

Proven Experience.  
Certified Quality.  
Dependable Service.

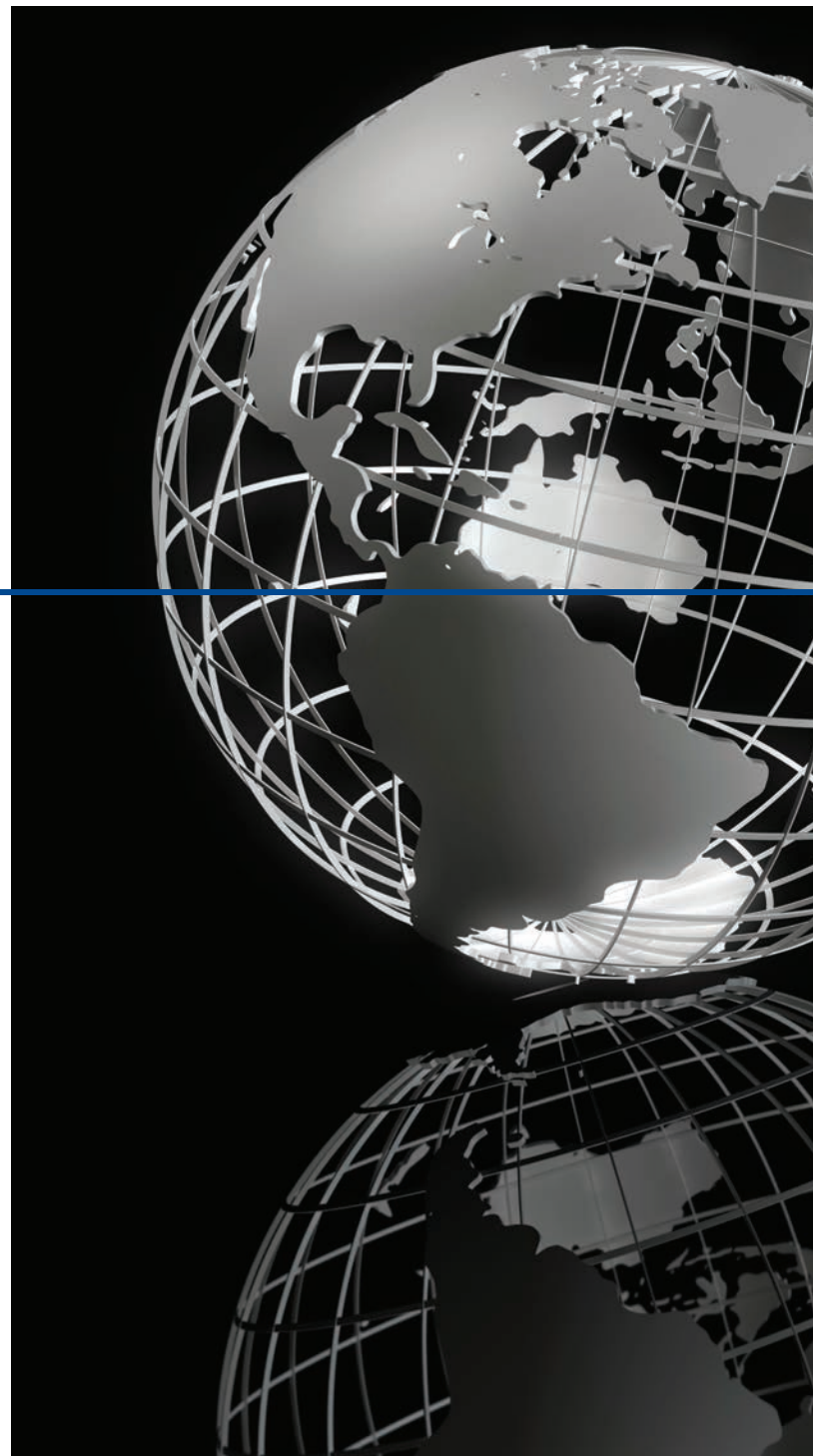


Specialty Metals Leadership.  
Supply Chain Innovation.



