



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Self Adjusting Skirting

INDUSTRY: Bulk Transportation & Coal Handling

LOCATION: Mt. Vernon Transfer Terminal
Mt. Vernon, Indiana



The Mt. Vernon Transfer Terminal is located on the Ohio River near Evansville, Indiana.



Available with rubber strips up to 300 feet (91 m) long, Martin® Self Adjusting Skirting provides a continuous joint-free seal.



Martin® Self Adjusting Skirting works on conveyors with as little as 1.25 inches (32 mm) of free belt space outside the steel chute.

PROBLEM

Located on the Ohio River, the Mt. Vernon Transfer Terminal moves approximately 1.8 million tons of coal annually from trucks or railcars to barges for shipment to power plants.

But excessive spillage from this underground belt below the railcar dumper increased cleanup costs and maintenance headaches. This conveyor is 84 inch (2083 mm) wide with an operating speed of 150 fpm (0.8 m/sec).

SOLUTION

Mounted on pressure arms that let the sealing strip float on the belt, Martin® Self Adjusting Skirting adjusts to maintain an effective seal despite fluctuations in belt travel or wear in the sealing strip.

To prevent leaks of material at a joint between sealing strips, Martin® Self Adjusting Skirting is available in rubber strips up to 300 feet (91 m) in length, to provide a continuous joint-free seal. This allowed the terminal's feeder belt to be effectively sealed along its full 96-foot (29-m) length using only one rubber strip per side.

The 48-inch (1219 mm) section of Martin® Self Adjusting Skirting Clamp Assembly allows rapid installation. A crew of four installed nearly 200 feet of skirting—96 feet (9 meters) of skirting on each side of the conveyor—in less than five hours, not counting removal of previous system.

The new six-inch (152 mm) height of Martin® Self Adjusting Skirting assembly made it easier to install the sealing in the close quarters around the belt feeder.

RESULTS

According to Jeff Hayden, coal handling manager at the Mt. Vernon Transfer Terminal, the installation of Martin® Self Adjusting Skirting significantly reduced the amount of cleanup around the conveyor.

“We went from shoveling twenty wheelbarrows of material out of the tunnel after unloading a train, to removing just one wheelbarrow load of material.”

Martin® Self Adjusting Skirting is protected by U.S. Patent No. 6,557,697; 5,816,388.

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