

SonoBraz²¹⁵

Flux Brazing System

Ideal for spraying aluminum brazing fluxes onto wide or targeted areas for applications such as coils, fins, baffles, radiators, heat exchangers, manifolds, evaporators and condensers.



SonoBraz features:

- Designed to easily retrofit onto existing lines
- Self-cleaning, non-clogging ultrasonic nozzle
- Stable and controlled liquid flow
- Replaces wasteful pressure spray processes
- Vastly reduces flux consumption
- Provides excellent uniform flux coverage
- Ability to spray both small, targeted areas or wide areas
- Operates with 1 or 2 nozzles
- User-friendly control software



SonoBraz is configured with 1 of 3 different patented ultrasonic nozzles with air shaping, depending upon application requirements.

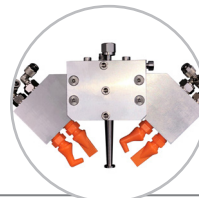
AccuMist



Impact



Extend



Nozzle Type	AccuMist	Impact	Extend
Spray Width (per nozzle)*	6-40 mm (0.070 - 1")	Up to 150 mm (6") for Standard Jet** Up to 180mm (7") for Impact EDGE**	Up to 240 mm (9")
Max Flow Rate*	2 - 45 ml/min	5 - 300 ml/min	50-350 ml/min

*Specific width and flow rate dependant on nozzle configuration

**At 300mm distance and at least 30ml/min flux flow rate

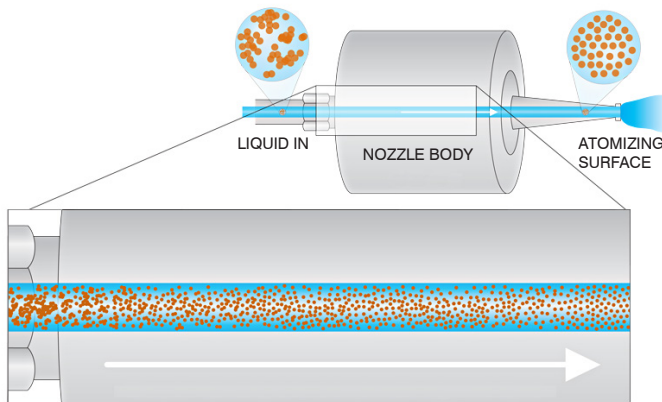
ISO CERTIFIED

SONO•TEK Corporation

Operating Principle

Liquid Atomization: Ultrasonic nozzles operate by converting a high-frequency electrical signal into mechanical expansion and contraction of two piezo-electric transducers. This causes vibrations to be sent down the nozzle's titanium horn. These vibrations create capillary waves in liquid passing through the nozzle, resulting in a spray of fine droplets at the nozzle's atomizing tip.

The Ultrasonic Advantage: One major benefit of ultrasonic spray compared to other application methods is the breakup of agglomerated particles as the suspension travels down the nozzle body. The liquid is subjected to continuous ultrasonic vibrations during the entire spray process, resulting in more efficient, homogeneous deposition of suspensions. The picture below illustrates this phenomenon. And since it is a closed spray process there is no concern for open air drying of flux/binder mixture during the process.

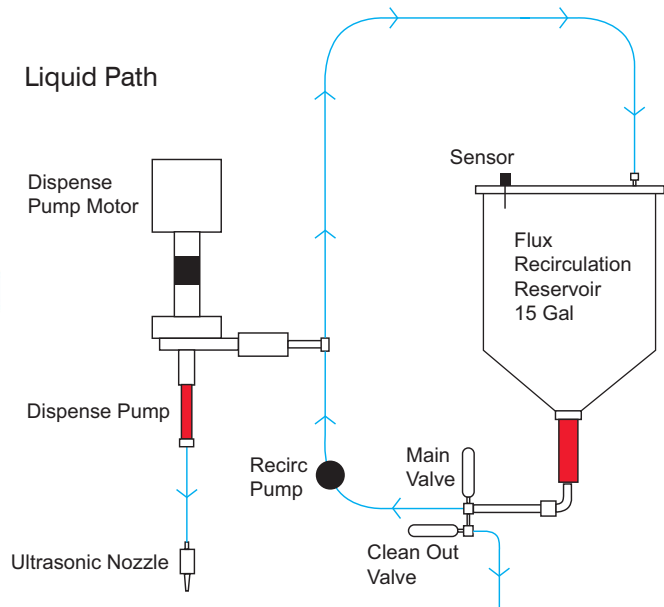


A close up view of liquid traveling down the nozzle body illustrates the deagglomeration of particles in suspension.

System Includes:

- Self-cleaning patented ultrasonic spray nozzle with air shaping
- Volumetric flux dispense pump for repeatable flow rate
- 15 liter flux tank with mixing and recirculation pump
- Touch screen embedded PC software control
- Full trigger capability – manual trigger, product sensor, or external trigger

Liquid Path



SYSTEM SPECIFICATIONS

General Specifications

System Components

- Retrofittable ultrasonic nozzle with air shaping
- Electronics control box with 3 color light tower
- Flux tank w/mixing
- Recirculation system
- Dispense pump

Flow Rate Range 2-110 ml/min or 50-350 ml/min*
*Nozzle and pump dependent

Deposition Repeatability ±5%

Spray Width (per Nozzle)

AccuMist	6-40mm (0.070 - 1")
Impact	Up to 180mm (7")
Extend	Up to 240 mm (9")

Total Customer Support

Sono-Tek has been developing and manufacturing a wide range of quality products based on our patented ultrasonic spray technology for more than 25 years. Each ultrasonic system is configured and factory tested specifically for each application.

Installation at your facility will be performed by our experienced field service staff who will work with you to set up your process and train your production and service personnel.

Control

Touch screen embedded PC

Service Requirements

Power 120, 220 V ±10%, 50-60Hz

Compressed Air Clean, dry and oil-free
2-20 LPM or 20-75LMP, 60 psi

Dimensions

Dimensions of Electronics Box and Tank Unit

191cm H x 76cm W x 77cm D (75" H x 30" W x 30.4" D)

Weight 159 kg (350 lbs)

Additional Options

2nd ultrasonic nozzle and dispense pump

Flux hopper

Sono-Tek Corporation has been providing innovative precision spray solutions to manufacturers for over 30 years, with a global distribution network for superior worldwide service and support.

SONO•TEK Corporation
leadership through innovation

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