

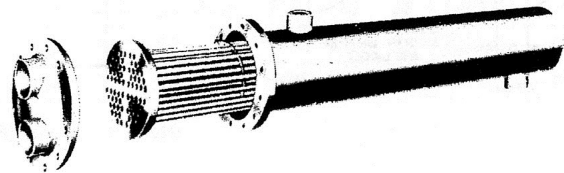


HYDRONIC SPECIALTIES SECTION

Converters - Type S (Steam to Liquid)

APPLICATION

The MEPCO Type "S" steam converters are used primarily for heating radiation water with steam. Definite advantages are to be found in many types of application. Examples would be large installations when zoning is desirable and steam as the source of heat for the zone may simplify the piping design and reduce the design work required for exclusive use of water.



FEATURES

U-tube design allows free expansion and contraction of the tubes under changing operating conditions. The tube bundle can be completely removed from the shell for inspection.

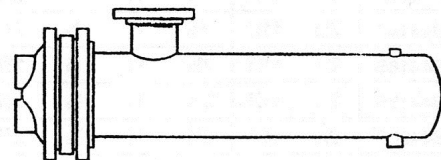
They are commonly applied for providing heating water for office space in industrial buildings; either in adding this space or at time of initial construction.

CODE CONSTRUCTION - All MEPCO heat exchangers are designed and fabricated in accordance with ASME Section VIII.

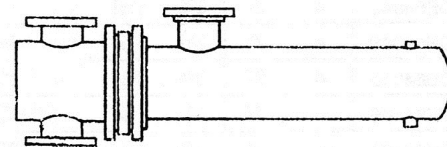
- High degree of flexibility in materials to meet varying conditions.
- Available in 2, 4, or 6 pass construction.
- All fabrication done in-house.

PRESSURE RATINGS -

	STANDARD	OPTIONAL
Tubes	150 psig	400 psig
Shell	150 psig	250 psig
Test Pressure -- 300 psig		
Max. Temperature - 375 degrees F		



4"-10"



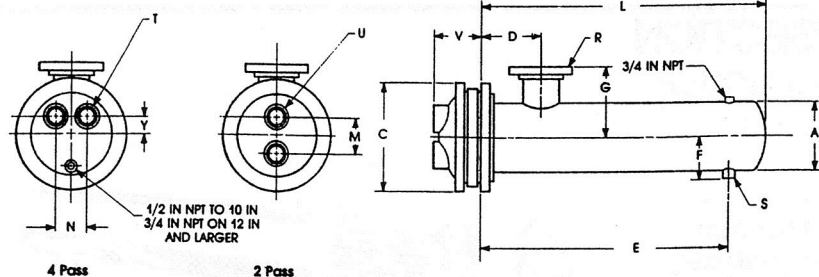
12"-30"

MATERIALS OF CONSTRUCTION

	STANDARD	OPTIONAL
Shell	Steel 304SS, 316SS	
Head (4-10")	Cast Iron	Fabricated Steel, Cast Bronze, Fabricated 304SS/316SS
Head (12-30")	Fabricated Steel	Cast Bronze, Fabricated 304SS/316SS
Tubes	3/4x20 BWG Copper	3/4 x 18 BWG Copper, Steel, 304SS/316SS, 90/10 Cu Ni, Admiralty
Tube Sheet	Steel	Bronze, Brass 304SS, 316SS, 90/10 Cu Ni
Separators	Steel	Bronze, Brass, 304SS, 316SS, 90/10 Cu Ni
Tie Rods	Copper 304SS, 316SS	
Nuts and Bolts	Steel ---	

*125 PSI construction only.

