

SL	EQUIPMENT AND DESCRIPTION	QTY
01	<u>Fruit Washing Vat –</u> SS rectangular shape vat convenient to wash fruits and vegetable. Dimension 4ft X3ft x 2.5ft Capacity: Approx. 400 to 500kg Kg/hr	01
02	<u>Fruit Mill:</u> Contact Parts: Main Body of 1.5 mm thick combined with 4mm and 8mm thick 304 type 18/8 quality stainless steel sheet. Supporting Structure: Mild steel angle and channel framed structure. Welding: Argon welded. Cutting Teeth setting: Stainless steel 4 and 3mm thick pati. Motor: 2 HP 440 volts three phase AC. Supply is complete with Motor, Main Cord	01
03	<u>Hydraulic pressed Juicer:</u> Suitable for Juice Extraction from crushed Mahua by hydraulic press. Cylindrical design Drum is fabricated from Stainless steel sheet, all joints argon welded and polished. Bottom of the Container is perforated. An adequate capacity hydraulic pump is provided to press the fruits to extract juice. Supporting stand is made of Stainless-steel Pipe. Drum Size: 18” Dia x 18” deep.	01
04	<u>Smoke Tube Type Diesel Steam Generator-</u> Fabricated from mild steel prime plate, combined with ERW tubes. All joints are properly welded and tested with adequate pressure. Boiler comprising of, Steam generator, Pre-heater, Steam Exhauster, Canopy and Oven, with firebricks insulation, Pressure Gauge, Safety Valve, 2.H.P. motor operated water Feed Pump, Water gauge glass, necessary Valves for steam release, water drainage, NRV etc. but without Chimney and Steam Pipe line. Supply is complete with Imported Diesel Fired Burner with Controller. Capacity: 400 Kgs steam per hour with efficiency rating 78 to 80% Chimney: Fabricated from mild steel plate of 6mm thick. 32ft Height (10” dia at bottom to 8” dia on top).	01
05	<u>Steam Pipe Line,</u> LRB wrapped, tied with chicken net and finally covered with aluminium sheet. Price: Per Running Foot Rs. 1800-00 x 100’ft = 180000.00	100 RFT
06.	<u>Steam Jacketed Kettle.</u> Double walled model, Pan is fabricated from 3 mm thick and Jacket is also fabricated from 3 mm thick 304 type stainless steel sheet, properly welded to withstand maximum 2 Kg/cm ² working steam pressure. All joints are Argon welded and polished. Supporting structure is made from mild steel channel framed. Hand operated Tilting device with worm gear is provided for outlet of the products. Brimful Capacity: 225 litres	02

07.	<u>Stainless Steel collection vessel.</u> For collection and on process storing of fruits, vegetables, pulp, etc. Fabricated from 304 type stainless steel sheet, all joints argon welded and polished. Capacity: 100 litres (18 swg thick body and 22 swg lid)	10
08.	<u>Sugar Syrup Preparation Tank:</u> MOC: Inner chamber fabricated from 304 grade stainless steel of 3.0mm thick. Jacket is also made from stainless steel 3 mm thick stainless-steel sheet, having bottom of slight Conical Shape. Motor Base is also made from 304 grade stainless steel plate of 6mm thick. Stirrer is made from 304 grade stainless steel rod of 50mm dia and stainless steel flat thick pati. Supporting Structure is made from heavy-duty stainless-steel pipe. Motor – 1.5 HP 440 volts 3 phase AC Main, having cover of stainless-steel sheet. Product Outlet is with stainless steel pipe of 1” dia fitted with stainless steel ball valve. All joints are argon welded and polished. Brimful Capacity of the Tank: 300 litres	01
09.	<u>Filter Press:</u> Used for Sugar syrup filtration. All contact parts are of 304 type stainless steel materials. Supporting structure is made From mild steel pipe, covered with stainless steel sheet. 6 bed of 8” dia each, Filter press is ideal for sugar syrup filtration, operated by 1 H.P. motor and stainless-steel gear pump.	01
10	<u>Stainless Steel Blending Tank, fitted with high-speed emulsifier. :</u> MOC: Inner chamber fabricated from 304 grade stainless steel of 1.5mm thick. Having bottom of Conical Shape. Motor Base is also made from 304 grade stainless steel angle framed base. Stirrer is made from 304 grade stainless steel rod and stainless steel flat thick pati. Supporting Structure is made from heavy duty 4 nos stainless steel pipe, provided with heavy duty wheels for easy movement. Motor – 1 HP 440 volts three phase AC Main, having cover of stainless-steel sheet. Product Outlet is with stainless steel pipe of 1” dia fitted with stainless steel ball valve. All joints are argon welded and polished. Brimful Capacity of the Tank: 300 liters. Holding Capacity: 200 litres.	01

