

November 17, 2022

To: Whitestown Public Works Dept. Town of Whitestown Whitestown Municipal Complex 6210 Veterans, Drive Rm. 600 Whitestown, IN 46075

RE: COMBINATION SEWER CLEANER PROPOSAL

DUE: Thursday November 17, 2022 at 10:00 a.m.

Jack Doheny Companies, Inc. dba Jack Doheny Company is pleased to present a proposal for The Town of Whitestown. The proposed equipment has been designed and manufactured to exacting world-class standards and meets and exceeds specification without exception.

Jack Doheny Company is committed to world-class customer service. We will stand behind your purchase with certified technicians and staff from our Whitestown, IN Service Center. Additionally, our \$10 million parts inventory means you will not have to wait for parts or supplies.

Please review this proposal at your earliest convenience and call if you have any questions or need additional information. I look forward to speaking with you soon.

Sincerely,

Daniel Depinet

Daniel Depinet

Regional Sales Representative 317/619-1731
DanielDepinet@DohenyCompany.com

Exhibit A

Detailed Specifications

For

COMBINATION SEWER CLEANER

		COM	IPLY
		YES	NO
1.0	INTENT		
1.01	The intent of this specification is to provide for the purchase or lease of one (1) new and unused single-engine combination sewer and catch basin cleaner used for removing all debris commonly found in catch basins/storm lead structures and sanitary sewer lines/manhole structures using a front mounted operating station. The unit shall consist of a 1024 Positive Displacement (PD) Blower vacuum system, a hydraulically driven high pressure water pump, an enclosed sealed body for storage of collected debris and equipped with a self-contained water supply as the source for the water pump system. The unit shall have the capability of operating both vacuum and water system simultaneously at full operating speeds continuously. (Submit horsepower requirements of all systems on unit)	✓	
2.0	EQUIVALENT PRODUCT		
2.01	Bids will be accepted for consideration on any make or model that is equal or superior to the equipment specified. Decisions of equivalency will be at the sole interpretation of the Collections System Superintendent and Director of Public Works.	✓	
2.02	Bidder shall demonstrate a reasonable likeness of the equipment being offered within a reasonable time of request. Equipment demonstrated shall be equipped with all accessories and components required in this specification to ascertain equivalence.	✓	
2.03	A blanket statement that equipment proposed will meet all requirements will not be sufficient to establish equivalence. Original manufacturer's brochures of the proposed unit are to be submitted with the proposal.	✓	
3.0	BIDDER REFERENCES		
3.01	To ensure adequate local availability of parts and competent service from experienced suppliers, bids are preferred from local vendors who have sold and serviced at least 10 units of same manufacturer within service area of is preferred and should include contacts with phone numbers.	✓	
4.0	SERVICE AND SUPPORT		
4.01	Location of warranty service center and amount of inventory shall be noted which may be verified and inspected.	\	
4.02	Amount of OEM parts at this facility: \$ 250,000.00	V .	
4.03	Years of servicing equipment being bid: Years 30 years	V ,]	
4.04	Number of factory qualified service technician: 5	V	
5.0	GENERAL		
5.01	The specification herein states the minimum requirements of the Sewer Cleaner. All bids must be regular in every respect. Unauthorized conditions, limitations, or provisions shall be cause for rejection. Any bid not prepared and submitted in accordance with the bid	✓	

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	document and specification, or any bid lacking sufficient technical literature to enable the to make a reasonable determination of compliance to the specification will be considered "non-responsive" and grounds for rejection.	✓	
6.0	SUBFRAME		
6.01	The equipment shall be of modular design consisting of vacuum system, water tanks system, debris body and drive system.	✓	
6.02	A sub frame shall be fabricated to the exact dimensions of the truck chassis for mounting of modular components.	✓	
6.03	All components of the module shall attach to the sub frame and not directly to the chassis.	✓	
6.04	Sub frame shall be designed to ASME standards for maximum applied loads, chassis frame movement and even distribution of weight to the chassis and suspension.	V	
6.05	Sub frame shall be continuous and uninterrupted from back of cab to end of frame.	$\overline{}$	
7.0	DEBRIS BODY		
7.01	Efficiency of air movement through debris body will be measured for minimal restriction as measured by vacuum pressure gauge while operating blower at full speed. Pressure drop throughout entire system (from 8" hose inlet to blower inlet) including specified filtration and blower protection devices shall be no greater than 3" hg as measured at blower.	✓	
7.02	The body shall be cylindrical having a minimum usable liquid capacity of 12 cubic yards.	$\overline{}$	
7.03	The body shall be capable of high dump height of 60". Dump height of 60" must be achieved without the use of scissor lift mechanism.	✓	
7.04	The debris storage body shall be constructed with a minimum 1/4" corrosion and abrasion resistant Ex-Ten steel.	✓	
7.05	The debris storage body shall have a minimum yield point of 50,000 PSI and a minimum tensile strength of 70,000 PSI.	✓	
7.06	Body shall have a rear door that is hinged at the top and is equipped with a replaceable neoprene type seal. Adjustable for periodic compensation of door seal wear.	✓	
7.07	Dual outward mounted rear door props shall be included as standard to prevent operator from entering door swing path when engaging rear door prop.	✓	
7.08	For optimal particulate separation, vacuum shall be drawn from separate ports in the top of the debris body.	✓	
7.09	Body shall be dumped by raising the body to a 50 degree angle utilizing a forward mounted, double acting hydraulic dump cylinder.	✓	
7.10	Dump controls, accessory controls, e-stop control shall be provided at a central curb side location directly behind the cab of the truck.	✓	
7.11	For stability and safety, dumping must be accomplished while the pivot point of the body remains fixed to the subframe.	✓	
7.12	Industrial style rear debris body door shall be flat, and shall open and close hydraulically by cylinders mounted at the top of the body. Door shall open 50 degrees from the fully closed position. Door shall be unlocked, opened, closed, and locked by a failsafe hydraulically activated sequential positive locking system, cam operated by a single hydraulic cylinder, with all controls located behind truck cab, forward of the debris body, so operator is not subject to sewage when dumping.	✓	
7.13	Debris body shall have a body flush out system with a fan-type spray nozzle located in the front wall of the debris body to aid in the flushing of heavy debris. The nozzle shall	✓	

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	also utilize (2) spray nozzles to flush the front most area of the debris body. System must produce a flow of 80GPM. Control valve shall be on the curb side of the unit.		
7.16	Body shall have a float type automatic shut-off system protecting the Positive Displacement Blower with (2) 10" stainless steel shut-off balls located in the debris body. Each float ball housing shall be within a non-corrosive slide-out screen assembly and be accessed without the use of tools.	✓	
7.17	The debris body shall be equipped with a rear door drain to drain off excess liquids while retaining solids. No valve included	✓	
7.19	The debris body shall be equipped with a rear door drain at bottom dead center to drain off excess liquids with an internal screen to prevent large solids from passing. A manually operated 6" knife valve with cam-lock coupler and 25' of lay flat hose having camlock quick connects shall be included at this location.	✓	
7.21	Debris body shall have 450 GPM, 3" submersible trash pump, internally mounted in the forward body wall, with 3" x 25' lay-flat hose, hose storage basket and 3" shutoff lever gate valve. System shall be turned on/off with selector valve at curbside controls.	✓	
7.23	Full Swinging Decant Screen: Available Only On Valve Installed At Lowest Point In Door shall be provided.	✓	
7.27	(4) Dual vertical (cyclone) centrifugal separators shall be installed in-line between the debris body and the air mover, (2) per side for each debris body discharge port. Each dual separator shall include large fallout chamber cleanout door.	✓	
7.28	For safety, a minimum of (5) vacuum tubes shall be stored on curbside storage racks to minimize operator exposure to traffic side of unit. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.29	A curb-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.30	A street-side, folding 3-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.31	A rear door mounted folding 2-pipe rack shall be provided, constructed of steel tubing, spring assisted. Shall include quick release retainer handles (no bungees or clamps).	✓	
7.32	(2) Pipe Storage Racks on rear door with quick releases and (2) Pipe Storage Racks Curbside waist level.	✓	
7.33	A stainless steel micro-strainer (to 30 microns) shall be provided prior to the blower inlet, with (3) removable cartridge style screens and bottom drain port.	✓	
7.34	A splash shield shall be mounted around the lower 60% of door opening to direct liquid and debris away from the chassis. Shield shall be minimum 10" deep bolted assembly with no openings.	✓	
7.35	A lubrication manifold system shall be provided to allow ground level greasing of boom lift and swing cylinders, float level indicator, top rear door hinges and debris body hoist cylinder pins.	✓	
7.36	A plastic lube chart shall be provided to call out when specific points on the unit should be greased.	✓	
7.38	An 8" valve, electrically activated, air operated valve debris body vacuum relief system shall be located in the inlet of the vacuum system to allow the venting of the tank and relieve vacuum at the debris intake hose.(3) Kunkel relief valves shall be included.	✓	
7.39	A debris inlet deflector distributing load evenly in debris body shall be included.	<u> </u>	
8.0	WATER TANKS		

