

Heat Exchangers

Plates and Frames

FFW AHRI

Shell and Tube

W & S

Brazed

FFB



www.flofab.com

001-cat-2016-he

Go to www.flofab.com in Our Products Section to see the Master Spec - <http://www.arcomnet.com/masterspec/>

TABLE OF CONTENTS

PLATES AND FRAMES - PRODUCT SPECIFICATIONS.....	2
PLATES AND FRAMES - TYPICAL SPECIFICATIONS.....	3
PLATES AND FRAMES - GRID, CONNECTION TYPES, DESIGN LIMITS.....	4
PLATES AND FRAMES - SAVINGS EXPLANATIONS.....	5
SHELL AND TUBES - PRODUCT SPECIFICATIONS.....	6
SHELL AND TUBES - TYPICAL SPECIFICATIONS/ NOMENCLATURE.....	7
SHELL AND TUBES - GRID FOR "S" MODELS.....	8-12
SHELL AND TUBES - GRID FOR "SE" MODELS.....	13-17
SHELL AND TUBES - GRID FOR "W" MODELS.....	18-22
SHELL AND TUBES - GRID FOR "WF" MODELS.....	23-27
NEW GENERATION :	
SHELL AND TUBES - GRID FOR "S" MODELS.....	28-30
SHELL AND TUBES - GRID FOR "W" MODELS.....	31-33
SHELL AND TUBES - TYPICAL "S" CONNECTIONS SIZE AND TYPES.....	34
SHELL AND TUBES - TRANSFER SOLUTION.....	35
SHELL AND TUBES - SAVINGS EXPLANATIONS.....	36
BRAZED - FFB SERIES - PRODUCT SPECIFICATIONS.....	37
BRAZED - FFB SERIES - PRODUCT DIMENSIONS.....	38

HISTORY

Flo Fab was established in 1981 by Denis Gauvreau who created and developed the products line and constantly being perfected by Marc Gauvreau, as well as by a team of professional engineers and designers. It's a combination of existing designs from several renowned products and the innovative ideas of a new generation professionals.

Through the years, Flo Fab has acquired several companies and service entities including : AQUA-PROFAB (ASME Tanks manufacturer), MÉNARD, LÉONARD ÉLECTRIQUE, PMA. , Furthermore Flo Fab purchased equipment, fabrication designs and patterns from IDEALCO, a manufacturer of shell and tube type heat exchangers.

The after sales services, sales, engineering, R&D, production, quality control, accounting and administration departments of all the above companies share the same location.

In December 2014, Marc Gauvreau, son of the founder, acquired all shares of The company. Flo Fab and is constantly investing in new state of the art innovations new product like the XRI series and Prefab Skid for Hydronic Heating 8 cooling system, pumping systems. This has allowed Flo Fab to retain competent and experienced staff of professionals with varied and specialized abilities that constantly work on improving our existing products and add new engineered solutions that exceeding customer's expectations . Flo Fab has grown quite rapidly and now proudly offers of a wide range of products available directly from one manufacturer. This includes pumps & pump packages, tanks, heat exchangers & hydronic accessories. This allows each project stakeholders to enjoy economical savings, peace of mind, best value for their investment and optimized total cost of ownership.



● Product Specifications

FFW Series

PLATE HEAT EXCHANGERS WITH GASKETS

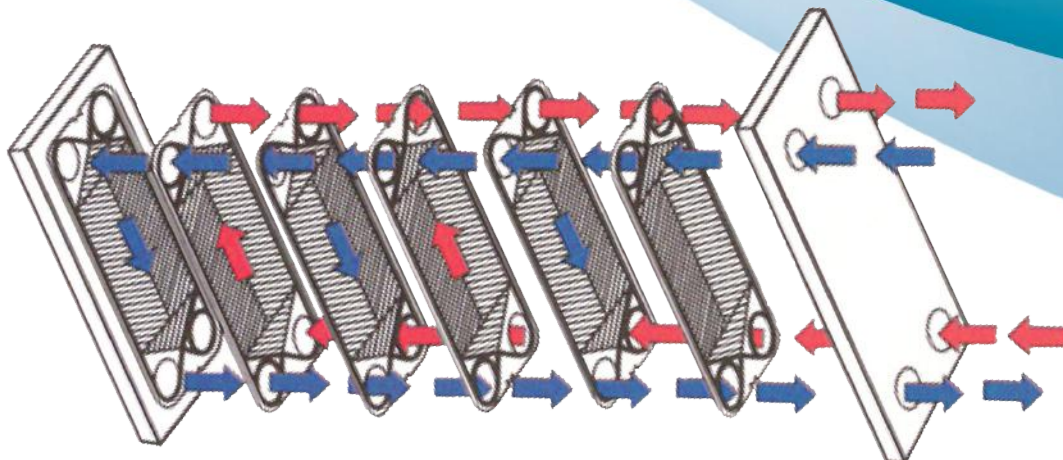
Water is the most effective media for heat transfer. In typical HVAC installations, primary loops circulate water throughout a building to transport energy from the source to the building load. A chiller or central cooling source is used to remove heat and a boiler or central heating source is used to add heat to these primary loops. Heat exchangers transfer heat from the building's primary loops to secondary loops and can also serve as a separation device to reduce system costs. These loops can serve auxiliary equipment like heating or cooling secondary systems, potable water heating, and pool water heating systems. Secondary loops provide better temperature control, differentiated system operating pressures, separation of water and glycol loops, separation of primary water and potable water loops, and separation of potentially contaminated open systems to closed loops. In all cases, the heat exchanger is relied on to transfer as much heat as possible at the lowest cost.

HOW IT WORKS ?

The Flo Fab heat exchanger consists of stamped plates designed to maximize heat transfer. Gaskets are fixed between the plates to contain the two separate fluids. These fluids flow alternately between every other plate, counter-flowing to produce the greatest rate of heat transfer and provide the closest temperature approach to the incoming cold fluid. The stamped plates use enhanced surface area flow to create scrubbing turbulence that increase the U-coefficient and increases heat transfer.

The heat transfer plates are typically stainless steel or titanium and vary in thickness from 0.4mm to 0.6mm. This allows for tailored designs of all pressures and corrosion allowances for any job. Glueless gaskets are made from specialty elastomers and applied to the plates with an integrated clip for a clean, reliable installation. The plates and gaskets are then constrained by a heavy-duty base frame that is ASME—certified to stringent pressure vessel standards.

Heat transfer plates are available in many lengths, widths, connection sizes, thicknesses and stamped configurations that create various depths and angles to maximize heat transfer and reduce installed cost. The most common plate angles are 30° and 60°. The 30° plate creates a tortuous path for greater heat transfer, but with a higher pressure drop than the 60° plate. FloFab' sizing software will calculate the optimum heat transfer plate and plate sequencing for any application.





- FFW Series

MATERIALS OF CONSTRUCTION

PLATES:

Stainless Steel (304SS and 316SS)
and Titanium

GASKETS:

Nitrile, EPDM

CERTIFICATION

SAFETY:

ASME for pressure vessels
CRN for Canadian Registration
AHRI upon Request




TYPICAL SPECIFICATIONS

Furnish and install, as shown on plans, a Flo Fab model _____ to heat or cool with the capacity and pressure/temperature rating as detailed in the schedule. The heat exchanger must be constructed with most recent addendum of Section VIII of the ASME Boiler and Pressure Vessel Code.

Each heat exchanger shall be Flo Fab Model _____ or approved equal.

“With over 35 years of experience in pressure vessel design and manufacture, our goal is to provide sustainable **energy saving solutions** that help make a greener HVAC world.”



Lower Air Conditioning Costs

The Flo Fab heat exchanger can result in 30% annual energy savings for cooling when used as a water side economizer to supplement or replace a mechanical chiller. The greatest savings are realized at installations that have year-round chilled water requirements such as data centers and hospitals.

Lower Pumping Costs

Flo Fab uses only the most efficient heat transfer plate designs to maximize temperature cross and allow the closest approach temperatures that ensure the greatest percentage of heat recovery. The shape of the corrugation in FloFab heat transfer plates maintains high turbulence at lower velocities, which allows lower flows to have high rates of heat transfer. This improved efficiency, coupled with the advantages of variable speed pumping, can result in tremendous energy savings.

The energy used by the pump serving the heat exchanger can be reduced as much as 50% by lowering the pressure drop and/or the flow through the heat exchanger while maintaining the required amount of heat transfer.

Lowest installed Cost

Flo Fab heat exchangers are less expensive, more compact, and easier to install because they utilize only the most efficient heat transfer plate designs. Connections are on the fixed end to reduce first cost installation and increase serviceability. The units are fully assembled and ASME hydrostatically tested. Flo Fab can then be disassembled for delivery through a small opening and reassembled on site.

Low Risk

All units come certified by the appropriate safety code (ASME, CRN, etc.). Every Flo Fab heat exchanger is sized with 20% excess plate capacity so plates can be added to increase the system performance. Heat transfer plates are corrosion resistant materials. The gaskets are vented to the outside so there is no cross contamination between fluids. If a gasket fails, for potable water applications, double wall heat transfer plates are used to prevent cross contamination if there is a breach of a plate. Every unit is provided with a safety shield that surrounds the plates and gaskets.

Less Maintenance

All heat exchangers require preventative maintenance and service. Flo Fab exchangers are designed for easy serviceability. All plate hanging surfaces are stainless steel so plates slide easily. Heat transfer plates have either corner inter-locking tabs or a live point alignment system to make closing and sealing the unit consistent. Glue-free gaskets secure around the outer edge of the heat transfer plate. This design allows for the ability to perform a visual check to confirm the gasket is in the proper location for best sealing and trouble free operation.



● Product Specifications

S & W Series

Steam and water are effective media for transferring heat. In typical HVAC heat applications, steam or hot water primary loops distribute heat from the central boiler out to secondary loops through U-tube style heat exchangers. Heat exchangers transfer heat from the building's primary loops to secondary loops and can also serve as separation devices to reduce system costs. These loops serve auxiliary equipment like heating systems, potable water heating and pool water heating. The heat exchangers provide better temperature control, differential system operating pressures and separation of steam, water, glycol and potable water systems. In all cases, the heat exchanger is relied on to transfer as much heat as possible at the lowest cost.

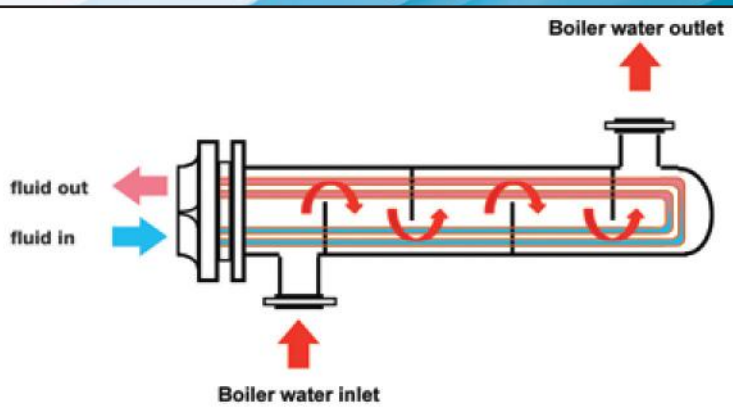
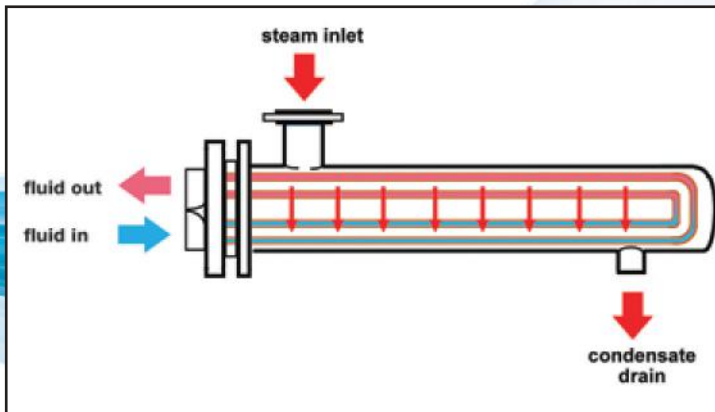
How it works

The Flo Fab' shell and tube heat exchanger consists of two sides for two different fluids. The Tube Side fluid flows inside the tubes and is diverted by the heat exchanger head located on the end into two or four passes or circuits. The Shell Side fluid flows on the outside of the tubes and is contained by the shell where it is diverted by baffles or tube supports that also carry the weight of the tubes. The wall of the tubes is the heat transfer surface. The tube bundle consists of U-shaped tubes confined at one end by the tube sheet that separates the two fluids. The tube bundle is assembled into a steel shell and head that forms a two sided heat exchanger.

Flo Fab' shell and tube heat exchangers comes in two different configurations depending on the shell side fluid:

S Steam in Shell

W Boiler Water in Shell



The S works by introducing steam (water vapor) into the shell where it naturally distributes across the outer tube surface and condenses and heats the water inside the tubes. The condensate exits through a drain in the shell. Tube supports carry the weight of the tubes and do not divert the steam.

The W works by introducing boiler water into the shell where it is diverted back and forth across the tube surface by baffles, heating the water inside the tubes. The distance between the baffles is called the «battle spacing,» which controls the rate of heat transfer and pressure drop of the shell side fluid.

