



OFFICE OF THE EX. ENGG. (Electrical, E&M, Auto)/NZ

MCD-Zonal Office building, Narela Zone (opp. Police Station-Narela), Narela, Delhi-110040.

No. EE (Auto)/NZ/MCD/2024-25/154

Dated - 08.03.2025

NOTICE BOARDNOTICE INVITING QUOTATION

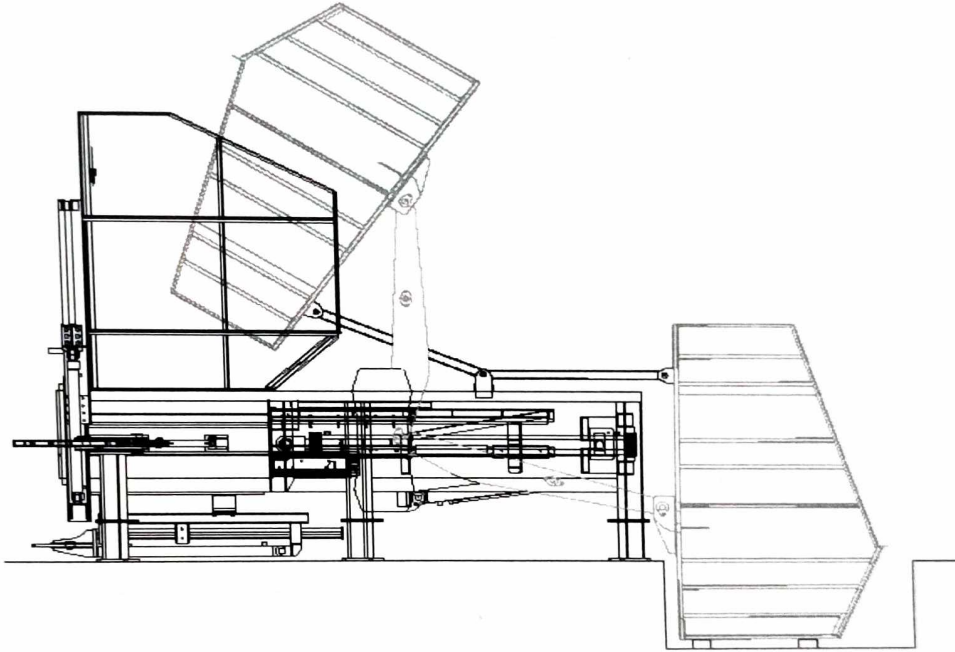
This is for information to all contractors/dealers/manufacturers dealing in the line of FCTS (Fixed Compactor transfer Station) that this office proposes to install few (Fixed Compactor Transfer Station) FCTS with broad technical specifications :-

Item Description	Rates
<p><u>STATIC REFUSE COMPACTOR WITH HYDRAULICALLY OPERATED BIN CART GARBAGE LOADING DEVICE</u></p> <p>General:-</p> <p>1.0 The System to consist of Static Compactor suitable for receiving municipal Solid Waste from Waste Collection Vehicles into a hydraulically operated bin cart loading mechanism, compacting and loading into Roll-on-Roll off containers for further handling through Hook Loaders. The offered System should consist of the following:-</p> <ul style="list-style-type: none"> ➤ Static Compactor with Hydraulic Compaction Container Coupling, Hydraulic Vertical Container Gate Opening/Closing Mechanism and a Hydraulic Push-Pull Cylinder. ➤ Hydraulically operated Bin Cart loading mechanism ➤ Container Traversing/Change Over System <p>as per the specification given below:-</p> <p><u>Static Compactor</u></p> <ul style="list-style-type: none"> • Compactor in heavy duty design with extra strong sheet thickness with horizontally operating straight single cylinder system • Hydraulic System comes with regenerative control for faster cycle time • Fail safe hydraulic ram control without limit switches, press plate comes in low maintenance plastic guides • Container 75% full warning as standard • Extra pressure boost and automatically plate positioning for closure operation • Control Panel with main switch, emergency stop button, function button and function lights • All, hydraulic functions are controlled via a central, maintenance free valve Hydraulic Unit with oil filter and oil level gauge. <p>The following are the minimum requirements:-</p> <p>Charge box volume approx. 2.4 m³</p>	

