in the first 10' and in the first hour from storage at 60°C, input 10°C and output 45°C;
- 4) Sanitary water according to UNI CTI 8065.



FIXED HEAT EXCHANGER

Model	Storage Volume [litres]	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	189	40	42	30	20	21,2	31,2	36,3	46,6	522	773	899	1153
		48	50	36	24	19,1	27,6	31,7	40,2	472	681	785	995
300	291	39	40	29	19	34,9	50,9	58,9	75,1	862	1260	1459	1860
		48	51	36	24	30,8	43,7	50	62,7	762	1081	1238	1552
500	497	44	46	33	22	54,5	78,6	90,6	114,6	1349	1946	2243	2838
		57	60	43	29	47,9	66,7	75,9	94,1	1185	1651	1877	2330

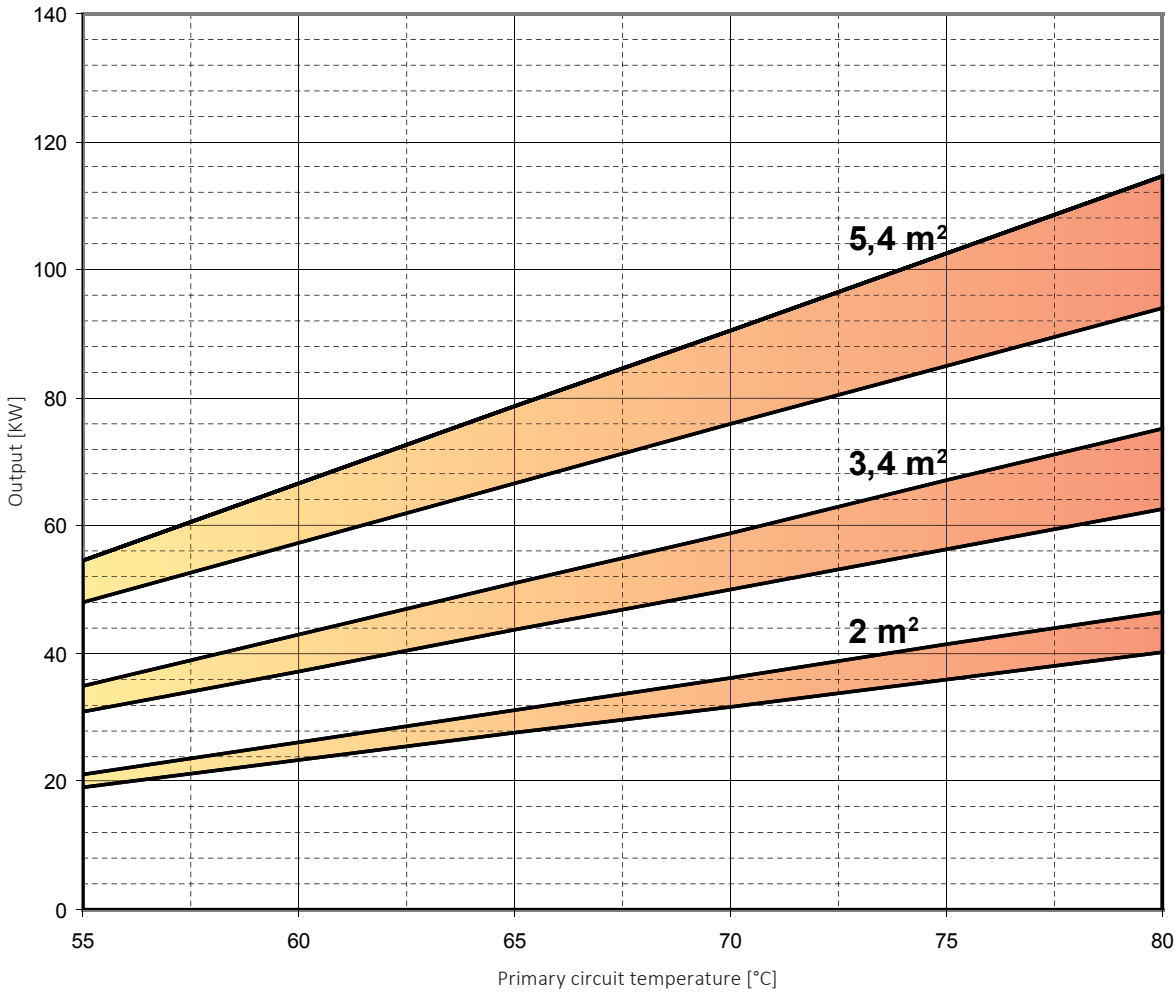
PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY® XL



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				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
303	399	420	462	634	888	989	1192	2,5	325,22	29,66
295	384	401	436	594	815	898	1066	1,25	83,78	8,22
476	626	659	726	1022	1424	1583	1904	3	726,71	71,27
460	596	622	674	942	1281	1406	1657	1,5	201,30	19,74
793	1034	1084	1183	1647	2267	2504	2980	3,5	1539,43	150,97
766	985	1023	1098	1516	2031	2212	2574	1,75	426,43	41,82

HEAT EXCHANGERS OUTPUT CHART BOLLY® XL

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	2 m²		3,4 m²		5,4 m²	
	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m³/h]	2,5	1,25	3	1,5	3,5	1,75

BOLLY® 2 POWER



POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED SOLAR STATION



Model
PATENTED

APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).

HEAT EXCHANGER:

2 Polywarm® coated fixed heat exchangers.

INSULATION

Ecological hard polyurethane foam, thickness 50 mm with high thermal insulation and thermal conductivity 0,023 W/mK.

Grey PVC external lining complete with top and flange cover.

EXTERNAL CASE

Thermal insulated painted metal, and removable case, of all solar station cabled components on the tank (expansion vessel-

circulation group-Professional central unit with 5 temperature probes) able to manage up to 26 types of installation.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

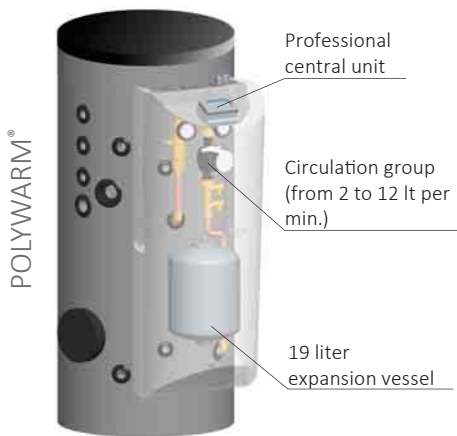
WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY 2 POWER WB

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m ²]	
300	3135162320353	C	0,7	1,2
500	3135162320355	C	1	1,8



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500



Suitable for Polywarm® coated models



Electrical immersions kit available

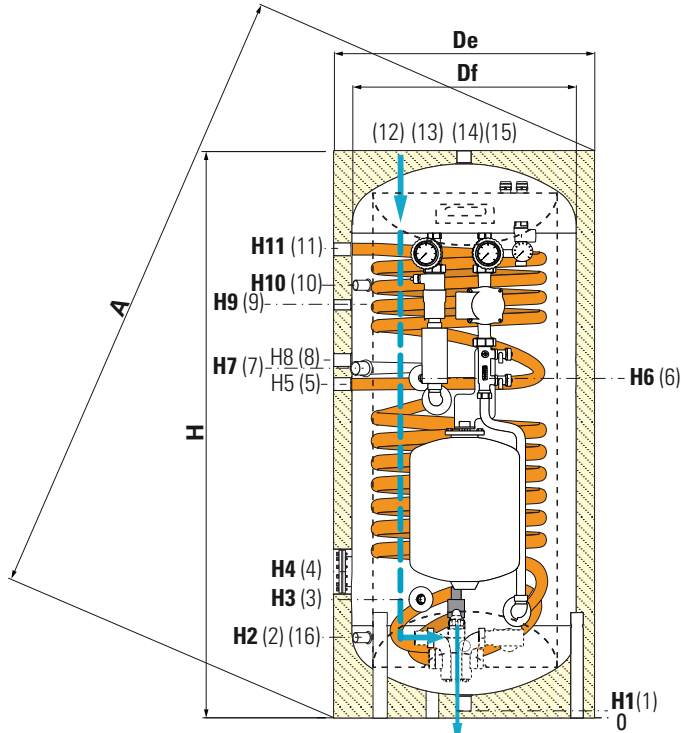
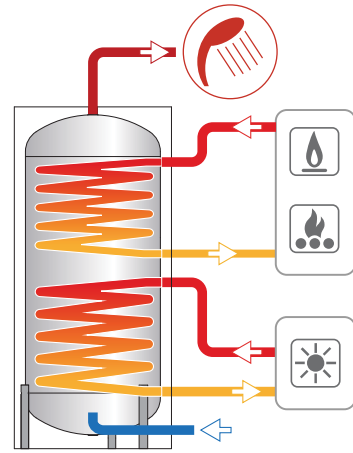
Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		52400000000034	52400000000035	52400000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
300	113	202	152	101
500	184	329	247	165

BOLLY® 2 POWER

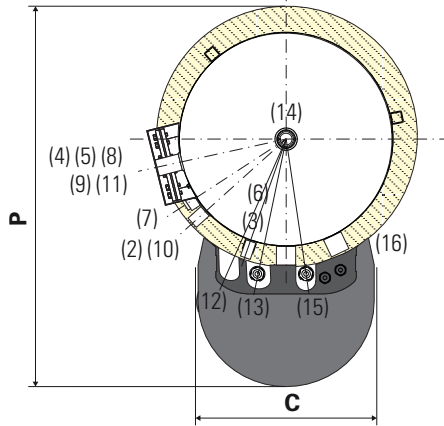
POLYWARM® COATED CALORIFIERS WITH 2 FIXED HEAT EXCHANGERS AND INTEGRATED SOLAR STATION

FINISHING	STORAGE		HEAT EXCHANGERS	
	Pmax	Tmax	Pmax	Tmax
POLYWARM®	10 bar	90 °C	12 bar	110 °C

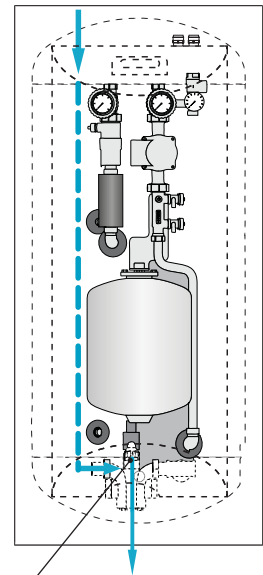
CORDIVARI® Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
 procedures and Cordivari LAB
 are certified conforming to European
 standard EN 15332, as indicated
 by Ecodesign ErP Directive.



1	Drain 1"1/4 Gas F
2	Internal circulation connection 3/4" Gas F
3	Connection for instrumentation 1/2" Gas F
4	Blind flange for inspection Øi 120 mm
5	Lower heat exchanger outlet 1" Gas F
6	Connection for instrumentation 1/2" Gas F
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion 1"1/2 Gas F
9	Recirculation
10	Internal circulation connection 3/4" Gas F
11	Fixed upper heat exchanger inlet 1" Gas F
12	Domestic cold water circuit inlet
13	Solar primary inlet D22
14	Domestic hot water outlet 1"1/4 Gas F
15	Solar primary outlet D22
16	Expansion tank connection / Domestic cold water circuit inlet 1" Gas F



All solar circulation components, safety devices, expansion vessel and "professional central unit" are cabled and installed on the tank and covered by the external case.



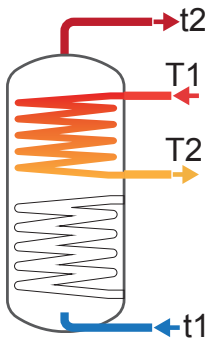
Ready to connection for hydraulic safety group (optional - see accessories)

Model	Net Volume [litres]	Weight [Kg]	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	P	C
300	291	51	550	650	1486	1622	71	246	341	381	871	981	931	981	1101	1111	1221	965	454
500	497	131	650	750	1786	1937	71	271	411	411	1076	1192	1116	1192	1331	1341	1476	1080	454

BOLLY® 2 POWER- HEAT EXCHANGERS TECHNICAL DATA

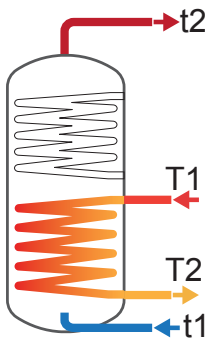
Data have been calculated on following basis:

- 1) Primary circuit at T1 and proper energy source;
- 2) Production of DHW in continue way from 10 °C at 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 FIXED HEAT EXCHANGER

Model [litres]	Storage Volume [litres]	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	95	51	53	37	24	8	12,1	14,1	18,4	195	296	347	453
		57	59	41	27	7,5	11,2	13,1	16,9	183	274	321	416
500	160	61	64	44	29	11,4	17,2	20,2	26,2	279	423	496	646
		68	70	49	32	10,7	16	18,6	24	262	392	458	592



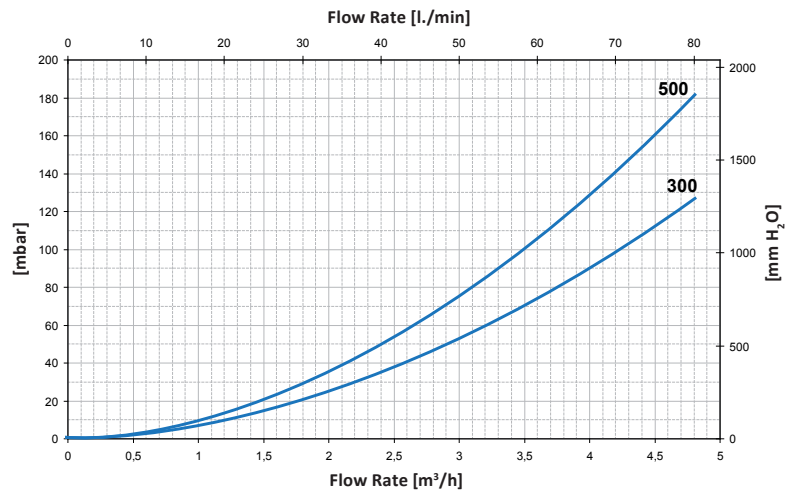
FIXED HEAT EXCHANGER

Model [litres]	Storage Volume [litres]	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	291	97	101	70	45	13,5	20,2	23,6	30,6	331	498	583	756
		106	111	78	51	12,5	18,5	21,5	27,5	307	455	529	680
500	497	111	116	81	53	20,2	30,1	35,1	45,3	496	742	867	1121
		126	131	93	61	18,7	27,3	31,7	40,6	459	674	782	1000

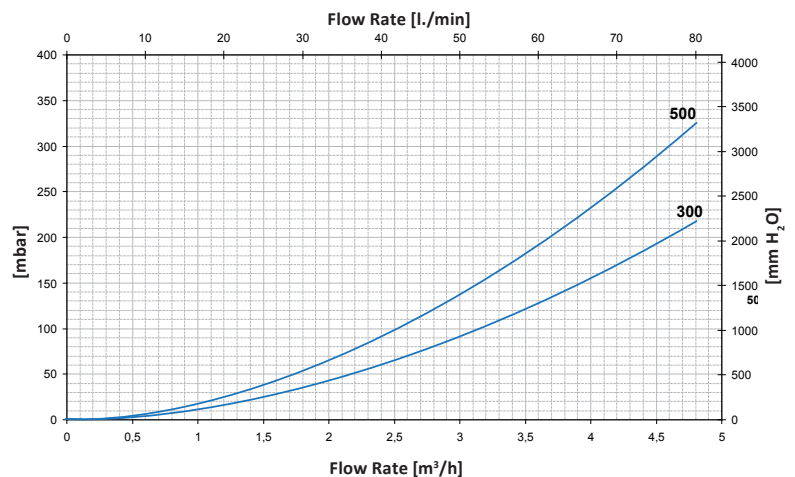
PRESSURE LOSS - FIXED HEAT EXCHANGERS BOLLY® 2 POWER



UPPER



LOWER

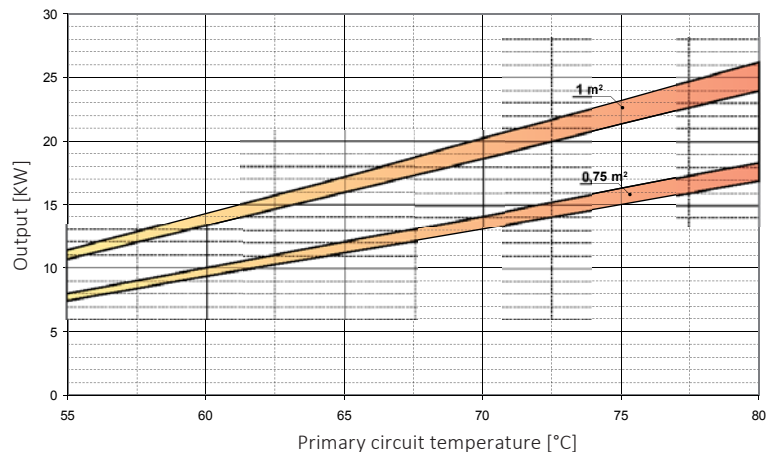
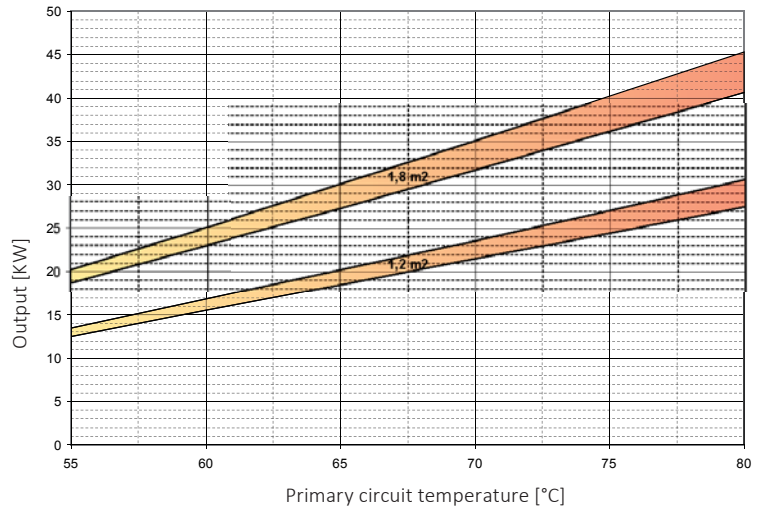


DHW produced in the first 10 minutes in lt/10' input 10 °C output 45 °C, storage at t2 and primary at T1				DHW produced in the first hour in lt/60' input 10 °C output 45 °C, storage at t2 and primary at T1				Flow rate [m³/h]	Exchanger pressure loss	
T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
141	185	194	211	265	373	413	498	3	541,01	53,06
139	181	189	205	255	355	393	469	1,5	149,87	14,70
229	299	311	336	406	567	625	745	3,5	1028,24	100,84
227	294	305	327	392	542	595	702	1,75	284,83	27,93

Model [litres]	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				Flow rate [m³/h]	Exchanger pressure loss	
	T1/t2				T1/t2					[mm.H ₂ O]	[mbar]
	55/50	65/60	70/60	80/60	55/50	65/60	70/60	80/60			
300	388	499	513	542	597	814	882	1021	3	927,45	90,95
	384	492	504	529	578	780	839	960	1,5	256,91	25,19
500	651	834	855	897	965	1304	1404	1607	3,5	1850,84	181,50
	645	822	840	877	935	1249	1336	1510	1,75	512,70	50,28

HEAT EXCHANGERS OUTPUT CHART BOLLY® 2 POWER

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)





APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270 - UBA - 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 gear case with graphic display allows controlling and planning.

INSULATION

High thermal insulation with ecological hard polyurethane foam. PVC external lining complete with ABS top and flange cover.

CATHODE PROTECTION

Magnesium anode with Anoden Tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Percorso
Efficienza Innovazione
MCE - EXPOCOMFORT



BOLLYTERM® HP

ENERGY
EFFICIENCY
CLASS

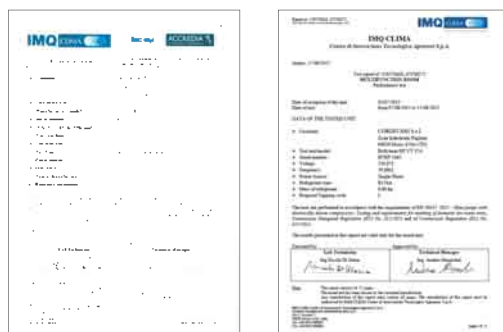
Model	D.H.W. Storage: POLYWARM® coated	ErP
	Art. Nr.	
200	3180162330102	C
300	3180162330103	C

Model	Net volume heated from heat pump	Room temperature output	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	Ignition time	Electrical integration power	Maximum heat pump absorption	Maximum total absorption
	[litres]	[°C]			[min]			
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)

(**) ErP Ready – A+ energy efficiency class as from 26/09/2017

Heat pump and sound level efficiency test report



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

INTEGRATED HEAT PUMP

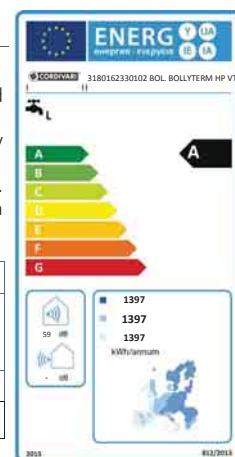
The Bollyterm HP produces DHW thanks to the heat energy naturally present in the air, allowing considerable energy savings. The functioning of heat pump is based on the exploitation of a particular ecological gas (R134) that, through its compression and expansion, ensures high performance and cost efficiency.

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. Besides, the Bollyterm® HP is already equipped with additional electrical immersion of 1500 watt back up system. The C.O.P. on Bollyterm is 2,95(*).

HEAT PUMP TECHNICAL DATA						
Power supply	Max water temperature	Coolant	Coolant Pressure	Max ducts length/ Max static P	Minimum pipes diameter	Acoustic level
[V / Ph / Hz]	[°C]	[tipo]	[g]	[m / Pa]	[mm]	[dB]
220-240 / 1 / 50	60	R134a	800	8 / 60	180	59 (*)

(*) Test compliant with European standard EN 12102:2013 – EN ISO 3741:2010



300 Lt. energy efficiency label

Accessories on request

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200,300



Suitable for Polywarm® coated models

BOLLYTERM® HP

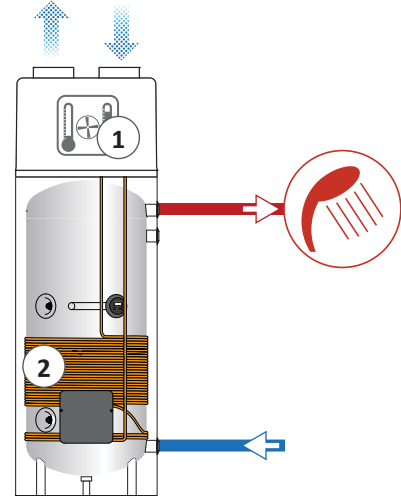
POLYWARM® COATED CALORIFIERS WITH INTEGRATED HEAT PUMP

FINISHING	STORAGE	
	POLYWARM®	Pmax 10 bar

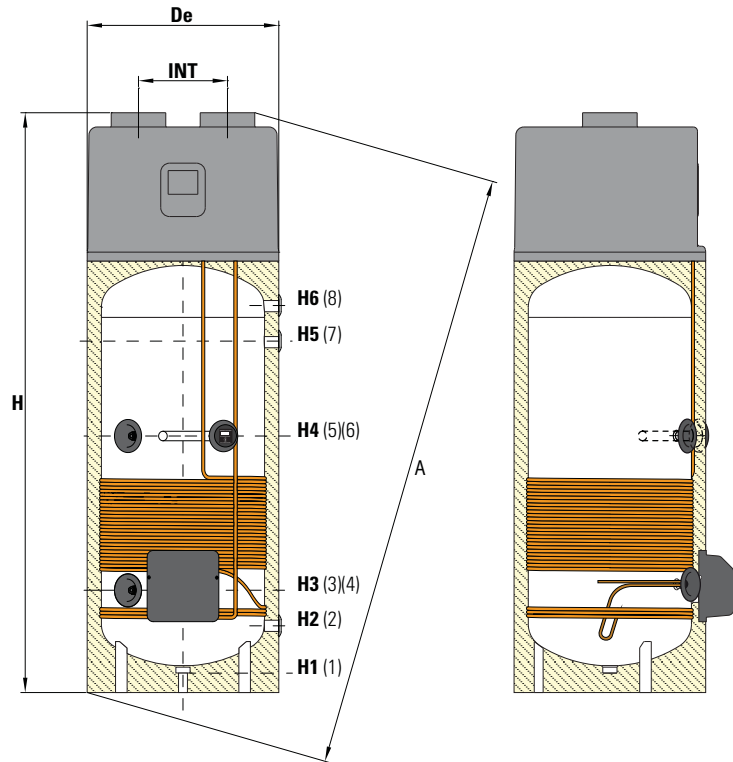
CORDIVARI® Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
 procedures and Cordivari LAB are
 certified conforming to European
 standard EN 15332, as indicated
 by Ecodesign ErP Directive.

IMQ CLIMA
 CENTRO INNOVAZIONE TECNOLOGICA AGENZIA

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



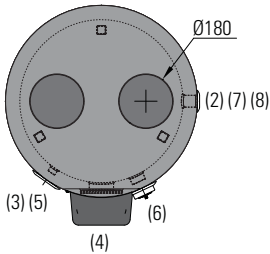
BOLLY® - INTERKA
 CALORIFIERS



1
 Electronic Central Unit
 (included):
 - set point hot water
 - self check
 - anti-legionellosis treatment
 - operating programs
 - "BOOST" mode

2
 External to the storage
 condenser coil avoiding any
 contact coolant- D.H.W.

1	Drain 1" 1/4 GAS F
2	Domestic cold water circuit inlet 1" GAS F
3	Connection for instrumentation 1/2" GAS F
4	Flange for inspection \varnothing 75 / Electrical immersion
5	Connection for instrumentation 1/2" GAS F
6	Anode 1"1/4 GAS F
7	Domestic hot water outlet 1" GAS F
8	Domestic hot water outlet 1" GAS F



Model	Net Volume [litres]	De	INT	H	A	[mm]					
						H1	H2	H3	H4	H5	H6
200	205	640	340	1585	1684	71	240	350	800	815	925
300	293	640	340	1960	2040	71	240	350	860	1190	1300

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLYTERM® HPI FLEX



POLYWARM® COATED CALORIFIERS WITH INTEGRATED HEAT PUMP AND 1 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270 - UBA - 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 gear case with graphic display allows controlling and planning.

INTEGRATED HEAT PUMP:

Mild steel Polywarm® coated heat exchanger.

INSULATION

High thermal insulation with ecological hard polyurethane foam. PVC external lining complete with ABS top and flange cover.

CATHODE PROTECTION

Magnesium anode with anoden tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200° C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLYTERM® HPI FLEX

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
200	3181162330102	C	0,8
300	3181162330103	C	1,2

Model	Net volume heated from heat pump [litres]	Room temperature output [°C]	C.O.P.	ErP Energy efficiency class (Reg EU 812/2013)	Ignition time [min]	Suggested solar collectors surface [m²]	Electrical integration power [W]	Maximum heat pump absorption [W]	Maximum total absorption
200	171	-5/+43	2,98(*)	A(**)	236'	4	1500	805	2305
300	256		2,91(*)	A	353'	6			

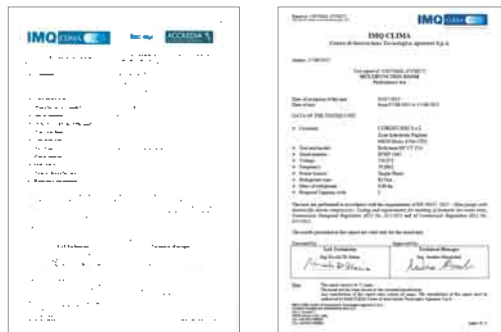
(*) Data obtained under the following conditions (T air 20° C- T water from 15 °C to 55 °C)

(**) ErP Ready – A+ energy efficiency class as from 26/09/2017



Percorso Efficienza Innovazione
MCE - EXPOCOMFORT

Heat pump and sound level efficiency test report



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



INTEGRATED HEAT PUMP

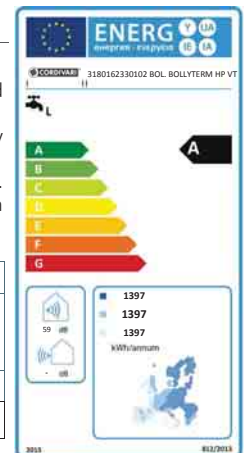
The Bollyterm HP produces DHW thanks to the heat energy naturally present in the air, allowing considerable energy savings. The functioning of heat pump is based on the exploitation of a particular ecological gas (R134) that, through its compression and expansion, ensures high performance and cost efficiency.

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. Besides, the Bollyterm® HP is already equipped with additional electrical immersion of 1500 watt back up system. The C.O.P. on Bollyterm is 2,95(*).

Heat Pump TECHNICAL DATA						
Power supply	Max water temperature	Coolant	Coolant Pressure	Max pipes lenght	Minimum pipes diameter	Acoustic level
[V / Ph / Hz]	[°C]	[type]	[g]	[m / Pa]	[mm]	[dB]
220-240 / 1 / 50	60	R134a	800	8 / 60	180	59 (*)

(*) According to EN 12102:2013- EN ISO 3741:2010



300 Lt. energy efficiency label

Accessories on request

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200,300

Suitable for Polywarm® coated models



BOLLYTERM® HPI FLEX

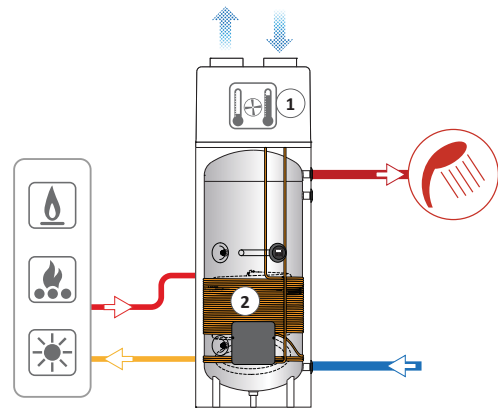
POLYWARM® COATED CALORIFIERS WITH INTEGRATED HEAT PUMP AND 1 FIXED HEAT EXCHANGERS

FINISHING	STORAGE		HEAT EXCHANGERS	
	Pmax	Tmax	Pmax	Tmax
POLYWARM®	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.

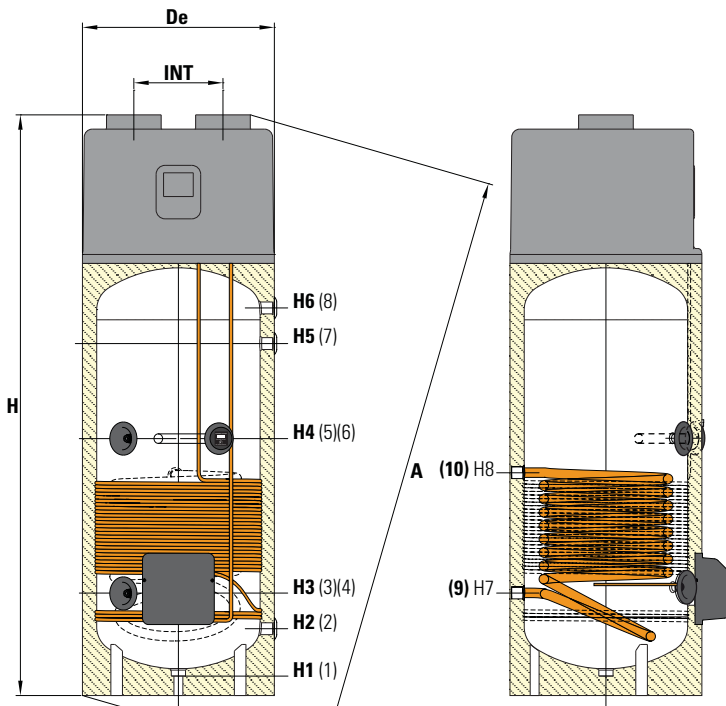
IMQ CLIMA
 CENTRO INNOVATIVE TECNOLOGICA AGENTIA

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

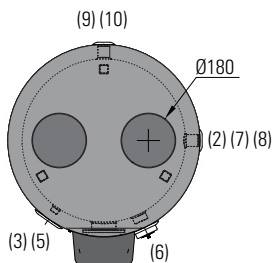


1
 Electronic Central Unit
 (included):
 - set point hot water
 - self check
 - anti-legionellosis treatment
 - operating programs
 - "BOOST" mode

2
 External to the storage
 condensator coil avoiding any
 contact coolant- D.H.W.



1	Drain 1" 1/4 Gas F
2	Domestic cold water circuit inlet 1" Gas F
3	Connection for instrumentation 1/2" Gas F
4	Flange for inspection Ø 75 / Electrical immersion
5	Connection for instrumentation 1/2" Gas F
6	Anode 1"1/4 Gas F
7	Recirculation 1" Gas F
8	Domestic hot water outlet 1" Gas F
9	Fixed heat exchanger outlet 1" Gas F
10	Fixed heat exchanger inlet 1" Gas F



Model	Net Volume [litres]	De	INT	H	A	[mm]							
						H1	H2	H3	H4	H5	H6	H7	H8
200	205	640	340	1585	1684	71	240	350	800	815	925	345	765
300	293	640	340	1960	2040	71	240	350	860	1190	1300	351	755

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY - INTERKA
CALORIFIERS

BOLLY® MURALE

POLYWARM® COATED CALORIFIER WITH 1 FIXED HIGH EFFICIENCY HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.;

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270 - UBA - WRAS)

HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

PVC external lining with top and flange cover.

CATHODE PROTECTION

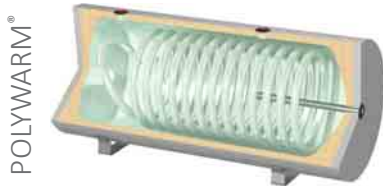
Magnesium anode.

WARRANTY

5 years (Polywarm®) - See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® MURALE

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.		
100	3104160900002	C	0,68
150	3104160900003	C	0,95
200	3104160900004	C	1,14
300	3104160900005	D	1,65

Model	Output [KW]	Ignition time [min]	D.H.W. production	
			[lt/h]	[lt/10']
100	23	20	571	320
150	32	22	811	473
200	39	24	963	511
300	54	26	1355	901



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310003	100÷300



Thermometer

Art. Nr.
5032240000107
5 units box



Magnesium anode

Model	Art. Nr.
100,150	5200000041015
200,300	5200000041010
2 units box	



Electrical immersion

Art. Nr.	[Kw]
5240000000042	1,5



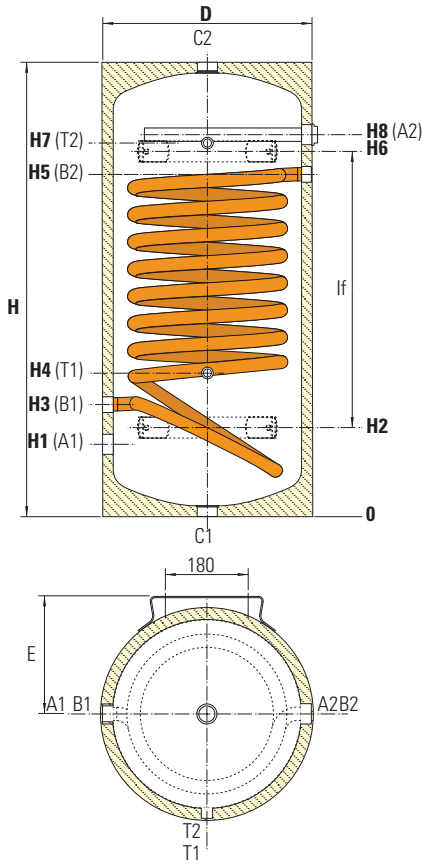
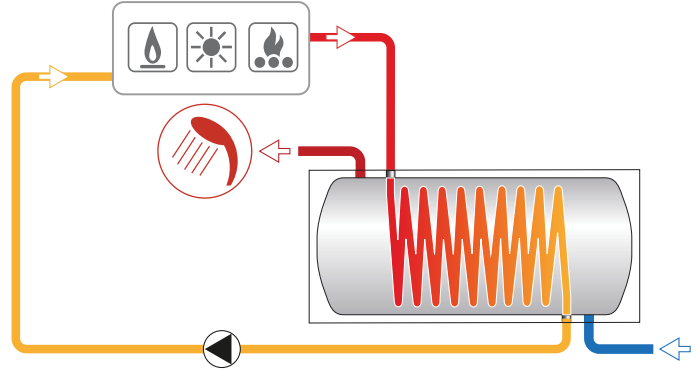
BOLLY® MURALE

POLYWARM® COATED CALORIFIER WITH 1 FIXED HIGH EFFICIENCY HEAT EXCHANGER

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

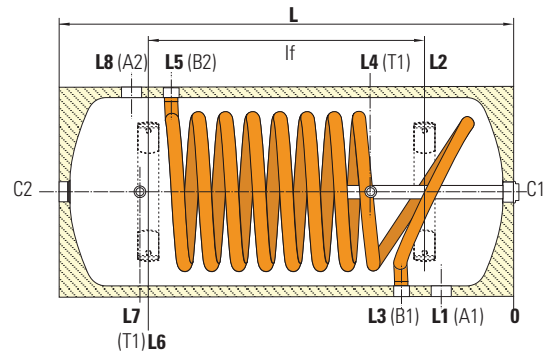
CORDIVARI®Lab
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BOLLY® - INTERKA
CALORIFIERS



HORIZONTAL version	
A1	Secondary circuit inlet 1"1/4 Gas F
A2	Secondary circuit outlet 1"1/4 Gas F
B1	Heating water back to the buffer 1"Gas F
B2	Entry heating water from the buffer 1"Gas F
C1	Anode 1"1/4 Gas F
C2	Connection 1"1/4 Gas F
T1	Instrumentation 1/2" Gas F
T2	Instrumentation 1/2" Gas F

VERTICAL version	
A1	Secondary circuit inlet 1"1/4 Gas F
A2	Anode 1"1/4 Gas F
B1	Heating water back to the buffer 1"Gas F
B2	Entry heating water from the buffer 1"Gas F
C1	Connection 1"1/4 Gas F
C2	Secondary circuit outlet 1"1/4 Gas F
T1	Instrumentation 1/2" Gas F
T2	Instrumentation 1/2" Gas F



IN CASE OF VERTICAL POSITION THE PARTICULAR SHAPE OF THE EXCHANGER ENSURES OPTIMIZED HEATING OF THE D.H.W.

Model	Weight [Kg]	D	H/L	H1/L1	H2/L2	H3/L3	H4/L4	H5/L5	H6/L6	H7/L7	H8/L8	If	E
100	33	460	920	165	205	260	285	660	715	755	755	510	250
150	44	510	1086	173	213	268	293	818	873	913	913	660	275
200	52	560	1170	190	230	285	310	885	940	980	980	710	300
300	73	610	1590	200	240	295	320	1295	1350	1390	1390	1110	325

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS).
- Galvanized Steel

HEAT EXCHANGER:

Double walled heat exchanger.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

PVC external lining with top and flange cover.

CATHODE PROTECTION

Magnesium anode

WARRANTY

- 5 years (Polywarm®)
- 2 years (Galvanized)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

POLYWARM®



INTERKA WSB

Model	D.H.W. Storage: POLYWARM® coated Double walled heat exchanger Art. Nr.		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m ²]
80	3203160310001		C	0,36
100	3203160310002		C	0,54
150	3203160310003		C	0,82
200	3203160310004		C	1,00
300	3203160310005		D	1,75

GALVANIZED



INTERKA ZSB

Model	D.H.W. Storage: GALVANIZED coated Double walled heat exchanger Art. Nr.		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m ²]
80	3203160170001		C	0,36
100	3203160170002		C	0,54
150	3203160170003		C	0,82
200	3203160170004		C	1,00
300	3203160170005		D	1,75

Data have been calculated on following basis:

- primary water at 80°C
- DHW production from 10°C to 45°C.

Even if tanks are tested to resist from max temp. 60 °C to 90 °C the local legislation has always to be observed during the use.

Model	Output	Ignition time [min]	D.H.W. production		Weight [Kg]
	[KW]		[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



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

Electrical immersion

Art. Nr.	[Kw]
5240000000042	1,5



Thermometer

Art. Nr.
5032240000107
5 units box



Magnesium anode

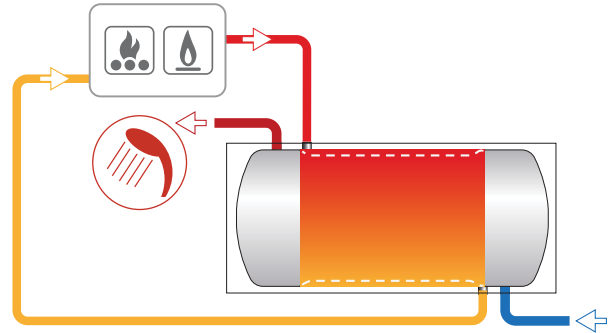
Model	Art. Nr.
80,100,150	5200000041015
200,300	5200000041010
2 units box	



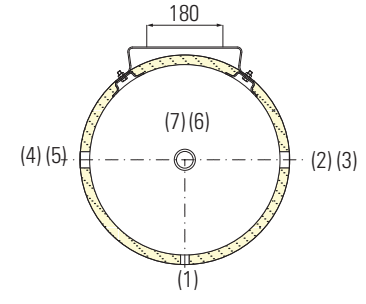
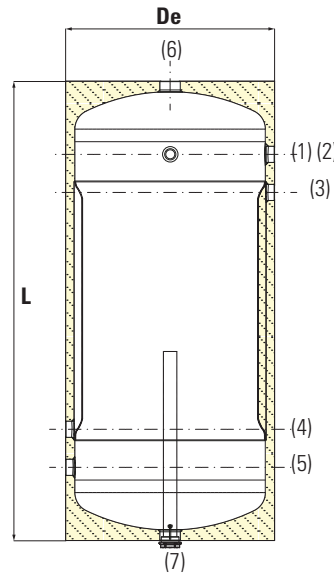
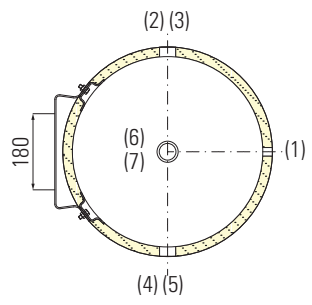
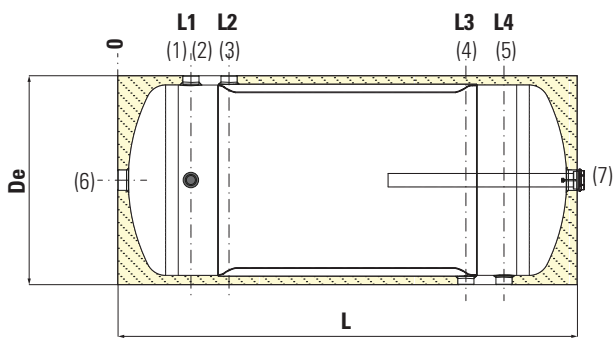


CORDIVARI Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
 procedures and Cordivari LAB are
 certified conforming to European
 standard EN 15332, as indicated
 by Ecodesign ErP Directive.

FINISHING	STORAGE		HEAT EXCHANGERS	
	Pmax	Tmax	Pmax	Tmax
POLYWARM®	6 bar	90 °C	1,5 bar	99 °C
GALVANIZED	6 bar	60 °C	1,5 bar	95 °C



1	Instrumentation 1/2" Gas F
2	Domestic hot water outlet
3	Entry heating water from the buffer
4	Heating water back to the buffer
5	Domestic cold water circuit inlet
6	Recirculation/electrical immersion resistance 1" 1/4 Gas F
7	Connection for magnesium anode 1" 1/4 Gas F



POSSIBLE VERTICAL INSTALLATION

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

Model	De	L	L1	L2	L3	L4	2-3-4-5
	[mm]						Connections Gas F
80	456	770	165	260	510	705	1"
100	456	920	165	260	660	755	1"
150	510	1086	173	268	818	913	1"
200	560	1170	190	285	885	980	1"
300	610	1590	200	295	1295	1390	1"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



APPLICATION

Production and storage of sanitary hot water suitable for solar thermal systems.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.:

- Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)

HEAT EXCHANGER:

Double walled heat exchanger.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

Pre-painted sheet external lining and ABS cupels.

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®



INTERKA SOLARE WB

ENERGY EFFICIENCY CLASS

DOUBLE WALLED HEAT EXCHANGER

Model	D.H.W. Storage: POLYWARM® coated Double walled heat exchanger		Surface	Volume
	Art. Nr.		[m ²]	[litres]
150	3068160980112	C	0,80	8,0
200	3068160980113	C	1,20	12,0
300	3068160980114	C	2,05	21,0



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

Electrical resistance with cover

Art. Nr.	[Kw]	
5240000000062	1,5	

See CORDIVARI INTEGRATED THERMAL SOLAR SYSTEMS catalogue

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Magnesium anode

Model	Art. Nr.	
150	5200000041008	
200,300	5200000041009	
2 units box		

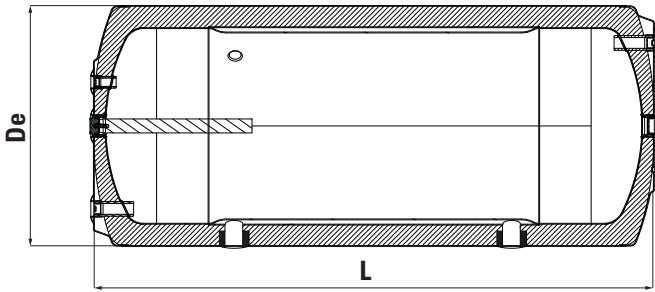
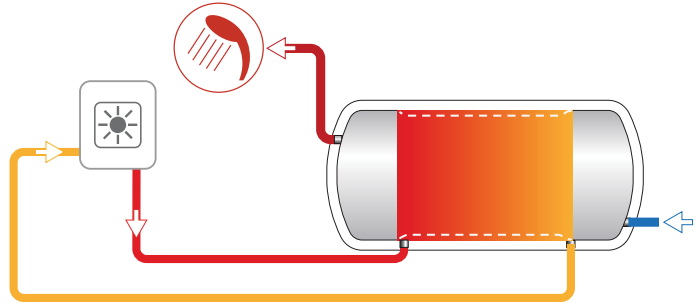
INTERKA SOLARE

DOUBLE WALLED TANK IN TANK CALORIFIERS SUITABLE FOR SOLAR THERMAL SYSTEMS

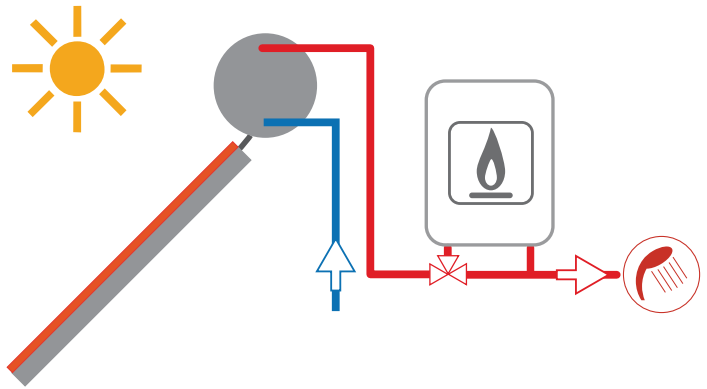
FINISHING	STORAGE		HEAT EXCHANGERS	
	Pmax	Tmax	Pmax	Tmax
POLYWARM*	6 bar	90 °C	2,5 bar	99 °C

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.

BOLLY® - INTERKA
 CALORIFIERS



1	Sanitary water inlet 3/4" Gas F
2	Solar collector connection 3/4" Gas F
3	Purge volume 1/2" Gas F
4	Solar collector connection 3/4" Gas F
5	Domestic hot water outlet 3/4" Gas F
6	Electrical immersion (optional)
7	Magnesium anode
8	Instrumentation 1/2" GAS F
9	Instrumentation 1/2" GAS F



In Solar Thermal Systems the use of a combined TP valve (Temperature and Pressure) is recommended.

Model	De	L
	[mm]	
150	550	1040
200	550	1300
300	500	2040

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



 **CORDIVARI**®

 CORDIVARI®

STAINLESS STEEL CALORIFIERS

STAINLESS STEEL
CALORIFIERS

EXTRA 1 INOX HE

316 L STAINLESS STEEL CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

1 stainless steel 316L Antilegionella® heat exchanger, with tubes bent to the bottom.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. For models >500 NOFIRE polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

CATHODE PROTECTION

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

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

- 5 years (Inox 316L)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



EXTRA 1 XXB-XXC HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m ²]
200	3072052300422		C	0,5
300	3072052300423		C	0,75
500	3072052300424		C	1
800	3072052300425		C	1,5
1000	3072052300426		C	2
1300	3072052300427		C	3
1500	3072052300428		C	3
2000	3072052300429		C	4



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

EXTRA 1 INOX XXC



EXTRA 1 XXC

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				[m ²]
1500	3072052300408		F	3
2000	3072052300409		F	4
2500	3072052300410			5
3000	3072052300412			6
4000	3072052300414			8
5000	3072052300416			10

EXTRA 1 COMPACT XXC

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE
			[m ²]
2500	3072052300411		5
3000	3072052300413		6
4000	3072052300415		8

— Accessories on request —

“Easy Control” Electronic Display

See accessories section



Monophase and Threephase electric resistances



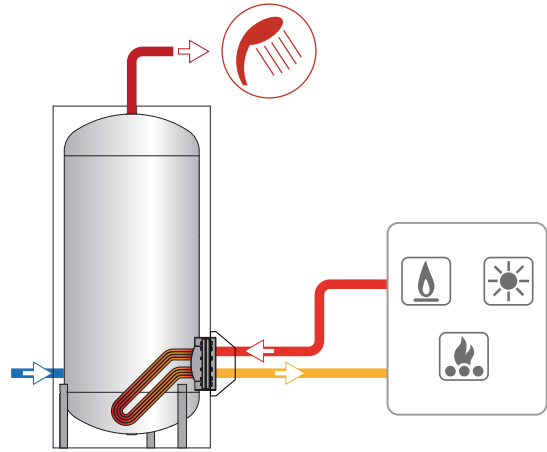
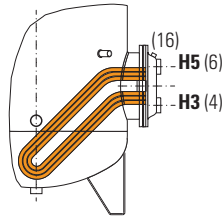
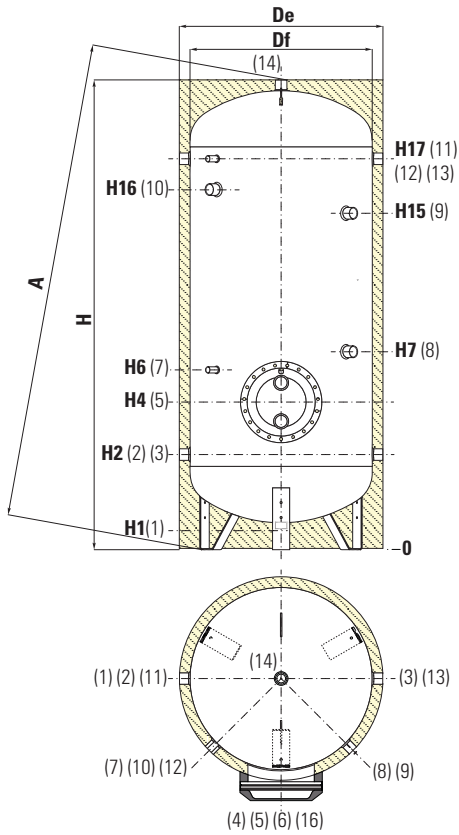
See accessories section

EXTRA 1 INOX HE

316 L STAINLESS STEEL CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
Pmax	Tmax	Pmax	Tmax
6 bar	95 °C	12 bar	110 °C

CORDIVARI Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
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STAINLESS STEEL
CALORIFIERS

1	Drain 3/4" Gas F for capacities from 200 to 1000 lt; 1" Gas F for models > 1000
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Heating water back to the buffer
5	Heat exchanger flange
6	Entry heating water from the buffer
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1"1/2 Gas F - for models > 800 connections 2" Gas F
11-13	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
14	Domestic hot water outlet
15	Drain 1" Gas F (only for models > di 1000)
16	Air spurge heat exchanger 3/8" Gas F

Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	[mm]						
							H1	H2	H3	H4	H5	H6	H7
200	190	450	//	550	1451	1552	81	316	351	401	451	511	701
300	293	550	//	650	1569	1698	149	409	444	494	544	604	794
500	503	650	//	750	1861	2006	141	426	461	511	561	621	811
800	795	790	//	990	1943	2008	113	428	473	563	653	713	863
1000	911	800	//	1000	2212	2270	112	437	482	572	662	722	922
1300	1272	950	//	1150	2193	2275	118	433	578	668	758	818	918
1500	1401	1000	1100	1200	2177	2266	112	447	592	682	772	832	982
2000	1980	1250	1350	1450	2099	2231	134	529	649	754	859	929	1004
2500	2320	1250	1350	//	2299	2396	134	529	649	754	859	929	954
3000	2925	1250	1350	//	2799	2879	134	529	709	814	919	989	1014
4000	3776	1400	1500	//	2872	2968	117	557	737	842	947	1017	1022
5000	4995	1600	1700	//	2909	3031	94	564	734	839	944	1014	1019

Model	H15	H16	H17	5	1	2 3 11 13			4 6	7 12	8	9	10	16	14
						[mm]									
2500	2635	1400	1500	//	2122	2251	117	557	677	782	887	957	982		
3000	3038	1500	1600	//	2131	2276	106	556	736	841	946	1016	981		
4000	4002	1600	1700	//	2409	2555	94	564	744	849	954	1024	1029		

Model	H15	H16	H17	5	1	2 3 11 13			4 6	7 12	8	9	10	16	14
						[mm]									
200	//	1066	1176	Øe 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4		
300	//	1159	1269	Øe 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4		
500	//	1380	1536	Øe 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4		
800	//	1382	1538	Øe 380	3/4"	1"1/4	2"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/2		
1000	//	1642	1797	Øe 380	3/4"	1"1/2	2"	1/2"	1"1/4	//	2"	3/8"	1"1/2		
1300	//	1638	1793	Øe 380	1"	1"1/2	2"	1/2"	1"1/4	//	2"	3/8"	2"		
1500	//	1602	1757	Øe 380	1"	1"1/2	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		
2000	1524	1473	1629	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		
2500	1794	1710	1879	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		
3000	2294	2210	2369	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		
4000	2302	2225	2397	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		
5000	2319	2159	2404	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"		

Model	H15	H16	H17	Øe	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"
3000	1551	1500	1656	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"
4000	1809	1732	1904	Øe 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/73/CE

EXTRA 2 INOX HE

316L STAINLESS STEEL CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

2 stainless steel 316L Antilegionella® heat exchangers (upper exchanger is straight and the other is bent to the bottom).

INSULATION.

Ecological hard polyurethane foam with high thermal insulation. For models >500 nofire polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class b-s2d0 according to en 13501. Pvc external lining complete with top and flange cover.

CATHODE PROTECTION

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

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for 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 2 XXB-XXC HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL Art. Nr.		HEAT EXCHANGER SURFACE	
			Lower	Upper
200	3082052300222	C	0,5	0,5
300	3082052300223	C	0,75	0,75
500	3082052300224	C	1,5	1,5
800	3082052300225	C	2	2
1000	3082052300226	C	3	2
1300	3082052300227	C	3	3
1500	3082052300228	C	3	3
2000	3082052300229	C	4	4

SEE EXTRA SECTION FOR HEAT EXCHANGERS PRESSURE LOSS CHART AND TECHNICAL DATA



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

EXTRA 2 INOX XXC

3 exchangers version also available on request.



EXTRA 2 XXC

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL Art. Nr.		HEAT EXCHANGER SURFACE	
			Lower	Upper
1500	3082052300208	F	3	3
2000	3082052300209	F	4	4
2500	3082052300210		5	5
3000	3082052300212		6	6
4000	3082052300214		8	8
5000	3082052300216		10	10

EXTRA 2 COMPACT XXC

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL Art. Nr.	HEAT EXCHANGER SURFACE	
		Lower	Upper
2500	3082052300211	5	5
3000	3082052300213	6	6
4000	3082052300215	8	8

— Accessories on request —

“Easy Control” Electronic Display

See accessories section



Monophase and Threephase electric resistances

See accessories section

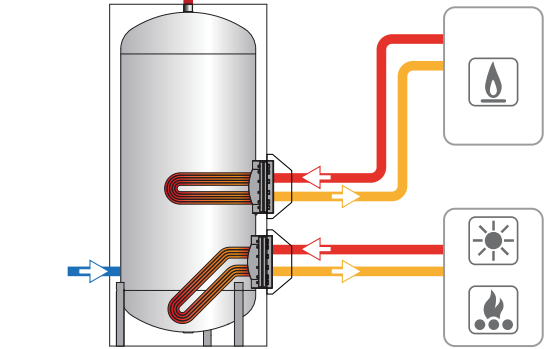
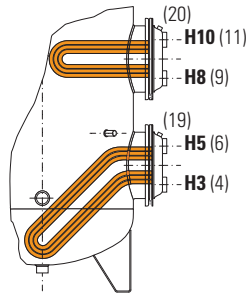
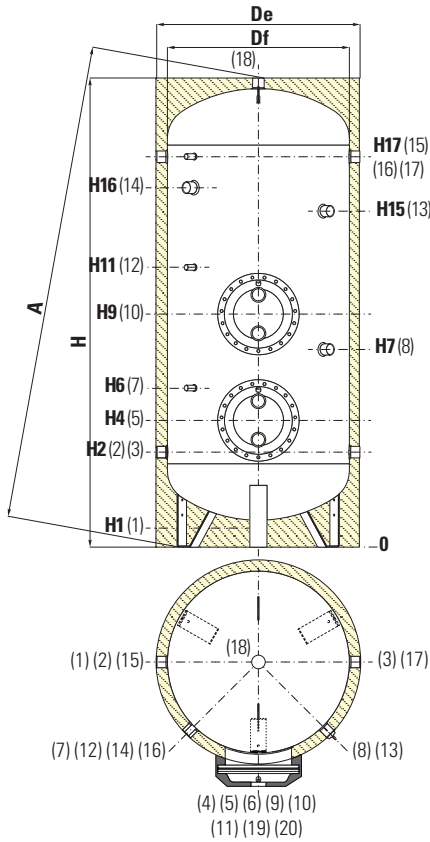


EXTRA 2 INOX HE

316L STAINLESS STEEL CALORIFIERS WITH 2 EXTRACTABLE HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.



STAINLESS STEEL
CALORIFIERS

1	Drain 3/4" Gas F for capacities from 200 to 1000 Lt; 1" Gas F for models > 1000	10	Upper heat exchanger flange
2	Domestic cold water circuit inlet	11	Fixed upper heat exchanger inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers	13	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
4	Lower heat exchanger outlet	14	Connection for electrical immersion 1"1/2 Gas F for models > 800 ^\connection 2" Gas F
5	Heat exchanger flange	15-17	Connection for recirculation or for domestic hot water
6	Lower heat exchanger inlet	16	Connection for instrumentation 1/2" Gas F
7-12	Connection for instrumentation 1/2" Gas F	18	Domestic hot water outlet
8	Connection for magnesium anode 1"1/4 Gas F	19-20	Air spurge heat exchanger 3/8" Gas F
9	Lower heat exchanger outlet		

Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9
[mm]															
200	190	450	//	550	1451	1552	81	316	351	401	451	511	701	801	851
300	293	550	//	650	1569	1698	149	409	444	494	544	604	794	894	944
500	503	650	//	750	1861	2006	141	426	461	511	561	621	811	911	961
800	795	790	//	990	1943	2008	113	428	473	563	653	713	863	1003	1093
1000	911	800	//	1000	2212	2270	112	437	482	572	662	722	922	1032	1122
1300	1272	950	//	1150	2193	2275	118	433	578	668	758	818	918	1078	1168
1500	1401	1000	1100	1200	2177	2266	112	447	592	682	772	832	982	1142	1232
2000	1980	1250	1350	1450	2099	2231	134	529	649	754	859	929	1004	1229	1334
2500	2320	1250	1350	//	2299	2396	134	529	649	754	859	929	954	1249	1354
3000	2925	1250	1350	//	2799	2879	134	529	709	814	919	989	1014	1349	1454
4000	3776	1400	1500	//	2872	2968	117	557	737	842	947	1017	1022	1377	1482
5000	4995	1600	1700	//	2909	3031	94	564	734	839	944	1014	1019	1384	1489

COMPACT	2500	2635	1400	1500	//	2122	2251	117	557	677	782	887	957	982	1257	1362
	3000	3030	1500	1600	//	2131	2276	106	556	736	841	946	1016	981	1256	1361
	4000	4002	1600	1700	//	2409	2555	94	564	744	849	954	1024	1029	1331	1436

Model	H10	H11	H15	H16	H17	5 10	1	2 3 15 17	4 6 9 11	7 12 16	8	13	14	19 20	18	
[mm]																
200	901	961	//	1066	1176	∅e 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4	
300	994	1054	//	1159	1269	∅e 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4	
500	1011	1071	//	1380	1536	∅e 300	3/4"	1"1/4	1"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/4	
800	1183	1243	//	1382	1538	∅e 380	3/4"	1"1/4	2"	1/2"	1"1/4	//	1"1/2	3/8"	1"1/2	
1000	1212	1272	//	1642	1797	∅e 380	3/4"	1"1/2	2"	1/2"	1"1/4	//	2"	3/8"	1"1/2	
1300	1258	1318	//	1638	1793	∅e 380	1"	1"1/2	2"	1/2"	1"1/4	//	2"	3/8"	2"	
1500	1322	1382	//	1602	1757	∅e 380	1"	1"1/2	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
2000	1439	1404	1524	1473	1629	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
2500	1459	1529	1794	1710	1879	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
3000	1559	1629	2294	2210	2369	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
4000	1587	1657	2302	2225	2397	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
5000	1594	1664	2319	2159	2404	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"	
COMPACT	2500	1537	1432	1552	1501	1657	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"
	3000	1466	1431	1551	1500	1656	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"
	4000	1716	1611	1809	1732	1904	∅e 430	1"	2"	2"	1/2"	1"1/4	1"1/4	2"	3/8"	2"

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/73/CE

EXTRA 1 INOX VAPORE HE



316 L STAINLESS STEEL CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER FOR STEAM GENERATOR



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

1 stainless steel 316L straight heat exchanger suitable for steam power.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. For models >500 NOFIRE polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

CATHODE PROTECTION

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

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 192°C. Mild steel exchanger head with anticorrosion treatment.

WARRANTY

- 5 years (Inox 316L)

See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



EXTRA 1 VAPORE XXB-XXC HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m ²]
500	3069052300123		C	1
800	3069052300124		C	1,5
1000	3069052300125		C	2
1300	3069052300126		C	3
1500	3069052300127		C	3
2000	3069052300128		C	3



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

EXTRA 1 INOX VAPORE XXC

2 exchangers version also available on request.



EXTRA 1 VAPORE XXC

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE
	Art. Nr.		[m ²]
2500	3069052300109		3
3000	3069052300111		3
4000	3069052300113		4
5000	3069052300115		5

Steam Heat exchangers technical data

Model	PED	Connection for electrical immersion 1 1/2" Gas F for models > 800 l connection 2" Gas F				Lower 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]
500	Art. 3.3	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 on request —

"Easy Control" Electronic Display

See accessories section



Thermometer

Art. Nr.
503224000107
5 units box

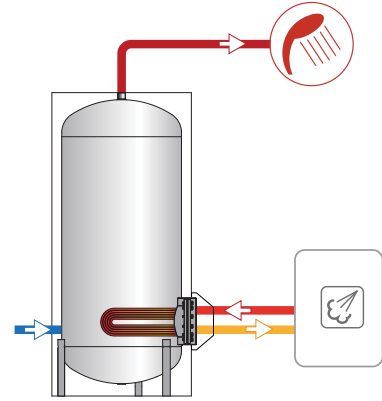
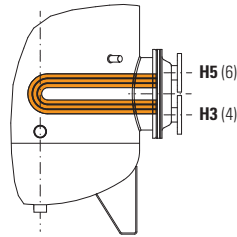
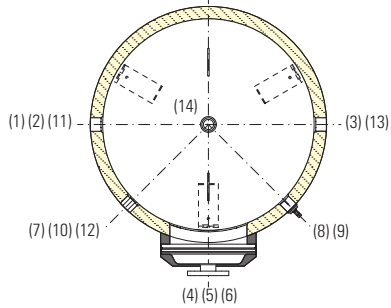
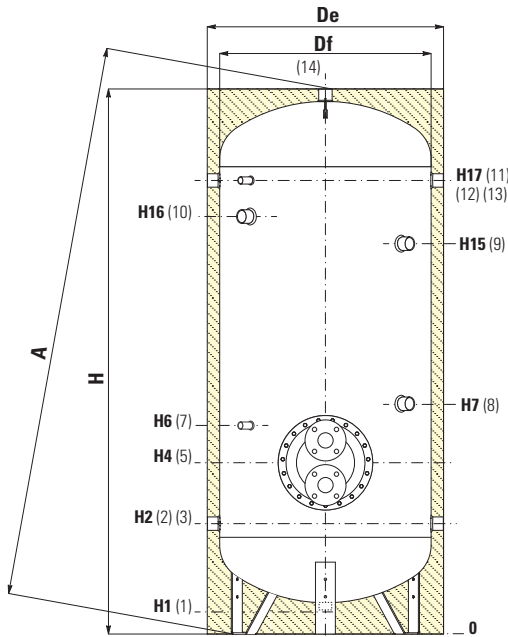


EXTRA 1 INOX VAPORE HE

316 L STAINLESS STEEL CALORIFIERS WITH 1 EXTRACTABLE HEAT EXCHANGER FOR STEAM GENERATOR

STORAGE		HEAT EXCHANGERS	
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.



STAINLESS STEEL
CALORIFIERS

1	Drain
2	Domestic cold water circuit inlet
3	Alternative domestic cold water circuit inlet or connection for more boilers
4	Outlet for condense
5	Heat exchanger flange
6	Steam circuit inlet
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1"1/4 Gas F
9	Connection for 2nd anode 1"1/4 Gas F (only for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11	Connection for recirculation or for domestic hot water
12	Connection for instrumentation 1/2" Gas F
13	
14	Domestic hot water outlet

Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	[mm]						
							H1	H2	H3	H4	H5	H6	H7
500	503	650	//	750	1861	1899	141	426	421	511	601	621	811
800	795	790	//	990	1893	1945	113	428	473	563	653	713	863
1000	911	800	//	1000	2212	2270	112	437	482	572	662	722	922
1300	1272	950	//	1150	2193	2275	118	433	478	568	658	718	918
1500	1401	1000	//	1200	2177	2266	112	447	592	682	772	832	982
2000	1980	1250	//	1450	2099	2231	134	529	664	754	844	904	1004
2500	2320	1250	1350	//	2299	2396	134	529	664	754	844	904	954
3000	2925	1250	1350	//	2799	2880	134	529	664	754	844	904	1014
4000	3776	1400	1500	//	2872	2969	117	557	737	842	992	1017	1022
5000	4995	1600	1700	//	2909	3031	94	564	639	789	939	964	1019

Model	H15	H16	H17	5	1	2 3 11 13	4 6	7 12	8	9	10	14
	[mm]							Connections Gas F				
500	//	1380	1536	Øe 380	3/4"	1"1/4	DN50 PN16	1/2"	1"1/4	//	1"1/2	1"1/4
800	//	1382	1538	Øe 380	3/4"	1"1/4	DN50 PN16	1/2"	1"1/4	//	1"1/2	1"1/2
1000	//	1642	1797	Øe 380	3/4"	1"1/2	DN50 PN16	1/2"	1"1/4	//	2"	1"1/2
1300	//	1638	1793	Øe 380	1"	1"1/2	DN50 PN16	1/2"	1"1/4	//	2"	2"
1500	//	1602	1757	Øe 380	1"	1"1/2	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"
2000	1524	1473	1629	Øe 380	1"	2"	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"
2500	1794	1710	1879	Øe 380	1"	2"	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"
3000	2294	2210	2369	Øe 380	1"	2"	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"
4000	2302	2225	2397	Øe 430	1"	2"	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"
5000	2319	2159	2404	Øe 430	1"	2"	DN50 PN16	1/2"	1"1/4	1"1/4	2"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

VASO INERZIALE INOX HE

316 L STAINLESS STEEL D.H.W. ACCUMULATION TANK



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. For models >500 NOFIRE polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

CATHODE PROTECTION

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

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Inspection flange plate in stainless steel.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L STAINLESS STEEL



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

VASO INERZIALE XB-XC HE

ENERGY
EFFICIENCY
CLASS

Model	D.H.W. Storage: STAINLESS STEEL		
	Art. Nr.		
200	3060052140422		C
300	3060052140423		C
500	3060052140424		C
800	3060052140425		C
1000	3060052140426		C
1300	3060052140427		C
1500	3060052140428		C
2000	3060052140429		C

VASO INERZIALE INOX XC



316L STAINLESS STEEL

VASO INERZIALE XC

ENERGY
EFFICIENCY
CLASS

Model	D.H.W. Storage: STAINLESS STEEL		
	Art. Nr.		
1500	3060052140408		F
2000	3060052140409		F
2500	3060052140410		
3000	3060052140412		
4000	3060052140414		
5000	3060052140416		

VASO INERZIALE COMPACT XC

Model	D.H.W. Storage: STAINLESS STEEL	
	Art. Nr.	
2500	3060052140411	
3000	3060052140413	
4000	3060052140415	

— Accessories on request —

“Easy Control” Electronic Display

See accessories section



Monophase and Threephase electric resistances

See accessories section

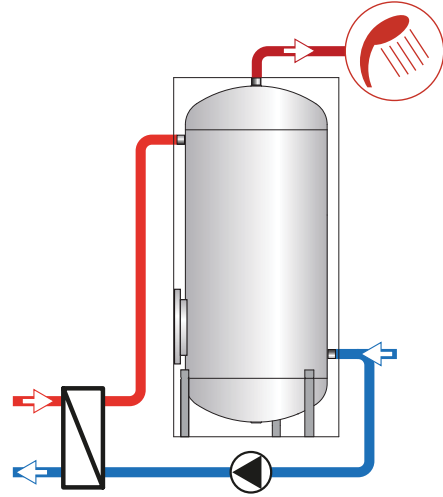
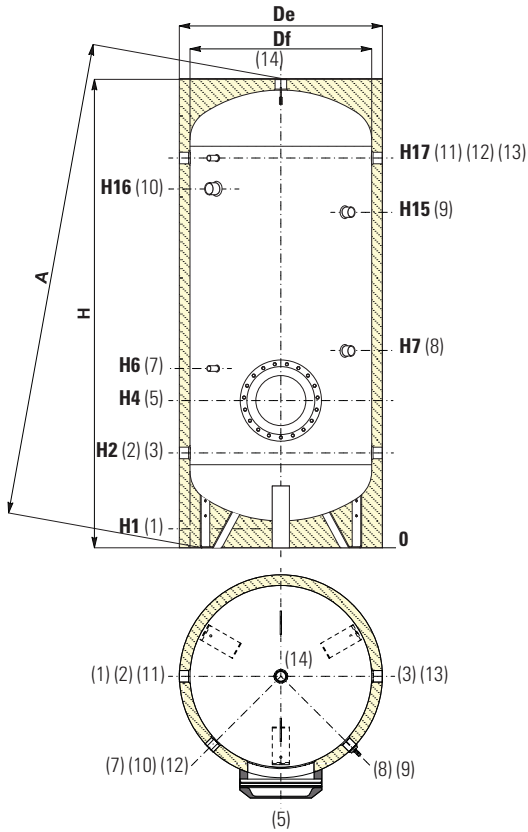


VASO INERZIALE INOX HE

316 L STAINLESS STEEL D.H.W. 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

1	Drain 3/4" Gas F for capacities from 200 to 1000 lt; 1" Gas F for models > 1000
2	Domestic cold water circuit inlet / To the plate heat exchanger
3	Alternative D.H.W. inlet / To the plate heat exchanger
5	Blind flange for inspection
7	Connection for instrumentation 1/2" Gas F
8	Connection for magnesium anode 1" 1/4 Gas F
9	Connection for 2nd anode 1" 1/4 Gas F (for models > 1500)
10	Connection for electrical immersion 1" 1/2 Gas F for models > 800 connection 2" Gas F
11	Recirculation / from plate heat exchanger
12	Connection for instrumentation 1/2" Gas F
13	Recirculation or domestic hot water outlet
14	Domestic hot water outlet

Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
200	190	450	//	550	1451	1477	81	316	341	511	701
300	293	550	//	650	1569	1602	149	409	434	604	794
500	503	650	//	750	1861	1899	141	426	451	621	811
800	795	790	//	990	1943	1993	113	428	483	623	863
1000	911	800	//	1000	2212	2297	112	437	492	632	922
1300	1272	950	//	1150	2193	2255	118	433	488	628	918
1500	1401	1000	1100	1200	2127	2245	112	447	502	642	982
2000	1980	1250	1350	1450	2049	2205	134	529	574	714	1004
2500	2320	1250	1350	//	2299	2617	134	529	574	714	954
3000	2925	1250	1350	//	2799	3065	134	529	574	714	1014
4000	3776	1400	1500	//	2872	3195	117	557	602	742	1022
5000	4995	1600	1700	//	2909	3320	94	564	609	749	1019

COMPACT	Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
	2500	2635	1400	1500	//	2122	2542	117	557	602	742	982
	3000	3038	1500	1600	//	2131	2606	106	556	601	741	981
	4000	4002	1600	1700	//	2409	2892	94	564	609	749	1029

Model	H15	H16	H17	5	1	2 3 11 13	7 12	8	9	10	14
	[mm]			Connections Gas F							
200	//	1066	1176	Øe 180	3/4"	1" 1/4	1/2"	1" 1/4	//	1" 1/2	1" 1/4
300	//	1159	1269	Øe 180	3/4"	1" 1/4	1/2"	1" 1/4	//	1" 1/2	1" 1/4
500	//	1380	1536	Øe 180	3/4"	1" 1/4	1/2"	1" 1/4	//	1" 1/2	1" 1/4
800	//	1382	1538	Øe 240	3/4"	1" 1/4	1/2"	1" 1/4	//	1" 1/2	1" 1/2
1000	//	1642	1797	Øe 240	3/4"	1" 1/2	1/2"	1" 1/4	//	2"	1" 1/2
1300	//	1638	1793	Øe 240	1"	1" 1/2	1/2"	1" 1/4	//	2"	2"
1500	//	1602	1757	Øe 240	1"	1" 1/2	1/2"	1" 1/4	1" 1/4	2"	2"
2000	1524	1473	1629	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
2500	1794	1710	1879	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
3000	2294	2210	2369	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
4000	2302	2225	2397	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
5000	2319	2159	2404	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"

COMPACT	Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H4	H6	H7
	2500	1552	1501	1657	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
	3000	1551	1500	1656	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"
	4000	1809	1732	1904	Øe 240	1"	2"	1/2"	1" 1/4	1" 1/4	2"	2"

STAINLESS STEEL CALORIFIERS

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/73/CE

BOLLY® 1 ST INOX HE

316 L STAINLESS STEEL CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

1 stainless steel 316L fixed heat exchanger.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. For models >500 NOFIRE polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C; Stainless steel inspection flange plate.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS












See Accessories section for the entire list.



316L STAINLESS STEEL



BOLLY® 1 ST XB-XC HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL			ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
				Lower	[m²]
150	3105052010251			C	0,6
200	3105052010252			C	1
300	3105052010253			C	1,5
500	3105052010255			C	2,1
800	3103052010216			C	2,7
1000	3103052010217			C	3,4
1250	3103052010218			C	3,7
1500	3103052010219			C	3,7
2000	3103052010220			C	4,1



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

See accessories section



Thermometer

Art. Nr.

5032240000107

5 units box

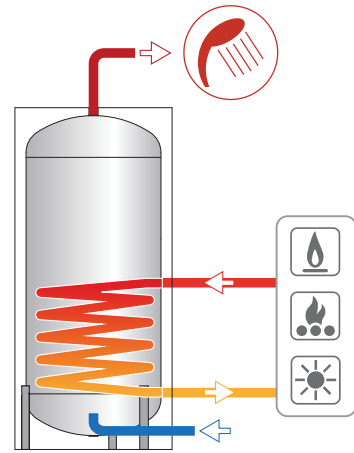


BOLLY® 1 ST INOX HE

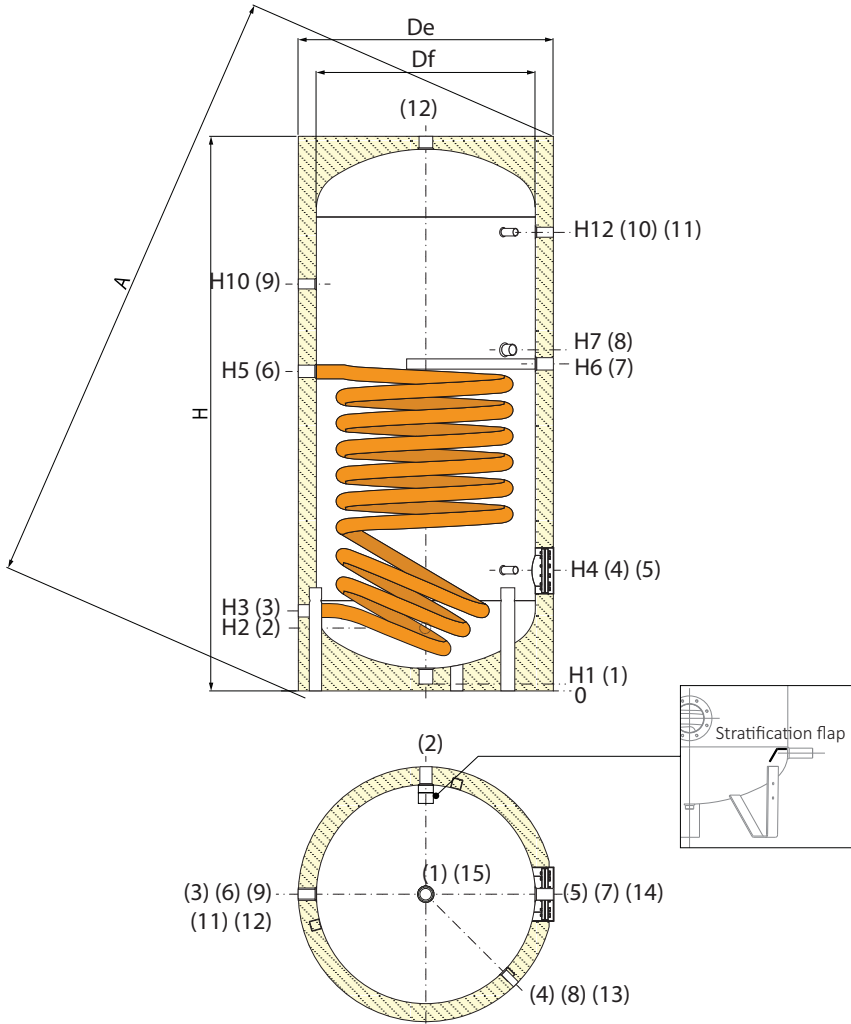
316 L STAINLESS STEEL CALORIFIER WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
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.



STAINLESS STEEL
CALORIFIERS



1	Drain
2	Domestic cold water circuit inlet
3	Heating water back to the buffer
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection
6	Entry heating water from the buffer
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion
9	Recirculation
10	Connection for instrumentation 1/2" Gas F
11	Connection for 2nd anode 1"1/4 Gas F (from 800 to 2000)
12	Domestic hot water outlet

Model	Net Volume	Df	De	H	A	H1	H2	H3	H4	H5	H6
	[litres]										
						[mm]					
150	145	400	500	1426	1511	71	211	276	316	766	816
200	185	450	550	1446	1547	71	221	296	326	822	866
300	284	550	650	1501	1636	76	251	326	386	847	886
500	489	650	750	1796	1946	71	271	356	411	1046	1086
800	735	790	990	1893	2136	114	338	423	478	998	1043
1000	883	800	1000	2162	2382	112	342	422	487	1266	1292
1250	1239	950	1150	2143	2432	118	328	438	483	1213	1248
1500	1365	1000	1200	2127	2442	93	342	452	497	1227	1242
2000	1982	1250	1450	2000	2470	85	365	475	520	1035	1065

Model	H7	H10	H12	1	2	5	8	3-6	9	12
	[mm]			Connections Gas F						
150	886	1066	1186	1/2"	3/4"	Øi 120	1"1/2	1"	3/4"	1"
200	926	1100	1206	1/2"	3/4"	Øi 120	1"1/2	1"	3/4"	1"
300	946	1116	1236	1/2"	1"	Øi 120	1"1/2	1"	1"	1"
500	1154	1341	1496	1/2"	1"	Øi 120	1"1/2	1"	1"	1"
800	1113	1331	1533	3/4"	1"	Øi 120	2"	1"1/4	1"	1"1/4
1000	1347	1567	1802	3/4"	1"	Øi 120	2"	1"1/4	1"	1"1/4
1250	1318	1578	1798	1"	1"1/4	Øi 160	2"	1"1/4	2"	2"
1500	1302	1542	1762	1"	2"	Øi 160	2"	1"1/4	2"	2"
2000	1160	1390	1575	1"	2"	Øi 160	2"	1"1/4	2"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® 2 ST INOX HE

316 L STAINLESS STEEL CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

2 stainless steel 316L fixed heat exchangers.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. For models >500 NOFIRE polyester fibre 100% made of recyclable material, with high thermal insulation. Fire resistance class B-s2d0 according to EN 13501. PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C; Stainless steel inspection flange plate.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



316L STAINLESS STEEL



BOLLY® 2 ST XB-XC HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m²]	
150	3135052010351	C	0,4	0,6
200	3135052010352	C	0,5	1
300	3135052010353	C	0,85	1,5
500	3135052010355	C	1,2	2,1
800	3133052010016	C	1,5	2,7
1000	3133052010017	C	1,8	3,4
1250	3133052010018	C	2,1	3,7
1500	3133052010019	C	2,1	3,7
2000	3133052010020	C	2,3	4,1



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

“Easy Control” Electronic Display

See accessories section



Thermometer

Art. Nr.

5032240000107

5 units box

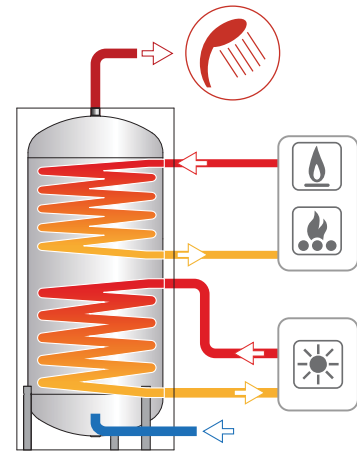


BOLLY® 2 ST INOX HE

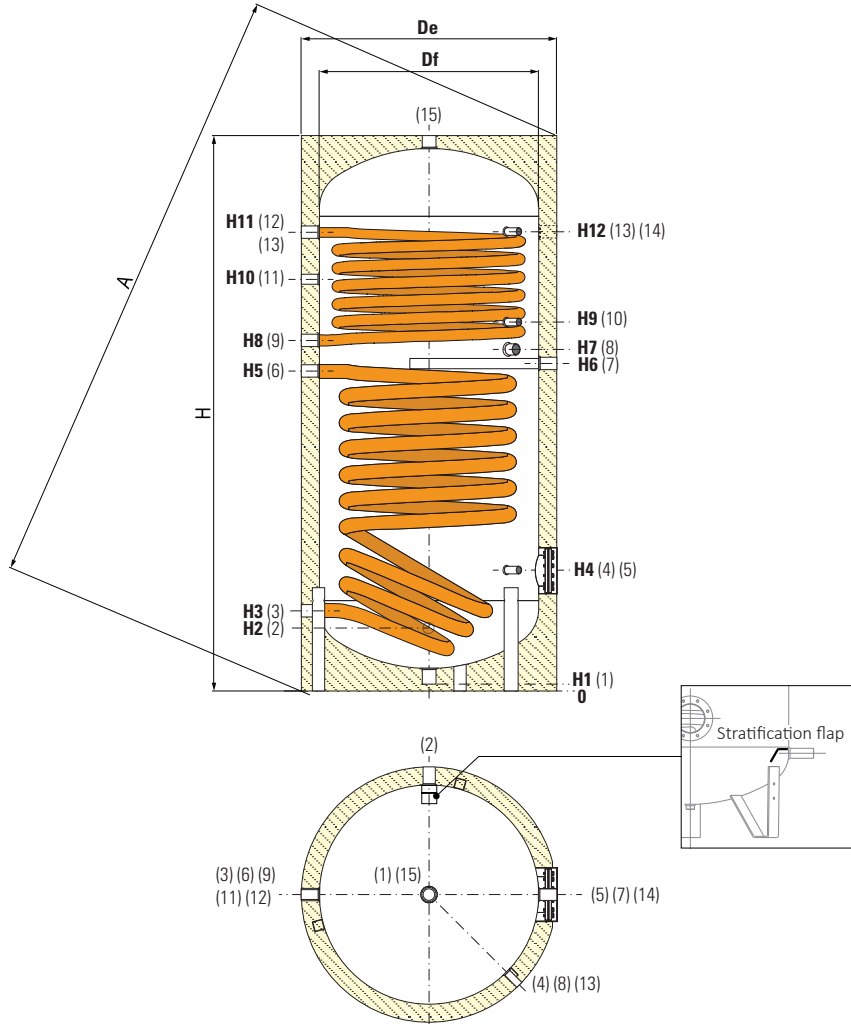
316 L STAINLESS STEEL CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.



