



**ULTRASONIC CLEANER · MADE BY SKYMEN**  
**STANDARD INDUSTRIAL CLEANER**

**Manufacturer of Industrial Cleaning Equipment**  
**Process solution service provider**



WeChat

**SKYMEN TECHNOLOGY CORPORATION LIMITED**

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R&D Center: No. 10 Jian'an Road, Baoan District, Shenzhen city, Guangdong province, China (Taifeng Industrial Park)

Production Base: Wujiang science and technology park, Wujiang district, Shaoguan city, Guangdong province, China (Skymen Industrial Park)

**SKYMEN TECHNOLOGY CORPORATION LIMITED**

# ULTRASONIC CLEANING AND WORKING PRINCIPLE INTRODUCTION

Ultrasonic cleaning is to use the cavitation effect of ultrasonic waves in the liquid to have a direct or indirect effect on the liquid and dirt, so that the dirt layer is dispersed, emulsified, and peeled off to achieve the purpose of cleaning.

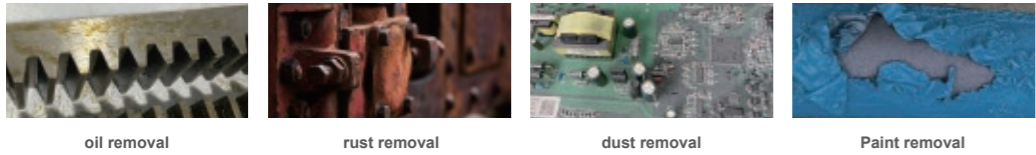
**Cavitation:** The micro-bubble nuclei in the liquid vibrate under the action of ultrasonic waves. When the pressure reaches a certain value, the bubbles will expand rapidly and then close suddenly. When the bubbles close, shock waves are generated to wash the surface of the workpiece. A series of dynamic processes such as expansion, closure, and oscillation are called ultrasonic cavitation.

## APPLICATION

**Application fields:** Ultrasonic cleaning is widely used in mechanical hardware, new energy, auto parts, electronic components, optical optoelectronics, semiconductor, petrochemical, textile printing and dyeing, chemical, biological, medical and other industries.



**Application requirements:** Ultrasonic cleaning mainly cleans the surface attachments of the workpiece, such as oil removal, rust removal, glue removal, dust removal, hair removal, polishing wax removal, scale removal, graphite removal and other dirt.



# CONTENTS

- Company Profile / Three Base ..... 01/02
- Development Path / Qualification Patent ..... 03/04
- Ultrasonic cleaning and supporting technology ..... 05/08
- Single tank ultrasonic cleaner series ..... 09/10
- Dual-tank ultrasonic cleaner series ..... 11/12
- Three-tank ultrasonic cleaner series ..... 13/14
- Multi-Tank ultrasonic cleaner series ..... 15/16
- Semi-automatic ultrasonic cleaner series ..... 17
- Ultrasonic transducer rod and transducer box ..... 18
- Special customization ..... 19/20
- Automatic ultrasonic cleaning machine (Water-based, Hydrocarbon) ..... 21/22
- Cooperation Cases & Partners ..... 23/24

## COMPANY PROFILE

Founded in 2007, Skymen Group is an ultrasonic cleaning equipment manufacturer integrating R &D, production, sales and service . It specializes in providing ultrasonic cleaning technology solutions for global customers , and is committed to becoming a world-leading "ultrasonic cleaning equipment Comprehensive service provider of the whole value chain".

Rooted in the ultrasonic cleaning industry for more than ten years, Skymen Group has been focusing on the research and development of comprehensive services for ultrasonic cleaning technology-related products . It is a national high-tech enterprise and a "specialized and special new enterprise" in Shenzhen. It has several subsidiaries such as Shenzhen Skymen, Guangdong Skymen, Guangzhou Kemeng, Shaoguan Skymen, Skymen Acoustics Group (Hong Kong), etc., which are distributed in various parts of South China. It has passed ISO9001, ISO 14001, etc. , and has various There are highly educated and high-tech personnel, there are many well-known brands, and more than 100 patents have been successfully applied . The products mainly include industrial equipment, commercial equipment, and household ultrasonic cleaning machines, which are widely used in factory manufacturing, medical care, plastic products, mechanical hardware, transportation, electronic products, semiconductors, new energy and other major fields. Customers are located in more than 100 countries and regions around the world.

More than ten years of rapid development has enabled the company to gradually establish a complete sales system, forming the corporate characteristics of rich products, convenient supply, reasonable prices, and global services . In the future, Skymen people will be more forging ahead, pioneering and innovating , in order to implement the company's vision of "gradually becoming a respected international and diversified century-old enterprise" and "making the world cleaner and human beings healthier; creating beauty and serving The mission of "society" is unremitting efforts, and it is also making unremitting efforts to build the world's leading "integrated service provider of the whole value chain of ultrasonic cleaning equipment" .



## THREE BASE

### Shenzhen Fuyong·Marketing Center

Purchase office at Exhibition Bay · Zhonggang Plaza and set up an operation center integrating sales, brand, human resources, and finance, with an office area of about 1,000+m<sup>2</sup> . With a very complete offline and online promotion team , it has been committed to using the soft power of the brand to enhance the competitiveness of front-end products in the market , in order to realize the group's "gradually becoming a respected international and diversified century-old enterprise" A common vision lays a solid foundation.



### Shenzhen ShaJing R&D Center

The R & D center is located in Taifeng Industrial Zone, Jian'an Road, Bao'an District, with an area of 3000+m<sup>2</sup> . It has introduced ultrasonic cleaning technology and design concepts from Europe, America, Japan and other countries, relying on domestic professional research institutions, and independently innovated. The core members of the technical and management team of Skymen R&D Center have more than decades of industry experience and have rich theoretical and practical experience. Skymen has not only gathered a lot of talents in the field of ultrasonic technology externally, but also trained many high-tech personnel in the field of ultrasonic product innovation and manufacturing internally . So far, it has more than 100 patents, many of which are from the United States, Europe, Japan and other foreign countries . patent certificate.



### Shaoguan Wujiang Production Base

Skymen Shaoguan Industrial Park is located on Muxi 8th Road, High-tech Zone, Shaoguan City. It is wholly-owned by the group. The total planned construction area exceeds 35,000+m<sup>2</sup>, and the annual output value of ultrasonic cleaning machines can reach more than 1 million units. The base is mainly responsible for the production and R&D tasks of the group. It will be settled in the Ultrasound Medical Device Engineering Research Center of Skymen Acoustics Group, and will introduce automated production equipment and intelligent storage facilities. It is committed to building Skymen Shaoguan Industrial Park into an ecological, energy-saving, low-carbon An industrial pacesetter of environmental protection and technological intelligence.



## DEVELOPMENT PATH

2012

### The Manufacturing Center Was Established

The Molding Division was added to focus on the R&D and manufacturing of ultrasonic cleaning machine molding, and to meet the needs of mold design and injection molding processing for the supply of finished product factories.

2020

### Establish A Research And Development Center

The independent R&D center of Skymen Group was established in Shajing, Shenzhen, and the leasing industrial park in Shaoguan, Guangdong was put into operation, completing the overall layout integrating R&D, production and sales, forming a competitive advantage in the industry.



2023

### Operations Headquarters Moved To A New Location, Planning To Go Public

The operation headquarters of Skymen Group settled in the Exhibition Bay Zhonggang Plaza, with the help of the exhibition economy, based on a new starting point and embarking on a new journey



2007

### The Business Started

Skymen Cleaning Equipment Shenzhen Co., Ltd.

2017

### The Operation Center Was Established

Established a comprehensive operation center headquarters integrating marketing and brand promotion in Fuyong, Shenzhen, and is committed to building strong support for front-end personnel with brand promotion as the cornerstone.



