

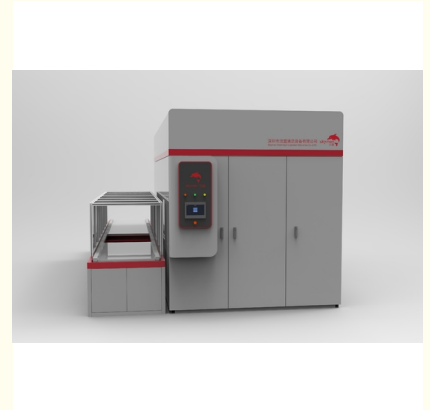


5 Stages Automatic Ultrasonic Cleaner With Robot Arm 200L Chamber

Our Product Introduction

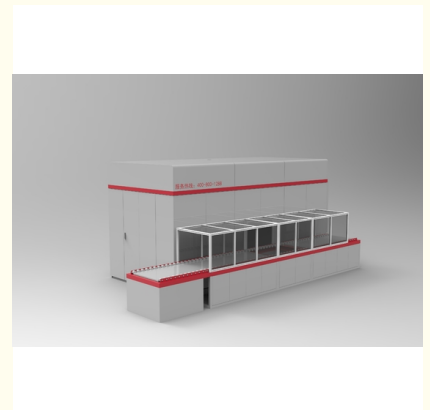
Basic Information

- Place of Origin: Shenzhen, China
- Brand Name: SkyMen
- Certification: RoHS, CE, FCC, SGS
- Model Number: JTM-4096SD
- Minimum Order Quantity: 1
- Price: 68,000USD
- Packaging Details: Wooden case
- Delivery Time: 50 working days after deposit
- Payment Terms: T/T
- Supply Ability: 50 pcs per month



Product Specification

- Chamber Size: 750(L)*500(W)*550(H) Mm
- Robot Arm Quantity: 1pc
- Washing Beat: 15 30min
- Machine Dimension: About 5800x2400x2600mm The Actual Size Prevail
- Power Demand For Equipment: 380V±10%/50Hz 3 Phase
- Power Of The Cleaning Machine: ≈42kW
- Highlight: **5 Stages Automatic Ultrasonic Cleaner,
Robot Arm Automatic Ultrasonic Cleaner,
200L Chamber Automatic Ultrasonic Cleaner**



Product Description

I. Project overview

1,Project name: 4 stages automatic ultrasonic cleaning machine

2,Project requirements:Based on the product information and cleaning technical requirements provided by customers, on the basis of meeting the technical agreement and production requirements, we will provide customers with mature, reliable, stable and excellent performance of automatic cleaning equipment to meet the use requirements, and provide customers with complete after-sales service and use technical guidance.In this project, Party B (the Seller) shall be responsible for the equipment design, manufacturing, commissioning, quality and after-sales service, and the project construction shall be completed according to the agreement reached with the customer before the sale.

II. Equipment details

1,Equipment overview:

1.1 The fully automatic cleaning machine model JTM-4096SD is a high-intelligence and high-precision cleaning equipment designed and manufactured for customer products; it mainly uses ultrasonic cleaning, to clean, rinse and dry customer products; So that the cleanliness of the customer's workpiece can meet the requirements of use, The equipment has 4 cleaning chamber, loading and unloading table. The equipment is completed automatically, without the need for personnel to be on duty, and manual intervention can also be carried out as needed.

1.2 The model is JTM-4096SD automatic cleaning machine mainly by:

1 ultrasonic occurrence system (including generators, transducers),

2 holding system (cleaning tank),

3 heating system,

4 liquid level control system,

5 Induction positioning system

6 PLC control system,

7 Robot arm system.

8 Basket dunking/agitator system for all the cleaning chamber

Among them,

1 The physical shock generated by the ultrasonic occurrence system is the most important way of cleaning;

3 The heating system is to sensing the heating temperature by high precision temperature probe to realize the start-stop control of the heating device;

4 The level control system is a real-time induction of the amount of cleaning solution in the tank to realize the amount control of cleaning solution;

5 Induction positioning system helps mechanical grip precision positioning to improve grasp accuracy and effectiveness;

6 PLC control system is the start and stop and cleaning process, And according to the actual situation of the cleaning process for preparation or manual intervention;

7 The robot arm system is an effective way to carry and smoothly transport products into the next cleaning process

The dunking system allows the workpiece to fully rub with the cleaning solution and quickly wash away the cleaning solution in the previous process and at the same time strip off the tiny attachments

2,Basic parameters of equipment

2.1 Cleaning parts information	Customer provide
2.2 Chamber size	Tank size: 750(L)*500(W)*550(H) mm Basket size: 650(L)*400(W)*450(H) mm Material: SUS304
2.4 Required wire size	25 Square Aluminum wire or 16 square copper wire
2.5 Power of the cleaning machine	≈42kW
2.6 Robot arm quantity	1pc
2.7 Washing beat	15 30min
2.8 Machine dimension	About 5800x2400x2600mm,The actual size prevail
2.9 Power demand for equipment	380V±10%/50Hz,3 phase
2.11 Remote control	Software problem that cause performance problem should be done by remote on device by Skyman engineer

3,Working process:

3.1 To be washed products:???

3.2 Cleaning process:

Loading

→ 1 ultrasonic cleaning for 15 minutes (Solvent: Soap detergent)

→ 2 Ultrasonic rinsing for 5 minutes (Solvent: DI Water)

→3 Hot water rinsing for 5 minutes(Solvent: DI Water)

→4 Hot water rinsing for 5 minutes (Solvent: DI Water)