TYPICAL DIMENSIONS



Model Number Key

DB 8 2 18 S - Steam to water type
 Tube bundle length
 (this figure x 6 inches)
 Number of tube passes
 Nominal shell diameter
 U tube

(Note: Steam inlet (R) is threaded through DB10204S)

4 Inch Diameter

Model Number		Cast Iron Heads						Dimensions (Inches)										Htg. Surf. (sq.ft.)	Ship. Wt. (lbs.)
2 Pass	4 Pass	2 Pass		4 Pass				2 and 4 Pass											
		M	U	N	T	Y	V	A	C	D	E	F	G	L	R	S			
DB4204S	DB4404S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	19½	4	4	24½	1¼T	1T	4.6	65	
DB4206S	DB4406S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	31½	4	4	36½	1¼T	1T	7.0	75	
DB4208S	DB4408S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	43½	4	4	48½	1¼T	1T	9.3	84	
DB4210S	DB4410S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	55½	4	4	60½	1¼T	1T	11.7	94	
DB4212S	DB4412S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	67½	4	3¾	72½	1½T	1T	14.1	104	
DB4214S	DB4414S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	79½	4	3¾	84½	1½T	1T	16.4	114	
DB4216S	DB4416S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	91½	4	3¾	96½	1½T	1T	18.8	124	
DB4218S	DB4418S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	103½	4	3¾	108½	1½T	1T	21.1	134	
DB4220S	DB4420S	2½	1½T	2¾	1T	¾	2¾	4½	9	5	115½	4	3¾	120½	1½T	1T	23.5	144	

6 Inch Diameter

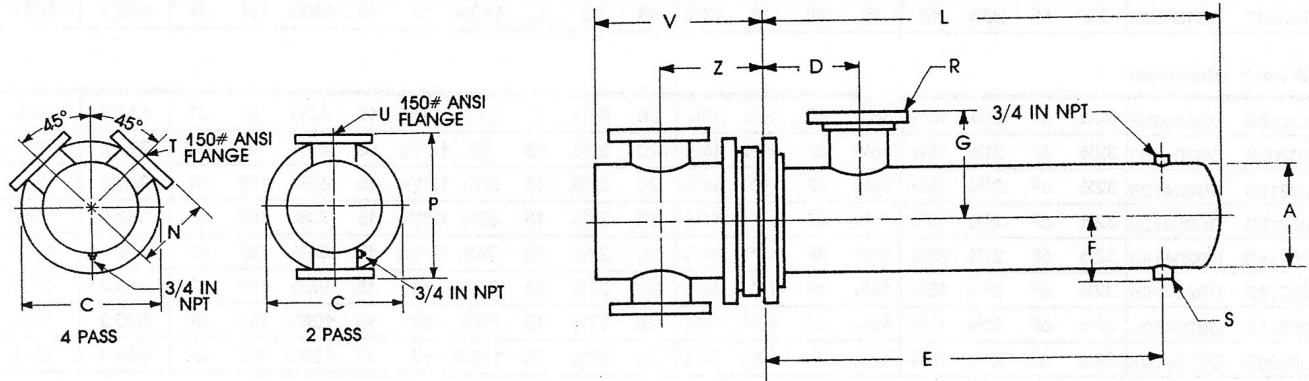
DB6204S	DB6404S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	18½	4¾	4¾	25	1½T	1T	9.1	120
DB6206S	DB6406S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	30½	4¾	4¾	37	2T	1T	13.8	148
DB6208S	DB6408S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	42½	4¾	5¾	49	2½	1T	18.5	182
DB6210S	DB6410S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	54½	4¾	5¾	61	2½	1T	23.2	207
DB6212S	DB6412S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	66½	4¾	5¾	73	3T	1T	27.9	235
DB6214S	DB6414S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	78½	4¾	5¾	85	3T	1T	32.6	262
DB6216S	DB6416S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	90½	4¾	5¾	97	3T	1T	37.3	290
DB6218S	DB6418S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	102½	4¾	5¾	109	3T	1T	42.1	318
DB6220S	DB6420S	4	2T	3¾	1½T	1¼	3¾	6¾	11	5	114½	4¾	5¾	121	3T	1T	46.8	346

