

Aurex Constructors

Hydraulic Torqueing

Joint integrity

Aurex Constructors has provided torqueing services for over 25 years and have built a reputation of delivering on safety and quality. We believe that our continued focus on safety and quality performance gives you peace of mind that we will deliver on time and within budget. Our expert teams offer cradle to grave joint integrity services ensuring leak free start-ups.

The cost of leaks

Integrating our bolted joint integrity program into your plant offers considerable cost savings through the early identification of joint defects when compared to the cost of reactive repairs executed on unplanned product leaks. Mitigating the risk of unplanned loss of product containment by servicing your bolted joints as per the ASME code protects your facility, employees and the environment. By collaborating with us and implementing our joint integrity programme it is possible to prevent all leaks on a plant.



Not all joints are equal

There are four categories (ASME B31.3) of joints, including category D fluid service, normal fluid service, high pressure fluid service and category M fluid service. By specifying the fluid service for each joint we can identify how much detail is required for each joint of that specific fluid service. This optimises efficiencies and ensures that critical joints receive optimal attention resulting in significant cost savings.

The standard for joint integrity

Aurex Constructors offers a team of qualified experts and joint integrity specialists. We conform to ASME PCC-01 as the basis of bolted joint specifications. We are conversant in all specifications related to piping design (ASME 31.3), flange specifications (ASME B16.47), gasket specifications (ASME B16.2), bolts and nuts (ASME B18) and the ASME Boiler and Pressure Vessel Code (ASME VIII).

Leak response

Our dedicated expert leak response teams are available 24 hours a day to diagnose leaks and assist with torqueing leaking joints or gasket replacement. We provide root cause analysis on leaking joints through inspecting the flange sealing face and gaskets. This eliminates the risk of future leaks.

Innovative technology

We have created a comprehensive Shutdown Management Tool (SMT). The SMT captures all data collected from a plant and outputs the data required to successfully manage the shutdown. Progress and technical details are recorded in the SMT and delivered in real-time using intrinsically safe computer tablets. The data is continuously updated to the project shutdown server wirelessly. The SMT catalogues, ranks and calculates the required torque values for all bolted joints.

All bolted joints have a permanent metal tag with a serial number physically attached to it on site by us for traceability to the joint's information within the SMT platform. All bolted joints identified to have defect/s are recorded on the SMT presenting a transparent, detailed history of each bolted joint and identifies where defects originated, i.e. flange, gasket or bolt.

Specialised equipment

The most up-to-date torqueing equipment is used to accurately torque bolts allowing for optimal joint stiffness. We employ a wide range of torqueing equipment to allow for all scenarios that may be identified on site, i.e. equipment or piping bolted joints. We offer low profile hydraulic torque machines that allow for access in areas with restricted space as well as high-powered hydraulic and torque machines. We cater for all nut sizes.

Quality control

Our experienced quality control department inspects each bolted joint to confirm that it meets industry specifications. Torque measurements and flange alignment data is recorded and submitted for customer approval through an agreed transmittal medium.

Collaborating with you

We collaborate with you, our valued customer, to analyse bolted joints. We gather and upload all the required data into the custom designed flange management SMT. We support your project maintenance team to identify and rectify any torque inconsistencies and bring the plant up to ASME specifications.

We champion excellence

