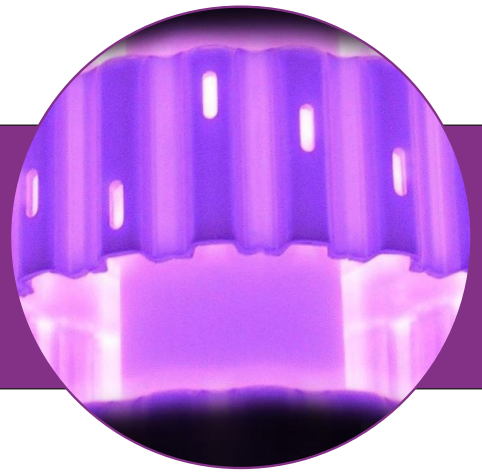


Ion Nitriding Masking Capability Provides Perfect Solution for Automotive Clutch Hub Housing

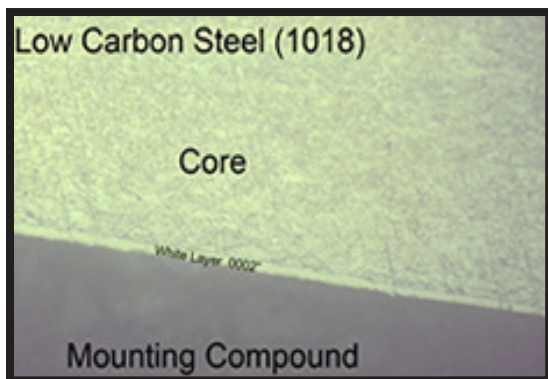


Why Ion Nitriding?

Ion nitriding, also known as plasma nitriding, is an excellent application to build into your parts' longevity and operational flow. Not only can you build protective wear resistance, lubricity and fatigue strength, but you can also streamline operations to accommodate the process into what fits your needs.

Ion Nitriding in Action

Recently, ion nitriding was a solution for an automotive clutch hub housing that was looking for improved wear resistance. The caveat was that the application also needed the ease of weldment to another component. Ion nitriding offered the perfect solution for this. The engineers designed part-specific masking for the part prior to nitriding. Where the welding process needs to occur was masked off. Later, when the part was nitrided, they received a finished surface part with the critical areas hardened while the welding areas remained soft. The part was immediately ready to go back into the operational flow for welding.



Ion (plasma) nitriding allows for a phase controllable compound zone (or white layer) among other benefits.

Ion Nitriding Benefits:

- Extends part/tool life
- Selective hardening process
- Reusable masking (versus coatings or other surface treatments)
- Adds performance, fatigue strength and endurance
- Enhances surface lubricity
- Reduces erosion
- Increases material flow in molds and dies
- Improves corrosion resistance
- No post-process machining
- Improves wear resistance
- Zero to minimal growth/distortion
- Precise and versatile
- Environmentally friendly process (i.e. free of toxic salts, ammonia and any other toxic gases)
- Phase controllable compound zone (or white layer)

“Plasma [ion] nitriding solved our wear and operational problem”

- Clutch Assembly Manufacturer

Ion nitriding is offered in Iowa, Alabama and Michigan.
Learn more at www.ahtcorp.com or contact your AHT representative to learn more.