

## 25 TPH Incineration Boiler for New Distillery Boiler (Sitson India Pvt. Ltd. make)

### A) Boiler

Sr. No.	Particular		
1.	No. of Boiler	-	01 No.
2.	Type of Boiler	-	Water Tube Boiler
3.	Make	-	Sitson
4.	Capacity (T/hr)	-	25 TPH
5.	Working pressure (kg/cm <sup>2</sup> )	-	45 kg/cm <sup>2</sup>
6.	Heating surface area (m <sup>2</sup> )	-	2216 m <sup>2</sup>
7.	Heating surface of super heater (m <sup>2</sup> )	-	871 m <sup>2</sup>
8.	Degree of superheat (°C)	-	400°C / ± 10°C
9.	Soot blowers (Nos)	-	R3B-14/WSSB- 8
10.	H.S. of Economizer (m <sup>2</sup> )	-	942 m <sup>2</sup>
11.	H.S. of primary air heater	-	711 m <sup>2</sup>
12.	H.S. of secondary air heater	-	160 m <sup>2</sup>

### B) Feed Water Pump No. 1 & 2

1.	Make	-	KSB Pumps Ltd.,
2.	Sr. No.	-	9974821992-100- 1/ 2
3.	Head (Q)	-	750 M
4.	Discharge	-	34 m <sup>3</sup> /hr
5.	RPM -	-	2980
6.	KW	-	250
7.	Suction	-	1.2 to 1.5 kg/cm <sup>2</sup>
8.	Pressure Bearing	-	6316 C3

### C) Transformer Pump 1 & 2

1.	Make	-	KSB Pumps Ltd.,
2.	Sr. No.	-	500A300035/0200/01 / 5011/8300/ 0200/02
3.	Head (Q)	-	70 M
4.	Discharge	-	48 m <sup>3</sup> /hr
5.	Speed	-	2900
6.	HP	-	25
7.	Bearing	-	6309 2ZC3
8.	current	-	31A

### D) Feed Water Tank

1.	Feed water storage tank	-	Capacity 35 m <sup>2</sup>
		-	Tank Size -
2.	Dearator	-	Type – spray cum tray capacity – 26.4 Heating steam quantity tank size -
3.	Dearator	-	Capacity – 25m <sup>3</sup>

### E) Boiler Dosing

Sr. No.	Particular	LP Dosing	HP Dosing
	Make	Mini. Max dosing pump	Mini Max. dosing pump
	Model	MM1-LP	MM 2-LP
	Pump Capacity	0.5 LPH	0-10 LPH
	Pump working pr.	5 kg/cm <sup>2</sup>	85 kg/cm <sup>2</sup>
	Tank capacity	200 Lit	200 Lit
	PRV set pr.	8 kg/cm <sup>2</sup>	0-100 kg/cm <sup>2</sup>
	Pump sr. no.	10518119	10530131
	Speed	1400	1400
	Bearing	6003 ZZ	6204 ZZ

### F) Economizer

Sr. No.	Particular		
1.	Design pressure (kg/cm <sup>2</sup> )	-	
2.	Hydraulic pressure (kg/cm <sup>2</sup> )	-	
3.	Deign Temp. (°C)	-	
4.	Heating surface (Sq. Mtr)	-	942 m <sup>2</sup>
5.	Tube size (OD)	-	38.1 OD x 4.06 thk
6.	No. of tubes		
7.	Type		

### G) Electrostatic Precipitator (ESP)

1.	Make	-	
2.	Gas flow rate at ESP exist	-	
3.	Gas temp. at ESP exist	-	
4.	Inlet flue fan suction pressure	-	
5.	Gas velocity at electrode zone on total area	-	
6.	Dust concenteation at ESP exist		
7.	ESP collecting area		
8.	No. of blocking field		
9.	Length & height & working field		

