

Gasketed and brazed plate heat exchangers

Contents

■ Gasketed plate heat exchangers pag. 28



Range
pag. 32



Fluid/material compatibility
pag. 35



Accessories
pag. 37



Tables for fast selection
pag. 38

■ Brazed plate heat exchangers pag. 47



Range
pag. 48



Accessories
pag. 49



Tables for fast selection
pag. 50

■ Installation solutions pag. 58



Installation solutions
pag. 58

■ Data collection for exchanger selection pag. 61



Form
pag. 61

Fiorini has supplied the plate heat exchangers **that equip the GST3 system** aimed at the cooling of the transfer and launch stations of the Ariane Sud.



Gasketed and brazed plate heat exchangers

Customized and efficient options for all your requirements for heat exchanging

The gasketed plate heat exchangers (K and F series) and brazed plate heat exchangers (P and WP series) are the option for someone who demands efficiency and trustworthiness. Our thirty years' experience in this sector makes it possible to meet every requirement, in a residential as well as an industrial setting. We guarantee support during the design phase, the installation phase and after sale.

Gasketed exchangers

Our gasketed plate heat exchangers have the following features:

- designed to improve the exchange performance and to reduce and simplify the maintenance operations;
- use of high quality materials which can be paired with a wider range of fluids and applications;
- custom made production
- design of modular and customized solutions;
- easy to inspect



Brazed exchangers

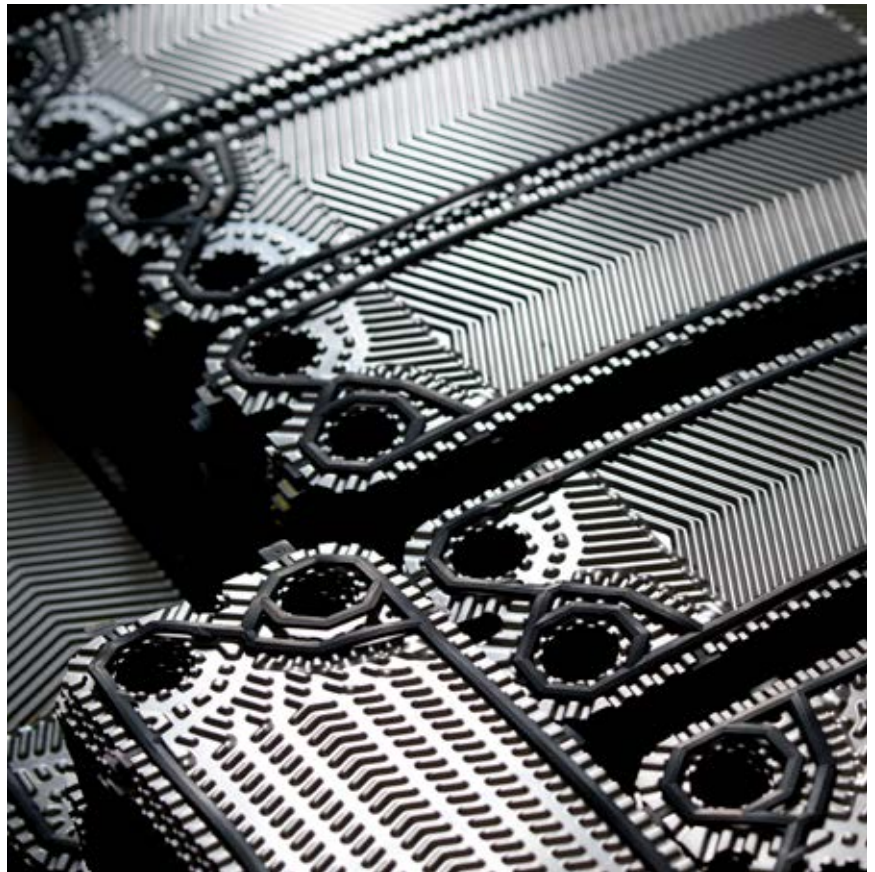
The quality of the parts, as well as the brazing process makes it possible to attach the plates without using gaskets. This is a huge advantage because it makes the exchanger compact and resistant to high temperatures and pressure.



Gasketed plate heat exchangers K and F series

The heat exchangers (K and F series) are designed and manufactured with materials and applications which guarantee high, durable efficiency standards in residential applications as well as industrial processes.

- The plates are made in high quality materials which makes it possible to reach an excellent overall heat exchange coefficient and guarantees resistance against corrosion;
- The plates can be manufactured with several corrugations which improve the exchange performance in function of the operative conditions (fluid type, viscosity). Their particular conformation makes the fluid in the device move turbulently and guarantees an elevated heat exchange coefficient.
- The lining is available in several materials, adapted to the different applications (gasoline, oil, alimentary fluids, aggressive fluids, high temperature fluids, etc.) and desired performance;
- The frame is made of varnished carbon steel, designed in such a way that it can be easily accessed, inspected and maintained;
- All exchangers are tested (leakage test) before dispatch in order to verify possible losses.



Gasketed plate heat exchangers K and F series

Environment and sectors of application

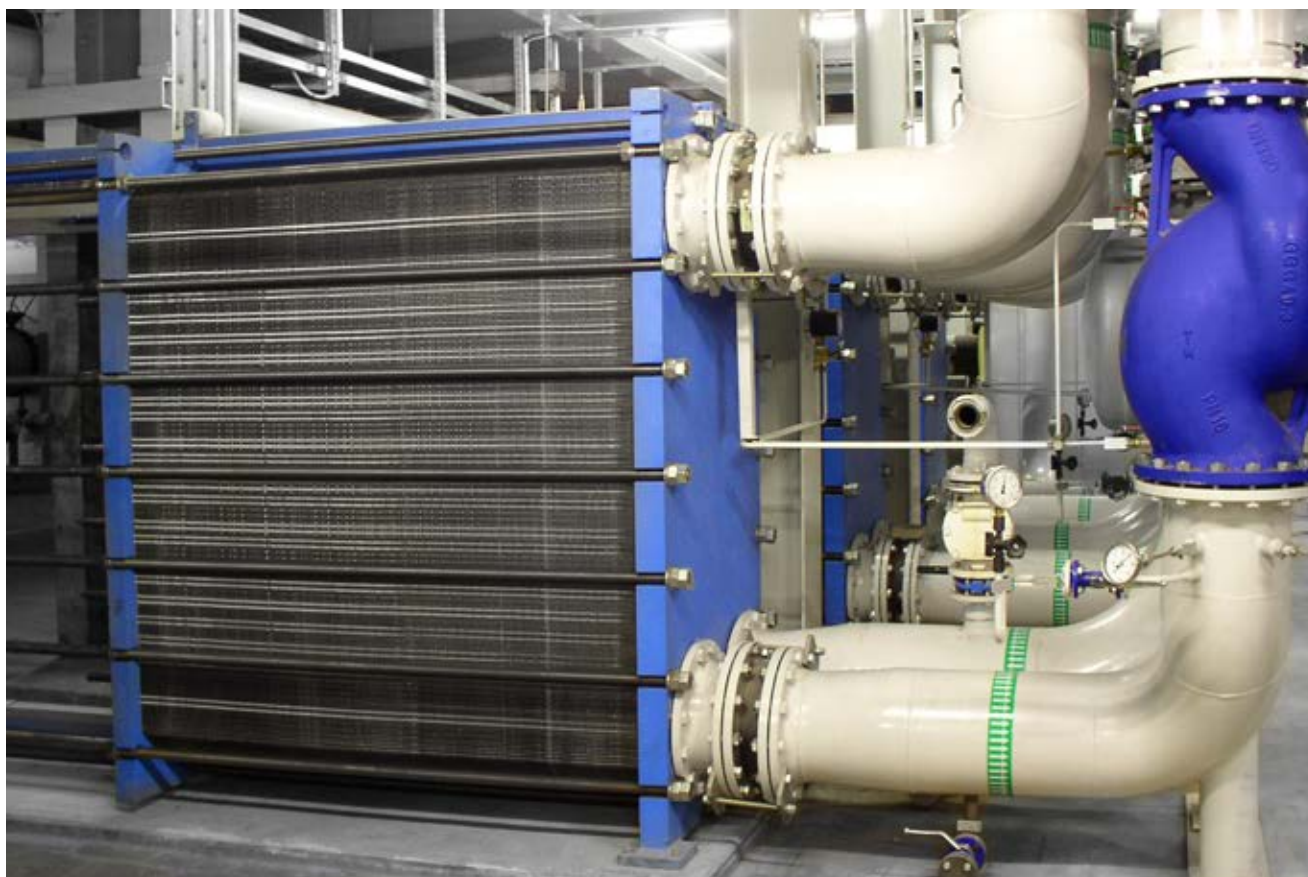
Wherever a heat exchange between two fluids takes place, the Fiorini plate heat exchangers guarantee a series of significant advantages:

- high efficiency
- long life span
- low cost
- compact dimensions
- possibility to expand
- easy maintenance
- trustworthiness

The Fiorini heat exchangers are products of reference in the residential and industrial sectors (HVAC, food, chemical, renewable energy, cooling, oil and gas).

They offer the best options for numerous applications, such as:

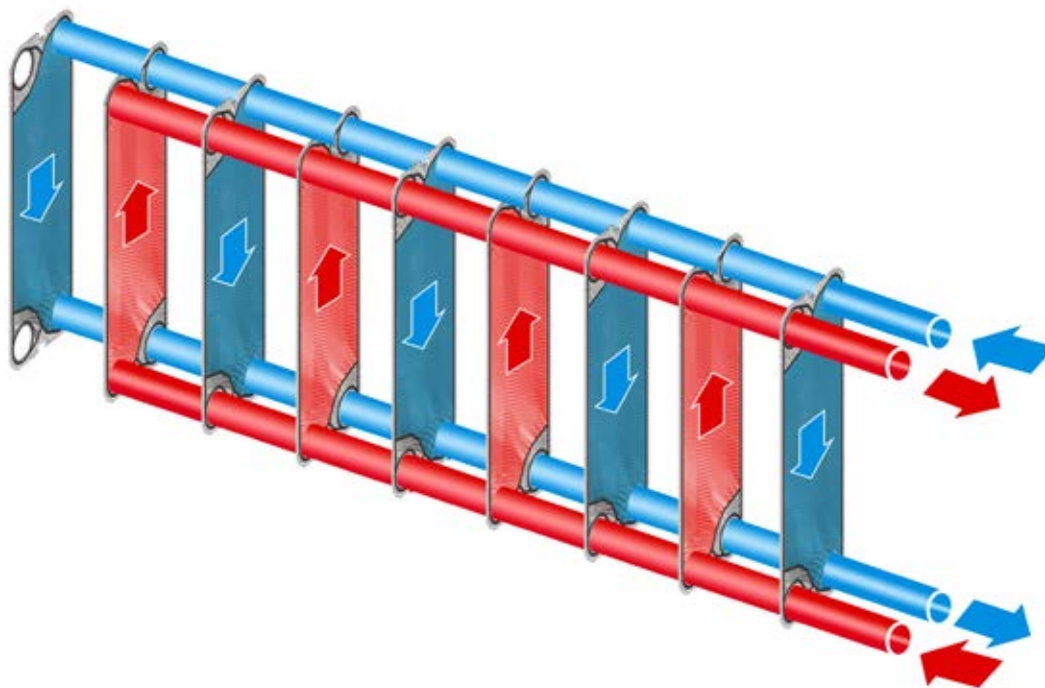
- DHW production
- heat exchanging in heating systems
- teleheating
- pool water heating
- solar power systems
- heating/cooling of alimentary fluids (milk, beer, wine...)
- cooling of machines
- recuperation of heat from industrial processes
- hydraulics



Principles

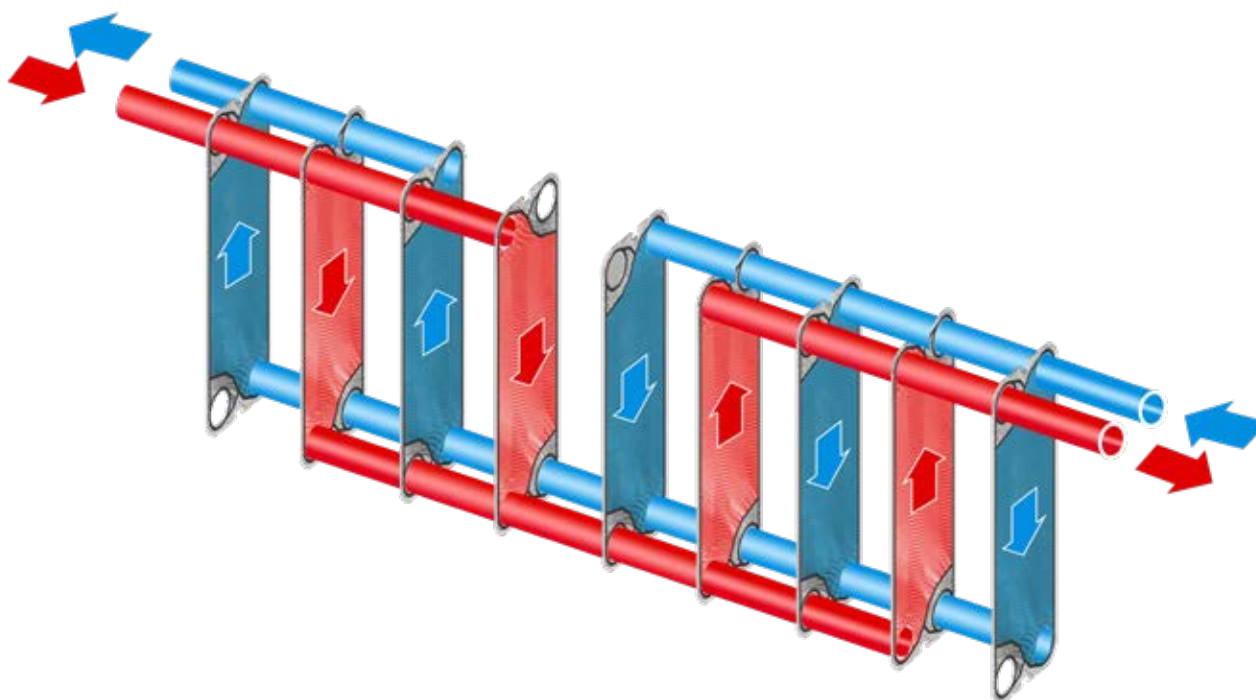
Single passage

In the version with a single passage the fluid which runs through the exchangers, goes through one canal (the space between two adjacent plates). This is the most commonly used layout.

