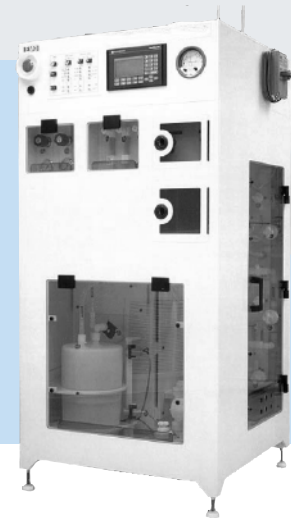


# MegaBlend™ 1100SF

## Precision Blending and Distribution System

- » Space-efficient design
- » Blend and distribution circuit
- » Stabilized filtration of the day tank
- » Blend accuracy of  $\pm 0.5\%$
- » Simple modification of blend recipes
- » Dual pressure vessels with auto-changeover for enhanced filtration performance
- » SEMI S2-93 reviewed



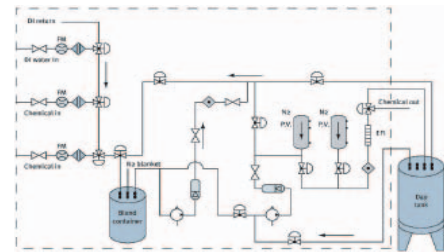
### System Features

The MegaBlend 1100SF blends/dilutes chemicals that are fed from a remote bulk chemical distribution unit. Stabilized Filtration of the day tank eliminates filter shocking utilizing dual pressure vessels with auto-changeover capabilities. Precision flowmeters blend up to three chemicals or two chemicals with DI water to a volumetric accuracy of  $\pm 0.5\%$ , relative to the incoming chemistry. The blended chemical is transferred to the day tank and one of two pressure vessels on demand. The blended chemical in the "on-line" pressure vessel is then available to dispense to the point-of-use. 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.

- Excess flow indication and shutdown
- Leak detection and alarm
- Manual DI/N2 pump and filter purging
- Recirculating DI spray guns
- Blend tank sample port
- Cabinet door interlocks
- Encapsulated or cartridge dispense filter
- Cartridge filter (10")
- Fed from pressurized input
- Dual set of pressure vessels with auto changeover

### Options

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



### Reliability

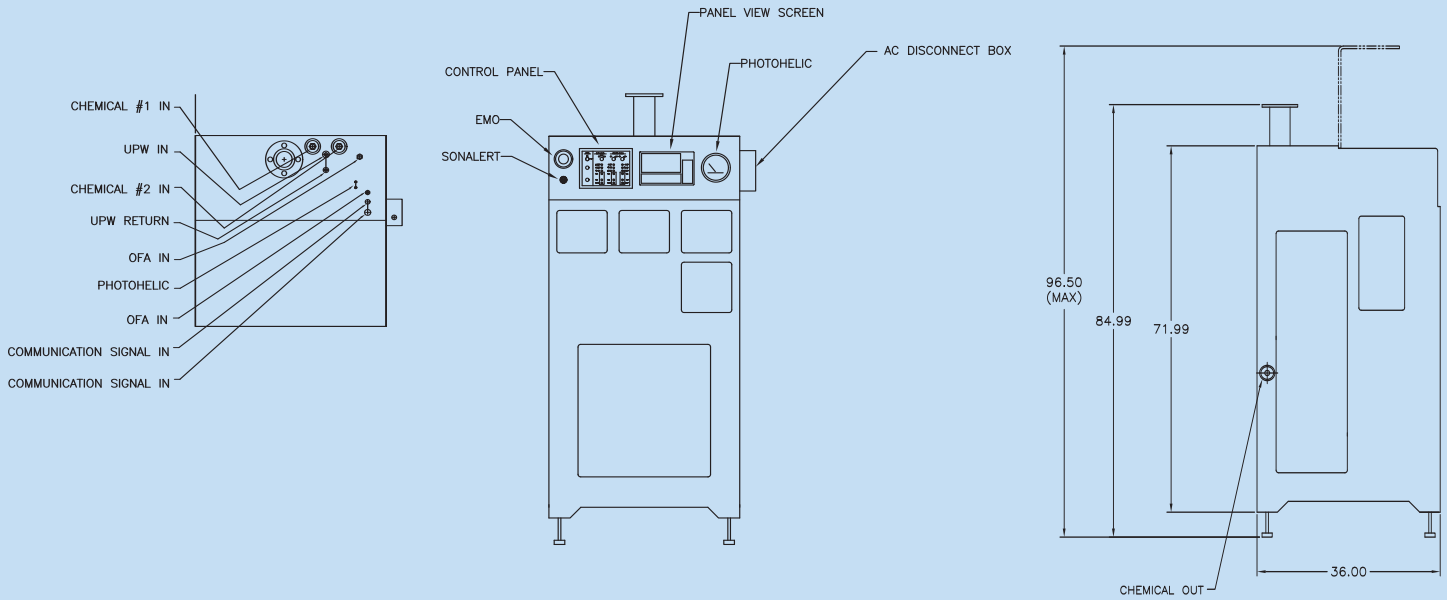
- > 4,000 hrs MTBF
- > 2,500 hrs MTBA
- < 2 hrs MTTR
- > 99.5% availability

### Performance

Flow rate: 2.5 GPM @ 25 psi  
(DI water @ Exit of CDU outlet)  
Accurate/repeatable blend:  $\pm 0.5\%$  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	1100SF
Application	Acid, bases, oxidizers
Make-up rate	0.5 GPM
# of chemicals	Three or two plus DI
Flowpath	3/4"
Dispense rate	2.5 GPM @ 25 psi
Repeatability	±0.5% Volumetric accuracy
Materials - Flowpath	PFA Teflon™ tubing
Cabinet Materials	Polypropylene
Safety	S2 - 93 Reviewed
Footprint	42" x 36" x 94"
Day Tank	Customer specific

Facility requirements	1100SF	Connection Type
DI water	5 GPM @ 25 psi	1/2" Teflon™ Flaretek
N <sub>2</sub>	2 SCFM, 90 psi	1/2" SS Swagelok
CDA	10 SCFM, 80 psi	3/8" SS Swagelok
Exhaust	150 SCFM, 2" H <sub>2</sub> O	3" Pipe flange
Process drain	30 psi, 5 GPM	1" Teflon Flaretek
Power	120 VAC, 15 AMP service	3/4" Conduit
Cabinet drain	Gravity	3/4" FNPT polypro



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