



TORONTECH

ROLL-TO-ROLL VACUUM PLASMA SURFACE TREATMENT SYSTEM



Roll-to-Roll Vacuum Plasma Surface Treatment System - ToronPlasma™ RRVP

Roll-to-Roll Vacuum Plasma Surface Treatment System – ToronPlasma™ RRVP is an advanced corona treatment machine engineered for continuous, high-precision surface activation of flexible web materials under controlled vacuum conditions. Unlike atmospheric corona treatment equipment, this system operates in a sealed vacuum chamber, eliminating ambient air interference and enabling highly uniform plasma generation.

By evacuating the chamber and introducing controlled process gases such as nitrogen, oxygen, or argon, the system creates a stable plasma environment through high-voltage discharge. This process modifies surface chemistry at the molecular level, improving surface energy, wettability, and adhesion performance. An integrated roll-to-roll rewinding mechanism ensures consistent, continuous corona surface treatment across the entire material width.

Designed for high-value materials and demanding applications, this vacuum plasma corona treatment equipment delivers repeatable, contamination-free surface modification for advanced manufacturing environments.

APPLICATIONS

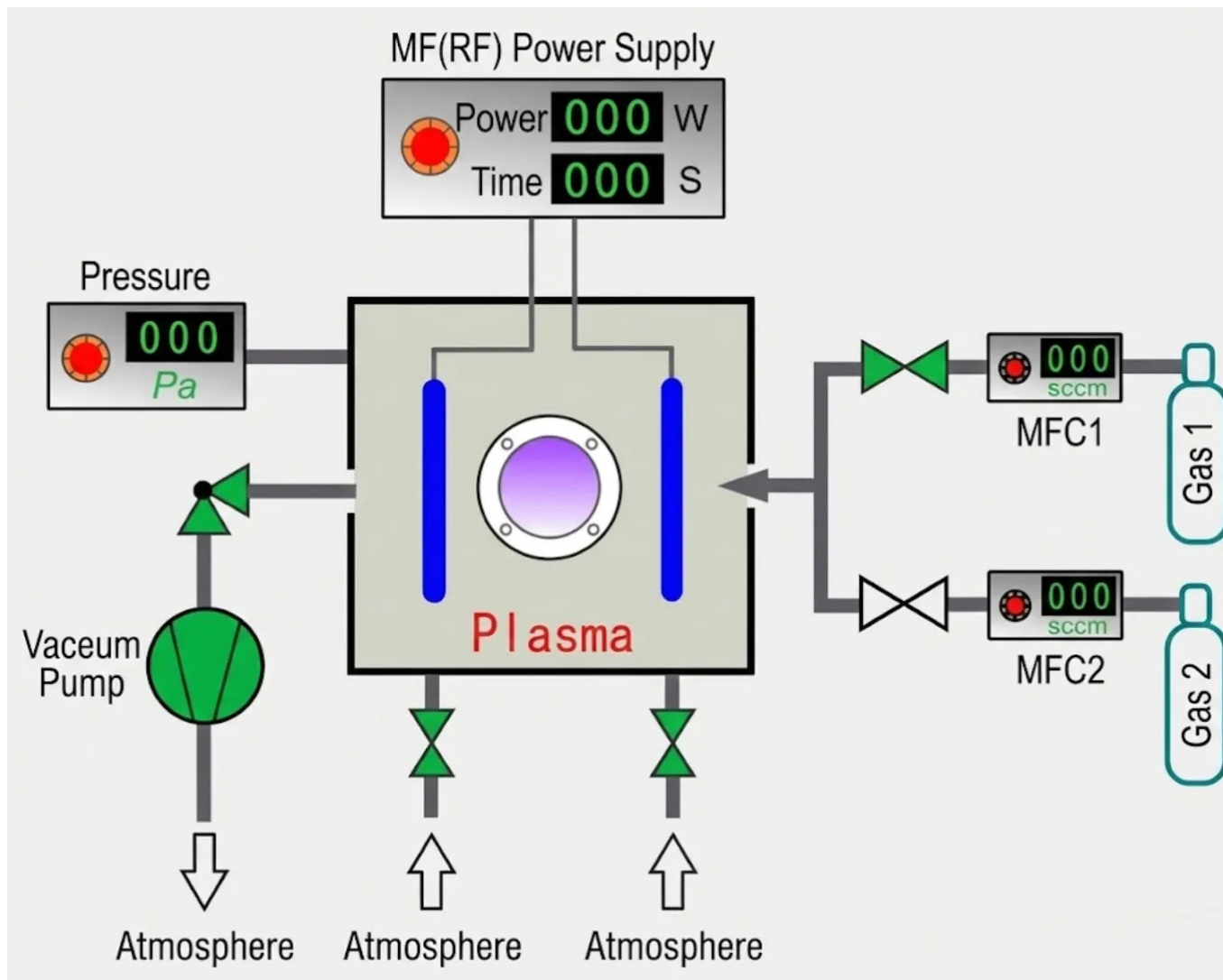
Roll-to-Roll Vacuum Plasma Surface Treatment System - ToronPlasma™ RRVP Applications

