



Kinloch Equipment & Supply, Inc.

PO Box 4919  
Pasadena, Texas 77502  
Tel (713) 473-6213 Fax (713) 473-7858  
Toll Free 800-231-6929

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August 22, 2014

Thomas Sanchez  
Webb County

Mr. Sanchez,

I am pleased to quote you a Vactor 2100 Plus Combination Sewer Cleaner with 12yd debris body and 1500 gallons of water, mounted on a Freightliner Dual axle chassis.

#### HOSE REEL/CONTROLS

- Front Mounted, 800 x 1" capacity, hose reel
- Manufactured out of 1/4" spun steel material
- 600' x 1" sewer hose, 2500 psi working/6250 psi burst pressure
- An adjustable 1" rotating swivel joint with replaceable seals in the inlet line
- Hydraulic motor driven, double row sprocket and chain drive
- Telescoping and Rotating hose reel
- Oil dampened water pressure gauge, directional control valve, variable speed reel control, on/off water valve, boom pendant control plug-in, vacuum relief switch, 3-position auxiliary engine throttle – idle/mid/high rpm
- 1" x 3' leader hose
- (1) 30 degree sanitary nozzle with tungsten carbide inserts
- (1) 15 degree sanitary nozzle with tungsten carbide inserts
- (1) Nozzle pipe extension
- (1) Flexible hose guide
- Footage counter
- Intelliview Display

#### BOOM

- Fixed, 180 degree hydraulic rotation, front mounted boom with 8" vacuum system
- Rubber reinforced suction hose, anchored steel pipe and 70 degree elbow.
- Boom's hydraulic power will be supplied by the chassis P.T.O. driven hydraulic pump.
- Electric-over-hydraulic system (up/down/left/right) with manual override
- Boom pendant control with 25' of cable with power switch to eliminate power



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- to the boom.
- Cab protection, mounted on unit sub-frame
- Boom cradle for boom while in transit

#### DEBRIS BODY

- 12 cubic yard volumetric capacity w/ level gauge
- Manufactured from corrosion and abrasion resistant Exten steel
- minimum 3/16" thickness
- Minimum yield point of 50,000 psi, minimum tensile strength of 70,000psi
- Cylindrical design, 1/16" thickness, 1/4" dome head and rear door
- (2) separate 10" ports for blower system
- Dual 10" stainless steel ball float vacuum shut-off system
- Debris body mechanical three position load level indicator located at curbside
- Flat rear door, hinged at the top
- Hydraulic Rear door locks
- Single piece replaceable neoprene seal
- 6" drain pipe with single expanded steel strainer and 10' lay flat drain hose
- Front, external mounted, power up/power down, hydraulic dump cylinder
- 50 degree debris body dump angle
- Dump controls located at central curbside position, behind truck cab
- Debris Body washout
- Fold down pipe racks mounted curbside
- 6" knife valve at rear door

#### VACUUM SYSTEM AND DRIVE

- Positive displacement 15" rotary lobe blower
- Blower powered by chassis engine via heavy duty split shaft transfer case
- Vacuum gauge
- Direct drive shaft to blower
- Exhaust silencer for blower
- Stainless steel, removable micro-strainer, located at blower inlet
- Centrifugal Separator



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### VACUUM SYSTEM PICK-UP HOSE

- Connection between body and vacuum system are self-adjusting pressure fit type
- Vacuum system hose and boom assembly will not rise with the debris body
- Standard pipe package: (1) 8" x 3' flanged aluminum pipe, (2) 8" x 5' flanged aluminum pipe, (1) 8" x 6'6" aluminum catch basin nozzle with steel reinforced tip, (4) 8" quick clamps
- 8' telescoping boom

### WATER PUMP SYSTEM

- The water pump will be set up to produce 80 psi/5000 psi water system
- Water pump output will be certified
- Water pump has a rated capacity of 100 rpm and 2500 psi
- Multi flow system, including nozzle rack and 3 additional 1" nozzles
- 1 1/4" plumbing from water pump to the hose reel
- Pump will have "jackhammer" action
- Water pump will have a flooded suction intake line
- Water pump can run without water for 30 minutes
- Hydraulic pressure relief set at 2000 psi
- Water pump is hydraulic driven, double acting, single piston water pump
- (2) Ball valves are located in the bottom of pump for draining water
- An electric switch is located at the front hose reel for water pump on/off
- The water pump may be shut-down at any speed
- A catch basin wash down system rated 10 rpm/600 psi adjustable spray handgun with 1/2" x 35' hose and quick coupler is supplied
- Accumulator system for water system
- Multi-flow system, with nozzle rack and 3 additional nozzles

