



Technical Metal Finishing



"We Finish What Others Won't Even Start"

(818) 954-9504

sales@technicalmetalfinishing.com

www.technicalmetalfinishing.com



Technical Metal Finishing

We Finish What Others Won't Even Start



At Technical Metal Finishing, our strength lies in our ability to mask your products. Our method is superior in that it involves unique and multiple processes. As a result of our commitment to perfecting an exceptional masking process, we are able to process parts that many of our competitors cannot. We eliminate leakage so that we can provide multiple different finishes to a single part. We expertly adhere to the component prints and specifications for various industries; we have the ability to complete your project quickly; and our Nadcap certification assures you of consistent, high-quality products. For over 55 years, we've always met our customers' needs, no matter how difficult the requirement.

Our clients include:



LOCKHEED MARTIN





Technical Metal Finishing

SERVICE OVERVIEW

From its initial founding in 1955, Technical Metal Finishing has quickly grown to become one of the United States' preeminent metal finishing companies. Through the years we have successfully passed Phase I Environmental Studies, received Nadcap certification for our finishing services, added an automated control system for the handling of our Type III Anodized services, and developed and opened a penetrant inspection department accredited by Nadcap.

In addition to our unique masking capabilities, we “own” the entire process of managing your part from start to finish. If your part requires processes that we don't have in house, we will manage those processes through our suppliers and return the finished part to you. You cut a single purchase order for the part and we will do the rest. We focus on completing the entire process for your key components to allow you to focus on what you do best, running your business.

Service is what TMF is all about.

We have a well-earned reputation for quality and timely work in the following areas:

[Anodize Coatings](#) | [Chemical Film Coatings](#) | [Non-Destructive Testing](#) | [Passivation](#) | [Painting Services](#) |

Our primary markets are the aerospace and defense industries. Many of the products that we service are used in commercial, private and military aircraft. Our Nadcap certification makes our services highly desirable to machine shops who contract with aerospace and defense companies.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

ANODIZE COATINGS

Anodizing is an electrolytic passivation process used to increase the thickness of the natural oxide layer on the surface of metal parts. The process is called "anodizing" because the part to be treated forms the anode electrode of an electrical circuit.

Anodizing increases corrosion resistance and wear resistance, and provides better adhesion for paint primers and glues than does bare metal. Anodic films can also be used for a number of cosmetic effects. Anodizing is also used to prevent galling of threaded components and to make dielectric films for electrolytic capacitors. Anodizing thickness increases wear resistance, corrosion resistance, ability to retain lubricants and PTFE coatings, and electrical and thermal insulation.

Anodized aluminum products are used in thousands of commercial, industrial and consumer applications, limited only to the imagination of designers and engineers. Some of those industries include:

- Aviation and Aerospace
- Automotive
- Buildings and Architecture
- Electronics
- Food Manufacturers/Preparation Equipment
- General Manufacturing
- Military/Law Enforcement
- Sporting Goods



