

Notice Inviting Tender

Sealed Tenders are invited for the Supply, Installation and Commissioning of the Plastic Recycling Machineries listed below from the manufacturers. The Machineries shall be supplied at the project site of KINFRA industrial estate, Kunnamthanam, Pathanamthitta District.

Item No.	Item Description	Quantity
Set- I		
1/1	Feeding Conveyor	1 No
1/2	Plastic Wet Grinder machine	1 No
1/3	Friction Washer	1 No
1/4	Floating Tank	1 No
1/5	Squeezing Dryer Densifier	1 No
1/6	Dryer For Hard Materials	1 No
1/7	Recycling Extruder-2 stage(Mother & Baby)	1 No
1/8	High Speed mixer/ Blender	1 No
Set -2		
2	Roller Dust Remover	1 No
3	Plastic Shredding Machine(2000Kg/8 Hrs.)	1 No
4	Plastic Dry waste Conveyer Belt	1 No
5	Air Cooled Water Chiller (20 DR)	1 No

Machineries Listed items 1/1 to 1/8 (Set-1) will be evaluated altogether and items 2 to 5(Set-2) will be evaluated individually. Bidders can quote their rates accordingly.

Bidders should submit their tender in two cover system as first Technical Bid and second Financial Bid. Technical bid shall include all product details, Broacher, Photographs, List of the clients with list of machineries supplied during the last 5 years, Warranty details, List of critical spares for each machineries, AMC details etc. Financial bids will not opened for unsatisfied Technical bids and their tender will be rejected.

Date of Publishing Bid in E-tender site	-	19-12-2023 (4 PM)
Last Date of Submission of Tenders	-	28-12-2023(4 PM)
Bid Opening Date	-	30-12-2023(2 PM)
Earnest Money Deposit		2.5% of tender amount

Machineries shall be supplied within 30 days on placing the supply order. For more details and specifications visit our website www.cleankeralacompany.com and contact. 0471-2724600

Managing Director

Clean Kerala Company Limited



Plastics Recycling Machinerie Specifications

1/1. FEEDING CONVEYOR

Sl.No	Description	Technical Specification
1	Stand Material	MS Fabricated
2	Motor	2 HP ,1400 RPM
3	Gear	Aluminum Worm Gear
4	Belt	PVC 3 Ply Coated, 4 MM thick
5	Clits Height	75 MM
6	Rubber Roll	Natural Black Coated
7	Roller Length	410 MM

1/2. Plastic Wet Grinder Machine

Sl.No	Description	Technical specifications
1	Throat Size	480MMX 460MM
2	Body	MS Fabricated. Heavy Duty
3	Screen Size	As per Req. 12MM-100MM
4	Ball Bearing	6322 2 Nos.
5	Pulley	16 X 4 X C - 2 Nos, 7 X 4 X C -1 No.
6	No. Of Blades	3 Nos Rotatory,2 Nos Fixed
7	Blade Size	Rotatory-450X100X25MM Fixed- 450X150X25MM
8	Blade Material	D2KNL or MS (Hard Welded Tips)
9	Motor	30 HP ,1400 rpm ,Standard
10	Oil Seal	130 X 115 X 13 -2 Nos., 150 X 115 X 13-20Nos
11	V Belt	4 Nos. C-Type
12	Panel Board with Starter	Wall Type
13	JUMPER	Small Type -4 Nos
14	Spare blade	1 set
15	OutPut	FILM-150-200 Kg/Hr. ARTICLE- 200-225Kg/Hr

1/3. FRICTION WASHER

Sl.No	Description	Technical specifications
1	Motor	15HP, 1440 RPM, Foot TYPE
2	Rotor Moc.	MS plate,15 MM thick
3	Stand	M S Heavy Duty
4	Screen and Support Frame	S S 304
5	Cover	S S 304
6	Cover Thickness	16 Gauge
7	Screen Hole	SS 304,3MM Hole Perforated Sheet
8	Screen SheetThickness	10 Gauge
9	Panel Board	I Type
10	Rotter	16" Dia.
11	Pulley	10 X 4 X C- 1 No, 6 X4 X C- 1 No
12	V Belt	4 Nos. C Type
13	WaterPump	1HP, 3 PH
14	Jumper	A-Type, Small, 5 Nos.
15	Pedestal	UCP-217
16	Out Put	FILM-150-200 Kg/Hr. ARTICLE- 200-300Kg/Hr

