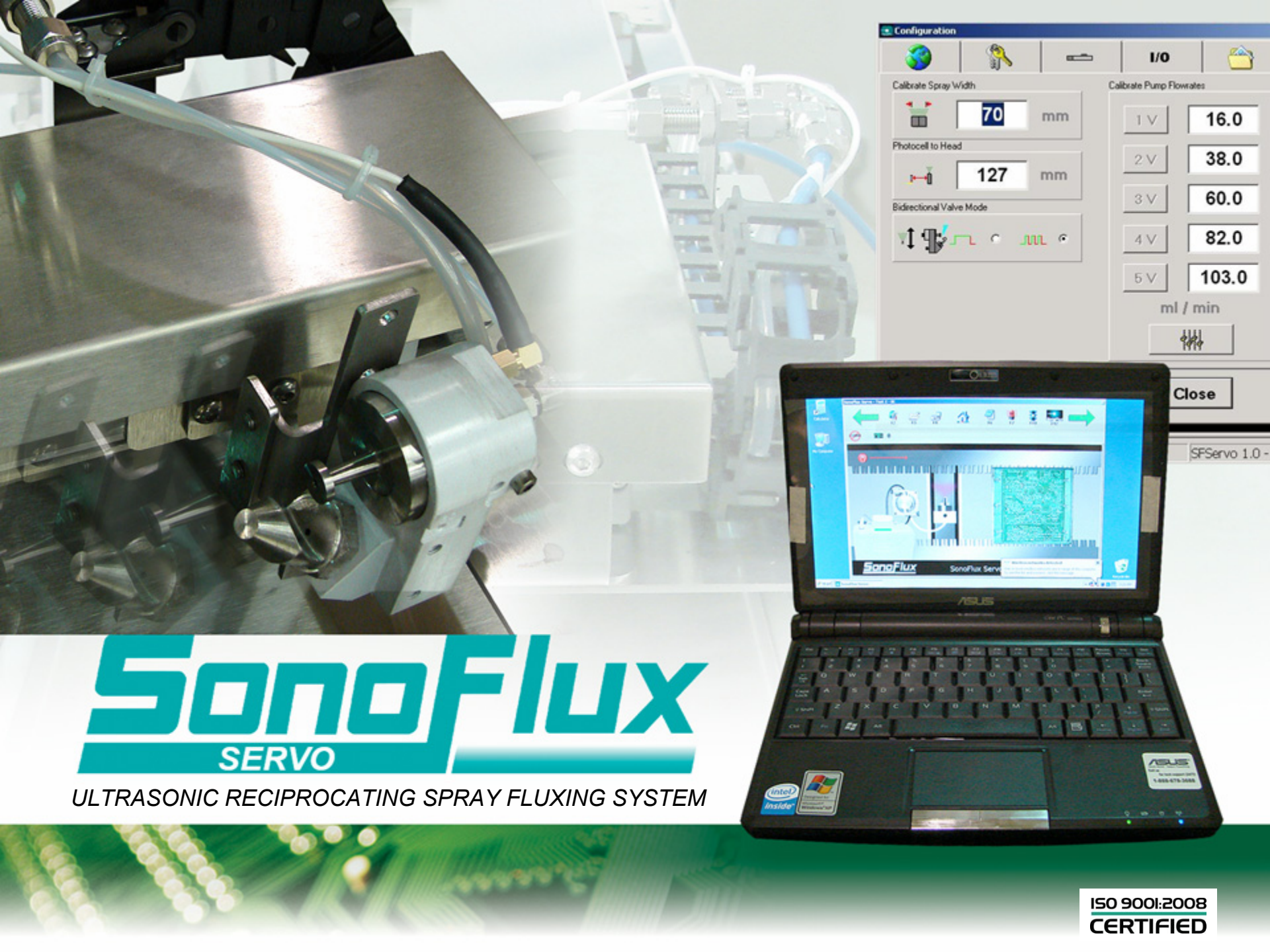
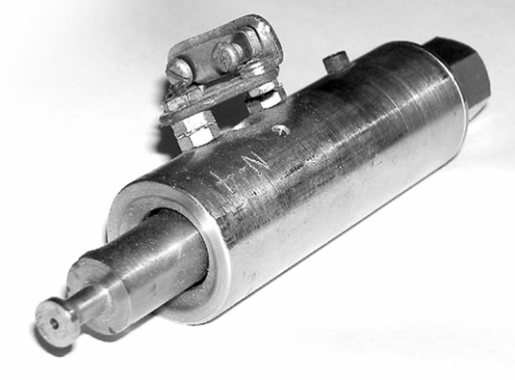