STAINLESS STEEL
CALORIFIERS



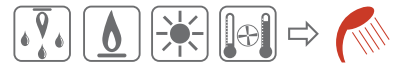
1	Drain
2	Domestic cold water circuit inlet
3	Heating water back to the buffer
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection
6	Entry heating water from the buffer
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion
9	Lower heat exchanger outlet
10	Connection for instrumentation 1/2" Gas F
11	Recirculation
12	Fixed upper heat exchanger inlet
13	Connection for instrumentation 1/2" Gas F
14	Connection for 2nd anode 1"1/4 Gas F (from 800 to 2000 lt)
15	Domestic hot water outlet

Model	Net Volume [litres]	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7
						[mm]						
150	143	400	500	1426	1511	71	211	276	316	766	816	886
200	182	450	550	1446	1547	71	221	296	326	822	866	926
300	278	550	650	1501	1636	76	251	326	386	847	886	946
500	481	650	750	1796	1946	71	271	356	411	1046	1086	1154
800	721	790	990	1893	2136	114	338	423	478	998	1043	1113
1000	868	800	1000	2162	2382	112	342	422	487	1266	1292	1347
1250	1221	950	1150	2143	2432	118	328	438	483	1213	1248	1318
1500	1347	1000	1200	2127	2442	93	342	452	497	1227	1242	1302
2000	1963	1250	1450	2000	2470	85	365	475	520	1035	1065	1160

Model	H8	H9	H10	H11	H12	1	2	5	8	3- 6- 9- 12	11	15
	[mm]					Connections Gas F		[mm]	Connections Gas F			
150	946	995	1066	1186	1186	1/2"	3/4"	Øi 120	1"1/2	1"	3/4"	1"
200	971	1056	1100	1206	1206	1/2"	3/4"	Øi 120	1"1/2	1"	3/4"	1"
300	996	1072	1116	1236	1236	1/2"	1"	Øi 120	1"1/2	1"	1"	1"
500	1196	1274	1341	1485	1496	1/2"	1"	Øi 120	1"1/2	1"	1"	1"
800	1163	1260	1331	1475	1533	3/4"	1"	Øi 120	2"	1"1/4	1"	1"1/4
1000	1382	1442	1567	1802	1802	3/4"	1"	Øi 120	2"	1"1/4	1"	1"1/4
1250	1368	1427	1578	1788	1798	1"	1"1/4	Øi 160	2"	1"1/4	2"	2"
1500	1332	1462	1542	1752	1762	1"	2"	Øi 160	2"	1"1/4	2"	2"
2000	1215	1345	1390	1565	1575	1"	2"	Øi 160	2"	1"1/4	2"	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® 1 XL INOX - BOLLY® 2 XL INOX



316 L STAINLESS STEEL CALORIFIER WITH 1 OR 2 FIXED HEAT EXCHANGERS



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Stainless Steel 316 L suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

1 or 2 stainless steel 316L fixed heat exchangers.

INSULATION

Ecological hard polyurethane foam with high thermal insulation. Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C; Stainless steel inspection flange plate.

WARRANTY

- 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY® 1 XL XB HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m ²]	
300	3105052300002	C	3,5	
500	3105052300003	C	5,5	

BOLLY® 2 XL XB HE

Model	D.H.W. Storage: STAINLESS STEEL Heat Exchanger: STAINLESS STEEL		HEAT EXCHANGER SURFACE	
			Upper	Lower
	Art. Nr.		[m ²]	
300	3135052010203	C	2,4	1
500	3135052010205	C	4,5	1,4



STOCK
AVAILABILITY



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

See accessories section



Thermometer

Art. Nr.
5032240000107
5 units box

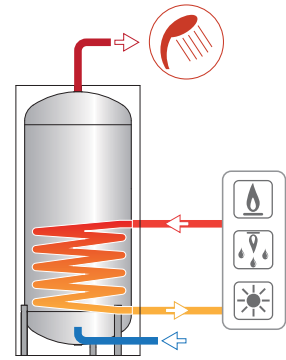
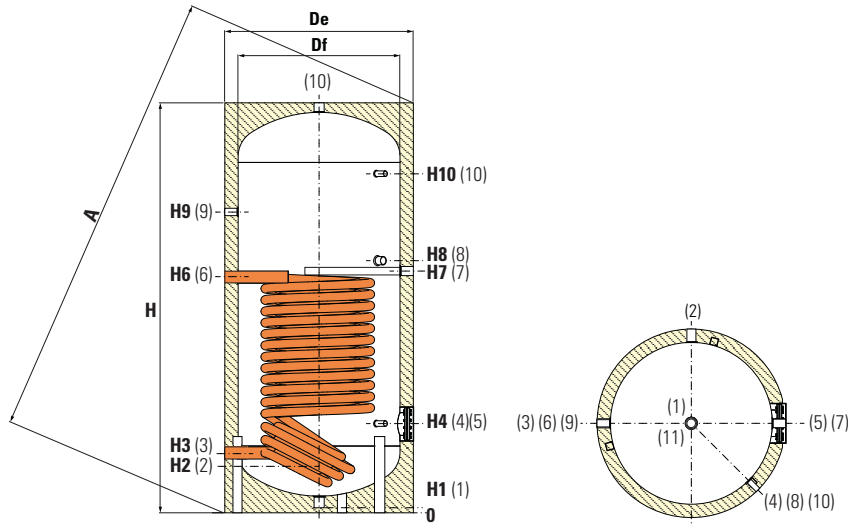


BOLLY® 1 XL INOX - BOLLY® 2 XL INOX

316 L STAINLESS STEEL CALORIFIER WITH 1 OR 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.

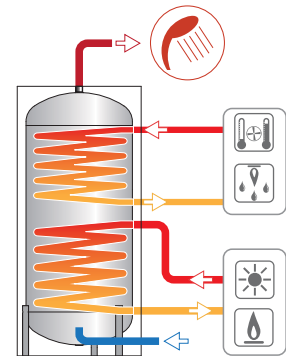
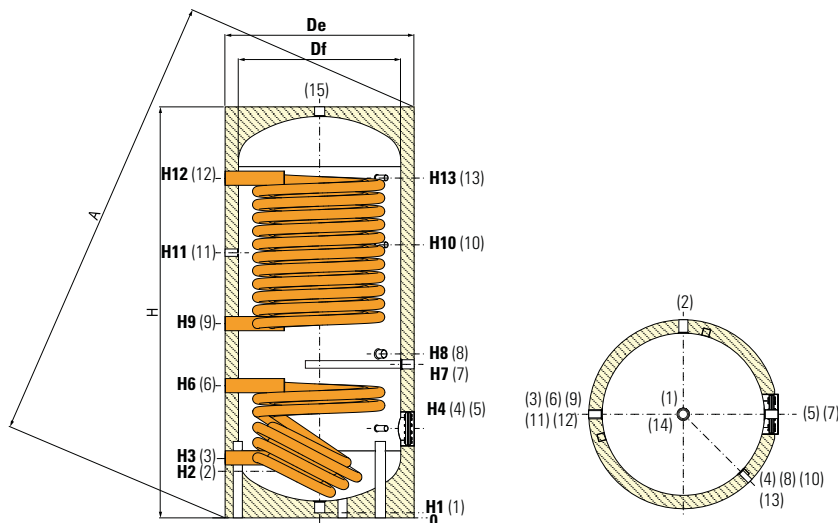


1	Drain 1"1/4 Gas F
2	Domestic hot water outlet 1"1/4 Gas F
3	Connection for instrumentation 1/2" Gas F
4	Recirculation 1" Gas F
5	Connection for electrical immersion 1"1/2 Gas F
6	Connection for magnesium anode 1"1/4 Gas F
7	Entry heating water from the buffer 1"1/4 Gas F
8	Blind flange for inspection (Øi 120 mm)
9	Connection for instrumentation 1/2" Gas F
10	Heating water back to the buffer 1"1/4 Gas F
11	Domestic cold water circuit inlet 1" Drain 1"1/4 Gas F

Model	Net Volume	De	H	A	H1	H2	H3	H4	H6	H7	H8	H9	H10
	[litres]												
300	268	650	1501	1635	76	251	326	386	1021	1036	1096	1176	1236
500	462	750	1796	1946	71	271	356	411	1231	1272	1340	1396	1496

STORAGE		HEAT EXCHANGERS	
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.



1	Drain 1"1/4 Gas F
2	Domestic cold water circuit inlet 1"
3	Heating water back to the buffer 1"1/4 Gas F
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection (Øi 120 mm)
6	Entry heating water from the buffer 1"1/4 Gas F
7	Connection for magnesium anode 1"1/4 Gas F
8	Connection for electrical immersion 1"1/2 Gas F
9	Lower heat exchanger outlet 1"1/4 Gas F
10	Connection for instrumentation 1/2" Gas F
11	Recirculation 1"
12	Fixed upper heat exchanger inlet 1"1/4 Gas F
13	Connection for instrumentation 1/2" Gas F
15	Domestic hot water outlet 1"1/4
16	Connection for instrumentation 1/2" Gas F

Model	Net Volume	De	H	A	H1	H2	H3	H4	H6	H7	H8	H9	H10	H11	H12	H13
	[litres]															
300	268	650	1501	1635	76	251	326	386	571	681	716	741	1096	988	1236	1236
500	462	750	1796	1946	71	271	356	411	602	726	784	900	1300	1147	1485	1485

STAINLESS STEEL
CALORIFIERS

CALORIFIERS FOR HEAT PUMP





FABBRICATO IN ITALIA
CORDIVARI
cordivari.it



BOLLY® 1 PDC

DHW PRODUCTION TANK FOR HEAT PUMP



PATENTED

APPLICATION

Domestic Hot Water (DHW) production and storage.

MATERIAL

Material and finishing, suitable for drinkable water according to D.M. n.174 dated 06.04.04:

- Mild steel Polywarm coated (certifications ACS – SSICA – DVGW – W270 – UBA WRAS).

EXCHANGE MODULE

System equipped with exchanger at heat charge from the top.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

PVC external lining with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty for electrical parts.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from

September, 26th 2017.

BOLLY® 1 PDC

ENERGY EFFICIENCY CLASS

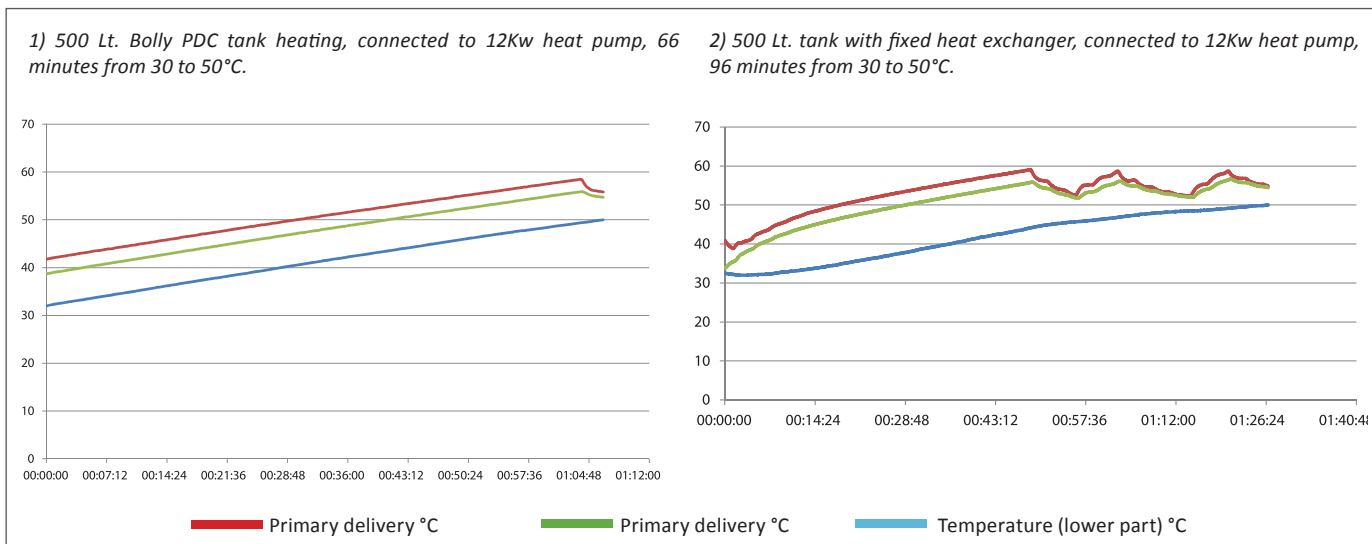
Model	D.H.W. Storage: POLYWARM® coated	PDC max power [kW]	ErP
	Art. Nr.		
300	3105162320203	26	C
500	3105162320205	26	C
800	3105162320206	35	C

Products available from January 2016

NEW BOLLY PDC RANGE

Bolly® PDC tanks are for DHW production and storage, particularly designed to use heat pumps as primary energy source. This allows the heat exchange between technical water of the generator and domestic hot water through a plate heat exchanger, properly dimensioned in order to minimize the starting time.

The main advantages of having an external exchanger are higher efficiency and constant exchanged power during the pre-heating phase. While, in the traditional model, heat exchange of the immersed pipe coil decreases as the storage temperature increases. An important decrease of the starting time of 25% than the immersed pipe coil is registered as shown in the charts below (in the same operating conditions and model). This advantage is even bigger in combined systems with heat pump (for DHW and heating), where a higher level of comfort is produced by reducing the time to prepare the domestic water in order to dedicate more time to make the environment warm (considering that usually the heat pump power is not higher than needs).



There is a 23% improvement.

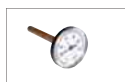
Compared to the immersed pipe coil, charts show how the external exchange improves the operating condition of the generator. It is due to the constant exchanged power that reduces the turning on and off cycles, producing a higher overall performance and extends the heat pump lifecycle.

Multi-heat models (employing many energy sources) registered an extra improvement about the external heat plate exchanger that does not force to reduce the exchange surfaces to create room for other exchangers (this is the case of immersed pipe coils). If necessary, the tank volume can be used to place one or two immersed pipe coils (available for Bolly2 PDC and Bolly3 PDC versions) in order to realize systems with solar thermal and/or boiler.

Accessories on request

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500
5200000000011	800



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

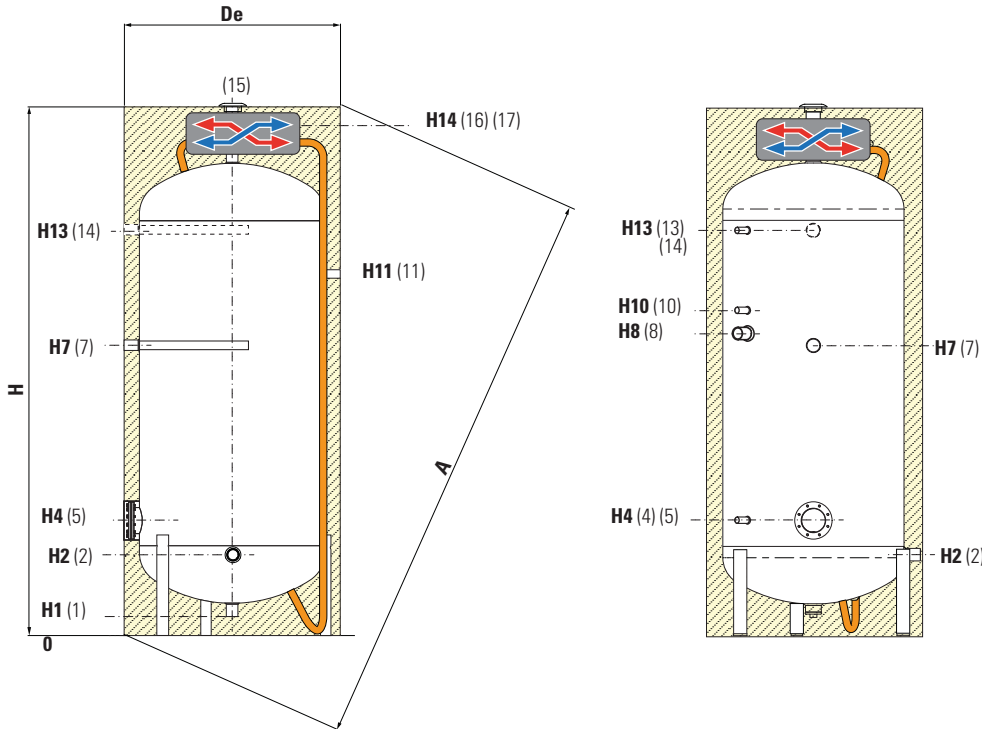
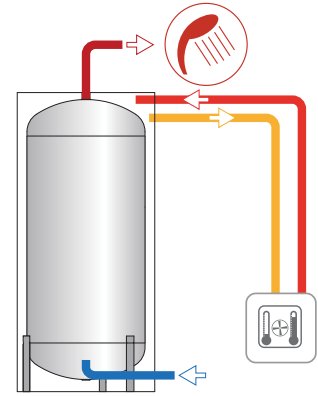


BOLLY® 1 PDC

DHW PRODUCTION TANK FOR HEAT PUMP

STORAGE		EXCHANGE MODULE	
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.



1	Drain	11	Recirculation 1" Gas F
2	Domestic cold water circuit inlet 1" Gas F	13	Connection for instrumentation 1/2" Gas F
4	Connection for instrumentation 1/2" Gas F	14	Connection for 2nd anode 1"1/4 Gas F (≥ 800 lt.)
5	Blind flange for inspection	15	Domestic hot water outlet 1"1/4 Gas F
7	Connection for magnesium anode 1"1/4 Gas F	16	Entry heating water from the buffer 1" Gas M
8	Connection for electrical immersion	17	Heating water back to the buffer 1" Gas M

Model	Net Volume [litres]	De	H	A	[mm]			
					H1	H2	H4	H7
300	291	650	1600	1727	71	246	381	871
500	497	750	1900	2043	71	271	411	1076
800	789	900	2278	2450	101	493	483	1243

Model	H8	H10	H11	H13	H14	Connections Gas F		
						1	5	8
	[mm]							
300	931	1076	1101	1221	1543	1"1/4	Øi 120	1"1/2
500	1144	1296	1331	1476	1843	1"1/4	Øi 120	1"1/2
800	1308	1573	1598	1788	2215	3/4"	Øi 160	2"

CALORIFIERS FOR
HEAT PUMP



DHW PRODUCTION TANK FOR HEAT PUMP WITH SOLAR INTEGRATION



APPLICATION

Domestic Hot Water (DHW) production and storage.

MATERIAL

Material and finishing, suitable for drinkable water according to D.M. n.174 dated 06.04.04:

- Mild steel Polywarm coated (certifications ACS – SSICA – DVGW – W270 – UBA WRAS).

EXCHANGE MODULE:

System equipped with exchanger at heat charge from the top

ADDITIONAL HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

Ecological hard polyurethane foam with high thermal insulation.

Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.

PATENTED



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

BOLLY® 2 PDC

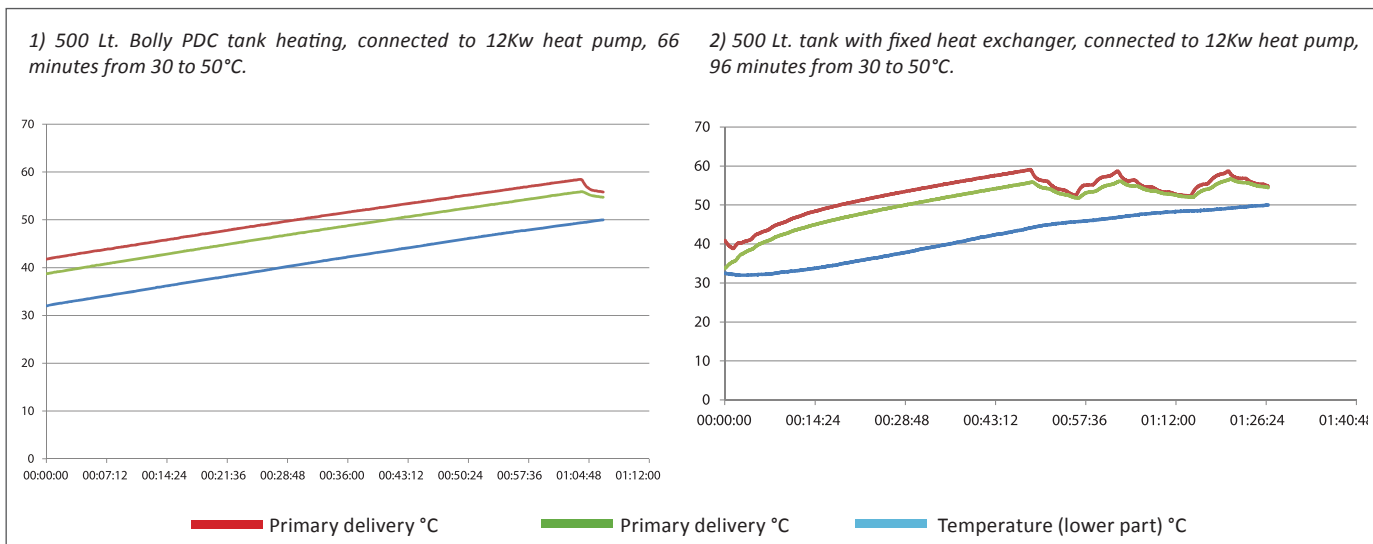
Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	PDC max power	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			ErP	Lower
	Art. Nr.	[kW]		[m²]
300	3135162320403	26	C	1,2
500	3135162320405	26	C	1,8
800	3135162320406	35	C	2,7

Products available from January 2016

NEW BOLLY PDC RANGE

Bolly® PDC tanks are for DHW production and storage, particularly designed to use heat pumps as primary energy source. This allows the heat exchange between technical water of the generator and domestic hot water through a plate heat exchanger, properly dimensioned in order to minimize the starting time.

The main advantages of having an external exchanger are higher efficiency and constant exchanged power during the pre-heating phase. While, in the traditional model, heat exchange of the immersed pipe coil decreases as the storage temperature increases. An important decrease of the starting time of 25% than the immersed pipe coil is registered as shown in the charts below (in the same operating conditions and model). This advantage is even bigger in combined systems with heat pump (for DHW and heating), where a higher level of comfort is produced by reducing the time to prepare the domestic water in order to dedicate more time to make the environment warm (considering that usually the heat pump power is not higher than needs).



There is a 23% improvement.

Compared to the immersed pipe coil, charts show how the external exchange improves the operating condition of the generator. It is due to the constant exchanged power that reduces the turning on and off cycles, producing a higher overall performance and extends the heat pump lifecycle.

Multi-heat models (employing many energy sources) registered an extra improvement about the external heat plate exchanger that does not force to reduce the exchange surfaces to create room for other exchangers (this is the case of immersed pipe coils). If necessary, the tank volume can be used to place one or two immersed pipe coils (available for Bolly1 PDC and Bolly2 PDC versions) in order to realize systems with solar thermal and/or boiler.

Accessories on request

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	300
5200000000009	500
5200000000011	800



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

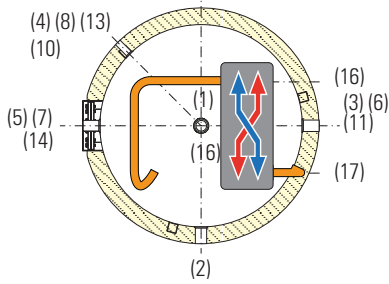
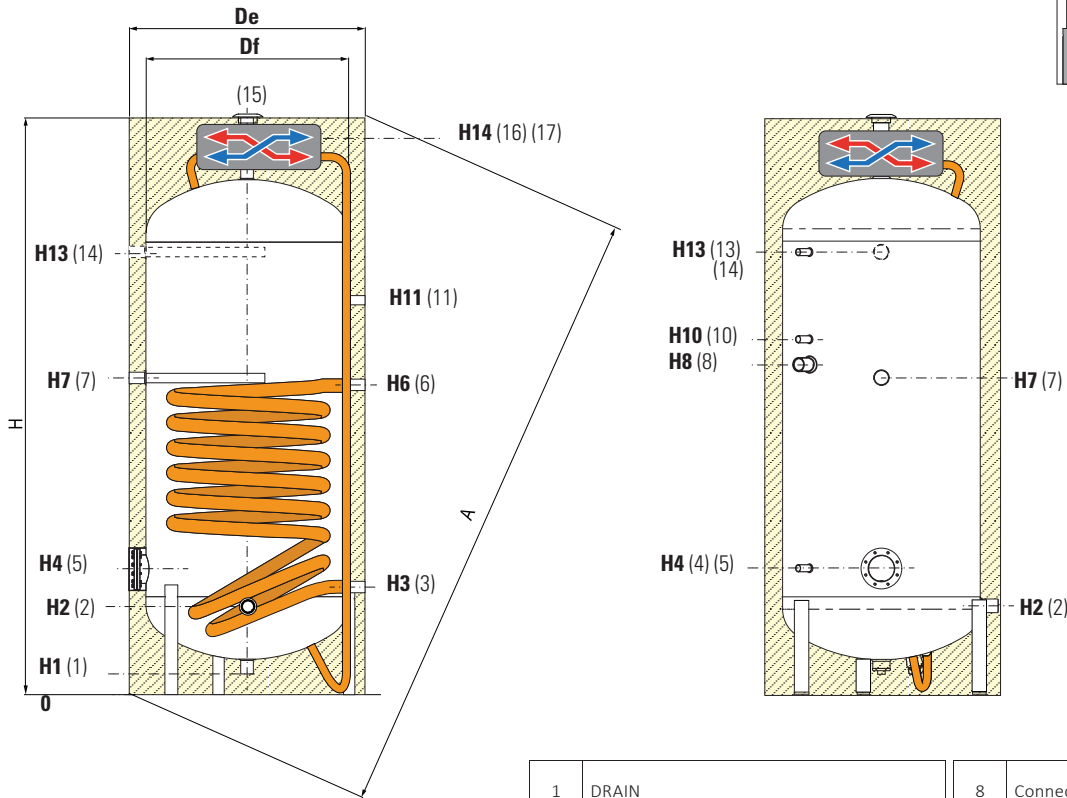
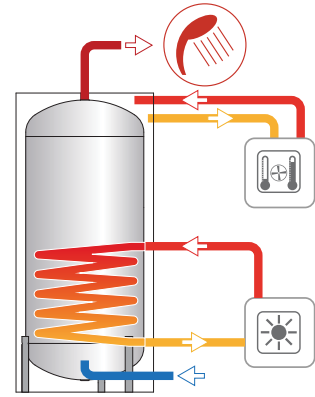


BOLLY® 2 PDC

DHW PRODUCTION TANK FOR HEAT PUMP WITH SOLAR INTEGRATION

STORAGE		EXCHANGE MODULE		FIXED HEAT EXCHANGERS	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 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.



1	DRAIN	8	Connection for electrical immersion
2	Domestic cold water circuit inlet 1" Gas F	11	Recirculation 1" Gas F
3	Heating water back to the buffer	13	Connection for instrumentation 1/2" Gas F
4	Connection for instrumentation 1/2" Gas F	14	Connection for 2nd anode 1"1/4 Gas F (≥ 800 lt.)
5	Blind flange for inspection	15	Domestic hot water outlet 1"1/4 Gas F
6	Entry heating water from the buffer	16	Entry heating water from the buffer 1" Gas M
7	Connection for magnesium anode 1"1/4 Gas F	17	Heating water back to the buffer 1" Gas M

Model	Net Volume [litres]	De	H	A	H1	H2	H3	H4	H6	H7
300	291	650	1600	1727	71	246	311	381	832	871
500	497	750	1900	2043	71	271	346	411	1036	1076
800	789	900	2278	2450	101	493	428	483	1181	1243

Model	H8	H10	H11	H13	H14	Gas F				
						1	5	8	3 - 6	
[mm]										
300	931	1076	1101	1221	1543	1"1/4	Øi 120	1"1/2	1"	
500	1144	1296	1331	1476	1843	1"1/4	Øi 120	1"1/2	1"	
800	1308	1573	1598	1788	2215	3/4"	Øi 160	2"	1"1/4	

CALORIFIERS FOR HEAT PUMP

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

BOLLY® 3 PDC

DHW PRODUCTION TANK FOR HEAT PUMP WITH SOLAR AND TRADITIONAL INTEGRATION



PATENTED

APPLICATION

Domestic Hot Water (DHW) production and storage.

MATERIAL

Material and finishing, suitable for drinkable water according to D.M. n.174 dated 06.04.04:

- Mild steel Polywarm coated (certifications ACS – SSICA – DVGW – W270 – UBA WRAS).

EXCHANGE MODULE:

System equipped with exchanger at heat charge from the top.

ADDITIONAL HEAT EXCHANGER:

2 Polywarm® coated fixed mild steel heat exchangers.

INSULATION

Ecological hard polyurethane foam with high thermal insulation.

Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

Magnesium anode.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013,

that demands C-energy efficiency class from September, 26th 2017.

BOLLY® 3 PDC

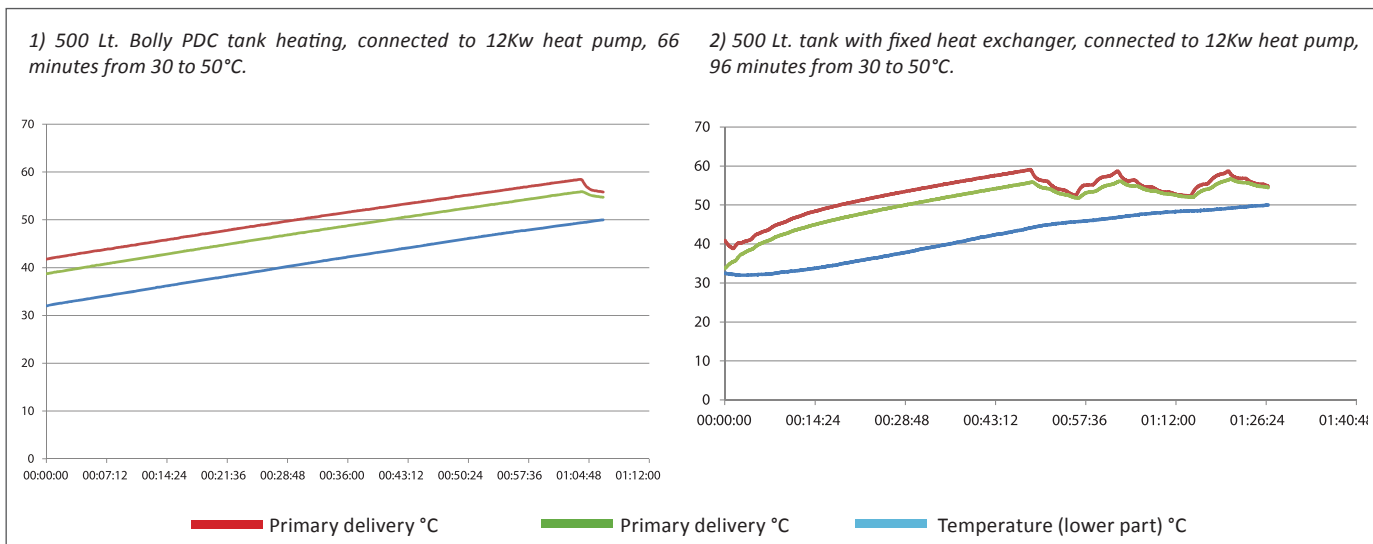
Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	Art. Nr.	PDC max power [kW]	ENERGY EFFICIENCY CLASS C	HEAT EXCHANGER SURFACE	
					Upper	Lower
500		3135162320453	26		1,2	1,8

Products available from January 2016

NEW BOLLY PDC RANGE

Bolly® PDC tanks are for DHW production and storage, particularly designed to use heat pumps as primary energy source. This allows the heat exchange between technical water of the generator and domestic hot water through a plate heat exchanger, properly dimensioned in order to minimize the starting time.

The main advantages of having an external exchanger are higher efficiency and constant exchanged power during the pre-heating phase. While, in the traditional model, heat exchange of the immersed pipe coil decreases as the storage temperature increases. An important decrease of the starting time of 25% than the immersed pipe coil is registered as shown in the charts below (in the same operating conditions and model). This advantage is even bigger in combined systems with heat pump (for DHW and heating), where a higher level of comfort is produced by reducing the time to prepare the domestic water in order to dedicate more time to make the environment warm (considering that usually the heat pump power is not higher than needs).



There is a 23% improvement.

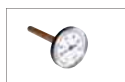
Compared to the immersed pipe coil, charts show how the external exchange improves the operating condition of the generator. It is due to the constant exchanged power that reduces the turning on and off cycles, producing a higher overall performance and extends the heat pump lifecycle.

Multi-heat models (employing many energy sources) registered an extra improvement about the external heat plate exchanger that does not force to reduce the exchange surfaces to create room for other exchangers (this is the case of immersed pipe coils). If necessary, the tank volume can be used to place one or two immersed pipe coils (available for Bolly1 PDC and Bolly2 PDC versions) in order to realize systems with solar thermal and/or boiler.

Accessories on request

Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	300



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

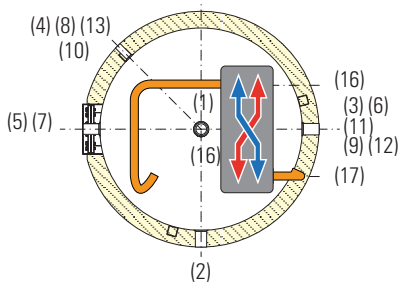
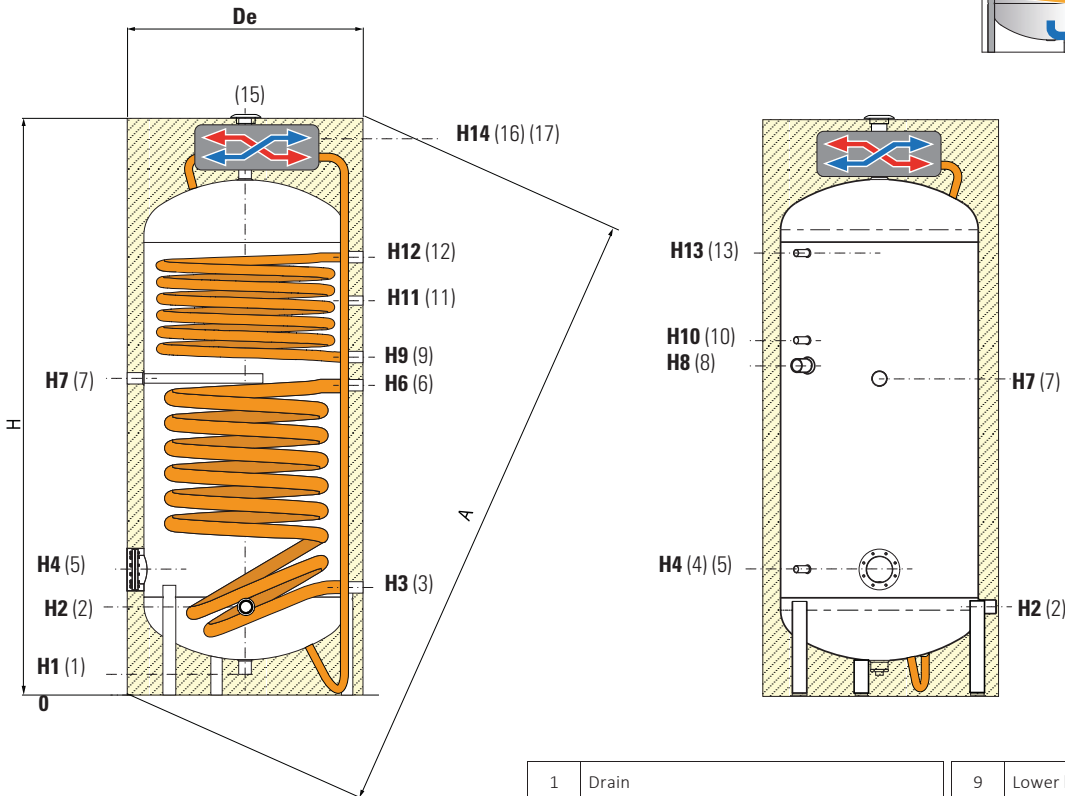
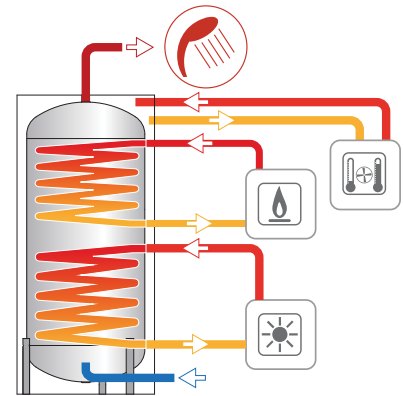


BOLLY® 3 PDC

DHW PRODUCTION TANK FOR HEAT PUMP WITH SOLAR AND TRADITIONAL INTEGRATION

STORAGE		EXCHANGE MODULE		FIXED HEAT EXCHANGERS	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
10 bar	90 °C	12 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.



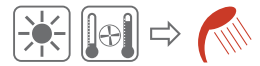
1	Drain	9	Lower heat exchanger outlet
2	Domestic cold water circuit inlet 1" Gas F	10	Connection for instrumentation 1/2" Gas F
3	Heating water back to the buffer	11	Recirculation 1" Gas F
4	Connection for instrumentation 1/2" Gas F	12	Fixed upper heat exchanger inlet
5	Blind flange for inspection	13	Connection for instrumentation 1/2" Gas F
6	Entry heating water from the buffer	15	Domestic hot water outlet 1"1/4 Gas F
7	Connection for magnesium anode 1"1/4 Gas F	16	Entry heating water from the buffer 1" Gas M
8	Connection for electrical immersion	17	Heating water back to the buffer 1" Gas M

Model	Net Volume [litres]	Df	De	H	A	H1	H2	H3	H4	H6	H7
500	497	650	750	1900	2043	71	271	346	411	1036	1076

Model	H8	H9	H10	H11	H12	H13	H14	Gas F			
								1	5	8	3 - 6 - 12
500	1144	1186	1296	1331	1476	1476	1843	1"1/4	Øi 120	1"1/2	1"

CALORIFIERS FOR HEAT PUMP

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/23/CE



POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Production and storage of sanitary hot water.

MATERIAL

Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04,:

- Mild steel Polywarm® coated (certification ACS - SSICA - DVGW - W270 - UBA - WRAS).

HEAT EXCHANGER:

1 Polywarm® coated fixed heat exchanger.

INSULATION

Ecological hard polyurethane foam with high thermal insulation.

Grey PVC external lining complete with top and flange cover.

CATHODE PROTECTION

N° 2 magnesium anodes with anoden tester.

DRAIN

External confluence through drain connection.

GASKET- FLANGE PLATE

Silicone gaskets suitable for alimentary use for max temperature up to 200°C. Mild steel inspection flange plate with Polywarm® treatment.

WARRANTY

5 years (Polywarm®)

See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



BOLLY XL WB

Model	D.H.W. Storage: POLYWARM® coated Heat exchanger POLYWARM® coated	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			Lower
			[m²]
200	3105162320702	C	2
300	3105162320703	C	3,4
500	3105162320705	C	5,4



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

“Easy Control” Electronic Display

ART. NR.	FOR MODELS
5005000310003	200÷500



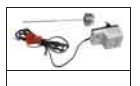
Thermometer

Art. Nr.
5032240000107
5 units box



Titanium electronic anode

Art. Nr.	Model
5200000000008	200, 300
5200000000009	500



Suitable for Polywarm® coated models



Electrical immersions kit available

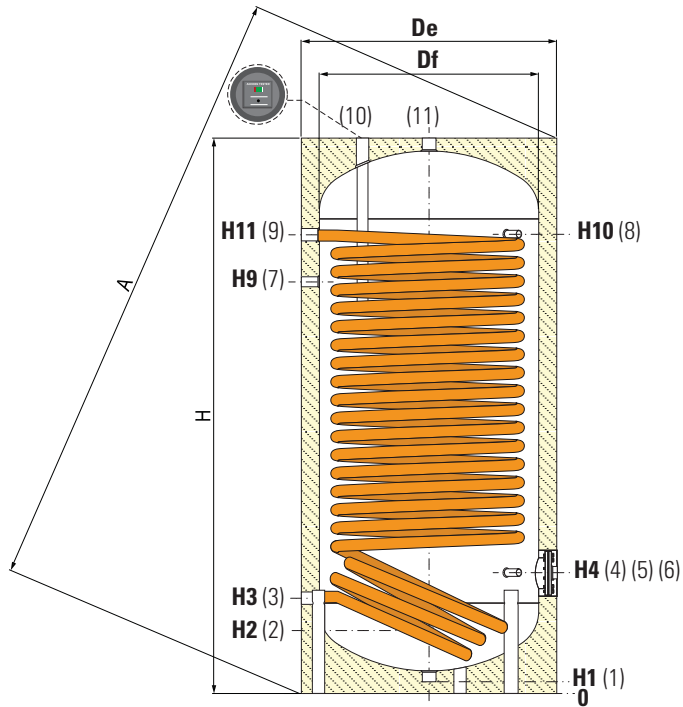
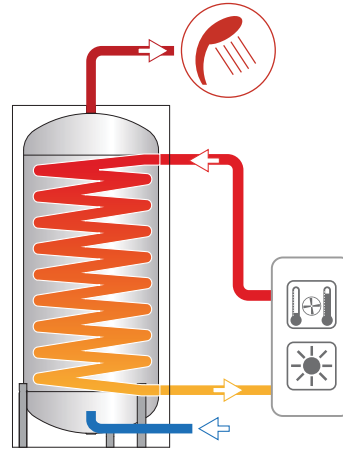
Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		52400000000034	52400000000035	52400000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
200	166	298	223	149
300	245	439	329	219
500	424	759	569	380

BOLLY® XL

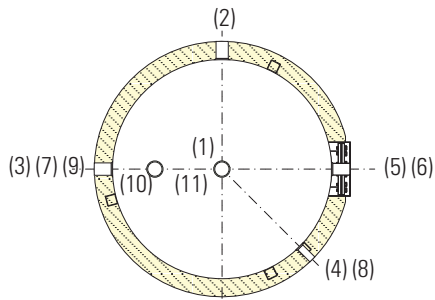
POLYWARM® COATED CALORIFIERS WITH 1 FIXED HEAT EXCHANGER

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.



1	Drain 1"1/4 Gas F
2	Domestic cold water circuit inlet
3	Primary circuit heat exchanger outlet
4	Connection for instrumentation 1/2" Gas F
5	Blind flange for inspection Øi 120 mm
6	Connection for electrical immersion 1"1/2 Gas F
7	Recirculation
8	Connection for instrumentation 1/2" Gas F
9	Primary circuit heat exchanger inlet
10	Connection for magnesium anode 1"1/4 Gas F
11	Domestic hot water outlet 1"1/4 Gas F



Model	Net Volume [litres]	Weight [Kg]	Df	De	H	A	H1	H2
200	189	71	450	550	1440	1541	71	220
300	291	93	550	650	1492	1627	71	246
500	497	150	650	750	1792	1943	71	271

Model	H3	H4	H9	H10	H11	Connections Gas F	
						[mm]	
200	285	325	1055	1190	1190	3/4"	1"
300	321	381	1091	1211	1211	1"	1" 1/4
500	346	411	1326	1486	1486	1"	1" 1/4

CALORIFIERS FOR HEAT PUMP

TERMOMAS® PDC



HEATING WATER BUFFER TANK FOR HEAT PUMP WITH MACS® MODULE FOR IMMEDIATE DHW PRODUCTION



APPLICATION

Heating water storage and immediate Domestic Hot Water (DHW) production at high flow rate and performance. Primary storage temperatures can be rather low.

TECHNICAL DESCRIPTION

Expressly designed to be connected to heat pump, Termomas PDC models have the following advantages:

- easy maintenance
- maximum hygiene for anti-legionellosis bacteria
- more DHW production at low primary storage temperatures
- heating water storage optimization.

MATERIAL

Mild steel outside painted. There is no need of any anti-corrosion

treatment due to the fact that the buffer is in a closed circuit without any adding air.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

INSULATION

- Buffer: High thermal insulation with ecological hard polyurethane foam. 800 Lt version is with dismountable insulation. PVC external lining with top and flange cover. Grey PVC external lining.
- MACS® module: insulating PPE cover.

WARRANTY


5 years - See general sales conditions and warranty



PATENTED

TERMOMAS PDC

ENERGY
EFFICIENCY
CLASS

Model	Storage: mild steel	
	Art. Nr.	
300	3251162284262	C
500	3251162284263	C
800	3251162284265	C

Model	DHW Station max flow rate	Max DHW availability (10-45°C) with storage at 55°C
	[l/min]	[litres]
300	50	334
500	50	557
800	50	891



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM

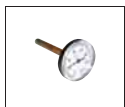


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)

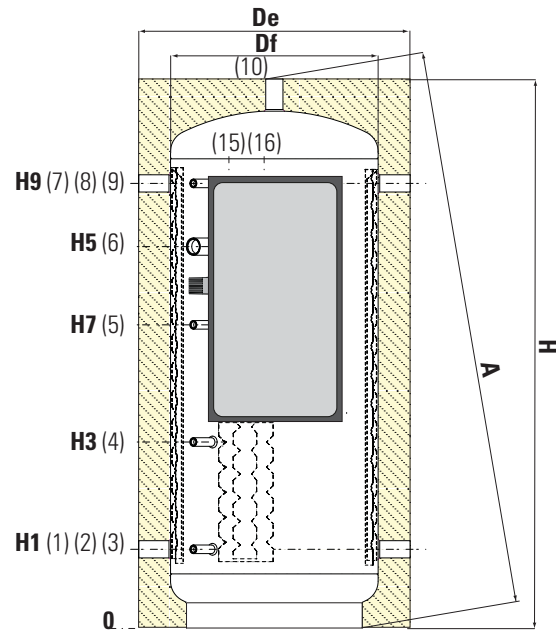
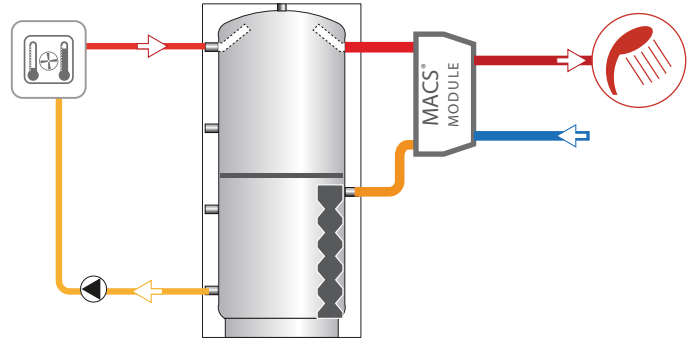


TERMOMAS® PDC

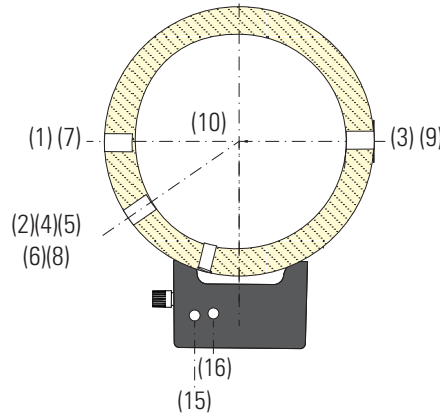
HEATING WATER BUFFER TANK FOR HEAT PUMP WITH MACS® MODULE
FOR IMMEDIATE DHW PRODUCTION

STORAGE		STAINLESS STEEL PLATE HEAT EXCHANGER (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °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.



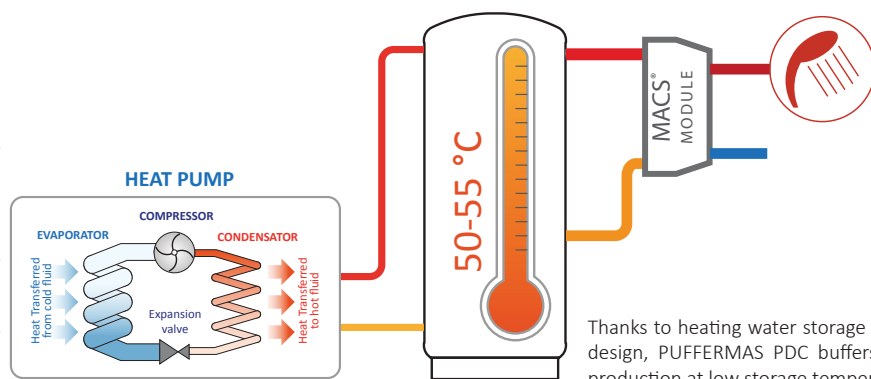
1-3	Heating return AI generator 1"1/2 Gas F
2-4-5-8	Connection for instrumentation 1/2" Gas F
6	Electrical immersion 1"1/2 Gas F
7-9	From Generator Heating delivery 1"1/2 Gas F
10	Heating delivery 1"1/2 Gas F
11	Sanitary water inlet
12	Domestic Hot Water exit



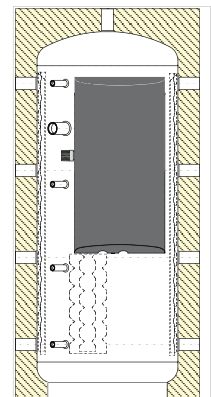
Model	Net Volume	Weight	Df	De	H	A	H1					H9
	[litres]						[Kg]	[mm]	H3	H5	H7	
300	286	106	550	650	1310	1344	232	425	855	625	1048	
500	478	126	650	650	1619	1666	247	583	1124	841	1343	
800	803	152	790	940	1838	1885	265	613	1338	1038	1541	

EXPRESSLY DESIGNED FOR HEAT PUMP

DHW PRODUCTION MAXIMIZATION COMBINED WITH HEAT PUMP GENERATOR



Thanks to heating water storage optimization and MACS® modules design, PUFFERMAS PDC buffers allow a high efficiency in DHW production at low storage temperature, as peculiar for heat pumps.



CALORIFIERS FOR HEAT PUMP

P.E.D. product planned and produced in conformity to the article 3.3. of directive 92/23/CE

TERMOMAS® 2 PDC



HEATING WATER BUFFER TANK FOR HEAT PUMP WITH MACS® MODULE AND 2 FIXED EXCHANGERS FOR IMMEDIATE DHW PRODUCTION



APPLICATION

Heating water storage and immediate Domestic Hot Water (DHW) production at high flow rate and performance. Primary storage temperatures can be rather low.

TECHNICAL DESCRIPTION

Expressly designed to be employed with heat pump, Termomas® PDC models have the following advantages:

- easy maintenance
- maximum hygiene for anti-legionellosis bacteria
- more DHW production at low primary storage temperatures
- heating water storage optimization.

MATERIAL

Mild steel outside painted. There is no need of any anti-corrosion treatment due to the fact that the buffer is in a closed circuit without any adding air.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

The buffer tank is equipped with 2 mild steel fixed heat exchangers to integrate other energy sources such as solar system or traditional boiler, in addition to heat pump.

INSULATION

- Buffer: High thermal insulation with ecological hard polyurethane foam. 800 Lt version is with dismountable insulation. PVC external lining with top and flange cover. Grey PVC external lining.
- MACS® module: insulating PPE cover.


WARRANTY

5 years- See general sales conditions and warranty..



PATENTED

TERMOMAS 2 PDC

Model	Storage: mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
			Upper	Lower
300	3251162284362	C	0,7	1,2
500	3251162284363	C	1	2
800	3251162284365	C	1,8	2,5

Model	DHW Station max flow rate	Max DHW availability (10-45°C) with storage at 55°C
	[l/min]	[litres]
300	50	334
500	50	557
800	50	891

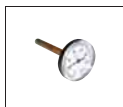


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)

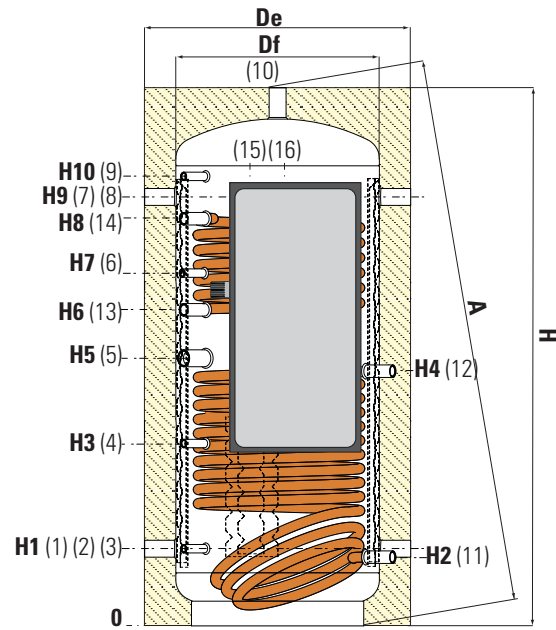
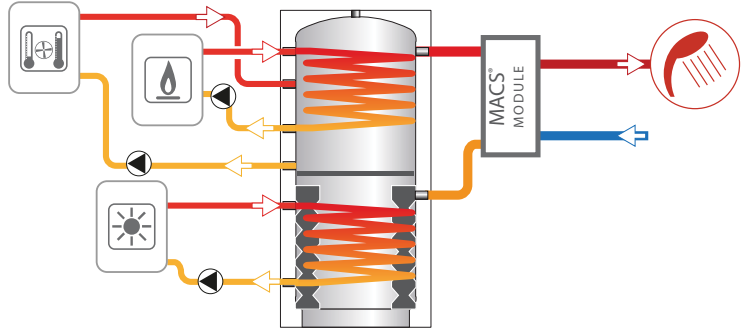


TERMOMAS® 2 PDC

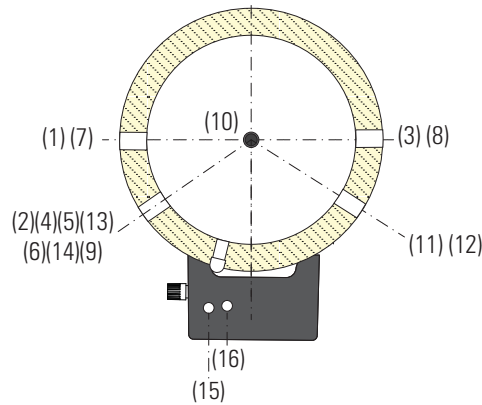
HEATING WATER BUFFER TANK FOR HEAT PUMP WITH MACS® MODULE AND 2 FIXED EXCHANGERS FOR IMMEDIATE DHW PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.



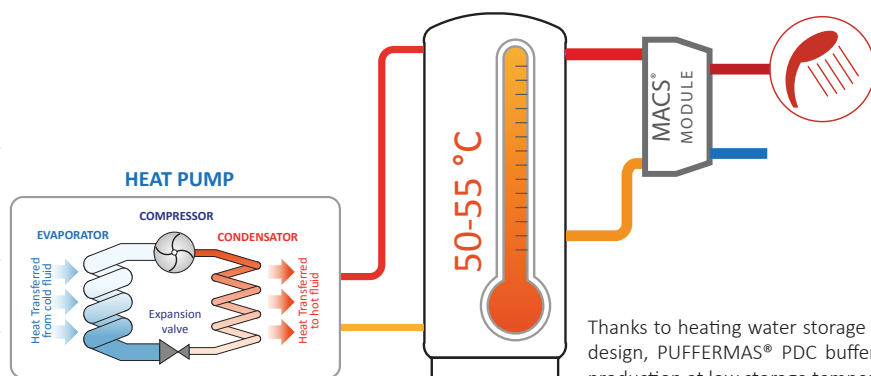
1-3	Heating return AI generator 1"1/2 Gas F
2-4-6-9	Connection for instrumentation 1/2" Gas F
5	Electrical immersion 1"1/2 Gas F
7-8	From Generator Heating delivery 1"1/2 Gas F
10	Heating delivery 1"1/2 Gas F
15	Sanitary water inlet
16	Domestic Hot Water exit
11	Lower heat exchanger outlet 1" Gas F
12	Lower heat exchanger inlet 1" Gas F
13	Lower heat exchanger outlet 1" Gas F
14	Fixed upper heat exchanger inlet 1" Gas F



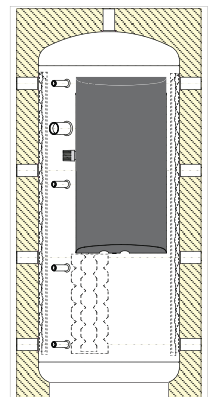
Model	Net Volume [litres]	Weight [Kg]	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
[mm]																
300	278	106	550	650	1310	1344	232	195	425	604	645	762	870	1002	1048	1085
500	456	162	650	750	1669	1666	247	260	583	854	904	1010	1124	1301	1393	1430
800	775	205	790	940	1836	1885	265	265	613	749	898	1020	1138	1346,5	1541	1578

EXPRESSLY DESIGNED FOR HEAT PUMP

DHW PRODUCTION MAXIMIZATION COMBINED WITH HEAT PUMP GENERATOR



Thanks to heating water storage optimization and MACS® modules design, PUFFERMAS® PDC buffers allow a high efficiency in DHW production at low storage temperature, as peculiar for heat pumps.



CALORIFIERS FOR HEAT PUMP

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

TERMOMAS[®] PDC - OUTPUT AND PERFORMANCES

PERFORMANCES DURING DHW PRODUCTION

Q = Flow rate collection in litres per minute
P = Power in kw of the connected heat pump
V = Max quantity of DHW production under expressed conditions
 EXIT TEMPERATURE Secondary 42,6 °C

Model		P = 0 kW		P = 5 kW		P = 10 kW		P = 15 kW		P = 20 kW		P = 25 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
300	DHW 10°C/45°C Storage initial T 55°C	10	334	10	420	10	565	10	865	10	1845	10	in constant use
		20	334	20	372	20	420	20	482	20	565	20	684
		26,3	334	26,3	362	26,3	395	26,3	435	26,3	485	26,3	547
	DHW 10°C/45°C Storage initial T 50°C	10	264	10	331	10	447	10	684	10	684	10	in constant use
		20	264	20	294	20	331	20	381	20	381	20	540
		21	264	21	292	21	327	21	373	21	373	21	515

Model		P = 0 kW		P = 15 kW		P = 20 kW		P = 25 kW		P = 30 kW		P = 35 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
500	DHW 10°C/45°C Storage initial T 55°C	10	557	10	1444	10	3078	10	in constant use	10	in constant use	10	in constant use
		20	557	20	803	20	943	20	1141	20	1444	20	1966
		26,3	557	26,3	726	26,3	808	26,3	912	26,3	1045	26,3	1224
	DHW 10°C/45°C Storage initial T 50°C	10	441	10	1143	10	2437	10	in constant use	10	in constant use	10	in constant use
		20	441	20	636	20	746	20	903	20	1143	20	1556
		21	441	21	623	21	722	21	860	21	1062	21	1389

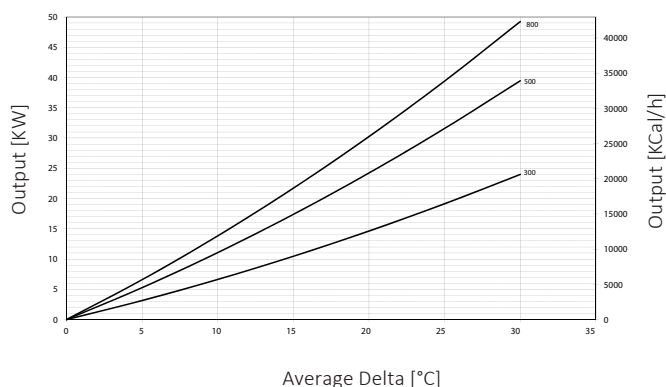
Model		P = 0 kW		P = 15 kW		P = 20 kW		P = 25 kW		P = 30 kW		P = 35 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
800	DHW 10°C/45°C Storage initial T 55°C	10	891	10	2310	10	4923	10	in constant use	10	in constant use	10	in constant use
		20	891	20	1285	20	1508	20	1825	20	2310	20	3144
		26,3	891	26,3	1162	26,3	1293	26,3	1458	26,3	1672	26,3	1958
	DHW 10°C/45°C Storage initial T 50°C	10	705	10	1827	10	3896	10	in constant use	10	in constant use	10	in constant use
		20	705	20	1017	20	1193	20	1444	20	1827	20	2488
		21	705	21	996	21	1155	21	1375	21	1698	21	2220

DHW collection data are meant for use with one heat pump connected to the storage, without considering possible contribution of other energy sources.

LOWER HEAT EXCHANGER POWER TERMOMAS 2 PDC

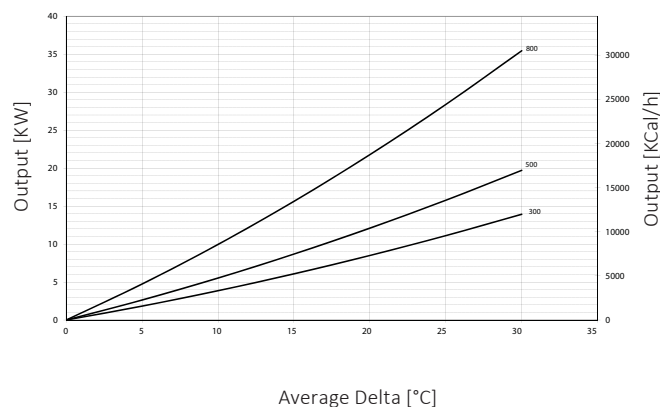
Termomas 2 lower heat exchanger exchanged power according to average Delta T between primary and storage (flow rate of 3 m²/h circulating in the exchanger)

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 m²/h.

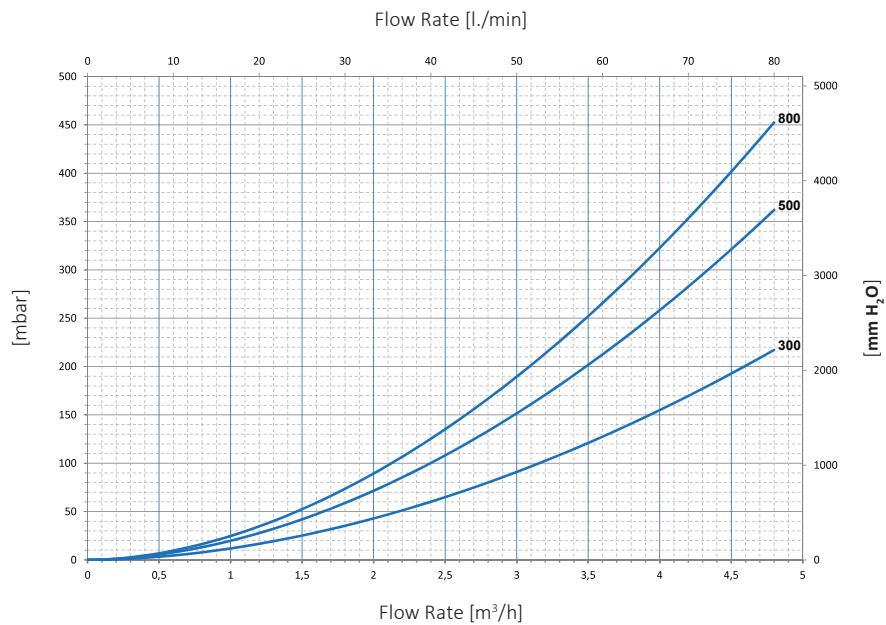


UPPER HEAT EXCHANGER POWER TERMOMAS 2 PDC

Termomas 2 upper heat exchanger exchanged power according to average Delta T between primary and storage (flow rate of 3 m²/h circulating in the exchanger)

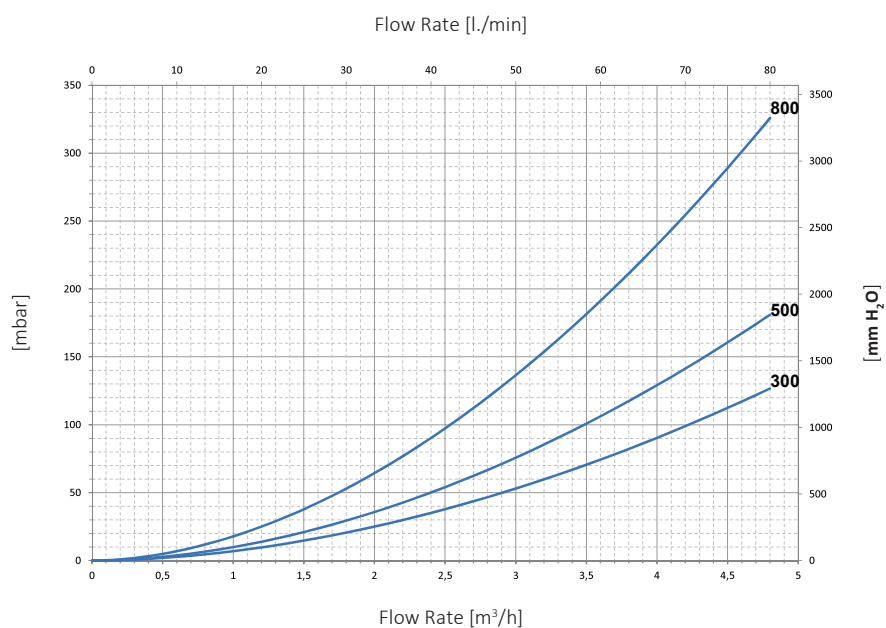


TERMOMAS 2 PDC LOWER EXCHANGER LOAD LOSS



CALORIFIERS FOR
HEAT PUMP

TERMOMAS 2 PDC UPPER EXCHANGER LOAD LOSS



ECO COMBI 1 PDC



MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP WITH 316L STAINLESS STEEL DHW CORRUGATE PIPE



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** made in mild steel outside painted. There is no need of any anti-corrosion treatment due to the fact that the buffer is in a closed circuit without any adding air.
- **DHW STORAGE:** 316L stainless steel corrugated pipe, suitable drinkable water according to D.M. n. 174 dated 06.04.04.

TECHNICAL DESCRIPTION

Multi-heat Energy tanks EcoCombi 1 are used in units with a typically discontinuous energy source for double use: heating system and domestic hot water.

- Heating system with a biomass generator as energy source, combining the possibility to produce domestic hot water. 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 creation of corrosive condensate (smokes side).

- In this system, the high potentiality of the Eco Combi allows to obtain a good DHW production, even if temperatures of the primary system are not so high (e.g. using heating pumps as primary source and solar source as support).

The particular shape of the corrugated pipe is avoiding any problem relating to the DHW storage (less, stagnation, bacterium, etc.) and ensure high heating exchange performances.

INSULATION

High thermal insulation with ecological hard polyurethane foam. PVC external lining with top and flange cover.

WARRANTY

- Buffer tank: 2 years
- 316L stainless steel corrugated pipe for D.H.W. production: 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ECO COMBI 1 VC

Model	DHW production: 316L Stainless steel exchanger Storage: mild steel		316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION	
			Volume [litres]	Surface [m ²]
300	Art. Nr. 3270162310002	C	26,6	4,5
500	Art. Nr. 3270162310003	C	31	5,3
800	Art. Nr. 3270162310005	C	45	7,7



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

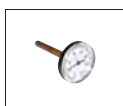


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

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)	



RECYCLE KIT

Art. Nr.
5221000000019
Connection 3/4"

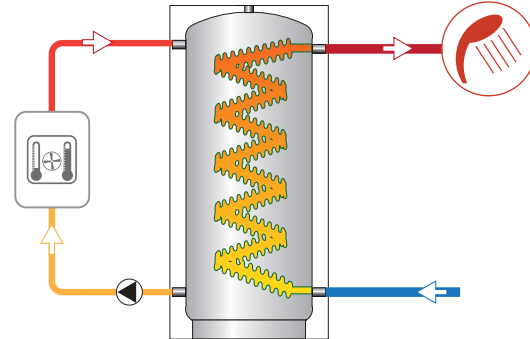
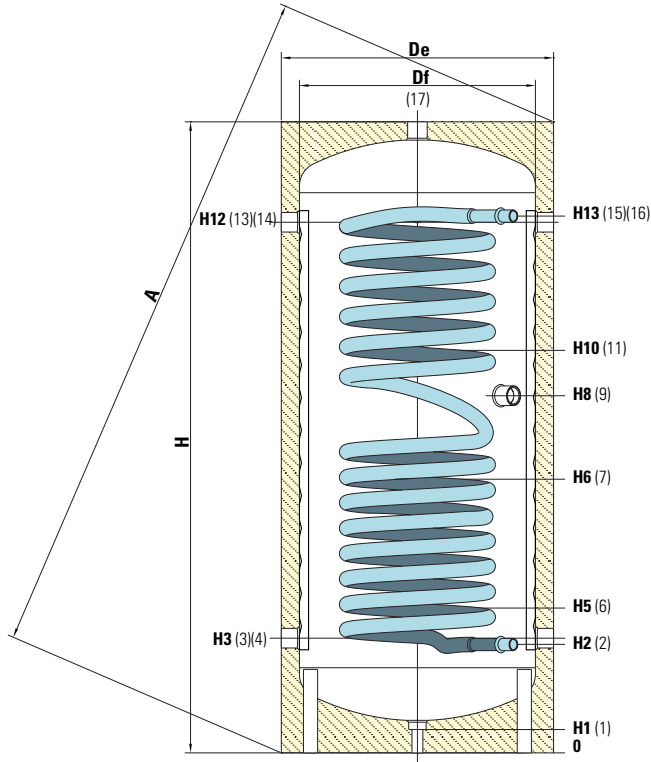


ECO COMBI 1 PDC

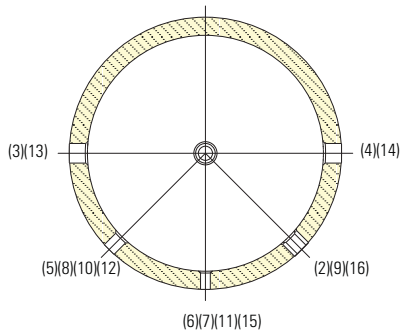
MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP WITH 316L STAINLESS STEEL DHW CORRUGATE PIPE

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE
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.



1	DRAIN 1"1/4 Gas F
2	Sanitary water inlet
3-4	Heating return – to generator 1"1/2 Gas F
6-7	Connection for instrumentation 1/2" Gas F
9	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
13-14-17	From Generator - Heating delivery 1"1/2 Gas F
15	Connection for instrumentation 1/2" Gas F
16	Domestic hot water outlet



Model	Net Volume [litres]	Df	De	H	[mm]			
					A	H1	H2	H3
300	291	550	650	1585	1713	70	297	330
500	454	650	750	1745	1899	70	305	322
800	748	790	940	1940	2156	70	325	342

Model	H5	H6	H8	H10	H12	H13	2-16
	[mm]						Connections
300	390	745	970	1100	1280	1315	1/2" GAS F
500	405	760	990	1115	1468	1485	1" GAS M
800	425	780	935	1135	1618	1635	1" GAS M

CALORIFIERS FOR
HEAT PUMP

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

ECO COMBI 3 PDC



MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP WITH 316L STAINLESS STEEL DHW CORRUGATE PIPE AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** made in mild steel outside painted. There is no need of any anti-corrosion treatment due to the fact that the buffer is in a closed circuit without any adding air.
- **DHW STORAGE:** 316L stainless steel corrugated pipe, suitable drinkable water according to D.M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

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 domestic hot water.

- Heating system with a biomass generator as energy source, combining the possibility to produce domestic hot water. 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 creation of corrosive condensate (smokes side).

- In this system, the high potentiality of the Eco Combi allows to obtain a good DHW production, even if temperatures of the primary system are not so high (e.g. using heating pumps as primary source and solar source as support).

The particular shape of the corrugated pipe is avoiding any problem relating to the DHW storage (less, stagnation, bacterium, etc.) and ensure high heating exchange performances.

INSULATION

High thermal insulation with ecological hard polyurethane foam. PVC external lining with top and flange cover.

WARRANTY


- Buffer tank: 2 years
- 316L stainless steel corrugated pipe for D.H.W. production: 5 years- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ECO COMBI 3 VC

Model	Scambiatore rapido A.C.S. 316L STAINLESS STEEL Accumulo tecnico acciaio al carbonio		316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER	
			Volume	Surface	Volume	Surface	Volume	Surface
	Art. Nr.		[litres]	[m ²]	[litres]	[m ²]	[litres]	[m ²]
300	3270162310202	C	26,6	4,5	4,4	0,7	7,9	1,2
500	3270162310203	C	31	5,3	7,7	1,2	14,5	2,2
800	3270162310205	C	45	7,7	11,3	1,7	16,9	2,6



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



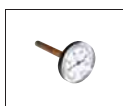
Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

— Accessories on request —

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)	

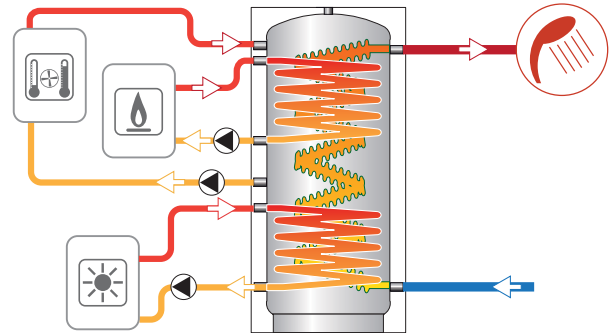
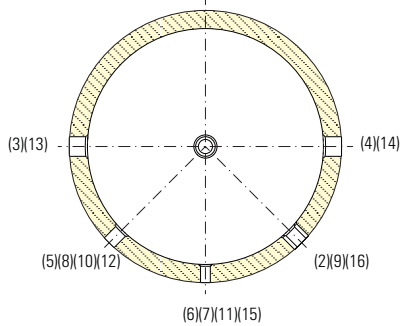
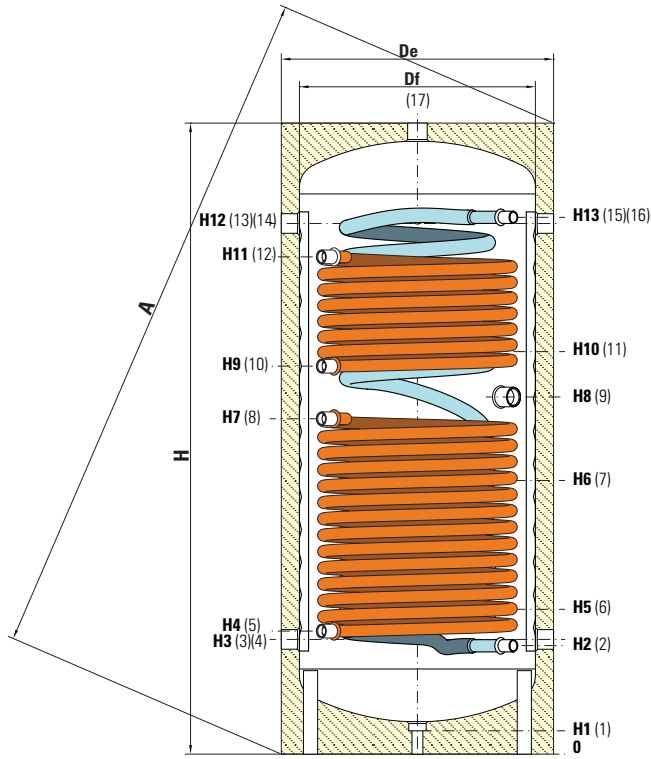


ECO COMBI 3 PDC

MULTI-HEAT ENERGY BUFFER FOR HEAT PUMP WITH 316L STAINLESS STEEL DHW CORRUGATE PIPE AND 2 FIXED HEAT EXCHANGERS

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE	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.



CALORIFIERS FOR HEAT PUMP

1	Drain 1"1/4 Gas F
2	Sanitary water inlet
3-4	Heating return – to generator 1"1/2 Gas F
5	Lower fixed heat exchanger outlet 1" Gas F
6-7	Connection for instrumentation 1/2" Gas F
8	Lower fixed heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Upper fixed heat exchanger outlet 1" Gas F
11	Connection for instrumentation 1/2" Gas F
12	Upper fixed heat exchanger inlet 1" Gas F
13-14-17	From Generator - Heating delivery 1"1/2 Gas F
15	Connection for instrumentation 1/2" Gas F
16	Domestic hot water outlet



Model	Net Volume [litres]	Df	De	H	A	[mm]				
						H1	H2	H3	H4	H5
300	291	550	650	1585	1713	70	297	330	330	390
500	454	650	750	1745	1899	70	305	322	345	405
800	748	790	940	1940	2156	70	325	342	365	425

Model	H6	H7	H8	H9	H10	H11	H12	H13	2-16
	[mm]								Connections
300	745	870	970	1040	1100	1280	1280	1315	1/2" GAS F
500	760	930	990	1075	1115	1376	1468	1485	1" GAS M
800	780	905	935	1065	1135	1409	1618	1635	1" GAS M

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

ECO COMBI PDC - OUTPUT AND PERFORMANCES

PERFORMANCES DURING DHW PRODUCTION PHASE

Q = Flow rate collection in litres per minute
P = Power in kw of the connected heat pump
V = Max quantity of DHW production under expressed conditions

Model		P = 0 kW		P = 5 kW		P = 10 kW		P = 15 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
300	DHW 10°C/45°C Storage initial T 55°C	10	118	10	142	10	166	10	190
		20	82	20	91	20	99	20	107
		30	47	30	50	30	54	30	57
	DHW 10°C/45°C Storage initial T 50°C	10	96	10	115	10	135	10	154
		20	67	20	73	20	80	20	87
		30	39	30	41	30	44	30	46

Model		P = 0 kW		P = 5 kW		P = 10 kW		P = 15 kW		P = 20 kW		P = 25 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
500	DHW 10°C/45°C Storage initial T 55°C	10	293	10	353	10	413	10	473	10	533	10	593
		20	223	20	246	20	269	20	291	20	314	20	337
		30	153	30	163	30	174	30	184	30	195	30	205
	DHW 10°C/45°C Storage initial T 50°C	10	240	10	289	10	338	10	387	10	436	10	485
		20	182	20	201	20	220	20	238	20	257	20	276
		30	125	30	134	30	142	30	151	30	159	30	168

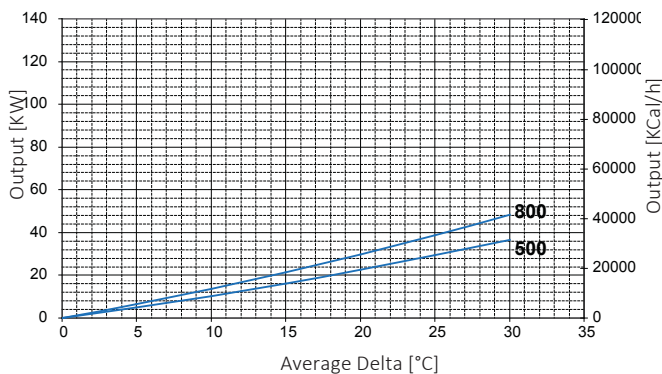
Model		P = 0 kW		P = 15 kW		P = 20 kW		P = 25 kW		P = 30 kW		P = 35 kW	
		Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]	Q [l/min]	V [l]
800	DHW 10°C/45°C Storage initial T 55°C	10	469	10	757	10	853	10	949	10	1045	10	1141
		20	367	20	480	20	517	20	555	20	592	20	630
		30	266	30	320	30	339	30	357	30	375	30	393
	DHW 10°C/45°C Storage initial T 50°C	10	384	10	619	10	698	10	777	10	855	10	934
		20	300	20	392	20	423	20	454	20	485	20	515
		30	218	30	262	30	277	30	292	30	307	30	322

DHW collection data are meant for use with one heat pump connected to the storage, without considering possible contribution of other energy sources.

LOWER HEAT EXCHANGER POWER ECO COMBI 2 PDC- ECO COMBI 3 PDC

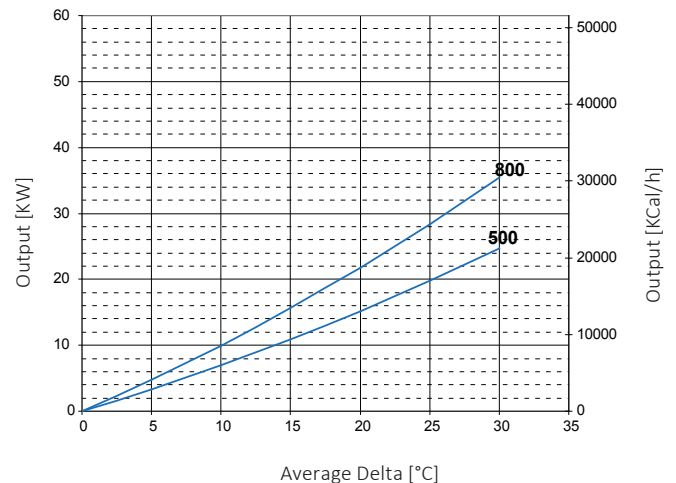
ECOCOMBI 2 PDC and 3 PDC lower heat exchangers exchanged power according to average Delta T between primary and storage (flow rate of 3 m²/h circulating in the exchanger)

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 m²/h.

