

Alfa Laval TK20 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.

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

- 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:



CurveFlow™ distribution area

Improves media flow and minimizes the risk of fouling



ClipGrip™ gasket attachment

Ensures perfect seal and trouble-free maintenance



Five point alignment

Ensures reliable plate positioning and easy service of large units



T-bar roller design Provides a lower unit that is easy to service



Bearing boxes

Guarantees an easy-to-open unit for smoother, more efficient maintenance



Compact frame

Facilitates maintenance and minimizes service area requirement



RefTight™ sealing system

High-performance gasket sealing for high-pressure duties

- Five-point alignment
- T-bar roller
- CurveFlow™ distribution area
- ClipGrip™ gasket attachment
- Leak chamber

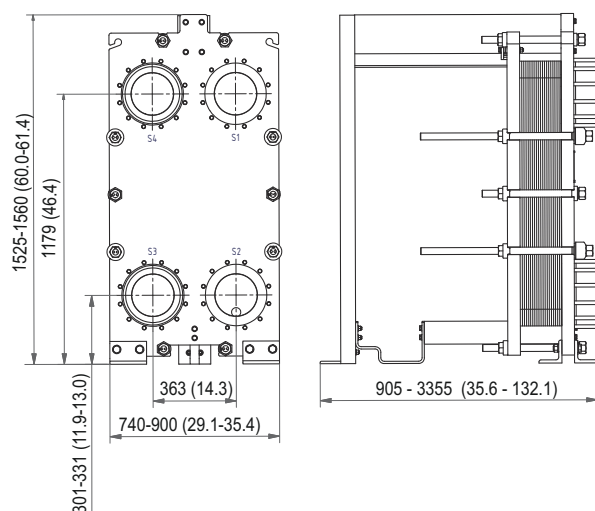
- RefTight™ sealing system
- Compact frame
- Bearing boxes
- Fixed bolt head
- Key hole bolt opening
- Lifting lug
- Lining
- Lock washer
- Swing feet
- Tightening bolt cover
- Optimized Alfa Laval drain connection

Dimensional drawing

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

The height may vary depending on the choice of feet.

Measurements mm (inches)



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

Technical data

Component	Material
Heat transfer plate, Semi-welded cassette:	304/304L, 316/316L, 254 Ti
Field gasket:	NBR, EPDM, FKM NBR, EPDM, CR
Ring gaskets	NBR, EPDM, FKM, CR NBR, EPDM, CR, HeatSeal
Frame plate and pressure plate:	Carbon steel, epoxy painted

Other materials may be available on request.

Operational data

Specification	Value
Pressure vessel codes	pvcALS, ASME, PED
Temperature range °C (°F)	From -50 to +250 (from -58 to 482)
Pressure range barg (psig)	From absolute vacuum to 95.9 (from absolute vacuum to 1390.91)

Extended pressure and temperature rating may be available on request.

Flange connections

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

Accessories

Available accessories for this product:

- Drip tray
- Protection sheet
- Cooling insulation
- Heating insulation
- Port filter
- Distribution pipe
- Counter flange

- Earthing
- Tightening bolt protection
- Lifting device
- U-turn

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

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.

Sustainability at Alfa Laval

At Alfa Laval we are committed to reaching net zero 2050 across our complete value chain. Our products and solutions support our customers to meet sustainability goals, boost circular business, and develop sustainable value chains. We are living our commitments by also setting clear targets to reach net zero emissions in our own operations and to reduce emissions upstream and downstream in our value chains. For more information about our sustainability journey and our sustainability targets aimed to drive efficiency and behavioural change to achieve better results in the short- and long term, please visit www.alfalaval.com/sustainability.

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