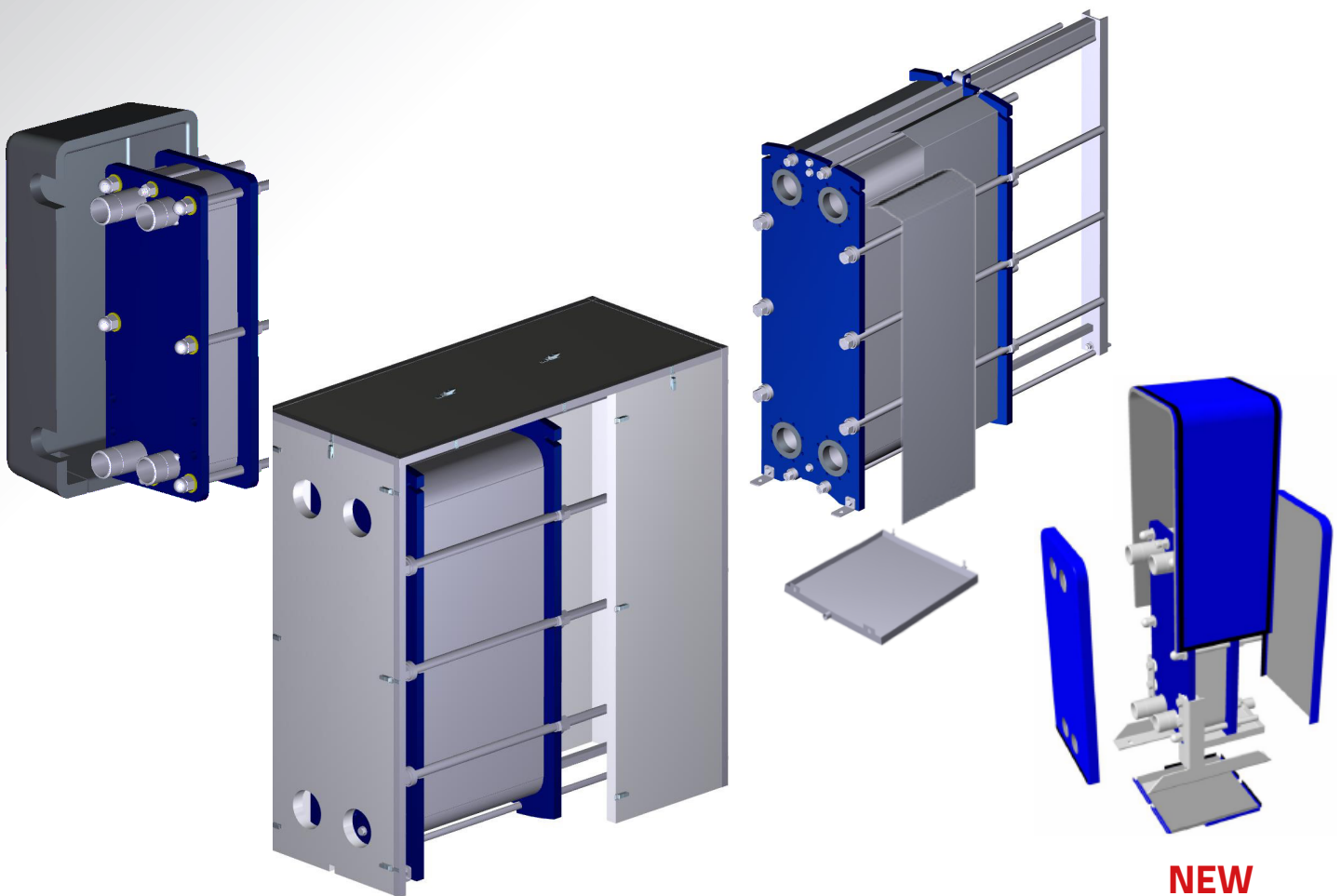




Exchange
for good

— MADE IN ITALY —



TAILOR  **MADE**
HEAT EXCHANGERS
CIPRIANI

ACCESSORIES



Exchange
for good

Gasketed Plate Heat Exchangers

Thermal Insulation FL

020+, 040+, 080+, 070+, 160+, 260+, 110+, 210+

NEW

Description

FL is the thermal insulation jacket designed to combine thermal insulation performance, compactness and versatility in heating and cooling applications of our plate heat exchangers up to size DN65 (2"1/2).