1/4. Floating Tank

Sl.No.	Description	Technical specifications
1	BODY STRUCTURE	M.S. FABRICATED , Grade B
2	WATER CONTECT PART	SS304
3	PADAL SPROCKET SMALL	110MM, ID-35MM, TEETH 18 - 04 NOS, key - 8x8
4	GEAR SPROCKET	110MM, ID-45MM, TEETH 18 - 02 NOS
5	CHAIN (Small to Small Sproket)	Length-108", Width-18MM (OIIII/0.75")
6	PEDAL MOTOR/ Gear	2 HP, 2 NOS, RPM-1400, FLANGE
7	STARTER	3 Nos.
8	Valve	7" Butterfly Valve, Pressure- 15Kg/CM2, Body Type-SS
9	Final Material Exit Screw Motor & Gear	3HP,1400, Flange Ratio-30:1,Type NMRV- RB X 90-90B5
10	WATER PUMP	1.5 HP
11	Exit Screw Type	Bi Dimensional Exit screw for either sides material exit
12	Pedestal	UCP-208, 08 NOS

1/5. Squeezing Dryer Densifier

Sl.No.	Description	Technical specifications
1	BODY	M.S FABRICATED,Grade B
2	GEAR BOX	HELICAL 200CD-12.5:1
3	GEAR BOX BEARING	29426 ZKL
4	PULLEY	TAPER LOCK 9X5XC-1 No,8X5XC-1No
5	V BELT	05 NOS. C-TYPE
6	MOTOR	60HP,1400 rpm,3 Phase,415V
7	HEATER	CERAMIC,2 NOS-5 KW
8	DRYING SYSTEM	SCREW MECHANISM
9	JUMPER	B-TYPE (BIG) 4 NOS.
10	OUT PUT	150-200 KG/HR.

1/6. DRYER FOR HARD MATERIAL

Sl.No.	Description	Technical specifications
1	BODY	M.S FABRICATED, Grade B
2	MOTOR	40 HP,1400 rpm,3 Phase,415V
3	BLOWER MOTOR	5 HP
4	HEATER	12 KW
5	PULLEY	9 X4 X C -HALF SOLID 125
6	DRYING SYSTEM	THERMAL DRYING
7	MATERIAL	ARTICLES
8	V- Belt	4 Nos.

1/7. RECYCLING EXTRUDER-2 STAGE

Sl.No.	Description	Technical specifications
1	MOTHER-BODY	M.S FABRICATED, GRADE B
2	DRUM SIZE	30" ID, 12 MM THICK
3	BALL BEARING	6328 ZKL & 6320 ZKL
4	PULLEY	16 X6X C TAPER LOCK, 7X 6XC SOLID
5	BLADES	ROTATORY-D2KNL,4 NOS.
6	V BELT	C-TYPE ,4 NOS
7	AGGLO DRUM COOLING	WATER COOLING
8	EXTRUDER	100 MM
9	BODY	M.S FABRICATED, GRADE B
10	GEAR BOX	HEAVY DUTY HELICAL 200 CD,12:5:1
11	GEAR BOX BEARING	THRUST BEARING 29426 ZKL
12	SCREW & BARREL	100 MM EN 41B GAS NITRIDE (OPTIONAL)
12	SCREEN CHANGER	200 MM WITH HYDRAULIC POWER PACK

13	SCREEN CHANGING TIME	15 TO 20 SEC.
14	MAIN MOTOR	40 HP,1400 RPM,3 PHASE
15	HEATER	35-40 KW
16	MOTOR PULLEY	9 X 4 X C
17	GEAR BOX PULLEY	15 X 4 X C
18	EXTRUDER BABY	110 MM
19	BABY-BODY	MS FABRICATED,GRADE B
20	GEAR BOX	HEAVY DUTY HELICAL 200 CD,12:5:1
21	GEAR BOX BEARING	THRUST BEARING 29426 ZKL
22	SCREW & BARREL	110 MM EN 41B GAS NITRIDE (OPTIONAL)
23	SCREEN CHANGER	200 MM WITH HYDRAULIC POWER PACK
24	SCREEN CHANGING TIME	15 TO 20 SEC.
25	MAIN MOTOR	30 HP,1400 RPM,3 PHASE
26	V BELT	TYPE C-4 NOS
27	HEATER	20-25 KW
28	MOTOR PULLEY	10 X 4 X C
29	BEAR BOX PULLYY	15 X 4 X C
30	WATER PUMP	1 HP- 3 PHASE
31	GEAR BOX OIL GRADE	320
32	HYDRAULIC VOIL GRADE	68
33	PELLETIZER CUTTER MOTOR	2 HP,2800 RPM FOOT
34	PELLETIZER CUTTER	08 BLADE ROTATORY,01 BLADE FIXED
35	PELLETIZER CUTTER V- BELT	01 NO. TYPE-B
36	PELLETIZER PULLEY	STEP PULLEY(3/4/5") B-TYPE/ STEP PULLEY(5/6/7") B-TYPE
37	WATER TANK	S.S.- 8' X1.6' X 16'
38	PANEL BOARD	WALL TYPE + REMOTE
39	OUT PUT	125-140 KG/ HR.

