GURU ENGINEERS

Mfg. of Processing Equipment, Material Handling Equipment & Trunkey Projects
Works: Plot No. 233, J Block I D C, Bhosari, Pune-411026
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GE/285/21-22/QTNrev3 28/12/21-22

QUOTATION

To
KISHAN FIELD FRESH FARMER PRODUCER CO.LTD
GAT no-448, Taradgaon, tal-Phaltan
Dist.- Satara, Maharashtra, India
Email- agrok09@gmail.com
Mobile - 9673759349

Subject - Offer for utilities of canning process equipment's

Dear Sir,

As Per Your Requirement, we are submitting herewith our lowest & competitive Techno-commercial offer for the supply of following Machineries / Equipment's.

Sr. No	Description	Cap.	Qty	Rate	Amount
1	WOOD FIRED BOILER -500KG/HR	500kg/hrs.	01	975000	975000
2	STEAM PIPELINE AND INSULATION	36 ft	01	545000	545000
3	MS SUPPORT FOR PIPELINE		01	85000	85000
4	COOLING TOWER -100TR	100TR	01	225000	225000
5	COOLING TOWER CIRCULATION PIPE AND PUMP	5HP	01	145000	145000
6	AIR COMPRESSOR	0.5LPM	01	145000	145000
7	MS AIR RECEIVER -1000LITS	1000LITS	01	115000	115000
8	AIR PIPELINE AND FITTINGS		01	125000	125000
				Sub Total	2360000
	Extra -GST			GST-18% extra	424800
				TOTAL	2784800

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TECHNICAL SPECIFICATIONS: -

1. WOOD FIRED BOILER-

No.	Parameter	Details
1.	Boiler Make	Shriram
2.	Boiler type	Horizontal 3 pass shell type, IBR certified steam boiler
3.	Model	SSW 500
4.	Steam Output	500 Kg / hr
5.	Design / working pressure	7.0 Kg / cm2 maximum
6.	Saturated steam temp	169 deg C maximum
7.	Feed water inlet temp	60 deg C maximum
8.	Thermal efficiency on LCV	65 + 2%
9.	Fuel for combustion	Wood / Agro-waste, LCV=3,500 kcal / Kg
10.	Rated fuel combustion	40 kg / hr of wood
11.	Fuel feeding method	Manual firing on fixed grates
12.	Induced draft fan motor	1.5 kw / 2 HP
13.	Feed water pump motor	1.5 kw / 3 HP
14.	Total connected electric load	3.0 kw / 5 HP
15.	Electric power supply	415V, 3 phase, 50 Hz 4 wire
16.	Ambient temp & site altitude	5 to 40 deg C, max 500m above MSL
17.	Pressure part material	SA 516, GR. 70, BQ plates, IBR certified
18.	Pressure part tube grade	BS 3059, Part 1, ERW, IBR certified
19.	Heating surface area	12.39 m2
20.	Overall dimensions	W= 1650, D= 2650, H= 1900 mm
21.	Dry weight of boiler	1950 kg.

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1.	Compact 3- pass combustion system for agro-waste fuel with firing door and ash removal door conveniently located.
2.	ID fan provided to ensure quick & complete combustion of solid fuel as well as the volatiles, independent of chimney draft.
3.	Shell type design with large water & steam hold-up for steady steam output even at varying steam demand.
4.	Designed for maximum efficiency, ease of operation and maintenance.
5.	Automatic steam pressure control through pressure switch.
6.	Automatic boiler water level control through Mobrey level controller
7.	Use of standardized parts ensures easy availability of spare parts.

Scope of Supply :

1.	Pressure part assembly consisting furnace, smoke tubes, outer shell, firing door, smoke box and flue gas outlet flange, duly insulated.
2.	Standard boiler mountings as per given list.
3.	ID fan assembly with drive motor, mounted on base.
4.	Water pump motor assembly with non-return valve & feed water inlet piping to pressure part.
5.	Control panel with switchgears & boiler controls.
6.	IBR Folder and Instruction Manual for the steam boiler.

Boiler Mountings :

Safety valve, spring loaded	Two numbers
Main steam stop valve	One number
Auxiliary steam valve	One number
Blow-down valve	One number
Boiler water level controller	One number with three switches
Boiler water level indicator	Two numbers
Pressure guage with siphon & bib-cock	One number
Pressure switch on boiler shell	One number

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Control Instrumentation And Safeties :

1.	Pr switch to regulate steam pr through ID fan on-off operation.
2.	Mobrey level switches to maintain boiler water level though feed water pump on-off operation and for low boiler water level alarm & trip.
3.	Flue gas thermostat for safety against high stack temperature.
4.	Pressure indicator to indicate steam pressure.
5.	Steam safety valves, 2 nos. mounted on boiler shell.

