



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Inertial Flow™ Transfer

INDUSTRY: Coal

LOCATION: Superior Midwest Energy Terminal Superior, Wisconsin



The performance of the Martin® Inertial Flow™ Transfer is helping Superior Midwest Energy Terminal maintain efficient operations.



Minimizing the plugging problem has been a positive aspect of the engineered chutes and has helped Superior operate at peak efficiency.

PROBLEM

Superior Midwest Energy had little opportunity for maintenance and equipment changes due to its continuous loading schedule. The plant was running into constant plugged chutes, leading to spillage and a lot of man-hours spent on cleanup.

SOLUTION

Martin Engineering designed custom-engineered chutes specifically to suit the needs of Superior Midwest Energy.

RESULTS

Martin® Inertial Flow™ Transfer Chutes have minimized previous problems with plugging. In addition to solving the plugging problem, the engineered chutes have reduced maintenance and extended conveyor belt life. Inside each chute, a hood controls the flow of coal from the discharging conveyor, maintaining a coherent material stream and minimizing induced air. At the bottom, a smooth-transfer loading chute or spoon directs the material stream onto the receiving belt at the proper speed and angle, minimizing impact, material degradation, belt abrasion and expulsion of airborne dust. This smooth transfer reduces abrasive wear on the receiving belt and prevents the air currents that create and drive off airborne dust. The performance of the Martin® Inertial Flow™ Transfer is helping Superior Midwest Energy Terminal maintain efficient operations and reliable supply. Director of Terminal Operations, Marshall Elder said "the flow-engineered technology provides obvious advantages. I don't know why any new facility design would incorporate anything else."