

Wenkel S.r.l

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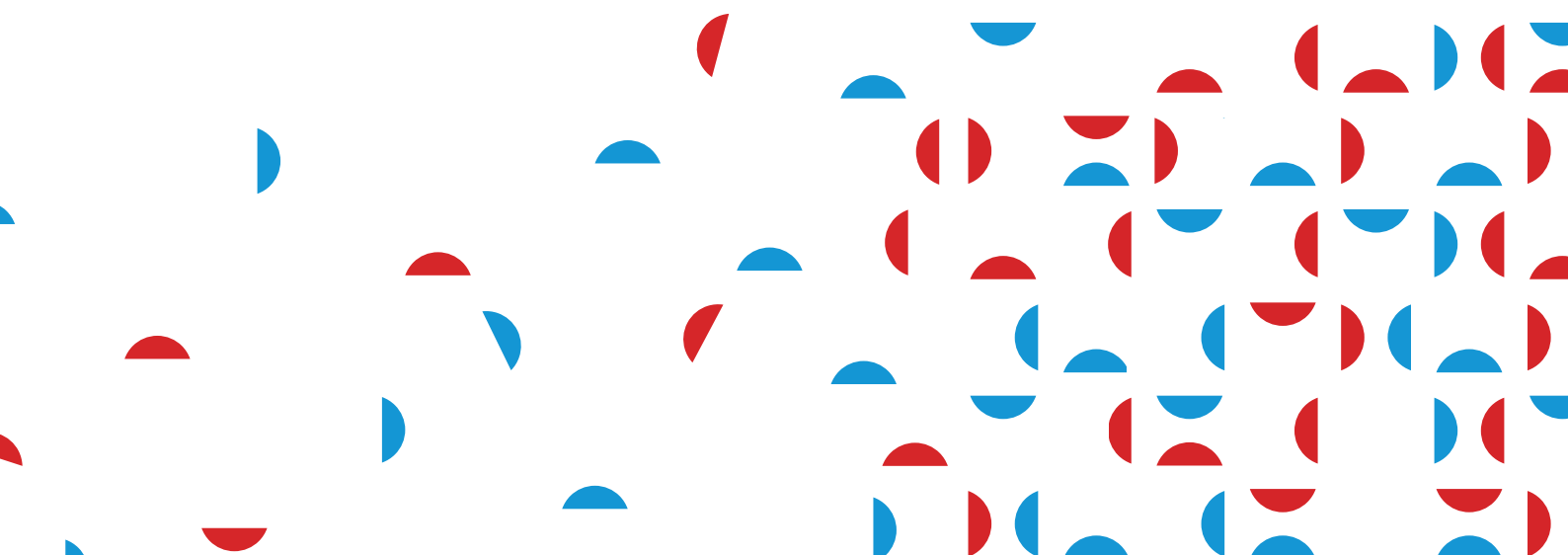
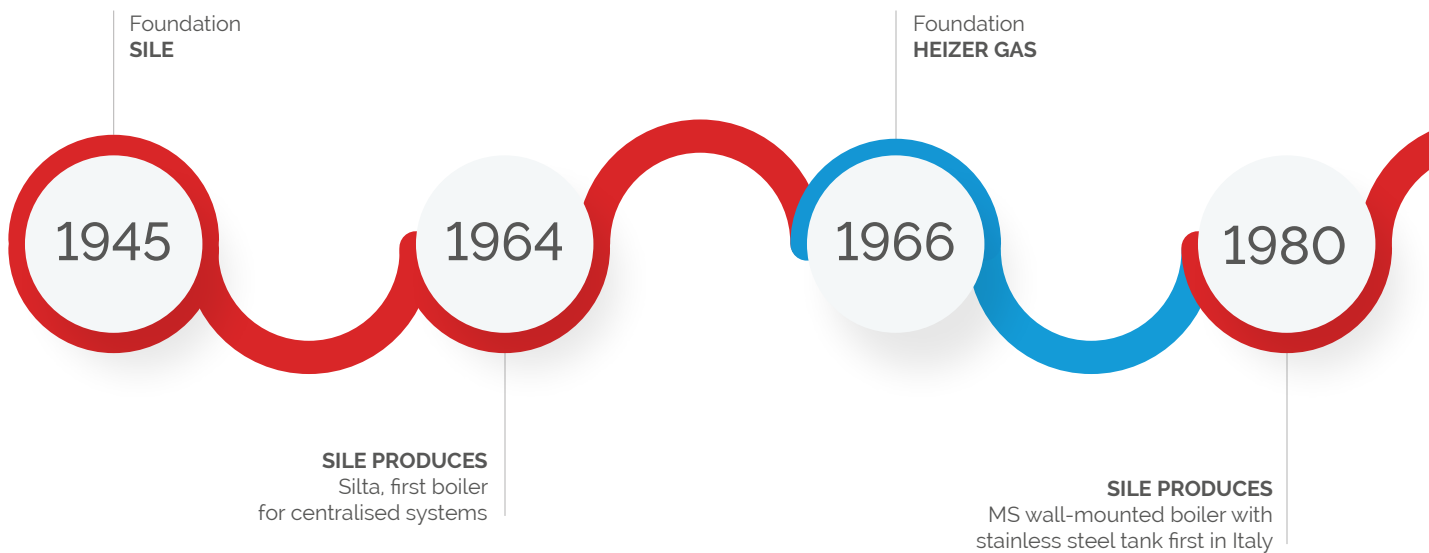
SYNERGY AND TRADITION

A solution of continuity and quality

SILE CALDAIE and HEIZER GAS, two historical companies specialising in the production of both domestic and industrial heating systems, united by a long tradition in the sector, present themselves on the national and international scene with a new production and marketing activity.

The extensive manufacturing tradition of the two brands and the reliability and quality of their products result in a wide range of HEIZER SILE branded products, aimed at a synergetic production of tradition and innovation.

Since 1945, the Treviso-based company SILE has been producing boilers, water heaters, autoclaves with accessories, expanders, steam generators and superheated water generators, carefully following the needs of the market, offering state-of-the-art products and innovative solutions.

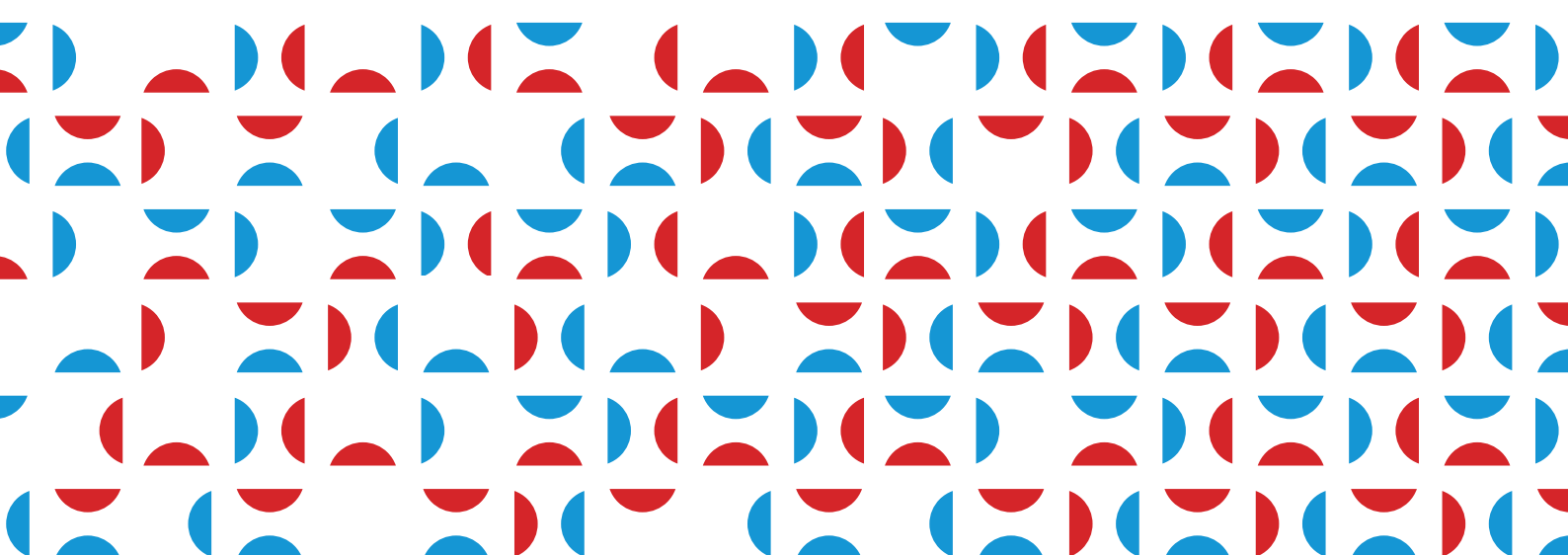
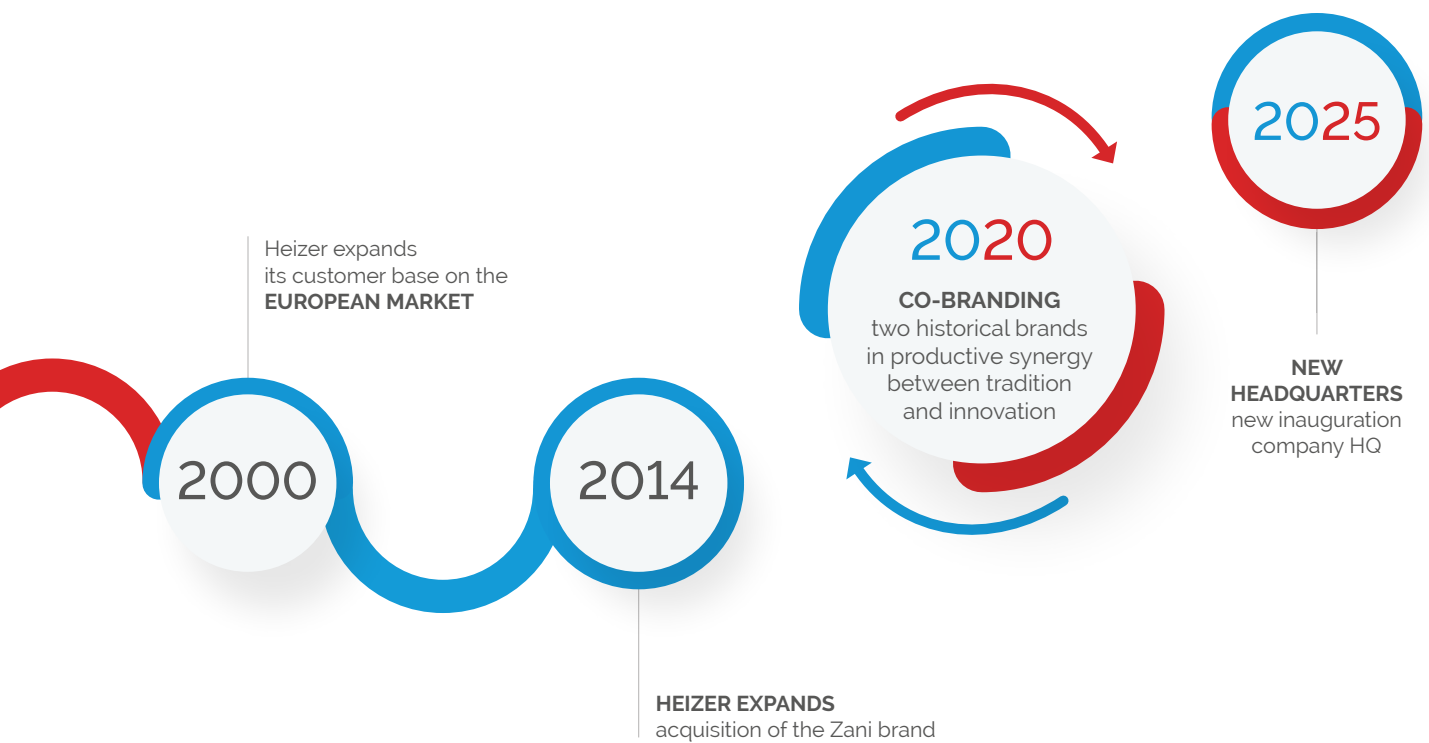


SYNERGY AND TRADITION

A solution of continuity and quality

For more than 50 years, in the vicinity of Milan, the HEIZER company has been building boilers, storage tanks and water heaters, increasingly qualifying itself in the industrial water heater segment.

The recent acquisition of Sile Caldaie by Heizer Gas, represents a great opportunity for growth, collaboration and enhancement of two historical companies, united by great experience and focused on producing efficient, high-performance products.



Monobloc: value for our customers

M The symbol M - Monoblock - identifies "plug and play" products, i.e. those ready to use and able to simplify installation because they are complete with the most important accessories complementary to the product itself, such as, for example, monoblock autoclaves, certified as "ASSEMBLY", boilers with a solar control unit and pump unit already assembled. Within our price list you will find many products marked with the symbol M, which represents a value-added service for the thermo-hydraulic installer, as it simplifies the installation of products and the realisation of the system by offering greater guarantees and safety of installation.



M

Monoblock autoclave certified 'TOGETHER' by Notified Body



M



M



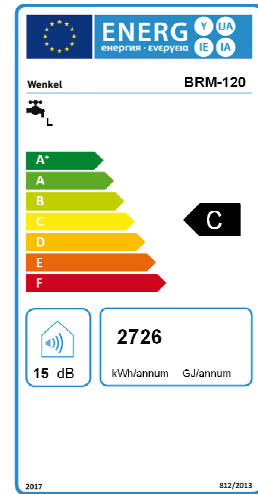
M

Regulatory aspects



ErP LABELLING

As of 26 September 2015, all products for space heating and domestic hot water production must comply with the European Directive 2009/125/EC ErP/EcoDesign in order to be placed on the market. According to the Directive known as ErP - an acronym for Energy related Products - energy-related products must reduce energy consumption and pollutant emissions through environmentally friendly design, and they must all be provided with an energy label highlighting their efficiency class. Therefore, ErP energy labelling is of paramount importance. For heating, the labelling of heat generators is from A++ to G, and for domestic hot water production from A to G. In addition to the individual product labels, ErP has also provided for a system label in the case of systems with several appliances, components and their controls, indicating the energy efficiency levels that can be achieved with all the components used. In this catalogue, the energy class in heating and domestic hot water is indicated for each product that meets the requirements of the standard.



PED CERTIFICATION



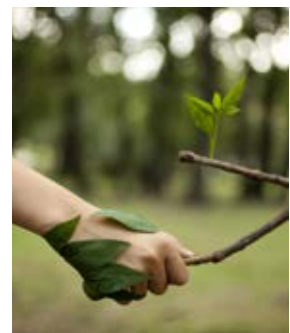
Ped Certification (Pressure equipment directive), is a product directive issued by the European Community in 2014. It is important to obtain this certification for any installation with parts and equipment working under pressure, in fact the 2014/68/EU PED directive applies from design and manufacture to conformity assessment of pressure equipment or assemblies such as vessels, steam generators, accessories. The certification is provided and included in the sale price of the pressure equipment. The customer is provided with a complete design manual, operating and maintenance manuals for all components and the Notified Body certification. With the introduction of the Ped, the manufacturer, upon completion of conformity checks by a Notified Body, places the CE mark on the equipment and completes the Declaration of Conformity. The CE mark allows the pressure equipment to be placed on the market and put into service.



NOx



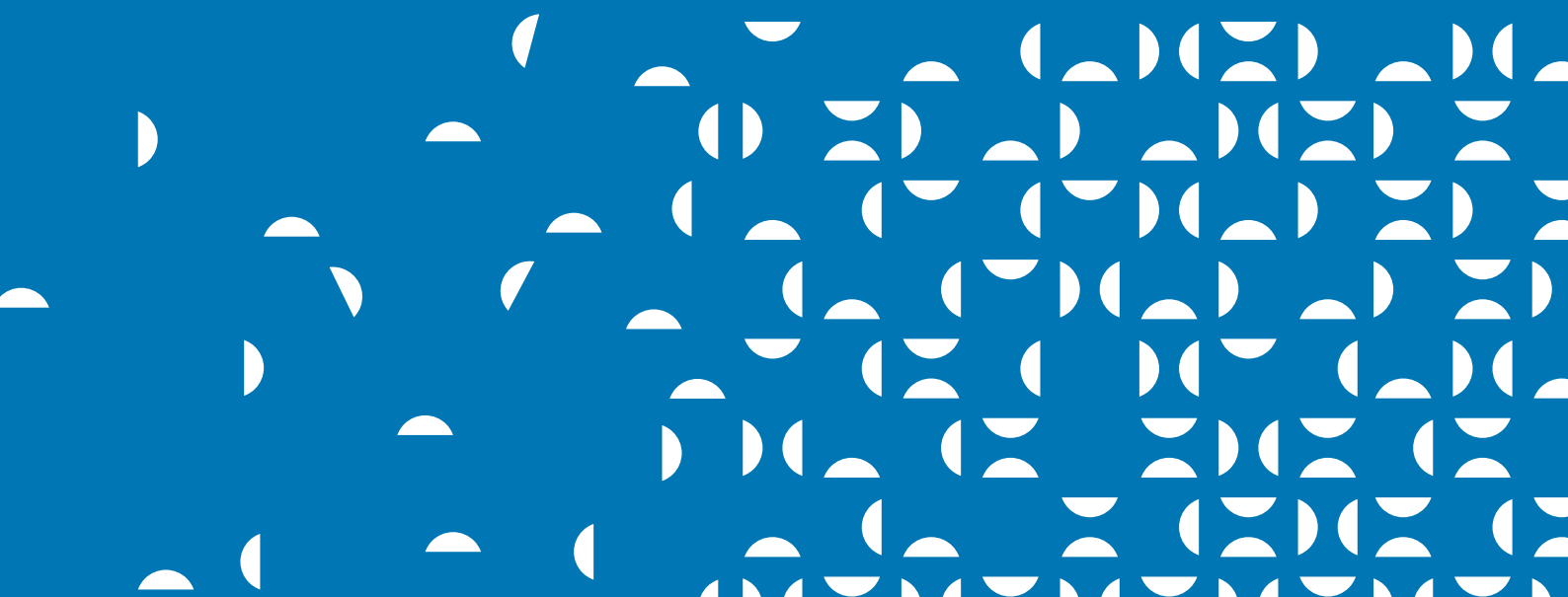
The European Directive 2016/2284 reinstates the commitment to reducing pollutant emissions, redefining the new emission limit for NOx - a generic abbreviation for nitrogen oxides - to minimise the impact on the environment. These new low NOx emission regulations require substantial construction changes. The new ULTRA LOW NOx water heater range is built in accordance with the new Low NOx regulation 812-814/2013, which as of 26 September 2018 limits NOx emissions in Italy, minimising the impact on the environment and ensuring efficient hot water solutions.



WRAS Approved Material

The company has obtained the WRAS Approved Material certificate, which certifies that the materials used in the vitrification and Teflon treatment of the tanks and hatch gaskets meet the high safety standards for contact with drinking water. As far as the heat exchanger line is concerned, the gaskets also conform to WRAS APPROVED MATERIAL and, combined with the 316L stainless steel plates, make the product entirely composed of materials suitable for DHW use. The adoption of WRAS-approved materials ensures compliance with European and international standards, confirming the company's commitment to offering safe, high-performance solutions.





Boiler Index

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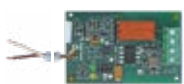
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RESIDENTIAL CONDENSATION ≤ 35 kW

Sile boilers with integrated storage are characterised by:



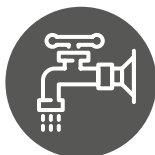
Plenty of water available *Ideal for hot tubs*

The storage tank provides a large amount of water ready for use: while the water in the storage tank is being consumed, the boiler heats an equal amount, which is stored in the tank.



Simultaneous withdrawals *Never again without water in the shower!*

A boiler with storage serves precisely to meet high withdrawal peaks: water may be required at several points within the house.



Hot water immediately

Thanks to the PLUS function the boiler always has a reserve of hot water ready for use.



Temperature stability

The advantage of having a stable water supply temperature, even at times of high demand.

Boilers and hybrid solutions with heat pumps

CONDENSA LINE MG construction aspects

CONDENSA MG construction aspects

- External probe and remote control** Every model in the CONDENSA MG range can be equipped with an external probe for sliding temperature operation and with a remote control for room thermoregulation, hourly, daily and weekly programming.
The installation of the external probe and remote control allows an increase in energy class from A to A+
 CONDENSED = A-Class
 CONDENSED + REMOTE CONTROL + EXTERNAL PROBE = A +
- Filter on delivery**
 The filter helps retain impurities in the system, safeguarding the functionality of the boiler components.
- Easy maintenance**
 CONDENSA boilers are designed for quick and easy maintenance. All components, including the expansion tank, can be removed from the front of the boiler. Easy maintenance is ensured!
- Three-piece casing**
 All boilers in the CONDENSA series have a three-piece casing with an individually removable front. Here too, easy maintenance is ensured.
- Brass hydraulic unit**
 Index of product quality is the reliable and safe brass hydraulic unit with which the MG3V - BI - MAXINOX - MAXISOL models are equipped
- Stainless steel primary exchanger**
 The entire CONDENSA range is equipped with efficient, compact and extremely reliable condensing stainless steel exchangers and pre-mixed stainless steel burners for perfect combustion at low temperatures. NOx emission values are less than 49 mg/kWh = 28 ppm and fall within the most environmentally friendly class (5) required by European standards.
- High-efficiency pumps**
 Since 1 August 2015, European Directive 2005/32/EC (see EC Regulation No. 0641/2009) has provided for the installation of product-integrated high-efficiency circulators to reduce electricity consumption in accordance with the European Community's 20/20/20 targets. All pumps used on our products today are high-efficiency self-regulating pumps with low energy consumption (3-45 W). All boilers are equipped with pumps with a maximum head of 7 metres, adjustable.



Residential hybrid solutions



**IN WALL gas boiler
+ Furia heat pump
+ solar thermal**

Our new integrated hybrid systems are designed to meet the requirements of the new Decree Law no. 28 of 3.3.2011 that promotes the use of renewable energy in the air-conditioning of buildings. We believe that the hybrid solution, which includes two or three energy sources, is the most suitable to meet the new regulatory requirements and is very interesting to achieve significant energy savings even in existing buildings, which are often old and have a very low average energy class, in which the only renewable source (heat pump or solar thermal) is insufficient to ensure the required comfort or is not economically viable.

SILE IN-WALL HYBRID

Built-in cabinet solutions with **gas boiler, Furia heat pump and solar thermal**. IS an efficient and compact system for heating, cooling and instantaneous domestic hot water production. This system includes the integrated operation of a 25-30 and 35 kW condensing boiler, a 6-8-12 kW monoblock heat pump and a solar thermal system.

A complete heating plant enclosed in a compact size cabinet with a depth of only 35 cm, a height of 220 cm and a width of 95 cm.

FURIA IS THE ADVANTAGEOUS CHOICE

The Furia system can replace traditional combustion heaters because it reaches temperatures up to 75°C while maintaining high performance thanks to R290 gas.

- ✓ **Energy efficiency:** The Furia packaged unit is certified with energy classes A++/A++ and SCOP up to 5
- ✓ **Smart:** Control your system remotely using the dedicated App, available for iOS and Android
- ✓ **Silent:** Enjoy your comfort thanks to the quietness of the monoblock 43÷54 dB(A) at 1 metre
- ✓ **Environmentally friendly:** R290 gas is a refrigerant with GWP = 3

TAX INCENTIVES

Thanks to its innovative features and high efficiency, the Furia system can benefit from the Italian government's measures to support energy efficiency

- ✓ **Conto Termico 2.0:** The Conto Termico offers incentives to improve energy efficiency and generate thermal energy from renewable sources for small systems. The amount of the contribution can be up to 65% of the eligible expenses. Entities can access the benefit by applying directly or through an Energy Service Company.
- ✓ **Eco Bonus:** Tax benefits affecting energy requalification works
- ✓ **Superbonus:** For energy requalification in the form of a tax deduction
- ✓ **Renovation:** Tax benefits affecting building renovation work

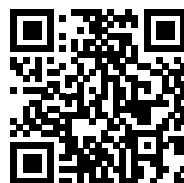
FREE START-UP

Start-up is free of charge throughout the country, and is dedicated to the heat pump and indoor units. The service is offered by one of the authorised Technical Assistance Centres throughout the country, which has a direct line to the company's service department for any specialist support. To request these services, contact the technical assistance centre in your area directly and book the service. The list of authorised Technical Assistance Centres can be found at: www.pompadicalorer290.it

Boilers and hybrid solutions with heat pumps

Residential hybrid solutions

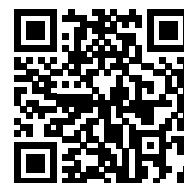
SILE IN WALL HYBRID



PRICES



KIT PRICES



ACCESSORIES PRICES

System composition

The IN WALL system consists of the following indispensable elements:

1. Built-in cabinet dimensions 950x350x2200;
2. 150 litre technical tank kit for domestic hot water production with integrated t-quick module;
3. Hydraulic kit;
4. **FURIA** packaged heat pump in available capacities of 6-8-12 thermal kW;
5. Condensation boiler with instantaneous DHW production models **CONDENSATION MG 25-30-35**.

Optional accessories

1. Zone kit for direct zone management;
2. Zone kit for managing a mixed zone;
3. Solar kit for managing a solar collector model RT;
4. Recirculation kit.



Technical specifications for Furia 6-8-12 kW heat pumps see page 16

Codes/Prices

Model	Code	Price
Hydraulic kit	342030165X	3.169,00 €
Storage kit	329070724X	1.374,00 €
Built-in cabinet	329030846X	674,00 €

Codes/Prices CONDENZA MG

Model	Code	Price
MG 25 CNG/LPG	349010027X	1.613,00 €
MG 30 CNG/LPG	349010028X	1.807,00 €
MG 35 CNG/LPG	349010150X	2.091,00 €



Technical specifications for CONDENZA MG boilers

Model	Max useful power	Min useful power	Power useful DHW	Yield useful		Exchanger DHW instant stain. steel AISI 316	Production DHW Δt 30°C L/min	Dimensions HxWxD mm	empty weight kg	Energy class		NOx class
	50/30°C kW	50/30°C kW		80/60°C %	50/30°C %					heating (*)	DHW	
MG 25	22,1	2,7	25,0	95,9	105,8	-	12,5	705 x 400 x 245	29	A	A	6
MG 30	26,5	2,7	30,0	96,3	106,2	-	15,2	705 x 400 x 245	29	A	A	6
MG 35	29,0	3,7	33,2	95,2	105,1	*	16,7	705x400x245	29	A	A	6

(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

Optional accessories

Description	Ref. p.	Code	Price
Outdoor temperature sensor for CONDENZA MG	25	85077520502	37,00 €
Remote control for room thermoregulation for CONDENZA MG	25	85077520089	212,00 €
Device for APP for CONDENZA MG	25	85077520090	298,00 €
Solar kit		342030166X	2.521,00 €
Direct zone kit		338110071X	435,00 €
Mixed zone kit		338110072X	641,00 €
Recirculation kit		342030167X	613,00 €

Residential hybrid solutions

SILE IN-WALL HYBRID

System Operation

Winter Mode

In winter, the heat pump works as the main source of heat and the boiler comes into operation if its performance is not sufficient to provide the required comfort.

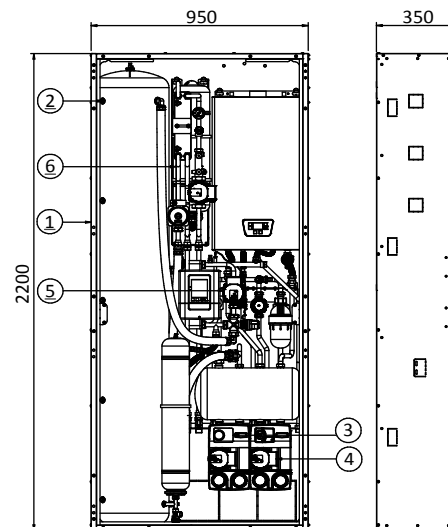
Summer Mode

In summer, the heat pump can work in cooling mode on both radiant floor panels and hydronic fan coil terminals if a zone valve is combined for these units.

Instant Hot Water Production Mode

The technical water storage tank for instantaneous DHW production is heated by means of a heat pump or solar thermal integration. Through an integrated T-QUICK module, instantaneous DHW is produced and if this is at a lower temperature than required, then the boiler will activate to act as a booster and bring the domestic hot water to the optimal set point.

1. Built-in cabinet Dimensions: 950x350x2200
2. 150L technical cylinder for instantaneous domestic hot water production with integrated T-Quick module
3. Zone kit to manage a zone
4. Zone kit to manage a mixed zone
5. Hydraulic kit for heating and air conditioning management
6. Solar thermal kit as optional integration

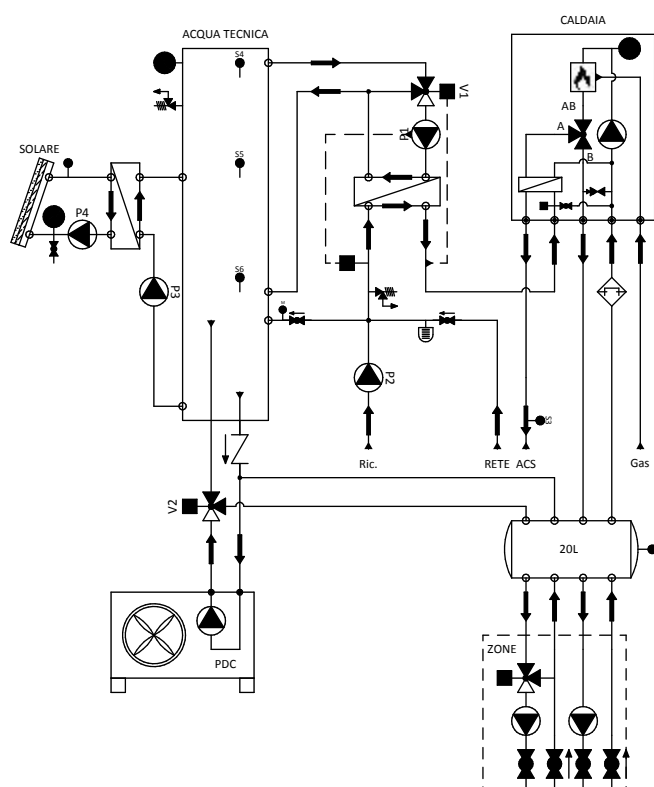


Step-by-step guide for constructing an estimate

1. Select accumulator kit - hydraulic kit codes
2. Add gas boiler model
3. Adding the built-in cabinet
4. Combine any heat pump from the FURIA 6-8-12 kW range
5. Add any accessories

Optional accessories

- Solar kit
- Direct zone kit
- Mixed zone kit
- Recirculation kit
- Remote control for room thermoregulation for CONDENZA MG
- External probe for CONDENZA MG
- Device for APP for CONDENZA MG



Boilers and hybrid solutions with heat pumps

Residential hybrid solutions

FURY HEAT PUMPS



PRICES

Furia is a heat pump system using R290 gas for heating, cooling and domestic hot water production.

The system consists of a monoblock unit, installed externally, and an internal unit dedicated to the production of DHW and the management of the air conditioning system.

PLUS

- ✓ Suitable for all weather conditions
- ✓ Water flow temperature up to 75°C
- ✓ Ideal for renovations
- ✓ Suitable for any heating solution
- ✓ Cascade installation of up to 8 units
- ✓ From flat to condominium



The display is supplied with the monoblocks and allows for simple and intuitive adjustment of the system. The display does not perform the function of a room thermostat.



Energy efficiency

The Furia monoblock unit is certified with energy classes A+++/A++ and SCOP up to 5



Smart

Control your system remotely using the dedicated App, available for iOS and Android



Ecological

R290 gas is a refrigerant with GWP = 3



Silent

Enjoy your comfort thanks to the quietness of the monoblock 43+54 dB(A) at 1 metre

Code	Description	Price
844090006X	FURIA 6 M R290	6.103,00 €
844090007X	FURIA 8 M R290	7.146,00 €
844090008X	FURY 12 M R290	7.654,00 €
844090011X	FURY 18 T R290	9.938,00 €



FURIA 6 kW



FURIA 8 kW



FURIA 12 kW



FURIA 18 kW

Residential hybrid solutions

FURY HEAT PUMPS

Packaged units can be **cascaded up to 8 units.**

Model			FURIA 6 M	FURIA 8 M	FURIA 12 M	FURIA 18 T
Electrical data		V/Ph/Hz	220-240/1/50	220-240/1/50	220-240/1/50	380-415/3/50
Nominal heating (A7/6,W30/35)	Nominal heating capacity	kW	6,23	8,24	12,05	18,01
	Nominal input power	kW	1,31	1,66	2,61	4,10
	COP		4,77	4,96	4,61	4,4
Nominal heating (A7/6,W47/55)	Nominal heating capacity	kW	6,12	8,13	12,18	18
	Nominal input power	kW	2,00	2,61	4,04	5,96
	COP		3,06	3,12	3,01	3,02
Nominal cooling (Max) (A35/24,W12/7)	Nominal cooling capacity	kW	4,56	7,55	8,23	14,32
	Nominal input power	kW	1,71	2,45	3,18	5,86
Energy class with water 35°C			A+++	A+++	A+++	A+++
Max. power consumption		kW	3,50	5,40	5,40	10,5
Max. current consumption		A	15,0	25,0	25,0	17,0
Type of refrigerant / Cargo / GWP		... / kg	R290 / 0,55 / 3	R290 / 1,05 / 3	R290 / 1,05 / 3	R290 / 1,4 / 3
Water flow rate		m ³ /h	1,00	1,4	2,06	3,1
Number of fans			1	1	1	2
Type of fan motor			DC inverter			
Compressor			DC inverter			
Pump			Inverter / Integrated			
IP Class			IPX4			
Noise level at 1 m		dB(A)	46	43	46	56
Max. water delivery temperature		°C	75	75	75	75
Hydraulic connections			G1	G1	G1	G1 - 1 / 4
Max. pressure drop		kPa	20	20	20	55
Temperature range (in heating mode)		°C	-25-35			
Temperature range (in cooling mode)		°C	15-45			
Dimensions (L'D'H)		mm	1187*418*805	1287*448*904	1287*448*904	1187*488*1456
Packaging dimensions (L'D'H)		mm	1217*463*920	1317*493*1020	1317*493*1020	1217*538*1570
Net weight		kg	110	134	134	195
Packaging weight		kg	122	146	146	208

WALL-HUNG BOILERS RANGE RESIDENTIAL CONDENSING



MG

- Instant DHW
- GIS - Gas Intelligent System
- Modulation 1:10
- Intelligent remote control and management via App
- Compact Dimensions



MG3V

- Three-way diverter valve for
- Connection to remote boiler
- GIS - Gas Intelligent System
- Modulation 1:10
- Intelligent remotability (via command
- remote) and management via App
- Compact Dimensions



CONDENSA BI

- DHW storage tank in AISI 316L stainless steel 60 L
- Modulation 1:10
- Intelligent remotability (via command
- remote) and management via App
- Compact Dimensions

BASEMENT BOILER RANGE RESIDENTIAL CONDENSING



MAXINOX CONDENSA

- Modulation 1:10
- Intelligent remote control and management via App
- 120 L DHW storage tank
- Hourly programming



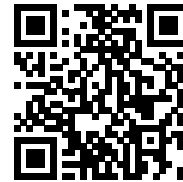
MAXISOL CONDENSA

- Modulation 1:10
- Intelligent remote control and management via App
- 200 L DHW storage tank
- Hourly programming
- Glycol connections for solar panel

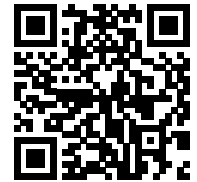
Boilers and hybrid solutions with heat pumps

Residential condensing ≤ 35 kW

CONDENSA MG



PRICES



ACCESSORIES PRICES

Wall-hung condensing and premixing multi-gas boilers, with very high and constant efficiency, running on methane or LPG gas for heating and instantaneous domestic hot water production.

GIS, GAS Intelligent System, for perfect combustion control with GAS ADAPTIVE valve for automatic adaptation to different types of gas. Smartphone application for remote control. (APP SILE CONDENSA MG)

Consisting of: stainless steel boiler body, sealed chamber and stainless steel instantaneous heat exchanger for domestic hot water production, high-efficiency pump with electronic speed control.

Electronic management: electronic ignition with flame ionisation and continuous modulation up to 2.7 kW with microprocessor.

Electrical protection IPX5D.



Codes/Prices

Model	Code	Price
MG 25 CNG/LPG	349010027X	1.613,00 €
MG 30 CNG/LPG	349010028X	1.807,00 €
MG 35 CNG/LPG	349010150X	2.091,00 €

Technical Specifications

Model	Max useful power	Min useful power	Power useful DHW	Yield useful		Exchanger DHW instant stainless steel AISI 316	Production DHW	Dimensions HxWxD mm	empty weight kg	Energy class		NOx class
	50/30°C kW	50/30°C kW		80/60°C %	50/30°C %		Δt 30°C L/min			heating (*)	DHW	
25	22.1	2.7	25.0	95.9	105.8	-	12.5	705 x 400 x 245	30	A	A	6
30	26.5	2.7	30.0	96.3	105.4	-	15.2	705 x 400 x 245	30	A	A	6
35	29.0	3.7	33.2	95.2	105.1	-	16.7	706 x 450 x 250	35.8	A	A	6

(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

Optional accessories

Model	Ref. p.	Code	Price
KIT 24 gas tap connection and system connection hoses		00907250168	72,00 €
Remote control for room thermoregulation	25	85077520089	212,00 €
KIT 5 universal stainless steel connections		00891180020	124,00 €
Outdoor temperature sensor (to be installed preferably with room temperature control)	25	85077520502	37,00 €
Deflector filter Ø 3/4" (recommended for generator protection) with magnet		85077110144	121,00 €
Device for APP	25	85077520090	298,00 €
Dima		85077790032	40,00 €
Interface kit for zone management with remote control		85077520017	72,00 €

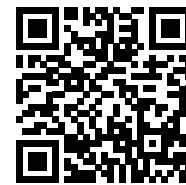
P.P. (polypropylene) smoke suction - exhaust kit

The air intake-flue outlet kit must be added to the price of the boiler (only use terminals and ducts guaranteed by the boiler manufacturer see standard UNI 7129:2015)

Boilers and hybrid solutions with heat pumps

Residential condensing ≤ 35 kW

CONDENSA MG3V



PRICES



ACCESSORIES PRICES

Wall-hung condensing boilers designed for heating only and with a diverter valve for connecting a remote domestic hot water cylinder.

GIS, GAS Intelligent System, for perfect combustion control with GAS ADAPTIVE valve for automatic adaptation to different types of gas. Smartphone application for remote control. (APP SILE CONDENSA MG)

Consisting of: stainless steel boiler body, sealed chamber and stainless steel instantaneous heat exchanger for domestic hot water production, high-efficiency pump with electronic speed control.

Electronic management: electronic ignition with flame ionisation and continuous modulation up to 2.7 kW with microprocessor.

Electrical protection IPX5D.

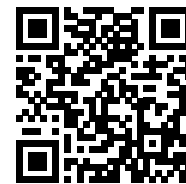


Codes/Prices

Model	Code	Price
MG3V 30	349010151X	1.971,00 €
MG3V 35	349010152X	2.143,00 €

Codes/Prices Remote kettle

Capacity	Energy Class.	Code	Price
100	C	319060192X	966,00 €
120	C	319060193X	1.027,00 €
140	C	319060190X	1.079,00 €
200	C	319060191X	1.401,00 €



MAXICELL PRICES

Technical Specifications

Model	Max useful power	Min useful power	Power useful DHW	Yield useful		Dimensions HxWxD mm	empty weight kg	Energy class heating (*)	NOx class
	50/30°C kW	50/30°C kW		80/60°C %	50/30°C %				
30	26,5	2,7	30,0	96,3	105,4	705 x 400 x 245	30	A	6
35	29,0	3,7	33,2	95,2	105,1	706 x 450 x 250	35,8	A	6

(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

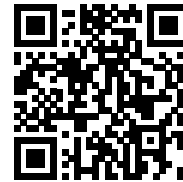
Optional accessories

Model	Ref. p.	Code	Price
KIT 24 gas tap connection and system connection hoses		00907250168	72,00 €
Remote control for room thermoregulation	25	85077520089	212,00 €
KIT 5 universal stainless steel connections		00891180020	124,00 €
Outdoor temperature sensor (to be installed preferably with room thermoregulation)	25	85077520502	37,00 €
Deflector filter Ø 3/4" (recommended for generator protection) with magnet		85077110144	121,00 €
Device for APP	25	85077520090	298,00 €
Template		85077790032	40,00 €
Interface kit for zone management with remote control		85077520017	72,00 €
Boiler probe		85077520013	48,00 €

Boilers and hybrid solutions with heat pumps

Residential condensing ≤ 35 kW

CONDENSA BI



PRICES



ACCESSORIES
PRICES

Wall-hung condensing and premixing boilers, with very high and constant efficiency, running on methane or LPG gas for heating and domestic hot water production. Consisting of: stainless steel boiler body, sealed chamber, boiler with anti-legionella function, inspection opening, 2-litre expansion vessel for domestic hot water and high-efficiency pump.

Condensation stainless steel primary exchanger, modulation 1:10
60 L DHW storage tank, brass hydraulic unit, automatic filling valve, hourly boiler preparation programming, multifunctional control system: more than 40 configurable parameters for system optimisation



Codes/Prices

Model	Code	Price
BI 3.27 METHANE	349010153X	3.777,00 €
BI 3.27 LPG	349010154X	3.777,00 €
BI 3.35 METHANE	349010155X	4.033,00 €
BI 3.35 LPG	349010156X	4.033,00 €



N.B.: The air intake-flue outlet kit must be added to the price of the boiler (only use terminals and ducts guaranteed by the boiler manufacturer see standards UNI 7129-2008, 11071-2003).
(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

Technical Specifications

Model	Nominal heat input heating	Minimum heat input heating	Nominal heat input DHW	Yield 30% profit of the heat flow rate	Production DHW ΔT 25°C	Dimensions	Empty weight	Energy class	
	Qn	Qmin	Qnw					Heating. (*)	DHW
	kW	kW	kW	%	L/min.	HxWxD mm	kg		
BI 3.27 METHANE	26	2,6	26	107,6	16	900 x 600 x 425	59	A	XXL-A
BI 3.27 LPG	26	4,0	26	107,6	16	900 x 600 x 425	59	A	XXL-A
BI 3.35 METHANE	33	3,4	33	107,6	17	900 x 600 x 425	60	A	XXL-A
BI 3.35 LPG	33	4,5	33	107,6	17	900 x 600 x 425	60	A	XXL-A

Optional accessories

Model	Ref. p.	Code	Price
NET APP KIT		C49200610X	201,00 €
REMOTE CONTROL KIT	25	85077520089	212,00 €
EXTERNAL PROBE KIT	25	85077520502	37,00 €
WEEKLY CHRONOTHERMOSTAT KIT	25	C49200604X	228,00 €
WEEKLY GSM CHRONOTHERMOSTAT KIT	25	C49200605X	825,00 €
WEEKLY RF CHRONOTHERMOSTAT KIT	25	C49200606X	404,00 €
PLANT KIT 1 ZONE HIGH	25	C49200612X	1.271,00 €
SYSTEM KIT 2 ZONES HIGH	25	C49200613X	1.530,00 €
SYSTEM KIT 3 ZONES HIGH	25	C49200614X	1.831,00 €
SYSTEM KIT 1 ZONE HIGH + 1 ZONE LOW	25	C49200615X	1.954,00 €
SYSTEM KIT 1 ZONE HIGH + 2 ZONES LOW	25	C49200616X	2.664,00 €
ZONE PLANT INTERFACE KIT	25	C49200617X	63,00 €

Boilers and hybrid solutions with heat pumps

Residential condensing ≤ 35 kW

CONDENSA MAXINOX



PRICES



ACCESSORIES PRICES

Floor-standing condensing and premixing boilers, with very high and constant efficiency, running on methane or LPG gas for heating and domestic hot water production. Consisting of: stainless steel boiler body, sealed chamber, production of domestic hot water with large capacity tank with anti-legionella function, inspectable with spiroidal coil exchanger, 4-litre expansion vessel for domestic hot water. High efficiency, high head pump.

Condensation stainless steel primary exchanger, modulation 1:10
120 L DHW storage tank, brass hydraulic unit, automatic filling valve, hourly boiler preparation programming, multifunctional control system: more than 40 configurable parameters for system optimisation



Codes/Prices

Model	Code	Price
CONDENSA 3.35 MAXINOX METHANE	349010157X	5.686,00 €
CONDENSA 3.35 MAXINOX LPG	349010158X	5.686,00 €



N.B.: The air intake-flue outlet kit must be added to the price of the boiler (only use terminals and ducts guaranteed by the boiler manufacturer see standards UNI 7129-2008, 11071-2003).

(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

Technical Specifications

Model	Nominal heat input heating Qn	Minimum heat input heating Qmin	Nominal heat input DHW Qnw	Yield 30% profit of the heat flow rate	Capacity	Scope EN265	Dimensions	Empty weight	Energy class	
	kW	kW	kW	%	L	L/min.	HxWxD mm	kg	Heating. (*)	DHW
3.35 MAXINOX METHANE	33.0	3.4	32.0	107,6	120	22,7	1765 x 600 x 600	145	A	XXL-B
3.35 MAXINOX LPG	33.0	5.0	32.0	107,6	120	22,7	1765 x 600 x 600	145	A	XXL-B

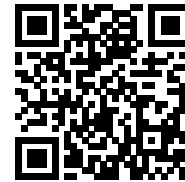
Optional accessories

Model	Ref. p.	Code	Price
NET APP KIT		C49200610X	201,00 €
REMOTE CONTROL KIT	25	85077520089	212,00 €
EXTERNAL PROBE KIT	25	85077520502	37,00 €
WEEKLY CHRONOTHERMOSTAT KIT	25	C49200604X	228,00 €
WEEKLY GSM CHRONOTHERMOSTAT KIT	25	C49200605X	825,00 €
WEEKLY RF CHRONOTHERMOSTAT KIT	25	C49200606X	404,00 €
PLANT KIT 1 ZONE HIGH	25	C49200612X	1.271,00 €
SYSTEM KIT 2 ZONES HIGH	25	C49200613X	1.530,00 €
SYSTEM KIT 3 ZONES HIGH	25	C49200614X	1.831,00 €
SYSTEM KIT 1 ZONE HIGH + 1 ZONE LOW	25	C49200615X	1.954,00 €
SYSTEM KIT 1 ZONE HIGH + 2 ZONES LOW	25	C49200616X	2.664,00 €
ZONE PLANT INTERFACE KIT	25	C49200617X	63,00 €

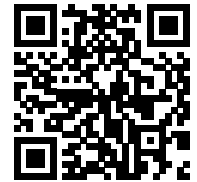
Boilers and hybrid solutions with heat pumps

Residential condensing ≤ 35 kW

CONDENSA MAXISOL



PRICES



ACCESSORIES
PRICES

Floor-standing condensing and premixing boilers with very high and constant efficiency, running on methane or LPG gas for heating and domestic hot water production with solar integration. Consisting of: stainless steel boiler body, sealed chamber, large capacity inspectable steel tank with double exchanger (solar circuit plus integration) with anti-legionella function; 4 litre expansion vessel for domestic hot water, high efficiency pump. Solar circuit, managed by boiler electronics, composed of high-efficiency pump, thermometer, safety valve, solar expansion vessel, drain, interceptors, boiler over-temperature solenoid valve, anti-burn thermostatic mixer, system loading and manual deaeration with flowmeter.



Condensation stainless steel primary exchanger, modulation 1:10
200 L solar domestic hot water storage tank, double coil, brass hydraulic unit, automatic filling valve, integrated solar unit, consisting of: solar system flow and return connections, solar pump with safety valve, solar thermostatic mixing valve, solar control unit managed directly in the boiler, hourly programming cylinder preparation multifunctional control system: more than 40 configurable parameters for system optimisation

Codes/Prices

Model	Code	Price
3.35 MAXISOL METHANE	349010159X	7.948,00 €
3.35 MAXISOL LPG	349010160X	7.948,00 €



N.B.: The air intake-flue outlet kit must be added to the price of the boiler (only use terminals and ducts guaranteed by the boiler manufacturer see standards UNI 7129-2008, 11071-2003).
(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

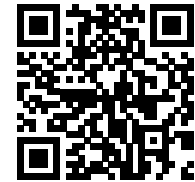
Technical Specifications

Model	Nominal heat input heating	Minimum heat input heating	Nominal heat input DHW	Yield 30% profit of the heat input	Capacity	Scope EN265	Dimensions	Empty weight	Energy class	
	Qn kW	Qmin kW	Qnw kW	%					L	L/min.
3.35 MAXISOL METHANE	33.0	3.4	32.0	107,6	200	24	1980 x 600 x 750	211	A	XXL-B
3.35 MAXISOL LPG	33.0	3.4	32.0	107,6	200	24	1980 x 600 x 750	211	A	XXL-B

Optional accessories

Model	Ref. p.	Code	Price
REMOTE CONTROL KIT	25	C49200603X	274,00 €
EXTERNAL PROBE KIT	25	85077520502	37,00 €
WEEKLY CHRONOTHERMOSTAT KIT	25	C49200604X	228,00 €
WEEKLY GSM CHRONOTHERMOSTAT KIT	25	C49200605X	825,00 €
WEEKLY RF CHRONOTHERMOSTAT KIT	25	C49200606X	404,00 €
PLANT KIT 1 ZONE HIGH	25	C49200612X	1.271,00 €
SYSTEM KIT 2 ZONES AT	25	C49200613X	1.530,00 €
3-ZONE SYSTEM KIT AT	25	C49200614X	1.831,00 €
SYSTEM KIT 1 ZONE AT + 1 ZONE BT	25	C49200615X	1.954,00 €
SYSTEM KIT 1 ZONE AT + 2 ZONES BT	25	C49200616X	2.664,00 €
ZONE PLANT INTERFACE KIT	25	C49200617X	63,00 €

Accessories for boilers ≤ 35 kW



**ACCESSORIES
PRICES**

		MG	MG3V	BI	MAXINOX	MAXISOL	Price € (excl. VAT)
85077520090 Device for APP to be combined with the com- mand remote 85077520089		✓	✓	✓	✓		298,00 €
85077520089 Remote control with climate regulator				✓	✓		212,00 €
C49200603X Remote control with climate regulator						✓	274,00 €
85077520502 Outdoor probe kit advanced thermoregulation in combination with remote control 85077520089		✓	✓	✓	✓	✓	37,00 €
Weekly digital chronothermostat C49200604X wired C49200605X wired with GSM control C49200606X radio frequency		✓	✓	✓	✓	✓	228,00 € 825,00 € 404,00 €
Implant kits							
C49200612X 1 direct zone		✓	✓	✓	✓	✓	1.271,00 €
C49200613X 2 direct zones		✓	✓	✓	✓	✓	1.530,00 €
C49200614X 3 direct zones		✓	✓	✓	✓	✓	1.831,00 €
C49200615X 1 zone AT-1 zone BT		✓	✓	✓	✓	✓	1.954,00 €
C49200616X 1 zone AT-2 zone BT		✓	✓	✓	✓	✓	2.664,00 €
● C49200617X Zone system interface kit		■	■	■	■	■	63,00 €
● 850077520017 Multifunctional interface kit							
Only required in conjunction with Remote Control with climate regulator code 85077520089							

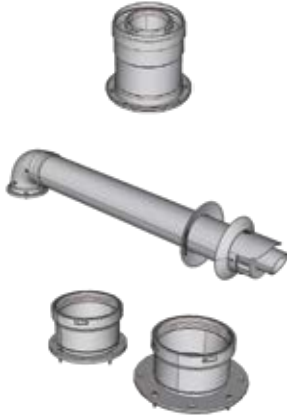
Boilers and hybrid solutions with heat pumps

Accessories for boilers ≤ 35 kW



ACCESSORIES
PRICES

Flue systems



Description	Code	Price
PP flang. concen. vert D. 60/100	C49200502X	35,00 €
KIT AC - Flue Gas Exhaust Ø60-Ø100mm	C49200497X	76,00 €
Flanged suction and discharge sockets in PP Ø 80	C49200504X	49,00 €

Accessories for boilers ≤ 35 kW



ACCESSORIES
PRICES

Gas conversion kit

	CONDENSA BI	MAXISOL	MAXINOX	Price € (excl. VAT)
C49200711X G31	✓			101,00 €
C49200712X G31	✓	✓	✓	101,00 €

Deflector kit

					Price € (excl. VAT)
C49200710X Magnetic deflector kit EXTERNAL BOILER		✓	✓	✓	148,00 €

DHW recirculation kit

C49200586X			✓		308,00 €
C49200588X				✓	334,00 €









High power CONDENSA range

Sile CONDENSA N is a complete range of high-power modular condensing generators, designed to meet every project requirement in both new construction and redevelopment of heating plants .

The **Sile CONDENSAN** range and accessories to complete the system have been designed as a system to be modularised according to plant and design requirements. The special flexibility allows the CONDENSA N wall-hung, floor-standing and outdoor boilers to be installed individually or in cascade (with INAIL certification) in different configurations (in-line, self-supporting front-back, outdoor box) up to 6 modules for a maximum output of 900 kW.



POWER	MODULATION	CONDENSA N	CONDENSA TN	MDC
47.5 kW	1:10	50		50
63 kW	1:10	70		70
85 kW	1:10	90		90
108 kW	1:10	115	115	115
150 kW	1:6	160	160	160

<i>NN. Boilers</i> 			<i>Models boilers</i> 			 WALL HUNG	 FLOOR	 OUTDOOR
2	95 kW	50 + 50	119					
	111 kW	50 + 70	122					
	126 kW	70 + 70	118					
	170 kW	90 + 90	117					
	193 kW	90 + 115	120					
	216 kW	115 + 115	119					
	235 kW	160 + 90	124					
	258 kW	160 + 115	123					
	300 kW	160 + 160	112					

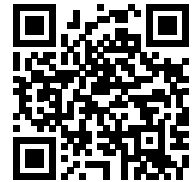
Boilers and hybrid solutions with heat pumps

NN. Boilers		Models boilers				
				MURALS	BASED	OUTDOOR
3	143 kW	50 + 50 + 50	1:28			
	158 kW	50 + 50 + 70	1:31			
	174 kW	50 + 70 + 70	1:34			
	189 kW	70 + 70 + 70	1:27			
	255 kW	90 + 90 + 90	1:26			
	278 kW	90 + 90 + 115	1:29			
	301 kW	90 + 115 + 115	1:31			
	320 kW	160 + 90 + 90	1:33			
	324 kW	115 + 115 + 115	1:29			
	343 kW	160 + 115 + 90	1:36			
	366 kW	160 + 115 + 115	1:34			
	385 kW	160 + 160 + 90	1:40			
	408 kW	160 + 160 + 115	1:37			
450 kW	160 + 160 + 160	1:18				
4	190 kW	50 + 50 + 50 + 50	1:38			
	206 kW	50 + 50 + 50 + 70	1:41			
	221 kW	50 + 50 + 70 + 70	1:44			
	237 kW	50 + 70 + 70 + 70	1:47			
	252 kW	70 + 70 + 70 + 70	1:36			
	340 kW	90 + 90 + 90 + 90	1:35			
	363 kW	90 + 90 + 90 + 115	1:38			
	386 kW	90 + 90 + 115 + 115	1:40			
	405 kW	160 + 90 + 90 + 90	1:42			
	409 kW	115 + 115 + 115 + 90	1:43			
	428 kW	160 + 115 + 90 + 90	1:45			
	432 kW	115 + 115 + 115 + 115	1:39			
	470 kW	115 + 115 + 160 + 160	1:43			
535 kW	115 + 160 + 160 + 160	1:49				
600 kW	160 + 160 + 160 + 160	1:21				
5	624 kW	160 + 160 + 115 + 115 + 115	1:56			
	666 kW	160 + 160 + 160 + 115 + 115	1:61			
	708 kW	160 + 160 + 160 + 160 + 115	1:65			
	750 kW	60 + 160 + 160 + 160 + 160	1:30			
6	774 kW	160 + 160 + 160 + 115 + 115 + 115	1:70			
	816 kW	160 + 160 + 160 + 160 + 115 + 115	1:74			
	858 kW	160 + 160 + 160 + 160 + 160 + 115	1:78			
	900 kW	160 + 160 + 160 + 160 + 160 + 160	1:36			

Boilers and hybrid solutions with heat pumps

High power condensing ≥ 35 kW

CONDENSA N



PRICES

Single wall-mounted monoblock boilers for heating only, for central heating or external installation with special container, with condensation and premixing and very high and constant efficiency, operating on methane or LPG gas (version 100 M only).

Consisting of: stainless steel boiler body, sealed or open chamber. Electronic management: electronic ignition with flame ionisation and continuous modulation, with microprocessor.

Integrated flue gas connections with sockets for combustion analysis as standard, thermal-acoustic insulation, stainless steel combustion unit, special crane for flame stability at low power, 1:10 pneumatic modulation mixer (except model 160 N), dry condensate trap, electronically modulated circulator, multifunctional control system: more than 40 configurable parameters for system optimisation, INAIL certified as a modular generator



Codes/Prices

Model	Code	Price
CONDENSA 50 N METHANE	349010162X	3.921,00 €
CONDENSA 50 N LPG	349010171X	3.921,00 €
CONDENSA 70 N METHANE	349010163X	4.481,00 €
CONDENSA 70 N LPG	349010172X	4.481,00 €
CONDENSA 90 N METHANE	349010164X	5.657,00 €
CONDENSA 90 N LPG	349010173X	5.657,00 €
CONDENSA 115 N METHANE	349010165X	6.329,00 €
CONDENSA 115 N LPG	349010174X	6.329,00 €
CONDENSA 160 N METHANE	349010166X	7.225,00 €
CONDENSA 160 N LPG	349010175X	7.225,00 €



Guarantee valid for both single boiler purchase and dual-cascade solution of your choice.

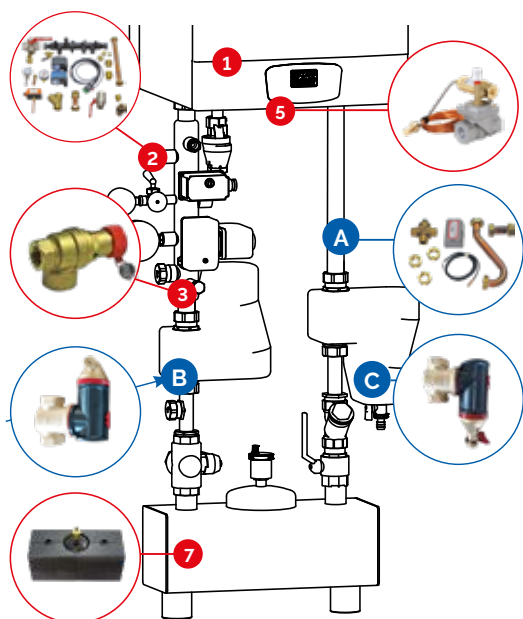
Technical Specifications

Model	Nominal heat input heating	Minimum heat input heating	Nominal heat input DHW	Yield 30% profit of the heat input	Ø fumes	Dimensions	Empty weight	Energy class
	Qn kW	Qmin kW	Qnw kW					
CONDENSA 50 N METHANE	47,5	5,0	47,5	106,7	80	450 x 837 x 475	38,8	A
CONDENSA 50 N LPG	47,5	5,0	47,5	106,7	80	450 x 837 x 475	38,8	A
CONDENSA 70 N METHANE	63,0	7,0	63,0	107,2	80	450 x 837 x 475	45,8	A
CONDENSA 70 N LPG	63,0	7,0	63,0	107,2	80	450 x 837 x 475	45,8	A
CONDENSA 90 N METHANE	85,0	9,50	85,0	109,1	100	600 x 837 x 615	86,5	-
CONDENSA 90 N LPG	85,0	9,50	85,0	109,1	100	600 x 837 x 615	86,5	-
CONDENSA 115 N METHANE	108,0	11,0	108,0	109,1	100	600 x 837 x 615	92,0	-
CONDENSA 115 N LPG	108,0	11,0	108,0	109,1	100	600 x 837 x 615	92,0	-
CONDENSA 160 N METHANE	150,0	25,0	150,0	109,2	100	600 x 837 x 725	105	-
CONDENSA 160 N LPG	150,0	25,0	150,0	109,2	100	600 x 837 x 725	105	-

(*) Installation with remote control and outside temperature probe increases heating energy class from A to A+

Boilers and hybrid solutions with heat pumps

CONDENSA N with balancer

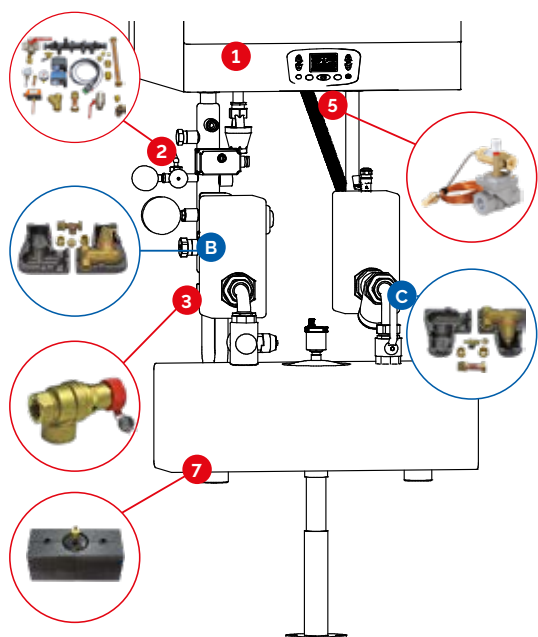


	Total €* excl. VAT
CONDENSA 50 N	5.854,00 €
CONDENSA 70 N	6.415,00 €
CONDENSA 90 N	7.591,00 €
CONDENSA 115 N	8.263,00 €



ACCESSORIES
PRICES

*The price includes:			
1 Boiler	see table on page 30	1	--
2 INAIL component kits* (50N-70N-90N-115N)	C49200623X	1	807,00 €
3 INAIL safety valve *	C49200630X (50-70)	1	57,00 €
	C49200653X (90-115)		60,00 €
5 Fuel shut-off valve 1*	C49200629X	1	521,00 €
7 Horizontal balancer kit	C49200624X	1	489,00 €
ACCESSORIES			
A 3-way diverter valve kit with NTC probe for cylinder	C49200620X (50 - 70)		321,00 €
	C49200704X (90 - 115)		354,00 €
B Microbubble separator kit	C49200622X	1	464,00 €
C Micro-impurity separator kit	C49200621X	1	471,00 €
Outdoor probe kit	85077520502	1	37,00 €



	Total €* excl. VAT
CONDENSA 160 N	9.748,00 €

*The price includes:			
1 Boiler	see table on page 30	1	--
2 INAIL components kit	C49200660X*	1	1.017,00 €
3 INAIL safety valve	C49200653X	1	60,00 €
5 Shut-off valve fuel 1*	C49200629X	1	521,00 €
7 Horizontal balancer kit	C49200661X	1	925,00 €
ACCESSORIES			
B Microbubble separator kit	C49200659X*	1	598,00 €
C Micro-impurity separator kit	C49200658X*	1	572,00 €
Outdoor probe kit	85077520502	1	37,00 €

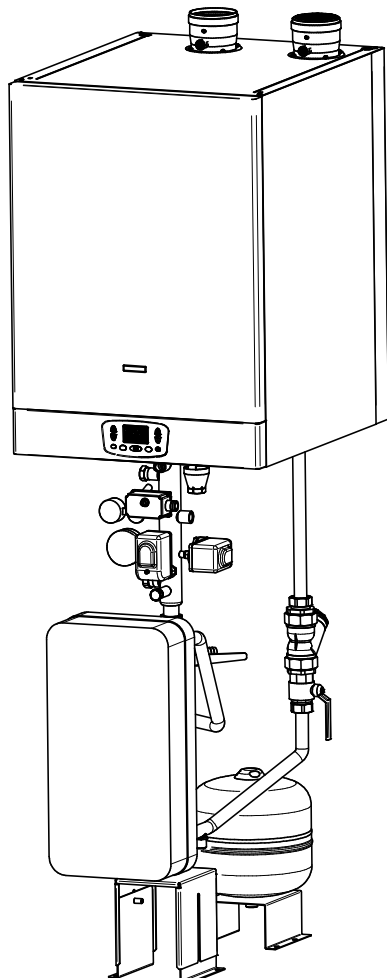
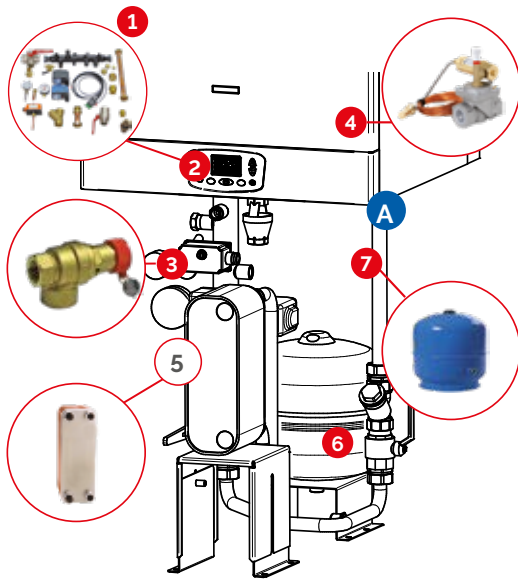
* The appearance of these accessories, for mod. 160, differs slightly from the photos.

Boilers and hybrid solutions with heat pumps

CONDENSA N with exchanger



ACCESSORIES
PRICES



	Total €* excl. VAT
CONDENSA 50 N	9.035,00 €
CONDENSA 70 N	9.596,00 €
CONDENSA 90 N	10.772,00 €
CONDENSA 115 N	11.444,00 €

The plate heat exchangers are dimensioned with the following operating temperatures:
primary 80/60°C - secondary 70/55°C

*The price includes:			
1 Boiler	see table on page 30	1	--
2 INAIL component kits* (50-70-90-115)	C49200623X		807,00 €
3 INAIL safety valve *	C49200630X (50-70)	1	57,00 €
	C49200653X (90-115)		60,00 €
4 Fuel shut-off valve 1**	C49200629X	1	521,00 €
	C49200683X connections 1'-55 kW for 50		604,00 €
5 Exchanger kit plate	C49200684X connections 1'-68 kW for 70		722,00 €
	C49200685X connections 1'-89 kW for 90		857,00 €
	C49200686X connections 1'-114 kW for 115		973,00 €
6 Heat exchanger tube kit (mod. 50-70-90-115)	C49200695X		321,00 €
5 Expansion tank kit 12 L	C49200674X		193,00 €
ACCESSORIES			
A 3-way diverter valve kit with NTC probe for cylinder	C49200620X (50 -70)		321,00 €
	C49200704X (90 - 115)		354,00 €
Outdoor probe kit	85077520502	1	37,00 €

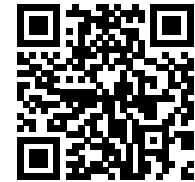
	Total €* excl. VAT
CONDENSA 160 N	11.643,00 €

The plate heat exchangers are dimensioned with the following operating temperatures:
primary 80/60°C - secondary 70/55°C

*The price includes:			
1 Boiler	see table on page 30	1	--
2 INAIL components kit	C49200697X*	1	917,00 €
3 INAIL safety valve	C49200653X	1	60,00 €
4 Shut-off valve fuel 1*	C49200629X	1	521,00 €
5 Plate exchanger kit	C49200668X - connections 2' 180 kW	1	2.401,00 €
6 Exchanger tube kit	C49200696X		326,00 €
5 Expansion tank kit 12 L	C49200674X		193,00 €
ACCESSORIES			
Outdoor probe kit	85077520502	1	37,00 €

* The appearance of these accessories, for mod. 160 K, differs slightly from the photos.

Accessories for Boilers ≥ 35 kW



ACCESSORIES
PRICES



Description	Code	Price
Outdoor probe kit	85077520502	37,00 €
Remote control with climate controller	85077520089	212,00 €
Probe kit for boiler unit For connection to remote boiler unit Already included in 3-way valve kit code C49200620X	C49200619X	46,00 €
Cascade control unit	C49200654X	684,00 €
O-10V interface module* * Module to be installed in boiler; for cascade applications, the controller external must provide *n* 0-10 Vdc outputs equal to the number of boilers to be controlled	C49200656X	345,00 €
OT-Modbus interface card kit	C49200705X	206,00 €
Remote control kit Web Control GSM connection module ¹ 4 months of "TeleManagement subscription" ¹ INCLUDED ²	C49200608X	1.092,00 €
Remote control kit Web Control LAN connection ^{module1} 4 months of "TeleManagement subscription" ¹ INCLUDED ²	C49200609X	1.092,00 €

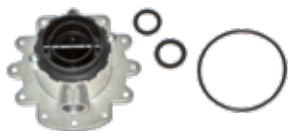
¹Combination with cascade management control unit code C49200654X is mandatory. ² At the end of the 4-month "TeleManagement subscription" included, it will be possible to renew the service by purchasing the Web Control Card code C49200611X

Accessories for Boilers ≥ 35 kW



ACCESSORIES
PRICES

CNG to LPG conversion kit



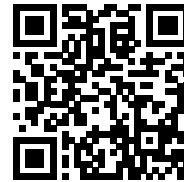
Description	Code	Price
CNG to LPG conversion kit for model 50 N	C49200593X	113,00 €
CNG to LPG conversion kit for model 70 N	C49200595X	193,00 €
CNG to LPG conversion kit for model 90 N	C49200596X	193,00 €
CNG to LPG conversion kit for model 115 N	C49200597X	193,00 €
CNG to LPG conversion kit for model 160 N	C49200601X	23,00 €

Accessories

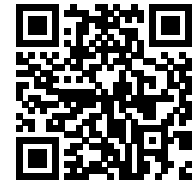


Description	Code	Price
Neutralisation filter condensate for boilers up to 115 kW	C49200628X	239,00 €
Fitting kit for Filter condensate neutralisation	85077261815	381,00 €
condensate neutralisation tray kit up to 350 kW	C49200633X	361,00 €
Bowl pump neutralisation condensate up to 350 kW	C49200634X	472,00 €

Accessories for 50 and 70 kW boilers BOOSTER PUMPS DN 25



PRICES



ACCESSORIES PRICES

A revolutionary system! Occupies half the space of traditional zone systems!

The new circuit supply units for heating systems have been designed for high performance in the smallest possible space. Powerful and efficient even in the most demanding system situations! Can be installed in 3 different positions to make the most of any available space.

The DN 25 booster unit is designed for easy installation in any situation, even in the most confined technical rooms.

Plus

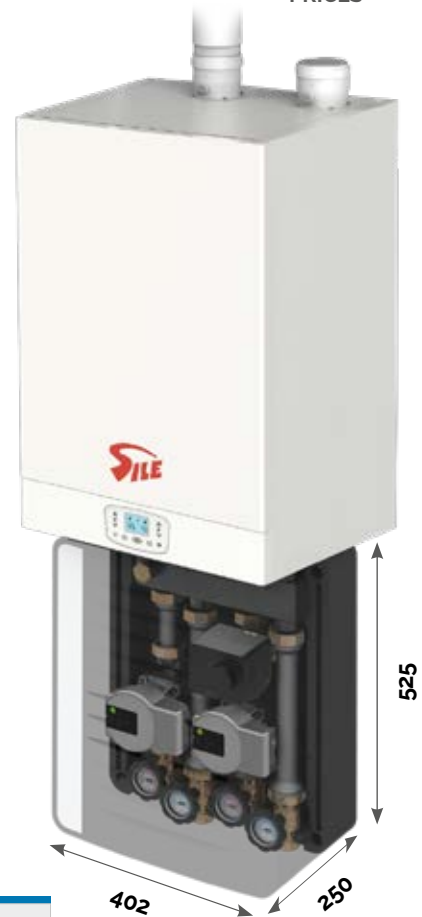
- ✓ Ultra compact: takes up half the space of traditional applications.
- ✓ Zone distribution manifold with integrated, disableable hydraulic separator
- ✓ Modular from 2 to 3 zones
- ✓ Swivelling in 3 positions
- ✓ DN 25 - 1"

Insulation: EPP 60 g/l λ 0.039 W/mK sp 30 mm

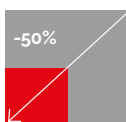
Limit of use

Max. temp.	Max. pressure
95 °C	6 bar

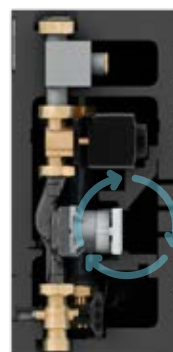
	Code	Price each	Power ΔT 20 kW	Nominal flow rate L/h	With packaging Dim. cm
2direct circulation units	338110135X	1.442,00 €	60,5	2600	43x27x55
2sliding-temperature mixing units	338110136X	1.678,00 €	37,2	1600	43x27x55
1direct circulation unit+ 1 sliding-temperature mixing unit	338110143X	1.560,00 €	60,5	2600 1600	43x27x55
SERVO MOTOR SRVM ECOMIX 24V 0-10 / 2-10V 120S 5NM	C09020499	293,00 €	-	-	-
SRVM ECOMIX SERVOMOTOR 230V 3P 120s 5Nm	C09020500	149,00 €	-	-	-



Lighter' INSTALLATION
It installs quickly, and is so small, handy and light that it can be assembled by a single operator.



● Other products
● **Our Product**



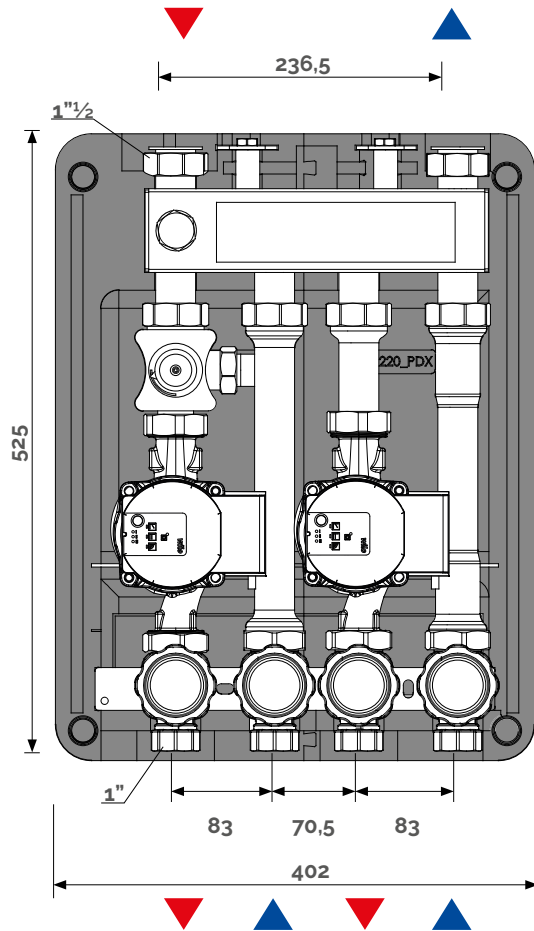
INTEGRAL INSULATION
of the manifold

TOTAL PROTECTION
of electronic components

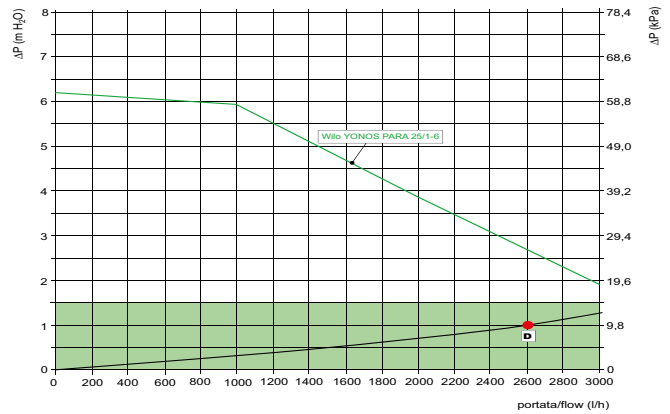
PROTECTION AND VENTILATION
of circulators

Accessories for Boilers ≥ 35 kW

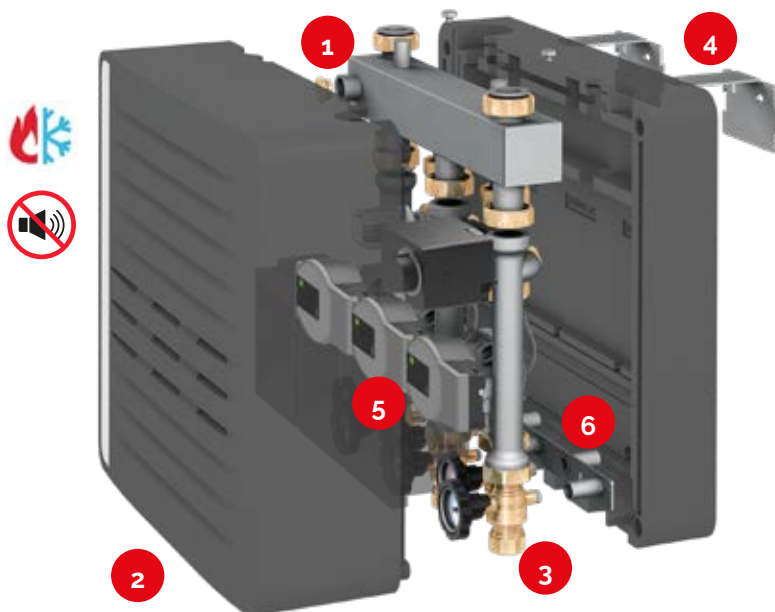
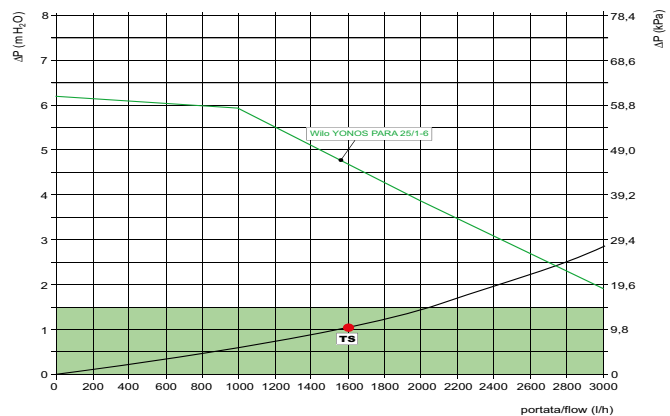
BOOSTER PUMPS DN 25



Pressure losses: direct circulation units



Pressure drop: temperature sliding mixing unit



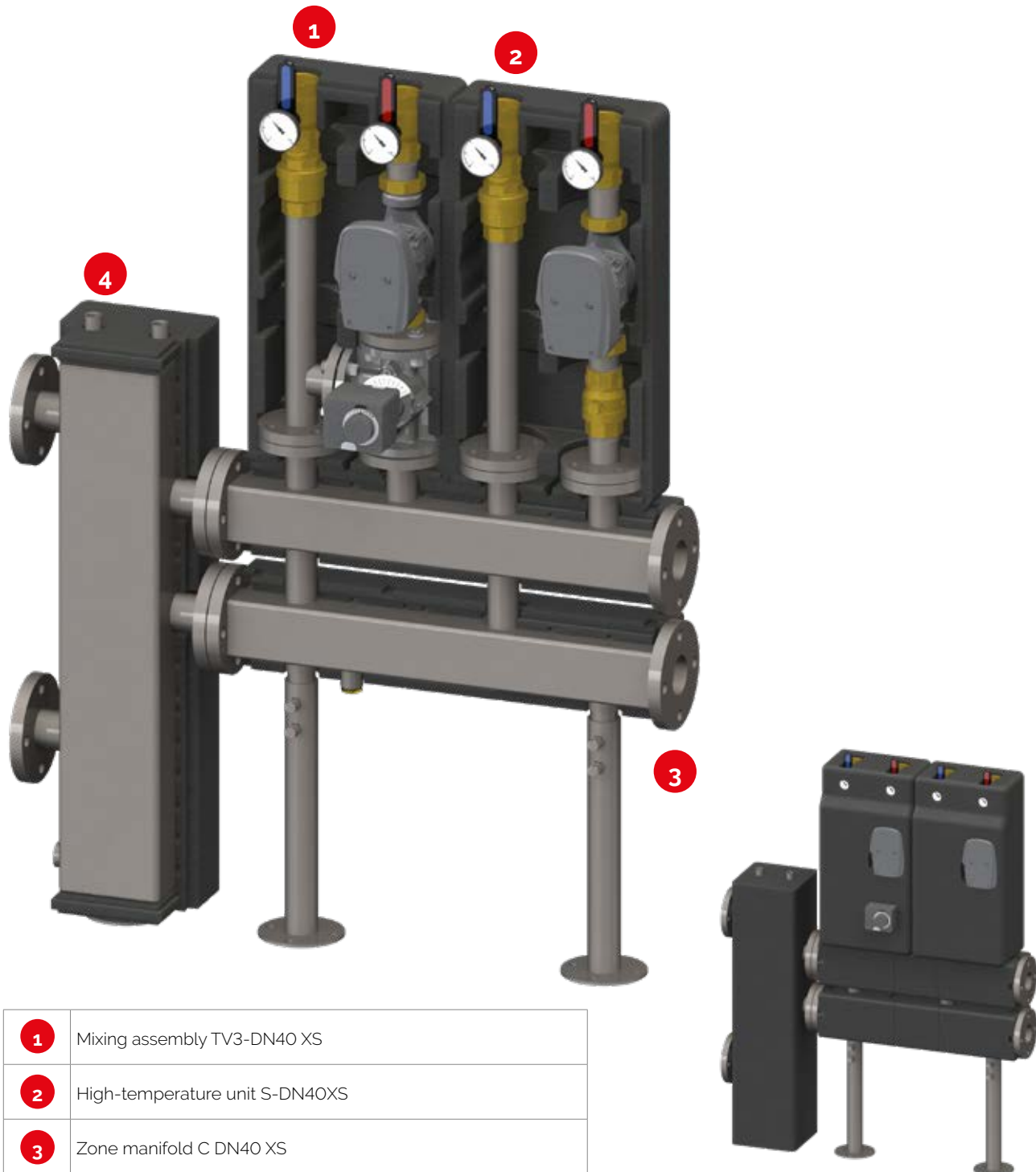
Legend

1. ZONE MANIFOLD - HYDRAULIC SEPARATOR DUO-SYSTEM TECHNOLOGY
2. Total insulation with circulating ventilation system, also suitable for cooling.
3. Ball valves DN25 with disableable check valve
4. Modula' brackets included
5. High-efficiency circulators
6. Anti-rotation jig for ball valves during installation.

Modular distribution system DN40 for boilers from 90 to 450 kW

It is a system used in the distribution and utility management of zone systems. It consists of a hydraulic separator, a 2 and 3 zone distribution manifold and two possible circulation units:

- direct drive (high temperature)
- sliding temperature mixed unit (two different electric rotary servomotors available depending on the type of thermoregulation chosen).



1	Mixing assembly TV3-DN40 XS
2	High-temperature unit S-DN40XS
3	Zone manifold C DN40 XS
4	Hydraulic separator CP DN40 XS

Boilers and hybrid solutions with heat pumps

MANIFOLD GAMMA DN40 SLIM



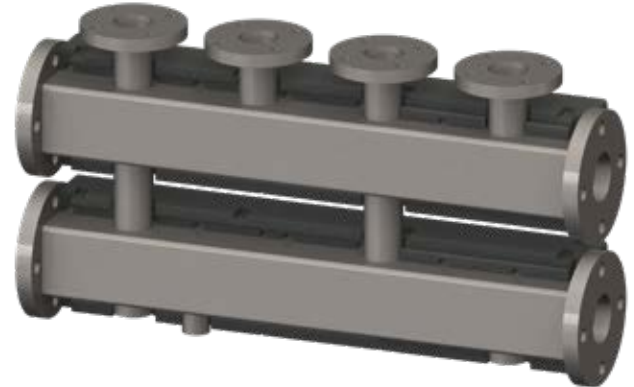
PRICES

Features

- ✓ Nominal diameter DN 40
- ✓ Insulation :
EPP 40 g/L λ 0.036 W/mK sp 25 mm
- ✓ Cataphoresis surface treatment

Limit of use

Max. temp.	Max. pressure
100 °C	6 bar

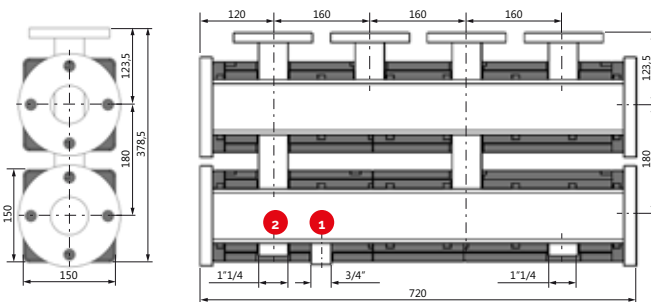


Description	Code	Price each	Power ΔT 20 kW	Nominal flow rate m ³ /h
MANIFOLD 2F RANGE DN40 SLIM	329099083X	1.126,00 €	418	18
MANIFOLD 3F RANGE DN40 SLIM	329099082X	1.431,00 €	418	18

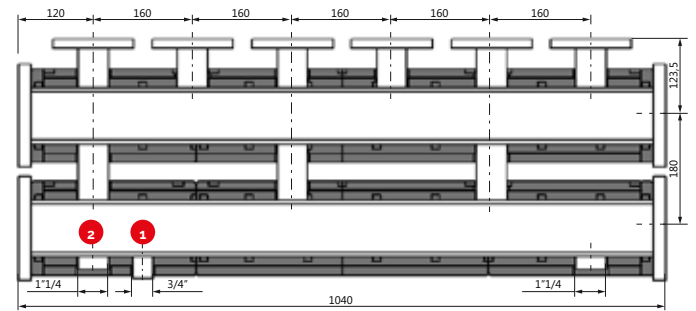
Legend

- 1 3/4" F connection for loading/unloading
- 2 Blind connection 1 1/4" F for support leg

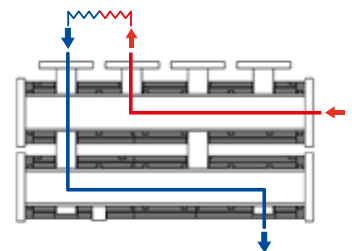
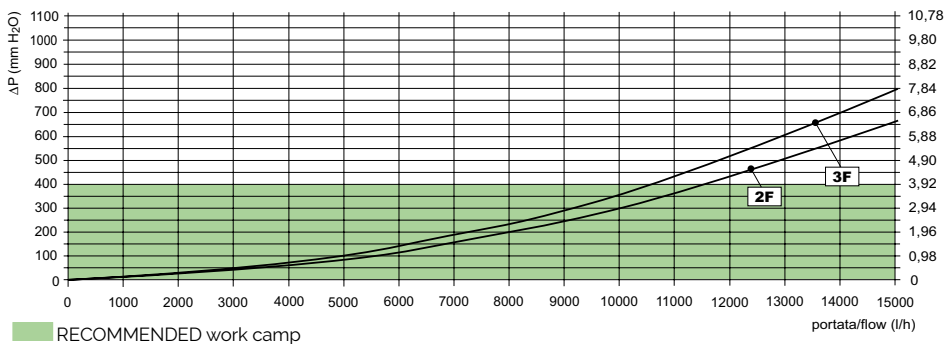
Dimensions DN 40 'C160/2F



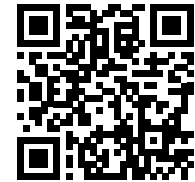
Dimensions DN 40 'C160/3F



Load losses



SEPARATOR CP DN40 SLIM



PRICES

Features

- ✓ Nominal diameter DN 40
- ✓ Insulation: EPP 40 g/L λ 0.036 W/mK sp 25 mm
- ✓ Cataphoresis surface treatment
- ✓ Ball valve material Gusseisen
- ✓ Gasket kit included

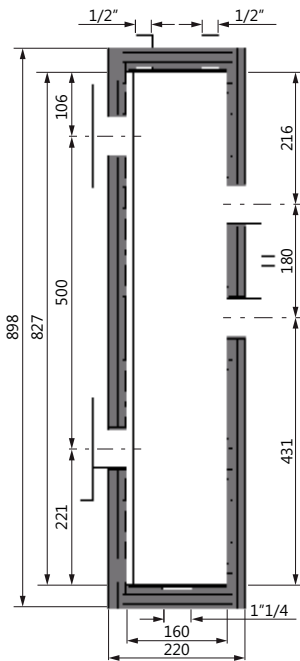
Limit of use

Max. temp.	Max. pressure
100 °C	6 bar

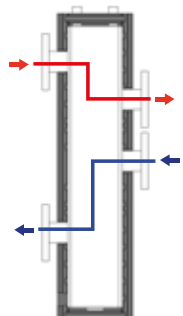
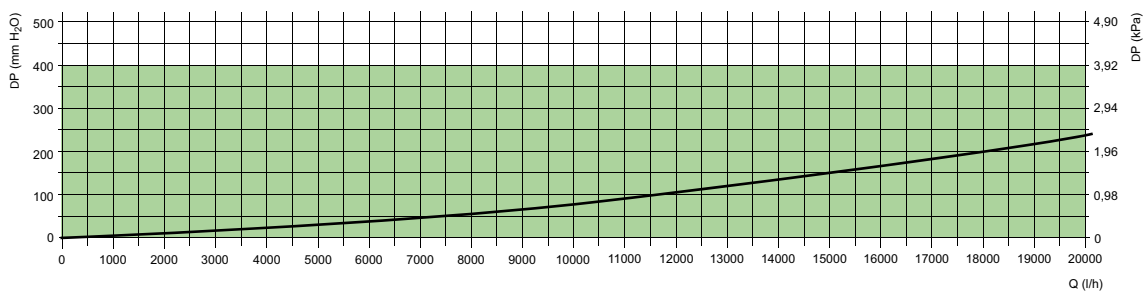
Description	Code	Price each	Power ΔT 20 kW	Nominal flow rate m ³ /h
SEPARATOR CP DN40 SLIM	329099085X	1.051,00 €	418	18



Dimensions



Load losses



RECOMMENDED work camp

Boilers and hybrid solutions with heat pumps

BOOSTER PUMPS TV3-DN40



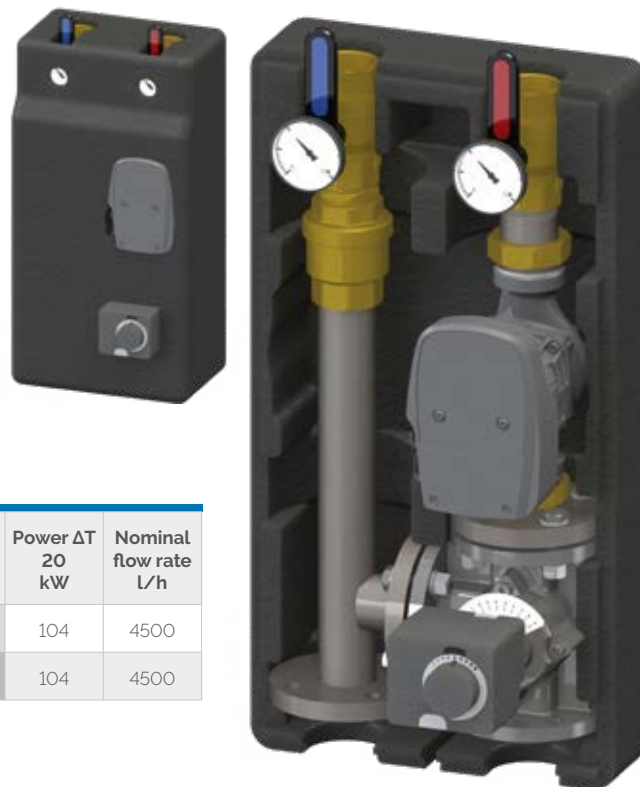
PRICES

Mixing assembly for high temperature circuits
Material ball valve Gussisen

- ✓ Insulation :
EPP 40 g/l λ 0.036 W/mK sp 30 mm

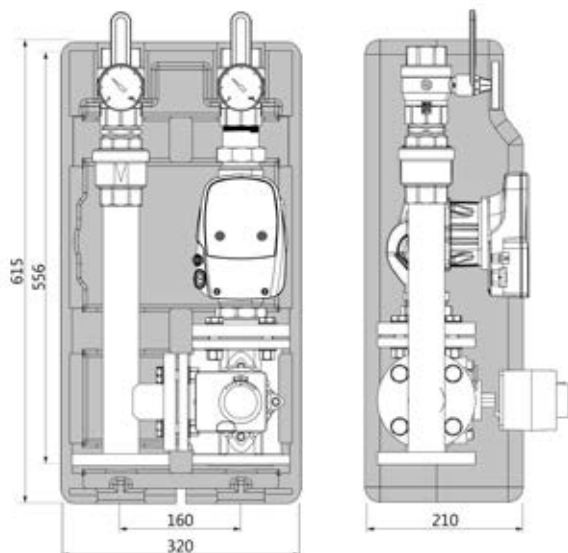
Limit of use

Max. temp.	Max. pressure
110 °C	6 bar

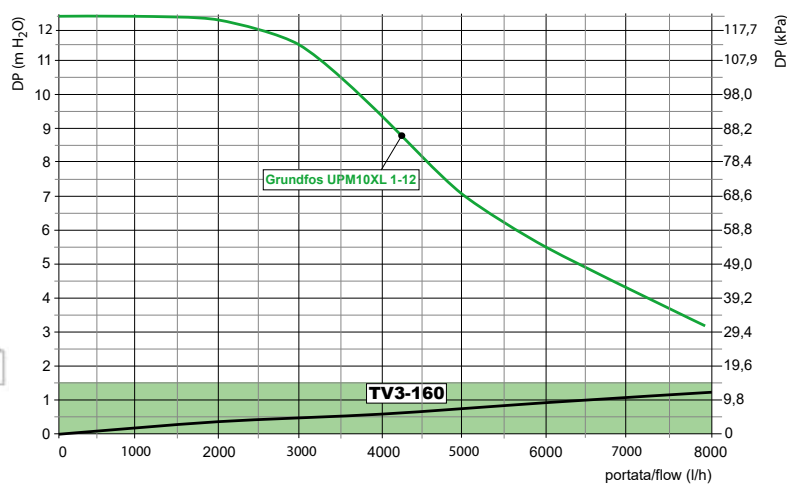


	Code	Price each	Power ΔT 20 kW	Nominal flow rate L/h
BOOSTER PUMPS TV3-DN40 DX MIX	338110139X	2.082,00 €	104	4500
BOOSTER PUMPS TV3-DN40 SX MIX	338110140X	2.082,00 €	104	4500

Dimensions

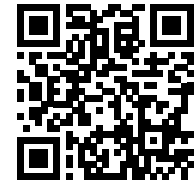


Load losses



Boilers and hybrid solutions with heat pumps

BOOSTER PUMPS S-DN40



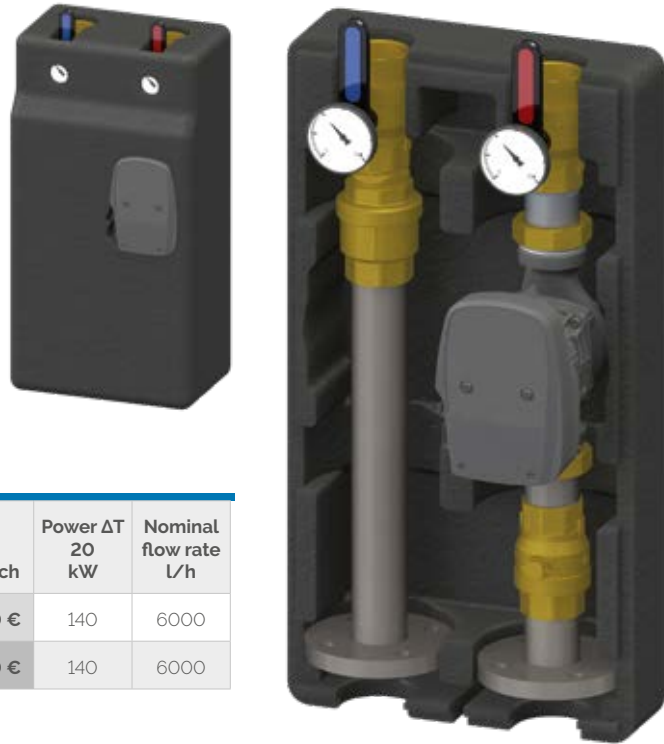
PRICES

Mixing unit for high temperature circuits

- ✓ Check valve material TEFLON
Ball valve material Gussisen
- ✓ Insulation :
EPP 40 g/l λ 0.036 W/mK sp 30 mm

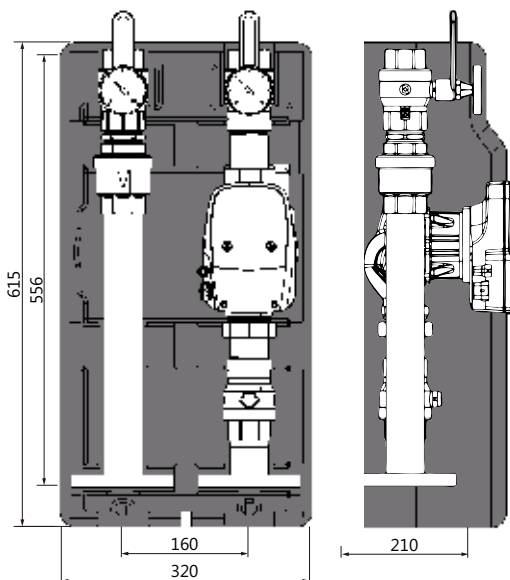
Limit of use

Max. temp.	Max. pressure
110 °C	6 bar

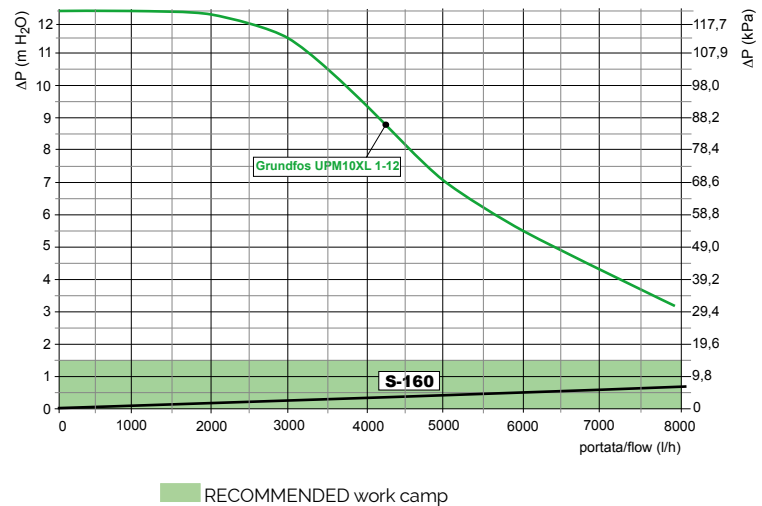


	Code	Price each	Power ΔT 20 kW	Nominal flow rate L/h
S-DN 40 DX DIR BOOSTER PUMPS	338110137X	1.685,00 €	140	6000
S-DN 40 SX DIR BOOSTER PUMPS	338110138X	1.685,00 €	140	6000

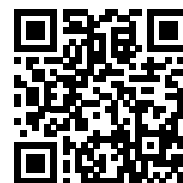
Dimensions



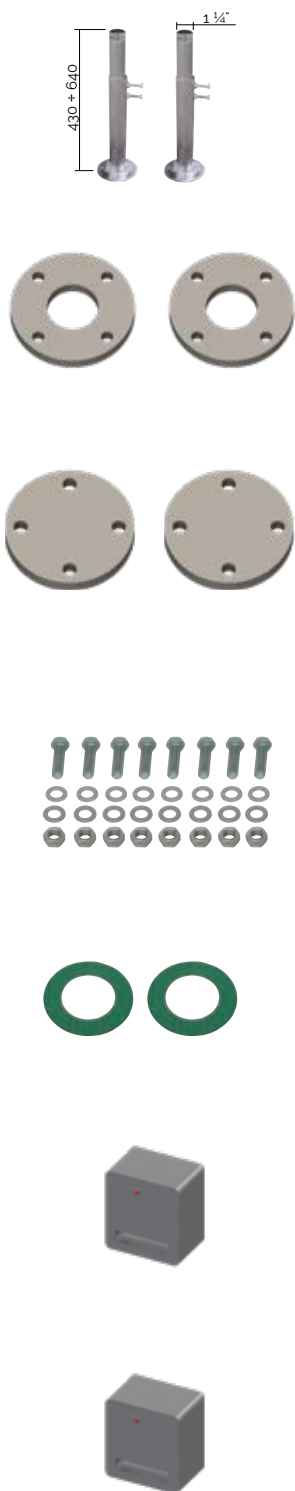
Load losses



Accessories modular system of distribution



PRICES

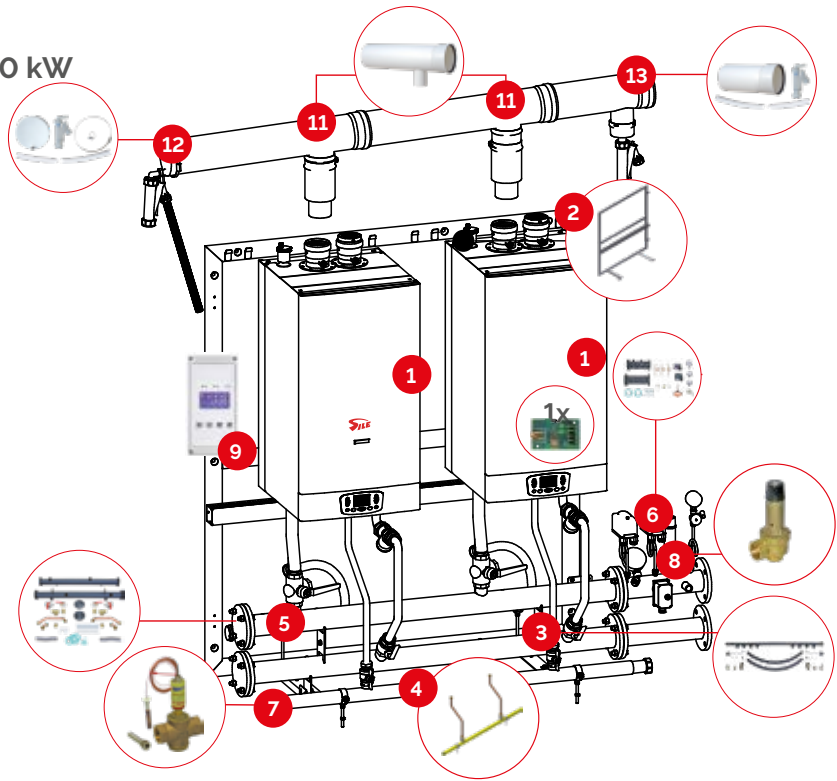


Description	Code	Price each
Kit of 2 height-adjustable feet for DN 40 "C160" series zone manifolds	343090206X	168,00 €
kit DN50 PN10 Flat flange	335060180X	36,00 €
dN50 PN16 kit Blind flat flange	335060181X	79,00 €
Flange coupling kit DN 40 comprising: 8 screws M14x55, 16 washers, 8 nuts M14	343090205X	16,00 €
KIT DN50 2 flange gaskets	343090207X	20,00 €
230V ELECTRIC SERVOMOTOR	C09020501	224,00 €
24V ELECTRIC SERVOMOTOR	C09020502	437,00 €

Boilers and hybrid solutions with heat pumps

INLINE DUOCASCATA

2 IN-LINE generators from 95 to 300 kW



BOILERS



ACCESSORIES PRICES

Power facility	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
95 kW	50 + 50	1:19	2104 x 2052 x 493	95/5	80 125	14.004,00 €
111 kW	50 + 70	1:22		110,5/5	80 125	14.564,00 €
126 kW	70 + 70	1:18		126/7	80 125	15.124,00 €
170 kW	90 + 90	1:17	2104 x 2086 x 632	170/9,5	100 160	17.642,00 €
193 kW	90 + 115	1:20		193/9,5	100 160	18.314,00 €
216 kW	115 + 115	1:19		216/11	100 160	18.986,00 €
235 kW	160 + 90	1:24	2104 x 2086 x 740	235/9,5	100 160	19.210,00 €
258 kW	160 + 115	1:23		258/11	100 160	19.882,00 €
300 kW	160 + 160	1:12		300/25	100 200	21.011,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	2	
2 Subframe kit 2 elements	C49200632X	1	710,00 €
3 Condensate drain collector kit 2 elements	C49200646X	1	532,00 €
4 GAS manifold kit 2 elements	C49200638X	1	274,00 €
5 Water manifold kit (M+R) 2 elements	C49200640X	1	1.732,00 €
6 INAIL kit	C49200641X	1	897,00 €
7 Fuel shut-off valve	C49200635X	1	545,00 €
8 INAIL safety valve kit	C49200644X (mod. 50-70)	1	105,00 €
	C49200649X (mod. 90-115-160)		105,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	1	169,00 €

Flue systems	from 95 kW to 126 kW			Price €	from 170 kW to 258 kW			Price €	for 300 kW			Price €
11 Flue gas manifold kit	Ø 125/80	C49200541X	2	170,00 €	Ø 160/100	C49200546X	2	282,00 €	Ø 200/100	C49200547X	2	379,00 €
12 Flue pipe cap kit	Ø 125	C49200543X	1	137,00 €	Ø 160	C49200544X	1	169,00 €	Ø 200	C49200545X	1	236,00 €
13 Flue+siphon manifold kit	Ø 125	C49200548X	1	102,00 €	Ø 160	C49200549X	1	124,00 €	Ø 200	C49200550X	1	193,00 €

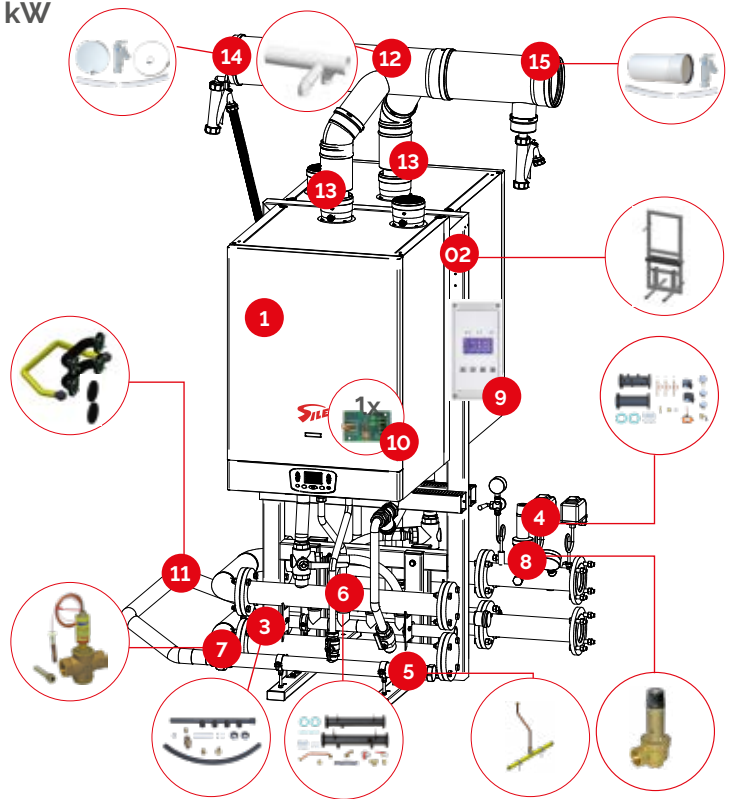
Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

2 FRONT-REAR generators from 95 to 300 kW



ACCESSORIES
PRICES



Power facility	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
95 kW	50 + 50	1:19	1448 x 2215 x 1010	95/5	80 200	15.014,00 €
111 kW	50 + 70	1:22		110,5/5	80 200	15.574,00 €
126 kW	70 + 70	1:18		126/7	80 200	16.134,00 €
170 kW	90 + 90	1:17	1448 x 2215 x 1280	170/9,5	100 200	18.499,00 €
193 kW	90 + 115	1:20		193/9,5	100 200	19.171,00 €
216 kW	115 + 115	1:19		216/11	100 200	19.843,00 €
235 kW	160 + 90	1:24	1448 x 2215 x 1390	235/9,5	100 200	20.067,00 €
258 kW	160 + 115	1:23		258/11	100 200	20.739,00 €
300 kW	160 + 160	1:12		300/25	100 200	20.647,00 €

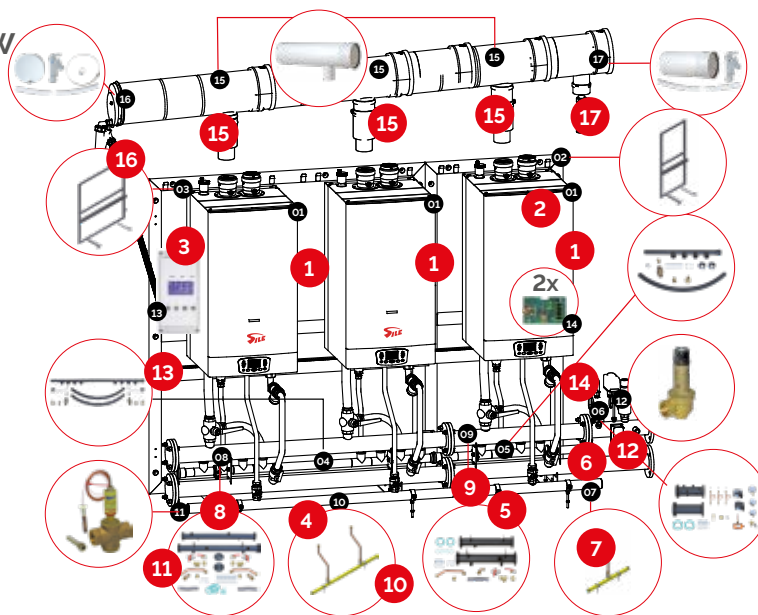
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	2	
2 Front-to-Rear counterframe kit 2 elements	C49200693X	1	789,00 €
3 Condensate drain collector kit 1 element	C49200645X	2	351,00 €
4 INAIL kit	C49200641X	1	897,00 €
5 GAS manifold kit 1 element	C49200637X	2	145,00 €
6 Water manifold kit (M+R) 1 elements	C49200639X	2	1.037,00 €
7 Fuel shut-off valve	C49200635X	1	545,00 €
8 INAIL safety valve kit	C49200644X (mod. 50-70)	1	105,00 €
	C49200649X (mod. 90-115-160)		105,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	1	169,00 €
11 Collector connection kit	C49200642X	1	1.019,00 €

Flue systems	from 95 kW to 126 kW			Price €	from 170 kW to 258 kW			Price €
12 Flue gas manifold kit	Ø 200	C49200564X	1	455,00 €	Ø 200	C49200564X	1	455,00 €
13 Clapper kit	Ø 80	C49200562X	2	91,00 €	Ø 100	C49200563X	2	104,00 €
14 Flue gas manifold cap kit	Ø 200	C49200545X	1	236,00 €	Ø 200	C49200545X	1	236,00 €
15 Flue+siphon manifold kit	Ø 200	C49200550X	1	193,00 €	Ø 200	C49200550X	1	193,00 €

Boilers and hybrid solutions with heat pumps

DUOCASCATA INLINE

3 IN-LINE generators from 143 to 450 kW



ACCESSORIES PRICES

Power facility	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
143 kW	50 + 50 + 50	1:28	2800 x 2082 x 494	142,5/5	80 125	19.871,00 €
158 kW	50 + 50 + 70	1:31		158/5	80 125	20.431,00 €
174 kW	50 + 70 + 70	1:34	2804 x 2116 x 494	173,5/5	80 160	21.394,00 €
189 kW	70 + 70 + 70	1:27		189/5	80 160	21.954,00 €
255 kW	90 + 90 + 90	1:26	2804 x 2116 x 632	255/9,5	100 160	25.482,00 €
278 kW	90 + 90 + 115	1:29	2808 x 2174 x 632	278/9,5	100 200	11.429,00 €
301 kW	90 + 115 + 115	1:31		301/9,5	100 200	26.855,00 €
320 kW	160 + 90 + 90	1:33	2808 x 2174 x 740	320/9,5	100 200	27.079,00 €
324 kW	115 + 115 + 115	1:29	2808 x 2174 x 632	324/11	100 200	27.527,00 €
343 kW	160 + 115 + 90	1:36		343/9,5	100 200	27.751,00 €
366 kW	160 + 115 + 115	1:34	2808 x 2174 x 740	366/11	100 200	28.423,00 €
385 kW	160 + 160 + 90	1:40		385/9,5	100 200	28.647,00 €
408 kW	160 + 160 + 115	1:37	2808 x 2174 x 740	408/11	100 200	29.319,00 €
450 kW	160 + 160 + 160	1:18		450/25	100 200	30.215,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	3	
2 Subframe kit 1 element	C49200631X	1	446,00 €
3 Counterframe kit 2 elements	C49200632X	1	710,00 €
4 Condensate drain collector kit 2 elements	C49200646X	1	532,00 €
5 Condensate drain collector kit 1 element	C49200645X	1	351,00 €
6 INAIL kit	C49200641X	1	897,00 €
7 GAS manifold kit 1 element	C49200637X	1	145,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	1	1.732,00 €
9 Water manifold kit (M+R) 1 elements	C49200639X	1	1.037,00 €
10 GAS manifold kit 2 elements	C49200638X	1	274,00 €
11 Fuel shut-off valve	C49200635X	1	545,00 €
12 INAIL safety valve kit	C49200644X (mod. 50N-70N)	1	105,00 €
	C49200649X (mod. 90N-115N-160N)		105,00 €
13 Cascade control unit	C49200654X	1	684,00 €
14 Boiler interface card	C49200655X	2	169,00 €

Flue systems	from 143 kW to 158 kW			Price €	from 174 kW to 255 kW *only for config. 255 kW			Price €	from 278 kW to 450 kW			Price €
15 Flue gas manifold kit	Ø 125/80	C49200541X	3	170,00 €	Ø 160/80	C49200542X	3	204,00 €	Ø 200/100	C49200547X	3	379,00 €
					Ø 160/100	C49200546X	3	282,00 €				
16 Flue gas manifold cap kit	Ø 125	C49200543X	1	137,00 €	Ø 160	C49200544X	1	169,00 €	Ø 200	C49200545X	1	236,00 €
17 Flue+siphon manifold kit	Ø 125	C49200548X	1	102,00 €	Ø 160	C49200549X	1	124,00 €	Ø 200	C49200550X	1	193,00 €

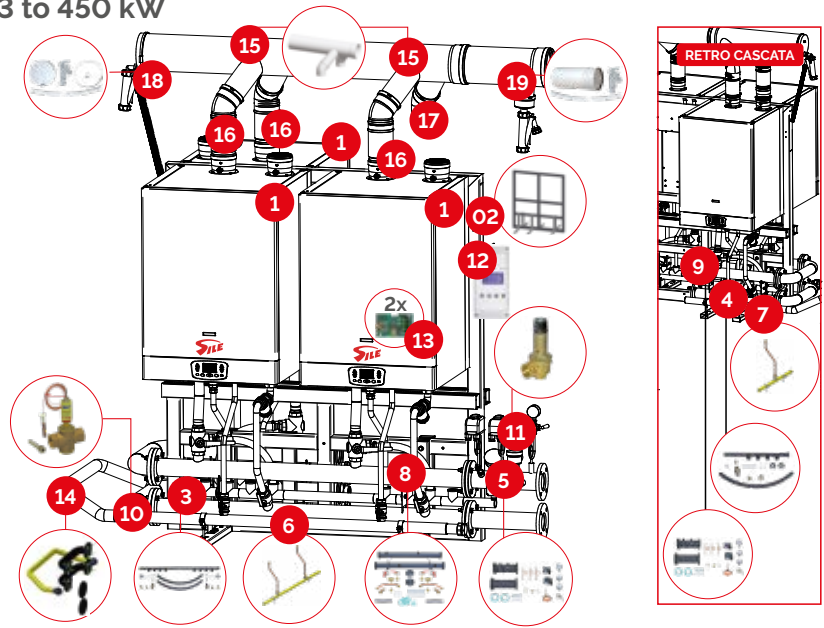
Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

3 FRONT-REAR generators from 143 to 450 kW



ACCESSORIES PRICES



Power facility	Models boilers	Modulation	W x H' x D (mm) <small>*Height with flue</small>	Qn/Qmin (kW)	Ø fumes (mm) <small>boiler-collector</small>	Price € **
143 kW	50 + 50 + 50	1:28	2148 x 2245 x 1010	142,5/5	80 200	21.934,00 €
158 kW	50 + 50 + 70	1:31		158/5	80 200	22.494,00 €
174 kW	50 + 70 + 70	1:34		173,5/5	80 200	23.093,00 €
189 kW	70 + 70 + 70	1:27		189/5	80 200	23.653,00 €
255 kW	90 + 90 + 90	1:26	2148 x 2245 x 1280	255/9,5	100 200	27.181,00 €
278 kW	90 + 90 + 115	1:29		278/9,5	100 200	27.853,00 €
301 kW	90 + 115 + 115	1:31		301/9,5	100 200	28.525,00 €
320 kW	160 + 90 + 90	1:33	2148 x 2245 x 1390	320/9,5	100 200	28.749,00 €
324 kW	115 + 115 + 115	1:29	2148 x 2245 x 1280	324/11	100 200	29.197,00 €
343 kW	160 + 115 + 90	1:36	2148 x 2245 x 1390	343/9,5	100 200	29.421,00 €
366 kW	160 + 115 + 115	1:34		366/11	100 200	30.093,00 €
385 kW	160 + 160 + 90	1:40	2148 x 2245 x 1500	385/9,5	100 200	30.317,00 €
408 kW	160 + 160 + 115	1:37		408/11	100 200	30.989,00 €
450 kW	160 + 160 + 160	1:18		450/25	100 200	31.885,00 €

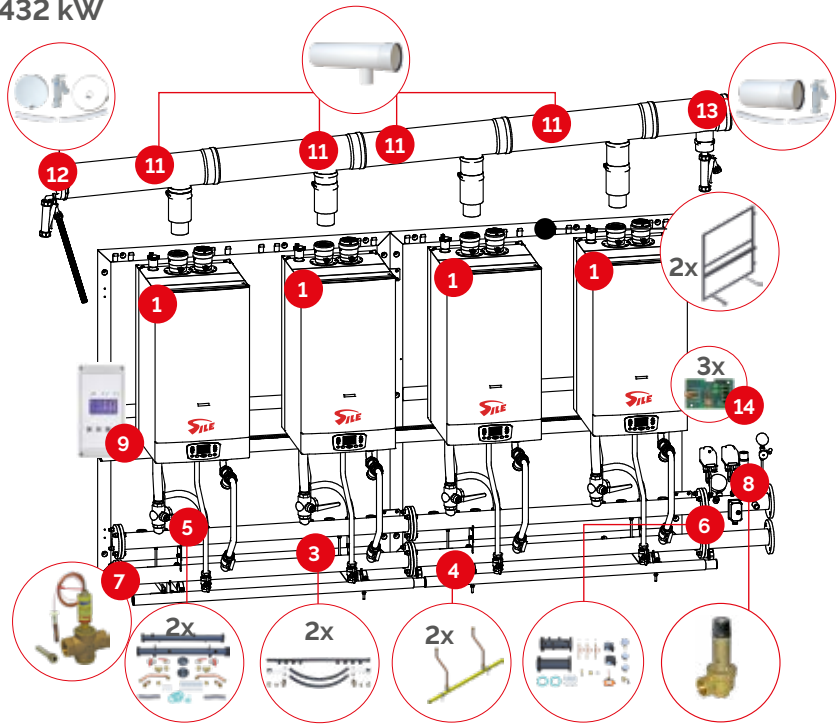
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	3	
2 Front-to-back 4-element counterframe kit	C49200694X	1	939,00 €
3 Condensate drain collector kit 2 elements	C49200646X	1	532,00 €
4 Condensate drain collector kit 1 element	C49200645X	1	351,00 €
5 INAIL kit	C49200641X	1	897,00 €
6 GAS manifold kit 2 elements	C49200638X	1	274,00 €
7 GAS manifold kit 1 element	C49200637X	1	145,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	1	1.732,00 €
9 Water manifold kit (M+R) 1 elements	C49200639X	1	1.037,00 €
10 Fuel shut-off valve	C49200635X	1	545,00 €
11 INAIL safety valve kit	C49200644X (50-70)	1	105,00 €
	C49200649X (90-115-160)		105,00 €
12 Cascade control unit	C49200654X	1	684,00 €
13 Boiler interface card	C49200655X	2	169,00 €
14 Collector connection kit	C49200642X	1	1.019,00 €

Flue systems:	from 143 kW to 158 kW			Price €	from 174 kW to 450 kW			Price €
15 Flue gas manifold kit	Ø 200	C49200564X	2	455,00 €	Ø 200	C49200564X	2	455,00 €
16 Clapper kit	Ø 80	C49200562X	3	91,00 €	Ø 100	C49200563X	3	104,00 €
17 End cap kit DN100		C49200566X	1	25,00 €		C49200566X	1	25,00 €
18 Flue gas manifold cap kit	Ø 200	C49200545X	1	236,00 €	Ø 200	C49200545X	1	236,00 €
19 Flue+siphon manifold kit	Ø 200	C49200550X	1	193,00 €	Ø 200	C49200550X	1	193,00 €

Boilers and hybrid solutions with heat pumps

INLINE DUOCASCATA

4 IN-LINE generators from 190 to 432 kW



ACCESSORIES PRICES

Plant power	Models boilers	Modulation	W x H' x D (mm) <small>*Height with flue</small>	Qn/Qmin (kW)	Ø fumes (mm) <small>boiler-collector</small>	Price € **
190 kW	50+50+50+50	1:38	3504x2146x494	190/5	80 160	26.132,00 €
206 kW	50+50+50+70	1:41		205,5/5	80 160	26.692,00 €
221 kW	50+50+70+70	1:44		221/5	80 160	27.252,00 €
237 kW	50+70+70+70	1:47		236,5/5	80 160	27.812,00 €
252 kW	70+70+70+70	1:36		252/7	80 160	28.372,00 €
340 kW	90+90+90+90	1:35	3508x2220x632	340/9,5	100 200	33.912,00 €
363 kW	90+90+90+115	1:38		363/9,5	100 200	28.255,00 €
386 kW	90+90+115+115	1:40		386/9,5	100 200	30.440,00 €
405 kW	160+90+90+90	1:42		405/9,5	100 200	35.480,00 €
409 kW	115+115+115 +90	1:43		409/9,5	100 200	35.928,00 €
428 kW	160+115+90+ 90	1:45		428/9,5	100 200	36.152,00 €
432 kW	115+115+115+115	1:39		432/11	100 200	36.600,00 €

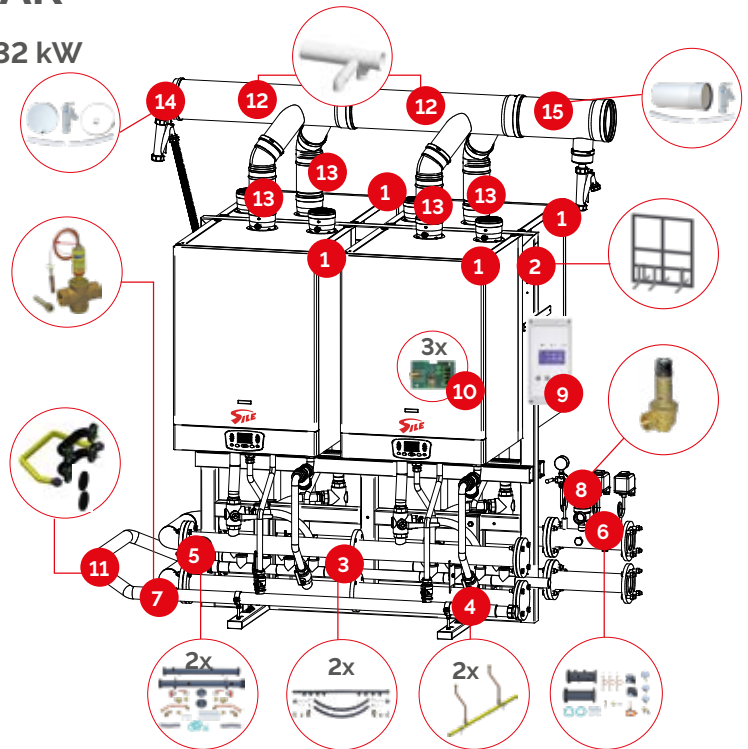
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	4	
2 Subframe kit 2 elements	C49200632X	2	710,00 €
3 Condensate drain collector kit 2 elements	C49200646X	2	532,00 €
4 GAS manifold kit 2 elements	C49200638X	2	274,00 €
5 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
6 INAIL kit	C49200641X	1	897,00 €
7 Fuel shut-off valve	C49200635X	1	545,00 €
8 INAIL safety valve kit	C49200644X (mod. 50-70)	1	105,00 €
	C49200649X (mod. 90-115-160)		105,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	3	169,00 €

Flue systems:	from 190 kW to 252 kW			Price €	from 340 kW to 432 kW			Price €
11 Flue gas manifold kit	Ø 160/80	C49200542X	4	204,00 €	Ø 200/100	C49200547X	4	379,00 €
12 Flue gas manifold cap kit	Ø 160	C49200544X	1	169,00 €	Ø 200	C49200545X	1	236,00 €
13 Flue+siphon manifold kit	Ø 160	C49200549X	1	124,00 €	Ø 200	C49200550X	1	193,00 €

Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

4 FRONT-REAR generators from 190 to 432 kW



ACCESSORIES PRICES

Plant power	Models boilers	Modulation	W x H' x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
190 kW	50 + 50 + 50 + 50	1:38	2148x2245x1010	190/5	80 200	27.264,00 €
206 kW	50 + 50 + 50 + 70	1:41		205,5/5	80 200	27.824,00 €
221 kW	50 + 50 + 70 + 70	1:44		221/5	80 200	28.384,00 €
237 kW	50 + 70 + 70 + 70	1:47		236,5/5	80 200	28.944,00 €
252 kW	70 + 70 + 70 + 70	1:36		252/7	80 200	29.504,00 €
340 kW	90 + 90 + 90 + 90	1:35	2148x2245x1280	340/9,5	100 200	34.260,00 €
363 kW	90 + 90 + 90 + 115	1:38		363/9,5	100 200	34.932,00 €
386 kW	90 + 90 + 115 + 115	1:40		386/9,5	100 200	35.604,00 €
405 kW	160 + 90 + 90 + 90	1:42	2148x2245x1390	405/9,5	100 200	35.828,00 €
409 kW	115 + 115 + 115+90	1:43	2148x2245x1280	409/9,5	100 200	36.276,00 €
428 kW	160 + 115 + 90 + 90	1:45	2148x2245x1390	428/9,5	100 200	42.157,00 €
432 kW	115+115+115+115	1:39	2148x2245x 1280	432/11	100 200	36.948,00 €

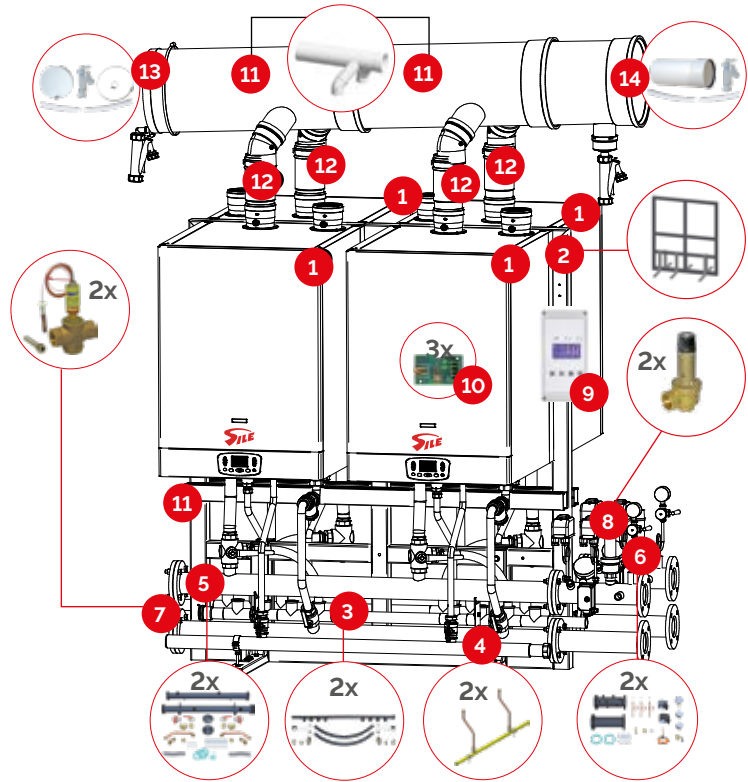
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	4	
2 Front-to-back 4-element counterframe kit	C49200694X	1	939,00 €
3 Condensate drain collector kit 2 elements	C49200646X	2	532,00 €
4 GAS manifold kit 2 elements	C49200638X	2	274,00 €
5 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
6 INAIL kit	C49200641X	1	897,00 €
7 Fuel shut-off valve	C49200635X	1	545,00 €
8 INAIL safety valve kit	C49200644X (mod. 50-70)	1	105,00 €
	C49200649X (mod. 90-115-160)		105,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	3	169,00 €
11 Collector connection kit	C49200642X	1	1.019,00 €

Flue systems:	from 190 kW to 252 kW		Price €	from 340 kW to 432 kW		Price €		
12 Flue gas manifold kit	Ø 200	C49200564X	2	455,00 €	Ø 200	C49200564X	2	455,00 €
13 Clapper kit	Ø 80	C49200562X	4	91,00 €	Ø 100	C49200563X	4	104,00 €
14 Flue gas manifold cap kit	Ø 200	C49200545X	1	236,00 €	Ø 200	C49200545X	1	236,00 €
15 Flue+siphon manifold kit	Ø 200	C49200550X	1	193,00 €	Ø 200	C49200550X	1	193,00 €

Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

4 FRONT-REAR generators from 470 to 600 kW



ACCESSORIES PRICES

Plant power	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
516 kW	115+115+160+160	1:42	1960 x 2302 x 1500	470/11	100 300	39.199,00 €
558 kW	115+160+160+160	1:48		535/11	100 300	40.095,00 €
600 kW	160+160+160+160	1:24		600/25	100 300	40.991,00 €

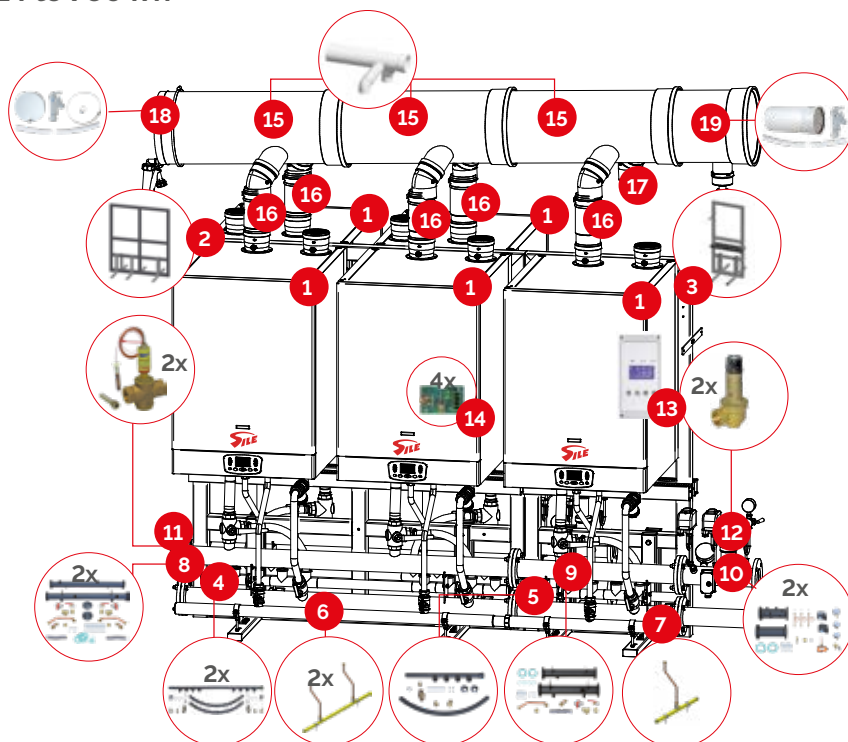
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	4	
2 Front-to-back 4-element counterframe kit	C49200694X	1	939,00 €
3 Condensate drain collector kit 2 elements	C49200646X	2	532,00 €
4 GAS manifold kit 2 elements	C49200638X	2	274,00 €
5 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
6 INAIL kit	C49200641X	2	897,00 €
7 Fuel shut-off valve	C49200635X	2	545,00 €
8 INAIL safety valve kit	C49200649X	2	105,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	3	169,00 €

Flue systems:	from 516 kW to 600 kW			Price €
11 Flue gas manifold kit	Ø 300	C49200565X	2	486,00 €
12 Clapper kit	Ø 100	C49200563X	4	104,00 €
13 Flue gas manifold cap kit	Ø 300	C49200567X	1	219,00 €
14 Flue+siphon manifold kit	Ø 300	C49200568X	1	184,00 €

Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

5 FRONT-REAR generators from 624 to 750 kW



ACCESSORIES PRICES

Plant power	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
624 kW	160+160+115+115+115	1:56	2660	624/11	100 300	48.634,00 €
666 kW	160+160+160+115+115	1:60	x 2333	666/11	100 300	49.530,00 €
708 kW	160+160+160+160+115	1:64	x	708/11	100 300	50.426,00 €
750 kW	160+160+160+160+160	1:30	1500	750/25	100 300	51.322,00 €

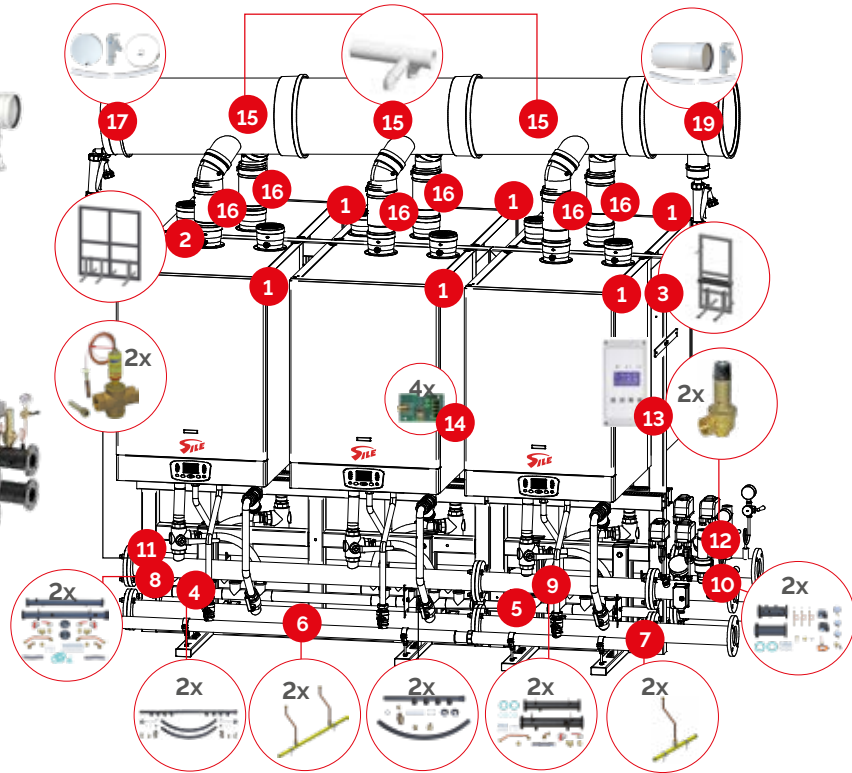
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	5	
2 Front-to-back 4-element counterframe kit	C49200694X	1	939,00 €
3 Front-to-back 2-piece counterframe kit	C49200693X	1	789,00 €
4 Condensate drain collector kit 2 elements	C49200646X	2	532,00 €
5 Condensate drain collector kit 1 element	C49200645X	1	351,00 €
6 GAS manifold kit 2 elements	C49200638X	2	274,00 €
7 GAS manifold kit 1 element	C49200637X	1	145,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
9 Water manifold kit (M+R) 1 elements	C49200639X	1	1.037,00 €
10 INAIL kits	C49200641X	2	897,00 €
11 Fuel shut-off valve	C49200635X	2	545,00 €
12 INAIL safety valve kit	C49200649X	2	105,00 €
13 Cascade control unit	C49200654X	1	684,00 €
14 Boiler interface card	C49200655X	4	169,00 €

Flue systems:	from 624 kW to 750 kW			Price €
15 Flue gas manifold kit	Ø 300	C49200565X	3	486,00 €
16 Clapper kit	Ø 100	C49200563X	5	104,00 €
17 End cap kit DN100		C49200566X	1	25,00 €
18 Flue gas manifold cap kit	Ø 300	C49200567X	1	219,00 €
19 Flue+siphon manifold kit	Ø 300	C49200568X	1	184,00 €

Boilers and hybrid solutions with heat pumps

DUOCASCATA FRONT-REAR

6 FRONT-REAR generators from 774 to 900 kW



ACCESSORIES PRICES

Plant power	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
774 kW	160+160+160 +115+115+115	1:70	2660	774/11	100 300	57.421,00 €
816 kW	160+160+160+160+115+115	1:74	x 2333	816/11	100 300	58.317,00 €
858 kW	160+160+160+160+160+115	1:78	x	858/11	100 300	59.213,00 €
900 kW	160+160+160+160+160+160	1:36	1500	900/25	100 300	60.109,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	6	
2 Front-to-back 4-element counterframe kit	C49200694X	1	939,00 €
3 Subframe kit Front to Back 2 elements	C49200693X	1	789,00 €
4 Condensate drain collector kit 2 elements	C49200646X	2	532,00 €
5 Condensate drain collector kit 1 element	C49200645X	2	351,00 €
6 GAS manifold kit 2 elements	C49200638X	2	274,00 €
7 GAS manifold kit 1 element	C49200637X	2	145,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
9 Water manifold kit (M+R) 1 elements	C49200639X	2	1.037,00 €
10 INAIL kits	C49200641X	2	897,00 €
11 Fuel shut-off valve	C49200635X	2	545,00 €
12 INAIL safety valve kit	C49200649X	2	105,00 €
13 Cascade control unit	C49200654X	1	684,00 €
14 Boiler interface card	C49200655X	5	169,00 €

Flue systems:	from 774 kW to 900 kW			Price €
15 Flue gas manifold kit	Ø 300	C49200565X	3	486,00 €
16 Clapper kit	Ø 100	C49200563X	6	104,00 €
17 Flue+siphon manifold kit	Ø 300	C49200568X	1	184,00 €

CONDENSA N

Gasketed plate exchangers



The gasketed plate heat exchangers of the K and F series are designed and manufactured with materials and solutions that ensure high standards of efficiency and durability in both civil and industrial process applications.

In particular:

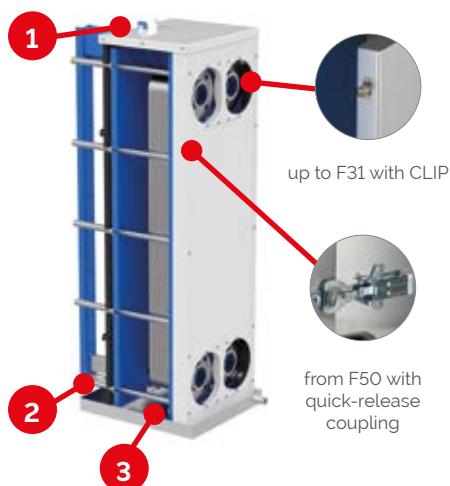
- consist of plates made of high quality materials that achieve an excellent overall heat transfer coefficient and guarantee corrosion resistance;
- plates can be made with different corrugations to maximise exchange performance depending on the different operating conditions (type of fluid, viscosity). Their particular conformation means that the motion of the fluids inside is particularly turbulent, guaranteeing a high heat exchange coefficient;
- seals are available in different materials, adapted to the particular applications (petrol, oils, food fluids, aggressive fluids, high-temperature fluids, etc.) and performance requirements;
- all exchangers produced are tested (leakage test) before shipment for leakage.



Accessories

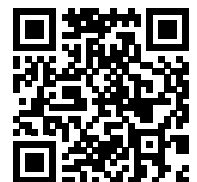
For models K042 and H1, the thermoformed insulation box is available, which can be disassembled and reassembled by coupling with Velcro strips (includes foot set).

Model	Threshold Plates	Thermoformed insulation box	
		Code	Price
K042	up to 64 plates	343090028X	278,00 €
H1	up to 64 plates	343090028X	278,00 €
F009	up to 101 plates	343090111X	379,00 €



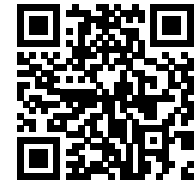
Legend

1. Aluminium Insulation Box: available for the entire range, it is made of an aluminium structure covered with insulating material.
2. Condensate Collection Pan: mandatory in refrigeration and cooling applications
3. Supporting feet set



PRICES

Accessories



Management electronics

ACCESSORIES PRICES



Description	Code	Price
OT-Modbus interface card kit	C49200705X	206,00 €
0-10V interface module	C49200656X	345,00 €
Remote control kit Web Control GSM connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200608X	1.092,00 €
Remote control kit Web Control LAN connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200609X	1.092,00 €
Web Control CARD - Remote Management Subscription Renewal	C49200611X	349,00 €
1-year subscription renewal for Web Control GSM	C49200608X	1.092,00 €
2-year subscription renewal for Web Control LAN	C49200609X	1.092,00 €

¹Combination with cascade control unit code C49200654X is mandatory.

² At the end of the 4-month 'TeleManagement subscription' included, it will be possible to renew the service by purchasing the Web Control Card code C49200611X

Condensate neutralisers



Description	Code	Price
Condensate neutralisation filter for boilers up to 115 kW	C49200628X	239,00 €
Fitting kit for condensation neutralization filter	C49200648X	41,00 €
neutralisation tray kit condensate up to 350 kW	85077261815	381,00 €
Pump for neutralisation tray condensate up to 350 kW	C49200634X	472,00 €
Neutralisation tray kit condensate up to 1.5 MW	C49200698X	629,00 €
Neutralisation tray kit condensate + pump up to 1.5 MW	C49200699X	1.126,00 €
Neutralisation granulate kit condensate up to 1.5 MW	C49200700X	64,00 €

**Accessories NOT INCLUDED in the configurations on the previous pages

Boilers and hybrid solutions with heat pumps

MDC

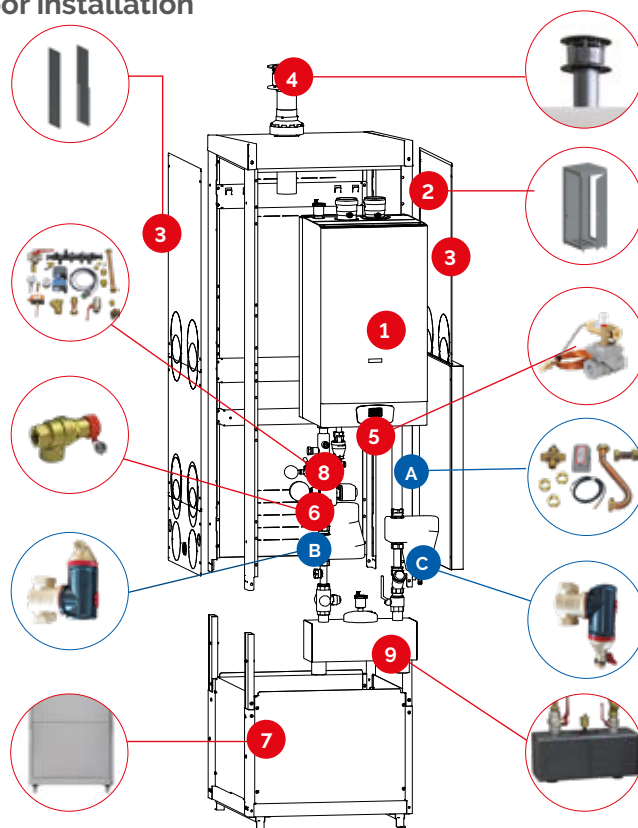
Single modular box WITH BALANCER for outdoor installation



Guarantee valid for both single boiler purchase and dual-cascade solution of your choice.