Made of closed cell expanded elastomer with and external PVC protection layer it's highly flexible and soft-touch.

Supplied as a four pieces kit, it can be easily and quickly assembled thanks to practical hook and loop closure system.

Benefits

Heat exchanger fully contained in the insulation jacket: minimized energy losses and condensation, higher level of safety and comfort for those who work around the heat exchanger.

Prepackaged insulation, with pre-cut holes and strap fastening: easy and quick installation, reduced installation costs. No special tools required for the assembly.

Lightweight and highly flexible material: easy to adapt on site to any product's configuration and to fulfill different customer's needs. Reduced transport and stockage costs.

Available from stock for models: 020+, 040+, 080+, 070+, 160+, 260+, 110+ and 210+.

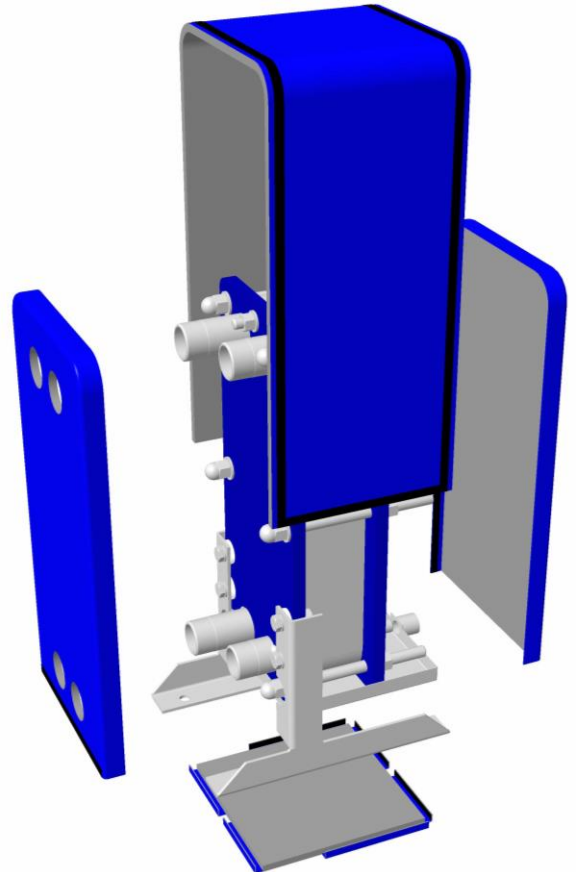
Technical data

Exterior finish:

- Blue PVC protection layer 0,6 mm thick.
- Protective against mechanical wear and UV-radiation.

Insulating materials:

- Black closed-cell flexible elastomeric foam (FEF).
- 9 mm thick for 020+, 040+, 080+, and 19 mm thick for 070+, 160+, 260+, 110+, 210+ models.
- Thermal conductivity coefficient (λ -value): $\leq 0,038 \text{ W/(m}\cdot\text{k)}$ at 40°C (EN12667).
- Fire reaction: B – s3, d0 (EN 13501-1).
- Flexible and expanded CFC and HCFC-free rubber foam. It does not damage the ozone layer (ODP zero) and does not contribute to the greenhouse effect (GWP zero). Do not contain cadmium and Formaldehyde.
- Operating temperature limits: -10°C / + 110°C.





Exchange
for good

Gasketed Plate Heat Exchangers

Thermal Insulation TF

DN 32, DN 50 and DN 65

Description

TF is the thermal insulation specifically designed for HVAC applications of our small size plate heat exchangers.

TF is a thermoformed and semi-rigid prefabricated case easy to install and to adjust to the specific configuration of the heat exchanger and to eventual particular customer needs.

The special "double-layered" structure, comprising two different expanded elastomers (thickness up to 30 mm), makes it suitable for heating and cooling applications.

Supplied as a kit, it can be easily and quickly assembled with no need for special tools (only a cutter is required) supported by the assembly instruction sheet and the templates pre-marked on each case.

Benefits

Heat exchanger completely contained inside the insulation: minimized energy losses and condensation, higher level of safety and comfort for those who work around the heat exchanger.

Easy to adapt on site to all product's configurations (single or multi-pass, with or without mounting brackets, with our without drip tray, etc.) and to adjust to different customer's needs (specific installation supports or devices, non-standard position of connections, etc.).

Low installation costs.

Available from stock.

Lightweight and resilient.

Example of potential gain on an heat exchanger with insulation in the graph on the side.