11.	<u>Stainless Steel Transfer Pump.</u> Operated by 0.5 HP motor.	01
12.	<u>Homogenizer (Double stage)</u> Homogenizes fruit juice etc. Capacity of 200 ltrs./Hr Comes with three pistons for efficient functioning. All parts of head fabricated in stainless steel (food grade). Comes with pressure gauge of 6000 psi. Liquid whirling homogenizing head so designed as to provide maximum homogenizing effect. Counter shaft driven by electric motor. Easy to clean just by circulation of chemical cleaning liquid/water as dismantling of head is not required. Powered by 1.5HP motor of single-phase AC only. Extremely easy to operate, user friendly and has wide variety of applications. Juice transfer pumps supplied as optional accessories. Ultimate in efficient performance and versatility. Capacity: 200 liters/Hr.	01
13.	<u>Juice Pasteurizer:</u> This unit consists of; 1. Stainless steel Tank for Juice of capacity 300 liter – One. 2. Stainless steel Pump, to feed pulp/juice, operated by 1.0 HP 440 Volts three phase AC Motor, with AC Drive to control feeding 3. Shell and Tube type Heat exchanger, made from 304 type Stainless Steel tubes in tube, all joints are properly argon welded and polished, For hot process. – Two 4. Stainless steel tank of 700 liters capacity, having Steam connection to circulate water Through pump to Shell and Tube type Heat Exchanger, to gain juice temperature at required level – One 5. Shell and Tube type Heat exchanger, made from 304 type Stainless Steel tubes in tube, all joints are properly argon welded And polished, For cold process. – One. 6. Stainless steel tank of 500 liters capacity, having Refrigeration system to circulate water Through pump to Shell and Tube type Heat Exchanger, to cool Down Pulp temperature at required level – One	01

	7. Water circulating pump, operated by 1 H.P. motor. – Two 8. Interconnecting Steam line, Pressure Gauge, Safety Valve. - One lot as required. Steam pipe to be joined from your Boiler. Capacity: 200 liters per hour.	
14.	Processed juice Storage Tank made of stainless steel with SS cover capacity 300 Ltr	01
15.	<u>Semi-Automatic Volumetric Filling Machine, Twin Head model, for Juice:</u> This is specially designed to fill Squash in bottles. All contact parts are made from 304 type stainless steel materials, supported on mild steel angle structure, covered with stainless steel sheet of 304 grade. The machine is suitably arranged to upper and lowering of filling head with nozzle so that there is no spillage of Liquid while filling. This helps to fill in accurate measure. Equipped with One separate stainless steel top Table, supported on stainless steel angle framed structure. Operated by 1 HP motor with Gear Box. Filling Capacity: 100ml to 450 ml. Filling Speed: 16/18 Bottles per minute.	01
16.	<u>Single Head Rotary Screw type Cap Sealing machine. :</u> MOC: Stainless steel 304 type 18/8 quality materials. Motor: Operated by 1 HP motor. Power: 440 Volts 3 phase AC only. Work Table at side: 3' L x 2' W x Height matched with machine Capacity: 18 to 20 Bottles per minute.	01
17.	<u>Single Head Semi-Automatic Piston Type Jam Filling machine:</u> MOC: All contact parts are of stainless steel of 304 type materials. Hopper is also made from stainless steel sheet, all joints argon welded. Supporting structure: Mild steel angle framed structure. Motor: 1 HP motor. Bottling Capacity: 250 Gm and 500 Gm.	01
18.	<u>Semi-Automatic Bottle Labelling Machine:</u> The machine consists of bottle placing chamber and a handle to move the lever to stick the label on the bottle, Label paper to be placed in to paper placing chamber. It is very convenient to use without any electrical power consume.	01

