



## **Corrosion and Wear Protection for Accumulators and Hydraulic Parts**

Electroless Nickel Plating • Liquid Salt Bath Nitriding / QPQ™  
Ni-side™ Cylinder Polishing & Plating • Phosphate & Oil  
Multi-Coat Epoxy System • Dry Film Lubricant • Hempel  
Xylan® • SermaGard • Molybdenum Disulfide

## Electroless Nickel Plating Protects Against Wear And Prevents Contamination

With the largest Electroless Nickel Plating (ENP) tanks in the nation and multiple QPQ (salt bath nitriding) lines, Houston Plating & Coatings (HP&C) can protect even the largest parts for hydraulic equipment and accumulators. Both ENP and QPQ can provide corrosion protection from wear and contamination that can degrade operating performance and shorten operating life.

### QPQ And ENP Protect Against Corrosion

ENP is a chemically applied, uniform protective coating that provides superior resistance to wear and corrosion that significantly increases the life of carbon and stainless steel parts, and is a highly resistant answer to preventing fluid contamination from corrosion.



ENP significantly increases the life of carbon and stainless steel parts.

QPQ is a diffusion process that provides distortion-free dimensional stability while hardening the surface of the part producing superior wear resistance, improved fatigue strength, and surface lubricity.

The ENP process relies on the presence of chemical reduction agents that react with the metal ions to deposit a thin, uniform nickel coating on a solid workpiece and is ideal for plating complexly shaped parts. ENP deposits are less porous and provide better corrosion protection for steel substrates, superior to that of electroplated nickel and hard chrome.

### Hydraulics

Parts in a hydraulic system are subject to both corrosion and extensive wear, which can reduce efficiency and shorten a part's operating life.

ENP is particularly useful for hydraulic parts like cylinders, shafts, and gears, where a consistent and durable coating is essential.

Both QPQ and ENP result in longer component lifespan, reduced maintenance, fewer failures, less downtime, and improved overall system performance for a variety of parts.



The QPQ process adds hardness without adding any dimensional change.

### Accumulators

Utilizing gas pressure held in an internal bladder, accumulators allow a stored volume of a fluid (gas or liquid) to be re-fed into the hydraulic system when needed, naturally dampening pressure fluctuations, creating more stable operating conditions.

### Contamination Can Degrade Performance

Whatever type of accumulator, effective operation requires that the stored fluid be kept free from contamination.

In a steel container, ENP protects against both contamination created from wear leaving surface particles, and from corrosion of the cylinder walls. HP&C can also heat treat an ENP part if additional hardness is desired.



## **Your One-Stop-Shop for Wear and Corrosion Protection**

Offering a uniquely broad range of finishing processes, Houston Plating & Coatings has been the 'one-stop-shop' for corrosion and wear protection services for petroleum equipment and other manufacturers in Houston, across Texas, and around the nation since 1988.

With the largest EN tanks in the nation, Houston Plating can handle both the largest parts and significant volumes, as needed and is one of the few plating and coating firms in the nation to offer such a broad range of corrosion and wear protection services. For additional information: [www.houstonplating.com](http://www.houstonplating.com).



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