



TECHMETALS

ENGINEERED METAL FINISHING & PERFORMANCE COATINGS

Line Card



ISO 13485:2016 ■ ISO 9001:2015 ■ ATF-FFL 7 & 10 ■ FAA Repair Station ■ ITAR

Techmetals, Inc.

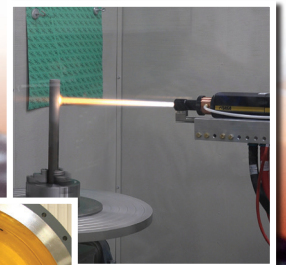
For over 50 years, our customers have relied upon Techmetals for unmatched metal plating, reliability and customer service. We take great pride in our ability to work closely with our customers, offering a personal and efficient solution for over **86 finishing processes** and **engineered performance coatings** – helping to set us apart for our competitors.

We support a variety of industries such as **Aerospace, Automotive, Medical, Military, Power Generation, Agriculture** and more with certified solutions backed by Nadcap CP & CT, ISO 13485:2016, ISO 9001:2015, ITAR, FAA Repair Station and Medically Validated Coatings and Processes to name a few.

Large-part Capabilities and **Automated Lines** help maximize our services to you with regards to quality, turnaround and customer service. With a **200,000 sq. ft. campus** and up to **20-ton capacities**, no job is too large or too small. Techmetals truly is a one-stop-shop for a variety of finishing solutions. Just a few of our services include:

- Anodized Aluminum
- Anodized Titanium
- Brush Plating
- Cadmium Plating
- Chemfilm
- Chrome, Industrial
- Copper Plating
- Diamonize
- Dry Film Lube (DFL)
- Electropolish
- Grinding, ID & OD
- Grinding, Centerless
- Laser Etching
- Mag Particle NDT
- Materials Lab
- Masking Dept.
- Nickel Boron
- Nickel, Electroless
- Nickel, Electrolytic
- Nickel, PTFE
- OPTAKOAT®
- Optical Coatings
- Passivation
- PVD (DLC, TiN, etc.)
- Silver & Gold
- Thermal Spray
- Tin Plating
- Walk-in Blasting
- Zinc Plating
- Zinc Nickel

This list is just a few of the processes and services we offer. Our automated lines and large-part capabilities for industries such as automotive, medical, aerospace and others help set us apart from our competitors.



Aerospace & Defense Finishes

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

We assist both OEM component and MRO facilities – providing metal plating and anodizing for a variety of parts. With the reputation as an industry leader, Techmetals ensures the highest quality is obtained through our certifications such as Nadcap Chemical Processing, Nadcap Coatings, AS9100D – 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.

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Medical Coatings & Processes

Parts utilized in the medical field demand precision, quality and compliance to the highest degree.

Techmetals is certified to provide a variety of metal finishes including both titanium and aluminum anodizing, passivation and medical grade chrome plating, just to name a few. We also provide the laser etching services now required by the medical industry to properly track or document each part's use.

Our medical processes have all undergone and passed biocompatibility testing for **bioburden, cytotoxicity and wear resistance** – with our MedaDize finish meeting even aerospace requirements.

Medical Processes Include:

- **BioBrite** (Validated Electropolish)
- **MedaPass** (Validated Passivation)
- **TM-Rx** (Medical Grade Chromium Coating; ISO 10993-1, Validated)
- **Medically Validated PVD Coatings:**
TechCoat 100, 200, 300, 400
TiN, AlTiN, DLC, CrN & more
- Aluminum & Titanium Anodizing
- Laser Etching/Dark Marking
- Blasting, Testing, Prototyping
- Ultrasonic Cleaning
- Research & Development
- **MedaDize Color Titanium Anodize**
TM-0079 (Aqua)
TM-0064 (Magenta)
TM-0092 (Dk. Blue)
TM-0003 (Green)
TM-0001 (Gold)
TM-0005 (Seafoam)
TM-0096 (Purple)
TM-0004 (Lt. Blue)
TM-0093 (Bronze)
TM-0002 (Blue)
TM-0134 (Teal)
AMS2488 (Type II Gray)

Custom colors available upon request. Provided they fall within titanium anodize color spectrum. All TM-MedaDize colors have a high and low color acceptance standard – standards can be provided.

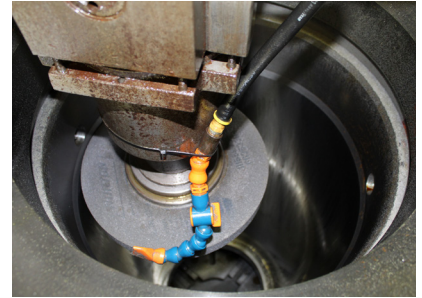
Grinding Services

Techmetals can do pre-grinding on parts before plating, as well as post-grind hard chrome projects to meet dimensional specifications. Having these resources under a single roof helps improve turnaround times and efficiency.

Just another example of Techmetals commitment to being a one-stop-shop for customers in Aerospace, Nuclear, Heavy Machinery and more.



5-Axis 30" x 30" x 30"



Large Scale ID Grinding

Vertical Grinding Capabilities: 72" Vertical Stroke ■ 60" Table ■ 30,000 lbs.

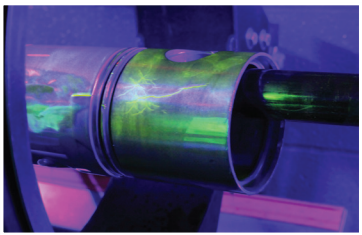
5-Axis Grinder: (30" x 30" x 30")

Horizontal Grinding: Up to 100" Length ■ 20" Diameter ■ 2,500 lbs.

