

## TECHNICAL SPECIFICATIONS AND OTHER ALLIED REQUIREMENTS

PUR/367/ERT/AP/E/2020-21/RET

| Sl. No. | Item Description  | Quantity                         |
|---------|---|----------------------------------|
| 1       | <b>Supply of Rotary Trommel</b><br><br>a) 100-150 kg/h, and<br>b) 200-250 kg/h<br><br>(Detailed specifications and drawing are as per Annexure-I & II ) | <br><br><br><br>01 No.<br>01 No. |

### 1. QUALIFICATION CRITERIA:

1.1 N.A.

### 2. DELIVERY

2.1. Vendor should complete delivery the ordered goods within 30 days from the date of Purchase Order at CSIR-CMER-Centre of Excellence for Farm Machinery (CoEFM), Gill Road, MERADO, Opposite GNE College, Ludhiana, Punjab, 141006.

### 3. WARRANTY

3.1. 12 months warranty must be provided by the supplier from the date of delivery and acceptance of the items/equipment at the User's laboratory/Institute.

### 4. PERFORMANCE SECURITY:

5.1 Vendor should provide Performance Security @3% of Contract Value/Invoice Value within 21(twenty-one) days after receipt of Purchase Order and it should remain valid for a period of 60 (sixty) days beyond the date of completion of warranty period.

### 5. BID SECURITY DECLARATION:

5.1 Vendor should provide Bid Securing Declaration Form as per Annexure – 5F provided in the Tender Document.

### 6. OTHERS

6.1 Optional accessories will not be considered for Price Evaluation.

# ANNEXURE - I

## Specification

| Sl. No. | Description                                 | Specification  |
|---------|---|--|
| 1       | Material to be screened                     | Compost  |
| 2       | Capacity                                    | 100-150 kg/h   |
| 3       | Screen RPM                                  | 45 - 60 RPM  |
| 4       | Separation                                  | Oversized & Undersized   |
| 5       | Screen size                                 | Dia.: Ø4 mm; Wire thickness: 1.0 mm  |
| 6       | Screen material                             | Stainless Steel Net  |
| 7       | No. of feed points                          | 1 No.  |
| 8       | Feeding Point (Elevation)                   | 1.20 m (+GL)   |
| 9       | Delivery Point                              | 0.75 m (+GL)   |
| 10      | Discharge hoppers                           | One side along the length  |
| 11      | Dimension of Trommel                        | Dia. 500 mm × 2500 mm  |
| 12      | Inclination                                 | 5 degree   |
| 13      | Shaft                                       | Pipe Dia.: Ø50 mm (min), Thickness: 2.0 mm; Length: 2700 mm (min), MOC: MS   |
| 14      | Bearing                                     | Roller Bearing; Make: SKF/NTN  |
| 15      | Motor                                       | 2 hp, Single phase, 230V, 50 Hz, 1440 RPM; Protection: IP55 with DOL starter, Make: Crompton/ABB/BBL   |
| 16      | Gear Box                                    | 1:10; Helical; Make: PBL/ELECON/STANDARD   |
| 17      | Structure                                   | Fabricated from ISMC (80×40×5 mm), ISA (50×50×6 mm)  |
| 18      | Chute (Inlet & Outlet chute)                | Fabricated from 3.0 mm thick MS Sheet  |
| 19      | Inclined roller conveyor (Feeding Conveyor) | Length → 2000 mm<br>Belt width → 300 mm<br>Type of belt → Canvas/Rubber coated<br>Thickness of belt → 5.0 mm<br>Start of conveyor → +300 mm from Ground level<br>Delivery of conveyor → +1500 mm from Ground level<br>Angle of Inclination → 35-40 degree<br>Spacing of bucket → 300 mm (AISI304)<br>Dimension of bucket → 250 mm×200 mm (AISI304)<br>Side guard → 250 mm<br>Motor → 1 hp, 1 phase and 1:25 Gear Box<br>Structural Frame → Hollow Square Pipe (50 mm × 3 mm) |

