



WideGap 350

Wide-gap plate heat exchanger

Applications

Wide-gap plate heat exchanger for general heating, cooling and heat recovery of media containing fibres and coarse particles. In addition the wide-gap channels are suitable for highly viscous fluids.

Standard design

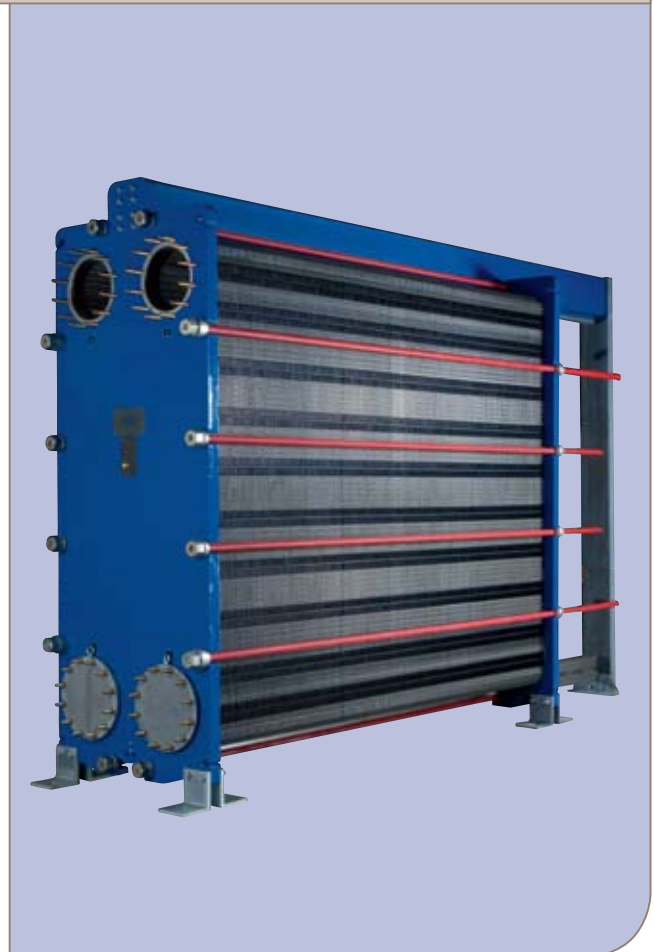
The plate heat exchanger consists of a pack of corrugated metal plates with portholes for the passage of the two fluids between which heat transfer will take place.

The plate pack is assembled between a fixed frame plate and a movable pressure plate and compressed by tightening bolts. The plates are fitted with a gasket, which seals the interplate channel and directs the fluids into alternate channels. The number of plates is determined by the flow rate, physical properties of the fluids, pressure drop and temperature program. The plate corrugations promote fluid turbulence and support the plates against differential pressure.

The WideGap plates feature coarse corrugations with a cross-section width between 8 and 17 mm (5/16" and 11/16") between the plates, and have flat non-corrugated portholes for the product channels. The WideGap plate heat exchanger can be used in four different configurations, wide-gap to super wide-gap.

The frame plate and the pressure plate are suspended from an upper carrying bar and located by a lower guiding bar, both of which are fixed to a support column.

Connections are located in the frame plate or, if either or both fluids make more than a single pass within the unit, in the frame and pressure plates.



WideGap 350

Typical capacities

Liquid flow rate

Up to 500 kg/s (8000 USGPM), depending on media, permitted pressure drop and temperature program.

Plate types

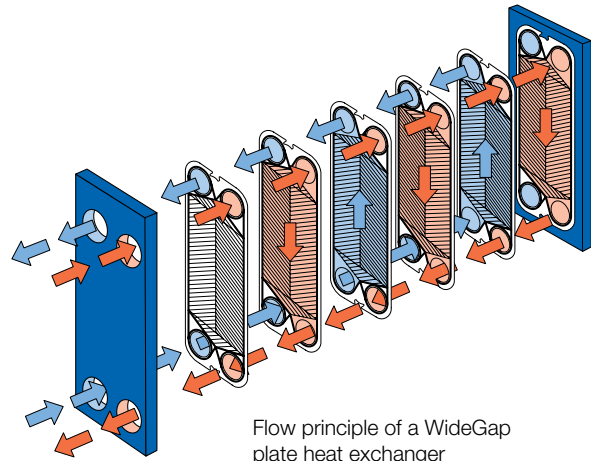
WideGap 350S, WideGap 350X

Frame types

FM, FG

Working principle

Channels are formed between the plates and the corner ports are arranged so that the two media flow through alternate channels. The heat is transferred through the plate between the channels, and complete counter-current flow is created for highest possible efficiency. The corrugation of the plates provides the passage between the plates, supports each plate against the adjacent one and enhances the turbulence, resulting in efficient heat transfer.



Flow principle of a WideGap plate heat exchanger

STANDARD MATERIALS

Frame plate

Mild steel, Epoxy painted

Nozzles

Carbon steel

Metal lined: Stainless steel, Titanium

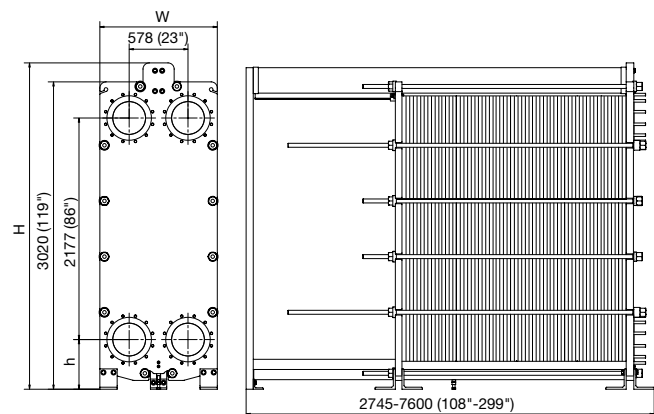
Plates

Stainless steel Alloy 316 / Titanium

Gaskets

Nitrile, EPDM

Dimensions



TECHNICAL DATA

Pressure vessel codes, PED, ASME, pvcALS™

Mechanical design pressure (g) / temperature

FM	pvcALS™	1.0 MPa / 180 C
FM	PED	1.0 MPa / 180 C
FM	ASME	100 psig / 300 F
FG	pvcALS™	1.0 MPa / 180 C
FG	PED	1.0 MPa / 180 C
FG	ASME	150psig / 350 F

Measurements mm (inch)

Type	H	W	h
WideGap 350-FM	3210 (126")	1154 (45")	488 (19")
WideGap 350-FG	3210 (126")	1154 (45")	488 (19")

The number of tightening bolts may vary depending on pressure rating.

CONNECTIONS

FM	pvcALS™	Size 350 mm DIN PN10
FM	PED	Size 350 mm DIN PN10
FM	ASME	Size 14" ASME Cl. 150
FG	pvcALS™	Size 350 mm DIN PN10
FG	PED	Size 350 mm DIN PN10, ASME Cl. 150
FG	ASME	Size 14" ASME Cl. 150

Maximum heat transfer surface

770 m² (8300 sq. ft)

Particulars required for quotation

- Flow rates or heat load
- Temperature program
- Physical properties of liquids in question (if not water)
- Desired working pressure
- Maximum permitted pressure drop
- Available steam pressure

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