SonoFlux SERVO

ULTRASONIC RECIPROCATING SPRAY FLUXING SYSTEM

ISO 9001:2008 CERTIFIED

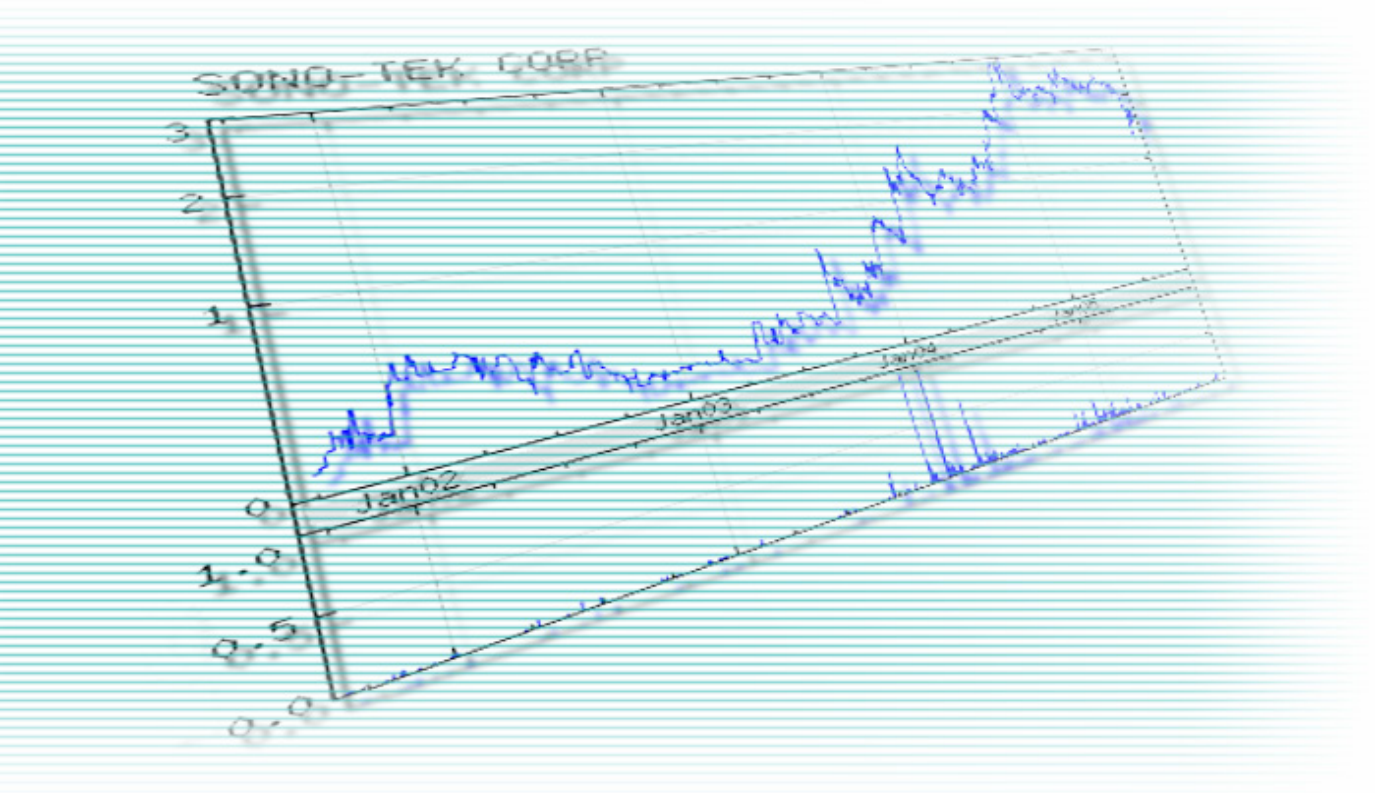


Sono-Tek Corporation was founded in 1975 by **Dr. Harvey L. Berger, Ph.D.**
Inventor of the ultrasonic nozzle

The first ultrasonic nozzles were developed for use in oil burners and subsequently for the development of liquid fuel burners contracted by the U.S. Military for use in portable power generation equipment.

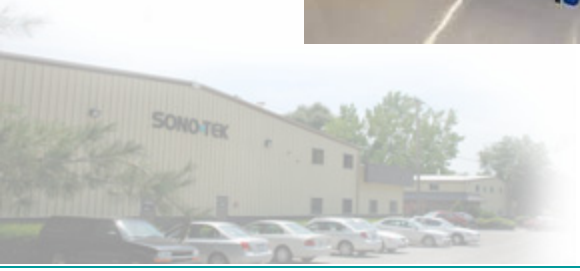
Sono-Tek became a publicly traded company in 1987.

The Company's Common Stock trades in the over-the-counter market on the OTC Bulletin Board under the symbol **SOTK.OB.**



CORPORATE HEADQUARTERS

Sono-Tek's corporate headquarters is located in Milton, New York. This facility houses our factory as well as a full staff, including our engineering, sales, accounting, manufacturing, quality control, technical support and shipping departments. All of our products are designed and manufactured on premises, allowing full control and coordination of every aspect of our business.



