

The Flexible Choice for Heat Transfer

M-LINE Plate Heat Exchangers

Application

Pasteurization and general cooling/heating of dairy and brewery products, fruit juices and similar food products.

Design

The heat exchanger consists of a number of corrugated plates clamped together in a frame and sealed at the edges by means of gaskets.

The plates have ports at the corners and the gaskets are so arranged that the two media flow through alternate passages between the plates. The two media are separated by the plates and cannot be mixed. Heat is transferred through the plates, from the hot medium to the cold.

One unit can contain several heat exchangers, separated by connection plates with spot welded connection pieces.

Frame

The frame consists of a fixed frame plate, a moveable pressure plate, an upper carrying bar, a lower guiding bar, a support column and tightening bolts with nuts and washers.

The frame plate has adjustable feet.

Plate

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.

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

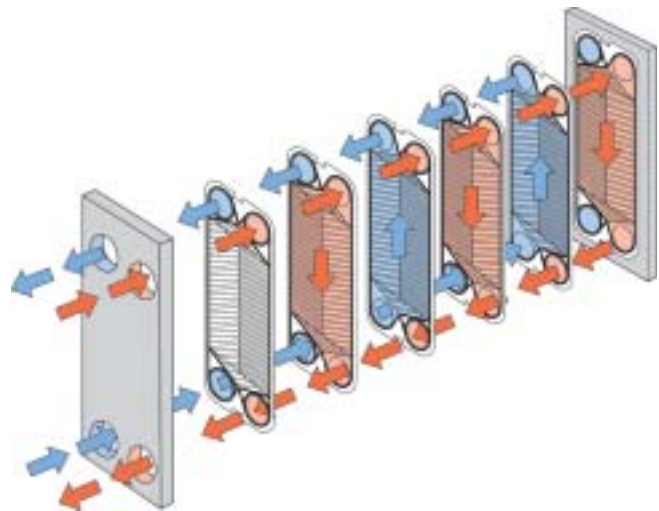
Gasket

The plates are supplied with glue-free Clip-On gaskets, which are easy to replace.

No tools are needed to replace the gaskets.



M10-MFHC



Flow principle of a plate heat exchanger

M6 Plate Heat Exchanger

Plate types M6 plates and M6M plates

Standard materials**Plates**

Stainless steel AISI 316, titanium or SMO.

Gaskets

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

Frame

Connection plates of mild steel, clad with stainless steel in glass blasted finish. Nuts of chromium plated brass. All other parts of stainless steel.

Technical data**Plates**Actual heating surface 0.14 m²**Connections**

Frame and pressure plate 51 or 38 mm

Connection plates 51 mm

SMS or DIN male parts. Other union standards on request.

Mechanical design pressure (g) / temperature

Frame FMC, with 4 bolts 10 bar / 150 °C

Frame FHC, with 8 bolts 18 bar / 150 °C

Complies with AD Merblätter (Germany) and Swedish Pressure Vessel Codes.

Capacity

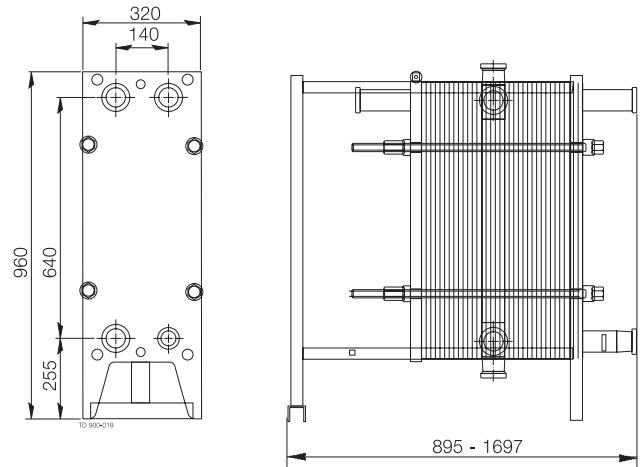
Pasteurization 12,000 l/h

Heating/cooling 15,000 l/h

Water 30,000 l/h

Optional

- Thermometer pocket and nib with ventilation cock¹
- Protection sheet
- Commissioning kit, gaskets
- Test certificates and material certificates
- Testing by authorized inspection companies

¹ At though pass corners in connection plates

Overall length varies depending on number of plates and connection plates. Recommended free space around the units is one meter on all sides and sufficient space at the frame head end to pull out the bolts.

