

# Best-in-class titanium for superior patient outcomes

Titanium is as strong as steel but 45% lighter. The use of titanium in medical applications started in the 1950s and has been widely used ever since due to its biocompatibility, corrosion resistance, strength-to-weight ratio, and lower modulus.

Carpenter Titanium by Dynamet has been a leader in the development and manufacture of high-performance titanium products for demanding medical applications from the start. Orthopedic, cardiovascular, surgical, and dental innovators have depended on us to stay on the leading edge of medical materials for more than 136 years:

- · Ultra-high strength and lightweight
- Superior biocompatibility and corrosion resistance
- · ASTM-, AMS-, and ISO-certified

Our products are used around the world in critical medical applications including hip and knee prosthetic devices, spinal device hardware, fracture fixation and IM rods, surgical staple wire and instrumentation, and dental implants and orthodontics. As bioactive implants and other medical innovations are developed, our titanium products are at the core.



## **EXPERT DEVELOPMENT**

Dedicated metallurgists, engineers, and technicians on staff

## MANUFACTURING CAPACITY

Precise dimensional accuracy with customizable mechanical properties

# **QUALITY ASSURANCE**

State-of-the-art testing approved to ISO9001 and AS9100 standards

# **ON-TIME DELIVERY**

U.S. manufacturing with secure global distribution

#### A new standard for machinability

Carpenter Titanium by Dynamet has end-to-end control of our products, from sourcing the highest quality raw metals to inhouse processing and quality testing. Because we manufacture to spec within industry-leading tight tolerances, our products integrate seamlessly with OEM production to reduce costs and increase yields:

- Precision near-net shapes and small-diameter titanium
- Manufacturing consistency with fewer steps and scrap
- No need for qualification machining of parts direct to final machining

#### Ready for the long haul

Carpenter Titanium by Dynamet provides a secure, reliable supply chain of titanium products. Our U.S. manufacturing facility is supported by a global network of distribution centers, enabling shorter mill lead times and Just-In-Time delivery service. And our capacity and capabilities are growing to keep pace with the demand for premium medical titanium. We are invested in the titanium products of today and tomorrow.

# A diverse and expanding portfolio of medical titanium alloys

- Ti 3Al-2.5V
- Ti 6Al-4V and Ti 6Al-4V ELI
- Ti 6Al-7Nb
- CP Ti Grades 1-4
- Ti 15Mo
- Ti 15Zr
- Custom alloys available

### Size capabilities

#### Bar

• 0.078–3.00 in. (1.98–76.20 mm) diameter

#### Wire

• 0.100-0.560 in. (2.54-14.22 mm) diameter

#### Fine and weld wire coil

• 0.045–0.125 in. (1.14–3.17 mm) diameter

#### Fine and weld wire spool

• 0.045–0.093 in. (1.14–2.36 mm) diameter

#### **Cut lengths**

0.030-0.125 inch (0.76-3.17 mm) diameter

# Rectangle- or square-shaped bar or wire

• Up to 3.75 in.<sup>2</sup> (95.25 mm<sup>2</sup>)

### **Product forms**



- Ground bar
- Custom tolerance bar
- Precision bar
- ULTRABAR®



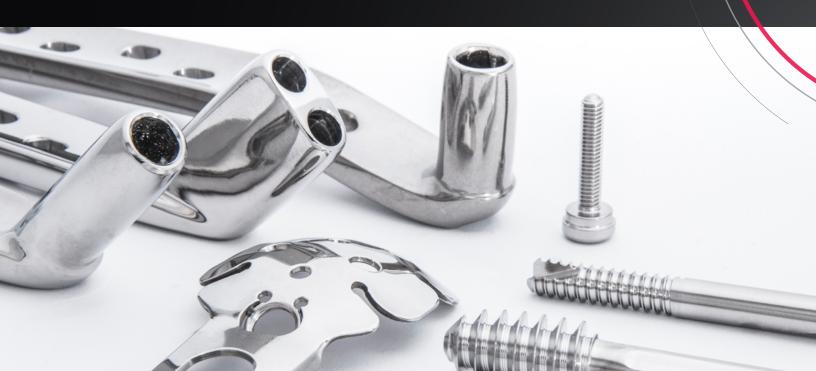
• Precision shapes



- Seam-free coil
- Lubed fastener wire
- Fine wire
- Weld wire



• Shaped wire





# Your premium medical titanium partner

Carpenter Titanium by Dynamet is a recognized leader in high-performance titanium alloy products for critical applications in the medical market.