



**Free** your mind  
of all adhesion  
problems!

---

CUSTOM SURFACE TREATMENT  
**CORONA & PLASMA**  
tailored solutions



Our surface treatment solutions improve the adherability of your substrates, guaranteeing **effective bonding and a permanent hold of the products to be applied.**

## DIFFERENT ADHESION ISSUES

- Hold of paint and varnish
- Printing: inkjet, digital, screen printing, pad printing, UV, offset, heliography, flexography
- Hold of glue and adhesive, gluing in extrusion (cylinder and scraper, casting of PE or glue), via robot application or industrial dispensing system, etc.
- Adhesion by PU foaming

## DIVERSITY OF MATERIALS AND SUBSTRATES

- Polypropylene, polyethylene and all types of thermoplastic or thermosetting polymers
- Elastomers and rubber
- Composite materials
- Metals and carbon
- Glass
- Leather
- Wood
- Any exotic or composite material not yet known to industry but which we can handle with total efficiency!

## ALL SHAPES OF PARTS, BOTH SIMPLE AND COMPLEX

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

## ALL INDUSTRY SECTORS



AUTOMOTIVE



AERONAUTICAL



PACKING  
PACKAGING



ELECTRONICS  
ELECTRICITY



MEDICAL  
PHARMACEUTICAL



COSMETICS



CONSTRUCTION  
BUILDING



HOME APPLIANCES

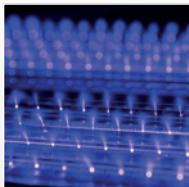
You may be looking for ways to improve the hold of varnishes, glue, paint or ink to plastic, metal, composite, glass, leather and perhaps wooden materials.

Did you know that there are not just one but several surface treatment solutions available to solve different adhesion issues that can be used prior to bonding?

At STTS, **we offer a wide range of solutions**. Why are we different? **Because our approach is highly pragmatic.**

## CORONA

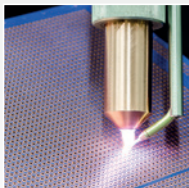
Ideal for treating surfaces that are relatively large and made of any material. We have adapted this long-standing technique and **developed truly innovative solutions**, some of which have been patented, such as the Efflavage Indirect® (Indirect Discharge) Corona system which is **unique to the global marketplace!**



## PLASMA

at atmospheric pressure

Particularly recommended for nozzles mounted on robots for treating surfaces that are relatively narrow and/or have complex raised features. Solution also recommended for activation combined with heating.



## FLAME TREATMENT

Although limited in terms of use, flame treatment is a simple alternative solution in certain specific cases, particularly for metal surface treatments.

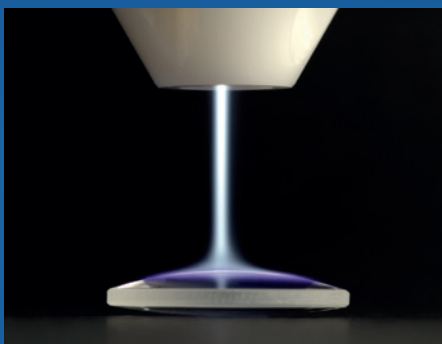


Before anything else, we consider the diversity of your technical specifications to advise you on the most suitable solution.

**It is in fact the quality of our analysis of your application issue that determines which technical solution to integrate!**

- type and profile of product
- process: type and structure of your production line
- budget constraints

## INNOVATION



### MTP2

ULTRA-HIGH PRECISION FOR SMALL SURFACES AND "DIFFICULT" MATERIALS

Our innovative manual treatment pen is highly compact, ergonomic, precise and easy to use. It has proven highly efficient for treating small parts and specific materials such as certain PTFE or silicone materials, in the lab, in R&D centres or in workshops for delicate manual operations.

## OUR TECHNOLOGIES

### ELECTRIC DISCHARGE TREATMENT

#### CORONA

- Standard
- Blown arc

- Direct
- Ceramic
- Efflavage Indirect®

#### PLASMA

Atmospheric-pressure plasma

#### INNOVATIVE MANUAL TREATMENT | MTP2

### FLAME TREATMENT

- Single burner
- Multi burner
- Custom burner



## Understanding and handling adhesion problems

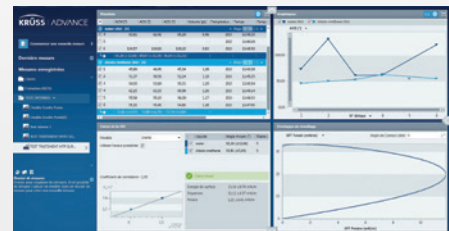
Some plastics, such as polymers like polyethylene and polypropylene, do not always have the surface properties (surface energy or tension) required to ensure a proper hold of the products to be applied. They feature neutral molecular chains in constant motion – nothing can adhere to their surface!

This means that it is very difficult to apply products, which may involve printing inks, applying paint or varnish, gluing, PU foaming, coatings, etc.

With our treatments we graft oxygen radicals (also known as polar sites) to the end surface of the materials.