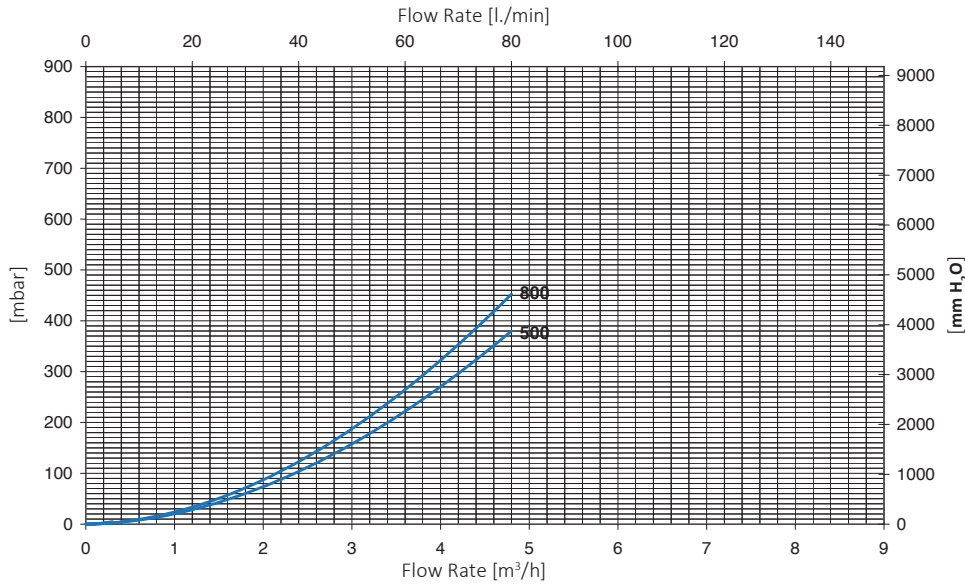


UPPER HEAT EXCHANGER POWER ECO COMBI 3 PDC

ECO COMBI 3 PDC upper heat exchangers exchanged power according to average Delta T between primary and storage (flow rate of 3 m²/h circulating in the exchanger)

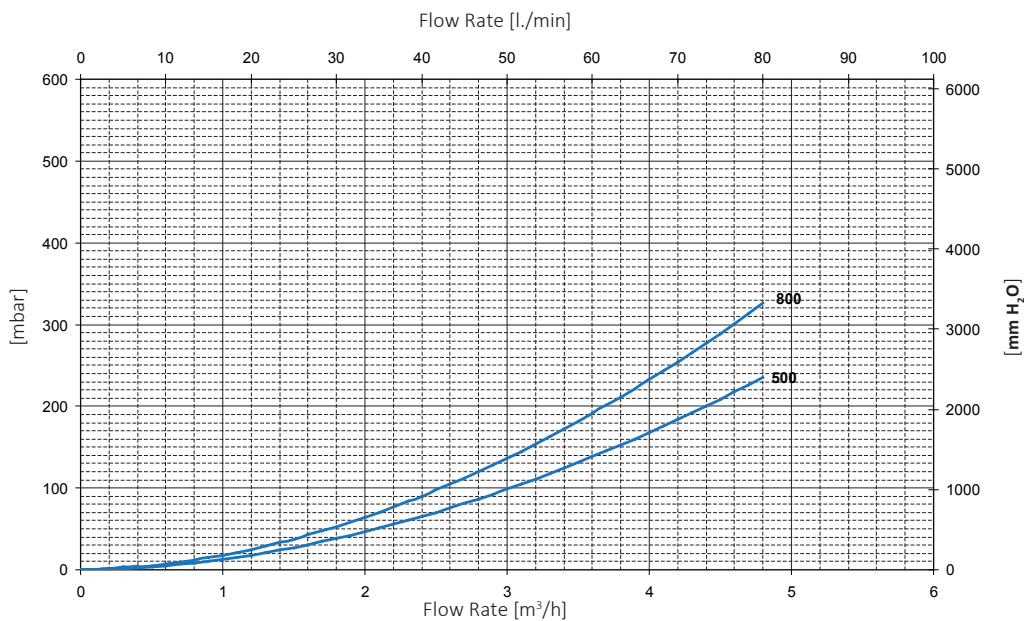


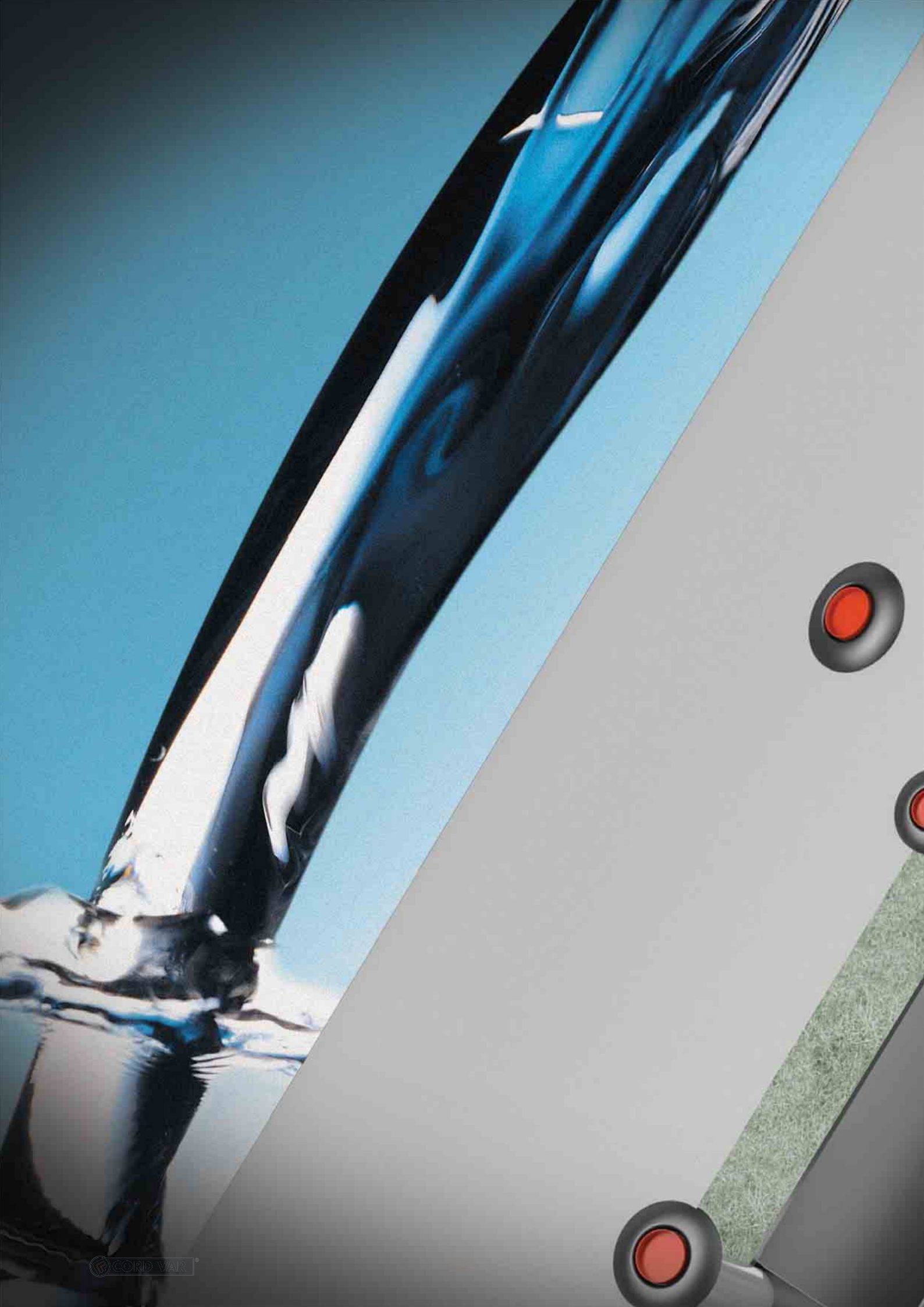
ECO COMBI 2 PDC- ECO COMBI 3 PDC LOWER EXCHANGER PRESSURE LOSS



CALORIFIERS FOR
HEAT PUMP

ECO COMBI 3 PDC UPPER EXCHANGER PRESSURE LOSS







BUFFER TANKS

PUFFER

HEATING WATER BUFFER TANK



APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER are used in units with a typically discontinuous energy source such as biomass boiler and solar thermal system.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

2 years

See general sales conditions and warranty



PUFFER VT

ENERGY EFFICIENCY CLASS

Model	Storage: Mild steel		ErP
	Art. Nr.		
200	3251162282501		C
300	3251162282502		C
500	3251162282803		C
600	3251162282511		E
750	3251162282763		E
800	3251162282504		E
1000	3251162282505		E
1500	3251162282506		E
2000	3251162282607		E
3000	3251162282608		
5000	3251162282610		

Available until April 2016

PUFFER VT COMPACT

Model	Storage: Mild steel	
	Art. Nr.	
2500	3251162280370	
3000	3251162282658	
4000	3251162282659	
4500	3251162282660	
5000	3251162282661	
6000	3251162282662	
8000	3251162282663	

COMPACT MODELS

PUFFER HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PUFFER HE VT

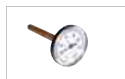
ENERGY EFFICIENCY CLASS

Model	Storage: Mild steel		ErP
	Art. Nr.		
200	3251162312501		C
300	3251162312502		C
500	3251162312503		C
600	3251162312504		C
750	3251162312505		C
800	3251162312506		C
1000	3251162312507		C
1250	3251162312508		C
1500	3251162312509		C
2000	3251162312510		C

— Accessories on request —

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)	

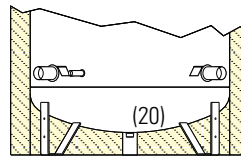
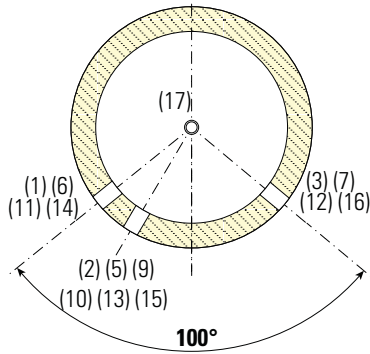
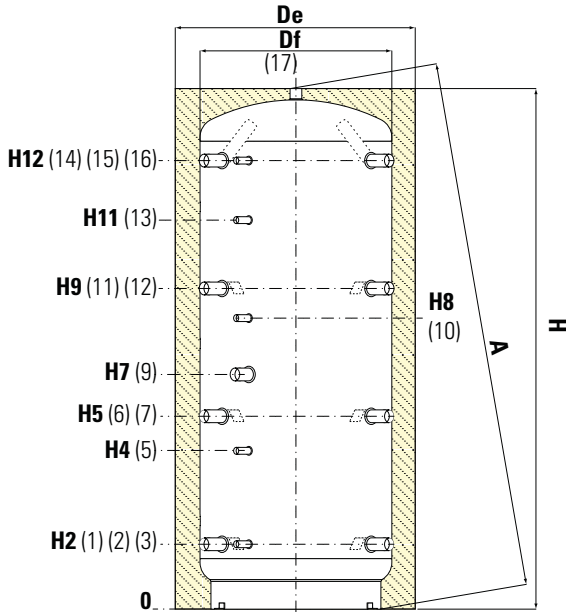


PUFFER

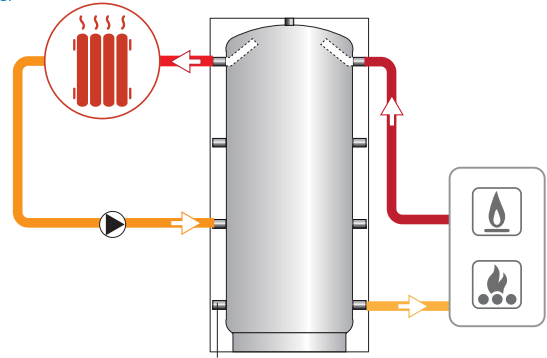
HEATING WATER BUFFER TANK

STORAGE	
Pmax	Tmax
3 bar	99 °C

CORDIVARI Lab
 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 > 2000



1-3-6-7	Heating return/To Generator
2-5	Connection for instrumentation 1/2" Gas F
9	Electrical immersion
10	Connection for instrumentation 1/2" Gas F
11-12-14-16	Heating delivery/From Generator
13	Connection for instrumentation 1/2" Gas F
15	Connection for instrumentation 1/2" Gas F
17	Heating delivery
20	Drain only for models 3000, 4000 and 5000

PUFFER



PUFFER VT

Model	Net volume [lt]	Df	De	De (HE SERIE)	H	A	H2	H4	H5	H7	H8	H9	H11	H12	1-3-6-7-9-11-12-14-16-17	20
															Connections Gas F	
[mm]																
200	180	450	650	550	1299	1410	218	430	500	576	711	782	871	1064	1" 1/2	//
300	279	550	750	650	1340	1489	232	444	514	590	725	796	885	1078	1" 1/2	//
500	478	650	850	750	1620	1784	247	533	629	841	930	1011	1231	1343	1" 1/2	//
600	560	650	850	750	1870	2014	247	582	695	915	1060	1144	1382	1593	1" 1/2	//
750	717	790	990	940	1658	1906	265	584	630	823	938	995	1180	1371	1" 1/2	//
800	805	790	990	950	1840	2064	265	584	690	823	988	1115	1332	1541	1" 1/2	//
1000	946	790	990	940	2130	2326	265	656	787	998	1188	1309	1588	1831	1" 1/2	//
1250	1248	900	//	1050	2201	2439	313	705	835	986	1168	1357	1568	1879	1" 1/2	//
1500	1973	950	1150	1100	2250	2504	313	736	845	1061	1286	1377	1653	1909	1" 1/2	//
2000	2915	1100	1300	1300	2320	2659	347	770	879	1060	1300	1411	1687	1943	1" 1/2	//
3000	4985	1250	1450	//	2814	3079	556	1017	1071	1693	1879	1786	2140	2402	2"	1"
5000	4985	1600	1800	//	2929	3338	586	1047	1101	1691	1889	1816	2159	2432	2"	2"

PUFFER VT COMPACT

Model	Net volume [lt]	Df	De	H	A	H1	H2	H4	H5	H7	H8	H9	H11	H12	1-3-6-7-11-12-14-16	9-17	20
															Connections Gas F		
[mm]																	
2500	2306	1250	1450	2351	2663	140	556	886	996	1051	1216	1436	1546	1876	1" 1/2	1" 1/2	1"
3000	3017	1500	1700	2180	2646	109,5	567	841	932	1252	1115	1297	1389	1662	2"	2"	1"
4000	3986	1600	1800	2456	2931	94,5	574	910	1022	1414	1246	1470	1582	1918	2"	2"	1"
4500	4411	1800	2000	2230	2866	90	582	856	947	1267	1130	1312	1404	1677	2"	2"	1"
5000	5042	1800	2000	2480	3064	90	583	919	1031	1423	1255	1479	1591	1927	2"	2"	1"
6000	5672	1800	2000	2730	3270	90	605	1005	1114	1295	1535	1646	1922	2155	3"	2"	1"
8000	7564	1800	2000	3480	3918	90	606	1066	1372	1526	1986	2138	2446	2904	3"	2"	1"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

PUFFER FLANGED

HEATING WATER BUFFER TANKS WITH 90° AND 180° FLANGED CONNECTIONS



180° FLANGED CONNECTIONS

APPLICATION

Efficient storage of heating hot water mostly using biomass, heat pumps or solar thermal energy sources.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER FLANGED are used in units with a typically discontinuous energy

source such as biomass boiler and solar thermal system.

INSULATION

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

WARRANTY

2 years

See general sales conditions and warranty.



90° FLANGED CONNECTIONS

PUFFER FLANGED 180° FLANGED CONNECTIONS

Model	Storage: Mild steel
	Art. Nr.
2500	3251162282680
3000	3251162282681
4000	3251162282682
4500	3251162282683
5000	3251162282684
6000	3251162282685
8000	3251162282686

COMPACT MODELS

PUFFER FLANGED 90° FLANGED CONNECTIONS

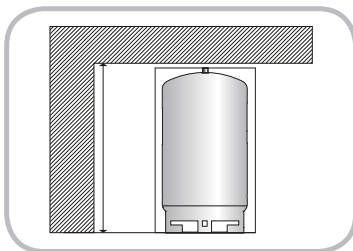
Model	Storage: Mild steel
	Art. Nr.
2500	3251162282690
3000	3251162282691
4000	3251162282692
4500	3251162282693
5000	3251162282694
6000	3251162282695
8000	3251162282696

COMPACT MODELS

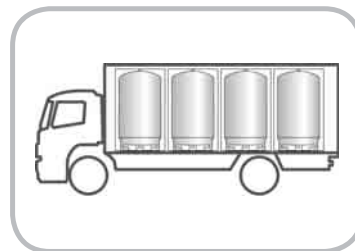
TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

STOCK AVAILABILITY

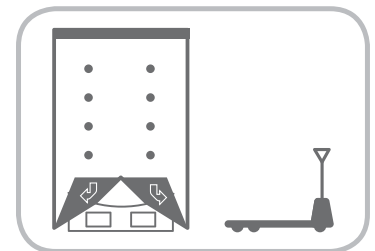
SMART APPLICATIONS



SUITABLE FOR LOW-CEILINGED ROOMS



EASY TO TRANSPORT

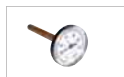


EASY TO MOVE

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box

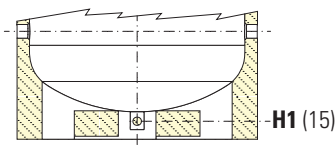
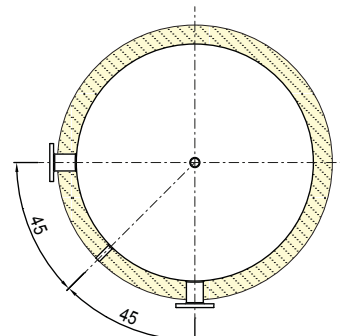
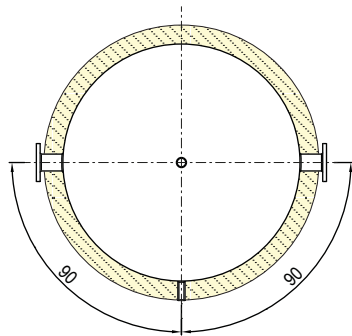
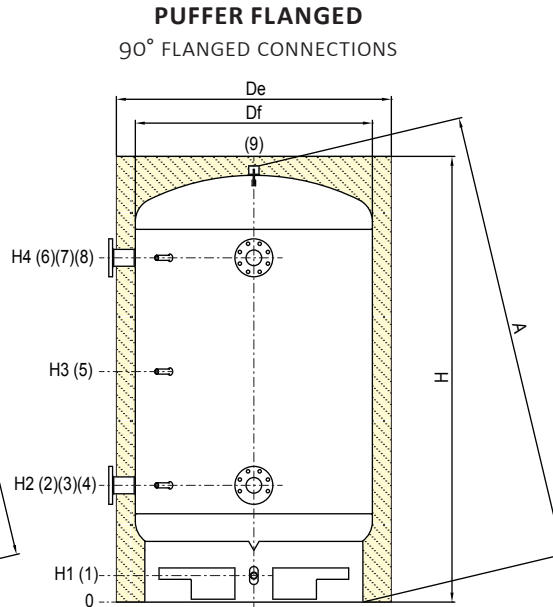
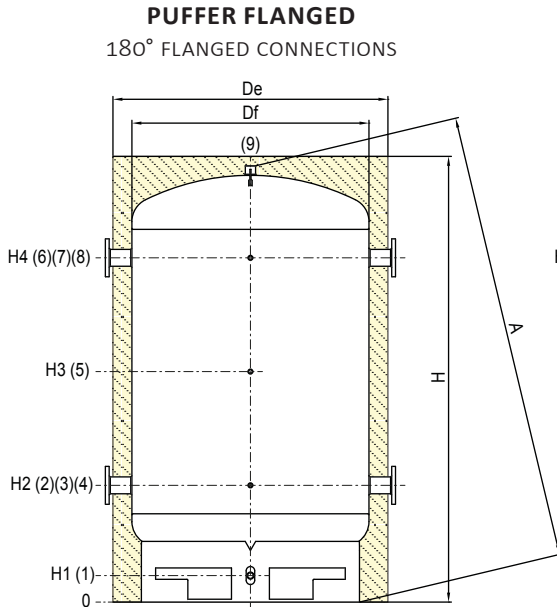


PUFFER FLANGED

HEATING WATER BUFFER TANKS WITH 90° AND 180° FLANGED CONNECTIONS

STORAGE	
Pmax	Tmax
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.



The compact models have two grips on the bottom which allows the use of forklift when handling and already equipped with mounted drainage tube.

1	Drain 1" GAS F
2-4	To generator / Heating return
6-8	Heating delivery/From Generator
3-5-7	Connection for instrumentation 1/2" Gas F
9	Heating delivery

PUFFER FLANGED

Model	Net volume [lt]	Df	De	H	A	H1	H2	H3	H4	Connections Gas F	
										2-4-6-8	9
2500	2306	1250	1450	2351	2433	140	616	1216	1816	PN16 DN80	1 1/2"
3000	3017	1500	1700	2180	2305	109	640	1115	1590	PN16 DN80	2"
4000	3986	1600	1800	2456	2583	95	646	1246	1846	PN16 DN80	2"
4500	4411	1800	2000	2230	2405	89	655	1130	1605	PN16 DN80	2"
5000	5042	1800	2000	2480	2638	89	675	1255	1835	PN16 DN100	2"
6000	5672	1800	2000	2730	2875	89	675	1380	2085	PN16 DN100	2"
8000	7564	1800	2000	3480	3594	89	675	1705	2835	PN16 DN100	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 construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

HEAT EXCHANGER

1 mild steel fixed heat exchanger.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER 1 are used in units with a typically discontinuous energy source such as biomass boiler and solar thermal system.

PUFFER 1 allows the solar energy system integration.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

2 years

See general sales conditions and warranty.



available until April 2016

PUFFER 1 VT VC

Model	Storage: Mild steel Heat exchanger: Mild steel		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m ²]
300	3251162282201		C	1,0
500	3251162282902		C	1,9
600	3251162282210		E	2,1
750	3251162282773		E	2,3
800	3251162282203		E	2,5
1000	3251162282204		E	3,1
1500	3251162282205		E	3,8
2000	3251162282307		E	4,6
3000	3251162282308			6,2
5000	3251162282309			7,5



PUFFER 1 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PUFFER 1 VT VC HE

Model	Storage: Mild steel Heat exchanger: Mild steel		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m ²]
300	3251162312201		C	1,0
500	3251162312202		C	1,9
600	3251162312203		C	2,1
750	3251162312204		C	2,3
800	3251162312205		C	2,5
1000	3251162312206		C	3,1
1250	3251162312207		C	3,4
1500	3251162312208		C	3,8
2000	3251162312209		C	4,6

— Accessories on request —

Electrical immersions kit

Available kit:	
[Kw]	Tension [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

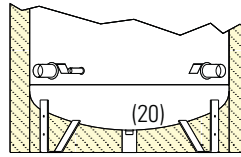
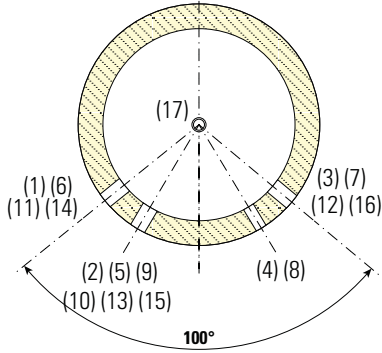
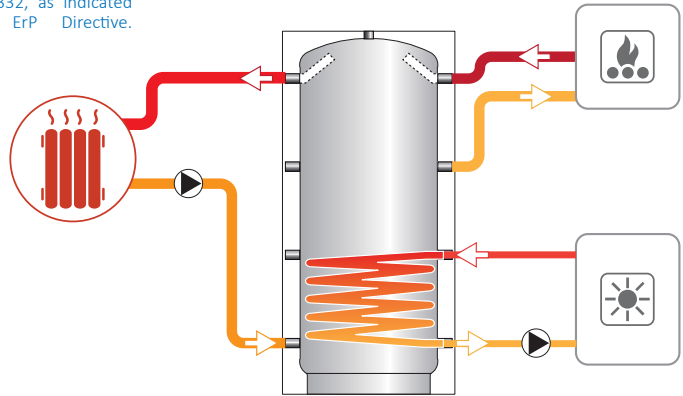
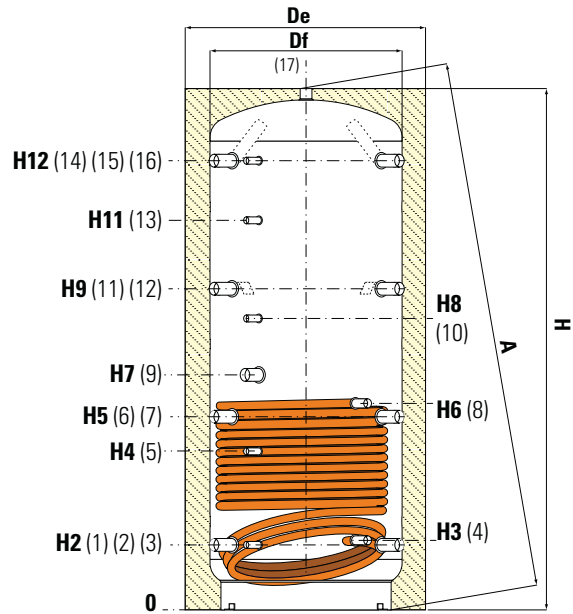
Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFER 1

HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER

STORAGE		HEAT EXCHANGERS	
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.



1-3-6-7	Heating return/To Generator
2-5	Connection for instrumentation 1/2" Gas F
4	Lower fixed heat exchanger outlet
8	Lower fixed heat exchanger inlet
9	Electrical immersion
10	Connection for instrumentation 1/2" Gas F
11-12-14-16	Heating delivery/From Generator
13	Connection for instrumentation 1/2" Gas F
15	Connection for instrumentation 1/2" Gas F
17	Heating delivery
20	Drain only for models 3000 - 5000

PUFFER



Model	Net volume [lt]	Df	De	De (HE SERIE)	H	A	H2	H3	H4	H5	H6	H7	H8	H9	H11	H12	1-3-6-7-9-11-12-14-16-17	4-8	20
300	279	550	750	650	1340	1489	232	217	444	514	514	590	725	796	885	1078	1" 1/2	1"	//
500	478	650	850	750	1620	1784	247	260	533	629	745	841	930	1011	1231	1343	1" 1/2	1"	//
600	560	650	850	750	1870	2014	247	260	582	695	855	915	1060	1144	1382	1593	1" 1/2	1"	//
750	717	790	990	940	1658	1906	265	278	584	630	679	823	938	995	1180	1371	1" 1/2	1"	//
800	805	790	990	950	1840	2064	265	278	584	690	762	823	988	1115	1332	1541	1" 1/2	1"	//
1000	946	790	990	940	2130	2326	265	284	656	787	953	998	1188	1309	1588	1831	1" 1/2	1"	//
1250	1248	900	//	1050	2201	2439	313	326	705	835	884	986	1168	1357	1568	1879	1" 1/2	1"	//
1500	1435	950	1150	1100	2250	2504	313	336	736	845	1006	1061	1286	1377	1653	1909	1" 1/2	1"	//
2000	1973	1100	1300	1300	2320	2659	347	370	770	879	1001	1060	1300	1411	1687	1943	1" 1/2	1"	//
3000	2915	1250	1450	//	2814	3079	556	569	1017	1071	1551	1693	1879	1786	2140	2402	2"	1"1/4	1"
5000	4985	1600	1800	//	2929	3338	586	609	1047	1101	1522	1691	1889	1816	2159	2432	2"	1"1/4	2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

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 construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

HEAT EXCHANGER

2 mild steel fixed heat exchangers.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER 2 are used in units with a typically discontinuous energy source such as biomass boiler and solar thermal system. PUFFER 2 allows

the solar energy system integration as well as another thermal generator.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

2 years

See general sales conditions and warranty



Stratification plate

Available until April 2016

PUFFER 2 VT VC

Model	Storage: Mild steel Heat exchanger: Mild steel		HEAT EXCHANGER SURFACE	
	Art. Nr.		Upper [m ²]	Lower [m ²]
500	3251162282953	C	1,3	1,9
600	3251162282703	E	1,3	2,1
750	3251162282783	E	1,5	2,3
800	3251162282704	E	1,5	2,3
1000	3251162282705	E	2,5	3,1
1500	3251162282706	E	2,8	3,8
2000	3251162282707	E	2,8	4,6



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



PUFFER 2 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PUFFER 2 VT VC HE

Model	Storage: Mild steel Heat exchanger: Mild steel		HEAT EXCHANGER SURFACE	
	Art. Nr.		Upper [m ²]	Lower [m ²]
500	3251162312703	C	1,3	1,9
600	3251162312704	C	1,3	2,1
750	3251162312705	C	1,8	2,5
800	3251162312706	C	1,5	2,3
1000	3251162312707	C	2,5	3,1
1500	3251162312709	C	2,8	3,8
2000	3251162312710	C	2,8	4,6

Accessories on request

Electrical immersions kit

Available kit:		
[Kw]	Tension [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

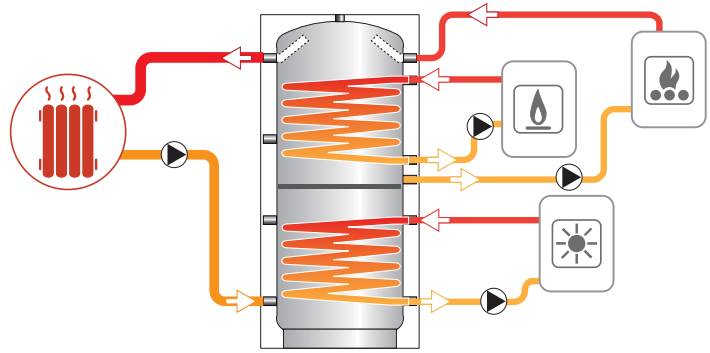
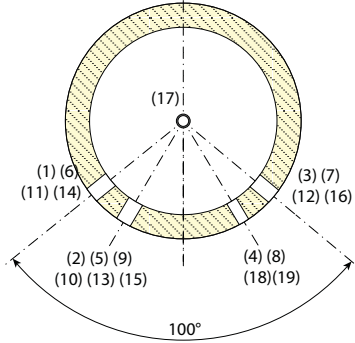
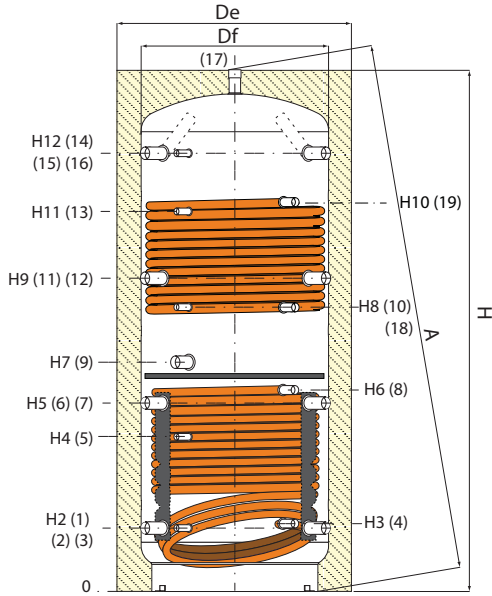
Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFER 2

HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS

STORAGE		HEAT EXCHANGERS	
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.

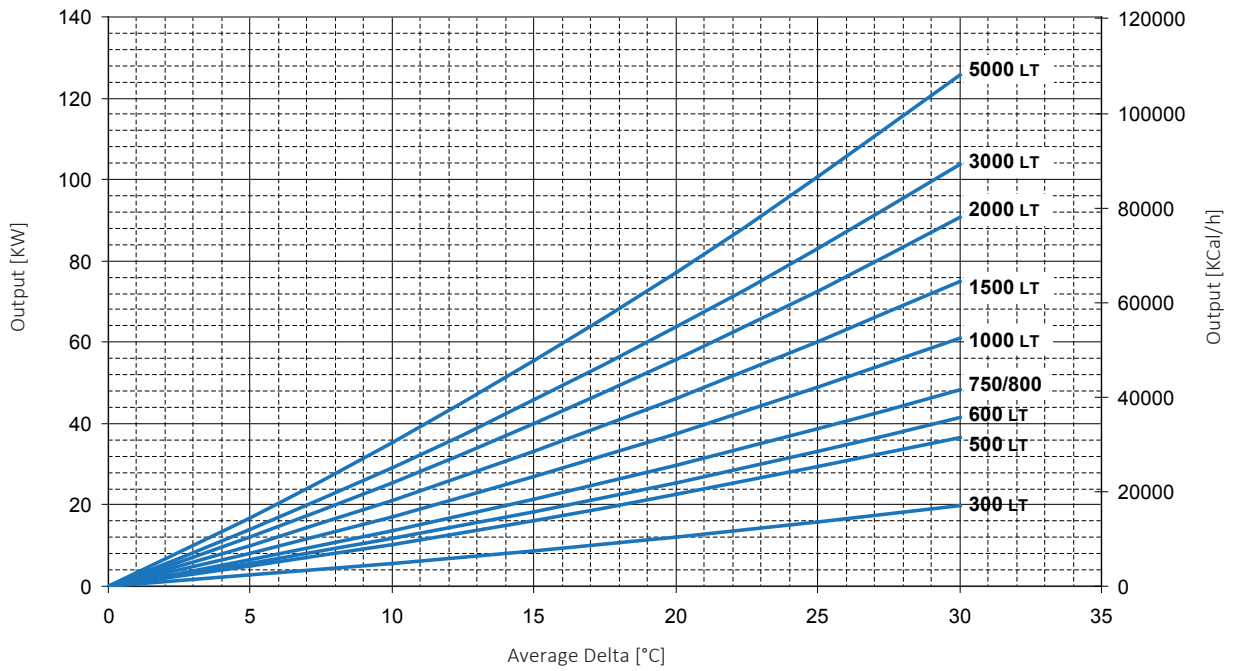


1-3-6-7	Heating return/To Generator
2-5	Connection for instrumentation 1/2" Gas F
4	Lower fixed heat exchanger outlet
8	Lower fixed heat exchanger inlet
9	Electrical immersion
10	Connection for instrumentation 1/2" Gas F
11-12-14-16	Heating delivery/From Generator
13	Connection for instrumentation 1/2" Gas F
15	Connection for instrumentation 1/2" Gas F
17	Heating delivery
18	Upper fixed heat exchanger outlet 1" Gas F
19	Upper fixed heat exchanger inlet 1" Gas F



Model	Net volume [lt]	Df	De	De (HE SERIE)	H	A	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	1-3-6-7-9-11-12-14-16-17	4-8
																		Connections Gas F	
500	478	650	850	750	1620	1784	247	260	533	629	745	841	930	1011	1231	1231	1343	1" 1/2	1"
600	560	650	850	750	1870	2014	247	260	582	695	855	915	1060	1144	1361	1382	1593	1" 1/2	1"
750	717	790	990	940	1658	1906	265	278	584	630	679	823	938	995	1196	1180	1371	1" 1/2	1"
800	805	790	950	940	1840	2064	265	278	584	690	762	823	988	1115	1332	1332	1541	1" 1/2	1"
1000	946	790	990	940	2130	2326	265	284	656	787	953	998	1188	1309	1661	1588	1831	1" 1/2	1"
1500	1435	950	1150	1100	2250	2504	313	336	736	845	1006	1061	1286	1377	1673	1653	1909	1" 1/2	1"
2000	1973	1100	1300	1300	2320	2659	347	370	770	879	1001	1060	1300	1411	1687	1687	1943	1" 1/2	1"

PUFFER 1 FIXED HEAT EXCHANGER POWERS CHART



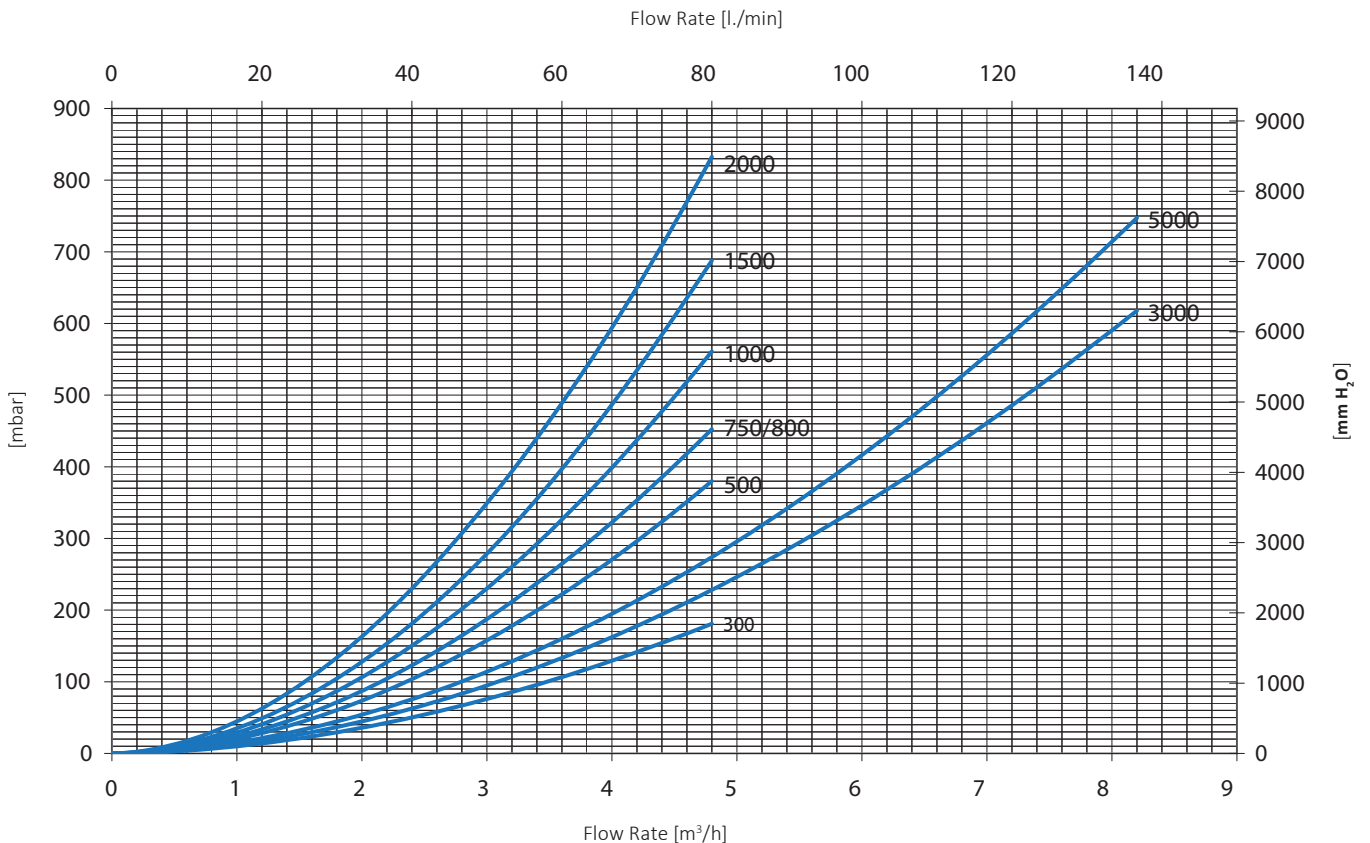
Thermal output is given in both KW or kcal/h in terms of average temperature difference between primary and secondary circuit, all for a range of primary 3 m³/h.

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 mean difference of temperature will be:

$(80 + 70) / 2 - 60 = 15$ °C and therefore you can exchange up to approximately 34 KW.

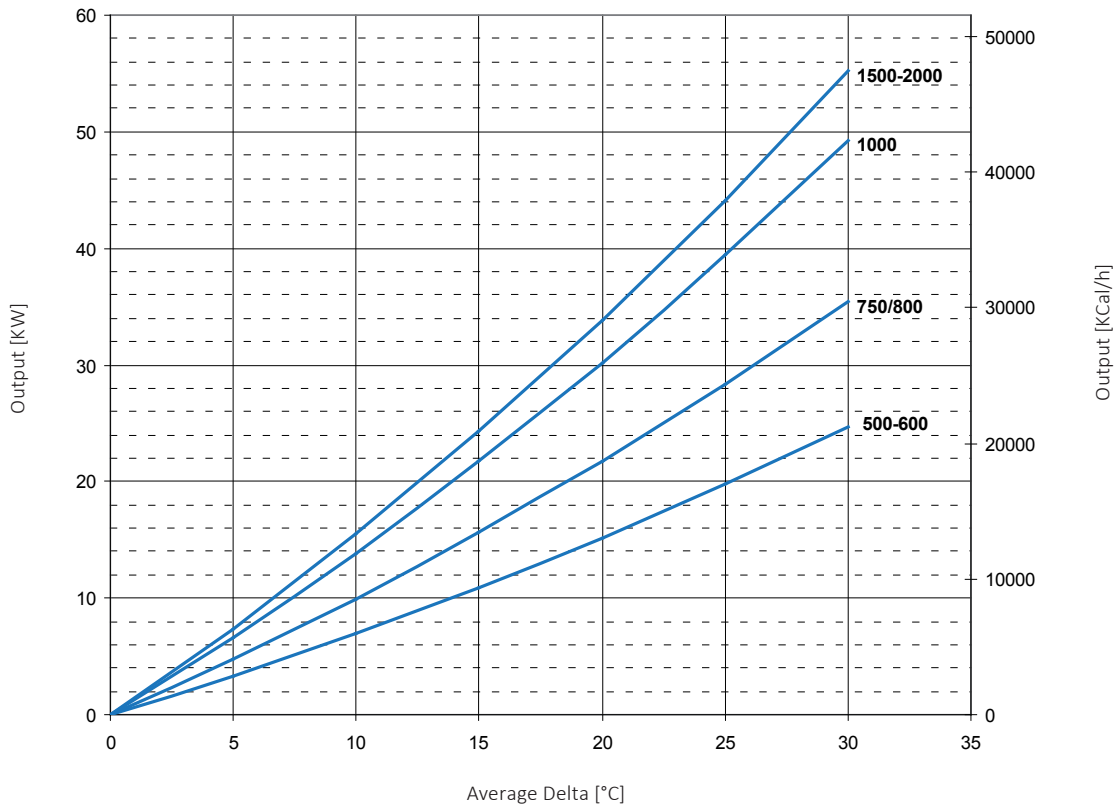
Output of the lower heat exchangers PUFFER 1 depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

PUFFER 1 FIXED HEAT EXCHANGER PRESSURE LOSS



PUFFER 2- UPPER FIXED HEAT EXCHANGER POWERS CHART

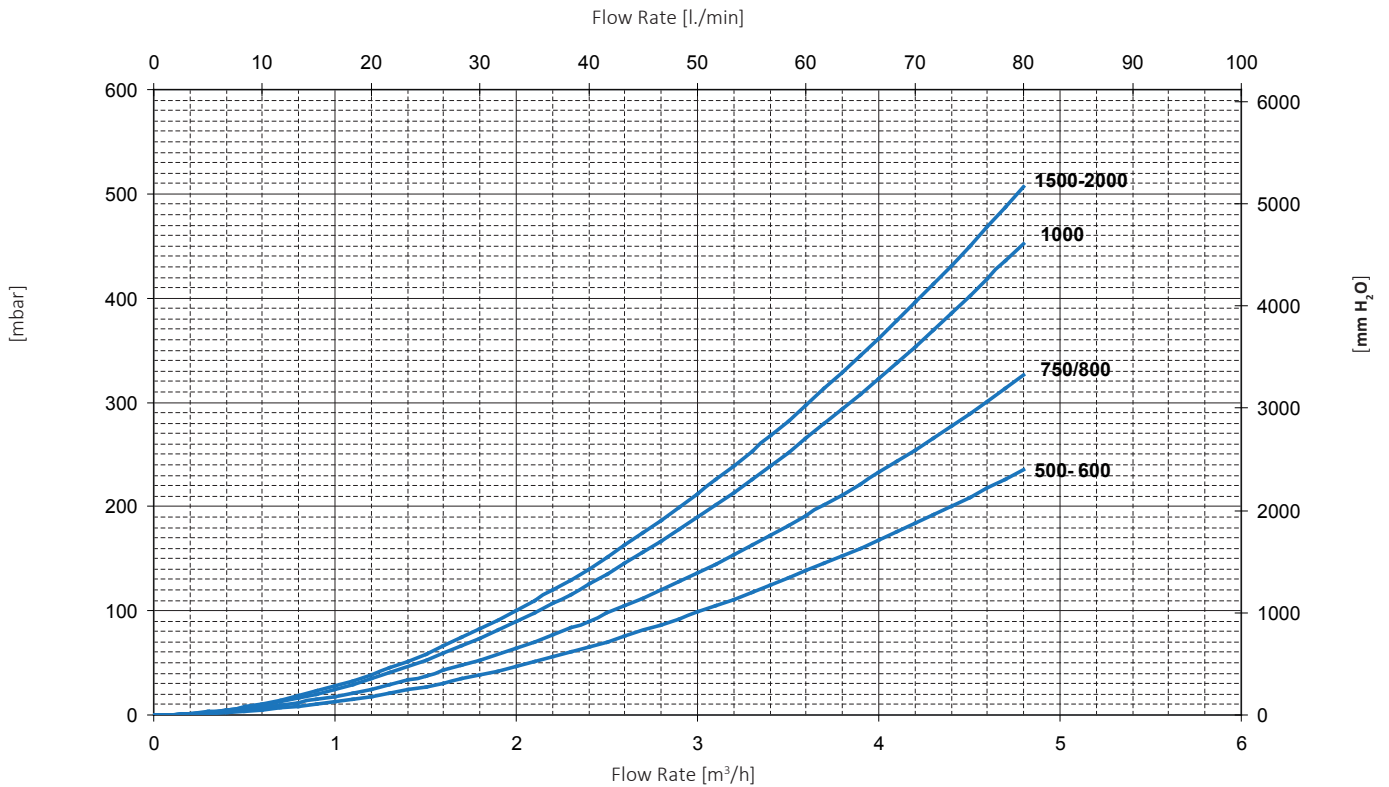
FOR LOWER EXCHANGER POWER DATA SEE PUFFER 1



Output of the lower heat exchangers PUFFER 2 depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

PUFFER 2 UPPER FIXED HEAT EXCHANGER PRESSURE LOSS

FOR LOWER EXCHANGER POWER DATA SEE PUFFER 1



PUFFER 1 CTS®



STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 1 FIXED COIL



APPLICATION

Storage of heating hot water.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

HEAT EXCHANGER

1 mild steel fixed heat exchanger.

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 water heated 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. 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. PVC external lining with top cover

WARRANTY

2 years


See general sales conditions and warranty



CTS® stratificator system



PUFFER 1 CTS® VB HE

Model	Storage: Mild steel Heat exchanger: Mild steel		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
	Art. Nr.			[m ²]
500	3251162313002	C		1,9
600	3251162313003	C		2,1
800	3251162313004	C		2,5
1000	3251162313005	C		3,1
1500	3251162313006	C		3,8
2000	3251162313007	C		4,6



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM




Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —


Electrical immersions kit

		
Available kit:		
[Kw]	Tension [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

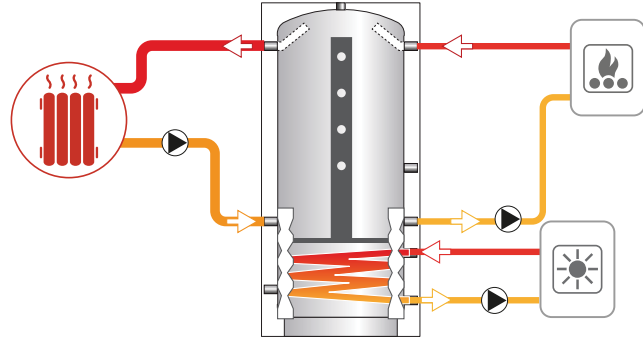
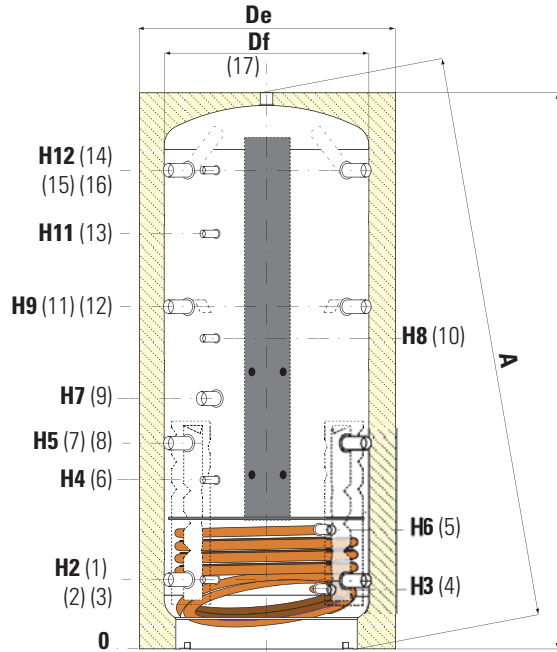
Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFER 1 CTS®

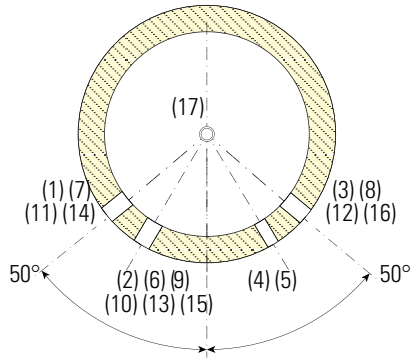
STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 1 FIXED COIL

STORAGE		HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	12 bar	110 °C

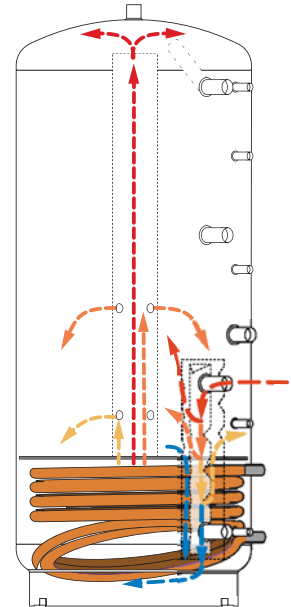
CORDIVARI® Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
 procedures and Cordivari LAB are
 certified conforming to European
 standard EN 15332, as indicated
 by Ecodesign ErP Directive.



1-3-7-8	Heating return/To Generator 1"1/2 Gas F
2	Connection for instrumentation 1/2" Gas F
4	Fixed heat exchanger outlet 1" Gas F
5	Fixed heat exchanger inlet 1" Gas F
6	Connection for instrumentation 1/2" Gas F
9	Electrical immersion 1"1/2 Gas F
11-12-14-16	Heating delivery/From Generator 1"1/2 Gas F
13	Connection for instrumentation 1/2" Gas F
15	Connection for instrumentation 1/2" Gas F
17	Heating delivery / Air venting 1" 1/2 Gas F



THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE



Model	Net volume	Df	De	H	A	H2	H3	H4	H5	H7	H8	H9	H11	H12
	[lt]													
[mm]														
500	478	650	750	1620	1784	247	215	533	629	841	930	1011	1231	1343
600	560	650	750	1870	2015	247	215	582	695	915	1060	1144	1382	1593
800	805	790	940	1840	2066	265	233	584	690	823	988	1115	1332	1541
1000	946	790	940	2130	2328	265	233	656	787	998	1188	1309	1588	1831
1500	1435	950	1100	2250	2504	313	281	736	845	1061	1286	1377	1653	1909
2000	1973	1100	1300	2320	2659	347	315	770	879	1060	1300	1411	1687	1943

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

PUFFER

PUFFER 2 CTS®



STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 2 FIXED COILS



APPLICATION

Storage of heating hot water.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

HEAT EXCHANGER

2 mild steel fixed heat exchangers.

TECHNICAL DESCRIPTION

Used to improve flexibility of pellets, stoves and burners. PUFFER 2 CTS® are used in units with a typically discontinuous energy source such as biomass boiler and solar thermal systems.

The PUFFER 2 CTS® is characterized by multiple stratification system based on the combination of Cordivari Labyrinth spreader for returning heating water with a brand new stratification device

that convey in the upper part of the tank the water heated 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. 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. PVC external lining with top cover.



WARRANTY

2 years- See general sales conditions and warranty.



CTS® stratificator system

PUFFER 2 CTS® VB HE

Model	Storage: Mild steel Heat exchanger: Mild steel		ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
				Upper [m ²]	Lower [m ²]
	Art. Nr.				
500	3251162313702		C	1,3	1,9
600	3251162313703		C	1,3	2,1
800	3251162313704		C	1,8	2,5
1000	3251162313705		C	2,5	3,1
1500	3251162313706		C	2,8	3,8
2000	3251162313707		C	2,8	4,6



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

— Accessories on request —

Electrical immersions kit

		
Available kit:		
[Kw]	Tension [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)	

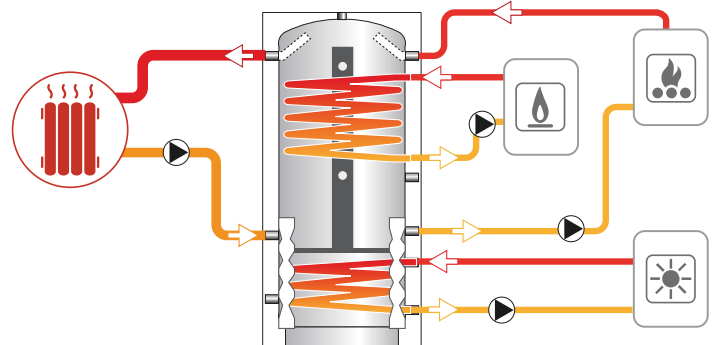
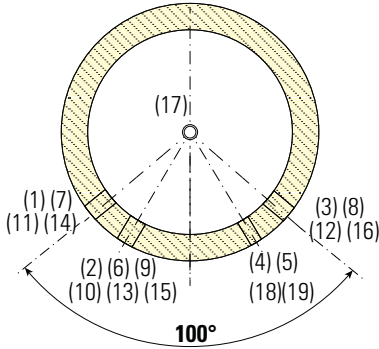
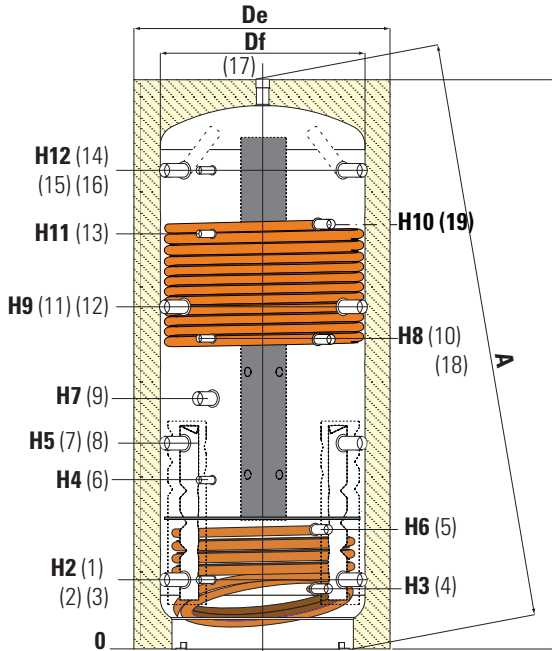


PUFFER 2 CTS®

STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE AND 2 FIXED COILS

STORAGE		HEAT EXCHANGERS	
Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	12 bar	110 °C

CORDIVARI Lab
 TÜV Rheinland
 Energie und Umwelt
 GmbH states that test
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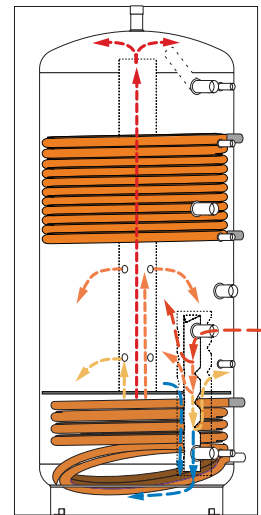


1-3-7-8	Heating return/To Generator 1"1/2 Gas F
2	Connection for instrumentation 1/2" Gas F
4	Fixed heat exchanger outlet 1" Gas F
5	Fixed heat exchanger inlet 1" Gas F
6	Connection for instrumentation 1/2" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Connection for instrumentation 1/2" Gas F
11-12-14-16	Heating delivery/From Generator 1"1/2 Gas F
13	Connection for instrumentation 1/2" Gas F
15	Connection for instrumentation 1/2" Gas F
17	Heating delivery / Air venting 1" 1/2 Gas F
18	Upper fixed heat exchanger outlet 1" Gas F
19	Upper fixed heat exchanger inlet 1" Gas F

PUFFER



THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE



Model	Net volume [lt]	Df	De	H	A	[mm]									
						H2	H3	H4	H5	H7	H8	H9	H10	H11	H12
500	478	650	750	1620	1784	247	215	533	629	841	930	1011	1231	1231	1343
600	560	650	750	1870	2015	247	215	582	695	915	1060	1144	1361	1382	1593
800	805	790	940	1840	2066	265	233	584	690	823	988	1115	1332	1332	1541
1000	946	790	940	2130	2328	265	233	656	787	998	1188	1309	1661	1588	1831
1500	1435	950	1100	2250	2504	313	281	736	845	1061	1286	1377	1673	1653	1909
2000	1973	1100	1300	2320	2659	347	315	770	879	1060	1300	1411	1687	1687	1943

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



MULTIFUEL ENERGY
CYLINDERS

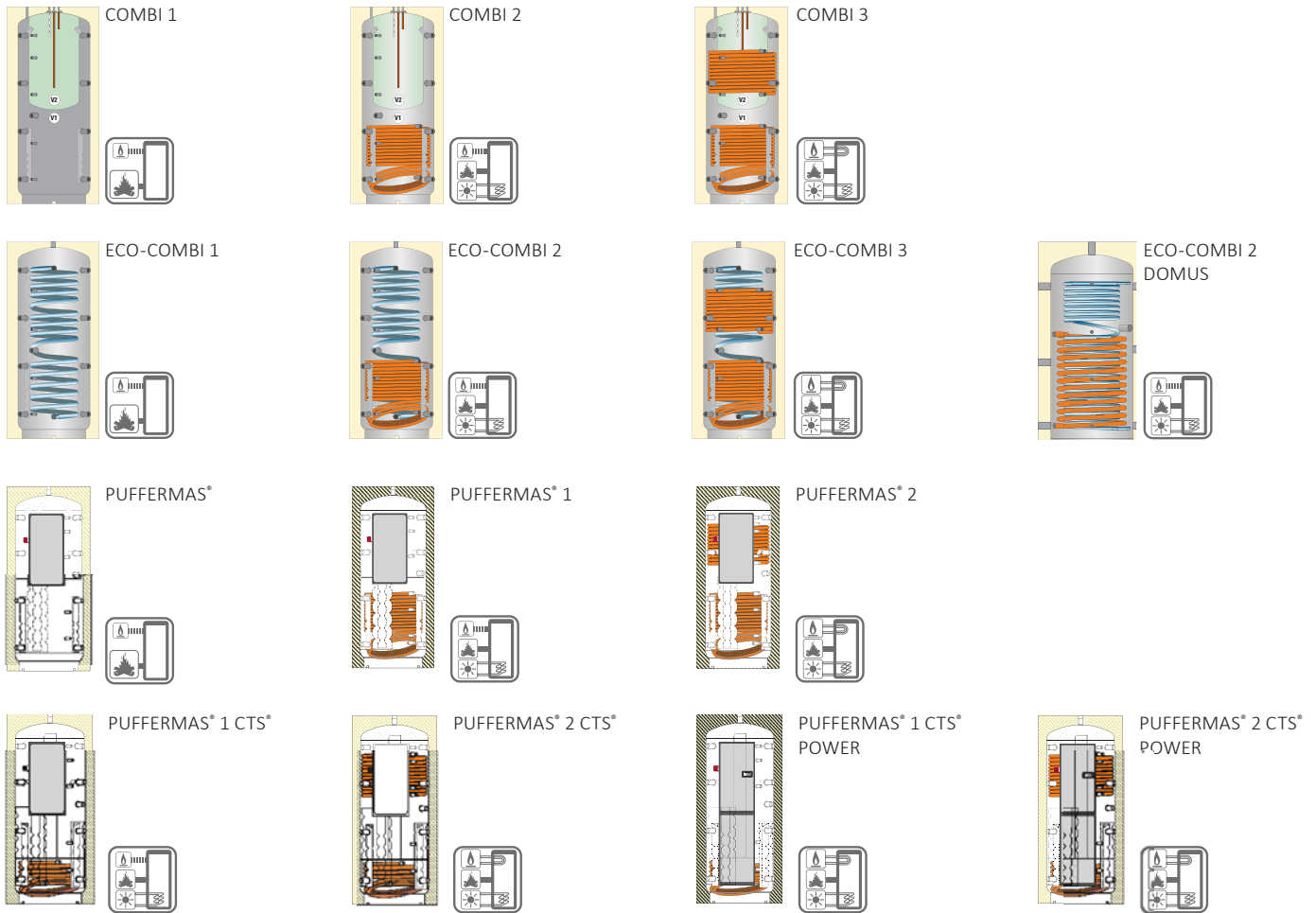
BBRICATO IN ITALIA

CORDIVARI®

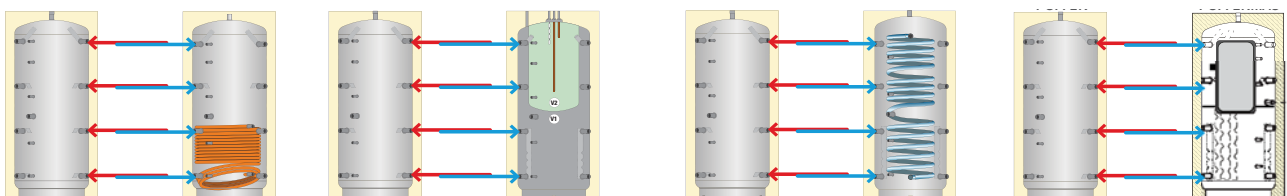
cordivari.it



MULTIFUEL ENERGY CYLINDERS RANGE



COMMUNICATING BUFFER TANKS



D.H.W. PRODUCTION AND EASY STRATIFICATION WITH LABYRINTH SPREADER (CORDIVARI PATENT)

The MACS® station is connected to the Buffer Tank, thanks to a circulator, the heating water is moved to the stainless steel plate exchanger for immediate production of D.H.W. Performances are optimized with the "Labyrinth Spreader" (Cordivari Patent) [Fig 1] that thanks to its spread shape allows a perfect stratification of the water that returns back from the MACS® module, and avoid any turbulences that would effect thermal stratification inside the buffer tank:

Fig. 1 - Labyrinth Spreader (Cordivari Patent) thermography

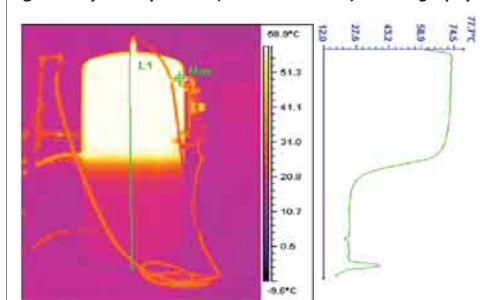
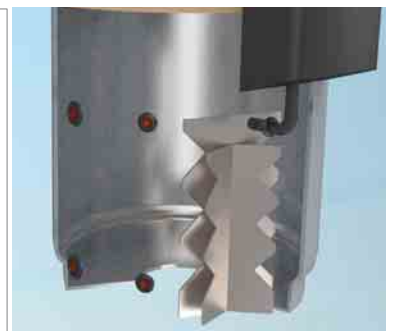
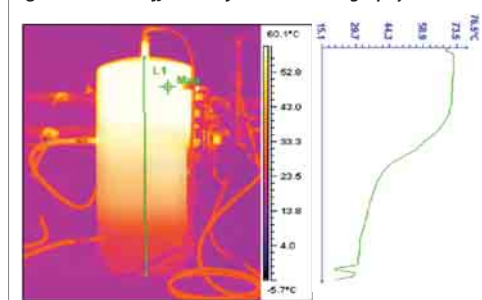
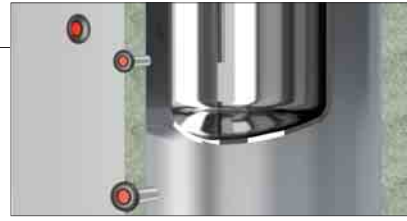


Fig. 2 - Normal buffer stratification thermography



COMBI

MULTI-HEAT ENERGY BUFFER WITH STAINLESS STEEL OR POLYWARM® COATED TANK IN TANK CALORIFIER FOR D.H.W. PRODUCTION



ECO-COMBI

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION



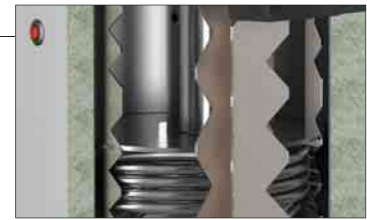
PUFFERMAS®

HEATING WATER BUFFER TANK WITH MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



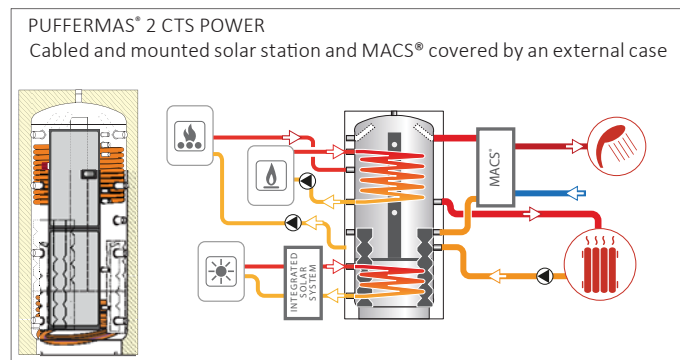
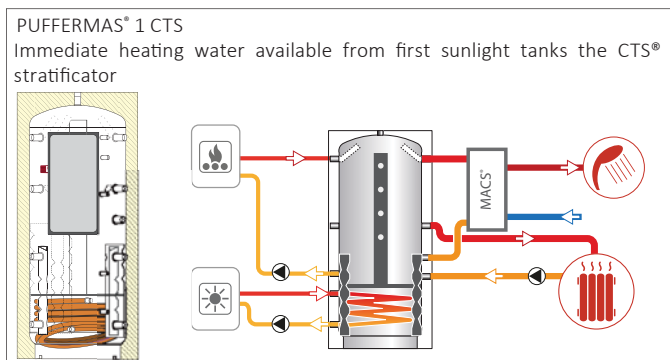
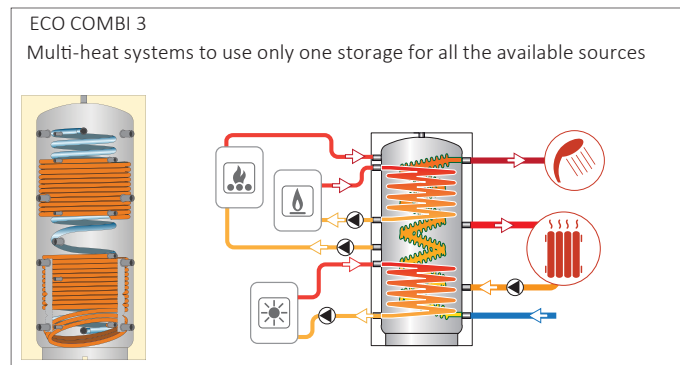
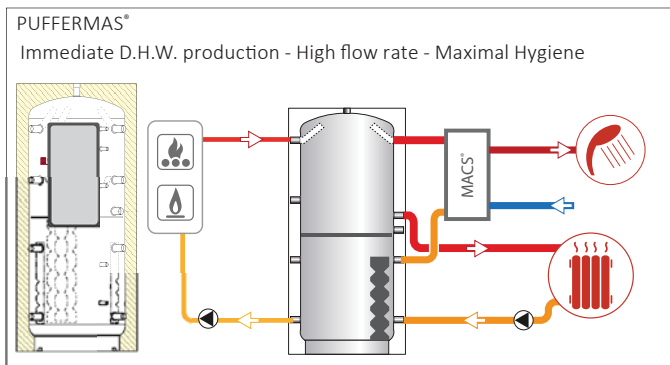
PUFFERMAS® CTS

- STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE, 1 FIXED COIL AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY D.H.W. WATER
- CABLED AND MOUNTED SOLAR STATION (POWER VERSION)



EXAMPLES

In order to guarantee a complete hygiene, Domestic Hot Water station MACS installed on PUFFERMAS has been designed to combine benefits of storing heating water with the comfort and safety of immediate DHW production. ECO-COMBI model uses a 316L stainless steel corrugated pipe to immediately produce DHW and avoid bacteria proliferation. The advanced CTS system is made with heating charge from the top that optimizes operating time with solar option systems and entirely use its potential.



COMBI 1

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE** (Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.):
 - Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)
 - 316L Stainless steel

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi1 are used in units with a typically discontinuous energy source for double use: heating system and sanitary hot water system.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Chain magnesium anode

WARRANTY

- BUFFER TANK: 2 years
- D.H.W. STORAGE: 5 years

See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



COMBI 1 WC

ENERGY EFFICIENCY CLASS

D.H.W. Storage - POLYWARM®

Model	D.H.W. Storage: POLYWARM® Storage: mild steel		Volume	Surface
	Art. Nr.		[litres]	[m²]
500	3270162284031	E	99	1,1
600	3270162284001	E	146	1,3
800	3270162284002	E	191	1,6
1000	3270162284003	E	226	1,8
1500	3270162284004	E	412	2,5
2000	3270162284005	E	566	3,1

Available until April 2016



COMBI 1 HE SERIES



COMBI 1 XB HE

ENERGY EFFICIENCY CLASS

D.H.W. Storage - 316L STAINLESS STEEL

Model	D.H.W. Storage: 316L STAINLESS STEEL Storage: mild steel		Volume	Surface
	Art. Nr.		[litres]	[m²]
500	3270162314051	C	115	1,1
600	3270162314052	C	146	1,3
800	3270162314053	C	191	1,6
1000	3270162314054	C	226	1,8



COMBI 1 WB HE

ENERGY EFFICIENCY CLASS

D.H.W. Storage - POLYWARM®

Model	D.H.W. Storage: POLYWARM® Storage: mild steel		Volume	Surface
	Art. Nr.		[litres]	[m²]
500	3270162314001	C	99	1,1
600	3270162314002	C	146	1,3
800	3270162314003	C	191	1,6
1000	3270162314004	C	226	1,8
1500	3270162314005	C	412	2,5
2000	3270162314006	C	566	3,1



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

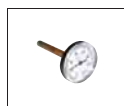


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

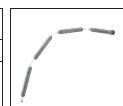
Thermometer

Art. Nr.
5032240000107
5 units box



Chain magnesium anode

Art. Nr.	Connection
5200000041007	3/4"
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)	

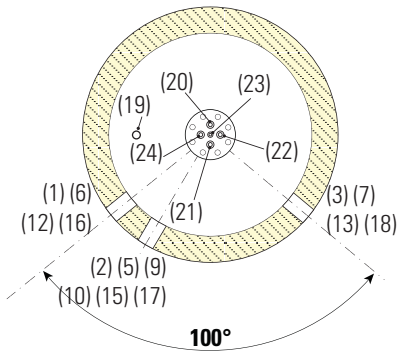
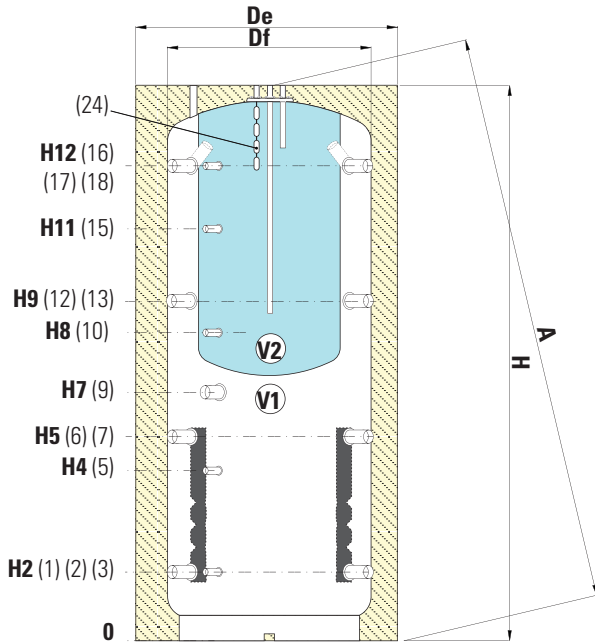
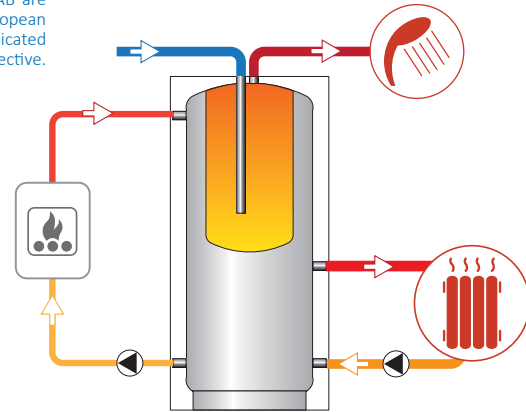


COMBI 1

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER

STORAGE (V1)		DHW TANK (V2) (316L STAINLESS STEEL)		DHW TANK (V2) (POLYWARM®)	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °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.



1-3	Heating return/To Generator 1"1/2 Gas F
2	Connection for instrumentation 1/2" Gas F
5	Connection for instrumentation 1/2" Gas F
6-7	Heating return/To Generator 1"1/2 Gas F
9	Electrical immersion 1"1/2 Gas F
10	Connection for instrumentation 1/2" Gas F
12-13	Heating return/To additional generator/Heating delivery 1"1/2 Gas F
15	Connection for instrumentation 1/2" Gas F
16-18	From generator/Heating delivery 1"1/2 Gas F
17	Connection for instrumentation 1/2" Gas F
19	Air spurge 1/2" Gas F
20	Domestic hot water inlet 3/4" Gas F
21	Domestic hot water outlet 3/4" Gas F
22	Recirculation 3/4" Gas F
23	Connection for instrumentation 1/2" Gas F
24	Chain magnesium anode 3/4" Gas F

MULTIFUEL
ENERGY CYLINDERS



Model	Net Volume (V1)	Df	De	De (HE SERIE)	H	A	H2	H4	H5	H7	H9	H11	H12
	[litres]												
500	324	650	850	750	1670	2108	247	533	629	841	1011	1231	1343
600	406	650	850	750	1920	2061	247	582	695	915	1144	1382	1593
800	602	790	990	950	1890	2111	265	584	690	823	1115	1332	1541
1000	706	790	990	950	2180	2374	265	656	787	998	1309	1588	1831
1500	984	950	1150	1100	2300	2550	313	736	845	1061	1377	1653	1909
2000	1380	1100	1300	1300	2370	2703	347	770	879	1060	1411	1687	1943

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

COMBI 2

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER WITH 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE (Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.):**
 - Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)
 - 316L Stainless steel

HEAT EXCHANGER:

1 fixed heat exchanger.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi2 are used in units with a typically discontinuous energy source for double use: heating systems and

sanitary hot water systems.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Chain magnesium anode.

WARRANTY

- **BUFFER TANK:** 2 years
 - **D.H.W. STORAGE:** 5 years
- See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Available until April 2016



COMBI 2 WC

Model	D.H.W. Storage: POLYWARM® Storage: mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	D.H.W. STORAGE POLYWARM®		HEAT EXCHANGER	
			Volume [litres]	Surface [m²]	Volume [litres]	Surface [m²]
500	3270162284131	E	99	1,1	11,5	1,9
600	3270162284101	E	146	1,3	18	2,8
800	3270162284102	E	191	1,6	20	3,1
1000	3270162284103	E	226	1,8	24	3,7
1500	3270162284104	E	412	2,5	32	4,9
2000	3270162284105	E	566	3,1	35	5,4

COMBI 2 HE SERIES



COMBI 2 XB HE

Model	D.H.W. Storage: 316L STAINLESS STEEL Storage: mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	D.H.W. STORAGE 316L STAINLESS STEEL		HEAT EXCHANGER	
			Volume [litres]	Surface [m²]	Volume [litres]	Surface [m²]
500	3270162314151	C	115	1,1	11,5	1,9
600	3270162314152	C	146	1,3	18	2,8
800	3270162314153	C	191	1,6	20	3,1
1000	3270162314154	C	226	1,8	24	3,7

COMBI 2 WB HE

Model	D.H.W. Storage: POLYWARM® Storage: mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	D.H.W. STORAGE POLYWARM®		HEAT EXCHANGER	
			Volume [litres]	Surface [m²]	Volume [litres]	Surface [m²]
500	3270162314101	C	99	1,1	11,5	1,9
600	3270162314102	C	146	1,3	18	2,8
800	3270162314103	C	191	1,6	20	3,1
1000	3270162314104	C	226	1,8	24	3,7
1500	3270162314105	C	412	2,5	32	4,9
2000	3270162314106	C	566	3,1	35	5,4

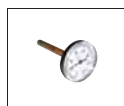


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

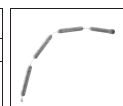
Thermometer

Art. Nr.	5032240000107
5 units box	



Chain magnesium anode

Art. Nr.	5200000041007	Connection	3/4"
N° 2 chain anodes + insulated cap + gasket			



Buffer tanks connecting kit

Art. Nr.	5006170001001	Connection	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)			

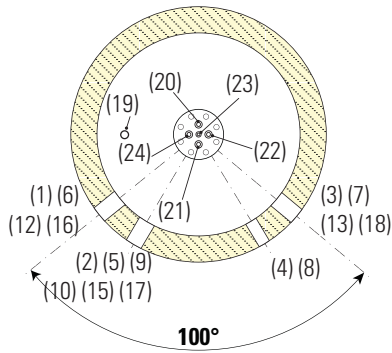
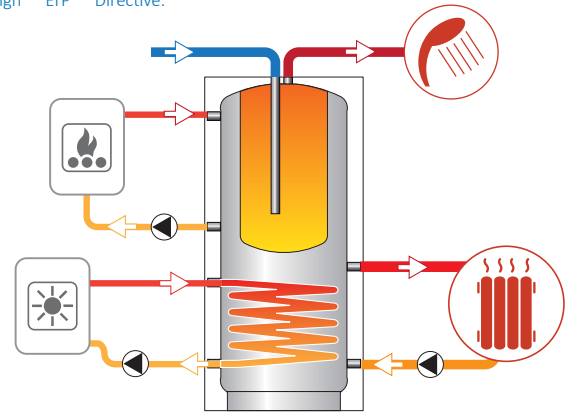
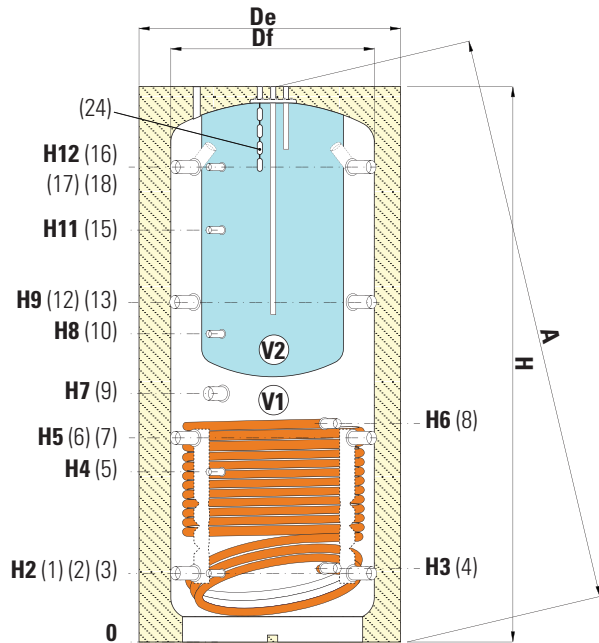


COMBI2

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER WITH 1 FIXED HEAT EXCHANGER

STORAGE (V1)		DHW TANK (V2) (316L STAINLESS STEEL)		DHW TANK (V2) (POLYWARM*)		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °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.



1-3	Heating return/To Generator 1"1/2 Gas F
2	Connection for instrumentation 1/2" Gas F
4	Lower fixed heat exchanger outlet 1" Gas F
5	Connection for instrumentation 1/2" Gas F
6-7	Heating return/To Generator 1"1/2 Gas F
8	Lower fixed heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Connection for instrumentation 1/2" Gas F
12-13	Heating return/To additional generator/Heating delivery 1"1/2 Gas F
15	Connection for instrumentation 1/2" Gas F
16-18	From generator/Heating delivery 1"1/2 Gas F
17	Connection for instrumentation 1/2" Gas F
19	Air spurge 1/2" Gas F
20	Domestic hot water inlet 3/4" Gas F
21	Domestic hot water outlet 3/4" Gas F
22	Recirculation 3/4" Gas F
23	Connection for instrumentation 1/2" Gas F
24	Chain magnesium anode 3/4" Gas F

MULTIFUEL
ENERGY CYLINDERS



Model	Net Volume (V1)	Df	De	De (HE SERIE)	H	A	H2	H3	H4	H5	H6	H7	H9	H11	H12
	[litres]														
500	306	650	850	750	1670	2108	247	260	533	629	744	841	1011	1231	1343
600	388	650	850	750	1920	2061	247	260	582	695	855	915	1144	1382	1593
800	582	790	990	950	1890	2111	265	278	584	690	762	823	1115	1332	1541
1000	681	790	990	950	2180	2374	265	284	656	787	953	998	1309	1588	1831
1500	952	950	1150	1100	2300	2550	313	336	736	845	1006	1061	1377	1653	1909
2000	1345	1100	1300	1300	2370	2703	347	370	770	879	1001	1060	1411	1687	1943

COMBI 3

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER WITH 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE (Material and finishings, suitable for drinkable water according to D. M. n. 174 dated 06.04.04.):**
 - Mild steel Polywarm® coated (certification ACS- SSICA- DVGW- W270- UBA- WRAS)
 - 316L Stainless steel

HEAT EXCHANGER:

2 fixed heat exchangers.

TECHNICAL DESCRIPTION

Multi-Heat Energy tanks Combi3 are used in units with a typically discontinuous energy source for double use: heating systems and

sanitary hot water systems.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

CATHODE PROTECTION

Chain magnesium anode.

WARRANTY

- BUFFER TANK: 2 years
- D.H.W. STORAGE: 5 years

See general sales conditions and warranty

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



COMBI 3 WC			ENERGY EFFICIENCY CLASS	D.H.W. STORAGE POLYWARM®		HEAT EXCHANGER SURFACE			
Model	D.H.W. Storage: POLYWARM® Storage: mild steel	Art. Nr.		Volume	Surface	Upper		Lower	
				[litres]	[m²]	[litres]	[m²]	[litres]	[m²]
500	3270162284231			E	99	1,1	8	1,3	11,5
600	3270162284201		E	146	1,3	12	1,9	18	2,8
800	3270162284202		E	191	1,6	16	2,4	20	3,1
1000	3270162284203		E	226	1,8	20	3,1	24	3,7
1500	3270162284204		E	412	2,5	23	3,5	32	4,9
2000	3270162284205		E	566	3,1	27	4,1	35	5,4

Available until April 2016



STOCK AVAILABILITY

COMBI 3 HE



COMBI 3 XB HE			ENERGY EFFICIENCY CLASS	D.H.W. STORAGE 316L STAINLESS STEEL		HEAT EXCHANGER SURFACE			
Model	D.H.W. Storage: 316L STAINLESS STEEL Storage: mild steel	Art. Nr.		Volume	Surface	Upper		Lower	
				[litres]	[m²]	[litres]	[m²]	[litres]	[m²]
500	3270162314251			C	115	1,1	8	1,3	11,5
600	3270162314252		C	146	1,3	12	1,9	18	2,8
800	3270162314253		C	191	1,6	16	2,4	20	3,1
1000	3270162314254		C	226	1,8	20	3,1	24	3,7



COMBI 3 WB HE			ENERGY EFFICIENCY CLASS	D.H.W. STORAGE POLYWARM®		HEAT EXCHANGER SURFACE			
Model	D.H.W. Storage: POLYWARM® Storage: mild steel	Art. Nr.		Volume	Surface	Upper		Lower	
				[litres]	[m²]	[litres]	[m²]	[litres]	[m²]
500	3270162314201			C	99	1,1	8	1,3	11,5
600	3270162314202		C	146	1,3	12	1,9	18	2,8
800	3270162314203		C	191	1,6	16	2,4	20	3,1
1000	3270162314204		C	226	1,8	20	3,1	24	3,7
1500	3270162314205		C	412	2,5	23	3,5	32	4,9
2000	3270162314206		C	566	3,1	27	4,1	35	5,4



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

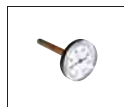


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

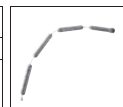
Thermometer

Art. Nr.	5032240000107
5 units box	



Chain magnesium anode

Art. Nr.	5200000041007	Connection	3/4"
N° 2 chain anodes + insulated cap + gasket			



Buffer tanks connecting kit

Art. Nr.	5006170001001	Connection	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)			

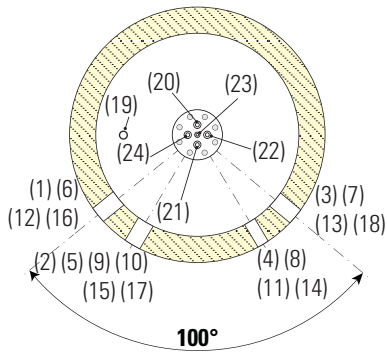
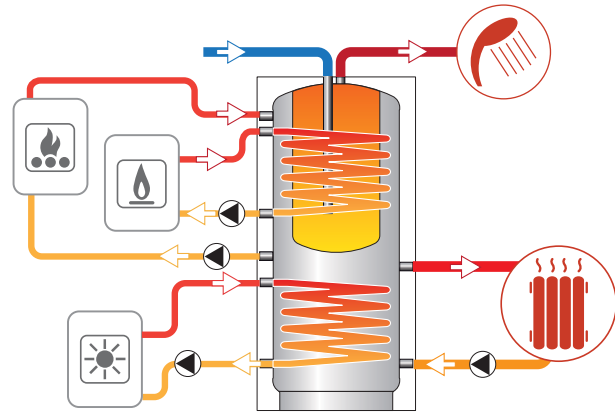
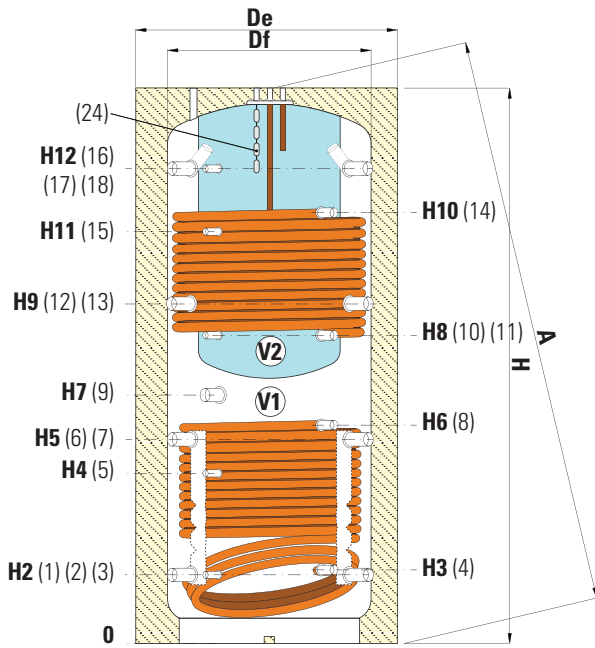


COMBI 3

MULTI-HEAT ENERGY BUFFER WITH TANK IN TANK CALORIFIER WITH 2 FIXED HEAT EXCHANGERS

STORAGE (V1)		DHW TANK (V2) (316L STAINLESS STEEL)		DHW TANK (V2) (POLYWARM [®])		FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Tmax	Pmax	Tmax	Pmax	Tmax
3 bar	99 °C	6 bar	95 °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.



