

CADON PLATING & COATINGS, LLC



World Class Quality, Right Down to the Finish!



COMPANY HISTORY

Cadon Plating Company was founded in 1947 in Riverview, Michigan. The company started out as a small job shop plating fasteners in both cadmium and zinc. In 1957, the company was moved to its present location and has been in business here ever since.

Today, Cadon is one of the premiere finishing shops in the metro Detroit area employing over 80 employees and utilizing the most advanced technology in the metal finishing industry. Cadon operates around the clock 5-6 days per week providing a variety of finishes to meet all of our customers' finishing needs.

CADON PLATING COMPANY MISSION STATEMENT

WORLD CLASS QUALITY, RIGHT DOWN TO THE FINISH !

In Cadon Plating Company's efforts to achieve the Corporate Mission of "*providing world class products, processes and services to our customers*", we have become certified to ISO 9001:2000 & TS16949 quality system's standards.

Incorporation of these standards, coupled with the involvement of our people and continuous improvement efforts, shall enable us to meet our goals.

VISION STATEMENT

Cadon Plating Company pledges an endless commitment to apply only the highest quality coatings in the metal finishing industry. Through continuous improvement, a quality management philosophy, employee empowerment, and a dedicated team effort, we perpetually pursue our goal of 100% customer satisfaction with zero discrepancies. Our superior products, continued customer satisfaction, as well as environmental and community dedication attest to our commitment to achieve our goals.

The primary function of Cadon Plating Company is to provide advanced corrosion resistant coatings to the manufacturing and automotive industry. This is accomplished through state-of-the-art equipment and a total commitment to quality. Because of this total commitment to quality and customer satisfaction, Cadon has earned licensing rights to apply the following coatings:

- Metal Coatings International's DACROMET® and GEOMET® family of Coatings
- Northern Chemical and Coating's family of Aquaphos, FM Aquaphos, and Texacote 452
- S-435 Ultrazinc coating
- Magni International's line of products

Along with the above mentioned product lines, Cadon can process parts to meet hundreds of different specifications. Some of the processes that we provide include; zinc electroplating and chromating, hexavalent free finishes, mechanical plating of zinc & tin, phosphating, and dip spin applied organic paints.

SURFACE COATINGS HAVE BEEN UTILIZED FOR HUNDREDS OF YEARS AND FOR NUMEROUS PURPOSES. ELECTROPLATING HAS BEEN IN EXISTENCE SINCE THE EARLY EIGHTEEN HUNDREDS. IT HAS ONLY BEEN, HOWEVER, SINCE WORLD WAR II THAT THE MODERN AGE OF PLATING AND COATINGS HAS ARRIVED. TODAY, THERE ARE A MULTITUDE OF OPTIONS AVAILABLE FOR APPLICATION ENGINEERS TO CHOOSE FROM WHEN CONSIDERING WHAT FINISH WOULD BEST SUIT A FASTENER. THERE ARE FINISHES THAT PROVIDE VARYING DEGREES OF CORROSION PROTECTION ONLY. THERE ARE FINISHES FOR TORQUE MODIFICATION AND LUBRICITY REQUIREMENTS. THERE ARE FINISHES FOR EXTREME TEMPERATURE AND WEATHER CONDITIONS. THERE ARE FINISHES FOR DECORATIVE APPLICATIONS. THERE ARE ALSO FINISHES SUITED FOR ELECTRICAL APPLICATIONS. THE LIST GOES ON AND ON. WHEN CONSIDERING AN APPLICATION FOR A FASTENER, THE FASTENER ENGINEER SHOULD CONSULT WITH THE COATER TO DETERMINE THE MOST ECONOMICAL FINISH THAT WILL MEET APPLICATION CONDITIONS.



