What is plasma?



Basic fundamentals



THE FOURTH STATE OF MATTER

After solid, liquid and gaseous, Plasma is a state of matter in which gas particles lose or gain electrons, resulting in positively or negatively charged particles called ions. This ionization process occurs at high energy levels.

THE POWER OF IONS

By combining high temperature, electric fields, varying pressure and achieving chemical reactions with other gasses, ions can achieve high kinetic energy, which is the key to plasma nitriding.

MAXIMUM EFFICIENCY

In a low-pressure gas environment (vacuum atmosphere), the kinetic energy of the ions increases, since they encounter fewer molecules or 'obstacles' to collide with and slow down their movement.

THROUGH THE MATERIALS

Plasma nitriding process takes place in a plasma environment consisting of ions, electrons, and highly energetic neutral species. These charged and neutral particles have the ability to penetrate the surface structure of metallic parts.



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