19.	<u>SOLID RAW MATERIAL: Batch wise operation for solid raw material for extraction with 5 litres liquid volume capacity two extractors (5 lts x 2)</u> The package unit (Plant Machinery) offered shall have all the equipment/components necessary for a complete, turkey unit (Plant, Machinery) including extractors, piping, needle valves, Co2storagevessel, separators, pumps, heat exchangers, instrumentation &control, Chilling Unit. All items shall be packed on to as kid with all components mounted, piped &wired as necessary. The material of construction (MOC) of the surface incontactwithCo2will be SS316, rest will be suitable carbon steel. Operation of all the components and the system as a whole. <u>A.</u> EQUIPMENT TECHNICAL SPECIFICATIONS: 1. <u>EXTRACTOR PRESSURE VESSELS:</u> A) No. in system: 2 B) Capacity: 5 litres (5 x2=10 LTR) C) Design pressure: 525 Kg/cm² D) Operating pressure: 350Kg/cm² E) Material of construction: SS316 F) Ends: Quick opening lid with pressure interlock 2. <u>Co2 STORAGE VESSEL:</u> A) No. in system: 1 B) Design pressure:150 Kg/cm² C) Material of construction: SS316 3. <u>Co2 & OIL SEPARATOR (High pressure)</u> A) No. in system: 1 B) Design pressure:300 Kg/cm² C) Material of construction: SS316 D) Pressure Control: through needle valve/BPRV	01
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4. HIGH PRESSURE PUMP (for Co-Solvent like Methanol, Ethanol)

- A)** No. in system: 1
- B)** Maximum operating pressure: 350 Kg/cm²
- C)** Design Temperature: -5° to 80° C
- D)** Drive: 3 Ph motor with planetary gearbox
- E)** Liquid end: Stainless steelSS316
- F)** The pump is provided with pressure switch, pressure relief valve

5. Co- Solvent Reservoir:

- A)** No. in system: 1
- B)** Connected to Co-solvent Suction line

6. Electric and Electronic Wiring:

- A)** All required types of wiring and cabling according to character and load.

7. Co2 Cylinder heating Pad:

- A)** No. in system: 1

8. CONTROL PANEL:

- A)** Type: Manual Control
- B)** Temperature indicators, control
- C)** Pressure Indicators
- D)** The panel has the necessary safety interlock switches and spare connections.

9. ALL PIPING

- A)** Design pressure: 525 Kg/cm²

- B)** Operating pressure: 350Kg/cm²
- C)** Material of construction:
SS316andweldedjointsandQuickopeningconnectors
- D)** Design Temperature: -5° to 80° C

10. Open/ Close/ Isolation Needle valves:

- A)** Needle valves: at suitable positions: 30 no.
- B)** Design pressure: 525 Kg/cm²
- C)** Operating pressure: 350Kg/cm²

11. Open/ Close/ Isolation Ball valves:

- A)** Ball valves: at suitable positions: 2 no.
- B)** Design pressure: 200 Kg/cm²
- C)** Operating pressure: 80Kg/cm²

12. Pressure Control Valve:

- A)** Control valve at suitable positions: 2 no.
- B)** Design pressure: 525 Kg/cm²
- C)** Operating pressure: 80 to 350 Kg/cm

13. Pressure Relief Valve:

- A)** Safety valve at suitable positions: 2 no.
- B)** Design pressure: 525 Kg/cm²
- C)** Operating pressure: 80 to 350 Kg/cm

14. Pressure Gauges.

- A)** No in system: 6

15. Temperature Sensor (Working at high Pressure)

- A)** No. in system: 10

16. Temperature Sensor (Regular)

- A)** No in System: 3

17. Pressure Transmitter

A) No. in System: 3

18. Non-Return Valve:

A) No. In System: 2

B)

19. Chilling Unit:

A) No. in system: 1

B) Shell and tube type, air cooled

With R22 or equivalent

20. CIP Accessories: Cleaning in place
required accessories including water tank,
pump, required fittings etc.

21. Buffing:

All SS316 surface will be mirror finish buffed

22. Colour:

MS frame structure will be paint in four layered auto finish oil paint.

