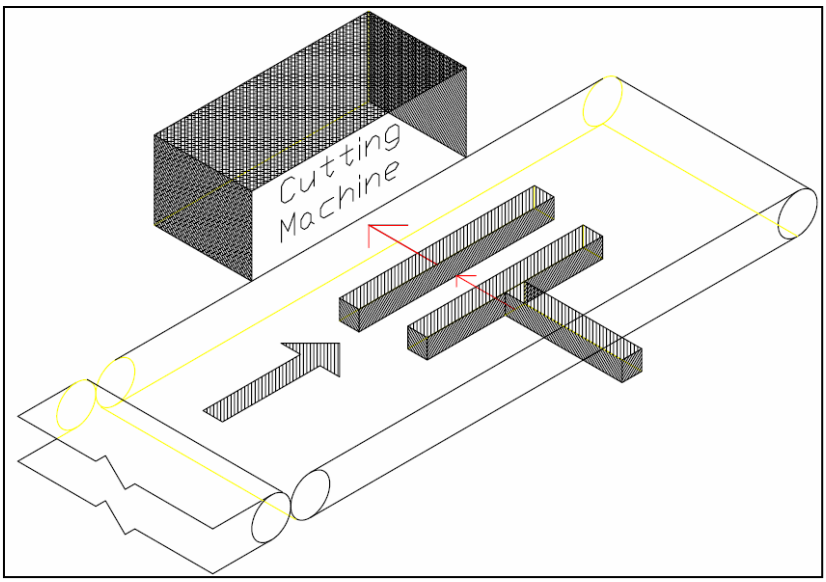
Application: Brick manufacturer

Data

OEM: Not available
Environment: Indoor, ambient temperature
Product on belt: Slugs consisting of sand and clay: 6' x 8''x 2'' (1828.8mm x 203.2mm x 50.8mm)

Process description:
A long bar (a slug) of uncured brick material, is being transported on a conveyor to the cutting machine. When the slug is at the machine, the belt stops, and the slug is pushed sideways across the belt into the machine. In the cutting machine, piano wires come down and cut the slug into bricks. The next slug entering the machine pushes the cut bricks out.



Belt requirements:

Endless:
Since the slug consists of a soft mixture of sand and clay, a mechanical lace in the belt would mark the slug, and thus, the bricks. Therefore the belt has to be endless.

Abrasion resistance and good release:
The slugs are pushed across the belt, so the belt has to release the slugs well. But the mixture of sand and clay is abrasive, so the belt cover must be abrasion resistant as well. The belt must also be cross rigid to minimize tracking problems.

Current Belt Problem:

Black PVC belt

Belt life is only six weeks. Replacement takes approximately four hours and requires an outside crew of specialists to splice the belt on the machine.

CHEMPRENE, INC. 483 Fishkill Avenue, Beacon, New York, 12508
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Solution:

Chemprene Blue Smooth ZipLink belt

The Chemprene belt lasts five months, over three times longer than the PVC belt. In addition, the ZipLink belt can be installed in 30 minutes by an in-house employee, dramatically reducing downtime and installation expense.

Belt Replacement Cost Savings Analysis:

Blue Smooth ZipLink			*Black PVC*	
Lifetime	: 5 months		Lifetime	: 6 wks
Down time (installation)	: 30 min		Downtime (installation)	: 4 hours
Cost of 1 hour of downtime	: $500		Cost of 1 hour of downtime	: $ 500
Downtime cost	: $250		Downtime cost	: $2,000
Belt cost	: $475		Belt cost	: $ 250
Installation labor (in House)	: $ 25		Installation labor	: $ 200
Total Cost (5 months)	: $750		Total Cost (6 weeks)	:$2,450
Total Cost (12 months)	: $1,800	*minus*	Total Cost (12 months)	:$20,825

= Yearly Savings using ZipLink: **$19,025**

Details:

Minimum pulley diameter	: 12'' (304.8mm)
Center to center distance	: 9' (2.7432m)
Belt width	: 16'' (406.4mm)
Speed	: 50 feet/min (15.24 m/min), with continuous start/stop
Splice	: ZipLink
Support	: Slider bed

Remark:
The speed of the belt is not important in this application, the belt starts and stops continuously. The belt does not incline nor decline, has no knife edge, no crowning, no reverse bend, no scrapers, and is not troughed.

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