

Case Study: GYLON EPIX™ 3504 Steel Mill



INDUSTRY

Primary Metals

CUSTOMER

Steel Mill

BACKGROUND

10" GRE (glass reinforced epoxy) stub end flanges with a wafer type valve in between. The application consisted of two gaskets for the joint, one on either side of the valve.

CHALLENGES FACED

GRE also known as FRP (fiber reinforced plastic) are non-metallic and lack universal design criteria when it comes to gasketing. These flanges are more fragile and do not allow high bolt loads to compress and seal the gasket.

Rubber is a common solution for low load applications but it does not have the chemical resistance needed for use with highly corrosive media, such as that in a pickling process.

OPERATING CONDITIONS

Temperature - 80°C (176° F)

Application - 10" GRE (FRP) stub end flanges with loose backing flanges, two gaskets compressed by one set of bolts containing a wafer valve.

Media - 18% Hydrochloric acid in a pickling pipe system

Pressure - 4 bar (58 psig) maximum.

Installation was performed with hand wrenches, no torque wrenches were used.

SOLUTION AND BENEFITS

GYLON EPIX™ Style 3504 gaskets have outlasted any previous solution. GYLON EPIX™ is manufactured as a sheet and so was able to be cut to the shape required. The materials of GYLON EPIX™ Style 3504 are resistant to the pickling solution and the patented surface features facilitated the successful sealing of the GRE flanges.

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