This Roll-to-Roll Vacuum Plasma Surface Treatment System – ToronPlasma™ RRVP is ideal for applications requiring precise and uniform surface activation:

- Flexible plastic films and polymer webs

- Functional films for electronics and energy storage
- Battery separator films and aluminum-coated substrates
- Medical and pharmaceutical packaging films
- Optical and specialty coating substrates
- Pre-treatment before coating, printing, lamination, or adhesive bonding

The system is especially suitable for materials that are sensitive to heat or atmospheric oxidation.



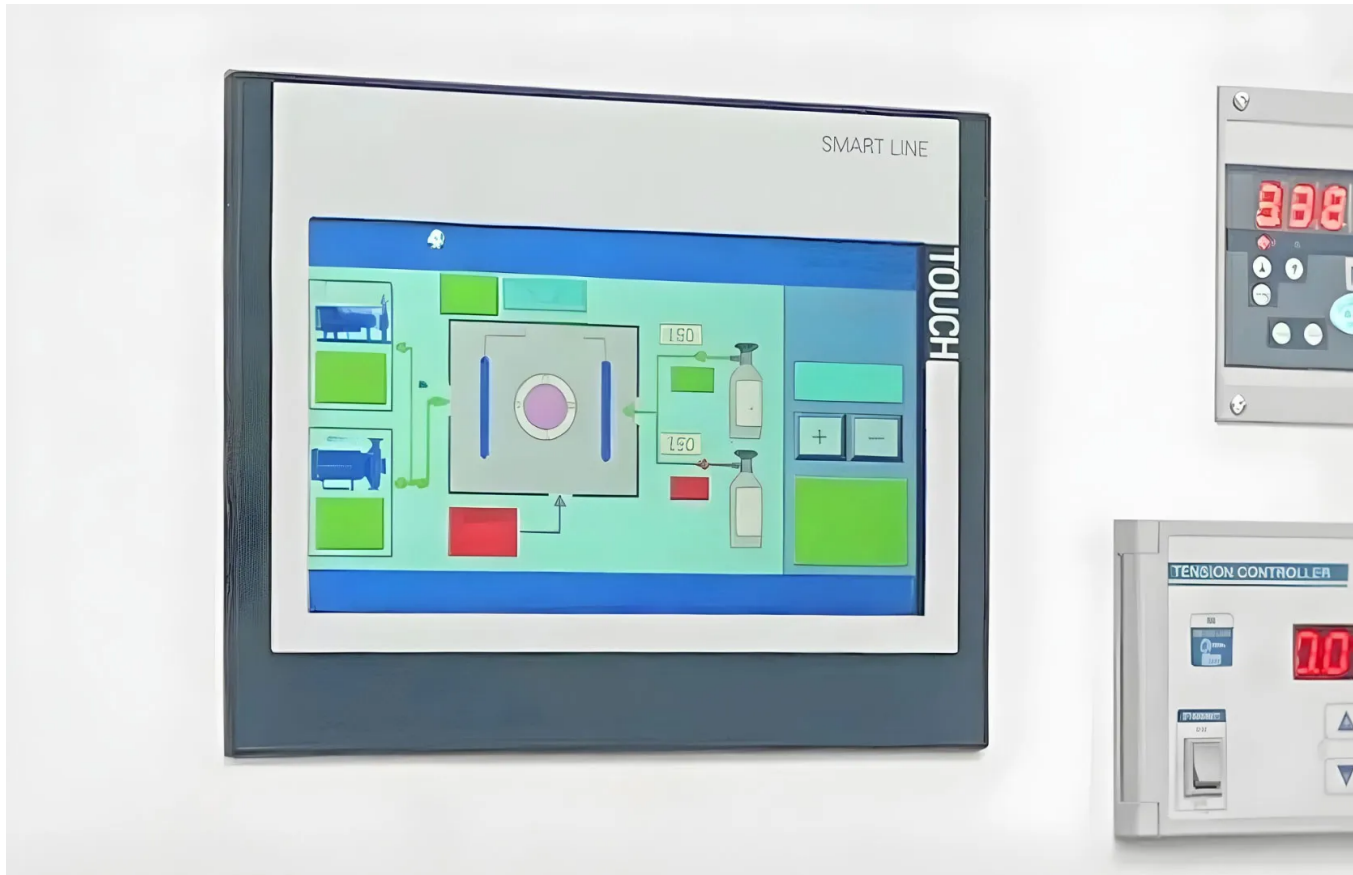


FEATURES

Roll-to-Roll Vacuum Plasma Surface Treatment System - ToronPlasma™

RRVP Key Features

- Vacuum-based corona surface treatment for contamination-free plasma processing
- Roll-to-roll continuous processing for flexible web materials
- Controlled introduction of process gases (N₂, O₂, Ar)
- Uniform plasma generation through high-voltage discharge
- Integrated rewinding and tension control system
- Enhanced adhesion, wettability, and surface energy
- Suitable for heat-sensitive and high-performance materials
- Stable and repeatable treatment results across full web width



Display Large System



Double side of row heat dissipation holes



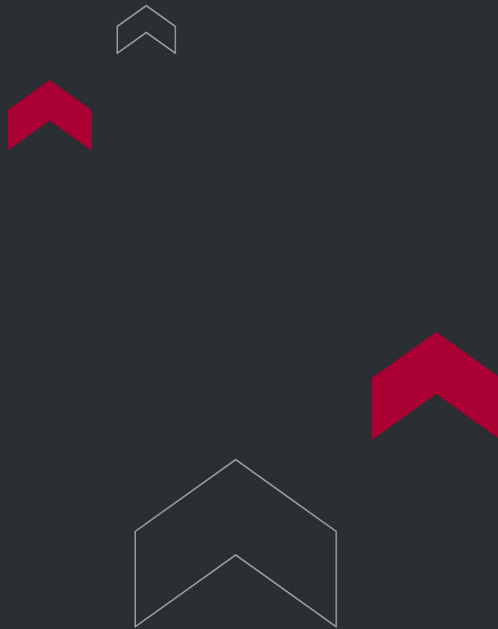
Stable clamping force

TECHNICAL SPECIFICATIONS

