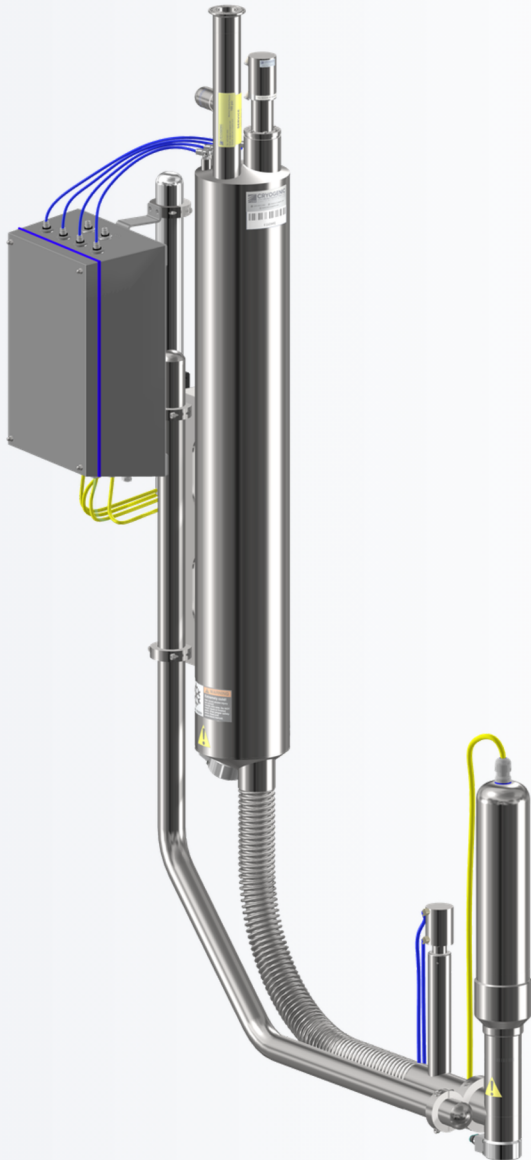


# NovoDoser<sup>®</sup>

## Q series 2000DSC-X



A next-gen smart dosing system featuring a **flexible** dosing arm for optimal dose positioning and an ultra-precision **servo-actuator**. Built in corrosion-resistant **SS316L**, it delivers frost-free, precise dosing with advanced control and communication technology.

### Specifications

- 316L (1.4404) material for improved corrosion resistance
- LN<sub>2</sub> inlet pressure up to 100 psi (6.8 bar)
- Integrated inlet safety relief valve 150 psi (10.3 bar)
- In-line isolation valve allows actuator replacement without system draining and shutdown
- Discrete dosing up to 2000 CPM
- Minimum dose duration 5 ms
- Dose accuracy +/- 2%
- Servo actuator 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 20 recipes
- Multi-lingual HMI: English (US/UK), German, Spanish, Chinese, etc.
- Controller with Siemens S7-1200 PLC, 10" TFT color touchscreen HMI, NEMA 4X IP65-rated stainless steel enclosure