	Corrosion Protection	Embrittlement Potential	Oil Retention	Paint Adhesion	Identification	Decorative Appearance	Lubricity Control	Grounding	Recessed Parts
Electroplating									
Zinc & Clear Chromate	Fair	Low			✓	✓			✓
Zinc & Yellow Dichromate	Good	Low			✓	✓			✓
Zinc & Black Chromate	Fair	Low			✓	✓			✓
Zinc & Olive Drab Chromate	Best	Low			✓	✓			✓
Chromite (Meets GMW3044)	Very Good	Low			✓	✓	1		✓
Phosphating									
Dry Phos	None	Low	✓	✓					✓
Phos & Oil	Low	Low	✓						✓
Mechanical Plating									
Zinc & Clear Chromate	Fair	None			✓		1		
Zinc & Yellow Chromate	Good	None			✓		1		
Zinc Tin	Fair	None			✓		1	✓	
Dip Spin Organics									
Dacromet	Best	None		N/A		✓	✓		
Magni	Best	None		N/A		✓	✓		
Geomet (Chrome Free)	Best	None		N/A		✓	✓		
Aquaphos	Good	Low		N/A			✓		
FM Aquaphos	Good	Low		N/A			✓		
Texocote 452	Fair	Low		N/A			✓		
6253 HiGloss	Good	Low		N/A		✓	✓		
Polyseal	Good	Low	✓	N/A			✓		
ID Tracers	None	None	✓	N/A	✓				

Note 1—Lubricity control available with waxes, oils, sealers, lubricants, and Teflon modified topcoats.

COATINGS ARE CLASSIFIED INTO TWO CATEGORIES, SACRIFICIAL AND BARRIER COATINGS. A BARRIER COATING PROTECTS THE BASE METAL BY ENVELOPING THE PART IN AN INERT ORGANIC COATING THAT HAS BETTER RESISTANCE TO CORROSION THAN THE BASE METAL. THIS TYPE OF COATING PROVIDES PROTECTION SO LONG AS THE COATING IS NOT EXCESSIVELY DEGRADED BY SCRATCHING AND ABRASION. THE SECOND TYPE OF COATING IS A SACRIFICIAL COATING. A SACRIFICIAL COATING IS TYPICALLY A METALLIC COATING THAT REACTS WITH THE SUBSTRATE TO CREATE A SITUATION WHERE, BECAUSE OF THE DIFFERING ELECTRON POTENTIALS OF THE TWO METALS, THE COATING WILL CORRODE BEFORE THE SUBSTRATE. MANY MODERN COATINGS ARE NOW EMPLOYING BOTH TYPE OF PROTECTION INTO ONE FINISH THAT EXPANDS THE CORROSION PROTECTION TO OVER 1000 HOURS IN NEUTRAL SALT SPRAY TESTING.



MECHANICAL PLATING

MIXED AND FOREIGN MATERIAL

THE PROBLEM OF MIXED AND FOREIGN MATERIAL IS THE NUMBER ONE PROBLEM IN OUR INDUSTRY. TO MEET OUR GOAL OF 100% CUSTOMER SATISFACTION WITH ZERO DEFECTS, CADON HAS INCORPORATED THE FOLLOWING:

- EXTENSIVE OPERATOR TRAINING ON THE ABSOLUTE NECESSITY OF PREVENTING MIXED AND FOREIGN MATERIAL FROM ENTERING THE SYSTEM.
- RE-ENGINEERING OF PROCESS LINES TO REDUCE POTENTIAL CATCH POINTS.
- VIDEO SURVEILLANCE CAMERAS DIRECTED TOWARDS OVERHEAD LOADERS MONITORED BY OPERATORS AT ALL TIMES.

SOFT HANDLING

CADON RECOGNIZES THAT MINIMIZING PART DAMAGE IS CRITICAL TO ENSURING CUSTOMER SATISFACTION. TO MEET OUR CUSTOMERS' NEEDS, WE HAVE INTEGRATED THE FOLLOWING ITEMS INTO OUR OPERATING SYSTEM.

