

Capital Equipment Justification



1. Executive Summary

Sterile processing departments face growing instrumentation volumes and complexities with the instrumentation itself and how it impacts workflow. The QuickSonic Sink System a standalone ultrasonic sink that functions as both a dedicated ultrasonic cleaning unit and a fully operational sink. Designed for flexibility, the QuickSonic can be dedicated to complex instrumentation such as ocular devices and loaner trays without disrupting workflows at other cleaning stations.

The QuickSonic integrates into the existing department footprint and is capable of programmable cycles as short as one minute. The result is a space-efficient, compliant, safer investment that directly addresses workflow bottlenecks, IFU compliance gaps, and staff injury risk.

This is a cleaning quality, staff safety, compliance, and operational efficiency investment.

2. What is the QuickSonic Sink System?

The QuickSonic is a standalone ultrasonic sink system that operates as both a separate sink basin and a dedicated ultrasonic cleaner for specialized instrument needs. It uses ultrasonic cavitation, generating tiny bubbles that implode upon contact with instruments, to remove particles from grooves, joints, and crevices that manual brushing cannot reliably reach.

Unlike countertop sonic units, the QuickSonic occupies floor space as a sink station, preserving counter workspace while adding meaningful ultrasonic cleaning capacity to the decontamination workflow.

Key Technical Specifications

Specification	Detail
Output	63 kHz frequency (exceeds Intuitive minimums); 48 W of power (meets Intuitive minimums)
Cycle Programmability	Custom timing options as short as one minute to meet various IFU requirements
Footprint	Standalone unit designed to fit in department footprint; does not occupy counter space
Ergonomics	Height adjustable; backwall pegboard adjusts with the sink to keep tools within reach
Staff Safety	Containment lids protect staff from splashing and aerosols during cycle
Serviceability	Accessible plumbing and electrical connections for easy servicing; remains a functional sink even when sonic is not in use or being serviced
Noise	Quieter than other ultrasonics to support staff comfort and reduce department noise level.
Gross Rinse	Allows most bioburden to rinse down the drain without the need for filter cleaning or changes.

3. Challenges to Turnover Surgical Instruments Quickly

Instrument Complexities and Volumes Have Increased

Instrument complexity is increasing. Surgical volume continues to rise. At the same time, expectations for compliance, safety, and consistency have never been higher.

Complexities include:

- Internal surfaces of box locks and hinges
- Fine serrations and ratchets
- Narrow lumens and channels
- Specific cleaning chemistries and IFU's

Manual Cleaning is Inherently Variable

Time and volume pressures compete with technician speed and experience.

- Technique varies from person to person
- Fatigue impacts consistency over a shift
- High case volume drives shortcuts in real-world workflows

Mechanical cleaning exists because departments cannot rely on manual cleaning alone.

Staff Members Face Preventable Risks

Manual cleaning is a high risk activity due to the likelihood of:

- Needlesticks and sharps injuries
- Bloodborne pathogen exposure
- Repetitive motion injuries

Every time a technician manually handles contaminated instruments, there is exposure.

385,000

Annual sharps injuries among hospital workers¹²

Center for Disease Control and Prevention

25%

Hospital sharps injuries that impact SPD and support staff¹⁷

Infection Control Today

\$5K

Average direct costs for sharps injury

\$100K-\$1M+

Cost of bloodborne pathogen infection, litigation, etc.

National Library of Medicine



QuickSonic™ Sink System

Capital Equipment Justification

Muskuloskeletal Disorder Reduction

Manual brushing and scrubbing of instruments are among the primary sources of repetitive motion injury in SPD, leading to Musculoskeletal Disorders such as carpal tunnel syndrome, wrist strain, and shoulder injuries. Per the National Safety Council, wrist injuries can cost an average of \$26,000.

A key element to avoiding these is hospitals investing in equipment that can reduce instrument handling by technicians and handle the burden of cleaning.

Foot Traffic and Instrument Transfer

Today's decontamination workflow requires staff to manually handle contaminated surgical instruments multiple times during process and transfer from sinks to ultrasonic cleaners. The unit is often a standalone unit that takes up footprint or countertop space. Other sonics function solely as ultrasonic cleaners, which means that if they need servicing, there is now a defunct unit that staff must work around. As a result sinks and other sonics must absorb that volume. The equipment is now creating workflow bottlenecks.

