

Plasma-Surface-Technology



LOW PRESSURE PLASMA APPLICATIONS

Low pressure plasma systems offer a wide range of options for surface modification and treatments such as micro-cleaning of contaminated components, plasma activation of plastic parts, etching of organic or inorganic materials, plasma deposition, low friction coatings and coating of plastic parts with PTFE like layers (polytetrafluoroethylene). Low pressure plasma systems are used in an extremely wide range of industries and applications:

APPLICATIONS:

- ✓ **Optimized bonding adhesion** problematic materials
- ✓ **Plasma activation** for covalent bonding on surfaces such as Polypropylene, Pebax, PTFE & EFFE
- ✓ Produce **Hydrophobic** surfaces by applying **HMDSO** monomers via Plasma Enhanced Chemical Vapor Deposition (PECVD) at extremely thin films.
- ✓ **Plasma cleaning** to remove foreign material or contamination by turning the contaminant into a gas
- ✓ **Plasma activation** to increase bond strength
- ✓ **Plasma etching** – primary advantage of etching with a dry gas plasma process is the high resolution and decreased cost due to lack of waste streams.
- ✓ **Reactive ion etching** (RIE) is the process of applying a charge to the surface of the part to be etched
- ✓ **Plasma coating deposition** is the process of generating an extremely thin coating or film on the surface of a part using a mixture of plasma gas or a vaporized liquid monomer
- ✓ **Low friction coating** deposition for elastomeric O-rings and seals