Technical Data

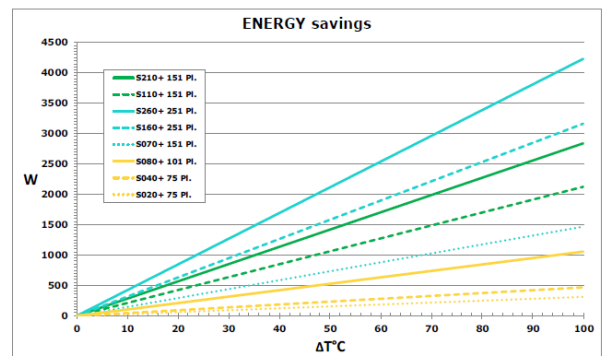
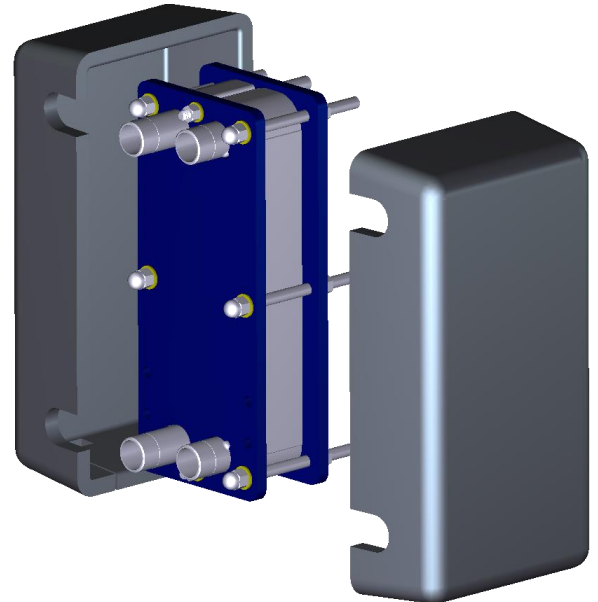
Exterior finish: semi-rigid high density dark greys foam.

Insulating materials: cross-linked, closed-cell, polyolefin (PO) foam with a density of 84 kg/m³ (outer layer) and cross-linked, closed-cell, polyolefin (PO) foam with a density of 35 kg/m³ (inner layer).

Thermal conductivity coefficient (λ -value) of the insulating materials at 40°C: 0,0372 W/mk (outer layer) and 0,038 W/mk (inner layer).

Operating temperature limits: -10°C / + 130°C.

Classification of fire resistance of the insulating materials: conform to the FMVSS 302 standard of flame containment at less than 100 mm/min.



$\Delta T^{\circ}\text{C}$ = Difference between the average temperature in the heat exchanger and the room temperature.

W = Energy savings (reduction of losses) based on the number of plates.

Example: S160+ with 251 plates

Circuit 1: water 90°C->70°C

Circuit 2: water 60°C->80°C

Average temperature in the heat exchanger: $(90 + 70 + 60 + 80) / 4 = 75^{\circ}\text{C}$

Room temperature: 10°C

$\Delta T^{\circ}\text{C} = 75 - 10 = 65^{\circ}\text{C}$

Energy savings: approximately 2000 W (2 kW)

Note: The results depend to a large extent on the actual operating conditions and the accuracy of assembly.



