



### SMT Stencil Cleaning Machine Comparison

Items	I.C.T-800 Electric Cleaning Machine	Other Ultrasonic +spray Cleaner
Photos		
Dimension	1300mm(L) x 1400mm(W) x 1950mm(H)	1300mm(L) x 850mm(W) x 2100mm(H)
Weight	460KG	350KG
Material	Stainless steel	Stainless steel
Stencil caster	With an universal fixed caster	With a special fixed caster
spray rods and air knives	4 spray rods with nozzles and 4 air knives on both side of stencil	2 spray rods with nozzles and 2 air knives on both side of stencil+ultrasonic
stencil moving method	back and forth while spray rods and air knives are fixed	up and down while spray rods , air knives and untrasonic device are fixed
Stencil moving distance	about 400mm for 736*736mm stencil	about 736mm for 736*736mm stencil
Stencil size	750*750*40~250*350*20mm(LxWxT)	736*736*40~500*550*30mm(LxWxT)
typical consumption/Cycle	0.08-0.12L	0.10-0.12L
Driven power	Electric	Electric
Cleaning principle	Spray clean +Rinse + air drying	Spray clean+Ultrasonic clean+Rinse+Dryiny
Risne liquid	DI water or barreled drinking water	DI water
Cleaning method	High pressure water pump extract clean liquid ,fan-shape nozzles spraying liquid onto the stencil to clean .DI Water or pure water to rinse .	High pressure water pump extract clean liquid ,fan-shape nozzles spraying liquid onto stencil surface so that near distance ultrasonic can clean stencil ,DI Water to rinse .
Drying method	air blower+heater: hot air blow drying	compressed air blow drying
Air blower and air heater	yes+yes	no,no
Drying Principle	High air flow blower blow hot air to the surface of stencil to make residual liquid off and make it dry	In the process of hoisting, the static scraper combined with compressed air to drying cleaning room and residue liquid to achieve the drying effect
Residual liquid take back	Compressed air blow residual liquid from the spray rods and nozzles; 4 air knives blow residual liquid from the cleaning room and stencil.	compressed air blow the stencil to make residual liquid fall down and flow back

Cleaning pressure	about 4~5kg/cm2	about 1~2 kg/cm2
Nozzle design	65 degrees fan shape nozzle for spray cleaning stencil	80 degrees fan-shape nozzle for spray liquid onto surface of stencil
Nozzle Number	48 pcs	22 pcs
Clean room sealing	1.Total 304 stainless steel weldling 2.Anti-corrosion sealing strip seals	304 Stainless steel weldling ,corrosion proof strip seals
Liquid pipes	total stainless pipes	plastic pipes + stainless pipes
Pump	3.0KW electric pump with stable pressure to clean	1.1kw electric pump in order to spray liquid to stencil for ultrasonic clean
Application range	Solder paste stencil, red glue stencil/cooper mask/resin mask,Mis printed PCB, PCBA and squeegees	solder paste stencil
Clean time(solder paste stencil)	3~4min	5~6min
Dry time	3~5min,only hot air can make water dry throughly	6~10min
Resin water loop	closed-lope and open lope can be chosed to use	closed- lope only
Solder Paste separate device	Three level filtration First level filtration: 10μm(impurity and solder paste) Second level filtration: 5μm (solder ball) Thirdly level filtration : 1um(dust)	Three level filtration First level filtration: 10μm(impurity and solder paste) Second level filtration: 5μm (solder ball) Thirdly level filtration : 1um(dust)
Liquid filtration system	2 level	2 level
Control panel	Touch screen ,Key switch,Emergency stop switch , start , stop , Reset	Touch screen ,Key switch,Emergency stop switch , start, stop , Reset ,Buzzer
Electric control features	each mian parts has a breaker,each action has solinoid valve sand replay control, easy to check machine conditions	main breaker
Avaiable for clean misprinted PCB,PCBA Squeegee and other parts or not	Spray cleaning method and liquid spray pressre about 4~5kg/cm2, gurrante good clean result on stenicl , thick red glue stencil, cooper mask, resin mask and squeegees, no ultrasonic to damage components on Mis printed PCB and PCBA	No (ultrasonic power will damage precise component inner circuits of IC, BGA, especiall Crystall oscillators), spray pressure not strong enough for thick red glue cooper mask and resin mask and squeegees
Liquid temp and water temp adjust and setting	on cleaning procedures ,just input numbers	on panel temp control meters by manual adjust
Resistance conductivity meter	yes ,have ,can detect the DI water quality	no
Indicator light	yes, red ,yellow and green to indicate diffirent situation of machine	no
Available COB stencil clean	Yes	Yes
liquid tank capacity	60L	50L
Min work liquid	30L	25L
liquid heater	9kw	2kw