Materials of Construction

TUBES
Standard: Cooper // Option:Stainless.90/10 Cu Ni

SHELL
Standard: Steel // Option:Stainless

TUBESHEETS
Standard: Steel // Option:Stainless, Brass, 90/10 Cu Ni

HEADS
Standard: Cast Iron // Option: Steel, Stainless

Certification

SAFETY
ASME for pressure vessels
CRN for Canadian Registration

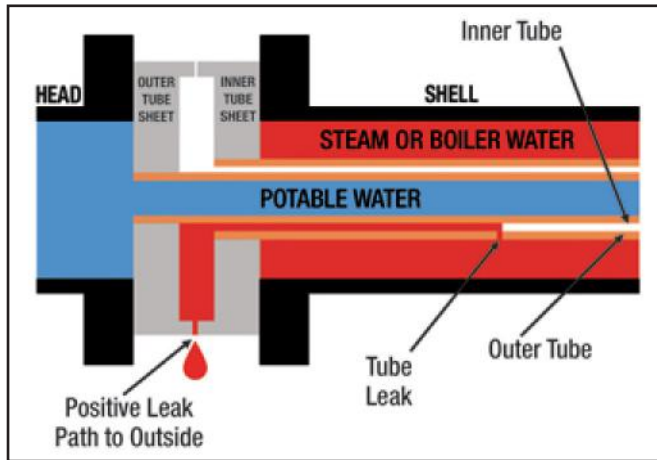
Design Limits

TUBE SIDE:
Standard: 125 // Option: 150, 300, 400 PSI
400°F - 204°C
SHELL SIDE:
Standard: 150 // Option: 300 PSI
375°F - 190°C

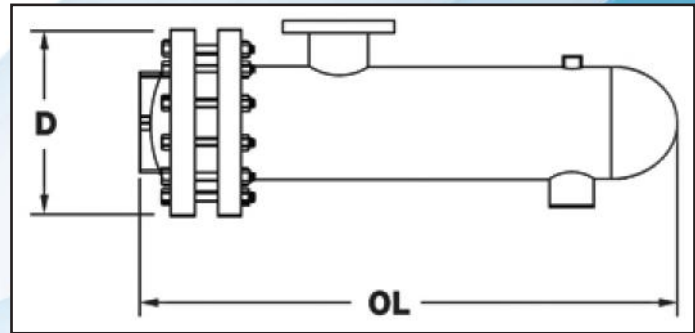
● **Product Specifications**

SDW & WDW Series

SDW/WDW Double Wall



The SDW and WDW are made with inner and outer double tubes and double tube sheets that provide a positive leak path between the two fluids. This design prevents the cross-contamination of the potable water by the surrounding steam or treated boiler water.



NOMENCLATURE

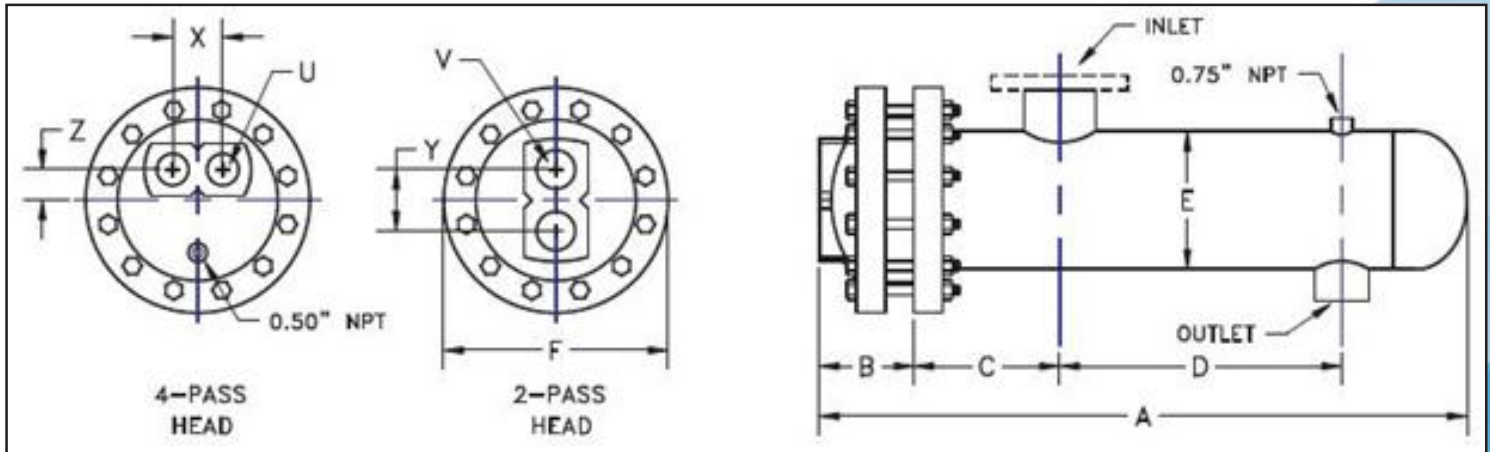
- S** = Steam to Liquid
- W** = Liquid to Liquid
- E** = Extended Shell
- F** = Head Flanged
- TH** = Tank Heater Single and Double
- DW** = Double Wall

Please note that the models SDW & WDW are available upon request.



SHELL AND TUBE - HEAT EXCHANGERS

Typical S Capacities & Dimensions



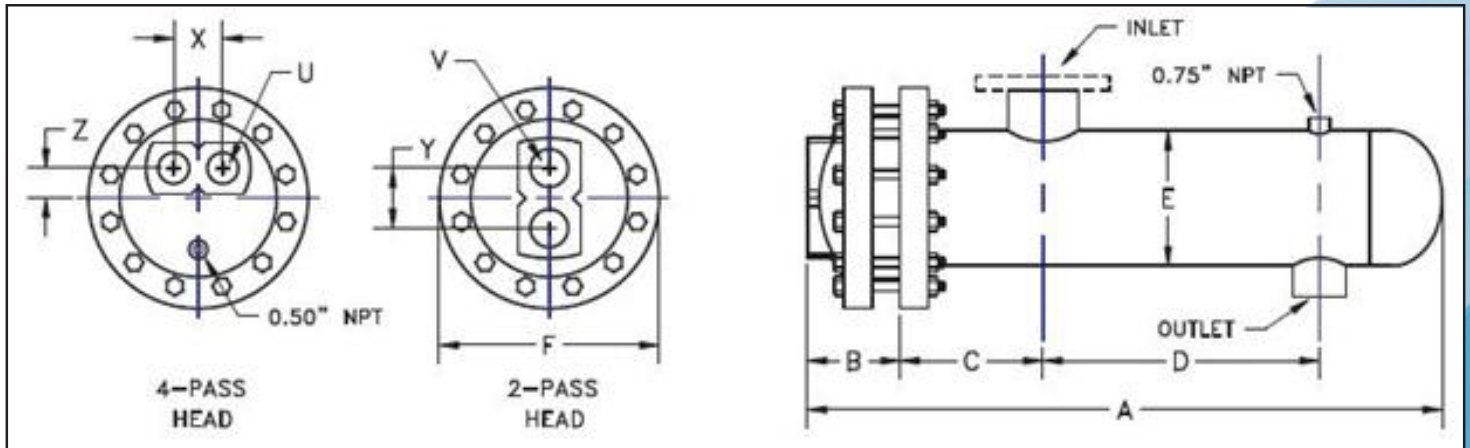
√	Size	Dimensions						-2 pass	Conn Size	-4 Pass		Conn Size	Steam In	Cond Out	
		A	B	C	D	E	F	LBS	Y	V	X	Z	U	NPT	NPT
	S-0402	27.9	2.6	4.8	15.8	4.5	7.3	60	2.6	1.25	2.3	1.0	1	2	1
	S-0403	39.9	2.6	4.75	27.8		7.3	76	2.6	1.25	2.3	1.0	1	2	1
	S-0404	51.9	2.6	4.75	39.8		7.3	92	2.6	1.25	2.3	1.0	1	2	1
	S-0405	63.9	2.6	4.75	51.8		7.3	108	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0406	75.9	2.6	4.75	63.8		7.3	124	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0407	87.9	2.6	4.75	75.8		7.3	140	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0408	99.9	2.6	4.75	87.8		7.3	156	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0409	111.9	2.6	4.75	99.8		7.3	172	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0410	123.9	2.6	4.75	111.8		7.3	186	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0411	135.9	2.6	4.75	123.8		7.3	200	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0412	147.9	2.6	4.75	135.8		7.3	214	2.6	1.25	2.3	1.0	1	2.5	1.25
	S-0602	28.6	3.3	5.3	15		6.63	10.5	132	3.8	2	4.0	2.0	2	1.5
	S-0603	40.6	3.3	5.3	27	10.5		159	3.8	2	4.0	2.0	2	2	1
	S-0604	52.6	3.3	5.3	39	10.5		186	3.8	2	4.0	2.0	2	2.5	1
	S-0605	64.6	3.3	5.3	51	10.5		213	3.8	2	4.0	2.0	2	2.5	1
	S-0606	76.6	3.3	5.3	63	10.5		240	3.8	2	4.0	2.0	2	3	1
	S-0607	88.6	3.3	5.3	75	10.5		267	3.8	2	4.0	2.0	2	3	1
	S-0608	100.6	3.3	5.3	87	10.5		294	3.8	2	4.0	2.0	2	3	1
	S-0802	29.1	3.7	6.4	13	8.63		12.5	220	5.0	3	4.0	2.0	2	2
	S-0803	41.1	3.7	6.4	25		12.5	260	5.0	3	4.0	2.0	2	2.5	1
	S-0804	53.1	3.7	6.4	37		12.5	300	5.0	3	4.0	2.0	2	3	1
	S-0805	65.1	3.7	6.4	49		12.5	340	5.0	3	4.0	2.0	2	4*	1
	S-0806	77.1	3.7	6.4	61		12.5	380	5.0	3	4.0	2.0	2	4*	1.25
	S-0807	89.1	3.7	6.4	73		12.5	420	5.0	3	4.0	2.0	2	4*	1.25
	S-0808	101.1	3.7	6.4	85		12.5	460	5.0	3	4.0	2.0	2	6*	1.25

Add 1/4 to dimension B for Double Wall

*indicates ANSI type connections

DESIGN CONDITIONS(S4,S6 & S8)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	150 Psig	150 Psig	
TEST PRESSURE	195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	

Typical S Capacities & Dimensions



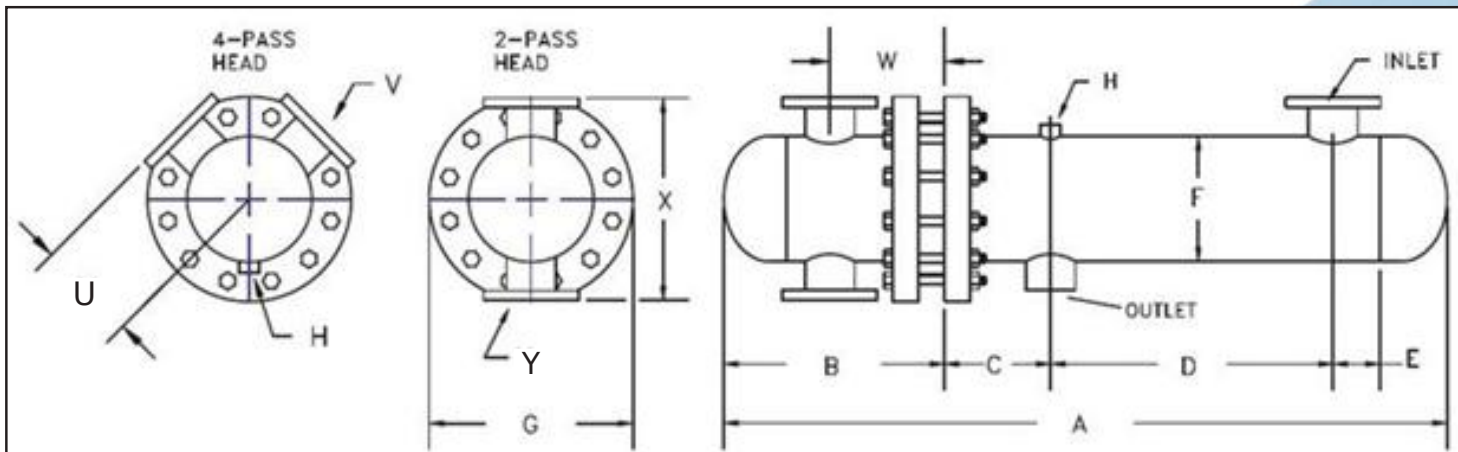
✓	Size	Dimensions						-2 pass	Conn Size	-4 Pass		Conn Size	Steam In	Cond Out	
		A	B	C	D	E	F			LBS	Y				V
	S-1002	30	4.8	6.6	12.5	10.8	14.6	340	5.8	4	4.8	2.4	3	4	1.5
	S-1003	42	4.8	6.6	24.5		14.6	400	5.8	4	4.8	2.4	3	4	1.5
	S-1004	54	4.8	6.6	36.5		14.6	460	5.8	4	4.8	2.4	3	6	2
	S-1005	66	4.8	6.6	48.5		14.6	520	5.8	4	4.8	2.4	3	6	2
	S-1006	78	4.8	6.6	60.5		14.6	580	5.8	4	4.8	2.4	3	6	2
	S-1007	90	4.8	6.6	72.5		14.6	640	5.8	4	4.8	2.4	3	6	2
	S-1008	102	4.8	6.6	84.5		14.6	700	5.8	4	4.8	2.4	3	6	2
	S-1009	114	4.8	6.6	96.5		14.6	760	5.8	4	4.8	2.4	3	6	2
	S-1010	126	4.8	6.6	108.5		14.6	820	5.8	4	4.8	2.4	3	6	2
	S-1203	42.8	5.6	7.8	22.8		12.8	16.6	565	7.4	4	5.9	2.6	4	6
	S-1204	54.8	5.6	7.8	34.8	16.6		670	7.4	4	5.9	2.6	4	6	2
	S-1205	66.8	5.6	7.8	46.8	16.6		775	7.4	4	5.9	2.6	4	6	2
	S-1206	78.8	5.6	7.8	58.8	16.6		880	7.4	4	5.9	2.6	4	8	2
	S-1207	90.8	5.6	7.8	70.8	16.6		985	7.4	4	5.9	2.6	4	8	2.5
	S-1208	102.8	5.6	7.8	82.8	16.6		1090	7.4	4	5.9	2.6	4	8	2.5
	S-1209	114.8	5.6	7.8	94.8	16.6		1195	7.4	4	5.9	2.6	4	8	2.5
	S-1210	126.8	5.6	7.8	106.8	16.6		1300	7.4	4	5.9	2.6	4	8	2.5
	S-1211	138.8	5.6	7.8	118.8	16.6		1405	7.4	4	5.9	2.6	4	8	2.5
	S-1212	150.8	5.6	7.8	130.8	16.6		1510	7.4	4	5.9	2.6	4	8	2.5
	S-1403	43.8	6.2	8.3	38	14	18	695	8	6	5.9	3.3	4	8	2
	S-1404	55.8	6.2	8.3	50		18	815	8	6	5.9	3.3	4	8	2
	S-1405	67.8	6.2	8.3	62		18	935	8	6	5.9	3.3	4	8	2.5
	S-1406	79.8	6.2	8.3	74		18	1055	8	6	5.9	3.3	4	8	2.5
	S-1407	91.8	6.2	8.3	86		18	1180	8	6	5.9	3.3	4	8	2.5
	S-1408	103.8	6.2	8.3	98		18	1300	8	6	5.9	3.3	4	8	2.5
	S-1409	115.8	6.2	8.3	110		18	1420	8	6	5.9	3.3	4	8	2.5
	S-1410	127.8	6.2	8.3	122		18	1540	8	6	5.9	3.3	4	8	2.5
	S-1411	139.8	6.2	8.3	134		18	1661	8	6	5.9	3.3	4	8	2.5
	S-1412	151.8	6.2	8.3	146		18	1781	8	6	5.9	3.3	4	8	2.5

