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EQUIPMENT CO., LTD**

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# About RPS-SONNIC

RPS-SONNIC , was established in 2012, and have 9 years experience in ultrasonic area. Rps-sonic, consisted with a couple of young people who love ultrasonic very much. The founding members of RPS-SONNIC have an average degree of Bachelor's degree or above. They have been in the ultrasonic industry for more than 5 years and have rich experience in ultrasound.

The company's business philosophy is: Do not blindly promote any product, find the right product for the customer. So before each order, we will confirm all the details, including application details, equipment conditions, equipment specific information.



# Products / CONTENTS



**01** <sup>#ONE</sup> Ultrasonic welding

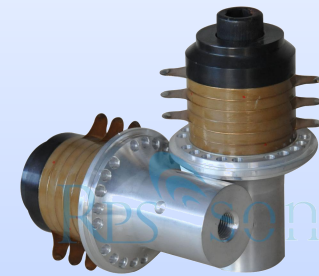
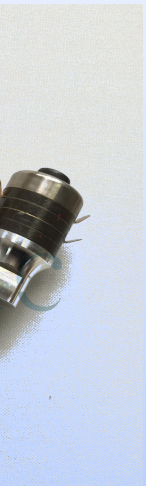
**02** <sup>#THREE</sup> Ultrasonic cutting

**03** <sup>#TOW</sup> Ultrasonic liquid processor

**04** <sup>#FOUR</sup> Ultrasonic Coating

# • Ultrasonic Transducer

- ✓ OEM Service
- ✓ Customize Service
- ✓ Long using life, high amplitude





# Ultrasonic welding transducer

1

## Customize service

Frequency 15~70Khz available  
Transducer and housing customizable

2

## Best Material

Imported aluminum  
RISUN P8 PZT  
High quality screw

3

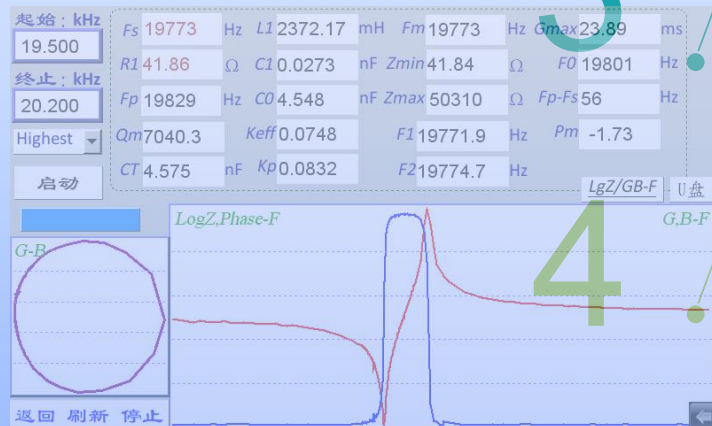
## Multiple Test

Temperature rise test  
24-hour aging test  
pressure test

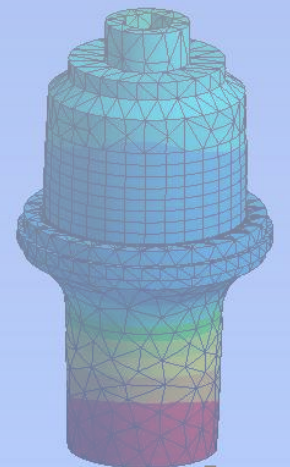
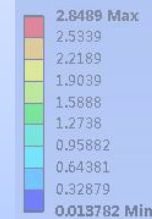
4

## Technical Team

Ensure perfect design  
Ensure perfect installation



A: Modal  
Total Deformation  
Type: Total Deformation  
Frequency: 20295 Hz  
Unit: m  
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5



