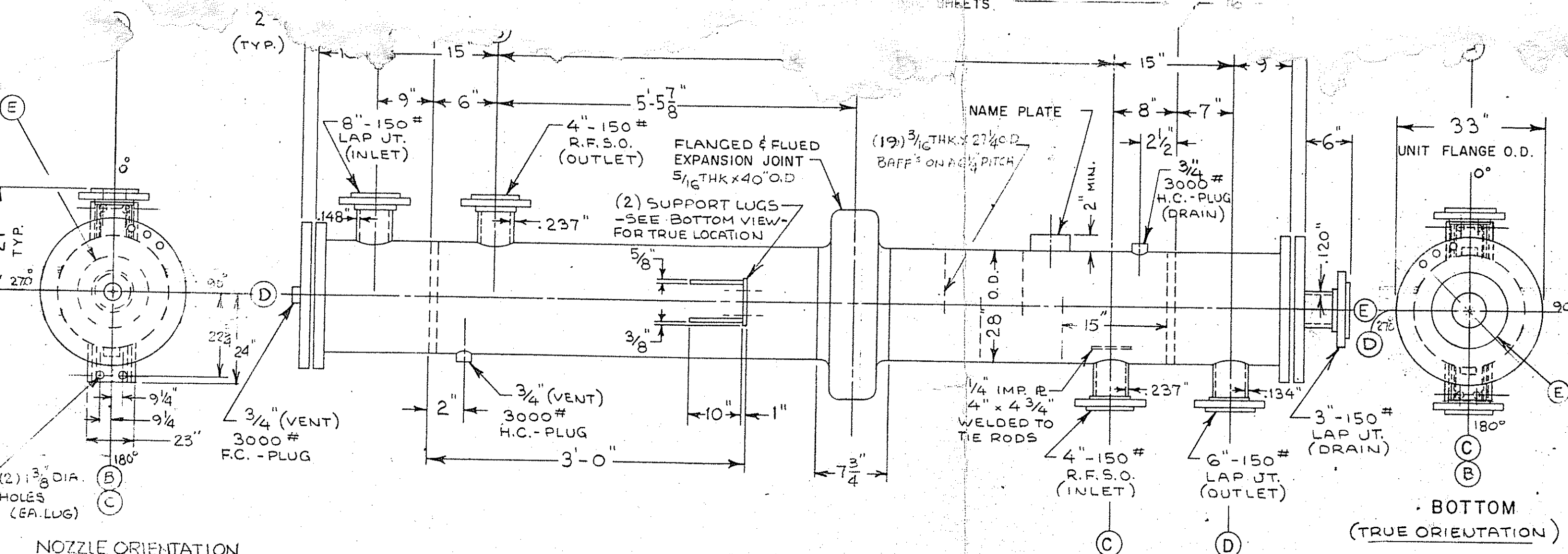




U NAT'L BD. 182
 DIV. I SERIAL 2441
 W YEAR 1973

SHELL 100 PSI AT 250 °F
 TUBES 75 PSI AT 250 °F
 JACKET PSI AT °F

P.O. NO. 026-57018
 ITEM NO. E-6515-2

- TEST PRESSURE 150 PSI 113 PSI
 CORROSION ALLOW. 1/16" 0" TUBES
- WEIGHTS:
 EMPTY 7330 LBS.
 FULL OF WATER LBS.
- PAINT: (1) ONE COAT RED PRIMER (C.S.)
 SANDBLAST: NONE
- TUBE HOLES TO BE GROOVED PER TEMA "B"
- STRESS RELIEVE: NONE
- RADIOGRAPHY: NONE
- SPECIAL TESTS: NONE
- CUSTOMER'S INSPECTION:
- NOZZ. FLG'S. TO HAVE WOODEN
 COVERS BOLTED ON.
- VESSEL TO BE THOROUGHLY CLEAN
 INSIDE & OUTSIDE & SHALL BE FREE
 FROM GREASE, ALL MARKING COM-
 POUNDS, WELD SPATTER, SCALE,
 SLAG & ANY OTHER FOREIGN
 MATTER. CLEAN S/S W/ WIRE BRUSH
 NOT USED ON ANY OTHER MATERIAL.
- PAINT ON UNIT (W/ 3" HIGH NUMBERS)
 (HERCULES ITEM NO.) E-6515-2

CUSTOMER: HERCULES INC.
 P.O. NO. 026-57018
 UNITS REQUIRED: (1) ONE
 ATLAS JOB NO. 2479

4	WAS JOB NO. 2340, N.B. 1612, SER. 1922	10-18-72
3	HERCULES P.O. NO. 026-35108	CB 6-28-72
2	SHELL DRAIN COUP WAS 1"	CLB 5-5-72
1	REV. PER CUST. MKD. PRT 4-7-72	4-19-72
REV.	BY	DATE

NOZZLE NECKS	S/S-304	SA-312	STUDS	SA-193 GR B7	GASKETS (1-SPARE SET RECD.)
FITTINGS	S/S-304	SA-1		SA-193 GR	COMPRESSED ASBESTOS
RS FACED	C/S	S-3-70			DOUBLE JACKETED
WEL SHEETS	S/S-304	SA-240	NUTS	SA-194 GR 2H	UM-60
LESS	S/S-304	SA-250		SA-192 CI.2	SEALING STRIPS
IMP. R.	C/S	SA-36			302 SS-18-8
SUPPORTS	C/S	SA-36			