		COMI	PLY
8.01	The water tanks shall be manufactured from a non-corrosive material to prevent rust yet still provide for maximum strength.	✓	
8.02	The water tank material shall require no internal coating and shall be repairable if patching is required.	✓	
8.03	The water tanks shall be easily removed from the subframe to provide complete access to the truck chassis for maintenance purposes.	V	
8.04	The water tanks shall be adequately vented and connected to provide complete filling.	$\overline{}$	
8.05	The water tanks shall be totally separate from the debris tanks and provide no structural support.	V	
8.06	The water tanks shall share no common walls with the debris tanks to prevent corrosion.	$\overline{}$	
8.07	The water tanks shall come equipped with an anti-siphon device and 25' of hydrant fill hose and fittings.	V	
8.08	The water tanks shall carry a 10 year warranty against corrosion or cracking.	$\overline{}$	
8.09	All water tanks shall be fully baffled to form a maximum compartment storage of 150 gallons for each compartment. has determined that for the stability of the vehicle when turning and stopping and for safety of personnel that systems baffled at 150 maximum gallon compartments are preferred. Exceptions of requirement shall be explained in detail accompanied with detailed engineering drawings.	✓	
8.10	The water tank shall be located for the lowest possible center of gravity while providing 100% gravity flooded intakes to water pump.	✓	
8.11	Fresh water shall enter the tanks through an in line 6" air gap, all aluminum covered antisiphon device.	/	
8.12	Water level sight tubes of non-yellowing plastic shall be installed on both tanks.	V	
8.13	The sides of these water tanks shall not extend more than 48" out from the centerline of the truck chassis.	✓	
8.14	A fresh water drain system shall be provided to completely drain the fresh water system from one location utilizing the 3" Y-strainer on the pump.	V	
8.15	A minimum 6" connection between tanks shall be provided.	V ,	
8.16	For stability safety, the water tanks shall not elevate with debris body during dump cycle.	V	
8.17	A low water alarm with indicator on control screen shall alert operator when water storage has reached an operator set remaining water level.	✓	
8.23	A 3 in-line "Y" trap strainer shall be located at inlet of water tank fill air-gap.	$\overline{}$	
8.24	A 3 in-line "Y" trap stainless steel strainer shall be located between the water cells and water pump.	V	
8.25	A 3" Gate Valve shall be provided at water pump.	$\overline{}$	
8.26	Water tank must be a certified metered capacity of 1300 gallons. Certification shall be necessary upon delivery.	✓	
8.27	Water tanks shall be constructed of 1/8" aluminum with baffled compartments maximum 150 gallons each.	V	
8.31	Liquid Float Level Indicator shall be provided.	$\overline{}$	
9.0	WATER PUMP SYSTEM		
9.01	For most efficient use of horsepower and reduced fuel consumption, high pressure rodder pump shall be hydraulically driven via (2) variable displacement pumps	✓	
9.02	Hydraulic powered rodder pump via (2) variable displacement hydraulic pumps utilizing (2) 10-bolt PTO's.	✓	
9.03	High pressure water pump shall be rated capable of continuous delivery of 100 GPM at 2500 PSI (submit manufacturer support documentation).	✓	

High-pressure water (rodder) pump system shall be completely controlled through the range with use of the MultiFlow Control and throttle located on the control panel. High-pressure water (rodder) pump system shall be completely controlled through the range with use of the MultiFlow Control and throttle located on the control panel. Digital flow meter shall be displayed in front LCD display. Flow meter shall be capable of displaying system flow in all pump operating modes. In addition, a low water alarm shall be provided. Variable flow systems routing water back-to-tank are not considered equal due to additional wear, horsepower and fuel consumption. Any deviation from this drive requirement should have full explanation of horsepower consumption. New Fund (rodder) pump shall include smooth and pulsation operation mode feature without altering pump flow. When required to assist nozzle breaking through obstructions, water pump "pulsation mode" shall provide a forward-acting nozzle surge. Pulsation surge wave shall allow nozzle to punch forward 2" to 18" depending on flow dynamics and length of hose in sewer pipe. Pull Explanation of forward-acting pulsation method shall be submitted with bid or explained below. Systems that require the use of air induction into the water pump shall not be accepted. Water pump location shall provide a flooded gravity suction inlet to eliminate potential eavitations damage. Had to to water heat exchanger will be provided in the water system to cool all hydraulic fluids on the unit. State horsepower requirement to operate hydraulics at full speed: The water pump shall provide precise 0-80 GPM controlled flow at variable pressure up to 2500 PSI. An extreme cold weather recirculation system - minimum 25 GPM via transmission PTO at chassis engine idle speed. A hydro-pneumatic nitrogen charged accumulator system shall be provided with all control valves, piping and hoses for either continuous flow or jackhammer rodding. Accumulator shall be a 2.5 gallon capacity and 1000 to 25			COMPI	LY
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		Vacuum shall be provided by a positive displacement rotary lobe type blower driven via	✓	
	10.02		\/	

		COMPI	LY
10.03	A horizontal silencer with rain cap shall exhaust above the cab.		
10.04	A blower tachometer / hourmeter shall be provided and displayed digitally on front control screen.	✓	
10.05	For most efficient use of horsepower and fuel consumption, full vacuum and/or combination operation shall be approximately 1750 RPM of chassis drive engine.	✓	
10.06	Blower shall be driven by the chassis engine and shall produce inlet volume of 5500 cfm @ 0" hg @ 2250 rpm, and 3490 cfm @ 18" hg @ 2200 rpm vacuum (Roots 1024RCS 18 or equal). Drive engine not to exceed 1760 RPM.	✓	
10.07	For added protection, the vacuum system shall have three (3) relief valves set at 18" hg, heavy duty horizontal mounted noise muffler, removable and cleanable stainless steel filter screen, and shall be enclosed with a steel cage guard for safety.	✓	
10.08	Transfer case shall be activated by air via a one touch control located in cab with animated confirmation on screen.	✓	
10.09	A hot shift blower drive system shall be provided, including transfer case, air shift control, vacuum relief, and front control for blower engagement.	✓	
10.10	Blower shall be driven from chassis engine via the transmission drive shafts and heavy duty split shaft transfer case direct to blower, engagement via one touch control on front control panel.	✓	
10.10	The blower drive mechanism shall be engaged and disengaged via an electrical switch located at the operator's station on the front mounted hose reel. This feature shall reduce blower runtime and the extend the blower service life.	✓	
10.12	Blower shall be provided with a horizontal silencer with exhaust above the cab and rain cap protecting the silencer from rain water.	V	
10.13	Blower shall draw air from two (2) separate ports in the debris body.	V	
10.14	Hydraulic shut off valves shall be provided at the suction, return and filter lines to permit servicing of the hydraulic system.	✓	
10.25	Ball valve drains shall be provided for both the final filter and silencer to be able to drain any carryover that comes from the debris body.	✓	
11.0	VACUUM BOOM SYSTEM		
11.01	Vacuum hose shall be designed for front operation with hose mounted and stored at front mounted workstation. Front mounted location is required for ease of positioning vacuum hose as well as minimizing need for operator to swing hose into traffic.	✓	
11.02	All connections between debris body and vacuum system will be of the self-adjusting pressure fitting type.	✓	
11.03	Vacuum hose will remain stationary and not rise with debris body.	\overline{V}	
11.04	Upper debris tube shall consist of an anchored steel tube and elbow.	$\overline{}$	
11.05	A sub-frame mounted cab guard shall be mounted behind cab with boom rest cradle.	\overline{V}	
11.06	All vacuum pipes shall be connected to vacuum pick up tube and extension pipes by adjustable over-center quick clamps to join the aluminum flanges on pipes.	V	
11.07	One (1) quick clamp for each pipe supplied shall be provided.		
11.08	Boom pedestal shall be directly mounted to module subframe.	$\overline{}$	
11.09	Boom support used for travel mode shall not interfere with access or require removal to tilt hood forward.	V	
11.10	A control station shall be equipped with a control joystick for all directions as well as a safety emergency shut-down button, which shall automatically eliminate power to boom.	✓	

