

PRODUCT : MINI SUGAR VACUUM PAN PLANT**MILLING SECTION**

| S.No. | DESCRIPTION | QTY. |
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| 1. | CANE CRUSHER: Roller Size 406mm dia X 609mm long (16 inch X 24 inch) X 9 Roller Mill Heavy Duty Hydraulic Cane Crusher having 3 Mills with 3 Rollers each, and consisting of the following: | 1 Set |
| (a) | CANE CARRIER: Main Cane Carrier of steel construction 609mm (24 inch) width frame strands made of section with MS plates bolted. Consists of 2 strands chain of 4 inch (102mm) pitch with double corrugated steel slates of MS plate. Complete with sprockets, idler pulley etc. | 1 Set |
| (b) | CANE CUTTER: Cane cutting knives set, for cane cutting keyed over MS shaft mounted on roller bearings and heavy duty plummer blocks. Complete with flywheel and pulley. The cutter knife edges are hard faced. | 2 Sets |
| (c) | FEED CARRIER WITH DRUM: The feed drum with special type of teeth profile is provided before the 1st Mill to provide a positive feed mechanism along with the feed carrier. The feed drum is driven by chain & sprocket from the 1st Mill. | 1 Set |
| (d) | FRICITION CLUTCH: The clutch is provided for the main carrier, Feed Carrier & further Inter Carrier. It is a specially designed clutch, which can be easily engaged and disengaged. | 4 Nos. |
| (e) | MILL: Each mill having three rollers of size 406mm dia X 609mm long (16 inch X 24 inch) having V-Groove and made of C.I. The roller is shrunk fit on MS Axle and truly machined. Each mill is complete with:- <ul style="list-style-type: none"> - Base Frame made of MS having provision for bolting the mill, - Juice Collection Tray, - Side Cheeks bolted on frame, - Trash Plate with grooves mounted on square beam with the rod adjustment for scrapping the feed C.I. Roller, - Scrapper for Top & Discharge roller with grooves, bolted on square beam with suitable side spring loaded lever with adjusting bolt, - The bottom rollers are tightened by means of taper wedge arrangement. - Mill Roller Pinion - 3 Nos., made of steel - Journal bearing – All the roller ends supported on phospher bronze bushes housed in their respective C.I. housings and accurately machined to suit roller journal dia & lubrication grooves are provided in the bushes. - Hydraulic head – 2 Nos., to exert constant pressure on both ends of the top roller. - Water cooling arrangement for Top Roller | 3 Set |
| (f) | TAIL BAR: of forged mild steel square | 3 Nos. |
| (g) | Mechanical Lubricating System | 3 Sets |
| (h) | COUPLING: made of Cast Steel with square bore to house the tail bar | 6 Nos. |

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| (i) | Rake type intermediate conveyors of Mild Steel construction. Chain of 4 inch pitch with driving sprockets of steel. Rakes with spikes are bolted with chain attachment. | 2 Nos. |
| | Drive for Rake Carrier with motor of 5 KW & Gear box | 2 Nos. |
| (j) | SPEED REDUCTION GEARBOX (for Individual Mill) Helical Speed Reduction Gear Box Input RPM – 1500 Output RPM – 7 Input Load – 125 HP | 3 Sets |
| (k) | GAS ACCUMULATOR: Gas based type pre-charged accumulator cylinder mounted on MS frame. One for each Mill complete with its accessories & inter connecting pipelines. | 3 Set |
| 2. | DSM Screen of SS construction Size 500 mm x 450 mm length of circumference. | 1 No. |
| 3. | Juice Pumps – Capacity 20 Tons/Hr. with motor of 5 HP. | 2 Nos. |
| 4. | Juice Tanks – Capacity 1.0 MT, made of MS | 2 Nos. |
| 5. | Juice Measuring Tanks made of MS | 1 Nos. |
| 6. | Weigh bridge steel yard type Capacity – 2.5 MT Platform size – 2000 mm x 2500mm | 1 Nos. |
| 7. | Weigh bridge steel yard type Capacity – 20 MT Platform Size – 2500mm x 5500mm | 1 No. |