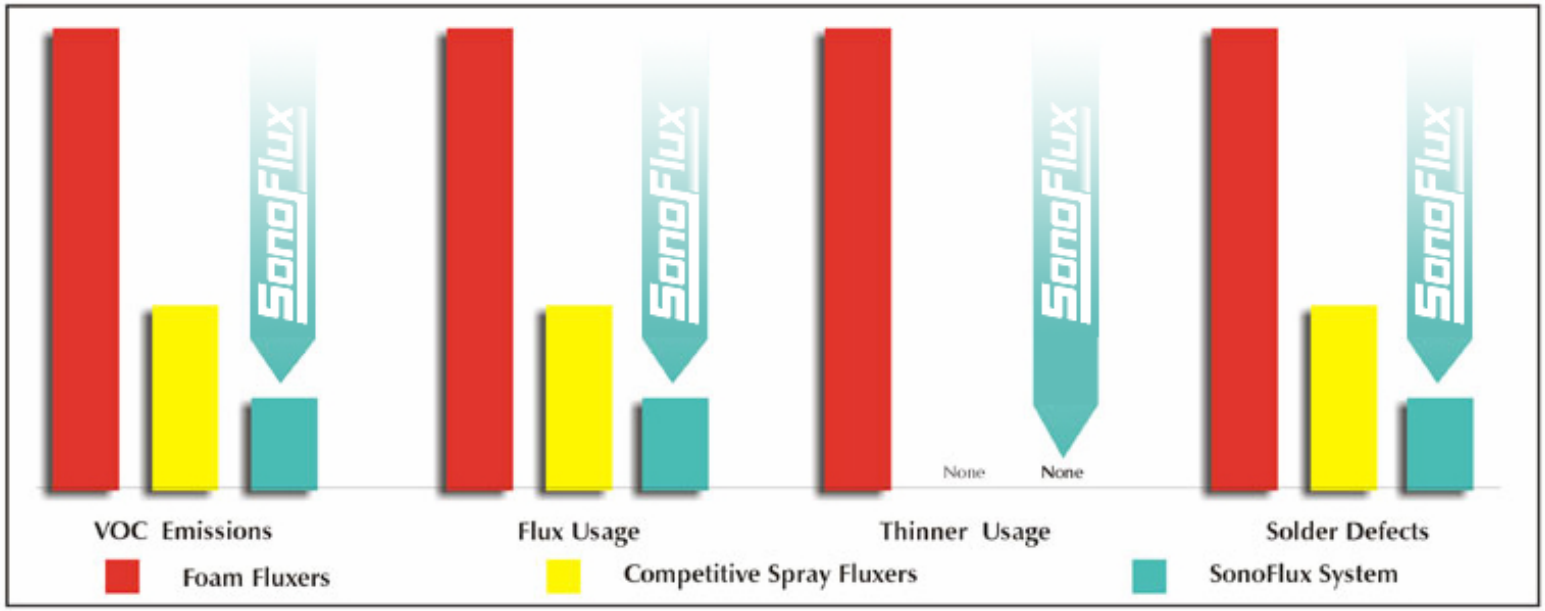
Benefits:

- Cost savings
  - Reduced flux consumption
  - Elimination of thinner
  - Reduced maintenance
  - Reduced waste disposal requirements
  - Solder defect reduction
- Enhanced process control
  - Uniform and repeatable deposition
  - Specific gravity remains constant (closed liquid delivery system
  - No contamination of flux from PCBs/components
- Compatible with all types of flux

Today, ultrasonic spray is the preferred method of flux application. SonoFlux spray fluxing systems are compatible with Rosin Flux (even up to 35% solids), no-clean, VOC-free, and water soluble with minimal maintenance.

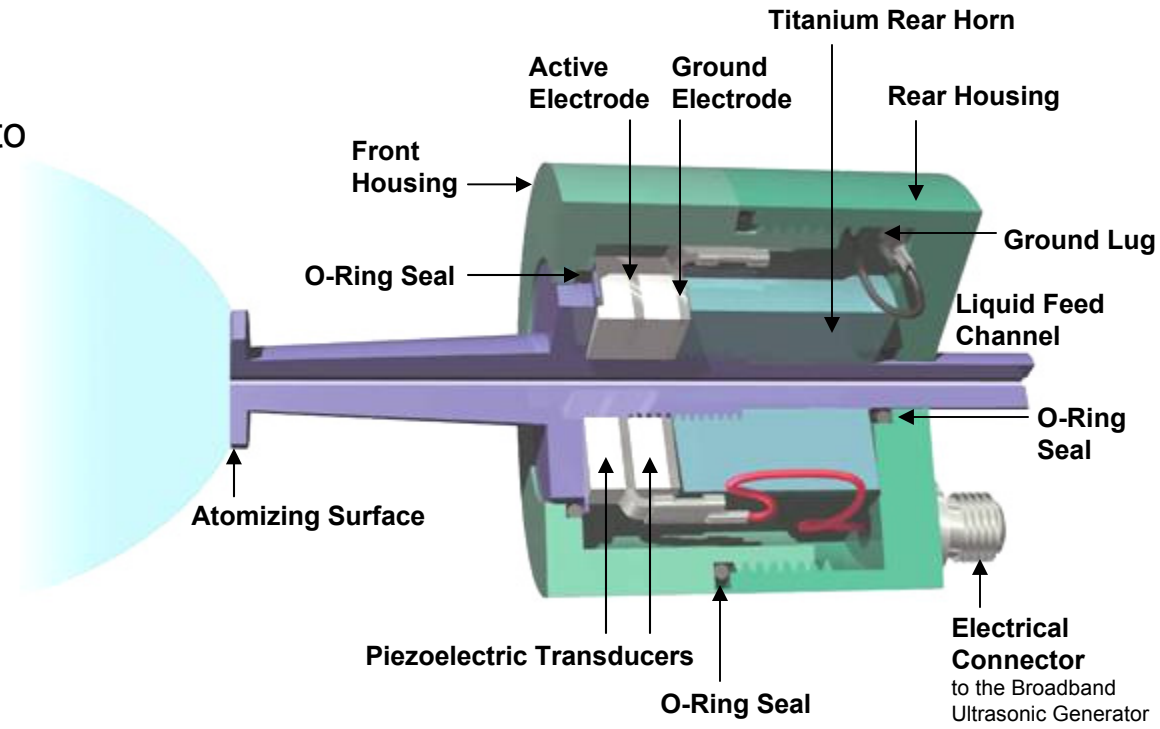
Factors contributing to a rapid payback include:

- Reduction in flux usage by up to 90% compared to foam fluxing, 75% reduction when compared to competitive spray fluxers
- Reduction in VOC Emissions by up to 90% compared to foam fluxing, 75% reduction when compared to competitive spray fluxers
- Reduction in solder defects by up to 80%
- Total elimination of thinner consumption and elimination of specific gravity checks



Some of the benefits of using ultrasonic spray nozzles for flux deposition are:

- Overspray is *minimized*
- Spray is easily shaped into a *uniform*, vertical pattern of fine flux drops
- Ultrasonic atomization can deliver flux over a *wide range of flow rates*
- *Large nozzle orifice* prevents clogging
- *Titanium* construction prevents chemical attack and results in high reliability

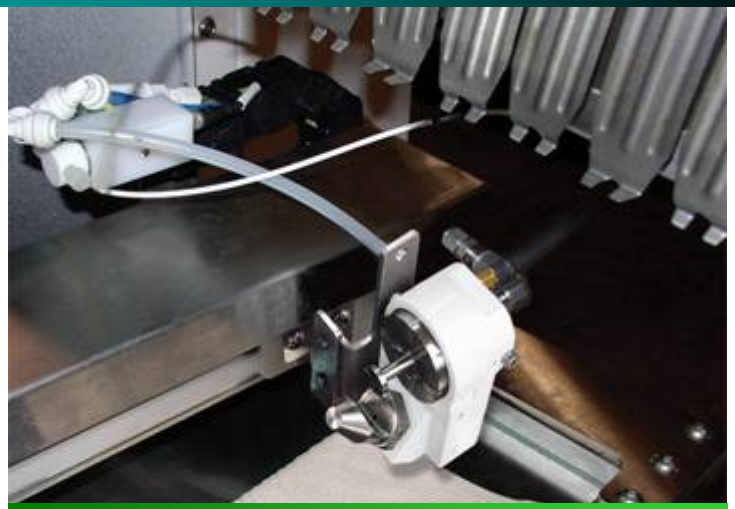


Standard features:

- 18 inch width
- Selective area mode
- Dual pass or single pass selectable
- Non-clogging ultrasonic nozzle
- 5 gallon polypropylene liquid reservoir
- 8 inch PC with Windows-based software
- Electronics control module

Benefits:

- *Selective zone* fluxing capability
- *500,000 recipe* storage
- *High accuracy reciprocating platform* proven reliable over long-term operation
- *Reduction in flux consumption* up to 90% in selective mode
- *Single pass or dual pass* fluxing mode
- *Easy integration and operation* with all wave solder machines
- *Non-clogging* ultrasonic atomizing nozzle
- High velocity flux transfer for *maximum top-side fill*
- *Uniform coverage* (proven superior on fluxometer)
- *Auto board length* detection

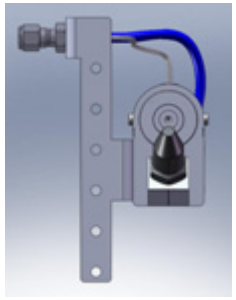


The SonoFlux Servo is an ultrasonic spray fluxing system designed on a reciprocating platform with maximum flexibility, making it ideal for contract manufacturers with frequent changeover requirements.

The ultrasonic atomization assembly uses a high impact flux transfer system with user-controlled velocity for maximizing top-side fills and minimizing overspray.