		COM	IPLY
11.11	The vacuum boom shall have a heavy-duty flexible hose assembly joining the transition pipe to the debris body, and a 70-degree elbow and 5-1/2 heavy duty hose at the suction end of the boom.	✓	
11.12	Boom shall rotate 180 degrees and shall be operated by an electric over hydraulic system. Lift and swing movements shall be actuated by hydraulic cylinders.	✓	
11.13	The horizontal inner steel vacuum tube and inner box beam boom section shall telescope (tube within tube, box beam within box beam) and retract a minimum of 10' without affecting the vertical position of the pick-up tubes, and shall be located at the front work station in its retracted position, providing 324" maximum reach off the longitudinal axis of unit.	✓	
11.14	Boom shall be fully controlled by a remote push button pendant control station with 25 ft. cable. Controls to include up / down, left / right, in / out boom functions, vacuum relief, e-stop and main power switch.	✓	
11.15	A joystick for hydraulic control of the boom shall be installed on hose reel front panel.		
11.18	A removeable 4" diameter storage "Post" to stabilize the lower boom hose during transport. Storage device shall not interfere with raising hood.	✓	
11.19	A cordless remote boom control system equipped to activate boom functions, throttle, water pump on/off, hose reel in/out, hose reel speed, vacuum relief on/off and emergency disengagement e-stop shall be provided.	✓	
11.20	A rotatable inlet hose for telescopic boom shall be provided.	V	
11.21	A detailed engineering drawing must be supplied showing the relationship of the hose reel in relation with the vacuum boom range of motion. Drawing shall show module mounted on chassis, full arc of vacuum hose both retracted and extended, full rotation of arc for hose reel in the extended position and dimension all arc lengths of vacuum boom retracted and extended. Drawing shall highlight intersection areas whereby combination cleaning is possible (within full arc on telescoping boom system).	✓	
11.22	70 degree elbow at end of boom tube shall be reinforced steel.	$\overline{}$	
12.0	HOSE REEL	V	
12.01	Hose reel assembly shall be direct frame mounted.	$\overline{}$	
12.02	Hose reel assembly shall be mounted on an independent frame that can be removed from brackets attached permanently to front of main truck frame members.	/	
12.03	Reel will be manufactured out of 1/4" spun steel for added structural strength and shall require no internal or external reinforcements that could damage rodder hose.	\	
12.04	Hose reel shall be driven by adjustable gear reduction chain and sprocket assembly.	\checkmark	
12.05	Hose reel shall operate at full rotational speed while chassis engine is at idle.	V ,	
12.06	Hydraulic Telescoping Rotating Hose Reel - 800' capacity of 1" hose shall be provided.	V ,	
12.07	The front mounted hose reel shall telescope 15" forward down centerline of truck.		
12.08	Entire reel assembly shall rotate 270 degrees on a large diameter ball bearing.	V	
12.09	Hose reel shall include a dual locking device to positively lock reel in any position across operating range.	✓	
12.10	The hose reel shall rotate about the reel assembly centerline so the reel shall never extend beyond the truck width. Reel coverage diagram shall be submitted with bid.	✓	
12.11	Controls shall accessible on both sides of the hose reel via a mounting station for the belly pack wireless remote control, allowing operator to work at either side of unit for	/	
	safety purposes. 600' x 1" Piranha Sewer Hose / 2500 Psi shall be provided		

		COMPL	LY
12.15	An air-cylinder actuated pinch-roller shall exert downward pressure across full width of reel to retain hose on reel when encountering nozzle blockages. Pinch roller must be activated via a one touch, backlit button with lighted feedback on the control panel.	✓	
12.18	Digital footage counter displaying footage values shall be provided. System must be capable of resetting value to ensure operator safety. Accuracy To Within One Percent Of Actual Distance, Large Easy To Read Lcd Screen located on the 7??? front control panel screen.	V	
12.22	10' Leader Hose	$\overline{}$	
14.0	WASHDOWN EQUIPMENT		
14.02	A handgun with 1/2" x 35' hose shall be provided at mid-ship to which allow the operator to deliver water to area served by pick up hose and to the inside of the debris body for clean out.	✓	
14.03	Hand sprayer with adjustable spray-pattern to be provided with trigger-style gun.		
16.0	FRONT OPERATING STATION AND CONTROLS		
16.01	Primary operator station will be located at front of hose reel.	V	
16.02	All operator controls should be located on a single control panel that can be rotated on a 90 degree arc for an operator customizable location. The control panel shall also feature the ability to raise and lower through a range of not less than 8" to accommodate operators of different height.	✓	
16.03	Station shall include a 7" Touch enabled display screen with corresponding tactile buttons for reading critical machine data including (hose footage, hose reel speed settings, water pressure, water flow. Air mover information, chassis data, mode indicator, chassis fuel level, and diagnostic controls), Back lit button keypads with, laser etched function icons, and 4 light feedback indicators. These buttons shall operate the following functions: All setup functions (remote/panel selector, work lights, hose reel extend/retract, hose reel lock, and pinch roller activation) and Vacuum functions. Additionally, there will be separate sealed rocker switches for Water Pump on/off and Throttle up/down. There shall be a multi flow control dial for controlling the full range of the water pump.	✓	
16.03	There shall be a hose reel joystick to control the pay in and pay out of the hose reel, this joystick shall offer speed control that increases the further the joystick is moved in either direction. There shall be an additional hose reel speed dial for setting specific speed ranges of the reel. There shall be a boom joystick that controls all function of the boom including up/down, left/right, and extend/retract. There shall be a E-Stop button to bring all machine	✓	
16.04	Tachometer and hour meter for chassis engine provided at control station shall be provided.	✓	
16.05	Tachometer and hour meter for blower provided at control station shall be provided.	V	
16.06	All Hydraulic Functions - Color Coded, Sealed Electric/Hydraulic NEMA 4 switches shall be provided.	✓	
16.07	Blower Engagement/Vacuum Relief - Sealed Electric/Air NEMA 4 Switch shall be provided.	V	
16.08	Water pump hour meter shall be provided.	V ,	
16.099	PTO hour meter shall be provided.	V	
16.10	A temperature light and alarm shall be provided. Light and alarm will be activated when hydraulic temperature reaches 180 F.	✓	

		COM	IPLY
16.11	Front control screen shall display a water level indicator to show level of water through the range of the tank.	V .	
16.12	Front control screen shall display the debris body level.	V	
17.0	IN CAB CONTROLS		
17.01	All In cab controls are to be located on a single in cab control screen. This shall be a 7" full color display screen. It shall utilize 12 back lit tactile (glove ready) buttons on the sides of the screen as well as feature touch screen operation.	✓	
17.02	All Back up camera Features shall be displayed on the In Cab Control Screen.	V .	
17.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.	V ,	
17.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.	✓.	
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17.03	All work lights shall be able to be activated or deactivated in cab with on screen controls.	<u> </u>	
17.05	All safety strobes and beacons shall be controlled via on screen controller	$\overline{}$	
17.06	Jet or Combo mode shall be activated via one touch button on the control panel. Control screen must display an on screen representation of the chassis drive system and must animate to show as drive systems activate or deactivate.	✓	
17.07	Recirculation must be activated on the in cab control screen and visibly show that it is active at all times.	✓	
19.0	ELECTRICAL & SAFETY LIGHTING		
19.01	The entire system shall be vapor sealed to eliminate moisture damage, "Nema-4" type or equal.	✓	
19.02	IQAN Electronic Package: Chassis Tachometer, Blower Tachometer, Operating Mode, PTO Mode, Hydraulic Oil Temperature shutdown, Hose Reel Speed, Water Pressure, and E-Stop shall be included. E-Stop activation must turn off rodder pump, shutdown Hydraulics, set chassis throttle to idle, stop vacuum E-stop must be located at each operator interface; including hose reel controls, pendant control, wireless control (if equipped) Diagnostics for basic machine functions and all inputs and outputs shall be accessible via the display.??? Advanced diagnostics, updates, data retrieval, and remote diagnostics will be available via PC or Bluetooth connection.	✓	
19.02	Logs, reports, and hour meters will be accessible via the display.		
19.03	All electrical connections shall be void of exposed wires or terminals nor should they be painted. Paint process shall be completed prior to installation of wiring.	✓	
19.04	All wiring shall be color-coded and encased in conduit to scaled terminal boxes with circuit breakers.	V	
19.06	All other lights required by State and Federal Laws.	$\overline{}$	
19.13	Hose reel manhole work lights shall be provided		
19.14	(2) L.E.D. Boom worklights shall be provided.	V	
19.18	L.E.D. Work light at midship curbside shall be provided.	Ż.	
19.20	(2) L.E.D. Rear door work lights shall be provided	V.	
19.24	L.E.D. Lights, Clearance, Back-Up, Stop, Tail & Turn shall be provided.	$\overline{}$	
19.25	Mid-Ship L.E.D Bubble Type Turn Signals Shall be Provided	Ż	
19.28	A LED arrowstick shall be installed at the rear of the unit to provide directional control for approaching traffic.	<u> </u>	
20.0	SAFETY EQUIPMENT		
20.01	E-stop shall be located at each operator interface location. Standard locations to include: front hose reel, mid-ship curbside dump controls, & wireless controller (if equipped.)	✓	

