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PHE
plate heat exchangers

>>> effective heat transfer >>>

■ Plate Heat Exchangers – optimum solution in heat exchange

Plate Heat Exchangers produced by SECESPOL have proven to be reliable and highly efficient solutions in heat exchange and technological processes. PHE are characterised by the highest heat exchange effectiveness of all the solutions available on the market. It is possible to use PHE even in case of low temperature differences between the media. Flexible design of the exchangers makes them easily adaptable to required working parameters. PHE come in different plate sizes, materials of plates or gaskets and plate corrugation patterns which makes the exchanger suitable for various applications. Thanks to its dismountable construction, the exchanger is easy to clean as well as to expand by adding extra plates.

■ APPLICATION:

- domestic hot water and central heating systems
- swimming pool water heating systems
- HVAC
- industrial systems and power stations
- environmentally friendly sources of energy, e.g. heat pumps or geothermal heating plants
- technological systems and processes

■ CONSTRUCTION

Plate Heat Exchangers consist of a series of gasketed plates that are compressed together in a frame. The plates are hung on the carrying bar and are kept in line by a guiding bar. The length of the carrying bar, guiding bar and the tightening bolts vary on different models. The same applies to the number and diameter of tightening bolts.

■ MATERIALS

Plate material: AISI304L, AISI316L, titanium (depending on the model)

Gasket material: NBR, EPDM, Viton

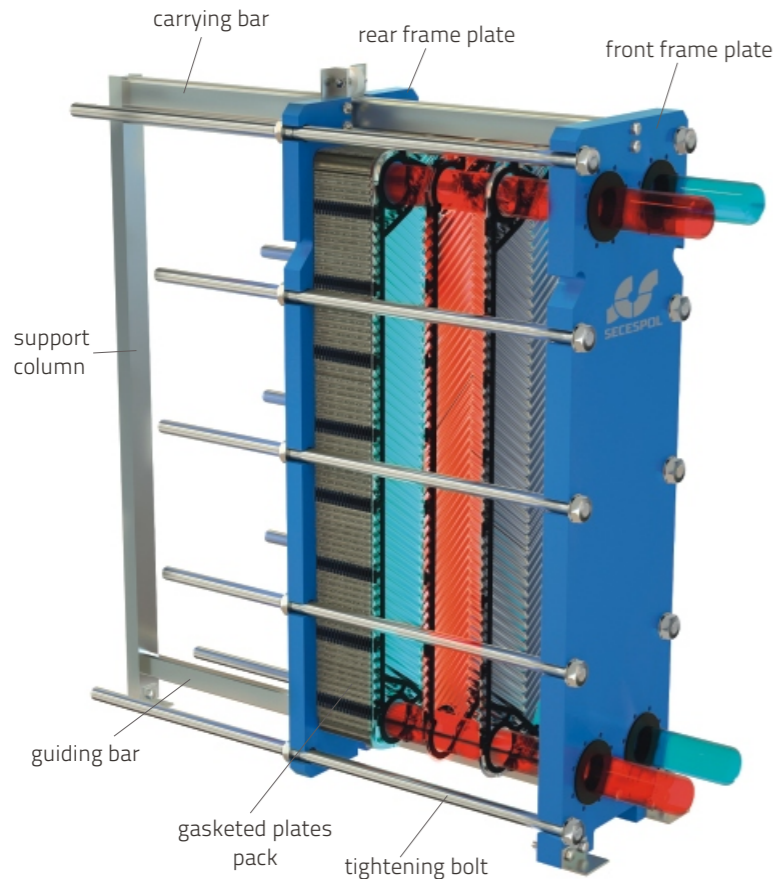
Gasket type: glueless "clip-on"

Connections:

- ports for flanges, painted carbon steel, NBR lining, EPDM lining, clad with stainless steel or titanium
- threaded connections, stainless steel or titanium

Frames material:

- carbon steel (industrial standard)
- stainless steel (hygienic standard)



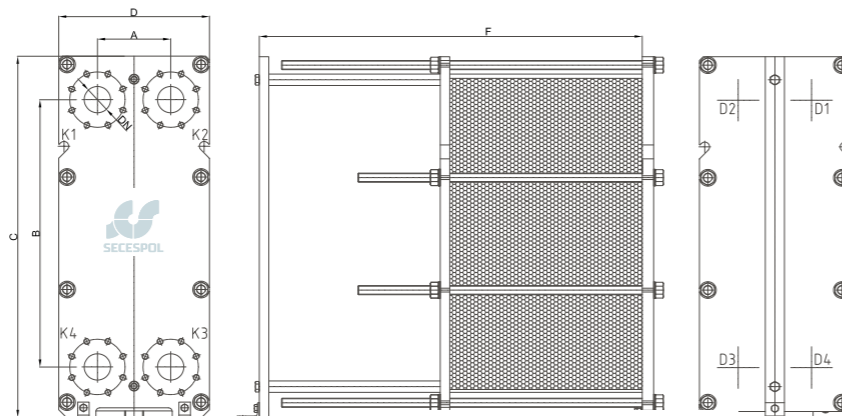
■ TECHNICAL DRAWING

■ Standard location of connections (single pass):

