

# A Closer Look.

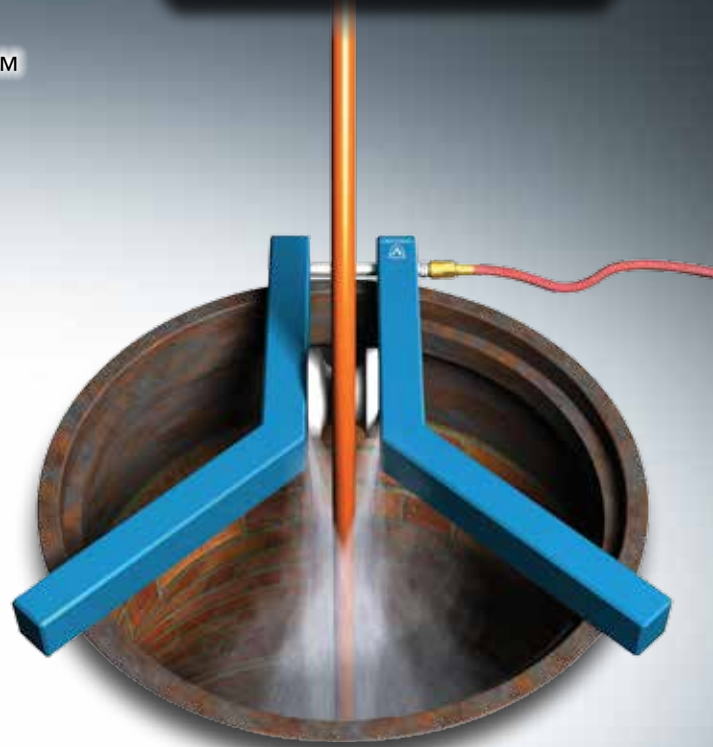
**VECTOR**  
WORK ASSURED

## Vanguard System™

Sewer cleaning and camera inspection return thousands of viruses to the street surface, jeopardizing operator health. Given the potential exposure, it is more important than ever to improve conditions at each manhole.

The anti-bacterial protection of the Vanguard System, installed on service vehicles, provides a reliable method for reducing the contamination risks and related health consequences right at the work site.

The Vanguard System is specifically designed to minimize effluent levels on contaminated equipment, spraying it with anti-bacterial solution before contact with operators to help protect their health.



### HOW SEWER WORKERS GET EXPOSED TO CONTAMINANTS

The environment in which sewer workers operate contains numerous types of bacteria and viruses which can cause sickness or disease in the human body. When maintaining these sewer systems, workers are exposed to contaminants as they are pulled out of the sewer on hoses, nozzles, cameras, tools and other



equipment. While the extent to which the human body may be impacted through repeated exposure to raw sewage is still unknown, doctors universally agree that reducing exposure to contaminants significantly reduces the possibility of contracting infections.

#### Medical study on sewage reveals "unknown" viruses outnumber known viruses 30:1

Source: LiveSciences, October 6, 2011

- 3,000 total viruses found in raw sewage
- 2,766 "unidentifiable" viruses found in raw sewage
- Only 234 viruses categorized and identified
- 17 of 234 identified viruses known to be communicable

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## INSTALLATION KIT

The modular design of the system adapts to most Vector® trucks and allows components to be positioned and mounted in convenient locations. The installation kit contains instructions, mounting templates, tubing, valves, wiring and fasteners for the tank, control box, reel and hose, spray gun and manhole roller.



## VANGUARD SANI-SOLUTION™ CONCENTRATE AND TANK

The concentrate is a specially formulated material that helps sanitize tools and surfaces. The concentrate is UV-stable and remains liquid-state to a temperature of -30 F. The system has an air purge feature to clear the water line when operating in freezing conditions (requires compressed air connection from truck).

The concentrate is stored in an opaque, 5-gallon, polypropylene tank that is mounted to the truck and routed to the control box. The tank should be mounted so the splash-proof vent cap is accessible for refilling.

## MANHOLE ROLLER

The Y-shaped design of the manhole roller spans the 24" opening, guides the jetting hose and allows space for the vacuum tube. Four spray nozzles, integrated into the manhole roller, direct a steady stream of sanitizing solution as the hose is retracted and returned to the reel. The downward direction of the spray nozzles washes debris into the manhole.

The manhole roller assembly is designed with lightweight, non-rusting components for maximum service life. The bracket is aluminum with stainless steel feet and the self-lubricating roller is nylon with a stainless steel shaft.

## HOSE REEL

The metered Vanguard Sani-Solution concentrate is routed from the control box to the hose reel assembly mounted to the truck. The hose has a quick-connect fitting for attachment to the manhole roller or spray gun. Opening the control valve and dispensing solution activates the pressure-sensing pump for continuous flow.

The hose reel is supplied with 50' of ½" hose, enabling an operator to reach and sanitize, tools and surfaces, on and around the truck.

## CONTROL BOX

The rugged-steel, powder-coated, water-resistant, NEMA-4 control box accurately meters and blends the Vanguard Sani-Solution concentrate with on-board water. The system is self-priming and remains in stand-by mode until pressure-activated.

The control box uses pressure-sensing technology to turn on/off the pump as needed, eliminating any delays. When the control valve for the manhole roller or spray gun is opened, the system senses the drop in pressure and activates the pump.



- Effective anti-bacterial protection
- Easy-to-use, one-touch operation
- Rugged, weather-sealed controls
- Modular design adapts to most trucks

*Note: The Vanguard System is designed to supplement, not replace, existing safety programs, practices and equipment.*

## ORDERING INFORMATION

P/N 7873190 – Vanguard System – Installation Kit    P/N 7873193 Vanguard Sani-Solution – 55 gal. drum

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