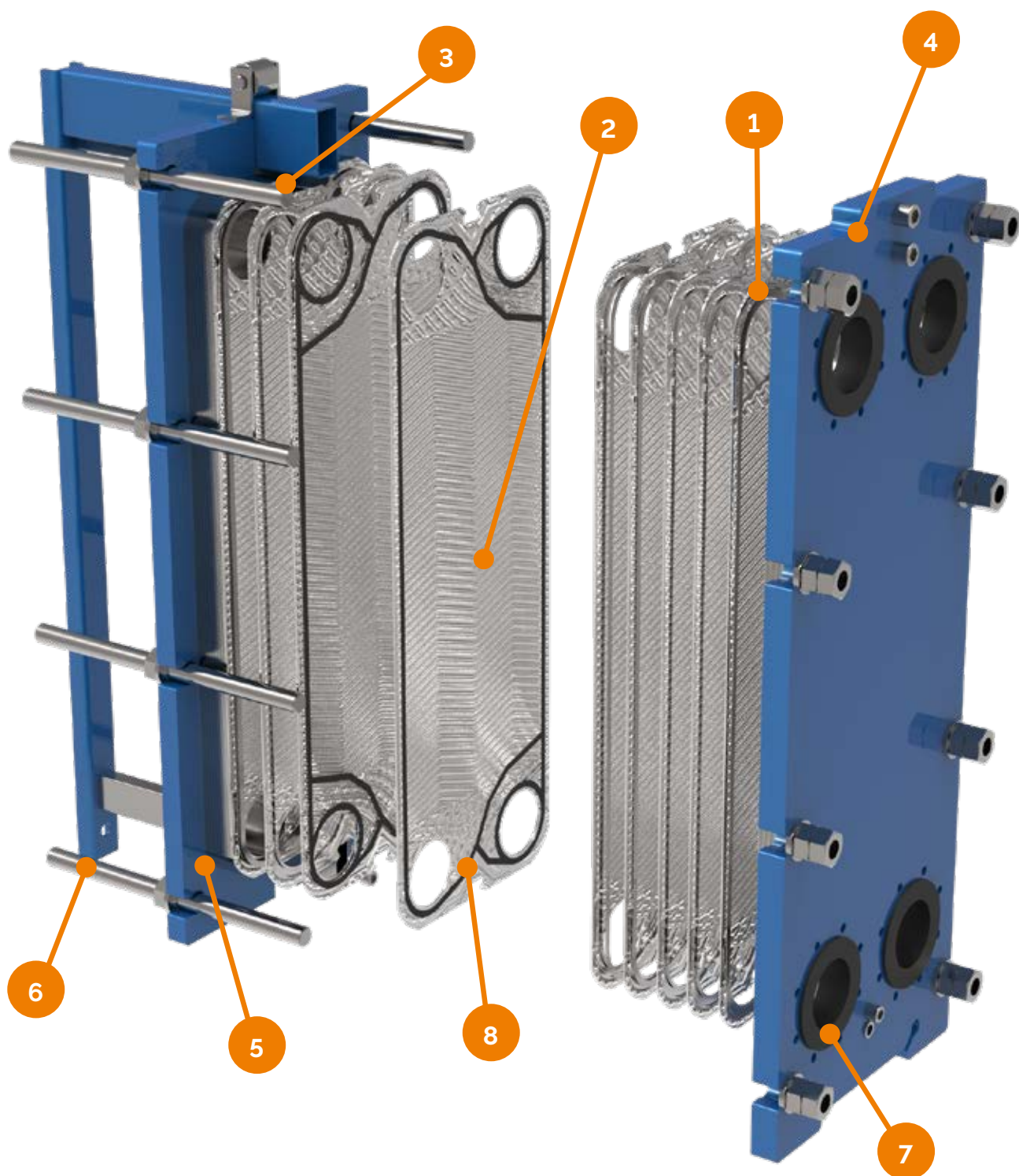


Multiple passage

In this version the thermal length of the exchanger increases with the number of passages (double length with 2 passages, triple length with 3 passages, etc.) This solution is necessary when there is a very low temperature difference between the primary and the secondary circuit.



Main components



Legend

1. anterior plate
2. mid plate
3. posterior plate
4. fixed cover
5. movable cover
6. tie rod
7. coupling
8. gaskets

Fiorini Plate heat exchangers are designed to ease access and maintenance. Furthermore, its modularity allows to increase number of the plates according to the heat exchange requirements.

Gasketed plate heat exchangers

Our range



| Model | DN 32 | | DN 50 | | | DN 100 | | | | DN 150 | |
|---------------------------------|-------------|-------------|----------------|-----------|-----------|-----------------|-----------|-----------|-----------|-----------------|-----------|
| | K042/H1 | K080/H2 | F10 | F16 | F22 | F206 | F31 | F50 | F71 | F41-42 | F60-F62 |
| Plate surface (m ²) | 0,042 | 0,085 | 0,10 | 0,15 | 0,22 | 0,21 | 0,30 | 0,50 | | 0,40 | 0,60 |
| Nominal pressure | PN10/PN16 | PN10/PN16 | PN10/PN16/PN25 | | | PN10/PN16/PN25 | | | | PN10/PN16/PN25 | |
| Available corrugations | H | H - V | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L |
| Standard coupling | 1"1/4 GAS M | 1"1/2 GAS M | 2" GAS M | | | DN 100 UNI PN16 | | | | DN 150 UNI PN16 | |
| PP (mm) | NPx3,1+2 | NPx3,05+2 | NPx 2,9+3 | NPx 2,9+3 | NPx 2,9+3 | NPx 3,1 * | NPx 3,1 * | NPx 3,1 * | NPx 3,1 * | NPx 3,5 * | NPx 3,5 * |
| Ht (mm) | 470 | 725 | 733 | 932 | 1132 | 1160 | 1332 | 1826 | 2320 | 1470 | 1835 |
| Lt (mm) | 200 | 250 | 310 | 310 | 310 | 480 | 480 | 480 | 480 | 620 | 620 |
| Z1 (mm) | 380 | 555 | 494 | 694 | 894 | 719 | 894 | 1388 | 1882 | 941 | 1306 |
| Z2 (mm) | 68 | 100 | 126 | 126 | 126 | 225 | 225 | 225 | 225 | 290 | 290 |
| J (mm) | 45 | 90 | 128 | 128 | 128 | 204 | 204 | 204 | 225 | 290 | 290 |

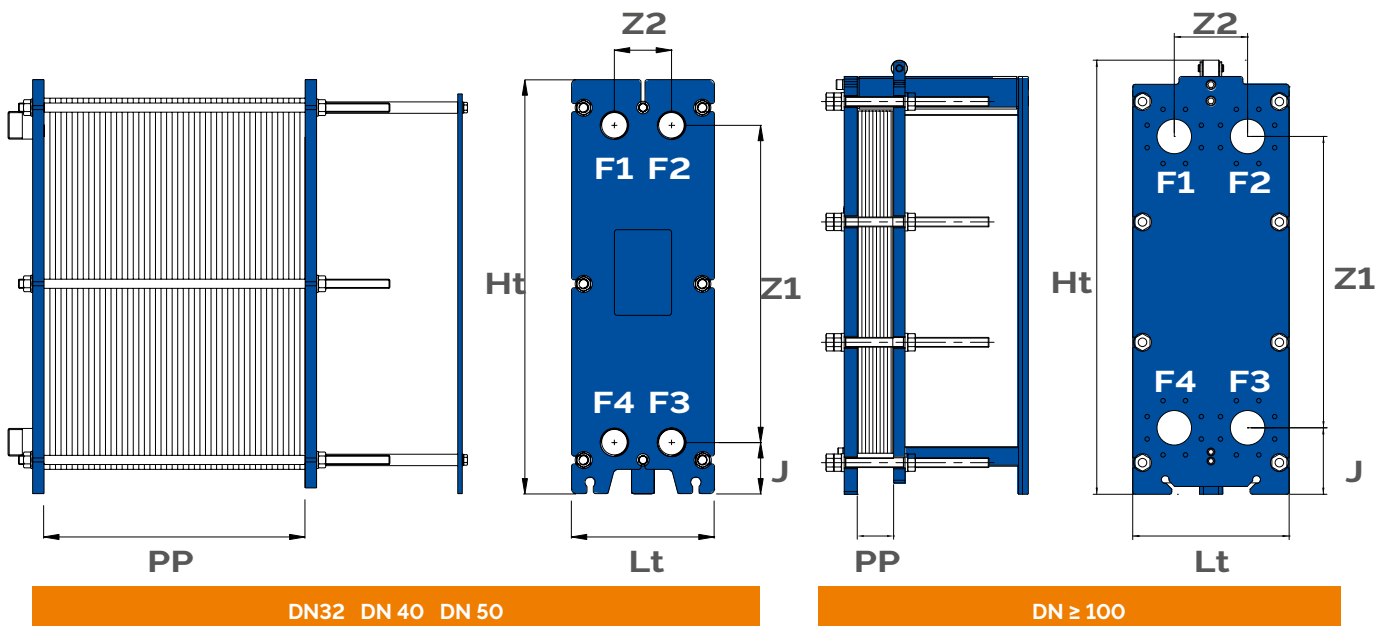
* With rubber liner add 1.5 mm

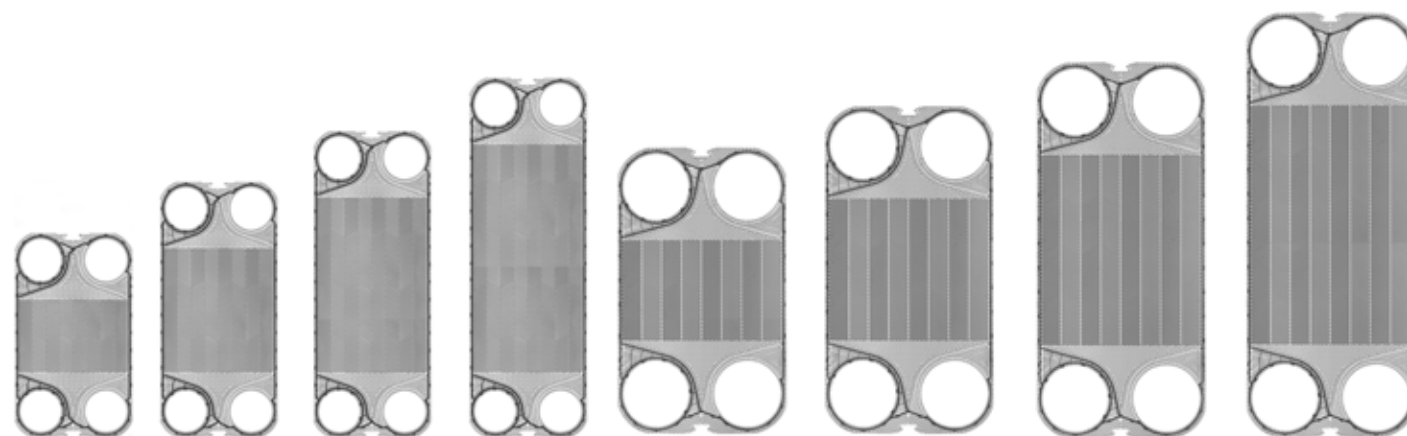
➤ Special executions are available on request

Couplings

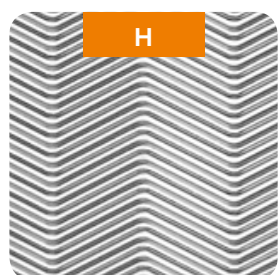
Primary: Inlet F1 - Outlet F4

Secondary: Inlet F3 - Outlet F2





| DN 150 | | DN 200 | | | | DN 300 | | | | DN 500 | | | |
|----------------|-----------|-----------------|-----------|-----------|-----------|-----------------|-----------|-----------|-----------|-----------------|-----------|-----------|-----------|
| F80-F82 | F112 | F405 | F70 | F100 | F130 | F81 | F120 | F160 | F190 | F150 | F200 | F250 | F300 |
| 0.80 | | 0.41 | 0.68 | 1.00 | 1.30 | 0.80 | 1.20 | 1.60 | 1.90 | | 2.00 | 2.50 | 3.00 |
| PN10/PN16/PN25 | | PN10/PN16/PN25 | | | | PN10/PN16/PN25 | | | | PN10/PN16/PN25 | | | |
| H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L | H - L |
| DN 150 UNI | PN16 | DN 200 UNI PN16 | | | | DN 300 UNI PN16 | | | | DN 500 UNI PN16 | | | |
| NPx 3.5 * | NPx 3.5 * | NPx 3.1 * | NPx 3.1 * | NPx 3.1 * | NPx 3.1 * | NPx 3.8 * | NPx 3.8 * | NPx 3.8 * | NPx 3.8 * | NPx 4.1 * | NPx 4.1 * | NPx 4.1 * | NPx 4.1 * |
| 2200 | 2687 | 1380 | 1740 | 2100 | 2460 | 930 | 2320 | 2710 | 3100 | 2500 | 2855 | 3211 | 3567 |
| 620 | 620 | 760 | 760 | 760 | 760 | 980 | 980 | 980 | 980 | 1370 | 1370 | 1370 | 1370 |
| 1671 | 2157 | 770 | 1130 | 1490 | 1850 | 1100 | 1490 | 1879 | 2267 | 1466 | 1822 | 2178 | 2534 |
| 290 | 290 | 395 | 395 | 395 | 395 | 480 | 480 | 480 | 480 | 672 | 672 | 672 | 672 |
| 290 | 290 | 395 | 395 | 395 | 395 | 480 | 480 | 480 | 480 | 672 | 672 | 672 | 672 |

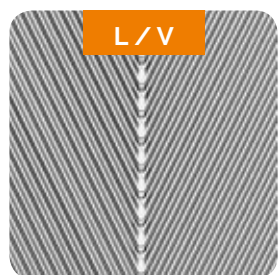


Corrugations

The plates are available with various corrugations and can be combined in order to reach better performances.

