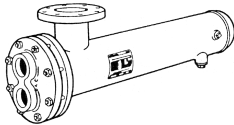


JOB:		REPRESENTATIVE:	
UNIT TAG:		ORDER NO.	DATE:
ENGINEER:		SUBMITTED BY:	DATE:
CONTRACTOR:		APPROVED BY:	DATE:



16" Series
Type "SU" Heat Exchangers
"U" Tube Design

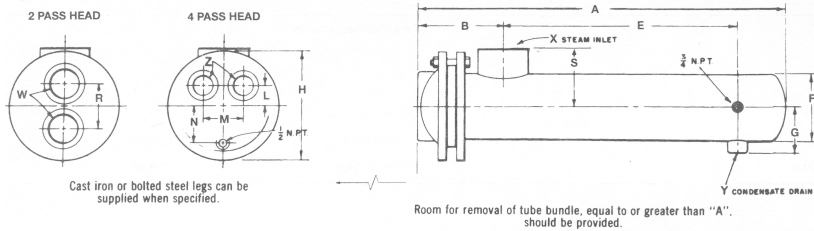
DESCRIPTION

B & G Types "SU" Heat Exchangers are of the shell and tube type. The tube bundle is of "U" bend construction with tube ends expanded into a stationary tube sheet. This construction permits ample expansion or contraction for wide temperature variations. A fluid entering the tubes is heated by steam condensing in the single pass shell. Tube spacers properly support and space each tube for maximum efficiency in steam condensation and drainage.

Standard "SU" Heat Exchangers are constructed according to ASME requirements for pressure and temperatures

A Manufacturers' Data Report for Pressure Vessels, Form No. U-1, as required by the provisions of the ASME Code Rules, is furnished with each unit upon request. This form is signed by an authorized inspector, holding a national Board Commission, and who is employed by an authorized inspection agency, certifying that construction conforms to the latest ASME code for pressure vessels. The ASME "U" symbol is stamped on each vessel. In addition, each unit is registered with the national Board of Boiler and pressure Vessel Inspectors.

RECOMMENDED "SU" HEAT EXCHANGER		
MODEL NO.	HEATING SURFACE (SQ. FT.)	
1. Steam Pressure	TUBESHELL	APPROVALS
2. Fluid Circulated	SIDE SIDE	
3. Total Flow (Expressed in GPM, GRH or lbs./hr)	_____	
4. Temperature In/Out	_____	
5. Heat Load BTU/hr	_____	
6. Pressure Drop (Maximum)	_____	
7. Fouling Factor or Percentage of Additional Surface	_____	
Note: Following applies only to fluids other than water.	_____	
8. Specific Gravity	_____	
9. Specific Heat	_____	
10. Latent Heat	_____	
11. Viscosity**	_____	
12. Thermal Conductivity	_____	
**Expressed in Proper Units and Temperature such as centipoises @ °F		



UNIT NUMBER.	DIMENSIONS IN INCHES											HEATING SURFACE	APPROX. SHIPPING WEIGHT
	2 PASS		2 AND 4 PASS										
	W	R	A	B	E	F	G	H	S	X	Y		
SU163-2	6NPT	9-1/8(232)	48-5/8(1235)	16-1/2(419)	21(533)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	6FLG	1.5NPT	112 (10.4)	582 (264)
SU164-2	6NPT	9-1/8(232)	57-5/8(1464)	16-1/2(419)	33(838)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	6FLG	2NPT	150 (13.9)	682 (309)
SU165-2	6NPT	9-1/8(232)	69-5/8(1768)	16-1/2(419)	45(1143)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	8FLG	2.5NPT	188 (17.5)	792 (359)
SU166-2	6NPT	9-1/8(232)	81-5/8(2073)	16-1/2(419)	57(1448)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	8FLG	2.5NPT	227 (21.1)	897 (407)
SU167-2	6NPT	9-1/8(232)	93-5/8(2378)	16-1/2(419)	69(1753)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	2.5NPT	265 (24.6)	1002 (455)
SU168-2	6NPT	9-1/8(232)	105-5/8(2683)	16-1/2(419)	81(2057)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	304 (28.2)	1107 (502)
SU169-2	6NPT	9-1/8(232)	117-5/8(2988)	16-1/2(419)	93(2362)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	342 (31.8)	1212 (550)
SU1610-2	6NPT	9-1/8(232)	129-5/8(3292)	16-1/2(419)	105(2667)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	380 (35.3)	1317 (597)