### Ergonomic Features and Benefits

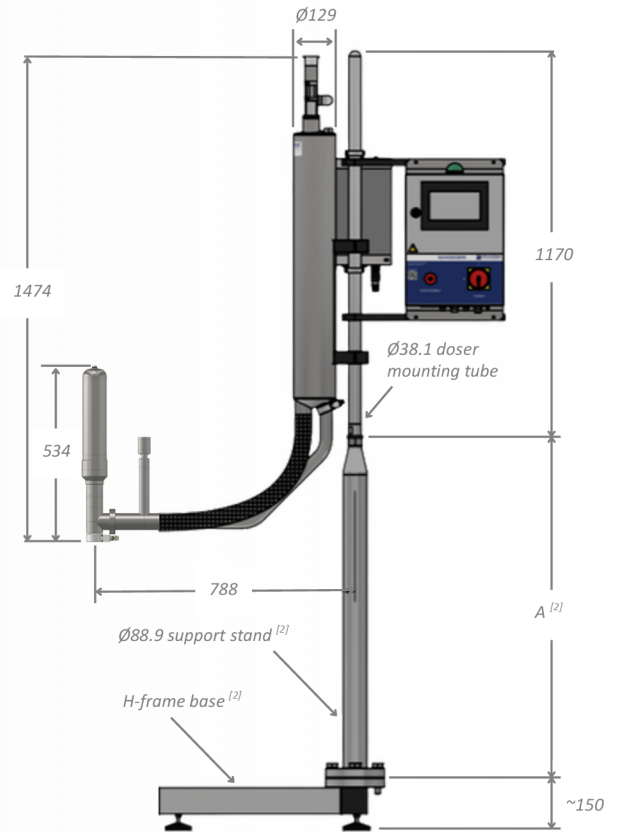
- **Frost-free Nozzle** – Self-generating GN<sub>2</sub> for dosing head blanketing
- **Lowest LN<sub>2</sub> Losses** – Proprietary vacuum insulation with lowest heat leak 0.13 LPH
- **High Dosing Speed** – Highest dose pressure in its class, 1.05 psi for ultra-high speed dosing
- **Sub-cooled LN<sub>2</sub>** – Ensuring constant LN<sub>2</sub> density for accurate and repeatable dosing
- **Corrosion Resistant** – Stainless steel 316L
- **Highest Hygiene Design** – All external surface has rounded corners and sloped design for easy wash-down
- **Lowest Maintenance** – Ultra-long life cycle servo actuator
- **Ease of Installation** – Flexible arm for easy positioning of dosing head in congested area
- **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® Q series Dimensions

Material	Stainless Steel 300 Series <sup>[1]</sup>
Head Pressure	0.5 - 1.05 psi
Nozzle Blanketing	Self-Generated N <sub>2</sub>
Steady State Consumption	< 0.035 gal (0.13 L) / hr
Body Dimension	58" H x 5" W (1474 H x 129 W mm)
Dosing Head Dimension	<u>Servo Electric (ES Head)</u> 21" H x 3.1" W (534.6 H x 78 W mm)  <u>Optional: Electro-pneumatic (HS Head)</u> 14" H x 2.5" W (354 H x 63.5 W mm)
Dosing Head Arm Reach	31" (788 mm)
Weight	77 lbs (35 kg)
Utilities	Liquid Nitrogen LN <sub>2</sub> : ≤ 100 psi Gaseous Nitrogen GN <sub>2</sub> : 100 psi Electrical: 110-220 VAC

<sup>[1]</sup> SS316/316L for external material

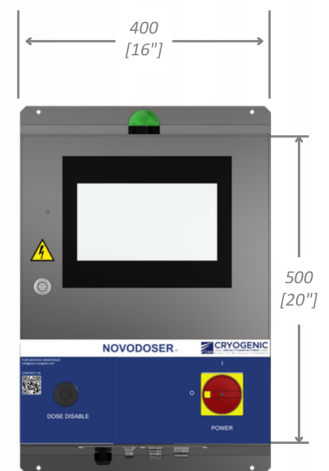
<sup>[2]</sup> H-frame base and Ø88.9 support stand are available as options, customer to provide "A" dimension when ordering.



## Controller Specifications

Model	2000DSC-X
PLC Platform	Siemens S7-1200
HMI (LCD touchscreen)	10.0" Color
Dose Duration, 1 ms interval	5 to 1500 ms <sup>[3]</sup>
Dose Volume, mg/dose	5 to 1400 <sup>[3]</sup>
Dose Accuracy	± 2%
Max. Discrete Dosing	2000 CPM
Continuous Dosing Line Speed	2000 CPM
Dose Volume Synchronization	✓
Dose Timing Synchronization	✓
Encoder Compatible	✓
Thermo-Purging - Quick System Purging - Rapid Nozzle Defrosting - CIP Protection	✓
Nozzle Pre-Cooling	Auto
Filler Command Signal	✓
Filler Signal Exchange	✓
Modbus RTU User Interface	✓
<b>SMART FUNCTIONS:</b>	
Dose Head Isolation Valve	
Mobile Remote Monitoring (LAN)	✓
Smart Maintenance	
IoT 4.0 Ready	
Recipe Storage	20
Certifications	CE

<sup>[3]</sup> Actuator specific - 10 ms for electro-pneumatic actuator, 5 ms for electro-servo actuator



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.