



VORTEX 2-WAY WYE LINE DIVERTER HANDLING CLAY

Customer: Rubber Roofing Manufacturer

Material: Kaolin Clay Powder

Application: Railcar Unloading System

Challenge: Replace manual switching operation with pneumatically operated diverter valves capable of sealing fine powder

Valve: Vortex 2-Way Wye Line Diverter
DA5-2SSY-MG-SM1

Results:

With the customer's railcar unloading operation, the pneumatic railcars were pressurized with a PD blower to convey the clay powder to one of two storage silos. A manual switching operation was required to route material to another silo.



In addition to increasing efficiency of operation, the customer also desired flexibility in the routing of material to alternate locations within the facility. Specifically, the ability to convey to either the storage silos or directly into day bins located inside the plant from the railcar unloading system.

Kaolin clay is a common application for Vortex Wye Line Diverter valves. Due to the outdoor installation, the standard nylon pressure plates were replaced with PET combined with an electropolished stainless steel blade (-SM1). Magnetic reed switches were selected for position indication and a magnetic ring was added to the air cylinder for use with the magnetic reed switches (-MG).

The Wye Line Diverter valves have been installed for several years and have required virtually no maintenance. The valves not only increased efficiency, but allowed the customer to accommodate expansion by simply adding additional diverter valves.

Currently, the customer is evaluating the replacement of butterfly shut-off valves with straight line Wye Line Diverter valves to reduce the obstruction in the unloading line and increase unloading rates.