Unloading

3.3 Cleaning agent type:Organic solvents, DI water

3.4 Description of the cleaning process configuration:

No.	cleaning liquid	Cleaning method	ultrasonic	auxiliary facilities	heating power
1	Soap detergent	ultrasonic cleaning	40kHz/2.4kW	Basket Agitator/dunking	6kW
2	DI Water	ultrasonic rinsing	40kHz/2.4kW	Basket Agitator/dunking	6kW
3	DI Water	Hot water rinsing	/	Basket Agitator/dunking	6kW
4	DI Water	Hot water rinsing	/	Basket Agitator/dunking	6kW

Allocation description of cleaning system

4.1 Ultrasonic cleaning

No.	1st tank	
Structure	Tank size	750x500x550mm
	Basket	650x400x450mm
	Tank material	AISI304,thickness 2mm
Ultrasonic system	Transducer	48pcs ultrasonic transducer, the total ultrasonic power is 2.4kW, and the power is continuously adjustable
	Generator	Imported IGBT sweep control board with uniform ultrasonic output, output power with photoelectric display and current display
heating system	temperature control	Digital display, temperature control range RT-90°C
	heating power	Place a 6kW stainless steel heating pipe inside the tank

4.2 Ultrasonic rinsing

No.	2nd tank	
Structure	Tank size	750x500x550mm
	Basket	650x400x450mm
	Tank material	AISI304,thickness 2mm
Ultrasonic system	Transducer	48pcs ultrasonic transducer, the total ultrasonic power is 2.4kW, and the power is continuously adjustable
	Generator	Imported IGBT sweep control board with uniform ultrasonic output, output power with photoelectric display and current display
heating system	temperature control	Digital display, temperature control range RT-90°C
	heating power	Place a 6kW stainless steel heating pipe inside the tank

4.3 Hot water rinsing

No.	3rd tank	
Structure	Tank size	750x500x550mm
	Basket	650x400x450mm
	Tank material	AISI304,thickness 2mm
heating system	temperature control	Digital display, temperature control range RT-90°C
	heating power	Place a 6kW stainless steel heating pipe inside the tank

4.4 Hot water rinsing

No.	4th tank	
Structure	Tank size	750x500x550mm
	Basket	650x400x450mm
	Tank material	AISI304,thickness 2mm
heating system	temperature control	Digital display, temperature control range RT-90°C
	heating power	Place a 6kW stainless steel heating pipe inside the tank



5,Main mechanical structure

5.1 Robot arm

Quantity	1 set
structure	The structure of the robot arm is a single-arm beam type, which is stable in operation, accurate in positioning, large in bearing capacity, strong in flexibility and fast in lifting.

electrical control	►The robotic arm is controlled by a programmable controller and proximity and induction switches to automatically complete the cleaning process; the cleaning rhythm is adjustable, and the operation process is variable frequency speed regulation, which can achieve soft landing and accurate positioning ►Established with a washing basket protection device, when there is a basket in the tank, the robotic arm shall not place any more baskets	
Motor parameters	Lifting	Geared motor, power: 3/4HP, speed: 0-7 m/min (parameters are designed on demand)
	Moving	Servo motor, power: 1HP, speed: 0-7 m/min (parameters are designed on demand)
Can achieve Function	► Manual operation; ► Fully automatic operation; ► Automatic reset system; ► Pause and emergency stop; ► The man-machine interface modifies the program; ► The man-machine interface adjusts the process parameters; ► Can remotely monitor and control equipment operation; ► HMI fault alarm display.	
load bearing	Max. 50kg	

5.2 Machine frame chassis and door panel

quantity	1 set
structure	The frame and chassis of the entire equipment are made of stainless steel The front and rear and left and right sides of the equipment are equipped with decorative door panels, which are mainly composed of brushed stainless steel and acrylic panels. The surface is matte and beautiful. The water distribution tank is set on the rack, and the foot cup is set at the bottom

5.3 Air release

quantity	1set
material	Stainless steel, PVC engineering plastics
installation site	A suction cover can be set up above the organic solvent and water-soluble solvent cleaning tank, which can be connected to the customer exhaust system, and the air valve can be adjustable

5.4 Basket

quantity	6pcs
material	AISI 304

5.5 Electric control system

quantity	1 set
material	Stainless steel board
structure	►The electric control cabinet is located on the left side of the first tank and is assembled with the cleaning system; install the touch screen of the operation panel and display the working status of the whole machine simultaneously ►The buzzer and the equipment shall have three-color working indicator lamp, abnormal situation prompt sound and light alarm; ►PLC, relay, air switch, transformer and other main order control circuit is configured in the cabinet; ►The line layout is neat and clear, with a clear line number.

III. Spare part List

Spare parts	Brand
Transducer	Skymen
Generator	Skymen
Cylinder	Air TAC
Geared Motor	Delta
Servo Motor	Delta
Cooling fan	AIRMATE
Heater	JIUKOU
PLC	Delta
Touch screen	WEINVIEW
Digital temperature controller	Omron
Solenoid valve	Air TAC
Level switch	Skymen
Photoelectric switch	Omron
Capacitive approach switch	Omron
Manual water inlet/outlet Valve	Skymen
Y-Value	Skymen
Power switch	Delta
Relay	Schneider
Linear Guide Rail	PMI
Frame/Shell	Jinshuncheng
Tank	Jinshuncheng

IV. Documents and spare parts shipped with machine

1,Relevant technical documents

Name	language	quantity	Remarks
Manual	English	1	
circuit diagram	English	1	
pipng diagram	English	1	
Water/electric installation diagram	English	1	
Daily Maintenance Instructions	English	1	

2,Spare parts

Name	Quantity
heating pipe	4pcs



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