

TENDER NOTICE

Date: 23.05.2023

Tender Notice for the supply of Boiler 600 Kg/Hr. for Laundry Department.

Quotations are invited on Plain paper from Manufacturer/ Distributors/ Authorized Dealer for supply of Boiler 600 Kg/Hr. for Laundry Department.

A. Required Technical Specifications:

OPERATING PARAMETER	UNIT	
Steam output F&A 100°C	Kg/h	600
Steam Dryness (At boiler outlet)	%	80
Steam dryness (After steam separator)	%	92
Steam Pressure and Temperature		10.54 kg/cm ² , 185°C
Feed Water Temp. Inlet to Boiler		30°C (AMBIENT)
Efficiency		As per BS 845- Part I, (On NCV Basis)
Efficiency on NCV- HSD/LDO	%	88
Fuel consumption of HSD	Kg/hr	35.06
Fuel consumption of LDO	Kg/hr	36.10
BOILER CONSTRUCTION- MATERIAL OF CONSTRUCTION		
Design Code for Material Thickness Calculation (Pressure Part)		IBR 1950
Tube Material of Coil		BS 3059, PART I, ST 320, ERW
Material of Jacket		IS 1079 / IS - 513 Gr.D - CRCA
Burner control		ON/OFF
Burner Type		PRESSURE JET - REVERSE FLUE
ELECTRICAL CONNECTED LOAD		
		Electric Supply STANDRED - 415 Volt AC +/- 6%, 50 Hz +/- 3%, 3 Phase, 4 Wire
Blower	kW	1.5
Feed Water pump	kW	0.75
Fuel pump	kW	0.37
Total connected load	kW	2.75
DIMENSIONS		
Length	m	1.50
Width	m	1.40
Height	m	2.34
Dry weight	kg	1158
Boiler Orientation/Installation		ONLY VERTICAL
Recommended Fuel Tank Size (Min)	kL	1
Elevation from G.L.	m	1.5
Recommended Feed Water Tank Size (Min)	kL	1.6
Elevation from G.L.	m	4
TERMINAL POINTS INLET/OUTLET SIZES		
Main Steam Outlet	NB	25
Auxiliary Outlet	NB	20
Safety Valve Outlet	NB	25
Blowdown Outlet	NB	20
Fuel Oil Inlet	NB	1/2" BSP
Flue Gas Outlet Dia- ID	mm	250
Recommended Chimney Dia-I.D	mm	300

B. Required Scope of Supply:

1. Boiler:

- Pressure part assembly consisting of closely wound helical vertical membrane coil fabricated out of high temperature resistant ERW tubes and flats.
- Double jacketed air casing with an aluminum radiator to enclose the pressure parts and serve as an integral combustion air Preheater

2. Auxiliaries:

- Pressure atomised, forced draft, down firing burner assembly suitable for HSD/LDO firing.
- Blower coupled with motor, mounted on bottom chassis, duly connected to the jacket.
- Blower mounted fuel pump assembly.
- Water pump, with surge suppressor and relief valve, mounted on pumping module.
- Atmospheric economizer and heat optimizer to pre-heat feed water.
- Dust protected pre-wired control panel with necessary switch gear, power and control circuitry.
- Set of tool kit.
- Steam Separator Assembly.

3. Piping:

- Feed water line between optimizer, economizer, feed pump and boiler.
- Fuel oil line between Fuel pump, Y-strainer, burner.

4. Mountings & Fittings:

- Set isolating needle valves for indicating instruments.

5. Steam:

- Main steam stop valve.
- Auxiliary steam stop valve.
- Single port spring loaded safety valve.

6. Water:

- Y Strainer.
- Drain valve for economizer.
- Relief valve on feed water pump.
- Non-return valve on feed water line.
- Ball valve for coil blow down.

7. Fuel:

- Strainer,"Y" type on fuel oil line.
- Main Fuel filter (loose supply)

A. INSTRUMENTS, CONTROLS AND SAFETIES

- Burner programmer with matching flame detector.
- Set Audiovisual alarms for abnormal conditions.

1. STEAM

- Steam pressure switch for burner ON-OFF control.
- Steam pressure gauge.
- Steam temperature indicator-cum-switch for high alarm.

2. WATER

- Low water level alarm switch on economizer.
- Blow down valve limit switch

3. FUEL

- Fuel Pressure indicator.

B. BATTERY LIMITS

1. STEAM:

- Main steam stop valve outlet
Auxiliary steam stop valve outlet
Steam safety valve outlet

2. WATER:

- Heat optimizer inlet
- Air vent outlet on economizer
- Economizer drain valve outlet
- Relief valve outlet on feed water pump
- Blow down valve outlet

3. FUEL:

- Main Filter inlet / outlet.
- Fuel pump by pass connection.
- Burner by pass line.
- Y – Strainer Drain Connection

4. AIR AND FLUE GAS:

- Suction of blower
- Flue gas outlet on economizer

5. ELECTRICALS:

- Terminal connectors on control panel.

1. Sealed Tenders should reach the office of The Registrar Krishna Vishwa Vidyapeeth (Deemed to be University), Karad by 05.00 pm on or before 30.05.2023
2. Krishna Vishwa Vidyapeeth (Deemed to be University), Karad reserves rights to reject any or all tenders without assigning any reason.

Registrar
Krishna Vishwa Vidyapeeth
(Deemed to be University) Karad
Formerly known as KIMSDU