



Downflo® Oval with Ultra-Web® Cartridge Filters Help Falmer Thermal Spray Get Greener and Grow

INDUSTRY: Thermal Spray

PROBLEM: For its new facility, Falmer wanted overspray collection systems that would align with a green approach and grow with the company

SOLUTION: Two Donaldson Torit Downflo Oval dust collectors with Ultra-Web filters



Falmer's new state-of-the-art spray booths (below) are ducted outside the building into a (1) Donaldson Torit cyclone pre-cleaner, (2) then into Downflo Oval (DFO) dust collector, and (3) finally through a HEPA filter. Lower emissions = greener operation.



When Stacy Ames, president of 50-year-old Falmer Thermal Spray moved to a new facility in Salem MA to increase capacity, create a greener manufacturing process and streamline production, she wanted state-of-the art equipment that would help the company meet her 5-year growth plan. She chose Donaldson® Torit® Downflo® Oval (DFO) dust collectors with Ultra-Web® cartridge filters.

Thermal spray processes use a heat source, like electric arc spray, plasma or flame spray, to melt metallic or nonmetallic materials and propel them onto a substrate. Managing the overspray in the spray booth is challenging because the particulate is very small—typically less than a micron in size -- and is not captured by ordinary filters.

Donaldson Torit Ultra-Web cartridge filters have a layer of nanofibers that capture particles in the submicron sizes down to 0.3 µm. The nanofiber layer also enables surface-loading, so the self-cleaning compressed air pulse of the DFO dust collector is able to clean the filters effectively—keeping pressure drop low over the life of the filter and extending filter life.

“We took the time to engineer the dust collection systems right,” Stacy said. “They must accommodate our needs now and through our business expansion. We are known for our agility in terms of fast delivery and varying quantities and didn’t want to lose that during this growth phase. The Donaldson Torit Downflo dust collection systems have everything we need: longer filter life, lower energy usage, and reliable operation enabling us to minimize maintenance downtime and cope with the varying costs of energy.”

Project Statistics

Dust Collector	Donaldson Torit Downflo Oval
Filters	Ultra-Web
Airflow	4800 CFM
Pre-Cleaner	Cyclone with rotary valve (into drum)
Post-Filter	HEPA with TBI-15 fan
Location	Outdoors
Safety Option	Explosion Vents

14_UW_ThermalSpray_Falmer

Donaldson
Torit®

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

Tel 800.365.1331
donaldson@donaldson.com
www.donaldson.com
www.ultrawebeisalwaysbetter.com

