

High Temperature Oven Conveyor Restart

Procedure for Restart after Prolonged Shutdown

Due to the recent COVID-19 situation, many industrial production lines and even complete plants that rely on High Temperature Oven Conveyors to produce their product. As the situation alleviates and plants and production lines begin to start back up, care needs to be taken to ensure that machinery is restarted carefully to avoid potential catastrophic failures such as, high amperage on chain drive motors causing motor failure, drive shaft breakage, chain breakage and other costly catastrophic issues.

Listed below are some best practices for oven conveyor restarts.

During normal operation of high temperature oven conveyors, residual product contaminants (wool, fibers, dust, paint, etc.) along with lubricating oil residue can adhere to the chains. When the chains are hot and the residue is soft, these contaminants can have little negative effect on the performance of the conveyors. However, when the chains are allowed to cool, the residue can become very hard, making the chains stiff and difficult to move, when the conveyor restarts.

Deep Chain Cleaning

A thorough cleaning of the chains is recommended prior to/or during the initial restart. A variety of acceptable cleaning procedures are listed below:

1. Manual cleaning with tools such as wire brushes or mini grinders
2. High pressure steam cleaning or water blasting.
3. Dry Ice blasting (can also be used during production process to clean chains).

While cleaning the chains it is highly recommended to apply copious amounts of the recommended DuBois chain lubricant to help prevent flash rusting of the chains (particularly if they are being water-blasted), as well as to reduce the amount of amperage draw on the chain drive motors required to engage the conveyor again from a cold stop. In most cases the ovens will be turned on with the temperature being brought up slowly to normal conditions. Once normal operating conditions are achieved the amount of lubricant applied and the interval between lubrication cycles can return to pre-shutdown parameters.