## The Very Best in Specialty Metals and Innovative Supply Chain Solutions Worldwide.

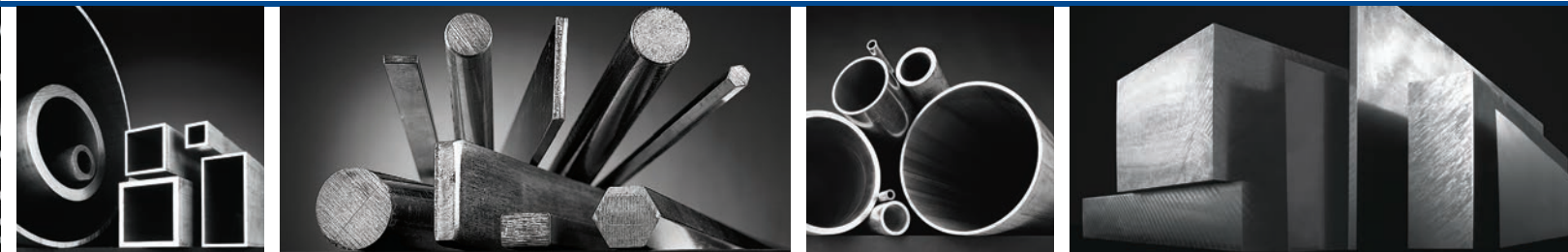
For over 100 years, customers have depended on TW Metals for the very best in specialty metals, complete processing services, timely delivery and expert service. Today, as part of the globally-recognized O'Neal Industries Family of Companies, we're also your source for innovative supply chain solutions worldwide.



## Make Us Your Source for Quality Products and Service.

As experts in specialty metals, TW Metals is the source you can count on for a unique depth of expertise, superior information management systems and proactive solutions.

And because our warehouses worldwide are streamlined to handle specialty metals, you are assured of the products you need, precisely when you need them – including pipe, tube, bar, rod, fittings and flanges, extrusions, sheet and plate in stainless, aluminum, nickel, titanium, carbon alloys and other higher value alloys.



### **A Trusted Partner**

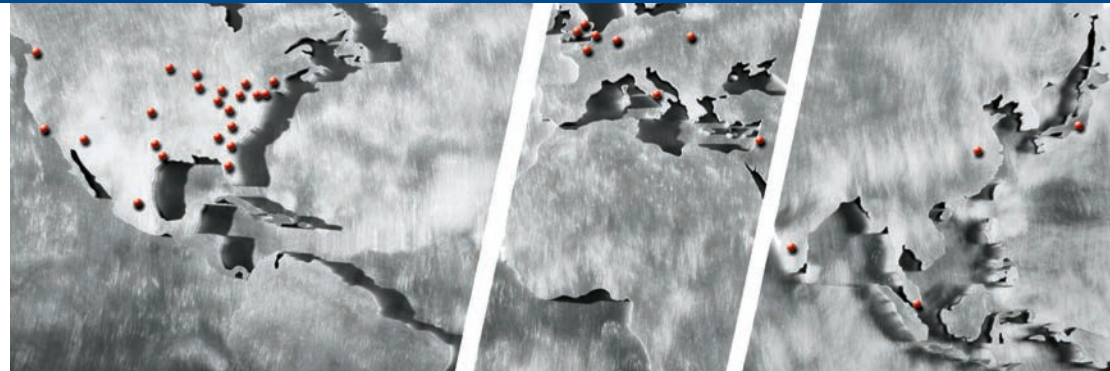
But TW Metals is more than a distributor. We are a partner you can trust for sound advice and responsive service. We will get to know your company, your applications and your specialty metals needs. Then, we will develop a customized supply chain program that satisfies those needs – while giving you the convenience of working with a single source. As a result, we can help your company achieve its production and profitability goals like never before.

