

Application Bulletin

Lakos Separator Reduces Maintenance and Replacement Costs on Sewer Cleaning System



Figure A

Faced with extreme pump and nozzle wear on his new \$70,000 Vactor-Jet Rodder (Figure A), R.O. Brugge, Manager of the East Yolo Community Services District in West Sacramento, California, recalled using a Lakos Separator in the past to eliminate sand and other suspended solids from source water. The separator in that application had been installed on the 3500 gpm discharge of the district pump and had prevented sand from entering the municipal storage tank.

Although Brugge's new problem involved only a flow of 75 gpm in this situation, it was complicated by the fact that his Vactor unit operates at 2000 psi. Consequently, if even the smallest amount of sand

got into the unit's 1500 gallon storage tank, great damage could result when the cleaner was operated at high pressure.

"It was a tremendous problem," Brugge said. "Within four months after we started using the jet-rodder, sand had screwed up the pump's hydraulic ram and scored the inside of the drum ... and we were out a thousand bucks!"

Additionally, sand quickly ate out the high pressure spray ports (Figure B), substantially reducing the unit's pressure. There actually turned out to be more sand in the local water system, from which the Vactor drew its water, than either Brugge or his field superintendent, Joe Taveira, thought.



Figure B

continued on reverse

Before installing the Lakos Separator, the only protection for the pump was a Y-strainer which was part of the original equipment. So much sand was present that the Y-strainer had to be cleaned every 300 gallons while the 1500 gallon storage tank on the truck was being filled. Besides the aggravation, considerable delay was also involved. After the installation of the Lakos Separator, so little sand accumulated in the Y-strainer that Taveira has now bypassed it in the system. Another indication of the amount of sand present is the fact that the separator typically has to be purged at least three times during the filling of the 1500 gallon tank.

Brugge and Taveira solved their problem by modifying the Vactor unit slightly (Figure C) so the Lakos In-Line Separator could be installed directly behind the cab. Before the installation of the separator, the 1500 gallon tank was filled directly from the hydrant or other water source. After the installation of the separator, the hose connection was made directly to the inlet of the Lakos Separator with the cleaned water flowing by open discharge into the tank. While the tank is being filled, one of the operators stands at the separator and purges it for 10 to 15 seconds every two or three minutes.

Both Brugge and Taveira are lavish in their praise of the Lakos Separator. They find it hard to believe that everyone who operates a jet cleaner does not install one. "It's really amazing," Taveira says. "We have this \$70,000 cleaner we wouldn't have been able to use if it hadn't been for a separator that cost less than \$300."



Figure C

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