

TSM TECHNOLOGY CO., LTD
西安领航新材料科技有限公司
领航新材料科技(集团)有限公司



西安领航新材料科技有限公司

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Company Profile

>>> 公司简介

TSM Technology is one of Asian leading suppliers of high performance titanium base in China, specializing in mill products such as titanium and nickel bars, rods, plates, forgings, fasteners and tubes. We provide customers with fully machined parts to the most exacting clients' specifications, from complex supply chain management to an urgent breakdown requirement. Our professional & efficient service team enables us to make sure that all clients can enjoy total quality service worldwide.

The product is widely applied in chemical industry, metallurgy, petroleum, textile, medicine, light industry, environmental protection, sports, mine, ocean and other fields covering more than 20 countries worldwide.

We have a team of experts who strategically integrate advanced technology of titanium and related alloys, completed international standard quality control system and well organized experience, to make us as an industry leading mill. We has extensive processing capabilities together with integrated production facilities which enable us to satisfy demands for special shapes and semi-processed forms, and enable customers to reduce costs and increase efficiency through our competitive price, excellent quality, and professional service.

西安领航新材料科技有限公司是一家有色金属材料的生产、加工、销售为一体的综合性企业。拥有一批高素质的工程技术人员和管理人员。本公司采用先进的生产工艺，配备了现代化的生产设备和检验设备，可根据客户要求为其量身定做各种规格的棒、管、板材，同时承接加工各种钛配件及精加工业务。

其产品广泛应用于航空航天、导航、武器、能源、化工、冶金、医疗、电镀、体育用品等领域，并出口到欧洲、北美、东南亚等国家和地区。专业高效的服务团队使我们能够确保所有客户可以享受全面完善的服务。我们的宗旨“选择领航，就是选择专业！选择放心！”

QUALIFICATION HONOR

>>> 资质荣誉



Product Introduction

产品展示

Titanium & Titanium Alloy Plate

>>> 钛及钛合金板



Plate

Foil

Target

牌号 Grade	产品类型 Product Type	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	供应状态 Condition	产品应用 Application
Gr1 Gr2 Gr5 GR5 ELI Gr7 Gr9 Gr12	钛板 Titanium Plate	T 0.5-5.0mm x W1000mm x L 2000-3500mm T 6.0-30mm x W1000-2500mm x L 3000-6000mm T 30-80mm x W1000mm x L 2000mm	ASTM B265 ASTM F 67 ASTM B265 ASTM F136 AMS4911	热锻 Hot forging 热轧 Hot rolled 冷轧 Cold rolled 退火 Annealing 酸洗 Pickling	热加工状态 (R) 冷加工状态 (Y) 退火状态 (M)	冶金、电子、 医疗、化工、 石油、医药、 航天等。 Metallurgy, electronics, medical, chemical, petroleum, pharmaceutical, aerospace, etc.

品种 Varieties	状态 Condition	厚度*宽度*长度 (mm) T*W*L(mm)
箔材 Foil	冷加工状态 (Y)	(0.01-0.02) × (30-100) × (≥500) (0.03-0.09) × (50-300) × (≥500)
带材 Strip	退火状态 (Y)	(0.10-0.30) × (50-300) × (≥500) (0.40-0.90) × (50-500) × (≥1000) (1.0-2.0) × (50-500) × (≥2000)

注：可根据客户要求接受小板剪裁。

Note: Non-standard size are also available.

Titanium & Titanium Alloy Tube

钛及钛合金管



Round Tube



Square Tube

牌号 Grade	制造工艺 Technique	规格 (mm) Specification	执行标准 Standard	供应状态 Condition	产品应用 Application
Gr1 Gr2 Gr5 Gr7 Gr9 Gr12	冷轧 Cold rolled 热轧 Hot rolled	Φ3-114 × 1.0-4.5 × 2000-15000 (冷轧钛无缝管) >Φ110 × 1.0-8.0 × 1000-15000 (钛焊接管)	ASTM B337 ASTM B338 ASTM B861 ASTM B862 AMS4942	退火态 (M)	广泛应用于热交换设备， 如列管式换热器、盘管式 换热器、蛇形管式换热器、 冷凝器、蒸发器和输送管道等。 Widely applied in heat exchange equipment, such as shell and tube heat exchanger, coil heat exchanger, serpentine tube type heat exchanger, condenser, evaporator and pipelines, etc.
	热锻 Hot forging	>Φ15×>5.0×<1000			

注：可按照ASME, DIN,GOST,JIS标准生产

Note:ASME, DIN,GOST,JIS standard can be negotiable.

