CARPENTER®
TECHNOLOGY

SMALL DIAMETER COBALT ALLOYS

High-performance materials for less invasive surgeries and better patient outcomes

- Exceptional wear and corrosion resistance
- Ultra-high tensile strength
- Superior ductility and toughness

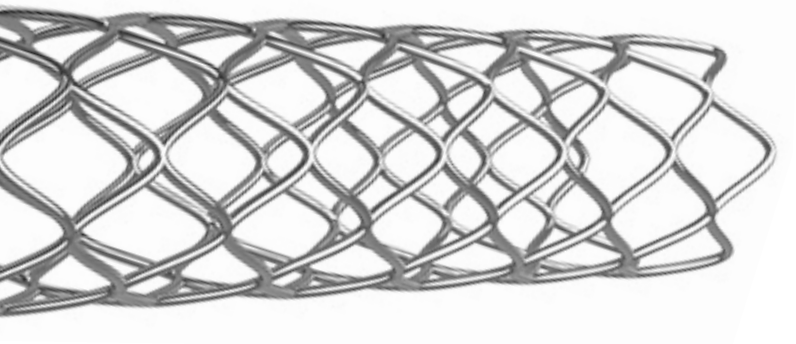
CARPENTER TECHNOLOGY

Intricate cobalt alloy forms for minimally invasive procedures

As surgical procedures advance and robotic-assisted operations become more intricate, the need for materials that enable the smallest incision site are essential for patient satisfaction. Carpenter Technology provides smaller diameter cobalt-base materials to help medical device producers meet this need, as well as increase efficiency by eliminating manufacturing steps and scrap.

BIODUR® CCM

Used extensively in orthopedic applications, our non-magnetic cobalt-chromium-molybdenum alloy exhibits high strength with corrosion and wear resistance. Biodur CCM is a high-nitrogen, low-carbon wrought version of ASTM F75 cast alloy that meets ASTM F799, ASTM F1537, ISO 5832-4, and ISO 5832-12 requirements. Bar product is available as small as 0.125 in. (3.175 mm) diameter with tight tolerances.



CONICHROME®

Applications such as vascular stents and suture wires require good ductility and stability under high fatigue. This non-magnetic, austenitic nickel-cobalt-chromium-molybdenum alloy possesses a unique combination of extremely high strength, ductility, and excellent corrosion resistance. Our cold work capabilities provide exceptionally high mechanical properties. Conichrome is available in 0.250 in. (6.35 mm) diameter bar product that meets industry specifications in both annealed and cold worked condition. In cold work and aged condition, the alloy can achieve a minimum of 250 ksi ultimate tensile strength.

IMPROVING PATIENT OUTCOMES

Whether reducing strut thickness and stent size to improve clinical performance or ensuring adequate strength for fine intravenous blades, our small diameter options deliver industry-leading performance — resulting in less invasive procedures with faster patient recoveries.

L-605

This non-magnetic, chromium-nickel-tungsten-cobalt alloy possesses good oxidation and corrosion resistance as well as good ductility and toughness for heart valves, vena cava filters, vascular stents and guide wires, orthopedic cables, and bone drill bits. L-605 conforms to ASTM F90 specification and is available in sizes down to 0.07 in. (1.778 mm) diameter.

MP35N®

Cardiology applications such as vascular stents, guide wires, arterial plaque removers, orthopedic cables, and cardiovascular leads and probes rely on this non-magnetic alloy with a unique combination of ultra-high tensile strength, good ductility, toughness, and excellent corrosion resistance. The drawability of MP35N coupled with CRS capability has enabled the production of sizes as small as 0.07 in. (1.778 mm) diameter for minimally invasive procedures. The alloy meets ASTM F 562 specification and is also available with enhanced mechanical properties (UTS up to 290 ksi for specific sizes upon request).

Patient-focused performance

CarpenterTechnology.com/Medical