

## Grade 7 Titanium Disc

Chemical composition: Ti-0.2Pd

Diameter: Over 100mm, incl

Thickness: Over 10mm, incl

(Special sizes and specifications can also be customized according to specific application requirements.)

Delivery time: expected to be shipped within one month

### Grade 7 Titanium Disc Manufacturer & Supplier

As a professional China Grade 7 Titanium Disc factory, we manufacture high-quality titanium discs that meet international standards and are trusted by global customers in chemical processing, marine engineering, and petrochemical industries.

If you are looking to buy Grade 7 Titanium Disc with stable quality, competitive pricing, and reliable delivery, our factory offers both standard sizes and Customized Grade 7 Titanium Disc solutions tailored to your application.

Chemical Composition (wt.%)

| Element        | Content      |
|----------------|--------------|
| Titanium (Ti)  | Balance      |
| Palladium (Pd) | 0.12 – 0.25% |
| Oxygen (O)     | ≤ 0.25%      |
| Carbon (C)     | ≤ 0.08%      |
| Nitrogen (N)   | ≤ 0.03%      |
| Iron (Fe)      | ≤ 0.30%      |
| Hydrogen (H)   | ≤ 0.015%     |

### Available Specifications

Diameter:  $\geq$  100 mm

Thickness:  $\geq$  10 mm

Supply Condition: Hot-worked / Annealed

Surface Finishes:

Sandblasted, Polished, Machined, Anodized

Typical Lead Time:

- Standard sizes: within 15 days
- Custom orders: based on specifications

Customization:

- Non-standard dimensions
- Special tolerances
- Technical requirements per drawing
- Inventory: Regular sizes kept in stock for fast response

Packaging & Shipping:

- Export-grade, moisture-proof wooden crates
- Shock-resistant packaging
- Full transportation insurance coverage

## Grade 7 Titanium Disc vs. Grade 2 Titanium Disc

While Grade 7 titanium has mechanical properties close to Grade 2 titanium, its corrosion resistance is significantly superior due to the palladium addition.

### Typical Mechanical & Physical Properties

Tensile Strength:  $\geq 345$  MPa

Yield Strength:  $\geq 275$  MPa

Elongation:  $\geq 20\%$

Density: 4.51 g/cm<sup>3</sup>

Elastic Modulus: 110 GPa

In highly corrosive environments, such as those containing chlorides or acidic media, Grade 7 titanium discs deliver a much longer service life than Grade 2 titanium, reducing maintenance and replacement costs.

### Standards & Manufacturing Capability

Your Grade 7 titanium alloy discs are produced in strict accordance with international standards:

ASTM B381

ASME SB381

GB/T 16598

Our manufacturing capabilities include:

Precision CNC machining from titanium disc to finished components

Custom tolerances and geometries based on your drawings

Small-batch prototyping and stable mass production

You benefit from full traceability, from raw material melting to final inspection.

### Machining & Heat Treatment Guidance

Grade 7 titanium alloy offers good machinability when proper parameters are used:

Recommended machining practices:

Lower cutting speeds

Sharp carbide tooling

Adequate cooling to reduce tool wear and heat buildup

Annealing heat treatment is commonly applied to:

Reduce hardness

Improve ductility and toughness

Enhance dimensional stability during machining

### Purchasing Recommendations

To ensure the best performance and cost efficiency, we recommend that you:

Clearly define your application and service environment

Select the appropriate grade, standard, size, and tolerance

Consult our technical team for material selection support

Use our customization services for special requirements

Feel free to contact our sales team for pricing, inventory availability, or custom solutions.