### WATER TANKS

- 1500 gallon capacity
- Multiple cylindrical, (.100 aluminum #5052) water tanks with baffles
- Tanks are separate from debris body
- Located at frame level behind cab and over rear axle
- Curbside water level gauge
- 4" Anti-siphon device (air gap)
- Anti-splash valve located at water fill
- 2" Y-filter at water fill with 80 mesh stainless steel strainer



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- 2.5" x 25' water fill hose with hydrant connector
- Water tanks are vented
- 2" tank drains at low point in tanks
- Low water alarm

#### ELECTRICAL

- The entire electrical system will be vapor sealed to a NEMA 4 standard
- All electrical connections will have no exposed wires or terminals
- Lights are shock mounted
- Wiring is color coded

#### HYDRAULIC SYSTEM

- 67 gallon capacity reservoir with a baffle
- A sealed inspection port, for tank clean-out
- Replaceable suction line strainer
- 10 micron spin-on type return line filter
- Sight glass for hydraulic oil level
- Fill port breather cap

#### PAINT

- All metal shot blasted to a near white finish
- All metal will be phosphorous washed for paint adhesion
- The unit will air dry and final cleaning process performed
- Two mil primer coat will be applied
- Two mil Imron finish paint applied
- All painted process is done prior to the mounting of the equipment on the chassis. Minimum 8 hour paint curing prior to installation



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#### MISCELLANEOUS

- 8' Telescoping boom w/lights
- Arrow board
- Lube manifold
- Telescoping hose reel
- Accumulator
- Centrifugal separators rear mounted
- Debris Flush out
- Rear door splash shield
- Curb side folding rack
- Toolbox
- Hydro excavation kit with retractable reel
- Back-up camera

#### CAB AND CHASSIS

- Freightliner chassis  
F. O. B. Laredo, TX

**Your Total Price is \$327,771.00**

Sincerely,

Brian Grabow  
Kinloch Equipment & Supply Inc.  
(210) 323-2749

VACTOR 2100  
*Plus*



VACTOR

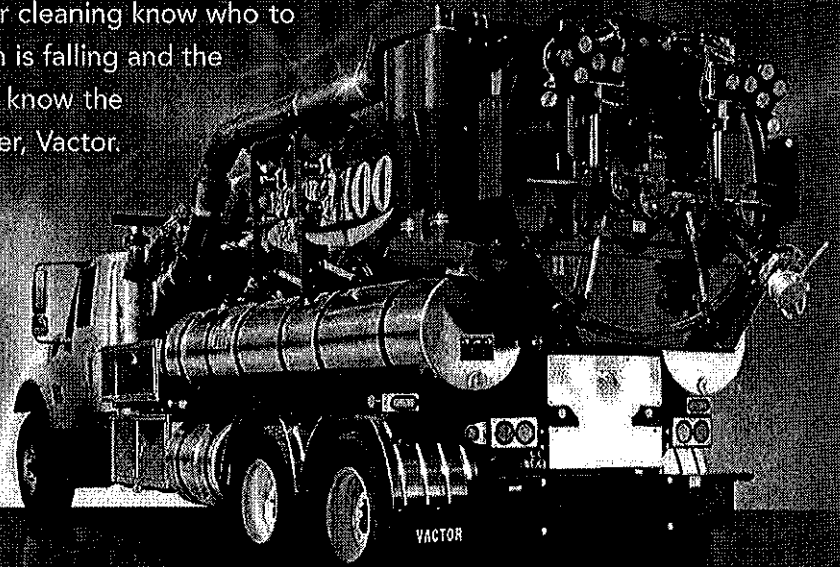
**VACTOR**  
A Powerful Partner

# The Proven Leader. Reenergized.



Vactor  
celebrates  
40 years as  
your powerful  
sewer cleaning  
partner.

