



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Belt Sealing, Belt Support & Tail Protection

INDUSTRY: Cement

LOCATION: Cement Plant in Texas, USA

PROBLEM

Handling around 336,000 tons of Limestone, the plant was experiencing major problems with dust and material spillage on their crusher discharge belt coming from the quarry. This required clean up with a bobcat at a minimum of once every week. It was also causing belt support idlers to become engulfed in material, causing premature failure and belt wear due to idlers freezing up. The plant estimated this problem was costing \$5,000 per month in labor and equipment costs.



Wear Liner creates a dam to shield the sealing system from the weight of the material load, prolonging the life of the seal.

SOLUTION

Martin removed the old system and discovered the chute walls were not straight and that pieces of metal and wear liner had been scabbed in over the years, creating a "wave" when you looked down the conveyor. After cutting out all of the scabbed metal work and welding in new pieces of chute wall, Martin installed internal chute wall supports. Once it was straightened out, Martin added metal to the chute walls to fill the gap between the chute wall and belt face. External wear liners was then installed to prevent material from spilling out of the conveyor. Martin also recommended a Heavy Duty V-Plow to protect the tail pulley. Three sets of idlers were also added to better support the belt through the load zone.



The addition of the external wear liner provided effective sealing.

RESULTS

Positive results were immediately noticed. Dust was not blowing out of the apron seal and no spillage was observed. Martin has made several visits to the plant over the past few months and all of the plant feedback has been great. It is still performing just as it was when installed. The plant has commented that they would like to make the same upgrades to several other conveyors throughout the plant.



Martin® Trac-Mount™ Idlers utilize sliding frames that will fit in tight spaces allowing for easy installation and service.