### H) Chimney

1.	Construction	-	
2.	Top Dia.	-	
3.	Bottom dia	-	72000 mm
4.	Height	-	

### I) Draft System

Sr. No.	Particulars	Unit	FD Fan	ID Fan	SA Fan
1.	Make		Batliboi	Batliboi	Batliboi
2.	Capacity	m <sup>3</sup> /hr	36000 m <sup>3</sup> /hr	115200 m <sup>3</sup> /hr	21600 m <sup>3</sup> /hr
3.	Static pressure	MMWC	270	850	360
4.	Speed	RPM	1480	980	1480
5.	Bhart power	KW	32.61	135.024	67.75
6.	Bearing		6313 C3	6319 C3	6317 C3
7.	Impeller type		Centrifugal	Centrifugal	Centrifugal

### J) Bagasse Feeding Arrangement

Sr. No.		Screw Feeder	Extractors
1.	Nos	2	2
2.	Capacity		
3.	Motor	Siemens	Siemens
4.	RPM	1448	1465
5.	HP	5	7.5
6.	Bearing	6206 ZZ C3	6208 ZZ C3
7.	Sr.No.	1) KW 21096731111110 2) KW21106731114993	1) KW 22056631229376 2) KW 21106631122390
8.	Current	7.3 A	10 A
9.	Gear Box		
10.	Make	Premium Transmission Ltd	Cyclo Transmission Ltd.
11.	Model	SPC 195/61.7/ 250-28	14E 75031CB035R

### K) Soot Blowers WSB – 8 Qty.

Sr. No.			
1.	Make	-	M/s Sitson India Pvt. Ltd.,
2.	Location	-	1 <sup>st</sup> Pass and 2 <sup>nd</sup> pass
3.	Type	-	WSB
4.	Working pressure	-	12 to 18 kg/cm <sup>2</sup>
5.	Temp.	-	280 to 300°C
6.	Motor	-	10 HP / 1400 RPM

### L) Rotary Soot Blower (RSB) – 14 Nos

Sr. No.			
1.	Make	-	M/s Sitson India Pvt. Ltd.,
2.	Location	-	Bank and economizer zone
3.	Working pressure	-	12 to 18 kg/cm <sup>2</sup>
4.	Working Temp.	-	280°C to 300°C
5.	Motor make	-	Remi Electro Technik Ltd.,
6.	Lance Length	-	(6 Nos Bank Zone)
7.	Lance Length	-	(8 Nos Economizer zone)

### M) Travelling Grate

Sr. No.			
1.	Grate Area	-	
2.	Type	-	

#### Drive Details

1.	Make	-	Siemens
2.	HP	-	7.5
3.	Current	-	11 A
4.	RPM	-	1465
5.	Sr. No.	-	KW 22036631195731
6.	Bearing		6208 ZZ C3
7.	KW		5.5

### M) Instrument Air Compressor for boiler and Turbine

1.	Make	-	Anest iwata
2.	Product type	-	Reciprocating Compressor
3.	Max. final pressure	-	10 kg/cm <sup>2</sup>
4.	Working pressure	-	5 to 8 kg/cm <sup>2</sup>
5.	Working pressure	-	5 to 8 kg/cm <sup>2</sup>
6.	Motor	-	10 HP
7.	Sr. No.	-	AHP0354 (comp. 1) AHP0535 ('comp.2)
8.	Model	-	BLT1000-10E (Comp.-1/2)

### N) Air Compressor Receiver

Sr. No.	Particular	Unit
1.	Capacity	1 m <sup>3</sup>
2.	Max. working pressure	10 kg/cm <sup>2</sup>
3.	Testing pressure	16.5 kg/cm <sup>2</sup>
4.	Temp. range	0-60°C
5.	Make	BPM Industries
6.	Motor power	10 HP
7.	Design code	IS 2825
8.	Drg. part no.	INIKL10KG
9.	RPM	1455
10.	Amp.	15.30