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

TYPE I & II ANODIZE

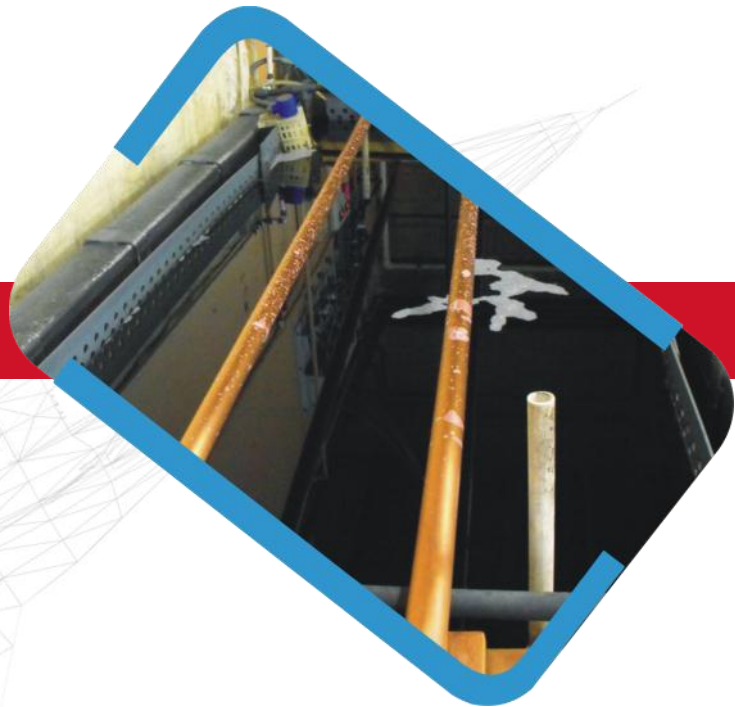
TYPE 1 ANODIZING

Chromic Acid Anodizing is the oldest anodizing process. Chromic acid anodizing is mostly used for protection of critical structures with all kinds of joints. The corrosion resistance is excellent relative to the thickness of the coating. The main use of Chromic Acid Anodizing is due to the fact that residues from the chromic acid trapped in parts that are difficult to rinse does not lead to corrosion. Another important feature is the fact that Type I coatings keep the aluminum materials fatigue strength and the very thin layer makes a minimal dimensional change. Parts treated with this process are harder to dye and is generally applied as a pretreatment before painting.

TYPE II ANODIZING

Sulfuric Anodizing (Type II) provides excellent corrosion resistance. Sulfuric acid is the most widely used solution to produce anodized coatings. It is less expensive, more environmentally friendly and easier to dye than chromic acid anodize. This is the standard specification used around for the world for commercially anodized aluminum in the medical, aerospace, and automotive industries as well as for military and defense applications.

There are many benefits of Type II Anodizing. A sealed anodized part is stain resistant, easy to clean, and is heat resistant up to the melting temperature of the aluminum itself. The natural color of sulfuric acid anodize will vary depending on the alloy. Sulfuric acid anodize that is not dyed is commonly referred to as clear anodize. A big feature of Type II Anodizing is the ability to dye the part to a variety of different colors. These can include black, blue, purple, yellow, red, green, gray, orange, and any number of combinations of different colors. This dyeing is useful for part identification, inventory control, and pure aesthetics. Most colors are light fast and can withstand very bright or hot environments without degradation of the color.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

TYPE III ANODIZE

Also known as Industrial Hard Coating, Type III anodizing is a process utilizing low bath temperatures, high current density, special electrolytes, and agitation to form a very hard, thick coating of aluminum oxide that actually penetrates the surface of the base metal. In fact, in true hard coat anodizing, fully half the thickness of the protective aluminum oxide layer penetrates beneath the surface, with the other half building up above the surface.

Industrial hard coating will result in an aluminum piece that exhibits superb abrasion and wear resistance, with excellent dielectric properties. Hard coat anodized surfaces also have a high degree of lubricity, which can be further enhanced by impregnation with solid lubricants such as PTFE (Teflon®) for an even lower coefficient of friction.

Hard Coat Anodizing (Type III) is designed for parts with “high wear” functions when hardness and wear resistance are the primary specification needs. Type III anodizing creates a coating with hardness characteristics harder than sapphire and second only to diamonds.

To determine which process best fits your particular requirement, call us at (818) 954-9504.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

ANODIZE MASKING

Using a variety of best-in-class products and services, Technical Metal Finishing's masking capabilities are second-to-none. Masking is required where no build up is desired or when a part needs both anodizing & chemical conversion. TMF uses precision masking as an effective means of maintaining strict tolerances on anodized, dyed or chem-filmed parts. Masking surfaces of parts where unwanted coating is to take place can easily make your parts functional and look good with little extra effort on your part.

