

# Cleaning



## Focus on

Cleaning

Extraction

**OEM Service** 













#### About Taiwan Supercritical Technology

Taiwan Supercritical Technology (TST) is established on Feb., 15th, 2005, and is the first and still only company owns both the know-how of Supercritical fluid and ultrasonic technology in Taiwan.

TST integrate both technologies successfully, and provide stable and competitive equipments in cleaning and extraction applications for the years.

#### Operation Item

- 1. Professional Clean Process & Equipment Design
- 2. Professional Extraction Equipment Design
- 3. Clean / Extraction Contract Service

- 4. Clean / Extraction Turn-Key Project
- 5. Co-Slovent and Degrease Solution
- 6. OEM/ODM Clean Machine

#### **Ultrasonic Transducer**

- 1. High efficiency PZT transducer
- 2. Anti-rust Material SUS316/SUS304
- 3. Customization Product. Dimension upon request

#### **Ultrasonic Generator**

- 1. Single frequency. (28KHz / 40KHz)
- 2. Drive capability: Effective to drive 300W~1800W transducer.
- 3. Auto tracing Frequency, frequency variable between ± 10Hz~2 KHz.
- 4. Max. output power(electric current) control to prevent error.
- 5. Speed adjustable drive transistor to reduce heat.
- 6. Power adjustable.
- 7. Operating voltage: Single phase/AC180~AC240V; 50~60Hz.





## Supercritical Fluid Dry Cleaning Benchtop CO2 Spray Cleaning System (HailStorm)

Suitable to clean Optoelectronic Devices, Quartz and Ceramic Substrates, CCD, CMOS, Optical lens, Surface Prep for Bonding, Microelectronic Devices, Thin Films Co-Pt-Cr/Cr/AlNi, Semiconductor Components, Precision Machined Assemblies.. Features:

HS-602

- Safely & thoroughly clean precision parts & complicated component with micro carbon ice crystallization.
- 2. Remove thin & slender hydrocarbon, submicron particle without any residue.
- With patent technology, HS-602 helps you to control grain size of carbon ice crystallization for different cleaning solution. Ex., large filth as flux or submicron particle from fragile materials as hard-disc.
- Your process & cost will be under control esaily with HS-602 to clean precision optic parts or metal ceramic.



#### Multi-function Cleaner for Precision Microporous

Suitable to clean Precision microporous, Small nozzle, Pedicle Screw, Pedicle Screw, Cardiac Catheterization, Pin hole, Micro-pipe & tubing, Exhaust Gas Sensor, Stethoscope, Ceramic dentures, dental device…

#### Features:

- 1. High density 6  $\mu$  Microporous filter system
- 2. Both flush & Vacuumc solvent clean system
- 3. Anti-acid & anti-alkali pump and filter
- 4. Auto-elevated fixture for easy monitor
- 5. Accurate time & temperature Controller
- 6. Mold & Intermittent ultrasonic vibrator
- 7. Esay maintainace & spare parts replacement design
- 8. Anti-rust, acid and alkali resistance SUS304 tank material

#### Specifications:

Ultrasonic: 40KHz / 50W Voltage: AC220V/110V

Mahicne Dimension: 210 x 270 x 330mm

Gross Weight: 10Kg Net Weight: 10.4Kg



### The Navigator of Clean & Extraction Technology

#### Single-Tank/Multi-Tanks Ultrasonic cleaning machine

MS Series: MS600 / MS1200, MS600A / MS1200A

Suitable to clean electrical components, PCB parts, machine parts, medical device, lab device...

#### Mannual Type Single Tank Ultrasonic Cleaner

Suitable to clean metal hardware, PCB parts, machine parts, optic lens, electroplating...

#### Features :

- 1. Stable filtery recycle system to reduce chemical cost.
- Powerful & mold ultrasonic power to clean different kinds of pasrts without damage.
- Improve product quality & capacity while reducing manpower.
- 4. Unique 4 sides overflow to improve clean effect.
- 5. New field-effect transistors driven with adjustable frequency.