2022

### The Foundation Stone Of The Group Industrial Park Will Start / Shareholding System Reform

Skymen Group's self-built industrial park project started in Shaoguan, Guangdong, which can meet the annual output of 1 million ultrasonic cleaning machine equipment and instruments. The company name was upgraded from "Skymen Cleaning Equipment Shenzhen Co., Ltd." to "Skymen Technology Corporation Limited.", marking a new starting point for the company driven by technology.



## CERTIFICATE OF HONOR

The company's various business activities have been carried out in an orderly manner. It has been fully recognized by relevant departments at all levels and all walks of life. Dozens of honorary qualifications awarded by the state and the province, such as contract-abiding and credit-worthy enterprises, and many research and development projects have been supported by the Provincial Science and Technology Department.



Product Certification



Patent Certificate



## OVERVIEW ULTRASONIC CLEANING AND SUPPORTING TECHNOLOGY

Ultrasonic cleaning machines are now the preferred cleaning equipment in various industries, but for all kinds of products in the industry, simple ultrasonic cleaning may not be able to satisfy people's pursuit of "efficient and clean" cleaning. Therefore, various icking on the cake ultrasonic cleaning Supporting functions came into being. Different functions cooperate with ultrasonic cleaning to achieve better results for cleaning different product shapes and dirt. Not only can cleaning be completed faster and more efficiently, but also the workpiece can be cleaned more thoroughly.

### Clean technology

#### 1.Ultrasonic cleaning

Ultrasonic cleaning is to use the cavitation effect of ultrasonic waves in the liquid to have a direct or indirect effect on the liquid and dirt, so that the dirt layer is dispersed, emulsified, and peeled off to achieve the purpose of cleaning.

#### 2.High pressure spray

High-pressure spray cleaning is a cleaning method that uses high-pressure water flow to impact the surface of the object. Specifically, the liquid is sprayed from the fan-shaped spray nozzle at high speed through a high-pressure water pump, and the stains that have been softened but not completely peeled off on the impact surface of the workpiece are completely peeled off. Thoroughly wash off the stains on the workpiece.

#### 3.Soaking cleaning

Some workpieces with stubborn stains or complex geometric shapes such as blind holes and grooves are generally cleaned by soaking first, that is, the workpiece is immersed in the cleaning solution as a whole, and the chemical action of the cleaning solution is used to soften, separate, Dissolves difficult-to-remove contaminants on workpiece surfaces.

#### 4.Electrolytic cleaning

The metal sample acts as an electrode by applying an electric current, and an electrochemical reaction occurs between the electrode and the electrolyte. During this process, a redox reaction occurs on the electrode surface, which breaks down oxides and fouling substances into soluble substances.

#### 5.Vacuum cleaning

Cleaning in a vacuum state can eliminate the cleaning liquid and clean the air in the pores of the workpiece, so that the cleaning liquid can completely contact all surfaces of the workpiece, blind holes, and deep holes, and achieve all-round cleaning without dead ends. This can not only reduce the weakening of ultrasonic waves, It also cleans faster and more thoroughly.

#### 6.Steam bath

Steam bath washing is to dissolve the oil stains on the surface to be cleaned by saturated steam under high temperature and high pressure, and vaporize them, so that the surface cleaned by saturated steam can reach an ultra-clean state. At the same time, the supersaturated steam can effectively cut into any tiny holes and cracks, stripping and removing the stains and residues therein.

### Drying technology

#### 1.Hot air drying (tank circulation, tunnel furnace)

Hot air drying is a common drying technology. Its principle is to use a certain temperature and wind speed to blow off and evaporate the water droplets on the surface of the workpiece to achieve the purpose of rapid drying.

#### 2.Wind cutting

The principle of wind cutting and water blowing is to compress the airflow through high-speed compressed air or nitrogen, so that the airflow speed reaches a high speed, forming a cutting airflow, and blowing away water or liquid from the surface of the workpiece to achieve a fast drying effect.

#### 3.Vacuum drying

In a vacuum environment, the temperature is raised to the temperature at which the solvent evaporates, and at the same time, the air in the drying box is drawn by a vacuum pump to reduce the temperature.

Low pressure promotes rapid evaporation and loss of water from the surface or pores of the workpiece.

#### 4.Centrifugal drying

Speed up the separation of water or other liquids on the surface of the workpiece through high-speed rotation to achieve a fast drying effect.

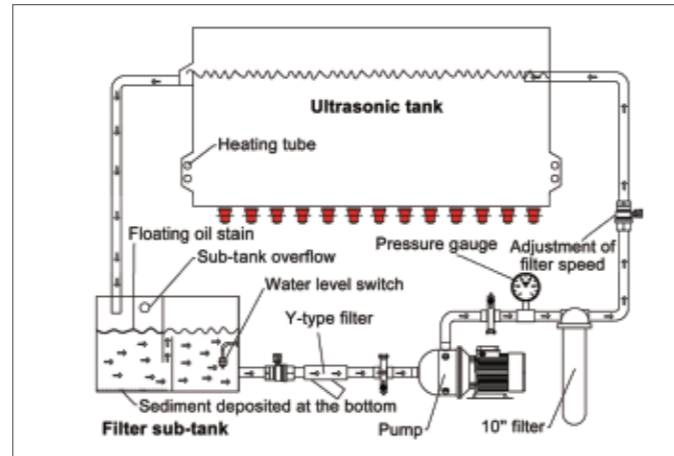
## Additional function

### 1. Filtration system

Through the double-layer partition design of the auxiliary filter tank, the primary filtration is carried out to filter out the large particle sediment, suspended matter, and floating matter in the cleaning solution; and then the secondary fine filtration is performed by the filter bottle to filter out the small particles in the cleaning solution stains.

**Effect:**

- a Improve the utilization rate of cleaning fluid
- b Reduce the cost of cleaning fluid
- c Avoid secondary pollution of the workpiece
- d Save labor and improve efficiency

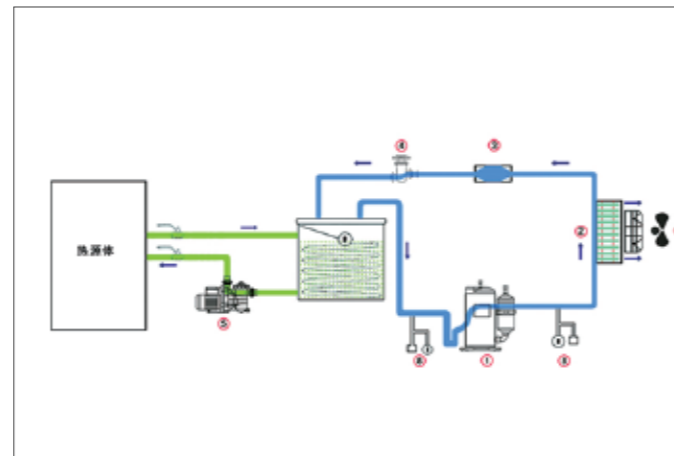


### 2. Refrigeration process

The refrigerant absorbs the heat of the object to be cooled (circulating liquid) in the evaporator and evaporates into steam, and the compressor continuously extracts the generated steam from the evaporator and compresses it. After being compressed, the high-temperature and high-pressure steam is sent to the condenser to release heat to the cooling medium (such as water, air, etc.) and condense into a high-pressure liquid. After being depressurized by the throttling mechanism, it enters the evaporator, vaporizes again, and absorbs the cooled object (circulating liquid) heat. Such a cycle goes round and round, continuously refrigerating and circulating the liquid, and the circulating liquid passes through the tank that needs to be refrigerated, so as to achieve the purpose of controlling the temperature of the tank.

**Effect:**

Effectively control the volatilization speed and temperature of flammable and explosive cleaning fluid, so that cleaning safety is guaranteed.