- LINED CHUTES AND LOADERS TO MINIMIZE THREAD DAMAGE.
- HAND LOADING AND UN-LOADING STANDS FOR OVERSIZED & DELICATE PARTS.
- VARIABLE SPEED BARREL DRIVES TO MINIMIZE PART TO PART CONTACT DAMAGE.
- TIMERS ON OUR PHOS LINE TO PERIODICALLY STOP BARREL ROTATIONS.
- SCISSOR LIFTS AND TUB STANDS TO MINIMIZE DROP DISTANCES.
- NEW CONVEYORS WITH RUBBER BELTS

ISO 9000:2000 / TS 16949 CERTIFIED

IN APRIL OF 2004, CADON PLATING AND COATINGS ACHIEVED CERTIFICATION TO THE STRINGENT REQUIREMENTS OF ISO9000:2000 / TS 16949, BECOMING ONE OF THE FIRST AND ONLY PLATING SHOPS IN NORTH AMERICA REGISTERED TO THIS PRESTIGIOUS STANDARD. COPIES OF OUR CERTIFICATE MAY BE DOWNLOADED FROM OUR WEBSITE AT WWW.CADONPLATING.COM

TRACEABILITY

Cadon Plating Company realizes that there is a need to provide 100% lot integrity and traceability for all of our customers. Because of this need, Cadon has designed a route ticket & tagging procedure that is unique. Our system assigns a route ticket to each and every tub of parts that we process, not just every lot. On our route ticket, we also print out each associated tub in the entire lot to know the full content of each order. Our route ticket system also allows us to add additional comments and instructions to meet any special processing or handling need.



CADON ROUTE TICKET



WMV PROCESS LINE

IN 2002 CADON INSTALLED A STATE OF THE ART, WMV MANUFACTURED DIP SPIN COATING LINE TO BETTER MEET THE NEEDS OF OUR CUSTOMERS. THIS LINE FEATURES INDIVIDUAL PART PARAMETER PROGRAMMING THAT ALLOWS US TO SET PREDETERMINED WEIGHTS, DIP TIME, SPIN TIME, SPIN SPEED, AND TILT PARAMETERS TO MAXIMIZE EFFICIENCY AND MINIMIZE COST. THIS LINE ALSO FEATURES A 90 DEGREE TILT CAPABILITY IN THE SPIN CYCLE THAT MAKES IT AN EXCELLENT LINE FOR MINIMIZING HEAD FILL.





AUTOMATIC BARREL PLATING LINE

ZINC PLATING

Cadon Plating has been in the zinc plating business since its inception. Over the years, we have upgraded and updated our lines with the most advanced, newest technology to improve our process capabilities. These up-grades have resulted in lines that are faster, more efficient, and operator friendly. We have automated feed systems, concentration controls, temperature controls, and system monitoring capabilities that result in consistent, quality parts day in and day out.

Cadon's two zinc lines are capable of processing over 5000# per hour each. We currently provide both hexavalent and hexavalent free chromates on dedicated lines to prevent cross contamination. Other modifications include variable speed barrel drives in the finishing tanks that allow us to adjust speeds to part types. Parts that nest can be rotated faster while parts that are susceptible to scratching can be rotated slower to enhance final part quality

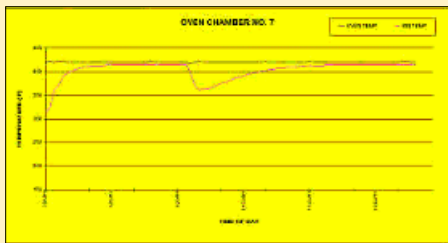


COMPUTERIZED SYSTEM MONITOR

**CADON PLATING
COMMITTED TO QUALITY
ZERO DEFECTS-ZERO EXCUSES**



OPERATOR CONTROLS



BAKE RECORD

EMBRITTLEMENT RELIEF BAKING

Cadon uses a large, multi-chambered bake oven for embrittlement relief baking of electroplated parts. These computer controlled ovens monitor both oven air temperature as well as part mass temperature. When finished with the bake cycle, the computer prints out a bake record of the bake process that is stored for future reference. Cadon operates to meet the requirements of Chrysler PS9500, the most stringent of all bake specifications.

