



TITANIUM INDUSTRIES, INC.

1-888-Titanium (1-888-482-6486) • www.titanium.com • e: info@titanium.com

Rockaway, NJ
Wood Dale, IL
Cleveland, OH
Santa Fe Springs, CA
Jacksonville, FL

fx: (973) 983-2573
fx: (630) 860-2877
fx: (216) 459-9074
fx: (562) 906-8198
fx: (904) 288-0074

Tolland, CT
Montreal, Canada
Birmingham, UK
Hillsboro, TX
Taipei, Taiwan

fx: (860) 872-0343
fx: (514) 334-4280
fx: 44 121 788 3362
fx: (254) 582-3450
fx: 886 2 2747 882



MEDICAL

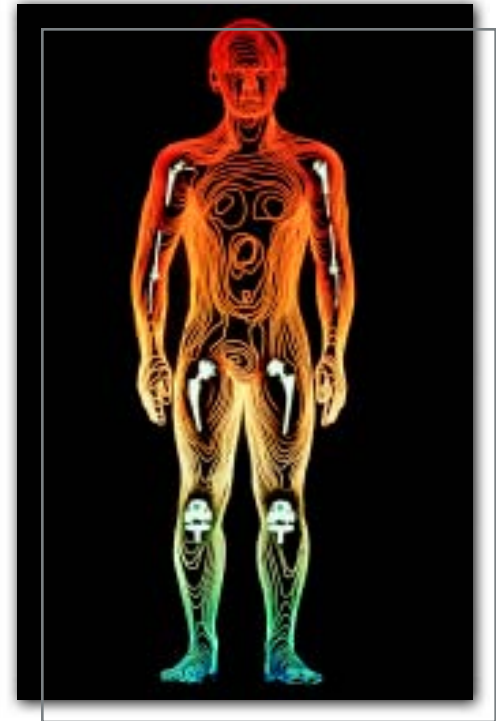
MEDICAL

The World's Most Complete Titanium Medical Inventory

Titanium's outstanding biocompatibility makes it a standard cost-effective material for medical devices such as hip and knee joints, bone screws, trauma plates and dental implants. The long-range availability of titanium has been more stable than many other competitive metals.

Titanium has a very high strength-to-weight ratio that (a) encourages its use in a wide range of medical applications; (b) gives smaller, thinner titanium parts an advantage over larger, heavier materials without sacrificing strength or rigidity; (c) offers greater fatigue strength than many other metals. The unique qualities of titanium also prove to be MRI (Magnetic Resonance Imaging) and CT (Computed Tomography) compatible.

Through our international service center network, Titanium Industries is a manufacturing distributor that maintains an extensive inventory of bar, billet, plate, sheet and wire products. We provide prompt shipment for orders of standard mill shapes and can process custom parts — such as small-diameter medical bar and rod — to extremely close tolerances.



Titanium Industries supplies products of the highest quality standards. Complete chemical and mechanical property test reports accompany each shipment.

Inventory is 100% traceable from melt source through processing to maintain quality-control requirements.

Specifications

ASTM F67-00: Unalloyed titanium for surgical implant applications.

ASTM F136-02: Wrought titanium 6Al-4V Eli Alloy for surgical implant applications.

ASTM F1472-02: Wrought titanium 6Al-4V Alloy for surgical implant applications.

- Ti 6Al-4V and 6Al-4V Eli Plate, typically 48" wide x 120" long or cut to size
- Gauges from .1875" to 4" thick
- Commercially pure titanium bar and billet
- Ti 6Al-4V and 6Al-4V Eli bar and billet .125" diameter Up to 8" diameter (larger by request)
- Precision ground (+/- .0005) available up to .625" diameter (larger by request)



TITANIUM INDUSTRIES, INC.
ISO 9001:2000 REGISTERED

Titanium Bar & Billet Weight Table (Rounds, Squares)