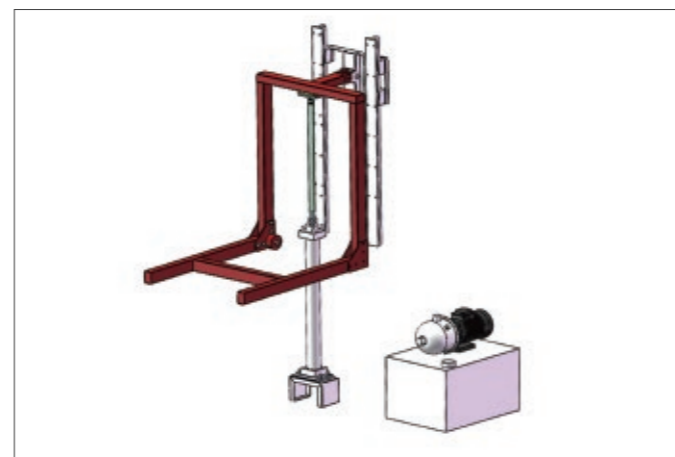


### 3. Lifting system

The hydraulic oil is under a certain pressure formed by the vane pump, and enters the lower end of the hydraulic cylinder through the oil filter, explosion-proof electromagnetic reversing valve, throttle valve, hydraulic control check valve, and balance valve, so that the piston of the hydraulic cylinder moves upward to lift the weight. and then enter the upper end of the hydraulic cylinder through the explosion-proof electromagnetic reversing valve, and the oil returned from the lower end of the hydraulic cylinder returns to the oil tank through the balance valve, hydraulic control check valve, throttle valve, and explosion-proof electromagnetic reversing valve, so that the heavy object can fall smoothly. The equipment has a lifting process that can effectively save labor costs and make cleaning of larger workpieces more convenient.

**Effect:**

- a Save labor costs
- b Make cleaning of heavier workpieces easier



### 4. Agitator system

When the motor drives the shaft to rotate, the outer edge of the agitating eccentric wheel pushes another part, causing the agitating frame to reciprocate up and down at a uniform speed, thereby accelerating the removal of stains, and quickly peeling off the deposits and attachments on the surface of the workpiece, thereby achieving fast and comprehensive cleaning purpose.

**Effect:**

- a Accelerates the removal of stains
- b Effective cleaning of stubborn stains, more detailed cleaning

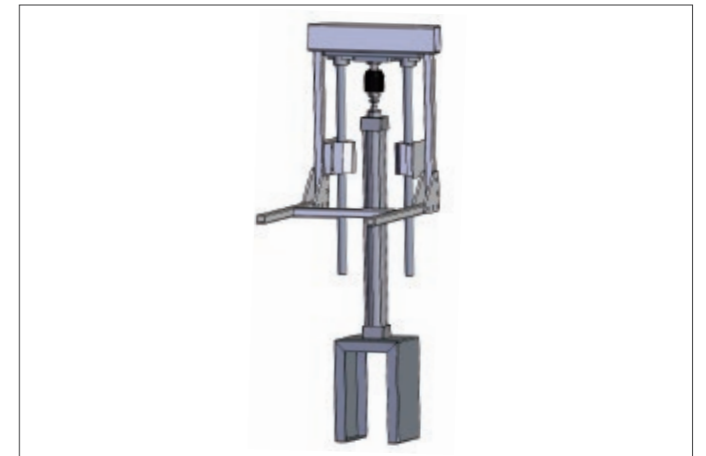


### 5. Lift out system

The linear slide rail is used as the guide, and the cylinder drives the lifting frame to move up and down slowly, pulling at a uniform speed, effectively removing large particles of water droplets on the surface of the workpiece, avoiding residual water spots or air bubbles during subsequent drying and packaging, and improving the cleaning effect.

**Effect:**

- a Accelerate the peeling of water droplets
- b Effectively save labor costs
- c makes it easier to dry large workpieces

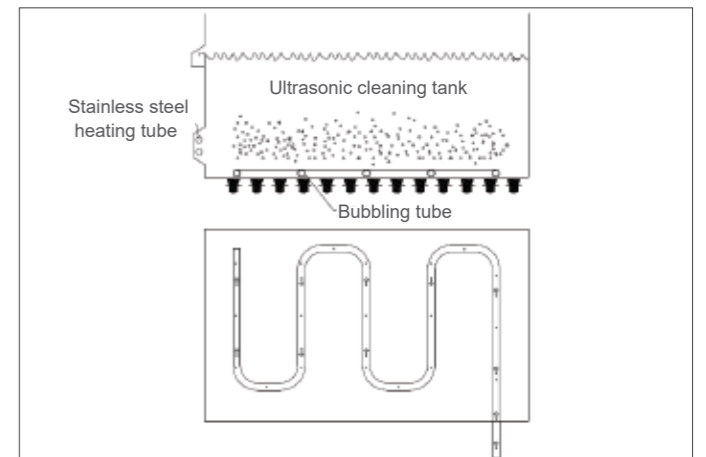


### 6. Bubble system

The compressed air is ejected through the small hole of the bubbling tube to generate high-pressure air bubbles, which makes the liquid in the tank tumbling, so that the light-weight workpiece can be cleaned more comprehensively, and the stains deposited on the surface of the workpiece can be quickly peeled off.

**Effect:**

- a Accelerates the removal of stains
- b Make the objects fall off and clean more effectively under strong pressure



### 7. Roller system

The main body of the roller type cleaning machine is the roller, which is driven by the transmission device to rotate, so that the materials in the drum can roll and rub against each other and the wall of the drum, so that the surface dirt can be peeled off.

**Effect:**

- a Accelerates the removal of stains
- b Make cleaning more complete



## Single tank ultrasonic cleaner series

The single-tank ultrasonic cleaner series products are the best-selling products of Skymen, which can meet the cleaning needs of different industries, comprehensively clean the surface of the workpiece, deep holes, slits, etc. And can solve difficult and miscellaneous cleaning problems in the industry. Our single-tank series ultrasonic cleaners can be customized according to the size of the customer's sample and the different needs, such as equipment with large size, high power and filter cycle function. They have the advantages of stronger cleaning effect, higher efficiency, and more convenient cleaning, and are widely used in mechanical hardware, Electronics, semiconductors, surface treatment, auto parts and other industries.

### Features:

1. Using pure manual argon arc welding, durable and high temperature resistant;
2. Industrial-grade transducer, concentrated strength, remarkable cleaning effect;
3. Independent generator control system;
4. Can work continuously for a long time;
5. The power is adjustable, according to the degree of dirt attached to the object to be cleaned by the customer, different power cleaning can be adjusted;
6. With memory function, the machine has a unique memory chip, no need to reset after the time is set.



### Standard single tank machine ST series

Model	Tank Size (mm)	Capacity (L)	Heating Power (W)	Ultrasonic Power (W)	Frequency (KHz)	Timer (Min/H)	Temperature (°c)
JP-120ST	500*300*250	38	1500	0-600	28/40	0-99Min	Room temp-95
JP-180ST	500*350*300	53	1500	0-900	28/40	0-99Min	Room temp-95
JP-240ST	550*400*350	77	3000	0-1200	28/40	0-99Min	Room temp-95
JP-300ST	550*450*400	99	3000	0-1500	28/40	0-99Min	Room temp-95
JP-301ST	800*300*400	96	3000	0-1500	28/40	0-99Min	Room temp-95
JP-360ST	600*500*450	135	4500	0-1800	28/40	0-99H	Room temp-95
JP-480ST	700*500*500	175	6000	0-2400	28/40	0-99H	Room temp-95
JP-600ST	800*600*550	264	6000	0-3000	28/40	0-99H	Room temp-95
JP-720ST	1000*600*600	360	9000	0-3600	28/40	0-99H	Room temp-95
JP-840ST	1500*700*400	420	15000	0-4200	28/40	0-99H	Room temp-95
JP-960ST	1200*500*800	480	15000	0-4800	28/40	0-99H	Room temp-95
JP-1108ST	1000*900*600	540	18000	0-5400	28/40	0-99H	Room temp-95
JP-1120ST	1000*800*800	640	21000	0-6000	28/40	0-99H	Room temp-95
JP-1132ST	1000*1000*600	800	24000	0-6600	28/40	0-99H	Room temp-95
JP-1144ST	1200*1000*800	960	27000	0-7200	28/40	0-99H	Room temp-95
JP-1216ST	1500*1000*1000	1500	36000	0-10800	28/40	0-99H	Room temp-95



