Meridian™ *Ball valve trim*

Call: **1.866.722.7722**
Email: order@meridianvalve.ca

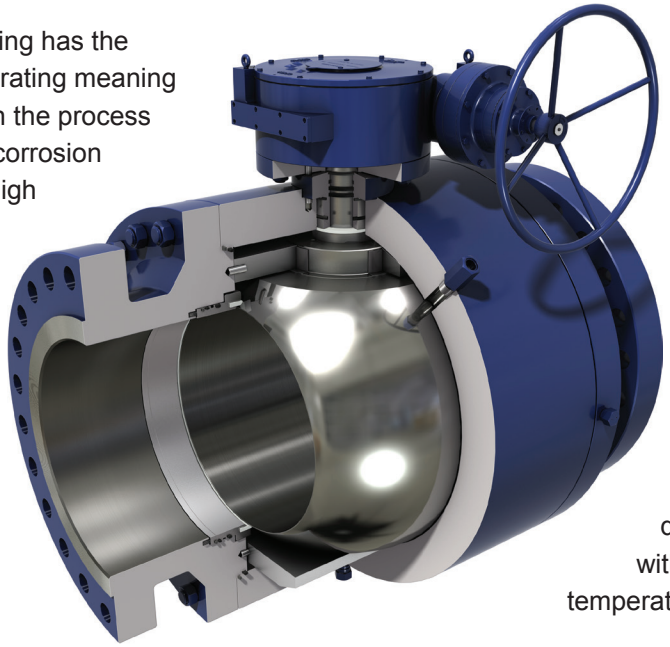
High Phosphorus 3 mil ENP Trim Upgrade

Meridian™ has improved the standard ball valve trim in our Floating and Trunnion Ball Valves by upgrading the normal Electroless Nickel-Phosphorus plating to a 3 mil High phosphorus EN Plating. The phosphorus content exceeds 10%.

Meridian's ENP vs. Standard ENP

Meridian's 3 mil High phosphorus EN Plating versus the standard ENP provided by other manufacturers:

- High phosphorus EN plating is less porous which increases corrosion protection and provides enhanced wear resistance.
- High phosphorus EN plating has the highest deposit passivity rating meaning that it is less reactive with the process fluids. This is known as corrosion resistance. This allows high phosphorus platings to be used in pH conditions as low as 4. Standard ENP should only be used for pH above 5. This difference is very important in the energy industry where process conditions are often acidic.



- The corrosion performance of EN plating is proportional to the deposit thickness. Meridian's 3 mil plating thickness is an excellent barrier protecting the substrate material (commonly A105N or A350 LF2). A thinner 1 mil ENP should be limited to valves in sweet service and a relatively neutral pH process.

Meridian's ENP vs. Full 316 SS

Meridian's 3 mil High phosphorus EN Plating versus a full 316 Stainless Steel trim:

- Meridian's high phosphorus EN plating has a Vickers hardness of 480 – 500, 316 stainless steel is very soft and has no stated ASTM hardness level. This extreme hardness helps an EN plated ball resist scratches that quickly damage the seat material and compromise the valve seal.
- EN plating is allowed by NACE MR-0175 / ISO 15156 and is suitable for higher temperatures than 316 Stainless Steel. 316 Stainless Steel is limited to a maximum of 140°F (60°C) due to dangerous interactions with chlorides above these temperatures.
- Electroless Nickel plating leaves a surface coating of approximately 90% pure nickel. Nickel is a noble metal that provides the corrosion resistant performance required in difficult services. 316 Stainless Steel also relies on nickel for corrosion resistance but is limited to 10 – 14% nickel by weight.

R2001 PLU 11 2015

Meridian™