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (S10,S12/S14)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	125/150 Psig	150 Psig	
TEST PRESSURE	163/195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



Typical S Capacities & Dimensions

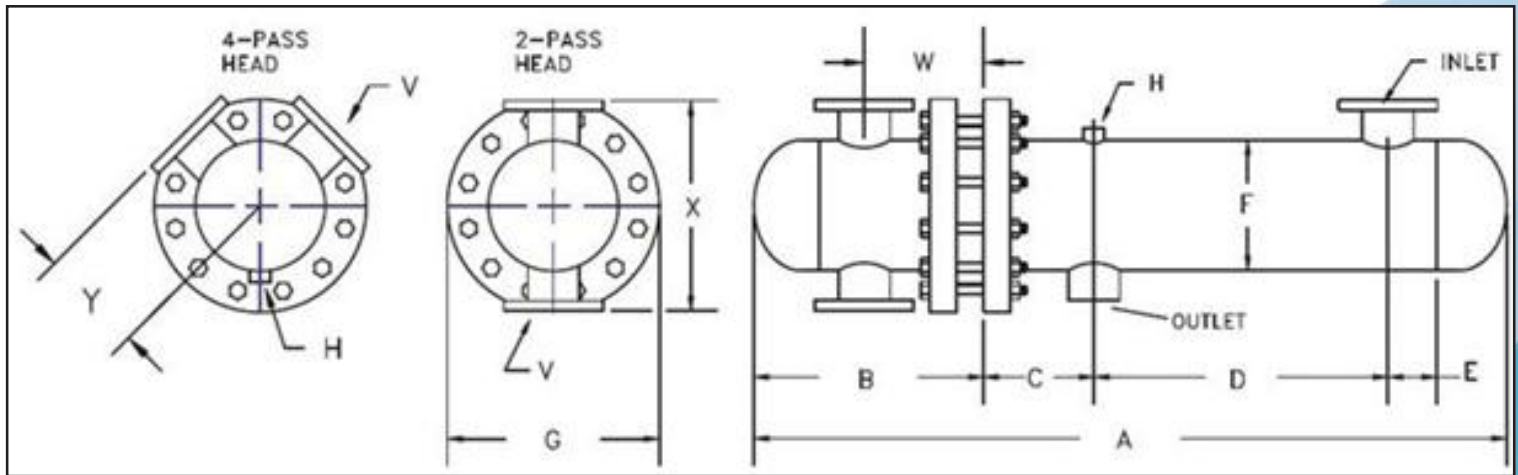


√	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out	
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	ANSI	
	S-22																
This Section is Intentionally Left Blank For Futur Data																	
	S-2403	76	24.5	6.5	32.5	24	28	NPT	12	1985	36.0	10	18.0	8	10	3	
	S-2404	88	24.5	6.5	44.5				12	2248	36.0	10	18.0	8	10	3	
	S-2405	102	24.5	6.5	57.5				12	2518	36.0	10	18.0	8	12	4	
	S-2406	114	24.5	6.5	69.5				12	2845	36.0	10	18.0	8	12	4	
	S-2407	127	24.5	6.5	82.3				12	3272	36.0	10	18.0	8	14	4	
	S-2408	141	24.5	7.5	94.3				12	3828	36.0	10	18.0	8	16	6	
	S-2409	153	24.5	7.5	106.3				12	4632	36.0	10	18.0	8	16	6	
	S-2410	165	24.5	7.5	118.3				12	5095	36.0	10	18.0	8	16	6	
	S-2411	179	24.5	8.5	130				12	5570	36.0	10	18.0	8	18	8	
	S-2412	191	24.5	8.5	142				12	6044	36.0	10	18.0	8	18	8	
	S-2603	80.5	28.3	6.5	32.5	26	31	NPT	13.5	2510	38.0	12	19.0	8	10	3	
	S-2604	94.5	28.3	6.5	45.5				13.5	2810	38.0	12	19.0	8	12	4	
	S-2605	106.5	28.3	6.5	57.5				13.5	3120	38.0	12	19.0	8	12	4	
	S-2606	119.5	28.3	6.5	70				13.5	3495	38.0	12	19.0	8	14	4	
	S-2607	133.5	28.3	7.5	82				13.5	3950	38.0	12	19.0	8	16	6	
	S-2608	145.5	28.3	7.5	94				13.5	4540	38.0	12	19.0	8	16	6	
	S-2609	159.5	28.3	7.5	107				13.5	5310	38.0	12	19.0	8	18	6	
	S-2610	171.5	28.3	7.5	119				13.5	6425	38.0	12	19.0	8	18	6	
	S-2611	183.5	28.3	7.5	131				13.5	7030	38.0	12	19.0	8	18	6	
	S-2612	197.5	28.3	8.5	142.8				13.5	7635	38.0	12	19.0	8	20	6	

Add 1/4 to dimension B for Double Wall



Typical S Capacities & Dimensions



√	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	ANSI
	S-2803	84	29	6.5	33.8	28	33	NPT	14.3	3130	40	12	20	10	12	4
	S-2804	96	29	6.5	45.8				14.3	3515	40	12	20	10	12	4
	S-2805	109	29	6.5	58.5				14.3	3900	40	12	20	10	14	4
	S-2806	123	29	7.5	70.5				14.3	4370	40	12	20	10	16	6
	S-2807	135	29	7.5	82.5				14.3	4935	40	12	20	10	16	6
	S-2808	149	29	7.5	95.5				14.3	5675	40	12	20	10	18	6
	S-2809	161	29	7.5	107.5				14.3	6640	40	12	20	10	18	6
	S-2810	175	29	7.5	120.5				14.3	8035	40	12	20	10	20	6
	S-2811	189	29	8.5	132.5				14.3	8790	40	12	20	10	22	8
	S-2812	201	29	8.5	144				14.3	9540	40	12	20	10	22	8

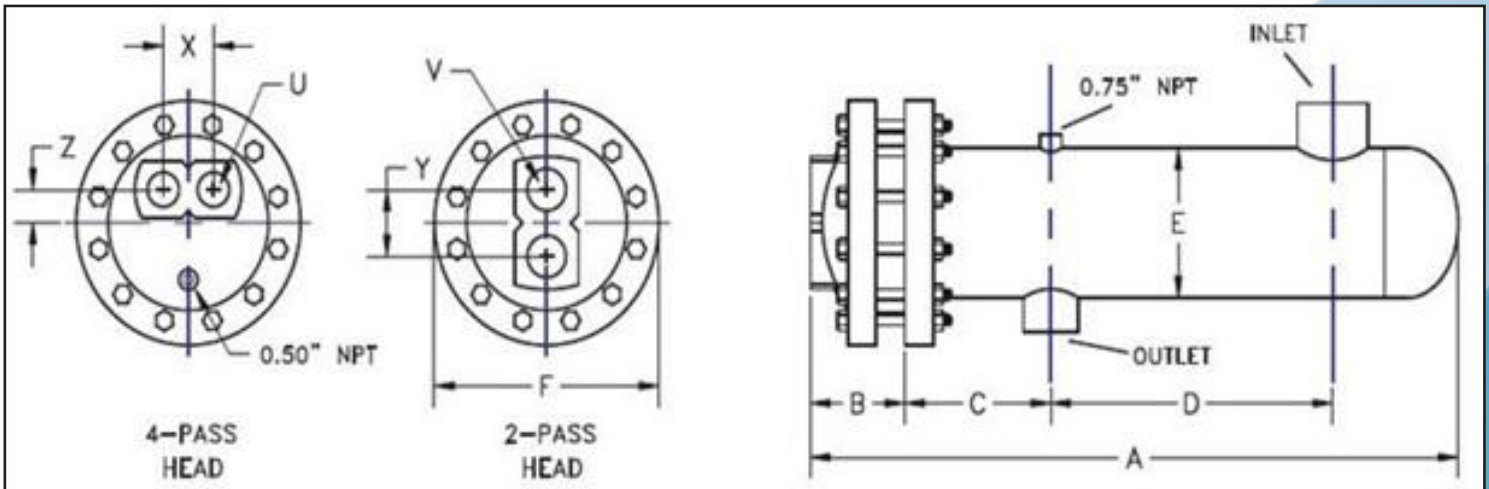
Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (S16 to S28)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	150 Psig	150 Psig	
TEST PRESSURE	195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



SHELL AND TUBE - HEAT EXCHANGERS

Typical SE Capacities & Dimensions



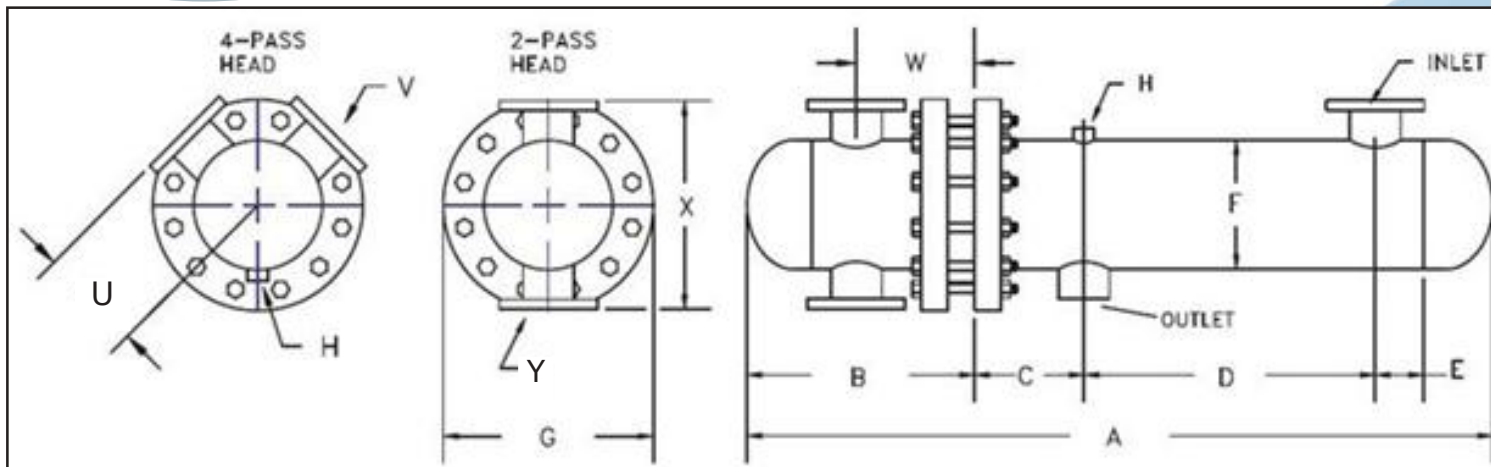
√	Size	Dimensions						LBS	-2 pass	Conn Size	-4 Pass		Conn Size	Steam In	Cond Out
		A	B	C	D	E	F		Y	V	X	Z	U	NPT	NPT
	SE-04														
<i>This Section is Intentionally Left Blank For Futur Data</i>															
	SE-0602	36.8	3.3	4.0	23	6.6	10.5	132	3.8	2	4.0	2.0	2	1.5	1
	SE-0603	48.8	3.3	4.0	35		10.5	159	3.8	2	4.0	2.0	2	2	1
	SE-0604	60.8	3.3	4.0	47		10.5	186	3.8	2	4.0	2.0	2	2.5	1
	SE-0605	72.8	3.3	4.0	59		10.5	213	3.8	2	4.0	2.0	2	2.5	1
	SE-0606	84.8	3.3	4.0	71		10.5	240	3.8	2	4.0	2.0	2	3	1
	SE-0607	96.8	3.3	4.0	83		10.5	267	3.8	2	4.0	2.0	2	3	1
	SE-0608	108.8	3.3	4.0	95		10.5	294	3.8	2	4.0	2.0	2	3	1
	SE-0802	40.5	3.7	6.4	24.5	8.63	12.5	220	5.0	3	4.0	2.0	2	2	1
	SE-0803	52.5	3.7	6.4	36.5		12.5	260	5.0	3	4.0	2.0	2	2.5	1
	SE-0804	64.5	3.7	6.4	48.5		12.5	300	5.0	3	4.0	2.0	2	3	1
	SE-0805	76.5	3.7	6.4	60.5		12.5	340	5.0	3	4.0	2.0	2	4*	1
	SE-0806	88.5	3.7	6.4	72.5		12.5	380	5.0	3	4.0	2.0	2	4*	1.25
	SE-0807	100.5	3.7	6.4	84.5		12.5	420	5.0	3	4.0	2.0	2	4*	1.25
	SE-0808	112.5	3.7	6.4	96.5		12.5	460	5.0	3	4.0	2.0	2	6*	1.25
	SE-0809	124.5	3.7	6.4	108.5		12.5	500	5.0	3	4.0	2.0	2	6*	1.25
	SE-0810	136.5	3.7	6.4	120.5		12.5	540	5.0	3	4.0	2.0	2	6*	1.25

