

# ADVANCED SURFACE TECHNOLOGIES

AN ISO 9001 REGISTERED COMPANY  
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## Electroless Nickel Plating

AST specializes in **Electroless nickel plating** (EN Plating) services to extend the longevity of both miniature and large parts exposed to harsh environments. Components finished by our EN plating process have superior resistance to corrosion and rust. With EN plating, which does not involve the use of electric current, we uniformly plate nickel on a variety of substrates with complex geometries.

Our four decades of experience in the metal finishing industry allows us to offer unique solutions for a number of industries, such as oil & gas, solar, and automotive. From our rack and barrel processing line, we supply Electroless nickel plated components according to MIL-C-26074, AMS 2404, plus ASTM B-733 standards. We make use of different EN coatings and processes to offer custom solutions for your distinct finishing needs. Mid-phosphorus and high-phosphorous Electroless nickel coatings that we supply, are ideal for plating a range of metal substrates, including stainless steel, aluminum, copper, and brass. For eliminating sticking, or galling problems in metal components, you can choose from Pen-Tuf® (Electroless nickel coatings with PTFE) or BNEN™ (Electroless Nickel with co-deposited Boron Nitride).

We take into consideration a number of factors including formulation of the bath, phosphorous content, and both pre-plate as well as post-plate treatment techniques in our Electroless nickel plating processes. Regardless of the plating technique used, all our EN coatings have excellent deposit uniformity and corrosion resistance. As an environmentally aware job shop, we have formed extensive wastewater minimization programs for recycling hazardous waste rather than disposing them to the land.

### Capabilities

<b>Types of Electroless Nickel Coatings</b>	<b>Electroless Nickel with Teflon</b> High-Phosphorous Mid-Phosphorous PEN-TUF®: Electroless Nickel with co-deposited or infused PTFE BNEN™: Electroless Nickel with co-deposited Boron Nitride
<b>Substrates</b>	Aluminum Brass Copper Magnesium Stainless Steel
<b>Certifications</b>	ISO 9001 Certified
<b>Standards Met</b>	AMS 2404 ASTM B-733 MIL-C-26074
<b>Plating Thickness</b>	.0002"-.002"
<b>Finish</b>	Bright High-tech Low Friction Matte Semi-bright
<b>Additional Capabilities</b>	Heat Treatment (Hardness and Hydrogen embrittlement) Masking Parts Stripping Parts-Cleaning Plugging
<b>EN Plating Advantages</b>	Corrosion Resistance Improved Lubricity & Conductivity Different Magnetic Properties Light Absorption or Reflectivity Low coefficient of friction Solderability Uniformity of deposits, regardless of complex part geometries Wear Resistance
<b>Plating Capabilities</b>	Barrel Plating Lines Rack Plating Lines

**Additional Information**

<b>Selected Applications</b>	Extruders Food Processing Machinery Heat Exchangers Pipe Fittings Printing Cylinders Pumps Shock Absorbers Valve Components
<b>Selected Industries Served</b>	Aerospace Automotive Communications Computer Electronics Household Appliances Medical Equipment Oil & Gas Equipment Pharmaceutical Recreational Equipment Solar Tool & Die
<b>Quality System Features</b>	Dedicated to company-wide continuous improvement In-house laboratory facilities XRF and AA
<b>Environmental System Features</b>	State-of-the-art, computer-controlled waste treatment system
<b>Professional Associations and Awards</b>	<ul style="list-style-type: none"><li>• Charter member of the Strategic Goals Program, a cooperative effort between the metal finishing industry and EPA</li><li>• National Association of Metal Finishers (NAMF)</li><li>• American Electroplaters and Surface Finishers Society (AESF)</li><li>• Recipient of the Colorado Environmental Leadership Award</li></ul>
<b>Service Features</b>	<ul style="list-style-type: none"><li>• A staff that understands the importance of quick response for our customers</li><li>• Production scheduling and production flexibility that minimize turnaround time</li></ul>