



PROBLEM SOLVED™ PAPER

SOLUTION: Cougar® DC Truck Vibrator

INDUSTRY: Industrial Waste

LOCATION: Vactor Manufacturing Streator, IL



Vactor Manufacturing, one of the world's leading manufacturers of industrial vacuum loaders, hydro excavator and sewer cleaners, is employing engineered vibration technology to improve off-loading of industrial waste, including difficult materials such as dry bulk powders, slurries and even thick sludge.



Although Vactor uses four different vibrator models for various applications in its vacuum loaders and hydro excavators, all are Cougar® vibrators. Each industrial truck gets a mounting plate, whether ordered with a vibrator or not, so a retrofit is an easy bolt-on installation

PROBLEM

Vactor Manufacturing produces industrial vacuum loaders, hydro-excavators and sewer cleaners. Off-loading of industrial waste from these vehicles can be a difficult task as stubborn materials don't always completely empty from the load. The unloaded material causes workers to remove the remaining contents which is dangerous and decreases productivity.

SOLUTION

Vactor Manufacturing uses four different models of Cougar® truck vibrators to assist in the off-loading of industrial waste. Three of the Cougar® models are heavy duty electric units, such as the DC-3200, a powerful design well suited to dump trucks with a capacity of 10-15 yards, live-bottom tandem dump trucks that carry 15-30 yards, as well as large spreader and vacuum trucks. It delivers 4,000 vibration cycles per minute (VPM) with 3,200 pounds of force, while drawing just 85 amps from the 12V model and 62 amps from the 24V version. The fourth model is hydraulic, for customers who prefer that option. The variable-speed unit with adjustable eccentrics is capable of 4,500 VPM with 3,278 pounds of force and the motor is designed for minimal power consumption and low maintenance. Developed to create more force per size/weight, its suitable for continuous duty or intermittent work.

RESULTS

The ability to quickly evacuate the debris hopper raises productivity, while avoiding the need for worker intervention to successfully empty the entire load. The Cougar® truck vibrators are so effective, every industrial vacuum loader is specified with a 12V unit as standard equipment. "The vibrator allows the operator to flip a switch and break the surface tension, quickly evacuating the material," product manager, Brett Hart said. It reduces off-loading and clean-up time and also helps avoid the temptation for personnel to intervene in an effort to extract the entire contents." Martin Engineering's trustworthiness and reliability came through during a recent cost reduction effort by Vactor officials. Because the company provides its own mounting base and some wiring for the vibrator installations, they contacted Martin to ask if certain elements of the standard installation kit could be eliminated to trim expenses. Together the two firms reviewed the bill of materials, identifying any parts that weren't being used. By eliminating those components, Vactor maximizes its investment and saves an estimated \$40 per unit.