

Collector Adds Teeth to Mist Mitigation Strategy



CHALLENGE

Donaldson Torit® WSO Mist Collector significantly reduced the amount of smoke in the plant, maintenance time, and cost.

How many gear hobbers does it take to fill a 24,000-square-foot room with smoke in less than 20 minutes? Just one.

United Gear & Assembly, Inc. (UGA) manufactures gears and shafts for motors, generators, transmissions, and drive trains used by OEM manufacturers worldwide. Pieces include custom gear and shaft products designed to meet rigid specifications. The company's manufacturing plant in Hudson, Wisconsin, needed to reduce the amount of smoke generated from its hobbers during the gear production process.

Hobbing is a multi-point machining

process in which gear teeth are progressively generated by a series of cuts with a helical cutting tool called a hob. Gear hobbing uses sulfuric oil, which can create a lot of smoke. Even dry hobbing, which cuts down on the amount of oil used, still generates excessive smoke when the gears are cleaned with compressed air.

"We run a lot of short jobs right now, which include 300-5,000 parts per month per machine," said Tom Huppert, in charge of maintenance at United Gear & Assembly, Inc. "The sulfuric oil used in our gear hobbers was generating too much smoke — our facility was filling up in just a few minutes. And while our dry hobbers use less oil, they also generated a lot of smoke. Our people were complaining, and we needed a way to stop it."

SOLUTION

Donaldson Torit WSO Mist Collector significantly reduced the amount of smoke in the plant, maintenance time, and cost.

UGA achieved immediate success when it installed its first Donaldson Torit WSO Mist Collector. The WSO provides filter solutions for the three mist categories: water-soluble coolants, straight oil, and the most challenging — oily smoke. It can be configured to meet specific facility requirement, including machine mount, stand mount for a single machine, and ducted cellular and central systems.

“We mounted a WSO-15 right on our gear hobber and it did the trick,” continued Huppert. “We had tried other collectors. They vibrated too loudly, their filters had to be changed too often — which added to our cost — or parts and service were not immediately available to us. The Donaldson WSOs have met our expectations in all levels of performance.”

The WSO uses revolutionary Synteq XP™ media, which blends small and large fibers with a proprietary, resin-free bonding system that provides high efficiency, low operating pressure and long filter life when compared to traditional filters.

“The WSO mist collector has been running for two years and we’ve only had to change the filter once,” said Huppert. “For the amount of smoke our hoppers generate, that’s better than we expected.”



Both our maintenance time and cost have been significantly reduced, and our employees are no longer complaining about the smoke in our facility.”

Today, UGA has six Donaldson Torit WSO mist collectors and plans to add more.

COLLECTING CONFIDENCE

Call us at **1-800-365-1331** or visit **donaldson.com**



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