We have continually worked to refine this critical component of the finishing process. TMF has the capability to take your part, analyze it thoroughly and mask specific areas in order to provide multiple process coatings before it leaves our shop. This process allows for multiple finishes to be applied in close proximity to the same part, allowing one area to be anodized while the rest of the part remains intact. We use masking resins that are formulated to provide superior surface protection and chemical resistance during chemical processes. We mask and seal all components in one step! Our masking process brings efficiency and cost reduction to:

- New Parts Manufacturing
- Overhaul and Repair
- Turbine and Metal Finishing

The masking resins we use are solvent free allowing our masking process to go "green" with the elimination of solvent lacquers.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

CHEM FILM COATINGS

Chemical conversion coatings are intended to prevent corrosion, improve adhesion of paint finish or other coatings, and for improved electrical and electronic applications where low resistance contacts are required. Chemical Film Coating is also referred to as Chem Film, Chromate Conversion, Iridite and Alodine. These are essentially the same process; for coating aluminum with a chromium-based compound.

Aluminum parts achieve a higher corrosion resistance when Chem Film is applied. Chem film is also a wonderful primer coat for paint or other organic coatings. It is thinner than anodic coatings. TMF offers both **Type I Chem Film** (Chromium-Based) and **Type II Chem Film** (Clear, Non-Chromium Based). The coating can be applied on the aluminum surface, with or without color, to form a surface corrosion resistant film when it is dried. Chem Film Coating produces a finish which:

1. Protects from corrosion
2. Assures good paint adhesion
3. Conducts electricity

Chemical Film provides less corrosion resistance than other finishes such as anodizing, and does not resist abrasion.

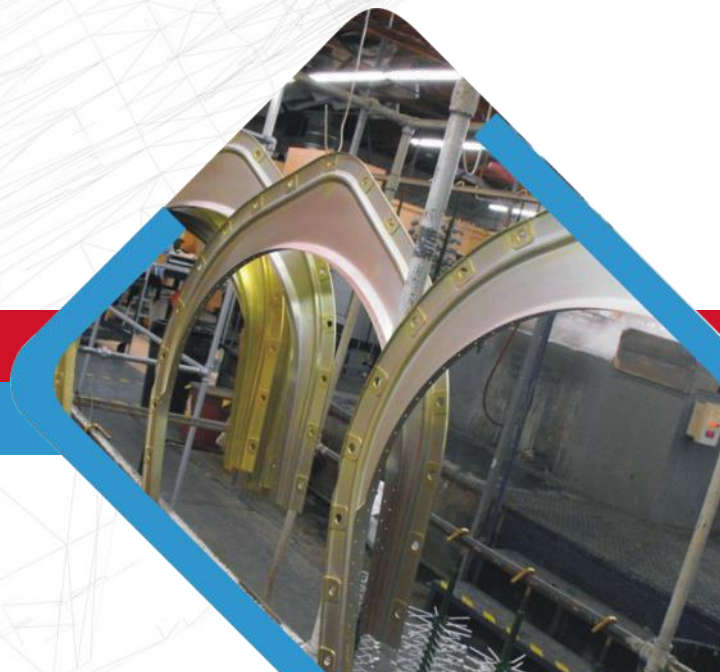
Benefits of Chemical Film Coating

- Conversion Coatings are Economical
- They are easy to use and offer a variety of valuable properties to extend the service life of parts
- Minimize Surface Oxidation of Aluminum Parts
- Very Thin Coating: No Dimensional Change
- Primer for Paint Adhesion and other topcoats



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

NON-DESTRUCTIVE TESTING

Simply put, non-destructive testing (NDT) is a process that is used to evaluate the properties of a material, component or system without causing damage. Because NDT does not permanently alter the article being inspected, it is a highly- valuable technique that can save both money and time in product evaluation and troubleshooting.

