



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Conveyor Guards

INDUSTRY: Mining

LOCATION: Taconite Mine in the Upper Midwest US

PROBLEM

The mine handles over 300 tons of crushed taconite per hour. Course ore was continuously falling off of the belt, creating a safety hazard for the mine and putting its workers in danger. Adding to the safety concern, the material spillage created the need for cleanup which is a dangerous maintenance task to perform. According to MSHA, 42% of the conveyor accidents that occurred in mines from 1996-2000 took place while performing maintenance and lubricating or checking the conveyor. 39% of the reported injuries (including 3 fatalities) occurred while cleaning or shoveling around the conveyors. Safety was not the only aspect of the mine being affected, the cost of material loss and cleanup was affecting the profitability and productivity.

SOLUTION

The mine decided to equip their conveyor with Martin® Conveyor Guards. Simple to install, the conveyor guards can be removed and reinstalled quickly by using wedge clamps. Locking tags are included for extra security. Designed to be universal, guards are available in several sizes and can be used in a variety of combinations to fit almost any application. Custom guarding design is also available. This versatility made it easy for the mine to use conveyor guards to prevent the ore from falling off the belt, solving their safety and efficiency problems. The rugged modular design is self supporting and installs on supplied angle iron structure, not the conveyor structure.

RESULTS

Martin® Conveyor Guards prevented material from falling off the belt, drastically reducing the need for cleanup and creating a safer work environment. The mine also incurred less cleanup and material loss expenses. The plant coordinator is very happy with the results. In fact, the mine has budgeted for the other eleven conveyors to have Martin® Conveyor Guards installed in the near future.



Martin® Conveyor Guards prevent material from spilling off the belt.



Wedge clamps allow the conveyor guards to be removed and reinstalled quickly without the use of tools.



By eliminating material from falling off the belt, the plant decreased cleanup tasks and expenses.