1.1	Compaction cycle time	45 sec
	Theoretical volumetric capacity	192 m ³ /hr
	Normal compaction force	330 kN
	Max compaction force	380 kN
	Compaction Density	0.75 – 0.8 T/ m ³
	Motor Power	15 kW
	Power Supply	440 V
<p><u>Hydraulic Compaction Container Coupling</u> The Hydraulic Container Coupling should consist of a pair of hydraulically operated Hook with lever which pulls, align and attaches the container to the compactor unit before loading the garbage into the container. After the container is loaded the Hydraulic Coupling releases the container which is detached from the compactor before lifting by the Hook Loader.</p>		
<p><u>Hydraulic Vertical Container Gate Opening/Closing Mechanism</u> The Container opening is to be provided with a sliding steel gate. The Gate to be lifted by a hydraulic vertical mechanism before loading the garbage into the container. After the container is loaded, the hydraulic vertical mechanism pushes the container sliding gate downward and closes the opening. The complete Operation is to be controlled by means of push buttons.</p> <p><u>Hydraulic Push Pull Cylinder</u> A hydraulic Push-pull cylinder is to be provided for pulling the empty Roll-on-Roll off container towards the compactor unit and pushing it back after the container is full.</p> <p><u>Hydraulically operated Bin Cart loading mechanism</u> Each compactor unit is to be provided with mild steel Bin Cart having a garbage holding capacity of 3 Cum minimum and is designed to receive garbage from Mini-Tippers and load into the receiving hopper of the static compactor. The Bin cart loading device can be Rear loading, left or right hand loading as may be decided during finalization of Order.</p> <p>2. <u>CONTAINER TRAVERSING SYSTEM :-As per the technical specifications given in Annexure -II</u></p> <p>3. <u>HOOK LOADER:- As per the technical specifications given in Annexure - III</u></p> <p>4. <u>COMC (Comprehensive Operation and Maintenance Cost) cost of the Complete setup for Five (5) years including Two (2) years DLP (Defect liability Period).</u></p>		
1 st Year		
2 nd Year		
3 rd Year		
4 th Year		
5 th Year		

Terms and Conditions :-

1. The fuel (Diesel/CNG) for the operation will be provided by the department.
2. The electricity consumption charges will be included in the COMC cost.
3. The rate should be inclusive of all applicable taxes and duties etc.
4. Payment will be 70% against supply of material at good condition in store, 20% after installation and 10% after Commissioning and testing and QC in all respect
5. Payment for COMC will be made on Quarterly basis.



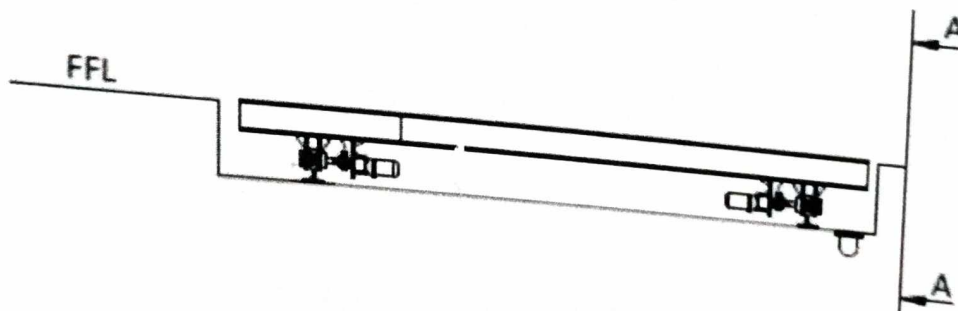
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TECHNICAL SPECIFICATION OF CONTAINER TRAVERSING SYSTEM

Each Stationary Compactor should be provided with a Rail Mounted Container Traversing System/change over system. Each traversing system is to be designed to handle two number Roll-on-Roll-off Containers and shall consist of two numbers electrically operated shuttle cars (transfer car) moving on Rails for placing empty containers and shifting loaded containers when detached from the static refuse compactor.