ACCESSORIES PRICES



Models boilers	Modulation	W x H* x D (mm) * H tot. with riser kit without smokestack	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
50	1:10	702	47,5/5	80	10.778,00 €
70	1:10	x 2375	63/7	80	11.338,00 €
90	1:10	x 810	85/9,5	100	12.514,00 €
115	1:10		108/11	100	13.186,00 €

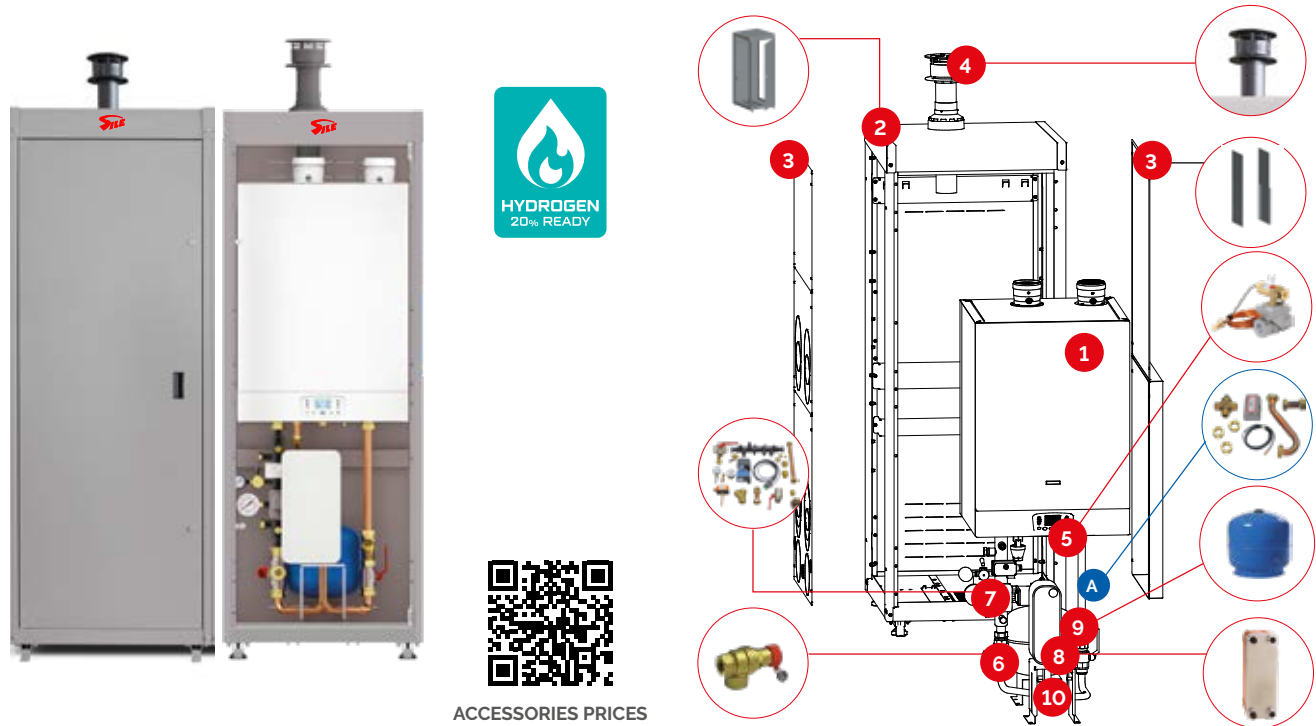
**The price includes:		Code	Qty.	Price €
1	Boilers	as indicated in the table		
2	MDC boxes	C49200666X	1	3.066,00 €
3	Panelling kit	C49200667X	1	572,00 €
4	Flue systems	C49200521X (mod. 50N-70N)	1	86,00 €
		C49200540X (mod. 90N-115N)		91,00 €
5	Combustion stop valve 1" FROST	C49200702X		537,00 €
6	INAIL safety valve	C49200630X (mod. 50N)	1	57,00 €
		C49200653X (mod. 90N)		60,00 €
7	Booster kit	C49200673X	1	1.092,00 €
8	INAIL component kits	C49200623X (mod. 50N)	1	807,00 €
9	Horizontal balancer kit	C49200624X	1	489,00 €

ACCESSORIES		
A	C49200620X 3-way diverter valve kit with NTC probe for cylinder only for single box 50 N	321,00 €
	C49200704X 3-way diverter valve kit with NTC probe for cylinder only for single box 90 N	354,00 €
B	C49200622X Microbubble separator kit	464,00 €
C	C49200621X Micro-impurity separator kit	471,00 €
	85077520502 Outdoor probe kit	37,00 €

Boilers and hybrid solutions with heat pumps

MDC

Single modular box WITH HEAT EXCHANGER for outdoor installation



Models boilers	Modulation	W x H* x D (mm) * H tot. with riser kit without smokestack	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
50	1:10	702 x 1925	47,5/5	80	12.867,00 €
70	1:10	702 x 1925	63/7	80	13.427,00 €
90	1:10	810 x 1925	85/9,5	100	14.603,00 €
115	1:10	810 x 1925	108/11	100	15.275,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	1	
2 MDC boxes	C49200666X	1	3.066,00 €
3 Panelling kit	C49200667X	1	572,00 €
4 Flue systems	C49200521X (50N-70N)	1	86,00 €
	C49200540X (90N-115N)		91,00 €
5 Combustion stop valve 1" FROST	C49200702X		537,00 €
6 INAIL safety valve	C49200630X (50N-70N)	1	57,00 €
	C49200653X (90N-115N)		60,00 €
7 INAIL component kits	C49200623X (50K-70N-90N-115N)	1	807,00 €
8 Insulated plate heat exchanger kit	C49200683X - 1'- 55 kW (60N)	1	604,00 €
	C49200684X - 1'- 68 kW (70 N)		722,00 €
	C49200685X - 1'- 89 kW (90 N)		857,00 €
	C49200686X connections 1'-114 kW (115N)		973,00 €
9 Expansion tank kit	C49200674X	1	193,00 €
10 Pipe kit plate heat exchanger	C49200695X	1	321,00 €

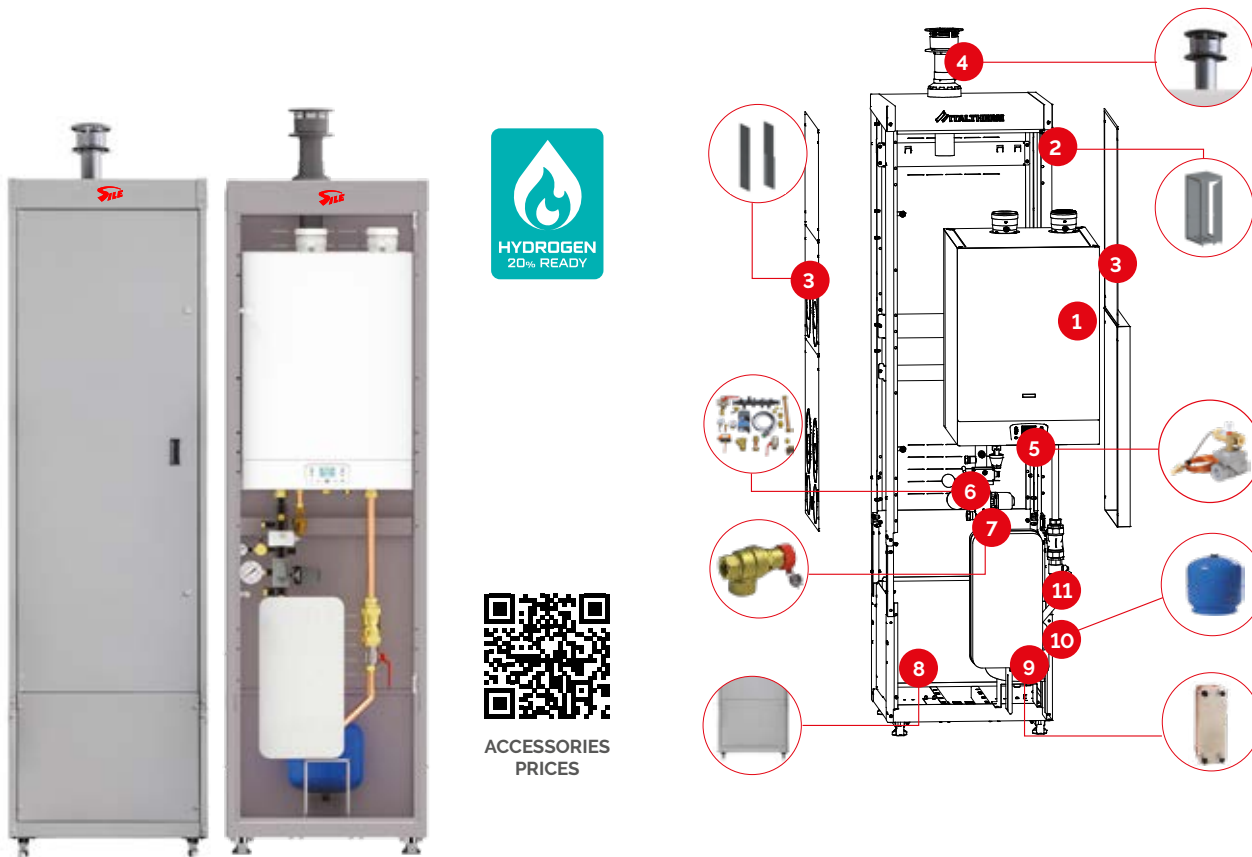
ACCESSORIES		
A	C49200620X 3-way diverter valve kit with NTC probe for cylinder only for single box 50 N - 70 N	321,00 €
	C49200704X 3-way diverter valve kit with NTC probe for cylinder only for single box 90 N - 115 N	354,00 €
	85077520502 Outdoor probe kit	37,00 €

* Other accessories are recommended but not mandatory. A kit code C49200657X is available for installation in place of the INAIL kit

Boilers and hybrid solutions with heat pumps

MDC

Single modular box WITH EXCHANGER for outdoor installation



Models boilers	Modulation	W x H* x D (mm) * H tot. without flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
160	1:6	702 x 2375 x 810	150/25	100	16.480,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	1	--
2 MDC Box	C49200666X	1	3066,00 €
3 Panelling kit	C49200667X	1	572,00 €
4 Flue systems	C49200540X	1	91,00 €
5 Fuel shut-off valve 1" FROST	C49200702X	1	537,00 €
6 INAIL component kits	C49200697X	1	917,00 €
7 INAIL safety valve	C49200653X	1	60,00 €
8 Booster kit	C49200673X	1	1092,00 €
9 Plate exchanger kit INSULATED	C49200668X connections 2" 180 kW	1	2.401,00 €
10 Expansion tank kit	C49200674X	1	193,00 €
11 Pipe kit plate heat exchanger	C49200696X (mod. 160N)	1	326,00 €

ACCESSORIES

85077520502 Outdoor probe kit	37,00 €
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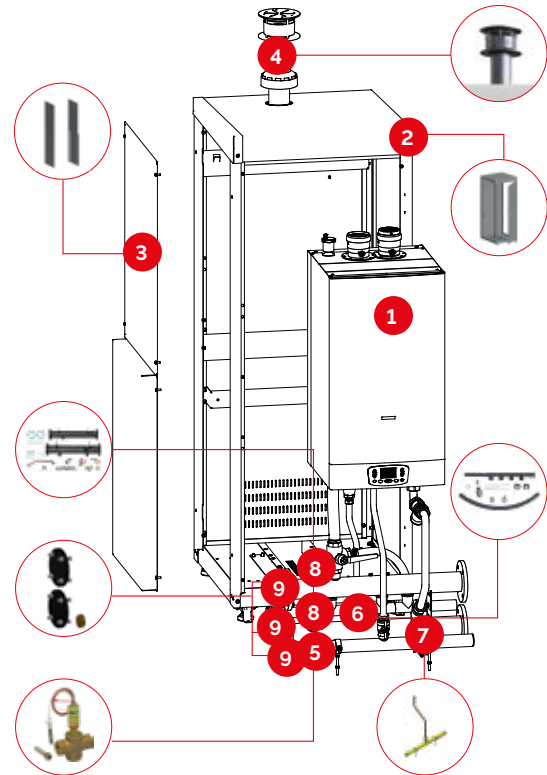
Boilers and hybrid solutions with heat pumps

MDC

Single modular box for outdoor installation



ACCESSORIES
PRICES



Models boilers	Modulation	W x H* x D (mm) * H tot. without flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
160	1:6	702 x 1925 x 810	150/25	100	13.307,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	1	
2 MDC boxes	C49200666X	1	3.066,00 €
3 Panelling kit	C49200667X	1	572,00€
4 Flue systems	C49200540X	1	91,00 €
5 Fuel shut-off valve 1" 1/2 FROST	C49200703X		591,00 €
Kit INAIL safety valve	C49200649X	1	105,00 €
6 Condensate drain collector kit 1 element	C49200645X	1	351,00 €
7 GAS manifold kit 1 element	C49200637X	1	145,00 €
8 Water manifold kit (M+R) 1 item	C49200639X	1	1.037,00 €
9 Cascade flange kit	C49200701X	1	124,00 €

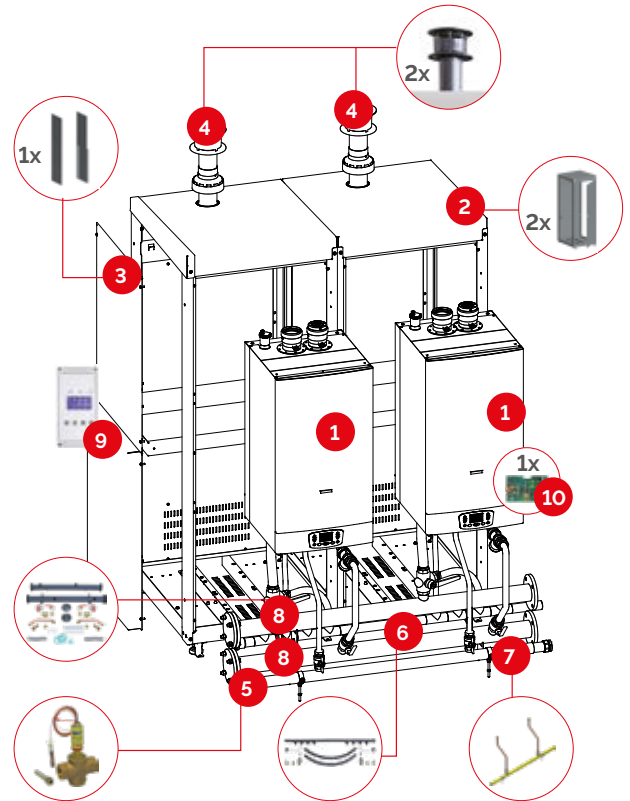
Boilers and hybrid solutions with heat pumps

MDC

Modular box for outdoor installation



ACCESSORIES
PRICES



Plant power	Models boilers	Modulation	W x H* x D (mm) * H tot. without flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
95 kW	50 + 50	1:19	1402 x 1925 x 810	95/5	80	19.092,00 €
111 kW	50 + 70	1:22		110,5/5	80	19.652,00 €
126 kW	70 + 70	1:18		126/7	80	20.212,00 €
170 kW	90 + 90	1:17		170/9,5	100	22.564,00 €
193 kW	90 + 115	1:20		193/9,5	100	23.236,00 €
216 kW	115 + 115	1:19		216/11	100	23.908,00 €
235 kW	160 + 90	1:24		235/9,5	100	24.132,00 €
258 kW	160 + 115	1:23		258/25	100	24.804,00 €
300 kW	160 + 160	1:12		300/25	100	25.700,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	2	
2 MDC boxes	C49200666X	2	3.066,00 €
3 Panelling kit	C49200667X	1	572,00 €
4 Flue systems	C49200521X (mod. 50N-70N)	2	86,00 €
	C49200540X (mod. 90N-115N-160N)	2	91,00 €
5 Fuel shut-off valve 1 1/2 FROST	C49200703X	1	591,00 €
INAIL safety valve kit	C49200644X (mod. 50N-70N)	1	105,00 €
	C49200649X (mod. 90N-115N-160N)		105,00 €
6 Condensate drain manifold kit 2 elements	C49200646X	1	532,00 €
7 GAS manifold kit 2 elements	C49200638X	1	274,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	1	1.732,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	1	169,00 €

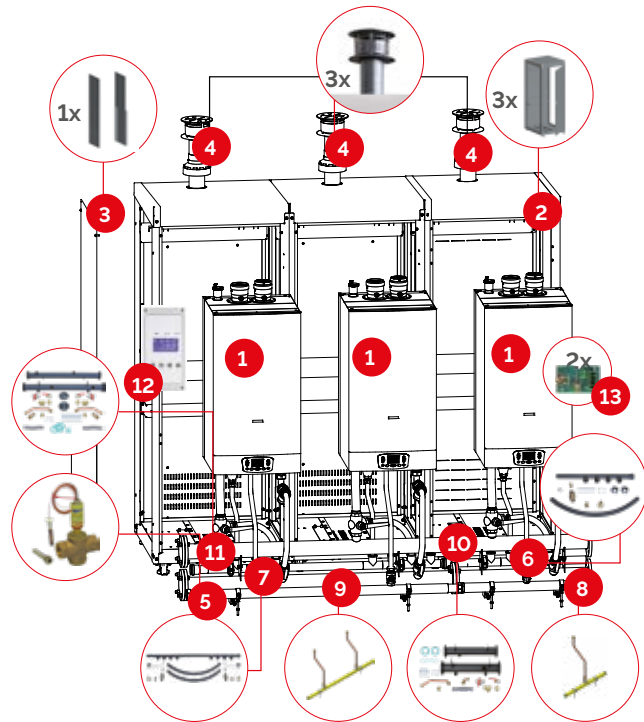
Boilers and hybrid solutions with heat pumps

MDC

Modular box for outdoor installation



ACCESSORIES
PRICES



BOILERS

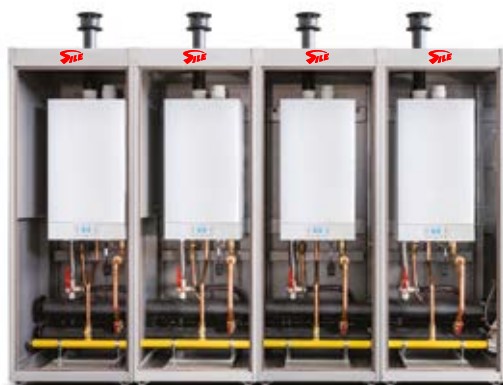
Power facility	Models boilers	Modulation	W x H* x D (mm) * H tot. without flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
143 kW	50 + 50 + 50	1:28	2102 x 1925 x 810	142.5/5	80	27.958,00 €
158 kW	50 + 50 + 70	1:31		158/5	80	28.518,00 €
174 kW	50 + 70 + 70	1:34		173.5/5	80	29.078,00 €
189 kW	70 + 70 + 70	1:27		189/5	80	29.638,00 €
255 kW	90 + 90 + 90	1:26		255/9,5	100	33.166,00 €
278 kW	90 + 90 + 115	1:29		278/9,5	100	33.838,00 €
301 kW	90 + 115 + 115	1:31		301/9,5	100	34.510,00 €
320 kW	160 + 90 + 90	1:33		320/9,5	100	34.734,00 €
324 kW	115 + 115 + 115	1:29		324/11	100	35.182,00 €
343 kW	160 + 115 + 90	1:36		343/9,5	100	35.406,00 €
366 kW	160 + 115 + 115	1:34		366/11	100	36.078,00 €
385 kW	160 + 160 + 90	1:40		385/9,5	100	36.302,00 €
408 kW	160 + 160 + 115	1:37		408/11	100	36.974,00 €
450 kW	160 + 160 + 160	1:18		450/25	100	37.870,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	3	
2 MDC boxes	C49200666X	3	3.066,00 €
3 Panelling kit	C49200667X	1	572,00 €
4 Flue systems	C49200521X (mod. 50N-70N)	3	86,00 €
	C49200540X (mod. 90N-115N-160N)	3	91,00 €
5 Fuel shut-off valve 1 1/2 FROST	C49200703X	1	591,00 €
INAIL safety valve kit	C49200644X (mod. 50N-70N)	1	105,00 €
	C49200649X (mod. 90N-115N-160N)		105,00 €
6 Condensate drain collector kit 1 element	C49200645X	1	351,00 €
7 Condensate drain collector kit 2 elements	C49200646X	1	532,00 €
8 GAS manifold kit 1 element	C49200637X	1	145,00 €
9 GAS manifold kit 2 elements	C49200638X	1	274,00 €
10 Water manifold kit (M+R) 1 item	C49200639X	1	1.037,00 €
11 Water manifold kit (M+R) 2 elements	C49200640X	1	1.732,00 €
12 Cascade control unit	C49200654X	1	684,00 €
13 Boiler interface card	C49200655X	2	169,00 €

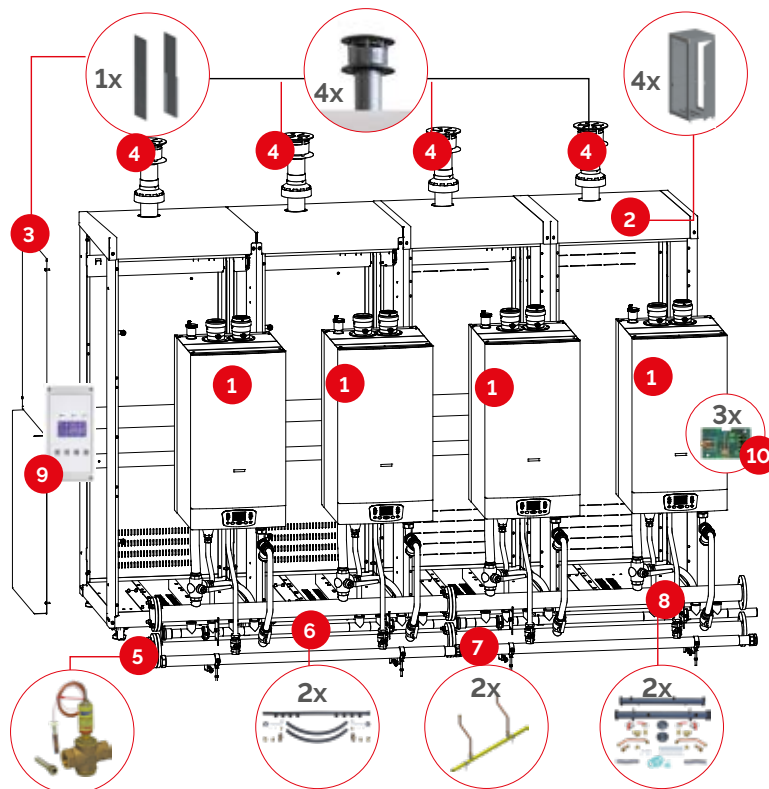
Boilers and hybrid solutions with heat pumps

MDC

Modular box for outdoor installation



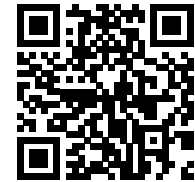
ACCESSORIES
PRICES



Plant power	Models boilers	Modulation	W x H* x D (mm) * H tot. without flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
190 kW	50 +50 +50 +50K	1:38	2802 x 1925 x 810	190/5	80	36.296,00 €
206 kW	50 +50 +50 +70K	1:41		205,5/5	80	36.856,00 €
221 kW	50 +50 +70 +70K	1:44		221/5	80	37.416,00 €
237 kW	50 +70 +70 +70	1:47		236,5/5	80	37.976,00 €
252 kW	70 +70 +70 +70	1:36		252/7	80	38.536,00 €
340 kW	90 +90 +90 +90	1:35		340/9,5	100	43.240,00 €
363 kW	90 +90 +90 +115	1:38		363/9,5	100	43.912,00 €
386 kW	90 +90 +115 +115	1:40		386/9,5	100	44.584,00 €
405 kW	160 +90 +90 +90	1:42		405/9,5	100	44.808,00 €
409 kW	115 +115 +115 +90	1:43		409/9,5	100	45.256,00 €
428 kW	160 +115 +90 +90	1:45		428/9,5	100	45.480,00 €
432 kW	115 +115 +115 +115	1:39		432/11	100	45.928,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	4	
2 MDC boxes	C49200666X	4	3.066,00 €
3 Panelling kit	C49200667X	1	572,00 €
4 Flue systems	C49200521X (mod. 50N-70N)	4	86,00 €
	C49200540X (mod. 90N-115N-160N)	4	91,00 €
5 Fuel shut-off valve 1 1/2 FROST	C49200703X	1	591,00 €
INAIL safety valve kit	C49200644X (mod. 50N-70N)	1	105,00 €
	C49200649X (mod. 90N-115N-160N)		105,00 €
6 Condensate drain manifold kit 2 elements	C49200646X	2	532,00 €
7 GAS manifold kit 2 elements	C49200638X	2	274,00 €
8 Water manifold kit (M+R) 2 elements	C49200640X	2	1.732,00 €
9 Cascade control unit	C49200654X	1	684,00 €
10 Boiler interface card	C49200655X	3	169,00 €

Accessories



Management electronics



ACCESSORIES PRICES

Description	Code	Price
OT-Modbus interface card kit	C49200705X	206,00 €
0-10V interface module	C49200656X	345,00 €
Remote control kit Web Control GSM connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200608X	1.092,00 €
Remote control kit Web Control LAN connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200609X	1.092,00 €
Web Control CARD - Remote Management Subscription Renewal	C49200611X	349,00 €
1-year subscription renewal for Web Control GSM	C49200608X	1.092,00 €
2-year subscription renewal for Web Control LAN	C49200609X	1.092,00 €

¹Combination with cascade control unit code C49200654X is mandatory.

² At the end of the 4-month 'TeleManagement subscription' included, it will be possible to renew the service by purchasing the Web Control Card code C49200611X

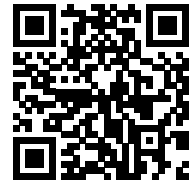
Condensate neutralisers



Description	Code	Price
Condensate neutralisation filter for boilers up to 115 kW	C49200628X	239,00 €
Fitting kit for condensation neutralization filter	C49200648X	41,00 €
neutralisation tray kit condensate up to 350 kW	85077261815	381,00 €
Pump for neutralisation tray condensate up to 350 kW	C49200634X	472,00 €
Neutralisation tray kit condensate up to 1.5 MW	C49200698X	629,00 €
Neutralisation tray kit condensate + pump up to 1.5 MW	C49200699X	1.126,00 €
Neutralisation granulate kit condensate up to 1.5 MW	C49200700X	64,00 €
Lowered flap kit Ø80 to be used as an alternative to chimney flue in the case of an external flue collector (not supplied)	C49200569X	99,00 €
Lowered flap kit Ø100 to be used as an alternative to chimney flue in the case of an external flue collector (not supplied)	C49200570X	102,00 €

**Accessories NOT INCLUDED in the configurations on the previous pages

Accessories



ACCESSORIES PRICES

Expansion tank kit
INCLUDING

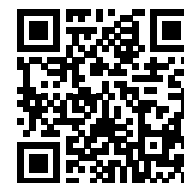


	Code		Price
180 kW plate heat exchanger + INAIL kit			
180 kW insulated plate heat exchanger kit	C49200668X		2.401,00 €
Exchanger tube kit left ▶ (with INAIL kit)	C49200662X		3.292,00 €
Exchanger tube kit right ▶ (with INAIL kit)	C49200664X		3.292,00 €
Expansion tank kit	C49200674X		193,00 €
MDC Box	C49200666X	x1	3.066,00 €
Plate heat exchanger 322 kW + INAIL kit			
322 kW insulated plate heat exchanger kit	C49200669X		3.255,00 €
Exchanger tube kit left ▶ (with INAIL kit)	C49200662X		3.292,00 €
Exchanger tube kit right ▶ (with INAIL kit)	C49200664X		3.292,00 €
Expansion tank kit	C49200674X		193,00 €
MDC Box	C49200666X	x1	3.066,00 €
Plate heat exchanger 412 kW + INAIL kit			
412 kW insulated plate heat exchanger kit	C49200670X		4.144,00 €
Exchanger tube kit left ▶ (with INAIL kit)	C49200662X		3.292,00 €
Exchanger tube kit right ▶ (with INAIL kit)	C49200664X		3.292,00 €
Expansion tank kit	C49200674X		193,00 €
MDC Box	C49200666X	x1	3.066,00 €
501 kW plate heat exchanger + INAIL kit			
501 kW insulated plate heat exchanger kit	C49200671X		4.730,00 €
Exchanger tube kit left ▶ (with INAIL kit)	C49200662X		3.292,00 €
Exchanger tube kit right ▶ (with INAIL kit)	C49200664X		3.292,00 €
Expansion tank kit	C49200674X		193,00 €
MDC Box	C49200666X	x1	3.066,00 €

Boilers and hybrid solutions with heat pumps

High power condensing ≥ 35 kW

CONDENSA TN



PRICES

Modular condensing floor-standing boilers for installation inside the utility room.

Integrated flue gas connections with sockets for combustion analysis as standard, multifunctional control system: more than 40 configurable parameters for system optimisation, thermo-acoustic insulation, stainless steel combustion unit, special burner for flame stability at low power, pneumatic modulation mixer 1:10*, dry condensate trap, electronically modulated circulator, water manifold kit (M+R) included, condensate drainage manifold kit included, GAS manifold kit included



Guarantee valid for both single boiler purchase and dual-cascade solution of your choice.



Codes/Prices

Model	Code	Price
CONDENSA 115 TN METHANE	349010167X	10.760,00 €
CONDENSA 115 TN LPG	349010176X	10.760,00 €
CONDENSA 160 TN METHANE	349010168X	11.949,00 €
CONDENSA 160 TN LPG	349010177X	11.949,00 €



Technical Specifications

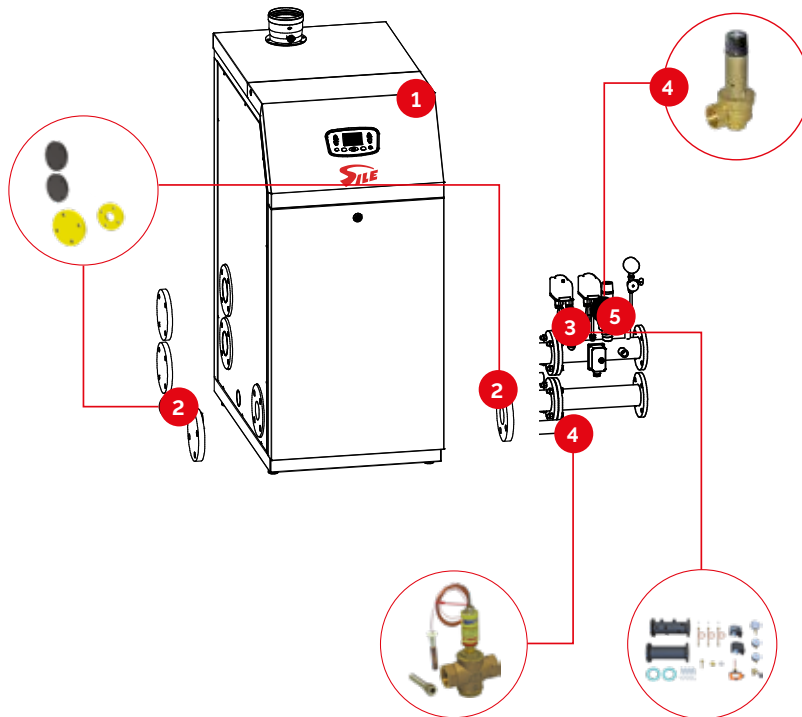
Model	Nominal heat input heating	Minimum heat input heating	Nominal heat input DHW	Yield 30% profit of the heat input	Ø fumes	Dimensions	Empty weight	Energy class
	Qn kW	Qmin kW	Qnw kW					
CONDENSA 115 TN METHANE	108	11	108	109,1	100	555 x 1296 x 885	140,2	-
CONDENSA 115 TN LPG	108	11	108	109,1	100	555 x 1296 x 885	140,2	-
CONDENSA 160 TN METHANE	150	25	105.0	109,2	100	555 x 1296 x 885	155	-
CONDENSA 160 TN LPG	150	25	105.0	109,2	100	555 x 1296 x 885	155	-

Boilers and hybrid solutions with heat pumps

CONDENSA TN 1 BOILER



ACCESSORIES
PRICES

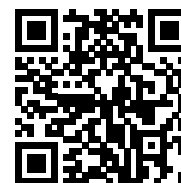


Model	LxHxP (mm)	Weight (kg)	Qn/Qmin (kW)	Qnw (kW)	η30at Qn (%)	∅ fumes (mm)	Price € **
CONDENSA 115 TN	1035 x 1296 x 885	140,2	108 / 11	108	109,1	100	12.603,00 €
CONDENSA 160 TN		155	150 / 25	105,0	109,2	100	13.792,00 €

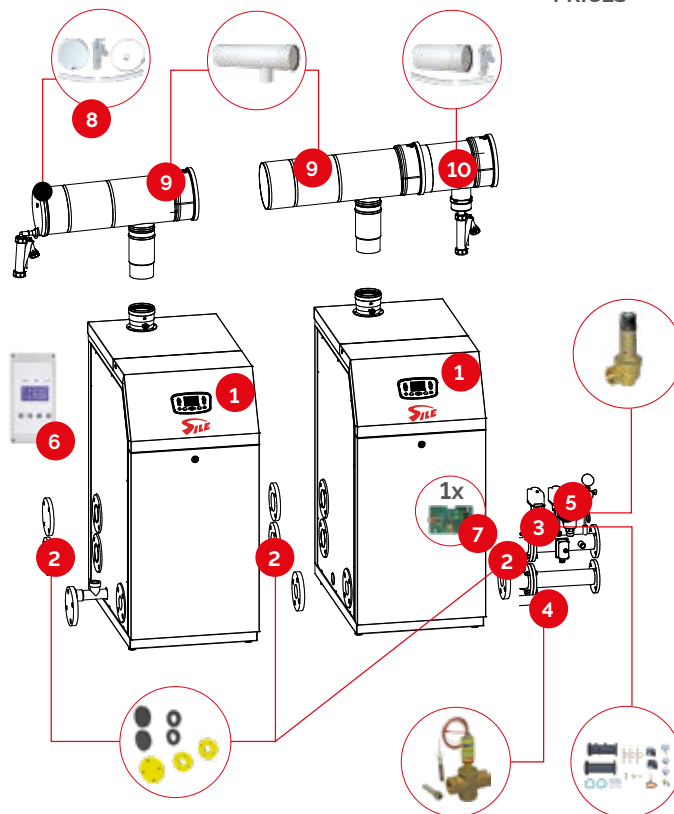
**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	1	
2 Flange kits 1 boiler	C49200687X	1	296,00 €
3 INAIL kit	C49200641X	1	897,00 €
4 Fuel shut-off valve	C49200635X	1	545,00 €
5 INAIL safety valve kit 5.4 bar	C49200692X	1	105,00 €

Boilers and hybrid solutions with heat pumps

CONDENSA TN 2 BOILERS



ACCESSORIES
PRICES



Power facility	Models boilers	Modulation	W x H* x D (mm) <small>*Height with flue</small>	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
216 kW	115 + 115	1:19	1630x1690x885	216/11	100 160	24.358,00 €
258 kW	160 + 115	1:23		258/25	100 160	25.547,00 €
300 kW	160 + 160	1:12	1630x1750x885	300/25	100 200	26.736,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	2	
2 Flange kits 2 boilers	C49200688X	1	438,00 €
3 INAIL kit	C49200641X	1	897,00 €
4 Fuel shut-off valve	C49200635X	1	545,00 €
5 INAIL safety valve kit 5.4 bar	C49200692X	1	105,00 €
6 Cascade control unit	C49200654X	1	684,00 €
7 Boiler interface card	C49200655X	1	169,00 €

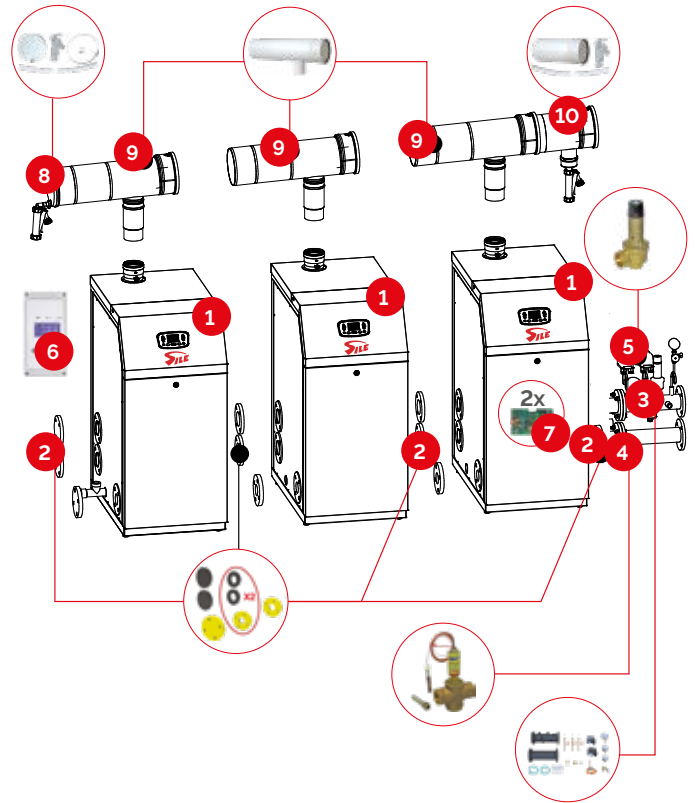
Flue systems:	from 216 kW and 258 kW			Price €	300 kW			Price €
8 Flue gas manifold cap kit	Ø 160	C49200544X	1	169,00 €	Ø 200	C49200545X	1	236,00 €
9 Flue gas manifold kit	Ø 160	C49200560X	2	228,00 €	Ø 200	C49200561X	2	307,00 €
10 Flue+siphon manifold kit	Ø 160	C49200549X	1	124,00 €	Ø 200	C49200550X	1	193,00 €

Boilers and hybrid solutions with heat pumps

CONDENSA TN 3 BOILERS



ACCESSORIES
PRICES



Power facility	Models boilers	Modulation	W x H* x D (mm) *Height with flue	Qn/Qmin (kW)	Ø fumes (mm) boiler-collector	Price € **
324 kW	115 + 115 + 115	1:29	2214x1775x885	324/11	100 200	35.442,00 €
366 kW	160 + 115 + 115	1:34		366/11	100 200	36.631,00 €
408 kW	160 + 160 + 115	1:37		408/11	100 200	37.820,00 €
450 kW	160 + 160 + 160	1:18		450/25	100 200	39.009,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	3	
2 Flange kits 3 boilers	C49200689X	1	593,00 €
3 INAIL kit	C49200641X	1	897,00 €
4 Fuel shut-off valve	C49200635X	1	545,00 €
5 INAIL safety valve kit 5.4 bar	C49200692X	1	105,00 €
6 Cascade control unit	C49200654X	1	684,00 €
7 Boiler interface card	C49200655X	2	169,00 €

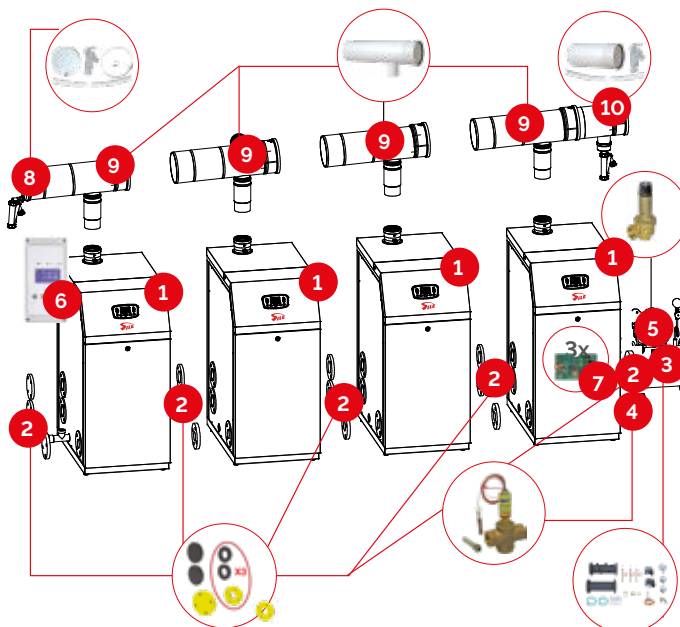
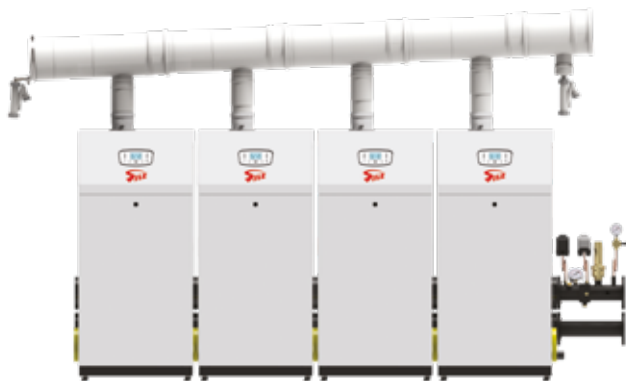
Flue systems:	300 kW	Price €
8 Flue gas manifold cap kit	Ø 200 C49200545X 1	236,00 €
9 Flue gas manifold kit	Ø 200 C49200561X 3	307,00 €
10 Flue+siphon manifold kit	Ø 200 C49200550X 1	193,00 €

Boilers and hybrid solutions with heat pumps

CONDENSA TN 4 BOILERS



ACCESSORIES
PRICES



Plant power	Models boilers	Modulation	W x H* x D (mm)	Qn/Qmin (kW)	Ø fumes (mm)	Price € **
432 kW	115 + 115 + 115 + 115	1:34	2780 x 1800 x 885 <small>*Height with flue</small>	432/11	100 200 <small>boiler-collector</small>	46.522,00 €

**The price includes:	Code	Qty.	Price €
1 Boilers	as indicated in the table	4	
2 Flange kits 4 boilers	C49200690X	1	744,00 €
3 INAIL kit	C49200641X	1	897,00 €
4 Fuel shut-off valve	C49200635X	1	545,00 €
5 INAIL safety valve kit 5.4 bar	C49200692X	1	105,00 €
6 Cascade control unit	C49200654X	1	684,00 €
7 Boiler interface card	C49200655X	3	169,00 €

Flue systems:			Price €
8 Flue gas manifold cap kit	Ø 200	C49200545X	1 236,00 €
9 Flue gas manifold kit	Ø 200	C49200561X	4 307,00 €
10 Flue+siphon manifold kit	Ø 200	C49200550X	1 193,00 €

Gasketed plate exchangers



The gasketed plate heat exchangers of the K and F series are designed and manufactured with materials and solutions that ensure high standards of efficiency and durability in both civil and industrial process applications.

In particular:

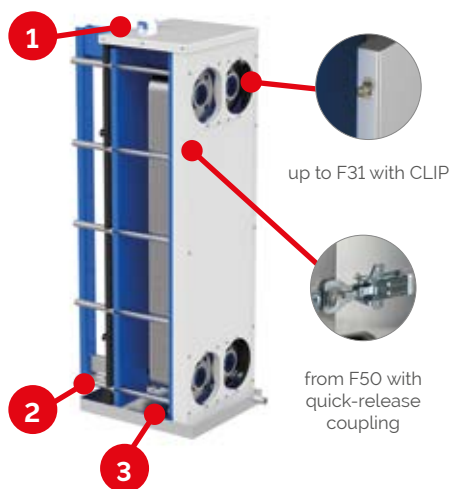
- consist of plates made of high quality materials that achieve an excellent overall heat transfer coefficient and guarantee corrosion resistance;
- plates can be made with different corrugations to maximise exchange performance depending on the different operating conditions (type of fluid, viscosity). Their particular conformation means that the motion of the fluids inside is particularly turbulent, guaranteeing a high heat exchange coefficient;
- seals are available in different materials, adapted to the particular applications (petrol, oils, food fluids, aggressive fluids, high-temperature fluids, etc.) and performance requirements;
- all heat exchangers produced are tested (leakage test) before shipment for leakage.



Accessories

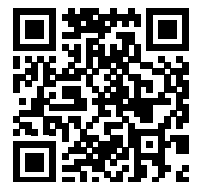
For models K042 and H1, the thermoformed insulation box is available, which can be disassembled and reassembled by coupling with Velcro strips (includes foot set).

Model	Threshold Plates	Thermoformed insulation box	
		Code	Price
K042	up to 64 plates	343090028X	278,00 €
H1	up to 64 plates	343090028X	278,00 €
F009	up to 101 plates	343090111X	379,00 €



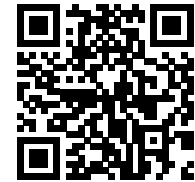
Legend

1. Aluminium Insulation Box: available for the entire range, it is made of an aluminium structure covered with insulating material.
2. Condensate Collection Pan: mandatory in refrigeration and cooling applications
3. Supporting feet set



PRICES

Accessories for Boilers ≥ 35 kW



Management electronics

ACCESSORIES PRICES



Description	Code	Price
OT-Modbus interface card kit	C49200705X	206,00 €
0-10V interface module	C49200656X	345,00 €
Remote control kit Web Control GSM connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200608X	1.092,00 €
Remote control kit Web Control LAN connection module ¹ 4 months of 'TeleManagement subscription' INCLUDED ²	C49200609X	1.092,00 €
Web Control CARD - Remote Management Subscription Renewal	C49200611X	349,00 €
1-year subscription renewal for Web Control GSM	C49200608X	1.092,00 €
2-year subscription renewal for Web Control LAN	C49200609X	1.092,00 €

¹Combination with cascade control unit code C49200654X is mandatory.

² At the end of the 4-month 'TeleManagement subscription' included, it will be possible to renew the service by purchasing the Web Control Card code C49200611X

Condensate neutralisers



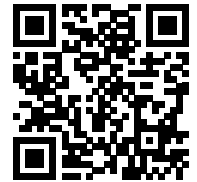
Description	Code	Price
Condensate neutralisation filter for boilers up to 115 kW	C49200628X	239,00 €
Fitting kit for condensation neutralization filter	C49200648X	41,00 €
neutralisation tray kit condensate up to 350 kW	85077261815	381,00 €
Pump for neutralisation tray condensate up to 350 kW	C49200634X	472,00 €
Neutralisation tray kit condensate up to 1.5 MW	C49200698X	629,00 €
Neutralisation tray kit condensate + pump up to 1.5 MW	C49200699X	1.126,00 €
Neutralisation granulate kit condensate up to 1.5 MW	C49200700X	64,00 €

**Accessories NOT INCLUDED in the configurations on the previous pages

Boilers and hybrid solutions with heat pumps

Three-pass condensing ≥ 35 Kw ★★★★★

PIC. AR



PRICES

Monoblock boiler, with three effective smoke passes (pressurised combustion - low NOx), with through-flame firebox and wet bottom, made entirely of stainless steel to be able to operate (using methane gas) at a very low temperature/condensation, achieving very high efficiency and high fuel savings with ★★★★★ classification.

The return temperature of the system can be $<15^{\circ}\text{C}$ using natural gas ($>40^{\circ}\text{C}$ with liquid fuels). The PIC.AR series boiler is recommended for use in systems operating at low temperature (underfloor systems, systems with large surface heating bodies, etc.) and guarantees effective protection against acid corrosion of condensate due to its properties.

Combination with blown-air burners.

Complete with electromechanical control panel (for electronic quotation on request)

Max. allowed pressure 5 bar - max. allowed temperature 100°C

CE approval according to current European Directives:

Directive 92/42/EC - Efficiency requirements for new hot water boilers;

Regulation 2016/426/EU - Appliances burning gaseous fuels;

Regulation 813/2013/EU - Detailed rules for the implementation of Directive 2009/125/EC

On request: PIC.AR can be equipped with electronic control panel in single version; for boilers in cascade, master and slave control panel.

Accessory: Inail Kit



Codes/Prices

Model	Code	Price
PIC AR 110	849110001X	15.450,00 €
PIC AR 150	849110002X	17.015,00 €
PIC AR 190	849110003X	21.722,00 €
PIC AR 230	849110004X	25.600,00 €
PIC AR 290	849110005X	29.841,00 €
PIC AR 345	849110006X	33.205,00 €
PIC AR 440	849110012X	39.136,00 €
PIC AR 520	849110007X	42.501,00 €
PIC AR 580	849110008X	45.332,00 €
PIC AR 640	849110009X	48.554,00 €

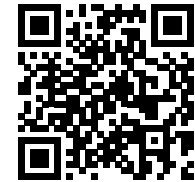
Technical Specifications

Model	Power nominal profit	Rated output power	Power DHW	Firebox back pressure	Water-side pressure loss $\Delta t=15^{\circ}\text{C}$	Water content	Overall dimensions (including accessories)				Connections			Empty weight
	kw	kw	kw	mbar	mbar	dm ³	B mm	L mm	H mm	\varnothing mm	m/r DN	S DN	V DN	kg
PIC AR 110	110	117,6	113,3	1	6,8	209	660	1430	1150	200	2"	3/4"	1 1/4"	370
PIC AR 150	148	160,3	152	1,2	10	258	660	1680	1150	200	2"	3/4"	1 1/4"	430
PIC AR 190	185	200,4	189,6	1,6	16	308	660	1930	1150	200	2"	3/4"	1 1/4"	500
PIC AR 230	227	244,8	232,3	2	10	356	740	1750	1300	250	65	3/4"	1 1/2"	545
PIC AR 290	286	309,7	292	2,3	14	425	740	2000	1300	250	65	3/4"	1 1/2"	615
PIC AR 345	345	372,3	351,7	3,3	23	425	740	2000	1300	250	65	3/4"	1 1/2"	620
PIC AR 440	440	482,1	458,7	3,5	18	585	870	2090	1550	300	80	3/4"	2"	1030
PIC AR 520	518,9	572,8	545	4,2	22	698	870	2390	1550	300	80	3/4"	2"	1120
PIC AR 580	570,4	629,1	599	5,5	27	698	870	2390	1550	300	80	3/4"	2"	1130
PIC AR 640	641,3	707,7	673,6	6,6	35	698	870	2390	1550	300	80	3/4"	2"	1130

Boilers and hybrid solutions with heat pumps

Steel floor-standing boilers ≥35 kW ★★ ★

P. AR



PRICES



P.AR boilers are high-efficiency thermal hot water generators with flame-reversing fire-box operating with liquid or gaseous fuels complete with control panel. The optimal sizing of the firebox and tube bundle, the thermal insulation of the boiler body and the stainless steel turbulators guarantee P.AR boilers high combustion efficiency and low flue gas temperatures with a **three-star** classification.

Outer cladding in pre-painted red sheet metal.

Max. allowed pressure 6 bar (5 bar up to model P.AR 130).

Max. allowed temperature 110°C.

Combination with long-head burners of any make.

Complete with electromechanical control panel (for electronic quotation on request)

CE approval according to current European Directives:

Directive 92/42/EC - Efficiency requirements for new hot water boilers.

Regulation 2016/426/EU - Appliances burning gaseous fuels.

On request: P.AR can be equipped with electronic control panel in the single version; for boilers in cascade, master and slave control panel.

Accessory: Inail Kit

Codes/Prices

Model	Code	Price
PAR 80	849100001X	4.999,00 €
PAR 90	849100002X	5.262,00 €
PAR 130	849100003X	6.085,00 €
PAR 170	849100004X	6.656,00 €
PAR 200	849100005X	7.233,00 €
PAR 250	849100006X	8.088,00 €
PAR 300	849100007X	9.021,00 €
PAR 350	849100008X	9.979,00 €

Model	Code	Price
P.AR 400	849100009X	11.717,00 €
P.AR 450	849100010X	12.078,00 €
P.AR 500	849100011X	12.576,00 €
P.AR 600	849100012X	14.996,00 €
P.AR 700	849100013X	17.345,00 €
P.AR 800	849100014X	18.688,00 €
P.AR 900	849100015X	21.230,00 €
P.AR 1100	849100016X	24.605,00 €

Model	Code	Price
PAR 1300	849100017X	29.642,00 €
PAR 1640	849100018X	38.241,00 €
PAR 1850	849100019X	41.194,00 €
PAR 2050	849100020X	43.310,00 €
PAR 2580	849100021X	53.351,00 €
PAR 3100	849100022X	61.726,00 €
PAR 3600	849100023X	85.809,00 €

Technical Specifications

Model	Power max. useful kw	Power firebox mbar	Com- bustion chamber pressure %	Efficiency Tm=70°C mbar	Water-side pressure loss Δt=15°C dm³	Water content	Overall dimensions (including accesso- ries)				Connections			Empty weight kg
							B mm	L mm	H mm	Øf mm	m/r DN	S DN	V DN	
PAR 80	81	86,2	0,4	94,0	3,4	119	790	1110	880	200	2"	3/4"	1 1/4"	250
PAR 90	91	96,7	0,5	94,1	4,3	119	790	1110	880	200	2"	3/4"	1 1/4"	270
PAR 130	132	140	0,9	94,3	9	155	790	1360	880	200	2"	3/4"	1 1/4"	310
PAR 170	170	180	0,9	94,7	5,5	228	940	1405	990	220	65	3/4"	1 1/2"	460
PAR 200	203	214	1,2	94,9	7	228	940	1405	990	220	65	3/4"	1 1/2"	480
PAR 250	253	266	1,8	95,1	13	285	940	1655	990	220	65	3/4"	1 1/2"	690
PAR 300	304	320	2,5	95,0	18	276	940	1655	990	220	65	3/4"	1 1/2"	710
PAR 350	354	372	3,3	95,2	23	329	940	1905	990	220	65	3/4"	1 1/2"	760
PAR 400	398	418	2,7	95,2	13	402	1040	1990	1150	250	80	3/4"	2"	870
PAR 450	455	477	3,2	95,4	17	402	1040	1990	1150	250	80	3/4"	2"	890
PAR 500	505	530	3,7	95,3	21	476	1040	2290	1150	250	80	3/4"	2"	940
PAR 600	610	640	3,6	95,3	13	697	1240	2345	1280	350	100	3/4"	65	1310
PAR 700	715	750	4,5	95,3	19	795	1240	2545	1280	350	100	3/4"	65	1380
PAR 800	820	860	4,4	95,3	25	733	1240	2545	1280	350	100	3/4"	65	1440
PAR 900	920	966	4,8	95,2	32	817	1240	2795	1280	350	100	3/4"	65	1620
PAR 1100	1100	1155	5,4	95,2	29	1277	1380	2950	1500	400	125	1 1/2"	80	2200
PAR 1300	1300	1365	5,6	95,2	40	1372	1380	3200	1500	400	125	1 1/2"	80	2580
PAR 1640	1645	1727	5,8	95,3	33	2010	1610	3245	1800	450	150	1 1/2"	100	3300
PAR 1850	1850	1942	6,0	95,3	40	2125	1610	3535	1800	450	150	1 1/2"	100	3640
PAR 2050	2050	2153	6,5	95,2	45	2163	1610	3535	1800	450	150	1 1/2"	100	3710
PAR 2580	2580	2709	6,8	95,2	50	3155	1800	3955	2000	500	200	1 1/2"	125	5140
PAR 3100	3100	3255	7,5	95,2	70	3292	1800	4255	2000	500	200	1 1/2"	125	5650
PAR 3600	3610	3791	8,4	95,2	92	4839	2000	4790	2210	600	200	1 1/2"	125	7490

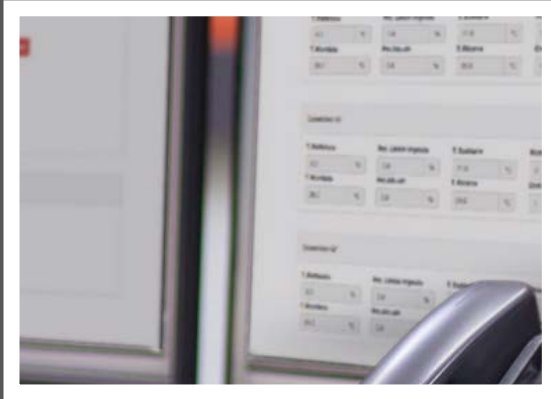
MANAGEMENT ELECTRONICS

The cascade control unit simplifies the management of complex installations with single or cascade generators, temperature control and integration from renewable sources. Designed by Sile to dialogue directly with the CONDENSA N series boilers, it is equipped with software with pre-configured plant management diagrams to speed up and facilitate the initial set-up phase.



CASCADE CONTROL UNIT

- Control system and power management of cascade generators (**max 9 for electronic control only**)
- The control unit can be fully managed remotely or via the web, using the remote management kit.
- Possibility to intervene on all parameters and at all levels, for precise customisation of generator/plant management for maximum efficiency and comfort.
- Control of the generators based on the temperature difference between the set point and the value detected on the system (flow balancer/plate heat exchanger) by the probe.
- DHW boiler load management, standard or solar type with double exchanger (dedicated outputs and inputs).
- Complete management of the integration of renewable energy (Solar Thermal) on DHW production (dedicated outputs and inputs).
- Full management of up to three plant zones, of which up to two mixed, always available, with the possibility of room control for each, via chronothermostat (optional)



REMOTE MANAGEMENT

Sile has implemented a **remote management service for centralised systems**, a complete web-based remote control that allows constant monitoring and timely intervention from anywhere.

Available in GSM version with optimised SIM included and LAN (local network) version, requires cascade control unit.



Connection module, GSM Web Control, 4 months 'Remote Management subscription' **INCLUDED**



Connection module, Web Control LAN, 4 months 'Remote Management subscription' **INCLUDED**



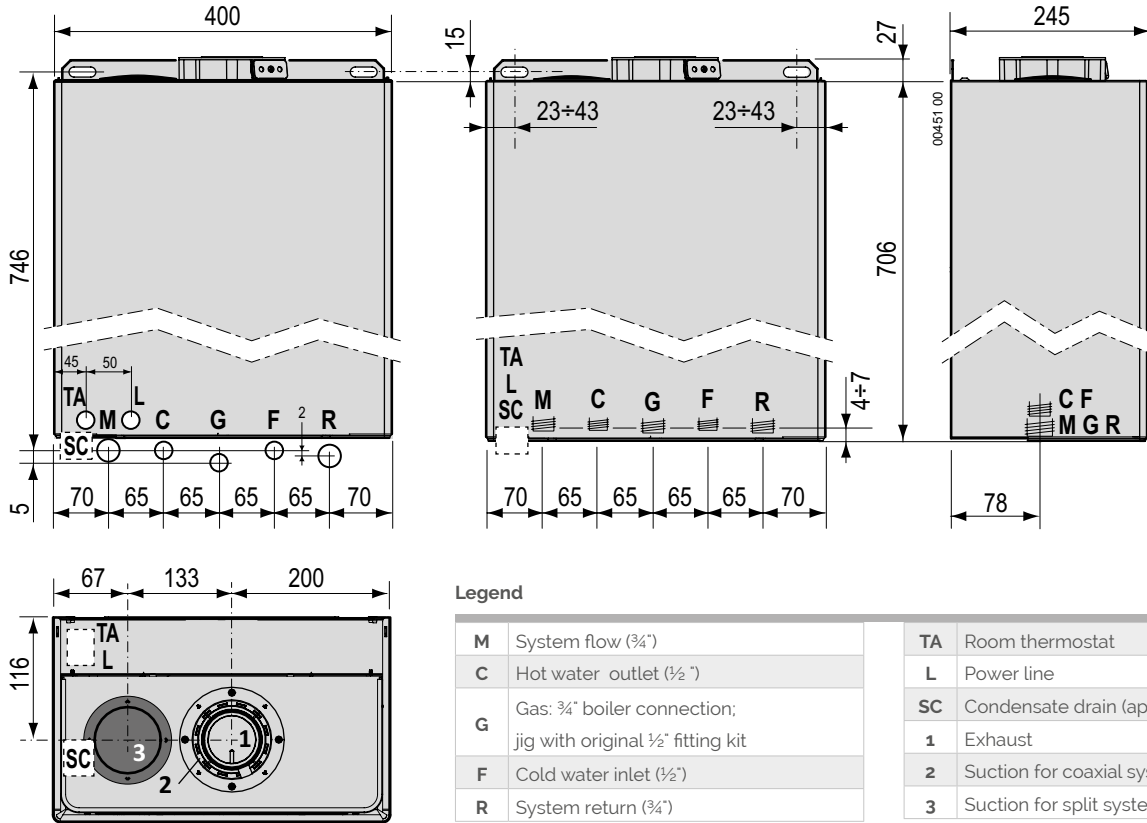
WEB CONTROL CARD

- Remote management subscription renewal
- 1-year subscription renewal for GSM
- 2-year subscription renewal for LAN

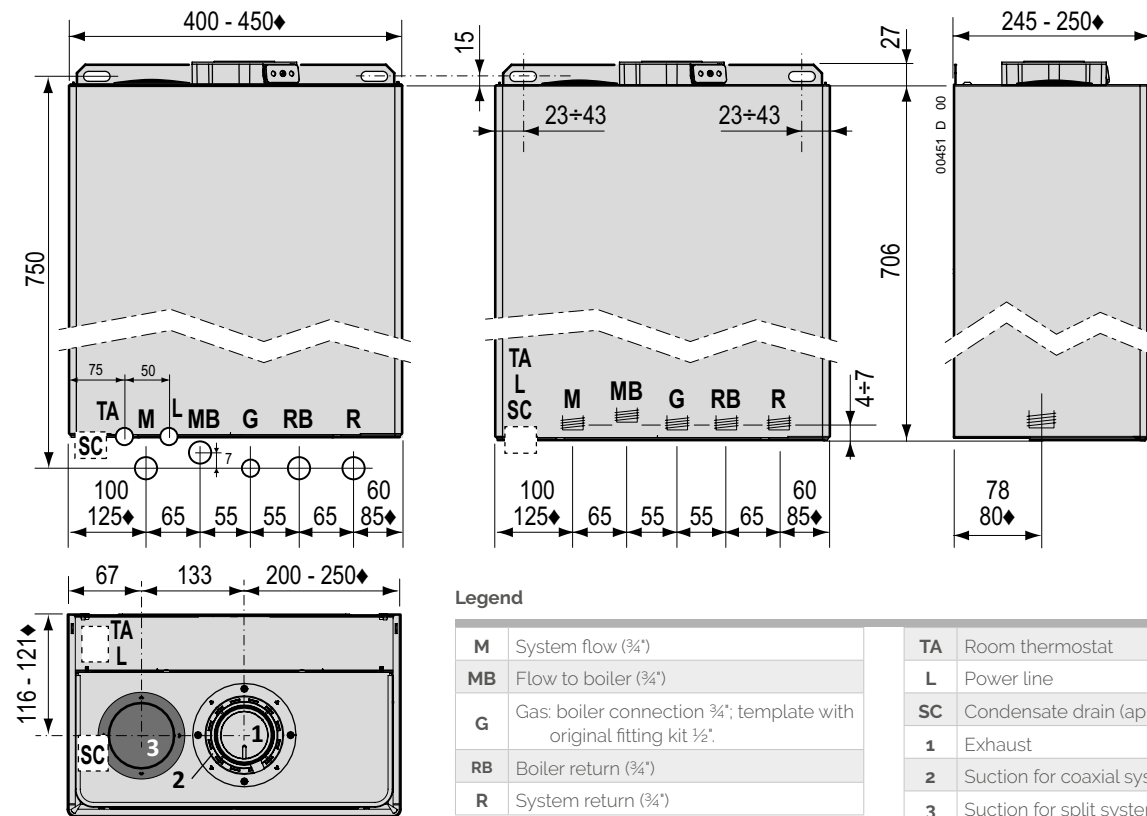


Boilers and hybrid solutions with heat pumps

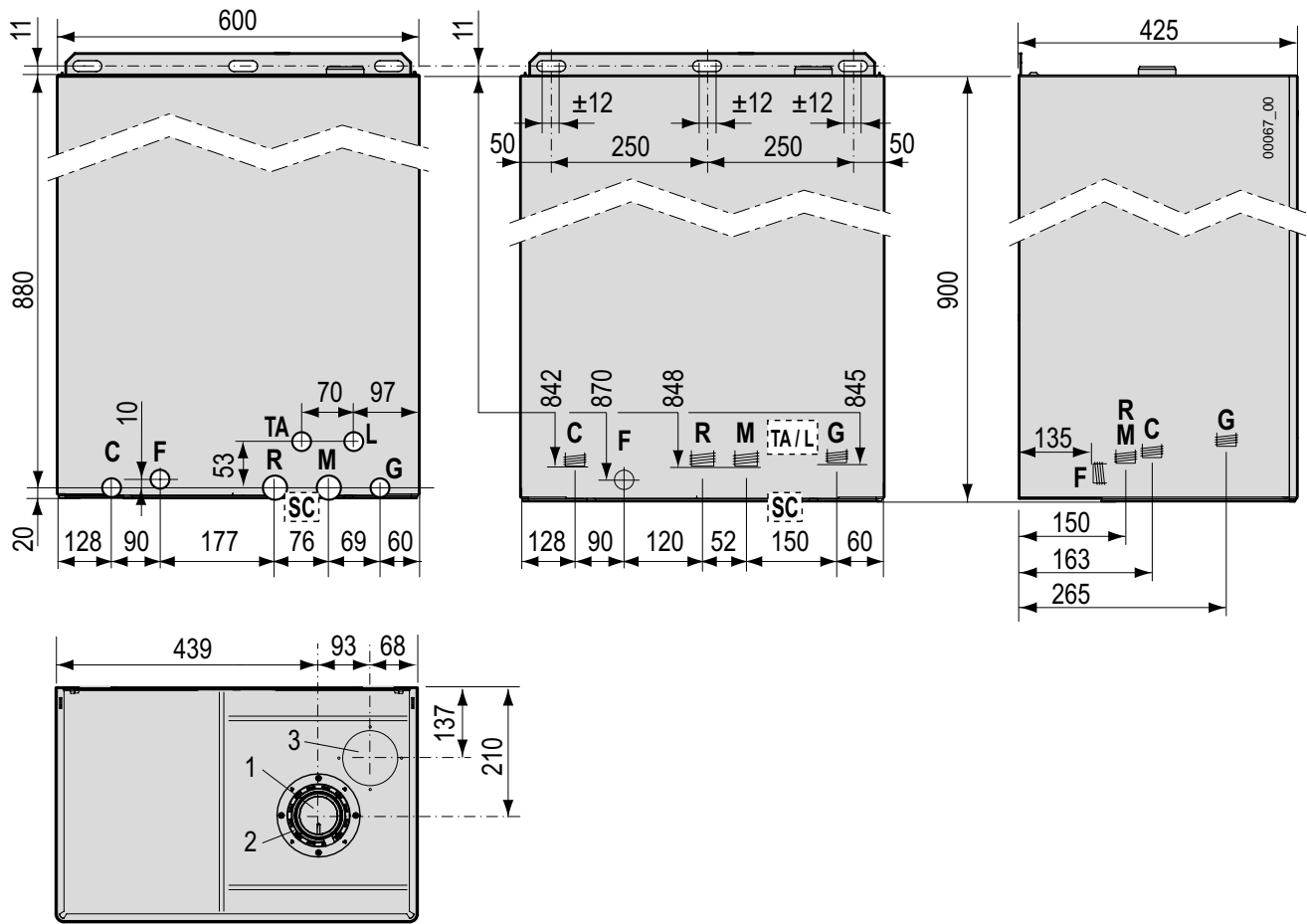
CONDENSA MG DIMENSIONS



CONDENSA MG3V DIMENSIONS



CONDENSA BI DIMENSIONS

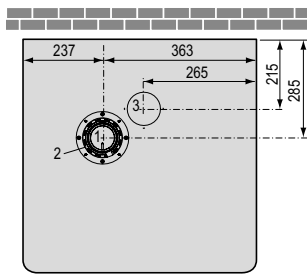


Legend

C	Hot water outlet (½")	TA/L	Indicative position of power supply and room thermostat connections
F	Cold water inlet (½")	TA	Room thermostat
R	System return (¾")	L	Power line
M	System flow (¾")	SC	Indicative condensate drain position
G	Gas: boiler connection ¾"; template with original fitting kit ½".		
1	Exhaust		
2	Suction for coaxial system		
3	Suction for separate system		

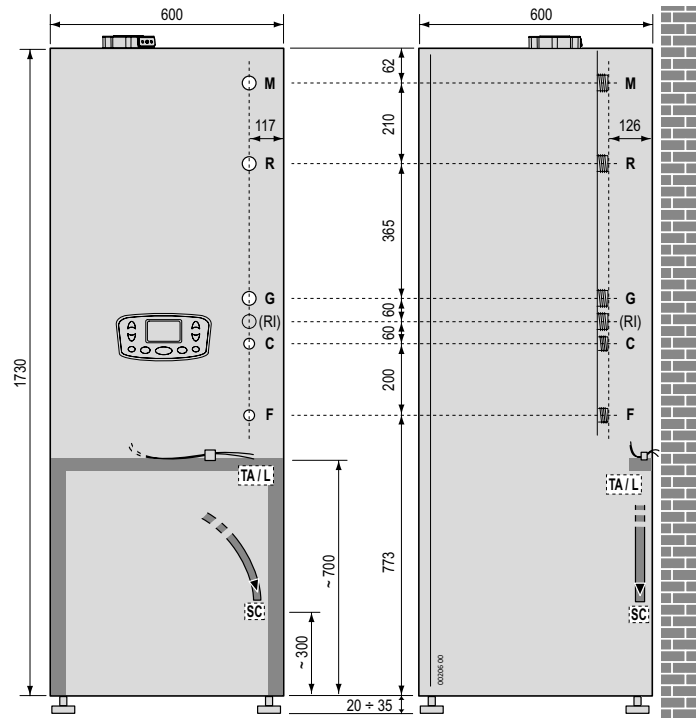
Boilers and hybrid solutions with heat pumps

CONDENSA MAXINOX DIMENSIONS

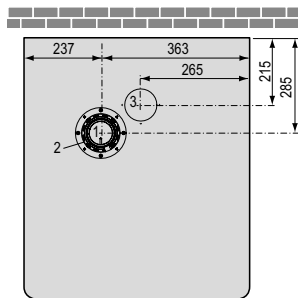


Legend

1	Exhaust
2	Suction for coaxial system
3	Suction for split system
M	System flow (3/4")
R	System return (3/4")
G	Gas boiler connection: 3/4"; jig: 1/2" (with gas cock with swivel ring from original fitting kit)
RI	DHW recirculation return (optional, 3/4")
C	Hot water outlet (1/2")
F	Cold water inlet (1/2")
TA/L	Indicative position of power supply and room thermostat connections
SC	Indicative condensate drain position

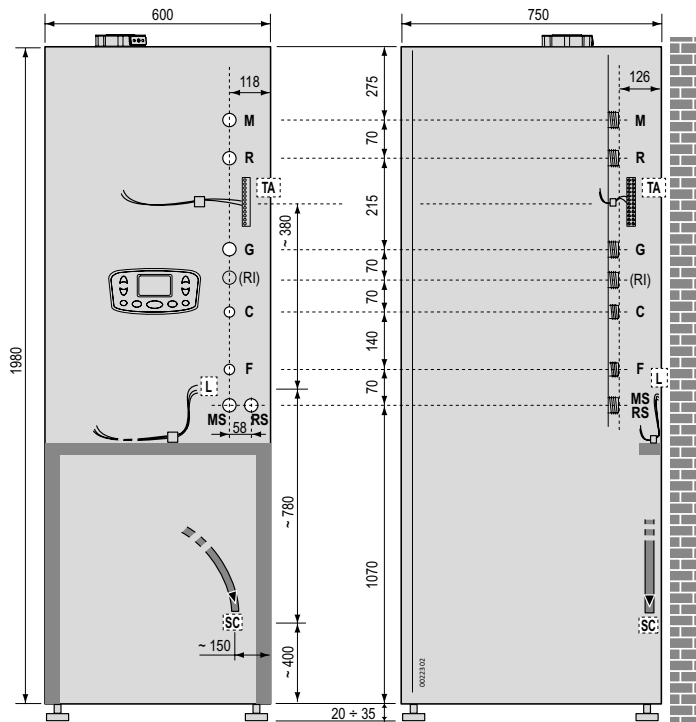


CONDENSA MAXISOL DIMENSIONS

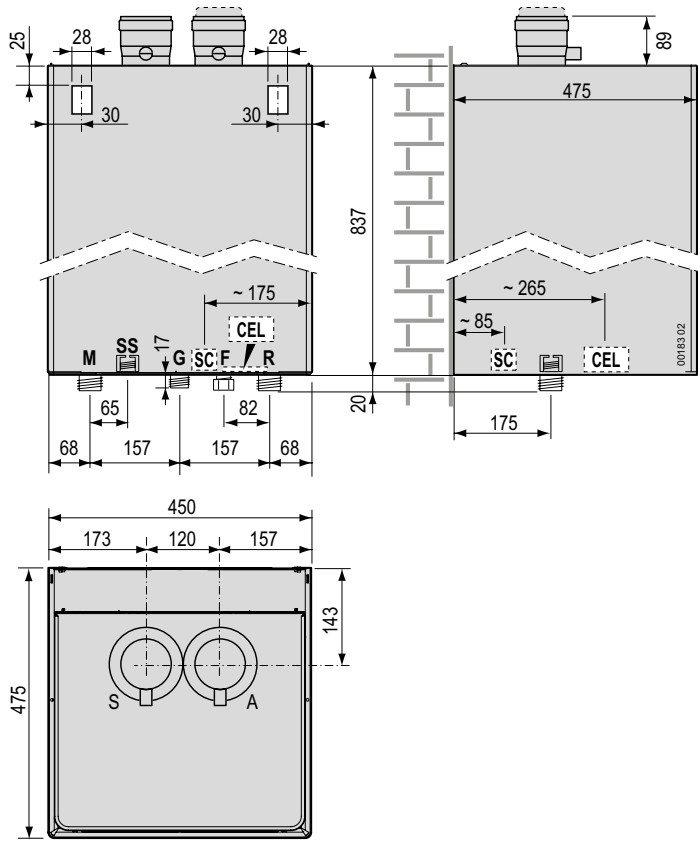


Legend

1	Exhaust
2	Suction for coaxial system
3	Suction for split system
M	System flow (3/4")
R	System return (3/4")
TA	Indicative position of room thermostat connections and other services
G	Gas boiler connection: 3/4"; jig: 1/2" (with gas cock with swivel ring from original fitting kit)
RI	DHW recirculation return (optional, 3/4")
C	Hot water outlet (1/2")
F	Cold water inlet (1/2")
MS	Flow to solar collector system (3/4")
RS	Return from solar collector system (3/4")
L	Indicative position of power supply connections
SC	Indicative condensate drain position



CONDENSA N 50-115 DIMENSIONS



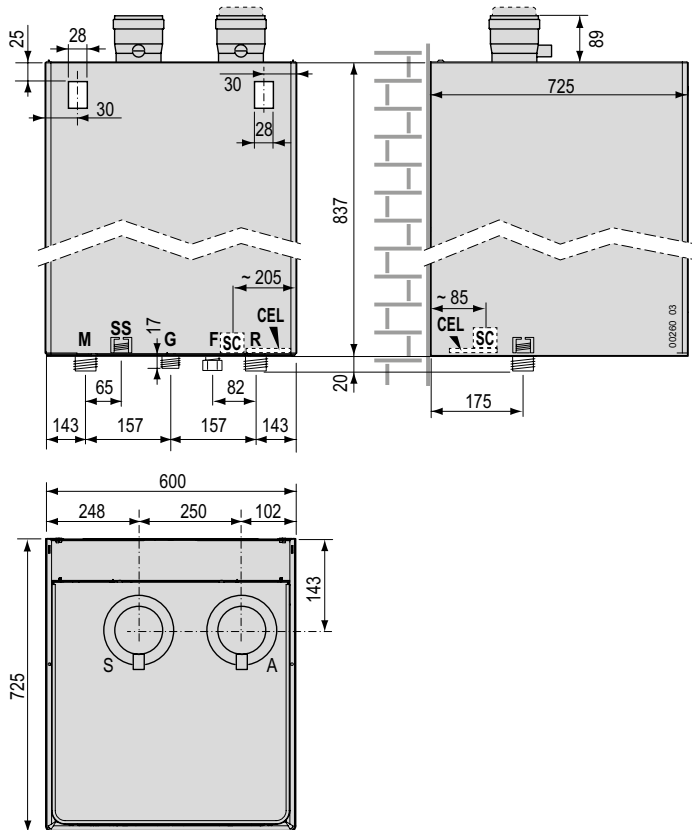
Legend

A	Suction (Ø 80mm)
S	Exhaust (Ø 80mm)
M	System delivery (1¼" M)
SS	Safety valve outlet (¾" F)
G	Gas (1" M)
SC	Condensate drain (Ø 25mm) (approximate position)
F	System filling inlet, with plug (½" M)*
CEL	Electrical connections (indicative location)
R	System return (1¼" M)

* incorporates non-return valve.

Any shut-off devices for system filling, external to the boiler, are the responsibility of the installer. If the connection is not used, leave it closed with a sealing plug.

CONDENSA N 160 DIMENSIONS



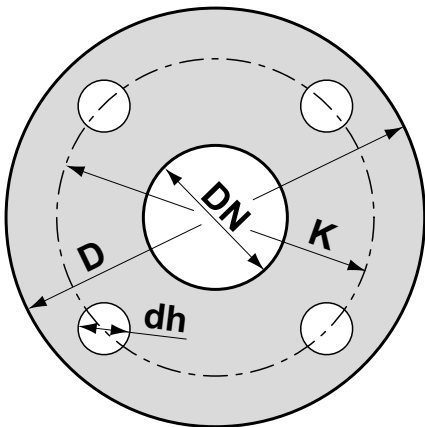
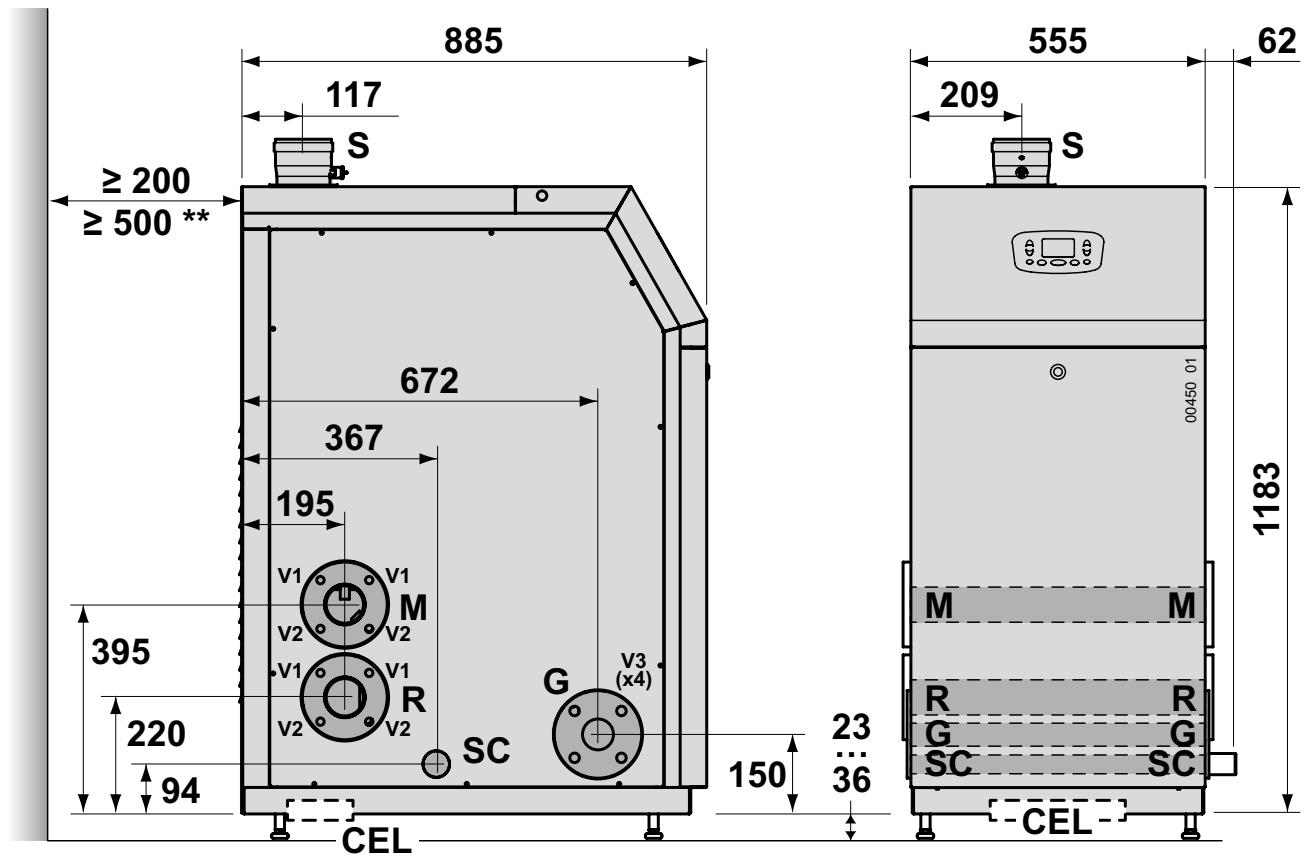
Legend

A	Suction (Ø 100mm)
S	Exhaust (Ø 100mm)
M	System delivery (1¼" M)
SS	Safety valve outlet (¾" F)
G	Gas (1" M)
SC	Condensate drain (Ø 25mm) (indicative position)
F	Plant loading socket, with cap (½" M)*
CEL	Electrical connections (indicative position)
R	System return (1¼" M)

* incorporates non-return valve.

Any shut-off devices for system filling, external to the boiler, are the responsibility of the installer. If the connection is not used, leave it closed with a sealing plug.

CONDENSA TN 115-160 DIMENSIONS



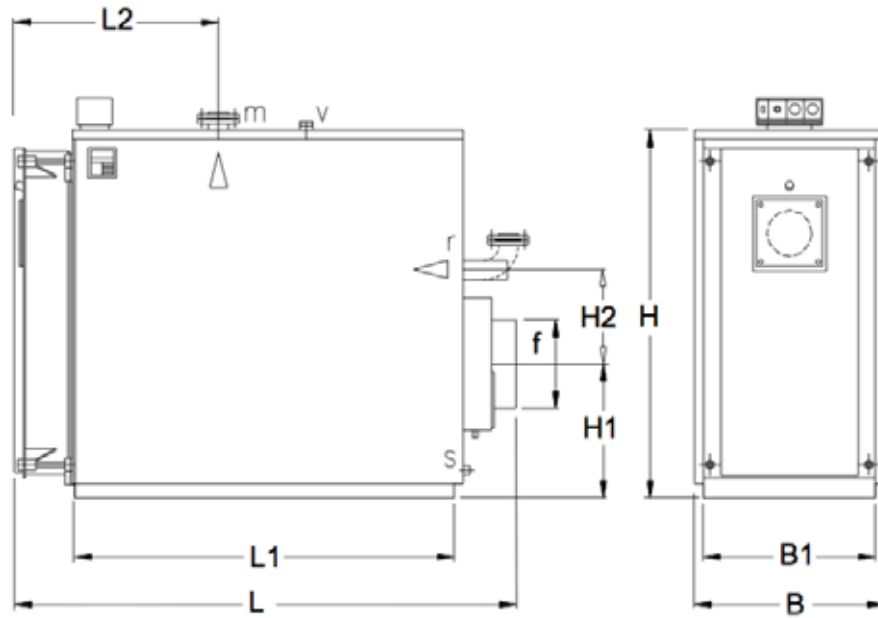
Legend

S	Exhaust (Ø 100mm)
M	System delivery - PN6 (°): DN=65mm; D=160mm; 4 holes dh=14mm; K=130mm
R	System return - PN6 (°): DN=65mm; D=160mm; 4 holes dh=14mm; K=130mm
V1	(upper holes M and R flanges) screw M12x80mm + 2 flat washers + nut M12
V2	(lower holes M and R flanges) : - single boiler or cascade end: same as V1 (screw M12x80mm + 2 flat washers + M12 nut) - intermediate cascade spacer flanges: M12x100mm screw + 2 flat washers + M12 nut
V3	screw M16x80mm + 2 flat washers + nut M16 (flange holes G)
SC	Condensate drain (Ø 40mm)
G	Gas - PN16 (°): DN=50mm; D=165mm; 4 holes dh=18mm; K=125mm
CEL	Electrical connections (indicative location)
F	Cold water inlet (½")
MS	Flow to solar collector system (¾")
RS	Return from solar collector system (¾")
L	Indicative position of power supply connections
SC	Indicative condensate drain position

* according to UNI EN 1092-1/01 Type A (flat sealing surface)

** only for cascade configuration: space to allow interconnection of luminaires from the rear side

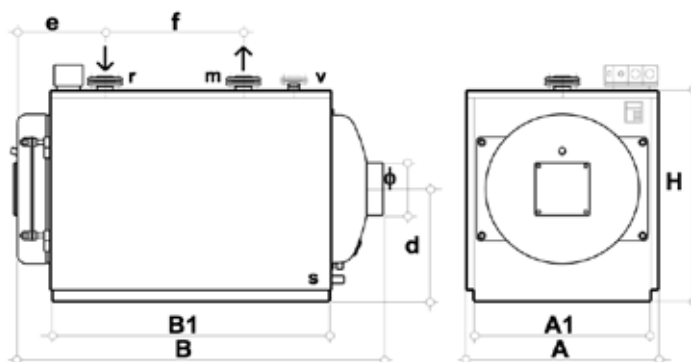
PIC.AR DIMENSIONS



PIC model. AR		110	150	190	230	290	345	405	440	520	580	640	
Size	B	660	660	660	740	740	740	740	870	870	870	870	mm
	L	1430	1680	1930	1750	2000	2000	2300	2090	2390	2390	2390	mm
	H	1150	1150	1150	1150	1300	1300	1300	1550	1550	1550	1550	mm
	B1	620	620	620	700	700	700	700	830	830	830	830	mm
	L1	1010	1260	1510	1260	1510	1510	1810	1512	1812	1812	1812	mm
	L2	760	910	1060	960	1110	1110	1260	1100	1250	1250	1250	mm
	H1	300	300	300	330	330	330	330	400	400	400	400	mm
	H2	200	200	200	240	240	240	240	285	285	285	285	mm
Connections	r/m	2"	2"	2"	65	65	65	65	80	80	80	80	DN
	v	1" 1/4	1" 1/4	1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	2"	2"	2"	2"	DN
	s	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	DN
	∅φ	200	200	200	250	250	250	250	300	300	300	300	mm

Boilers and hybrid solutions with heat pumps

P.AR DIMENSIONS

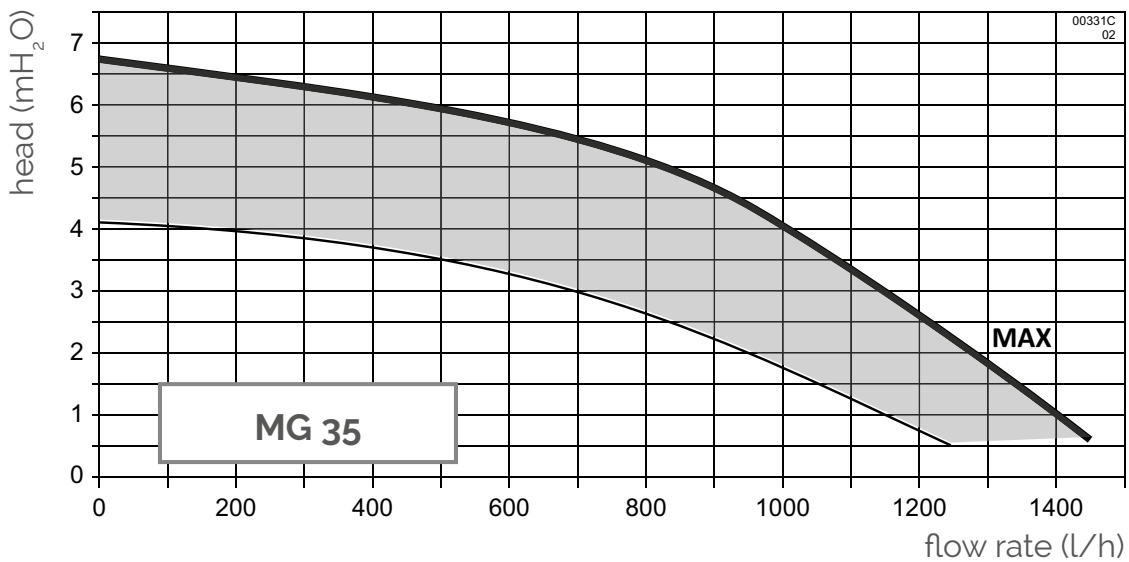
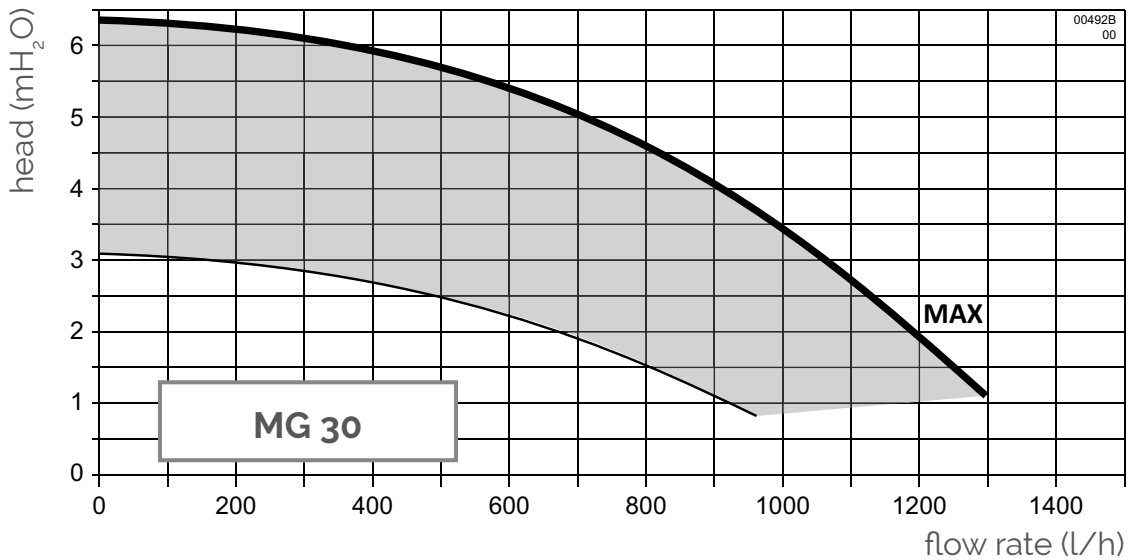
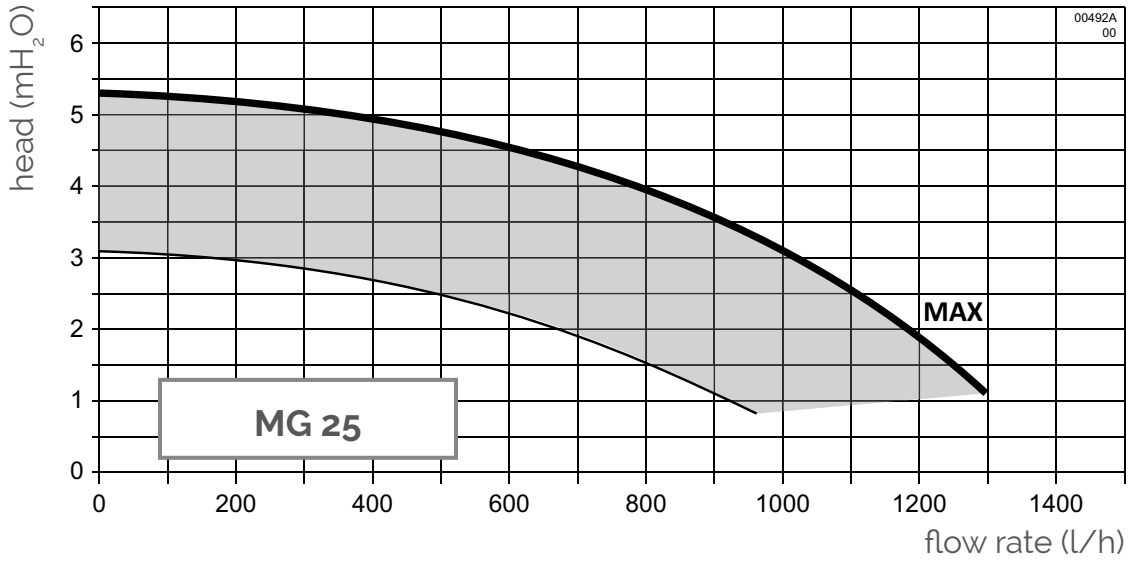


Model P. AR		80	90	130	170	200	250	300	350	
Size	A	790	790	790	940	940	940	940	940	mm
	B	110	110	1360	1405	1405	1655	1655	1905	mm
	H	880	880	880	990	990	990	990	990	mm
	A1	750	750	750	900	900	900	900	900	mm
	B1	760	760	1010	1010	1010	1260	1260	1510	mm
	d	460	460	460	510	510	510	510	510	mm
	e	430	430	430	465	465	465	465	465	mm
Connections	f	260	260	510	450	450	700	700	950	mm
	r/m	DN	2"	2"	2"	65	65	65	65	DN
	v	1" 1/4	1" 1/4	1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	DN
	s	DN	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	DN
	∅φ	200	200	200	220	220	220	220	220	mm

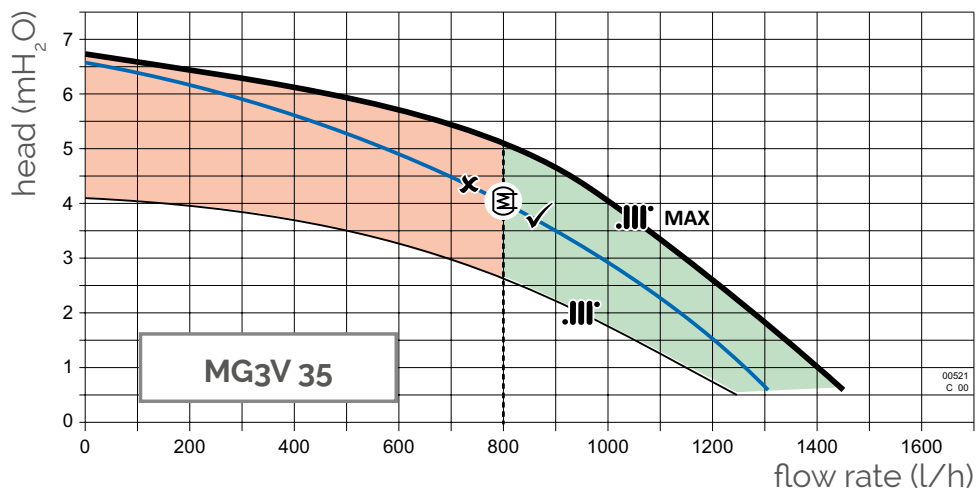
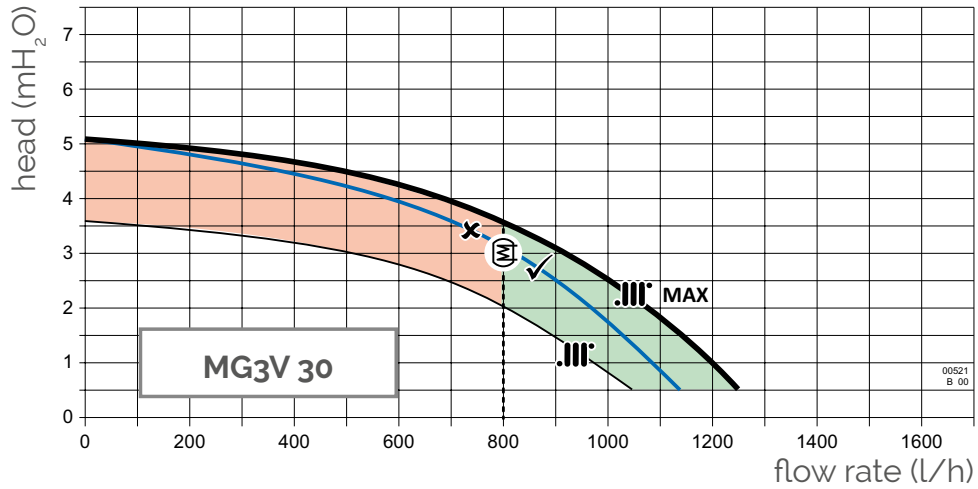
Model P. AR		400	450	500	600	700	800	900	1100	
Size	A	1040	1040	1040	1240	1240	1240	1240	1380	mm
	B	1990	1990	2290	2345	2545	2545	2795	2950	mm
	H	1150	1150	1150	1280	1280	1280	1280	1500	mm
	A1	1000	1000	1000	1200	1200	1200	1200	1380	mm
	B1	1512	1512	1812	1814	2014	2014	2264	2416	mm
	d	595	595	595	640	640	640	640	810	mm
	e	625	625	625	625	625	625	625	430	mm
Connections	f	792	792	1092	974	1174	1174	1424	1700	mm
	r/m	80	80	80	100	100	100	100	125	DN
	v	1" 1/4	1" 1/4	1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	DN
	s	DN	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	DN
	∅φ	200	200	200	220	220	220	220	220	mm

Model P. AR		1300	1640	1850	2050	2580	3100	3600	
Size	A	1380	1610	1610	1610	1800	1800	2000	mm
	B	3200	3245	3535	3535	3955	4255	4790	mm
	H	1500	1800	1800	1800	2000	2000	2210	mm
	A1	1380	1610	1610	1610	1800	1800	2000	mm
	B1	2666	2680	2970	2970	3320	3620	4024	mm
	d	810	965	965	965	965	1070	1070	mm
	e	1950	1440	1730	1730	1700	2000	2200	mm
Connections	f	125	150	150	150	200	200	200	mm
	r/m	80	100	100	100	100	125	125	mm
	v	1" 1/4	1" 1/4	1" 1/4	1" 1/2	1" 1/2	1" 1/2	1" 1/2	DN
	s	DN	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	DN
	∅φ	200	200	200	220	220	220	220	mm

CONDENSA MG PUMP DIAGRAMS

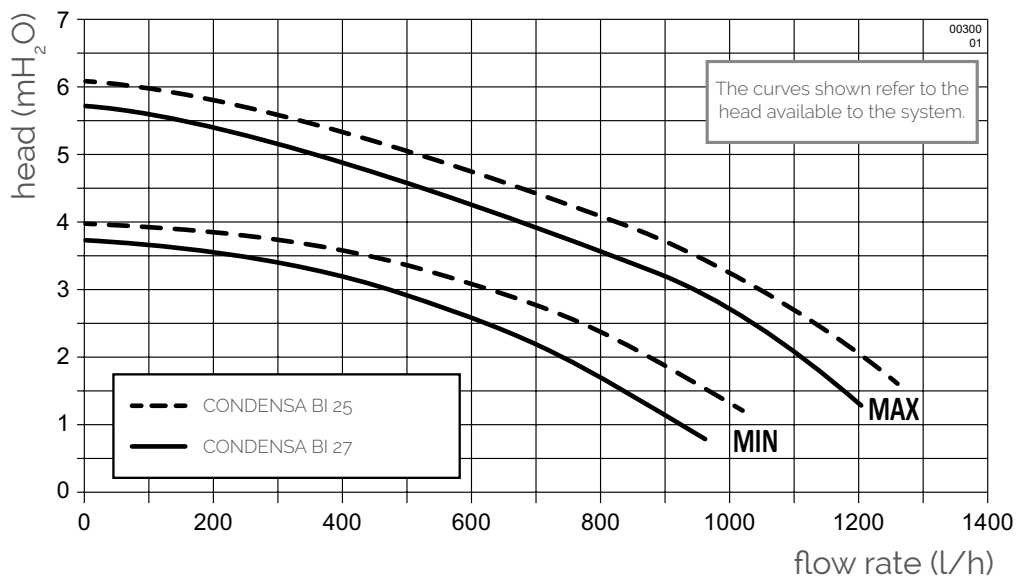


CONDENSA MG3V PUMP DIAGRAMS

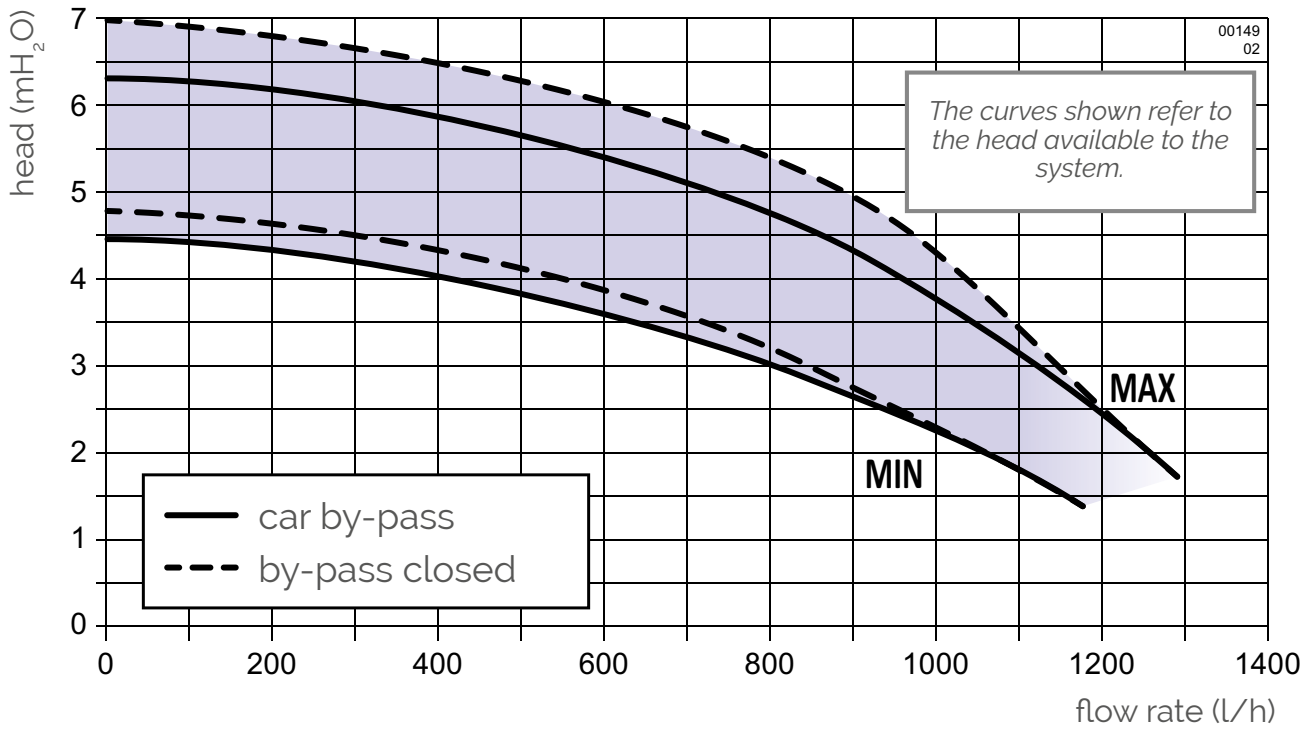


Each graph shows the ✓ correct and ✗ incorrect operating range for the boiler-tank system. It is recommended not to go below the indicated limit, as lower flow rates may result in longer domestic hot water production times.

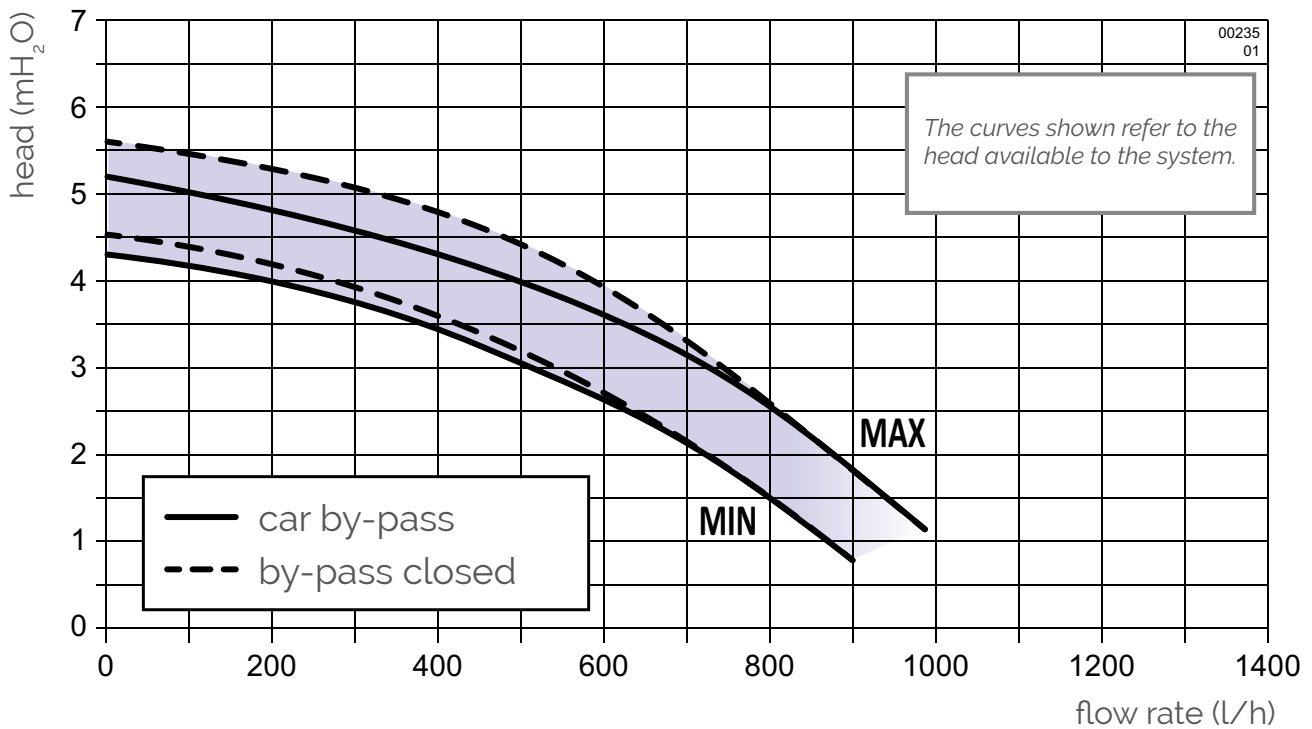
CONDENSA BI PUMP DIAGRAMS



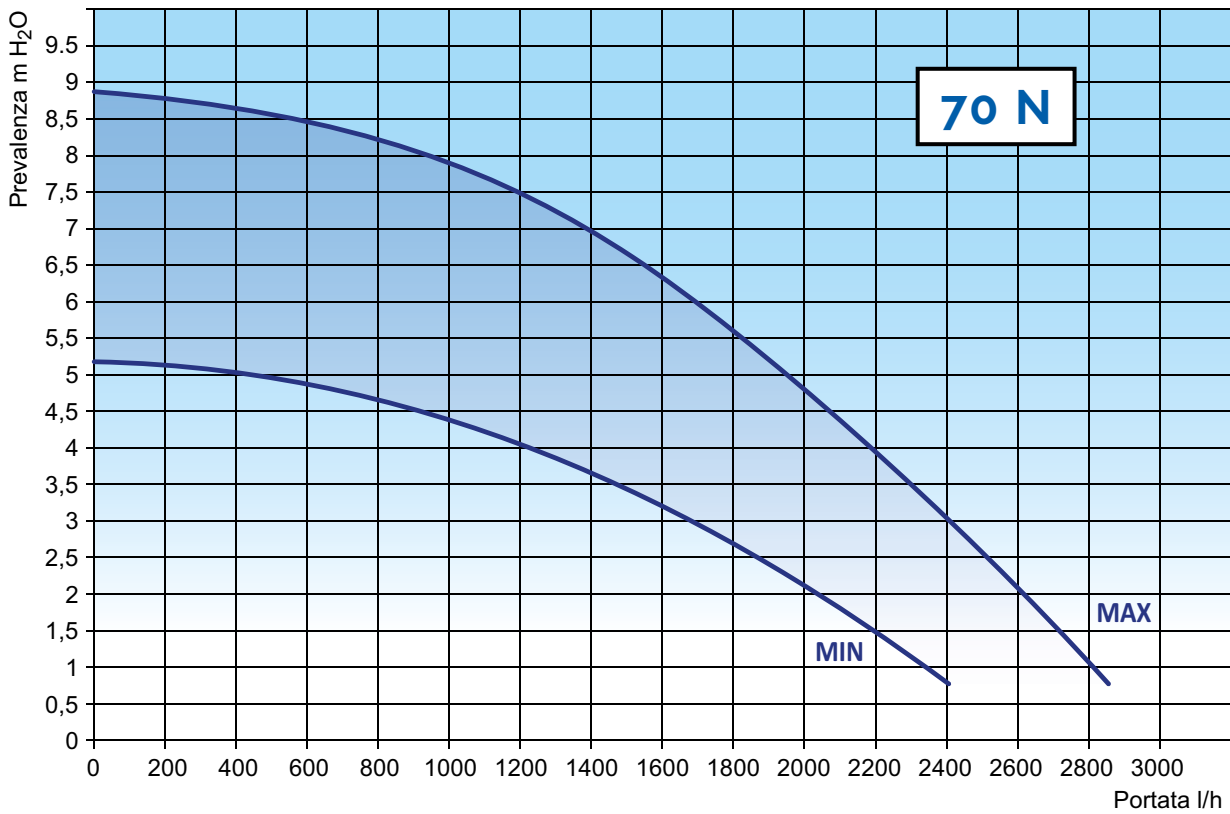
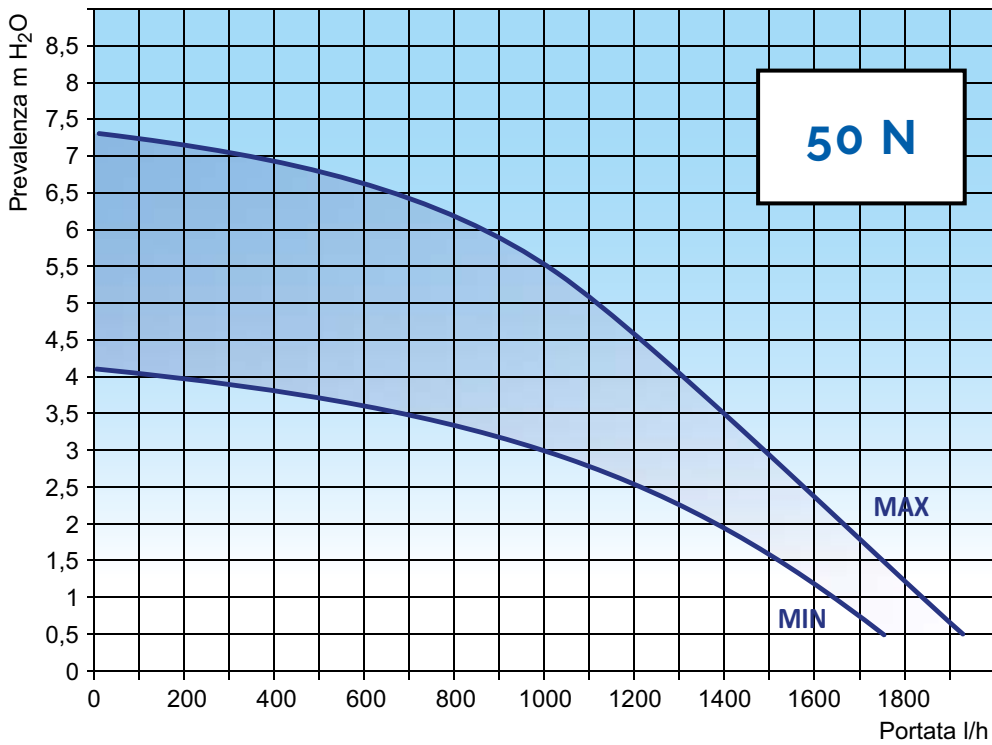
MAXINOX PUMP DIAGRAMS



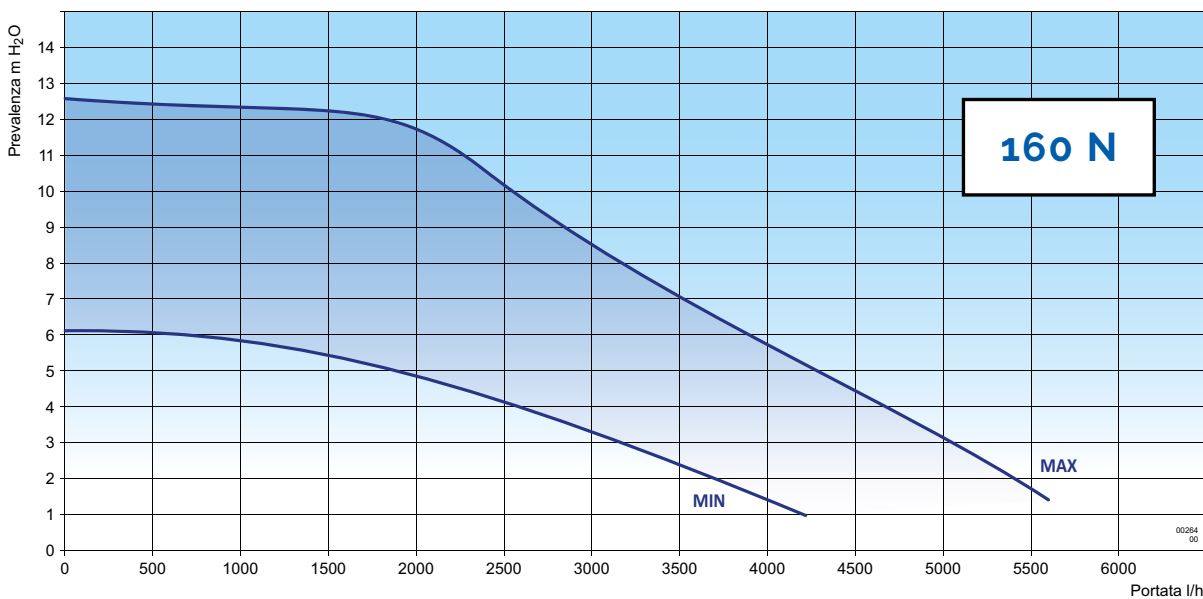
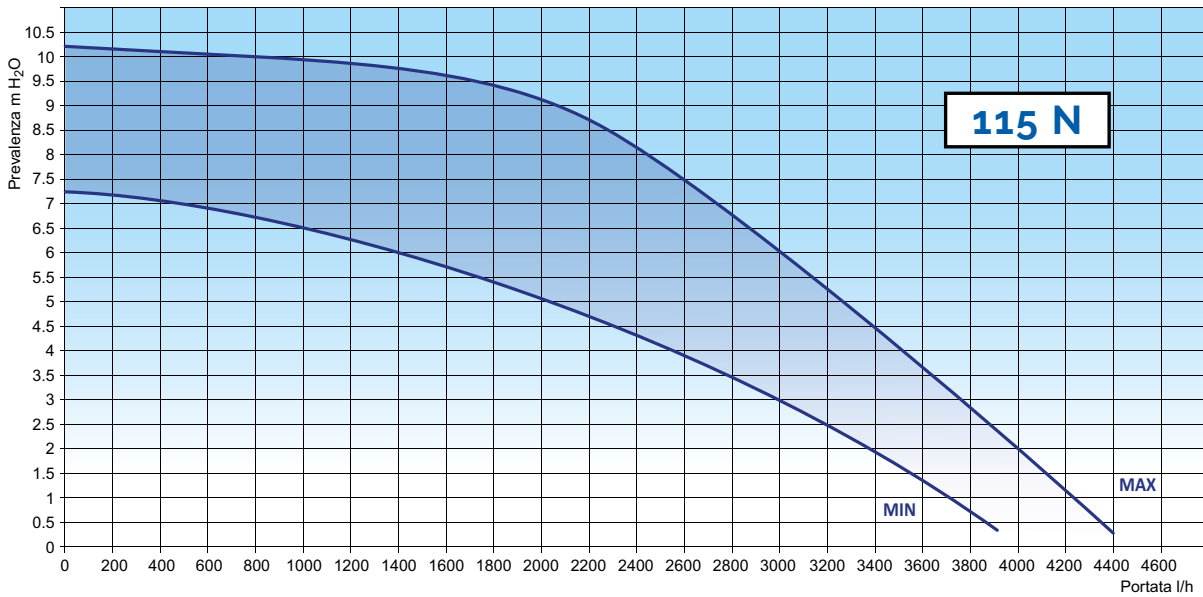
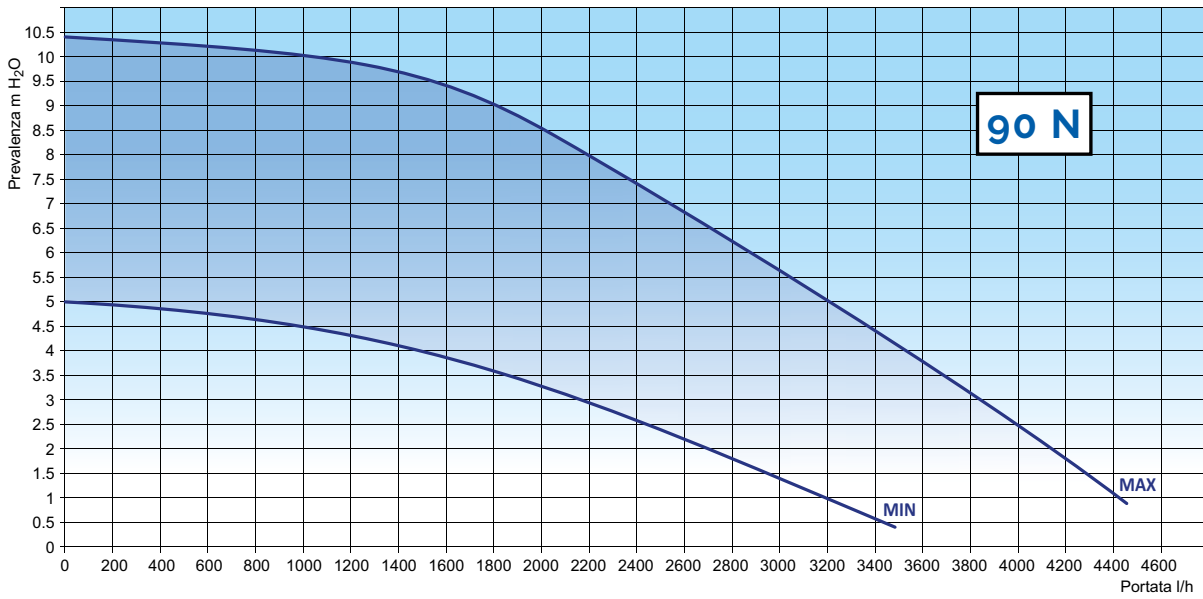
MAXISOL PUMP DIAGRAMS



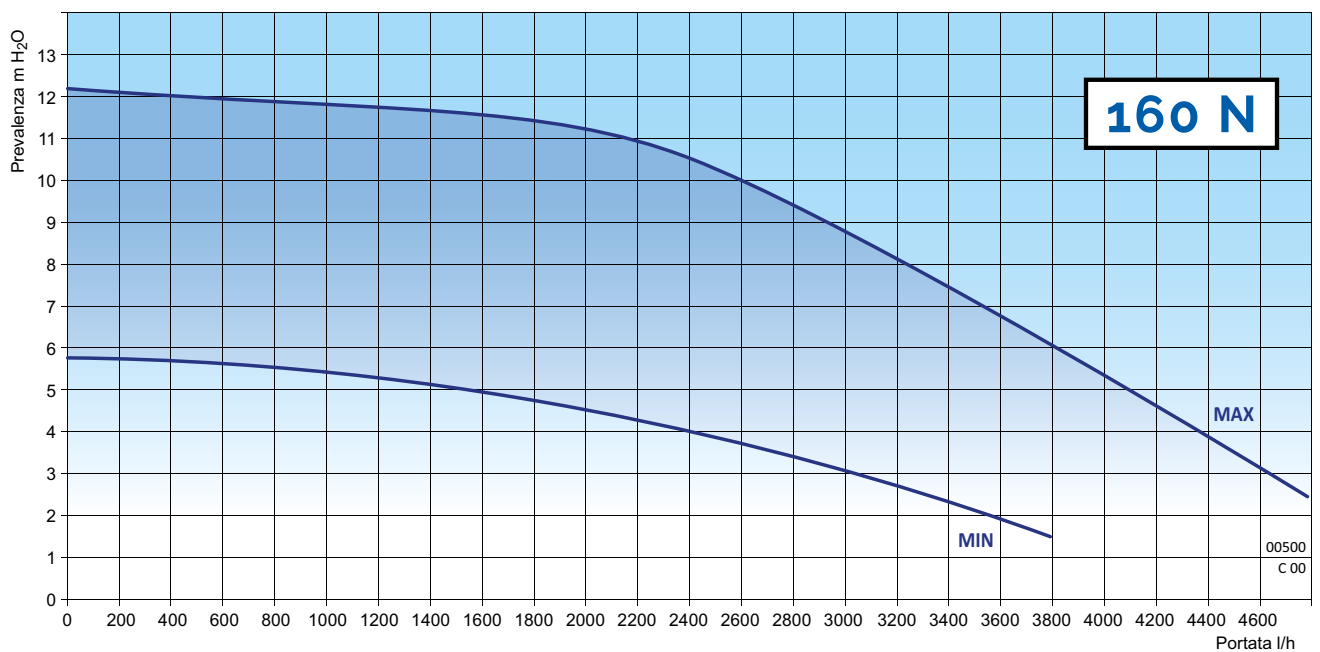
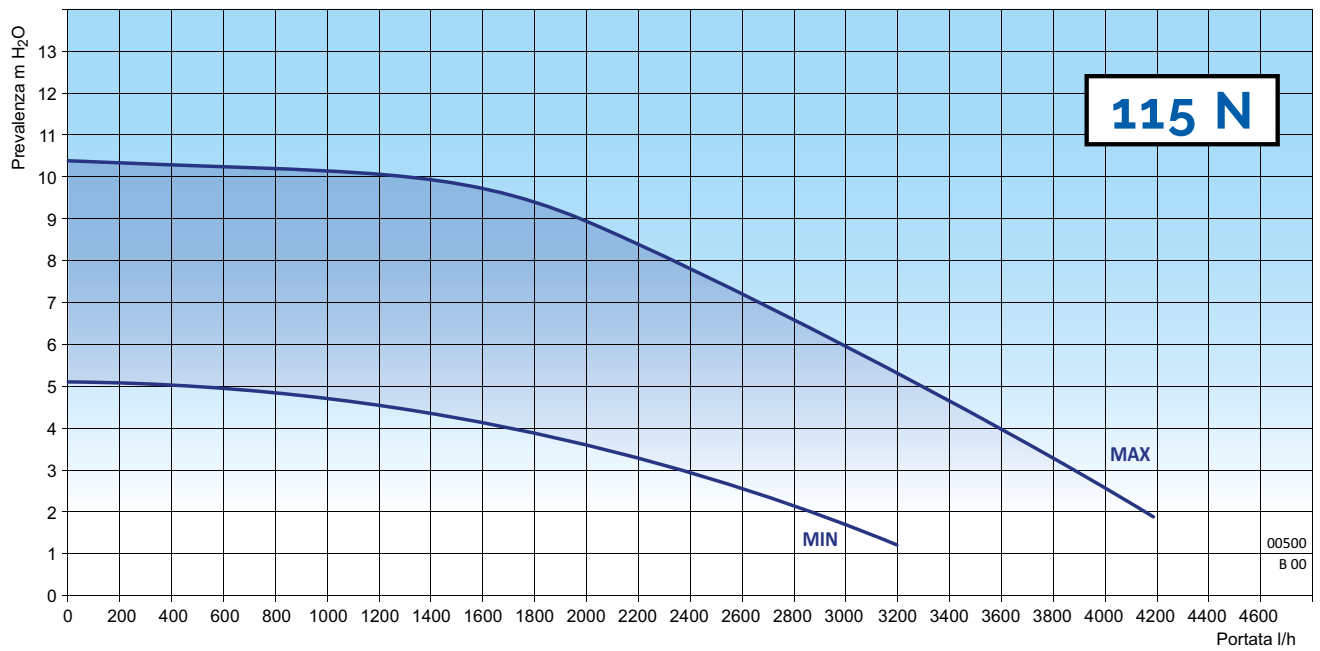
CONDENSATION PUMP DIAGRAMS

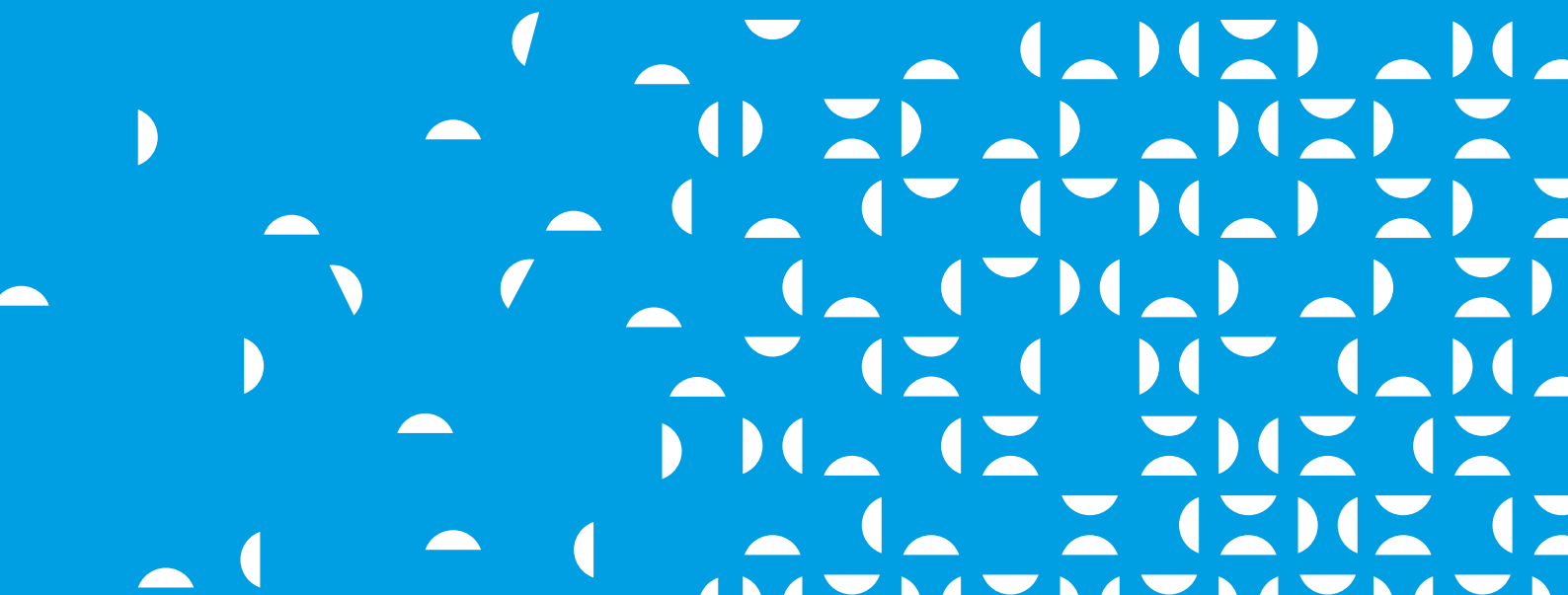


CONDENSATION PUMP DIAGRAMS



CONDENSA TN PUMP DIAGRAMS





Gas and Electric Water Heaters Index

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ELECTRIC WATER HEATERS

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Heat pumps for DHW production

HP GREEN and HP GREEN MINI



PRICES

The Heat Pump water heater range was created with energy saving in mind for households. Unlike a conventional water heater, heat pump water heaters provide hot water from the heat in the air, thus saving on electricity costs.

The electrical energy used by the system is only that required for compressor and fan operation. Heating elements are only switched on if really necessary or if requested by the user (with the Boost function).

Internal protective treatment: glass lined coating

Insulation: 50 mm polyurethane foam

High efficiency and savings

- COP up to 3,2 for HP GREEN MINI models; 3,56 for HP GREEN 250S
- More possibilities of energy sources
- High-performance compressor
- Micro-Channel Capacitor
- Possibility of programming operation according to time slots or remote on/off contact
- ECO mode: Hot water production with heat pump operation priority
- HOLIDAY mode: The heat pump stops working during the set holiday period. It switches on the day before the end of the period in AUTO mode to prepare hot water for the return home.

Installation: HP GREEN 250S is free-standing; HP GREEN Mini models are wall-mounted and come complete with mounting bracket. Possibility of ducting intake/outlet to use ambient or external air.

Plus: An additional coil at the bottom of the tank increases the exchange area and improves efficiency, reducing heating times

Programming: The water heater control allows operation to be inhibited during user-programmed periods (e.g. when energy costs are high). Heat pump operation can be maximised! With a digital control, the set point can be raised to 65 °C. Programming allows the selection of simultaneous operation of compressor and heater or just one of the two.

Anti-legionella function: Automatically the water is heated to 65°C, every seven days, to eliminate any bacteria that may form in the tank.

Auxiliary coil exchanger: for HP GREEN 250S, a coil exchanger for external auxiliary heating source (solar/boiler) is included.



Codes/Prices **Start-up:** first start-up recommended.

Model	Code	Price
HP GREEN MINI 80	344020019X	1.627,00 €
HP GREEN MINI 110	344020020X	1.819,00 €
HP GREEN 250S	344020018X	2.933,00 €

Heat pumps for DHW production

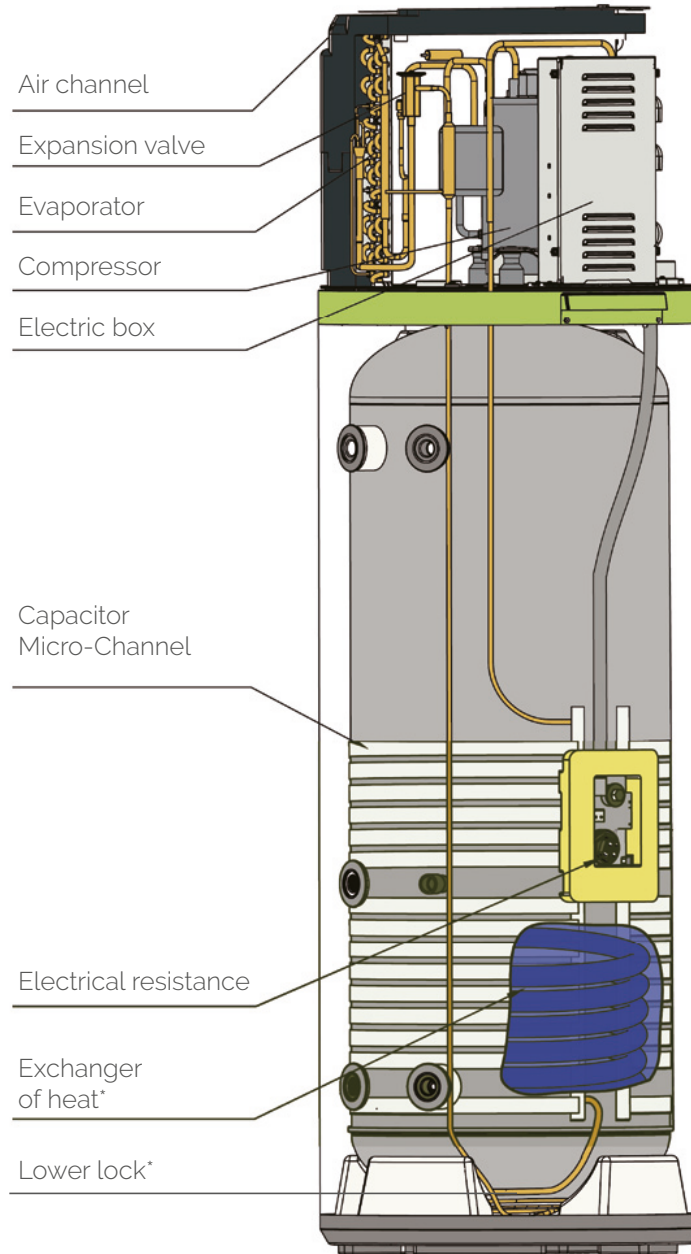
HP GREEN and HP GREEN MINI

Tank	U.M.	HP GREEN MINI 80	HP GREEN MINI 110	HP GREEN 250S
Installation		Wall cabinet	Wall cabinet	Floor
Tank volume	l	80	110	240
Power supply	V-Hz	220-240V/50Hz	220-240V/50Hz	220-240V/50Hz
Tank pressure	bar	8	8	7
Extra coil exchange surface	m ²	-	-	1
Anti-corrosion magnesium anode	n.	1	1	2
IP protection class		IPX4	IPX4	IPX4
System data				
Auxiliary heating element power	W	1200	1200	1500
Average power input (heat pump only)	W	240	240	495
Maximum power input (heat pump only)	W	350	350	865
Maximum power consumption (with electrical resistance)	W	1550	1550	2365
Default water temperature	°C	55	55	55
Water temperature range with heating element	°C	35÷75	35÷75	35÷75
Water temperature range heat pump only	°C	35÷65	35÷75	35÷65
Coolant	Type/Q.ty	R134a / 0.45 kg	R134a / 0.45 kg	kg R134a / 0.9
Maximum refrigerant circuit pressure (suction/discharge)	Mpa	0.8/2,8	0.8/2,8	0,2 / 2,8
Ozone Removal Potential (ODP)		0	0	0
Global Warming Potential (GWP)		1430	1430	1430
Sound power	dB(A)	50	50	59
Sound pressure level at 2 m in free field	dB(A)	36	36	43
Operating temperature	min-max °C	-7÷45	-7÷45	-7÷45
Performance				
Type of extraction		Environment / Exterior	Environment / Exterior	Environment / Exterior
COP@7°C (EN16147)		2,71	2,64	3,1
COP@14°C (EN16147)		3,17	3,2	3,56
Warm-up time (@7°C)	h	4 h 58 min	6 h 35 min	6 h 55 min
Heating time (@14°C)	h	4 h 09 min	5 h 23 min	6 h
Tapping cycle (EN16147)		M	M	L
Standby power consumption / Pes (@7°C)	W	20	20	27
Maximum usable hot water volume (EN16147) V40	l	102,5	135,5	303
Energy efficiency class (ERP)		A+	A+	A+
Dimensions and connections				
Water outlet	inches	G1/2 "M	G1/2 "M	G3/4 "F
Water inlet / Condensate drain	inches	G1/2 "M	G1/2 "M	G3/4 "F
Safety valve	inches	G1/2 "M	G1/2 "M	G3/4 "F
Ducting hole diameter for air intake/air delivery	mm	Ø 160	Ø 160	Ø 180
Maximum air duct length (total intake and exhaust)	m	5	5	5
Water heater dimensions (WxDxH)	mm	492x537x1170	492x537x1320	600x629x1987
Packaging dimensions (WxDxH)	mm	-	-	736x695x2250
Packaging dimensions without pallet (WxDxH)	mm	587x587x1247	587x587x1397	736x695x2120
Gross weight	kg	59	63	132
Net weight	kg	51	55	119

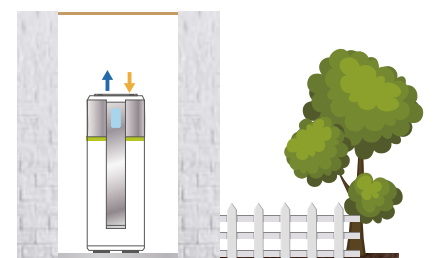
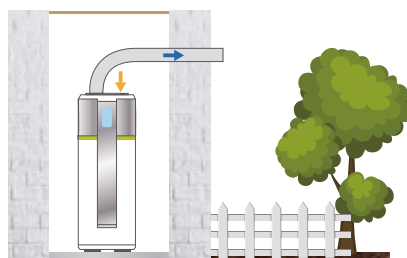
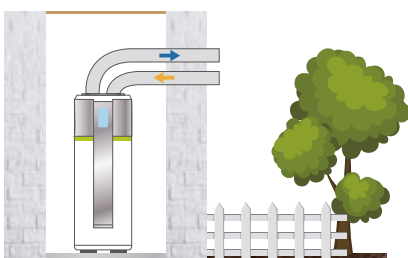
Conto Termico: The ministerial decree of 28/12/2012 implemented the so-called 'Conto Termico'. A specific support scheme for small-scale interventions for the production of thermal energy from renewable sources and the increase of energy efficiency. The replacement of electric water heaters with HP GREEN allows access to important incentives lasting 2 years. For information and details see www.gse.it.

Heat pumps for DHW production

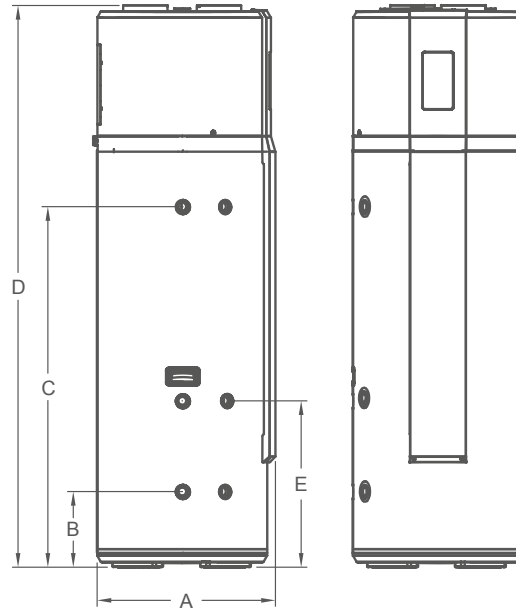
HP GREEN and HP GREEN MINI



*only included on HP GREEN 250S

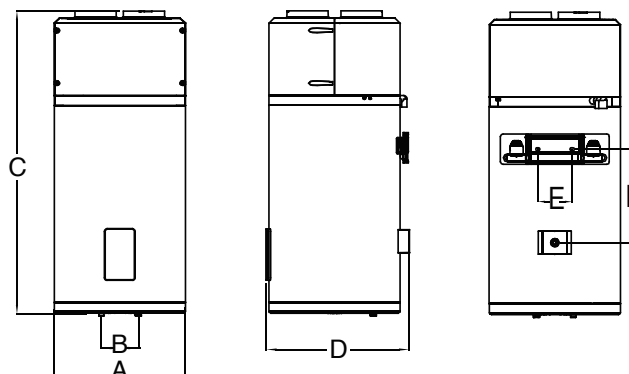


Heat pumps for DHW production HP GREEN and HP GREEN MINI



Model	A mm	B mm	C mm	D mm	E mm
HP GREEN 250S	629	270	1275	1987	590

Ducting hole diameter
for air intake/air outlet Ø 180mm

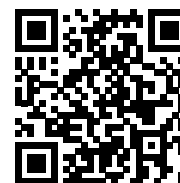


Model	A mm	B mm	C mm	D mm	E mm	F mm
HP GREEN Mini 80	492	140	1170	537	159	362
HP GREEN Mini 100	492	140	1320	537	159	362

Condensing Gas Water Heaters HCC



PRICES



ACCESSORIES
PRICES

Capacity: 160 to 380 litres
Power: 11.7 to 31.3 kW
Hot water production: 360 ÷ 970 lt/h

The HCC series condensing gas water heaters represent an absolute technological revolution on the Italian market.

These are direct fired, **sealed chamber and draught** appliances **forced with condensing technology**, and therefore with an efficiency about 25 per cent higher than conventional models.