### Single tank with filter G series

Model	Tank Size (mm)	Capacity (L)	Heating Power (W)	Ultrasonic Power (W)	Frequency (KHz)	Timer (Min/H)	Temperature (°c)
JP-120G	500*300*250	38	1500	0-600	28/40	0-99	Room temp-95
JP-180G	500*350*300	53	1500	0-900	28/40	0-99	Room temp-95
JP-240G	550*400*350	77	3000	0-1200	28/40	0-99	Room temp-95
JP-300G	550*450*400	99	3000	0-1500	28/40	0-99	Room temp-95
JP-301G	800*300*400	96	3000	0-1500	28/40	0-99	Room temp-95
JP-360G	600*500*450	135	4500	0-1800	28/40	0-99	Room temp-95
JP-480G	700*500*500	175	6000	0-2400	28/40	0-99	Room temp-95
JP-600G	800*600*550	264	6000	0-3000	28/40	0-99	Room temp-95
JP-720G	1000*600*600	360	9000	0-3600	28/40	0-99	Room temp-95
JP-840G	1500*700*400	420	15000	0-4200	28/40	0-99	Room temp-95
JP-960G	1200*500*800	480	15000	0-4800	28/40	0-99	Room temp-95
JP-1108G	1000*900*600	540	18000	0-5400	28/40	0-99	Room temp-95
JP-1120G	1000*800*800	640	21000	0-6000	28/40	0-99	Room temp-95
JP-1132G	1000*1000*800	800	24000	0-6600	28/40	0-99	Room temp-95
JP-1144G	1200*1000*800	960	27000	0-7200	28/40	0-99	Room temp-95
JP-1216G	1500*1000*1000	1500	27000	0-10800	28/40	0-99	Room temp-95



### High power single tank PLUS series

Model	Tank Size (mm)	Capacity (L)	Heating Power (W)	Ultrasonic Power (W)	Frequency (KHz)	Timer (Min/H)	Temperature (°c)
JP-120PLUS	500*300*250	38	1500	900	28/40	0-99min	Room temp-95
JP-180PLUS	500*350*300	53	1500	1500	28/40	0-99min	Room temp-95
JP-240PLUS	550*400*350	77	3000	1800	28/40	0-99min	Room temp-95
JP-300PLUS	550*450*400	99	3000	2400	28/40	0-99min	Room temp-95
JP-301PLUS	800*300*400	96	3000	2400	28/40	0-99min	Room temp-95
JP-360PLUS	600*500*450	135	4500	3000	28/40	0-99H	Room temp-95
JP-480PLUS	700*500*500	175	6000	3600	28/40	0-99H	Room temp-95
JP-600PLUS	800*600*550	264	6000	4500	28/40	0-99H	Room temp-95
JP-720PLUS	1000*600*600	360	9000	5400	28/40	0-99H	Room temp-95
JP-1108PLUS	1000*900*600	480	18000	7500	28/40	0-99H	Room temp-95
JP-1144PLUS	1200*1000*800	960	24000	10800	28/40	0-99H	Room temp-95



### Super large single tank series

Model	Tank Size (mm)	Capacity (L)	Heating Power (W)	Ultrasonic Power (W)	Frequency (KHz)	Timer (Min/H)	Temperature (°c)
JP-1216ST	1500*1000*1000	1500	36000	0-10800	28/40	0-99	Room temp-95
JP-1288ST	2000*1200*800	1920	36000	0-14400	28/40	0-99	Room temp-95
JP-1360ST	2000*1200*1000	2400	36000	0-18000	28/40	0-99	Room temp-95
JP-1432ST	2000*1500*1200	3000	36000	0-21800	28/40	0-99	Room temp-95
JP-1576ST	2500*1500*1200	4500	36000	0-28800	28/40	0-99	Room temp-95
JP-1648ST	3000*1500*1200	5400	36000	0-32400	28/40	0-99	Room temp-95
JP-1720ST	4000*1600*1000	6400	36000	0-36000	28/40	0-99	Room temp-95
JP-1936ST	3500*1600*1300	7280	36000	0-45800	28/40	0-99	Room temp-95
JP-11152ST	2500*2000*1700	8500	36000	0-57600	28/40	0-99	Room temp-95
JP-11224ST	3200*2000*1500	9600	36000	0-61200	28/40	0-99	Room temp-95
JP-11368ST	8000*1200*1200	11520	36000	0-68400	28/40	0-99	Room temp-95
JP-11512ST	8000*1600*1600	20480	48000	0-75600	28/40	0-99	Room temp-95



## Dual-tank ultrasonic cleaner series



1st tank

Functions can be customized according to your requirements

- Ultrasonic cleaning
- High pressure spraying
- Filtration

2nd tank

Functions can be customized according to your requirements

- Ultrasonic cleaning
- Hot air drying
- High pressure spraying

### H series (ultrasonic cleaning + hot air drying)

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-2012H	500*300*250	38	28/40	0-600	1500	3000	0-99	Room temp-95	Room temp-150
JP-2018H	500*350*300	53	28/40	0-900	1500	3000	0-99	Room temp-95	Room temp-150
JP-2024H	550*400*350	77	28/40	0-1200	3000	3000	0-99	Room temp-95	Room temp-150
JP-2030H	550*450*400	99	28/40	0-1500	3000	3000	0-99	Room temp-95	Room temp-150
JP-2031H	800*300*400	96	28/40	0-1500	3000	3000	0-99	Room temp-95	Room temp-150
JP-2036H	600*500*450	135	28/40	0-1800	4500	3000	0-99	Room temp-95	Room temp-150
JP-2048H	700*500*500	175	28/40	0-2400	6000	3000	0-99	Room temp-95	Room temp-150
JP-2060H	800*600*550	264	28/40	0-3000	6000	3000	0-99	Room temp-95	Room temp-150
JP-2072H	1000*600*600	360	28/40	0-3600	9000	6000	0-99	Room temp-95	Room temp-150
JP-2084H	1500*700*400	420	28/40	0-4200	15000	6000	0-99	Room temp-95	Room temp-150
JP-2096H	1200*500*800	480	28/40	0-4800	15000	9000	0-99	Room temp-95	Room temp-150
JP-2108H	1000*900*600	540	28/40	0-5400	18000	9000	0-99	Room temp-95	Room temp-150
JP-2120H	1000*800*800	640	28/40	0-6000	21000	9000	0-99	Room temp-95	Room temp-150
JP-2132H	1000*1000*800	800	28/40	0-6600	24000	12000	0-99	Room temp-95	Room temp-150
JP-2144H	1200*1000*800	960	28/40	0-7200	27000	12000	0-99	Room temp-95	Room temp-150
JP-2216H	1500*1000*1000	1500	28/40	0-10800	27000	21000	0-99	Room temp-95	Room temp-150

### Features:

1. The whole machine is made of high-quality thickened stainless steel;
2. The hydraulic air rod opening design saves effort to open the cover, and the inner edge of the cover is affixed with a sealing strip;
3. The cleaning tank is equipped with a filtration circulation system, which is composed of a variety of filtration processes to ensure the filtration effect;
4. External ultrasonic generator, flexible control of ultrasonic power adjustment;
5. Size can be customized;



