Our Mission Statement

Our Mission is to provide industry with materials, equipment and engineering services for welder testing, welder training and procedure qualification quickly, accurately and cost effectively. Our friendly, knowledgeable and professional staff's top priority is quality adherence and customer satisfaction.

History

Triangle Engineering, Inc. (TEI) is a family-owned company, founded in 1960 by Alexander Coulstring, and sons, Bob and Alec. Combining talents and experience in welding and mechanical engineering, TEI established a national reputation for supplying the welding industry with equipment and consulting for welder testing, welder training, and procedure qualification.

TEI began as a precision machining and fabrication shop performing an array of work for its customers, some notable projects included underwater research buoys for Woods Hole Oceanographic Institution, processing systems for Ocean Spray Cranberries, Inc., and ultra-high vacuum systems for NASA and the United States Air Force.

By early 1970, through experience gained serving various clients, TEI identified the need to reduce the time and cost required to qualify welders, especially on large-scale, 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 the testing of welded coupons, TEI designed, patented and began manufacturing destructive test equipment for the removal, preparation and bending of weld test straps in accordance with American Society of Mechanical Engineers (ASME), American Welding Society (AWS), American Petroleum Institute (API) and other applicable welding codes.

Today, after 55 years in business, Triangle Engineering, Inc. remains the industry leader in the manufacture of weld test materials for performance and procedure qualification. TEI’s line of destructive test equipment continues to provide an expansive customer base with the means to qualify its welding workforce quickly, accurately and cost effectively. To complement our offerings, we also provide a full range of testing services utilized by many organizations globally.

"Triangle is without a doubt the #1 leader in the construction and maintenance industry in their type of work and skills. That is the reason throughout the year, I have given them as my only recommended material supplier, and as a source for their industry tribal welding knowledge, which as we all well know is not easy to come by. If Triangle Engineering is not on your Approved Suppliers list your tool belt is incomplete and you’re not doing as well as you think.”

Paul Evans, CB&I Sr. Welding Engineer

"Triangle has continually provided our team with excellent support and service, and they’re always able to respond to even our ‘quick-turn’ needs. Weld coupons, even for specialty alloys, are always available on short notice. At Triangle, the staff is technically sound and their engineering services are outstanding. In this business it’s important to work with people you trust, and time and time again Triangle has come through for the Bowen team."

Andy McFarlane, Bowen Engineering Corp. Corporate Quality Manager

"Made in the USA"
Pipe Coupons • Plate Coupons • Brazing Coupons • Sheet Metal Coupons • Procedure Materials • Backing Bar • Backing Rings • Training Coupons • Material Management Services

Welder Qualification Materials
Carbon Steel • Stainless Steel • Aluminum • Nickel Alloy

Monster Coupon. Our 2.3/4” OD x 0.5” wall x 140” long 8-gauge coupons can save 80% labor and materials utilizing the AWS Section IX code. The Monster Coupon will qualify for unlimited thickness and diameters as small as 1” OD using two weld processes.

Weld Procedure Qualification Materials
Aluminum • Inconel • Incoloy • Bronze • Low-Med-High Alloy Steel • Duplex SS • Titanium • Mo-Moly • Cu-Moly • Hastelloy • Copper Nickel • Ferrum • Zirconium

P1 to P12 • Butt Welds – Hardfacing – Corrosion

Important Features
- Coupons are kept in stock and ready for shipment
- Material continuously striped with heat numbers
- Certified mill test reports provided with every shipment
- Material continuously coated with weldable rust preventative
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Value Added Service
- Direct shipping: our fast, efficient, and accurate shipping services saves you time and money.

Pipe capacity: 1/4” to 12” NPS
Plate capacity: up to 1-1/2” thick

Weld Test Stand
- Fast guided bend test specimen formed to action 150° in under 5 minutes
- Welding Procedure Specification (WPS)
- Welding Code Interpretation: ASME, AWS, API, ANS
cs, CSA, BS, ISO, CE, DNV, MIL-STD, NAPA, etc.
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WELD ENGINEERING & CONSULTING
TEI's welding engineering and consulting has proven highly valuable within the industry by related to the application of a wide variety of procedure qualification materials.

Welding Code Interpretation: ASME, AWS, API, ANS
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Welding Procedure Specification (AWS)
Procedure Qualification Record (PQR)

WELDER CERTIFICATION SERVICES
TEI offers certification services at our AWS Accredited Test Facility. Services include our facilities, materials, testing, and testing provided same day. We also offer welding booth rentals and CWI services.

Power • Oil & Gas • Infrastructure • Manufacturing • Construction • Education • Training & Testing

Testing results are available within 3-5 business days. Expedited services also available upon request.
- Density & Compression Testing
- Root Longitudinal Testing
- Charpy Impact Testing
- Hydrotest & Pressure Testing
- Corrosion Resistant Overlay
- Hardfacing Overlay
- Post Weld Heat Treatment
- Metallurgical Polishing
- Qualification of Electrodes
- Delta Ferrite Measurement
- Magnetic Particle
- Visual Inspection

TESTING, CERTIFICATION & ENGINEERING SERVICES
TEI operates an in-house mechanical testing lab offering complete welding, brazing and procedure qualification testing in accordance with various codes including: API, ASME, AWS, MIL-STD, NAPA, etc. Testing results are available within 3-5 business days. Expedited services also available upon request.
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- Root Longitudinal Testing
- Charpy Impact Testing
- Hydrotest & Pressure Testing
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WELDCOMP & WELDPRO, Inc. WELD ENGINEERING & CONSULTING
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