

# Alfa Laval T21 Semi-welded

## Gasketed plate heat exchanger for demanding applications

#### Introduction

Alfa Laval Industrial semi-welded line is used when gaskets are not suitable for one of the process media. The semi-welded line can also withstand a higher design pressure compared to fully gasketed plate-and-frame heat exchangers.

Suitable for a wide range of applications, this model is available with a large selection of plate and gasket types.

## **Applications**

- Chemicals
- Energy and Utilities
- Food, Dairy and Beverages
- HVAC and Refrigeration
- Marine and Transportation
- Mining, Minerals and Pigments
- Pulp and Paper
- 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, depending on configuration some features may not be applicable:













- Reinforced hanger
- T-bar roller
- CurveFlow<sup>TM</sup> distribution area
- Clip-on gasket
- Leak chamber
- RefTight<sup>TM</sup> sealing system
- Compact frame
- Bearing boxes
- Fixed bolt head



- Key hole bolt opening
- Lifting lug
- Linina
- · Lock washer
- Pressure plate roller
- Tightening bolt cover
- Optimized Alfa Laval drain connection

## Alfa Laval service offering

Our vision is to be your trusted partner for service, driving sustainable performance together. The Alfa Laval portfolio of service offers for Plate Heat Exchangers from start-up of your operations, through operation, process improvements, and replacement. Throughout the lifecycle, we bring you more than 140 years of technical experience and innovative service solutions tailored to your business needs. Easily accessible through our people all over the world.

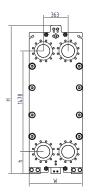
For information about our complete service offering and how to contact us, please visit www.alfalaval.com/service.

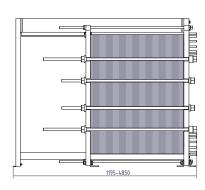
### General remarks for technical information

- The global offering presented in this leaflet may not be available for all regions
- All combinations may not be configurable

## **Dimensional drawing**

Measurements mm (inches)





| Frame type | Н             | W           | h            |
|------------|---------------|-------------|--------------|
| FG, PED    | 2135 (84.06") | 780 (30.7") | 285 (11.22") |
| FD, PED    | 2173 (85.6")  | 780 (30.7") | 323 (12.7")  |
| FT, ASME   | 2173 (85.6")  | 780 (30.7") | 323 (12.7")  |
| FT, PED    | 2173 (85.6")  | 780 (30.7") | 323 (12.7")  |
| FX, PED    | 2252 (88.6")  | 850 (33.5") | 343 (13.5")  |

### Technical data

| Plates | Туре        | Free channel, mm (inches) |
|--------|-------------|---------------------------|
| BWc    | Semi-welded | 2.5 (0.098)               |
| BW     | Semi-welded | 2.52 (0.1004)             |

| Materials                |   |
|--------------------------|---|
|                          | Alloy 304, Alloy 316/316L, Alloy 254        |
| Heat transfer plates     | Alloy C276                                  |
|                          | Ti  |
| Field gaskets            | NBR, EPDM, CR                               |
| Ring gaskets             | NBR, EPDM, FKM, CR, HNBR, HeatSeal          |
| Florido connectiono      | Carbon steel                                |
| Flange connections       | Metal lined: stainless steel, titanium, SMO |
| Frame and pressure plate | Carbon steel, epoxy painted                 |

Other materials may be available on request.

## Operational data

| Frame type | Max. design pressure barg (psig) | Max. design<br>temperature<br>°C (°F) |
|------------|----------------------------------|---------------------------------------|
| FG, PED    | 16.0 (232)                       | 200 (392)                             |
| FD, PED    | 25.0 (362)                       | 200 (392)                             |
| FT, PED    | 41.0 (595)                       | 200 (392)                             |
| FT, ASME   | 41.4 (600)                       | 250 (482)                             |
| FX, PED    | 63.0 (914)                       | 150 (302)                             |

Extended pressure and temperature rating may be available on request.

## Flange connections

| Frame type  | Connection standard        |
|-------------|----------------------------|
|             | EN 1092-1 DN200 PN10       |
| EC DED      | EN 1092-1 DN200 PN16       |
| FG, PED     | EN 1092-1 DN200 PN25       |
|             | ASME B16.5 Class 150 NPS 8 |
| FD, PED     | EN 1092-1 DN200 PN25       |
| 1 D, FLD    | ASME B16.5 Class 300 NPS 8 |
|             | EN 1092-1 DN200 PN25       |
| FT, PED     | EN 1092-1 DN200 PN40       |
| 11, FLD     | ASME B16.5 Class 300 NPS 8 |
|             | ASME B16.5 Class 400 NPS 8 |
| FT, ASME    | ASME B16.5 Class 300 NPS 8 |
| I I, ASIVIL | ASME B16.5 Class 400 NPS 8 |
|             | EN 1092-1 DN200 PN16       |
|             | EN 1092-1 DN200 PN25       |
|             | EN 1092-1 DN200 PN40       |
| FX, PED     | EN 1092-1 DN150 PN63       |
| IX, FLD     | ASME B16.5 Class 150 NPS 8 |
|             | ASME B16.5 Class 300 NPS 8 |
|             | ASME B16.5 Class 600 NPS 6 |
|             | ASME B16.5 Class 900 NPS 6 |

Standard EN1092-1 corresponds to GOST 12815-80 and GB/T9124.1.

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