

# **HE-Series Heat Exchangers**

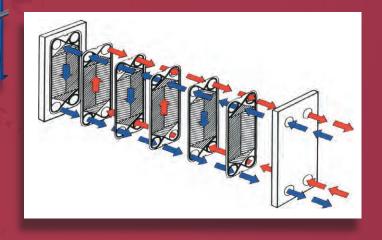
Advantage plate & frame heat exchangers are used in many applications where process cooling or heating is required for two fluids that must not be allowed to mix.

Heat exchangers are commonly used to isolate cooling tower water from the processing equipment water keeping your processing equipment clean and maintenance to a minimum.

Plate heat exchangers consist of stainless steel transfer plates that are held in place between a fixed plate and a movable pressure plate to form a complete unit. The plates are corrugated, which creates turbulence in the fluids as they flow through the unit.

Each heat transfer plate has a gasket arrangement that provides two separate channel systems preventing the two fluids from mixing. The arrangement of the gaskets results in through-flow in single channels, so that the primary and secondary fluids are in counter-current flow. Plate heat exchangers allow for plate cleaning without disconnecting process piping.

Selection software determines connection sizes, the number of plates required and overall size of the heat exchanger required to meet your specific process needs.



### **FEATURES**

- · Heavy gauge steel frame
- Corrugated stainless steel plates
- Seamless gaskets

#### **OPTIONS**

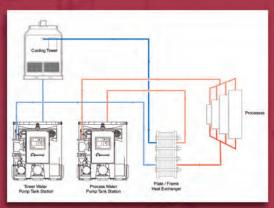
- Plumbing manifolds
- Isolation valves
- Inlet & outlet temperature and pressure gauges



#### **TYPICAL APPLICATION SCHEMATICS**

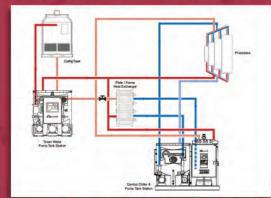
## Closed Loop Evaporative Cooling Tower System

The heat exchanger isolates the process water circuit from the tower water circuit, providing a clean and easily maintained supply of cooling water to the process.



#### Free Cooling

It is often possible during cool winter months to generate tower water much colder than the normal 85°F. A portion of this water can be directed through a heat exchanger to precool water prior to it flowing through the chiller evaporator. This reduces the load on the chiller, saving energy and wear on the chiller.



	Model	HE-5-45	HE-5-85	HE-5-105	HE-5-135	HE-5-170	HE-5-210	HE-5-270	HE-5-315	HE-5-405	HE-5-540
Capacity	Tons <sup>1</sup>	45	85	105	135	170	210	270	315	405	540
	Nominal Flow (GPM)	135	255	315	405	510	630	810	945	1,215	1,620
	Approach Temp (°F)	5	5	5	5	5	5	5	5	5	5
Connection Sizes	Process (To/From)	2	4	4	4	4	0.4	4	6	6	6
	Туре	Threaded	Studded	Studded	Studded	Studded	Studded	Studded	Studded	Studded	Studded
Unit Dimensions <sup>2</sup> (inches)	Height	36	71	71	71	71	71	71	72	72	70
	Width	13	19	19	19	19	19	19	25	25	64
	Depth	23	32	32	32	45	45	58	46	58	58
Shipping Weight <sup>3</sup> (pounds)	Shipping	376	1155	1178	1225	1317	1379	1538	2070	2318	3169
	Operating	403	1248	1289	1371	1504	1613	1859	2494	2888	3666

	Model	HE-3-45	HE-3-85	HE-3-105	HE-3-135	HE-3-170	HE-3-210	HE-3-270	HE-3-315	HE-3-405	HE-3-540
Capacity	Tons <sup>1</sup>	45	85	105	135	170	210	270	315	405	540
1000	Nominal Flow (GPM)	135	255	315	405	510	630	810	945	1,215	1,620
	Approach Temp (°F)	3	3	3 -	3	3	3	3	3	3	3
Connection Sizes	Process (To/From)	- 4	4	4	4	4	4	6	6	6	6
	Туре	Threaded	Studded	Studded	Studded	Studded	Studded	Studded	Studded	Studded	Studded
Unit Dimensions <sup>2</sup> (inches)	Height	36	71	71	71	71	71	71	72	12	70
	Width	13	19	19	19	19	19	19	25	25	89
	Depth	23	32	45	45	45	58	58	45	45	31
Shipping Weight (pounds)	Shipping <sup>3</sup>	421	1194	1301	1372	1458	1585	1717	2265	2567	3648
	Operating <sup>4</sup>	463	1317	1476	1599	1750	1941	2173	2593	3025	4362

- 1. Tons capacity at 15,000 BTU/hr per ton.
- 2. Dimensions shown are approximate. Do not use for construction.
- 3. Approximate unit dimensions and weight crated for shipment. Not for construction purposes.
- 4. Selection of certain options may change dimensions, weight and amps required. Confirm with factory before starting construction.

Since product innovation and improvement is our constant goal, all features and specifications are subject to change without notice or liability.