



## VORTEX TRUCK ROLLER GATE HANDLING VARIOUS DRY MATERIALS

- Customer:** Manufacturer of dry bulk trailers
- Material:** Various dry materials
- Application:** Gravity flow discharge on over-the-road dry bulk trailers
- Challenge:** Design and manufacture a lightweight, compact gate able to support heavy material, maintain a dust tight seal, with pneumatic actuator protected from road conditions (rocks, trash, road salt)
- Valve:** Vortex Truck Roller Gate Model TG-30

**Results:**

In mid-January 2008, Vortex received a quote request for a very interesting slide gate. A national manufacturer was seeking a supplier of a 30" discharge gate for a new line of dry bulk trailers being developed. The company had contacted other valve manufacturers; however, none were comfortable addressing the stringent valve requirements.

Vortex engineers offered a solution and developed a valve prototype based on the Vortex Roller Gate. Two pneumatic air cylinders were enclosed within a stainless steel body to offer protection from potential damage in an over-the-road environment. The gate features seal access ports that allow worn bonnet seals to be replaced without having to remove the valve from the installation. A special service inlet was installed to protect the valve internals from material flow abrasion.

The prototype valve more than met the required criteria. The company was impressed with the gate design features and initially ordered valves for four prototype units. During R&D of the new trailer, the valves successfully handled pebble lime, sand, mill scale, fiberglass slag, and conditional fly ash.

Company engineers were impressed with the performance of the Vortex gate and it is the standard valve for their new product.

