ALLOYTI
TITANIUM & SPECIAL METALS

BAOJI · CHINA · FACTORY-DIRECT

PRODUCT CATALOG · 2026

Titanium from China's Titanium Valley.

One sourcing window to Baoji's full titanium supply chain — mill products, standard parts and everyday titanium goods, with traceability built in.

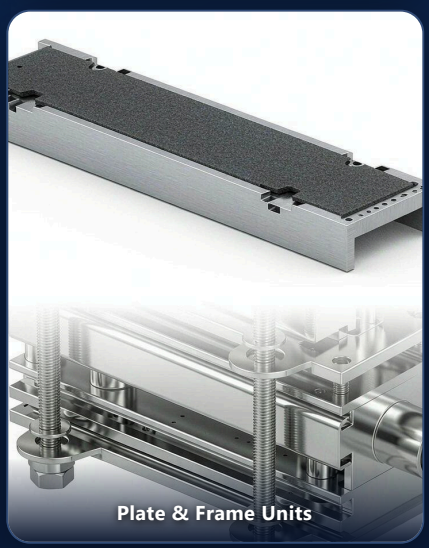

Chemical & Heat Exchange


Desalination & Marine


Process & Reaction


Aerospace


Medical & Surgical


Plate & Frame Units

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Baoji, Shaanxi, P.R. China
Serving Europe · Middle East · India · Americas

THE SOURCE

Why Baoji, Why Us

Baoji, Shaanxi — known as China's "Titanium Valley" — is the country's largest titanium manufacturing cluster. From sponge titanium to melting, rolling, standard parts and finished consumer goods, the full value chain sits within one city. ALLOYTI is your single, English-speaking window to it.

60%+
of China's titanium output originates in Baoji

Full
chain: sponge → ingot → mill → parts → goods

Gr.1–5
standard grades, plus specialty alloys on request

What the cluster means for your order

01 / COST

Factory-direct pricing

No trading-layer markup. Mills are our direct partners, not middlemen — quotes reflect real mill pricing.

02 / BREADTH

One supplier, every form

Mill products, fasteners, fittings and consumer goods sourced in one coordinated batch — one inquiry, one shipment.

03 / FLEXIBILITY

Small MOQ accepted

Trial orders and cut-to-length pieces welcomed. Ideal for prototypes, maintenance and first-article runs.

04 / CONTROL

Traceable from melt

Heat numbers and EN 10204 3.1 mill certificates accompany material, with NDT reports available on request.

Our role: ALLOYTI is an independent sourcing and export partner working with Baoji-area mills and fabricators — not a mill itself. We specify, consolidate, arrange inspection and ship. Certification scope and inspection level are confirmed per order before quotation, so what we state is exactly what can be delivered.

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AT A GLANCE

Three Product Families

From raw mill shapes to ready-to-use standard parts and finished consumer goods — all from the Baoji cluster. Custom dimensions, cut lengths and special grades are quoted against your drawing or specification.