Exchange
for good

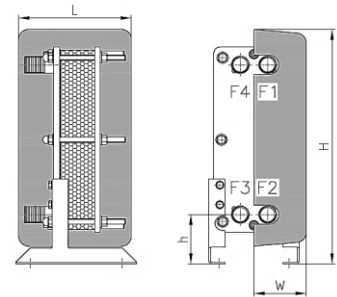
Gasketed Plate Heat Exchangers

Thermal Insulation TF

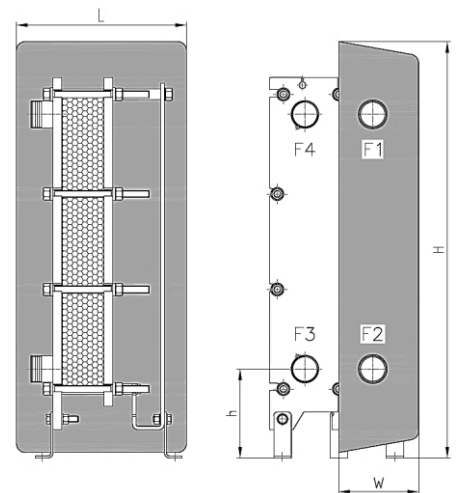
DN 32, DN 50 and DN 65

Main dimensions

DN 32				
S020+	L	H	W	h
Max. 29 plates	280	450	130	125
Max. 49 plates	380	450	130	125
Max. 75 plates	580	450	130	125
S040+	L	H	W	h
Max. 29 plates	280	595	130	125
Max. 49 plates	380	595	130	125
Max. 75 plates	580	595	130	125
S080+	L	H	W	h
Max. 29 plates	280	865	130	125
Max. 49 plates	380	865	130	125
Max. 75 plates	580	865	130	125
Max. 101 plates	580	865	130	125



DN 50				
S070+	L	H	W	h
Max. 41 plates	472	858	185	250
Max. 71 plates	612	858	185	250
Max. 101 plates	752	858	185	250
Max. 151 plates	982	858	185	250
S160+	L	H	W	h
Max. 41 plates	472	1188	185	250
Max. 71 plates	612	1188	185	250
Max. 101 plates	752	1188	185	250
Max. 151 plates	982	1188	185	250
Max. 251 plates	1442	1188	185	250
S260+	L	H	W	h
Max. 41 plates	472	1533	185	250
Max. 71 plates	612	1533	185	250
Max. 101 plates	752	1533	185	250
Max. 151 plates	982	1533	185	250
Max. 251 plates	1442	1533	185	250



DN65				
S110+	L	H	W	h
Max. 41 plates	490	900	233	251
Max. 71 plates	630	900	233	251
Max. 101 plates	770	900	233	251
Max. 151 plates	1000	900	233	251
S210+	L	H	W	h
Max. 41 plates	490	1160	233	251
Max. 71 plates	630	1160	233	251
Max. 101 plates	770	1160	233	251
Max. 151 plates	1000	1160	233	251

All dimensions in mm. Dimensional tolerance compatible with the precision allowed by thermoforming process.



Exchange
for good

Gasketed Plate Heat Exchangers

Thermal Insulation PB

DN 65, DN 80, DN 100, DN 150 and DN 200

Description

PB is the thermal insulation specifically designed for HVAC applications of our larger size plate heat exchangers.

PB is a self-supporting modular structure made with insulating panels (thickness 45 mm) anchored together by means of locking hooks and coupled in such a way as to minimize the thermal bridges.

The unique sandwich structure of the insulating panels, obtained by coupling two Aluminum foils to the polyurethane foam, ensures to the case high thermal insulation, good structural rigidity and appropriate surface finish.

Supplied as a kit, it can be easily and quickly assembled with no need for special tools.

Benefits

Heat exchanger completely contained inside the insulation: minimized energy losses and condensation, higher level of safety and comfort for those who work around the heat exchanger.

Low installation costs.

Available from stock.

Quick and easy access to the heat exchanger for inspection.

Example of potential gain on an heat exchanger with insulation in the graph on the side.

Technical Data

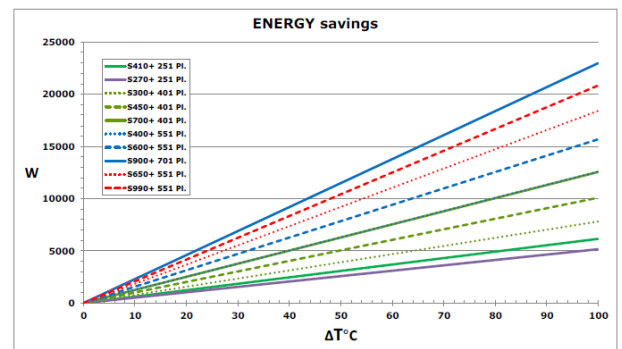
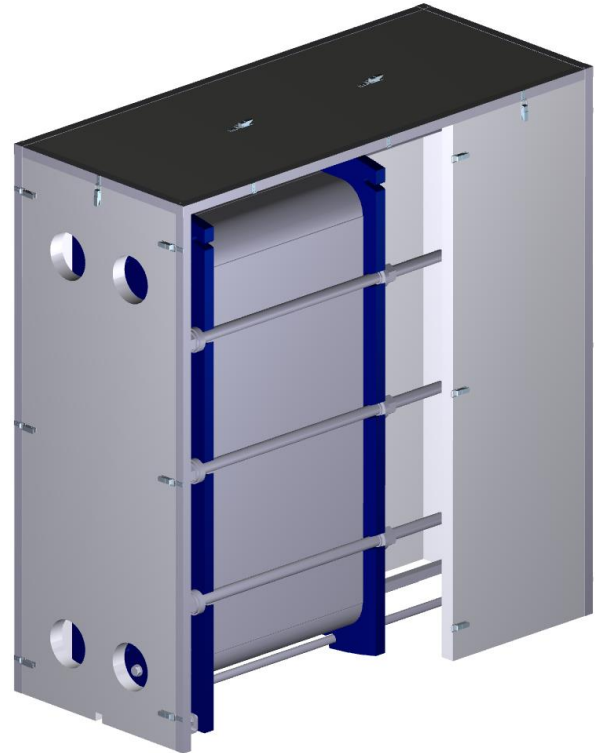
Exterior finish of the panels: smooth sheet of pre-painted Aluminum RAL 2306 (thickness 0.5 mm).