种类 Classification	无缝管长度 Seamless Tube Length			焊接-轧制管长度 Welding-rolling Tube Length	
	外径 OD≤15	外径OD>15		壁厚 Wall Thickness	
		壁厚 WT≤ 2.0	壁厚 WT>2.0-4.5	0.5-0.8	>0.8-2.0
长度 Length(mm)	500-4000	500-9000	500-6000	500-8000	500-5000

种类 Classification	焊接管长度 Welded Tube Length		
	壁厚WT0.5-1.25	壁厚WT>1.25-2.0	壁厚WT>2.0-2.5
长度 Length(mm)	500-6000	500-6000	500-15000

注：超出表中规定的长度时，可协商供货。

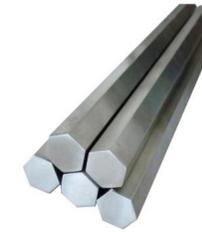
Note: Beyond the specified length in the table, can be negotiable.

Titanium & Titanium Alloy Rod & Bar

钛及钛合金棒



Round Bar



Hex Bar



Round Bar

牌号 Grade	产品类型 Product Type	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	状态 Condition	产品应用 Application
Gr1 Gr2 GR3 Gr4 Gr5 GR5 Eli	钛圆棒 Titanium Round bar	Diameter: 2.0~ 300 mm Length: Max 6000 mm	ASTM B348 ASTM F136 ASTM F67 AMS4928	抛光，磨光， 锻造，轧制 Polished,Grinded, Forged,Rolled	热加工状态 (R) 冷加工状态 (Y) 退火态 (M)	冶金、电子 医疗、化工 石油、医药 航天等各个领域。 Metallurgy, electronics, medical, chemical, petroleum, pharmaceutical, aerospace and other fields.*
Gr7 Gr9 Gr12 Gr23	钛六角棒 Titanium Hexagonal bar	SW: 6-80 mm SW Tolerance: 0.05 Strightness: 2mm/1000 (R)degree: 2.5--3.0				

钛棒分为：钛及钛合金棒、毛棒、异型钛棒、钛方棒、钛轴、钛搅拌轴、钛丝杆

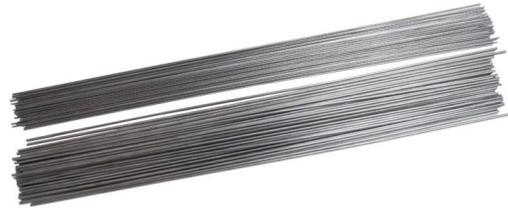
Titanium rods&bars including:Pure Titanium and titanium alloy rods, Titanium billets, Customized titanium rods, titanium square rods, hex rods, titanium shafts, Titanium stiring shafts, titanium rods with threads.

Titanium & Titanium Alloy Wire

钛及钛合金丝



Coil



Straight Wire

牌号 Grade	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	供应状态 Condition	产品应用 Application
Gr1 Gr2 Gr3 Gr4 Gr5 Gr7 Gr9 Gr12 Gr23 Ti15333 Ti-811 BT-20-1CB BT-20JI	A、 $\phi 0.05-\phi 7.0$ mm by spool/coil	ASTM B863-05 ASTM F67-00	锻造, 轧制 冷拔, 热拉 forging, rolling cold drawing hot drawing	退火态 (M) 热加工状态 (R) 冷加工状态 (Y)	军工、医用、体育用品、 眼镜、耳环、头饰、电镀 挂具、焊丝等行业。 Military, medical, sporting goods, glasses, earrings, ornaments, electroplating linked with, wire, etc.
	B、Sunglass wire: $\phi 1.0-\phi 6.0$ mm				
	C、Racking wire: $\phi 0.2-\phi 7.0$ mm				

