PLASMA Technology

SOLUTION SHEET



As the plasma jet discharge is concentrated and has low electrical conductivity at the nozzle outlet, this surface treatment process offers high precision. It is ideal for detailed work in highly targeted areas, on both conductive and insulating substrates but also on electronic parts.

But one of the key benefits of **atmospheric-pressure plasma treatment** lies in its **easy in-line integration**.

The process is reproducible and industrialisable and can be used as standard on profiled substrates in any material, whether simple or complex. If needed, your surface cleaning requirements can therefore be met during high-speed, localised treatment operations.

From design to integration: practical and custom-built

We can not only recommend the most appropriate technology for you, but we also carefully determine how it can best be integrated into your manufacturing processes. To design a complete custom solution, we conduct a preliminary study that factors in your facility, company strategy, industry sector, number of parts to treat and technical and cost requirements, etc. We then perform lab tests, undertake an on-site pilot production test phase and lastly we take care of the final integration step.

BENEFITS

- Efficiency: reproducible surface treatment ("repeatable" process)
- Quality: unchanged substrate appearance
- Cost savings: energy consumption stable and under control
- Reliability: robust technology requiring limited maintenance
- User friendly: easy to use and install
- Environmentally friendly: clean, solvent-free technology
- Industrialisation: integration in-line or on independent mobile units

ALL SHAPES OF PARTS, BOTH SIMPLE AND COMPLEX

- Film, labels, paper, etc.
- Flexible sheets such as foam
- Thick or stiff materials, solid or honeycomb
- Formed parts
- Wires and cables
- Profiles
- Conductive materials

ANY INDUSTRY SECTOR

- Automotive / Aeronautical
- Ship building / Armament
- Electronics / Electricity
- Medical / Pharmaceutical / Cosmetics
- Packing / Packaging
- Construction / Building / Decoration
 Home appliances

AN ARRAY OF MATERIALS AND SUBSTRATES

- Polypropylene, polyethylene and all types of thermoplastic or thermosetting polymers
- Elastomers and rubber
- Composite materials
- Metals and carbon
- Glass

A particularly flexible process

During integration, all the settings can be adjusted to fit your applications:

- adjustment of frequency (from 45 to 65 Khz) and of power per frequency (scale going from 50 to 100%) which makes the tuning of the settings very precise;
- 3 different nozzle outlets for setting the surface temperature: low for fragile surfaces, medium for faster activation, ultra high for surface cleaning;
- option of using air or other gases to obtain different surface properties or accelerate activation.



PLASMA TORCH

• Use: any surfaces of any materials (plastics and metals) of relatively small widths regardless of the degree of surface relief.

- Applications:

- surface cleaning for all electronic, cosmetic and medical parts prior to gluing, printing, painting or varnishing
- activation of PCBs prior to over-moulding
- spraying of LDPE powder for adhesion of polymers and metal
- grooves for gluing insulating seals
- headlamp insert seal troughs, seals or sealing tape, PCBs, electrical connectors, etc.



We can offer to use test ink to check surface tension. Please don't hesitate to contact us.





Complete solutions for improving adhesion to plastic, rubber or composite materials