Battery Limits :

Boiler feed water	Inlet of feed water pump
Steam	Outlet of steam stop valves
Water & condensate drains	Outlet of steam stop valves
Solid fuel firing provision	Fire door on the furnace with grate bars
Flue gas	Outlet flange of smoke box
ID fan assembly	Inlet & outlet flanges
Electric power supply	Isolator switch of control panel

Exclusions :

1.	All civil/structural work for installation of steam boiler and accessories.
2.	Raw water, soft water storage & services tanks.
3.	Fuel wood storage or agro-waste wood storage & conveying facility.
4.	Water treatment plant such as softener, chemical dozers, pumps.
5.	All piping to & from tanks/other equipment to steam boiler.
6.	Chimney & flue gas ducting & its approval from local authorities.
7.	Main electric power switch and supply cable up-to control panel.
8.	Steam pressure reducing station ect as per utility requirement .
9.	IBR inspection, registration formalities to be carried out at site.
10.	Spares for installation, operation and maintains.
11.	Erection & commissioning of the unit at site.
12.	Utilities such as water, dozing chemicals, fuel, electric power, cleaning fluids, lubricants for operation & maintenance of boiler.

RECOMMENDED FEED WATER SPECIFICATIONS

Total hardness as CaCo3	< 5 ppm (commercial Zero)
pH value	8.5 to 9.5

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Oil/ Organic matter	Not Detectable
Dissolved Oxygen	0.1 ppm maximum
TDS	500 ppm maximum

RECOMMENDED BOILER WATER SPECIFICATIONS

Total hardness as CaCo3	Not Detectable
Total Alkalinity as CaCO3	700 ppm maximum but not exceeding 20% of TDS
Caustic Alkalinity asCaCo3	350 ppm maximum
Ph	10. 5 to 12
Sodium Sulphide as Na2SO3	30 to 50 ppm
Sodium Phosphates Na3PO4	20 to 40 ppm
Silica as SiO2	<0.4 % of caustic alkalinity
Total Dissolved Solids	3000 ppm
Residual Hydrazine N2H4	0.5 ppm Maximum

NOTES :

- Layout, foundation of the steam boiler & associated equipment may be carried out depending on the ground conditions & available space at site.
- Raw water, boiler feed water treatment & storage should be done in accordance with the site conditions & given feed water specification.
- Fuel storage & supply arrangement should be done in accordance with local regulations. Pleases contact factory for solid fuels other than wood or coal.
- Flue gas stack diameter, height, routing of flue gas duct & installation should be done in compliance with our specifications & local rules, regulations.
- Electric power supply switchgear & cables ect. Should be laid in accordance with local regulations & data given for our equipment.

2. COOLING TOWER -100TR-

Sr. No.	Model No.	Flow Rate	Qty.	HWT	CWT	WBT	Absorbed bkW
1.	HPS 52.55 (Cooling Tower with FRP Basin)	60 m3/hr	1 No.	35 °C	30 °C	26 °C	1.8 kW

TECHNICAL DETAILS

MODEL : HPS – 52.55 (C.T. With FRP Basin)

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Type	:	INDUCED DRAFT SQUARE COUNTER FLOW
Quantity / Number of Cells	:	1 No.
Tower Size (LxWxH)	:	1828 x 1828 x 2700 mm. – PER CELL
Basin Size (LxWxH)	:	1828 x 1828 x 300 mm – PER CELL
Shipping Weight / Operating Weight	:	411 Kgs. / 1323 Kgs. – PER CELL
DESIGN PARAMETERS		PER CELL
Water Flow Rate	:	60 m3/hr
Inlet (HWT)	:	35 °C
Outlet (CWT)	:	30 °C
Design Wet Bulb Temperature	:	26 °C
Cooling Capacity	:	3,00,000 Kcal/hr
Total Wetted Surface Area	:	482 m2

AUXILIARY EQUIPMENT		PER CELL
Type of Fan	:	Axial Flow, Direct Driven
Air Quantity / Fan	:	9.8 m3/sec
Fan Diameter / Speed	:	1200 mm / 1000 RPM Direct Driven.
Absorbed BKW at Fan Shaft	:	1.8 kW Electric Motor Rating
	:	2.2 kW / 3 HP / 1000 RPM
Description	:	SABAR ENGG or Equivalent MAKE
	:	Vertical Flange Mounted, Squirrel Cage TESC/TEAO Weather Proof Induction Motor suitable for supply of 415 ± 6% 50 Hz ± 3% with class of insulation "F" and IP-55 Degree of Protection.

WATER LOSSES PER CELL

Evaporation Loss : 0.76 % of Circulating Water. Drift Loss (Max.) : 0.005 % of Circulating Water.

Blow Down (With 5 COC) : 0.19 % of Circulating Water.

---------- Make-up Water Quantity (Peak) (Incl. B.D) : 0.955 % of Circulating Water.