PHOSPHATING & PAINTING

Much of the work that Cadon does is phosphate based organic and inorganic paint applications. To improve the efficiency and productivity of our processing, Cadon has made several modifications that make us the industry leader and low cost producer of numerous finishes. Our phosphate line utilizes barrels that will hold an entire tub of parts, maximizing our ability to quickly process parts. Cadon has also designed and installed one of the largest dip-spin lines in North America. This fully automatic processing center has capabilities exceeded by none. Parts can be automatically loaded for bulk processing or hand loaded for specialty work and delicate parts that might otherwise be damaged by bulk processing. This line has a computer “brain” that can store in memory the processing parameters for 2500 different part numbers. The operator need only enter a part number and the line will automatically adjust all processing parameters to the pre-set specifications. Along with this paint line, Cadon has three other paint lines that allow us to concurrently process multiple finish specifications.

PAINT LINE #3



MECHANICAL PLATING

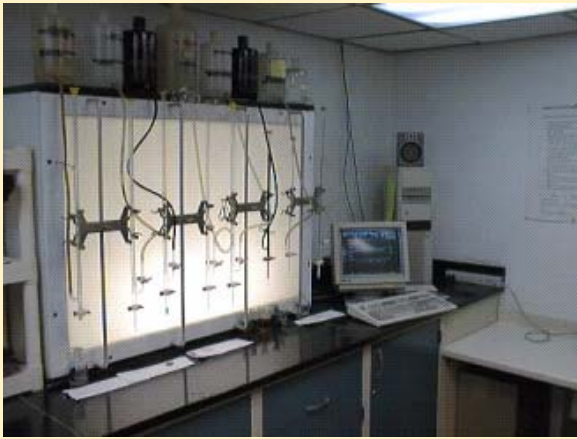
Mechanical Plating can be used to apply zinc, tin, or a combination of the two for corrosion protection. Essentially, mechanical plating uses mechanical energy at room temperature to “Cold Weld” powdered metal onto parts. This finish is popular because there is no lasting hydrogen embrittlement such as what might be encountered with electroplating. Components to be coated are loaded into a rotating barrel like the one shown on the left. Then glass beads of varying sizes are loaded in as well as catalysts and promoter chemistry. Finally, powdered metal is added that adheres to the parts and is “Cold Welded” by the peening action of the glass media as the barrel turns. A variety of post finishes, such as chromates, torque modifiers, and sealers can be applied after plating to meet specification requirements.



Three salt spray test chambers to verify process control and ensure continued compliance to applicable specification requirements

An RS Technologies manufactured Torque Tension testing station to ensure compliance to specific lubricity requirements

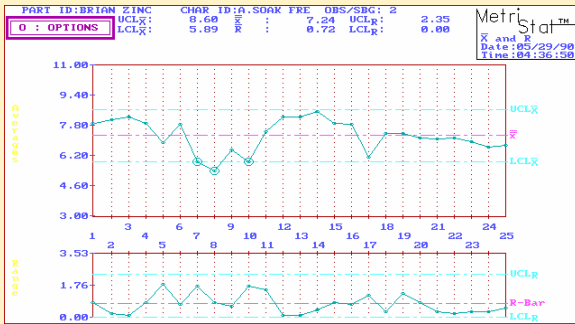




LAB ANALYSIS

Cadon uses state of the art equipment and a unique computer program to control all process parameters. Lab technicians, of which there is one on every shift, enter hard data from titrations and analysis into a computer program. This program calculates the resultant concentrations and determines what, if anything, needs to be added or adjusted. The computer then prints out a sheet detailing the findings and listing chemical additions needed to optimize performance. This program then exports the information into an SPC program that tracks trends and monitors how Cadon is performing statistically.

Cadon also has state of the art equipment to test the parts that we process. Some of the equipment employed includes; eddy-mags, fischerscopes, salt spray chambers, torque tension instruments and Johnson gauges.



COMPLIANCE

Cadon maintains an on-site waste treatment facility to process all solutions prior to discharge. This center ensures compliance with all federal, state, and local regulations concerning waste treatment & discharge. Furthermore, Cadon is in compliance and maintains permits for the operations that are regulated by local, state and federal regulations.



RTO

Cadon utilizes the latest technology in VOC destruction by employing a regenerative thermal oxidizer to incinerate fumes and exhaust prior to discharge.

