



AQ14L

AlfaQ™ ARI-certified plate heat exchanger

Applications

General heating and cooling duties using water, ethylene and propylene glycol as media.

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 that seals the channel and directs the fluids into alternate channels. The number of plates are 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 plates and the pressure plate are suspended from an upper carrying bar and located by a lower guiding bar, both of which are fixed to the support columns.

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

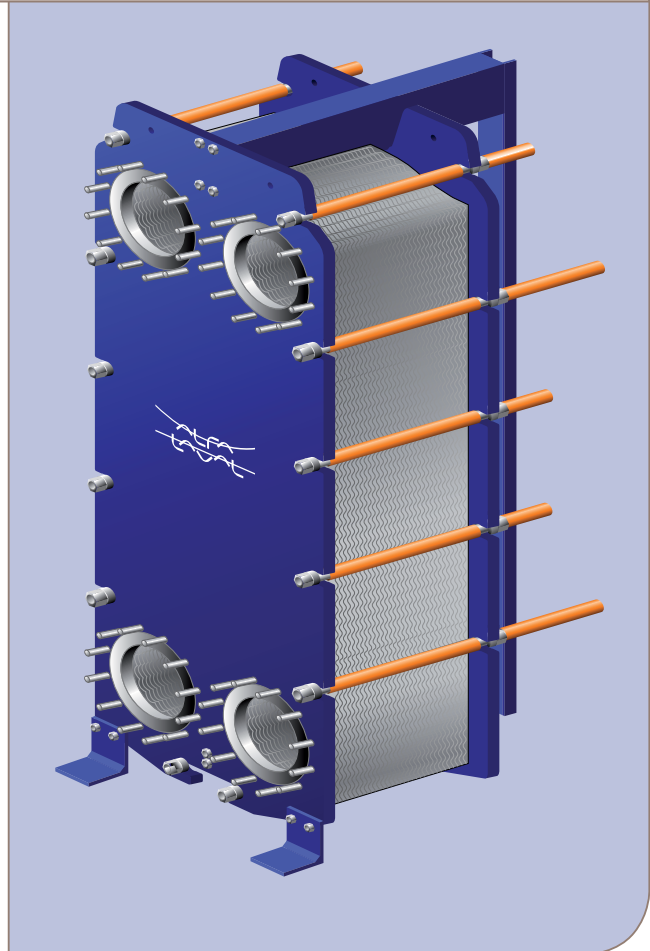
Typical capacities

Liquid flow rate

Up to 8,000 GPM (500 kg/s), depending on media, permitted pressure drop and temperature program.

Frame types

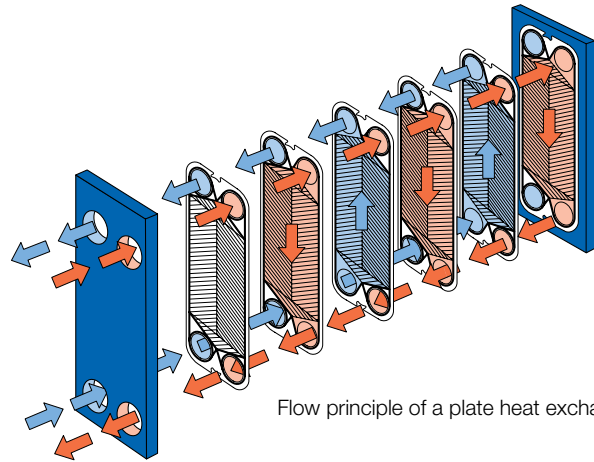
FG, FS



AQ14-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 plate heat exchanger

Standard Materials

Frame plate

Mild steel, painted

Nozzles

Carbon steel

Metal-lined: Stainless steel, Titanium

Plates

Stainless steel: Alloy 316, Titanium

Gaskets

Nitrile, EPDM

Connections

FG – Size 14" ASME Cl. 150

FS – Size 14" ASME Cl. 300

Technical Data

Mechanical design pressure/temperature

FG – ASME 150 psig/200°F

FS – ASME 400 psig/200°F

Maximum heat transfer surface

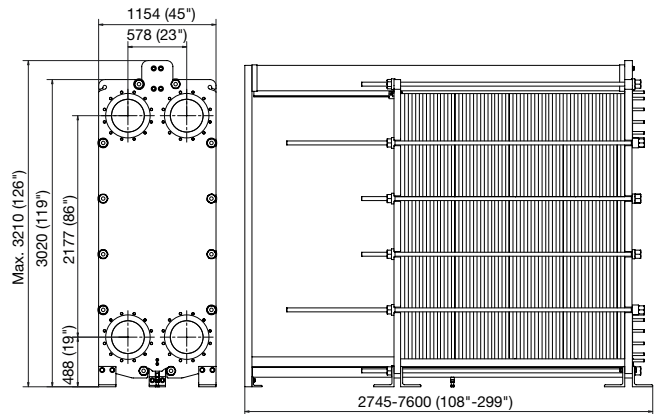
770 m² (8300 sq. ft)

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A Participating Company in the
ARI Standard 400 Certification Program

Dimensions



Measurements millimeters (in)

Type	H	W	h
AQ14L-FG	3210 (126")	1154 (45")	488 (19")
AQ14L-FS	3250 (128")	1194 (47")	510 (20")

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

How to contact Alfa Laval

Contact details for all countries
are continually updated on our website.
Please visit www.alfalaval.us to
access the information directly.