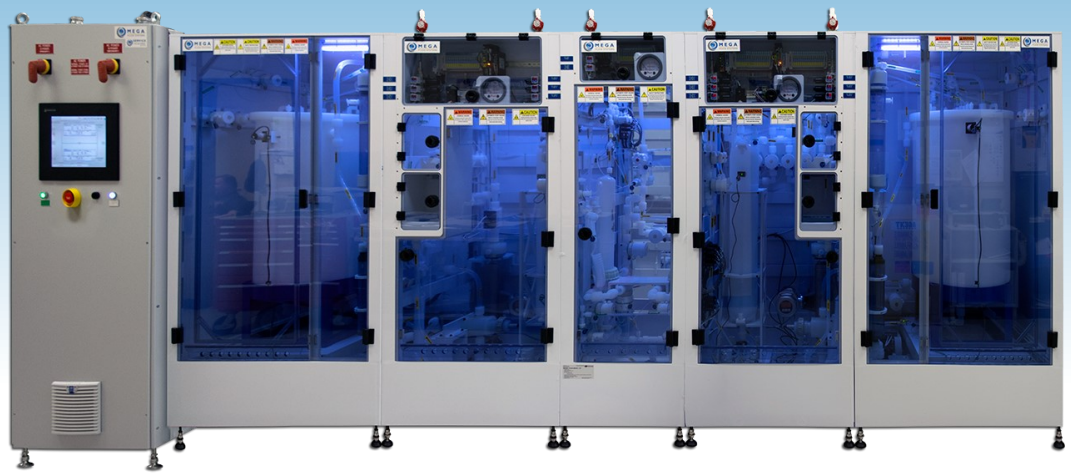
MEGA CBD2000 SERIES

HIGH PERFORMANCE SHARED FUNCTION BLEND AND DELIVERY FOR USE IN SEMICONDUCTOR, SOLAR, AND EMERGING MANUFACTURING APPLICATIONS

- **Flexible:** supports variety of chemical applications
- **Configurable:** meets process and factory specifications
- **Reliable:** delivers field-proven, high-volume manufacturing

SYSTEM OVERVIEW

The Mega CBD2000 is a multi-station chemical blend and dispense system for post-CMP clean, low / no solids CMP, solar, ECD, and other specialty chemical applications. Capable of supplying blended chemical to a single global loop or one global loop of two available, the Mega CBD2000 meets the challenges of specialty chemical applications for sub-45nm technologies, 3D NAND, and other 300mm processes requiring precise blend control at moderate to high production volumes.



KEY FEATURES

- Highly configurable, with adjustable batch or tank sizes and recipes
- Batch configurations equipped with automatic flush / purge of tanks and lines between operations
- Prevents crystallization, contamination, gel formation, and impurity aggregation that may affect assays and yield performance
- Analytical packages available with user configurable parameters
- Scalable cabinet / drip pan units
- Configurable filtration packages for optimization of product quality and consistency

MARKETS SERVED

- Semiconductor
- Post-CMP
- Solar/PV
- Low-solids CMP
- LEDs
- ECD

BENEFITS

- Process optimization without sacrificing chemical quality
- Improved yields compared to other blend and dispense systems
- Batch, passive metering techniques allow improved blend accuracy and repeatability for low concentration blend requirements
- Minimizes stratification, foaming and maintaining both chemical concentration and proportion
- Reliable and stable chemical blends from near concentrated to 1:300 parts chemical to UPW by volume[1]

[1]Reliability figures represent typical performance

MEGA
KINETICS FLUID SYSTEMS

DATA SHEET
Chemical Blend and Dispense System

TYPICAL FACILITY REQUIREMENTS

Utility	Average Capacity	Maximum Capacity	Connection Type
UPW	241.32 kPa, 21 LPM	241.32 kPa, 73 LPM	1" Teflon Flaretek Bulkhead
N2	620.53 kPa, 36.66 SLPM	620.53 kPa, 280.33 SLPM	1/2" FNPT Connection
CDA/OFA	620.53 kPa, 601.33 SLPM	620.53 kPa, 783.75 SLPM	1/2" FNPT Connection
Chemical	241.32 kPa, 8 LPM	241.32 kPa, 16 LPM	3/4", 1-1/2" Teflon Flaretek, FNPT Coupling
Exhaust	6095.05 LPM, -0.0249 kPa	9142.58 LPM, -0.0249 kPa	3" Flange Connector
Power	208 VAC 3Ø, 50/60 Hz, 20 Amps	208 VAC 3Ø, 50/60 Hz, 40 Amps	1-1/2" FNPT Coupling

