

# Alfa Laval T21

## Gasketed plate heat exchanger for a wide range of applications

#### Introduction

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

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

#### **Applications**

- Biotech and Pharmaceutical
- Chemicals
- Energy and Utilities
- Food, Dairy 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, depending on configuration some features may not be applicable:



- Five-point alignment
- T-bar roller
- CurveFlow<sup>TM</sup> distribution area
- · Glued gasket
- ClipGrip<sup>TM</sup> gasket attachment
- Offset gasket groove
- OmegaPort<sup>TM</sup> noncircular port holes
- Leak chamber



- Elongated nut
- FlexFlow<sup>TM</sup> plate design
- Compact frame
- · Bearing boxes
- Fixed bolt head
- Key hole bolt opening
- Lifting lug
- Lining
- Lock washer
- Tightening bolt cover

## 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.

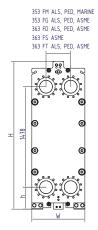
For information about our complete service offering and how to contact us - please visit www.alfalaval.com/service.

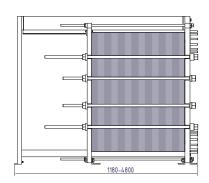
#### General remarks for technical information

- 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	Н	W	h
FM ALS, PED,	0000 F (01 0")	755 (00 7")	000 (11 0")
Marine <sup>1</sup>	2082.5 (81.9")	755 (29.7")	280 (11.0")
FG ALS, PED,	2135 (84.0")	780 (30.7")	285 (11.2")
ASME	2133 (64.0 )	760 (30.7 )	200 (11.2 )
FD ALS, PED,	2173 (85.5")	780 (30.7")	323 (12.7")
ASME	2173 (00.0 )	700 (30.7 )	323 (12.7 )
FS ASME	2173 (85.5")	780 (30.7")	323 (12.7")
FT ALS, PED,	2173 (85.5")	780 (30.7")	323 (12.7")
ASME	2110 (03.0)	100 (00.1)	323 (12.7)

 $<sup>^{\</sup>rm 1}$  Marine includes the PV-codes: ABS, BV, CCS, ClassNK, DNV, KR, LR, RINA, and RMRS.

## Technical data

Plates	Туре	Free channel, mm (inches)
М	Single plate	3.97 (0.15)
Р	Single plate	2.8 (0.11)
В	Single plate	1.92 (0.075)

Materials		
Heat transfer plates	304, 316, 254, C276, D205, C2000, Alloy 33, G30,	
	Ni, Ti, TiPd	
Field gaskets	NBR, EPDM, FKM, HNBR, HeatSeal	
	Metal lined: stainless steel, 254, C276, D205,	
Flange connections	C2000, G30, Ni, Ti, TiPd	
	Rubber lined: NBR	
Frame and pressure pla	te 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)
FM, pvcALS	10.4 (151)	200 (392)
FM, PED	10.4 (151)	200 (392)
FM, Marine <sup>1</sup>	10.4 (151)	100 (212)
FG, pvcALS	16.0 (232)	200 (392)
FG, ASME	10.4 (151)	250 (482)
FG, PED	16.0 (232)	200 (392)
FD, pvcALS	25.0 (362)	200 (392)
FD, ASME	21.0 (304)	250 (482)
FD, PED	25.0 (362)	200 (392)
FS, ASME	36.0 (522)	250 (482)

 $<sup>^{\</sup>rm 1}$  Marine standard includes the standards: ABS, BV, CCS, ClassNK, DNV, KR, LR, RINA, and RMRS.

Frame type	Max. design pressure barg (psig)	Max. design temperature °C (°F)
FT, PED	40.0 (580)	200 (392)
FT, ALS	40.0 (580)	200 (392)
FT, ASME	41.4 (600)	250 (482)

<sup>&</sup>lt;sup>1</sup> Marine standard includes the standards: ABS, BV, CCS, ClassNK, DNV, KR, LR, RINA, and RMRS.

Extended pressure and temperature rating may be available on request.

## Flange connections

Frame type	Connection standard
	EN 1092-1 DN200 PN10
FM, pvcALS	ASME B16.5 Class 150 NPS 8
	JIS B2220 10K 200A
EM DED	EN 1092-1 DN200 PN10
FM, PED	ASME B16.5 Class 150 NPS 8
	EN 1092-1 DN200 PN10
FM, Marine <sup>1</sup>	ASME B16.5 Class 150 NPS 8
	JIS B2220 10K 200A
	EN 1092-1 DN200 PN16
	EN 1092-1 DN200 PN25
FG, pvcALS	ASME B16.5 Class 150 NPS 8
	JIS B2220 10K 200A
	JIS B2220 16K 200A
FG, ASME	ASME B16.5 Class 150 NPS 8
	EN 1092-1 PN16
	EN 1092-1 DN200 PN10
FG, PED	EN 1092-1 DN200 PN16
14,125	EN 1092-1 DN200 PN25
	ASME B16.5 Class 150 NPS 8
	EN 1092-1 DN200 PN25
FD, pvcALS	ASME B16.5 Class 300 NPS 8
	JIS B2220 20K 200A
	ASME B16.5 Class 150 NPS 8
FD, ASME	EN1092-1 PN25
	ASME B16.5 Class 300 NPS 8
FD, PED	EN 1092-1 DN200 PN25
	ASME B16.5 Class 300 NPS 8
FS, ASME	ASME B16.5 Class 300 NPS 8
	EN 1092-1 DN200 PN40
FT, ALS	ASME B16.5 Class 300 NPS 8
I I, ALG	ASME B16.5 Class 400 NPS 8
	JIS B2220 200A 30K
	EN 1092-1 DN200 PN40
FT, PED	ASME B16.5 Class 300 NPS 8
	ASME B16.5 Class 400 NPS 8
	ASME B16.5 Class 300 NPS 8
FT, ASME	ASME B16.5 Class 300 NPS 8 ASME B16.5 Class 400 NPS 8

<sup>&</sup>lt;sup>1</sup> Marine includes the standards: ABS, BV, CCS, DNV, ClassNK, KR, LR, RINA, and RMRS.

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

