Specification for Truck / Trolley Mounted SUPERSUCKER machine – Model:
SUPERSUCKER -4000
MODEL : - SUPER Sucker 4000
1. General

The equipment will consist of heavy suction Vacuum Pumping System for removal of sewage / waste cleaning/ De-Silting. The Suction System will suck the sludge / slurry after creating high Vacuum in the collection tank.

2. System Description

The equipment will consist of the following as under :-

   a) Suction Pump System

   b) Engine Drive System.

3. Suction Pump System

   General Design :-

   It will be a skid mounted unit with a High Vacuum Pump Suction System which will create high Vacuum in the pay loader damper / tank wherein the sludge / slurry, perlilte, dust, etc. from the sewer line is collected. The basic principle operation high air flow from the collection tank. This suction pump has got a very high capacity to suck the slurry from large distances and in depth. **In super Sucker 4000 suction pump is driven by a diesel engine of nearly 155 / 175 BHP.** In order to avoid any slurry to enter into this pump a suitable cyclone separator with in line filters is provided just before this pump with suitable relief valves. Since this suction pump will be sucking high amount of air and also discharging a high amount of air into the atmosphere, therefore, suitable absorptive and reactive type of silencer is provided, the same shall be fitted with inlet and exhaust filters. The whole system will be put inside an acoustic hood in order to reduce the noise level.

   The main equipments involved are as under :-

   **(a) High Vacuum Pump :-** This will be tri-lobe type suction pump / Vacuum Blower. It will be a positive displacement type Vacuum Blower. The suction pump will have reduced discharge pulsation making the flow smooth. The noise generated will also be low due to reduced pulsation. The suction pump will have very high pumping capacity of the order of 4000 – 4500 m3/hr.

   **(b) Cyclone Separator :-** The cyclone separator will have a cone design, wherein debris can be entrapped to avoid them to enter inside the Suction pump.
(c) **Filters** :- There will be in line filters in between the cyclone separator and the suction pump, in order to trap very minute particles to enter inside the Suction pump.

(d) **Pressure Relief Valve** :- This valve will automatically prevent over suction which can cause engine (drive system) to overload, thus protecting the blower. A manual valve will also be provided to bypass the suction line and can be operated when relief valves do not operate. A valve will be provided at the lower end of cyclone separator which can be operated after the process is complete.

(e) **Acoustic Enclosure** :- It is sound proof enclosure to overcome the excessive noise. The whole system with Suction pump, Cyclone separator, filters, pressure relief valve, etc. are enclosed in this enclosure.

(f) **Electric Control Panel** : It will inside the acoustic enclosure for the starting & stopping the diesel engine and also for controlling the diesel Engine parameters.

4. **Engine Drive System for Suction Pump**

The Engine make is of Cummins/Ashok Leyland / Krilsoskar of 155 / 175 BHP diesel engine, 6-cylinder, with fuel tank of capacity nearly 250 litres. This engine is used to drive the suction pump. The engine will have advanced air intake and exhaust system. The engine will be provided with a spark arrester. The operation of the Engine will be a push button. The speed can be increased and decreased to facilitate best operation of the suction pump. The performance of the suction pump is evaluated at various speeds. After evaluating the best performance of the suction pump, the speed of the engine is fixed, however, it is recommended not to adjust the speed of the Engine. An electrical control panel which is electronically operated shall be provided with the engine.

**SALIENT FEATURES OF THE MACHINE :-**

1. High Pressure / Vacuum
2. High Capacity of 4000 – 4500 m³/hr.
3. Low pulsation.
4. Low Noise and Vibration.
5. Robust Design.
6. Capable of sucking material from large distances.
7. Trouble free / Maintenance Free.
SCOPE OF SUPPLY :-

1. Suction Vacuum Pump.
2. Engine to drive the Suction Vacuum Pump.
3. Cyclone Separator.
4. Inlet & Exhaust Silencers.
5. Pressure relief valves.
7. Control Panel.

Note: The whole assembly can be mounted on the desired truck chassis or it can be trolley mounted as desired. In case it is truck mounted then you will provide us the truck details, in that case the truck shall be in your scope and skid mounted assembly can be placed on the truck chassis.

For Any further assistance feel free to reach us @ vacuum@everestblowers.com