- Continuous DHW production from 360 to 970 L/h
- Capacities from 160 to 380 litres
- Power from 11.7 to 31.3 kW
- Electronic ignition
- Condensing efficiency depending on the model chosen, between 106 and 109%
- DHW energy efficiency (ErP) depending on the model chosen, between 92% and 94%
- **Class A** energy certification
- Load profile for DHW **XL** to **3XL**
- Glass-lined tank at 860°C
- Modulating pre-mixed burner suitable for both natural gas and LPG operation via conversion kit
- Electronic titanium anodes as standard
- NOx emissions ≤ 37 mg/kWh
- Maximum operating temperature 85°C
- Electronic control unit controlling all operations and settings, with anti-legionella function
- Electronic diagnosis of errors on the control display and their storage
- Scheduled Maintenance Notice
- Different plastic smoke evacuation options (maximum length 75m)
- Simple and fast maintenance due to easy accessibility of components.
- Rigid polyurethane insulation
- Inspection hatch

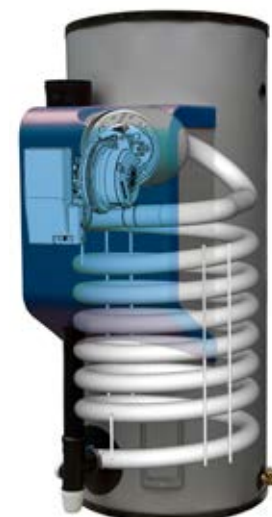


Codes/Prices

Capacity	Power kW	Code	Price	Class energy
160	11.7	10HCC12160	7.162,00 €	A
160	19.1	10HCC20160	7.358,00 €	A
200	11.9	10HCC12200	7.497,00 €	A
200	19.1	10HCC20200	7.759,00 €	A
245	23.5	10HCC24245	8.024,00 €	A
245	30.7	10HCC32245	8.149,00 €	A
285	23.8	10HCC24285	8.289,00 €	A
285	31.0	10HCC32285	8.676,00 €	A
380	31.3	10HCC32380	8.941,00 €	A

Codes/Prices Accessories

Description	Code	Price
Splitter Ø 80/125 to 2xØ80	10H0010007	377,00 €
cNG-LPG conversion kit	R49210105X	36,00 €



Condensing Gas Water Heaters

HCC

Energy certification in Class A

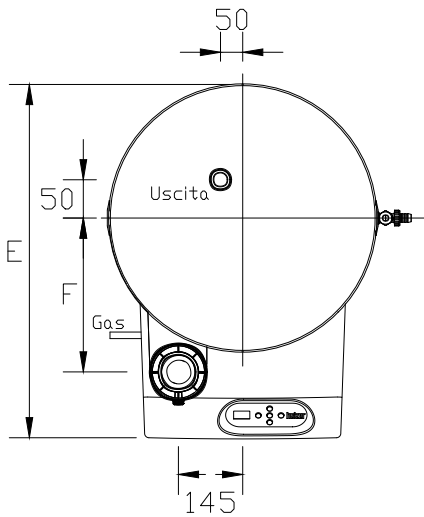
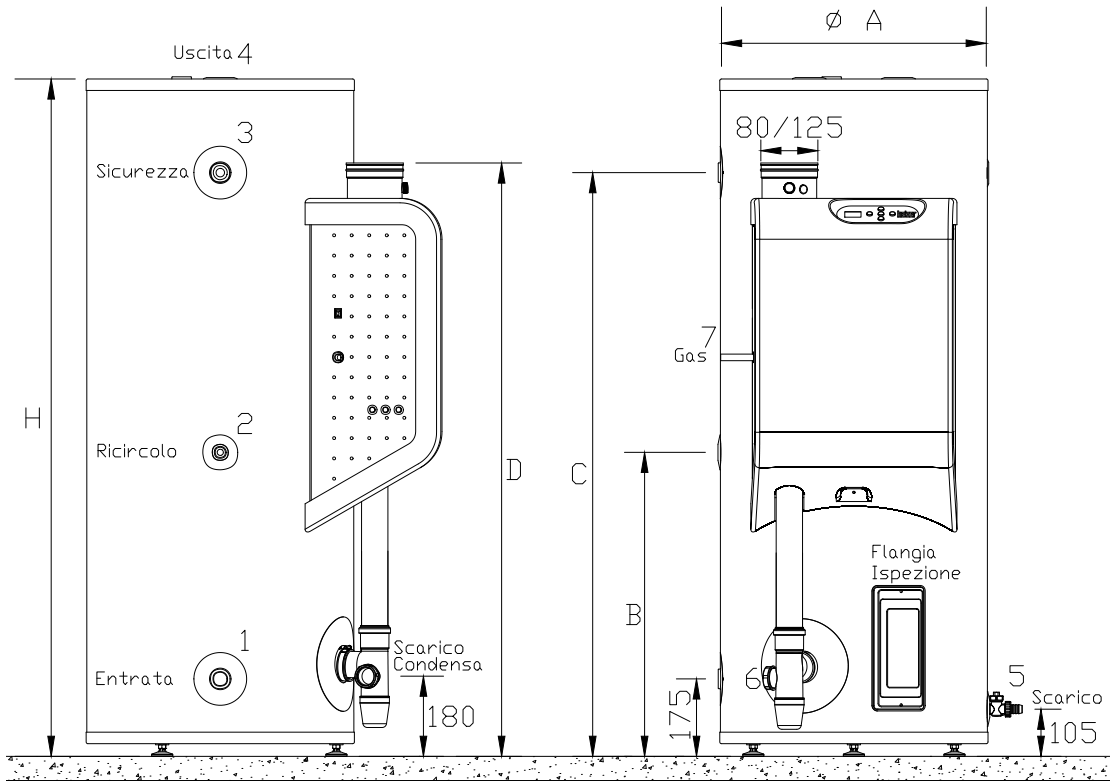
Condensation efficiency up to 109%



Technical Specifications

Model		HCC 12-160	HCC 20-160	HCC 12-200	HCC 20-200	HCC 24-245	HCC 32-245	HCC 24-285	HCC 32-285	HCC 32-380
General										
Capacity lt	lt	160	160	200	200	245	245	285	285	380
Condensation efficiency	%	107	106	109	106	107	106	108	107	108
Weight	kg	95	95	106	106	120	120	136	136	155
Maximum operating pressure	bar	8	8	8	8	8	8	8	8	8
Power supply	V	230	230	230	230	230	230	230	230	230
Gas category 2H-G20 - Methane										
Heat flow rate	kW	117	19.1	11.9	19.1	23.5	30.7	23.8	31.0	31.3
Gas consumption	m ³ /h	1.2	1.9	1.2	1.9	2.3	3.1	2.3	3.1	3.1
Flue gas temperature (max)	°C	42	61	42	61	57	65	57	65	65
Gas category 3B/P-G30 - LPG										
Heat flow rate	kW	12.9	21.2	13.2	21.2	26.1	34.1	26.3	34.5	34.8
Gas consumption	m ³ /h	0.4	0.6	0.4	0.6	0.8	1.0	0.8	1.0	1.0
Flue gas temperature (max)	°C	39	56	39	56	55	59	55	59	59
Instantaneous hot water production (Tset = 10°C / Tset = 85°C)										
Immediate delivery capacity ΔT=28°C	lt	260	270	420	430	500	510	630	630	830
30 min. ΔT=28°C / 60 min. ΔT=28°C	lt	420 / 600	530 / 820	580 / 760	700 / 900	830 / 1200	930 / 1400	960 / 1400	1100 / 1600	1300 / 1800
Continuous production with ΔT=28°C	lt/h	360	590	370	590	730	950	740	960	970
Immediate delivery capacity ΔT=50°C	lt	120	130	220	230	250	260	330	330	440
30 min. ΔT=50°C / 60 min. ΔT=50°C	lt	210 / 310	270 / 440	310 / 410	380 / 540	440 / 640	500 / 760	510 / 720	570 / 840	680 / 950
Continuous production with ΔT=50°C	lt/h	210	330	210	330	410	530	410	540	540
Immediate delivery capacity ΔT=70°C	lt	60	70	140	150	150	160	210	210	280
30 min. ΔT=70°C / 60 min. ΔT=70°C	lt	120 / 200	170 / 290	200 / 270	250 / 370	280 / 430	330 / 520	340 / 490	390 / 580	460 / 650
Continuous production with ΔT=70°C	lt/h	150	240	150	240	290	380	300	390	390
Heating time ΔT=28°C / ΔT=50°C	min	17 / 31	01/11/19	27 / 47	17 / 30	16 / 29	13 / 22	20 / 35	16 / 27	20 / 36

Condensing Gas Water Heaters HCC



Packaging

Model	height mm	length mm	depth mm	weight kg
HCC 12-160	1462	786	946	114
HCC 20-160	1462	786	946	114
HCC 12-200	1694	786	946	122
HCC 20-200	1694	786	946	122
HCC 24-245	1694	786	946	136
HCC 32-245	1694	786	946	136
HCC 24-285	1894	786	946	153
HCC 32-285	1894	786	946	153
HCC 32-380	1894	786	946	172

Dimensions

Model	Capacity lt.	ØA	B	C	D	E	F	H	1	2	3	4	5	6	7
HCC 12-160	160	560	605	1070	1310	780	325	1269	3/4"	3/4"	3/4"	3/4"	3/4"	Ø40 mm	Ø15 mm
HCC 20-160	160	560	605	1070	1310	780	325	1269	3/4"	3/4"	3/4"	3/4"	3/4"	Ø40 mm	Ø15 mm
HCC 12-200	200	560	605	1325	1310	780	325	1543	3/4"	3/4"	3/4"	3/4"	3/4"	Ø40 mm	Ø15 mm
HCC 20-200	200	560	605	1325	1310	780	325	1543	3/4"	3/4"	3/4"	3/4"	3/4"	Ø40 mm	Ø15 mm
HCC 24-245	245	610	690	1330	1350	830	350	1543	1"	3/4"	1"	1"	3/4"	Ø40 mm	Ø15 mm
HCC 32-245	245	610	690	1330	1350	830	350	1543	1"	3/4"	1"	1"	3/4"	Ø40 mm	Ø15 mm
HCC 24-285	285	610	690	1535	1350	830	350	1743	1"	3/4"	1"	1"	3/4"	Ø40 mm	Ø15 mm
HCC 32-285	285	610	690	1535	1350	830	350	1743	1"	3/4"	1"	1"	3/4"	Ø40 mm	Ø15 mm
HCC 32-380	380	675	690	1520	1350	895	385	1743	1"	3/4"	1"	1"	3/4"	Ø40 mm	Ø15 mm

Condensing Gas Water Heaters

HCC

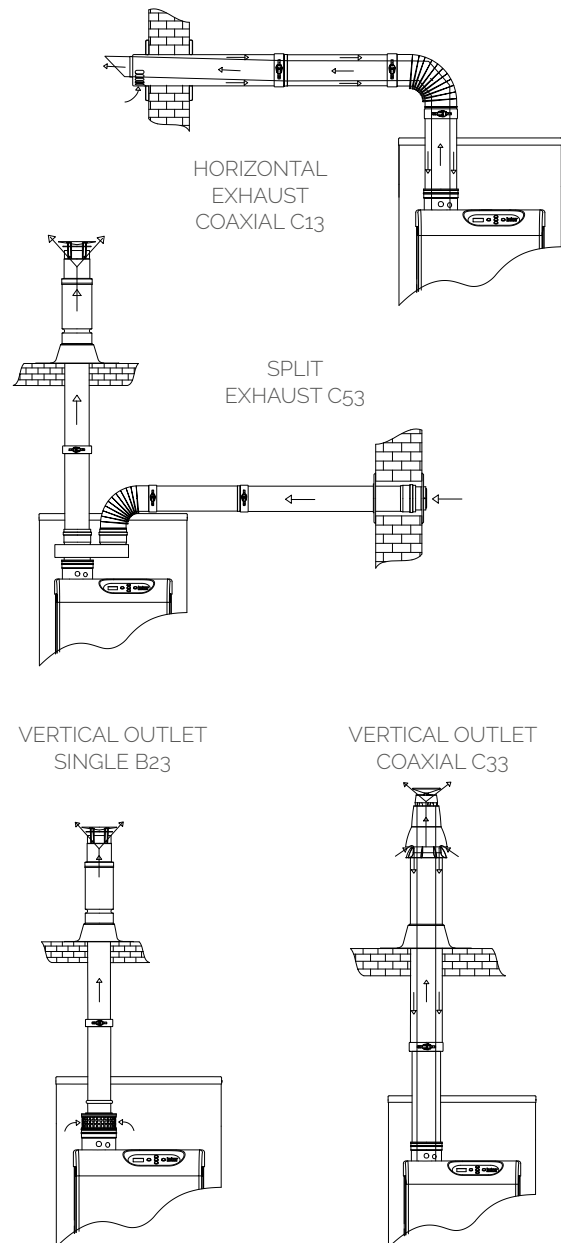
Ecodesign features

Model		HCC 12-160	HCC 20-160	HCC 12-200	HCC 20-200	HCC 24-245	HCC 32-245	HCC 24-285	HCC 32-285	HCC 32-380
Nitrogen dioxide (Nox)* emission	mg/kWh	22	30	22	30	33	37	33	37	37
Noise	dB(A)	41	52	41	52	53	58	53	58	58
DHW load profile	-	XL	XL	XL	XL	XXL	XXL	XXL	XXL	XXL
Energy efficiency class	-	A	A	A	A	A	A	A	A	A
Efficiency *	%	92	92	94	91	92	92	91	90	90
Daily electricity consumption	kWh	0.175	0.172	0.181	0.182	0.192	0.201	0.207	0.219	0.204
Daily fuel consumption	kWh	20.526	20.661	19.924	20.853	26.210	26.255	26.414	26.638	26.748
Annual electricity consumption	kWh/year	38	37	40	40	42	44	45	48	45
Annual fuel consumption	GJ/year	16	16	16	16	21	21	21	21	21
Second DHW load profile	-	-	-	-	XXL	-	-	-	-	3XL

* Calculated considering Natural Gas (G20)

Evacuation of combustion fumes

Exhaust fumes must be discharged using prepared exhaust kits, which can be coaxial or split. Thanks to the very low flue gas temperature due to condensing technology, plastic components can be used, and not necessarily aluminium or other materials. Various piping options, bends and accessories are available, which can be combined to meet practically all different evacuation needs. The exceptional features of the units allow piping up to a maximum length of 75 metres.



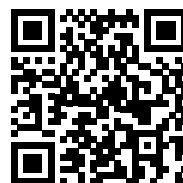
Flue connection with smoke sampling outlet

Flue gas discharge diameters and lengths

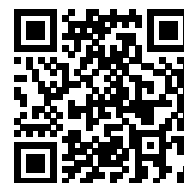
Model	HCC 12 160-200	HCC 20 160-200	HCC 24 245-285	HCC 32 245-285-300
COAXIAL EXHAUST				
Ø mm	80/125	80/125	80/125	80/125
Maximum length m	40	40	40	40
Max. number of bends 45°/90°	8	8	8	8
SPLIT EXHAUST Ø 80				
Maximum length m	50	50	75	75
Equivalent length 45° bend m.	1.1	1.1	1.1	1.1
Equivalent length 90° bend m.	3.9	3.9	3.9	3.9

Condensing Gas Water Heaters

HCU



PRICES



ACCESSORIES PRICES

Capacity: 368 to 480 l
 Power: 50.3 to 121.8 kW
 Hot water production: 1545 ÷ 3741 lt/h

HCU series **high-power condensing** gas water heaters are the most modern and efficient solution for fast DHW production for users requiring large volumes of hot water. These are direct-fired, **sealed-chamber, forced-draft** appliances with **condensing** technology, and therefore with an efficiency that is around 20% higher than traditional models.

- Continuous DHW production from 1545 to 3741lt/h
- Capacity from 368 to 480 litres
- Power from 50.3 to 121.8 kW
- Electronic ignition
- Condensing efficiency depending on the model chosen, between 105% and 108%
- DHW energy efficiency(ErP) depending on the model chosen, between 90% and 93%
- **Class A** energy certification
- Load profile for DHW **2XL** to **3XL**
- Glass-lined tank at 860°C
- Pre-mixed modulating burner suitable for operation with either natural gas or LPG via conversion kit
- Electronic titanium anodes as standard
- NOx emissions ≤ 37 mg/kWh
- Maximum operating temperature 80°C
- Weekly programmable timer
- Compatibility with BMS management
- Electronic control unit controlling all operations and settings, with anti-legionella function
- Electronic diagnosis of errors on the control display and their storage
- Scheduled Maintenance Notice
- Different aluminium smoke evacuation options (max. length 100m)
- Simple and fast maintenance due to easy accessibility of components.
- Rigid polyurethane insulation
- Inspection hatch



Codes/Prices

Capacity l	Power kW	Code	Price	Class energy
368	50	10HCU00050	12.201,00 €	A
368	60	10HCU00060	12.871,00 €	A
480	80	10HCU00080	18.699,00 €	A
480	100	10HCU00100	20.899,00 €	A
480	120	10HCU00120	22.963,00 €	A

Codes/Prices Accessories

Description	Code	Price
Splitter Ø 100/150 to 2xØ100	10H0010012	456,00 €
Splitter Ø 130/200 to 2xØ130	10H0010014	489,00 €

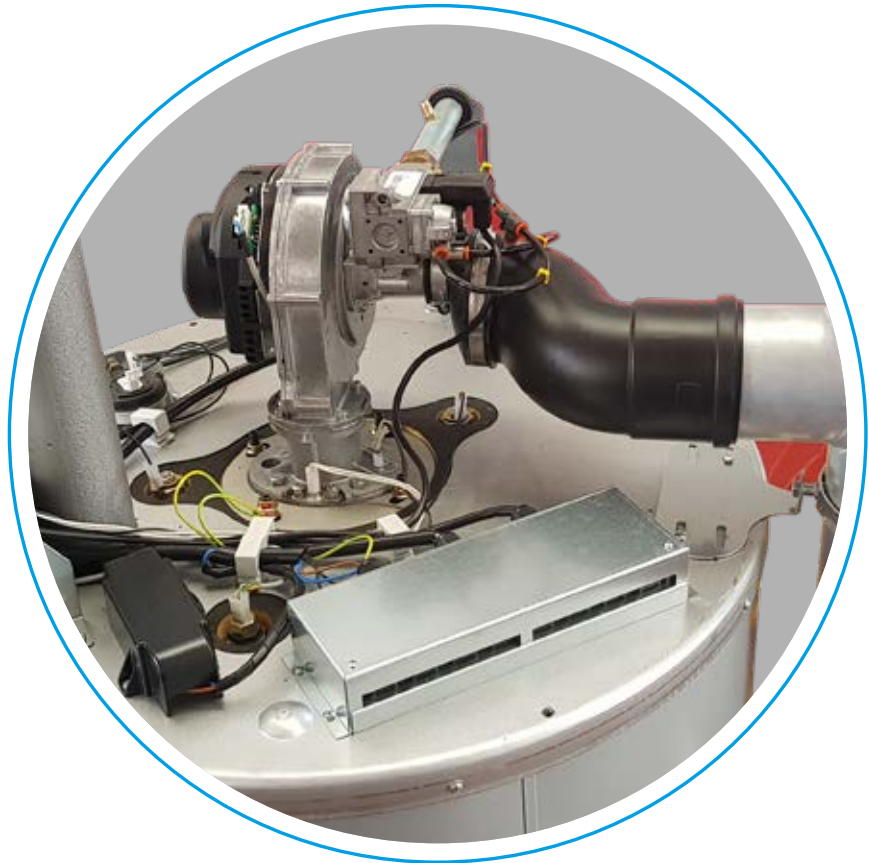


Condensing Gas Water Heaters

HCU

**Modulating burner
pre-mixed**

**Yield in
condensation up to 108%**



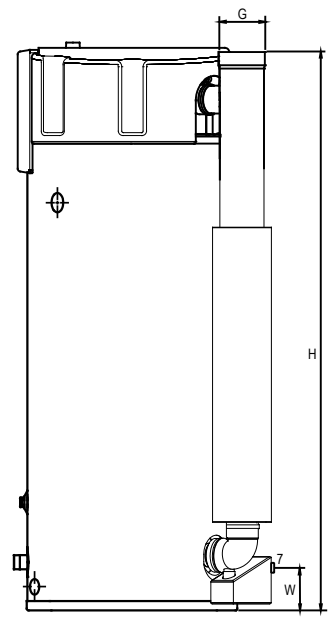
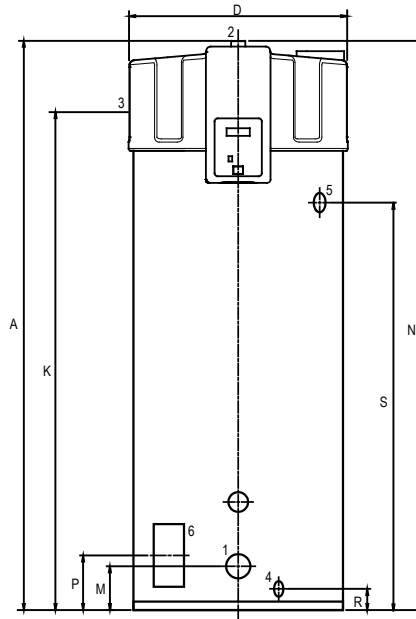
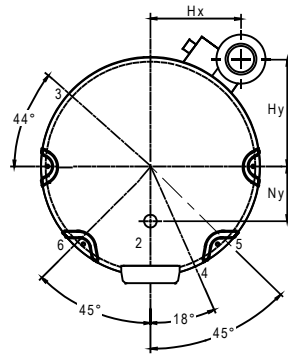
Technical Specifications

Model		HCU-50	HCU-60	HCU-80	HCU-100	HCU-120
General						
Capacity lt	lt	368	368	480	480	480
Condensation efficiency	%	107	106	108	106	105
High-temperature performance	%	96	95	98	95	96
Weight	kg	235	235	425	425	425
Maximum operating pressure	bar	8	8	8	8	8
Power supply	V	230	230	230	230	230
Gas category 2H-G20 - Methane						
Heat flow rate	kW	50.3	60.4	84.2	100.7	121.8
Gas consumption	m ³ /h	5.0	6.0	8.3	10.1	12.3
Flue gas temperature (max)	°C	60	65	50	55	60
Gas category 3B/P-G30 - LPG						
Heat flow rate	kW	57.8	70.0	97.2	116.6	139.7
Gas consumption	m ³ /h	4.3	5.2	7.1	8.7	10.5
Flue gas temperature (max)	°C	60	65	50	55	60
Instantaneous hot water production (T_{ingress} = 10°C / T_{set} = 80°C)						
30 min. ΔT=28°C / 60 min. ΔT=28°C	lt	1300 / 2100	1500 / 2400	1900 / 3100	2100 / 3600	2400 / 4300
Continuous production with ΔT=28°C	lt/h	1545	1856	2587	3093	3741
30 min. ΔT=50°C / 60 min. ΔT=50°C	lt	620 / 1100	720 / 1300	910 / 1700	1100 / 2000	1300 / 2300
Continuous production with ΔT=50°C	lt/h	865	1039	1449	1732	2095
30 min. ΔT=70°C / 60 min. ΔT=70°C	lt/h	370 / 670	440 / 810	540 / 1100	640 / 1300	760 / 1600
Continuous production with ΔT=70°C	lt/h	620	750	1100	1300	1500
Heating time ΔT=28°C / ΔT=50°C	min	14 / 26	12 / 21	11 / 20	9 / 17	8 / 14

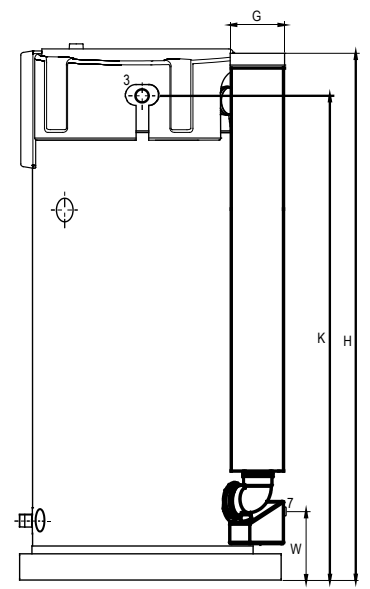
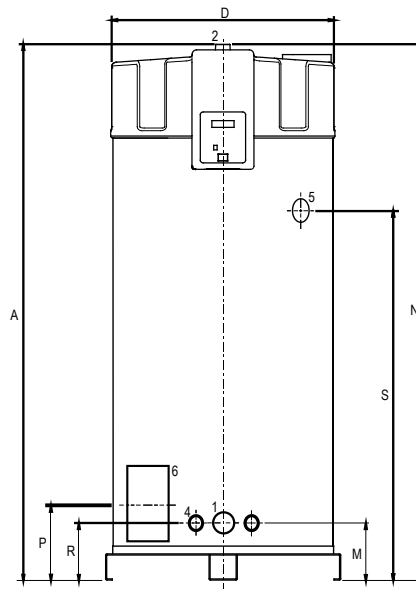
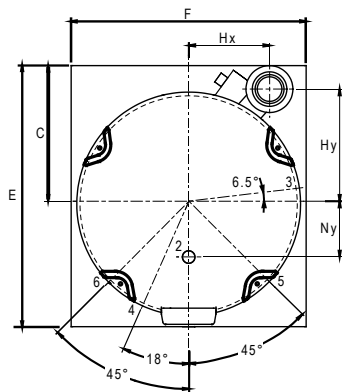
Condensing Gas Water Heaters

HCU

HCU 50 - 60



HCU 80 - 100 - 120



Packaging

Model	height mm	length mm	depth mm	weight kg
HCU 50	2080	790	950	235
HCU 60	2080	790	950	235
HCU 80	2060	920	1020	425
HCU 100	2060	920	1020	425
HCU 120	2060	920	1020	425

Dimensions

Model	A	C	D	E	F	G	H	Hx	Hy	K	M	N	Ny	P	R	S	W	1	2	3	4	5	6	7
HCU 50	1925	-	705	-	-	100/150	1890	265	375	1815	160	1925	205	175	335	1410	160	R11/2	R11/2	R 3/4	1"	1"-15 NPT	95 x 70	Ø 40
HCU 60	1925	-	705	-	-	100/150	1890	265	375	1815	160	1925	205	175	335	1410	160	R11/2	R11/2	R 3/4	1"	1"-15 NPT	95 x 70	Ø 40
HCU 80	2060	530	850	1000	900	130/200	1995	310	440	1855	225	2060	205	290	225	1425	240	R11/2	R11/2	R 3/4	3/4"	1"-15 NPT	95 x 70	Ø 40
HCU 100	2060	530	850	1000	900	130/200	1995	310	440	1855	225	2060	205	290	225	1425	240	R11/2	R11/2	R 3/4	3/4"	1"-15 NPT	95 x 70	Ø 40
HCU 120	2060	530	850	1000	900	130/200	1995	310	440	1855	225	2060	205	290	225	1425	240	R11/2	R11/2	R 3/4	3/4"	1"-15 NPT	95 x 70	Ø 40

Condensing Gas Water Heaters

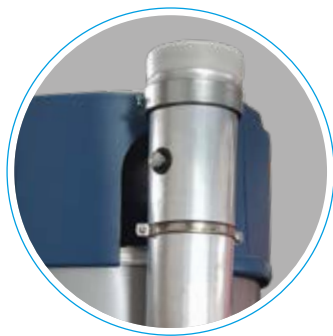
HCU

Model		HCU-50	HCU-60	HCU-80	HCU-100	HCU-120
Nitrogen dioxide (Nox)* emission	mg/kWh	36	37	34	36	37
Noise	dB(A)	55	59	54	59	62
DHW load profile	-	XXL	XXL	3XL	3XL	3XL
Energy efficiency class	-	A	A	-	-	-
Efficiency *	%	91	90	93	93	92
Daily electricity consumption	kWh	0.211	0.212	0.237	0.246	0.257
Daily fuel consumption	kWh	26.562	26.632	49.811	49.922	50.060
Annual electricity consumption	kWh/year	46	46	52	54	56
Annual fuel consumption	GJ/year	21	21	39	39	39
Second DHW load profile	-	3XL	3XL	-	-	-

* Calculated considering Natural Gas (G20)

Evacuation of combustion fumes

Exhaust fumes must be discharged using pre-assembled **aluminium** exhaust kits, which can be coaxial or split. Various options of pipes, bends and accessories are available, which can be combined to meet practically all different evacuation needs. The **exceptional** features of the units allow for piping up to a maximum length of **100 metres**

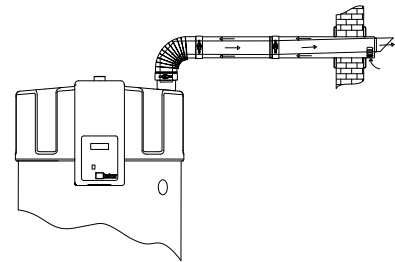


Flue connection with smoke sampling outlet

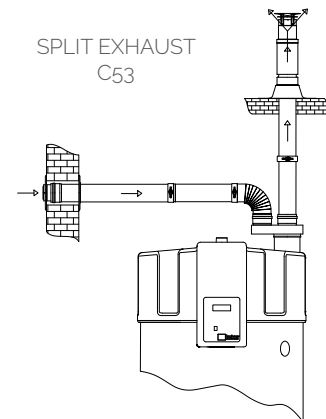
Flue gas discharge diameters and lengths

Model	HCU-50	HCU-60	HCU-80	HCU-100	HCU-120
COAXIAL EXHAUST					
Ø mm	100/150	100/150	130/200	130/200	130/200
Maximum length m	40	40	15	15	15
Max. number of bends 45°/90°	7	7	4	4	4
SPLIT EXHAUST Ø 100			SPLIT EXHAUST Ø 130		
Maximum length m.	55	55	65	65	65
Equivalent length 90° bend m.	4,6	4,6	3,9	2,4	2,4
Equivalent length 45° bend m.	1,2	1,2	1,4	1,4	1,4
SPLIT EXHAUST Ø 130		SPLIT EXHAUST Ø 150			
Maximum length m.	100	100	100	100	100
Equivalent length 90° bend m.	2,4	2,4	2,6	2,6	2,6
Equivalent length 45° bend m.	1,4	1,4	1,6	1,6	1,6

HORIZONTAL EXHAUST COAXIAL C13

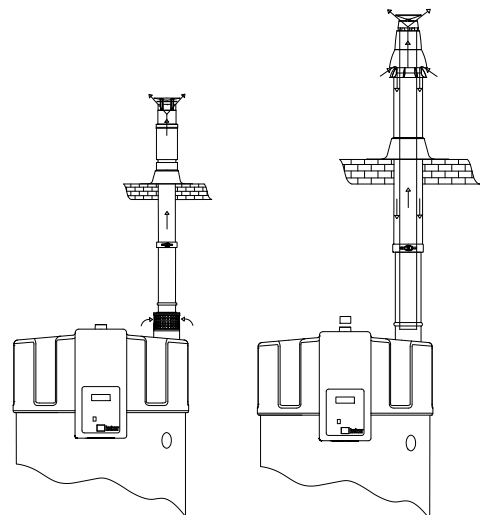


SPLIT EXHAUST C53



VERTICAL OUTLET SINGLE B23

VERTICAL OUTLET COAXIAL C33



Gas Sealed Chamber Water Heaters

TGFN LX

Capacity: 220 to 800 litres
 Hot water production: 300 ÷ 740 lt/h
 Warm-up time: 19' ÷ 84'



PRICES



ACCESSORIES
PRICES

The new range of sealed chamber and forced draught water heaters in the **TGFN LX** series are manufactured in accordance with the new Low NOx **812-814/2013** standard and are designed for natural gas operation. For LPG operation add the LPG kit code.

The appliances are equipped with an electric gas valve and **electronic** flame ionisation **ignition**, and do not require a chimney as the entire path of gases and combustion fumes is totally isolated from the environment in which it is located. This process prevents any gas residues (especially in the case of liquefied gases) from giving rise to potentially dangerous situations.

The control of the various functions is managed by an **electronic control unit**.

A differential pressure switch ensures an immediate stop of the gas flow and shutdown in the event of a malfunction of the flue gas extraction fan or any other discharge anomaly. Ignition is programmable by means of a weekly **clock programmer** that can be connected to a control panel.

The units are equipped with a double safety thermostat in case of over-temperature, and a suitably sized and inspectable magnesium anode. The control of the anode's efficiency is ensured by the presence of an **Anode Tester** that allows real-time verification. The presence of the front inspection flange ensures easy cleaning of the interior and rapid replacement of the magnesium anode.

The rigid polyurethane insulation ensures low dispersion and economy of operation. Available capacities range from **220 to 800 litres**, and powers from **22 to 23 kW**.

Exhaust fumes are discharged through the use of kits, specially prepared and tested for the appliance, available in horizontal or vertical coaxial versions or with single split pipes. Various types of elbows and extensions are also available to adapt the kits to any installation requirements. Glass-lined tank at 860°C.



Codes/Prices

Cap. L	Code	Price	Energy class	Dimensions with vertical packaging		
				H mm	L mm	P mm
220	161TGFN200	4.285,00 €	B	1670	780	780
300	161TGFN300	4.837,00 €	B	2020	780	780
400	161TGFN400	5.444,00 €	B	2370	780	780
600	161TGFN600	6.648,00 €	B	2060	980	980
800	161TGFN800	7.975,00 €	B	2370	980	980

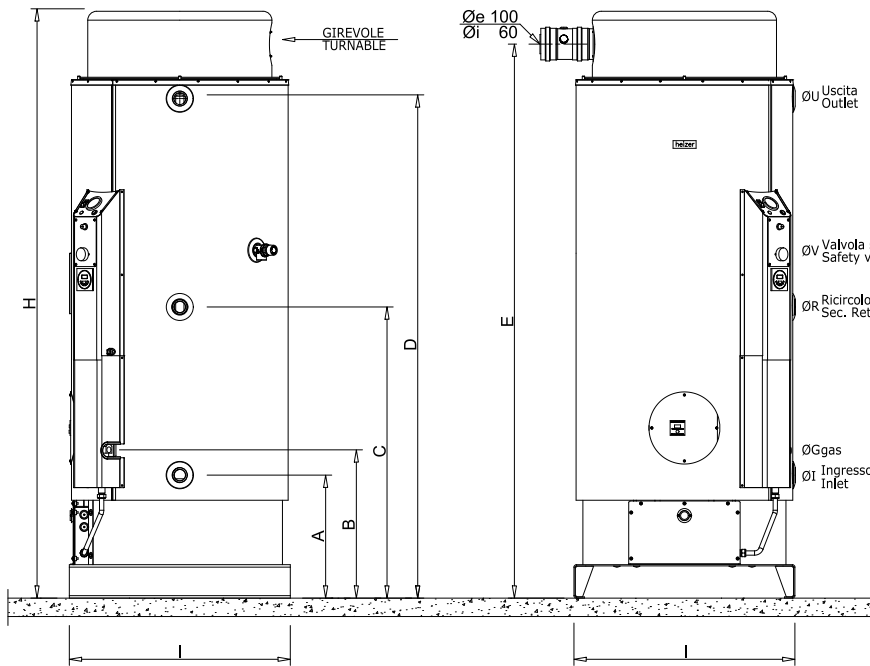
For LPG operation add conversion kit

Codes/Prices Accessories

Description	Code	Price
Horizontal flue exhaust kit Ø 60/100 L 0.75 m	161KITKSON	139,00 €
Split flue gas exhaust kit Ø 80/80 L 1.0 m	161KITKSDN	203,00 €
Vertical flue exhaust kit Ø 60/100 L 1.2 m	161KITKSVN	267,00 €
LPG Gas Kit G31 TGFN-2 LX	161Z001017	69,00 €
LPG Gas Kit G31 TGFN-3 LX	161Z001018	69,00 €
LPG Gas Kit G31 TGFN-4 LX	161Z001019	69,00 €
LPG Gas Kit G31 TGFN-6 LX	161Z001020	69,00 €
LPG gas kit G31 TGFN-8 LX	161Z001021	69,00 €

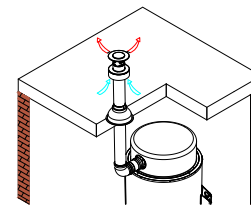
Gas Sealed Chamber Water Heaters

TGFN LX



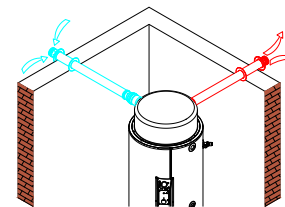
In the TGFN LX series, the Programmer Clock and Anode Tester are supplied as standard.

Application examples smoke exhaust



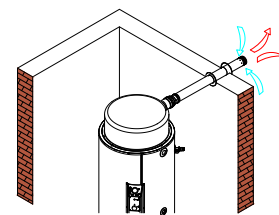
Vertical Discharge

Length max 1 m



Split exhaust

Length max 6 m TOTALS



Horizontal Discharge

Length max 3 m

Technical Specifications

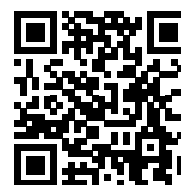
Model		TGFN-2 LX	TGFN-3 LX	TGFN-4 LX	TGFN-6 LX	TGFN-8 LX
Capacity	lt	220	300	400	560	740
Net weight	kg	175	208	245	248	303
Gross weight	kg	192	228	268	270	328
Gas connection	ø	1/2"	1/2"	1/2"	1/2"	1/2"
Voltage	V	220/240	220/240	220/240	220/240	220/240
Noise	dB(A)	51	51	51	51	51
Max. operating pressure	bar	6	6	6	6	6
Gas consumption						
- methane	m ³ /h	2,3	2,4	2,4	2,4	2,4
- LPG	kg/h	1,7	1,8	1,8	1,8	1,8
NOx emissions	mg/kWh	50	50	30	24	28
Energy class		B	B	B	B	B
Load profile		XXL	XXL	XXL	XXL	XXL
Yield		91%	91%	94%	92%	93%
Heat flow rate	kW	22	23	23	23	23
Treatment Glass-porcellanising at 870°C						
Warm-up time Δt-50°C/Δt-25°C	min	38' / 19'	51' / 5'	65' / 2'	96' / 8'	121' / 60'
Continuous production Δt-50°C/Δt-25°C	L/h	264 / 528	360 / 720	480 / 960	702 / 1404	888 / 1776
Continuous production Δt-50°C	L/h	340	360	370	360	370

Dimensions

Model	Cap. L	A	B	C	D	E	I	H	ØU-ØI	ØV-ØG	ØR-ØS
TGFN-2 LX	220	405	475	960	1285	1445	720	1560	1"1/4	1/2"	1"
TGFN-3 LX	300	405	475	960	1640	1795	720	1912	1"1/4	1/2"	1"
TGFN-4 LX	395	403	475	1135	1985	2145	720	2275	1"1/4	1/2"	1"
TGFN-6 LX	585	410	475	950	1655	1830	920	1950	1"1/4	1/2"	1"
TGFN-8 LX	800	410	475	950	2.030	2.195	920	2.310	1"1/4	1/2"	1"

Gas Open Chamber Water Heaters

TGE LX



PRICES



ACCESSORIES
PRICES

Capacity: 220 to 800 l

Hot water production: 485t ÷ 905 l/h

Warm-up time: 19' ÷ 69'

The new range of open-chamber, natural draught water heaters in the TGE LX series are manufactured in accordance with the new Low NOx regulation 812-814/2013 and are designed for natural gas operation. For LPG operation add the LPG kit code. The appliances are equipped with an electric gas valve and electronic flame ionisation ignition. The control of the various functions is managed by an electronic control unit, which oversees, together with the detection electrode and the operating and safety thermostats, the correct operation of the system.

The TGE LX series has certain advantages over conventional pilot flame appliances:

- Lower running costs due to the absence of the pilot flame.
- No possibility of failure due to pilot shutdown caused by wind, air currents or poor pilot adjustment.

They are equipped with stainless steel multi-gas burners, running on both natural gas and LPG, with a DCF (Flue Gas Control Device) that interrupts the flow of gas to the burner in the event of exhaust and/or combustion anomalies, and with a glass-lined steel flue hood. The easily inspectable magnesium anode and 50 mm rigid polyurethane insulation ensure long life and economy of operation.

The presence of the front inspection flange ensures easy cleaning of the interior and quick replacement of the magnesium anode.

The available capacities range from 220 to 800 litres while the powers from

23 to 28 kW. Glass-lined tank at 860° C.



Codes/Prices

Cap. l	Code	Price	Energy class	Dimensions with vertical packaging		
				H mm	L mm	P mm
220	163TGE0200	3.112,00 €	C	1630	780	780
300	163TGE0300	3.894,00 €	C	1980	780	780
400	163TGE0400	4.454,00 €	C	2330	780	780
585	163TGE0600	5.785,00 €	C	2020	980	980
800	163TGE0800	7.127,00 €	C	2330	980	980

For LPG operation add conversion kit

Codes/Prices Accessories

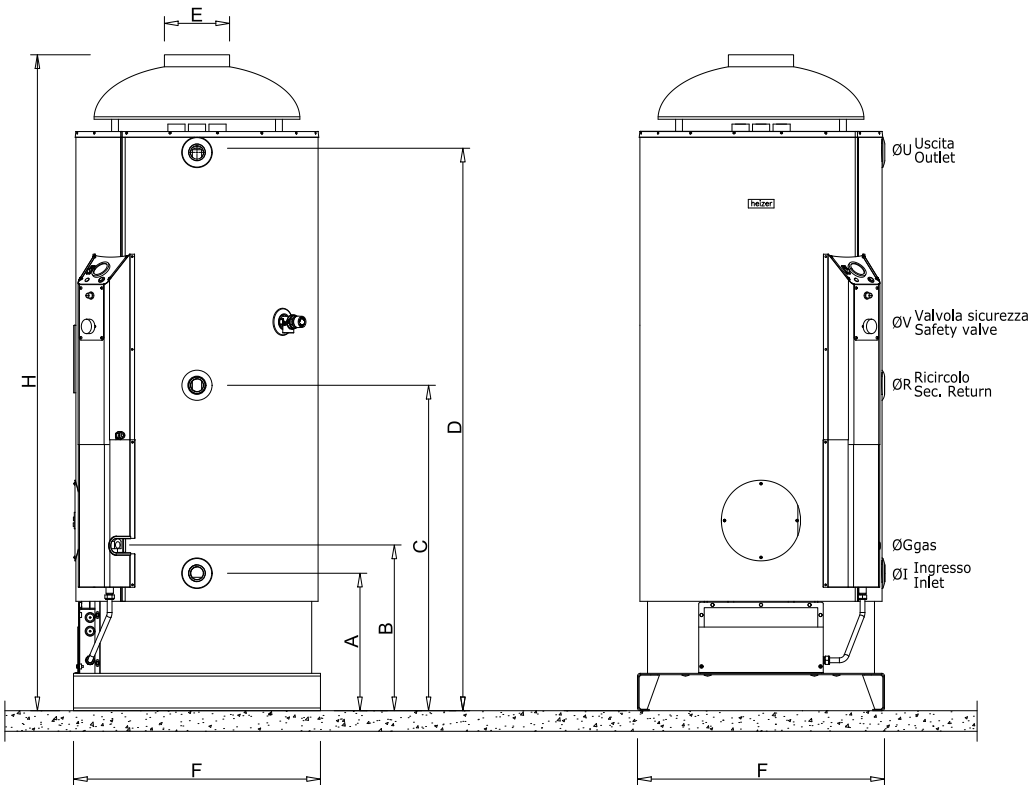
Description	Code	Price
CNG to LPG conversion kit TGE-2 LX	163Z000002	69,00 €
CNG to LPG conversion kit TGE-3 LX	163Z000003	69,00 €
CNG to LPG conversion kit TGE-4 LX	163Z000004	69,00 €
CNG to LPG conversion kit TGE-6 LX	163Z000005	69,00 €
CNG to LPG conversion kit TGE-8 LX	163Z000006	69,00 €

Gas Open Chamber Water Heaters

TGE LX



WATER STORAGE HEATER



Technical specifications

Description		TGE-2 LX	TGE-3 LX	TGE-4 LX	TGE-6 LX	TGE-8 LX
Capacity	l	220	300	400	560	740
Full weight	kg	393	506	643	831	1041
Net weight	kg	173	206	243	246	301
Gas connection	Ø	1/2"	1/2"	1/2"	1/2"	1/2"
Voltage	V / Hz / W	230 / 50 / 10	230 / 50 / 10	230 / 50 / 10	230 / 50 / 10	230 / 50 / 10
Max. operating pressure	bar	6	6	6	6	6
Gas consumption						
- methane	m ³ /h	2,4	2,5	2,5	2,8	2,9
- LPG	kg/h	1,8	1,9	1,9	2,1	2,2
NOx emissions	mg/kWh	26	29	36	37	37
Energy class		C	C	C	C	C
Load profile		XXL	XXL	XXL	XXL	XXL
Efficiency		86%	85%	89%	86%	90%
Heat flow rate	kW	19,8	20,9	20,9	25,4	26,3
Treatment		Glass-lining at 870°C				
Heating time Δt=50°C/Δt=25°C	min.	39' / 19'	51' / 26'	65' / 33'	80' / 40'	98' / 49'
Continuous production Δt=50°C/Δt=25°C	L/h	264 / 528	360 / 720	480 / 960	702 / 1404	888 / 1776
Continuous production Δt=50°C	L/h	340	360	370	360	370

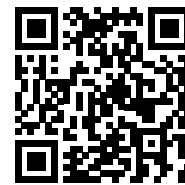
Dimensions

Model	Capacity L	A	B	C	D	E	F	H	ØU-ØI	ØV-ØG	ØR-ØS
TGE-2 LX	220	401	473	949	1278	180	720	1551	1 1/4	1/2"	1 1/4
TGE-3 LX	300	401	473	949	1628	180	720	1896	1 1/4	1/2"	1 1/4
TGE-4 LX	400	401	467	952	1978	180	720	2246	1 1/4	1/2"	1 1/4
TGE-6 LX	585	402	468	1019	1637	180	920	1910	1 1/4	1/2"	1 1/4
TGE-8 LX	800	402	462	1019	1987	180	920	2260	1 1/4	1/2"	1 1/4



The TGE LX series uses a new burner with low NOx emissions.

Electric water heater E-PE/E-PEX



PRICES
E-PE



PRICES
E-PEX

The new E-PE series of electric water heaters is designed to ensure versatility of use and fast water heating. These appliances are equipped with one (E-PE) or two (E-PEX) electric heating elements with appropriate power ratings, and two externally controlled thermostats. The magnesium anode is easily accessible and offers additional cathodic protection against corrosion.

Capacity: 200 to 1000 l

Power: 2 to 20 kW

Material: carbon steel S 235 JR

Internal protective treatment: Glass-lined coating

Insulation

Capacity (l)	Type
from 200 to 1000	High-density rigid polyurethane foam

Limit of use

Temperature max.	Pressure max.
95°C	10 bar

Included accessories: magnesium sacrificial anode and thermometer.

Standard accessories: see page 163

Special executions: see page 165



TESTED

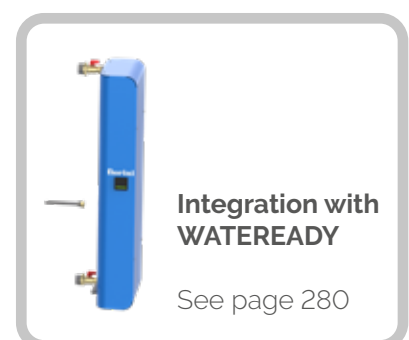
Cap. l	Voltage V	E-PE						E-PEX						Packaging	
		Code	Price	Power kW	Warm-up time		Code	Price	Power kW	Warm-up time		Dimensions cm	Weight kg		
					Δt=35°C	Δt=25°C				Δt=35°C	Δt=25°C				
200	220	355050044X	1.310,00 €	2	4h-05'	2h-50'	355050052X	1.526,00 €	2x2	2h-03'	1h-45'	75x75x125	74		
300	220	355050045X	1.739,00 €	3	4h-05'	2h-50'	355050053X	1.845,00 €	2x3	2h-03'	1h-45'	75x75x150	84		
300	380	355050051X	1.739,00 €	3	4h-05'	2h-50'	355050057X	1.845,00 €	2x3	2h-03'	1h-45'	75x75x150	84		
500	380	355050046X	2.568,00 €	5	4h-05'	2h-50'	355050054X	2.736,00 €	2x5	2h-03'	1h-45'	85x85x175	122		
750	380	355050047X	3.919,00 €	8	3h-40'	2h-40'	355050055X	4.151,00 €	2x8	1h-50'	1h-20'	100x100x185	199		
1000	380	355050048X	4.952,00 €	10	4h-05'	2h-50'	355050056X	5.311,00 €	2x10	2h-03'	1h-30'	105x105x210	243		

[†]Primary temperature 80-60°C-Secondary temperature 10-45°C

^{*}Primary temperature 55-50°C-Secondary temperature 10-45°C

Integration of semi-instantaneous systems

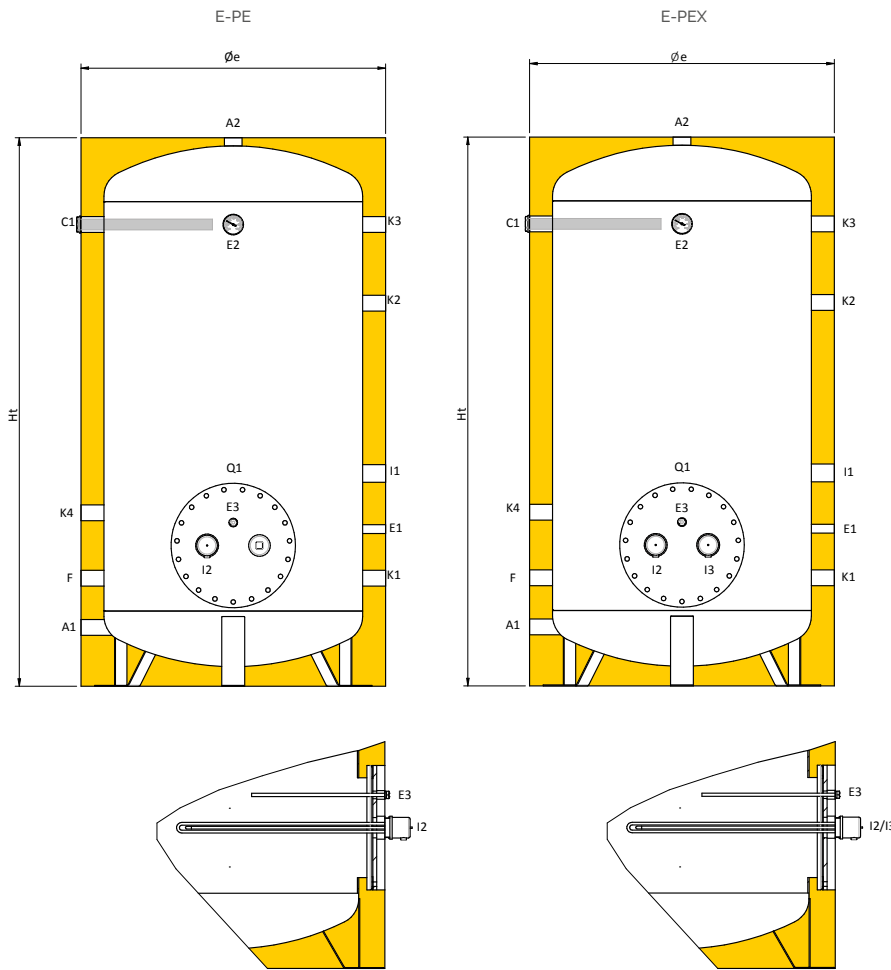
WATEREADY consists of a compact, high-efficiency heat exchanger unit for the fast production of domestic hot water that can be combined with any HeizerSile ATV series thermal storage tank or any BSX or BSFV series storage tank. The possibility of combining WATEREADY with different types of tanks and volumes allows a wide range of solutions for the fast production of domestic hot water. The semi-instantaneous heater is ideal for small and large communities (homes, restaurants, hotels, sports centres,..).



Integration with WATEREADY

See page 280

Electric water heater E-PE/E-PEX



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Exhaust
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I1	Electrical resistance
I2	Electrical resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
Q1	Inspection hatch

WATER STORAGE HEATER

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	E1 inches	E2 inches	E3 inches	F inches	I1 inches	I2-I3 inches	K1 inches	K2 inches	K3 inches	K4 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø200
300	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø200
500	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	2"	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø200
750	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	2"	1 1/4	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	2"	1 1/4	1 1/4	1 1/4	1 1/4	Ø380/Ø300

Size table

Cap. l	Øe mm	Ht mm	R mm	A1 mm	C1 mm	E1 mm	E2 mm	F mm	I1 mm	K1 mm	K2 mm	K3 mm	K4 mm	Q1 mm
200	710	1105	1315	150	885	295	885	295	445	150	595	990	495	345
300	710	1355	1530	150	1135	445	1135	295	595	295	795	1135	495	355
500	810	1635	1825	145	1390	460	1390	310	610	310	1150	1390	510	370
750	950	1675	1925	180	1410	480	1410	330	650	330	1170	1410	530	430
1000	1010	1965	2210	200	1680	500	1680	350	670	350	1190	1680	550	450



Index DHW Tanks

DHW STORAGE TANKS

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CONTAINER
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WATER HEATERS WITH FIXED HEAT EXCHANGER

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MAXICELL
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WATER HEATERS WITH REMOVABLE HEAT EXCHANGER

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ACCESSORIES

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Accessories
p. 163

DHW
TANKS

Hot Water Storage tanks

AISI 316 L STAINLESS STEEL TANKS

Stainless steel is the universal material of the future capable of providing concrete answers to the requirements of environmental protection, product quality and safety in use.

The boilers are manufactured from AISI 316 L stainless steel (suitable for contact with drinking water according to DM of 21/03/73 and Directive 98/83/EC) austenitic chrome-nickel-molybdenum steel. This type of steel guarantees very high corrosion resistance, excellent mechanical properties and a high degree of recyclability.

The sophisticated welding process in a controlled atmosphere contributes significantly to making our boilers extremely resistant even to very aggressive water.

Suitable for operation with heat pumps.

Max. storage temperature < 110°C

GLASS LINED STEEL TANKS

The double-coat glass lining or enamelling process applied to the tanks provides them with excellent corrosion resistance. It takes place in furnaces at temperatures above 800°C.

To further protect against corrosion, the boilers are equipped with cathodic protection with a magnesium anode, which must be periodically checked and replaced.

Inorganic enamelling DIN 4753.3, suitable for contact with drinking water according to DM 174/04 and Regulation no. 1935/04/EC

Max. storage temperature 90 °C



Hot Water Accumulators

TANKS WITH BLUETECH TREATMENT

Bluetech is an innovative treatment made from thermosetting resins that offers advantages over traditional treatments, including:

- excellent resistance and stability at high temperatures;
- excellent adhesion to carbon steel combined with high elasticity;
- high impermeability to oxygen;
- effective cathodic delamination barrier;
- long duration.

it is specifically designed for the internal lining of our Domestic Hot Water (DHW) boilers and storage tanks and can be used in the presence of drinking water. Bluetech complies with the provisions of Italian Ministerial Decree 174/2004 and is therefore suitable for potable water as per Italian Legislative Decree 31/2001 (att. dir. 98/83/EC).

Properties

The data below refer to a coating applied under standard conditions on 3 mm thick carbon steel sheet.

- Application: Electrostatics
- Baking: 20 min at 200°C
- Film thickness: 100 ÷ 140 µm
- Smooth/Glossy Appearance
- Pencil hardness: H ÷ 2 H
- Colour: Blue RAL 5002



Storage Tanks for DHW ATV



PRICES

The ATV range consists of inertial tanks for domestic hot water, available with or without inspection port (allowing easy access during inspection and maintenance), in different capacities, from 200 to 10000 litres. They are equipped with rigid or flexible high-performance insulation and external PVC lining, and magnesium anode for protection against galvanic currents.

Material: carbon steel S 235 JR

Internal protective treatment

- up to 1000 litres inorganic glass-lining, complying with DIN 4753.3
- 1500 litre Bluetech enamelling with thermo-setting resins, suitable for domestic water



Insulation

Capacity (l)	Type
from 200 to 1000	High-density rigid polyurethane foam
from 1500 to 5000	Polyester Fibre
by 6000	Flexible polyurethane

Limit of use

Capacity (l)	Max. temperature	Max. pressure
up to 1000	95°C	10 bar
by 1500	80°C	6 bar

Accessories Included: Safety valve and thermometer for sizes up to 1000 l, magnesium sacrificial anode for all sizes. For models with only 1 hatch, a blind plate assembly is supplied.

Standard accessories: see page 163

Special executions: see page 165



TESTED

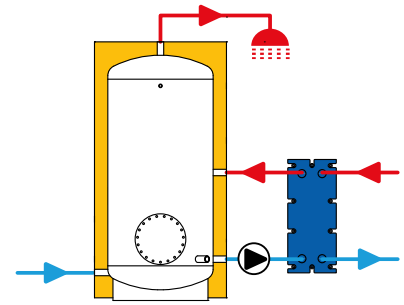
MATCH YOUR EXCHANGER
(see p. 159)

Capacity l	ATV with hatchway		Class energy	With vertical packaging	
	Cod.*	Price		Dimensions cm	Weight kg
200	317060032X	1.285,00 €	A	75x75x125	74
300	317060033X	1.352,00 €	A	75x75x150	84
500	317060034X	1.726,00 €	B	85x85x170	122
750	317060035X	2.945,00 €	C	100x100x170	199
1000	317060036X	3.477,00 €	C	110x110x200	243
1500	317080112X	3.739,00 €	C	140x140x245	256
2000	317080099X	4.631,00 €	C	132x132x275	324
2500	317080100X	5.019,00 €		147x147x278	359
3000	317080101X	5.839,00 €		147x147x299	400
4000	317080102X	7.417,00 €		163x163x306	564
5000	317080103X	7.965,00 €		183x183x310	649
6000	317080120X	9.789,00 €		282x203x218	760
8000	317080121X	13.247,00 €		352x203x218*	895
10000	317080122X	15.362,00 €		427x203x218*	983

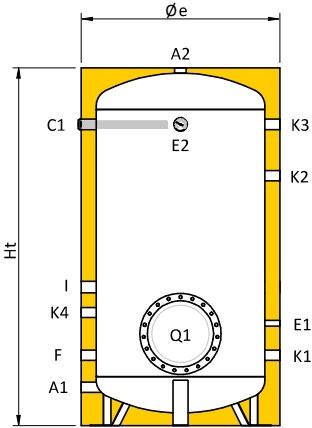
Integration with WATREADY
See page 280

*shipping in containers requires open top containers

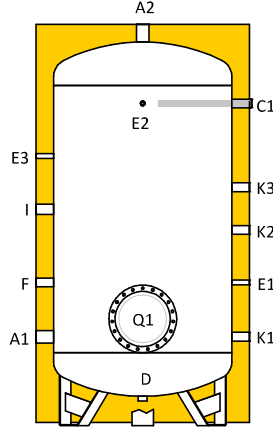
Storage Tanks for DHW ATV



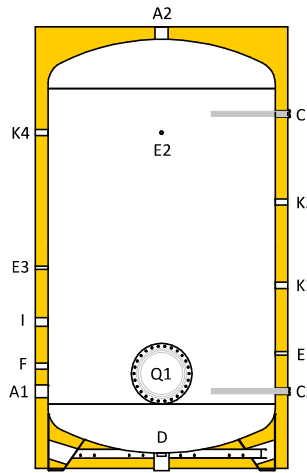
200 ≤ cap. ≤ 1000



1500 ≤ cap. ≤ 5000



6000 ≤ cap. ≤ 10000



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
C2	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
Q1	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	C2 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	-	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	-	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	-	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
750	1 1/4	1 1/4	1 1/4	-	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/4	1 1/4	1 1/4	-	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1500	2"	2"	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø380/Ø300
2000	2"	2"	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø430/Ø350
3000	3"	3"	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø430/Ø350
4000	3"	3"	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø430/Ø350
5000	3"	3"	1 1/4	-	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	Ø430/Ø350
6000	3"	3"	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	-	1 1/4	1 1/4	1 1/4	Ø480/Ø400
8000	3"	3"	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	-	1 1/4	1 1/4	1 1/4	Ø480/Ø400
10000	3"	3"	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	-	1 1/4	1 1/4	1 1/4	Ø480/Ø400

Size table

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	C2 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	Q1** mm
200	710	1105	1315	150	885	-	-	295	885	-	295	645	150	595	990	465	345
300	710	1355	1530	150	1135	-	-	445	1135	-	295	645	295	795	1135	465	355
500	810	1635	1825	145	1390	-	-	460	1390	-	690	610	310	1150	1390	510	370
750	950	1675	1925	180	1410	-	-	480	1410	-	710	650	330	1170	1410	530	430
1000	1010	1965	2210	200	1680	-	-	500	1680	-	730	670	350	1190	1680	550	450
1500	1250	2280	2600	500	1810	-	165	805	1810	1515	805	1215	500	1100	1340	-	600
2000	1350	2600	2930	505	2115	-	155	805	2115	1805	805	1505	505	1105	1345	-	620
2500	1400	2655	3000	565	2150	-	175	865	2150	1850	850	1550	565	1165	1405	-	680
3000	1450	2870	3215	575	2350	-	180	800	2350	2050	850	1750	575	1050	1415	-	690
4000	1600	2940	3350	600	2380	-	160	900	2380	2080	870	1780	600	1200	1440	-	715
5000	1800	2980	3480	610	2385	-	140	910	2160	2085	885	1785	610	1210	1450	-	725
6000	2000	2820	3460	630	2230	630	140	930	2080	1470	880	1230	-	1470	1930	2080	770
8000	2000	3520	4050	630	2830	630	140	930	2680	1610	830	1180	-	1470	2130	2680	770
10000	2000	4270	4720	630	3580	630	140	930	3430	1610	830	1180	-	1470	2880	3430	770

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

Storage Tanks for DHW ATV 2F



PRICES

The ATV 2F range consists of inertial hot water tanks with double inspection port, in different capacities from 200 to 5000 litres. The two inspection flanges allow easy access during inspection and maintenance and the possible insertion of one or more exchangers. They are equipped with high insulating power insulation and external PVC coating, magnesium anode for protection against galvanic currents.

Material: carbon steel S 235 JR

Internal protective treatment: Bluetech enamelling with thermosetting resins suitable for DHW



Insulation

Limit of use

Capacity (l)	Type
from 200 to 5000	Polyester Fibre

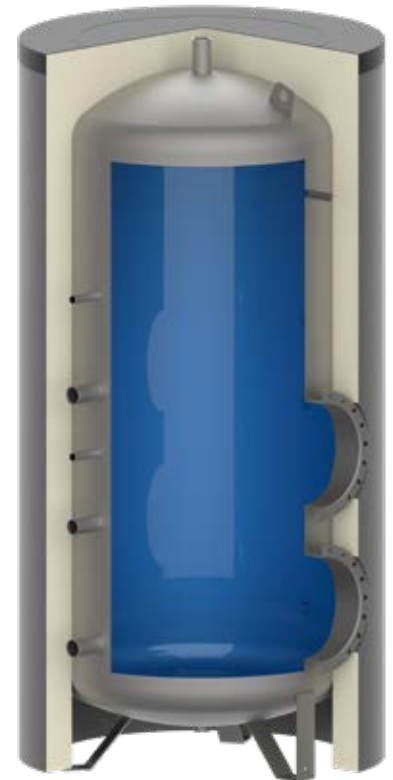
Max. temperature	Max. pressure
80°C	6 bar

Included accessories: magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165

Attention! Locking plates are not included in the scope of delivery, but can be purchased and combined using the selection tables on page 164



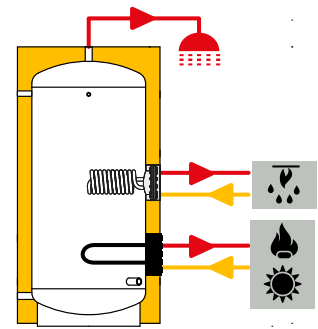
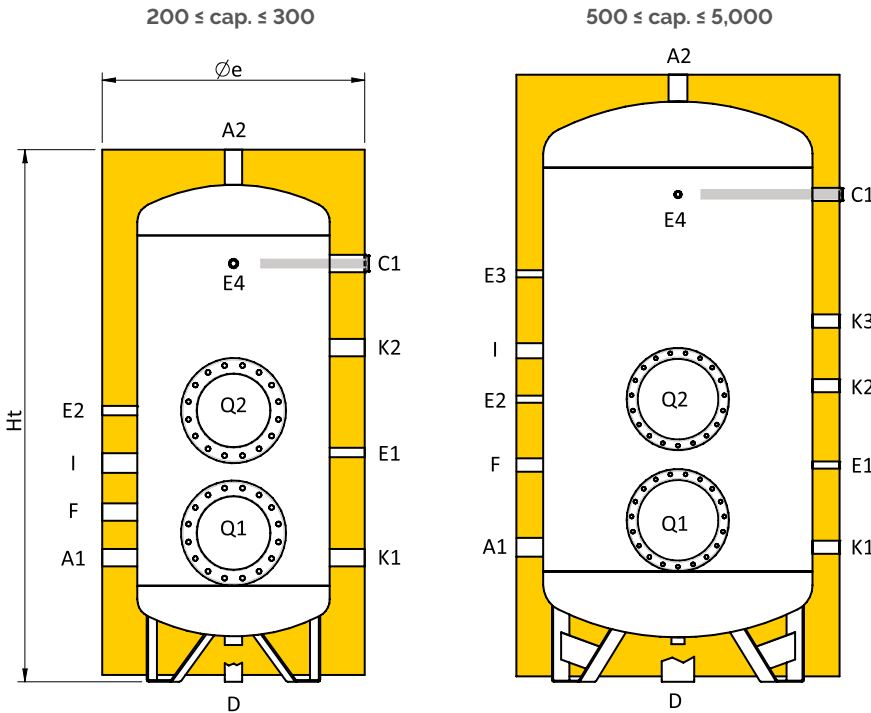
TESTED

MATCH YOUR EXCHANGER
(see p. 159)

Integration with WATERREADY
See page 280

Capacity l	Code	Price	Energy class	With vert. packaging	
				Dimensions cm	Weight kg
200	317080134X	1.487,00 €	B	68x68x156	55
300	317080135X	1.849,00 €	B	78x78x164	80
500	317080136X	2.073,00 €	C	88x88x193	105
750	317080191X	2.880,00 €	C	99x99x199	160
1000	317080138X	3.084,00 €	C	99x99x230	180
1500	317080139X	3.542,00 €	C	123x123x238	230
2000	317080140X	4.659,00 €	C	132x132x270	280
2500	317080141X	5.192,00 €		147x147x278	315
3000	317080142X	5.971,00 €		147x147x299	350
4000	317080143X	7.530,00 €		163x163x306	505
5000	317080144X	8.041,00 €		183x183x310	595

Storage Tanks for DHW ATV 2F



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port
Q2	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	E4 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 - Q2 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø300/Ø220
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350

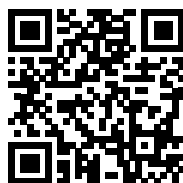
Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm	Q2** mm
200	650	1435	1580	310	1150	125	620	730	-	1150	440	555	310	930	-	380	730
300	750	1520	1695	355	1195	130	655	775	-	1195	485	625	355	955	-	425	775
500	850	1805	2000	375	1445	135	675	795	1145	1445	675	960	375	975	1215	445	795
750	990	1840	2090	390	1470	130	710	980	1360	1470	710	1160	390	1010	1230	500	980
1000	1050	2120	2370	415	1675	120	715	985	1445	1675	745	1175	415	1015	1255	515	985
1500	1250	2280	2605	500	1810	165	805	1050	1515	1810	805	1230	500	1100	1340	600	1050
2000	1350	2600	2930	505	2115	155	805	1150	1805	2115	805	1505	505	1105	1345	620	1150
2500	1400	2655	3005	565	2150	175	865	1210	1850	1850	850	1550	565	1165	1405	680	1210
3000	1450	2870	3220	575	2350	180	800	1220	2050	2050	850	1750	575	1050	1415	690	1220
4000	1600	2940	3350	600	2380	160	900	1245	2080	2080	870	1780	600	1200	1440	715	1245
5000	1800	2980	3485	610	2385	140	910	1255	2085	2085	885	1785	610	1210	1450	725	1255

R': Tipping height

Q1**/Q2**: height from the centre of the hatch to the ground

Storage Tanks for DHW ATV Container



PRICES ATV
CONTAINER 6 BAR



PRICES ATV
CONTAINER HC



PRICES ATV
CONTAINER 8 BAR

The ATV Container range consists of inertial hot water tanks with lowered heights and dimensions designed specifically for installation in thermal power plants with reduced heights. In addition, the reduced heights make them suitable for container transport. The PN 6 bar range is also available in geometries suitable for transport in High Cube containers. The range has an inspection port (allowing easy access during inspection and maintenance), in various capacities from 1500 to 5000 litres. They are equipped with flexible high insulating insulation and PVC lining, magnesium anode for protection against galvanic currents. The ATV containers are moved by means of crossbars positioned under the feet of the tank, thus also minimising the overall dimensions of the packed product.

Material: carbon steel S 235 JR

Internal protective treatment: Bluetech enamelling with thermosetting resins, suitable for DHW
Insulation



Included accessories: magnesium sacrificial



TESTED

Capacity (l)	Type
from 1500 to 5000	Polyester Fibre

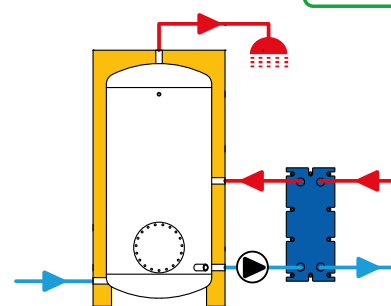
Limit of use

Model	Max. temperature	Max. pressure
PN 6 bar	80°C	6 bar
PN 6 bar High Cube	80°C	6 bar
PN 8 bar	80°C	8 bar

anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165



ATV container 6 bar

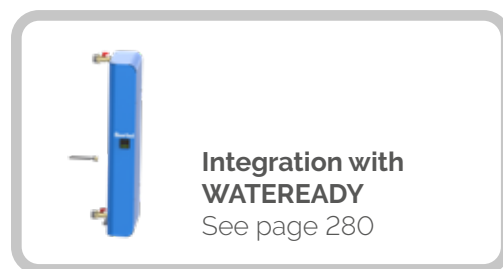
Capacity l	Code	Price	Class energy	With vert. packaging	
				Dimensions cm	Weight kg
1500	317080196X	3.754,00 €		135x135x205	200
2050	317080197X	4.861,00 €		145x145x212	250
2500	317080198X	5.903,00 €		160x160x199	325
3000	317080199X	6.225,00 €		180x180x199	395
4000	317080200X	8.748,00 €		200x200x202	510
5000	317080201X	10.564,00 €		210x210x219	600

ATV container 6 bar High Cube

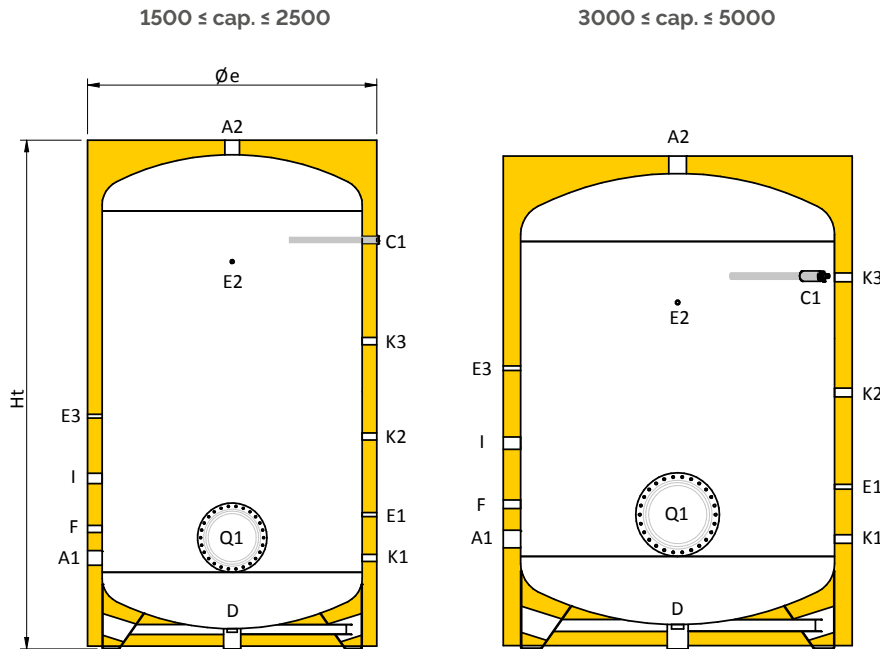
Capacity l	Code	Price	Class energy	With vert. packaging	
				Dimensions cm	Weight kg
1500	317080196X	3.754,00 €		135x135x205	200
2050	317080211X	5.034,00 €		140x140x223	260
2500	317080198X	5.903,00 €		160x160x220	325
3000	317080208X	6.705,00 €		160x160x240	420
4000	317080209X	7.813,00 €		180x180x242	500
5000	317080210X	10.012,00 €		200x200x244	605

ATV container 8 bar

Capacity l	Code	Price	Class energy	With vert. packaging	
				Dimensions cm	Weight kg
1500	317080202X	5.035,00 €		135x135x205	223
2050	317080203X	5.059,00 €		145x145x212	303
2500	317080204X	6.592,00 €		160x160x220	388
3000	317080205X	7.925,00 €		180x180x199	453
4000	317080206X	9.827,00 €		200x200x202	585
5000	317080207X	12.355,00 €		210x210x219	673



ATV Container 6 bar Dimensions



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 (Øext/Øint) mm
1500	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø380/Ø300
2050	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø430/Ø350
2500	2 1/2"	2 1/2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø430/Ø350
3000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø430/Ø350
4000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø430/Ø350
5000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø430/Ø350

Table of heights

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm
1500	1350	2050	2455	505	1575	155	805	1575	1505	805	1165	505	1105	1345	605
2050	1450	2120	2568	575	1635	180	800	1635	1475	850	1175	575	1050	1415	690
2500	1600	2195	2716	605	1665	165	905	1665	1405	875	1205	605	1205	1445	720
3000	1800	1985	2680	615	1435	145	895	1435	1315	815	1115	595	1195	1435	730
4000	2000	2020	2843	630	1450	140	910	1450	1370	880	1130	610	1160	1450	745
5000	2100	2186	3031	685	1525	155	925	1525	1485	885	1185	685	1225	1525	800

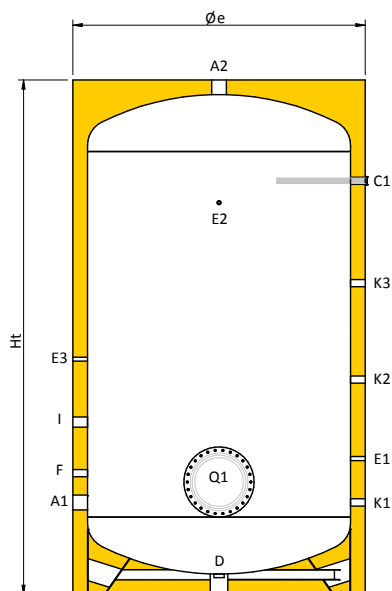
R*: Tipping height

Q1**: height from the centre of the hatch to the ground

ATV container 6 bar high cube

Dimensions

1500 ≤ cap. ≤ 5000



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 (Øext/Øint) mm
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
2050	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350

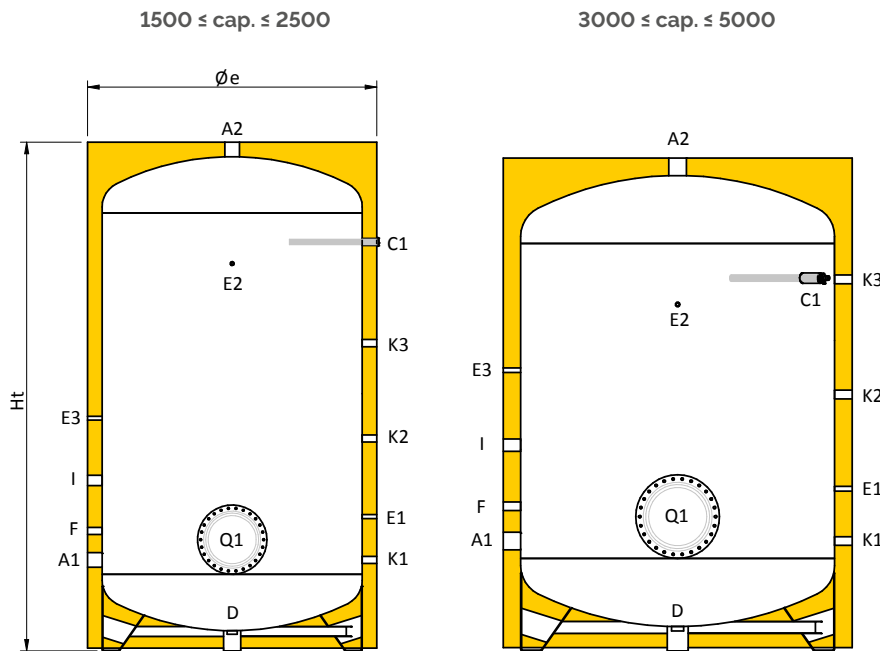
Table of heights

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm
1500	1350	2050	2455	505	1575	155	805	1575	1505	805	1165	505	1105	1345	605
2050	1400	2230	2535	540	1740	150	840	1740	1375	825	1075	540	1140	1380	655
2500	1600	2195	2716	605	1665	165	905	1665	1405	875	1205	605	1205	1445	720
3000	1600	2395	2775	605	1865	165	905	1865	1405	875	1205	605	1205	1445	720
4000	1800	2420	2900	630	1830	140	910	1830	1370	880	1130	630	1160	1450	745
5000	2000	2435	3030	615	1865	145	895	1865	1315	815	1115	615	1195	1435	730

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

ATV Container 8 bar Dimensions



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 (Øext/Øint) mm
1500	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400
2050	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400
2500	2 1/2"	2 1/2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400
3000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400
4000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400
5000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	Ø480/Ø400

Table of heights

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm
1500	1350	2050	2455	505	1575	155	805	1575	1505	805	1165	505	1105	1345	655
2050	1450	2120	2568	575	1635	180	800	1635	1475	850	1175	575	1050	1415	715
2500	1600	2195	2716	605	1665	165	905	1665	1405	875	1205	605	1205	1445	745
3000	1800	1985	2680	615	1435	145	895	1435	1315	815	1115	595	1195	1435	755
4000	2000	2020	2843	630	1450	140	910	1450	1370	880	1130	610	1160	1450	780
5000	2100	2186	3031	685	1525	155	925	1525	1485	885	1185	685	1225	1525	825

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

Storage Tanks for DHW ATX



PRICES

The ATX range consists of inertial hot water tanks made of highly corrosion-resistant stainless steel. The tanks are available in different capacities, from 200 to 5000 litres. They are equipped with flexible, highly insulating insulation and PVC lining, magnesium anode for protection against galvanic currents, and an inspection flange for easy access during inspection and maintenance.

Material: AISI 316 stainless steel

Internal protective treatment: pickling and passivation

Insulation

Capacity (l)	Type
from 200 to 5000	Polyester Fibre

Limit of use

Max. temperature	Max. pressure
95°C	6 bar

Accessories Included: Magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165



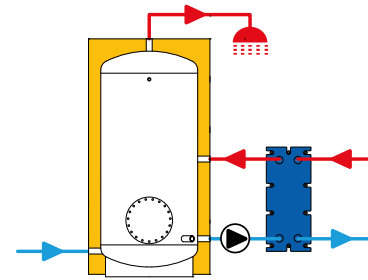
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MATCH YOUR EXCHANGER
(see p. 159)

Integration with WATEREADY
See page 280

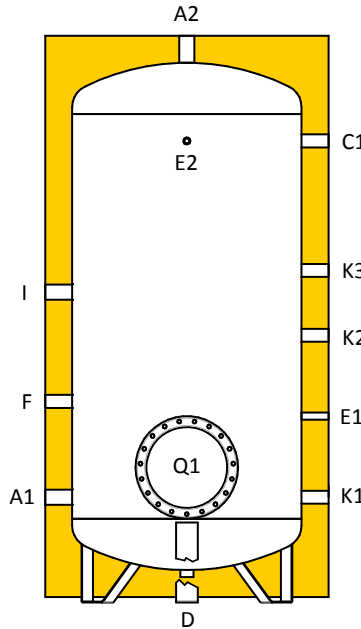
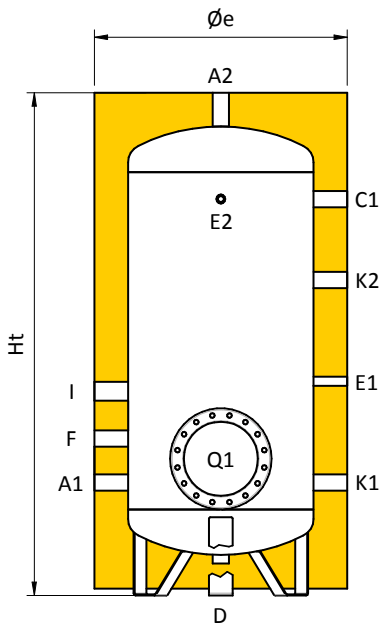
Cap. l	With hatchway			With vertical packaging
	Cod.*	Price	Energy class	Dimensions cm
200	317040188X	2.147,00 €	B	70x70x143
300	317040189X	2.342,00 €	B	80x80x160
500	317040190X	3.084,00 €	C	90x90x195
800	317040191X	3.724,00 €	C	100x100x200
1000	317040192X	4.395,00 €	C	110x110x230
1500	317040193X	6.946,00 €	C	130x130x240
2000	317040194X	9.026,00 €	C	150x150x250
2500	317040195X	9.755,00 €		150x150x280
3000	317040196X	10.575,00 €		150x150x300
4000	317040197X	13.306,00 €		170x170x305
5000	317040198X	18.028,00 €		190x190x310

Storage Tanks for DHW ATX



200 ≤ cap. ≤ 300

500 ≤ cap. ≤ 5000



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø300/Ø220
800	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350

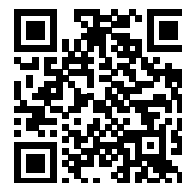
Table of heights

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	E1 mm	E2 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm
200	650	1410	1535	295	1135	595	1135	425	540	295	915	-	365
300	750	1490	1650	335	1175	635	1175	465	605	335	935	-	405
500	850	1770	1945	350	1420	650	1420	650	935	350	950	1190	420
800	990	1810	2045	370	1440	670	1440	700	1150	370	990	1210	480
1000	1050	2100	2330	390	1710	690	1710	745	1150	390	990	1230	500
1500	1250	2235	2555	490	1800	795	1800	795	1205	490	1090	1330	590
2000	1450	2315	2725	525	1835	830	1835	830	1240	525	1125	1365	650
2500	1400	2640	2895	560	2145	860	2145	845	1545	560	1160	1400	670
3000	1450	2850	3155	565	2340	790	2340	840	1740	565	1040	1405	680
4000	1600	2920	3295	590	2370	890	2370	860	1770	590	1190	1430	705
5000	1800	2960	3425	600	2375	900	2375	875	1775	600	1200	1440	715

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

Storage Tanks for DHW ATX 2F



PRICES

The ATX INOX 2F range consists of inertial hot water tanks with a double inspection port, in different capacities from 200 to 5000 litres. The two inspection flanges allow easy access during inspection and maintenance and the possible insertion of one or more exchangers. They are equipped with high insulating power insulation and external PVC coating, magnesium anode for protection against galvanic currents.

Material: AISI 316 stainless steel

Internal protective treatment: pickling and passivation

Insulation

Capacity (l)	Type
from 200 to 5000	Polyester Fibre

Limit of use

Max. temperature	Max. pressure
95°C	6 bar



Included accessories: magnesium sacrificial anode for all sizes.



Standard accessories: see page 163



Special executions: see page 165

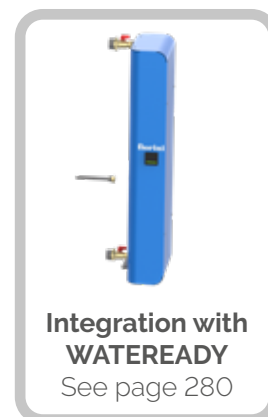
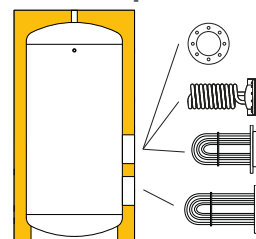


Attention! Locking plates are not included in the scope of delivery, but can be purchased and combined using the selection tables on page 204



TESTED

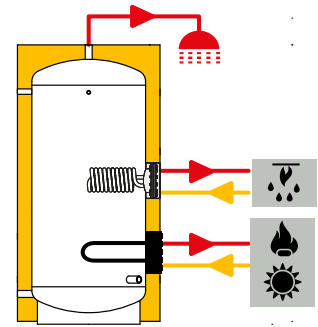
MATCH YOUR EXCHANGER (see p. 159)



Integration with WATEREADY
See page 280

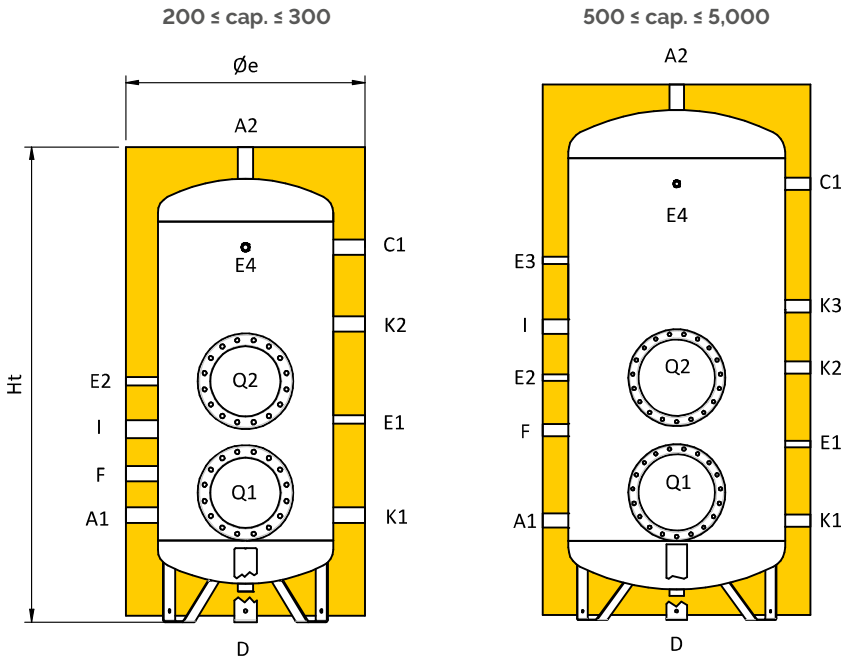
Capacity l	Code	Price	Energy class	With vert. packaging
				Dimensions cm
200	317040199X	2.463,00 €	B	70x70x155
300	317040200X	2.658,00 €	B	80x80x165
500	317040201X	3.435,00 €	C	90x90x195
750	317040202X	4.215,00 €	C	105x105x195
1000	317040203X	4.800,00 €	C	105x105x225
1500	317040204X	7.415,00 €	C	130x130x240
2000	317040205X	9.561,00 €	C	150x150x250
2500	317040206X	10.068,00 €		145x145x280
3000	317040207X	11.121,00 €		150x150x300
4000	317040208X	13.852,00 €		165x165x310
5000	317040209X	18.652,00 €		185x85x315

Storage Tanks for DHW ATX 2F



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port
Q2	Inspection port



Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	E4 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	Q1 - Q2 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø300/Ø220
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	Ø430/Ø350

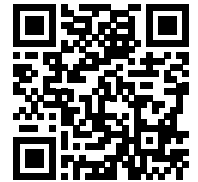
Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm	Q2** mm
200	650	1410	1535	295	1135	605	715	-	1135	425	540	295	915	-	365	715
300	750	1490	1650	335	1175	635	755	-	1175	465	605	335	935	-	405	755
500	850	1770	1945	350	1420	650	770	1120	1420	650	935	350	950	1190	420	770
750	990	1810	2045	370	1440	690	930	1400	1440	690	1150	370	990	1210	480	930
1000	1050	2100	2330	390	1710	690	950	1410	1710	745	1150	390	990	1230	500	950
1500	1250	2235	2555	490	1800	795	1005	1465	1800	795	1205	490	1090	1330	590	1070
2000	1450	2315	2725	525	1835	830	1040	1500	1835	830	1240	525	1125	1365	650	1180
2500	1400	2640	2895	555	2140	855	1340	1800	2140	840	1540	555	1155	1395	670	1200
3000	1450	2850	3155	565	2340	790	1540	2000	2340	840	1740	565	1315	1040	680	1210
4000	1600	2920	3295	590	2370	890	1570	2030	2370	860	1770	590	1190	1430	705	1235
5000	1800	2960	3425	600	2375	900	1575	2035	2375	875	1775	600	1600	1440	715	1245

R': Tipping height

Q1**/Q2**: height from the centre of the hatch to the ground

Water heater with fixed heat exchanger MAXICELL



PRICES

MAXICELL is the fixed coil boiler with a compact shape designed for under-boiler installation. Thanks to its dimensions, it fits easily even in narrow niches as all hydraulic connections are located at the top, providing convenient access during installation. The use of efficient rigid polyurethane foam insulation ensures long-term water temperature maintenance and economical operation. The glass lined tank body ensures accurate protection of the inner surface, and the replaceable magnesium anode provides additional corrosion protection. The outer casing is made of white painted sheet metal.

Material: carbon steel S 235 JR

Internal protective treatment: Glass-lining coating

Insulation

Capacity (l)	Type
from 100 to 200	High-density rigid polyurethane foam

Limit of use

Tank side		Primary circuit	
Temperature max.	Pressure max.	Temperature max.	Pressure max.
95°C	6 bar	110°C	12 bar

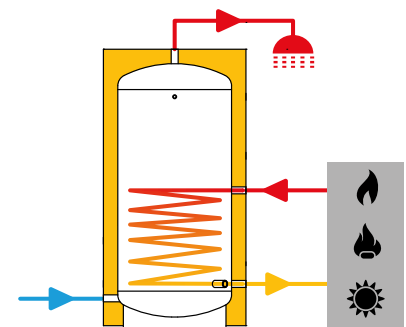


TESTED

Included accessories: magnesium sacrificial anode and thermometer.

Standard accessories: see page 163

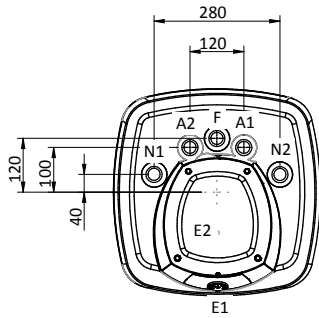
Special executions: see page 165



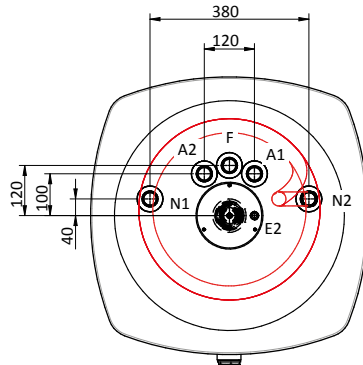
Capacity l	Code	Price	Energy class	Empty weight kg
100	319060192X	966,00 €	C	57
120	319060193X	1.027,00 €	C	62
140	319060190X	1.079,00 €	C	67
200	319060191X	1.401,00 €	C	85

Water heater with fixed heat exchanger MAXICELL

100 ≤ cap. ≤ 140

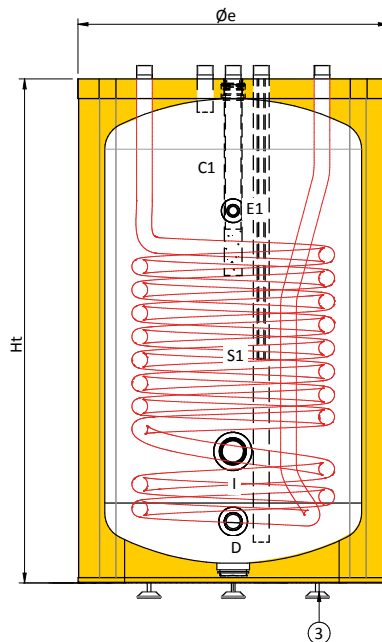
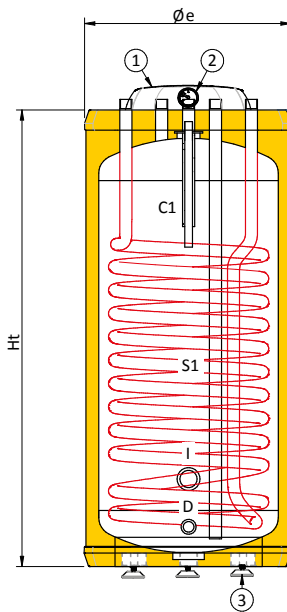


cap. = 200



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Thermometer
E2	Probe
F	Recirculation
I	Electrical Resistance
N1	Exchanger outlet
N2	Exchanger inlet
S1	Exchanger
1	Flange cover
2	Thermometer
3	Adjustable feet



Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	F inches	I inches	N1 inches	N2 inches
100	3/4"	3/4"	1 1/4"	3/4"	3/8"	3/8"	3/4"	1 1/4"	3/4"	3/4"
120	3/4"	3/4"	1 1/4"	3/4"	3/8"	3/8"	3/4"	1 1/4"	3/4"	3/4"
140	3/4"	3/4"	1 1/4"	3/4"	3/8"	3/8"	3/4"	1 1/4"	3/4"	3/4"
200	1"	1"	1 1/4"	1"	1/2"	3/8"	1"	1 1/2"	1"	1"

Size table

Cap. l	Øe mm	Ht mm	D mm	I mm	S1 m ²
100	455	1030	90	195	1,2
120	455	1130	90	195	1,2
140	455	1280	90	195	1,2
200	650	1130	130	280	1,6

Water heater with fixed heat exchanger VERTINOX 1



PRICES

The VERTINOX 1 range consists of domestic hot water boilers, equipped with a single fixed coil, available in different capacities from 200 to 3000 litres. They are equipped with different types of insulation according to capacity (see Insulation table), PVC outer jacket, magnesium anode for protection against galvanic currents, inspection flange for easy access during inspection and maintenance.

Material: AISI 316 stainless steel

Internal protective treatment: pickling and passivation

Insulation

Capacity (l)	Type
from 200 to 3,000	Polyester Fibre

Limit of use

Tank side		Primary circuit	
Temperature max.	Pressure max.	Temperature max.	Pressure max.
95°C	6 bar	110°C	12 bar



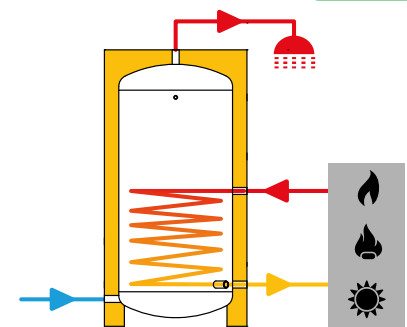
TESTED


Accessories Included: Magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165

Capacity l	Code	Price	Energy class	With vert. packaging
				Dimensions cm
200	319040114X	2.605,00 €	B	70x70x165
300	319040115X	2.964,00 €	B	80x80x170
500	319040116X	3.531,00 €	C	90x90x190
750	319040117X	4.389,00 €	C	100x100x210
1000	319040118X	5.701,00 €	C	110x110x230
1500	319040119X	8.707,00 €	C	130x130x240
2000	319040120X	10.517,00 €	C	150x150x250
2500	319040121X	13.248,00 €		150x150x275
3000	319040122X	14.713,00 €		150x150x300

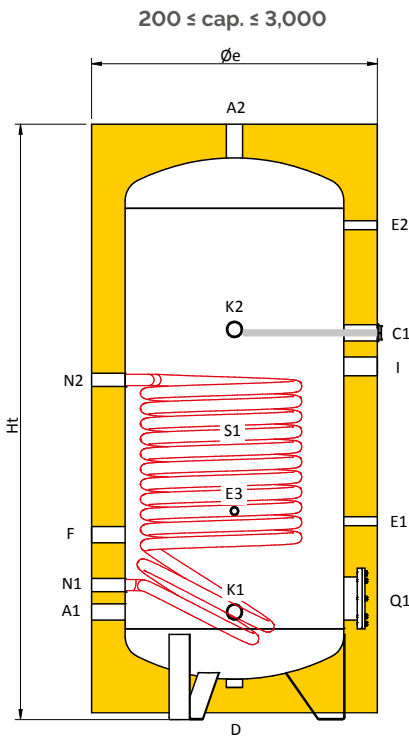




Integration with WATEREADY

See page 280

Water heater with fixed heat exchanger VERTINOX 1



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
N1	Exchanger outlet
N2	Exchanger inlet
Q1	Inspection port
S1	Lower Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	N1 inches	N2 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	3/4"	3/4"	Ø180/Ø120
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	3/4"	3/4"	Ø180/Ø120
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø180/Ø120
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø180/Ø120
1500	1 1/2	1 1/2	1 1/4	1 1/2	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
2000	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
2500	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
3000	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220

Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	N1 mm	N2 mm	K1 mm	K2 mm	Q1 mm
200	650	1410	1535	265	880	120	535	1165	565	495	800	345	775	265	1105	305
300	750	1490	1650	305	920	120	575	1205	605	535	840	385	815	305	1145	345
500	850	1770	1945	320	1150	120	590	1470	620	550	1050	400	1010	320	1160	360
750	990	1810	2045	340	1090	120	610	1490	640	570	1010	420	970	340	1180	380
1000	1050	2100	2350	390	1320	120	630	1760	690	620	1220	470	1180	390	1230	400
1500	1250	2235	2560	480	1400	165	840	1850	780	710	1300	560	1210	480	1320	560
2000	1450	2315	2735	515	1455	155	875	1885	815	765	1355	615	1275	515	1355	595
2500	1400	2615	2970	515	1555	155	875	2155	815	765	1455	615	1385	515	1355	595
3000	1450	2850	3200	545	1715	180	905	2385	845	805	1615	655	1480	545	1385	625

R': Tipping height

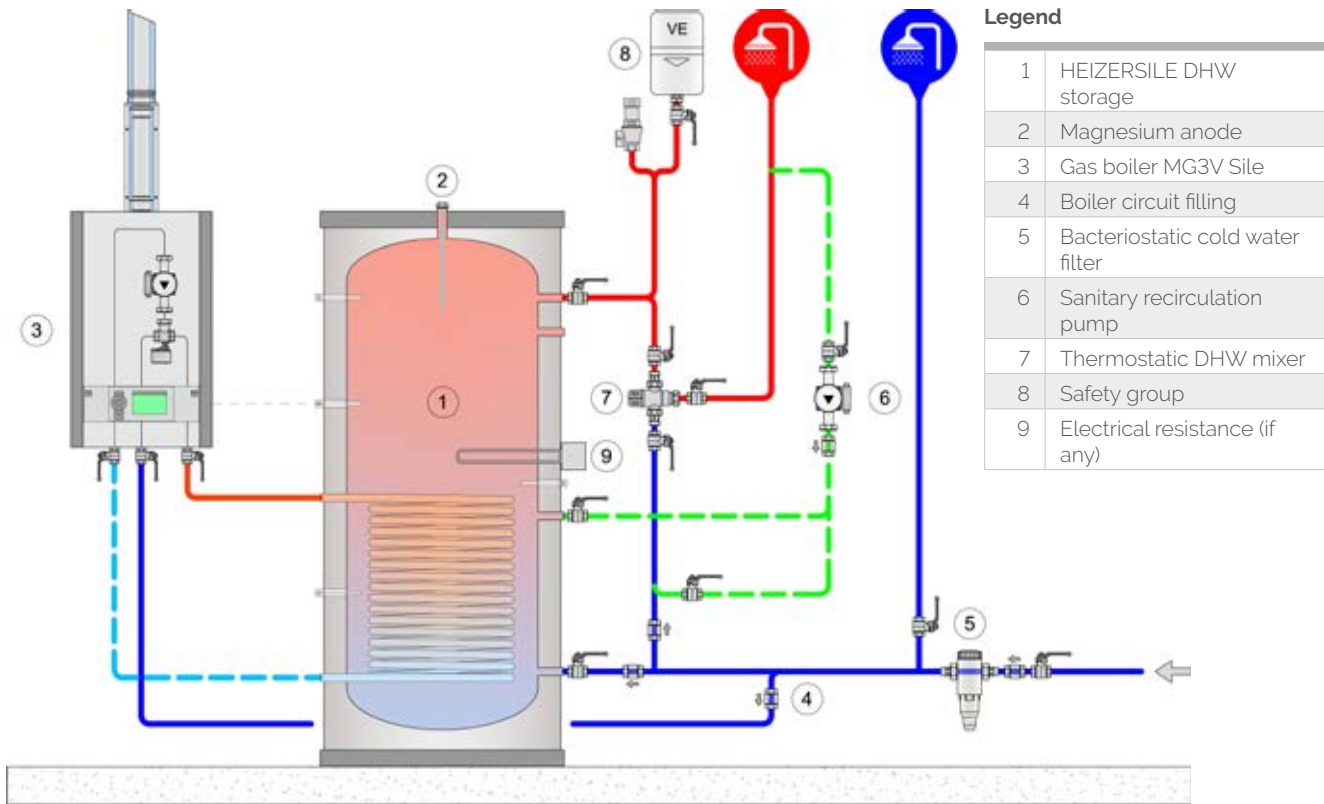
Q1'': height from the centre of the hatch to the ground

Technical Insights for VERTINOX 1 Series

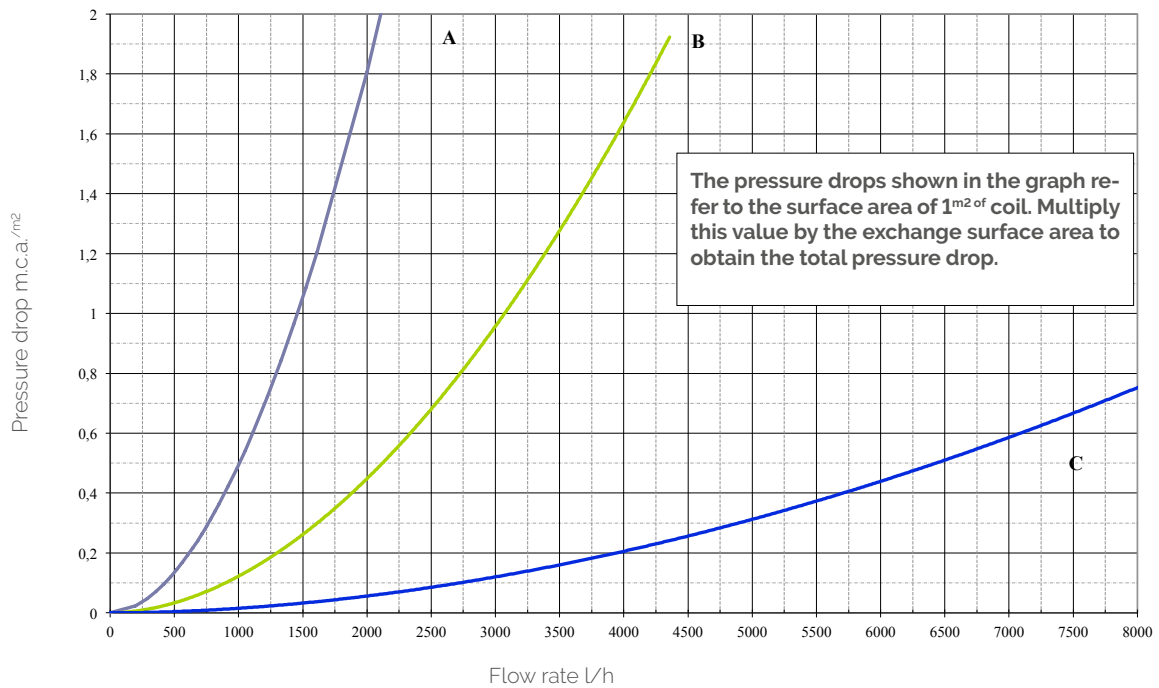
Capacity	Ti	Hot Water Production TiACS = 10°C						Exchanger	
		TuACS= 45°C		TuACS = 60°C		Ta = 50°C TuACS = 45°C	Ta = 60°C TuACS = 45°C	Surface	Nominal flow rate
		L/h (a)	kW (b)	L/h (c)	kW (d)	L/10 min. (e)	L/10 min. (f)	m ²	mc/h
200	70	565	23	275	16	306	349	0,8	3,0
	80	761	31	430	25	339	382		
	90	884	36	516	30	360	402		
300	70	737	30	361	21	441	505	1,2	3,0
	80	982	40	550	32	482	546		
	90	1154	47	670	39	511	575		
500	70	1105	45	550	32	716	822	1,8	3,0
	80	1474	60	825	48	777	883		
	90	1744	71	1014	59	822	928		
800	70	1400	57	688	40	1084	1254	2,7	4,0
	80	1867	76	1032	60	1162	1332		
	90	2186	89	1290	75	1215	1385		
1000	70	1842	75	911	53	1370	1583	3,5	6,0
	80	2481	101	1376	80	1477	1690		
	90	2924	119	1720	100	1551	1763		
1500	70	2309	94	1135	66	1980	2299	4,0	6,0
	80	3120	127	1720	100	2115	2434		
	90	3661	149	2150	125	2205	2525		
2000	70	2801	114	1376	80	2594	3020	4,8	8,0
	80	3734	152	2064	120	2749	3175		
	90	4373	178	2562	149	2856	3282		
2500	70	3292	134	1634	95	3208	3740	5,6	8,0
	80	4398	179	2442	142	3392	3924		
	90	5160	210	3027	176	3519	4051		
3000	70	3734	152	1823	106	3813	4452	6,4	8,0
	80	4963	202	2752	160	4018	4656		
	90	5823	237	3440	200	4161	4800		

- at continuous DHW flow rate with TuACS= 45°C
- b exchanger power with TuACS=45°C
- c continuous DHW flow rate with TuACS= 60°C
- d exchanger power with TuACS=60°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- f quantity of DHW delivered at 45°C in the first 10 min. with storage at 60°C
- Exchanger capacity: 6.40 L/m²

Technical Insights for VERTINOX 1 Series

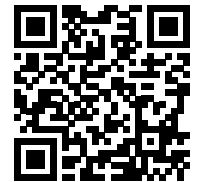


Fixed exchanger pressure losses



A) 200 l storage B) 300 to 500 l storage included C) 800 to 3000 l storage

Water heater with fixed double heat exchanger - VERTINOX 2



PRICES

The VERTINOX 2 range consists of domestic hot water boilers, equipped with a fixed double coil, available in different capacities, from 200 to 3000 litres. They are equipped with different types of insulation according to capacity (see table Insulation), PVC outer jacket, magnesium anode for protection against galvanic currents, inspection flange for easy access during inspection and maintenance.

Material: AISI 316 stainless steel

Internal protective treatment: pickling and passivation

Insulation

Capacity (l)	Type
from 200 to 3,000	Polyester Fibre

Limit of use

Tank side		Primary circuit	
Temperature max.	Pressure max.	Temperature max.	Pressure max.
95°C	6 bar	110°C	12 bar

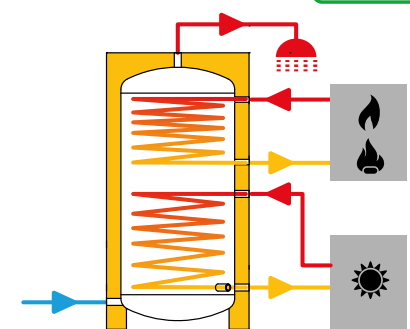
Accessories Included: Magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

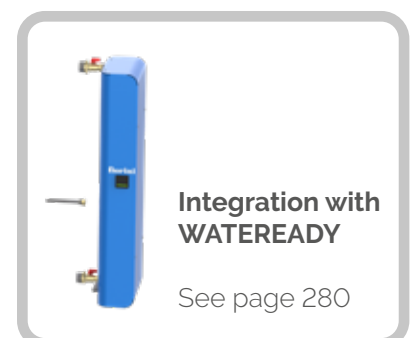
Special executions: see page 165



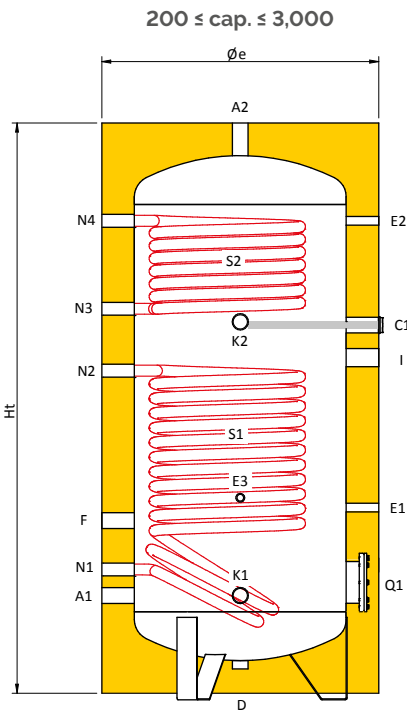
TESTED



Capacity l	Code	Price	Energy class	With vertical packaging
				Dimensions cm
200	319040123X	2.982,00 €	B	70x70x160
300	319040124X	3.393,00 €	B	80x80x165
500	319040125X	4.224,00 €	C	90x90x195
750	319040126X	5.073,00 €	C	100x100x200
1000	319040127X	6.894,00 €	C	110x110x225
1500	319040128X	9.439,00 €	C	130x130x240
2000	319040129X	11.321,00 €	C	150x150x245
2500	319040130X	14.190,00 €		150x150x275
3000	319040131X	15.666,00 €		150x150x300



Water heater with fixed double heat exchanger - VERTINOX 2



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
D	Drain
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
Q1	Inspection port
S1	Lower Exchanger
S2	Upper Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	N1 inches	N2 inches	N3 inches	N4 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	3/4"	3/4"	3/4"	3/4"	Ø180/Ø120
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	3/4"	3/4"	3/4"	3/4"	Ø180/Ø120
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1"	1"	1"	1"	Ø180/Ø120
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø180/Ø120
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø180/Ø120
1500	1 1/2	1 1/2	1 1/4	1 1/2	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
2000	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
2500	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220
3000	1 1/2	1 1/2	1 1/4	2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	Ø300/Ø220

Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	N1 mm	N2 mm	N3 mm	N4 mm	Q1** mm
200	650	1410	1535	265	880	120	535	1165	565	495	800	265	1105	920	1165	265	1105	305
300	750	1490	1650	305	920	120	575	1205	605	535	840	305	1145	995	1205	305	1145	345
500	850	1770	1945	320	1150	120	590	1470	620	550	1050	320	1160	1200	1470	320	1160	360
750	990	1810	2045	340	1090	120	610	1490	640	570	1010	340	1180	1160	1490	340	1180	380
1000	1050	2100	2350	390	1320	120	630	1760	690	620	1220	390	1230	1430	1760	390	1230	400
1500	1250	2235	2560	480	1400	165	840	1850	780	710	1300	480	1320	1490	1820	480	1320	560
2000	1450	2315	2735	515	1455	155	875	1885	815	765	1355	515	1355	1585	1855	515	1355	595
2500	1400	2615	2970	515	1555	155	875	2155	815	765	1455	515	1355	1830	2155	515	1355	595
3000	1450	2850	3200	545	1715	180	905	2385	845	805	1615	655	1385	2040	2365	545	1385	625

R': Tipping height

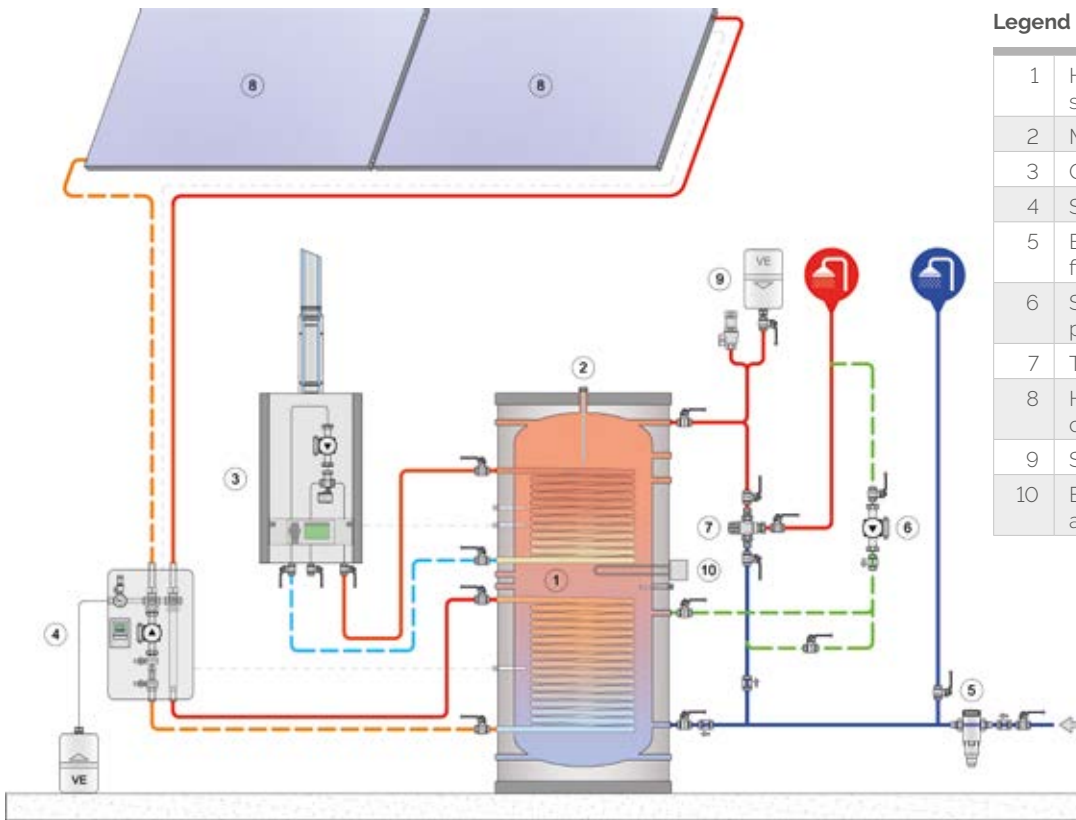
Q1'': height from the centre of the hatch to the ground

Technical Insights for VERTINOX 2 Series

Capacity	Ti	Hot Water Production TiACS = 10°C (Upper exchanger)						Upper exchanger	Exchanger lower	Nominal flow rate
		TuACS= 45°C		TuACS = 60°C		Ta = 50°C TuACS = 45°C	Ta = 60°C TuACS = 45°C	Surface	Surface	
		L/h (a)	kW (b)	L/h (c)	kW (d)	L/10 min. (e)	L/10 min. (f)	m²	m²	
200	70	270	11	137	8	257	300	0,5	0,8	3,0
	80	368	15	206	12	274	316			
	90	442	18	258	15	286	328			
300	70	344	14	154	9	376	440	0,7	1,2	3,0
	80	442	18	258	15	392	456			
	90	516	21	309	18	405	468			
500	70	589	24	292	17	630	736	1,0	1,8	3,0
	80	786	32	430	25	662	769			
	90	909	37	533	31	683	789			
800	70	688	28	344	20	965	1135	1,6	2,7	4,0
	80	933	38	516	30	1006	1176			
	90	1081	44	636	37	1031	1201			
1000	70	688	28	344	20	1178	1391	1,8	3,5	6,0
	80	933	38	516	30	1219	1432			
	90	1081	44	636	37	1243	1456			
1500	70	909	37	447	26	1747	2066	1,6	4,0	6,0
	80	1228	50	688	40	1800	2119			
	90	1449	59	860	50	1837	2156			
2000	70	1154	47	567	33	2319	2745	2,0	4,8	8,0
	80	1548	63	860	50	2385	2811			
	90	1818	74	1066	62	2430	2856			
2500	70	1400	57	688	40	2892	3424	2,4	5,6	8,0
	80	1867	76	1049	61	2970	3502			
	90	2211	90	1290	75	3028	3559			
3000	70	1400	57	688	40	3424	4063	2,4	6,4	8,0
	80	1867	76	1032	60	3502	4140			
	90	2186	89	1290	75	3555	4194			

- at continuous DHW flow rate with TuACS= 45°C
- b exchanger power with TuACS=45°C
- c continuous DHW flow rate with TuACS= 60°C
- d exchanger power with TuACS=60°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- f quantity of DHW delivered at 45°C in the first 10 min. with storage at 60°C
- Exchanger capacity: 6.40 L/m²

Technical Insights for VERTINOX 2 Series

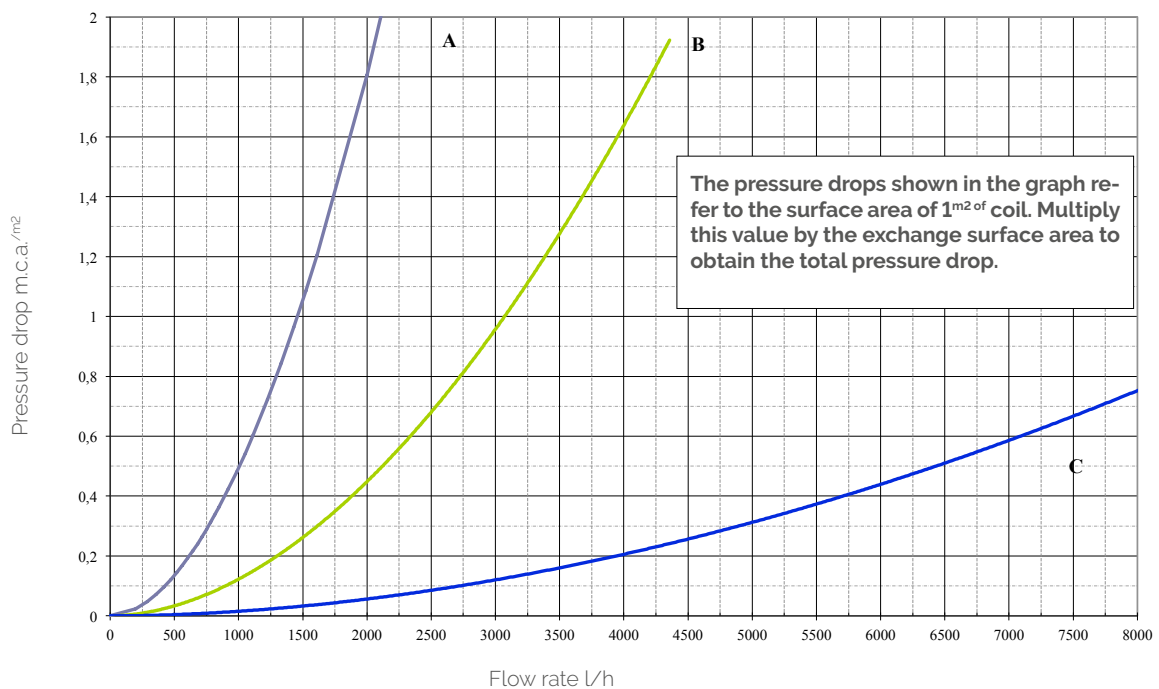


Legend

1	HEIZERSILE DHW storage
2	Magnesium anode
3	Gas boiler MG3V Sile
4	Solar thermal return unit
5	Bacteriostatic cold water filter
6	Sanitary recirculation pump
7	Thermostatic DHW mixer
8	HEIZERSILE solar collectors
9	Safety group
10	Electrical resistance (if any)

DHW TANKS

Fixed exchanger pressure losses



A) 200 l storage B) 300 to 500 l storage included C) 800 to 3000 l storage

Water heater with fixed heat exchanger - BSFV 1



PRICES

The BSFV 1 range consists of domestic hot water boilers, equipped with a single fixed coil, available in different capacities, from 200 to 3000 litres. They are equipped with different types of insulation according to capacity (see table Insulation), PVC outer jacket, magnesium anode for protection against galvanic currents, inspection flange for easy access during inspection and maintenance.

Material: carbon steel S 235 JR

Internal protective treatment: Tanks with capacities up to 1000 l are treated with food-safe inorganic vitreous enamel according to DIN 4753.3, those with capacities from 1500 to 3000 l are enamelled with Bluetech.



Insulation

Capacity (l)	Type
from 200 to 1000	High-density rigid polyurethane foam
from 1500	Polyester Fibre

Limit of use

Capacity (l)	Tank side		Primary circuit	
	Temp. max.	Pressure max.	Temp. max.	Pressure max.
from 200 to 1000	95°C	10 bar	110°C	12 bar
from 1500 to 3000	80°C	6 bar	110°C	12 bar

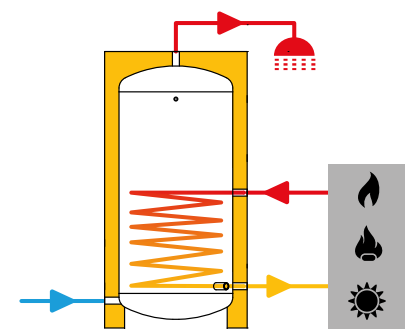


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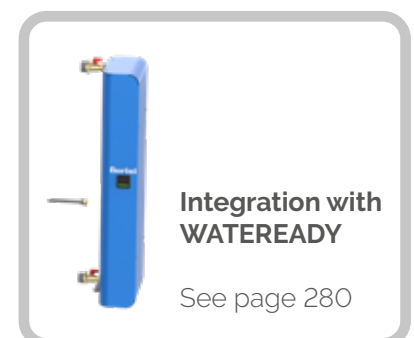
Accessories Included: safety valve and thermometer for sizes up to 1000 l, magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

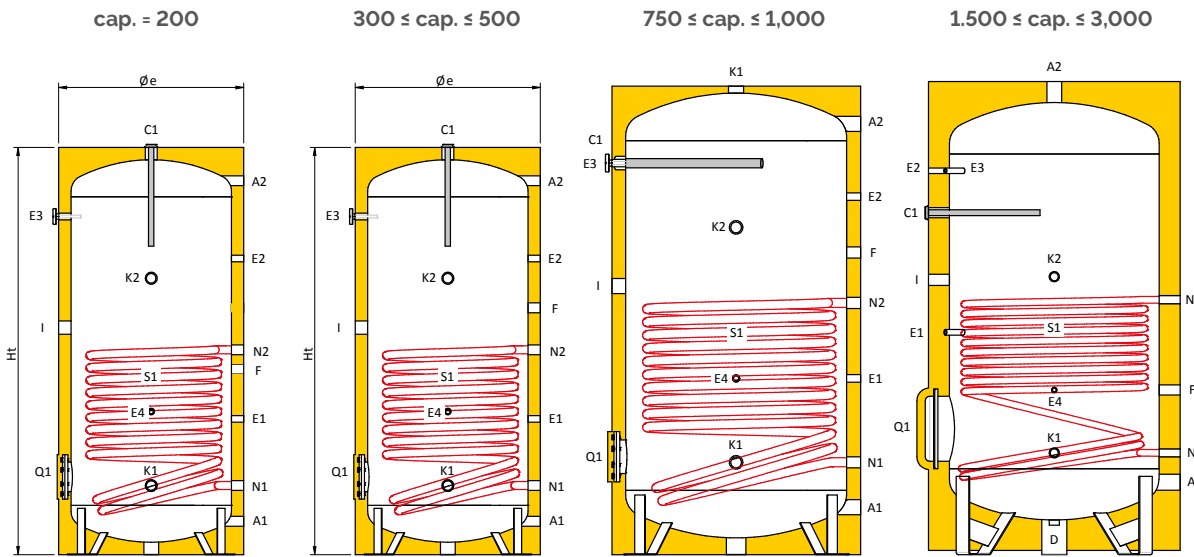
Special executions: see page 165



Capacity l	Code	Price	Energy class	With vertical packaging	
				Dimensions cm	Weight kg
200	319060318X	1.350,00 €	B	60X60X150	74
300	319060319X	1.570,00 €	B	70X70X150	103
500	319060320X	2.083,00 €	C	80X80X180	143
750	319060321X	3.169,00 €	C	95X95X185	213
1000	319060322X	3.442,00 €	C	110X110X210	251
1500	319080001X	4.847,00 €	C	130X130X240	295
2000	319080002X	5.750,00 €	C	140X140X275	380
3000	319080005X	7.000,00 €		150X150X300	469



Water heater with fixed heat exchanger BSFV 1



Connection legend

A1	Domestic water inlet	F	Recirculation
A2	Domestic water outlet	I	Electrical Resistance
C1	Anode	K1	Auxiliary
D	Drain	K2	Auxiliary
E1	Probe/Thermometer	N1	Exchanger outlet
E2	Probe/Thermometer	N2	Exchanger inlet
E3	Probe/Thermometer	Q1	Inspection port
E4	Probe/Thermometer	S1	Lower Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	E4 inches	F inches	I inches	K1 inches	K2 inches	N1 inches	N2 inches	Q (Øext/Øint) mm
200	1"	1"	1 1/4	-	1/2"	1/2"	1/2"	1/2"	1"	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
300	1"	1"	1 1/4	-	1/2"	1/2"	1/2"	1/2"	1"	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
500	1"	1"	1 1/4	-	1/2"	1/2"	1/2"	1/2"	1"	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
750	1 1/2	1 1/2	1 1/4	-	1/2"	1/2"	1/2"	1/2"	1"	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
1000	1 1/2	1 1/2	1 1/4	-	1/2"	1/2"	1/2"	1/2"	1"	1 1/2	1 1/4	1 1/4	1"	1"	Ø180/Ø120
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1"	1"	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1"	1"	Ø380/Ø300
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1"	1"	Ø380/Ø300

Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	A2 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	N1 mm	N2 mm	Q1** mm
200	560	1325	1440	120	1220	1325	-	385	970	1115	525	555	840	225	1065	225	705	270
300	660	1380	1530	130	1260	1380	-	500	1095	1145	555	925	855	255	1095	255	800	305
500	760	1650	1820	135	1515	1650	-	550	1200	1370	580	1000	920	280	1120	280	830	315
750	910	1675	1910	170	1540	1400	-	630	1280	1400	630	1080	960	330	1170	330	900	350
1000	1010	1965	2210	190	1810	1670	-	660	1300	1670	650	1100	980	350	1190	350	920	370
1500	1250	2280	2605	345	-	1630	165	1060	1830	1830	785	785	1310	485	1325	485	1215	600
2000	1350	2600	2930	345	-	1965	155	1165	2150	2150	780	815	1495	490	1320	490	1325	605
3000	1450	2870	3220	400	-	2120	180	1375	2410	2410	850	875	1625	550	1390	550	1540	665

R': Tipping height

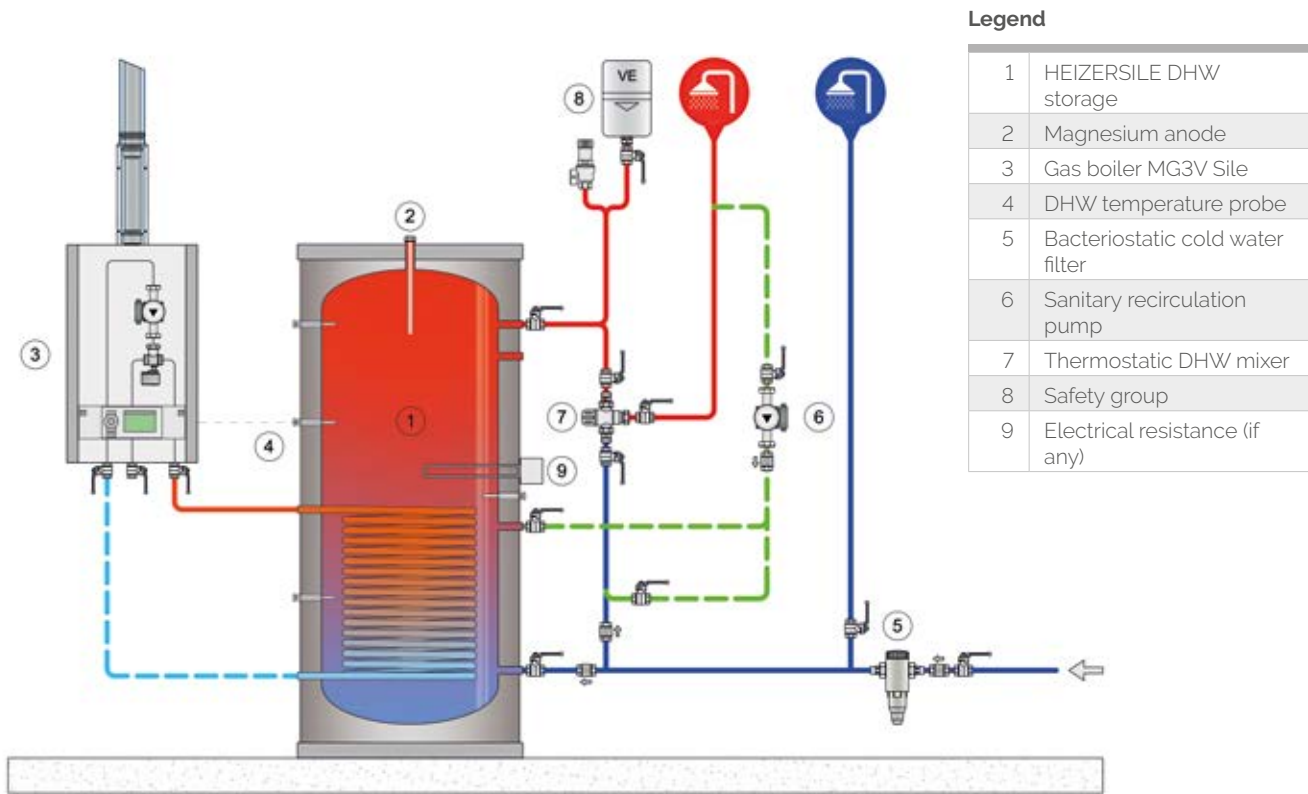
Q1'': height from the centre of the hatch to the ground

Technical Insights for BSFV 1 Series

Capacity	Ti	Hot Water Production TiACS = 10°C						Exchanger	
		TuACS= 45°C		TuACS = 60°C		Ta = 50°C TuACS = 45°C	Ta = 60°C TuACS = 45°C	Surface	Nominal flow rate
		L/h (a)	kW (b)	L/h (c)	kW (d)	L/10 min. (e)	L/10 min. (f)	m ²	mc/h
200	70	810	33	395	23	347	390	1	3
	80	1081	44	602	35	392	435		
	90	1253	51	739	43	421	464		
300	70	810	33	395	23	454	517	1.3	3
	80	1081	44	602	35	499	563		
	90	1253	51	739	43	527	591		
500	70	1179	48	584	34	728	834	1.8	3
	80	1572	64	877	51	793	900		
	90	1842	75	1083	63	838	945		
750	70	1400	57	688	40	1031	1190	2.5	3
	80	1867	76	1032	60	1109	1268		
	90	2186	89	1290	75	1162	1321		
1000	70	1572	64	774	45	1325	1538	2.7	3
	80	2113	86	1169	68	1415	1628		
	90	2481	101	1462	85	1477	1690		
1500	70	2137	87	1049	61	1951	2271	3.7	4
	80	2874	117	1599	93	2074	2393		
	90	3390	138	1995	116	2160	2479		
2000	70	2506	102	1221	71	2545	2970	4.3	4
	80	3341	136	1840	107	2684	3110		
	90	3931	160	2287	133	2782	3208		
3000	70	3022	123	1479	86	3695	4333	5.2	4
	80	4029	164	2236	130	3862	4501		
	90	4717	192	2786	162	3977	4615		

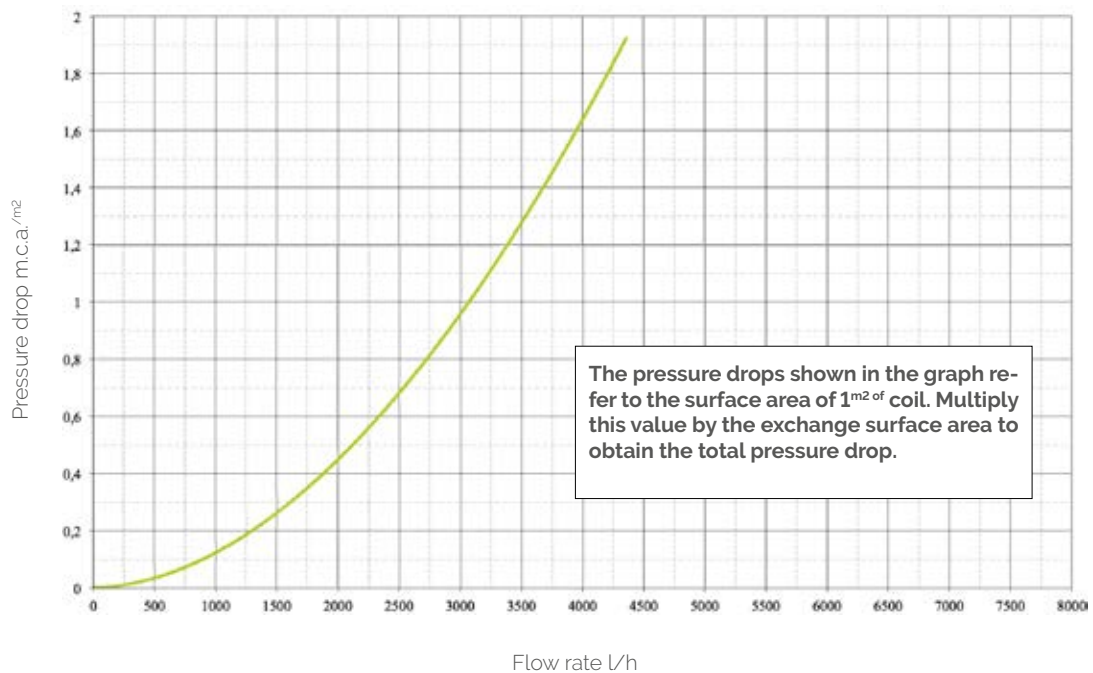
- at continuous DHW flow rate with TuACS= 45°C
- b exchanger power with TuACS=45°C
- c continuous DHW flow rate with TuACS= 60°C
- d exchanger power with TuACS=60°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- f quantity of DHW delivered at 45°C in the first 10 min. with storage at 60°C
- Exchanger capacity: 6.40 L/m²

Technical Insights for BSFV 1 Series



DHW TANKS

Fixed exchanger pressure losses



Water heater with double fixed heat exchanger - BSFV 2



PRICES

The BSFV 2 range consists of domestic hot water boilers, equipped with a fixed double coil, available in different capacities, from 200 to 3000 litres. They are equipped with different types of insulation according to capacity (see Insulation table), PVC outer jacket, magnesium anode for protection against galvanic currents, and an inspection flange for easy access during inspection and maintenance.

Material: carbon steel S 235 JR

Internal protective treatment: Tanks with capacities up to 1000 l are treated with food-safe inorganic vitreous enamel according to DIN 4753.3, those with capacities from 1500 to 3000 l are enamelled with Bluetech.



Insulation

Capacity (l)	Type
from 200 to 1000	High-density rigid polyurethane foam
by 1500	Polyester Fibre

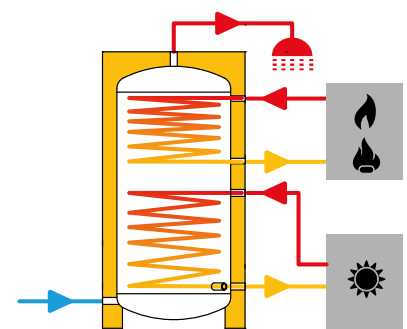
Limit of use

Capacity (l)	Tank side		Primary circuit	
	Temp. max.	Pressure max.	Temp. max.	Pressure max.
from 200 to 1000	95°C	10 bar	110°C	12 bar
from 1500 to 3000	80°C	6 bar	110°C	12 bar

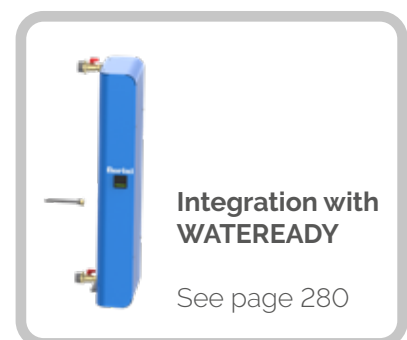
Accessories Included: safety valve and thermometer for sizes up to 1000 l, magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

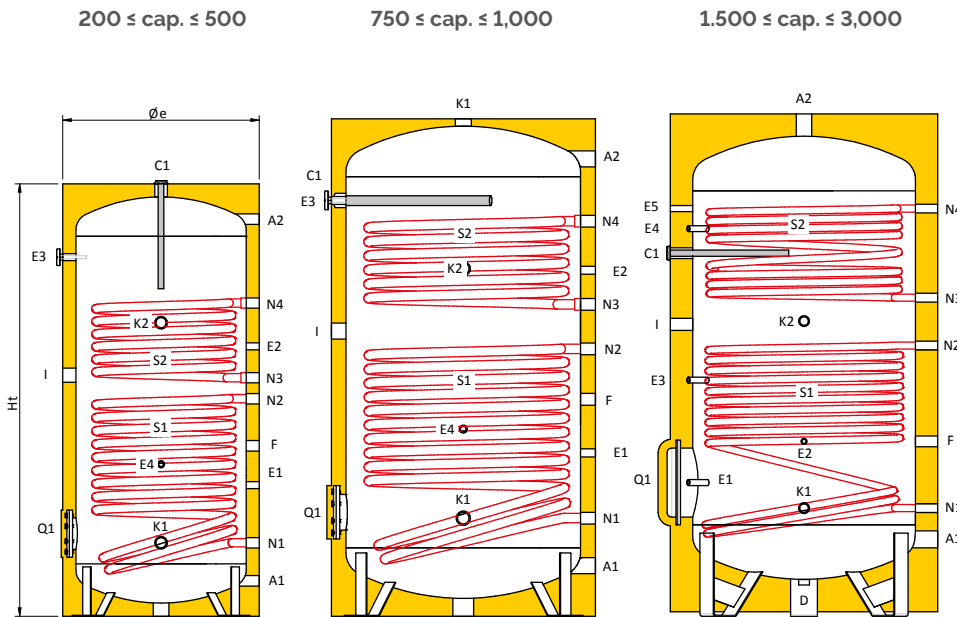
Special executions: see page 165



Capacity l	Code	Price	Energy class	With vertical packaging	
				Dimensions cm	Weight kg
200	319060323X	1.484,00 €	B	60x60x150	84
300	319060324X	1.759,00 €	B	70x70x155	119
500	319060325X	2.250,00 €	C	80x80x180	158
750	319060326X	3.520,00 €	C	95x95x185	229
1000	319060327X	3.938,00 €	C	110x110x210	270
1500	319080003X	5.381,00 €	C	130x130x245	320
2000	319080004X	5.941,00 €	C	140x140x275	417
3000	319080006X	7.606,00 €		150x150x300	504



Water heater with double fixed heat exchanger BSFV 2



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
E5	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
Q1	Inspection port
S1	Lower Exchanger
S2	Upper Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	E4 inches	E5 inches	F inches	I inches	K1 inches	K2 inches	N1 inches	N2 inches	N3 inches	N4 inches	Q1 (Øext/Øint) mm
200	1"	1"	1 1/4"	-	1/2"	1/2"	1/2"	-	-	1"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø180/Ø120
300	1"	1"	1 1/4"	-	1/2"	1/2"	1/2"	-	-	1"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø180/Ø120
500	1"	1"	1 1/4"	-	1/2"	1/2"	1/2"	-	-	1"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø180/Ø120
750	1 1/2"	1 1/2"	1 1/4"	-	1/2"	1/2"	1/2"	-	-	1"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø180/Ø120
1000	1 1/2"	1 1/2"	1 1/4"	-	1/2"	1/2"	1/2"	-	-	1"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø180/Ø120
1500	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø380/Ø300
2000	2"	2"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø380/Ø300
3000	3"	3"	1 1/4"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/4"	1 1/2"	1 1/4"	1 1/4"	1"	1"	1"	1"	Ø380/Ø300

Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	A2 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	E4 mm	E5 mm	F mm	I mm	K1 mm	K2 mm	N1 mm	N2 mm	N3 mm	N4 mm	Q1 mm
200	560	1325	1440	120	1220	1325	-	390	910	1115	-	-	520	755	230	1070	230	710	810	1045	280
300	660	1380	1530	130	1260	1380	-	415	985	1145	-	-	545	770	245	1085	245	720	820	1100	295
500	760	1650	1820	135	1515	1650	-	500	1030	1350	-	-	650	860	280	1120	280	810	910	1195	320
750	910	1675	1910	170	1540	1400	-	550	1165	1400	-	-	730	980	330	1170	330	900	1050	1330	350
1000	1010	1965	2210	190	1810	1670	-	570	1235	1670	-	-	730	970	350	1190	350	920	1070	1400	380
1500	1250	2280	2605	345	2280	1630	165	600	785	1060	1740	1830	785	1310	485	1325	485	1215	1430	1830	600
2000	1350	2600	2930	345	2600	1965	155	605	780	1165	2065	2150	815	1495	480	1320	480	1325	1690	2150	605
3000	1450	2870	3220	400	2870	2120	180	665	850	1375	2225	2410	875	1625	550	1390	550	1540	1680	2410	665

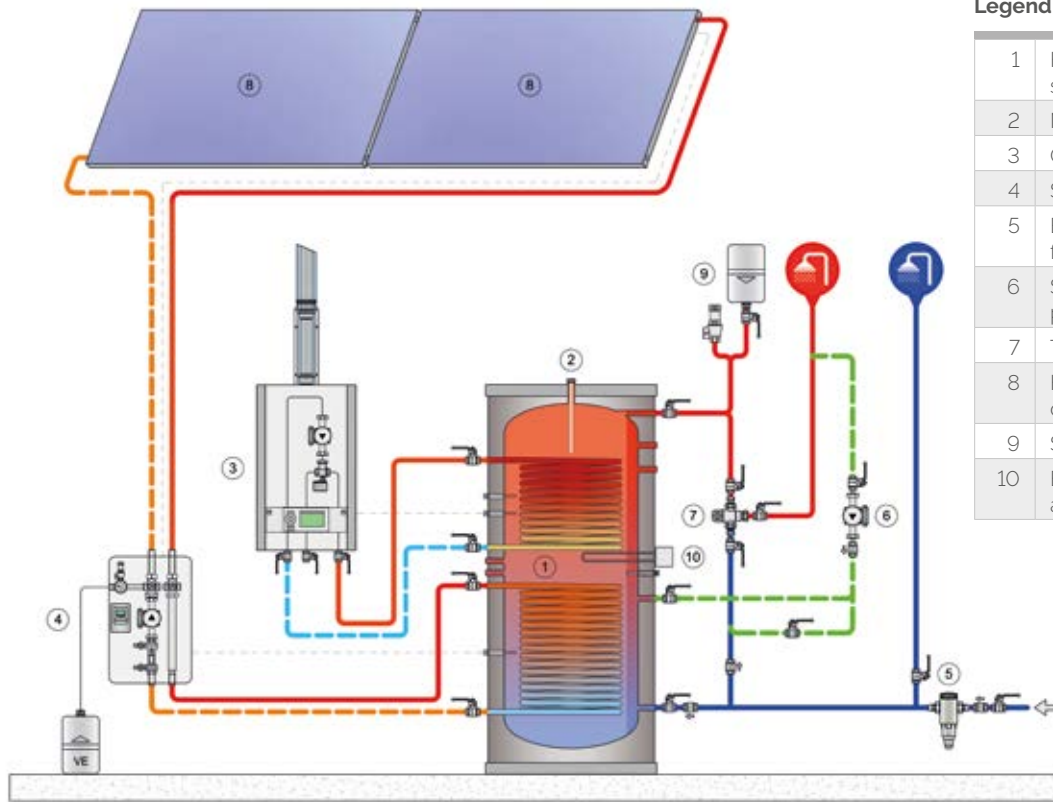
R': Tipping height

Technical Insights for BSFV 2 Series

Capacity	Ti	Hot Water Production TiACS = 10°C						Upper exchanger	Exchanger lower	Nominal flow rate
		TuACS= 45°C		TuACS = 60°C		Ta = 50°C TuACS = 45°C	Ta = 60°C TuACS = 45°C	Surface	Surface	
		L/h (a)	kW (b)	L/h (c)	kW (d)	L/10 min. (e)	L/10 min. (f)	m²	m²	
200	70	417	17	206	12	282	324	0.5	1	3
	80	540	22	292	17	302	345			
	90	614	25	361	21	315	357			
300	70	638	26	309	18	425	489	0.8	1.3	3
	80	860	35	481	28	462	526			
	90	1007	41	584	34	486	550			
500	70	638	26	309	18	638	744	1	1.8	3
	80	860	35	481	28	675	781			
	90	1007	41	584	34	699	806			
750	70	688	28	344	20	912	1072	1.2	2.5	3
	80	933	38	516	30	953	1112			
	90	1081	44	636	37	978	1137			
1000	70	884	36	430	25	1211	1423	1.5	2.7	3
	80	1179	48	653	38	1260	1473			
	90	1376	56	808	47	1293	1505			
1500	70	1326	54	653	38	1816	2135	2.3	3.7	6.0
	80	1793	73	980	57	1894	2213			
	90	2113	86	1238	72	1947	2267			
2000	70	1744	71	860	50	2418	2843	3	4.3	8.0
	80	2334	95	1290	75	2516	2942			
	90	2727	111	1599	93	2582	3007			
3000	70	2211	90	1083	63	3559	4198	3.8	5.2	8.0
	80	2948	120	1634	95	3682	4321			
	90	3440	140	2029	118	3764	4403			

- at continuous DHW flow rate with TuACS= 45°C
- b exchanger power with TuACS=45°C
- c continuous DHW flow rate with TuACS= 60°C
- d exchanger power with TuACS=60°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- f quantity of DHW delivered at 45°C in the first 10 min. with storage at 60°C
- Exchanger capacity: 6.40 L/m²

Technical Insights for BSFV 2 Series

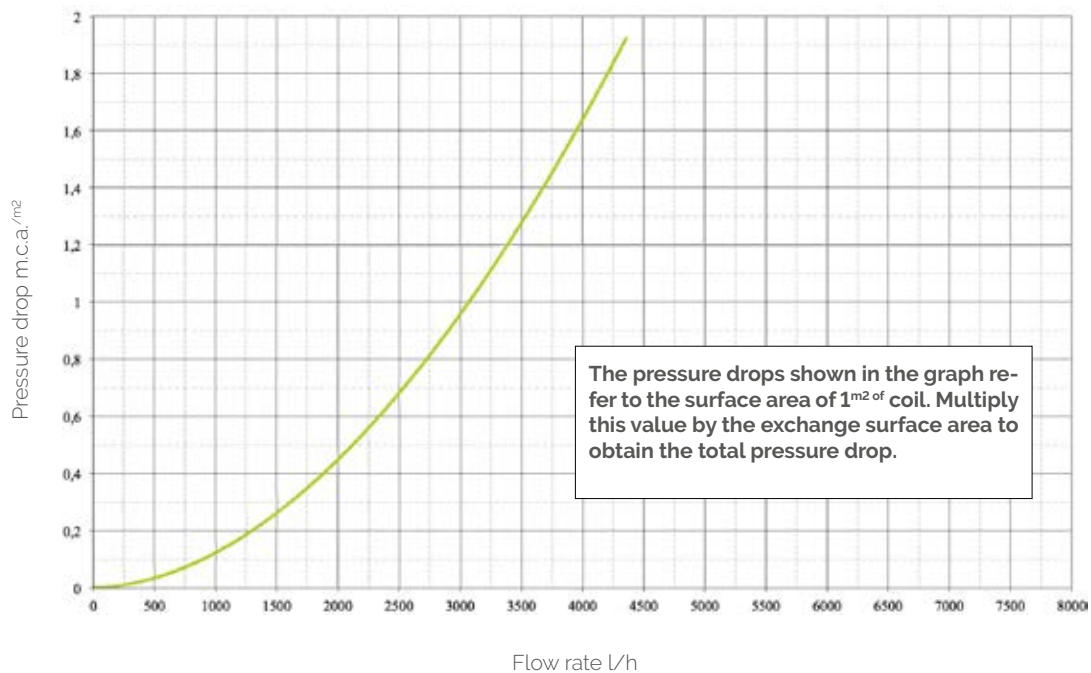


Legend

1	HEIZERSILE DHW storage
2	Magnesium anode
3	Gas boiler MG3V Sile
4	Solar thermal return unit
5	Bacteriostatic cold water filter
6	Sanitary recirculation pump
7	Thermostatic DHW mixer
8	HEIZERSILE solar collectors
9	Safety group
10	Electrical resistance (if any)

DHW TANKS

Fixed exchanger pressure losses



Water heater with fixed heat exchanger for Heat Pumps - MAXI 1



PRICES

The MAXI 1 range consists of domestic hot water boilers, equipped with single, fixed and double coil coils with a large surface area, particularly suitable for use with heat pumps, available in different capacities, from 300 to 1000 litres. They are equipped with different types of insulation according to capacity (see Insulation table), PVC outer jacket, magnesium anode for protection against galvanic currents, and an inspection flange for easy access during inspection and maintenance.