4. Operational Benefits - Workflow & Efficiency

The QuickSonic transforms decontamination workflow in ways that compound across shifts, case volumes, and staffing levels. Its sink-format design means it integrates into the existing room layout without sacrificing workspace or requiring infrastructure changes.

Operational Benefit	Detail
Dedicated Capacity for Complex Instruments	The QuickSonic can be assigned exclusively to ocular instruments, loaner trays, or other complex sets, freeing other sonics or cleaning stations to focus on general instrumentation and keeping overall volume moving.
No Workflow Disruption During Service	Remains a functional sink even when the sonic is not in use or being serviced. Workflow can stay fluid as the unit continues to serve as a soaking or cleaning station.
Space Savings	Fits into existing department layouts without taking up counter space. Leaving countertop free allows for more efficient staging and preparation of instrumentation.
Technician Efficiency	While the sonic cycle runs, the technician is freed to continue preparing the next tray, reducing idle time and enabling one staff member to manage multiple workflows simultaneously.



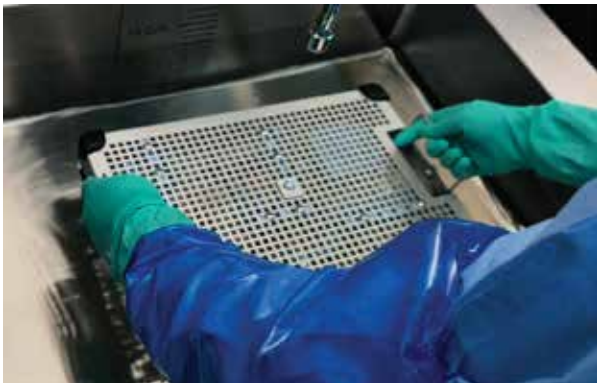
QuickSonic™ Sink System

Capital Equipment Justification

Programmability - Meeting Instrument IFU's

The QuickSonic's programmable cycle times allow the unit to be configured to meet the specific IFU requirements of each instrument category processed in the department. Cycle time can be set as low as one minute, making it the optimal solution for high-volume general instrumentation as well as extended cycles for specialty devices.

Instrument Category	Sonic Required by IFU?	Benefit Delivered
Orthopedic instruments	YES – IFU mandated	Bone cement, tissue, blood removal from crevices; full compliance
Ophthalmic / Ocular instruments	YES – TASS risk	TASS risk mitigation; dedicated unit prevents cross-contamination of chemistry
Loaner trays	Varies – check IFU	Dedicated processing without disrupting general workflow
General surgical instruments	No – but benefits	Reduces bioburden entering washer-disinfector; reaches box locks and serrations
ENT / Specialty sets	Varies – check IFU	One unit addresses all specialty categories without workflow interruption



Functionality and Serviceability = Reduce Downtime and Workflow Gaps

When the ultrasonic cleaners are out of service, departments must pivot to another ultrasonic unit or manual cleaning method to achieve compliance. This creates extreme bottlenecks that slow down output and reduce the instrumentation that is available for use in procedures.

Not only is the instrumentation that requires ultrasonic cleaning impacted, but so is the entire workflow because sinks used for soaking and cleaning are not having to absorb this volume.

To keep departments moving, you need a solution that not only fits into your workspace, but does more than just ultrasonic cleaning. A unit that can also be a dedicated soaking station and is still a functioning sink, even if the ultrasonic capabilities are not in use, offering workflow flexibility.

The QuickSonic is plumbed and is the only sonic on the market capable of a gross rinse, meaning it is a fully function sink. It can be a dedicated soaking station to relieve other sinks in the department. It is then capable of draining and being cleaned as a normal sink, reducing time and effort on basin preparation. Because it's capable of a gross rinse, all material goes down the drain without the need for filter changes, which saves time and protects technicians from exposure to soils.

