

• **Temperature Control Units**

Water & Oil  
30° - 500°F

• **Portable Chillers**

Air & Water-Cooled  
20° - 70°F

• **Central Chillers**

Air & Water-Cooled  
Packages & Modules  
20° - 70°F

• **Pump Tank Stations**

Chilled or Tower Water  
200 - 3600 gallons

• **Cooling Tower Cells**

45 - 540 tons

• **Filters**

• **Heat Exchangers**

• **Heat Recovery Units**

## WARRANTY

• **1 Year:**

Covering parts and labor

## HE SERIES

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

Heat exchangers are often used to isolate cooling tower water from the water in contact with your processing equipment to keep your processing equipment clean and maintenance to a minimum.

**ADVANTAGE** plate heat exchangers consist of a number 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.

The arrangement of the gaskets results in through flow in single channels, so that the primary and secondary fluids are in counter-current flow. The fluids cannot mix because of the gasket design.

**ADVANTAGE** plate heat exchangers allow for plate cleaning without disconnecting process piping.



Heat Exchanger

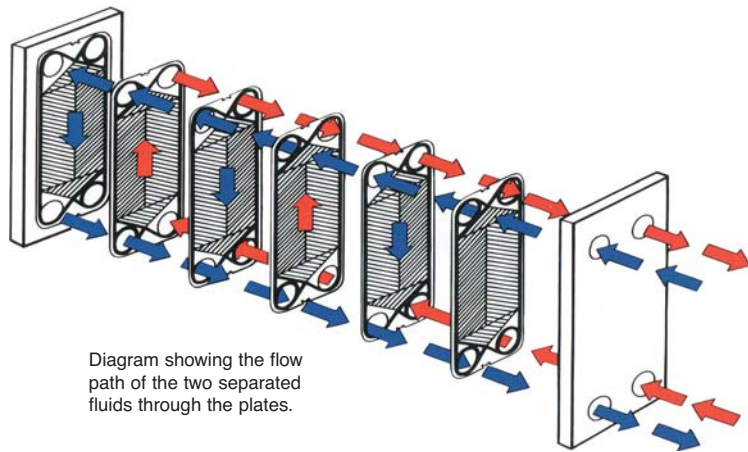


Diagram showing the flow path of the two separated fluids through the plates.



Three heat exchangers with plumbing manifold for custom system.

## APPLICATIONS

Heat exchangers can be used on a variety of process applications.



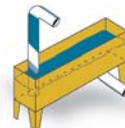
Molds & Dies



Nozzles, Barrels & Tools



Heat Exchangers



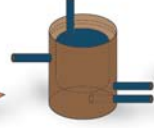
Troughs & Tanks



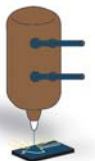
Rolls



Radiators and Air Coils



Jacketed Vessels and Mixers



Lasers

# SPECIFICATIONS

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	215	405	510	630	810	945	1,215	1,620
	Delta T	5	5	5	5	5	5	5	5	5	5
Connection Sizes	Process (To / From)	4	4	4	4	4	4	6	6	6	6
Dimensions <sup>2</sup> (inches : approximate)	Height	43	43	43	43	43	43	62	62	62	62
	Width	49	19	19	19	19	19	24	24	24	24
	Depth	18	25	41	41	41	56	54	54	62	81
Weight (pounds)	Shipping <sup>3</sup>	600	700	770	840	920	1,355	2,310	2,400	2,650	3,050