H: this type of corrugation maximizes the thermal power which is exchanged

L and V: these versions minimize the pressure loss



Available materials

| Model | Plates | | | Gaskets | | | Covers | | Tie rod | |
|----------------------|----------|-----------|---------|---------|------|-------|---------------|--------------|------------------|--------------|
| | AISI 304 | AISI 316L | TITANIO | NBR | EPDM | VITON | PAINTED STEEL | AISI 304/316 | GALVANIZED STEEL | AISI 304/316 |
| K serie | - | ✓ | ✓ | ✓ | ✓ | - | ✓ | ○ | ✓ | ○ |
| F serie (up to DN50) | - | ✓ | ✓ | ✓ | ✓ | ○ | ✓ | ○ | ✓ | ○ |
| F serie (from DN100) | ○ | ✓ | ✓ | ✓ | ✓ | ○ | ✓ | ○ | ✓ | ○ |

Legend: ✓ standard ○ upon request - not available

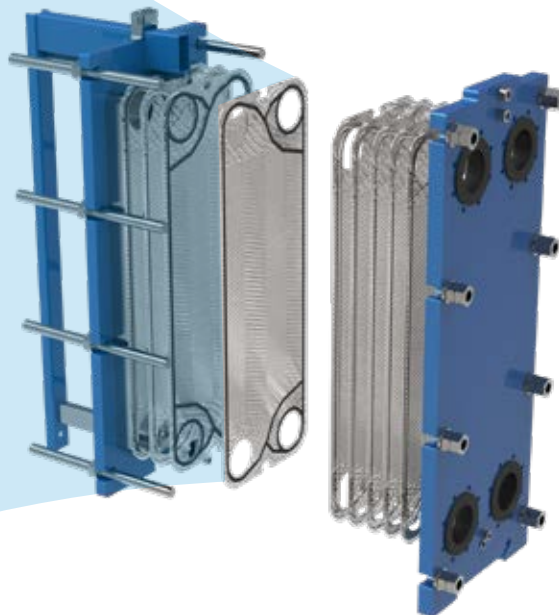
F serie available upon request with plates in the following materials; 245 SMO, AISI 904L, ALLOY C276.



Gaskets

The gaskets are attached to the plates through a clip-on system, which ensures hygiene and easy maintenance and does not use glue and solvents. The particular conformation of the gaskets creates a double barrier and prevents accidental contamination of the two fluids, also in case of loss. The gaskets are available in various materials, to be used in function of the different user parameters:

- **NBR/NBRHT** (nitrile rubber): generally used with water, other liquids, oily mineral liquids (T max 130°C / 140°C)
- **EPDM/EPDM HT** (ethylene-propylene rubber) broad range of use, such as with non-mineral oils, water, steam, caustic soda, alcohol, low % acids, etc. (T max 150°C/160°C)
- **VITON I** (fluoroelastomer) ideal for a wide range of oils, gasolines 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** (peroxidic fluoroelastomer) thanks to the high level of fluorine it has excellent resistance to concentrated acids and aqueous chemicals at high temperatures (T max 195°C - for aqueous fluids 165°C)



Fluid/material compatibility

In the table, some guidelines for the correct combination of materials are outlined.

| Fluid type | Fluid | Plates | | | Gaskets | | Couplings | |
|----------------|--------------------------------------|-----------|-----------|----------|---------|------|-----------------|-------------------|
| | | AISI 304* | AISI 316L | TITANIUM | NBR | EPDM | STAINLESS STEEL | NYLON (TMAX 50°C) |
| WATER | water (tmax < 110°C) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | water (tmax > 110°C) | - | ✓ | ✓ | - | ✓ | ✓ | - |
| | water demineralized | - | ✓ | ✓ | ✓ | - | ✓ | ✓ |
| | sea water (NaCl) | - | | ✓ | ✓ | - | - | ✓ |
| | chlorinated water for swimming pool | - | ✓ | ✓ | ✓ | - | ✓ | ✓ |
| | thermal water | - | | ✓ | - | ✓ | | ✓ |
| | mineral water | - | ✓ | - | - | ✓ | ✓ | - |
| | steam < 4 bar | - | ✓ | - | - | ✓ | ✓ | - |
| WATER & GLYCOL | ethylene glycol (glycol < 30%) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | ethylene glycol (glycol > 30%) | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ |
| | propylene glycol (glycol < 30%) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | propylene glycol (glycol > 30%) | ✓ | ✓ | ✓ | - | ✓ | ✓ | ✓ |
| HYDROCARBONS | diesel fuel | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | kerosene | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | Petroleum | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | pure gasoline | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | naphtha | - | ✓ | ✓ | ✓ | - | ✓ | - |
| OILS | sae oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | oil iso vg | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | diathermic oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | hardening oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | mineral oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | synthetic oil | - | ✓ | ✓ | - | ✓ | ✓ | - |
| | olive oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | seeds oil | - | ✓ | ✓ | ✓ | - | ✓ | - |
| ACIDS | sulfuric acid 20% (aqueous), 50°C | - | ** | - | - | ✓ | - | ✓ |
| | hydrochloric acid 1% (aqueous), 20°C | - | ** | - | - | ✓ | - | ✓ |
| | acetic acid 70°C | - | ✓ | - | - | ✓ | - | ✓ |
| | chromic acid 20%, 20°C | - | ✓ | - | - | ✓ | - | ✓ |
| FOOD | milk | ✓ | ✓ | - | ✓ | ✓ | ✓ | - |
| | wine, juice | ✓ | ✓ | - | ✓ | ✓ | ✓ | - |
| | beer | ✓ | ✓ | - | ✓ | ✓ | ✓ | - |
| | whiskey | ✓ | ✓ | - | ✓ | ✓ | ✓ | - |
| | wine vinegar | - | ✓ | - | - | ✓ | ✓ | - |
| | liquor | ✓ | ✓ | - | - | ✓ | ✓ | - |
| OTHER FLUID | acetone | - | ✓ | ✓ | - | ✓ | ✓ | - |
| | ethyl alcohol | - | ✓ | ✓ | - | ✓ | ✓ | - |
| | ethanol | - | ✓ | ✓ | - | ✓ | ✓ | - |
| | ethylene | - | ✓ | ✓ | ✓ | - | ✓ | - |
| | methanol | - | ✓ | ✓ | - | ✓ | ✓ | - |

Legend: ✓ compatible - in compatible

* Only for closed circuits and with a chloride concentration less than 25 ppm and Tmax 80C

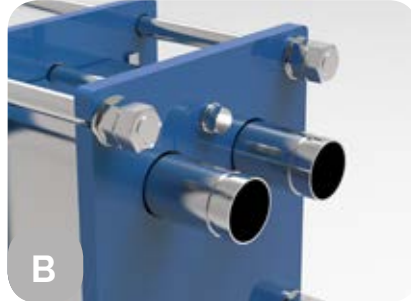
** Use 254 SMO - AISI 904 L - Alloy C276 plates

Couplings

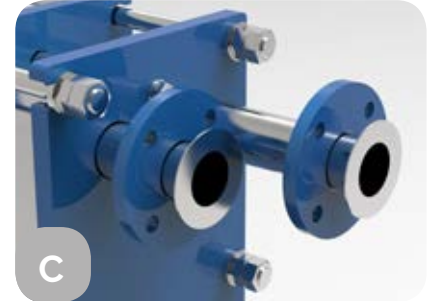
Our gasketed plate heat exchangers can be manufactured with numerous kinds of couplings, threaded, with a free flange, with a welded flange and with liner. Liner is the coating in the shaft connection edges, that can be made of steel or rubber.



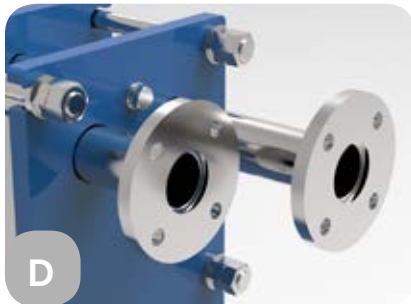
A
Threaded coupling
(steel or nylon)



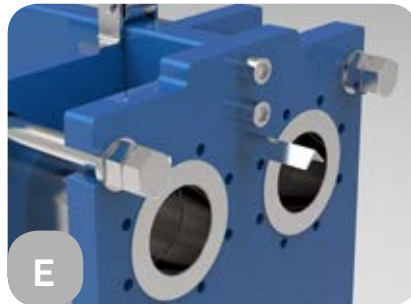
B
Victaulic coupling



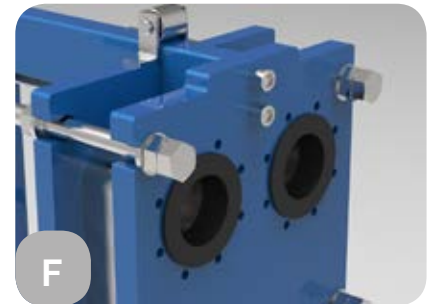
C
Free Flange coupling



D
Welded Flange coupling



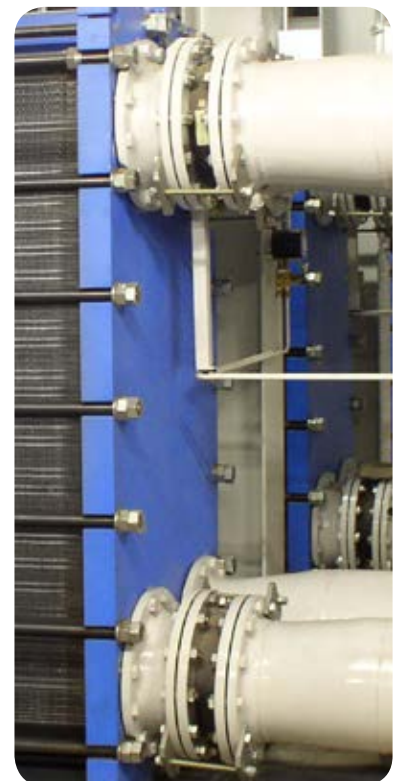
E
Metal Liner coupling



F
Rubber Liner coupling

Coupling compatibility

| Model | A | B | C | D | E | F |
|--------|---|---|---|---|---|---|
| K042 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| K080 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| F10 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| F16 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| F22 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| F206 | | | | ✓ | ✓ | ✓ |
| F31 | | | | ✓ | ✓ | ✓ |
| F50 | | | | ✓ | ✓ | ✓ |
| F71 | | | | ✓ | ✓ | ✓ |
| F41-42 | | | | ✓ | ✓ | ✓ |
| F60-62 | | | | ✓ | ✓ | ✓ |
| F80-82 | | | | ✓ | ✓ | ✓ |
| F112 | | | | ✓ | ✓ | ✓ |
| F405 | | | | ✓ | ✓ | ✓ |
| F70 | | | | ✓ | ✓ | ✓ |
| F100 | | | | ✓ | ✓ | ✓ |
| F130 | | | | ✓ | ✓ | ✓ |
| F81 | | | | ✓ | ✓ | ✓ |
| F120 | | | | ✓ | ✓ | ✓ |
| F160 | | | | ✓ | ✓ | ✓ |
| F190 | | | | ✓ | ✓ | ✓ |
| F150 | | | | ✓ | ✓ | ✓ |
| F200 | | | | ✓ | ✓ | ✓ |
| F250 | | | | ✓ | ✓ | ✓ |
| F300 | | | | ✓ | ✓ | ✓ |



Accessories

Insulation box, Condensate collection tub, Feet set

For **models K042 e H1** it is available an **thermoformed** insulation box, removable by coupling with velcro strips (**feet set included**).

| Model | Plates threshold | Thermoformed Insulation Box | |
|-------|------------------|-----------------------------|-------|
| | | Code | Price |
| K042 | up to 64 plates | 843090028X | |
| H1 | up to 64 plates | 843090028X | |



Legend

1. Aluminium Insulation Box: Available for the entire range, it is made of an aluminium structure covered with insulating material.
2. Condensate collection tank: **mandatory in applications in refrigeration and cooling plants**
3. Support feet set



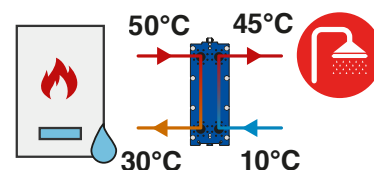
| Model | Plates threshold | Aluminium insulation box | | | Condensate collection tub (mandatory T<15°C) | | Feet set | |
|-------|----------------------|--------------------------|-------|-----------------|--|-------|------------|-------|
| | | Code | Price | Ht x Lt x Wt mm | Code | Price | Code | Price |
| K042 | up to 38 plates | 821080037X | | 493x250x300 | 829090894X | | 821070049X | |
| | up to 64 plates | 821080077X | | 493x250x450 | 829091409X | | | |
| K080 | up to 38 plates | 821080085X | | 752x300x455 | 829091546X | | 821070051X | |
| | up to 64 plates | 821080091X | | 752x300x555 | 829093407X | | | |
| H1 | up to 38 plates | 821080037X | | 493x250x300 | 829090894X | | 821070049X | |
| | up to 64 plates | 821080077X | | 493x250x450 | 829091409X | | | |
| H2 | up to 38 plates | 821080085X | | 752x300x455 | 829091546X | | 821070051X | |
| | up to 64 plates | 821080091X | | 752x300x555 | 829093407X | | | |
| F10 | up to 30 plates PN10 | 821080070X | | 778x440x400 | 829092542X | | 821070031X | |
| | up to 30 plates PN16 | 821080080X | | 778x440x650 | 829091094X | | | |
| | up to 60 plates | 821080080X | | 778x440x650 | 829091094X | | | |
| | up to 150 plates | 821080082X | | 778x440x1150 | 829090946X | | | |
| F16 | up to 30 plates PN10 | 821080063X | | 978x440x400 | 829092542X | | 821070031X | |
| | up to 30 plates PN16 | 821080019X | | 976x388x658 | 829091094X | | | |
| | up to 60 plates | 821080019X | | 976x388x658 | 829091094X | | | |
| | up to 150 plates | 821080027X | | 971x383x1155 | 829090946X | | | |
| F22 | up to 30 plates | 821080071X | | 1178x440x400 | 829092542X | | 821070031X | |
| | up to 60 plates | 821080054X | | 1124x384x656 | 829091094X | | | |
| | up to 150 plates | 821080032X | | 1175x387x1157 | 829090946X | | | |
| F206 | up to 60 plates | 821080055X | | 1204x540x715 | 829091028X | | 821070032X | |
| | up to 150 plates | 821080059X | | 1204x540x1215 | 829090857X | | | |
| F31 | up to 60 plates | 821080029X | | 1371x536x709 | 829091028X | | 821070032X | |
| | up to 150 plates | 821080017X | | 1371x536x1209 | 829090857X | | | |
| F50 | up to 60 plates | 821080024X | | 1865x535x700 | 829091028X | | 821070032X | |
| | up to 150 plates | 821080021X | | 1865x535x1209 | 829090857X | | | |
| F71 | up to 60 plates | 821080096X | | 2365x535x700 | 829091028X | | 821070032X | |
| | up to 150 plates | 821080072X | | 2365x535x1206 | 829090857X | | | |

