

90° Potash Mine Transfer

Industry

Potash Mining

Application

1-on-1, 90° Underground Mine Transfer

Material

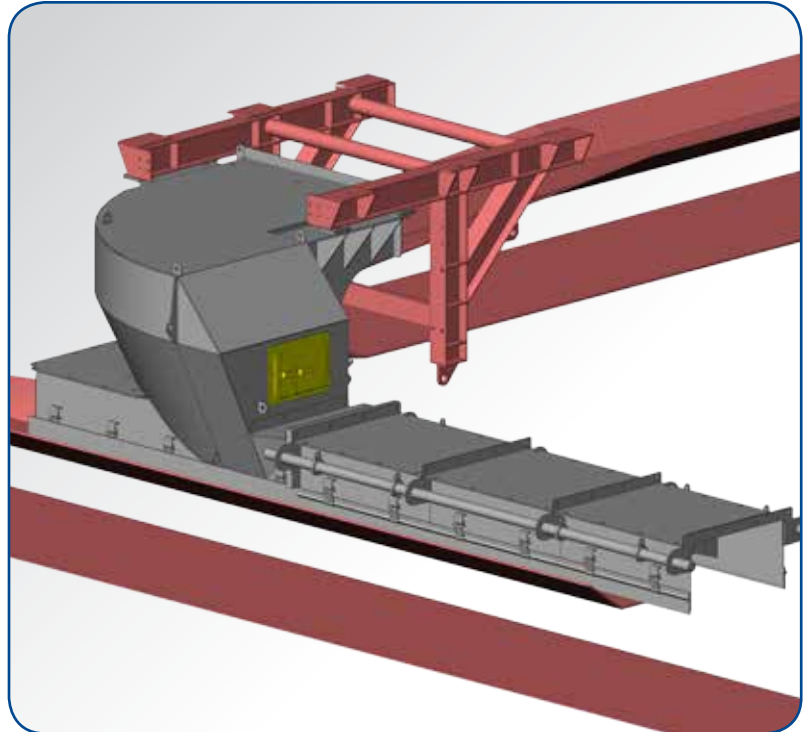
Potash Ore

Objective

- Handle increased conveyor capacities
- Improve housekeeping and safety by reducing material spillage
- Reduce dust generation

Transfer Detail

The chute handles potash ore from 1,000 to 3,000 tph on 48" belts. The chute transfers material 90° with a 4.5' drop height.



Challenge

After experiencing increased demand at the mine, the existing transfer chutes were having difficulties with the increased material being conveyed. Specific problems included frequent plugging of the transfers and issues with spillage and dust generation.



Flexco Solution

In an effort to better understand challenges faced by the customer, Flexco modeled the existing installation. The evaluation revealed that the root cause of the problems was a slowdown of potash through the transfer.

By analyzing the material flow, Flexco Flowpath Engineers were able to optimize the transfer point with an engineered system that redirects the material and center loads it onto the receiving belt at the full CEMA capacity of the belts.

Result

Since installing the Flexco chute, the customer is able to handle the maximum capacity on a continuous basis, along with normal surges. Plugging has been virtually eliminated and spillage and dust generation has been greatly reduced. Mine safety and productivity have been significantly improved.