### **Why Settle for Less**

In today's competitive market, you can't afford to compromise on quality, value and dependable delivery. So join the satisfied customers worldwide who rely on today's TW Metals.

**No one is better at specialty metals and supply chain innovation.**

## Standard and Specialty Products for Every Customer Worldwide.



### Complete Processing Capabilities.

TW Metals offers specialized processing facilities for all types of materials. These facilities produce accurate, straight and distortion-free components to the tolerances you require. Our processing capabilities include:

- ▶ Precision Sawing
- ▶ Automated Deburring
- ▶ Customized Packaging
- ▶ In-House Inspection
- ▶ Laser Cutting
- ▶ Lathe Tube Cutting
- ▶ Polishing
- ▶ Tube Assemblies
- ▶ Tube Shearing
- ▶ Vibratory Finishing
- ▶ Water Jet Cutting
- ▶ Cold Saw Cutting

...And many other services available.



### Certified Quality System.

TW Metals is your assurance of finished products that satisfy your most demanding performance standards. Our fully trained inspectors perform incoming and outgoing inspection using state-of-the-art equipment. TW Metals insists that our suppliers meet the highest quality standards in their industries and conducts regular inspections to ensure compliance. We also maintain test certificates to allow full material traceability, along with a library of all current international standards and customer specifications.

With an extensive inventory of standard and specialty items strategically positioned around the world, TW Metals offers unparalleled service and delivery.

- ▶ **WORLDWIDE LOCATIONS**  
 Agawam, MA  
 Atlanta, GA  
 Bangalore, India  
 Brussels, Belgium  
 Charleston, WV  
 Charlotte, NC  
 Chicago, IL  
 Cincinnati, OH  
 Cranbury, NJ  
 Dallas, TX  
 Haifa, Israel  
 Houston, TX  
 Longbridge, UK  
 Los Angeles, CA  
 Milwaukee, WI  
 Minneapolis, MN  
 Naples, Italy  
 Orlando, FL  
 Philadelphia, PA  
 Phoenix, AZ  
 Pittsburgh, PA  
 Puebla, Mexico  
 Rochester, NY  
 Rudna Mala, Poland  
 Saint Ay, France  
 Savannah, GA  
 Seattle, WA  
 Singapore  
 Southampton, UK  
 Speyer, Germany  
 Suzhou, China  
 Toledo, OH  
 Tokyo, Japan  
 Wichita, KS

## Specialized Expertise for Specialized Markets.

### ▶ Aerospace

In the high-precision world of aerospace, TW Metals has earned a global reputation for providing top quality products, complete processing services and timely delivery. We offer a unique depth of industry expertise, proactive solutions, and superior information management systems.



### ▶ Nuclear Materials Solutions

The world's leading nuclear energy providers and contractors count on TW Metals for a comprehensive product line, certified quality, an experienced sales and quality staff, with fast delivery from over 80 raw material stocking locations worldwide.



### ▶ Government Business Unit

Through integrated suppliers, our GBU offers vendor delivery to more than 500 Department of Defense customers and their allied partners, nationally and internationally. Our staff members, many of whom have military experience, have been specially trained to handle the exacting regulatory requirements and quality standards required by government customers.



### ▶ Oil and Gas

From wellhead to downhole, the oil and gas business requires quality products – and a quality provider. TW Metals is a go-to vendor for an industry that keeps our world running strong.



### ▶ Motorsports Alloys

At top speed, you want your dreams riding the very best metals you can buy. That is why motorsport customers worldwide depend on TW Metals for full processing capabilities, certified quality, nationwide inventory and competitive prices.



# The Best in Metals, Worldwide.

TW Metals carefully selects superior quality metals products from leading manufacturers. We also enjoy supply relationships with leading worldwide sources. Regardless of the manufacturer, TW Metals manages supplier qualification, order placement and delivery schedules. In addition, we coordinate with manufacturers to ensure on-time delivery.