RADE	SPECIFICATIONS		
	AWS A5.16	ASTM B863	AMS
Commercial Pure Titanium	ERTi-1,2,3,4	ASTM B863 Gr1,2,3	AMS 4951
		ASTM F67 Gr1,2,3,4	AMS 4921
Ti 6Al-4V	ERTi-5	ASTM B863 Gr5	AMS 4954
Ti 6Al-4V Eli	ERTi-5 Eli	ASTM B863 Gr23	AMS 4956
		ASTM F136 Eli	
Ti (0.12~0.25)Pd	ERTi-7	ASTM B863 Gr7	----
Ti 3Al-2.5V	ERTi-9	ASTM B863 Gr9	----
Ti 0.3Mo-0.8Ni	ERTi-12	ASTM B863 Gr12	----

Titanium Fitting

钛管件



90° Elbow



Equal Tee



Reducer Tee



Cap



45° Elbow



Stud End



Eccentric



Concentric

牌号 Grade	产品类型 Product Type	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	产品应用 Application
Gr1 Gr2 Gr7 Gr12	弯头 Elbow (45°、90°、180°)	1/2"-96" DN15-DN2400	ASTM B363 EN 10253 DIN 2065	推置, 对焊, 抛光 车床加工, 酸洗, 喷砂 Push, butt welding, polishing lathe processing, pickling sand blasting	化工, 石油, 冶金, 轻工, 仪表, 发电, 海水淡化, 医 疗器械, 氯碱制盐, 电镀, 焦化, 化肥等。 Chemical, petroleum, metallurgy, light industry, instrument, power generation, water desalination, medical apparatus and instruments, alkali, salt, electroplating, coking, chemical fertilizer, etc.
	三通 Tee (reducing & equal)	DN 15-1200 Sch5S-Sch80s	ASME B16.9	挤压或对焊 Extrusion or butt weld ends	
	异径管 Reducer (concentric & eccentric)	DN 15-1200 Sch5S-Sch80s	ANSI/ASME B16.9	推置或对焊, 锻造 Push or butt welding and forging	
	翻边, 管帽 stub ends, cap	DN 15-1200 Sch5S-Sch80s	ASME SB16.5 ASME SB16.9 ASME SB16.11	挤压或对焊 Extrusion or butt weld ends	

注: 1. According to customer demands also produce other angle of the elbow.
可根据客户需求生产其它角度的弯头。

2. Specification: DN140 below for seamless pipe fitting, DN140 above for welding pipe fittings.
DN140以下为无缝管道管件, DN140以上为焊接管道管件。

Titanium Flange

钛法兰



板式平焊法兰 (PL)
Plate-type Flat Welding Flange



带颈平焊法兰 (SO)
Slip-on Neck Flange



带颈对焊法兰 (WN)
Weld Neck Flange



松套法兰 (PJ)
Ring Loose Flange



螺纹法兰 (TH)
Threaded Flange



承插焊法兰 (SW)
Socket Welding Flange

牌号 Grade	产品类型 Product Type	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	表面处理 Surface Treatment	产品应用 Application
Gr1 Gr2 Gr3 Gr4 Gr5 Gr7 Gr9 Gr12	带颈平焊法兰 带颈对焊法兰 Slip-On Welding Neck 盲板法兰 承插焊法兰 Blind、 Socket Welding 螺纹法兰 活套法兰 Threaded Lap Joint	DN10-600 NPS1/2" -24"	ASTM B 363 ASME B16.5 ASME B16.9 ASME B16.11	退火态 (M) 热加工状态 (R) 冷加工状态 (Y)	锻造、轧制 车光、磨光 Forging, Rolling Turning, Polishing	石油、化工、造船 机械、冶金等。 Petroleum, chemical shipbuilding, machinery metallurgy etc.

