

USC-1000 series

Compact Ultrasonic Dry Cleaning machine

Technology: The UDC1000 utilizes high-frequency Ultrasonic Dry Cleaning (USC) technology, a cutting-edge non-contact cleaning solution designed for high-precision surfaces.

Mechanism: By converting electrical energy into ultrasonic vibrations, the system generates high-speed airflow and pressure waves. This breaks the boundary layer of micro-particles, effectively removing dust and contaminants without physical contact

Design: Available in both Vertical and Horizontal configurations, and functional compact that easily integrates into any automated production line

APPLICATIONS

- **Display & Glass Industry:** Critical glass cleaning for TFT-LCD, OLED, and Touch Panel manufacturing.
- **Semiconductor & Electronics:** Particle removal for Wafer carriers, IC substrates, and PCB/FPC assembly.
- **Optical Components:** Precise cleaning for high-end lenses, prisms, and specialized coatings, Camera modules
- **New Energy:** Surface preparation for solar cells (PV) and Lithium-ion battery separators



Horizontal and Vertical version

FEATURES

- **Superior Non-Contact Cleaning:** Eliminates the risk of secondary scratches, static buildup, or substrate damage common with traditional brush or roller cleaning.
- **High-Precision Particle Removal:** Effectively targets sub-micron contaminants ($<1\mu m$), making it ideal for glass cleaning and sensitive electronics.
- **Static Neutralization:** Integrated ionizer system ensures surfaces remain static-free after cleaning, preventing immediate re-contamination.
- **Green Technology:** A completely dry process—no water, no chemicals, and low energy consumption.
- **Smart Interface:** Equipped with a localized English PLC touch-screen control for real-time monitoring and easy operation

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TECHNICAL SPECIFICATIONS

Feature	Specification
Model	USC1000 (V/H Series)
Cleaning Method	non-contact Ultrasonic Dry Cleaning (USC)
Ultrasonic Frequency	40 kHz / 80 kHz (Multi-frequency optional)
Power Supply	AC 220V, 50/60Hz, Single Phase
Compressed Air Input	0.4 - 0.6 MPa (Clean Dry Air - CDA)
Control System	PLC Control + HMI Touch Screen (English)
Static Control	Integrated Ionizing System
Cleaning Efficiency	>99% for particles > 0.5um
Cleaning head	Customizable, up to 1000mm
Net weight	120-180kg (depend on customized configuration)
External dimension	Horizontal Unit (Cabinet): Approx. 1000mm x600mmx850mm (Excluding casters). Vertical Unit (Cabinet): Approx. 600mmx600mm x1650mm