Tables for fast selection - GASKETED

INSTANTANEOUS DHW with LOW temperature source

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 50°C | 30°C | 10 bar | H ₂ O |
| COLD side | Domestic Hot Water | 10°C | 45°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 871 | 4 | 494 | 1 | K080 | 9 | 821K080AHNN009 | | 77x27x42 | 78 |
| 25 | 1088 | 4 | 618 | 1 | K080 | 11 | 821K080AHNN011 | | 77x27x42 | 79 |
| 30 | 1306 | 4 | 741 | 1 | K080 | 13 | 821K080AHNN013 | | 77x27x42 | 80 |
| 35 | 1524 | 4 | 865 | 1 | K080 | 15 | 821K080AHNN015 | | 77x27x54 | 82 |
| 40 | 1714 | 5 | 988 | 2 | K080 | 15 | 821K080AHNN015 | | 77x27x54 | 82 |
| 50 | 2177 | 5 | 1235 | 2 | K080 | 19 | 821K080AHNN019 | | 77x27x54 | 84 |
| 60 | 2612 | 6 | 1482 | 2 | K080 | 21 | 821K080AHNN021 | | 77x27x54 | 85 |
| 75 | 3265 | 7 | 1853 | 2 | K080 | 25 | 821K080AHNN025 | | 77x27x54 | 88 |
| 85 | 3700 | 6 | 2100 | 2 | K080 | 29 | 821K080AHNN029 | | 77x27x54 | 90 |
| 100 | 4353 | 7 | 2471 | 2 | K080 | 33 | 821K080AHNN033 | | 77x27x54 | 93 |
| 120 | 5224 | 32 | 2965 | 10 | F16 | 15 | 821F016AN015-1HH07XX00N | | 97x33x75 | 134 |
| 150 | 6530 | 30 | 3706 | 9 | F16 | 19 | 821F016AN019-1HH09XX00N | | 97x33x75 | 137 |
| 180 | 7836 | 36 | 4447 | 11 | F16 | 21 | 821F016AN021-1HH10XX00N | | 97x33x75 | 139 |
| 210 | 9142 | 34 | 5189 | 11 | F16 | 25 | 821F016AN025-1HH12XX00N | | 97x33x75 | 142 |
| 240 | 10448 | 33 | 5930 | 10 | F16 | 29 | 821F016AN029-1HH14XX00N | | 97x33x75 | 145 |
| 270 | 11754 | 32 | 6671 | 10 | F16 | 33 | 821F016AN033-1HH16XX00N | | 97x33x75 | 152 |
| 300 | 13060 | 35 | 7412 | 11 | F16 | 35 | 821F016AN035-1HH17XX00N | | 97x33x75 | 153 |

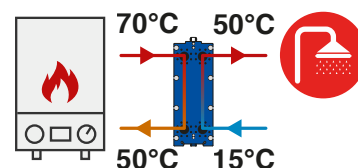
*Accessories see pag. 37 (See Model and plates number)

Alternative solution with brazed heat exchangers: see pag. 50

Tables for fast selection - GASKETED INSTANTANEOUS DHW with HIGH temperature source

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 70°C | 50°C | 10 bar | H ₂ O |
| COLD side | Domestic Hot Water | 15°C | 50°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 879 | 10 | 495 | 3 | K042 | 7 | 821K042AHNN007 | | 50x25x35 | 31 |
| 25 | 1099 | 9 | 619 | 3 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 30 | 1319 | 13 | 743 | 4 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 35 | 1539 | 17 | 867 | 6 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 40 | 1759 | 14 | 991 | 5 | K042 | 11 | 821K042AHNN011 | | 50x25x35 | 33 |
| 50 | 2199 | 15 | 1236 | 5 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 60 | 2638 | 22 | 1486 | 8 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 75 | 3298 | 25 | 1858 | 9 | K042 | 15 | 821K042AHNN015 | | 50x25x45 | 34 |
| 85 | 3737 | 25 | 2106 | 9 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 34 |
| 100 | 4397 | 23 | 2477 | 8 | K042 | 21 | 821K042AHNN021 | | 50x25x45 | 36 |
| 120 | 5276 | 32 | 2973 | 11 | K042 | 21 | 821K042AHNN021 | | 50x25x45 | 36 |
| 150 | 6596 | 36 | 3716 | 13 | K042 | 25 | 821K042AHNN025 | | 50x25x45 | 37 |
| 180 | 7915 | 35 | 4459 | 12 | K042 | 31 | 821K042AHNN031 | | 50x25x45 | 39 |
| 210 | 9234 | 34 | 5202 | 12 | K042 | 37 | 821K042AHNN037 | | 50x25x45 | 41 |
| 240 | 10533 | 32 | 5945 | 11 | F 10 | 17 | 821F010AN017-1HH03HL05N | | 77x33x47 | 106 |
| 270 | 11872 | 35 | 6688 | 12 | F 10 | 19 | 821F010AN019-1HH04HL05N | | 77x33x47 | 107 |
| 300 | 13191 | 34 | 7431 | 12 | F 10 | 21 | 821F010AN021-1HH04HL06N | | 77x33x47 | 108 |

*Accessories see pag. 37 (See Model and plates number)

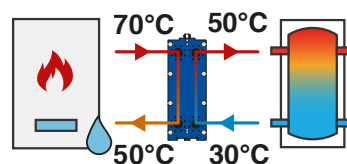
Alternative solution with brazed heat exchangers: see pag. 51

Tables for fast selection - GASKETED

DHW with STORAGE TANK and HIGH temperature source

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 70°C | 50°C | 10 bar | H ₂ O |
| COLD side | Domestic Hot Water | 30°C | 50°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 878 | 6 | 871 | 6 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 25 | 1098 | 9 | 1087 | 9 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 30 | 1318 | 13 | 1307 | 13 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 35 | 1537 | 17 | 1523 | 17 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 40 | 1760 | 22 | 1742 | 22 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 50 | 2200 | 22 | 2174 | 22 | K042 | 11 | 821K042AHNN011 | | 50x25x35 | 33 |
| 60 | 2640 | 22 | 2610 | 22 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 75 | 3298 | 25 | 3265 | 26 | K042 | 15 | 821K042AHNN015 | | 50x25x45 | 34 |
| 85 | 3737 | 25 | 3697 | 26 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 34 |
| 100 | 4396 | 28 | 4352 | 28 | K042 | 19 | 821K042AHNN019 | | 50x25x45 | 35 |
| 120 | 5278 | 27 | 5223 | 28 | K042 | 23 | 821K042AHNN023 | | 50x25x45 | 36 |
| 150 | 6595 | 27 | 6527 | 28 | K042 | 29 | 821K042AHNN029 | | 50x25x45 | 38 |
| 180 | 7916 | 28 | 7834 | 28 | K042 | 35 | 821K042AHNN035 | | 50x25x45 | 40 |
| 210 | 9234 | 28 | 9140 | 28 | F 10 | 17 | 821F010AN017-1HH04HLO4N | | 77x33x47 | 106 |
| 240 | 10055 | 27 | 10044 | 27 | F 10 | 21 | 821F010AN021-1HH06HLO4N | | 77x33x47 | 108 |
| 270 | 11930 | 27 | 11808 | 27 | F 10 | 21 | 821F010AN021-1HH06HLO4N | | 77x33x47 | 108 |
| 300 | 13190 | 30 | 13053 | 29 | F 10 | 25 | 821F010AN025-1HH07HLO5N | | 77x33x47 | 111 |

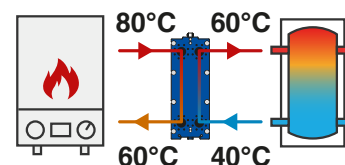
*Accessories see pag. 37 (See Model and plates number)

Alternative solution with brazed heat exchangers: see pag. 52

Tables for fast selection - GASKETED DHW with STORAGE TANK and HIGH temperature source

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 80°C | 60°C | 10 bar | H ₂ O |
| COLD side | Domestic Hot Water | 40°C | 60°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 882 | 6 | 864 | 6 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 25 | 1105 | 9 | 1094 | 9 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 30 | 1324 | 12 | 1310 | 13 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 35 | 1548 | 17 | 1530 | 17 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 40 | 1767 | 22 | 1749 | 22 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 50 | 2210 | 22 | 2185 | 22 | K042 | 11 | 821K042AHNN011 | | 50x25x35 | 33 |
| 60 | 2649 | 22 | 26244 | 22 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 75 | 3312 | 25 | 3279 | 25 | K042 | 15 | 821K042AHNN015 | | 50x25x45 | 34 |
| 85 | 3754 | 25 | 3718 | 25 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 34 |
| 100 | 4597 | 27 | 4374 | 28 | K042 | 19 | 821K042AHNN019 | | 50x25x45 | 35 |
| 120 | 5302 | 27 | 5248 | 27 | K042 | 23 | 821K042AHNN023 | | 50x25x45 | 36 |
| 150 | 6627 | 28 | 6559 | 28 | K042 | 29 | 821K042AHNN029 | | 50x25x45 | 38 |
| 180 | 7952 | 28 | 7873 | 28 | K042 | 35 | 821K042AHNN035 | | 50x25x45 | 40 |
| 210 | 9277 | 19 | 9184 | 20 | K080 | 23 | 821K080AVNN023 | | 77x27x54 | 87 |
| 240 | 10605 | 27 | 10497 | 27 | F 10 | 19 | 821F010AN019-1HH04HL05N | | 77x33x47 | 107 |
| 270 | 11930 | 27 | 11808 | 27 | F 10 | 21 | 821F010AN021-1HH04HL06N | | 77x33x47 | 108 |
| 300 | 13255 | 30 | 13122 | 29 | F 10 | 23 | 821F010AN023-1HH05HL06N | | 77x33x47 | 109 |

*Accessories see pag. 37 (See Model and plates number)

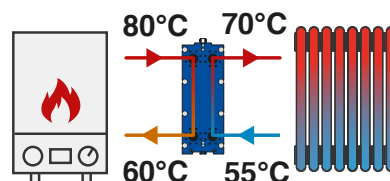
Alternative solution with brazed heat exchangers: see pag. 53

Tables for fast selection - GASKETED

HEATING with HIGH temperature endpoints

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 80°C | 60°C | 10 bar | H ₂ O |
| COLD side | Radiators | 55°C | 70°C | 10 bar | H ₂ O |

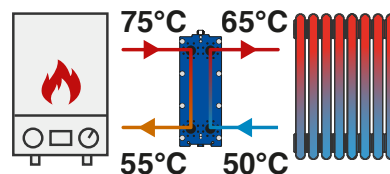


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 663 | 1 | 880 | 1 | K042 | 19 | 821K042AHNN019 | | 50x25x45 | 35 |
| 25 | 1104 | 4 | 1467 | 7 | K080 | 11 | 821K080AHNN011 | | 77x27x42 | 79 |
| 35 | 1546 | 5 | 2054 | 9 | K080 | 13 | 821K080AHNN013 | | 77x27x42 | 80 |
| 50 | 2209 | 6 | 2934 | 11 | K080 | 17 | 821K080AHNN017 | | 77x27x54 | 83 |
| 75 | 3314 | 8 | 4401 | 8 | K080 | 23 | 821K080AHNN023 | | 77x27x54 | 87 |
| 100 | 4418 | 8 | 5868 | 15 | K080 | 29 | 821K080AHNN029 | | 77x27x54 | 90 |
| 115 | 5081 | 9 | 6748 | 15 | K080 | 33 | 821K080AHNN033 | | 77x27x54 | 93 |
| 130 | 5744 | 9 | 7628 | 16 | K080 | 37 | 821K080AHNN037 | | 77x27x54 | 95 |
| 150 | 6628 | 10 | 8802 | 17 | K080 | 41 | 821K080AHNN041 | | 77x27x64 | 98 |
| 180 | 7953 | 11 | 10562 | 20 | F16 | 27 | 821F016AN027-1HH06HLO7N | | 97x33x75 | 144 |
| 200 | 8837 | 11 | 11736 | 19 | F16 | 31 | 821F016AN031-1HH07HLO8N | | 97x33x75 | 150 |

*Accessories see pag. 37 (See Model and plates number)

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 75°C | 55°C | 10 bar | H ₂ O |
| COLD side | Radiators | 50°C | 65°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 661 | 4 | 878 | 7 | K80 | 7 | 821K080AHNN007 | | 77x27x42 | 76 |
| 25 | 1102 | 4 | 1463 | 7 | K80 | 11 | 821K080AHNN011 | | 77x27x42 | 79 |
| 35 | 1542 | 5 | 2049 | 10 | K80 | 13 | 821K080AHNN013 | | 77x27x42 | 80 |
| 50 | 2203 | 6 | 2927 | 11 | K80 | 17 | 821K080AHNN017 | | 77x27x54 | 83 |
| 75 | 3305 | 8 | 4390 | 13 | K80 | 23 | 821K080AHNN023 | | 77x27x54 | 87 |
| 100 | 4407 | 9 | 5853 | 15 | K80 | 29 | 821K080AHNN029 | | 77x27x54 | 90 |
| 115 | 5068 | 9 | 6732 | 15 | K80 | 33 | 821K080AHNN033 | | 77x27x54 | 93 |
| 130 | 5730 | 9 | 7609 | 16 | K80 | 37 | 821K080AHNN037 | | 77x27x54 | 95 |
| 150 | 6612 | 9 | 8780 | 16 | K80 | 43 | 821K080AHNN043 | | 77x27x64 | 99 |
| 180 | 7934 | 12 | 10536 | 20 | F16 | 27 | 821F016AN027-1HH10LL03N | | 97x33x75 | 144 |
| 200 | 8815 | 11 | 11706 | 19 | F16 | 31 | 821F016AN031-1HH07HLO8N | | 97x33x75 | 150 |

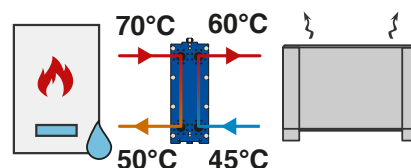
*Accessories see pag. 37 (See Model and plates number)