注：可根据客户需求生产其它厚度和尺寸的法兰。
Note: Other flange standard or thickness can be customized.

Titanium Forging

钛锻件



Titanium Block



Titanium Disc



Titanium Ring

牌号 Grade	产品类型 Product Type	规格 (MM)Specification				执行标准 Standard	制造工艺 Technique	供应状态 Condition
		外径 OD	内径 ID	截面高度 Section Height	环壁厚 Wall Thickness			
Gr1 Gr2 Gr5 Gr7 Gr11 Gr12	钛环 Titanium Ring	Φ200-400	Φ100-300	20-120	40-150	ASME SB381	热锻 + 车 (磨) 光 hot forging + lathe (polishing)	R/M
	钛饼 Titanium Disk	直径 4-200mm Dia 4-200mm			ASTM B381			

注：任意其他尺寸和数量的锻件可协商供货
Note: Other sizes and MOQ can be negotiable.

Titanium Clad Plate/Tube

钛复合板/管



Bar & Block



Plate

Specifications:

Titanium clad plate explosive clad method: Ti/Ss, Ti/Cu, Ti/Ni, Ti/s, Ti/Zr, Ti/ Ag, Ti/Al

Metal Clad Plate	Clad Mteal ("CM")	Base Metal ("BM")	Dim. Range(mm)	Voluntary Standards	Applied Industry
Ti/CS	Gr2, Gr3, Gr7, Gr12 (Code as per ASTM B265)*	CS & its forging	(CM TK) 1-20/ (BM TK)2-200* W3000*L6000	ASTM B898 JIS G3603	Petrochemical,Vacuum Salt,Chlor-alkali Industry,Power-station FGD, Hydrometallurgy,Electroplating,etc.
Ti/SS		SS & its forging	(CM TK) 1-20/ (BM TK)2-200* W3000*L6000		Petrochemical,Chlor-alkali Industry, Aerospace Engineering,Cryogenic Engineering,Food Industry,Pharmacy, Light Industry,etc.
Ti/Cu		C11000,C12100, C26800,etc.	(CM TK) 1-20/ (BM TK)2-100* W2000*L4000		Electric Power,Electrolysisindustry, Kitchen,Hydrometallurgy,etc.
Ti/Al		1199,1050,2124, 413.0 etc.	(CM TK) 1-20/ (BM TK)2-50* W1500*L4000		Aerospace Engineering,Kitchen, Chemical Industry,Naval vessels, Special solder,etc.
Ti/Ni		N02201 N02200 &Nickel Alloy	(CM TK) 1-20/ (BM TK)2-50* W2000*L4000		Hydrometallurgy
Ferritic SS/CS	410S,etc.	CS & its forging	(CM TK) 1-20/ (BM TK)2-200* W4000*L8000	ASTM B898 JIS G3603 ASTM A264 ASTM A265	Petrochemical,Chemical Industry,Vacuum Salt,Chemical Fertilizer,Sugar Industry,Paper Industry,Hydrometallurgy,Hydraulic Industry,Power-station,etc.
Austenitic SS/CS	304,304L,316 316L,321,etc.				
High-Strength SS/CS	185,304N 2205,135,etc.				

Titanium Fastener

钛紧固件



牌号 Grade	产品类型 Product Type	规格 (MM)Specification	执行标准 Standard	制造工艺 Technique	表面 Surface	产品应用 Application
Gr1	钛螺栓 Titanium Bolt	M2.5--M64*L6— 300mm (or as your inquired)	DIN912 DIN913	锻造、轧制 和数控机床 Forged head, Rolled threads and CNC machine*	抛光、氧化 黑色氧化 Polishing, Anodizing, Black oxide	设备配件:飞机、船 自行车、摩托车、 汽车、医疗、 化工、轮、 体育、锚、武器等 Equipment accessories: airplane, ship, bicycle, motorcycle, auto, medical, chemical, wheel, sports, anchor, weapon, etc.
Gr2	钛螺丝 Titanium screw	M2.5--M64*L6— 300mm (or as your inquired)	DIN934			
GR3			DIN965			
Gr4			DIN916			
GR5			DIN931			
Gr7	钛螺母 Titanium nut	M2.5--M64	DIN933			
Gr9	钛垫圈 Titanium washer	M2.5--M64	DIN7991			
GR12			DIN984 DIN6921			

注：可根据客户需求生产其他标准的标准件或非标件。

Note:Other standard or non-standard titanium bolts, nuts&washers can be customized.