Model	MS	MS-600	MS-1200		
	MS-A	MS-600A	MS-1200A		
Frequency		40KHz(A)/28KHz	40KHz(A)/28KHz		
Power		600W	1200W		
Tranducer		60W/pcs	60W/pcs		
Inner Tank material		SUS304(Mirror plate)			
Outer Tank material		Powder Coating SUS304			
Inner Tank Dimension		400x300x220 mm	500x400x400 mm		
Outer Tank Dimension		500x600x450 mm	600x800x600 m		
Temperature		Room temperature~99℃			
Max. Capacity		25L	75L		
Voltage		220V	220V		
Weight		35.5 Kg	57 Kg		
Heater		1.0 kw	1.5 kw		







MS600A / MS1200A





Suitable for surface finishing for pressing, casting & welding parts, to clean heat sink, screws and different shapes of metal hardware…

#### Features

- 1. Suitable to clean parts after machining: oil, cutting lubricant, abrasive powder, grinding powder, dust.
- 2. Time & Temp controller; Swing mechanical; Heat & Overflow system.
- 3. Optional filter recycle system to improve chemical life cycle.
- 4. Tank Material: SUS304 SUS316 PP SS41

#### Optional:

- 1. Both sides Swing mechanical 2. single side arm swing mechanical
- 3. Drying system 4. Aeration system 5. Filter System 6. DI water system
- 7. Wind shear system

#### Mold / Die cleaning machine

Suitable to clean variety of rubber, plastic & injection mold (die), Powerful cleaning for both Carbon deposition (Dust) & Rust Preventive Oils.

#### Features :

- 1. No damage to the mold surface, reduce mold loss rate.
- 2. High effective ultrasonic power & auto sweep frequency.
- 3. Adjustable ultrasonic & spray cleaning process for different cleaning purpose.
- Powerful solution with Physical (Ultrasonic, Spray washing) & Chemical (Solvent) for different mold (die).
- 5. Optional filter recycle system to improve chemical life cycle.
- 6. Smart time & temp controller.





#### **Automatic cleaning machine Series**

#### Auto multi-tanks ultrasonic cleaner ( economic / dedicated )

- Whole process automatically to reduce manpower cost & industrial accidents.
- High effective cleaning performance by powerful ultrasonic
- Auto time & temp controller with buzzer alarm.

- Filter recycle pump to keep the chemical clean.
- Unique overflow design to clean thoroughly.

#### Gantry type cleaning machine

#### Features:

- 1. Flexible cleaning time & process.
- 2. Great effect with optional filter & specially dispense chemical.
- 3. Heavy loading capacity by Gantry type mechanism.

#### Lever type cleaning mahcine

Suitable to clean IC products, photoelectric devices, precision parts, glass clean before optical filming  $\cdots$ 

#### Features:

- 1. Lateral mechanism, operation room clearance thoroughly.
- 2. No supporter above clean bascket, easy to arrange parts.
- 3. Optional oil pressure, air compressor or motor driving.
- 4. Whole machine SUS material, suitable for clean room.
- 5. Optional infrared or drying system, clean parts without water marks.



Suitable to clean auto parts, pipe fitting, plastic products, fork & knives, sheet-metal work, bicycle parts, plumbing fixtures, gas equipment, manifold, computer component...

#### Features:

- 1. Optional tunnel dryer & filter.
- 2. Stably PLC control system.
- 3. Oil pressure, air compressor actuating mechanism.
- 4. Panel Mounted type actuating mechanism.
- 5. Mass production scale.
- 6. Suitable to use with hexagonal or circular barrel.

#### Rotary type high pressure spraying machine

Suitable to clean metal hardware, gas equipment, auto parts, aerospace parts, precision parts & surface cleaning of slide, slide way...

#### Features:

- Integration multi-stage process design, nozzles adjustable, full-scale cleaning, surface cleaning & anti-rust at one-pass operation.
- 2. PLC programmed automatic control system.
- 3. U type rotary conveyor, smooth actuating, precision positioning
- 4. Automactic pilot scale cleaning, save factory space.
- 5. Speed drying & reduce water marks with high efficiency hot air recycle.

#### Whole-plant equipment (Turn-key Solution)

Customization planning per customer's requirement with multi-technology.

Core-tech of supercritical CO2 dry clean & ultrasonic wet clean with integrated high pressure spray, brush and plasma process.

