



## FARR GOLD SERIES AND HEMIPLEAT CLEAN UP THE COMPETITION

### PRODUCT

<b>Product</b>	Farr Gold Series Industrial Dust and Fume Collector
<b>Model</b>	GS40
<b>Application</b>	Graphite Dust
<b>Customer</b>	Tri-Gemini — Hillside, IL
<b>Installation Date</b>	January 2008

### CHALLENGE

Tri-Gemini is a graphite machining facility, supplying consumables for the Sinker EDM (electrical discharge machining) industry. “We supply bulk graphite and graphite electrodes made to order,” stated Tony Mucha, co-owner of Tri-Gemini with Linda Radtke. “We’re primarily a custom machine shop for graphite electrodes directed toward the end-user.”

Their processes utilize many various types of equipment including saws, grinders, sanders, CNC Turning Centers, and CNC Milling Machines, creating large amounts of dust. “When you machine graphite material, the dust particles can be as small as one micron,” added Mucha. “We have our employees to think about.”

“All of our machines use dust collection,” he continued. “In an older building, we had a central baghouse dust collector. It was wholly inadequate; there was always a dust film of graphite on everything. Building a new facility, we knew that we weren’t going to use the same equipment. A dust collection system has to be able to handle such small particles.”



▲ The completed Farr Gold Series GS40 installed at Tri-Gemini.

Tri-Gemini looked for new systems to put in place for their graphite dust problem and came across the Farr Gold Series. “What impressed us,” noted Mucha, “was the amount of engineering that goes into it. Other companies that we went to — to their engineering department — couldn’t fit our needs.”

## SOLUTION

“What we needed to do is keep the dust collection system inside the building,” Mucha mentioned. “It made no sense to keep it outside and have the air returned into the building at 95 degrees (Fahrenheit) during the summer. We have an air-conditioned building.”

Another company that offered a unit to Tri-Gemini wanted to cut a hole in their ceiling and house a section of their dust collector outside of the building. Tri-Gemini didn't want to do that. Camfil APC had a better solution. “We have 18-foot tall ceilings and Camfil APC was able to size a unit to fit that restraint. Typically, the dust that's collected is put into 55-gallon drums,” explained Mucha, “Our unit is a bit different. We wanted to put the dust in giant bags — supersacks — able to hold about 1,500 to 1,800 pounds of dust. Camfil APC engineered an angled auger system to work with the Farr Gold Series.”

A Farr Gold Series dust collection unit was installed at the Hillside, Illinois facility. Camfil APC was able to easily manage the height restraints with the addition of the custom auger system. Also installed were 40 HemiPleat® Gold Cone filters. After the air is filtered through the Farr Gold Series, the air passes through a secondary filtering system with 24 additional filters so the air can be released back into the building.

“We also had a great ductwork engineer from Chicago Blow Pipe Co. who designed the entire ductwork system and checked every collection point to make sure we had no blind spots at any of our 35 machines,” said Mucha. “The system works very well. From the engineering of the ductwork to the collection system, it's extraordinary.”

“We've had this collector for over 6 years,” he added. “We've only ever had to wipe down our machine — which are white — once. We've had our graphite suppliers come into the shop and be amazed about the cleanliness of the shop. We still have the original filters in place that were installed with the unit.”

For more information for this application, contact Summit Filtration at (414) 302-9991.



▲ The custom bag and auger system, able to hold over 1,500 lbs. of dust.



▲ The secondary filter system and exhaust.