For over 40 years, Vactor® has been much more than a provider of equipment. We're a provider of solutions – doing whatever it takes to efficiently maintain and clean sewers whenever duty calls. We constantly search for new ways to make the job safer, easier and more efficient from beginning to end. That relentless search lead us to develop the Vactor 2100 Plus. Whether it's a Fan or Positive Displacement Model, every Vactor 2100 Plus is built to your exact needs with quality-tested components and backed by the most experienced dealer network in the industry. Those who know sewer cleaning know who to count on when the rain is falling and the waters are rising. They know the proven powerful partner, Vactor.



## CUSTOMIZED SOLUTIONS

- Vactor is one of a handful of companies to offer both PD and Fan platforms.
- Once our team helps you select the platform that is right for you, your Vactor will be built to your exact specifications.
- Our exclusive Modul-Flex design process allows us to configure the unit modules to your specific needs, including optional features.

## POWERFUL SUPPORT

- Available during the entire life of the product, Vactor offers a facility dedicated to training you and your team on the usage of your Vactor equipment.
- With your new Vactor comes an entire team of factory-trained service experts to ensure the very best in maintenance and repair for absolute peace of mind.

## UNMATCHED QUALITY

- We introduced the 2100 Series 20 years ago, which continues to set the standard in the industry today.
- Vactor products are painted prior to the assembly process, tested to ensure quality and proudly assembled in the U.S.A. using only the finest materials.
- Vactor is an ISO 9001 certified company.

# VACTOR 2100 Plus

## MAKING THE BEST EVEN BETTER.

### ALL-NEW, ADVANCED ELECTRONICS

Our exclusive IntelliView™ electronic system with easy-to-read screen makes operation easier and safer thanks to its diagnostic, troubleshooting and safety check capabilities. From displaying the blower temperature to monitoring flow, pressure and system diagnostics, IntelliView saves time and money and helps keep operators safe. In addition, we now include more wireless functions, such as e-stop, hose reel pay in and out and speed control as optional features.

### SMARTER SYSTEMS FOR BETTER PERFORMANCE

As the industry innovator, Vactor 2100 Plus features a host of advanced systems that not only offer better performance, but also operate more efficiently. For instance, our exclusive multi-flow system allows you to set flow at a lower rpm, which results in better fuel efficiency without sacrificing performance. In addition, details such as a lighter, more balanced fan design (Fan Model) allow for superior airflow (20% increased vacuum pressure\*), while a revamped air-routing and filtration system make getting the job done faster, safer and more efficient.

### QUIETER, SAFER, EASIER TO USE

When you add up all the details – quieter engine and water pump systems, new long-handle tool storage, higher ground clearance to navigate through off-road obstructions, twist-and-lock pipe storage that's positioned lower on the truck and an all-new arm for the controls – it's easy to see how the Vactor 2100 Plus offers an overall better experience for the operator.

### EVEN MORE EFFICIENT

With everyone looking to save on fuel costs, we made efficiency a top priority. That's why we've improved many of our systems – from the chassis engine to the fan and blower systems to the auxiliary engine – to provide you with the performance you want and up to 34% better fuel economy than the current 2100 configuration. But the efficiencies don't stop with fuel. You'll use up to 10% less water thanks to the revamped pump controls and nozzle technology.

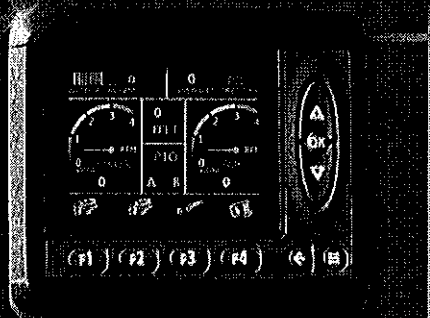
\*When compared to current two-stage fans.



VACTOR 2100  
Plus

## SMARTER, TOUGHER AND MORE EFFICIENT. FROM FRONT TO BACK.

From big features such as our powerful Jet Rodder® Water Pump to small details like hand sanitizer dispensers in the tool boxes, we left no stone unturned when it came to making the Vactor 2100 Plus better than ever – and with more standard features than ever before.



