Titanium Grade 2 | 3.7035

Titanium Grade 2 provides excellent corrosion resistance and formability.

Mechanical properties

Ultimate tensile strength	420 - 470 MPa
Yield strength	330 - 360 MPa
Young's modulus (modulus of elasticity)	105 - 110 GPa
Elongation at break	23 - 25 %
Hardness	80 - 82 HRB

Physical properties

Corrosion resistance	Excellent
Magnetism	Non-magnetic
Weldability	High

Thermal properties

Maximum service temperature	320 - 430 °C
Thermal expansion coefficent	8.6 - 9.7 10^-6/ºC
Thermal conductivity	16.4 - 22 W/(m·°C)

Electrical properties

Electrical resistivity	52 - 56 µΩ*cm

Post treatments

Post-Processing	Annealing & Cold working
Anodizing compatibility	Suitable

Common applications

Aerospace	
Marine industry	
Medical industry	

Titanium Grade 2 CNC Machining Applications & Parts

Titanium Grade 2 is the most widely used commercially pure titanium grade, offering an excellent balance of strength, ductility, and outstanding corrosion resistance. Known as the "workhorse" of titanium grades, it provides superior biocompatibility and formability. Our specialized CNC machining processes are optimized for this challenging yet versatile material.

Typical Parts We Machine from Titanium Grade 2:

- **Chemical Processing:** Heat exchangers, reactor vessels, piping systems, valve components
- **Marine Applications:** Underwater components, propeller shafts, marine hardware, desalination parts
- **Medical Devices:** Surgical instruments, implantable device components, medical equipment housings
- **Aerospace:** Airframe components, firewall shrouds, hydraulic system parts

Our Machining Advantage:

We employ low cutting speeds, high feed rates, and specialized titanium-grade tooling to effectively manage Grade 2's tendency to work-harden, ensuring precise dimensional control and excellent surface finishes while minimizing tool wear.

Get an Instant Quote for your custom Titanium Grade 2 parts today.