		COM	IPLY
20.02	Electrical system controls shall be configured to allow for single point operation only. Upon engagement of controls at specified locations, additional controls shall be disabled.	✓	
20.03	Electrical system must enable self-check to ensure all switches are in home position prior to critical function enablement. System must "lock out" controls when switch is not in home position.	/	
20.04	Rear work lights shall be activated upon engagement of reverse gear.	V	
20.05	(1) Emergency Flare Kit	$\overline{}$	
20.06	(1) 5# Fire Extinguisher.	<u> </u>	
20.07	Screen Backlighting shall be provided.	V .	
20.07	Menu Driven Menu Screens shall be provided.	V	
20.07	Multi-View Available On Monitor, Up To (4) Camera Inputs and Up To (4) Simultaneous Views shall be provided.	\	
20.07	Back-Lit Soft Touch Controls shall be provided.	\checkmark	
20.07	Front Hose Reel Color Camera With 130 Viewing Angle shall be provided.	V	
20.07	Rear Back-up Color Camera With 130 Viewing Angle shall be provided.	V	
20.07	Left and Right Side Mounted Color Cameras, Each With 130 Viewing Angle shall be provided.	V	
20.07	LED Low Light Assist On Each Camera shall be provided.	\checkmark	
20.07	Automatic Activation of Rear Camera When Transmission REVERSE is selected shall be provided.	✓	
20.07	Automatic Activation of Appropriate Side Camera When Turn Signal is activated shall be provided.	/	
20.07	Normal Image / Mirror Image Orientation shall be provided.		
20.07	Manual Selection of Camera, Except In Reverse shall be provided.	V.	
20.07	PAL compatibility shall be provided.	V	
20.07	Quad- Adapter shall be provided.	V	
20.07	Waterproof cable connector shall be provided.	V	
20.09	The unit shall utilize a high temperature monitoring safety device to automatically disable the vacuum system when the outlet temperature of the positive displacement blower reaches a high temperature limit.	\	
20.11	Digital water pressure shall be displayed in front LCD display.??? Pressure gauge shall be capable of displaying water system pressure in all pump operating modes.	✓	
21.0	SEWER TOOLS AND ACCESSORIES		
21.02	(1) 30 Sand Nozzle	V	
21.03	(1) 30 deg. Sanitary Nozzle		
21.04	(1) 15 deg. Penetrator Nozzle		
21.05	(1) 1" Small finned nozzle pipe skid	Ÿ	
22.0	VACUUM TOOLS AND ACCESSORIES	,	
22.01	The basic vacuum tube package shall include the following:	V ,	
22.02	(1) 8" x 3' aluminum pipe	V .	
22.03	(2) 8" x 5' aluminum pipe	V .	
22.04	(1) 8" x 6'6" catch basin tube	V,	
22.05	(4) 8" quick clamps	V	
23.0	CHASSIS EQUIPMENT AND STORAGE		
23.01	Two (2) front tow hooks shall be provided.	V .	
23.02	Two (2) rear tow hooks shall be provided.		

		COM	IPLY
23.07	Aluminum Toolbox - Behind Cab - with Lighting	$\overline{}$	
23.08	(1) 30" x 18" x 24" Aluminum Toolbox Mounted curb side shall be provided.		
23.09	(1) 16" x 20" x 24" Aluminum Toolbox Mounted street side shall be provided.	V.	
23.10	(1) 40" x 22" x 24" Aluminum Toolbox Mounted curb side shall be provided.	V.	
23.11	(2) 18 In. x 16 In. x 12 In. Aluminum Toolbox - Front Bumper shall be provided.	V.	
23.11	(1) 24" x 24" x 24" Aluminum Toolbox Mounted streetside shall be provided.	\overline{V}	
23.17	Storage locations for various tools and accessories shall be provided at the front hose reel for point of use storage.	✓	
24.0	MODULE FINISH		
24.01	Painting of the module shall be with a DuPont Imron Elite Polyurethane Enamel Top Coat. Application is to be a wet top coat applied to a dried and sanded primer base.	✓	
25.0	CHASSIS SPECIFICATION	_	
25.01	The unit shall be a new model. No discontinued models will be accepted	$\overline{}$	
26.0	ADDITIONAL PARTS		
26.02	(6) 8" x 5' Aluminum Vacuum Tube	V	
26.13	(6) 8" Quick Clamp Assembly		
		CON	IPLY
		YES	NO
1.0	Truck Model		

		COMPLY	
		YES	NO
1.0	Truck Model		
1.01	Kenworth T880 / Peterbilt		
2.0	Truck Chassis		
2.02	Fr Axle Load (lbs) 20000		
2.03	Rr Axle Load (lbs) 46000		
2.04	G.C.W (lbs) 66000		
	Truck Engine & Equipment		
3.01	MX-13 455 455@1600 1650@900	V ,	
3.02	Carb Compliant Engine		
4.0	Truck Transmission & Clutch		
4.01	Transmission: Allison 400RDS 6-Speed		
6.0	Cab and Equipment		
6.01	Hood: T880 Standard Length with Mechanically Fastened Fenders. 122.6 inch BBC		

Exhibit B

NON-COLLUSION AFFIDAVIT

The individual person(s) executing this Proposal, being first duly sworn, depose(s) and state(s) that the Offeror has not directly or indirectly entered into a combination, collusion, undertaking or agreement with any other offeror or person (i) relative to the price(s) proposed herein or to be bid by another person, or (ii) to prevent any person from submitting a Proposal, or (iii) to induce a person to refrain from submitting a Proposal; and furthermore, this Proposal is made and submitted without reference to any other proposals and without agreement, understanding or combination, either directly or indirectly, with any persons, with reference to such proposals in any way or manner whatsoever.

	pehalf of the Offeror in the spaces provided below shall constitute ad every part of this Proposal. <u>SIGNATURE MUST BE PROPERLY</u>
NOTARIZED.]	d every part of this Proposal. <u>SIGNATORE WIOST BE PROPERET</u>
Written Signature:	a Vanto
Printed Name:	Greg Vontroba
Title:	Midwest Region Sales Manager
<u>Important</u>	- Notary Signature and Seal Required in the Space Below
STATE OF Mic	higun
STATE OF $\underline{\mathcal{M}_{i'}}$ COUNTY OF $\underline{\mathcal{M}}$	wynt.
Subscribed a 22.	nd sworn to before me this <u>4th</u> day of <u>November</u> , 20
My commission exp	res: <u>08-01-2028</u> (Signed) <u>M O'Kurka</u>
Residing in/_	County, State of Michigun
	20 WOTAR J ONLY OF WOOD ONLY OF WOOD ONLY OF WOOD ONLY OF MICHIGANIA OF MIC



RE: Combination Sewer Cleaner Proposal Due: On November 17^{th,} 2022 at 10:00 am

Jack Doheny Companies, Inc. - Whitestown, Indiana

(a) General Qualifications:

Since 1973, Jack Doheny Companies, Inc. has been selling and renting only the best new, used, and remanufactured pump trucks, vacuum trucks, sewer cleaning equipment and pipeline inspection systems. At Jack Doheny, we carry the largest selection of Sewer Cleaning, Pipeline Inspection, Street Sweeping, and multi-use Vacuum Trucks in the world. Our North American state-of-the-art service facilities repair all makes and models of vacuum truck equipment, sewer cleaning trucks, and street sweepers. At Jack Doheny, we dig in and never stop. We are committed to providing solutions, strengthening your business, and investing in you. With a repair facility located in WHITESTOWN, the Town has the benefit of never having to leave town for a repair. All Vactor parts come out of the Chicago area and are most times next day delivery.

Vactor's origins as an American manufacturer go back more than a century, and our expertise and leadership in sewer cleaning date back more than fifty years. In that time, we have been more than a manufacturer. As a pioneer and an innovator, we have found ways to help communities save money, improve the quality of life for people, and improve the productivity and safety of the individuals who operate our equipment.

