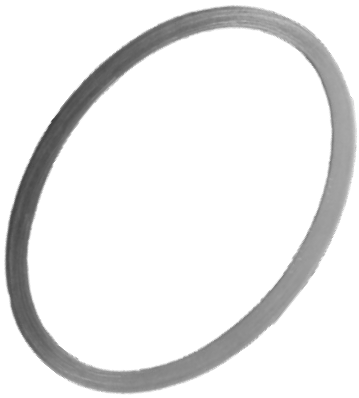
Sealing for a Safer and Greener Tomorrow

TEADIT® Alumina Refinery
CASE HISTORY

INDUSTRIAL SEGMENT
Alumina Refinery

APPLICATION
Fluid process (steam)

Equipment
Heat Exchanger



SCENARIO
Poor performance related to a heat exchanger was in turn causing a lack of efficiency in other process equipment (including the boilers). A field inspection found cracks in the exchanger's flanges and generally poor sealing from the current gasket (a spiral wound). It was determined that the flange was incapable of adequately loading the spiral wound to effectively seal. This in turn led to the flange damage when additional load was added to try to compensate for the leaking gasket.

SOLUTION
Teadit recommended switching to a Teadit camprofile style gasket which is able to seal at lower stresses than a traditional spiral wound. The flanges were repaired and machined to meet the flange sealing surface requirements for a Teadit camprofile and the new gaskets were installed to a carefully recommended torque to ensure the flanges were not damaged.

CUSTOMER GAINS
After installing the new gaskets and eliminating the leaks, the boiler efficiency increased significantly resulting in a decrease in oil consumption of nearly ¾ ton/h. This reduction generated savings of over $150,000 per month for the customer.