

Application Success Story:

Industry: Food Processing

Product: Chocolate

Sealing Solution: Packing

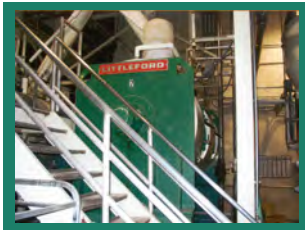


• Application Info

- Pump : Littleford Mixer FMM 4200
- Shaft Speed: 3600 RPM
- Product: Chocolate Fudge
- Temp: 140F

• Problem

- A large food processing company has been using Littleford Mixers for many years, primarily for mixing chocolate for cookies. Prior to January 2001, they were experiencing major problems with chocolate oozing out of the stuffing box around the chopper mixer shaft (rotating at 3600 rpm).
- They had been using a food-grade white braided mechanical packing with no success, and even after experimenting with other types were only able to get three weeks life out of any of them without excessive leakage.
- It appeared, in this particular application, that the sugar in the chocolate was penetrating between the shaft and the packing, causing premature wear and leakage from abrasion.
- In terms of money and manpower, spending annually:
 - Labour - \$8,160.00 (\$480.00 every three weeks)
 - Material - \$16,592.00 (\$122.00 every three weeks times eight mixers)
 - Motor shaft - \$48,000.00 (4 shafts per year per stuffing box)
 - Product loss - \$12,500.00 (approx. \$50.00/day for 250 days operation)
 - Housekeeping/safety cleanup - \$3000.00 (3 hrs/week)
 - Total - \$88,252.00!



• Solution

- On the recommendations of their local specialist, they switched over to Chesterton 1725 Food Grade Packing with a SpiralTrac Version P, Type B in 316 SS to reduce leakage and minimize shaft wear.
- Costs: \$730.00 per box for SpiralTrac, Chesterton 1725 packing, mods and labour times eight boxes. Total - \$5840.00

• Result

- On start-up, there was *zero* leakage. After three months, a visual check was made, and again *zero* leakage.
- As of January 2004, all mixers are still in continuous daily operation with *zero* leakage from any of the boxes. The company is ecstatic, and has extremely happy with the plant improvement.
- **Total costs saved over three years: \$259,276.00**
- A great indication at how little problems can cost big money without even thinking about it.