SIZE (INCH)	SIZE (DEC)	ROUND (LB/FT)	SQUARE (LB/FT)	SIZE (INCH)	SIZE (DEC)	ROUND (LB/FT)	SQUARE (LB/FT)
1/8"	0.125	0.024	0.031	2 9/16"	2.5625	10.087	12.844
3/16"	0.1875	0.054	0.069	2 5/8"	2.625	10.585	13.478
1/4"	0.250	0.096	0.122	2 11/16"	2.6875	11.096	14.127
5/16"	0.3125	0.150	0.191	2 3/4"	2.750	11.618	14.792
3/8"	0.375	0.216	0.275	2 13/16"	2.8125	12.152	15.471
7/16"	0.4375	0.294	0.374	2 7/8"	2.875	12.698	16.167
1/2"	0.500	0.384	0.489	2 15/16"	2.9375	13.255	16.877
9/16"	0.5625	0.487	0.619	3"	3.000	13.826	17.604
5/8"	0.625	0.600	0.764	3 1/16"	3.0625	14.408	18.345
11/16"	0.6875	0.726	0.924	3 1/8"	3.125	14.999	19.101
3/4"	0.750	0.864	1.100	3 3/16"	3.1875	15.608	19.873
13/16"	0.8125	1.014	1.291	3 1/4"	3.250	16.226	20.660
7/8"	0.875	1.177	1.497	3 5/16"	3.3125	16.857	21.462
15/16"	0.9375	1.351	1.719	3 3/8"	3.375	17.495	22.280
1"	1.000	1.536	1.956	3 7/16"	3.4375	18.153	23.113
1 1/16"	1.0625	1.734	2.207	3 1/2"	3.500	18.819	23.961
1 1/8"	1.125	1.944	2.476	3 9/16"	3.5625	19.498	24.824
1 3/16"	1.1875	2.166	2.759	3 5/8"	3.625	20.188	25.703
1 1/4"	1.250	2.400	3.056	3 11/16"	3.6875	20.890	26.596
1 5/16"	1.3125	2.645	3.369	3 3/4"	3.750	21.604	27.506
1 3/8"	1.375	2.904	3.699	3 13/16"	3.8125	22.330	28.430
1 7/16"	1.4375	3.175	4.042	3 7/8"	3.875	23.067	29.370
1 1/2"	1.500	3.456	4.401	3 15/16"	3.9375	23.817	30.324
1 9/16"	1.5625	3.750	4.775	4"	4.000	24.579	31.296
1 5/8"	1.625	4.056	5.165	4 1/2"	4.500	31.108	36.609
1 11/16"	1.6875	4.374	5.570	5"	5.000	38.406	48.900
1 3/4"	1.750	4.705	5.990	5 1/2"	5.500	46.464	59.168
1 13/16"	1.8125	5.047	6.425	6"	6.000	55.296	70.446
1 7/8"	1.875	5.400	6.876	7"	7.000	75.264	95.844
1 15/16"	1.9375	5.766	7.342	8"	8.000	98.318	125.184
2"	2.000	6.144	7.824	9"	9.000	124.416	158.436
2 1/16"	2.0625	6.534	8.320	10"	10.000	153.600	195.600
2 1/8"	2.125	6.937	8.832	11"	11.000	185.856	236.676
2 3/16"	2.1875	7.350	9.359	12"	12.000	221.184	281.664
2 1/4"	2.250	7.777	9.902	14"	14.000	301.056	383.376
2 5/16"	2.3125	8.215	10.460	16"	16.000	393.216	500.736
2 3/8"	2.375	8.665	11.034	18"	18.000	497.664	633.744
2 7/16"	2.4375	9.128	11.621	20"	20.000	614.400	782.400
2 1/2"	2.500	9.601	12.225				

Custom parts can also be processed to extremely accurate tolerances.

Weights are based on a density of 0.163 pounds per cubic inch and apply to all grades except:

- Ti-8Al-1Mo-1V Multiply by 0.97
- Ti-6Al-2Sn-4Zr-6Mo Multiply by 1.03
- Ti-10V-2Fe-3Al Multiply by 1.03
- Ti-13V-11Cr-3Al Multiply by 1.07

Use the following formulas to calculate lb/ft for sizes not shown:

- Rounds 1.536 x (diameter)²
- Squares 1.956 x (side)²
- Metric Conversion 1 inch = 25.4 mm
- 1 meter = 3.2808 feet
- 1 pound = 0.4536 kg