HERCULES INCORPORATED

HEAT EXCHANGER SPECIFICATIONS

REFERENCE	1 PLANT Hanover		JOB NO. 026057	EQUIP. NAME DMT SCRUBBER VENT COND.	
	2 AREA Cryst.		NO. 2047	EQUIP. NO. E-6515-2	
	3 BLDG.		NO.	NO. UNITS ONE	
	4 ORDER 026-57018		VENDOR Atlas Ind. Mfg. Co.	B.P.F. NO. 43578	
	5 MADE BY Schober		CHKD. BY	APPR. BY	
PROCESS AND GENERAL	6	SURFACE AREA: EACH UNIT 1400		SQ. FT. EACH SHELL SQ. FT.	
	7	NO. SHELLS One			
	8	WEIGHTS — EACH SHELL		LB. BUNDLE LB. FULL OF WATER LB.	
	9				
	10	FLUID CIRCULATED		SHELL SIDE TUBE SIDE	
	11	TOTAL FLUID ENTERING		Water MeOH - Inerts	
	12	TOTAL VAPOR ENTERING		LB./HR. LB./HR.	
	13	TOTAL LIQUID ENTERING		LB./HR. LB./HR.	
	14	TOTAL STEAM ENTERING		200 GPM LB./HR. LB./HR.	
	15	TOTAL NON-CONDENSABLES ENTERING		LB./HR. LB./HR.	
	16	FLUIDS VAPORIZED OR VAPORS CONDENSED		LB./HR. LB./HR.	
	17	STEAM CONDENSED			
	18	SPECIFIC GRAVITY @ TEMPERATURE			
	19	VISCOSITY IN		@ °F. @ °F.	
	20	VISCOSITY OUT		CP. CP.	
	21	THERMAL CONDUCTIVITY		CP. CP.	
	22	MOLECULAR WEIGHT OF VAPORS		BTU/HR.-FT./°F. BTU/HR.-FT./°F.	
	23	SPECIFIC HEAT OF LIQUIDS			
	24	LATENT HEAT OF VAPORS		BTU/LB./°F. BTU/LB./°F.	
	25	TEMPERATURE IN		BTU/LB. BTU/LB.	
	26	TEMPERATURE OUT		88 °F. 150 °F.	
	27	OPERATING PRESSURE		°F. °F.	
	28	DESIGN PRESSURE — TEMPERATURE		70 PSIG 2 PSIG	
	29	TEST PRESSURE — HYDROSTATIC		100 PSIG @ 250 °F. 75 PSIG @ 250 °F.	
	30	PRESSURE DROP — ALLOWABLE		150 PSIG 113 PSIG	
	31	PRESSURE DROP — CALCULATED		10 PSIG PSIG	
	32	PASSES PER SHELL		PSIG PSIG	
	33	VELOCITY			
	34	FOULING RESISTANCE		FT./SEC. FT./SEC.	
	35	CODE REQUIREMENTS ASME Sect VIII		TEMA CLASS B	
	36	HEAT EXCHANGED BTU/HR.		TEMA TYPE DESIGNATION CEN	
	37	TRANSFER RATE — SERVICE		MTD. (CORRECTED) CLEAN	
	CONSTRUCTION AND MATERIALS	38	TUBES: MATERIAL 304 S.S.		QUAN. 595 O.D. 3/4 IN. 18 GA. LENGTH 144 IN. PITCH (A) □ 0
		39	TUBE ATTACHMENT □ ROLLED □ WELDED		□ GROOVED AND ROLLED PITCH 15/16 INCHES
		40	TUBE SUPPORTS		PITCH THICKNESS IN. NO. TIE RODS
41		TUBE SHEETS 304 S.S. □ STATIONARY □ FLOATING			
42		SHELL: C.S. I.D. IN. O.D. ~ 28 IN. THICKNESS IN. □ VERT. □ HORIZ.			
43		SHELL COVER THICKNESS INCHES O.D. INCHES □ REMOV. □ INTEG.			
44		FLOATING HEAD COVER THICKNESS INCHES O.D. INCHES			
45		EXPANSION JOINTS □ YES □ NO TYPE Flanged & Flued			
46		EXPANSION JOINT DESIGN CRITERIA		SHELL TEMP 60 °F. TUBE TEMP 150 °F.	
47		CHANNEL OR BONNET THICKNESS INCHES CHANNEL COVER THICKNESS INCHES			
48		BAFFLES — CROSS Yes PITCH TYPE THICKNESS INCHES			
49		BAFFLES — LONG No TYPE THICKNESS INCHES			
50		GASKETS JM 60		TEST GASKETS JM 60	
51		CONNECTIONS: SHELL IN 4"		OUT 4" SERIES 150# RF	
52		CONNECTIONS: CHANNEL IN 8"		OUT 6" - 3" Drain SERIES 150# RF	
53		IMPINGEMENT PLATES □ YES □ NO THICKNESS INCHES			
54		CORROSION ALLOWANCE: SHELL SIDE 1/16"		TUBE SIDE None	
REMARKS		55	PAINTING Shop Coat Red Lead - C/S Parts		
	56				
	57	Vertically mounted - all nozzles in horizontal plane			
	58	except 3" drain			
59					
60					
61					

This is the information and know-how thereon, is the confidential property of HERCULES INCORPORATED and may not be used or reproduced without the written permission of HERCULES INCORPORATED. Permitted reproductions in whole or in part, including borrower's shop drawings, shall bear or refer to this notice. Return of this print must be made to HERCULES INCORPORATED upon request.