

PLATE & FRAME HEAT EXCHANGERS

FROM MUELLER



MAIOCCO & ASSOCIATES
HEAT TRANSFER SOLUTIONS | WWW.HXCOILS.COM

HX Coils can help you design the right sized, high performance Mueller Accu-Therm® plate and frame heat exchanger for the highly efficient heat transfer of simple fluids, viscous solutions, or particulates. We can quickly calculate the plate properties, connections, alloys and frame configurations you need to meet your specific requirements and deliver to meet your installation deadline.

FEATURES AND BENEFITS

High Efficiency Heat Transfer Performance

The embossed pattern of the heat exchanger plates promotes high turbulence at low fluid velocities. This turbulence results in high heat transfer coefficients. “U” values of 2,000 or more are common.

Reduced Fouling

The plate heat exchanger’s high turbulence, uniform fluid flow, and smooth plate surface reduces fouling and the need for frequent cleaning.

Compact Size

These heat exchangers require 1/5 to 1/2 of the floor space of other types of equivalent heavy duty heat transfer equipment. Its compact size enables easy, in-place service and maintenance.

Easy to Clean and Inspect

It is easy to inspect the heat transfer surface by simply removing the compression bolts and sliding away the moveable end frame. Because the retained liquid is low, clean in-place (CIP) procedures are economical and easy to perform.

True Counterflow

Fluids flow in opposite directions resulting in greater effective temperature differences. This reduces the amount of heat transfer surface required.

Close Approach Temperatures

An important factor in regeneration and heat recovery applications is the approach temperatures of the heat transfer media. Very close approach temperatures of 1°F to 2°F are possible due to the true counterflow and high heat transfer efficiency of the plates.

Multiple Duties with a Single Unit

The plate and frame heat exchanger can heat or cool two or more fluids within the same unit by simply installing intermediate divider sections between the heat transfer plates—saving floor space and plumbing costs.

PRODUCT PROFILE

Lightweight

These heat exchangers are lighter in total weight than other types because of reduced liquid volume and less surface area for a given application.

Expandable

The expandable feature of our plate and frame heat exchangers protects against equipment obsolescence. If the heat transfer requirements change, the thermal performance can be adjusted by releasing the compression bolts, rolling back the end frame, and adding or removing plates.

High Viscosity Applications

These plate and frame heat exchangers are designed to induce turbulence at low fluid velocities providing practical application for high viscosity fluids.

Cross Contamination Eliminated

Each medium in the unit has individual gaskets. The space between gaskets is vented to atmosphere, eliminating cross contamination of fluids.

DESIGN CALCULATION REQUIREMENTS

Flow Rate [Red Box] GPM	Temperatures (°F) [Red Box] [Red Box]	Flow Rate [Blue Box] GPM
Media [Red Box] ▾		Media [Blue Box] ▾
Fluid Name [Red Box]		Fluid Name [Blue Box]
Allowable Pressure Drop [Red Box] PSI		Allowable Pressure Drop [Blue Box] PSI
Specific Heat [Red Box] BTU / LB °F		Specific Heat [Blue Box] BTU / LB °F
Density [Red Box] LB / GAL		Density [Blue Box] LB / GAL
Thermal Conductivity [Red Box] BTU / FT H °F	Heat Load [Black Box]	Thermal Conductivity [Blue Box] BTU / FT H °F
Viscosity In [Red Box] CPS	Theta Hot LMTD Theta Cold	Viscosity In [Blue Box] CPS
Viscosity Out [Red Box] CPS	Operating Pressure (PSI) Hot [Red Box] Cold [Blue Box]	Viscosity Out [Blue Box] CPS
	Design Pressure [] PSI	
	Design Temperature [] °F	

PRODUCT PROFILE