### GH series (ultrasonic cleaning & filtration + hot air drying)

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-2012GH	500*300*250	38	28/40	0-600	1500	3000	0-99	Room temp-95	Room temp-150
JP-2018GH	500*350*300	53	28/40	0-900	1500	3000	0-99	Room temp-95	Room temp-150
JP-2024GH	550*400*350	77	28/40	0-1200	3000	3000	0-99	Room temp-95	Room temp-150
JP-2030GH	550*450*400	99	28/40	0-1500	3000	3000	0-99	Room temp-95	Room temp-150
JP-2031GH	800*300*400	96	28/40	0-1500	3000	3000	0-99	Room temp-95	Room temp-150
JP-2036GH	600*500*450	135	28/40	0-1800	4500	3000	0-99	Room temp-95	Room temp-150
JP-2048GH	700*500*500	175	28/40	0-2400	6000	3000	0-99	Room temp-95	Room temp-150
JP-2060GH	800*600*550	264	28/40	0-3000	6000	3000	0-99	Room temp-95	Room temp-150
JP-2072GH	1000*600*600	360	28/40	0-3600	9000	6000	0-99	Room temp-95	Room temp-150
JP-2084GH	1500*700*400	420	28/40	0-4200	15000	6000	0-99	Room temp-95	Room temp-150
JP-2096GH	1200*500*800	480	28/40	0-4800	15000	9000	0-99	Room temp-95	Room temp-150
JP-2108GH	1000*900*600	540	28/40	0-5400	18000	9000	0-99	Room temp-95	Room temp-150
JP-2120GH	1000*800*800	640	28/40	0-6000	21000	9000	0-99	Room temp-95	Room temp-150
JP-2132GH	1000*1000*800	800	28/40	0-6600	24000	12000	0-99	Room temp-95	Room temp-150
JP-2144GH	1200*1000*800	960	28/40	0-7200	27000	12000	0-99	Room temp-95	Room temp-150
JP-2216GH	1500*1000*1000	1500	28/40	0-10800	27000	21000	0-99	Room temp-95	Room temp-150

### G series (ultrasonic cleaning & filtration + ultrasonic rinsing)

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-2024G	500*300*250	38	28/40	0-1200	1500	-	0-99	Room temp-95	-
JP-2036G	500*350*300	53	28/40	0-1800	1500	-	0-99	Room temp-95	-
JP-2048G	550*400*350	77	28/40	0-2400	3000	-	0-99	Room temp-95	-
JP-2060G	550*450*400	99	28/40	0-3000	3000	-	0-99	Room temp-95	-
JP-2062G	800*300*400	96	28/40	0-3000	3000	-	0-99	Room temp-95	-
JP-2072G	600*500*450	135	28/40	0-3600	4500	-	0-99	Room temp-95	-
JP-2096G	700*500*500	175	28/40	0-4800	6000	-	0-99	Room temp-95	-
JP-2120G	800*600*550	264	28/40	0-6000	6000	-	0-99	Room temp-95	-
JP-2144G	1000*600*600	360	28/40	0-7200	9000	-	0-99	Room temp-95	-
JP-2168G	1500*700*400	420	28/40	0-8400	15000	-	0-99	Room temp-95	-
JP-2192G	1200*500*800	480	28/40	0-9600	15000	-	0-99	Room temp-95	-
JP-2216G	1000*900*600	540	28/40	0-10800	18000	-	0-99	Room temp-95	-
JP-2240G	1000*800*800	640	28/40	0-12000	21000	-	0-99	Room temp-95	-
JP-2264G	1000*1000*800	800	28/40	0-13200	24000	-	0-99	Room temp-95	-
JP-2288G	1200*1000*800	960	28/40	0-14400	27000	-	0-99	Room temp-95	-
JP-2432G	1500*1000*1000	1500	28/40	0-21600	27000	-	0-99	Room temp-95	-



