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Case Study: Medical Grade Fabrics Equipment KLOZURE® Model 53 & ISO-GARD®

INDUSTRY
Life Sciences – Medical Fabrics & Devices

CUSTOMER
A leading manufacturer of Medical Industry clothing.

BACKGROUND
Customer is a leading manufacturer of medical based textile products, as well as various plastic and rubber parts used in different procedures within the medical industry. Products are used in Digestive, Respiratory, Pain Management and Surgical Solutions.

CHALLENGES FACED
During the manufacturing process a fluorinated co-polymer chemical treatment is applied to the fabric as it passes through various rollers. Most of the spray is concentrated on the fabric, but some over-spray and splashing reaches the side and is transferred onto the roller. This chemical compound is slightly corrosive so continued exposure affects the seals in the pillow blocks.

Because basic rubber oil seals were installed, a preventative maintenance program had to be carried out every 4 weeks, otherwise they would experience catastrophic bearing failure. Limited access and working space within the machine meant that it is difficult to perform any maintenance.

OPERATING CONDITIONS
1. Size: 7" Diameter Shaft
2. Temperature (chemical spray): Approx. 90˚F (32˚C)
3. Application: Roller Seals & Bearing Protection
4. Media: Various Alcoholic Solutions
5. Pressure: Ambient

SOLUTION AND BENEFITS
Working in partnership with our distributor it was quickly determined that both the style and configuration of existing seals was insufficient for the process conditions. Out of the 3 seals in the Pillow Block, the 2 inner seals were changed to Garlock Model 53 oil seals, and the outermost seal – critical for potential product contact - was replaced with an ISO-GARD® bearing isolator. FDA compliance and high performance under challenging conditions are fundamental characteristics of ISO-GARD® so the switch was made with a very high degree of confidence.

In the 6 months following replacement, the Garlock solution operated without problems and showed no sign of leakage or failure in continued service. The customer was able to extend their maintenance schedule, providing the opportunity to reduce downtime and maintenance costs across their 5 production lines, saving approximately US$300,000 each year.

For more information, please visit:
http://www.garlock.com

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