



# PROBLEM SOLVED™ PAPER

**SOLUTION:** Martin® Conveyor Products

**INDUSTRY:** Mining

**LOCATION:** Mazapil, Zacatecas, Mexico

## PROBLEM

A mine in north central Mexico was experiencing dangerous spillage at the loading zone of its tower mounted conveyor transporting raw gold, silver, zinc oxide, copper, lead, molybdenum and sulfides. Despite installing equipment from a previous supplier, workers found that dust filled the tower and chunks of raw material 2-3 inches (51-76 mm) in diameter spilled from the transfer chute onto the stairs, partially blocking access to the area and creating a potential workplace hazard. Twice a month operations had to be disrupted for 12-24 hours, so that a 4 to 5 person team could clean spillage and return it to the cargo flow. Cleanup and downtime raised the cost of operation and lowered efficiency.

## SOLUTION

After conducting a Walk the Belt™ assessment of the system, Martin technicians drafted a total solution plan. It addressed all aspects of the bulk handling process for properly guiding the cargo through the transfer chute, centering the material using impact and slider cradles and containing potential spillage throughout the settling zone. The plan also included chute skirts and dust bags, alignment along the entire path and belt cleaning at the discharge zone. Designed with innovative safety features and ease of maintenance in mind, the entire system of Martin components works to deliver a comprehensive bulk handling solution that reduces spillage, promotes system health and creates a safer workplace.

## RESULTS

Following installation, fugitive material was significantly reduced and spillage no longer blocks access to the area. The air around the transfer point and throughout the tower is much clearer. "We no longer need to allocate staff for cleaning during scheduled shutdowns," said an operational manager. "We're very happy with the work done by Martin Engineering." The customer cited the expert service, a thorough understanding of the mine's needs and the quality of the equipment for choosing Martin, and intends to continue the relationship.



*A mine in north central Mexico was experiencing dangerous spillage at the loading zone of its tower mounted conveyor.*



*Martin Engineering drafted a total solution plan that addressed all of their concerns, reducing spillage and safety.*