



## **Line Isolation and Hydrostatic Weld Testing Services**

# Safely Isolate and Test Welding Repairs

Enable efficiencies during field operations

Localized pressure testing is a means of verifying the integrity of a welded or formed joint or flange installation/weld. It is commonly utilized in conjunction with other on-site services, such as machining or line stopping.

TEAM's line isolation tools promote welder safety by isolating any upstream gases or vapor while welding repairs are affected to the pipe. During this process, the annular cavity is monitored via the tool's built-in throughport venting system that allows for any pressures to be evacuated to a safe environment.

TEAM's tools can be back pressure rated up to the burst pressure of the pipe and have a minimum standard rating of 25 psi back pressure. Once welding is completed, the same tool used for the isolation can then be pull forward to center the annular testing cavity on the new weld, which provides a mechanism to perform a localized hydrostatic weld test on the new weld. Tool sizes can accommodate pipes ranging from 0.5" to 120" and test pressures up to 5,000 psi.

In addition to our internal isolation and weld testing tools, TEAM also provides external hydrostatic nozzle testing; no longer does a vessel need to be completely filled with water to perform a traditional hydro-test on nozzle additions. TEAM's nozzle testers allow for additions to be tested externally in a safe and cost-efficient manner with a minimal amount of water. This approach can save time and money from a shutdown schedule by allowing other craft to work simultaneously inside of the vessel while testing is completed.

## Localized Hydrostatic Nozzle Testing

Traditionally, nozzle additions for existing columns, vessels, tanks or liners are tested hydrostatically by filling the entire asset with water and performing an internal hydro – a practice that covers internal pressure and applies tensile hoop stress to the weld.

But the first solution is not the only solution. TEAM also focuses on external pressure by applying compressive hoop stress to the weld. This allows us to develop a process that is a safe, efficient and a more cost effective solution for your needs.

Fully supported by the necessary calculations in order to meet the requirements of the most stringent engineering departments and authorized inspectors, TEAM's proprietary process allows for the following capabilities:

- + Simultaneous testing of the flange to nozzle weld and the full-penetration weld
- + No confined space entry required, allowing for other crafts to work simultaneously in the area
- + OD Nozzle tester replicates all of the same hydrostatic pressures and stresses of a conventional hydro-test

## One Tool, Two Applications

- + Standard tool sizes from 0.5" to 36". We can create custom capabilities up to 120"

### Line Isolation:

- + Standard tools are back-pressure rated to 25 psi. Custom tools are rated up to the burst pressure of the pipe
- + Standard tools include locking jaw, locking lug and long-stem designs for various sizing requirements
- + Tool can be utilized as a pressurated back-pressure isolation device

### Localized Weld Testing:

- + Standard tooling tests pressures to 1,150 psi
- + Custom tooling test pressures to 5,000 psi
- + Localized hydrostatic test uses minimal amounts of water and provides a high degree of accuracy and safety

**TEAM strictly adheres to AWS, API, ASME, ABS, and NACE codes, guidelines, recommendations, and specifications.**

- + Provides the ability to apply axial load to the full penetration weld
- + Reduces traditional preparation and test times associated with conventional internal hydrostatic test methods
- + Minimal water usage required; reducing disposal costs
- + Standard Outside Diameter nozzle test capabilities include 0.75" thru 36" nozzles or flange to pipe welds at pressures up to 2,500 PSIG

### Custom Applications

TEAM can also provide engineered solutions to accommodate most any isolation/weld testing requirements. Our experienced field technicians in conjunction with our in-house engineering team work with our clients to develop custom tools for unique applications. It is one of the many things that separate us from the rest.

Special applications include, but are not limited to:

- + Plain End pipe testing using Grip Tight style tools; these tools are industry proven to test service systems up to the burst pressures of the piping systems
- + Entire service system testing, including spool pieces
- + Specialty tooling to isolate through valves and hydro test valve welds through the valve body
- + Internal diameter nozzle or flange weld testing using proprietary-designed internal cap with jack bolt type compression device to hold the tool in place
- + Under-the-weld Testing – Specialized applications allow TEAM to test Flange Weld-Slip On, RFWN, Socket Weld, Lap Joint, Lens Ring, O-Ring, Tech-Lock, Grayloc and Orifice-Type flanges
- + Weld-o-lets on pipe for sample valves
- + Butt welds on pipe-to-pipe welds

All designs are backed by highly-skilled and trained personnel, making TEAM today's choice for line isolation and localized hydrostatic testing.

### TEAM can help your company:

- + Utilize equipment with a smaller footprint and for easy installation and removal
- + Provide the ability to isolate in conditions where the pipe is pitted, corroded, eroded and out of round
- + Monitor the annular area of the tool in order to verify isolation
- + Through-port any up-stream gas, vapor or pressures away to a safe environment, as well as purge through the center
- + Test additional welds in a safe and cost-effective manner



### Why TEAM?

- + Single supplier, single point of contact worldwide
- + Company-wide commitment to safety
- + Trained and certified technicians
- + Complete range of maintenance and repair services
- + Engineering, manufacturing and technical support
- + World class quality processes and systems

**TEAM experts are available 24 hours a day, 7 days a week, 365 days a year.**

Find your local contact at [TeamInc.com](http://TeamInc.com).