Alternative solution with brazed heat exchangers: see pag. 54

Tables for fast selection - GASKETED HEATING with HIGH temperature endpoints

Project conditions 3

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 70°C | 50°C | 10 bar | H ₂ O |
| COLD side | Radiators / Fan Coil | 45°C | 60°C | 10 bar | H ₂ O |

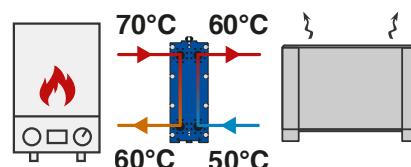


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|----------|----------|-----|-------|-----|--------|----------------|----------------|-------|---------------|-----------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 660 | 1 | 876 | 1 | K042 | 21 | 821K042AHNN021 | | 50x25x45 | 36 |
| 25 | 1099 | 4 | 1460 | 7 | K080 | 11 | 821K080AHNN011 | | 77x27x42 | 79 |
| 35 | 1539 | 5 | 2044 | 10 | K080 | 13 | 821K080AHNN013 | | 77x27x42 | 80 |
| 50 | 2199 | 6 | 2920 | 11 | K080 | 17 | 821K080AHNN017 | | 77x27x54 | 83 |
| 75 | 3298 | 6 | 4379 | 11 | K080 | 25 | 821K080AHNN025 | | 77x27x54 | 88 |
| 100 | 4397 | 8 | 5839 | 13 | K080 | 31 | 821K080AHNN031 | | 77x27x54 | 92 |
| 115 | 5057 | 8 | 6715 | 14 | K080 | 35 | 821K080AHNN035 | | 77x27x54 | 94 |
| 130 | 5716 | 8 | 7591 | 15 | K080 | 39 | 821K080AHNN039 | | 77x27x64 | 97 |
| 150 | 6596 | 9 | 8759 | 15 | K080 | 45 | 821K080AHNN045 | | 77x27x64 | 101 |
| 180 | 7915 | 9 | 10510 | 16 | K080 | 53 | 821K080AHNN053 | | 77x27x64 | 106 |
| 200 | 8794 | 10 | 11678 | 17 | K080 | 59 | 821K080AHNN059 | | 77x27x64 | 109 |

*Accessories see pag. 37 (See Model and plates number)

Project conditions 4

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 70°C | 60°C | 10 bar | H ₂ O |
| COLD side | Radiators / Fan Coil | 50°C | 60°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|----------|----------|-----|-------|-----|--------|----------------|-------------------------|-------|---------------|-----------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 1322 | 12 | 1315 | 13 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 25 | 2203 | 15 | 2192 | 16 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 35 | 3085 | 17 | 3069 | 17 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 34 |
| 50 | 4408 | 19 | 4385 | 19 | K042 | 23 | 821K042AHNN023 | | 50x25x45 | 36 |
| 75 | 6612 | 18 | 6577 | 18 | K080 | 17 | 821K080AHNN017 | | 77x27x54 | 83 |
| 100 | 8816 | 17 | 8769 | 18 | K080 | 23 | 821K080AHNN023 | | 77x27x54 | 87 |
| 115 | 10138 | 19 | 10085 | 20 | K080 | 25 | 821K080AHNN025 | | 77x27x54 | 88 |
| 130 | 11460 | 19 | 11400 | 19 | K080 | 29 | 821K080AHNN029 | | 77x27x54 | 90 |
| 150 | 13223 | 19 | 13154 | 19 | F10 | 27 | 821F010AN027-1HH04HL09N | | 77x33x47 | 112 |
| 180 | 15868 | 20 | 15785 | 20 | F10 | 31 | 821F010AN031-1HH03HL12N | | 77x33x71 | 118 |
| 200 | 17631 | 19 | 17539 | 19 | F10 | 35 | 821F010AN035-1HH03HL14N | | 77x33x71 | 120 |

*Accessories see pag. 37 (See Model and plates number)

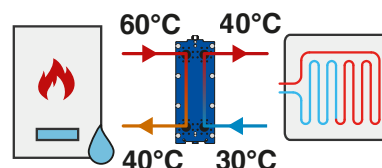
Alternative solution with brazed heat exchangers: see pag. 55

Tables for fast selection - GASKETED

HEATING with LOW temperature endpoints

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 60°C | 40°C | 10 bar | H ₂ O |
| COLD side | Radiating floor / Fan Coil | 30°C | 40°C | 10 bar | H ₂ O |

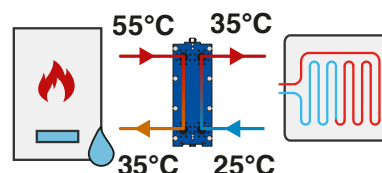


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 656 | 3 | 1302 | 13 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 25 | 1093 | 4 | 2170 | 16 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 35 | 1531 | 5 | 3038 | 18 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 35 |
| 50 | 2187 | 5 | 4340 | 20 | K042 | 23 | 821K042AHNN023 | | 50x25x45 | 36 |
| 75 | 3281 | 6 | 6511 | 20 | K080 | 17 | 821K080AHNN017 | | 77x27x54 | 83 |
| 100 | 4375 | 5 | 8681 | 19 | K080 | 23 | 821K080AHNN023 | | 77x27x54 | 87 |
| 115 | 5032 | 5 | 9983 | 18 | F10 | 19 | 821F010ANO19-1HH05LLO4N | | 77x33x47 | 107 |
| 130 | 5687 | 5 | 11285 | 18 | F10 | 21 | 821F010ANO21-1HH05LLO5N | | 77x33x47 | 108 |
| 150 | 6563 | 6 | 13022 | 19 | F10 | 25 | 821F010ANO25-1HH07LLO5N | | 77x33x47 | 111 |
| 180 | 7876 | 6 | 15626 | 19 | F10 | 29 | 821F010ANO29-1HH07LLO7N | | 77x33x47 | 113 |
| 200 | 8751 | 6 | 17362 | 19 | F10 | 33 | 821F010ANO33-1HH08LLO8N | | 77x33x71 | 119 |

*Accessories see pag. 37 (See Model and plates number)

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|------------------|------------------|
| HOT side | Water heater | 55°C | 35°C | 10 bar | H ₂ O |
| COLD side | Radiating floor | 25°C | 35°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 655 | 3 | 1299 | 13 | K042 | 9 | 821K042AHNN009 | | 50x25x35 | 32 |
| 25 | 1092 | 4 | 2165 | 16 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 35 | 1528 | 5 | 3031 | 18 | K042 | 17 | 821K042AHNN017 | | 50x25x45 | 35 |
| 50 | 2182 | 5 | 4329 | 20 | K042 | 23 | 821K042AHNN023 | | 50x25x45 | 36 |
| 75 | 3273 | 5 | 6494 | 17 | K080 | 19 | 821K080AHNN019 | | 77x27x54 | 84 |
| 100 | 4364 | 5 | 8659 | 20 | K080 | 23 | 821K080AHNN023 | | 77x27x54 | 87 |
| 115 | 5019 | 6 | 9958 | 18 | F10 | 19 | 821F010ANO19-1HH05LLO4N | | 77x33x47 | 107 |
| 130 | 5674 | 5 | 11257 | 20 | F10 | 23 | 821F010ANO23-1HH03HLO8N | | 77x33x47 | 109 |
| 150 | 6547 | 6 | 12988 | 20 | F10 | 25 | 821F010ANO25-1HH07LLO5N | | 77x33x47 | 111 |
| 180 | 7856 | 6 | 15586 | 19 | F10 | 29 | 821F010ANO29-1HH07LLO7N | | 77x33x47 | 113 |
| 200 | 8729 | 6 | 17318 | 19 | F10 | 33 | 821F010ANO33-1HH08LLO8N | | 77x33x71 | 119 |

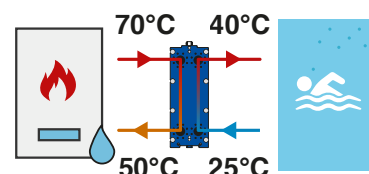
*Accessories see pag. 37 (See Model and plates number)

Alternative solution with brazed heat exchangers: see pag. 56

Tables for fast selection - GASKETED HEATING for CHLORINATED pool

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-----------------------|-----------------|------------------|------------------|---------------------|
| HOT side | Water heater | 70°C | 50°C | 10 bar | H ₂ O |
| COLD side | Piscina Acqua Clorata | 25°C | 40°C | 10 bar | H ₂ O+Cl |



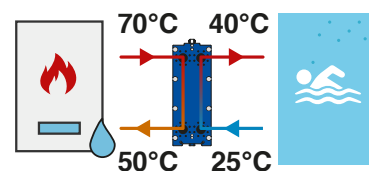
| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 880 | 4 | 1156 | 7 | K042 | 11 | 821K042AHNN011 | | 50x25x35 | 33 |
| 25 | 1099 | 6 | 1445 | 10 | K042 | 11 | 821K042AHNN011 | | 50x25x35 | 33 |
| 35 | 1539 | 8 | 2023 | 14 | K042 | 13 | 821K042AHNN013 | | 50x25x35 | 33 |
| 50 | 2199 | 8 | 2890 | 13 | K042 | 19 | 821K042AHNN019 | | 50x25x45 | 35 |
| 75 | 3298 | 7 | 4335 | 12 | K080 | 15 | 821K080AVNN015 | | 77x27x54 | 82 |
| 100 | 4397 | 7 | 5780 | 14 | K080 | 19 | 821K080AVNN019 | | 77x27x54 | 84 |
| 115 | 5057 | 8 | 6647 | 14 | F10 | 11 | 821F010AN011-1LL05XX00N | | 77x33x47 | 102 |
| 130 | 5716 | 9 | 7514 | 14 | F10 | 13 | 821F010AN013-1HL03LL03N | | 77x33x47 | 103 |
| 150 | 6596 | 9 | 8670 | 14 | F10 | 15 | 821F010AN015-1HL03LL04N | | 77x33x47 | 104 |
| 180 | 7915 | 8 | 10404 | 14 | F10 | 17 | 821F010AN017-1LL08XX00N | | 77x33x47 | 106 |
| 200 | 8794 | 9 | 11560 | 15 | F10 | 19 | 821F010AN019-1HL03LL06N | | 77x33x47 | 107 |

*Accessories see pag. 37 (See Model and plates number)

HEATING for SEA WATER pool (Titanium plates)

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------|-----------------|------------------|------------------|-----------------------|
| HOT side | Water heater | 70°C | 50°C | 10 bar | H ₂ O |
| COLD side | Piscina Acqua Salata | 25°C | 40°C | 10 bar | H ₂ O+NaCl |



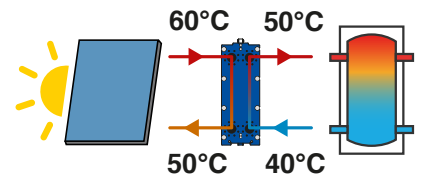
| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 879 | 6 | 1156 | 10 | K042 | 9 | 821K042CHNP009 | | 50x25x35 | 31 |
| 25 | 1099 | 6 | 1445 | 10 | K042 | 11 | 821K042CHNP011 | | 50x25x35 | 31 |
| 35 | 1539 | 8 | 2023 | 14 | K080 | 7 | 821K080CVNP007 | | 77x27x42 | 74 |
| 50 | 2198 | 6 | 2890 | 11 | K080 | 11 | 821K080CVNP011 | | 77x27x42 | 76 |
| 75 | 3297 | 7 | 4335 | 12 | K080 | 15 | 821K080CVNP015 | | 77x27x54 | 77 |
| 100 | 4396 | 6 | 5780 | 10 | F10 | 11 | 821F010CN011-1LL05XX00N | | 77x33x47 | 100 |
| 115 | 5055 | 8 | 6647 | 13 | F10 | 11 | 821F010CN011-1LL05XX00N | | 77x33x47 | 100 |
| 130 | 5714 | 9 | 7514 | 14 | F10 | 13 | 821F010CN013-1HL03LL03N | | 77x33x47 | 100 |
| 150 | 6593 | 9 | 8670 | 14 | F10 | 15 | 821F010CN015-1HL03LL04N | | 77x33x47 | 101 |
| 180 | 7912 | 8 | 10404 | 14 | F10 | 17 | 821F010CN017-1LL08XX00N | | 77x33x47 | 102 |
| 200 | 8791 | 9 | 11560 | 15 | F10 | 19 | 821F010CN019-1HL03LL06N | | 77x33x47 | 103 |

*Accessories see pag. 37 (See Model and plates number)

Tables for fast selection - GASKETED HEATING with Thermal Solar

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|------------------------------|-----------------|------------------|------------------|------------------|
| HOT side | Solar panel | 60°C | 50°C | 10 bar | Glic. 30% |
| COLD side | Heating / Domestic Hot Water | 40°C | 50°C | 10 bar | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|--|----------|-----|------|-----|--------|-------------------|-------------------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 1839 | 12 | 1745 | 10 | K042 | 13 | 821K042AHEN013 | | 50x25x35 | 33 |
| 35 | 3218 | 14 | 3054 | 12 | K042 | 21 | 821K042AHEN021 | | 50x25x45 | 36 |
| 50 | 4598 | 10 | 4363 | 8 | K080 | 19 | 821K080AVEN019 | | 77x27x54 | 84 |
| 75 | 6897 | 11 | 6544 | 9 | K080 | 27 | 821K080AVEN027 | | 77x27x54 | 89 |
| 100 | 9196 | 14 | 8726 | 11 | F10 | 25 | 821F010AEO25-1HH05HLO7N | | 77x33x47 | 111 |
| *Accessories see pag. 37 (See Model and plates number) | | | | | | | | | | |

The solar thermal makes it roughly 0.8 kW/m².
 Example 10 Fiorini collectors H2500 (pag. 254) is equal to 25m²= 20kW

Alternative solution with brazed heat exchangers: see pag. 57

Brazed heat exchangers P and WP series

The brazed plate heat exchangers (P and WP series) are used in heating, cooling and heat recuperation systems. The quality of the parts and the brazing process, which is carried out with care, make a trustworthy product. The plate design makes it possible to reach higher heat exchange performances and lower pressure loss. Moreover, the product has an elevated resistance to high temperatures and pressure.

Our brazed plate heat exchangers can be used with many kinds of fluids in various combinations (ex: water/water, water/oil, water/steam, steam/oil, Freon/water, etc.)