MATERIAL OF CONSTRUCTION		
Casing	:	Seamless FRP one piece moulded
Fills	:	12 mm Flute Virgin PVC Fills
Drift Eliminators	:	PVC
Nozzles	:	PP/ABS LOW PRESSURE DROP NON CLOGGING TYPE
Water Distribution Headers	:	PP WITH FRP MOULDED. NON COROSSIVE
Fan Blades / Hub	:	FRP. (Non-Corrosive Type)
Resting	:	MS HDG
PVC Fills Support/ Eliminators Support	:	FRP Pultruded
Fasteners	:	GI

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3. AIR COMPRESSOR

Compressor Technical Details

Air Compressor Model	2475C-7.5 HP-175PSIG-ASSC
Type	2 Stage Reciprocating Type
Size	4" & 2.5" x 2.3/4"
Speed	1100 RPM
Discharge Pressure	175 PSIG
Discharge Capacity	17.8 CFM
Control	ASSC
Electric Motor Data	
Electric Motor Rating	7.5 HP
Drive	V Belt Drive System
Voltage / Ph / Frequency	415V / 3 Ph / 50 Hz
Starter Type	DOL
Air Receiver Tank	225 Litre

STANDARD SCOPE OF SUPPLY

(Air Compressor Tank mounted Package Model: 2340/2475/2545/7100)

- Air Inlet Filter
- Check Valve
- Interstage Safety valve
- Slide Rails
- V-Belt
- Motor Pulley
- Belt Guard
- ASSC & CSC Control Option
- Pressure Switch for CSC Regulation
- Air Receiver
- Air Receiver Accessories- Safety Relief valve, Service valve, Drain valve, Pressure Gauge
- Electric Motor
- Starter

4. WATER CIRCULATING PUMP FOR COOLING TOWER

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- Model –minh52
- Suction and discharge – 2.5 inch x 2 inch
- Discharge 250 lpm
- Power – 5hp

Exclusion –

1. Civil and infrastructure
2. Customer scope of work – Civil work, flooring coba/Kota finishing, main 3 phase power supply to unit with cable and 4 pole MCB
3. Street lighting and supply
4. Boiler inspection for district authority
5. Water supply to all machinery

COMMERCIAL TERMS & CONDITION:

1	Price Basic	Ex-Works Pune
2	P & F	Extra @ 3%
3	GST	Extra 18%
4	Freight	Extra to be borne by Purchaser
5	Transit & Insurance	to be arranged by Purchaser
6	Payment Terms	60 % advance along with Purchase Order. 40 % balance along with taxes & duties against Performa invoice before dispatch of equipment.
7	Delivery Period	Within -12 weeks from the date of receipt of your techno-commercially clear purchase order / Drawing approval whichever is later.
8	Validity	120 days from the date of this offer.
9	Inspection and Design	We will carry out inspection as per standard Procedure. In case you desire to inspect, one Week notice will be given for final inspection At our works/our subcontractor's works. In inspection is not arranged within the period, it will be treated as waiver and equipment will be dispatched with our internal' inspection Report. In case of 3rd party inspection, the charges If required any design changes in above mentioned equipment's and layout drawing, we can right to change.
10	Supervision During Erection & Commissioning	1. Our charges for supervision of Erection and Commissioning will be Rs. /- per man day. To and fro Air/Rail fare shall be borne by you. You shall provide free lodging and boarding and local charges 2. and same for our executive 3.Tools and tackles, labor for erection and commissioning of all equipment – on client scope
11	Specifications	Specifications, dimensions, design, description, shades of paint etc are not binding on supplier in minute details and are subject to reasonable alteration /

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		change without notice.
12	Cancellation	Order received and acknowledged by supplier shall not be subject to cancellation, either wholly or partly for any reason whatsoever without supplier's written consent
13	Jurisdiction	All contracts between purchaser and supplier are deemed to have entered into at Pune and are therefore subject to the Jurisdiction of Courts at Pune
14	Warranty	We will warrantee the equipment for a period of 12months from the date of commissioning or 18 months from the date dispatch whichever is earlier The warrantee hold good for defective material and or faulty workmanship only and does not apply to normal wear and tear during operation as also to damage due to faulty handling/ operation of equipment. This warrantee is subject to the equipment being erected / commissioned under our supervision
15	Force Majeure	Acts of God, Natural Phenomenon including but not limited to flood, earthquake, typhoon and epidemic Acts of Government, Domestic or Foreign, including but not limited to declared or undeclared war, priorities, embargoes, quarantines , power cuts, strikes, lockouts, sabotages and acts of workmen including those of our subcontractor's workmen If the work gets delayed due to force majeure conditions, suitable extension of time shall be granted to enable us to complete the work

We hope you will find our offer in line with your requirement. In case you require any additional information, please feel free to contact us.
Thanking you and assuring you of our best attention and services at all times, we remain.

Yours faithfully

For GURU ENGINEERS, PUNE

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