

EUROPLASMA

YOUR PARTNER IN SURFACE TREATMENT



TEXTILES

PLASMA...

P L A S M A

■ DRY PROCESSING TECHNOLOGY

Plasma is a technology that becomes important in the dry processing of textiles to achieve new products or replace products of traditional wet processing.

■ WHAT IS A PLASMA ?

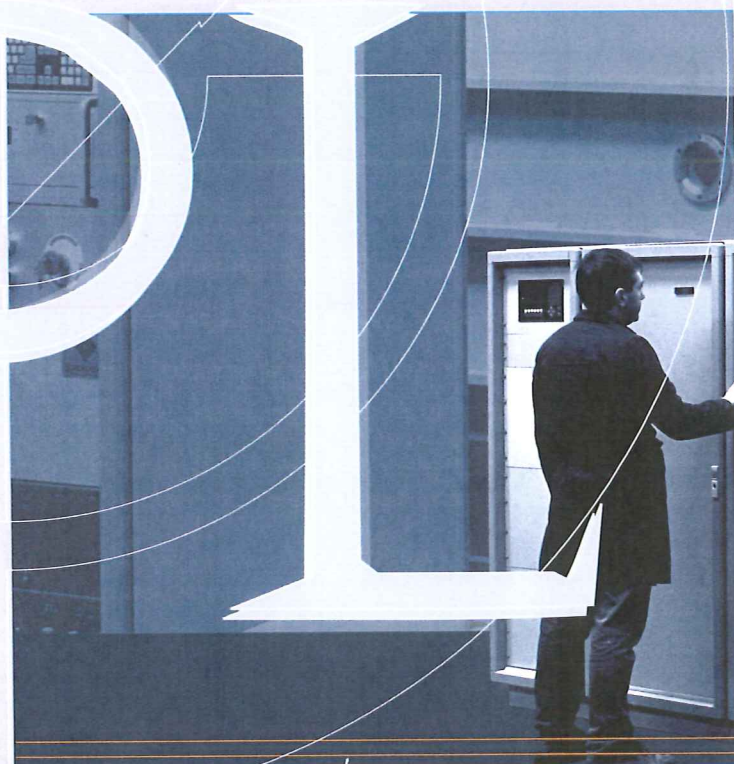
A plasma, also called the 4th State of matter, is an electric gas discharge, creating an ionising gas. This ionising gas, consisting of atoms, molecules, ions, electrons has the potential to super-fine-clean products, to activate, etch or finish products by plasma polymer coatings

on natural, synthetic and even ceramic
non woven,
technical textiles,
foils and
membranes.

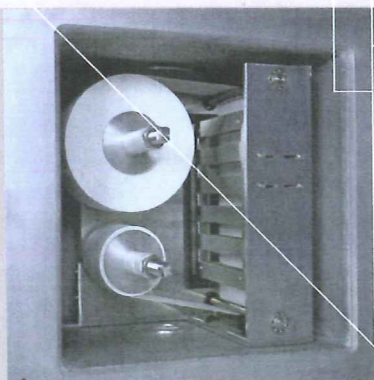
By this technology, it is possible to perform surface engineering without interfering the bulk properties of the basic material.

WHY USING A PLASMA ?

- DRY ...
no solvents, water and heating required.
- CLEAN ...
- FLEXIBLE ...
various processes possible.
- QUALITATIVE...
high level of surface modification and finishing.
- LOW COST PROCESSING



SPECIAL EQUIPED
R&D PLASMA UNITS



PLASMA APPLICATIONS

HYDROPHILIC TREATMENT

of non woven PP, PET, PBT (Polypropylene, Polyester, Polybutylterephthalate) for liquid filtration/separation/membranes/technical wipes.

DRY CLEANING

of acrylic, polyolefines,... to replace conventional washing.

OLEOPHOBIC FINISHING

of non woven PP, PBT, ... (Polypropylene, Polybutylterephthalate, ...)

