



USA INDUSTRIES HELPS PIPE FABRICATION COMPANIES IMPROVE PROJECT THROUGHPUT EXECUTION & SAFETY

USA Industries helps pipe fabrication companies improve shop productivity, reduce hydrotest bottlenecks, and enhance operational safety through engineered isolation, testing, and material-control solutions. By combining advanced engineering, rapid manufacturing, custom-machined solutions, and hands-on technical support, we enable fabrication operations to accelerate production while maintaining quality, traceability, and safety performance.

Our solutions are particularly valuable for high-specification industrial fabrication programs where schedule certainty, weld integrity, and testing efficiency are critical to project success. Rather than functioning solely as a product supplier, USA Industries is a technical execution partner supporting fabrication shops throughout the production lifecycle.

- PIPE SPOOL FABRICATION
- WELD TESTING & HYDROTESTING
- NDE PREP & PREFABRICATION
- ASSEMBLY SEQUENCING
- QA/QC DOCUMENTATION
- MATERIAL HANDLING & CONTROL

WHAT SETS US APART

Our combination of in-house engineering, advanced manufacturing, custom machining, field support, and rapid-response capability allows fabrication companies to improve production efficiency while reducing operational risk.

GRIPSAFE® ST & XL HIGH PRESSURE ISOLATION & TEST PLUGS





THE CHALLENGES

KEY CHALLENGE 01

HYDROTESTING CREATES PRODUCTION BOTTLENECKS

Many fabrication shops still rely on traditional welded end caps or inefficient testing methods that consume skilled labor hours, slow production flow, increase weld rework, require additional grinding and prep, and create delays between fabrication stages.

USA Industries addresses this challenge through engineered hydrotest solutions such as the GripSafe® ST pipe plug system, which enables rapid, repeatable pipe isolation without welded test caps.

KEY OPERATIONAL ADVANTAGES

- Faster test setup and removal
- Reduced welding labor
- Elimination of cap cutting and rework
- Reduced fabrication cycle times
- Improved shop throughput

HOW IT WORKS

Our independently actuated wedge system automatically adjusts to pipe-wall conditions and increases gripping force as pressure rises, helping create secure and repeatable hydrotesting operations.



KEY CHALLENGE 02

SAFETY EXPOSURE DURING PRESSURE TESTING

Stored-energy incidents remain one of the largest operational risks within fabrication and test environments. We have engineered several safety-focused features into our hydrotest and isolation systems.

AUTO-LOCKING ENGAGEMENT

Immediate mechanical retention upon insertion, with no torque required to engage the wedges.

CONTROLLED VENTING & PURGING

EZ Vent®, EZ Purge®, and EZ Vent-Purge® blind systems standardize venting and purging procedures.

LOAD DISTRIBUTION

Engineered load distribution minimizes pipe damage during repeated test cycles.

NO WELDING REQUIRED

Eliminates hot work near test environments, reducing ignition risk and permit overhead.

WHAT THIS MEANS FOR FABRICATION COMPANIES

Reduced safety exposure, lower likelihood of testing incidents, better compliance with shop safety programs, and reduced risk of damaged fabricated pipe spools.



LABOR & ENGINEERING



KEY CHALLENGE 03

SKILLED LABOR SHORTAGES & PRODUCTIVITY PRESSURE

Fabrication companies continue facing shortages of experienced welders, fitters, and testing personnel. Every unnecessary fabrication step consumes valuable labor capacity.

HOW USA INDUSTRIES HELPS

- Eliminating unnecessary welded hydrotest caps
- Simplifying test preparation
- Standardizing installation procedures
- Reducing handling and rework
- Accelerating repetitive testing operations

The result is improved labor efficiency and greater output using existing manpower.

WELDED CAPS vs. GRIPSAFE® ST

WELDED CAPS

- x Consume skilled labor hours
- x Slow production flow
- x Increase weld rework
- x Require grinding & prep
- x Create stage delays

GRIPSAFE ST & XL

- ✓ Rapid, repeatable isolation
- ✓ No welding or cap cutting
- ✓ Auto-locking wedge
- ✓ Faster setup & removal
- ✓ Improved throughput



ENGINEERING CAPABILITY

SUPPORTING MODULAR CONSTRUCTION & PREFABRICATION

As industrial projects continue shifting toward modularization and offsite fabrication, pipe fabricators are expected to deliver pre-tested assemblies, higher quality consistency, faster production cycles, improved traceability, and reduced field rework.

CAD/CAM & 3D MODELING

Integrated design and modeling support from concept through fabrication.

LARGE-BORE & SPECIALTY ALLOYS

Large-bore systems, specialty alloys, and high-spec code piping.

FEA & VALIDATION

Finite element analysis (FEA) and precision manufacturing validation using 3D scanning technologies confirm fit and performance before parts ever reach the shop floor.

CASE STUDY - LNG / INVAR PIPING

FIRST-OF-ITS-KIND ROLLING DOUBLE BLOCK AND BLEED TESTING SYSTEM

An LNG project using INVAR piping could not rely on traditional hydrotesting because the piping material could not be exposed to moisture. USA Industries engineered a custom in-process testing system to keep production moving.

- Moved inside the pipe during production, following the automated welding system
- Allowed localized nitrogen testing
- Reduced stored-energy risk and improved production continuity





SHOP CONTROL & SUPPORT

MATERIAL CONTROL

INVENTORY & MATERIAL CONTROL FOR THE SHOP FLOOR

Fabrication operations often struggle with tooling organization, blind management, and tracking test equipment across multiple production lines or modules. USA Industries developed inventory-control systems built for the shop floor.

MOBILE BLIND RACKS

Modular storage systems that keep tooling organized and accessible.

RFID & GEO-TRACKING

Structured inventory accountability across multiple production lines.

BENEFITS

Reduce lost tooling, improve equipment availability, support QA/QC traceability, improve shop organization, and accelerate production flow.

PARTNERSHIP

TECHNICAL & FIELD SUPPORT

Beyond products, USA Industries partners with your team on the ground — ensuring every crew installs, operates, and maintains GripSafe® ST systems correctly and safely.

ONSITE
TRAINING

PRODUCT
INSPECTIONS

INSTALLATION
PROCEDURES

STANDARDIZED
USAGE
PROCEDURES

CREW
CERTIFICATIONS



- BOTTOM LINE -

MORE THROUGHPUT. FASTER TEST CYCLES. SAFER SHOPS.

USA Industries helps fabrication shops increase throughput, reduce test-cycle times, improve fabrication flow, and increase labor efficiency — all while improving safety and reducing cost.

TALK TO OUR TEAM



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