23. MS FRAME

- All the machinery mounted on suitable strong iron channels stand & complete with all fittings (free of ground fittings)
Total unit will be manufactured and installed at your sight and 10 trial batches will be performed to train your employee with your powdered raw material and CO2.

	<u>SECTION: CAKE, BISCUIT</u>	
20.	<u>Improved Impact Pulverizer :</u> Ideal for best Grinding of Dry Mahua only, by single Grinding Type: Air Swept Impact Mill with Whizzer Classifier operation in closed circuit. Body: Solid Stainless steel, machined and aligned on strong mild steel base, with top covers bolted together for easy opening and cleaning or for inspection. Special pocket is provided to collect foreign objects like bolts, nuts, pieces of metal etc. that may be mixed with the material to be pulverized. Feeder: Automatic rotary feeder, gear driven from the main shaft, with feed control mechanism. Crushing Chamber; Lined with renewable solid stainless steel breaker plates. Rotor: Machined stainless steel thick plates mounted on main shaft. Shaft: Solid alloy steel of ample dimension. Classifier: Stainless steel whizzer classifier with adjustable spider to control fineness of ground powder upto 300 mesh depending on the type of material to be pulverized. Hammers: Forged alloy steel, hard faced with manganese steel electrodes and balanced. Blower: Paddle type with replaceable blades. Cyclone: Stainless steel sheet fabricated. Dust Collector: Top and Bottom halves of Stainless-steel sheet, to be inner connected by cotton dust collecting bags. Motor: 5 HP 440 volts three phase AC only. Supply is complete with Motor but with Star Delta Starter etc. Capacity: Approx. 40 Kgs/hr.	01
21.	<u>Rotary Air Lock, operated by 1 HP Motor and gear box.</u>	
22.	<u>Dough Mixer:</u> Capacity: 30 Kg per 12 minutes to 15 minutes. Main Motor: 4 HP 440 volts three phase AC (Dual) Make: NEC. Moving Motor: 1 HP 440 volts. Make: NEC Bowl: 3mm thick Stainless-steel sheet of 304 grades. Fan, Jali, Guard Pati are Also made from stainless steel 304 grade. Supporting structure: Mild steel sheet, angle, plate etc.	01
22 23.	<u>Gas Heated Deck Oven.</u> Inner Dimension: 36" L x 30" D x 12" H MOC: Outer Chamber is fabricated from 304 grade Stainless steel sheet, supported on Mild steel angle framed structure. Inner Chamber is also fabricated from Stainless steel sheet. Stainless steel flat Pati and Angle made Tray is provided Insulation: 4" thick layer of Glass wool Insulation is provided on all six sides, to prevent loss of heat and to maintain maximum uniformity of temperature. Spring Loaded Door is provided on front. 2 Nos V shape Long Burner is provided – One at Bottom and One on Top of Inner chamber, with Gas Control Knob at One side front.	01
24. .	<u>Stainless steel Top Table:</u> Mild steel square pipe structure having top with 19mm thick plywood, covered with stainless steel sheet. Dimension: 4'ft x 2'ft x 3'ft H	04