Titanium Processing Parts

钛加工件



生产工序如下：

Our Producing Process:

1. Confirmed all drawing information with customer in details.
2. Checking the process, machine, and other details in the production line.
3. Riveting, Welding or Screw tap according to Customer's require.
4. After finish manufacture process we will test the parts by the Image measurement instrument, Caliper, Angel Gage etc.
5. After make sure all the dimension can reach customer's require, we will make the surface treatment process.
6. After finish surface treatment we will test all the parts by worker so that we can make sure the parts which we sell is 100% qualified.
7. After finish testing we will pack the parts.

生产设备如下：

Equipment:

Stamping Machine, Oil Hydraulic Pressing Machines, Riveting Machine, Welding Machine, CNC Milling and Turning, Grinding, Honing, Lapping, Broaching and other secondary Machining, Meter Lathes, Line-cutting Machine.

Titanium Crafts Products

钛工艺品



Comb

Bowl

Pendant



Can Opener

Processing Part

Chopsticks Spoons

Chess



Bracelet

Ring

Cup

Catapult

Tungsten, Molybdenum, Tantalum, Zirconium & Nickel

钨钼 钽铌 镍

钨棒、钨杆、钨丝、钨板

Tungsten bar, tungsten rod tungsten wire, tungsten plate

牌号 Grade	规格 Size(mm)	种类 Type	标准 Standard
W1 W2 WAL1 WAL2 WAL3 Cw1	0.1~60mm 0.2~10×200 ×300mm	爆炸 explosion 爆炸-轧制 explosion-rolling 烧结, 锻制 sintering, forging 拉制, 矫直 drawing, straightening 磨光, 轧制 polishing, rolling	GB3459~82 GB4187~84 GB/T4181~97 GB3875~83 Q/BS1331~9 Ohter

钼棒、钼板、钼杆、钼丝、钼箔

Molybdenum rod, molybdenum plate molybdenum rod, molybdenum wire, molybdenum foil

牌号 Grade	规格 Size(mm)	种类 Type	标准 Standard
M01 M02 M0W20 M0W50 TZM MOTi0.5 M01δ MOLd JM01	0.1~80mm 0.03~20×450 ×1000mm	烧结 sintering 锻制 forging 拉制 drawing 矫直 straightening 磨光 polishing 轧制 rolling 机加 machining	GB3462~82 QBS2132~91 GB4188~84 GB4182~84 GB3876~83 GB3877~83 Ohter

钽板、钽箔、钽棒、钽丝

Tantalum plate, tantalum foil tantalum bar, tantalum wire

牌号 Grade	规格 Size	种类 Type	标准 Standard
Tal Ta2 DTal FTal TaNb3 TaNb20	0.02~10×50400×Lmm 0.5~50×Lmm	锻制 Forged 轧制 Rolling 拉制 Drawn	Gb3629—83 GB14841—93

锆板、锆带、锆棒、锆丝

Zirconium plate, zirconium strip zirconium bar, zirconium wire

牌号 Grade	规格 Size	种类 Type	标准 Standard
Zr-0 Zr-2 Zr-4	0.03~50×200600×L 0.5~100×L	锻制 Forged 轧制 Rolling 拉制 Drawn	G/B8769—88 Q/BS6531—91 Q/BS6331—91 Q/BS6431—91

Titanium Processing Equipment

钛加工设备



Hydraulic Press



Smelting Furnace



Lathe



Milling Machine



Saw Machine



Annealing Furnace

Titanium Equipments

钛设备



Heat Exchanger



Titanium Coil Pipe



Heat Exchanger



Reaction Kettle-2



Reaction Kettle