Applications
General heating and cooling duties. Heating by means of steam.

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

The plate pack is assembled between a fixed frame plate and a movable pressure plate and compressed by tightening bolts. The plates are fitted with a gasket which seals the interplate channel and directs the fluids into alternate channels. The number of plates is 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.

The plate and the pressure plate are suspended from an upper carrying bar and located by a lower guiding bar, both of which are fixed to a support column.

Connections are located in the frame plate or, if either or both fluids make more than a single pass within the unit, in the frame and pressure plates.

Typical capacities
**Liquid flow rate**
Up to 980 gpm, depending on media, permitted pressure drop and temperature program.

**Water heating by steam**
0.7 to 3.0 MW
200 tons – 850 tons

Plate types
M10B, M10M and M10BD

Frame types
FM, FG and FD (ASME design)
FML (non-ASME)
Working principle
Channels are formed between the plates and the corner ports are arranged so that the two media flow through alternate channels. The heat is transferred through the plate between the channels, and complete counter-current flow is created for highest possible efficiency. The corrugation of the plates provides the passage between the plates, supports each plate against the adjacent one and enhances the turbulence, resulting in efficient heat transfer.

Standard materials
Frame plate
Mild steel, painted

Nozzles
Carbon steel
Lined: Stainless steel, Titanium

Plates
Stainless steel AISI 304, AISI 316
Titanium, Alloy 20/18/6

Gaskets
M10B Nitrile, EPDM, Viton®G
M10M Nitrile, EPDM, HeatSeal F™EPDM-FDA, Viton®G

Connections
FML – Size 4" ANSI 150
FM – Size 4" ANSI 150
FG – Size 4" ANSI 150
FD – Size 4" ANSI 150
FD – Size 4" ANSI 300

Technical data
Mechanical design pressure (g)/temperature
FML 150 psig/320°F (non-ASME)
FM 100 psig/356°F
FG 150 psig/356°F
FD 360 psig/356°F

Maximum heat transfer surface
M10B 1126 sq. ft
M10M 660 sq. ft

For more information or to purchase these products, please contact:
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