



CryoDoser Liquid Nitrogen Dosing

The CryoDoser is the premier liquid nitrogen (LN₂) dosing system utilizing advanced cryogenic technology and PLC programming.

Three sensors detecting line speed, timing, and bottle presence allow the system to detect all lines speeds, including high speeds, to dispense a precise dose of LN₂ into every container every time. The LN₂ gasifies and is either trapped in the container to add rigidity or escapes with oxygen to inert the headspace.

Features

- **Flexible Dosing Arm** – allows the dosing head to be installed at any angle
- **Quick Service Automatic Defrost** – eliminates most freeze ups in less than ten minutes
- **Precise Dosing** – delivers consistent, accurate dosing over all lines speeds
- **Discrete Dosing** – up to 1200 containers per minute
- **Discrete or Continuous Dosing** – change over defined by user
- **Vacuum Insulated Technology** – the most efficient use of LN₂
- **SoftDose Compatible** – Cryotech's proven technology for hot fill, powder, and granular applications.



How it Works

LN₂ is supplied to the CryoDoser by a standard 10ft (3m) vacuum insulated Cryotech/Flex hose (various lengths available) and flows into the dosing head. A 24vdc PNP sensor detects the speed of the line (encoder compatible for higher speeds); a second 24vdc PNP sensor detects the presence of a container. When a container is detected, the dosing head opens and dispenses an exact amount of pure LN₂.

Key Benefits

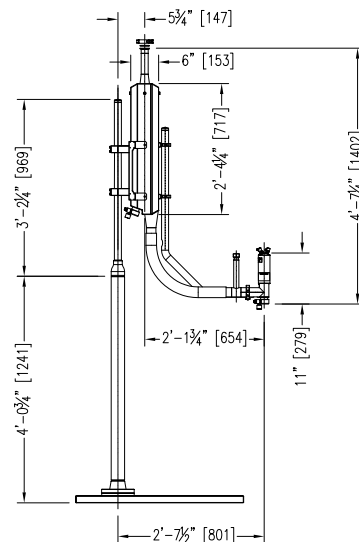
- **Lightweight PET** – reduce the weight of PET for cost and environmental savings
- **Glass to PET Transition** – eliminate glass safety hazards and weight of containers
- **Bottle Rigidity** – maintain bottle shape even with lighter weight containers
- **Eliminate Paneling** – increase the internal pressure to offset paneling issues
- **Oxygen Reduction** – create an inert environment to preserve product freshness
- **Extend Shelf Life** – minimize oxygen levels
- **Ease of Labeling** – consistent bottle rigidity creates an efficient labeling process
- **Reduce Nitrogen Consumption** – measurable and repeatable liquid doses
- **Maximize Warehouse Storage Space** – increasing product stackability utilizes less square footage
- **Stabilize Organic Products** – extend shelf life without preservatives

CryoDoser Technical Specifications



Materials	Stainless Steel Series 300
Weight	38 lbs (17 kg)
Body Dimensions	28.5"H x 6"W (724 x 152 mm)
Dosing Head Dimensions	9.5"H x 2"W (241 x 50.8 mm)
Arm Reach	24" to 34" (609.6 to 863.6 mm)
Head Pressure	0.9 psi (0.06 bar)
Nozzles	Min. 0.020" - Max. 0.120" available Ships with 0.040" (installed), 0.050", 0.060"
System Utilities	Liquid Nitrogen: 3 - 22 psi (0.2 - 1.5 bar) Gaseous Nitrogen: 60 - 100 psi (4.1 - 6.9 bar) Electricity: 110 - 240VAC; 50/60Hz, 110W
Steady State Consumption	0.04 gal (0.15 liter) / hour
EP Head Compatible	Yes
Quick Service Feature	Yes
Vacuum Insulated	Yes
Flexible Arm	Yes
SoftDose Compatible	Yes

CryoDoser Dimensions



Controller Technical Specifications

	AB1500	S7200
Dimensions	20"H x 8"D x 11" W (508 x 216 x 279 mm)	19.8"H x 7.8"D x 12.3"W (503 x 198 x 312 mm)
Weight	22.5 lbs (10.2 kg)	22.5 lbs (10.2 kg)
Screen Dimensions	3.5" x 4.5" (88.9 x 114.3 mm)	3.5" x 4.75" (88.9 x 120.7 mm)
PLC Platform	Allen Bradley	Siemens
Dosing Range	0.5 - 12g/sec.	0.5 - 12g/sec.
Timing Range	15 to 500 ms (in 1 ms intervals)	15 to 500 ms (in 1 ms intervals)
Encoder Compatible	Yes	Yes
Discrete Dosing	Up to 1200 cpm	Up to 1200 cpm
Line Speed Auto Detect	Yes	No
Electronic Dose Targeting	Yes	Yes
Fixed Delay Mode	Yes	No
Speed Compensated Mode	Yes	Yes
Accuracy	± 5% of dose value	± 5% of dose value
Multiple Languages	No	Yes
Ethernet Ready	Yes (with additional module)	No
Recipe Storage	Yes	Yes
Certifications	CE, NEMA 4X, IP 65	CE, NEMA 4X, IP 65

Your Local Representative



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