

Being Green |  
is staying clean |



#### OUR SCOPE OF SUPPLY :

- Garbage Tippers
- Garbage Compactors
- Sewer Suction Jetting Machines
- Desilting (Super Sucker) Machines
- Recycler Machine
- Plastic Shredder Machine
- Portable Compactor
- Hook Loader
- Static Compactor & Transfer Station
- Garbage Segregation Machine (Trommel)
- Air Dust Management Equipment
- Water Sprayer
- Road Sweeper Electrical/Diesel
- Electric Garbage Tipper
- Sewage Treatment Plant (STP)

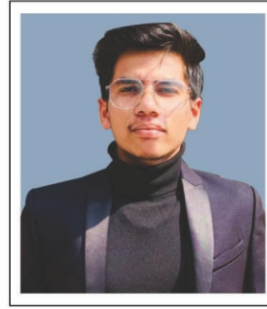
# ABOUT US

We would like to introduce  
AKISHA ENGINEERING SOLUTION SERVICES  
an ISO 9001:2015 and MSME  
Certified Engineering and  
Manufacturing Organization.

The organization is registered with MSME, Government of India, and is headed by Mr. Ashish Kumar, who have vast experience of more than Three decades in the field of Engineering and Manufacturing of Waste Management Equipment.

Our manufacturing facility is strategically located in Delhi-NCR and equipped with all the machinery & tools, required for Solid, Liquid Waste Handling Equipments. We have an experienced design team who works on SOLID WORKS and AUTO CAD for designing of the equipment. We are following best engineering practices & using best hydraulics and other components available in the International Market to ensure highest quality, reliability and performance of our equipment.

## Our Certificates



Ashish Kumar  
(Director)

## Director's Message

Dear Readers,

It is my pleasure to communicate with you for the first time since assuming the responsibility as Managing Director of Akisha Engineering Solution Services. The Organization has expertise in manufacturing of a wide range of equipment for Municipal and Industrial Application. The range of products being offered by our organization, as detailed below are in line with requirements under SWACHH BHARAT MISSION for the solid waste liquid waste & Handling management as well as Road Sweeping and cleaning.

### We Provide such as :

- Suction Cum Jetting Machine With Sludge Water Recycling,
- De-Silting Machines (Super Sucker) & DUMP TANK,
- Mini Super Sucker & Jetting Machine,
- Sewer Suction Machines,
- Sewer Jetting Machines,
- Water Sprinkler With Anti Dust Gun, T
- railer Mounted Anti Dust Gun ,
- Refuse Compactor
- Hook Loader,
- Portable Compactor,
- Truck Mounted Road Sweeping Machines,
- Hydraulic Sky Lift,
- Drain Cleaning Machine (Nalaman),
- Hopper & Tipper/ Closed Tipper
- Trailer Mounted Mobile Bio-toilet/ Mobile Toilet (6 Seater), Shredder Machine ,
- Dustbins ,
- Trommel Drum,
- Trommel Screen for Waste Segregation

# Suction Cum Jetting Machine With Sludge Water Recycling

The equipment is designed for cleaning and maintenance of our Sewer Pipelines. The equipment is a combination of suction machine and the jetting machine with sewer water and filtration a recycling facility mounted on 25Ton GVW Truck Chassis. The main advantage of the above machine is that the Water Suction from the Sewer lines is filtered/cleaned in multiple stages and these used for jetting purposes. The machine, therefore, does not required fresh water for carrying out the jetting operation and jetting operation can be carried out without interruption for long duration and is not limited by the Capacity of the fresh water tank as is the case of normal Suction-cum-Jetting Machine or a De-silting Machines. The above equipment is provided with a higher capacity vacuum pump and Jetting Pump is mounted on a 25T GVW Truck Chassis is suitable for cleaning the Sewer Line in the City.



## Advantages

- Most advanced sewer line maintenance equipments incorporating a combination of suction and high pressure jetting system with sewage water filtration facility for the jetting system. Used for flushing sewer pipelines and de-silting the manholes/chambers in the sewer lines.
- Heavily silted sewer lines of various sizes can be cleaned with the help of high pressure water jets produced by the jetting system and the silt accumulated in the sewage lines including plastic bags, stones, etc. Shall be sucked simultaneously by the suction system from a depth of 7 ~ 10 mtrs.
- The unit utilizes the recycled filtered water from the sewage water suctioned from manholes, for jetting purpose. The equipment does not require fresh water for carrying out jetting operation.
- The jetting operation can be carried out without interruption for long durations and is not limited by the capacity of the fresh water tank, as is the case of normal suction-cum-jetting machines.
- The above equipment is provided with a higher capacity vacuum pump and jetting pump is mounted on a 25t gvw truck chassis is suitable for cleaning the sewer line in the city.

