



MegaBlend™ 2500SF

Precision Blending and Distribution System

PRODUCT OVERVIEW

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™ 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

RELIABILITY

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

PERFORMANCE

Flow Rate:

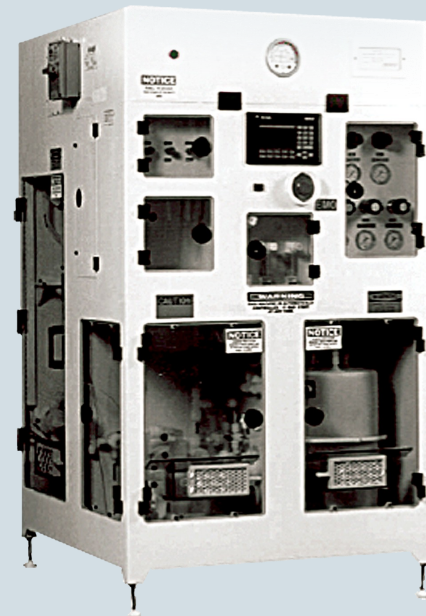
5 GPM @ 20 psi (Regular Flow)
(DI water @ Exit of CDU outlet)

Accurate/Repeatable Blend:

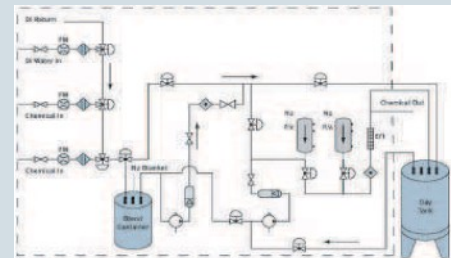
$\pm 0.5\%$ accuracy

OPTIONS

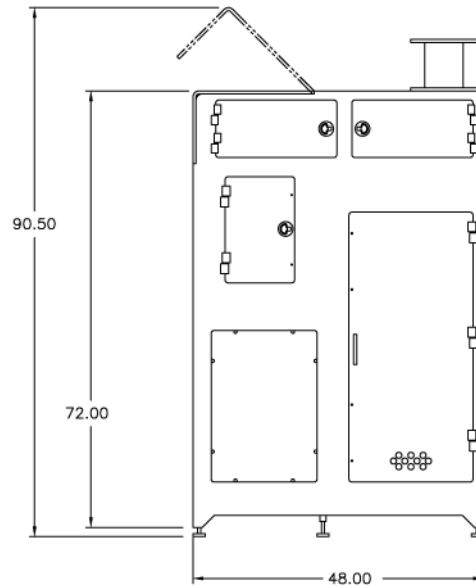
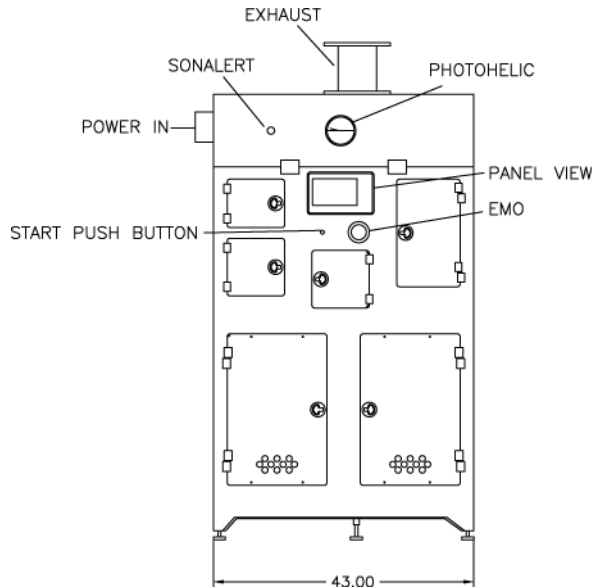
- ◆ Particle counter connection
- ◆ Aspirated drain
- ◆ Conductivity/temperature analysis module
- ◆ FRPP cabinet (S2-93 and FM4910 reviewed)
- ◆ CE Mark 220 V, 50Hz



- ◆ Blend circuit/distribution circuit
- ◆ Blend to a volumetric accuracy of $\pm 0.5\%$ 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



Station Description



Model	MB 2500 SF
Application	Acid, bases, oxidizers
Make-up rate	2 GPM
# of chemicals	2 plus DI
Flow path	3/4"
Dispense rate	2.5 GPM @ 25 psi
Repeatability	±0.5% Volumetric accuracy
Materials—flow path	PFA Teflon tubing
Cabinet Materials	Polypropylene
Safety	S2 - 93 Reviewed
Footprint	43" x 48" x 91"
Day Tank	Customer Specific

Facility Requirements	MB 2500 SF	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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COMPONENTS

- ◆ Teflon pumps with pulsation dampening
- ◆ Non-intrusive level sensors
- ◆ Precision flowmeters
- ◆ Photoelectric leak detectors

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 operator interface
 - ◇ 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+ or Ethernet network
- ◆ Local and remote EMO capability

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