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BaseLine Plate Heat Exchangers

Application

Cooling and heating of dairy, brewery, beverage and viscous products and pasteurization in some applications.

Working principle

The plate heat exchanger consists of a pack of corrugated metal plates with portholes for the passage of two fluids between which heat transfer will take place.

The plate pack is assembled between a frame plate and a pressure plate and compressed by tightening bolts.

The plates are fitted with a gasket which seals the channel and directs the fluids into alternate channels. The number of plates are determined by the flow rate, physical properties of the fluids, pressure drop and temperature program. The plate corrugations promote fluid turbulence and support the plates against differential pressure.

Frame

The plates and the pressure plate are suspended from an upper carrying bar and located by a lower guiding bar, both of which are fixed to the support column. On the largest type some tightening bolts are equipped with ball bearing washers in order to facilitate opening and closing of the unit. The frame is designed for mounting on a floor only. Standard feet are fixed.

One unit can contain several heat exchangers, separated by connection plates with interchangeable connections. (Not valid for M3-Base).

Plates

The corrugation of the plates provides a passage between the plates, supports each plate against the adjacent one and enhances the turbulence, resulting in efficient heat transfer. Corner ports and gaskets are arranged so that the two media flow through alternate channels.

The plates have a chevron pattern for maximum strength at high working pressures. Different chevron designs are available, in order to obtain optimal high heat transfer and low pressure drop.

A unique distribution area provides an even flow over the plate surface. The Alfa Laval hanging system enables easy handling of the plates in the frame and together with the corner guiding a strong plate pack.

The plates are reversible and have parallel flow, which means only one type of plate is needed.

BaseLine
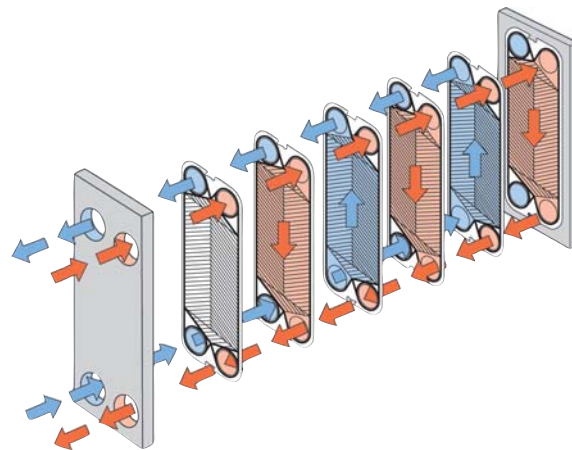
Flow principle of a plate heat exchanger

Gaskets

The plates are supplied with glue-free Clip-On gaskets, which are easy to replace even with the plates still hanging in the frame.

Plate Types
M3, M6, M6M, M10B, M10M and TL10B

Standard Materials

Plates
Stainless steel AISI 316, titanium or SMO.

Gaskets
Nitrile-FDA, EPDM or EPDM-FDA.
Clip-On design.

Frame
Frame and pressure plate in solid stainless steel. All wetted parts in acid proof stainless steel. Outer surfaces in various grades of stainless steel. Movable nuts on tightening bolts in chromium plated brass

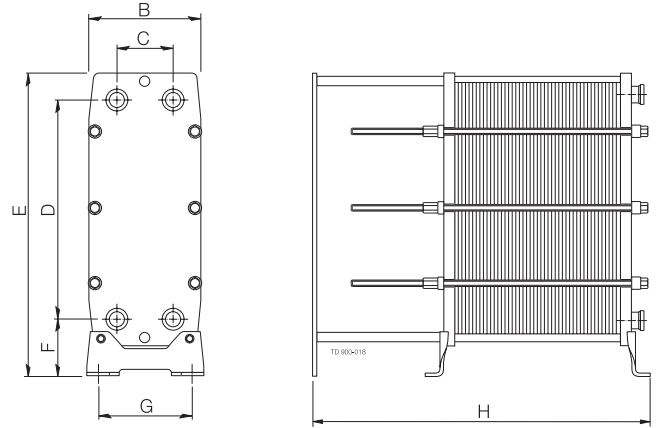## Technical Data

Mechanical design pressure (g) / Temperature
145 psi / 302°F

Optional
A. Protection sheet
B. 3-A finish
C. Adjustable legs, low or high
D. Spanner
E. Commissioning kit, gaskets
F. Test certificates and material certificate
G. Testing by authorized inspection companies

All options are not available on all models.

Dimensions

1) Adjustable feet ± 1,181 inches on BASE-3, BASE-6 and BASE-10

2) Adjustable feet ± 2.36 inches on BASE-11

Dimensions inches	BASE-3	BASE-6	BASE-10	BASE-11
B	7.09	11.81	17.55	18.5
C	2.36	5.51	8.78	8.58
D	14.06	25.20	28.31	52.68
E	21.46	35.79	41.46	81.54
F	5.55	7.11	8.43	16.26
G	6.95	11.42	17.28	23.23
H	9.84-20.08	22.64-52.17	27.56-59.05	43.31-118.11

Connection				
Diameter	1"	2"	3" / 4"	3" / 4"

Capacity GPM				
Pasteurization	-	20	30	70
Heating/Cooling	20	70	290	310
Water	40	160	570	600

Overall length, LC/A, varies depending on number of plates and connection plates. The number of tightening bolts vary for different types. Recommended free space around the unit is 3 ft. at sides and frame head end.

The information contained herein is correct at the time of issue, but may be subject to change without prior notice.

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Authorized to carry
the 3A symbol