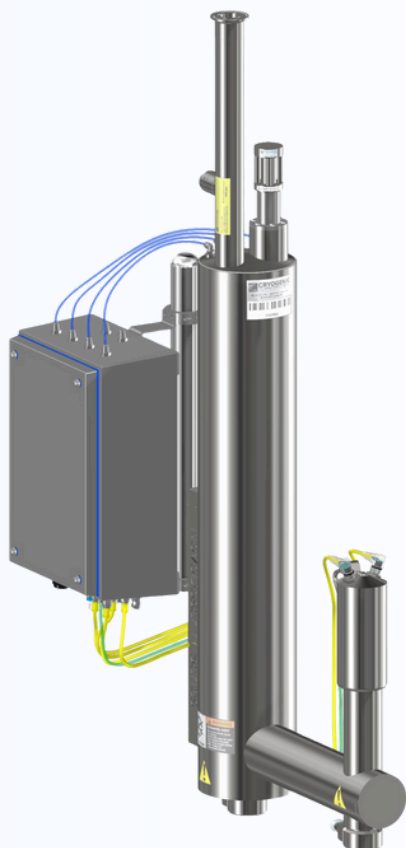


# NovoDoser®

## H series 1000DSC-X



A new generation liquid nitrogen dosing system with advanced control for precise and frost-free dosing, designed for line speed up to 2000 CPM and superior vacuum quality with 5 years warranty.

### Specifications

- LN<sub>2</sub> inlet pressure up to 100 psi (6.8 bar)
- Integrated inlet safety relief valve 150 psi (10.3 bar)
- Discrete dosing up to 2000 CPM
- Minimum dose duration 5 ms
- Dose accuracy +/- 2%
- Electro-pneumatic dosing valve, IP67 rated
- Dose Timing Synchronization
- Dose Volume Synchronization
- Rapid nozzle defrost
- Nozzle pre-cooling
- Quick System Purging, Dry down & Warm-up
- Alarm log to assist system troubleshooting and performance monitoring
- Recipe storage up to 12 recipes
- Multi-lingual HMI: English (US/UK), German, Spanish, Chinese, etc.
- Controller with Siemens S7-1200 PLC, 7" TFT color touchscreen HMI, NEMA 4X IP65-rated stainless steel enclosure

### Ergonomic Features and Benefits

- **Frost-free Nozzle** – Self-generating GN<sub>2</sub> for dosing head blanketing
- **Lowest LN<sub>2</sub> Losses** – Proprietary vacuum insulation with lowest heat leak 0.11 LPH
- **High Dosing Speed** – Higher dose pressure in its class, 0.55 psi
- **Sub-cooled LN<sub>2</sub>** – Ensuring constant LN<sub>2</sub> density for accurate and repeatable dosing
- **Corrosion Resistant** – Stainless steel 300 series material grade
- **Highest Hygiene Design** – All external surface has rounded corners and sloped design for easy wash-down
- **Lowest Maintenance** – Ultra-long life cycle dosing valve, tested 100 million
- **Ease of Installation** – Compact size for easy installation in limited space
- **Applications Flexibility** – Compatible with soft-dose and micro-dose technology for hot fill, powder, and granular applications
- **5 Years Vacuum Warranty** – Lowest cost of ownership

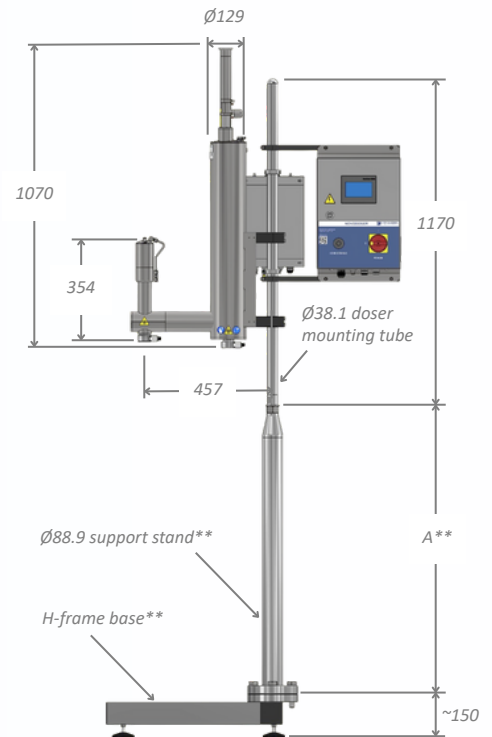
# NovoDoser® H series 1000DSC-X

## Dimensions

|                          |   |
|--------------------------|---|
| Material                 | Stainless Steel 300 series*   |
| Head Pressure            | 0.3 - 0.55 psi  |
| Nozzle Blanketing        | Self-Generated N <sub>2</sub>   |
| Steady State Consumption | < 0.029 gal (0.11 L) / hr   |
| Body Dimension           | 42" H x 5" W (1070 H x 129 W mm)  |
| Dosing Head Dimension    | <u>Electro-pneumatic (HS Head).</u><br>14" H x 2.5" W (354 H x 63.5 W mm)<br><br><u>Optional: Servo Electric (ES Head).</u><br>21" H x 3.1" W (534.6 H x 78 W mm) |
| Dosing Head Arm Reach    | 18" (457 mm)  |
| Weight                   | 35 lbs (16 kg)  |
| Utilities                | Liquid Nitrogen LN <sub>2</sub> : ≤ 100 psi<br>Gaseous Nitrogen GN <sub>2</sub> : 100 psi<br>Electrical: 110-220 VAC  |

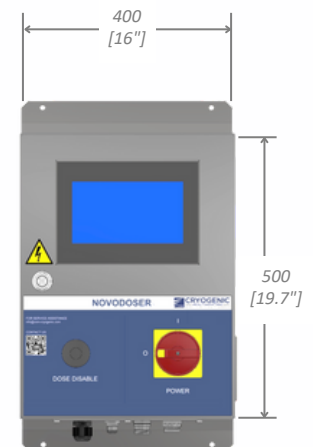
\* SS316/316L for external material

\*\* H-frame base and Ø88.9 support stand are available as options, customer to provide "A" dimension when ordering.



## 1000DSC-X Controller Specifications

|                              |                                 |
|------------------------------|---------------------------------|
| PLC Platform                 | Siemens S7-1200                 |
| HMI (LCD touchscreen)        | 7.0" Color                      |
| Dose Duration, 1 ms interval | 5 to 1500 ms *                  |
| Dose Volume, mg/dose         | 5 to 1400 *                     |
| Dose Accuracy                | ± 2%                            |
| Max. Discrete Dosing         | 2000 CPM                        |
| Continuous Dosing Line Speed | 2000 CPM                        |
| Dose Timing Synchronization  | Synchronized with filler signal |
| Dose Volume Synchronization  | Synchronized with filler signal |
| Thermo-Purging               |                                 |
| - Quick System Purging       | ✓                               |
| - Rapid Nozzle Defrosting    |                                 |
| - CIP Protection             |                                 |
| Nozzle Pre-Cooling           | Auto                            |
| Filler Command Signal        | ✓                               |
| Filler Signal Exchange       | ✓                               |
| Modbus RTU User Interface    | ✓                               |
| Recipe Storage               | 12                              |
| Certifications               | CE                              |



All dimensions provided are for indication purposes only and may not accurately represent the actual product dimensions. Please contact us for updated and actual measurements.

\* Actuator specific - 10 ms for electro-pneumatic actuator, 5 ms for electro-servo actuator