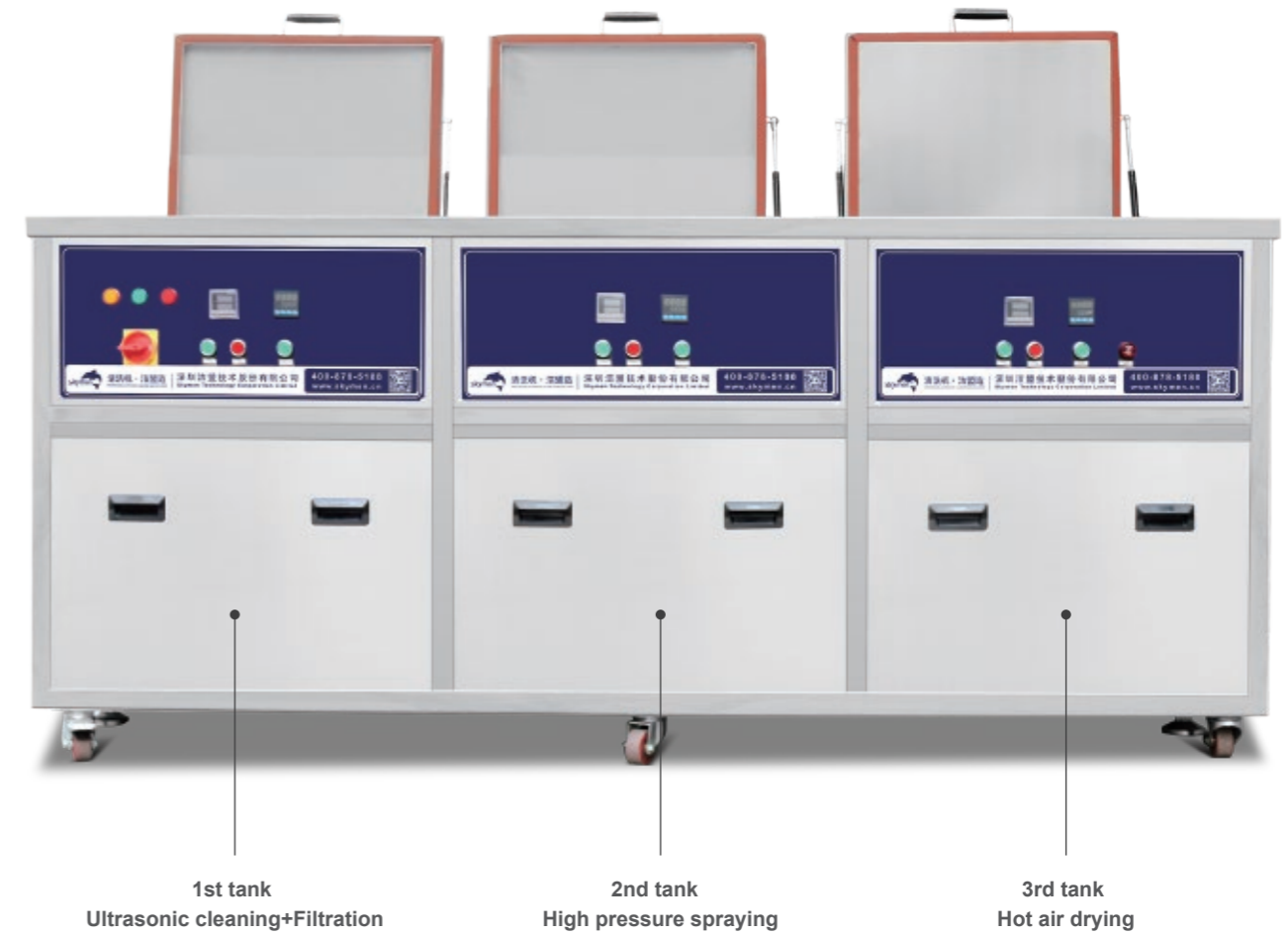
## Three-tank ultrasonic cleaner series



### GH series (ultrasonic cleaning + ultrasonic rinsing + hot air drying)

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-3024GH	500*300*250mm	38	28/40	0-600	1500	3000	0-99	Room temp-95	Room temp-150
JP-3036GH	500*350*300mm	53	28/40	0-900	1500	3000	0-99	Room temp-95	Room temp-150
JP-3048GH	550*400*350mm	77	28/40	0-1200	3000	3000	0-99	Room temp-95	Room temp-150
JP-3060GH	550*450*400mm	99	28/40	0-1500	3000	4500	0-99	Room temp-95	Room temp-150
JP-3062GH	800*300*400mm	96	28/40	0-1500	3000	4500	0-99	Room temp-95	Room temp-150
JP-3072GH	600*500*450mm	135	28/40	0-1800	4500	4500	0-99	Room temp-95	Room temp-150
JP-3096GH	700*500*500mm	175	28/40	0-2400	6000	6000	0-99	Room temp-95	Room temp-150
JP-3120GH	800*600*550mm	264	28/40	0-3000	6000	6000	0-99	Room temp-95	Room temp-150
JP-3144GH	1000*600*600mm	360	28/40	0-3600	9000	6000	0-99	Room temp-95	Room temp-150
JP-3168GH	1500*700*400mm	420	28/40	0-4200	12000	6000	0-99	Room temp-95	Room temp-150
JP-3192GH	1200*500*800mm	480	28/40	0-4800	12000	9000	0-99	Room temp-95	Room temp-150
JP-3216GH	1000*900*600mm	540	28/40	0-5400	18000	9000	0-99	Room temp-95	Room temp-150
JP-3240GH	1000*800*800mm	640	28/40	0-6000	18000	9000	0-99	Room temp-95	Room temp-150
JP-3264GH	1000*1000*800mm	800	28/40	0-6600	24000	12000	0-99	Room temp-95	Room temp-150
JP-3288GH	1200*1000*800mm	960	28/40	0-7200	24000	12000	0-99	Room temp-95	Room temp-150
JP-3432GH	1500*1000*1000mm	1500	28/40	0-10800	30000	15000	0-99	Room temp-95	Room temp-150

## Three-tank ultrasonic cleaner GPH series

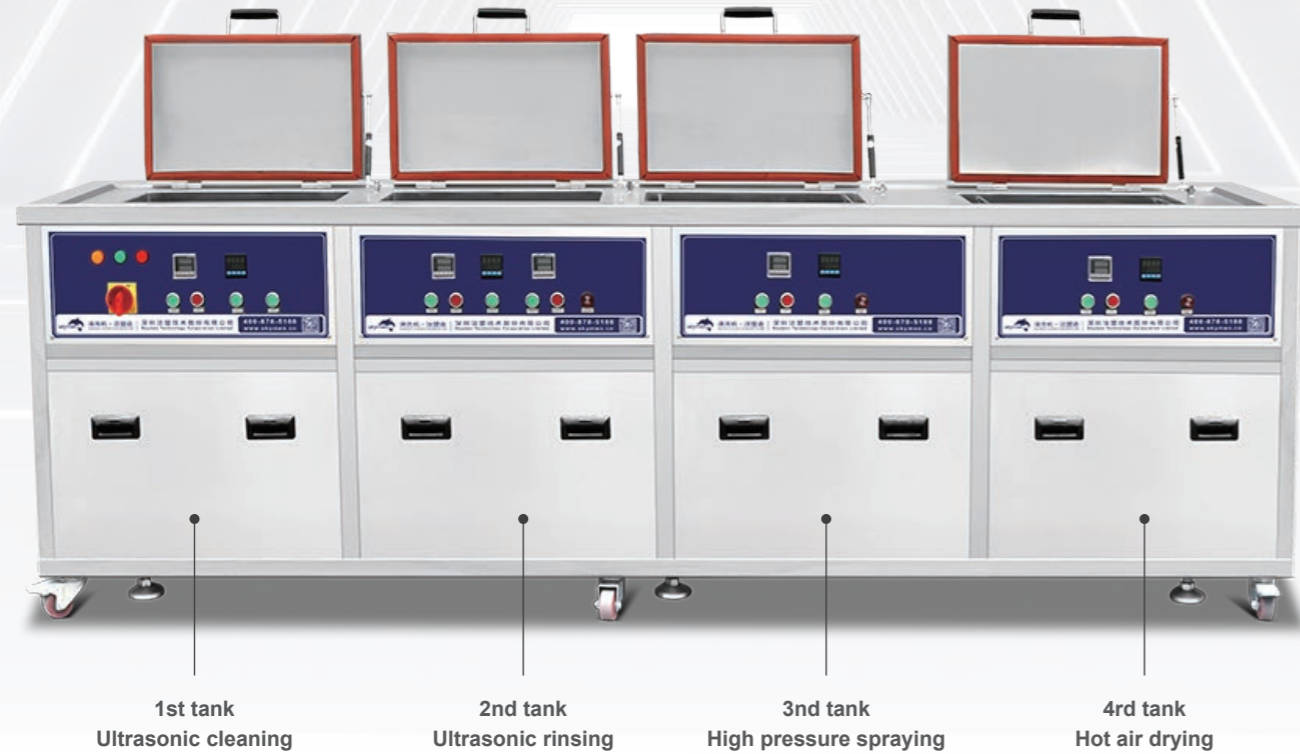


### GPH series (ultrasonic cleaning + high pressure spraying + hot air drying)

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-3012GPH	500*300*250mm	38	28/40	0-600	1500	3000	0-99	Room temp-95	Room temp-150
JP-3018GPH	500*350*300mm	53	28/40	0-900	1500	3000	0-99	Room temp-95	Room temp-150
JP-3024GPH	550*400*350mm	77	28/40	0-1200	3000	3000	0-99	Room temp-95	Room temp-150
JP-3030GPH	550*450*400mm	99	28/40	0-1500	3000	4500	0-99	Room temp-95	Room temp-150
JP-3031GPH	800*300*400mm	96	28/40	0-1500	3000	4500	0-99	Room temp-95	Room temp-150
JP-3036GPH	600*500*450mm	135	28/40	0-1800	4500	4500	0-99	Room temp-95	Room temp-150
JP-3048GPH	700*500*500mm	175	28/40	0-2400	6000	6000	0-99	Room temp-95	Room temp-150
JP-3060GPH	800*600*550mm	264	28/40	0-3000	6000	6000	0-99	Room temp-95	Room temp-150
JP-3072GPH	1000*600*600mm	360	28/40	0-3600	9000	6000	0-99	Room temp-95	Room temp-150
JP-3084GPH	1500*700*400mm	420	28/40	0-4200	12000	6000	0-99	Room temp-95	Room temp-150
JP-3096GPH	1200*500*800mm	480	28/40	0-4800	12000	9000	0-99	Room temp-95	Room temp-150
JP-3108GPH	1000*900*600mm	540	28/40	0-5400	18000	9000	0-99	Room temp-95	Room temp-150
JP-3120GPH	1000*800*800mm	640	28/40	0-6000	18000	9000	0-99	Room temp-95	Room temp-150
JP-3132GPH	1000*1000*800mm	800	28/40	0-6600	24000	12000	0-99	Room temp-95	Room temp-150
JP-3144GPH	1200*1000*800mm	960	28/40	0-7200	24000	12000	0-99	Room temp-95	Room temp-150
JP-3216GPH	1500*1000*1000mm	1500	28/40	0-10800	30000	15000	0-99	Room temp-95	Room temp-150

## Multi-tank ultrasonic cleaner series

The multi-tank ultrasonic cleaning machine uses city water, pure water, alkaline or weakly acidic, water-based solvents as cleaning agents, and is mostly combined with spraying, electrolysis, soaking, bubbling and other cleaning methods, and is combined with a suitable product drying method. It is especially suitable for cleaning small batches of electronic circuit boards, electronic parts, watch parts, metal stamping parts, metal machining parts, glassware, semiconductor silicon wafers, etc. It has the characteristics of unique technology, strong pertinence, simple structure and convenient use. Moreover, the equipment cost is low, the investment is small, and it can meet the special cleaning requirements of different products.



