DUKE'S

# POWER JETTER

## THE MOST POWERFUL AND ADVANCED LARGE DIAMETER SEWER AND STORM WATER CLEANING AVAILABLE

## Next-level Jetting Performance

Duke's Power Jetter offers unsurpassed quality and efficiency for cleaning large diameter sewer and storm water pipelines over 24" in size at any depth through our powerful 500 GPM Jetter, powered by our PJE 500 Cleaning trucks. No debris gets by our 4,500 gpm submersible pump that removes it from the manhole and pumps it into an enclosed water/debris separator box on the surface. Water is decanted back into the sewer.

**Duke's offers large diameter pipeline cleanings both in conjunction with our CCTV inspections and as a standalone, periodic cleaning service, throughout the United States.**

## DUKE'S PJE 500 CLEANING TRUCK MECHANICS

The truck's jetter pumps provide 500 gpm at a maximum of 2,300 psi to the jetter nozzle. The two jetter pumps each produce 243 gm for a total combined production of 486 gpm (500 gpm for simplification). The water is carried in two (twin fused) 1 ½" diameter jetter hoses, housed in a reel that can hold up to 2,000 feet, designed to swivel 180 degrees for operating off of the rear or side of the cleaning truck. The swivel action also is used as a level wind mechanism for the hose. The system is powered by two diesel engines with 1,150 combined horsepower. These engines power four Hydrostat Hydraulic Oil Pumps that power the Hydraulic motors that run each component of the system.

## CLEANING PROCESS

The debris in the sewer line is moved downstream by the jetter nozzle. When the nozzle is inserted into the manhole and activated it propels itself up stream by virtue of the water jets. After it reaches a predetermined distance or "step" it is pulled back to the downstream manhole by the hose reel. The debris is removed from the manhole by a downhole submersible pump. This custom designed pipe produces 4,500 gpm. The debris laden sewer water is pumped via a 6" hose into a 20 cubic yard enclosed (closed loop) water-grit separator box. The debris falls out into the box and the debris free water then flows into the 25 cubic yard filter box prior to being pumped to the jetter pumps.

The PJE 500 jetter pumps use re-cycled sewer water or hydrant water. The re-cycled sewer water is pumped through a 25 cubic yard filter box prior to being pumped to the jetter pumps. If hydrant water is used then the fire hoses are connected to a manifold that goes directly to the jetter pumps.

## UNRIVALED EFFICIENCY AND EFFECTIVENESS

Duke's PJE has progressed and improved from several other companies all of which used the "Polston Process" for large diameter sewer cleaning. The sheer volume of this jetter system makes the cleaning of large pipe much more efficient and faster. The jetter pumps can be run at lower pressure (psi) and still clean pipe faster than the older systems. Add to that the expertise of the team behind the clearing power – and Duke's is unrivaled in the ability to efficiently and effectively get the job done.

# MOST POWERFUL? ON-SITE PROOF

**CHALLENGE:** Pipes clogged with sand

**PRIOR CONTRACTOR:**
10 days to clear 118 tons of sand from 60' storm line

**DUKE'S WITH PJE500**
5 days to clear 264 tons of sand from the same 60' storm line

**CHALLENGE:** Water level fluctuating with the ocean tides

**PRIOR CONTRACTOR:**

- Unsuccessful in removing sand
- Attempted to control the water level by placing sandbags in the line

**DUKE'S:**

- **Removed 250 sandbags** left by previous contractor
- **Cleaned out 500 tons of sand in 8 days** – through a 21' manhole

DUKE'S ROOTED IN INNOVATION

*Contact Dukes for the most powerful large diameter sewer or stormwater pipeline cleaning available.*