High Impact Flux Transfer System:

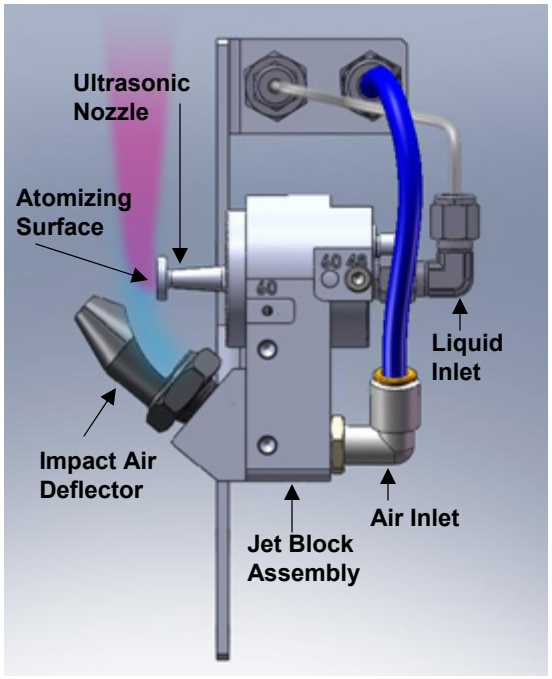
- Designed to help with PCBs that have difficulty with top-side fill, such as those with thick back planes, tight lead-to-hole ratios, or contaminated components.



Front View

Industry Proven:

- Non-clogging ultrasonic nozzle and spray dispensing mechanism have been proven in thousands of industrial PCB fluxing applications worldwide.



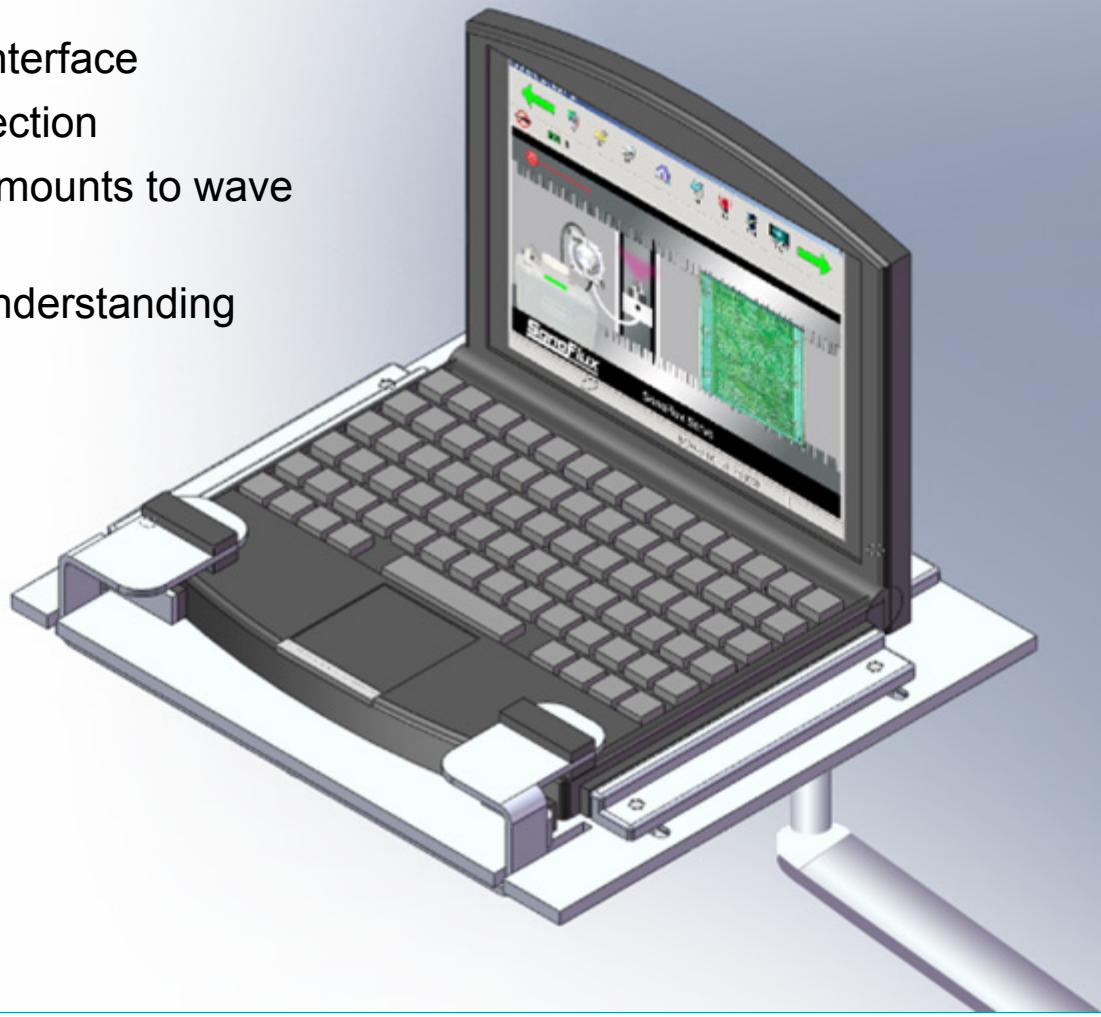
Side View

Flux Application:

- Flux is atomized into a fine mist at the tip of the non-clogging, large orifice ultrasonic nozzle which is reciprocated below the PCB, directing flux upward.

