

# CASE STUDY

SILICA FINES AND FLAKES



## DESICCANT DUST CAUSES THIRST FOR FARR GOLD SERIES® SOLUTION

### PRODUCT

<b>Product</b>	Farr Gold Series® Dust Collector
<b>Model</b>	GS32 Designed for 18,000 CFM
<b>Application</b>	Silica Fines and Flakes
<b>Customer</b>	Munters, Inc. - Amesbury, MA

### CHALLENGE

Munters is the world's leading manufacturer of desiccant based dehumidification systems for the HVAC industry. You may be familiar with desiccant as the small packets of drying agent often found packed with moisture sensitive items. Munters constructs large wheels of silica, often four to six feet in diameter and a foot thick. In a typical system, the wheel turns in an air handler where moist, humid air is blown through one half of the wheel while dry, hot air is blown through the other half, providing dehumidification without refrigeration. The process

of cutting and machining these silica "wheels" produces lots of silica dust that looks similar to paper trim, but is more brittle and abrasive. Strips from 1/4" to 1" wide as well as fine dust (one to three micron) must be collected.

The customer's existing baghouse/cyclone system had problems, including clogging in the discharge. Kevin Flynn of Ventilation Control Products was called in to evaluate the system and its poor performance.

### SOLUTION

Kevin determined that it was not just the rotary air locks and duct work that needed fixing, as the customer had speculated. Following his investigation and a dust sample analysis in the Camfil APC test lab, he proposed a single Farr Gold Series dust collector to replace the failing baghouse/cyclone combo. It turned out to be a very competitive situation against DISA (Norfab), who was pushing their baghouse. However, Munters was willing to spend the extra money to go with Camfil APC, thanks primarily to the unique FGS system that Kevin sized up and sold. The photo above shows the inlet side of the dust collector with 24" and 14" inlet ducts with low velocity transitions to

the GS32 inlet. A programmable logic controller (PLC) was wired to a 60HP fan with variable frequency drive and auto blast gates. The PLC switches the system automatically when they stop running one process or the other. DISA was going to use two separate fans. Camfil APC wide-pleat PWS cartridges with overbags keep larger pieces from wedging between pleats. An on-site, hands-on demonstration of the Farr Gold Series' features and benefits was also instrumental in securing the order, thanks to a FGS Trailer. The FGS system has been running successfully since April 2004, and Munters is happy with its operation.