	Rs. 27000x4= 108000.00	
25.	<u>Molds :</u> A) Mould 3" x 1/8" (Set of 5) B) Mould : 3.5" x 1/8" (Set of 4) 20x 8000= Rs.160000, 20x 8400=Rs.168000.00	20 20
26.	<u>Flow Wrap Biscuit/Cake Packaging Machine,</u> Comprising of : a. Full length Conveyor b. Automatic Flow, wrap and Seal machine. c. Motor -1.5 HP d. Necessary Gear Box. e. Controls and Switches. Capacity: Approx. 25 to 30 Boxes per minute. Note: You will have to put biscuits/cakes in the PVC tray/box, manually and finally in the conveyor.	01
	<u>SECTION: MAHUA CANDY:</u>	
27.	<u>Vacuum Batch Cooker, for Mahua Candy. :</u> All contact parts are made of Stainless steel 304 grade Vacuum Batch Cooker of Capacity 50 Kgs per Batch. Stainless steel rod and flat pati made 2 HP Motor operated Anchor type Stirrer/Agitator. Supply is complete with Water cooled Vacuum Pot, Steam Pressure Gauge, Temperature gauge, Safety Valve, 5 HP motor operated Water Ring type Vacuum Pump, Panel Board with AC Drive for 2 HP AC Motor, ON/OFF Switch for 5 HP AC motor for Vacuum Pump, Timer, MCB, Amp Meter, Volt Meter and Digital temperature Indicator and other standard electrical.	01
28.	<u>MS Cooling Plate:</u> Capacity: 50 Kg/Batch. Both side Useable, provided for Water Circulated Cooling.	01
29.	<u>Batch Roller / Former.</u> Stainless steel 304 grade perforated Rollers. SS 304 Upper Body. Electric Reverse and Forward system. Motorized Lifting. Stainless Steel / Gun metal Contact parts. 1 HP AC Motor for Lifting. Heater 1000 Watt for Batch warming. Capacity: 90 Kgs.	01

30.	<u>Three Stage Rope Sizer:</u> Nickel Chrome MS Sizing Wheels. Stainless steel/Gun metal Rope running Plates etc. 1 HP AC Motor	01
31.	<u>Uni-Plast Sweet Forming Machine: without Die</u> Suitable for Hard Candies. Output Approx. 500-600 Kgs/hr. Complete with Swivel Conveyor. Automatic Lubrication System. Stainless steel 304 Sizing Wheel. Supply is complete with One Die of EN 31 Punches with Rod, Fitted with Spring Loaded round sturdy punches.	01
32.	<u>Die for Uni-Plast Sweet Forming Machine.</u> EN 31 Ounces with Rods (Made from Single Pcs) Fitted with spring loaded round sturdy Punches	01
33.	<u>Three Way Cooling Conveyor:</u> Belt width approx. 4", 8", 12" Galvanized wire mesh Conveyor Belts. Independent drive for forming machine. Blower with 3 HP Motor. With AC Unit.	01
34.	<u>Candy Mass Kneading Machine:</u> 'U' shape Kneading machine is Fabricated from 304 grade Stainless steel sheet of 2mm thickness, both sides is of 8 mm stainless steel plate, supported on Mild steel channel framed structure. All joints are argon welded, grinded and polished. 3 HP Motor with Gear Box operated unit is of 50 KG per batch capacity.	01
35.	<u>Candy Wrapping Machine:</u> Speed Approx.300 – 350 Pcs per Minute. Double Twist Style Wrapping. No Candy No Paper Mechanism. 2 HP AC Motor. Panel with AC Drive and other Standard Electricals	01
36.	<u>AC Panel Board:</u> Single Point Plant Controlling. Standard make Electrical Equipment. Volt meter, Amp Meter. Push Button Operation, Timer for Batch Former. MCB, Indicator Lamp etc. 2 HP AC Drive for Rope Sizer. 2 HP AC Drive for Forming Machine.	01

	1 HP AC Drive for Candy.	
37.	Stainless steel pipe, socket joint etc. one lot	1 Lot
38.	Effluent treatment plant Capacity 5KLDMSEP with standard by unit. Comprising with following: Primary Treatment Plant Bar Screen. Effluent Transfer pump. Air grid for EQT & Reaction Tank. Air Blowers. Media for MBBR/Settler. Electrical control panel. Power Cable only for rotary equipment. Instrumentation & control. Pressure Gauge. Piping & fittings. Dosing system Filter Feed pump. Multi grade sand filter. Activated carbon filter. Sludge Transfer Pump. Note: Bar screen Chambers, Oil and Greece Tank, Equalization Tank, Sludge Drying Bed, Treated Water tank to be made RCC/BRICK and it is in client scope	1
39.	<u>Reverse Osmosis Plant 300LPH</u>	01
40.	Weigh Scale (Upto 500kg)	01
41.	Refractometer A & B (Refractometer To read moisture by refractive Index)	02
42.	DG set – 63 KW silent (Reputed make with delivery, installation and commissioning and requisite accessories.	01
All the above machines have to be supplied on Turnkey basis at the CFC site of the cluster.		