

Clearing of chute jams in RMHP, SP, TPP and Coke Oven areas

1. Chute jamming:

Chutes are installed in between conveyors to transfer material from one belt conveyor to another belt conveyor.

Jamming of Chutes occurs primarily due to the moisture content in the material being moved in the conveyors. It is observed that when the material moisture content is between 0 to 7% the jamming of chutes does not take place. Even when the moisture content is high say 13% to 40 % jamming of chutes does not take place. Maximum chute jam occurs when the material moisture is somewhere in between 6% to 12%. During this time the material exists in sticky form.

When the chutes are jammed the production/ material supply line stops, the jam need to be cleared. This leads to loss of production.

2. Solution Required:

The challenge is to design a comprehensive solution using electrical, mechanical, electro-mechanical devices and industry 4.0 tools for early detection and automate the removal of jamming of the chutes.