40kHz Ultrasonic Electrolytic Cleaning Machine for Precision Plastic Molds

Our Product Introduction

Basic Information

- Place of Origin: Shenzhen, China
- Brand Name: Skymen
- Certification: CE, RoHS, FCC
- Minimum Order Quantity: 1 Unit/Units
- Price: Negotiation
- Packaging Details: 1pcs / wooden case packing



Product Specification

- Highlight: **40kHz ultrasonic mold cleaning machine, electrolytic ultrasonic cleaner for plastic molds, precision mold ultrasonic cleaning equipment**



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Product Description

Working Principle of the Electrolytic Mold Cleaning Machine

Electrolytic cleaning is an electrochemical process that uses electric current to remove stubborn contaminants from metal surfaces. It is particularly effective for removing animal and vegetable oils, mineral oils, paraffin, carbon deposits, and oxide layers from molds and metal components.

During electrolysis, the workpiece is connected to the positive electrode (anode) and immersed in a specially formulated electrolytic cleaning solution. As current passes through the solution, oxygen is generated near the anode and hydrogen near the cathode. Fine gas bubbles form on the metal surface, loosening and detaching contaminants from the workpiece. This process effectively removes accumulated dirt while helping restore the original appearance of the mold.

Ultrasonic Cleaning Principle

The ultrasonic cleaning system uses a 40 kHz high-frequency power supply to drive the ultrasonic transducers, converting electrical energy into mechanical vibrations. These vibrations propagate through the cleaning solution, generating alternating high- and low-pressure zones that produce thousands of microscopic cavitation bubbles.

As these bubbles rapidly collapse, they generate localized impact forces and liquid movement that dislodge contaminants from metal surfaces, including intricate areas, narrow gaps, and hard-to-reach cavities.

Combined Electrolytic and Ultrasonic Cleaning

By combining electrolysis with ultrasonic cavitation, the machine enhances contaminant removal through two complementary cleaning mechanisms. Electrolysis helps loosen stubborn deposits, while ultrasonic cavitation provides mechanical cleaning action to remove detached dirt and residues.

This combined cleaning process is suitable for removing oil, carbon deposits, oxide layers, and other persistent contaminants from molds and metal components, helping restore surface cleanliness and improve mold maintenance efficiency.





Product Parameters

Model Number	JTS-1018T
Function	Electrolysis + Hot water cleaning
Ultrasonic Frequency	28/40kHz (other frequency can be customized: 20kHz, 68kHz, 80kHz, 132kHz)
Tank Material	SUS 304 (SUS 316 can be customized)
Thickness of Tank	2mm
Inner Tank Dimension	550 × 450 × 400 mm / 31 × 12 × 16 inch (Length × Width × Depth)
Machine Dimension	1000 × 900 × 1000 mm (Length × Width × Height)
Packing Dimension	1100 × 1000 × 1200 mm (Length × Width × Height)
Gross Weight of Machine	130KG
Tank Capacity	316L / 26 Gallon
Transducer	30pcs; 50W for each transducer; 100W transducer can be customized
Ultrasonic Power	0–1080W
Heating Power	1500W
Time Setting of Ultrasonic	0–99 hours
Temperature Setting	Room temperature to 95°C / 203°F adjustable
Drain Hole	On the bottom of inner tank
Water Inlet/Outlet	Yes; 20mm
Basket	Yes
Basket Load	More than 200KG
Length of Power Line	1.5 meters
Power Supply	220V 50Hz; 110V 60Hz
Warranty	1 year
Certificate	CE; RoHS; FCC; REACH
Lead Time	25 days after payment

Our Advantages

We are a direct manufacturer and factory with mass production capability.

Our R&D department ensures our products remain technological and innovative.

We own the Skymen brand and provide custom manufacturing for distributors.

Skymen offers a wide range of industrial cleaning equipment, including:

- Standard ultrasonic cleaning machines (single tank or multi-stage, from 38 to 1500 L)
- Immersible ultrasonic transducer modules
- Extra-large ultrasonic cleaning equipment (over 20,000 L)
- Semi-automatic ultrasonic cleaning machines with translation and lifting systems
- Automatic ultrasonic cleaning machines with PLC control
- Special-function cleaning machines, such as rotary basket spraying cleaning machines, heated soak tanks, anilox roller ultrasonic cleaners, explosion-proof ultrasonic cleaners, and more
- Plasma surface treatment machines

Our products comply with international safety and environmental standards, with certifications including CE, FCC, RoHS, PSE, and Ex. We also follow strict quality management systems, including ISO 9001, ISO 14001, ISO 45001, and SA8000.

1-year warranty for all goods.

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