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (SE4, SE6 and SE8)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	150 Psig	150 Psig	
TEST PRESSURE	195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



Typical SE Capacities & Dimensions



✓	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out	
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	NPT	
	SE-10																
	SE-12																
	SE-1403	67.1	16.4	4.5	37	14	18	NPT	8.1	695	23.0	6	11.5	4	6	2	
	SE-1404	79.1	16.4	4.5	49				8.1	815	23.0	6	11.5	4	6	2	
	SE-1405	91.1	16.4	4.5	61				8.1	935	23.0	6	11.5	4	8	2.5	
	SE-1406	103.1	16.4	4.5	73				8.1	1055	23.0	6	11.5	4	8	2.5	
	SE-1407	115.1	16.4	4.5	85				8.1	1180	23.0	6	11.5	4	8	2.5	
	SE-1408	127.1	16.4	4.5	97				8.1	1300	23.0	6	11.5	4	8	2.5	
	SE-1409	139.1	16.4	4.5	109				8.1	1420	23.0	6	11.5	4	8	2.5	
	SE-1410	151.1	16.4	4.5	121				8.1	1540	23.0	6	11.5	4	8	2.5	
	SE-1411	163.1	16.4	4.5	133				8.1	1661	23.0	6	11.5	4	8	2.5	
	SE-1412	175.1	16.4	4.5	145				8.1	1781	23.0	6	11.5	4	8	2.5	

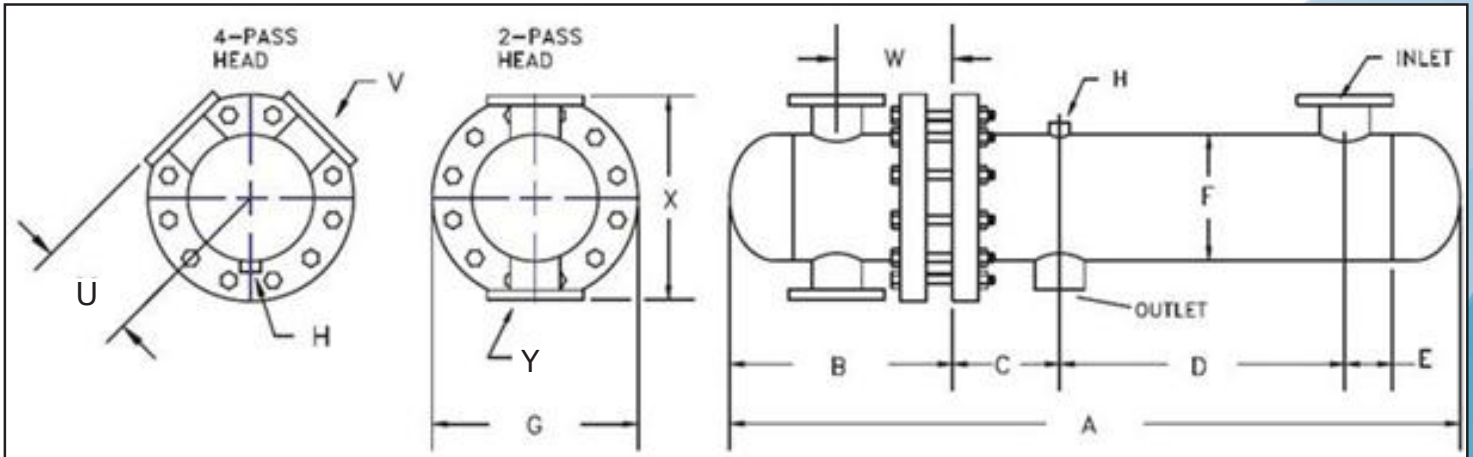
This Section is Intentionally Left Blank For Futur Data

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (S10, S12 and S14)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	150 Psig	150 Psig	
TEST PRESSURE	195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



Typical SE Capacities & Dimensions



✓	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	NPT
	SE-16															
	SE-18															
	SE-20															

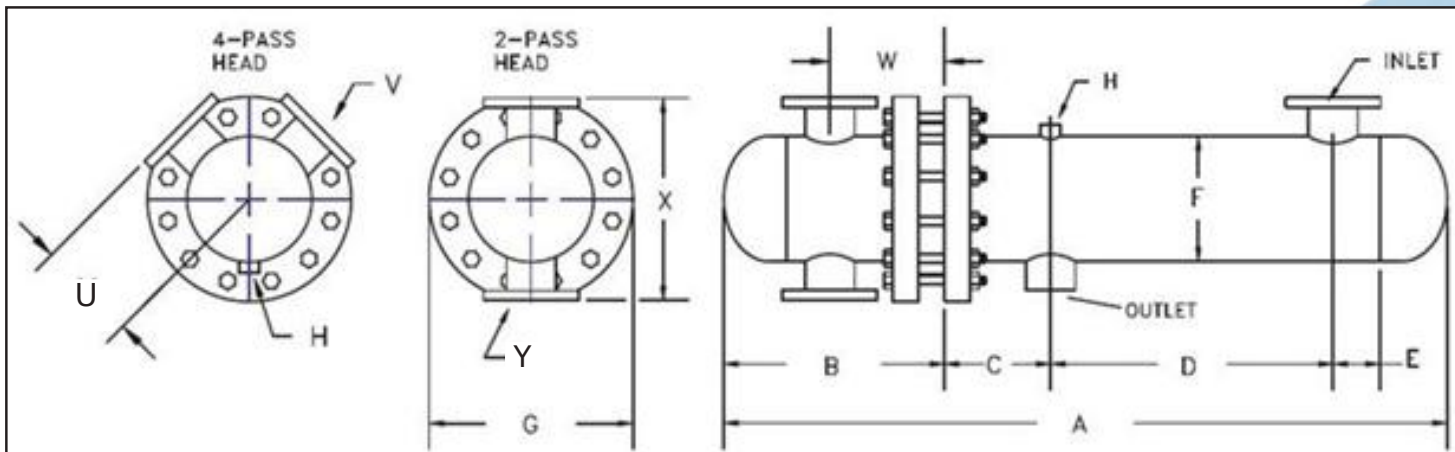
This Section is Intentionally Left Blank For Futur Data

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (SE16, SE18 and SE20)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	- Psig	- Psig	
TEST PRESSURE	- Psig	- Psig	
DESIGN TEMPERATURE	- °F	- °F	
MIN METAL: TEMPERATURE	- °F	- °F	



Typical SE Capacities & Dimensions



✓	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out	
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	NPT	
	SE-22																
	SE-24																
	SE-26																

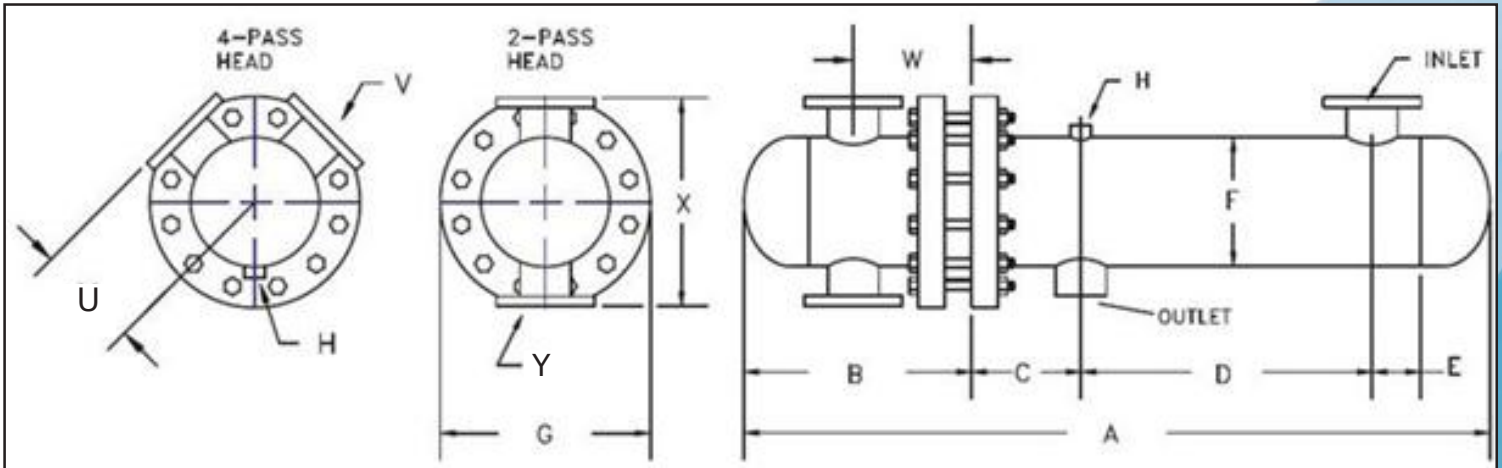
This Section is Intentionally Left Blank For Futur Data

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (SE22, SE24 and SE26)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	- Psig	- Psig	
TEST PRESSURE	- Psig	- Psig	
DESIGN TEMPERATURE	- °F	- °F	
MIN METAL: TEMPERATURE	- °F	- °F	



Typical **SE** Capacities & Dimensions



√	Size	Dimensions									-2 pass	Conn Size	-4 Pass	Conn Size	Steam In	Cond Out
		A	B	C	D	F	G	H	W	LBS	X	Y	U	V	ANSI	NPT
	SE-28															

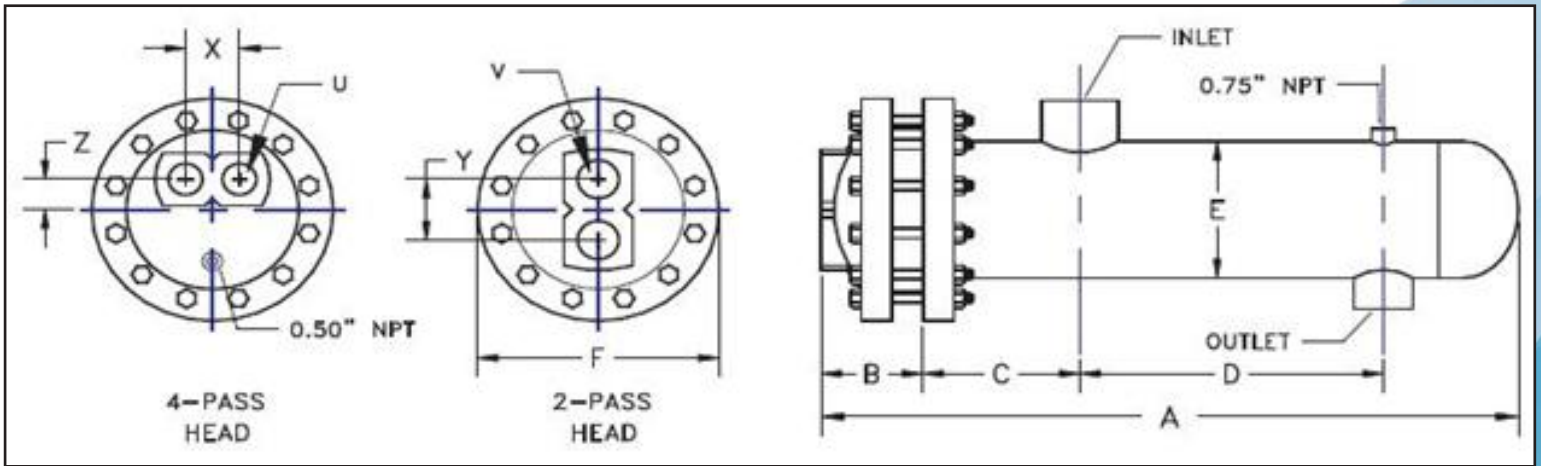
This Section is Intentionally Left Blank For Futur Data

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (SE28)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	150 Psig	150 Psig	
TEST PRESSURE	195 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



