

# TECHNICAL DATA

## Titanium Grade 5

Twice as strong as grade 2, Titanium grade 5 fasteners offer superior strength to weight ratio: 4x stronger than 316 stainless at nearly half the weight. Grade 5 also provides outstanding protection from saltwater corrosion, virtually unaffected by both stagnant and high velocity waters. Titanium is also extremely resistant to chlorides and chlorine. Due to their biocompatibility and strength, grade 5 screws are widely used in medical and dental implants, as well as surgical instrumentation.

### Properties

Ultimate Tensile Strength	145 ksi
Yield Strength at 0.2%	138 ksi
Elongation %	14
Usable Temperature Limit	800°F / 427°C

### Chemistry & Specifications

Titanium Grade 5	Ti	Al	V	Fe	O	C	N	H
Min %	-	5.5	3.5	-	-	-	-	-
Max %	Bal	6.75	4.50	0.30	0.20	0.08	0.05	0.0150

SPECIFICATIONS: ASTM - B265, B348, B381, B861, F467 and F468, AMS - 4911, 4928, 4935, 4965 and 4967, MIL-T - 9046 and - 9047, Werkstoff 3.7165

### Key Benefits

- Excellent strength to weight ratio 4x 316 steel at half the weight
- Excellent resistance to saltwater and chlorides
- Non-toxic, biocompatible and osteointegration makes it ideal for medical use
- Non-ferromagnetic capabilities make it safe for medical imaging.

### Material Data

TITANIUM GRADE 5 - Tensile Data			
Temperature (°F)	Ultimate Tensile (ksi)	Yield Strength at 0.2% Offset (ksi)	Elongation %
Room Temp.	138	128	14
300	121	105	16
500	110	93	17
700	100	82	18