## A Comprehensive Resource Guide

The TW Metals Resource Guide provides comprehensive information on our products and services, tailored to your industry and requirements. In this guide, you'll find general product descriptions, detailed technical data, and much more – all organized for quick access and easy referencing. To order your free copy, contact your salesperson.

### TUBING



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Aluminum Alloys	2024, 3003, 5052, 6061, 6063, 7075, Aircraft, Commercial, Construction, Structural, Mechanical, Drawn, Extruded, Ornamental, Rounds, Rectangles, Squares	Outside Diameters – 1/8" to 16" Wall Thickness' from .020" to 2.000"
Stainless Steel	303, 304, 304L, 316, 316L, 321, 347, 17-4, 15-5, Aircraft, Commercial, Heat Exchanger, Hollow Bar, Hypodermic, Instrumentation, Mechanical, Sanitary, Seamless, Welded and Drawn, As Welded, Ornamental, Round, Rectangular, Square (Mill and Polished Finish)	Outside Diameters – .031" to 12" Wall Thickness' from .004" to 2.000"
Nickel & High Performance Alloys	200, 400, 600, 601, 625, 800, 800H, 825, C276, 21-6-9, Alloy 20, Aircraft, Commercial, Seamless, Welded, 718, Waspaloy®	Outside Diameters – .031" to 7" Wall Thickness' from .007" to 1-1/2"
Titanium	CP, 3AL-2.5V, GR 2, 6AL-4V, Ducting	Outside Diameters – 1/4" to 8" Wall Thickness' from .016" to .260"
Carbon & Alloy Steel	4130, 4135, 4140, 4340, 8620, 52100, Aircraft, Mechanical, Hydraulic, ERW, Seamless, Welded, As Welded, Round, Rectangular, Square, Streamline, Structural Shapes	Outside Diameters – .125" to 12" Wall Thickness' from .020" to 3.000"

- Standard lengths Aluminum 12' • Standard lengths other than Aluminum 17/24' rls
- Purchased to Applicable industry specifications • Custom dimensional requirements available upon request

### ROD, BAR & WIRE



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Aluminum Alloys	1100, 2011, 2024, 2219, 6061, 6063, 6101, 7075	Rounds – 1/8" to 16" Hex – 1/4" to 2-3/4" Squares – 1/4" to 6" Flats – 1/8" to 5"
Stainless Steel	303, 304, 304L, 309S, 316, 316L, 321, 347, 410, 416 440C, 17-4, 15-5, 13-8, Nitronic 60, Equal & Unequal Angles	Rounds – 1/8" to 16" Hex – 1/4" to 2-1/2" Squares – 1/4" to 3" Flats – 1/8" to 3" Edge Conditioned
Nickel & High Performance Alloys	200, 400, 600, 601, 625, 718, X750, 800, 800H, 800HT, 825, C276, HX, K500, Alloy 20	Rounds – 3/16" to 11" Edge Conditioned
Titanium	6AL-4V	Rounds – 3/8" to 6-1/4"
Carbon & Alloy Steel	300M, 4130, 4140, 4150, 4340, 6150, 8620, 8740, 9310, 52100	Rounds – 1/8" to 12" Hex – 1/4" to 1-1/8"

- Custom flat bar widths and lengths available upon request • Standard lengths 12' long • Applicable industry specifications

### PIPE



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Aluminum Alloys	5083, 5086, 6061, 6063, Construction Grades, Handrail, Drawn, Extruded, Port Hole Die, Seamless, Structural, Bus	Pipe Sizes – 1/8" NPS to 12" NPS Schedules from: 10 to 80
Stainless Steel	304, 304L, 316, 316L, 2205, 321, 347, 446, Seamless, Welded, As Welded, Brewery Quality	Pipe Sizes – 1/8" NPS to 30" NPS Schedules from 5 to XXH
Nickel & High Performance Alloys	200, 400, 600, 601, 625, 800, 800H, 800HT, 825, C276, Alloy 20, Seamless, Welded	Pipe Sizes – 1/8" NPS to 8" NPS Schedules from 10 to XXH
Carbon & Alloy Steel	Black, Line, Seamless, Structural, ERW	Pipe Sizes – 1/8" NPS to 12" NPS Schedules from: 10 to 80

