

# CRITICAL WET PROCESS SYSTEMS

Semiconductor Manufacturing ■ Medical Device Manufacturing ■ Solar Cell Manufacturing ■ Optical Fiber Device Manufacturing

600+  
UNITS INSTALLED  
WORLDWIDE



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



Looking for that perfect wet bench for your critical etching, cleaning, sterilizing or electro-polishing process? Poly-Flow Engineering, LLC has manufactured over 600 wet process systems for high tech applications worldwide. Our systems are designed for total chemical compatibility, safety, and process purity. Systems can be constructed for manual, semi-automatic or fully automatic processes utilizing ultra pure water, IPA, acetone, NMP, PBR40, HF, HNO<sub>3</sub>, and bases such as NH<sub>4</sub>OH, KOH and H<sub>2</sub>O<sub>2</sub>.

Our systems are designed to meet or exceed all of the US, local and international safety and environmental regulations. You can feel comfortable when you order a Poly-Flow system that your EHS folks will be fully satisfied, and safety sign off will be cinch! With our semi-automatic and automatic systems your process folks can be assured of a repeatable process with each and every run.

Systems can be customized for your application. You can choose a system with a single pass chemical, or one that recirculates the chemistry through filtration for low operating and waste costs. Precise chemical blending is accomplished with 0-100% programmable blending ratios with 1% accuracy. You select the number of process sinks and sizes, work deck space and deck layout.

Ultra pure materials are available for every critical chemical process needed in today's high tech manufacturing. Select all Teflon wetted surfaces for strong acidic and/or base processes, quartz sinks for megasonic processes, natural PVDF for HF and other acids. Natural polypropylene is also available for mild solutions and where costs must be kept down. 316L stainless steel electro-polished sinks and components are utilized for ultrasonic and solvent processes. Class I Division I explosion proof electrical packages are utilized when flammable chemicals are needed. FM-4910 Fire Safe Materials are utilized for acid and base applications.



## Laboratory Wet Bench

- Low cost
- Single sink or multiple sinks + custom work deck areas
- Semiautomatic
- Fill/Dump rinsing with programmable cascade
- Compatible with most corrosives
- Variable sink sizes and work deck layouts
- Linear exhaust with electronic monitoring

## Metal Shield Cleaner

- Automatic process
- One to five process sinks
- Acids and bases
- All Teflon wetted surfaces
- Precise chemical blending from BCD
- Simultaneous/independent operation
- FM-4910 Fire Safe Materials



## Mixed Chemical Work Stations

- Multiple sinks
- Solvent and dilute acids
- Cascade rinsing
- Dedicated drains and exhaust
- Low cost
- Variable sink sizes
- Class I Division II explosion proof wiring package

## Automatic Solvent Cleaning System

- Automatic process for IPA, Acetone, PBR40 and NMP
- Precise chemical blending from BCD
- Cost saving chemical recirculation
- Ultrasonic agitation
- Variable sink sizes
- All 316 electro-polished stainless steel and Teflon wetted surfaces
- Class I Division I explosion proof wiring package



## Automatic Carboy Filling

- Precise inline blending of slurries and other chemicals
- Automatic filling of carboys
- Variable carboy sizes
- Repeatability you can trust
- Real time quality monitoring

## Quartz Boat and Parts Cleaner

- Automatic process for acid cleaning
- All PVDF and Teflon wetted surfaces
- Cost saving chemical recirculation
- Chemical filtration
- Precise chemical blending from BCD
- Variable process sink sizes
- Repeatability process
- FM-4910 Fire Safe Materials



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Specifications subject to change without notice. 022008

# CRITICAL WET PROCESS SYSTEMS • Medical Device Manufacturing



## Descal and Electro-Polishing Benches

- Multiple sinks constructed from replaceable quartz, PVDF or Teflon vessels
- High purity you can trust
- Safely process with acids, bases, solvents, surfactants and ultra pure water
- Repeatable descaling processes
- Repeatable electro polishing processes
- Ultrasonic agitation
- Precise temperature controls for heating and chilling
- Variable sink sizes



- Full flexibility for the number of sinks and work deck area required to meet your application
- Waste carbonyls with electronic monitoring available for those fabs without chemical waste drains
- FDA calibrated components
- PLC control system with color touch screen graphics and process data tracking
- Linear actuators and robotics available for those critical applications
- FM-4910 Fire Safe Materials
- Eye shields, monitored exhaust, leak detection and secondary containment are just a few of the standard safety features

## Medical Device Sterilization with our Semiautomatic IPA Benches

### Model S-1495

- Twin sinks for pre-shipment sterilization
- System designed for full concentration IPA
- Simultaneous/independent operation giving you two systems in one
- Ultra pure natural PVDF process sinks
- All wetted surfaces are constructed from natural polymers
- Cascade overflow weir with recirculation
- Redundant sub-micron filtration
- Inline UV sterilizer
- Inline reverse osmosis for ultra pure water
- Multiple point resistivity monitoring for process validation
- Ultrasonic agitation available (with stainless steel process sinks)
- FDA calibrated components
- Variable sink sizes to meet our specifications exactly
- Stainless steel cabinet construction for fire safety
- Class I Division I explosion proof wiring
- Eye shields, monitored exhaust, leak detection and secondary containment are just a few of the standard safety features



Model S-1495



Model S-785

### Model S-785

- Lower cost solution and small footprint
- Single sink for pre-shipment sterilization
- System designed for ultra pure water and IPA blends (up to 50% IPA)
- Ultra pure natural PVDF process sinks
- All wetted surfaces are constructed from natural polymers
- Cascade overflow weir with recirculation
- Redundant sub-micron filtration
- Inline UV sterilizer
- Inline reverse osmosis for ultra pure water

- Multiple point resistivity monitoring for process validation
- Ultrasonic agitation available (with stainless steel process sinks)
- FDA calibrated components
- Variable sink size to meet our specifications exactly
- FM-4910 Fire Safe Materials used for the cabinet
- Class I Division II explosion proof wiring
- Eye shields, monitored exhaust, leak detection and secondary containment are just a few of the standard safety features

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