All-round service including professional design to manufacture, quick & responsible after service.

















#### **Pneumatic Stencil Screens cleaning machine**

#### PSS750 / PSS1200

Suitable to clean SMT stencil, screens, PCB base palte...

Model	PSS750	PSS1200	
Machine Dimension	800x1100x2000mm	800x1500x2250mm	
Machine Material	SUS304	SUS304	
Parts size	750x750x40mm	1200x1200x40mm	
Suitable solvent	Common solvent or TST's solvent		
Waste water drainage pipe	1/2"	1/2"	
Filter recycle pump	Pneumatic pump	Pneumatic pump	
Machine weight	Around 200KG	Around 350KG	
Operation Pressure	4~4.5Kg/cm	4~4.5Kg/cm	
Air consumption	over 3HP(465L/min)	over 3HP(465L/min)	
Solvent Tank Capacity	Around 55L	Around 65L	

#### Features:

- 1. Air pressure driven which has great explosion protection with solvent or inflammable type of chemicals.
- 2. SUS304 stainless machine, no leakage and corrosion.
- Suitable for high volatile chemicals, IPA, acetone, MEK (MEK boiling point below 40 °C recommended)
- 4. Multi-stage auto chemical filter & recycle system.
- 5. High efficency solder & Flux removing system.
- 6. Takes only 9 minutes to wash & dry automatically
- 7. Waste chemical drainage independently which can attach solvent recovery system.
- 8. No power consumption needed for effectively cost down.













## Automatic Stencil Screens Ultrasonic cleaning machine

Suitable to clean SMT stencil, screens, PCB base palte...

#### Features

- 1. Water-soluble solvent suitable to prevent flash point.
- 2.SUS304 stainless machine, no leakage and corrosion.
- 3.No damage to the product surface of materia.
- 4. Simplify clean process and increase working safety.
- 5. Upper layer spray cleaning + hot air drying, lower layer ultrasonic cleaning.
- 6.humanization operation interface to set & monitor clearly.



### Integrated technology effective to clean all kinds of pollutant from machining process!



Parts of variety shapes cleaning



Oil removing



Grinding dust removing



Black mineral oil cleaning



Aluminum parts cleaning



Cupper Parts cleaning



Hole & pore cleaning



Metal tube cleaning

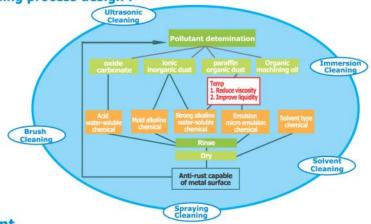


Copper anti-corrosive treatmentl



Ferrous metal cleaning

### Professonal cleaning process design!



#### Degreaser agent

No.		Characteristic	State	Package
MS-01	Ti, carbon steel, stainless steel	Emulsified, dispersion & removing oil as mineral, vegetable oil, cutting oil, burnishing oil	Powder	25kg/bag
MS-23	ferrous metal	Powerful clean for cutting oil	Powder	25kg/bag
MS-30	nonferrous metal (Suitable for copper, zinc, aluminium, magnesia)	Powerful clean for all kinds of nonferrous metal	Powder	25kg/bag
MS-86	ferrous metal	Stripping cutting oil film	Powder	25kg/bag
MS-380	aluminium, aluminum alloy, iron	Water-soluble cutting oil, oil-soluble cutting oil, lubricating oil, antirust oil, immesed cleaning & spraying after polishing	Liquid	5 gallons/bucket 50 gallons/bucket
MS-SLT	All kinds of metal & plastic	Light oil pollution, vegetable oil	Liquid	5 gallons/bucket



## 台超科技股份有限公司

Taiwan Supercritical Technology Co., Ltd.

(**502**) No.346, Sec.1, Yuan-Tsao Rd., Fenyuan.Changhua, Taiwan, R.O.C.

TEL: +886 49 2511939 / Fax: +886 49 2511933

Mail: service@tst.tw / www.tst.tw

#### China Branch office

Zhongshan Shi Eastern Minxin Wash Equipment Co., LTD.

TEL: +86 760 87152228 Fax: +86 760 87152227