Advantages

- compact design
- reasonable weight
- high heat exchange efficiency
- high temperature range (-160/+ 195 °C)
- high max operating pressure (30 bar)

Main applications

- heating/cooling of technical water or industrial fluids
- evaporation and condensation of refrigerant gas
- hydraulic separation of the circuit
- heat recuperation in domestic applications and industrial processes
- functioning with a wide range of compatible fluids
- mechanical and chemical resistance of the materials

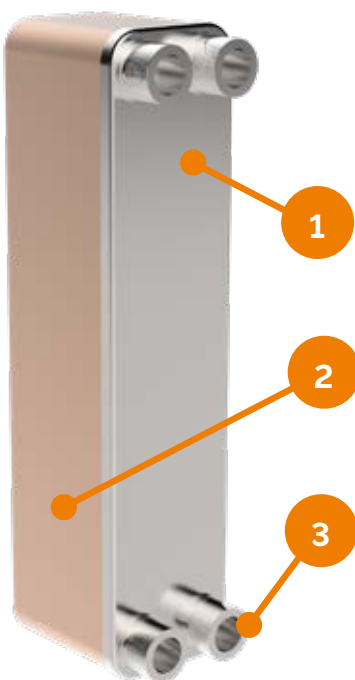


Brazed heat exchanger Range



| Model | WP4 | P4 | P7 | P15 | P30 |
|---------------------------------|-----------|----------|-----------|------------|------------|
| Plate surface (m ²) | 0,03 | 0,02375 | 0,07 | 0,15 | 0,30 |
| Nominal pressure | PN16 | PN30 | PN30 | PN30 | PN30 |
| Standard coupling | 1" | 1" | 1 1/4" | 2" | 2 1/2" |
| PP (mm) | 13+2,3xN* | 9+2,4xN* | 9+2,57xN* | 10+2,48xN* | 11+2,90xN* |
| Ht (mm) | 335 | 310 | 526 | 530 | 782 |
| Lt (mm) | 124 | 111 | 120 | 256 | 350 |
| Z1 (mm) | 281 | 250 | 473 | 439 | 655 |
| Z2 (mm) | 73 | 50 | 66 | 177 | 220 |
| PC (mm) | 20 | 24 | 27 | 27 | 27 |

*Plate No.

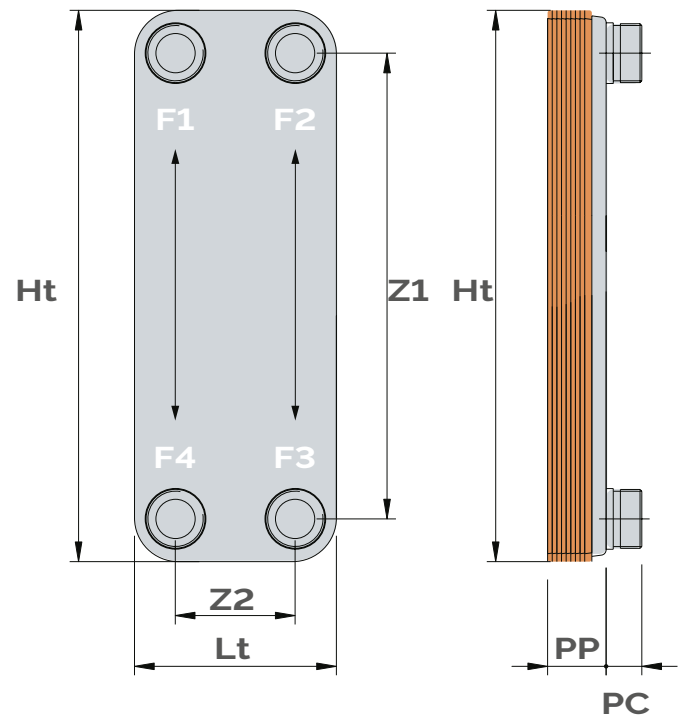


Legend

1. Front plate
2. Brazing
3. Coupling

Couplings

- Primary: Inlet F1
- Primary: Outlet F4
- Secondary: Inlet F3
- Secondary: Outlet F2



Accessories

Insulation, Couplings

WP4, P4, P7 Serie: PE insulation thermoformed removable with velcro strips.

| Model | Plates threshold | Code | Price |
|-------|------------------|------------|-------|
| WP4 | up to 14 plates | 843090066X | |
| | up to 20 plates | 843090067X | |
| | up to 30 plates | 843090068X | |
| | up to 40 plates | 843090069X | |
| | up to 50 plates | 843090070X | |
| P4 | up to 14 plates | 843090016X | |
| | up to 20 plates | 843090017X | |
| | up to 30 plates | 843090018X | |
| | up to 40 plates | 843090019X | |
| | up to 50 plates | 843090020X | |
| | up to 60 plates | 843090060X | |
| P7 | up to 30 plates | 843090050X | |
| | up to 50 plates | 843090051X | |
| | up to 70 plates | 843090052X | |



Serie P15 / P30: insulation kit made of sheets of precut adhesive elastomer, finishing tape and assembly instructions.

| Model | Plates threshold | Code | Price |
|-------|---------------------------|------------|-------|
| P15 | from 30 up to 80 plates | 843090053X | |
| | from 81 up to 140 plates | 843090054X | |
| | from 141 up to 200 plates | 843090055X | |
| P30 | from 30 up to 80 plates | 843090056X | |
| | from 81 up to 140 plates | 843090057X | |



A threaded standard



B free flange upon request

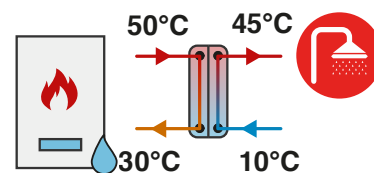
All brazed heat exchangers comes with threaded couplings. Upon request, additional couplings and free flange couplings.

Tables for fast selection - BRAZED

INSTANTANEOUS DHW with LOW temperature source

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 50°C | 30°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Domestic Hot Water | 10°C | 45°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 868 | 1 | 494 | 0 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 25 | 1085 | 2 | 617 | 1 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 30 | 1302 | 1 | 740 | 0 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 35 | 1519 | 2 | 864 | 1 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 40 | 1736 | 1 | 988 | 0 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 50 | 2170 | 2 | 1235 | 1 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 60 | 2604 | 2 | 1482 | 1 | WP4 | 50 | 821021105X | | 43x22x24 | 8 |
| 75 | 3260 | 23 | 1850 | 7 | P7 | 30 | 821020852X | | 60x80x26 | 11 |
| 85 | 3690 | 29 | 2100 | 9 | P7 | 30 | 821020852X | | 60x80x26 | 11 |
| 100 | 4340 | 15 | 2470 | 5 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 120 | 5210 | 21 | 2960 | 7 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 150 | 6510 | 31 | 3700 | 11 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 180 | 7810 | 24 | 4440 | 8 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 210 | 9120 | 32 | 5190 | 11 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 240 | 10420 | 27 | 5930 | 10 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 270 | 11720 | 33 | 6670 | 12 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 300 | 13020 | 27 | 7410 | 10 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

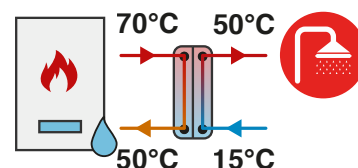
*Accessories see
pag. 49 (See Model
and plates number)

Alternative solution with gasketed heat exchangers: see pag. 38

Tables for fast selection - BRAZED INSTANTANEOUS DHW with HIGH temperature source

Project conditions

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 70°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Domestic Hot Water | 15°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 875 | 3 | 495 | 1 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1094 | 2 | 618 | 1 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 30 | 1312 | 1 | 742 | 0 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 35 | 1531 | 2 | 866 | 1 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 40 | 1750 | 1 | 990 | 0 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 50 | 2187 | 2 | 1237 | 1 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 60 | 2625 | 2 | 1484 | 1 | WP4 | 50 | 821021105X | | 43x22x24 | 8 |
| 75 | 3280 | 22 | 1860 | 7 | P7 | 30 | 821020852X | | 60x80x26 | 11 |
| 85 | 3720 | 27 | 2100 | 9 | P7 | 30 | 821020852X | | 60x80x26 | 11 |
| 100 | 4370 | 36 | 2470 | 12 | P7 | 30 | 821020852X | | 60x80x26 | 11 |
| 120 | 5250 | 20 | 2970 | 7 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 150 | 6560 | 30 | 3710 | 10 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 180 | 7870 | 23 | 4450 | 8 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 210 | 9190 | 31 | 5190 | 11 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 240 | 10500 | 25 | 5940 | 9 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 270 | 11810 | 31 | 6680 | 12 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 300 | 13120 | 25 | 7420 | 10 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

*Accessories see pag. 49 (See Model and plates number)

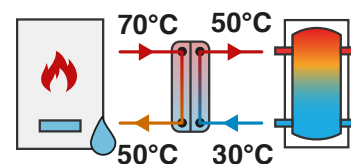
Alternative solution with gasketed heat exchangers: see pag. 39

Tables for fast selection - BRAZED

DHW with STORAGE TANK and HIGH temperature source

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 70°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Domestic Hot Water | 30°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 875 | 3 | 868 | 2 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1094 | 6 | 1085 | 4 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 30 | 1312 | 9 | 1302 | 6 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 35 | 1531 | 5 | 1519 | 4 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 40 | 1750 | 7 | 1736 | 5 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 50 | 2187 | 13 | 2170 | 9 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 60 | 2625 | 20 | 2604 | 15 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 75 | 3281 | 12 | 3256 | 10 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 85 | 3719 | 16 | 3690 | 14 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 100 | 4375 | 12 | 4341 | 10 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 120 | 5250 | 19 | 5209 | 17 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 150 | 6560 | 30 | 6510 | 28 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 180 | 7870 | 23 | 7810 | 23 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 210 | 9190 | 31 | 9120 | 30 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 240 | 10500 | 25 | 10420 | 25 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 270 | 11810 | 31 | 11720 | 32 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 300 | 13120 | 25 | 13020 | 26 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

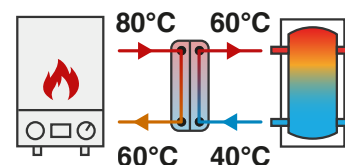
*Accessories see pag. 49 (See Model and plates number)

Alternative solution with gasketed heat exchangers: see pag. 40

Tables for fast selection - BRAZED DHW with STORAGE TANK and HIGH temperature source

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|--------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 80°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Domestic Hot Water | 40°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 879 | 3 | 871 | 2 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1098 | 6 | 1089 | 4 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 30 | 1318 | 9 | 1308 | 6 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 35 | 1538 | 14 | 1525 | 9 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 40 | 1758 | 7 | 1743 | 5 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 50 | 2197 | 12 | 2179 | 9 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 60 | 2636 | 20 | 2614 | 15 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 75 | 3295 | 12 | 3268 | 10 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 85 | 3735 | 16 | 3704 | 13 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 100 | 4394 | 25 | 4357 | 20 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 120 | 5272 | 19 | 5228 | 16 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 150 | 6590 | 19 | 6536 | 18 | WP4 | 50 | 821021105X | | 43x22x24 | 8 |
| 180 | 7910 | 23 | 7840 | 22 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 210 | 9230 | 30 | 9150 | 29 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 240 | 10540 | 25 | 10460 | 25 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 270 | 11860 | 31 | 11760 | 31 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 300 | 13180 | 25 | 13070 | 25 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

*Accessories see pag. 49 (See Model and plates number)

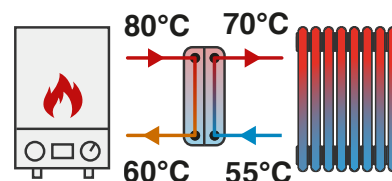
Alternative solution with gasketed heat exchangers: see pag. 41

Tables for fast selection - GASKETED

HEATING with HIGH temperature endpoints

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 80°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiators | 55°C | 70°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |

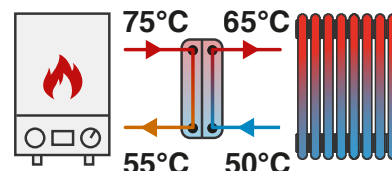


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 659 | 2 | 876 | 2 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1098 | 6 | 1460 | 8 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 35 | 1538 | 5 | 2044 | 8 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 50 | 2197 | 4 | 2920 | 7 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 75 | 3295 | 5 | 4379 | 10 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 100 | 4394 | 7 | 5839 | 13 | WP4 | 50 | 821021105X | | 43x22x24 | 8 |
| 115 | 5050 | 10 | 6710 | 16 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 130 | 5710 | 13 | 7590 | 20 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 150 | 6590 | 10 | 8760 | 17 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 180 | 7910 | 15 | 10510 | 24 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 200 | 8790 | 12 | 11680 | 20 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

*Accessories see pag. 49 (See Model and plates number)

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 75°C | 55°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiators | 50°C | 65°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 658 | 2 | 874 | 2 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1096 | 6 | 1457 | 8 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 35 | 1534 | 5 | 2039 | 8 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 50 | 2192 | 4 | 2913 | 7 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 75 | 3288 | 6 | 4370 | 10 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 100 | 4384 | 7 | 5827 | 13 | WP4 | 50 | 821021105X | | 43x22x24 | 8 |
| 115 | 5040 | 10 | 6700 | 16 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 130 | 5700 | 13 | 7570 | 20 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 150 | 6580 | 11 | 8740 | 17 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 180 | 7890 | 15 | 10490 | 24 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 200 | 8770 | 12 | 11650 | 20 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

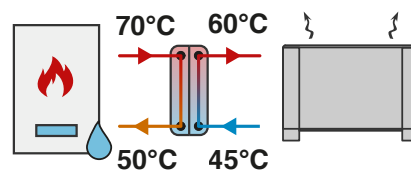
*Accessories see pag. 49 (See Model and plates number)

Alternative solution with gasketed heat exchangers: see pag. 42

Tables for fast selection - GASKETED HEATING with HIGH temperature endpoints

Project conditions 3

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 70°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiators / Fan Coil | 45°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |

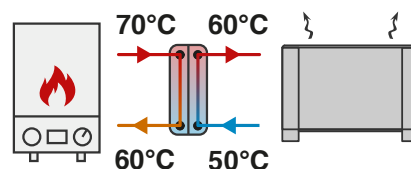


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|--------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 656 | 2 | 872 | 2 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1094 | 6 | 1454 | 8 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 35 | 1531 | 5 | 2035 | 8 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 50 | 2187 | 4 | 2907,5 | 7 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 75 | 3281 | 6 | 4361 | 10 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 100 | 4370 | 14 | 5820 | 22 | P7 | 50 | 821020856X | | 60x80x31 | 15 |
| 115 | 5030 | 10 | 6690 | 16 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 130 | 5690 | 13 | 7560 | 20 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 150 | 6560 | 10 | 8720 | 18 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 180 | 7870 | 10 | 10470 | 17 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 200 | 8750 | 12 | 11630 | 20 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