Maintenance frequency and time	<ol style="list-style-type: none"> <li>1. Replace filter : 2~3 months 1um or 5 um filters</li> <li>2. Change liquid : about 30 days</li> <li>3. Steel net filter : no need to replace ,just wask and re-use</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace filter : Monthly @5min</li> <li>2. Change solvent : about 7 days</li> <li>3. Spray nozzle clean : Monthly @10min</li> </ol>
Patents	no copy, design by ourselves	Copy other ultrasonic machine
Option	Yes , could add external recycle filtration device	Yes , could add external recycle filtration device
Advantages	<ol style="list-style-type: none"> <li>1. 4~6 kg/cm2 cleaning spray pressure, suitable for both thin solder paste stencil and thick red glue red glue cooper mask, resin mask, squeegees.</li> <li>2. No damage to components like IC, BGA and crystall oscillates on Misprinted PCB and PCBA.</li> <li>3. Short clean and dry time .</li> <li>4. Liquid heat and air heat, high flow rate blower,100% clean and dry.</li> <li>5.Stencil move back and forth while spray rods and air knives fixed, stable structure.</li> <li>6.Compressed air blow residual liquid from spray rods and nozzles, air blower blow residual liquid from stencil and cleaning room, take back, greatly reduce liquid cost.</li> <li>7. PLC control ,one key easy operation.</li> <li>8. All parameters are set in the cleaning procedures.</li> </ol>	<ol style="list-style-type: none"> <li>1. Spray clean+ near distance ultrasoninc double.</li> <li>2. Stencil move up and down , spray rods and air knives, ultrasonic device fixed , stable structure.</li> <li>3. PLC control, one key simple operation.</li> <li>4. Liquid heat to increase liquid cleiang effect.</li> <li>5. Compressed air blow to dry.</li> <li>6. Smaller foot print.</li> </ol>
defects and bugs	bigger foot print	<ol style="list-style-type: none"> <li>1. There is air gap between uttrasonics an stencil, greatly reduce the cleaning ultrasonic power.</li> <li>2. Ultrasonic damage to components on PCBA and misprinted PCB.</li> <li>3. Can not clean thick red glue cooper mask and resin mask, squeegees.</li> <li>4. Long clean and dry time because of week cleaning power.</li> <li>5. No hot air , can not 100% dry by compressed air blowing.</li> <li>6.The adhesive glue and isolated ceramic becoming loose and weak because ultrasonic oscillators vibration, caused potential electric shot or machine damage.</li> </ol>
Comparing result	more efficient, stable structure, wide cleaning range, safe for PCB and PCBA,long lquid changing time, no boring ultrasonic noises, throughly clean and dry effects, easy operation	stabel sturcture,easy operation

Summary	<p>enough cleaning power gurantee good cleaning result and efficiency.</p> <p>What is the best machine for stencil cleaning?</p> <ol style="list-style-type: none"><li>1.stable structure;</li><li>2.easy operation;</li><li>3.wide cleaning range;</li><li>4.Safe for PCB and PCBA;</li><li>5.good clean and dry result;</li><li>6.good clean and dry efficiency;</li><li>7.safe electric control and simple maintenance.</li><li>8.low liquid cost down.</li></ol> <p>I.C.T-800 has all these advantages compare with other machine.</p>
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