

# Case Study: KLOZURE® - Chemical FLOOD-GARD® Bearing Isolator



## INDUSTRY

Chemical Processing

## CUSTOMER

Producer & Distributor of Caustic Soda, Caustic Potash, & Chlorine

## BACKGROUND

A chemical manufacturer had a gearbox on a mixer which leaked oil and required daily maintenance. A traditional elastomer oil seal was being used and needed to be changed on a routine basis, with no success at sealing the leak completely. A competitors bearing isolator was tried, but failed also. During a visit to the plant Garlock was challenged with offering a solution that could improve their reliability.

## CHALLENGES FACED

A gearbox shaft within one of the chemical plants 3 mixer units had developed a groove that resulted in a leak at the seal location. The seal was replaced during the plants scheduled downtime but began to leak again shortly after and was so significant that maintenance was adding oil daily. The plant believed the only way to repair the leak was to rebuild the gearbox and replace the shaft which would result in approximately \$26,000 per occurrence.

## OPERATING CONDITIONS

Size: 3.000" & 5.000" shafts

Temperature: 180°F (82°C) Max

Application: Gearbox

Media: Oil

Speed: 1750 and 411 RPMs

## SOLUTION AND BENEFITS

Garlock was able to successfully implement FLOOD-GARD® bearing isolators into the mixer unit gearboxes. FLOOD-GARD® incorporates trusted bearing isolator technology into flooded applications, allowing this seal to be installed leak free without having to replace or repair the shaft. After upgrading to FLOOD-GARD® in all three units the plant was able to report approximately \$82,000 in cost savings.

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

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