*Accessories see pag. 49 (See Model and plates number)

Project conditions 4

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 70°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiators / Fan Coil | 50°C | 60°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 1315 | 9 | 1310 | 6 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 2192 | 18 | 2182 | 13 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 35 | 3069 | 10 | 3056 | 8 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 50 | 4384 | 12 | 4366 | 10 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 75 | 6580 | 17 | 6550 | 16 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 100 | 8770 | 18 | 8730 | 18 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 115 | 10080 | 23 | 10040 | 23 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 130 | 11400 | 19 | 11350 | 19 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 150 | 13150 | 18 | 13100 | 18 | P15 | 60 | 821020867X | | 60x80x34 | 36 |
| 180 | 15780 | 20 | 15720 | 20 | P15 | 70 | 821020868X | | 60x80x36 | 40 |
| 200 | 17540 | 24 | 17460 | 24 | P15 | 70 | 821020868X | | 60x80x36 | 40 |

*Accessories see pag. 49 (See Model and plates number)

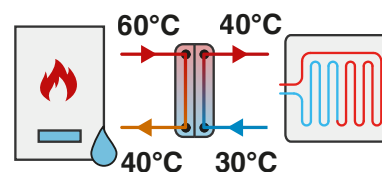
Alternative solution with gasketed heat exchangers: see pag. 43

Tables for fast selection - BRAZED

HEATING with LOW temperature endpoints

Project conditions 1

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|----------------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 60°C | 40°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiating floor / Fan Coil | 30°C | 40°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |

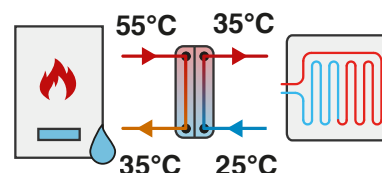


| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 654 | 2 | 1300 | 6 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1089 | 2 | 2166 | 10 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 35 | 1525 | 2 | 3033 | 8 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 50 | 2178,5 | 1 | 4333 | 7 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 75 | 3270 | 5 | 6500 | 16 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 100 | 4360 | 5 | 8670 | 19 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 115 | 5010 | 5 | 9970 | 16 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 130 | 5660 | 6 | 11270 | 20 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 150 | 6540 | 5 | 13000 | 19 | P15 | 60 | 821020867X | | 60x80x34 | 36 |
| 180 | 7540 | 6 | 15600 | 21 | P15 | 70 | 821020868X | | 60x80x36 | 40 |
| 200 | 8710 | 7 | 17330 | 25 | P15 | 70 | 821020868X | | 60x80x36 | 40 |

*Accessories see pag. 49 (See Model and plates number)

Project conditions 2

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|-----------|-------------------|-----------------|------------------|--|------------------|
| HOT side | Water heater | 55°C | 35°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |
| COLD side | Radiating floor | 25°C | 35°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



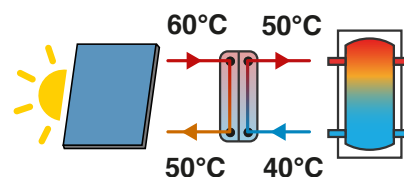
| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|-------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 15 | 652 | 2 | 1298 | 6 | WP4 | 14 | 821021101X | | 43x22x24 | 3 |
| 25 | 1087 | 2 | 2163 | 10 | WP4 | 20 | 821021102X | | 43x22x24 | 4 |
| 35 | 1522 | 2 | 3028 | 8 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 50 | 2174 | 2 | 4325 | 11 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 75 | 3260 | 5 | 6490 | 17 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 100 | 4350 | 5 | 8650 | 19 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 115 | 5000 | 5 | 9950 | 17 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 130 | 5650 | 6 | 11250 | 21 | P15 | 50 | 821020866X | | 60x80x31 | 32 |
| 150 | 6520 | 5 | 12980 | 20 | P15 | 60 | 821020867X | | 60x80x34 | 36 |
| 180 | 7830 | 6 | 15570 | 21 | P15 | 70 | 821020868X | | 60x80x36 | 40 |
| 200 | 8700 | 7 | 17300 | 26 | P15 | 70 | 821020868X | | 60x80x36 | 40 |

*Accessories see pag. 49 (See Model and plates number)

Alternative solution with gasketed heat exchangers: see pag. 44

Tables for fast selection - GASKETED HEATING with Thermal Solar

| Circuit | Source - endpoint | T _{IN} | T _{OUT} | P _{MAX} | Fluid |
|--|-------------------|-----------------|------------------|--|------------------|
| HOT side | Solar panel | 60°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | Glic. 30% |
| COLD side Heating / Domestic Hot Water | | 40°C | 50°C | 16 bar (WP4) 30 bar (P4-P7-P15-P30) | H ₂ O |



| Power kW | Hot side | | Cold | | Model* | Plates number* | Code | Price | Packaging | |
|-------------|----------|-----|------|-----|--------|-------------------|------------|-------|------------------|--------------|
| | L/h | kPa | L/h | kPa | | | | | Dimensions cm | Weight kg |
| 20 | 1807 | 3 | 1740 | 2 | WP4 | 30 | 821021103X | | 43x22x24 | 5 |
| 35 | 3162 | 6 | 3044 | 4 | WP4 | 40 | 821021104X | | 43x22x24 | 6 |
| 50 | 4520 | 10 | 4350 | 8 | P7 | 70 | 821020858X | | 60x80x37 | 19 |
| 75 | 6770 | 13 | 6520 | 11 | P15 | 40 | 821020865X | | 60x80x29 | 28 |
| 100 | 9030 | 15 | 8700 | 12 | P15 | 50 | 821020866X | | 60x80x31 | 32 |

*Accessories see pag. 49 (See Model and plates number)

The solar thermal makes it roughly 0.8 kW/m².
 Example 10 Fiorini collectors H2500 (pag. 254) is equal to 25m²= 20kW

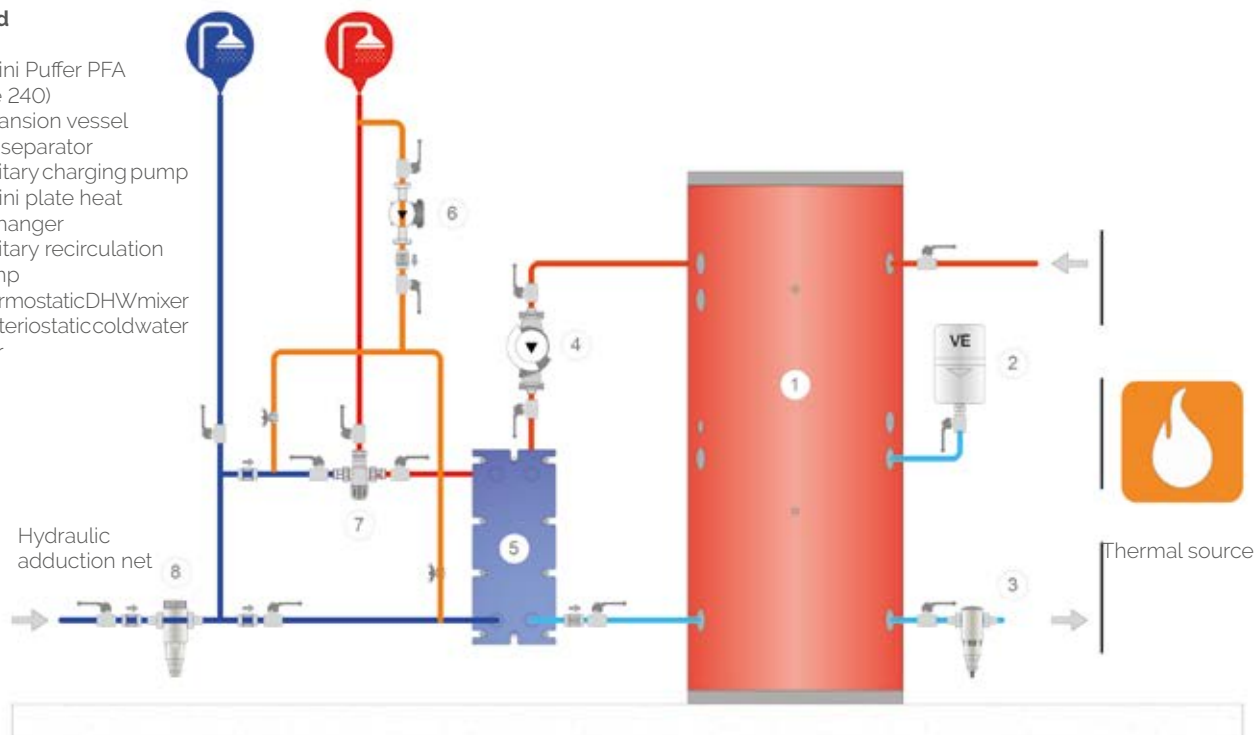
Alternative solution with gasketed heat exchangers: see pag. 46

Plant Solutions

Instantaneous DHW (see SET pag. 218)

Legend

1. Fiorini Puffer PFA (see 240)
2. Expansion vessel
3. Dirt separator
4. Sanitary charging pump
5. Fiorini plate heat exchanger
6. Sanitary recirculation pump
7. ThermostaticDHWmixer
8. Bacteriostaticcoldwater filter

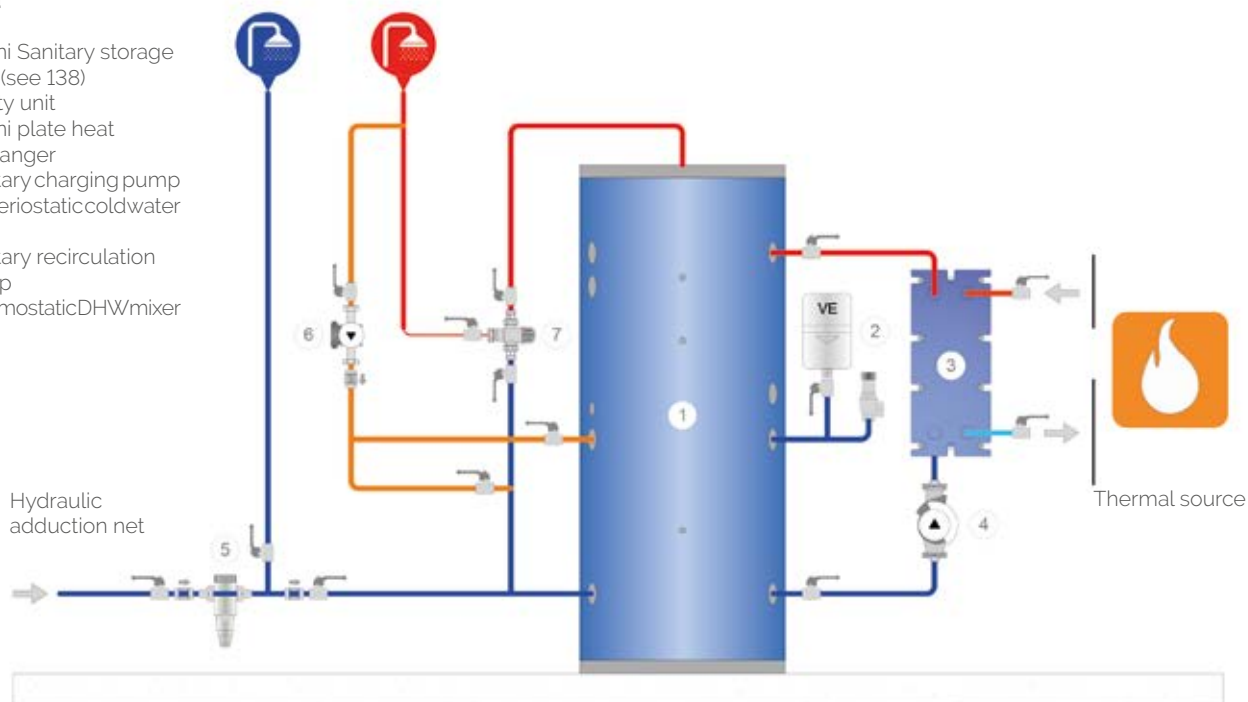


SET fresh water station see pag. 218

DHW with storage tank (see AFK pag. 188)

Legend

1. Fiorini Sanitary storage tank (see 138)
2. Safety unit
3. Fiorini plate heat exchanger
4. Sanitary charging pump
5. Bacteriostaticcoldwater filter
6. Sanitary recirculation pump
7. ThermostaticDHWmixer

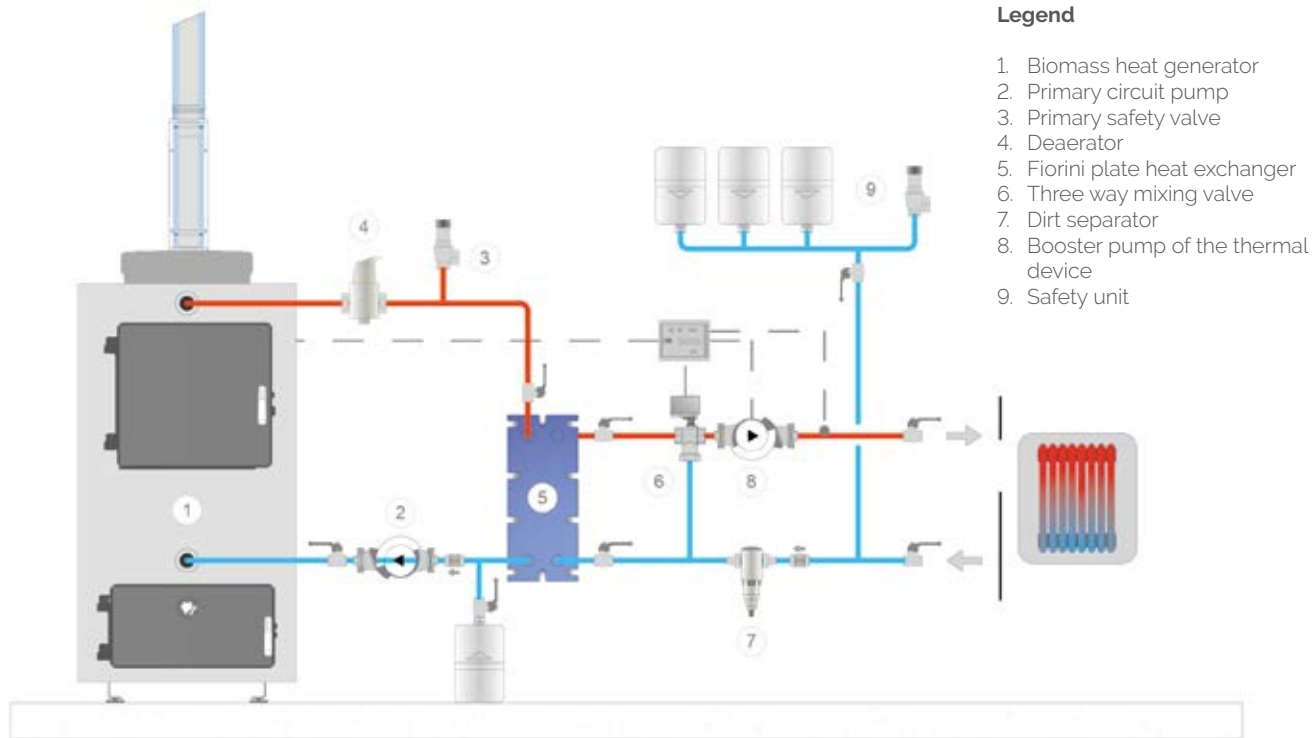


AFK fast heater see pag. 188

Plant Solutions

Separation between thermal source and device

(Closed expansion tank)