JUICE WEIGHING AND CLARIFICATION

| S.No. | DESCRIPTION | QTY. |
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| 1. | JUICE MEASURING TANK Size – 900mm dia x 1800mm height | 1 Set |
| 2. | Centrifugal Pump for measured raw juice with electric motor Of 10 HP, 1440 RPM | 1 Nos. |
| 3. | JUICE PRE -HEATER - Shell & Tube Type HSA – 40 Meter Square Tube MOC – SS, Tube Size – 44.6mm OD x 3.0 Meter long x 1.5 mm thick, No. of tubes – 100, No. of Passes – 10 | 3 Set |
| 4. | CONTINUOUS JUICE SULPHITATION UNIT Size – 1200mm dia x 3600mm height Made of MS of 6mm with necessary baffle plate, juice inlet & outlet, gas & lime inlet. | 1 Set |
| 5. | RETENTION TANK Made of MS of Size – 2400 mm Dia x 1200mm height, Capacity – 3.0 MT | 1 Set |
| 6. | SULPHITED JUICE PUMP with electric motor of 10 HP, 1440 RPM | 2 Nos. |
| 7. | FLASH TANK Made of MS of size 900mm dia x 1500mm height & provided with internal baffles. | 1 Set |
| 8. | Continuous Clarifier for Clarification of Sulphited Juice multiple tray type of size 4500mm dia x 4500mm height, settling area 50 meter square, capacity – 35 meter cube | 1 No. |
| 9. | Clarified Juice Tank Made of MS of size 1800mm dia x 2400mm height | 1 No. |
| 10. | Centrifugal Pump for Clarified Juice to pump to evaporator No. 1, with motor of 10 HP, 1400 RPM | 2 Nos. |
| 11. | Rotary Vacuum Filter for Cane Mud of size 6 feet dia x 6 feet long x 110 square feet filtering area with receivers – 2 Nos for high and low vacuum, juice separator baffle type , condenser , interconnecting pipelines and valves , etc. | 1 Set |
| 12. | Bagacillow handling system and mud mixture provided with fan, piping with blower and motor of 2.5 kW | 1 Set |
| 13. | Filterate Pump with Motor of 3 HP | 2 Nos. |
| 14. | Filter Vacuum Pump with Motor of 10 kW | 2 Nos. |
| 15. | Lime Slaker made of MS with drive motor of 7.5 HP | 1 Set |
| 16. | Lime Pump: Open Impeller type of Capacity 15 MT/Hr. with motor of 5 HP | 1 No. |

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| 17. | Continuous Sulphur Burner made of CI | 1 Set |
| 18. | Lobe Blower for sulphur oven with electric motor and its accesories | 1 Set |
| 19. | Milk of Lime Storage Tank Made of MS with electric motor of 1.0 kW | 1 Set |

JUICE EVAPORATION PLANT

| S.No. | DESCRIPTION | QTY. |
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| 1. | Quadruple Effect Evaporation Plant: The plant comprising of 4 evaporator vessels having different heating surfaces as follows: 1 st effect heating surface area approx : 300 M2 2 nd effect : 200 M2 3 rd effect : 200 M2 4 th effect : 200 M2 MOC of Tubes – SS, Others in MS | 4 Nos. |
| 2. | Syrup Balance Tank Made of MS of size 900mm dia X 1500 mm height | 1 No. |
| 3. | Syrup Extraction Pump: For extraction of syrup from 4 th effect with electric motor 3.5 kW, 1440 RPM | 2 Nos. |
| 4. | Condensate Receiving Tanks Made of MS of size 900mm x 1500mm | 6 Nos. |
| 5. | Condensate Pump to Boiler feed water tank with Electric Motor of 7.5 kW, 1400 RPM | 1 No. |
| 6. | Continuous Syrup Sulphitation Tower made of MS of Size 600mm Dia x 6000mm height | 1 Set |
| 7. | Multi-jet Condenser for condensing vapours from last effect, made of MS of size 900mm dia | 1 Set |