**N.B.:** Please refer Figure-1 as conceptual model

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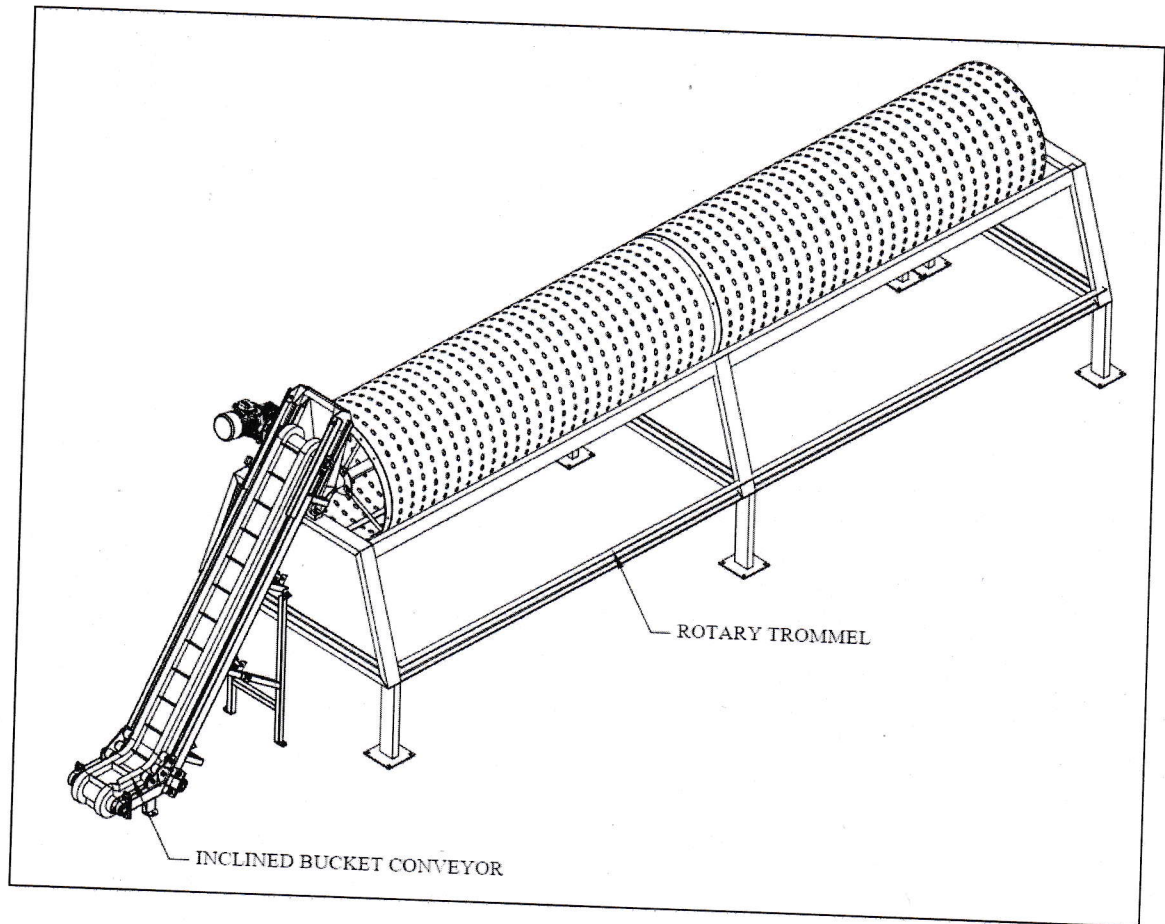


Fig-1: Rotary Trommel with Inclined Conveyor

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## ANNEXURE - II

| Sl | Description               | Specification/ Capacity  |
|----|---------------------------|--|
| 1  | Rotary Screen             | 1 No.  |
| 2  | Type of Motion            | Rotary Motion Type (External Driven: No Central Shaft)   |
| 3  | Material to be screened   | Municipal Solid Waste  |
| 4  | Capacity                  | 200-250 kg/h   |
| 5  | Screen RPM                | 45 to 60 RPM   |
| 6  | Separation                | Oversized & Undersized   |
| 7  | Screen size               | Dia: Ø 35 mm & Pitch: 50 mm  |
| 8  | No. of feed points        | 1 No.  |
| 9  | Vibratory Feeder (Inlet)  | Electro mechanical feeder<br>Foot Mounted<br>Open Coil Spring Assembly<br>1 No. 0.5 HP, 3phase, 415 V, 50 HZ   |
| 10 | Feeding Point (Elevation) | 1.5 m  |
| 11 | Delivery Point            | 1.0 m  |
| 12 | Bottom hoppers            | 2 Nos.   |
| 13 | Dimension of Trommel      | Dia. 600 mm × 2500 mm  |
| 14 | Screen material           | AISI 304 Perforated sheet with 3 mm thick  |
| 15 | Inclination               | 3 degree   |
| 16 | Roller                    | Self-aligned type provides (IS 2069 Grade-A)   |
| 17 | Roller Size               | Ø250×100 mm width (IS 2060 Grade-A)  |
| 18 | Bearing                   | Roller Bearing; Make: SKF/NTN  |
| 19 | Motor                     | 5 hp, 3 φ, 415V, 50hz, 1440 RPM; Protection: IP55<br>Make: Crompton/ABB/BBL  |
| 20 | Gear Box                  | 30:1; Helical; PBL/ELECON/STANDARD   |
| 21 | Drive                     | Spur Gear drive  |
| 22 | Structure                 | Fabricated from ISMC (100×50×5 (t)) ISA (50×50×6 mm (t)), wheel, Vibration isolation pads on support structure, Gasket at mating bolting faces to eliminate noise & vibration. |
| 23 | Chute                     | Fabricated from AISI 304 Sheet with 3.0 mm thick inlet & outlet chute  |

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