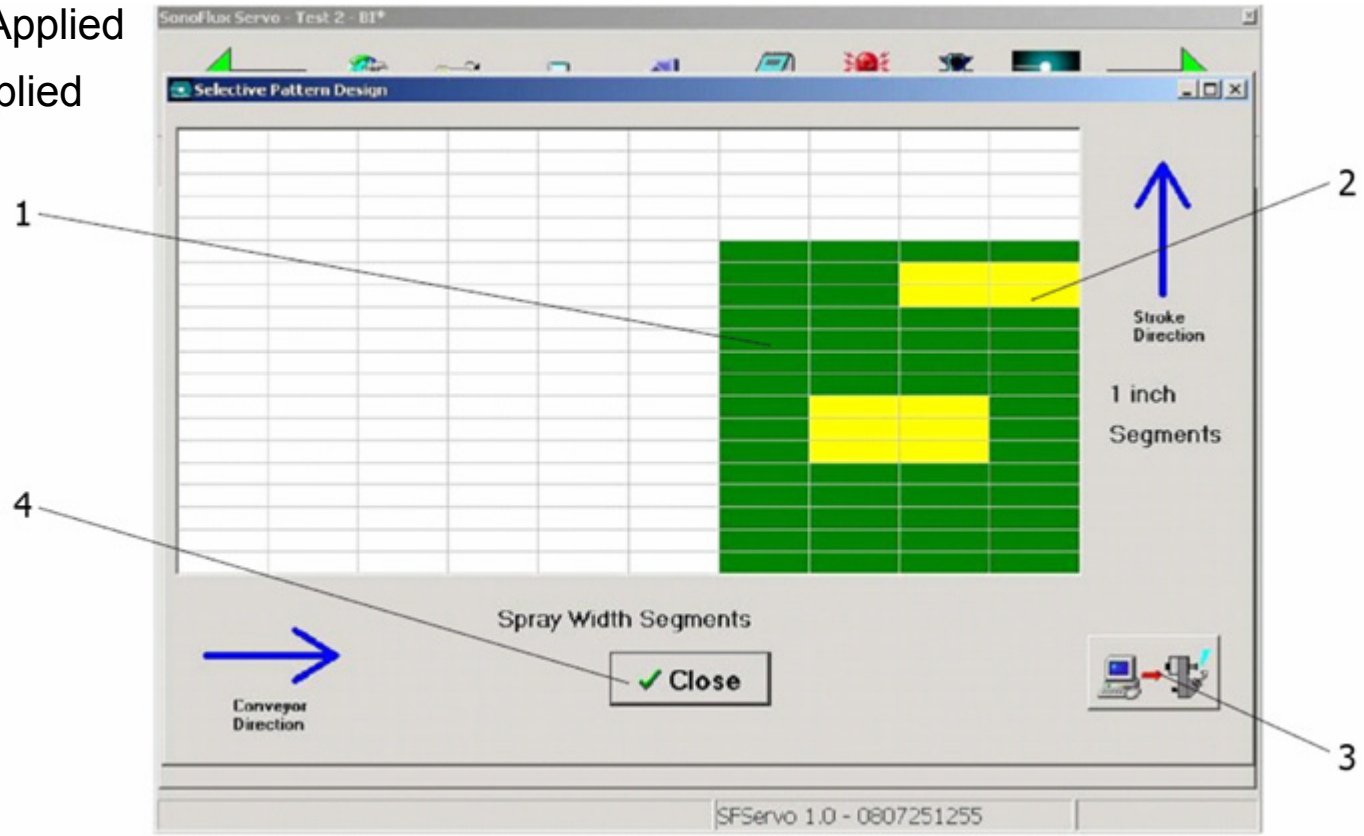
Features:

- User-friendly Windows®-based interface
- Multiple layers of password protection
- 8-inch compact notebook easily mounts to wave solder machine
- Graphic interface for universal understanding



