



**FARR APC**  
*Air Pollution Control*

Case Study

## Gold Series Prescribed for Pharmaceutical Dust

**Product:** Gold Series  
**Size:** (1) GS10, (2) GS4's & (1) GS16  
**Application:** Pharmaceutical Ventilation  
**Customer:** Niro Pharma Systems - Columbia, MD  
**Representative:** Fairbrother & Associates, Inc.



### Challenge

Niro Pharma Systems is a pharmaceutical service company offering engineering and system solutions for powder and liquid processing. The company is known for innovative processing equipment for drying, granulation, agglomeration, evaporation, filtration, homogenization, packaging, power handling, tableting, mixing, containment, and dry condensing. Niro has incorporated Farr dust collection equipment as part of their solution packages in several cases over the years. As the pharmaceutical market becomes increasingly competitive, companies have become more secretive with their processes, making it challenging to analyze an application when a dust collector is needed. In 2001, Niro contacted Farr rep Gary Fairbrother of Fairbrother & Associates, Inc. about a new project for a pharmaceutical company in Puerto Rico. A specification from the end user listed dust collection requirements and general conditions, but was vague regarding the application.

### Solution

Gary quoted the specified baghouse, but raised questions about the application. As expected, the end user was initially reluctant to share any information about their proprietary process. However, Gary's persistence resulted in additional information which helped him make more appropriate equipment selection and recommendations.

He learned that the dust collector would be installed downstream of a dryer to "polish the air" before discharging to atmosphere. In other words, it would be the final stage of ventilation in a process, which indicated that dust loading would be low. The collector would be installed at a facility very close to the ocean, so corrosion from high humidity was a concern. Gary promoted the cartridge collector concept and recommended a Gold Series model GS10 for the specified 7,076 CFM in lieu of a baghouse. Dura-pleat Gold Cone cartridges were recommended to ensure good dust release in the humid and potentially sticky conditions at an air-to-cloth ratio of 3.5:1.

Niro's customer liked the modular construction, powder paint, pulsing system, and versatile options of the Gold Series. They bought the GS unit, specifying a single hopper, modified inlet and explosion vent as well. Following that shipment in June 2001, they purchased two GS4's in October and December of 2001 to handle 2,000 CFM each at 2.5:1. In October 2002, they purchased a GS16 to handle 8,700 CFM at 2.7:1. Some of these units have been specially rated up to -50" s.p. to handle extensive duct work. An open quote for a GS8 is expected to become an order in September 2004. A bag-in/bag-out system is an important part of the spec.

As mentioned, pharmaceutical applications can be challenging due to limited information. Gary's advice: "Cover all your bases, ask lots of questions, address temperatures, be familiar with bag-in bag-out and the flowability of materials. Some powders are potentially explosive so be familiar with explosion venting and when to apply it. Also, be flexible with cartridge selection."

*For further information, contact Gary Fairbrother of Fairbrother & Associates, Inc. at 410-828-8484.*