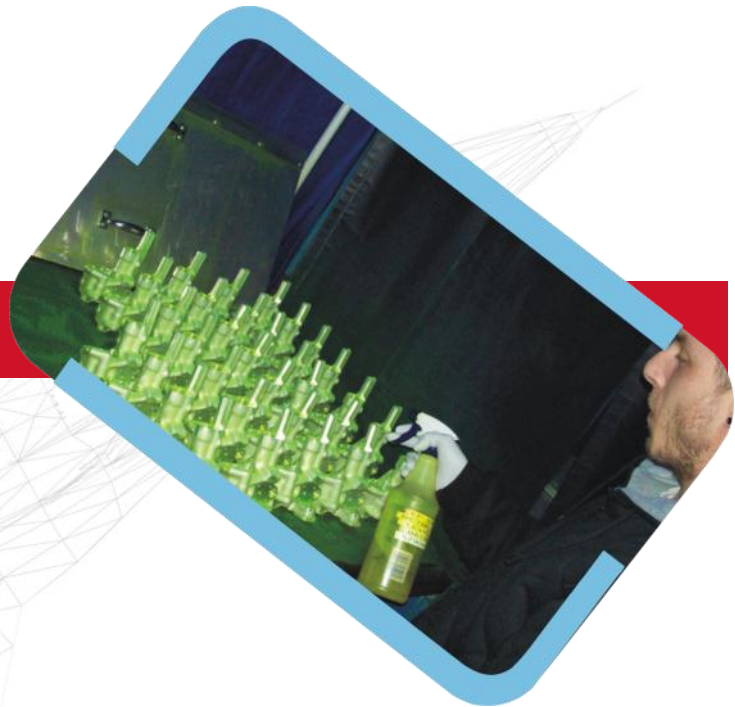
Some of our capabilities in NDT include:

Penetrant Inspection

Penetrant Inspection is the process of using a tool to find defects, flaws, and leaks in a material. A form of Non-Destructive Testing (NDT), a penetrant inspection will show the presence, location, size, and nature of the defects that are open to the surface but are too small to be seen by a normal visual inspection.

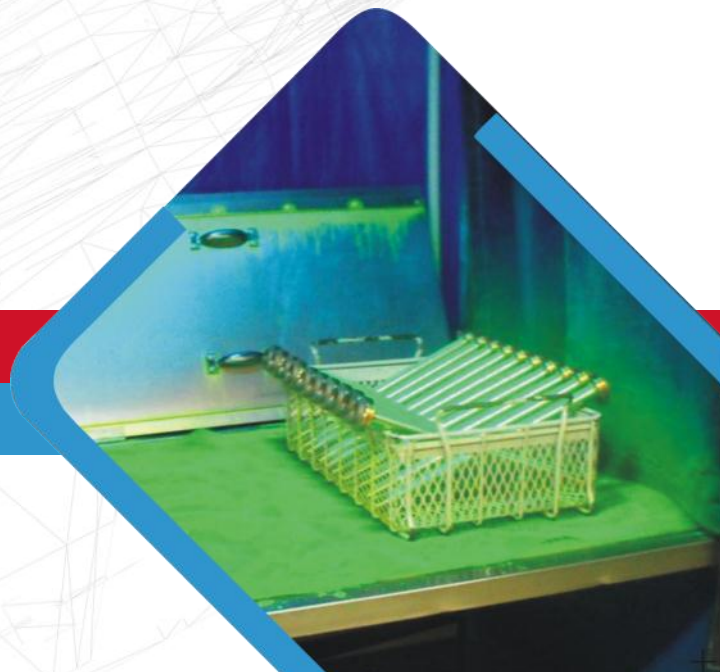
Technical Metal Finishing offers the following penetrant inspection services:

- **Fluorescent Penetrant Inspection (FPI)** is a type of dye penetrant inspection in which a fluorescent dye is applied to the surface of a non-porous material in order to detect defects that may compromise the integrity or quality of the part in question. Noted for its low cost and simple process, FPI is widely used in a variety of industries.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

NON-DESTRUCTIVE TESTING

Magnetic Particle Inspection (MPI)

Magnetic Particle Inspection (MPI) is a Non-Destructive Testing (NDT) process for detecting surface and sub-surface defects in materials such as iron, nickel, cobalt, and some of their alloys. It can be considered as a combination of two NDT methods: magnetic flux leakage testing and visual testing. MPI is fast and relatively easy to apply, and part surface preparation is not as critical as it is for some other NDT methods. These characteristics make MPI one of the most widely utilized nondestructive testing methods.

