

Static Clean®

Medical Cleaning System (MCS)

The Medical Cleaning System (MCS) is an advanced contamination control solution designed to improve yields, reduce rework, and maintain exceptional cleanliness in cleanrooms and sensitive production areas. Ideal for industries where precision is essential, the MCS delivers reliable, source-capture cleaning of loose-dry-surface contaminants on devices, packaging materials, components, optics and more. Customer configurations are available to meet your specific application requirements.

The MCS features one flush-mounted and one adjustable top vacuum hood assembly with shockless ISO 4 compatible static neutralizing bars and stainless-steel air tubes to safely dislodge and remove particles. Unlike standard air guns or nozzles, which simply blow contaminants around a controlled environment, the MCS captures them immediately, transferring debris into a HEPA-filtered dust collector. This process eliminates recontamination and enhances product quality and production efficiency.

Ideal Applications Include:

- **Medical Device Manufacturing & Packaging**
- **Electronics Assembly**
- **Food Processing & Packaging**
- **Pharmaceutical Production**

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Features & Benefits

- **High-Performance Dust Collector (VQM5003H):**
  - Provides 300 CFM @ 3.75” WC for efficient particulate capture
  - Includes motor reset/start switch and magnehelic gauge for easy operation and monitoring
  - Features internal cotton sateen filtration and HEPA-filtered exhaust for clean air return
  - Standard ¾ HP motor, 115/230V, 60Hz, single phase
  - Optional ¾ HP motor, 230V, 50Hz, single phase for international applications
- **Mobile Workstation:**
  - Available sizes: 30” deep with lengths of 4ft, 5ft, 6ft, or 8ft
  - Mounted on locking swivel casters for portability and secure placement
- **Dual 15” Stainless Steel Cleaning Hoods:**
  - Cleans top and bottom of parts in a single pass
  - Handles parts up to 15” wide x 6” high
  - Top hood features adjustable height for part size flexibility
- **Shockless DC Static Bars at Each Hood:**
  - Neutralizes static charges that bind particles to surfaces
  - Prevents recontamination from static attraction



YOU’VE GOT STATIC . . . WE’VE GOT SOLUTIONS

Medical Cleaning System (MCS)



VQM5003H Dust Collector



Stainless Steel Vacuum Hoods

Specifications

Power Requirements	120V ±10%, 60Hz, single-phase, 15-amp dedicated circuit (North America)
Compressed Air Requirements	Minimum 90 PSI @ 48 SCFM, supplied through minimum ½" ID line
Air Input Connection	¾" to ½" NPT reducer with ½" industrial quick-disconnect plug provided
Pressure Regulation	Factory-set to 90 PSI; adjustable via top-mounted filter/regulator knob
Main Air Fault Threshold	Triggers fault if pressure drops to 65 PSI or below
Smart Control System	HMI with recipe memory (up to 20 recipes) and programmable parameters
Air Tube Pressure Control	Programmable from 2–25 PSI via HMI interface
System Monitoring	Real-time local and remote LED alerts and HMI-based fault indicators
Time-Out Function	Automatic power-off to dust collector and static bars after 15 minutes of inactivity
Control Panel Disconnect	Lockable MAINS switch must be turned OFF and locked/tagged during service
Startup Protocol	Homing routine required after each power cycle to locate nest position
Operator Modes	Single or Dual Operator; Load/Unload left or right
Cycle Count	Programmable for 1–10 cleaning passes per cycle
Cleaning Speed	2.0 to 12.0 inches/second (IPS); recommended 6.0 IPS or less for optimal cleaning
Traverse Speed (Non-Cleaning)	Adjustable from 6.0 to 20.0 IPS
Air Consumption Optimization	Adjustable air pressures and cycle parameters help reduce air use
Vacuum Hood Clearance	Recommended gap of ~¼" from part/tray or nest; adjustable for optimal performance
Vacuum Hood Adjustment Mechanism	Adjustable via 5/32" Allen screws at front and rear brackets
Static Bar Model	4103-0370-M, includes status LED indicators (steady green = OK, blinking = attention, red/off = fault)
Safety System	Obstruction and emergency stop sensors disable all motion and subsystems immediately
Dust Collector Operating Range	Normal range <2.0" WC; magnehelic gauge installed for monitoring
HEPA Filter Maintenance	Replace every 3–5 years; 99.99% efficiency @ 0.3 microns
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