# De-Silting Machines (Super Sucker) & DUMP TANK

The equipment is designed for cleaning and maintenance our Sewer Pipelines. The equipment is a combination of suction machine and the Jetting Machine with Sewer Water mounted on 25tons GVW Truck Chassis.

Akisha manufactures one of the most powerful Vacuum Loader Machine, which is being utilized for De-Silting of Trunk Sewer pipelines for Silt, Bricks etc. A number of Service Providers are using specialized Silt container trucks along with De-Silting machines, wherein the silt is separated and collected in these Silt Container trucks, which ultimately go to the dumping ground for discharge.



## Advantages

- The main advantage of the above machine is that the Water Suction from the Sewer lines is filtered/cleaned in multiple stages and is used for jetting purposes.
- The machine, therefore, does not require fresh water for carrying out the jetting operation and jetting operation can be carried out without interruption for long duration and is not limited by the Capacity of the fresh water tank as is the case of normal Suction-cum-Jetting Machine or a De-silting Machines.
- These Equipments are used for suction of silt/stones from the underground trunk sewer pipelines of diameter ranging from 1 meter to 3 meters.
- The Trunk Sewer pipelines are installed about 7 to 8 meters below ground level.
- These units are developing vacuum of 8000 mm water column and air handling capacities ranging from 4000 to 6000 Cu.M/hr. A number of such machines are deployed in various parts of India for undertaking De-Silting work

# Mini Super Sucker & Jetting Machine

The equipment is designed for cleaning and maintenance our Sewer Pipelines. The equipment is a combination of suction machine and the Jetting Machine with Sewer Water and filtration a Recycling facility mounted on 12Ton GVW Truck Chassis.

Akisha manufactures one of the most powerful Vacuum Loader Machine, which is being utilized for De-Silting of Trunk Sewer pipelines for Silt, Bricks etc. A number of Service Providers are using specialized Silt container trucks along with De-Silting machines, wherein the silt is separated and collected in these Silt Container trucks, which ultimately go to the dumping ground for discharge.



## Advantages

- It is combine unit of suction and jetting, inbuilt suction tank heaving capacity of 4000 ltr. and SS water tank for jetting i.e. also 4000 ltr.
- The machine capable to work of sewer line from 400-900mm dia.
- Also we can connect addition dump tank with the main unit.
- Fuel consumption of machine is very cost effective due to no auxiliary engine used for manufacturing of machine.
- In narrow roads we can move the machine easily and it will be customize as per the site and customer requirement.

# Sewer Suction Machines

Capacity : 1000 to 8000 ltr.

The combined High Pressure Jetting and Sewer Suction Machine is suitable for Dislodging and removing obstruction and blockages from Sewer line by High Pressure Water Jetting System and suctioning the sludge/slurry from sewer manhole, gulley pit, septic tank etc. by Vacuum Suction System and discharge the collected sludge by hydraulic tipping of the container or by blowback arrangement. The above machine shall be mounted of a 9 T GVW Truck Chassis

Some of the specific features of our Suction Cum Jetting Machine are:

- Optimum Performance
- Robust Construction
- Longer Service Life



# Sewer Suction Cum Jetting Machine

Capacity : 2000 to 9000 ltr.

The Heavy Duty Truck Mounted Vacuum Loader with High Pressure Jetting System is suitable for dislodging the Silt/Sludge settled in the trunk sewer lines and for suctioning the free flowing sludge and slurry for De-silting the trunk Sewer Pipelines. The above machine is one of the most efficient and powerful machine of its kind available in the International Market, incorporating state-of-art Filter System, positive displacement Vacuum Pump driven through an Auxiliary Engine, Jetting Pump and Control System.



## Sewer Jetting Machines

Capacity : 1000 to 8000 ltr.

The equipment is a Truck Mounted Mobile Unit suitable for dislodging and removing obstructions and blockages from sewer lines by a High Pressure Water Jetting System. Sewer Jetting Machine offers high weight triplex plunger siphons for stream rate from 14 lpm to 445 lpm and weight up to max. 3000psi.

Sewer Jetting Machines are rough in development, have medium speed and perform to the whole fulfillment of the client. These jetting machines are broadly utilized in sewer streaming machines around the world.



## Trailer Mounted Sewer Suction Machine

Capacity : 1000 to 8000 ltr.