MPI uses magnetic fields and small magnetic particles (i.e. iron filings) to detect flaws in components. This method is used to inspect a variety of product forms including castings, forgings, and weldments. Many different industries use magnetic particle inspection for determining a component's fitness-for-use. Some examples of industries that use magnetic particle inspection are the structural steel, automotive, petrochemical, power generation, and aerospace industries.

With Technical Metal Finishing's MPI, you benefit by:

- Saving and expediting production capabilities before costly machining.
- Preventing failures that occur from flawed parts that make it into assemblies without inspection.
- Reducing risk of company liability with documented safety standards.



Request a Quote

sales@technicalmetalfinishing.com





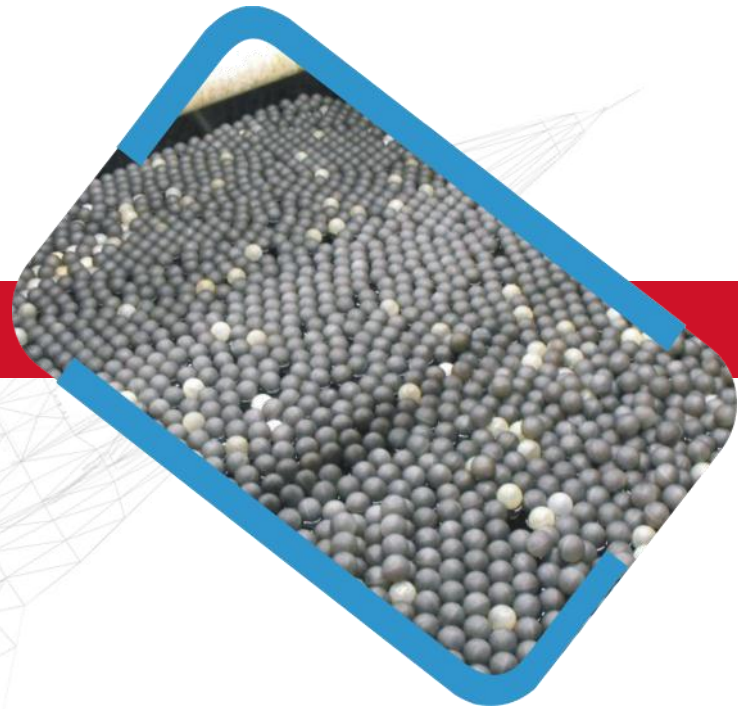
Technical Metal Finishing

PASSIVATION

What is passivation? Is it cleaning? Is it a protective coating? At Technical Metal Finishing, we realize that it is a combination of both! Passivation is a process that removes “free iron” contamination left behind on a surface as a result of machining and fabricating processes.

These contaminants are potential corrosion sites which, if not removed, result in premature corrosion and ultimately result in deterioration of the component. Passivation develops the formation of an insulating layer directly over a circuit or circuit element to protect the surface from contaminants, moisture, or particles.

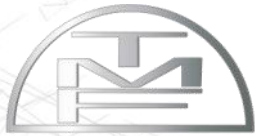
Verification tests undisputedly confirm the effectiveness of chemical passivation. Advanced material engineers in aerospace, electronics, medical, and similar high-tech industries have utilized chemical passivation for many years. Technical Metal Finishing knows your applications demand the maximum performance from components manufactured from corrosion resistant (stainless) steels, and we recognize that passivation is one of the most effective methods of achieving those desired results.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

AEROSPACE PAINT SERVICES

Not as hard and durable as anodize coatings, painted aluminum surfaces provide varying levels of corrosion protection, from excellent to fair, but are more vulnerable to scratches and wear that can affect the paint's corrosion resistance properties. The primary advantage of paint coatings is the ability to create virtually any color.