- Standard lengths Aluminum 24' rls • Standard lengths other than aluminum 17/24' rls
- Purchased to Applicable industry specifications

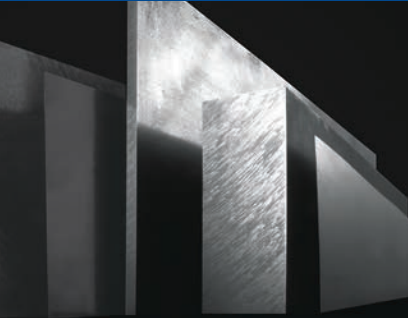
### EXTRUSIONS



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Aluminum Extrusions	1100, 2014, 2024, 5052, 5083, 5086, 6061, 6063, 7050, 7075, 7150, 7178	Aircraft Extrusions by Mfg Part Numbers, Angles, Architectural, A.N.D., H-Beams, I-Beams, Channels, Structural, Shapes, Wide Flange, Zee

- Titanium, stainless steel and alloy steel extrusions available upon request • Applicable Commercial and Aerospace industry specifications

### SHEET & PLATE



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Aluminum Alloys	2024, 2024 Alclad, 5052, 5083, 5086, 6013, 7050, 7075, 7075 Alclad, 7475	From .016" thick to 8" thick
Titanium	CP, 5AL-2.5SN, 6AL-4V, 6AL-6V-2SN	Available in standard thickness x width x length dimensions
Stainless Steel	301, 304, 304L, 316, 316L, 321, 347	From .018" thick to 2.50" thick

- Industry standard widths and lengths • PVC Coatings available upon request • Applicable industry specifications

### SPECIALITY PRODUCTS



MATERIALS	GRADES/ALLOYS	SIZE RANGES
Fittings	Stainless Steel, Aluminum, Nickel, Titanium	CryoFit™, CryoLive™, Butt Weld & Threaded, Flanges, Heads
Roll Formed Shapes	Aluminum	Aircraft Applications

- Applicable Commercial and Aerospace industry specifications

► Additional Products & Services Provided on a Customer Specific Basis.

# Specialists Who Know Your Business.

Your TW Metals representative is a professional who is backed by years of training and experience. As a result, they can provide proactive service and advice to help you succeed. We have extensive experience in a wide range of industries, including:

- ▶ Aerospace
- ▶ Agricultural Equipment
- ▶ Aircraft MRO
- ▶ Automotive
- ▶ Chemical
- ▶ Chemical Processing
- ▶ Communications Equipment
- ▶ Food/Beverage/Dairy
- ▶ Healthcare
- ▶ Instrumentation
- ▶ Lawn and Garden
- ▶ Marine
- ▶ Metal Fabricators
- ▶ Motorsports
- ▶ Nuclear
- ▶ Oil Production/Oil Tool
- ▶ Oil Refining/Petrochemical
- ▶ Original Equipment Manufacturers
- ▶ Pharmaceutical
- ▶ Pulp and Paper
- ▶ Recreation/Leisure
- ▶ Steel Making
- ▶ Utilities

This high level of industry expertise translates into cost-effective solutions that help you solve everyday production challenges.

## Web-based Ordering and Account Management.

You can order from us through a wide range of options, including an electronic data interchange (EDI), a personalized customer portal, and a retail site that allows purchases via credit card.

Through our online ordering systems, you can place and track orders, access detailed product and inventory data, and view your account history. We continuously update our site through ongoing enhancements that provide more detailed catalog descriptions and online pricing capabilities.

## Contact TW Metals, Today.

For the best in world-class materials, innovative solutions, service, and quality, make TW Metals your preferred provider. For more information or a no-obligation consultation, call today or visit our website at [twmetals.com](http://twmetals.com).

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