Material: carbon steel S 235 JR

Internal protective treatment: Food-grade inorganic glass-lining complying with DIN 4753.3.



Insulation

Capacity (l)	Type
from 300 to 1000	High-density rigid polyurethane foam

Limit of use

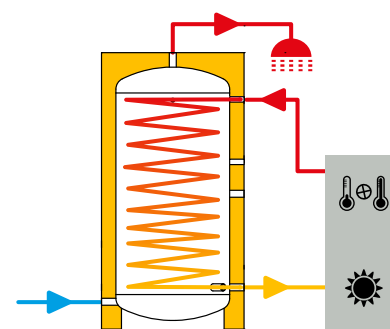
Cap. l	Tank side		Primary circuit	
	Temperature max.	Pressure max.	Temperature max.	Pressure max.
from 300 to 1000	95°C	10 bar	110°C	12 bar

Accessories Included: safety valve and thermometer, magnesium sacrificial anode.

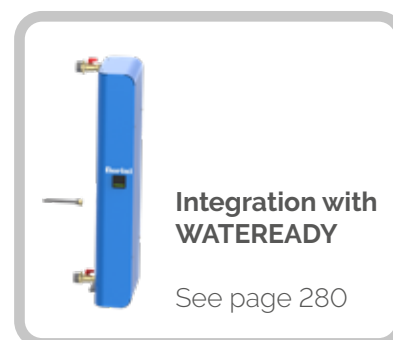
Standard accessories: see page 163



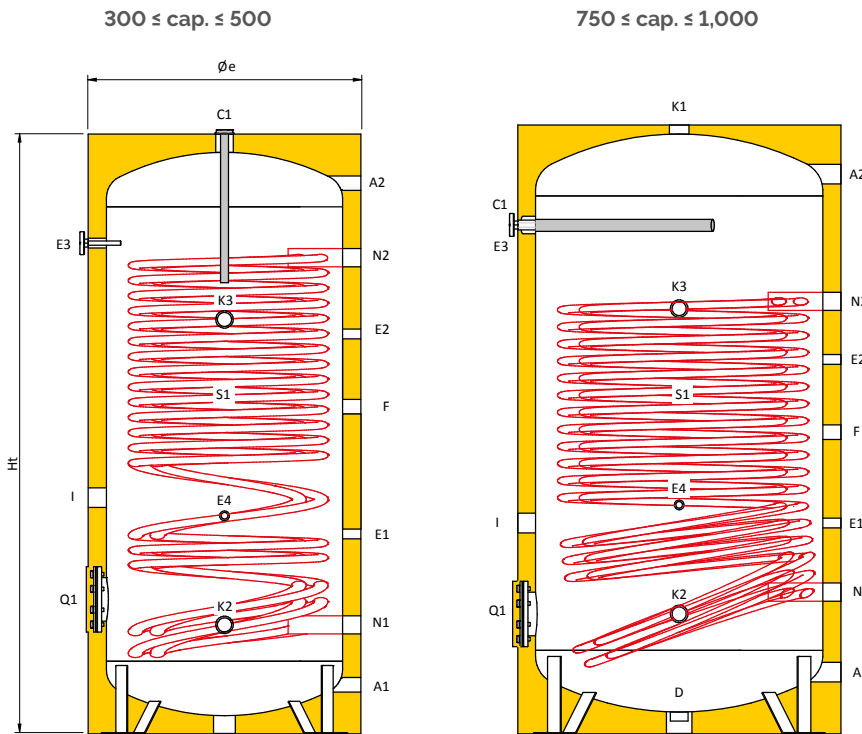
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Capacity l	Code	Price	Energy class	With vertical packaging	
				Dimensions cm	Weight kg
300	319060303X	2.107,00 €	B	70X70X155	128
500	319060304X	2.814,00 €	C	80x80x180	179
750	319060305X	4.273,00 €	C	95x95x185	252
1000	319060306X	4.530,00 €	C	105X105X210	291



Water heater with fixed heat exchanger for Heat Pumps - MAXI 1



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
Q1	Inspection port
S1	Lower Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 mm	E1 inches	E2 mm	E3 inches	E4 mm	F inches	I inches	K1 inches	K2 mm	K3 inches	N1 inches	N2 inches	Q1 (Øext/Øint) mm
300	1'	1'	1'1/4	1/2'	1/2"	1/2"	1/2"	1'	1'1/2	-	1'1/4	1'1/4	1'1/4	1'1/4	Ø180/Ø120
500	1'	1'	1'1/4	1/2'	1/2"	1/2"	1/2"	1'	1'1/2	-	1'1/4	1'1/4	1'1/4	1'1/4	Ø180/Ø120
750	1'1/2	1'1/2	1'1/4	1/2'	1/2"	1/2"	1/2"	1'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/4	1'1/4	Ø180/Ø120
1000	1'1/2	1'1/2	1'1/4	1/2'	1/2"	1/2"	1/2"	1'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/4	1'1/4	Ø180/Ø120

Size table

Cap. l	øe mm	Ht mm	R* mm	A1 mm	A2 mm	C1 mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	N1 mm	N2 mm	Q1** mm
300	660	1380	1530	130	1260	1380	375	965	1145	545	795	545	-	245	1085	245	1145	335
500	760	1650	1820	135	1515	1650	550	1100	1350	600	900	650	-	300	1140	300	1310	370
750	910	1675	1910	170	1540	1400	580	1030	1400	630	830	580	1675	330	1170	390	1190	330
1000	1010	1965	2210	190	1810	1670	580	1000	1670	650	800	590	1965	350	1190	400	1150	350

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

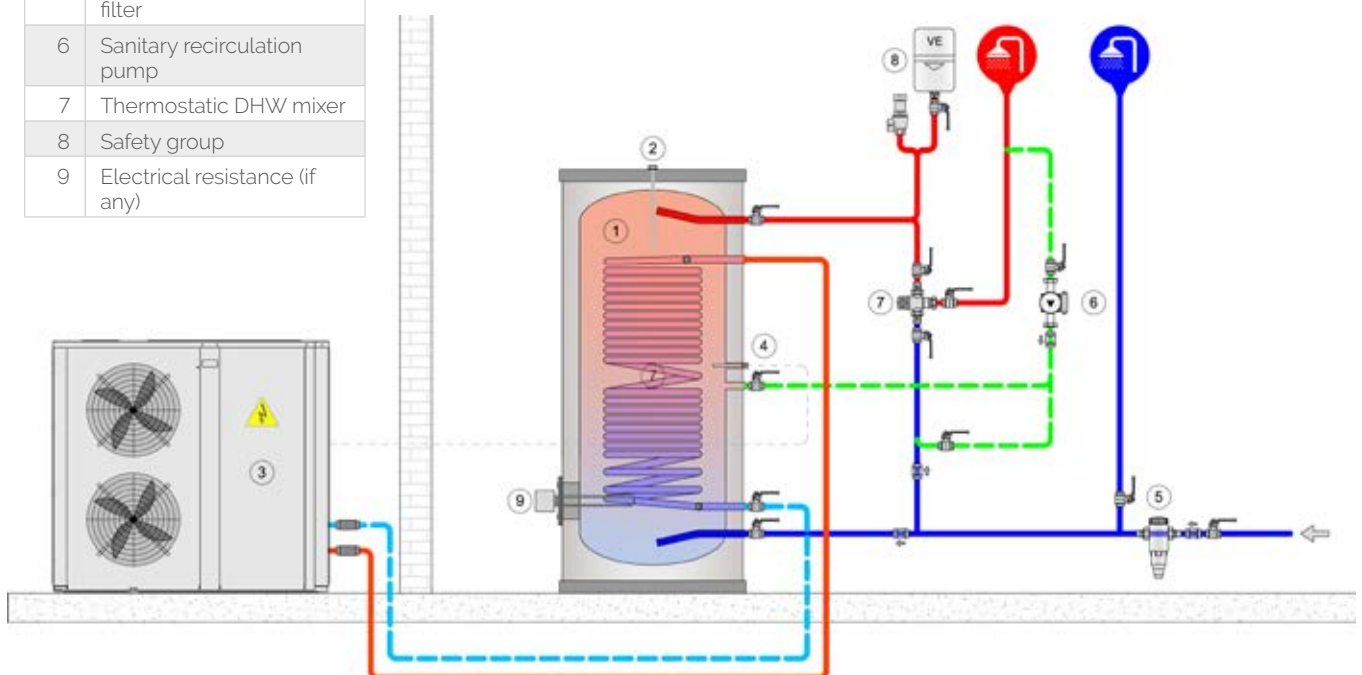
Technical Insights for MAXI 1 Series

Capacity	Ti	Hot Water Production TiACS = 10°C			Exchanger	
		TuACS= 45°C		Ta = 50°C TuACS = 45°C	Surface	Nominal flow rate
		L/h (a)	kW (b)	L/10 min. (e)		
300	50	688	28	433	3,65	4,0
	80	2236	91	691		
500	50	958	39	691	5,2	4,0
	80	2432	99	937		
750	50	982	40	961	6	4,0
	80	3390	138	1362		
1000	50	982	40	1227	6	4,0
	80	3390	138	1628		

- at continuous DHW flow rate with TuACS= 45°C
- b exchanger power with TuACS=45°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- Exchanger capacity: 6.40 L/m²

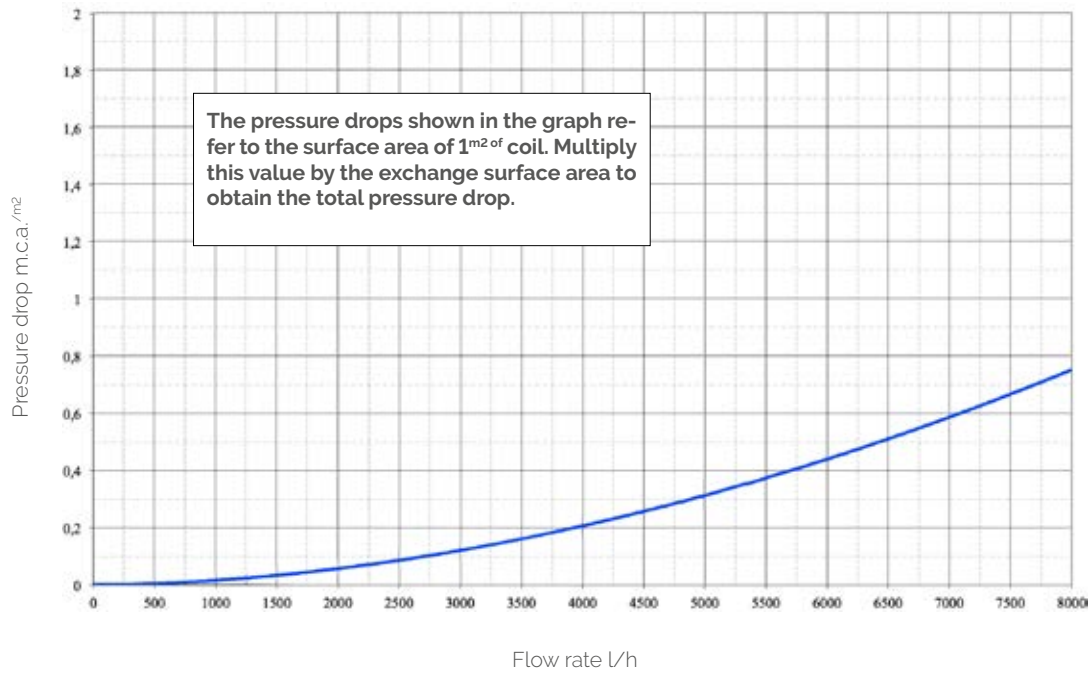
Legend

1	HEIZERSILE DHW storage
2	Magnesium anode
3	FURIA heat pump
4	DHW temperature probe
5	Bacteriostatic cold water filter
6	Sanitary recirculation pump
7	Thermostatic DHW mixer
8	Safety group
9	Electrical resistance (if any)



Technical Insights for MAXI 1 Series

Fixed exchanger pressure losses



Water heater with double heat exchanger for Heat Pumps - MAXI 2



PRICES

The MAXI 2 range consists of boilers for the production of domestic hot water, equipped with a fixed, double coil with a large surface area, particularly suitable for use with heat pumps in COMBINATION (combined) with integrative sources (SOLAR, BOILER,...), available in capacities from 300 to 1000 litres. They are equipped with different types of insulation according to capacity (see Insulation table), PVC outer jacket, magnesium anode for protection against galvanic currents, inspection flange for easy access during inspection and maintenance.

Material: carbon steel S 235 JR

Internal protective treatment: Food-grade inorganic glass-lining complying with DIN 4753.3.



Insulation

Capacity (l)	Type
from 300 to 1000	High-density rigid polyurethane foam

Limit of use

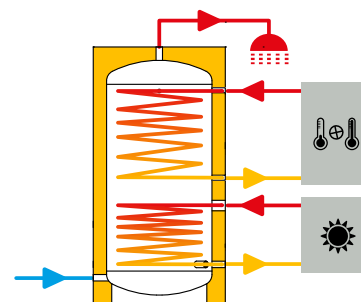
Cap. l	Tank side		Primary circuit	
	Temperature max.	Pressure max.	Temperature max.	Pressure max.
from 300 to 1000	95°C	10 bar	110°C	12 bar

Accessories Included: safety valve and thermometer, magnesium sacrificial anode.

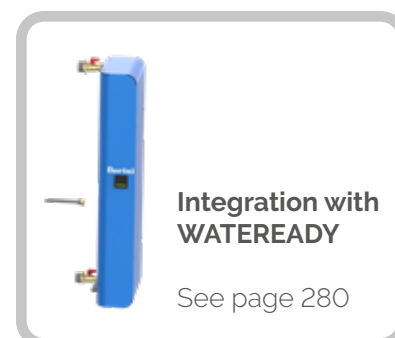
Standard accessories: see page 163



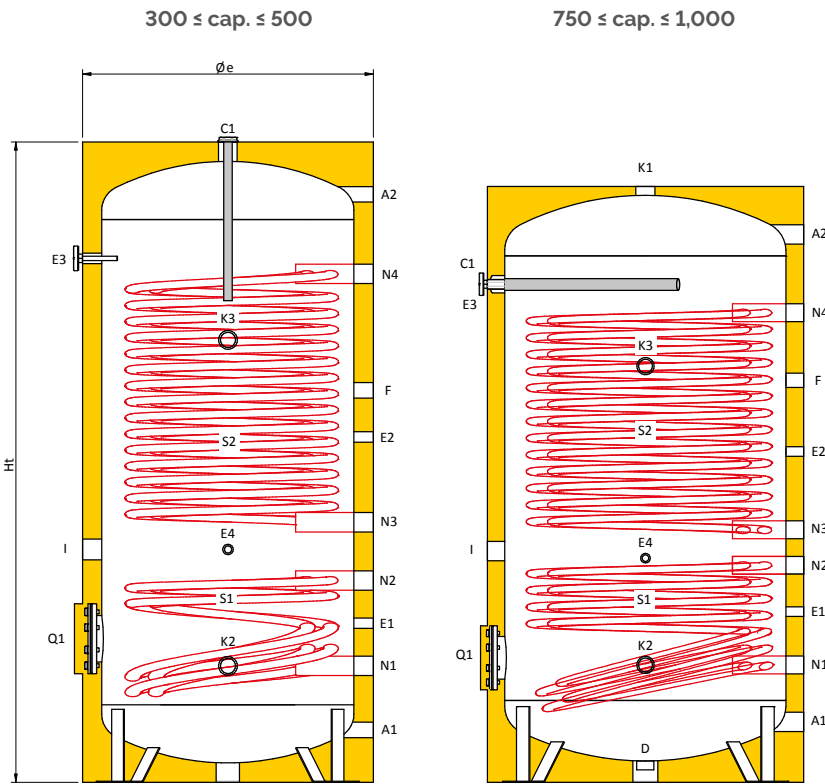
TESTED



Capacity l	Code	Price	Energy class	With vertical packaging	
				Dimensions cm	Weight kg
300	319060307X	2.307,00 €	B	70X70X155	129
500	319060308X	3.076,00 €	C	80X80X180	182
750	319060309X	4.814,00 €	C	95X95X185	264
1000	319060310X	5.359,00 €	C	105X105X210	314



Water heater with double heat exchanger for Heat Pumps - MAXI 2



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
Q1	Inspection port
S1	Lower Exchanger
S2	Upper Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	E1 inches	E2 inches	E3 inches	E4 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	N1 inches	N2 inches	N3 inches	N4 inches	Q1 (Øext/Øint) mm
300	1"	1"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1"	1 1/2"	-	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Ø180/Ø120
500	1"	1"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1"	1 1/2"	-	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Ø180/Ø120
750	1 1/2"	1 1/2"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1"	1 1/2"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Ø180/Ø120
1000	1 1/2"	1 1/2"	1 1/4"	1/2"	1/2"	1/2"	1/2"	1"	1 1/2"	1 1/2"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	Ø180/Ø120

Size table

Cap. l	Øe mm	Ht mm	R* mm	A1 mm	A2 mm	C1 mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	N1 mm	N2 mm	N3 mm	N4 mm	Q1** mm
300	660	1380	1530	130	1260	1380	355	945	1145	545	795	530	-	245	1085	245	465	595	1145	345
500	760	1650	1820	135	1515	1650	410	890	1350	600	1010	600	-	300	1140	300	520	670	1310	370
750	910	1675	1910	170	1540	1400	480	930	1400	650	1130	650	1675	330	1170	330	610	710	1320	350
1000	1010	1965	2210	190	1810	1670	500	945	1670	630	1150	680	1965	350	1190	350	635	735	1390	360

R*: Tipping height

Q1**: height from the centre of the hatch to the ground

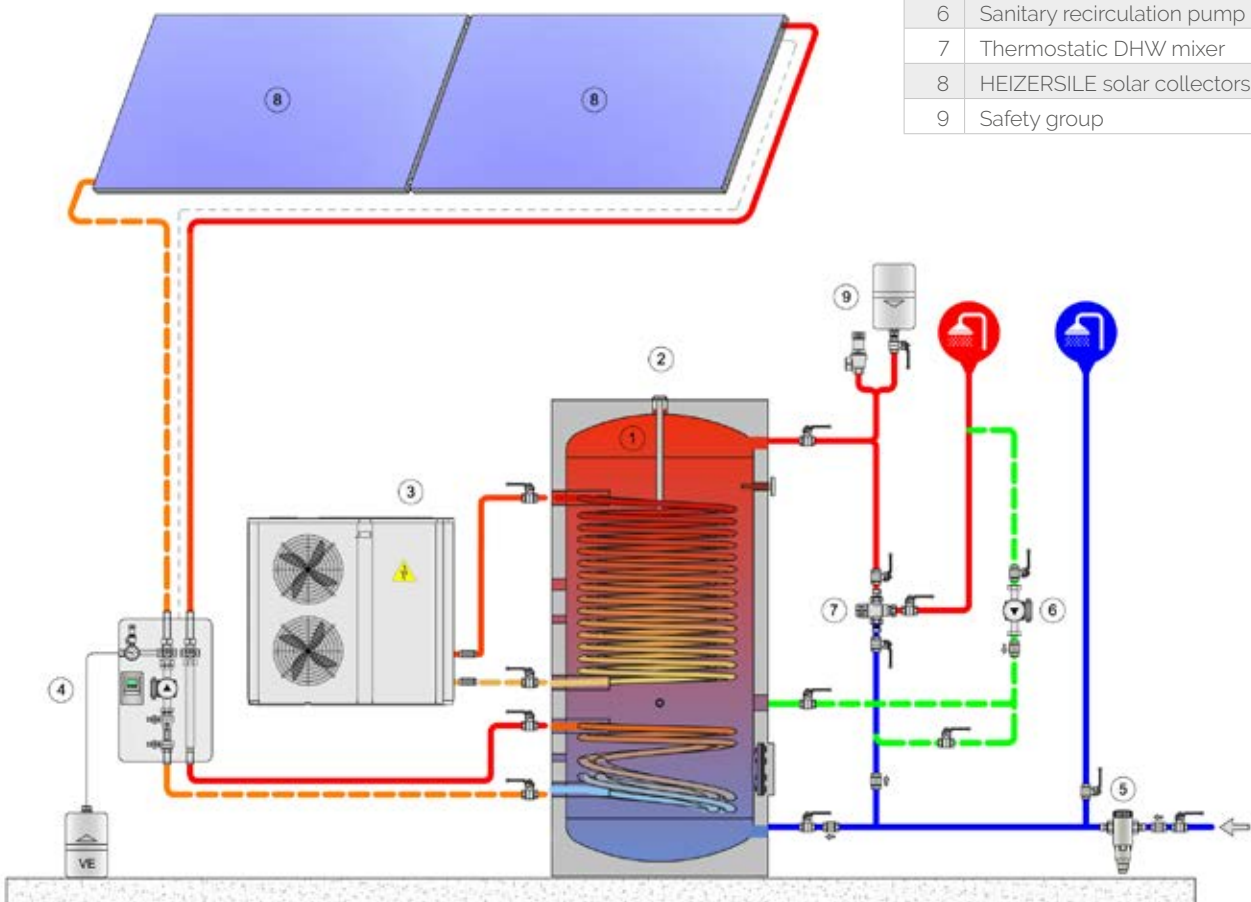
Technical Insights for MAXI 2 Series

Capacity	Hot Water Production TiACS = 10°C				Exchanger		
	Ti	TuACS= 45°C		Ta = 50°C TuACS = 45°C	Upper exchanger surface	Lower exchanger surface	Nominal flow rate
		L/h (a)	kW (b)	L/10 min. (e)			
l	°C				m ²	m ²	mc/h
300	50	553	22,5	435	2,7	0,98	1,6
	80	1501	61,1	593			2,6
500	50	860	35	715	4,1	1,1	1,5
	80	2334	95	960			4,1
750	50	1380	52	920	4,9	2,2	3
	80	2800	115	1170			4,1
1000	50	1580	62	1080	5,5	2,5	3
	80	3000	135	1310			4,1

- at continuous DHW flow rate with TuACS= 45°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- Exchanger capacity: 6.40 L/m²

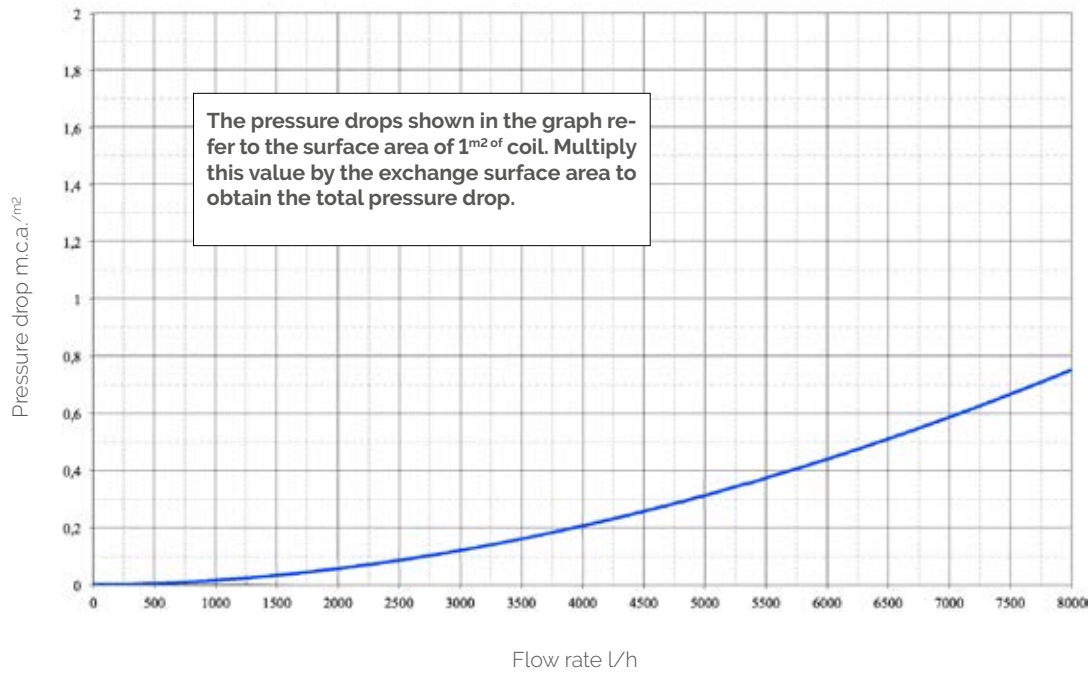
Legend

1	HEIZERSILE DHW storage
2	Magnesium anode
3	Furia heat pump
4	Solar thermal return unit
5	Bacteriostatic cold water filter
6	Sanitary recirculation pump
7	Thermostatic DHW mixer
8	HEIZERSILE solar collectors
9	Safety group



Technical Insights for MAXI 2 Series

Fixed exchanger pressure losses



Stainless steel water heater with tube exchanger - BXX 1



PRICES

The BXX 1 range consists of shell and tube boilers for domestic hot water production available in different capacities from 200 to 5000 litres. They are equipped with polyester fibre insulation, PVC outer jacket, and magnesium anode for protection against galvanic currents.

Material

The tanks are made of high quality material, in particular:
 Accumulator body: INOX AISI 316 L
 Shell and tube heat exchanger: AISI 316 L stainless steel
 Exchanger head: hot-dip galvanised carbon steel S 235 JR

Internal protective treatment: pickling and passivation

Insulation

Capacity (l)	Type
from 200 to 5000	Polyester Fibre

Limit of use

Tank side		Primary circuit	
Temperature max.	Pressure max.	Temperature max.	Pressure max.
95°C	6 bar	110°C	12 bar

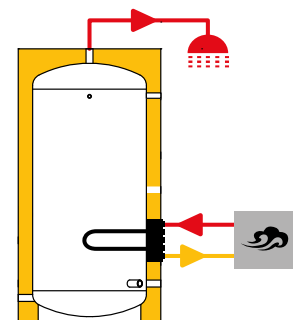


TESTED

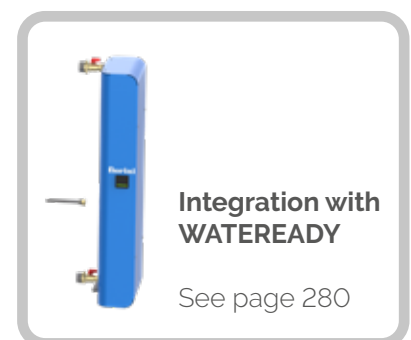
Accessories Included: Magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165



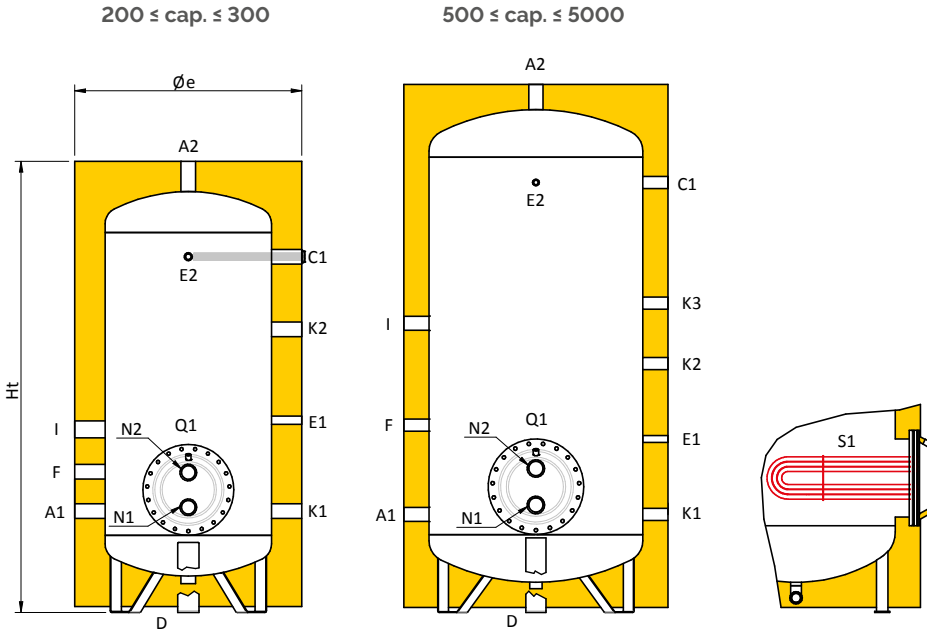
Capacity l	Code	Price	Energy class	With vertical packaging
				Dimensions cm
200	318040113X	2.600,00 €	B	70x70x143
300	318040114X	2.900,00 €	B	80x80x160
500	318040115X	3.941,00 €	C	90x90x195
750	318040116X	5.022,00 €	C	100x100x200
1000	318040117X	5.857,00 €	C	110x110x230
1500	318040118X	8.780,00 €	C	130x130x240
2000	318040119X	11.636,00 €	C	150x150x250
2500	318040120X	13.657,00 €		150x150x280
3000	318040121X	14.828,00 €		150x150x300
4000	318040122X	17.657,00 €		170x170x305
5000	318040123X	21.890,00 €		190x190x310



Stainless steel water heater with tube exchanger - BXX 1

Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
Q1	Inspection port
S1	Lower Exchanger



Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	N1 inches	N2 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	1"	1"	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	-	1"	1"	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1"	1"	Ø300/Ø220
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø380/Ø300
1500	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	2"	2"	Ø430/Ø350

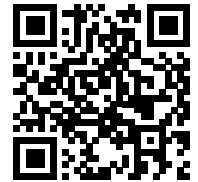
Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	E1 mm	E2 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	N1 mm	N2 mm	Q1** mm
200	650	1410	1535	295	1135	595	1135	425	540	295	915	-	305	425	365
300	750	1490	1650	335	1175	635	1175	465	605	335	935	-	345	465	405
500	850	1770	1945	350	1420	650	1420	650	935	350	950	1190	360	480	420
750	990	1810	2045	370	1440	670	1440	700	1150	370	990	1210	407.5	552.5	480
1000	1050	2100	2330	390	1710	690	1710	745	1150	390	990	1230	427.5	572.5	500
1500	1250	2235	2555	490	1800	795	1800	795	1205	490	1090	1330	517.5	662.5	590
2000	1450	2315	2725	525	1835	830	1835	830	1240	525	1125	1365	555	745	650
2500	1400	2640	2895	560	2145	860	2145	845	1545	560	1160	1400	575	765	670
3000	1450	2850	3155	565	2340	790	2340	840	1740	565	1040	1405	585	775	680
4000	1600	2920	3295	590	2370	890	2370	860	1770	590	1190	1430	610	800	705
5000	1800	2960	3425	600	2375	900	2375	875	1775	600	1200	1440	620	810	715

R': Tipping height

Q1'': height from the centre of the hatch to the ground

Stainless steel water heater with double tube exchanger - BXX 1



PRICES

- Capacity: 200 to 5000 litres
 Tank material: AISI 316 stainless steel
 Exchanger material: AISI 316 stainless steel
 Heat exchanger head material: hot-dip galvanised carbon steel S 235 JR
 Internal protective treatment: pickling and passivation
 Insulation: polyester fibre
 Limit of use:
- Storage side: max. temperature 95°C max. pressure 6 bar
 - Primary circuit: max. temperature 110°C max. pressure 12 bar

The BXX 2 range consists of boilers with two tube bundles for domestic hot water production available in different capacities from 200 to 5000 litres. They are equipped with polyester fibre insulation, PVC outer jacket, and magnesium anode for protection against galvanic currents.



Accessories Included: Magnesium sacrificial anode for all sizes.

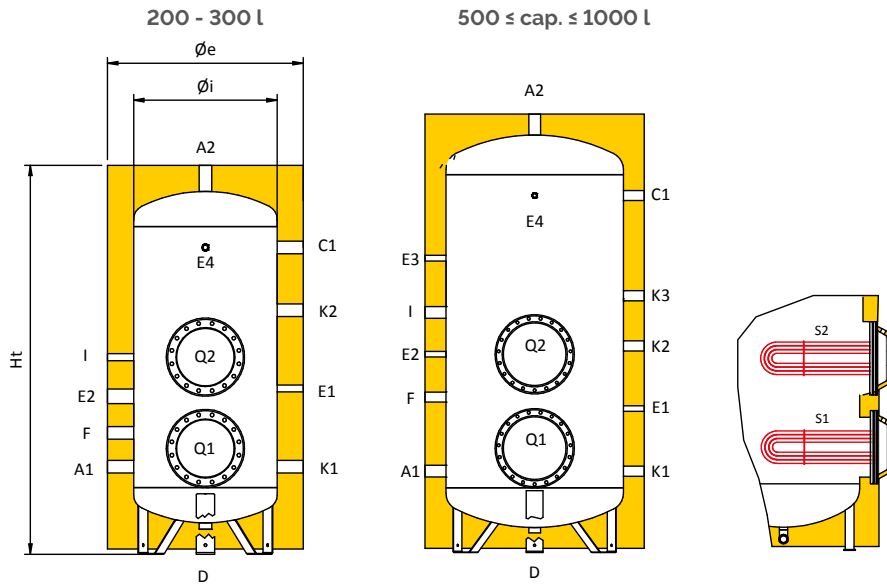
Standard accessories: see page 163

Special executions: see page 165

Codes/Prices

Cap. l	Code	Price	Energy class	Dimensions with vertical packaging			
				H mm	L mm	P mm	Weight kg
200	318040102X	3.685,00 €	B	1590	680	680	88
300	318040103X	4.168,00 €	B	1630	780	780	103
500	318040104X	5.561,00 €	C	2070	830	830	124
750	318040105X	7.216,00 €	C	2040	1020	1020	197
1000	318040106X	8.117,00 €	C	2310	1030	1030	219
1500	318040107X	11.550,00 €	C	2320	1230	1230	295
2000	318040108X	15.436,00 €	C	2400	1430	1430	373
2500	318040109X	16.826,00 €		2650	1430	1430	431
3000	318040110X	18.222,00 €		2920	1480	1480	469
4000	318040111X	23.949,00 €		3000	1630	1630	677
5000	318040112X	28.605,00 €		3030	1830	1830	780

Stainless steel water heater with double tube exchanger - BXX 1



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
Q1	Inspection port
Q2	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1-E2 inches	E3 inches	E4 inches	F inches	I inches	K1-K2 inches	K3 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	-	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	-	1/2"	1 1/4	1 1/2	1 1/4	-	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø300/Ø220
750	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350

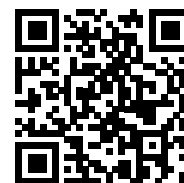
Size table

Cap. l	Øi mm	Øe mm	Ht mm	R* mm	A1 mm	C1 mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm	Q2** mm
200	450	650	1410	1535	295	1135	605	715	-	1135	425	540	295	915	-	365	715
300	550	750	1490	1650	335	1175	635	755	-	1175	465	605	335	935	-	405	755
500	650	850	1770	1945	350	1420	650	770	1120	1420	650	935	350	950	1190	420	770
750	790	990	1810	2045	370	1440	690	930	1400	1440	690	1150	370	990	1210	480	930
1000	850	1000	2100	2330	390	1710	690	950	1410	1710	745	1150	390	990	1230	500	950
1500	1000	1250	2235	2555	490	1800	795	1005	1465	1800	795	1205	490	1090	1330	590	1070
2000	1200	1450	2315	2725	525	1835	830	1040	1500	1835	830	1240	525	1125	1365	650	1180
2500	1200	1400	2635	2895	555	2140	855	1340	1800	2140	840	1540	555	1155	1395	670	1200
3000	1250	1450	2850	3155	565	2340	790	1540	2000	2340	840	1740	565	1315	1040	680	1210
4000	1400	1600	2920	3295	590	2370	890	1570	2030	2370	860	1770	590	1190	1430	705	1235
5000	1600	1800	2960	3425	600	2375	900	1575	2035	2375	875	1775	600	1600	1440	715	1245

R*: Tipping height

Q1**: Height from the centre of the hatch to the ground

Water heater with tube exchanger - BSX 1



PRICES

The BSX 1 range consists of shell and tube boilers for domestic hot water production available in different capacities, from 200 to 5000 litres. They are equipped with different types of insulation according to capacity (see table Insulation), PVC outer jacket, and magnesium anode for protection against galvanic currents.

Material

The tanks are made of high quality material, in particular:

- Accumulator body: carbon steel S 235 JR
- Shell and tube heat exchanger: AISI 304 stainless steel
- Exchanger head: hot-dip galvanised carbon steel S 235 JR

Internal protective treatment

- up to 1000 litres inorganic **glass-lining**, complying with DIN 4753.3
- 1500 litre **Bluetech enamelling** with thermo-setting resins, suitable for domestic water



Insulation

Capacity (l)	Type
from 200 to 1000	High-density rigid polyurethane foam
by 1500	Polyester Fibre

Limit of use

Capacity l	Tank side		Primary circuit	
	Temperature max.	Pressure max.	Temperature max.	Pressure max.
up to 1000	95°C	10 bar	110°C	12 bar
by 1500	80°C	6 bar	110°C	12 bar

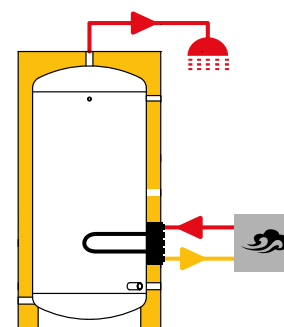
Accessories Included: safety valve and thermometer for sizes up to 1000 l, magnesium sacrificial anode for all sizes.

Standard accessories: see page 163

Special executions: see page 165



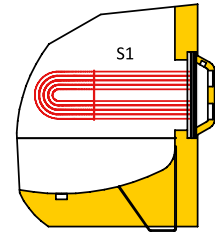
TESTED



Capacity l	Code	Price	Energy class	With vertical packaging	
				Dimensions cm	Weight kg
200	318060081X	1.784,00 €	A	75x75x125	84
300	318060082X	1.905,00 €	A	75x75x150	96
500	318060083X	2.318,00 €	B	85x85x180	136
750	318060084X	3.902,00 €	C	100x100x180	221
1000	318060085X	4.647,00 €	C	105x105x210	269
1500	318080375X	5.109,00 €	C	130x130x245	289
2000	318080361X	5.928,00 €	C	140x140x275	368
2500	318080362X	6.882,00 €		145x145x280	410
3000	318080363X	7.826,00 €		150x150x300	459
4000	318080364X	10.117,00 €		165x165x310	638
5000	318080365X	11.364,00 €		185x185x315	738

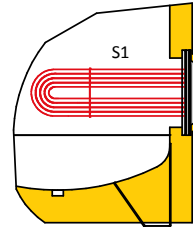
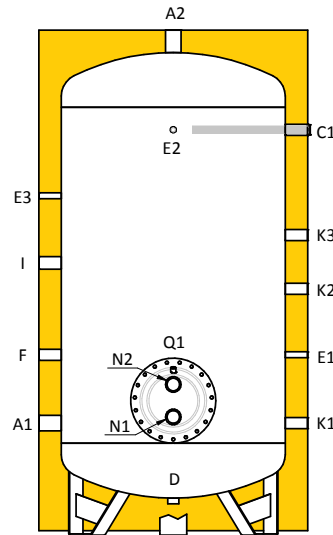
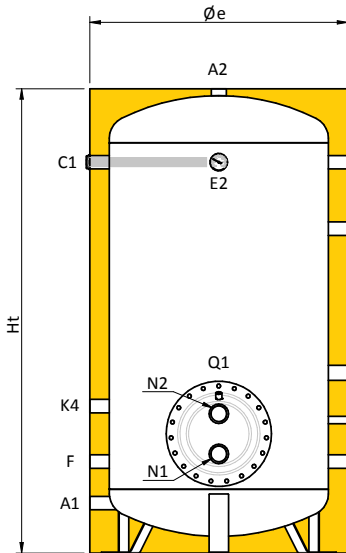


Water heater with tube exchanger - BSX 1



200 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
C2	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
Q1	Inspection port
S1	Lower Exchanger

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1 inches	E2 inches	E3 inches	F inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	Q1 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1"	1"	Ø300/Ø220
750	1 1/4	1 1/4	1 1/4	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	2"	2"	Ø380/Ø300
1000	1 1/4	1 1/4	1 1/4	-	1/2"	1/2"	-	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	2"	2"	Ø380/Ø300
1500	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø380/Ø300
2000	2"	2"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø430/Ø350
3000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø430/Ø350
4000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø430/Ø350
5000	3"	3"	1 1/4	1 1/4	1/2"	1/2"	1/2"	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	-	2"	2"	Ø430/Ø350

Size table

Cap. l	Øe mm	Ht mm	R' mm	A1 mm	C1 mm	D mm	E1 mm	E2 mm	E3 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	Q1** mm
200	710	1105	1315	150	885	-	295	885	-	295	445	150	595	990	495	285	405	345
300	710	1355	1530	150	1135	-	445	1135	-	295	595	295	795	1135	495	295	415	355
500	810	1635	1825	145	1390	-	460	1390	-	310	610	310	1150	1390	510	310	430	370
750	950	1675	1925	180	1410	-	480	1410	-	330	650	330	1170	1410	530	358	503	430
1000	1010	1965	2210	200	1680	-	500	1680	-	350	670	350	1190	1680	550	378	523	450
1500	1250	2280	2600	500	1810	165	805	1810	1515	805	1215	500	1100	1340	-	5287	673	600
2000	1350	2600	2930	505	2115	155	805	2115	1805	805	1505	505	1105	1345	-	525	715	620
2500	1400	2655	3000	565	2150	175	865	2150	1850	850	1550	565	1165	1405	-	585	775	680
3000	1450	2870	3215	575	2350	180	800	2350	2050	850	1750	575	1050	1415	-	595	785	690
4000	1600	2940	3350	600	2380	160	900	2380	2080	870	1780	600	1200	1440	-	620	810	715
5000	1800	2980	3480	610	2385	140	910	2385	2085	885	1785	610	1210	1450	-	630	820	725

R': Tipping height

Q1**: height from the centre of the hatch to the ground

Water heater with double tube exchanger - BSX 2



PRICES

Capacity: 200 to 5000 litres

Power: 12,5÷490 kW

Material:

- carbon steel tank S 235 JR
- aISI 304 stainless steel shell and tube heat exchangers

Internal protective treatment: Bluetech enamelling with thermosetting resins, suitable for DHW

Insulation:

- 200,300 l High-density rigid polyurethane foam
- 500 to 5000 l Polyester fibre

Limit of use:

- tank max. temperature 80°C max. pressure 6 bar
- exchangers max. temperature 110°C max. pressure 12 bar

Removable double coil boilers, used for the rapid production and storage of hot water for drinking and sanitary purposes.



Accessories Included: Magnesium sacrificial anode for all sizes.



Standard accessories: see page 163



Special executions: see page 165

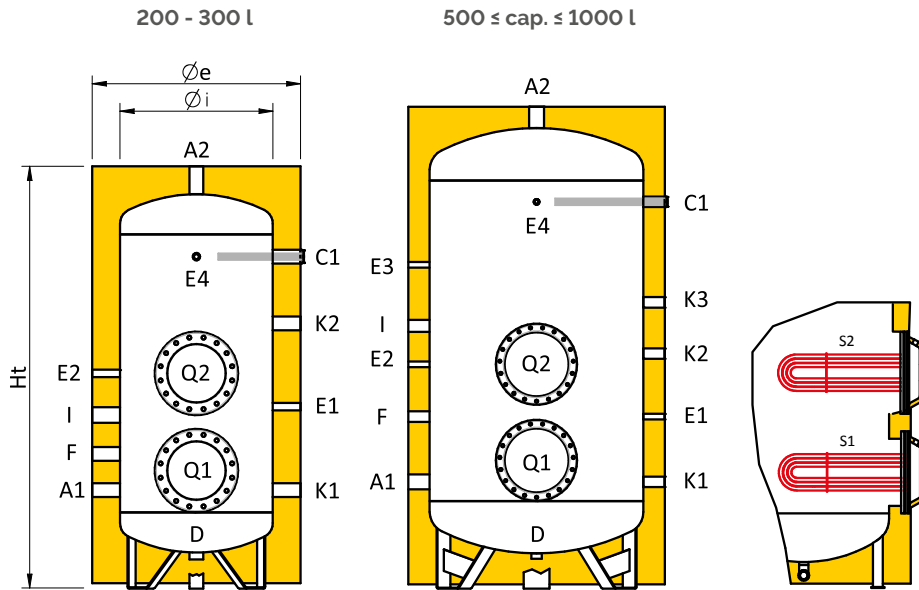


Codes/Prices

Cap. l	Code	Price	Energy class	Packaging			Weight kg	Power exchangers*	
				H mm	L mm	P mm		lower kW	upper kW
200	318080384X	2.604,00 €	B	1560	680	680	90	12,5	12,5
300	318080385X	3.150,00 €	B	1640	780	780	110	18,5	18,5
500	318080386X	3.689,00 €	C	1930	880	880	150	25	25
750	318080387X	5.086,00 €	C	2210	1020	1020	180	37	37
1000	318080388X	5.863,00 €	C	2240	1070	1070	200	48	48
1500	318080389X	6.919,00 €	C	2380	1230	1230	275	73	73
2000	318080390X	8.702,00 €	C	2700	1320	1320	330	98	98
2500	318080391X	9.733,00 €		2780	1470	1470	360	123	123
3000	318080392X	11.125,00 €		2990	1470	1470	440	147	147
4000	318080393X	14.414,00 €		3060	1630	1630	540	196	196
5000	318080394X	16.644,00 €		3100	1830	1830	610	245	245

*Primary temperature 80/70°C - Secondary temperature 10/45°C

Water heater with double tube exchanger - BSX 2



Connection legend

A1	Domestic water inlet
A2	Domestic water outlet
C1	Anode
D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
F	Recirculation
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
Q1	Inspection port
Q2	Inspection port

Connection table

Cap. l	A1 inches	A2 inches	C1 inches	D inches	E1-E2 inches	E3 inches	E4 inches	F inches	I inches	K1 - K2 inches	K3 inches	Q1 - Q2 (Øext/Øint) mm
200	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	-	1 1/2	1 1/4	1 1/2	1 1/4	-	Ø300/Ø220
300	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	-	1 1/2	1 1/4	1 1/2	1 1/4	-	Ø300/Ø220
500	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø300/Ø220
750	1 1/2	1 1/2	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
1000	1 1/2	1 1/2	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
1500	2	2	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø380/Ø300
2000	2	2	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
2500	2 1/2	2 1/2	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
3000	3	3	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
4000	3	3	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350
5000	3	3	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2	1 1/4	1 1/2	1 1/4	1 1/4	Ø430/Ø350

*Primary temperature 80/70°C - Secondary temperature 10/45°C

Size table

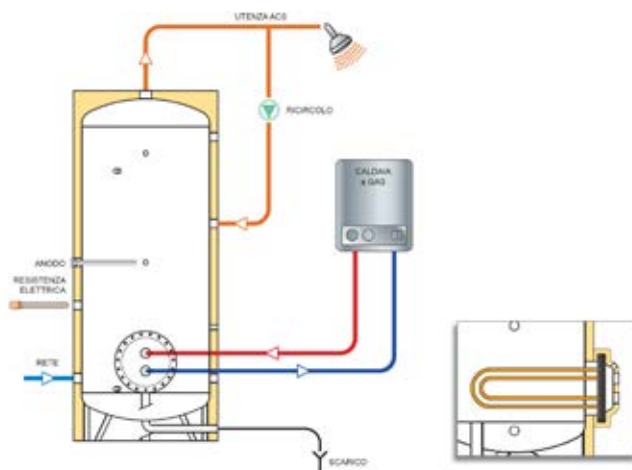
Cap. l	Ø mm	Øe mm	Ht mm	A1 mm	E1 mm	E2 mm	E3 mm	E4 mm	F mm	I mm	K1 mm	K2 mm	K3 mm	Q1** mm	Q2** mm
200	450	650	1435	310	620	730	-	1150	440	555	310	930	-	380	730
300	550	750	1520	355	655	775	-	1195	485	625	355	955	-	425	775
500	650	850	1805	375	675	795	1145	1445	675	960	375	975	1215	445	795
750	790	990	1840	390	710	980	1360	1470	710	1160	390	1010	1230	500	980
1000	850	1050	2120	415	715	985	1445	1675	745	1175	415	1015	1255	515	985
1500	1000	1250	2280	500	805	1050	1515	1810	805	1230	500	1100	1340	600	1050
2000	1100	1350	2600	505	805	1150	1805	2115	805	1505	505	1105	1345	620	1150
2500	1200	1400	2655	565	865	1210	1850	1850	850	1550	565	1165	1405	680	1210
3000	1250	1450	2870	575	800	1220	2050	2050	850	1750	575	1050	1415	690	1220
4000	1400	1600	2940	600	900	1245	2080	2080	870	1780	600	1200	144	715	1245
5000	1600	1800	2980	610	910	1255	2085	2085	885	1785	610	1210	1450	725	1255

R: Tipping height

Q1**: height from the centre of the hatch to the ground

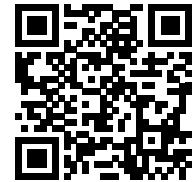
Technical Insights for Series BXX1-2 / BSX1-2

Capacity	Hot Water Production TiACS = 10°C							Exchanger		
	Ti	TuACS= 45°C		TuACS = 60°C		Ta = 50°C TuACS = 45°C	Ta = 60°C TuACS = 45°C	Surface	Capacity	Nominal flow rate
	l	L/h (a)	kW (b)	L/h (c)	kW (d)	L/10 min. (e)	L/10 min. (f)	m²	l	mc/h
200	70	241	9,8	119	4,9	258	315	0,5	2	0,5
	80	300	12,2	169	6,9	266	323			0,6
	90	362	14,7	214	8,7	273	330			0,7
300	70	364	14,8	181	7,4	384	470	0,75	2,8	0,7
	80	453	18,4	252	10,3	395	480			0,8
	90	544	22,1	322	13,1	405	491			1
500	70	482	19,6	240	9,8	620	763	1	3,6	0,9
	80	602	24,5	336	13,7	632	775			1,1
	90	580	23,6	343	14	644	787			1,1
750	70	723	29,4	358	14,6	983	1212	1,5	5,9	1,3
	80	902	36,7	506	20,6	1001	1229			1,6
	90	1084	44,1	642	26,2	1018	1247			1,9
1000	70	964	39,2	480	19,6	1224	1510	2	7,2	1,7
	80	1204	49	675	27,5	1245	1531			2,2
	90	1445	58,8	857	34,9	1266	1552			2,6
1500	70	1445	58,8	728	29,7	1837	2266	3	10,9	2,6
	80	1806	73,5	1020	41,6	1869	2297			3,2
	90	2168	88,2	1292	52,6	1899	2328			3,8
2000	70	1927	78,4	976	39,8	2421	2992	4	14,7	3,4
	80	2408	98	1368	55,7	2454	3026			4,3
	90	2890	117,6	1731	70,5	2488	3059			5,1
2500	70	2408	98	1232	50,2	3014	3728	5	18,5	4,3
	80	3010	122,5	1722	70,1	3053	3767			5,3
	90	3612	147	2178	88,7	3091	3805			6,4
3000	70	2890	117,6	1478	60,2	3577	4434	6	22	5,1
	80	3612	147	2066	84,1	3614	4471			6,4
	90	4335	176,4	2613	106,4	3650	4507			7,6
4000	70	3853	156,8	2020	82,3	4775	5918	8	30,1	6,8
	80	4816	196	2802	114,1	4824	5967			8,5
	90	5780	235,2	3530	143,7	4872	6015			10,2
5000	70	4816	196	2978	121,2	5938	7366	10	36,4	8,5
	80	6020	245	4099	166,9	5990	7419			10,6
	90	7224	294	5138	209,2	6042	7470			12,7



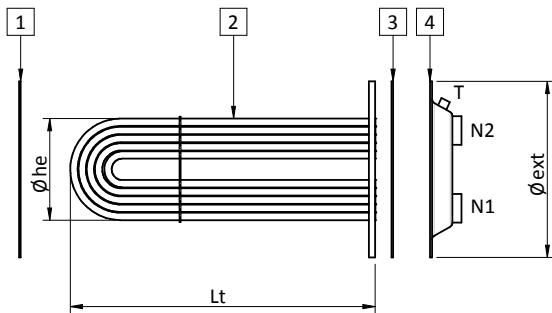
- at continuous DHW flow rate with TuACS= 45°C
- b exchanger capacity with TuACS=45°C
- c continuous DHW flow rate with TuACS= 60°C
- d exchanger power with TuACS=60°C
- and quantity of DHW delivered at 45°C in the first 10 min with storage at 50°C
- f quantity of DHW delivered at 45°C in the first 10 min. with storage at 60°C
- Exchanger capacity: 6.40 L/m²

Tube Exchanger

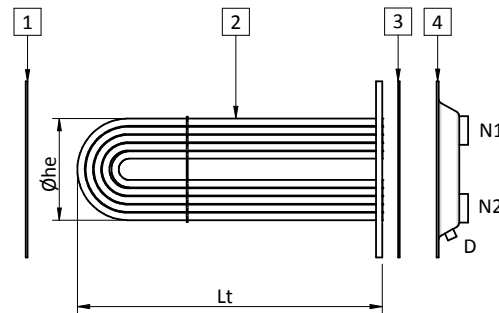


PRICES

Water operation

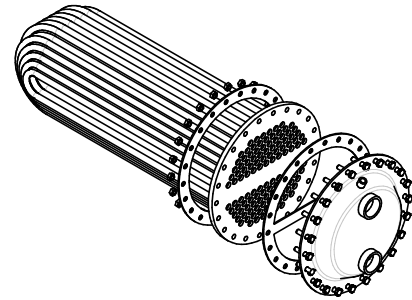
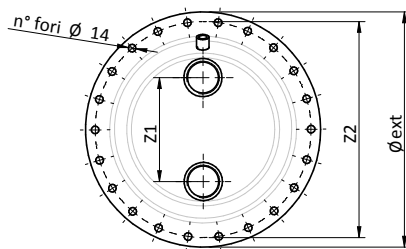


Steam operation



Connection legend

D	Drain
N1	Exchanger input/output
N2	Exchanger input/output
T	Venting
1	S/T gasket (without traverse)
2	Tube bundle
3	C/T gasket (with crosspiece)
4	Header



Technical Specifications for Tube Exchanger

Sup. m ²	Power* kW	Lt mm	Øext mm	Øhe mm	N1 inches	N2 inches	T, D inches	Z1 mm	Z2 mm	n' holes	Vol. l	dp mca
0,5	12,2	460	300	166	1'	1'	3/8"	120	262	16	1,84	0,65
0,75	18,4	445	300	202	1'	1'	3/8"	120	262	16	2,44	0,65
1	24,5	475	300	202	1'	1'	3/8"	120	262	16	3,23	0,7
1,5	36,7	600	380	270	2'	2'	3/8"	145	345	19	5,36	0,75
2	49	600	380	270	2'	2'	3/8"	145	345	19	6,51	0,8
3	73,5	720	380	278	2'	2'	3/8"	145	345	19	9,8	0,9
4	98	750	430	316	2'	2'	3/8"	190	395	22	13,2	1
5	122,5	780	430	324	2'	2'	3/8"	190	395	22	16,68	1,1
6	147	895	430	324	2'	2'	3/8"	190	395	22	19,2	1,2
8	196	1250	430	324	2'	2'	3/8"	190	395	22	27	1,3
10	245	1510	430	324	2'	2'	3/8"	190	395	22	32,7	1,4

Compatibility Table

between (1) Tube exchanger and (4) Tank

Cap. l	Surface area m ²										
	0,5	0,75	1	1,5	2	3	4	5	6	8	10
200	✓	✓	✓								
300	✓	✓	✓								
500	✓	✓	✓								
800				✓	✓	✓					
1000				✓	✓	✓					
1500				✓	✓	✓					
2000							✓	✓	✓		
2500							✓	✓	✓		
3000							✓	✓	✓	✓	
4000							✓	✓	✓	✓	
5000							✓	✓	✓	✓	✓

*Performance calculated with primary 80°C and DHW 10-45°C

✓ Possible combination

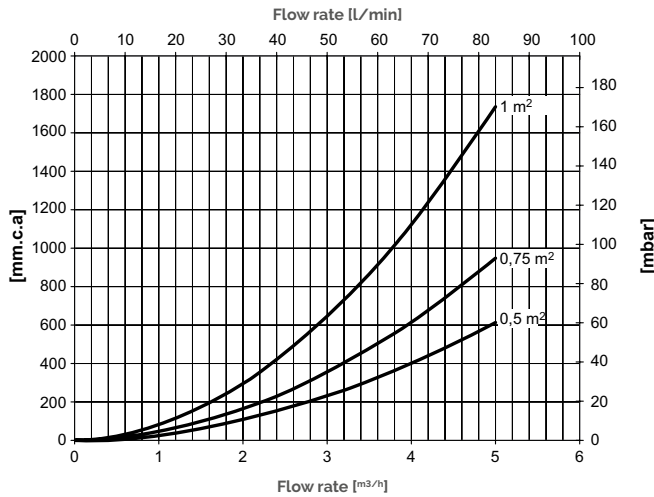
Sup. m ²	Version1 AISI 304 STAINLESS STEEL		Version2 AISI 316 STAINLESS STEEL		Steam version P ≤ 6 bar			Steam version P ≤ 12 bar		
	Code	Price	Code	Price	Code	Price	Cat. P.E.D.	Code	Price	Cat. P.E.D.
0,5	321030379X	576,00 €	321030393X	852,00 €	321030285X	1.661,00 €	Art.4 par.3	321030405X	1.661,00 €	Cat. I
0,75	321030380X	686,00 €	321030394X	948,00 €	321030286X	1.831,00 €	Art.4 par.3	321030406X	1.831,00 €	Cat. I
1	321030381X	785,00 €	321030395X	1.062,00 €	321030287X	2.041,00 €	Art.4 par.3	321030407X	2.044,00 €	Cat. I
1,5	321030382X	1.079,00 €	321030396X	1.636,00 €	321030288X	2.963,00 €	Cat. I	321030408X	2.811,00 €	Cat. I
2	321030383X	1.253,00 €	321030397X	1.774,00 €	321030289X	3.317,00 €	Cat. I	321030409X	3.321,00 €	Cat. I
3	321030385X	1.594,00 €	321030399X	2.203,00 €	321030291X	4.133,00 €	Cat. I	321030411X	4.353,00 €	Cat. I
4	321030386X	2.098,00 €	321030400X	2.948,00 €	321030292X	5.729,00 €	Cat. I	321030412X	6.198,00 €	Cat. II
5	321030387X	2.403,00 €	321030401X	3.385,00 €	321030293X	6.567,00 €	Cat. I	321030413X	7.102,00 €	Cat. II
6	321030388X	2.654,00 €	321030402X	3.697,00 €	321030294X	7.184,00 €	Cat. I	321030414X	7.415,00 €	Cat. II
8	321030389X	3.385,00 €	321030403X	4.545,00 €	321030296X	8.248,00 €	Cat. I	321030416X	9.727,00 €	Cat. II
10	321030390X	3.981,00 €	321030404X	5.325,00 €	321030418X	11.032,00 €	Cat. II	321030418X	11.032,00 €	Cat. II

Version 1 - AISI 304 stainless steel tube bundle exchanger mounted on enamelled plate with galvanised header

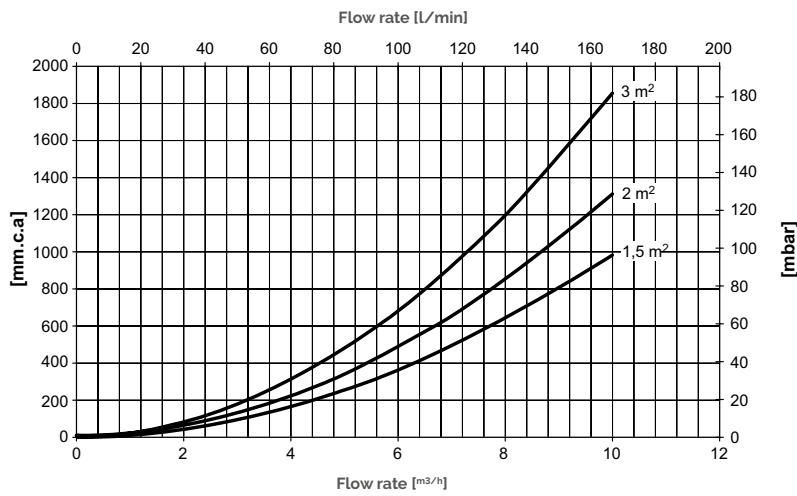
Version 2 and steam version - AISI 316 stainless steel shell and tube heat exchanger mounted on AISI 316 plate with AISI 304 header

Tube exchanger Pressure loss Curves

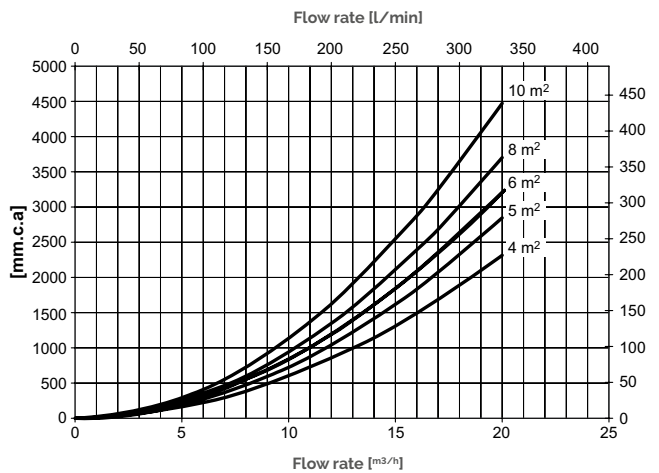
Exchanger surface 0.5 - 1m²



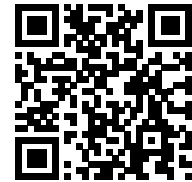
Exchanger surface area 1.5 - 3m²



Exchanger surface 4 - 10m²



Copper Spiral Exchanger



PRICES

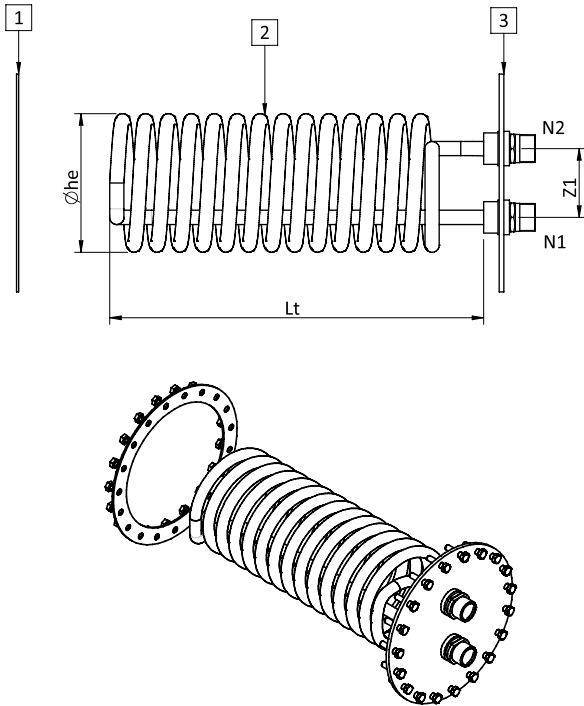


Table of Compatibility between Spiral Copper Exchanger and Storage Tank

Capacity l	Surface area ^{m²}							
	0,82	1,38	1,53	2,27	3,1	4,54	5,26	6,34
200	✓	✓	✓					
300	✓	✓	✓					
500	✓	✓	✓	✓	✓			
800	✓	✓	✓	✓	✓	✓	✓	✓
1000	✓	✓	✓	✓	✓	✓	✓	✓
1500	✓	✓	✓	✓	✓	✓	✓	✓
2000	✓	✓	✓	✓	✓	✓	✓	✓
2500	✓	✓	✓	✓	✓	✓	✓	✓
3000	✓	✓	✓	✓	✓	✓	✓	✓
4000	✓	✓	✓	✓	✓	✓	✓	✓
5000	✓	✓	✓	✓	✓	✓	✓	✓

✓ Possible combination

Connection legend

N1	Exchanger input/output
N2	Exchanger input/output
1	S/T gasket (without traverse)
2	Finned copper coil
3	Mounting plate

Technical Specifications Spiral Copper Exchanger

Sup. m²	Lt mm	øhe mm	Z1 mm	N1 inches	N2 inches	Spiral type	Volume inside l	Dp kPa	Yield thermal (*) kW	T max °C	P max bar
0,82	380	160	75	3/4"	3/4"	Single tube	0,7	25	15	99	9
1,38	420	170	75	3/4"	3/4"	Single tube	1,2	30	21,6	99	9
1,53	450	170	75	3/4"	3/4"	Single tube	1,4	35	24	99	9
2,27	570	170	75	3/4"	3/4"	Single tube	2	35	27	99	9
3,1	550	180	90	1 1/4"	1 1/4"	Double loop	2,7	26	35	99	9
4,54	570	242	120	1 1/4"	1 1/4"	Double loop	3,9	35	55	99	9
5,26	660	242	120	1 1/4"	1 1/4"	Double loop	4,5	35	57,5	99	9
6,34	780	242	120	1 1/4"	1 1/4"	Double loop	5,5	35	61,5	99	9

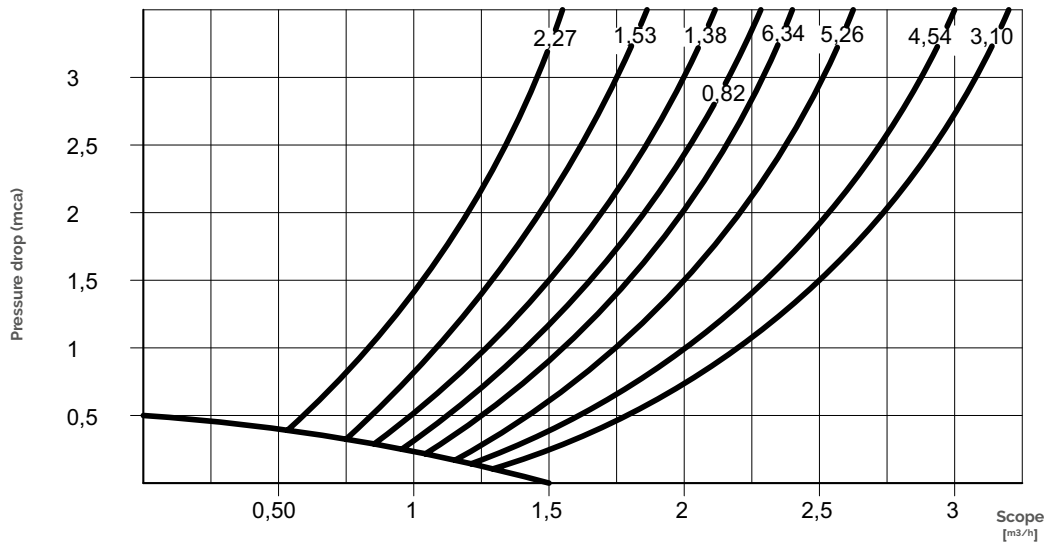
*Performance calculated with primary 80°C and domestic water 10-45°C

Copper Spiral Exchanger

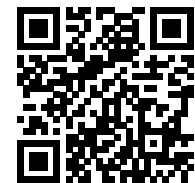
Surface m²	Mounted on plate Ø300		Mounted on plate Ø380		Mounted on plate Ø430	
	Code	Price	Code	Price	Code	Price
0,82	321040017	446,00 €	321040254X	483,00 €	321040259X	483,00 €
1,38	321040019	656,00 €	321040255X	665,00 €	321040260X	665,00 €
1,53	321040020	730,00 €	321040256X	724,00 €	321040261X	737,00 €
2,27	321040252X	885,00 €	321040021	1.092,00 €	321040262X	926,00 €
3,1	321040253X	1.288,00 €	321040022	1.650,00 €	321040263X	1.347,00 €
4,54	-	-	321040023	1.976,00 €	321040027	1.997,00 €
5,26	-	-	321040257X	1.910,00 €	321040024	2.171,00 €
6,34	-	-	321040258X	2.393,00 €	321040025	3.072,00 €

Finned copper coils are supplied complete with plate, bolts and gasket.

Copper Spiral exchanger Pressure loss Curves



Standard Accessories for DHW Tanks



ACCESSORIES PRICES



Replacement Anode

Capacity	Description	Code	Price
200-300L	22X400 MAGNESIUM ANODE + CAP	R22100012	€ 66,50
500-10000L	MAGNESIUM ANODE 33X500 + CAP	R22100013	€ 81,50

Anode replacement with simpletest

Capacity	Description	Code	Price
200-300L	SIMPLETEST ANODE 22X400 T^{1/4}	R22100006	€ 85,50
500-10000L	SIMPLETEST ANODE 33X500 T 1 ^{1/4}	R22100008	€ 114,50

Spare parts valid for all standard tanks and boilers of the ATV, BSFV, MAXI, BSX families, both glass-lined and stainless steel

Cathodic current protection imprinted (version 2021)



New version 2021:

- Separate components (power supply and cable)
- Work time indicator
- Anti-hydrogen' protection system
- Alarm signals: Anode Disconnected; Short Circuit; Fault Protection (possibility to remote alarm via dedicated port).

Description	Length (mm)	Code	Price
for capacities up to 1000 litres	450	322100014	337,00 €
for capacities from 1500 to 5000 litres	750	322100015	539,00 €

Thermometers



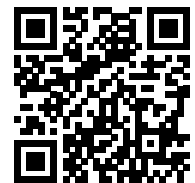
Description	Code	Price
Hot water thermometer	322050001	38,00 €
Cold water thermometer	322050004	38,00 €

Temperature controls



Description	Temperature range	Safety range	Code	Price
Thermostat	0 ÷ 90 °C	-	322010004	57,00 €
Bitermostat	0 ÷ 90 °C	fix 100 °C	322010006	136,00 €
Antifreeze Bitermostat	-30 ÷ 30 °C	0 ÷ 90 °C	322010007	196,00 €

Standard Accessories for DHW Tanks



Single-phase heating elements that can be used as an addition to boilers, copper heating elements, manually reset safety thermostat, wired electrical cable and Schuko 16A/250V plug.



ACCESSORIES
PRICES

Code	Price	Power W	Length L mm	Connection GAS M	Temperature safety thermostat °C	Voltage V	Length max. sleeve mm	Protection class	Thermostat by adjustment °C
C24100166	162,00 €	1200	290	1 1/2	95	220-240 V SINGLE- PHASE	55	IP44	20-70
C24100167	153,00 €	2000	295	1 1/2	95			IP54	20-65
C24100168	167,00 €	3000	345	1 1/2	95			IP54	20-65
C24100178	168,00 €	3000	413	1 1/4	85			IP44	20-70

Three-phase heating elements that can be used as an addition to boilers, copper heating elements, supplied complete with regulating thermostat, manually reset safety thermostat, wired and unplugged electrical cable.



Code	Price	Power W	Length L mm	Connection GAS M	Temperature safety thermostat °C	Voltage V	Length max. sleeve mm	Protection class	Thermostat by adjustment °C
C24100169	412,00 €	2000	290	1 1/2	96	400 V THREE- PHASE	90	IP44	30-75
C24100170	479,00 €	3000	290	1 1/2	96			IP44	30-75
C24100171	526,00 €	4500	430	1 1/2	96			IP54	30-65
C24100172	573,00 €	6000	430	1 1/2	96		IP54	30-65	
C24100173	634,00 €	9000	660	1 1/2	96		IP54	30-65	
C24100317	772,00 €	12000	840	1 1/2	95		84	IP54	30-65
C24100318	961,00 €	15000	900	1 1/2	95		90	IP54	30-65
C24100319	1.202,00 €	18000	1050	1 1/2	95		105	IP54	30-65

Blind plates



Diam. mm	Enamelled blind plates		Stainless steel blind plates	
	Code	Price	Code	Price
Ø300	343030018X	122,00 €	343040019X	138,00 €
Ø380	343030019X	146,00 €	343040020X	169,00 €
Ø430	343030020X	194,00 €	343040021X	222,00 €

Copper tube bundles and spiral coils see pages 159-161



Blind plates are supplied complete with bolts and gasket.

Seals with and without traverse



Diameter mm	Asbestos-free				Asbestos-free Steam			
	Without crossbeam		With crossbeam		Without crossbeam		With crossbeam	
	Code	Price	Code	Price	Code	Price	Code	Price
Ø300	R08020036	67,00 €	R08020037	67,00 €	R08060026	108,00 €	R08060001	95,00 €
Ø380	R08020038	78,50 €	R08020039	78,50 €	R08060027	115,00 €	R08060002	115,00 €
Ø430	R08020040	77,00 €	R08020041	77,00 €	R08060028	103,00 €	R08060003	103,00 €

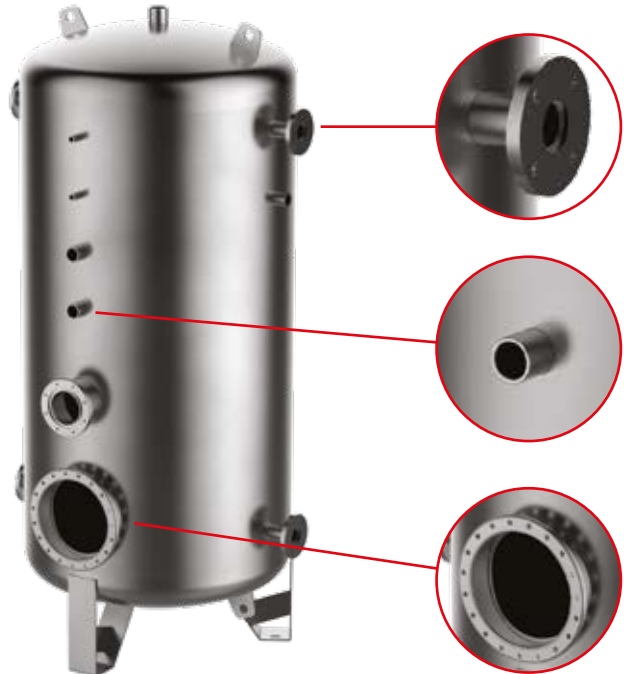
The finned copper coils mount a gasket without a crossbeam of the diameter of the hatch.

Shell and tube heat exchangers have two gaskets, one with and one without a crossbeam. Both are of the same diameter as the end cap. Blind end caps mount a gasket without crossbeam of the diameter of the hatch

Special tank executions

Special executions change the conformation of the products and therefore the sales code will also be different depending on the special execution requested. HEIZERSILE is able to meet any non-standard request quickly, providing customers with the necessary assistance to guide them to the most suitable solution for their needs. Below are some examples of special executions:

- Flanged (in various materials)
- Grooved (in various materials)
- Increased
- Customised on request



DHW TANKS

ALUMINIUM sheet metal cladding
Accessory suitable for outdoor installation.
A wooden transport cage is compulsory.

Packaging in a wooden cage
Provides greater product protection during transport



Accessories Compatible with lines ATV, BSFV, MAXI, BSX

Internal tank treatments

Bluetech

Bluetech is an innovative treatment made from thermosetting resins that offers advantages over traditional treatments, including:

- excellent resistance and stability at high temperatures;
- excellent adhesion to carbon steel combined with high elasticity;
- high impermeability to oxygen;
- effective cathodic delamination barrier;
- long duration.

it is specifically designed for the internal lining of our Domestic Hot Water (DHW) boilers and storage tanks and can be used in the presence of drinking water. Bluetech complies with the provisions of Italian Ministerial Decree 174/2004 and is therefore suitable for potable water as per Italian Legislative Decree 31/2001 (att. dir. 98/83/EC).

Properties

The data below refer to a coating applied under standard conditions on 3 mm thick carbon steel sheet.

Application	Electrostatics
Cooking	20 min at 200°C
Film thickness	100 to 140 µm
Appearance	Smooth / Shiny
Pencil hardness	H + 2 H
Colour	Blue RAL 5002



Stainless steel

Under certain conditions of use in the presence of chlorides, even stainless steel may suffer pitting corrosion. To prevent this risk, our boilers are made of special austenitic steels such as AISI 316 L (low carbon) and, for special executions, AISI 316 Ti (Titanium). For drinking water applications we use AISI 316 L 1.4404 EN 10088-2 steel (suitable for drinking water according to DM 174/2004).

Glass lining

This solution offers excellent guarantees against corrosion. enamel subjected to vitrification, by firing at over 800°C, differs from paints in its purely inorganic chemical composition (absence of carbon) and in its chemical bonding. As a guarantee of effectiveness, glass lining is limited to medium-capacity accumulations. The enamelling is inorganic (DIN 4753.3) and therefore suitable for use with drinking water according to DM 174/2004.

Conditions of Use

For proper use of the tanks and to prevent possible malfunctions or damage, the following limits of use must be observed:

- a) The tank must be equipped with efficient cathodic protection.
- b) The quality requirements of the drinking water supply must comply with DLgs 31/01 (act. dir. 98/83/CE) and in particular the following parameters must be respected

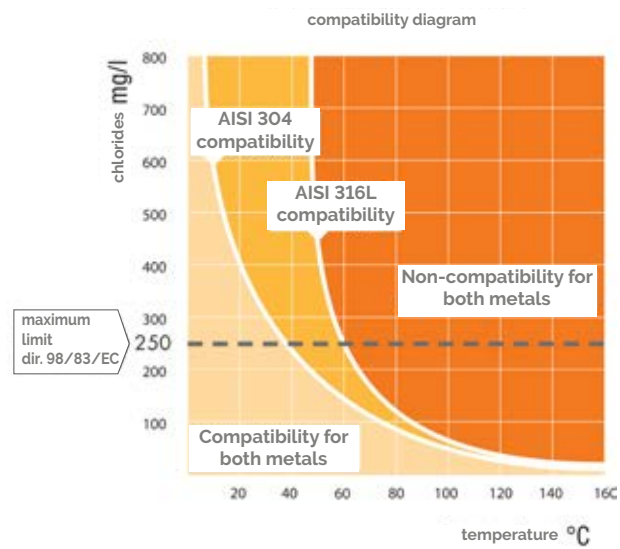
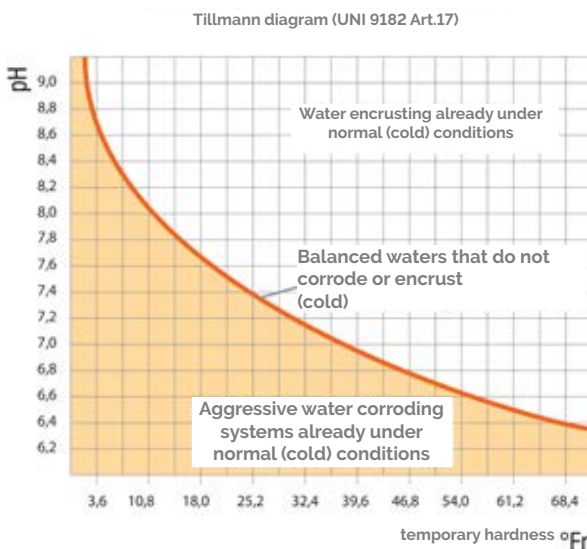
hydrogenionic concentration pH (*)	6,5 ÷ 9,5
electrical conductivity $\mu\text{S cm}^{-1}$ (at 20°C)	< 2500
chlorides mg/L ci	< 250
sulphates mg/L SO4	< 250
total hardness °Fr (*)	minimum requirement 15

(*) In addition to meeting hygiene objectives, water must be treated according to the TILLMANN diagram to be in balance (neither scaling nor aggressive). The prescribed treatments (UNI 8065) cannot, however, prevent any food use and must be carried out with suitable equipment. In the case of softening or desalination, the total hardness of the treated water must not be less than 15°Fr (DM 443/90).

c) the maximum operating temperature indicated for each individual product must be observed. Please note that the aggressiveness of water increases markedly with increasing temperature, especially above 60°C.

Water and employment

Classification of encrusting (hard) and aggressive (softened) water according to pH and temporary hardness. Compatibility of use aisi 304/316 L steels as a function of chloride content and water temperature.



Protections available

Overpressure protection

To prevent inconveniences due to fluid overpressure, the use of protective devices such as

Safety valve. Since water is incompressible and increases in volume as it heats up, a suitable expansion system must be provided to prevent the water heater from breaking down.

It is suggested to comply with the ISPEL standards (Collection R-Chapter R.1.A), which stipulate, in the case of water heaters intended for consumption, that the expansion system can be realised with a relief valve, counterweighted or spring-loaded, the diameter of which can be obtained using the following formula

$$d \geq \sqrt{\frac{V}{5}} \quad \begin{array}{l} V = \text{volume of water heater in litres} \\ d = \text{valve orifice diameter (minimum 15 mm)} \end{array}$$

N.B. The set pressure of the valve must not exceed the maximum operating pressure of the water heater.

Expansion vessel. In order to avoid continuous draining of the safety valve, limescale build-up on the safety valve and dangerous stresses on the water heater, the use of a closed expansion vessel with a non-toxic membrane (for foodstuffs), with a volume $\geq 10\%$ of the storage tank, must also be provided.

Water hammer dampening device. Abrupt or instantaneous stoppages of the water flow can cause "pressure waves" capable of causing serious damage and/or breakage; therefore, all cold and hot water distribution systems must include water hammer damping devices of the mechanical type (spring) or better still, of the hydropneumatic type (with a permanent or restorable air cushion) (UNI 9182 Art. 15).

Frost protection.

In the event of prolonged exposure of the tanks to temperatures below 0°C, it is necessary to provide appropriate protection with heating media or ensure a continuous flow to prevent the water from standing (UNI 9182 Art.20.4.3).

Electrical protection

In order to guarantee the safety of users against possible fault currents, a CORRECT GROUNDING of metal masses must be CARRIED OUT (as prescribed by DM 37/08).

Cathodic corrosion protection

CORROSION is a phenomenon of an electro-chemical nature which mainly affects water heaters as they are containers of continuously renewed water whose aggressiveness grows dramatically as the temperature rises (especially above the 60°C threshold). It is therefore advisable to provide 'CATODIC PROTECTION'.

Magnesium anodes

To achieve cathodic protection in tanks designed to contain domestic water, one or more sacrificial MAGNESIUM ANODES are supplied, which, as they wear out, effectively protect the structure from corrosion. Our ANODES are manufactured from a special magnesium alloy type AZ 63 to guarantee PHYSIOLOGICAL INNOCUITY, ELECTRODE POTENTIAL (≤ -0.9 V) and MASS LOSS RATE (≤ 30 g- m⁻² -d⁻¹) in accordance with DIN 4753-6.

Correx® Impressed Current Electronic Anode

Cathodic protection can be carried out with an electronic impressed current anode to ensure permanent cathodic protection. Since CORREX® is not subject to wear, it is particularly suitable for the protection of tanks containing water with borderline chemical-physical properties.



Standards and Guidelines for Proper Use

Information and suggestions for the correct interpretation and application of DM 37/08 follow.

Hot water storage

Heat generators intended for the centralised production of hot water for hygienic and sanitary uses for a plurality of residential users must be sized according to UNI 9182 technical standards and have a hot water storage system of adequate capacity. (Regulatory reference DPR 412/93 Art. 5.7).

Drinking water

The quality requirements for drinking water supply must comply with Legislative Decree 31/01 implementing Dir. 98/83/EC.

Tanks

For deposits of fuel oil or gas oil for THERMAL SYSTEMS, the regulations of the Ministry of the Interior's circular of 28-04-05 apply.

Links

The connections from the pipes to the equipment (boilers, storage tanks...) must always be made with flanges or three-piece unions. (Reference UNI 9182 Art. 20.3.7)

Storage Sizing

Dimensioning must be carried out in relation to: total water demand of the peak period, duration of the pre-heating period, cold water temperature, distributed hot water and stored water. (Reference UNI 9182 Art. 9.3.1)

Separate generators

The centralised production of the thermal energy necessary for the air conditioning of rooms and the production of hot water for hygienic and sanitary uses for several users must be carried out with separate heat generators. (Reference DPR 412/93 Art. 5.6)

Earthing installations

Electrical installations must be equipped with earthing systems and earth leakage circuit breakers or other equivalent protection systems. (Normative reference DM 37/08)

Legionella prevention

In order to prevent the presence of this bacterium,

the World Health Organisation (WHO Bulletin, Vol. 681990) suggests the following:

- Heat the water to a storage temperature of 60°C.
- Ensure that the water at every point in the system has a temperature of at least 50°C.

Frost protection

As the water freezes and increases in volume, the pressure inside a closed tank would be so great that it would rupture. To avoid this eventuality, the system must be designed and operated in such a way that the water never drops to 0°C.

Recirculation

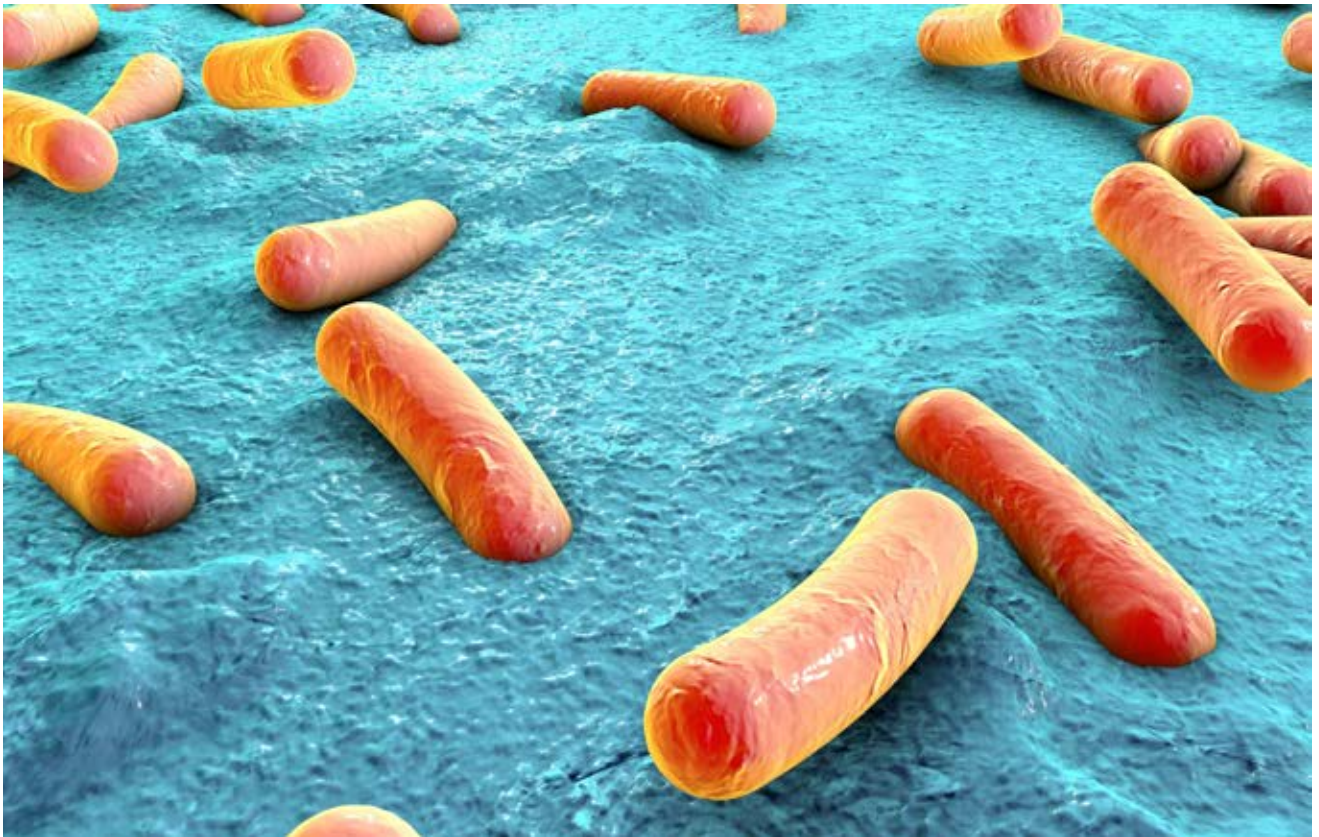
If the distribution is centralised, it is essential to provide a recirculation network that allows the water to remain in continuous movement and to avoid the consequences of heat loss in the event of stagnation. (Reference UNI 9182 Art. 9.5)

Distribution temperature

Heat generators intended for the centralised production of hot water for hygienic and sanitary uses for a plurality of residential users must be designed and ducted in such a way that the water temperature, measured at the point of input to the distribution network, does not exceed 48°C, +5°C tolerance. (Normative reference DPR 412/93 Art. 5.7)

Storage temperature

(Reference UNI 9182 - Appendix L) Although the standard provides for storage temperatures of up to 65°C, it is recommended not to exceed 60°C in order to ensure energy savings, contain limescale precipitation and reduce electrochemical corrosion. In order not to exceed this ideal temperature, the cylinder capacity must be appropriately dimensioned. In addition (Appendix U) it is forbidden to convey water with a temperature above 60°C in galvanised steel pipes.



Prevention Guidelines and the control of legionellosis

Environmental Conditions

The optimal conditions for the development and proliferation of legionella bacteria are as follows:

- Water temperature between 25 and 42°C
- Aerobic environment
- Presence of nutrients (slag, biofilm, iron ions and limestone)

Methods of prevention and control of water system contamination

Short-term measures

In the absence of structural interventions, the following short-term measures need to be implemented:

- Descaling of less worn elements by soaking in solution and subsequent disinfection.
- Replacement of joints, filters at taps, shower heads and worn hoses at showers.

In carrying out the operations described above, it is necessary to operate in accordance with Legislative Decree 81/2008 as amended.

Long-term measures

☹ Thermal shock

It consists of raising the temperature of the water to 70-80°C for three consecutive days, ensuring its outflow from all supply points for at least 30 min per day. It must be verified that the temperature reaches or exceeds 60°C at the distal points of the system.

Advantages: Requires no special equipment and can therefore be implemented immediately.

Disadvantages: While this procedure is effective, it requires high energy consumption.

☹ Thermal disinfection

It is easily applied to systems with dual water temperature control systems.

The domestic hot water production temperature inside the boilers is raised to 65°C (primary control); Recirculation of water at 55-60°C is carried out throughout the distribution system for at least 30 min per day, preferably

Advantages: In systems equipped with the dual temperature control system, it can be implemented immediately.

Disadvantages: This procedure requires high energy consumption. In the case of systems in which hot water is produced and distributed at 48-50°C, the batte

legionella can colonise both boilers and distribution and recirculation networks.

🕒 **Point-of-use filtration**

Microfiltration enables the removal of Legionella from the water leaving the point of use through the use of a mechanical barrier (0.2 µm). It is a localised treatment system that is easy to install.

🕒 **UV irradiation**

UV radiation is able to inactivate bacteria by dimerising the thymine present in the DNA so as to hinder their replication. It is an effective alternative method of disinfection close to the point of application. As it has no residual effect, it is not suitable as a single method for treating an entire building, since Legionella persists in biofilm, dead spots and stagnant sections of the system.

Advantages: The device is easily installed in existing water systems.

Disadvantages: UV irradiation is effective if the fluid thickness is limited and the water is poorly turbid.

🕒 **Hyperchlorination shock**

Advantages: Shock hyperchlorination is a strong disinfectant treatment.

Disadvantages: It is a systemic but temporary disinfection mode

🕒 **Continuous hyperchlorination**

Advantages: Continuous hyperchlorination is a general disinfection mode that ensures a residual concentration of the disinfectant throughout the water distribution system so as to minimise colonisation by Legionella at distal points.

Disadvantages: Chlorine is corrosive and can cause damage to pipes. It is also necessary to prohibit the potable use of hot water (especially in the preparation of hot food and drinks), while informing the user.

🕒 **Chlorine dioxide disinfection**

Chlorine dioxide has been successfully used in aqueducts and subsequently applied in the control of Legionella contamination in domestic water systems. Compared to chlorine, it has the advantage of being more active against biofilm.

Advantages: The action is not influenced by the pH of the water. Reduces biofilm growth.

Disadvantages: gives rise to the formation of inorganic by-products (chlorite and chlorate) of disinfection.

🕒 **Ozonation**

Ozone is an excellent biocide capable of irreversibly damaging the DNA of microorganisms. It shows no residual effect, so it cannot be used in systemic plant treatment. It has minimal impact on biofilm, produces by-products and, at high doses, can damage pipes. Its effectiveness is moderately influenced by pH and water temperature.

🕒 **Copper-silver ionisation**

Metals such as copper and silver are known bactericidal agents: the effect is mainly due to their action on the cell wall of the microorganism, which leads to a distortion of cell permeability.

Advantages: The method is easy to apply and is not affected by water temperature. Furthermore, due to the accumulation of copper in the biofilm, the bactericidal effect persists for several weeks after deactivation of the treatment system, reducing the possibility of re-colonisation. To date, the formation of disinfection by-products has not been observed.

Disadvantages: As the concentrations of copper and silver ions are subject to fluctuations, it is necessary to systematically check their value as well as the pH value of the water (optimum value: 6-8). Both residual free chlorine and corrosion inhibitors can alter the concentration of copper ions, reducing their effectiveness.

This technique is not suitable for the treatment of stainless steel, galvanised steel and copper water networks due to oxidation-reduction phenomena that can occur between the pipes and the disinfectant.

🕒 **Hydrogen peroxide disinfection and silver ions**

The treatment is carried out using a stable, concentrated solution containing hydrogen peroxide and silver ions, exploiting the bactericidal action of each component and the synergy that develops between them. The use of this disinfectant is relatively recent and needs further experimental confirmation.

Advantages: The oxidising action of hydrogen peroxide is less aggressive than that of chlorine dioxide or chlorine. To date, the formation of inorganic and organic by-products has not been reported.

The concentration of silver ions is extremely low and if well managed does not lead to pollutant loads.

Disadvantages: At present, there is still no comprehensive evidence on the dynamic behaviour of this disinfectant over time. As the concentrations of hydrogen peroxide and silver ions are subject to fluctuations, their values must be systematically checked. This technique is not suitable for the treatment of galvanised steel water mains as zinc is capable.



Inertial tanks

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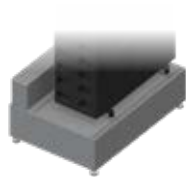
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INERTIAL TANK ACCESSORIES 208



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Inertial tanks

PU / PUW 1 / PUW 2

Puffer thermoaccumulators

PU / PUW 1 / PUW 2 buffer tanks are inertial tanks for heating systems intended for the storage of hot technical water (not for sanitary use), necessary in all systems powered by a discontinuous energy source (e.g. solar panels, wood boiler, thermo-fireplace, etc.), or when it is necessary to increase the volume of water contained in the system (e.g. systems with heat pumps, cogenerators, biomass boilers, etc.). Puffer storage heaters are available in different versions, designed for use with one or more energy sources:

PU Simple accumulation

PUW 1 Storage tank equipped with an internal smooth-tube heat exchanger for the insertion of a second energy source (e.g. solar).

PUW 2 Storage tank equipped with two internal smooth-tube heat exchangers for the insertion of two additional energy sources (e.g. solar and thermo chimney).

Material

All tanks are made of carbon steel sheet S 235 JR, painted on the outside.

Insulation

Capacity (L)	Type
from 300 to 1000	High-density rigid polyurethane foam
from 1500 to 5000	Polyester fibre
by 6000	Flexible polyurethane

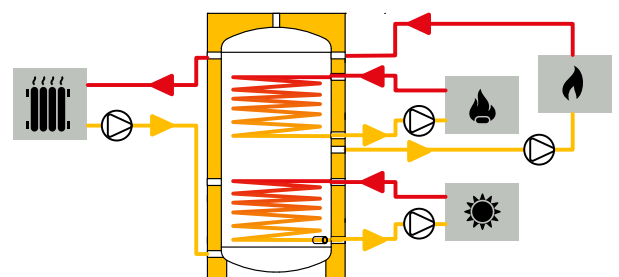
Limits of use

Mod.	Accumulation Side		Serpentine circuit S1		Serpentine circuit S2	
	Max. temperature	Max. pressure	Max. temperature	Max. pressure	Max. temperature	Max. pressure
PU	95°C	6 bar	-	-	-	-
PUW 1	95°C	6 bar	99°C	9 bar	-	-
PUW 2	95°C	6 bar	99°C	9 bar	99°C	9 bar



 **Standard accessories:** see page 208

 **Special executions:** see page 210

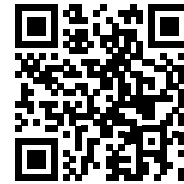


Inertial tanks

PU / PUW 1 / PUW 2 Product Codes

PU series

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	317010119X	873,00 €	B	64x64x180	55
500	317010120X	1.129,00 €	C	77x77x184	77
750	317010216X	1.385,00 €	C	95x95x178	109
1000	317010002	1.686,00 €	C	129x129x216	125
1500	317010003	2.347,00 €	C	125x125x229	194
2000	317010004	2.897,00 €	C	136x136x261	263
2500	317010101X	3.368,00 €		147x147x234	296
3000	317010102X	3.784,00 €		147x147x284	346
4000	317010103X	5.463,00 €		163x163x293	492
5000	317010104X	6.634,00 €		183x183x299	582
6000	317010129X	8.975,00 €		282x203x217.5	684
8000	317010130X	10.536,00 €		352x203x217.5*	823
10000	317010131X	11.121,00 €		427x203x217.5*	973

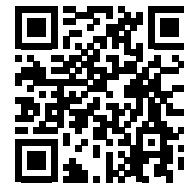


PRICES
PU

*shipping in containers requires open top containers

PUW Series 1

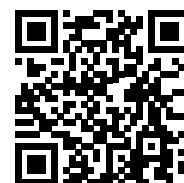
Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	319010129X	1.189,00 €	B	64x64x180	65
500	319010130X	1.490,00 €	C	77x77x184	98
750	319010202X	1.952,00 €	C	95x95x178	137
1000	319010003	2.299,00 €	C	129x129x216	153
1500	319010004	3.008,00 €	C	125x125x229	237
2000	319010005	3.679,00 €	C	136x136x261	315
2500	319010135X	4.106,00 €		147x147x234	352
3000	319010136X	4.806,00 €		147x147x284	413
4000	319010137X	6.361,00 €		163x163x293	571
5000	319010138X	7.415,00 €		183x183x299	672



PRICES
PUW1

PUW Series 2

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
300	319010149X	1.402,00 €	B	64x64x180	77
500	319010150X	1.778,00 €	C	77x77x184	111
750	319010203X	2.235,00 €	C	95x95x178	154
1000	319010006	2.768,00 €	C	129x129x216	181
1500	319010007	3.460,00 €	C	125x125x229	268
2000	319010008	4.355,00 €	C	136x136x261	346
2500	319010155X	4.641,00 €		147x147x234	383
3000	319010156X	5.412,00 €		147x147x284	460
4000	319010157X	6.930,00 €		163x163x293	628
5000	319010158X	7.897,00 €		183x183x299	730



PRICES
PUW2

Inertial tanks

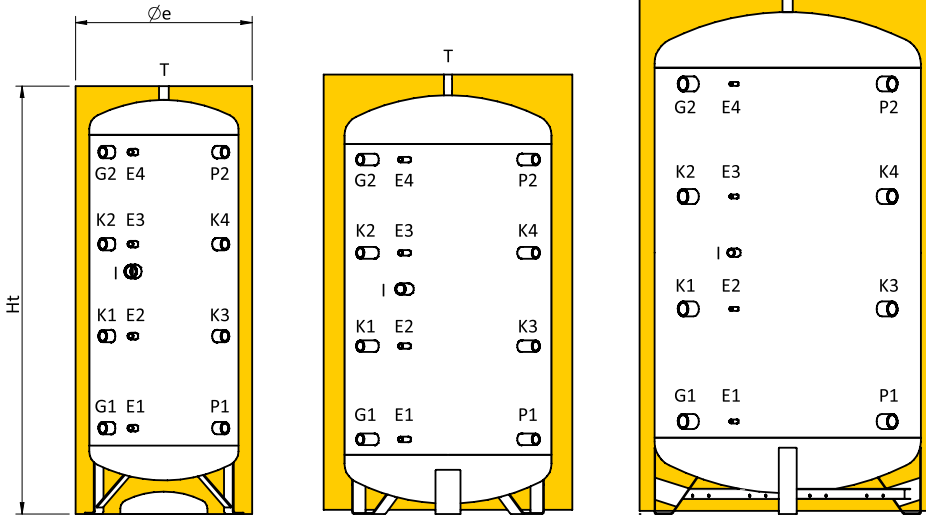
PUFFER PU dimensions

300 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000

6.00 ≤ cap. ≤ 10,000

Connection legend



E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	P1 inches	P2 inches	T inches
300	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
500	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
750	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
1000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
1500	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"
2000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1"
2500	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
3000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
4000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
5000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	2"	2"	1"
6000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"
8000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"
10000	1/2"	1/2"	1/2"	1/2"	3"	3"	1 1/2	3"	3"	3"	3"	3"	3"	2"

Size table

Cap. L	Øe mm	Ht mm	R' mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	P1 mm	P2 mm
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	1435
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	1465
750	910	1765	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	1445
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	1650
1500	1250	2145	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	1710
2000	1350	2475	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	2010
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	1745
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	2235
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	2280
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	2310
6000	2000	2790	3435	635	1155	1675	2195	635	2195	1415	1155	1675	1155	1675	635	2195
8000	2000	3490	4025	625	1385	2145	2905	625	2905	1615	1385	2145	1385	2145	625	2905
10000	2000	4240	4690	625	1635	2645	3655	625	3655	2365	1635	2645	1635	2645	625	3655

R': Tipping height

Inertial tanks

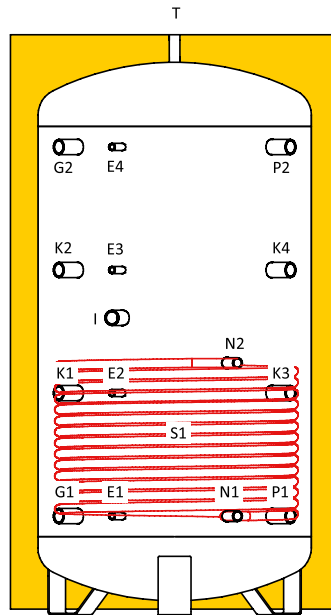
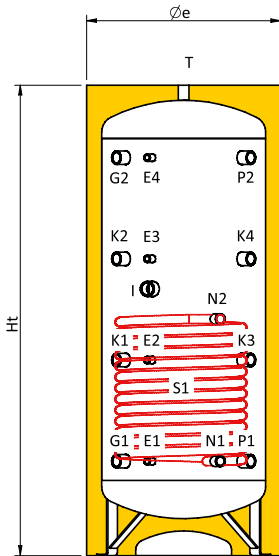
PUFFER

Dimensions PUW 1

300 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000

Connection legend



E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
T	Venting

Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	P1 inches	P2 inches	T inches
300	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1'	1'	1 1/4	1 1/4	1 1/4
500	1/2"	1/2"	1/2"	1/2"	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1'	1'	1 1/4	1 1/4	1 1/4
750	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1 1/2	1 1/2	1 1/2
1000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1 1/2	1 1/2	1 1/2
1500	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1 1/2	1 1/2	1'
2000	1/2"	1/2"	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1 1/2	1 1/2	1'
2500	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1'	1'	2"	2"	1'
3000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1'	1'	2"	2"	1'
4000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1'	1'	2"	2"	1'
5000	1/2"	1/2"	1/2"	1/2"	2"	2"	1 1/2	2"	2"	2"	2"	1'	1'	2"	2"	1'

Size table

Cap. L	Øe mm	Ht mm	R* mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	P1 mm	P2 mm	S1 m ²
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	685	325	1435	1
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	875	355	1465	1.9
750	910	1765	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	875	395	1445	2.5
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	890	330	1650	3.1
1500	1250	2145	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	920	360	1710	3.8
2000	1350	2475	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	990	390	2010	4.6
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	985	425	1745	5
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	1115	435	2235	6
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	1160	480	2280	7
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	1190	510	2310	8

R*: Tipping height

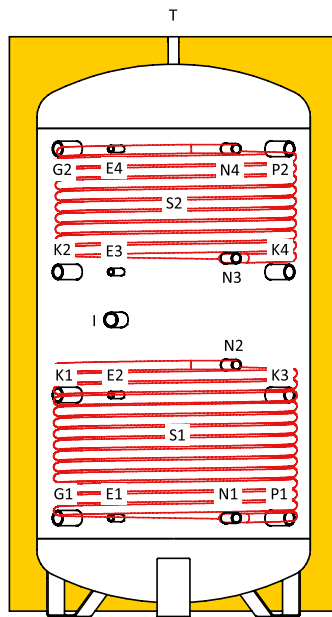
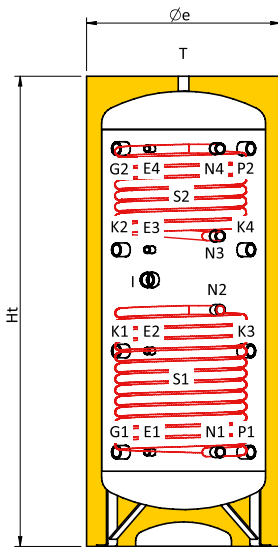
Inertial tanks

PUFFER

Dimensions PUW 2

300 ≤ cap. ≤ 1,000

1.500 ≤ cap. ≤ 5,000



Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
S2	Upper Serpentine
T	Venting

Connection table

Cap. L	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	N3 inches	N4 inches	P1 inches	P2 inches	T inches
300	1/2'	1/2'	1/2'	1/2'	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1'	1'	1'	1'	1 1/4	1 1/4	1 1/4
500	1/2'	1/2'	1/2'	1/2'	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/4	1 1/4	1'	1'	1'	1'	1 1/4	1 1/4	1 1/4
750	1/2'	1/2'	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1'	1'	1 1/2	1 1/2	1 1/2
1000	1/2'	1/2'	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1'	1'	1 1/2	1 1/2	1 1/2
1500	1/2'	1/2'	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1'	1'	1 1/2	1 1/2	1'
2000	1/2'	1/2'	1/2'	1/2'	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1'	1'	1'	1'	1 1/2	1 1/2	1'
2500	1/2'	1/2'	1/2'	1/2'	2'	2'	1 1/2	2'	2'	2'	2'	1'	1'	1'	1'	2'	2'	1'
3000	1/2'	1/2'	1/2'	1/2'	2'	2'	1 1/2	2'	2'	2'	2'	1'	1'	1'	1'	2'	2'	1'
4000	1/2'	1/2'	1/2'	1/2'	2'	2'	1 1/2	2'	2'	2'	2'	1'	1'	1'	1'	2'	2'	1'
5000	1/2'	1/2'	1/2'	1/2'	2'	2'	1 1/2	2'	2'	2'	2'	1'	1'	1'	1'	2'	2'	1'

Size table

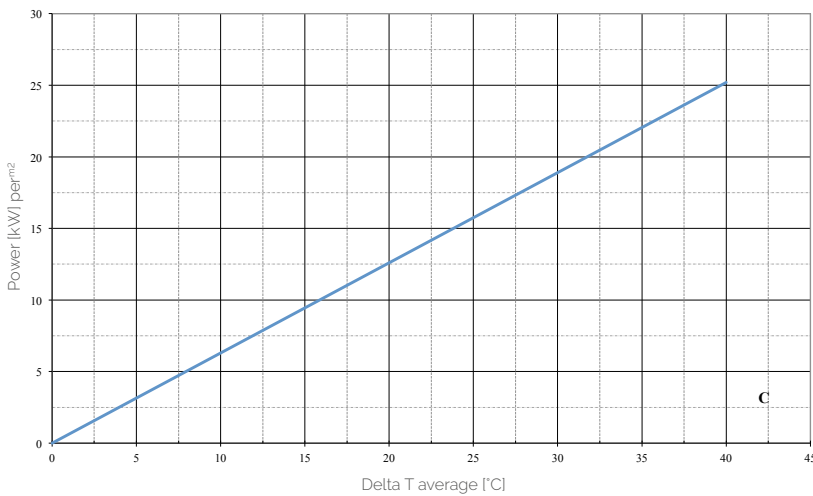
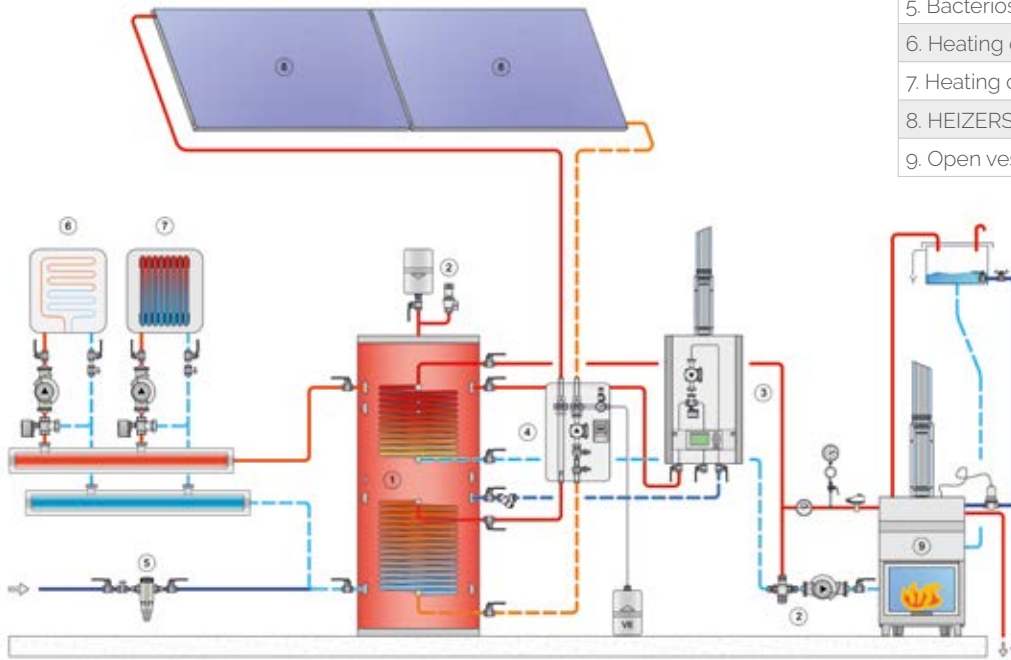
Cap. L	Øe mm	Ht mm	R' mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	N3 mm	N4 mm	P1 mm	P2 mm	S1 m ²	S2 m ²
300	610	1680	1790	325	695	1065	1435	325	1435	880	695	1065	695	1065	325	685	685	1075	325	1435	1	1
500	760	1735	1895	355	725	1095	1465	355	1465	985	725	1095	725	1095	355	875	1145	1465	355	1465	1,9	1,2
750	910	1785	1990	395	745	1095	1445	395	1445	920	745	1095	745	1095	395	875	1165	1445	395	1445	2,5	1,5
1000	1010	2000	2245	330	770	1210	1650	330	1650	990	770	1210	770	1210	330	890	1210	1650	330	1650	3,1	2,5
1500	1240	2140	2475	360	810	1260	1710	360	1710	1085	810	1260	810	1260	360	920	920	1310	360	1710	3,8	2,8
2000	1340	2470	2815	390	930	1470	2010	390	2010	1200	930	1470	930	1470	390	990	990	1650	390	2010	4,6	2,8
2500	1450	2220	2655	425	865	1305	1745	425	1745	1145	865	1305	865	1305	425	985	985	1305	425	1745	5	4
3000	1450	2720	3085	435	1035	1635	2235	435	2235	1435	1035	1635	1035	1635	435	1115	1115	1755	435	2235	6	4,2
4000	1600	2810	3235	480	1080	1680	2280	480	2280	1430	1080	1680	1080	1680	480	1160	1160	1800	480	2280	7	5
5000	1800	2870	3390	510	1110	1710	2310	510	2310	1510	1110	1710	1110	1710	510	1190	1190	1910	510	2310	8	5

R': Tipping height

PUFFER

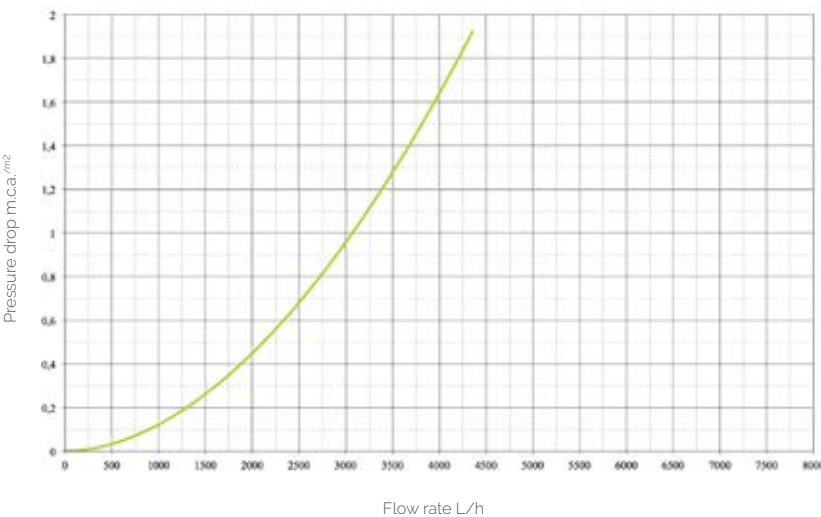
Installation diagram

List of components
1. HEIZERSILE PUW 2
2. Safety group
3. Sile MG3V condensate boiler
4. Solar thermal return unit
5. Bacteriostatic cold water filter
6. Heating circuit 1
7. Heating circuit 2
8. HEIZERSILE solar collectors
9. Open vessel boiler or fireplace



Fixed coil power

The graph shows the power exchanged by the fixed exchanger as a function of the storage tank temperature



Fixed coil pressure losses

The pressure drops shown in the graph refer to the surface area of 1 m² of coil. Multiply this value by the exchange surface area to obtain the total pressure drop.

Inertial tanks

PUX / PUXW 1 / PUXW 2

Combined tanks for Heating and DHW

The PUX / PUXW 1 / PUXW 2 range consists of inertia tanks for systems using discontinuous energy sources such as solar, biomass, wood-fired systems, etc. Thanks to the large-surface stainless steel corrugated pipe-type internal exchanger, instantaneous domestic hot water production is guaranteed. The range consists of tanks available with different capacities, from 500 to 2000 litres and in three different versions:

PUX: equipped with 1 fixed internal coil, of the corrugated stainless steel pipe type for the production of instantaneous domestic hot water.

PUXW 1: equipped with 2 fixed internal coils, one in corrugated stainless steel pipe for the production of instantaneous domestic hot water, the other in carbon steel used for connection to an additional heat source.

PUXW 2: equipped with no. 3 fixed internal coils, one in corrugated stainless steel pipe for the production of instantaneous domestic hot water and two in carbon steel for connection to as many supplementary heat sources.

Material

Inertial tanks are made of high quality material, in particular:

Sanitary coil: AISI 316L stainless steel

Integration tank and coils: carbon steel S 235 JR

External protective treatment: painting with industrial enamel

Insulation

Capacity (L)	Type
500	High-density rigid polyurethane foam
from 600 to 2000	Polyester Fibre

Limits of use

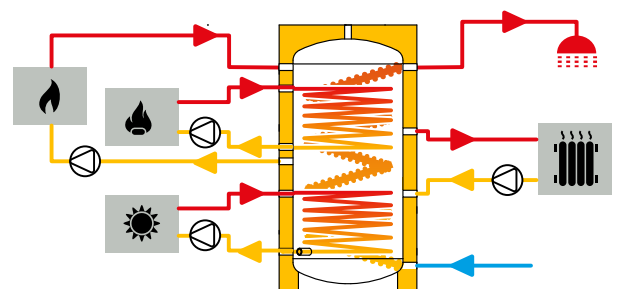
Accumulation Side		Serpentine circuit S1- S2-S3	
Max. temperature	Max. pressure	Max. temperature	Max. pressure
95°C	3 bar	110°C	10 bar

 **Standard accessories:** see page 208

 **Special executions:** see page 210



TESTED

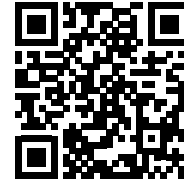


PUX / PUXW 1 / PUXW 2

Combined tanks for Heating and DHW

PUX

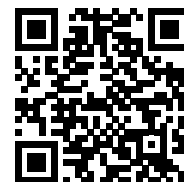
Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
500	342020184X	1.859,00 €		100X100X178	125
600	342020185X	2.062,00 €		100X100X185	135
750	342020186X	2.366,00 €		100X100X191	160
1000	342020187X	2.603,00 €		100X100X224	190
1250	342020188X	3.120,00 €		120X120X221	225
1500	342020189X	3.637,00 €		120X120X235	250
2000	342020190X	4.226,00 €		140X140X257	350



PRICES
PUX

PUXW 1

Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
500	342020191X	2.188,00 €		100X100X178	150
600	342020192X	2.382,00 €		100X100X185	165
750	342020193X	2.750,00 €		100X100X191	190
1000	342020194X	3.106,00 €		100X100X224	230
1250	342020195X	3.548,00 €		120X120X221	265
1500	342020196X	4.140,00 €		120X120X235	300
2000	342020197X	4.731,00 €		140X140X257	410



PRICES
PUXW1

PUXW 2

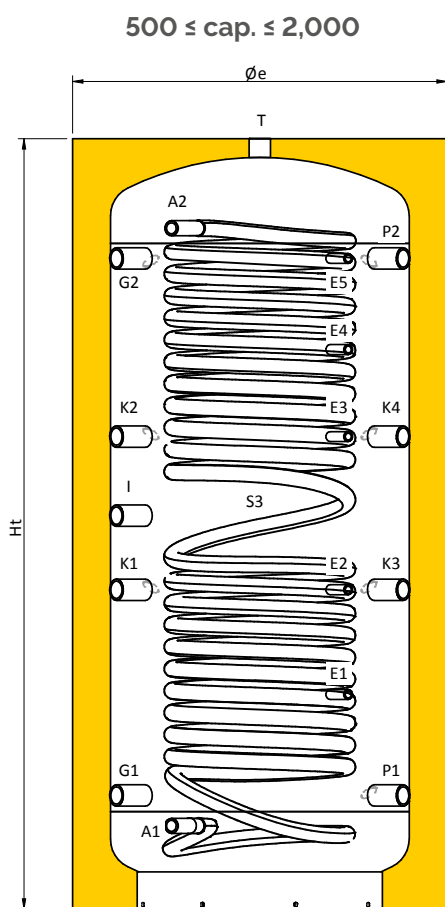
Capacity L	Code	Price	Class energy	With vertical packaging	
				Dimensions cm	Weight kg
500	342020198X	2.484,00 €		100X100X178	165
600	342020199X	2.691,00 €		100X100X185	180
750	342020200X	3.106,00 €		100X100X191	215
1000	342020201X	3.548,00 €		100X100X224	265
1250	342020202X	3.992,00 €		120X120X221	295
1500	342020203X	4.583,00 €		120X120X235	335
2000	342020204X	5.174,00 €		140X140X257	455



PRICES
PUXW2

Inertial tanks

PUX Dimensions



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
E5	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
P1	Output to energy source
P2	Input from energy source
S3	Domestic water coil
T	Venting

Connection table

Cap. L	A1 inches	A2 inches	E1 inches	E2 inches	E3 inches	E4 inches	E5 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	P1 inches	P2 inches	T inches
500	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
600	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
750	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
1000	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
1250	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
1500	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"
2000	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"

Size table

Cap. L	Øe mm	Ht mm	R' mm	A1 mm	A2 mm	E1 mm	E2 mm	E3 mm	E4 mm	E5 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	P1 mm	P2 mm	S3 m ²
500	750	1630	1795	135	1455	420	650	970	1190	1380	210	1380	820	650	970	650	970	210	1380	4
600	900	1700	1925	150	1470	405	595	995	1215	1395	225	1395	805	595	995	595	995	225	1395	4
750	990	1760	2020	180	1500	440	625	1025	1225	1425	255	1425	865	625	1025	625	1025	255	1425	6
1000	990	2090	2315	220	1800	570	845	1250	1480	1720	300	1720	1040	845	1250	845	1250	300	1720	7.5
1250	1150	2060	2360	210	1790	550	785	1240	1470	1700	300	1700	1085	785	1240	785	1240	300	1700	7.5
1500	1200	2200	2510	260	1840	610	900	1285	1525	1750	350	1750	1130	900	1285	900	1285	350	1750	10
2000	1350	2420	2750	235	2115	645	960	1490	1780	2025	325	2025	1215	960	1490	960	1490	325	2025	10

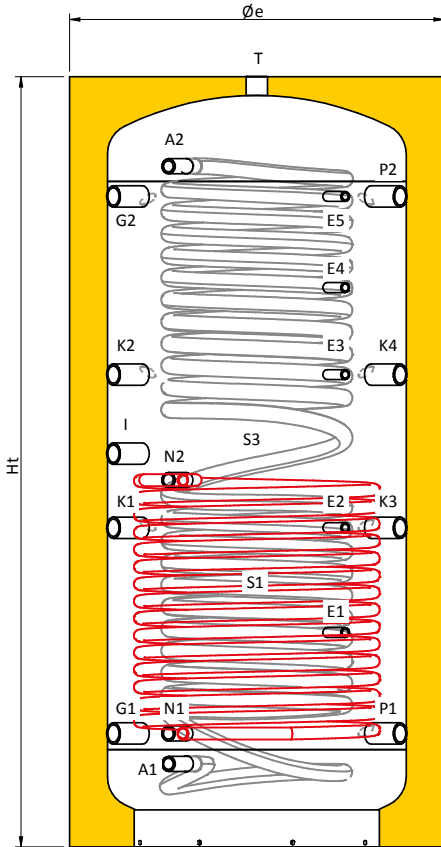
R': Tipping height

Inertial tanks

PUXW 1

Dimensions

500 ≤ cap. ≤ 2,000



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
E5	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
S3	Domestic water coil
T	Venting

Connection table

Cap. L	A1 inches	A2 inches	E1 inches	E2 inches	E3 inches	E4 inches	E5 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	P1 inches	P2 inches	T inches
500	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
600	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
750	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
1000	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
1250	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
1500	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2
2000	1'M	1'M	1/2'	1/2'	1/2'	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'1/2	1'	1'	1'1/2	1'1/2	1'1/2

Size table

Cap. L	Øe mm	Ht mm	R* mm	A1 mm	A2 mm	E1 mm	E2 mm	E3 mm	E4 mm	E5 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	P1 mm	P2 mm	S1 m²	S3 m²
500	750	1630	1795	135	1455	420	650	970	1190	1380	210	1380	820	650	970	650	970	210	720	210	1380	1,8	4
600	900	1700	1925	150	1470	405	595	995	1215	1395	225	1395	805	595	995	595	995	225	725	225	1395	1,8	4
750	990	1760	2020	180	1500	440	625	1025	1225	1425	255	1425	865	625	1025	625	1025	255	800	255	1425	2,4	6
1000	990	2090	2315	220	1800	570	845	1250	1480	1720	300	1720	1040	845	1250	845	1250	300	970	300	1720	3	7,5
1250	1150	2060	2360	210	1790	550	785	1240	1470	1700	300	1700	1085	785	1240	785	1240	300	970	300	1700	3	7,5
1500	1200	2200	2510	260	1840	610	900	1285	1525	1750	350	1750	1130	900	1285	900	1285	350	1000	350	1750	3,6	10
2000	1350	2420	2750	235	2115	645	960	1490	1780	2025	325	2025	1215	960	1490	960	1490	325	1105	325	2025	4,2	10

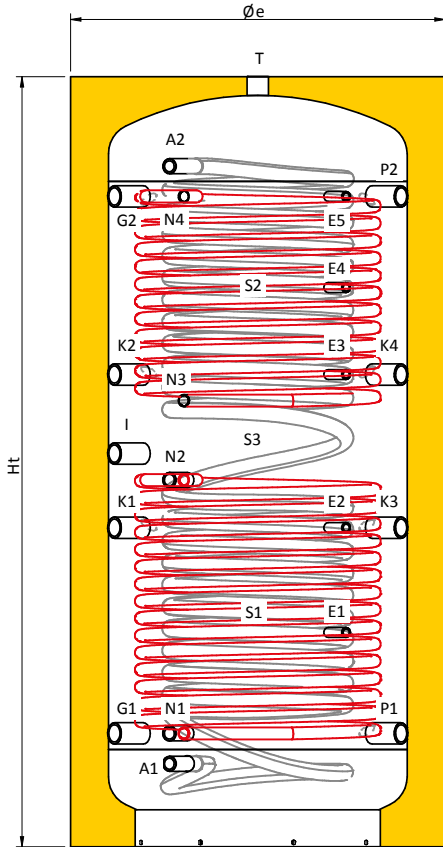
R*: Tipping height



Inertial tanks

PUXW 2 Dimensions

500 ≤ cap. ≤ 2,000



Legend bindings

A1	Domestic water inlet
A2	Domestic water outlet
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
E5	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
N1	Lower exchanger outlet
N2	Lower exchanger inlet
N3	Upper exchanger outlet
N4	Upper exchanger inlet
P1	Output to energy source
P2	Input from energy source
S1	Lower Serpentine
S2	Upper Serpentine
S3	Domestic water coil
T	Venting

Connection table

Cap. L	A1 inches	A2 inches	E1 inches	E2 inches	E3 inches	E4 inches	E5 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	N1 inches	N2 inches	N3 inches	N4 inches	P1 inches	P2 inches	T inches
500	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
600	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
750	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
1000	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
1250	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
1500	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"
2000	1" M	1" M	1/2"	1/2"	1/2"	1/2"	1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	1"	1"	1"	1"	1 1/2"	1 1/2"	1 1/2"

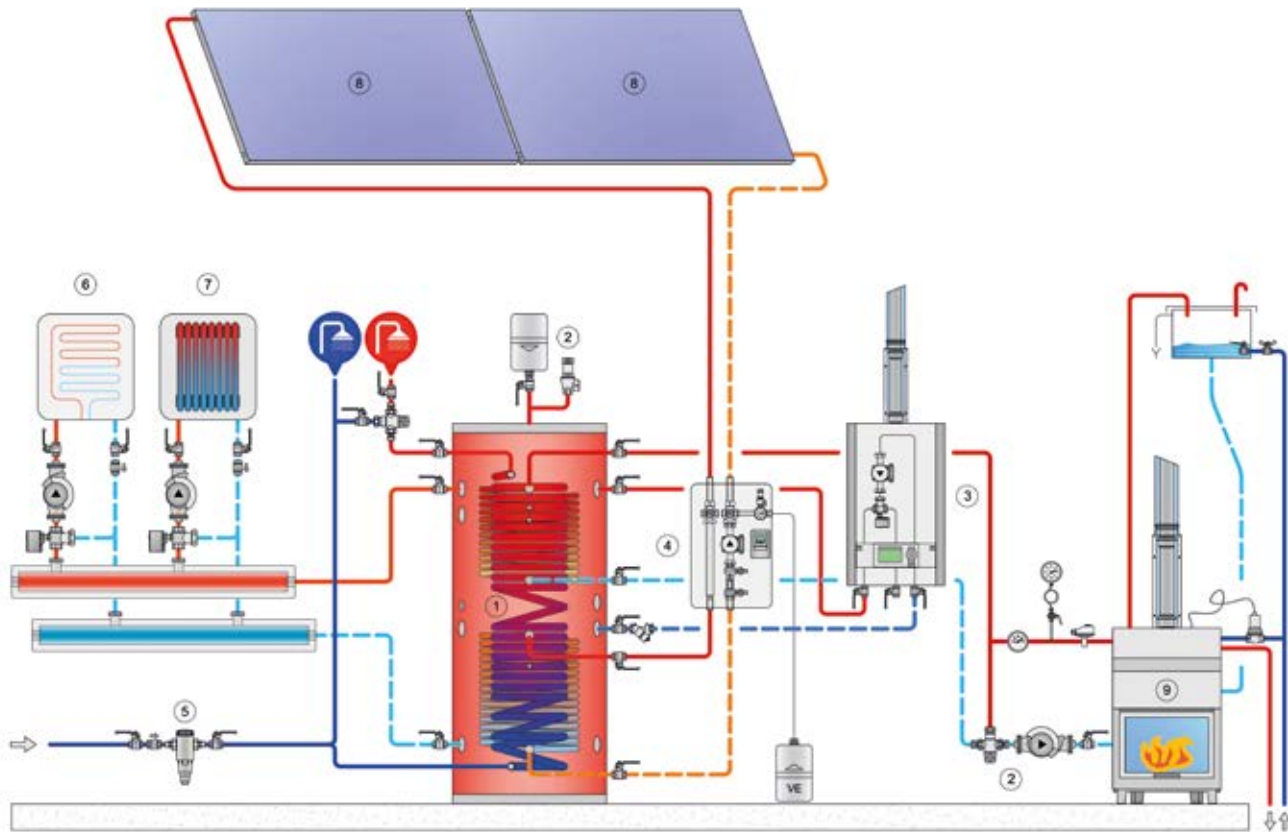
Size table

Cap. L	Øe mm	Ht mm	R' mm	A1 mm	A2 mm	E1 mm	E2 mm	E3 mm	E4 mm	E5 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	N1 mm	N2 mm	N3 mm	N4 mm	P1 mm	P2 mm	S1 m²	S2 m²	S3 m²
500	750	1630	1795	135	1455	420	650	970	1190	1380	210	1380	820	650	970	650	970	210	720	980	1380	210	1380	1.8	1.2	4
600	900	1700	1925	150	1470	405	595	995	1215	1395	225	1395	805	595	995	595	995	225	725	995	1345	225	1395	1.8	1.2	4
750	990	1760	2020	180	1500	440	625	1025	1225	1425	255	1425	865	625	1025	625	1025	255	800	1025	1385	255	1425	2.4	1.8	6
1000	990	2090	2315	220	1800	570	845	1250	1480	1720	300	1720	1040	845	1250	845	1250	300	970	1180	1720	300	1720	3	2.4	7.5
1250	1150	2060	2360	210	1790	550	785	1240	1470	1700	300	1700	1085	785	1240	785	1240	300	970	1160	1700	300	1700	3	2.4	7.5
1500	1200	2200	2510	260	1840	610	900	1285	1525	1750	350	1750	1130	900	1285	900	1285	350	1000	1240	1750	350	1750	3.6	2.4	10
2000	1350	2420	2750	235	2115	645	960	1490	1780	2025	325	2025	1215	960	1490	960	1490	325	1105	1475	2025	325	2025	4.2	3	10

R': Tipping height

Inertial tanks

PUX Installation Diagram



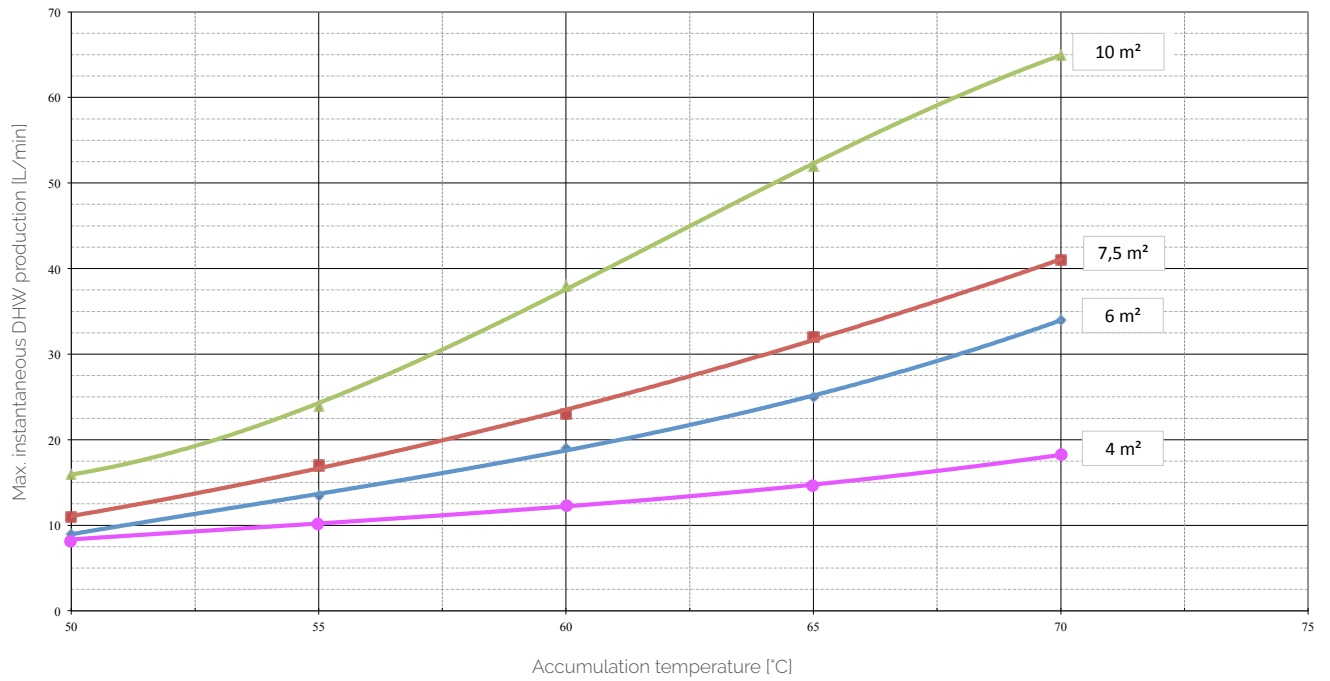
List of components

- 1. HEIZERSILE PUXW 2 puffer
- 2. Safety group
- 3. Sile MG3V condensate boiler
- 4. Solar thermal return unit
- 5. Bacteriostatic cold water filter
- 6. Heating circuit 1
- 7. Heating circuit 2
- 8. HEIZERSILE solar collectors
- 9. Open vessel boiler or fireplace

Inertial tanks

PUX Performance

Domestic water exchanger performance

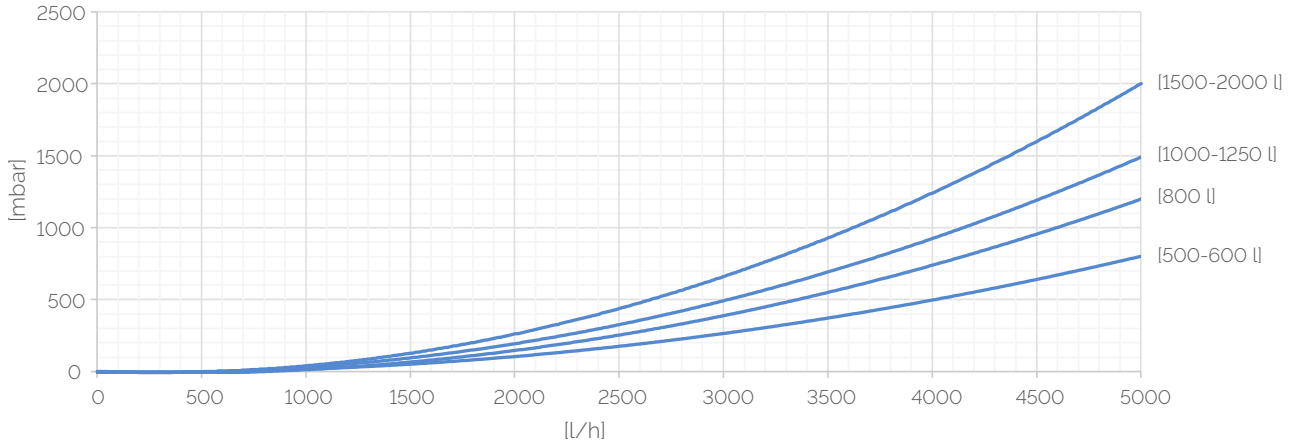


The graph shows the maximum instantaneous DHW production (10-45°C) via the stainless steel coil as a function of storage tank temperature

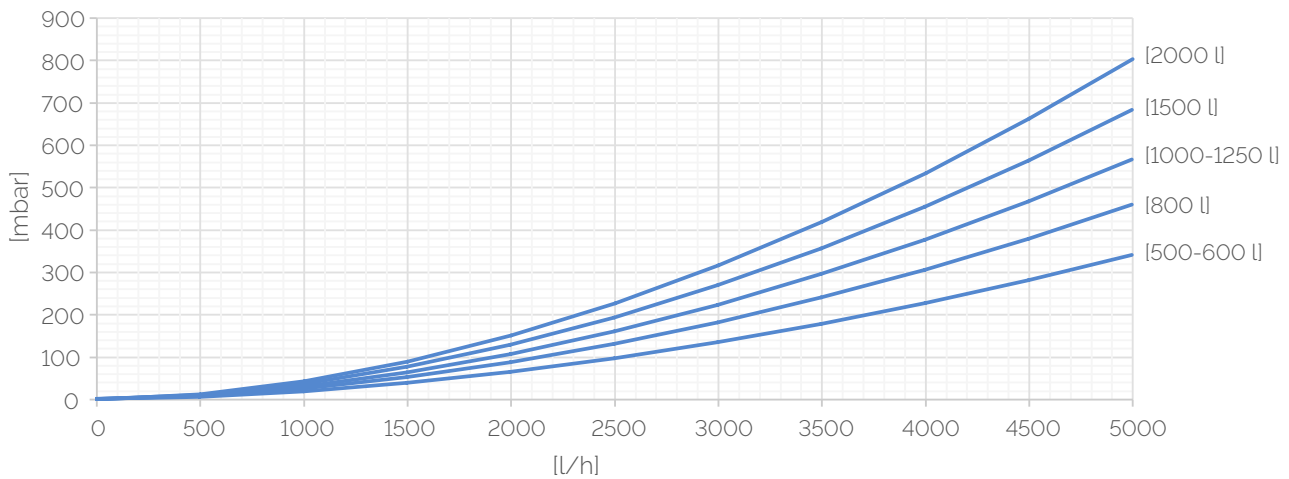
PUX

Load losses

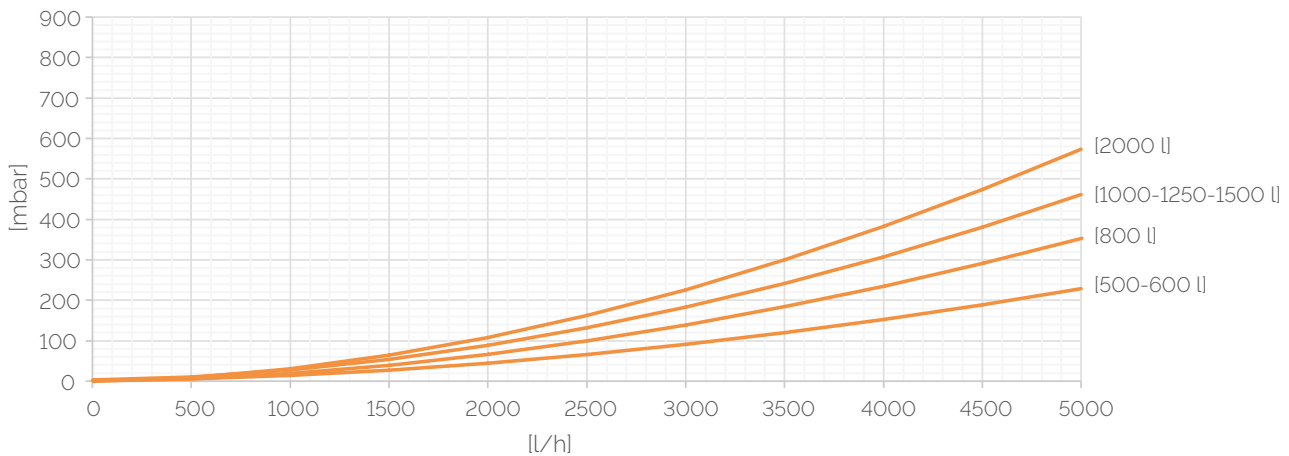
Domestic water heat exchanger pressure losses



Pressure drop in lower exchanger technical water



Pressure losses upper exchanger technical water



Inertial tanks

Inertial storage WHP 6 connections



PRICES

The WHP 6-connection series includes hanging tanks for "HEAT-COLED" systems suitable for use with heat pumps, they perform the functions of a hydraulic circuit breaker (making the flow rates of the two circuits independent), and that of a thermal flywheel (aimed at minimising heat pump start-ups). WHPs, in the 45/85 L versions, have two additional connections dedicated to a possible supplementary source. It is possible to order the product in batches with multiple packaging, receiving the tanks on a pallet. The 18 L version can be installed horizontally.

Material: carbon steel

External cladding: 45/85 L painted galvanised sheet metal

18 L polyethylene

Insulation

Capacity (L)	Type
18	Closed-cell polyethylene foam
45, 85	High-density rigid polyurethane foam

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	90 °C	6 bar

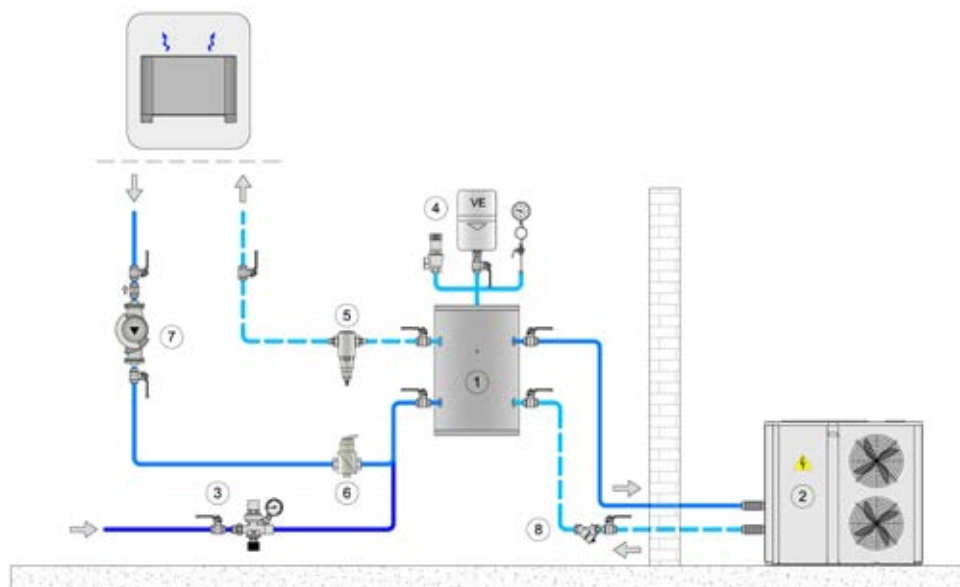
Cap. L	MINI wall unit		Class Energ.	Individually packaged		With packaging multiple		
	Code	Price each		Dim. cm	Weight kg	Pieces	Dim. cm	Weight kg
18	317010283X	281,00 €	C	55x29x31	10	24	120x100x134	250
45	317010327X	444,00 €	C	41x41x80	19	12	120x80x180	225
85	317010328X	525,00 €	C	49x49x87	25	8	105x105x184	210

*to purchase with multiple packaging, you must order quantities equal to or a multiple of the packaging standard

Standard accessories: see page 208



TESTED



Legend

1. Inertial storage HEIZERSILE WHP
2. Refrigeration unit/heat pump
3. System filling unit
4. Safety group
5. Mud filter
6. Deaerator
7. System pump unit
8. Y* filter protecting the heat pump

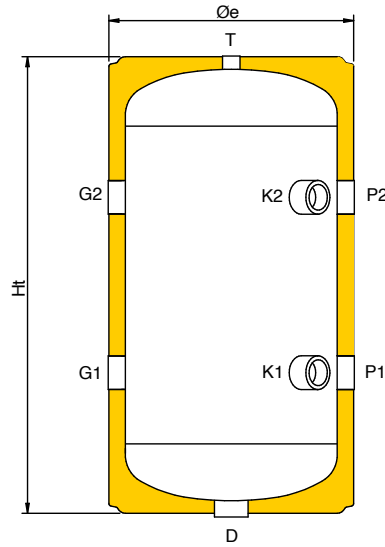
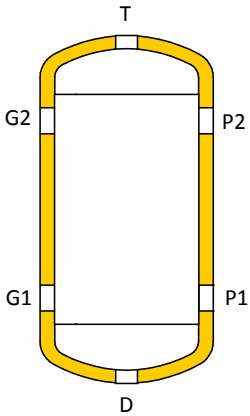
Inertial storage: Dimensions WHP 6 connections

ch. = 18

ch. = 45, 85

Connection legend

D	Drain
G1	Input from plant
G2	Output to plant
K1	Auxiliary
K2	Auxiliary
P1	Output to energy source
P2	Input from energy source
T	Venting



Connection table

Capacity L	D inches	G1 inches	G2 inches	K1 inches	K2 inches	P1 inches	P2 inches	T inches
18	3/4"	1"	1"	-	-	1"	1"	3/4"
45	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1/2"
85	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1/2"

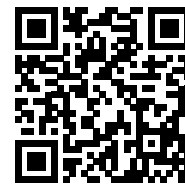
Size table

Capacity L	Øe mm	Ht mm	R* mm	G1 mm	G2 mm	K1 mm	K2 mm	P1 mm	P2 mm
18	260	530	590	130	400	-	-	130	400
45	370	700	770	220	485	220	485	220	485
85	460	780	905	185	535	185	535	185	535

R*: Tipping height

Inertial tanks

Inertial storage WHP S



PRICES



ACCESSORIES
PRICES

WHP S is the ultra-flat 50 litre mini storage tank that connects up to two energy sources (e.g. heat pump, boiler or other) and performs the functions of a hydraulic separator and distribution manifold for up to 2 zones. The internal diaphragm and the configuration of the secondary connections allow for proper fluid stratification. The dedicated heat pump connection (max. 4.5 m³/h) ensures full utilisation of the storage volume, promoting greater service continuity. If the connection of an additional energy source, such as a boiler, is not possible, WHP S is equipped with a connection for the connection of an electric heater (up to 3kW). The module is supplied with an automatic air vent valve and temperature thermowell. It is fully insulated and can be used in both heating and cooling systems.

