

ALTA

Raw Material Size Reduction

A steady performance and reliability of long-distance belt conveyor transportation depends among others on the size of transported material particles. If coal or overburden is excavated by shovel excavators with large volume shovels or by bucket-wheel loaders with large volume buckets, it is necessary to reduce the material size before it is loaded on the conveyor. Crushers are used in opencast mines for this purpose.



The crusher design results from its purpose, characteristics of the crushed material, requested capacity, input and output particles size. Due to the high transport capacity of the long-distance belt conveyors, the crushers that have proved the best for primary crushing of coal and especially overburden layers are double-roll crushers with toothed rolls. They have good permeability even for materials with hard partings and they do not easily overload by sticky materials.

Application method for continuous excavating technology:

The material passes from loading boom of the bucket-wheel excavator through the crusher on the belt conveyor.

Crusher capacity:
5 000 m³/h or 10 000 m³/h
Input size: up to 1200 mm
Output size: 400 mm
Weight: 180 tons



Application method for cyclic-and-continuous excavating technology:

The material is loaded by a shovel excavator into a receiving hopper of a mobile crusher and passes onto the belt conveyor through a discharging boom.

The material is loaded by high-capacity dumpers into the receiving hopper of a semi-mobile or a stationary crusher with a direct inlet to the belt conveyor.



Capacity of mobile crushers:
up to 2 500 t/h
Capacity of stationary crushers:
up to 5 000 m³/h

Input size: up to 1200 mm
Output size: 300 mm