SURFACE PREPARATION

of wool, cotton, silk, polymers, glass fibres,... for improved dyeing, coating, lamination.

ANTI-STICK FINISHING

of non woven PP for technical textiles and adhesives

PERMANENT HYDROPHILIC FINISHING

of PET (Polyester) for technical textiles and work/protection wear

HYDROPHOBIC TREATMENT

for disposables

SPIN-FINISH REMOVAL

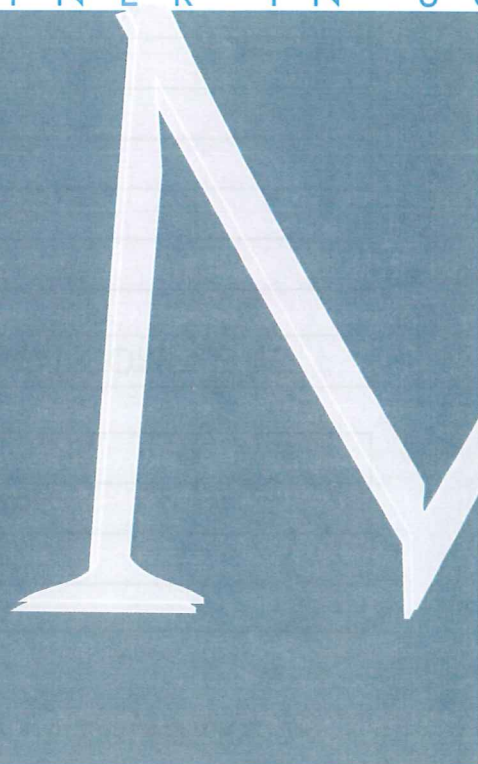
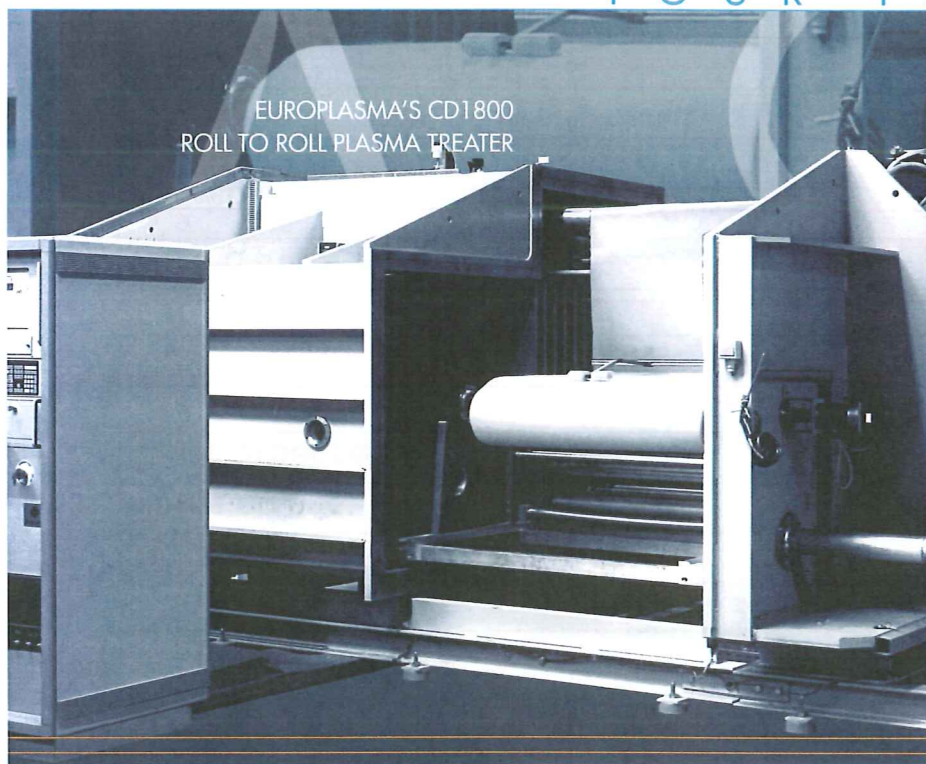
on polymeric textiles.