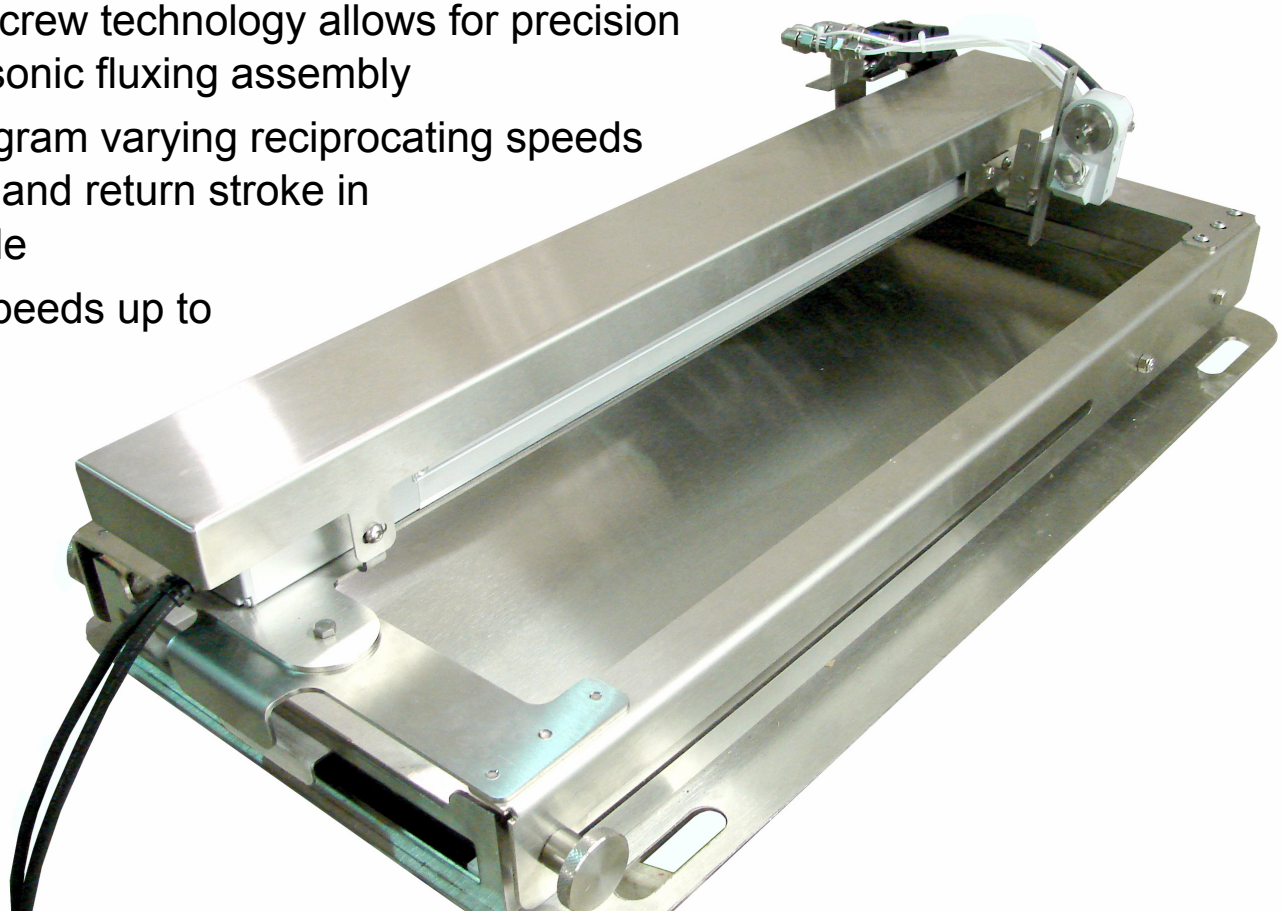
Simply click to select areas to be fluxed

1. **Green** - No Flux Applied
2. **Yellow** - Flux Applied
3. Load Pattern
4. Save and Close