A. Gathering all functions into one smart, centrally located system, our all-new IntelliView control provides diagnostics on the machine's readings, prevents operators from changing settings that may compromise safety, helps operators locate machine errors or issues and offers a troubleshooting tool to quickly diagnose fault codes or operational problems.

B. The hose reel, nozzle storage, tool boxes and controls are all located at the front of the unit for quicker access, increasing productivity and safety. In addition, the pivoting control arm and rotating hose reel create a flexible, expansive work area.

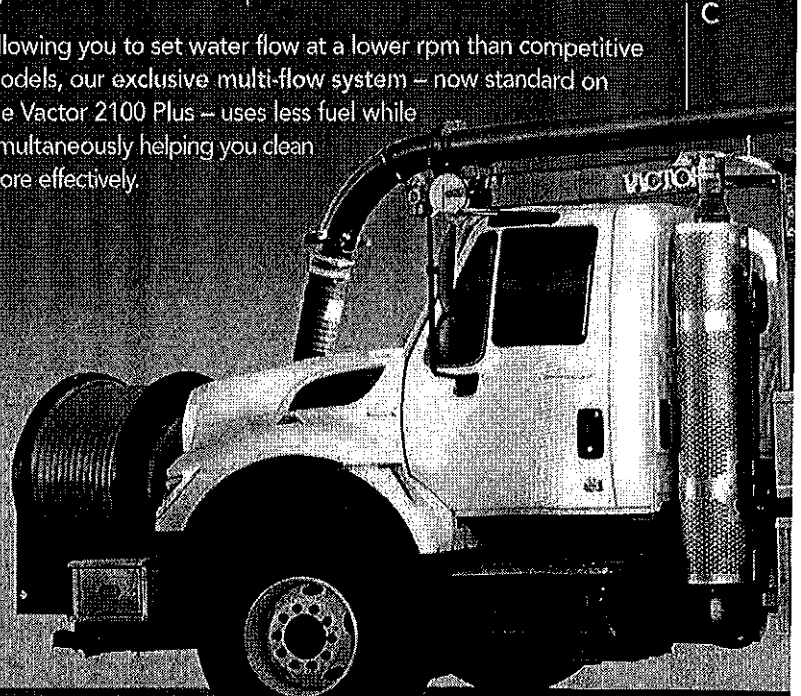
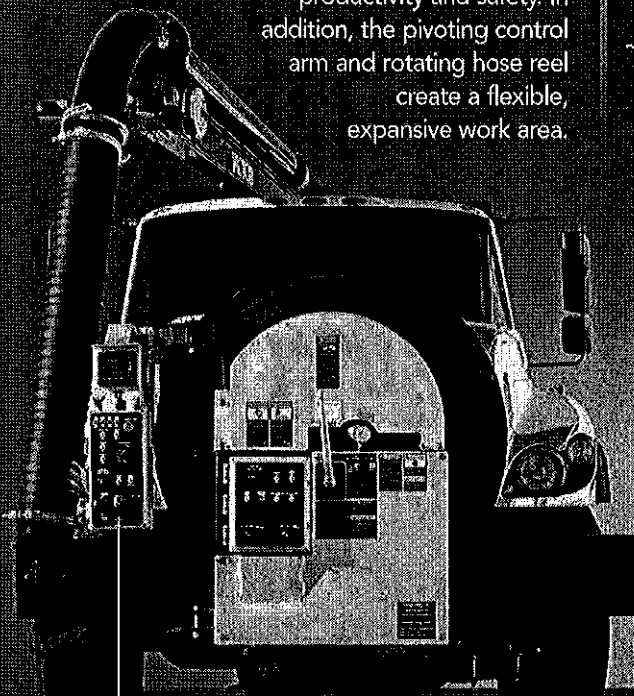
C. Rotating up to 180 degrees, our fully hydraulic boom allows you to place the vacuum hose in hard-to-reach areas. In addition, the hose reel telescopes forward and backward up to 15 inches to allow for cleaning multiple inlets without moving the truck.

~ Positioned to prevent back strain, our exclusive twist-and-lock pipe storage offers additional storage area and makes it easy to load and unload additional pipe – with no loose straps to worry about.