# ◆ Ultrasonic welding

## HandHeld Ultrasonic welder

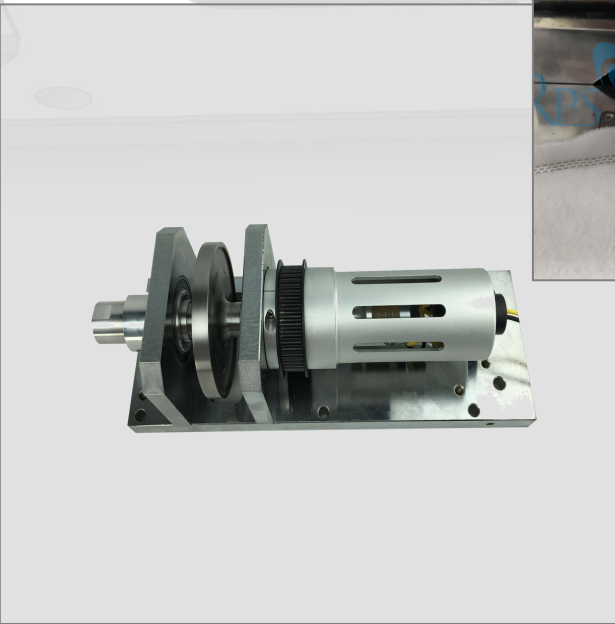
Item	RPS-HW35	RPS-HW28	RPS-HW20
Frequency	35Khz	28Khz	20Khz
Power	500W	600W	800W
Generator	Digital generator 2000E or 2000B		
Horn	2MM~10MM, Customized, Titanium or Aluminum alloy		



# Ultrasonic Rotary welding



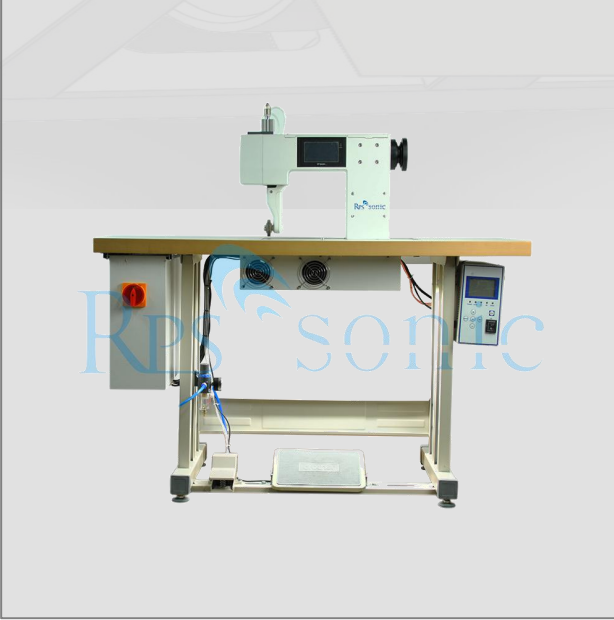
*The ultrasonic sewing machine rotary unit is for ultrasonic continuous seal welding. This unit instantly melts materials through ultrasonic vibration. Since materials are welded in this process, there is no need for threads or adherents. The unit can be used for continuously welding nonwoven fabric products, such as masks and diapers, and resin sheets.*



