TECHNICAL DATA SHEET

PlasmaNova 5 kW Integrated Plasma Torch System

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

ACS Material PlasmaNova 5 kW portable integrated plasma torch system (image for reference only)

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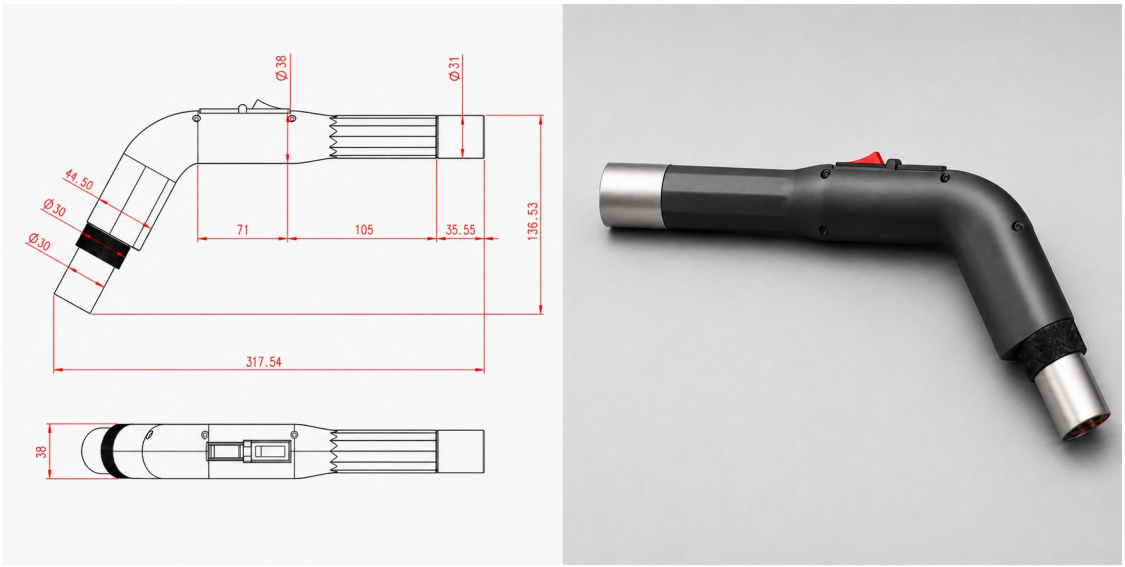
SECTION I

Product Overview

PlasmaNova™ is a portable, fully integrated 5 kW plasma torch system for plasma processing, materials melting, and welding. It generates a DC arc plasma with a flame core exceeding 6000 °C, runs on argon or air, and offers continuously adjustable output power from 3 to 5 kW. A built-in water-cooling system and compact, mobile design make it suitable for both handheld operation and integration with robotic-arm automation, with support for continuous 24-hour operation.

Product Features

- Wide operating temperature range with high stability.
- Built-in water-cooling system for high cooling efficiency and extended electrode lifespan.
- Continuously adjustable power parameters for easy and precise control.
- Integrated, compact design — mobile, safe, and reliable.
- Supports both handheld operation and integration with robotic-arm automatic control systems.



PlasmaNova™ plasma torch — design drawing (left) and actual product (right). Dimensions in the design drawing are in millimeters (mm). Shown for illustration only; the final delivered product may vary in appearance according to customer requirements.

