

# TRIANGLE ENGINEERING

trieng.com

Perfected through experience.



Welding Coupons | Weld Test Equipment | Engineering & Consulting

# TRUSTED BY THE WELDING INDUSTRY SINCE 1960



## MISSION & VALUES

Our mission is to provide precise, high quality materials, equipment, and training to the welding industry. We work in partnership with our customers by providing the products, services, and expert guidance they need to be successful.

With over 63 years of industry experience, we take pride in retaining loyal customers and honor our roots by combining time-earned expertise with cutting-edge innovation and technology. Whether you're a beginner or an expert, our experienced staff, comprehensive welding code library, industry knowledge, and educational resources are here to help.

## OUR HISTORY

Triangle Engineering, Inc. (TEI) is a family-owned company, founded in 1960 by Alexander Coulstring, and sons, Bob and Alec. TEI began as a precision welding and machining fabrication shop. However, by 1970, TEI identified the need to reduce the time and cost required to qualify welders, especially on large scale and fast-paced projects.

Through interpretation of welding codes, TEI established standard weld test coupon sizes in pipe and plate and began manufacturing them regularly. To expedite weld testing processes, TEI designed and patented a line of destructive test equipment for the removal, preparation and bending of weld test specimens.

Today, Triangle Engineering remains a leader in the manufacturing of weld test materials, destructive test equipment, and weld testing services.

## TOP QUALITY

Our products are produced in accordance with:

- ISO 9001:2015 Standards
- American Welding Society (AWS)
- American Petroleum Institute (API)
- American Society of Mechanical Engineers (ASME)

Industries & Organizations We Proudly Serve:

- Individuals
- Construction
- Manufacturing
- Organized Labor
- National Laboratories
- US Armed Forces
- Education & Training
- Transportation
- Power & Energy
- Aerospace



**The #1 leader in construction and maintenance.**

“Triangle is the #1 leader in the construction and maintenance industry and throughout the years, they’ve been my only recommended material supplier. If TEI is not on your Approved Suppliers List, your tool belt is incomplete.”

Paul Evans, Sr. Welding Engineer  
**CB&I**



**Excellent support, experienced staff, and quick service.**

“Triangle’s staff is technically sound and their engineering services are outstanding. In this business, it’s important to work with people you trust, and Triangle has always come through for the Bowen team.”

Andy McKerrow, Corporate Quality Manager  
**Bowen Engineering Corp.**

# WELDING COUPONS

Triangle Engineering's pipe and plate coupons are an economical alternative to making your own. All material is inspected for adherence to customer requirements and established quality standards.

## Procedure Qualification

Plate stocked in all ASME P – number base metals including:

- Steel Alloys
- Aluminum
- Copper
- Nickel
- Titanium
- Zirconium

Hard-to-find AMSE Material:

- P1 Group 1&2 / P1 Group 3
- P3 Group 1&2 / P3 Group 3

## Coupon Forms Stocked In:

- Pipe
- Plate
- Brazing
- Training
- Sheet Metal
- Backing Rings & Bar
- Customer Specific Stock

## Performance Qualification

Pipe & Plate stocked in:

- Carbon Steel
- Stainless Steel
- Aluminum
- Chrome Moly



### MONSTER Coupon

2.75" OD x .625" wall A106 Grade B

Per ASME IX qualify welder unlimited thickness and diameter 1" OD and greater! With enough thickness left to qualify a 2nd process, 1/8" GTAW!

# IMPORTANT FEATURES

## Product Details

- Plate 18GA to 2" thick
- Pipe 1/4" to 12" diameter
- In stock, ready for shipment
- Coupons heat number marked, mill test report provided
- Various bevel types available
- Machined surfaces coated with weldable rust preventative

## Value Added Service

Not sure what you need? Our expert team has decades of welding and metallurgy experience and resources. We can research your requirements and make sure you get what you need — if we don't have it, we can help find it.





# WELD TEST EQUIPMENT

Fast, accurate, code-compliant

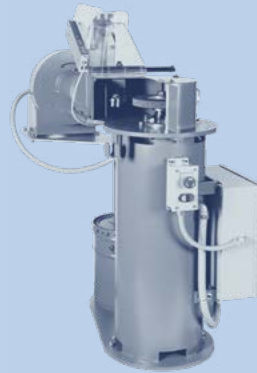
Our destructive bend testing equipment and welding stands provide industry with the means to qualify its workforce quickly, accurately and affordably. Durable, industry-proven designs provide decades of reliability.



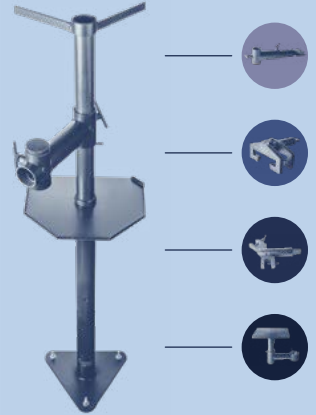
Weld Coupon  
Abrasive Cutter



Guided Bend  
Testing Machine



Backstrap Removal Tool



Weld Test Stand

## WELD TESTING

3 to 5 day standard turnaround. 24 hr turnaround available upon request. TEI offers complete weld and braze testing in accordance with welding code.

- Visual Inspection
- Guided Bend
- Tensile
- Charpy Impact
- Fillet Break
- Nick Break
- Penetrant
- Hardness
- Etching
- Magnetic Particle
- Chemical Analysis
- X-ray

### Engineering

- Welding Code Interpretation
- Welding Procedure Specification (WPS)
- Procedure Qualification Record (PQR)
- Welder Performance Qualification (WPQ)

### Consulting

Our contributions to weld procedure development for various alloys and applications has proven highly valuable to customers around the world.



## AWS QC7 Accredited Test Facility

We provide the facilities, materials, inspection and results on a mechanical test report. We also offer welding booth rentals and CWI services.





**PERFECTED  
THROUGH  
EXPERIENCE**

(781) 878-1500 ▲ [www.trieng.com](http://www.trieng.com)

6 Industrial Way  
Hanover, MA 02339