D. Depending on your specific needs, Vactor offers both centrifugal compressor (shown below) and Positive Displacement Models. Performing at greater depths with increased debris volume and velocity, our fan vacuum system (D) employs a lightweight, perfectly balanced 38-inch (965 mm) diameter aluminum fan for smoother, safer airflow, while its chrome-hardened impeller and 1/4-inch (6.35 mm) spun steel housing provide longer life. In addition, the vacuum is powered by a step-up transmission with helical gears for increased fan speed.

See page 6 for more information on our PD Model.

~ Allowing you to set water flow at a lower rpm than competitive models, our exclusive multi-flow system – now standard on the Vactor 2100 Plus – uses less fuel while simultaneously helping you clean more effectively.



~ New ergonomic access to the ultra-quiet auxiliary engine allows for easier engine maintenance. (Fan Model only)

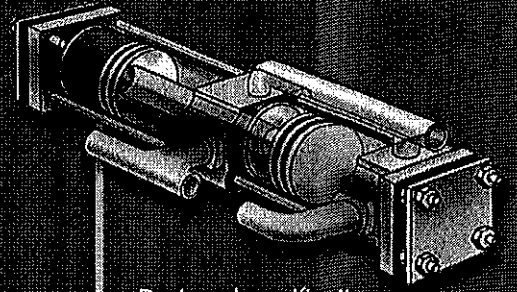
E. New, repositioned water fill makes refilling the water tanks quicker and easier. And even though our exclusive aluminum water tanks are constructed to resist corrosion and cracking for up to 10 years, its modular design allows for fast replacements – getting you back on the job as quickly as possible.

F. Our unique debris body design shields the operator from potential contamination and allows maximum separation of materials in a variety of payload offerings.

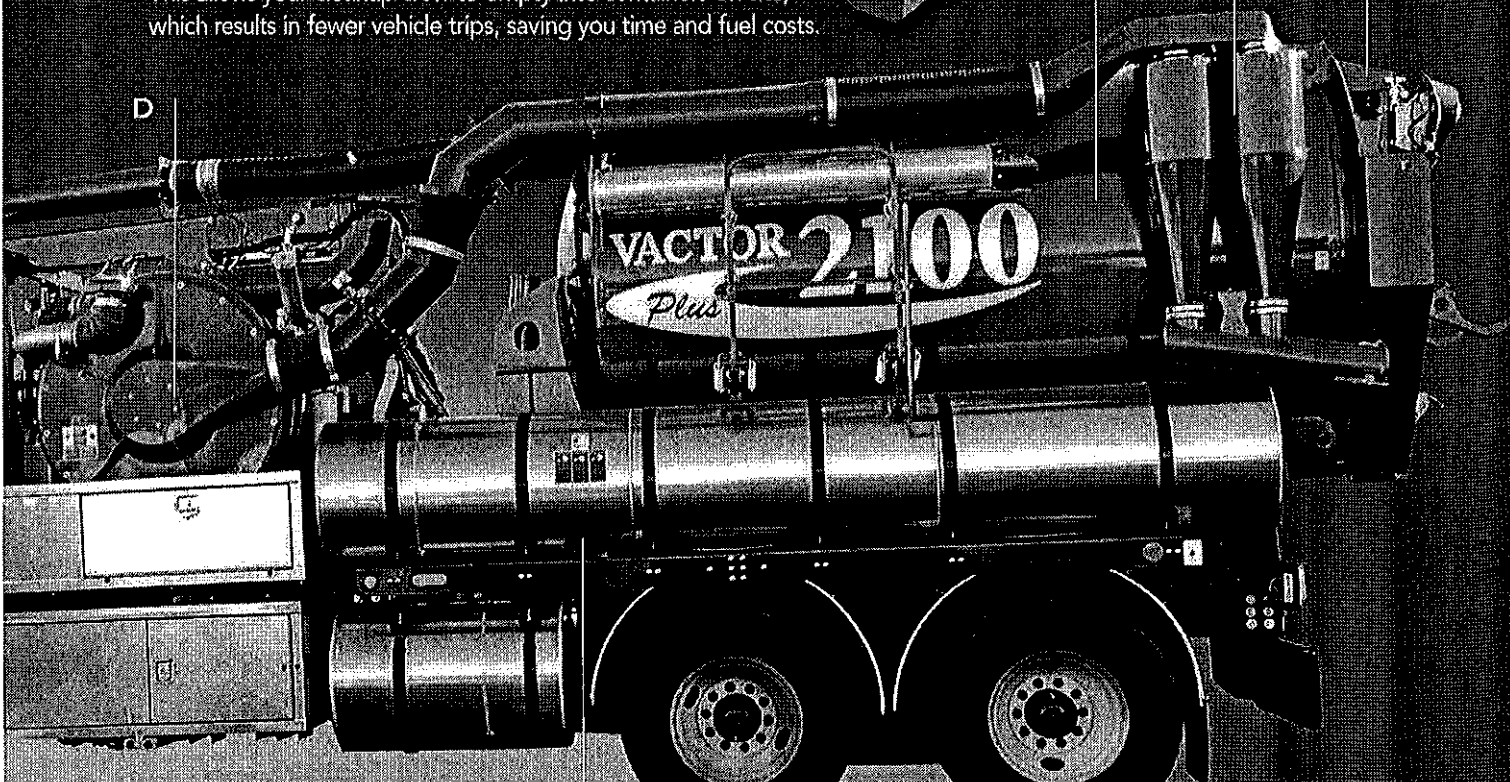
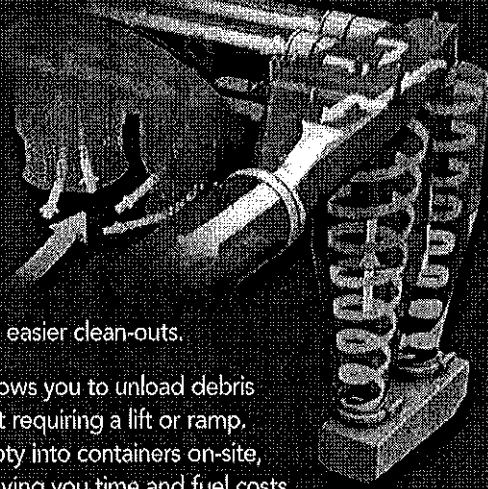
~ The rear-mounted float balls and screens protect the operator from debris exposure, while the float cages are easily removed without tools for cleaning and inspection.

