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Case Study: FLOOD-GARD®
Primary Metals

INDUSTRY
Primary Metals

CUSTOMER
A primary metals manufacturer of stainless-steel coil products.

BACKGROUND
A primary metals manufacturer had several gearboxes in their #4 Annealing/Pickling line which leaked oil and required frequent maintenance. They had tried solving the issue by replacing their lip seals with mechanical seals but saw only a marginal improvement.

CHALLENGES FACED
The customer had approximately 22 gearboxes in need of a solution. Most of the gearbox shafts were grooved from prior lip seal use, which would be costly to fix if a new solution couldn't overcome this challenge. Replacement of either a lip seal or mechanical seal was an expensive and frequent occurrence, happening at least once per quarter. To do so they would enlist an outside contractor to use a crane to remove the mating components, allowing access to the seal location. This cost a minimum of $5,000 per occurrence, excluding downtime.

OPERATING CONDITIONS
Size: 3.000" - 5.000" shaft (75mm - 140mm)
Temperature: 180°F (82°C)
Application: Gearbox
Media: Oil
Pressure: NA
Speed: 1800 RPM

SOLUTION AND BENEFITS
Garlock proposed a FLOOD-GARD® bearing isolator as the best solution. This provides the benefits of a bearing isolator and a lip seal without any of the damage traditionally associated with lip seals. FLOOD-GARD® also overcomes the prior shaft damage thus avoiding the cost of replacing the shaft. FLOOD-GARD® has now been in service for approximately 2 years with no leakage to date. The customer has committed to transitioning to FLOOD-GARD® on all remaining gearboxes and will install as outages are scheduled. The estimated cost savings for the project is $750,000. This also affords the customer the luxury of a predictable and proactive preventative maintenance program which will minimize downtime.

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

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