

THE LONG AND SHORT OF IT

The VacSimizer tractor-trailer combo solves a weight distribution problem with heavy loads for Advanced Waste Services

By Ken Wysocky

For years, officials at Advanced Waste Services Inc. envisioned a vacuum truck that would be small enough to maneuver in tight spaces and allow one-man operation, but big enough to carry a 5,000-gallon tank and still meet federal bridge and road weight restrictions.

The solution? The company built its own truck, the VacSimizer, a semi-tractor and trailer-tank combo used to pump out high-volume frac tanks and other industrial-cleaning jobs.

SLIDING SUB-FRAME

The VacSimizer's key feature is a sliding sub-frame that tucks the tri-axle trailer's six wheels under the tank when it's empty, shortening the wheelbase dramatically and providing a tighter turning radius. When the tank is full, the driver extends the tires past the rear of the truck, which distributes the weight evenly enough to meet federal bridge laws while driving to a disposal facility, says Harry Ledsome, a project manager for the West Allis, Wis.-based company.

"You can put this truck anywhere it needs to go – it turns that sharply," says Ledsome, who works at the company's facility in New Castle, Pa.,

where workers have been field-testing a VacSimizer prototype. "We use it a lot at frac sites because there's more volume there – anywhere from 10,000- to 21,000-gallon tanks, and sometimes they're hooked together – and the truck does a nice job. We've been to places where they've hooked together nine 10,000-gallon tanks."

"When it's shrunk up like that, it's only six feet longer than a regular 'sucker' truck, which is pretty good, considering how much more it can hold," says driver Ed Fredericks. "In the six months we've been using it, there hasn't been a place I couldn't get into. Anywhere you can get a straight truck in, you can get this one in."

Advanced Waste Services Inc., West Allis, Wis.

MACHINE: VacSimizer semi-trailer and tractor, made by Advanced Waste Services

PRIMARY FEATURES: Sliding sub-frame that extends or retracts rear wheels to comply with bridge laws; 5,000-gallon tank; 4,300-cfm blower; one-man operation

WEBSITE: www.advancedwasteservices.com



When the VacSimizer tank is full, the driver extends the tires past the rear of the truck, distributing the weight evenly. (Photos courtesy of Advanced Waste Services)



The VacSimizer unit shown with wheels tucked under the tank for maneuverability on the job site.

expensive to replace than regular tires. With fewer tires and rims, the vehicle's gross weight when empty is 38,000 pounds, which is lighter than a regular tanker, Fredericks says.

In addition, a large silencer muffler behind the tractor minimizes blower noise, which addresses a subject of increasing concern among customers, especially for cleaning jobs inside buildings.

The long and short of it: Customers often specifically request the truck for their jobs because it saves them money, Fredericks says. **GOMC**

Before, the company often was forced to send two smaller, 3,200-gallon vacuum trucks to service customers with cramped on-site conditions – such as natural gas drilling operations – which increased costs and reduced productivity.

"Its lightweight design allows one-man operation, which reduces our man-hour cost per job and provides a better value for our clients."

Harry Ledsome

"The VacSimizer can do the work of two smaller trucks," Ledsome says. "Its lightweight design allows one-man operation, which reduces our man-hour cost per job and provides a better value for our clients. It reduces transportation costs by 50 percent."

HOSE TO SPARE

"We estimate it saves us about \$120 an hour per job," he adds. "Over the course of a year, we're talking about pretty significant savings."

A Roots blower, made by Dresser Inc., supplies the power, generating vacuum of up to 4,300 cfm. The truck is adaptable, too, with the capability to handle from 2- to 6-inch hoses. "A lot of trucks have trouble pulling on a 2-inch line, but this one breezes right through it with no problem," says Fredericks.

The trailer's 25-foot hose trays, which can carry 200 feet of hose, also reduce manpower and transportation costs because there's no need to bring along a pickup truck to carry extra hose, he points out. "With our other trucks, we carry hose on a pickup truck, because the 'sucker' truck carries either no hose or only 100 feet of hose," Fredericks says.

The tank can tilt up to 76 degrees, which makes off-loading faster and easier, not to mention reduces labor costs by eliminating the need for two additional workers to dig out debris.

SILENCE IS GOLDEN

The VacSimizer's design achieves further weight reductions by using six tires instead of 12. The tires are wider, low-profile super singles, which are less

MONSTERS WORK HERE

PUMP PROTECTION

Have a process pump or pipeline constantly clogging?

Muffin Monster® grinders fit almost anywhere and keep pumps, pipes and valves free flowing & clear.

Muffin Monsters love to shred whatever you can throw at them – rags, sticks, rocks, clumps, goo and more!

Muffin Monster is the preferred grinder in many industries and proven effective in over 25,000 installations.

Learn more at www.jwce.com or call Jesse Hartley at 949.291.5759

Distributor inquiries welcome

Made in the USA

JWC Environmental®
Trust Monster Quality™
800.331.2277 • www.jwce.com