M10 Plate Heat Exchanger

Plate types M10B plates and M10M plates

Standard materials

Plates

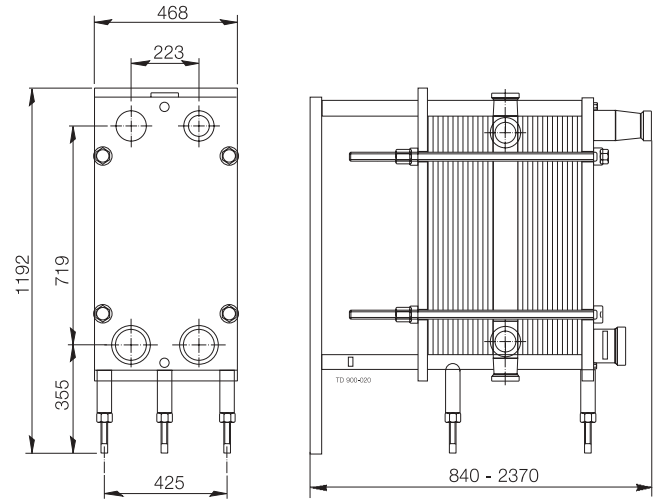
Stainless steel AISI 316, titanium or SMO.

Gaskets

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

Frame

Frame plate and pressure plate of mild steel, clad with stainless steel in glass blasted finish. Nuts of chromium plated brass. All other parts of stainless steel.



Technical data

Plates

Actual heating surface 0.22 m²

Connections

Frame and pressure plate 101 or 76 mm
 Connection plates 76 mm
 SMS or DIN male parts. Other union standards on request.

Mechanical design pressure (g) / temperature

Frame FMC 16 bar / 150 °C

Complies with AD Merblätter (Germany) and Swedish Pressure Vessel Codes.

Capacity

Pasteurization 9,000 l/h
 Heating/cooling 65,000 l/h
 Water 130,000 l/h

Optional

- Thermometer pocket and nib with ventilation cock¹
- Connection for 51 mm pressure transmitter¹
- Protection sheet
- Bolt protections of stainless steel
- Extra standard wrench or pneumatic tightening tool
- Commissioning kit, gaskets
- Test certificates and material certificates
- Testing by authorized inspection companies

¹ At though pass corners in connection plates

Overall length varies depending on number of plates and connection plates. Recommended free space around the units is one meter at sides and sufficient space at the frame head end to pull out the bolts.

M15 Plate Heat Exchanger

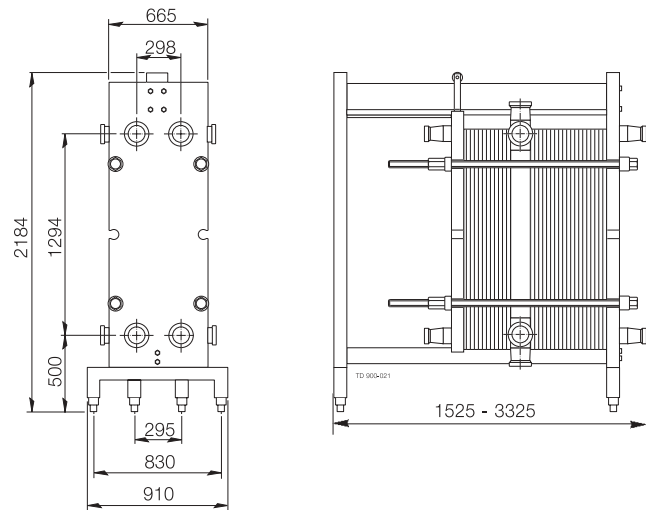
Plate types M15B plates and M15M plates

Standard materials**Plates**

Stainless steel AISI 316 with bright annealed finish, titanium or SMO.

GasketsNitrile-FDA, Nitrile-Brewery, EPDM or EPDM-FDA.
Clip-On design.**Frame**

Frame plate and pressure plate of mild steel, clad with stainless steel in glass blasted finish. Nuts of chromium plated brass. All other parts of stainless steel.

**Technical data****Plates**Actual heating surface 0.62 m²**Connections**Frame and pressure plate: Unions 101 mm
Flanges DIN 100 or 125
Flanges ANSI 4" or 5"Connection plates Unions 101 mm
Flanges DIN 100
Flanges ANSI 4"

SMS or DIN male parts. Other union standards on request.

Mechanical design pressure (g) / temperature

Frame FMC 16 bar / 150 °C

Complies with AD Merblätter (Germany) and Swedish Pressure Vessel Codes.

Capacity

Pasteurization	9,000 l/h
Heating/cooling	65,000 l/h
Water	130,000 l/h

Optional

- Thermometer pocket and nib with ventilation cock¹
- Connection for 51 mm pressure transmitter¹
- Protection sheet
- Bolt protections of stainless steel
- Extra standard wrench or pneumatic tightening tool
- Commissioning kit, gaskets
- Test certificates and material certificates
- Testing by authorized inspection companies

¹ At though pass corners in connection plates
Overall length varies depending on number of plates and connection plates. Recommended free space around the units is one meter at sides and sufficient space at the frame head end to pull out the bolts.