

Alfa Laval AQ8S

AlfaQ™ AHRI-certified plate heat exchanger

Applications

General heating and cooling duties. Heating by means of steam.

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 fix 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 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.

Typical capacities

Liquid flow rate

Up to 190 kg/s (3040 gpm), depending on media, permitted pressure drop and temperature program.

Water heating by steam

2.5-15 MW at a steam condensation temperature of 150°C
2.5-9 MW at a steam condensation temperature of 120°C

Plate types

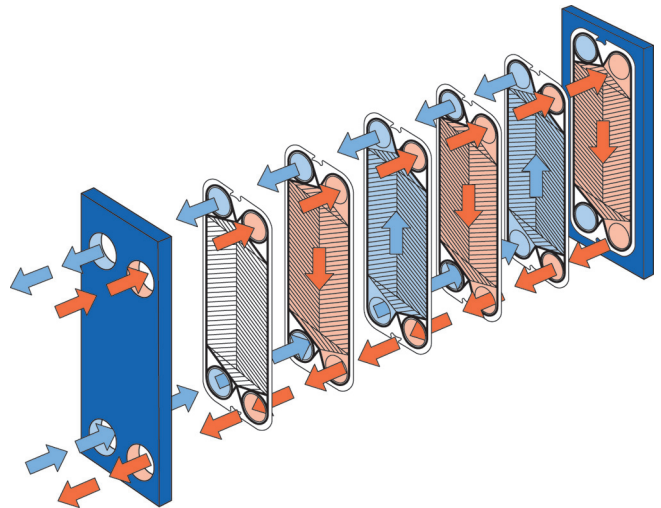
AQ8S plates

Frame types

FM, FG and FS

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.



По вопросам продаж и поддержки обращайтесь:

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Эл. почта: afm@nt-rt.ru || Сайт: <http://alfa-laval.nt-rt.ru>

STANDARD MATERIALS

Frame plate

Mild steel, Epoxy painted

Nozzles

Carbon steel

Metal lined: Stainless steel, Titanium, Alloy C-276

Rubber lined: Nitrile, EPDM

Plates

Stainless steel Alloy 316 (Alloy 254, Alloy C-276 or Titanium)

Other grades and material available on request.

Gaskets

Nitrile, EPDM, Viton or HeatSealF™

Other grades and material available on request.

TECHNICAL DATA

Pressure vessel codes, PED, ASME, pvcALS™

Mechanical design pressure (g) / temperature

FM	PED	10 MPa / 210°C
FM	pvcALS™	1.0 MPa / 180°C
FG	PED	1.6 MPa / 180°C *)
FG	ASME	150 psig / 350°F
FG	pvcALS™	1.6 MPa / 180°C
FS	PED	3.0 MPa / 160°C
FS	ASME	460 psig / 350°F

*) Frame FG also approved for 1.2 MPa / 200°C to allow use in steam systems without safety valves.

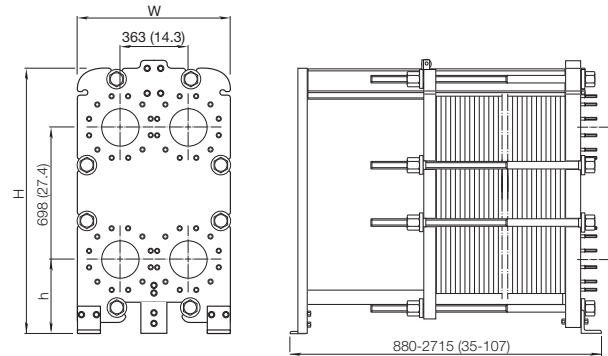
Connections

Size: DN200 / NPS 8 / 200A

FM	PED	EN 1092-1 PN10, ASME B16.5 Class 150
FM	pvcALS™	EN 1092-1 PN10, ASME B16.5 Class 150, JIS B2220 10K
FG	PED	EN 1092-1 PN16, ASME B16.5 Class 150
FG	ASME	ASME B16.5 Class 150
FG	pvcALS™	EN 1092-1 PN10, ASME B16.5 Class 150, JIS B2220 10K, JIS B2220 16K
FS	PED	EN 1092-1 PN25, EN 1092-1 PN40, ASME Cl. 300
FS	ASME	ASME B16.5 Class 150, ASME B16.5 Class 300

Standard EN 1092-1 corresponds to GOST 12815-80 and GB/T 9115.

Dimensions



Measurements mm (inch)

Type	H	W	h
AQ8S-FM	1405 (55 ⁵ / ₁₆)	740 (29 ¹ / ₄)	360 (14 ¹ / ₄)
AQ8S-FG	1405 (55 ⁵ / ₁₆)	800 (31 ¹ / ₂)	360 (14 ¹ / ₄)
AQ8S-FS	1435 (56 ¹ / ₂)	800 (31 ¹ / ₂)	390 (14 ³ / ₄)

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

Maximum heat transfer surface

85 m² (910 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

The thermal performance is third party certified through the AHRI Liquid to Liquid Heat Exchangers certification program



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