DEEP BLACK

of PET (Polyester)

Y O U R P A R T N E R I N S I

EUROPLASMA'S CD1800
ROLL TO ROLL PLASMA TREATER



THE PROCESSES

PLASMA CLEANING:

Removal of invisible organic contamination and absorption layers. Also polymeric thin coatings can be removed. A super-fine-cleaning which can solve adhesion problems or improve quality.

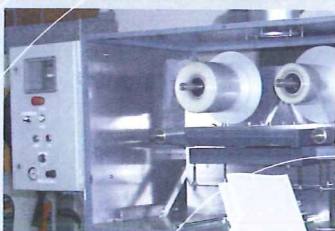
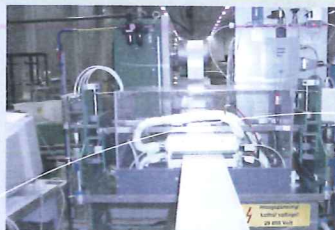
PLASMA ACTIVATION:

The preparation of polymer and natural substrates prior to coating, dyeing, lamination and other adhesion processes, by creating bonding sites on the surface.

PLASMA POLYMERISATION:

Sub-micron highly cross-linked layer deposition by means of plasma to get new structured performance coatings and finishing. Examples are hydrophobic, oleophobic, permanent hydrophilic and barrier coatings.

ATMOSPHERIC PLASMA



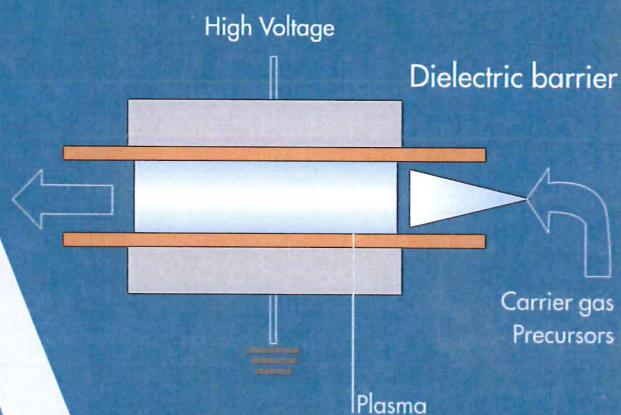
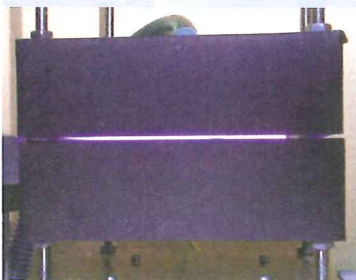
ATMOSPHERIC PLASMA...
A NEW DIMENSION...
A COMPATIBLE TECHNOLOGY

Atmospheric plasma is the ultimate technology when it comes to in-line or local treatment. The plasma torch as local hand tool or automated by robot or manipulator, gives the potential to clean, activate or modify surfaces for various applications.

The dielectric barrier discharge (DBD) parallel plate module is the second tool capable to modify yarns, sheets, films, non woven and textiles in a homogenous and qualitative way.

