



PROBLEM SOLVED™ PAPER

SOLUTION: Martin® Self Adjusting Skirting

INDUSTRY: Mining

LOCATION: Morton Salt
Grand River, Ohio



Martin® Self Adjusting Skirting is installed on a conveyor at Morton Salt in Grand River, Ohio.



Martin® Self Adjusting Skirting is suitable for use on conveyors with as little as 1.25 inches (32mm) of space on each side of the belt.

PROBLEM

Plant management was looking to upgrade skirtboard sealing systems. The existing "slab rubber" skirting was in bad repair and leaking material.

With less than two inches (51 mm) of free belt area on each side of the loading zone, the conveyor had very limited amount of space available for installation of a sealing system.

SOLUTION

Martin® Self Adjusting Skirting floats on the belt, adjusting automatically to maintain an effective seal without maintenance. The skirting is supported on pressure arms between two steel plates, the rubber sealing strip rises and falls with fluctuations in belt travel to automatically maintain an effective seal.

With the lowest belt edge requirement of any commercial skirtboard sealing system, the **Martin® Self Adjusting Skirting** will fit on any belt. It provides an effective seal on conveyors with as little as 1.25 inches (32 mm) of free area on each side of the belt.

Given the corrosive nature of the application, the Martin Engineering proposal originally called for **Martin® Self Adjusting Skirting** with all stainless steel components. However, customer budget limitation required adjustment of the proposal.

To alleviate the concerns about corrosion of moving parts and budget, a hybrid version of the **Martin® Self Adjusting Skirting** was developed. This version uses stainless steel pins and hardware at pivot points. Other components are mild steel and painted to provide corrosion resistance similar to the conveyor's idler frames.

RESULTS

Martin Engineering provided "Personalized Performance" by tailoring the **Martin® Self Adjusting Skirting** to provide improved corrosion resistance while remaining within the customer's budget.

Installation was simple and straight forward; installation required less time than other skirting systems. Sealing performance has improved over time, as the belt-to-rubber seal has "worn in" after installation.

The customer has indicated plans to standardize use of the **Martin® Self Adjusting Skirting** on all conveyors as time and budget allow.

Martin® Self Adjusting Skirting is protected by U.S. Patent Nos. 6,557,697;5,816,388.

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