EXPANDED FACILITY 95,000 ft²

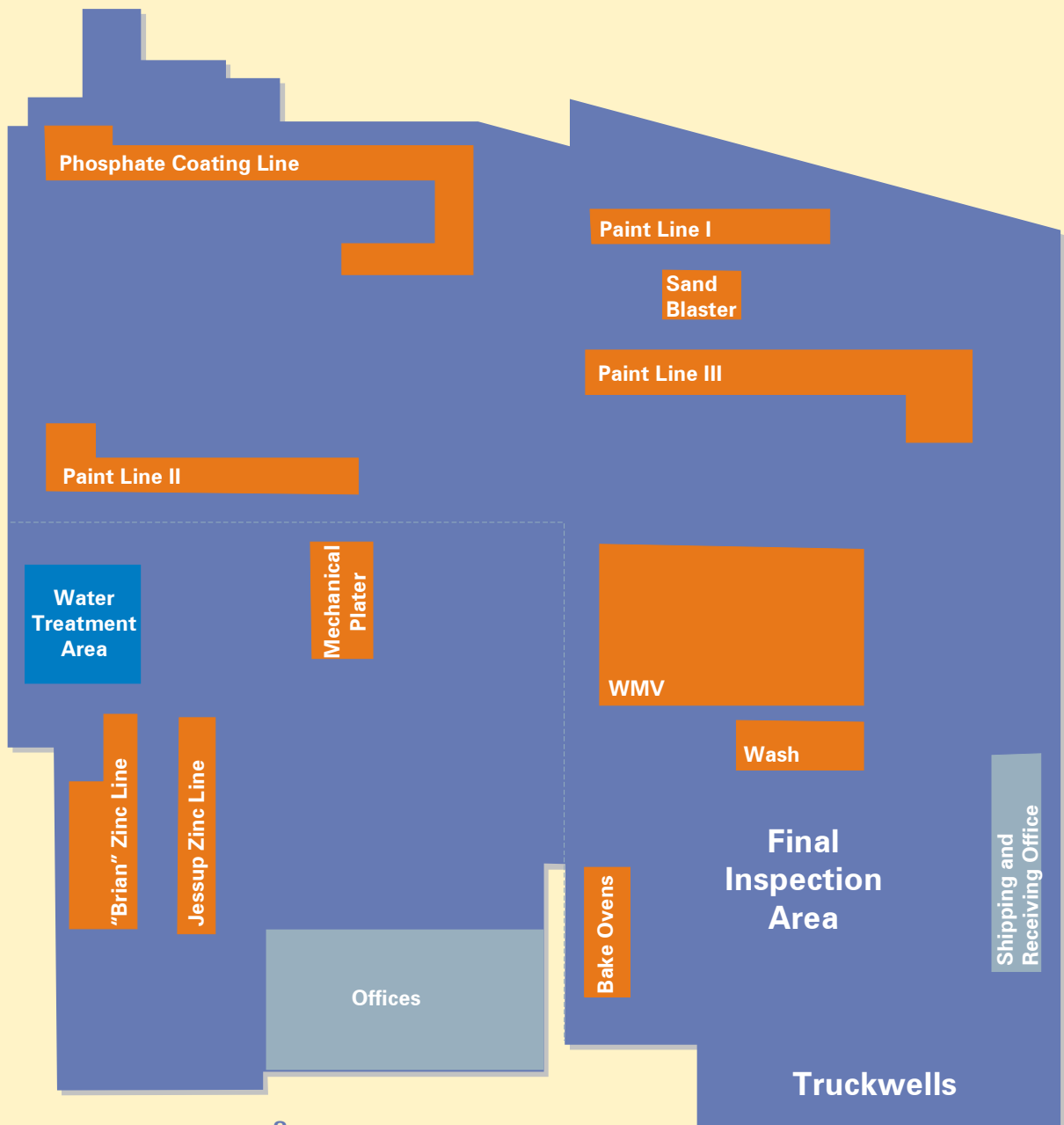


CADON MOST RECENTLY EXPANDED IN OCTOBER OF 1999. THIS EXPANSION, NEARLY A YEAR IN CONSTRUCTION, BRINGS OUR OPERATIONAL FLOOR SPACE TO 95,000 SQUARE FEET. MORE IMPORTANTLY, WE EXPANDED OUR DOCK CAPACITY FROM THREE DOCKS TO SIX, ALLOWING FOR MORE EFFICIENT MATERIAL MANAGEMENT AND FASTER TRUCK TURNS.