DEVELOPED BY VITO, FLEMISH INSTITUTE
FOR TECHNOLOGICAL RESEARCH,
COMMERCIALISED BY EUROPLASMA

F A C E T R E A T M E N T

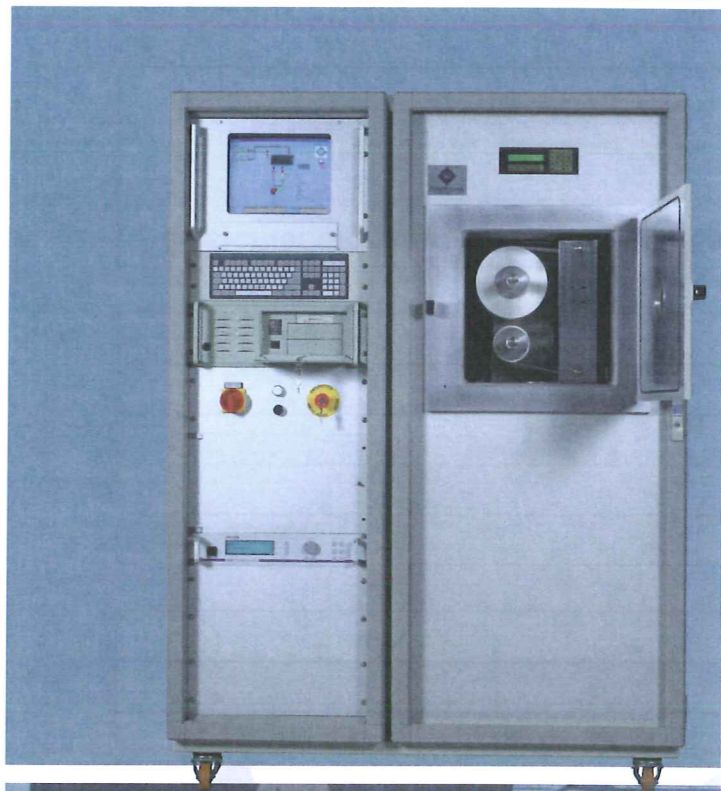


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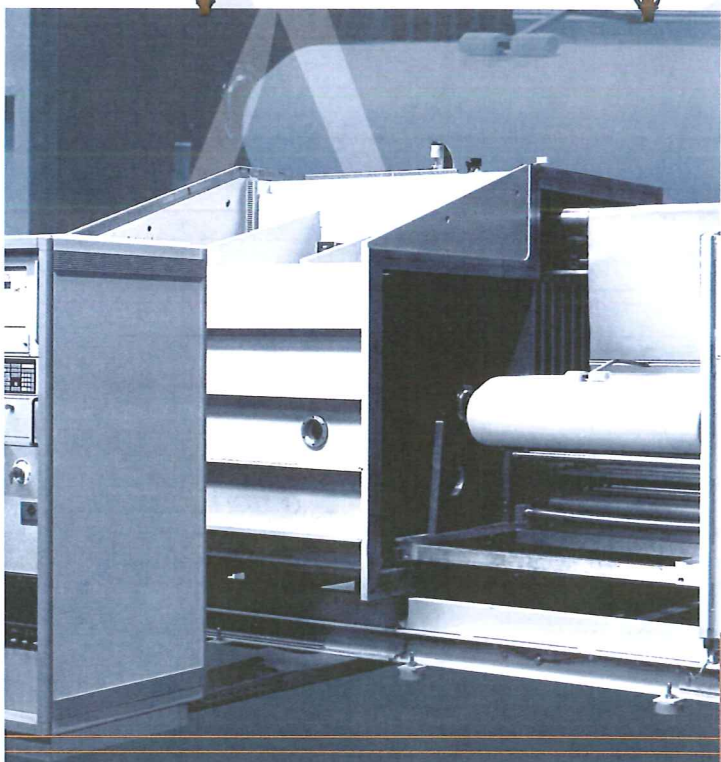
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OUR CAPABILITIES



- application lab for testing and validation
- subcontracting plasma treatment
- standard and custom designed machine construction
- consultancy on plasma processes and equipment

atmospheric and low pressure technology



OTHER PRODUCTS IN THE EUROPLASMA RANGE :

- Junior laboratory plasma systems
- Large automotive systems
- Fully automated plasma systems

EFFECT OF PLASMA TREATMENT ON THE WATERPROOF CHARACTERISTICS OF ACRYLIC FABRICS WITH RESPECT TO TRADITIONAL COATING.

FABRICS

Traditionally finished
Washed and plasma coated (A)
Plasma cleaned and plasma coated (C)
Plasma cleaned and plasma grafted

WATER COLUMN (CM)	CONTACT ANGLE (°)
32	133
32	131
37	140
35	136



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