

Exacta•Coat^{FC}

PROGRAMMABLE COATER



Fully enclosed XYZ tabletop ultrasonic spraying system designed for coating PEMs, GDLs, electrodes, various electrolyte materials, and solid oxide fuel cells with suspensions containing carbon inks, PTFE binder, ceramic slurries, platinum and other precious metal catalysts.

ULTRASONIC SPRAYING SYSTEM

Ideal for R&D or low-volume production, the ExactaCoat FC is easily configured with Sono-Tek ultrasonic nozzles to customize spray patterns for your specific application. Spray patterns range from 0.08 - 2" wide (2 - 50 mm).

ExactaCoat FC features:

- Compact benchtop design
- 400 mm x 400 mm x 100 mm (15.75" x 15.75" x 3.94") range of motion
- Pathmaster® Windows®-based programming software with image import
- Remote trackball teach pendant
- Coordinated motion in all three axes simultaneously

Sono-Tek ultrasonic nozzles feature:

- Up to 80% reduction in material consumption
- Reduced wasteful overspray and atmospheric contamination
- Non-clogging design results in minimal servicing and downtime
- Repeatable spray patterns that are easily shaped for precise coating applications
- Highly controllable spray produces reliable, consistent results with or without masking
- Corrosion-resistant titanium and stainless steel construction
- No moving parts to wear out

Optional Equipment:

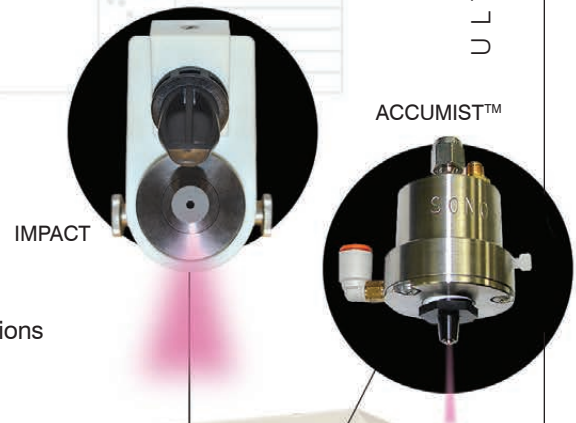
Heat Plate, Vacuum Plate, or Combined Heat/Vacuum Plate

Ultrasonic Dispersion Pump - for keeping suspensions evenly dispersed during coating process

MicroFlow Recirculation Pump - for precise dispense of suspensions at very low flow rates

Camera - Passive Vision

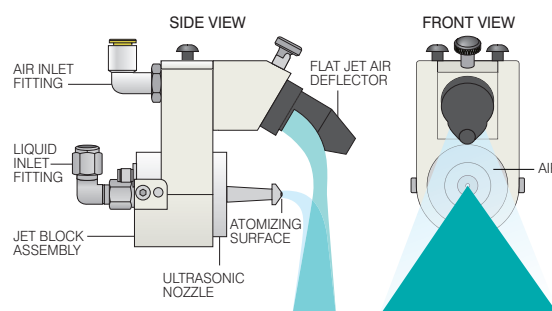
Laser Pointer



SONO•TEK Corporation

Operating Principle

The Impact System combines Sono-Tek's unique ultrasonic atomizing nozzle with a controlled jet of air from the flat jet air deflector. The ultrasonically produced spray at the atomizing surface is immediately entrained in the air stream, creating a fan-shaped spray pattern (10 - 50mm). The velocity of the air stream is controllable, allowing low or high-impact of the atomized spray onto the product or substrate.

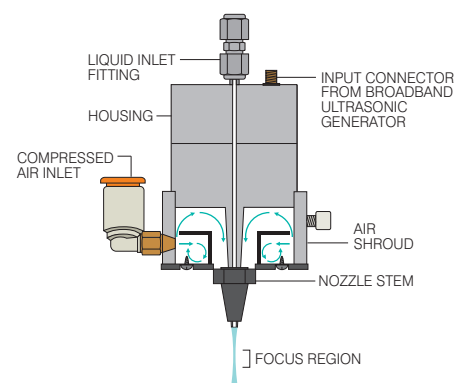


The AccuMist™ system combines Sono-Tek's unique Microspray ultrasonic atomizing nozzle with low pressure air to produce a soft, highly focused beam of small spray drops.

Compressed air, typically at 1 psi, is introduced into the diffusion chamber of the air shroud, which produces a uniformly distributed flow of air around the nozzle stem.

The ultrasonically produced spray at the tip of the stem is immediately entrained in the low pressure air stream.

The spray envelope is bow-shaped (2mm - 10mm). The width of the bow is controlled by adjusting the distance between the nozzle and the substrate.



Sono-Tek Laboratory Services

Sono-Tek's in-house laboratory services offer the expertise of our engineering and technical staff in resolving process issues and tailoring our technology to meet the needs of our customers.



EXACTACOAT FC PROGRAMMABLE SYSTEM SPECIFICATIONS

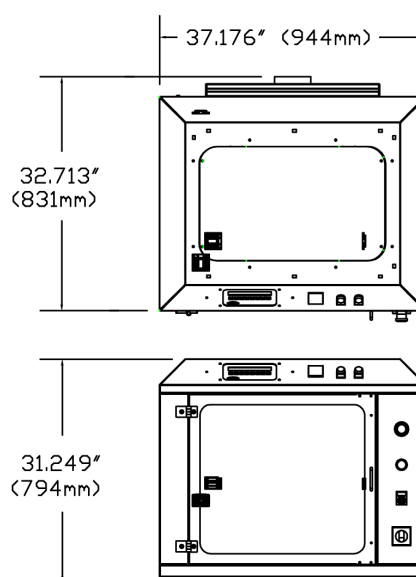
Enclosure Specifications

Work Area* 400 x 400 x 100 mm
(15.75 x 15.75 x 3.94 in)

*NOTE: Coating area may be reduced depending on nozzle configuration, options and accessories

Repeatability	0.025 mm (0.001 in)
Resolution	0.015 mm (0.0006 in)
Motor	Brushless DC servo
Drive Mechanism	Ball screw drive
Work Payload	11.4 kg (25 lbs.)
Inputs/Outputs	52
Software	Pathmaster® Windows-based
Power	120V, 220V, +/- 10%, 50-60Hz
Air	80 PSI dry unlubricated air
Certification	CE certified
Options	Heat plate temp Up to 150°C
	Vacuum plate 4 zones, user controlled
	Camera (Passive Vision) Adjustable viewing area
	Laser Pointer

Dimensions 37.2" W x 31.2" H x 32.7" D



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leadership through innovation

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