Titanium Alloy Wires

High-Quality, Customizable, and Ideal for Critical Applications

At Baoji Zecheng Metal Materials Co., Ltd., we offer premium titanium alloy products that are trusted by customers worldwide across aerospace, medical, chemical, marine, and industrial sectors. With outstanding corrosion resistance, high strength, and low density, our titanium wires are the ideal choice for demanding applications where performance and reliability are essential.

Diameter:	From 0.1mm to 7mm (customizable)
Length:	Available in customized lengths as per client specifications
Shapes Available:	Coils, Straight lengths, Weld wire
Grades:	CP Titanium, Gr5 (Ti-6Al-4V), Gr7 (Ti-0.2Pd), Gr9 (Ti-3Al-2.5V), Gr12 (Ti-0.3Mo-0.8Ni), Gr23 (Ti-6Al-4
Standards:	ASTM B863 / ASTM F136 / AMS 4965 / AMS 4928

Manufacturing Process

Our advanced production process includes the following steps: Raw Material Preparation, Surface Pretreatment, Multi-pass Cold Drawing, Intermediate Annealing, Surface Treatment, Finished Product Inspection. This comprehensive process ensures that each batch meets stringent mechanical and surface finish specifications.

Technical Specifications

Physical properties
Density: Gr5: 4.43 g/cm³, CP Titanium: 4.51 g/cm³
Melting Point: 1660–1670°C
Elastic Modulus: 100–120 GPa
Thermal Conductivity: 6.7–7.5 W/m·K
Dimensions and Tolerances
Diameter Range: 0.1mm to 7mm (customizable)
Diameter Tolerance: ±0.005mm to ±0.05mm
Roundness Deviation: ≤1% (for ϕ0.5mm, roundness deviation ≤0.005mm)
Surface Roughness: Acid Pickled: Ra ≤ 3.2 μm, Polished: Ra ≤ 0.8 μm
Condition and Surface Finish
Cold-drawn, Annealed, Solution-treated; Acid-pickled, Polished, Anodized
Packaging: Export-grade wooden boxes

Quality Assurance and Inspection

Non-Destructive Testing: Eddy Current Testing, Ultrasonic Testing, X-ray Inspection
Metallurgical Examination: ASTM E112, Grain Size ≤ 5
Standards: ASTM B863/ASTM F136/AMS 4965/AMS4928
Certifications: ISO 9001 & AS9100
Traceability: Full traceability with heat number and chemical/mechanical test reports (MTC)

Applications

Welding Material: Ideal for welding titanium pipes, plates, and structural components.
3D Printing/Additive Manufacturing: Perfect for metal printing, producing complex, precision parts.
Medical Implants: Suitable for orthopedic and dental implants, or woven into scaffolds and sutures.
Weaving/Netting: For manufacturing titanium mesh, filters, springs, and small-diameter components.
Jewelry/Consumer Goods: Used for eyewear frames, fishing reels, and high-end jewelry.

Custom Titanium Wire Solutions

Zecheng Metal offers custom titanium alloy wire that meet the strictest aerospace and medical standards. Whether you need precision welding rods, implant-grade materials, or industrial-grade titanium, we provide high-quality, cost-effective solutions with prompt delivery. Contact us today to discuss your specific requirements. Our team is committed to delivering the best solutions to meet your needs.