



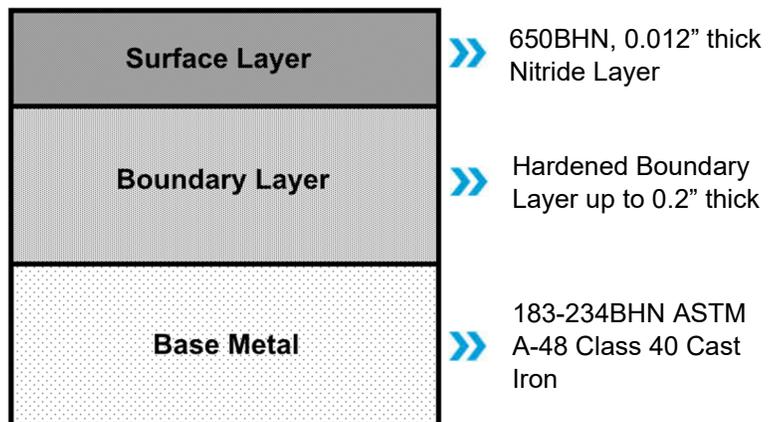
HOMA Pump Technology offers a proprietary Plasma Ion Nitriding process available on critical pump components to provide greatly extended service life in some of the most demanding installations. Additional benefits include improved efficiency and reduced maintenance.

Superior Protection

In demanding applications, it is sometimes necessary to utilize harder materials for hydraulic components, including the impeller, volute, and pressure cover/seal plate area. These harder components resist wear when pumping abrasive media providing extended service life. For these types of applications, HOMA offers its Plasma Ion Nitriding process to critical components, providing long life, improved efficiency and increased performance, all while reducing maintenance.

Process

Plasma Ion Nitriding is a gas impregnation process wherein parts are immersed in a vacuum chamber filled with a precise atmosphere of gases. A high voltage is applied to the gas, forming a plasma which bombards the surface layer of the metal with positive ions. These ions form nitrides in the surface layer of the metal which increase the hardness, as well as diffuse into the part to create a boundary layer between the base metal and the nitride layer. This results in a thin, hardened surface without the brittleness of through-hardened materials.



Standard cast iron pump components to be treated are machined to final dimensions, and are then sent to a local NADCAP (National Aerospace and Defense Contractors Accreditation Program) approved company that provides the Plasma Ion Nitriding treatment.

Because the process does not dimensionally alter the parts, no masking is required. Potentially high load or high wear areas such as the wear ring surface, impeller vanes & through-lets and impeller mounting hub all benefit from the process.

Performance

Years of field testing and experience has proven plasma ion nitride parts to provide unparalleled performance and reliability by extending component life and reducing maintenance call-outs. As parts are exposed to the abrasive pumped media, treated components develop a hard, smooth surface that is greatly resistant to ragging and clogging, improving pump efficiency.

When pumping extremely abrasive media such as silt, sand, and sludge, the life cycle of a pump utilizing hardened Plasma Ion Nitride hydraulic components is greatly increased at an economical cost.

