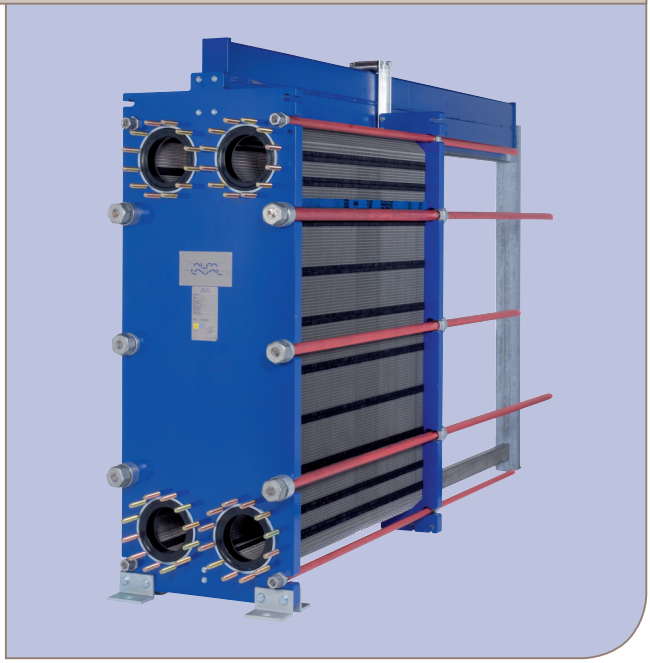
Alfa Laval AQ8

AlfaQ™ AHRI-certified plate heat exchanger



Applications
General heating and cooling duties

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 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.

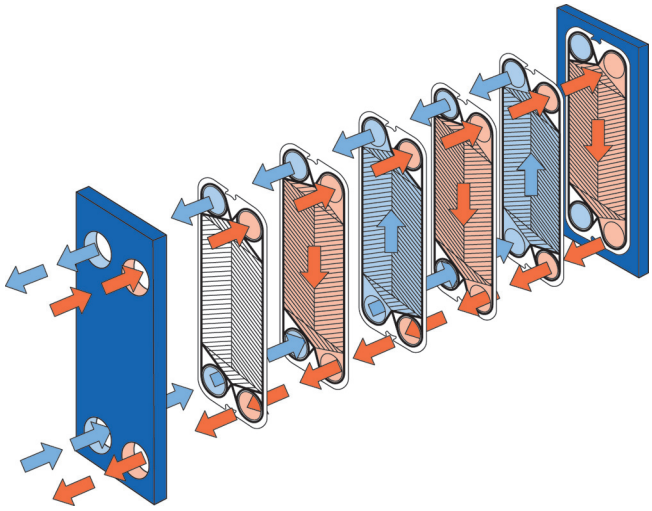
Connections are located in the frame plate or, if either or both fluids make more than a single pass within the unit, in the frame and pressure plates.

Typical capacities
Liquid flow rate
Up to 225 kg/s (3600 gpm), depending on media, permitted pressure drop and temperature program.

Plate types
AQ8, AQ8M and AQ8P 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.



Flow principle of a plate heat exchanger

STANDARD MATERIALS

Frame plate
Mild steel, Epoxy painted

Nozzles
Rubber lined
Carbon steel
Metal lined: Stainless steel, Titanium, Alloy C-276

Plates
Stainless steel Alloy 304, Stainless steel Alloy 316, Alloy 254 SMO, Alloy C-276 or Titanium Other grades and material available on request.

Gaskets
Nitrile, EPDM or Viton
Other grades and material available on request.

TECHNICAL DATA

Mechanical design pressure (g) / temperature

FM	pvcALS™	1.0 MPa / 180°C
FG	pvcALS™	1.6 MPa / 180°C
FG	PED	1.6 MPa / 180°C
FG	ASME	150 psig / 480°F
FD	ASME	300 psig / 480°F
FS	PED	3.0 MPa / 160°C
FS	ASME	400 psig / 480°F

CONNECTIONS

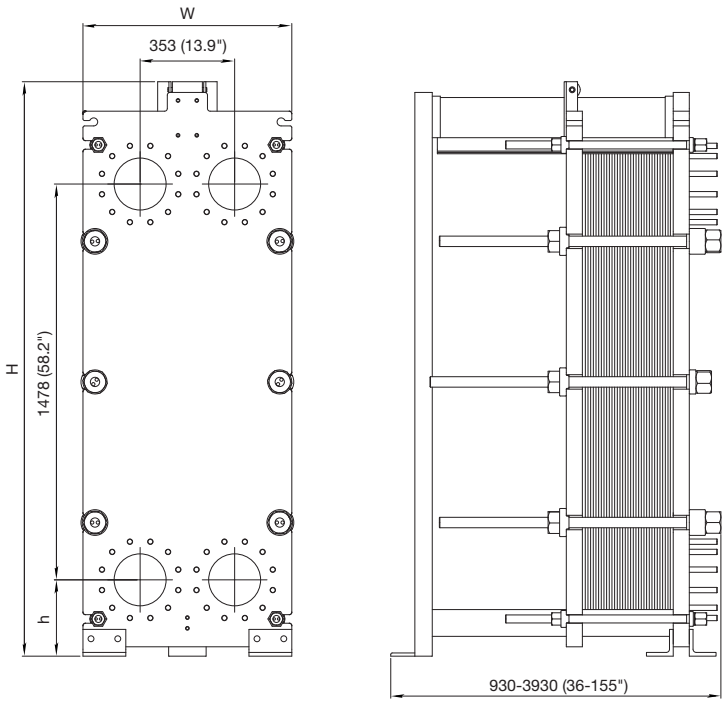
Size: DN200 / NPS 8 / 200A

FM	pvcALS™	EN 1092-1 PN10, ASME B16.5 Class 150, JIS B2220 10K
FG	pvcALS™	EN 1092-1 PN16, , ASME B16.5 Class 150, JIS B2220 10K, JIS B2220 16K
FG	PED	EN 1092-1 PN10; EN 1092-1 PN16, EN 1092-1 PN25, ASME B16.5 Class 150
FG	ASME	ASME B16.5 Class 150
FD	ASME	ASME B16.5 Class 150, ASME B16.5 Class 300
FS	pvcALS™	EN 1092-1 PN25, EN 1092-1 PN40, ASME B16.5 Class 300 ASME B16.5 Class 400, JIS B2220 20K
FS	PED	EN 1092-1 PN25, EN 1092-1 PN40, ASME B16.5 Class 300 ASME B16.5 Class 400
FS	ASME	ASME B16.5 Class 300, ASME B16.5 Class 400

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

Maximum heat transfer surface
630 m^2 (7000 sq. ft)

Dimensions



Measurements mm (inch)

Type	H	W	h
AQ8-FM	2145 (84 ½")	780 (30 $^{11}/_{16}$")	285 (11 $^{7}/_{32}$)
AQ8-FG	2145 (84 ½")	780 (30 $^{11}/_{16}$")	285 (11 $^{7}/_{32}$)
AQ8-FS	2183 (84 ½")	780 (30 $^{11}/_{16}$")	323 (12 $^{11}/_{16}$)

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

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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AHRI Standard 400