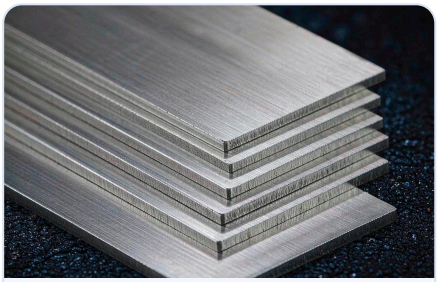
01 · Mill products



01

Tube & Pipe

Seamless & welded · ASTM B338 / B862



02

Plate & Sheet

Hot / cold rolled · ASTM B265

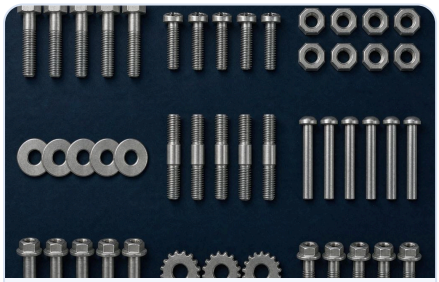


03

Bar, Rod & Wire

ASTM B348 / B863

02 · Standard parts & 03 · Everyday goods



04

Fasteners

Bolts, nuts, washers · DIN / ISO / ANSI



05

Standard Fittings

Elbows, tees, flanges · ASME / EN



06

Consumer Goods

Cupware, eyewear, outdoor, jewelry

Grades we move regularly

Gr.1 / TA1 · Gr.2 / TA2 · Gr.3 / TA3 · Gr.5 / TC4 (Ti-6Al-4V) · Gr.7 / Ti-Pd · Gr.9 / Ti-3Al-2.5V · Gr.12 / Ti-Mo-Ni

Grades shown are the ones most frequently requested. Other grades and custom chemistries — including Ti-Ni shape memory and medical-grade alloys — can be sourced; confirm availability and lead time at inquiry.

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HEAT EXCHANGE & CORROSION SERVICE

Titanium Tube & Pipe



ASTM B338 | ASME SB-338 | ASTM B862 welded | Gr.2 standard

Why titanium tubing

- **Seawater & chloride-proof** — forms a stable passive oxide film; no pitting or SCC in chlorides where stainless fails.
- **Long service life** — routinely outlasts copper-nickel and stainless tubes in condensers and coolers.
- **Light & strong** — 4.51 g/cm³ density with strength comparable to common steels.
- **Tested** — eddy-current, hydrostatic and dimensional checks available per order.

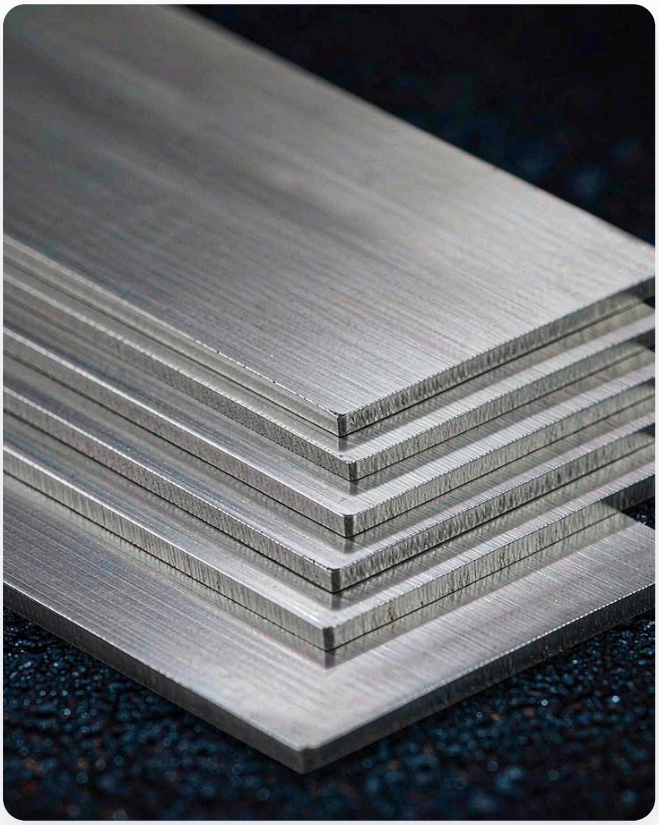
Item	Typical range
Outside diameter	6 – 114 mm (heat-exchange tubes commonly 19 / 25 mm)
Wall thickness	0.5 – 8 mm
Length	Cut to length; up to ~12 m depending on size
Grades	Gr.1 / Gr.2 / Gr.7 / Gr.9 / Gr.12
Finish	As-machined from descaled bar / bright annealed as specified

Typical uses: shell-and-tube heat exchangers, condensers, seawater coolers, desalination, chemical process lines, hydrometallurgy. Dimensions above describe common supply capability — confirm exact availability and tolerance against your specification before order.