Centerless Grinding is also available (call for details)

Engineered Performance Coatings (MV - Medically Validated)

- | | | | | |
|------------------|-------------------------------|--------------|-------------------------|-------------------------|
| ■ OxyTech | ■ TM111 | ■ TM104 | ■ TM109 | ■ TechCoat 200 (MV) |
| ■ OxyLube | ■ TM119 | ■ TM117C | ■ OPTAKOAT | ■ TechCoat 300 |
| ■ Armatech | ■ TM121 | ■ TM117P | ■ Optic EN | ■ TechCoat 345 Med (MV) |
| ■ Diamoforce | ■ TM-Rx Medical Chromium (MV) | ■ TM129 | ■ TechCoat 100 (MV) | ■ TechCoat 400 (MV) |
| ■ Splatter Guard | ■ E-Krome | ■ TM133 | ■ TechCoat 100 Med (MV) | ■ TechCoat 500 |
| ■ TM105 | ■ TM103 | ■ UltraKcoat | ■ TechCoat 200 (MV) | ■ TechCoat 600 |



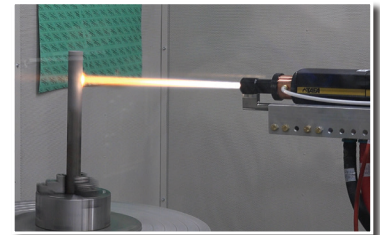
Nondestructive Testing (NDT)

Techmetals currently is certified in **Magnetic Particle Testing**, allowing our customers to verify their equipment or parts with techniques that do not damage them. Magnetic particle inspection is the most efficient and affordable testing method available. We have **three separate NDT benches**, with the largest **able to accommodate parts up to 54" in length**.

Thermal Spray Coatings

When it comes to Thermal Spray Coatings, look no further than the experts at Techmetals, Inc. Boasting over 50 years experience in providing certified metal plating and coating solutions, we are your one-stop resource for a variety of thermal spray technologies and services, including:

- | | |
|--|--|
| ■ High-Velocity Oxy Fuel (HVOF) Processes | ■ Air Plasma Treatments |
| ■ Twin-wire Arc Spray Coatings | ■ and Precision Machining/Grinding Services |



Thermal spray coatings are often used to help prevent devastating issues such as **wear, erosion, abrasion and corrosion** of integral parts that demand flawless function and reliability.

This specialized spray offers unique versatility and benefits in repair & restoration capacities, as well as with new parts –most commonly in seen in the aviation, oil & gas and power generation markets. But it also is utilized in fields such as pulp and paper, automotive, marine and other industrial capacities.

Techmetals Industry Specifications

Below are specifications that are most often provided by Techmetals. We also offer metal plating solutions to additional specifications such as AMS, MIL, ASTM, SAE and Customer Specifications. Techmetals also offers R&D, Optical Coatings, Medical Coatings, Large ID & OD Grinding & Areas with 20-Ton Capacities.

■ Alkaline Zinc

ASTM B 633

■ Anodize

MIL-A-8625
AMS 2469
AMS 2471
AMS 2472
ASTM B 580*

■ Brush Plating

Nickel, Cobalt, Copper
MIL-STD-865C (USAF)
AMS 2451

■ Copper

AMS 2418

■ Chemfilm

MIL-C-5541
AMS 2473
MIL-DTL-5541 (Hex)
MIL-DTL-5541 (Hex Free)
BAC 5719
9904151 (Type 1)
MAP-311088-1300

■ Cadmium

QQ-P-416
AMS QQ P 416

■ Electropolish

ASTM B 912

■ Gold

ASTM B 488

■ Hard Chrome

AMS QQ C 320
AMS 2406
AMS 2460
ASTM B 177
FED-QQ-C-320

■ Hard Chrome

MIL-DTL-23422
MIL-STD 1501 F

■ Nickel Boron

AMS 2433
ASTM B 607*

■ Nickel/EN

AMS C 26074*
AMS 2404
AMS 2405
AMS 2454
ASTM B 733
MIL-C-26074
MIL-DTL-32119

■ Nickel / Sulfamate

AMS 2403
AMS 2424
AMS-QQ-N-290
FED-QQ-N-290
Union Carbide J5 1396

■ Passivation

AMS QQ P 35
AMS 2700
ASTM A 380
ASTM A 967
ASTM F86*
FED-QQ-P-35
9904301

■ Silver

AMS 2410
AMS 2411
AMS 2412
ASTM B 700
QQ-S-365

■ Tin

ASTM B 545*

■ Titanium Coating

AMS 2488

■ Zinc Nickel

AMS 2417
BAC 5680
BAC 5637

■ PVD / Thin Film Vacuum

AMS 2444
TiN, DLC, TiCN, CrN,
AlTiN, AlTiCrN, ZrN

■ Other

MIL-STD-186
MIL-STD-171
BAC 5625
MPR 1059 Navy
NAVAIR/NAVSEA/
NAWCAD
Nickel PTFE, Diamond
Coatings, OptaKoat,
Hard Chrome,
Replacements
Thermal Spray (HVOF,
Twin-wire Arc, Air Plasma)

■ Testing

NDT Mag Particle
Adhesion Scratch & Chisel
Corrosion/Salt Spray
& Porosity
B12 Adhesion Bend
Thickness & Magnetic
Eddy Current
XRF Micro-hardness
Water Immersion Bond
Strength-tape
Metallography &
Microstructure

Nadcap™ Accredited Processes are Shown in Blue.

Other Nadcap™ processes may be available upon request.

**Nadcap™ Accredited “other” under scope.*

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