This commitment to innovation inspired us to create the very first combination sewer cleaner. Today, we remain driven to bring you the safest, most capable, versatile, quietest, and most efficient equipment possible. Durable, reliable equipment that delivers the quality and value you deserve and should demand. Equipment you can count on today, tomorrow, and years into the future.

Quite simply, we seek to be the #1 provider of infrastructure maintenance equipment and safety tools in the world.

(b) Special Qualifications:

The revolutionary IntuiTouch® system will change the way you work: simplifying operation, reducing stress, and cutting setup time. Inside the cab, it offers one-touch control to start work. Out in front, all cleaning functions are in a single control panel that adjusts to each operator.

The Multi-Flow System allows you to set water flow at lower RPM while maintaining peak pressure to clean quickly, effectively, and efficiently. This conserves energy using less fuel and less water while reducing component wear and extending product life.

Vactor is constantly developing new and better ways to improve productivity and simplify the operators' job. Our new wireless controls and handheld remotes include two-way data transmission and are only two of more than 100 customizable options for Vactor equipment.



Designed specifically for sewer cleaning, our Jet Rodder[®] Water Pump provides smooth continuous flows through its entire operating range and includes an optional, easily activated, powerful "Jackhammer" action to break up the toughest blockages.

(c) Experience:

Jack Doheny has been selling this particular product for 10 plus years. Jack Doheny has been a part of the WHITESTOWN community since 2010 located at the address of 4937A Fieldstone Drive Whitestown, Indiana. Jack Doheny has been selling sewer cleaning equipment for nearly 50 years. You can rest assured Jacks got your back on product training and service for the life of the machine.

Service Techs: Jack Doheny Companies has 5 certified service techs at our Whitestown facility and 2 parts associates. We carry several million dollars in parts throughout the company. Most Vactor parts are overnight delivery if we do not have it in stock.

Training: Jack Doheny provides Advanced Pipe Cleaning class and Mechanic/Operator class at our Whitestown location several times a year. Training can be offered onsite or at our shop. We currently have several 20 plus year trainers available for questions and experience.

(d) References:

Indiana Vactor References	
City of Ft. Wayne	Johnny Robinson (260) 427-2122
Columbus Utilities	Mike Oren (812) 344-5303
Greenwood Stormwater	Randy Weathers (317) 730-0010
Carmel Wastewater	Larry Edison (317) 965-065
Warsaw Utilities	Larry Hyden (574) 376-0952
Vincennes Utilities	Stan Eck (812) 881-6590
Citizens Energy Group	Jon Holmquist (317) 384-0859
City of West Lafayette	Ben Anderson (765) 404-8441
City of Fishers	Dan Tucker (317) 339-8683
***Additional references avail	lable upon request. ***

(e) Performance Reviews or Evaluation:

Putting the operator first. That's what the 2100i[®] is all about. It employs advanced technology that not only enhances the performance of the equipment but the individuals who operate it. Less fatigue. More comfort. Push button operation. Greater precision. Superior power and performance. Controls that truly put the operator in control. All of this in a system designed to be the ultimate in ruggedness, reliability, simplicity, and value. Its many features include:

• <u>IntuiTouch® one-touch in-cab controls</u> for PTO/Transfer Case activation at the touch of a button



- <u>IntuiTouch control panel</u> that combines all cleaning system functions into one, articulating control panel
- <u>The optional RDB 1015™ Rapid Deployment Boom</u> telescopes out 10' and extends the debris hose down 15' eliminating the need for additional tubes
- Patent pending H.A.L.O.™ (Hands-Free Accessory Light Option) brings a new level of safety and efficiency to every job site
- Low maintenance <u>Jet Rodder® Water Pump</u> provides smooth continuous flows and optional "jackhammer" action
- Optional <u>wireless controls</u>, including an updated belly pack and handheld remotes with two-way data transmission and multiple control functions
- <u>Multi-Flow</u> system offers operation at lower RPM for better fuel economy without sacrificing performance, less component wear, and greater product life
- Modul-Flex design provides for maximum capacities and optimum weight distribution on every truck
- Quieter engine design, high ground clearance, lower water fill point, and other features to improve the operator experience
- High-strength aluminum water tank maximizes capacity and comes with a 10-year corrosion resistance warranty
- Choose from a Positive Displacement model for pulling material long distances or Single and Dual Fan models for all-around sanitary and storm sewer cleaning
- Choose from over 100 precision-engineered enhancements to fully customize your 2100i

For an accurate Evaluation that is not performed by the dealer or manufacture I would recommend calling any or all of our references listed.

(f) Litigation or Claims:

Jack Doheny Companies, Inc. has not had any litigation or claims within the last five (5) years by any and all sewer utilities or other government entities.

(g) Financial Strength and Capability:

Jack Doheny Companies, Inc. has been in business since November 15, 1973 and is in good financial standing. JDC having the capacity to sell new and used equipment along with a rental fleet of several hundred trucks and trailers.

(h) Performance Capabilities of the Apparatus:

The capabilities of the apparatus being quoted are the ability to Jet and vacuum within the full range of PSI and HG with below the HP that is provided within the chassis. Water pump capabilities of 80GPM at 2500 PSI with the PD Blower operating at Full vacuum 18hg 3450 cfm at inlet and 1760 Engine RPM. This setup will not lug the engine.



(i) Maintenance Requirements for the Apparatus:

Vactor does not require any daily greasing. They do have a few daily checks on hydraulic oil and transfer case oil. Please see below Maintenance schedule. Debris body should be emptied daily with the rear door left cracked open. Remote grease zert will be supplied for any grease points above the waist.





(j) Warranties Included for the Apparatus:

One (1) year warranty on entire truck.

Two (2) year warranty on water pump

Ten (10) year warranty on water tanks

Five (5) year warranty on debris body

Two (2) year warranty on all electrical components

(k) Customer Service Included:

Customer service for unit will always be at the JDC Whitestown, Indiana location.

(I) Training Included:

Training will be at no charge to the Town at any time it is required. All training videos are linked to the QR code on each truck. This includes winterization, most maintenance and how to videos on option content.

(m) OSHA and State Regulated Standards or Requirements:

Vactor Manufacturing meets all OSHA State Regulated Standards and Requirements.

(n) Date of Delivery to the Town:

March 2023

(o) Price:

\$591,847.50

(p) Innovative, Performance-Enhancing, or Cost-Saving Features of the Apparatus:

The Multi-Flow System allows you to set water flow at lower RPM while maintaining peak pressure to clean quickly, effectively, and efficiently. This conserves energy using less fuel and less water while reducing component wear and extending product life. Vactor is constantly developing new and better ways to improve productivity and simplify the operators' job. Our new wireless controls and handheld remotes include two-way data transmission and are only two of more than 100 customizable options for Vactor equipment. Designed specifically for sewer cleaning, our Jet Rodder® Water Pump provides smooth continuous flows through its entire operating range and includes an optional, easily activated, powerful "Jackhammer" action to break up the toughest blockages.

The revolutionary IntuiTouch® system will change the way you work: simplifying operation, reducing stress, and cutting setup time. Inside the cab, it offers one-touch control to start work. Out in front, all cleaning functions are in a single control panel that adjusts to each operator. These items are all including in the quote I we have provided.



Please see provided video links for the above items:

https://youtu.be/hCpUF_PkGhA

https://youtu.be/ZVnCn4wNnml

https://youtu.be/ru_d9cPENDY

https://youtu.be/Kn7D6JGVyqc

https://youtu.be/MXCNO8f5OI4



Date: 11/17/2022 Branch: 1500

Request for Proposals: Combination Sewer Cleaner

Combination Single Engine Sewer Cleaner with Positive Displacement Vacuum System Mounted on a Heavy Duty Truck Chassis



Whitestown Public Works Department Town of Whitestown 6210 Veterans Drive Rm 600 Whitestown, IN 46075

BM ID: 2022-49236 PROPOSAL ID: 18245

PRODUCT DESCRIPTION

· 2100i with Roots 1024-18" Hg. Blower, 12 Yard Debris body, 1300 Gallons of Fresh Water

