Alfa Laval TS20

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
- Corner guided alignment system
- Chocolate pattern distribution area
- Glued gasket
- Clip-on 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)

- **Type**: TS20-FM
  - **H**: 1405 (55.3″)
  - **W**: 740 (29.1″)
  - **h**: 360 (14.2″)

- **Type**: TS20-FG
  - **H**: 1405 (55.3″)
  - **W**: 800 (31.5″)
  - **h**: 360 (14.2″)

- **Type**: TS20-FS
  - **H**: 1435 (56.5″)
  - **W**: 800 (31.5″)
  - **h**: 390 (15.4″)

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

### Technical data

#### Plates

<table>
<thead>
<tr>
<th>Name</th>
<th>Type</th>
<th>Free channel, mm (inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS20-M</td>
<td>Single plate</td>
<td>4.0 (0.16)</td>
</tr>
</tbody>
</table>

#### Materials

- **Heat transfer plates**: 316/316L, 254
- **C-276, C-2000
- **Ni, Ti, TiPd**

- **Field gaskets**: NBR, EPDM, FKM, FEPM

- **Flange connections**: Carbon steel, Metal lined: stainless steel, Alloy C-276, Titanium, Rubber lined: NBR, EPDM

- **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>180/356</td>
</tr>
<tr>
<td>FM, PED</td>
<td>10.0/145</td>
<td>210/410</td>
</tr>
<tr>
<td>FG, PVCALS</td>
<td>16.0/232</td>
<td>180/356</td>
</tr>
<tr>
<td>FG, ASME</td>
<td>10.3/150</td>
<td>177/350</td>
</tr>
<tr>
<td>FG, PED</td>
<td>16.0/232</td>
<td>180/356</td>
</tr>
<tr>
<td>FS, ASME</td>
<td>31.7/460</td>
<td>177/350</td>
</tr>
<tr>
<td>FS, PED</td>
<td>30.0/435</td>
<td>160/320</td>
</tr>
</tbody>
</table>

Extended pressure and temperature rating may be available on request.

### Flange connections

- **FM, PVCALS**: EN 1092-1 DN200 PN10
  - ASME B16.5 Class 150 NPS 8
  - JIS B2220 10K 200A

- **FM, PED**: EN 1092-1 DN200 PN10
  - ASME B16.5 Class 150 NPS 8

- **FG, PVCALS**: EN 1092-1 DN200 PN10
  - ASME B16.5 Class 150 NPS 8
  - JIS B2220 10K 200A

- **FG, ASME**: ASME B16.5 Class 150 NPS 8

- **FG, PED**: EN 1092-1 DN200 PN16
  - ASME B16.5 Class 150 NPS 8

- **FS, ASME**: ASME B16.5 Class 150 NPS 8

- **FS, PED**: EN 1092-1 DN200 PN25
  - EN 1092-1 DN200 PN40
  - ASME B16.5 Class 300 NPS 8

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