

KCCP LIMITED

(A Govt. of Kerala Undertaking)
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Ref: KCCP/TENDER/2731/2023-24

Date: 12.03.2024

NOTICE INVITING E-TENDER

Tender ID: 2024_KCCPL_669670_1

Competitive e-tenders are invited through e-procurement from manufacturer/suppliers for supply, erection and commissioning of wood fired N-IBR boiler for Integrated Coconut and Fruit Processing Unit.

Cost of Tender form	:	Rs.5,900/- (Including GST)
EMD	:	Rs.20,000/-
Pre-bid meeting	:	22.03.2024 at 12.00 PM
Tender closing date	:	02.04.2024 at 05.00 PM
Technical bid opening date	:	04.04.2024 at 11.00 AM

For details please visit www.etenders.kerala.gov.in

Sd/
MANAGING DIRECTOR

DETAILED SPECIFICATIONS OF WOOD FIRED N-IBR BOILER (1 No.) REQUIRED FOR COCONUT PROCESSING UNIT.

Specifications of Non-IBR Boiler to be purchased		
Technical Specifications	Steam Boiler type	Horizontal Multi-tubular 2 or 3 pass, shell and tube type with integral furnace
	Steaming capacity	600 kg/hr at 100°C
	Maximum working pressure	10.5 kg/cm ²
	Thermal efficiency	70 ± 5 % (minimum expected)
	Dryness fraction of steam	0.98
	Steam quality	Dry, Saturated
	Fuel	Wood/Agro-waste pellets
Fuel consumption	< 150 kg/hr (preferred) based on avg calorific value of fuel as 4000 Kcals/kg	

	Design Code	Non-IBR
Essential Boiler Mountings and Fittings	Steam stop valve	As per requirement
	Air vent valve	As per requirement
	Intermittent blow down valve	As per requirement
	Feed line check cum stop valve	As per requirement
	Fusible plug	As per requirement
	Any other items	As per requirement
Scope of supply for boiler	Main Boiler	1 No
	Horizontal multi tubular shell with integral furnace	
	Grate arrangement	
	Front & rear firebox	
	Blow down piping up to blow down valve	
	Feed piping from feed pump & boiler	As per requirement
	Feed pumps with motor	As per requirement
	Spring loaded safety valve	As per requirement
	Steam pressure gauge	As per requirement
	Isolation valve for Steam pressure gauge	As per requirement
	Condensing loop for pressure gauge	As per requirement
	Direct water level gauge with isolation cock	As per requirement
	Boiler mountings and fittings	As mentioned above
Feed water specifications	Total Hardness as CaCO ₃	≤ 5 ppm
	pH value	8.5 to 9.5
	Oil/Organic matter	Not Detectable (preferred)
	Dissolved Oxygen	0.1 ppm (maximum)
	TDS	500 ppm (maximum)
Boiler water specifications	TDS	3000 ppm (maximum)
	Total Alkalinity as CaCO ₃	15-20% of TDS
	pH value	10.5 to 12
	Sodium Sulphide as Na ₂ SO ₃	30 to 50 ppm
	Sodium Phosphates Na ₃ PO ₄	20 to 40 ppm
	Silica as SiO ₂	50 ppm (maximum)
Battery Limits	Flue gas side	Outlet of boiler / inlet & outlet ID fan
	Feed Water	At the inlet of feed water pumps
	Steam	At the outlet of main steam stop valves
	Drain & Vent	At the outlet of respective valves

	Electrical	Incoming & outgoing power cables from all individual equipments
Exclusions to be quoted extra	Civil work	For foundation for boiler, boiler house
	Electrical work	Earthing, incoming cables etc.
	Water treatment plants	softener, chemical dozers, pumps etc. (if required)
	Refractory & Insulation works	For the boiler work
	Flue gas ducting	For removing flue gas from boiler end to atmosphere, design as per specifications of Kerala State Pollution Control Board
	Steam line/waterline Drain & Vent lines	From respective valves
	Labour, tools, tackles and consumables	Required for assembly, installation, operation & maintenance of Boiler
Additional requirements	Diameter to be within 1500 mm and length to be within 2000 mm	
	The supplier should specify the warranty period and support services that will be provided	
	Boiler must comply with industrial standards, certifications and regulations	
	Dry weight of Boiler to be within 2500 kg	
	For material of construction Tube Grade should be BS 3059 or equivalent and for shell and tube sheet material SA 515/516 Gr 70 Or equivalent <u>Attachment Required:</u> Catalogue or diagram of the boiler and mention the parts.	