Typical W Capacities & Dimensions



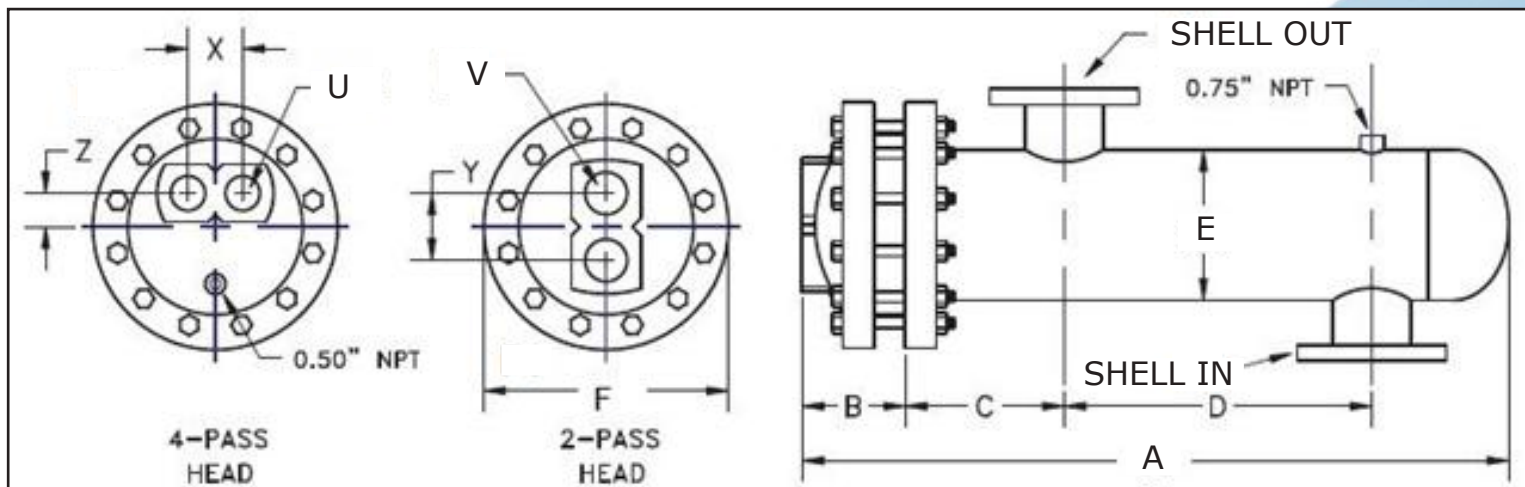
✓	Size	Dimensions							-2 pass	Conn Size	-4 Pass		Conn Size	Steam In	Cond Out
		A	B	C	D	E	F	LBS	Y	V	X	Z	U	NPT	NPT
	W-04														
<i>This Section is Intentionally Left Blank For Futur Data</i>															
	W-0602	29.0	3.3	4.5	16	6.63	10.5	132	3.8	2	3.2	1.6	1.5	2	2
	W-0603	41.0	3.3	4.5	28		10.5	159	3.8	2	3.2	1.6	1.5	2	2
	W-0604	53.0	3.3	4.5	40		10.5	186	3.8	2	3.2	1.6	1.5	2	2
	W-0605	65.0	3.3	4.5	52		10.5	213	3.8	2	3.2	1.6	1.5	2	2
	W-0606	77.0	3.3	4.5	64		10.5	240	3.8	2	3.2	1.6	1.5	2	2
	W-0607	89.0	3.3	4.5	76		10.5	267	3.8	2	3.2	1.6	1.5	2	2
	W-0608	101.0	3.3	4.5	88		10.5	294	3.8	2	3.2	1.6	1.5	2	2
	W-0609	113.0	3.3	4.5	100		10.5	321	3.8	2	3.2	1.6	1.5	2	2
	W-0610	125.0	3.3	4.5	112		10.5	348	3.8	2	3.2	1.6	1.5	2	2
	W-0611	137.0	3.3	4.5	124		10.5	375	3.8	2	3.2	1.6	1.5	2	2
	W-0612	149.0	3.3	4.5	136		10.5	402	3.8	2	3.2	1.6	1.5	2	2
	W-0802	29.8	4.0	5.3	14.5		8.63	12.5	220	5.0	3	4.0	2.0	2	3
	W-0803	41.8	4.0	5.3	26.5	12.5		260	5.0	3	4.0	2.0	2	3	3
	W-0804	53.8	4.0	5.3	38.5	12.5		300	5.0	3	4.0	2.0	2	3	3
	W-0805	65.8	4.0	5.3	50.5	12.5		340	5.0	3	4.0	2.0	2	3	3
	W-0806	77.8	4.0	5.3	62.5	12.5		380	5.0	3	4.0	2.0	2	3	3
	W-0807	89.8	4.0	5.3	74.5	12.5		420	5.0	3	4.0	2.0	2	3	3
	W-0808	101.8	4.0	5.3	86.5	12.5		460	5.0	3	4.0	2.0	2	3	3
	W-0809	113.8	4.0	5.3	98.5	12.5		500	5.0	3	4.0	2.0	2	3	3
	W-0810	125.8	4.0	5.3	110.5	12.5		540	5.0	3	4.0	2.0	2	3	3
	W-0811	137.8	4.0	5.3	122.5	12.5		580	5.0	3	4.0	2.0	2	3	3
	W-0812	149.8	4.0	5.3	134.5	12.5		620	5.0	3	4.0	2.0	2	3	3

Add 1/4 to dimension B for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical W Capacities & Dimensions



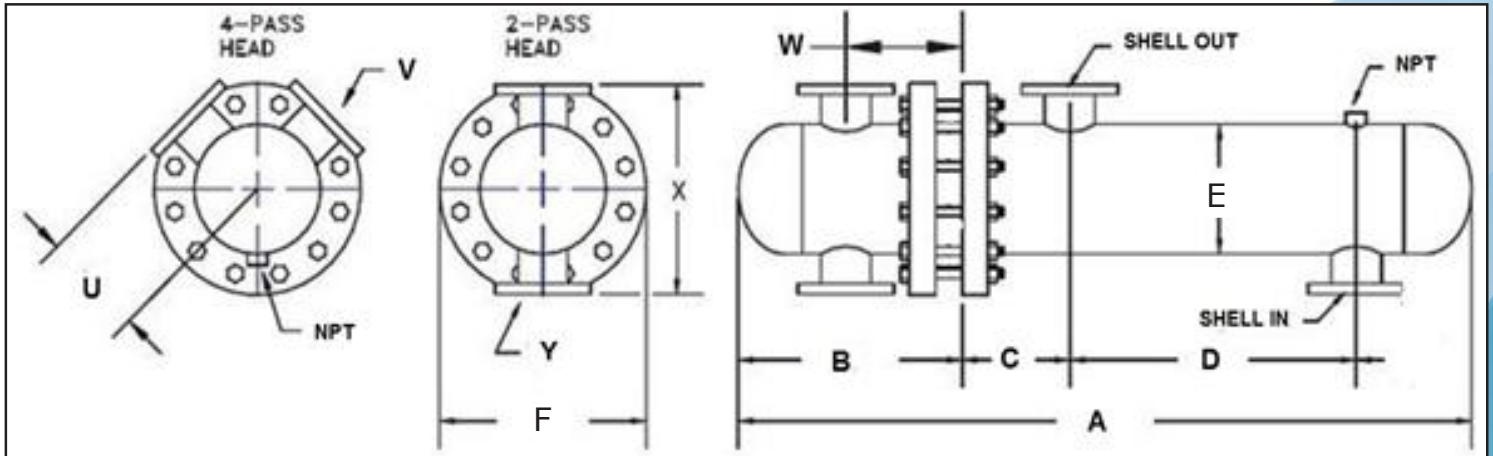
√	Size	Dimensions						-2 pass	Conn Size	-4 Pass		Conn Size	SHELL IN	SHELL OUT		
		A	B	C	D	E	F	LBS	Y	V	X	Z	U	ANSI	ANSI	
	W-1003	43.3	4.9	5.8	25.5	10.8	14.6	400	5.9	4	4.8	2.4	3	4	4	
	W-1004	55.3	4.9	5.8	37.5		14.6	460	5.9	4	4.8	2.4	3	4	4	
	W-1005	67.3	4.9	5.8	49.5		14.6	520	5.9	4	4.8	2.4	3	4	4	
	W-1006	79.3	4.9	5.8	61.5		14.6	580	5.9	4	4.8	2.4	3	4	4	
	W-1007	91.3	4.9	5.8	73.5		14.6	640	5.9	4	4.8	2.4	3	4	4	
	W-1008	103.3	4.9	5.8	85.5		14.6	700	5.9	4	4.8	2.4	3	4	4	
	W-1009	115.3	4.9	5.8	97.5		14.6	760	5.9	4	4.8	2.4	3	4	4	
	W-1010	127.3	4.9	5.8	109.5		14.6	820	5.9	4	4.8	2.4	3	4	4	
	W-1011	139.3	4.9	5.8	121.5		14.6	880	5.9	4	4.8	2.4	3	4	4	
	W-1012	151.3	4.9	5.8	133.5		14.6	940	5.9	4	4.8	2.4	3	4	4	
	W-1203	43.6	5.6	6.8	23.0		12.8	14.6	400	5.9	4	4.8	2.4	3	4	4
	W-1204	55.6	5.6	6.8	35.0			14.6	460	5.9	4	4.8	2.4	3	4	4
	W-1205	67.6	5.6	6.8	47.0	14.6		520	5.9	4	4.8	2.4	3	4	4	
	W-1206	79.6	5.6	6.8	59.0	14.6		580	5.9	4	4.8	2.4	3	4	4	
	W-1207	91.6	5.6	6.8	71.0	14.6		640	5.9	4	4.8	2.4	3	4	4	
	W-1208	103.6	5.6	6.8	83.0	14.6		700	5.9	4	4.8	2.4	3	4	4	
	W-1209	115.6	5.6	6.8	95.0	14.6		760	5.9	4	4.8	2.4	3	4	4	
	W-1210	127.6	5.6	6.8	107.0	14.6		820	5.9	4	4.8	2.4	3	4	4	
	W-1211	139.6	5.6	6.8	119.0	14.6		880	5.9	4	4.8	2.4	3	4	4	
	W-1212	151.6	5.6	6.8	131.0	14.6		940	5.9	4	4.8	2.4	3	4	4	

Add 1/4 to dimension B for Double Wall

DESIGN CONDITIONS (W4 to W12)			Notes: Units fabricated and tested in accordance with ASME Section VIII Division 1. Heat exchanger supports provided separately. All dimensions + / - 0.125".
	TUBE SIDE	SHELL SIDE	
DESIGN PRESSURE	125 Psig	150 Psig	
TEST PRESSURE	163 Psig	195 Psig	
DESIGN TEMPERATURE	375 °F	375 °F	
MIN METAL: TEMPERATURE	35 °F	35 °F	



Typical **W** Capacities & Dimensions



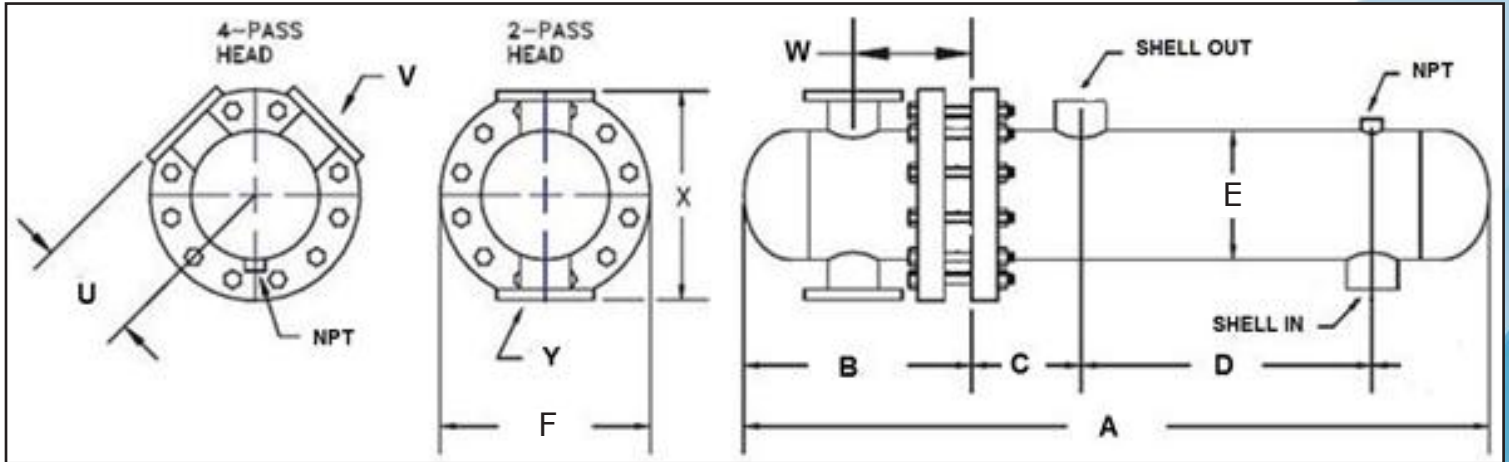
✓	Size	Dimensions								-2 pass	Conn Size	-4 Pass	Conn Size	SHELL IN	SHELL OUT
		A	B	C	D	E	F	W	LBS	X	Y	U	V	ANSI	ANSI
	W-20														
	W-22														
	W-24														

This Section is Intentionally Left Blank For Futur Data

Add 1/4 to dimension B for Double Wall



Typical **WF** Capacities & Dimensions



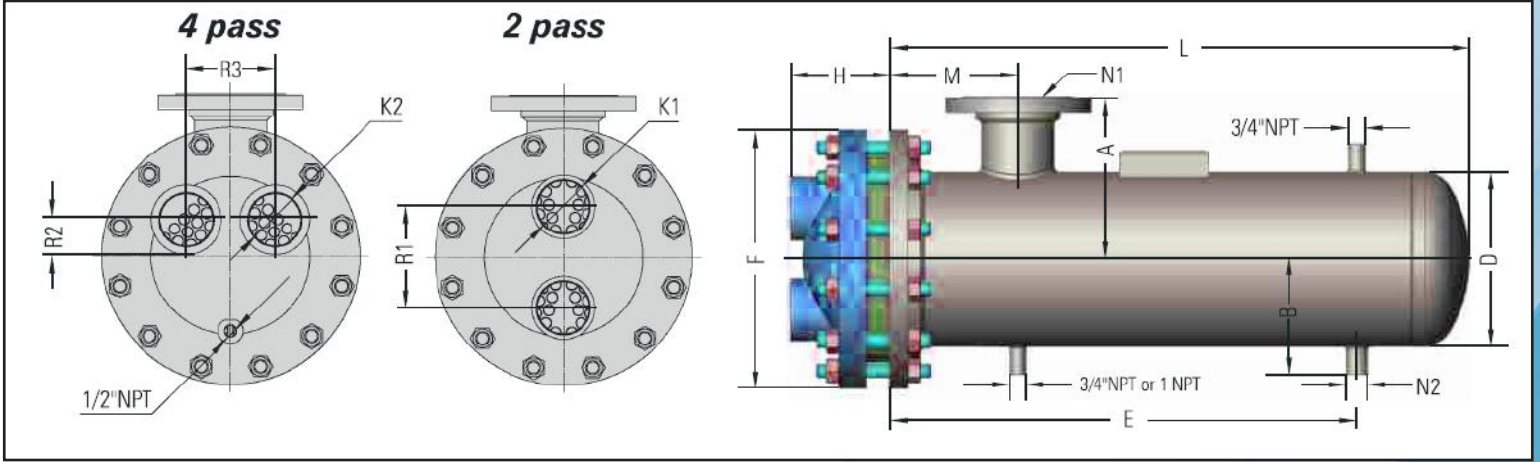
✓	Size	Dimensions								-2 pass	Conn Size	-4 Pass	Conn Size	SHELL IN	SHELL OUT
		A	B	C	D	E	F	W	LBS	X	Y	U	V	NPT	NPT
	WF-10														
	WF-12														
<i>This Section is Intentionally Left Blank For Futur Data</i>															
	WF-14														

Add 1/4 to dimension B for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical S Capacities & Dimensions NEW GENERATION



