

# Synthetic Conveyor Belt

## Technical Bulletin



## Synthetic Conveyor Belt

### **No metal fines from sliding action**

Stainless steel belts sliding over steel or ceramic slide beds can produce fines that eventually enter the air stream and potentially are deposited in the can. The synthetic belt has Teflon coating and slides on a perforated slide bed, which produces no contamination.

### **Improve can stability**

The 4mm x 4mm mesh allows for a very even resting surface for narrow 202/204 cans. The can transfer at the end rollers is smoother since the dead plate can be positioned within 2mm of the roller.

### **Eliminate introducing foreign matters into the IBO**

IBO and Cap Cure Ovens with a cross-rod support bed, or a live roller support bed, to support the main conveyor belt require lubrication which may lead to can contamination. The synthetic belt conveyor does not require these support rollers thus eliminating the need for lubrication.

### **Potentially increase the heat of the can**

Identical ovens, operating side by side, producing identical

output, with the only difference being that one had a stainless steel belt and the other a synthetic belt, proved that the cans on the synthetic belt reached temperature faster by as much as twenty seconds.

### **Increase the cool-down rate of the can in the cooler**

Replacing the heavy steel mat eliminates the heat sink which consumes energy in the cooler, taking cooling energy away from the can. The synthetic belt does not heat up, therefore does not take away cool air, but rather allows the can to cool down at a faster rate.

### **Reduction in overall gas consumption**

Save gas consumption with the synthetic belt. Eliminating the heavy steel belt eliminates the heavy heat sink. A reduction of 85% in conveyor belt BTU is achievable.

### **Reduction in future replacement cost**

The cost to replace a worn synthetic conveyor belt is approximately 50% of the cost of a stainless steel conveyor belt.

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## One Infeed Conveyor Stand, fully assembled consists of:

- Complete frame with pre-wired electrical connections
- Live shaft idler rollers constructed from mild steel
- Belt tracking device
- Guarding
- Belt tracking sensors



## One Drive Conveyor Stand, fully assembled, consists of:

- Complete frame with pre-wired electrical connections
- Belt tension assemblies (pneumatic cylinders, pressure regulator, filter, valves, etc.)
- Live shaft drive pulley constructed from mild steel and lagged with high temperature rubber
- Drive motor and gear box
- Belt tracking sensors



## Synthetic Conveyor Belt

The existing conveyor system will be replaced with a non-metallic Synthetic Conveyor belt. The belt will ride on a perforated steel slide bed. Kevlar belt and 304 stainless steel slide bed will be used for the Dry-Off Oven.



## Abrasion Free Mild Steel Slide Bed

The belt will ride on a perforated Mild Steel Slide Bed for all IBO and Cap Cure Ovens while the Dry-Off Oven will use the 304 Stainless Steel Slide Bed. The belt will return on mild steel fixed round return pipes in all ovens.

## Optional Stainless Steel Can Guide

The can guide will be made of 304 Stainless Steel.

## Optional Synthetic Belt Welding Device

The Welding Device – only one required per plant – enables the operator to connect the belt. A Full Width welder or smaller Hand-held Welder are available.

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