Roll-to-Roll Vacuum Plasma Surface Treatment System - ToronPlasma™

RRVP Technical Specifications

Parameter	Specification
Equipment Type	Roll-to-Roll Vacuum Plasma Surface Treatment System – ToronPlasma™ RRVP
Processing Mode	Continuous roll-to-roll
Plasma Generation	High-voltage discharge in vacuum environment
Vacuum System	Integrated vacuum pump
Process Gases	Nitrogen (N ₂), Oxygen (O ₂), Argon (Ar)
Chamber Environment	Controlled vacuum state
Surface Treatment Method	Vacuum plasma / corona surface treatment
Web Handling	Automatic unwinding and rewinding
Treatment Uniformity	Full-width consistent plasma exposure
Application Materials	Plastic films, coated films, functional films
Operation Mode	Automatic / Programmable
Cooling Method	Natural or assisted cooling (system-dependent)
Safety Protection	Enclosed chamber with electrical interlocks
Installation Type	Floor-mounted system
Typical Use Environment	Industrial production / R&D / Pilot lines



Torontech Inc.

251 Consumers Road, Suite 1200
Toronto, Ontario, M2J 4R3, Canada 

Phone: +1 416 368 2721 | Fax: +1 416 981 7652
Email: info@torontech.com

Torontech, LLC

601 Brickell Key Drive, Suite 700
Miami, FL 33131, USA 

Toll-Free: 1-866-383-7919
Email: sales@torontech.com

Torontech ME FZE

Meydan Grandstand, 6th Floor,
Meydan Road, Nad Al Sheba,
Dubai-261440, UAE 

Phone: +971 488 19252
Email: me@torontech.com

