



ChemFlex™ Nano Chemical Dispense System

The ChemFlex Nano is a small footprint, low-flow dispense system that can be floor or wall-mounted to supply a process tool or blend system.



Product Overview

The ChemFlex Nano is ideal for applications where a fully-featured delivery system is not required. It is often used to supply a chemical or slurry blend system, or to serve as a remote transfer station. The Nano can be used to directly supply a process tool, but as a low-flow system, it is not typically used to supply multiple Points of Use.

The cabinet can be wall or rack-mounted making it a useful system for facilities with space constraints. It can be installed above the associated supply drums or configured to house dual 20L carboys inside the ChemFlex Nano cabinet.

Features and Benefits

- Cost and size-conscious design
 - Small footprint cabinet
 - Option for wall-mounted cabinet
 - Option for 20L carboy containment
- Straight forward design for simplicity
- Built in a center of manufacturing excellence
 - ISO9001 certified
 - Formal QA/QC procedures, documentation standards, and final test procedures

Performance and Reliability

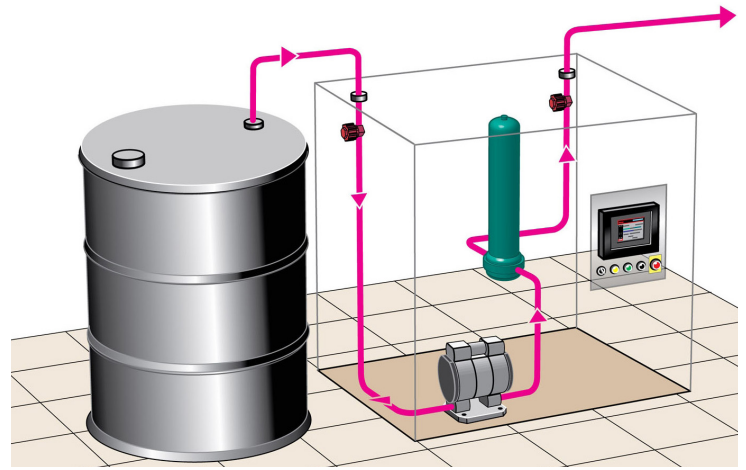
- Uptime >99.9%
- MTBF >2500 hours
- MTTR <1 hour
- 5-10 LPM dispense rate

Configurable Options

- Aqueous or solvent configuration
- Single or dual supply containers
- Single or redundant pumps
- Single 10" filter

Theory of Operations

Simplicity in design, operation and maintenance are central features of the ChemFlex Nano. The Nano draws chemical directly from the online drum or carboy for distribution to the Points of Use (POU). With the supply switching option, a capacitive sensor indicates that the online source is empty signaling the Nano to switch drums or carboys and vent any air bubbles from the filter housing.

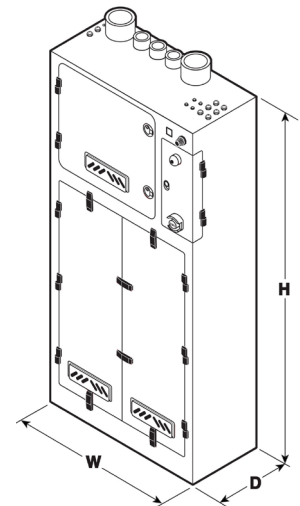


Safety Features

- Cabinet rated for 110% volume containment
- Dual-level cabinet leak detection
- Door interlocks
- DIW or N₂ spray-guns
- CDA or N₂-purged electrical compartment
- Audible and visual warnings and alarms
- Local and remote EMO
- Transparent door panels for viewing and troubleshooting
- Designed for compliance with SEMI S2, S8 and S14 guidelines, and CE low-voltage, Machinery and EMC directives

Typical Utility Requirements

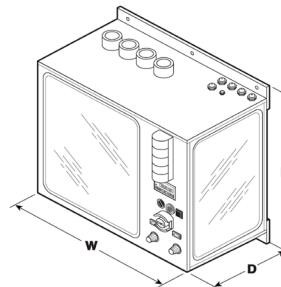
| Utility | Connection Type | Flow/Pressure |
|------------------------|-----------------|-----------------|
| Electrical | N/A | 24 VDC, 5A |
| UPW Supply | ¼" Flaretek | 40-60 psi |
| UPW Return | ¼" Flaretek | <25 psi |
| CDA | ¼" Flaretek | 80-100 psi |
| Process N ₂ | ¼" Flaretek | 80-100 psi |
| Exhaust | 2" connection | 0.5" WC minimum |



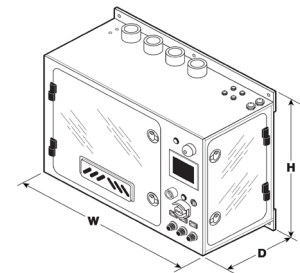
ChemFlex Nano IC

Cabinet Layouts & Dimensions

- The ChemFlex Nano is available in wall-mounted and floor-mounted configurations
 - The floor-mounted configuration includes a containment box for 20L carboys (Nano IC)
- Typical wall-mounted dimensions:
 - 36"W x 18"D x 28"H (915 x 458 x 712 mm)
- ChemFlex Nano dimensions will vary based on the unit configuration. Contact Air Liquide for more information.



ChemFlex Nano



ChemFlex Nano+

Contact Us

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