Insulating material: rigid foam of polyurethane with a high percentage of closed cells (above 95%) and a density of 48 kg/m³.

Initial thermal conductivity coefficient (λ -value) of the insulating material: 0.024 W/m °C (measured at an average temperature of 10°C according to ISO 8302).

Operating temperature: -10°C / + 130°C.

Classification of fire resistance of the insulating material: B - 2s, d0 (according to EN 13501-1: 2007).



$\Delta T^{\circ}\text{C}$ = Difference between the average temperature in the heat exchanger and the room temperature.

W = Energy savings (reduction of losses) based on the number of plates.

Example: S600+ with 551 plates

Circuit 1: water 90°C->70°C

Circuit 2: water 60°C->80°C

Average temperature in the heat exchanger: $(90 + 70 + 60 + 80) / 4 = 75^{\circ}\text{C}$

Room temperature: 10°C

$\Delta T^{\circ}\text{C} = 75 - 10 = 65^{\circ}\text{C}$

Energy savings: approximately 10000 W (10 kW)

Note: The results depend to a large extent on the actual operating conditions and the accuracy of assembly.



Exchange
for good

Gasketed Plate Heat Exchangers

Thermal Insulation PB

DN 65, DN 80, DN 100, DN 150 and DN 200

Main dimensions

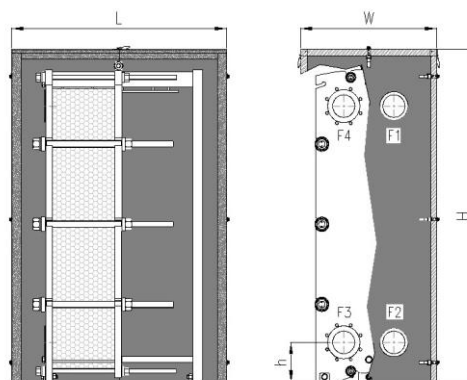
DN65				
S410+	L	H	W	h
Max. 41 plates	842	1637	554	171
Max. 71 plates	842	1637	554	171
Max. 101 plates	982	1637	554	171
Max. 151 plates	1212	1637	554	171
Max. 251 plates	1701	1637	554	171

DN80				
S270+	L	H	W	h
Max. 41 plates	842	1357	554	198
Max. 71 plates	842	1357	554	198
Max. 101 plates	982	1357	554	198
Max. 151 plates	1212	1357	554	198
Max. 251 plates	1701	1357	554	198

DN100				
S300+	L	H	W	h
Max. 101 plates	1074	1180	678	198
Max. 201 plates	1574	1180	678	198
Max. 301 plates	2074	1180	678	198
Max. 401 plates	2574	1180	678	198
S450+	L	H	W	h
Max. 101 plates	1074	1625	678	198
Max. 201 plates	1574	1625	678	198
Max. 301 plates	2074	1625	678	198
Max. 401 plates	2574	1625	678	198
S700+	L	H	W	h
Max. 101 plates	1074	2070	678	198
Max. 201 plates	1574	2070	678	198
Max. 301 plates	2074	2070	678	198
Max. 401 plates	2574	2070	678	198

