

MULTISPEC 277-I

FOUP & FOSB PURIFYING SYSTEM

At last, an evolutionary design that cleans production volumes of FOUPs and FOSBs

The remarkable MS-277-I handles FOUPs and FOSBs and their doors without changing configuration or fixturing. The all-spray process utilizes moving sprays to effectively remove particles. No longer is it necessary to spin or rotate just a pair of parts. Poly-Flow applies years of success in batch purifying boxes and SMIF pods to the next generation of wafers.

Proven in the most advanced fabs, the MS-277-I provides targeted sprays of ultrapure water to swiftly remove even stubborn particles. And its fast 45-minute batch process recipe ensures your technician's time is used effectively. Nine FOUPs with doors are cleaned in every cycle...or fewer, if so desired. The included bar code scanner identifies and records cleaning history for each item. Designed from the beginning to be robotically loaded, it is available with automatic process chamber doors. They reveal unpigmented, all-plastic process chambers. The main chamber features nine high purity stages that locate the FOUP's or FOSB's with the door opening downward.



Model MS-277-I

The door chamber has nine bays that rotate the doors slowly for inside and outside cleaning and drying. The MS-277-I can be manually loaded with confidence. Those ergonomic injuries plaguing other tools are eliminated as no back wrenching, awkward twisting or extended reaching moves are forced upon your people.

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 50 minutes
- Low COO, enjoy saving on DIW and nitrogen
- ULPA filtered process chamber with laminar flow
- Class I MINI environment ready (optional)
- GEM-SECSII interface package available
- CE Marked
- Easy Maintenance

High Through-put

- Up to 12 FOUPs per 45 minute cycle or
- Up to 12 FOSBs per 45 minute cycle or
(or any combination of each up to 12 per cycle)
- Up to 12 FOUP or FOSB doors per cycle
(or any combination thereof)



The fixturing rotates the FOUP and FOSB doors slowly clockwise and counter clockwise while engineered nozzles provide inside and outside rinsing and purging. Even the door interior is purged with heated nitrogen to ensure complete drying.



Heated ULPA filtered air is delivered from the top and pulled out the bottom of the chamber. A slight positive pressure remains inside the process chamber to keep it ultra clean.



FOUPs and FOSBs are easily loaded per S8 ERGO standards. The outside of the FOUPs are rinsed and purged with sweeping nozzles.



The combination of the Poly-Flow Jet Nozzle and Sweep Nozzle provide full inside rinsing and purging. The jet nozzle pulls in ULPA filtered heated air for final drying.



a subsidiary of
POLY-FLOW
ENGINEERING, LLC
Keech Corp.

10800 Gibson Blvd. SE, Albuquerque, NM 87123 T (505) 338-8400 F (505) 338-8499 www.polyflow.com
Specifications subject to change without notice. 012308

CONTROL PANEL - FOUP & FOSB PURIFYING SYSTEM



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

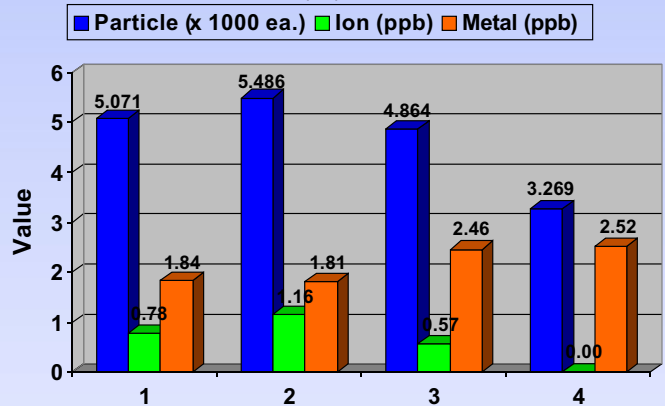
Test Procedures

- Clean FOUP & FOSBs in MS-277-I
- 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

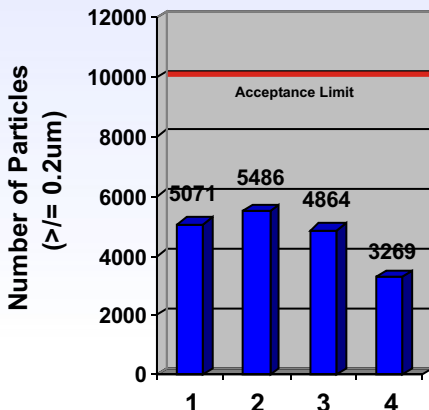
Category	Acceptance Limit
Particle (0.2µm)	= 10,000 ea.
Ion ()	= 10 ppb
Metal ()	= 5 ppb

MS-277- I Cleaning Performance

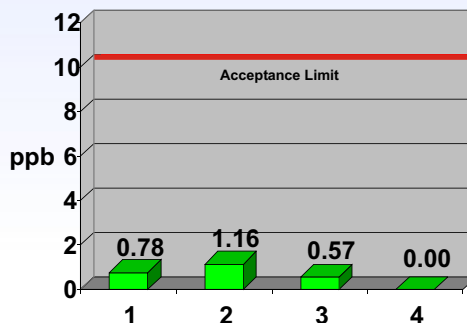
multiple positions



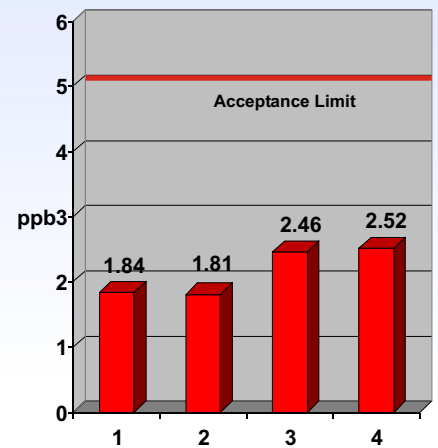
Particles(0.2µm)



Ion ()



Metal ()



Test Data from MS-277

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