G. To accommodate the increase in air-routing performance, we've enhanced the centrifugal cyclones, which in turn improve air filtration. Plus their new rear location allows for easier clean-outs.

H. Our standard 60-inch high dump allows you to unload debris into roll-offs up to 5-feet high without requiring a lift or ramp. This allows your cleanup crew to empty into containers on-site, which results in fewer vehicle trips, saving you time and fuel costs.



Designed specifically to clean sewers, our exclusive Jet Rodder Water Pump utilizes a slow pump stroke to deliver maximum, continuous flow and pressure with minimal wear. This jackhammer action provides optimal cleaning capability, and since the pump is hydraulic and utilizes a single piston, no belts or other breakdown-prone components are required. If any maintenance is needed, however, its side-mounted position allows for easy access.



D

VACTOR 2100  
Plus

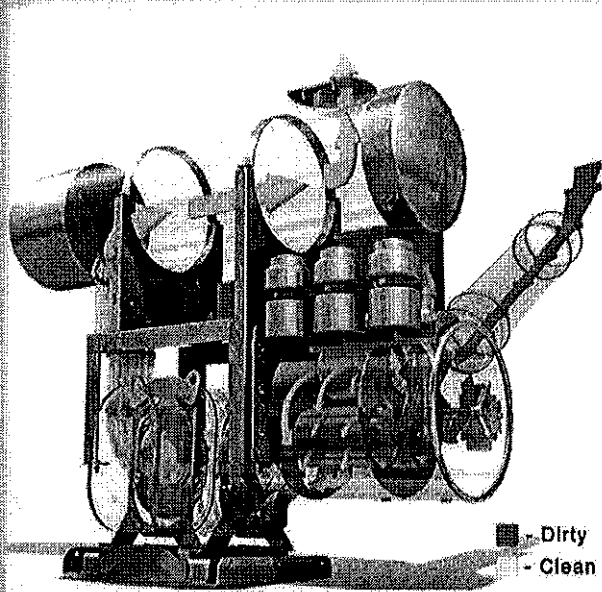
F

G

H

E

# VACTOR 2100 PLUS POSITIVE DISPLACEMENT (PD) MODEL



If your job calls for PD technology as opposed to a fan vacuum system, our PD Model offers all of these features and more.

