

Ship Loading Various Capacity And Speed Transfer Chutes

Industry

Coal export terminal

Application

1-on-1 ship loader transfer designed to deliver material to a slewing boom conveyor

Material

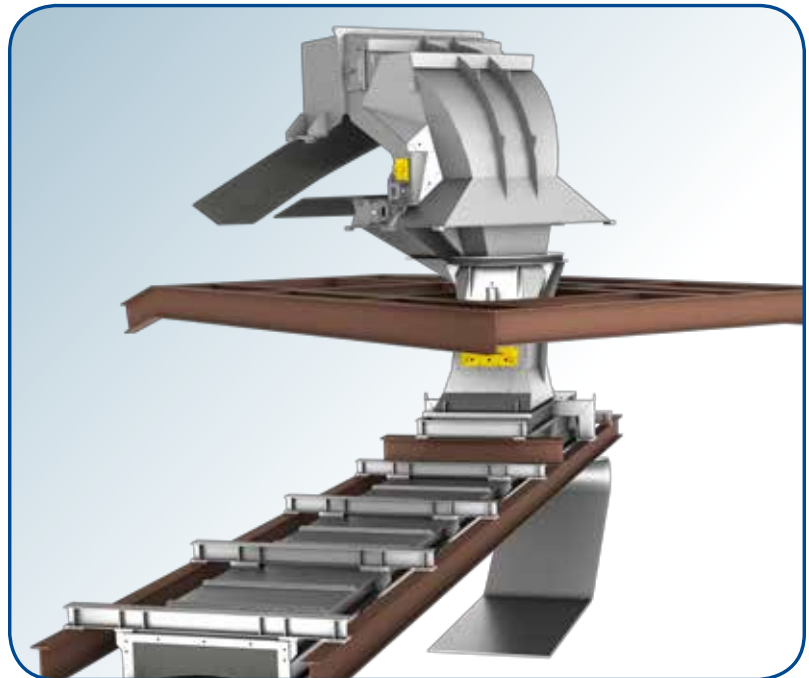
Product Coal

Objective

To upgrade the transfer chute system with increased and various capacity and speed in order to transfer material from a fixed conveyor to a slewing 90-degree boom conveyor

Transfer Detail

1-on-1 transfer chute system with inlet hood, lower fines chute, and outlet skirts on 1800 mm and 1600 mm conveyors



Challenge

As part of a terminal capacity upgrade, this transfer was required to increase capacity to 8000tph using the same conveyors at approximately double their original speed. The 1800mm wide feed conveyor runs at 8.5m/s and the receiving conveyor at 9.1m/s. Additionally, the transfer must be capable of running at various speeds and capacities.



Flexco Solution

Flexco designed a complete solution for the ship loader system that controlled the various speeds and capacities of flow through the entire slew range of motion. In addition to the full-controlled flow, the cleaner fines are captured and fed back in to the boom conveyor. All joints were sealed to minimize airborne dust and spillage.

When transferring material to the slewing boom conveyor, the material is launched from the feed conveyor, collected and

controlled, and then soft loaded onto the receiving slewing boom conveyor. Skirts are then designed to accommodate emergency stop conditions and potential spillage of coal in the waters.

Result

The customer now has a upgraded transfer system with high capacity and high-speed ability yielding good production and minimum environmental impact including dust, noise, and spillage.