

SMITHCO Engineering Inc.
 P.O. Box 571330 Tulsa, OK 74157
 Ph. (918) 446-4406 FAX (918) 445-2857

**AIR COOLED EXCHANGER
 SPECIFICATION SHEET**

Date	Tue* 1:49 pm*03-FEB-09
Job No.	2008B-701-01
Reference	2561
Item No.	21PRO-E-2105

1	Customer	STONE & WEBSTER, INC (MA)		
2	Plant Location	Pocatello, Idaho		
3	Service	HT WATER AIR COOLER		
4	Model	3 F46-140-3	Type	FORCED
5	Surface per Unit-Finned Tube	218,900	Ft ²	No. of Bays 3
6	Heat Exchanged	121,000,000	BTU/Hr	Bare Tubes 10,340 Ft ²
7	Transfer Rate-Finned Tube	5.30	Bare Tube, Service	112.26 BTU/Hr. Ft ² °F

PERFORMANCE DATA-TUBE SIDE

9	Fluid Name	WATER		Lethal Service	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	IN	OUT
10	Total Fluid Entering	Lb/Hr	3,263,000	Density	Lb/Ft ³		57.5	58.6
11		IN	OUT	Specific Heat (Liq/Vap)	BTU/Lb°F		1.03 /	1.02 /
12	Temperature	°F	293.0	257.0	Cond. avg (Liq/Vap)	BTU/HrFt°F		.396 /
13	Liquid	Lb/Hr	3,263,000	3,263,000	Pour/Freeze Point	°F		
14	Vapor	Lb/Hr (MW)			Bubble Point	°F		
15	Nocond	Lb/Hr (MW)			Latent Heat	BTU/Lb		
16	Steam	Lb/Hr			Pressure	Psia		101.00
17	Water	Lb/Hr			Pressure Drop Allow/Calc	Psi		10.00 / 2.19
18	Viscosity (Liq/Vap)	Cp	.1900 /	.2200 /	Fouling resist, Inside	ft ² hr °F/BTU		0.00100

PERFORMANCE DATA-AIR SIDE

20	Air Quantity	SCFM	1,132,000	Lb/Hr	5,093,000	Altitude	Ft	4,437
21	Air Quantity/Fan	ACFM	152,700			Temperature In	°F	95.0
22						Temperature Out	°F	193.5

DESIGN - MATERIAL - CONSTRUCTION

25	Design Pressure	185	Psig	Test Pressure	241	Psig	Design Temperature	345 / MDMT -30 °F
26	TUBE BUNDLE	HEADER, Type PLUG BOX			TUBE Material SA-214 WLD			
27	Size	14.0 x 46.0		Material	SA-516 GR-70			
28	No.	3	No. Tube Rows	4	No. Passes	1	Slope	0.0000 In/Ft
29	Bays	3	In Parallel	In Series	Plug	A1051822		No./Bundle 286
30	Bundles	3	In Parallel	In Series	Gasket	CS1813		Pitch 2.3125
31	Pass Arrangement (Top to Bottom)				Corrosion Allowance	0.1250	In	FIN Type L-TENSION
32	Rows / Pass	4 / 1		Size In Nozzle (2)	10.00	SCH 100	SA-106B	In Material ALUM
33	Turbulators	NO		Size Out Nozzle (2)	10.00	SCH 100	SA-106B	In OD 2.250 In Stock Thick 0.016 In
34	Steam Coil	NO		Rating & Facing	150 -RF SA-105		No/In 10	Support Chan. / Staple
35	Hailscreens	NO		Vent (1)	1-6000	Drain (1)	1-6000	Code-ASME VIII, Div 1 YES Stamp NATL
36	Louvers	OVER THE SIDE RECIRC SYSTEM			TI	PI		Radiograph YES API-661 Heat Treat YES
37	Frame Finish	HTC 1 Coat Galvanize		Header Finish	WMSB 1 Coat Metalize		Tube Hole Grooving	YES

MECHANICAL EQUIPMENT

39	FAN Mfg & Model	COFIMCO 3353-6-24L/B3T		DRIVER Type	ELECTRIC MOTOR		SPEED REDUCER Type	V-BELT
40	No./Bay	3	RPM	245	S.F.	1.15	Insul/TR CLASS	F / B
41	Dia.	11.0	Ft.	No. Blades	6	No./Bay	3	Test Run Fan
42	Pitch	ADJUSTABLE	Angle°	14.	RPM (3)	1750	Duty	CHEM
43	Matl, Blade	ALUM	Hub	ALUM	Enclosure	TEFC (H.E.)	V & D	None
44	HP/Fan, Des.	21.8	DBA	85.	V/PI/C	460/3/60	Space Heater	NO
							Vibration Switch	MURPHY VS-2EX

STRUCTURE

45	Mounting	GRADE
46	Windload - PSF	34.0
47	Finish	HTC 1 Coat Galvanize

WALKWAYS

Inlet Header	in. None
Outlet/Return	in. None
Drive Access	in. None

NOTES

48	Coil Volume (ft ³):	63.
49	Unit Provided With	Recirculation System.
50	Assembled Drive, Structure & Bundles (Within Shipping Restrictions)	
51		
52		
53		
54		
55	Plot Area	42.0 x 46.0 ft
	Weight Bundle	24,920
	Lbs	Total Shipping
		151,500
		Lbs

IMPERIAL 4/94