**35Khz Rotary horn**



**20Khz Filter welder**



**20Khz Sewing Device**



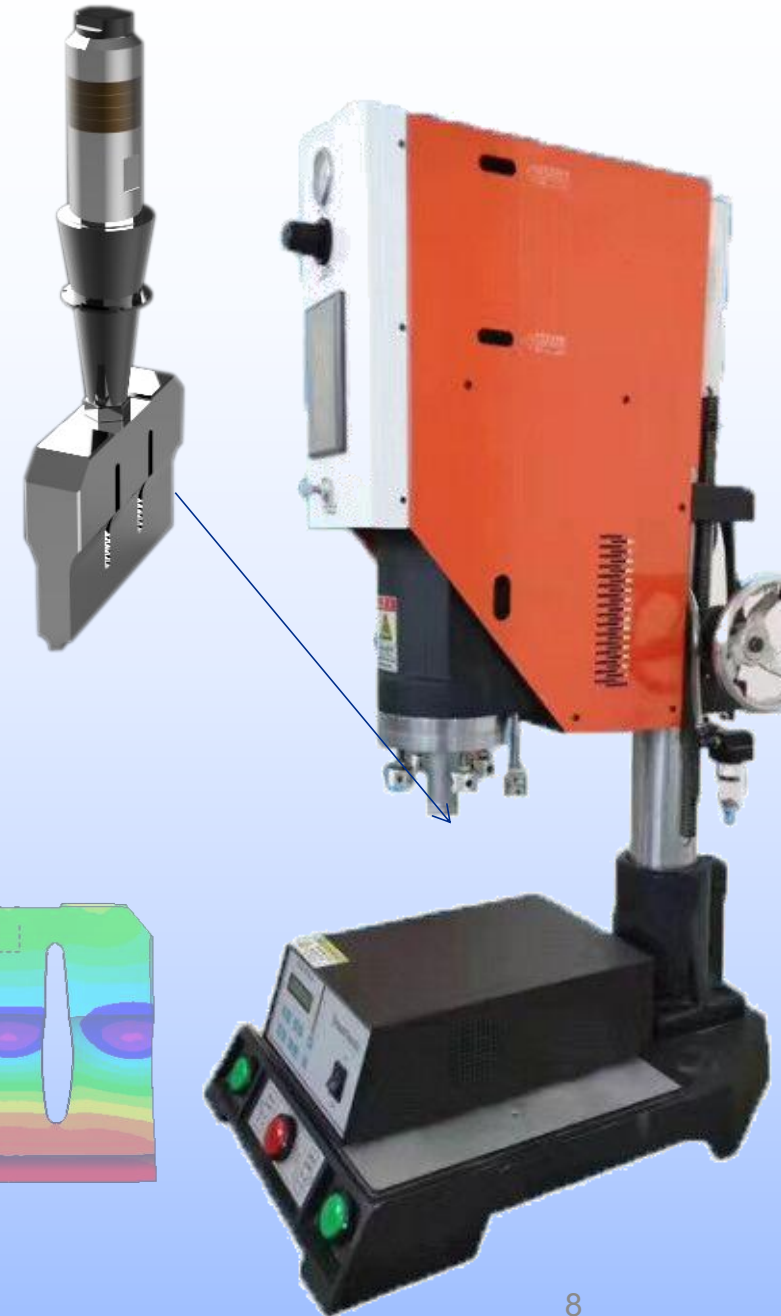
**20Khz Rotary horn**

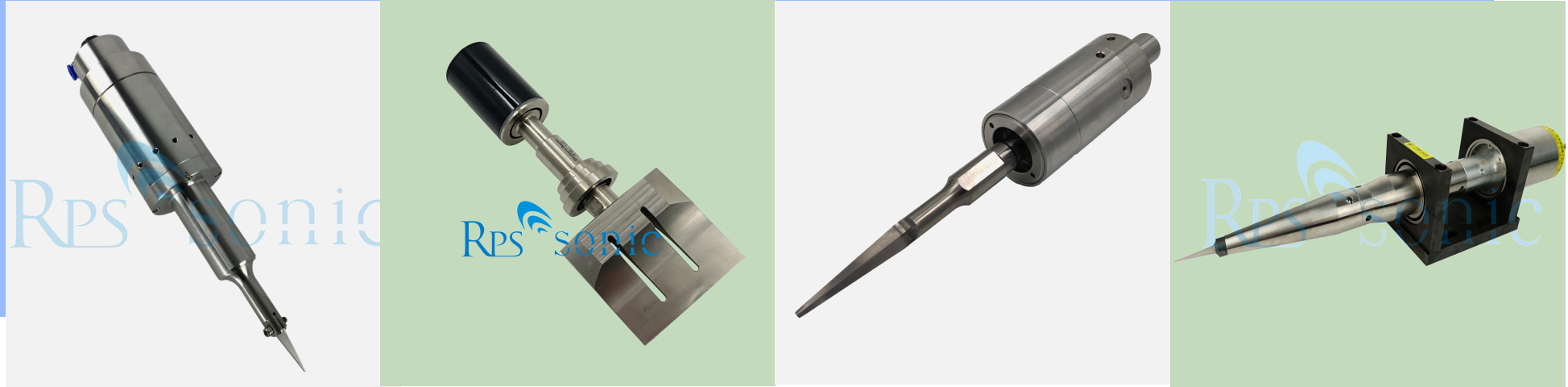
## Ultrasonic welding machine

- ✓ Horn design Free
- ✓ Sample test Free
- ✓ Program design Free

For different application , the horn design and machine tuning always comes first for good welding result. So good communication and Service always as important as the quality.

ITEM	Round column	Square column	High Power
Frequency	15~20khz	15~20khz	15Khz <small>14,857 Hz</small>
Power	2000~3200w	2000~3200w	4200~6000W
Air pressure	0.1~1.0MPA	0.1~1.0MPA	0.1~1.0MPA
Horn Route	75MM	75MM	100MM
Machine size	650*400*1050MM	680*700*1800MM	800*750*2000MM
Drive type	Pneumatic		





## ◆ Ultrasonic Cutter

Ultrasonic cutting knife uses the instantaneous high temperature generated by the high-frequency vibration of ultrasonic. It is used to cut various frozen foods, viscous foods, thermoplastic materials, tough materials, such as cheese cake, nougat, non-woven fabrics, plastics, rubber, and ect..

