

BURNER DATASHEET

PURCHASER / OWNER:
ITEM NO.:
SERVICE:
LOCATION:

GENERAL DATA

1	TYPE OF HEATER	Cylindrical (Twin-Cell)	Rev
2	ALTITUDE ABOVE SEA LEVEL [m]	27.1	
3	AIR SUPPLY		
4	AMBIENT/ PREHEATED AIR/ GAS TURBINE EXHAUST	Preheated Air	
5	TEMPERATURE [C]	300	
6	RELATIVE HUMIDITY [Percent]	0	
7	DRAFT TYPE: FORCED/ NATURAL/ INDUCED/ BALANCED	Natural	
8	DRAFT AVAILABLE: ACROSS BURNER, [inH2O]	-0.495 (1)	
9	DRAFT AVAILABLE: ACROSS PLENUM, [inH2O]	-	
10	REQUIRED TURNDOWN	5 (1)	
11	BURNER WALL SETTING THICKNESS [m]	By Vendor	
12	HEATER CASING THICKNESS [m]	0.006	
13	FIREBOX HEIGHT (LINING INSIDE) [m]	11	
14	TUBE CIRCLE DIAMETER [m]	3.795	

BURNER DATA


15	MANUFACTURER		
16	TYPE OF BURNER	Raw Gas-Conventional	
17	MODEL / SIZE		
18	DIRECTION OF FIRING	Vertically-Fired	
19	LOCATION (ROOF/ FLOOR/ SIDEWALL)	Floor	
20	NUMBER REQUIRED	8	
21	MINIMUM DISTANCE BURNER CENTERLINE [m]		
22	TO TUBE CENTERLINE (HORIZONTAL)	0.898	
23	TO ADJACENT BURNER CENTERLINE (HORIZONTAL)	1.414 (Estimated)	
24	TO UNSHIELDED REFRACTORY (HORIZONTAL)		
25	BURNER CIRCLE DIAMETER [m]	2	
26	PILOTS:		
27	NUMBER REQUIRED	One per Burner (1)	
28	TYPE	Self-Inspiring (2)	
29	IGNITION METHOD	Electrical Portable (2)	
30	FUEL	Fuel Gas (1)	
31	FUEL PRESSURE [bar]	1.355 - 2.044 (2)	
32	CAPACITY [W]	21980.3 (1)	

OPERATING DATA

33	FUEL	Fuel Gas	
34	HEAT RELEASE PER BURNER [kW]		
35	DESIGN	3179.8945 (1)	
36	NORMAL	2649.9121	
37	MINIMUM		
38	EXCESS AIR @ DESIGN HEAT RELEASE. %	15	
39	AIR TEMPERATURE [C]	300	
40	DRAFT (AIR PRESSURE) LOSS [inH2O]		
41	DESIGN		
42	NORMAL	0.63	
43	MINIMUM		
44	FUEL PRESSURE REQUIRED @ BURNER [bar]	N/A	
45	FLAME LENGTH @ DESIGN HEAT RELEASE [m]	3.366	
46	FLAME SHAPE (ROUND, FLAT, ETC.)	Round	
47	AOMIZING MEDIUM/OIL RATIO [kg/kg]	N/A	

NOTES:

48	(1) AS PER API STD 535 FOR DESIGN CASE.
49	(2) SUGGESTED BY FHinfinity(C).

 <p>BURNER DATA SHEET (API STD - 560)</p>	UNIT: Customized SI Units			
	PROJECT NUMBER		SHEET	REV
			1 OF 3	

GAS FUEL CHARACTERISTICS


1	FUEL TYPE	Fuel Gas (Mixed)	Rev
2	HEATING VALUE (LHV) [kJ/kg]	48768.7	
3	SPECIFIC GRAVITY (AIR=1)	0.714	
4	MOLECULAR WEIGHT	20.6	
5	FUEL TEMPERATURE @ BURNER [C]	25	
6	FUEL PRESSURE @ BURNER [bar]	N/A	
7	FUEL GAS COMPOSITION, MOLE %		
8	Methane	85	
9	Ethane	5	
10	Propane	5	
11	n-Butane	2.5	
12	n-Pentane	2.5	
13			
14			
15	TOTAL	100	

LIQUID FUEL CHARACTERISTICS

16	FUEL TYPE	NONE	
17	HEATING VALUE (LHV) [kJ/kg]		
18	SPECIFIC GRAVITY/ DEGREE API		
19	H/C RATIO (BY WEIGHT)		
20	VISCOSITY @ [C] (SSU)		
21	VISCOSITY @ [C] (SSU)		
22	VANADIUM, ppm		
23	SODIUM, ppm		
24	POTASSIUM, ppm		
25	NICKEL, ppm		
26	NITROGEN, wt%		
27	SULFUR, wt%		
28	ASH, wt%		
29	LIQUIDS: ASTM INITIAL BOILING POINT [C]		
30	ASTM END BOILING POINT [C]		
31	FUEL TEMPERATURE @ BURNER [C]		
32	FUEL PRESSURE @ BURNER [bar]		
33	ATOMIZING MEDIUM: AIR/STEAM/MECHANICAL		
34	TEMPERATURE [C]		
35	PRESSURE [bar]		

MISCELLANEOUS

36	BURNER PLENUM	COMMON/INTEGRAL	
37		MATERIAL	
38	PLATE THICKNESS [mm]		
39		INTERNAL INSULATION	
40	INLET AIR CONTROL	DAMPER OR REGISTERS	
41		MODE OF OPERATION	
42		LEAKAGE, %	
43	BURNER TILE:	COMPOSITION	
44		MINIMUM SERVICE TEMPERATURE [C]	
45	NOISE SPECIFICATION		
46	ATTENUATION METHOD		
47	PAINTING REQUIREMENTS		
48	IGNITION PORT:	SIZE/NO	
49	SIGHT PORT:	SIZE/NO	
50	FLAME DETECTION:	TYPE	
51		NUMBER/ LOCATION	
52		CONNECTION SIZE	
53	SAFETY INTERLOCK SYSTEM FOR ATOMIZING MEDIUM & OIL		
54	PERFORMANCE TEST REQUIRED (YES or NO)		
55			

 <p>BURNER DATA SHEET (API STD - 560)</p>	UNIT: Customized SI Units			
	PROJECT NUMBER		SHEET	REV
			2 OF 3	

EMISSION REQUIREMENTS

1	FIREBOX TEMPERATURE [C]	918.6	Rev
2	BRIDGEWALL TEMPERATURE [C]	853.39	
3	* NOx, ppmv	350 (2)	
4	* CO, ppmv	150 (1)	
5	* UHC, ppmv		
6	* PARTICULATES, mg/Nm3	200 (2)	
7	* SOx, ppmv	500 (2)	
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9	<i>* CORRECTED TO 3% O2</i>		
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11	NOTES:		
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