



eltech



Plasma Treatment



▶ PLASMA TREATMENT

Eltech Plasma treatment provides an economical solution for the cleaning and activation of component surfaces before further processing. Plasma surface treatment improves wettability and adhesion of ink, glues and coatings on many different surfaces.

Eltech Plasma surface treatment provides an economical solution for the cleaning and activation of complex surfaces before further processing.

Eltech plasma etches, cleans, activates, sterilizes and functionalizes a wide variety of difficult to treat conductive and non conductive material surfaces.

Plasma offered by eltech permits easy surface treatment of a large variety of parts. Its concept is based on the principle of a high-voltage discharge in a high-frequency area. Compressed air presses the discharge outside the nozzle head.

Applying the plasma to a plastic surface increases its wettability, metal surfaces can be cleaned, and welding of plastic materials is also possible.

The system consists of a plasma generator with nozzle assembly.

The entire system is easily integrated into new or existing production lines.

▶ TYPICAL APPLICATIONS

Designed to provide easy treatability of injection/blow molded and extruded products, Eltech plasma delivers consistent, uniform treatment to items with complex threedimensional shapes including grooves, small cavities and other hard-to-reach areas. It radically enhances the surface for longlasting adhesion, enabling you to produce a higher quality product.

Removes grease, oil, oxides or silicone; pretreatment and preparation for bonding, soldering or gluing and pretreatment for finishing metals. painting, bonding, casting, flocking, labeling, coating, marking, extruding and overmolding applications.

The system is highly effective at treating and cleaning all types of polymers, elastomers, glass and even conductive surfaces. It treats extruded, pultruded, molded and formed materials. Treatment is ideal for PE, PP, PET, nylon, vinyl, polystyrene, polycarbonate, PVC and all other types of thermoformed and thermoset plastics.



▶ What is Plasma ?

“PLASMA“ is a gas, which contains a big amount of electrical charges. In constast to normal gases, it is conductive although it appears electrically neutral to the outside. Ionisation of gas molecules for (nobel gases electrons from the molecules and atoms.

Besides electrons, ions and normal neutral molecule fragments (radicals), which are chemically high reactive due to their unstable structure. This reactivity is used in many technical pretreatment before printing and gluing by oxidation of the surface of the ambient conditions using air as working excitation are used for this application.



Eltech Engineers

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