



MISSION-CRITICAL METAL

Advanced materials for defense applications

Expert materials from materials experts

We understand what mission-critical means—an equipment failure in the defense industry can cost lives. You need the highest quality materials that meet the most stringent specifications. Carpenter Technology has your back, delivering alloys with industry-leading strength, toughness, corrosion resistance, and high-temperature performance.

Our battle-proven metals are engineered to withstand the most extreme conditions without fatigue or fracture, resulting in increased readiness, greater operating hours, fewer field failures, and a lower total life cycle cost for your essential equipment.

Trusted specialty materials source: We've been a key supplier of high-volume, mission-ready metals for the Department of Defense and OEMs since 1889.

State-of-the-art manufacturing: In-house, start-to-finish production gives us a secure environment and precise control over the chemistry and performance of our alloys.

Quality assurance: Lab-tested and field-proven, our products meet tight specification and are manufactured under ISO 90001:2008, AS9100, and NADCAP accreditations.

Supply chain security and agile delivery: Our U.S. manufacturing facilities are supported by strategically located distribution centers across North America, Asia, and Europe.

Pioneering new materials: Our 200+ on-staff metallurgists are dedicated to developing new and customized alloys for novel applications.

Engineered for the most extreme defense applications

- Actuators
- Afterburners
- Armor
- Auxiliary power units (APUs)
- Bolts and pins
- Bushings and bearings
- Electrification advancements
- Fasteners
- Generators
- Gun barrels and firearm parts
- Landing gear
- Missile casings
- Night vision goggle components
- Ordnance and projectile parts
- Rotors and shafts
- Structural components
- Suspension systems
- Valve components

Meet the materials that serve our military

Carpenter Technology manufactures hundreds of specialty alloys to precise specifications and governmental regulations. Our metals are available in round and shaped bar, plate, strip, hollow bar, wire, and fine wire in wrought and Micro-Melt® powder metals.

HIGH STRENGTH/HIGH TOUGHNESS ALLOYS

300M / 4340 / 4330+V

AerMet® 100

AerMet® 310

AerMet® 340

HP 9-4-30 / HP 9-4-20

HY-180

HyTuf

NiMark® 250

NiMark® 300

HIGH-TEMPERATURE ALLOYS

355

718

901

909

A-286

Pyromet® 41

Pyromet® 675

Waspaloy

X-750

MAGNETIC/ELECTRONIC ALLOYS

High Permeability 49

Hiperco® 50

HyMu 80

Kovar

HIGH-STRENGTH, PRECIPITATION HARDENABLE STAINLESS ALLOYS

13Cr-8Ni

15Cr-5Ni

Custom 450® stainless

Custom 455® stainless

Custom 465® stainless

Custom 630 (17Cr-4Ni)

TITANIUM ALLOYS

Ti 3Al-2.5V

Ti 3Al-8V-6Cr-4Mo-4Zr

Ti 6Al-4V

BUSHING AND BEARING ALLOYS

ACUBE® 100

Gall-Tough® Plus

Micro-Melt® 440C

GUN COMPONENT ALLOYS

Carpenter 158

GNB200

CORROSION RESISTANT ALLOYS

MP35N®

MP159®

Ni-Cu 400

Ni-Cu 405

Ni-Cu K500



METALLURGY TO TRIUMPH

Every application presents its own set of challenges — no two conditions are the same. At Carpenter Technology, we've spent more than 135 years manufacturing specialty alloys to advance warfighter safety and effectiveness on land and sea, in air and space.

Today, we have one of the broadest ranges of specialty metal solutions available. Our metallurgists, research scientists, and engineers work closely with the defense industry's best to continually define and redefine the leading edge of materials technology. **We are uniquely qualified to help you find the alloys you need for stronger, faster, lighter, and enhanced life cycle equipment.**



Count on Carpenter Technology, your ally in alloys since 1889.

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**WE HAVE
YOUR BACK**