

Case Study: Garlock 3760 Seals Large Pipe with Damaged Flange



INDUSTRY

Water

BACKGROUND

A water pumping facility approached Garlock seeking a reliable gasket solution for large-diameter flanges in a potable water system. The flanges were heavily rusted and damaged, creating significant sealing challenges. The customer had a history of successful projects with Garlock and trusted our expertise to deliver a solution that would meet strict potable water standards while ensuring long-term performance.

CHALLENGES FACED

The project required sealing large-diameter flanges with uneven surfaces, which made achieving a secure seal extremely difficult. Rust and surface damage compromised standard sealing methods, and access to the pipework was limited, requiring crane assistance for inspection and handling. The dismantling process was further complicated by custom-made joints, adding time pressure to an already challenging situation. Compliance with potable water gasketing requirements was essential, making material selection critical to success.

OPERATING CONDITIONS

Media: Potable water

Temperature: Low, max 40°C

Location: Outside piping

Pressure: Low

SOLUTIONS AND BENEFITS

Garlock recommended MULTI-SWELL® Style 3760 gaskets for their unique ability to compensate for uneven flange surfaces and maintain a reliable seal under low assembly stress. The gasket's controlled swelling capability was a key advantage: when exposed to water, the material expands slightly, filling in surface imperfections and irregularities. This swelling action created a tighter seal across the damaged flange, eliminating leak paths that traditional gaskets could not address. Combined with its high compressibility, MULTI-SWELL® ensured long-term sealing performance even under challenging conditions. The solution met potable water compliance requirements and allowed the project to proceed without delays, minimising downtime and ensuring system integrity for years to come.

Helping Industry Become; More Safe, More Productive, More Sustainable