

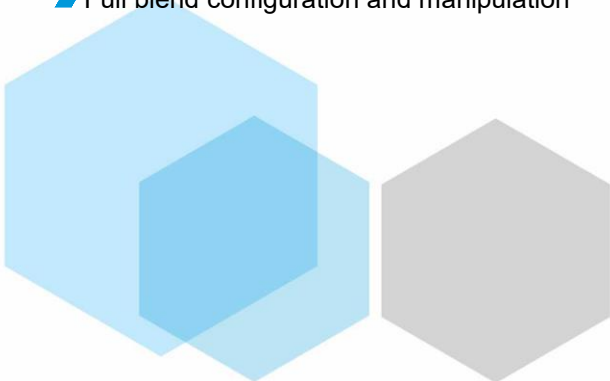
FUSION™ 

On-Demand Blender

The DFS Fusion™ On-Demand™ Blender receives customer-supplied chemical from an external feed system to blend at the intended concentration or flow ratio. The chemical and facility supplied UPW feed through automated flow control valves, DFS proprietary blend cells, and varied metrologies based on application. Once the target or flow setpoint has been met and validated, the blend is allowed to supply the source. Validation before supplying the source can be 30 seconds or less depending on application. Blends can easily be configured through the HMI allowing authorized users to adjust blending targets as required.

Advantages

- ▶ Excellent HVM platform
- ▶ Low cost of ownership
- ▶ High blend accuracy
- ▶ Precise pressure control
- ▶ Flexible and user-friendly HMI
- ▶ System and/or component redundancy as required to maximize production uptime
- ▶ Automated system flushing
- ▶ Space efficient design
- ▶ Temperature monitoring
- ▶ Metrology alignment with the required blend
- ▶ Full blend configuration and manipulation



DFS FUSION™ ON-DEMAND™ BLENDER

Features

- ▶ Metrology for blend confirmation
- ▶ Pressure and flow monitoring
- ▶ Maglev pumps
- ▶ High accuracy flow control valves
- ▶ Automated DFS sample chamber
- ▶ Maintenance points for system purging and draining
- ▶ Solenoid valves with system force capability
- ▶ All wetted flow paths are PFA or PTFE
- ▶ Polypropylene cabinet materials
- ▶ Can produce temperature controlled blends with configurable blend ratio and flow
- ▶ Direct tool communication and designed to dispense blended chemical as required
- ▶ DFS high efficiency proprietary blend cell for homogenized mixing and linear flow smoothing

Safety

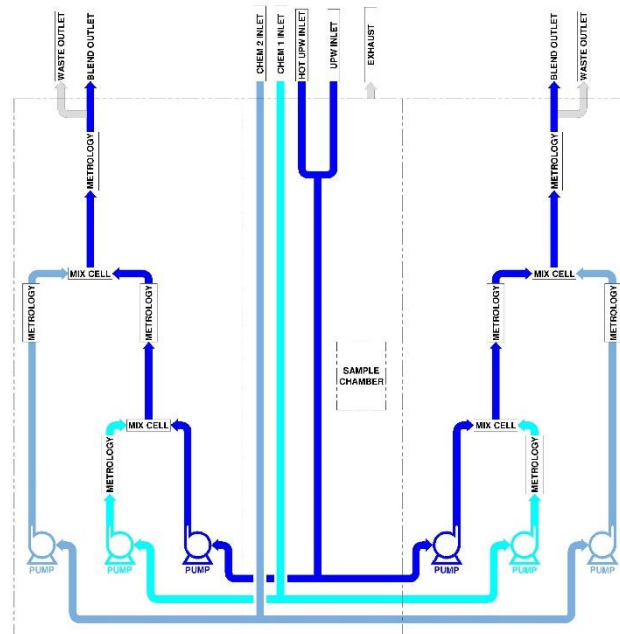
- ▶ Cabinet leak detection and alarming
- ▶ Cabinet exhaust monitoring and alarming
- ▶ Cabinet door interlocks
- ▶ Blend streams isolated from incoming pressurized plumbing
- ▶ Recirculating UPW spray guns for maintenance
- ▶ Cabinet contains 110% of the largest volume
- ▶ Waste pump for system draining and maintenance
- ▶ Local and remote EMO capability
- ▶ UL 508A Certified
- ▶ SEMI S2 Compliant

Options

- ▶ Redundant blend streams
- ▶ 3, 4, or 5-part blend streams
- ▶ Temperature control
- ▶ Conductivity, pH, Refractive Index for blend qualification
- ▶ Pressure vessel for surfactant additions
- ▶ Filtration
- ▶ FM4910 cabinet materials
- ▶ SEMI S2 Certified

Controls

- ▶ PLC and HMI
 - On-screen system P&ID
 - Maintenance and shutdown monitoring
 - Force screens for maintenance and troubleshooting
 - Pump runtime monitoring
 - Password protected screens
 - Manual activation of valves/pumps
- ▶ Connectivity to system PLC Ethernet networks
- ▶ Communication with PC via PLC network



Model	Fusion On-Demand Blender
Applications	Acids, bases, oxidizers
Blend Rate	20, 40, or 60 LPM
Blend accuracy	+/- 0.1% relative
Standard Footprint (Can vary per system requirements)	36"Dp x 62"W x 91.5"H

Facility Requirement	Utilities
Ultrapure Water (UPW)	60 LPM
Nitrogen (N ₂)	200 SCFH
Clean Dry Air (CDA)	30 SCFM
Exhaust	200 SCFM
Process Drain	Up to 60 LPM
Power	208VAC
Cabinet Drain	Pumped or pressurized



DFS Diversified Fluid Solutions
A Critical Process Systems Group Company

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