

# Arlington Plating Starts Up First Aluminum Anodizing Line

Arlington Plating Company started up operation of an aluminum anodizing line at its Palatine, IL, headquarters (Figure 1). Representing a more than \$2 million investment, the new line is the company's first anodizing line and reflects the increased demand for surface treated light metal components. "The growth in anodizing is most pronounced in the automotive, construction, aerospace, and electronics industries, all of which desire longer lasting, more durable, abrasion resistant coatings with high corrosion and wear protection," said Richard Macary, president of Arlington Plating. "From roof rails to fuel tank emblems, and from brake calipers to lighting fixtures, the demand for light metals for a diversity of market applications continues to grow."

## Company Profile

Arlington Plating Company was founded in 1946 in the town of Arlington Heights, IL, and then moved to Palatine, IL, in 1973. Since the 1970s, the company has been owned by the Gollob Family, with Marvin Gollob leading the company as president and then chairman before transitioning leadership to his son, David Gollob.

In January 2016, Arlington Plating was purchased through an Employee Stock Ownership Program (ESOP). Now the over 200 employees all share in the growth of the company, with a senior management team consisting of Richard Macary, president, Brian Isola as vice president of sales, and Ted Dobbels as chief financial officer. "ESOP was selected due to several key factors," said Macary. "The company's top management has been in place for over 20 years, the employees' average tenure is ten years, and the company is growing."

Since its inception, Arlington Plating has specialized in providing decorative and functional finishes (such as chrome, nickel, and bronze plating) on light metals. "A substantial focus of our business reflects our expertise in light metals, which includes plating on aluminum, zinc, and magnesium components, as well as aluminum anodizing," said Macary. The company also offers plating on copper alloys, steel, and stainless steel parts.

Arlington Plating provides surface finishing and aluminum anodizing to global manufacturers in diverse industries, such as automotive, motorcycle, electronics, gaming, and consumer products. Customers include leading OEM manufacturers, like General Motors, Ford, Chrysler, Harley-Davidson, and Indian Motorcycle, with facilities across North America, Western Europe, and parts of Asia.

The resulting plated or anodized parts increase wear and corrosion protection, improve appearance, and enable electronic performance, while meeting stringent OEM, environmental, and regulatory requirements.



Figure 1. Arlington Plating Company management standing in front of the newly installed anodizing operation (L-R): Brian Isola, vice president of sales; Duane Jauch, plant manager; Ted Dobbels, chief financial officer; Dishant Tailor, quality director; and Rich Macary, president.

"Our highly skilled team of technical engineers and quality professionals conduct in-house chemical analysis and material reliability testing to ensure the highest quality coatings are being consistently applied to a diversity of components. Sample plating, bath composition analysis, troubleshooting and characterization of plated features and deposits are performed on a daily basis," said Macary. "We continually collaborate with our customers to offer enabling technologies that meet current and emerging OEM design requirements and consumer preferences."

Arlington Plating is ISO-9001:2008 certified and is currently implementing an ISO-14001 environmental system. It is an active member of the Aluminum Anodizers Council (AAC) and National Association for Surface Finishing (NASF).

## Aluminum Anodizing

Officially opened in January 2017, the new aluminum anodizing line coincides with the addition of a 35,000 sq ft facility that expands the company's campus to over 90,000 sq ft. The additional space has allowed for increased production capacity, as well as additional warehouse and shipping space. For Arlington Plating, installing its first anodizing line was essential to meeting customers' current and emerging surface finishing requirements. Macary said, "2017 is proving to be an exciting year of growth at Arlington Plating."

Comprised of 44 process tanks, the 5,000 sq ft fully automated line produces MIL-A-8625 Type II (sulfuric) anodizing with high pH sealants, organic die coloring, and electro color capabilities. The line offers bright dip, lacquer/post-dip, and satin finishing applications. Meeting pH 13.0 requirements as mandated by the au-



Figure 2. The anodizing line processes extrusions and other complex components, such as luggage racks installed on the roofs of cars.

tomotive industry for exterior trim applications, the automated line processes parts up to 100 inches in length. The new line is currently anodizing aluminum extrusions along with machined components, stampings, and castings—all with complex geometries that require high corrosion protection and aesthetic appearance.

Shortly after its opening, the fully automated aluminum anodizing operation received rapid approval from General Motors (GM). Under the GMW14665 material specification for Anodic Oxidation Coating on Aluminum, Arlington Plating Company is certified to anodize exterior aluminum parts that address both Class A and Class B alkaline pH requirements, as well as decorative interior trim applications. The company is currently processing exterior automotive trim and luggage rack parts for GM on the new line (Figure 2).

“The GM team’s extensive review included an audit of the fully automated anodizing line,” said Isola. “Best practices and standard operating procedures performed by Arlington Plating Company were also closely evaluated. GM noted that the installation of the automated line factored into granting GMW14665 approval so quickly.”

#### *New Laboratory Testing Capabilities*

Following the start up of the anodizing line, Arlington Plating completed the installation of a new materials reliability testing laboratory, which enables the company to conduct thickness, hardness, and composition testing of electroplated and anodized products. The new resource further extends the company’s comprehensive chemical analysis capabilities. “We recognize that best-in-class laboratory services are required to certify that the highest quality coatings are being consistently applied to components,” said Macary. “It is for this reason that Arlington Plating Company employs a multi-faceted, quality-driven approach to ensure that our electroplated products, as well as our aluminum anodizing, meet stringent product quality and testing criteria for a diversity of industry applications.”

The lab performs material characterization, and failure-mode analysis using advanced instrumentation. Techniques used include: eddy current and cross sectional thickness methodology for the analysis of anodized products; non-destructive x-ray fluorescence analysis to determine material composition; coulometric hardness

testing to determine the hardness of semi-bright deposits; simultaneous thickness and electrochemical potential (STEP) analysis; and multilayer thickness through cross section and electrical conductivity of non-magnetic metals (e.g., copper and aluminum) using a SIGMA-SCOPE. Through these methods, stress, ductility, adhesion, temperature resistance, alkaline resistance, car wash simulation, and other tests are conducted daily.

#### *Conclusion*

Arlington Plating has positioned itself to be a leading supplier of anodized and plated aluminum and other light metal finishes for automotive and other OEMs as witnessed by the installation of a new anodizing line, an advanced materials testing laboratory, and the company’s continued commitment to providing enabling manufacturing and technology solutions. “Whether aluminum anodizing or metal finishing, technology is the foundation to everything we do at Arlington Plating Company,” said Macary. “In turn, we have a strong commitment in keeping our business safe, clean, environmentally compliant, forward thinking, and sustainable.”



**arlington plating company**

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