

TECHNICAL DATA SHEET

Smart Wide-Width Plasma Jet Generator

Jet-type atmospheric low-temperature plasma surface-treatment equipment



ACS Material smart wide-width plasma jet generators — PTS-2000D (left) and PTS-X000D (right)

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SECTION I

Product Overview

The Smart Wide-Width Plasma Jet Generator is the intelligent, wide-area member of the ACS Material jet-type low-temperature plasma family. It produces a neutral (electrically non-charged) plasma with particle energies of 6–10 eV and treats metals, semiconductors, and non-metallic materials, while adding full parameter monitoring and data feedback for automated production lines. Two models are available: the PTS-2000D (connects 1–2 plasma jets) and the PTS-X000D (connects 1–4 plasma jets), both with a smart plasma jet adjustable from 2 to 90 mm.

Product Features

- Non-conductive plasma — processes virtually any material or product, including metals and items with electronic components.
- Low temperature — suitable for products with temperature-sensitive surface materials.
- No enclosure required — installs directly on a production line, with no vacuum chamber.
- Consumes only air and electricity — low operating cost and safer operation.
- No ozone generation and no chemical pollutants emitted — compliant with environmental regulations.

Smart monitoring & control

What sets the Smart Model apart from the standard wide-width generators is a fully instrumented, data-connected control system built for automated production:

- Monitoring & feedback — tracks plasma state, energy and power, rotation speed, and gas-source status in real time.
- Consumable tracking — logs consumable-replacement time and issues replacement reminders.
- Data exchange & communication — controlled operation with data interaction for line integration.
- Predictive warning — intelligent anticipation and early warning of faults.
- Fail-safe design — error-proofing to protect the process and operator.

SECTION II

Specifications

Specification	PTS-2000D	PTS-X000D
SKU #	EPPTS2D1	EPPTSX2D
Product type	Smart wide-width generator	Smart wide-width generator
Plasma jet width	2–90 mm (adjustable)	2–90 mm (adjustable)
Treatment speed	10–500 mm/s (process-dependent)	10–500 mm/s (process-dependent)
Plasma jets supported	Connects 1–2 plasma jets	Connects 1–4 plasma jets
Output power	Adjustable	Adjustable
Gas supply & pressure	External clean, oil-free, water-free gas, 4–6 atm	External clean, oil-free, water-free gas, 4–6 atm
Application	Polymers or metals	Polymers or metals

Both models add full monitoring and data feedback, data exchange, predictive warning, and fail-safe design. Specifications are typical and may vary; confirm details at the time of quotation.

SECTION III

Applications

Low-temperature plasma pre-treatment improves cleaning, activation, and adhesion across a wide range of industries:

- Automotive Manufacturing
- Plastics & Rubber
- Electronics, Optoelectronics & Medical
- Metal & Coating
- Synthetic Fiber & Textile
- Printing & Coding
- Box Manufacturing

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