

Heat Transfer Products



American Wheatley HVAC Products offers a complete line of Shell & Tube, Plate & Frame,
and Brazed Plate Heat Exchangers

Shell & Tube Heat Exchangers

American Wheatley HVAC Products offers ASME shell & tube heat exchangers available in sizes 4” through 30”.

Features:

- Constructed in accordance with ASME Section VIII
- U-Tube construction
- High degree of flexibility in materials to meet varying conditions
- Available in 2, 4, or 6 pass construction
- All fabrication done in-house
- National board registration
- Designed and constructed to ASME requirements
- CRN registration (optional)
- Computerized selections

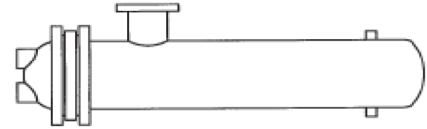
Pressure Ratings:

	Standard	Optional
Tubes	150 psig	400 psig
Shell	150 psig	250 psig
Test Pressure	300 psig	
Max. Temperature	375°F	450°F

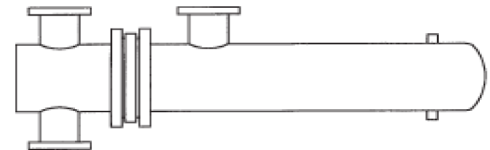
Bill of Materials:

	Standard	Optional
Shell	Steel	304SS, 316SS
Head	4"-10" Cast Iron	Fabricated Steel Cast Bronze,
		Fabricated 304SS/316SS
	12"x30" Fabricated Steel	Fabricated 304SS/316SS
Tubes	3/4 x 20 BWG Copper	3/4 x 18 BWG Copper, Steel, 316SS, 90/10 CuNi, Admiralty
Tube Sheet	Steel	Bronze, Brass, 304SS, 316SS, 90/10 CuNi
Separators	Steel	Bronze, Brass, 304SS, 316SS, 90/10 CuNi
Tie Rods	Copper	304SS/316SS
Nuts & Bolts	Steel	

Steam to Liquid

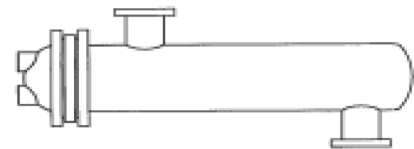


4" - 10"

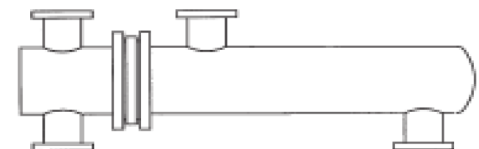


12" - 30"

Liquid to Liquid



4" - 10"



12" - 30"

PLATE & FRAME HEAT EXCHANGERS

American Wheatley offers a full range of plate & frame heat exchangers which affords higher efficiencies, lower fouling, and modular construction that can easily be field modified.

Features:

- Stainless Steel plates with port diameter sizes from 1" to 20" (5 - 15,000 GPM)
- Plate materials of construction in 304 / 316 SS, Titanium, 254 SMO, or Stainless Steel
- Up to 15,000 sq feet in a single frame
- Design Pressures from 150 to 400 PSIG
- Designed to ASME Code Section VIII, Div.1, ASME Stamped & National Board registered
- ARI Certified to Standard 400
- Gaskets in Nitrite (NBR), EPDM or Viton
- Free-Flow (Wide-Gap)
- Welded Cassette
- Double Wall plate designs
- Copper or Nickel brazed stainless steel units

HIGHER EFFICIENCIES:

- 1/3 - 1/2 the surface area required by S&T
- 2°F approach temperatures
- 90% heat recovery
- Suitable for temperature crosses

LOWER FOULING:

- High turbulence & shear reduce fouling
- No dead spots
- 1/10 S&T design fouling factors
- Above results verified by HTRI & HTFS

MODULAR CONSTRUCTION

- Expandable for capacity increases & upgrades
- Easily modified for another service
- On-site field assembly (even in skyscrapers)



Brazed Plate Heat Exchangers

Materials of Construction:

Plates and connections are made of AISI 316 SS. Brazing material is either copper or nickel.

Construction:

Pressed metal plates are assembled in a plate pack with the chevron pattern reversed in every other plate. The ridges of pattern intersect on adjacent plates - Forming a lattice of contact points. Each adjacent pair of plates forms a channel. The stainless steel plates are the brazed with copper or nickel in a high temperature vacuum furnace.

Operation:

The hot and cold media are in counter-current flow to each other in alternate channels. The plate pattern induces intense turbulence in the hot & cold passages - resulting in a high heat transfer coefficient and low fouling tendencies.



Features:

- Cu or Ni Brazed
- 316SS Plates
- Double Wall Designs
- Port Sizes up to 4"

Residential & Commercial Applications

Domestic Hot Water

Hot Water-heat from 40° F to 140°F
using boiler water @180°F

BRAZED DATA		DOMESTIC WATER		BOILER	
Model	Capacity	Flow	Pressure Loss	Flow	Pressure Loss
Units:	Btu/hr	GPM (max.)	psi	GPM (max)	psi
AW25-18	150,000	3	2.4	7	8.0
AW37-2-14	348,600	5	1.0	13	6.0
AW37-2-40	496,300	10	0.5	34	6.0
AW37-2-48	745,000	15	0.7	51	8.6
AW37-3-80	992,600	20	0.5	68	6.8

Snowmelt

30% Glycol Solution-heat from 100° F to 130° F using boiler water @ 180° F

BRAZED DATA		GLYCOL		BOILER	
Model	Capacity	Flow	Pressure Loss	Flow	Pressure Loss
Units:	Btu/hr	GPM (max.)	psi	GPM (max)	psi
AW37-2-14	139,400	10	5.0	10	3.7
AW37-2-40	418,300	30	4.8	30	4.5
AW75-3-32L	557,700	40	1.8	40	1.7
AW75-3-32L	697,100	50	2.9	50	2.7
AW75-3-40L	836,600	60	3.2	60	3.1
AW75-3-60L	1,115,400	80	4.0	80	3.9
AW150-3-20L	1,400,000	100	6.8	100	5.7