SECTION II

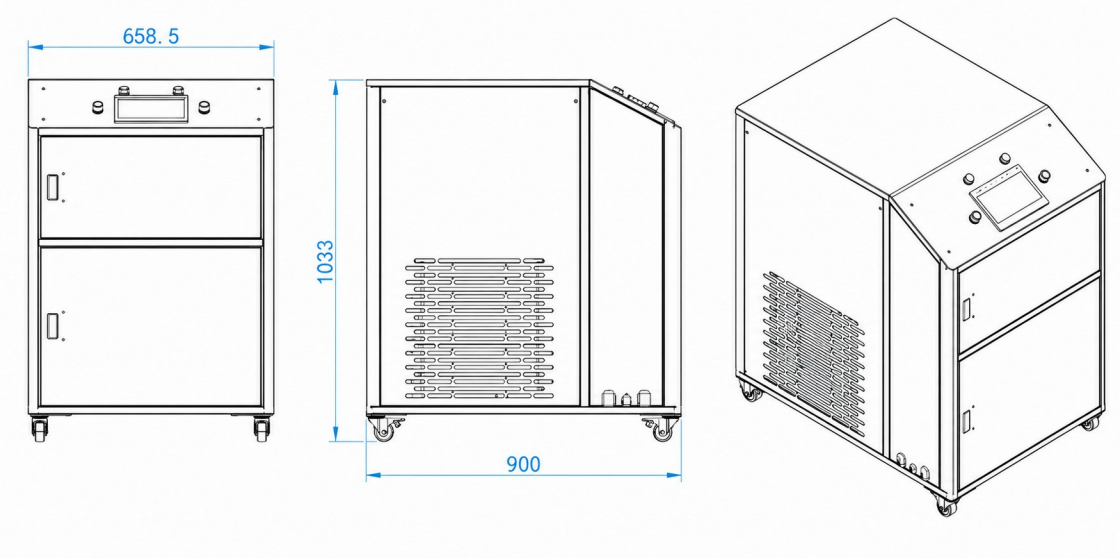
Technical Specifications

Item	Specification
Power supply	Three-phase four-wire, AC 380 V ±10%, 50 Hz (customizable)
Rated output power	3–5 kW, continuously adjustable
Plasma discharge type	DC arc plasma
Working gas	Argon, air
Flame diameter	0–30 mm
Flame temperature	Extension approx. 1200 °C; core exceeds 6000 °C
Flame length	5–10 cm
Cooling method	Forced air cooling (with built-in water-cooling system)

Item	Specification
Operation mode	Manual control; continuous 24-hour uninterrupted operation
Torch type	Handheld; supports robotic-arm operation
Operating ambient temperature	−10 °C to +40 °C

Dimensions are for reference only; actual specifications are subject to final delivery. Specifications are typical and may vary; confirm details at the time of quotation.

Mechanical Dimensions

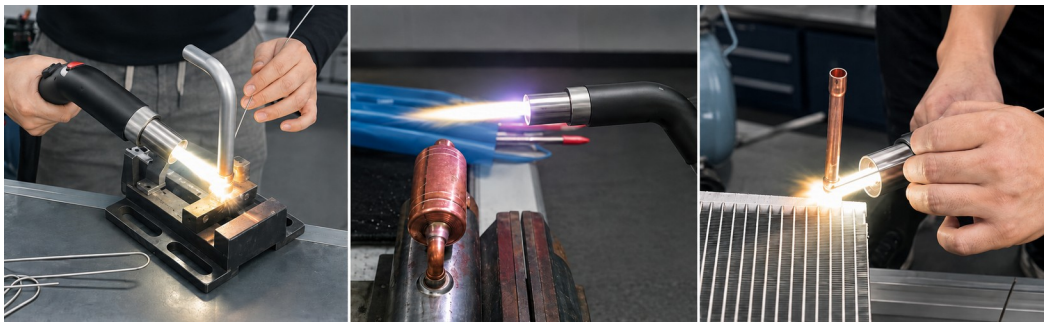


PlasmaNova™ 5 kW system mechanical dimensions (for reference only). All dimensions are in millimeters (mm).

SECTION III

Applications

PlasmaNova™ is suited to plasma torch experiments, melting and welding of conventional and specialty materials, and related plasma processing applications:



PlasmaNova™ plasma torch in a materials welding application.

- Plasma torch experiments — a compact, adjustable DC arc plasma source for laboratory and process research.
- Melting & welding — joining and melting of conventional and specialty materials with a high-temperature plasma flame.
- Plasma processing — surface treatment, spheroidization, and related high-temperature plasma applications.

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