



VORTEX DIVERTERS HANDLING SILICA SAND

- Customer: Industrial Mineral Producer
- Material: Silica Sand
- Application: Divert material handled to four truck load out hoppers
- Challenge: Provide a quality diverter valve that will offer excellent life-cycle costs for this abrasive application
- Valves: Vortex Aggregate Diverter
BDEC12-2CS-SL-45-HB
- Vortex 3-Way Seal Tite Diverter
ZEC12-3CS-45-KS-AR

Results:

For this application, graded sand is conveyed to the top of a large silo by means of a bucket elevator. From the silo, sand moves through a sampler and then is directed to four individual hoppers for truck load out. The customer utilized two different Vortex diverter valves (stacked together) to accomplish the diverting process.

The top diverter is a 12" Vortex Aggregate Diverter. It is a "bucket style" diverter valve utilizing an internal bucket to divert material to either of two destinations. For this application, the bucket assembly was modified with a replaceable honeycomb wear liner (-HB). The honeycomb fills up with material and retains it. Sand, flowing through the diverter, impacts upon itself rather than abrading away the internal bucket assembly. The off leg directs sand to one of the four load-out hoppers. The straight leg directs material into the next diverter.

The bottom diverter is a 12" Vortex 3-way Seal Tite Gravity Diverter. This model is a flapper style diverter – utilizing dual flappers to divert material to any of three destinations (fulfilling the supply needs of the remaining three load-out hoppers). The patented Vortex design protects the leading edge of each flapper from material flow. This valve is equipped with abrasion resistant steel flappers (AR) and a Kryptane blade seal (-KS).

Both diverters offer front-mounted, removable access panels. The panels allow internal inspection of the diverter or future maintenance without having to remove either diverter from place. The modifications, combined with the access panel feature, contribute to the excellent life cycle costs the customer has realized from these two Vortex diverter valves.