8 Inch Diameter

DB8204S	DB8404S	5	3T	4	2T	2	4¼	8¾	13½	8	18	6	6	24	2T	1T	16.5	192
DB8206S	DB8406S	5	3T	4	2T	2	4¼	8¾	13½	8	30	6	6¾	36	2½T	1T	25.1	234
DB8208S	DB8408S	5	3T	4	2T	2	4¼	8¾	13½	8	42	6	6¾	48	3T	1T	33.7	283
DB8210S	DB8410S	5	3T	4	2T	2	4¼	8¾	13½	8	54	6	8¾	60	4F	1T	42.4	326
DB8212S	DB8412S	5	3T	4	2T	2	4¼	8¾	13½	8	66	6	8¾	72	4F	1¼T	51.0	369
DB8214S	DB8414S	5	3T	4	2T	2	4¼	8¾	13½	8	78	6	8¾	84	4F	1¼T	59.7	390
DB8216S	DB8416S	5	3T	4	2T	2	4¼	8¾	13½	8	90	6	8¾	96	6F	1¼T	68.3	453
DB8218S	DB8418S	5	3T	4	2T	2	4¼	8¾	13½	8	102	6	8¾	108	6F	1¼T	76.9	496
DB8220S	DB8420S	5	3T	4	2T	2	4¼	8¾	13½	8	114	6	8¾	120	6F	1¼T	85.6	540

10 Inch Diameter

Model Number		Cast Iron Heads						Dimensions (Inches)										Htg. Surf. (sq.ft.)	Ship. Wt. (lbs.)
2 Pass	4 Pass	2 Pass		4 Pass				2 and 4 Pass											
		M	U	N	T	Y	V	A	C	D	E	F	G	L	R	S			
DB10204S	DB10404S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	17	7½	7 ¹⁵ / ₁₆	24	3T	1T	26.8	300	
DB10206S	DB10406S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	29	7½	10	36	4F	1T	40.9	353	
DB10208S	DB10408S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	41	7½	10	48	4F	1¼T	55.0	415	
DB10210S	DB10410S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	53	7½	10	60	6F	1¼T	69.2	476	
DB10212S	DB10412S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	65	7½	10	72	6F	1½T	83.3	537	
DB10214S	DB10414S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	77	7½	10	84	6F	1½T	97.5	598	
DB10216S	DB10416S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	88½	7½	10	96	6F	2T	111.6	660	
DB10218S	DB10418S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	100½	7½	10	108	6F	2T	125.7	721	
DB10220S	DB10420S	6¼	3T	5½	3T	2¼	4¾	10¾	16	8	112½	7½	10	120	6F	2T	139.9	782	



12 Inch Diameter

Model Number		Fabricated Steel Heads								Dimensions (Inches)										Htg. Surf. (sq.ft.)	Ship. Wt. (lbs.)
2 Pass	4 Pass	2 Pass P U V Z				4 Pass N T V Z				2 and 4 Pass A C D E F G L R S											
DB12206S	DB12406S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	29	8%	11	36%	4F	1¼T	58.6	510	
DB12208S	DB12408S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	41	8%	11	48%	6F	1¼T	79.0	596	
DB12210S	DB12410S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	53	8%	11	60%	6F	1½T	99.5	681	
DB12212S	DB12412S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	65	8%	11	72%	6F	2T	119.9	772	
DB12214S	DB12414S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	77	8%	11	84%	8F	2T	140.3	857	
DB12216S	DB12416S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	88	9	11	96%	8F	2½T	160.8	941	
DB12218S	DB12418S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	100	9	11	108%	8F	2½T	181.2	1027	
DB12220S	DB12420S	24	4F	14%	10%	12	3F	14%	10%	12%	19	10	112	9	11	120%	8F	2½T	201.6	1111	

14 Inch Diameter

DB14206S	DB14406S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	29	8¾	12	37¼	6F	1¼T	75.7	568
DB14208S	DB14408S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	40½	8¾	12	49¼	6F	2T	102.4	664
DB14210S	DB14410S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	52½	8¾	12	61¼	6F	2T	129.1	756
DB14212S	DB14412S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	64½	8¾	12	73¼	8F	2T	155.8	847
DB14214S	DB14414S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	76	9¾	12	85¼	8F	2½T	182.5	937
DB14216S	DB14416S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	88	9¾	12	97¼	8F	2½T	209.2	1029
DB14218S	DB14418S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	100	9¾	12	109¼	10F	2½T	236.0	1120
DB14220S	DB14420S	26	6F	18¾	12¾	13	4F	16¾	11¾	14	21	10	112	9¾	12	121¼	10F	3T	262.7	1212