### Ultrasonic cleaning + Filtration + High pressure spraying + Hot air drying

Model	Tank Size (mm)	Capacity (L)	Frequency (KHz)	Ultrasonic Power (W)	Heating Power (W)	Dry Power (W)	Timer (Min/H)	Temperature (°c)	Dry (°c)
JP-4024GPH	500*300*250mm	38	28/40	0-600*2	1500*2	3000	0-99	Room temp-95	Room temp-150
JP-4036GPH	500*350*300mm	53	28/40	0-900*2	1500*2	3000	0-99	Room temp-95	Room temp-150
JP-4048GPH	550*400*350mm	77	28/40	0-1200*2	3000*2	3000	0-99	Room temp-95	Room temp-150
JP-4060GPH	550*450*400mm	99	28/40	0-1500*2	3000*2	4500	0-99	Room temp-95	Room temp-150
JP-4061GPH	800*300*400mm	96	28/40	0-1500*2	3000*2	4500	0-99	Room temp-95	Room temp-150
JP-4072GPH	600*500*450mm	135	28/40	0-1800*2	4500*2	4500	0-99	Room temp-95	Room temp-150
JP-4096GPH	700*500*500mm	175	28/40	0-2400*2	6000*2	6000	0-99	Room temp-95	Room temp-150
JP-4120GPH	800*600*550mm	264	28/40	0-3000*2	6000*2	6000	0-99	Room temp-95	Room temp-150
JP-4144GPH	1000*600*600mm	360	28/40	0-3600*2	9000*2	6000	0-99	Room temp-95	Room temp-150
JP-4168GPH	1500*700*400mm	420	28/40	0-4200*2	12000*2	6000	0-99	Room temp-95	Room temp-150
JP-4192GPH	1200*500*800mm	480	28/40	0-4800*2	12000*2	9000	0-99	Room temp-95	Room temp-150
JP-4216GPH	1000*900*600mm	540	28/40	0-5400*2	18000*2	9000	0-99	Room temp-95	Room temp-150
JP-4240GPH	1000*800*800mm	640	28/40	0-6000*2	18000*2	9000	0-99	Room temp-95	Room temp-150
JP-4264GPH	1000*1000*800mm	800	28/40	0-6600*2	24000*2	12000	0-99	Room temp-95	Room temp-150
JP-4288GPH	1200*1000*800mm	960	28/40	0-7200*2	24000*2	12000	0-99	Room temp-95	Room temp-150
JP-4432GPH	1500*1000*1000mm	1500	28/40	0-10800*2	30000*2	15000	0-99	Room temp-95	Room temp-150

## Support non-standard customization Various functions are optional

- Cleaning
- Rinsing
- Drying
- Filtering
- Bubbling
- Lifting
- Agitating
- Spraying
- Explosion-proofing
- Cooling



## Semi-automatic ultrasonic cleaner series

The semi-automatic ultrasonic cleaning machine is an ultrasonic cleaning equipment that is assisted by manual cleaning. It mostly uses a manual translation mechanism to transport the cleaning basket to each process, and the rest is completed by the equipment independently. This design effectively solves the problem of difficult workpiece transfer during the cleaning process, saves manual transfer time, reduces labor intensity, and is very cost-effective for customers who clean workpieces with large quality or quantity.

### Moving and lifting ultrasonic cleaning machine

- ▶ 1. The loading and unloading and cleaning basket are moved by the translation mechanism in the whole process, which saves manpower.
- ▶ 2. The cleaning tank can be configured with different functions to speed up product cleaning efficiency.
- ▶ 3. It has relevant protections such as liquid level, overload, leakage, etc., and has high safety.
- ▶ 4. The Moving and lifting system is detachable and highly flexible



### Crane Ultrasonic Cleaner

- ▶ 1. The space utilization rate of the overall design site is high.
- ▶ 2. The equipment has strong stability and stable start/brake.
- ▶ 3. Loading and unloading are all assisted by the crane system, which saves labor costs.
- ▶ 4. The load-bearing performance is good, the crane can be moved, and the working range is wider.



## Ultrasonic transducer rod

### Features:

1. Flexible operation, small size, can be freely placed in any position for cleaning.
2. The output power is stable and uniform, not affected by load changes such as liquid level, tank capacity and temperature difference.
3. Flexible and accurate operation, multiple frequencies to choose from, and with generator control system.
4. Industrial-grade transducer, concentrated strength, remarkable cleaning effect, can work continuously for a long time without interruption.
5. Multiple purposes, can be used for cleaning, emulsification, stirring, separation, extraction, defoaming, etc.
6. Support ODM&OEM customization, can provide professional solutions.

Model	Diameter (mm)	Length (mm)	Power (W)	Frequency (KHz)	Material
JP-1003M	57	180	0-180	28/40	SUS304/titanium alloy
JP-1006M	57	300	0-360	28/40	SUS304/titanium alloy
JP-1012M	57	550	0-720	28/40	SUS304/titanium alloy
JP-1018M	57	750	0-1080	28/40	SUS304/titanium alloy
JP-1024M	57	1000	0-1440	28/40	SUS304/titanium alloy
JP-1036M	57	1520	0-2160	28/40	SUS304/titanium alloy



Industrial ultrasonic transducer bar

Titanium alloy ultrasonic transducer bar

## Ultrasonic transducer box

### Features:

1. Simple and convenient operation, it can be used after wiring without cumbersome operation
2. Using a split structure, it is convenient to use and maintain between the transducer box and the ultrasonic generator.
3. Ultrasonic power can be adjusted, strong and even force, stable performance.
4. Wide range of applications;
5. The installation layout is flexible, and can be installed on the bottom, side, or top according to different requirements

Model	Size (mm)	Power (W)	Frequency (KHz)	Discharge method	Material
JP-1006I	305*205*100	0-300	28/40	Hard pipe/hose	304/316L
JP-1012I	355*305*100	0-600	28/40	Hard pipe/hose	304/316L
JP-1018I	406*305*100	0-900	28/40	Hard pipe/hose	304/316L
JP-1024I	500*355*100	0-1200	28/40	Hard pipe/hose	304/316L
JP-1030I	550*406*100	0-1500	28/40	Hard pipe/hose	304/316L
JP-1036I	500*460*100	0-1800	28/40	Hard pipe/hose	304/316L
JP-1048I	600*460*100	0-2400	28/40	Hard pipe/hose	304/316L



Circular ultrasonic transducer box



Square ultrasonic transducer box



### Electrolytic Ultrasonic Cleaner

- The cleaning effect is good, and the dirt in the pores can be effectively removed.
- Excellent derusting effect.
- After cleaning, the metal can be restored to its original color.
- Suitable for cleaning all kinds of moulds.



### Roller Ultrasonic Cleaner

- The workpiece is 360° all-round rolling cleaning without dead angle to ensure the cleaning effect.
- Roller driving mechanism + ultrasonic cleaning to speed up the cleaning efficiency of workpieces.
- Cleaning time and roller speed are adjustable, flexible and convenient.
- Single-tank or multi-tank rolling ultrasonic cleaning can be customized according to customer needs.



### Lifting Ultrasonic Cleaning Machine

- One-button lifting, which can save manpower.
- The lifting speed is controllable, which can accelerate the draining of the surface moisture of the workpiece.
- Comprehensive and thorough cleaning of the workpiece can accelerate the removal of dirt.
- Elevation can be turned into up and down agitating effect, which can improve cleaning efficiency.