# ◆ Plastic ultrasonic cutter

1. Can operate by hand and robot
2. Variety of blades available
3. Available for all thermoplastic materials
4. Cutting and trimming at the same time

Item	RPS-PC20	RPS-PC30	RPS-PC40
Frequency	20Khz	30Khz	40Khz
Blade type	Screw tyoe	Clamp-on	In-one-piece
Amplitude	40um	20um	20um
Power	500W	300W	300W
Blade length	15mm	25mm	55mm
Generator	2000E or 2000C		

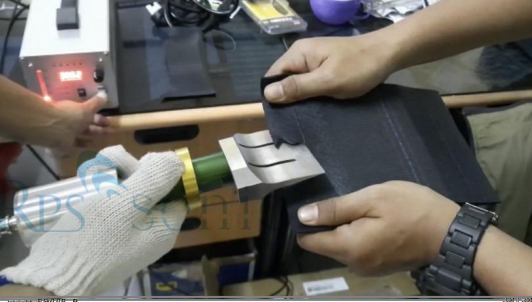


# ◆ Ultrasonic food cutter

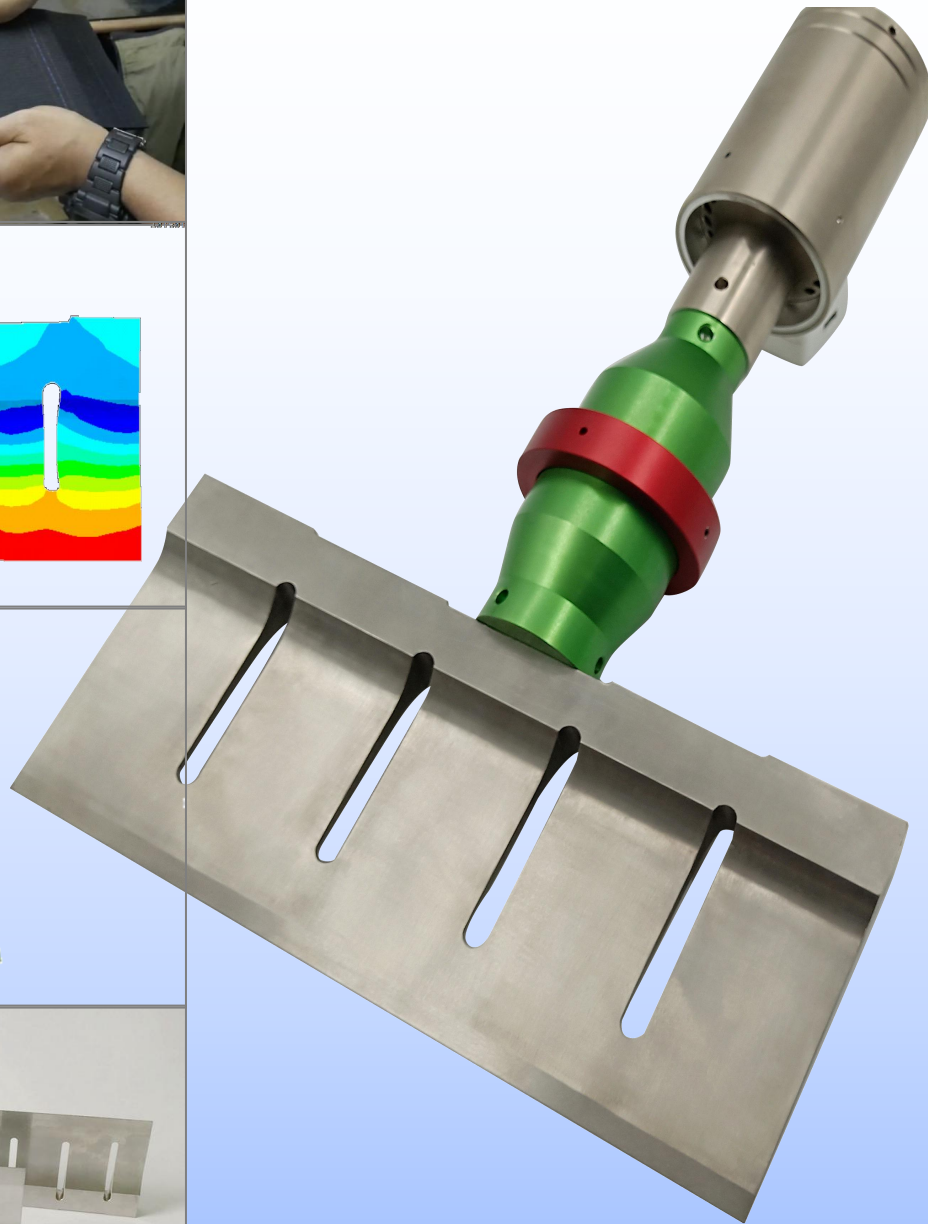
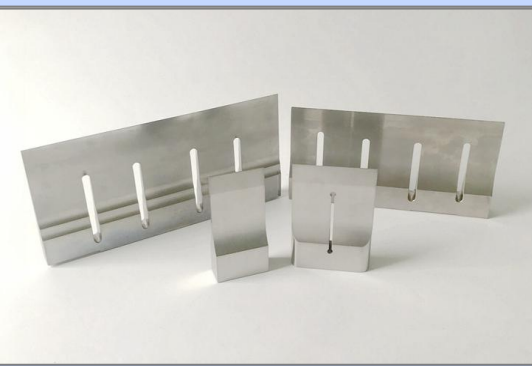
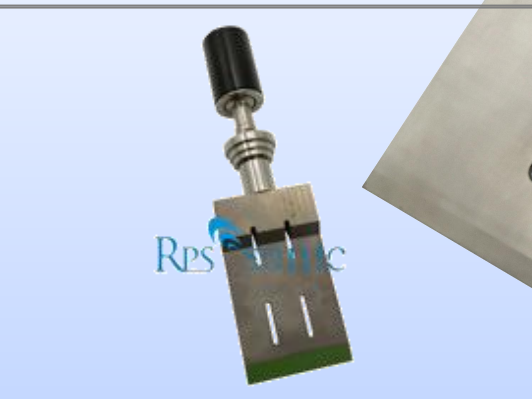
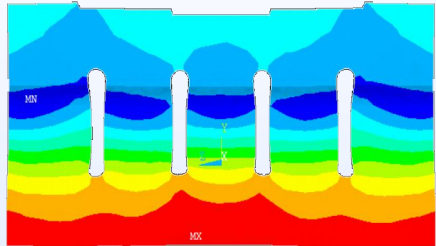
Ultrasonic cutter is suit for cutting various frozen foods, viscous foods, suck like, cheese cake, , nougat, wafer biscuits, frozen cheese. The high frequency vibration of the ultrasonic can effectively reduce the cutting resistance, and make the cutting surface smooth and beautiful.