16 Inch Diameter

DB16206S	DB16406S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	28½	9¾	13	37	6F	1¼T	104.5	745
DB16208S	DB16408S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	40	9¾	13	49	6F	2T	141.4	863
DB16210S	DB16410S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	52	10¾	13	61	8F	2½T	178.4	981
DB16212S	DB16412S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	64	10¾	13	73	8F	2½T	215.3	1105
DB16214S	DB16414S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	76	10¾	13	85	10F	2½T	252.2	1187
DB16216S	DB16416S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	87½	10¾	13	97	10F	3T	289.1	1305
DB16218S	DB16418S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	99½	10¾	13	109	10F	3T	326.0	1424
DB16220S	DB16420S	28½	6F	19¾	13¾	14¼	4F	17¾	12¾	16	23½	11	111½	10¾	13	121	10F	3T	363.0	1541

TYPICAL DIMENSIONS

18 Inch Diameter

Model Number		Fabricated Steel Heads								Dimensions (Inches)										Htg. Surf. (sq.ft.)	Ship. Wt. (lbs.)
		2 Pass				4 Pass				2 and 4 Pass											
2 Pass	4 Pass	P	U	V	Z	N	T	V	Z	A	C	D	E	F	G	L	R	S			
DB18206S	DB18406S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	27½	10¾	14	36½	6F	2T	130.7	902	
DB18208S	DB18408S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	39½	10¾	14	48½	8F	2T	177.0	1044	
DB18210S	DB18410S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	51	11¾	14	60½	8F	2½T	223.4	1183	
DB18212S	DB18412S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	62½	11¾	14	72½	10F	3T	269.7	1326	
DB18214S	DB18414S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	74½	11¾	14	84½	10F	3T	316.1	1445	
DB18216S	DB18416S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	86½	11¾	14	96½	10F	3T	362.4	1586	
DB18218S	DB18418S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	98½	11¾	14	108½	12F	3T	408.8	1732	
DB18220S	DB18420S	30	6F	20¼	14	15	4F	18	12¾	18	25	13	110½	12	14	120½	12F	4F	455.1	1871	

20 Inch Diameter

DB20206S	DB20406S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	27½	11¾	15	36¾	8F	2T		163.9	1060
DB20208S	DB20408S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	39	12¼/16	15	48¾	8F	2½T		223.6	1226
DB20210S	DB20410S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	50½	12¼/16	15	60¾	10F	3T		283.3	1386
DB20212S	DB20412S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	62½	12¼/16	15	72¾	10F	3T		343.0	1547
DB20214S	DB20414S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	74½	12¼/16	15	84¾	12F	3T		402.7	1706
DB20216S	DB20416S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	86½	13	15	96¾	12F	4F		462.4	1867
DB20218S	DB20418S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	98½	13	15	108¾	12F	4F		522.2	2041
DB20220S	DB20420S	32½	6F	21¾	15¾	16¼	4F	19¾	14¾		20	27½	13	110½	13	17	120¾	14F	4F		581.9	2202

22 Inch Diameter

DB22206S	DB22406S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	25.38	16	17	38.62	12F	4F		193.5	1212
DB22208S	DB22408S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	37.38	16	17	50.62	12F	4F		265.0	1396
DB22210S	DB22410S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	49.38	16	17	62.62	12F	4F		336.5	1580
DB22212S	DB22412S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	61.38	16	17	74.62	12F	4F		408.0	1764
DB22214S	DB22414S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	73.38	16	17	86.62	12F	4F		479.5	1948
DB22216S	DB22416S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	14	85.38	16	17	98.62	12F	4F		551.0	2132
DB22218S	DB22418S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	15	97.38	16	18	110.62	14F	4F		622.5	2316
DB22220S	DB22420S	35	10F	26½	17¾	17¼	8F	24½	17		22	29½	15	109.38	16	18	122.62	14F	4F		694.0	2500