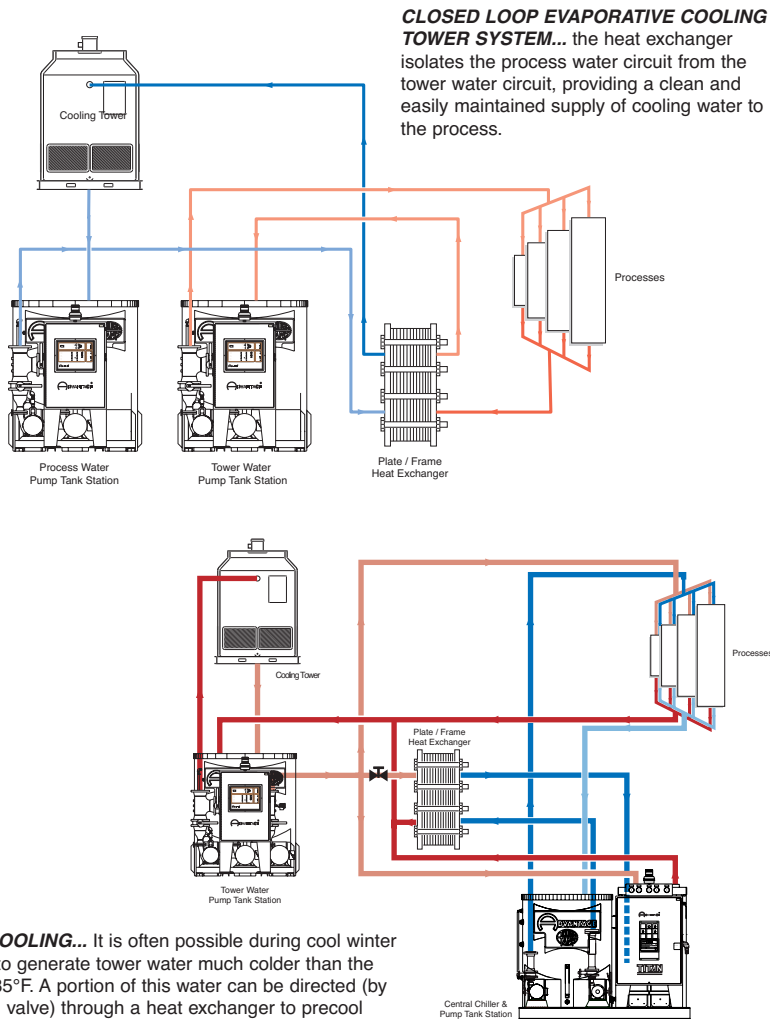
Model		HE-3-45	HE-3-85	HE-3-105	HE-3-135	HE-3-170	HE-3-210	HE-3-270	HE-3-315	HE-3-405	HE-3-540
Capacity	Tons <sup>1</sup>	45	85	105	135	170	210	270	315	405	540
	Nominal Flow (GPM)	135	255	315	405	510	630	810	945	1,215	1,620
	Delta T	3	3	3	3	3	3	3	3	3	3
Connection Sizes	Process (To / From)	4	4	4	4	4	6	6	6	6	6
Dimensions <sup>2</sup> (inches : approximate)	Height	68	68	68	68	68	77	77	77	77	77
	Width	19	19	19	19	19	24	24	24	24	24
	Depth	18	25	25	41	41	46	54	62	81	101
Weight (pounds)	Shipping <sup>3</sup>	995	1,145	1,210	1,365	1,500	2,255	2,500	2,685	3,100	2,675

**Notes:**

1. Tons capacity at 15,000 BTU/hr per ton.
2. Dimensions shown are approximate. Do not use for construction.
3. Weight crated for shipment.

**Also note:** Heat exchangers are often sourced from several different vendors in order to provide the best cost to performance ratio which may change dimensions and connection sizes.

## TYPICAL CIRCUIT SCHEMATICS



**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 (by a control valve) through a heat exchanger to precool water prior to it flowing through the chiller evaporator. This reduces the load on the chiller, saving energy.

## STANDARD FEATURES

- Heavy gauge steel frame
- Corrugated plates
- Seamless gaskets

## OPTIONS

- Plumbing manifolds
- Isolation valves
- Inlet and outlet temperature and pressure gauges
- Nickel plated



Phone: 317-887-0729 Web: [www.AdvantageEngineering.com](http://www.AdvantageEngineering.com)

TEMPERATURE CONTROLLERS • PORTABLE CHILLERS • CENTRAL CHILLERS • PUMP TANK STATIONS • TOWER SYSTEMS • FILTERS

ADVANTAGE ENGINEERING, INC. 525 East Stop 18 Road Greenwood, IN 46142 phone: 317-887-0729 fax: 317-881-1277  
 web site: [www.AdvantageEngineering.com](http://www.AdvantageEngineering.com) email: [sales@AdvantageEngineering.com](mailto:sales@AdvantageEngineering.com) ©2007 ADVANTAGE ENGINEERING, INC. Form #ADV-639 8/07

SINCE PRODUCT INNOVATION AND IMPROVEMENT IS OUR CONSTANT GOAL, ALL FEATURES AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE OR LIABILITY.