



# MegaBlend™ 1100DT

## Precision Blending and Distribution System

### PRODUCT OVERVIEW

The MegaBlend 1100DT blends/dilutes chemicals that are fed from a remote bulk chemical distribution unit. 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 MegaBlend 1100DT incorporates a day tank for larger storage capacity with pumped dispense. With comprehensive PLC control and a user-friendly graphical operator interface, blend recipes can be easily modified.

- ◆ Excess flow indication and shutdown
- ◆ Photoelectric leak detection and alarm
- ◆ Manual DI/N2 pump and filter purging
- ◆ Recirculating DI spray guns
- ◆ Cabinet door interlocks
- ◆ Encapsulated or cartridge dispense filter
- ◆ Cartridge filter (10")
- ◆ Fed from pressurized input
- ◆ Blend pump as a backup for dispense pump

### OPTIONS

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

### RELIABILITY

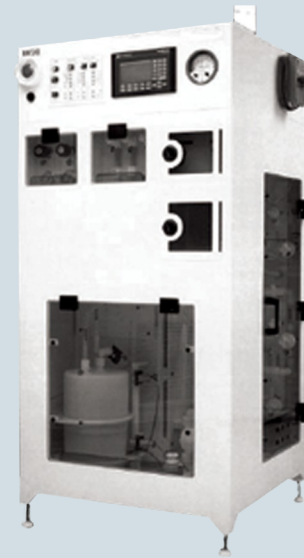
- > 4,000 hrs MTBF
- > 2,500 hrs MTBA
- < 2 hrs MTTR
- > 99.5% availability

### PERFORMANCE

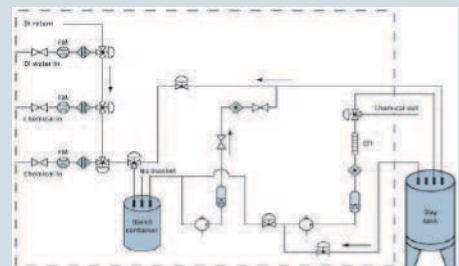
Flow Rate: 2.5 GPM @ 25 psi (DI water @ Exit of CDU outlet)  
Accurate/repeatable blend:  $\pm 0.5\%$  relative

### UTILITIES FOR TESTING

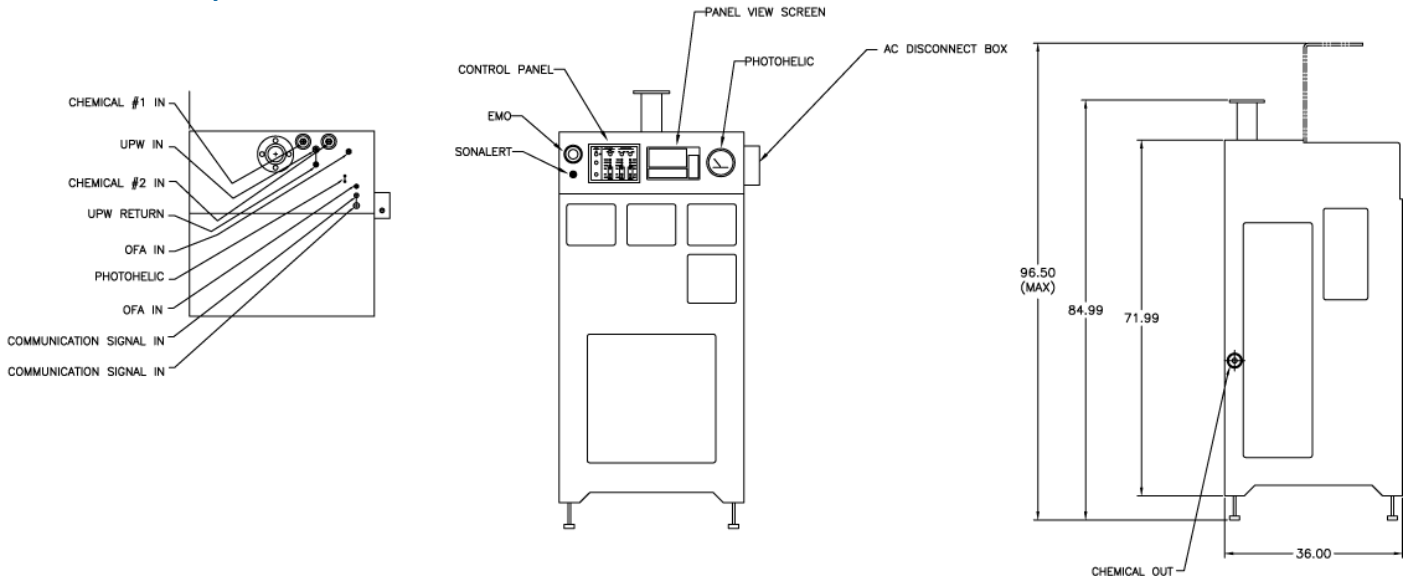
- ◆ DI water (18 meg ohm)
- ◆ Semiconductor grade nitrogen (99.999%)
- ◆ Clean dry air



- ◆ 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



# Station Description



Model	MB 1100 DT
Application	Acid, bases, oxidizers
Make-up rate	0.5 GPM
# of chemicals	Three or two 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	42" x 36" x 94"
Day Tank	Customer specific

Facility Requirements	MB 1100 DT	Connection Type
DI water	5 GPM @ 40 psi	1/2" Teflon Flaretek
N <sub>2</sub>	4 SCFM, 80 psi	3/8" SS Swagelok
CDA	10 SCFM, 90 psi	1/2" SS Swagelok
Exhaust	150 SCFM, 2" H <sub>2</sub> O	3" Pipe flange
Process drain	30 psi, 5 GPM	3/4" FNPT Polypro
Power	120 VAC, 15 AMP service	3/4" Conduit
Cabinet drain	Gravity	1/2" FNPT Polypro

## COMPONENTS

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

## 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
- ◆ Communication with PC via PLC network



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