5. Return On Investment

Risk Category	Impact
Pathogen exposure	Containment lids provide protection against aerosolized blood and soils, mitigating respiratory infection and risk to technicians
CMS / Joint Commission IFU citation	Immediate Jeopardy citations require mandatory corrective action plans, repeat surveys, and potential financial penalties. A programmable sonic eliminates the most common IFU compliance gap in SPD surveys.
OR case delay due to instrument unavailability	The average length of delay for a surgical case due to missing, damaged or non-compliant instruments is 10 minutes. Faster, more consistent cleaning reduces the risk of delayed instrument sets and procedures.
Workers' comp / absenteeism	The National Safety Council estimates the average cost of wrist injury to be \$26,000 ⁸ . Addressing multiple instruments in one cycle saves time and reduces costly workers compensation claims, plus staffing shortage as a result of injury
Downtime Reductions	The QuickSonic™ is a functioning sink with ultrasonic capability so even if service is needed, the sink can still be used for other functions such as soaking. The cavitation process addresses the surfaces and complexities of multiple instruments at once, delivering consistent cleaning and efficient equipment turnover. Being dedicated toward specific instruments can reduce bottlenecks at other sonics and sinks.

Key Features

120V Power	Standard Outlet; No Upgrade Needed
63kHz Frequency	Exceeds Intuitive Minimum
48W Power	Meets Intuitive Minimum
5-Year Warranty	Transducers; Industry Leading Warranty
Gross Rinse	Debris is drained with no filter change
1-Min Programmable Cycle	Meets Any IFU Requirement



6. References

1. ANSI/AAMI ST79:2017 (Reaffirmed 2022). Comprehensive guide to steam sterilization and sterility assurance in health care facilities.
2. OSHA. Bloodborne Pathogens Standard. 29 CFR 1910.1030.
3. Pure Processing. (2023). The Cost of Commitment – Injuries in SPD. SPD State of the Industry Survey.
4. Pure Processing. Ultrasonic Cleaning: How It Works. (2024).
5. HSPA Sterile Processing Technician Manual, 9th Edition.
6. HPN / Hospital Purchasing News. Ultrasonic cleaning field uniformity at 40 kHz. (2024).
7. PMC / NCBI. How Much do Needlestick Injuries Cost? A Systematic Review. (2016).
8. NSC. (n.d.). Workers' Compensation Costs. Injury Facts <https://injuryfacts.nsc.org/work/costs/workers-compensation-costs/>
9. High-Paying States for Sterile Processing Technicians from https://ptt.edu/wp-content/uploads/2025/10/Sterile_Processing_Technician_Salary_Report_2025.pdf
10. Nichol, P. F., Saari, M. J., et al (2024). Observed rates of surgical instrument errors point to visualization tasks as being a critically vulnerable point in sterile processing and a significant cause of lost chargeable OR minutes. BMC surgery, 24(1), 110. <https://doi.org/10.1186/s12893-024-02407-1>
11. Yassi, A., McGill, M., Holton, D., & Nicolle, L. (1993). Morbidity, cost and role of health care worker transmission in an influenza outbreak in a tertiary care hospital. The Canadian journal of infectious diseases = Journal canadien des maladies infectieuses, 4(1), 52-56. <https://doi.org/10.1155/1993/498236>
12. CDC. Workbook for Designing, Implementing, and Evaluating a Sharps Injury Prevention Program. (Updated 2024). [cdc.gov](https://www.cdc.gov/).
13. CDC. Cleaning. Guideline for Disinfection and Sterilization in Healthcare Facilities. (Updated 2024). [cdc.gov](https://www.cdc.gov/).
14. OSHA. Bloodborne Pathogens Standard. 29 CFR 1910.1030. U.S. Occupational Safety and Health Administration.
15. OSHA. Needlestick Safety and Prevention Act Final Rule. Federal Register, January 18, 2001.
16. National Library of Health. Mannocci, Alice et al. "How Much do Needlestick Injuries Cost? A Systematic Review of the Economic Evaluations of Needlestick and Sharps Injuries Among Healthcare Personnel." Infection control and hospital epidemiology vol. 37,6 (2016): 635-46. doi:10.1017/ice.2016.48
17. "Behind the Curtain of Sharps Injury Prevention and Device Reprocessing." Infection Control Today, www.infectioncontroltoday.com/view/behind-curtain-sharps-injury-prevention-and-device-reprocessing
18. Alfalayw, K.H., Al-Otaibi, S.T. & Alqahtani, H.A. Factors associated with needlestick injuries among healthcare workers: implications for prevention. BMC Health Serv Res 21, 1074 (2021). <https://doi.org/10.1186/s12913-021-07110-y>