Technical Metal Finishing (TMF) provides painting solutions for a wide variety of aluminum and aluminum alloy parts. Depending on the design, size and function of the aluminum parts, there are a number of paint and application options available. TMF's painting division has been in operation for over a decade and is EPA compliant.

Our high capacity production facility can handle and process most sized parts. We meet and exceed the 10 day "industry-standard" lead time for project completion. To learn more about our capabilities and what we can do for you, please contact us.

- We have the ability to mix and match paints in-house. 1000's of colors available.
- Schedule Flexibility – we can produce rush orders when needed.
- Warehousing / Storage - for large production runs.
- Pick & Pack Services available.
- Safe, secure pick-ups and deliveries.



Request a Quote

sales@technicalmetalfinishing.com





Technical Metal Finishing

TANK SIZES

PROCESS	TANK SIZE
Chromic Anodize – Tank # 17	12' x 3.5' x 3.75'
Sulfuric Anodize – Tank # 9	10' x 4' x 3.75'
Hard Anodize – Tank # H-28	8' x 3.3' x 3.91'
Gold Chem Film – Tank #20	6' x 3' x 3'
Nickel Acetate Seal – Tank #15	8' x 4' x 3.5'
Dichromate Seal – Tank #13	8' x 4' x 4'
Oakite 166 Cleaner – Tank #1	8' x 4' x 4'
Oakite LNC Deox – Tank #7A	6' x 3' x 3.25'
Oakite LNC Deox – Tank #7B	6' x 3' x 2.75'
Etch – Tank #60	59 Gallons
Etch – Tank #61	35 Gallons
Metalast TCP-HF– Tank #24	4.1' X 2.1' X 2.8'
Passivation – Tank #70	47.5" x 44.5" x 44.75"
Passivation – Tank #71	47.5" x 44.5" x 44.75"



Technical Metal Finishing

CERTIFICATION



In accordance with SAE Aerospace Standard AS7003, to the revision in effect at the time of the audit, this certificate is granted and awarded by the authority of the Nadcap Management Council to:

Technical Metal Finishing

*3401 W Pacific Ave
Burbank, CA 91505-1555*

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

Chemical Processing

This certificate expiration is updated based on periodic audits.
The current expiration date and scope of accreditation are listed at:
www.eAuditNet.com - Online QML (Qualified Manufacturer Listing)
Certified since: 05 August 2004

William G. Wagner, Vice President and General Manager

Performance Review Institute (PRI) 161 Thorn Hill Road Warrendale, PA 15086-7527



Technical Metal Finishing

CERTIFICATION



In accordance with SAE Aerospace Standard AS7003, to the revision in effect at the time of the audit, this certificate is granted and awarded by the authority of the Nadcap Management Council to:

Technical Metal Finishing

*3401 W Pacific Ave
Burbank, CA 91505-1555*

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

NonDestructive Testing

This certificate expiration is updated based on periodic audits.
The current expiration date and scope of accreditation are listed at:
www.eAuditNet.com - Online QML (Qualified Manufacturer Listing)
Certified since: 11 August 2006

William G. Wagner, Vice President and General Manager

Performance Review Institute (PRI) 161 Thorn Hill Road Warrendale, PA 15086-7527



Technical Metal Finishing

CERTIFICATION



In accordance with SAE Aerospace Standard AS7003, to the revision in effect at the time of the audit, this certificate is granted and awarded by the authority of the Nadcap Management Council to:

Technical Metal Finishing

3401 W Pacific Ave
Burbank, CA 91505-1555

This certificate demonstrates conformance and recognition of accreditation for specific services, as listed in www.eAuditNet.com on the Qualified Manufacturers List (QML), to the revision in effect at the time of the audit for:

Aerospace Quality System (AC7004)

This certificate expiration is updated based on periodic audits.
The current expiration date and scope of accreditation are listed at:
www.eAuditNet.com - Online QML (Qualified Manufacturer Listing)
Certified since: 05 August 2004

William G. Wagner, Vice President and General Manager

Performance Review Institute (PRI) 161 Thorn Hill Road Warrendale, PA 15086-7527



Technical Metal Finishing

PRIME APPROVALS - BOEING

Technical Metal Finishing Boeing Processor Code Number: 560918

Process Code	Nadcap Commodity	Limitation Codes	Doc Notes	Nomenclature	Specification Number
001	AQS	None	None	Processor Basic Quality System for DI-4426 approval only	Quality System
300	CP	None	None	Chromic Acid Anodizing of Alum. - Type I	Mil-A-8625
300A	CP	None	None	Hard Coating - Aluminum	AMS 2468
301	CP	None	None	Sulfuric Acid Anodize Type II (Approval Not Required for International Space Station (ISS) Houston O	Mil-A-8625
302	CP	None	None	Hard Anodize Type III	Mil-A-8625
320	NDT	C3CIA	None	Chemical Conversion Coating on Aluminum (Immersion App only) (App not required for ISS)	Mil-C-5541
410	NDT	None	Limited to parts not requiring pre-penetrant etch	Penetrant Inspection	BAC 5423



Technical Metal Finishing

PRIME APPROVALS - BOEING

Technical Metal Finishing Boeing Processor Code Number: 560918

Process Code	Nadcap Commodity	Limitation Codes	Doc Notes	Nomenclature	Specification Number
809	CP	A3	Pre-process solutions only	Process Solution Control	Chem. Testing
L304	CP	None	None	Chromic Acid Anodizing	DPS 11.01
L304B	CP	None	Excluding 7050-7150- and 7475 materials	Chromic Acid Anodizing - Chromate Seal	DPS 11.01-3
L306	CP	None	None	Sulfuric Acid Anodizing	DPS 11.05
L308	CP	None	None	Hard Anodizing - Aluminum	DPS 11.04
M304	CP	None	None	Anodizing - Aluminum	HP4-2
M308	CP	None	None	Anodizing Aluminum - Wear Resistance	HP4-79
S304	CP	None	None	Anodizing Aluminum	PS 13201
S306	CP	None	None	Hard Coat - Aluminum	PS 13208



Technical Metal Finishing

PRIME APPROVALS - WOODWARD HRT

Technical Metal Finishing Woodward HRT Vendor #107955

Process Code	Description
HI08	Liquid Penetrant Inspection per ASTM-1417
HI10	Penetrant Inspection per ESS-082, -1, -2
HM24	Wet Paint Application
HP01	Anodize, Aluminum per Mil-A-8625, Type 1, Chromic
HP02	Anodize, Aluminum per Mil-A-8625, Type 2, Sulfuric
HP03	Anodize, Aluminum per Mil-A-8625, Type 3, Hard
HP05	Anodize, Aluminum per ESS-075, Chromate
HP07	Chemical Film Mil-C-5541
HP28	Passivate per ESS-001, -1, -5 Types I, II, III
HP31	Passivate per AMS-QQ-P-35A / AMS-2700
HP33	Solid Film Lubricant per AS-5272 and/or Mil-PRF-46010
HP37	Lubricants, Bonded, Solid Dry Film per ESS-064, -2
HS07	Chemical Etch Prior to Penetrant inspection per ESS-009
HI04	Standard Practice for Mag Particle Exam ASTM-E-1444



Technical Metal Finishing

PRIME APPROVALS - LOCKHEED

Technical Metal Finishing Lockheed Certification Data Number: QQQ932

Cert Code	Cert Status	Survey Date	Review Date	Description
C69	Approved	6/14/2007	6/14/2008	AMS/Mil-C-5541E Aluminum Chemical Film Class 1A
C70	Approved	6/14/2007	6/14/2008	AMS/Mil-C-5541E Aluminum Chemical Film Class 3