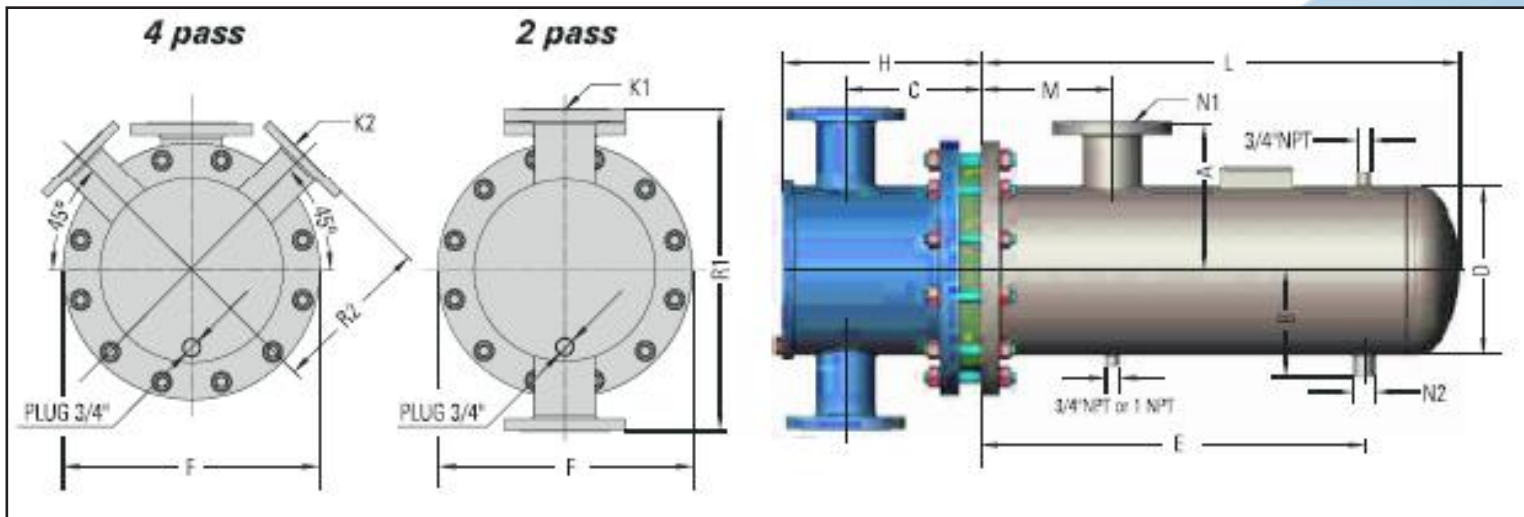
✓	Model #		Cast Iron Heads (in)					Dimensions (in) 2 Pass and 4 Pass								Htg. Surf. (sq.ft)	
	2 Pass	4 Pass	2 Pass		4 Pass			D	F	M	E	B	A	L	N1		N2
4 inch		R1	K1 FNTF	R3	K2	R2	H									19 1/2	
	S042041	S044041	2 1/2	1 1/2	2 3/8	1	7/8	2 7/8	4 1/2	9	5	19 1/2	4	24 1/2	2" NPT		1" NPT
	S042042	S044042										31 1/2		36 1/2		6.9	
	S042043	S044043										43 1/2		48 1/2		9.1	
	S042044	S044044										55 1/2		60 1/2		11.3	
	S042045	S044045										67 1/2		72 1/2		13.6	
	S042046	S044046										79 1/2		84 1/2		15.8	
	S042047	S044047										91 1/2		96 1/2		18	
	S042048	S044048										103 1/2		108 1/2		20.3	
	S042049	S044049										115 1/2		120 1/2		22.5	
6 inch																	
	S062061	S064061	4	2	3 3/4	1/2	1 1/4	3 7/16	6 5/8	11	5	18 1/2	4 7/8	25	3" NPT	1" NPT	10.7
	S062062	S064062										30 1/2		37			15.9
	S062063	S064063										42 1/2		49			21.1
	S062064	S064064										54 1/2		61			26.3
	S062065	S064065										66 1/2		73			31.5
	S062066	S064066										78 1/2		85			36.7
	S062067	S064067										90 1/2		97			41.9
	S062068	S064068										102 1/2		109			47.1
	S062069	S064069										114 1/2		121			52.3
8 inch																	
	S082081	S084081	5	3	4	2	2	4 1/4	8 5/8	13 1/2	8	18	6	24	4" Flange	1" NPT	14.7
	S082082	S084082										30		36			22.7
	S082083	S084083										42		48			30.7
	S082084	S084084										54		60			38.7
	S082085	S084085										66		72			46.6
	S082086	S084086										78		84			54.6
	S082087	S084087										90		96			62.6
	S082088	S084088										102		108			70.6
	S082089	S084089										114		120			78.6
10 inch																	
	S102101	S104101	6 1/4	3	5 1/2	3	2 1/4	4 7/8	10 3/4	16	8	17	7 15/16	24	4" Flange	1" NPT	23.7
	S102102	S104102										29		36			37.7
	S102103	S104103										41		48			51.5
	S102104	S104104										53		60			65.5
	S102105	S104105										65		72			79.4
	S102106	S104106										77		84			93.3
	S102107	S104107										88 1/2		96			107.2
	S102108	S104108										100 1/2		108			121.1
	S102109	S104109										112 1/2		120			135.1

Not Available for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical S Capacities & Dimensions NEW GENERATION



√	Model #		Heads (in)					Dimensions (in) 2 Pass and 4 Pass								Htg. Surf. (sq.ft)		
	2 Pass	4 Pass	2 Pass		4 Pass			D	F	M	E	B	A	L	N1		N2	
	12 inch		R1	K1 FNTP	R2	K2	C	H										
	S122121	S124121	24	4" Flange	12	3" Flange	10 1/8	14 5/8	12 3/4	19	10	29	8 1/8	11	36 1/4	4" Flange	1 1/4"NPT	58.6
	S122122	S124122										41	8 1/8		48 1/4	6" Flange	1 1/4"NPT	79
	S122123	S124123										53	8 1/8		60 1/4	6" Flange	1 1/2"NPT	99.5
	S122124	S124124										65	8 1/8		72 1/4	6" Flange	2"NPT	119.9
	S122125	S124125										77	8 1/8		84 1/4	8" Flange	2"NPT	140.3
	S122126	S124126										88	9		96 1/4	8" Flange	2 1/2"NPT	160.8
	S122127	S124127										100	9		108 1/4	8" Flange	2 1/2"NPT	181.2
	S122128	S124128										112	9		120 1/4	8" Flange	2 1/2"NPT	201.6
	14 inch																	
	S142141	S144141	26	6" Flange	13	4" Flange	11 5/8	16 5/8	14	21	10	29	8 3/4	12	37 1/4	6" Flange	1 1/4"NPT	75.7
	S142142	S144142										40 1/2	8 3/4		49 1/4	6" Flange	2"NPT	102.4
	S142143	S144143										52 1/2	8 3/4		61 1/4	6" Flange	2"NPT	129.1
	S142144	S144144										64 1/2	8 3/4		73 1/4	8" Flange	2"NPT	155.8
	S142145	S144145										76	9 5/8		85 1/4	8" Flange	2 1/2"NPT	182.5
	S142146	S144146										88	9 5/8		97 1/4	8" Flange	2 1/2"NPT	209.2
	S142147	S144147										100	9 5/8		109 1/4	10" Flange	2 1/2"NPT	236
	S142148	S144148										112	9 5/8		121 1/4	10" Flange	3"NPT	262.7
	16 inch																	
	S162161	S164161	28 1/2	6" Flange	14 1/4	4" Flange	12 1/8	17 3/8	16	23 1/2	11	28 1/2	9 3/4	13	37	6" Flange	1 1/2"NPT	104.5
	S162162	S164162										40	9 3/4		49	6" Flange	2"NPT	141.4
	S162163	S164163										52	10 5/8		61	8" Flange	2 1/2"NPT	178.4
	S162164	S164164										64	10 5/8		73	8" Flange	2 1/2"NPT	215.3
	S162165	S164165										76	10 5/8		85	10" Flange	2 1/2"NPT	252.2
	S162166	S164166										87 1/2	10 5/8		97	10" Flange	3"NPT	289.1
	S162167	S164167										99 1/2	10 5/8		109	10" Flange	3"NPT	326
	S162168	S164168										111 1/2	10 5/8		121	10" Flange	3"NPT	363
	18 inch																	
	S182181	S184181	30	6" Flange	15	4" Flange	12 3/4	18	18	25	13	27 1/2	10 3/4	14	36 1/2	6" Flange	2"NPT	130.7
	S182182	S184182										39 1/2	10 3/4		48 1/2	8" Flange	2"NPT	177
	S182183	S184183										51	11 5/8		60 1/2	8" Flange	2 1/2"NPT	223.4
	S182184	S184184										62 1/2	11 5/8		72 1/2	10" Flange	3"NPT	269.7
	S182185	S184185										74 1/2	11 5/8		84 1/2	10" Flange	3"NPT	316.1
	S182186	S184186										86 1/2	11 5/8		96 1/2	10" Flange	3"NPT	362.4
	S182187	S184187										98 1/2	11 5/8		108 1/2	10" Flange	3"NPT	408.8
	S182188	S184188										110 1/2	12		120 1/2	10" Flange	4" Flange	455.1

Not Available for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical S Capacities & Dimensions NEW GENERATION

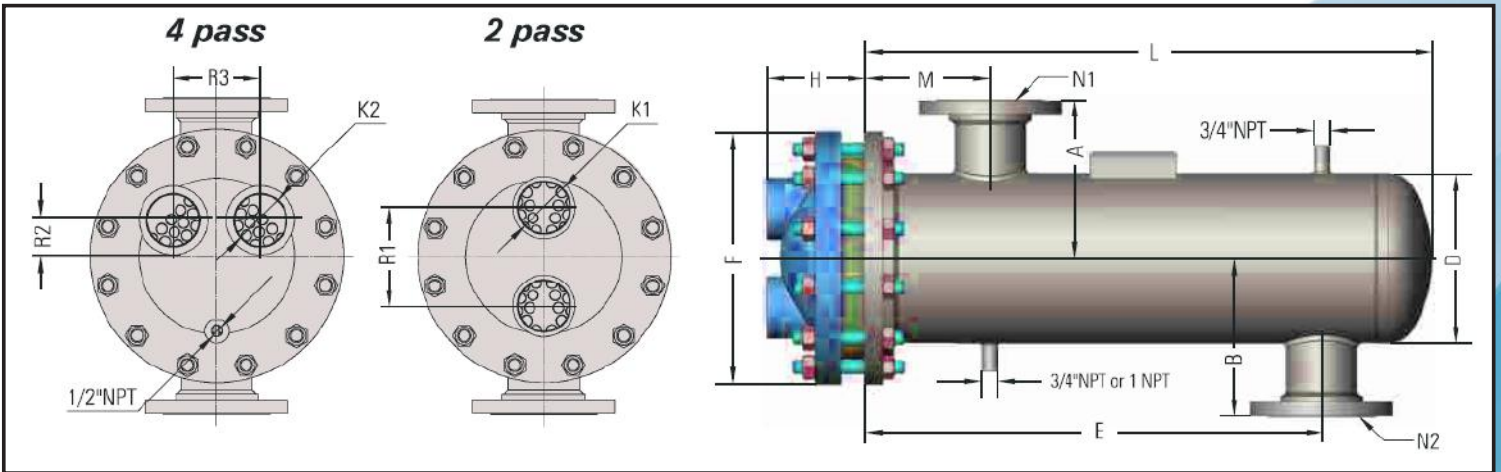
√	Model #		Heads (in)						Dimensions (in) 2 Pass and 4 Pass								Htg. Surf. (sq.ft)	
	2 Pass	4 Pass	2 Pass		4 Pass				D	F	M	E	B	A	L	N1		N2
			R1	K1 FNTF	R2	K2	C	H										
20 inch																		
	S202201	S204201	32 1/2	6" Flange	16 1/4	4" Flange	14 1/8	19 5/8	20	27 1/2	13	27 1/2	15	15	36 3/4	8" Flange	8" Flange	163.9
	S202202	S204202										39	15	15	48 3/4	8" Flange	8" Flange	223.6
	S202203	S204203										50 1/2	15	15	60 3/4	10" Flange	10" Flange	283.3
	S202204	S204204										62 1/2	15	15	72 3/4	10" Flange	10" Flange	343
	S202205	S204205										74 1/2	15	15	84 3/4	12" Flange	12" Flange	402.7
	S202206	S204206										86 1/2	15	15	96 3/4	12" Flange	12" Flange	462.4
	S202207	S204207										98 1/2	15	15	108 3/4	12" Flange	12" Flange	522.2
	S202208	S204208										110 1/2	17	17	120 3/4	14" Flange	14" Flange	581.9
22 inch																		
	S222221	S224221	35	10" Flange	17 1/4	8" Flange	17	24 1/2	22	29 1/2	14	25 3/8	17	17	38 3/8	12" Flange	12" Flange	193.5
	S222222	S224222										37 3/8	17	17	50 3/8	12" Flange	12" Flange	265
	S222223	S224223										49 3/8	17	17	62 3/8	12" Flange	12" Flange	336.5
	S222224	S224224										61 3/8	17	17	74 3/8	12" Flange	12" Flange	408
	S222225	S224225										73 3/8	17	17	86 3/8	12" Flange	12" Flange	479.5
	S222226	S224226										85 3/8	17	17	98 3/8	12" Flange	12" Flange	551
	S222227	S224227										97 3/8	18	18	110 3/8	14" Flange	14" Flange	622.5
	S222228	S224228										109 3/8	18	18	122 3/8	14" Flange	14" Flange	694
24 inch																		
	S242241	S244241	37 1/2	10" Flange	18 1/2	8" Flange	17 7/8	25 5/8	24	32	14	25	18	18	38	12" Flange	12" Flange	236
	S242242	S244242										37	18	18	50	12" Flange	12" Flange	324
	S242243	S244243										49	18	18	62	12" Flange	12" Flange	412
	S242244	S244244										61	18	18	74	12" Flange	12" Flange	500
	S242245	S244245										73	18	18	86	12" Flange	12" Flange	588
	S242246	S244246										85	18	18	98	12" Flange	12" Flange	676
	S242247	S244247										97	19	19	110	14" Flange	14" Flange	764
	S242248	S244248										109	19	19	122	14" Flange	14" Flange	852
26 inch																		
	S262261	S264261	37	12" Flange	18 1/4	8" Flange	17	24 3/4	26	34 1/4	15	23 3/4	20	20	36	14" Flange	14" Flange	288.6
	S262262	S264262										25 3/4	20	20	48	14" Flange	14" Flange	393.4
	S262263	S264263										47 3/4	20	20	60	14" Flange	14" Flange	500.2
	S262264	S264264										59 3/4	20	20	72	14" Flange	14" Flange	607
	S262265	S264265										71 3/4	20	20	84	14" Flange	14" Flange	713.8
	S262266	S264266										83 3/4	20	20	96	14" Flange	14" Flange	820.6
	S262267	S264267										95 3/4	21	21	108	16" Flange	16" Flange	927.4
	S262268	S264268										107 3/4	21	21	120	16" Flange	16" Flange	1034.4
30 inch																		
	S302301	S304301	42	14" Flange	20 3/4	10" Flange	19 5/8	28 7/8	30	38 3/4	16	23	22	22	38 1/2	16" Flange	16" Flange	377.6
	S302302	S304302										35	22	22	50 1/2	16" Flange	16" Flange	520.5
	S302303	S304303										47	22	22	62 1/2	16" Flange	16" Flange	663.4
	S302304	S304304										59	22	22	74 1/2	16" Flange	16" Flange	806.3
	S302305	S304305										71	22	22	86 1/2	16" Flange	16" Flange	949.2
	S302306	S304306										83	22	22	98 1/2	16" Flange	16" Flange	1092
	S302307	S304307										95	22	22	110 1/2	18" Flange	18" Flange	1235
	S302308	S304308										107	22	22	122 1/2	18" Flange	18" Flange	1378