STANDARD FEATURES

- · 22" x 24" x 40" Curb Side Aluminum Toolbox
- · Aluminum Fenders
- · Mud Flaps
- · Electric/Hydraulic Four Way Boom
- · Color Coded Sealed Electrical System
- · Intuitouch Electronic Package
- · Double Acting Dump Hoist Cylinder
- · 3" Y-Strainer at Water Pump Inlet
- · Ex-Ten Steel Cylindrical Debris Tank
- · Flexible Hose Guide
- · (3) Nozzles with Carbide Inserts w/Rack
- · Suction Tube Storage 4 Pipe
- · 1" Nozzle Pipe
- · 10' Leader Hose
- · Flat Rear Door w/Hydraulic Locks
- · Dual Stainless Steel Float Shut Off
- · Debris Body Vacuum Relief System
- · Debris Deflector Plate
- · 60" Dump Height
- · Additional Water Tank Sight Guage
- · Liquid Float Level Indicator
- · Boom Transport Post Storage
- · 3" Y-Strainer @ Water Pump
- · Performance Package
- · 1" Water Relief Valve
- · Microstrainer Prior to Blower
- · Midship Handgun Coupling
- · Side Mounted Water Pump
- · Hose Wind Guide (Dual Roller)
- Hose Reel Manual Hyd. Extend/Retract
- · Hose Reel Chain Cover (Full)
- · Hydraulic Extending 15", Rotating Hose Reel, 1" x 800' Capacity
- · Tachometer & Hourmeter/Blower
- · Circuit Breakers
- · LED Lights. Clearance, Back-Up, Stop, Tail & Turn
- · Tow Hooks, Front and Rear
- · Electronic Back-Up Alarm
- · Hydraulic Tank Shutoff Valves
- · 8" Vacuum Pipe Package
- · Emergency Flare Kit
- · Fire Extinguisher 5 Lbs.
- · Subframe Mounted, 2-Pipe Rack, 8"
- · Low Water Alarm with Water Pump Flow Indicator
- · Joystick Boom Control
- · Rodder System Accumulator- Jack Hammer on/off control w/ manual valve
- · Digital Hose Footage Counter
- · Water Pump Hour Meter
- · PTO Hour Meter
- · Hydraulic Oil Temp Alarm
- · Digital Water Pressure Gauge
- · Vactor Standard Manual and USB Version 1 + Dealer

ADDITIONAL FEATURES

- · Roots 1024-18" Hg. Blower
- · 180 Degree Rotation, 10 Ft. Hydraulic Telescoping Boom, Front Loading 8" Suction Hose
- · Telescopic Boom Elbow, Hard Hat Style
- \cdot 80 GPM Variable Flow Water System
- · 2500 PSI Water Pressure
- · Hydraulic Cooling Package
- · Hose Reel, Freespool
- · 1" x 600' Piranha Sewer Hose, 2500 PSI

- · Debris Body Washout
- · 6" Rear Door Knife Valve w/Camloc w/Port, 6:00 position
- · Pump Off Ports and Programming
- · Internal Body Screen
- · Full Rear Door Swinging Screen
- · Centrifugal Separators (Cyclones)
- · Folding Pipe Rack, Curbside, 8" Pipe
- · Folding Pipe Rack, Streetside, 8" Pipe
- · Folding Pipe Rack, Rear Door, 8" Pipe
- · Rear Door Splash Shield
- · Lube Manifold
- · Plastic Lube Chart
- · Final Filter and Silencer Ball Valve Drains
- · Hydraulically actuated plate which blocks off boom inlet Constant Speed
- · Hot Shift Blower Drive (automatic transmission)
- · Bellypack Wireless Controls with hose reel controls, 2-way communications, and LCD Display
- · Rotatable Boom Inlet Hose
- · Cold Weather Recirculator, PTO Driven, 25 GPM
- · Handgun Couplers, Front and Rear
- · Rodder Hose Pinch Roller
- · High Pressure Hose Reel
- · Front Hose Reel Tool Storage
- · Rodder Pump Drain Valves
- · Rear Directional Control, LED Arrowstick
- · 14 Lighting Package, 14 Federal Signal Strobe Lights, LED
- · LED Mid-Ship Turn Signals
- · Worklights (2), LED, Boom
- · Worklights (2), LED, Rear Door
- · Worklight, LED, Hose Reel Manhole
- · Worklight, LED, Curb Side
- · Toolbox, Front Bumper Mounted, 16 x 12 x 18 w/(2) LED Side Markers
- · Behind Cab Toolbox with Lighting
- · Toolbox, Driver Side Chassis Frame, 24w x 24h x 24d
- · Toolbox, Passenger Side Chassis Frame, 30w x 18h x 24d
- · Camera System, Front, Rear and Both Sides
- · Digital Water Level Indicator
- · Digital Debris Body Level Indicator
- · Blower High Temperature Safety Shutdown
- · (4) 8" x 5' Aluminum Vacuum Tube
- · (4) 8" Quick Clamp Assembly
- · Vactor Standard Manual and USB Version 1

PAINT

- · Module Paint, Dupont Imron Elite Sanded Primer Base
- · Module Paint Color: White
- · Cab Paint Color: White

CHASSIS

· Kenworth T880 Tandem Axle Chassis, 455 HP Engine, Automatic Transmission

Sala	Price:	\$50·	1 Ω	2/7	, 5	'n
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PROPOSAL ID: 18245 CUSTOMER INITIALS: ____

Terms and Conditions

Surcharges or rate increases issued by manufacturer that affect this quote following quote acceptance, but prior to order delivery, will be the responsibility of Buyer. Any surcharge or increase that is applied to this purchase will be applied at same cost as issued by manufacturer.

Acceptance of this Proposal is subject to availability of the Equipment listed above.

Sales Price does not include any applicable sales taxes. Buyer is responsible for and agrees to pay all applicable sales tax. The Sale of New Equipment Terms and Conditions are incorporated into and made a part of this Proposal upon acceptance and execution of this Proposal by both parties.

Execution of this Proposal by Seller and Buyer constitutes a binding agreement between the parties.

If this Proposal is not executed by both parties within thirty (30) calendar days from the Proposal Date, this Proposal shall become null and void, unless subsequently executed by both Buyer and Seller.

Following quote acceptance, customer will receive a Build Specification Acknowledgement via Docusign. This must be reviewed and signed within 14 days of receipt to confirm and secure order.

Thank you for your consideration of this proposal.

Sincerely yours,

Daniel Depinet

Daniel Depinet Regional Sales Representative 317/617-1731

DanielDepinet@dohenycompany.com

This proposal becomes a contract for delivery and payment of the merchandise listed above only when signed by the customer or one of its officers.

Customer:			
Ву:			
Date:			
Email:			

PROPOSAL ID: 18245 CUSTOMER INITIALS: _____

ENGINEERED TO PERFORM BUILT TO LAST

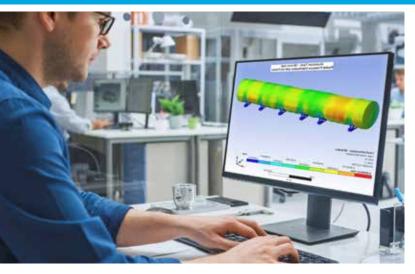






SUPERIOR POWER AND PERFORMANCE GUARANTEED

Vactor, a Federal Signal company, is the largest manufacturer of sewer cleaning equipment in the world. What sets us apart is our commitment to quality, innovative design, superior performance, operating ease, and strong customer support. Together with our international dealers and partners we provide you with the powerful support and personalized service you need to get the job done.





OUR MODUL-FLEX® DESIGN LETS US ENGINEER THE IDEAL MACHINE FOR YOU

As a result of Vactor's unique, trademarked Modul-Flex design, your equipment is engineered and manufactured to meet your specific and most demanding applications. Modul-Flex offers you both accuracy and flexibility, and essential operational advantages:

- Provides for maximum debris body and water tank capacities while ensuring optimum weight distribution on every truck
- Helps you meet local axle load distribution standards and safety regulations
- Center of gravity is calculated for each truck to ensure a safe configuration with optimal weight transfer
- Includes our aluminum water tanks that are warrantied for 10 years, and are customized to the right sizes, capacities, and locations to meet specific chassis requirements

THE CLEANING POWER YOU NEED TO HANDLE YOUR TOUGHEST SEWER CHALLENGES

In all Vactor equipment models you will find rugged and innovative features that deliver the performance you need to handle your most demanding sewer cleaning tasks.

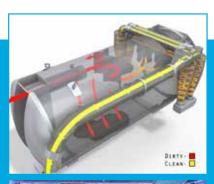
VACTOR'S JET RODDER® SINGLE PISTON WATER PUMP FEATURES A STANDARD 2-YEAR WARRANTY

Purpose-designed for sewer system cleaning and refined over 50 years of proven performance, our unique high pressure water pump gives you the power to break up even the toughest blockages. The Jet Rodder pump is a positive displacement, high-pressure, double acting, hydraulically operated, single piston pump specifically designed for sewer cleaning operations, whose design allows for configurations up to 100 gpm US (378 lpm) @ 2000 psi.