Plus

- ✓ Compact module
- ✓ Fully insulated
- ✓ Suitable for hot/cold solutions
- ✓ Corrosion-resistant
- ✓ Low pressure drops, flow rate up to 4.5 m³/h
- ✓ Versatile: Deaerator, hydraulic separator / distribution manifold for up to 2 zones
- ✓ Installation symmetry (right/left high/low)
- ✓ Probe holder and automatic vent valve included
- ✓ Easy wall installation using special brackets;
- ✓ Predisposition for magnetic deflector
- ✓ Provision for electric resistance up to 3 kW
- ✓ Optional mixing unit
- ✓ Optional direct circulation unit

Collector material: S235 steel

Anticorrosive surface treatment: Cataphoresis

Insulation

Limit of use

Capacity (L)	Type
50	EPP 0.034 W/mk. 30g/l 40 mm thick

Min. temperature	Max. temperature	Max. pressure
-10 °C	100 °C	3 bar

Codes and prices

WHP S		With packaging		
Code	Price each	Class Energ.	Dim. cm	Weight kg
317010416X	1.007,00 €		100x56x27	31

Accessory codes and prices

	Code	Price each
KM3-125 YONOS PARA SC 25/1-6 MIXING GROUP	338110141X	695,00 €
KA-125 WILO YONOS PARA SC 25/1-6 CIRCULATION UNIT	338110142X	560,00 €
FITTING KIT 1" M / 1 1/2 F	C01040431	53,00 €
SERVO MOTOR SRVM ECOMIX 24V 0-10 / 2-10V 120S 5NM	C09020499	293,00 €
SRVM ECOMIX SERVOMOTOR 230V 3P 120s 5Nm	C09020500	149,00 €



Mixing unit

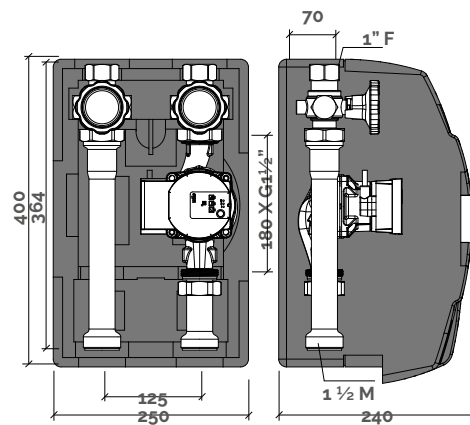
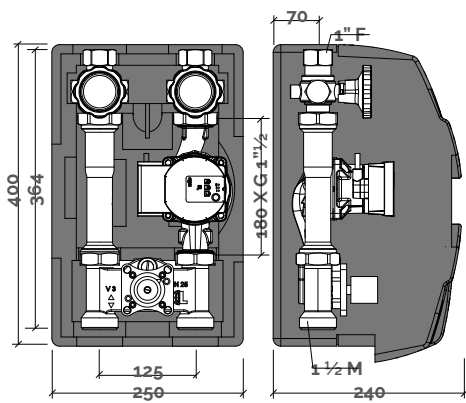
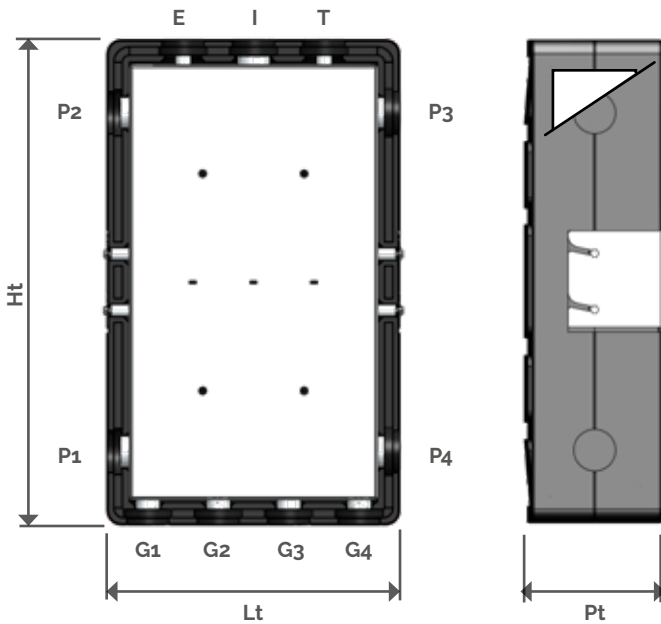
Direct
circulation
units

Inertial storage: Dimensions

WHP S

Connection legend

E	Temperature probe
G1	Input from plant
G2	Output to plant
G3	Input from plant
G4	Output to plant
I	Electrical resistance
P1	Output to energy source
P2	Input from energy source
P3	Output to energy source
P4	Input from energy source

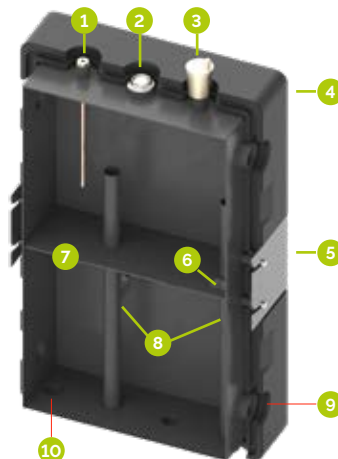


Connection table

Capacity L	E inches	I inches	G1 inches	G2 inches	G3 inches	G4 inches	P1 inches	P2 inches	P1 inches	P2 inches	T inches
50	1/2"	1 1/2"	1"	1"	1"	1"	1 1/4"	1 1/4"	1 1/4"	1 1/4"	1/2"

Size table

Ht mm	Lt mm	Pt mm
860	520	240



Legend

1. Temperature probe holder 1/2" thermowell
2. Arrangement for 1 1/2" electric heating element
3. Automatic air vent valve
4. Insulation
5. Wall brackets for wall installation
6. Communication between rooms
7. Partition between the 2 chambers
8. Internal extensions to prevent hydraulic short circuits and maintain separation between flow and return.
9. 4 x 1 1/4 connections for primary sources
10. 4 x 1" connections for 2 groups

Inertial tanks

Inertial storage WHP S 100

WHP S 100 is the new and innovative ultra-flat rectangular inertial storage tank with a capacity of 100 litres, designed to guarantee the minimum water content in the system for the correct operation of the heat pump (HP). Designed to be positioned outdoors. It also acts as a base to support the HP (max 200 kg). These features make it unique and exclusive and definitively eliminate the need for additional indoor space. Already prepared with anti-vibration HP support kit. Pre-arranged for installation of the expansion tank through the special kit supplied separately.

Plus

- ✓ Ultra-compact rectangular mini-storage tank to support the HP.
- ✓ Heating/cooling use.
- ✓ Thermal insulation and metal cover suitable for outdoor use.
- ✓ Corrosion-resistant hydraulic module.
- ✓ Universal HP bracket.
- ✓ Adjustable support feet.
- ✓ Double manual air vent.
- ✓ Low pressure drops, flow rate up to 4.5 m³/h.
- ✓ Anti-vibration kit

Collector material: S235 steel

Anticorrosive surface treatment: Epoxy cataphoresis

Insulation

Limit of use

Capacity (L)	Type
100	Trocellen C080 RN2 sp 40mm λ 0.034 W/ mk

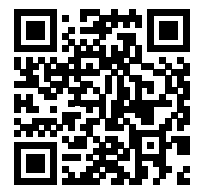
Temp. min.	Max. temp.	Max. pressure	Max. load	Perc. max. glycol
-10 °C	90 °C	6 bar	200 kg	30%

Description	WHP S 100		Energy Class	With packaging	
	Code	Price each		Dim. cm	Weight kg
WHP S 100	31701041X	1.615,00 €	C	120 x 80 x 50	86
WHP S 100 EXTENSION KIT	329031110X	238,00 €		78 x 58 x 29	
EXPANSION POT KIT 12L	338082490X	200,00 €		60 x 28 x 20.5	

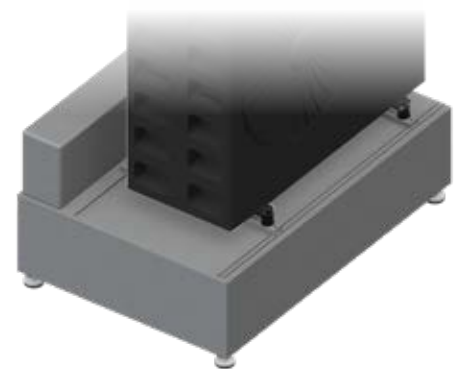
 **Standard accessories:** see page 102



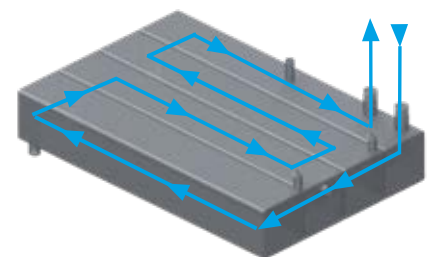
PRICES



ACCESSORIES
PRICES



Optimised flow management



Inclined chamber for facilitate air venting

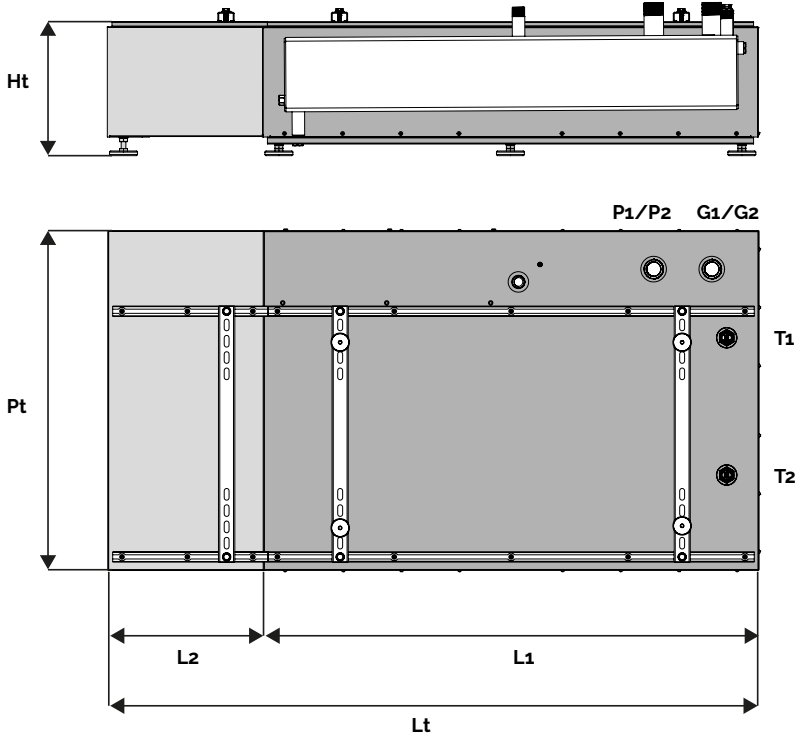


**Suitable for Heat Pump
FURIA 6 - 8 - 12 - 18 kW**

See page 16

Inertial tanks

Inertial storage: Dimensions WHP S 100



Connection legend

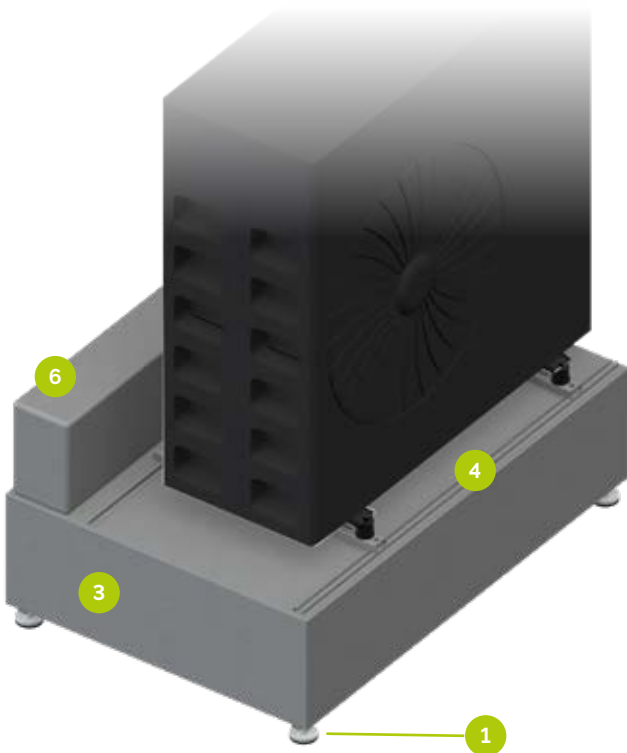
G1/G2	Input/output to system
P1/P2	Input/output from energy source

Connection table

Capacity L	G1/G2 inches	P1/P2 inches
100	F 1" - M 1 ¹ / ₄	F 1" - M 1 ¹ / ₄

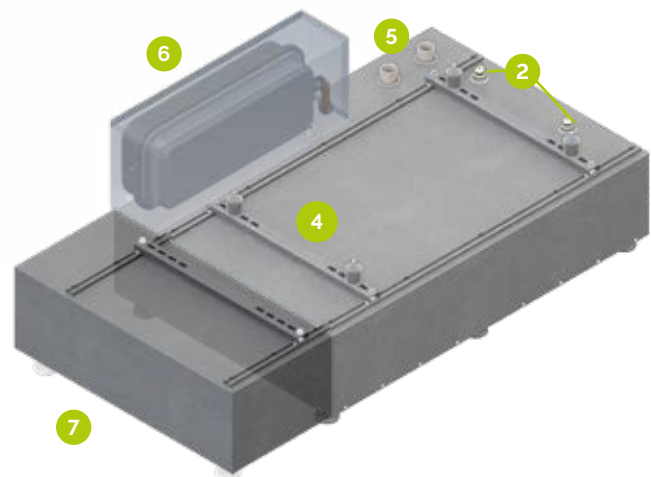
Size table

Cap. L	Ht mm	Lt mm	Pt mm	L1 mm	L2 mm
18	288	1400	730	1065	335



Legend

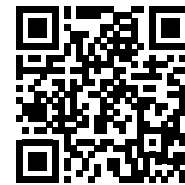
1. 4 Adjustable support feet.
2. 2 Manual air release valves.
3. Weatherproof metal cover
4. Universal HP Adjustable Brackets + Anti-vibration Kit
5. 2 inlet and outlet connections from: F 1" - M 1¹/₄.
6. Expansion tank. (Accessory)
7. Extension KIT. (Accessory)



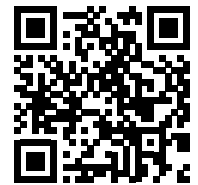
Inertial tanks

Inertial storage

ACR CH, ACRE CH 6 connections



PRICES
ACR CH



PRICES
ACRE CH

The ACR CH 6 series includes insulated tanks for "HEAT/COOL" systems, normally used to increase thermal inertia. They are suitable for use with heat pumps as they help limit compressor or generator restarts. ACR CH have two additional connections dedicated to a possible supplementary source.

Material: carbon steel

Exterior cladding

Model	Type	Use
ACR CH	Coloured PVC	inside
ACRE CH	embossed aluminium sheet	outside

1

2

Insulation

Capacity (L)	Type
from 100 to 1000	High-density rigid polyurethane foam
from 1,500	Closed-cell polyethylene foam + polyester fibre

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	90 °C	6 bar

Standard accessories: see page 208

Special executions: see page 210



TESTED

Cap. L	ACR CH vertical coloured PVC		ACRE CH vertical embossed sheet metal		Energy class	With vertical packaging	
	Code	Price	Code	Price		Dimensions cm	Weight kg
100	317010285X	580,00 €	317010293H8X	697,00 €	B	49x49x107	35
200	317010286X	679,00 €	317010294H8X	857,00 €	C	54x54x146	40
300	317010287X	881,00 €	317010295H8X	1.057,00 €	B	64x64x180	60
500	317010288X	1.229,00 €	317010296H8X	1.512,00 €	C	74x74x184	95
750	317010289X	1.430,00 €	317010297H8X	1.801,00 €	C	95x95x178	120
1000	317010290X	1.650,00 €	317010298H8X	2.008,00 €	C	105x105x209	140
1500	317010291X	2.621,00 €			C	130X130X238	222
2000	317010292X	3.263,00 €			C	140X140X270	314
2500	317010336X	3.703,00 €				150X150X249	331
3000	317010337X	4.216,00 €				150X150X299	389
4000	317010338X	4.766,00 €				170X170X306	557
5000	317010339X	6.740,00 €				190X190X310	645

Inertial storage: Dimensions

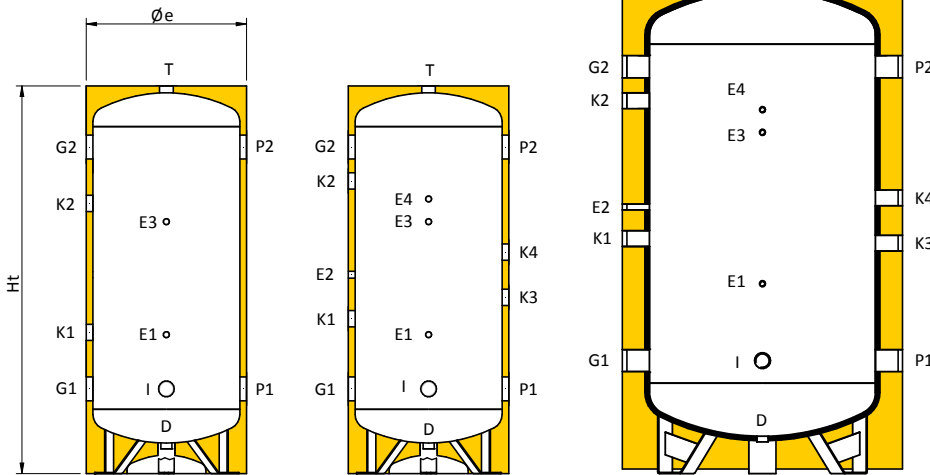
ACR CH, ACRE CH 6 connections

100 ≤ cap. ≤ 200

300 ≤ cap. ≤ 1000

1.500 ≤ cap. ≤ 5,000

Connection legend



D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
E3	Probe/Thermometer
E4	Probe/Thermometer
G1	Input from plant
G2	Output to plant
I	Electrical Resistance
K1	Auxiliary
K2	Auxiliary
K3	Auxiliary
K4	Auxiliary
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Cap. L	D inches	E1 inches	E2 inches	E3 inches	E4 inches	G1 inches	G2 inches	I inches	K1 inches	K2 inches	K3 inches	K4 inches	P1 inches	P2 inches	T inches
100	1 1/4	1/2"	-	1/2"	-	1 1/2	1 1/2	2'	1 1/2	1 1/2	-	-	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	-	1/2"	-	1 1/2	1 1/2	2'	1 1/2	1 1/2	-	-	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	1/2"	1/2"	2'	2'	2'	1 1/2	1 1/2	1 1/2	1 1/2	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/4
750	1 1/2	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	1 1/2
1500	2'	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	2'
2000	2'	1/2"	1/2"	1/2"	1/2"	3'	3'	2'	2'	2'	2'	2'	3'	3'	2'
2500	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
3000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
4000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'
5000	2'	1/2"	1/2"	1/2"	1/2"	4'	4'	2'	2'	2'	2'	2'	4'	4'	2'

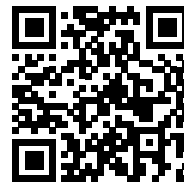
Size table

Cap. L	Øe mm	Ht mm	R* mm	D mm	E1 mm	E2 mm	E3 mm	E4 mm	G1 mm	G2 mm	I mm	K1 mm	K2 mm	K3 mm	K4 mm	P1 mm	P2 mm
100	460	950	1060	125	395	-	655	-	285	765	285	445	605	-	-	285	765
200	510	1335	1430	125	520	-	920	-	320	1120	320	580	850	-	-	320	1120
300	610	1680	1790	130	555	895	1055	1155	355	1405	355	645	1255	780	980	355	1405
500	760	1735	1895	140	620	885	1120	1220	380	1450	380	690	1300	785	985	380	1450
750	910	1765	1990	125	685	885	1145	1245	395	1445	395	685	1295	820	1020	395	1445
1000	1010	2075	2310	125	755	1095	1405	1505	415	1715	415	955	1565	955	1155	415	1715
1500	1220	2245	2560	165	840	1180	1510	1610	500	1800	500	1040	1650	1020	1220	500	1800
2000	1320	2565	2885	155	885	1450	1815	1915	505	2105	505	1345	1955	1180	1380	505	2105
2500	1470	2360	2785	180	1015	1255	1515	1665	565	1865	565	1005	1615	1115	1315	565	1865
3000	1470	2860	3220	180	1315	1755	1815	1965	565	2365	565	1505	2115	1365	1565	565	2365
4000	1620	2930	3350	160	1340	1780	1840	1990	590	2390	590	1530	2140	1390	1590	590	2390
5000	1820	2970	3485	140	1350	1790	1850	2000	600	2400	600	1540	2150	1400	1600	600	2400

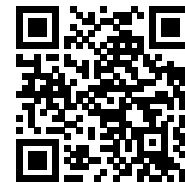
R*: Tipping height

Inertial tanks

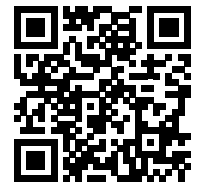
Inertial storage ACR, ACRE



PRICES
ACR



PRICES
ACRE



HORIZONTAL ACR
PRICES

The ACR series includes insulated chilled water tanks, normally used to increase the thermal inertia of the air conditioning system.

Material: carbon steel

Exterior cladding

Model	Type	Use
ACR	Coloured PVC	inside
ACRE	embossed aluminium sheet	outside

1

2

Insulation

Capacity (L)	Type	Thickness (mm)
from 100 to 1000	High-density rigid polyurethane foam	30
from 1500 + Horizontal versions	Closed-cell polyethylene foam	20

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar



Standard accessories: see page 208

Special executions: see page 210

Capacity L	ACR vertical coloured PVC		ACRE vertical embossed sheet metal		With vertical packaging		ACR horizontal coloured PVC	
	Code	Price	Code	Price	Dimensions cm	Weight kg	Code	Price
100	316010130	551,00 €	316011275H8X	623,00 €	49x49x107	24	316010142	668,00 €
200	316010131	661,00 €	316011276H8X	781,00 €	54x54x146	36	316010143	765,00 €
300	316010132	818,00 €	316011277H8X	920,00 €	64x64x155	46	316010144	968,00 €
500	316010133	1.046,00 €	316011278H8X	1.249,00 €	74x74x184	78	316010145	1.296,00 €
800	316010134	1.288,00 €	316011279H8X	1.569,00 €	88x88x186	105	316010146	1.573,00 €
1000	316010135	1.467,00 €	316011280H8X	1.790,00 €	94x94x215	129	316010147	1.827,00 €
1500	316010136	2.168,00 €			107x107x228	182	316010148	2.496,00 €
2000	316010137	2.691,00 €			117x117x260	250	316010149	3.083,00 €
2500	316010138	3.202,00 €			132x132x240	267	316010150	3.494,00 €
3000	316010139	3.617,00 €			132x132x290	314	316010151	4.101,00 €
4000	316010140	4.397,00 €			147x147x297	470	316010152	4.782,00 €
5000	316010141	5.559,00 €			167x167x301	557	316010153	5.970,00 €
6000	316011186X	8.735,00 €			282x204x204	647		
8000	316011187X	9.348,00 €			352x204x204*	782		
10000	316011188X	11.805,00 €			427x204x204*	927		

*shipping in containers requires open top containers

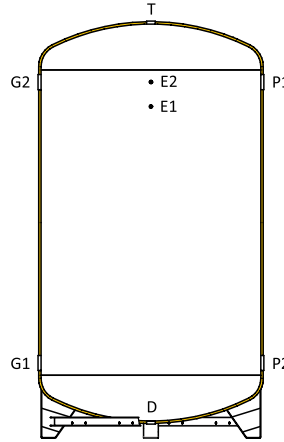
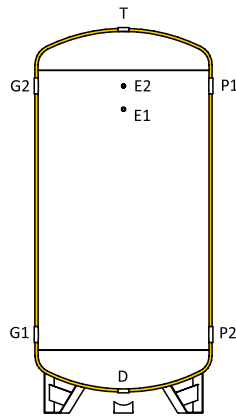
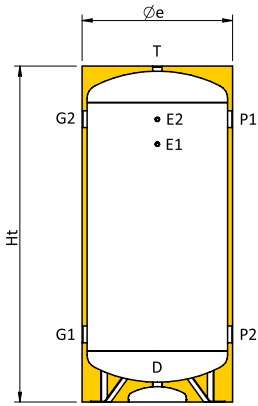
Inertial storage: ACR dimensions, ACRE

100 ≤ cap. ≤ 1000

1500 ≤ cap. ≤ 5,000

6000 ≤ cap. ≤ 10,000

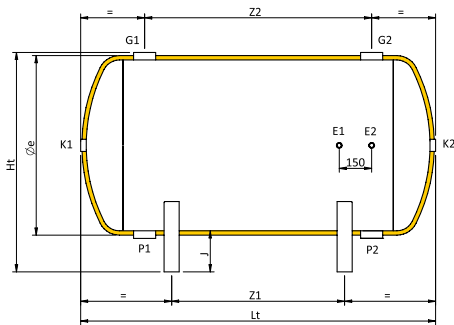
Connection legend



D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Table of dimensions and connections for vertical execution

Cap. L	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G2 mm	G2 mm	P1 mm	P2 mm	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	460	950	1060	125	610	760	760	290	760	290	1 1/4	1/2	1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	510	1335	1430	120	990	1140	1140	290	1140	290	1 1/4	1/2	1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	610	1425	1550	130	1015	1165	1165	365	1165	365	1 1/4	1/2	1/2	2	2	2	2	1 1/4
500	710	1710	1855	135	1285	1435	1435	385	1435	385	1 1/4	1/2	1/2	3	3	3	3	1 1/4
800	850	1740	1940	125	1295	1445	1445	395	1445	395	1 1/2	1/2	1/2	3	3	3	3	1 1/2
1000	910	2025	2220	120	1560	1710	1710	410	1710	410	1 1/2	1/2	1/2	3	3	3	3	1 1/2
1500	1040	2160	2400	165	1650	1800	1800	500	1800	500	2	1/2	1/2	3	3	3	3	2
2000	1140	2480	2730	155	1955	2105	2105	505	2105	505	2	1/2	1/2	3	3	3	3	2
2500	1290	2275	2620	180	1715	1865	1865	565	1865	565	2	1/2	1/2	4	4	4	4	2
3000	1290	2775	3060	180	2215	2365	2365	565	2365	565	2	1/2	1/2	4	4	4	4	2
4000	1440	2845	3190	160	2240	2390	2390	590	2390	590	2	1/2	1/2	4	4	4	4	2
5000	1640	2885	3320	140	2250	2400	2400	600	2400	600	2	1/2	1/2	4	4	4	4	2
6000	1840	2715	3280	140	2015	2215	2215	615	2215	615	2	1/2	1/2	4	4	4	4	2
8000	1840	3415	3880	140	2715	2915	2915	615	2915	615	2	1/2	1/2	4	4	4	4	2
10000	1840	4165	4555	140	3465	3665	3665	615	3665	615	2	1/2	1/2	4	4	4	4	2



Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
K1	Auxiliary
K2	Auxiliary
P1	Output to energy source
P2	Input from energy source

Table of dimensions and connections for horizontal execution

Cap. L	Øe mm	Lt mm	Ht mm	J mm	Z1 mm	Z2 mm	E1 inches	E2 inches	G1 inches	G2 inches	K1 inches	K2 inches	P1 inches	P2 inches
100	440	850	545	120	310	470	1/2	1/2	1 1/2	1 1/2	1 1/4	1 1/4	1 1/2	1 1/2
200	490	1240	595	120	700	850	1/2	1/2	1 1/2	1 1/2	1 1/4	1 1/4	1 1/2	1 1/2
300	590	1320	715	140	600	800	1/2	1/2	2	2	1 1/4	1 1/4	2	2
500	690	1600	865	190	900	1050	1/2	1/2	3	3	1 1/4	1 1/4	3	3
800	830	1640	1005	190	900	1050	1/2	1/2	3	3	1 1/2	1 1/2	3	3
1000	890	1930	1065	190	1130	1300	1/2	1/2	3	3	1 1/2	1 1/2	3	3
1500	1040	2020	1215	190	950	1300	1/2	1/2	3	3	2	2	3	3
2000	1140	2350	1325	200	1320	1600	1/2	1/2	3	3	2	2	3	3
2500	1290	2120	1500	225	1020	1300	1/2	1/2	4	4	2	2	4	4
3000	1290	2620	1500	225	1390	1800	1/2	1/2	4	4	2	2	4	4
4000	1440	2710	1650	225	1380	1800	1/2	1/2	4	4	2	2	4	4
5000	1640	2770	1850	225	1380	1800	1/2	1/2	4	4	2	2	4	4

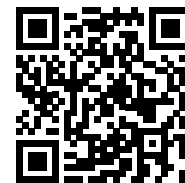
R': Tipping height

Inertial tanks

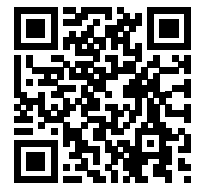
Inertial storage AR, ARE



PRICES
AR



PRICES
ARE



HORIZONTAL
AR PRICES

The AR series includes galvanised and insulated chilled water tanks, normally used to increase the thermal inertia of air conditioning systems. Galvanisation provides protection against tank corrosion.

Material: carbon steel

Treatment: internal and external hot-dip galvanising

Exterior cladding

Model	Type	Use
AR	Coloured PVC	inside
ARE	embossed aluminium sheet	outside



Insulation

Capacity (L)	Type	Thickness (mm)
from 100 to 1000	High-density rigid polyurethane foam	30
from 1500 + Horizontal versions	Closed-cell polyethylene foam	20

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar

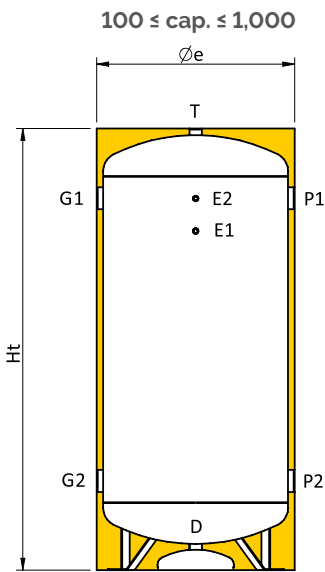


Standard accessories: see page 208

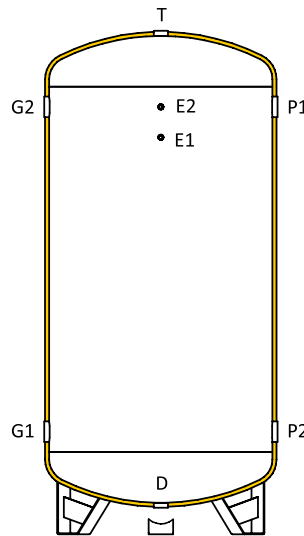
Special executions: see page 210

Capacity L	AR vertical coloured PVC		ARE vertical embossed sheet metal		With vertical packaging		AR horizontal coloured PVC	
	Code	Price	Code	Price	Dimensions cm	Weight kg	Code	Price
100	316020064	657,00 €	316020040H8X	765,00 €	49x49x107	25	316020076	710,00 €
200	316020065	799,00 €	316020041H8X	952,00 €	54x54x146	37	316020077	859,00 €
300	316020066	977,00 €	316020042H8X	1.189,00 €	64x64x155	48	316020078	1.093,00 €
500	316020067	1.314,00 €	316020043H8X	1.665,00 €	74x74x184	81	316020079	1.426,00 €
800	316020068	1.618,00 €	316020044H8X	2.021,00 €	88x88x186	110	316020080	1.832,00 €
1000	316020069	1.827,00 €	316020045H8X	2.219,00 €	94x94x215	135	316020081	2.380,00 €
1500	316020070	2.530,00 €			107x107x228	192	316020082	2.821,00 €
2000	316020071	3.263,00 €			117x117x260	264	316020083	3.548,00 €
2500	316020072	3.740,00 €			132x132x240	281	316020084	4.009,00 €
3000	316020073	4.326,00 €			132x132x290	331	316020085	4.683,00 €
4000	316020074	5.609,00 €			147x147x297	496	316020086	5.943,00 €
5000	316020075	6.965,00 €			167x167x301	587	316020087	7.308,00 €

Inertial storage: AR, ARE dimensions



1.500 ≤ cap. ≤ 5,000

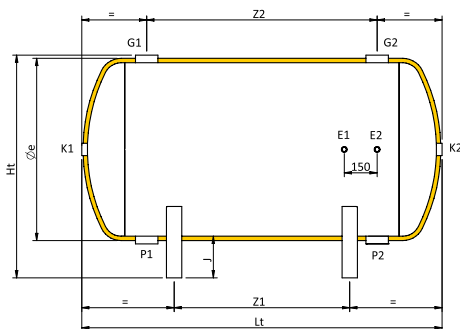


Connection legend

D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Table of dimensions and connections for vertical execution

Cap. L	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	460	950	1060	125	610	760	760	290	760	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
200	510	1335	1430	120	990	1140	1140	290	1140	290	1'1/4	1/2'	1/2'	1'1/2	1'1/2	1'1/2	1'1/2	1'1/4
300	610	1425	1555	130	1015	1165	1165	365	1165	365	1'1/4	1/2'	1/2'	2'	2'	2'	2'	1'1/4
500	710	1710	1855	135	1285	1435	1435	385	1435	385	1'1/4	1/2'	1/2'	3'	3'	3'	3'	1'1/4
800	850	1740	1940	125	1295	1445	1445	395	1445	395	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1000	910	2025	2225	120	1560	1710	1710	410	1710	410	1'1/2	1/2'	1/2'	3'	3'	3'	3'	1'1/2
1500	1040	2160	2400	165	1650	1800	1800	500	1800	500	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2000	1140	2480	2730	155	1955	2105	2105	505	2105	505	2'	1/2'	1/2'	3'	3'	3'	3'	2'
2500	1290	2275	2620	180	1715	1865	1865	565	1865	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
3000	1290	2775	3060	180	2215	2365	2365	565	2365	565	2'	1/2'	1/2'	4'	4'	4'	4'	2'
4000	1440	2845	3190	160	2240	2390	2390	590	2390	590	2'	1/2'	1/2'	4'	4'	4'	4'	2'
5000	1640	2885	3320	140	2250	2400	2400	600	2400	600	2'	1/2'	1/2'	4'	4'	4'	4'	2'



Connection legend

E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
K1	Auxiliary
K2	Auxiliary
P1	Output to energy source
P2	Input from energy source

Table of dimensions and connections for horizontal execution

Cap. L	Øe mm	Lt mm	Ht mm	J mm	Z1 mm	Z2 mm	E1 inches	E2 inches	G1 inches	G2 inches	K1 inches	K2 inches	P1 inches	P2 inches
100	440	850	545	120	310	470	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
200	490	1240	595	120	700	850	1/2'	1/2'	1'1/2	1'1/2	1'1/4	1'1/4	1'1/2	1'1/2
300	590	1320	715	140	600	800	1/2'	1/2'	2'	2'	1'1/4	1'1/4	2'	2'
500	690	1600	865	190	900	1050	1/2'	1/2'	3'	3'	1'1/4	1'1/4	3'	3'
800	830	1640	1005	190	900	1050	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1000	890	1930	1065	190	1130	1300	1/2'	1/2'	3'	3'	1'1/2	1'1/2	3'	3'
1500	1040	2020	1215	190	950	1300	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2000	1140	2350	1325	200	13320	1600	1/2'	1/2'	3'	3'	2'	2'	3'	3'
2500	1290	2120	1500	225	1020	1300	1/2'	1/2'	4'	4'	2'	2'	4'	4'
3000	1290	2620	1500	225	1390	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
4000	1440	2710	1650	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'
5000	1640	2770	1850	225	1380	1800	1/2'	1/2'	4'	4'	2'	2'	4'	4'

R': Tipping height

Inertial tanks

Inertial storage ARX



PRICES

The ARX series includes insulated 304 stainless steel tanks for chilled water, normally used to increase the thermal inertia of single- or double-loop systems. The stainless steel gives the tank excellent protection against corrosion, making it particularly suitable for use in aggressive environments and for industrial applications.

Material: AISI 304 stainless steel

Exterior cladding

Model	Type	Use
ARX	Coloured PVC	inside

Insulation

Capacity (L)	Type	Thickness (mm)
100 to 5000	Closed-cell polyethylene foam	20

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar

 **Standard accessories:** see page 208

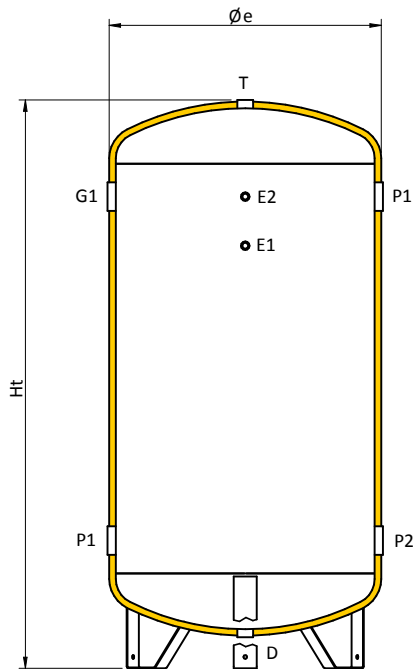
 **Special executions:** see page 210



TESTED

Capacity L	ARX AISI 304		With packaging
	Code	Price	Dimensions cm
100	316040265X	1.165,00 €	47x47x105
200	316040266X	1.447,00 €	52x52x152
300	316040267X	1.822,00 €	62x62x155
500	316040268X	2.148,00 €	67x67x200
800	316040269X	2.404,00 €	86x86x197
1000	316040270X	3.870,00 €	87x87x224
1500	316040271X	5.252,00 €	107x107x225
2000	316040272X	6.960,00 €	127x127x233
2500	316040273X	8.823,00 €	127x127x258
3000	316040274X	9.389,00 €	132x132x285
4000	316040275X	12.525,00 €	147x147x293
5000	316040276X	17.266,00 €	167x167x296

Inertial storage: Dimensions ARX Series



Connection legend

D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Capacity L	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
200	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	2 1/2	2 1/2	2 1/2	2 1/2	1 1/4
800	1 1/4	1/2"	1/2"	2 1/2	2 1/2	2 1/2	2 1/2	1 1/4
1000	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
1500	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
2000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
2500	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
3000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
4000	2"	1/2"	1/2"	4'	4'	4'	4'	2"
5000	2"	1/2"	1/2"	4'	4'	4'	4'	2"

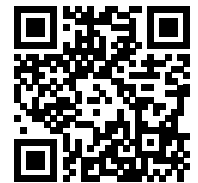
Size table

Capacity L	$\varnothing e$ mm	Ht mm	R' mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	440	950	1050	615	765	765	280	765	280
200	490	1330	1420	970	1130	1130	290	1130	290
300	590	1415	1535	1020	1170	1170	320	1170	320
500	690	1695	1835	1270	1420	1420	370	1420	370
800	830	1735	1925	1290	1440	1440	390	1440	390
1000	890	2025	2215	1560	1710	1710	410	1710	410
1500	1040	2125	2365	1615	1765	1765	465	1765	465
2000	1240	2215	2540	1660	1810	1810	510	1810	510
2500	1240	2465	2760	1910	2060	2060	510	2060	510
3000	1290	2735	3025	2175	2325	2325	525	2325	525
4000	1440	2825	3170	2220	2370	2370	570	2370	570
5000	1640	2885	3320	2250	2400	2400	600	2400	600

R': Tipping height

Inertial tanks

Inertial storage ARE S



PRICES

The ARE S series includes insulated tanks for chilled water, normally used to increase the thermal inertia of the Layout 2 system type. They are equipped with dividing baffles that prevent preferential flows within the tank, thus creating the conditions for optimal temperature distribution. They are particularly suitable for medium and high flow rates and also in special designs where the tank is designed to be connected to more than two circuits.

Material: carbon steel

Exterior cladding

Model	Type	Use
ARE S	Coloured PVC	inside

Insulation

Capacity (L)	Type	Thickness (mm)
from 100 to 1000	High-density rigid polyurethane foam	30
by 1500	Closed-cell polyethylene foam	20

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar

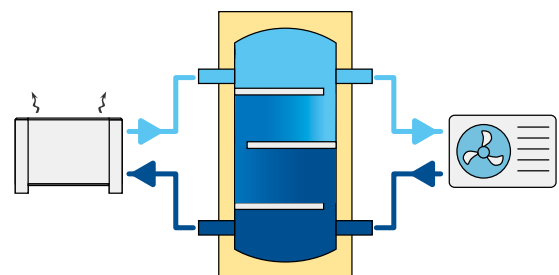
 **Standard accessories:** see page 208

 **Special executions:** see page 210



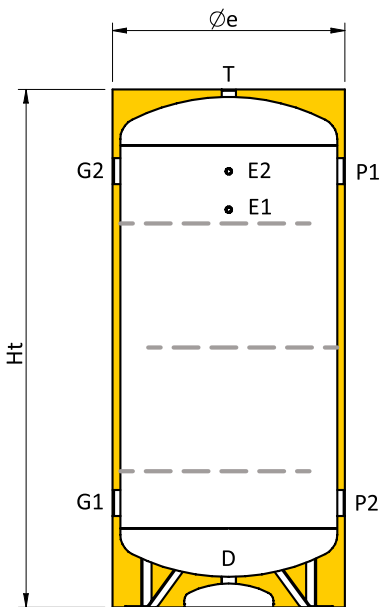
TESTED

Capacity L	ARE S		With vertical packaging	
	Code	Price	Dimensions cm	Weight kg
100	316010166	717,00 €	49x49x107	26
200	316010167	770,00 €	54x54x146	37
300	316010168	920,00 €	64x64x155	50
500	316010169	1.098,00 €	74x74x184	85
800	316010170	1.532,00 €	88x88x186	113
1000	316010171	1.780,00 €	94x94x215	137
1500	316010172	2.640,00 €	107x107x228	193
2000	316010173	3.236,00 €	117x117x260	262
2500	316010174	3.823,00 €	132x132x240	283
3000	316010175	4.300,00 €	132x132x290	330
4000	316010176	5.194,00 €	147x147x297	487
5000	316010177	6.641,00 €	167x167x301	577

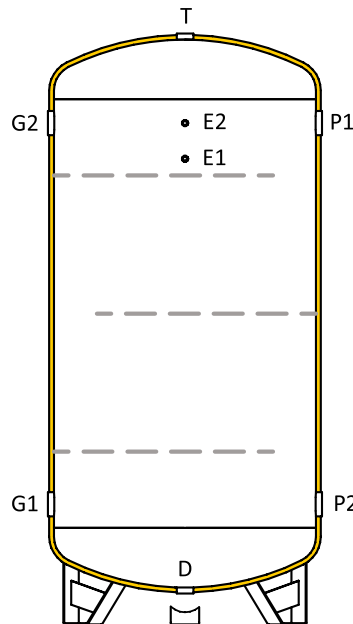


Inertial storage: Dimensions ARE S Series

100 ≤ cap. ≤ 1,000



1.500 ≤ cap. ≤ 5,000



Connection legend

D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Capacity L	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2000	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2500	2'	1/2"	1/2"	4'	4'	4'	4'	2'
3000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
4000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
5000	2'	1/2"	1/2"	4'	4'	4'	4'	2'

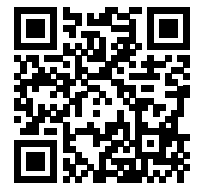
Size table

Capacity L	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	760	290	760	290
200	510	1335	1430	120	990	1140	1140	290	1140	290
300	610	1425	1555	130	1015	1165	1165	365	1165	365
500	710	1710	1855	135	1285	1435	1435	385	1435	385
800	850	1740	1940	125	1295	1445	1445	395	1445	395
1000	910	2025	2225	120	1560	1710	1710	410	1710	410
1500	1040	2160	2400	165	1650	1800	1800	500	1800	500
2000	1140	2480	2730	155	1955	2105	2105	505	2105	505
2500	1290	2275	2620	180	1715	1865	1865	565	1865	565
3000	1290	2775	3060	180	2215	2365	2365	565	2365	565
4000	1440	2845	3190	160	2240	2390	2390	590	2390	590
5000	1640	2885	3320	140	2250	2400	2400	600	2400	600

R': Tipping height

Inertial tanks

Inertial storage ARE C



PRICES

ARE C insulated tanks for chilled water are normally used to increase the thermal inertia of the Layout 2 system type and of medium and high flow rates. They are equipped with conveyor pipes that create a preferential circuit within the tank.

Material: carbon steel

Exterior cladding

Model	Type	Use
ARE C	Coloured PVC	inside

Insulation

Capacity (L)	Type	Thickness (mm)
from 100 to 1000	High-density rigid polyurethane foam	30
by 1500	Closed-cell polyethylene foam	20

Limit of use

Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar

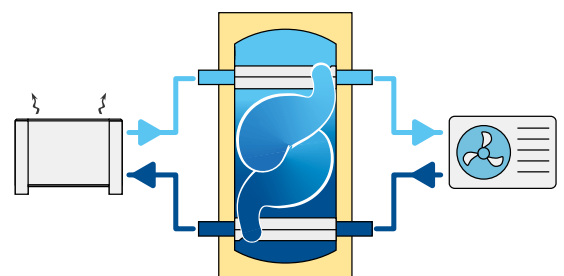
Standard accessories: see page 208

Special executions: see page 210

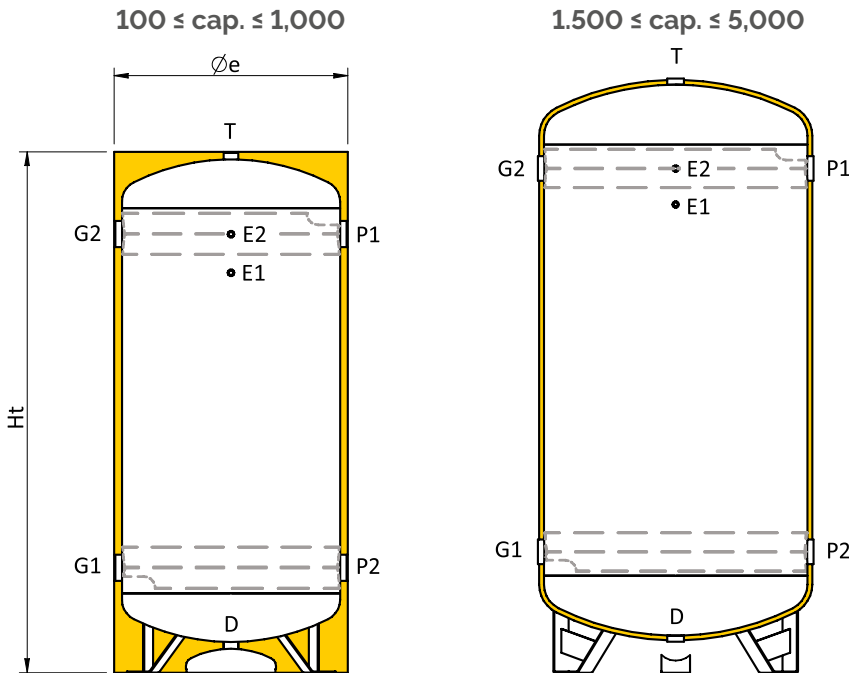


TESTED

Capacity L	ARE C		With vertical packaging	
	Code	Price	Dimensions cm	Weight kg
100	316010154	742,00 €	49x49x107	26
200	316010155	796,00 €	54x54x146	37
300	316010156	967,00 €	64x64x155	50
500	316010157	1.201,00 €	74x74x184	85
800	316010158	1.686,00 €	88x88x186	113
1000	316010159	1.888,00 €	94x94x215	137
1500	316010160	2.585,00 €	107x107x228	193
2000	316010161	3.191,00 €	117x117x260	262
2500	316010162	3.753,00 €	132x132x240	283
3000	316010163	4.247,00 €	132x132x290	330
4000	316010164	5.213,00 €	147x147x297	487
5000	316010165	6.516,00 €	167x167x301	577



Inertial storage: Dimensions ARE C Series



Connection legend

D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Capacity L	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2000	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2500	2'	1/2"	1/2"	4'	4'	4'	4'	2'
3000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
4000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
5000	2'	1/2"	1/2"	4'	4'	4'	4'	2'

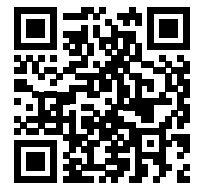
Size table

Capacity L	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	760	290	760	290
200	510	1335	1430	120	990	1140	1140	290	1140	290
300	610	1425	1555	130	1015	1165	1165	365	1165	365
500	710	1710	1855	135	1285	1435	1435	385	1435	385
800	850	1740	1940	125	1295	1445	1445	395	1445	395
1000	910	2025	2225	120	1560	1710	1710	410	1710	410
1500	1040	2160	2400	165	1650	1800	1800	500	1800	500
2000	1140	2480	2730	155	1955	2105	2105	505	2105	505
2500	1290	2275	2620	180	1715	1865	1865	565	1865	565
3000	1290	2775	3060	180	2215	2365	2365	565	2365	565
4000	1440	2845	3190	160	2240	2390	2390	590	2390	590
5000	1640	2885	3320	140	2250	2400	2400	600	2400	600

R': Tipping height

Inertial tanks

Inertial storage ARE D



PRICES

ARE D insulated chilled water tanks are normally used to increase the thermal inertia of the Layout 2 system type. They are equipped with diffuser tubes that directly connect the two circuits connected to the tank. Through the diffuser's circumferential holes, energy is transferred or subtracted from the storage tank. This minimises the phenomenon of mixing within the tank.

Material: carbon steel

Exterior cladding

Model	Type	Use
ARE D	Coloured PVC	inside

Insulation

Capacity (L)	Type	Thickness (mm)
from 100 to 1000	High-density rigid polyurethane foam	30
by 1500	Closed-cell polyethylene foam	20

Limit of use

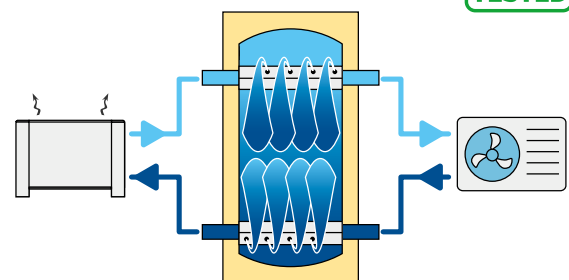
Min. temperature	Max. temperature	Max. pressure
-10 °C	60 °C	6 bar

Standard accessories: see page 208

Special executions: see page 210

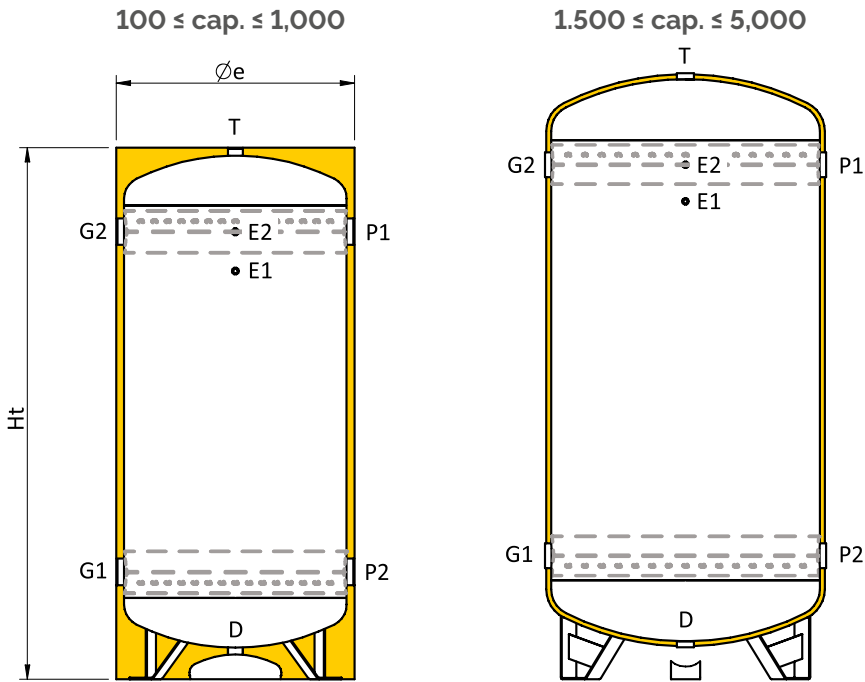


TESTED



Capacity L	ARE D		With vertical packaging	
	Code	Price	Dimensions cm	Weight kg
100	316010417	796,00 €	49x49x107	26
200	316010418	855,00 €	54x54x146	37
300	316010419	1.034,00 €	64x64x155	50
500	316010420	1.259,00 €	74x74x184	85
800	316010421	1.730,00 €	88x88x186	113
1000	316010422	1.955,00 €	94x94x215	138
1500	316010423	2.607,00 €	107x107x228	193
2000	316010424	3.213,00 €	117x117x260	262
2500	316010425	3.865,00 €	132x132x240	283
3000	316010426	4.337,00 €	132x132x290	330
4000	316010427	5.213,00 €	147x147x297	487
5000	316010428	6.606,00 €	167x167x301	577

Inertial storage: Dimensions ARE D Series



Connection legend

D	Drain
E1	Probe/Thermometer
E2	Probe/Thermometer
G1	Input from plant
G2	Output to plant
P1	Output to energy source
P2	Input from energy source
T	Venting

Connection table

Capacity L	D inches	E1 inches	E2 inches	G1 inches	G2 inches	P1 inches	P2 inches	T inches
100	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
200	1 1/4	1/2"	1/2"	1 1/2	1 1/2	1 1/2	1 1/2	1 1/4
300	1 1/4	1/2"	1/2"	2'	2'	2'	2'	1 1/4
500	1 1/4	1/2"	1/2"	3'	3'	3'	3'	1 1/4
800	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1000	1 1/2	1/2"	1/2"	3'	3'	3'	3'	1 1/2
1500	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2000	2'	1/2"	1/2"	3'	3'	3'	3'	2'
2500	2'	1/2"	1/2"	4'	4'	4'	4'	2'
3000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
4000	2'	1/2"	1/2"	4'	4'	4'	4'	2'
5000	2'	1/2"	1/2"	4'	4'	4'	4'	2'

Size table

Capacity L	Øe mm	Ht mm	R' mm	D mm	E1 mm	E2 mm	G1 mm	G2 mm	P1 mm	P2 mm
100	460	950	1060	125	610	760	760	290	760	290
200	510	1335	1430	120	990	1140	1140	290	1140	290
300	610	1425	1555	130	1015	1165	1165	365	1165	365
500	710	1710	1855	135	1285	1435	1435	385	1435	385
800	850	1740	1940	125	1295	1445	1445	395	1445	395
1000	910	2025	2225	120	1560	1710	1710	410	1710	410
1500	1040	2160	2400	165	1650	1800	1800	500	1800	500
2000	1140	2480	2730	155	1955	2105	2105	505	2105	505
2500	1290	2275	2620	180	1715	1865	1865	565	1865	565
3000	1290	2775	3060	180	2215	2365	2365	565	2365	565
4000	1440	2845	3190	160	2240	2390	2390	590	2390	590
5000	1640	2885	3320	140	2250	2400	2400	600	2400	600

R': Tipping height

Standard Accessories for Inertial Tanks



ACCESSORIES
PRICES



Replacement Anode

Capacity	Description	Code	Price
200-300l	22X400 MAGNESIUM ANODE + CAP	R22100012	€ 66,50
500-10000	MAGNESIUM ANODE 33X500 + CAP	R22100013	€ 81,50

Anode replacement with simpletest

Capacity	Description	Code	Price
200-300l	SIMPLETEST ANODE 22X400 T^{1/4}	R22100006	€ 85,50
500-10000	SIMPLETEST ANODE 33X500 T ^{1/4}	R22100008	€ 114,50

Spare parts for all standard tanks and boilers of the Flexy, Smart, Boil families, both glazed and stainless steel



Cathodic current protection imprinted (version 2021)

New version 2021:

Description	Length (mm)	Code	Price
for capacities up to 1000 litres	450	322100014	337,00 €
for capacities from 1500 to 5000 litres	750	322100015	539,00 €

- Separate components (power supply and cable)
- Work time indicator
- Anti-hydrogen¹ protection system
- Alarm signals: Anode Disconnected; Short Circuit; Fault Protection (possibility to remote alarm via dedicated port).

Standard Accessories for Inertial Tanks

Galvanised connection adaptors threaded to flanged type

The codes and prices listed below are per piece. The adapter is screwed onto the existing connection. The adapter is not welded onto the ferrule, for special executions please ask for a quotation.



Original attachment	Transformed attack uni-en pn 16	Code	Price
1 1/2	DN 40	338081200X	157,00 €
	DN 50	338081201X	176,00 €
2	DN 50	338081202X	177,00 €
	DN 65	338081203X	187,00 €
2 1/2	DN 65	338081204X	179,00 €
	DN 80	338081205X	190,00 €
3	DN 80	338081206X	185,00 €
	DN 100	338081207X	205,00 €
4	DN 100	338081208X	199,00 €
	DN 125	338081209X	241,00 €

Galvanised connection adaptors threaded to Grooved

The codes and prices listed below are per piece. The adapter is screwed onto the existing connection. The adapter is not welded onto the ferrule, for special designs please ask for a quotation.



Original attachment	Transformed attack	Code	Price
1 1/2	1 1/2	338081211X	52,00 €
	2	338081212X	149,00 €
2	2	338081213X	59,00 €
	2 1/2	338081214X	157,00 €
2 1/2	2 1/2	338081215X	64,00 €
	3	338081216X	165,00 €
3	3	338081217X	67,00 €
	4	338081218X	169,00 €
4	4	338081219X	87,00 €
	5	338081220X	243,00 €

Single-phase heating elements with control thermostat

No IP protection, connections are exposed.



Power electric W	Voltage V	Number elements	Connection diameter inches	Length mm	Code	Price
1200	230	1	1 1/4	220	324100003	65,00 €
1500	230	1	1 1/4	290	324100004	81,00 €
2000	230	1	1 1/4	330	324100005	86,00 €

Thermometers



Description	Code	Price
Cold water thermometer	322050004	38,00 €
Hot water thermometer	322050001	38,00 €

Single-phase heating elements

IP 55 protection



Power electric W	Voltage V	Number elements	Connection diameter inches	Length mm	Code	Price
200	230	1	1/2	300	324100001	105,00 €

Temperature controls



Description	Temperature range	Safety range	Code	Price
Thermostat	0 ÷ 90 °C	-	322010004	57,00 €
Bitermostat	0 ÷ 90 °C	fix 100 °C	322010006	136,00 €
Antifreeze Bitermostat	-30 ÷ 30 °C	0 ÷ 90 °C	322010007	196,00 €

Heating elements

IP 65 protection



Power electric W	Voltage V	Number elements	Connection diameter inches	Length mm	Code	Price
1300	230/380	3	2	220	324100008	251,00 €
2000	230/380	3	2	290	324100009	229,00 €
2000	230/380	3	1 1/4	300	324100053	200,00 €
3000	230/380	3	2	340	324100010	237,00 €
3000	230/380	3	1 1/4	300	324100011	208,00 €
4000	230/380	3	2	390	324100012	237,00 €
4000	230/380	3	1 1/4	400	324100072	247,00 €
5000	230/380	3	2	500	324100013	253,00 €
5000	230/380	3	1 1/4	450	324100073	251,00 €
6000	230/380	3	2	600	324100014	265,00 €
7000	230/380	3	2	580	324100015	282,00 €
8000	230/380	3	2	620	324100016	287,00 €
10000	230/380	3	2	770	324100017	320,00 €



ACCESSORIES PRICES

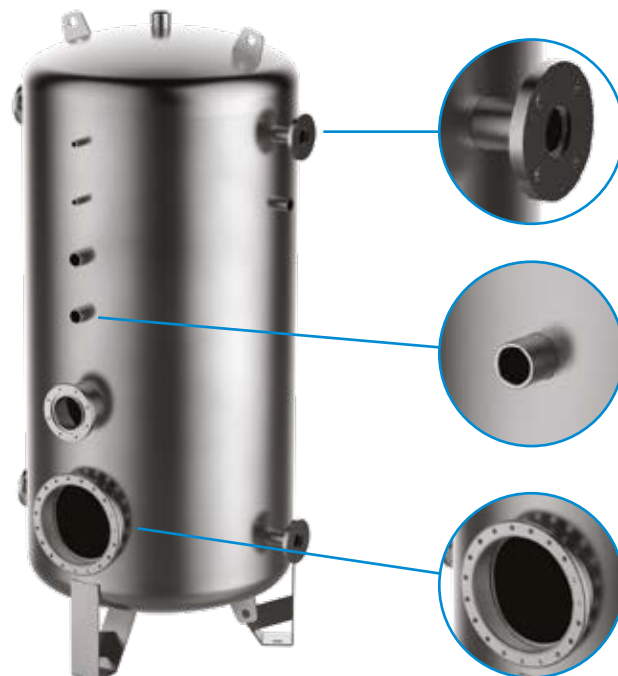
Accessories Compatible with: WHP, ACR CH, ACRE CH, ACR, ACRE, AR, ARE, ARX, ARE S, ARE C, ARE D (p. 194) NOTE: Check the possibility of installing accessories based on the size and availability of tank connections.

Inertial tanks

Special Executions Inertial Tanks

Special executions change the conformation of the products and therefore the sales code will also be different depending on the special execution requested. HEIZERSILE is able to meet any non-standard request quickly, providing customers with the necessary assistance to guide them to the most suitable solution for their needs. Below are some examples of special executions:

- Flanged (in various materials)
- Grooved (in various materials)
- Increased
- Customised on request



ALUMINIUM sheet metal cladding

Accessory suitable for outdoor installation.
A wooden transport cage is compulsory.



Packaging in a wooden cage

Provides greater product protection during transport



Accessories Compatible with: ACR CH, ACRE CH, ACR, ACRE, AR, ARE, ARX, ARE S, ARE C, ARE D (page 194)



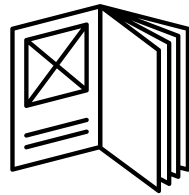
Index Plate Heat Exchangers

GASKETED PLATE HEAT EXCHANGERS

214



PHE TH/FL/FL+
p. 214



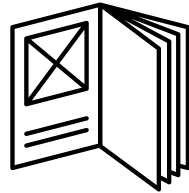
Quick selection tables
from page 224

BRAZED PLATE HEAT EXCHANGERS

233



WB
p. 233



Quick selection tables
from page 236

Plate heat exchangers

Gasketed Plate Heat Exchangers PHE TH / FL / FL+ Series

The Gasketed Plate heat exchangers of the K and F series are designed and manufactured with materials and solutions that ensure high standards of efficiency and durability in both civil and industrial process applications.

In particular:

- consist of plates made of high quality materials that achieve an excellent overall heat transfer coefficient and guarantee corrosion resistance;
- plates can be made with different corrugations to maximise exchange performance depending on the different operating conditions (type of fluid, viscosity). Their particular conformation means that the motion of the fluids inside is particularly turbulent, guaranteeing a high heat exchange coefficient;
- seals are available in different materials, adapted to the particular applications (petrol, oils, food fluids, aggressive fluids, high-temperature fluids, etc.) and performance requirements;
- all heat exchangers produced are tested (leakage test) before shipment for leakage.



Plate heat exchangers

Gasketed Plate Heat Exchangers

PHE TH / FL / FL+ Series

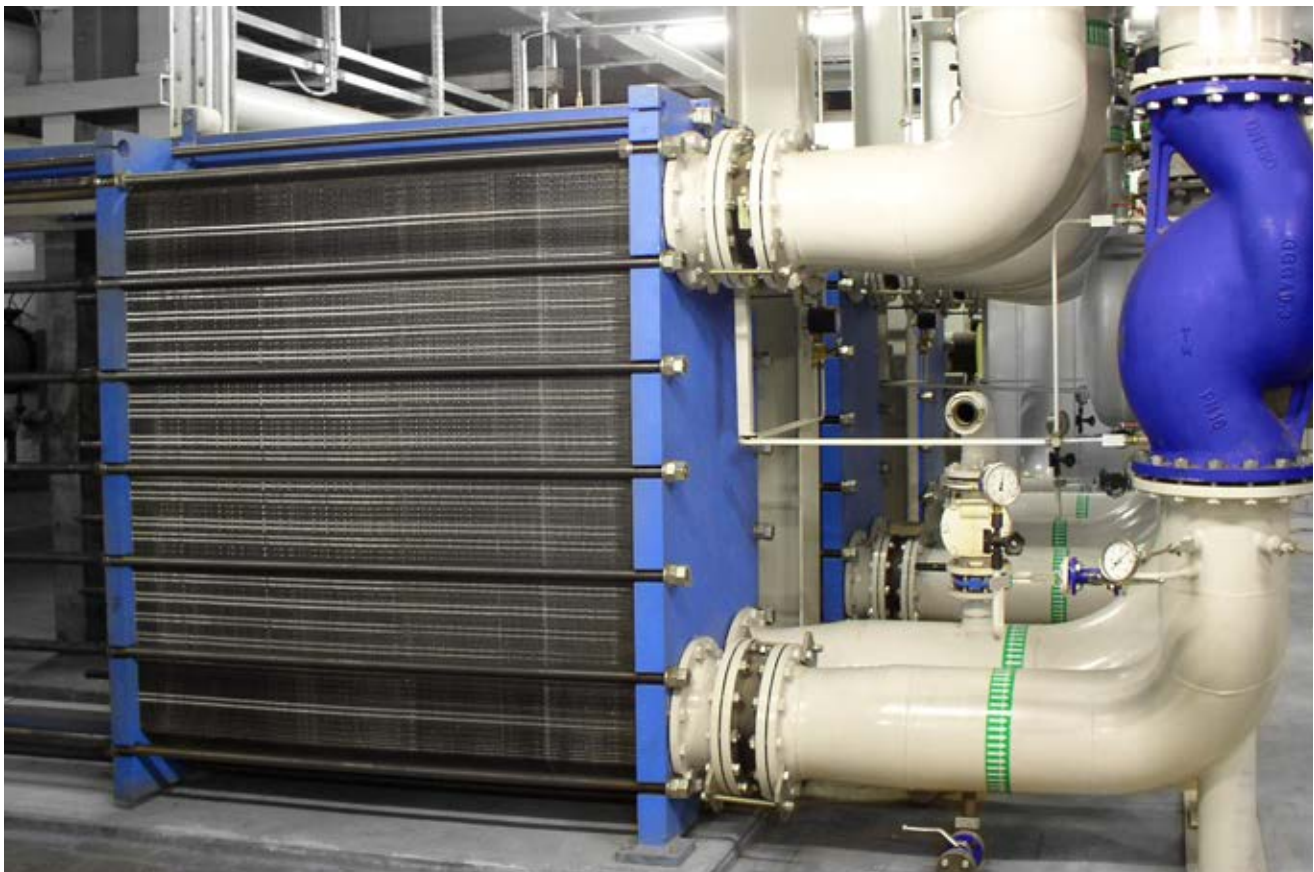
Scope and fields of application

Wherever heat exchange between two fluids is required, HeizerSile plate heat exchangers provide a number of important advantages:

- high efficiency
- long duration
- low cost
- compact dimensions
- possibility of extension
- ease of maintenance
- high reliability

For this reason, they have established themselves as reference products for the civil and industrial sectors (HVAC, Food, Chemical, Renewable Energy, Refrigeration, Oil & Gas), constituting the best solution in numerous uses and fields of application, including:

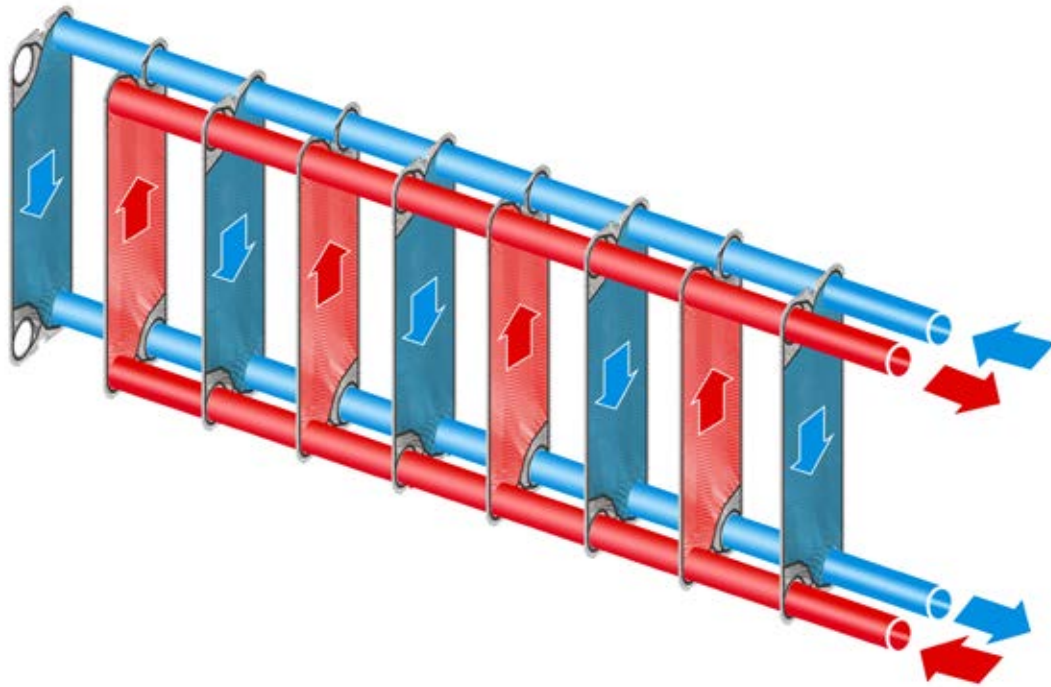
- domestic hot water production
- heat exchange in heating systems
- district heating
- heating water for swimming pools
- solar plants
- cooling and/or heating of food fluids (milk, beer, wine,...)
- cooling of machine tools
- heat recovery from industrial processes
- hydraulics



Operating Principles

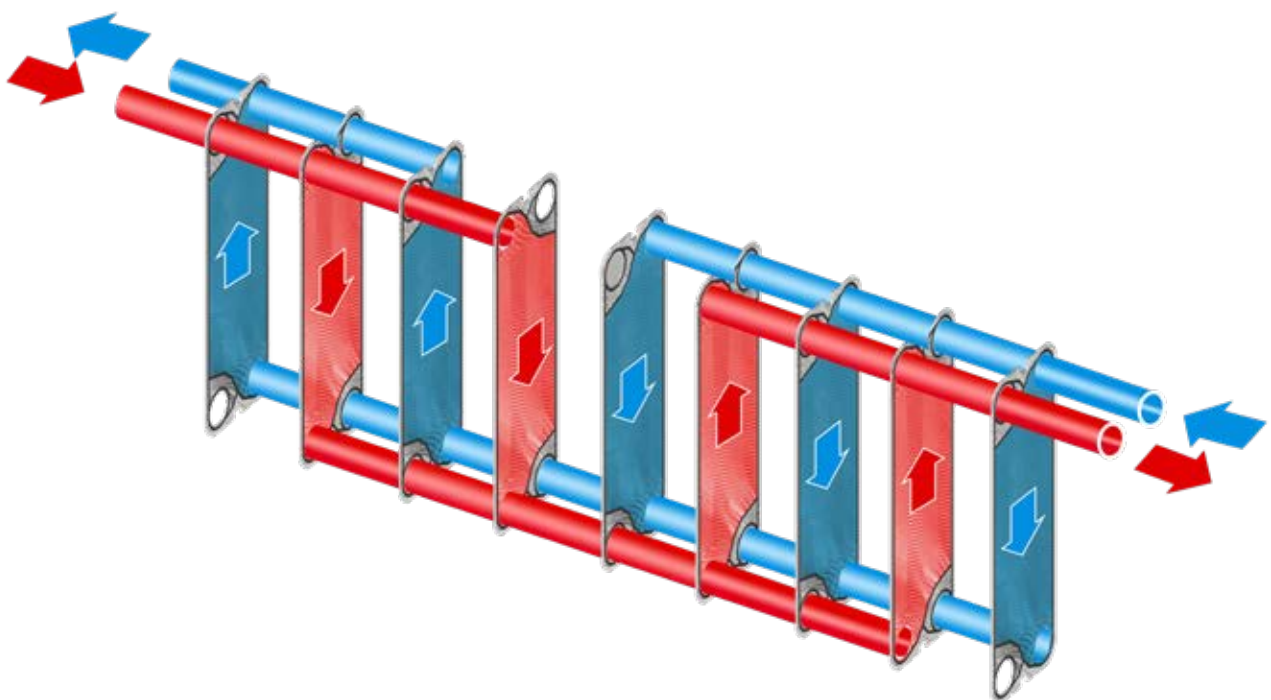
Single pass

In the single-pass configuration, the fluid flowing through the exchanger passes through a single channel, (the space between two adjacent plates). This is the most commonly used layout.

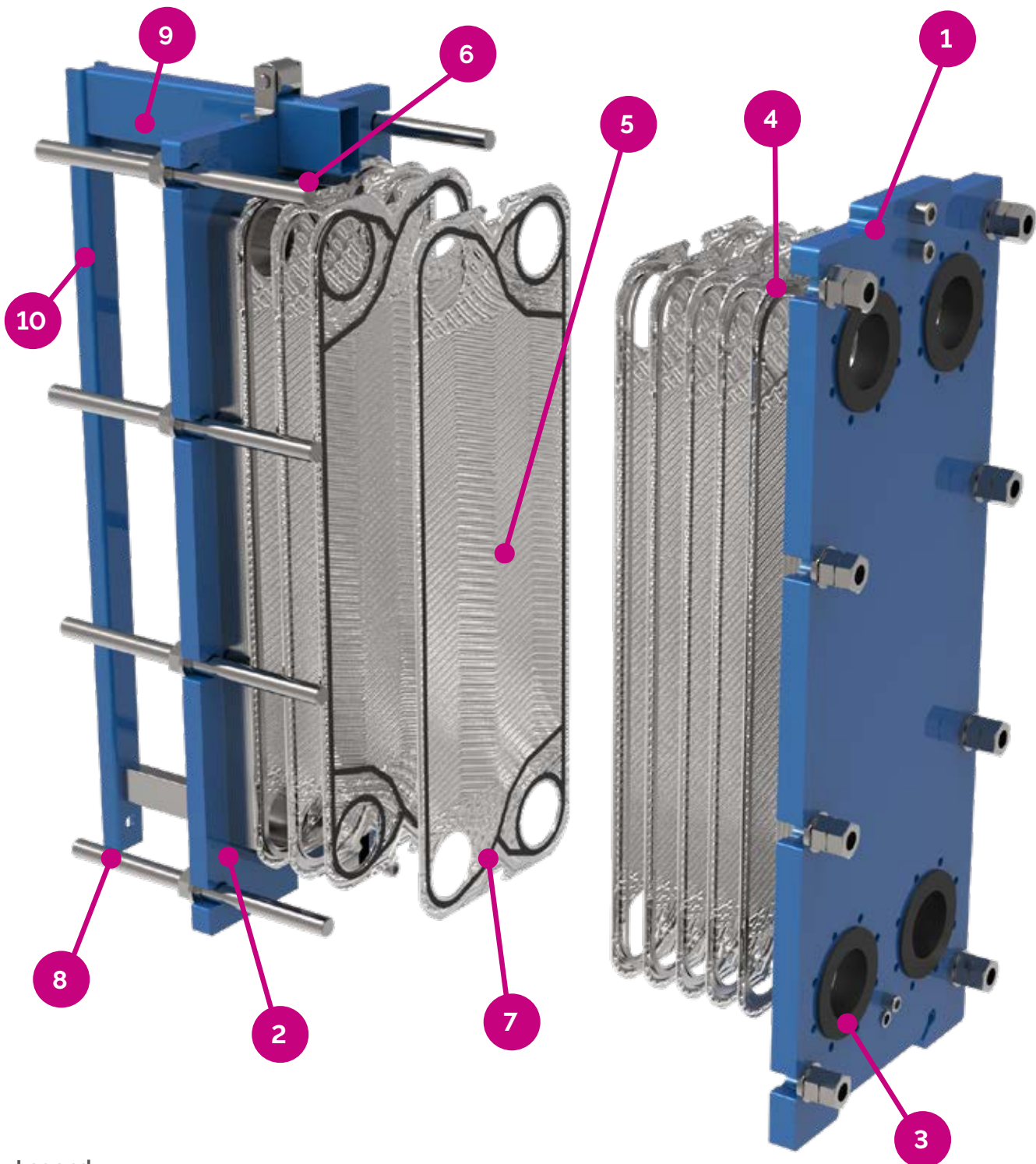


Multiple passes

In this configuration, the thermal length of the exchanger increases in proportion to the number of passes (length doubled with 2 passes, tripled with 3 passes, etc.). This solution is advantageous when there is a high Δt within the individual circuits, making it possible to adopt a compact exchanger and making it function as a tall, slim exchanger.



Main Components



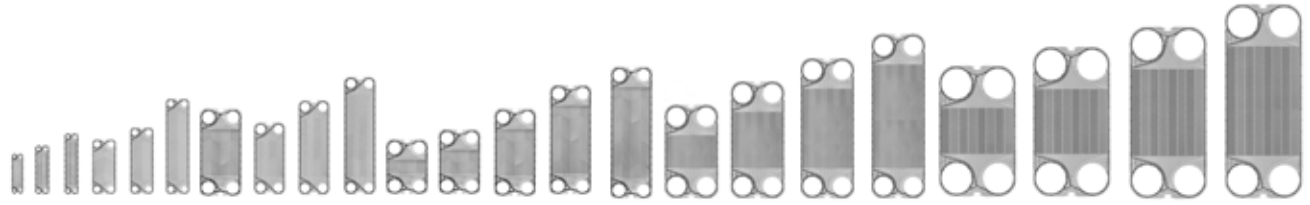
Legend

1. Front drum
2. Rear barrel
3. Connection
4. Initial plate
5. Intermediate plate
6. End plate
7. Gasket
8. Tie-rod
9. Guides
10. Upright

HeizerSile Gasketed Plate heat exchangers have a design that allows easy access, quick inspection and maintenance. Furthermore, the modularity of its components allows the plate pack to be increased according to changing heat exchange requirements.

Gasketed Plate heat exchangers

The Range



Model		Pressure Nominal	Corrugations available	Connections standard	PP mm	sp. plate mm	Ht mm	Lt mm	Z1 mm	Z2 mm	J mm	
DN 32	TH	K042/H1	PN10/PN16	H	1 1/4 GAS M	(NP-1)x3.1+2	0.6	470	200	380	68	45
	TH	F09	PN10/PN16	H - L	1 1/4 GAS M	NPx2.7+3	0.5	827	200	676	70	76
DN40	TH	K080/H2	PN10/PN16	H - V	1 1/2 GAS M	(NP-1)x3.05+2	0.6	725	250	555	100	90
DN 50	TH	F2010	PN10/PN16/PN25	H - L	2" GAS M	NPx 2.9+3	0.5	732	310	494	126	128
	TH	F2016	PN10/PN16/PN25	H - L	2" GAS M	NPx 2.9+3	0.5	932	310	694	126	128
	TH	F2022	PN10/PN16/PN25	H - L	2" GAS M	NPx 2.9+3	0.5	1132	310	894	126	128
DN 65	FL	F3017	PN10/PN16	H - M	DN 65 UNI PN16	N.P. x 2.6 *	0.4	1071	400	620	188	180
	FL	F3030	PN10/PN16	H - M	DN 65 UNI PN16	N.P. x 2.6 *	0.4	1421	400	1020	188	180
	FL	F3043	PN10/PN16	H - M	DN 65 UNI PN16	N.P. x 2.6 *	0.4	1871	400	1420	188	180
DN 100	FL	F4206	PN10/PN16/PN25	H - L	DN 100 UNI PN16	NPx 3.1 *	0.5	1158	480	719	225	204
	FL	F4031	PN10/PN16/PN25	H - L	DN 100 UNI PN16	NPx 3.1 *	0.5	1332	480	894	225	204
	FL	F4050	PN10/PN16/PN25	H - L	DN 100 UNI PN16	NPx 3.1 *	0.5	1826	480	1388	225	204
	FL	F4071	PN10/PN16/PN25	H - L	DN 100 UNI PN16	NPx 3.1 *	0.5	2320	480	1882	225	204
DN 150	FL+	F42	PN10/PN16/PN25	H - L	DN 150 UNI PN16	NPx 3.1 *	0.5	1470	610	941	290	225
	FL+	F62	PN10/PN16/PN25	H - L	DN 150 UNI PN16	NPx 3.1 *	0.5	1834	610	1306	290	225
	FL+	F82	PN10/PN16/PN25	H - L	DN 150 UNI PN16	NPx 3.1 *	0.5	2150	610	1671	290	225
	FL+	F112	PN10/PN16/PN25	H - L	DN 150 UNI PN16	NPx 3.1 *	0.5	2687	620	2157	290	290
DN 200	FL+	F405	PN10/PN16/PN25	H - L	DN 200 UNI PN16	NPx 3.1 *	0.5	1380	760	770	395	395
	FL+	F70	PN10/PN16/PN25	H - L	DN 200 UNI PN16	NPx 3.1 *	0.5	1740	760	1130	395	395
	FL+	F100	PN10/PN16/PN25	H - L	DN 200 UNI PN16	NPx 3.1 *	0.5	2100	760	1490	395	395
	FL+	F130	PN10/PN16/PN25	H - L	DN 200 UNI PN16	NPx 3.1 *	0.5	2460	760	1850	395	395
DN 300	FL+	F81	PN10/PN16/PN25	H - L	DN 300 UNI PN16	NPx 3.7 *	0.5	930	980	1100	480	480
	FL+	F120	PN10/PN16/PN25	H - L	DN 300 UNI PN16	NPx 3.7 *	0.5	2320	980	1490	480	480
	FL+	F160	PN10/PN16/PN25	H - L	DN 300 UNI PN16	NPx 3.7 *	0.5	2710	980	1879	480	480
	FL+	F190	PN10/PN16/PN25	H - L	DN 300 UNI PN16	NPx 3.7 *	0.5	3100	980	2267	480	480
DN 500	FL+	F150	PN10/PN16/PN25	H - L	DN 500 UNI PN16	NPx 3.9 *	0.5	2500	1370	1466	672	672
	FL+	F200	PN10/PN16/PN25	H - L	DN 500 UNI PN16	NPx 3.9 *	0.5	2855	1370	1822	672	672
	FL+	F250	PN10/PN16/PN25	H - L	DN 500 UNI PN16	NPx 3.9 *	0.5	3211	1370	2178	672	672

* with rubber liner add 1.5 mm

⚙️ **Special executions are available on request**

Gasketed Plate heat exchangers

The Range

Connections (suggestion)

Primary: Input F1 - Output F4

Secondary: Input F3 - Output F2

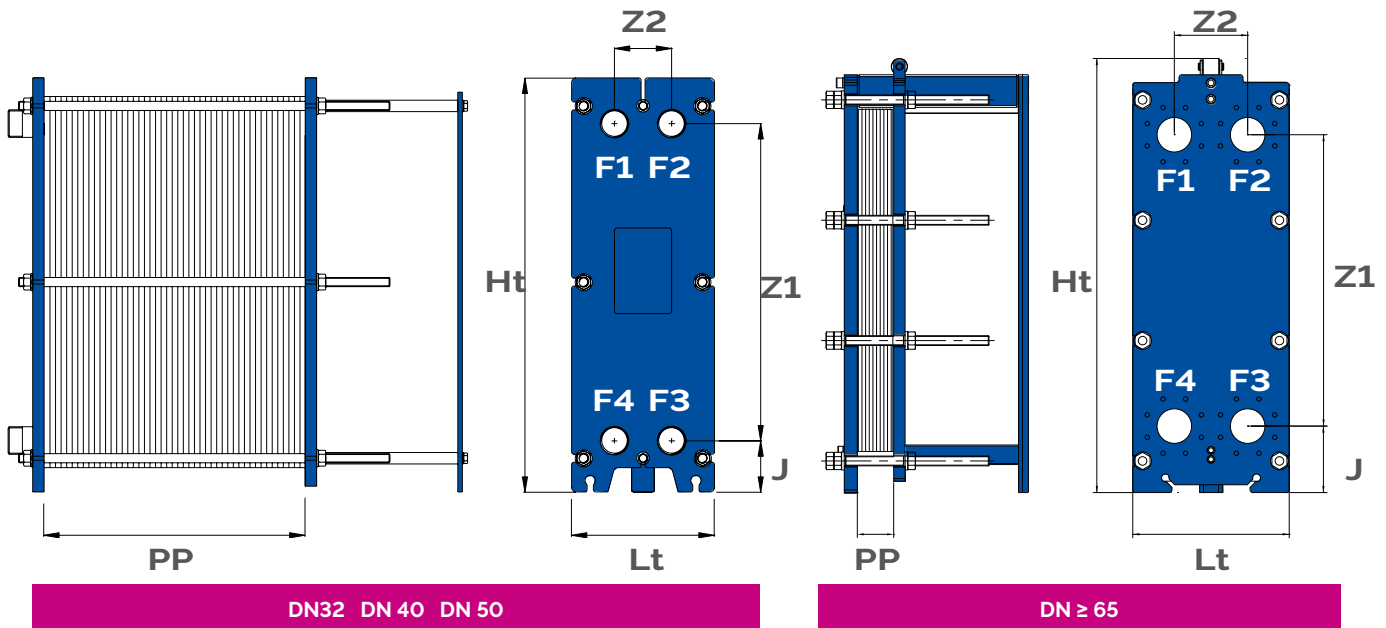
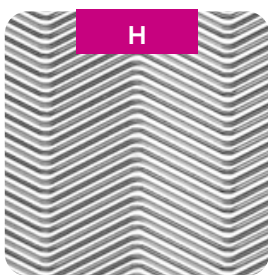


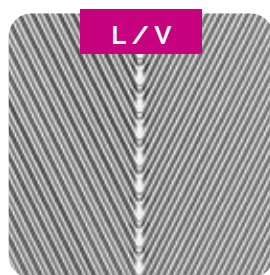
PLATE HEAT EXCHANGERS

Corrugations

The plates are available in different corrugations and can be combined to achieve the best performance in each of the different applications.



H: this type of corrugation maximises the heat exchanged



pressure losses



yield and losses (only for F3017, F3030, F3043)

L and V: this version minimises

M: this version is a good mix of

Available materials

Model	Plates			Seals			Drum		Tie rods	
	AISI 304	AISI 316L	TITANIUM	NBR	EPDM	VITON	STEEL VARNISHED	AISI 304/316	STEEL ZINCATO	AISI 304/316
k series	-	✓	✓	✓	✓	-	✓	○	✓	○
f series (up to DN32)	-	✓	✓	✓	✓	○	✓	○	✓	○
f series (DN50 upwards)	✓	✓	✓	✓	✓	○	✓	○	✓	○

Legend: ▲ tandard execution ○ execution on request - not available

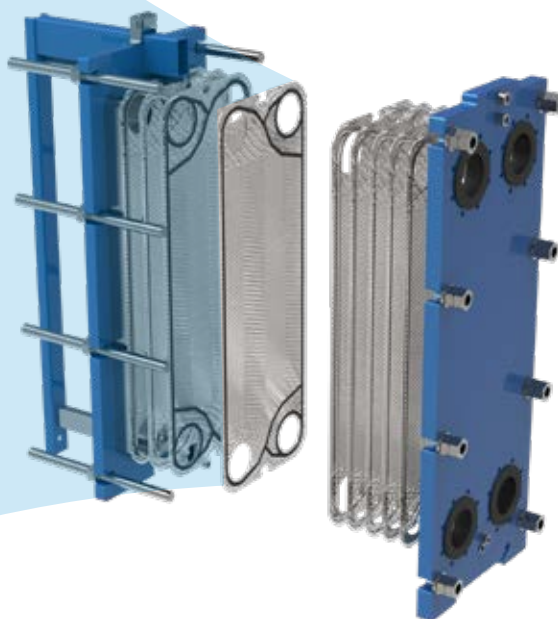
Plates in the following materials are available on request for the F series: 245 SMO, AISI 904L, ALLOY C276.



Seals

The gaskets are fixed to the plates by means of a clip-on system that guarantees hygiene and ease of maintenance, avoiding the use of glues and solvents. The special design of the gaskets creates a double barrier, preventing accidental contamination between the two fluids even in the event of a leak. The gaskets are available in different materials, used according to the different parameters of use:

- **NBR/NBRHT** (nitrile) generally used with water, water and glycol, various liquids, mineral-based oily fluids (T max. 130°C / 140°C)
- **EPDM/EPDM HT** (ethylene-polypropylene) wide range of uses with water and steam, caustic soda, alcohol, low % acids, etc. (T max. 150°C/160°C)
- **VITON I** (fluoroelastomer) ideal for a wide range of oils, petrols and chlorinated solvents at high temperatures (T max 195°C - for aqueous fluids 140°C)
- **VITON S** (fluoroelastomer for steam) specially designed for high-temperature steam applications (T max 195°C)
- **VITON G** (fluoroelastomer peroxide) due to its high fluorine level has excellent resistance to concentrated acids and aqueous chemicals at high temperatures (T max 195°C - for aqueous fluids 165°C)



Fluid/material compatibility

The table shows some guidelines for choosing the correct combination of materials.

Fluid Type	Fluid	Plates			Seals		Connections	
		AISI 304*	AISI 316L	TITANIUM	NBR	EPDM	INOX	NYLON (TMAX 50°C)
WATER	water (tmax < 110°C)	✓	✓	✓	✓	✓	✓	✓
	water (tmax > 110°C)	-	✓	✓	-	✓	✓	-
	demineralised water	-	✓	✓	✓	-	✓	✓
	seawater (NaCl)	-		✓	✓	-	-	✓
	chlorinated water for swimming pools	-	✓	✓	✓	-	✓	✓
	thermal water	-		✓	-	✓		✓
	mineral water	-	✓	-	-	✓	✓	-
	steam < 4 bar	-	✓	-	-	✓	✓	-
WATER & GLYCOLS	ethylene glycol (glycol < 30%)	✓	✓	✓	✓	✓	✓	✓
	ethylene glycol (glycol > 30%)	✓	✓	✓	-	✓	✓	✓
	propylene glycol (glycol < 30%)	✓	✓	✓	✓	✓	✓	✓
	propylene glycol (glycol > 30%)	✓	✓	✓	-	✓	✓	✓
HYDROCARBONS	diesel	-	✓	✓	✓	-	✓	-
	kerosene	-	✓	✓	✓	-	✓	-
	oil	-	✓	✓	✓	-	✓	-
	pure petrol	-	✓	✓	✓	-	✓	-
	naphtha	-	✓	✓	✓	-	✓	-
OILS	sae oil	-	✓	✓	✓	-	✓	-
	iso vg oil	-	✓	✓	✓	-	✓	-
	diathermic oil	-	✓	✓	✓	-	✓	-
	quenching oil	-	✓	✓	✓	-	✓	-
	mineral oil	-	✓	✓	✓	-	✓	-
	synthetic oil	-	✓	✓	-	✓	✓	-
	olive oil	-	✓	✓	✓	-	✓	-
	seed oil	-	✓	✓	✓	-	✓	-
ACIDS	sulphuric acid 20% (aqueous), 50°C	-	**	-	-	✓	-	✓
	hydrochloric acid 1% (aqueous), 20°C	-	**	-	-	✓	-	✓
	acetic acid 70°C	-	✓	-	-	✓	-	✓
	chromic acid 20%, 20°C	-	✓	-	-	✓	-	✓
FOOD	milk	✓	✓	-	✓	✓	✓	-
	wine and fruit juice	✓	✓	-	✓	✓	✓	-
	beer	✓	✓	-	✓	✓	✓	-
	whisky	✓	✓	-	✓	✓	✓	-
	wine vinegar	-	✓	-	-	✓	✓	-
	liqueur	✓	✓	-	-	✓	✓	-
OTHER FLUIDS	acetone	-	✓	✓	-	✓	✓	-
	ethyl alcohol	-	✓	✓	-	✓	✓	-
	ethanol	-	✓	✓	-	✓	✓	-
	ethylene	-	✓	✓	✓	-	✓	-
	methanol	-	✓	✓	-	✓	✓	-

Legend: ✓ compatible - not compatible

*Only for closed circuits with chloride concentration below 25 ppm and T max 80°C

**To assess the ideal combination of suitable materials, please contact the sales department.

Connections

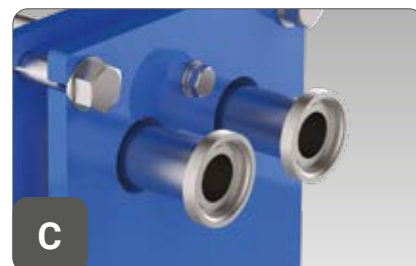
Our Gasketed Plate heat exchangers can be manufactured with numerous connection types, threaded, free-flange, welded flange and liner. Liner refers to the lining in the area through which the frame passes, which can be made of materials such as steel or rubber.



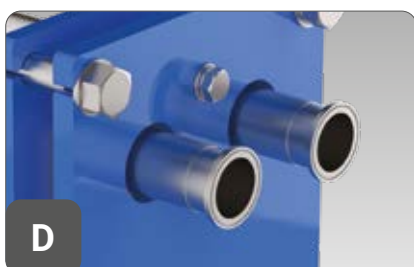
A
Threaded Connection
(steel or nylon)



B
Grooved connection



C
Connection DIN 11851



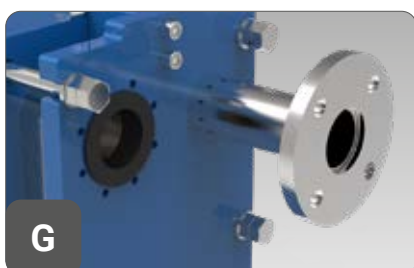
D
Triclamp connection



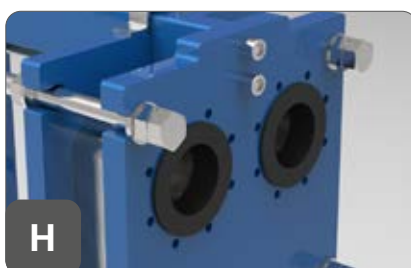
E
Free Flange Connection



F
Welded Flange Connection



G
Liner + Flange Connection



H
Rubber Liner Connection



I
Metal Liner Connection

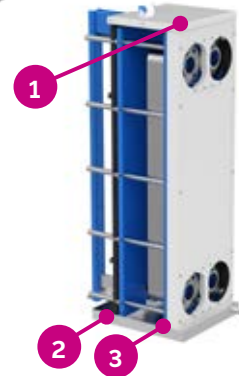
Connection compatibility

Model	A	B	C	D	E	F	G	H	I
K042	✓	✓	✓	✓	✓	✓	-	-	-
F09	✓	✓	✓	✓	✓	✓	-	-	-
F2010 - F2016 - F2022	✓	✓	✓	✓	✓	✓	✓	-	-
F3017 - F3030 - F3043	✓	✓	✓	✓	✓	✓	✓	✓	✓
F4206 - F4031 - F4050 - F4071	-	-	✓	✓	✓	✓	✓	✓	✓
F42 - F62 - F82 - F112	-	-	-	-	-	✓	✓	✓	✓
F405 - F70 - F100 - F130	-	-	-	-	-	✓	✓	✓	✓
F81 - F120 - F160 - F190	-	-	-	-	-	✓	✓	✓	✓
F150 - F200 - F250	-	-	-	-	-	✓	✓	✓	✓

Accessories

Insulation Box, Condensation tray, Feet set

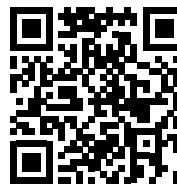
For **models K042 and H1**, the **thermoformed** insulation box is available, which can be disassembled and reassembled by coupling with Velcro strips(**includes foot set**).



Thermoformed insulation box			
Model	Threshold Plates	Code	Price
K042	up to 64 plates	343090028X	278,00
H1	up to 64 plates	343090028X	278,00
F09	up to 101 plates	343090111X	379,00

Legend

- Galvanised Steel Insulation Box: available for the entire range, it is made of a galvanised steel structure covered with insulating material.
- Condensate Collection Pan: **mandatory in refrigeration and cooling applications**
- Supporting feet set



ACCESSORIES PRICES

Model	Threshold Plates	Insulation box in Aluminium			Condensate collection tank (mandatory T<15°C)			Feet set	
		Code	Price	Ht x Lt x Wt mm	Code	Price	Ht x Lt x Wt mm	Code	Price
K042	up to 38 plates	321080214X	399,00 €	491x246x215	329097145X	149,00 €	20x295x310	321070049X	36,00 €
	up to 64 plates	321080215X	423,00 €	491x246x298	329097146X	160,00 €	20x295x410		
K080	up to 38 plates	321080216X	433,00 €	746x296x220	329097147X	171,00 €	50x345x370	321070051X	49,00 €
	up to 64 plates	321080217X	461,00 €	746x296x299	329097148X	188,00 €	50x345x450		
H1	up to 38 plates	321080214X	399,00 €	491x246x215	329097145X	149,00 €	20x295x310	321070049X	36,00 €
	up to 64 plates	321080215X	423,00 €	491x246x298	329097146X	160,00 €	20x295x410		
H2	up to 38 plates	321080216X	433,00 €	746x296x220	329097147X	171,00 €	50x345x370	321070051X	49,00 €
	up to 64 plates	321080217X	461,00 €	746x296x299	329097148X	188,00 €	50x345x450		
F09	up to 44 plates	321080161X	375,00 €	848x247x212	329095331X	149,00 €	20x275x372	321070241X	45,00 €
	up to 69 plates	321080162X	389,00 €	848x247x280	329095331X	149,00 €	20x275x372		
	up to 101 plates	321080163X	408,00 €	848x247x366	329095332X	178,00 €	20x275x472		
F2010	up to 30 plates	321080186X	483,00 €	754x354x230	329097141X	183,00 €	50x400x310	321070031X	63,00 €
	up to 80 plates	321080187X	536,00 €	754x354x379	329097142X	228,00 €	50x400x555		
	up to 120 plates	321080188X	578,00 €	754x354x499	329097143X	273,00 €	50x400x805		
	up to 180 plates	321080189X	658,00 €	754x354x679	329097144X	319,00 €	50x400x1055		
F2016	up to 30 plates	321080190X	583,00 €	954x354x230	329097141X	183,00 €	50x400x310	321070031X	63,00 €
	up to 80 plates	321080191X	620,00 €	954x354x379	329097142X	228,00 €	50x400x555		
	up to 120 plates	321080192X	649,00 €	954x354x499	329097143X	273,00 €	50x400x805		
	up to 180 plates	321080193X	710,00 €	954x354x679	329097144X	319,00 €	50x400x1055		
F2022	up to 30 plates	321080194X	644,00 €	1154x354x230	329097141X	183,00 €	50x400x310	321070031X	63,00 €
	up to 80 plates	321080195X	687,00 €	1154x354x379	329097142X	228,00 €	50x400x555		
	up to 120 plates	321080196X	720,00 €	1154x354x499	329097143X	273,00 €	50x400x805		
	up to 180 plates	321080197X	738,00 €	1154x354x679	329097144X	319,00 €	50x400x1055		
F3017	up to 80 plates	321080146X	583,00 €	992x446x372	329096013X	223,00 €	50x450x500	321070247X	81,00 €
	up to 120 plates	321080147X	606,00 €	992x446x464	329096014X	296,00 €	50x500x750		
	up to 180 plates	321080148X	673,00 €	992x446x569	329096015X	369,00 €	50x500x1000		
F3030	up to 250 plates	321080149X	889,00 €	992x446x834	329096016X	401,00 €	50x500x1390	321070247X	81,00 €
	up to 80 plates	321080142X	748,00 €	1392x446x370	329096013X	223,00 €	50x450x500		
	up to 120 plates	321080150X	857,00 €	1392x446x464	329096014X	296,00 €	50x500x750		
	up to 180 plates	321080151X	980,00 €	1392x446x642	329096015X	369,00 €	50x500x1000		
F3043	up to 250 plates	321080152X	987,00 €	1392x446x834	329096016X	401,00 €	50x500x1390	321070247X	81,00 €
	up to 80 plates	321080153X	909,00 €	1792x446x372	329096013X	223,00 €	50x450x500		
	up to 120 plates	321080154X	946,00 €	1792x446x464	329096014X	296,00 €	50x500x750		
	up to 180 plates	321080155X	1.074,00 €	1792x446x642	329096015X	369,00 €	50x500x1000		
F4206	up to 250 plates	321080156X	1.164,00 €	1792x446x834	329096016X	401,00 €	50x500x1390	321070032X	107,00 €
	up to 80 plates	321080205X	815,00 €	1108x524x429	329097137X	273,00 €	50x575x550		
	up to 120 plates	321080204X	838,00 €	1108x524x557	329097138X	319,00 €	50x575x750		
	up to 180 plates	321080203X	919,00 €	1108x524x749	329097139X	409,00 €	50x575x1000		
F4031	up to 250 plates	321080202X	946,00 €	1108x524x973	329097140X	500,00 €	50x575x1390	321070032X	107,00 €
	up to 80 plates	321080201X	852,00 €	1284x524x429	329097137X	273,00 €	50x575x550		
	up to 120 plates	321080200X	881,00 €	1284x524x557	329097138X	319,00 €	50x575x750		
	up to 180 plates	321080199X	970,00 €	1284x524x749	329097139X	409,00 €	50x575x1000		
F4050	up to 250 plates	321080198X	1.093,00 €	1284x524x973	329097140X	500,00 €	50x575x1390	321070032X	107,00 €
	up to 80 plates	321080209X	970,00 €	1778x524x429	329097137X	273,00 €	50x575x550		
	up to 120 plates	321080208X	1.023,00 €	1778x524x557	329097138X	319,00 €	50x575x750		
	up to 180 plates	321080207X	1.117,00 €	1778x524x749	329097139X	409,00 €	50x575x1000		
F4071	up to 250 plates	321080206X	1.160,00 €	1778x524x973	329097140X	500,00 €	50x575x1390	321070032X	107,00 €
	up to 80 plates	321080213X	890,00 €	2272x524x429	329097137X	273,00 €	50x575x550		
	up to 120 plates	321080212X	961,00 €	2272x524x557	329097138X	319,00 €	50x575x750		
	up to 180 plates	321080211X	1.060,00 €	2272x524x749	329097139X	409,00 €	50x575x1000		
	up to 250 plates	321080210X	1.193,00 €	2272x524x973	329097140X	500,00 €	50x575x1390		

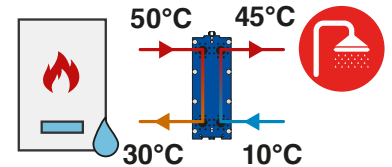
Quick Selection Tables - GASKETED INSTANT DHW with LOW temperature source



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	50°C	30°C	10 bar	H ₂ O
COLD Side	Sanitary Water	10°C	45°C	10 bar	H ₂ O



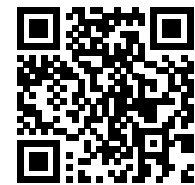
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	871	4	494	1	K080	9	321K080AHNN009	1.166,00 €	77x27x42	78
25	1088	4	618	1	K080	11	321K080AHNN011	1.232,00 €	77x27x42	79
30	1306	4	741	1	K080	13	321K080AHNN013	1.298,00 €	77x27x42	80
35	1524	4	865	1	K080	15	321K080AHNN015	1.363,00 €	77x27x54	82
40	1714	5	988	2	K080	15	321K080AHNN015	1.363,00 €	77x27x54	82
50	2177	5	1235	2	K080	19	321K080AHNN019	1.495,00 €	77x27x54	84
60	2612	6	1482	2	K080	21	321K080AHNN021	1.561,00 €	77x27x54	85
75	3265	7	1853	2	K080	25	321K080AHNN025	1.692,00 €	77x27x54	88
85	3700	6	2100	2	K080	29	321K080AHNN029	1.824,00 €	77x27x54	90
100	4353	7	2471	2	K080	33	321K080AHNN033	1.955,00 €	77x27x54	93
120	5224	32	2965	10	F2016	15	321F2016AN015-1HH07XX00N	1.937,00 €	97x33x75	134
150	6530	30	3706	9	F2016	19	321F2016AN019-1HH09XX00N	2.090,00 €	97x33x75	137
180	7836	36	4447	11	F2016	21	321F2016AN021-1HH10XX00N	2.166,00 €	97x33x75	139
210	9142	34	5189	11	F2016	25	321F2016AN025-1HH12XX00N	2.319,00 €	97x33x75	142
240	10448	33	5930	10	F2016	29	321F2016AN029-1HH14XX00N	2.472,00 €	97x33x75	145
270	11754	32	6671	10	F2016	33	321F2016AN033-1HH16XX00N	2.625,00 €	97x33x75	152
300	13060	35	7412	11	F2016	35	321F2016AN035-1HH17XX00N	2.701,00 €	97x33x75	153

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 236

Plate heat exchangers

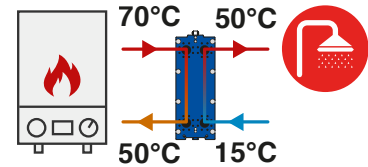
Quick Selection Tables - GASKETED INSTANT DHW with HIGH temperature source



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	70°C	50°C	10 bar	H ₂ O
COLD Side	Sanitary Water	15°C	50°C	10 bar	H ₂ O



Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	879	10	495	3	K042	7	321K042AHNN007	564,00 €	50x25x35	31
25	1099	9	619	3	K042	9	321K042AHNN009	610,00 €	50x25x35	32
30	1319	13	743	4	K042	9	321K042AHNN009	610,00 €	50x25x35	32
35	1539	17	867	6	K042	9	321K042AHNN009	610,00 €	50x25x35	32
40	1759	14	991	5	K042	11	321K042AHNN011	657,00 €	50x25x35	33
50	2199	15	1236	5	K042	13	321K042AHNN013	703,00 €	50x25x35	33
60	2638	22	1486	8	K042	13	321K042AHNN013	703,00 €	50x25x35	33
75	3298	25	1858	9	K042	15	321K042AHNN015	749,00 €	50x25x45	34
85	3737	25	2106	9	K042	17	321K042AHNN017	795,00 €	50x25x45	34
100	4397	23	2477	8	K042	21	321K042AHNN021	888,00 €	50x25x45	36
120	5276	32	2973	11	K042	21	321K042AHNN021	888,00 €	50x25x45	36
150	6596	36	3716	13	K042	25	321K042AHNN025	980,00 €	50x25x45	37
180	7915	35	4459	12	K042	31	321K042AHNN031	1.119,00 €	50x25x45	39
210	9234	34	5202	12	K042	37	321K042AHNN037	1.258,00 €	50x25x45	41
240	10533	32	5945	11	F2010	17	321F2010AN017-1HH03HL05N	1.644,00 €	77x33x47	106
270	11872	35	6688	12	F2010	19	321F2010AN019-1HH04HL05N	1.706,00 €	77x33x47	107
300	13191	34	7431	12	F2010	21	321F2010AN021-1HH04HL06N	1.769,00 €	77x33x47	108

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 237

PLATE HEAT EXCHANGERS

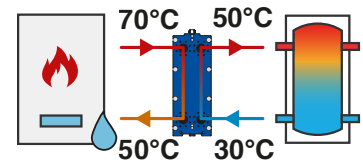
Quick Selection Tables - GASKETED DHW with STORAGE and source at HIGH temperature



PRICES

Project conditions 1

Circuit	Source - Terminal	T _{IN}	T _{OUT}	P _{MAX}	Fluid
WARM Side	Boiler	70°C	50°C	10 bar	H ₂ O
COLD Side	Sanitary Water	30°C	50°C	10 bar	H ₂ O



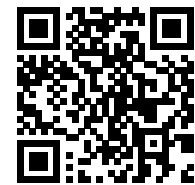
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	878	6	871	6	K042	9	321K042AHNN009	610,00 €	50x25x35	32
25	1098	9	1087	9	K042	9	321K042AHNN009	610,00 €	50x25x35	32
30	1318	13	1307	13	K042	9	321K042AHNN009	610,00 €	50x25x35	32
35	1537	17	1523	17	K042	9	321K042AHNN009	610,00 €	50x25x35	32
40	1760	22	1742	22	K042	9	321K042AHNN009	610,00 €	50x25x35	32
50	2200	22	2174	22	K042	11	321K042AHNN011	657,00 €	50x25x35	33
60	2640	22	2610	22	K042	13	321K042AHNN013	703,00 €	50x25x35	33
75	3298	25	3265	26	K042	15	321K042AHNN015	749,00 €	50x25x45	34
85	3737	25	3697	26	K042	17	321K042AHNN017	795,00 €	50x25x45	34
100	4396	28	4352	28	K042	19	321K042AHNN019	841,00 €	50x25x45	35
120	5278	27	5223	28	K042	23	321K042AHNN023	934,00 €	50x25x45	36
150	6595	27	6527	28	K042	29	321K042AHNN029	1.073,00 €	50x25x45	38
180	7916	28	7834	28	K042	35	321K042AHNN035	1.211,00 €	50x25x45	40
210	9234	28	9140	28	F2010	17	321F2010AN017-1HH04HLO4N	1.644,00 €	77x33x47	106
240	10055	27	10044	27	F2010	21	321F2010AN021-1HH06HLO4N	1.769,00 €	77x33x47	108
270	11930	27	11808	27	F2010	21	321F2010AN021-1HH06HLO4N	1.769,00 €	77x33x47	108
300	13190	30	13053	29	F2010	25	321F2010AN025-1HH07HLO5N	1.893,00 €	77x33x47	111

*Accessories
on page 223 (See
Model and No. Plates)

Alternative solution using brazed exchangers: see page 238

Plate heat exchangers

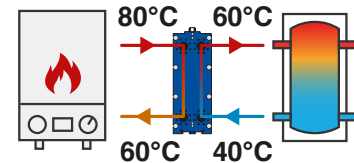
Quick Selection Tables - GASKETED DHW with STORAGE and source at HIGH temperature



PRICES

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	80°C	60°C	10 bar	H ₂ O
COLD Side	Sanitary Water	40°C	60°C	10 bar	H ₂ O

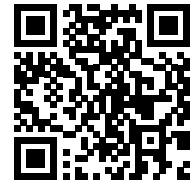


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	882	6	864	6	K042	9	321K042AHNN009	610,00 €	50x25x35	32
25	1105	9	1094	9	K042	9	321K042AHNN009	610,00 €	50x25x35	32
30	1324	12	1310	13	K042	9	321K042AHNN009	610,00 €	50x25x35	32
35	1548	17	1530	17	K042	9	321K042AHNN009	610,00 €	50x25x35	32
40	1767	22	1749	22	K042	9	321K042AHNN009	610,00 €	50x25x35	32
50	2210	22	2185	22	K042	11	321K042AHNN011	657,00 €	50x25x35	33
60	2649	22	26244	22	K042	13	321K042AHNN013	703,00 €	50x25x35	33
75	3312	25	3279	25	K042	15	321K042AHNN015	749,00 €	50x25x45	34
85	3754	25	3718	25	K042	17	321K042AHNN017	795,00 €	50x25x45	34
100	4597	27	4374	28	K042	19	321K042AHNN019	841,00 €	50x25x45	35
120	5302	27	5248	27	K042	23	321K042AHNN023	934,00 €	50x25x45	36
150	6627	28	6559	28	K042	29	321K042AHNN029	1.073,00 €	50x25x45	38
180	7952	28	7873	28	K042	35	321K042AHNN035	1.211,00 €	50x25x45	40
210	9277	19	9184	20	K080	23	321K080AVNN023	1.626,00 €	77x27x54	87
240	10605	27	10497	27	F2010	19	321F2010AN019-1HH04HL05N	1.706,00 €	77x33x47	107
270	11930	27	11808	27	F2010	21	321F2010AN021-1HH04HL06N	1.769,00 €	77x33x47	108
300	13255	30	13122	29	F2010	23	321F2010AN023-1HH05HL06N	1.831,00 €	77x33x47	109

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 239

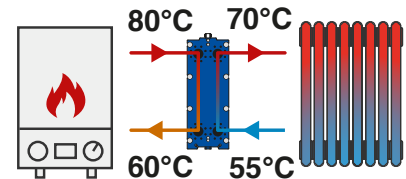
Quick Selection Tables - GASKETED HEATING with terminals at HIGH temperature



PRICES

Project conditions 1

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	80°C	60°C	10 bar	H ₂ O
COLD Side	Radiators	55°C	70°C	10 bar	H ₂ O

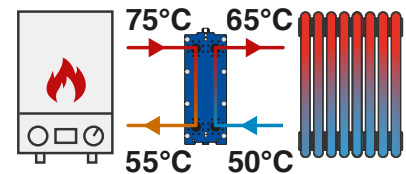


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	663	1	880	1	K042	19	321K042AHNN019	841,00 €	50x25x45	35
25	1104	4	1467	7	K080	11	321K080AHNN011	1.232,00 €	77x27x42	79
35	1546	5	2054	9	K080	13	321K080AHNN013	1.298,00 €	77x27x42	80
50	2209	6	2934	11	K080	17	321K080AHNN017	1.429,00 €	77x27x54	83
75	3314	8	4401	8	K080	23	321K080AHNN023	1.626,00 €	77x27x54	87
100	4418	8	5868	15	K080	29	321K080AHNN029	1.824,00 €	77x27x54	90
115	5081	9	6748	15	K080	33	321K080AHNN033	1.955,00 €	77x27x54	93
130	5744	9	7628	16	K080	37	321K080AHNN037	2.087,00 €	77x27x54	95
150	6628	10	8802	17	K080	41	321K080AHNN041	2.219,00 €	77x27x64	98
180	7953	11	10562	20	F2016	27	321F2016AN027-1HH06HL07N	2.395,00 €	97x33x75	144
200	8837	11	11736	19	F2016	31	321F2016AN031-1HH07HL08N	2.548,00 €	97x33x75	150

*Accessories on page 223 (See Model and No. Plates)

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	75°C	55°C	10 bar	H ₂ O
COLD Side	Radiators	50°C	65°C	10 bar	H ₂ O



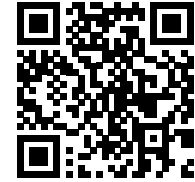
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	661	4	878	7	K80	7	321K080AHNN007	1.052,00 €	77x27x42	76
25	1102	4	1463	7	K80	11	321K080AHNN011	1.232,00 €	77x27x42	79
35	1542	5	2049	10	K80	13	321K080AHNN013	1.298,00 €	77x27x42	80
50	2203	6	2927	11	K80	17	321K080AHNN017	1.429,00 €	77x27x54	83
75	3305	8	4390	13	K80	23	321K080AHNN023	1.626,00 €	77x27x54	87
100	4407	9	5853	15	K80	29	321K080AHNN029	1.824,00 €	77x27x54	90
115	5068	9	6732	15	K80	33	321K080AHNN033	1.955,00 €	77x27x54	93
130	5730	9	7609	16	K80	37	321K080AHNN037	2.087,00 €	77x27x54	95
150	6612	9	8780	16	K80	43	321K080AHNN043	2.284,00 €	77x27x64	99
180	7934	12	10536	20	F2016	27	321F2016AN027-1HH06HL07N	2.395,00 €	97x33x75	144
200	8815	11	11706	19	F2016	31	321F2016AN031-1HH07HL08N	2.548,00 €	97x33x75	150

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 240

Plate heat exchangers

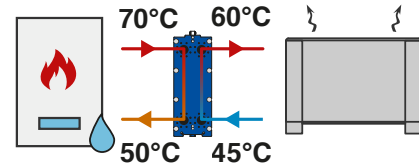
Quick Selection Tables - GASKETED HEATING with terminals at HIGH temperature



PRICES

Project conditions 3

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	70°C	50°C	10 bar	H ₂ O
COLD Side	Radiators / Fan Coils	45°C	60°C	10 bar	H ₂ O

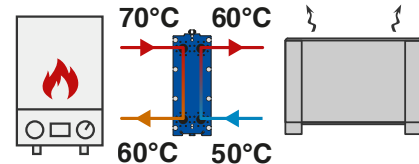


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	660	1	876	1	K042	21	321K042AHNN021	888,00 €	50x25x45	36
25	1099	4	1460	7	K080	11	321K080AHNN011	1.232,00 €	77x27x42	79
35	1539	5	2044	10	K080	13	321K080AHNN013	1.298,00 €	77x27x42	80
50	2199	6	2920	11	K080	17	321K080AHNN017	1.429,00 €	77x27x54	83
75	3298	6	4379	11	K080	25	321K080AHNN025	1.692,00 €	77x27x54	88
100	4397	8	5839	13	K080	31	321K080AHNN031	1.890,00 €	77x27x54	92
115	5057	8	6715	14	K080	35	321K080AHNN035	2.021,00 €	77x27x54	94
130	5716	8	7591	15	K080	39	321K080AHNN039	2.153,00 €	77x27x64	97
150	6596	9	8759	15	K080	45	321K080AHNN045	2.350,00 €	77x27x64	101
180	7915	9	10510	16	K080	53	321K080AHNN053	2.613,00 €	77x27x64	106
200	8794	10	11678	17	K080	59	321K080AHNN059	2.855,00 €	77x27x64	109

*Accessories on page 223 (See Model and No. Plates)

Project conditions 4

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	70°C	60°C	10 bar	H ₂ O
COLD Side	Radiators / Fan Coils	50°C	60°C	10 bar	H ₂ O



Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	1322	12	1315	13	K042	9	321K042AHNN009	610,00 €	50x25x35	32
25	2203	15	2192	16	K042	13	321K042AHNN013	703,00 €	50x25x35	33
35	3085	17	3069	17	K042	17	321K042AHNN017	795,00 €	50x25x45	34
50	4408	19	4385	19	K042	23	321K042AHNN023	934,00 €	50x25x45	36
75	6612	18	6577	18	K080	17	321K080AHNN017	1.429,00 €	77x27x54	83
100	8816	17	8769	18	K080	23	321K080AHNN023	1.626,00 €	77x27x54	87
115	10138	19	10085	20	K080	25	321K080AHNN025	1.692,00 €	77x27x54	88
130	11460	19	11400	19	K080	29	321K080AHNN029	1.824,00 €	77x27x54	90
150	13223	19	13154	19	F2010	27	321F2010AN027-1HH04HLO9N	1.955,00 €	77x33x47	112
180	15868	20	15785	20	F2010	31	321F2010AN031-1HH03HL12N	2.080,00 €	77x33x71	118
200	17631	19	17539	19	F2010	35	321F2010AN035-1HH03HL14N	2.204,00 €	77x33x71	120

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 241

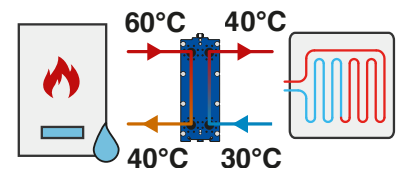
Quick Selection Tables - GASKETED HEATING with terminals at LOW temperature



PRICES

Project conditions 1

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	60°C	40°C	10 bar	H ₂ O
COLD Side	Radiant Floors / Fan Coil	30°C	40°C	10 bar	H ₂ O

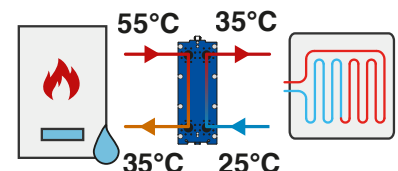


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	656	3	1302	13	K042	9	321K042AHNN009	610,00 €	50x25x35	32
25	1093	4	2170	16	K042	13	321K042AHNN013	703,00 €	50x25x35	33
35	1531	5	3038	18	K042	17	321K042AHNN017	795,00 €	50x25x45	35
50	2187	5	4340	20	K042	23	321K042AHNN023	934,00 €	50x25x45	36
75	3281	6	6511	20	K080	17	321K080AHNN017	1.429,00 €	77x27x54	83
100	4375	5	8681	19	K080	23	321K080AHNN023	1.626,00 €	77x27x54	87
115	5032	5	9983	18	F2010	19	321F2010AN019-1HH05LLO4N	1.706,00 €	77x33x47	107
130	5687	5	11285	18	F2010	21	321F2010AN021-1HH05LLO5N	1.769,00 €	77x33x47	108
150	6563	6	13022	19	F2010	25	321F2010AN025-1HH07LLO5N	1.893,00 €	77x33x47	111
180	7876	6	15626	19	F2010	29	321F2010AN029-1HH07LLO7N	2.018,00 €	77x33x47	113
200	8751	6	17362	19	F2010	33	321F2010AN033-1HH08LLO8N	2.142,00 €	77x33x71	119

*Accessories on page 223 (See Model and No. Plates)

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	55°C	35°C	10 bar	H ₂ O
COLD Side	Radiant Floors	25°C	35°C	10 bar	H ₂ O



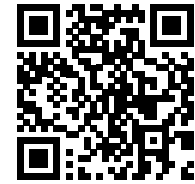
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	655	3	1299	13	K042	9	321K042AHNN009	610,00 €	50x25x35	32
25	1092	4	2165	16	K042	13	321K042AHNN013	703,00 €	50x25x35	33
35	1528	5	3031	18	K042	17	321K042AHNN017	795,00 €	50x25x45	35
50	2182	5	4329	20	K042	23	321K042AHNN023	934,00 €	50x25x45	36
75	3273	5	6494	17	K080	19	321K080AHNN019	1.495,00 €	77x27x54	84
100	4364	5	8659	20	K080	23	321K080AHNN023	1.626,00 €	77x27x54	87
115	5019	6	9958	18	F2010	19	321F2010AN019-1HH05LLO4N	1.706,00 €	77x33x47	107
130	5674	5	11257	20	F2010	23	321F2010AN023-1HH03HL08N	1.831,00 €	77x33x47	109
150	6547	6	12988	20	F2010	25	321F2010AN025-1HH07LLO5N	1.893,00 €	77x33x47	111
180	7856	6	15586	19	F2010	29	321F2010AN029-1HH07LLO7N	2.018,00 €	77x33x47	113
200	8729	6	17318	19	F2010	33	321F2010AN033-1HH08LLO8N	2.142,00 €	77x33x71	119

*Accessories on page 223 (See Model and No. Plates)

Alternative solution using brazed exchangers: see page 242

Plate heat exchangers

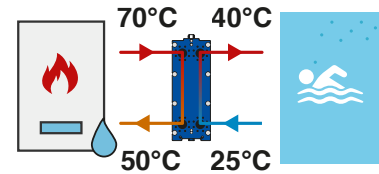
Quick Selection Tables - GASKETED HEATING Chlorinated pool



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	70°C	50°C	10 bar	H ₂ O
COLD Side	Chlorinated Water Pool	25°C	40°C	10 bar	H ₂ O+Cl



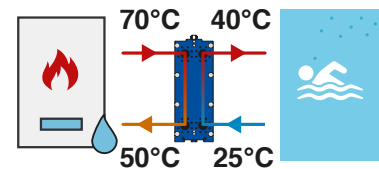
O,3						No. Plates*	Code	Price	Packaging	
	Power kW	Warm Side		Cold Side					Mod.*	Dimensions cm
	kW	L/h	kPa	L/h	kPa					
	20	880	4	1156	7	K042	321K042AHNN011	657,00 €	50x25x35	33
	25	1099	6	1445	10	K042	321K042AHNN011	657,00 €	50x25x35	33
	35	1539	8	2023	14	K042	321K042AHNN013	703,00 €	50x25x35	33
	50	2199	8	2890	13	K042	321K042AHNN019	841,00 €	50x25x45	35
	75	3298	7	4335	12	K080	321K080AVNN015	1.363,00 €	77x27x54	82
	100	4397	7	5780	14	K080	321K080AVNN019	1.495,00 €	77x27x54	84
	115	5057	8	6647	14	F2010	321F2010AN011-1LLO5XX00N	1.458,00 €	77x33x47	102
	130	5716	9	7514	14	F2010	321F2010AN013-1HL03LLO3N	1.520,00 €	77x33x47	103
	150	6596	9	8670	14	F2010	321F2010AN015-1HL03LLO4N	1.582,00 €	77x33x47	104
	180	7915	8	10404	14	F2010	321F2010AN017-1LL08XX00N	1.644,00 €	77x33x47	106
	200	8794	9	11560	15	F2010	321F2010AN019-1HL03LLO6N	1.706,00 €	77x33x47	107

*Accessories on page 223 (See Model and No. Plates)

SALT pool HEATING (Titanium Plates)

Project conditions

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	70°C	50°C	10 bar	H ₂ O
COLD Side	Saltwater Pool	25°C	40°C	10 bar	H ₂ O+NaCl



Power						No. Plates*	Code	Price	Packaging	
	Warm Side		Cold Side		Mod.*				Dimensions cm	Weight kg
	kW	L/h	kPa	L/h	kPa					
	20	879	6	1156	10	K042	321K042CHNP009	1.355,00 €	50x25x35	31
	25	1099	6	1445	10	K042	321K042CHNP011	1.448,00 €	50x25x35	31
	35	1539	8	2023	14	K080	321K080CVNP007	2.043,00 €	77x27x42	74
	50	2198	6	2890	11	K080	321K080CVNP011	2.110,00 €	77x27x42	76
	75	3297	7	4335	12	K080	321K080CVNP015	2.409,00 €	77x27x54	77
	100	4396	6	5780	10	F2010	321F2010CN011-1LLO5XX00N	2.746,00 €	77x33x47	100
	115	5055	8	6647	13	F2010	321F2010CN011-1LLO5XX00N	2.746,00 €	77x33x47	100
	130	5714	9	7514	14	F2010	321F2010CN013-1HL03LLO3N	2.906,00 €	77x33x47	100
	150	6593	9	8670	14	F2010	321F2010CN015-1HL03LLO4N	3.066,00 €	77x33x47	101
	180	7912	8	10404	14	F2010	321F2010CN017-1LL08XX00N	3.226,00 €	77x33x47	102
	200	8791	9	11560	15	F2010	321F2010CN019-1HL03LLO6N	3.597,00 €	77x33x47	103

*Accessories on page 223 (See Model and No. Plates)

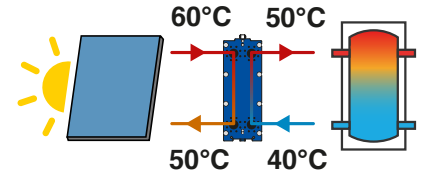
Quick Selection Tables - GASKETED HEATING with solar thermal energy



PRICES

Project conditions

Circuit	Source - Terminal	T _{IN}	T _{OUT}	P _{MAX}	Fluid
WARM Side	Solar Panel	60°C	50°C	10 bar	Gly. 30%
COLD Side	Heating / Sanitary Water	40°C	50°C	10 bar	H ₂ O



Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	1839	12	1745	10	K042	13	321K042AHEN013	772,00 €	50x25x35	33
35	3218	14	3054	12	K042	21	321K042AHEN021	1.000,00 €	50x25x45	36
50	4598	10	4363	8	K080	19	321K080AVEN019	1.529,00 €	77x27x54	84
75	6897	11	6544	9	K080	27	321K080AVEN027	1.806,00 €	77x27x54	89
100	9196	14	8726	11	F2010	25	321F2010AE025-1HH05HL07N	2.140,00 €	77x33x47	111

*Accessories
on page 223 (See
Model and No. Plates)

Solar thermal yields approximately 0.8 kW/m².
Example 10 HeizerSite RT 2.5 collectors (p. 306) equals 25m²- 20kW

Alternative solution using brazed exchangers: see page 243

Brazed Heat Exchangers WB

Brazed P-series heat exchangers are used in heating, cooling and heat recovery systems. The quality of the components and the specially designed brazing process make the product reliable. The special design of the plates allows for high performance in terms of heat exchange and low pressure losses. It also gives the product high resistance to high temperatures and pressures.

Our range of brazed plate heat exchangers can be used with many types of fluids in different combinations (e.g. water/water, water/oil, steam/water, steam/oil, freon/water, etc.).

Advantages

- Compact design
- Light weights
- High heat exchange efficiency
- High operating temperature range (up to -160/+ 195 °C)
- High operating pressure (up to 30 bar for standard / up to 45 for special high-pressure version)

Main applications

- Heating, cooling, technical water or industrial fluids
- Evaporation and condensation of refrigerant gases
- Hydraulic separation of circuits
- Heat recovery in civil applications and industrial processes
- Operation with a wide range of fluids compatible with the mechanical and chemical resistance of the materials



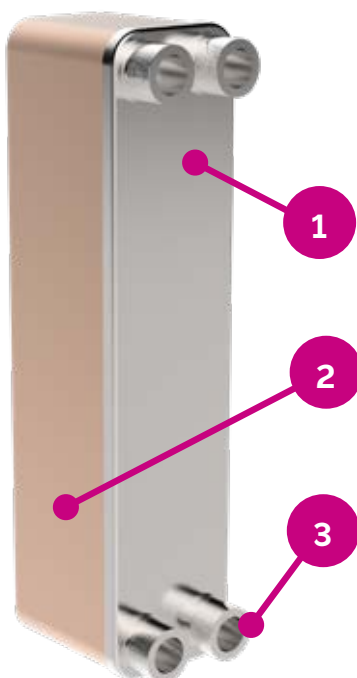
Brazed heat exchangers

The Range



Model	P4	P7	P15	P30
Plate surface (m ²)	0,02375	0,07	0,15	0,30
Nominal pressure	PN25	PN25	PN25	PN25
Standard connection	1"	1 1/4"	2"	2 1/2"
PP (mm)	9+2.4xN*	9+2.57xN*	10+2.48xN*	11+2.90xN*
Ht (mm)	310	526	530	782
Lt (mm)	111	120	256	350
Z1 (mm)	250	473	439	655
Z2 (mm)	50	66	177	220
PC (mm)	24	27	27	27

*No. Plates

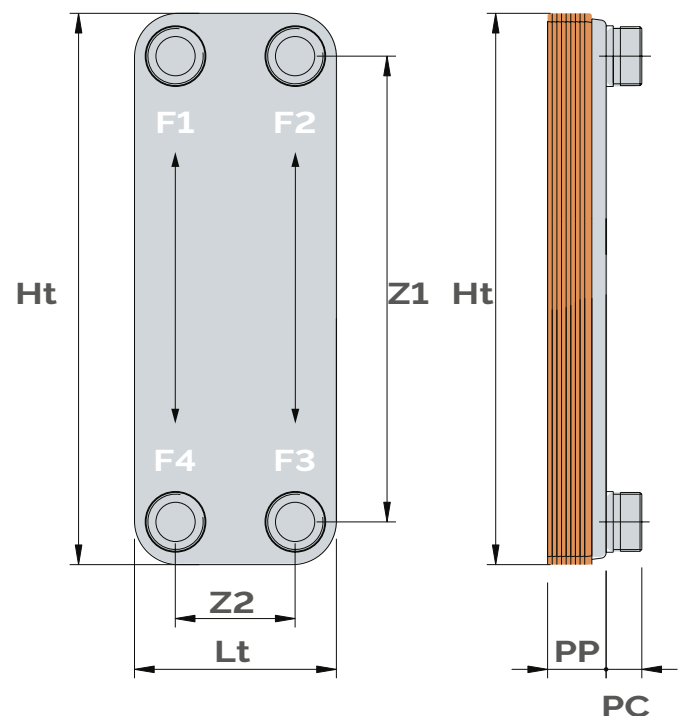


Legend

- 1. Initial plate
- 2. Brazing
- 3. Connection

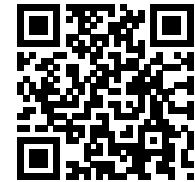
Connections (hint)

- Primary: F1 input
- Primary: Output F4
- Secondary: Input F3
- Secondary: Output F2



Accessories

Insulations and Connections



ACCESSORIES
PRICES

P4, P7 series: thermoformed PE insulation that can be removed and replaced by coupling with double-sided adhesive strips.

Model	Threshold Plates	Code	Price
P4	up to 14 plates	343090016X	109,00 €
	up to 20 plates	343090017X	109,00 €
	up to 30 plates	343090018X	109,00 €
	up to 40 plates	343090019X	109,00 €
	up to 50 plates	343090020X	109,00 €
	up to 60 plates	343090060X	105,00 €
P7	up to 30 plates	343090050X	124,00 €
	up to 50 plates	343090051X	133,00 €
	up to 70 plates	343090052X	118,00 €



P15 / P30 Series: Insulation kits consisting of pre-cut and pre-adhesive elastomer sheets, finishing tape and installation instructions.

Model	Threshold Plates	Code	Price
P15	30 to 80 plates	343090053X	133,00 €
	81 to 140 plates	343090054X	131,00 €
	141 to 200 plates	343090055X	150,00 €
P30	30 to 80 plates	343090056X	170,00 €
	81 to 140 plates	343090057X	200,00 €



PLATE HEAT
EXCHANGERS



standard threaded



free flange on request

All brazed exchangers are made with four threaded connections. Special executions with additional connections and flanged connections are available on request.