DN150				
S400+	L	H	W	h
Max. 101 plates	1074	1433	757	256
Max. 201 plates	1574	1433	757	256
Max. 301 plates	2074	1433	757	256
Max. 401 plates	2574	1433	757	256
Max. 551 plates	3374	1433	757	256
S600+	L	H	W	h
Max. 101 plates	1074	1881	757	256
Max. 201 plates	1574	1881	757	256
Max. 301 plates	2074	1881	757	256
Max. 401 plates	2574	1881	757	256
Max. 551 plates	3374	1881	757	256
S900+	L	H	W	h
Max. 101 plates	1074	2374	757	256
Max. 201 plates	1574	2374	757	256
Max. 301 plates	2074	2374	757	256
Max. 401 plates	2574	2374	757	256
Max. 551 plates	3374	2374	757	256
Max. 701 plates	4204	2374	757	256

DN200				
S650+	L	H	W	h
Max. 151 plates	1504	1764	957	285
Max. 251 plates	2104	1764	957	285
Max. 351 plates	2504	1764	957	285
Max. 551 plates	3404	1764	957	285
S990+	L	H	W	h
Max. 151 plates	1504	2263	957	285
Max. 251 plates	2104	2263	957	285
Max. 351 plates	2504	2263	957	285
Max. 551 plates	3404	2263	957	285



All dimensions in mm. Dimensional tolerance compatible with the precision allowed by manufacturing process of insulating panel. The dimensions shown do not include the dimensions of the locking hooks. Total size: W + 30 mm / 30 mm L + / H + 15 mm.



Exchange
for good

Gasketed Plate Heat Exchangers

Drip Tray

All models

Description

The drip tray is a safeguard device specifically designed to collect water or other fluids in case of unexpected fluid leakage or when the heat exchangers is open for maintenance.

Strongly recommended in case of hazardous media and when further protection for the outside environment is required, it is also used in cooling applications to collect condensate formed on the outside of the heat exchanger.

Designed to be positioned under the heat exchanger and fixed by fastening bolts on the anchor brackets, the drip tray is dimensioned to hold the entire plate pack and the two frame plates. In this way all eventual fluids coming from the heat exchanger can be collected in the drip tray and drained by mean of the apposite draining pipe.

Benefits

Reduced risk of flooding in case of condensate, unexpected fluid leakage or when the heat exchangers is open for maintenance.

Possibility to adjust tilt to facilitate drainage.

Low installation costs.

Available from stock.

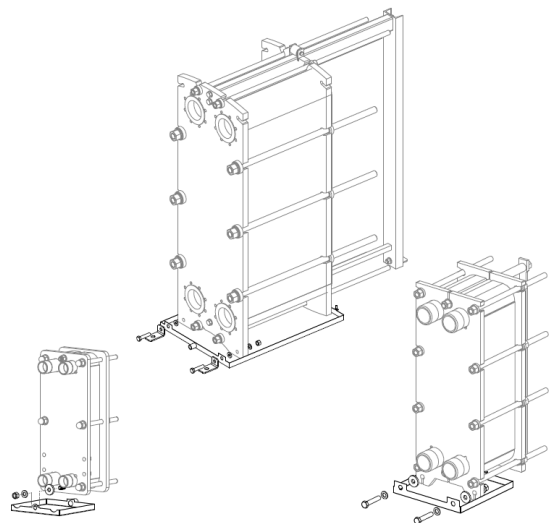
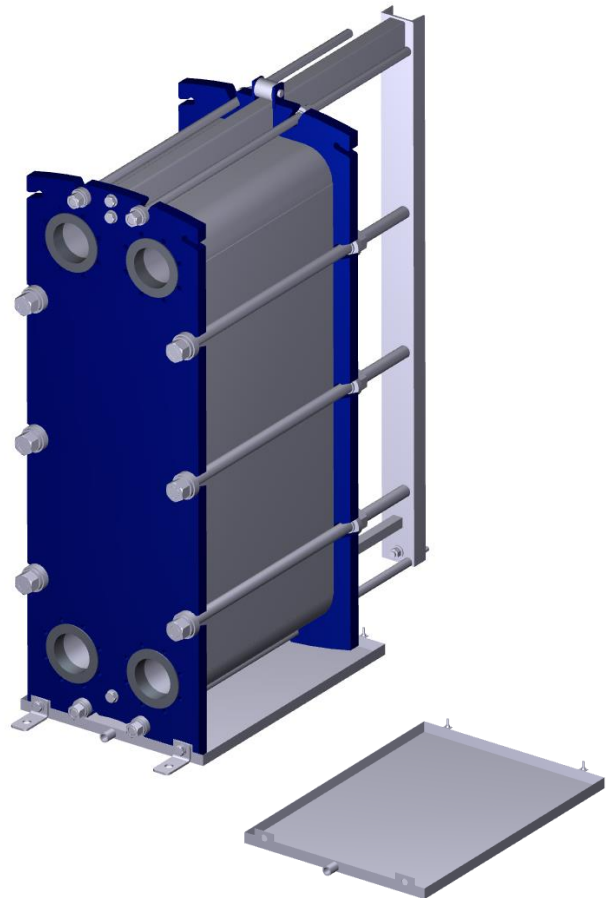
Technical data

Material of construction: Stainless steel AISI 304 (thickness 1mm).

