



SERVICE OVERVIEW

HEAT TREAT DIVISION

Processes Available:

- Atmosphere Harden & Draw
- Gas Carburizing & Tempering
- Carbon Restoration

Diameter Capabilities Of M6 Through
M30 (2") – Real Time Process Control System

PLATING DIVISION

- Ford Q-1 Approved Source
- Chrysler Approved Source
- General Motors Approved Source

Surface Finishing Processes Available:

- Zinc Electroplate
- **ZinKlad** (Ford S-437) Approved Applicator
- Zinc Cobalt, Zinc Iron Electroplate
- Tin-Zinc, Zinc Nickel Electroplate
- Trivalent Chromate Conversions
- Available in a variety of colors
- Rust Removal - "Pickle & Oil"
- Dry Phosphate
- "Dry To Touch" Phosphate & Oil
- Dip Spin Painting
- Zinc Phosphate & Oil

PLATING DIVISION (CONTINUED)

Organic Topcoats Available:

- General Motors - GM 6174-M
- Ford Motor Company - S-436
- Ultrazinc™ - ESB-M21P4-A7
- General Motors - GMW 4707

LOCKING & SEALING DIVISION

- Nylon Thread Patch
- **3M**™ - Fastener Adhesives
- OEM Approved Thread Sealants
- **LOCTITE**® Dri-Loc® Sealant
- **LOCTITE**® Vibra-Seal® Sealant
- Color Identification Services
- Air Stream Clearing of Brake "Bleeder" Screws

ADDITIONAL SERVICES

- A2 LA Accredited Laboratories in each division
- Metallurgists On Staff
- Mechanical Property & Corrosion Testing





OUR POPULAR SPECIFICATIONS

GENERAL MOTORS SPECIFICATIONS

SPECIFICATION	FINISH	SALT SPRAY HRS. (RED RUST)
• GM-4435M	Zinc Phosphate & Oil	72
• GM-4345M	Zinc Plating (Thickness Specified)	24-192
• GM-6174M	Zinc Phosphate w/ Black Organic	168
• GM-6035M	Phosphate w/ Special Oil Topcoat	96
• GM-6280M	Zinc Alloy Electroplate (Alloy Specified)	
• GMW-3044	Zinc (Thickness Specified) Trivalent Chromate (Optional Topcoat)	
• GMW-3179	Zinc Phosphate & Oil (Code "A" & Code "G")	24-72
• GMW-3200	Tin-Zinc .00035 Trivalent Chromate & Sealer	1000+
• GMW-4205 NEW!!!	Zinc Nickel Coating - Black Type	480
• GMW-4700	Zinc Nickel .00035 Trivalent Chromate	480
• GMW-4700G	Zinc Nickel .00035 Trivalent Chromate & Sealer	480

FORD SPECIFICATIONS (INCLUDING WORLDWIDE STANDARDS)

SPECIFICATION	FINISH	SALT SPRAY HRS. (RED RUST)
• S-2	Zinc Phosphate & Oil	72
• WSF-M1P86-A	Zn / Cobalt Electroplate (Thickness Specified)	240-552
• WSF-M1P89-A	Zn / Iron Electroplate (Thickness Specified)	240-552
• WSE-M1P93-A1 Through A4	Tin-Zinc Alloy Electroplate	240-504
• S-304, WSD-M1P85-A2	Zinc .00035 Clear Chromate	48-72
• S-309, WSD-M1P85-A2	Zinc Plate .00032 Dichromate & Lubricant	96
• S-414, WSD-M1P85-A2	Zinc Plate .00032 Olive Drab & Lubricant	144
• S-421, WSD-M1P85-A2	Zinc Plate .00032 Black Chromate & Lubricant	96
• S-430, WSD-M3P35-A1/A2	Zinc Phosphate & Oil	-
• S-434, WSD-M1P85-A1	Zinc Plate .0002	24
• S-435, WSB-M21P29-A1	Zinc .00035 Black Chromate & Black Organic	500
• S-436, WSS-M21P28-A2	Zinc Phosphate w/ Organic Topcoat	120
• WSS-M21P17-B1 (JS-500) NEW!!!	Zinc .00035 Trivalent Chromate & Topcoat Sealer	384
• S-437 ZinKlad , WSS-M21P17-B3	Zinc .00035 Trivalent Chromate & Sealer/Lube	384