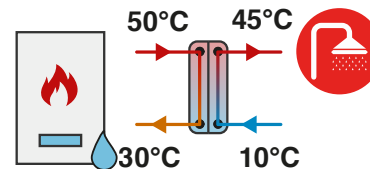
Quick Selection Tables - BRAZED INSTANTANEOUS DHW with source at LOW temperature



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	50°C	30°C	30 bar	H2O
COLD Side	Sanitary Water	10°C	45°C	30 bar	H2O



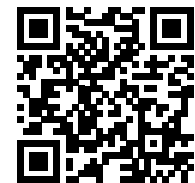
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	868	2	494	1	P4	30	321020837X	391,00 €	43x22x24	4
25	1085	3	617	1	P4	30	321020837X	391,00 €	43x22x24	4
30	1302	3	741	1	P4	40	321020840X	473,00 €	43x22x24	5
35	1519	3	864	1	P4	40	321020840X	473,00 €	43x22x24	5
40	1736	3	988	1	P4	50	321020842X	553,00 €	43x22x24	6
50	2170	11	1235	4	P7	30	321020852X	633,00 €	43x22x24	6
60	2604	15	1482	5	P7	30	321020852X	633,00 €	43x22x24	8
75	3255	13	1852	4	P7	40	321020854X	774,00 €	60x80x26	11
85	3690	17	2099	6	P7	40	321020854X	774,00 €	60x80x26	11
100	4341	15	2469	5	P7	50	321020856X	920,00 €	60x80x31	15
120	5209	15	2963	5	P7	60	321020857X	1.058,00 €	60x80x31	15
150	6511	14	3704	5	P7	80	321020859X	1.349,00 €	60x80x31	15
180	7813	27	4445	9	P15	30	321020864X	1.271,00 €	60x80x37	19
210	9115	21	5186	8	P15	40	321020865X	1.511,00 €	60x80x37	19
240	10417	27	5927	10	P15	40	321020865X	1.511,00 €	60x80x29	28
270	11720	22	6667	8	P15	50	321020866X	1.709,00 €	60x80x29	28
300	13022	27	7408	10	P15	50	321020866X	1.709,00 €	60x80x31	32

*Accessories
on page 235 (See
Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 224

Plate heat exchangers

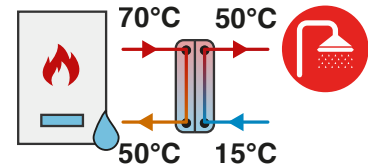
Quick Selection Tables - BRAZED INSTANT DHW with source at HIGH temperature



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	70°C	50°C	30 bar	H ₂ O
COLD Side	Sanitary Water	15°C	50°C	30 bar	H ₂ O

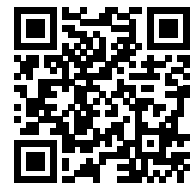


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	875	9	495	3	P4	14	321020831X	271,00 €	43x22x24	3
25	1094	13	618	4	P4	14	321020831X	271,00 €	43x22x24	4
30	1312	18	742	5	P4	14	321020831X	271,00 €	43x22x24	5
35	1531	12	866	4	P4	20	321020834X	313,00 €	43x22x24	5
40	1750	15	989	5	P4	20	321020834X	313,00 €	43x22x24	6
50	2187	11	1237	4	P4	30	321020837X	391,00 €	43x22x24	6
60	2625	15	1484	5	P4	30	321020837X	391,00 €	43x22x24	8
75	3281	13	1855	5	P4	40	321020840X	473,00 €	60x80x26	11
85	3718	17	2103	6	P4	40	321020840X	473,00 €	60x80x26	11
100	4375	15	2474	6	P4	50	321020842X	553,00 €	60x80x26	11
120	5250	30	2968	10	P7	40	321020854X	774,00 €	60x80x31	15
150	6562	30	3711	10	P7	50	321020856X	920,00 €	60x80x31	15
180	7874	23	4453	8	P7	70	321020858X	1.207,00 €	60x80x37	19
210	9187	25	5195	9	P7	80	321020859X	1.349,00 €	60x80x37	19
240	10499	25	5937	10	P15	40	321020865X	1.511,00 €	60x80x29	28
270	11812	21	6679	8	P15	50	321020866X	1.709,00 €	60x80x29	28
300	13124	25	7421	10	P15	50	321020866X	1.709,00 €	60x80x31	32

*Accessories
on page 235 (See
Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 225

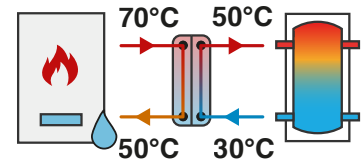
Quick Selection Tables - BRAZED DHW with TANK and source at HIGH temperature



PRICES

Project conditions 1

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	70°C	50°C	30 bar	H ₂ O
COLD Side	Sanitary Water	30°C	50°C	30 bar	H ₂ O



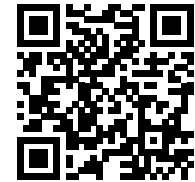
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	875	8,7	868	7	P4	14	321020831X	271,00 €	43x22x24	3
25	1094	13	1085	11	P4	14	321020831X	271,00 €	43x22x24	3
30	1312	18	1302	15	P4	14	321020831X	271,00 €	43x22x24	3
35	1531	12	1519	10	P4	20	321020834X	313,00 €	43x22x24	4
40	1750	15	1736	13	P4	20	321020834X	313,00 €	43x22x24	4
50	2187	10	2170	10	P4	30	321020837X	391,00 €	43x22x24	4
60	2625	15	2604	14	P4	30	321020837X	391,00 €	43x22x24	4
75	3281	13	3255	13	P4	40	321020840X	473,00 €	43x22x24	5
85	3718	17	3690	16	P4	40	321020840X	473,00 €	43x22x24	5
100	4375	15	4341	15	P4	50	321020842X	553,00 €	43x22x24	6
120	5250	20	5209	19	P7	50	321020856X	920,00 €	43x22x24	6
150	6562	17	6511	16	P7	70	321020858X	1.207,00 €	60x80x31	15
180	7874	19	7813	18	P7	80	321020859X	1.349,00 €	60x80x37	19
210	9187	20	9115	20	P15	40	321020865X	1.511,00 €	60x80x37	19
240	10499	17	10417	17	P15	50	321020866X	1.709,00 €	60x80x29	28
270	11812	15	11720	16	P15	60	321020867X	1.903,00 €	60x80x29	28
300	16124	18	13022	19	P15	60	321020867X	1.903,00 €	60x80x31	32

*Accessories
on page 235 (See
Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 226

Plate heat exchangers

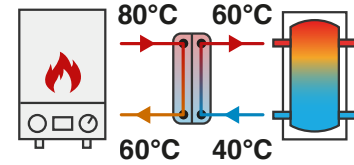
Quick Selection Tables - BRAZED DHW with TANK and HIGH temperature source



PRICES

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	80°C	60°C	30 bar	H ₂ O
COLD Side	Sanitary Water	40°C	60°C	30 bar	H ₂ O



Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
20	879	9	871	7	P4	14	321020831X	271,00 €	43x22x24	3
25	1098	13	1089	10	P4	14	321020831X	271,00 €	43x22x24	3
30	1318	18	1307	14	P4	14	321020831X	271,00 €	43x22x24	3
35	1538	11	1525	10	P4	20	321020834X	313,00 €	43x22x24	3
40	1757	15	1743	13	P4	20	321020834X	313,00 €	43x22x24	4
50	2197	10	2178	9	P4	30	321020837X	391,00 €	43x22x24	4
60	2636	14	2614	13	P4	30	321020837X	391,00 €	43x22x24	4
75	3295	13	3268	12	P4	40	321020840X	473,00 €	43x22x24	5
85	3735	16	3703	16	P4	40	321020840X	473,00 €	43x22x24	5
100	4394	15	4357	15	P4	50	321020842X	553,00 €	43x22x24	5
120	5272	19	5228	18	P7	50	321020856X	920,00 €	43x22x24	6
150	6590	16	6535	16	P7	70	321020858X	1.207,00 €	43x22x24	8
180	7908	18	7843	18	P7	80	321020859X	1.349,00 €	60x80x37	19
210	9226	20	9150	20	P7	90	321020860X	1.494,00 €	60x80x37	19
240	10545	17	10457	17	P15	50	321020866X	1.709,00 €	60x80x29	28
270	11863	15	11764	15	P15	60	321020867X	1.903,00 €	60x80x29	28
300	13180	18	13071	19	P15	60	321020867X	1.903,00 €	60x80x31	32

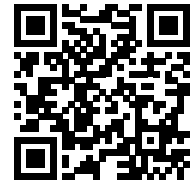
*Accessories
on page 235 (See
Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 227

Plate heat exchangers

Quick Selection Tables - BRAZED

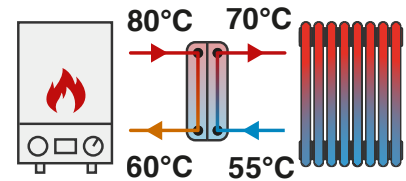
HEATING with HIGH temperature terminals



PRICES

Project conditions 1

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	80°C	60°C	30 bar	H ₂ O
COLD Side	Radiators	55°C	70°C	30 bar	H ₂ O

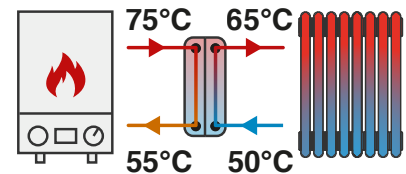


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	659	2	876	4	P4	20	321020834X	313,00 €	43x22x24	3
25	1098	3	1460	4	P4	30	321020837X	391,00 €	43x22x24	3
35	1538	2	2044	4	P4	50	321020842X	553,00 €	43x22x24	4
50	2197	10	2920	15	P7	30	321020852X	633,00 €	43x22x24	5
75	3295	8	4379	13	P7	50	321020856X	920,00 €	43x22x24	6
100	4394	10	5839	16	P7	60	321020857X	1.058,00 €	43x22x24	8
115	5053	10	6415	16	P7	70	321020858X	1.207,00 €	60x80x37	19
130	5712	8	7591	14	P7	90	321020860X	1.494,00 €	60x80x37	19
150	6590	10	8759	17	P15	40	321020865X	1.511,00 €	60x80x29	28
180	7908	10	10510	16	P15	50	321020866X	1.709,00 €	60x80x29	28
200	8787	12	11678	20	P15	50	321020866X	1.709,00 €	60x80x31	32

*Accessories on page 235 (See Model and No. Plates)

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	75°C	55°C	30 bar	H ₂ O
COLD Side	Radiators	50°C	65°C	30 bar	H ₂ O



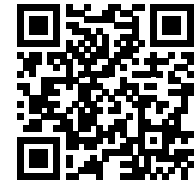
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	658	3	874	4	P4	20	321020834X	313,00 €	43x22x24	3
25	1096	2	1457	3	P4	40	321020840X	473,00 €	43x22x24	3
35	1534	2	2039	4	P4	50	321020842X	553,00 €	43x22x24	4
50	2192	10	2913	15	P7	30	321020852X	633,00 €	43x22x24	5
75	3288	8	4370	13	P7	50	321020856X	920,00 €	43x22x24	6
100	4384	10	5827	16	P7	60	321020857X	1.058,00 €	43x22x24	8
115	5042	10	6701	16	P7	70	321020858X	1.207,00 €	60x80x37	19
130	5699	8	7575	14	P7	90	321020860X	1.494,00 €	60x80x37	19
150	6576	11	8740	17	P15	40	321020865X	1.511,00 €	60x80x29	28
180	7891	10	10488	17	P15	50	321020866X	1.709,00 €	60x80x29	28
200	8768	12	11654	20	P15	50	321020866X	1.709,00 €	60x80x31	32

*Accessories on page 235 (See Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 228

Plate heat exchangers

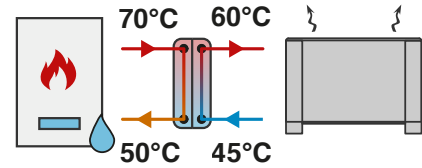
Quick Selection Tables - BRAZED HEATING with HIGH temperature terminals



PRICES

Project conditions 3

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	70°C	50°C	30 bar	H ₂ O
COLD Side	Radiators / Fan Coils	45°C	60°C	30 bar	H ₂ O

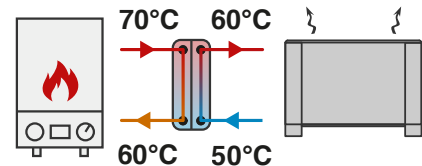


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	656	11	872	12	P7	10	321020848X	342,00 €	43x22x24	3
25	1094	6	1454	9	P7	20	321020850X	483,00 €	43x22x24	3
35	1531	12	2035	16	P7	20	321020850X	483,00 €	43x22x24	4
50	2187	10	2908	15	P7	30	321020852X	633,00 €	43x22x24	5
75	3281	8	4361	13	P7	50	321020856X	920,00 €	43x22x24	6
100	4375	10	5815	16	P7	60	321020857X	1.058,00 €	60x80x31	15
115	5031	8	6687	13	P7	80	321020859X	1.349,00 €	60x80x37	19
130	5687	14	7560	23	P15	30	321020864X	1.271,00 €	60x80x37	19
150	6562	18	8723	29	P15	30	321020864X	1.271,00 €	60x80x29	28
180	7874	15	10467	25	P15	40	321020865X	1.511,00 €	60x80x31	32
200	8749	18	11630	30	P15	40	321020865X	1.511,00 €	60x80x31	32

*Accessories on page 235 (See Model and No. Plates)

Project conditions 4

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Boiler	70°C	60°C	30 bar	H ₂ O
COLD Side	Radiators / Fan Coils	50°C	60°C	30 bar	H ₂ O



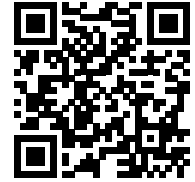
Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	1315	18	1310	14	P4	14	321020831X	271,00 €	43x22x24	3
25	2192	10	2183	9	P4	30	321020837X	391,00 €	43x22x24	4
35	3069	19	3056	17	P4	30	321020837X	391,00 €	43x22x24	5
50	4384	15	4366	15	P4	50	321020842X	553,00 €	43x22x24	6
75	6576	29	6548	27	P7	50	321020856X	920,00 €	60x80x37	19
100	8768	28	8731	26	P7	70	321020858X	1.207,00 €	60x80x29	28
115	10083	29	10041	28	P7	80	321020859X	1.349,00 €	60x80x29	28
130	11398	29	11351	28	P15	40	321020865X	1.511,00 €	60x80x31	32
150	13152	25	13097	25	P15	50	321020866X	1.709,00 €	60x80x34	36
180	15782	25	15716	26	P15	60	321020867X	1.903,00 €	60x80x36	40
200	17536	24	17463	24	P15	70	321020868X	2.094,00 €	60x80x36	40

*Accessories on page 235 (See Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 229

Quick Selection Tables - BRAZED

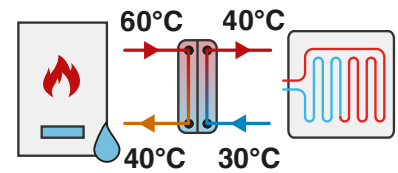
HEATING with LOW temperature terminals



PRICES

Project conditions 1

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	60°C	40°C	30 bar	H ₂ O
COLD Side	Radiant Floors / Fan Coil	30°C	40°C	30 bar	H ₂ O

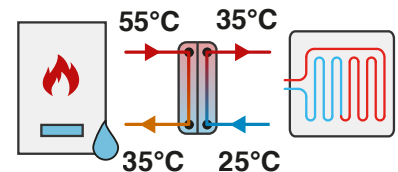


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	654	5	1300	15	P4	14	321020831X	271,00 €	43x22x24	3
25	1089	7	2166	20	P4	20	321020834X	313,00 €	43x22x24	4
35	1525	6	3033	18	P4	30	321020837X	391,00 €	43x22x24	5
50	2178	4	4333	15	P4	50	321020842X	553,00 €	43x22x24	6
75	3268	6	6499	21	P7	60	321020857X	1.058,00 €	60x80x37	19
100	4357	8	8666	28	P7	70	321020858X	1.207,00 €	60x80x29	28
115	5011	8	9966	29	P7	80	321020859X	1.349,00 €	60x80x31	32
130	5664	8	11265	30	P15	40	321020865X	1.511,00 €	60x80x31	32
150	6535	7	12999	26	P15	50	321020866X	1.709,00 €	60x80x34	36
180	7843	7	15598	27	P15	60	321020867X	1.903,00 €	60x80x36	40
200	8714	7	17331	26	P15	70	321020868X	2.094,00 €	60x80x36	40

*Accessories on page 235 (See Model and No. Plates)

Project conditions 2

Circuit	Source - Terminal	TIN	TOUT	PMAX	Fluid
WARM Side	Boiler	55°C	35°C	30 bar	H ₂ O
COLD Side	Radiant Floors	25°C	35°C	30 bar	H ₂ O

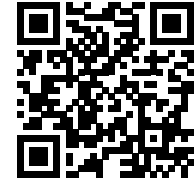


Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging	
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg
15	652	5	1298	15	P4	14	321020831X	271,00 €	43x22x24	3
25	1087	7	2163	20	P4	20	321020834X	313,00 €	43x22x24	4
35	1522	6	3028	19	P4	30	321020837X	391,00 €	43x22x24	5
50	2174	4	4325	16	P4	50	321020842X	553,00 €	43x22x24	6
75	3261	9	6488	29	P7	50	321020856X	920,00 €	60x80x37	19
100	4349	8	8650	28	P7	70	321020858X	1.207,00 €	60x80x29	28
115	5001	9	9948	29	P7	80	321020859X	1.349,00 €	60x80x31	32
130	5653	6	11246	21	P15	50	321020866X	1.709,00 €	60x80x31	32
150	6523	7	12976	27	P15	50	321020866X	1.709,00 €	60x80x34	36
180	7828	8	15571	28	P15	60	321020867X	1.903,00 €	60x80x36	40
200	8697	7	17301	26	P15	70	321020868X	2.094,00 €	60x80x36	40

*Accessories on page 235 (See Model and No. Plates)

Alternative solution using inspectable heat exchangers: see page 230

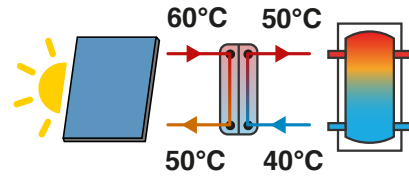
Quick Selection Tables - BRAZED HEATING with solar thermal energy



PRICES

Project conditions

Circuit	Source - Terminal	TIN	TOUT	P _{MAX}	Fluid
WARM Side	Solar Panel	60°C	50°C	30 bar	Gly. 30%
COLD Side	Heating / Sanitary Water	40°C	50°C	30 bar	H ₂ O



Power kW	Warm Side		Cold Side		Mod.*	No. Plates*	Code	Price	Packaging		
	L/h	kPa	L/h	kPa					Dimensions cm	Weight kg	
20	1746	15	1739	13	P4	20	321020834X	313,00 €	43x22x24	5	
35	3056	19	3044	18	P4	30	321020837X	391,00 €	43x22x24	6	
50	4366	16	4349	15	P4	50	321020842X	553,00 €	60x80x37	19	
75	6548	17	6523	16	P7	70	321020858X	1.207,00 €	60x80x29	28	
100	8731	18	8697	18	P15	40	321020865X	1.511,00 €	60x80x31	32	
						*Accessories on page 235 (See Model and No. Plates)					

Solar thermal yields approximately 0.8 kW/m².
Example 10 HeizerSile RT 2.5 collectors (p. 306) equals ^{25m²}- 20kW

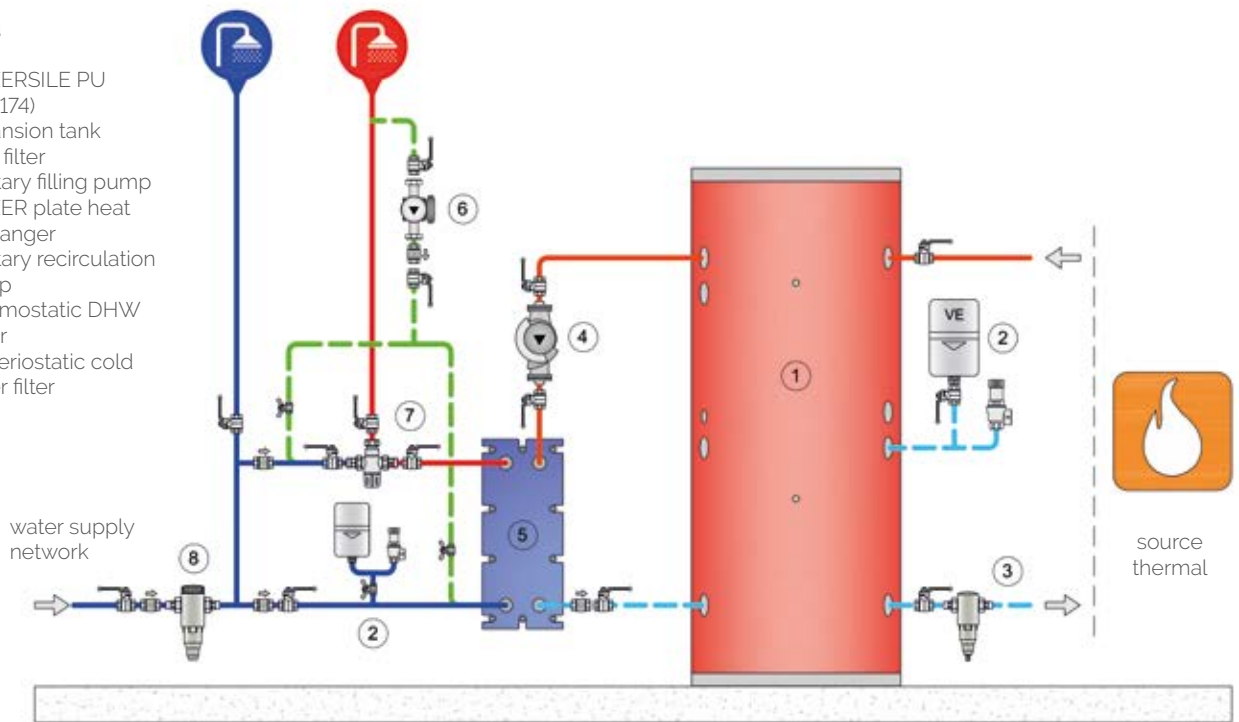
Alternative solution using inspectable heat exchangers: see page 232

Plant solutions

DHW Instantaneous (see also QUICK page 256)

Legend

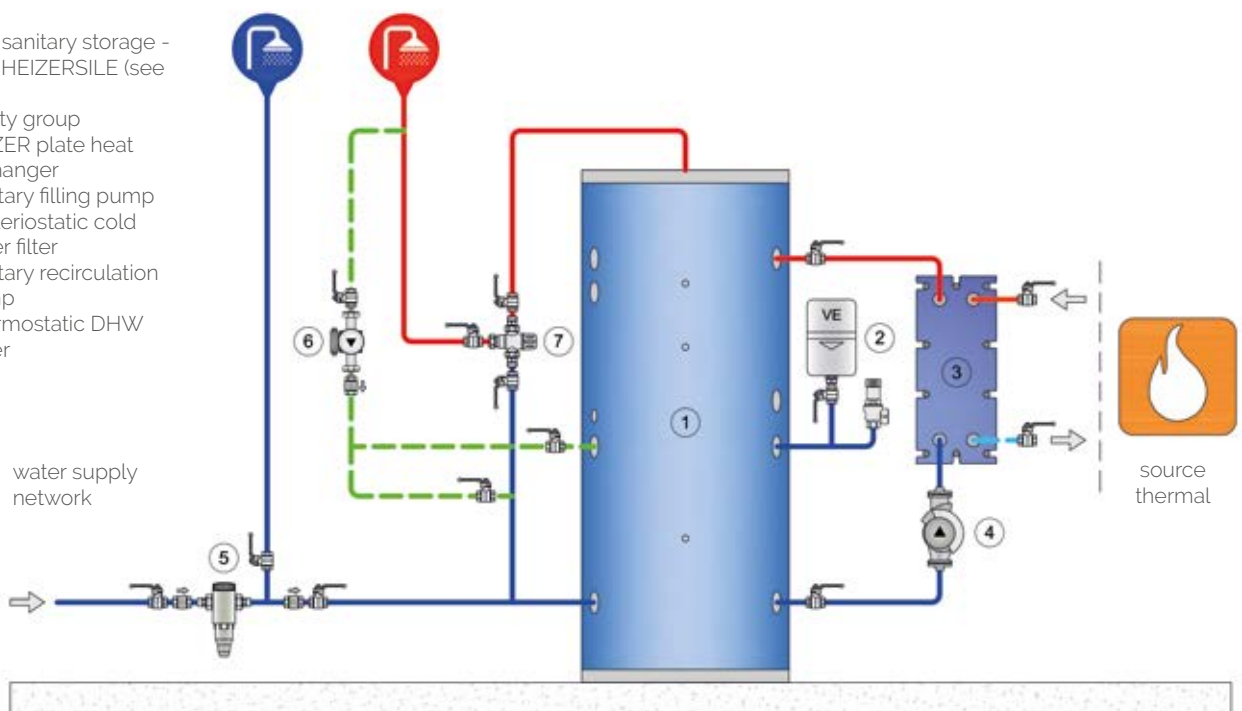
- 1. HEIZERSILE PU (see 174)
- 2. Expansion tank
- 3. Mud filter
- 4. Sanitary filling pump
- 5. HEIZER plate heat exchanger
- 6. Sanitary recirculation pump
- 7. Thermostatic DHW mixer
- 8. Bacteriostatic cold water filter



DHW with storage tank (see also WATEREADY page 280)

Legend

- 1. ATV sanitary storage - ATX HEIZERSILE (see 120)
- 2. Safety group
- 3. HEIZER plate heat exchanger
- 4. Sanitary filling pump
- 5. Bacteriostatic cold water filter
- 6. Sanitary recirculation pump
- 7. Thermostatic DHW mixer



Plant solutions

Separation of Heat Source and Plant (Closed vessel)

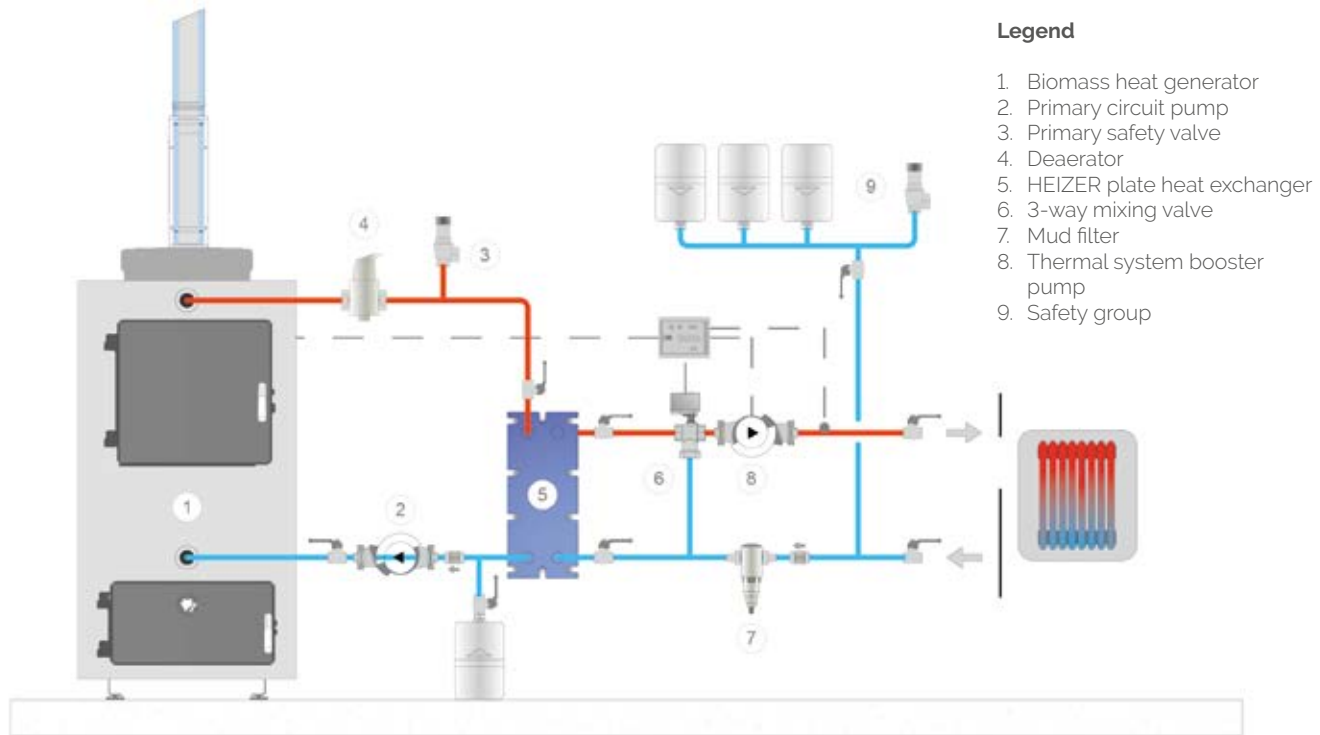
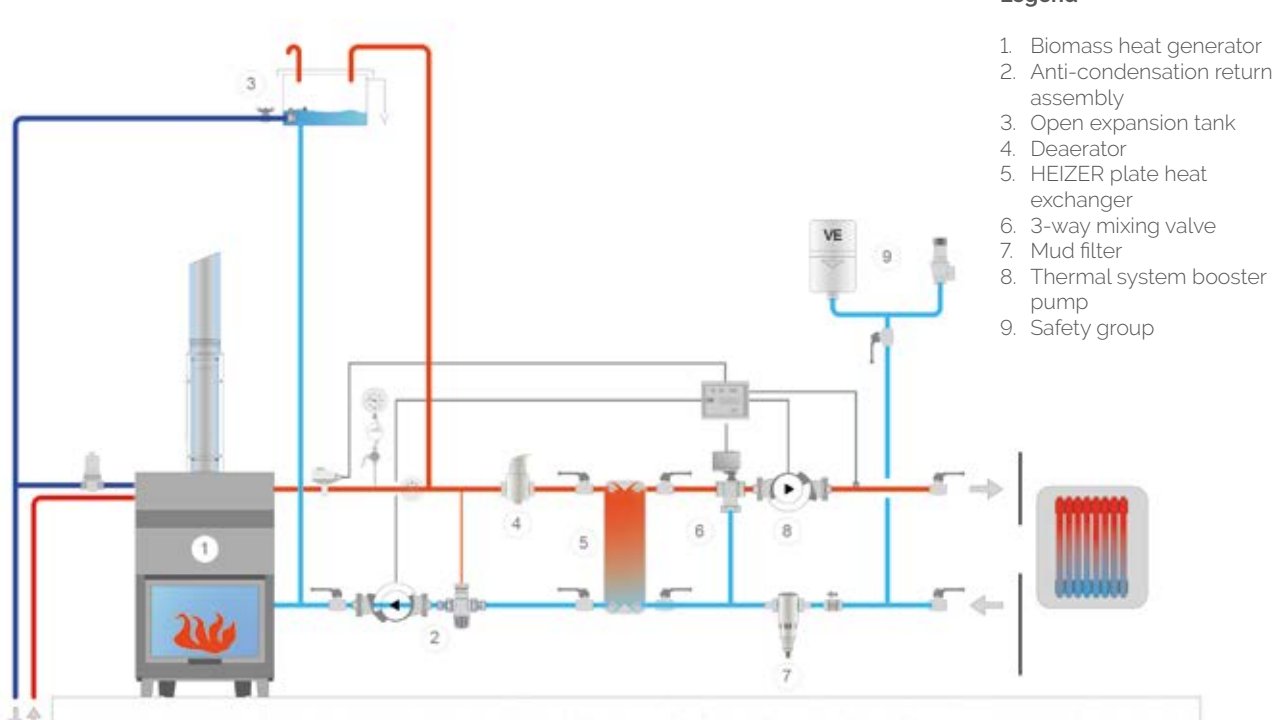


PLATE HEAT EXCHANGERS

Separation of Heat Source and Plant (Open vessel)

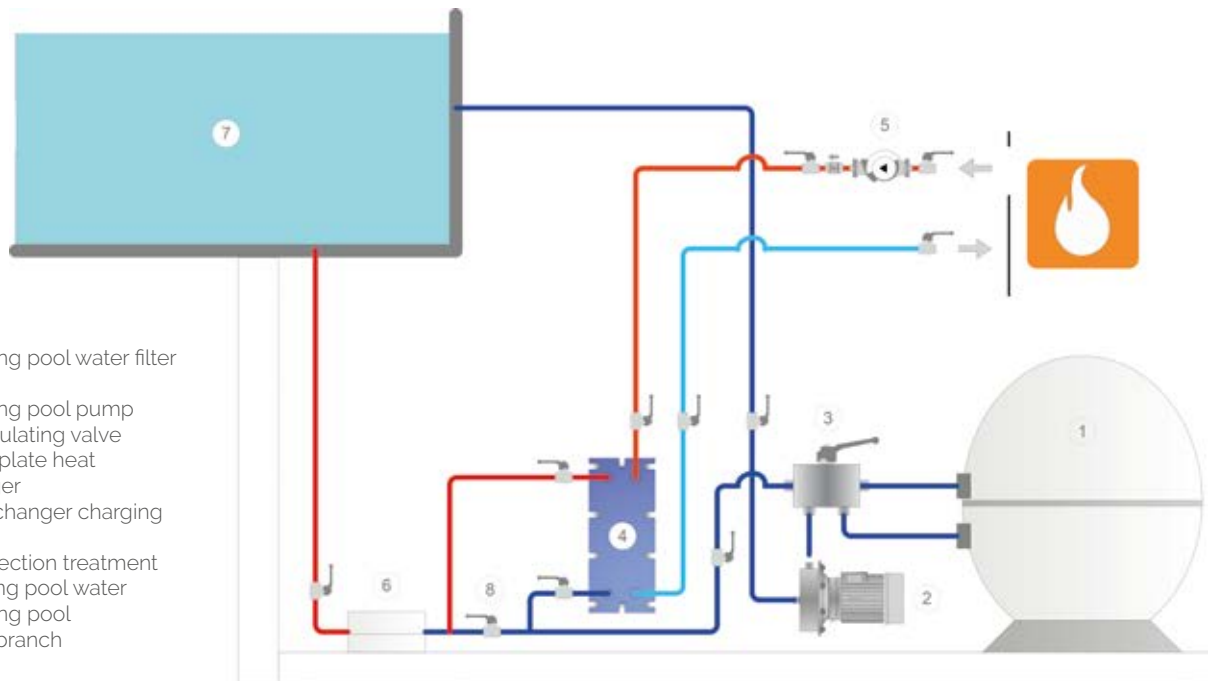


Plant solutions

Swimming pool system

Legend

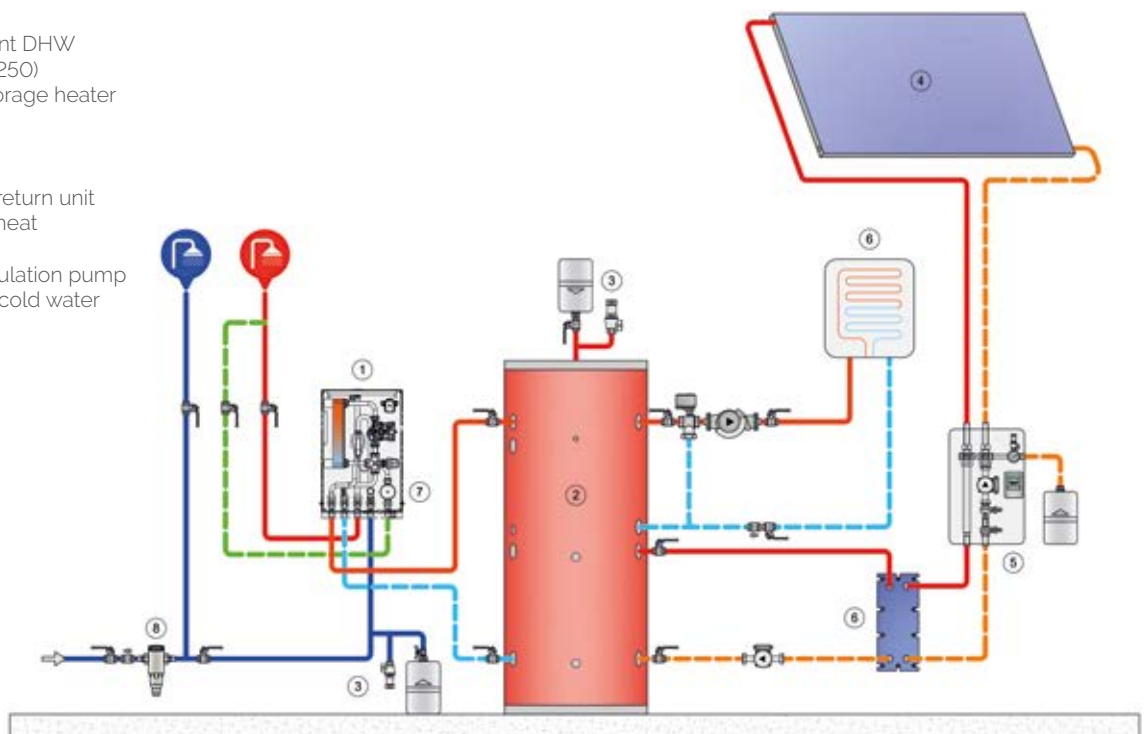
1. Swimming pool water filter section
2. Swimming pool pump
3. Pool regulating valve
4. HEIZER plate heat exchanger
5. Heat exchanger charging pump
6. Group Section treatment swimming pool water
7. Swimming pool
8. Bypass branch



Solar thermal system

Legend

1. T-QUICK Instant DHW Preparer (see 250)
2. HEIZER PU storage heater (see 174)
3. Safety group
4. Solar thermal
5. Solar thermal return unit
6. HEIZER plate heat exchanger
7. Sanitary recirculation pump
8. Bacteriostatic cold water filter



DATA COLLECTION FOR EXCHANGER SELECTION

For the correct dimensioning of an exchanger, at least 5 out of 7* data are **required** and the following conditions must be met:

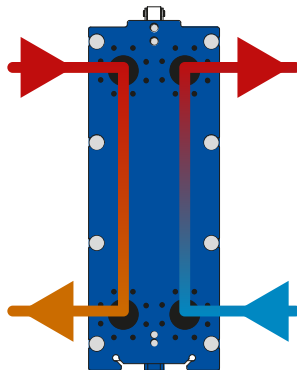
- T.IN HOT > T.OUT COLD
- T.IN COLD < T.OUT WARM
- Temperatures and flow rates consistent with heat output

If you do not know all the required data, please describe the type of application in the appropriate field below.

RECIPIENTS			
Applicant		Date	
Company		Tel.	
Email		Ref.	

GENERAL DATA		
Exchanger type	Inspectable	Brazed
Power*		(specify u.m. kW or kcal/h)
Nominal pressure		(specify u.m. e.g. bar)

WARM SIDE	
Fluid	
T input* (°C)	
T output* (°C)	
Scope* (specify u.m.)	
MAX Loss load (kPa)	



COLD SIDE	
Fluid	
T input* (°C)	
T output* (°C)	
Scope* (specify u.m.)	
MAX Loss load (kPa)	

ADDITIONAL NOTES			
Type/Diameter Connections			
Material Plates/Connections/Drums			
Accessories	<input type="checkbox"/> Anti-condensation tank (inspectable only)	<input type="checkbox"/> Insulation box	<input type="checkbox"/> Feet set (inspectable only)
Limits Dimensionals			
Type of Application			



Water Heaters Index

DHW INSTANTANEOUS SYSTEMS 250



T-QUICK
p. 250

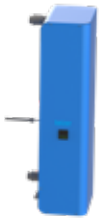


QUICK
p. 255



QUICK PLUS
p. 266

DHW SEMI-INSTANTANEOUS SYSTEMS 280



WATEREADY
p. 280



EPS
p. 289

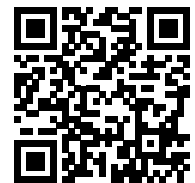
ACCESSORIES FOR DHW SYSTEMS 294



Accessories
p. 294

DHW Instantaneous systems

T-QUICK



PRICES

The **T-QUICK** is an instantaneous domestic hot water production module using a brazed stainless steel plate heat exchanger.

The domestic hot water **temperature** is **regulated** by means of a **three-way** thermostatic mixing **valve** installed on the primary circuit (thermal storage side).

The module, connected to a thermal storage tank from which it draws energy, is complete with all the components necessary for its operation: a pump on the primary circuit operated by a flow switch positioned on the inlet of the DHW circuit, a mixing valve operated by a **thermostatic actuator**, which allows the user to keep the set DHW temperature constant.

For maximum user comfort, accessories are available for hot water **recirculation** management that can be combined with each other or used individually according to one's needs.

Plus


- ✓ Compact hanging module
- ✓ Precise hot water temperature control
- ✓ Pre-painted sheet metal casing
- ✓ Closed-cell polyethylene foam insulation insulating the entire hydraulics
- ✓ Domestic hot water circuit in STAINLESS STEEL
- ✓ Provision for internal installation of recirculation kit
- ✓ Shut-off valves on each connection
- ✓ Integrated safety valve on the DHW circuit
- ✓ Easy Plug and Play installation
- ✓ Simple and economical use

Main Features

Here are the main features:

- ✓ Very simple factory setting: the QUICK point is set using a knob to select the desired DHW usage temperature
- ✓ A mechanical stop on the valve allows the maximum SET POINT temperature to be set by the user

Accessories available from page 254

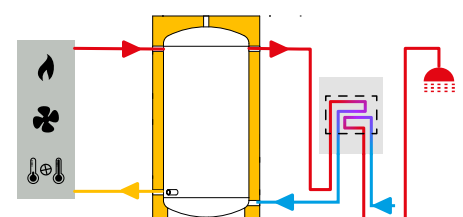
 Start-up : first start-up recommended.



TESTED



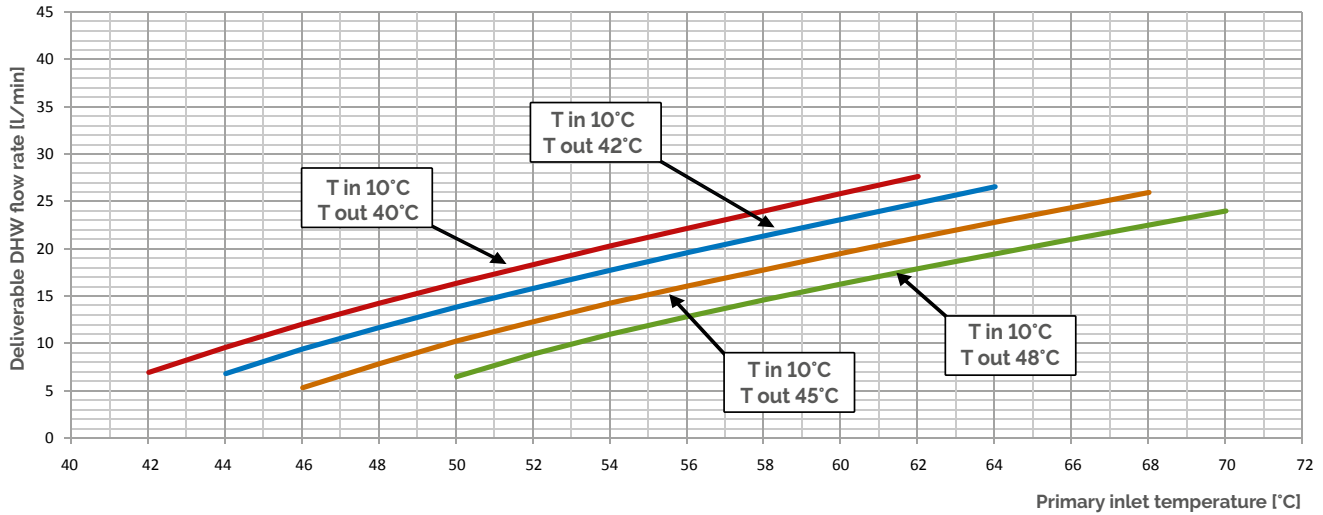
Model	DHW nominal flow rate	Code	Price	With packaging	
				Dimensions cm	Weight kg
T-QUICK 20	(20 l/minute DHW)	342030152X	1.597,00 €	63x40x21	19
T-QUICK 30	(30 l/minute DHW)	342030153X	1.650,00 €	63x40x21	20



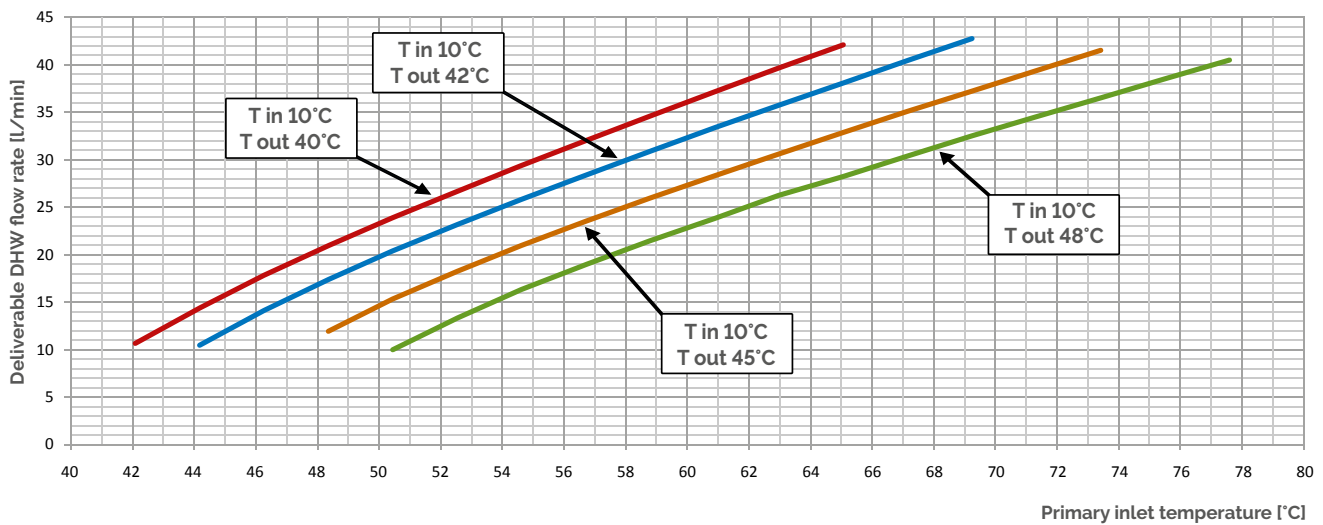
T-QUICK

Thermal performance

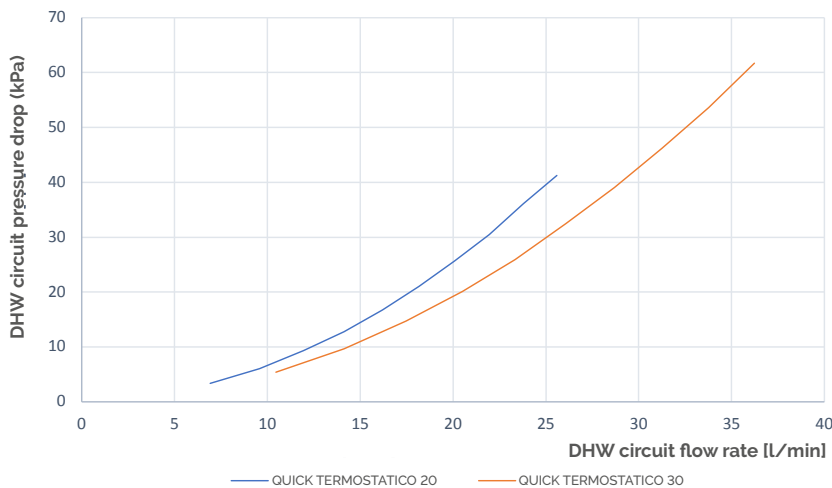
Thermal performance T-QUICK 20



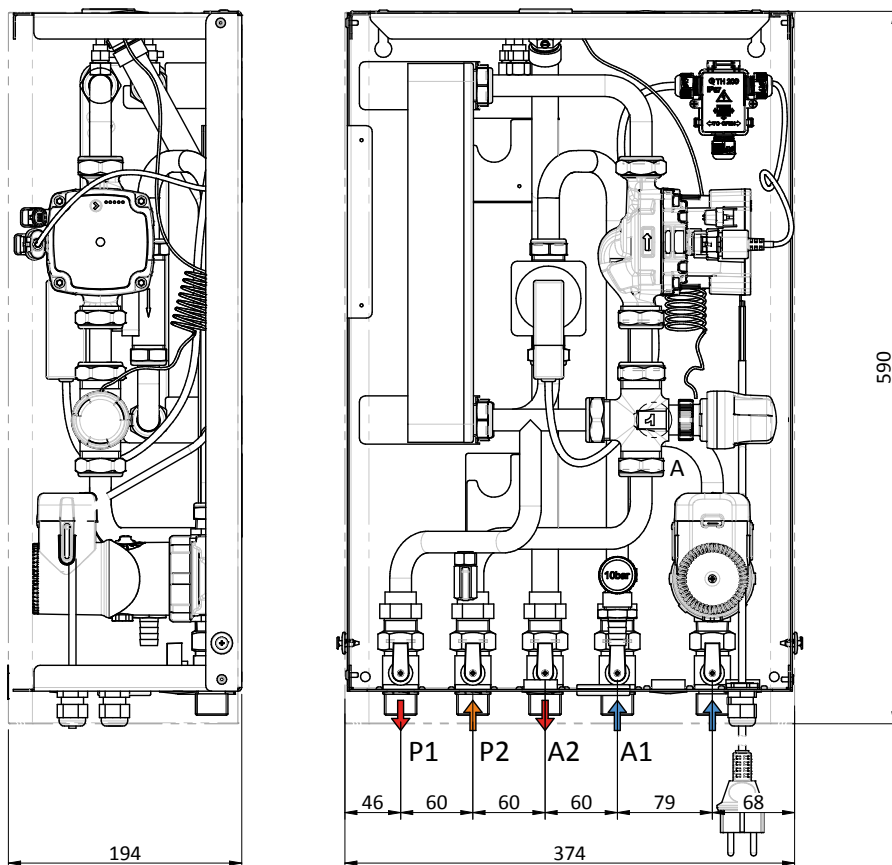
Thermal performance T-QUICK 30



Hydraulic performance



T-QUICK Dimensions



Legend

A1	DHW input
A2	DHW output
P1	Output to energy source
P2	Input from energy source

Technical Data Table

		T-QUICK 20	T-QUICK 30
Power supply	V/Ph/Hz	230/1/50	
Primary pump power min/max	W	10-75	
Primary pump absorption min/max	A	0,03-0,66	
Maximum power recirculation pump system manageable by the control unit	W	460	
Primary flow rate	l/h	1500	1600
Residual headroom primary circuit	m.c.a.	1,5	
Weight without packaging/with packaging	kg	18/19	19/20
Primary circuit volume	l	0,7	1
DHW circuit volume	l	0,6	0,9
Maximum operating pressure primary circuit	bar	5	
Max. operating pressure DHW circuit		10	
Primary circuit connections	inches	UNI ISO 228/1 - G 3/4	
Secondary circuit connections	inches	UNI ISO 228/1 - G 3/4	
Maximum operating temperature	°C	95	
Electrical protection class		IP40	
Electrical connection plug type		SCHUKO 10-16A/250V	
Electrical cable length	m	1,5	
Minimum ignition flow rate DHW	l/min	2	
Dimensions (HtxLtxWt)	mm	590X374X194	

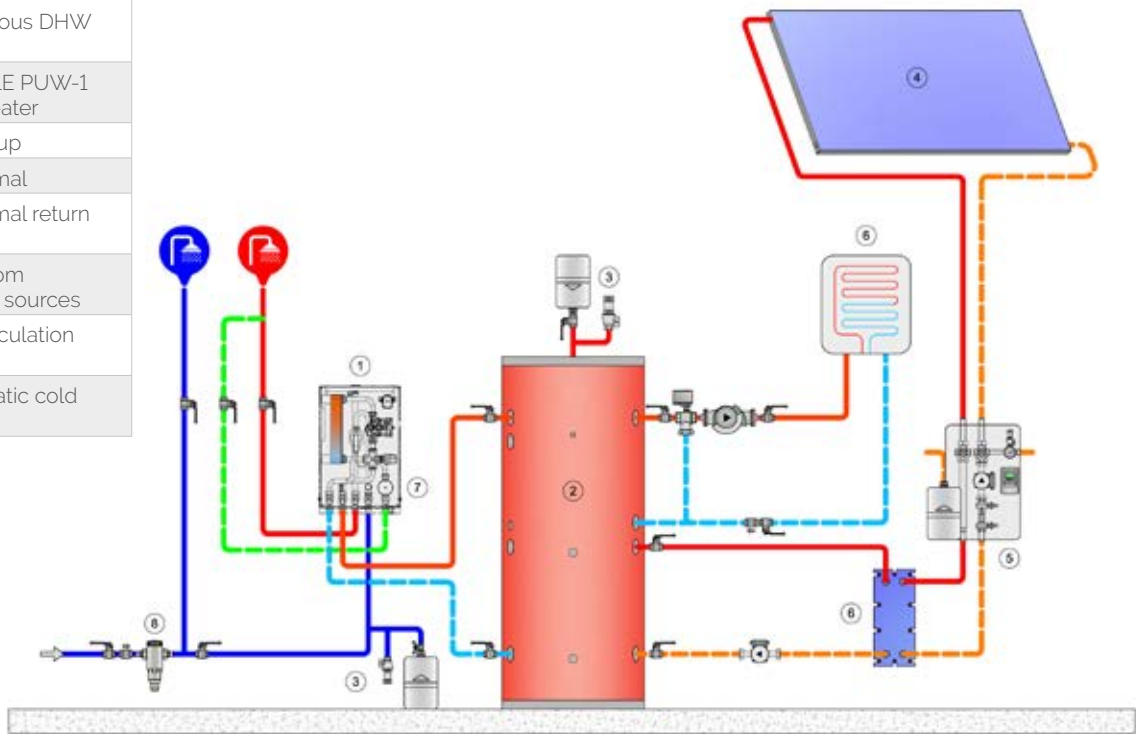
T-QUICK

Installation diagram

in combination with thermal storage

Legend

1	T-QUICK instantaneous DHW heater
2	HEIZERSILE PUW-1 storage heater
3	Safety group
4	Solar thermal
5	Solar thermal return unit
6	Heating from alternative sources
7	DHW recirculation pumps
8	Bacteriostatic cold water filter



Note: An expansion tank must be installed on the cold water line

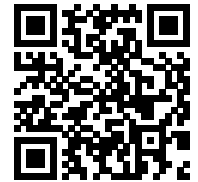
Standard equipment

The T-QUICK Instant Heater is delivered in a cardboard box and comes complete with:

- ✓ Instantaneous preparation complete with electrical cable with Schuko socket
- ✓ Jig for easy preparation of holes in the wall on which to anchor the instant heater
- ✓ Dowels and gates for fixing the instant mixer to the wall
- ✓ Operation and Maintenance Manual

T-QUICK

Accessories on request



ACCESSORIES
PRICES

The T-QUICK can be integrated with three accessories to manage recirculation. Recirculation increases end-user comfort by immediately obtaining hot water when the tap is opened without having to waste cold water. Three accessory codes are available:

1. the recirculation kit consisting of circulator, valves and instructions (can be integrated within the T-QUICK),
2. the recirculation control unit consisting of electronic board and 2 PT 1000 probes, one contact and one immersion
3. a PT 1000 contact probe for the recirculation loop

These three accessories leave maximum freedom of choice to the installer, who can for example purchase the recirculation kit coupled to the controller, or can purchase the recirculation kit coupled to the probe to freely decide how to manage the kit. The T-QUICK recirculation kit (1) is not supplied with a probe because it is left to the installer to decide how to manage the pump: if there is a need to control the circulator by means of an electronic solution, it is possible to purchase the recirculation control unit (already equipped with probes) (2) or possibly just the recirculation probe (3).

(1) T-QUICK recirculation kit

The recirculation kit can be integrated inside the T-QUICK body thanks to the hydraulic fittings. The kit is supplied separately, not assembled and includes:

- ✓ Recirculation pump
- ✓ Shut-off valve
- ✓ Check valve
- ✓ Instructions

NB: The temperature probe is not supplied with this kit. The Kit is designed to be easily installed inside the unit. In order to obtain the Complete Recirculation Kit and optimise consumption, it is advisable to combine **the Recirculation Kit with the accessory Recirculation Kit Probe** and prepare a panel with thermostat (and/or timer).

(2) Control unit for recirculation kit

The kit is supplied separately, not assembled and includes:

- ✓ DC control unit
- ✓ 1 PT1000 immersion temperature probe for installation at the top of the tank
- ✓ 1 PT1000 contact temperature probe to be placed on the recirculation loop
- ✓ Education

NB: Purchasing the control unit kit does not require the probes to be purchased separately.

(3) Probe for recirculation kit

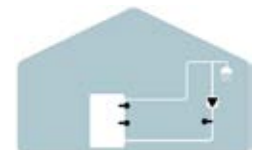
The kit is supplied separately, not assembled and includes:

- ✓ PT1000 temperature probe to be placed on the recirculation loop
- ✓ Instructions

NB: The recirculation pump is not supplied with this kit.

The provision for its mounting is however present inside the T-QUICK heater.

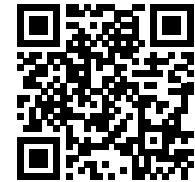
By purchasing the control unit kit, it is not necessary to purchase probes separately.



Accessory codes and prices

Description	Code	Price
T-QUICK RECIRCULATION KIT	342040003X	589,00 €
T-QUICK/QUICK EXTERNAL RECIRCULATION KIT (NO PUMP)	342040009X	65,00 €
DC CONTROL UNIT - FOR DHW RECIRCULATION	C22120034	278,00 €

DHW Instantaneous systems QUICK



PRICES

The new QUICK is an instantaneous domestic hot water production module using a brazed stainless steel plate heat exchanger.

QUICK comes complete with a control unit for regulating DHW temperature, time slots, accessory management and much more. The QUICK version shares compact components and dimensions with the T-QUICK version, but has more options and control possibilities.

The special **electronic regulation** takes place by means of a control unit and flowmeter on the secondary circuit. The control unit with graphic display allows the user to monitor operation as well as easily set the operating parameters.

For maximum comfort of use, various accessories are available including the new domestic hot water **RECIRCULATION KIT** to be installed inside the unit. Find out more on page 263



TESTED

QUICK 20, 30, 40



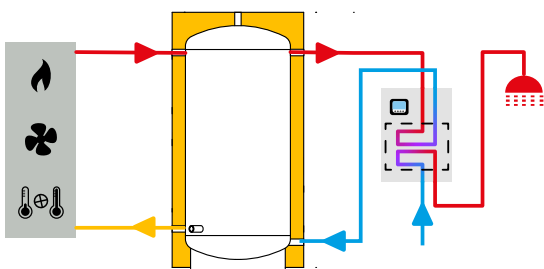
QUICK 80



Plus

- ✓ Compact wall unit with small footprint
- ✓ Pre-painted sheet metal casing
- ✓ Arrangement for installation of DHW recirculation kit
- ✓ Closed-cell polyethylene foam insulation insulating the entire hydraulic system
- ✓ Domestic hot water piping in STAINLESS STEEL
- ✓ Shut-off valves on each connection
- ✓ Integrated safety valve on the DHW circuit
- ✓ Easy Plug and Play installation
- ✓ Simple and economical use
- ✓ Ultrasonic flowmeter (QUICK 80 only)

 Start-up : first start-up recommended.



QUICK is available in 4 models

Model	DHW nominal flow rate	Code	Price	With packaging	
				Dimensions cm	Weight kg
QUICK 20	(20 l/minute DHW)	342030149X	2.265,00 €	63x40x21	18
QUICK 30	(30 l/minute DHW)	342030150X	2.414,00 €	63x40x21	19
QUICK 40	(40 l/minute DHW)	342030151X	2.603,00 €	63x40x21	20
QUICK 80	(80 l/minute DHW)	342030180X	3.555,00 €	63x40x21	30

QUICK

Main features

Efficient electronic regulation of pump speed

Possibility of controlling one circulation pump per DHW loop, with setting of pump operating time slots and circulation loop temperature below which the pump is activated

Anti-legionella treatment can be managed by means of thermal shocks along the entire DHW supply line (an additional heat source can be activated when the anti-legionella treatment is active): the anti-legionella function can be activated if a heat source above 65°C is present

High-efficiency electronic pump controlled by PWM signal

Wall mounting with wall plugs and gates supplied with the unit

Graphic display with:

- DHW usage temperature setting
- Maximum DHW temperature setting. This is a safety setting that stops the unit if the temperature reaches the set maximum value

Solar system circulator control and command

Heat generator management (boiler, heat pump, heating elements, etc.): possibility of activating and deactivating a heat generator when the storage temperature falls below the QUICK point

Cascade kit management

Mixer kit management on primary circuit

Storage stratification kit management

Specific features of the QUICK 80

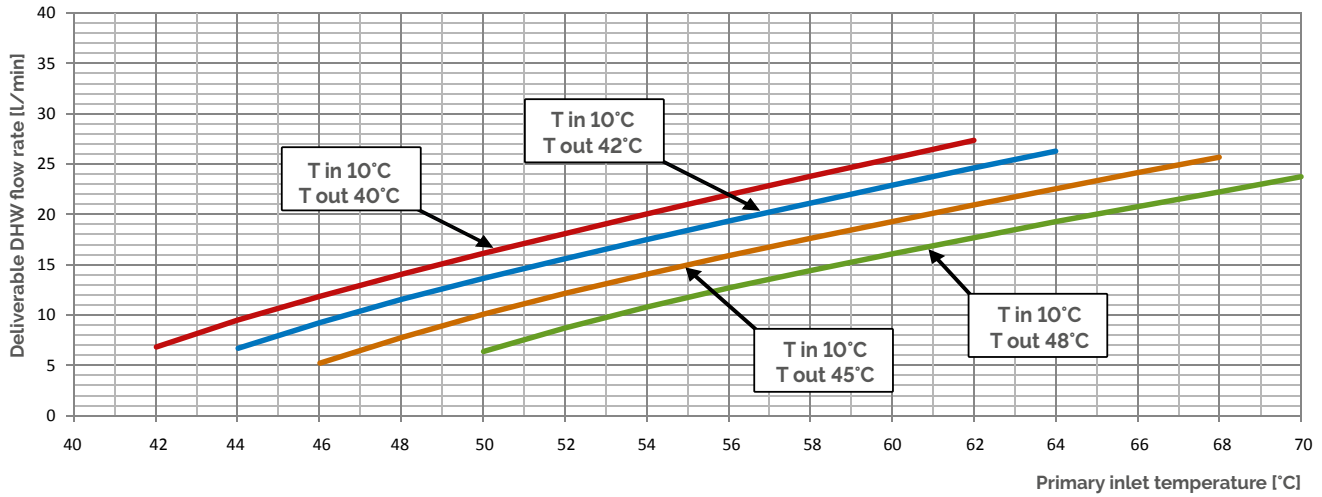
The new **ultrasonic flowmeter**, installed on the secondary circuit, has no mechanical components vulnerable to pressure fluctuations, guaranteeing longer product life and reliability. The flowmeter has an extremely high detection sensitivity: it starts at 1 L/min and goes up to 80 L/min.



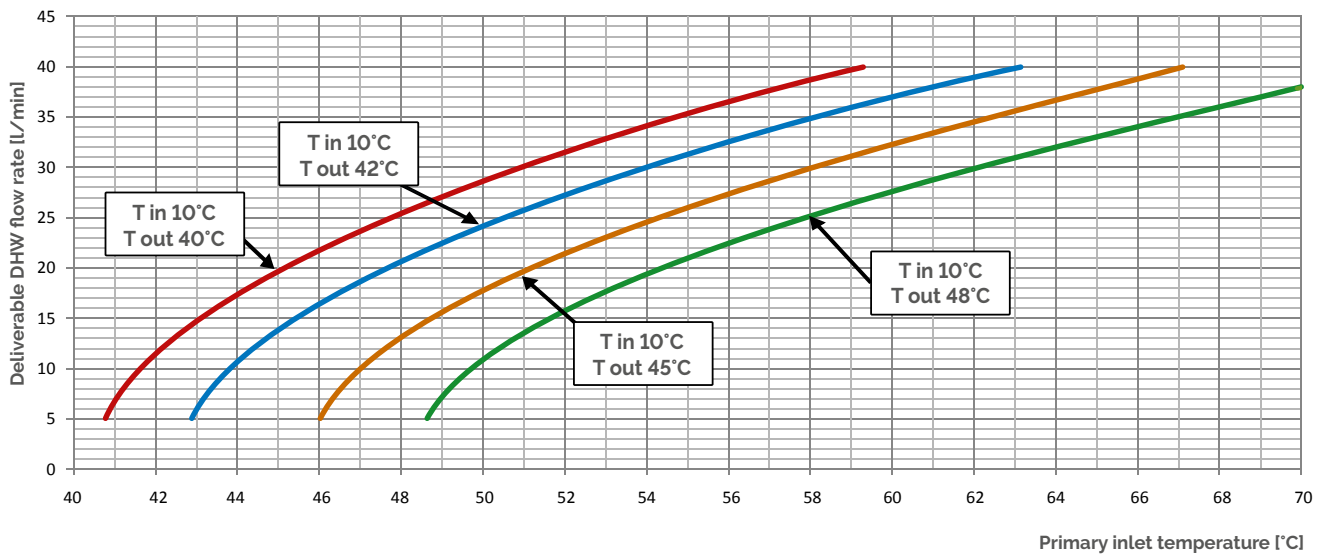
QUICK

Thermal performance

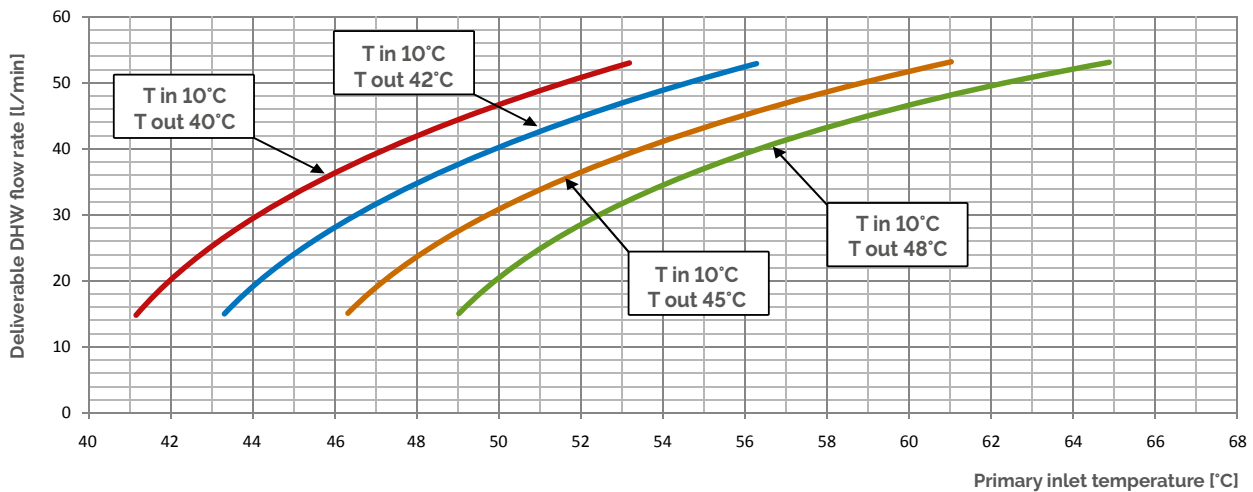
Thermal performance QUICK 20



Thermal performance QUICK 30



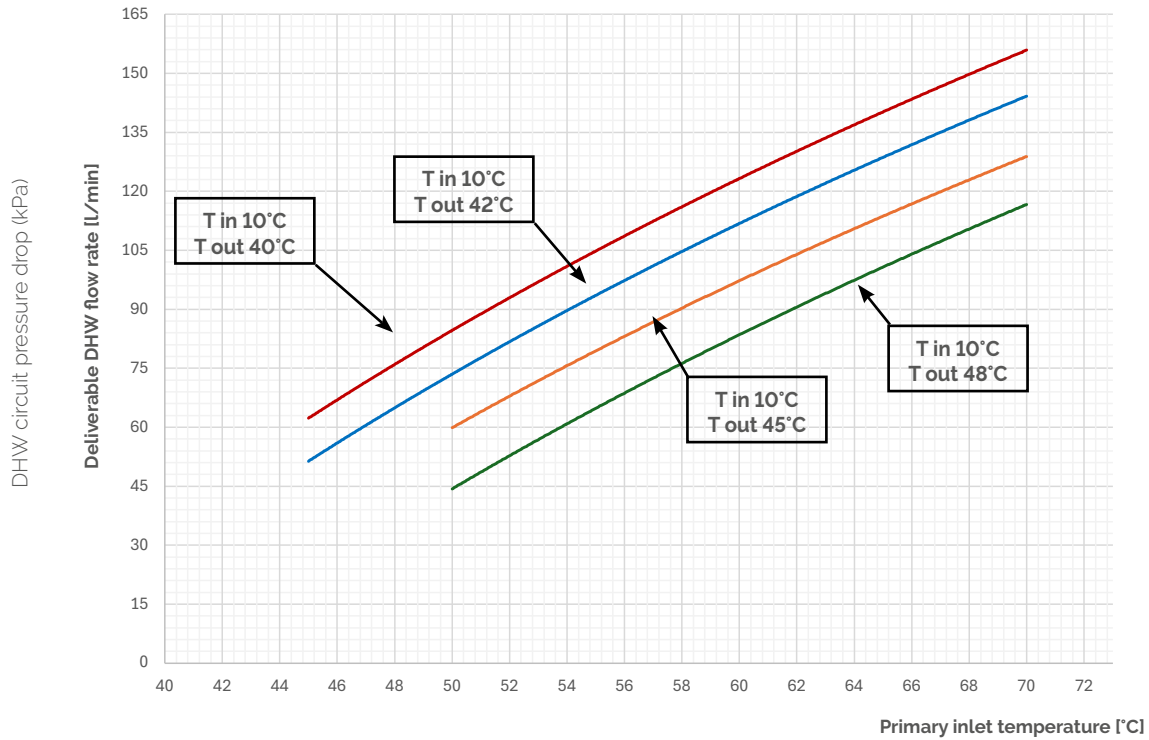
Thermal performance QUICK 40



QUICK

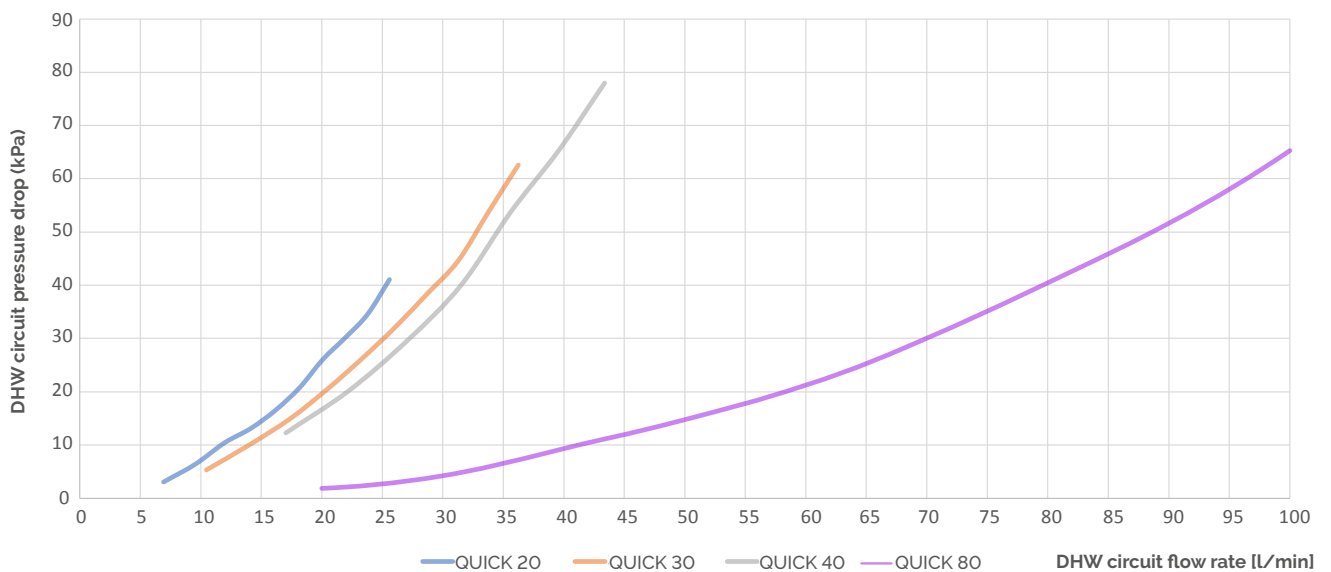
Thermal performance

Thermal performance QUICK 80



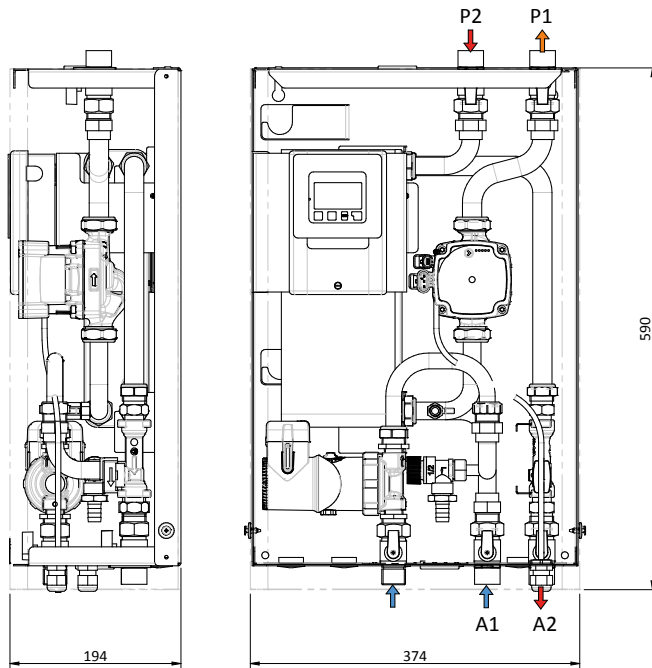
QUICK

Hydraulic performance

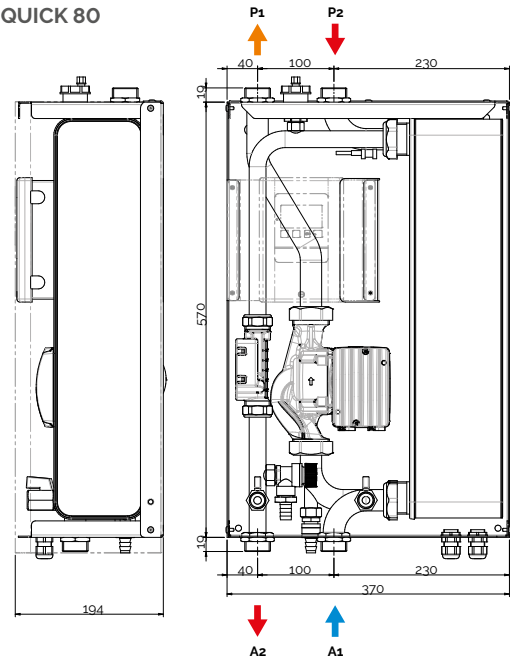


QUICK Dimensions

QUICK 20, 30, 40



QUICK 80



Legend

A1	DHW input
A2	DHW output
P1	Output to energy source
P2	Input from energy source

The DHW recirculation pump shown in the drawing is optional

Technical Data Table

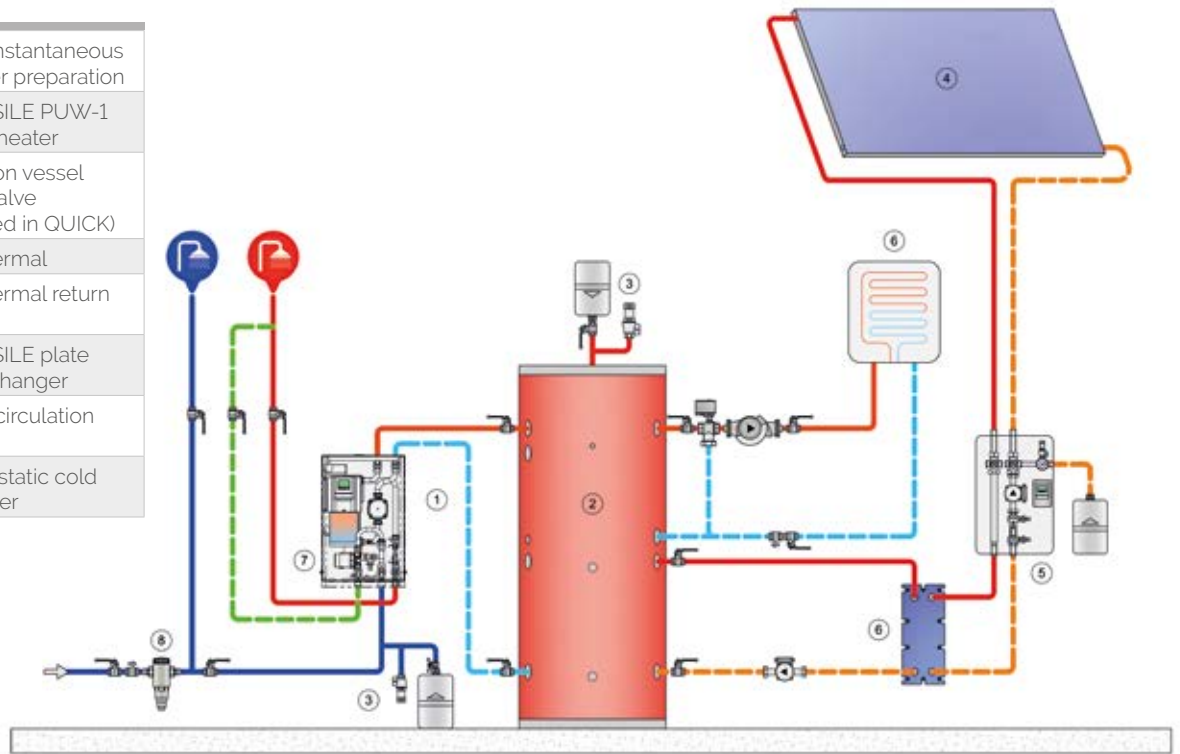
		QUICK 20	QUICK 30	QUICK 40	QUICK 80
Power supply	V/Ph/Hz	230/1/50			
Primary pump power min/max	W	10-75			3-180
Primary pump absorption min/max	A	0,03-0,66			0,04-1,42
Max. power recirculation pump system manageable by controller	W	460			
Primary flow rate	l/h	1500	1600	2500	5400
Residual headroom primary circuit	m.c.a.	5	4	3	4
Weight without packaging/with packaging	kg	17/18	18/19	19/20	27/28
Primary circuit volume	l	0,6	0,8	1,2	2,8
DHW circuit volume	l	0,7	0,9	1,4	2,9
Maximum operating pressure primary circuit	bar	6			10
Max. operating pressure DHW circuit	bar	10			10
Primary circuit connections	inches	UNI ISO 228/1 - G 3/4			UNI ISO 228/1 - G 1
Secondary circuit connections	inches	UNI ISO 228/1 - G 3/4			UNI ISO 228/1 - G 1
Maximum operating temperature	°C	95			
Electrical protection class		IP40			
Power supply cable length	m	1,5			
Minimum ignition flow rate DHW	l/min	2			
Maximum flow rate DHW	l/min	25	35	45	80
Dimensions (HxLxWt)	mm	590X374X194			

QUICK

Installation diagram in combination with thermal storage

Legend

1	QUICK instantaneous hot water preparation
2	HEIZERSILE PUW-1 storage heater
3	Expansion vessel (safety valve integrated in QUICK)
4	Solar thermal
5	Solar thermal return unit
6	HEIZERSILE plate heat exchanger
7	DHW recirculation pump
8	Bacteriostatic cold water filter



Standard equipment

The QUICK Instant Heater is delivered in a cardboard box and comes complete with:

- ✓ Instantaneous heater complete with electrical cable
- ✓ Jig for easy preparation of holes in the wall in which to anchor the instant heater
- ✓ Dowels and gates for fixing the instant mixer to the wall
- ✓ Operation and Maintenance Manual

QUICK

Accessories on request

Various accessory kits are available to be combined exclusively with the QUICK heater to improve yield, optimise consumption and increase user comfort:

1. QUICK cascade connection kit
2. QUICK recirculation kit
3. Mixer kit on primary circuit
4. Storage stratification kit (with external diverter)
5. External relay

Note: The electronic control unit of the QUICK manages up to 3 digital outputs, so it is necessary to check how many outputs are committed by each accessory chosen according to their requirements. The new QUICK model can be integrated with the external relay accessory to add a digital output to the control unit.

The following pages contain detailed specifications for each accessory: codes and prices can be found on page 265

QUICK cascade connection kit

The QUICK cascade connection kit (not usable on T-QUICK units), is the solution for all applications where the demand for domestic hot water is highly variable. In this way it is possible to connect up to a maximum of 8 instantaneous heaters, guaranteeing DHW production from a minimum of 2 l/min up to 360 l/min*. The electronic control units mounted on board each instantaneous water heater are able to communicate with each other via CanBus. In this way, depending on the conditions of use, the electronics decide how many and which heaters should be in operation.

Advantages and benefits:

- ✓ Wide DHW production range: 2 to 360 l/min
- ✓ Maximum reliability. Thanks to the auto-diagnosis performed by the control unit, in the event of a heater malfunction, the heater is automatically deactivated and an alternative heater is started. This ensures continuity of DHW supply
- ✓ Even more precise temperature regulation. The regulation allows the correct number of instantaneous heaters to be activated based on the flow rate and the required DHW temperature. In this way, each heater always operates at close to nominal conditions, improving efficiency and control accuracy.
- ✓ The system designed with cascade heaters can be expanded by adding further units at a later date.
- ✓ Possibility of carrying out scheduled maintenance on heaters without interrupting the supply of DHW.
- ✓ Each heater works an equal number of hours, ensuring maximum system longevity.

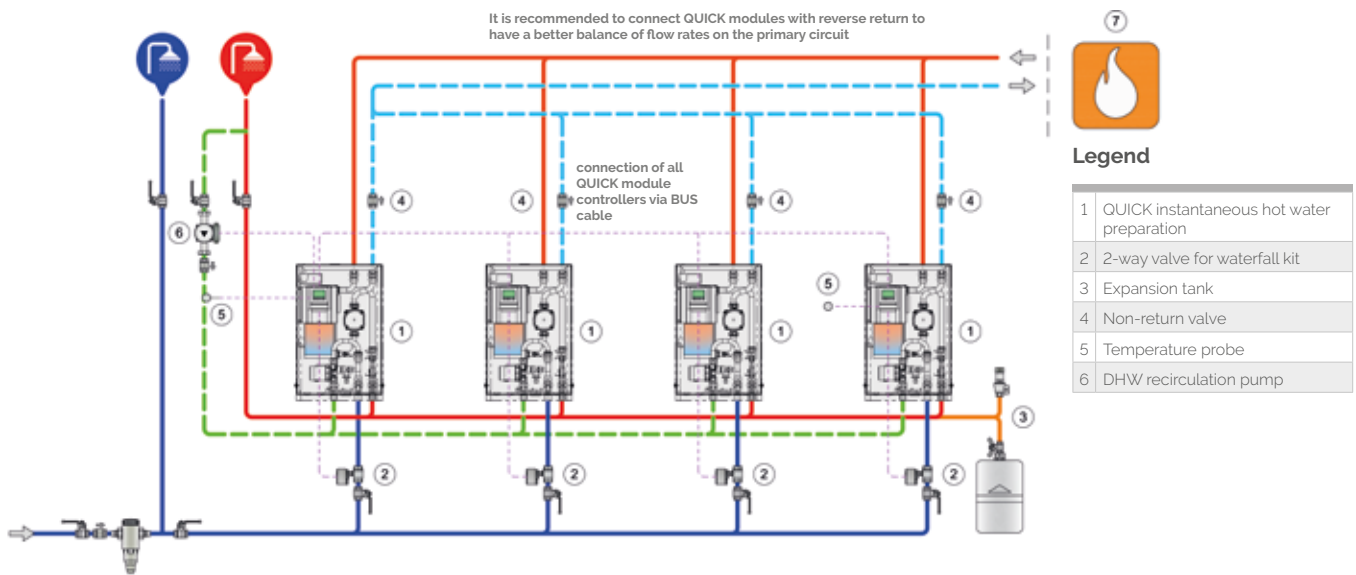
Kit equipment.

Install No. 1 kit for each instant heater. The kit is supplied separately, not assembled and includes:

- ✓ no. 1 motorised zone valve with 230 V fast motor
- ✓ no. 1 Fittings for connection
- ✓ no. 1 CanBus cable and No. 2 CanBus line terminating resistors
- ✓ Instructions

*The DHW flow rate deliverable by a cascade system is equal to the sum of the flow rates deliverable by each single active heater listed in the Thermal Performance section.

Installation diagram



MULTIGATEWAY - Remote control for QUICK instantaneous system



The Multigateway is a device with a touchscreen display for the remote management of devices that dialogue with the CAN protocol. Once the Multigateway has been installed, it is possible to manage the system directly via the App or with the integration of a BMS (Building Management System) that communicates using the Modbus protocol. In the case of a QUICK cascade, it is sufficient to use 1 Multigateway.

- ✓ CAN cable length < 3 m, or shielded cable must be used

Main features

- ✓ Data Logger
- ✓ CAN Fieldbus
- ✓ Modbus RTU RS 485
- ✓ WiFi module
- ✓ Touchscreen display
- ✓ Power supply 12/24 V
- ✓ App available for Android & iOS
- ✓ Dimensions: 75 x 95 x 19 mm
- ✓ ABS shell and glass front

Conditions of Use

- ✓ Protection class: IP 20
- ✓ Temperature: 0°C - 50°C



Main menu

- CAN**
Adding Devices to the Network
- Modbus**
Protocol-specific settings
- Service values**
Messages and system data

- WiFi**
WiFi Settings
- Date**
Settings for data storage
- Settings**
Device parameters such as language, brightness, etc.

QUICK recirculation kit

The QUICK can be integrated with either an internal or external recirculation system: the internal recirculation kit (1) is equipped with a probe and circulator, while the external recirculation kit (2) consists of a probe to control an external circulator. The two kits can be selected individually but CANNOT be coupled.

The recirculation kits make it possible to exploit the multiple possibilities offered by the electronic controller to control the DHW recirculation circuit pump.

Possible settings of the electronic controller include, among others:

- Programming recirculation in time slots: The recirculation pump is only activated at enabled times and when the recirculation temperature is below the set temperature.
- Recirculation pump always on

(1) QUICK internal recirculation kit

The recirculation kit can be integrated inside the QUICK housing thanks to the hydraulic arrangements. When installing QUICK in cascade the internal recirculation kit cannot be used, but the external kit must be used. In any case, it must be verified that the performance of the recirculation pump is sufficient to deliver a flow rate adequately higher than the flowmeter's minimum flow rate.

The kit is supplied separately, not assembled and includes:

- ✓ Circulator
- ✓ Temperature probe to be placed on the recirculation loop
- ✓ Recirculation connection pipe
- ✓ Shut-off valve
- ✓ Instructions

(2) QUICK external recirculation kit

The kit is supplied separately, not assembled and includes:

- ✓ PT1000 temperature probe to be placed on the recirculation loop
- ✓ Instructions

The recirculation pump is not supplied with the external kit.

A single-phase pump of maximum power 460W must be selected

Note: In the case of several QUICK units connected in cascade, a common recirculation pump can be installed, managed by the control unit of any of the units.



Mixer kit on primary circuit

The mixer kit makes it possible to adjust the inlet temperature to the instantaneous heater. In this way, especially in systems that can reach high temperatures in the primary circuit, the control precision of the heater is improved, thus ensuring greater comfort.

Note: In the event that several QUICKs are installed in cascade if you wish to manage the primary inlet temperature, a mixer kit must be provided for each QUICK installed.

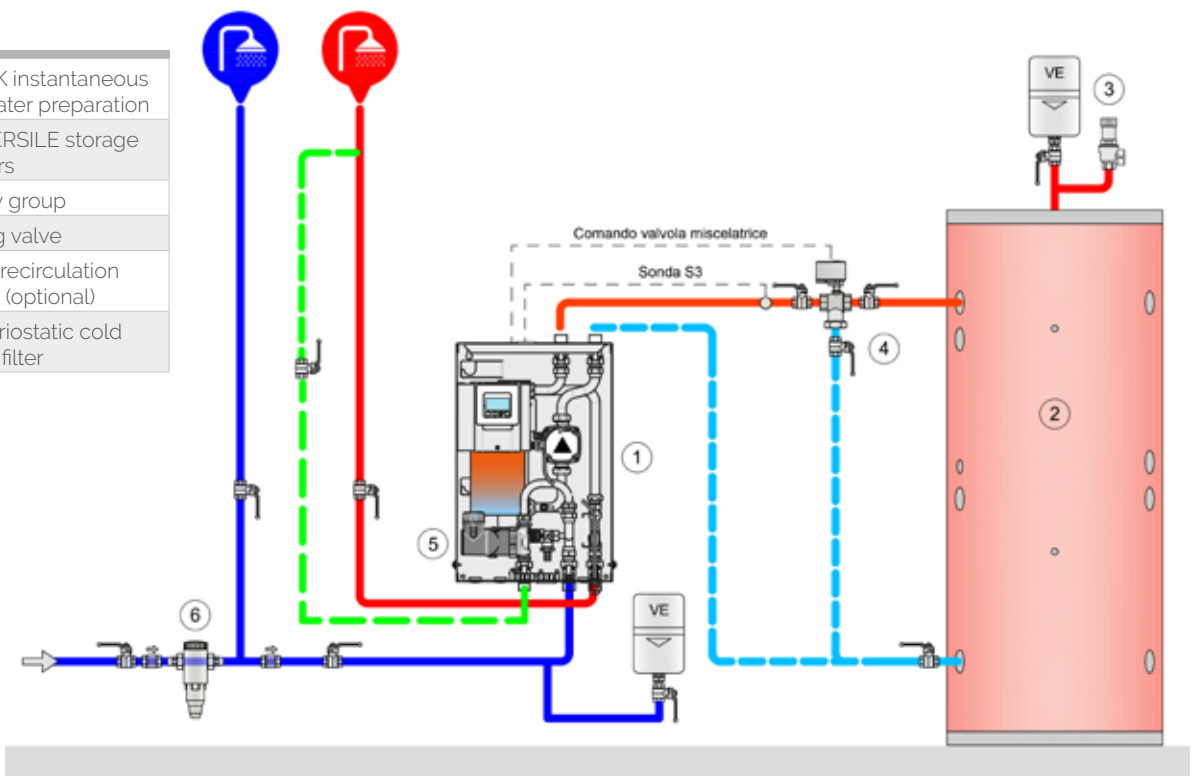
Kit equipment

The kit is supplied separately, not assembled and includes:

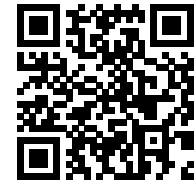
- ✓ Temperature probe S3 to be positioned at the inlet of the heat exchanger on the primary circuit
- ✓ Instructions
- ✓ Motorised mixing valve

Legend

1	QUICK instantaneous hot water preparation
2	HEIZERSILE storage heaters
3	Safety group
4	Mixing valve
5	DHW recirculation pump (optional)
6	Bacteriostatic cold water filter



Storage stratification kit (with external diverter)



ACCESSORIES
PRICES

The stratification kit on the primary circuit (storage tank) allows the return from the instantaneous heater to be directed to 2 points at different heights of the storage tank, thus favouring the stratification phenomenon within the storage tank and maximising the efficiency of the entire heating system.

Note: If several QUICKs are installed in cascade, it is possible to install a single stratification kit managed by the control unit of any QUICK.

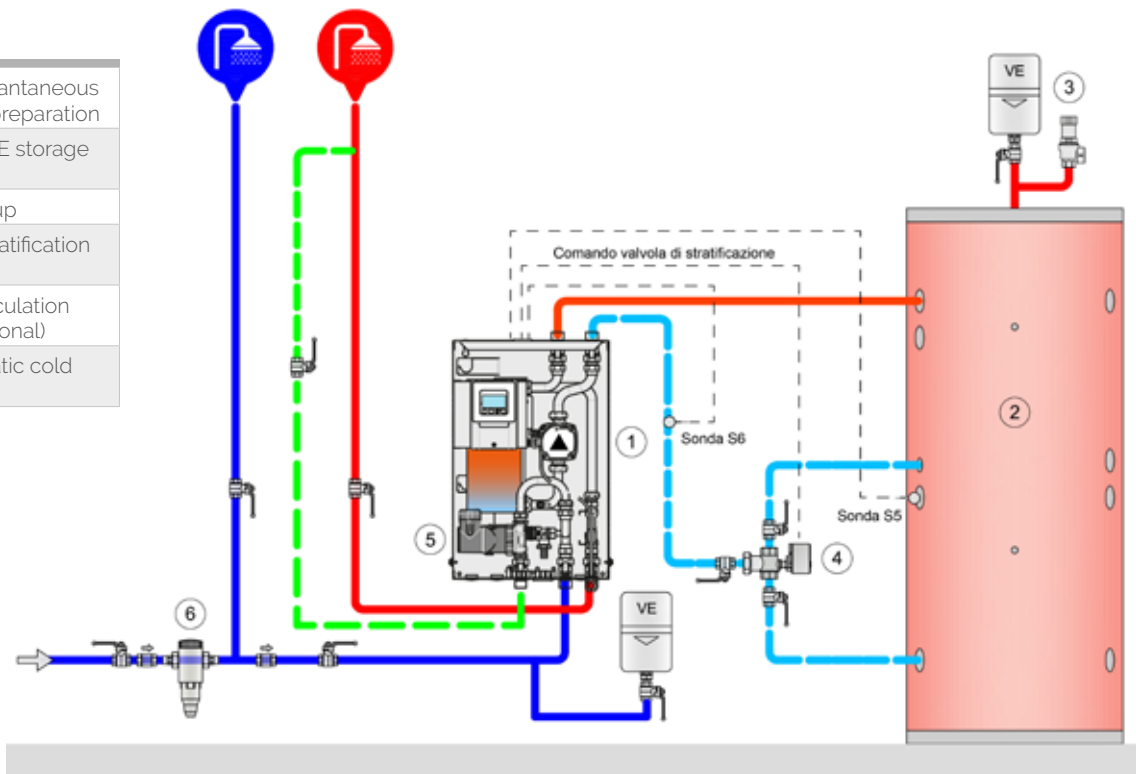
Kit equipment

The kit is supplied separately, not assembled and includes:

- ✓ S5 temperature probe to be positioned in the middle of the storage tank
- ✓ Temperature sensor S6 on the return of the primary circuit
- ✓ Instructions
- ✓ Motorised stratification valve

Legend

1	QUICK instantaneous hot water preparation
2	HEIZERSILE storage heaters
3	Safety group
4	Storage stratification valve
5	DHW recirculation pump (optional)
6	Bacteriostatic cold water filter



QUICK - Accessory codes and prices

Description	Digital outputs	Code	Price
EXTERNAL WATERFALL KIT QUICK 20, 30, 40	-1	342040006X	530,00 €
QUICK 80 EXTERNAL WATERFALL KIT	-1	342030092X	705,00 €
QUICK RECIRCULATION INTERNAL KIT	-1	342040004X	643,00 €
T-QUICK/QUICK EXTERNAL RECIRCULATION KIT (NO PUMP)	-1	342040009X	65,00 €
QUICK MIXER EXTERNAL KIT	-2	342040007X	455,00 €
QUICK STORAGE EXTERNAL STRATIFICATION KIT	-1	342040008X	263,00 €
MULTIGATEWAY	0	C22120078	498,00 €
EXTERNAL RELAY 1W 6A OUTPUT 0-10V IP55	+1	C24090225	89,00 €

Note: The controller manages up to 3 digital outputs: check the availability of free outputs and the requirements of the various accessories; the accessory is available: **External Relay 1W 6A OUTPUT 0-10V IP55** which converts one of the unused analogue outputs (V2) from 0-10V / PWM into a changeover contact (allows you to increase the controller's digital outputs by n*1)

DHW Instantaneous systems

QUICK PLUS



PRICES

Complete 'plug and play' system for heat transfer from technical water storage tank, with programmable control unit and circulator. The QUICK module guarantees the production of domestic hot water with limited limescale formation and at the temperature set by the user. Heat exchange takes place by means of an AISI 316 stainless steel plate heat exchanger with a maximum guarantee of hygiene and high performance. The module, connected to a thermal storage tank from which it draws energy, is complete with all the components necessary for its operation and, by means of a control unit with graphic display, allows the user to keep operation monitored as well as easily set the operating parameters. The heart of the QUICK unit is the special electronic regulation that guarantees the set temperature value of the DHW by modulating the flow rate of the primary circuit.



The QUICK PLUS module, is available in six different sizes (60, 70, 80, 100, 120, 160 and 200*)
 (*): DHW production from 10 to 45 °C with primary 55 °C.

The qualifying and innovative element of the QUICK unit is the special electronic regulation that guarantees the set temperature value of domestic hot water by modulating the flow rate of the primary circuit. This guarantees:

- ✓ Maximum thermal jump on the primary circuit to optimise generator efficiency (solar thermal; heat pump; biomass, etc.)
- ✓ Precise and reliable regulation. Due to the high efficiency of the heat exchanger, the module is ideally suited for use in heat pump or solar panel systems, which use low-temperature (50-55°C) storage heaters.

Plus

- ✓ Adjusting the hot water temperature;
- ✓ Easy and economical use;
- ✓ High-efficiency circulation pump (conforms to EC Directive 2005/32) with electronic speed control;
- ✓ Synoptic graphic display showing system temperatures and power output;
- ✓ Easy Plug and Play installation;
- ✓ Insulated fittings;
- ✓ Possibility of managing a DHW recirculation pump.

Accessories available from page 279

cod.	Description	price	with packaging	
			dimensions cm	weight kg
342030004X	QUICK 60 - INSTANTANEOUS DHW Heater	8.146,00 €	110x60x100	166
342030005X	QUICK 70 - INSTANTANEOUS DHW Heater	8.286,00 €	110x60x100	168
342030006X	QUICK 80 - INSTANTANEOUS DHW Heater	9.251,00 €	110x60x100	189
342030007X	QUICK 100 - INSTANTANEOUS DHW Heater	9.578,00 €	110x60x100	193
342030008X	QUICK 120 - INSTANTANEOUS DHW Heater	9.876,00 €	110x60x100	198
342030046X	QUICK 160 - INSTANTANEOUS WATER HEATER	11.461,00 €	140x60x100	198
342030016X	QUICK 200 - INSTANTANEOUS WATER HEATER	13.650,00 €	139x63x125	200

Controller function

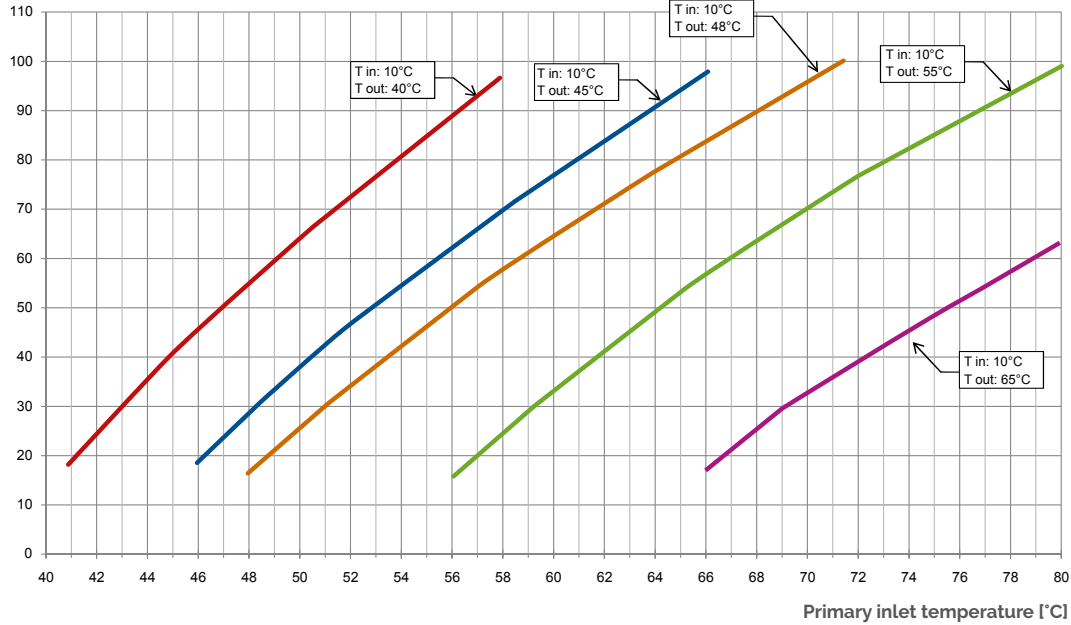
The QUICK instantaneous heater is equipped with a controller capable of handling the following functions:

Efficient electronic regulation of pump speed
Graphic display
DHW usage temperature setting
Maximum DHW temperature setting. This is a safety setting that stops the unit if the temperature reaches the set maximum value
Cascade kit management
Mixer kit management on primary circuit
Storage stratification kit management
Possibility of controlling a recirculation pump per DHW loop, being able to set the pump operating time slots and the temperature of the recirculation loop below which the pump is activated
Anti-legionella: possibility of managing anti-legionella treatments by means of thermal shocks along the entire DHW supply line
AL heating: activation of an additional heat source when anti-legionella treatment is active
Comfort function: when activated, the heat exchanger is kept warm at all times to ensure faster start-up
Limescale protection: if activated, the circulator remains in operation even when the DHW supply runs out, thus reducing limescale build-up
Solar: solar system circulator control and command
Heat generator management: possibility of activating and deactivating a heat generator when the storage temperature falls below the set point
Consumption accounting functions

QUICK PLUS thermal performance

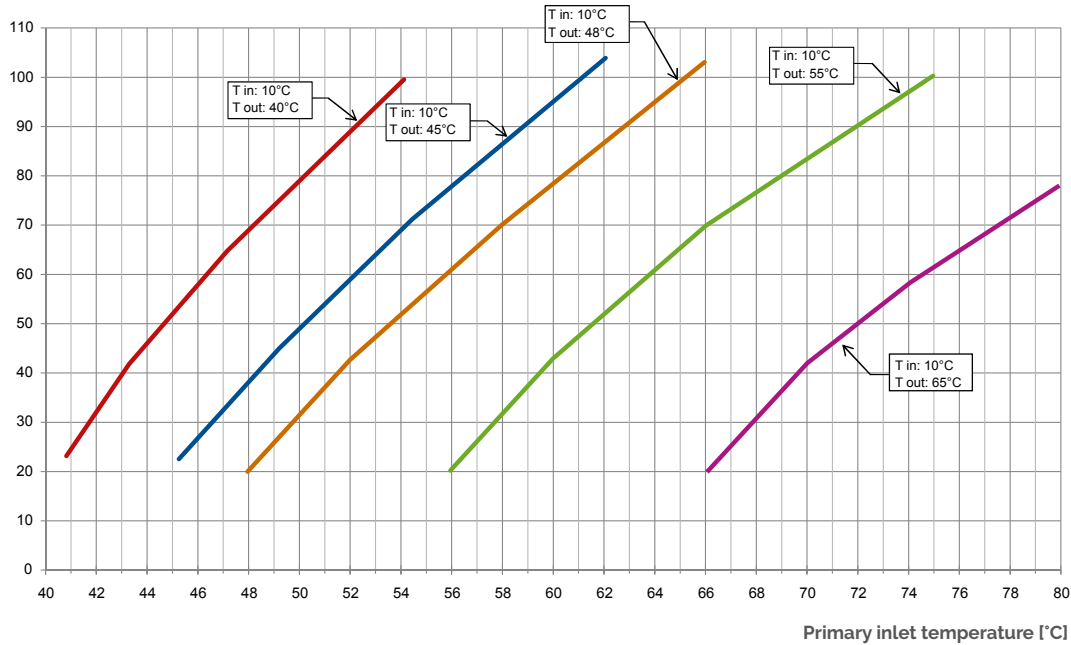
QUICK 60 performance

Deliverable DHW flow rate
[L/min]



QUICK 70 performance

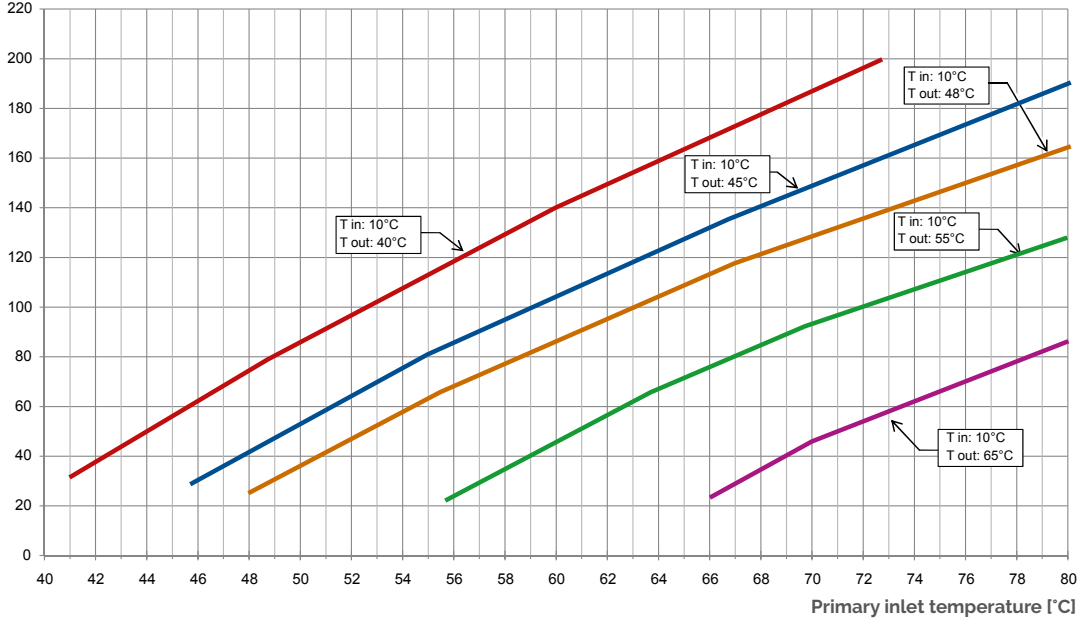
Deliverable DHW flow rate
[L/min]



QUICK PLUS thermal performance

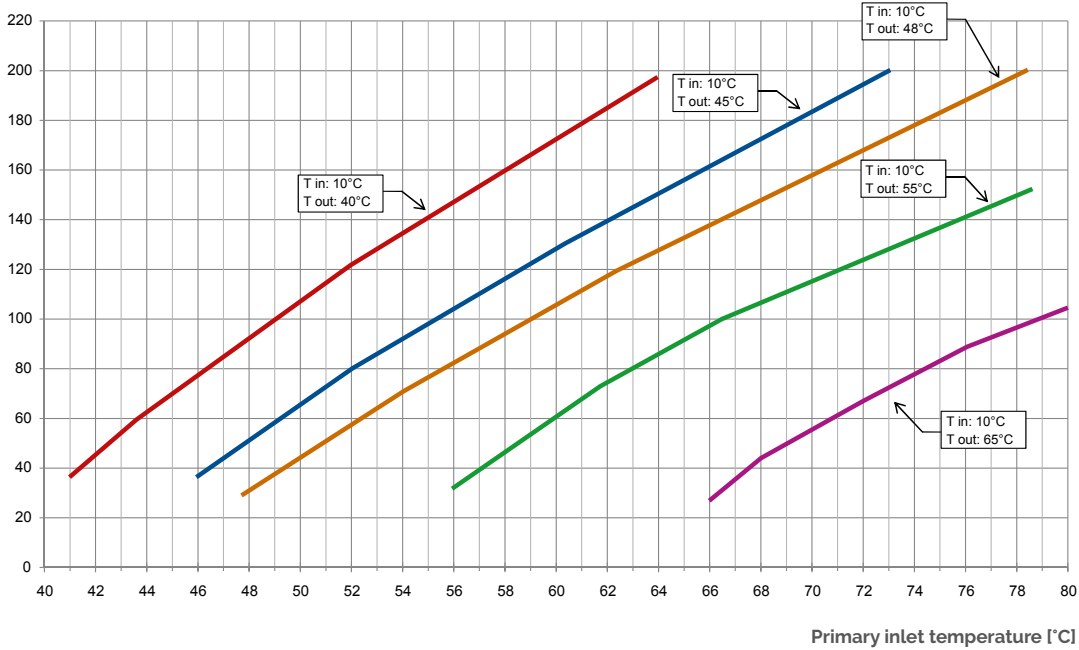
QUICK 80 performance

Deliverable DHW flow rate
[L/min]



QUICK 100 performance

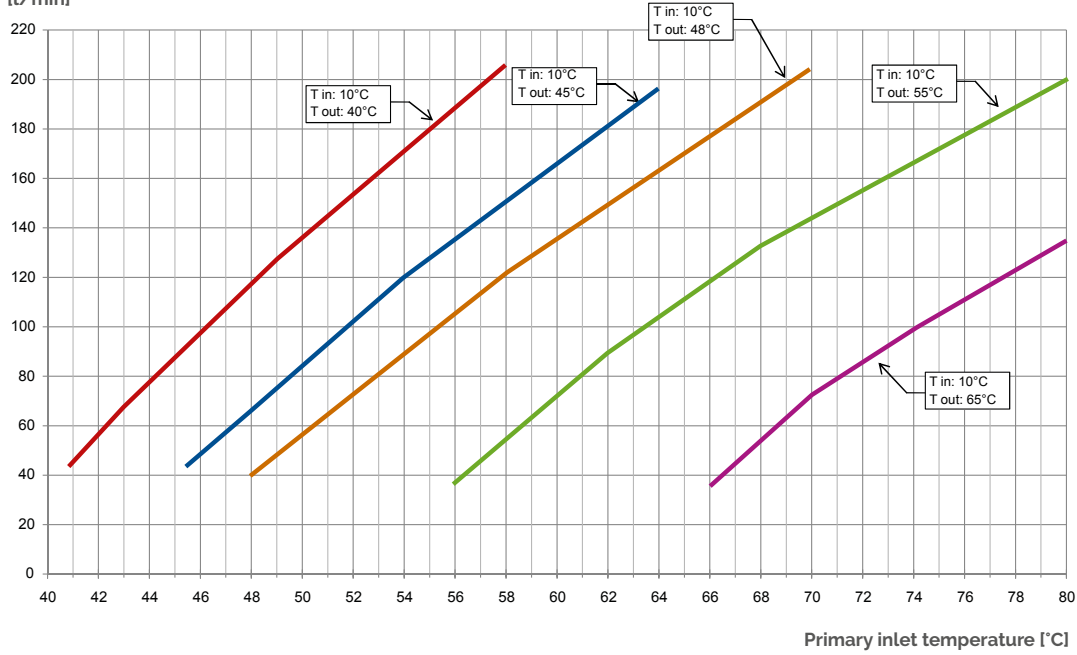
Deliverable DHW flow rate
[L/min]



QUICK PLUS thermal performance

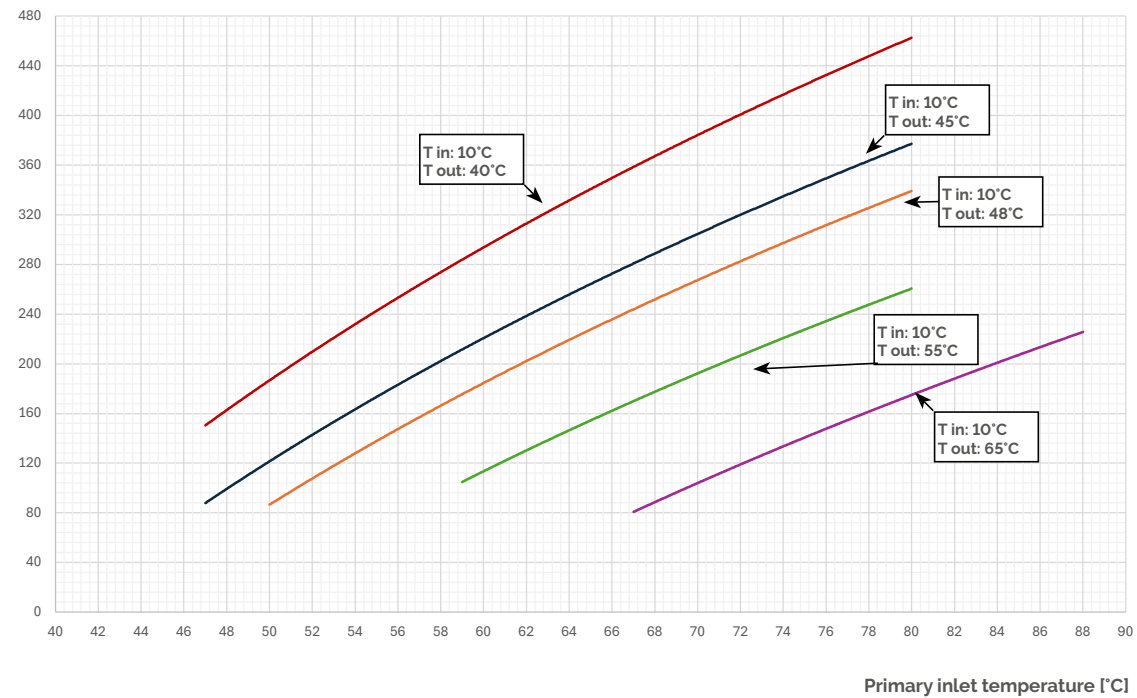
QUICK 120 performance

Deliverable DHW flow rate [L/min]



QUICK 160 performance

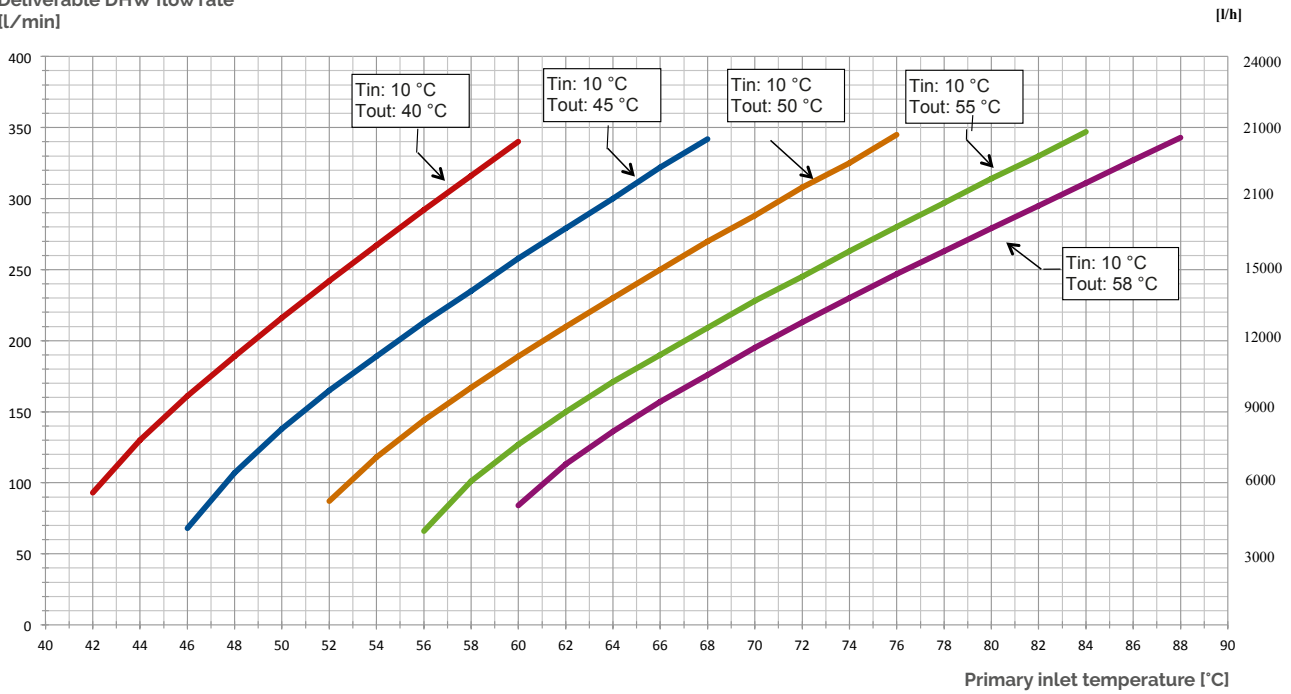
Deliverable DHW flow rate [L/min]



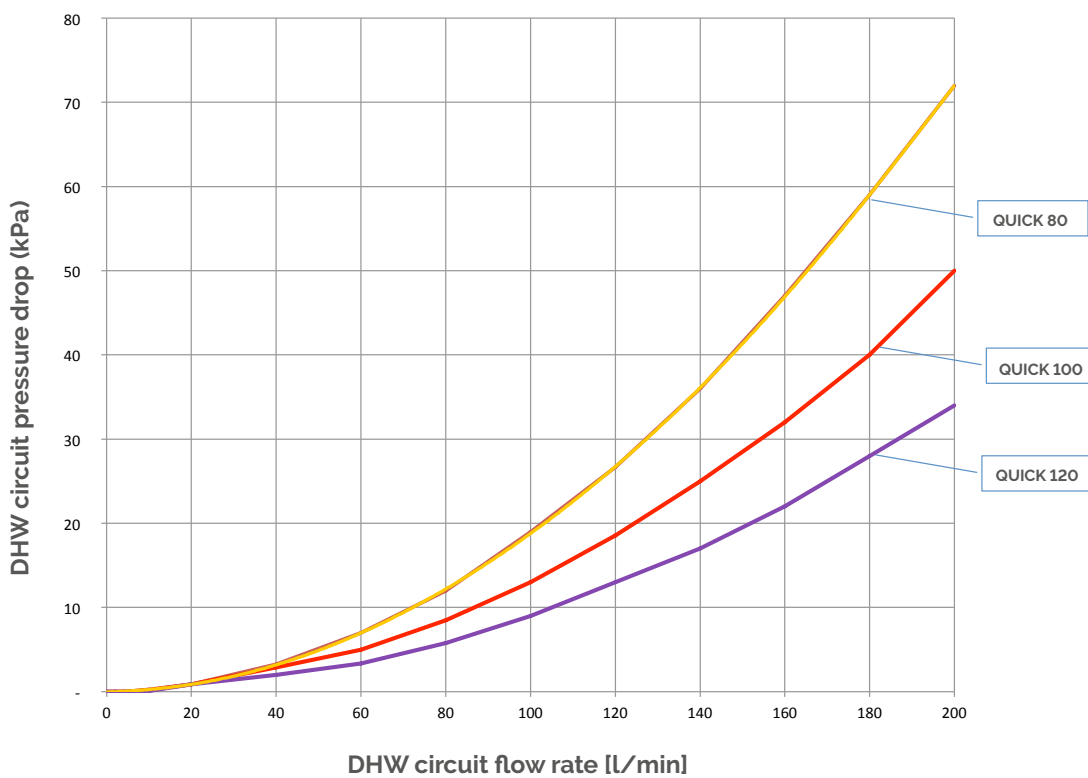
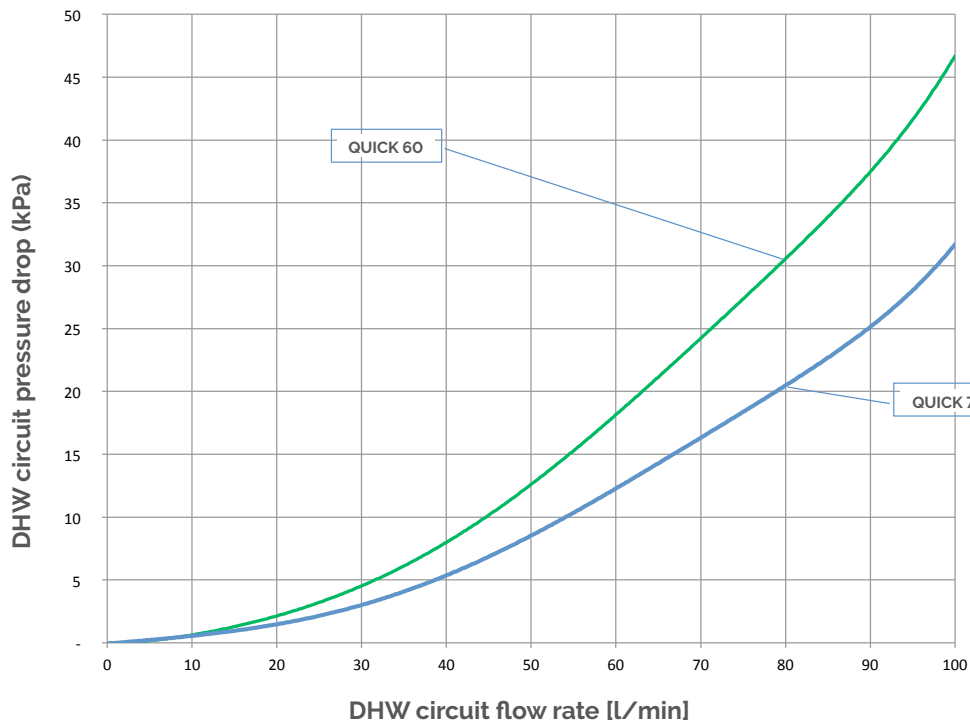
QUICK PLUS thermal performance

QUICK 200 performance

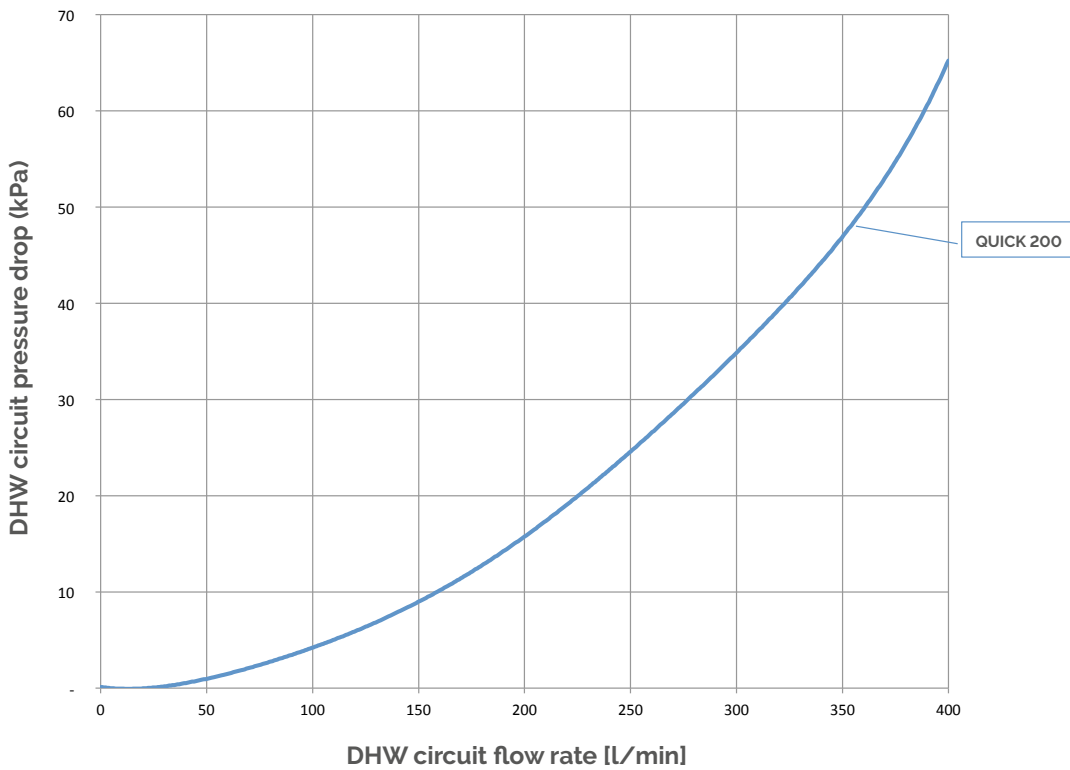
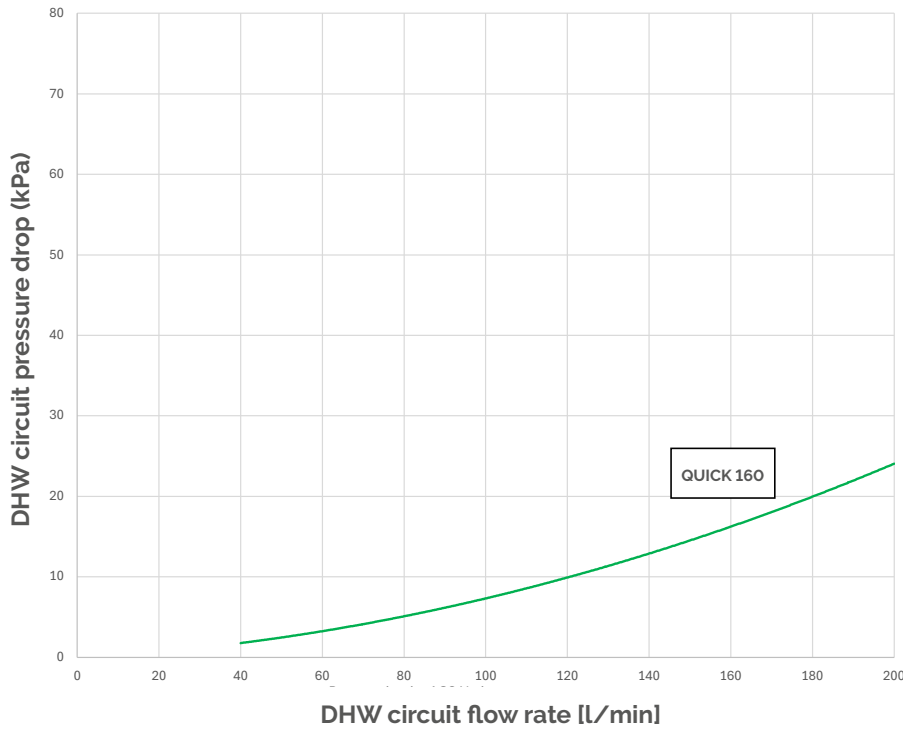
Deliverable DHW flow rate
[l/min]



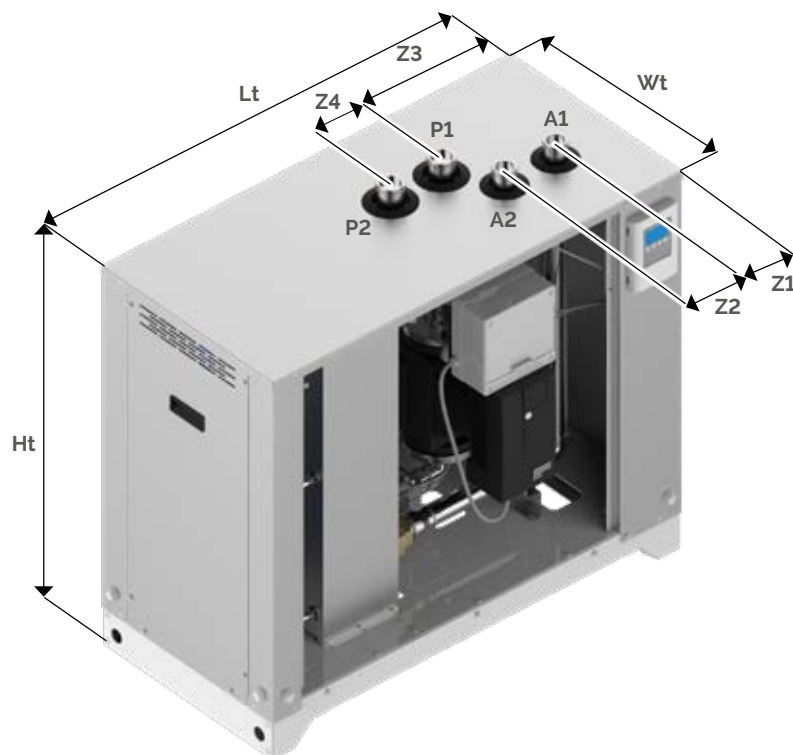
QUICK hydraulic performance



QUICK hydraulic performance



Dimensions and Specifications



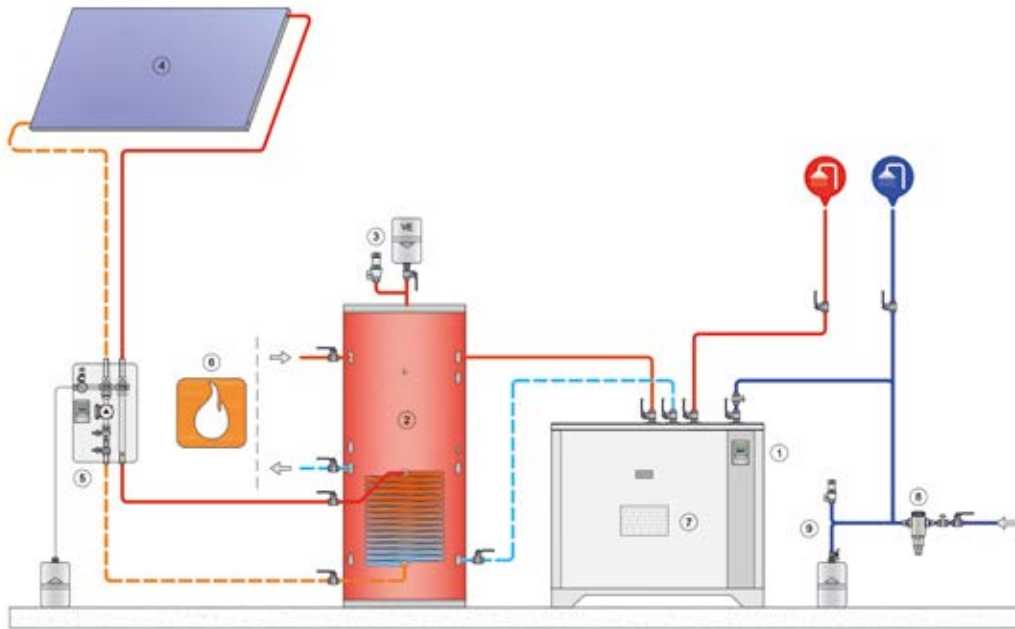
Legend

A1	DHW input
A2	DHW output
P1	Output to energy source
P2	Input from energy source

Model	Lt mm	Ht mm	Wt mm	Z1 mm	Z2 mm	Z3 mm	Z4 mm
QUICK 60	1004	871	484	153	125	346	125
QUICK 70	1004	871	484	153	125	346	125
QUICK 80	1004	871	484	153	125	346	125
QUICK 100	1004	871	484	153	125	346	125
QUICK 120	1004	871	484	153	125	346	125
QUICK 160	1254	871	484	153	172	345	125
QUICK 200	1220	1100	550	90	125	389	125

Technical Data	QUICK PLUS						
	60	70	80	100	120	160	200
Power supply (V/Ph/Hz)	230/1/50						
Max. primary pump power (W)	310		450		480	600	
Max. primary pump absorption (A)	1,37		2,01		2,2	2,7	
Maximum power recirculation pump system manageable by the control unit (W) (pump not supplied)	460						
Primary flow rate (litres/h)	6700	8200	9000	11000	14000	14000	22000
Primary circuit residual head (m.c.a.)	2,0	4,0	2,0	2,0	4,0	4,0	2,0
Primary circuit volume (l)	2,66	2,90	3,15	3,87	4,84	6,1	6,55
DHW circuit volume (l)	2,54	2,14	3,06	3,77	4,71	6,3	6,37
Maximum primary and DHW working pressure (bar)	10						
Primary circuit connections (inch)	1" 1/2 GAS M					2" 1/2 GAS M	
Secondary circuit connections (inch)	1" 1/4 GAS M					2" GAS M	
Maximum operating temperature (°C)	95						
Electrical protection class	IP40						
Minimum ignition flow DHW (L/min)	5	5	10	10	10	10	20
Maximum DHW flow rate (L/min)	100	100	200	200	200	200	400

Installation diagram in combination with thermal storage



Legend

1	QUICK instantaneous hot water preparation
2	HEIZERSILE PUW-1 storage heater
3	Heating-side safety devices: expansion vessel and safety valve
4	Solar thermal collector
5	Solar thermal return unit
6	Heating from primary or alternative source
7	DHW recirculation pumps integrated in QUICK module
8	Bacteriostatic cold water filter
9	Safety devices on the DHW side: expansion vessel and safety valve

Note: An expansion tank must be installed on the cold water line

Standard equipment

The QUICK PLUS instant heater is delivered on a pallet and comes complete with:
 ✓ Instantaneous preparation unit complete with electrical panel for mains connection;
 ✱ wner's manual.

Standard Accessories

Various accessory kits are available to match the QUICK heater.

Description	Digital outputs
QUICK cascade connection kit	1
Recirculation Kit	1
Mixer kit on primary circuit	2
Storage stratification kit (with external diverter)	1
Multigateway	1

*The control unit manages up to 3 digital outputs: check the availability of free outputs and the requirements of the various accessories.

QUICK cascade connection kit

The QUICK cascade connection kit is the ideal solution for applications where domestic hot water demand is highly variable, such as sports facilities, etc. The cascade kit makes it possible to connect up to a maximum of 8 instantaneous heaters, guaranteeing domestic hot water production from a minimum of 5 l/min up to 3200 l/min. The electronic control units mounted on board each instantaneous water heater communicate with each other via CanBus. In this way, depending on the conditions of use, the system identifies how many and which heaters should come into operation.

Advantages and benefits:

- ✓ Wide DHW production range: from 5 l/min up to 3200 l/min.
- ✓ The output of several QUICK connected in cascade depends on the temperatures of the primary circuit and domestic hot water production. The flow rate of domestic hot water that can be delivered by a cascade system is equal to the sum of the flow rates that can be delivered by each individual heater shown in the Thermal Performance graph.
- ✓ Maximum reliability and continuity of hot water supply.
Thanks to the auto-diagnosis performed by the control unit, in the event of a heater malfunction, the heater is automatically deactivated and an alternative heater is started. In this way, each heater always operates at close to nominal conditions, improving efficiency and control accuracy.
- ✓ The system designed with cascade heaters can be expanded by adding further units at a later date.
- ✓ Possibility of carrying out scheduled maintenance on heaters without interrupting the DHW supply.
- ✓ As far as possible, controllers try to equalise the operating hours of individual devices, ensuring maximum system longevity.
- ✓✓ Even more precise temperature regulation. The regulation allows the correct number of instantaneous heaters to be activated based on the flow rate and the required DHW temperature.

Kit equipment.

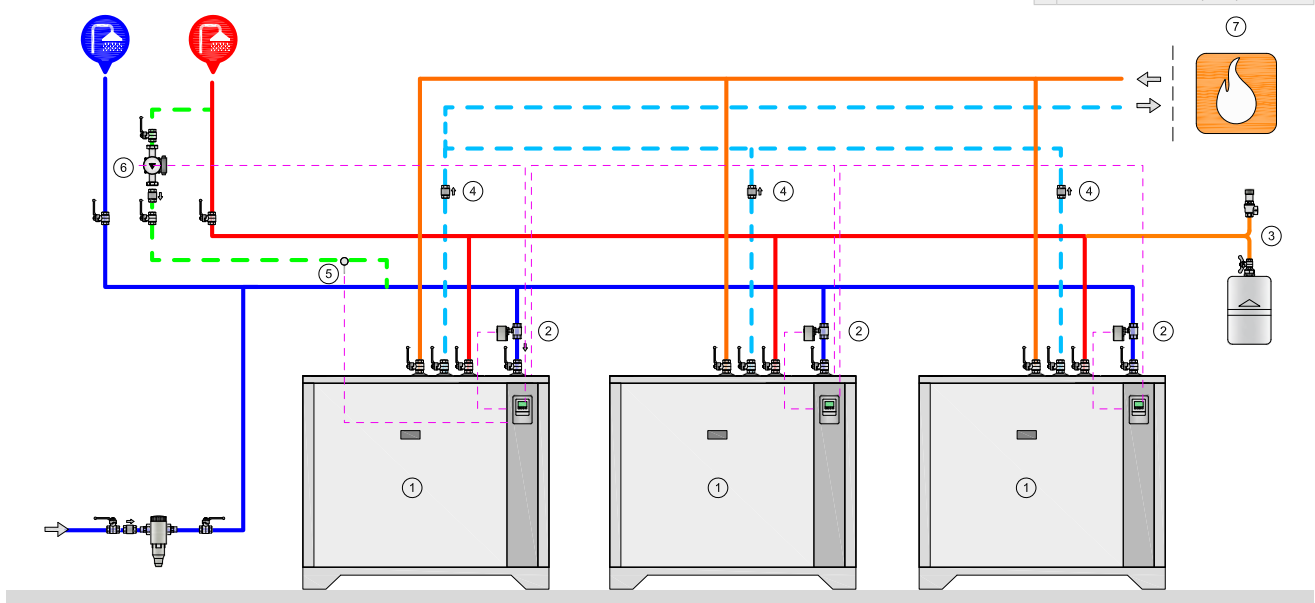
Install No. 1 kit per instantaneous heater. The kit supplied separately, not assembled, includes:

- ✓ No. 1 Motorised zone valve with 230 V fast motor
- ✓ No. 1 CanBus cable
- ✓ Instructions

Legend

1	QUICK instantaneous hot water preparation
2	2-way valve for waterfall kit
3	Expansion tank
4	Non-return valve
5	Temperature probe for DHW recirculation
6	DHW recirculation pump

Installation diagram



MULTIGATEWAY - Remote control for QUICK instantaneous system



The Multigateway is a device with a touchscreen display for the remote management of devices that dialogue with the CAN protocol. Once the Multigateway is installed, it is possible to manage the system directly via the App or with the integration of a BMS (Building Management System) that communicates using the Modbus protocol. In the case of a QUICK cascade, it is sufficient to use 1 Multigateway.

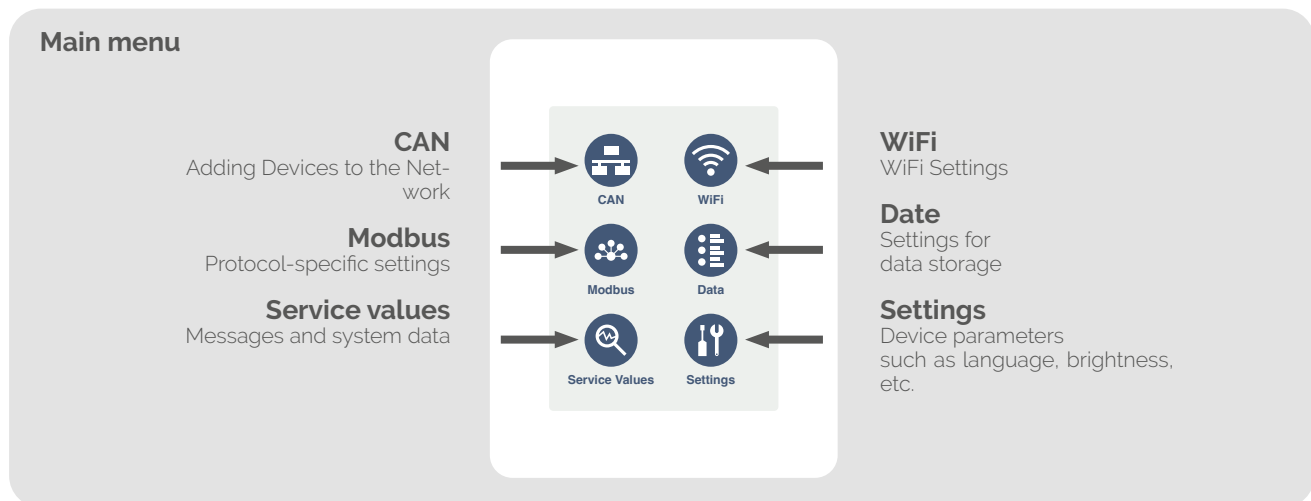


Conditions of Use

- ✓ Protection class: IP 20
- ✓ Temperature: 0°C - 50°C
- ✓ CAN cable length < 3 m, or shielded cable must be used

Main features

- ✓ Data Logger
- ✓ CAN Fieldbus
- ✓ Modbus RTU RS 485
- ✓ WiFi module
- ✓ Touchscreen display
- ✓ Power supply 12/24 V
- ✓ App available for Android & iOS
- ✓ Dimensions: 75 x 95 x 19 mm
- ✓ ABS shell and glass front



Recirculation kit

The recirculation kit allows you to exploit the multiple possibilities offered by the electronic controller to control the DHW recirculation circuit pump (circulator not supplied).

Possible settings:

- ✓ Programming of recirculation in time slots. The recirculation pump is only activated at enabled times and when the recirculation temperature is below the set temperature.
- ✓ Recirculation pump always on.
- ✓ Activation of the circulation pump after a short withdrawal. This system allows the recirculation pump to be activated only when strictly necessary, allowing the DHW circuit to be heated without the unnecessary loss of drinking water.

Kit equipment

The kit is supplied separately, not assembled and includes:

- ✓ Temperature probe to be placed on the circulation loop
- ✓ Instructions

Recirculation pump

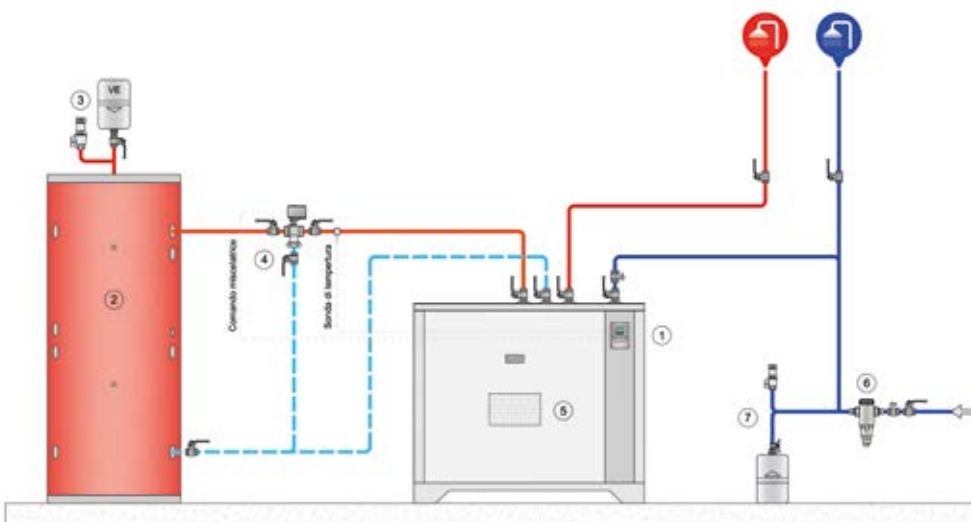
The recirculation pump is not supplied with the kit because it must be chosen according to the system specifications.

However, since it is controlled by the QUICK group controller, it must have the following characteristics.

- ✓ Power supply 230V/50hz/1ph
- ✓ Maximum power 460 W

Alternatively, the output of the control unit can be used to activate the coil of a contactor.

Mixer kit on primary circuit



Legend

1	QUICK module for DHW production
2	HEIZERSILE storage heaters
3	Safety devices on heating side: expansion vessel and safety valve
4	Primary circuit mixing valve
5	DHW recirculation pump integrated in QUICK module
6	Bacteriostatic cold water filter
7	Safety devices on the DHW side: expansion vessel and safety valve

Note: An expansion tank must be installed on the cold water line

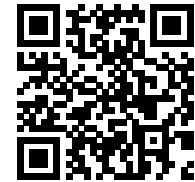
The mixer kit makes it possible to adjust the inlet temperature to the instantaneous heater. In this way, especially in systems that can reach high temperatures in the primary circuit, the control precision of the heater is improved, thus ensuring greater comfort. In the case of cascade configuration, the recirculation and diverter valve can be connected to any controller. The mixer in the cascade must be the one in operation: for this and to achieve correct valve sizing, a mixer should be installed on each appliance.

Kit equipment.

The kit is supplied separately, not assembled and includes:

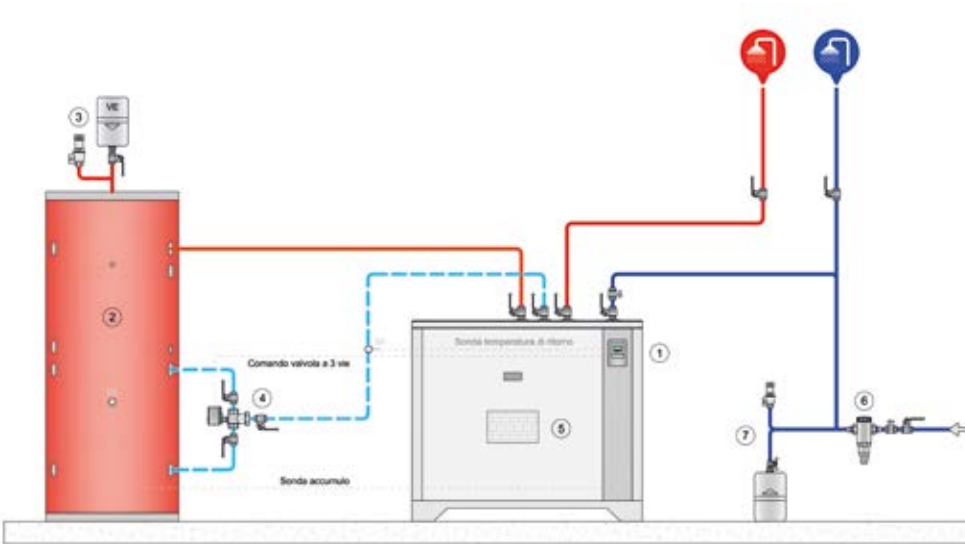
- ✓ Temperature probe S3 to be positioned at the heat exchanger inlet on the primary circuit
- ✓ Instructions
- ✓ Mixing valve

Storage stratification valve kit



ACCESSORIES
PRICES

The accumulation stratification kit allows the return from the instantaneous water heater to be directed to the lower part or mid-accumulation by comparing the various temperatures, favouring the phenomenon of stratification within the thermal storage tank and maximising the efficiency of the entire heating system.



Legend

1	QUICK module for DHW production
2	HEIZERSILE storage heaters
3	Safety devices on heating side: expansion vessel and safety valve
4	Three-way valve for storage stratification
5	DHW recirculation pump integrated in QUICK module
6	Bacteriostatic cold water filter
7	Safety devices on the DHW side: expansion vessel and safety valve

Note: An expansion tank must be installed on the cold water line

Kit equipment.

The kit, supplied separately and not assembled, comprises:

- ✓ Temperature probe S5 to be positioned in the middle of the storage tank
- ✓ Temperature sensor S6 on the return of the primary circuit
- ✓ Instructions
- ✓ Stratification valve

QUICK PLUS accessory codes and prices

External accessories kit		Digital outputs*	price
342030092X	QUICK QUICK OUTSIDE KIT DN32 - models 60 - 70 - 80 - 100 - 120 - 160	-1	705,00 €
342030140X	QUICK QUICK OUTSIDE KIT DN50 - model 200	-1	733,00 €
342040009X	QUICK PLUS EXTERNAL RECIRCULATION KIT (NO PUMP)	-1	65,00 €
342030096X	QUICK DN 40 STORAGE TANK STRATIFICATION KIT (WITH EXTERNAL DIVERTER)	-1	943,00 €
342030098X	EXTERNAL MIXER KIT QUICK DN40	-2	1.397,00 €
C24090225	EXTERNAL RELAY 1W 6A OUTPUT 0-10V IP55	+1	89,00 €
C22120078	MULTIGATEWAY	0	498,00 €

*The L-model control unit manages up to 3 digital outputs: check the availability of free outputs and the requirements of the various accessories.

DHW Semi-Instantaneous Systems WATEREADY



PRICES

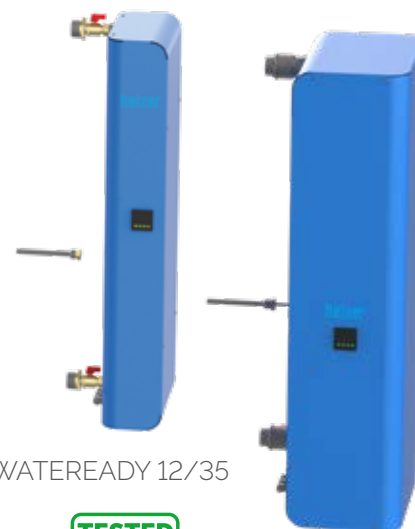


ACCESSORIES
PRICES

WATEREADY consists of a compact, high-efficiency heat exchanger unit for the rapid production of domestic hot water that can be combined with any HEIZERSILE thermal storage tank of the ATV and ATX series or with any storage tank of the BSX and BXX or BSFV, MAXI, VERTINOX series. The possibility of combining WATEREADY with different types of tanks and volumes allows a wide range of solutions for rapid domestic hot water production. The rapid heater is ideal for small and large communities (homes, restaurants, hotels, sports centres,...).

The WATEREADY system consists of:

- ✓ Plate heat exchanger
- ✓ Electronic controller
- ✓ Robust container made of painted and insulated sheet metal
- ✓ High-efficiency DHW circulator
- ✓ Fittings and valves



WATEREADY 12/35



WATEREADY 50/200

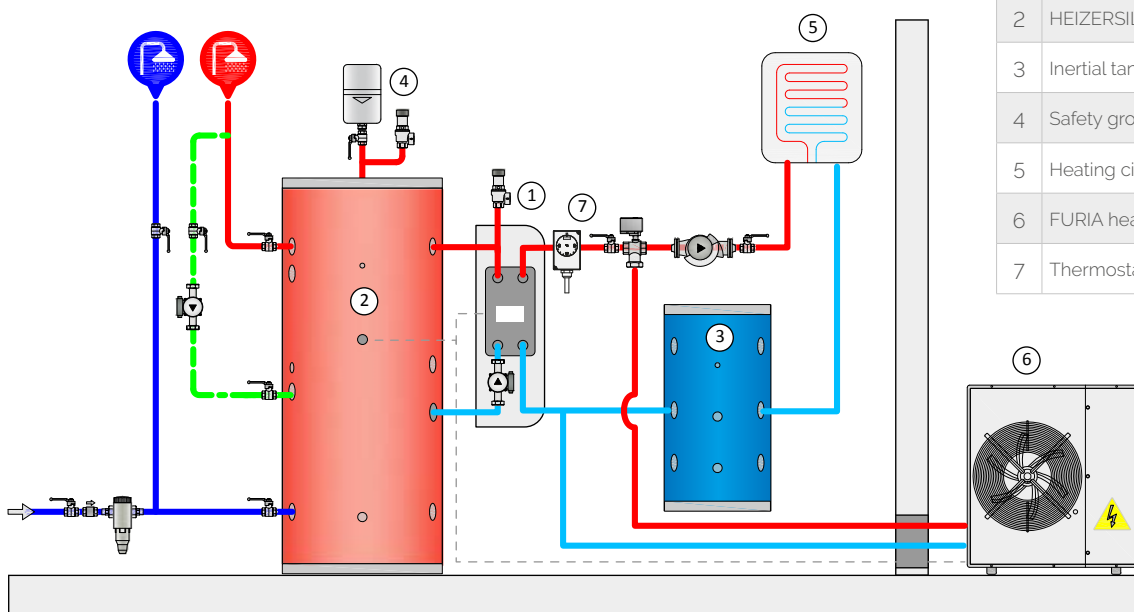
model	max. primary pressure	max. secondary pressure
WATEREADY 12/35 - 25/100	6 bar	10 bar
WATEREADY 30/120 - 80/350	10 bar	10 bar

Codes

Model	Code	Price	With packaging	
			Dimensions cm	Weight kg
WATEREADY 12/35	341060070X	1.444,00 €	100x40x35	18
WATEREADY 18/70	341060071X	1.522,00 €	100x40x35	19
WATEREADY 25/100	341060072X	1.605,00 €	100x40x35	21
WATEREADY 30/120	341060073X	2.715,00 €	110x50x45	47
WATEREADY 40/150	341060074X	2.786,00 €	110x50x45	48
WATEREADY 50/200	341060075X	2.913,00 €	110x50x45	51
WATEREADY 60/250	341060076X	3.037,00 €	110x50x45	53
WATEREADY 70/300	341060077X	3.228,00 €	110x50x45	56
WATEREADY 80/350	341060078X	3.409,00 €	110x50x45	57

Accessories

Description	Code	Price
THERMOSTAT ACCESSORY DIVERSION	322010004	57,00 €



Legend

1	WATEREADY rapid trainer
2	HEIZERSILE ATV / ATX
3	Inertial tank ACR CH
4	Safety group
5	Heating circuit
6	FURIA heat pump
7	Thermostat

DHW Semi-Instantaneous Systems

WATEREADY

Model	Water temperature from Heat Pump 55-50°C			Water temperature from boiler 80-60°C			Connections inches	Pump power max W	Voltage V/Ph/Hz	Current max A
	Power kW	Primary flow rate L/h	dP primary kPa	Power kW	Primary flow rate L/h	dP primary kPa				
WATEREADY 12/35	12	2064	38	35	1505	20	1 1/4	120	230/1/50	0,52
WATEREADY 18/70	18	3096	39	70	3010	37	1 1/4	120	230/1/50	0,52
WATEREADY 25/100	25	4300	36	100	4300	36	1 1/4	120	230/1/50	0,52
WATEREADY 30/120	30	5160	32	120	5160	32	1 1/4	140	230/1/50	1,1
WATEREADY 40/150	40	6880	40	150	6450	35	1 1/4	140	230/1/50	1,1
WATEREADY 50/200	50	8600	38	200	8600	38	1 1/4	140	230/1/50	1,1
WATEREADY 60/250	60	10320	38	250	10750	40	1 1/4	140	230/1/50	1,1
WATEREADY 70/300	70	12040	39	300	12900	43	1 1/4	140	230/1/50	1,1
WATEREADY 80/350	80	13760	44	350	15050	52	1 1/4	140	230/1/50	1,1

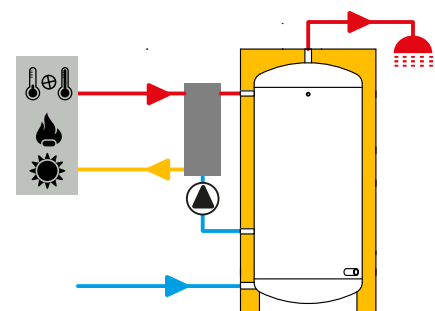
The second set point is adjustable via the digital input and can be used to carry out the anti-legionella cycle.