Not Available for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical **W** Capacities & Dimensions NEW GENERATION



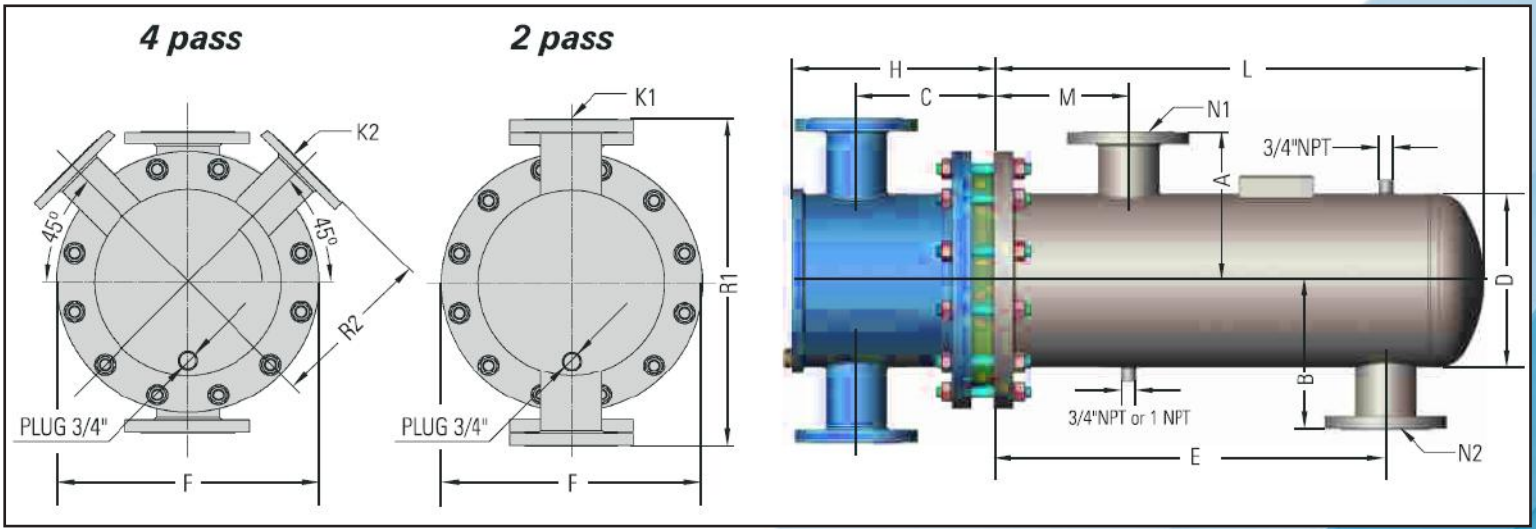
✓	Model #		Cast Iron Heads (in)					Dimensions (in) 2 Pass and 4 Pass										Htg. Surf. (sq.ft)
	2 Pass	4 Pass	2 Pass		4 Pass			D	F	M	E	B	A	L	N1	N2		
	4 inch		R1	K1 FNTP	R3	K2	R2	H										
	W042041	W044041									19 1/2			24 1/2				4.7
	W042042	W044042									31 1/2			36 1/2				6.9
	W042043	W044043									43 1/2			48 1/2				9.1
	W042044	W044044									55 1/2			60 1/2				11.3
	W042045	W044045	2 1/2	1 1/2	2 3/8	1	7/8	2 7/8	4 1/2	9	5	67 1/2	3 3/4	3 3/4	72 1/2	1 1/2"NPT	1 1/2"NPT	13.6
	W042046	W044046									79 1/2			84 1/2				15.8
	W042047	W044047									91 1/2			96 1/2				18
	W042048	W044048									103 1/2			108 1/2				20.3
	W042049	W044049									115 1/2			120 1/2				22.5
	6 inch																	
	W062061	W064061									18 1/2			25				10.7
	W062062	W064062									30 1/2			37				15.9
	W062063	W064063									42 1/2			49				21.1
	W062064	W064064									54 1/2			61				26.3
	W062065	W064065	4	2	3 3/4	1 1/2	1 1/4	3 7/16	6 5/8	11	5	66 1/2	4 7/8	4 7/8	73	2 1/2"NPT	2 1/2"NPT	31.5
	W062066	W064066									78 1/2			85				36.7
	W062067	W064067									90 1/2			97				41.9
	W062068	W064068									102 1/2			109				47.1
	W062069	W064069									114 1/2			121				52.3
	8 inch																	
	W082081	W084081									18			24				14.7
	W082082	W084082									30			36				22.7
	W082083	W084083									42			48				30.7
	W082084	W084084									54			60				38.7
	W082085	W084085	5	3	4	2	2	4 1/4	8 5/8	13 1/2	8	66	7 3/8	7 3/8	72	4"Flange	4"Flange	40.6
	W082086	W084086									78			84				54.6
	W082087	W084087									90			96				62.6
	W082088	W084088									102			108				70.6
	W082089	W084089									114			120				78.6
	10 inch																	
	W102101	W104101									17			24				23.7
	W102102	W104102									29			36				37.7
	W102103	W104103									41			48				51.5
	W102104	W104104									53			60				65.5
	W102105	W104105	6 1/4	3	5 1/2	3	2 1/4	4 7/8	10 3/4	16	8	65	8 1/2	8 1/2	72	4"Flange	4"Flange	79.4
	W102106	W104106									77			84				93.3
	W102107	W104107									88 1/2			96				107.2
	W102108	W104108									100 1/2			108				121.1
	W102109	W104109									112 1/2			120				135.1

Not Available for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical **W** Capacities & Dimensions NEW GENERATION



√	Model #		Heads (in)				Dimensions (in)							Htg. Surf. (sq.ft)				
	2 Pass	4 Pass	2 Pass		4 Pass		2 Pass and 4 Pass											
	12 inch		R1	K1 FNTF	R2	K2	C	H	D	F	M	E	B	A	L	N1	N2	
	W122121	W124121	24	4"Flange	12	3"Flange	10 1/8	14 5/8	12 3/4	19	10	29	11	11	36 1/4	4"Flange	4"Flange	58.6
	W122122	W124122										41			48 1/4	6"Flange	6"Flange	79
	W122123	W124123										53			60 1/4	6"Flange	6"Flange	99.5
	W122124	W124124										65			72 1/4	6"Flange	6"Flange	119.9
	W122125	W124125										77			84 1/4	8"Flange	8"Flange	140.3
	W122126	W124126										88			96 1/4	8"Flange	8"Flange	160.8
	W122127	W124127										100			108 1/4	8"Flange	8"Flange	181.2
	W122128	W124128										112			120 1/4	8"Flange	8"Flange	201.6
	W142121	W144121										26			6"Flange	13	4"Flange	11 5/8
	W142122	W144122	40 1/2	49 1/4	6"Flange	6"Flange	102.4											
	W142123	W144123	52 1/2	61 1/4	6"Flange	6"Flange	129.1											
	W142124	W144124	64 1/2	73 1/4	8"Flange	8"Flange	155.8											
	W142125	W144125	76	85 1/4	8"Flange	8"Flange	182.5											
	W142126	W144126	88	97 1/4	8"Flange	8"Flange	209.2											
	W142127	W144127	100	109 1/4	10"Flange	10"Flange	236											
	W142128	W144128	112	121 1/4	10"Flange	10"Flange	262.7											
	W162121	W164121	28 1/2	6"Flange	14 1/4	4"Flange	12 1/8	17 3/8	16	23 1/2	11		28 1/2	13				
	W162122	W164122										40	49		6"Flange	6"Flange	141.4	
	W162123	W164123										52	61		8"Flange	8"Flange	178.4	
	W162124	W164124										64	73		8"Flange	8"Flange	215.3	
	W162125	W164125										76	85		10"Flange	10"Flange	252.2	
	W162126	W164126										87 1/2	97		10"Flange	10"Flange	289.1	
	W162127	W164127										99 1/2	109		10"Flange	10"Flange	326	
	W162128	W164128										111 1/2	121		10"Flange	10"Flange	363	
	W182121	W184121										30	6"Flange		15	4"Flange	12 3/4	18
	W182122	W184122	39 1/2	48 1/2	8"Flange	8"Flange	177											
	W182123	W184123	51	60 1/2	8"Flange	8"Flange	223.4											
	W182124	W184124	62 1/2	72 1/2	10"Flange	10"Flange	269.7											
	W182125	W184125	74 1/2	84 1/2	10"Flange	10"Flange	316.1											
	W182126	W184126	86 1/2	96 1/2	10"Flange	10"Flange	362.4											
	W182127	W184127	98 1/2	108 1/2	12"Flange	12"Flange	408.8											
	W182128	W184128	110 1/2	120 1/2	12"Flange	12"Flange	455.1											

Not Available for Double Wall



SHELL AND TUBE - HEAT EXCHANGERS

Typical **W** Capacities & Dimensions NEW GENERATION

✓	Model #		Heads (in)						Dimensions (in) 2 Pass and 4 Pass								Htg. Surf. (sq.ft)		
	2 Pass	4 Pass	2 Pass		4 Pass				D	F	M	2 Pass and 4 Pass							
	20 inch		R1	K1 FNTF	R2	K2	C	H				E	B	A	L	N1		N2	
	W202201	W204201	32 1/2	6" Flange	16 1/4	4" Flange	14 1/8	19 5/8	20	27 1/2	13	27 1/2	15	15	36 3/4	8" Flange	8" Flange	163.9	
	W202202	W204202										39	15	15	48 3/4	8" Flange	8" Flange	223.6	
	W202203	W204203										50 1/2	15	15	60 3/4	10" Flange	10" Flange	283.3	
	W202204	W204204										62 1/2	15	15	72 3/4	10" Flange	10" Flange	343	
	W202205	W204205										74 1/2	15	15	84 3/4	12" Flange	12" Flange	402.7	
	W202206	W204206										86 1/2	15	15	96 3/4	12" Flange	12" Flange	462.4	
	W202207	W204207										98 1/2	15	15	108 3/4	12" Flange	12" Flange	522.2	
	W202208	W204208										110 1/2	17	17	120 3/4	14" Flange	14" Flange	581.9	
	22 inch																		
	W222221	W224221	35	10" Flange	17 1/4	8" Flange	17	24 1/2	22	29 1/2	14	25 3/8	17	17	38 3/8	12" Flange	12" Flange	193.5	
	W222222	W224222										37 3/8	17	17	50 3/8	12" Flange	12" Flange	265	
	W222223	W224223										49 3/8	17	17	62 3/8	12" Flange	12" Flange	336.5	
	W222224	W224224										61 3/8	17	17	74 3/8	12" Flange	12" Flange	408	
	W222225	W224225										73 3/8	17	17	86 3/8	12" Flange	12" Flange	479.5	
	W222226	W224226										85 3/8	17	17	98 3/8	12" Flange	12" Flange	551	
	W222227	W224227										97 3/8	18	18	110 3/8	14" Flange	14" Flange	622.5	
	W222228	W224228										109 3/8	18	18	122 3/8	14" Flange	14" Flange	694	
	24 inch																		
	W242241	W244241	37 1/2	10" Flange	18 1/2	8" Flange	17 7/8	25 5/8	24	32	14	25	18	18	38	12" Flange	12" Flange	236	
	W242242	W244242										37	18	18	50	12" Flange	12" Flange	324	
	W242243	W244243										49	18	18	62	12" Flange	12" Flange	412	
	W242244	W244244										61	18	18	74	12" Flange	12" Flange	500	
	W242245	W244245										73	18	18	86	12" Flange	12" Flange	588	
	W242246	W244246										85	18	18	98	12" Flange	12" Flange	676	
	W242247	W244247										97	19	19	110	14" Flange	14" Flange	764	
	W242248	W244248										109	19	19	122	14" Flange	14" Flange	852	
	26 inch																		
	W262261	W264261	37	12" Flange	18 1/4	8" Flange	17	24 3/4	26	34 1/4	15	23 3/4	20	20	36	14" Flange	14" Flange	288.6	
	W262262	W264262										25 3/4	20	20	48	14" Flange	14" Flange	393.4	
	W262263	W264263										47 3/4	20	20	60	14" Flange	14" Flange	500.2	
	W262264	W264264										59 3/4	20	20	72	14" Flange	14" Flange	607	
	W262265	W264265										71 3/4	20	20	84	14" Flange	14" Flange	713.8	
	W262266	W264266										83 3/4	20	20	96	14" Flange	14" Flange	820.6	
	W262267	W264267										95 3/4	21	21	108	16" Flange	16" Flange	927.4	
	W262268	W264268										107 3/4	21	21	120	16" Flange	16" Flange	1034.4	
	30 inch																		
	W302301	W304301	42	14" Flange	20 3/4	10" Flange	19 5/8	28 7/8	30	38 3/4	16	23	22	22	38 1/2	16" Flange	16" Flange	377.6	
	W302302	W304302										35	22	22	50 1/2	16" Flange	16" Flange	520.5	
	W302303	W304303										47	22	22	62 1/2	16" Flange	16" Flange	663.4	
	W302304	W304304										59	22	22	74 1/2	16" Flange	16" Flange	806.3	
	W302305	W304305										71	22	22	86 1/2	16" Flange	16" Flange	949.2	
	W302306	W304306										83	22	22	98 1/2	16" Flange	16" Flange	1092	
	W302307	W304307										95	22	22	110 1/2	18" Flange	18" Flange	1235	
	W302308	W304308										107	22	22	122 1/2	18" Flange	18" Flange	1378	

