



## New Torit® PowerCore® TG Series Dust Collector is Validated

Footprint. Appearance. Performance.

**INDUSTRY:** Metalworking, welding, and laser cutting operations.

**PROBLEM:** Traditional cartridge collectors required too much floor space, looked bulky next to laser.

**SOLUTION:** Torit PowerCore TG Series dust collectors with smaller footprints and a sleek all-welded housing.

When Modern Tool, Inc., a world class manufacturer offering state-of-the-art capabilities for stamping, complex fabrications, robotic weldments, cabinetry, laser cutting, design and Pro-E, was approached to pilot Donaldson Company's new, completely packaged Torit® PowerCore® TG Series dust collectors, the Minnesota-based manufacturer didn't hesitate. A collector design tailored to the application, as well as improvements in footprint, appearance and performance offered by the new Torit PowerCore TG Series, if realized, would greatly improve the collection of thermally generated dust produced by the manufacturer's weld stations and Bystronic® laser tables.

Modern Tool was approached to pilot the PowerCore TG collector. This manufacturer, a long-time Donaldson customer, has Donaldson® Torit® Downflo® (DFT) and Downflo Oval (DFO) collectors on its various operations. While pleased with these Donaldson solutions, Jeff Nelson, Modern Tool manufacturing manager, agreed to the pilot and installed a new Torit PowerCore TG4 in the welding area and a Torit PowerCore TG6 next to the laser table. He quickly found the new dust collectors exceeded his expectations. "The Torit PowerCore TG is smaller, quieter and very user friendly," noted Nelson. "Dust ends up in the discharge container where it belongs; the inside of each collector is actually very clean, which tells me that our equipment is totally clean. We've not had to change the PowerCore Filter Packs™ yet. Very impressive."

The new Torit PowerCore TG Series includes footprints that are up to 65 percent smaller than most traditional cartridge collectors and is available in a wide range of packaged units up to 10,000 cfm. "Size and appearance are important to us," continued Nelson. "The Torit PowerCore TG collector looks like it belongs and isn't just an afterthought on the floor. Eliminating a big, bulky dust collector next to the Bystronic laser or welding machine is nice too. Our employees can work more efficiently, and maintaining the dust discharge container of the Torit PowerCore TG collector is a breeze. So much so, that our operators are volunteering to do it! This reduces our need to call on a special maintenance crew to do the job – a real savings to our bottom line."

Nelson further commented that he also has one competitor's collector on the plant floor next to a laser table. With its very large, vertically-positioned, first-stage cartridge filters, his team had to change the built-in safety monitoring filter frequently because the first-stage cartridge filters acted like a sieve,



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## TORIT® POWERCORE® TG SERIES

leaving particle dust all over the inside on the panels and around the unit, and the dust drawers were generally empty. His machines had to be shut down many times for cleaning, forcing him to fall back on a Torit Downflo collector to recover from the upset conditions.

The specific improvements at Modern Tool validate that the new Torit PowerCore TG Series of dust collectors surpasses traditional cartridge systems in performance. The Bystronic laser table at Modern Tool is used to cutting cold rolled steel with oxygen and nitrogen. The laser runs for 17 hours a day, four days a week, cutting 3/16" to 3/8" sheet metal. This type of manufacturing process produces oily and fine oxides, and, depending on the sheet metal thickness, can include various levels of dust inlet loading that can lead to significant increases in pressure drop with traditional cartridge collectors.

The Torit PowerCore TG6 does not experience this issue. Innovative PowerCore Filter Packs, in conjunction with a new state-of-the-art ZERO-Turn Power Pulse Cleaning System, recover more easily from dramatic spikes in pressure drop during pulse cleaning than do traditional cartridges. As a result, filter life is significantly increased.

Commenting on the Torit PowerCore TG4 performance, Tom Yanish, a Modern Tool production welder said, "There is a lot of discharge coming off the welder as oil burns off the metal. The Torit PowerCore TG pulls all the smoke away from me making it easier to see, and there are also less fumes to inhale. The

air quality in the entire welding department has improved tremendously since we installed the Torit PowerCore TG4. You can see that it's working because the dust collects around the hood instead of being dispelled around the room." Yanish further revealed that the inline spark cooler had to be

cleaned twice to remove dust - another sign that the Torit PowerCore TG4 was doing its job."

"I see more Torit PowerCore TG collectors in Modern Tool's future," concluded Nelson. "This is the way to go. We care about appearance. We care about performance. We care about our equipment. We look for solutions that improve our manufacturing processes while reducing operational costs. The Torit PowerCore TG collectors do all of that and offer a smaller footprint. Match this with the top-notch customer service we receive from Donaldson engineers, and it makes the new Torit PowerCore TG collector an ideal solution for Modern Tool."

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Jeff Nelson,  
Modern Tool manufacturing manager



Donaldson Company, Inc.  
Industrial Air Filtration  
P.O. Box 1299  
Minneapolis, MN  
55440-1299 U.S.A.

Tel 800-365-1331 (USA)  
Tel 800-343-3639 (within Mexico)

donaldsontorit@donaldson.com  
donaldson.com/ToritPowerCore  
donaldson.com

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