

NOVODOSER

Liquid Nitrogen Dosing

BEVERAGE | FOOD | PERSONAL CARE | CHEMICAL



9001:2015
119601/1



14001:2015
119601/1

Dosing for a Greener World
www.csm-cryogenic.com



Selection Guide *Specifications*

Series	L	H	Q
<i>NovoDoser Body</i>			
Material	Stainless Steel 300 Series	Stainless Steel 300 Series	Stainless Steel 300 Series
Head Pressure	0.3psi (0.020 bar)	0.15 ~ 0.55psi (0.010~0.038 bar)	0.3 ~ 1.05psi (0.020~0.072 bar)
Nozzle Blanketing	Self Generate N2	Self Generate N2	Self Generate N2
Steady State Consumption	< 0.026 gal/hr. (<0.098 liter/hr.)	< 0.029 gal/hr. (<0.109 liter/hr.)	< 0.035 gal / hour (<0.132 liter/hr.)
Body Dimension	36"H x 5"W (910 x 129mm)	42"H x 5"W (1070 x 129mm)	58"H x 5"W (1474 x 129mm)
Dosing Head	**Pneumatic / EA Head / ES Head	**Pneumatic / EA Head / ES Head	**EA Head / ES Head
Dosing Head Arm Reach	18" (457mm)	18" (457mm)	31" (788mm)
Weight	30lbs (14kg)	35lbs (16kg)	44lbs (19kg)
Liquid Nitrogen Supply	22 psi (1.5 bar)	≤ 100 psi (≤ 6.8 bar)	≤ 100 psi (≤ 6.8 bar)
Gaseous Nitrogen Supply	60 - 100 psi (4.1 - 6.8 bar)	60 - 100 psi (4.1 - 6.8 bar)	60 - 100 psi (4.1 - 6.8 bar)
Electrical	110-220VAC	110-220VAC	110-220VAC

**** Dosing Head Dimension****

Pneumatic : 2.5"H x 1.5"W (62 x 38mm)

EA Head : 6.4"H x 2"W (162 x 45mm)

ES Head : 9.7"H x 1.6"W (247 x 40mm)

Controller Selection Guide

Controller *Specifications*

Controller Type	500FD	800SC	2000DSC
			
PLC Platform	Siemens S7-1200	Siemens S7-1200	Siemens S7-1200
HMI (LCD touch screen)	4.3" Color	4.3" Color	7.0" Color
Dose Duration, 1ms interval	20 to 1500 ms	15 to 1500 ms	5 to 1500 ms
Dose Volume, mg/dose	10 to 1400	10 to 1400	5 to 1400
Dose Accuracy	± 3%	± 2%	± 1%
Max. Discrete Dosing	500 CPM	800 CPM	2000 CPM
Fixed Delay	✓	✓	✓
Speed Compensation		✓	✓
Dose Compensation		✓	✓
Dynamic Dose	✓		
Encoder Compatible			✓
Nozzle Pre-Cooling	Manual	Manual	Automatic
Dose Head Purging	Optional (Manual)	Automatic	Automatic
Nozzle Defrost	Optional (Manual)	Automatic	Automatic
User's Filler Signal Interface			Optional
Modbus RTU User Interface	✓	✓	✓
Mobile Remote Monitoring (Wi-Fi / Lan)			✓
Smart Maintenance			✓
Overall Equipment Effectiveness	✓	✓	✓
Recipe Storage	5	5	12
Dosing Head	Bimba / EA	Bimba / EA / ES	Bimba / EA / ES
Certifications	CE, IP65	CE, IP65	CE, IP66



NOVODOSER

Liquid Nitrogen Dosing

Ergonomic Features And Benefits

- **Frost-free Nozzle** – Self-generating GN2 for dosing head blanketing
- **Consistent Container Pressure** – Deliver accurate dosing $\pm 1\%$
- **Lowest LN2 Consumption** – Discrete dosing, for speed up to 2500* 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** – Optional 316L material grade of construction for Doser body
- **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 better than IP65 rated sensors & electrical cables
- **Ease of Installation** – Compact size and flexible dosing head for easy installation in limited space
- **Applications Flexibility** – Compatible with soft-dose and micro-dose technology for hot fill, powder, and granular applications
- **Multi-lingual HMI** – English, Spanish, Chinese, etc
- **5 Years Vacuum Warranty** – Lowest cost of ownership



Cryogenic Specialty Manufacturing
Sdn Bhd No 10, Jalan PPU 3A, 47150 Puchong,
Selangor, Malaysia
Tel : +603-8051 0982
E-Mail : info@csm-cryogenic.com
Web: www.csm-cryogenic.com



Spheretech Packaging India Pvt Ltd
201, Gold Crest, Business Park, Opp. Shreyas Cinema,
LBS marg, Ghatkopar (W), Mumbai – 400086
Tel : +91 98330 27390/ +91-22-25005773
E-Mail : sales@spheretech.biz
Web : www.spheretechpackaging.com