



## Inerter™ Liquid Nitrogen Dosing

**The Inerter™ is a large volume liquid nitrogen (LN<sub>2</sub>) dosing system for full container and high-volume headspace inerting applications.** Chart engineers designed an ultra-efficient system to dispense a precise dose of LN<sub>2</sub> into every container every time to displace the oxygen in the container. When compared to traditional gaseous nitrogen flushing applications, the Inerter provides better consistency and reduces LN<sub>2</sub> consumption and cost.

### Features

- **Compact Size** – enables installation in limited spaces
- **Precise Dosing** – delivers consistent, accurate dosing
- **Discrete Dosing\*** – up to 2000 containers per minute
- **Discrete or Continuous Dosing** – change over defined by user
- **Vacuum Insulated Technology** – the most efficient use of LN<sub>2</sub>
- **RemoteDose™ Capable\*** – monitor and troubleshoot the system remotely thereby minimizing or eliminating system downtime\*\*
- **IntelliDose™ Capable** – automatic dose adjustments at any line speed between low/high points as defined by user
- **Warranty** – two (2) year warranty against manufacturing defects from time of shipment

\* When paired with the 2K controller. Results achieved at Chart laboratory conditions.

\*\* Access to the internal network is necessary for this function.



### How it Works

LN<sub>2</sub> is supplied to the Inerter by a vacuum insulated flex pipe from a Chart Phase Separator and flows into the dosing head. A 24vdc PNP sensor detects the speed of the line (encoder compatible); 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 LN<sub>2</sub> gasifies and escapes with oxygen to inert the headspace.

### Key Benefits

- **Oxygen Reduction** – create an inert environment to preserve product freshness
- **Extend Shelf Life** – minimize oxygen levels
- **Reduce Nitrogen Consumption** – measurable and repeatable liquid doses
- **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
- **Stabilize Organic Products** – extend shelf life without preservatives
- **Ease of Labeling** – consistent bottle rigidity creates an efficient labeling process
- **Maximize Warehouse Storage Space** – increasing product stackability utilizes less square footage

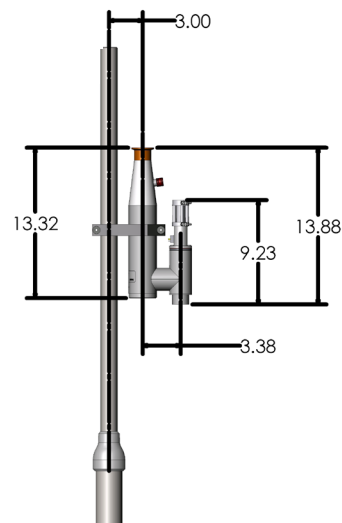


# Inerter™ Technical Specifications



<b>Materials</b>	Stainless Steel Series 300*
<b>Weight</b>	8 lbs (3.6 kg)
<b>Body Dimensions</b>	14"H x 2.5"W (406 x 64 mm)
<b>Dosing Head Dimensions</b>	9.5"H x 2"W (241 x 50.8 mm)
<b>Arm Reach</b>	6.5" (165 mm)
<b>Head Pressure</b>	Dependent on elevation of Phase Separator** 3 ft (914.4 mm) elevation height = ~1 psi (0.07 bar)
<b>Nozzles</b>	Ships with 0.040", 0.050", 0.060" 0.020" - 0.100" (0.005" increments) available
<b>System Utilities</b>	<b>LN<sub>2</sub></b> : Max. 125 psi (8.62 bar); 80 psi (5.52 bar) optimal <b>GN<sub>2</sub></b> : 60 - 100 psi (4.1 - 6.9 bar) <b>Electricity</b> : 110 - 240VAC; 50/60Hz, 110W
<b>Steady State Consumption</b>	0.04 gal (0.15 liter) / hour
<b>EP Head Compatible</b>	Yes
<b>Quick Service Feature</b>	No
<b>Vacuum Insulated</b>	Yes
<b>Flexible Arm</b>	No
<b>SoftDose™ Compatible</b>	Yes

## Inerter™ Dimensions



\* 304 standard, 316L available upon request

\*\* Phase Separator sold separately.

# Controller Technical Specifications

Model	2K	500S	150S
<b>PLC Platform</b>	Allen-Bradley or Siemens	Siemens	Siemens
<b>Display</b>	7" (178 mm) TFT Color LCD Touch Screen	Mono Keypad	Mono Keypad
<b>Dose Duration</b>	5.5 to 1000 ms (0.1 ms intervals)	15 to 1000 ms (1 ms intervals)	20 to 1000 ms (1 ms intervals)
<b>Encoder Compatible</b>	✓		
<b>Maximum Discrete Dosing (cpm) (cph)</b>	2000* (120,000)	500 (30,000)	150 (9,000)
<b>MicroDose™ Technology</b>	✓		
<b>Line Speed Auto Detect</b>	✓		
<b>Electronic Dose Targeting</b>	✓	✓	
<b>Fixed Delay Mode</b>	✓	✓	✓
<b>Speed Compensated Mode</b>	✓	✓	
<b>Accuracy</b>	± 2% of dose weight	± 5% of dose weight	± 5% of dose weight
<b>Multiple Languages</b>	✓		
<b>RemoteDose™ Capable</b>	✓		
<b>IntelliDose™ Capable</b>	✓		
<b>Recipe Storage</b>	✓		
<b>Certifications</b>	CE, NEMA 4X	CE, NEMA 4X	CE, NEMA 4X

\* Results obtained under specific conditions.

## Your Local Representative



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