Garlock

Case Study: PS-SEAL® with GYLON® Style 3504 Food & Pharmaceutical

INDUSTRY

Food & Pharmaceutical, Chemical, O&G, Energy, Water Treatment, Paint Industry, Mining, and Ceramics Mixers

BACKGROUND

The customer is an Italian company specializing in the selection, design and construction of industrial and sanitary mixers for a wide range of liquids. In industrial processes, there is no established standard for sizing mixers for the various applications for which they are required. Each manufacturer offers its own solution based on experience. This selection philosophy aims to create the most simple, economical machine, seeking to transform the energy supplied by the drive as effectively as possible in the liquid, to achieve the mixing objective with the lowest possible consumption.

CHALLENGES FACED

The need of flexibility and a competitive production cost often is in contrast with the reliability and efficiency of mixer sealing systems. Packings cannot sustain the demanding process conditions, and mechanical seals are too complex and expensive, especially when serialization is not possible. In addition, many applications are dry running and high temperature. From the service point of view, customers require easy maintenance and replacement in the field.

OPERATING CONDITIONS

Temperature: up to 120°C (248°F)

Speed: 30 - 140 rpm

Pressure: up to 3 bar and vacuum

Produced Media: Pharmaceuticals, soft drinks, juice, tomato, etc.

SOLUTION AND BENEFITS

Through in-depth discussion and collaboration with the engineering team, the customer decided to replace mechanical seals with the Garlock PS-SEAL® in all top entry mixers. This supports the required level of compliance to industry expectations, and the modified PTFE structure provides compatibility to both chemical and mechanical demands of the application.

In addition, the customer succeeded in simplifying its design, and avoided the installation of a lubricating system even in high temperature applications.

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

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