1-3	Heating return/To Generator 1"1/2 Gas F
2	Connection for instrumentation 1/2" Gas F
4	Lower fixed heat exchanger outlet 1" Gas F
5	Connection for instrumentation 1/2" Gas F
6-7	Heating return/To Generator 1"1/2 Gas F
8	Lower fixed heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Connection for instrumentation 1/2" Gas F
11	Upper fixed heat exchanger outlet 1" Gas F
12-13	Heating return/To additional generator/Heating delivery 1"1/2 Gas F
14	Upper fixed heat exchanger inlet 1" Gas F
15	Connection for instrumentation 1/2" Gas F
16-18	From generator/Heating delivery 1"1/2 Gas F
17	Connection for instrumentation 1/2" Gas F
19	Air spurge 1/2" Gas F
20	Domestic cold water inlet 3/4" Gas F
21	Domestic hot water outlet 3/4" Gas F
22	Recirculation 3/4" Gas F
23	Connection for instrumentation 1/2" Gas F
24	Chain magnesium anode 3/4" Gas F

MULTIFUEL
ENERGY CYLINDERS



Model	Net Volume (V1) [litres]	Df	De	De (HE SERIE)	H	A	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12
500	293	650	850	750	1670	2108	247	260	533	629	744	841	930	1011	1231	1231	1343
600	375	650	850	750	1920	2061	247	260	582	695	855	915	1060	1144	1500	1382	1593
800	566	790	990	950	1890	2111	265	278	584	690	762	823	988	1115	1428	1332	1541
1000	661	790	990	950	2180	2374	265	284	656	787	953	998	1188	1309	1748	1588	1831
1500	929	950	1150	1100	2300	2550	313	336	736	845	1006	1061	1286	1377	1805	1653	1909
2000	1318	1100	1300	1300	2370	2703	347	370	770	879	1001	1060	1300	1411	1820	1687	1943

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

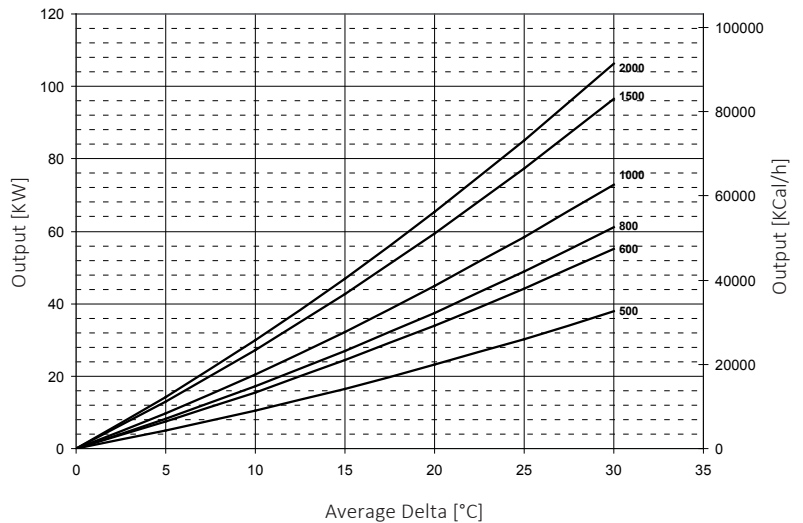
D.H.W. STORAGE PERFORMANCES

			COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
Model	DHW Volume V2	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
	[litres]	[m ²]	[l./min]	[litres]	[l./min]	[litres]
500	99	1,1	2,5	10 l./min: 198 lt	1,57	10 l./min: 148 lt
				25 l./min: 176 lt		25 l./min: 132 lt
600	146	1,3	3,0	10 l./min: 239 lt	1,86	10 l./min: 179 lt
				25 l./min: 213 lt		25 l./min: 160 lt
800	191	1,6	3,5	10 l./min: 320 lt	2,17	10 l./min: 240 lt
				25 l./min: 280 lt		25 l./min: 210 lt

COMBI 2- COMBI 3- LOWER FIXED HEAT EXCHANGERS POWERS CHART

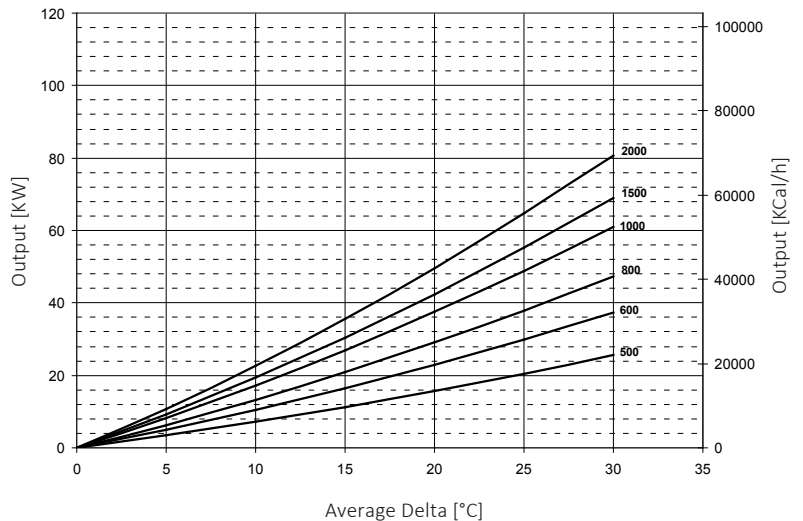
Output of the Combi 2 - Combi 3 lower heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

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 mean difference of temperature will be:
 $(80 + 70) / 20 - 60 = 15 \text{ °C}$ and therefore you can exchange up to approximately 32 KW.



COMBI 3- UPPER FIXED HEAT EXCHANGERS POWERS CHART

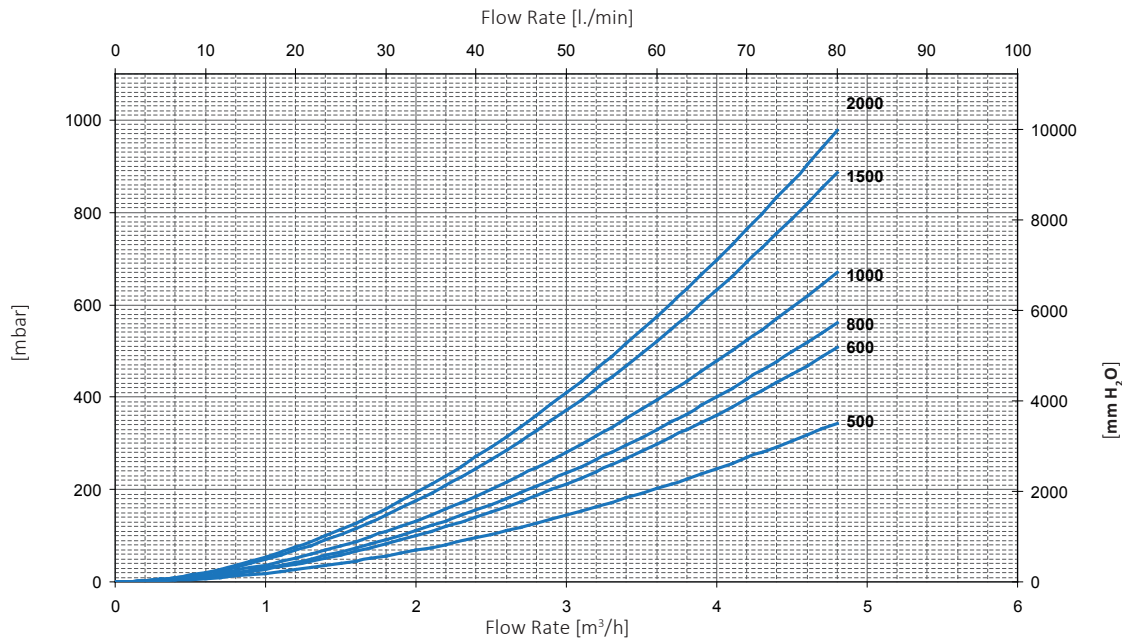
Output of the Combi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h



D.H.W. STORAGE PERFORMANCES

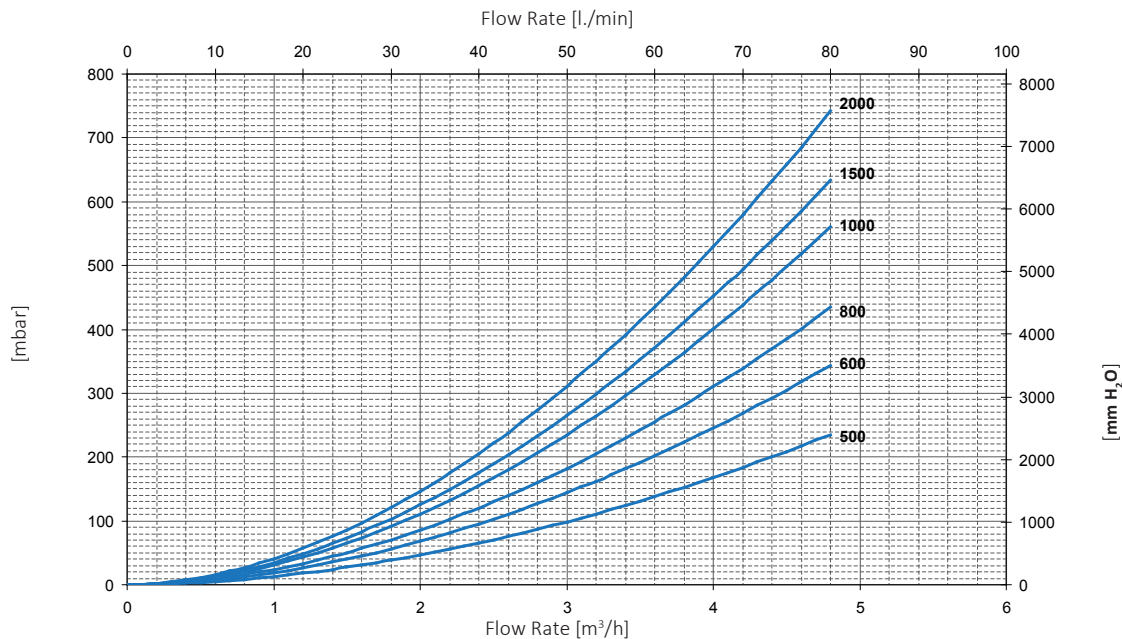
Model	DHW		COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
	Volume V2	exchanger surface	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler on	Max sanitary water produced from 10°C to 45°C with storage at 65°C and boiler off	Max sanitary water produced from 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
	[litres]	[m ²]	[l./min]	[litres]	[l./min]	[litres]
1000	226	1,8	4,1	10 l./min: 389 lt	2,26	10 l./min: 291 lt
				25 l./min: 330 lt		25 l./min: 250 lt
1500	412	2,5	5,6	10 l./min: 753 lt	3,36	10 l./min: 565 lt
				25 l./min: 614 lt		25 l./min: 461 lt
2000	566	3,1	6,8	10 l./min: 1083 lt	4,08	10 l./min: 812 lt
				25 l./min: 852 lt		25 l./min: 639 lt

PRESSURE LOSS - LOWER FIXED HEAT EXCHANGER COMBI 2- COMBI 3



MULTIFUEL ENERGY CYLINDERS

PRESSURE LOSS - UPPER FIXED HEAT EXCHANGER COMBI 3



ECO-COMBI 1

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE :** 316L stainless steel corrugated pipe, suitable drinkable water according to D. M. n. 174 dated 06.04.04

TECHNICAL DESCRIPTION

- Heating system with a biomass generator as energy source, 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 (smokes side).
- Sanitary hot water production systems 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 heating pumps as primary source and solar source as support)

The particular shape of the corrugated pipe is avoiding any problem relating to the storage of sanitary hot water (less, stagnation, bacterium etc) and ensure high heating exchange performances.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

- BUFFER TANK: 2 years
- 316L stainless steel corrugated pipe for D.H.W. production: 5 years - See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ECO COMBI 1 VC

ENERGY EFFICIENCY CLASS

316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION

Available until April 2016

Model	D.H.W. production: 316L STAINLESS STEEL Storage: mild steel		Volume	Surface
	Art. Nr.			
500	3270162286051	C	26,6	4,5
600	3270162286001	E	31,0	5,3
800	3270162286002	E	33,4	5,8
1000	3270162286003	E	45,5	7,8
1250	3270162286004	E	45,5	7,8
1500	3270162286005	E	55,3	9,5
2000	3270162286006	E	72,2	12,3



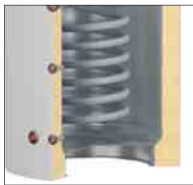
TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM



ECO-COMBI 1 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



STOCK
grey **AVAILABILITY**

ECO COMBI 1 VB HE

ENERGY EFFICIENCY CLASS

316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION

Model	D.H.W. production: 316L STAINLESS STEEL Storage: mild steel		Volume	Surface
	Art. Nr.			
500	3270162316010	C	26,6	4,5
600	3270162316011	C	31,0	5,3
800	3270162316012	C	33,4	5,8
1000	3270162316013	C	45,5	7,8
1250	3270162316014	C	45,5	7,8
1500	3270162316015	C	55,3	9,5
2000	3270162316016	C	72,2	12,3



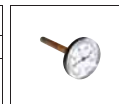
Accessories on request

Electrical immersions kit

Available kit:		
[Kw]	Tension [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)	

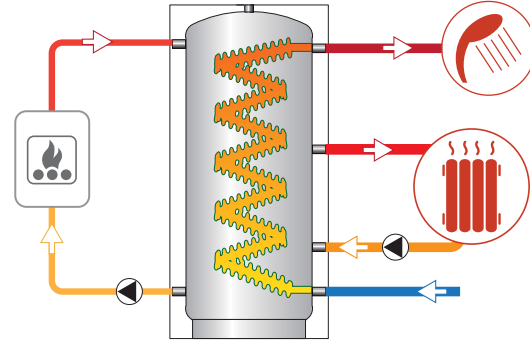
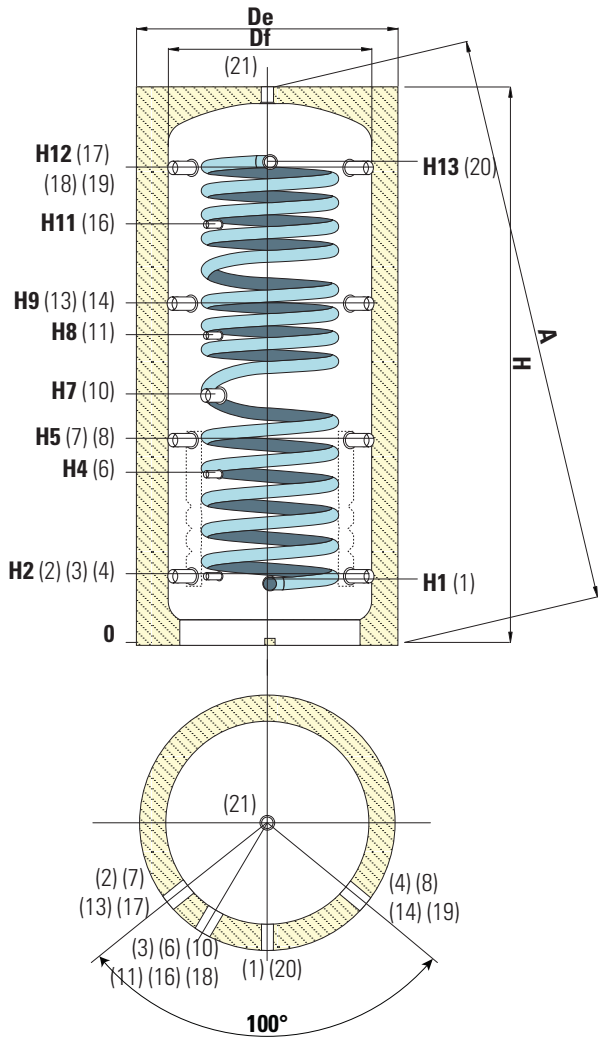


ECO-COMBI 1

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE
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.



1	Domestic cold water circuit inlet 1" Gas M
2 - 4	Heating return/To Generator 1"1/2 Gas F
3	Connection for instrumentation 1/2" Gas F
6	Connection for instrumentation 1/2" Gas F
7 - 8	Heating return/To Generator 1"1/2 Gas F
10	Electrical immersion 1" 1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
13 - 14	Heating return/To additional generator / Heating delivery 1"1/2 Gas F
16	Connection for instrumentation 1/2" Gas F
17 - 19	From Generator/ Heating delivery 1"1/2 Gas F
18	Connection for instrumentation 1/2" Gas F
20	Domestic hot water outlet 1" Gas M

MULTIFUEL
ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H4	H5	H7	H9	H11	H12	H13
500	421	650	850	750	1620	1785	230	247	533	629	841	1011	1231	1343	1360
600	503	650	850	750	1870	2015	230	247	582	695	915	1144	1382	1593	1610
800	738	790	990	950	1840	2066	248	265	584	690	823	1115	1332	1541	1558
1000	855	790	990	950	2130	2328	248	265	656	787	998	1309	1588	1831	1843
1250	1131	900	1100	1050	2202	2440	296	313	705	835	986	1357	1586	1879	1896
1500	1324	950	1150	1100	2250	2504	296	313	736	845	1061	1377	1653	1909	1921
2000	1829	1100	1300	1300	2320	2659	330	347	770	879	1060	1411	1687	1943	1955

ECO-COMBI 2



MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE :** 316L stainless steel corrugated pipe, suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

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.

- Heating system with a biomass generator as energy source, 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 (smokes side).
- Sanitary hot water production systems 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 heating pumps as primary source and solar source as support).

The particular shape of the corrugated pipe is avoiding any problem relating to the storage of sanitary hot water (less, stagnation, bacterium etc) and ensure high heating exchange performances.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

- BUFFER TANK: 2 years

- 316L stainless steel corrugated pipe for D.H.W. production:

5 years - See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Available until April 2016



ECO COMBI 2 VC

Model	D.H.W. production: 316L STAINLESS STEEL Storage: mild steel	ENERGY EFFICIENCY CLASS 	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		HEAT EXCHANGER	
			Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]
500	3270162286131	C	26,6	4,5	11,5	1,9
600	3270162286101	E	31,0	5,3	13	2,1
800	3270162286102	E	33,4	5,8	16,3	2,5
1000	3270162286103	E	45,5	7,8	20,7	3,1
1250	3270162286104	E	45,5	7,8	22,3	3,4
1500	3270162286105	E	55,3	9,5	25,3	3,8
2000	3270162286106	E	72,2	12,3	29,6	4,6



ECO-COMBI 2 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP - Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



ECO COMBI 2 VB HE

Model	D.H.W. production: 316L STAINLESS STEEL Storage: mild steel	ENERGY EFFICIENCY CLASS 	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		HEAT EXCHANGER	
			Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]
500	3270162316101	C	26,6	4,5	11,5	1,9
600	3270162316102	C	31,0	5,3	13	2,1
800	3270162316103	C	33,4	5,8	16,3	2,5
1000	3270162316104	C	45,5	7,8	20,7	3,1
1250	3270162316105	C	45,5	7,8	22,3	3,4
1500	3270162316106	C	55,3	9,5	25,3	3,8
2000	3270162316107	C	72,2	12,3	29,6	4,6

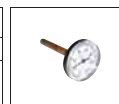
Accessories on request

Electrical immersions kit

Available kit:		
[Kw]	Tension [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)	



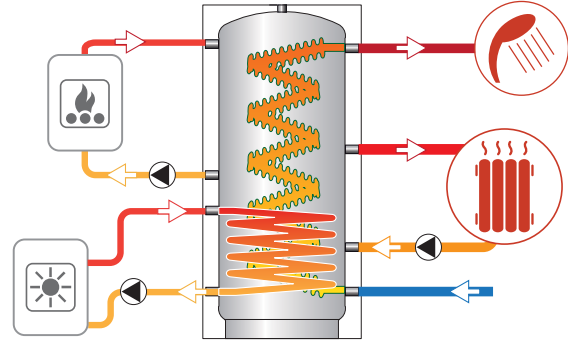
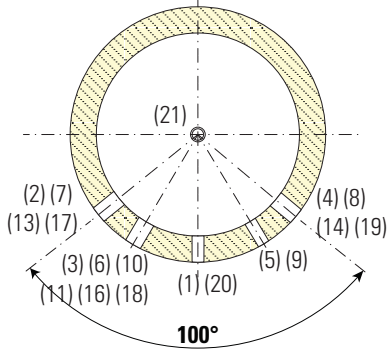
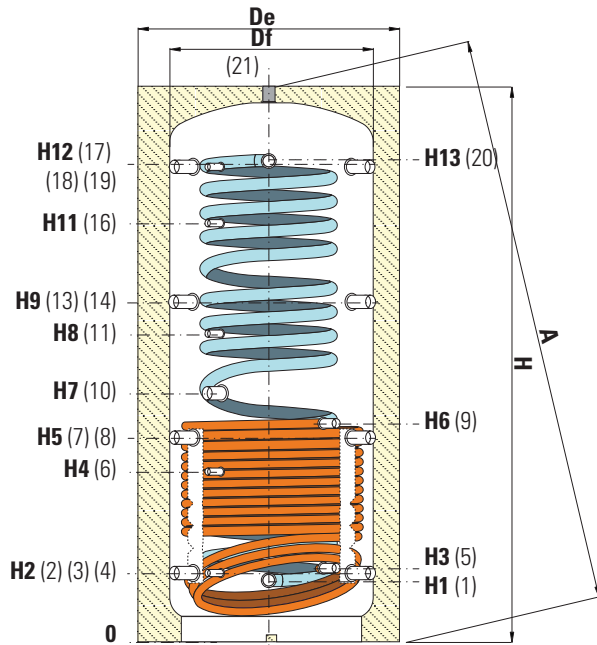
ECO-COMBI 2

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 1 FIXED HEAT EXCHANGER

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE	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.



1	Domestic cold water circuit inlet 1" Gas M
2-4	Heating return/To Generator 1"1/2 Gas F
3	Connection for instrumentation 1/2" Gas F
5	Lower fixed heat exchanger outlet 1" Gas F
6	Connection for instrumentation 1/2" Gas F
7-8	Heating return/To Generator 1"1/2 Gas F
9	Lower fixed heat exchanger inlet 1" Gas F
10	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
13-14	Heating return/To additional generator/Heating delivery 1"1/2 Gas F
16	Connection for instrumentation 1/2" Gas F
17-19-21	From Generator/ Heating delivery 1"1/2 Gas F
18	Connection for instrumentation 1/2" Gas F
20	Domestic hot water outlet 1" Gas M

MULTIFUEL ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE



Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H9	H11	H12	H13
500	421	650	850	750	1620	1785	230	247	260	533	629	744	841	1011	1231	1343	1360
600	503	650	850	750	1870	2015	230	247	260	582	695	855	915	1144	1382	1593	1610
800	738	790	990	950	1840	2066	248	265	278	584	690	762	823	1115	1332	1541	1558
1000	855	790	990	950	2130	2328	248	265	284	656	787	953	998	1309	1588	1831	1843
1250	1131	900	1100	1050	2202	2440	296	313	326	705	835	884	986	1357	1586	1879	1896
1500	1324	950	1150	1100	2250	2504	296	313	336	736	845	1006	1061	1377	1653	1909	1921
2000	1829	1100	1300	1300	2320	2659	330	347	370	770	879	1001	1060	1411	1687	1943	1955

ECO-COMBI 3



MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 2 FIXED HEAT EXCHANGERS



APPLICATION

Heating hot water storage and D.H.W. production.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE:** 316L stainless steel corrugated pipe, suitable drinkable water according to D. M. n. 174 dated 06.04.04

HEAT EXCHANGER:

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.

- Heating system with a biomass generator as energy source, 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 (smokes side).
- Sanitary hot water production systems 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 heating pumps as primary source and solar source as support)

The particular shape of the corrugated pipe is avoiding any problem relating to the storage of sanitary hot water (less, stagnation, bacterium etc.) and ensure high heating exchange performances.

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam.

WARRANTY

- BUFFER TANK: 2 years

- 316L stainless steel corrugated pipe for D.H.W. production:

5 years - See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



Available until April 2016



ECO COMBI 3 VC

Model	D.H.W. production: 316L STAINLESS STEEL Storage:mild steel	ENERGY EFFICIENCY CLASS	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		LOWER HEAT EXCHANGER	
			Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]
	Art. Nr.							
500	3270162286251	C	26,6	4,5	8	1,3	11,5	1,9
600	3270162286201	E	31,0	5,3	8	1,3	13	2,1
800	3270162286202	E	33,4	5,8	11,8	1,8	16,3	2,5
1000	3270162286203	E	45,5	7,8	16,3	2,5	20,7	3,1
1250	3270162286204	E	45,5	7,8	16,3	2,5	22,3	3,4
1500	3270162286205	E	55,3	9,5	16,8	2,8	25,3	3,8
2000	3270162286206	E	72,2	12,3	19,1	2,8	29,6	4,6



TECHNICAL DATA AND ECODSIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

ECO-COMBI 3 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



ECO COMBI 3 VB HE

Model	D.H.W. production: 316L STAINLESS STEEL Storage:mild steel	ENERGY EFFICIENCY CLASS	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		UPPER HEAT EXCHANGER		HEAT EXCHANGER	
			Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]	Volume [litres]	Surface [m ²]
	Art. Nr.							
500	3270162316201	C	26,6	4,5	8	1,3	11,5	1,9
600	3270162316202	C	31,0	5,3	8	1,3	13	2,1
800	3270162316203	C	33,4	5,8	11,8	1,8	16,3	2,5
1000	3270162316204	C	45,5	7,8	16,3	2,5	20,7	3,1
1250	3270162316205	C	45,5	7,8	16,3	2,5	22,3	3,4
1500	3270162316206	C	55,3	9,5	16,8	2,8	25,3	3,8
2000	3270162316207	C	72,2	12,3	19,1	2,8	29,6	4,6

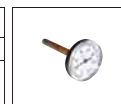
Accessories on request

Electrical immersions kit

Available kit:		
[Kw]	Tension [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)	

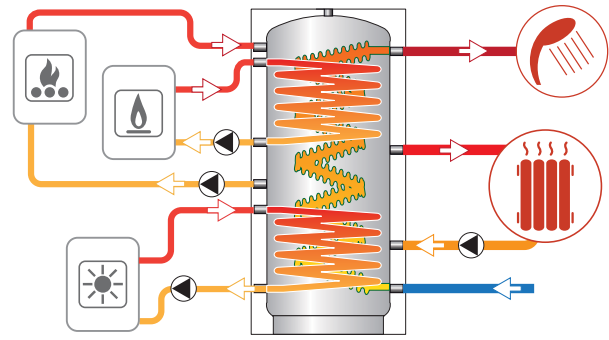
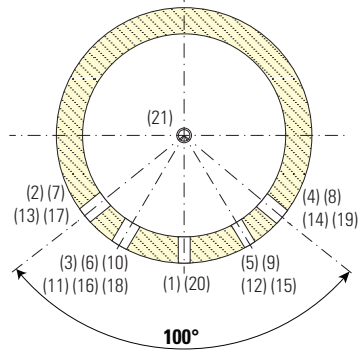
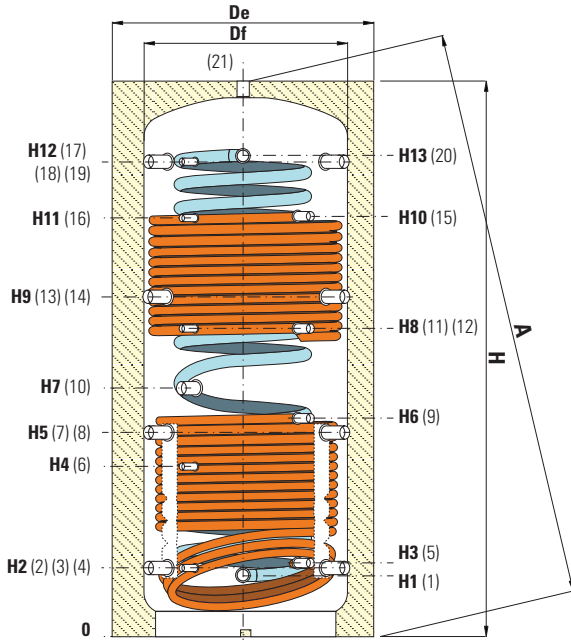


ECO-COMBI 3

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 2 FIXED HEAT EXCHANGERS

STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE	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.



1	Domestic cold water circuit inlet 1" Gas M
2-4	Heating return / To generator 1"1/2 Gas F
3	Connection for instrumentation 1/2" Gas F
5	Lower fixed heat exchanger outlet 1" Gas F
6	Connection for instrumentation 1/2" Gas F
7-8	Heating return / To generator 1"1/2 Gas F
9	Lower fixed heat exchanger inlet 1" Gas F
10	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
12	Upper fixed heat exchanger outlet 1" Gas F
13-14	Heating return / To generator integrazione / Heating delivery 1"1/2 Gas F
15	Upper fixed heat exchanger inlet 1" Gas F
16	Connection for instrumentation 1/2" Gas F
17-19-21	From Generator / Heating delivery 1"1/2 Gas F
18	Connection for instrumentation 1/2" Gas F
20	Domestic hot water outlet 1" Gas M



Model	Net Volume [litres]	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
500	421	650	850	750	1620	1785	230	247	260	533	629	744	841	930	1011	1231	1231	1343	1360
600	503	650	850	750	1870	2015	230	247	260	582	695	855	915	1060	1144	1361	1382	1593	1610
800	738	790	990	950	1840	2066	248	265	278	584	690	762	823	988	1115	1332	1332	1541	1558
1000	855	790	990	950	2130	2328	248	265	284	656	787	953	998	1188	1309	1661	1588	1831	1843
1250	1131	900	1100	1050	2202	2440	296	313	326	705	835	884	986	1068	1357	1641	1586	1879	1896
1500	1324	950	1150	1100	2250	2504	296	313	336	736	845	1006	1061	1286	1377	1673	1653	1909	1921
2000	1829	1100	1300	1300	2320	2659	330	347	370	770	879	1001	1060	1300	1411	1687	1687	1943	1955

MULTIFUEL ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

ECO-COMBI - OUTPUT AND PERFORMANCES

D.H.W. STORAGE PERFORMANCES

			COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
Model	DHW Volume V2	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
	[litres]	[m ²]	[l./min]	[litres]	[l./min]	[litres]
500	26,6	4,5	29	10 l./min: 354 lt	15	10 l./min: 102 lt
				25 l./min: 227 lt		25 l./min: 75 lt
600	31	5,3	34	10 l./min: 400 lt	18	10 l./min: 115 lt
				25 l./min: 257 lt		25 l./min: 85 lt
800	33,4	5,8	37	10 l./min: 587 lt	23	10 l./min: 218 lt
				25 l./min: 377 lt		25 l./min: 160 lt

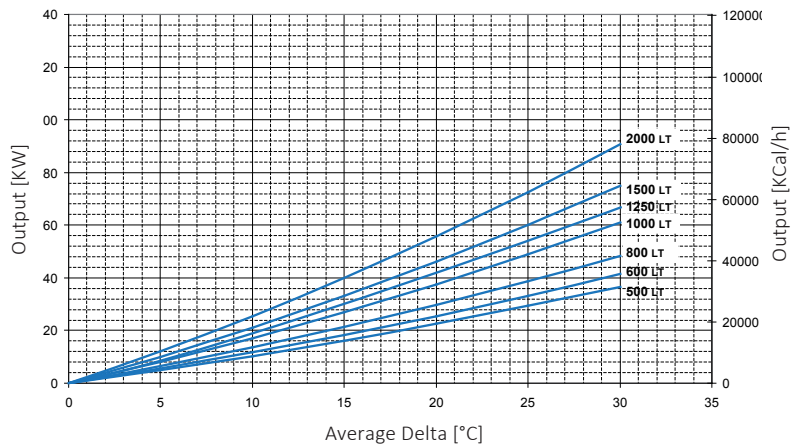
ECO COMBI 2- ECO COMBI 3 LOWER FIXED HEAT EXCHANGERS POWERS CHART

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.

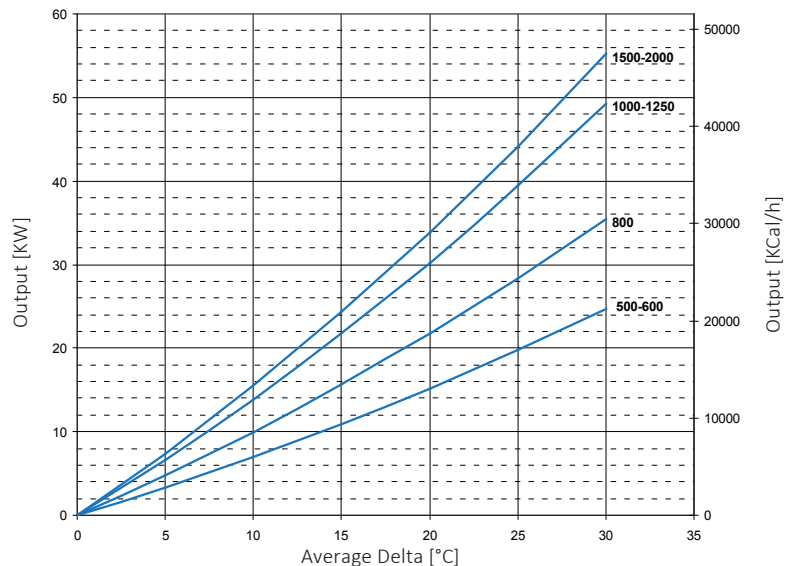
For example, a 1000 liters ECOCOMBI 2 with a water flow of 3 m³/h at 80 °C inlet and outlet at 70 °C, has on the storage of water an average temperature of 60 °C, the mean difference of temperature will be:

$(80 + 70) / 20 - 60 = 15$ °C and therefore you can exchange up to approximately 32 KW.



ECO COMBI 3 UPPER FIXED HEAT EXCHANGERS POWERS CHART

Output of the EcoCombi 3 upper heat exchangers depending on the average DeltaT between primary and accumulation considering flow rate 3 m³/h.

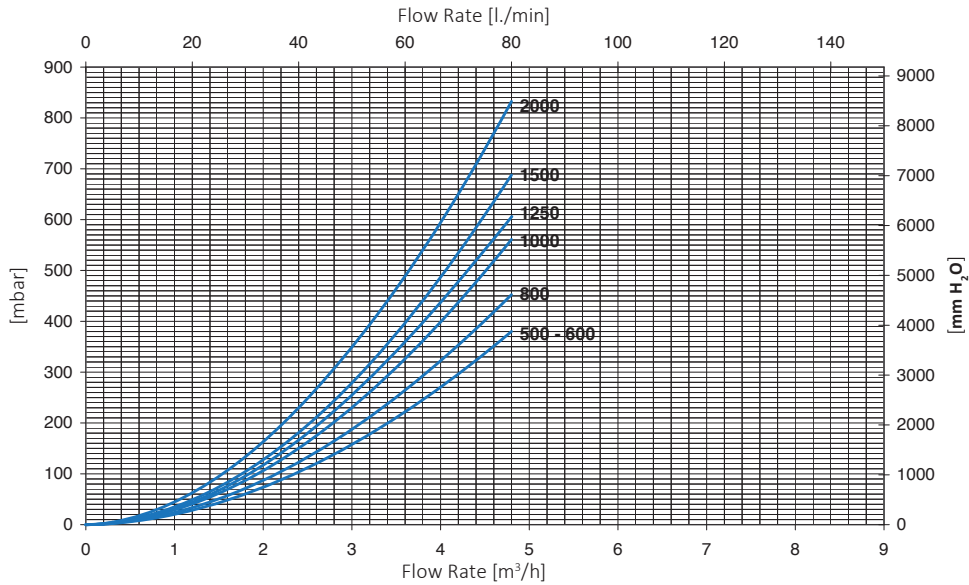


ECO-COMBI - OUTPUT AND PERFORMANCES

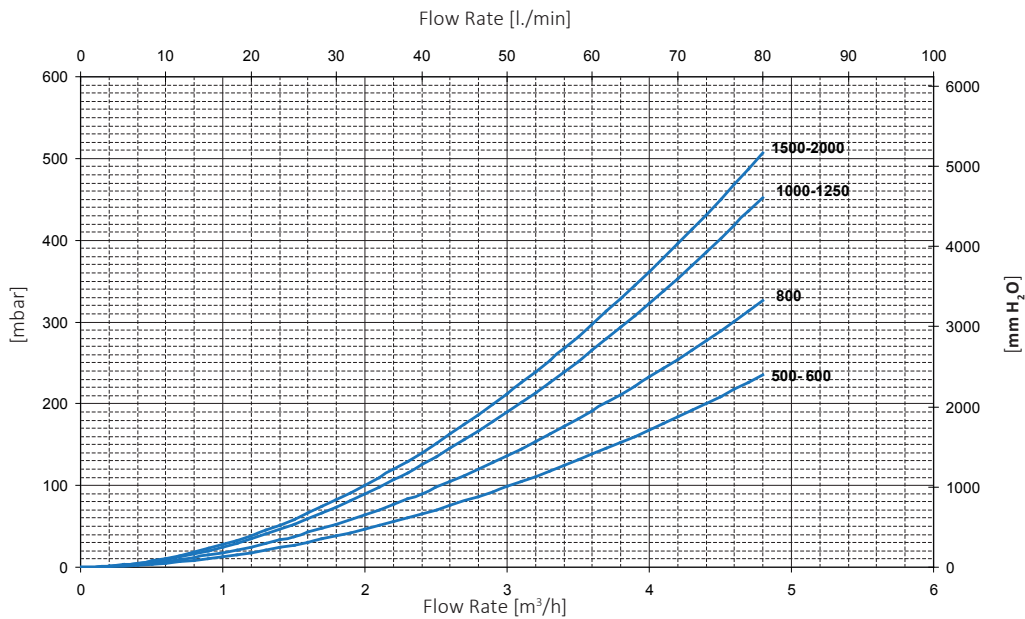
D.H.W. STORAGE PERFORMANCES

Model			COMPLETE HEATED STORAGE VOLUME		UPPER PART HEATED STORAGE VOLUME	
	DHW Volume V2	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
	[litres]	[m ²]	[l./min]	[litres]	[l./min]	[litres]
1000	45,5	7,8	50	10 l./min: 800 lt	27	10 l./min: 294 lt
				25 l./min: 541 lt		25 l./min: 216 lt
1250	45,5	7,8	50	10 l./min: 922 lt	27	10 l./min: 310 lt
				25 l./min: 592 lt		25 l./min: 230 lt
1500	55,3	9,5	57	10 l./min: 1144 lt	34	10 l./min: 345 lt
				25 l./min: 735 lt		25 l./min: 258 lt
2000	72,2	12,3	74	10 l./min: 1657 lt	44	10 l./min: 463 lt
				25 l./min: 1142 lt		25 l./min: 340 lt

PRESSURE LOSS - LOWER FIXED HEAT EXCHANGER ECO COMBI 2- ECO COMBI 3



PRESSURE LOSS - UPPER FIXED HEAT EXCHANGER ECO COMBI 3



MULTIFUEL ENERGY CYLINDERS

ECO-COMBI 2 DOMUS



MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 1 FIXED HEAT EXCHANGER



APPLICATION

Heating hot water storage and D.H.W. production. Engineered for low-ceilinged rooms.

MATERIAL

- **BUFFER TANK:** Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.
- **D.H.W. STORAGE:** 316L stainless steel corrugated pipe, suitable drinkable water according to D. M. n. 174 dated 06.04.04.

HEAT EXCHANGER:

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 sanitary hot water systems.

- Heating system with a biomass generator as energy source, 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

(smokes side).

- Sanitary hot water production systems 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 heating pumps as primary source and solar source as support).

The particular shape of the corrugated pipe avoids any problem relating to the storage of sanitary hot water (less, stagnation, bacterium etc) and ensures high heating exchange performances.

INSULATION

High thermal insulation with ecological hard polyurethane foam. PVC external lining with top cover.

WARRANTY

- BUFFER TANK: 2 years
- 316L stainless steel corrugated pipe for D.H.W. production: 5 years - See general sales conditions and warranty.

ACCESSORIES AND SPARE PARTS

See Accessories section for the entire list.



ECO COMBI 2 DOMUS VB

Model	D.H.W. production: 316L STAINLESS STEEL Storage: mild steel	ENERGY EFFICIENCY CLASS 	316L STAINLESS STEEL CORRUGATED PIPE FOR D.H.W. PRODUCTION		HEAT EXCHANGER
			Volume [litres]	Surface [m ²]	Volume [litres]
200	Art. Nr. 3270162282501	B	2,9	1,4	1
300	3270162282502	C	5,1	2,5	1,2

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]	[l./min]	[l./min]
200	5	11	8
300	6	23	16



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Accessories on request

Electrical immersions kit

Available kit:		
[Kw] from 1,5 to 3	Tension [V] 220 - MONOPHASE	
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)		

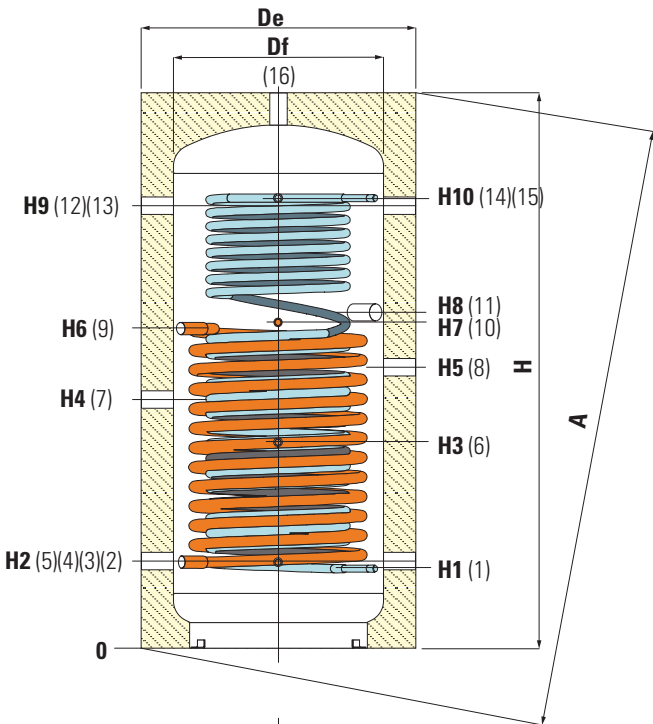
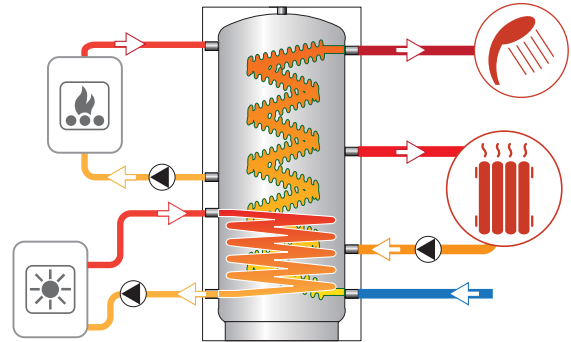
ECO-COMBI 2 DOMUS

MULTI-HEAT ENERGY BUFFER WITH 316L STAINLESS STEEL D.H.W. CORRUGATED PIPE AND 1 FIXED HEAT EXCHANGER

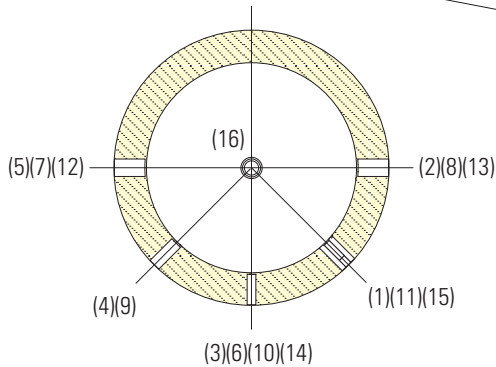
STORAGE		CORRUGATED DHW STAINLESS STEEL PIPE	FIXED HEAT EXCHANGER	
Pmax	Tmax	Pmax	Pmax	Tmax
3 bar	99 °C	6 bar	12 bar	110 °C



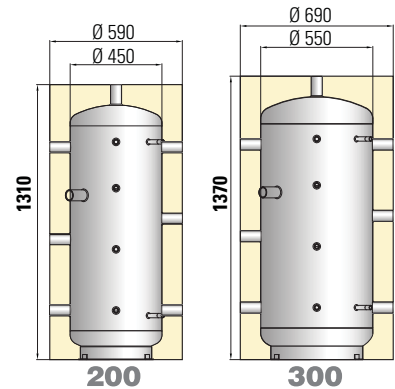
CORDIVARI Lab
 TÜV Rheinland Energie und Umwelt GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



1	Domestic cold water circuit inlet 1/2" Gas F
2	Heating return/To Generator 1"1/2 Gas F
3	Connection for instrumentation 1/2" Gas F
4	Fixed heat exchanger outlet 1" Gas F
5	Heating return/To Generator 1"1/2 Gas F
6	Connection for instrumentation 1/2" Gas F
7	Heating return 1"1/2 Gas F
8	To Generator 1"1/2 Gas F
9	Fixed heat exchanger inlet 1" Gas F
10	Connection for instrumentation 1/2" Gas F
11	Electrical immersion 1"1/2 Gas F
12	Heating delivery/From Generator 1"1/2 Gas F
13	From Generator 1"1/2 Gas F
14	Connection for instrumentation 1/2" Gas F
15	Domestic hot water outlet 1/2" Gas F
16	Heating delivery/From Generator 1"1/2 Gas F



Engineered for low-ceilinged rooms



Model	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10
200	590	1280	1467	216	241	541	591	691	811	841	811	1041	1068
300	690	1340	1549	240	255	555	605	705	795	855	795	1055	1067

MULTIFUEL ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

PUFFERMAS®



HEATING WATER BUFFER TANK WITH MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage of heating hot water and immediate production of high flow rate D.H.W.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange 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 heating hot water is stored at an highest temperature than DHW

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam. For models 800-1000 Dismountable insulation.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PATENTED

PUFFERMAS®

ENERGY EFFICIENCY CLASS

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel	
		Art. Nr.	
800	70 kW	3251162284705	E
1000		3251162284706	E
1500		3251162284707	E
1000	120 kW	3251162284708	E
1500		3251162284709	E

Model	Maximum D.H.W. module output (MACS®)(*)	DHW Station max flow rate(*)	Max availability of DHW (10-45 °C) with storage at 70 °C
	[kW]	[l/min]	[litres]
800	70 kW	30	983
1000		30	1100
1500		30	1680
1000	120 kW	50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- Primary water at 80°C
- DHW production from 10°C to 45°C.

PUFFERMAS® HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PUFFERMAS® HE

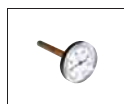
ENERGY EFFICIENCY CLASS

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel	
		Art. Nr.	
500	70 kW	3251162314703	C
600		3251162314704	C
800		3251162314705	C
1000		3251162314706	C
1500		3251162314707	C
1000	120 kW	3251162314708	C
1500		3251162314709	C

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	

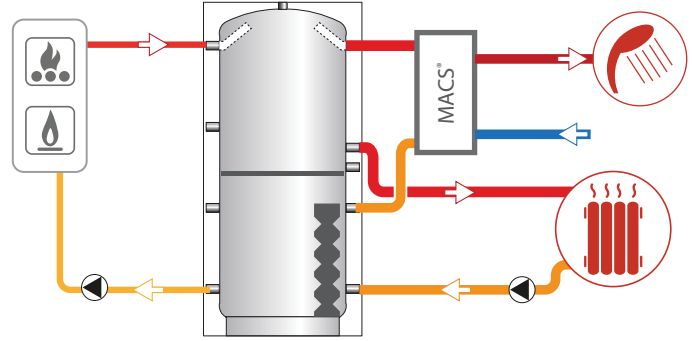
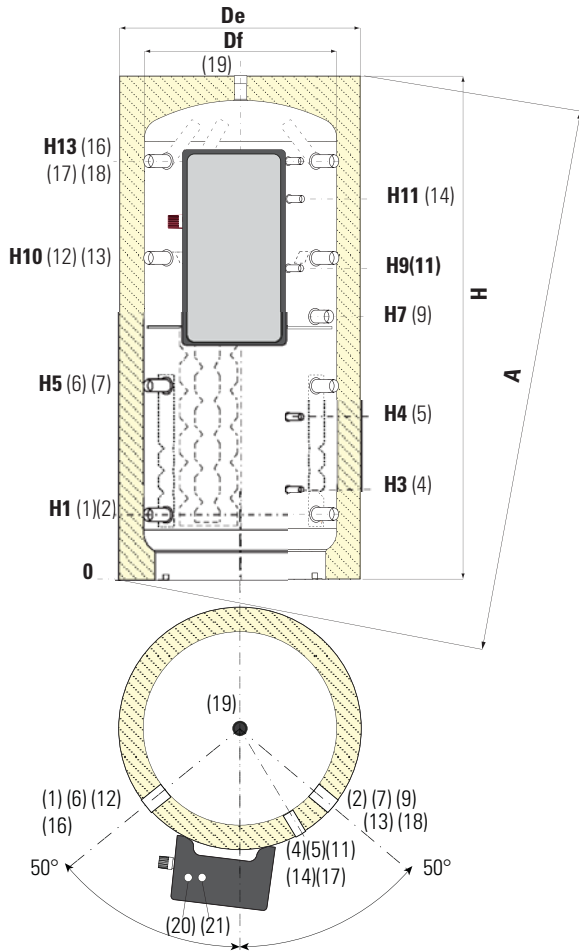


PUFFERMAS®

HEATING WATER BUFFER TANK WITH MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		STAINLESS STEEL PLATE HEAT EXCHANGER (MACS®)		D.H.W. HARDNESS
Pmax	Tmax	Pmax	Tmax	F max
3 bar	99 °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.



1-2-6-7	Heating return/To Generator 1"1/2 Gas F
4 - 5	Connection for instrumentation 1/2" Gas F
9	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14 - 17	Connection for instrumentation 1/2" Gas F
19	Heating delivery 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)



Model	Df	De	De (HE SERIE)	H	A	H1	H3	H4	H5	H7	H9	H10	H11	H13
	[mm]													
500	650	850	750	1619	1784	247	360	533	629	870	1025	1011	1130	1343
600	650	850	750	1870	2015	247	360	582	695	970	1200	1144	1485	1593
800	790	990	950	1840	2066	265	378	584	690	918	1115	1115	1442	1541
1000	790	990	950	2130	2328	265	384	656	787	1145	1388	1309	1588	1831
1500	950	1150	1100	2250	2504	313	432	736	845	1236	1396	1377	1783	1909

D.H.W. PRODUCTION AND EASY STRATIFICATION WITH LABYRINTH SPREADER (CORDIVARI PATENT)

MACS® station is connected to the Buffer Tank, thanks to a circulator, the heating water is moved to the stainless steel plate exchanger for immediate production of D.H.W. Performances are optimized with the "Labyrinth Spreader" (Cordivari Patent) [Fig 1] that thanks to its spread shape allows a perfect stratification of the water that returns back from the MACS® module, and avoid any turbulences that would effect thermal stratification inside the buffer tank:

Fig. 1 - Labyrinth Spreader (Cordivari Patent) thermography

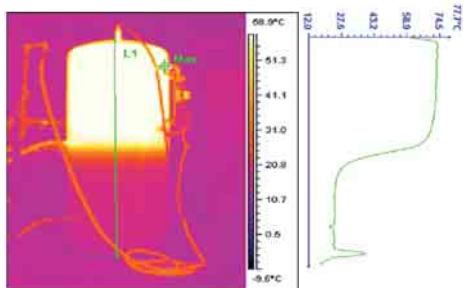
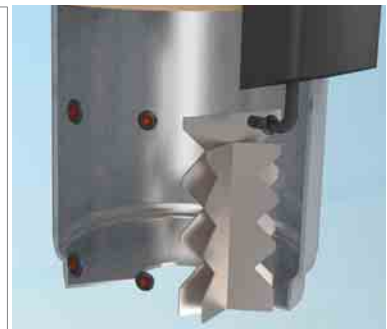
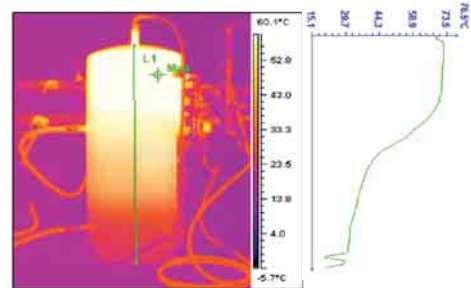


Fig. 2 - Normal buffer stratification thermography



PUFFERMAS® 1



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 high flow rate D.H.W.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

- 1 fixed heat exchanger

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange allow the following benefits:

- to reduce dimensions of the water heater need it
- easy maintenance

- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because heating hot water is stored at an highest temperature than DHW

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam. For models 800-1000 Dismountable insulation.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PATENTED

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.

PUFFERMAS® 1

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE [m ²]
		Art. Nr.			
800	70 kW	3251162284725		E	2,5
1000		3251162284726		E	3,1
1500		3251162284727		E	3,8
1000	120 kW	3251162284728		E	3,1
1500		3251162284729		E	3,8

Model	Maximum D.H.W. module output (MACS®) (*)	DHW Station max flow rate (*)	Max availability of DHW (10-45 °C) with storage at 70 °C
	[kW]	[l/min]	[litres]
500	70 kW	30	511
600		30	614
800		30	983
1000		30	1100
1500		30	1680
1000	120 kW	50	1503
1500		50	2254

PUFFERMAS® 1 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



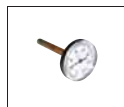
PUFFERMAS® 1 HE

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel		ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE [m ²]
		Art. Nr.			
500	70 kW	3251162314723		C	1,9
600		3251162314724		C	2,1
800		3251162314725		C	2,5
1000		3251162314726		C	3,1
1500		3251162314727		C	3,8
1000	120 kW	3251162314728		C	3,1
1500		3251162314729		C	3,8

— Accessories on request —

Thermometer

Art. Nr.	5032240000107
5 units box	



Recirculation kit

Art. Nr.	5221000000054
Control display + pump (for D.H.W.)	



Buffer tanks connecting kit

Art. Nr.	5006170001001	Connection	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)			

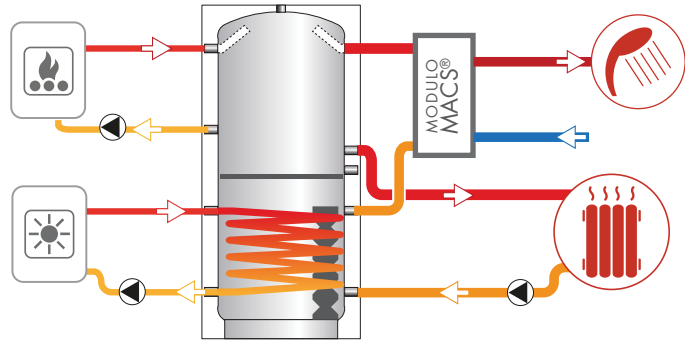


PUFFERMAS® 1

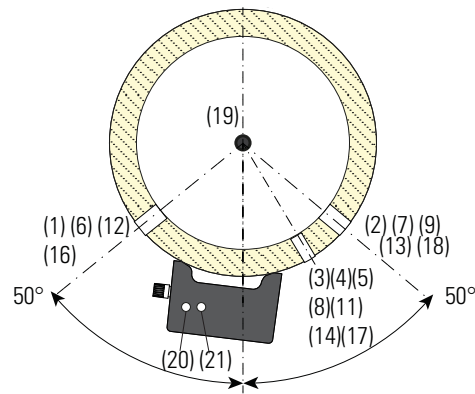
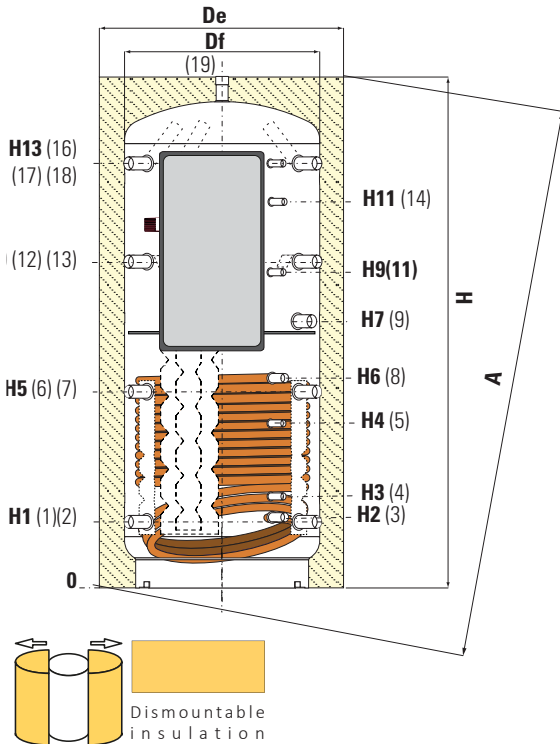
HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.

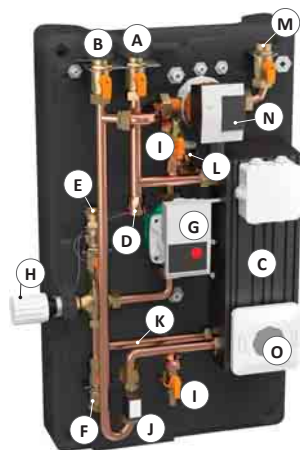


1-2-6-7	Heating return/To Generator 1"1/2 Gas F
3	Lower heat exchanger outlet 1" Gas F
4-5	Connection for instrumentation 1/2" Gas F
8	Lower heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14-17	Connection for instrumentation 1/2" Gas F
19	Heating delivery 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)



Model	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H13
[mm]																
500	650	850	750	1619	1784	247	260	360	533	629	744	870	1025	1011	1130	1343
600	650	850	750	1870	2015	247	260	360	582	695	855	970	1200	1144	1485	1593
800	790	990	950	1840	2066	265	278	378	584	690	762	918	1115	1115	1442	1541
1000	790	990	950	2130	2328	265	284	384	656	787	953	1145	1388	1309	1588	1831
1500	950	1150	1100	2250	2504	313	336	432	736	845	1006	1236	1396	1377	1783	1909

MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic Hot Water exit
B	Domestic Water entry
C	Stainless Steel Plate Exchanger
D	Control for thermostatic head
E	Heating water inlet from the buffer
F	Heating water back to the buffer
G	"Energy Saving" Circulation Pump
H	Thermostatic Valve
I	Valves In/Out for DHW
J	Valves In/Out for DHW
K	Thermostatic Valve
L	Drain
D.H.W. recirculation kit (optional)	
M	Connection for D.H.W. recirculation (optional)
N	Recirculation pump (optional)
O	D.H.W. recirculation control display (optional)

MACS® module is an external unit that immediately produces hot domestic water, 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.

MACS® module is equipped with a thermostatic mixer in the heating water inlet (primary) from the buffer avoiding the plate exchanger to overheat reducing risk of formation of calcium deposit.



MULTIFUEL ENERGY CYLINDERS

PUFFERMAS® 2



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 high flow rate D.H.W.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

- 2 fixed heat exchangers
The buffer tank is equipped with 2 mild steel fixed heat exchangers to integrate solar energy system and another thermal generator.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange allow the following benefits:
- to reduce dimensions of the water heater need it

- easy maintenance

- maximum hygiene for anti-legionellosis bacteria's

- to produce more DHW than the quantity obtained by boiler with similar capacity because heating hot water is stored at an highest temperature than DHW

INSULATION

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

HE SERIES: High thermal insulation with ecological hard polyurethane foam. For models 800-1000 Dismountable insulation

- **MACS® module:** insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PATENTED

PUFFERMAS® 2

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
				Upper [m ²]	Lower [m ²]
800	70 kW	3251162284745	E	1,8	2,5
1000		3251162284746	E	2,5	3,1
1500		3251162284747	E	2,8	3,8
1000	120 kW	3251162284748	E	2,5	3,1
1500		3251162284749	E	2,8	3,8

Model	Maximum D.H.W. module output (MACS®) (*)	DHW Station max flow rate (*)	Max availability of DHW (10-45 °C) with storage at 70 °C
	[kW]	[l/min]	[litres]
500	70 kW	30	511
600		30	614
800		30	983
1000		30	1100
1500		30	1680
1000	120 kW	50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.

PUFFERMAS® 2 HE SERIES

HIGH EFFICIENCY INSULATION TANKS

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already complaint with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



PUFFERMAS® 2 HE

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
				Upper [m ²]	Lower [m ²]
500	70 kW	3251162314743	C	1,3	1,9
600		3251162314744	C	1,3	2,1
800		3251162314745	C	1,8	2,5
1000		3251162314746	C	2,5	3,1
1500		3251162314747	C	2,8	3,8
1000	120 kW	3251162314748	C	2,5	3,1
1500		3251162314749	C	2,8	3,8

— Accessories on request —

Thermometer

Art. Nr.	
503224000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000054	
Control display + pump (for D.H.W.)	

Buffer tanks connecting kit

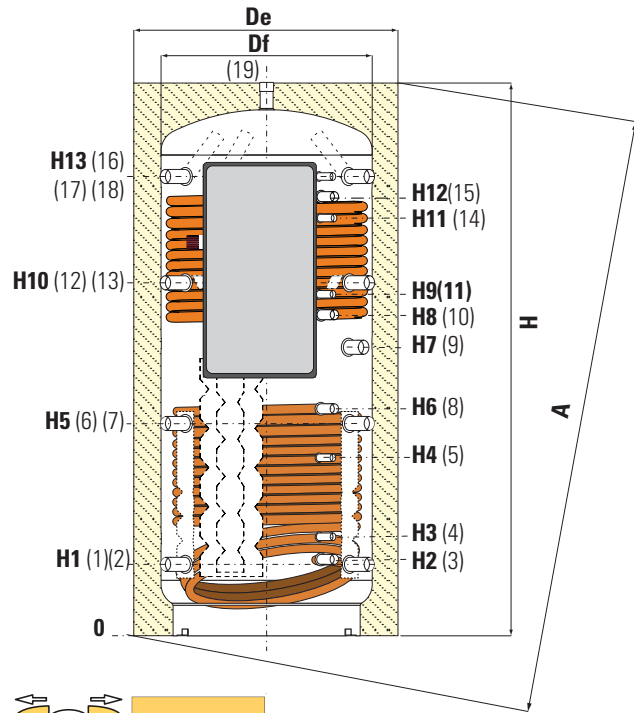
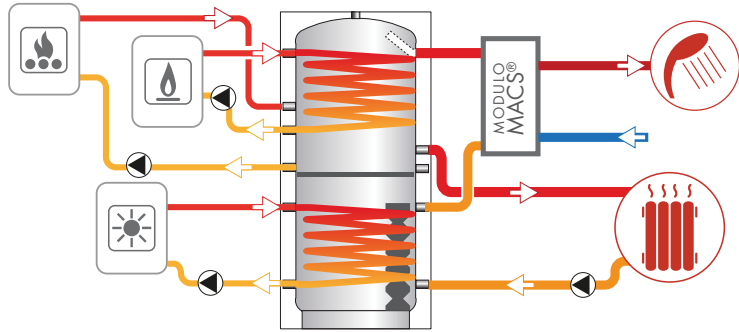
Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFERMAS® 2

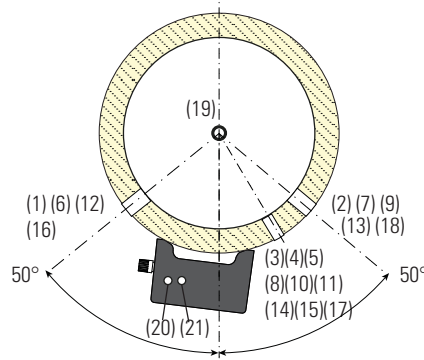
HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.



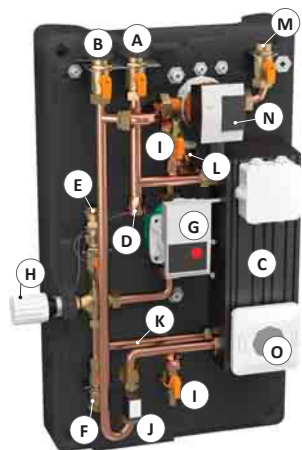
1-2-6-7	Heating return/To Generator 1 1/2" Gas F	12-13-16-18	Heating delivery/From Generator 1 1/2" Gas F
3	Lower heat exchanger outlet 1" Gas F	14 - 17	Connection for instrumentation 1/2" Gas F
4 - 5	Connection for instrumentation 1/2" Gas F	15	Fixed upper heat exchanger inlet 1" Gas F
8	Lower heat exchanger inlet 1" Gas F	19	Heating delivery 1 1/2" Gas F
9	Electrical immersion 1 1/2" Gas F	20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
10	Lower heat exchanger outlet 1" Gas F	21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)
11	Connection for instrumentation 1/2" Gas F		



Dismountable insulation

Model	Df	De	De (HE SERIE)	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
500	650	850	750	1619	1784	247	260	360	533	629	744	870	930	1025	1011	1130	1231	1343
600	650	850	750	1870	2015	247	260	360	582	695	855	970	1090	1200	1144	1485	1391	1593
800	790	990	950	1840	2066	265	278	378	584	690	762	918	1003	1115	1115	1442	1347	1541
1000	790	990	950	2130	2328	265	284	384	656	787	953	1145	1188	1388	1309	1588	1661	1831
1500	950	1150	1100	2250	2504	313	336	432	736	845	1006	1236	1286	1396	1377	1783	1673	1909

MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic Hot Water exit
B	Domestic Water entry
C	Stainless Steel Plate Exchanger
D	Control for thermostatic head
E	Entry heating water from the buffer
F	Heating water back to the buffer
G	"Energy Saving" Circulation Pump
H	Thermostatic Valve
I	Valves In/Out for DHW
J	Valves In/Out for DHW
K	Thermostatic Valve
L	Drain

D.H.W. recirculation kit (optional)	
M	Connection for D.H.W. recirculation (optional)
N	Recirculation pump (optional)
O	D.H.W. recirculation control display (optional)

MACS® module is an external unit that immediately produces hot domestic water, 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. MACS® module is equipped with a thermostatic mixer in the Entry heating water from the buffer avoiding the plate exchanger to overheat reducing risk of formation of calcium deposit.



MULTIFUEL ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/73/CE

PUFFERMAS® 1 CTS®



STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE,
1 FIXED COIL AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY WATER



APPLICATION

Storage of heating hot water and immediate production of high flow rate D.H.W.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

1 mild steel fixed heat exchanger.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange allow the following benefits:

- to reduce dimensions of the water heater need it
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by calorifier with similar capacity because heating hot water is stored at an highest temperature than DHW.

Puffermas 1 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 water heated 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.

INSULATION

High thermal insulation with ecological hard polyurethane foam. For models 800-1000 dismountable insulation.

Grey PVC external lining with top cover.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PATENTED



PUFFERMAS® 1 CTS® HE

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel Art. Nr.	ENERGY EFFICIENCY CLASS	HEAT EXCHANGER SURFACE
			ErP	Lower [m ²]
500	70 kW	3251162316403	C	1,9
600		3251162316404	C	2,1
800		3251162316405	C	2,5
1000		3251162316406	C	3,1
1500		3251162316407	C	3,8
1000	120 kW	3251162316408	C	3,1
1500		3251162316409	C	3,8

Model	Maximum D.H.W. module output (MACS®) (*)	DHW Station max flow rate (*)	Max availability of DHW (10-45 °C) with storage at 70 °C
	[kW]	[l/min]	[litres]
500	70 kW	30	511
600		30	614
800		30	983
1000		30	1100
1500		30	1680
1000	120 kW	50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.

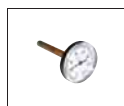


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	

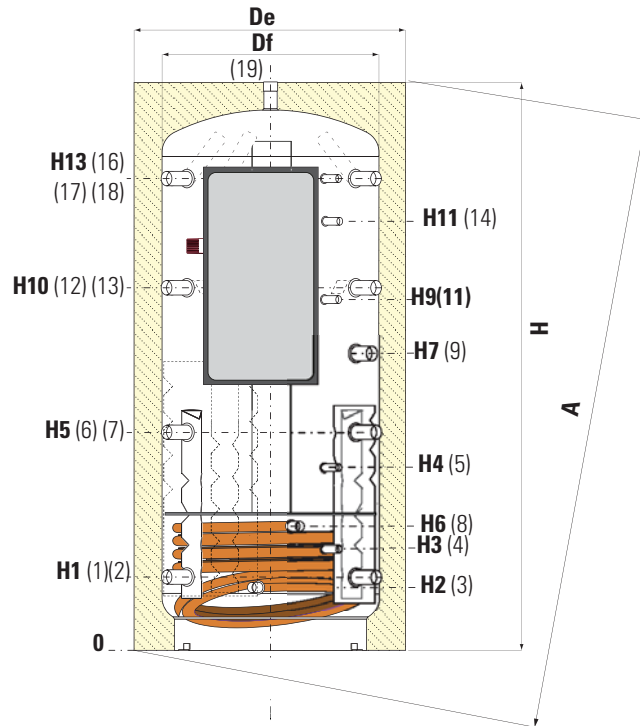
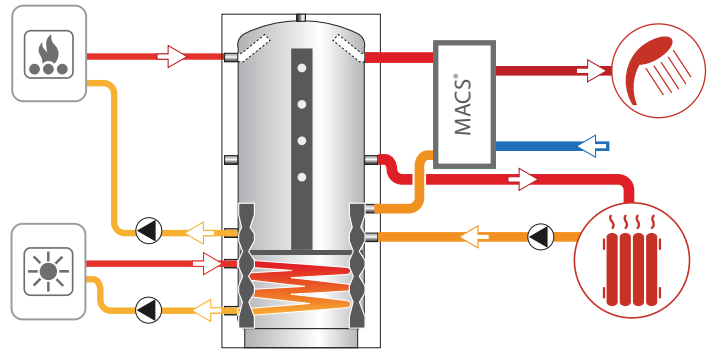


PUFFERMAS® 1 CTS®

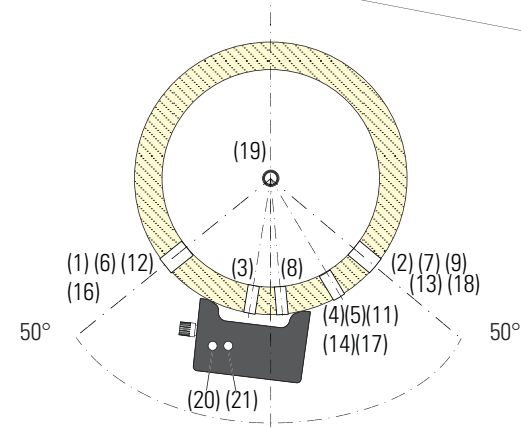
STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE,
1 FIXED COIL AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY WATER

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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

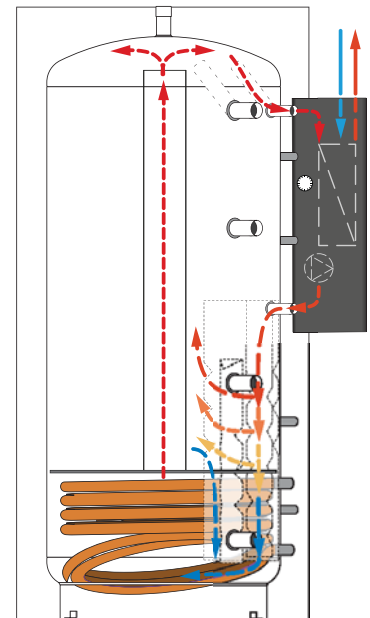
CORDIVARI® Lab
TÜV Rheinland
Energie und Umwelt
GmbH states that test procedures and Cordivari LAB are certified conforming to European standard EN 15332, as indicated by Ecodesign ErP Directive.



1-2-6-7	Heating return/To Generator 1"1/2 Gas F
3	Lower heat exchanger outlet 1" Gas F
4 - 5	Connection for instrumentation 1/2" Gas F
8	Lower heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14 - 17	Connection for instrumentation 1/2" Gas F
19	Heating delivery/Air venting 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)



THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE



Model	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H13
[mm]															
500	650	750	1619	1784	247	215	360	533	629	425	870	1025	1011	1130	1343
600	650	750	1870	2015	247	215	360	582	695	425	970	1200	1144	1485	1593
800	790	940	1840	2066	265	233	378	584	690	443	918	1115	1115	1442	1541
1000	790	940	2130	2328	265	233	384	656	787	443	1145	1388	1309	1588	1831
1500	950	1100	2250	2504	313	281	432	736	845	491	1236	1396	1377	1783	1909

MULTIFUEL
ENERGY CYLINDERS

PUFFERMAS® 2 CTS®



STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE,
2 FIXED COILS AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY WATER



APPLICATION

Storage of heating hot water and immediate production of high flow rate D.H.W.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

2 fixed heat exchangers

The thermal exchange is ensured by two fixed heat exchangers in mild steel with a top thermal loading system.

TECHNICAL DESCRIPTION

The immediate and fast production of D.H.W. granted by the outside system steel plate exchange allow the following benefits:

- to reduce dimensions of the water heater need it
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by calorifier with similar capacity because heating hot water is stored at an

highest temperature than DHW.

Puffermas 1 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 water heated 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.

INSULATION

High thermal insulation with ecological hard polyurethane foam. For models 800-1000 dismountable insulation.

Grey PVC external lining with top cover.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PATENTED



PUFFERMAS® 2 CTS® HE

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
				Upper	Lower
				[m²]	
500	70 kW	3251162316423	C	1,3	1,9
600		3251162316424	C	1,3	2,1
800		3251162316425	C	1,8	2,5
1000		3251162316426	C	2,5	3,1
1500		3251162316427	C	2,8	3,8
1000	120 kW	3251162316428	C	2,5	3,1
1500		3251162316429	C	2,8	3,8

Model	Maximum D.H.W. module output (MACS®) (*)	DHW Station max flow rate (*)	Max availability of DHW (10-45 °C) with storage at 70 °C
	[kW]	[l/min]	[litres]
500	70 kW	30	511
600		30	614
800		30	983
1000		30	1100
1500		30	1680
1000	120 kW	50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

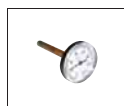


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	

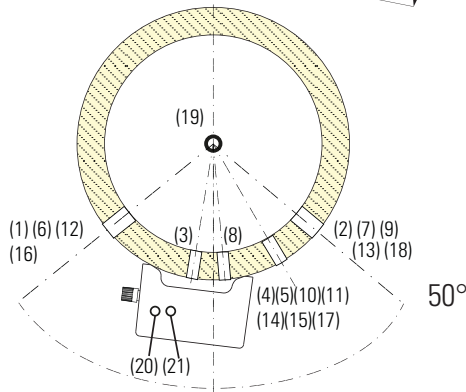
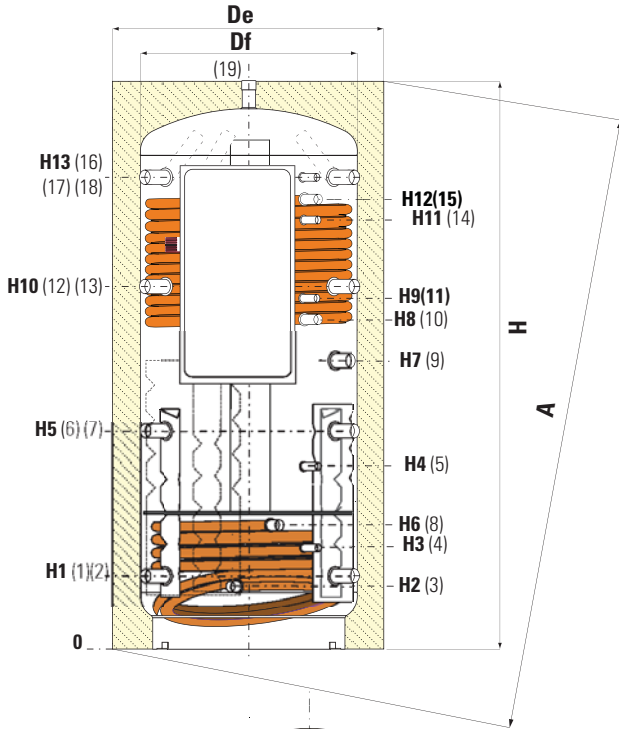
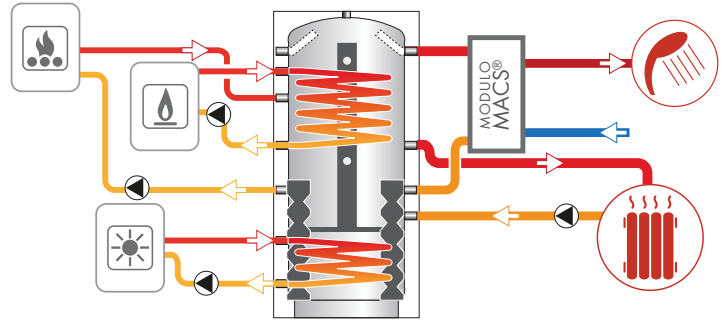


PUFFERMAS® 2 CTS®

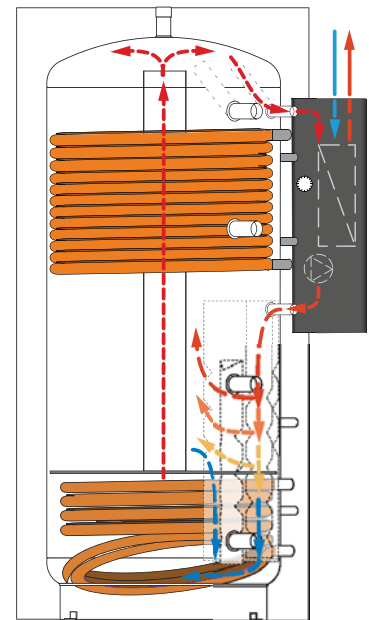
STORAGE BUFFER TANKS FOR HEATING WATER WITH STRATIFICATION DEVICE,
2 FIXED COILS AND MACS® D.H.W. STATION FOR INSTANTANEOUS PRODUCTION OF SANITARY WATER

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.



1-2-6-7	Heating return/To Generator 1"1/2 Gas F
3	Lower heat exchanger outlet 1" Gas F
4 - 5	Connection for instrumentation 1/2" Gas F
8	Lower heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Lower heat exchanger outlet 1" Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14 - 17	Connection for instrumentation 1/2" Gas F
15	Fixed upper heat exchanger inlet 1" Gas F
19	Heating delivery/Air venting 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)



THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE



Model	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
	[mm]																
500	650	750	1619	1784	247	215	360	533	629	425	870	930	1025	1011	1130	1231	1343
600	650	750	1870	2015	247	215	360	582	695	425	970	1090	1200	1144	1485	1391	1593
800	790	940	1840	2066	265	233	378	584	690	443	918	1003	1115	1115	1442	1347	1541
1000	790	940	2130	2328	265	233	384	656	787	443	1145	1188	1388	1309	1588	1661	1831
1500	950	1100	2250	2504	313	281	432	736	845	491	1236	1286	1396	1377	1783	1673	1909

MULTIFUEL
ENERGY CYLINDERS

PUFFERMAS® 1 CTS® POWER



HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER INTEGRATED SOLAR CIRCULATION GROUP MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage by stratification of heating water, instantaneous production of domestic hot water (DHW) with high flows and performances and also management of the solar circulation, in solar thermal system / biomass boiler.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

1 mild steel fixed heat exchanger.

TECHNICAL DESCRIPTION

Specific for accumulation and management of the heat produced by the thermal solar system, combined the use of the Puffer's characteristics with the ones of a fast DHW producer without in fact the storage of the domestic hot water, with the following advantages:

- to reduce dimensions of the water heater need it
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because heating hot water is stored at an highest temperature than DHW.

MACS® MODULE AND SOLAR CIRCULATION GROUP:

PPE thermal insulated removable case, containing:

- all solar station cabled components on the tank (circulation group-Professional central unit with 5 temperature probes)
- MACS® module - Electronic display complete with 5 temperature probes compatible with up to 26 different circuit systems e with the motor-driven three-way valve

INSULATION

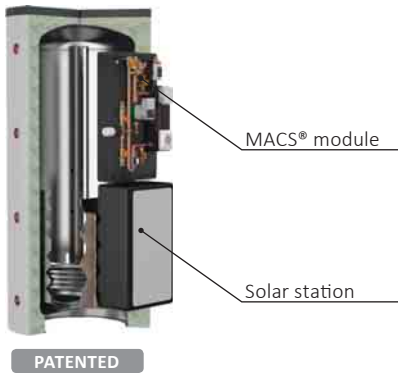
High thermal insulation with ecological hard polyurethane foam. For models 800-1000 dismountable insulation.

Grey PVC external lining with top cover.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PUFFERMAS® 1 POWER B HE CTS®

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel		ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE [m ²]
		Art. Nr.			
500	70 kW	3251162316443		C	1,9
600		3251162316444		C	2,1
800		3251162316445		C	2,5
1000		3251162316446		C	3,1
1500		3251162316447		C	3,8
1000	120 kW	3251162316448		C	3,1
1500		3251162316449		C	3,8

Model	Maximum D.H.W. module output (MACS®) (*) [kW]	DHW Station max flow rate (*) [l/min]	Max availability of DHW (10-45 °C) with storage at 70 °C [litres]
600	70 kW	30	614
800		30	983
1000		30	1100
1500	120 kW	30	1680
1000		50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.



TECHNICAL DATA AND ECODESIGN ERP LABELS AVAILABLE ONLINE AT WWW.CORDIVARI.COM

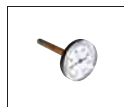


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.
5032240000107
5 units box



Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



Buffer tanks connecting kit

Art. Nr.	Connection
5006170001001	1" 1/2
Stainless steel extensible connecting kit - (200 ÷ 400 mm)	

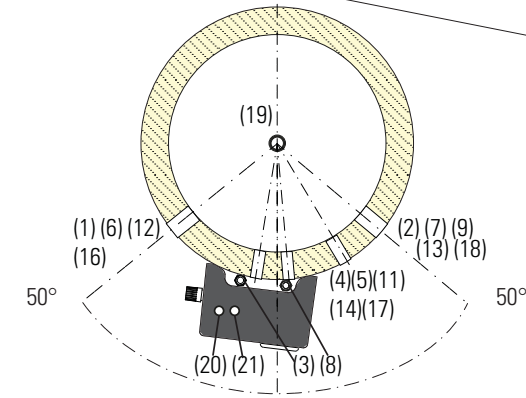
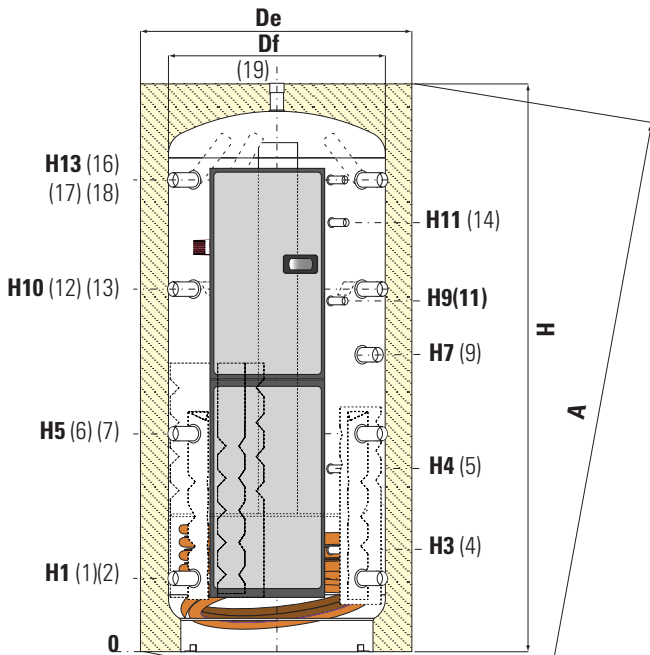
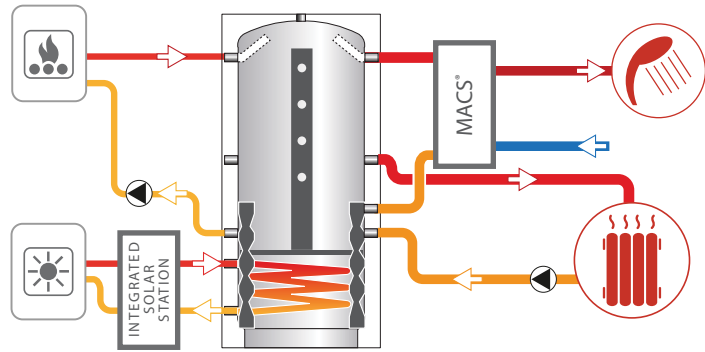


PUFFERMAS® 1 CTS® POWER

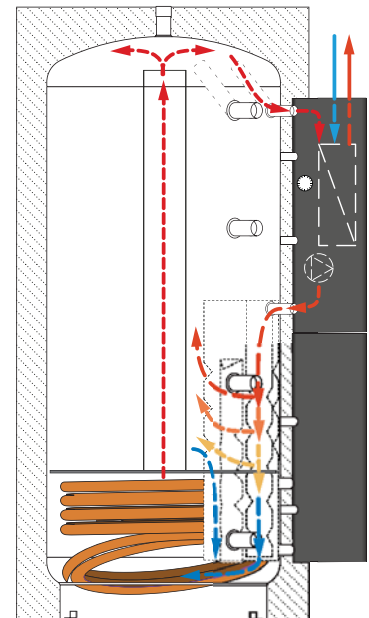
HEATING WATER BUFFER TANK WITH 1 FIXED HEAT EXCHANGER INTEGRATED SOLAR CIRCULATION GROUP MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.