SYSTEM DIMENSIONS

Dimension	Measurement in inches (mm)	Measurement with Doors Open
Height	84.75 [2152.7]	N/A
Length	215.69 [5478.6]	238.29 [6052.7]
Depth	47.24 [1200.0]	76.6 [1947.4]

CONTROL SYSTEM

- Allen-Bradley ControlLogix L62 or L72 PLC
- Industrial PC and color touch screen
- Ethernet communication protocol
- Connectivity to Mega Supervisory System (various networks available)

SYSTEM CAPABILITY

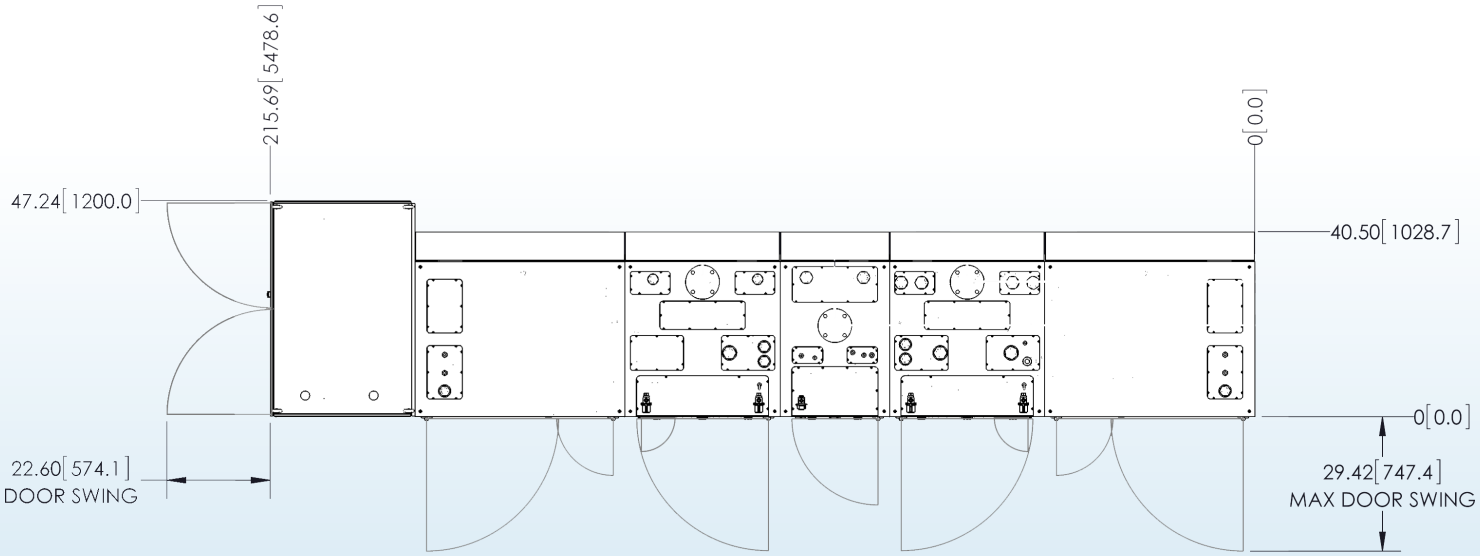
Specification	Capability
Blend Error	+/- 0.012 to 0.025 volume % @ 1:1:100 by VBR* Typically < +/- 0.05 volume % from near concentrated to 1:300 by VBR*
Blend Make-up Rate	Up to 8 LPM*
Dispense Flow Rate	Up to 27 LPM per Global Loop @ 54 PSIG**
Availability	> 99.9%*
MTBF	> 4,000 hours*
MTTR	< 1.0 hour

* Specifications will vary depending on application and configuration.
** Consult MFS sales representative for conditions with higher flow and pressure requirements.

SAFETY FEATURES

- Segregated electrical and chemical compartments
- Access doors and software interlocks
- Audible and visual warnings and alarms
- Leak detection
- Local and remote EMO

SYSTEM DIMENSIONS



*Depiction illustrates minimum footprint including door swing areas. Required maintenance area defined by S8 may exceed what is shown.

Mega Fluid Systems, Inc. 9398 SW Tualatin-Sherwood Rd. Tualatin, OR 97062
www.megafluidsystems.com Ph (971) 277-9000