



AEROSPACE METAL FINISHING

PRECISION, QUALITY & RELIABILITY

Techmetals, Inc. has been instrumental in helping some of the most recognizable names in Aerospace with high-quality and dependable metal plating solutions. We work closely with each of our clients to develop unique finishing procedures for commercial and military aircraft, helicopters and even spacecraft.

We assist both **OEM component and MRO facilities** as a “one stop shop” for metal plating and anodizing – accommodating numerous procedures in house. In turn, this help you save time and money with a single point of contact for all your metal plating needs.

With the reputation as an industry leader, Techmetals ensures our quality through our certifications with some of the most stringent testing facilities around, such as **Nadcap Chemical Processing, Nadcap Coatings, Nadcap Nondestructive Testing, AS9100D, ITAR** – as well as our participation in the FAA flight safety program. We proudly are recognized as an **FAA Repair Station** and able to handle the most flight-critical components available.



(937) 253-5311 ■ www.techmetals.com

Our Commitment to You

Over the years, Techmetals has built a reputation on a commitment to customer service and satisfaction. In-house engineers work tirelessly with our aerospace partners to develop new specifications, provide certified testing and even help develop new technologies and finishing solutions that coincide with the progression of the industry.

Techmetals' Scope of Metal Finishing Includes (but is not limited to):



Cadmium

Cadmium plating is an attractive, soft coating that can be deposited on various base materials, up to and including steels, copper and different types of iron. Known as one of the few deposits that is sacrificial, this coating excels in corrosion protection. With natural lubricity, this coating also provides anti-galling and low friction properties.

Other characteristics of this coating are low chemical resistance, ease of solderability and the flexibility to coat on dissimilar materials. Due to the efficiency of the bath, Cadmium is an excellent solution for the coating of critical parts as well as complex geometries.

With rack plating abilities to satisfy both the large and small volume projects, our 1,500 gallon plating tanks will handle your needs.



**Aluminum
Anodize**

Aluminum & Titanium Anodizing

Aluminum anodizing is an electrochemical process that converts aluminum into a durable, corrosion resistant, anodic oxide finish. This aluminum oxide is not applied to the surface like paint or plating, but is fully integrated with the underlying aluminum substrate, so it cannot chip or peel. It has a highly ordered, porous structure that allows for secondary processes such as coloring and sealing.

Anodized finishes have made aluminum one of the most respected and widely used materials today in the production of thousands of consumer, commercial and industrial products.

Titanium Anodize process is commonly used to create a unique range of colors for a base titanium metal – without the use of harsh dyes or brighteners, leaving the substrate otherwise unchanged. This electrochemical solution basically changes the oxide layer on the base metal.

**Titanium
Anodize**



Electroless Nickel (EN) – Low, Mid & High Phosphorous

Electroless Nickel (EN) plating is a process that uses a chemical reaction to co-deposit its Nickel-Phosphorus coating onto a desired substrate. This solution differs from other metal finishing processes because it does not require an electricity source to coat the part.

As applied, Electroless Nickel coatings are uniform, lubricious, easily solderable and highly corrosion resistant (dependent upon the phosphorous content of the coating). They can be post hardened through baking to produce higher wear resistance than that of an as-plated condition. This combination makes the coating well suited for a wide variety of uses.

The frictional characteristics of EN coatings are excellent. Their phosphorus content provides a natural lubricity, which helps to minimize heat buildup and reduces scoring and galling and which can be very useful for applications such as plastic molding. The co-efficient of friction is one-half that of electroplated Watts nickel.



Techmetals also offer **Hard Chrome, Nuclear Chrome, Nuclear EN solutions and more!**