BOILING & CRYSTALIZATION PLANT FOR A.B.C. MASSECUIITS

| S.No. | DESCRIPTION | QTY. |
|--------------|---|-------------|
| 1. | Calandria Vacuum Pan for Boiling A, B, C Masecuite Net Strike Volume – 10 M3 Heating Surface Area – 66-Meter Sq. Material – MS Seamless Pipe | 3 Sets |
| 2. | Syrup & Molasses Tanks Made of MS of size 3000mm Length x 4500 mm W x 2000 mm height | 5 Nos. |
| 3. | Multi Jet Condensor for A, B & C pan Made of MS, Venturi of C.I. Size – 900mm Dia | 3 Sets |
| 4. | Injection Water Pump: Capacity - 600 M3/Hr. with electric motor of 60 kW | 1 No. |
| 5. | Spray Water Pump: Capacity – 600 M3/Hr. with Electric Motor of 60 kW | 1 No. |
| 6. | Open Seed Crystallizer : U Shaped Open Made of MS, with Gear & Motor of 2.2 kW Size 3000mm long x 2000mm depth | 1 Set |
| 7. | Crystallizer: U-Shaped cooling crystallizer with stirrer and cooling coil driven by geared motor of 2.2 kw Capacity – 10 Meter Cube, Made of MS | 5 Sets |
| 8. | Molasses Pumps: Positive displacement type Pump Capacity – 100 lt/min With Motor of 3.5 kW | 5 Sets |
| 9. | Seed Pump: Rotor type pump of capacity – 5 M3/Hr. with electric motor of 3.5 kW | 1 Set |
| 10. | Centrifugal Machine , for A&B – Masecuite ,of size 12 inch x 24 inch with its motor and clutch pulley. Consists of accessories – copper mesh and water spraying syringe – 1 set | 4 Sets |
| 11. | Centrifugal Machine , for A&B – Masecuite ,of size 12 inch x 24 inch with its motor and clutch pulley. Consists of accessories – copper mesh and water spraying syringe – 1 set | 2 Sets |
| 12. | C-Magmametting tank with stirrer provided with Motor of 2.2 kw | 1 Set |
| 13. | Final Molasses Storage Tank Made of MS of size – 6000mm dia X 4000mm Ht. | 3 Nos. |
| 14. | Sugar Hopper Dryer: Made of MS of size – 600mm wide x 30000mm long with drive motor of 5.5 kW | 3 Sets |
| 15. | Sugar Elevator: Chain & bucket type sugar elevator made of MS with gear motor | 1 Set |

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| 16. | Sugar Grader: Hopper type sugar grader provided with SS wire netting of different mesh with driving unit. | 1 Set |
| 17. | Sugar bagging and weighing: Sugar bagging chute to be provided with sugar grader. Weighing Scale of 200 Kg Capacity provided | 1 Set |
| 18. | Process pipeline and valves for the plant | 1 set |

TURBINE, STEAM GENERATION & DISTRIBUTION

| S.No. | DESCRIPTION | QTY. |
|-------|--|--------|
| 1. | Bi-Drum Water Tube Boiler: Continuous Rating – 10 T/Hr. | 1 Set |
| 2. | Necessary Pipes and Pipe fittings | 1 Lot |
| 3. | I.D., F.D. Fan and Feed Water Pump | 3 Sets |
| 4. | Bagasse Elevator between the last Mill and horizontal bagasse carrier. | 1 Set |
| 5. | Horizontal Bagasse Carrier | 1 Set |
| 6. | Steam Turbine | 1 set |