

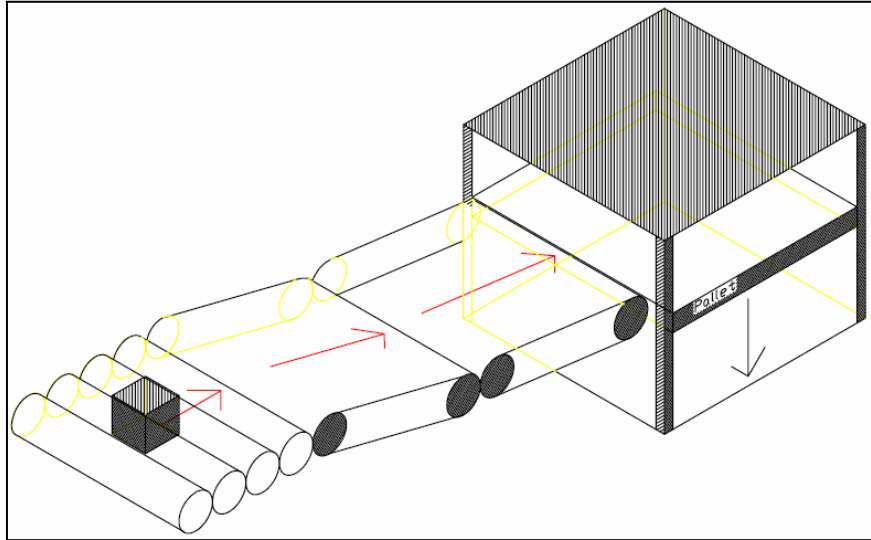
Application: Infeed to ALVEY palletizing machine in bottling plant

Data

OEM: Alvey
Environment: Indoor, ambient temperature
Product on belt: Wet crates which differ in size

Process description:

After washing, beverage crates are transported on rollers to the infeed belts of the palletizing machine. At the end of the rollers the crates drop onto the infeed belts. The infeed for the palletizing machine consists of two declining conveyor belts. The first belt has a decline of approximately 12° more than the second belt. To stack the crates the pallet in the palletizing machine starts at full height, after a layer on the pallet is filled with crates, the pallet will drop one level, so the next layer can be filled.



Belt requirements:

Good wet grip:

The belts need to have enough grip to prevent the wet crates from sliding into the palletizer.

Fluid resistant:

The belt cover and carcass needs to be resistant to the crate cleaning solution.

Abrasion resistant:

The crates are abrasive and the belt needs to hold up to the wear.

Current Belt Problem:

3-ply Black Roughtop belt

The palletizing machine is the bottleneck of the whole palletizing process. Therefore it is very important to minimize downtime. The lacing of the 3-ply Black Roughtop tears quickly due to starting and stopping of the machine, causing frequent work stoppages.

Solution:

Chemprene Blue Roughtop ZipLink belt

The Blue Roughtop ZipLink does not need lacing. This results in approximately 3 times longer belt life. Furthermore the ZipLink belt can be spliced easily. This implies a preferred less downtime in this bottleneck of the whole palletizing process.

Belt Replacement Cost Savings Analysis:			
<i>Blue Roughtop ZipLink</i>		<i>3-Ply Black Rough top</i>	
Lifetime	: 6 months	Lifetime	: 2 months
Down time (installation)	: 20 min	Downtime (installation)	: 1½ hour*
Cost of 1 hour of downtime	: \$400	Cost of 1 hour of downtime	: \$400
Downtime cost	: \$133	Downtime cost	: \$600
Belt cost	: \$722	Belt cost	: \$68
Installation labor (in House)	: <u>\$20 +</u>	Installation labor	: <u>\$90</u>
Total Cost (6 months)	: \$875	Total Cost (2 months)	: <u>\$758</u>
Total Cost (12 months)	: \$1,750	Total costs (12 months)	: \$4,548
= Yearly Savings using ZipLink: \$2,798			
* Time includes lacing of new belt done on site			

Details:

Minimum pulley diameter	: 2" (50.8mm)
Center to center distance	: 46" (1168.4m)
Belt width	: 26" (660.4mm)
Speed	: 35'/min (10.668 m/min)
Splice	: ZipLink
Support	: Roller bed
Maximum incline	: 12°
Number of belts	: 2

Remark:

In this application the belts have no knife edge, no crowning, no reverse bend, no scrapers, and are not troughed.