### Rotary Spraying cleaner

- It can be cleaned in large quantities, saving labor costs.
- All-round spraying can be realized, and there is no dead angle for cleaning.
- The cleaning efficiency is high, and the dirt on the surface of the workpiece can be quickly peeled off.
- The operation is simple and convenient, and the cleaning process is fully automatic.



### Constant temperature explosion-proof ultrasonic cleaning machine

- The tank is equipped with a condensation coil, which can control the volatilization speed and temperature of the flammable and explosive cleaning solvent, and avoid the spontaneous combustion of the gas.
- Equipped with an explosion-proof system to reduce the probability of equipment burning and explosion during operation and ensure the safety of equipment operation.
- Equipped with a filtration system, the cleaning fluid can be reused and the cleaning cost can be saved.



### Cooling Ultrasonic Cleaner

- The built-in cooling system effectively prevents the volatilization of solvents.
- It is equipped with a liquid level control system to ensure the normal operation of the machine.
- High and low temperature contrast can be used to achieve high-density cleaning with good cleaning effect.
- The cleaning fluid can be recycled and reused, saving cleaning cost.



### Pure water equipment

- Equipment configuration adopts pretreatment + reverse osmosis host, which can effectively remove various salts and impurities;
- High-quality activated carbon filtration, absorbing different colors, odors, residual chlorine, impurities, etc. in the water, further improving the water quality;
- Quartz sand removes sediment, suspended solids and other particles in water;
- Equipment automatic detection and alarm function;
- Equipped with a water softener to replace calcium and magnesium ions in the water and reduce the hardness of the water.

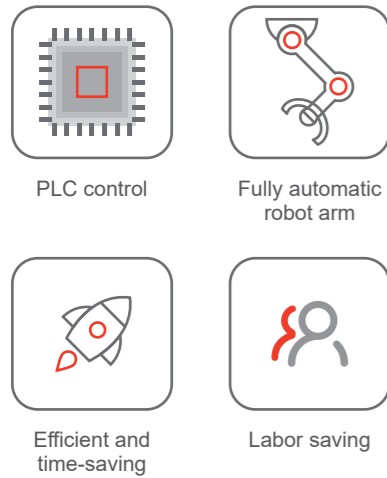


### Drying equipment (dryer, tunnel drying furnace)

- Using automatic control device, only need to adjust the time through the control panel, the whole drying process can be completed automatically.
- Low operating cost and energy saving.
- Different drying methods can be customized according to the product, which can greatly speed up the drying speed of the workpiece.

## Fully automatic water-based solvent cleaning machine

The fully automatic water-based solvent cleaning machine uses water as the base solvent, combined with surfactants, weak base or weak acid solvents, water-soluble organic solvents and other auxiliary components, to clean the oil and dirt on the surface of objects through ultrasonic vibration. The entire cleaning process is programmed by PLC or other automatic control technology, which can not only complete a large number of cleaning tasks in a short time, improve cleaning efficiency and product quality, but also reduce labor costs and labor intensity. It is one of the most popular cleaning equipment at this stage.



### Features:

1. Various functions (Agitating, rolling, filtering, etc.) can be configured to speed up workpiece cleaning and improve workpiece surface cleanliness.
2. Environmentally friendly water-based solvent is used as the cleaning solution, which is green and safe.
3. The whole process is programmed by the PLC control system, which can reduce labor costs and labor intensity.
4. The equipment can work continuously without interruption, which can effectively improve the cleaning efficiency.
5. The equipment is equipped with an automatic detection and alarm system. Once there is an abnormality, an alarm will be issued immediately.
6. Different cleaning baskets and cleaning procedures can be customized according to the size and needs of the cleaned products.

### Process (customized according to customer needs):

Cleaning process: ultrasonic cleaning, high-pressure spraying, soaking cleaning, electrolytic cleaning, etc.

Additional functions: cyclic filtration, throwing, lifting, bubbling, drum, slow pulling, etc.

Drying process: hot air drying, wind cutting water blowing, vacuum drying, centrifugal drying, etc.

### Cleaning object:

Auto parts, engines, switches, bearings, hardware, machined parts,

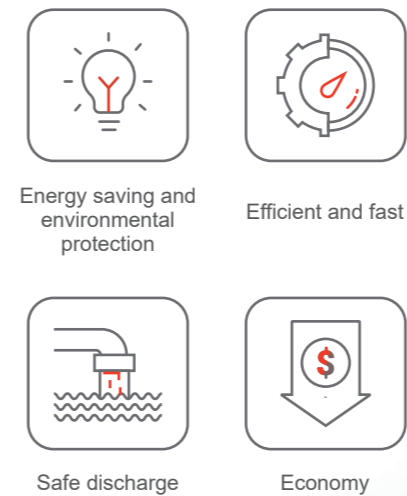
Aluminum alloy products, semiconductor products, stainless steel products, solar panels,

Cleaning of monocrystalline/polycrystalline silicon wafers, PCB boards, etc.



## Fully automatic hydrocarbon solvent cleaning machine

Fully automatic vacuum hydrocarbon ultrasonic cleaning machine is a kind of ultrasonic cleaning equipment developed and designed with hydrocarbon as the cleaning medium. Wash and dry to clean the dirt on the product, improve the cleanliness of the customer's product, and meet the use requirements. By combining ultrasonic cleaning technology with vacuum technology, the cleaning advantages of hydrocarbon solvents can be fully utilized to achieve more economical, efficient and safer cleaning purposes.



### Features:

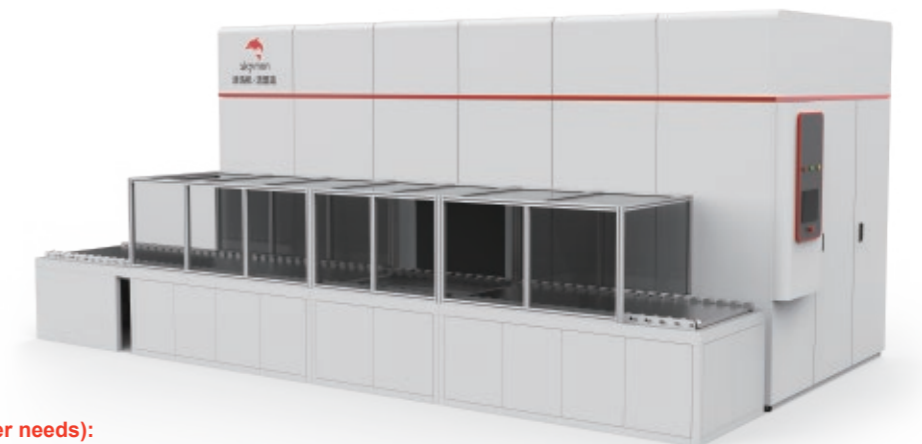
1. Equipped with a filtration system, which can separate the hydrocarbon solvent from the sewage, environmental protection and emission reduction;
2. Equipped with a distillation regeneration system, the recovery rate of hydrocarbon solvent is as high as 98%, which reduces its use cost;
3. Vacuum ultrasonic cleaning has obvious cleaning effect on workpieces with blind holes;
4. Various functions (Agitating, rolling, filtering, etc.) can be configured to speed up workpiece cleaning and improve workpiece surface cleanliness;
5. The equipment is fully automatic, the process is monitored in real time, the technology is advanced, the operation is stable and the operation is convenient;
6. Equipped with carbon dioxide automatic fire extinguisher, the use process is safe and reliable;
7. It only needs to be controlled by a single person, reducing labor costs.

### cleaning object:

Electronic metals, auto parts, nuclear power, valve components, hardware parts, precision components, aluminum alloy die-casting parts, complex machined parts with blind holes, etc.

### Process (customized according to customer needs):

Vacuum ultrasonic cleaning, vacuum ultrasonic rinsing, steam bath washing & vacuum drying.



Single station vacuum hydrocarbon cleaning machine

## Cooperation Cases & Partners



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CRRC & Skymen Group



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