Akisha Engineering Solution Services Make suction Machine Mounted on a suitable trailer chassis, which can be towed to the work area by a suitable agricultural tractor. The high-performance exhauster / compressor can be operated in both vacuum and pressure mode. Blowing of pressurized air/water into the chamber dislodges the sediment solids which combine with the liquid effluent to form sludge. This is then collected into the tank by operating the system in the vacuum mode.



# Water Sprinkler With Anti Dust Gun

Capacity : 3000 to 10,000 ltr.

The Water Tanker with High Pressure Sprinkler Unit shall consists of a water tank having a capacity of 3,000 Ltrs. to 12,000 Ltrs. mounted on a standard Truck Chassis of 07 Ton to 25 Ton GVW. The Unit shall be fitted with a High Pressure Water Jetting Pump, High Pressure Water Spray Bar for Sprinkling Water on Road, Hose Reel with Spray Gun for cleaning Public Toilets, sign Boards, street furniture etc. And Water Pump with Water Cannon/Raindone for Washing of Trees.

## Applications:

- Water spray on road surface to control dust pollution in the atmosphere due to wind and during mechanical sweeping of roads.
- Washing of dust from tree leaves to control ambient dust pollution level.



## Advantages

- Anti smog gun is used to spray water after connecting it with water tank mounted on a vehicle. It converts the water into a fine spray with droplets size of 50-100 microns by passing it at high pressure through propellers.
- The idea behind this invention is to reduce air pollution by binding dust and other particulate matter and carrying them down to the ground level along with water. This is been designed for the arid places and the metropolitan areas. It basically works as rain to bring down the suspended particles present in the air.
- This device could be taken across the city to spray water to settle all suspended particles.
- Anti smog gun can spray water upto the length of 30 to 50 mtr. with the capacity of 30-100 litres per minute to bring down the polluted particles from the atmosphere.

## Trailer Mounted Anti Dust Gun

Capacity : 500 to 3000 ltr.

Anti smog gun is used to spray water after connecting it with water tank mounted on a vehicle. It converts the water into a fine spray with droplets size of 50-100 microns by passing it at high pressure through propellers. The idea behind this invention is to reduce air pollution by binding dust and other particulate matter and carrying them down to the ground level along with water. This is been designed for the arid places and the metropolitan areas. It basically works as rain to bring down the suspended particles present in the air. This device could be taken across the city to spray water to settle all suspended particles. Anti smog gun can spray water upto the height of 150 feet with the capacity of 30-100 litres per minute to bring down the polluted particles from the atmosphere.



## High Pressure Water Sprayer

Capacity : 300 to 500 ltr.

The machine is trailer mounted water spraying system, its useful to control for sanitization work with water & comical spraying in municipal road / town ships with the covering the area of 20 fit, washing of tree, boards, and municipal toiles and society and offices. The operating of machine is provided by engine system with high pressure jetting pump and actuated pneumatic value and control are provided by manually, its user-friendly and easily operated during the operation of machine. The Machine is mounted four-wheel trolley and there is one jetting pumps are provided capacity 30 LPM for spraying system, and jetting pump drive is provided by Petrol Engine system, High pressure pneumatic valves are provided to control spraying system of machine.



# Refuse Compactor

Capacity : 7 to 18 cum

The Refuse Compactor Vehicles are the solid waste collection equipment designed for lifting and unloading the garbage from garbage bins/containers, compaction transportation to dumping ground/transfer stations/processing plants. The Refuse compactor are having container volume of 8 Cu.m., 14 Cu.m. & 18 Cu.m. mounted on standard truck chassis of 11/16/25 Ton GVW Truck Chassis.

All the three Compactors are fitted with Universal Bin Lifter capable of unloading garbage from 240 Ltrs, 660 Ltrs. and 1100 Ltrs. Bins. The Compactors of 14 Cu.m. & 18 Cu.m. container volume are also provided with Dumper Placer Arms and Stabilizers which can unload garbage from 3500 Ltrs. Bins

- The compactor is provided with Automatic Compaction Cycle having following features:-
- The Compaction Operation started by an Electric Push Button and the compaction mechanism operates continuously till switched off. This ensures reduce time for compaction and safety of operators.
- Compaction is possible when the Vehicle is travelling from one place to another with permits door to door collection of garbage and saving in standby compaction time.
- Compaction Cycle Control through Pressure Sensing Sequential Valves to ensure optimum compaction.