Not Available for Double Wall

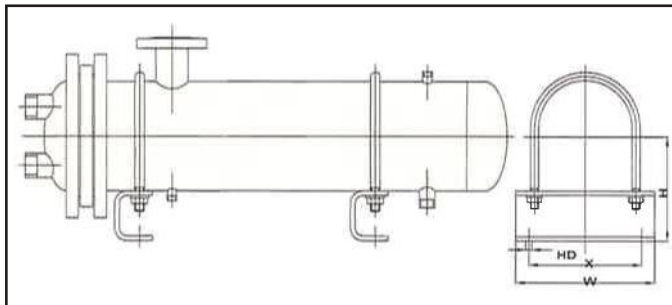


SHELL AND TUBE - HEAT EXCHANGERS



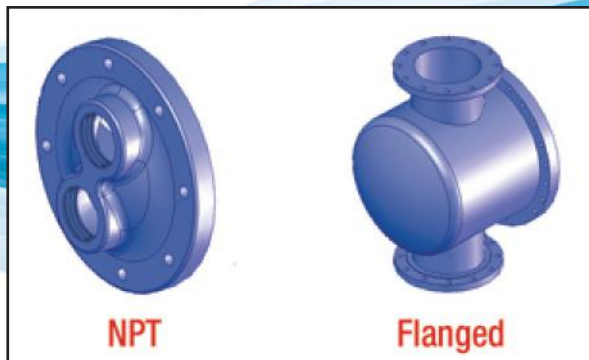
Design Parameters					
	Standard			Optional	
	Design Pressure (PSI)	Test Pressure (PSI)	Design Temperature (°F)	Design Pressure (PSI)	Design Temperature (°F)
Shell	150	300	375	300	421
 Tubes	150	300	375	400	448

Materials of Construction		
	Standard	Optional
Shell	Steel	Stainless Steel(304/316)
 Tubes	Stainless Steel	Copper, SS 316, 90/10
 Tubesheet	Steel	CuNi
 Connections	Steel	Stainless Steel(304/316)
 Head	Cast Iron / Steel	Stainless Steel(304/316)
 Gaskets	Non-abestos, pressed fiber	-



Unit Size	Dimensions			
	H	W	X	HD
4	5 1/4	6 15/16	5 1/2	1/2
6	6 5/16	9 1/4	7 1/2	5/8
8	7 5/16	11 1/4	9	5/8
10	8 3/8	13 5/8	10	3/4
12	9 3/8	15 5/8	11	3/4
14	10	17	12	3/4
16	12	19	13	3/4
18	13	21	14	3/4
20	14	23	14	3/4
22	17	25	18	7/8
24	18	27	19	7/8
26	19	30	20	7/8
30	21	33	22	7/8

Connection Types



Typical S Connection Sizes

Model-Size	Tube Side -2 pass	-4 pass	Shell Side Inlet	Drain	Model-Size	Tube Side -2 pass	-4 pass	Shell Side Inlet	Drain
S-04	1.25	1	2	1	S-18	6	4	10	4
S-06	2	1.5	3	1	S-20	8	6	12	4
S-08	3	2	3	1	S-22	10	8	12	4
S-10	4	3	6	2	S-24	10	8	14	4
S-12	4	4	8	2	S-26	12	8	16	6
S-14	4	4	8	2.5	S-28	12	10	18	6
S-16	6	4	10	3	S-30	14	10	20	6

Please note that the model W is available upon request.

● Transfer Solutions

1) CONNECTIONS

Standardized sizes for easy assembly. Additional thread and surface protection for clean installation.

2) TUBESHEET

U-bend tubes expanded into tube-sheet allow for tube expansions and contractions due to thermal fluctuations.

3) GASKETS

High quality compressed fibers (reusable).

4) HEAD

Standard cast-iron or steel head for heavy duty services (also available as a spare part).

5) MOUNTING

Saddles attached with standard units for quick & easy mounting.



6) BAFFLES

Punched baffles with minimum clearances between tubes assure correct fluid flow and minimized bypass.

7) SHELL

Welded shell protected with high quality paint for corrosion resistance.

8) TUBE BUNDLE

Stainless steel tubes allow for strong, durable performance over a wide range of applications. Unique tube bundle layout minimizes buildup problems at the edges and optimizes media flow in the units.



“With over 35 years of experience in pressure vessel design and manufacture, our goal is to provide sustainable **energy saving solutions** that help make a greener HVAC world.”



Heavy Duty Construction

The Flo Fab heat exchanger is one of the most rugged heavy duty heat exchangers on the market. The circular shaped shell and tubes withstand greater pressures than flat plate designs with thinner materials. In accordance with safety codes, corrosion allowances are added to the carbon steel parts for added girth. The tubes are made of various corrosion resistant materials with thicknesses ranging from 20 BWG or 0.035” to 16 BWG or 0.065” making them at least 50% thicker than other heat transfer surfaces. With fewer gaskets, Flo Fab can withstand higher operating pressures and temperatures than other heat transfer devices.

Human Comfort

SDW and WDW double wall designs prevent potable water contact with chemically altered boiler water. The double wall construction provides a positive leak path between the potable water and the heating media should a leak occur in a tube wall. This design conforms to all US building code requirements.

Long Life Expectancy

Flo Fab utilizes U shaped tubes that are anchored at only one end. The tubes are allowed to expand freely in one direction when subject to changing operating temperatures and heat loads. This allows the heat exchanger to cycle with no risk of damage, which ensures a long, trouble-free life for the product.

Low Risk

Heavy duty construction, freely expanding corrosion resistant tubes and minimized use of gaskets make WesTube^o a low risk investment. All units come certified by the appropriate safety code (ASME, CHN, etc).

Low Maintenance

FloFab heat exchangers are designed with fewer gaskets, which leads to less maintenance. For installations where hard water and scaling may occur, FloFab uses larger diameter tubes that can continue to operate and can be easily cleaned. If necessary, a bundle can be swapped out while the other is being serviced.

Lower Pumping Costs

The heat transfer surface in Flo Fab is smooth, resulting in less turbulent flow inside the tubes. This design maximizes heat transfer with reduced pressure drop, which lowers pumping costs.

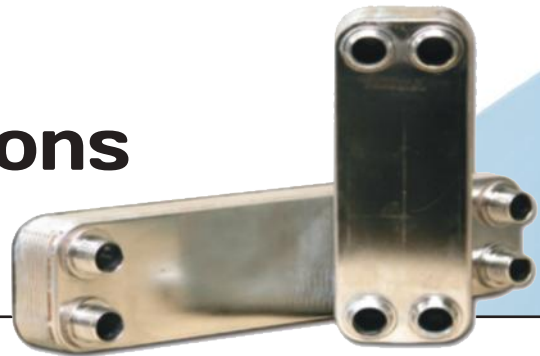
Application Friendly

Flo Fab is used for heating domestic water, snow melting, pool heating, condensate cooling, district heating, radiant heating, comfort heating and other heat transfer systems where pressure separation is needed.



• Product Specifications

FFB Series



Quality Performance

The Flo Fab Brazed Heat Exchanger is designed to deliver premium performance. Specially constructed heat transfer plates feature a corrugated channeling system that maximizes heat transfer. Hot and cold fluids flow along counter-current paths on either side of the plates resulting in low temperature approaches and the highest heat recovery of any heat exchanger design.

Solid Construction

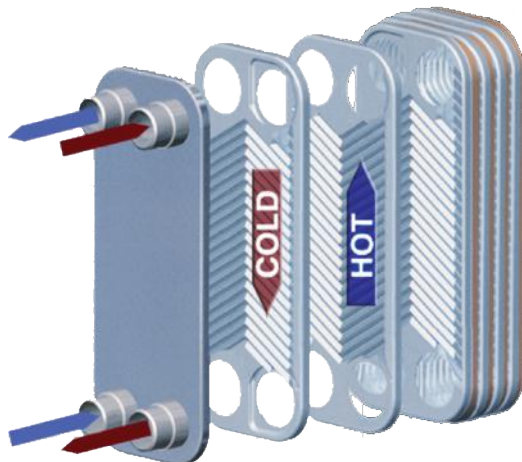
Each unit is manufactured with top-of-the-line, anti-corrosive 316 stainless steel plates and connections. The plates are then bonded together with brazing material, copper or nickel, at thousands of contact points. This brazing process produces an incredibly strong pressure vessel that eliminates the need for gaskets or tubesheet joints, ensuring a long life of trouble-free operation.

Compact Design

The custom brazed construction and high efficiency design of Flo Fab eliminates the need for heavy pressure retaining components, which results in a heat exchanger that is 5 times smaller than conventional units. Fluid volume requirements are also decreased to allow for quicker performance response times and less expense on heat transfer liquids.

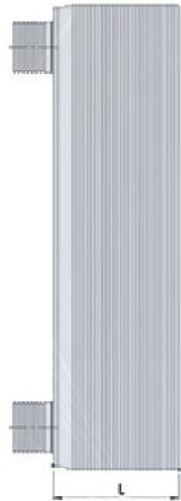
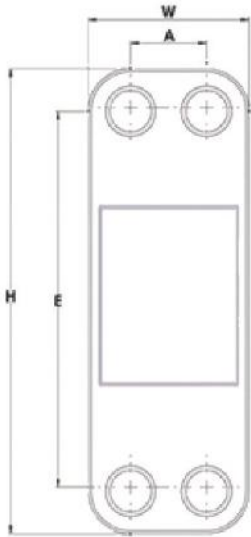
Low Maintenance

The Flo Fab Brazed Heat Exchanger is optimized for maximum performance by minimizing assembly parts. Fewer parts, high thermal efficiency, and a compact brazed design make Flo Fab a no-nonsense, virtually maintenance-free heat management solution. Most units also have all system connections along a single plane on one end of the vessel, which makes for a less costly and easy installation.



Product Dimensions

FFB Series



✓	Model Type	Dimensions in inches					Weight empty (lbs)	Maximum No. of Plates	Plate Area (sq.ft.)	Maximum Flow (gpm)	Connection Size (inches)
		H	E	W	A	L					
	FFB01	7.64	6.06	3.15	1.58	0.39+0.09N	2+0.11N	60	0.13	30	0.75
	FFB10	12.05	9.84	4.17	1.97	0.49+0.09N	4+0.30N	100	0.29	70	1.00
	FFB150	11.97	9.84	4.88	2.76	0.49+0.09N	5+0.30N	100	0.34	70	1.00
	FFB11	20.55	18.35	4.17	1.97	0.39+0.09N	7+0.48N	120	0.54	70	1.00
	FFB20	20.79	17.95	9.69	6.85	0.51+0.09N	16+1.1N	160	1.22	150	1.50
	FFB30	20.75	16.93	9.65	5.83	0.45+0.11N	19+1.1N	140	1.12	327	3.00
	FFB31	29.6	25.6	12.6	8.7	0.55+0.09N	56+2N	210	1.4	383	3.0

✓	Model Type	Dimensions in millimeters					Weight empty (lbs)	Max. No. of Plates	Plate Area (sq.ft.)	Maximum Flow (m ³ /h)	Connection Size (mm)
		H	E	W	A	L					
	FFB01	194.06	153.92	80.01	40.13	9.91+2.29N	4.41+0.24N	60	0.13	6.81	19.05
	FFB10	306.07	249.94	105.92	50.04	12.45+2.29N	8.82+0.66N	100	0.29	15.90	25.40
	FFB150	304.04	249.94	123.95	70.10	12.45+2.29N	11.02+1.06N	100	0.34	15.90	25.40
	FFB11	521.97	466.09	105.92	50.04	9.91+2.29N	15.43+2.43N	120	0.54	15.90	25.40
	FFB20	528.07	455.93	246.13	173.99	12.95+2.29N	35.27+2.43N	160	1.22	34.06	38.10
	FFB30	527.05	430.02	245.11	148.08	11.43+2.79N	41.89+2.43N	140	1.12	74.26	76.20
	FFB31	751.84	650.24	320.04	220.98	13.97+2.29N	130.07+4.41N	210	1.4	86.98	76.20

We are proud supplier for the following
completed and on going projects :



**Rutgers University
Apartments**
604 Bartholomew Road
Piscataway, NJ 08854



Bella Vista Ltd.,
26 Torbay Road. St.
John's, NL. A2A 2G4



Cit  du Nouveau Monde
64 rue St-Paul Ouest,
Montreal, QC, H2Y 1Y8



Le Murray
1169, Rue Ottawa,
Montr al, QC H3C 1S6

Sales and Service:

Quebec, Canada
Tel. : (450) 621-2995
Fax : (450) 621-4995

Lake Worth
Florida, USA
33467-5749

Toronto, Canada
Tel. : +1 (647) 544-2995

www.flofab.com

SERVICE 24/7 : parts@flofab.com

