



KOSME Bottling Equipment

Application: O-Ring Seals in Pneumatic Cylinder

Location: Italy

Challenge

KOSME designs and manufactures a full range of bottling and beverage line equipment for filling, labelling, and stretch blow molding. The company was looking to replace an existing grease with an NSF H1 incidental food contact product to lubricate the O-ring seals of a pneumatic cylinder. The cylinder is a rotating piece of equipment that requires all seals to survive hundreds of thousands of cycles. Lubricating the O-ring seals can help protect the application from abrasion damage. The seals are made of EPDM elastomer and require good material compatibility from a lubricant. KOSME reached out to us to find a compatible grease. The lubricant needed to eliminate stick-slip friction on the cylinder and exhibit long-term elastomer life under accelerated wear testing

Solution

FLUORCARBON GEL 880FG & GLEITMO SIL 885FG are PTFE-thickened, heavy viscosity dimethyl silicone greases that are NSF H1 registered, Halal & Kosher certified, and WRAS approved. These greases offer excellent water resistance and mechanical stability under a wide temperature range

Results

The cylinders were lubricated with the FLUORCARBON GEL 880FG and GLEITMO SIL 885FG and cycled for several hundred thousand repetitions. The cylinders were evaluated for smoothness (no stick-slip) and wear on

Advantages

NSF H1 Registered, Halal & Kosher Certified

Excellent water resistance

Good material compatibility with plastics & elastomers

CASE STUDY

the seals. FLUOROCARBON GEL 880FG and GLEITMO SIL 885FG passed all test requirements, confirming the lubricants will prevent stick-slip friction and wear throughout the lifespan of the O-ring. KOSME chose to use both products to lubricate the seals. These products are now specified in for the first fill on each filling machine.