**Model: 14 Cum**



**Model: 7 Cum**

# Hook Loader

Model : 10.5 Cum/20 Cum

Akisha Hook Loaders are capable of handling Roll-on Roll-off skip containers upto 25Cu.M capacity. The Hook Lifters are designed to lift loaded or empty skip containers from the ground and transporting them to dumping yard for the discharge of the dumping material. This is done through the hydraulic tipping of the container.

Hook Loader Containers as municipal solid waste management equipment system are an open/closed type mild, steel welded containers of 12 to 20 Cubic Meters capacity. It has a rear dump discharge door and is equipped with rollers and hooks having roll-on/roll-off facilities which are specifically designed for loading, transporting, tipping and unloading of these containers through a truck mounted hook loader.



# Portable Compactor

Model: 10.5 Cum / 20 Cum

A Portable Compactor is an integral Unit comprising of a Compactor and a Container Body Mounted on a frame with rollers and is designed to be transported by specially designed Hook Loader Unit, which is driven to the dumping ground/processing plant for discharge of compacted garbage

The Portable Compactors are designed for installation at street corners (Dhallows) to receive Solid Waste from handcart (approx. 5 to 6 handcart)/ 2 to 3 tri-cycle rickshaws) at a time into a bucket, unload and compact the same hydraulically into the container body.



# Truck Mounted Road Sweeping Machines

The Truck Mounted Road Sweeping Machine is a Heavy Duty Equipment having a container Volume of 6500 Ltrs. The Machine is provided with a High Capacity Volume Exhauster, which is driven by an Auxiliary Diesel Engine. Some of the salient features of this road cleaning machine are listed below:-

The Sweeping Systems of One Central Brush, Two side brushes and two section heads. The sweeping is carried out with the help of Central Brush and one of the side brush. The orientation of the Central brush can be adjusted towards right or left as per requirements depending upon the direction of the travel of the machine for cleaning the dirt on right or left side of the road as per requirements.



## Advantages

- This road cleaning machine is provide with imported pleated fabric filters, which are automatically cleaned by reverse compressed Air-Jet purging system. Due to the provision of the fabric filters, the machine is capable of undertaking sweeping work in dry mode (without necessity spraying water). The exhaust from the Blower meets PM-10 Pollution Control Norms. However, water tank with water spray system is also provided in the machine for spraying water on the brush as and when required.
- The road cleaning machine is also provided with a rear suction hose which can be used for suctioning material lying on the right side outside the cleaning path of the machine.

## Sky Lift

These machines also known as Sky Lifts are used for maintenance purposes such as fixing street lights, Glass cleaning for High rise building and other suitable application where work is to be done at height ranging from 7 metre height to 16 metre. The machines are mounted on a suitable chassis depending on the type of application and the height required. The machines has FRP bucket of load carrying capacity of upto 250 kg suitable for carrying persons at a suitable height for carrying out the work.



## Drain Cleaning Machine (Nalaman)

These tractor trolley mounted machines are most economical machines for open drainage cleaning. These machines equipped with a bucket which remove the drainage waste and dump the waste to the trolley attached and thus transport the drainage waste to the desired dumping site. These are mainly used in remote areas where bigger truck mounted sewer cleaning equipments can not go and is used for open drainage unlike other machines which are used for underground sewer lines.



# Hopper & Tipper/ Closed Tippe

Tipper & hopper are suitable for carrying garbage, sand, hard material, soil and metal scrap according to chassis capacity. Tipper are ideal for transporting material and are also used to collect and dump material from sites. The close tipper restricts garbage to spill during transportation and also control the foul smell of waste material.

## Salient Features

Model	Tipper's Open Top & Closed
Capacity ( m <sup>3</sup> ).	1 to 16
Required Chassis Wheel Base (mm)	Ace-4200
Required GVW (Tonnes)Tata	Ace to 25



AL DOST 3.5 Cum



Close Body Tipper 3 Cum on Tata ACE



Close Body Tipper 2.5 Cum



Garbage Tipper with Tip Cart 1.8 Cum on Tata ACE



E Cart Garbage tipper



Tri Cycle Rickshaw

## Trailer Mounted Mobile Bio-toilet/ Mobile Toilet (6 Seater)

Mobile Bio Toilet is a trailer mounted toilet so that it can be easily relocated to places of need like fairs, slums, election rallies, processions, etc. These mobile toilets can be used where there is no water and sewage drainage.

These Mobile Toilets should become complete with the perfect combination of body-shell with Bio-Digester Tanks or Collection tank, sturdy trailer with path-way, toilet cabins with cleaning system, fresh water storage tank, hand wash facility, LED lights, exhaust fan, towing facility, stairs with side railing etc. facilities for the effective use.