The Traversing System for each Static Compactor shall include the following:-

1. Rail Track of minimum length 9 mtrs including anchor plates and clamps for fixing rails.
2. Shuttlecars(transfercar)-2Nos.suitableforcarryingandmovingaloadedContainer.
3. 04 Nos. Electric Motor (02 Nos. 3 phase 415 V 1 HP for each transfer car) with all control systems including electric cables suitable for operation of the Shuttle cars (transfercar)



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TECHNICAL SPECIFICATIONS OF HOOK LOADER

Product Description:

Truck Mounted Hook Loader, suitable for lifting 18 M³ capacity container is designed to pick up the loaded or empty Roll on – Roll off containers, transport, dumping of material and thereafter unload the skip containers safely and faster.
The telescopic Jib enables proper load distribution on the chassis.

Technical Features: Designed to handle containers of 18 M³ capacity. The dumping mode is achieved by operating the main rams, actuating arm and tilting frame, with jib extended, pivoting around the rear shaft.

- A sub-frame made out of bend steel plates and cross members is mounted on the truck chassis frame.
- A tilting frame hinged to the sub frame with a steel shaft carry the rear centering rollers.
- A main arm hinged on the tilting frame with a mechanical locking mechanism allows the dumping mode.

A telescopic jib, sliding in the arm, supporting a wide-open lifting hook enables loading of container.

Hydraulic Specifications:

- Pump - High Performance Vane Type Pump
- Controls - low pressure hydraulic – Manual
- Filter - 10 micron, return line with replaceable cartridge
- Arm cylinders (lift cylinders) - 2 Nos., double acting, equipped with counter balance valves and built in by pass valves.
- Jib cylinder (slide cylinders) - 1 No. Double act.ng, equipped with built in counter balance valve Hoses, tubes & fittings.
- Container Locking Cylinder - 1 No., Double Acting
- Boom Locking Cylinder - 1 No., Double Acting

Stabilizers are provided at suitable locations along the rear of the vehicle to ensure vehicle stability during the loading & unloading cycle of operation.

All Hydraulic Cylinders, allied components and all hydraulic pumps shall be supplied from manufacturer of ISO certified company.

- SAFETY DEVICES**
- Safety valve prevents jib operation during dump Mode
 - Automatic locks on arm
 - Slide through container catches



TRUCK CHASSIS

The hook loader is suitable to be mounted on 3 Axle Truck Chassis of 28 T GVW (6x4), BS-VI of TATA/Ashok Leyland /Eicher/Mahindra or equivalent (to be supplied as per the specifications mentioned). The Chassis shall be with Driver Cabin fitted with PTO and Hydraulic Pump.

TECHNICAL SPECIFICATION:-

Type of Fuel

Diesel/CNG

Chassis Gross Vehicle Weight

28000 Kilogram or higher

Pay Load Capacity

20 tonne or higher

Max Engine BHP

200 BHP or higher

Max Engine Torque (N-m@rpm)

850 or higher

Gradeability of Vehicle (%)