Also applied in rubber cutting , Rubber goods have high toughness, ultrasonic cutting knife can greatly reduce resistance and increase cutting speed.

Frequency	40Khz	20Khz
Power	500W	1000w
Blade width	82.5mm	50,100,150,200,255,305mm
Generator	2000C or 2000E digital generator	
Horn	Titanium horn	
Blade height	60mm	120mm



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# ◆ Ultrasonic Liquid Processor



## Min Sonicator

F: 20,28,40kHz  
C:1l in max  
A:30um in max  
P:100W IN MAX



## Lab Sonochemistry

F: 20,28,40kHz  
C:5L in max  
A:100um in max  
P:2000W IN MAX



## Industry Sonochemistry

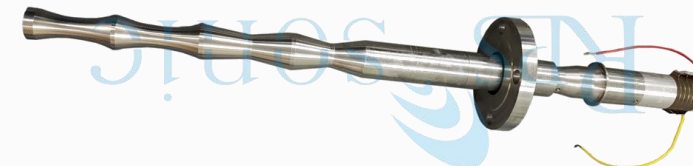
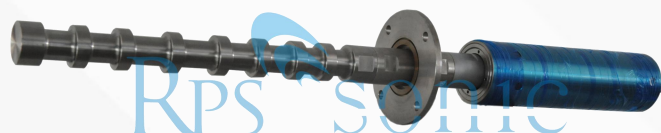
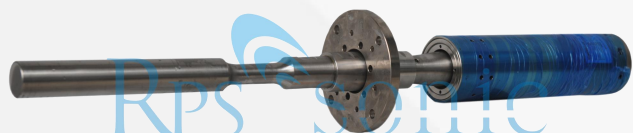
F: 20,28,kHZ  
C:20L in max  
A:100um in max  
P:3000W IN MAX