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FABRICATION-READY FLAT PRODUCTS

Titanium Plate & Sheet



ASTM B265 | ASME SB-265 | Hot rolled | Cold rolled

Forms & capability

- **Sheet, plate and foil** — from thin gauge for liners to heavy plate for pressure vessels.
- **Explosion-clad / Ti-steel composite plate** — cost-effective corrosion barrier for large vessels (on request).
- **Weldable & formable** — Gr.1/2 for deep drawing and fabrication; Gr.5 for strength-critical parts.
- **Cut to size** — plasma / waterjet profiling to your drawing available.

Item	Typical range
Thickness	0.5 – 50 mm (thicker on request)
Width	up to ~2,000 mm
Length	up to ~6,000 mm
Grades	Gr.1 / Gr.2 / Gr.5 / Gr.7 / Gr.9 / Gr.12
Surface	Mill / pickled / brushed / polished

Typical uses: chemical reactor linings, storage tanks, heat-exchanger tubesheets, marine panels, pickling equipment, anodizing racks, medical and semiconductor components. Clad plate and special surface finishes are quoted separately.

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MACHINING & WELDING STOCK

Bar, Rod & Wire





Bar & Rod — ASTM B348

- Round, flat, square and hex; machined or hot-rolled finish.
- Diameter ⌀6–200 mm; length up to ~6,000 mm.
- Gr.2 for corrosion parts; Gr.5 (Ti-6Al-4V) for high-strength components.
- Cut to length; one-end center-drilled on request.

Wire — ASTM B863 / AWS A5.16

- Welding wire on spools or straight cut; diameter ⌀0.1–6.0 mm.
- Gr.1/2 welding wire for titanium fabrication; Gr.5 for high-strength welds.
- Clean, degreased surface for consistent welding performance.
- Small spool quantities available for trial and repair work.

Common grade selection

Grade	Equivalent	Key trait	Typical use
Gr.2	TA2 · R50400	Best corrosion resistance + formability	Chemical, marine, anodizing
Gr.5	TC4 · R56400	High strength (Ti-6Al-4V)	Aerospace, medical, fasteners
Gr.7	Ti-0.2Pd	Enhanced crevice-corrosion resistance	Aggressive acids

Machining note: titanium has low thermal conductivity and reacts at high temperature — use sharp tools, low surface speed, high feed and ample coolant. We can advise on stock allowance and finish for your chosen process.

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READY-TO-INSTALL STANDARD PARTS

Titanium Fasteners



DIN · ISO · ANSI / ASME · GB

What we supply

- **Bolts & screws** — hex head, socket head, pan/flat head machine screws, self-tapping.
- **Nuts & washers** — hex, nylon-insert lock nuts, flat / spring / locking washers.
- **Studs & threaded rod** — double-ended studs, full-thread rod, custom cut lengths.
- **Rivets & pins** — solid / blind rivets, dowel and cotter pins to drawing.

Item	Typical range
Thread size	M3 – M36 (imperial 1/4" – 1–1/2" available)
Standards	DIN 933 / 931 / 934 / 125; ISO 4014 / 4017 / 4032; ASME B18.2.1
Grades	Gr.2 (corrosion) / Gr.5 (high strength) / Gr.7
Finish	As-machined / pickled / polished; thread per ISO 965 6g

Where they are used: chemical plants, marine hardware, medical devices, aerospace, motorsport and bicycle components — anywhere corrosion resistance or weight saving justifies titanium over stainless. Non-standard sizes and custom drawings are welcome; thread tolerances and head markings confirmed at quotation.

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COMPLETE THE PIPING SYSTEM

Standard Fittings, Flanges



ASME B16.9 | B16.11 | B16.5 | EN 10253

Off-the-shelf shapes

- **Elbows** — 45°, 90°, 180°, long / short radius to ASME B16.9.
- **Tees & reducers** — equal / reducing tee, concentric / eccentric reducer.
- **Caps, unions & couplings** — socket-weld and threaded types to ASME B16.11.
- **Flanges** — slip-on, weld-neck, blind, lap-joint to ASME B16.5 / EN 1092-1.

