

PRODUCT : MINI SUGAR OPEN PAN PLANT

LIST OF MACHINERY 'A'

S.No.	DESCRIPTION	QTY.
1.	CANE CRUSHER: Roller Size 406mm dia X 610mm 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 610mm (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 knives 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)	FRICTION 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 610mm 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	3 Set

	of taper wedge arrangement.	
	– Mill Roller Pinion - 3 Nos., made of steel	
	– Journal bearing – All the roller ends supported on phosphor 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	
(f)	TAIL BAR: of forged mild steel square	3 Nos.
(g)	Mechanical Lubricating System	1 No.
(h)	COUPLING: made of C.I. with square bore to house the tail bar	6 Nos.
(i)	INTER CARRIER: With strand of chain of 2.25 inch (57mm) pitch with slates made of MS. The inter carrier is driven by their corresponding immediate Mill.	2 Set
(j)	SPEED REDUCTION GEARBOX (Common for I & II Mill): Open type gear box having three stages with spur gears and with a central input shaft and two output shaft for both the mills. The train of gears are fitted on the shafts mounted on phosphor bronze bushes which are housed in plumber blocks of C.I. These are mounted on fabricated MS base frame and is complete with Drive & Driven V-belt pulley of C.I. and V-belts.	1 No.
(k)	SPEED REDUCTION GEAR BOX (For IIIrd Mill)	1 No.
(l)	HYDRAULIC ACCUMULATOR: Dead weight type pre-charged hydraulic accumulator cylinder mounted on MS frame. One for each Mill complete with oil tank, plunger pump & inter connecting pipelines, C.I. weights.	1 Set
2.	SUGAR DRYER: Size 750mm, Made of MS with flue gas Air Heater & Centrifugal Blower.	1
3.	SULPHUR OVEN: made of C.I.	2
4.	CENTRIFUGAL MACHINE: Size 12 inch X 24 inch with Motor of 10 HP	4
5.	SUGAR GRADER: Size 1200mm X 2400mm vibrating type	1
6.	JUICE STAINER: With Cush-Cush Elevator for juice filtration	1

7. ROTARY VACUUM FILTER: 1
SIZE 6 FT. X 8 FT. WITH VACUUM PUMP ,
RECEIVING TANKS , CATCHER ,
CONDENSOR,INTER-CONNECTING PIPELINES,
CYCLONE , CENTRIFUGAL BLOWER ,
BAGASILLO CONVEYING PIPE ,MUD MIXER
ETC.
8. CENTRIFUGE MESH 3 No.

LIST OF MACHINERY 'B'

S.No.	DESCRIPTION	QTY.
1.	RAW JUICE TANK: Size 2400mm X 1200mm X 1200mm	1
2.	SULPHITATION TANK: Made of Ms with conical bottom, Size 900mm Dia X 3000mm Ht.	6
3.	SCRUBBER: Size 900mm Dia X 1200mm Ht.	2
4.	SULPHITATION BELS: (a) Round Pan 2400mm Dia X 750mm Ht. - 2 Nos. (b) Round Pan 1800mm Dia X 750mm Ht. - 1 No. (c) Gutter Pan 2400mm X 1200mm X 600mm - 1 No. (d) Muddy Juice Pre-heating Pan 2400mm X 1200mm X 750mm. - 1 No. (e) Fire Bars - 1 Lot.	3 Set
5.	SETTLING TANK: Size 1250mm X 600mm X 1200mm with 3 Nos. sockets for Clear Juice and 1 No. for Muddy Juice at the bottom.	40
6.	CRYSTALLIZERS: U Shaped 2400mm X 1500mm X 1600mm, Trough made of 3 mm & Ends made of 5 mm with central Agitator Arms mounted on the square shaft. Consists of Worm & Worm Wheel made of C.I.	40
7.	Counter shaft, Pulleys, Belts & Bearings for a battery of 10 Crystallizers.	4 Set
8.	JUICE BOILING BELS: (a) MS Round Pan 1800mm dia. - 1 No. (b) MS Round Pan 1200mm dia - 1 No. (c) MS Round pan 1800mm dia - 1 No. (d) W Pan 2400mm X 1200mm - 1 Nos. (e) Gutter Pan 2400mm X 1200mm - 1 No. (f) Fire Bars - 1 Lot	12 Set
9.	MOLASSES BOILING BELS: (a) Round Pan 1200mm dia. - 2 Nos. (b) Round Pan 1050mm dia - 1 No. (c) Gutter Pan 1800X 1200 X 600mm - 1 No. (d) Fire Bars - 1 Lot.	8 Set
10.	PUG MILL: With Motor & Gear Box	4 Nos.
11.	MILK OF LIME TANK: (a) Rectangular Tank - Size 8 Feet x 3 Feet x 2 Feet, made of MS	1 No.
	(b) Round Tank with stirrer - Size 4 Feet Dia x 4	1 No.

Feet Long with Motor & Gear Box.

LIST OF MACHINERY 'C'

S.No.	DESCRIPTION	QTY.
1.	PUMP - For RAW JUICE: With Motor .	1
2.	AIR TWIN LOBE BLOWER: For Sulphur Oven – Complete with drive Motor .	2
3.	PUMP - For HOT JUICE: complete With drive Motor .	2
4.	PUMP - For MOLASSES: Gear Pump complete with Motor.	6
5.	PUMP- For HOT MASSECUTE: With Motor .	4
5.	PUMP-MAGMA For COLD MASSECUTE: With Motor .	2

LIST OF MACHINERY 'D'

S.No.	DESCRIPTION	QTY.
1.	DRIVE FOR Ist CUTTER: Electric Motor of 60 HP, 1440/1500 RPM, 415 V, AC, 50 Hz, SPDP with base frame.	1
2.	DRIVE FOR IIInd CUTTER: Electric Motor of 50 HP, 1440/1500 RPM, 415 V, AC, 50 Hz, SPDP with base frame.	1
3.	DRIVE FOR CANE CRUSHER (For 1 & II Mill) : Electric Motor of 135 HP, 960/1000 RPM, 415 V, AC, 50 Hz, SPDP, Slip Ring with base frame.	1
4.	DRIVE FOR CANE CRUSHER (For III Mill) : Electric Motor of 75 HP, 960/1000 RPM, 415 V, AC, 50 Hz, SPDP, Slip Ring with base frame.	1
5.	DRIVE FOR CRYSTALLIZER: Electric Motor of 10 HP, 1440/1500 RPM, 415 V, AC, 50 Hz, SPDP with base frame.	4

LIST OF MACHINERY 'E'

S.No.	DESCRIPTION	QTY.
1.	FOUNDATION BOLTS	1 Lot.
2.	PIPE AND PIPE FITTING	1 Lot.
3.	LORRY WEIGH BRIDGE – Steel Yard type, Capacity 25 tons, Platform size 25 Feet x 8 Feet.	1 No.
4.	SUGAR WEIGHING MACHINE–300 Kgs. Capacity	1 No.
5.	LAB EQUIPMENTS	1 Lot
6.	BAG STICHING MACHINE	1 No.
7.	ELECTRICALS: Consisting of Cables, MCC, Local Control Panel with Motor Starters (The line up to MCC shall be under client's scope)	1 Lot.