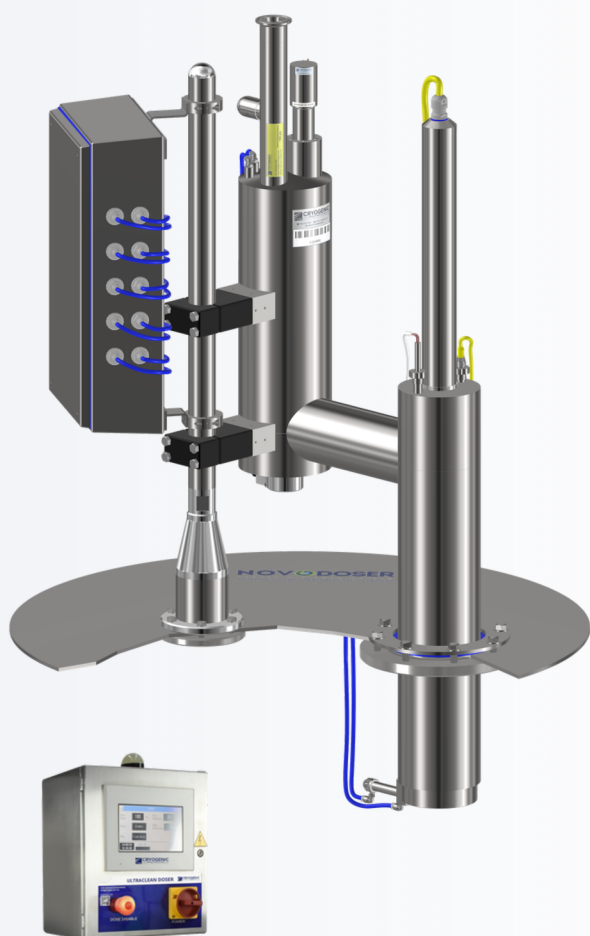


NovoDoser®

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

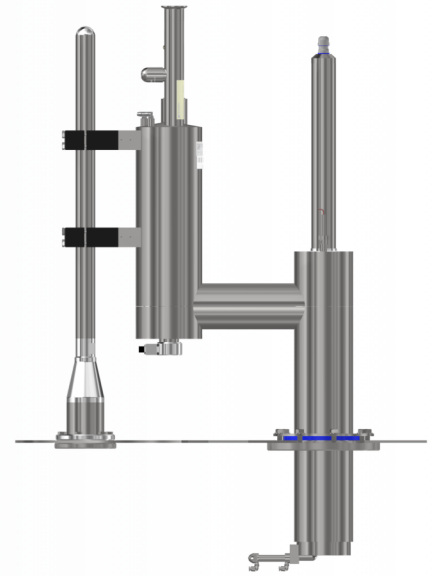
- Discrete dosing up to 350 CPM
- Continuous dosing up to 2000 CPM
- Controller with Siemens S7-1200 PLC platform, NEMA 4X IP65 stainless steel enclosure
- HMI comes with TFT color touch screen
- Minimum dose duration 10 ms
- Accurate dose weight +/- 2%
- Smart-maintenance to allow user plan the maintenance 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 GentleDose and micro-dose. technology for hot fill, powder, and granular applications
- **5 Years Vacuum Warranty** – Lowest cost of ownership

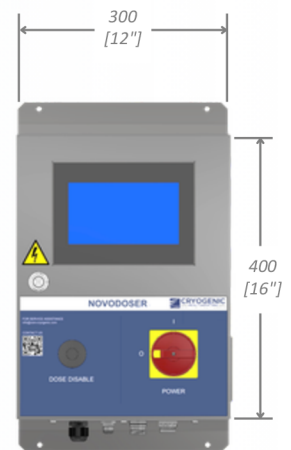
NovoDoser[®] UltraClean Dimensions

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



Controller Specifications

Model	4000DSC-X
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.