

# MULTISPEC 280

## SMIF POD, BOX AND CASSETTE CLEANER

Looking for a way to dramatically reduce the cost of ownership of purifying SMIF pods, boxes and cassettes?

The MS-280 is the tool which reduces labor costs by 80%. No longer must you keep an operator assigned to feed a continuous process parts cleaner. For example, with the MS-280, your operator loads the system, initiates the cycle and goes back to other tasks in just five minutes.

Trying to reduce the fab space budget allocation? The MultiSpec can be bulkhead mounted allowing loading and unloading from the cleanroom. With the efficient vertical design, total floor space is reduced 63% to only 50 square feet. This design meets the strict S8 ergonomic standards. your parts remain stationary while moving spray bars effectively remove contaminants. We've eliminated the large rotating mass and vibration potentials of stainless steel systems. Lightly heated HEPA filtered air is directed throughout the all-plastic process chamber to speed drying. The clean PFA piping and PVDF spray bars are designed for high purity. Plus, user friendly recipes allow the operator to select only the chamber rows required for smaller loads, thus reducing DI and nitrogen consumption.



Model MS-280

Certify your process with the built-in VLC HMI. Trace tool cycles, maintenance logs and throughput yields. On-screen drawings, schematics and owner's manual keep paper out of the fab while supporting your technicians during PMs.

### Benefits

- World Class Safety with S2 and S8 compliance
- FM-4910 Fire Safe Materials available
- All critical wetted surfaces are natural polymers (natural PVDF, polypro and Teflon)
- No exposed metals to contaminate the process
- Ultra pure components utilized through-out
- 3000+ hours MTBF
- Exceeds industry standards for particle readings at .2um testing
- Exceeds industry standards for metallic contamination
- Built in quality monitoring available
- Cycle Time less than 60 minutes
- Small footprint (81" l to r, 60" f to r, 114" tall)
- Low COO, enjoy saving on DIW and nitrogen
- UHPA filtered process chamber with laminar flow
- Class I MINI environment ready (optional)
- GEM-SECSII interface package available
- CE Marked
- Easy Maintenance

### High Through-put

- With Option X-293  
- 48 each 8" Wafer Cassettes
- With Option X-294  
- 16 each 8" Wafer Boxes
- With Option X-295  
- 24 each 8" Wafer Cassettes and/or 8 Wafer Boxes
- With Option X-296  
- 24 each SMIF Boxes
- With Option X-297  
- 24 each 8" Wafer Cassettes and/or 8 SMIF Boxes



Simple ergonomic loading of wafer boxes.  
Interchangeable fixturing for multiple configurations  
of boxes, cassettes or SMIF Pods



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Specifications subject to change without notice. 111407

## CONTROL PANEL - SMIF POD, BOX AND CASSETTE CLEANER



High-performance Visual Logic Controller (VLC) system to control and monitor all of the process and safety functions through this intuitive graphical user interface. Users can easily monitor system status and change operational functions by selecting icons/graphics on the large color touch screen display.

The system runs on a Pentium IV based PC with the latest Windows Operating System, and is protected by 3 levels of password security. Operation and maintenance manuals, function charts, and system drawings are stored on the system hard drive and displayed on the touch screen for easy FAB access. The entire system history is archived and logged with date and time stamp for all of the events including cycle start/complete, errors, utility status, and program changes. The system manages soft failure conditions and takes the proper action in accordance with industry safety standards, and enables safe shut down when power to the tool is lost.

Operational data can be exported in ASCII format for process analysis. Virtually unlimited numbers of recipes and programs can be easily developed and stored in the system by simple commands on the touch screen display. The system hardware includes a 15" corrosion-protected color TFT XGA touch screen display, 256 MB RAM, 40GB hard drive, 3 1/2" floppy disk drive, CD-ROM drive, mini-keyboard, USB port, a VGA port for remote monitor, and ethernet port for networking and GEM/SECII capability.



Main screen

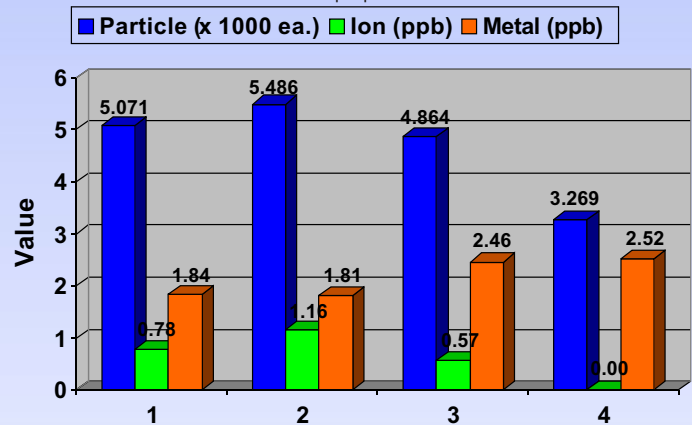
### Test Procedures

- Clean SMIF Pod in MS-280
- Add 2 liters DIW
- 30 minute Agitation
- Take 60 ml sample
- Tested @ 0.2µm
- Acceptance limit less than 10,000 count
- Process improvement target less than 5,000 count
- Average less than 4,700
- Optional process validation

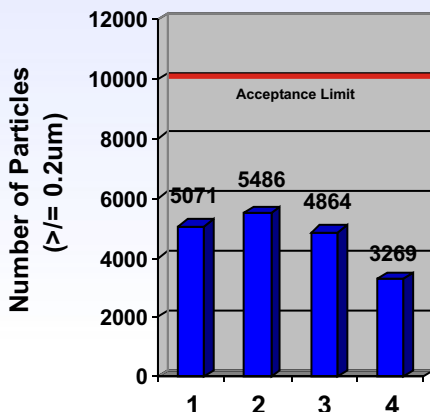
Category	Acceptance Limit
Particle ( 0.2µm )	= 10,000 ea.
Ion ( )	= 10 ppb
Metal ( )	= 5 ppb

### MS-280 Cleaning Performance

multiple positions



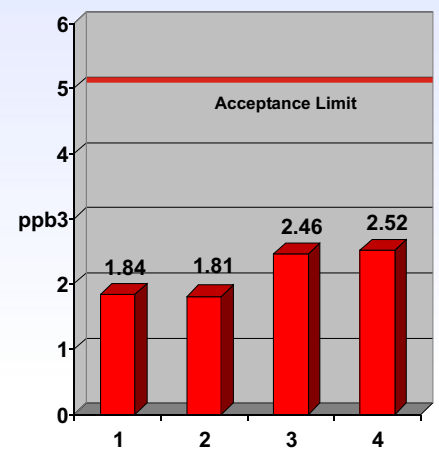
#### Particles( 0.2µm)



#### Ion ( )



#### Metal ( )



Test Data from MS-277

For a listing of standard safety features please refer to the Poly-Flow Engineering Product Safety Guide.