UNIT NUMBER.	DIMENSIONS IN INCHES													HEATING SURFACE	APPROX. SHIPPING WEIGHT
	4 PASS				2 AND 4 PASS										
	L	M	N	Z	A	B	E	F	G	H	S	X	Y		
SU163-4	4(102)	8(203)	7-9/16(192)	4NPT	48-5/8(1235)	16-1/2(419)	21(533)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	6FLG	1.5NPT	106 (9.8)	582 (264)
SU164-4	4(102)	8(203)	7-9/16(192)	4NPT	57-5/8(1464)	16-1/2(419)	33(838)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	6FLG	2NPT	143 (13.3)	682 (309)
SU165-4	4(102)	8(203)	7-9/16(192)	4NPT	69-5/8(1768)	16-1/2(419)	45(1143)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	8FLG	2.5NPT	180 (16.7)	792 (359)
SU166-4	4(102)	8(203)	7-9/16(192)	4NPT	81-5/8(2073)	16-1/2(419)	57(1448)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	8FLG	2.5NPT	217 (20.2)	897 (407)
SU167-4	4(102)	8(203)	7-9/16(192)	4NPT	93-5/8(2378)	16-1/2(419)	69(1753)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	2.5NPT	254 (23.6)	1002 (455)
SU168-4	4(102)	8(203)	7-9/16(192)	4NPT	105-5/8(2683)	16-1/2(419)	81(2057)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	291 (27)	1107 (502)
SU169-4	4(102)	8(203)	7-9/16(192)	4NPT	117-5/8(2988)	16-1/2(419)	93(2362)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	327 (30.4)	1212 (550)
SU1610-4	4(102)	8(203)	7-9/16(192)	4NPT	129-5/8(3292)	16-1/2(419)	105(2667)	16(406)	9-1/2(241)	19-7/8(505)	12-1/2(318)	10FLG	3NPT	363 (33.7)	1317 (597)

DESIGN PRESSURES - ASME CONSTRUCTION
CAST IRON & BRASS UNITS

DESIGN PRESSURES				DESIGN TEMPERATURES*	
TUBE SIDE		SHELL SIDE		TUBE & SHELL SIDE	
DESIGN	TEST	DESIGN	TEST	CAST IRON	BRASS
125 psi	250 psi	150 psi	300 psi	375 °F	300 °F
2 & 4 Pass Head (Flanged Connections) Cast Iron Only					
150 psi	300 psi	150 psi	300 psi	375 °F	-

*For design pressures and temperatures higher than shown, consult B & G Representative for specifications and dimensions.

MATERIALS

PART	STANDARD CAST IRON UNIT	BRASS UNIT
	2, 4 & 6 Pass	2 & 4 Pass
Head	Cast Iron	Cast Brass
Shell	Steel	Steel
Tube Sheets	Steel	Royal Naval Brass
Tubing	Cooper 3/4" O.D.	Cooper 3/4" O.D.
Tube Supports	Steel	Steel
Nuts & Bolts	Steel	Steel

TYPICAL INSTALLATION OF "SU" HEAT EXCHANGER

Steam Hammer can cause serious damage to the tubes of any Heat Exchanger. A careful consideration of the following points before an installation is made can prevent costly repairs which may be caused by steam hammer.

(a) A vacuum breaker and/or vent, should be used in accordance with the type of system installed.

(b) The proper trap for the steam system installed should be used. (c) The trap and the condensate return line to the trap should be properly sized for the total capacity of the converter.

(d) The trap should be sized for the pressure at the trap, not the inlet pressure to the steam controller.

CAUTION: A properly sized relief valve must be installed on the heater water side to protect heat exchangers from possible damage due to volumetric expansion.

