

Product Splitter – Train Unloader

Industry

Coal-Fired Electric Power

Application

Feed belt from the rail car dumper with 12.2m of drop to feed either a stack out belt or a plant feed belt.

Material

Powder River Basin Coal

Objective

- Reliable switching between the two stack out and plant feed belts
- Improve housekeeping and safety by reducing material spillage
- Reduce dust generation
- Provide a long lasting low maintenance wear liner system

Transfer Detail

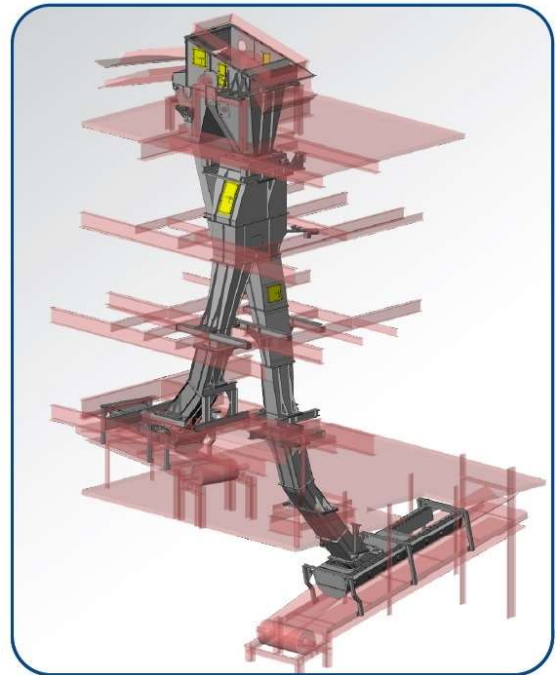
Feed belt is a 1.5m wide 2,200 tph system dropping about 12.2m to a 1.1m wide plant feeder belt or a 1.5m wide stack out belt.

Challenge

The old chute work at a coal-fired electric power plant required a high level of maintenance due to wear from uncontrolled material flow. The existing flap gate required routine cleaning and maintenance because moving components were in the material stream. Housekeeping and dust mitigation were also major concerns.

Tasman Warajay Solution

The engineers designed and fabricated a 1-on-2 Transfer Chute with Tasman Warajay Technology® which included 90% alumina ceramic tile wear liners to handle the abrasive wear of the coal.



Result

This system has been in operation for several years with no maintenance required on the liners. The bucket diverter has provided trouble free switching to the system largely because there are no moving parts in the coal stream. This facility is spending very minimal time maintaining the transfer chute and cleaning up dust and spilled material around it. This provides for efficient and cost effective operations without costly interruptions.