1-2-6-7	Heating return/To Generator 1"1/2 Gas F
3	Lower heat exchanger outlet 1" Gas F
4 - 5	Connection for instrumentation 1/2" Gas F
8	Lower heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14 - 17	Connection for instrumentation 1/2" Gas F
19	Heating delivery/Air venting 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)



THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE

Model	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H9	H10	H11	H13
	[mm]														
500	650	750	1619	1784	247	215	360	533	629	425	870	1025	1011	1130	1343
600	650	750	1870	2015	247	215	360	582	695	425	970	1200	1144	1485	1593
800	790	940	1840	2066	265	233	378	584	690	443	918	1115	1115	1442	1541
1000	790	940	2130	2328	265	233	384	656	787	443	1145	1388	1309	1588	1831
1500	950	1100	2250	2504	313	281	432	736	845	491	1236	1396	1377	1783	1909

MULTIFUEL ENERGY CYLINDERS

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

PUFFERMAS® 2 CTS® POWER



HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS, INTEGRATED SOLAR CIRCULATION GROUP AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

Storage by stratification of heating water, instantaneous production of domestic hot water (DHW) with high flows and performances and also management of the solar circulation, in solar thermal system / biomass boiler.

MATERIAL

Mild steel construction with exterior paint. No anti-corrosion treatment required due to the buffer's closed circuit system.

D.H.W. HEAT EXCHANGER:

- Plate to plate stainless steel exchanger in external MACS® module for immediate D.H.W. production.

HEATING WATER HEAT EXCHANGER

The thermal exchange is ensured by two fixed heat exchangers in mild steel with a top thermal loading system.

TECHNICAL DESCRIPTION

Specific for accumulation and management of the heat produced by the thermal solar system, combined the use of the Puffer's characteristics with the ones of a fast DHW producer without in fact the storage of the domestic hot water, with the following advantages:

- to reduce dimensions of the water heater need it
- easy maintenance
- maximum hygiene for anti-legionellosis bacteria's
- to produce more DHW than the quantity obtained by boiler with similar capacity because heating hot water is stored at an highest temperature than DHW.

MACS® MODULE AND SOLAR CIRCULATION GROUP:

- PPE thermal insulated removable case, containing:
 - all solar station cabled components on the tank (circulation group-Professional central unit with 5 temperature probes).
 - MACS® module- Electronic display complete with 5 temperature probes compatible with up to 26 different circuit systems e with the motor-driven three-way valve.

INSULATION

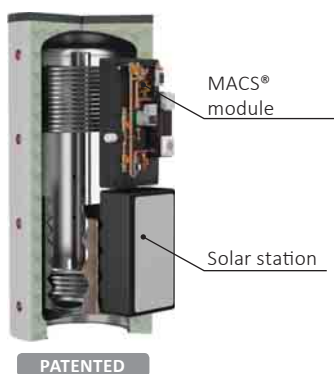
High thermal insulation with ecological hard polyurethane foam. For models 800-1000 dismantlable insulation.

Grey PVC external lining with top cover.

- MACS® module: insulating PPE cover.

WARRANTY

5 years- See general sales conditions and warranty.



PUFFERMAS® 2 POWER B HE CTS®

Model	Maximum D.H.W. module output (MACS®)	Storage: Mild steel Art. Nr.	ENERGY EFFICIENCY CLASS 	HEAT EXCHANGER SURFACE	
				Upper	Lower
				[m ²]	
500	70 kW	3251162316463	C	1,3	1,9
600		3251162316464	C	1,3	2,1
800		3251162316465	C	1,8	2,5
1000		3251162316466	C	2,5	3,1
1500		3251162316467	C	2,8	3,8
1000	120 kW	3251162316468	C	2,5	3,1
1500		3251162316469	C	2,8	3,8

Model	Maximum D.H.W. module output (MACS®) (*) [kW]	DHW Station max flow rate (*) [l/min]	Max availability of DHW (10-45 °C) with storage at 70 °C [litres]
600	30	614	
800	30	983	
1000	30	1100	
1500	30	1680	
1000	120 kW	50	1503
1500		50	2254

(*) Data obtained under the following conditions:

- primary water at 80°C
- DHW production from 10°C to 45°C.



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

— Accessories on request —

Thermometer

Art. Nr.	
5032240000107	
5 units box	

Recirculation kit

Art. Nr.	
5221000000054	
Control display + pump (for D.H.W.)	

Buffer tanks connecting kit

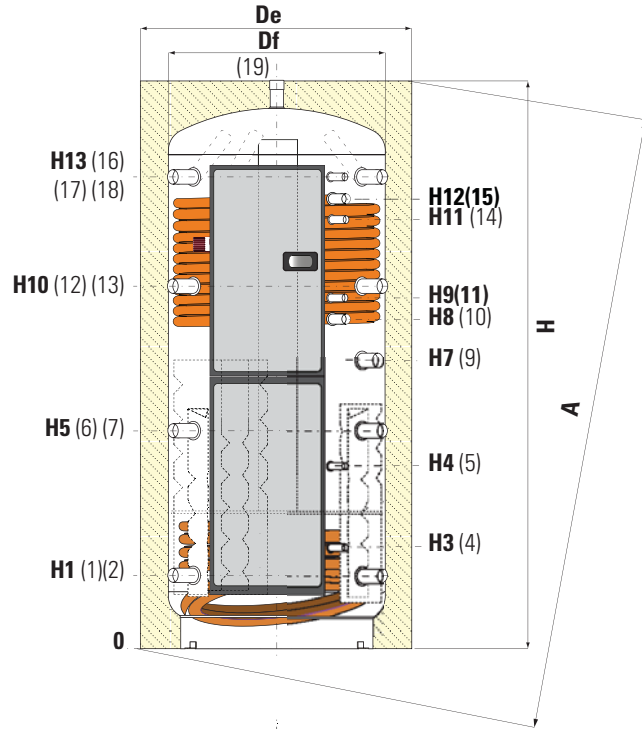
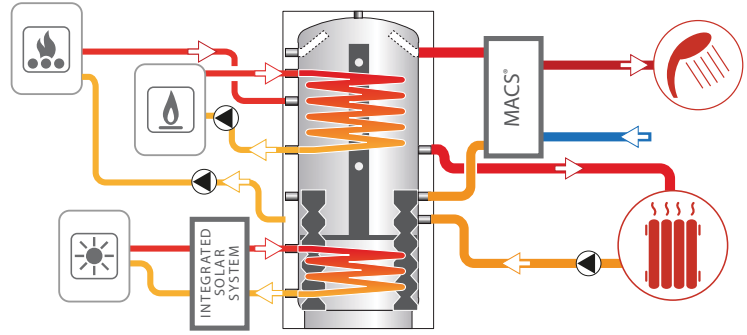
Art. Nr.	Connection	
5006170001001	1" 1/2	
Stainless steel extensible connecting kit - (200 ÷ 400 mm)		

PUFFERMAS® 2 CTS® POWER

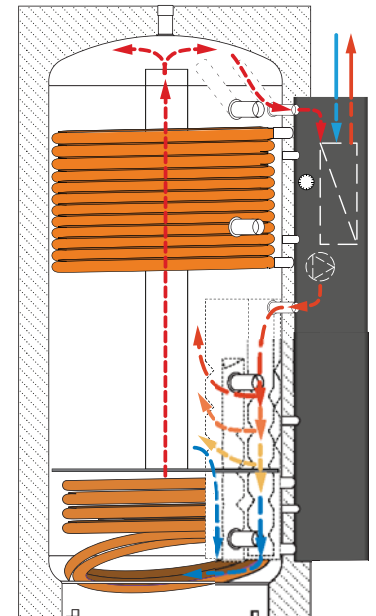
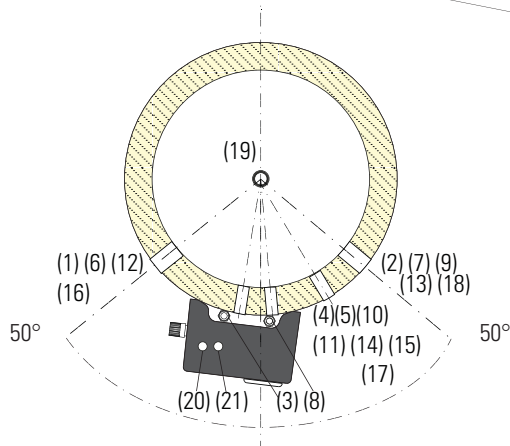
HEATING WATER BUFFER TANK WITH 2 FIXED HEAT EXCHANGERS, INTEGRATED SOLAR CIRCULATION GROUP AND MACS® MODULE FOR IMMEDIATE D.H.W. PRODUCTION

STORAGE		FIXED HEAT EXCHANGER		STAINLESS STEEL PLATE HEAT EXCHANGER (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.



1-2-6-7	Heating return/To Generator 1"1/2 Gas F
3	Lower heat exchanger outlet 1" Gas F
4 - 5	Connection for instrumentation 1/2" Gas F
8	Lower heat exchanger inlet 1" Gas F
9	Electrical immersion 1"1/2 Gas F
10	Lower heat exchanger outlet 1" Gas F
11	Connection for instrumentation 1/2" Gas F
12-13-16-18	Heating delivery/From Generator 1"1/2 Gas F
14 - 17	Connection for instrumentation 1/2" Gas F
15	Fixed upper heat exchanger inlet 1" Gas F
19	Heating delivery/Air venting 1"1/2 Gas F
20	Domestic cold water circuit inlet 1" Gas M (1" Gas M for models 120kW)
21	Domestic hot water circuit outlet 3/4" Gas M (1" Gas M for models 120kW)

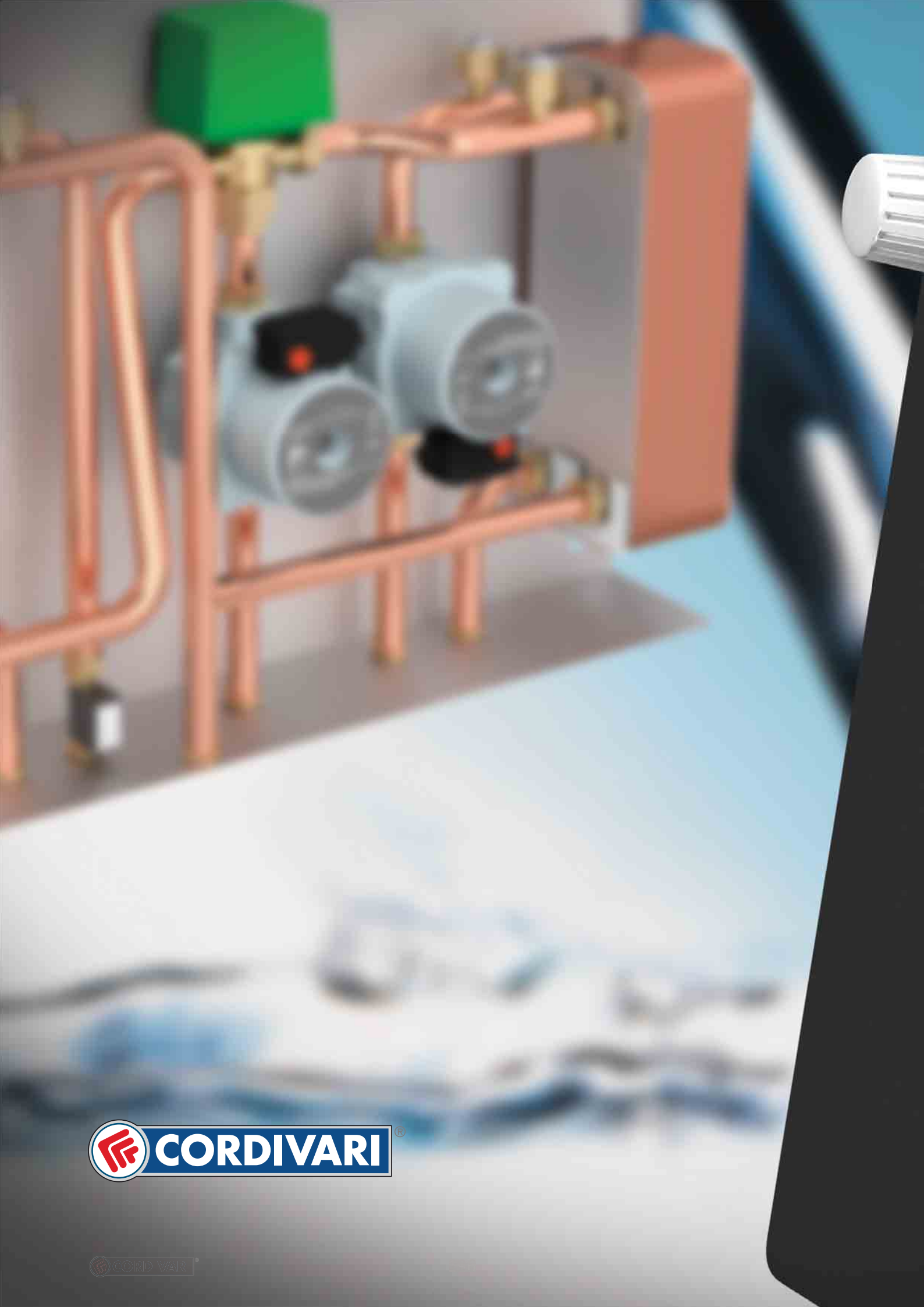


THE ILLUSTRATION UNDERLINES THE STRATIFICATION PROCESS (FROM TOP TO BOTTOM) THAT ALLOWS TO HAVE ALL ENERGY NEEDED RAPIDLY AVAILABLE



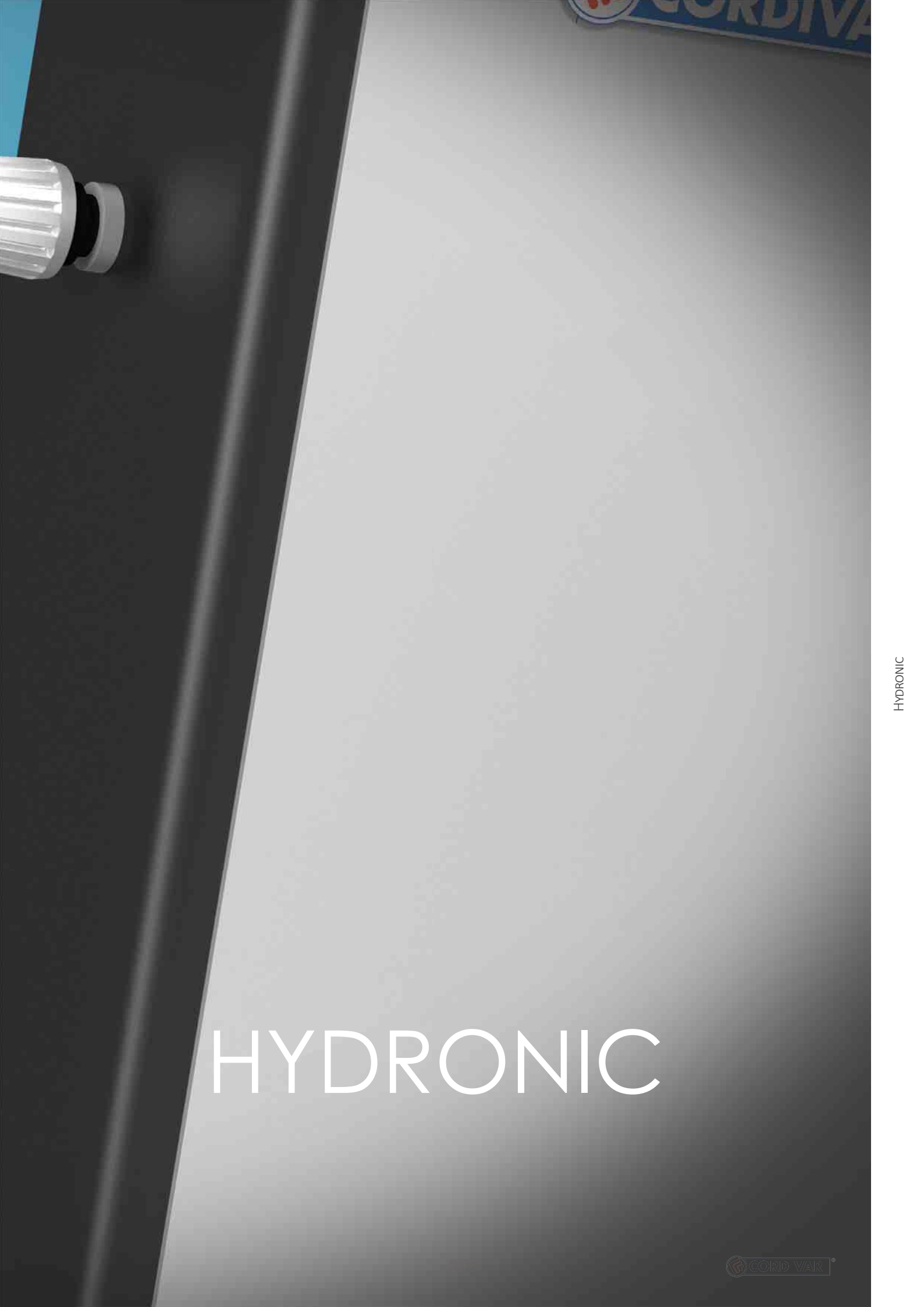
Model	Df	De	H	A	H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11	H12	H13
	[mm]																
500	650	750	1619	1784	247	215	360	533	629	425	870	930	1025	1011	1130	1231	1343
600	650	750	1870	2015	247	215	360	582	695	425	970	1090	1200	1144	1485	1391	1593
800	790	940	1840	2066	265	233	378	584	690	443	918	1003	1115	1115	1442	1347	1541
1000	790	940	2130	2328	265	233	384	656	787	443	1145	1188	1388	1309	1588	1661	1831
1500	950	1100	2250	2504	313	281	432	736	845	491	1236	1286	1396	1377	1783	1673	1909

MULTIFUEL ENERGY CYLINDERS



 **CORDIVARI**®

 CORDIVARI®



HYDRONIC

HYDRONIC

MACS® MODULE

MODULE FOR IMMEDIATE D.H.W. PRODUCTION



APPLICATION

MACS® module produces instantly D.H.W. with high flow rate.

HEAT EXCHANGERS, MATERIAL

Copper circuitry, fittings and valves in brass.

316L stainless steel brazed plate heat exchanger with a thermostatic mixer in the Entry heating water from the buffer avoiding the plate exchanger to overheat and reducing risk of calcium deposits. Module's frame in PPE protecting and insulating the heat exchanger and circuits.

TECHNICAL INFORMATIONS

MACS® module produces instantly D.H.W. with high flow rate and without storage of water.

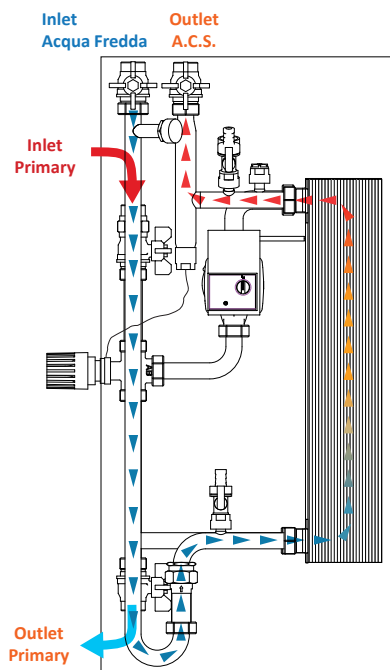
The immediate and fast production of D.H.W. granted by the external plate exchanger system allow the following benefits:

- reduced dimensions for DHW productions
- easy maintenance
- easy 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 is stored at an highest temperature than DHW.

WARRANTY

2 years

See general sales conditions and warranty.



MACS® is connected to the buffer tank, and its 316L stainless steel heat exchanger produce hot domestic water, using the heat energy stored in the Buffer thanks granting safety and comfort with the possibility to regulate outlet temperature.

MACS® MODULE

Output	Stainless steel Plate Exchanger 316 L
[kW]	Art. Nr.
70	3316006700005
120	3316006700006

MACS® TECHNICAL DATA	70 KW MODEL	120 KW MODEL
Primary circuit maximum flow rate (inlet)	1.200 l/h	1620 l/h
D.H.W. maximum flow rate (outlet)	1.800 l/h ΔP 0,5 bar	3.000 l/h ΔP 0,5 bar
DHW station maximum flow rate	30 l./min	50 l./min
DHW production (at 10-45°C) with 70°C storage	24 l./min	41 l./min
Maximum working temperature	90 °C	90 °C
Maximum working pressure	6 bar	6 bar
Electrical supply	230 V AC, 93 W	230 V AC, 132 W
Minimal D.H.W. request to activate / deactivate MACS® station	1,5 l/m ± 0,5	1,5 l/m ± 0,5
Insulated D.H.W. case dimension (LxHxW)	L 400 x H 700 x P 260 mm	L 500 x H 905 x P 310 mm
Connections	¾" M	1" F / ¾" F

— Accessories on request —

Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



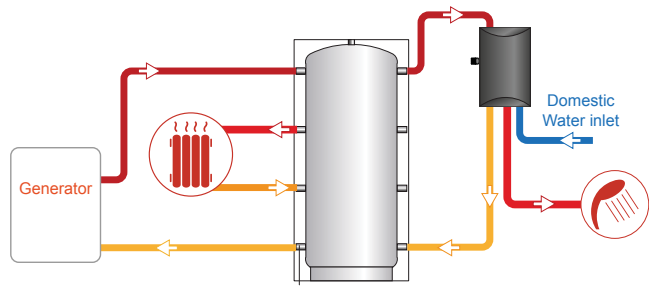
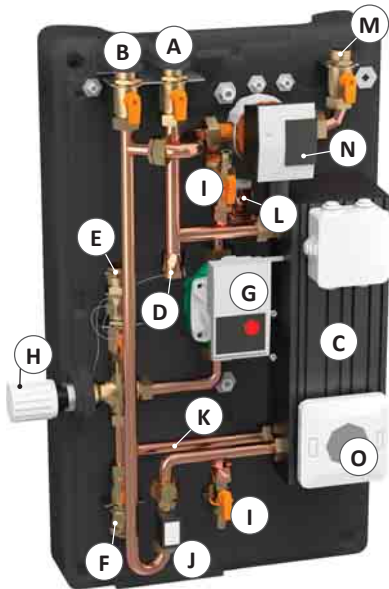
The use of Cordivari's recycling kit allows to manage on the system a link of the DHW recycling.

The benefit consists of improving the comfort for the user by reducing the waste of domestic water and producing DHW immediately at the right temperature. In particular, the Cordivari electronic recycling kit allows to:

- Maximize the energy saving by setting the program of recycling temperature based on personal habits.
- Daily and weekly scheduling to manage until 8 time slots for each days of the week
- Constantly monitoring the working and the efficiency of the recycle tanks to the self-diagnostics of the system
- Work also without the temperature's probe, through programmable temporary actions.

MACS® MODULE

MODULE FOR IMMEDIATE D.H.W. PRODUCTION



A	Domestic Hot Water exit	G	"Energy Saving" Circulation Pump
B	Domestic Water entry	H	Thermostatic Head
C	Insulated Stainless Steel Plate Exchanger	I	Valves for DHW circuit cleaning
D	Control for thermostatic head	J	Flow Sensor
E	heating water inlet from the buffer	K	Heating Circuit Bypass
F	Heating water back flow to the buffer	L	Drain

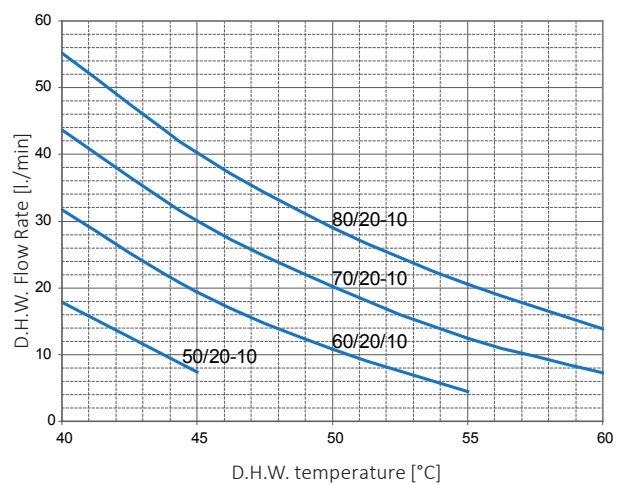
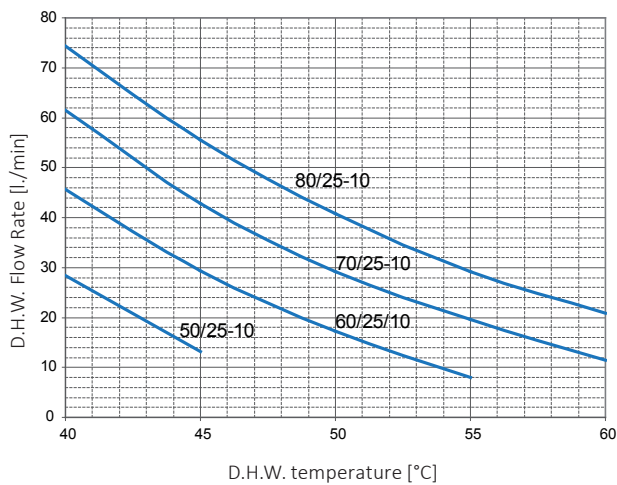
D.H.W. recirculation kit (optional)	
M	Connection for D.H.W. recirculation (optional)
N	Recirculation pump (optional)
O	D.H.W. recirculation control display (optional)

MACS® TECHNICAL DATA CHART

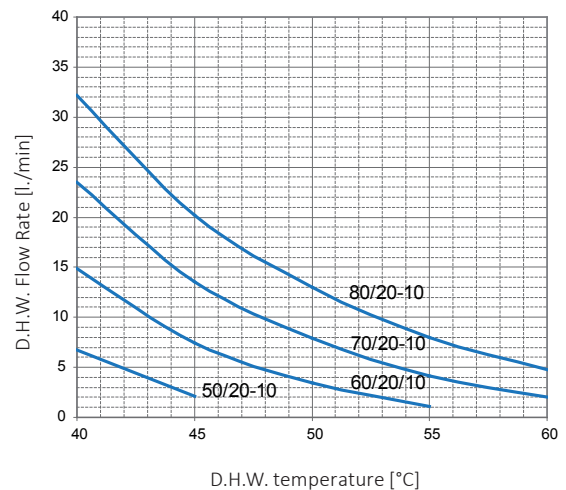
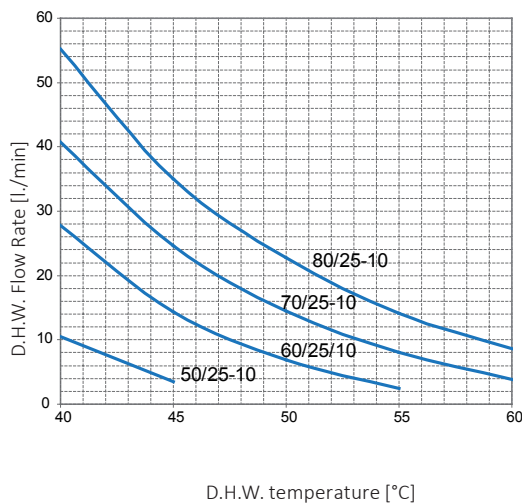
The curves in below charts are useful to calculate the flow rate of DHW product by a MACS® module unit depending on the DHW desired temperature (value reported on the horizontal axis)

The various curves are determined according to 3 parameters: the temperature of the storage tank; the temperature of the heating water flow returning to the storage tank and the inlet temperature of the DHW water.

120 Kw



70 Kw



HYDRONIC

CASCADE MACS® SYSTEM

CASCADE MACS® SYSTEM FOR INSTANTANEOUS DHW PRODUCTION ON BIG INSTALLATION



APPLICATION

MACS® module produces instantly D.H.W. with high flow rate even if there is installed a small power thermal generator.

HEAT EXCHANGERS, MATERIAL

Copper circuitry, fittings and valves in brass .

316L stainless steel brazed plate heat exchanger with a thermostatic mixer in the Entry heating water from the buffer avoiding the plate exchanger to overheat reducing risk of formation of calcium deposit. Module's frame in PPE that protects and makes insulated the heat exchanger and the circuit.

TECHNICAL DESCRIPTION

The management of additional MACS module in cascade allows meeting high requirements of DHW.

The complete system manage trough the electronic control unit the working of each module following the request of DHW from the users.

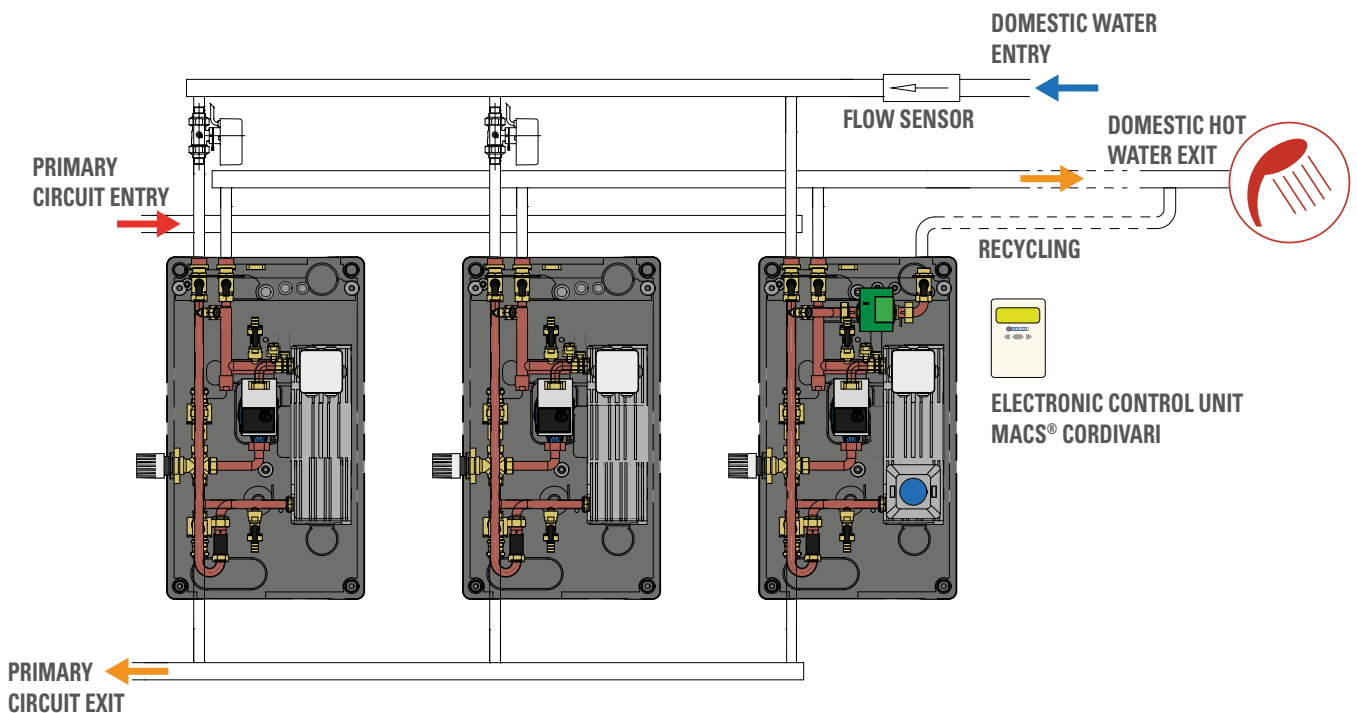
The cascade configuration can eventually also manage the link of the DHW recycling. The use of the MACS module in cascade takes all the benefits from the MACS module also in big installation where big DHW flows are needed to produce instantaneous DHW without the necessity to accumulate these DHW.

WARRANTY

2 years

1 year electronical parts

See general sales conditions and warranty



CASCADE MACS® SYSTEM

Numbers of MACS module 120 KW	Total input	DHW flow rate	Stainless steel Plate Exchanger 316 L
	[kW]	[l./min]	Art. Nr.
x 2	240	100	3316006700011
x 3	360	150	3316006700012
x 4	480	200	3316006700013
x5	600	250	3316006700014

— Accessories on request —

Recirculation kit

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



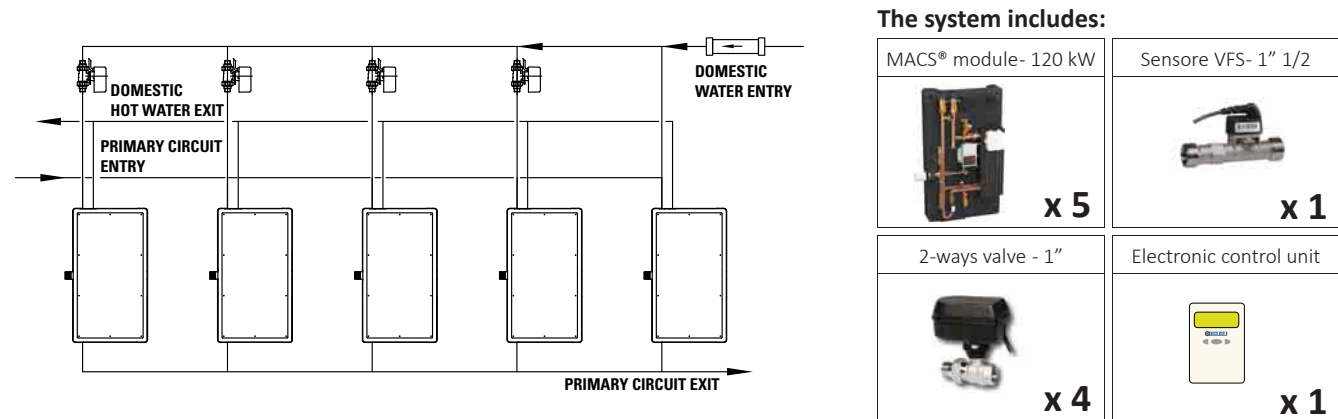
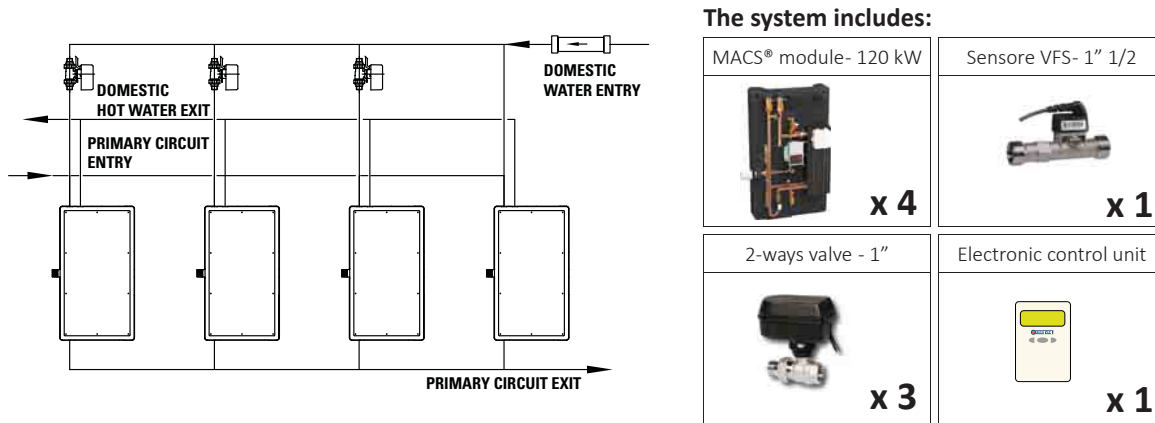
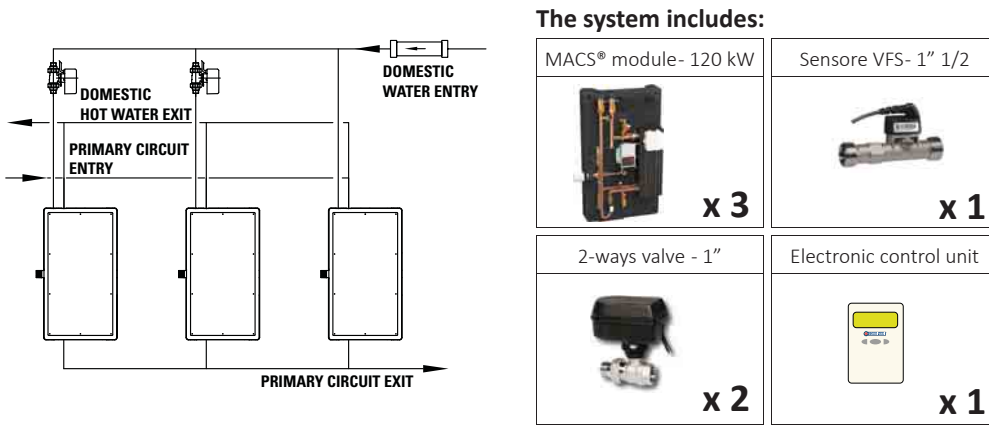
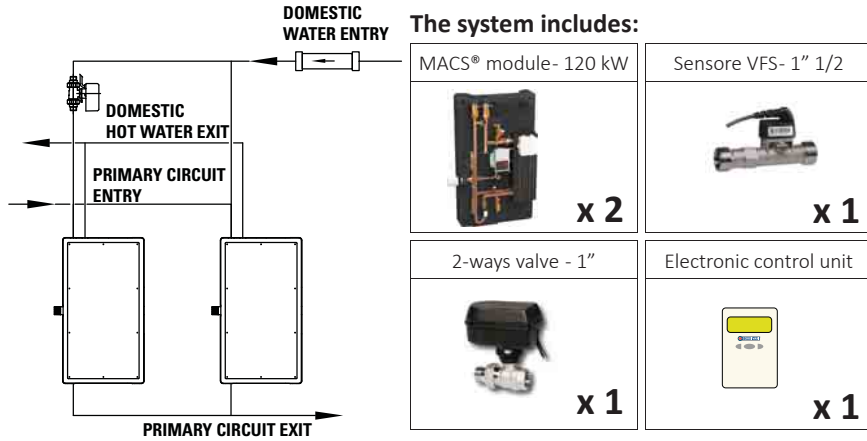
The use of Cordivari's recycling kit allows to manage on the system a link of the DHW recycling.

The benefit consists of improving the comfort for the user by reducing the waste of domestic water and producing DHW immediately at the right temperature. In particular, the Cordivari electronic recycling kit allows to:

- Maximize the energy saving by setting the program of recycling temperature based on personal habits.
- Daily and weekly scheduling to manage until 8 time slots for each days of the week
- Constantly monitoring the working and the efficiency of the recycle tanks to the self-diagnostics of the system
- Work also without the temperature's probe, through programmable temporary actions.

CASCADE MACS® SYSTEM

CASCADE MACS® SYSTEM FOR INSTANTANEOUS DHW PRODUCTION ON BIG INSTALLATION



HYDRONIC

PRS MODULE

MODULE FOR IMMEDIATE DHW PREPARATION



APPLICATION

PRS modules are used for immediate (without storage) Domestic Hot Water production or semi-immediate (with storage) in case of bigger systems, aside from the primary circuit energy source. PRS modules are equipped with a sophisticated management system able to automatically control several installations and punctually manage anti-legionellosis cycles, recording data and their results.

COMPONENTS

- Inspection plate heat exchanger. The exchanger can be opened for a better cleaning in order to keep high hygiene conditions.
- Primary circuit single or double pump. The double pump is suitable for systems that need to be always operating. In case of breakdown, the system automatically starts the second pump and guarantees heating for DHW production.
- Motor-operated mixing valve. The valve mixes the

primary fluid passing by the heat plate exchanger, so that the temperature does not go up too much and it reduces the calcareous deposits inside.

- Electronic panel with PLC. PLC has a software specially designed to manage the PRS with anti-legionellosis cycles recording option.
- Temperature probes.
- Galvanized mild steel frame.

WORKING CONDITION

Max pressure = 10 bar

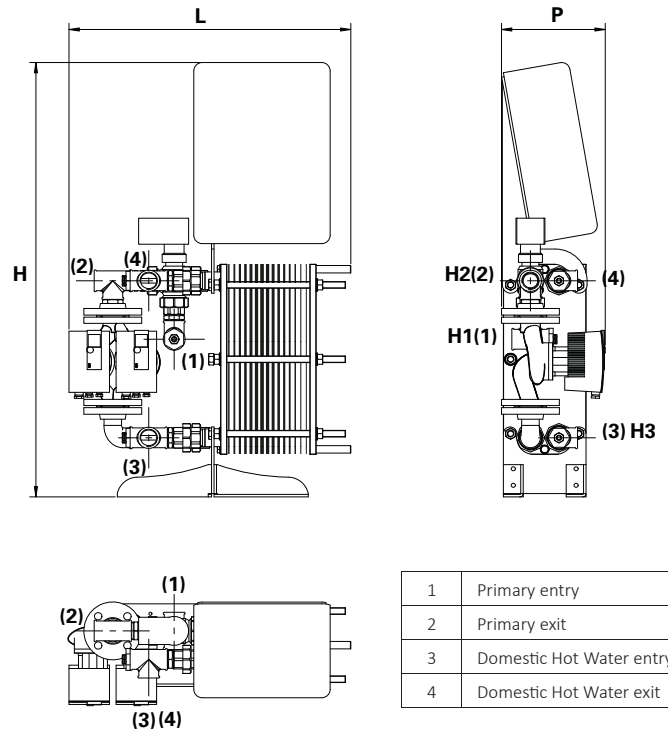
Max temperature = 140°C (meant as max gaskets operating temperature that has always to be the lowest among the temperatures and is equal to steam tension of 0.5 bar more than the normal atmosphere pressure considered for two circulating fluids).

In case of application at temperature higher than 110°C see TECHNICAL SUPPORT & REGULATIONS section.

WARRANTY

2 years - See general sales conditions and warranty.

Exchanger model	N° of plates	H	L	P	H1	H2	H3
		[mm]					
PHC 4620	9	1050	530	250	380	520	140
	11						
	13						
	15						
	17						
	19						
	21						
	25						
	27						
	29						
	31						
	33						
	35						
	39						
41							
43							
45							
PHC 7420	17	1330	530	660	800		
	19						
	23						
	25						
	29						
	35						
	37						
	39						
43							



TOUCH SCREEN ELECTRONIC PANEL

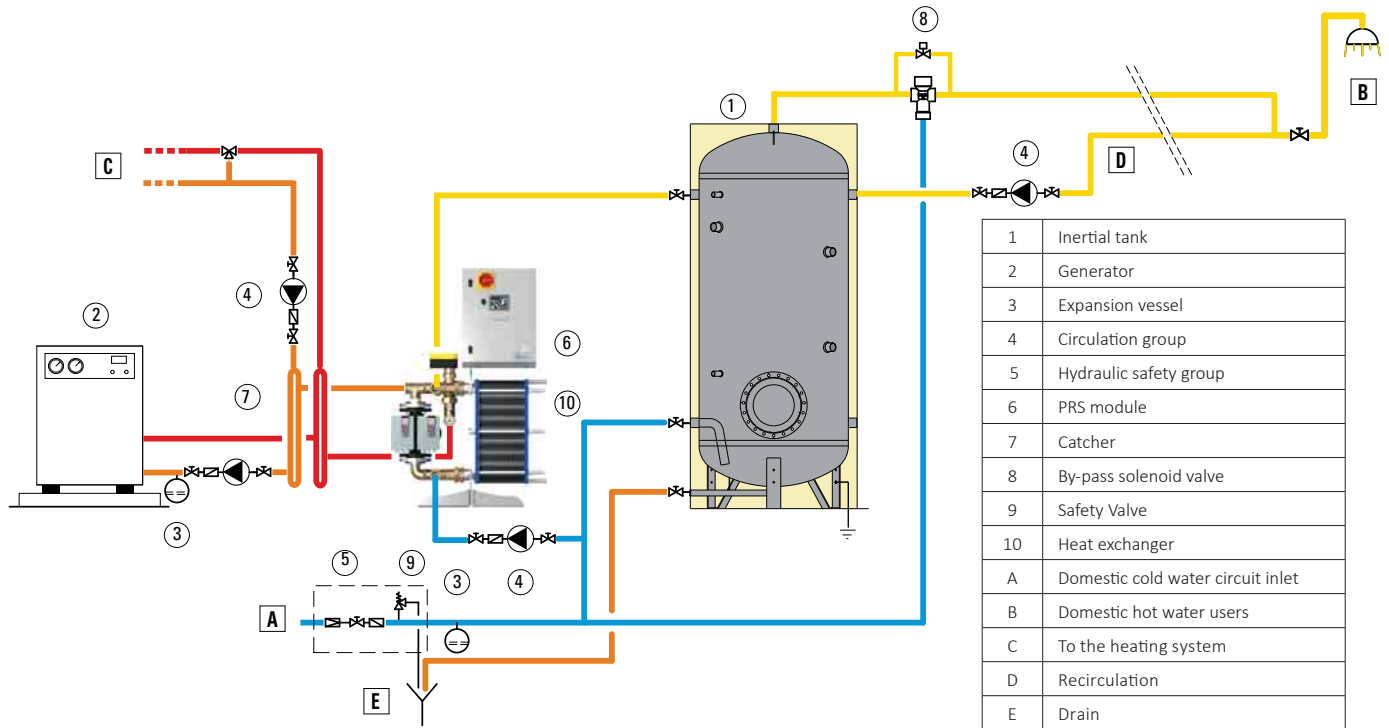
The electronic panel:

- can automatically control several installations for Domestic Hot Water production;
- is completely adjustable;
- allows PID regulation of the mixing valve on the primary;
- manages the pumps operating conditions of the primary, adjusting the flow rate to the quantity of Domestic Hot Water demanded, so to realize optimal energy efficiency;
- manages the DHW charge and recirculation of the operating pumps;
- allows the constant monitoring of the installation and temperatures progress screening;
- punctually manages the anti-legionellosis cycles, recording temperatures data on a file that can be downloaded by USB port;
- shows temperatures progress during the last anti-legionellosis cycle;
- automatically allows a punctual opening of the drain valve;
- is able to detect and notify a component or primary circuit heat generator malfunction.

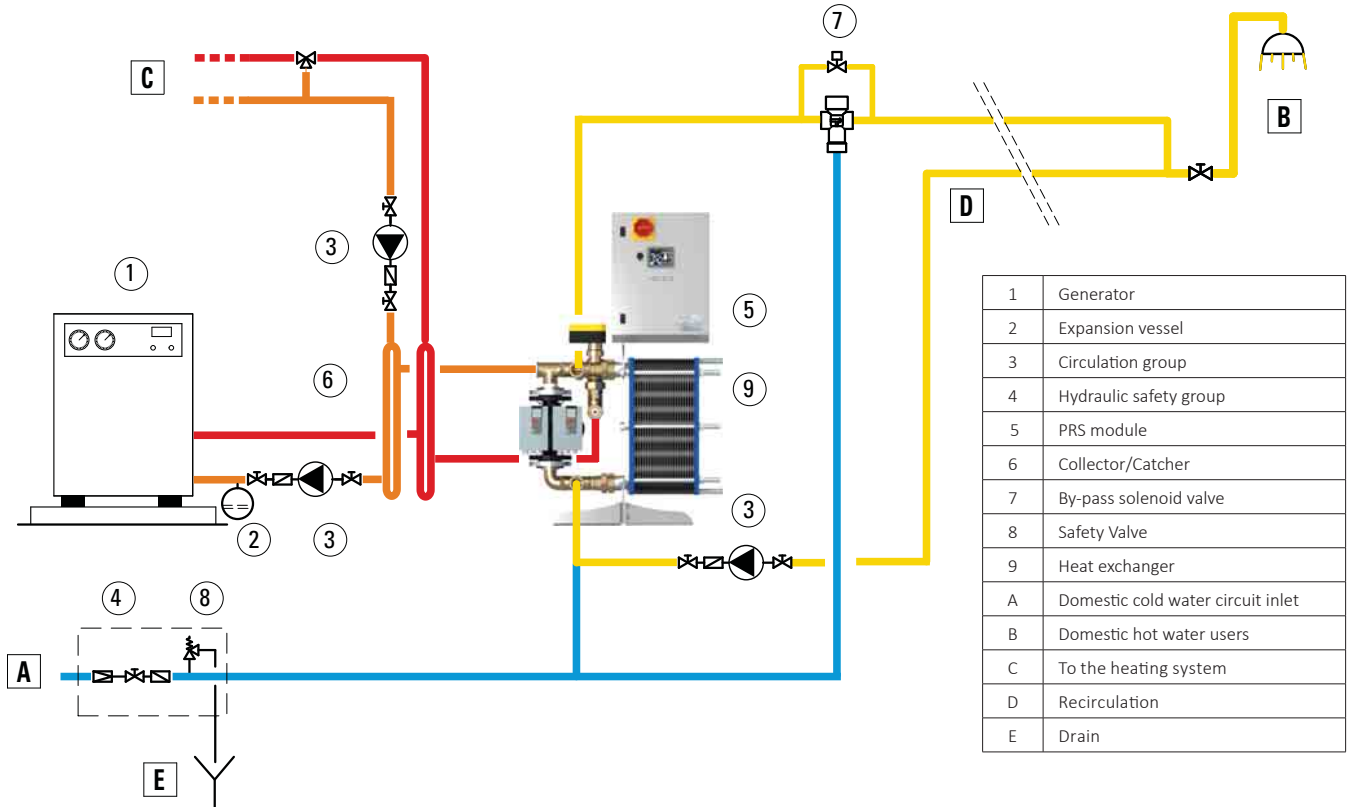
PRS MODULE

MODULE FOR IMMEDIATE DHW PREPARATION

EXAMPLE OF INSTALLATION WITH A DHW STORAGE TANK





EXAMPLE OF INSTALLATION WITHOUT A WATER STORAGE TANK







SYSTEMS FOR TRADITIONAL INSTALLATION

WITH SINGLE PUMP			Primary 80/70 °C Secondary 10/50 °C				Primary 65/50 °C Secondary 10/45 °C			
Products available from January 2016			Output	Flow rate	Flow Rate ACS	Over dimensioning factor	Output	Flow rate	DHW flow rate	Over dimensioning factor
Exchanger model	N° of plates	Art. Nr.								
 PHC 4620	9	3435316701001	40	3,52	0,88	1,25	58	3,40	1,46	0,25
	11	3435316701002	50	4,40	1,10	1,31	73	4,28	1,61	0,29
	13	3435316701005	60	5,28	1,32	1,36	88	5,16	1,94	0,31
	15	3435316701006	70	6,16	1,54	1,39	102	5,98	2,24	0,33
	17	3435316701007	80	7,04	1,76	1,41	117	6,86	2,57	0,34
	19	3435316701008	91	8,00	2,00	1,42	131	7,68	2,88	0,35
	21	3435316701009	101	8,88	2,22	1,43	146	8,56	3,21	0,36
	25	3435316701010	121	10,64	2,66	1,46	175	10,26	3,85	0,37
	27	3435316701011	131	11,52	2,88	1,47	190	11,14	4,18	0,37
	29	3435316701012	141	12,40	3,10	1,47	205	12,02	4,51	0,38
	31	3435316701013	151	13,28	3,32	1,48	219	12,84	4,82	0,38
	33	3435316701014	161	14,16	3,54	1,48	234	13,72	5,15	0,38
	35	3435316701015	172	15,00	3,78	1,47	249	14,60	5,48	0,39
	39	3435316701016	184	15,00	4,05	1,48	273	15,00	6,00	0,36
	41	3435316701017	190	15,00	4,18	1,47	281	15,00	6,18	0,35
43	3435316701018	196	15,00	4,31	1,47	289	15,00	6,36	0,35	
45	3435316701019	201	15,00	4,42	1,47	295	15,00	6,49	0,34	
 PHC 7420	17	3435316701020	60	5,28	1,32	4,38	87	5,10	1,91	2,02
	19	3435316701021	68	5,98	1,50	4,41	98	5,75	2,16	2,04
	23	3435316701022	83	7,30	1,83	4,47	120	7,04	2,64	2,07
	25	3435316701023	90	7,92	1,98	4,50	131	7,68	2,88	2,09
	29	3435316701024	105	9,24	2,31	4,54	153	8,97	3,36	2,1
	35	3435316701025	128	11,26	2,81	4,57	187	10,97	4,11	2,12
	37	3435316701026	136	11,96	2,99	4,57	197	11,55	4,33	2,13
	39	3435316701027	143	12,58	3,14	4,59	209	12,26	4,60	2,13
	43	3435316701028	158	13,90	3,47	4,60	231	13,55	5,08	2,14

PRS modules with the highest over dimensioning factor are offered to extend the circulating lifecycle and keep the exchanger cleaner, so to have higher efficiency and reducing the maintenance frequency.

WITH DOUBLE PUMP			Primary 80/70 °C Secondary 10/50 °C				Primary 65/50 °C Secondary 10/45 °C			
Products available from January 2016			Output	Flow rate	Flow Rate ACS	Over dimensioning factor	Output	Flow rate	DHW flow rate	Over dimensioning factor
Exchanger model	N° of plates	Art. Nr.								
 PHC 4620	9	3435316701051	40	3,52	0,88	1,25	58	3,40	1,46	0,25
	11	3435316701052	50	4,40	1,10	1,31	73	4,28	1,61	0,29
	13	3435316701053	60	5,28	1,32	1,36	88	5,16	1,94	0,31
	15	3435316701054	70	6,16	1,54	1,39	102	5,98	2,24	0,33
	17	3435316701055	80	7,04	1,76	1,41	117	6,86	2,57	0,34
	19	3435316701056	91	8,00	2,00	1,42	131	7,68	2,88	0,35
	21	3435316701057	101	8,88	2,22	1,43	146	8,56	3,21	0,36
	25	3435316701058	121	10,64	2,66	1,46	175	10,26	3,85	0,37
	27	3435316701059	131	11,52	2,88	1,47	190	11,14	4,18	0,37
	29	3435316701060	141	12,40	3,10	1,47	205	12,02	4,51	0,38
	31	3435316701061	151	13,28	3,32	1,48	219	12,84	4,82	0,38
	33	3435316701062	161	14,16	3,54	1,48	234	13,72	5,15	0,38
	35	3435316701063	172	15,00	3,78	1,47	249	14,60	5,48	0,39
	39	3435316701064	184	15,00	4,05	1,48	273	15,00	6,00	0,36
	41	3435316701065	190	15,00	4,18	1,47	281	15,00	6,18	0,35
43	3435316701066	196	15,00	4,31	1,47	289	15,00	6,36	0,35	
45	3435316701067	201	15,00	4,42	1,47	295	15,00	6,49	0,34	
 PHC 7420	17	3435316701068	60	5,28	1,32	4,38	87	5,10	1,91	2,02
	19	3435316701069	68	5,98	1,50	4,41	98	5,75	2,16	2,04
	23	3435316701070	83	7,30	1,83	4,47	120	7,04	2,64	2,07
	25	3435316701071	90	7,92	1,98	4,50	131	7,68	2,88	2,09
	29	3435316701072	105	9,24	2,31	4,54	153	8,97	3,36	2,1
	35	3435316701073	128	11,26	2,81	4,57	187	10,97	4,11	2,12
	37	3435316701074	136	11,96	2,99	4,57	197	11,55	4,33	2,13
	39	3435316701075	143	12,58	3,14	4,59	209	12,26	4,60	2,13
43	3435316701076	158	13,90	3,47	4,60	231	13,55	5,08	2,14	



PRS modules with the highest over dimensioning factor are offered to extend the circulating lifecycle and keep the exchanger cleaner, so to have higher efficiency and reducing the maintenance frequency.



SYSTEMS FOR LOW TEMPERATURE INSTALLATIONS

WITH SINGLE PUMP



Products available from January 2016

Exchanger model	N° of plates	Art. Nr.	Primary 50/40 °C Secondary 10/45 °C			
			Output	Flow rate	DHW flow rate	Over dimensioning factor
			[kW]	[m³/h]	[m³/h]	
 PHC 4620	9	3435316701029	15	1,32	0,38	0,01
	11	3435316701030	20	1,76	0,50	0,02
	13	3435316701031	26	2,29	0,65	0,01
	15	3435316701032	32	2,81	0,80	0,01
	17	3435316701033	37	3,25	0,93	0,01
	19	3435316701034	43	3,78	1,08	0,01
	21	3435316701035	49	4,31	1,23	0,01
	25	3435316701036	60	5,28	1,51	0,01
	27	3435316701037	66	5,81	1,66	0,01
	29	3435316701038	72	6,33	1,81	0,01
	31	3435316701039	77	6,77	1,94	0,01
	33	3435316701040	83	7,30	2,09	0,01
	35	3435316701041	89	7,83	2,24	0,01
	39	3435316701042	100	8,80	2,51	0,01
	41	3435316701043	106	9,32	2,66	0,01
43	3435316701044	112	9,85	2,81	0,01	
45	3435316701045	118	10,38	2,97	0,01	
 PHC 7420	17	3435316701046	56	4,93	1,41	0,80
	19	3435316701047	64	5,63	1,61	0,78
	23	3435316701048	78	6,86	1,96	0,80
	25	3435316701049	85	7,48	2,14	0,81
	29	3435316701050	99	8,71	2,49	0,82
	35	3435316701025	120	10,56	3,02	0,84
	37	3435316701026	128	11,26	3,22	0,84
	39	3435316701027	135	11,88	3,39	0,84
	43	3435316701028	149	13,11	3,74	0,85

PRS modules with the highest over dimensioning factor are offered to extend the circulating lifecycle and keep the exchanger cleaner, so to have higher efficiency and reducing the maintenance frequency.

WITH DOUBLE PUMP

Products available from January 2016

Exchanger model	N° of plates	Art. Nr.	Primary 50/40 °C Secondary 10/45 °C			
			Output	Flow rate	DHW flow rate	Over dimensioning factor
			[kW]	[m³/h]	[m³/h]	
 PHC 4620	9	3435316701051	15	1,32	0,38	0,01
	11	3435316701052	20	1,76	0,50	0,02
	13	3435316701053	26	2,29	0,65	0,01
	15	3435316701054	32	2,81	0,80	0,01
	17	3435316701077	37	3,25	0,93	0,01
	19	3435316701078	43	3,78	1,08	0,01
	21	3435316701079	49	4,31	1,23	0,01
	25	3435316701080	60	5,28	1,51	0,01
	27	3435316701081	66	5,81	1,66	0,01
	29	3435316701082	72	6,33	1,81	0,01
	31	3435316701083	77	6,77	1,94	0,01
	33	3435316701084	83	7,30	2,09	0,01
	35	3435316701085	89	7,83	2,24	0,01
	39	3435316701086	100	8,80	2,51	0,01
	41	3435316701087	106	9,32	2,66	0,01
43	3435316701088	112	9,85	2,81	0,01	
45	3435316701089	118	10,38	2,97	0,01	
 PHC 7420	17	3435316701068	56	4,93	1,41	0,80
	19	3435316701069	64	5,63	1,61	0,78
	23	3435316701070	78	6,86	1,96	0,80
	25	3435316701071	85	7,48	2,14	0,81
	29	3435316701072	99	8,71	2,49	0,82
	35	3435316701073	120	10,56	3,02	0,84
	37	3435316701074	128	11,26	3,22	0,84
	39	3435316701075	135	11,88	3,39	0,84
	43	3435316701076	149	13,11	3,74	0,85

PRS modules with the highest over dimensioning factor are offered to extend the circulating lifecycle and keep the exchanger cleaner, so to have higher efficiency and reducing the maintenance frequency.

PLATE HEAT EXCHANGERS



Stainless Steel
• EPDM Gaskets

APPLICATION

PHC Heat exchangers are used in domestic and industrial installation. 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 system). For domestic application, the PHC are suitable for district heating installation.

TECHNICAL DESCRIPTION

PHC exchangers are inspectionable plate to plate type. Their shape ensures the possibility of open 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.

WORKING CONDITION

Max. Pressure= 10bar
Max. Temperature= 140°C (to be intended as max working temperature of gaskets).
Pressure not exceeding 0.5 bar above normal atmospheric pressure.

RANGE

PHC Plate to plate Exchangers range is composed by 4 sizes, each one combined with innumerable number of plates, giving suitable solutions to several application of the HVAC industry. In particular PHC 3120 plate allows an output from 43kw to 370kw with high delta T (80°C primary circuit and 10°C to 45°C on the secondary). With similar energy request but different and lower delta T, the PHC 4620 and PHC 7420 shall be selected. For big output request version PHC 7431 is recommended. The following tables shall be considered as merely indicative tool, for an optimized designing of Heat exchanger Dimension, our technical department will support you on every request.

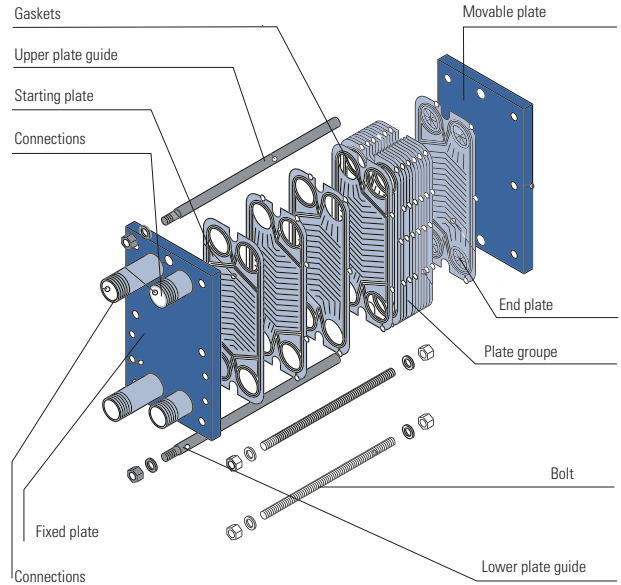
MATERIAL

- 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 316L

CHEMICAL COMPATIBILITY

Material used for PHC Exchangers are suitable for following liquids:

• WATER	• WINE VINEGAR
• WATER POOL	• ETANOL
• MILK	• ETILENIC GLYCOLE
• WHISKY	• DE-MINERALIZED WATER
• ACETONE	• ACETIC ACID
• GLYCOLE	• BEER
• GLYCOLED WATER	• LIQUORS
• MINERAL WATER	• METHANOL
• WINE	• PROPYLENIC GLYCOL



EXCHANGERS PHC 3120

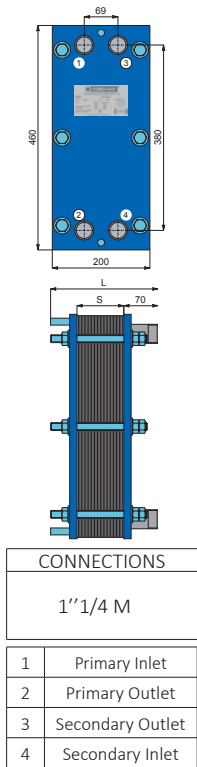
N° of PLATES	Art. Nr.	S Fixing quote	L [mm]	Primary Vol. = Secondary Vol.		Output (*)		Primary Flow rate [m³/h]	Secondary Flow rate [m³/h]	Primary Pressure loss [m.c.a.]	Secondary Pressure loss [m.c.a.]
		[mm]		[litres]	[Kcal/h]	[KW]					
9	3175056650009	27	220	0,20	36973	43	1,89	1,06	1,42	0,60	
11	3175056650011	33		0,25	49871	58	2,55	1,44	1,64	0,69	
13	3175056650013	39		0,30	65348	76	3,35	1,88	1,92	0,81	
15	3175056650015	45		0,35	74807	87	3,83	2,15	1,85	0,79	
17	3175056650017	51		0,40	93723	109	4,80	2,70	2,19	0,93	
19	3175056650019	57		0,45	107481	125	5,50	3,09	2,27	0,96	
21	3175056650021	63		0,50	122958	143	6,29	3,54	2,39	1,01	
23	3175056650023	69		0,55	135856	158	6,95	3,91	2,41	1,02	
25	3175056650025	75		0,60	151333	176	7,75	4,36	2,51	1,06	
27	3175056650027	81		0,65	165090	192	2,54	1,08	2,54	1,08	
29	3175056650029	87		0,70	180567	210	9,24	5,20	2,61	1,11	
31	3175056650031	93		0,75	195185	227	9,99	5,62	2,65	1,13	
33	3175056650033	99		0,80	209802	244	10,74	6,04	2,69	1,14	
35	3175056650035	105		0,85	224420	261	11,49	6,46	2,72	1,16	
37	3175056650037	111		0,90	239037	278	12,24	6,88	2,75	1,17	
39	3175056650039	117		0,95	253654	295	12,98	7,30	2,78	1,18	
41	3175056650041	123		1,00	268272	312	13,73	7,72	2,80	1,19	
43	3175056650043	129		1,05	280310	326	14,35	8,07	2,79	1,18	
45	3175056650045	135		1,10	292347	340	14,97	8,41	2,76	1,17	
47	3175056650047	141		1,15	296647	345	14,81	8,54	2,50	1,11	
49	3175056650049	147		1,20	300946	350	15,00	8,66	2,73	1,05	
51	3175056650051	153		1,25	307825	358	15,00	8,86	2,18	1,02	
53	3175056650053	159		1,30	313844	365	15,00	9,03	2,05	0,98	
55	3175056650055	165		1,35	318143	370	15,00	9,16	1,91	0,94	
57	3175056650057	171		1,40	322442	375	15,00	9,28	1,79	0,90	
59	3175056650059	177	1,45	326741	380	15,00	9,40	1,68	0,87		
61	3175056650061	183	1,50	331040	385	15,00	9,53	1,58	0,83		
63	3175056650063	189	1,55	335340	390	15,00	9,65	1,49	0,80		
65	3175056650065	195	1,60	339639	395	15,00	9,77	1,41	0,78		
67	3175056650067	201	1,65	343938	400	15,00	9,90	1,17	0,66		

Output is referred to water/water heat exchanging with primary inlet temperature 80 °C and production of DHW from 10 °C input to 45 °C output. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required.

PLATE HEAT EXCHANGERS



EXCHANGERS PHC 4620

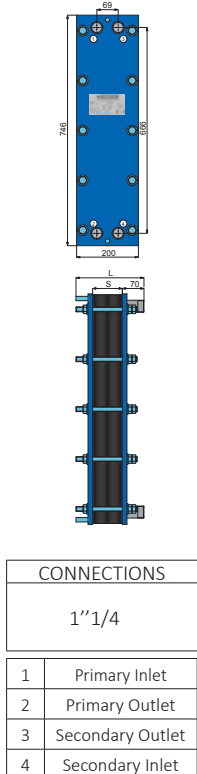


N° of PLATES	Art. Nr.	S Fixing quote	L	Primary Vol. = Secondary Vol.		Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]		[mm]	[litres]	[Kcal/h]	[KW]				
9	3175056651009	27	220	0,36	58469	68	2,99	1,08	4,82	0,86	
11	3175056651011	33		0,45	73087	85	3,74	1,34	4,81	0,86	
13	3175056651013	39		0,54	99742	116	5,11	1,83	6,08	1,09	
15	3175056651015	45		0,63	116939	136	5,99	2,15	6,14	1,10	
17	3175056651017	51		0,72	134136	156	6,87	2,47	6,18	1,11	
19	3175056651019	57		0,81	151333	176	7,38	2,78	5,69	1,11	
21	3175056651021	63		0,90	168530	196	8,63	3,10	6,24	1,12	
23	3175056651023	69		0,99	185727	216	9,05	3,41	5,74	1,12	
25	3175056651025	75		1,08	202923	236	10,39	3,73	6,27	1,12	
27	3175056651027	81		1,17	219261	255	10,69	4,03	5,73	1,12	
29	3175056651029	87		1,26	236457	275	12,10	4,35	6,26	1,12	
31	3175056651031	93		1,35	257954	300	12,57	4,74	5,93	1,16	
33	3175056651033	99		1,44	270851	315	13,87	4,98	6,29	1,13	
35	3175056651035	105		1,53	292347	340	14,25	2,37	5,93	1,16	
37	3175056651037	111		1,62	313844	365	15,00	5,77	5,87	1,19	
39	3175056651039	117		1,71	320722	373	15,00	5,90	5,28	1,12	
41	3175056651041	123		1,80	327601	381	15,00	6,02	4,86	1,06	
43	3175056651043	129		1,89	343938	400	15,00	6,32	4,10	0,97	
45	3175056651045	135		1,98	346518	403	15,00	6,37	4,05	0,99	
47	3175056651047	141		2,07	350817	408	15,00	6,45	3,71	0,93	
49	3175056651049	147		2,16	356836	415	15,00	6,56	3,50	0,89	
51	3175056651051	153		2,25	369733	430	15,00	6,80	3,04	0,82	
53	3175056651053	159		2,34	372313	433	15,00	6,84	2,81	0,77	
55	3175056651055	165	2,43	374893	436	15,00	6,89	2,84	0,78		
57	3175056651057	171	2,52	380052	442	15,00	6,99	2,60	0,75		
59	3175056651059	177	2,61	385211	448	15,00	7,08	2,45	0,72		
61	3175056651061	183	2,70	390370	454	15,00	7,18	2,33	0,70		
63	3175056651063	189	2,79	395529	460	15,00	7,27	2,21	0,67		
65	3175056651065	195	2,88	399828	465	15,00	7,35	2,08	0,65		
67	3175056651067	201	2,97	404127	470	15,00	7,43	1,96	0,62		

Output is referred to water/water heat exchanging with primary inlet temperature **80 °C** and production of DHW from **10 °C** input to **65 °C** output. For other working condition (different fluid and/or temperatures) dimensioning from our technical dept. is required.



EXCHANGERS PHC 7420



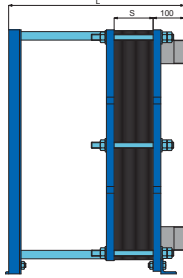
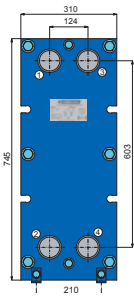
N° of PLATES	Art. Nr.	S Fixing quote	L	Primary Vol. = Secondary Vol.		Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]		[mm]	[litres]	[Kcal/h]	[KW]				
9	3175056652009	27	220	0,68	48151	56	2,45	1,08	6,18	1,51	
11	3175056652011	33		0,85	59329	69	3,01	1,33	6,02	1,48	
13	3175056652013	39		1,02	70507	82	3,58	1,58	5,92	1,45	
15	3175056652015	45		1,19	83405	97	4,24	1,87	6,07	1,49	
17	3175056652017	51		1,36	96303	112	4,89	2,16	6,18	1,51	
19	3175056652019	57		1,53	108340	126	5,50	2,43	6,18	1,51	
21	3175056652021	63		1,70	120378	140	6,12	2,70	6,18	1,51	
23	3175056652023	69		1,87	132416	154	6,73	2,97	6,18	1,51	
25	3175056652025	75		2,04	145314	169	7,38	3,26	6,25	1,53	
27	3175056652027	81		2,21	157352	183	7,99	3,53	6,24	1,53	
29	3175056652029	87		2,38	169390	197	8,60	3,80	6,24	1,53	
31	3175056652031	93		2,55	181427	211	9,22	4,07	6,24	1,53	
33	3175056652033	99		2,72	194325	226	9,87	4,36	6,28	1,54	
35	3175056652035	105		2,89	206363	240	10,48	4,63	6,28	1,54	
37	3175056652037	111		3,06	218401	254	11,09	4,90	6,27	1,54	
39	3175056652039	117		3,23	230439	268	11,71	5,17	6,26	1,53	
41	3175056652041	123		3,40	242476	282	12,32	5,44	6,26	1,53	
43	3175056652043	129		3,57	254514	296	12,93	5,71	6,26	1,53	
45	3175056652045	135		3,74	266552	310	13,54	5,98	6,26	1,53	
47	3175056652047	141		3,91	278590	324	14,15	6,25	6,25	1,53	
49	3175056652049	147		4,08	290628	338	14,76	6,52	6,25	1,53	
51	3175056652051	153		4,25	319003	371	15,00	7,15	5,99	1,68	
53	3175056652053	159		4,42	348237	405	15,00	7,81	5,61	1,84	
55	3175056652055	165	4,59	349957	407	15,00	7,85	5,15	1,73		
57	3175056652057	171	4,76	351677	409	15,00	7,89	5,24	1,75		
59	3175056652059	177	4,93	355976	414	15,00	7,98	4,47	1,57		
61	3175056652061	183	5,10	361135	420	15,00	8,10	4,31	1,51		
63	3175056652063	189	5,27	366294	426	15,00	8,22	4,08	1,46		
65	3175056652065	195	5,44	369733	430	15,00	8,29	3,83	1,40		
67	3175056652067	201	5,61	371453	432	15,00	8,33	3,59	1,34		

Output is referred to water/water heat exchanging with primary inlet temperature **80 °C** and production of DHW from **10 °C** input to **55 °C** output. For other working condition (different fluid and/or temperatures) dimensioning from our technical dept. is required.

PLATE HEAT EXCHANGERS



EXCHANGERS PHC 7431



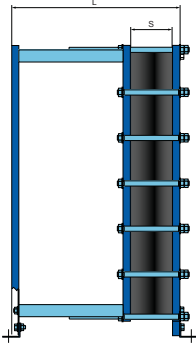
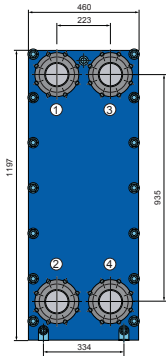
CONNECTIONS	
2"1/2	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of PLATES	Art. Nr.	S Fixing quote	L	Primary Vol. = Secondary Vol.		Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]		[mm]	[litres]	[Kcal/h]	[KW]				
13	3175056653013	46	405	1,68	288048	335	14,75	8,29	3,88	1,73	
15	3175056653015	53		1,96	348237	405	17,83	10,02	4,14	1,84	
17	3175056653017	60		2,24	386930	450	19,81	11,14	3,94	1,75	
19	3175056653019	66		2,52	429923	500	22,01	12,37	3,85	1,71	
21	3175056653021	73		2,80	474635	552	24,30	13,66	3,81	1,69	
23	3175056653023	80		3,08	550301	640	28,17	15,84	4,18	1,86	
25	3175056653025	87		3,36	646604	752	33,10	18,61	4,77	2,12	
27	3175056653027	94		3,64	706793	822	36,18	20,34	4,85	2,16	
29	3175056653029	101		3,92	766982	892	39,26	22,07	4,92	2,19	
31	3175056653031	108		4,20	827171	962	42,34	23,81	4,98	2,21	
33	3175056653033	114	505	4,48	887360	1032	45,42	25,54	5,03	2,24	
35	3175056653035	121		4,76	947549	1102	48,50	27,27	5,07	2,26	
37	3175056653037	128		5,04	1007739	1172	51,59	29,00	5,11	2,27	
39	3175056653039	135		5,32	1067928	1242	54,67	30,73	5,15	2,29	
41	3175056653041	142		5,60	1128117	1312	57,75	32,47	5,18	2,30	
43	3175056653043	149		5,88	1187446	1381	60,78	34,17	5,20	2,31	
45	3175056653045	155		6,16	1246776	1450	63,82	35,88	5,22	2,32	
47	3175056653047	162		6,44	1306965	1520	66,90	37,61	5,25	2,33	
49	3175056653049	169		6,72	1367154	1590	69,98	39,35	5,27	2,34	
51	3175056653051	176		7,00	1427343	1660	73,06	41,08	5,29	2,35	
53	3175056653053	183	605	7,28	1487532	1730	76,15	42,81	5,31	2,36	
55	3175056653055	190		7,56	1547721	1800	79,23	44,54	5,33	2,37	
57	3175056653057	196		7,84	1569218	1825	79,14	45,16	4,99	2,28	
59	3175056653059	203		8,12	1590714	1850	79,43	45,78	4,72	2,19	
61	3175056653061	210		8,40	1612210	1875	79,34	46,40	4,44	2,11	
63	3175056653063	217		8,68	1633706	1900	79,25	47,02	4,18	2,04	
65	3175056653065	224		8,96	1650903	1920	76,80	47,51	3,74	1,96	
67	3175056653067	231		9,24	1668100	1940	77,60	48,01	3,61	1,89	
69	3175056653069	237		9,52	1685297	1960	76,65	48,50	3,35	1,83	
71	3175056653071	244		9,80	1702494	1980	75,77	49,00	3,12	1,77	
73	3175056653073	251	855	10,08	1719690	2000	76,50	48,49	3,02	1,71	
75	3175056653075	258		10,36	1736887	2020	75,62	49,99	2,82	1,66	
77	3175056653077	265		10,64	1754084	2040	74,77	50,48	2,64	1,61	
79	3175056653079	272		10,92	1771281	2060	75,50	50,98	2,56	1,56	
81	3175056653081	279		11,20	1788478	2080	74,37	51,47	2,39	1,52	
83	3175056653083	285		11,48	1805675	2100	73,87	51,97	2,26	1,48	
85	3175056653085	292		11,76	1814273	2110	73,63	52,21	2,15	1,43	
87	3175056653087	299		12,04	1831470	2130	73,45	52,71	2,05	1,39	
89	3175056653089	306		12,32	1848667	2150	74,15	53,20	2,00	1,36	
91	3175056653091	313		12,60	1865864	2170	73,39	53,70	1,89	1,33	
93	3175056653093	320	12,88	1900258	2210	74,16	54,69	1,86	1,32		
95	3175056653095	326	13,16	1926053	2240	75,17	55,43	1,83	1,30		
97	3175056653097	333	13,44	1951849	2270	75,31	56,17	1,77	1,28		
99	3175056653099	340	13,72	1977644	2300	76,31	56,91	1,75	1,27		
101	3175056653101	347	14,00	2003439	2330	77,30	57,66	1,72	1,25		
103	3175056653103	354	14,28	2029235	2360	77,42	58,40	1,67	1,23		
105	3175056653105	361	14,56	2055030	2390	78,40	59,14	1,65	1,22		
107	3175056653107	367	14,84	2080825	2420	79,79	59,88	1,61	1,20		
109	3175056653109	374	15,12	2106621	2450	79,77	60,63	1,59	1,19		
111	3175056653111	381	15,40	2132416	2480	79,56	61,37	1,53	1,18		
113	3175056653113	388	15,68	2149613	2500	79,91	61,86	1,50	1,16		
115	3175056653115	395	15,96	2162511	2515	79,80	62,24	1,45	1,13		

Output is referred to water/water heat exchanging with primary inlet temperature **80 °C** and production of DHW from **10 °C** input to **45 °C** output. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required.

PLATE HEAT EXCHANGERS

EXCHANGERS PHC 12046



CONNECTIONS	
DN 100 PN16	
1	Primary Inlet
2	Primary Outlet
3	Secondary Outlet
4	Secondary Inlet

N° of PLATES	Art. Nr.	S Fixing quote	L	Primary Vol. = Secondary Vol.		Output (*)		Primary Flow rate	Secondary Flow rate	Primary Pressure loss	Secondary Pressure loss
		[mm]		[mm]	[litres]	[KW]	[m³/h]				
13	3175056654013	40	550	5,07	64488	75	13,23	13,22	2,77	2,83	
15	3175056654015	47		5,92	77386	90	15,89	15,86	2,91	2,97	
17	3175056654017	53		6,76	85985	100	17,66	17,62	2,77	2,83	
19	3175056654019	59		7,61	94583	110	19,42	19,39	2,66	2,71	
21	3175056654021	65		8,45	103181	120	22,95	22,91	2,97	3,03	
23	3175056654023	71		9,30	120378	140	24,72	24,67	2,86	2,92	
25	3175056654025	78		10,14	137575	160	28,25	28,20	3,30	3,00	
27	3175056654027	84		10,99	146174	170	30,02	29,96	3,27	3,33	
29	3175056654029	90		11,83	154772	180	31,78	31,72	2,91	2,97	
31	3175056654031	96		12,68	171969	200	35,31	35,25	3,22	3,27	
33	3175056654033	102		13,52	189166	220	38,85	38,77	3,28	3,35	
35	3175056654035	109		14,37	206363	240	42,38	42,30	3,60	3,30	
37	3175056654037	115		15,21	214961	250	44,14	44,06	3,34	3,41	
39	3175056654039	121		16,06	223560	260	45,91	45,82	3,25	3,32	
41	3175056654041	127		16,90	240757	280	49,44	49,34	3,39	3,46	
43	3175056654043	133		17,75	249355	290	51,21	51,11	3,31	3,38	
45	3175056654045	140		18,59	257954	300	52,97	52,87	3,40	3,00	
47	3175056654047	146		19,44	275150	320	56,50	56,39	3,35	3,42	
49	3175056654049	152		20,28	283749	330	58,27	58,16	3,28	3,35	
51	3175056654051	158		21,13	300946	350	61,80	61,68	3,39	3,46	
53	3175056654053	164		21,97	309544	360	63,57	63,44	3,32	3,39	
55	3175056654055	171		22,82	326741	380	67,10	66,97	3,50	3,30	
57	3175056654057	177		23,66	335340	390	68,86	68,73	3,36	3,43	
59	3175056654059	183		24,51	343938	400	70,63	70,49	3,42	3,48	
61	3175056654061	189		25,35	361135	420	74,16	74,02	3,70	3,50	
63	3175056654063	195		26,20	369733	430	75,93	75,78	3,33	3,40	
65	3175056654065	202		27,04	386930	450	79,22	79,30	3,42	3,49	
67	3175056654067	208		27,89	395529	460	81,22	81,07	3,36	3,43	
69	3175056654069	214		28,73	412726	480	84,75	84,59	3,44	3,51	
71	3175056654071	220		29,58	421324	490	86,52	86,35	3,50	3,40	
73	3175056654073	226		30,42	438521	510	90,05	89,88	3,46	3,53	
75	3175056654075	233		31,27	447120	520	91,82	91,64	3,41	3,48	
77	3175056654077	239		32,11	464316	540	95,35	95,16	3,48	3,55	
79	3175056654079	245	32,96	472915	550	97,11	96,93	3,43	3,51		
81	3175056654081	251	33,80	481513	560	98,88	98,69	3,39	3,46		
83	3175056654083	257	34,65	490112	570	100,64	100,45	3,35	3,42		
85	3175056654085	264	35,49	498710	580	102,41	102,21	3,45	3,53		
87	3175056654087	270	36,34	515907	600	105,94	105,94	3,37	3,44		
89	3175056654089	276	37,18	533104	620	109,47	109,26	3,43	3,50		
91	3175056654091	282	38,03	550301	640	113,00	112,78	3,49	3,56		
93	3175056654093	288	38,87	567498	660	116,53	116,31	3,54	3,62		
95	3175056654095	295	39,72	584695	680	120,06	119,83	3,60	3,67		
97	3175056654097	301	40,56	593293	690	121,83	121,59	3,55	3,55		
99	3175056654099	307	41,41	601892	700	123,60	123,36	3,52	3,59		
101	3175056654101	313	42,25	610490	710	125,36	125,12	3,48	3,55		
103	3175056654103	319	43,10	619089	720	127,13	126,88	3,44	3,51		
105	3175056654105	326	43,94	627687	730	128,89	128,89	3,41	3,48		
107	3175056654107	332	44,79	636285	740	130,66	130,40	3,37	3,44		
109	3175056654109	338	45,63	644884	750	132,42	132,17	3,34	3,41		
111	3175056654111	344	46,48	653482	760	134,19	134,93	3,31	3,38		
113	3175056654113	350	47,32	662081	770	135,96	135,69	3,28	3,35		
115	3175056654115	357	48,17	670679	780	137,72	137,45	3,22	3,28		

Output is referred to water/water heat exchanging with primary inlet temperature **80 °C** and production of DHW from **70 °C** input to **75 °C** output. For other working condition (different fluids and/or temperatures) dimensioning from our technical dept. is required.