Technical Metal Finishing

PRIME APPROVALS - ROCKETDYNE

Technical Metal Finishing Rocketdyne Processor Code Number: 687500A

Spec #	Spec Title	Effective Date	Process Code	Nad-cap Com-	Doc Note	SMPP Req'd	Spec Type
Mil-A-8625	Anodic Coatings for Aluminum and Aluminum Alloys	10/28/2005	300	CP	TYPE 1	No	CSP
Mil-A-	“	10/28/2005	300D	CP		No	CSP
Mil-A-	“	10/28/2005	301	CP	TYPE 2	No	CSP
Mil-A-	“	10/28/2005	301B	CP		No	CSP
Mil-A-	“	10/28/2005	302	CP	TYPE 3	No	CSP
Mil-C-5541	Chromic Conversion coating for Aluminum and Aluminum Alloys	10/28/2005	320	CP		No	CSP



Technical Metal Finishing

PRIME APPROVALS - ROCKETDYNE

Technical Metal Finishing Rocketdyne Processor Code Number: 687500A

Spec #	Spec. Rev.	Spec Title	Effective Date	Process Code	Nad-cap Com-	Limit 1 Code	Limit 2 Code	Limit 3 Code	SMPP Req'd	Spec Type
Quality System		Processor Quality System	10/28/2005	001					No	CSP
Quality System		Processor Quality System	10/28/2005	002			C3	CIA	No	CSP
RA0109-010	G	Hard Anodize Aluminum	10/28/2005	N308	CP				No	CSP
RA1609-003	F	Anodic Coatings Aluminum	10/28/2005	N300D	CP	A8			Yes	CSP
RA1609-003	G	Anodic Coatings for Aluminum	12/10/2008	N300D	CP	A8			Yes	CSP



Technical Metal Finishing

PRIME APPROVALS - BELL HELICOPTER

Technical Metal Finishing Bell Supplier Code Number: 400628 (Was 006130)

Class 4 Bell Helicopter Fort Worth SPA

QPS Code	BPS Code	Category Code	Description	Restrictions?
I01R	4001	PA	Anodize Chromic Acid	N
	4387	PDI	Hard Anodize	N
	4182	QBI	Chemical Film Treatment, Class IA	N
	4310	QI	Application of Solid Film Lubricant	N

Comments / Restrictions Approved Bake Oven: 23825. Restricted to non-classified -- Not approved for Primary/Critical



Technical Metal Finishing

PRIME APPROVALS - ROLLS ROYCE, GE, MD HELICOPTER

Technical Metal Finishing Rolls-Royce Supplier Code Number

Process Code	Revisions	Comments
ESP 10678		DRY LUBE
ESP 11712		DRY LUBE
ESP 11715		DRY LUBE

Technical Metal Finishing GE Supplier Code Number: T9233

Process Code	Revisions	Comments
F50TF98		DRY LUBE
A50TF306		DRY LUBE

Technical Metal Finishing MD Helicopter Supplier Code Number: 7532

Process Code	Revisions	Comments
MDP4 -107	N/C	
MDP4 -2	N/C	
MDP4—57	N/C	
MDP4—79	N/C	

Proud Providers to the Best in Air & Space



Raytheon

NORTHROP GRUMMAN



Rolls-Royce®

LOCKHEED MARTIN



We look forward to hearing from you! To discuss a project, specialized needs or question you may have, please feel free to [contact us](#).

Our Standard hours of operation in the U.S are 9.00 AM to 5.00 PM PST



Technical Metal Finishing

(818) 954- 9504

www.technicalmetalfinishing.com

3401 West Pacific Avenue Burbank, CA 91505 -1592

Request a Quote

sales@technicalmetalfinishing.com