Each technical solution benefits from a **precise analysis of product application**, and at STTS we take this initial phase very seriously. Our approach is based on **two key stages**:

- Analysis and lab and/or in situ testing on client premises
- Design and development of the chosen solution in the engineering design office

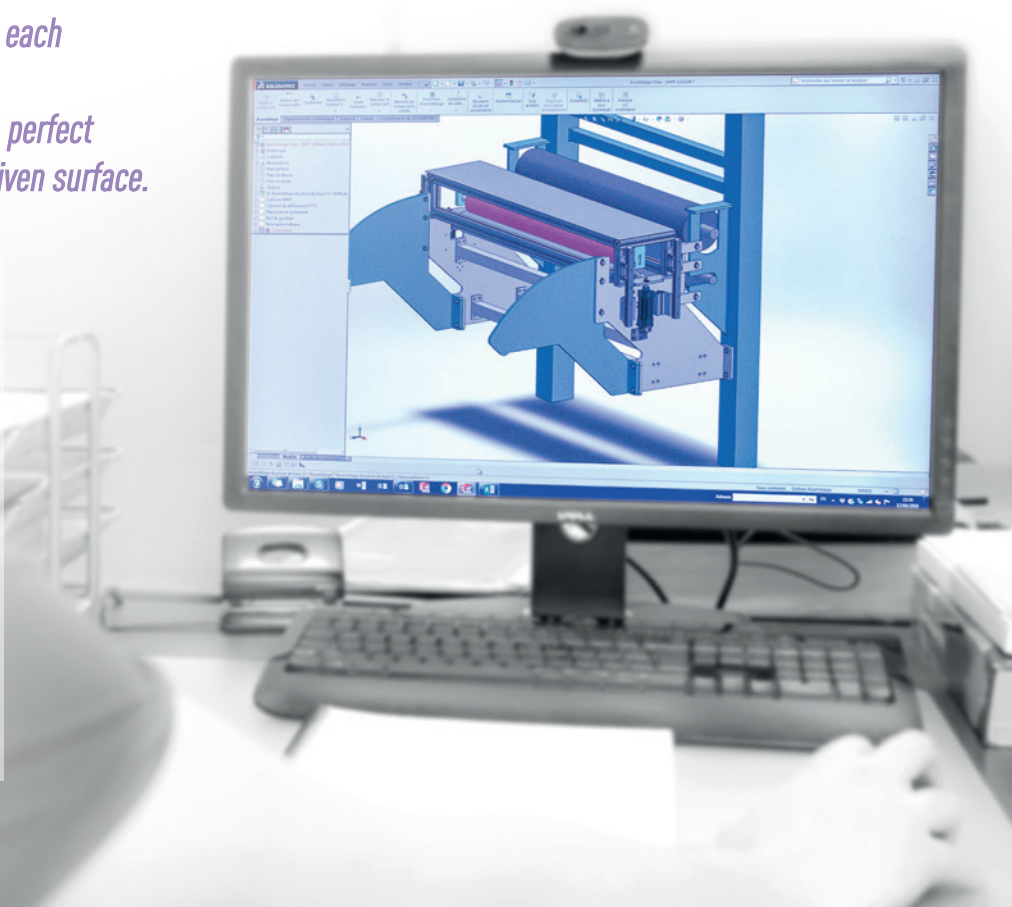


### CONTACT ANGLE MEASUREMENT

This in-depth analysis of the product to be applied (glue, varnish, ink, etc.) is the final stage that provides us with precise details of the surface states. We make recommendations to optimise our end solution further if necessary.

*We take a highly pragmatic approach at each analysis and manufacturing stage.*

*We use our best endeavours to ensure a perfect and lasting hold of the product on the given surface.*



Improving adhesion on all  
plastic, elastomer, composite and metal substrates



## DESIGNER / MANUFACTURER / INTEGRATOR

We specialise in the highly specific industrial niche of **surface treatment** – in the manner of an **industrial start-up**. We cater for **all adhesion issues** (marking, printing, gluing, etc.), whether for plastics where bonding difficulties are the most common, for elastomer, rubber, composite, carbon or metal materials, or even more unusual materials such as cardboard and leather, etc.

**Design, manufacture and integration of custom surface treatment solutions** – we have undoubtedly won our clients over with our bold positioning and expertise in a market that mainly comprises distributors of standardised solutions. Thanks to the **experience, ingenuity and creativity of our team**, you are guaranteed the support of a **trusted partner and expert in adhesion issues**.

### ANALYSE

#### LABORATORY AND ENGINEERING DESIGN OFFICE

Analysis of the client process, lab testing of samples, measurement of surface energy, 3D design of machines, development and testing of prototypes: the upstream phase that is fully implemented by our in-house teams is crucial for the long-term efficiency of your facility.

### INNOVATE

#### CUSTOM DESIGN AND INTEGRATION

As a designer, manufacturer and integrator, each of our surface treatment facilities are specifically produced in close cooperation with our clients. They are custom conceived and built, and are directly integrated into the production lines at no extra charge!

### ACTIVATE

#### OUR GREATEST ASSET: EXTENSIVE EXPERTISE IN CORONA AND PLASMA TREATMENT

**Efficiency** | reproducible surface treatment ("repeatable" process)

**Quality** | unchanged and preserved 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

**35 YEARS**  
experience

**6.000 FACILITIES**  
integrated by STTS

operate daily in France and worldwide  
(Europe, Japan, USA, Czech Republic, Canada, China, etc.)