Draining pipe: 3/4" sleeve internally threaded.

Main dimensions

The drip trays are available in various sizes to be fitted to all models of the standard range of gasketed plate heat exchangers.





Exchange
for good

Gasketed Plate Heat Exchangers

Plate Pack Protection

All models

Description

The Plate Pack Protection is a safeguard device specifically designed to protect personnel in case of unexpected leakage. Strongly recommended in case of hazardous services, it should be always used when temperatures are over 60°C also when handling uncritical media.

The Plate Pack Protection consists of two or more metal sheets shaped to cover the plate pack and to fit the plate heat exchangers. On smaller units the sheets cover the plate pack enveloping the frame plates. On larger units the sheets are fitted between the tightening bolts and the plate pack.

Supplied as a kit, it is easily and quickly assembled without the use of tools nor screws or bolts.

Benefits

Higher level of safety for those who work around the heat exchanger.

Protection of the plate pack in case of aggressive or polluted environment.

Quick and easy access to the heat exchanger for inspection.

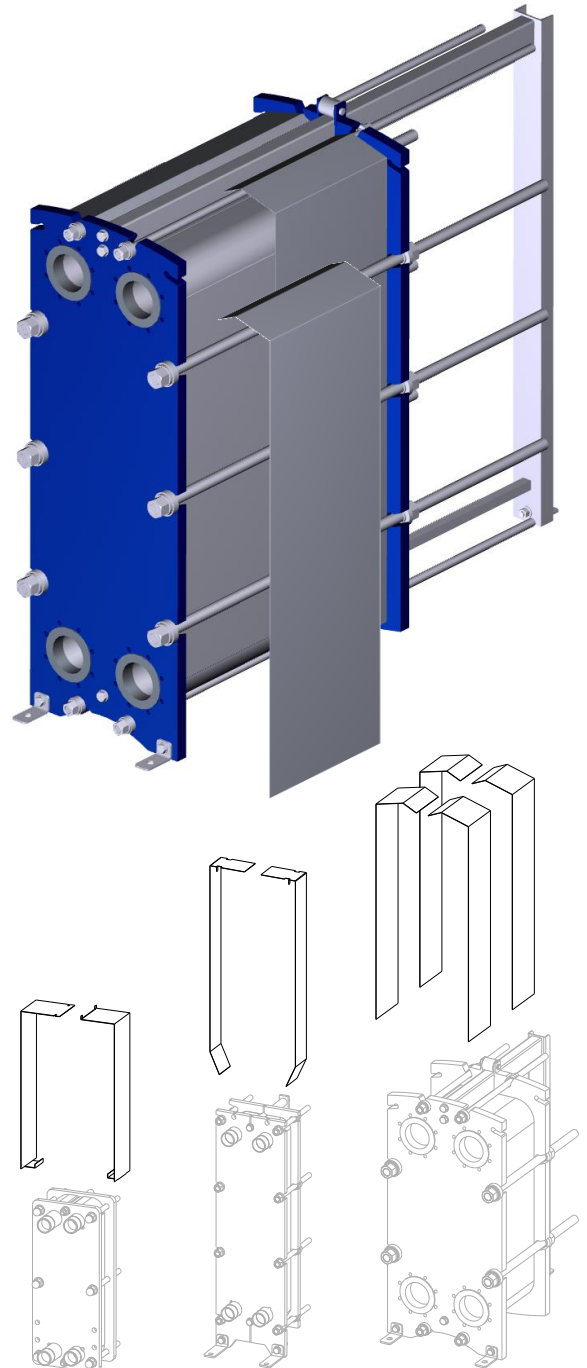
Low installation costs.