Item	Typical range
Nominal size	DN15 – DN600 (1/2" – 24")
Pressure class	Class 150 – 2500 / PN 10 – PN 100
Grades	Gr.1 / Gr.2 / Gr.5 / Gr.7 / Gr.12
Standards	ASME / EN / JIS / GB — confirm per order

Pressure equipment: if fittings are destined for PED 2014/68/EU equipment, tell us at the inquiry stage. We will confirm which mill, material certificate and third-party inspection route can support that requirement — we do not claim PED approval without a verified mill route. Forged rings, discs and custom machined parts from bar or forging are also available to drawing.

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SPECIFICATION GUIDE

Grades & Standards

Use this table to translate between ASTM/UNS and Chinese GB designations — a common source of confusion when sourcing from Baoji. Confirm the exact standard revision with us before issuing your PO.

ASTM Grade	Chinese GB	UNS	Type	Approx. min. YS	Typical use
Gr.1	TA1	R50250	Commercially pure	170 MPa	Deep drawing, chemical linings
Gr.2	TA2	R50400	Commercially pure	275 MPa	Heat exchangers, marine, process
Gr.3	TA3	R50550	Commercially pure	380 MPa	Slightly higher strength CP grade
Gr.5	TC4	R56400	Ti-6Al-4V (α+β)	830 MPa	Aerospace, medical, fasteners
Gr.7	TA9	R52400	Ti-0.2Pd	275 MPa	Crevice-corrosion resistance
Gr.9	TA18	R56320	Ti-3Al-2.5V	480 MPa	Tubing, bicycle, aerospace
Gr.12	TA10	R53400	Ti-0.3Mo-0.8Ni	345 MPa	Hot chloride / crevice service

Product standards at a glance

MILL PRODUCTS

ASTM / ASME

B338 / SB-338 tube · B265 / SB-265 plate · B348 / SB-348 bar · B863 wire · B381 forgings · B363 fittings

INSPECTION & DOCS

Commonly requested

EN 10204 3.1 MTC · heat-number traceability · eddy-current / ultrasonic / hydrostatic test reports · dimensional report

Reading a Chinese MTC: Chinese mills often list a GB grade (e.g. TA2) alongside or instead of the ASTM grade. They are broadly comparable, but chemistry and tolerance windows differ between standards. Always specify which standard governs the order — we will confirm the mill can certify to it. Mechanical values above are minimums for guidance only; refer to the current standard for exact requirements.

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WHERE IT WORKS

Built for Aggressive Service

Titanium earns its cost where corrosion, chlorides or weight matter most. These are the industries we most often serve — send your operating conditions and we will suggest a grade and form.



Chemical & Heat Exchange
Tubesheets, condensers, coolers



Chlor-Alkali & Process
Cell components, piping, vessels



Plate & Frame Units
PHE plates, frames & gaskets

AEROSPACE

Gr.5 / Ti-6Al-4V

Structural parts, fasteners and engine components where strength-to-weight is critical.

MEDICAL

Gr.5 / Gr.23 ELI

Implants and surgical instruments; biocompatible grades sourced to specification.

ENERGY & DESAL

Gr.2 / Gr.7 / Gr.12

Desalination, geothermal and hydrometallurgy in hot chloride environments.

Not sure which grade fits your service?

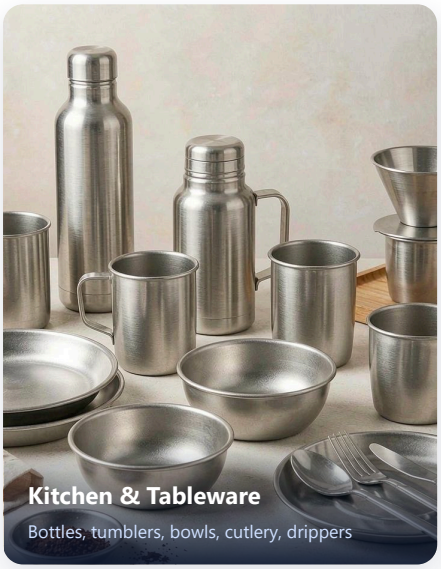
Send the media, temperature, concentration and design life — we will propose a grade and form based on what Baoji mills actually produce, and flag where an alternative material is more economical.