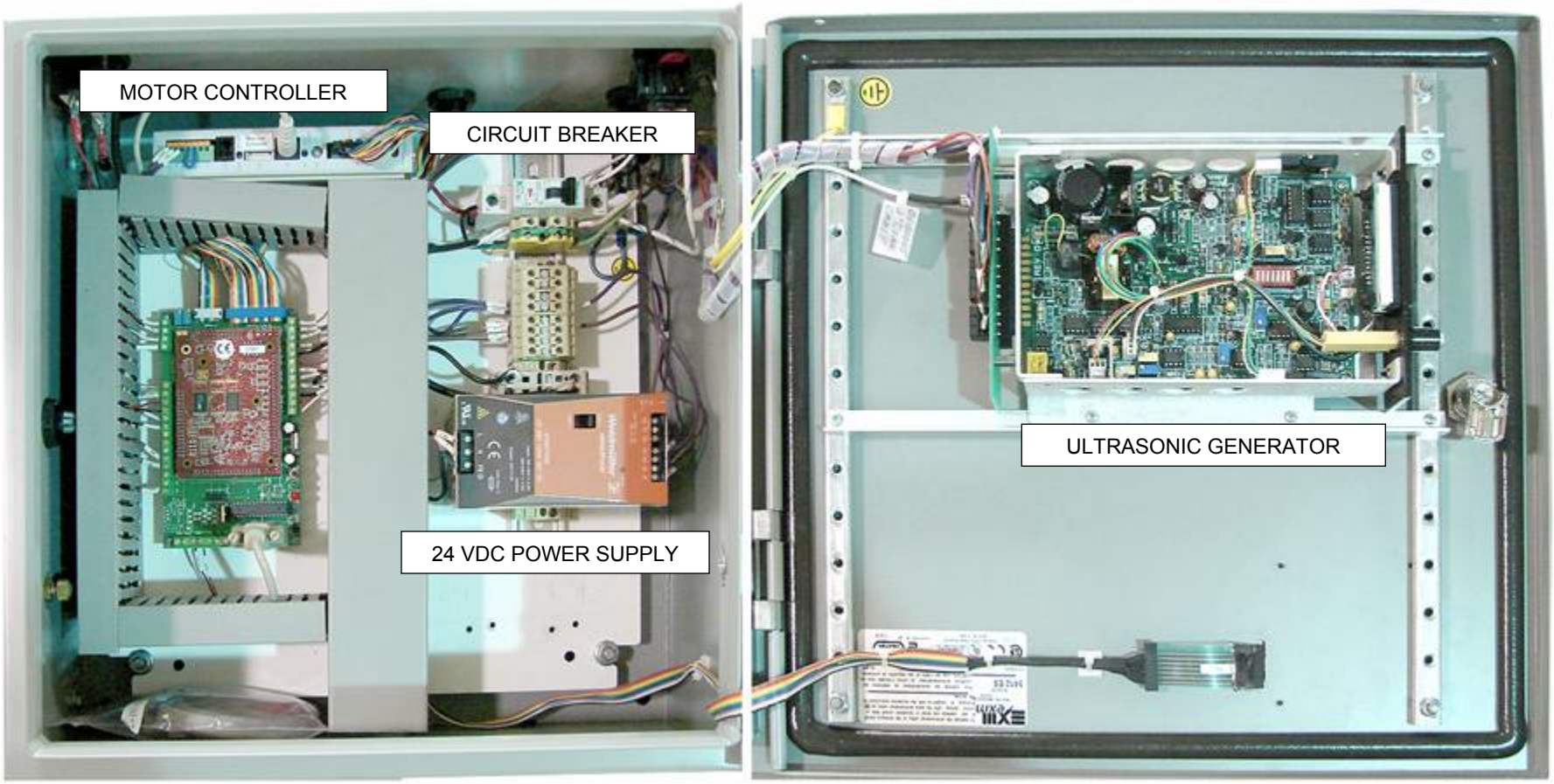


Industry proven precision reciprocator:

- Proven reliable in 100's of units throughout the world
- Precision lead-screw technology allows for precision location of ultrasonic fluxing assembly
- Flexibility to program varying reciprocating speeds for spray stroke and return stroke in single pass mode
- Reciprocating speeds up to 650 mm/sec

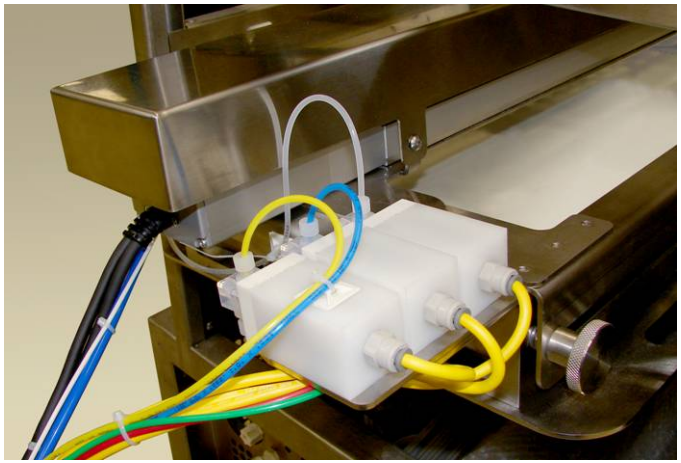


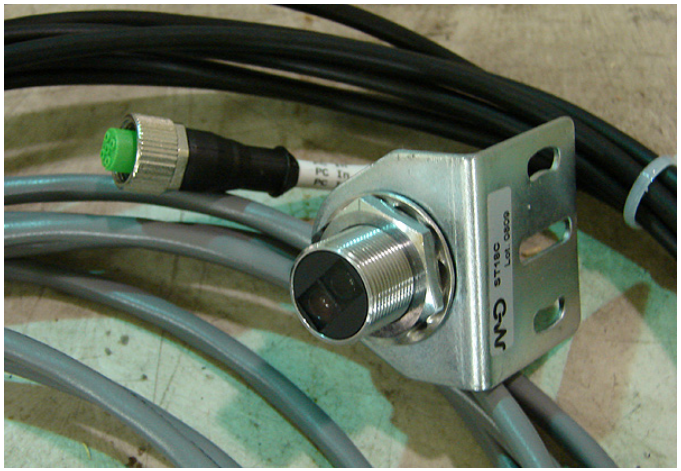
- Modular electronics design allows for easy diagnosis and replacement of parts



110V or 220V Available

- 24” (610 mm) coverage (18” standard)
- Automated conveyor speed sensing
- Dual flux option with precision gear pumps
  - Compatible with all fluxes





The versatile SonoFlux Servo system offers many advantages over other spray fluxing equipment.

- *Flexibility to control flux* location and quantity on PCBs
- *Easily integrates* into any wave solder machine
- *Fully programmable operation* of all functions and process parameters, making it ideal for contract manufacturers
- *Small ultrasonically atomized drops* penetrate VIA holes for optimal top-side fill

SONO·TEK

THOUSANDS *OF SPRAY FLUXING SYSTEMS INSTALLED* ***WORLDWIDE***

TRW Automotive

Visteon

invensys

Jabil Circuit

Flextronics International

TOSHIBA

IBM

DELPHI
Driving Tomorrow's Technology

tyco
a vital part of your world

ADTRAN

SONY

Benchmark Electronics

Kimball International

SANMINA-SCI