HYDRONIC

BRAZED PLATE EXCHANGERS 316L STAINLESS STEEL



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 lasting
- Savings
- High reliability
- Huge possibility to modify the relation between storage volume and Heat exchange.

TECHNICAL CHARACTERISTIC:

- AISI 316 L Stainless steel brazed plate, braze-welded with 99,99% pure copper
- High efficiency PPE insulation (insulated version)

WORKING CONDITION

Max pressure = 30 bar

Max. Temperature = 190 °C.

For temperature above 110°C, see technical support

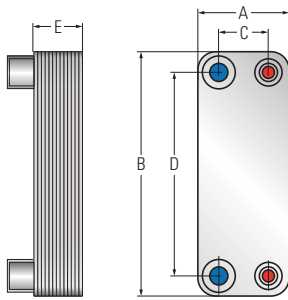


NOT INSULATED
VERSION



INSULATED
VERSION

BRAZED EXCHANGER SLB20

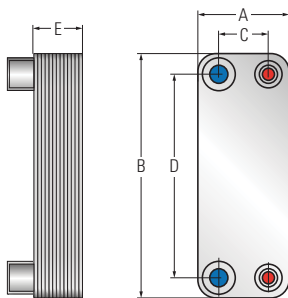


Connections 3/4" M	Max. Flow Rate
[mm]	[m³/h]
A 76	3,6
B 310	
C 42	
D 282	

N° of PLATES	NOT INSULATED VERSION	INSULATED VERSION	[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



BRAZED EXCHANGER SLB30

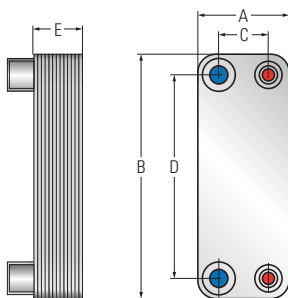


Connections 1" M	Max. Flow Rate
[mm]	[m³/h]
A 111	8,1
B 310	
C 50	
D 250	

N° of PLATES	NOT INSULATED VERSION	INSULATED VERSION	[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



BRAZED EXCHANGER SLB40



Connections 1" M	Max. Flow Rate
[mm]	[m³/h]
A 111	12,7
B 525	
C 50	
D 466	

N° of PLATES	NOT INSULATED VERSION	INSULATED VERSION	[mm]	Weight [Kg]
	Art. Nr.	Art. Nr.		
30	5250410010201	5250410011201	81	8,30
40	5250410010202	5250410011202	104	10,20
50	5250410010203	5250410011203	128	12,10
60	5250410010204	5250410011204	151	14



BRAZED PLATE EXCHANGERS 316L STAINLESS STEEL

TECHNICAL DATA



BRAZED PLATE EXCHANGERS SLB20

N° of plates	Primary at 80 C° Secondary 10/45 °C					Primary at 60 C° Secondary 10/45 °C					Primary at 50 C° Secondary 10/40 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
12	10,5	0,62	6,87	0,26	1,75	5,5	0,48	4,56	0,14	0,71	4,00	0,70	8,47	0,12	0,57
16	14	0,83	8,43	0,34	2,03	7,5	0,66	5,72	0,19	0,81	6,00	1,04	12,89	0,17	0,74
20	17	1,01	9,49	0,42	2,20	9,5	0,83	6,87	0,23	0,91	7,50	1,31	15,41	0,22	0,81
24	21	1,24	11,55	0,52	2,58	12	1,05	8,64	0,30	1,07	9,30	1,62	19,05	0,27	0,92
30	26	1,54	13,64	0,64	2,95	15	1,31	10,33	0,37	1,20	11,80	2,05	23,75	0,34	1,05
34	30	1,77	15,68	0,74	3,32	17	1,49	11,46	0,42	1,29	13,50	2,35	27,00	0,39	1,15
40	35	2,07	17,78	0,86	3,69	20	1,75	13,15	0,49	1,43	16,00	2,79	31,68	0,46	1,28

BRAZED PLATE EXCHANGERS SLB30

N° of plates	Primary at 80 C° Secondary 10/45 °C					Primary at 60 C° Secondary 10/45 °C					Primary at 50 C° Secondary 10/40 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
14	38	2,23	4,36	0,94	1,18	24	2,10	3,96	0,59	0,64	14	2,44	5,04	0,40	0,39
20	55	3,23	5,63	1,36	1,41	35	3,06	5,16	0,86	0,74	20	3,48	6,42	0,58	0,43
30	85	4,99	8,01	2,10	1,85	53	4,64	7,05	1,31	0,89	31	5,40	9,23	0,89	0,51
40	120	7,04	11,21	2,96	2,44	72	6,30	9,16	1,78	1,07	42	7,31	12,03	1,21	0,59
50	148	8,68	13,22	3,65	2,79	91	7,97	11,26	2,25	1,24	54	9,40	15,34	1,55	0,69

BRAZED PLATE EXCHANGERS SLB40

N° of plates	Primary at 80 C° Secondary 10/45 °C					Primary at 60 C° Secondary 10/45 °C					Primary at 50 C° Secondary 10/40 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
30	200	11,73	191,53	4,94	36,32	95,00	8,30	97,88	2,35	9,23	75,00	13,06	236,13	2,16	7,96
40	224	7,87	66,22	5,53	33,76	130,00	11,36	134,82	3,21	12,22	102,00	17,76	323,53	2,94	10,38
50	273	9,59	77,63	6,74	39,37	165,00	14,41	171,80	4,07	15,19	128,00	22,29	404,72	3,68	12,60
60	350	12,29	104,88	8,64	52,90	198,00	17,30	204,71	4,89	17,82	155,00	26,99	492,17	4,46	15,01



BRAZED PLATE EXCHANGERS SLB20

N° of plates	Primary at 80 C° Secondary 60/70 °C					Primary at 75 C° Secondary 50/60 °C					Primary at 75 C° Secondary 65/70 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
12	7	0,62	6,89	0,61	6,85	12	1,05	17,48	1,06	17,58	3,50	0,62	6,87	0,62	6,87
16	9,5	0,84	8,72	0,83	8,66	17	1,49	24,64	1,50	24,79	4,80	0,84	8,86	0,84	8,85
20	12	1,06	10,53	1,05	10,46	21	1,85	29,15	1,85	29,33	6,00	1,06	13,13	1,06	13,13
24	15	1,32	13,12	1,32	13,03	25	2,20	33,68	2,20	33,89	7,50	1,32	13,09	1,32	13,08
30	19	1,67	16,20	1,67	16,09	32	2,81	43,02	2,82	43,29	9,00	1,58	14,62	1,58	14,62
34	21,5	1,89	17,99	1,89	17,87	36	3,16	47,55	3,18	47,85	10,80	1,90	18,10	1,90	18,10
40	25	2,20	20,29	2,19	20,15	42	3,69	54,35	3,70	54,69	12,80	2,25	21,17	2,25	21,16

BRAZED PLATE EXCHANGERS SLB30

N° of plates	Primary at 80 C° Secondary 60/70 °C					Primary at 75 C° Secondary 50/60 °C					Primary at 75 C° Secondary 65/70 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
14	22	1,94	3,49	1,93	3,47	30	2,64	5,74	2,62	5,68	11	1,94	3,48	1,94	3,48
20	33	2,91	4,73	2,90	4,70	48	4,22	8,95	4,19	8,85	17	2,99	4,96	2,99	4,96
30	50	4,41	6,43	4,39	6,39	65	5,71	10,23	5,68	10,11	25	4,40	6,42	4,40	6,42
40	68	5,99	8,36	5,97	8,30	80	7,03	11,19	6,99	11,06	35	6,16	8,79	6,16	8,78
50	88	7,75	10,71	7,72	10,64	92	8,09	11,59	8,04	11,45	45	7,92	11,14	7,92	11,14

BRAZED PLATE EXCHANGERS SLB40

N° of plates	Primary at 80 C° Secondary 60/70 °C					Primary at 75 C° Secondary 50/60 °C					Primary at 75 C° Secondary 65/70 °C				
	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P	Output	Primary flow rate	Primary Delta P	Secondary flow rate	Secondary Delta P
	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]	[KW]	[m³/h]	[kPa]	[m³/h]	[kPa]
30	60	5,29	41,33	5,27	41,03	102,00	8,97	113,67	8,92	112,41	31,00	5,46	43,86	5,45	43,85
40	78	6,87	51,08	6,85	50,72	120,00	10,55	116,82	10,49	115,52	42,00	7,39	58,74	7,39	58,72
50	102	8,99	68,49	8,95	67,99	135,00	11,87	117,53	11,80	116,22	53,00	9,33	73,59	9,33	73,57
60	125	11,01	84,67	10,97	84,06	142,00	12,48	108,09	12,41	106,88	64,00	11,26	88,44	11,26	88,42

RAPID HEAT EXCHANGER



TECHNICAL DESCRIPTION

Rapid heat exchangers are made by a double spiral copper coil covered with mild steel tubes. Its particular internal configuration forces the two fluids to go upstream and guarantees a rapid and efficient thermal exchange. They can be used in several ways in thermo-hydraulic domain, such as for DHW production combined with thermo-fireplaces or biomass generators.

APPLICATION

Immediate DHW production .

MATERIAL

Mild steel

HEAT EXCHANGER

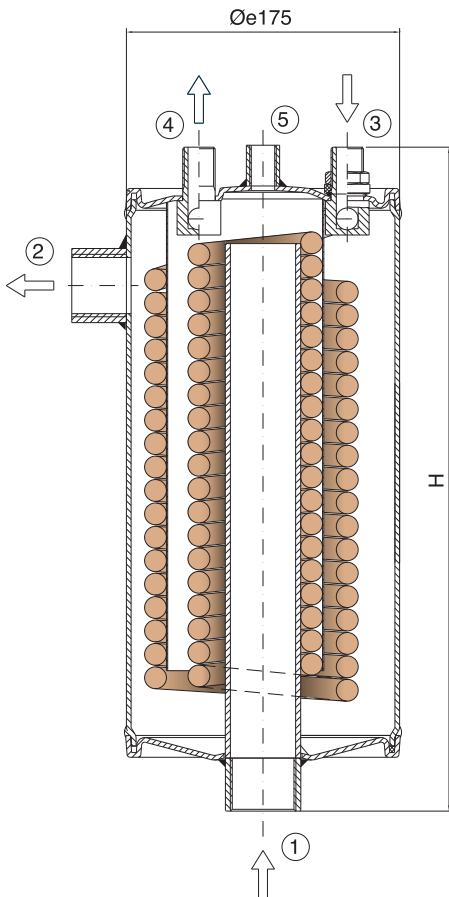
Fixed double spiral copper coil heat exchanger.

WARRANTY

2 years

See general sales conditions and warranty.

Model	Art. Nr.	Surface
		[m ²]
24000	3681160120001	0,5
35000	3681160120002	0,7
45000	3681160120003	0,9



Model	External exchange diameter	Height H [mm]	1-2	3-4	5
	[mm]		Connections		
24000	175	320	1" 1/2	1/2"	3/8"
35000		425	1" 1/2	1/2"	3/8"
45000		525	1" 1/2	1/2"	3/8"

1	Entry heating water from the buffer
2	Heating water back to the buffer
3	Secondary Inlet
4	Secondary Outlet
5	Air drain

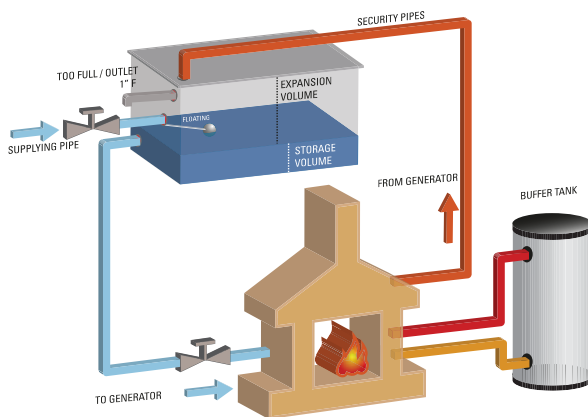
Model	Exchanged power		Flow rate [lt/h]	D.H.W. production [lt/h]	Exchanged power		Flow rate [lt/h]	D.H.W. production [lt/h]
	[Kcal/h]	[Kw]			[Kcal/h]	[Kw]		
24000	24200	28,14	1880	480	24147	28,08	1880	685
35000	35651	41,46	2150	709	35335	41,09	2150	1004
45000	45124	52,48	2380	897	44554	51,82	2380	1267

Primary circuit temperature 85 °C, secondary from 10 to 60 °C

Primary circuit temperature 75 °C, secondary from 10 to 45 °C

OPEN EXPANSION VESSELS

304 STAINLESS STEEL / GALVANIZED / POLYETHYLENE



Opened Expansion tanks are used as safety accessories in the heating systems where, due to legal reason it is forbidden to install closed expansion tanks systems. In Italy, for the water fireplaces, they are still one of the most simple and economic solution. 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 due caused by temperature

increase. Expansion Tank should be placed on the higher point reached by the water and should have an expanding volume not less the expansion volume developed by all the water contained into the system, whose value should be declared in the project.

Expansion volume need it in the system is calculated by the following formula:

$$"Ve = C \times e"$$

Where C is the water contained into 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

$$"e" = 0.0431$$

If need you can connect more than one tanks all together.

Expansion vessel INOX

Model	304 STAINLESS STEEL	Dimension HxLxP	Expansion volume [litres]
	Art. Nr.	[mm]	
30	3941014010001	275x455x245	7,5
50	3941014010002	276x455x430	30

Inox Aisi 304



Expansion vessel Z

Model	GALVANIZED	Dimension HxLxP	Expansion volume [litres]
	Art. Nr.	[mm]	
30	3941164010001	275x455x245	7,5
50	3941164010002	276x455x430	30

Galvanized



VASO DI ESPANS. POLIET.

Model	POLYETHYLENE	Dimension HxLxP	Expansion volume [litres]
	Art. Nr.	[mm]	
30	3500264011001	319x491x280	7,5

For technical and commercial information, see CORDIVARI SERBATOI E TRATTAMENTO ACQUE catalogue.

Polyethylene

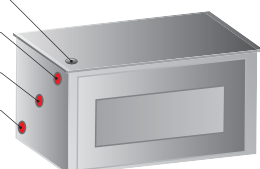


Security hole Ø 30

Too full /outlet 1" F

Floating ½" F

System Inlet 1" F



HYDRONIC



 **CORDIVARI**®

 CORDIVARI®

INERTIAL TANKS AND WATER PRESSURIZED CYLINDERS

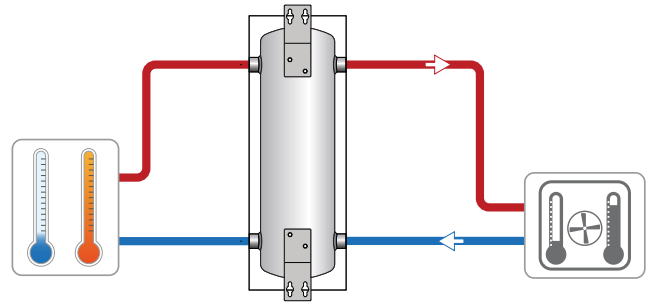
HANGING VOLANO TERMICO PDC

HANGING ENERGY BUFFER FOR HEAT PUMP



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.

PRESSURE	TEMPERATURE
Pmax	Tmax
4 bar	-10 / +95 °C



TECHNICAL DESCRIPTION

Buffers either for hot or cold water have two main functions: they work both as water divisor and energy buffer.

The water divisor makes the heat pump flow rates and terminals flow rates unconnected. The energy buffer function reduces the heat pump starting.

Hanging energy buffers are designed for wall installation.

MATERIAL

Mild steel.

EXTERNAL LINING

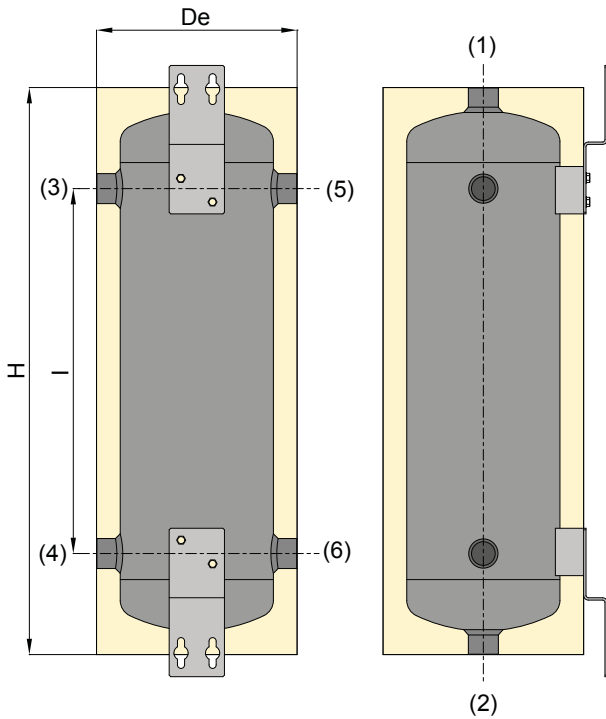
PVC plastic grey.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

WARRANTY

2 years - See general sales conditions and warranty.



VOLANO TERMICO PDC

Model	HANGING ENERGY BUFFER FOR HEAT PUMP	ENERGY EFFICIENCY CLASS
	Art. Nr.	
25	3070160920001	C
50	3070160920003	C

1	Safety Valve
2	Drain
3 - 4 - 5 - 6	To the System



TECHNICAL DATA AND
 ECODESIGN ERP LABELS
 AVAILABLE ONLINE AT
WWW.CORDIVARI.COM

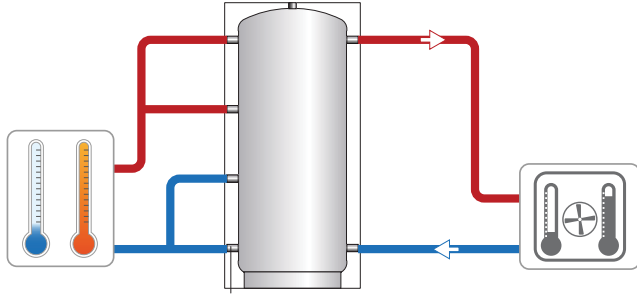


Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Model	Net Volume	Weight	De	H	I	1-2	3-4-5-6
	[litres]	[Kg]					
25	25	11	290	790	450	1"	1"1/4
50	51	16	343	1008	600	1"	1"1/4

VOLANO TERMICO PDC

ENERGY BUFFER FOR HEAT PUMP



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.



PRESSURE	TEMPERATURE
Pmax	Tmax
4 bar	-10 / +95 °C

TECHNICAL DESCRIPTION

Buffer either for hot or cold water provided by heat pump, in order to limit the switch on/off of the generator.

MATERIAL

Mild steel.

EXTERNAL LINING

PVC plastic grey.

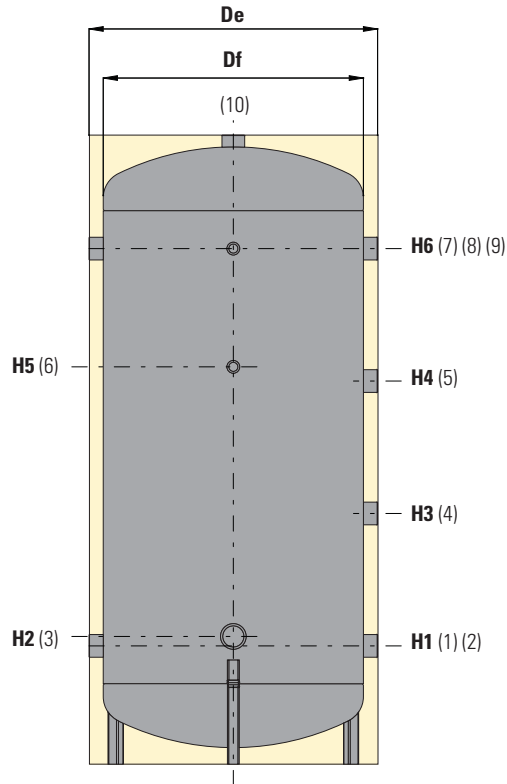
INSULATION

Polyurethan Hard foam (λ 0.023 W/mK), without CFC. Minimal thickness 30mm.

WARRANTY


2 years

See general sales conditions and warranty.



VOLANO TERMICO PDC

ENERGY
EFFICIENCY
CLASS

Model	ENERGY BUFFER FOR HEAT PUMP	
	Art. Nr.	
100	3001162311001	C
200	3001162311002	C
300	3001162311003	C
500	3001162311014	C

 **STOCK**
AVAILABILITY

1-2	From the heat Pump
3	Connection for electrical immersion 1" Gas F
4-5	To the System
6	Connection for instrumentation 1/2" Gas F
7	To the System
8	Connection for instrumentation 1/2" Gas F
9	To the System
10	To the System 1" Gas F



TECHNICAL DATA AND
ECODESIGN ERP LABELS
AVAILABLE ONLINE AT
WWW.CORDIVARI.COM



Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.

Model	Net Volume	Weight	De	H	H1	H2	H3	H4	H5	H6	1-2-4-5-7-9
	[litres]	[Kg]									Connections Gas F
100	95	23	461	990	206	246	374	543	511	711	1"
200	180	41	517	1289	206	246	489	793	836	1086	1"
300	280	51	624	1346	256	276	536	816	846	1096	1" ¼
500	478	76	750	1641	271	291	634	998	1091	1361	1" ¼

VOLANO TERMICO CALDO-FREDDO R/C GB VT

VERTICAL INERTIAL HOT/COLD WATER TANK BOX



TECHNICAL DESCRIPTION

These buffer are with hard box insulation and an external lining with a galvanized and painted plate, raw inside. They are suited for installation that works 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 fixed temperatures.

MATERIAL

Mild steel.

APPLICATION

Storage of chilled or hot water for inverter installations.

EXTERNAL LINING

Galvanized and painted metallic cover.

ANTI-CORROSION TREATMENT

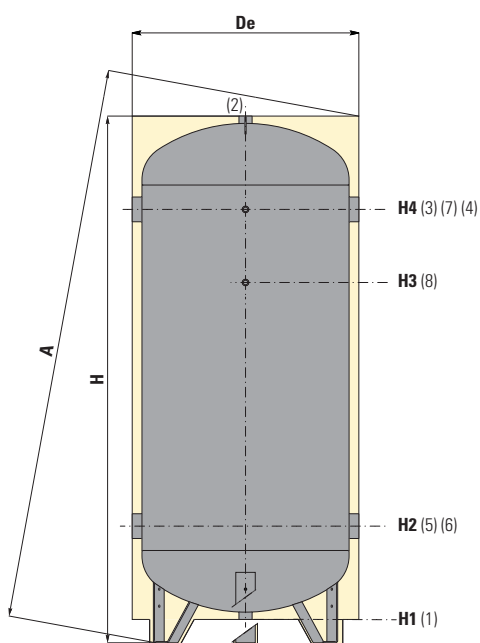
Not needed as the tank as to be connected to a closed system, without any further air admission.

INSULATION

High thermal insulation with ecological hard polyurethane foam.

WARRANTY

2 years - See general sales conditions and warranty.



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C

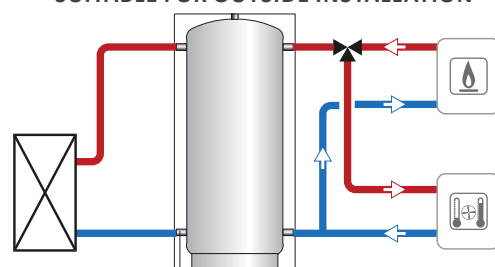


1	Drain
2	Safety Valve
3-4-5-6	To the System
7-8	Instrumentation 1/2" Gas F

VOLANO TERMICO CALDO-FREDDO ENERGY EFFICIENCY CLASS

Model	ACQ. R/C. GB VT (HARD BOX INSULATION) Art. Nr.	ErP
100	3001162310501	C
200	3001162310502	C
300	3001162310503	C
500	3001162310504	D
800	3001162310505	E
1000	3001162310506	F
1500	3001162310507	F
2000	3001162310508	G

SUITABLE FOR OUTSIDE INSTALLATION



VOLANO TERMICO CALDO-FREDDO HE SERIES

Designed according to 2009/125/CE Directive (ErP – Eco-friendly Plan Specification), HE series are already compliant with Regulation n. 814/2013, that demands C-energy efficiency class from September, 26th 2017.



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.



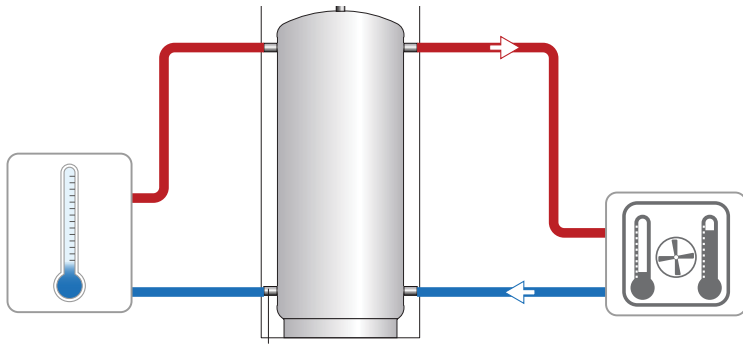
VOLANO TERMICO CALDO-FREDDO HE ENERGY EFFICIENCY CLASS

Model	ACQ. R/C. GB VT (HARD BOX INSULATION) Art. Nr.	ErP
500	3001162310524	C
800	3001162310525	C
1000	3001162310526	C
1500	3001162310527	C
2000	3001162310528	C

Model	Weight [Kg]	Net Volume [litres]	De	De (HE SERIE)	H	A	H1	H2	H3	H4	Connections Gas F		
											1 2	5 - 6 - 3 - 4	7 - 8
100	32	101	460	//	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	510	//	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	610	//	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	710	750	1790	1941	80	400	1200	1450	1"1/4	3"	1/2"
800	147	788	810	900	2100	2285	80	430	1437	1730	1"1/4	3"	1/2"
1000	170	1034	930	1000	2166	2386	80	463	1463	1763	1"1/2	3"	1/2"
1500	183	1432	1010	1100	2366	2609	100	471	1681	1981	2"	3"	1/2"
2000	219	1970	1170	1300	2436	2761	100	506	1716	2016	2"	3"	1/2"

ACQUA REFRIGERATA ZINCATO ZB VT

VERTICAL GALVANIZED CHILLED WATER TANK BOX



SUITABLE FOR OUTSIDE INSTALLATION

PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +60 °C



TECHNICAL DESCRIPTION

These buffer are with hard box insulation and an external lining with a galvanized and painted plate. They are used for air conditioning installations in order to increase the thermal inertia and, for those installations without a low water-capacity, avoiding that the chilling generator is continually working.

APPLICATION

Storage of chilled water for Air Conditioning installations.

MATERIAL

Galvanized mild steel..

INSULATION

High thermal insulation with ecological hard polyurethane foam.

EXTERNAL LINING

Galvanized and painted metallic cover.

ANTI-CORROSION TREATMENT

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with pureness not below 99,99% (Uni EN 1179).

WARRANTY

2 years

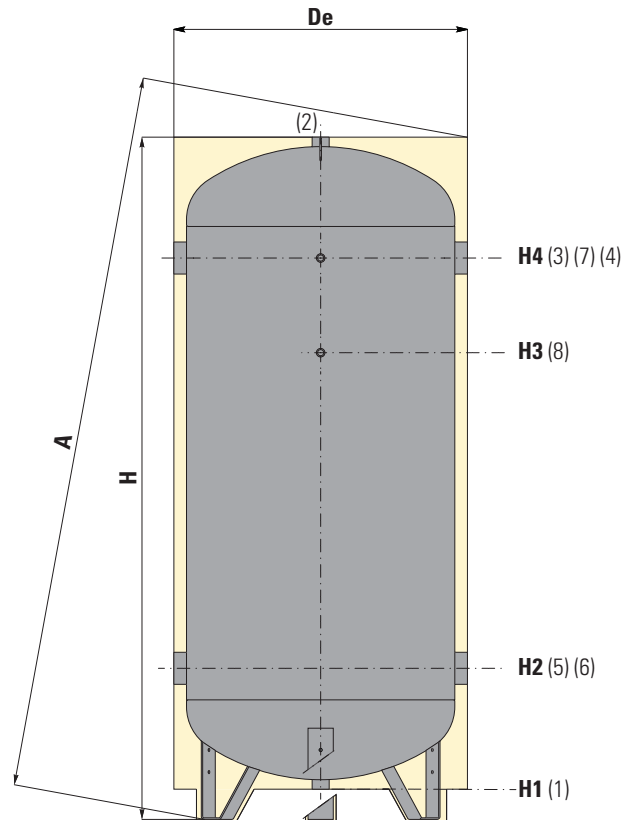
See general sales conditions and warranty.

Model	ACQ. REF. ZB VT (BOX INSULATION)
	Art. Nr.
100	3001162310001
200	3001162310002
300	3001162310003
500	3001162310004
800	3001162310005
1000	3001162310006
1500	3001162310007
2000	3001162310008



SUITABLE FOR OUTSIDE INSTALLATION

1	Drain
2	Safety Valve
3-4-5-6	To the System
7-8	Instrumentation 1/2" Gas F



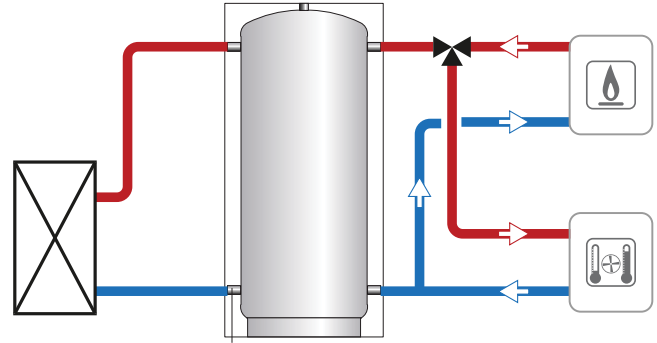
Model	Weight [Kg]	Net Volume [litres]	De	H	A	H1	H2	H3	H4	Connections Gas F		
										1 2	5 - 6 - 3 - 4	7 - 8
100	32	101	460	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	510	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	610	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	710	1810	1821	121	441	1241	1491	1"1/4	3"	1/2"
800	147	788	810	2108	2119	108	458	1458	1758	1"1/4	3"	1/2"
1000	170	1034	930	2162	2178	96	479	1479	1779	1"1/2	3"	1/2"
1500	183	1432	1010	2351	2386	102	471	1681	1981	2"	3"	1/2"
2000	219	1970	1170	2421	2437	102	506	1716	2016	2"	3"	1/2"

ACQUA REFRIGERATA GREZZO GC 20 VT

VERTICAL CHILLED NOT TREATED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C



TECHNICAL DESCRIPTION

Vertical inertial water tanks are used for inverter systems in order to increase the thermal inertia and, for those installations with a low water-capacity, avoiding that the chilling generator is continually working.

APPLICATION

Storage of chilled or hot water for inverter installations.

EXTERNAL LINING

Blue skai with plastic black caps for connections.

MATERIAL

Outside painted mild steel, inside uncoated.

INSULATION

– From 100 to 5000 liters: 20 mm fixed polyethylene not subject to condensation. Not self-extinguishing version. Not removable from the tank.

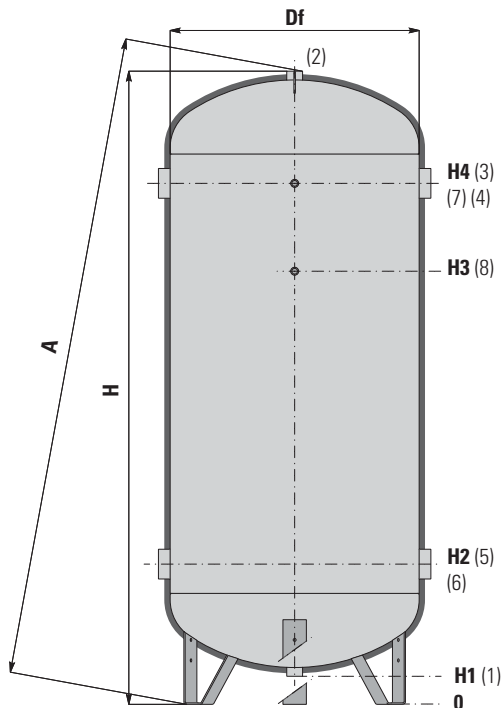
– From 3000 to 5000 liters (increased insulation): 20 mm fixed polyethylene not subject to condensation joined with NOFIRE® 50 mm soft polyester fibre 100% made of recyclable

material, with high Thermal insulation. Fire resistance class B-s2d0 according to EN 13501.

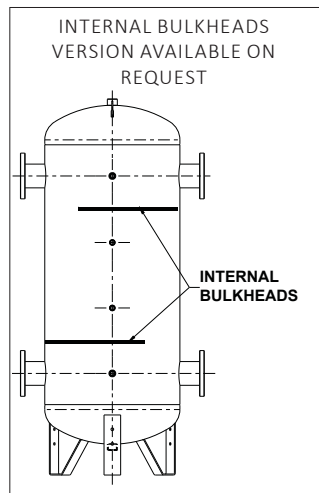
WARRANTY

2 years

See general sales conditions and warranty.



1	Drain
2	Safety Valve
3 4 5 6	To the System
7-8	Connection for instrumentation 1/2" Gas F



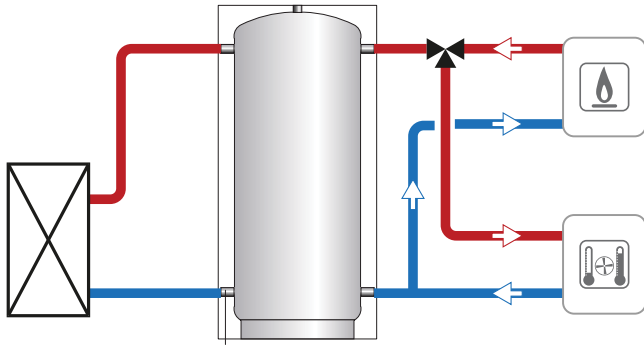
Model	ACQ. REF. GC 20 VT (20 MM NOT SELF-STINGUISHING INSULATION)
	Art. Nr.
100	3001162131101
200	3001162131102
300	3001162131103
500	3001162131104
800	3001162131105
1000	3001162131106
1500	3001162131107
2000	3001162131108
2500	3001162131113
3000	3001162131109
4000	3001162131110
5000	3001162131112

Model	ACQ. REF. GC 20+50 VT (WITH INCREASED INSULATION)
	3000
4000	3001162310511
5000	3001162310512

Model	Weight	Net Volume	Df	H	A	H1	H2	H3	H4	Connections Gas F		
	[Kg]	[litres]								1-2	3-4-5-6	7-8
100	32	101	400	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	450	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	550	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	650	1810	1821	121	441	1241	1491	1"1/4	3"	1/2"
800	147	788	750	2108	2119	108	458	1458	1758	1"1/4	3"	1/2"
1000	170	1034	850	2162	2178	96	479	1479	1779	1"1/2	3"	1/2"
1500	183	1432	950	2351	2386	121	490	1700	2000	2"	3"	1/2"
2000	219	1970	1100	2421	2437	105	509	1719	2019	2"	3"	1/2"
2500	274	2300	1250	2289	2304	149	619	1519	1819	2"	4"	1/2"
3000	321	2908	1250	2804	2826	149	619	1919	2319	2"	4"	1/2"
4000	442	3749	1400	2878	2904	133	648	1948	2348	2"	4"	1/2"
5000	565	4964	1600	2916	2948	111	656	1956	2356	2"	4"	1/2"

ACQUA REFRIGERATA GREZZO GC 20 OR

HORIZONTAL CHILLED NOT TREATED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +90 °C

TECHNICAL DESCRIPTION

Horizontal inertial water tanks are used for inverter systems in order to increase the thermal inertia and, for those installations with a low water capacity, avoiding that the chilling generator is continually working.

APPLICATION

Storage of chilled or hot water for inverter installations.

EXTERNAL LINING

Blue skai with plastic black caps for connections.

MATERIAL

Outside painted mild steel, inside uncoated.

INSULATION

20 mm fixed polyethylene not subject to condensation. Not self-extinguishing version. Not removable from the tank.

20 mm not self-extinguishing insulation.

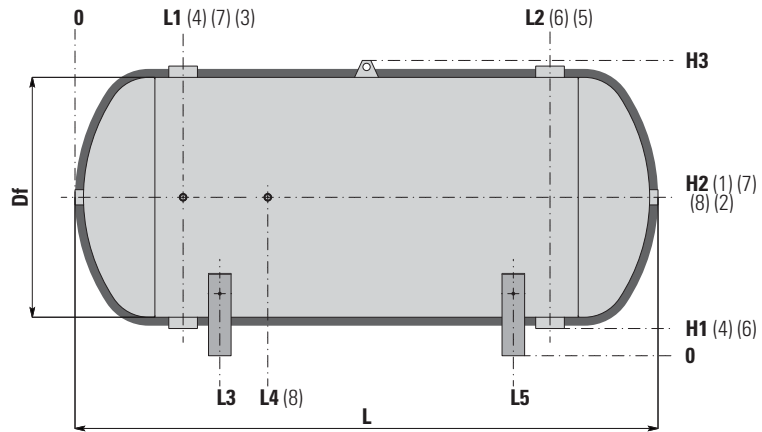
WARRANTY

2 years

See general sales conditions and warranty.

Model	ACQ. REF. GC 20 OR (WITH 20 MM NOT SELF- EXTINGUISHING INSULATION)
	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

1	Drain
2	Safety Valve
3 - 4	To the System
5 - 6	
7	Connection for instrumentation 1/2"
8	Gas F



Model	Weight	Net Volume	Df	L	L1	L2	L3	L4	L5	H1	H2	H3	Connections Gas F		
	[Kg]	[litres]											1 2	3 4 5 6	7 - 8
100	32	99	400	934	215	720	290	415	645	63	293	523	1"1/4	1"1/2	1/2"
200	53	187	450	1339	230	1110	335	480	1005	61	316	571	1"1/4	1"1/2	1/2"
300	68	288	550	1389	275	1115	365	525	1025	115	425	760	1"1/4	2"	1/2"
500	102	496	650	1689	320	1370	415	570	1275	107	472	857	1"1/4	3"	1/2"
800	148	788	750	2000	350	1650	480	650	1520	101	516	951	1"1/4	3"	1/2"
1000	170	1034	850	2066	383	1683	513	683	1553	96	561	1046	1"1/2	3"	1/2"
1500	184	1432	950	2250	370	1880	505	670	1745	82	597	1142	2"	3"	1/2"
2000	220	1970	1100	2320	405	1915	525	705	1795	73	663	1283	2"	3"	1/2"
2500	284	2300	1250	2140	470	1670	620	770	1520	154	829	1524	2"	4"	1/2"
3000	330	2908	1250	2640	470	2170	620	870	2020	154	829	1524	2"	4"	1/2"
4000	452	3749	1400	2730	515	2215	665	915	2065	142	892	1662	2"	4"	1/2"
5000	574	4964	1600	2790	545	2245	695	945	2095	125	975	1845	2"	4"	1/2"

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

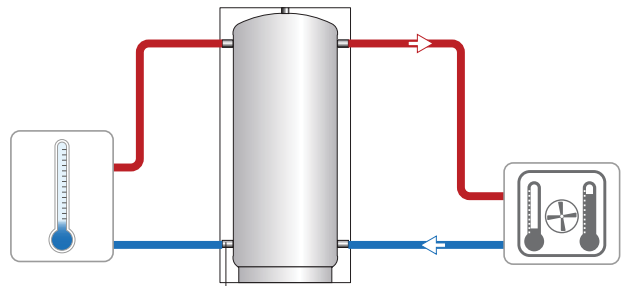
INERTIAL TANKS

ACQUA REFRIGERATA ZINCATO ZC 20 VT

VERTICAL GALVANIZED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +60 °C



TECHNICAL DESCRIPTION

Vertical chilled water tanks are used for air conditioning installations in order to increase the thermal inertia and, for those installations with a low water-capacity, avoiding that the chilling generator is continually working. These tanks are made in galvanized mild steel.

APPLICATION

Storage of chilled water for air conditioning systems.

EXTERNAL LINING

Blue skai with plastic black caps for connections.

ANTI-CORROSION TREATMENT

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

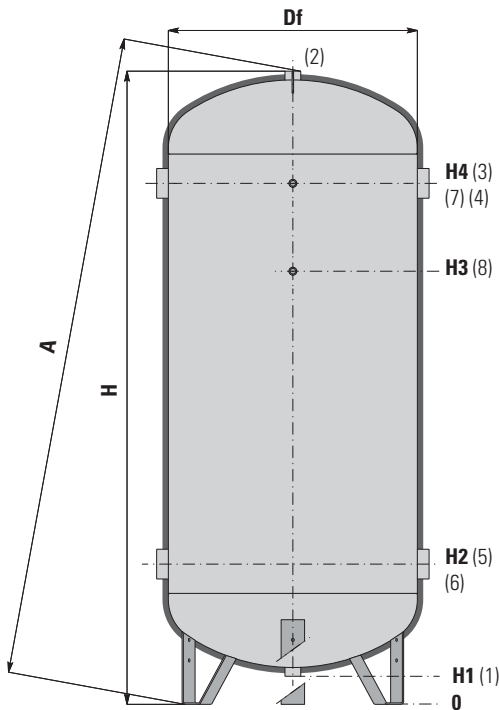
20 mm fixed polyethylene not subject to condensation. Not self-extinguishing version. Not removable from the tank.

20 mm not self-extinguishing insulation.

WARRANTY

2 years

See general sales conditions and warranty.



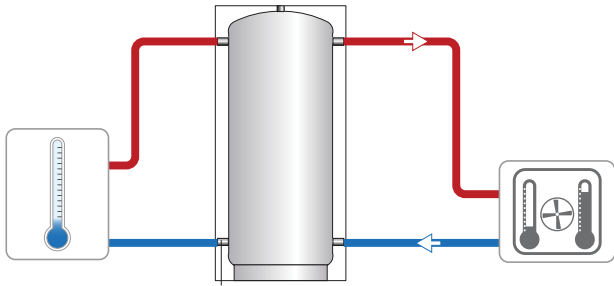
Model	ACQ. REF. ZC 20 VT (20 MM NOT SELF-EXTINGUISHING INSULATION)
	Art. Nr.
100	3001162130001
200	3001162130002
300	3001162130003
500	3001162130004
800	3001162130005
1000	3001162130006
1500	3001162130107
2000	3001162130108
2500	3001162130113
3000	3001162130109
4000	3001162130110
5000	3001162130112

1	Drain
2	Safety Valve
3 - 4	To the System
5 - 6	
7-8	Connection for instrumentation 1/2" Gas F

Model	Weight	Net Volume	Df	H	A	H1	H2	H3	H4	1-2	3-4-5-6	7-8
	[Kg]	[litres]										
100	32	101	400	1006	1017	73	287	592	792	1"1/4	1"1/2	1/2"
200	53	190	450	1407	1415	68	297	927	1177	1"1/4	1"1/2	1/2"
300	67	292	550	1518	1529	129	404	994	1244	1"1/4	2"	1/2"
500	101	501	650	1810	1821	121	441	1241	1491	1"1/4	3"	1/2"
800	147	788	750	2108	2119	108	458	1458	1758	1"1/4	3"	1/2"
1000	170	1034	850	2162	2178	96	479	1479	1779	1"1/2	3"	1/2"
1500	183	1432	950	2351	2386	121	490	1700	2000	2"	3"	1/2"
2000	219	1970	1100	2421	2437	105	509	1719	2019	2"	3"	1/2"
2500	274	2300	1250	2289	2304	149	619	1519	1819	2"	4"	1/2"
3000	321	2908	1250	2804	2826	149	619	1919	2319	2"	4"	1/2"
4000	442	3749	1400	2878	2904	133	648	1948	2348	2"	4"	1/2"
5000	565	4964	1600	2916	2948	111	656	1956	2356	2"	4"	1/2"

ACQUA REFRIGERATA ZINCATO ZC 20 OR

HORIZONTAL GALVANIZED CHILLED WATER TANK



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	-10 / +60 °C

TECHNICAL DESCRIPTION

Horizontal chilled water tanks are used for air conditioning installations in order to increase the thermal inertia and, for those installations without a low water-capacity, avoiding that the chilling generator is continually working. These tanks are made in galvanized mild steel

APPLICATION

Storage of chilled water for air conditioning systems.

EXTERNAL LINING

Blue skai with plastic black caps for connections.

ANTI-CORROSION TREATMENT

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 not subject to condensation. Not self-extinguishing version. Not removable from the tank.

20 mm not self-extinguishing insulation.

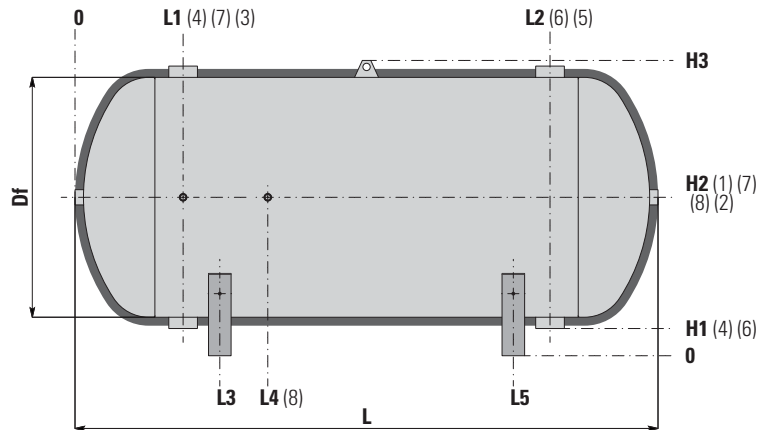
WARRANTY

2 years

See general sales conditions and warranty.

Model	ACQ. REF. ZC 20 OR (20 MM NOT SELF-EXTINGUISHING INSULATION)
	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

1	Drain
2	Safety Valve
3 - 4	To the System
5 - 6	
7	Connection for instrumentation 1/2"
8	Gas F



Model	Weight	Net Volume	Df	L	L1	L2	L3	L4	L5	H1	H2	H3	Connections Gas F				
	[Kg]	[litres]											1 2	3 4	5 6	7 - 8	
100	32	99	400	934	215	720	290	415	645	63	293	523	1"1/4	1"1/2	1/2"		
200	53	187	450	1339	230	1110	335	480	1005	61	316	571	1"1/4	1"1/2	1/2"		
300	68	288	550	1389	275	1115	365	525	1025	115	425	760	1"1/4	2"	1/2"		
500	102	496	650	1689	320	1370	415	570	1275	107	472	857	1"1/4	3"	1/2"		
800	148	788	750	2000	350	1650	480	650	1520	101	516	951	1"1/4	3"	1/2"		
1000	170	1034	850	2066	383	1683	513	683	1553	96	561	1046	1"1/2	3"	1/2"		
1500	184	1432	950	2250	370	1880	505	670	1745	82	597	1142	2"	3"	1/2"		
2000	220	1970	1100	2320	405	1915	525	705	1795	73	663	1283	2"	3"	1/2"		
2500	284	2300	1250	2140	470	1670	620	770	1520	154	829	1524	2"	4"	1/2"		
3000	330	2908	1250	2640	470	2170	620	870	2020	154	829	1524	2"	4"	1/2"		
4000	452	3749	1400	2730	515	2215	665	915	2065	142	892	1662	2"	4"	1/2"		
5000	574	4964	1600	2790	545	2245	695	945	2095	125	975	1845	2"	4"	1/2"		

P.E.D. product planned and produced in conformity to the article 3.3 of directive 92/23/CE

INERTIAL TANKS

AUTOCLAVE ZINCATA Z PED VT

CERTIFIED VERTICAL GALVANIZED PRESSURE VESSEL (STANDARD 97/23/CE-P.E.D.)



PRESSURE	TEMPERATURE
Pmax	Tmin/Tmax
[see table]	-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	
5000 ø1600	3051172020007	
8000	3051172020011	
10000	3051172020012	

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	3051172020008	
5000 ø1450	3051172020004	
8000	3051172020013	
10000	3051172020014	

Models from 100 to 1000 are provided with the security valve and the pressure gauge.

Models 5000 (ø1600), 8000 and 1000 are provided with the manhole.

Models from 100 and 500 are provided with security valve and the pressure gauge.

Models from 4000 to 10000 are provided with the manhole.

TECHNICAL DESCRIPTION

The air cushion pressure vessels Z 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 made in galvanized mild steel.

APPLICATION

Air cushion pressure vessels.

Suitable to supply water to the highest floors of the buildings and to compensate for the water shortage of the water-works.

ANTI-CORROSION TREATMENT

These tanks are galvanized inside and outside, with immersion in a pool of fused zinc with pureness not below 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 97/23/CE (P.E.D.) that rules the pressurized products. Under surveillance of the Notified Body, a CE mark is

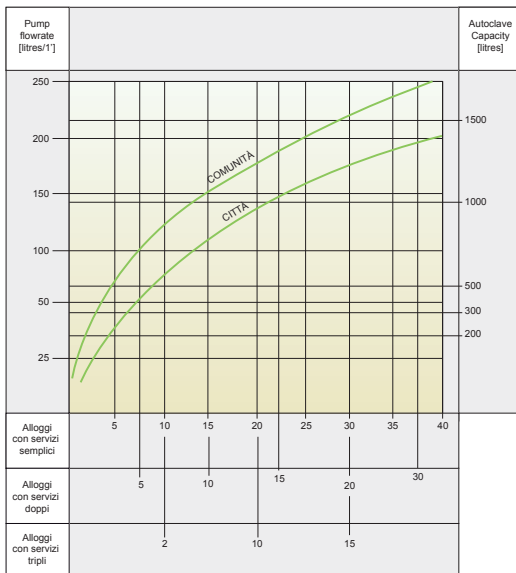
stuck on them as well as the following project data that characterize the product:

- Pressurized fluid: water + air or nitrogen
- Fluid group: 2
- Max operating pressure: see the table chart
- Temperature: -10/+50°

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):



AUTOCLAVE Z PED OR

CERTIFIED HORIZONTAL GALVANIZED PRESSURE VESSEL

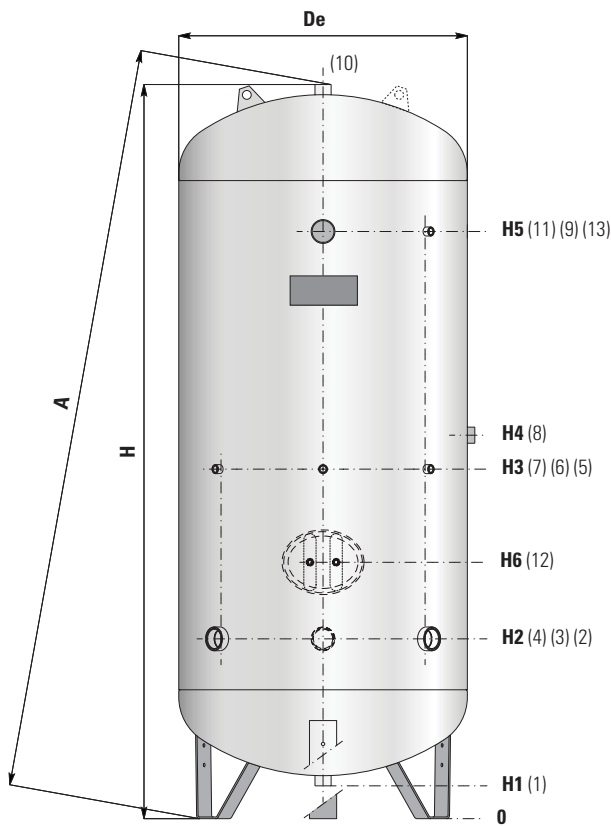


Model	AUTOCL. Z OR	Press. max [Bar]
	Art. Nr.	
100	3052170990001	8
200	3052170990022	
300	3052170990003	
500	3052170990004	
750	3052170990025	
1000	3052170990026	
1500	3051170990015	
2000	3051170990016	
3000	3051170990068	
4000	3051170990019	
5000	3051170990020	
8000	3054170990007	
10000	3054170990008	

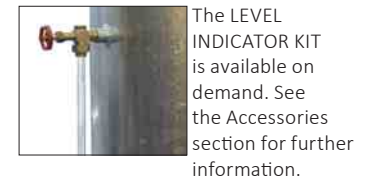
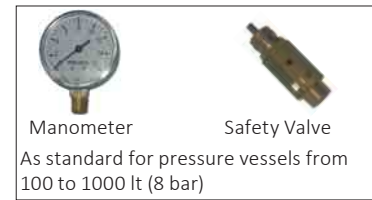
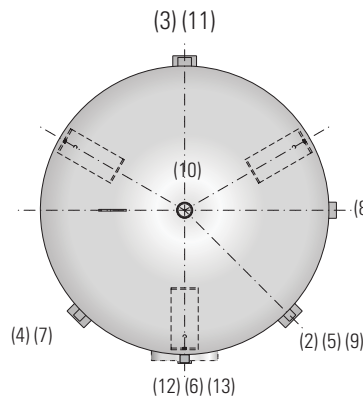
Model	AUTOCL. Z OR	Press. max [Bar]
	Art. Nr.	
100	3052170990015	11,76
200	3051170990072	
300	3051170990025	
500	3051170990026	
750	3051170990077	
1000	3051170990078	12
1500	3051170990040	
2000	3051170990030	
2500	3051170990041	
3000	3051170990082	
4000	3051170990042	
5000	3051170990044	
8000	3054170990014	
10000	3054170990015	

AUTOCLAVE ZINCATA Z PED VT

CERTIFIED VERTICAL GALVANIZED PRESSURE VESSEL (STANDARD 97/23/CE-P.E.D.)



1	Drain
2	
3	Supply - Use
4	
5	Visual level indicator
6	
7	Control features
8	Level switch – Pressure switch
9	Visual level indicator
10	Safety Valve
11	Level switch – Pressure switch
12	Manhole 400 x 300 (if required)
13	Instrumentation 2" (only on 8000-10000 Lt)



Model	De	H	A	H1	H2	H3	H4	H5	H6	1-10	2-3-4	11	5-6-7-9	8
										[mm]				
										Connections Gas F				

WORKING PRESSURE 8 bar	100	400	1055	1065	90	350	500	600	800	-	1"1/4	1"	-	1/2"	1" 1/4
	200	450	1420	1435	85	355	655	755	1155	-	1"1/4	1"	-	1/2"	1" 1/4
	300	550	1530	1555	140	435	735	835	1235	-	1"1/4	1" 1/4	-	1/2"	1" 1/4
	500	650	1825	1840	135	455	855	955	1505	-	1"1/4	1" 1/2	-	1/2"	1" 1/4
	750	790	1865	1880	115	515	965	1065	1465	-	1"1/4	1" 1/2	-	1/2"	1" 1/4
	1000	790	2380	2395	110	520	1020	1120	1920	-	1"1/4	1" 1/2	-	1/2"	1" 1/4
	1500	950	2470	2490	115	570	1070	1170	2020	-	2"	2"	-	1/2"	1" 1/4
	2000	1100	2535	2560	100	595	1095	1195	2045	-	2"	2"	-	1/2"	1" 1/4
	2500	1200	2660	2690	140	680	1280	1380	2130	-	2"	3"	-	1/2"	1" 1/4
	3000	1200	3000	3075	135	720	1320	1420	2420	-	2"	3"	-	1/2"	2"
	4000	1450	3000	3030	115	710	1310	1410	2410	-	2"	3"	2"	1/2"	2"
	5000	1450	3500	3525	115	710	1610	1710	2910	-	2"	3"	2"	1/2"	2"
	5000	1600	3050	3090	100	725	1325	1425	2425	1025	2"	3"	2"	1/2"	2"
	8000	1650	4205	4285	220	915	1915	2040	3515	1165	2"	4"	2"	1/2"	2"
10000	1650	5075	5270	220	915	2260	2485	4515	1165	2"	4"	2"	1/2"	2"	

Models from 100 to 1000 are provided with security valve and pressure gauge.
Models 5000 (Ø1600), 8000 and 10000 are provided with the manhole.

WORKING PRESSURE	11,76 bar	100	400	1055	1065	90	350	500	600	800	-	1"1/4	1"	-	1/2"	1"1/4
		200	450	1420	1435	85	355	655	755	1155	-	1"1/4	1"	-	1/2"	1"1/4
		300	550	1530	1540	140	435	735	835	1235	-	1"1/4	1"1/4	-	1/2"	1"1/4
		500	650	1825	1840	135	455	855	955	1505	-	1"1/4	1"1/2	-	1/2"	1"1/4
		750	790	1865	1880	115	515	965	1065	1465	-	1"1/4	1"1/2	-	1/2"	1"1/4
		1000	790	2380	2395	110	520	1020	1120	1920	-	1"1/4	1"1/2	-	1/2"	1"1/4
		1500	950	2490	2515	115	570	1070	1170	2020	-	2"	2"	-	1/2"	1"1/4
	12 bar	2000 <td>1100</td> <td>2535</td> <td>2560</td> <td>100</td> <td>595</td> <td>1095</td> <td>1195</td> <td>2045</td> <td>-</td> <td>2"</td> <td>2"</td> <td>-</td> <td>1/2"</td> <td>1"1/4</td>	1100	2535	2560	100	595	1095	1195	2045	-	2"	2"	-	1/2"	1"1/4
		2500	1200	2660	2690	140	680	1280	1380	2130	-	2"	3"	-	1/2"	1"1/4
		3000	1200	3000	3075	135	720	1320	1420	2420	-	2"	3"	-	1/2"	2"
		4000	1450	3000	3030	115	710	1310	1410	2410	1011	2"	3"	2"	1/2"	2"
		5000	1450	3500	3525	115	710	1610	1710	2910	1165	2"	3"	2"	1/2"	2"
		8000	1650	4205	4285	220	915	1915	2040	3515	1165	2"	4"	2"	1/2"	2"
		10000	1650	5075	5270	220	915	2260	2485	4515	1165	2"	4"	2"	1/2"	2"

Models from 100 to 500 are provided with security valve and pressure gauge.
Models from 4000 to 10000 Lt are provided with the manhole.

WATER PRESSURE TANKS

AUTOCLAVE INOX X PED VT

CERTIFIED VERTICAL 316L STAINLESS STEEL PRESSURE VESSEL (DIRECTIVE 97/23/CE-P.E.D.)



PRESSURE	TEMPERATURE
Pmax	Tmin/Tmax
8 bar	-10 / +50 °C

Model	AUTOCL. X PED VT
	Art. Nr.
100	3051052010001
200	3051052010002
300	3051052010003
500	3051052010004
750	3051052010005
1000	3051052010006
1500	3051052010007
2000	3051052010008
3000	3051052010009
4000	3051052010010
5000	3051052010011

HORIZONTAL VERSION



Model	AUTOCL. X OR
	Art. Nr.
100	3051051010001
200	3051051010002
300	3051051010003
500	3051051010004
750	3051051010005
1000	3051051010006
1500	3051051010007
2000	3051051010008
3000	3051051010009
4000	3051051010010
5000	3051051010011

TECHNICAL DESCRIPTION

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 316L stainless steel.

APPLICATION

Air cushion pressure vessels.

Suitable to supply water to the highest floors of the buildings and to compensate for the water

shortage of the water-works.

MATERIAL

316L Stainless steel suitable for drinkable water according to regulation D.M. n.174 dated 06.04.04.

CERTIFICATIONS

The X PED VT pressure vessels are made according to the security policy of the standard 97/23/CE (P.E.D.) 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°

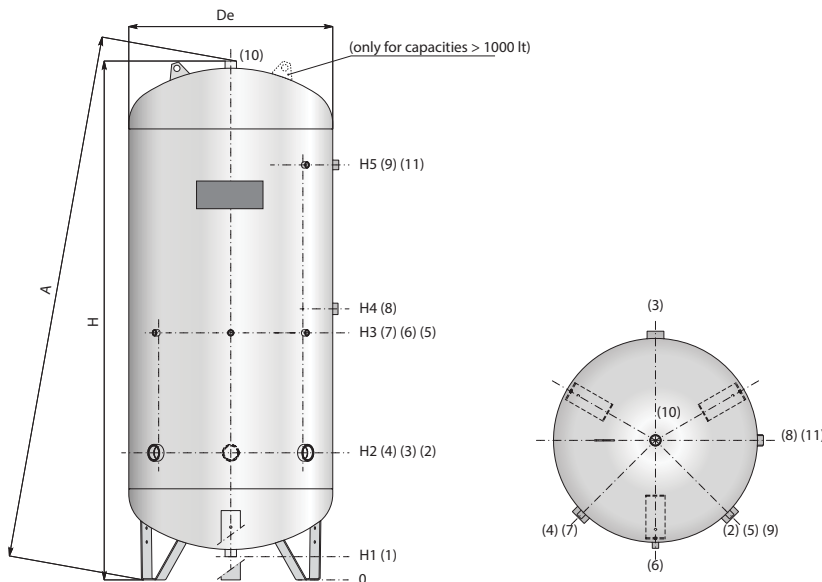
DOCUMENTS ATTACHED

- CE certification
- User Instructions

WARRANTY

2 years

See general sales conditions and warranty.



1	Drain
2-3-4	Input - use
5	Visual level indicator
6-7	Control elements
8	Level switch – Pressure switch
9	Visual level indicator
10	Safety Valve
11	Level switch – Pressure switch



Model	De	H	A	H1	H2	H3	H4	H5	1-8-10	2-3-4	5-6-7-9	11
	[mm]									Connections Gas F		
100	400	1071	1095	97	372	522	622	797	1" 1/4	1"	1/2"	-
200	450	1459	1490	70	365	665	765	1165	1" 1/4	1"	1/2"	-
300	550	1554	1585	135	445	745	845	1245	1" 1/4	1" 1/4	1/2"	-
500	650	1847	1880	127	462	862	962	1512	1" 1/4	1" 1/2	1/2"	1"
750	750	2133	2170	103	518	968	1068	1718	1" 1/4	2"	1/2"	1"
1000	850	2633	2665	103	518	1168	1268	2218	1" 1/4	2"	1/2"	1"
1500	1000	2295	2350	105	600	1100	1200	1800	1" 1/4	2"	1/2"	1"
2000	1000	2795	2840	105	600	1250	1350	2300	1" 1/4	2"	1/2"	1"
3000	1250	2880	2955	110	645	1245	1345	2345	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"

SERBATOIO INOX X SC VT

VERTICAL 316L STAINLESS STEEL TANK FOR PRESSURIZED COLD WATER STORAGE



Model	SERB. X SC VT
	Art. Nr.
100	3251012010001
200	3251012010002
300	3251012010003
500	3251012010004
1000	3251012010006
1500	3251012010007
2000	3251012010008
2500	3251012010009
3000	3251012010010
4000	3251012010011
5000ø1600	3251012010013



PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	0 / +50 °C

TECHNICAL DESCRIPTION

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 AISI 304 Stainless steel.

APPLICATION

Pressurized cold water storage.

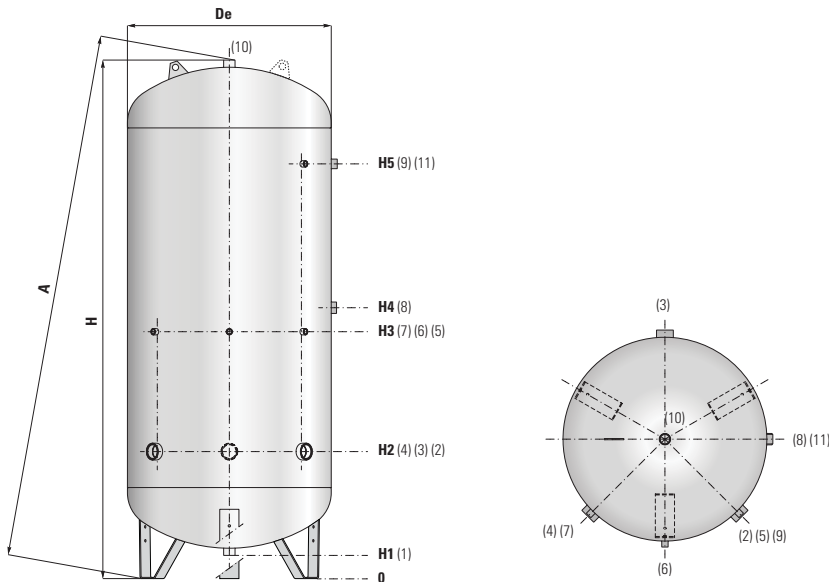
MATERIAL

AISI 304 Stainless steel suitable for drinkable water according to D.M. n.174 dated 06.04.04.

WARRANTY

2 years

See general sales conditions and warranty.



1	Drain
2	Input - use
3	
4	
5	Instrumentation
6	
7	
8	
9	
11	
10	Safety Valve

Model	De	H	A	H1	H2	H3	H4	H5	Connections Gas F				
									1-8-10	2-3-4	5-6-7-9	11	
				[mm]									
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"	

WATER PRESSURE TANKS

SERBATOIO ZINCATO Z SC VT

VERTICAL GALVANIZED TANK FOR PRESSURIZED COLD WATER STORAGE



Model	SERB. Z SC VT
	Art. Nr.
50	3251161990001
100	3251161990002
200	3251161990003
300	3251161990004
500	3251161990005
750	3251161990006
1000	3251161990007
1500	3251161990008
2000	3251161990009

PRESSURE	TEMPERATURE
Pmax	Tmax
6 bar	0 / +50 °C

TECHNICAL DESCRIPTION

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.

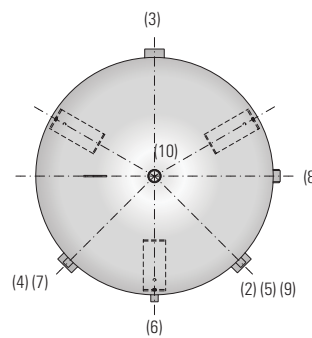
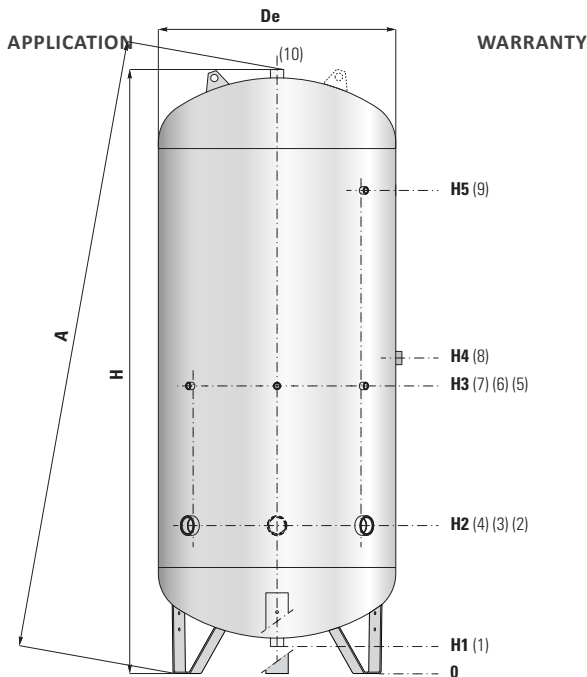
Pressurized cold water storage.

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)

2 years

See general sales conditions and warranty.



1	Drain
2	Instrumentation
3	
4	
5	
6	
7	Input - use
8	
9	Safety Valve
10	

Model	De	H	A	H1	H2	H3	H4	H5	1-10	2-3-4	5-6-7-9	8
	[mm]									Connections Gas F		
50	400	602	635	82	237	327	-	-	1"	1"	1/2"	-
100	400	1007	1020	73	327	477	567	752	1" 1/4	1"	1/2"	1" 1/4
200	450	1407	1420	68	337	537	737	1137	1" 1/4	1"	1/2"	1" 1/4
300	550	1519	1530	129	424	724	824	1224	1" 1/4	1" 1/4	1/2"	1" 1/4
500	650	1811	1825	121	441	841	941	1491	1" 1/4	1" 1/2	1/2"	1" 1/4
750	750	2108	2125	108	508	958	1058	1708	1" 1/4	1" 1/2	1/2"	1" 1/4
1000	850	2162	2180	96	529	979	1079	1729	1" 1/2	1" 1/2	1/2"	1" 1/4
1500	950	2473	2495	113	568	1068	1168	2018	2"	2"	1/2"	1" 1/4
2000	1100	2544	2570	95	594	1094	1194	2044	2"	2"	1/2"	1" 1/4

VASO A MEMBRANA VERNICIATO PED VT

VERTICAL PAINTED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)



Model	VASO MEMB. V PED VT	
	Art. Nr.	
50	3911162241007	
80	3911162241008	
100	3911162241003	
200	3911162241004	
300	3911162241005	
500	3911162241006	

PRESSURE	TEMPERATURE
Pmax	Tmax
10 bar	[see table]

TECHNICAL DESCRIPTION

Vertical V PED expansion vessels with membrane are used for lifted water system and they represent a pressurized 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

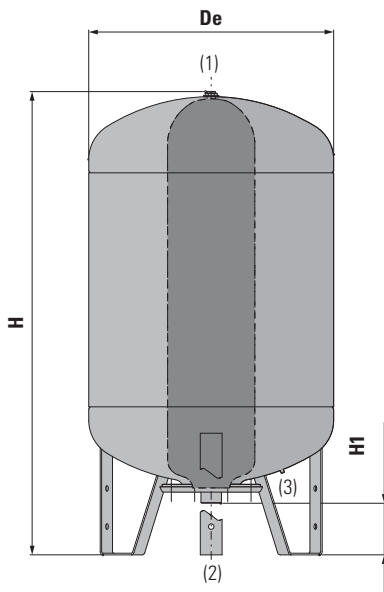
European Directive 97/23/CE (P.E.D.) in terms of pressurized.

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



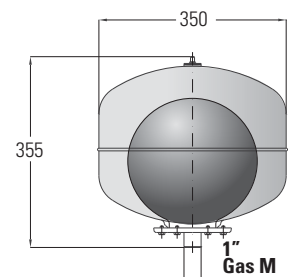
Model	De	H	H1	Connections Gas			Temp. min/max °C		
				1	2	3			
50	400	627	91	Air inlet valve	1" M	Water in/out	-	-10/+99	
80	450	717	88		1" M		-	-10/+99	
100	450	872	88	1/2"	Instrumentation	Water in/out	Air inlet valve	-10/+99	
200	550	1187	151	1/2"				1" 1/4 F	-10/+99
300	650	1254	150	1/2"				1" 1/4 F	0/+50
500	750	1511	144	1/2"				1" 1/4 F	0/+50

VASO A MEMBRANA VERNICIATO PED 24 LT

PAINTED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)



Model	VASO MEMB. V PED 24 LT	
	Art. Nr.	
24	3901190610001	



VASO A MEMBRANA VERNICIATO PED OR

HORIZONTAL PAINTED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)

Model	VASO MEMB. V PED OR	
	Art. Nr.	
50	3911161341007	
80	3911161341008	
100	3911161341003	
200	3911161341004	
300	3911161341005	



PRESSURE	TEMPERATURE
Pmax	Tmax
10 bar	[see table]

TECHNICAL DESCRIPTION

Horizontal V PED expansion vessels with membrane are used for lifted water system 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 foodstuff membrane suitable for drinking water.

CERTIFICATIONS

V PED OR expansion vessels with membrane are produced in accordance with safety disposal of

European Directive 97/23/CE (P.E.D.) in terms of pressurized.

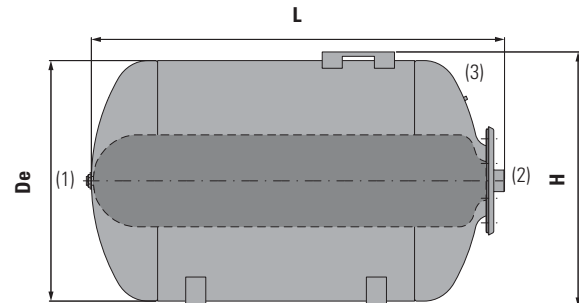
They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

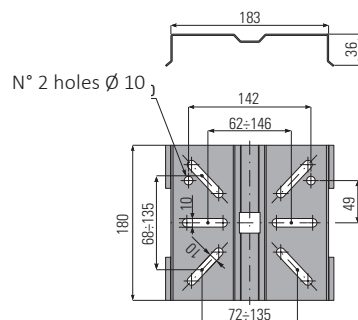
DOCUMENTS ATTACHED

- CE certification
- User Instructions

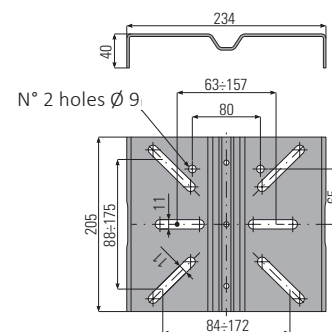
Model	De	H	L	1		2		3		Temp. min/max °C
				Connections Gas		Water in/out		Air inlet valve		
50	400	424	538	Air inlet valve		1" M		-		-10 / +99
80	450	473	598	Air inlet valve		1" M		-		-10 / +99
100	450	473	783	-	Instrumentation	1" M		Air inlet valve		-10 / +99
200	550	583	1066	1/2"		1"1/4 F		Air inlet valve		-10 / +99
300	650	807	1080	1/2"		1"1/4 F		Air inlet valve		0 / +50



MOTOR SUPPORT PLATE
50/80/100/200 liters



MOTOR SUPPORT PLATE
300/500 liters



VASO A MEMBRANA ZINCATO PED VT

VERTICAL GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)



Model	VASO MEMB. Z PED VT
	Art. Nr.
50	3911161991007
80	3911161991008
100	3911161991003
200	3911161991004
300	3911161991005
500	3911161991006

PRESSURE	TEMPERATURE
Pmax	Tmax
10 bar	[see table]

TECHNICAL DESCRIPTION

Vertical Z PED expansion vessels with membrane are used for lifted water system and they represent a pressurized 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

External lining: 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

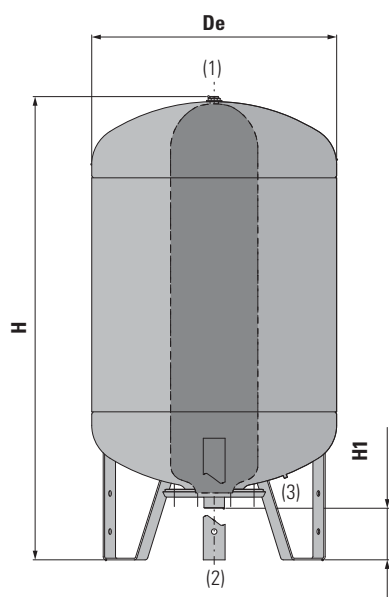
European Directive 97/23/CE (P.E.D.) in terms of pressurized.

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



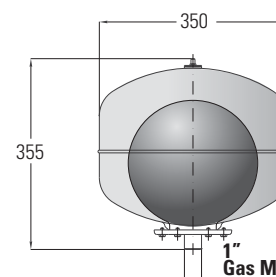
Model	De	H	H1	Connections Gas			Temp. min/max °C		
				1	2	3			
50	400	627	91	Air inlet valve	1" M	Water in/out	-	-10/+99	
80	450	717	88		1" M		-	-10/+99	
100	450	872	88	1/2"	Instrumentation	Water in/out	Air inlet valve	-10/+99	
200	550	1187	151	1/2"				1" 1/4 F	-10/+99
300	650	1254	150	1/2"				1" 1/4 F	0/+50
500	750	1511	144	1/2"				1" 1/4 F	0/+50

VASO A MEMBRANA ZINCATO PED 24 LT

GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)



Model	VASO MEMB. Z PED 24 LT
	Art. Nr.
24	3901190600001



VASO A MEMBRANA ZINCATO PED OR

HORIZONTAL GALVANIZED EXPANSION VESSEL WITH MEMBRANE (DIR. 97/23/CE-P.E.D.)

Model	VASO MEMB. Z PED OR	
	Art. Nr.	
50	3911160991007	
80	3911160991008	
100	3911160991003	
200	3911160991004	
300	3911160991005	
500	3911160991006	



PRESSURE	TEMPERATURE
Pmax	Tmax
10 bar	[see table]

TECHNICAL DESCRIPTION

Horizontal Z PED expansion vessels with membrane are used for lifted water system 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

External lining: 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 97/23/CE (P.E.D.) in terms of

pressurized.

They are CE labelled with design data:

- pressurized fluid: water+air or nitrogen
- Fluid group: 2
- max. working pressure: 10bar

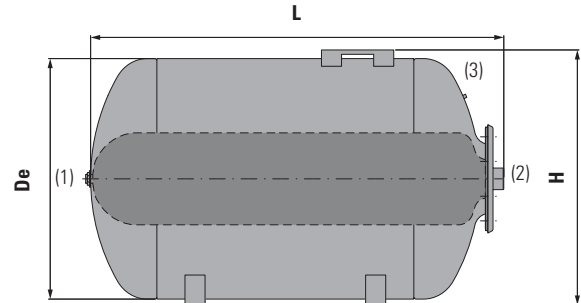
Documents attached

- CE certification
- User Instructions

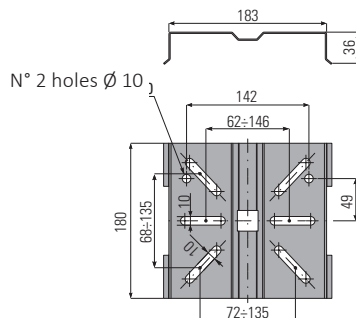
DOCUMENTS ATTACHED

- CE certification
- User Instructions

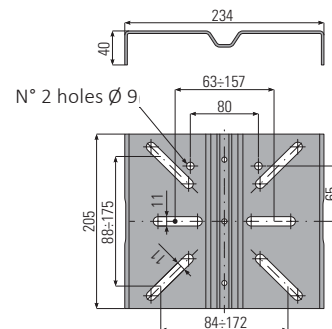
Model	De	H	L	Connections Gas			Temp. min/max °C	
				1	2	3		
50	400	424	538	Air inlet valve	1" M	Water in/out	-	-10/+99
80	450	473	598		1" M		-	-10/+99
100	450	473	783	1/2"	Instrumentation	Water in/out	-	-10/+99
200	550	583	1066	1/2"			1" 1/4 F	Air inlet valve
300	650	807	1080	1/2"	1" 1/4 F	Water in/out	0/+50	0/+50
500	750	900	1350	1/2"	1" 1/4 F		Air inlet valve	0/+50



MOTOR SUPPORT PLATE
50/80/100/200 liters



MOTOR SUPPORT PLATE
300/500 liters



CORDIVARI

- 64020 MORRO D'ORO
Telefax 085.80.41.280
@cordivari.it



COMPRESSED AIR RECEIVERS



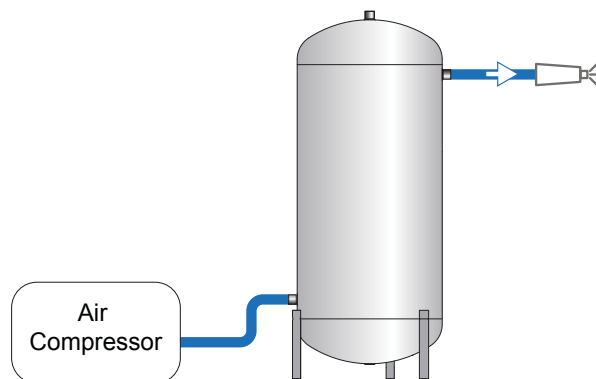
ARIA COMPRESSA CE

COMPRESSED AIR / NITROGEN RECEIVERS (DIR. 2009/105/CE)



CE

WORKING TEMPERATURE	
Tmax	
	-10/+100 °C



TECHNICAL DESCRIPTION

Compressed air receivers allows to extract more air that the quantity produced by compressor, this without causing an under-pressure in the unit.

Built in mild steel, either painted, galvanized and painted with food internal coating Polywarm® 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 food coating (Polywarm®)

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 87/404/CE for items with a "volume x pressure" under than 10.000 Bar • 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

DOCUMENTS ATTACHED

- CE certification- User Instructions

GALVANIZED / PAINTED



(*) Other colours on demand: RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2009/105/CE		VERTICAL COMPRESSED AIR RECEIVER	
Model	Working Pressure	GALVANIZED	PAINTED - RAL 5002 BLUE (*)
	[Bar]	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

PAINTED WITH FOOD INTERNAL COATING **

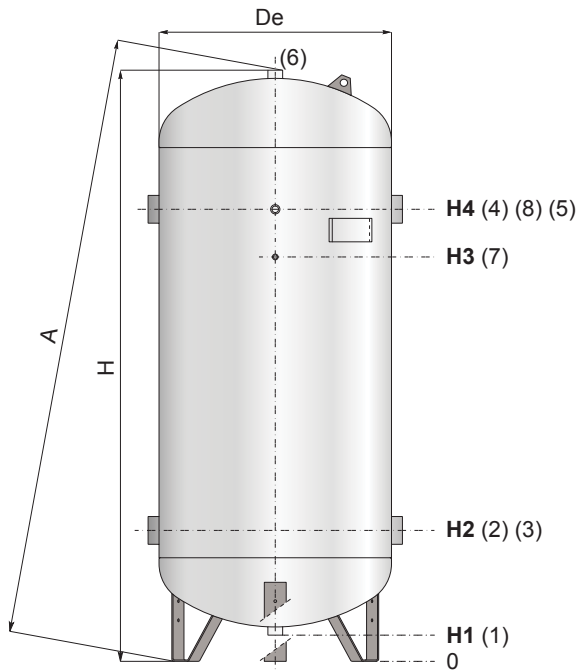


(*) Other colours on demand: RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

2009/105/CE	
Model	Working Pressure
	[Bar]
100	11
200	
270	
500	
710	
900	
270	15
500	

ARIA COMPRESSA CE

COMPRESSED AIR / NITROGEN RECEIVERS (DIR. 2009/105/CE)



1	Drain
2-3	Air entry
4-5	Use
6	Safety Valve
7-8	Instrumentation

Model	Working Pressure	De	H	A	H1	H2	H3	H4	Connections Gas F			
	[bar]								[mm]			
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 COMPRESSED AIR RECEIVER PLANT

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:

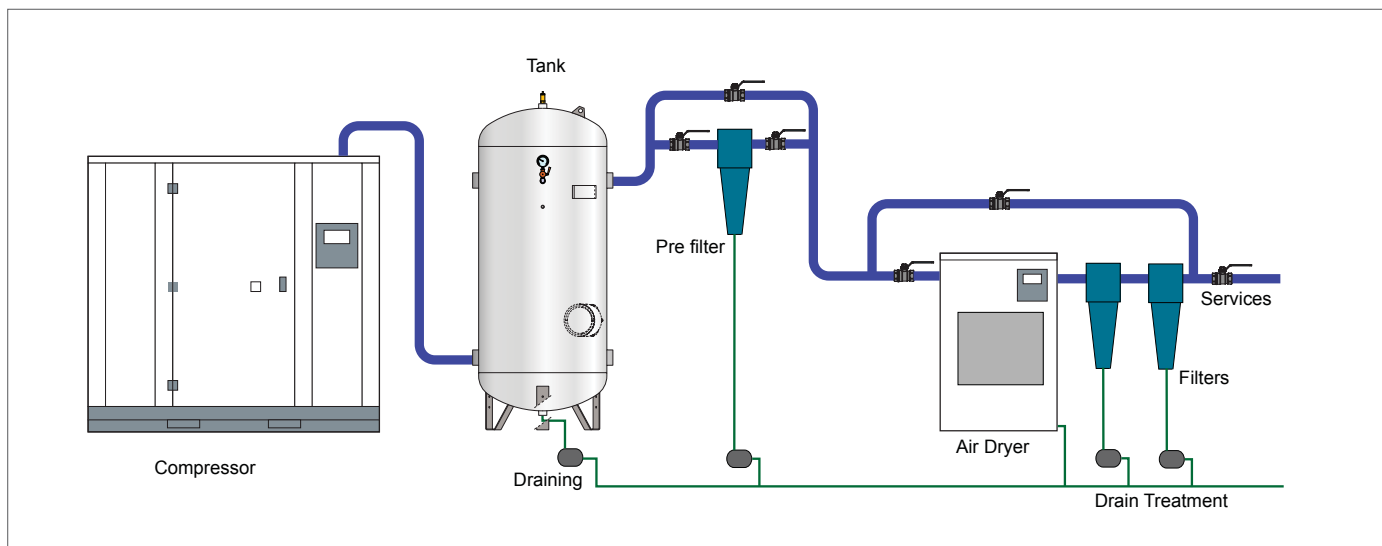
$$V = 0.2 \text{ to } 0.6 Q$$

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



COMPRESSED AIR RECEIVERS

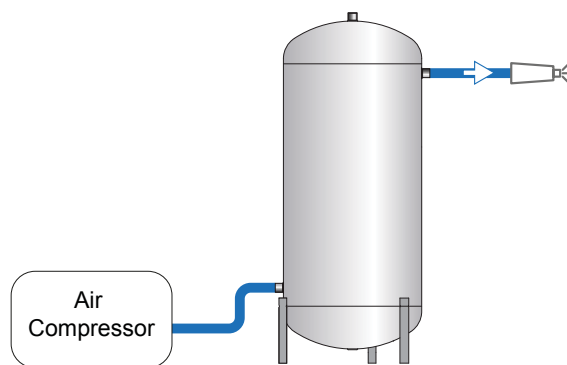
ARIA COMPRESSA P.E.D.