DESCRIPTION

The WATEREADY models for small and medium users (WATEREADY 12/35, 18/70 and 25/100) use a braze-welded plate exchanger, consisting of corrugated AISI 316 stainless steel plates, joined by a pure copper brazing.



The larger size models (WATEREADY from 30/120 up to 80/350) use inspectable plate heat exchangers, consisting of corrugated AISI 316 stainless steel plates enclosed in an epoxy painted carbon steel frame.



Compared to traditional solutions, the WATEREADY system has important advantages:

- ✓ Significant reduction in domestic water set-up time;
- ✓ Optimisation of the match between generator output (heat pump or boiler) and heat exchanger performance;
- ✓ Optimum power can be selected from a wide range of standard solutions;
- ✓ Possibility of using a smaller storage volume.
- ✓ Possibility of starting WATEREADY at the request of the primary (remote ON/OFF)
- ✓ All parameters and values are accessible for reading and writing - where possible - via Modbus.

HOW TO COMPOSE THE WATEREADY SYSTEM

To compose the desired system, it is necessary to identify:

1. the WATEREADY code of the power required (see next page)
2. the code of the tank or cylinder to be combined (see sections ATV and ATX, BSX and BXX and BSFV, MAXI, VERTINOX)

WATEREADY performance and tank compatibility

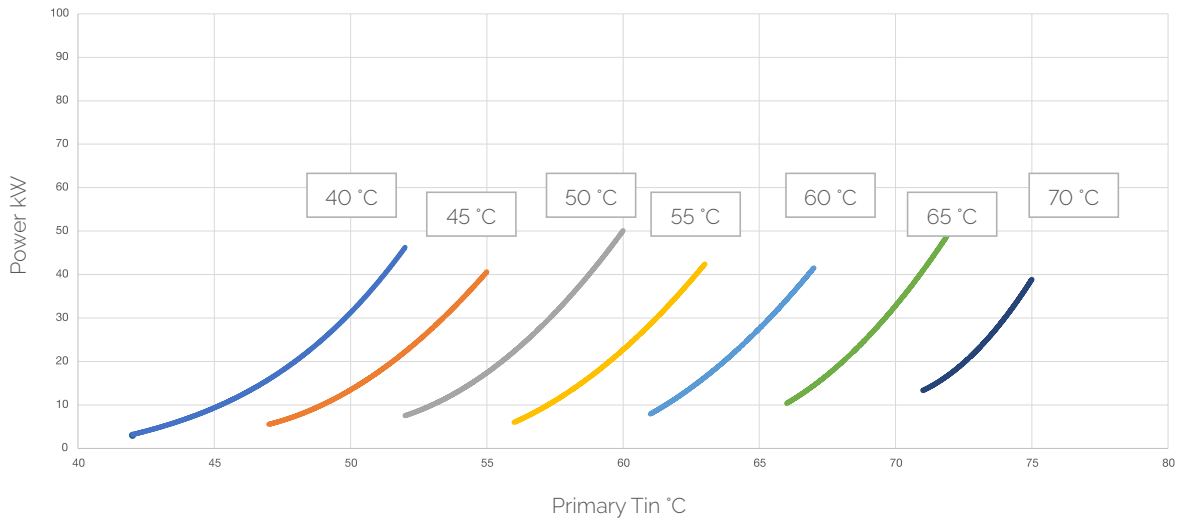


WATEREADY can be combined with storage tanks of different capacities: this table is a guideline, but the combination is free according to requirements.

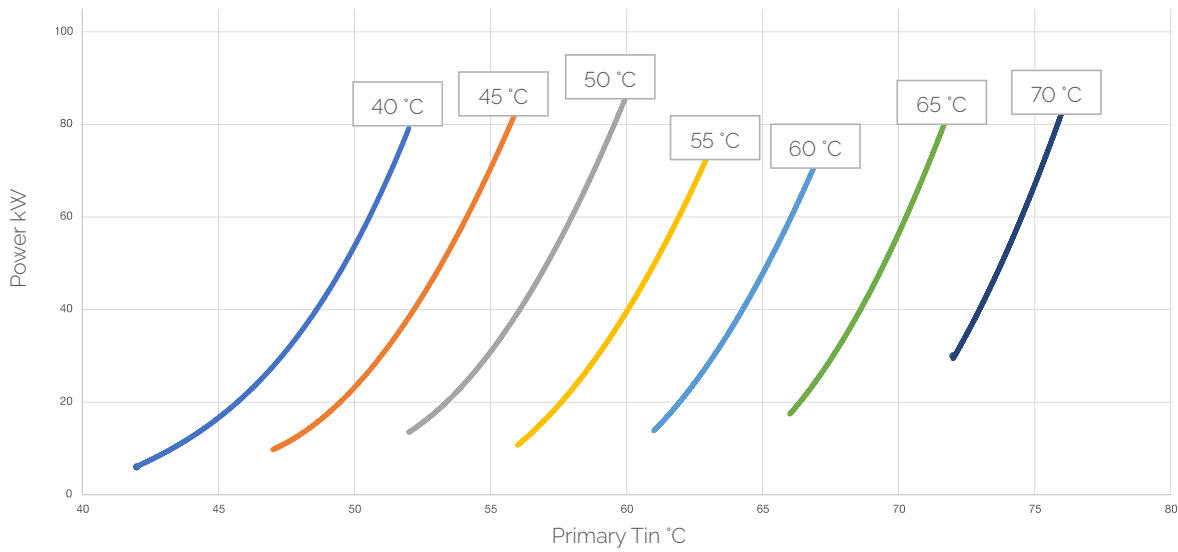
Model	POWER with primary 55-50°C	Storage Capacity	TA 50°C; Tout DHW 45°C; Tin DHW 10°C			POWER with primary 80-60°C	Storage Capacity	TA 50°C; Tout DHW 45°C; Tin DHW 10°C		
	kW	l	L/10 min.	L/60 min.	DHW reset time	kW	l	L/10 min.	L/60 min.	DHW reset time
WATEREADY 12/35	12	200	278	523	46	35	200	429	1150	20
		300	392	640	70		300	572	1290	30
		500	621	870	116		500	858	1575	50
WATEREADY 18/70	18	500	645	1015	77	70	500	1001	2433	25
		750	931	1300	116		750	1358	2790	37
		1000	1217	1585	155		1000	1715	3150	50
WATEREADY 25/100	25	750	960	1470	84	100	750	1481	3530	26
		1000	1245	1760	112		1000	1838	3900	35
		1500	1817	2330	167		1500	2552	4600	52
WATEREADY 30/120	30	1000	1266	1880	93	120	1000	1920	4377	29
		1500	1837	2451	139		1500	2634	5091	44
		2000	2409	3023	186		2000	3349	5805	58
WATEREADY 40/150	40	1500	1878	2697	105	150	1500	2757	5829	35
		2000	2450	3269	139		2000	3471	6543	46
		2500	3021	3840	174		2500	4186	7257	58
WATEREADY 50/200	50	2000	2490	3514	112	200	2000	3676	7771	35
		2500	3062	4086	139		2500	4390	8486	44
		3000	3633	4657	167		3000	5105	9200	52
WATEREADY 60/250	60	2000	2531	3760	93	250	2000	3881	9000	28
		3000	3674	4903	139		3000	5310	10429	42
		4000	4817	6046	186		4000	6738	11857	56
WATEREADY 70/300	70	3000	3715	5149	120	300	3000	5514	11657	35
		4000	4858	6291	159		4000	6943	13086	46
		5000	6001	7434	199		5000	8371	14514	58
WATEREADY 80/350	80	3000	3756	5394	105	350	3000	5719	12886	30
		4000	4899	6537	139		4000	7148	14314	40
		5000	6042	7680	174		5000	8576	15743	50

WATEREADY performance

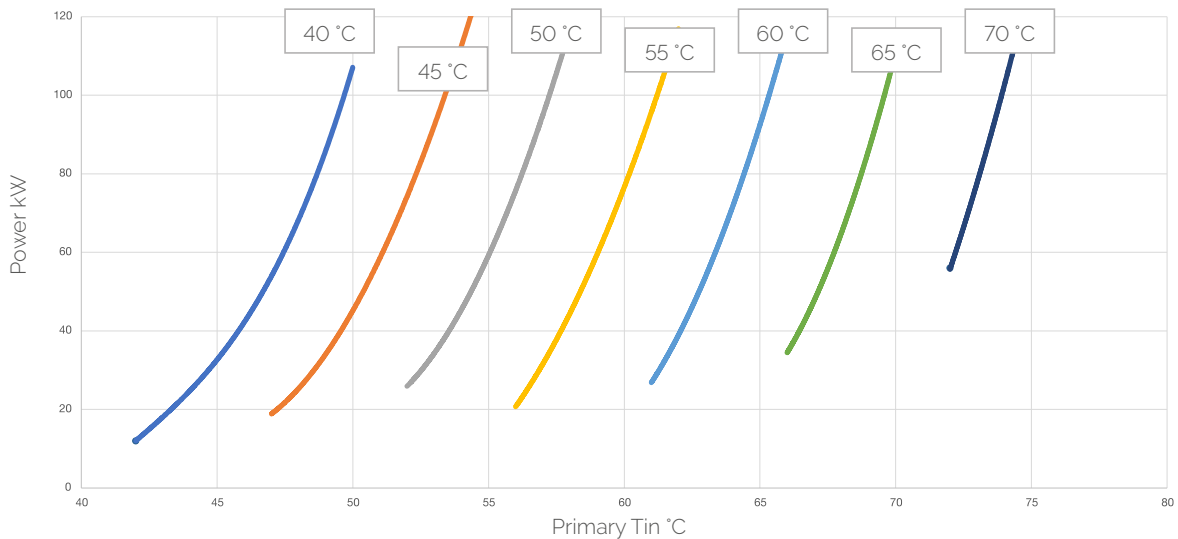
WATEREADY 12/35 $\Delta T=20^{\circ}\text{C}$



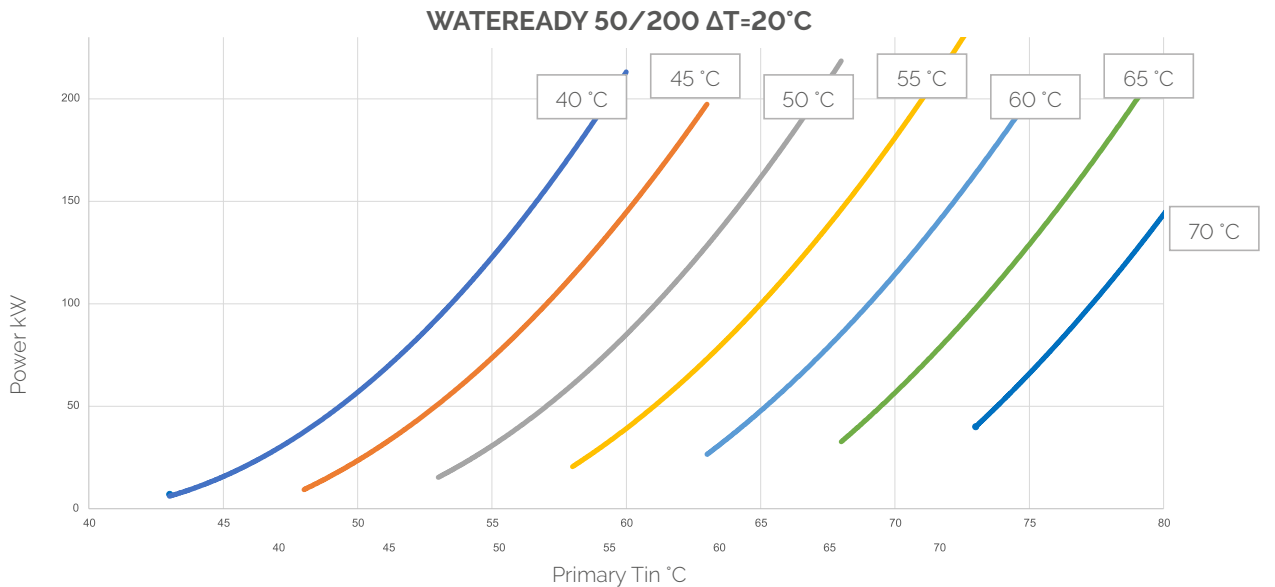
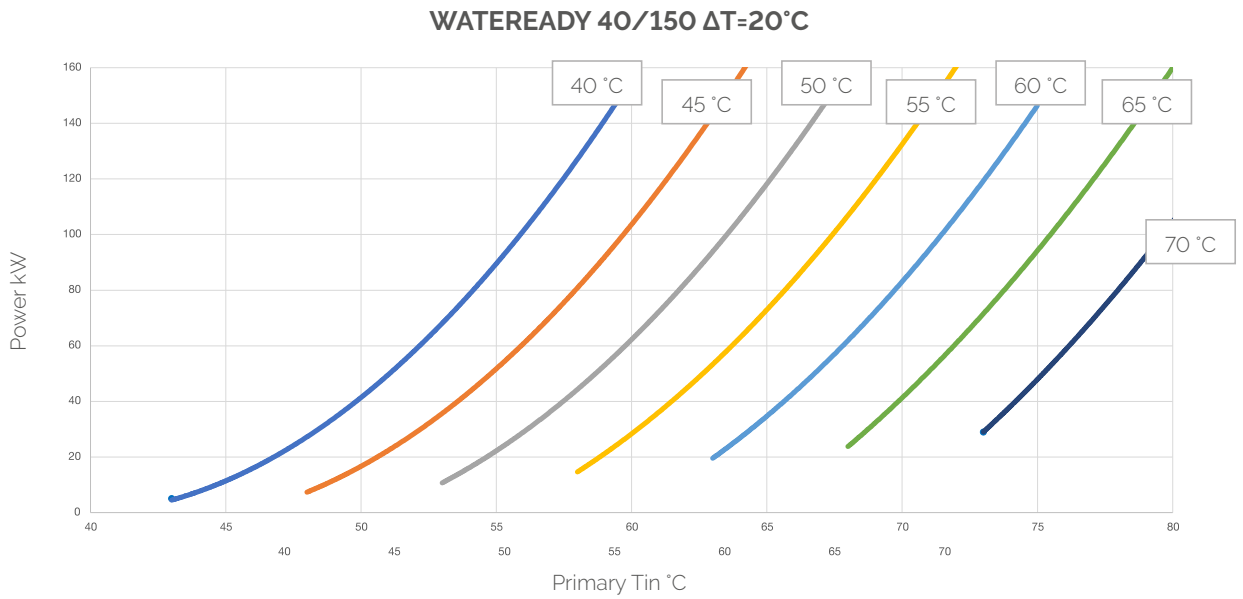
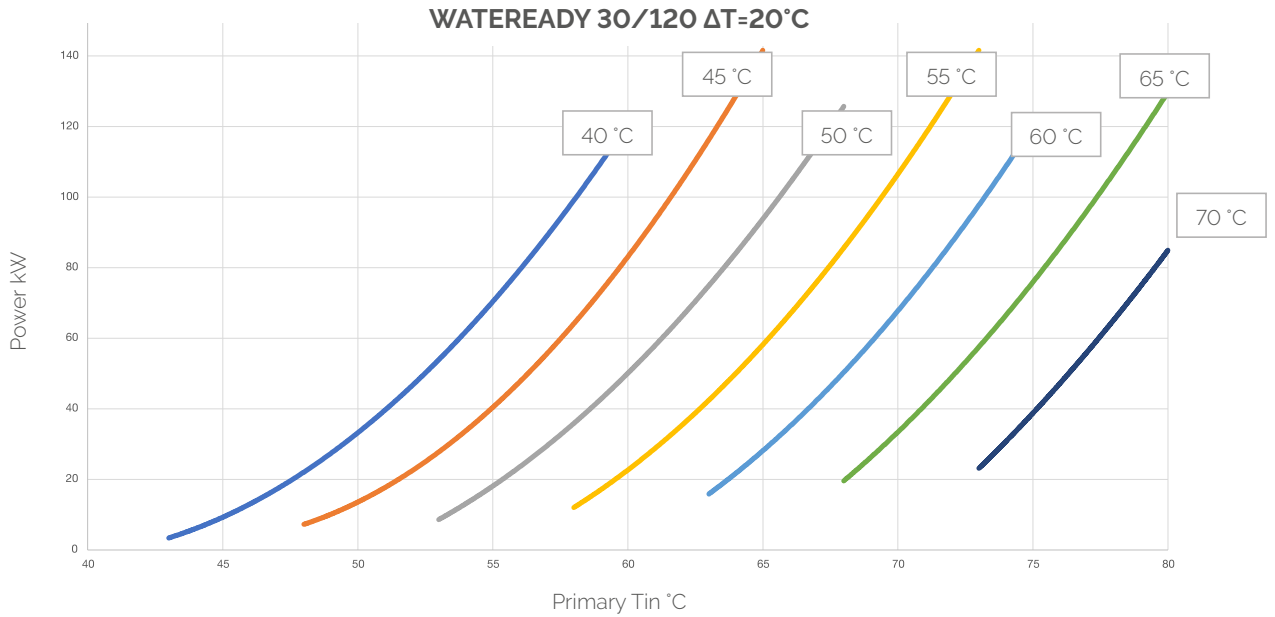
WATEREADY 18/70 $\Delta T=20^{\circ}\text{C}$



WATEREADY 25/100 $\Delta T=20^{\circ}\text{C}$

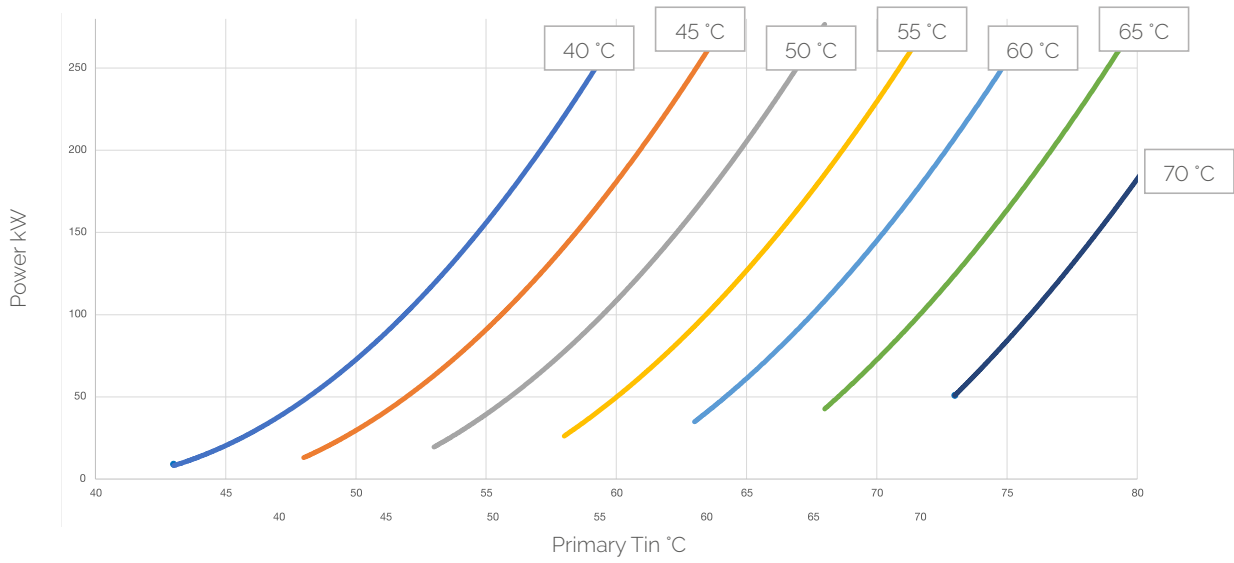


WATEREADY performance

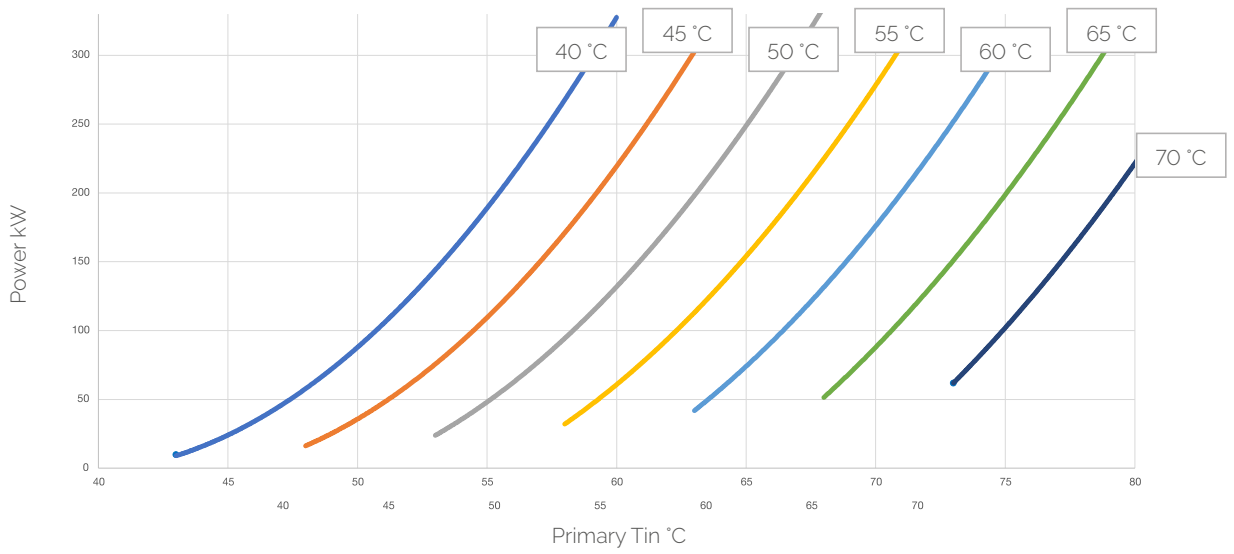


WATEREADY performance

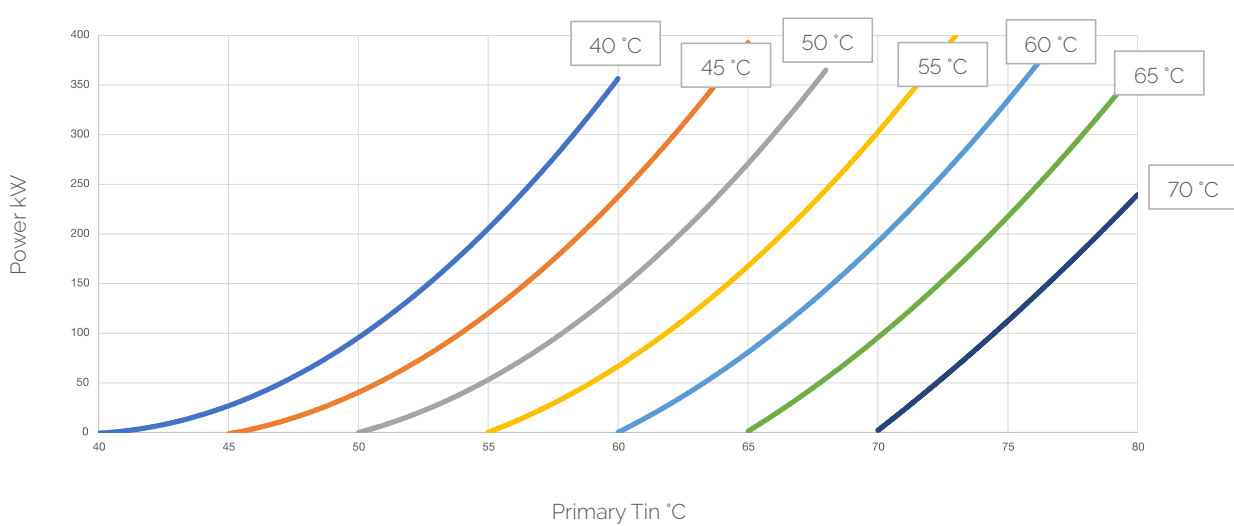
WATEREADY 60/250 $\Delta T=20^{\circ}\text{C}$



WATEREADY 70/300 $\Delta T=20^{\circ}\text{C}$



WATEREADY 80/350 $\Delta T=20^{\circ}\text{C}$



WATEREADY operation

Start-up

The product is Plug & Play! To start using WATEREADY all you need to do is:

1. Mount the fittings, sump and valves of WATEREADY on the tank
2. Connect WATEREADY to valves via quick-release couplings (adjust centre distance if necessary)
3. For WATEREADY models 30/120 to 80/350, the pump cable must be connected and the cover fitted
4. Make electrical connections:
 - 4.a Insert temperature probe into thermowell
 - 4.b Connect power supply
 - 4.c Connect primary start consent



Start-up : first start-up recommended.

Operation

WATEREADY is a rapid heater consisting of fittings and a plate heat exchanger and equipped with a control unit from which the desired set point can be adjusted.

The Set Point indicates the storage tank temperature below which a water temperature reset is requested.

The set point temperature of WATEREADY is preset to 55°C by default, with $\Delta t=5^\circ\text{C}$ (hysteresis). It is possible to vary this set point temperature by setting the desired temperature from the controller.

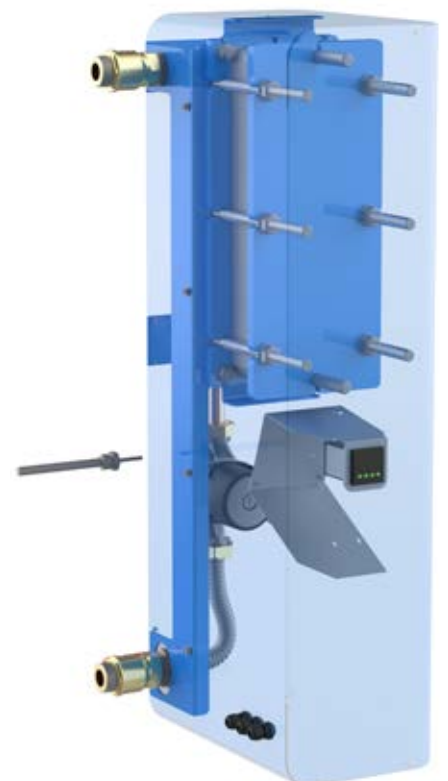
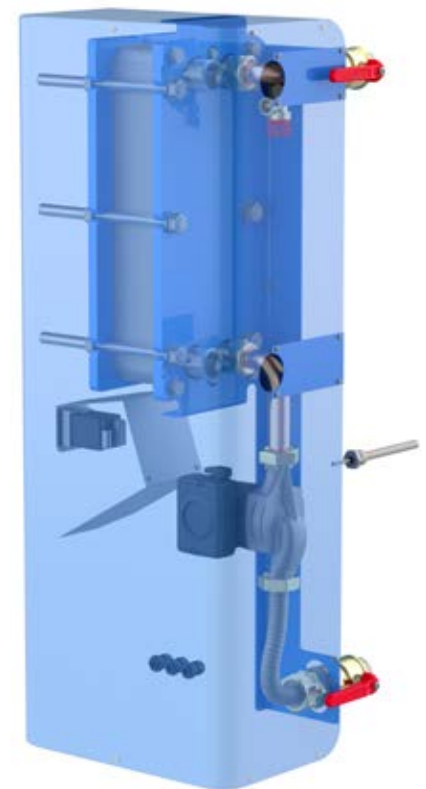
Optional: a primary temperature thermostat can be connected, so that the WATEREADY circulator is only activated when the primary temperature is appropriate for the storage tank load.

Why choose WATEREADY over a fixed coil boiler?

Compared to traditional domestic hot water production systems, such as fixed coil boilers,

WATEREADY allows you to:

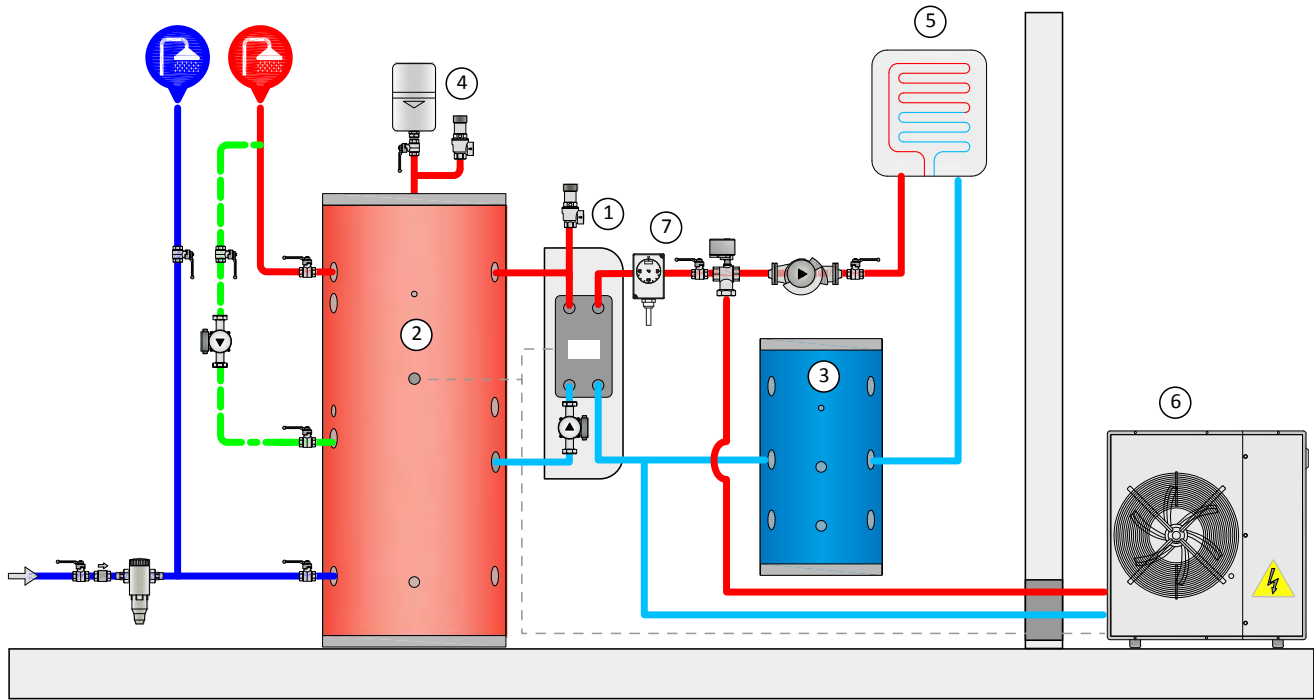
- ✓ Saving: it is not necessary to equip the system with tanks with large coils, which coincides with a reduction in the final price
- ✓ It can also be used in large systems: depending on the model selected, it is possible to meet the domestic hot water demand of a residential system as well as that of a heating plant (such as for an apartment block or a sports facility);
- ✓ Eliminate the stringent volume/surface constraint: the tank volume is linked to the power of the rapid trainer, but the exchange takes place externally;
- ✓ Faster and less invasive maintenance or replacement: with WATEREADY, simply replace the heater unit to meet higher power demands, or carry out repairs.
- ✓ Easy installation due to Plug & Play system and lighter tank weight (no coil)
- ✓ Reduce environmental impact: the exchange system is more efficient, can be activated when the set point temperature is reached, and can be integrated with modern heating and cooling systems combined with the heat pump.
- ✓ Minimise water temperature make-up time in the storage tank



Patterns and combinations of WATEREADY plant

Legend

1	WATEREADY rapid trainer
2	HEIZERSILE ATV-ATX tank
3	ACR-CH inertial tank
4	Safety group
5	Heating circuit
6	FURIA heat pump



Plant pairings

Scenario	number of toilets/showers	number of persons	Power Heat Pump kW	Model selected quick trainer	Storage capacity ATV-ATX l	Capacity ACR CH l
Residential						
Flat	1	3	4	WATEREADY 12/35	100	100
Condominium of 3 Apartments/house	3	12	8	WATEREADY 12/35	300	100
4-apartment flat block / semi-detached house	12	16	12	WATEREADY 12/35	300	200
Condominium of 7 flats	7	28	18	WATEREADY 18/70	1000	200
Condominium of 15 flats	15	60	25	WATEREADY 25/100	1000	300
Condominium of 19 flats	19	76	30	WATEREADY 30/120	1500	300
Condominium of 25 flats	25	104	40	WATEREADY 40/150	2000	400
Condominium of 33 flats	33	132	50	WATEREADY 50/200	2500	500
Condominium of 40 flats	40	160	60	WATEREADY 60/250	3000	750
Condominium of 45 flats	45	180	70	WATEREADY 70/300	3000	750
Condominium with 55 flats	55	220	80	WATEREADY 80/350	4000	750
Sports Centre						
Sports centre with 6 showers	6	12	12	WATEREADY 12/35	1000	100
Sports centre with 9 showers	9	18	18	WATEREADY 18/70	1500	100
Sports centre with 15 showers	15	30	30	WATEREADY 30/120	2500	300
Sports centre with 19 showers	19	38	40	WATEREADY 40/150	3000	300
Hotels						
19-room hotel	19	60	50	WATEREADY 50/200	3000	500
25-room hotel	25	75	60	WATEREADY 60/250	4000	750
35-room hotel	35	105	70	WATEREADY 70/300	5000	750
38-room hotel	38	111	80	WATEREADY 80/350	5000	750

WATEREADY pairings with tanks



The WATEREADY rapid heater can be combined with any tank. This page shows the HEIZERSILE models of DHW storage tanks and the connections dedicated to WATEREADY, i.e. the pair of connections with the correct spacing.

ATV and BSX		
Capacity (l)	Connections	
200	K1	K3
300	K1	K3
500	K1	K2
750	K1	K2
1000	K1	K2
1500	K1	K3
2000	K1	K3
2500	K1	K3
3000	K1	K3
4000	K1	K3
5000	K1	K3
6000	n.a.	n.a.
8000	n.a.	n.a.
10000	n.a.	n.a.

ATV 2F and BSX 2		
Capacity (l)	Connections	
200	n.a.	n.a.
300	n.a.	n.a.
500	K1	K3
750	K1	K3
1000	K1	K3
1500	K1	K3
2000	K1	K3
2500	K1	K3
3000	K1	K3
4000	K1	K3
5000	K1	K3

ATX and BXX 1		
Capacity (l)	Connections	
200	n.a.	n.a.
300	n.a.	n.a.
500	K1	K3
800	K1	K3
1000	K1	K3
1500	K1	K3
2000	K1	K3
2500	K1	K3
3000	K1	K3
4000	K1	K3
5000	K1	K3

ATX 2F and BXX 2		
Capacity (l)	Connections	
200	n.a.	n.a.
300	n.a.	n.a.
500	K1	K3
750	K1	K3
1000	K1	K3
1500	K1	K3
2000	K1	K3
2500	K1	K3
3000	n.a.	n.a.
4000	K1	K3
5000	K1	K3

ATV CONTAINER		
Capacity (l)	Connections	
1500	K1	K3
2050	K1	K3
2500	K1	K3
3000	K1	K3
4000	K1	K3
5000	K1	K3

BSFV 1		
Capacity (l)	Connections	
200	K1	K2
300	K1	K2
500	K1	K2
750	K1	K2
1000	K1	K2
1500	K1	K2
2000	K1	K2
3000	K1	K2

BSFV 2		
Capacity (l)	Connections	
200	K1	K2
300	K1	K2
500	K1	K2
750	K1	K2
1000	K1	K2
1500	K1	K2
2000	K1	K2
3000	K1	K2

VERTINOX 1-2		
Capacity (l)	Connections	
200	K1	K2
300	K1	K2
500	K1	K2
750	K1	K2
1000	K1	K2
1500	K1	K2
2000	K1	K2
2500	K1	K2
3000	K1	K2

MAXI 1		
Capacity (l)	Connections	
300	K2	K3
500	K2	K3
750	K2	K3
1000	K2	K3

MAXI 2		
Capacity (l)	Connections	
300	K2	K3
500	K2	K3
750	K2	K3
1000	K2	K3

DHW Semi-Instantaneous Systems EPS

EPS domestic hot water heaters are pre-assembled units which, when combined with a storage tank of the desired volume, allow large quantities of domestic hot water to be quickly produced and stored at a predefined temperature, ensuring optimisation of the footprint.



The EPS heaters consist of:

- ✓ Inspectable plate heat exchanger made of AISI 316 stainless steel;
- ✓ High-efficiency electronic pump on primary circuit
- ✓ High-efficiency electronic pump for DHW storage charging
- ✓ Fully wired height-adjustable electrical control panel connected to pumps, servomotors and probes equipped with an electronic controller with graphic display; anti-legionella function;
- ✓ Self-supporting structure.
- ✓ Insulation on pipes and fittings (standard), heat exchanger insulation (optional)
- ✓ Motorised three-way mixing valve (optional)

EPS units are also available in the following versions:

- ✓ 1P+1P: Semi-rapid heater with single circulator on primary and secondary circuit
- ✓ 0+1P: semi-rapid heater with single circulator on secondary circuit

If there is no pump on the primary, the mixer kit cannot be installed.

In summary, the main advantages of the EPS group are as follows:

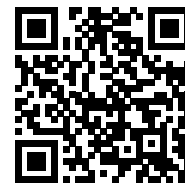
- ✓ Very compact monoblock with small control cabinet dimensions;
- ✓ Easy maintenance due to easy access to used components;
- ✓ Easy installation;
- ✓ Possibility of increasing power by adding plates to the heat exchanger;
- ✓ Swivelling control panel for easy operation.

 Start-up : first start-up recommended. Quotation on request



Primary circuit		Secondary circuit	
temperature max.	pressure max.	temperature max.	pressure max.
95°C	10 bar	90°C	10 bar

DHW Semi-Instantaneous Systems EPS



PRICES



ACCESSORIES
PRICES

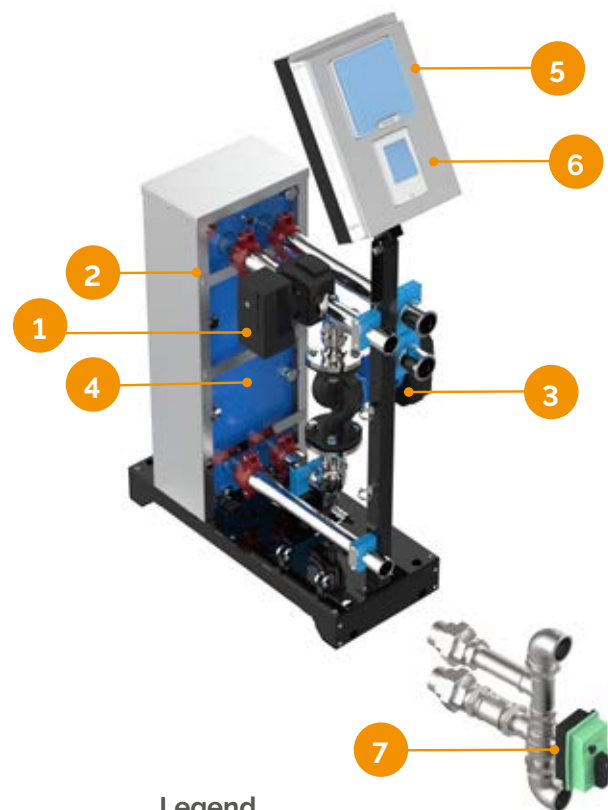
Codes and Prices

Vers.	Size	Code	Price	With packaging	
				Dimensions cm	Weight kg
1P+1P	55	342010050X	4.905,00 €	100x65x110	68
	100	342010052X	5.070,00 €	100x65x110	71
	150	342010120X	5.195,00 €	100x65x110	73
	240	342010054X	5.287,00 €	100x65x110	78
	330	342010122X	9.247,00 €	100x65x110	83
	500	342010059X	12.222,00 €	100x65x150	231
	600	342010061X	12.463,00 €	100x65x150	236
	700	342010063X	12.986,00 €	100x65x150	252
OP+1P	55	342010140X	3.961,00 €	100x65x110	65
	100	342010142X	4.122,00 €	100x65x110	68
	150	342010143X	4.141,00 €	100x65x110	70
	240	342010146X	4.382,00 €	100x65x110	75
	330	342010148X	6.795,00 €	100x65x110	80
	500	342010152X	9.569,00 €	100x65x150	217
	600	342010154X	9.818,00 €	100x65x150	222
	700	342010157X	10.332,00 €	100x65x150	238

Accessories

Description	Code	Price
3-way mixing valve EPS 55 - EPS 330	342040001X	833,00 €
3-way mixing valve EPS 500 - EPS 700	342040002X	1.684,00 €
Insulation EPS 55 - EPS 330	321080137X	265,00 €
Insulation EPS 500 - EPS 700	321080138X	346,00 €

NOTE: 3-way mixing valve cannot be used in case of OP+1P configuration



Features of the control unit

The HEIZERSILE EPS units are equipped with an electronic control panel to control and command the device, allowing them to

- ✓ Adjust the temperature set-point for different time slots;
- ✓ Adjust the speed of the DHW-side circulator to optimise the stratification of the DHW tank;
- ✓ Control the primary and secondary circuit pumps, stopping them if the set-point is reached;
- ✓ Schedule anti-legionella treatments by means of heat shock;
- ✓ Signal on screen when anti-legionella treatment is active;
- ✓ To have an error signal in the event of a unit malfunction;
- ✓ Control a DHW recirculation pump (pump not supplied).
- ✓ Compatibility with MULTIGATEWAY, the module for remote management see page 277

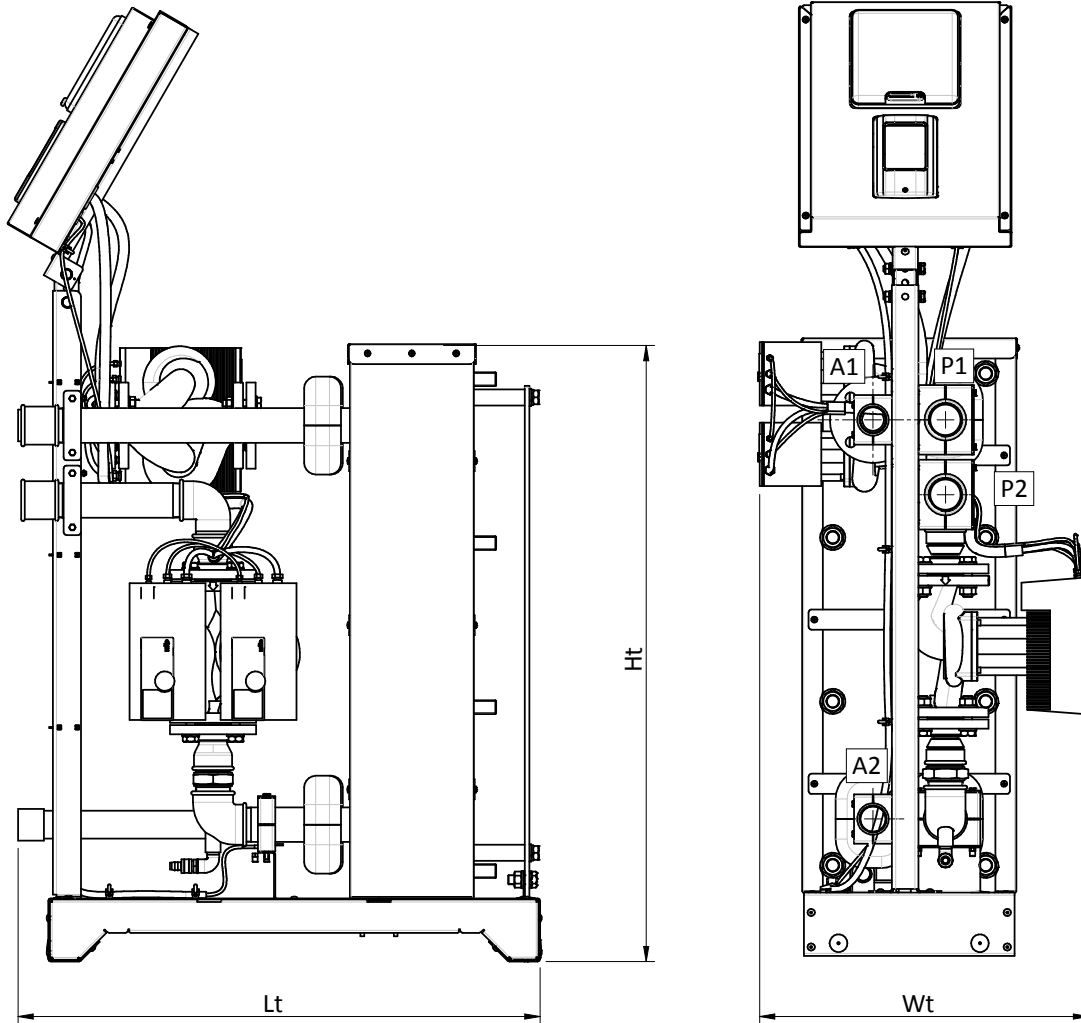


Legend

1	Plate heat exchanger
2	Heat exchanger insulation (optional)
3	Primary circuit pump
4	Secondary circuit pump (semi-instant version)
5	Electrical control and command panel
6	Regulator
7	Motorised three-way mixing valve (optional)

EPS

Components and Dimensions



Legend

A1	Domestic water inlet
A2	Domestic water outlet
P1	Output to energy source
P2	Input from energy source

Technical specifications

Version	Size	Ht mm	Lt mm	Wt mm	A1 mm	A2 mm	P1 mm	P2 mm	A1 inches	A2 inches	P1 inches	P2 inches
1P•1P	55-330	650	910	365	475	95	610	515	1'	1'	1'1/4	1'1/4
	500-700	1070	910	445	932	238	932	802	1'1/2	1'1/2	2'	2'
OP•1P	55-330	650	910	365	475	95	475	95	1'	1'	1'1/4	1'1/4
	500-700	1070	910	500	932	238	932	802	1'1/2	1'1/2	2'	2'

EPS performance

Rated output in kW under different temperature conditions

Rated output in kW at different temperature conditions								
Primary input temperature	EPS 55				EPS 100			
	10-65 °C	10-60 °C	10-55 °C	10-45 °C	10-65 °C	10-60 °C	10-55 °C	10-45 °C
80	50	58	68	86	100	117	133	165
70	20	35	45	65	50	70	90	124
60	-	-	20	40	-	-	40	82
50	-	-	-	19	-	-	-	40

Rated output in kW at different temperature conditions								
Primary input temperature	EPS 150				EPS 240			
	10-65 °C	10-60 °C	10-55 °C	10-45 °C	10-65 °C	10-60 °C	10-55 °C	10-45 °C
80	115	135	154	190	185	215	245	245
70	55	80	105	145	95	130	165	200
60	-	-	45	95	-	-	80	150
50	-	-	-	46	-	-	-	74

Rated output in kW at different temperature conditions								
Primary input temperature	EPS 330				EPS 500			
	10-65 °C	10-60 °C	10-55 °C	10-45 °C	10-65 °C	10-60 °C	10-55 °C	10-45 °C
80	250	295	330	380	365	438	500	500
70	130	180	225	300	180	255	333	450
60	-	-	110	190	-	-	158	290
50	-	-	-	103	-	-	-	144

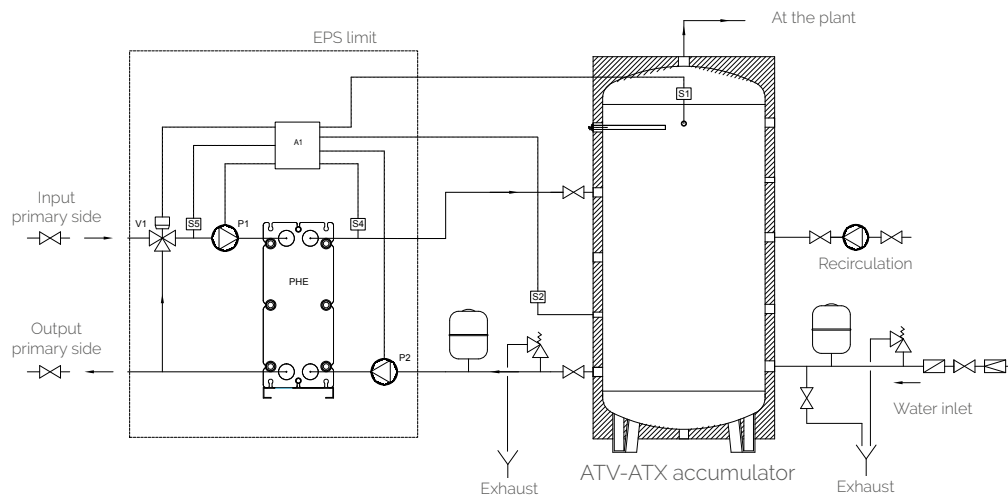
Rated output in kW at different temperature conditions								
Primary input temperature	EPS 600				EPS 700			
	10-65 °C	10-60 °C	10-55 °C	10-45 °C	10-65 °C	10-60 °C	10-55 °C	10-45 °C
80	452	540	613	650	560	665	740	740
70	225	330	412	560	330	410	505	620
60	-	-	185	371	-	-	280	430
50	-	-	-	176	-	-	-	255

Installation diagrams

1P+1P version

Legend

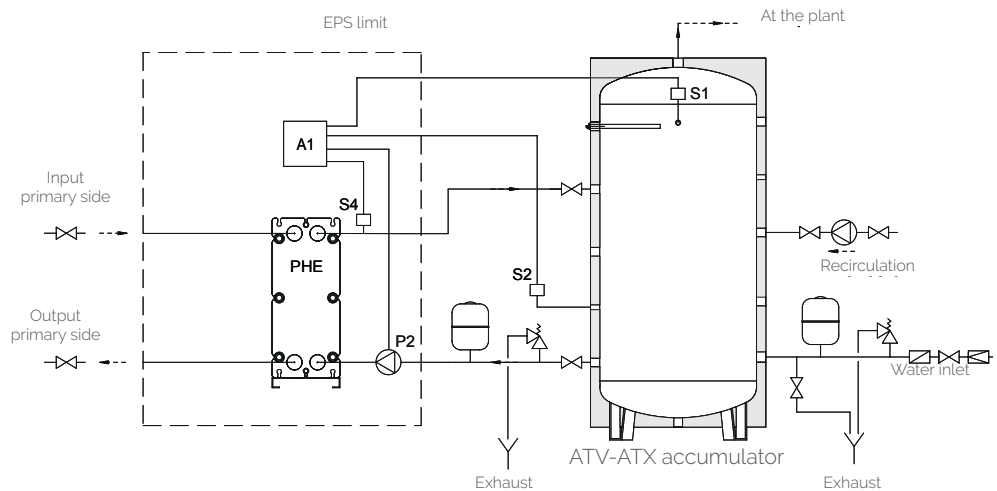
PHE	Plate heat exchanger
P1	Primary side pump
P2	Secondary-side pump
V1	3-way mixing valve (optional)
S1	Temperature sensor (supplied disassembled)
S2	Temperature sensor (optional)
S4	Temperature sensor
S5	Temperature sensor (optional together with V1)



OP+1P version

Legend

PHE	Plate heat exchanger
P2	Secondary-side pump
S1	Temperature sensor (supplied disassembled)
S2	Temperature sensor (optional)
S4	Temperature sensor



Installation and use

Install the product on a flat surface suitable for supporting the weight of the product and its contents (see rating plate with technical specifications). Make the connections of the outward and return pipes of the circuits so that they do not weigh on the product and allow access and disassembly of any accessories. Equip the installation with a safety valve with adequate working pressure in accordance with Directive 97/23/EC and with a suitable orifice diameter. With the presence of storage tanks, equip the installation or the tank with expansion vessels that comply with Directive 97/23/EC, with a maximum service pressure that is not less than that of the storage tank itself and with a capacity that is adequate for the volume and temperatures of the installation in order to protect the latter from over-pressure. The electrical connections must be carried out by authorised personnel and in compliance with the regulations in force.

Maintenance

For the correct use of EPS heat exchanger units, it is recommended:

recommended:

- A periodic check of the water hardness values, which must be between 10 and 15° F
- A periodic check of the operation of the installation's safety valve;
- A periodic check of the charge pressure of the expansion vessels;
- A periodic check for leaks;
- Periodic cleaning of the heat exchanger using commercially available solutions (consult us for more information);
- A periodic anti-legionella heat treatment to disinfect the installation

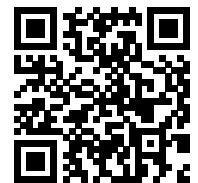
ATTENTION

Disconnect the heat exchanger from the installation before carrying out electrical welding on the installation piping.

CE marking

The product, in accordance with specific EU directives, bears the CE mark.

Standard Accessories for DHW Instantaneous systems



ACCESSORIES
PRICES

T-QUICK accessories

For details see page 228

Code	Description	Price
342040003X	T-QUICK recirculation kit	589,00 €
342040009X	T-QUICK/QUICK external recirculation kit (no pump)	65,00 €
C22120034	DC control unit - for DHW recirculation	278,00 €

QUICK accessories

For details see page 233

Code	Description	Digital outputs	Price
342040006X	QUICK external waterfall kit	-1	530,00 €
342040004X	QUICK internal recirculation kit	-1	643,00 €
342040009X	T-QUICK/QUICK external recirculation kit (no pump)	-1	65,00 €
342040007X	QUICK external mixer kit	-2	455,00 €
342040008X	QUICK external storage stratification kit	-1	263,00 €
C24090225	External relay 1W 6A output 0-10V IP55	+1	89,00 €
C22120078	MULTIGATEWAY	-1	498,00 €

QUICK PLUS accessories

For details see page 243

Code	Description	Digital outputs	Price
342030092X	QUICK PLUS DN32 external waterfall kit models 60 - 70 -80 -100 -120	-1	705,00 €
342030140X	External waterfall kit QUICK DN50 model 200	-1	733,00 €
342040009X	QUICK PLUS external recirculation kit (no pump)	-1	65,00 €
342030096X	QUICK PLUS external diverter kit DN40	-2	943,00 €
342030098X	External mixer kit QUICK PLUS DN40	-1	1.397,00 €
C22120078	MULTIGATEWAY	-1	498,00 €



Solar thermal

Solar Thermal Index

SOLAR COLLECTORS 270



RT 2.0
p. 304

RT 2.5
p. 306

ACCESSORIES FOR SOLAR COLLECTORS 278



Accessories
p. 312

Solar Thermal Kit for DHW Production and Heating

HOT WATER AND HEATING FROM THE SUN

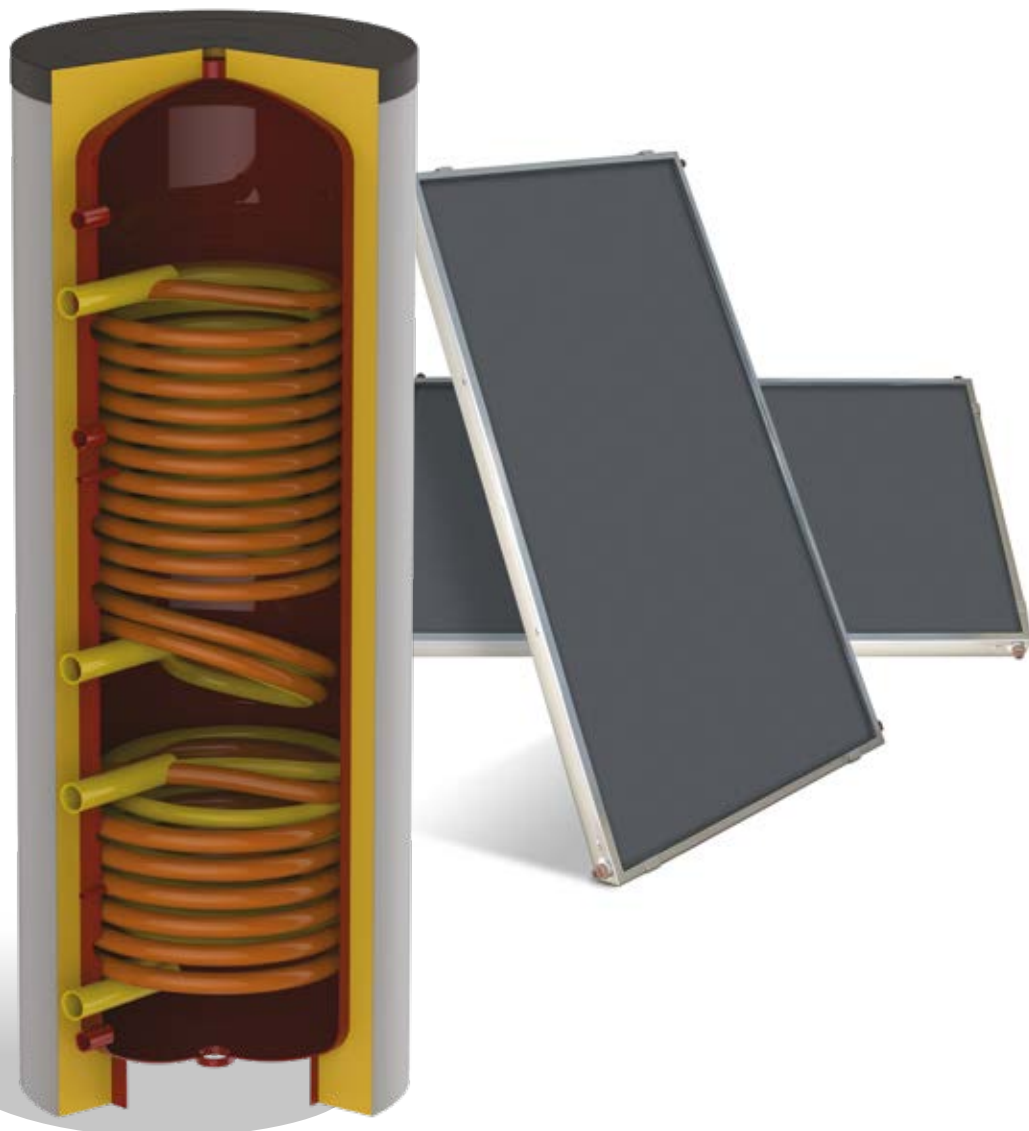
Solar energy is an inexhaustible resource, easily used for both hot water preparation and heating, which preserves the environment and provides significant energy savings.

OUR SOLUTIONS

HEIZERSILE has designed two different lines: the Aqua Sun line for domestic hot water production and the Combi Sun line for domestic hot water production and heating integration. Both solutions are available in numerous versions based on the user's consumption and the type of heating system, and are therefore able to satisfy a wide and diverse range of requirements of both domestic and tertiary users.

WHY CHOOSE SOLAR THERMAL KIT

In order to facilitate the choice of the most functional solution for one's own use and to make the installation of a solar thermal system simpler, quicker and thus more economical, we have designed a series of systems in kit form that produce many advantages and satisfy different types of user demand (single homes, multi-family houses, workshops and commercial activities, accommodation facilities).



Solar Thermal Kit for DHW Production and Heating

ADVANTAGES

♻️ **Cost savings.** The technology used guarantees high system efficiency. The Aqua Sun and Combi Sun solutions make your workplaces and homes much more energy efficient, saving you money every day. The kit system has a low initial cost that can be amortised in a short time.

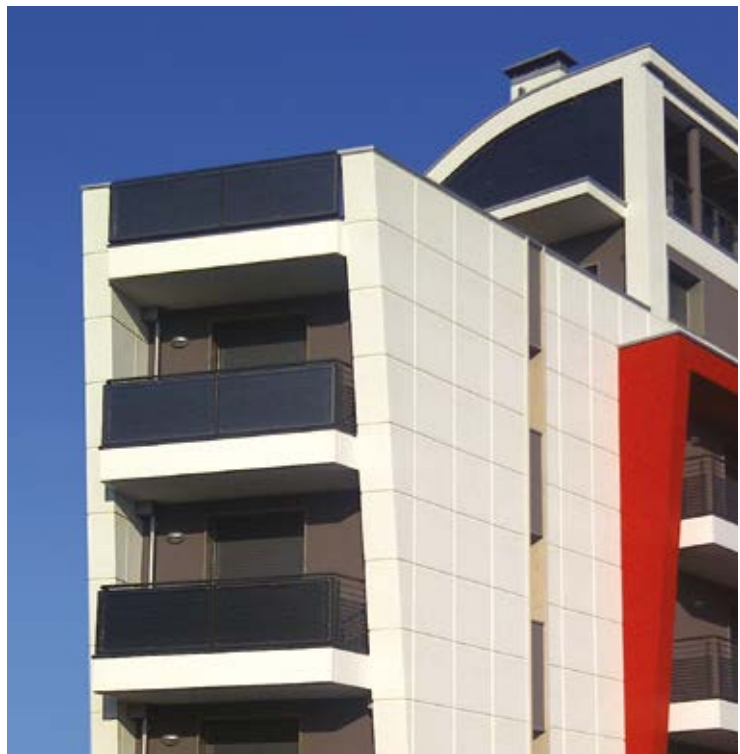
♻️ **Property qualification.** The installation of systems based on the use of renewable energies can improve the energy classification of homes and professional premises, enhancing the value of the property and turning the investment into a real estate surplus value.

♻️ **Respect for the environment.** Solar energy is clean and sustainable, thus increasing our personal contribution to the reduction of pollutant emissions.

♻️ **Energy autonomy.** Solar energy is a source that is always available and not subject to restrictions and constraints, making us more independent when it comes to energy supply. The resulting thermal energy production has a low cost and above all is not subject to increase over time.

♻️ **Quick and easy installation.** The availability of systems in kit form makes assembly easier by reducing installation time.

♻️ **Low maintenance.** The components (panels, regulators, pump assemblies) and accessories used require minimal maintenance.

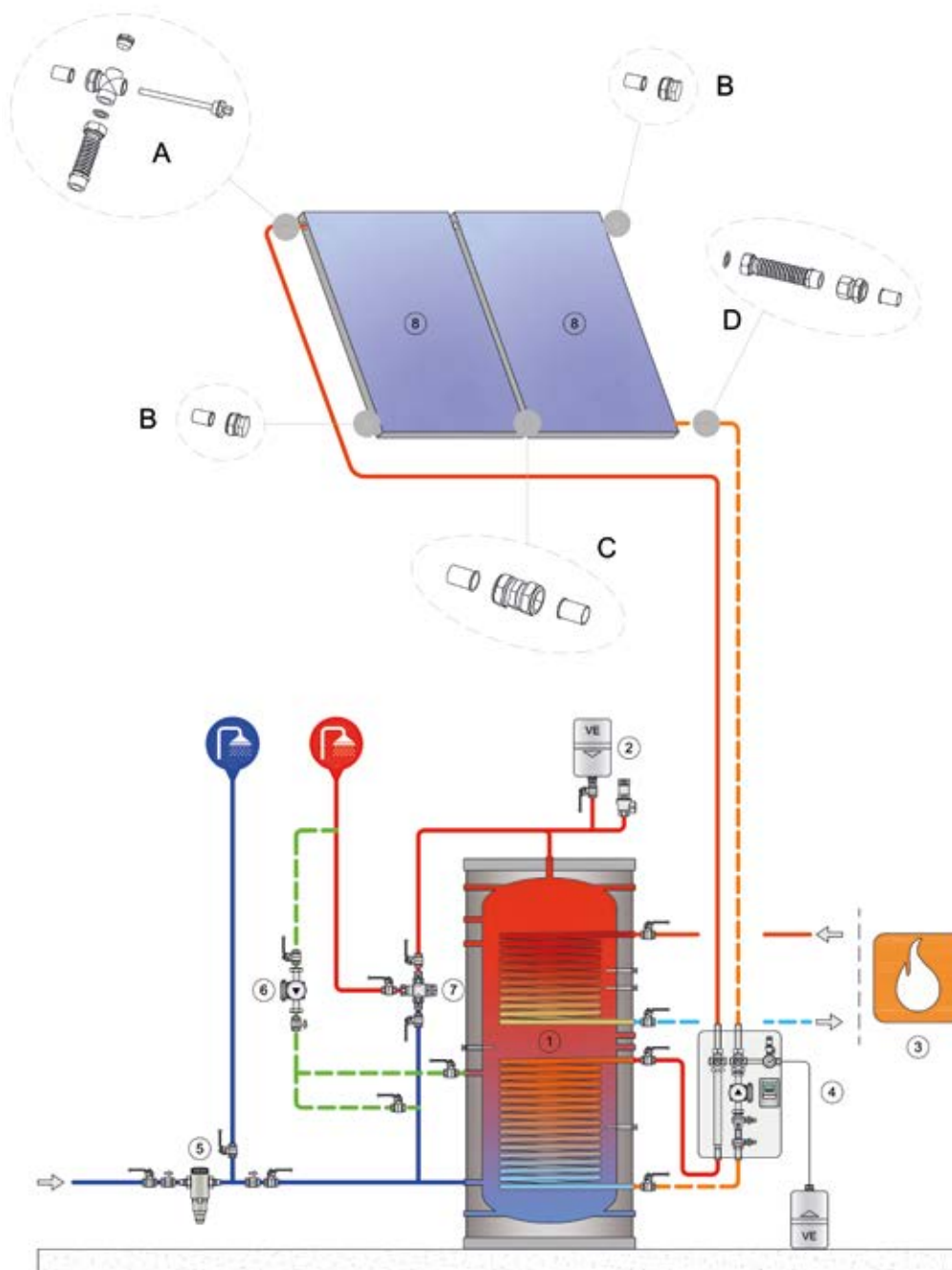
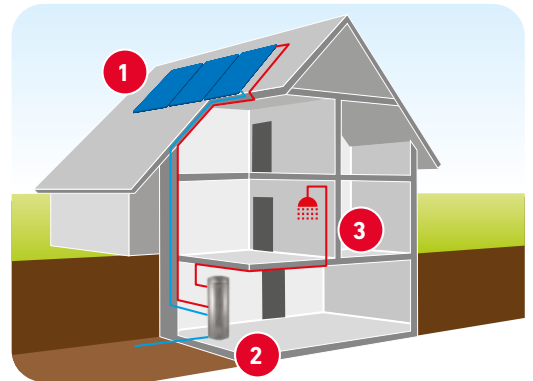


Solar Thermal Kit for DHW Production - AQUA SUN

KIT Aqua Sun is the simplest and most efficient solution for producing hot water from the sun. The Aqua Sun system consists of six different versions that correspond to different daily requirements.

Operating principle


1. The Sun Heats the Solar Fluid in Solar Collectors
2. The solar fluid reaches the tank and heats the water via the heat exchanger
3. Domestic hot water is now available for domestic use











List of components
A) Output from panels assembly kit
B) Plug from panels assembly kit
C) Connection between panels
D) Inlet from panels assembly kit

List of components
1. HEIZERSILE sanitary storage
2. Safety group
3. Heating from alternative sources
4. Solar thermal return unit
5. Bacteriostatic cold water filter
6. sanitary recirculation pump
7. Thermostatic DHW mixer
8. HEIZERSILE solar collectors

Solar Thermal Kit for DHW Production - AQUA SUN

	Series Energy class Composition	Aqua Sun 1  1 RT 2.0+BSFV 2 200		Aqua Sun 1.1  1 RT 2.5+BSFV 2 200	
Ref.	No. of persons*	 x 2		 x 3	
8	Solar Collector	1xRT 2.0	p. 304	1xRT 2.5	p. 306
A+B+D	Basic connection kit	1 piece		1 piece	
C	Joint connection kit	-		-	
4	Solar pumping and control station	S2 SOLAR 30	p. 315	S2 SOLAR 30	p. 315
-	Antifreeze liquid	20 litres	p. 317	20 litres	p. 317
9	Expansion Vessel	18 litres	p. 317	18 litres	p. 317
10	Bracket for expansion tank	SSTOAS	p. 317	SSTOAS	p. 317
1	Solar kettle	BSFV 2 200	p. 138	BSFV 2 200	p. 138

	Series Energy class Composition	Aqua Sun 2  2 RT 2.0+BSFV 2 300		Aqua Sun 2.1  2 RT 2.5+BSFV 2 300	
Ref.	No. of persons*	 x 4		 x 5	
8	Solar Collector	2xRT 2.0	p. 304	2xRT 2.5	p. 306
A+B+D	Basic connection kit	1 piece		1 piece	
C	Joint connection kit	1 piece		1 piece	
4	Solar pumping and control station	S2 SOLAR 30	p. 315	S2 SOLAR 30	p. 315
-	Antifreeze liquid	20 litres	p. 317	20 litres	p. 317
9	Expansion Vessel	18 litres	p. 317	18 litres	p. 317
10	Bracket for expansion tank	SSTOAS	p. 317	SSTOAS	p. 317
1	Solar kettle	BSFV 2 300	p. 138	BSFV 2 300	p. 138

	Series Energy class Composition	Aqua Sun 3  3 RT 2.0+BSFV 2 500		Aqua Sun 3.1  3 RT 2.5+BSFV 2 500	
Ref.	No. of persons*	 x 6		 x 7	
8	Solar Collector	3xRT 2.0	p. 304	3xRT 2.5	p. 306
A+B+D	Basic connection kit	1 piece		1 piece	
C	Joint connection kit	2 pieces		2 pieces	
4	Solar pumping and control station	S2 SOLAR 30	p. 315	S2 SOLAR 30	p. 315
-	Antifreeze liquid	20 litres	p. 317	20 litres	p. 317
9	Expansion Vessel	18 litres	p. 317	18 litres	p. 317
10	Bracket for expansion tank	SSTOAS	p. 317	SSTOAS	p. 317
1	Solar kettle	BSFV 2 500	p. 138	BSFV 2 500	p. 138

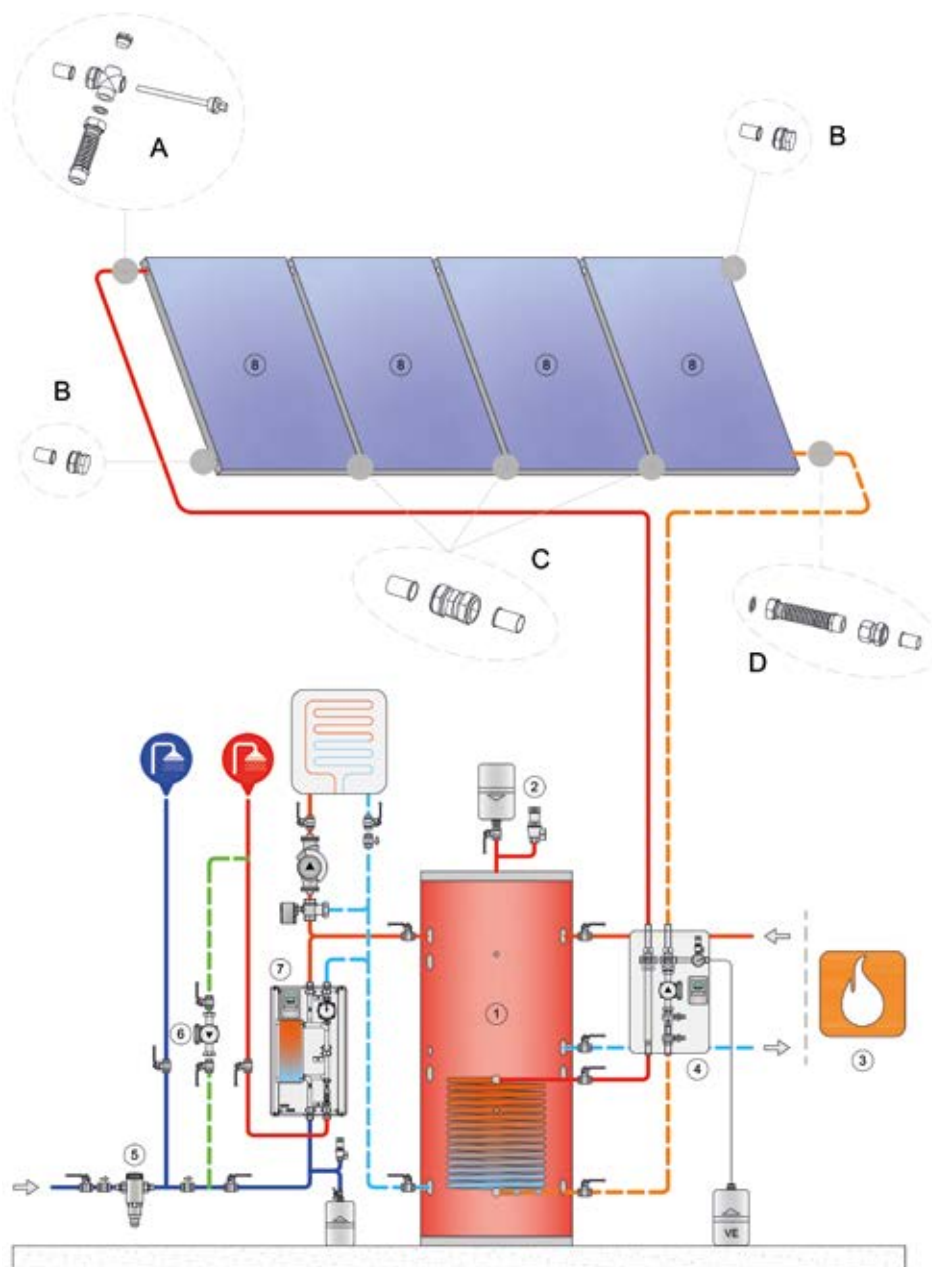
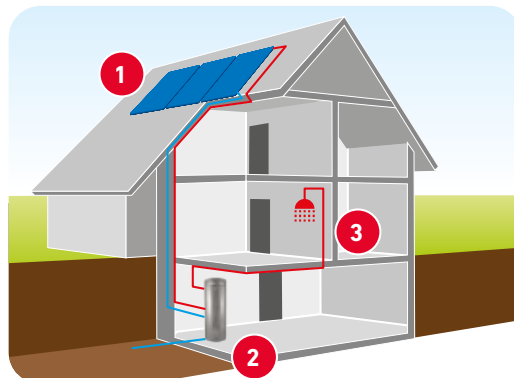
NOTE: Panels fixing kit not included

Solar Thermal Kit for DHW Production and Heating - COMBI SUN

KIT Combi Sun is the solution for heating both domestic water and heating system water. The Combi Sun system consists of three different versions that correspond to different daily requirements and different heating system sizes.

Operating principle

1. The sun heats the solar fluid in the solar collectors.
2. The solar fluid reaches the tank and heats the water via the heat exchanger.
3. The hot water in the tank is now available for heating domestic water (via the QUICK instantaneous water heater) and for room heating.



List of components

- A) Output from panels assembly kit
- B) Plug from panels assembly kit
- C) Connection between panels
- D) Inlet from panels assembly kit

List of components

- 1. HEIZERSILE PUW
- 2. Safety group
- 3. Heating from alternative sources
- 4. Solar thermal return unit
- 5. Bacteriostatic cold water filter
- 6. sanitary recirculation pump
- 7. QUICK Instant ACS preparation
- 8. HEIZERSILE solar collectors

Solar Thermal Kit for DHW Production and Heating - COMBI SUN

Ref.	Series Energy class Composition	Combi Sun 4 C		Combi Sun 6 C		Combi Sun 8 C	
		4 RT 2.5+PUW800+QUICK 30		6 RT 2.5+PUW1000+QUICK 30		8 RT 2.5+PUW1500+QUICK 40	
	Housing*	small		medium		large	
8	Solar Collector	4xRT 2.5	p. 306	6xRT 2.5	p. 306	8xRT 2.5	p. 306
A+B+D	Basic connection kit	1 piece	p. 304	1 piece	p. 304	2 piece	p. 304
C	Joint connection kit	3 pieces	p. 304	5 pieces	p. 304	6 pieces	p. 304
4	Solar pumping and control station	S2 SOLAR 30	p. 315	S2 SOLAR 30	p. 315	S2 SOLAR 30	p. 315
	Antifreeze liquid	40 litres	p. 317	60 litres	p. 317	60 litres	p. 317
9	Expansion Vessel	25 litres	p. 317	50 litres	p. 317	50 litres	p. 317
10	Bracket for expansion tank	SSTOAS	p. 317	N.A.	-	N.A.	-
1	PUFFER tank	PUW1 800 L	p. 174	PUW1 1000 L	p. 174	PUW1 1500 L	p. 174
7	QUICK Instant heater	QUICK 30	p. 255	QUICK 30	p. 255	QUICK 40	p. 255

N.A. Not available



NOTE: Panels fixing kit not included

High Yield Flat Plate Solar Collectors with Aluminium Tank - RT 2.0

High-yield solar collector art. RT 2.0 2.0m² with aluminium frame

The new solar collector has an anti-corrosive, high-quality aluminium profile structure (Al Mg). The product features a sealing system with an integrated perimeter seal made of vulcanised EPDM, which is resistant to temperature fluctuations and UV radiation. More specifically, the new solar collector features anti-reflex solar safety glass with high transparency and low iron content. It also features high-quality, formaldehyde- and adhesive-free mineral wool top insulation, as well as a highly selective vacuum-coated aluminium surface absorber and ogive fittings. The collector is suitable for above-roof installation, integration into the roof or placement on a structure. Tested performance and quality.



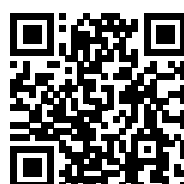
Features

- ✓ Unique aesthetics, intelligent design
- ✓ Unbeatable value for money
- ✓ Maximum manufacturing precision: construction on robotised production lines
- ✓ Intelligent fastening concept: reduced assembly time
- ✓ Extensive installation possibilities: up to 6 collectors in a row, over tile, flat roofs.

RT 2.0 Vertical		
Gross surface	code	price
2 m ²	321120058X	962,00 €

Available models	
Article	External dimensions
RT 2.0	1730 x 1170 x 83 mm

Panels Fittings Set RT 2.0/RT 2.5		
	code	price
base	343070274X	196,00 €
junction	343070275X	54,00 €
extension	343070277X	89,00 €
horizontal joint	343070276X	146,00 €



PRICES

Connection possibilities

Parallel connection



max. 6 collectors

Series connection



as a function of pressure drop

Mixed connection



as a function of pressure drop



ACCESSORIES PRICES

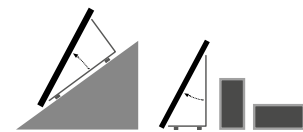
High Yield Flat Plate Solar Collectors with Aluminium Tank - RT 2.0

Technical Data	
Gross surface area (m ²)	2,02
Opening area (m ²)	1,84
Net surface area (m ²)	1,84
Capacity (l)	1,56
Flow	high flow/low flow
Glass thickness	3,2 mm
Glass transmission degree	91%
Thermal insulation thickness	40 mm flat
Absorber	Highly selective aluminium coating
Absorption	95%
Issue	5%
Connections	4 x 22 mm
Operating pressure	10 bar
Test pressure	15 bar
Maximum temperature	192°C
Weight	35 kg
Certification	EN 12975 + Keymark
Warranty	10 years (excluding glass)

Assembly

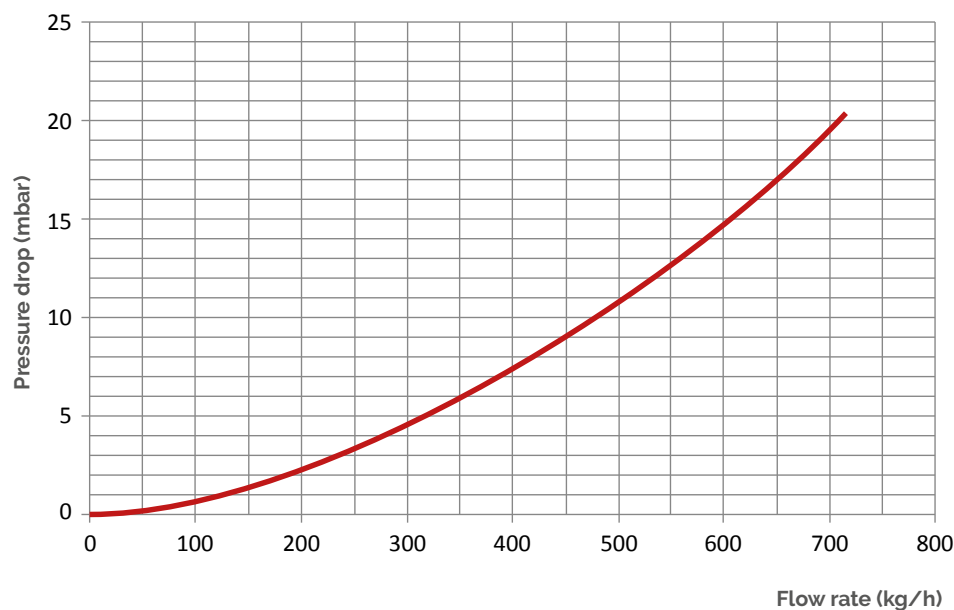


OVER ROOF
vertical/horizontal
fastening kits, frames and
accessories



ON SUPPORT
vertical/horizontal
supporting structure

Efficiency coefficient	Opening	Absorber
η_0	0,814	0,814
a_1	4,061	4,061
a_2	0,013	0,013



High Yield Flat Plate Solar Collectors with Aluminium Tank - RT 2.5

High-yield solar collector art. RT 2.5m² with aluminium frame

The new solar collector has an anti-corrosive, high-quality aluminium profile structure (Al Mg). The product features a sealing system with an integrated perimeter seal made of vulcanised EPDM, which is resistant to temperature fluctuations and UV radiation. More specifically, the new solar collector features anti-reflex solar safety glass with high transparency and low iron content. It also features high-quality, formaldehyde- and adhesive-free mineral wool top insulation, as well as a highly selective vacuum-coated aluminium surface absorber and ogive fittings. The collector is suitable for above-roof installation, integration into the roof or placement on a structure. Proven performance and quality.



Features

- ✓ Unique aesthetics, intelligent design
- ✓ Unbeatable value for money
- ✓ Maximum manufacturing precision: construction on robotised production lines
- ✓ Intelligent fastening concept: reduced assembly time
- ✓ Extensive installation possibilities: up to 6 collectors in a row, over tile, flat roofs.

RT 2.5 Vertical		
Gross surface	code	price
2.51 m ²	321120067X	1.108,00 €

Available models	
Article	External dimensions
RT 2.5	2150 x 1170 x 83 mm

Panels Fittings Set RT 2.0/RT 2.5		
	code	price
base	343070274X	196,00 €
junction	343070275X	54,00 €
extension	343070277X	89,00 €
horizontal joint	343070276X	146,00 €



PRICES

Connection possibilities

Parallel connection



max. 6 collectors

Series connection



as a function of pressure drop

Mixed connection



as a function of pressure drop



ACCESSORIES PRICES

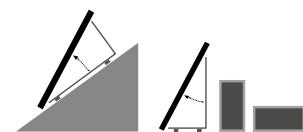
High Yield Flat Plate Solar Collectors with Aluminium Tank - RT 2.5

Technical Data	
Gross surface area (m ²)	2,51
Opening area (m ²)	2,31
Net surface area (m ²)	2,31
Capacity (l)	1,95
Flow	high flow/low flow
Glass thickness	3.2 mm
Glass transmission degree	91%
Thermal insulation thickness	50 mm flat
Absorber	Highly selective aluminium coating
Absorption	95%
Issue	5%
Connections	4 x 22 mm
Operating pressure	10 bar
Test pressure	15 bar
Maximum temperature	192°C
Weight	35 kg
Certification	EN 12975 + Keymark
Warranty	10 years (excluding glass)

Assembly

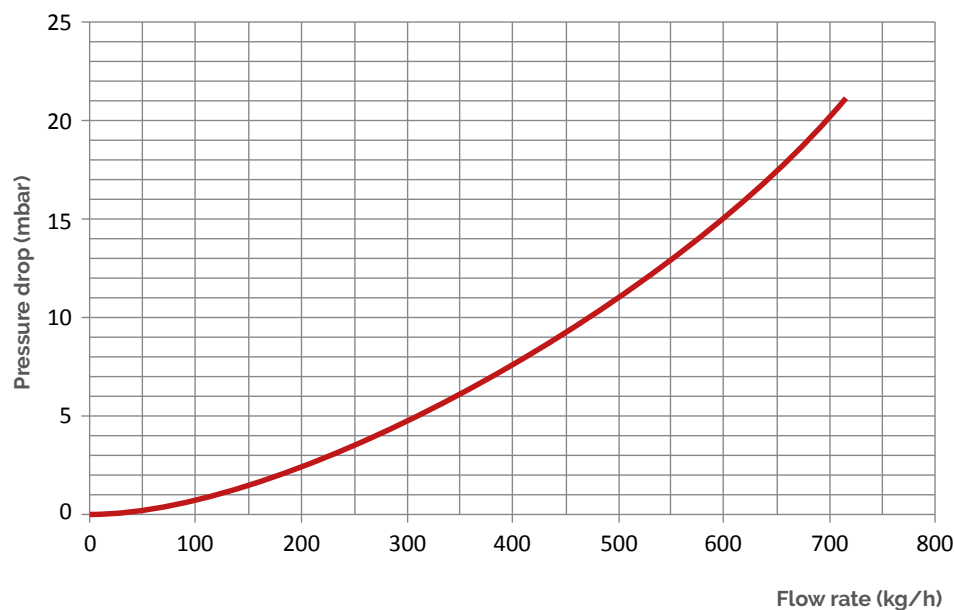


OVER ROOF
vertical/horizontal
fastening kits, frames and
accessories

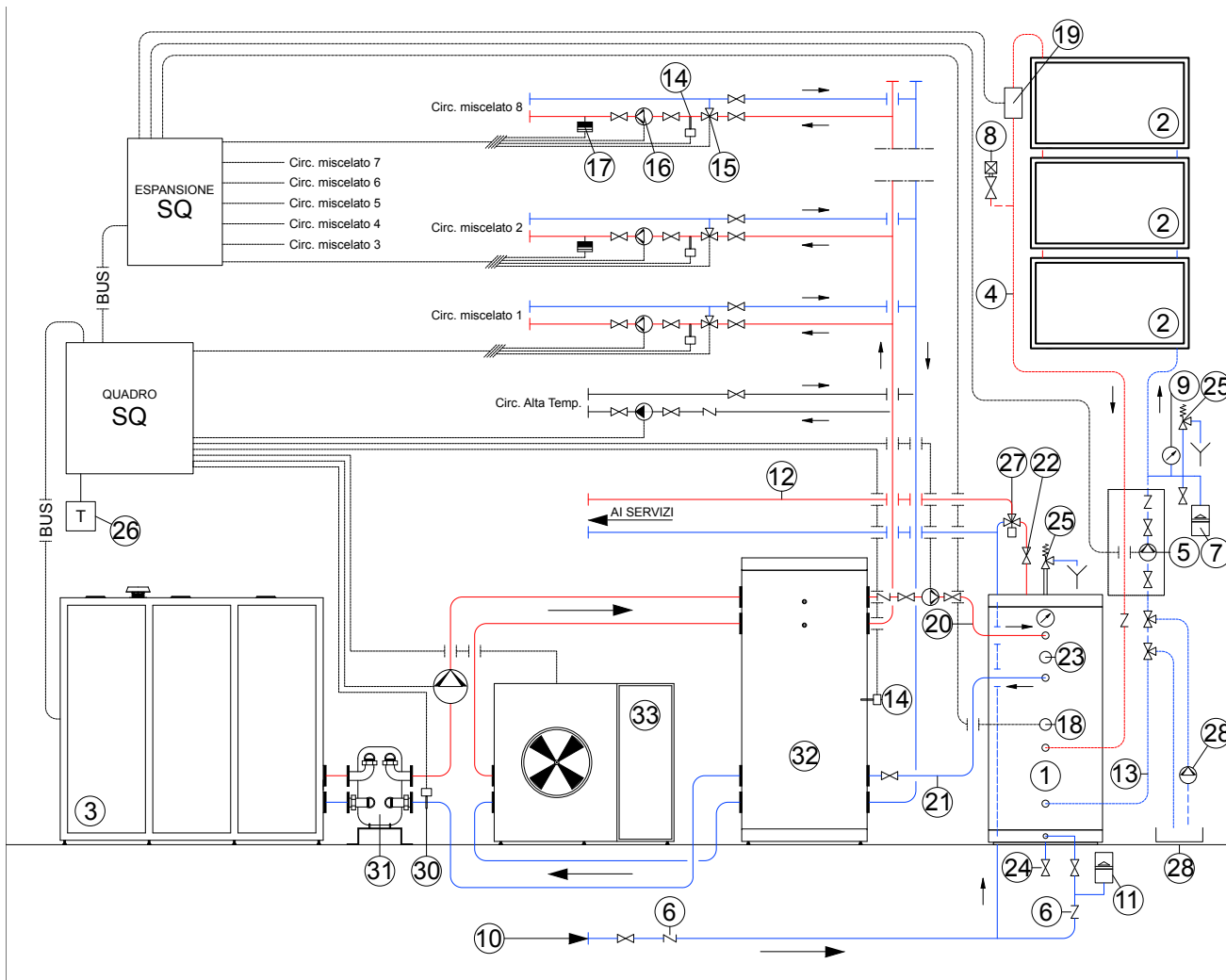


ON SUPPORT
vertical/horizontal
supporting structure

Efficiency coefficient	Opening	Absorber
η_0	0,807	0,807
a_1	4,04	4,04
a_2	0,012	0,012



Hydraulic diagram for solar collectors

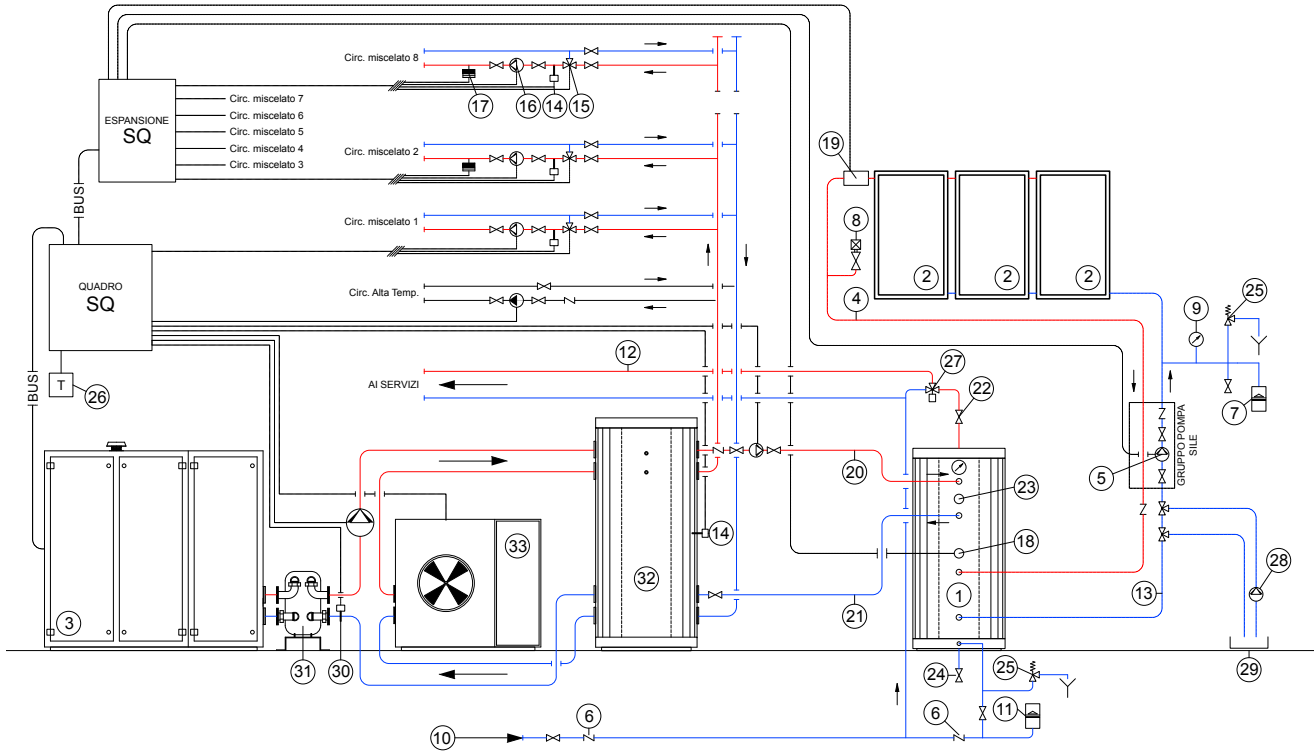


Legend bindings	
1	VERTINOX 2 Accumulator (double exchanger)
2	Solar panels mod. RT
3	Boiler models MC, MDC, MDCHP TM, TMC, CONDENSA N cascade
4	Solar flow pipework
5	Panel circulator
6	Check valve
7	Expansion vessel for solar system
8	Air vent valve with tap
9	Manometer
10	Cold water piping
11	Expansion vessel for domestic cold water
12	Domestic hot water piping
13	Solar return piping
14	Flow temperature probe
15	Mixing valve
16	Circuit circulator

Legend bindings	
17	Safety thermostat
18	Accumulator probe
19	Panel probe
20	Kettle forward piping
21	Boiler return piping
22	Shut-off valve
23	Boiler probe
24	Accumulator discharge
25	Safety valve
26	Outdoor temperature probe
27	Thermostatic mixer
28	Circulator for panel liquid
29	Panel liquid tank
30	Return temperature probe
31	Plate separator
32	Inertial tank
33	Heat pump

	Safety thermostat
	Vent valve with tap
	Probe (panels)
	Manometer
	Exhaust
	Temperature probe
	Outdoor temperature probe
	Check valve
	Valve
	Safety valve
	Expander vessel
	Filling group
	Thermostatic mixer
	Mixing valve

Hydraulic diagram for solar collectors



Legend bindings	
1	VERTINOX 2 Accumulator (double exchanger)
2	Solar panels mod. RT
3	Boiler models MC, MDC, MDCHP TM, TMC, CONDENSA N cascade
4	Solar flow pipework
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14	Flow temperature probe
15	Mixing valve
16	Circuit circulator


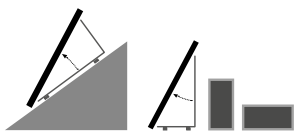
Legend bindings	
17	Safety thermostat
18	Accumulator probe
19	Panel probe
20	Kettle forward piping
21	Boiler return piping
22	Shut-off valve
23	Boiler probe
24	Accumulator discharge
25	Safety valve
26	Outdoor temperature probe
27	Thermostatic mixer
28	Circulator for panel liquid
29	Panel liquid tank
30	Return temperature probe
31	Plate separator
32	Inertial tank
33	Heat pump

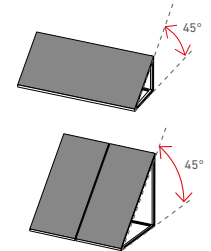
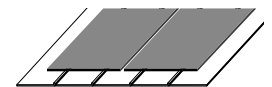
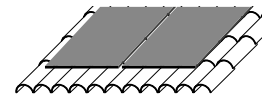
Assembly types and materials

Extensive mounting possibilities

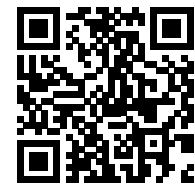
All collector models in the catalogue are available in numerous mounting, fastening and material versions. Depending on the functional characteristics and the type of pitch (flat roof, pitched roof with tile, on sheet metal, etc.), a wide range of solutions can be chosen to ensure the maximum structural strength of the system and the heat exchange efficiency of the collector. Customised solutions aim to make the solar system harmonious with the rest of the architecture by minimising clutter and visual impact.

Assembly	Above roof		Integrated	On support		
	Above tile	On sheet metal roof	Galvanised sheet metal	Stainless steel structure	Galvanised structure	Aluminium structure
RT 2.0	✓	✓	✓	✓	✓	✓
RT 2.5	✓	✓	✓	✓	✓	✓

Assembly	
 <p>OVER ROOF vertical/horizontal fixing kits, frames and accessories</p>	<p>On tile System for fastening the solar collector parallel to the pitch on a pitched tile roof using strong hooks and frames.</p> <p>On sheet metal System for fastening parallel to the pitch on sloping sheet metal roofs, consisting of robust aluminium profiles with stainless steel clamps, welded and shaped.</p>
 <p>ON SUPPORT vertical/horizontal supporting structure</p>	<p>Supporting structure consisting of angle profiles, allows the collector to be installed at an angle of 45° to the supporting surface. On flat and/or sloping roofs or on the ground.</p>

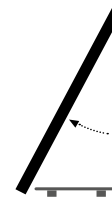
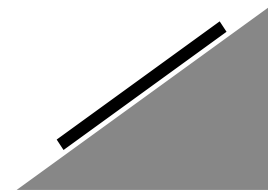


Collector fastening systems



ACCESSORIES
PRICES

Standard Solar Collector Fastening Systems RT 2.0/RT 2.5				
Arrangement		Vertical		
Assembly	No. of panels	code	price	
Above Roof	Above tile	■	343070210X	342,00 €
		■ ■	343070211X	430,00 €
		■ ■ ■	343070212X	675,00 €
		■ ■ ■ ■	343070213X	856,00 €
		■ ■ ■ ■ ■	343070214X	1.093,00 €
		■ ■ ■ ■ ■ ■	343070215X	1.267,00 €
	Above tile \ metal sheet Above Canadian Tile	■	343070301X	380,00 €
		■ ■	343070294X	480,00 €
		■ ■ ■	343070293X	742,00 €
		■ ■ ■ ■	343070302X	916,00 €
		■ ■ ■ ■ ■	343070303X	1.164,00 €
		■ ■ ■ ■ ■ ■	343070304X	1.353,00 €
On Support (structures for laying on flat surfaces)	Inclined 45 Aluminium	■	343070242X	668,00 €
		■ ■	343070243X	767,00 €
		■ ■ ■	343070244X	1.139,00 €
		■ ■ ■ ■	343070245X	1.455,00 €
		■ ■ ■ ■ ■	343070246X	1.838,00 €
		■ ■ ■ ■ ■ ■	343070247X	2.150,00 €



Solar Controller MTDC



PRICES

The control of the solar plant with the MTDC electronic control unit is performed by analysing the temperature differences measured by the precision probes in a pre-set or adjustable manner. The circulation control of the solar unit is activated according to the comparison between the measured Δt and the Δt set on the controller. The control takes place via one or more relays to which pumps or valves driven by an electric motor can be connected. The control unit has 27 possible basic configurations with integrative systems through the management of several connected components.

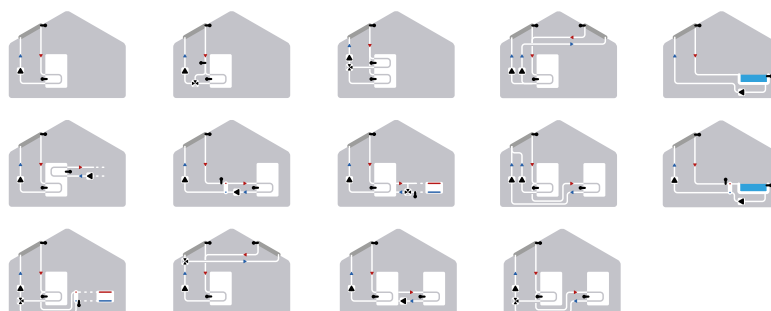


TESTED

Plus

- ✓ Ease of operation
- ✓ Pictogram display system (universal for several languages)
- ✓ Flashing probe display symbols
- ✓ Fast temperature control, Δt and active regulators
- ✓ 2 Relays
- ✓ 4 PT1000 temperature inputs
- ✓ 27 selectable basic systems
- ✓ Calculation of heat quantity
- ✓ Excellent design

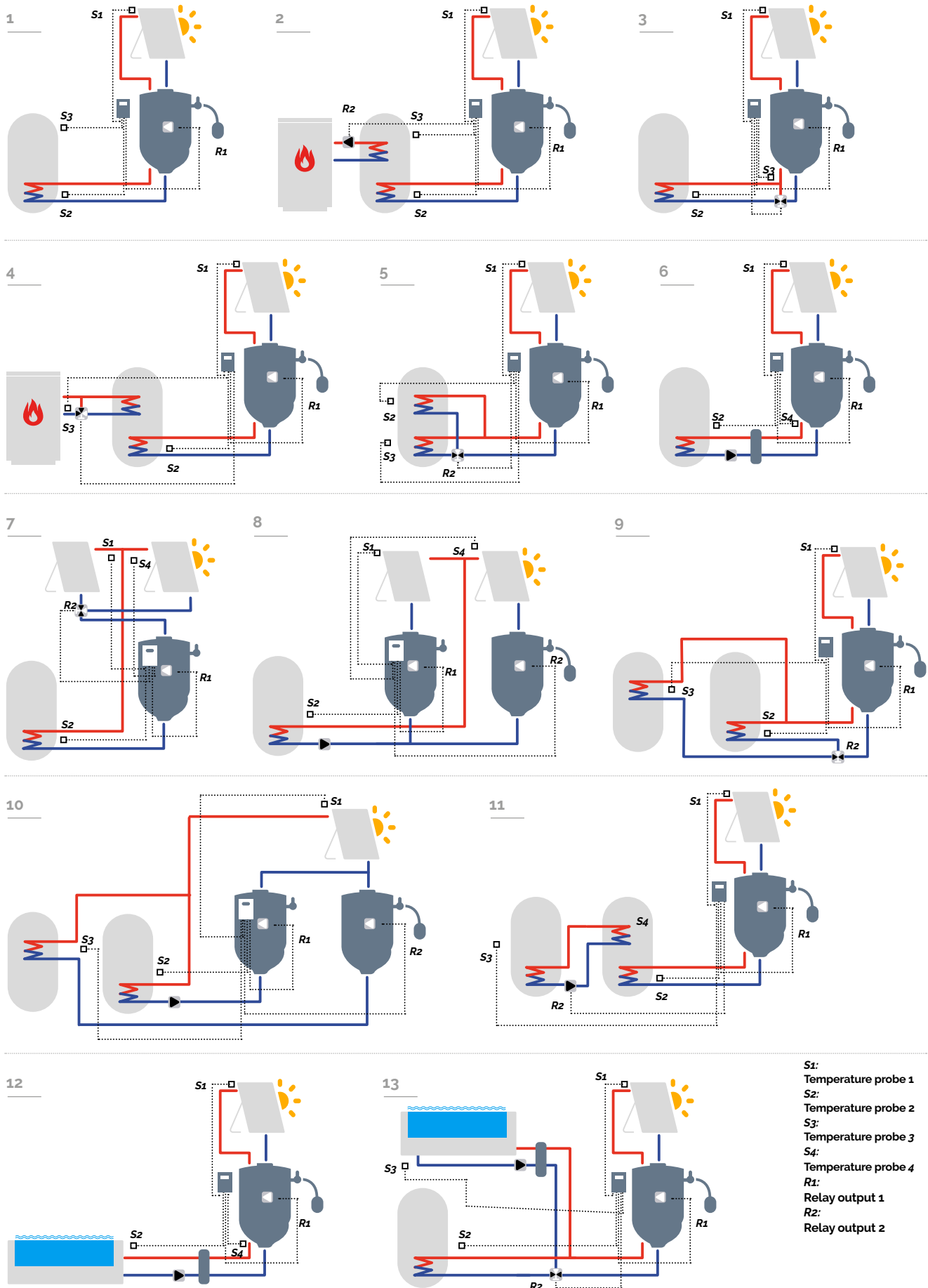
27 system configurations available



Code	Price
322130020	416,00 €

Technical Data	
No. temp. probe inputs	4
Max. no. of tanks	2
Max. no. of collectors	2
Display	Backlit System Monitoring
Number of relay outputs	2
Antifreeze function	Yes
Casing material	ABS plastic
Protection	IP 40
Ambient temperature	0-40 °C
Dimensions	163 x 110 x 52 mm
Command	Via 4 buttons on the front
Inputs	For 4 temperature probes
Outputs	For 2 semiconductor relays
Power supply	210 ... 250 V~
Consumption	~ 2 VA

MTDC Solar Regulator



S1: Temperature probe 1
 S2: Temperature probe 2
 S3: Temperature probe 3
 S4: Temperature probe 4
 R1: Relay output 1
 R2: Relay output 2

Solar thermal

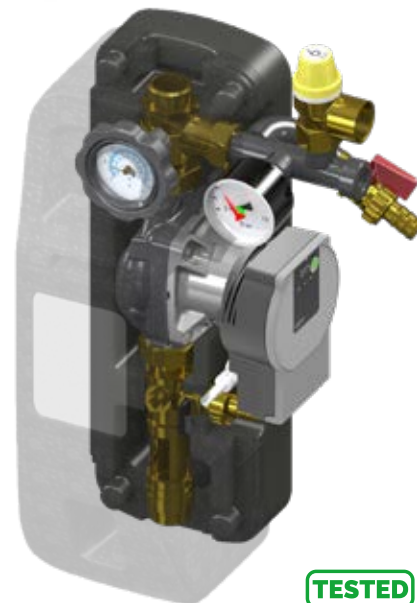
Solar Module S1 SOLAR 1



ACCESSORIES
PRICES

The S1 SOLAR 1 solar module is a solar return unit with forced circulation and a variable flow rate from 2 to 12 L/min. The side position of the circulator guarantees total ventilation of the unit, providing protection against high temperatures.

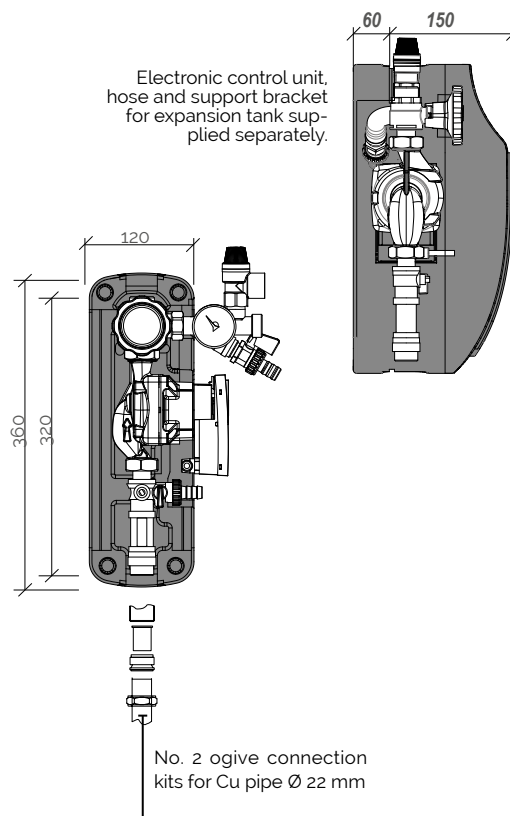
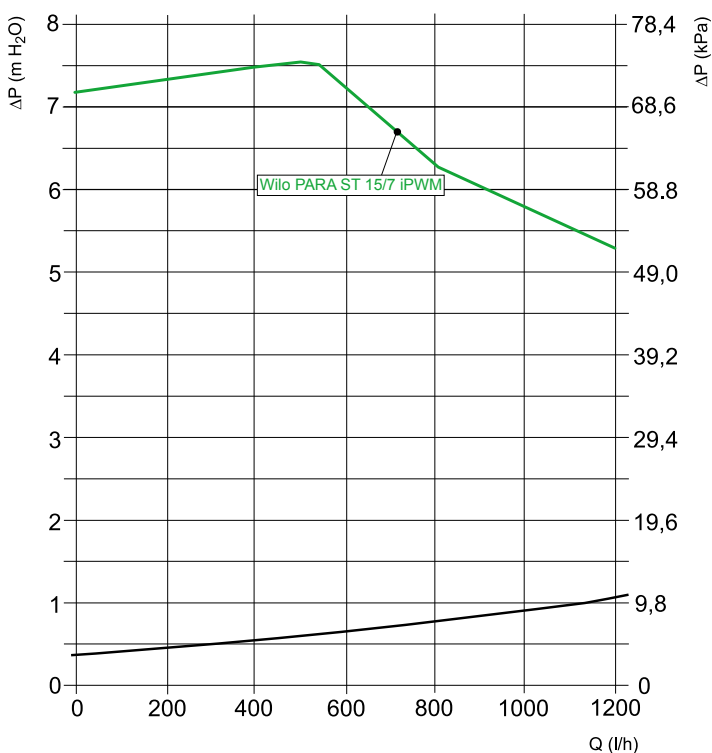
- ✓ **Max. flow rate .720 L/h**
- ✓ Maximum solar surface area:
20m² (Flat collector) 15m² (Vacuum collector)
- ✓ Flow regulator 2÷12 L/min
- ✓ Filling / draining / flushing and dismantling the circulator without draining the system
- ✓ Compact safety group with safety valve, pressure gauge and hose connection for expansion tank
- ✓ Circulator side ventilation hole
- ✓ Flush or kettle mounting
- ✓ Ball valve with integrated thermometer and non-return valve
- ✓ Black EPP insulation
- ✓ Seals ensured by flat seals and gaskets
- ✓ Connection for expansion tank 3/4 "M.
- ✓ Thermometer 0-120 °C



TESTED

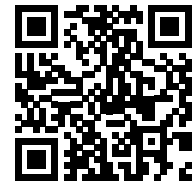
Code	Model	Flow rate (L/min)		Price	P. max	T. max	Connections
		Min.	Max.				
338110129X	S1 SOLAR 1	2	12	589,00 €	10 bar	110°C	ogive for Cu pipe Ø 22 mm

PRESSURE DROPS/PERFORMANCE CURVES



Solar thermal

Solar Module S2 SOLAR 30



ACCESSORIES
PRICES

The S2 SOLAR 30 solar module is a forced circulation solar unit with 3 flow rate control ranges. Different electronic control and flow rate adjustment models can be installed to meet different system requirements. The control unit allows up to 15 different system configurations to be managed, and thanks to the pictogram display, it can be used worldwide without language problems. The S2 SOLAR 30 can be mounted directly flush with the wall or in a solar storage tank by means of the supplied mounting brackets.

Plus

- ✓ **Max. flow rate 12,000 L/h**
- ✓ Max. solar surface area:
80m² (Flat collector) 50m² (Vacuum collector)
- ✓ Flow regulator in three scales:
1÷15 l/min, 5÷40 l/min, 10÷200 l/min.
- ✓ Filling / draining / flushing and dismantling the circulator without draining the system
- ✓ Compact safety group with safety valve, pressure gauge and flexible connection for expansion tank
- ✓ Side hole for circulator cooling
- ✓ Flush mounting/boiler
- ✓ Ball valve with integrated thermometer
- ✓ Black EPP insulation 40 g/l
- ✓ Seals ensured by flat seals and gaskets

TESTED



S2 SOLAR 30 1-15
S2 SOLAR 30 5-40

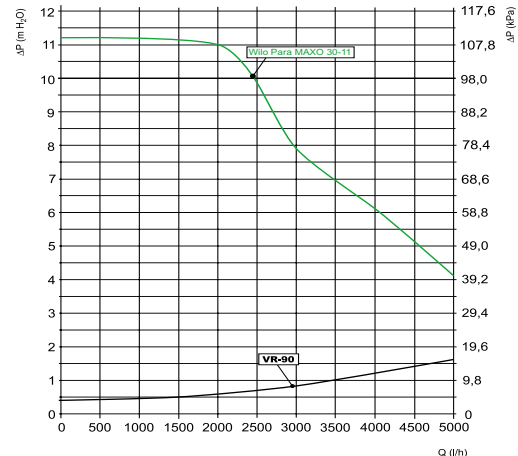
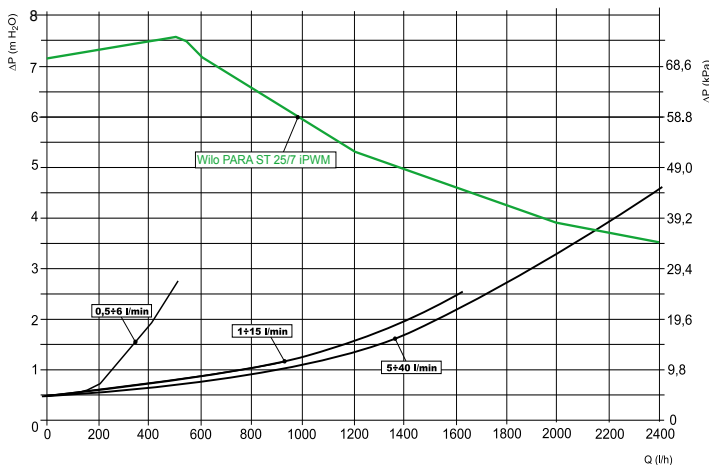
TESTED



S2 SOLAR 30 10-200

Code	Model	Flow rate (L/min)		Price	P. max	T. max	Conn.
		Min.	Max.				
338110132X	S2 SOLAR 30 1-15	1	15	1.184,00 €	10 bar	110°C	1" F
338110133X	S2 SOLAR 30 5-40	5	40	1.186,00 €	10 bar	110°C	1" F
338110134X	S2 SOLAR 30 10-200	10	200	2.735,00 €	10 bar	110°C	1¼" F

PRESSURE DROPS/PERFORMANCE CURVES



Solar thermal

Solar Module S2 SOLAR 2



ACCESSORIES
PRICES

The S2 SOLAR 2 solar module is a forced circulation solar unit with 3 flow rate control ranges. Different electronic control and flow rate adjustment models can be installed to meet different system requirements. The control unit can manage up to 15 different system configurations, preset and, thanks to the pictogram display, can be used worldwide without language problems. The S2 SOLAR 2 can be mounted directly flush with the wall or in a solar storage tank by means of the supplied mounting brackets.

Plus

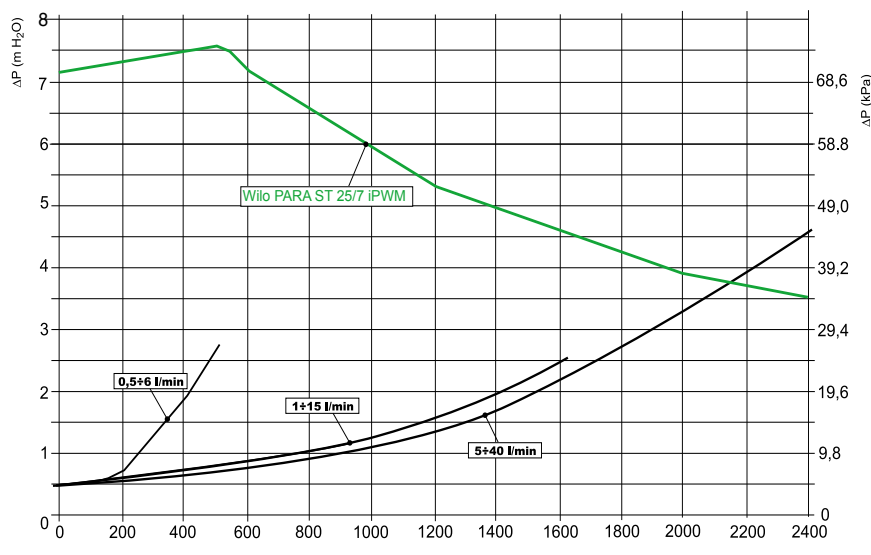
- ✓ **Max. flow rate 2,400 L/h**
- ✓ Max. solar surface area:
80m² (Flat collector) 50m² (Vacuum collector)
- ✓ Protection insulation of the control unit from the pressure pipe
- ✓ Flow regulator in two scales: 1-15 l/min and 5-40 l/min
- ✓ Filling / draining / flushing and dismantling the circulator without draining the system
- ✓ Compact safety group with safety valve, pressure gauge and flexible connection for expansion tank
- ✓ Side hole for circulator cooling
- ✓ Flush mounting/boiler
- ✓ Flanged ball valves on return with integrated thermometer
- ✓ Black EPP insulation
- ✓ Seals ensured by flat seals and gaskets



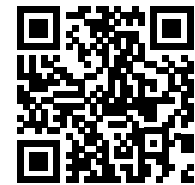
TESTED

Code	Model	Flow rate (L/min)		Price	P. max	T. max	Connections
		Min.	Max.				
338110130X	S2 SOLAR 2 1-15	1	15	651,00 €	10 bar	110°C	1" F
338110131X	S2 SOLAR 2 5-40	5	40	672,00 €	10 bar	110°C	1" F

PRESSURE DROPS/PERFORMANCE CURVES



Standard Accessories for Solar Thermal



ACCESSORIES
PRICES



Vent valve

Code	Description	Price
309040007	Permanent vent valve for solar system DN20	285,00 €
309040012	Permanent vent valve for solar system DN25	440,00 €

Technical Data		
	309040007	309040012
Material	stainless steel	brass
Max. operating temperature	-30°C to +200°C	180°C
Max. operating pressure	10 bar	10 bar
Connection	2 x 3/4" FF DN20	2 x 1" IG, 1 x 1/2" FE



Expansion tanks

Code	Description	Price
311010061	Expansion tank for solar system 18 LT	89,00 €
311010062	Expansion tank for solar system 25 LT	121,00 €
311010094	Expansion tank for solar system 50 LT	232,00 €
311010065	Expansion tank for solar system 80 LT	355,00 €

Technical Data				
	311010061	311010062	311010094	311010065
Content	18 litres	25 litres	50 litres	80 litres
Precharge pressure	2.5 bar			
Max. operating pressure	8 bar	10 bar		
Connection	1 x 3/4" AG			

Connection set for expansion tank



Code	Description	Price
343070019	Connection set for expansion tank	105,00 €

Set of fittings for expansion vessels 18 and 25 l complete with brass quick coupling for replacing the vessel with the system under pressure.

Included in the set:

- galvanised steel wall fastening
- stainless steel hose with 2 x 3/4" IG for direct connection of the expansion tank with the pump unit
- screws, dowels, brass reductions from 1" IG to 3/4" AG.

Antifreeze liquid canister pre-mixed (46%)



Code	Description	Price
330040031	20 l jerry can	308,00 €

Description	
Protective, anti-corrosion and anti-freeze liquid. Ready-to-use, non-toxic and biodegradable mixture.	
Technical Data	
Components	Propanidol and high amounts of propylene glycol with inhibitors in aqueous solution.
Colour	green
Ph	7.5 to 9 (undiluted, at 20° C) (DIN 51369)
Sliding point	-34° C (DIN 51583)
Boiling temperature	approx. / approx. +107° C (under atmospheric pressure)
Continuous temperature	max. 180° C
Steam pressure	approx. 20 hPa (at 20° C)
Density	approx. 1.065 g/cm ³ (a/at 20° C) (DIN 51757)
Viscosity/kinematics	6 to 8 mm ² /s (at 20° C) (DIN 51562)



Steam Generators

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Steam and superheated water generators

Steam and superheated water generators, expanders and autoclaves are pressure vessels that meet the requirements of the PED Directive 2014/68/EU.

In the pressure equipment sector, we specialise in the construction of 'assemblies'. There is a substantial difference between a product certified as 'equipment' and one certified as an 'assembly'.

It is a difference that defines the way we work and the product quality we want to offer our customers.

M Pressure vessels are one-piece products.

The European Directive 2014/68/EU - P.E.D.

An assembly consists of a tank or boiler body and all regulation and safety equipment and accessories already fitted and tested to form an integrated and functional whole.

Upon completion of the assembly of the accessories, we provide the certification of conformity according to the PED Directive 2014/68/EU. The certification is provided and included in the sale price of the assembly. The customer is provided with an operating and maintenance manual and declaration of conformity.

The assembly can be put into service without the initial installation check, therefore without any additional costs for the user, who will only have to notify I.N.A.I.L. and A.S.L. of the commissioning of the equipment.

The equipment on the other hand is a tank or boiler body without accessories. In this case, after the installation of the accessories at the installer's expense and before commissioning, it is necessary to instruct a Notified Body, at the user's expense.



Construction types

The range of industrial generators consists of models with three effective smoke passes of the PVM-PAS series (one in the firebox and two in the smooth tube bundles without turbulators) with a useful output of up to 6808 kW, and of reverse-flame models of the VMB-VMA-SMB series with three smoke passes of which two in the firebox and one in the tube bundle with a useful output of up to 3395 kW. They are substantially different types of construction.

Flame Reversing Generators

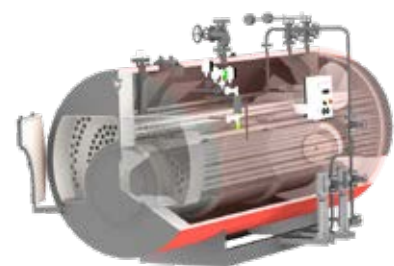
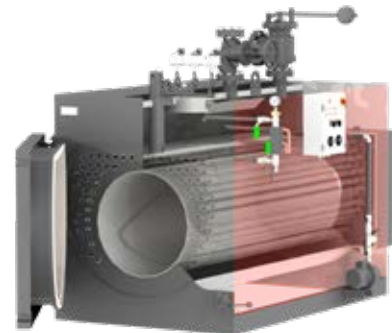
In the flame inversion models, the flue gases reverse their path inside the firebox, thus running it twice and then passing through the single coil of tubes.

Compared to three-round generators, they have a higher heat load per unit area and a large refractory door.

Three effective smoke generators

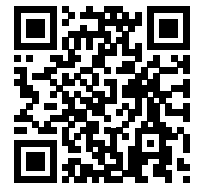
In generators with three effective smoke passes, the flue gases, after passing through the firebox, reverse their path in an inversion chamber inside the boiler and then cooled by water, and then pass through two sets of tubes, one superimposed on the other.

This reduces the inconveniences caused by the presence of refractories (frequent need for maintenance) and reduces heat loss by both radiation and convection due to the wet inversion chamber.



Low pressure steam generators

VMB 0.98 bar - 120°C



PRICES

Low-pressure monoblock steam generators with reverse-flame fire-box.

One-piece pressurised steam generators with three smoke passes, two of which in the firebox, smooth tube bundles with stainless steel turbulators.

Factory tested and verified by Notified Body as 'ASSEMBLY' certified according to European Directive 2014/68/EU-PED.

Complete with all accessories (except burner) ready for operation.

Already prepared for KIT installation 24/72 hours

Running on gas, diesel, oil

Max. allowed pressure 0.98 bar

Max. allowed temperature 120 °C



Standard accessories

(included in delivery)

- Insulated aluminium sheet casing with satin finish
- Stainless steel turbulators
- Start-up steam valve
- No. 2 safety probes
- Probe level regulator
- Safety valve(s)
- Sludge drain valve
- Safety pressure switch + N.2 service pressure switches
- No. 2 solenoid valves with three-way shut-off valve
- N.2 Level indicator complete with taps
- Electric feed pump with shut-off valve and non-return valve
- Electric panel for automatic generator operation (4~ 50-60 Hz)

Accessories on request

- Burner plate drilling
- Gas, oil or naphtha burner
- 2nd electric supply pump
- Automatic sludge purge unit
- Automatic bleeding unit + TDS control
- Control panel with 'Valiantec' control unit
- Vertical steel (or AISI 304 stainless steel) condensate tray with accessories
- Flowmeter for condensate treatment > 70°C
- Tube bundle cleaning brush
- Protective canopy

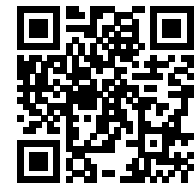
Note: Please specify the available voltage and the expected fuel when ordering.

Codes and specifications: prices on request

Model	Code	Useful power kW	Steam production with feed water 70°C kg/h	Overall dimensions			Weight empty kg	Pressure chamber combustion mbar	Total water content dm3	Water content at level dm3	Connection chimney mm	Connection steam DN	Exhaust DN
				H mm	P mm	L mm							
VMB 140	10301850100	94	140	1292	1810	1658	850	1.5	480	200	50	1"	1"
VMB 200	10301850120	134	200	1292	1810	1658	850	2.5	480	200	50	1"	1"
VMB 300	10301850150	201	300	1384	2057	1748	1220	3	690	250	65	1"	1"
VMB 400	10301850230	268	400	1384	2057	1748	1220	3.5	690	250	65	1"	1"
VMB 500	10301850320	335	500	1528	2061	1875	1470	4.2	880	250	80	1"	1"
VMB 700	10301850430	469	700	1528	2362	1875	1650	4.5	1080	250	80	1"	1"
VMB 800	10301850500	536	800	1648	2360	2055	1820	5	1310	250	100	1"	1"
VMB 1000	10301850550	670	1000	1648	2560	2055	1970	6	1460	250	100	1"	1"
VMB 1250	10301850650	837	1250	1838	2560	2205	2230	6.5	1950	300	125	1"	1"
VMB 1500	10301850860	1005	1500	1838	2810	2205	2530	6.8	2200	300	125	1"	1"
VMB 1750	10301851060	1172	1750	1838	3060	2205	3150	7	2450	300	125	1"	1"
VMB 2000	10301851200	1339	2000	1958	3060	2310	3470	7	2720	350	125	1 1/2"	1"
VMB 2500	10301851700	1674	2500	2108	3370	2525	4650	8	3690	350	150	1 1/2"	1 1/2"
VMB 3000	10301852000	2009	3000	2228	3367	2610	5150	8.2	4120	400	150	1 1/2"	1 1/2"
VMB 3500	10301852200	2343	3500	2228	3567	2610	5150	8.2	4320	400	200	1 1/2"	1 1/2"
VMB 4000	10301853000	2678	4000	2454	3861	2770	7190	8.4	6050	450	200	1 1/2"	1 1/2"

Medium pressure steam generators

VMA 12 bar - 191.5°C



PRICES

Medium-pressure monoblock steam generators with reverse-flame combustion chamber

Monoblock pressurised generators for steam production with three smoke passes, two of which in the firebox, smooth tube bundles with stainless steel turbulators. Factory tested and verified by Notified Body as "ASSEMBLY" certified according to European Directive 2014/68/EU-PED. Complete with all accessories (except burner) ready for operation. Already prepared for 24/72 hour KIT installation. Running on gas, diesel, fuel oil.

Max. allowed pressure 12 bar

Maximum allowed temperature 191.5°C



Generator subject to Declaration of Commissioning

Standard accessories (included in delivery)

- Insulated aluminium sheet casing with satin finish
- Stainless steel turbulators
- Start-up steam valve
- No. 2 minimum level safety probes
- Probe level regulator
- No. 2 spring-loaded safety valves
- Bleeding unit (flow valve initiated + drain valve)
- No. 2 service pressure switches
- Safety pressure switch
- Dial gauge with three-way shut-off valve
- N.2 Visual reflex level indicators complete with shut-off and purge cocks
- Electric feed pump with start-up flow

valve (no. 1 valve if only one pump present and no. 3 if two pumps) and non-return valve

- General electric control panel for automatic generator operation
- Counterflanges on hydraulic connections
- Flue thermostat

Accessories on request

- Burner plate drilling
- Gas, oil or naphtha burner
- 2nd electric feed pump1: 40÷400; 400÷1000; 1000÷1250; 1500÷3000; 3500÷4000; 5000
- Stainless steel mantle
- Steam injector with no. 2 flow-through valves

- Automatic sludge purge unit
- TDS automatic bleeding unit
- Control panel with 'Valiantec' control unit
- Rapid lever degassing valve
- Pressure bar 15
- Circulator for condensate temperature >70°C
- Vertical steel (or AISI 304 stainless steel) condensate drain pan with accessories
- Digital water meter
- Tube bundle cleaning brush
- Spare accessories kit 24/72 hours

N.B. Please specify the available voltage and the expected fuel when ordering.

Codes and specifications: prices on request

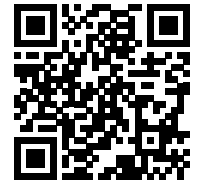
Model	Code	Useful power kW	Steam production with feed water 70°C kg/h	Overall dimensions			Weight empty kg	Pressure chamber combustion mbar	Total water content dm3	Water content at level dm3	Connection chimney mm	Connection steam DN	Exhaust DN
				H mm	P mm	L mm							
VMA 140	10301880140	97	140	1354	1813	1647	1150	1.5	475	200	25	25	25
VMA 200	10301880200	138	200	1354	1813	1647	1150	2.5	475	200	25	25	25
VMA 300	10301880230	208	300	1446	2061	1743	1450	3	670	250	32	25	25
VMA 400	10301880300	277	400	1446	2061	1743	1450	3.5	670	250	32	25	25
VMA 500	10301880340	346	500	1590	2368	1865	2200	4.2	1020	250	40	25	25
VMA 700	10301880500	485	700	1590	2368	1865	2310	4.5	1020	250	40	25	25
VMA 800	10301880550	554	800	1710	2371	2050	2550	5	1280	250	50	25	25
VMA 1000	10301880680	692	1000	1710	2573	2050	2800	6	1410	250	50	25	25
VMA 1250	10301880900	865	1250	1900	2573	2195	3480	6.5	1900	300	65	25	25
VMA 1500	10301881050	1038	1500	1900	2823	2195	3650	6.8	2120	300	65	25	25
VMA 1750	10301881200	1212	1750	1900	3073	2195	3900	7	2330	300	80	25	25
VMA 2000	10301881400	1385	2000	2020	3087	2310	4650	7	2650	350	80	40	25
VMA 2500	10301881700	1731	2500	2170	3376	2420	5500	8	3540	350	80	40	40
VMA 3000	10301882000	2077	3000	2290	3382	2600	6400	8.2	3960	400	80	40	40
VMA 3500	10301882400	2423	3500	2290	3582	2600	6850	9	4340	400	100	40	40
VMA 4000	10301882700	2769	4000	2405	3862	2768	8600	10	6050	450	100	40	40
VMA 5000	10301883400	3463	5000	2615	4916	2900	12500	10.2	8000	450	100	40	40

Generators with higher capacities are produced on request

Medium pressure steam generators

PVM M.P. 8 bar - 175.4° C

PVM M.P. 12 bar - 191.5° C



PRICES



Monoblock medium pressure steam generators with three effective smoke passes.

Monoblock pressurised generators for steam production with three smoke passes, two of which in smooth tube bundles. Factory tested and verified by Notified Body as "ASSEMBLY" certified according to European Directive 2014/68/EU-PED. Complete with all accessories (except burner) ready for operation. Already prepared for 24/72 hour KIT installation. Running on gas, diesel, fuel oil.

Max. allowed pressure 8 bar - Max. allowed temperature 175.4° C.

Max. allowed pressure 12 bar - Max. allowed temperature 191.5° C.

Generator subject to Declaration of Commissioning.



Standard accessories (included in delivery)

- Insulated aluminium sheet casing with satin finish
- Stainless steel turbulators
- Start-up steam valve
- No. 2 safety probes
- Probe level regulator
- No. 2 spring-loaded safety valves
- Bleeding unit (flow valve started + ball valve unloaded)
- No. 2 service pressure switches
- Safety pressure switch
- Dial gauge with three-way shut-off valve
- N.2 Visual reflection level indicators complete with taps
- interception and purging
- Electric feed pump with start-up flow valve (no. 1 valve if only one pump present and No. 3 if with two pumps) and non-return valve
- General electrical control panel for automatic operation
- of the generator
- Counterflanges on hydraulic connections
- Burner pad drilling

Accessories on request

- Gas, oil or naphtha burner
- 2nd electric supply pump

- Stainless steel mantle
- Steam injector with no. 2 flow-through valves
- Automatic sludge purge unit
- Automatic bleeding unit + TDS control
- Control panel with 'Valiantec' control unit
- Rapid lever degassing valve
- Circulator for condensate temperature >70° C (Su/oni 140+1000)
- Circulator for condensate temperature >70° C (Su/on 1250+5000)
- Vertical steel (or AISI 304 stainless steel) condensate drain pan
- Accessory kit for 24/72 hour service
- Flue thermostat

Note: Please specify the available voltage and the expected fuel when ordering.

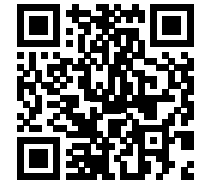
Codes and specifications: prices on request

Model	Pressure bar	Code	Useful power kW	Production of steam with feed water 70° C			Overall dimensions H mm P mm L mm	Weight empty kg	Pressure chamber combustion m	Total water content dm3	Connection chimney mm	Connection steam DN	Exhaust DN
				kg/h									
PVM 1000	8	10301820650	697	1000	2135	3310	2395	5200	2,5	3475	300	50	25
	12	10301820650											
PVM 2000	8	10301821200	1386	2000	2360	35390	2590	6900	6	4600	350	80	40
	12	10301841200											
PVM 3000	8	10301821800	2035	3000	2355	4100	2690	8500	11,5	5450	400	80	40
	12	10301841800											
PVM 4000	8	10301822500	2769	4000	2555	4850	2790	10200	12	6720	450	100	40
	12	10301842500											

Steam Generators

Medium pressure steam generators

ECO



ACCESSORIES
PRICES

Fuel economisers for medium pressure steam generators (8-12 bar).

Equipped with:

- Electric circulation pump
- Safety valve
- Thermometers
- Shut-off and non-return valve
- Filter

To be sized according to the generator



Medium pressure steam generators

KIT 24-72h



ACCESSORIES
PRICES

For steam generators

The 24- and 72-hour KIT is a control and verification system to operate a steam generator for 24 or 72 hours without the supervision of the licensed conductor and thus obtain partial exemption from continuous surveillance.

The 24-72 hour kits consist of a set of safety and control equipment assembled and tested on the generator in the factory.

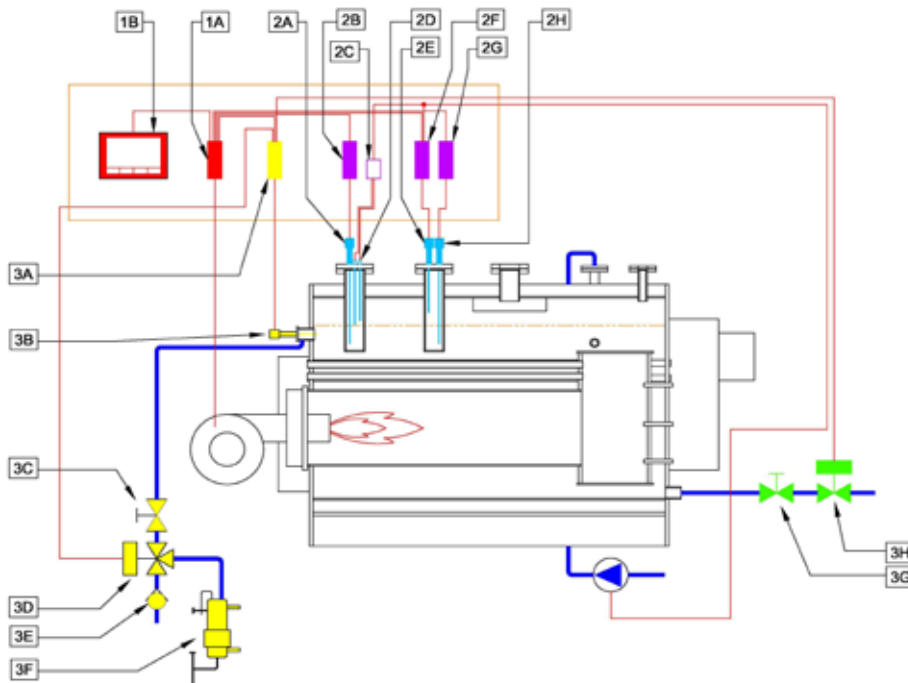
The generator equipped with the KIT is CE certified as an INDEED according to the European Directive 2014/68/EU-PED.



Technical Specifications

Model	Description	Code	Price
KIT 24	24-hour operation for steam generators	00891188024	prices on request
KIT 72	Operation for 72 hours for steam generators up to 8 bar	00891188072	
KIT 72	Operation for 72 hours for steam generators at 12 bar	00891188172	

Application example of the 72-hour steam generator kit



Central unit legend

1A	PLC control signals regulators, control deadlines and boiler control *
1B	Display screen (on the panel) *

Legend probes and level regulators

2A	first independent self-monitored minimum level safety probe *
2B	first independent minimum level safety regulator *
2C	pump start/stop level regulator *
2D	pump operation probes *
2E	self-monitored maximum level safety probes
2F	self-controlled maximum level safety regulator
2G	second independent minimum level safety controller *
2H	second independent self-monitored minimum level safety probe *

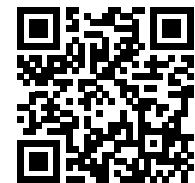
Legend salinity control (TDS) and automatic sludge discharge (only for KIT 72 hours)

3A	salinity control regulator (on control panel)
3B	conductivity or salinity probe
3C	shut-off valve
3D	motorised purge valve (3A-controlled)
3E	check valve
3F	sample water cooler
3G	shut-off valve
3H	motorised timed exhaust valve (controlled by 3A)

* 24-hour KIT components

Deaerator

DEGA



PRICES

Horizontal atmospheric steam deaerator, made of steel, externally rustproof painted, to be combined with steam generators for degassing feed water.

The degassing of feed water is important to minimise the presence of carbon dioxide and oxygen to avoid corrosive phenomena within the steam generators and the plant.

Mineral wool insulation and external aluminium plate finish.

Equipped with: thermoregulator unit complete with valves and filters, water supply unit, automatic level regulator with probes, purging unit and control panel.



Codes/Prices

Model	Code	Price
DEGA 500	00823720500	prices on request
DEGA 1000	00823721000	
DEGA 1500	00823721500	
DEGA 2000	00823722000	
DEGA 2500	00823722500	
DEGA 3000	00823723000	
DEGA 4000	00823724000	
DEGA 5000	00823725000	
DEGA 8000	00823728000	
DEGA 10000	00823729999	

Technical Specifications

Model	Capacity	Weight total	Production (degassed water)	Consumption steam	Container dimensions	
	L	kg	L/h	kg/h	Ø mm	L mm
DEGA 500	500	150	510	74	750	1650
DEGA 1000	1000	350	1020	147	900	2150
DEGA 1500	1500	450	1700	246	1100	2100
DEGA 2000	2000	600	2040	295	1200	2300
DEGA 2500	2500	700	2560	370	1400	2150
DEGA 3000	3000	750	3400	491	1400	2500
DEGA 4000	4000	1000	4260	616	1600	2600
DEGA 5000	5000	1300	5100	737	1700	2850
DEGA 8000	8000	1850	8500	1229	1700	4400
DEGA 10000	10000	2200	10500	1446	1700	5400

Note.: Different capacities on request

Condensate collection

RCX



PRICES

Vertical condensate collection tanks made of AISI 304 stainless steel, for steam systems complete with visual level with glass tube and stainless steel protection, 0÷120°C thermometer, float tap with interception, stainless steel float type minimum level safety control, interception valves for drainage and water intake.

Atmospheric operating pressure.

Possibility of insulating the tank (see table for the surcharge to be added to the list price of the tank).

Horizontal tanks are available on request.



Codes/Prices

Model	Code	Price
RCX 1000	00813721000	7.173,00 €
RCX 2000	00813722000	10.631,00 €
RCX 3000	00813723000	13.538,00 €
RCX 4000	00813724000	13.824,00 €
RCX 5000	00813725000	18.272,00 €

Technical Specifications

Model	Capacity	Weight	Dimensions	
	L	kg	Ø mm	L mm
RCX 1000	1000	120	900	1950
RCX 2000	2000	200	1000	2750
RCX 3000	3000	270	1300	2600
RCX 4000	4000	300	1400	2970
RCX 5000	5000	330	1600	2950

N.B.: Different capacities on request

Surcharge for insulation

Description	Capacity of vessel to be insulated L	Code	Price
Insulation made of closed-cell, cross-linked polyethylene foam, thickness 20 mm, density 30 kg/m ³ with fire reaction class 1 and thermal conductivity according to UNI 7745 0° - w/mk 0.034. External finish in embossed sheet metal.	1000	85073971000	prices on request
	2000	85073972000	
	3000	85073973000	
	4000	85073974000	
	5000	85073975000	

Steam collectors

CUSTOM Series

Custom-built manifolds with multi-attachments

Whenever steam has to be distributed over several lines in the plant, equalising manifolds must be installed. The construction of steam manifolds is assimilated to the construction of pressure vessels of table 2 according to the PED Directive 2014/68/EU.

The selection rules for geometry, materials of construction, treatments, insulation and design documents are identical to those in the section Custom Steam Storage.

Below are some classic types of construction that were carried out in conjunction with the drafting of a calculation project in accordance with the PED regulations.



Raw steam manifold pressure 12 bar 200°C in carbon steel diameter 400 mm length 3350 mm with flanges DN150-PN 16 UNI EN 1092-1 and condensate recovery and drain pocket with connections DN25 PN 16 UNI EN 1092-1.



Raw steam manifold pressure 12 bar 200°C in carbon steel diameter 450 mm length 6500 mm with flanges DN15-25-40-100-125 and 200 PN 16 UNI EN 1092-1.

Prices on request



Overheated water

Overheated Water Generators Index

OVERHEATED WATER GENERATORS

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Overheated water

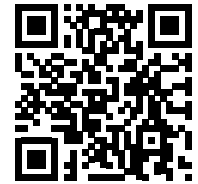
Overheated water generators

SMB 4.9 bar - 158.1°C

SMA 9.8 BAR - 183.2 °C



PRICES
SMB



PRICES
SMA

One-piece, low-pressure overheated water generators with reverse-flame combustion chamber. Monoblock pressurised generators with three smoke passes of which two in the firebox, smooth tube bundles with stainless steel turbulators, for the production of overheated water.

Running on diesel, gas, fuel oil. Complete with all accessories (except burner) ready for operation.

The generator and expansion vessel are already prepared for installation of the 72-hour KIT

Factory tested and verified by Notified Body as a certified assembly according to European Directive 2014/68/EU-PED

By certifying generators up to an output of 1380 kW with a temperature of 120°, they will be exempt from licensed conductor



STANDARD ACCESSORIES (included in delivery)

- ✓ Insulated steel panel shell
- ✓ Stainless steel turbulators
- ✓ Spring-loaded safety valve(s)
- ✓ Exhaust assembly (flow-through valve) + wafer valve
- ✓ Dial gauge with three-way shut-off valve
- ✓ Safety pressure switch with manual reset
- ✓ Two-stage control panel equipped with
 - Main switch complete with indicator light
 - No. 2 control thermostats 50°C / 200°C
 - Safety thermostat with manual reset 0°C / 250°C

- Safety pressure switch
- Dial thermometer 0°C / 200°C

ACCESSORIES ON REQUEST

- 3rd service thermostat
- Burner plate drilling
- Oil, naphtha or gas burner
- Lever-operated quick-deflush valve
- Pressure bar 12 max 190.7°C

Codes/Prices

Model	Code	Price	Model	Code	Price
SMB 140	10301950100	by request	SMA 140	10311950100	by request
SMB 210	10301950150		SMA 210	10311950150	
SMB 270	10301950230		SMA 270	10311950230	
SMB 370	10301950320		SMA 370	10311950320	
SMB 470	10301950430		SMA 470	10311950430	
SMB 580	10301950550		SMA 580	10311950550	
SMB 700	10301950650		SMA 700	10311950650	
SMB 930	10301950860		SMA 930	10311950860	
SMB 1160	10301951060		SMA 1160	10311951060	
SMB 1400	10301951200		SMA 1400	10311951200	
SMB 1750	10301951700		SMA 1750	10311951700	
SMB 2000	10301952000		SMA 2000	10311962000	
SMB 2300	10301952300		SMA 2300	10311952300	
SMB 2900	10301952900		SMA 2900	10311952900	

Technical Specifications

Model	Pot. usefut	Overall dimensions			Weight empty SMA	Weight empty SMB	Pressure chamber combustion	Total water content	Water-side pressure loss	Connec-tion chimney	Return flow connec-tion	Exhaust
	kW	H mm	P mm	L mm	kg	kg	mbar	dm3	mbar	mm	DN	DN
SMA/SMB 140	140	1235	1555	950	1160	850	2	335	3,7	220	65	25
SMA/SMB 210	210	1225	1975	950	1560	850	2,5	410	8	220	65	25
SMA/SMB 270	268	1225	1975	950	1560	1220	3	410	13	220	65	25
SMA/SMB 370	372	1430	2285	1140	1850	1220	4,2	780	11	250	80	25
SMA/SMB 470	465	1430	2285	1140	1850	1470	4,5	780	17	250	80	25
SMA/SMB 580	582	1510	2355	1210	1970	1650	5	875	12	250	100	25
SMA/SMB 700	700	1530	2555	1230	2550	1820	6	1020	18	250	100	25
SMA/SMB 930	930	1670	2640	1350	2800	1970	6,5	1189	20	350	125	25
SMA/SMB 1160	1163	1670	3140	1350	3500	2230	7	1485	30	350	125	25
SMA/SMB 1400	1396	1770	3100	1460	4200	2530	7	1696	24	400	150	40
SMA/SMB 1750	1745	1940	3360	1640	5140	3150	8	2455	37	450	150	40
SMA/SMB 2000	2035	2020	3400	1740	5800	3470	8,2	2750	30	450	200	40
SMA/SMB 2300	2325	2080	3600	1780	6300	4650	9	3100	40	500	200	40
SMA/SMB 2900	2907	2190	4210	1890	8400	5150	9,5	4200	45	500	200	40

Overheated water

Overheated water generators

PAS.M 12 bar - 191.70°C



PRICES

Monoblock overheated water generators with three effective smoke passes Monoblock pressurised generators with three smoke passes, two of which are in smooth tube bundles, for the production of overheated water, running on naphtha, diesel or gas. Complete with all accessories and electrical equipment for connection to the expansion vessel (excluding the burner) ready for operation. The generator and expansion vessel are already prepared for installation of the 72-hour KIT. Factory tested and verified by Notified Body as a certified assembly according to European Directive 2014/68/EU-PED

Max. allowed pressure 12 bar

Max. allowed temperature 191.70° C



STANDARD ACCESSORIES (included in delivery)

- ✓ No. 2 spring-loaded safety valves
- ✓ Unloading unit (initiated flow valve and lever-operated quick exhaust valve)
- ✓ Dial thermometer
- ✓ Manometer
- ✓ Safety pressure switch with manual reset
- ✓ Insulated aluminium sheet casing with satin finish
- ✓ Burner pad drilling
- ✓ General electrical control panel (- Burner power supply)
 - 24VAC auxiliary circuits
 - Safety thermostat 0°C / 250°C
 - Safety pressure switch
 - No. 2 control thermostats 50°C / 200°C
 - Burner ON/OFF selector switch
 - Burner alarm management
 - Management of visual and audible alarms

ACCESSORIES ON REQUEST

- 3rd service thermostat
- Gas/diesel/naphtha burner
- Ladder and gangway
- Smoke thermometer
- Stainless steel mantle
- Recirculation pump with thermostat

Codes/Prices

Model	Code	Price
PAS 116	10301910100	by request
PAS 139	10301910150	
PAS 174	10301910210	
PAS 232	10301910260	
PAS 290	10301910320	
PAS 348	10301910450	
PAS 465	10301910540	
PAS 581	10301910640	
PAS 697	10301910850	
PAS 837	10301911060	
PAS 1000	10301911205	

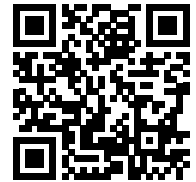
Technical Specifications

Model	Power useful kW	Overall dimensions			Weight empty kg	Combustion chamber pressure mbar	Total water content dm3	Connec- tion chimney mm	Return flow con- nection DN	Exhaust DN
		H mm	P mm	L mm						
PAS 116	1163	2150	3600	1660	7100	5,6	2870	350	125	25
PAS 139	1396	2150	3900	1660	7800	6,7	3600	350	150	40
PAS 174	1745	2340	3900	1850	8400	5,4	3980	400	150	40
PAS 232	2326	2650	4970	2160	10200	3,5	8250	450	150	40
PAS 348	3489	2900	5300	2410	15300	7,5	10840	550	200	40
PAS 465	4652	2880	5770	2470	16000	7	11400	600	200	40
PAS 581	5815	3000	6370	2500	18600	5,8	12520	700	250	40
PAS 697	6978	3000	6870	2500	20200	10	13200	700	250	40
PAS 837	8374	3210	7320	2710	25350	10	16800	800	250	40
PAS 1000	10002	3590	7500	2900	29400	11	19700	900	300	40

Overheated water

Overheated water generators

KIT 72h



ACCESSORIES
PRICES

For overheated water generators

The 72-hour KIT is a control and verification system to operate a overheated water generator for 72 hours without the supervision of the licensed conductor and thus obtain partial exemption from continuous surveillance.