- Creates a powerful "jackhammer" action to assist the nozzle in breaking up and penetrating obstructions
- Run dry protection for 30 minutes certified by Vactor
- Powered from the chassis engine without the need of auxiliary engine or belt drive
- Operates at 14 to 25 cycles per minute (typical configurations in continuous duty operations)
- The pump location provides a flooded suction inlet to eliminate potential cavitation damage or the need for a charge pump
- Single moving part reduces wear and tear of pump components and maintenance costs



JET RODDER PUMP CONFIGURATIONS				
Flow and Pressure	Power Requirements	Hose Size		
40 gpm @ 2500 psi / 151 lpm @ 172 bar	73 h / 54 kw	3/4" or 1" / 19 or 25.4 mm		
60 gpm @ 2000 psi / 227 lpm @ 138 bar	88 hp / 66 kw	1" / 25.4 mm		
60 gpm @ 2500 psi / 227 lpm @ 72 bar	110 hp / 82 kw	1" / 25.4 mm		
80 gpm @ 2000 psi / 303 lpm @ 138 bar	117 hp / 87 kw	1" / 25.4 mm		
80 gpm @ 2500 psi / 303 lpm @ 172 bar	146 hp / 109 kw	1" / 25.4 mm		
100 gpm @ 2000 psi / 379 lpm @ 138 bar	146 hp / 109 kw	11/4" / 31.75 mm		





OUR CORROSION- AND ABRASION-RESISTANT DEBRIS BODIES CAN WITHSTAND YEARS OF WEAR

- · Cylindrical for maximum strength
- Material: 3/16" (4.7 mm) single axle; 1/4" (6.4 mm) tandem axle
- Volumetric capacities: 5 yd³ (3.8 m³) 10 yd³ (7.6m³) 12 yd³ (9.2 m³) 15 yd³ (11.5 m³)
- Mounted on an independent sub-frame separate from the chassis frame via a 3 point mounting system to allow flexing to occur without causing frame damage
- Standard dump height allows easy body dumping at transfer stations or on containers: single rear axle configuration: 48" (1.2 m); dual rear axle configuration: 60" (1.5m)

- Features a dumping angle of 50° via a double acting hydraulic cylinder
- Standard dual air ducting system equipped with dual stainless steel floating balls inside corrosion resistant cages as a safety shutoff system
- Abrasion resistant deflector plates divert the air stream to the bottom as part of the first phase of debris separation
- · Includes a load level indicator
- Centrifugal separators (cyclones) (optional in certain models) aid in material separation and help to prevent the ingestion of 50 micron or larger particulate into the vacuum generator

ENHANCED OPERATOR EXPERIENCE



VACTOR 2100i OFFERS YOU GREATER OPERATING EASE AND EFFICIENCY



Vactor's Multiflow system lets operators set the flow at a lower rpm resulting in better fuel economy without sacrificing performance



All water valves are located in the same mid-ship control station, reducing the amount of walking back and forth around the truck by the operator

VACTOR 2100i INTUITIVE IN EVERY WAY.

NEW INTUITOUCH® ONE-TOUCH IN-CAB CONTROLS REDEFINE SIMPLICITY

- 7" touch screen control features back lit tactile buttons
- Includes controls and viewing screen for camera, lighting, recirculation and PTO/Transfer case activation
- One-Touch engagement to activate PTO and transfer case allowing operators to gain control of all operational systems
- Operator can view the current operating mode, recirculation status, flows, pressures and more



NEW INTUITOUCH CONTROL STATION PUTS ALL CLEANING SYSTEM FUNCTIONS INTO A SINGLE, SIMPLE CONTROL PANEL

- Articulating controls with up/down adjustment for individualized maximum comfort articulation allows the control panel
 to adjust on a 90 degree arc for better access and screen visibility while operating the hose reel and boom
- All controls are consolidated into a single control panel including a 7" dashboard screen with glove-friendly tactile buttons featuring at-aglance data for water pressure and flow, hose footage, chassis RPM, vacuum information, water level*, debris tank level* and more





- New, reliable touch buttons with back lit feedback enable the operator to know if a selected function is active
- The hose reel joystick significantly improves response time and pays in and out in the direction of the hose reel
- The boom joystick has a telescoping feature built in, giving the operator full mobility with multiple direction boom movement for quicker set up
- Operators have full control of the water system via a single Multi-Flow control dial – enabling them to precisely match the flow and pressure to the job requirements
- E-stops located at all operator control points bring the unit to a safe condition to protect both the operator and the equipment

VACTOR 2100i COMES IN THE CONFIGURATION YOU NEED

OUR POSITIVE DISPLACEMENT (PD) MODEL IS IDEAL FOR PULLING MATERIAL LONG DISTANCES

With blower offerings providing inlet volumes in excess of 5000 CFM and 18 Hg vacuum, the Vactor 2100i PD is the machine you need to tackle your deepest pulls. In addition, our multi-stage blower filtration system is the most productive of its kind, and unique design features make the 2100i the most operator friendly unit available.



Sings 1

FOR ALL AROUND SERVICE, CHOOSE A SINGLE ENGINE, SINGLE OR DUAL STAGE FAN MODEL

Vactor's fan system is the right choice for all-around sanitary and storm sewer cleaning. Whether equipped with a single or dual (for greater vacuum) fan system, our lightweight, perfectly balanced aluminum fan provides superior performance to handle your toughest jobs. Our unique system also minimizes energy consumption while maximizing performance.

CENTRIFUGAL CYCLONES

Designed and located to improve air filtration and permit easier cleaning. The air enters the top side of the cyclone causing a vortex and any airborne particles to drop and be "dumped" with the rest of the load.



CUSTOMIZE YOUR 2100i WITH PERFORMANCE DRIVEN OPTIONS

RDB 📙

RAPID DEPLOYMENT BOOM

Our revolutionary RDB boom telescopes 10 feet out and extends the debris hose down 15 feet speeding work, and, in many cases, eliminating the need for additional tubes, reducing operator fatigue. The RDB 1015 offers you:

- Dramatic reduction in set-up and tear-down time with boom's ability to pay-in and pay-out 15 feet of vacuum hose
- Reach greater depths without raising the position of the boom to enhance speed and efficiency
- The ability to work in areas of low overhead clearance without raising the boom and still reach needed depths





WIRELESS CONTROLS

Vactor has enhanced its wireless controls with a belly pack and handheld remotes that feature two-way data transmission, including active pressure and flow information for the water and the ability to monitor hose footage being paid out or retracted. Our wireless controls also allow:

- Extensive operation with greater control away from the fixed operator station
- Multiple control functions including hose reel control, boom control, e-stop and more

OVER 100 PRECISION-ENGINEERED ENHANCEMENTS ARE AVAILABLE, 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 1,500 gallons (5,678 L)

- Pump delivery system up to 100 gpm
- Hose reel capacity up to 1,000 ft. (305 m)
- Automatic hose level wind guide
- Safety warning lighting packages
- Hydro-Excavation Kits

VACTOR WATER RECYCLERS CAN HELP YOU MINIMIZE COSTS AS YOU MAXIMIZE RESOURCES



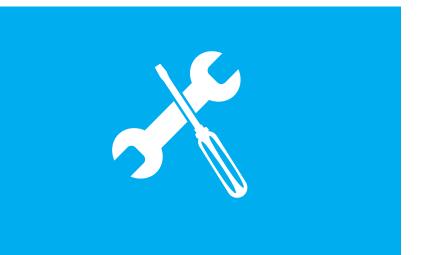
You can maintain and repair sewer lines and save hundreds of thousands of gallons of fresh water every year with a Vactor Water Recycler. Beyond water savings, by eliminating the need to refill water tanks, you drive up productivity, cutting time, effort, and expense. Designed to work exclusively with our 2100i Series combination sewer cleaners, our Water Recyclers offer you:

- Continuous operation without stops
- 5-step water filtration process combining settling, centrifugal separation, and absolute filtration to 100 microns
- No need to enter the debris body for maintenance
- No moving parts inside the debris body
- · Ground level access for washing coarse screen filter
- · Automated back flush every 30 seconds
- Self-monitoring filter with low and high pressure shutdowns
- Water source selection—clean water, recycled water or both



- 1. Initial Separation (inside the debris body by the deflector plates)
- 2. Coarse Screen Filter
- 3. Centrifugal Separation
- 4. Classification Filter
- 5. Final Settling

VACTOR SERVICE AND SUPPORT



VACTOR REBUILD PROGRAM

This comprehensive service program is designed to keep your Vactor equipment operating at top performance.

Including:

- An all-points vehicle inspection
- Genuine OEM replacement parts
- All work done by factory-trained technicians
- 10% parts discount
- Engineering improvements and retrofit options
- Equipment testing to factory specifications



Your equipment represents a significant investment for your community or business. With our Performance Upgrades you can maximize the life, long-term value, versatility and performance of your equipment. Retrofit options include updates to add new safety, productivity and performance features.





