

Modutek Ships Its Largest Automated Precision Parts Cleaning System for the Semiconductor Industry

Advanced automation boosts productivity, ensures precision cleaning, fab integration, repeatability, and reduces downtime for manufacturing industries

SAN JOSE, CA, UNITED STATES, May 29, 2025 /EINPresswire.com/ -- Modutek Corporation, a leading provider of manufacturing equipment and automated cleaning solutions, has successfully designed, built, and shipped its largest capacity Automated <u>Precision Parts Cleaning</u> System for a customer requiring high-efficiency, precision cleaning for complex components. This advanced system



Automated Precision Parts Cleaning System

sets a new standard for both capacity and performance, reaffirming Modutek's commitment to delivering innovative solutions for industries demanding ultra-clean processing environments.

Delivering High-Capacity Automated Cleaning for Maximum Efficiency

Precision cleaning is a critical requirement across numerous industries, where even microscopic contaminants can affect product performance. Traditional cleaning methods often result in inconsistencies, inefficiencies, and increased operational costs. Modutek's latest high-capacity system eliminates these challenges by integrating advanced automation, high payload handling, and intelligent process control, ensuring unmatched precision and repeatability.

"We take pride in engineering solutions that meet the exact needs of our customers," said Doug Wagner, President at Modutek Corporation. "This new high-capacity system pushes the boundaries of automated precision cleaning, allowing manufacturers to clean large batches of parts more consistently and efficiently than before." Vineet Shrivastava, EVP & COO at Modutek Corporation said, "We are excited to share this significant milestone in Modutek's journey as we proudly announce the launch of our latest and optimized line of precision cleaning equipment designed specifically for the semiconductor industry. This exciting new product line represents our commitment to providing cutting-edge solutions that is customized to meet the evolving needs of our customers in semiconductor manufacturing. This also demonstrates



Automated precision parts cleaning system

our commitment to driving Robotics and Automation, Fab Communication through SECS/ GEM, and Optimization Techniques using AI. This launch is just the beginning. We remain committed to advancing our technology, expanding our product offerings, and continuing to lead the way in

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providing precision cleaning solutions for industries worldwide."

This new system is equipped with an overhead linear motor drive robot, smart transfer baskets with remote control movement, and an intuitive HMI touchscreen that provides complete recipe control for optimized operations. Combining these innovative technologies enables users to increase throughput, maintain process integrity, and reduce contamination risks.

Key Features of Modutek's Largest Automated Precision Cleaning System

• Fully Automated Cleaning Stations – Designed to streamline large-scale precision cleaning with complete process automation.

• HMI Touchscreen with Complete Recipe Control – Operators can adjust cleaning parameters, agitation cycles, and transfer speeds for optimized performance.

• Overhead Linear Motor Drive Robot – This high-speed robotic system ensures fast, controlled transfers, reducing cycle times and improving efficiency.

• Smart Transfer Baskets with X, Y, and Z Axis Control – Remote-controlled wireless movement provides superior positioning accuracy to meet complex cleaning requirements.

• Chemical Concentration Monitoring – Non-intrusive Monitoring and Automatic chemical adjustment for product consistency.

• Automated Exhaust Chambers with Isolation – Helps control fumes and airborne

contaminants, ensuring a cleaner operating environment.

• 150-pound Payload Capacity – The system's largest payload capacity to date, enabling it to clean larger and heavier parts with precision.

 Cart Loading with Locking Interface – Safely secures parts before entering the cleaning process, minimizing manual handling.

 Rear Access Robot for Simplified Maintenance – Designed for quick servicing and easy accessibility to keep downtime to a minimum.

 Custom-Built to Fit Customer's Cleanroom Layout – The system is tailored to integrate seamlessly within existing production infrastructure.



Automated precision parts cleaning system

• SECS/ GEM Protocol for data transfer and integrated communication across Fab.

Optimizing Precision Cleaning Across Industries

This high-capacity precision cleaning system represents a significant advancement for companies in semiconductor manufacturing, aerospace, automotive, and industrial applications, where absolute cleanliness and process control are paramount.

Industries that can benefit from Modutek's advanced cleaning technology include:

- Semiconductor Manufacturing Ensures particles, residues, and microcontaminants are eliminated for higher wafer yields.
- Aerospace and Defense Removes contaminants from sensitive parts to enhance durability and performance.
- Automotive and Industrial Manufacturing Reduces defects by eliminating oils, greases, and particulates affecting high-precision components.
- Pharmaceutical, Biotech and Medical Devices Ultrasonic and Chemical cleaning to ensure Cleaning of Manufacturing equipment, removal of residual biological material, microbial contamination and endotoxin from production equipment. Ensure sterility.

Why Automation is a Game-Changer for Precision Cleaning

Traditional cleaning methods often introduce human error, safety issues, process inefficiencies, and inconsistent results. Modutek's fully automated solutions eliminate these issues by providing:

Consistently Accurate Cleaning – Automated recipe control ensures repeatable, high-quality

cleaning with every cycle.

• Higher Throughput, Reduced Downtime – Increased batch capacity, product consistency and optimized transfer times speed up production.

• Minimized Contamination Risks – Reducing human interaction maintains cleanroom integrity and product quality.

• Lower Long-Term Costs – Automation reduces labor expenses, chemical waste, and rework costs, improving profitability.

Advancing Industrial Cleaning Efficiency

By designing, building, and shipping its largest precision parts cleaning system to date, Modutek continues to demonstrate its expertise in high-performance automated cleaning technology. Whether companies seek to increase efficiency, reliability, or scalability, Modutek provides customized solutions tailored for success.

For more information about Modutek's high-capacity automated <u>precision parts cleaning</u> <u>systems</u>, visit <u>www.modutek.com</u> or contact our team at 1-866-803-1533.

About Modutek Corporation

Modutek Corporation has been a trusted semiconductor equipment manufacturer and automation solutions provider for decades, specializing in wet processing systems, precision parts cleaning, and <u>wafer fabrication equipment</u>. With a strong focus on innovation, reliability, and customization, Modutek continues to lead advancements in high-precision manufacturing solutions.

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