The 72-hour KIT consists of a set of safety and control equipment assembled and tested on the generator in the factory.

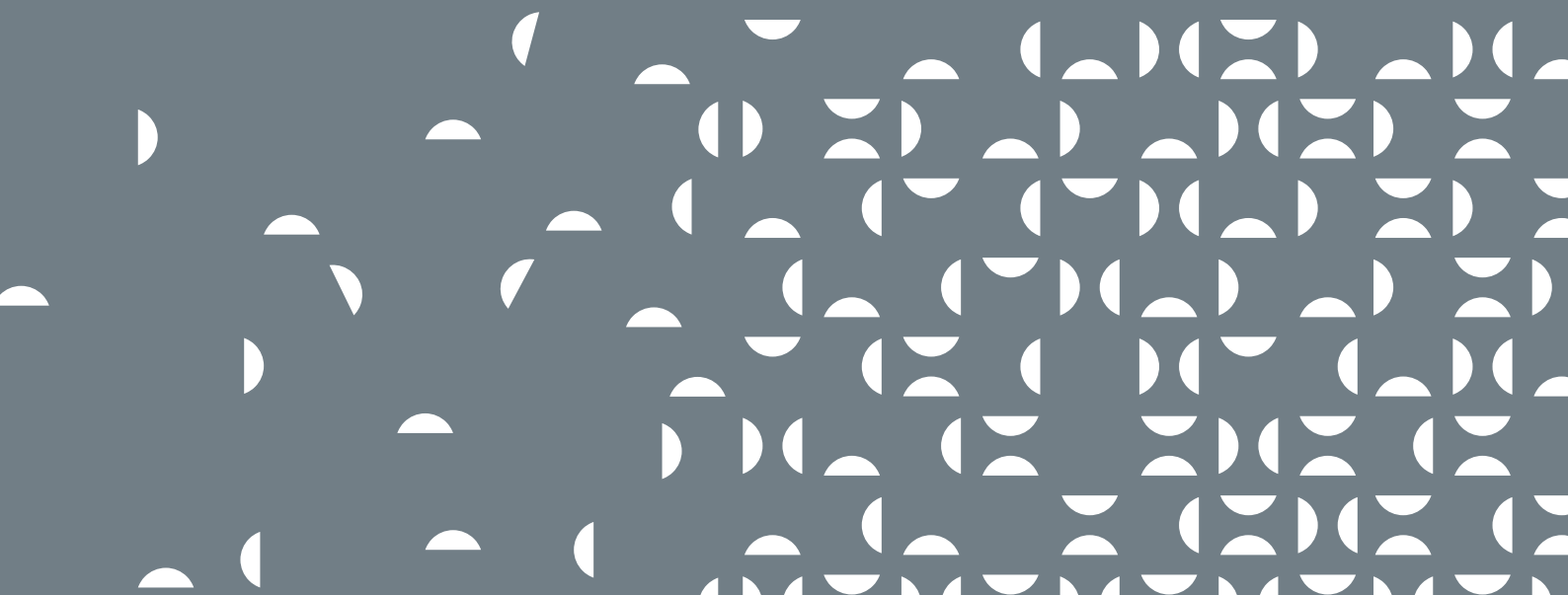
The generator equipped with the KIT is CE certified as an INDEED according to the European Directive 2014/68/EU-PED.

Kit already assembled, wired and tested in boiler



Technical Specifications

Model	Description	Code	Price
KIT 72	72-hour operation for overheated water generators complete with boiler accessories and expansion vessel	00891188272	by request



Expanders Index

OPERATION DIAGRAM

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Scheme
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EXPANSION VESSELS FOR CHILLED WATER

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6 bar expanders -10°C/+110°C
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EXPANSION VESSELS

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Expanders 6 bar 110°C
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Expanders 5 bar 120°C
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Expanders 8 bar 175.4°C
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Expanders 10 bar 183.9°C
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Expanders 12 bar 191.5°C
p. 346



Accessories
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Functional diagram of expanders

Position 0: Expander loaded

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	OFF
Burner contact level switch	ON
Pump contact level switch	OFF
Air supply pressure switch	OFF
Air outlet pressure switch	OFF
Safety pressure switch (optional)	ON

The expander has reached the maximum load and pressure level ($C.I. + 0.6 < P < P. - 0.4$), and is ready to start expansion work.

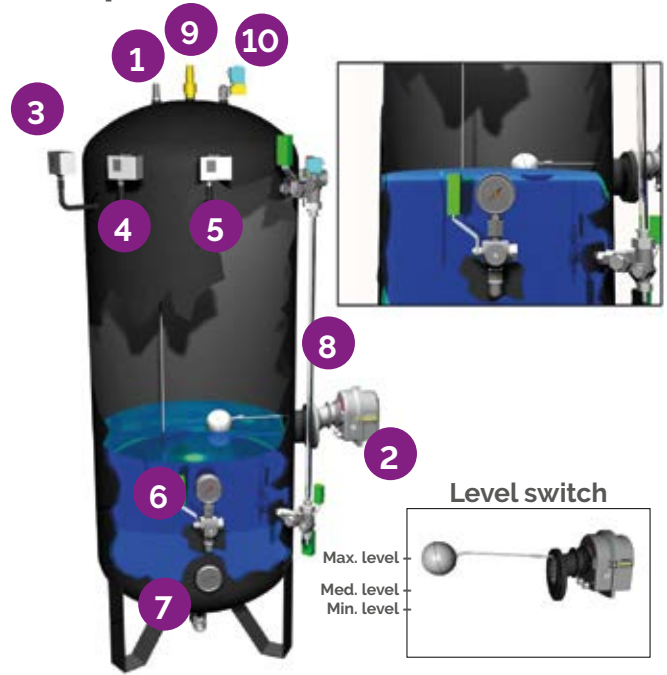
The minimum level safety probe gives consent to the burner for operation.

The level switch gives consent to the burner to operate, keeps the low water level alarm off, and stops the system's water feed.

The air inlet pressure switch closes the air inlet solenoid valve when the pressure in the vessel is higher than the set pressure ($P > C.I. + 0.6$).

The air expulsion pressure switch remains at rest until the pressure inside the expander exceeds the set pressure ($P > P.P. - 0.4$).

|| safety pressure switch remains at rest, and gives the burner consent for operation.

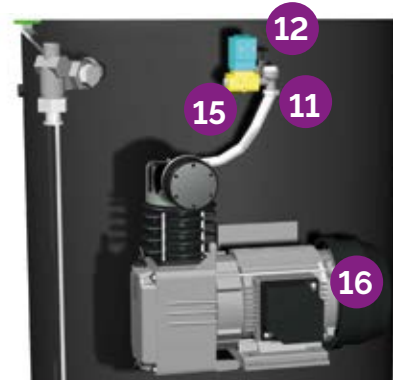


Acronyms
C.I. Hydrostatic load
P Expander pressure in operation
P.P. Design pressure

Component legend
1 Minimum level safety probe
2 Level switch
3 Air supply pressure switch
4 Air outlet pressure switch
5 Safety pressure switch (optional)
6 Manometer
7 Thermometer
8 Level control
9 Safety valve
10 Air outlet valve
11 Air check valve
12 Shut-off tap
13 Air loading solenoid valve
14 Pressure regulator
15 Compressor head breather solenoid valve
16 Compressor



Mains-loading variant



Variant with compressor

Increasing water level

Position 1: Expander in operation

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	OFF
Burner contact level switch	ON
Pump contact level switch	OFF
Air supply pressure switch	ON-OFF
Air outlet pressure switch	ON-OFF
Safety pressure switch	ON

The expander is charged, and the level rises and falls according to the expansion of the system.

The minimum level safety probe gives consent to the burner for operation.

The level switch gives consent to the burner to start, keeps the low water level alarm off, and stops the system's water feed.

The air inlet pressure switch closes the air inlet solenoid valve when the set pressure is exceeded ($P > C.I. + 0.6$); if, on the other hand, the pressure inside the vessel decreases ($P < C.I. + 0.6$), it causes the solenoid valve to open until the pressure is within the operating parameters ($C.I. + 0.6 < P < P.P. - 0.4$).

The air expulsion pressure switch remains at rest until the pressure inside the expander exceeds the set pressure ($P > P.P. - 0.4$); if this happens, it will act on the air expulsion solenoid valve, keeping it open until the pressure drops below the set pressure ($P < P.P. - 0.4$).

The safety pressure switch remains at rest, and gives the burner consent for operation.



Position 2: Expander at maximum expansion

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	OFF
Burner contact level switch	ON
Pump contact level switch	OFF
Air supply pressure switch	OFF
Air outlet pressure switch	ON-OFF
Safety pressure switch	ON

The expander is charged, and the level rises and falls according to the expansion of the system.

The minimum level safety probe gives consent to the burner for operation.

The level switch gives consent to the burner to start, keeps the low water level alarm off, and stops the system's water feed.

The air inlet pressure switch remains at rest because the level is rising, so the pressure is rising ($P > C.I. + 0.6$).

The air expulsion pressure switch remains at rest until the pressure inside the expander exceeds the set pressure ($P > P.P. - 0.4$); if this happens, it will act on the air expulsion solenoid valve, keeping it open until the pressure drops below the set pressure ($P < P.P. - 0.4$).

The safety pressure switch remains at rest, and gives the burner consent for operation.



Position 3: Expander beyond maximum expansion

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	OFF
Burner contact level switch	ON
Pump contact level switch	OFF
Air supply pressure switch	OFF
Air outlet pressure switch	ON
Safety pressure switch	OFF

The expander has exceeded the permitted level of expansion and continues to rise.

The minimum level safety probe gives consent to the burner for operation.

The level switch gives consent to the burner to start, keeps the low water level alarm off, and stops the system's water feed.

The air inlet pressure switch remains at rest because the pressure is at the maximum allowed ($P > C.I. + 0.6$).

The air outlet pressure switch opens the air outlet solenoid valve and keeps it open until the pressure drops below the set pressure ($P < P.P. - 0.4$).

The safety pressure switch trips at $P > P.P. - 0.2$, blocking the burner. To reactivate it, you will have to act manually.

At the maximum boil-off pressure of the expander, the safety valve intervenes, opening and releasing air.



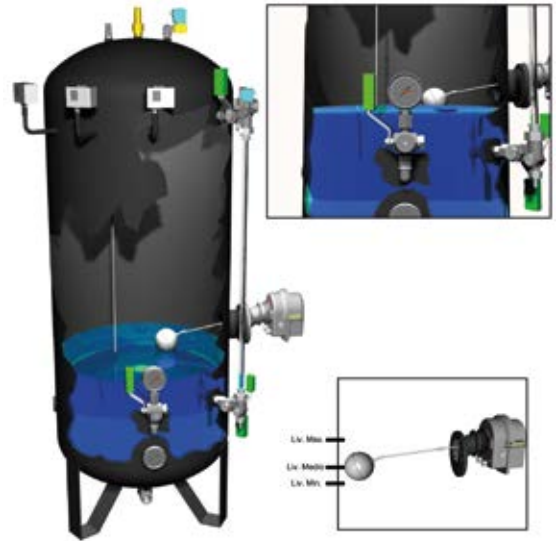
Falling water level

Position 1: Expander at mid-float level

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	OFF
Burner contact level switch	ON
Pump contact level switch	ON
Air supply pressure switch	ON
Air outlet pressure switch	OFF
Safety pressure switch	ON

The water level in the expander is halfway up the level gauge and is in a downward phase.

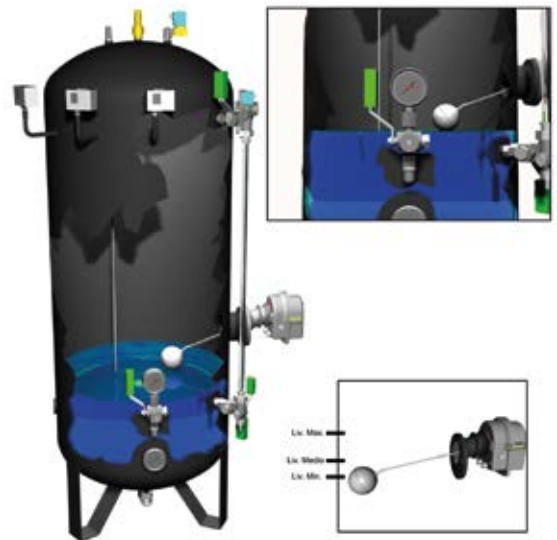
- The minimum level safety probe** gives consent to the burner for operation.
- The level switch** gives consent to the burner to operate, keeps the low water level alarm off and starts the system's water feed.
- The air inlet pressure switch** keeps the air inlet solenoid valve open until the set pressure is exceeded ($P > C.I. + 0.6 \text{ bar}$).
- The air outlet pressure switch** remains at rest because the level is falling, i.e. the pressure is decreasing ($P < P.P. - 0.4$).
- The safety pressure switch** remains at rest, and gives the burner consent for operation.



Position 2: Float idle expander

Elements	Status
Minimum level safety probe	ON
Level switch alarm contact	ON
Burner contact level switch	OFF
Pump contact level switch	ON
Air supply pressure switch	ON
Air outlet pressure switch	OFF
Safety pressure switch	ON

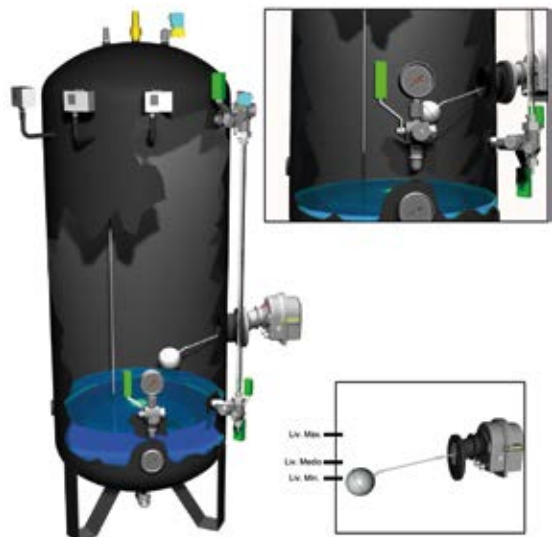
- The water level in the expander is below the working threshold and is falling.
- The minimum level safety probe** gives consent to the burner for operation.
 - The level switch blocks the burner**, switches on the minimum level alarm and keeps the system's water feed running.
 - The air inlet pressure switch** keeps the air inlet solenoid valve open until the set pressure is exceeded ($P > C.I. + 0.6 \text{ bar}$).
 - The air outlet pressure switch** remains at rest because the level is falling, i.e. the pressure is decreasing ($P < P.P. - 0.4$).
 - The safety pressure switch** remains at rest, and gives the burner consent for operation.



Position 3: Expander below the super minimum level

Elements	Status
Minimum level safety probe	OFF
Level switch alarm contact	ON
Burner contact level switch	OFF
Pump contact level switch	ON
Air supply pressure switch	ON
Air outlet pressure switch	OFF
Safety pressure switch	ON

- The water level in the expander is below the 'Safety Minimum' threshold and fails to charge the system.
- The minimum level safety probe** blocks the burner, to reactivate it you will have to act manually.
 - The level switch** locks the burner, switches on the minimum level alarm and keeps the system's water feed running.
 - The air inlet pressure switch** keeps the air inlet solenoid valve open until the set pressure is exceeded ($P > C.I. + 0.6 \text{ bar}$).
 - The air outlet pressure switch** remains at rest because the level is falling, i.e. the pressure is decreasing ($P < P.P. - 0.4$).
 - || safety pressure switch** remains at rest, and gives the burner consent for operation.



Expansion vessels for chilled water

6 bar -10°C/+110°C



CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for chilled water; to be pressurised with air or nitrogen;

insulated and hot-dip galvanised.

Suitable for containing water expansion and maintaining a constant pressure during system operation by means of automatic gas venting and filling.

Max. permissible pressure 6 bar

Min. permissible temperature -10°C

Max. permissible temperature +110°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

20 mm thick, closed-cell, cross-linked polyethylene foam insulation

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00



PRICES



Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions with insulation	
L	kg	L	Ø	Ø mm	H mm
300	70	155	1" 1/2	590	1520
500	100	300	1" 1/2	690	1820
800	140	490	2"	730	1980
1000	160	670	2"	830	2380
1500	220	860	2" 1/2	1040	2290
2000	320	1240	2" 1/2	1140	2470
3000	440	1800	DN 100	1340	2690
4000	600	2790	DN 100	1340	3490
5000	640	3550	DN 100	1440	3720

A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only)		MONOBLOC EXPANDERS with 'R' type accessories		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading	
	L	Code	Price	Code	Price	Code	Price	Code
300	00713950300	3.604,00 €	00713900302	5.306,00 €	00713900300	12.032,00 €	00713900301	10.671,00 €
500	00713950500	4.150,00 €	00713900502	5.522,00 €	00713900500	12.180,00 €	00713900501	10.855,00 €
800	00713950800	4.953,00 €	00713900802	5.959,00 €	00713900800	12.680,00 €	00713900801	11.397,00 €
1000	00713951000	5.586,00 €	00713901002	6.511,00 €	00713901000	13.295,00 €	00713901001	12.171,00 €
1500	00713951500	7.532,00 €	00713901502	8.207,00 €	00713901500	15.299,00 €	00713901501	13.964,00 €
2000	00713952000	9.527,00 €	00713902002	9.924,00 €	00713902000	18.724,00 €	00713902001	17.334,00 €
3000	00713953000	13.591,00 €	00713903002	14.164,00 €	00713903000	22.084,00 €	00713903001	20.621,00 €
4000	00713954000	16.169,00 €	00713904002	18.053,00 €	00713904000	26.686,00 €	00713904001	25.105,00 €
5000	00713955000	19.661,00 €	00713905002	21.400,00 €	00713905000	29.791,00 €	00713905001	28.169,00 €

Accessory set 'R' (already fitted) includes: P.E.D. certified safety valve, pressure gauge with pressure gauge holder, level indicator and protection, drain valve, thermometer.

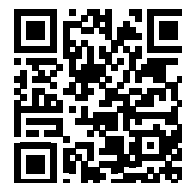
Series of accessories "A" (already assembled and complete with electrical wiring on IP54 panel) includes level indicator(s) with plexiglass and protection, spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float electrolevel (from 300 to 2000 level control with high-sensitivity probes), minimum level safety control with high-sensitivity probes, two pressure switches, air ejection solenoid valve, 0.75 kW automatic air solenoid compressor, drain valve, water filling unit

Series of accessories "B" (already assembled and complete with electrical

wiring on IP54 panel) includes level indicator(s) with plexiglass and protection, spring-loaded safety air valve, pressure gauge with three-way valve, electro-level float thermometer (from 300 to 2000 level control with high-sensitivity probes), minimum level safety control with high-sensitivity probes, two pressure switches, air expulsion solenoid valve, automatic mains air loading unit consisting of pressure regulator with filter and pressure gauge, check and shut-off valve, air inlet solenoid valve, drain valve, water loading unit.

Expansion vessels

6 bar 110°C



CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for hot water, externally rustproof painted; to be pressurised with air or nitrogen.

Suitable for containing water expansion and maintaining a constant pressure during system operation by means of automatic gas venting and filling.

Max. permissible pressure 6 bar

Max. permissible temperature 110°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

Rock wool insulation (see page 347)

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions	
L	kg	L	Ø	Ø mm	H mm
300	70	155	1" 1/2	550	1500
500	100	300	1" 1/2	650	1800
800	140	490	2"	790	1960
1000	160	670	2"	790	2360
1500	220	860	2" 1/2	1000	2270
2000	320	1240	2" 1/2	1100	2450
3000	440	1800	DN 100	1300	2670
4000	600	2790	DN 100	1300	3470
5000	640	3550	DN 100	1400	3700



PRICES



A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only) P.E.D. certificates such as 'EQUIPMENT'		MONOBLOC EXPANDERS with 'R' type accessories P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading P.E.D. certificates as 'ASSEMBLY'.	
	L	Code	Price	Code	Price	Code	Price	Code
300	00713850300	2.296,00 €	00713800302	3.686,00 €	00713800300	8.684,00 €	00713800301	7.295,00 €
500	00713850500	2.495,00 €	00713800502	4.071,00 €	00713800500	9.108,00 €	00713800501	7.688,00 €
800	00713850800	3.028,00 €	00713800802	4.332,00 €	00713800800	9.341,00 €	00713800801	8.354,00 €
1000	00713851000	3.296,00 €	00713801002	4.566,00 €	00713801000	10.032,00 €	00713801001	8.747,00 €
1500	00713851500	4.348,00 €	00713801502	5.984,00 €	00713801500	11.311,00 €	00713801501	10.286,00 €
2000	00713852000	5.789,00 €	00713802002	7.198,00 €	00713802000	13.839,00 €	00713802001	12.814,00 €
3000	00713853000	8.291,00 €	00713803002	10.671,00 €	00713803000	16.599,00 €	00713803001	15.575,00 €
4000	00713854000	9.638,00 €	00713804002	12.060,00 €	00713804000	20.712,00 €	00713804001	18.726,00 €
5000	00713855000	12.129,00 €	00713805002	14.625,00 €	00713805000	23.197,00 €	00713805001	22.123,00 €

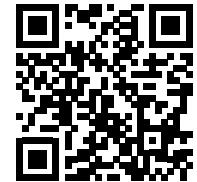
Accessory set 'R' (already assembled) includes: P.E.D. certified safety valve, pressure gauge with pressure gauge holder, level indicator with plexiglass and protection, drain valve, thermometer.

Series of accessories "A" (already assembled and complete with electrical wiring on IP54 panel) includes level indicator(s) with plexiglass and protection, spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float electrolevel (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, 0,75 kW automatic air solenoid compressor, drain valve, water filling unit.

Series of accessories "B" (already assembled and complete with electrical wiring on IP54 panel) includes: level indicator(s) with plexiglass and protection, spring-loaded safety valve for air, pressure gauge with three-way valve, electro-level thermometer with float (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, automatic air loading unit from mains consisting of pressure regulator with filter and pressure gauge, check and shut-off valve, air inlet solenoid valve, drain valve, water loading unit

Expansion vessels

5 bar 120°C



PRICES

CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for superheated water.

Externally painted rustproof; to be pressurised with air or nitrogen. Suitable for containing water expansion and maintaining a constant pressure during operation of the system by means of automatic gas venting and filling.

Max. permissible pressure 5 bar

Max. permissible temperature 120°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

Rock wool insulation (see page 347)

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions	
L	kg	L	Ø	Ø mm	H mm
300	70	155	1" 1/2	550	1500
500	100	300	1" 1/2	650	1800
800	140	490	2"	790	1960
1000	160	670	2"	790	2366
1500	220	860	2" 1/2	1000	2270
2000	320	1240	2" 1/2	1300	2450
3000	440	1800	DN 100	1300	2670
4000	600	2790	DN 100	1300	3470
5000	640	3550	DN 100	1400	3700



A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only) P.E.D. certificates such as 'EQUIPMENT'		MONOBLOC EXPANDERS with 'R' type accessories P.E.D. certificates as 'ASSEMBLY'		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor P.E.D. certificates as 'ASSEMBLY'		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading P.E.D. certificates as 'ASSEMBLY'	
	L	Code	Price	Code	Price	Code	Price	Code
300	00713860300	2.249,00 €	00713810302	3.659,00 €	00713810300	8.227,00 €	00713810301	7.200,00 €
500	00713860500	2.440,00 €	00713810502	3.860,00 €	00713810500	8.642,00 €	00713810501	7.570,00 €
800	00713860800	2.884,00 €	00713810802	4.053,00 €	00713810800	8.864,00 €	00713810801	7.857,00 €
1000	00713861000	3.139,00 €	00713811002	4.528,00 €	00713811000	9.574,00 €	00713811001	8.546,00 €
1500	00713861500	4.274,00 €	00713811502	5.663,00 €	00713811500	10.826,00 €	00713811501	9.787,00 €
2000	00713862000	5.641,00 €	00713812002	6.797,00 €	00713812000	13.306,00 €	00713812001	12.278,00 €
3000	00713863000	7.973,00 €	00713813002	10.105,00 €	00713813000	16.019,00 €	00713813001	15.044,00 €
4000	00713864000	9.277,00 €	00713814002	11.420,00 €	00713814000	19.200,00 €	00713814001	18.130,00 €
5000	00713865000	11.662,00 €	00713815002	13.825,00 €	00713815000	21.585,00 €	00713815001	20.557,00 €

Accessory set 'R' (already fitted) includes: P.E.D. certified safety valve, pressure gauge with pressure gauge holder, level indicator with plexiglass and protection, drain valve.

Series of accessories "A" (already assembled and complete with electrical wiring on IP54 panel) includes: level indicator(s) with plexiglass and protection, spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float solenoid level control (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, 0,75 kW automatic air compressor, drain valve.

Series of accessories "B" (already assembled and complete with electrical wiring on IP54 panel) includes: level indicator(s) with plexiglass and protection, spring-loaded safety valve for air, pressure gauge with three-way valve, electro-level thermometer with float (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, automatic air loading unit from mains consisting of pressure regulator with filter and pressure gauge, check and shut-off valve, air inlet solenoid valve, drain valve.

Expansion vessels

8 bar 175.4°C



PRICES

CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for superheated water, rustproof painted outside; to be pressurised with air or nitrogen.

Suitable for containing water expansion and maintaining a constant pressure during system operation by means of automatic gas venting and filling.

Max. permissible pressure 8 bar

Max. permissible temperature 175.4°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

Rock wool insulation (see page 347)

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions	
L	kg	L	Ø	Ø mm	H mm
300	70	155	DN 40	550	1500
500	100	300	DN 40	650	1800
800	140	490	DN 50	800	1930
1000	160	670	DN 50	800	2330
1500	220	860	DN 65	1000	2270
2000	320	1240	DN 65	1100	2470
3000	440	1800	DN 100	1300	2670
4000	600	2790	DN 100	1300	3450
5000	640	3550	DN 100	1400	3700



A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only) P.E.D. certificates such as 'EQUIPMENT'		MONOBLOC EXPANDERS with 'R' type accessories P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading P.E.D. certificates as 'ASSEMBLY'.	
	L	Code	Code	Price	Code	Price	Code	Price
300	00713870300	3.760,00 €	00713820302	6.881,00 €	00713820300	9.830,00 €	00713820301	8.942,00 €
500	00713870500	4.516,00 €	00713820502	7.168,00 €	00713820500	10.316,00 €	00713820501	9.341,00 €
800	00713870800	4.928,00 €	00713820802	7.348,00 €	00713820800	10.628,00 €	00713820801	10.168,00 €
1000	00713871000	5.636,00 €	00713821002	7.633,00 €	00713821000	11.557,00 €	00713821001	10.846,00 €
1500	00713871500	6.535,00 €	00713821502	8.715,00 €	00713821500	13.179,00 €	00713821501	12.182,00 €
2000	00713872000	8.090,00 €	00713822002	10.168,00 €	00713822000	15.892,00 €	00713822001	14.885,00 €
3000	00713873000	11.741,00 €	00713823002	13.433,00 €	00713823000	19.253,00 €	00713823001	18.268,00 €
4000	00713874000	13.492,00 €	00713824002	17.048,00 €	00713824000	23.332,00 €	00713824001	21.996,00 €
5000	00713875000	16.363,00 €	00713825002	19.561,00 €	00713825000	26.176,00 €	00713825001	25.201,00 €

Accessory set 'R' (already fitted) includes: P.E.D.-certified safety valve, pressure gauge with pressure gauge holder tap, multiple reflection box level indicator, drain valve, thermometer.

Series of accessories "A" (already assembled and complete with electrical wiring on IP54 panel) includes: multiple reflection box level indicator(s), spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float electrolevel (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, 0,75 kW automatic air solenoid compressor, drain valve.

Series of accessories "B" (already assembled and complete with electrical wiring on IP54 panel) includes: level indicator(s) with multiple reflection boxes, spring-loaded safety valve for air, pressure gauge with three-way valve, electro-level thermometer with float (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, automatic air loading unit from mains consisting of pressure regulator with filter and pressure gauge, check and interception valve, air inlet solenoid valve, drain valve.

Expansion vessels

10 bar 183.9°C



PRICES

CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for superheated water, rustproof painted outside; to be pressurised with air or nitrogen.

Suitable for containing water expansion and maintaining a constant pressure during system operation by means of automatic gas venting and filling.

Max. permissible pressure 10 bar

Max. permissible temperature 183.9°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

Rock wool insulation (see page 347)

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions	
L	kg	L	Ø	Ø mm	H mm
300	70	155	DN 40	550	1500
500	100	300	DN 40	650	1800
800	140	490	DN 50	800	1930
1000	160	670	DN 50	800	2330
1500	220	860	DN 65	1000	2270
2000	320	1240	DN 65	1100	2470
3000	440	1800	DN 100	1300	2670
4000	600	2790	DN 100	1300	3450
5000	640	3550	DN 100	1400	3700



A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only) P.E.D. certificates such as 'EQUIPMENT'		MONOBLOC EXPANDERS with 'R' type accessories P.E.D. certificates as 'ASSEMBLY'		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor P.E.D. certificates as 'ASSEMBLY'		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading P.E.D. certificates as 'ASSEMBLY'	
	L	Code	Code	Price	Code	Price	Code	Price
300	00713890300	3.979,00 €	00713830302	7.092,00 €	00713830303	10.122,00 €	00713830301	9.212,00 €
500	00713890500	4.725,00 €	00713830502	7.696,00 €	00713830503	10.624,00 €	00713830501	9.531,00 €
800	00713890800	5.006,00 €	00713830802	8.331,00 €	00713830803	11.557,00 €	00713830801	10.412,00 €
1000	00713891000	5.825,00 €	00713831002	9.012,00 €	00713831003	12.086,00 €	00713831001	11.101,00 €
1500	00713891500	6.661,00 €	00713831502	10.765,00 €	00713831503	13.624,00 €	00713831501	13.159,00 €
2000	00713892000	8.387,00 €	00713832002	12.086,00 €	00713832003	16.380,00 €	00713832001	15.289,00 €
3000	00713893000	12.437,00 €	00713833002	15.468,00 €	00713833003	20.971,00 €	00713833001	19.889,00 €
4000	00713894000	14.273,00 €	00713834002	18.289,00 €	00713834003	24.172,00 €	00713834001	23.155,00 €
5000	00713895000	17.222,00 €	00713835002	20.589,00 €	00713835003	28.402,00 €	00713835001	27.321,00 €

Accessory set 'R' (already fitted) includes: P.E.D.-certified safety valve, pressure gauge with pressure gauge holder, multiple box level indicator, drain valve, thermometer.

Series of accessories 'A' (already assembled and complete with electrical wiring on IP54 panel) includes: multiple box level indicator, spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float electrolevel (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, 1.5 kW automatic air solenoid compressor, drain valve.

Series of accessories 'B' (already assembled and complete with electrical

wiring on IP54 panel) includes: level indicator(s) with multiple boxes, spring-loaded safety valve for air, pressure gauge with three-way valve, electro-level thermometer with float (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air expulsion solenoid valve, automatic air loading unit from mains consisting of pressure regulator with filter and pressure gauge, check and interception valve, air inlet solenoid valve, drain valve.

Expansion vessels

12 bar 191.5°C



PRICES

CONSTANT PRESSURE AND VARIABLE LEVEL OPERATION

Self-pressurised closed expansion vessels, without diaphragm, for superheated water, rustproof painted outside; to be pressurised with air or nitrogen.

Suitable for containing water expansion and maintaining a constant pressure during system operation by means of automatic gas venting and filling.

Max. permissible pressure 12 bar

Maximum permissible temperature 191.5°C

CE certified according to European Dir. 2014/68/EU-PED the expanders are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

Rock wool insulation (see page 347)

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Weight	Useful capacity of expansion *	Attachment expansion	Dimensions	
L	kg	L	Ø	Ø mm	H mm
300	70	155	DN 40	550	1500
500	100	300	DN 40	650	1800
800	140	490	DN 50	800	1930
1000	160	670	DN 50	800	2330
1500	220	860	DN 65	1000	2270
2000	320	1240	DN 65	1100	2470
3000	440	1800	DN 100	1300	2690
4000	600	2790	DN 100	1300	3470
5000	640	3550	DN 100	1400	3720



A' accessories

B' Accessories

* The useful expansion capacity is that visible on the level indicator
NB: For different capacities and pressures, please request a quotation.

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Price Codes

Capacity	EXPANDERS WITHOUT ACCESSORIES (container only) P.E.D. certificates such as 'EQUIPMENT'		MONOBLOC EXPANDERS with 'R' type accessories P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'A' accessories for air loading with compressor P.E.D. certificates as 'ASSEMBLY'.		MONOBLOC EXPANDERS with type 'B' accessories for mains air loading P.E.D. certificates as 'ASSEMBLY'.	
	L	Code	Price	Code	Price	Code	Price	Code
300	00713880300	5.220,00 €	00713840302	7.468,00 €	00713840300	11.109,00 €	00713840301	9.779,00 €
500	00713880500	5.999,00 €	00713840502	8.142,00 €	00713840500	11.255,00 €	00713840501	9.998,00 €
800	00713880800	6.425,00 €	00713840802	8.479,00 €	00713840800	12.258,00 €	00713840801	10.966,00 €
1000	00713881000	6.596,00 €	00713841002	9.206,00 €	00713841000	12.970,00 €	00713841001	11.690,00 €
1500	00713881500	7.824,00 €	00713841502	11.057,00 €	00713841500	15.138,00 €	00713841501	13.868,00 €
2000	00713882000	9.880,00 €	00713842002	12.414,00 €	00713842000	17.378,00 €	00713842001	16.154,00 €
3000	00713883000	15.780,00 €	00713843002	16.420,00 €	00713843000	21.851,00 €	00713843001	20.737,00 €
4000	00713884000	17.568,00 €	00713844002	19.518,00 €	00713844000	27.664,00 €	00713844001	26.016,00 €
5000	00713885000	21.108,00 €	00713845002	22.412,00 €	00713845000	29.484,00 €	00713845001	28.360,00 €

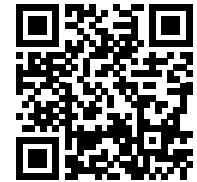
Accessory set 'R' (already fitted) includes: P.E.D.-certified safety valve, pressure gauge with pressure gauge holder, multiple box level indicator, drain valve, thermometer.

Series of accessories 'A' (already assembled and complete with electrical wiring on IP54 panel) includes: multiple box level indicator, spring-loaded safety valve for air, pressure gauge with three-way valve, thermometer, float electrolevel (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air ejection solenoid valve, 15 kW automatic air solenoid compressor, drain valve.

Series of accessories 'B' (already assembled and complete with electrical

wiring on IP54 panel) includes: level indicator(s) with multiple boxes, spring-loaded safety valve for air, pressure gauge with three-way valve, electro-level thermometer with float (from 300 to 2000 level control with probes), minimum level safety control with probe, two pressure switches, air expulsion solenoid valve, automatic air loading unit from mains consisting of pressure regulator with filter and pressure gauge, check and interception valve, air inlet solenoid valve, drain valve.

Accessories for expansion vessels



ACCESSORIES
PRICES

Insulations with aluminium foil finish for expanders

On request, it is possible to apply 50 mm thick rockwool insulation and an external finish of aluminium sheet metal to the expander vessel.

The table shows the surcharge to be added to the list price.

Technical Specifications

Capacity L	Surcharge
300	1.402,00 €
500	2.026,00 €
800	2.703,00 €
1000	3.019,00 €
1500	3.533,00 €
2000	3.952,00 €
3000	5.353,00 €
4000	5.977,00 €
5000	7.276,00 €

50 mm thick rock wool insulation and external aluminium sheet finish with segmented bottoms.



Accessories

Description	Code	Price
Third pressure switch 6 bar	00891181005	155,00 €
Third pressure switch 8 bar	00891181006	420,00 €
Third pressure switch 10-12 bar	00891181007	409,00 €
Third safety pressure switch with manual reset 6-8 bar	00891181008	696,00 €
Third safety pressure switch with manual reset 10-12 bar	00891181009	696,00 €
Header pitch 220x320 mm (to be requested when ordering)	85077280012	2.347,00 €
Manhole 300x400 mm (to be requested when ordering)	85077280013	2.173,00 €



Autoclaves

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STAINLESS STEEL AUTOCLAVES

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Galvanised autoclaves Certified as 'EQUIPMENT'



PRICES

Hot-dip galvanised steel autoclaves.
Allowed temperature: -10 +49°C.
CE certified according to European Dir. 2014/68/EU-PED as "EQUIPMENT" without accessories.
Autoclaves are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00



Technical Specifications

Capacity l	Dimensions Ø mm	H mm	Code	Price
Autoclave assemblies at max. allowed pressure 6 bar				
500	650	1800	00703020500	2.427,00 €
800	790	1960	00703020800	2.822,00 €
1000	790	2360	00703021000	3.034,00 €
1500	1000	2270	00703021500	4.391,00 €
2000	1100	2470	00703022000	5.269,00 €
3000	1300	2670	00703023000	8.087,00 €
4000	1300	3450	00703024000	10.430,00 €
5000	1400	3700	00703025000	11.470,00 €
Autoclave assemblies with max. allowed pressure 8 bar				
500	650	1800	00703040500	2.555,00 €
800	790	1960	00703040800	3.034,00 €
1000	790	2360	00703041000	3.353,00 €
1500	1000	2270	00703041500	4.950,00 €
2000	1100	2470	00703042000	5.907,00 €
3000	1300	2670	00703043000	8.939,00 €
4000	1300	3450	00703044000	10.831,00 €
5000	1400	3700	00703045000	12.959,00 €
Autoclave assemblies with max. allowed pressure 10 bar				
300	550	1500	00703050300	2.769,00 €
500	650	1800	00703050500	2.874,00 €
800	790	1960	00703050800	3.630,00 €
1000	790	2360	00703051000	4.333,00 €
1500	1000	2270	00703051500	5.601,00 €
2000	1100	2470	00703052000	6.226,00 €
3000	1300	2670	00703053000	8.849,00 €
4000	1300	3450	00703054000	11.628,00 €
5000	1400	3700	00703055000	13.786,00 €
Autoclave assemblies with max. allowed pressure 12 bar				
300	550	1500	00703060300	3.365,00 €
500	650	1800	00703060500	3.715,00 €
800	790	1960	00703060800	4.667,00 €
1000	790	2360	00703061000	5.008,00 €
1500	1000	2270	00703061500	6.884,00 €
2000	1100	2470	00703062000	8.513,00 €
3000	1300	2670	00703063000	11.735,00 €
4000	1300	3450	00703064000	13.388,00 €
5000	1400	3700	00703065000	15.546,00 €

Galvanised autoclaves with 'R' accessories already fitted



PRICES

Hot-dip galvanised steel autoclaves with: P.E.D. certified safety valve, pressure gauge with manometer tap, level indicator and protection (multiple reflection box for 12 bar), pressure switch or drain valve.

Allowed temperature: -10 +49° C.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY".

The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity L	Dimensions		Code		Price
	Ø mm	H mm	with exhaust valve	with pressure switch	
Autoclave assemblies at max. allowed pressure 6 bar					
500	650	1800	00703120501	00703120500	2.697,00 €
800	790	1960	00703120801	00703120800	3.135,00 €
1000	790	2360	00703121001	00703121000	3.372,00 €
1500	1000	2270	00703121501	00703121500	4.878,00 €
2000	1100	2470	00703122001	00703122000	5.855,00 €
3000	1300	2670	00703123001	00703123000	8.986,00 €
4000	1300	3450	00703124001	00703124000	11.590,00 €
5000	1400	3700	00703125001	00703125000	12.744,00 €
Autoclave assemblies with max. allowed pressure 8 bar					
500	650	1800	00703140501	00703140500	2.838,00 €
800	790	1960	00703140801	00703140800	3.372,00 €
1000	790	2360	00703141001	00703141000	3.725,00 €
1500	1000	2270	00703141501	00703141500	5.499,00 €
2000	1100	2470	00703142001	00703142000	6.563,00 €
3000	1300	2670	00703143001	00703143000	9.932,00 €
4000	1300	3450	00703144001	00703144000	12.035,00 €
5000	1400	3700	00703145001	00703145000	14.399,00 €
Autoclave assemblies with max. allowed pressure 10 bar					
300	550	1500	00703150301	00703150300	3.076,00 €
500	650	1800	00703150501	00703150500	3.194,00 €
800	790	1960	00703150801	00703150800	4.034,00 €
1000	790	2360	00703151001	00703151000	4.814,00 €
1500	1000	2270	00703151501	00703151500	6.223,00 €
2000	1100	2470	00703152001	00703152000	6.919,00 €
3000	1300	2670	00703153001	00703153000	9.831,00 €
4000	1300	3450	00703154001	00703154000	12.919,00 €
5000	1400	3700	00703155001	00703155000	15.318,00 €
Autoclave assemblies with max. allowed pressure 12 bar					
300	550	1500	00703160301	00703160300	3.739,00 €
500	650	1800	00703160501	00703160500	4.127,00 €
800	790	1960	00703160801	00703160800	5.185,00 €
1000	790	2360	00703161001	00703161000	5.564,00 €
1500	1000	2270	00703161501	00703161500	7.649,00 €
2000	1100	2470	00703162001	00703162000	9.459,00 €
3000	1300	2670	00703163001	00703163000	13.039,00 €
4000	1300	3450	00703164001	00703164000	14.875,00 €
5000	1400	3700	00703165001	00703165000	17.273,00 €

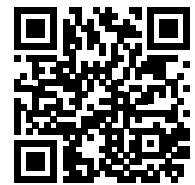
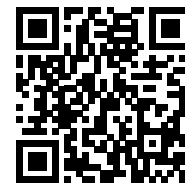
PLEASE NOTE

The indicated heights refer to the product without safety valve (approx. 12 cm).



Autoclaves

Galvanised autoclaves with accessories "A" compressor and "B" accessories air from network



PRICES
A

PRICES
B

Hot-dip galvanised steel autoclave assemblies.

Allowed temperature: -10 +49° C.

Equipped with all accessories (type 'A' or 'B') already fitted and complete with electrical wiring on IP54 panel.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY".

The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

A' accessories

B' Accessories

Capacity	Dimensions		Autoclave assemblies with 'A' accessories for air loading with compressor		Autoclaves with 'B' accessories for loading from compressed air network		
	L	Ø mm	H mm	Code	Price	Code	Price
Autoclave assemblies at max. allowed pressure 6 bar							
500	650	1800	00703220500		5.609,00 €	00703320500	4.302,00 €
800	790	1960	00703220800		5.953,00 €	00703320800	4.787,00 €
1000	790	2360	00703221000		6.355,00 €	00703321000	5.109,00 €
1500	1000	2270	00703221500		8.068,00 €	00703321500	6.714,00 €
2000	1100	2470	00703222000		8.947,00 €	00703322000	7.388,00 €
3000	1300	2670	00703223000		12.035,00 €	00703323000	10.263,00 €
4000	1300	3450	00703224000		14.698,00 €	00703324000	13.220,00 €
5000	1400	3700	00703225000		15.911,00 €	00703325000	14.399,00 €
Autoclave assemblies at max. allowed pressure 8 bar							
500	650	1800	00703240500		5.532,00 €	00703340500	4.423,00 €
800	790	1960	00703240800		6.258,00 €	00703340800	4.919,00 €
1000	790	2360	00703241000		6.649,00 €	00703341000	5.374,00 €
1500	1000	2270	00703241500		8.458,00 €	00703341500	7.438,00 €
2000	1100	2470	00703242000		9.604,00 €	00703342000	8.344,00 €
3000	1300	2670	00703243000		12.644,00 €	00703343000	11.199,00 €
4000	1300	3450	00703244000		15.256,00 €	00703344000	14.022,00 €
5000	1400	3700	00703245000		17.724,00 €	00703345000	16.469,00 €
Autoclave assemblies at max. allowed pressure 10 bar							
300	550	1500	00703250300		5.165,00 €	00703350300	4.709,00 €
500	650	1800	00703250500		6.021,00 €	00703350500	4.862,00 €
800	790	1960	00703250800		6.877,00 €	00703350800	5.733,00 €
1000	790	2360	00703251000		7.409,00 €	00703351000	6.191,00 €
1500	1000	2270	00703251500		9.046,00 €	00703351500	7.993,00 €
2000	1100	2470	00703252000		10.190,00 €	00703352000	9.272,00 €
3000	1300	2670	00703253000		13.398,00 €	00703353000	12.182,00 €
4000	1300	3450	00703254000		15.856,00 €	00703354000	14.617,00 €
5000	1400	3700	00703255000		18.314,00 €	00703355000	17.053,00 €
Autoclave assemblies at max. allowed pressure 12 bar							
300	550	1500	00703260300		6.499,00 €	00703360300	5.337,00 €
500	650	1800	00703260500		6.933,00 €	00703360500	5.767,00 €
800	790	1960	00703260800		8.098,00 €	00703360800	6.803,00 €
1000	790	2360	00703261000		9.430,00 €	00703361000	7.332,00 €
1500	1000	2270	00703261500		10.699,00 €	00703361500	9.360,00 €
2000	1100	2470	00703262000		12.558,00 €	00703362000	11.213,00 €
3000	1300	2670	00703263000		16.001,00 €	00703363000	14.750,00 €
4000	1300	3450	00703264000		17.947,00 €	00703364000	16.601,00 €
5000	1400	3700	00703265000		20.417,00 €	00703365000	19.060,00 €

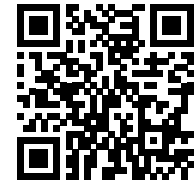
PLEASE NOTE

The indicated heights refer to the product without safety valve (approx. 12 cm).

comprising: three-phase 400 V air electro-compressor, 230 V compressor head bleeder solenoid valve, air check valve, air interception tap, vibration-damping connection, float level regulator, compressor pressure switch, compressor switch box, level indicator with plexiglass tube and protection (multiple reflection box for 12 Bar), P.E.D. certified safety valve, pressure gauge with pressure gauge holder tap, drain valve.

comprising: pressure regulator with filter and pressure gauge, 230 V air inlet solenoid valve, air non-return valve, air shut-off tap, float level regulator, solenoid valve pressure switch, pressure switch, electrical wiring board, level indicator with Plexiglas tube and protection, (with multiple reflex boxes for 12 Bar), P.E.D. certified safety valve, pressure gauge with pressure gauge holder tap, drain valve.

Stainless steel autoclaves Certified as 'EQUIPMENT'



PRICES

AISI 304 stainless steel autoclave containers.
Allowed temperature: -10 +49°C.
CE certified according to European Dir. 2014/68/EU-PED as "EQUIPMENT" without accessories.
Autoclaves are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995,00

Technical Specifications

Capacity l	Dimensions		Code	Price
	Ø mm	H mm		
Autoclaves with max. allowed pressure of 6 bar				
500	700	1550	00703070500	3.524,00 €
800	700	2350	00703070800	4.842,00 €
1000	900	1860	00703071000	5.158,00 €
1500	1000	2230	00703071500	6.516,00 €
2000	1100	2570	00703072000	7.763,00 €
Autoclaves with max. allowed pressure of 8 bar				
500	700	1500	00703080500	4.462,00 €
800	700	2350	00703080800	5.887,00 €
1000	900	1860	00703081000	6.428,00 €
1500	1000	2230	00703081500	7.990,00 €
2000	1100	2570	00703082000	8.671,00 €
Autoclaves with max. allowed pressure of 10 bar				
500	700	1500	00703090500	4.769,00 €
800	700	2350	00703090800	6.233,00 €
1000	900	1860	00703091000	6.775,00 €
1500	1000	2230	00703091500	8.491,00 €
2000	1100	2570	00703092000	9.810,00 €



Stainless steel autoclaves with 'R' accessories already mounted



PRICES

AISI 304 stainless steel autoclave vessels with: P.E.D. certified safety valve, pressure gauge with manometer tap, level indicator and protection, pressure switch or drain valve.

Allowed temperature: -10 +49° C.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00



Technical Specifications

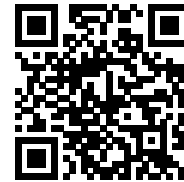
Capacity l	Dimensions		Code		Price
	Ø mm	H mm	with exhaust valve	with pressure switch	
Autoclave assemblies at max. allowed pressure 6 bar					
500	700	1550	00703170500	00703170501	4.165,00 €
800	700	2350	00703170800	00703170801	5.362,00 €
1000	900	1860	00703171000	00703171001	5.801,00 €
1500	1000	2230	00703171500	00703171501	7.069,00 €
2000	1100	2570	00703172000	00703172001	8.339,00 €
Autoclave assemblies with max. allowed pressure 8 bar					
500	700	1500	00703180500	00703180501	4.975,00 €
800	700	2350	00703180800	00703180801	6.426,00 €
1000	900	1860	00703181000	00703181001	6.978,00 €
1500	1000	2230	00703181500	00703181501	8.570,00 €
2000	1100	2570	00703182000	00703182001	9.264,00 €
Autoclave assemblies with max. allowed pressure 10 bar					
500	700	1500	00703190500	00703190501	5.288,00 €
800	700	2350	00703190800	00703190801	6.780,00 €
1000	900	1860	00703191000	00703191001	7.332,00 €
1500	1000	2230	00703191500	00703191501	9.082,00 €
2000	1100	2570	00703192000	00703192001	9.718,00 €

PLEASE NOTE

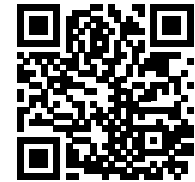
The indicated heights refer to the product without safety valve (approx. 12 cm).

Stainless steel autoclaves with accessories

"A" compressor and accessories "B" mains air



PRICES
A



PRICES
B

with 'A' accessories with compressor and 'B' accessories air from mains Certified as vertical or horizontal 'INDEXING

AISI 304 stainless steel autoclave assemblies.

Allowed temperature: -10 +49° C.

Complete with all accessories (type 'A' or 'B') already fitted and complete with electrical wiring on IP54 panel.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00



A' accessories



B' Accessories

Technical Specifications

Capacity	Dimensions		Autoclave assemblies with 'A' accessories for air loading with compressor		Autoclaves with 'B' accessories for loading from compressed air network	
			Code	Price	Code	Price
L	Ø mm	H mm				
Autoclave assemblies at max. allowed pressure 6 bar						
500	700	1550	00703270500	7.145,00 €	00703370500	6.291,00 €
800	700	2350	00703270800	7.751,00 €	00703370800	7.361,00 €
1000	900	1860	00703271000	8.268,00 €	00703371000	7.568,00 €
1500	1000	2230	00703271500	9.561,00 €	00703371500	9.107,00 €
2000	1100	2570	00703272000	10.595,00 €	00703372000	10.355,00 €
Autoclave assemblies at max. allowed pressure 8 bar						
500	700	1500	00703280500	7.417,00 €	00703380500	7.036,00 €
800	700	2350	00703280800	8.647,00 €	00703380800	8.316,00 €
1000	900	1860	00703281000	8.981,00 €	00703381000	8.610,00 €
1500	1000	2230	00703281500	10.649,00 €	00703381500	10.441,00 €
2000	1100	2570	00703282000	11.803,00 €	00703382000	10.760,00 €
Autoclave assemblies at max. allowed pressure 10 bar						
500	700	1500	00703290500	7.822,00 €	00703390500	7.492,00 €
800	700	2350	00703290800	9.204,00 €	00703390800	9.027,00 €
1000	900	1860	00703291000	9.723,00 €	00703391000	9.362,00 €
1500	1000	2230	00703291500	11.359,00 €	00703391500	11.202,00 €
2000	1100	2570	00703292000	12.615,00 €	00703392000	12.393,00 €

PLEASE NOTE

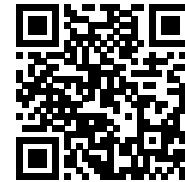
The indicated heights refer to the product without safety valve (approx. 12 cm).

comprising: three-phase 400 V air compressor, 230 V compressor head vent solenoid valve, air non-return valve, air intercepting tap, vibration-damping coupling, float level regulator, compressor pressure switch, compressor switch box, level indicator with Plexiglas tube and protection, P.E.D. certified safety valve, pressure gauge with gauge holder tap, drain valve.

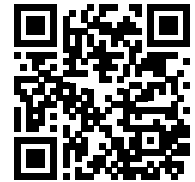
comprising: pressure regulator with filter and pressure gauge, 230 V air inlet solenoid valve, air non-return valve, air shut-off tap, float level regulator, solenoid valve pressure switch, pressure switch, electrical wiring board, level indicator with Plexiglas tube and protection, P.E.D. certified safety valve, pressure gauge with pressure gauge holder tap, drain valve.

Autoclaves

Galvanised pre-autoclaves with accessories "A" compressor and accessories "B" mains air



PRICES
A



PRICES
B

Hot-dip galvanised steel hydraulic flywheel pre-boilers are vessels designed to supply a water lifting unit operating with suction from a pressurised water network

Allowed temperature: -10 +49°C.

Equipped with all accessories (type 'A' or 'B') already fitted and complete with electrical wiring on IP54 panel.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



A' accessories



B' Accessories

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	Dimensions		Pre-autoclave assemblies with 'A' accessories		Pre-autoclave assemblies with 'B' accessories	
			for air loading with compressor		for loading from compressed air network	
			Opposing connections		Opposing connections	
L	Ø mm	H mm	Code	Price	Code	Price
Pre-autoclave assemblies at max. allowed pressure 6 bar						
500	650	1800	00713420500	5.522,00 €	00713520500	4.199,00 €
800	790	1960	00713420800	5.979,00 €	00713520800	4.654,00 €
1000	790	2360	00713421000	6.358,00 €	00713521000	4.995,00 €
1500	1000	2270	00713421500	7.727,00 €	00713521500	6.746,00 €
2000	1100	2470	00713422000	8.743,00 €	00713522000	7.657,00 €
3000	1300	2670	00713423000	11.860,00 €	00713523000	11.032,00 €
4000	1300	3450	00713424000	14.562,00 €	00713524000	13.450,00 €
5000	1400	3700	00713425000	15.763,00 €	00713525000	14.673,00 €
Pre-autoclave assemblies at max. allowed pressure 8 bar						
500	650	1800	00713440500	5.639,00 €	00713540500	4.358,00 €
800	790	1960	00713440800	6.206,00 €	00713540800	4.882,00 €
1000	790	2360	00713441000	6.584,00 €	00713541000	5.343,00 €
1500	1000	2270	00713441500	8.546,00 €	00713541500	7.180,00 €
2000	1100	2470	00713442000	9.591,00 €	00713542000	8.526,00 €
3000	1300	2670	00713443000	12.682,00 €	00713543000	11.351,00 €
4000	1300	3450	00713444000	15.114,00 €	00713544000	14.022,00 €
5000	1400	3700	00713445000	17.560,00 €	00713545000	16.469,00 €
Pre-autoclave assemblies at max. allowed pressure 10 bar						
300	550	1500	00713450300	5.117,00 €	00713550300	4.709,00 €
500	650	1800	00713450500	5.965,00 €	00713550500	4.764,00 €
800	790	1960	00713450800	6.882,00 €	00713550800	5.733,00 €
1000	790	2360	00713451000	7.707,00 €	00713551000	6.042,00 €
1500	1000	2270	00713451500	9.046,00 €	00713551500	7.993,00 €
2000	1100	2470	00713452000	9.932,00 €	00713552000	9.272,00 €
3000	1300	2670	00713453000	13.273,00 €	00713553000	12.182,00 €
4000	1300	3450	00713454000	15.708,00 €	00713554000	14.617,00 €
5000	1400	3700	00713455000	18.145,00 €	00713555000	17.053,00 €
Pre-autoclave assemblies at max. allowed pressure 12 bar						
300	550	1500	00713460300	6.439,00 €	00713560300	5.337,00 €
500	650	1800	00713460500	6.869,00 €	00713560500	5.767,00 €
800	790	1960	00713460800	7.893,00 €	00713560800	7.804,00 €
1000	790	2360	00713461000	9.853,00 €	00713561000	7.332,00 €
1500	1000	2270	00713461500	10.461,00 €	00713561500	9.360,00 €
2000	1100	2470	00713462000	12.325,00 €	00713562000	11.213,00 €
3000	1300	2670	00713463000	15.852,00 €	00713563000	14.750,00 €
4000	1300	3450	00713464000	17.780,00 €	00713564000	16.601,00 €
5000	1400	3700	00713465000	20.228,00 €	00713565000	19.060,00 €

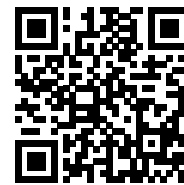
PLEASE NOTE

The indicated heights refer to the product without safety valve (approx. 12 cm).

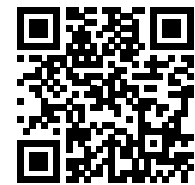
comprising: three-phase 400 V electric air compressor, 230 V compressor head vent solenoid valve, air check valve, air interception tap, vibration-dampening fitting, float level regulator, compressor pressure switch, calibrated minimum pressure switch 1 bar, compressor switch box, level indicator with Plexiglas tube and protection (with multiple reflex boxes for 12 bar), P.E.D. certified safety valve pressure gauge with gauge holder tap, drain valve.

comprising: pressure regulator with filter and pressure gauge, 230 V air inlet solenoid valve, air non-return valve, air shutoff valve, float level regulator, solenoid valve pressure switch, calibrated minimum pressure switch 1 bar, electrical wiring board, level indicator with Plexiglas tube and protection (multiple reflection box for 12 bar), P.E.D. certified safety valve, pressure gauge with pressure gauge holder tap, drain valve.

Stainless steel pre-autoclaves with accessories "A" compressor and accessories "B" mains air



PRICES
A



PRICES
B

AISI 304 stainless steel hydraulic flywheel pre-boilers are vessels designed to supply a water lifting unit operating with suction from pressurised water mains

Allowed temperature: -10 +49°C.

Equipped with all accessories (type 'A' or 'B') already fitted and complete with electrical wiring on IP54 panel.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004)

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995,00



A' accessories

B' Accessories

Technical Specifications

Capacity	Dimensions		Pre-autoclave assemblies with 'A' accessories for air loading with compressor		Pre-autoclave assemblies with 'B' accessories for loading from compressed air network	
			Opposing connections		Opposing connections	
L	Ø mm	H mm	Code	Price	Code	Price
Pre-autoclave assemblies at max. allowed pressure 6 bar						
500	700	1550	00713470500	7.190,00 €	00713570500	6.712,00 €
800	700	2350	00713470800	7.822,00 €	00713570800	7.361,00 €
1000	900	1860	00713471000	8.268,00 €	00713571000	7.598,00 €
1500	1000	2230	00713471500	9.531,00 €	00713571500	9.107,00 €
2000	1100	2570	00713472000	10.595,00 €	00713572000	10.355,00 €
Pre-autoclave assemblies at max. allowed pressure 8 bar						
500	700	1550	00713480500	7.417,00 €	00713580500	6.839,00 €
800	700	2350	00713480800	8.647,00 €	00713580800	8.083,00 €
1000	900	1860	00713481000	8.892,00 €	00713581000	8.370,00 €
1500	1000	2230	00713481500	10.649,00 €	00713581500	10.148,00 €
2000	1100	2570	00713482000	11.803,00 €	00713582000	11.240,00 €
Pre-autoclave assemblies at max. allowed pressure 10 bar						
500	700	1550	00713490500	7.602,00 €	00713590500	7.281,00 €
800	700	2350	00713490800	8.946,00 €	00713590800	8.774,00 €
1000	900	1860	00713491000	9.451,00 €	00713591000	9.099,00 €
1500	1000	2230	00713491500	10.973,00 €	00713591500	10.855,00 €
2000	1100	2570	00713492000	12.261,00 €	00713592000	12.046,00 €

PLEASE NOTE

The indicated heights refer to the product without safety valve (approx. 12 cm).

consisting of: three-phase 400 V air compressor, compressor head 230 V solenoid vent valve, air check valve, air interception tap, vibration-damping coupling, float level regulator, compressor pressure switch, calibrated minimum pressure switch 1 bar, compressor control panel, level indicator with P.E.D. tube and protection, P.E.D. certified safety valve, pressure gauge with gauge holder tap, drain valve.

comprising: pressure regulator with filter and pressure gauge, 230 V air inlet solenoid valve, air non-return valve, air shutoff valve, float level regulator, solenoid valve pressure switch, calibrated minimum pressure switch 1 bar, electrical wiring board, level indicator with Plexiglas tube and protection, P.E.D. certified safety valve, pressure gauge with pressure gauge holder tap, drain valve.

Monoblock autoclaves

MVZ ON/OFF



PRICES

Vertical monoblock galvanised steel water lifting autoclaves with one or two medium head pumps suctioned from a well or tank at atmospheric pressure.

All autoclaves are equipped as standard with the 0,96 kW - 8 bar three-phase automatic air compressor to restore and maintain the air cushion. Allowed temperature: -10 +49° C.

Complete with accessories already fitted and complete with electrical wiring.

CE certified according to European Dir. 2014/68/EU-PED as an "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



variant with air from mains

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	N° flats individual services	Pressure max.	Total capacity pumps	Head max.	Power Single Pump	Overall dimensions H x W x D	Code	Price
L		bar	L/h	m	kW	mm		
M.P. galvanised monoblock autoclave assemblies with one centrifugal pump (F.1016)								
300**	8÷10	10	6000	56	1,1	1600x850x750	00743400300	upon request
500**	10÷12	6	6000	56	1,1	1900x950x850	00743400500	
500	10÷12	8	6000	56	1,1	1900x850x750	00743410500	
M.P. monoblock galvanised autoclave assemblies with a self-priming centrifugal pump (F.1016/5)								
300	3÷6	10	3000	52	0,75	1600x850x900	00743440300	upon request
500	8÷10	6	5800	55	1,1	1900x950x950	00743440500	
500	8÷10	8	5800	52	1,1	1900x950x950	00743460500	
M.P. galvanised monoblock autoclave assemblies with two self-priming centrifugal pumps (F.1016/6)								
300	12÷16	10	6000	52	0,75	1600x1150x900	00743450300	upon request
500	18÷20	6	11600	55	1,1	1900x1250x950	00743450500	
500	18÷20	8	-	-	-	1900x1250x950	00743560500	
M.P. galvanised monoblock autoclave assemblies with two centrifugal pumps (F.1016/9)								
300	20÷25	10	12000	56	1,1	1600x1150x750	00743410300	upon request
500	25÷30	6	12000	56	1,1	1900x1250x850	00743420500	
500	25÷30	8	12000	56	1,1	1900x1250x850	00743430500	
800	30÷42	6	15000	68	1,5	2060x1400x1000	00743420800	
800	30÷42	8	15000	68	1,5	2060x1400x1000	00743430800	
1000	42÷48	6	15000	68	1,5	2460x1400x1000	00743421000	
1000	42÷48	8	15000	68	1,5	2460x1400x1000	00743431000	
1500	55÷70	6	22000	58	2,2	2370x1700x1200	00743421500	
1500	55÷70	8	22000	58	2,2	2370x1700x1200	00743431500	
2000	70÷80	6	22000	58	2,2	2570x1800x1300	00743422000	
2000	70÷80	8	22000	58	2,2	2570x1800x1300	00743432000	
3000	85÷90	6	26000	80	2,5	2770x2000x1500	00743423000	
3000	85÷90	8	26000	80	2,5	2770x2000x1500	00743433000	

** 300 and 500 litre capacities are also available with 230 V single-phase (please indicate voltage when ordering). Price +5%

NB: For different capacities and pressures, please request a quotation.

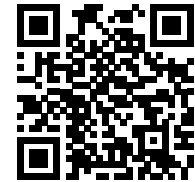
PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Optional accessories

Description	Code	Price
Price difference for Autoclaves Monoblock with automatic air supply unit	85073980000	upon request

Monoblock autoclaves

MVZ INVERTER



PRICES

Vertical monoblock autoclaves for water lifting, made of galvanised steel with two 400/3 V inverter pumps equipped with digital control panel.

All autoclaves are equipped as standard with a compressor or compressed air network loading, a general electric panel and regulatory safety accessories.

Allowed temperature: -10 +49°C.

System entirely pre-assembled, wired and tested in-house.

CE certified according to European Dir. 2014/68/EU-PED as an "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



variant with air from mains

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	N° flats individual services	Pressure max.	Total capacity pumps	Set point pumps	Single Pump Power	Head max.	Overall dimensions H x W x D	Code	Price
l		bar	L/h	bar	kW	m	mm		
MVZ - Galvanised steel monoblock with compressor									
300	10÷20	10	11000	3,50	1,1	50,00	1600x1150x750	00743600300	upon request
500	22÷40	6	19000	4,50	2,2	70,00	1900x1250x850	00743600500	
500	22÷40	8	19000	4,50	2,2	70,00	1900x1250x850	00743700500	
800	40÷50	6	19000	4,50	2,2	70,00	2060x1400x1000	00743600800	
800	40÷50	8	19000	4,50	2,2	70,00	2060x1400x1000	00743700800	
1000	50÷60	6	19000	4,50	2,2	70,00	2460x1400x1000	00743601000	
1000	50÷60	8	19000	4,50	2,2	70,00	2460x1400x1000	00743701000	
1500	60÷65	6	19000	4,50	2,2	70,00	2370x1600x1200	00743601500	
1500	60÷65	8	19000	4,50	2,2	70,00	2370x1600x1200	00743701500	
2000	65÷70	6	19000	4,50	2,2	70,00	2570x1700x1300	00743602000	
2000	65÷70	8	19000	4,50	2,2	70,00	2570x1700x1300	00743702000	
MVZ - Galvanised steel monoblock with air net loading									
300 *	10÷20	10	11000	3,50	1,1	50	1600x1150x750	00743610300	upon request
500	22÷40	6	19000	4,50	2,2	70,00	1900x1250x850	00743610500	
500	22÷40	8	19000	4,50	2,2	70,00	1900x1250x850	00743710500	
800	40÷50	6	19000	4,50	2,2	70,00	2060x1400x1000	00743610800	
800	40÷50	8	19000	4,50	2,2	70,00	2060x1400x1000	00743710800	
1000	50÷60	6	19000	4,50	2,2	70,00	2460x1400x1000	00743611000	
1000	50÷60	8	19000	4,50	2,2	70,00	2460x1400x1000	00743711000	
1500	60÷65	6	19000	4,50	2,2	70,00	2370x1600x1200	00743611500	
1500	60÷65	8	19000	4,50	2,2	70,00	2370x1600x1200	00743711500	
2000	65÷70	6	19000	4,50	2,2	70,00	2570x1700x1300	00743612000	
2000	65÷70	8	19000	4,50	2,2	70,00	2570x1700x1300	00743712000	

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Monoblock autoclaves

MVX INVERTER



PRICES

Vertical monoblock autoclaves for water lifting, made of AISI 304 stainless steel, with two 400/3 V inverter pumps equipped with digital control panel.

All autoclaves are equipped as standard with a compressor or compressed air network loading, a general electric panel and regulatory safety accessories.

Allowed temperature: -10 +49°C.

System entirely pre-assembled, wired and tested in-house.

CE certified according to European Dir. 2014/68/EU-PED as an "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (D.M. 329 of 01/12/2004).

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



variant with air from mains

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

Technical Specifications

Capacity	N° flats individual services	Pressure max.	Total capacity pumps	Set point pumps	Single Pump Power	Head max.	Overall dimensions H x W x D	Code	Price
L		bar	L/h	bar	kW	m	mm		
MVX - AISI 304 stainless steel monoblock with 6 bar compressor									
500	10÷22	6	11000	3,50	2,2	50	1650x1300x900	00743650500	upon request
800	40÷50	6	19000	4,50	2,2	70	2060x1460x1200	00743650800	
1000	50÷60	6	19000	4,50	2,2	70	1960x1500x1100	00743651000	
1500	60÷65	6	19000	4,50	2,2	70	2310x1660x1300	00743651500	
MVX - AISI 304 stainless steel monoblock with compressed air supply 6 bar									
500	10÷22	6	11000	3,50	2,2	50	1650x1300x900	00743660500	upon request
800	40÷50	6	19000	4,50	2,2	70	2060x1460x1200	00743660800	
1000	50÷60	6	19000	4,50	2,2	70	1960x1500x1100	00743661000	
1500	60÷65	6	19000	4,50	2,2	70	2310x1660x1300	00743661500	
MVX - AISI 304 stainless steel monoblock with 8 bar compressor									
500	10÷22	8	11000	3,50	2,2	50	1650x1300x900	00743720500	upon request
800	40÷50	8	19000	4,50	2,2	70	2060x1460x1200	00743720800	
1000	50÷60	8	19000	4,50	2,2	70	1960x1500x1100	00743721000	
1500	60÷65	8	19000	4,50	2,2	70	2310x1660x1300	00743721500	
MVX - AISI 304 stainless steel monoblock with compressed air supply 8 bar									
500	10÷22	8	11000	3,50	2,2	50	1650x1300x900	00743730500	upon request
800	40÷50	8	19000	4,50	2,2	70	2060x1460x1200	00743730800	
1000	50÷60	8	19000	4,50	2,2	70	1960x1500x1100	00743731000	
1500	60÷65	8	19000	4,50	2,2	70	2310x1660x1300	00743731500	

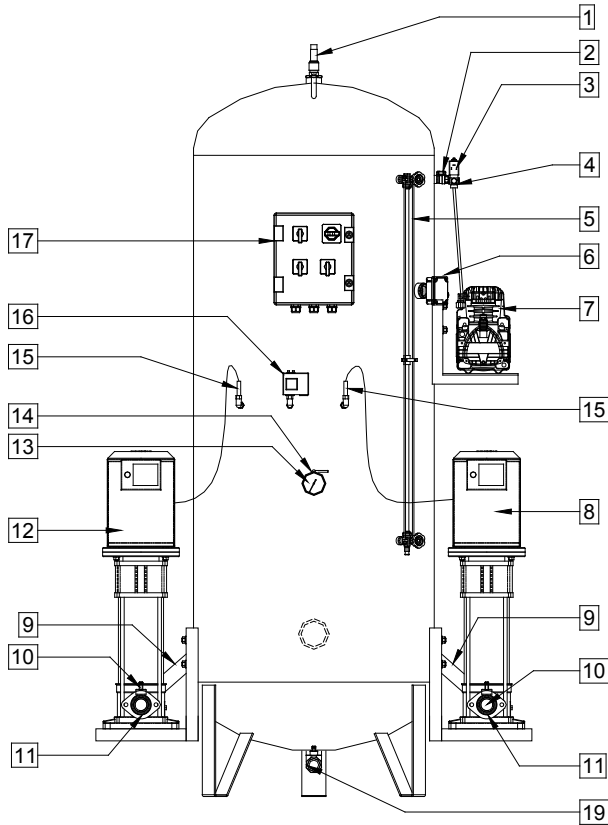
PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Monoblock autoclaves

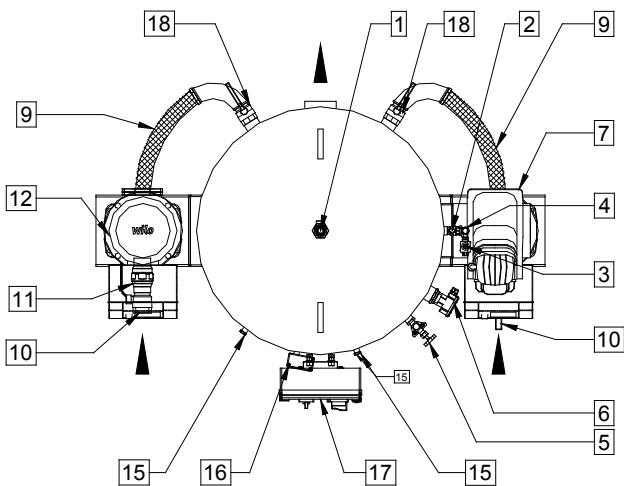
MVZ - MVX



Components



Legend bindings	
1	Spring-loaded safety valve for air Ø 1/2" set at 8 bar
2	Ø 1/2" air shut-off ball valve
3	Compressor head status solenoid valve
4	Air check valve
5	Visual level indicator Ø 1/2" with protection and acrylic tube
6	Compressor start-up level switch
7	Air compressor 0.75 kW
8	Inverter pump (pump 2)
9	No. 2 anti-vibration hoses
10	No. 2 shut-off valves on pump suction
11	No. 2 check valves on pump suction
12	Inverter pump (pump 1)
13	Manometer
14	3V brass manometer tap
15	No. 2 pressure transducers
16	Compressor stop pressure switch
17	Electrical cabinet
18	No. 2 shut-off valves on pump discharge
19	Exhaust valve Ø 1"



Pressurisation units

GPZ



PRICES

Vertical, monoblock water pressure booster sets for direct suction from the water mains (aqueduct) with two inverter pumps

These units consist of a galvanised steel pressure tank, two 400/3 V inverter pumps with digital control and regulation panel, general control panel, air compressor and regulated safety accessories.

The system, entirely pre-assembled, wired and tested in-house, guarantees:

- water hygiene by drawing the electric pumps from the closed vessel fed directly from the water mains.
- a constant pressure flow, as the flow rate changes, thanks to the electronic pump speed control system (inverter).

Max. allowed pressure: 6 bar or 8 bar.

Allowed temperature: -10 +49° C.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004).

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request



SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995.00

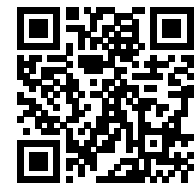
Technical Specifications

Capacity	Total capacity pumps	Head max.	Single Pump Power	Overall dimensions H x W x D	Code	Price
L	L/h	m	kW	mm		
GPZ galvanised steel max. pressure 6 bar						
500	13000	50	1.1	1900x1310x1050	00743360500	upon request
800	20000	48	1.5	2060x1460x1200	00743360800	
1000	20000	48	1.5	2460x1460x1200	00743361000	
1500	20000	48	1.5	2370x1660x1400	00743361500	
2000	20000	48	1.5	2570x1760x1500	00743362000	
3000	23000	70	2.2	2770x1960x1700	00743363000	
GPZ galvanised steel max. pressure 8 bar						
500	13000	50	1.1	1900x1310x1050	00743370500	upon request
800	20000	48	1.5	2060x1460x1200	00743370800	
1000	20000	48	1.5	2460x1460x1200	00743371000	
1500	20000	48	1.5	2370x1660x1400	00743371500	
2000	20000	48	1.5	2570x1760x1500	00743372000	
3000	23000	70	2.2	2770x1960x1700	00743373000	

PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Pressurisation units

GPX



PRICES

Vertical, monoblock water pressure booster sets for direct suction from the water mains (aqueduct) with two inverter pumps

These units consist of an AISI 304 stainless steel pressure tank, two 400/3 V inverter pumps with digital control and regulation panel, general control panel, air compressor and regulated safety accessories.

The system, entirely pre-assembled, wired and tested in-house, guarantees:

- water hygiene by drawing the electric pumps from the closed vessel fed directly from the water mains.
- a constant pressure flow, as the flow rate changes, thanks to the electronic pump speed control system (inverter).

Max. allowed pressure: 6 bar or 8 bar.

Allowed temperature: -10 +49° C.

CE certified according to European Dir. 2014/68/EU-PED as "ASSEMBLY". The assemblies are subject to the Declaration of Commissioning (Ministerial Decree 329 of 01/12/2004).

- Horizontal versions are made on request.
- Anti-condensation insulation in closed-cell, cross-linked polyethylene and PVC external finish on request
- Anti-condensation insulation in closed-cell reticulated polyethylene and external finish in aluminium foil on request

SURCHARGE FOR ADAPTATION OF CONNECTIONS TO EXISTING TANK € 995,00



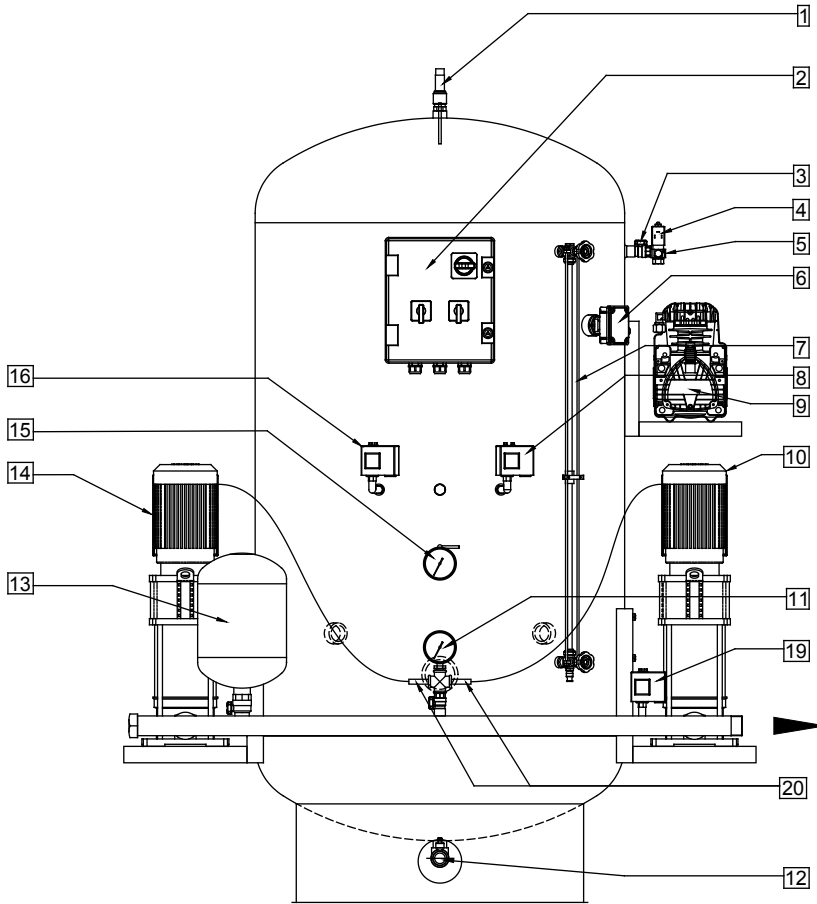
Technical Specifications

Capacity l	Total capacity pumps L/h	Head max. m	Single Pump Power kW	Overall dimensions H x W x D mm	Code	Price
GPX stainless steel AISI 304 6 bar						
500	13000	50	1,1	1680x1360x1100	00743570500	upon request
1000	20000	48	1,5	2040x1560x1300	00743571000	
1500	20000	48	1,5	2310x1660x1400	00743571500	
GPX stainless steel AISI 304 8 bar						
500	13000	50	1,1	1680x1360x1100	00743580500	upon request
1000	20000	48	1,5	2040x1560x1300	00743581000	
1500	20000	48	1,5	2310x1660x1400	00743581500	

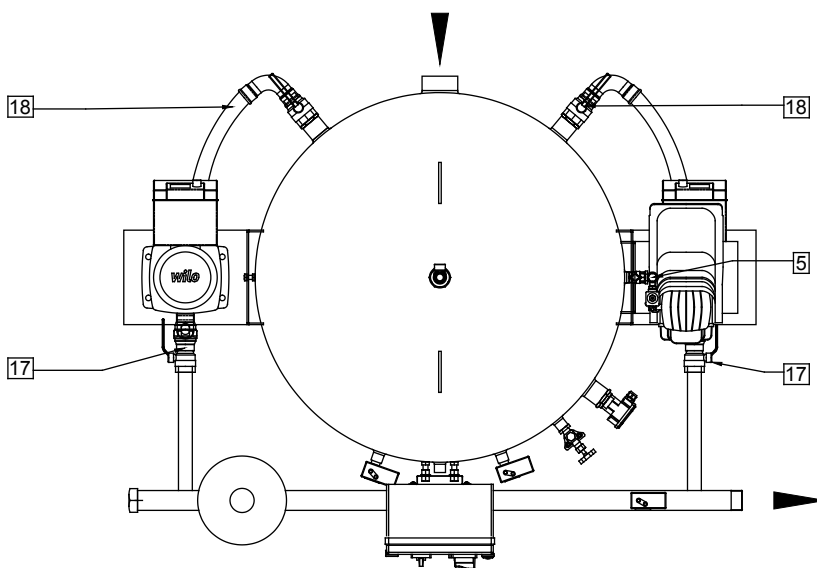
PLEASE NOTE The indicated heights refer to the product without safety valve (approx. 12 cm).

Pressurisation units

GPZ - GPX



Legend bindings	
1	Spring-loaded safety valve for air Ø 1/2" set at 8 bar
2	Electrical cabinet
3	Ø1/2" air shut-off ball valve
4	Compressor head breather solenoid valve
5	Air check valve
6	Visual level indicator Ø1/2" with protection and acrylic tube
7	Compressor start-up level switch
8	Compressor pressure switch
9	Air compressor 0.75 kW
10	Inverter pump No. 2 with shut-off and non-return on suction, shut-off on discharge
11	Pressure gauge with three-way valve (manifold)
12	Exhaust valve
13	Expansion vessel with interception
14	Inverter pump No. 1 with shut-off and non-return on suction, shut-off on discharge
15	Pressure gauge with three-way valve (pre-autoclave)
16	Minimum pressure switch
17	Shut-off and non-return valves on pump discharge
18	Shut-off valves on pump suction
19	Maximum pressure switch
20	Pump pressure transducers

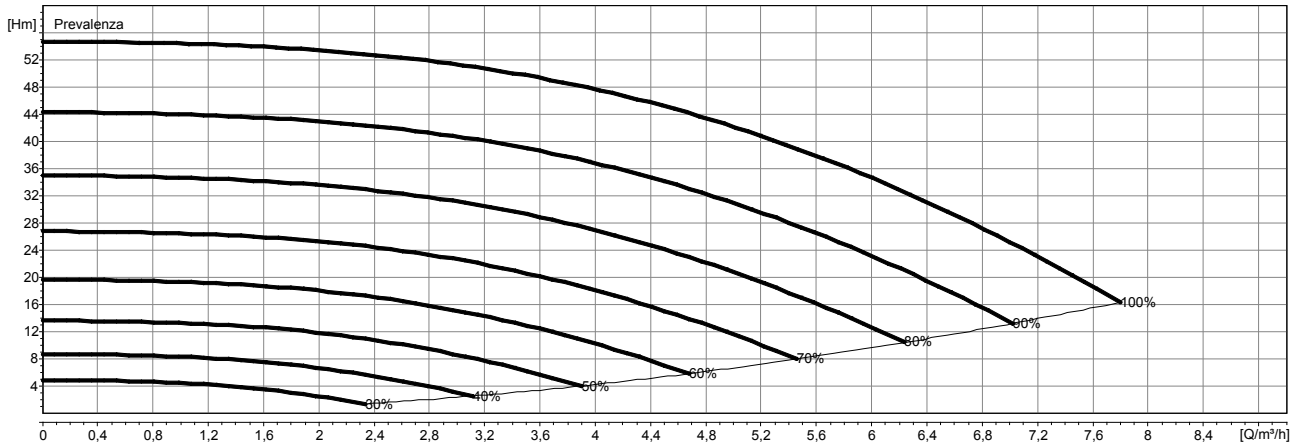


Autoclaves

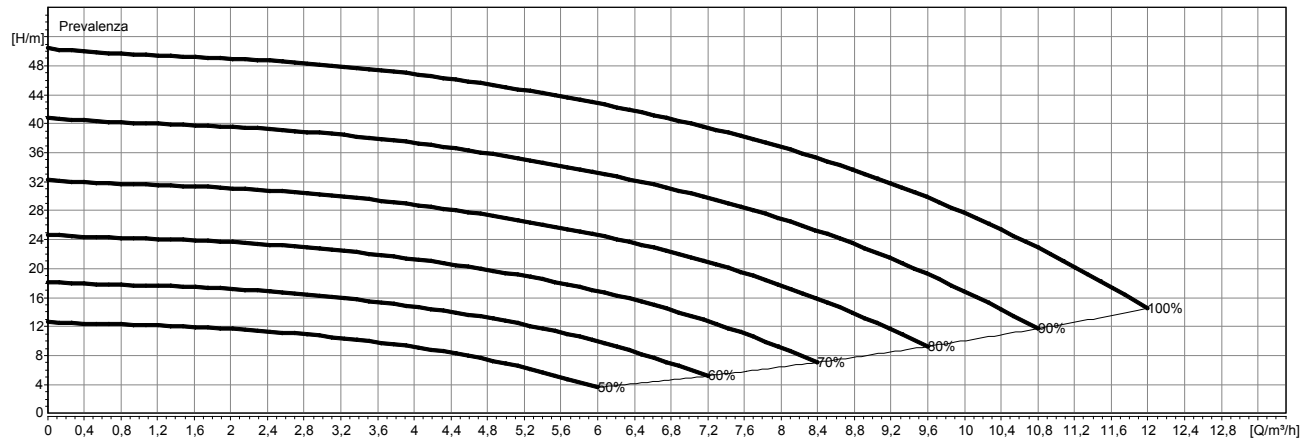
Pressurisation units

GPZ - GPX

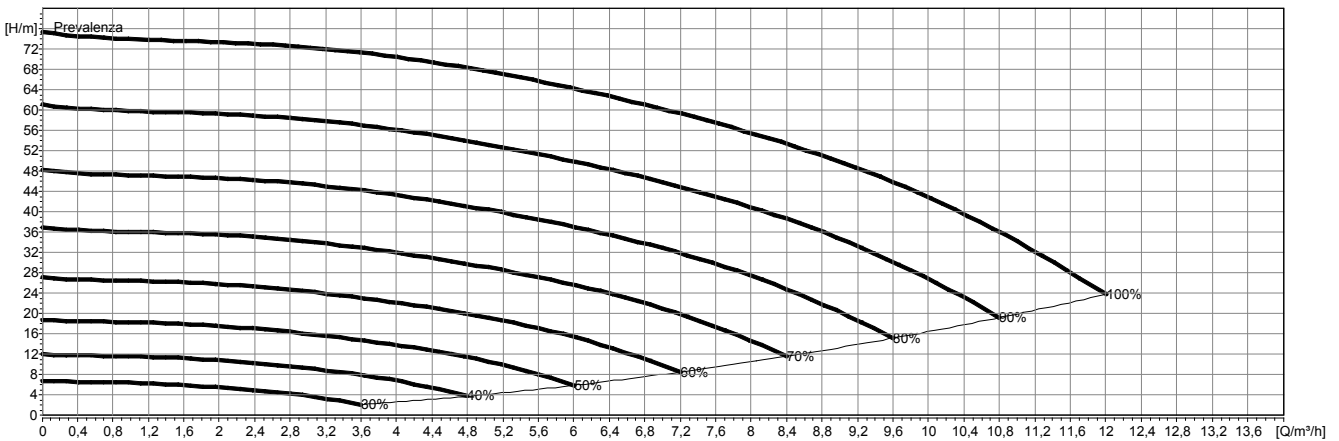
Pump diagram GPX 500 - GPZ 500- GPA 500 (mod. HELIX VE 405)



Pump diagram GPX 1000, 1500 - GPZ 1000, 1500, 2000 (mod. HELIX VE 604)



Pump diagram GPZ 3000 - GPA 1000, 1500 (mod. HELIX VE 606)



Water pressurisation units

GPZ.s

GPZ.s 1500 bar 6 with 3 oversized crankcase pumps

Monoblock pressurisation unit for direct suction from the water mains and water pressurisation. The system consists of a vertical galvanised steel pre-autoclave pressure tank connected directly to the water mains from which three inverter-driven electric pumps with an electronic speed control system capable of maintaining constant pressure to the utilities as the flow rate varies. The pumps are mounted on a painted steel base. Water to the users is sent from the pumps through a manifold. The system is assembled and certified as "ASSEMBLY", equipped with a general control panel and regulated I.N.A.I.L. safety devices.



Features

- Capacity litres 1500
- Maximum allowed pressure bar 6
- Maximum allowed temperature 49°C
- Minimum allowed temperature -10°C
- Container dimensions: ø mm 1000~ - H mm 2370~
- Dimensions of container with accessories: W mm 1250~ - D mm 1300 - H mm 2470~
- Pump unit dimensions: L mm 1200~ - D mm 1000 - H mm 940~
- Receptacle with opposing water inlet/outlet connections ø 3"
- Suction and delivery manifolds to utilities ø 2"
- Pre-autoclave features
- Construction according to 2014/68/EU - PED, testing by Notified Body, certification as "ASSEMBLY".
- Hot-dip galvanising (internal and external) carried out after finishing according to UNI EN ISO 1461, suitable for contact with drinking water according to DM 174/04 and Regulation no. 1935/04/EC
- Hot-dip galvanised steel compressor support bracket, detachable and bolted to the vessel
- Formation and regulation of the air cushion by means of a 0.98 kW 400V Hz50 electrocompressor with automatic operation equipped with:
 - compressor head breather solenoid valve 230V Hz50
 - check valve
 - shut-off tap
 - vibration-damping connection
 - float level regulator
 - compressor pressure switch

- Electrical cabinet, mounted on the vessel, protection degree IP 54. Supplied:
 - regulation pressure gauge with three-way valve
 - visual level assembly with plexiglass tube and protection
 - spring-loaded safety valve for air set at 6 bar - PED
 - minimum pressure switch set at 1 bar
 - drain valve

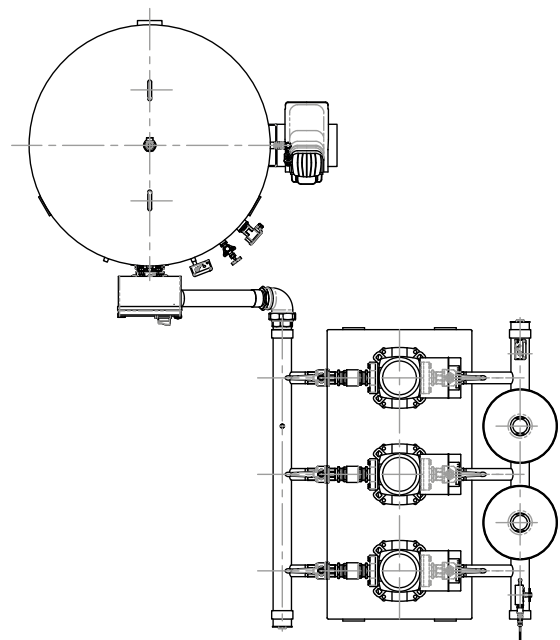
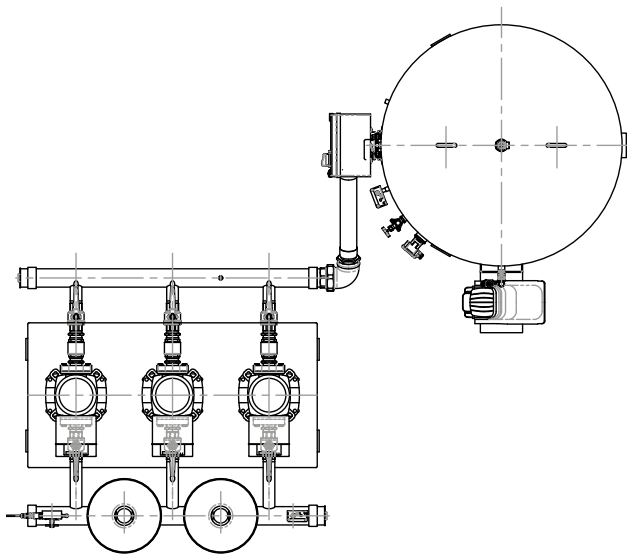
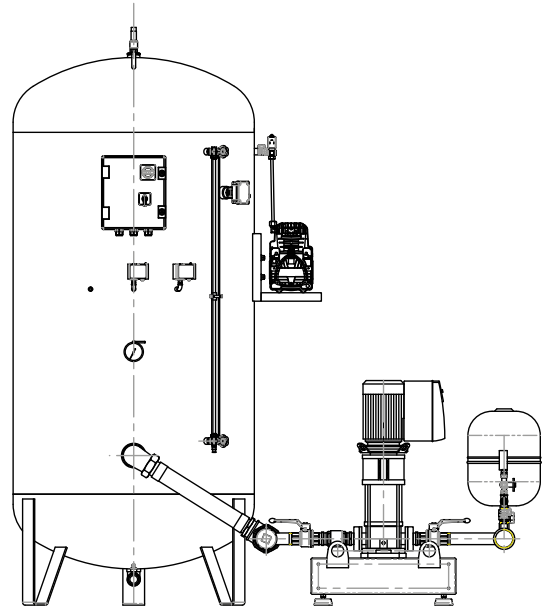
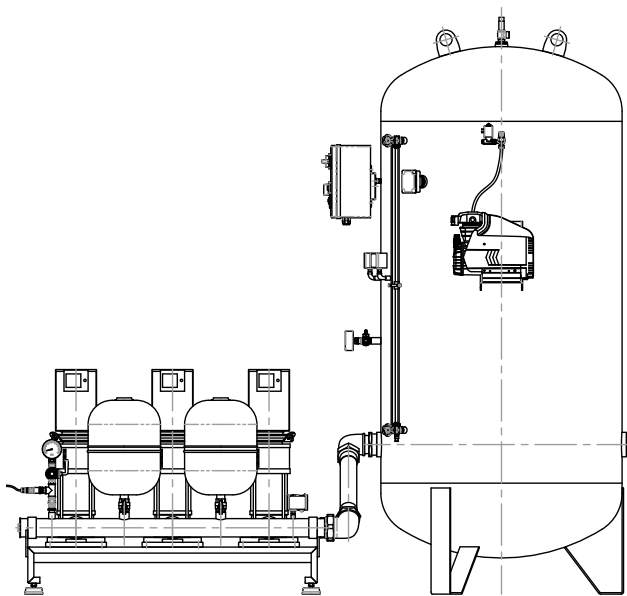
Inverter electric pumps features

- No. 3 electric pumps, two working and one spare, brand WILO with a flow rate each of l/h 12,600 at m 38, maximum head m 52, nominal power kW/cad. 2.2 V400 / Hz50, multi-stage monoblock type, vertical axis high-efficiency, minimum protection degree IP 54
- for each pump: shut-off and non-return valve on the suction side, shut-off valve on the discharge side
- painted steel base
- flexible vibration-damping joint between vessel and pump suction manifold
- no. 2 galvanised steel manifolds Ø 2"; on the delivery manifold are installed: no. 2 24-litre diaphragm vessels, pressure gauge, pressure switch and pressure transducers
- electropump management card, to be installed on one of the three electropumps, for their scalar operation and alternation of the start-up sequence every 200 min.

Autoclaves

Water pressurisation units

GPZ.s



Anti-condensation insulation with PVC finish for autoclaves and pressurisation units

On request, it is possible to apply to the pre-autoclave, monoblock autoclave, MVZ/MVX, GPZ/GPX vessel the anti-condensation insulation made of closed-cell, cross-linked polyethylene foam and a grey PVC outer finish (see photo).

The table shows the surcharge to be added to the list price.



Technical Specifications

Capacity l	Surcharge Condensation insulation 10 mm and PVC finish	Additional charge 20 mm anti-condensation insulation and PVC finish
300	217,00 €	277,00 €
500	314,00 €	390,00 €
800	381,00 €	472,00 €
1000	500,00 €	584,00 €
1500	622,00 €	785,00 €
2000	745,00 €	945,00 €
3000	979,00 €	1.125,00 €
4000	1.220,00 €	1.473,00 €
5000	1.518,00 €	1.710,00 €

Anti-condensation insulation made of closed-cell, cross-linked polyethylene foam, density 30 kg/m³ with fire reaction class 2. Thermal conductivity according to UNI 7745 0° = W/mk 0.034 **Grey PVC external finish**

Anti-condensation insulation with sheet metal finish of aluminium for autoclaves and pressurisation units

On request, it is possible to fit the pre-autoclave, monoblock autoclave, MVZ/MVX, GPZ/GPX vessel with anti-condensation insulation made of closed-cell, cross-linked polyethylene foam and an external aluminium plate finish.

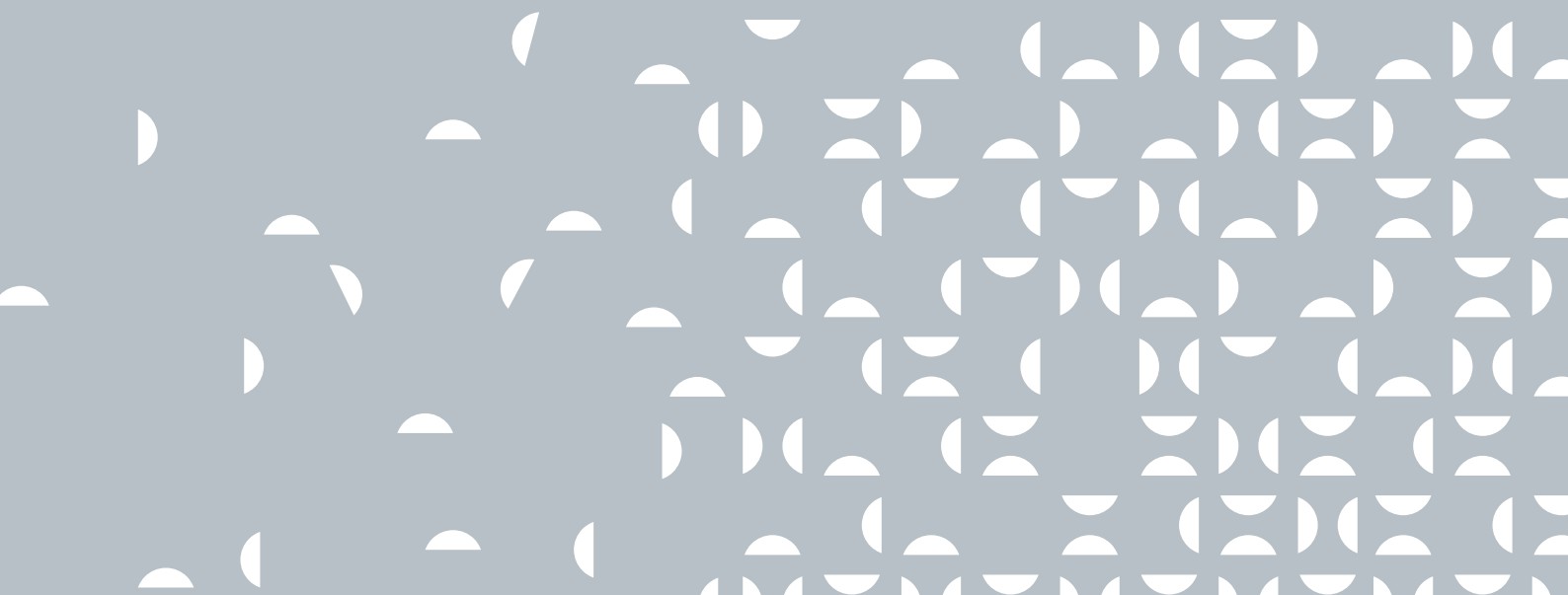
The table shows the surcharge to be added to the list price.



Technical Specifications

Capacity l	Additional charge 20 mm anti-condensation insulation and aluminium plate finish with segmented bottom	Additional charge 20 mm anti-condensation insulation and aluminium plate finish with thermoformed bottom
300	2.124,00 €	663,00 €
500	2.772,00 €	916,00 €
800	3.396,00 €	1.044,00 €
1000	3.613,00 €	1.323,00 €
1500	4.413,00 €	1.730,00 €
2000	5.086,00 €	2.010,00 €
3000	6.804,00 €	2.417,00 €
4000	9.169,00 €	2.672,00 €
5000	10.997,00 €	2.925,00 €

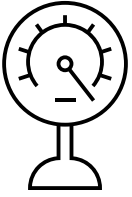
20 mm anti-condensation insulation in closed-cell, cross-linked polyethylene foam density 30 kg/m³ with fire reaction class 1 Thermal conductivity according to UNI 7745 0° = W/mk 0.034 **External finish in aluminium sheet.**



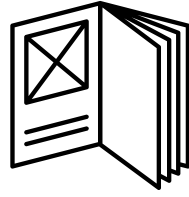
Index Insights

INSIGHTS

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guide to autoclaves
and pre-autoclaves
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Pressure-tested tanks

Range of pressure-tested, CE-marked tanks in compliance with the P.E.D. Directive (Directive 2014/68/EU).

The products in this range are manufactured in accordance with the P.E.D. Directive applicable to tanks. The tanks are designed to meet the specific needs of different applications: Autoclaves, Compressed Air Tanks, High Pressure Tanks, Expansion Vessels, Steam Accumulators and Diathermic Oil Expansion Vessels.

The tanks are manufactured using carbon steel sheets, welded using automatic processes, finished and checked for accuracy and tested according to the design operating conditions.

We can realise on request:

- products with customised dimensions;
- inspection openings;
- external protective treatments;
- insulation to specification;
- internal protection treatments, such as hot dip galvanising (UNI EN1179) in a molten zinc bath, suitable for contact with water intended for human consumption in accordance with Ministerial Decree 21.03.73, external rustproof painting, internal Teflon coating for food use;
- external coatings, such as PVC finish, embossed aluminium, smooth aluminium or special materials to be assessed on specification.

P.E.D. Directive

The design, manufacture and conformity assessment of pressure equipment and assemblies subjected to a maximum allowable pressure 'PS' of more than 0,5 bar is subject to the provisions of the PED Directive (Directive 2014/68/EU).

The purpose of the PED Directive is to harmonise the national laws of the Member States relating to the design, production, testing and conformity assessment of pressure equipment and assemblies.

The directive covers products, pressure vessels, heat exchangers, steam generators, boilers, industrial piping, safety devices and pressure accessories, used in residential applications and numerous process industries (oil & gas, chemical, pharmaceutical, plastics & rubber, food, paper).

Hazard categories of equipment

It establishes a hazard index for pressure equipment in the following categories: Article 4 paragraph 3, I, II, III, IV. The category is determined by several factors: type of fluid, (hazardous and non-hazardous), maximum permissible temperature, pressure and capacity.

As far as fluids are concerned, the directive proposes a division into two groups:

GROUP 1

indicates fluids defined as DANGEROUS:

- explosives
- extremely flammable
- easily flammable
- flammable (when the maximum permissible temperature is above the flash point)
- highly toxic
- toxic
- oxidisers

The following table illustrates our product types and, depending on the type of fluid used and the temperature values, refers to other specific tables. Once the table for the equipment under consideration has been identified, depending on the value assumed by the characteristic quantities (PS and V for pressure vessels) or the value of their product, the category (Article 4, paragraph 3, I, II, III, IV) of the equipment's hazard at the pressure examined is determined.

GROUP 2

includes all fluids not listed in group 1 and therefore NOT HAZARDOUS.

Notes

- The five tables are to be consulted line by line.
- Pressure equipment not subject to Article 4 paragraph 3 and belonging to category \geq I must bear the CE marking in accordance with the PED Directive.
- **WATER, ETHYLENE GLYCOL AND PROPYLENE GLYCOL BELONG TO GROUP 2.**

P.E.D. Directive

category	PED	cE marking	notified body intervention	additional costs
PS ≤ 0.5	Not applicable	No	No	No
Article 4(3)	Applicable	No	No	No
I	Applicable	Yes	No	Yes
II	Applicable	Yes	Project delivery without approval	Inspection visit
III	Applicable	Yes	Inspection visit + project approval	Inspection visit + project approval
IV	Applicable	Yes	Inspection visit + project approval	Inspection visit + project approval

PS: is the maximum allowable pressure, i.e. the maximum pressure (expressed in bar) for which the equipment is designed, specified by the manufacturer.

V: is the internal volume of a compartment, including the volume of fittings (expressed in litres) at the first connection and excluding the volume of permanent internal elements.

ARTICLE 4 PARAGRAPH 3: refers to pressure equipment and assemblies belonging to category < I and which therefore do not have to bear the CE marking according to the PED Directive.

Please consult our technical department if the following situations arise:

- if a vessel consists of several compartments, or a compartment contains several fluids.
- if the fluid contained in the pressure equipment is different from those listed in NOTE I.
- if a set belongs to a category ≥ I.
- where an assembly includes pressure equipment belonging to a category ≥ I.
- in case of doubt or uncertainty.

Classification tables of pressure vessels

In accordance with P.E.D. 2014/68/EU

Index

Type of pressure equipment	Fluid	Temperature	Table to consult
Tanks and plate heat exchangers	Water	≤110	4
Tanks and plate heat exchangers	Steam or superheated water	>110	2
Tube bundle serpentine	Water	≤110	4
Tube bundle serpentine	Steam or superheated water	>110	2
Steam generators	Steam or superheated water	>110	5
Tanks and plate heat exchangers	Water, ethylene or propylene glycol	≤110	4
Tanks and plate heat exchangers	Water, ethylene or propylene glycol	>110	2
Tanks and plate heat exchangers	Hazardous gases		1
Autoclaves	Nitrogen or other non-hazardous gases		2
Autoclaves	Hazardous gases		1

Table 1 - Pressure vessels

V L	PS bar	PS x V	Category
0,1 < V ≤ 1	0.5 < PS < 200		Article 4(3)
0,1 < V < 1	200 < PS ≤ 1000		III
0,1 < V < 1	PS > 1000		IV
1 < V ≤ 50	PS > 0.5	PS x V ≤ 25	Article 4(3)
1 < V < 100	PS > 0.5	25 < PS x V ≤ 50	I
1 < V < 400	PS > 0.5	50 < PS x V ≤ 200	II
1 < V < 2000	0.5 < PS < 1000	200 < PS x V ≤ 1000	III
V > 1	PS > 0.5	PS x V > 1000	IV

Table 2 - Pressure vessels

V L	PS bar	PS x V	Category
0,1 < V ≤ 1	0.5 < PS < 1000		Article 4(3)
0,1 < V ≤ 1	1000 < PS < 3000		III
0,1 < V ≤ 1	PS > 3000		IV
1 < V ≤ 100	PS > 0.5	PS x V ≤ 50	Article 4(3)
1 < V ≤ 400	PS > 0.5	50 < PS x V ≤ 200	I
1 < V < 750	PS > 0.5	1000 < PS x V ≤ 3000	III
1 < V ≤ 750	PS > 0.5	PS x V > 3000	IV
V > 750	0.5 < PS < 4		III
V > 750	PS > 4		IV
1 < V ≤ 2000	PS > 0.5	200 ≤ PS x V ≤ 1000	II

Classification tables of pressure vessels

In accordance with P.E.D. 2014/68/EU

Table 3 - Pressure vessels

V l	PS bar	PS x V	Category
$0,1 < V \leq 1$	$0,5 < PS < 500$		Article 4(3)
$0,1 < V \leq 1$	$PS > 500$		II
$V > 1$	$200 < PS \leq 500$		II
$V > 1$	$PS > 500$		III
$V > 20$	$0,5 < PS \leq 10$	$PS \times V > 200$	I
$1 < V \leq 400$	$PS > 0,5$	$PS \times V \leq 200$	Article 4(3)
$V > 1$	$10 < PS \leq 200$	$PS \times V > 200$	II

Table 4 - Pressure vessels

V l	PS bar	PS x V	Category
$0,1 < V \leq 10$	$10 < PS < 1000$		Article 4(3)
$0,1 < V < 10$	$PS > 1000$		I
$V > 0,1$	$0,5 < PS \leq 10$		Article 4(3)
$V \geq 10$	$PS > 1000$		II
$10 < V < 20$	$500 < PS \leq 1000$	$PS \times V > 10000$	II
$10 < V < 1000$	$PS > 10$	$PS \times V \leq 10000$	Article 4(3)
$V > 20$	$10 < PS \leq 500$	$PS \times V > 10000$	I

Table 5 - For generating steam or superheated water at temperatures above 110°C

V l	PS bar	PS x V	Category
$0,1 < V \leq 2$	$PS > 0,5$		Article 4(3)
$2 < V < 100$	$0,5 < PS < 25$	$PS \times V \leq 50$	I
$V > 2$	$25 < PS < 32$	$PS \times V \leq 200$	II
$V > 2$	$PS > 32$		IV
	$0,5 < PS < 25$	$50 < PS \times V \leq 200$	II
	$3 \leq PS \leq 32$	$PS \times V > 3000$	IV
$V < 1000$	$0,5 < PS < 32$	$200 < PS \times V \leq 3000$	III
$V > 1000$	$0,5 < PS < 3$		IV

Guide to autoclaves and pre-autoclaves

1. AUTOCLAVE for water supply system

1.1 What it is

Autoclaves are pressure vessels capable of pressurising water for civil or industrial use by means of an air cushion, operating at room temperature.

The autoclave vessel can be made of hot-dip galvanised steel or stainless steel.

They are manufactured according to the European Norm 97/23/EC-PED and tested by a Notified Body.

It is fed into the vessel:

- water by means of electric pumps of varying capacity and head, chosen according to plant requirements and compatible with the vessel's capacity and pressure characteristics;
- air from the external environment via a device called an automatic air feeder, via an air compressor, or from a compressed air network.

The air injected into the vessel to create the 'cushion' at a pre-determined level will be such that it will inter-spense the

operation of the pump(s) during withdrawal and simultaneously obtain a delivery before restarting the pump(s).

1.2 What the autoclave is for

Every building, whether residential, commercial or industrial, needs water to satisfy countless services. The water network is not always able to guarantee water in the required quantity and at the required pressure. In all these cases, equipment capable of increasing pressure and flow rate is required, thus distribute water to the various users automatically and continuously.

1.3 Advantages of the autoclave

It limits the number of electric pump starts, ensuring long life and energy savings.

1.4 Types

The autoclave vessel can be:

1. **without accessories (versions in the price list as "EQUIPMENT")**: Vessel which will only be equipped with all accessories required for operation during installation on site. The user is provided with the Declaration of Conformity of the vessel as "EQUIPMENT";
2. with **standard accessories (list versions with "R" accessories)**: vessel equipped with PED-certified safety valve, pressure gauge, 3-way manometer tap and pressure switch; only during installation, at the place of operation, will it be equipped with all accessories required for operation according to use. In addition to the vessel's Declaration of Conformity, the PED-certified safety valve is also supplied;
3. **with accessories 'A' for air filling with compressor**: vessel equipped with all standard accessories plus air compressor;
4. **with 'B' accessories for air supply from the compressed air network**: vessel equipped with all standard accessories plus the kit for air supply from the compressed air network;
5. **with accessories type A or B and electric pumps, MONOBLOCK versions**
6. **with type A or B accessories and inverter-driven electric pumps, MVX-MVZ SINGLE-BLOCK versions**

Guide to autoclaves and pre-autoclaves

2. MVZ ON/OFF / MVX-MVZ INVERTER MONOBLOCK AUTOCLAVE

The monoblock autoclave is a compact, pre-assembled unit consisting of:

- a pressure vessel with an air cushion created and maintained by a compressor or a compressed air supply unit from the mains;
- one or two centrifugal or inverter-driven electric pumps (MVX-MVZ);
- all safety and control equipment: pressure switches, safety valve, pressure gauge with three-way valve, level regulator, visual level indicator;
- electrical panel: controls and monitors the operation of the electric pumps, compressor operation or air supply from the compressed air network, based on the signals it receives from the pressure switches or pressure transducers (MVX-MVZ models) and the level regulator.

The monoblock autoclave is certified as an INSIEME. The user, when using it, must only send to I.N.A.I.L. or A.S.L. the "Declaration of Commissioning" and "Declaration of Notoriety" in accordance with the instructions enclosed with each piece of equipment, without further certification and expenses.

Monoblock autoclaves follow the philosophy of the 'monoblock' product: i.e. ready to use and able to simplify installation because it is complete with the most important accessories complementary to the product itself.

2.1 Advantages of inverter models compared to monoblock models with centrifugal pumps

Compared to models with centrifugal pumps, the MVX-MVZ monoblock autoclaves (in stainless steel or in galvanised steel) with inverter pumps have the following advantages: energy savings thanks to high-efficiency pumps.

2.2 Advantages of inverter models (MVX-MVZ) compared to pressurisation units

Compared to simple pressurisation units, the MVX-MVZ monoblock autoclaves (in stainless steel or galvanised steel) with inverter-driven pumps have the following advantages:

- absence of the problems of membrane vessels with which pressurisation units are equipped;
- higher system inertia due to a larger storage volume;
- lower pump operation and therefore longer life span;
- assured presence of the air cushion via the compressor;
- assured absorption of water hammer;

They are therefore a qualitatively superior product capable of providing a better service than the simple pressurisation units.

Guide to autoclaves and pre-autoclaves

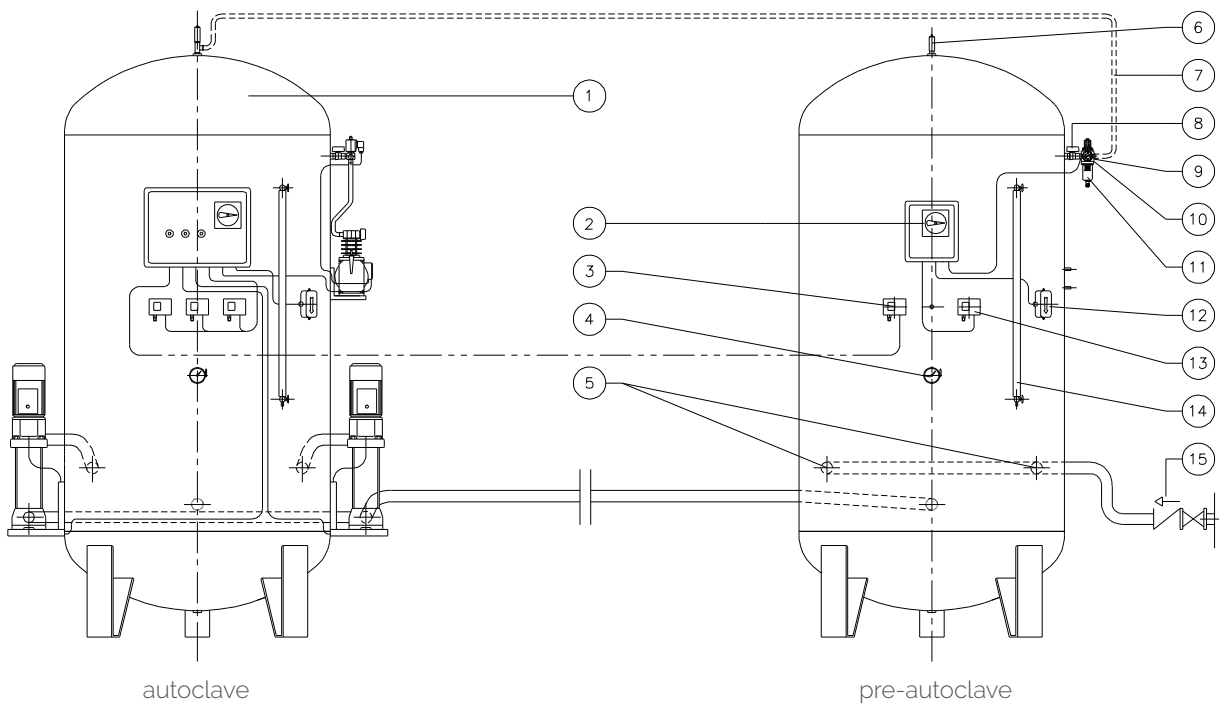
3. THE PRESSURE PRE-AUTOCLAVE

The pre-autoclave is a hot-dip galvanised and/or stainless steel pressure vessel, manufactured according to European Standard 2014/68/EC and tested by a Notified Body. The receptacle is installed upstream of the autoclave and is used in all municipalities that prohibit, for hygiene reasons, the use of atmospheric pressure first collection tanks from which to draw water. In this case, the electric pumps of the autoclave operate with a suction pressure equal to that of the aqueduct supply.

3.1 Advantages

The advantages of using a pressurised pre-autoclave instead of a first collection tank are:

- hygiene of the pumped liquid, which does not come into contact with the atmosphere before use;
- reduction in motor power of electric pumps as the pressure of the water mains is used to obtain the power needed by the user;
- settling of impurities and possible dirt.



Legend	
1	Monoblock autoclave with 2 pumps and air compressor.
2	Electrical panel.
3	Minimum pump blocking pressure switch.
4	Pressure gauge with three-way valve.
5	Water inlet from the water mains (connection to one or both connections).
6	Air-side safety valve.
7	Compressed air network.
8	Air interception tap.
9	Air check valve.
10	230 V air solenoid valve.
11	Pressure reducer with filter and pressure gauge.
12	Level control level switch.
13	Air solenoid valve pressure switch.
14	Visual level.
15	Check and shut-off valve.

Guide to autoclaves and pre-autoclaves

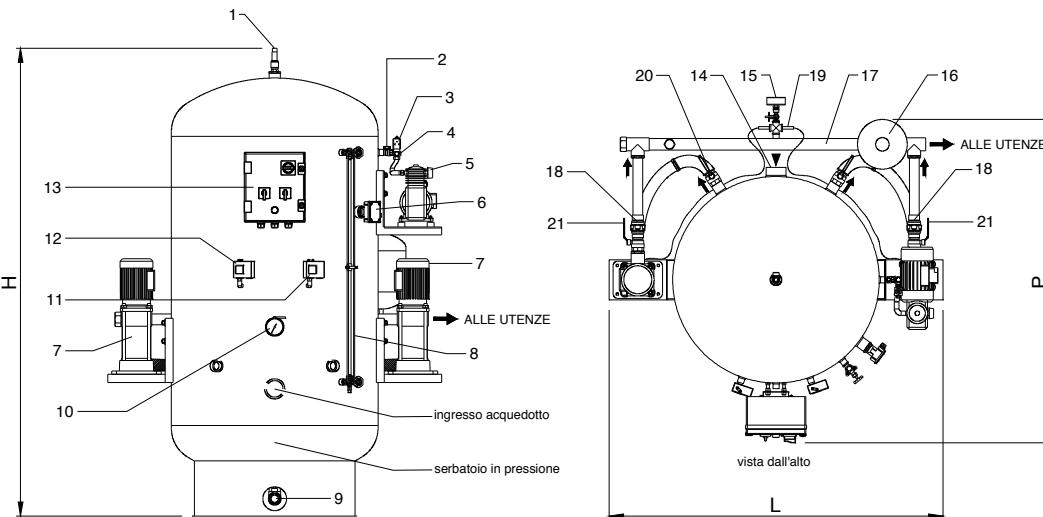
4. GPX - GPZ PRESSURISATION UNITS

The GPX - GPZ pressurisation units combine a pre-autoclave pressure tank for direct suction from the water mains and an inverter-driven pump unit in a monoblock element.

They are MONOBLOCK products certified as INTEGRATED. They are equipped with a general electric control panel, air compressor and regulatory safety accessories and are fully pre-assembled, wired and tested in-house.

The system guarantees:

- water **hygiene** by drawing it from a closed pressure vessel (pre-autoclave);
- a **constant pressure** flow to the utilities as the flow rate varies thanks to the electronic pump speed control system;
- considerable **savings in space and installation time** as the pumps are mounted on the tank according to the one-piece autoclave concept.



Legend	
1	Spring-loaded safety valve for air Ø1/2"
2	Air shut-off ball valve Ø1/2"
3	Compressor head breather solenoid valve
4	Air check valve
5	Air compressor
6	Float level regulator
7	No. 2 inverter pumps
8	Visual level indicator Ø1/2" brass with protection and acrylic tube
9	Ball outlet valve
10	Pre-autoclave pressure gauge with three-way valve
11	Compressor control pressure switch

Legend	
12	Minimum pressure switch
13	Electrical cabinet
14	Input connection
15	Pump delivery manifold pressure gauge with three-way valve
16	24L expansion tank
17	Pump delivery manifold
18	No. 2 check valves on pump discharge
19	Pressure transducers for flow rate modulation inverter pumps
20	No. 2 shut-off valves on pump suction
21	No. 2 shut-off valves on pump discharge

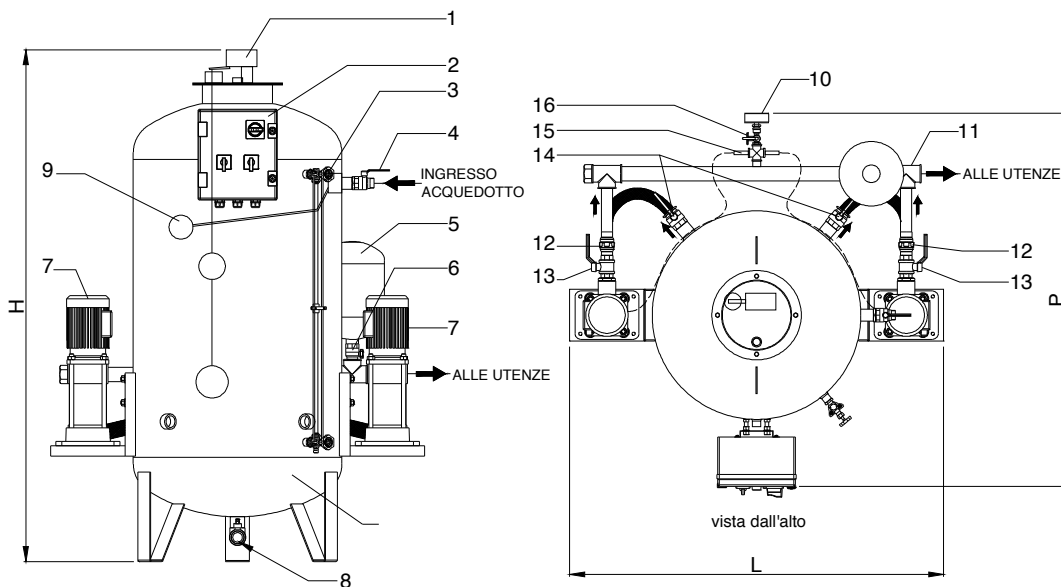
Guide to autoclaves and pre-autoclaves

5. PRESSURISATION UNITS

Pressure booster sets combine a mains-fed atmospheric pressure tank and an inverter-driven pump unit in a monoblock element. They are MONOBLOCK products. They are equipped with a general electric control panel, air compressor and regulated safety accessories and are entirely pre-assembled, wired and tested in-house.

The system guarantees:

- water reserve;
- a **constant pressure** flow to the utilities as the flow rate varies thanks to the electronic pump speed control system;
- considerable **savings in space and installation time** as the pumps are mounted on the tank according to the one-piece autoclave concept.



Legend	
1	Minimum level float switch
2	Electrical control panel
3	Visual level indicator
4	Water shut-off valve
5	Expansion vessel 24 litres
6	Expansion tank shut-off valve
7	Inverter pumps
8	Exhaust valve
9	Float valve
10	Manometer Ø80 scale 0-10 bar
11	Delivery manifold
12	Pump discharge check valves
13	Shut-off valves on pump discharge
14	Shut-off valves on pump suction
15	Pressure transducers for inverter pumps
16	Manometer shut-off valve

Guide to autoclaves and pre-autoclaves

6. P.E.D. CERTIFICATION

All autoclaves are manufactured according to the European Directive 2014/68/EC and certified by a Notified Body. With the introduction of the P.E.D. (Pressure Equipment Directive), the manufacturer completes the **Declaration of Conformity** upon completion of conformity checks by a Notified Body. The CE mark allows the equipment to be placed on the market and put into service. The autoclaves' tanks are made of certified sheet metal suitable for pressure vessels containing air+water.

During construction, each vessel is subject to:

- internal visit
- survey of material marking and verification of relevant certifications
- inspection, where necessary, of welds with X-ray examinations by a specialised company
- hydraulic test and, in the case of monoblock autoclaves, verification of the functionality of the accessories

7. COMMISSIONING DOCUMENTATION

The following documents will be sent to the User for the commissioning of the equipment:

- Declaration of Conformity
- Declaration of Conformity of the Safety Valve
- Operation and Maintenance Manual
- Construction Drawing

Note: Inside the use and maintenance manual are facsimiles of the applications to be submitted to the ASL or I.N.A.I.L. for the commissioning of the appliance.

8. WATER SUCTION MODE

Water suction can take place:

- **from a well or underground tank;**
- **from a reserve vessel:** this is required in cases of supply from the aqueduct as the regulations prohibit direct connection;
- **from pre-autoclave:** this is required in all municipalities that prohibit the use of the reserve vessel at atmospheric pressure: e.g. between autoclave and aqueduct.

9. FEEDING AND AIR CUSHION ADJUSTMENT

The air cushion in the autoclave naturally tends to run out due to emulsion with water. The supply and regulation of the air cushion inside the autoclave can be ensured by:

- air compressor
- compressed air network (only for the industrial sector)

9.1 The air compressor

Allows the restoration and maintenance of the adequate 'air cushion' in the autoclave with operation fully automatic. The design includes a single-cylinder, single-stage coaxial air compressor installed on a bracket bolted to the autoclave body. The compressor is connected to the vessel with a vibration-damping connection and the following accessories are interposed:

- solenoid valve for 'compressor head bleed' which, when the compressor is at rest, is open to the atmosphere and discharges the compressor head pressure; it is energized and closes when the compressor starts;
- air check valve
- shut-off tap

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9.2 Compressed air network

The design includes a solenoid valve with shut-off, check valve + pressure regulator with filter and air pressure gauge.

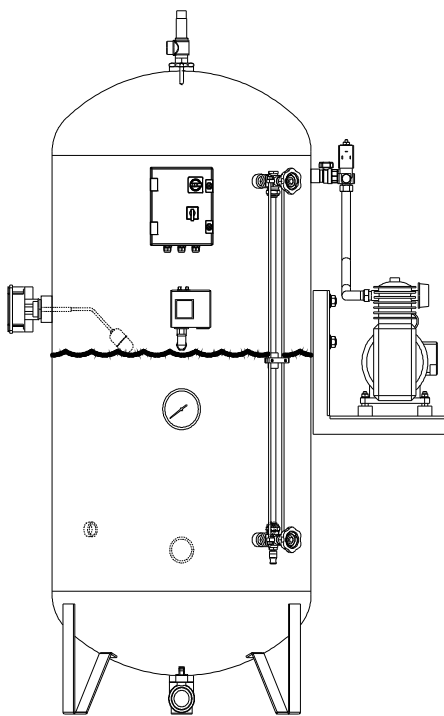
10. OPERATION

- **With compressor:** is started by the electrolevel and the pressure switch consent, it stops due to the pressure switch tripping when the maximum preset pressure for the system is reached. With low water level, the electrolevel does not allow compressor operation.
- **Compressed air network:** the solenoid valve is opened by the solenoid level and pressure switch consent, it closes due to the pressure switch tripping when the maximum preset pressure for the system is reached.

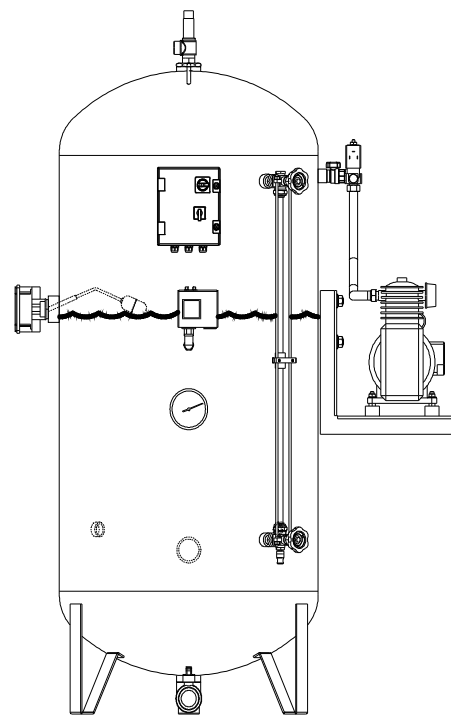
10.1 Float water level control

The water level control is used to control and regulate the water level in the pressure vessel and its air cushion. it is equipped with a non-toxic resin float and an IP55-rated housing. it is positioned on the autoclave plating and controls the air compressor and/or air inlet solenoid valve.

Phases of operation



- PHASE 1-
Low water level
Lower float position
Compressor off



- PHASE 2 -
High water level
Upper float position.
Compressor in operation up to maximum pressure
Reaching maximum system pressure.
Compressor stopped by pressure switch

Guide to autoclaves and pre-autoclaves

11. ELECTRIC PUMPS

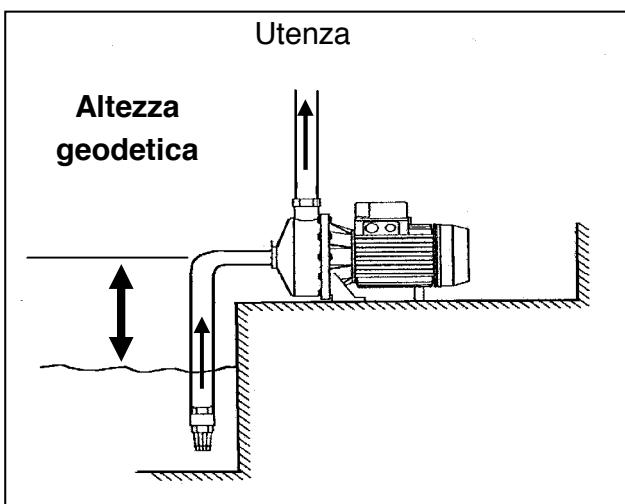
The operation of the electric pump(s) is regulated by minimum-maximum pressure switches. Inverter-driven electric pumps are controlled by pressure transducers. Each pressure switch/transducer controls one electric pump. The product technical catalogue shows the flow rate and standard setting in bar of the pressure switches for each model. The flow rate is that relative to the start-up pressure of the pump. For models with **inverter pumps**, the setting pressure in bar is indicated, which corresponds to the indicated flow rate. The tanks of the MONOBLOCK autoclaves are dimensioned in such a way as to keep the number of hourly starts of the pumps within very low values.

11.1 One or two pumps

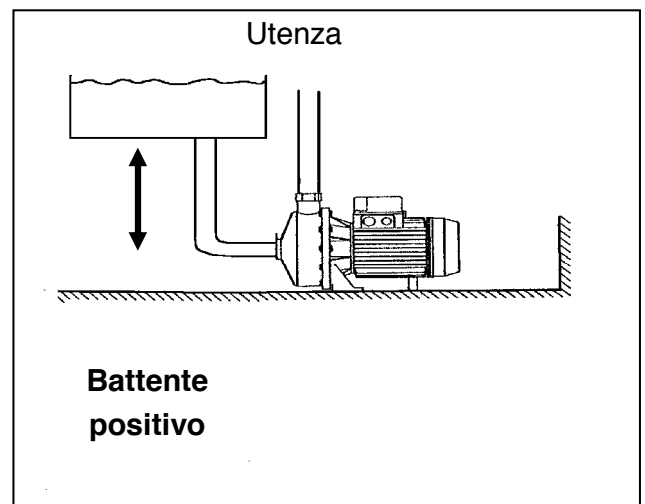
Depending on the water flow rate and pressure required to meet the needs of the users served, it is evaluate the use of autoclaves with one or two pumps. An autoclave with two pumps is recommended as operation is guaranteed even if one pump fails. The second pump, known as the **active reserve**, is switched on when the first pump can no longer meet the required supply and the pressure drops below the minimum pressure setting of the first pump's pressure switch. **In** the version with **inverter pumps**, they start simultaneously, settling at a stable delivery pressure value regardless of the flow required by the user.

11.2 Centrifugal pumps and self-priming pumps

- A **centrifugal** pump is a pump that utilises the centrifugal effect of its impeller to move liquid with a geodetic suction height of approximately 4.5 m.
- A **self-priming** pump is a type of centrifugal pump with an overhead (suction) installation with a useful suction height of more than 6 m (it can also operate in the presence of gas dissolved in water). Self-priming is the ability to suck in the air contained in the suction line while the pump is starting up.



The **geodetic** suction height is the height measured between the water level in the subsoil and the pump level.



The **positive wing** is given by the distance between the pump and water intake vessel above the pump itself.

Guide to autoclaves and pre-autoclaves

12. HOW TO SIZE AN AUTOCLAVE

1. The calculation of the maximum simultaneous flow rate Q must be carried out by the heating engineer who evaluates the total number of consumers under the most severe operating conditions.
2. Calculation of the volume V of the autoclave vessel

$$V = 30 \times Q / Sh \times [(P1+1) / (P1-P2)]$$

where:

Q = pump flow rate

Sh = expected number of hourly pump starts

P1 = maximum operating pressure

P2 = pump cut-in pressure

Example: In the case of a pump flow rate of 100 l/minute

$$V = 30 \times 100 / 10 \times [(4,5+1) / (4,5-3)] = 1100 \text{ litres autoclave volume}$$

Nominal flow rates and tap pressures for sanitary appliances and other uses

Apparatus	Scope l/s	Minimum pressure kPa
Washbasins	0,10	50
Bidet	0,10	50
Cassette vases	0,10	50
Pots with quick pitch or flow meter Ø3/4"	1,50	150
Bathtub	0,20	50
Shower	0,15	50
Kitchen sink	0,20	50
Washing machine	0,10	50
Commanded urinal	0,10	50
Vuotatoio with cassette	0,15	50
Beverino	0,05	50
Hydraulic Ø1/2"	0,40	100
Downpipe Ø3/4"	0,60	100
Downpipe Ø1"	0,80	100

13. HOW TO SIZE A PRE-AUTOCLAVE

(According to the regulations for drinking water installations of the Municipality of Milan)

If the installation includes:

1. **an autoclave**, the pre-autoclave must have a volume of not less than 50 per cent of the autoclave volume;
2. **a pressurisation unit**, the pre-autoclave must be dimensioned with a volume of 1/20th of the nominal flow rate of the water meter.

14. INSTALLATION NOTES

14.1 Suction from well or underground tank

The geodetic suction height including pressure drops must not exceed 4.5 m. Suction pipes must not have any counter-slopes that cause air pockets to form.

14.2 Suction from reserve water tanks

When connecting to water reservoirs, an electric "minimum level" float switch must be provided to prevent the pumps from running empty if the water supply is exhausted. For connection to PRE-AUTOCLAVES the same safety shall be observed by means of a minimum pressure switch set at 1 bar. In systems with staggered electric pumps (2 pressure switches), the suction pipes must be independent.

Guide to autoclaves and pre-autoclaves

15. ACQUISITION OF TECHNICAL DATA FOR DRAFTING QUOTATIONS

Section 1: APARTMENTS		
No. of flats	<input type="checkbox"/> With simple services	N°
	<input type="checkbox"/> With two bathrooms	N°
	<input type="checkbox"/> With W.C. cassettes	N°
	<input type="checkbox"/> With flow switches	N°
Building height m	and/or No. of plans	floor height m
Voltage: <input type="checkbox"/> 230 V single-phase	<input type="checkbox"/> 230 V three-phase	<input type="checkbox"/> 400 V three-phase
Container type:	<input type="checkbox"/> vertical	horizontal

Section 2: OTHER TYPES OF HOUSING			
Requirement m ³ /h	autoclave capacity litres		
minimum pressure bar	maximum pressure bar		
Voltage:	<input type="checkbox"/> 230 V single-phase	<input type="checkbox"/> 230 V three-phase	<input type="checkbox"/> 400 V three-phase
Autoclave container:	<input type="checkbox"/> vertical	horizontal	

AIR LOADING	
<input type="checkbox"/> compressor	<input type="checkbox"/> compressed air network


ELECTRIC PUMPS		
<input type="checkbox"/> centrifuges	<input type="checkbox"/> compressed air network	<input type="checkbox"/> inverter
Suction from:	<input type="checkbox"/> Atmospheric pressure vessel	
	<input type="checkbox"/> Underground cistern	
	<input type="checkbox"/> Well: water level above ground level m	
	<input type="checkbox"/> Aqueduct: pressure bar	
Distance of electric pumps from suction source (excluding waterworks) m		
Height difference between autoclave height and suction point m		
Existing suction pipe diameter		
<input type="checkbox"/> Pipe diameter to be determined		
Number of curves		

Guide to autoclaves and pre-autoclaves

Annex 1

Facsimile Declaration of Conformity

DICHIARAZIONE DI CONFORMITA' UE (*)
Manufacturer's EU Declaration of Conformity
- Dir. 2014/68/EU -



FABBRICANTE <i>Manufacturer</i>	Fiorini Industries S.r.l. Via Zampeschi, 119 - Forlì (FC) ITALY tel. +39 0422672911 - mail: infosile@sile.it					
DESCRIZIONE INSIEME A PRESSIONE <i>Description of the Pressure assembly</i>						
Preautoclave verticale, <i>Vertical water raising system</i>			disegni: C xxxxxxx <i>dwg.</i>			
CARATTERISTICHE PRINCIPALI DELL' INSIEME A PRESSIONE <i>Main data of the assembly</i>						
Identificativo insieme <i>N° assembly</i>	Matricola <i>Serial Number</i>	xxxxx /TV	PS (bar)	x,x	TS max (°C)	xx
		xxxx	Volume (L)	xxxx	TS min (°C)	-xx
PROCEDURA DI VALUTAZIONE DI CONFORMITA' UTILIZZATA <i>Used conformity assessment module</i>						
L'insieme è stato valutato in accordo al modulo H1 <i>The assembly has been evaluated according to H1 module</i>						
<p>La sottoscritta società ha apposto la marcatura "CE" e il numero di identificazione dell'organismo notificato e dichiara che la progettazione, la fabbricazione e l'ispezione di questo apparecchio a pressione è conforme alla direttiva 2014/68/UE <i>The undersigned manufacturer has affixed the "CE" marking and the Notified Body's identification number and declares that design, manufacture and inspection of this pressure equipment is conform to the directive 2014/68/EU</i></p> <p>norme utilizzate: I.S.P.E.S.L. Raccolta VSR - Raccolta S - Raccolta M - Raccolta E <i>Italian Standards used:</i> Rev. 1995 e succ. modificazioni - UNI PdR 55:2019</p> <p>Certificato Sistema Qualità ISO 9001:2015 – Certif. KIWA CERMET ITALIA SPA <i>Quality System Certificate</i> n° 18611-A del 27/01/2020</p>						

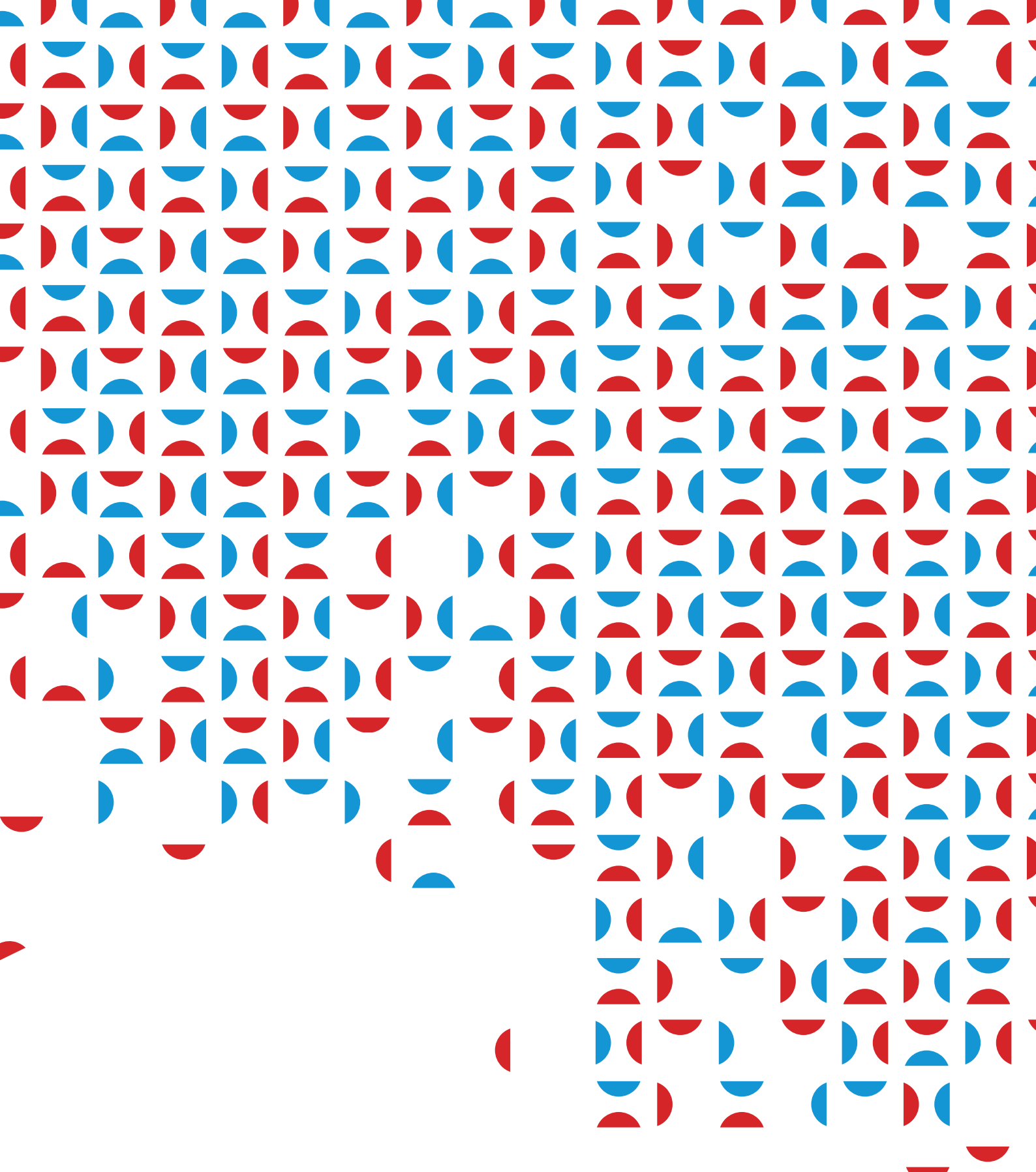
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Wenkel S.r.l

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