### O) Spent wash pump

Sr. No.	Particular	Spent wash Pump No.1	Spent Wash Pump No.2
	<b>Suction Gland</b>		
1.	Make	Roto pump	Roto Pump
2.	Sr. No.	PZZ01014	PZZ01013
3.	Code	RMA 8503	RMAB603
4.	Discharge	10-83 m <sup>3</sup> /.hr	10.83 m <sup>3</sup> /hr
5.	KW	7.84	7.84
6.	RPM	230	230
7.	Pressure	14.7 kg/cm <sup>2</sup>	14.7 kg/cm <sup>2</sup>

### Gear Box

1.	Make	Premium Transmission P. Ltd.	Premium Transmission P. Ltd
2.	Sr. No.	GMS 361372	GMS 35135/1
3.		SPC 180/6.23/350 42	SPC 180/623/350 42
4.			

### Motor

1.	Make	Siemens	Siemens
2.	Model	14E76031DB435& A4	14 E 76031DB433RA4
3.	RPM	1471	1471
4.	Current	20A	20 A
5.	KW	11	11
6.	Bearing	6309 ZZ C3	6309 ZZ C3
7.	HP	15	15

### P) Dryer

1.	Make	-	Trident
2.	Model	-	CS 40
3.	Working pressure	-	8 kg/cm <sup>2</sup>
4.	Test pressure	-	16 kg/cm <sup>2</sup>
5.	Capacity	-	40 CFM
6.	Oper. Temp.	-	40°C
7.	Refrigerant	-	R134a

### Q) FD Fan (Motor)

1.	Make	-	Siemens
2.	Sr. No.	-	1LET 6032 BB235A24-Z
3.	Speed	-	1480 RPM
4.	Bearing	-	6313 C3

### Fan Specification

1.	Pan Model	-	HRV563-800K/GL 360/ST90
2.	Drg. No.	-	BEEL/9081-01/3
3.	P.O. No.	-	SI-2824 /C C-04/21-22 / 2671

4.	Eqpt. Sr. No.	-	2211401
5.	Capacity	-	36000 m <sup>3</sup> /hr
6.	Static pressure	-	270 MMWG
7.	Temp.	-	35°C
8.	Speed	-	1480 RPM
9.	Shaft power	-	32.61 KW

### R) SA Fan (Motor)

1.	Make	-	Siemens
2.	Sr.No.	-	ILE76032 DB235AZ4-Z
3.	Current	-	134 Amp.
4.	Speed	-	1480 RPM
5.	Bearing	-	6317 C3

### Fan Specification (Batliboi)

1.	Pan Model	-	HRV 28 500K / GL360/ST 90
2.	Drg. No.	-	BEEL/9082-01/3
3.	PO No.	-	SI-5824/C-04/21-22/2671
4.	Sr. No.	-	2211402
5.	Capacity	-	21600 m <sup>3</sup> /hr
6.	Static Pressure	-	850 ,MMWG
7.	Temp.	-	35°C
8.	Shaft Power	-	61.75 KW

### S) ID Fan (Motor)

1.	Make	-	Siemens
2.	Sr. No.	-	KW 220565 65 366824
3.	Current	-	277 Amp/
4.	Speed	-	9890 RPM
5.	Bearing	-	6319 C3

### Fan Technical Specification (Batliboi)

1.	Model	-	HRV 545 1120 K / JR315 /ST 360
2.	Drg. No.	-	BEEL/9080-01/3,
3.	Sr.No.	-	2211400
4.	PO. No.	-	SI -5824 / C -04 / 21-22 -2671
5.	Capacity	-	115200 m <sup>3</sup> /hr
6.	Static Pressure	-	360 MMWG
7.	Temp.	-	190°C
8.	Speed	-	980 RPM
9.	Shaft Power	-	135.024 KW

### Ash Handling System (Submerged Ash Handling System)

10.	Make		Group Engineering
11.	Type		Belt conveyor
12.	Belt width		1000 mm
13.	Speed		0.17 m/s
14.	Drive		Electric
15.	Make		
16.	Capacity		
17.	Speed		
18.	Amp/		
19.	Frame No.		
20.	Bearing No.		