# Air Liquide

# **ChemFlex™ Micro Chemical Dispense System**

The ChemFlex Micro is a simple, compact chemical dispense system. It is a member of the ChemFlex platform, a product family that offers a wide range of chemical dispense capabilities.



#### **Product Overview**

The ChemFlex Micro can be configured to provide a wide range of flow rates and capabilities to meet the needs of each individual application. It can be supplied by drums, totes or a pressurized source, and can support an optional daytank of any size to increase the buffer volume. Additional configuration options include redundant pumps, single-pass or stabilized filtration, additional outlet valves, and various instrumentation options.

### Features and Benefits

- Cost and size-conscious design
- Highly configurable platform
  - Multiple pump size options
  - Optional pump redundancy
  - Various filtration and instrumentation options
- Designed for simplicity
  - Intuitive operation
  - Cabinet layout optimized for easy maintenance access
- Built in a center of manufacturing excellence
  - ISO9001 certified
  - Formal QA/QC procedures, documentation standards, and final test procedures

# Performance and Reliability

- Uptime >99.95% (with redundant pumps)
- MTBF >4000 hours
- MTTR < 2 hours</li>

# **Configuration Options**

- Drum or tote supply
- Pressurized chemical supply
- Daytank (any size)
- ¾ or 1" tubing and valves
- Various pump sizes available
- Active or passive pulse dampener

- Option for a redundant pump
- Up to 3 chemical outlets
- 10" or 20" filter housings
- Filter stabilization
- Automated services
- Pre- and post-filter pressure monitoring

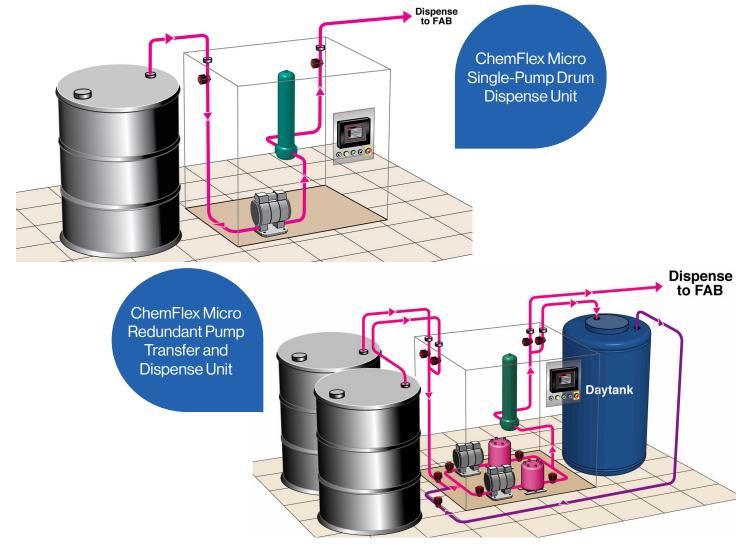
#### Flow Performance

Estimated Flow Rates		
Base Tubing and Pump Size	Drum Dispense	Daytank Dispense
3/4" tubing with mid-sized pump	18 LPM	20 LPM
3/4" tubing with large pump	18 LPM	23 LPM
1" tubing with large pump	18 LPM	33 LPM

Flow performance is dependent on the system configuration and the chemical properties. This table lists the estimated flow capabilities of several configurations in water assuming a 40 psi outlet pressure.

The listed flow rates are estimates that should only be used for system sizing. A flow calculation for the specific unit configuration, chemical properties and distribution system is required for a performance guarantee.

# **Example Flow Paths**



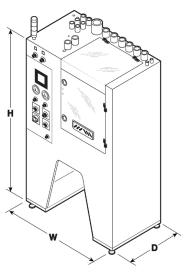
#### Safety Features

- Cabinet rated for 110% volume containment
- Dual-level cabinet leak detection
- Door interlocks
- DIW or N<sub>2</sub> spray-guns
- CDA or N<sub>2</sub>-purged electrical compartment
- Audible and visual warnings and alarms
- Local and remote EMO

- Transparent door panels for safe viewing and trouble-shooting
- Options for exhaust sensor type, high-flow sensor and other instrumentation
- Designed for compliance with SEMI S2, S8 and S14 guidelines, and CE low-voltage, Machinery and EMC directives
- Optional UV/IR fire detection and CO<sub>2</sub> fire suppression for solvent systems

# Typical Utility Requirements

Utility	Connection Type	Flow/Pressure
Electrical	N/A	24 VDC, 7A
UPW Supply	½" Flaretek	40-60 psi
UPW Return	½" Flaretek	<25 psi
CDA	½" Flaretek	100-125 psi
Process N <sub>2</sub>	½" Flaretek	100-125 psi
Exhaust	4" connection	0.5" WC minimum



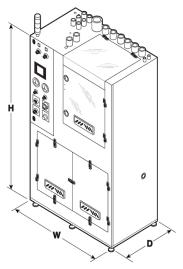
ChemFlex Micro with Integrated Legs

# Cabinet Layouts & Dimensions

Cabinet Type	W x D x H in Inches (mm)
ChemFlex Micro	45" x 25.5" x 70" (1143 x 648 x 1778)
ChemFlex Micro+	65" x 25.5" x 70" (1651 x 648 x 1778)
ChemFlex Micro IC	45" x 25.5" x 74" (1143 x 648 x 1880)

The ChemFlex Micro is available with integral plastic legs or can be mounted on a metal frame.

The Micro IC includes a base compartment with an internal 40-80L daytank.



ChemFlex Micro IC



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