Alfa Laval AQ6L
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 port holes 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 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 120 kg/s (1900 gpm), depending on media, permitted pressure drop and temperature program.

Plate types
AQ6L

Frame types
FM, FG, FD 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.
STANDARD MATERIALS

Frame plate
- Mild steel, Epoxy painted

Nozzles
- Carbon steel
- Metal lined: Stainless steel, Titanium
- Rubber lined: Nitrile, EPDM

Plates
- Stainless steel: Alloy 304, Alloy 316, Titanium

Gaskets
- Nitrile, EPDM

TECHNICAL DATA

Pressure vessel codes, PED, ASME, pvcALS™

Mechanical design pressure (g) / temperature*

<table>
<thead>
<tr>
<th>Type</th>
<th>Pressure</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM pvcALS™</td>
<td>1.0 MPa</td>
<td>180ºC</td>
</tr>
<tr>
<td>FG pvcALS™</td>
<td>2.0 MPa</td>
<td>50ºC</td>
</tr>
<tr>
<td>FG PED</td>
<td>2.0 MPa</td>
<td>50ºC</td>
</tr>
<tr>
<td>FG ASME</td>
<td>150 psig</td>
<td>482ºF</td>
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<td>FS pvcALS™</td>
<td>3.5 MPa</td>
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<tr>
<td>FS PED</td>
<td>3.5 MPa</td>
<td>50ºC</td>
</tr>
<tr>
<td>FS ASME</td>
<td>460 psig</td>
<td>482ºF</td>
</tr>
</tbody>
</table>

* All PED and ALS units, except FM, are optimised for a design temperature of 50ºC (122ºF). All PED and ALS units are also available for a range of temperatures: 50, 100, 150, 180, and 200ºC with corresponding lower design pressure.

Connections

Size: DN150 / NPS 6 / 150A

<table>
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</tr>
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<tbody>
<tr>
<td>FM pvcALS™</td>
<td>EN 1092-1 PN10</td>
<td>ASME B16.5 Class 150</td>
<td>JIS B2220 10K</td>
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<td>JIS B2220 10K</td>
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The number of tightening bolts may vary depending on pressure rating and Pressure Vessel Code (PVC) requirements.

Maximum heat transfer surface

990 (1.1 x 900) m² (10660 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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How to contact Alfa Laval

Up-to-date AlfaLaval contact details for all countries are always available on our website on www.alfalaval.com