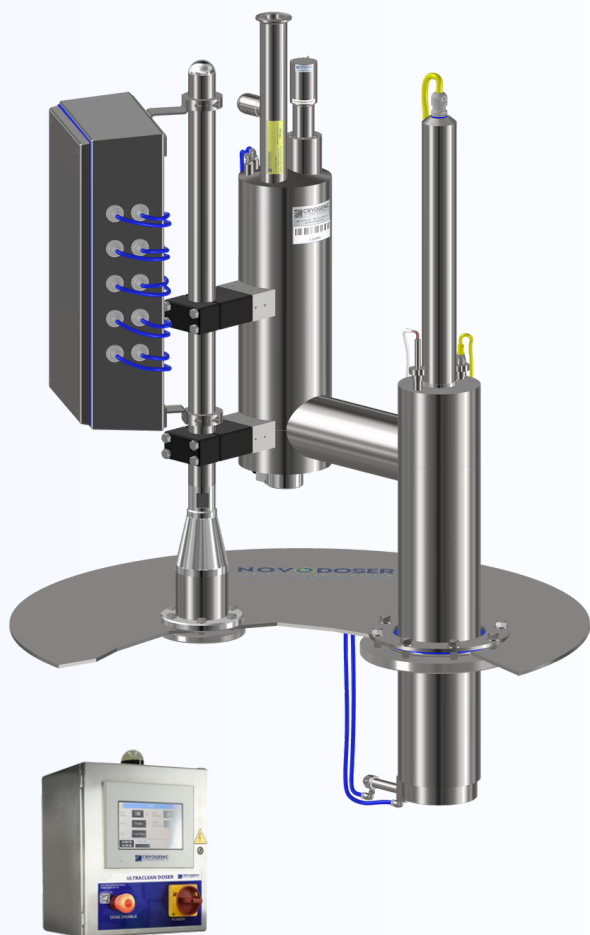


NovoDoser®

UltraClean



*The graphic is only a concept representation.
Actual design and dimension depend on the type of filler.*

A new generation ultra-clean liquid nitrogen dosing system with frost-free nozzle, corrosion resistant 316L material grade construction, hygienic wash-down design in compliance to stringent ultra clean bottling line requirement.

Specifications

- Discrete dosing up to 350 CPM
- Continuous dosing up to 2000 CPM
- Controller with Siemens S7-1200 PLC platform, NEMA 4X IP65 stainless steel enclosure
- HMI comes with TFT color touch screen
- Minimum dose duration 10 ms
- Accurate dose weight +/- 2%
- Smart-maintenance to allow user plan the maintenance schedule
- Direct LN₂ feed pressure up to 100 psi (6.8 bar)
- Modbus user interface
- Alarm log to assist system trouble shooting and performance monitoring
- Recipe storage 10 recipes
- 316L material construction higher corrosion resistance
- Hygienic-Servo (Pneumatic) Dosing Head wash-down design, IP67 rated
- Multi-lingual HMI: English, German, Spanish, Chinese, etc.

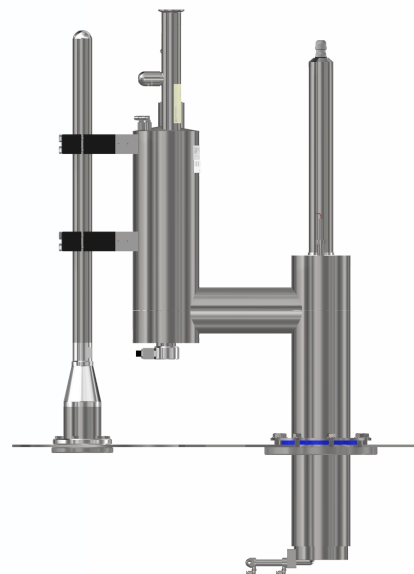
Ergonomic Features and Benefits

- **Frost-free Nozzle** – Self-generating GN₂ for dosing head blanketing
- **Lowest LN₂ Consumption** – Discrete and Continuous dosing, for speed up to 2000 containers per minute
- **Lowest LN₂ Losses** – Proprietary vacuum insulation with lowest heat leak 0.1 LPH
- **Minimized Product Splash** – Lowest dose pressure in its class, 0.3 psi
- **Sub-cooled LN₂** – Ensuring constant LN₂ density for accurate dosing
- **Corrosion Resistant** – 316L material grade of construction for doser body
- **Ease of Maintenance** – Achievable by system smart maintenance and remote monitoring
- **Highest Hygiene Design** – All external surface has rounded corners and sloped design for easy wash-down
- **Lowest Maintenance** – Ultra-long life cycle dosing valve > 60 million; and IP65 rated sensors & electrical cables
- **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® UltraClean

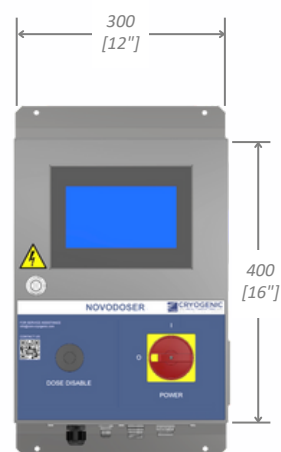
Dimensions

| | |
|--------------------------|--|
| Material | Stainless Steel Series 316L |
| Head Pressure | 0.3 psi |
| Nozzle Blanketing | Self-Generated N ₂ |
| Steady State Consumption | < 0.03 gal (0.11 L) / hr |
| Body Dimension | Customize to filler |
| Dosing Head Dimension | Customize to filler |
| Dosing Head Arm Reach | Customize to filler |
| Weight | 52 lbs (24 kg) |
| Utilities | Liquid Nitrogen LN ₂ : ≤ 100 psi Gaseous Nitrogen GN ₂ : 100 psi Electrical: 110-220 VAC |



4000DSC-X Controller Specifications

| | |
|---|-----------------|
| PLC Platform | Siemens S7-1200 |
| HMI (LCD touchscreen) | 10.0" Color |
| Dose Volume Control | Variable |
| Dose Volume, mg/dose | 5 to 1400 |
| Dose Accuracy | ± 2% |
| Max. Discrete Dosing | 350 CPM |
| Continuous Dosing Line Speed | 2000 CPM |
| Dose Volume Synchronization | ✓ |
| Dose Timing Synchronization | |
| Thermo-Purging - Quick System Purging - Rapid Nozzle Defrosting - CIP Protection | ✓ |
| Dosing Head Actuator | Hygienic Servo |
| Nozzle Pre-Cooling | Auto |
| Filler Command Signal | ✓ |
| Filler Signal Exchange | ✓ |
| Modbus RTU User Interface | ✓ |
| SMART FUNCTIONS: | |
| Mobile Remote Monitoring (LAN) | ✓ |
| Smart Maintenance | |
| Overall Equipment Effectiveness | |
| Recipe Storage | 10 |
| 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.