CHRYSLER SPECIFICATIONS

SPECIFICATION	FINISH	SALT SPRAY HRS. (RED RUST)
• PS-80	Zinc Phosphate & Oil	72
• PS-PLATING	Zinc Plating (Thickness Specified)	24-96
• PS-1207	Chromate Conversion (Color Specified)	24-72
• PS-8955 (CO, NI, FE)	Zinc Alloy Electroplate (Alloy Specified)	-
• PS-8956E	Tin-Zinc Alloy Electroplate	300-600
• PS-10509 (JS-600) NEW!!!	Zinc .0003 Trivalent Chromate & Torque Modifier	500

OTHER SPECIFICATIONS

SPECIFICATION	FINISH	SALT SPRAY HRS. (RED RUST)
• DX551200 (Delphi) NEW!!!	Zinc Electroplate (Various Combinations)	-
• DOD-P-16232	Zinc Phosphate & Oil	72
• QQZ-325	Zinc Electroplate	36-192
• ASTM-B633	Zinc Electroplate	12-96





LOCKING & SEALING DIVISION

AUTHORIZED LOCTITE® PRE-APPLIED APPLICATOR

- **LOCTITE®** Dri-Loc® Adhesives:
DL-200, DL-201, DL-202, DL-203, DL-204,
STS & Anti-Seize
- **LOCTITE®** Sealants: Vibra-Seal® Products
#503™, #516™ & #517™

AUTHORIZED ADHESIVE & SEALANT APPLICATOR

- **3M™** Fastener Adhesives:
#2353 (Blue), #2510 (Orange)
- OEM Approved Thread Sealants

NYLON THREAD PATCH APPLICATOR

- Color: Pink



NYLON PATCH SPECIFICATIONS

PF-5144	GM-6189-M	WA-970
PF-6158		ES-382101-S100
PF-5461	IFI-124	ES-378813-S100
PF-4730	IFI-524	ES-N800688-S100

ADHESIVES

PF-6616	GM-6175-M	WX-200
MS-CC 74	GM-6193-M	ES-20010-S100
MS-CC 76	GM-6194-M	ES-20007-S100
	GM-6124-M	ES-377734-S100
IFI-125	GM-9985500	WSK-M2G354 A1/A9
IFI-525		ESE-M2G260-A1/A2/A3
		ESE-M2G260-A4 & A5
Rockwell Q-29		ESE-M2G200-A
Rockwell Q-43		ESE-M2G200-B
Rockwell Q-59		ESS-M11P24-A1 & A2

SEALANTS

MS-CD 914	GM-9985490	ESA-M4G208-A1
MS-CD 16	GM-9985473	EST-M4G208-B1 & B2
	GM-6013-M	ES-388525-S101
Rockwell Q-56	GM-6108-M	WSK-M4G328 A1/A6





GENERAL PROCESS TIMING*

DETROIT HEAT TREAT DIVISION

2 Automated Continuous Belt Furnaces - Capacity of 2,000,000 # Per Week

- Atmosphere harden & temper 48 - 72 Hours
- Gas carburizing & temper 96 Hours

PLATING DIVISION

- 4 Embrittlement Relief Ovens On Site
- 3 Automated Zinc Plating Lines - Capacity of Over 2,000,000# Per Week
Featuring in-line computer controlled zinc plate, bake & chromate
- 1 Zinc Nickel Plating Line - Capacity of 100,000# Per Week
- 1 Automated Zinc Cobalt / Zinc Iron (Alloy) Plating Line - Capacity of 500,000# Per Week
- 1 Automated Tin/Zinc (Alloy) Plating Line - Capacity of 500,000# Per Week
- 2 Automated Zinc Phosphate Lines - Capacity of Over 2,000,000 # Per Week

Surface finishing processes available: Featuring trivalent chromate conversions

- Zinc Plating, bake & chromate 48 - 72 Hours
- Zinc Cobalt plating, bake & chromate 48 - 72 Hours
- Zinc Iron plating, bake & chromate 48 - 72 Hours
- Zinc Nickel plating, bake & chromate 48 - 72 Hours
- Tin-Zinc plating, bake & chromate 48 - 72 Hours
- Phosphate & Oil 24 - 48 Hours
- Dry Phosphate 24 - 48 Hours
- Rust removal - Pickle & Oil 24 - 48 Hours

Organic topcoats & sealers available:

- "Phosphate & Black Topcoat" - GM 6174M 48 - 72 Hours
- "Phosphate & Black Topcoat" - S-436 48 - 72 Hours
- "Ultrazinc"™ - ESB-M21P4-A7 48 - 72 Hours
-  ZinKlad - S-437 24 - 48 Hours

ADDITIONAL SERVICES

- A2LA accredited laboratories for mechanical & corrosion testing

* The above noted information represents approximate lead times and are presented as a guide only

**Jobs that require expedited turnaround time will be subject to a line break-in premium charge