OPERATOR, MAINTENANCE & SERVICE TRAINING

To help you and your team get the most from all the performance features we build into our equipment Vactor offers a comprehensive training program that includes hands-on classses on operation, maintenance and service.

LEARN MORE



2100i SPECIFICATIONS

Model	2100i - FAN	2100i - PD
DESIGN	Exclusive Vactor Modul-Flex®	Exclusive Vactor Modul-Flex®
Air Mover	Single or Dual Stage Hydrostatic Fan	Roots / positive displacement
VACUUM RATING		Up to 18 in (457 mm) Hg
INLET VOLUME		Up to 5000 CFM
DRIVE	Chassis driven, direct drive	Chassis driven, direct drive
OMSI TRANSFER CASE	Hydrostatic	Direct driven off of chassis
FULLY HYDRAULIC BOOM	Proportional Boom Controls with 180° rotation	Proportional Boom Controls with 180° rotation
PICKUP HOSE	7" or 8" Diameter	7" or 8" Diameter
DEBRIS BODY CAPACITY	5 yd3 - 15 yd3 (3.8 m3 - 11.5 m3)	5 yd3 - 15 yd3 (3.8 m3 - 11.5 m3)
WATER TANK CAPACITY	1,000 gal - 1,500 gal (3,785 L - 5,678 L)	1,000 gal - 1,500 gal (3,785 L - 5,678 L)
WATER TANK CONSTRUCTION	Aluminum (10-year warranty)	Aluminum (10-year warranty)
WATER PUMP	Vactor Jet Rodder® Multi-Flow system	Vactor Jet Rodder® Multi-Flow system
WATER DELIVERY	60 gpm - 100 gpm at 2,000 psi - 3000 psi	60 gpm - 100 gpm at 2,000 psi - 3000 psi
PUMP ACTION	Continuous flow or Jack Hammer®	Continuous flow or Jack Hammer®
HOSE REEL	15" Telescope, 270° rotation 800 ft x 1 in capacity (244 m x 2.5 cm)	15" Telescope, 270° rotation 800 ft x 1 in capacity (244 m x 2.5 cm)
REAR DOOR	Flat, hydraulically opening with fail safe locks	Flat, hydraulically opening with fail safe locks
SMART TRUCK FEATURES	E-stops at all operator stations Flow / footage meters Smart messages	E-stops at all operator stations Flow / footage meters Smart messages
HAND GUN SYSTEM	35' of hose High Pressure Washdown gun	35' of hose High Pressure Washdown gun
CUSTOM CONFIGURATIONS		
Hose Reel	Up to 1,000 ft capacity (305 m)	Up to 1,000 ft capacity (305 m)
Multiple Boom Options	RDB 1015 10' Extendable Boom 10' Tele Boom 5x5 Boom	RDB 1015 10' Extendable Boom 10' Tele Boom 5x5 Boom
Axles	Single or Tandem Tri-Drive and Drop axles also available	Single or Tandem Tri-Drive and Drop axles also available
Controls	Wireless Belly pack Handheld Wireless Corded Pendant	Wireless Belly pack Handheld Wireless Corded Pendant
WATER RECYCLING AVAILABLE	NO	YES







OUR COMMITMENT TO QUALITY ONLY BEGINS WITH OUR EQUIPMENT

The Vactor 2100i is manufactured in an ISO 9001 certified, advanced industrial plant. We employ the latest technology to build the most reliable equipment, including high-precision laser cutters, robotic welding, efficient, accurate computer numerical controls, and a sophisticated powder coating system.

When you build a quality product you can back it up with a full one-year, unlimited hours warranty. Vactor also backs up your investment with superior local service and support. Our goal is to keep your machine—and your entire operation—up and running.

The 2100i can be customized to your unique requirements to meet local standards and regulations by means of a broad selection of configurations, options and accessories.

Through our international dealer network, we maintain a vast inventory of spare parts and offer fast shipment to any region of the world.

Altogether, the rugged, reliable Vactor 2100i is easy to operate, easy to maintain, and an easy choice when you are looking for quality equipment that is built to last.





VACTOR BRINGING YOU THE POWER YOU NEED TO PERFORM

Vactor Manufacturing, the world leader in sewer cleaning equipment, with more than 20,000 specialty vehicles sold worldwide in the last 15 years, is part of Federal Signal, a leader in integrated solutions for governments and industries worldwide.

Our mission is to provide you with not only the best equipment, but the best aftermarket service and support in the industry. Together, we can offer you comprehensive operator training and a vast parts inventory to cut downtime and keep your operation up and running.









vactor.com

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Specifications subject to change without notice. Some products shown with optional equipment. Vactor®, JetRodder®, IntuiTouch®, and ParkNClean® are registered trademarks of Vactor Manufacturing, LLC. Products may be covered by one or more United States Patents and/or pending patent applications.

See: www.vactor.com/patents. Vactor Manufacturing, Inc. is a subsidiary of Federal Signal Corp.

LIMITED WARRANTY

<u>Limited Warranty</u>. Each machine manufactured by VACTOR/GUZZLER MANUFACTURING (or, "the Company") is warranted against defects in material and workmanship for a period of 12 months, provided the machine is used in a normal and reasonable manner and in accordance with all operating instructions. In addition, certain machines and components of certain machines have extended warranties as set forth below. If sold to an end user, the applicable warranty period commences from the date of delivery to the end user. If used for rental purposes, the applicable warranty period commences from the date the machine is first made available for rental by the Company or its representative. This limited warranty may be enforced by any subsequent transferee during the warranty period. This limited warranty is the sole and exclusive warranty given by the Company.

STANDARD EXTENDED WARRANTIES (Total Warranty Duration)

2100 Series, HXX, Series and Jetters 10 years against metal water tank leakage due to corrosion. Nonmetallic

water tanks are covered for 5 years against any factory defect in

material or workmanship.

2100 Series and HXX only 5 years against leakage of debris tank, centrifugal compressor or

housing due to rust-through.

2100 Series and Jetters 2 years - Vactor Rodder Pump on all unit serial numbers starting with

13-##V-#####

Exclusive Remedy. Should any warranted product fail during the warranty period, the Company will cause to be repaired or replaced, as the Company may elect, any part or parts of such machine that the Company's examination discloses to be defective in material or factory workmanship. Repairs or replacements are to be made at the selling Vactor/Guzzler distributor's location or at other locations approved by the Company. In lieu of repair or replacement, the Company may elect, at its sole discretion, to refund the purchase price of any product deemed defective. The foregoing remedies shall be the sole and exclusive remedies of any party making a valid warranty claim

This Limited Warranty shall not apply to (and the Company shall not be respons ble for):

- Major components or trade accessories that have a separate warranty from their original manufacturer, such as, but not limited to, trucks, engines, hydraulic pumps and motors, tires and batteries.
- 2. Normal adjustments and maintenance services.
- 3. Normal wear parts such as, but not limited to, oils, fluids, vacuum hose, light bulbs, fuses and gaskets.
- Failures resulting from the machine being operated in a manner or for a purpose not recommended by the Company
- Repairs, modifications or alterations without the express written consent of the Company, which in the Company's sole judgment, have adversely affected the machine's stability, operation or reliability as originally designed and manufactured.
- Items subject to misuse, negligence, accident or improper maintenance.

NOTE The use in the product of any part other than parts approved by the Company may invalidate this warranty. The Company reserves the right to determine, in its sole discretion, if the use of non-approved parts operates to invalidate the warranty. Nothing contained in this warranty shall make the Company liable for loss, injury, or damage of any kind to any person or entity resulting from any defect or failure in the machine.

THIS WARRANTY SHALL BE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE DISCLAIMED.

This warranty is in lieu of all other obligations or liabilities, contractual and otherwise, on the part of the Company. For the avoidance of doubt, the Company shall not be liable for any indirect, special, incidental or consequential damages, including, but not limited to, loss of use or lost profits. The Company makes no representation that the machine has the capacity to perform any functions other than as contained in the Company's written literature, catalogs or specifications accompanying delivery of the machine. No person or affiliated company representative is authorized to alter the terms of this warranty, to give any other warranties or to assume any other liability on behalf of the Company in connection with the sale, servicing or repair of any machine manufactured by the Company. Any legal action based hereon must be commenced within eighteen (18) months of the event or facts giving rise to such action.

The Company reserves the right to make design changes or improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.



VACTOR/GUZZLER MANUFACTURING 1621 S. Illinois Street Streator, IL 61364

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