1/8. High Speed Mixer / Blender - 1 No

Description	Technical specifications
Application	For Mixing Grinded Material /Flakes /Granules with Pigment, Master Batch, Virgin & Semi Virgin Material and For Drying Material With Heater & Blower Attachment Machine
Drum sheet	THICK 14 GUAGE & 12 GUAGE
Body material	S.S. MATERIAL & M.S. STAND
Pedestal bearing	UCFC (ROUND TYPE) 208 (40 MM HOLE) – 02 NO.
Motor	2 HP,1400-1500 RPM
Panel board	SUITABLE FOR 2 H.P.
Blower	2 H.P. 1400-1500 RPM
Heater	04 KW – 03 Nos.
Vessel capacity	400 KG
Batch capacity	300 KG/ BATCH
Batch process time	15 MINUTES

2. Roller Dust Remover

Sl.No	Description	Technical specifications
1	Body Material	MS Fabricated, IS 2062 Grade B, Not less than 5 mm
2	Ball Bearing	6204 ZZ -8 Nos
3	Pulley	10X3XC-9Nos,5X3XC-1No.
4	Blade	170 Nos (approximately)
5	Motor	15HP,1440 RPM,415 V , 3 phase
6	V Belt	C-61-12Nos& C-63 -3Nos
7	Panel Board	Wall Type
8	Screen Size	40X40MM
9	Pedestal	UCP 210-10Nos
11	Out Put	150-200 Kg/Hr
12	Feed material	Film waste (LD,HD,HM,MLP etc)

3. Plastic Shredding Machine – 1 Nos

Sl No	Description	Technical specifications
1	Capacity	2000 kg in 8hours
2	Feed	All types of common municipal plastic waste in a variety of materials such as HDPE, LLDPE, PP, ABS, HIPS, nylon, PC, PET
3	Size of the Shredded Plastic	0.6 – 2.36 mm(As per IRC SP: 98-2013 standard)
4	Blade material	High Carbon High Chromium allot steel
5	Mesh hole size	Suitable for the output size mentioned above
6	Mesh material	Mild steel
7	Feeding hopper	Fully insulated
8	Motor Capacity	15HP – 20HP
9	Motor	Make:ABB/SIEMENS/SCHNEIDER Or Equivalent Flame proof, Efficiency of motor should comply with IE-3 rating confirming to IEC 60034- 30 standard and name plate to be provided confirming to IS 12615- 2011
10	Control Panel	Suitable size of contactor, overload relay, control & power fuses, power & control terminals, start/stop push buttons with lock facility & ammeter to match the motor size & rating

11	Panel Components/features	<p>Electronic Motor protection relay (EMPR) with single phasing protections. Make:L&T/Schneider/Siemens/ABB or Equivalent</p> <ul style="list-style-type: none"> • LED Indication Lamps • SFU shall be of L&T/Siemens make or Equivalent • Door interlock to be provided, so that it cannot be opened with SFU in ON position and can be padlocked with SFU in OFF position. • Vermin proof Grills with filters to be provided I panel for proper ventilation. • All wiring to be provided with printed ferrules. • Laminated control wiring diagram to be posted on inner side of the panel door.
12	Other features	<ul style="list-style-type: none"> • Noise control features • Easy adjustment of blades
13	Manuals	Soft and hard copies
14	Manufacturer certification	ISO 9001 certified preferred

4. Plastic dry waste conveyer belt – 1 No

Description	Technical specifications
Capacity Output	500 kg/h
Automation	Variable frequency drive
Bearing	Pedestal Type
Speed Control	5 ft/min to 30 ft/min
Belt Thickness & Width	5mm and 900mm
Conveyor belt length	8m
Motor capacity in HP	5HP
Belt Material	Rubber Type(PVC) /heavy rubber
Other Features/requirement :	Flat bed type for material segregation Provision for seating arrangement for workers while sorting

5. AIR COOLED WATER CHILLER :

DESCRIPTION	UNIT	DETAILS
Nominal Cooling Capacity @ 15° Degree water Temp.	TR	21.7
Cooling Capacity@10 Degree	TR	17.9
Control Range	Degree Celsius	+10 to +20
Ambient temperature for Chiller	Degree Celsius	52 Max
Compressor Power	KW	$8.81 \times 2 = 17.62$
Fan Drive	KW	$0.45 \times 4 = 1.8$
Refrigerant	-	R – 407C
Electrical Power Supply	V,Hz, Phase	415, 50, 3
Control Voltage	V,Hz, Phase	230, 50, 1
Total Connected Load without Pump	KW	19.42