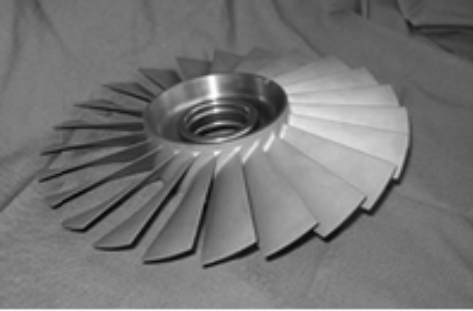


Hard Chrome Plating on Titanium:



*The inside diameter of the fan chrome plated
0.0015 thick after grinding.*

Titanium has increased in use because of its high strength to weight ratio coupled with excellent heat and corrosion resistance. Titanium has proven to be a very difficult substrate on which to deposit any coating because of its tough surface oxide layer.

Over the years many surface treatments and coatings have been proposed to alleviate Titanium's inherent problems of seizing, galling, and fretting wear due to its high coefficient of friction.

US Chrome's proprietary process deposits low friction chromium directly on the titanium thereby overcoming these inherent problems.

Features & Benefits:

- 1. Superior Bond Strength**
USC's proprietary process provides excellent adhesion of hard chromium to difficult-to-plate titanium alloys.
- 2. Prolonged/ Improved Performance**
A precision chromium deposit from a mere 0.0002 thickness to an overplate thickness of 0.020+ is attainable.
- 3. Design Freedom**
Engineers may combine durable wear resistant chromium with titanium's high strength to weight ratio for superior product enhancement.
- 4. Excellent Wear Characteristics**
Chromium provides the unique wear resistance and anti-galling properties for strong, light weight titanium alloys.
- 5. Single Bond Deposit**
Unlike conventional methods of plating titanium which require an intermediate layer (e.g. nickel), the chromium deposit is bonded directly to the base metal, eliminating potential adhesion problems of multiple deposits.

Properties:

[See Industrial Hard Chrome plating page](#)

Design Recommendations:

[See Design Recommendation page](#)

Typical Applications:

Applications include housings, shafts, and other components for the aerospace and oil/gas industries.

For more information contact us:

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