24 Inch Diameter

DB24206S	DB24406S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	25	17	18	38	12F	4F		236	1492
DB24208S	DB24408S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	37	17	18	50	12F	4F		324	1710
DB24210S	DB24410S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	49	17	18	62	12F	4F		412	1928
DB24212S	DB24412S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	61	17	18	74	12F	4F		500	2146
DB24214S	DB24414S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	73	17	18	86	12F	4F		588	2364
DB24216S	DB24416S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	14	85	17	18	98	12F	4F		676	2582
DB24218S	DB24418S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	15	97	17	19	110	14F	5F		764	2800
DB24220S	DB24420S	37½	10F	27¾	18¾	18½	8F	25¾	17¾		24	32	15	109	17	19	122	14F	5F		852	3018

26 Inch Diameter

DB26206S	DB26406S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	23¾	18	20	36	14F	5F		288.6	1792
DB26208S	DB26408S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	35¾	18	20	48	14F	5F		393.4	2036
DB26210S	DB26410S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	47¾	18	20	60	14F	5F		500.2	2280
DB26212S	DB26412S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	59¾	18	20	72	14F	5F		607.0	2524
DB26214S	DB26414S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	71¾	18	20	84	14F	5F		713.8	2768
DB26216S	DB26416S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	15	83¾	18	20	96	14F	5F		820.6	3012
DB26218S	DB26418S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	16	95¾	18	21	108	16F	6F		927.4	3256
DB26220S	DB26420S	37	12F	28¾	19	18¼	8F	24¾	17		26	34¼	16	107¾	18	21	120	16F	6F		1034.0	3500

30 Inch Diameter

Model Number		Fabricated Steel Heads								Dimensions (Inches)										Htg. Surf. (sq.ft.)	Ship. Wt. (lbs.)
2 Pass	4 Pass	2 Pass				4 Pass				2 and 4 Pass											
		P	U	V	Z	N	T	V	Z	A	C	D	E	F	G	L	R	S			
DB30206S	DB30406S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	23	20	22	38½	16F	6F	377.6	2567	
DB30208S	DB30408S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	35	20	22	50½	16F	6F	520.5	2886	
DB30210S	DB30410S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	47	20	22	62½	16F	6F	663.4	3205	
DB30212S	DB30412S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	59	20	22	74½	16F	6F	806.3	3524	
DB30214S	DB30414S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	71	20	22	86½	16F	6F	949.2	3843	
DB30216S	DB30416S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	16	83	20	22	98½	16F	6F	1092.0	4162	
DB30218S	DB30418S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	17	95	20	22	110½	18F	8F	1235.0	4481	
DB30220S	DB30420S	42	14F	31%	21%	20%	10F	28%	19%	30	38%	17	107	20	22	122½	18F	8F	1378.0	4800	

SIZING AND SELECTION

Refer to **Selection Guide** for manual selection procedure Form 1460-1.
Computer selections available through MEPCO Representatives.

Following data is required:

1. Steam Pressure at Heat Exchanger.
2. Flow in Tubes (GPM).
3. Type of Fluid in Tubes.
4. Properties of Fluids (if other than water).
5. Temperature in.
6. Temperature Out.
7. Fouling Factor.

TYPICAL SADDLE DIMENSIONS (Optional)

Unit Size	Dimensions (inches)			Hole Dia.
	H	W	X	
4	5¼	6½ ¹⁵ / ₁₆	5½	½
6	6 ⁵ / ₁₆	9¼	7½	¾
8	7 ⁹ / ₁₆	11¼	9	¾
10	8¾	13¾	10	¾
12	9¾	15¾	11	¾
14	10	17	12	¾
16	12	19	13	¾
18	13	21	14	¾
20	14	23	14	¾
22	17	25	18	¾
24	18	27	19	¾
26	19	30	20	¾
30	21	33	22	¾

Note: Two adjustable U-bolt type saddles furnished when specified only.

