

eltech

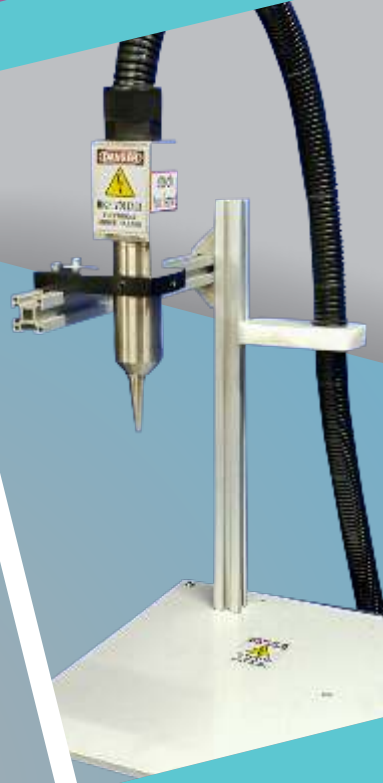
Plasma Surface Treatment



Plasma ion



Plasma Arc



We treat anything ...



Website : www.eltech.in

Plasma ION 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 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. The entire system is easily integrated into new or existing production lines. The system consists of a plasma generator with nozzle assembly.

ADVANTAGES

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

Removes grease, oil and oxides. pretreatment and preparation for bonding, soldering or gluing and pretreatment for finishing metals. painting, bonding, casting, flocking, labeling, coating, marking, extruding and over molding 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.

FEATURES

- ✓ Advanced IGBT Technology
- ✓ Compact simple construction
- ✓ Ultra High Frequency
- ✓ Soft Start
- ✓ Maximum Operator safety
- ✓ Force cooled convertor for longer life

APPLICATIONS

- ✓ Improve folding carton bond strength
- ✓ Extruded pipe, tubing, profiles
- ✓ Painting and decorating
- ✓ Medical and health care products
- ✓ Electrical/electronic components
- ✓ Direct printing
- ✓ Hot stamping
- ✓ Pad printing
- ✓ Adhesive coating
- ✓ Wire and cable
- ✓ Laminating

ROUND BOTTLE PLASMA MACHINE



Plasma ARC Treatment

ATMOSPHERIC PLASMA TREATMENT

Eltech's 3D corona system is perfect solution to adhesion problems on injection, blow moulded or extruded parts of PE, PP, PET, nylon, vinyl, polystyrene, polycarbonate, PVC, fluorocarbons and all other types of thermoformed and thermoset plastics. It can be used in a very flexible way, since a counter electrode is not needed. The discharge is ignited between a pair of electrodes inside the treatment tool and gets directed towards the substrate with a minor laminar air flow.

This 3D treatment also eliminates grease, oils and other contaminants if any, which are most common adhesion retardants. 3D surface-treating systems improve the bonding of inks, adhesives and coatings, allowing you to treat multiple surfaces and difficult configurations with remarkably consistent and convenient one-pass coverage.

PRINTING

Surface treating parts prior to printing enhances ink adhesion. It makes printing easier, and for others it makes printing possible.

COATING

Products are coated to protect their surfaces from harsh environments or as decoration. Doors, frames, and extrusions/profiles are often coated. The medical industry uses surface treating to improve adhesion of antimicrobial/antibiotic coatings.

LABELING

Surface treating caps, bottles and lids ensure that labels will not peel off before complete destruction of the label occurs. Air, flame and chemical plasma treatment of materials like HMWHDPE can effectively improve adhesion of labels.

PAINTING

Injection molded or thermoformed parts are often treated prior to painting. Surface treatment allows the paint to adhere and also increases the life and durability of the paint on the object's surface.

BONDING

Bonding is primarily used to increase the strength of an adhesive. The medical and automotive industries rely on surface treating to remove contaminants such as dust, grease, oils, or mold to improve bonding. Typical cleaning solvents such as methyl ethyl ketone (MEK), trichloroethylene, toluene, or acetone may be used for this purpose, but cleaning agents that leave a film residue upon evaporation will retard bonding.

3D Corona treatment system readily solve surface adhesion problems for a wide variety of products and applications :

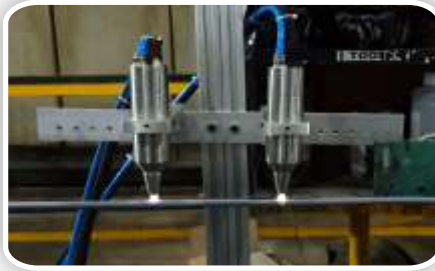
- ☑ Caps and closures
- ☑ Painting and decorating
- ☑ Cups and containers
- ☑ Consumer products
- ☑ Extruded pipe, tubing, profiles
- ☑ Medical and health care products
- ☑ Electrical/electronic components
- ☑ Direct printing
- ☑ Hot stamping
- ☑ Pad printing
- ☑ Adhesive coating
- ☑ Adhesive bonding
- ☑ Wire and cable
- ☑ Laminating



Plasma ION Applications



On Plastic component



On Wire & Cables



On Heat Shrinkable Joints & Terminations



On Pipe before inkjet printing



On MCB before pad printing



On Pipe before inkjet printing



On Folding Carton Box



On Automotive component

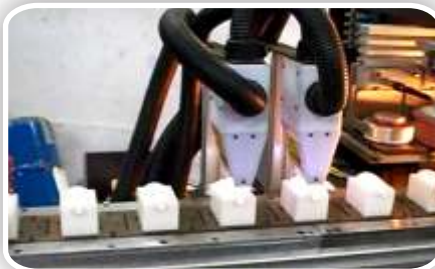


On PP Cosmetic Container

Plasma ARC Applications



On Toys before printing



On HDPE container



On PP Container

Eltech Engineers



**Manufacturers of : Induction Cap Sealing Machine , Plasma Treatment Machine
Corona Treater, Static Eliminator, Static Charger and Ozone Generator**

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