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 60 GPM, depending on media, permitted pressure drop and temperature program.

Water heating by steam
50 to 250 kW, 14 tons to 90 tons

Plate types
M3 and M3-X, where M3 provides parallel and M3-X diagonal flow (see figures on the next page). M3D, double wall plates.

Frame types
VG
VGL (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
Stainless steel AISI 316, Titanium

Plates
Stainless steel AISI 316 or Titanium

Gaskets
M3  Nitrile, EPDM
M3X  Nitrile, EPDM, Viton®
M3D  Nitrile, EPDM

Connections
1-1⁄4" NPT

Technical data
Mechanical design pressure (g)/temperature
VG  230 Psig/320°F
FGL  230 Psig/320°F (non-ASME)

Maximum heat transfer surface
40 sq. ft

Particulars required for quotation
– Flow rates or heat load
– Temperature program
– Physical properties of liquids in question (if not water)
– Desired working pressure
– Maximum permitted pressure drop
– Available steam pressure

Dimensions
Measurements (mm)
The number of bolts may vary depending on pressure rating.

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