

## *Advantages of Type 2 Titanium Anodizing*

- Produces anti-galling and wear resistant properties at the surface.
- No introduction of hydrogen or hydrogen embrittlement.
- Increase fatigue strength up to 20% due to the homogeneous surface treatment.
- Coating forms as a penetrating layer rather than growth or “build-up” at the surface, which results in no dimensional change.
- Process may be successfully utilized on both CP and most commercial alloys of titanium.
- Titanium anodize is semi-conductive which allows re-anodization without need for stripping the original coating. Bare or machined areas will “heal” over and be indistinguishable from the original.
- Improvement to surface finish of greater than 50% is attained without special vibratory or burnishing methods.
- As the coating has increased lubricity, in moving parts there are improvements to surface finish, reduction in erosion and abrasion, and the prevention of wear by fretting.
- High strength to weight ratio, good fatigue properties and excellent corrosion resistance.
- Coating is continuous and does not flake off in highly stressed areas.
- Anodize is non-toxic to the human body and fully biocompatible.
- Coating tends to level surface imperfections.
- Titanium anodize is compatible with various aircraft fluids, is not adversely effected by extremes of temperature ranging from –70 to 260 °F and is not effected by humidity or exposure to salt water.
- Titanium anodize is used as a pretreatment for dry film lubricants.
- Titanium anodize can be welded to or over.
- The characteristic gray color of Type 2 anodized titanium is easily distinguishable from stainless steel