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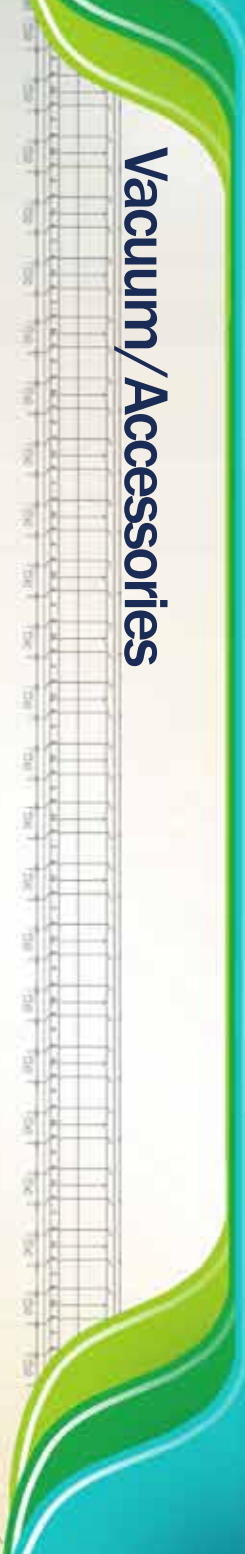


# THE SOIL SURGEON, INC.

# Vacuum Machines and Accessories



TURN TO **NIKRO**  
INDUSTRIES, INC. FOR A SAFER ENVIRONMENT!



Vacuum/Accessories



Vacuum/Accessories

# GAPVAX MC SERIES



**GapVax<sup>®</sup>**  
The World's Most Advanced  
Industrial Vacuum Equipment



**The GapVax MCseries Combination Vacuum and Jetting machine is a simple-to-operate machine for contractors and municipalities!**

**A body built to last:**

- Unitized, cylindrical, water/debris tank with full long sill sub-frame
- 3/16" non-corroding stainless steel water compartment
- 3/16" high strength carbon steel debris compartment
- Three heavy-duty body reinforcement rings
- Full-opening rear door
- Liquid tight seal of the rear door is always assured by a non-corroding stainless steel ring
- Reversible tailgate gasket
- Four independent field-adjustable rear door locks
- Adjustable rear door hinges
- Dual lift cylinders to open the rear door
- Material-backed air inlet cannon
- Top-loaded debris compartment for maximum debris capacity
- Material loaded at rear of debris compartment for fast unloading
- Debris compartment inlet diffuser significantly reduces material carry-over

**The smoothest drive system:**

- OMSI mid-ship transfer case directs the power of the engine to the blower and hydraulic system
- Rated at 550 continuous horsepower
- Transfer case mount is vibration isolated with four isolators
- Oil level sight glass
- A hot-shift clutch is available for remote activation

**Powerful vacuum performance:**

- Rotary lobe positive displacement blower
- Minimum air slippage under vacuum
- Direct shaft drive
- Blower mount is vibration isolated by four isolators
- Ultra quiet specifically engineered absorption silencer
- Blower air connections isolated by rubber couplings
- Silencer supports independent of blower
- Oil sight glasses
- Rated at 3,500 CFM and 15" Hg of vacuum
- Upgradable to 5,000 CFM and 15" Hg of vacuum
- Operator-friendly vacuum relief valves

**Filtration:**

- Top-loading body
- Debris compartment inlet diffuser directs material from the airstream
- 12" stainless steel float ball to shut off liquids from overloading
- 10" low friction pipework
- Specifically engineered centrifugal separator to force the dust and mist from the airstream into a large capacity compartment
- Air passes a final micro-screen strainer before entering the blower

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**Now that's a boom:**

- Works as one with the chassis thanks to the GapVax structural steel torque box
- Dual lift cylinders
- 180 degrees of rotation
- Full 8" flow capacity
- 3/16" tube design for minimum friction and very long component life
- Field-adjustable seals
- Power rotate and 4' extension are standard
- Upgradable to 9' extension, 25' reach from center of the truck

**Put it together:**

- The heavy duty sub-frame is bolted to the chassis
- 4" cross I-beams for maximum rigidity
- Full body pivot pin through rear of sub-frame for excellent dumping stability
- Double acting 3-stage dump cylinder substantially extends the life of the chassis suspension

**Jetting system:**

- URACA KD708 water pump
- Rated at 65 GPM at 2,000 PSI
- Triplex plunger style
- Uses "chevron" seals, no rope packing
- File-reversible check valves mounted in stainless steel cages
- The cross head chamber has top and bottom covers
- Direct shaft drive from 8 or 10 bolt transmission PTO
- Can operate independent of the vacuum system

**The front hose reel:**

- Hydraulically powered direct-drive gearbox
- Variable speed control
- Heavy-duty stainless steel water swivel
- Positive action spooler lock
- 4' of reach from center of bearing allows for working over obstacles
- 180 degrees of rotation to curbside
- Mounted on a heavy-duty 12" Fruitland bearing with external grease fittings
- Air operated brake
- Operator friendly control station
- Easy, and full, engine access for maintenance
- Integrated docking station allows full hose reel operation without moving the boom

# GAPVAX MC COMBINATION MACHINE

## TRI-PLEX WATER SYSTEM WITH MULTI-FLOW

Water is stored in the stainless steel Water Tank **1**. The water is piped via a 3" gravity-feed line, through a 20 mesh Filter **2** to the Water Pump **3**. High pressure water from the Water Pump is directed to the Front Hose Reel **4**, the Body Flushout System **5**, or the Handgun **6**. Precise control of water pressure and flow is accomplished with the Multi-flow Valve **7** via the Multi-flow Control Valve **8** located on the Operator Panel in the weather-tight Front Control Box.



20 mesh Stainless Steel Filter



Optional Washdown Hose Reel



Weather-tight Control Box shown with options

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## GAPVAX MC COMBINATION MACHINE

### POSITIVE DISPLACEMENT VACUUM SYSTEM OPERATION

In operation, vacuum conveys liquid material, sludge, rocks, gravel, sand, etc. through the Vacuum tubes and Boom **1** into the Debris Body **2**. The material is top-loaded into the Debris Body where the majority of the debris drops out of the airstream **3** due to gravity and air-flow velocity reduction. A Debris Body Inlet Diffuser is also incorporated to direct material from the airstream. A 12" automatic stainless steel Floatball **4** is built in to shut off liquids from overfilling the system.

The airstream moves into a specially engineered Cyclone Separator **5** to centrifugally force dust and mist from the airstream. The material drops out of the Cyclone and into the Collector Box **6** located directly below the Cyclone.

The airstream exits through the top of the Cyclone and passes through a final micro-screen strainer **7** which collects any material remaining in the airstream before it enters the Vacuum Pump **8**.

The airstream passes through the Vacuum Pump and exits through the special noise-attenuation Silencer **9**. Air returned to the atmosphere is clean and free of particulates.





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# GapVax® MC at work



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