



Metalworking

Improving Safety and Efficiency in Your Manufacturing Facility with Vestil Self-Dumping Steel Hoppers

Roland Jones | Jul 28, 2020

Self-dumping hoppers are a perfect way to transport material within a manufacturing facility. Here's how Vestil aims to make its line of hoppers a compelling choice for machine shops looking to become more productive and efficient.

When deciding to purchase any type of self-dumping hopper, safety is a vital consideration.

After all, the use of hoppers involves capturing, transporting and dumping large amounts of industrial materials, whether it's in an agricultural, industrial or commercial setting. Workers are exposed to all sorts of hazards, from potential physical harm from heavy machinery to exposure to dangerous substances.

It's little wonder, then, that companies are willing to invest in safety when they can, says Ken Schneider, senior vice president at Vestil Manufacturing, an industry leader in the production and distribution of material handling equipment. Schneider points to products like Vestil's self-dumping hoppers, **available at MSC Industrial Supply**, as an example of a smart investment for machine shops looking to become safer.

Among the hopper's standard features are a safe "bump and dump" operation, where the hopper automatically dumps its load when a bumper release contacts the front of the dumpster. The hopper then returns to an upright and locked position automatically after it dumps. The driver can remain seated in the forklift allowing the driver to remain seated in the lift truck with seat belt secured and both hands on the wheel, vastly improving the safety of the operation. A steel cable may also be used to manually dump the hopper from the safety of the lift truck seat.

"If you dump those chips into a bin and it eventually weighs 100 pounds, how are you going to safely lift that object and empty it into a bigger container? There's the potential for someone to injure their back."

Ken Schneider
Vice President, Vestil

"Most of our competitors require the lift truck operator to stop the lift truck, apply the parking brake,

disembark, walk around the lift truck, and then manually activate the hopper to empty its contents," Schneider says. "But with the Vestil design, it's all done safely from the seat of the lift truck."

Driving Efficiencies in Metalworking

The safety of employees is important for corporations, but so is keeping costs down and maintaining efficiency. Employees are the most valuable asset of every company.

Schneider says Vestil's hoppers play an important role in driving efficiencies in a metalworking facility. He points to a byproduct of the machining process: the generation of chips that fall under metalworking machinery during machining or milling. These chips must be extracted from the machine and then taken to a recycling area for profit, particularly those derived from the machining of expensive metals such as titanium.

The self-dumping hopper from Vestil is the perfect solution for capturing and holding those chips when they're discharged from a machine, and for safely transporting them to the recycling area, Schneider says.

Read more about the benefits of having complete chip control.

"These chips are money," he says. "So once that hopper is full, a lift truck comes by and grabs it and takes it to the recycling area so it can be safely dumped or emptied."

While some companies have advanced machining operations that include an automatic chip collection process, others are still using a much more laborious method: a shovel to manually scoop up the chips and then dump them in a container—often a 55-gallon barrel on a dolly, Schneider says.

When the barrel is full, taking it away and emptying it is laborious and may cause injury to the workers.

"If you dump those chips into a bin and it eventually weighs 100 pounds, how are you going to safely lift that object and empty it into a bigger container? There's the potential for someone to injure their back," Schneider says.

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Workplace injuries are no small matter, he adds. Direct costs associated with a back injury are estimated at \$37,000, while indirect costs can range up to \$300,000, not to mention the lost worker time.

A better option is using a Vestil hopper placed underneath the dispensing chute, or next to the machining equipment where it can be shoveled by hand into the hopper, Schneider says. Once the hopper is full, you then take it to your recycling center and dump the contents safely.

Aside from the safer approach, using self-dumping hoppers saves you time, which may not sound like much, but when a company is running large volumes of machining operations, every minute it can save when handling recycling metal chips counts, Schneider says.

To make his point, Schneider points to a side-by-side comparison video (see above) that shows a Vestil hopper's performance versus one made by a competitor. It clearly shows the Vestil hopper operation time is 50 percent quicker than the competition, he notes.

Staying Ahead of the Competition

To stay ahead of the competition, Vestil has invested heavily in its manufacturing processes. Hopper chutes are cut from steel sheet using fiber optic steel cutting lasers and built using welding robots, both of which increase precision and reduce the number of defects. Another quality control advantage is Vestil's recent \$3 million investment in a ***powder paint finishing system*** that means its line of hoppers is coated in powder paint up to the largest, a 5-cubic-yard hopper.

This paint finishing system makes Vestil's hoppers durable, as it's the same system used by the automotive industry to finish painting cars and trucks—an industrial-grade finish. The dry colored powder is applied electrostatically and baked on to the surface of the metal to form a hard finish, Schneider says.

"It actually becomes part of the top surface of the steel, so it's a very tough finish," he adds. "Most hoppers are liquid painted, which will mean the product fades and is susceptible to rust, and it just won't last as long as a powder paint finish."

Another way Vestil aims to differentiate its offerings is by making made-to-order hoppers, Schneider notes. ***Customization*** options include ***an array of color choices*** and the inclusion of ***poly hopper lids*** and ***caster kits***.

"We really pride ourselves on doing custom manufacturing," Schneider says. "Our tagline is, 'If you can dream it, we can build it,' and we do a lot of custom quotes and orders—it's a big part of our business. Many times customers want something that's not off-the-shelf."

Vestil is also committed to maintaining a high inventory of products, Schneider says, and sources most of its components locally.

"Most of our competitors ship their hoppers in two weeks or longer, but we ship every single one of our hoppers in two business days after receipt of an order—for quantities of one or two units," he says.

What tools do you use to maximize efficiency and keep workers safe?

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