

Static Clean®

Medical Cleaning System with Automated Shuttle & HMI (MCS-AS)

The MCS-AS is a precision contamination control system designed for cleanroom environments and critical manufacturing. Building on the proven performance of the original MCS, this advanced model adds automated shuttle motion and a user-friendly HMI for greater consistency, control, and efficiency.

Engineered for medical device manufacturing and packaging, the MCS-AS delivers repeatable, high-yield cleaning by removing dry-surface contaminants from parts, trays, and packaging. A programmable pneumatic or servo-electric shuttle guides a stainless steel tray nest through the cleaning zone at controlled speeds, ensuring process validation and product integrity.

Dual static-neutralizing bars and stainless steel air tubes provide compressed, ionized air to eliminate static and dislodge particles. Particles are captured instantly by a HEPA-filtered vacuum system, maintaining cleanroom standards and preventing recontamination. Energy efficiency is built in—the ionizing system and compressed air only activate during the cleaning cycle.

The compact, mobile design features an anodized aluminum frame with locking casters for easy repositioning within your facility. A single compressed air connection, standard 120V plug, and safety E-stop features allow for quick installation, reliable operation, and easy maintenance.

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Features & Benefits

- **Automated Shuttle with HMI Control:**
  - Servo-electric or optional pneumatic slide for smooth, repeatable tray movement
  - PLC and HMI enable flexible, programmable process control
- **Operator-Friendly Design:**
  - Dual-channel coded safety switch stops shuttle on obstruction
  - Locking swivel casters and aluminum frame for portability
  - Lock-out/tag-out switches for power and air connections
- **Operator-Friendly Design:**
  - Single or dual Opto-Touch buttons for hands-free activation
  - Stainless steel tray nest custom-fit for ergonomic loading
  - Optional loading rail and support frame available
- **Dual 15” Stainless Steel Cleaning Hoods:**
  - Cleans top and bottom of parts up to 15” wide × 6” high
  - Adjustable top hood accommodates varying tray sizes
- **Efficient Contamination Control:**
  - Ionized air dislodges particles and neutralizes static
  - HEPA-filtered dust collector captures debris at 300 SCFM @ 3.75” WC
  - Dual regulators provide separate pressure control for each hood



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

Medical Cleaning System (MCS - AS)



VQM5003H Dust Collector



Stainless Steel Vacuum Hoods

Specifications

Power Requirements	120V ±10%, 60Hz, single-phase, 15A dedicated circuit (North America)
Compressed Air Requirements	90 PSI @ 48 SCFM, supplied via minimum ½" ID line
Air Input Connection	¾" to ½" NPT reducer with ½" industrial quick-disconnect plug (included)
Pressure Regulation	Factory set to 90 PSI, adjustable via filter/regulator knob
Main Air Fault Threshold	Triggers fault if pressure drops below 65 PSI
Startup Protocol	Homing routine required after each power cycle
Control System	HMI + PLC with up to 20 recipe memory & programmable parameters
Operator Modes	Single or Dual Operator; Load/Unload Left or Right
Cycle Count	Programmable from 1–10 cleaning passes
Cleaning Speed	2.0–12.0 IPS (recommended ≤6.0 IPS)
Traverse Speed (non-clean)	6.0–20.0 IPS adjustable
Air Pressure Control	2–25 PSI range, set per hood via HMI
Timeout Function	Auto shutdown of static bars & vacuum after 15 min idle
Static Bars	Model 4103-0370-M, with status LEDs
Vacuum Hood Clearance	Adjustable ~¼" from tray or nest
Vacuum Hood Adjustment	5/32" Allen screws front/rear
Dust Collector Range	<2.0" WC; monitored via magnehelic gauge
HEPA Filter Maintenance	Replace every 3–5 years; 99.99% @ 0.3 microns
Safety System	E-stop and obstruction sensors shut down all motion immediately

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