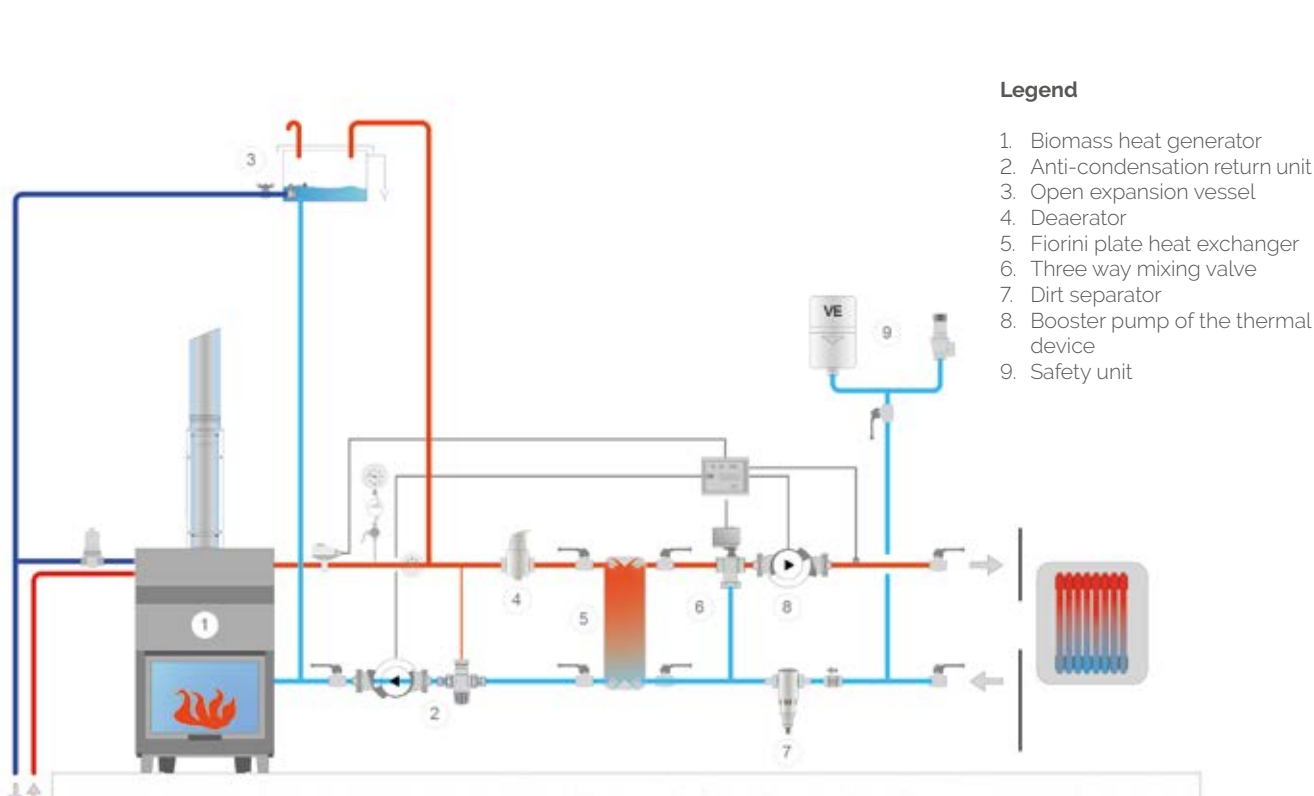


Legend

- 1. Biomass heat generator
- 2. Primary circuit pump
- 3. Primary safety valve
- 4. Deaerator
- 5. Fiorini plate heat exchanger
- 6. Three way mixing valve
- 7. Dirt separator
- 8. Booster pump of the thermal device
- 9. Safety unit

Separation between thermal source and device

(Open expansion tank)

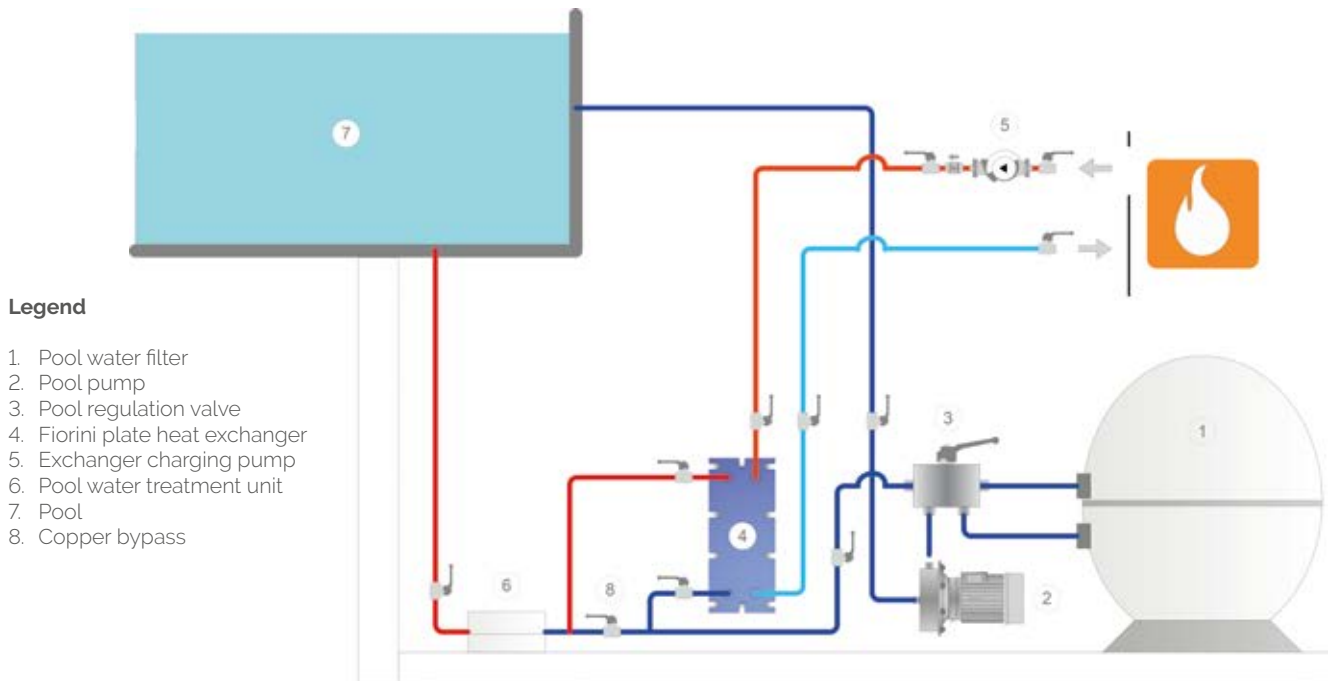


Legend

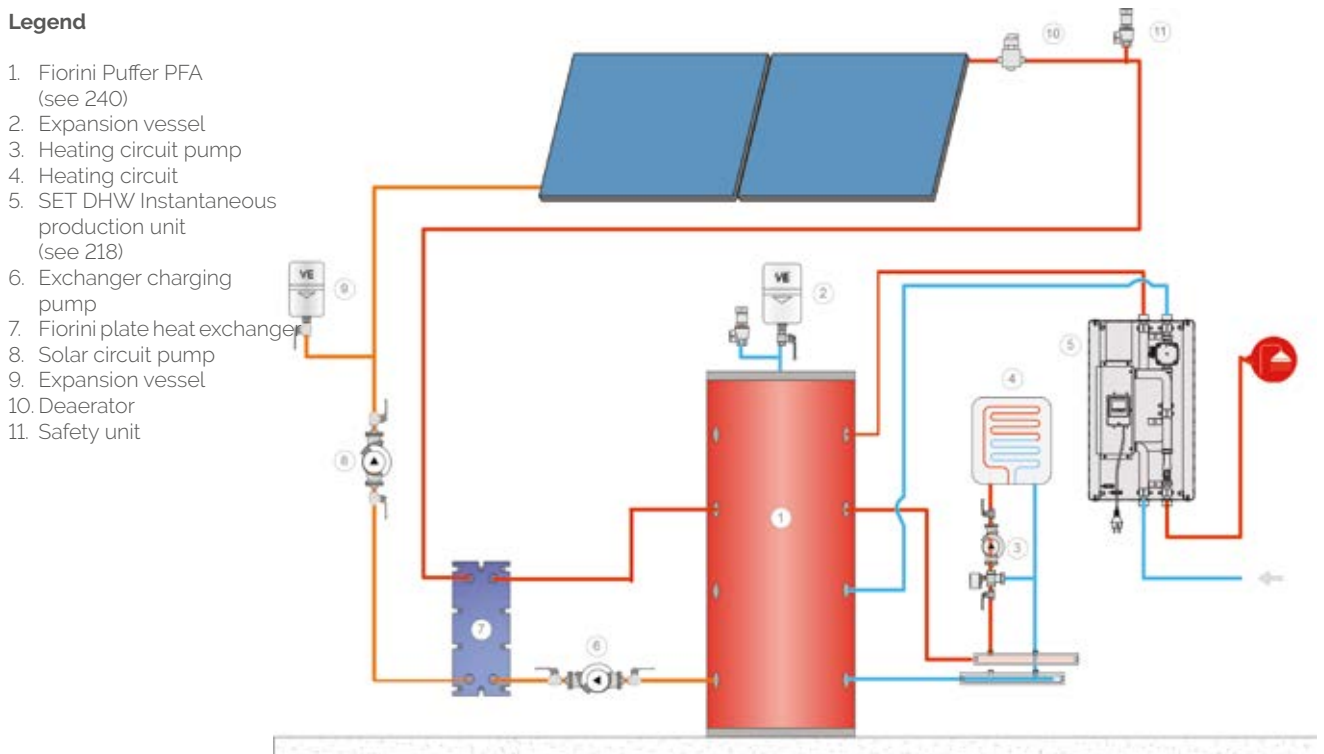
- 1. Biomass heat generator
- 2. Anti-condensation return unit
- 3. Open expansion vessel
- 4. Deaerator
- 5. Fiorini plate heat exchanger
- 6. Three way mixing valve
- 7. Dirt separator
- 8. Booster pump of the thermal device
- 9. Safety unit

Plant Solutions

Systems for swimming pools



Systems for solar thermal



DATA COLLECTION FOR EXCHANGER SELECTION

For the correct dimensioning of an exchanger, at least 5 data on 7 * are mandatory and meet the following conditions:

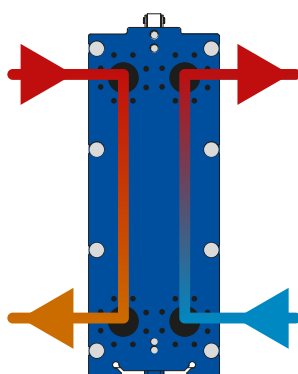
- T.IN HOT > T.OUT COLD
- T.IN COLD < T.OUT HOT
- Temperatures and flow rates consistent with thermal power

If you do not know all the required data, describe the type of application in the appropriate field below.

| CONTACT | | | |
|-----------|--|------|--|
| Applicant | | Data | |
| Company | | Ph. | |
| Email | | Ref. | |

| GENERAL DATA | | | |
|------------------|-----------------------------------|---------------------------------|--|
| Exchanger type | <input type="checkbox"/> Gasketed | <input type="checkbox"/> Brazed | |
| Power* | | (specify u.m. kW or kcal/h) | |
| Nominal pressure | | (specify u.m. e.g. bar) | |

| HOT SIDE | |
|--------------------------------|--|
| Fluid | |
| T IN* (°C) | |
| T OUT* (°C) | |
| FLOW* (specify u.m.) | |
| MAX loss (kPa) | |



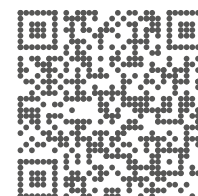
| COLD SIDE | |
|--------------------------------|--|
| Fluid | |
| T IN* (°C) | |
| T OUT* (°C) | |
| FLOW* (specify u.m.) | |
| MAX loss (kPa) | |

| ADDITIONAL NOTES | | | |
|----------------------------------|---|---|--|
| Type/ Diameter Couplings | | | |
| Plates material/ Couplings/Shaft | | | |
| Accessories | <input type="checkbox"/> anti-condensate tub (only for gasketed) | <input type="checkbox"/> insulation box | <input type="checkbox"/> feet set (only for gasketed) |
| Size Limits | | | |
| Type of application | | | |

The QR-CODE allows you to access the online form for the dimensioning of exchangers. Following the wizard you can send the completed form directly to our technicians, who will answer you with the sizing required in a short time.

How to use the QR-CODE:

- Use a device like tablet, smartphone, 2 in 1 device.
- Install an application to read QR-CODE (if not already installed)
- Aim the device on QR-CODE
- Access the form online



The personal data included in this form will be processed according to current laws about privacy. Please see the privacy notice, full text is available at go.fiorinigroup.it/eng/privacy
Filling this form you agree to the privacy notice and allow data processing.

go.fiorinigroup.it/eng/dimensionamentoppe