Our **PD blower** is chassis-driven directly through a 475 hp continuous-duty transfer case. This not only boosts efficiency and reliability, it also eliminates belts, pulleys, clutches, driveline slip and maintenance. An inlet volume of up to 5,000 cfm and 18 Hg significantly increases the velocity pull at greater working depths.

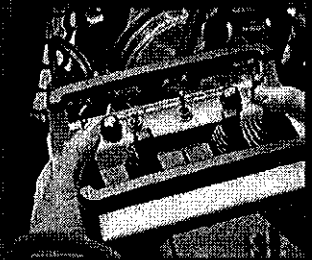
The **hydraulic water pump** offers quicker on/off control and delivers full flow and pressure to the hose reel, where it counts.

The most productive of its kind, our **multi-stage blower filtration system** features dual air ports which maximize material separation in the debris body, stainless steel ball shutoffs to prevent liquid debris carryover, centrifugal cyclones, which remove escaped particles and condensation, and a stainless steel screen strainer which protects the blower from particles as small as 10 microns.

## OPTIONAL FEATURES

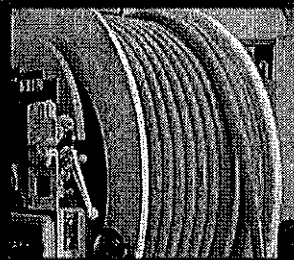
Over 100 precision-engineered safety and productivity enhancements including:

- Cold weather recirculation system
- Liquid debris pump-off system
- Debris flush-out system
- Fail-safe hydraulic door – locking system
- Water tank capacity up to 2,000 gal (7,570 L)
- Pump delivery system up to 200 gpm
- Hose reel capacity up to 1,000 ft (305 m)
- Accumulator
- Dual-stage centrifugal compressor
- Dual boom controls



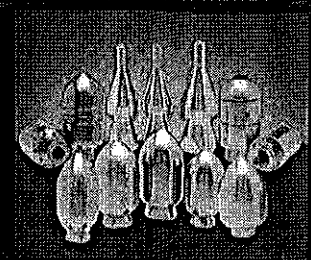
### Wireless Belly Pack

- Allows remote operation and access to diagnostics readings
- Provides multiple control functions, including hose reel control, boom control, e-stop and more
- Easy to use, while increasing safety and efficiency



### Armor Belt Series Hoses

- Patented polymer belting specifically engineered for today's extreme conditions
- Exterior cover offers twice the protection of a standard thermoplastic hose cover to eliminate cover peel, cutting and crushing
- Unique design also reduces hose drag while moving through the pipe
- Integrated locator wire inside of the hose allows you to track the hose location within the pipe



### Vactor OEM Nozzles

- A complete line of penetrating, flushing, spinning and cutting nozzles deliver the right type of performance, all at an economical price
- Designed for a wide range of pipe diameters, run lengths and applications
- Crafted from low-carbon work-hardened steel with a corrosion-resistant coating that is harder than stainless
- Interchangeable, wear-resistant tungsten carbide inserts yield a longer nozzle life

**YOUR PARTNER  
IN THE  
PLANNING**

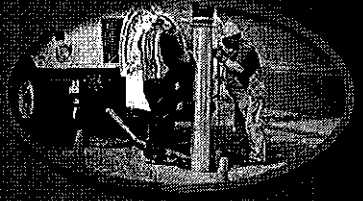
**YOUR PARTNER  
IN THE  
STREETS**

**YOUR PARTNER  
INTO THE  
FUTURE**

Instead of one-size-fits-all solutions, we'll work with you to configure your Vactor to meet your specific needs.

We're here to help you maintain your Vactor and train your operators to ensure the job is done right.

Our dealers don't just sell you a Vactor; they're here to answer your questions and get you back on the job as quickly as possible.



#### WARRANTY

The Vactor 2100 series is warranted against defects in material or workmanship for a period of 12 months from the date of delivery to the original purchase, 5 years on the centrifugal compressor and 10 years on the water tanks. Optional extended warranty packages are available. Consult your Vactor dealer for complete warranty information.

**VACTOR®**

A Powerful Partner

vactor.com

Specifications subject to change without notice.  
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