Technical data

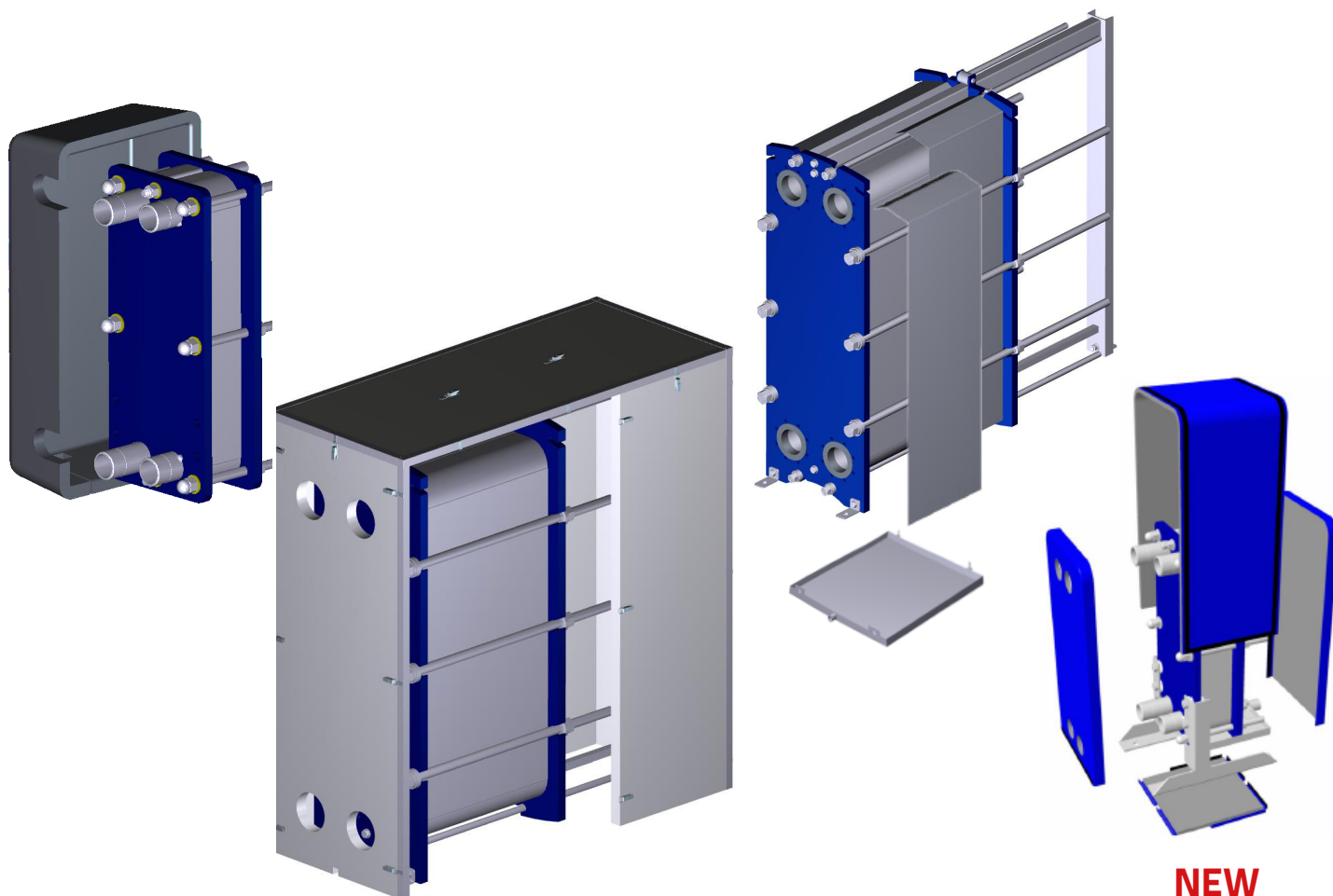
Material of construction: Stainless steel AISI 304 (thickness 1 mm).

Main dimensions

Each Plate Pack Protection is factory-tailor-made to fit to the specific plate heat exchanger.



ACCESSORIES



CERTIFICATIONS APPROVALS



▪ ISO 45001
Occupational Health and Safety



- ISO EN 9001:2015
European Quality Certificates
- PED 2014/68/UE
Pressure Equipment Directive
Module B,D1 & D (up to Risk Cat. IV)



- WRAS
EPDMprx gasket compound approved



- ISO 14001
Environmental Management



**Exchange
for good**

Via Nassar, 46 - 37026 Pescantina (VR), Italy
Tel. +39 045 6750065 • Fax +39 045 6750118
info@cipriani-phe.com
cipriani-phe.com