COMPRESSED AIR / NITROGEN RECEIVERS (DIR. 97/23/CE-P.E.D.)



CE

WORKING TEMPERATURE	
Tmax	
-10/+100 °C	



TECHNICAL DESCRIPTION

Compressed air receivers allows to extract more air that the quantity produced by compressor, this without causing an under-pressure in the unit. Built in mild steel, either painted, galvanized and painted with food internal coating Polywarm® 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 food coating (Polywarm®)

These tanks are marked CE under the monitoring of an external control agency.

- Liquid in pressure: air / nitrogen
- Liquid group: 2
- Maximum working pressure: (See tab)
- Temperature: 0/+100 °C

DOCUMENTS ATTACHED

- CE certification- User Instructions

CERTIFICATIONS

Compressed air receivers are produced according to European Directive 97/23/CE – (PED) for items with a “volume x pressure” over than 10.000 Bar • Liter.

Galvanized / PAINTED



(*) Other colours on demand: RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

97/23/CE-P.E.D.		VERTICAL COMPRESSED AIR RECEIVER	
Model	Pressure	GALVANIZED	PAINTED - RAL 5002 BLU (*)
	[Bar]	Art. Nr.	Art. Nr.
1500	8	3054171990001	3054172240001
2000		3054171990002	3054172240002
3000		3054171990054	3054172240054
4000		3054171990005	3054172240005
5000		3054171990006	3054172240006
8000		3054171990007	/
10000		3054171990008	/
1000		12	3054171990067
1500	3054171990011		3054172240011
2000	3054171990012		3054172240012
2500	3054171990013		3054172240013
3000	3054171990064		3054172240064
4000	3054171990015		3054172240015
5000	3054171990016		3054172240016
8000	3054171990027		/
10000	3054171990028	/	
1000	15	3054171990167	3054172240151
1500		3054171990118	3054172240102
2000		3054171990168	3054172240152

PAINTED WITH FOOD INTERNAL COATING **

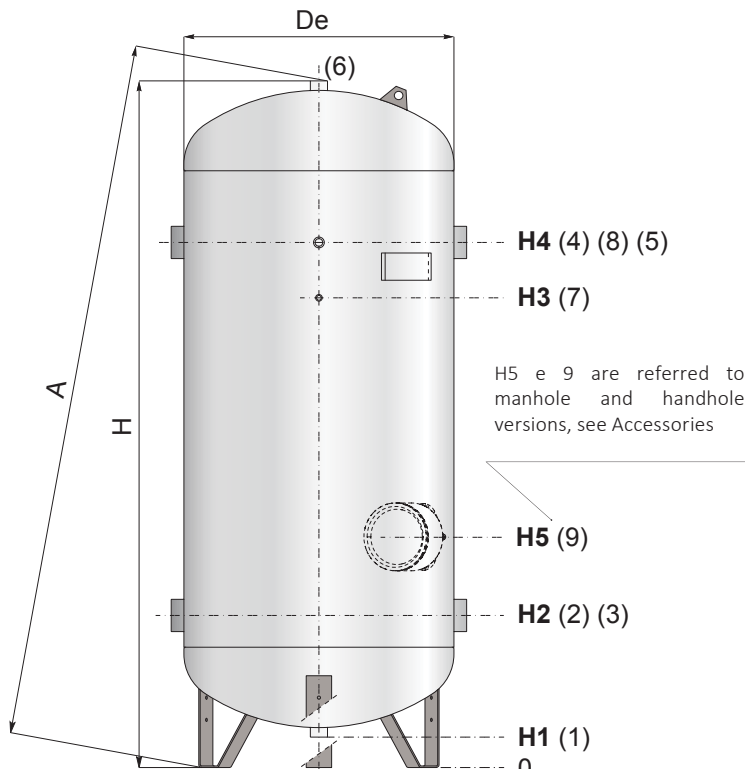


(*) Other colours on demand: RAL 5015 Light Blue / RAL 3000 Red / RAL 1021 Yellow

97/23/CE-P.E.D.	
Model	Pressure
	[Bar]
1500	8
2000	
3000	
4000	
5000	
1000	12
1500	
2000	
2500	
3000	
4000	15
5000	
2000	

ARIA COMPRESSA P.E.D.

COMPRESSED AIR / NITROGEN RECEIVERS (DIR. 97/23/CE-P.E.D.)



1	Drain
2-3	Air entry
4-5	Use
6	Safety Valve
7-8	Instrumentation
9	Manhole / handhole (on request)

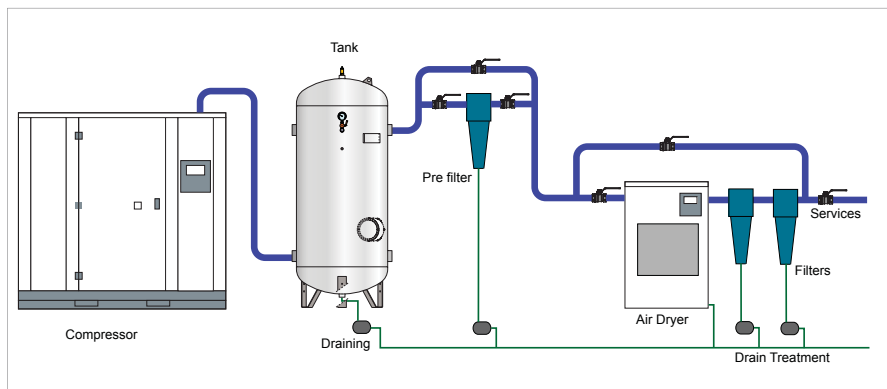


Model	Working Pressure [bar]	De	H	A	H1	H2	H3	H4	Connections Gas F			
									1-6	2-3-4-5	7	8
					[mm]							
1500	8	950	2470	2510	150	570	1470	1670	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	2"	2"	3/8"	3/4"
3000		1200	3000	3075	140	720	1620	1820	2"	3"	3/8"	3/4"
4000		1450	3000	3100	120	710	1610	1810	2"	3"	3/8"	3/4"
5000		1450	3505	3585	115	710	2100	2300	2"	3"	3/8"	3/4"
8000		1650	4200	4280	220	810	3310	3510	2"	4"	3/8"	3/4"
10000		1650	5200	5270	220	810	4310	4510	2"	4"	3/8"	3/4"
1000	12	790	2430	2450	180	575	1625	1825	2"	2"	3/8"	3/4"
1500		950	2490	2530	115	575	1480	1680	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	2"	2"	3/8"	3/4"
2500		1200	2660	2760	145	680	1580	1780	2"	3"	3/8"	3/4"
3000		1200	3000	3075	140	720	1620	1820	2"	3"	3/8"	3/4"
4000		1450	3000	3100	120	710	1610	1810	2"	3"	3/8"	3/4"
5000		1450	3505	3585	115	710	2100	2300	2"	3"	3/8"	3/4"
8000	1650	4200	4280	220	810	3310	3510	2"	4"	3/8"	3/4"	
10000	1650	5200	5270	220	810	4310	4510	2"	4"	3/8"	3/4"	
1000	15	790	2430	2450	180	575	1625	1825	2"	2"	3/8"	3/4"
1500		950	2490	2530	115	575	1480	1680	2"	2"	3/8"	3/4"
2000		1100	2545	2600	100	595	1495	1695	2"	2"	3/8"	3/4"

EXAMPLE OF COMPRESSED AIR RECEIVER PLANT

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

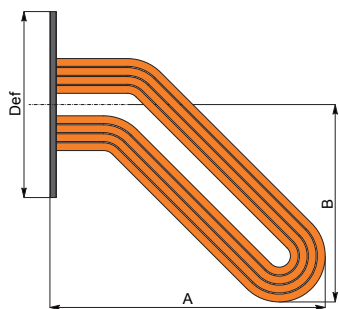




ACCESSORIES

ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

LOWER HEAT EXCHANGER FOR EXTRA 1,2 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.



316L STAINLESS STEEL
ANTILEGIONELLA® HEAT EXCHANGER
WITH SILICONE GASKET

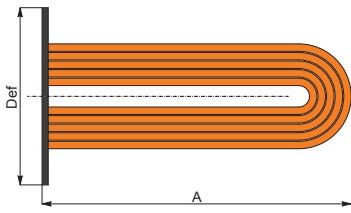
COPPER
ANTILEGIONELLA® HEAT EXCHANGER
WITH SILICONE GASKET

Heat exchanger surface	Def	A	B	AVAILABLE FOR		
				Art. Nr.		
[m²]					[mm]	
0,5	300	350	240	5221000010100	<ul style="list-style-type: none"> • EXTRA1 WXC 200 - EXTRA1 XXC 200 • EXTRA2 WXC 200 - EXTRA2 XXC 200 	
0,75	300	350	240	5221000010101	<ul style="list-style-type: none"> • EXTRA1 WXC 300 - EXTRA1 XXC 300 • EXTRA2 WXC 300 - EXTRA2 XXC 300 • EXTRA3 WXC 200 	
1	300	371	261	5221000010102	<ul style="list-style-type: none"> • EXTRA1 WXC 500 - EXTRA1 XXC 500 • EXTRA3 WXC 300 	
1,5	300	561	311	5221000010113	<ul style="list-style-type: none"> • EXTRA2 WXC 500 - EXTRA3 WXC 500 EXTRA2 XXC 500 - EXTRA3 XXC500 	
1,5	380	496	336	5221000010103	<ul style="list-style-type: none"> • EXTRA1 WXC 800 - EXTRA 1 XXC 800 	
2	380	496	336	5221000010104	<ul style="list-style-type: none"> • EXTRA1 WXC 1000 - EXTRA1 XXC 1000 • EXTRA2 WXC 800 -EXTRA 2 XXC 800 	
3	380	607	452	5221000010105	<ul style="list-style-type: none"> • EXTRA1 WXC 1500 - EXTRA1 XXC 1500 • EXTRA 1 WXC 1500 COMPACT • EXTRA2 WXC 1000 - EXTRA2 WXC 1500 EXTRA2 XXC 1000 - EXTRA2 XXC 1500 • EXTRA3 WXC 1000 - EXTRA3 WXC 1500 	
4	430	636	457	5221000010106	<ul style="list-style-type: none"> • EXTRA1 WXC 2000 - EXTRA1 XXC 2000 • EXTRA1 WXC 2000 COMPACT • EXTRA2 WXC 2000 - EXTRA2 XXC 2000 • EXTRA3 WXC 2000 - EXTRA3 XXC 2000 	
5	430	678	498	5221000010107	<ul style="list-style-type: none"> • EXTRA1 WXC 2500 - EXTRA1 XXC 2500 • EXTRA1 WXC 2500 COMPACT • EXTRA2 WXC 2500 - EXTRA2 XXC 2500 	
6	430	828	585	5221000010123	<ul style="list-style-type: none"> • EXTRA1 WXC 3000 - EXTRA1 XXC 3000 • EXTRA1 WXC 3000 COMPACT • EXTRA2 WXC 3000 - EXTRA 3 WXC 3000 • EXTRA2 XXC 3000 - EXTRA 3 XXC 3000 	
8	430	1250	598	5221000010108	<ul style="list-style-type: none"> • EXTRA1 WXC 4000 - EXTRA1 XXC 4000 • EXTRA1 WXC 4000 COMPACT • EXTRA2 WXC 4000 - EXTRA2 XXC 4000 • EXTRA3 WXC 4000 - • EXTRA3 XXC 4000 	
10	430	1550	538	5221000010109	<ul style="list-style-type: none"> • EXTRA1 WXC 5000 - EXTRA1 XXC 5000 • EXTRA2 WXC 5000 - EXTRA2 XXC 5000 • EXTRA3 WXC 5000 - • EXTRA3 XXC 5000 	

Art. Nr.	AVAILABLE FOR		
5221000060230	<ul style="list-style-type: none"> • EXTRA1 WRC 200 - EXTRA1 ZRC 200 • EXTRA2 WRC 200 		
5221000060231	<ul style="list-style-type: none"> • EXTRA1 WRC 300 - EXTRA1 ZRC 300 • EXTRA2 WRC 300 		
5221000060232	<ul style="list-style-type: none"> • EXTRA1 WRC 500 - EXTRA1 ZRC 500 • EXTRA3 WRC 300 		
5221000060242	<ul style="list-style-type: none"> • EXTRA2 WRC 500 • EXTRA3 WRC 500 		
5221000060233	<ul style="list-style-type: none"> • EXTRA1 WRC 800 - EXTRA1 ZRC 800 		
5221000060234	<ul style="list-style-type: none"> • EXTRA1 WRC 1000 - EXTRA1 ZRC 1000 • EXTRA2 WRC 800 • EXTRA3 WRC 800 		
5221000060235	<ul style="list-style-type: none"> • EXTRA1 WRC 1500 - EXTRA1 ZRC 1500 • EXTRA1 WRC 1500 COMPACT EXTRA1 ZRC 1500 COMPACT • EXTRA2 WRC 1000 - EXTRA2 WRC 1500 EXTRA2 ZRC 1000 - EXTRA2 ZRC 1500 • EXTRA3 WRC 1000 - EXTRA3 WRC 1500 		
5221000060236	<ul style="list-style-type: none"> • EXTRA1 WRC 2000 - EXTRA1 ZRC 2000 • EXTRA1 WRC 2000 COMPACT EXTRA1 ZRC 2000 COMPACT • EXTRA2 WRC 2000 - EXTRA3 WRC 2000 		
5221000060237	<ul style="list-style-type: none"> • EXTRA1 WRC 2500 - EXTRA1 ZRC 2500 • EXTRA1 WRC 2500 COMPACT EXTRA1 ZRC 2500 COMPACT • EXTRA2 WRC 2500 		
5221000060243	<ul style="list-style-type: none"> • EXTRA1 WRC 3000 - EXTRA1 ZRC 3000 • EXTRA1 WRC 3000 COMPACT EXTRA1 ZRC 3000 COMPACT • EXTRA 2 WRC 3000 • EXTRA3 WRC 3000 		
5221000060238	<ul style="list-style-type: none"> • EXTRA1 WRC 4000 - EXTRA1 ZRC 4000 • EXTRA1 ZRC 4000 COMPACT EXTRA1 WRC 4000 COMPACT • EXTRA2 WRC 4000 • EXTRA3 WRC 4000 		
5221000060239	<ul style="list-style-type: none"> • EXTRA1 WRC 5000 - EXTRA1 ZRC 5000 • EXTRA2 WRC 5000 - EXTRA3 WRC 5000 		

ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

MIDDLE AND UPPER HEAT EXCHANGER FOR EXTRA 2 AND 3 VT AND EXTRA 1 OR CALORIFIERS



Extractable straight pipe heat exchanger:

- STAINLESS STEEL 316 L
- COPPER

Kit including: exchanger, gaskets, bolts and insulated bushes.



STRAIGHT EXCHANGER STAINLESS STEEL 316 L WITH SILICONE GASKET			
Art. Nr.	AVAILABLE FOR		

STRAIGHT EXCHANGER COPPER WITH SILICONE GASKET			
Art. Nr.	AVAILABLE FOR		

Heat exchanger surface [m ²]	Def	A	Art. Nr.	AVAILABLE FOR
	[mm]	[mm]		

0,5	300	445	5221000010074	• EXTRA1 WXC OR 200 EXTRA1 XXC OR 200	• EXTRA2 WXC 200 EXTRA2 XXC 200	---
0,75	300	445	5221000010075	• EXTRA1 WXC OR 300 EXTRA1 XXC OR 300	• EXTRA2 WXC 300 EXTRA2 XXC 300	---
1	300	475	5221000010076	• EXTRA1 WXC OR 500 EXTRA1 XXC OR 500	---	---
1,5	300	690	5221000010077	---	• EXTRA2 WXC 500 EXTRA2 XXC 500	---
1,5	380	600	5221000010078	• EXTRA1 WXC OR 800 EXTRA1 XXC OR 800	---	• EXTRA3 WXC 1500
2	380	560	5221000010079	• EXTRA1 WXC OR 1000 EXTRA1 XXC OR 1000	• EXTRA2 WXC 800 EXTRA2 XXC 1000	• EXTRA3 WXC 2000
3	380	720	5221000010080	• EXTRA1 WXC OR 1500 EXTRA1 XXC OR 1500	• EXTRA2 WXC 1500 EXTRA2 XXC 1500	• EXTRA3 WXC 3000
4	430	750	5221000010081	• EXTRA1 WXC OR 2000 EXTRA1 XXC OR 2000	• EXTRA2 WXC 2000 EXTRA2 XXC 2000	• EXTRA3 WXC 4000
5	430	780	5221000010082	• EXTRA1 WXC OR 3000 EXTRA1 XXC OR 3000	EXTRA2 WXC 2500 EXTRA2 XXC 2500	• EXTRA3 WXC 5000
6	430	890	5221000010122	---	EXTRA2 WXC 3000 EXTRA2 XXC 3000	EXTRA3 WXC 3000 EXTRA3 XXC 3000
8	430	1250	5221000010083	• EXTRA1 WXC OR 4000 EXTRA1 XXC OR 4000	EXTRA2 WXC 4000 EXTRA2 XXC 4000	EXTRA3 WXC 4000
10	430	1510	5221000010084	• EXTRA1 WXC OR 5000 EXTRA1 XXC OR 5000	EXTRA2 WXC 5000 EXTRA2 XXC 5000	EXTRA3 WXC 5000

5221000060200	• EXTRA1 WRC OR 200 EXTRA1 ZRC OR 200	• EXTRA2 WRC 200	• EXTRA3 WRC 200
5221000060201	• EXTRA1 WRC OR 300 EXTRA1 ZRC OR 300	• EXTRA2 WRC 300	• EXTRA3 WRC 300
5221000060202	• EXTRA1 WRC OR 500 EXTRA1 ZRC OR 500	---	• EXTRA3 WRC 500 • EXTRA 3 WRC 800
5221000060203	---	• EXTRA2 WRC 500	---
5221000060204	• EXTRA1 WRC OR 800 EXTRA1 ZRC OR 800	---	• EXTRA3 WRC 1000 EXTRA3 WRC 1500
5221000060205	• EXTRA1 WRC OR 1000 EXTRA1 ZRC OR 1000	• EXTRA2 WRC 800 EXTRA2 WRC 1000	• EXTRA3 WRC 2000
5221000060206	• EXTRA1 WRC OR 1500 EXTRA1 ZRC OR 1500	• EXTRA2 WRC 1500 EXTRA3 WRC 1500	• EXTRA3 WRC 3000
5221000060207	• EXTRA1 WRC OR 2000 EXTRA1 ZRC OR 2000	• EXTRA2 WRC 2000 EXTRA3 WRC 2000	• EXTRA3 WRC 4000
5221000060208	• EXTRA1 WRC OR 3000 EXTRA1 ZRC OR 3000	• EXTRA2 WRC 2500	• EXTRA3 WRC 5000
5221000060211	---	• EXTRA2 WRC 3000 EXTRA3 WRC 3000	---
5221000060209	• EXTRA1 WRC OR 4000 EXTRA1 ZRC OR 4000	• EXTRA2 WRC 4000 EXTRA3 WRC 4000	---
5221000060210	• EXTRA1 WRC OR 5000 EXTRA1 ZRC OR 5000	• EXTRA2 WRC 5000 EXTRA3 WRC 5000	---

ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

COMPATIBLE ELECTRICAL KITS

Following charts indicate the electrical kits compatible with Cordivari calorifiers range. Operating time expressed in minutes and DHW volume are shown below.

ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE			THREEPHASE				
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
		5240000000034	5240000000035	5240000000036	5240000000027	5240000000028	5240000000029	5240000000030	5240000000031
Ignition time from 10 °C to 45 °C with immersion heaters [min]									
200	49	87	65	44	//	//	//	//	//
300	76	136	102	68	//	//	//	//	//
500	127	228	171	114	//	//	//	//	//
800	178	318	239	159	//	//	//	//	//
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
2500	577	1033	775	517	387	310	258	172	129
3000	577	1033	775	517	387	310	258	172	129
4000	797	1428	1071	714	535	428	357	238	178
5000	1040	1864	1398	932	699	559	466	311	233

COMPATIBLE WITH:



ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE			THREEPHASE				
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
		5240000000034	5240000000035	5240000000036	5240000000027	5240000000028	5240000000029	5240000000030	5240000000031
Ignition time from 10 °C to 45 °C with 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

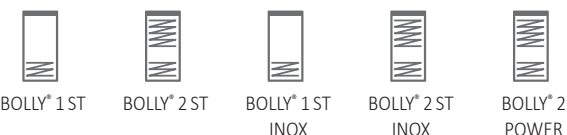
COMPATIBLE WITH:



ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE			THREEPHASE				
		1,5 kW	2 kW	3 kW	4 kW	5 kW	6 kW	9 kW	12 kW
		5240000000034	5240000000035	5240000000036	5240000000027	5240000000028	5240000000029	5240000000030	5240000000031
Ignition time from 10 °C to 45 °C with immersion heaters [min]									
150	42	76	57	38	//	//	//	//	//
200	72	128	96	64	//	//	//	//	//
300	113	202	152	101	//	//	//	//	//
400	167	299	225	150	//	//	//	//	//
500	184	329	247	165	//	//	//	//	//
800	313	560	420	280	//	//	//	//	//
1000	383	686	514	343	257	206	171	114	86
1500	557	998	749	499	374	299	250	166	125
2000	835	1495	1121	747	560	448	374	249	187

COMPATIBLE WITH:



ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000034	5240000000035	5240000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
150	42	76	57	38
200	44	78	59	39
300	80	143	107	71
400	126	226	170	113
500	185	331	248	165

COMPATIBLE WITH:



BOLLY 1 AP

ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000034	5240000000035	5240000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
200	54	88	60	44
300	105	188	141	94
500	172	307	230	154

COMPATIBLE WITH:



BOLLY 2 AP

ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000034	5240000000035	5240000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
200	166	298	223	149
300	245	439	329	219
500	424	759	569	380

COMPATIBLE WITH:



BOLLY XL

ELECTRICAL HEATERS

Mod.	Volume of water heated by the electrical immersion [lt]	MONOPHASE		
		1,5 kW	2 kW	3 kW
		5240000000034	5240000000035	5240000000036
		Ignition time from 10 °C to 45 °C with immersion heaters [min]		
300	169	274	206	137
500	305	496	372	248

COMPATIBLE WITH:



BOLLY 1 XL INOX XB



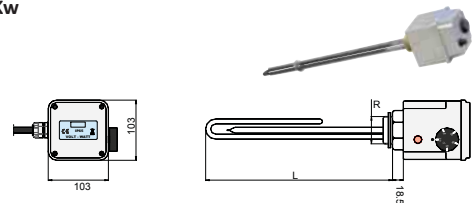
BOLLY 2 XL INOX XB

ELECTRICAL IMMERSIONS KIT

Electric 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.

Art. Nr.	Tension	Output	Length L	Connection R
	Volt	[Kw]	[mm]	Gas M
5240000000034	220 V MONOPHASE	1,5	320	1"1/2
5240000000035		2	320	
5240000000036		3	320	

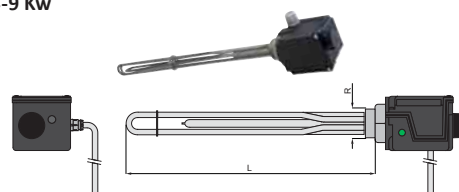
1,5 - 3 Kw



Electric heaters can be used as integration on calorifiers and tanks, heating elements in INCOLOY 800, protection class min IP44 supplied with thermostat, safety thermostat manual reset and 2 mt of electrical cable wired and without plug.

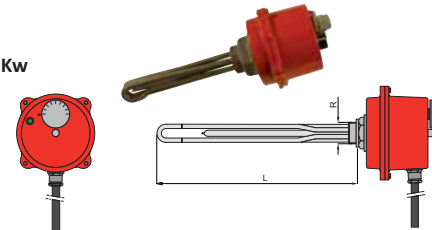
Art. Nr.	Tension	Output	Length L	Connection R
	[Volt]	[Kw]	[mm]	Gas M
5240000000027	400 V THREEPHASE	4	415	1"1/2
5240000000028		5	500	
5240000000029		6	600	
5240000000030		9	750	

4-9 Kw



Art. Nr.	Tension	Output	Length L	Connection R
	[Volt]	[Kw]	[mm]	Gas M
5240000000031	400 V THREEPHASE	12	750	2"

12 Kw

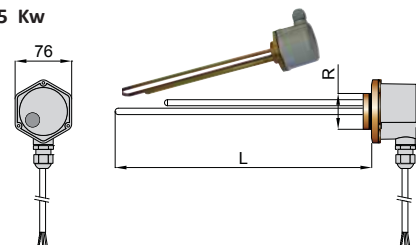


ELECTRICAL IMMERSION KIT FOR INTERKA TANK

Electric 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]	Gas M
5240000000042	220 V MONOPHASE	1,5	340	1"1/4

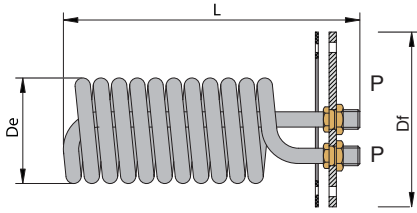
1,5 Kw



ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

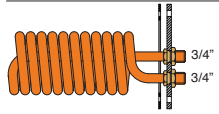
COPPER FINNED AND TINNED HEAT EXCHANGERS (AVAILABLE ON EXTRA PLUS- INERTIAL TANKS)

Including flangeplate, gaskets, bolts and user manual.



Heat exchanger surface [m ²]	COPPER FINNED AND TINNED COIL Art. Nr.	De	Flange plate Df [mm]	L	P	Capacity [litres]
0,76	5221000061003	142	300	400	1"	0,60
0,94	5221000061002	142	300	410	1"	0,54
1,58	5221000061004	170	300	440	1"	1,21
2,27	5221000061021	170	300	570	1"	1,79
2,63	5221000061022	190	300	570	1"	2,07
3,17	5221000061023	190	300	665	1"	2,51
4,54	5221000061024	190	300	750	1" 1/4	3,60
5,26	5221000061025	190	300	850	1" 1/4	4,14
6,34	5221000061026	190	300	980	1" 1/4	5,10

ADDITIONAL COPPER FINNED COIL (FOR 800 AND 1000 LITERS BOLLY® ST 1- 2)



Art. Nr.	Description
5221000910001	Sup.=0,94m ² - De=145 mm - L=370 mm

COPPER finned coil for Bolly FIT 1 - 2 ≥ 800 lt, including flange plate (Ø 240 mm), gaskets, bolts and user manual.

EXCHANGER HEAD FOR "EXTRA 1,2,3" CALORIFIERS

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



Art. Nr.	Connection	Diameter [mm]
5206000000001	1"	300
5206000000002	2"	380
5206000000003	2"	430

Includes 2 gaskets, bolts and bushes
Version for pipes heat exchanger

FLANGE PLATE FOR D.H.W. STORAGE TANKS



Art. Nr.	Connection	Diameter [mm]
52060000000051	1" 1/2	300

Includes 1 gasket and bolts
1 connection for electrical immersion (available on accumulation tanks)



Art. Nr.	Diameter [mm]
52060000000101	300
52060000000102	380
52060000000103	430

Includes 1 gasket and bolts
Blind flange available (available on accumulation tanks)

GASKET FOR FLANGE PLATE

The function of the EPDM gasket is to connect between them components and extractible heat exchanger. Sold by pair, this includes the gasket with crosspiece which is placed between the flange plate and the heat exchanger's plate. The gasket without crosspiece is placed between heat exchanger's plate and the boiler's flange.

Pair of gasket for boilers EXTRA 1,2,3 - includes bolts and bushes.

Art. Nr.	Diameter [mm]
5021220401001	300
5021220401002	380
5021220401003	430



One gasket with crosspiece and one without.
Silicone gaskets suitable for alimentary use for max temperature up to 200°C.
(D.M. n.174 dated 2004 - see certifications page).

Pair of gasket for boilers EXTRA VAPORE - includes bolts and bushes.

Art. Nr.	Diameter [mm]
5021220460111	300
5021220460112	380
5021220460113	430



One gasket with crosspiece and one without.
Made in material for max. temperature up to 192°C

CHOOSING OF THE EXCHANGER HEAD AND GASKET FOR "EXTRA 1,2,3" CALORIFIERS

Flange plate diameter [mm]	Extra 1 and Vasi Inerziali		Extra 2		Extra 3	
	LOWER heat exchanger	LOWER heat exchanger	UPPER heat exchanger	LOWER heat exchanger	MIDDLE heat exchanger	UPPER heat exchanger
300	from 200 to 500	from 200 to 500	from 200 to 500	from 200 to 500	from 200 to 500	from 200 to 500
380	from 800 to 1500	from 800 to 1500	from 800 to 1500	from 800 to 1500	from 800 to 1500	from 800 to 1500
430	from 2000 to 5000	from 2000 to 5000	from 2000 to 5000	from 2000 to 5000	from 2000 to 5000	from 2000 to 5000

FLANGE PLATE WITH CONNECTION FOR ELECTRICAL IMMERSION (BOLLY® 1- BOLLY® 2 POLYWARM®)



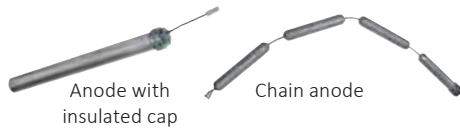
Art. Nr.	Description
5212000910017	1" 1/2 Flange Ø 190 mm- With Connection For Electrical Immersion + Flange Plate Gasket (Bolly® 150÷500)
5212000910018	2" Flange Ø 190 mm- With Connection For Electrical Immersion + Flange Plate Gasket (Bolly® 150÷500)
5212000910020	1" 1/2 Flange Ø 240 mm- With Connection For Electrical Immersion + Flange Plate Gasket (Bolly® 800÷1000)

Flange With Connection For Electrical Immersion
Included gaskets, bolts and user manual.

ACCESSORIES AND SPARE PARTS CALORIFIERS - BUFFER TANKS

The calorifiers corrosion protection is guaranteed not only by the internal coating material but also by the anodes. As standard, Cordivari provides its calorifiers with magnesium anode and with electronic anode on demand.

MAGNESIUM ANODES



Any leakage, acknowledges that the anode must be replaced. The new chain magnesium anodes, allows a comfortable maintenance and replacement due to their special flexible structure, especially in case of installation of calorifiers in premises with low ceiling.

Art. Nr.	Description	Dimen. [mm]	Conn. Gas	SUITABLE FOR						
				Extra 1,2,3, Vasi Inerziale	Interka Solare	Interka, Bolly Murale	Bolly ST WB/WC e XB/XC	Bolly AP	Bolly XL	Combi
5200000041001	N° 3 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 350	3/4"	200 /300 WC	-	-	-	150	-	-
5200000041002	N° 3 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 450		-	-	-	-	200 300	200	-
5200000041003	N° 3 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 520		500 WC	-	-	-	400	-	-
5200000041004	N° 3 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 650		800/2000 WC (x2)	-	-	-	500	300	-
5200000041005	N° 2 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 800		3000 WC (x2)	-	-	-	-	-	-
5200000041006	N° 2 anodes + insulated cap + gasket - 1"1/4 Gas	32 x 900		1500/4000 WC (x2) 5000 WC (x2)	-	-	-	-	500	-
5200000041007	N° 2 anodes + insulated cap + gasket - 1"1/4 Gas	22 x 631		-	-	-	-	-	-	600/800 1000/1500/2000
5200000041008	N° 2 anodes M8	32 x 200	M8	-	150	-	-	-	-	-
5200000041009	N° 2 anodes M8	32 x 400		-	200/300	-	-	-	-	-
5200000041010	N° 2 anodes + blind plug	32 x 350	1" 1/4	200 / 300 ZC e XC	-	200/300	200/150	-	-	-
5200000041011	N° 2 anodes + blind plug	32 x 450		-	-	-	300	-	-	-
5200000041012	N° 2 anodes + blind plug	32 x 650		800 / 2000 ZC e XC (x2)	-	-	500, 800, Bolly 2 1000 (x2)	-	-	-
5200000041013	N° 2 anodes + blind plug	32 x 850		1500 ÷ 5000 ZC e XC (x2)	-	-	1000/1500 (x2) 2000 (x2)	-	-	-
5200000041014	N° 2 anodes + blind plug	32 x 520		800 ZC e XC	-	-	400, Bolly 2 800 (x2)	-	-	-
5200000041015	N° 2 anodes + blind plug	32 x 200		-	150/200 v2011	80/100/150	-	-	-	-

ELECTRONIC ANODE WITH TITANIUM IMPRESSED ELECTRICITY

Art. Nr.	Electronic Anode Dimensions - length - [mm]	Conn.	SUITABLE FOR				
			Extra1,2,3 Vasi Inerz. Polywarm	Interka, Interka Solare, Bolly Murale	Bolly ST	Bolly AP	Bolly XL
5200000000008	200	1"1/4 Gas	200, 300	80, 100, 120, 150, 200, 300	150, 200, 300	150, 200, 300	200
5200000000009	500		500, 800	-	500	500	-
5200000000011	400		1000, 1500	-	800, 1000	-	300
5200000000012	2 units 400		-	-	Bolly 2 800,1000	-	500
5200000000013	2 units 800		2000,3000,4000,5000	-	-	-	-



Only for Polywarm® calorifiers and accumulation tanks

• 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 cilinder.

• 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.

ANODEN-TESTER



Art. Nr.	Description
5221000000026	Anoden-tester kit (suitable for BOLLY® ST 150-200)
5221000000027	Anoden-tester kit (suitable for BOLLY® ST 300)
5221000000028	Anoden-tester kit (suitable for BOLLY® ST 500)
5221000000031	Anoden-tester kit n° 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 CALORIFIERS – BUFFER TANKS

EASY CONTROL : ELECTRONIC DISPLAY FOR CALORIFIERS

- 4 working possibilities . Manual + Daily – Weekly - weekend
- Control of 2 sources and an additional electrical immersion (Power up to 2500 W and running in Manual mode)
- Antilegionellosis programme for time and temperature included with the output for the by-pass electronic-valve to the thermostatic mixer.
- Working control of the system trough the Display
- Alert message for the temperature's probes
- Control of the recycling pump
- Complete with 3 temperature'probes



Art. Nr.	Version	Available for
5220280000001	NOT MOUNTED	Systems already installed
5005000310002	MOUNTED ON TANK	Polyester fiber insulation models
5005000310003	MOUNTED ON TANK	Ecological hard polyurethane foam insulation models

Available: mounted and connected version on the tank.
See page of the corresponding boiler.

RECYCLING KIT FOR CALORIFIERS AND BUFFER TANKS

Art. Nr.
5221000000054
Control display + pump (for D.H.W.)



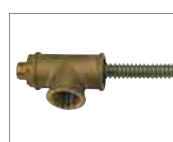
The use of Cordivari's recycling kit allows to manage on the system a link of the DHW recycling.

The benefit is 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 recycling kit allows to:

- Maximize the energy saving by programming the recycling 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 recycle 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.

VALVES KIT



RECYCLE KIT - ECO COMBI	
Art. Nr.	
5221000000019	
3/4" Connection	



RECYCLE KIT AND MIXER - ECO COMBI	
Art. Nr.	
5221000000020	
3/4" M Connection	



PRIMARY SECURITY VALVE	
Art. Nr.	calibration
5302000000021	2,5 bar
1/2" M x 1/2" F Connection Interka solare	



TP 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 "SISTEMI TERMICI INTEGRATI CORDIVARI"

See catalogue "SISTEMI TERMICI INTEGRATI CORDIVARI"

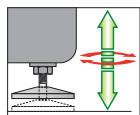
BUFFER TANKS CONNECTING KIT



Stainless steel extensible connecting hose		
Art. Nr.	Connection	Length
5006170001001	1" 1/2	200 ÷ 400 mm

ACCESSORIES CALORIFIERS - BUFFER TANKS

ADJUSTABLE SUPPORTING FEET FOR BOLLY®



Art. Nr.	Description
5221000000029	Kit 3 adjustable supporting feet

3 adjustable supporting feet, allowing a correct positioning of the Bolly at not in-level floor.

RECIRCULATION GROUP FOR BOLLY® 2 POWER



Art. Nr.	Available for BOLLY2 POWER WSB VT	Model
5760000000101	3135162320353	300
5760000000102	3135162320355	500

The recirculation Group for BOLLY, automatically switched on by the control unit of BOLLY 2 POWER together with the boiler, allows an homogeneous temperature of the water inside the tank, in case of poor sunlight.

The double effect will be:

- 1) higher availability of DHW
- 2) minor switching of the boiler (strongly recommended for biomass boiler)

HYDRAULIC SAFETY GROUP



Art. Nr.	Connection	Pressure
5760000001001	1"	8 bar

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.

THERMOMETER

1/2" gas connection Thermometer- - from 0°-120°C



Art. Nr.	Description	Diameter [mm]
5032240000107	5 units box	60

ACCESSORIES AND SPARE PARTS - HYDRONIC SYSTEMS

RECYCLE KIT FOR MACS® MODULE



Art. Nr.
5221000000054
Control display + pump (for D.H.W.)

The use of Cordivari's recycling kit allows to manage on the system a link of the DHW recycling.

The benefit is 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 recycling kit allows to:

- Maximize the energy saving by programming the recycling 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 recycle 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.

THERMOSTATIC SWITCH VALVE

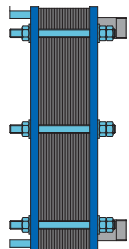


ART. NR.	Connections
5046000000007	3/4"
5046000000008	1"

Auto-operated thermostatic switch valve, calibrated at 45°C. It can easily integrate solar thermal systems for DHW production with a boiler.

For further information and prices, see Cordivari INTEGRATED SOLAR SYSTEMS CATALOGUE.

PHC PLATE TO PLATE HEAT EXCHANGERS SPARE PARTS



Description	Art. Nr.
N° 2 pcs - 316 L stainless steel plates+ gaskets <i>suitable for PHC 3120</i>	5250400000001
N° 2 pcs - 316 L stainless steel plates+ gaskets <i>suitable for PHC 4620</i>	5250400000002
N° 2 pcs - 316 L stainless steel plates+ gaskets <i>suitable for PHC 7420</i>	5250400000003
N° 2 pcs - 316 L stainless steel plates+ gaskets <i>suitable for PHC 7431</i>	5250400000004
N° 2 pcs - 316 L stainless steel plates+ gaskets <i>suitable for PHC 12046</i>	5250400000005

ACCESSORIES - 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



SECURITY VALVES FOR COMPRESSED AIR

Art. Nr.	Connection	Calibration [Bar]	Package
5302000001001	3/8"	4,6	5 units box
5302000001002	3/8"	5,6	
5302000001003	3/8"	7,4	
5302000001004	3/8"	9,3	
5302000001005	3/8"	10,4	
5302000001006	3/8"	11,2	
5302000001010	3/4"	4,6	3 units box
5302000001011	3/4"	5,6	
5302000001012	3/4"	7,4	
5302000001013	3/4"	10,4	
5302000001014	3/4"	11,2	
5302000000012	1"	5,6	1 unit box
5302000000007	1"	7,4	
5302000000016	1"	10,4	
5302000000008	1"	11,2	

These valves avoid an overpressure of the air receiver tank and water pressure tank.

The choice of the valve has to be made by the Engineer, according on the maximal pressure of the tank and also considering the drain exit.

All valves are provided with a CE conformity certificate from an external laboratory. Installation, maintenance and checking is also ruled according to specific national legislation.

Safety Valve



MANOMETER

They indicate the pressure in the tank. All manometers have a red signed maximum level.

Art. Nr.	Connection	Amplitude	Red level at	5 units box
		[Bar]	[Bar]	
5300000001001	1/4"	0/10	6	
5300000001002	1/4"	0/16	8	
5300000001003	1/4"	0/16	10	
5300000001004	1/4"	0/16	12	
5300000001005	1/4"	0/10	5	
5300000001006	1/4"	0/16	11	



ELASTIC EPDM MEMBRANE

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

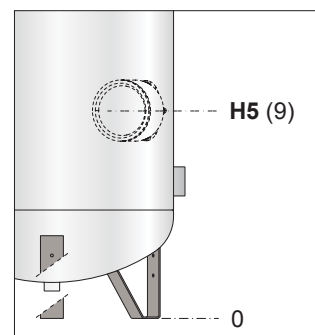
The elastic membrane in EPDM use are mounted on expansion vessels in order to divide the liquid from the gaseous phase. Doing so the circulating water is pure giving to the system the warranty to be suitable for drinking.



ACCESSORIES - COMPRESSED AIR RECEIVERS

MANHOLE- HANDHOLE

97/23/CE-P.E.D		Manhole (optional)		Handhole (optional)	
Model	Working Pressure	H5	9	H5	9
	[bar]	[mm]		[mm]	
1500	8	818	400x300	818	150x100
2000		845	400x300	845	150x100
3000		985	400x300	985	150x100
4000 (*)		1011	400x300	1011	150x100
5000 (*)		1161	400x300	1161	150x100
8000		1163	400x300	1163	150x100
10000		1163	400x300	1163	150x100
1000	12	818	400x300	840	150x100
1500		845	400x300	818	150x100
2000		978	400x300	845	150x100
2500		985	400x300	978	150x100
3000		1011	400x300	985	150x100
4000 (*)		1161	400x300	1011	150x100
5000 (*)		1163	400x300	1161	150x100
8000		1163	400x300	1163	150x100
10000	1167	400x300	1163	150x100	
1000	15	/	/	840	150x100
1500		818	400x300	818	150x100
2000		845	400x300	845	150x100



(*) Manhole standard on 4000 - 5000 lt Polywarm® version

ACCESSORIES AND SPARE PARTS FOR AIR COMPRESSOR RECEIVERS

COMPRESSED AIR RECEIVERS KIT

Art. Nr.	Description
5303000000001	Kit for 200 up to 710 lt compressed air receivers (11 bar), with security valve of 7.500 l./min P calibration 10,4 bar
5303000000002	Kit for 900 lt compressed air receivers (11 bar), with security valve of 29.300 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 31.400 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 21.700 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 9.600 l./min P calibration 13,5 bar

Includes a safety valve , a gauge (manometer) and its tap-tray.



IN SOLO PEZZO



TARGA COSTRUTTORE



A person wearing glasses, looking thoughtful, with a hand on their chin. The image is overlaid with a teal gradient.

TECHNICAL SUPPORT & REGULATIONS



THERMAL INSULATION

Thermal efficiency of calorifiers and buffer tanks Cordivari is optimized with special insulations, that are an essential component for every storing of hot water, keeping stored hot water at high temperature.

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 FIBRE

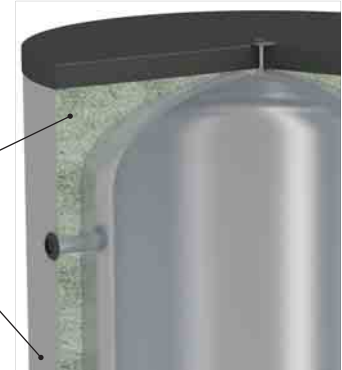


Material with low thermal conductivity. From an energetical and ecological point of view, the polyester fibre is one of best performer, obtained using recycled and environmental friendly material.

The polyester fiber 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.

Polyester Fibre
Grey PVC external lining



ACCUMULATION TANK A1 - 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.



Aluminium external lining

Glass wool



FIRE RESISTANCE CLASSIFICATION ACCORDING TO EUROPEAN STANDARD EN 13501

Fire Reaction		Smoke release			(drops)		
A1	FIRE PROOF	NO TEST REQUIRED			NO TEST REQUIRED		
A2	Fireproof	s1	None	None	d0	No in the first 10 minutes	
B	Limited	s2	Limited	Limited	d1	Limited Dripping of incandescent materials in the last 10 seconds	
C	Decreasing performance levels from C to E reaction class	s3	High	High			
D		E	NO TEST		d2	High	
E	E		NO TEST		E	NO INDICATION or d2	
F	No performance declared						

HARDFOAM POLYURETANE



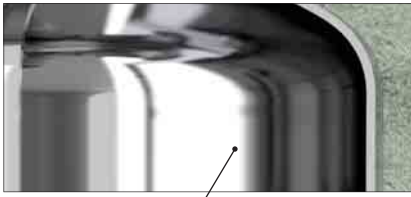
Cordivari Cylinder propose solutions for different applications. The foam is applied directly on the body of cylinder, this one receives a particular treatment that facilitates the removal of the insulation once the technical cycle is over. This solution has high insulation properties and polymeric density.



MATERIALS

All Cordivari Products are manufactured using high level quality of raw materials and internal finishes:

316L STAINLESS STEEL



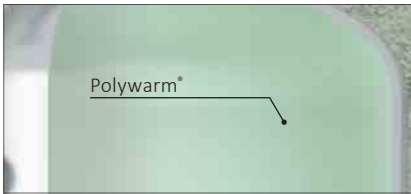
316L Stainless Steel



The choice of stainless steel material on calorifiers aims for an absolute quality result. Material with high performances, entirely hygienic and atoxic, suitable for

Domestic Hot Water, resistant to low and high temperatures, 100% recyclable. Cordivari is leader in the production of 316L stainless steel (EN 1.4404) calorifiers with high quality standard levels.

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.

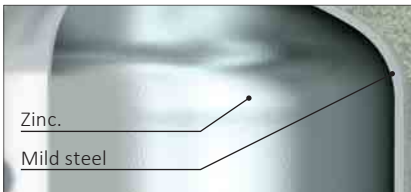


Our customer oriented approach and our long tradition as cylinder manufacturer allow us to offer cutting edge solutions for production and storage of Domestic Hot Water Cylinders. Polywarm® properties have passed the adherence tests according to BS3900-E6 and DIN 53151, hardness tests according to ASTM 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-UBA.
- WRAS - Water Regulation Advisory Scheme certificate

HOT GALVANIZING PROCESS



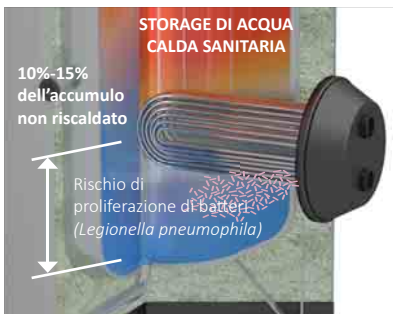
The galvanizing process protect the steel from corrosion, granting a long life product. Thank to the high temperatures of the treatment, the galvanizing process helps to get better performances. Cordivari premises are equipped with a high-tech hot galvanizing system.

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 drinkable water use.

HIGH PERFORMANCES ANTILEGIONELLA® HEAT EXCHANGER

D.H.W. OPTIMIZED ACCUMULATION

Cordivari Heat Exchanger , with tubes bent to the bottom, is 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.



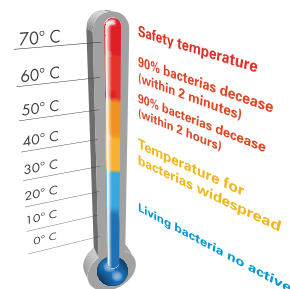
STRAIGHT HEAT EXCHANGER: between 10% - 15% of storage volume is not heated with relevant thermal inefficiencies and risk of Legionellosis bacterias diffusion.



BENDED HEAT EXCHANGER: 100% volume will be heated with relevant thermal efficiency and D.H.W. healthiness increase.



“EASY CONTROL” Electronic Display mounted on Cordivari calorifiers allows also to plan periodically sanitary water heating in order to ensure its healthiness.



THERMAL STRATIFICATION

Thermal stratification is a physical process in which an hot fluid naturally tends to position itself higher than the cold one.

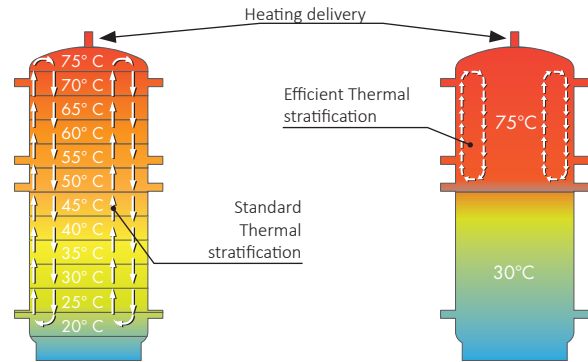
The fluid (water) is always moving, and tends to remix, therefore the natural process of stratification must be supported to maintain an increasing temperature gradient from bottom to upper part and avoid the mixing of liquid at different temperatures.

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.



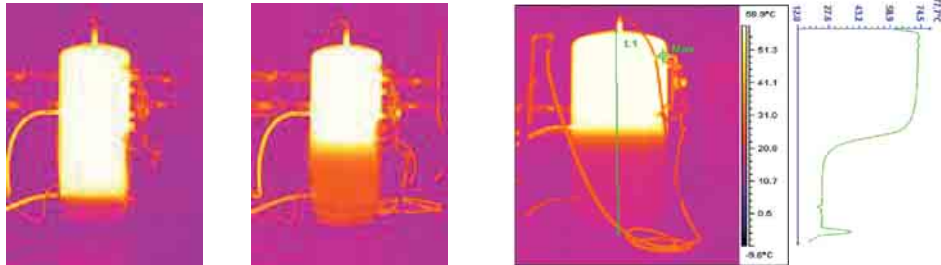
THE TECHNICAL SOLUTIONS FOR THE OPTIMIZATION OF THERMAL STRATIFICATION

For a continuous improvement of efficiency and energy savings, Cordivari has developed innovative technical solutions for the optimization of thermal stratification

“LABYRINTH SPREADER” (CORDIVARI PATENT)

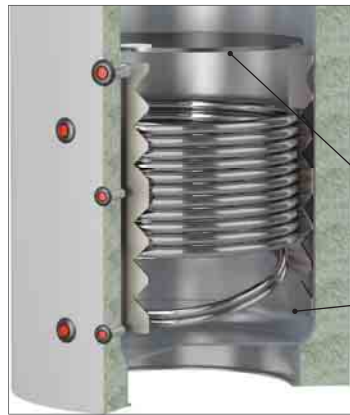


Performances are optimized thanks to the “Labyrinth Spreader” (Cordivari Patent). Its spread shape allows a perfect stratification of the water that returns back from the plate exchange to the tank. Heating installation efficiency is guaranteed.

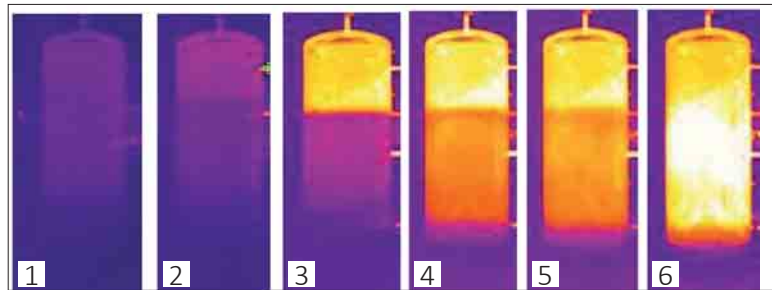


Sequence of thermographic images that show how Labyrinth Spreader works.

EASY STRATIFICATION BUFFERS (CORDIVARI PATENT)

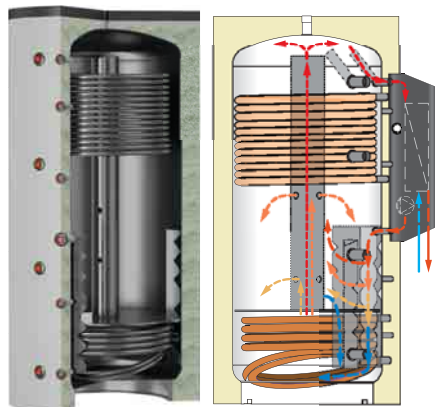


The heating return stratification system (Cordivari patent), avoid any turbulences, that would affect the thermal stratification inside the buffer tank. Thanks to this optimized solution, efficiency and energy savings are continuously improved.



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®.

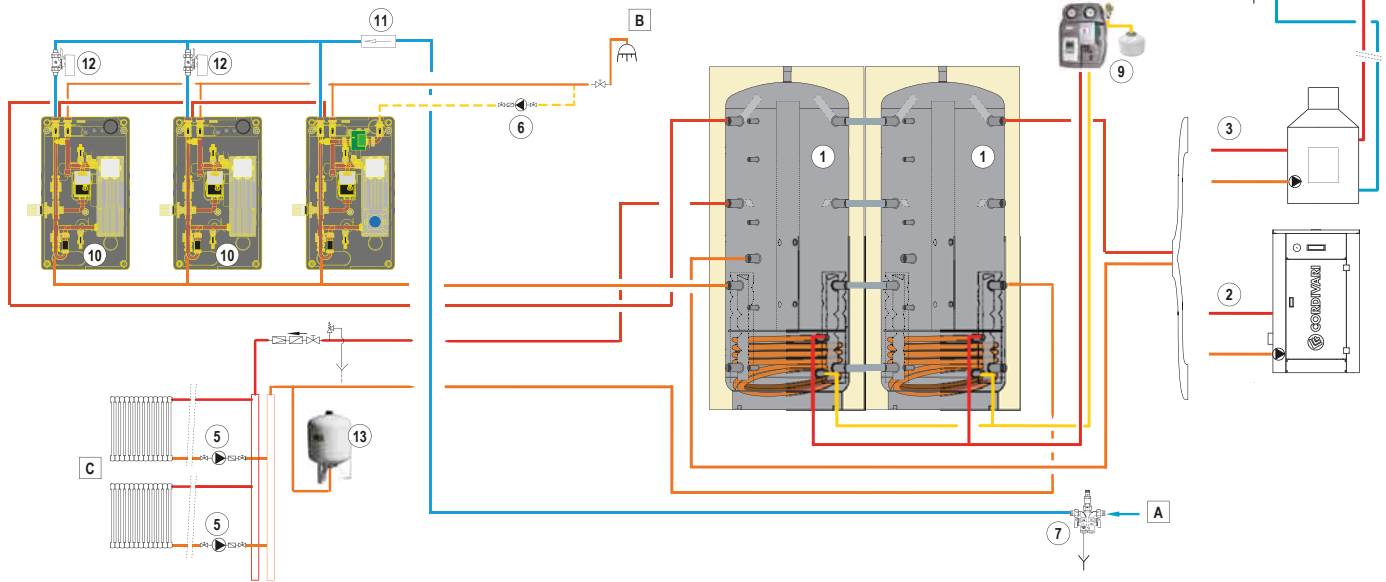
The thermal stratification inside the Buffer tanks will be then improved naturally, without any external valves thanks to the mixed combination of:

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.

EXAMPLE OF INSTALLATION

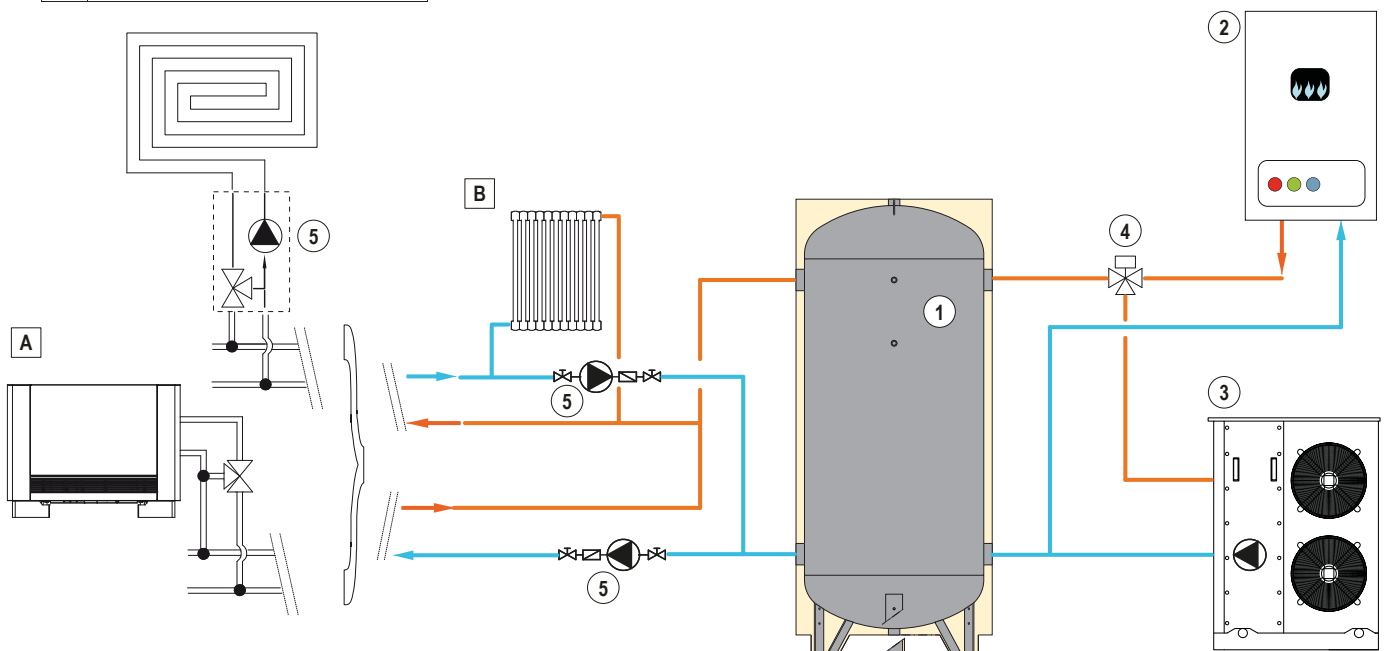
INSTALLATION WITH PUFFER 1 CTS® (CONNECTION KIT) AND MACS® MODULE SYSTEM

A	Domestic cold water circuit inlet	6	D.H.W. recirculation
B	Domestic hot water users	7	Hydraulic safety group
C	Terminals of the thermal installation	8	Solar panels
1	PUFFER 1 CTS® connected	9	Solar system circulation group
2	Biomass Boiler CAL Cordivari	10	MACS® module system for D.H.W. production
3	Fireplace	11	Flow sensor
4	Opened expansion vessel	12	2-way valve
5	Circulation group		



HOT/COLD WATER INSTALLATION WITH ENERGY BUFFER

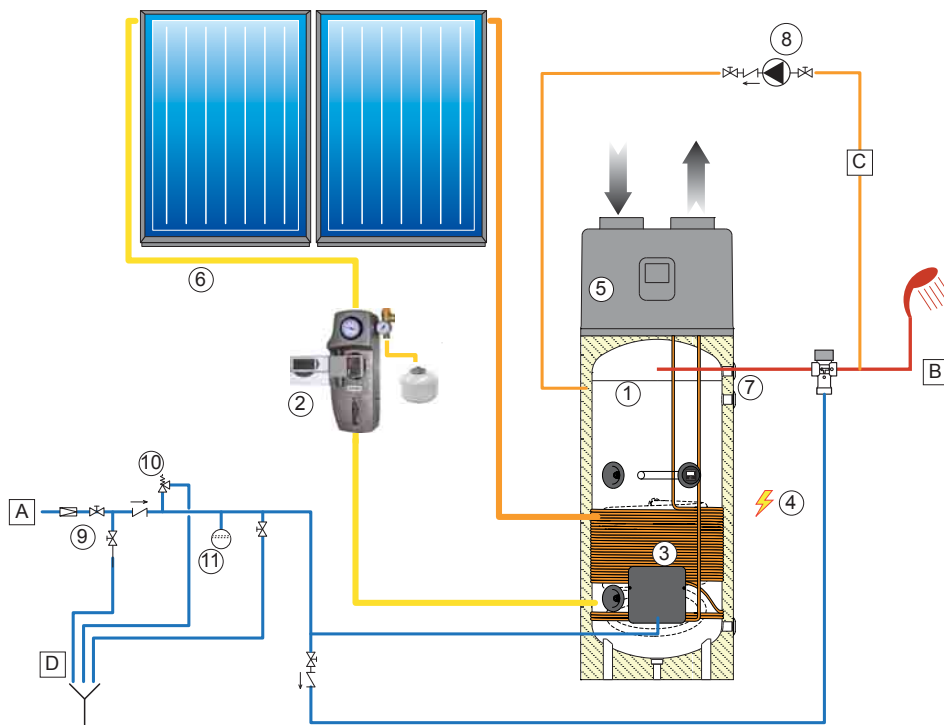
A	Terminals hot/cold
B	Terminals of the thermal installation
1	Inertial hot/cold water tank
2	Gas Generator
3	Chiller - Heat pump
4	Motorized 3-way valve
5	Circulation group



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

EXAMPLE OF INSTALLATION

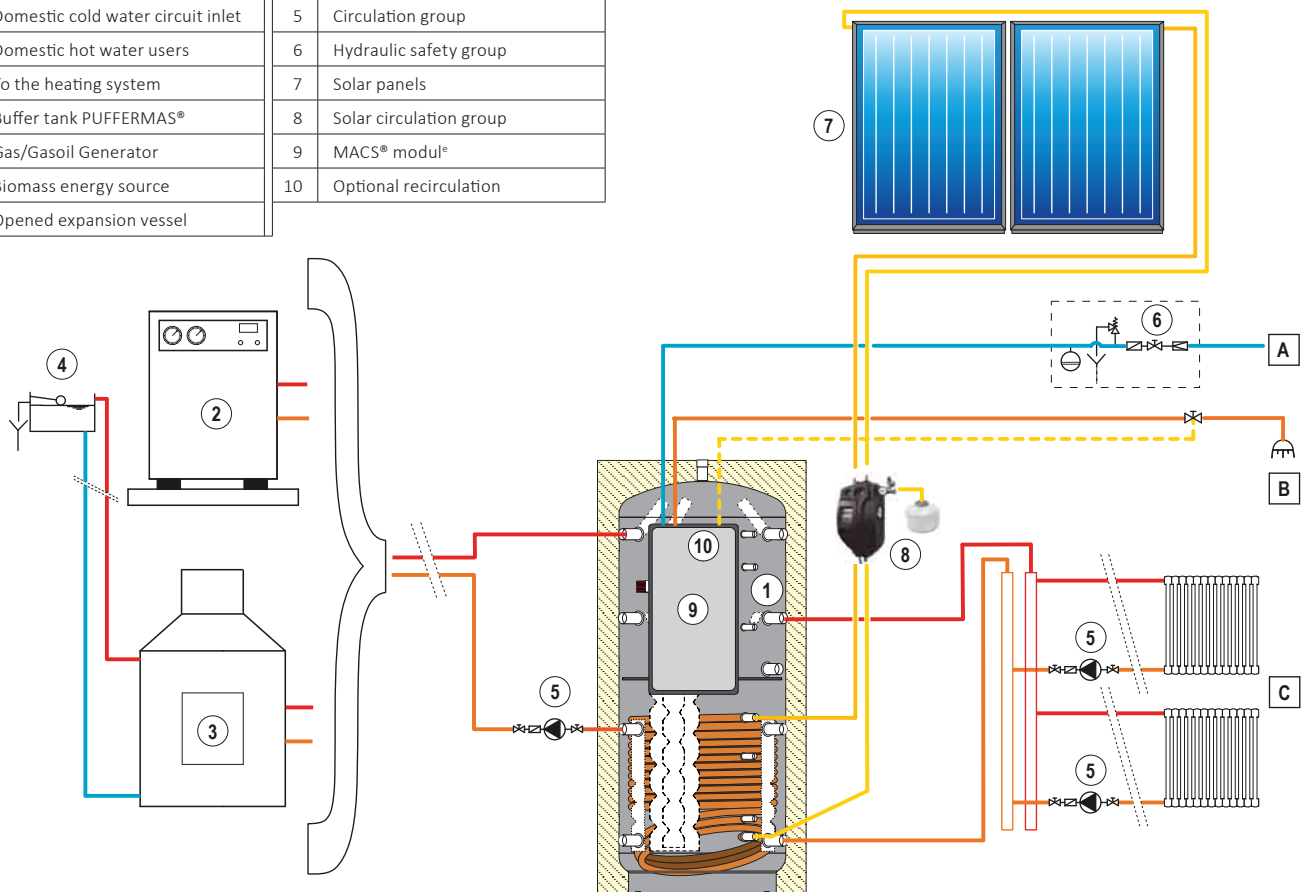
INSTALLATION WITH BOLLYTERM HP®



A	Domestic cold water circuit inlet
B	Domestic hot water users
C	Recirculation
D	Drain
1	BOLLYTERM® HP
2	Circulation group + expansion tank Solar Thermal System
3	Heat Exchanger
4	Electrical immersion
5	Integrated Heat Pump
6	Solar panels
7	Heat Exchanger
8	Magnesium anode + AnodenTester
9	Hydraulic safety group
10	Safety Valve
11	Expansion vessel

INSTALLATION WITH PUFFERMAS®

A	Domestic cold water circuit inlet	5	Circulation group
B	Domestic hot water users	6	Hydraulic safety group
C	To the heating system	7	Solar panels
1	Buffer tank PUFFERMAS®	8	Solar circulation group
2	Gas/Gasoil Generator	9	MACS® modul®
3	Biomass energy source	10	Optional recirculation
4	Opened expansion vessel		

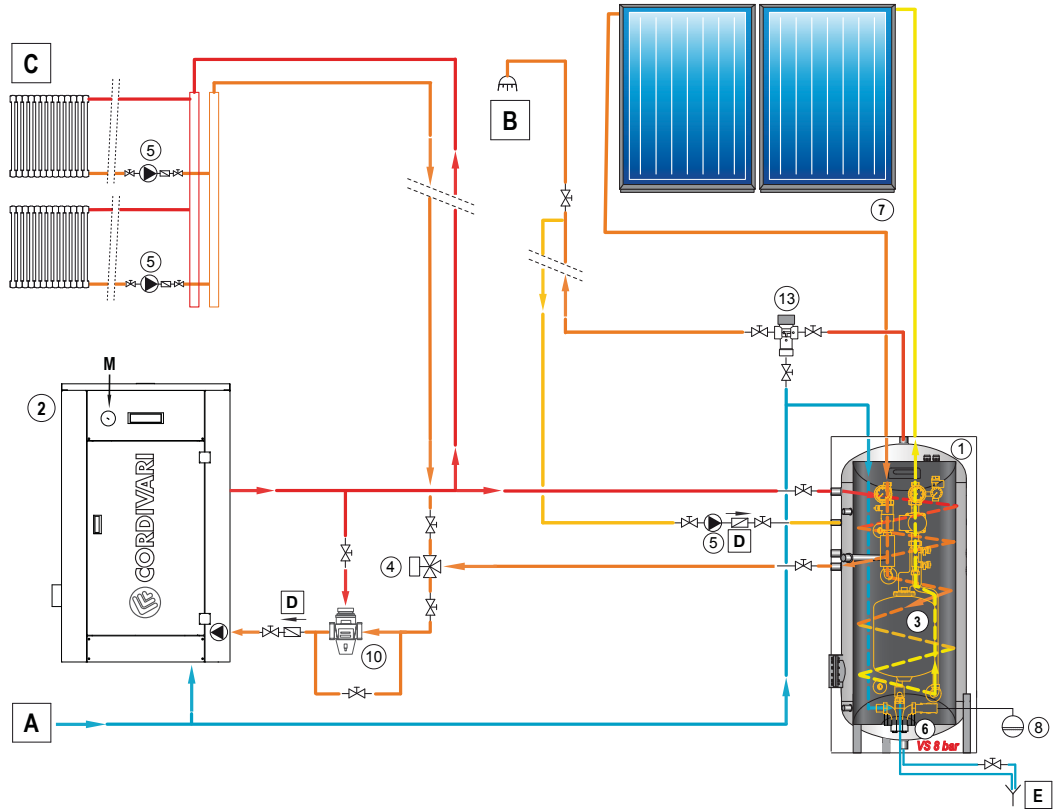


The following schemes are purely illustrative. To realize the installation, always refer to a qualified design engineer.

EXAMPLE OF INSTALLATION

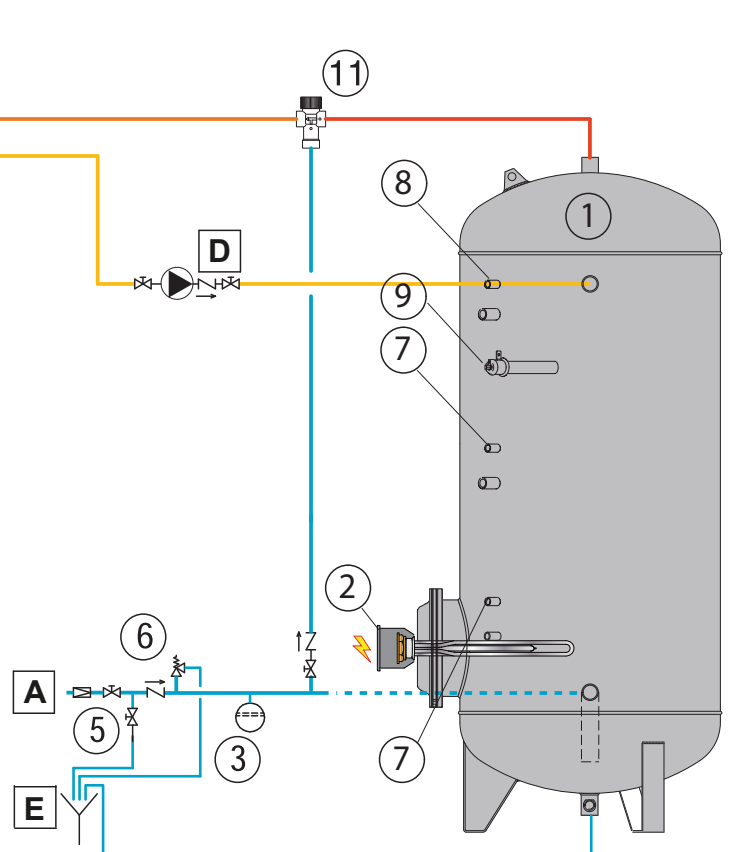
INSTALLATION WITH BOLLY® 2 POWER

A	Sanitary water inlet
B	Domestic hot water users
C	Heating delivery
D	No return valve
E	Drain
M	Boiler pressure gauge
1	Accumulation tank
2	Biomass Boiler CAL Cordivari
3	Solar system expansion vessel
4	Motorized 3-way valve
5	Circulation group
6	Hydraulic safety group (optional)
7	Solar panels
8	Motorized 3-way valve
10	No condensation valve
13	Thermostat mixer



INSTALLATION WITH INERTIAL TANK AND ELECTRICAL IMMERSION RESISTANCE

A	Domestic Water entry
B	Domestic hot water user
D	Recirculation
E	Drain
1	VASO INERZIALE
2	Electrical immersion
3	Expansion vessel
5	Hydraulic safety group
6	Safety Valve
7	Thermostat
8	Thermostat
9	Magnesium anode
11	Thermostat mixer

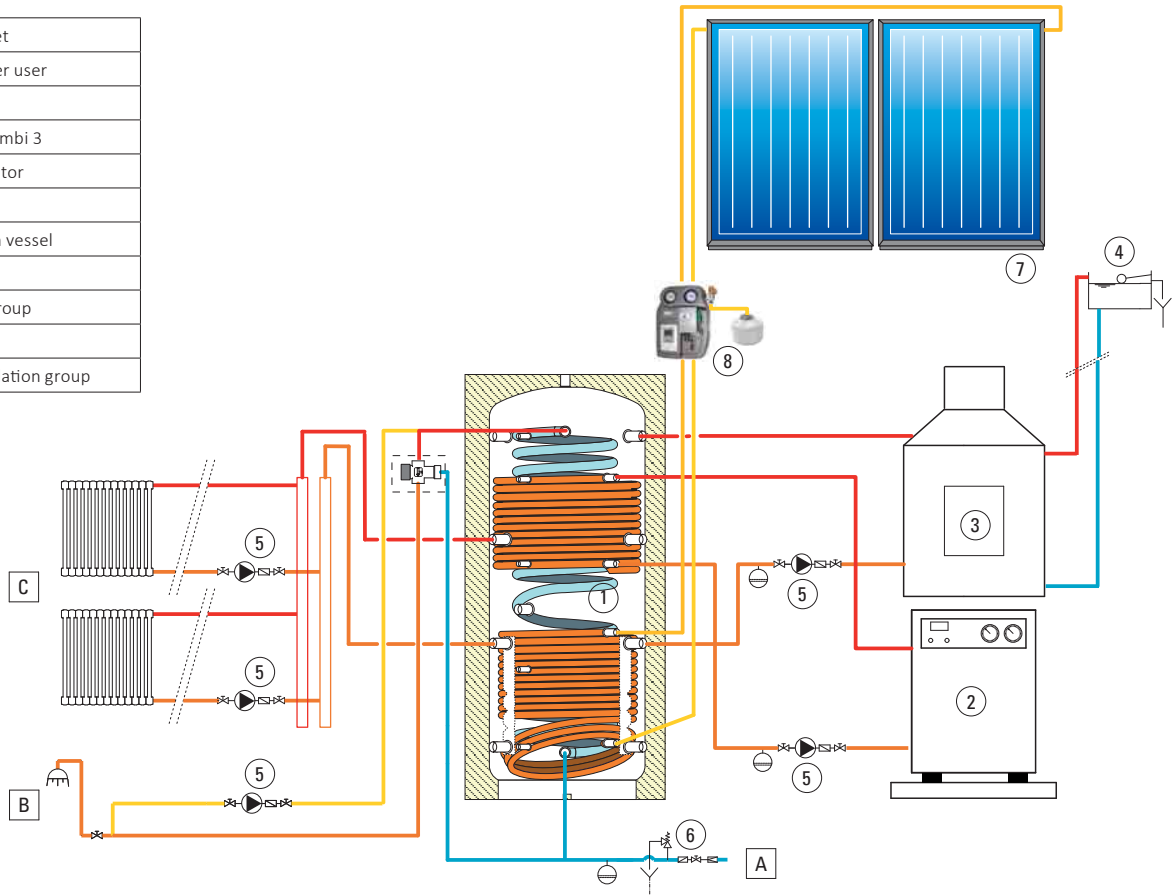


The following schemes are purely illustrative. To realize the installation, always refer to a qualified design engineer.