Trailer mounted Mobile Bio-Toilet / Mobile Toilet should become complete with the perfect combination of body-shell with bio-digester tank / Collection Tank, sturdy trailer with path-ways on both side, squatting pans on 10No cabins (5 cabins for Ladies & 5 cabins for Gents), fresh water tank, hand wash facility, lighting facility, towing facility, stairs with side railing etc... facilities for the effective use.



## Trailer Mounted Mobile Bio-toilet/ Mobile Toilet (4 Seater)

Trailer mounted Mobile Bio-Toilet / Mobile Toilet should become complete with the perfect combination of body-shell with bio-digester tank / Collection Tank, sturdy trailer with path-ways on both side, squatting pans on 6 No cabins (2 cabins for Ladies & 2 cabins for Gents), fresh water tank, hand wash facility, lighting facility, towing facility, stairs with side railing etc... facilities for the effective use.

- Available Sizes & Models: The size & capacity of the Mobile Bio-Toilet (MBTs)/Mobile Toilet Vans (MTVs) can be customized as per client requirements.
- They are generally made of 2 Seaters, 4 seaters, 6 Seaters, 8 Seaters, 10 Seaters and 12 seaters.
- We are proposing you "0.45mm PPGI sheet, Powder Coated and Sandwiched with 40 mm PUF insulated Cabin" Mobile Bio-Toilet". Please have a look at the actual pictures of the same.



# Shredder Machine

The plastic shredder machines are designed to meet the waste recycling requirements of various industries. The input materials can be various kinds of plastics, such as block plastic, pipe, film, woven bag and other general waste recycling; such as cable and ICB electronic waste Recycling; recycling of household garbage from paper, wood and other organic materials. There are a wide variety of recyclable materials. Some materials can be directly recycled after being shredded, and some can be transported to GH series shredder for further refinement.

This machine can further adjust the design according to the processing of the customer's processing waste. Customers can choose the cooling system, rotor surface material and other wear-resistant surfaces.



# Compost Machine

Composting is a way of breaking down complex organic substances into simpler ones with the help of micro-organisms present in the soil. The final pathogen-free product after a breakdown is called compost. A composting machine can easily compost any waste and turn it into a useable fertilizer.

Composting is the best way to handle the waste. Instead of dumping more and more waste into the backyard and landfills, people are getting wise enough to turn waste into usable manure. With technological advancements, it has been possible to even accelerate natural processes. Industries and businesses are shifting towards automation.





# Trommel Drum, Trommel Screen for Waste Segregation



Akisha Hook Loaders are capable of handling Roll-on Roll-off skip containers upto 25Cu.M capacity. The Hook Lifters are designed to lift loaded or empty skip containers from the ground and transporting them to dumping yard for the discharge of the dumping material. This is done through the hydraulic tipping of the container.

Adopting the infrared sorting system, the Akisha automatic waste sorting equipment can guarantee the superior quality of the sorted materials. Because of the advanced conveying technology with conveyor belts of all types, Akisha can promise our highly efficient sorting machine is perfect and reliable logistics for the various materials. The sorting rate of Akisha garbage sorter can be more than 85%, which lay the foundation for the following recycling, pyrolysis or other processes.

Our robust trommels are slow rotating separation machines used to remove smaller sized contaminants from a recycling stream. Although slow moving, its been proven to be highly effective in numerous applications and is often used in the plastic recycling plants as well as larger Material Recovery Facilities (MRF) that handle municipal waste.

## Working Principal

At the core of a trommel is a large cylindrical mesh screen tunnel that rotates between 6-10 rotations per minute. Flaps are mounted on this interior tunnel to continuously flip the feed stock as well as guiding it in a forward motion. As the feed stock slowly moves through this large piece of separation equipment which tilted at an angle, small pieces of unwanted contamination such as broken glass falls through the mesh screen and is collected. Pieces that are larger than the mesh screen holes moves forward to the next piece of recycling machinery.

We offer a standard trommel that is 2000mm in diameter and 1200mm long with automatic brush units to keep the mesh filters clean. Our trommels use a two-wheel or four-wheel drive design and come with frequency and synchronization controls. Depending on your requirements, we can also provide trommels made to your specifications.

### Salient Features

Main Motor Power	11KW x 2
Belt Conveyor Motor Power	3KW x 2
Trommel Length	1200mm / based on your specifications
Trommel Diameter	2000mm / based on your specifications
Tilt Angle	3 degrees
Trommel Rotating Speed	6 RPM
Belt Effective Width	1400mm
Roller Diameter	250mm



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