THESE NEW DOCKS INCORPORATE THE NEWEST TECHNOLOGY IN AUTOMATIC LOCKING DEVICES, WARNING SYSTEMS, AND LEVELING EQUIPMENT.



Cadon Plating Floorplan



95,000 ft² Facility

Cadon Plating Company Contact List

Main Phone Line 734-282-8100
Secondary line 313-386-5400
Fax Number 734-282-7405

Normal business hours are from 8:00 a.m. to 5:00p.m. Monday - Friday
After hour phone calls will be directed to the shipping office and/or the voice mail system.
The following people and departments can be reached by dialing the extensions listed.

<u>Department</u>	<u>Name</u>	<u>Extension</u>
Quotations	Andy Labo	22
Production Control	Tim Feges	17
Shipping & Receiving	Christine Pugh	19
	Brett Rempert	18
Quality Assurance	Keith Miller	15
Accounts Payable	Mary Jane Lewis	12
Accounts Receivable & Invoicing	Marie Hale	13
Plant Superintendent	Joe Gooding	20
Office Manager	Jan Bluhm	24
V. P.& General Manager	Al Ensign	16
Executive V.P.	Bill Sheets	29
Account Manager	Don Houston	313-658-0210

Cadon plating company

Process capabilities

Cadon plating company is pleased to be able to provide finishing needs for all types of finish specifications.

Our process capabilities include:

An 12 station Jessup manufactured fully automatic barrel plating line. This line is capable of running over 5000# of stock per hour depending on part configuration. This line is computer controlled and has the ability to either centrifugally spin dry or dry by means of a forced air, gas fired, dryer.

A ten station M.A. Brian manufactured fully automatic, computer controlled barrel plating line. This line is also capable of centrifugal or forced air drying. This line can process up to 6000# per hour.

Eight embrittlement relief ovens to ensure timely baking after processing. These ovens are computer controlled and programmable to any baking need. This includes a print program for verification of baking and baking parameters.

An independent chromate line to finish the electroplating cycle with which ever finish specification required.

A 20-cubic-foot mechanical plating barrel with state of the art technology that produces some of the most consistent plate in the industry. Great for hardened parts and safety items.

A multi station barrel phosphate line. Computer controlled and operator programmable, this line efficiently and quickly processes up to 16000 pounds of material per hour with heavy grain or medium grain phosphate. Combine with this, hand loading capabilities for soft handling of customer orders.

A WMV manufactured Dip-Spin Dacromet / Geomet Applicator with canting baskets that tilt up to 90 degrees to eliminate puddling and pooling of paint. A great application for flat stampings and recessed head parts.

A spring tool 32" dip-spin applicator. One of the largest in North America! Capable of processing 700 # loads in this fully automatic double basket line. Has combination of hand loading and bin loading capabilities. Computer controlled curing oven that reaches 650 degrees Fahrenheit for any curing requirement.

Two 24" spring tool dip-spin applicators; one semi-automatic for specialty work, and one fully automatic, double basket with hand loading capabilities.

Cadon Plating and Coating's Hex Chrome Free Options

Phosphate & Light Oil	Ford S-2, GM 4435m Code A, Chrysler PS-80
Phosphate & Heavy Oil	GM6035M
Phosphate, Organic Black & Oil	Ford S53B, GM 6174M
Phosphate & Texo 193T	Ford S-60
Phosphate & Texacote 452	Ford S436, GM 6431M
Phosphate & BO6J & B18	GMW3359, Ford S-439
Zinc and Trivalent Clear	Will Meet 24hr to White Corrosion Specs
Zinc and Chromiting	Heavy Trivalent-Clear - GMW 3044, PS Plating + PS 1207
Zinc with No Top Coat	S-434
Zinc, Chromiting & B-18 Top Coat	GM 7113, Ford S-440
Geomet®	Ford S438, GMW-3359, & Chrysler PS5873L, PS5873P, PS5873-Black, PS9666, PS9904, PS9904S