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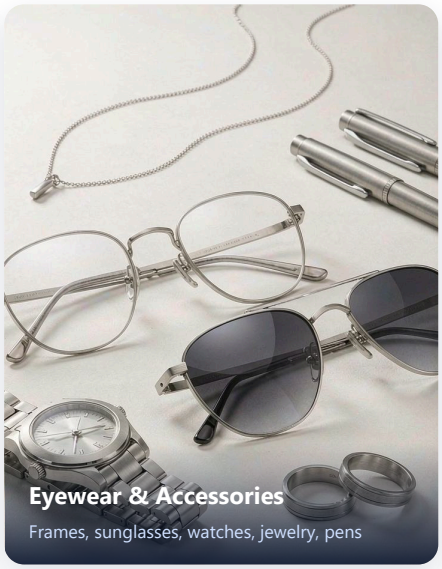
LIGHT. SAFE. EVERYDAY.

Titanium for Everyday Life

The same metal that survives seawater and acids makes outstanding consumer goods — light, corrosion-proof, odorless and hypoallergenic. Backed by Baoji's mature civil titanium industry, we provide a complete, one-stop service — product selection, quality control and consolidated shipment handled for you from start to finish.



Kitchen & Tableware
Bottles, tumblers, bowls, cutlery, drippers



Eyewear & Accessories
Frames, sunglasses, watches, jewelry, pens



Outdoor & EDC
Camping pots, sporks, bottles, knives, keychains

Why titanium wins in consumer products

Ultra-light

~40% lighter than stainless steel of the same volume — comfortable to wear or carry.

Hypoallergenic

No nickel release; biocompatible, safe for skin contact, eyewear and body jewelry.

Odorless & rust-proof

Does not react with food or sweat, keeps no smell, never rusts — easy to clean.

Sourcing note: consumer titanium is typically Grade 1 or Grade 2; product-grade finishes, anodizing colors, laser engraving and custom logos can be arranged. Minimum order quantities and unit prices differ from industrial mill products — request a separate quotation. Images are representative of product categories; exact models are confirmed at quotation.

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FROM INQUIRY TO YOUR DOOR

Quality You Can Verify

How an order moves

1 Specify

You send grade, dimensions, standard and quantity — or a drawing. We confirm what Baoji mills can supply.

2 Quote

Factory-direct price with clear scope: finish, tolerance, test level, packing and delivery terms.

3 Produce & inspect

Mill produces; heat number, MTC and agreed NDT are collected and checked before dispatch.

4 Ship

Export packing and documentation; DAP or FOB terms by agreement, with tracking throughout.

Documents & checks

EN 10204 3.1 MTC
Standard on mill products

Heat traceability
Heat no. marked on material

NDT reports
Eddy current / UT / hydrostatic

Export packing
Seaworthy, labeled, documented

Certification — stated precisely: EN 10204 3.1 mill certificates are standard for mill products. Third-party inspection (EN 10204 3.2), ISO 9001-certified mill sources, and AS9100 or PED-supported routes can be arranged only where the specific mill and order allow it — confirm at inquiry. We do not represent ISO 9001 or AS9100 as PED approval.

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ALLOYTI

TITANIUM & SPECIAL METALS

READY TO SOURCE FROM BAOJI?

Send your spec.
Get a real quote.

Grade, dimensions, standard and quantity — or just a drawing. Tell us the application and we will tell you what the supply chain can do, including where a cheaper material would work just as well.

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Product images are illustrative. Specifications, grades and tolerances are subject to confirmation at quotation. ALLOYTI is an independent sourcing partner, not the manufacturer.