MegaBlend[™] 2500SF

Precision Blending and Distribution System

- » Blend circuit/distribution circuit
- » Blend to a volumetric accuracy of ±0.5% relative to incoming chemistry
- » Stabilized filtration of the day tank
- » Dual set of pressure vessels with automatic changeover
- » Excess flow indication and shutdowns
- » Leak detection and alarm
- » SEMI S2-93 reviewed



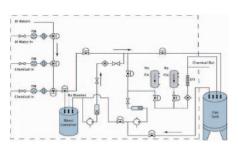
System Features

The MegaBlend 2500SF blends/dilutes chemicals from a remote bulk chemical distribution unit. Precision flowmeters blend up to three chemicals or two chemicals plus DI water to a volumetric accuracy of $\pm 0.5\%$ relative to incoming chemistry. Dispense from dual pressure vessels enhances filtration performance. With comprehensive PLC control and a user-friendly graphical operator interface, blend recipes can be easily modified. Stabilized Filtration $^{\text{TM}}$ of the day tank eliminates filter shocking.

- · Leak detection and alarm
- · Excess flow indication and shutdown
- · Recirculating DI spray guns
- · Blend tank sample port
- · DI/N2 pump and filter purging
- · Cabinet door interlocks
- 10" cartridge filter for blend circuit
- · Dual set of pressure vessels with auto changeover

Options

- · Particle counter connection
- · Aspirated drain
- · Conductivity/temperature analysis module
- FRPP cabinet (S2-93 and FM4910 reviewed)
- CE Mark 220 V, 50Hz



Reliability

- > 4,000 hrs MTBF
- > 2,500 hrs MTBA
- < 2 hrs MTTR
- > 99.5% availability

Performance

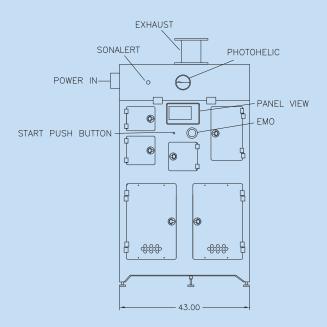
Flow rate: 5 GPM @ 20 psi (DI water @ Exit of CDU outlet)

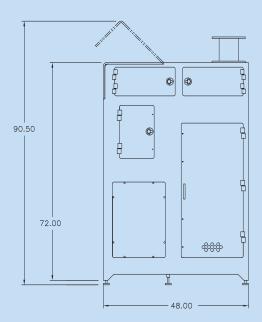
Accurate/repeatable blends: ±0.5% relative

Utilities for testing

DI water (18 meg ohm) Semiconductor grade nitrogen (99.999%) Clean dry air







Controls

- · Allen-Bradley SLC 500 series PLC
- · Allen-Bradley Panelview 550 GUI
- System P&ID/status
- Alarm and warning screens
- Distribution valve box status
- Pump and filter runtime screens
- Password protected blend and flush recipe modification screens
- Password protected calibration screens
- Password protected maintenance screens
- Manual activation of valves/pumps from maintenance screens
- Connectivity to system PLCs & MegaView™ Supervisory via DH+ network
- · Local and remote EMO capability
- · Communication with PC via PLC network

Components

- · Teflon pump with pulsation dampening
- · PFA pressure vessels
- · Non-intrusive level sensor
- · Precision flowmeters
- · Photoelectric leak detectors

Model	2500SF
Application	Acid, bases, oxidizers
Make-up rate	2 GPM
# of chemicals	Two plus DI
Flowpath	3/4"
Dispense rate	5 GPM @ 25 psi
Repeatability	±0.5% Volumetric accuracy
Materials -Flowpath	PFA Teflon™ tubing
Cabinet Materials	Polypropylene
Safety	S2 - 93 Reviewed
Footprint	43 " x 48 "x 91"
Day Tank	Customer specific

Facility requirements	2500SF	Connection Type
DI water	5 GPM @ 40 psi	1/2" Teflon™ Flaretek
N ₂	70-100 psi	3/8 " SS Swagelok
CDA	11 SCFM, 80 psi	1/2 * SS Swagelok
Exhaust	200 SCFM, 2" H ₂ O	3" Pipe flange
Process drain	30 psi, 5 GPM	1" FNPT polypro
Power	120 VAC, 15 AMP service	3/4 " Conduit
Cabinet drain	Gravity	1" FNPT polypro



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