K1 / K4 – inlet / outlet hot side
K3 / K2 – inlet / outlet cold side

■ Standard location of connections (double pass):

D4 / K4 – inlet / outlet hot side
K3 / D3 – inlet / outlet cold side



■ TECHNICAL PARAMETERS

Type	Max. no. of plates	Connection type	Connection size	Dimensions					Working pressure	
				mm / in						
				A	B	C	D	L max	bar / PSI	
FA-004	91	thread	1.25"	70 / 2.8	381 / 15.0	473 / 18.6	190 / 7.5	500 / 19.7	10, 16	/ 145;232
FA-008	91	thread	1.25"	70 / 2.8	658 / 25.9	755 / 29.7	190 / 7.5	500 / 19.7	10, 16	/ 145;232
FB-007	148	thread	2"	126 / 5.0	394 / 15.5	596 / 23.5	300 / 11.8	1000 / 39.4	10, 16, 25	/ 145;233;362
FB-014	148	thread	2"	126 / 5.0	694 / 27.3	896 / 35.3	300 / 11.8	1000 / 39.4	10, 16, 25	/ 145;233;362
FB-020	148	thread	2"	126 / 5.0	894 / 35.2	1096 / 43.1	300 / 11.8	1000 / 39.4	10, 16, 25	/ 145;233;362
FC-009	180	ports for flanges	2.5"	192 / 7.6	380 / 15.0	626 / 24.6	395 / 15.6	1000 / 39.4	10, 16, 25	/ 145;233;362
FC-019	180	ports for flanges	2.5"	192 / 7.6	700 / 27.6	946 / 37.2	395 / 15.6	1000 / 39.4	10, 16, 25	/ 145;233;362
FC-031	180	ports for flanges	2.5"	192 / 7.6	1050 / 41.3	1296 / 51.0	395 / 15.6	1000 / 39.4	10, 16, 25	/ 145;233;362
FD-021/021A	700	ports for flanges	4"	225 / 8.9	719 / 28.3	1181 / 46.5	480 / 18.9	4000 / 157.5	10, 16, 25	/ 145;233;362
FD-051	700	ports for flanges	4"	225 / 8.9	1365 / 53.7	1824 / 71.8	480 / 18.9	4000 / 157.5	10, 16, 25	/ 145;233;362
FD-070	700	ports for flanges	4"	225 / 8.9	1771 / 69.7	2232 / 87.9	480 / 18.9	4000 / 157.5	10, 16, 25	/ 145;233;362
FE-041	1021	ports for flanges	6"	296 / 11.7	890 / 35.0	1544 / 60.8	608 / 23.9	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FE-062	1021	ports for flanges	6"	296 / 11.7	1292 / 50.9	1946 / 76.6	608 / 23.9	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FE-086	1021	ports for flanges	6"	296 / 11.7	1994 / 78.5	2348 / 92.4	608 / 23.9	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FG-065	1050	ports for flanges	8"	395 / 15.6	1091 / 43.0	1803 / 71.0	770 / 30.3	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FG-101	1050	ports for flanges	8"	395 / 15.6	1489 / 58.6	2201 / 86.7	770 / 30.3	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FH-121	933	ports for flanges	12"	480 / 18.9	1490 / 58.7	2365 / 93.1	1030 / 40.6	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362
FH-188	933	ports for flanges	12"	480 / 18.9	2120 / 83.5	2995 / 117.9	1030 / 40.6	6000 / 236.2	6, 10, 16, 25	/ 87;145;233;362

■ WORKING PARAMETERS

- working pressure: 6, 10, 16, 25 bar (depending on the model)
- max. temp. depending on gasket material: 130°C (NBR), 150°C (EPDM), 180°C (Viton).

■ FLOW TYPES

- single pass
- double pass
- multi pass
- two stage hot water

■ MEDIA

- all fluids



Offered on request:

- bigger dimensions of PHE
- deep corrugation – up to 12mm
- semi welded exchangers
- double-wall

■ ACCESSORIES

Insulation

Insulation for P&F is manufactured using aluminium covered polyurethane foam (APFI) or aluminium covered mineral wool (AMWI).

Dripping tray

Used to collect condensation water in refrigeration applications.

Protective cover

Used to secure the plate pack from sudden leakage of aggressive media.