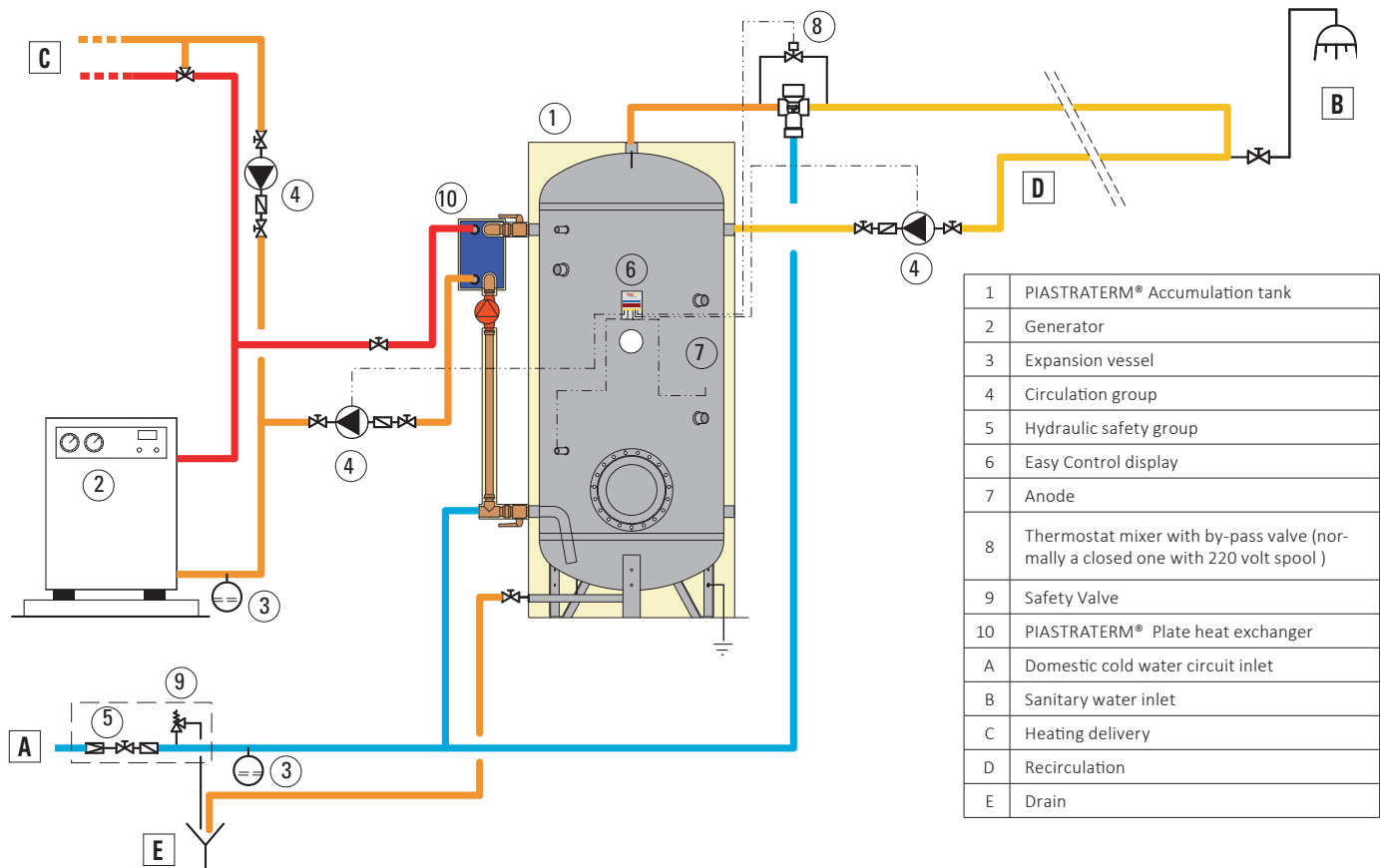
EXAMPLE OF INSTALLATION

INSTALLATION WITH ECO COMBI 3

A	Sanitary water inlet
B	Domestic hot water user
C	Heating system
1	Buffer tank Eco Combi 3
2	Gas/Gasoil Generator
3	Biomass Boiler
4	Opened expansion vessel
5	Circulation group
6	Hydraulic safety group
7	Solar panels
8	Solar system circulation group



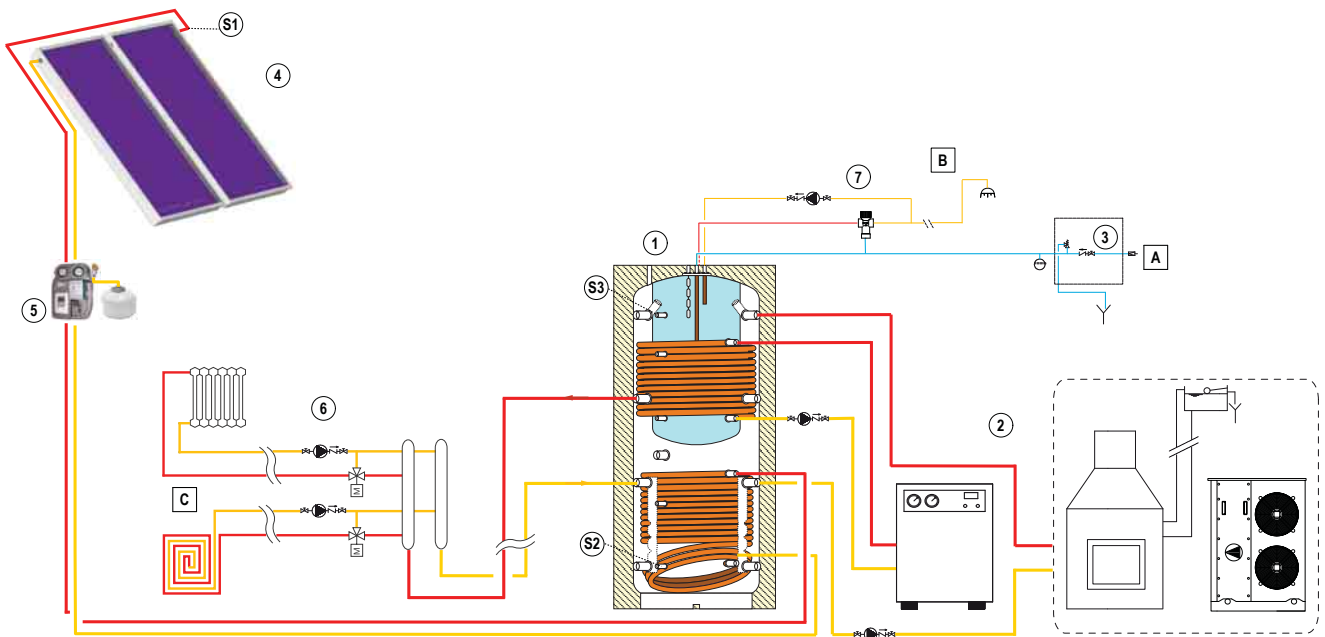
INSTALLATION WITH PIASTRATERM®



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

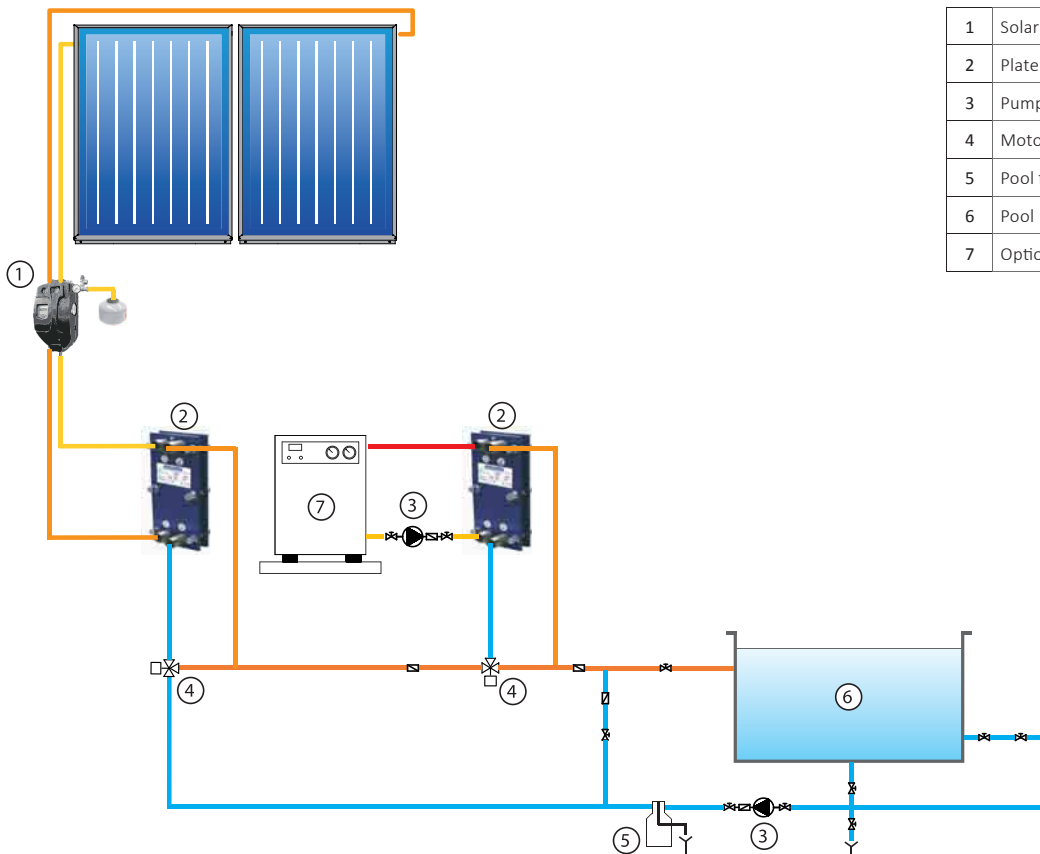
EXAMPLE OF INSTALLATION

INSTALLATION WITH COMBI 3



A	Sanitary water inlet	2	Gas Generator	S1	Professional gear case probe	7	DHW recirculation group/Mixing valve
B	Domestic hot water users	3	Hydraulic safety group	S2			
C	Terminals of the thermal installation	4	Solar panels	S3			
1	COMBI 3 Buffer tank	5	Professional circulator group	6	Circulation group		

INSTALLATION WITH PLATE-TO-PLATE HEAT EXCHANGERS AND SOLAR THERMAL SYSTEM FOR POOL HEATING

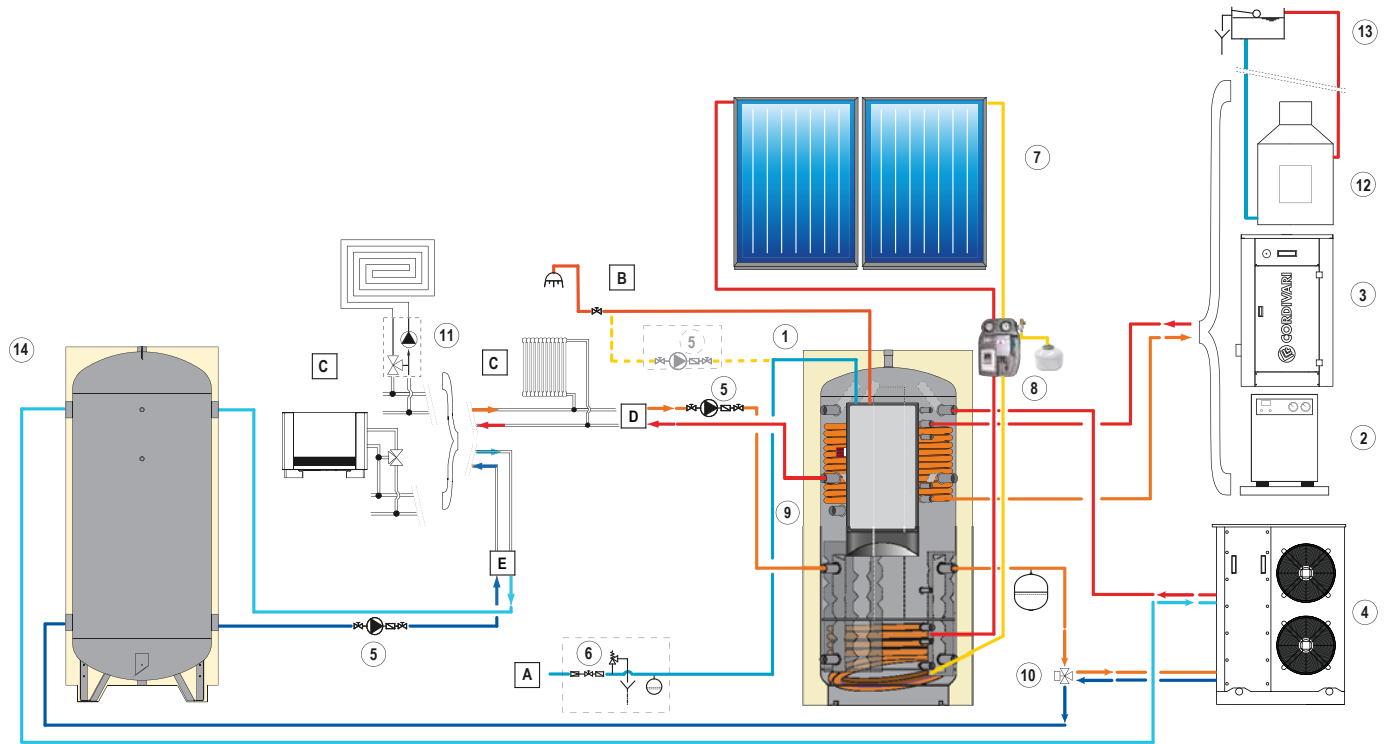


1	Solar circulation group
2	Plate heat exchanger
3	Pump
4	Motorized 3-way valve
5	Pool filter
6	Pool
7	Optional Generator

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

EXAMPLE OF INSTALLATION

HOT/COLD INSTALLATION WITH PUFFERMAS 2 CTS AND CHILLED WATER ACCUMULATION TANK

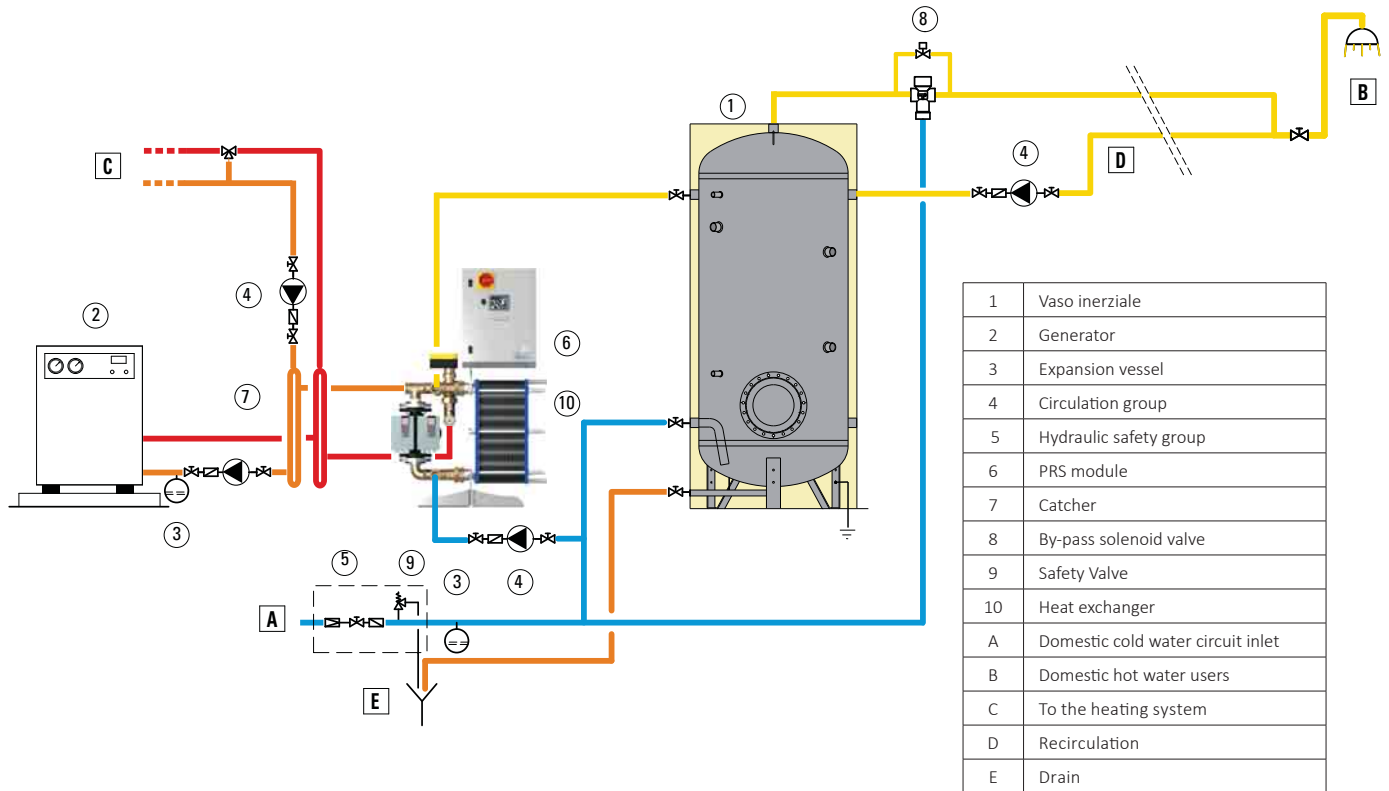


A	Domestic cold water circuit inlet	1	PUFFERMAS® 2 CTS	6	Hydraulic safety group	11	Mixing group
B	Domestic hot water users	2	Gas generator	7	Solar panels	12	Fireplace
C	Terminals of the thermal installation	3	Biomass Boiler CAL Cordivari	8	Solar system circulation group	13	Opened expansion vessel
D	Heating hydronic circuit	4	Heat pump	9	MACS® modul® per produzione di ACS	14	Chilled water accumulation tank
E	Coolant hydronic circuit	5	Circulation group	10	Automatic mixing valve		

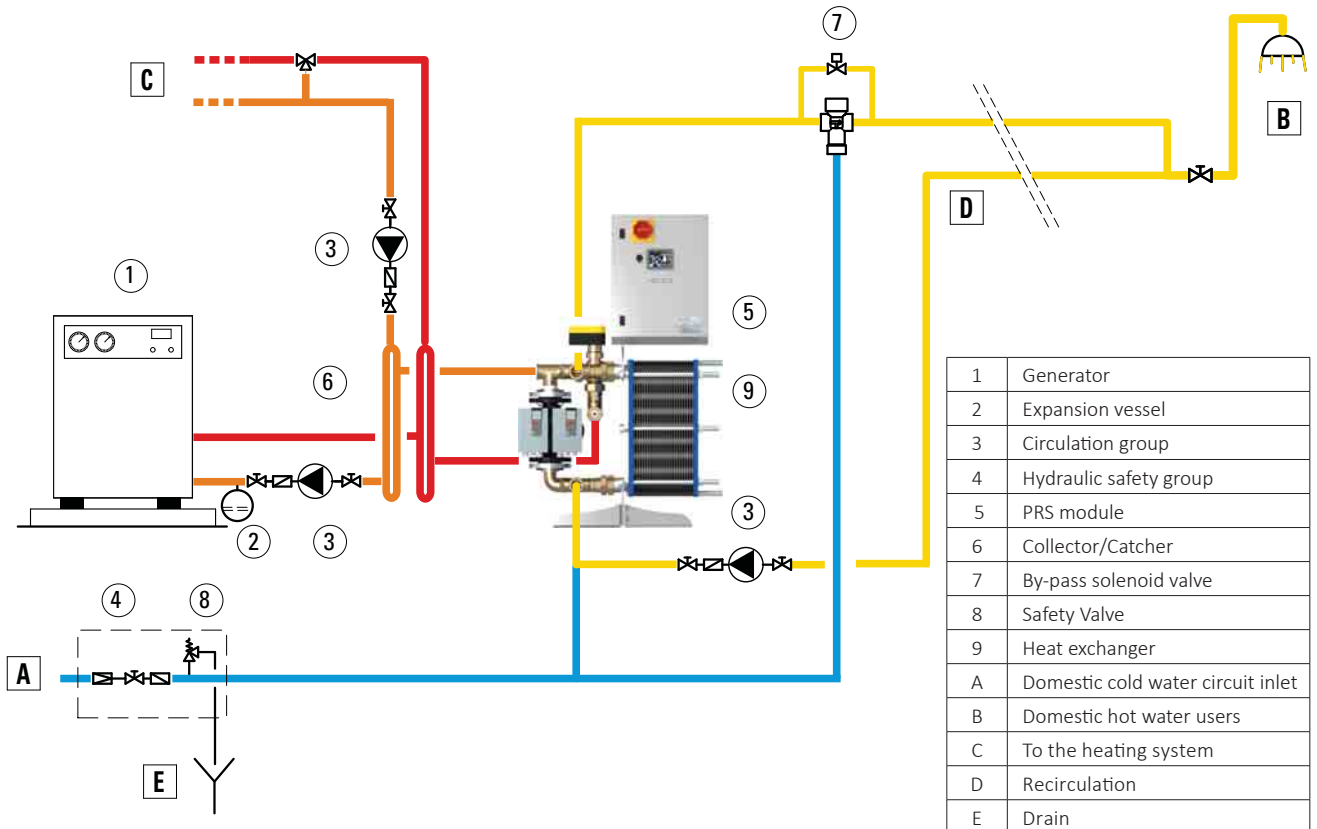
The following schemes are purely illustrative. To realize the installation, always refer to a qualified design engineer.

EXAMPLE OF INSTALLATION

INSTALLATION WITH PRS MODULE AND STORAGE

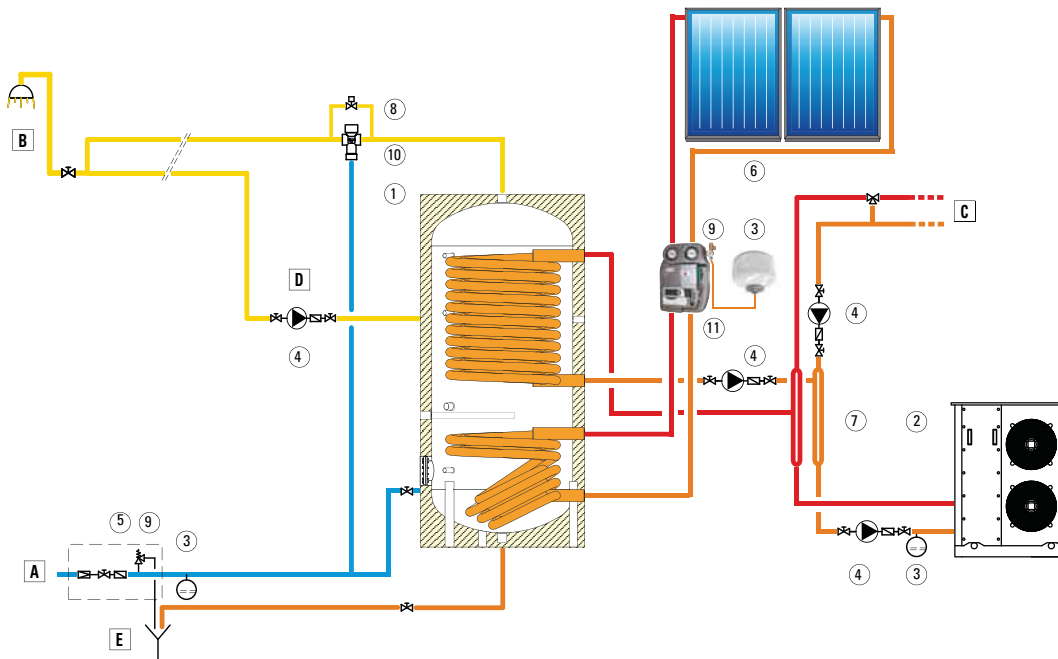


INSTALLATION WITH PRS MODULE WITHOUT STORAGE



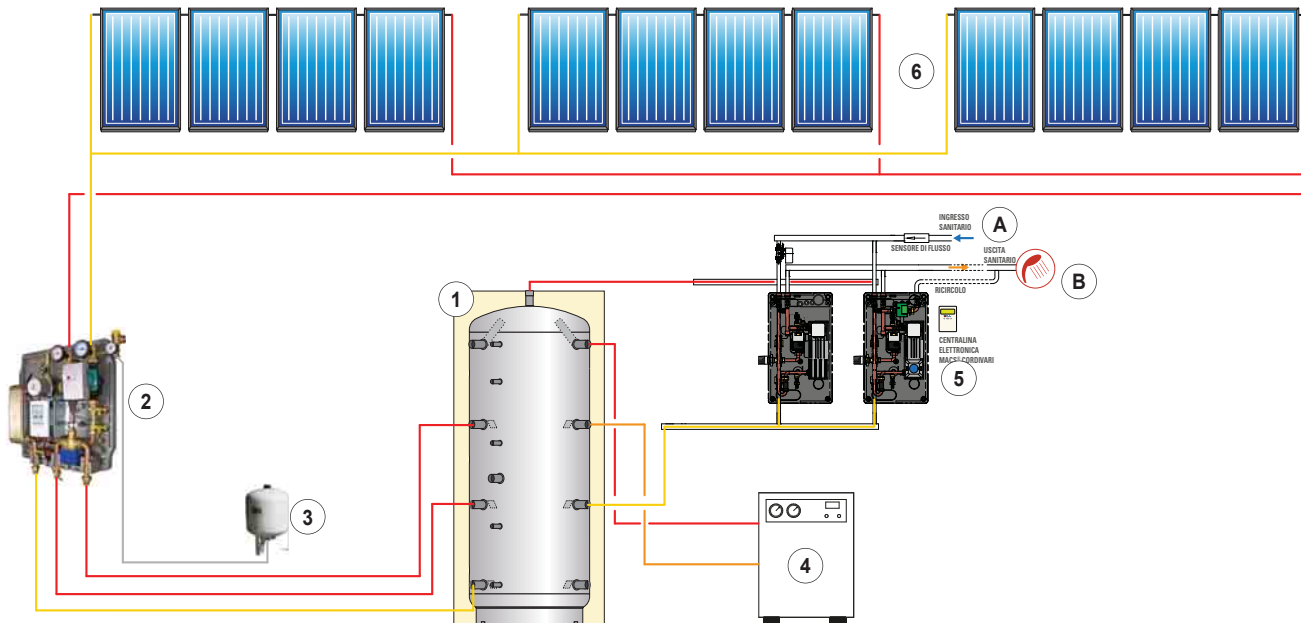
EXAMPLE OF INSTALLATION

INSTALLATION WITH STAINLESS STEEL BOLLY® 2 XL



1	Bolly 2 XL INOX	5	Hydraulic safety group	9	Safety Valve	B	Domestic hot water user
2	Heat Pump	6	Solar panels	10	Thermostatic switch	C	To the heating system
3	Expansion vessel	7	Catcher/ Collector	11	Solar station	D	Recirculation
4	Circulation group	8	Bypass solenoid valve	A	Domestic cold water circuit inlet	E	Drain

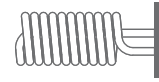
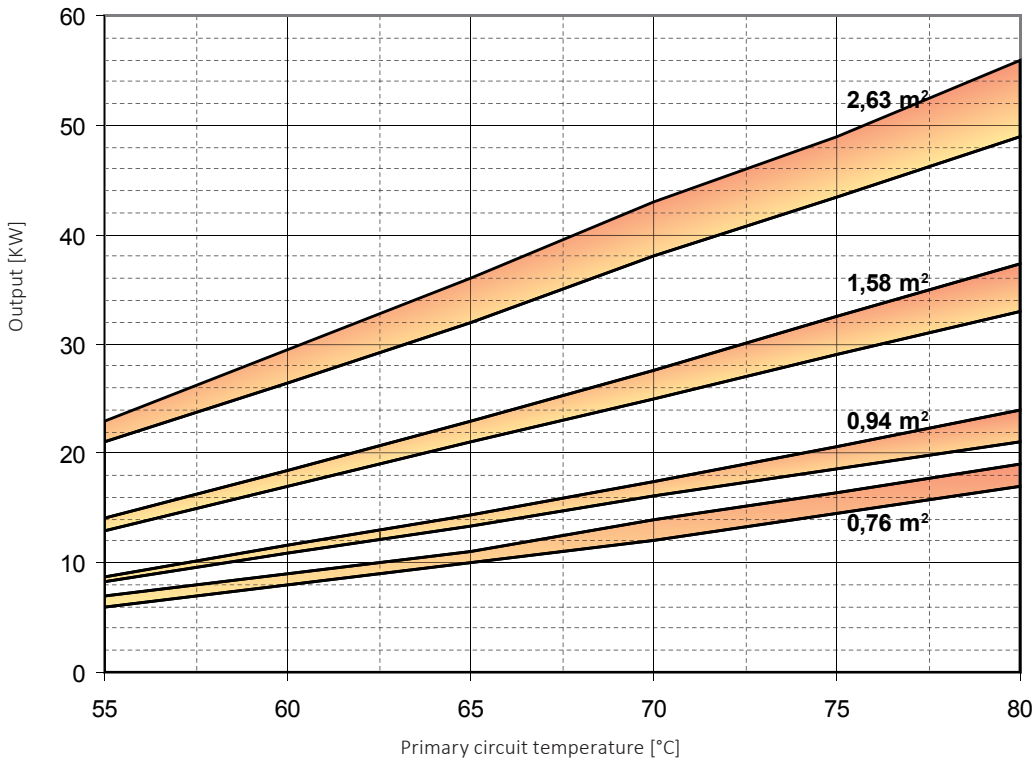
INSTALLATION WITH PUFFER AND MACS® MODULE



A	Domestic Cold Water Circuit Inlet	1	Storage Tank	3	Solar System expansion vessel	5	DHW production modules (MACS®)
B	Domestic Hot Water Users	2	Solar external exchange module	4	From/to thermal generator	6	Solar panels

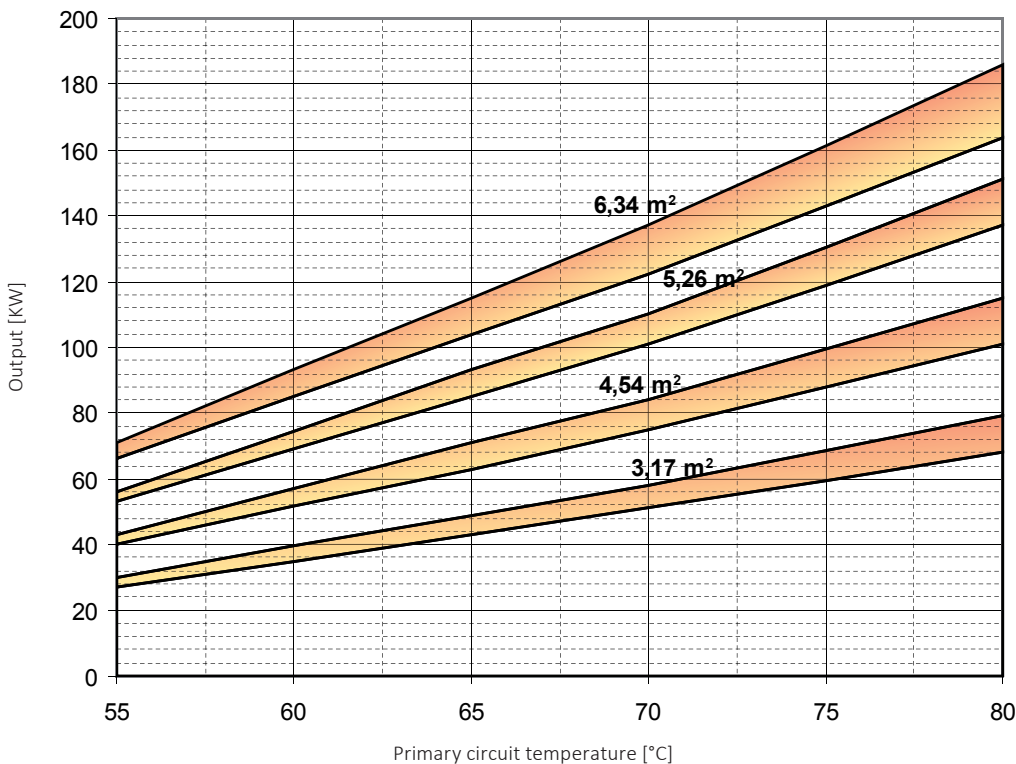
HEAT EXCHANGER OUTPUT CHARTS

EXTRA PLUS CALORIFIERS HEAT EXCHANGER OUTPUT REFERRED TO TEMPERATURE AND FLOW RATE OF PRIMARY AND SECONDARY 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).



EXTRA PLUS
CALORIFIERS RANGE

Extractable heat exchanger surface	0,76 m ²		0,94 m ²		1,58 m ²		2,63 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	1,4	0,7	1,4	0,7	1,4	0,7	1,4	0,7

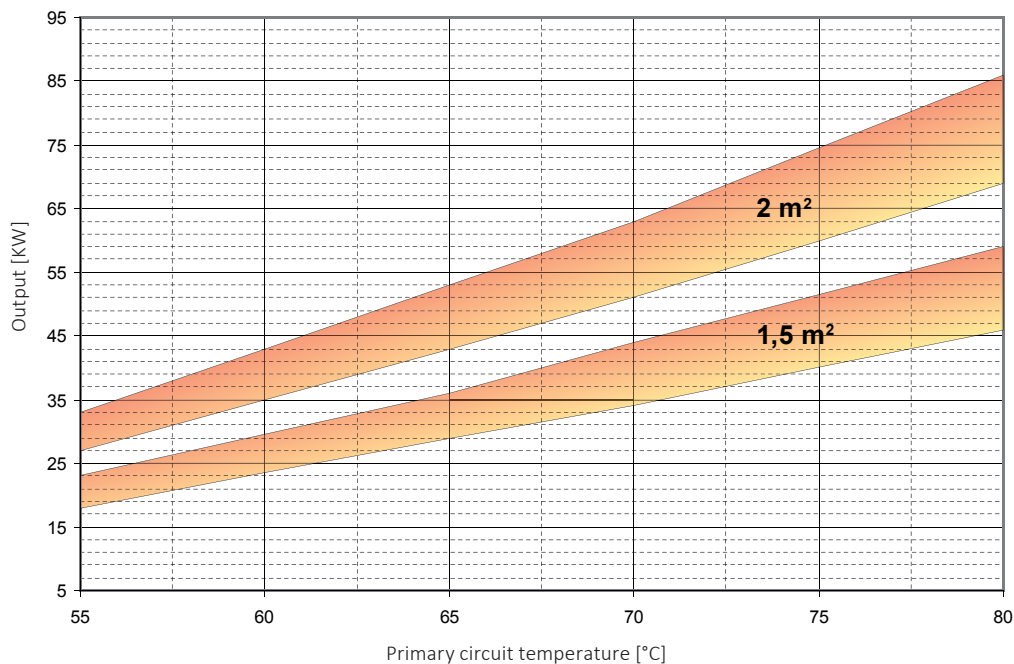


EXTRA PLUS
CALORIFIERS RANGE

Extractable heat exchanger surface	3,17 m ²		4,54 m ²		5,26 m ²		6,34 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	1,4	0,7	3	1,5	3	1,5	3	1,5

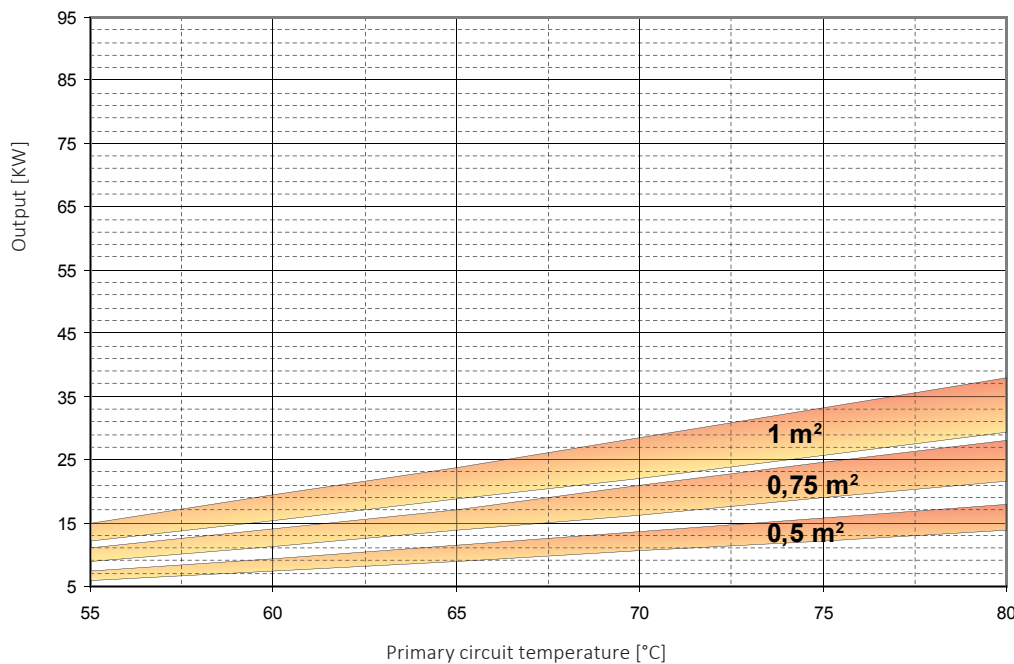
HEAT EXCHANGER OUTPUT CHARTS

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)



EXTRA CALORIFIERS RANGE

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

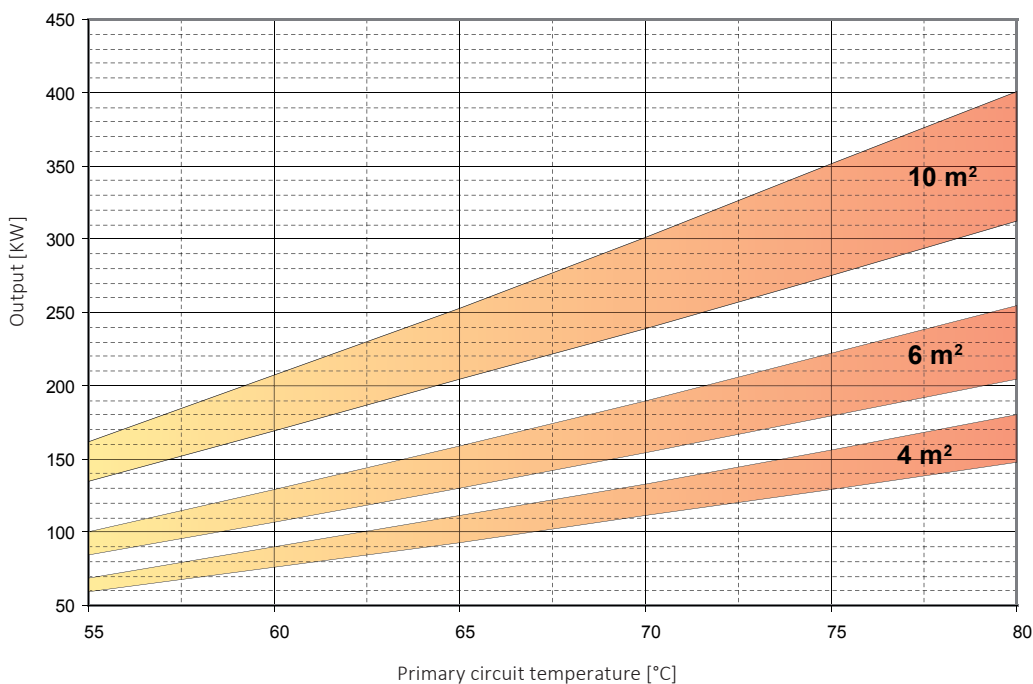


EXTRA CALORIFIERS RANGE

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

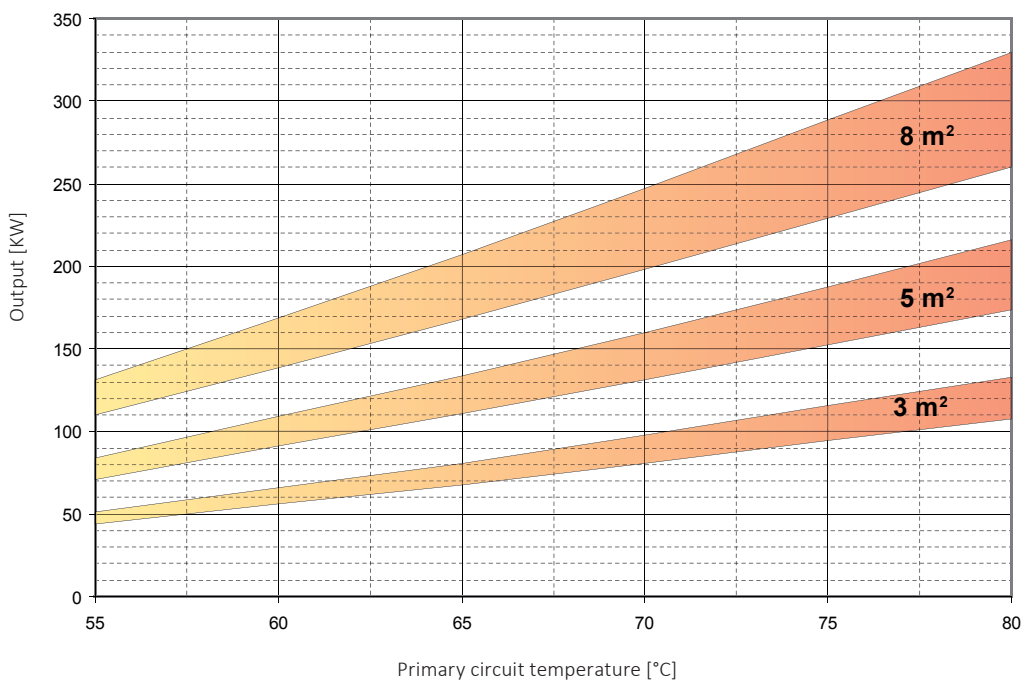
HEAT EXCHANGER OUTPUT CHARTS

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).



EXTRA CALORIFIERS RANGE

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

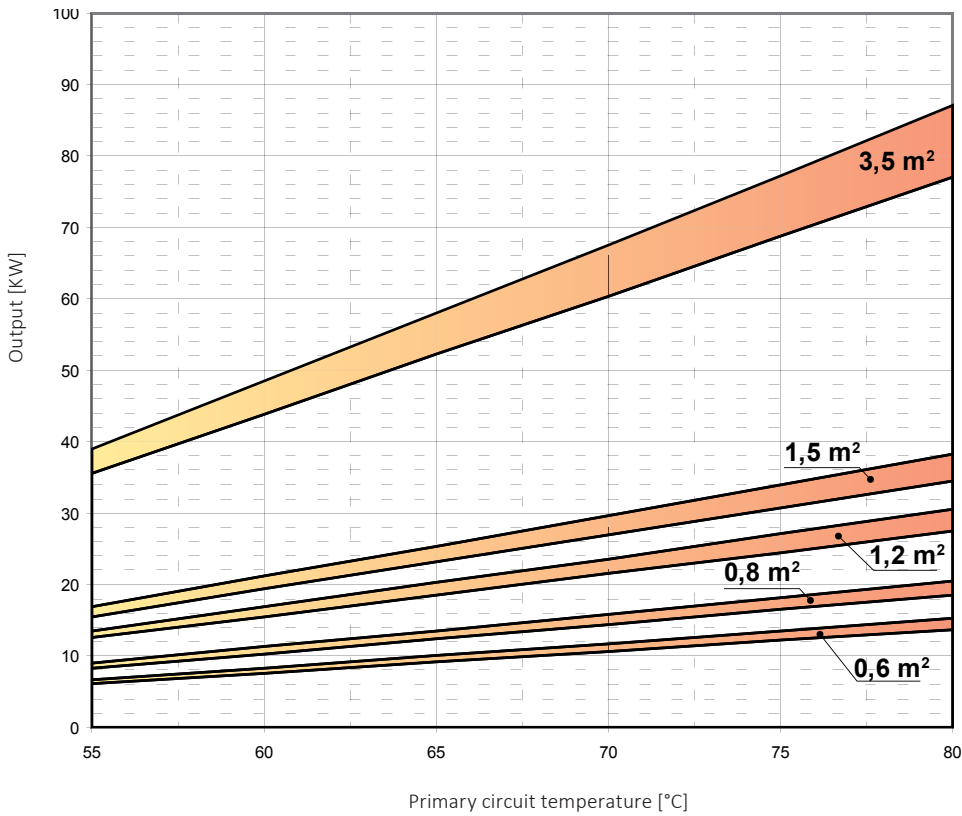


EXTRA CALORIFIERS RANGE

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

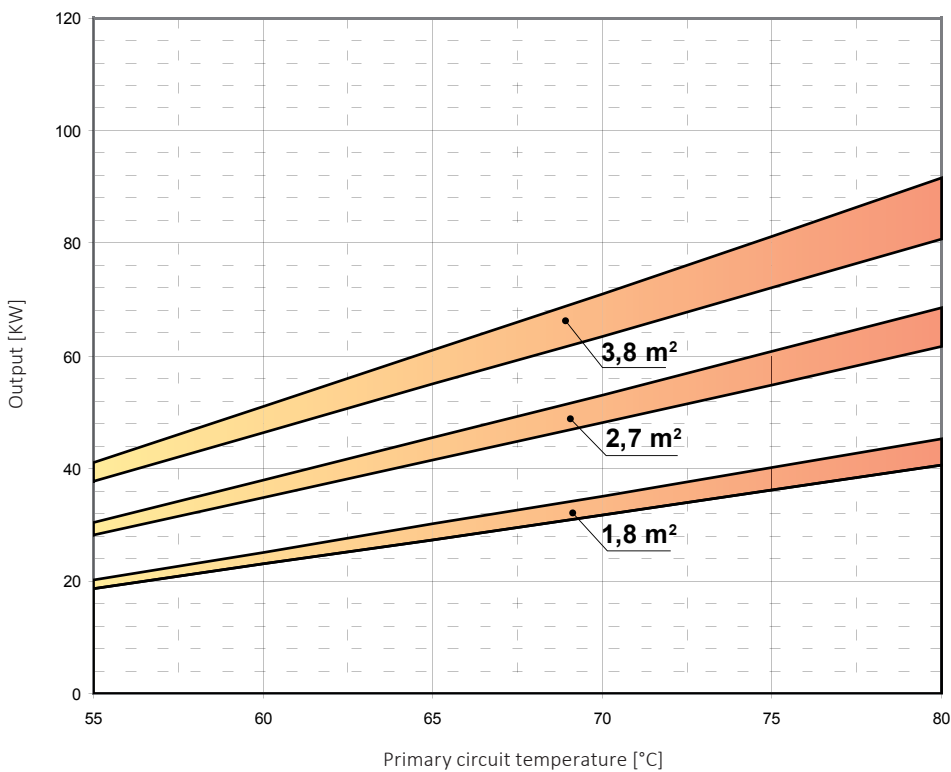
HEAT EXCHANGER OUTPUT CHARTS

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).



BOLLY® 1 ST

Fixed heat exchanger surface	0,6 m ²		0,8 m ²		1,2 m ²		15 m ²		3,5 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75	6	3

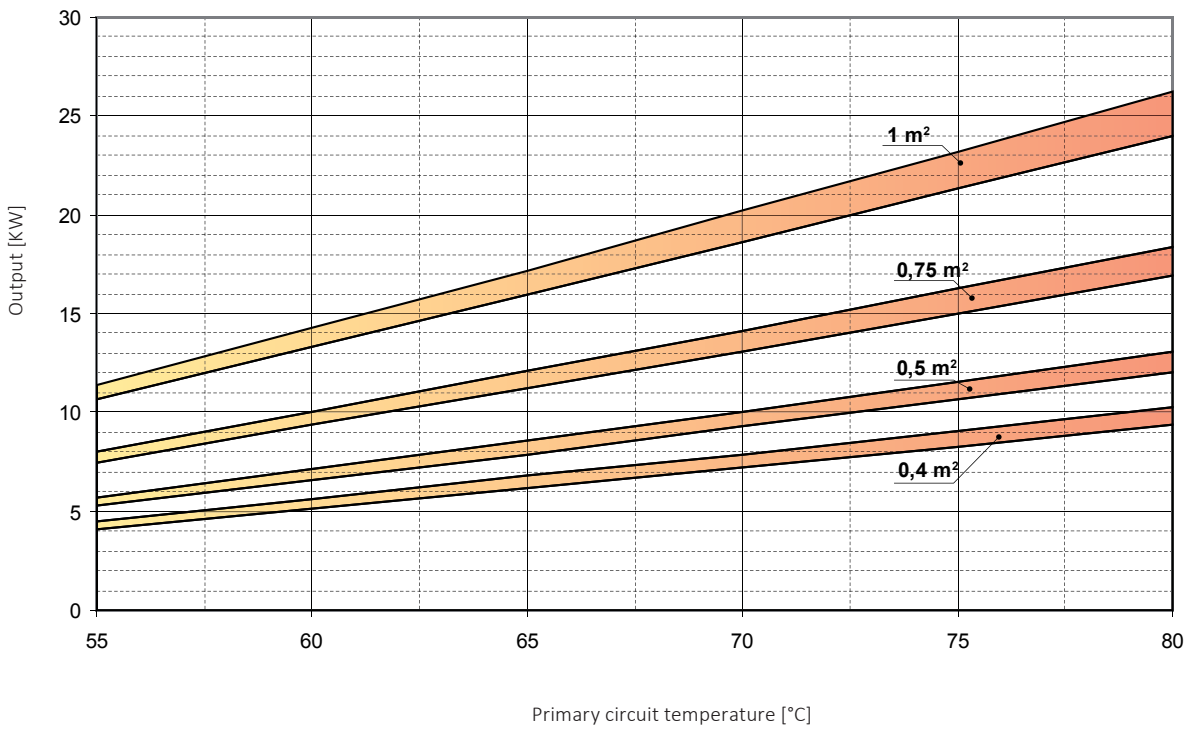


BOLLY® 1 ST

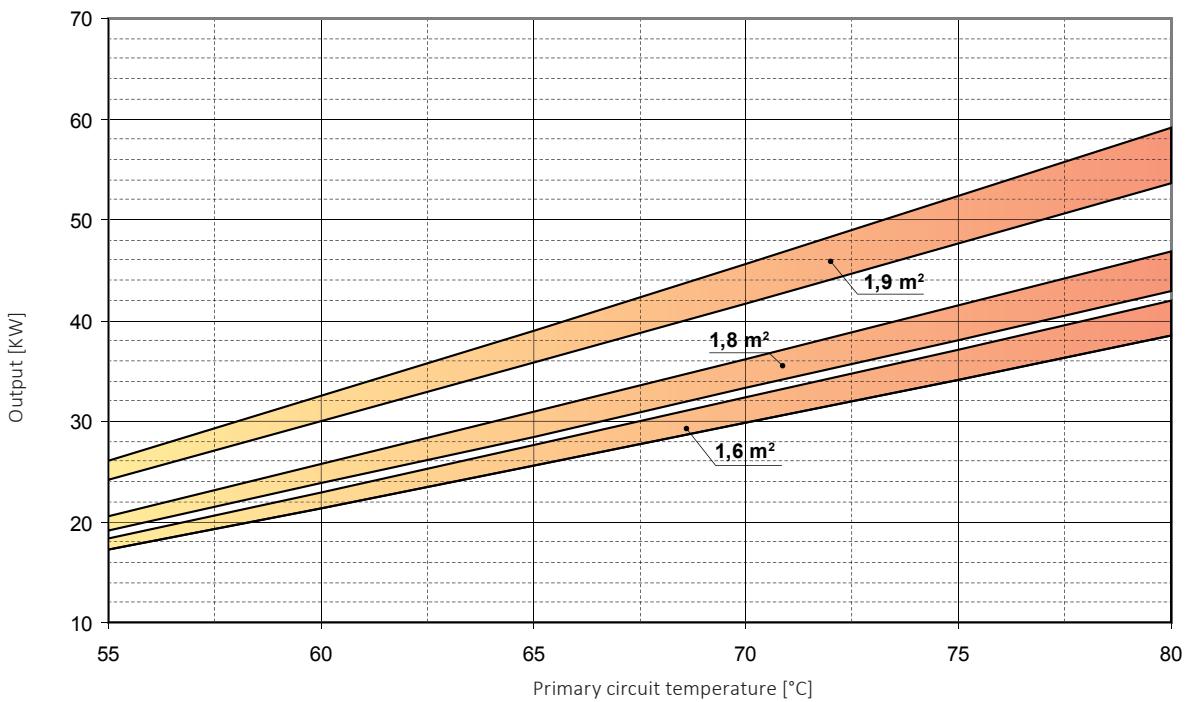
Fixed heat exchanger surface	1,8 m ²		2,7 m ²		3,7 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	3,50	1,75	6	3	6	3

HEAT EXCHANGER OUTPUT CHARTS

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)



Fixed 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
Primary flow rate [m ³ /h]	2	1	2,5	1,25	3	1,5	3,5	1,75

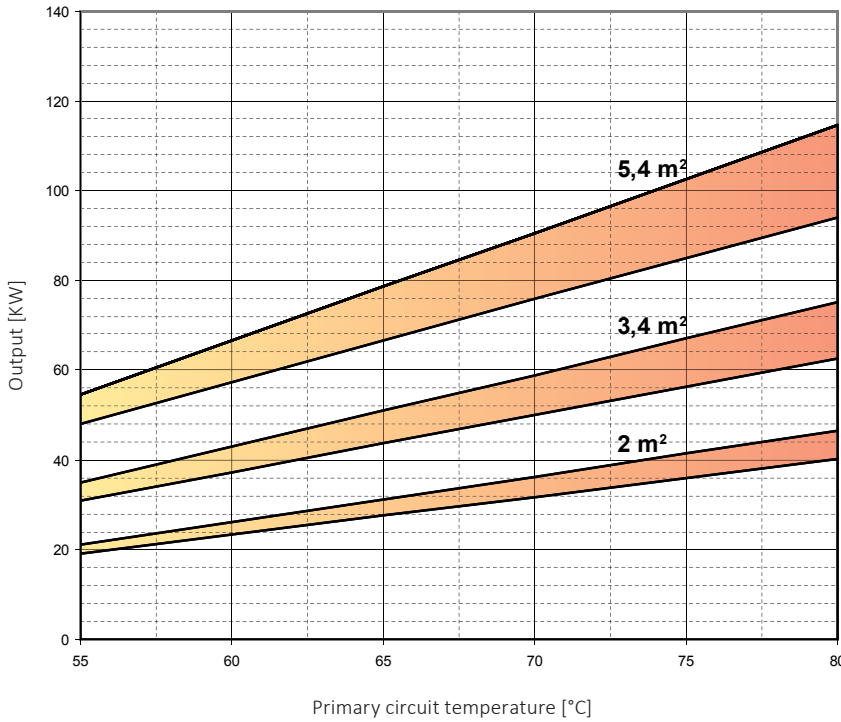


Fixed heat exchanger surface	1,6 m ²		1,8 m ²		1,9 m ²	
	MAX	MIN	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	6	3	6	3	6	3

LOWER HEAT EXCHANGER TECHNICAL DATA- SEE BOLLY® 1 ST

HEAT EXCHANGER OUTPUT CHARTS

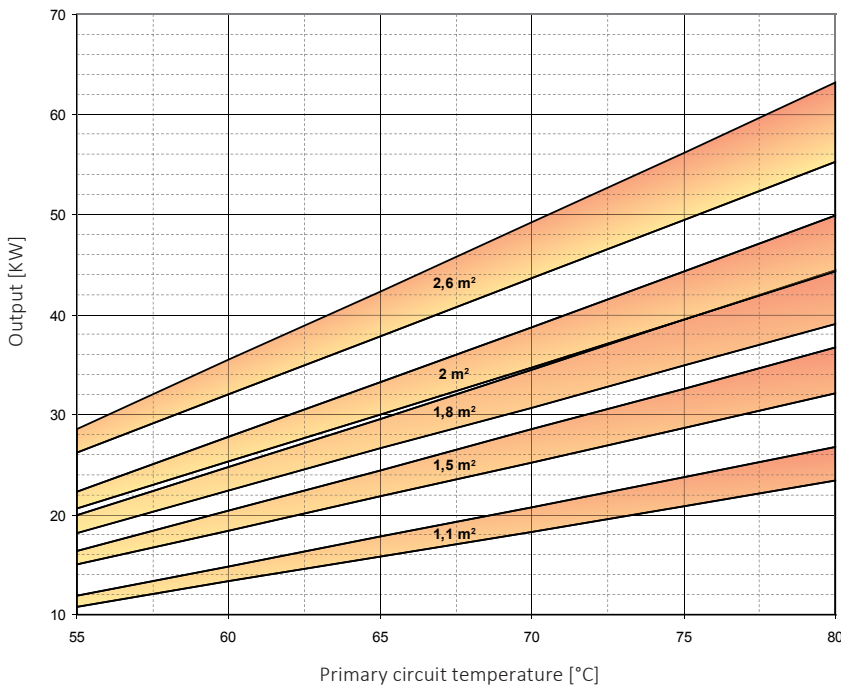
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BOLLY® XL

Fixed heat exchanger surface	2 m ²		3,4 m ²		5,4 m ²	
Primary flow rate [m ³ /h]	MAX	MIN	MAX	MIN	MAX	MIN
	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 CURVE REFERS TO THE MINIMUM PRIMARY FLOW RATE)

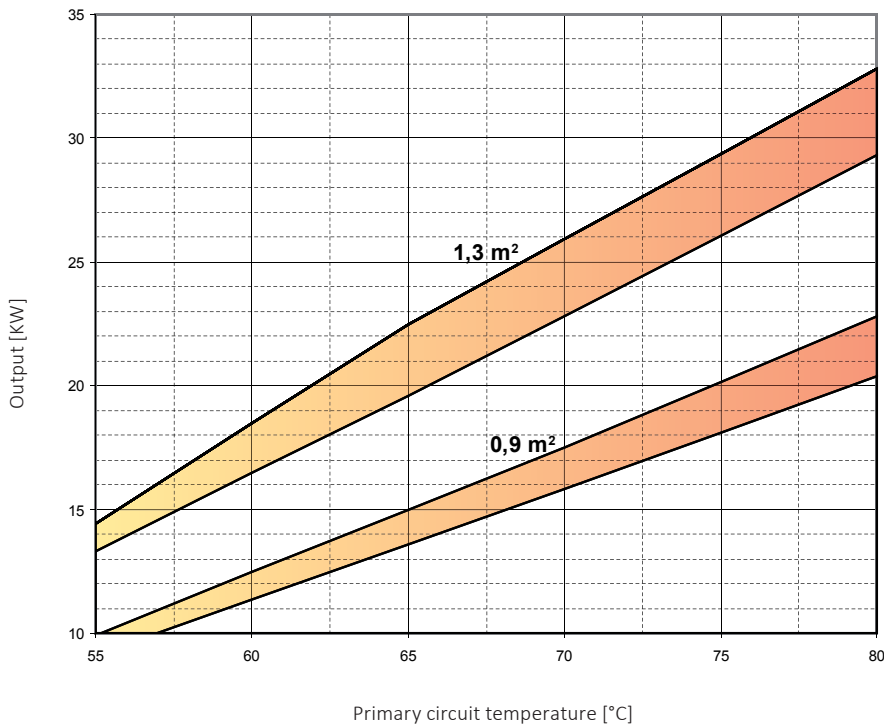


BOLLY® 1 AP

Fixed heat exchanger surface	1,1 m ²		1,5 m ²		1,8 m ²		2 m ²		2,6 m ²	
Primary flow rate [m ³ /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

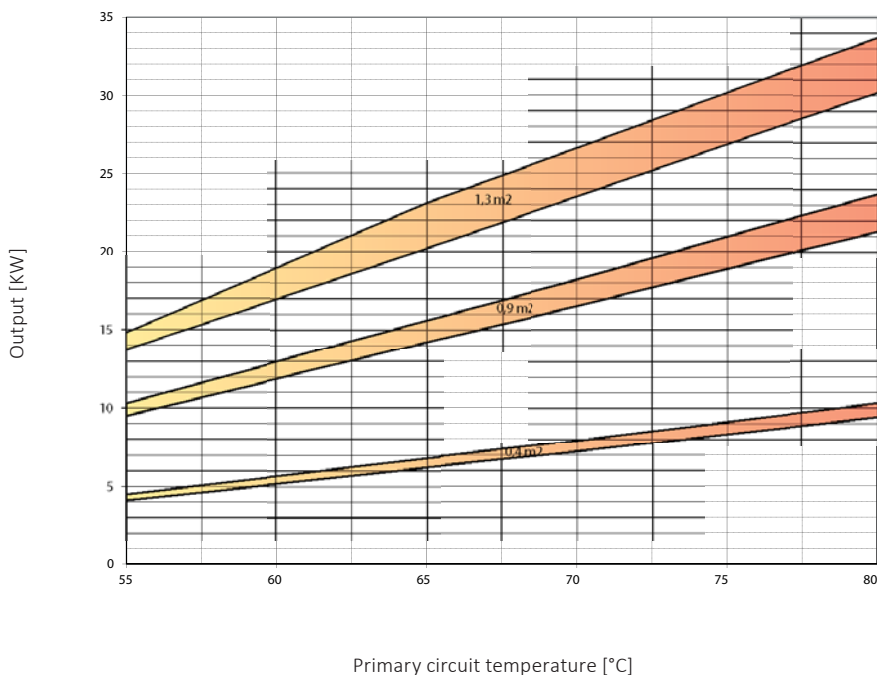
HEAT EXCHANGER OUTPUT CHARTS

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)



BOLLY® 2 AP

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

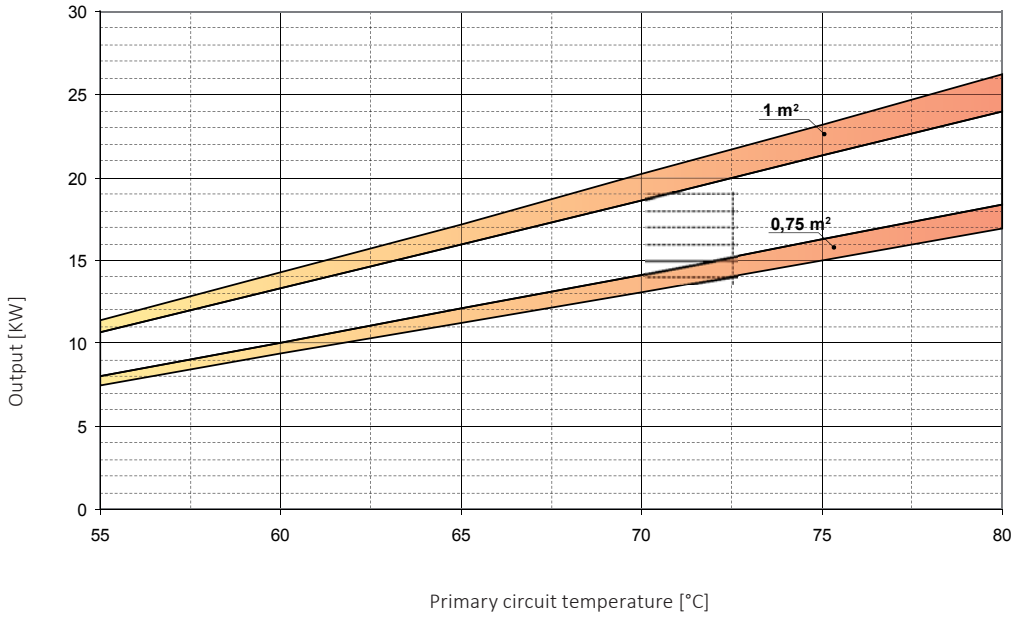


BOLLY® 2 AP

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

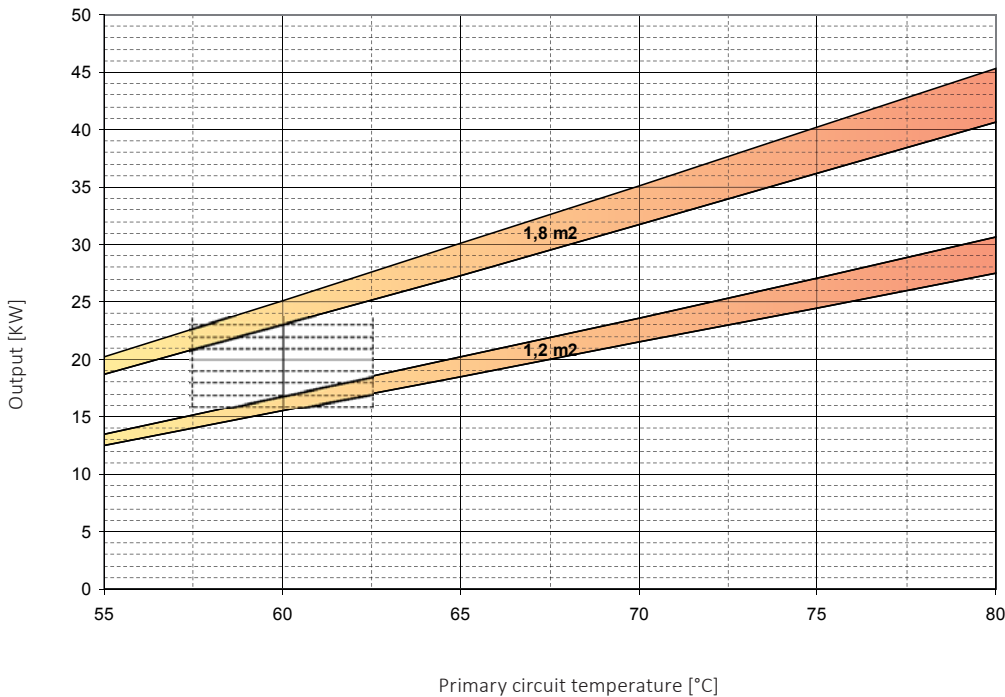
HEAT EXCHANGER OUTPUT CHARTS

BOLLY 2 POWER CALORIFIERS HEAT EXCHANGER OUTPUT REFERRED TO TEMPERATURE AND FLOW RATE OF PRIMARY AND SECONDARY 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)



BOLLY® 2 POWER

Upper heat exchanger surface	0,75 m ²		1 m ²	
	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	2,5	1,25	3	1,5



BOLLY® 2 POWER

Lower heat exchanger surface	1,2 m ²		1,8 m ²	
	MAX	MIN	MAX	MIN
Primary flow rate [m ³ /h]	3	1,5	3,50	1,75

COMPANY CERTIFICATES



Quality Certificate UNI EN ISO 9001:2008



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

prEN 12897 – technical details for storage of sanitary hot water and indirect heating systems

Disposals 97/23/CE (P.E.D.) for pressurized equipment

DGLS february 25th 2000, n. 93 – Application of 97/23/CE.

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. del 21/03/1973 – Decrete Law concening water for human consumption

D.M. 174 del 06/04/2004 Decrete Law concening water for human consumption delayed up to July 2007

Disposals 87/404/CE air compressor tanks planning and production

UNI CTI 8065 - Water Treatment

“Raccolta R ed. 2009 cap. R.1.A.” - Expansion System

CE
Organismo Notificato n. 1131

RWTVV
Consorzio Europeo Certificazione

CERTIFICATO

Esame CE del Tipo
Modulo B
in accordo alla Direttiva 97/23/CE
Certificato No.: 02/008-ET021

Nome e Indirizzo del Fabbricante:
CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Insieme a pressione:
Identificazione del TIPO: **Montaliquidi a cuscino d'aria**
RPC 02
Disegno N.: **5060096 Rev. 1**
Sovraspessore di corrosione (mm): **0**
Pressione ammissibile (PS) min/ max (bar): **Atm/8**
Temperatura ammissibile (TS) (°C): **-0/+50**
Volume(L): **200**
Fluido: **Acqua+aria**

Valvole di sicurezza:
Diametro (DN): **N° 1**
Capacità di sfogo (Q)-Kg/h: **368,6**
Pressione di taratura, bar: **7,4**

Prova Idraulica
Pressione di prova recipiente (bar): **11,44**
Pressione di prova insieme (bar): **7,4**

Luogo di produzione:
cio CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Si certifica che il tipo di insieme a pressione sopraccitato soddisfa i requisiti della
Direttiva attrezzature a pressione 97/23/CE

Nota: Il presente certificato è emesso sulla base della documentazione disponibile presso l'Organismo Notificato

CONSORZIO EUROPEO CERTIFICAZIONE
L'ORGANO DELIBERANTE

Legnano, 20 Novembre 2002

Il Direttore Tecnico (A. FUGAZZI) Il Direttore Generale (M. SCASSO)

CEC - CONSORZIO EUROPEO CERTIFICAZIONE
Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (MI) Italy - tel. (+39) 0331 - 442266- fax (+39) 0331- 440054
www.consorziocec.com - info@consorziocec.com - C.F. e P. IVA 13071901018 - Tribunale di Milano 812032000 - C.C.I.A.A. 181204

CE certification in accordance with 97/23/CE regulations relevant to pressure vessels

CE
Organismo Notificato n. 1131

RWTVV
Consorzio Europeo Certificazione

CERTIFICATO

Esame CE del Tipo
Modulo B
in accordo alla Direttiva 97/23/CE
Certificato No.: 02/005-ET185

Nome e Indirizzo del Fabbricante:
CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Attrezzatura a pressione:
Identificazione del TIPO: **Recipiente a pressione di gas**
RPC 39
Disegno N.: **923.0097 Rev. 1**
Sovraspessore di corrosione (mm): **0**
Pressione ammissibile (PS) min/ max (bar): **Atm/8**
Temperatura ammissibile (TS) (°C): **-0/+50**
Volume(L): **2000**
Fluido: **Acqua+aria**

Valvole di sicurezza:
n.a.

Prova Idraulica
Pressione di prova (bar): **11,44**

Luogo di produzione:
cio CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Si certifica che il tipo di attrezzatura a pressione sopraccitato soddisfa i requisiti della
Direttiva attrezzature a pressione 97/23/CE

Nota: Il presente certificato è emesso sulla base della documentazione disponibile presso l'Organismo Notificato

CONSORZIO EUROPEO CERTIFICAZIONE
L'ORGANO DELIBERANTE

Legnano, 6 Novembre 2002

Il Direttore Tecnico (A. FUGAZZI) Il Direttore Generale (M. SCASSO)

CEC - CONSORZIO EUROPEO CERTIFICAZIONE
Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (MI) Italy - tel. (+39) 0331 - 442266- fax (+39) 0331- 440054
www.consorziocec.com - info@consorziocec.com - C.F. e P. IVA 13071901018 - Tribunale di Milano 812032000 - C.C.I.A.A. 181204

CE certification in accordance with requirements of 97/23/CE regulations for pressurized tanks (equipped pressure vessel).

CE
Organismo Notificato n. 1131

RWTVV
Consorzio Europeo Certificazione

CERTIFICATO

Esame CE del Tipo
Modulo B
in accordo alla Direttiva 97/23/CE
Certificato No.: 02/095-ET498

Nome e Indirizzo del Fabbricante:
CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Attrezzatura a pressione:
Identificazione del TIPO: **Recipiente a pressione di gas**
RPC 42
Disegno N.: **901.2003 Rev. 1**
Sovraspessore di corrosione (mm): **0**
Pressione ammissibile (PS) min/ max (bar): **Atm/10**
Temperatura ammissibile (TS) (°C): **-0/+50**
Volume(L): **285**
Fluido: **Acqua+aria**

Valvole di sicurezza:
n.a.

Prova Idraulica
Pressione di prova recipiente (bar): **14,30**

Luogo di produzione:
cio CORDIVARI S.r.l.
Via Padova - Zona Industriale
64020 MORRO D'ORO (TE)

Si certifica che il tipo di attrezzatura a pressione sopraccitato soddisfa i requisiti della
Direttiva attrezzature a pressione 97/23/CE

Nota: Il presente certificato è emesso sulla base della documentazione disponibile presso l'Organismo Notificato

CONSORZIO EUROPEO CERTIFICAZIONE
L'ORGANO DELIBERANTE

Legnano, 30 Maggio 2003

Il Direttore Tecnico (A. FUGAZZI) Il Direttore Generale (M. SCASSO)

CEC - CONSORZIO EUROPEO CERTIFICAZIONE
Sede Legale e Uffici: Via Pisacane, 46- 20025 LEGNANO (MI) Italy - tel. (+39) 0331 - 442266- fax (+39) 0331- 440054
www.consorziocec.com - info@consorziocec.com - C.F. e P. IVA 13071901018 - Tribunale di Milano 812032000 - C.C.I.A.A. 181204

CE certification in accordance with requirements of 97/23/CE regulations for pressurized tanks (exchanging diaphragm pressure vessels).

IMQ
Rapporto di analisi
Analysis report

Rapporto di analisi 48SJ00094
Analysis report 48SJ00094

Prodotto
Product: **Materiali destinati al contatto con acqua potabile**
Materials in contact with drinking water

Rif. di tipo
Type ref.: **Guarnizione in silicone**

Cliente
Customer: **CORDIVARI S.r.l.**
Zona Industriale Pagliare - 64020 Morro D'oro (TE) - Italy

N.° BEM IMQ
IMQ Internal ref.: **50429 del 21/07/2009**

Norme di prova
Ref. Standard: **DM 174/2004, DM 34 del 21.3.73 (SO della GU n. 104 del 20 Aprile 1973),
Reg. CE 1935/2004 GUCE L 338 del 13/11/04**

Laboratorio
Laboratory: **IMQ S.p.A.**
Via Quintiliano, 43
20138 Milano
tel.: +39 02 50731
fax: +39 02 5073271
e-mail: info@imq.it

Pagine
Pages: **Questo rapporto ha 7 pagine e 0 allegati**
(Pagine comprese in presente: 7)
This test report has 7 pages and 0 annex
(Pages with this one: 7)

Limitazioni
Limitations: **I risultati delle analisi, qui riportati, si riferiscono esclusivamente agli esemplari esaminati e descritti nel presente rapporto. Soltanto riproduzioni integrali di questo Rapporto di prova sono permesse senza autorizzazione scritta dell'IMQ.**
Analysis results, here reported, refer only to tested objects that are described in this report. Only full reproductions of this Test Report are allowed without written authorisation of IMQ.

I pareri e le interpretazioni qui riportati, non devono essere confusi con certificazioni di prodotto previste nella Guida ISO 65.
Opinions and interpretations included, shall not be confused with product certification as intended in ISO/IEC Guide 65

Milano, 04 Settembre 2009 / Milan, September 04 2009

Il Laboratorio Settore 48 / Laboratory Department 48 - ATEX
Francesco Esposito

CEC - CONSORZIO EUROPEO CERTIFICAZIONE
Via Pisacane, 46 - 20025 LEGNANO (MI) Italy - tel. (+39) 0331 - 442266 - fax (+39) 0331 - 440054
www.consorziocec.com - info@consorziocec.com - C.F. e P. IVA 13071901018 - Tribunale di Milano 812032000 - C.C.I.A.A. 181204

Test certification of the silicone gaskets suitable for alimentary use according to the D.M. n.174 del 2004.

CERTIFICATES

SSICA STAZIONE SPERIMENTALE PER L'INDUSTRIA DELLE CONSERVE ALIMENTARI IN PARMA
41100 Parma - Via F. Testi, 31/A - Tel. 0521/7911 - Fax 0521/717028 - info@ssica.it - www.ssica.it
REA 217953 - Cod. Fisc. n. 01188540344

Parma, 15/11/2007
Rapporto di Prova N. 2734
Pag. 1 di 1 - LIP

Alta S.p.A. Dr. Fabrizio Marti
Spett.le
CORDIVARI S.r.l.
Zona Industriale Paggiare
64020 MORRO D'ORO (TE)

Data ricevimento: 29/10/07
Campione: Provisi di metallo
Rif.: Lettera senza data
Campione prelevato dal cliente e pervenuto a mezzo corriere

Descrizione Campione: provini di metallo protetti con "investimento Polywarm-eva grigio" destinato ad essere utilizzato negli impianti fissi di captazione, trattamento, adduzione e distribuzione delle acque destinate al consumo umano.

Data inizio prove: 07/11/07 Data termine prove: 09/11/07

Prove svolte	Metodo	Unità di misura	Valore	Limite di legge
Migrazione (mg/kg) in acque destinate al consumo umano	SN 604/2004 n.174	mg/kg	1,2	Max 02
Migrazione colorante da ghiaccio	DM 21/2/79 Allegato IV Sez. 7	%	>95	non inferiore a 95

N.B. rapporto superficie esposta (cm²) e volume del simulante (ml) = 1
Valore limite previsto dal Decreto Ministeriale del 6 aprile 2004, n. 174.

Il Responsabile del Laboratorio
F. Urriostabal

LA DIREZIONE
Dott.ssa Luciana Botoni
Luciana Botoni

*I risultati espressi nel rapporto di prova si riferiscono esclusivamente al campione esaminato.
Il presente rapporto di prova non può essere riprodotto parzialmente salvo approvazione della SSICA.*

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.

Our Ref: HJ/M130106
Test Report: M105452

27th June 2013

WRAS
Water Regulations Advisory Scheme

Cordivari Srl
Zi Paggiare - 64020 Morro D'oro (Teramo),
Italy

**WATER REGULATIONS ADVISORY SCHEME (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 BS 6920-1:2000 '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.

FACTORY APPLIED PIPE & FITTING COATINGS 5030

Polywarm. Factory applied, brown coloured enamel coating. Apply as per manufacturer's instructions. Cure for 20 minutes at 240°C. For use with water up to 85°C.

This material is only approved for the curing conditions that appear on the approval. If the cure conditions are varied from those specified on the approval then the material is not covered by the scope of the approval.

APPROVAL NUMBER: 1302537
APPROVAL HOLDER: CORDIVARI SRL

The Scheme reserves the right to review approval. This approval is valid between February 2013 and February 2018.

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.wras.co.uk/directory

Yours faithfully
Jason Furnival
Jason Furnival
Approvals & Enquiries Manager
Water Regulations Advisory Scheme

Water Regulations Advisory Scheme Ltd,
10 Broad Street, Park Plaza, London, W1P 3LP
Tel: +44 (0) 20 737 2600. Fax: +44 (0) 20 737 2601
Email: enquiries@wras.co.uk Website: www.wras.co.uk

WRAS -Water Regulation Advisory Scheme certificate.

of
Technology & Innovation GmbH

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E info@off.at
www.off.at

CORDIVARI s.r.l.
Zona industriale Paggiare
64020 MORRO D'ORO (TE)
Italia

PRÜFZEUGNIS
Prüfung gemäß des DVGW Arbeitsblattes W 270 (Ausgabe 11/2007)

Prüfinstitut: of Technologie & Innovation GmbH
Brehmstraße 14 A
1110 Wien

Prüfdatum: 06/2012 bis 09/2012

Prüfnummer: 407.873/2

Firma/Markenname: CORDIVARI s.r.l.

Werkstoff/Produkt: Beschichtung „POLYWARM“

Einsatzbereich: Beschichtung von Produkten im Trinkwassereinsatz

Beurteilung:
Die Beschichtung mit der Bezeichnung „POLYWARM“ ist aufgrund der Ergebnisse der vorgenannten Prüfung (off Prüfbericht Nr. 407.873/2 vom 2012-09-14) unter der Voraussetzung einer den Vorgaben des Herstellers entsprechenden Verarbeitung in mikrobiologischer Hinsicht uneingeschränkt für den Einsatz im Trinkwasserkontakt geeignet.
Die Gültigkeit des Prüfzeugnisses beginnt mit dem Ausstellungsdatum und endet am 2017-09-14. Es kann bei unveränderten Voraussetzungen um 5 Jahre verlängert werden.

Wien, 2012-09-14.

Mag. Elisabeth Novak

Das Prüfzeugnis ist nur solange gültig, wie keine Veränderungen in der Zusammensetzung der Beschichtung erfolgen.

Das Prüfzeugnis darf ohne schriftliche Zustimmung der of Technologie & Innovation GmbH nur ungekürzt und ohne Zusatz veröffentlicht werden.

Certificate of Conformity Polywarm according to UBA KTW.

of
Technology & Innovation GmbH

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CORDIVARI s.r.l.
Zona industriale Paggiare
64020 MORRO D'ORO (TE)
Italia

PRÜFZEUGNIS
gemäß Leitlinie zur hygienischen Beurteilung von organischen Beschichtungen in Kontakt mit Trinkwasser¹ des Umweltbundesamtes (Stand 2008)

Hersteller: CORDIVARI s.r.l.

Proben: Beschichtung mit der Bezeichnung „POLYWARM“

Prüfung: Produktprüfung (beschichtete Metallplatten)

Die geprüfte Beschichtung erfüllt gemäß off Prüfbericht 407.873/1 vom 2012-12-12 die Anforderungen der Beschichtungsleitlinie für folgende Einsatz- und Temperaturbereiche:

Einsatzbereiche - Kategorien	Kalteswasser (23°C)	Warmwasser (60°C)	Heißwasser (85°C)
Röhre < DN 80 (Hausinstallation)	—	—	—
Röhre > DN 80 < DN 300 (Verteilung)	—	—	—
Röhre > DN 300 (Hauptleitung)	—	—	—
Behälter (Hausinstallation)	erfüllt	—	—
Behälter (außerhalb Hausinstallation)	erfüllt	—	—
Ausrüstungsgegenstände (Hausinstallation)	erfüllt	—	—
Ausrüstungsgegenstände (Verteilung)	erfüllt	—	—
Ausrüstungsgegenstände (Hauptleitung)	erfüllt	—	—

Die Gültigkeit des Prüfzeugnisses richtet sich nach anderorts festgelegten Regeln, sie beginnt mit dem Ausstellungsdatum und endet bei unveränderten Voraussetzungen spätestens am 2017-12-18.

Wien, 2012-12-18

Mag. Elisabeth Novak

Das Prüfzeugnis ist nur solange gültig, als keine Veränderung in der Zusammensetzung des Materials sowie der Verarbeitungstechnik erfolgen.

Das Prüfzeugnis darf ohne schriftliche Zustimmung der of Technologie & Innovation GmbH nur ungekürzt und ohne Zusatz veröffentlicht werden.

Certificate of Conformity for Polywarm according to DVGW W270.

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 _h	04:52:57	hh:mm:ss
Energia di riscaldamento assorbita	W _{th}	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 _{DHW}	2,98	-
Temperatura di riferimento dell'acqua calda	θ _{WH}	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

Rapporto 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

BOLLYTHERM® 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 nr. 15057MAL-07CM272
 The number is related to the unit indicated on page 1 only.

IMQ CLIMA
 Centro di Innovazione Tecnologica Agemont S.p.A.

Amaro, 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)

> Test unit/model: Bollytherm HP VT V14
 > Serial number: BTHP 1063
 > Voltage: 230 [V]
 > Frequency: 50 [Hz]
 > Power Source: Single-Phase
 > Refrigerant type: R134A
 > Mass of refrigerant: 0,80 kg
 > Required Tapping cycle: L

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 Maria

Approved by: Technical Manager
 Ing. Andrea Mazzolini

Note: This report consists of 11 pages. The tested 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.
 Company managed and controlled by IMQ S.p.A.
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page 1 of 11

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.

TÜV Rheinland Energie und Umwelt GmbH
 Test Centre for Energy Appliances

TÜV Rheinland
 Precisely Right.

Valutazione di un dispositivo di controllo di prova per il collaudo di bollitori acqua calda in conformità alla EN 15332: 2007

Produttore / Appaltatore: Cordivari S.r.l.
 Zona Industriale Pagliare
 I-64020 Morro D'Oro

Prodotto: Dispositivo di prova per la determinazione delle caratteristiche tecniche di bollitori acqua calda presso la sede di Morro D'Oro

Motivo della prova: Convalida del dispositivo costruito conformemente a:
 EN 15332: 2007, Valutazione energetica di bollitori acqua calda relativamente agli articoli:
 5.1 Collegamento del serbatoio di accumulo
 5.4 Misurazione della dispersione in stand-by

Risultato della prova: Il risultato della presente prova si basa sull'Audit del 20 agosto 2015. Il Dispositivo di prova presentato risponde ai requisiti degli articoli 5.1 e 5.4 dello standard di collaudo di cui sopra.

Nota: La validità della relazione di collaudo è di 2 anni. La capacità di misurazione deve essere approvata ogni due anni presso Cordivari S.r.l. nella sede di Morro D'Oro da parte di TÜV Rheinland.

Colonia, 10.09.2015
 432/mc

Inspector: Deputy Head of Test Centre
 Dipl.-Ing. M. Ciccarelli

Test Centre for Energy Appliances
 DIN- und DVGW-Laboratory
 Dipl.-Ing. R. Veibert

Auftrag Nr. 2122853 Seite 2/8 Rapporto Nr. 5478 2015 53

TÜV Rheinland test report about the quality of tests performed in "CORDIVARI LAB.

CORDIVARI Lab

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 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.

Rapporto 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 S.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 cilindrico 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'Egidio
 Esecuzione Test

Ing. Ivan Baldini
 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 "Raccolta R ed. 2009 chapt.. (R-1a)". For Water Heater with primary circuit temperature above to boiling secondary fluid at 0.5 bar pressure must have safety devices (termostat, pressurestat, level/min. pressure protection). This expansion system can simply consist in a safety valve, counterweight, or spring-loaded, which port has to be a diameter in millimetres not lower than:

$$D \text{ min} = \sqrt{V/5}$$

where V is Volume of Calorifier in liters, minimum diameter 15mm. The valve must be calibrated at a pressure not exceeding the maximum working pressure of the calorifier and connected without any shut off device.

Besides the safety valve is however recommended to install a closed expansion vessel with atoxic membrane, in order to avoid a continuous opening of valve.

Cordivari Heat exchangers are manufactured in accordance with 97/23 CE directive and in reference to art. n. 3.3 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)

For Water Heater with primary circuit temperature above to boiling secondary fluid at 0.5 bar pressure must have safety devices (termostat, pressurestat, level/min. pressure protection).

Referring to primary circuit on Heat exchangers the provision on pressure working equipment shall be applied.

For provisions on systems with heat exchangers supplied by fluid with temperature exceeding 110°C with open and closed expansion vessel (such as control and safety device)

Please refer to chapt. "R.3.D. Racc. R ed. 2009".

- Calorifiers for solar thermal systems

Please refer to chapt. "R.3.D. Racc. R ed. 2009 and for calorifiers that not have to be marked CE:

- 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/litre:

$$P \times V \leq 50 \text{ [bar} \times \text{litro]}$$

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 97/23/CE PED.

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".
- Simpletest Anode (easy checking acting on the relative valve - any water outlet indicates the immediate substitution of the anode)
- Standard anode, where it is necessary the visual checking of the magnesium bar.

As accessory (only for Polywarm® version) 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 too, that the water never exceeds the values indicated on DPR 236/88. 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 installed to protect from atmospheric agents on a base of proper solidity, checking before you make the connections that there is sufficient space for extracting the heat exchanger, magnesium anode, eventual resistance 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 necessity for demolitions 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 necessity for demolitions both when installing and removing the tanks

GENERAL SALES CONDITIONS AND WARRANTY

Sales of Cordivari's products are made according to the conditions listed below. Exception should be agreed in written with Cordivari Srl.

1. SHIPMENT

Goods are shipped at buyer's (purchaser) risk and peril, even if transport is organized by Cordivari. Goods have to be checked at the delivery about unaltered packaging, missing or confused items in the presence of the forwarder. Any claim has to be immediately communicated to the forwarder by appointing the shipment's document and by registered mail within 3 days (otherwise the forwarder is cleared of his responsibilities).

2. DELIVERY TERMS

Delivery terms are indicative. Failure to comply with the agreed delivery terms for any reasons will not entitle the buyer (purchaser) to any compensation, cancellation or modification of the order without our prior consent. In case exceptional events like weather disaster, strikes or market shortage of raw materials not predictable, Cordivari will decide the best decision to take. If the ordered goods will not be collected in the time agreed, this material will be invoiced and stored at buyer's costs and risks.

3. WEIGHT, MEASURES, SURFACES

Weights, measures, surfaces, shapes, sizes and other figures related to the products are merely indicative and Cordivari Srl may at any time modify them without any notice.

4. ORDER CANCELLATION OR MODIFICATION

No orders shall be cancelled or modified even partially without the consent of Cordivari Srl. It will not be possible to modify the order when the production has already started. Some cost due to the modifications or cancellation will be charged to the buyer (purchaser).

5. WARRANTY

On all Stainless Steel 316L cylinders the warranty granted by Cordivari Srl is 5 years

On all Polywarm® coating cylinders the warranty granted by Cordivari Srl is 5 years

On all galvanized cylinders the warranty granted by Cordivari Srl is 2 years

for all extractable and plate heat exchanger (plate-to-plate and brazed) either mounted on calorifiers or separately sold, Cordivari grants 2 years warranty.

For all Buffertanks Cordivari grants 2 years warranty

For buffertanks COMBI and ECO-COMBI, Cordivari grants 2 years warranty on heating water storage tanks and 5 years on Domestic Hot Water Parts.

Accessories and other items within the catalogue and not listed in current Sales and Warranty Conditions (like the heat pump), warranty granted by Cordivari Srl is 2 years with the exclusion of technical, electrical, electronic components for which the granted warranty is 12 months.

For special customized or other products for special projects the granted warranty by Cordivari Srl is 2 years.

The warranty is valid for product defects, if all points of current article 5 are respected, and valid only if the products are set with the cathode protection in an efficient and permanent way. This last one has to be frequently checked. The installation should respect the parameters in force about overpressure, corrosion, legionellosis according to the prescriptions previously listed in this catalogue (See "Regulation for a correct installation of pressure tanks" at page 244 of current Catalogue). Basically the sanitary water production units have to comply with the national directive about water treatment.

The warranty is no more valid in case of non observance of local regulations.

Warranty will be applicable at the following conditions:

- Products must have been stored in good conditions and protected from the inclemency of the weather before installation

- Products did not have damages during transport, handling or installation.

- No alterations or reparations must be done without the prior consent of the seller

- The installation must have been done by authorized professionals and in conformity with all instructions and standards written on the technical data sheets provided by Cordivari Srl, and according to eventual specific technical rules and general disposition

- Accessories used must be original provided Cordivari materials

- The buyer must have paid all the bills within the pre-established deadlines

- No aggressive chemical substances must have been added to the water.

- Working pressure and temperature shown in the catalogue must correspond to the current usage pressure and temperature.

Those parts subject to natural consumption (as magnesium anode, gaskets, bolts) are always excluded for any warranty.

Warranty starts from invoice date and will be not renewed in case of product replacement

The warranty doesn't cover construction or dismantling cost to move the product from/to the installation place.

Cordivari Srl is committed during the warranty period to refund the returned product if confirmed as to be defective.

Besides, the purchaser may not claim any other costs of, direct or indirect damage, to person / or properties resulting from above confirmed defects.

The materials that have to be replaced or repaired must be shipped free of carriage to the Cordivari plant.

Systems and products present on this catalogue are designed and realized according to European standards CE-EN-UNI-e PED. Systems and products follow these warranty and conformity conditions only for countries where those laws are applicable. Cordivari has no responsibilities about warranty and conformity for extra UE countries or where these laws are not applicable.

6. PAYMENTS

All invoices have to be paid according to agreed deadline. Any delay, even partially may suspend immediately the planned deliveries. Overdue interest could be charged at current rates.

7. GOODS' PROPERTY

Cordivari Srl remains owner of the delivered goods until they are not completely paid by the buyer (purchaser). In case of failure to proceed with the payment, by the buyer (purchaser) Cordivari Srl can ask for the immediate return of the delivered goods, keeping the partial paid amount as indemnity, or even ask for a bigger amount should the damage be higher.

8. PRICES

Prices are not binding and can be modified without notice at anytime. Prices are revisable, in case of market conditions changes Cordivari Srl reserve the right to modify them for goods still to be delivered. Stated prices are ex-works Cordivari Plant in Morro D'oro (TE - Italy), except in case of written agreements. For some voluminous delivery Cordivari may charge some packing extra-costs.

Prices on this Pricelist are V.A.T. excluded

9. ORDERS

The minimum order is Euro 2.000,00. Given orders are binding to the buyer, who acknowledges of all our sales conditions.

In case the client draws up the order in name and on behalf of others, with the signing of the order he is committed to the fulfillment of what agreed.

Delivery is only at the headquarters / warehouse in the Customer, for different deliveries please contact our sales office.

Additional costs may be asked to the buyer (purchaser) in case of special requests on delivery term (express delivery, etc.)

10. COURT AUTHORITY

For the following Catalogue and conditions only the provisions of Italian law will be used. For controversy, the Court of Teramo (Italy) shall have exclusive competence. Essential and trial law shall be exclusively Italian.

11. NOTES

Translation of Cordivari General sales conditions and warranty terms, reported in this page, has been done from the Italian version. In case of possible controversy, the official Cordivari General sales condition and warranty terms are the one reported in the Italian language, stated at page 282 of this catalogue.

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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, pagamenti 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 MODIFICA 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 tutti i bollitori con trattamento anticorrosivo interno in Polywarm® la Cordivari Srl garantisce anni 5.

Per tutti i bollitori 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 saldobrasati), sia montati sui bollitori sia venduti singolarmente la Cordivari Srl garantisce anni 2.

Per tutti i termoaccumulatori la Cordivari Srl garantisce anni 2.

Per tutti i termoaccumulatori combinati la Cordivari garantisce anni 2 per l'accumulo di acqua tecnica e anni 5 per l'accumulo A.C.S.

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 COMPONENTS 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 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.

I prodotti ed i sistemi 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.

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

Il valore minimo per ordine è di Euro 2.000. 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 aggiuntivi che verranno comunicati di volta in volta dal 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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Il presente catalogo sostituisce ed annulla tutte le edizioni precedenti.

La società si riserva la facoltà di modificare in qualsiasi momento i prodotti e i dati riportati a catalogo e non risponde degli eventuali errori tipografici.



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CALORIFIERS - PRESSURE TANKS

PRICE REQUEST

Mod. 03.10-E

Rev. 05
 del 05/08/2011

DATE	
COMPANY NAME	

PRODUCT CATEGORY	<input type="checkbox"/> CALORIFIERS	<input type="checkbox"/> BUFFERS	<input type="checkbox"/> COMPRESSED AIR RECEIVERS	<input type="checkbox"/> CHILLED WATER TANK
	<input type="checkbox"/> MULTI-HEAT ENERGY COMBI / ECO-COMBI	<input type="checkbox"/> D.H.W. ACCUMULATION TANK	<input type="checkbox"/> INERTIAL TANK NO PED	

DESCRIPTION	

DRAWING

TECHNICAL DETAILS	
CAPACITY [lt]	
DIAMETER [mm]	
HEIGHT [mm]	
VERTICAL	<input type="checkbox"/>
HORIZONTAL	<input type="checkbox"/>
POLYWARM®	<input type="checkbox"/>
STAINLESS STEEL	<input type="checkbox"/>
PRESSURE	TEMPERATURE
SECONDARY SYSTEM (SANITARY)	
LIQUID	PRESSURE
PRIMARY SYSTEM (HEATING)	
LIQUID	PRESSURE

QUANTITY

INSULATION

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