

# BURNER DATASHEET

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

## GENERAL DATA

1	TYPE OF HEATER	Cubical (Twin-Cell)	Rev
2	ALTITUDE ABOVE SEA LEVEL [m]	806.9	
3	AIR SUPPLY		
4	AMBIENT/ PREHEATED AIR/ GAS TURBINE EXHAUST	Preheated Air	
5	TEMPERATURE [C]	285	
6	RELATIVE HUMIDITY [Percent]	0	
7	DRAFT TYPE: FORCED/ NATURAL/ INDUCED/ BALANCED	Balanced	
8	DRAFT AVAILABLE: ACROSS BURNER, [mmH2O]	-34.0464 (1)	
9	DRAFT AVAILABLE: ACROSS PLENUM, [mmH2O]	-	
10	REQUIRED TURNDOWN		
11	BURNER WALL SETTING THICKNESS [m]	By Vendor	
12	HEATER CASING THICKNESS [m]	0.005	
13	FIREBOX HEIGHT (LINING INSIDE) [m]	9.06	
14	TUBE CIRCLE DIAMETER [m]	N/A	

## BURNER DATA


15	MANUFACTURER		
16	TYPE OF BURNER	Conventional	
17	MODEL / SIZE		
18	DIRECTION OF FIRING	Vertically-Fired	
19	LOCATION (ROOF/ FLOOR/ SIDEWALL)	Floor	
20	NUMBER REQUIRED	48	
21	MINIMUM DISTANCE BURNER CENTERLINE [m]		
22	TO TUBE CENTERLINE (HORIZONTAL)	1.302	
23	TO ADJACENT BURNER CENTERLINE (HORIZONTAL)	0.732 (Estimated)	
24	TO UNSHIELDED REFRACTORY (HORIZONTAL)		
25	BURNER CIRCLE DIAMETER [m]	N/A	
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]	1.265 - 1.954 (2)	
32	CAPACITY [W]	21980.3 (1)	

## OPERATING DATA

33	FUEL	Fuel Oil	
34	HEAT RELEASE PER BURNER [kW]		
35	DESIGN	1533.9828 (1)	
36	NORMAL	1394.5298	
37	MINIMUM		
38	EXCESS AIR @ DESIGN HEAT RELEASE. %	30	
39	AIR TEMPERATURE [C]	285	
40	DRAFT (AIR PRESSURE) LOSS [mmH2O]		
41	DESIGN		
42	NORMAL	N/A	
43	MINIMUM		
44	FUEL PRESSURE REQUIRED @ BURNER [bar]	N/A	
45	FLAME LENGTH @ DESIGN HEAT RELEASE [m]	0.725	
46	FLAME SHAPE (ROUND, FLAT, ETC.)	N/A	
47	AOMIZING MEDIUM/OIL RATIO [kg/kg]	0.2	

**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>	<b>UNIT: Customized SI Units</b>			
	<b>PROJECT NUMBER</b>		<b>SHEET</b>	<b>REV</b>
			1 OF 3	

**GAS FUEL CHARACTERISTICS**


1	FUEL TYPE	NONE	Rev
2	HEATING VALUE (LHV) [kJ/kg]		
3	SPECIFIC GRAVITY (AIR=1)		
4	MOLECULAR WEIGHT		
5	FUEL TEMPERATURE @ BURNER [C]		
6	FUEL PRESSURE @ BURNER [bar]		
7	FUEL GAS COMPOSITION, MOLE %		
8			
9			
10			
11			
12			
13			
14			
15	TOTAL		

**LIQUID FUEL CHARACTERISTICS**

16	FUEL TYPE	Fuel Oil	
17	HEATING VALUE (LHV) [kJ/kg]	40069.71	
18	SPECIFIC GRAVITY/ DEGREE API	0.958 (@ 15 C)	
19	H/C RATIO (BY WEIGHT)	0.1302	
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%	2.59	
28	ASH, wt%	2	
29	LIQUIDS: ASTM INITIAL BOILING POINT [C]		
30	ASTM END BOILING POINT [C]		
31	FUEL TEMPERATURE @ BURNER [C]	110	
32	FUEL PRESSURE @ BURNER [bar]	N/A	
33	ATOMIZING MEDIUM: AIR/STEAM/MECHANICAL	Steam	
34	TEMPERATURE [C]	150	
35	PRESSURE [bar]	4.999	

**MISCELLANEOUS**

36	BURNER PLENUM	COMMON/INTEGRAL	
37		MATERIAL	
38	PLATE THICKNESS [cm]		
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>	<b>UNIT: Customized SI Units</b>			
	<b>PROJECT NUMBER</b>		<b>SHEET</b>	<b>REV</b>
			2 OF 3	

### EMISSION REQUIREMENTS

1	FIREBOX TEMPERATURE [C]	961.99	Rev
2	BRIDGEWALL TEMPERATURE [C]	961.99	
3	* NOx, ppmv	300 (2)	
4	* CO, ppmv	150 (1)	
5	* UHC, ppmv		
6	* PARTICULATES, mg/Nm3	200 (2)	
7	* SOx, ppmv	580 (2)	
8			
9	<i>* CORRECTED TO 3% O2</i>		
10			
11	<b>NOTES:</b>		
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			
53			
54			
55			
56			
57			
58			