## Scale sonochemistry

F: 20,kHZ  
C:20L\*6 in max  
A:100um in max  
P:3000W\*6 IN MAX

# Components



Model/Data	Sono-20-1000	Sono-20-2000	Sono-20-3000	Sono-15-3000
Frequency	20±0.5 KHz	20±0.5 KHz	20±0.5 KHz	15±0.5 KHz
Power	1000W	2000W	3000W	3000W
Voltage	110/220V			
Temperature	300°C			
Pressure	35 MPa			
Intensity of sound	20 W/cm <sup>2</sup>	40 W/cm <sup>2</sup>	60 W/cm <sup>2</sup>	60 W/cm <sup>2</sup>
Max Capacity	10 L/Min	15 L/Min	20 L/Min	20 L/Min
Horn Material	Titanium			

RPS-SONIC



**Ultrasonic Generator**

## Case



**100 Tons Graphene**

## U Type Graphene Dispersion System

Equipment item no.	RPS-GS10	RPS-GS25	RPS-GS50	RPS-GS100
Aunal Graphene production capacity (work 8h/day)	10TON	25TON	50TON	100TON
Single set of rated power	3000W			
Total rated power	18000W=3000WX 6SETS	36000W=3000WX 12SETS	72000W=3000WX 24SETS	144000W=3000WX 48SETS
Frequency	20KHZ±1KHZ			
Input Voltage	220V/380V 50Hz			
Installation area	5m <sup>2</sup>	10m <sup>2</sup>	20m <sup>2</sup>	40m <sup>2</sup>
Features	Adopt network-based Mod-bus bus technology, all working condition parameters can be remotely controlled by the computer room			



# ◆ Ultrasonic Coating

## ■ Ultrasonic liquid spraying

Using ultrasonic high-frequency vibration, the liquid particles are first atomized into micron-level particles, and then sprayed precisely.

Advantages: precise spraying, high material utilization

## ■ Ultrasonic tinning

Ultrasonic soldering is a virtually flux-free soldering process that uses ultrasonic energy without chemical solder materials. It can be achieved with difficult-to-solder metals such as glass, ceramics, and composites and cannot be soldered using conventional devices.

Advantage: Flux-free

## Wide Spray type

- For fan area spraying
- 1~10um spraying film
- 0.1~20ML/MIN Spray flow
- 50~150mm spray height
- 20~100mm spray width
- available for  $\cong 20$ cps

## Covergent type

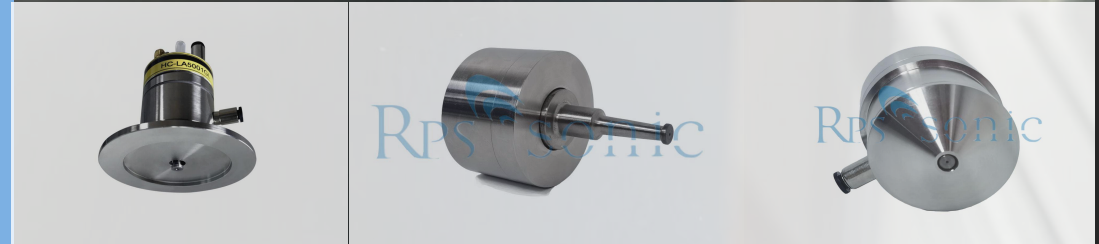
- For small area spraying
- 1~10um spraying film
- 0.01~5ML/MIN Spray flow
- 10-30mm spray height
- 2~10mm spray width
- available for  $\cong 15$ cps

## High temperature type

- For ultrafine power by ultrasonic pyrolysis
- 1~10um spraying film
- 0.001~1ML/MIN Spray flow
- 10-20mm spray height
- 1~3mm spray width
- available for  $\cong 15$ cps

## Vortex type

- For large area spraying
- 20~50um spraying film
- 5~60ML/MIN Spray flow
- 30~80mm spray height
- 10~60mm spray width
- available for  $\cong 50$ cps



# Ultrasonic tinning

Fluxfree tinning technology



- Easy soldering upon un-bondable material (metal, glass, ceramics) by simple dipping process.
- No need for flux
- Reliable bonding/sealing
- Best used in difficult, small-surface places with limited access

Item	Parameter
Frequency	20Khz
Amplitude	12~20um
Power	1000W
Work Power	300W
Work time	can 24hours continues
Coating material	Tin, indium, aluminum and other solders with melting point below 700°
Solder material	Copper, glass, aluminum, ceramics



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