

Alfa Laval Semi-welded M10

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 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

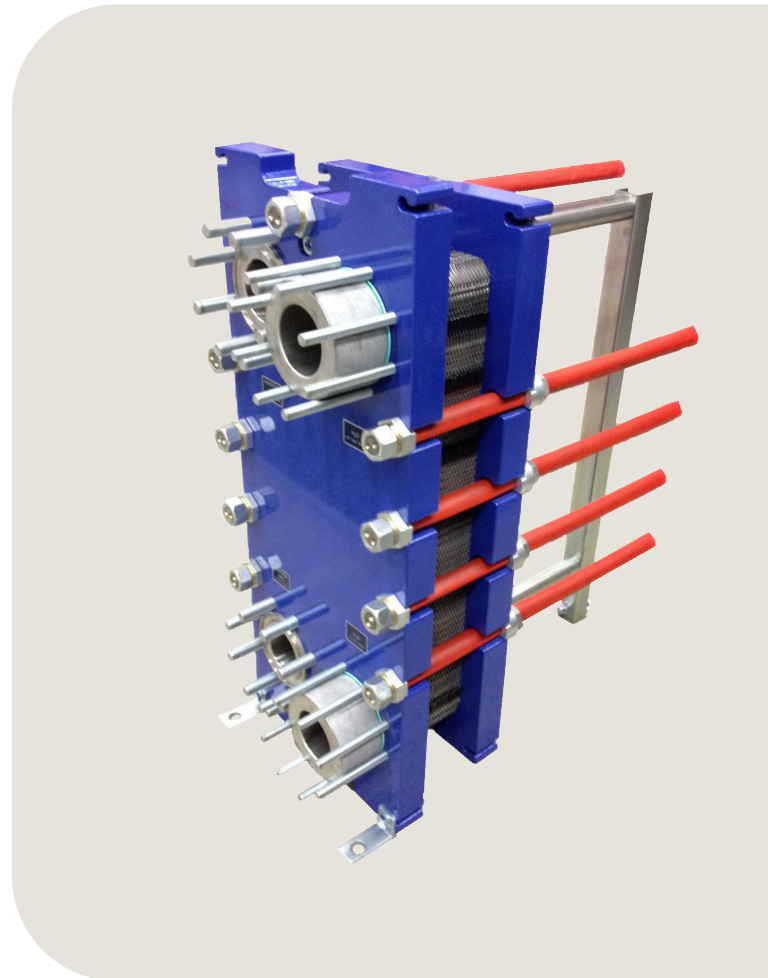
- High energy efficiency – low operating cost
- Flexible configuration – heat transfer area can be modified
- Easy to install – compact design
- High serviceability – easy to open for inspection and cleaning and easy to clean by CIP
- Access to Alfa Laval's global service network

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:



- Corner guided alignment system
- Chocolate pattern distribution area
- Clip-on gasket
- Leak chamber
- Compact frame
- Fixed bolt head
- Key hole bolt opening
- Lifting lug
- Lining
- Lock washer



- Tightening bolt cover
- Optimized Alfa Laval drain connection

Alfa Laval 360° Service Portfolio

Our extensive service offering ensure top performance from your Alfa Laval equipment throughout its life cycle. The Alfa Laval 360 Service Portfolio include installation services, cleaning and repair as well as spare parts, technical documentation and trouble shooting. We also offer replacement, retrofit, integrity testing, monitoring and much more.

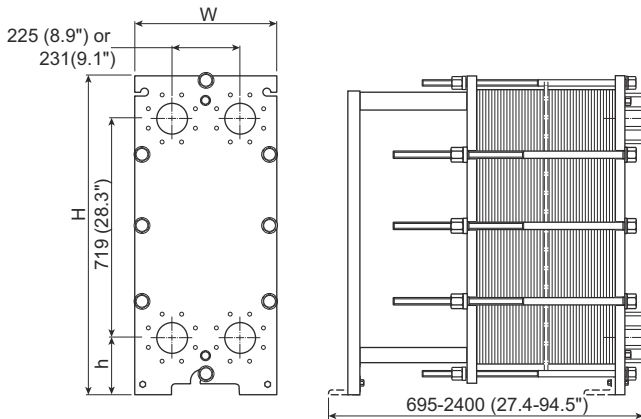
For information about our complete service offering and how to contact us - please visit www.alfalaval.com/service.

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	H	W	h
FG	1084 (42.7")	470 (18.5")	215 (8.5")
FD	981 (38.6")	470 (18.5")	131 (5.2")
FD, ASME	1084 (42.7")	470 (18.5")	215 (8.5")
FDR	981 (38.6")	470 (18.5")	131 (5.2")
FT	1084 (42.7")	470 (18.5")	215 (8.5")
FX	1133 (44.6")	470 (18.5")	215 (8.5")
REF	1110 (43.7")	470 (18.5")	163 (6.4")

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

Technical data

Plates	Type	Free channel, mm (inches)
M10-BW	Semi-welded	2.4 (0.094)

Materials	
Heat transfer plates	304/304L, 316/316L, 904L, 254 C-276, C-2000, D-205 G-30 Alloy 33, Ni, Ti, TiPd
Field gaskets	NBR, EPDM, FKM, CR
Ring gaskets	NBR, EPDM, FKM, PTFE, CR, HeatSeal
Flange connections	Metal lined: stainless steel, Alloy 254, Alloy C-276, titanium
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 temperature (°C/°F)
FG, ASME	10.3/150	250/482
FG, PED	16.0/232	180/356
FD, pvcALS	25.0/362	180/356
FD, ASME	20.7/300	250/482
FD, PED	25.0/362	180/356
FDR, PED	25.0/362	160/320
FTc, PED		
FT, ALS		
FT, ASME	41.4/600	250/482
FX, PED	55.0/798	150/302
REF, PED	25.0/362	150/302

Extended pressure and temperature rating may be available on request.

Flange connections

Frame type	Connection standard
FG, pvcALS	EN 1092-1 DN100 PN16
	ASME B16.5 Class 150 NPS 4
	JIS B2220 16K 100A
FG, Marine ¹	
FG, ASME	ASME B16.5 Class 150 NPS 4
FG, PED	EN 1092-1 DN100 PN16
	ASME B16.5 Class 150 NPS 2
	ASME B16.5 Class 150 NPS 4
FD, pvcALS	EN 1092-1 DN100 PN25
	ASME B16.5 Class 300 NPS 4 (Rectangular Loose Flange)
	JIS B2220 20K 100A
FD, ASME	ASME B16.5 Class 300 NPS 4 (Rectangular Loose Flange)
FDc, ASME	
FD, PED	EN 1092-1 DN100 PN25
	ASME B16.5 Class 300 NPS 4
FDR, PED	EN 1092-1 DN100 PN25 Special squared flange
FT, ALS	
FT, PED	EN 1092-1 DN100 PN40
	ASME B16.5 Class 300 NPS 4
FT, ASME	Special squared flange
FX, PED	EN 1092-1 DN100 PN16
	EN 1092-1 DN100 PN25
REF, PED	EN 1092-1 DN100 PN63
	EN 1092-1 DN100 PN25

¹ Marine includes the standards: ABS, BV, CCS, DNV GL, ClassNK, KR, LR, RINA, and RMRS.

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

RLF (Rectangular Loose Flange) in pressure plate: FG, FD, FT PED, FX PED, FX ASME

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