Alfa Laval TS50

Gasketed plate-and-frame heat exchanger for a wide range of applications

Alfa Laval Industrial line is a wide product range that is used in virtually all types of industry.

The relatively short plate makes this model suitable for duties with short temperature programs and when a low pressure drop is appreciated. A large range of plate and gasket types is available.

Applications
- Biotech and Pharmaceutical
- Chemicals
- Energy and Utilities
- Food and Beverages
- Home and Personal care
- HVAC and Refrigeration
- Machinery and Manufacturing
- Marine and Transportation
- Mining, Minerals and Pigments
- Pulp and Paper
- Semiconductor and Electronics
- Steel
- Water and Waste treatment

Benefits
- High energy efficiency – low operating cost
- Flexible configuration – heat transfer area can be modified
- Easy to install – compact design
- High serviceability – easy to open for inspection and cleaning and easy to clean by CIP
- Access to Alfa Laval’s global service network

Features
Every detail is carefully designed to ensure optimal performance, maximum uptime and easy maintenance. Selection of available features:
- 5-point alignment system
- Reinforced hanger
- Chocolate pattern distribution area
- Glued gasket
- Base-ad gasket
- Leak chamber
- Bearing box
- Fixed bolt head
- Key hole bolt opening
- Lifting lug
- Lining
- Lock washer
- Pressure plate roller
- Tightening bolt cover

Extending performance
with Alfa Laval 360° Service Portfolio
Our extensive services ensure top performance from your Alfa Laval equipment throughout its life cycle. The availability of parts and our team’s commitment and expertise bring you peace of mind.

Start-up
- Installation
- Installation Supervision
- Commissioning

Maintenance
- Cleaning Services
- Reconditioning
- Repair
- Service Tools
- Spare Parts

Support
- Exclusive Stock
- Technical Documentation
- Telephone Support
- Training
- Troubleshooting

Improvements
- Equipment Upgrades
- Redesign
- Replacement and Retrofit

Monitoring
- Condition Audit
- Performance Audit
Dimensional drawing
Measurements mm (inches)

![Dimensional drawing](image)

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

Technical data

<table>
<thead>
<tr>
<th>Plates</th>
<th>Name</th>
<th>Type</th>
<th>Free channel, mm (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS50-M</td>
<td>Single plate</td>
<td>3.9 (0.15)</td>
<td></td>
</tr>
</tbody>
</table>

Materials

| Heat transfer plates | 316/316L Ti |
| Field gaskets       | NBR, EPDM |
| Flange connections  | Carbon steel, stainless steel, titanium |
| Frame and pressure plate | Carbon steel, epoxy painted |

Other materials may be available on request.

All option combinations may not be configurable.

Operational data

<table>
<thead>
<tr>
<th>Frame, PV-code</th>
<th>Max. design pressure (barg/psig)</th>
<th>Max. design temperature (°C/°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FM, PVCALS</td>
<td>10.0/145</td>
<td>150/302</td>
</tr>
<tr>
<td>FG, ASME</td>
<td>10.3/150</td>
<td>177/350</td>
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<tr>
<td>FG, PED</td>
<td>16.0/232</td>
<td>180/356</td>
</tr>
<tr>
<td>FD, ASME</td>
<td>20.7/300</td>
<td>177/350</td>
</tr>
<tr>
<td>FD, PED</td>
<td>25.0/362</td>
<td>180/356</td>
</tr>
</tbody>
</table>

Extended pressure and temperature rating may be available on request.

Flange connections

<table>
<thead>
<tr>
<th>Frame, PV-code</th>
<th>EN 1092-1 DN500 PN10</th>
<th>ASME B16.5 Class 150 NPS 20</th>
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<tbody>
<tr>
<td>FM, PVCALS</td>
<td>ASME B16.5 Class 150 NPS 20</td>
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<tr>
<td>FG, ASME</td>
<td>ASME B16.5 Class 300 NPS 20</td>
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<td>FD, ASME</td>
<td>ASME B16.5 Class 300 NPS 20</td>
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<tr>
<td>FD, PED</td>
<td>EN 1092-1 DN500 PN25</td>
<td>ASME B16.5 Class 300 NPS 20</td>
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</tbody>
</table>

Standard EN1092-1 corresponds to GOST 12815-80 and GB/T 9115.

How to contact Alfa Laval

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

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