MegaBlend[™] 1100DT

Precision Blending and Distribution System

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



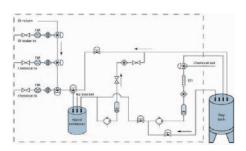
System Features

The MegaBlend 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 ±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

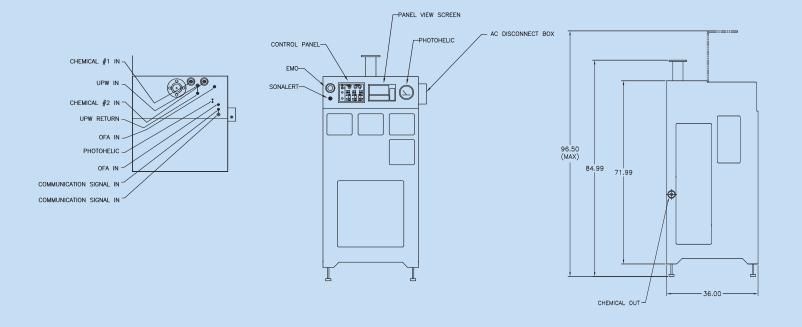
Flow rate: 2.5 GPM @ 25 psi (DI water @ Exit of CDU outlet)

Accurate/repeatable blend: ±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
- · Non-intrusive level sensor
- · Precision flowmeters
- · Photoelectric leak detectors

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



