FARR APC
Air Pollution Control

HEMIPLEAT™ Case Study

Hemipleat™ Breathes New Life into Horizontal Collector

Product:	**Farr Hemipleat™ Cartridge Filter Retrofits**
Size:	**Designed to fit AAF® Optiflo® Dust Collector Handling 2,000 CFM**
Application:	**Paint Blasting**
Customer:	**Goens Brothers - Gladstone, MO**
Representative:	**W.D. Patterson Co, Inc.**

Challenge

Goens Brothers Painting Contractors had a large contract to help refurbish the old Jackson County Missouri Courthouse in downtown Kansas City. This involved the removal of existing metal window frames and transporting them to their facility where the frames are sandblasted, primed, then repainted. Unfortunately, their AAF dust collector was plugging up every 2 to 3 days, causing them to remove and clean the filters by hand to reduce the pressure drop, which typically exceeded 10" w.c.

Goens bought the collector unused from the original owner. Since they didn't buy the system directly from AAF, they did not have much information on it as far as operation and preventative maintenance. After receiving no support from AAF, they contacted W.D. Patterson Company, Farr's sales representative in Kansas City, MO, for help. Wendel Patterson challenged Farr to provide long-life cartridges to fit the AAF Optiflo 2RC8 collector. The unit held 8 horizontal cartridge filters, 2 to a row in 4 rows.

Solution

Farr decided to make the requested retrofit cartridges using the new Hemipleat™ media technology. The Hemipleat media pack would provide critical uniform pleat spacing, ensuring that all of the media be utilized for filtration and effectively cleaned with the reverse-pulse system. Eight horizontal-style cartridges were fabricated with the hot-melt separation beads on the downstream side of the media packs, then shipped to Goens.

The system performance was greatly improved, providing seven days of intermittent service (48 hours combined) before unknown factors took effect. Wendel and Farr project engineer Tim Hudson visited the Goens facility to validate the cartridge test results and analyze the system further. They found that the AAF door gaskets had taken a compression set, which was permitting bypass leaks between the doors and the cartridges. This allowed dust to get inside the cartridges, pass through the clean air plenum and plug up the secondary bank of safety filters. Goens was also displeased with AAF's horizontal cartridge installation design, which typically resulted in dust cakes forming on top of the filters. This prompted removal and rotation the cartridges, making them susceptible to damage from the extra handling. Wendel and Tim concluded their visit by offering helpful recommendations for system peak performance including careful pressure drop monitoring and prevention of foreign objects entering the collector. Farr then sent Goens a new set of Hemipleat filters with separation beads on both sides of the media, and customized to compensate for the door gasketing. A new set of after filters was also provided.

Wendel reports that the system in now running fine with the new Farr Hemipleats and that Goens Brothers is pleased with the Farr cartridges as well as the service from all parties involved.

For further information regarding this application, contact Wendel Patterson of W.D. Patterson Co., Inc. at 816-842-2790.

FARR APC • 3505 Airport Road • Jonesboro, AR 72401 • Phone: 870-933-8048 • Fax: 870-933-8381 • www.farrapc.com
Additional APC offices and factories in Laval, Canada (450-629-3030), and Birmingham, England (44-121-707-8211)