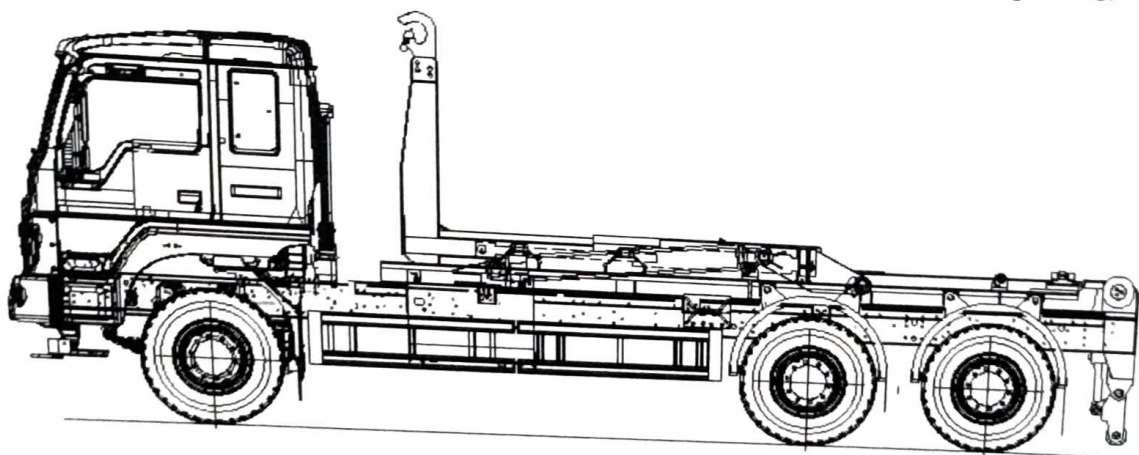
23 or better

Welding

Structure welding confirming to relevant IS standards.

Hook for Lifting

The hook for lifting the Compactor Unit would be integral to the structure. It shall be provided with the necessary reinforcement to handle the design weight for lifting with adequate factor of safety. The shape and size would as per design of the lifting tackle.



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**CONTAINERS OF 18 CU.M VOLUMETRIC CAPACITY
COMPATIBLE WITH THE HOOK LOADER.**

1. GENERAL DESCRIPTION:-

The closed type containers will be compatible with Hook loader, and the stationary compactor to be installed at transfer stations. The container will have rear door opening by ratcheting arrangement for loading refuse at the Transfer Station. They will also have mechanical locking arrangement to lock them with stationery/portable compactor while loading the refuse

2. TECHNICAL SPECIFICATION:-

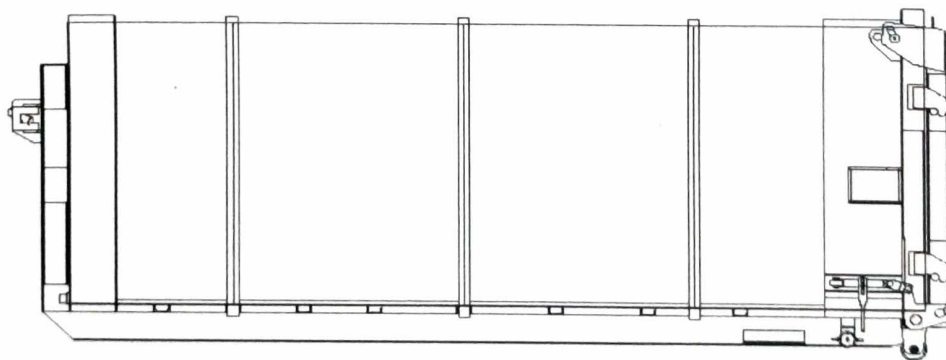
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|-----------------------|-------------------------------------|
| ➤ Volumetric Capacity | 18Cu.M |
| ➤ Floor Plate | 5 mm reinforced with hollow section |
| ➤ Side Panels | 3 mm reinforced with hollow section |
| ➤ Rollers | 2 Nos. rear side |
| ➤ Material | As per BIS 2062 |

The design of container shall be compatible to the Hook Loader with all safety arrangement i.e. locking while tipping etc.


Proper sealing arrangement shall be provided to the container to avoid spillage of garbage & leach ate during transportation.

The container shall have arrangement to collect leachate formed during compaction and the same shall not spill on road during transportation.

The container shall be painted with anti-corrosive paint from inside & outside. All the containers shall be numbered for an identification & record purpose.



You are requested to kindly provide the best available rates for the Supply, installation, testing and commission of FCTS (Fixed Compactor Transfer Station) etc. complete as required along with Comprehensive Operation and maintenance for period of 5 (Five) years at the earliest but not later than 07 days.


EE (Auto)/MCD

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