Garlock

Case Study: ONE-UP® Diaphragm AODD Pumps

INDUSTRY

OEM - Electronic Components

BACKGROUND

An OEM of Electric Components utilized Air-Operated Double Diaphragm (AODD) pumps to process medias that contained solids. Pumping these solids or slurries introduced many challenges to their system. Proper setup and material selection are crucial for combatting these challenges.

CHALLENGES FACED

Processing ceramic slurries created challenging conditions for the OEM's pump components. Slurries' liquid portion is often chemically aggressive enough to require components made with chemically inert materials, such as PTFE. The harsh nature of slurries causes abrasive wear to many of the pump parts, including the diaphragms. Low-end skived PTFE used by most diaphragm manufacturers typically lacks the strength for these highly abrasive applications. Premature diaphragm failure often occurs as a result.

OPERATING CONDITIONS

Size: 1"

Temperature: 40˚C (104˚F)

Application: Air-Operated Double Diaphragm Pump

Media: Ceramic Slurry

Pressure: 5 bar (75 psig)

SOLUTION AND BENEFITS

The Garlock ONE-UP® Diaphragm was placed in a variety of locations throughout the OEM's plant and immediately had an immense impact on the longevity of each pump. Prior to this change, the stock OEM diaphragms (skived PTFE) were lasting about 200 hours before failure. Providing over triple the service life, the Garlock ONE-UP® Diaphragms lasted a minimum of 600 hours. The superior life cycle of the Garlock ONE-UP® Diaphragm is due to its high-quality ePTFE and robust one-piece construction.

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

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