

Pennsylvania Asphalt Plant Improves Performance Using New Plattco Innovations.

Attempting to move fine (200 mesh), hot (300° F), and abrasive material from an asphalt plant baghouse into a dust silo can wreak havoc on the valves installed to do the job. And if they fail, it can wreak havoc on your operations. It can be a challenge even for a high-end double flap airlock valve.

Rich Halliday, Jr., asphalt plant superintendent at Wilkes-Barre Materials, L.L.C. in Northeastern Pennsylvania, knows what a challenge it can be. He also knows that his valve partner, Plattco Corporation, can deliver the problem-solving technical expertise and new product innovations to keep his maintenance costs low and uptime high.

The Wilkes-Barre Materials plant, a 4-ton batch plant with three 300-ton silos, uses two Plattco S8-Series Double Flap Airlock® Valves with a Dutchman in between to move sandstone dust into the silo. The Plattco S8-1275 valves have been equipped with Plattco's patented Mechanical Shaft Seal (MSS) and patent-pending EZ Seat replaceable wear edge, two new features that address operational challenges facing asphalt plants.

According to Halliday, before the MSS and EZ Seat product enhancements were available, his team needed to perform maintenance on the S8-Series valves every month or two to make sure the seals didn't leak. "There was a lot of wear on the valves because the material is so abrasive," Halliday said. "We were changing the seats and flapper three or four times a year and it was a fairly time consuming operation."

During a visit to the plant by two Plattco representatives, Halliday explained the situation and asked if there was something that could be done to reduce the frequency of maintenance procedures and the time it took to complete each procedure.



“ The Plattco team provided us with a minimal cost, minimal maintenance solution. ”

Rich Halliday, JR, Asphalt Plant Superintendent, Wilkes-Barre Materials, L.L.C., Wilkes-Barre, PA

facts at a glance:

⇒ Company:	Wilkes-Barre Materials, LLC
⇒ Location:	Wilkes-Barre, PA
⇒ Industry:	Asphalt
⇒ Capacity:	4-ton batch plant
⇒ Employees:	15

Plattco products:

- Two Plattco Double Flap Airlock® S8-1275 valves with Mechanical Shaft Seal and EZ Seat replaceable wear edge, and a Dutchman in between.

Plattco engineered a new patented valve feature

In response to Halliday's request, Plattco engineers began designing two new features to help Wilkes-Barre Materials and any other plant that needs to convey abrasive materials like stone dust, sand, fly ash, cement, lime and gypsum at high speeds under high pressure.

One of the design projects culminated in the development of the new patented Plattco Mechanical Shaft Seal. The MSS was awarded a US patent for an innovative design that incorporates the shaft bearing into the valve housing as a self-contained cartridge. The new design requires no maintenance so asphalt plants like Wilkes-Barre Materials can avoid shutting down their baghouse operations to perform preventive or corrective valve maintenance.

For Wilkes-Barre Materials, the MSS has made a tremendous difference in the efficiency of operations. "We first installed the new shaft seals in the S8 valves in 2010 and since we've reduced our maintenance costs, reduced overtime labor and reduced our down time," Halliday said.

Halliday is equally appreciative of Plattco's new EZ Seat, which dramatically simplifies and streamlines maintenance on both the S8 valves like those at his plant, as well as Plattco's H-Series Premiere valve. The EZ Seat, which is patent pending, enables one maintenance worker at Wilkes-Barre Materials to replace the wear edge on the S8-Series valve in just 10 minutes. The same task formerly took more than an hour.

Plattco delivered minimal cost, minimal maintenance solution

This time savings is possible because the new EZ Seat is a light weight wear edge for the S8-Series and H-Series Plattco valves that makes it possible to avoid removing and replacing the entire wear component. On the S8-Series valve, the Wilkes-Barre Materials maintenance employee only has to change a six pound part that bolts onto the valve, instead of a part that weighs more than 30 pounds.

EZ Seat also helps the user achieve a tighter seal, in part because it can be produced using a new elastomer that can flex around the particles being conveyed or PlattAlloy, Plattco's special wear-resistant metal developed for conveying abrasive materials in high temperature systems.

"Plattco and their engineers worked with us trying different products to solve our wear and maintenance issues," Halliday said. "The Plattco team provided us with a minimal cost, minimal maintenance solution."

Business Benefits

- Reduce costs
- Reduce maintenance time
- Greater plant uptime
- Reduced record keeping

About Plattco

Plattco Corporation is the recognized leader for valves that solve material handling problems in a wide variety of industries. Plattco specializes in the design and manufacture of Double Flap Airlock® Valves and associated multi-purpose slide gates. Plattco is an integrated manufacturer with engineering capabilities, a pattern shop, foundry and machine shop at its facilities in Plattsburgh, NY. Plattco invented the double flap material handling valve in 1960 and has established a proven record of innovation. Plattco was the first to install double flap airlock valves on the windbox at iron ore mines and on the clinker coolers at cement plants. Founded in 1897, Plattco began as a gray iron foundry, producing drainage castings, stock valves and other machined castings for the paper, mining and other regional industries. Plattco is employee owned.



Plattco
Corporation
founded in 1897

Plattco Corporation
7 White Street
Plattsburgh, NY USA 12901

tel: 800.352.1731
intl calls: 518.563.4640

email: info@plattco.com
www.plattco.com