



# CryoDoser Flex<sup>®</sup> Liquid Nitrogen Dosing

The CryoDoser Flex<sup>®</sup> Liquid Nitrogen Dosing System is the first doser with the ability to serve every dosing application within one unit. Chart Inc. has designed a brand new dosing system that can be used from the slowest production lines to the fastest. The most efficient dosing system to date, the CryoDoser Flex system is the only liquid nitrogen doser you need. With more standard functions than any other doser offered before, the CryoDoser Flex system is ready to change the market.

## Features

- **Compact Size** – enables installation in limited spaces
- **Discrete Dosing** – Craft Custom (750 cpm)\*, Pack Premier (2000 cpm)\*
- **SoftDose™ Compatible** – Chart's proven technology for hot fill, powder and granular applications
- **Dynamic Dose** – Up to 16 containers each with different dose duration
- **Reset Timer** - Reset each series back to one in case of line stoppage
- **Warranty** – four (4) year vacuum warranty; highest in the industry  
one (1) year controller warranty

\*Results may vary. Please contact sales.



CryoDoser Flex  
Pack Premier



CryoDoser Flex  
Craft Custom



## How it Works

LN<sub>2</sub> is supplied to the CryoDoser Flex unit by a vacuum insulated hose and flows into the dosing head. A sensor detects the speed of the line (encoder compatible); a second 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>. A PLC (Programmable Logic Controller) is the brains behind integrating the sensors and controls via a touch-screen HMI (Human Machine Interface) display.

## 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
- **Container Rigidity** – maintain 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 container 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

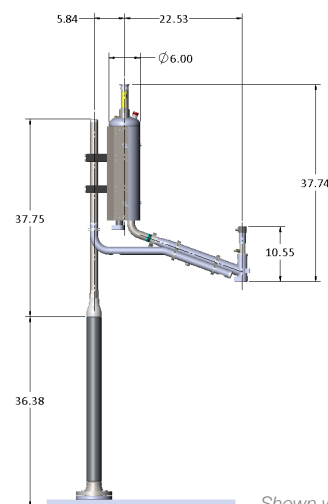


# CryoDoser Flex<sup>®</sup> Technical Specifications



<b>Materials</b>	All 316L Stainless Steel
<b>Weight</b>	33 lbs (15 kg)
<b>Body Dimensions</b>	21" H x 6.5" W (533.4 x 165 mm)
<b>Dosing Head Dimensions</b>	DoserEASE = 11" H (279 mm)
<b>Arm Reach</b>	12.5" to 20.5" (317.5 to 520.7 mm)
<b>Head Pressure</b>	0.34 psi (0.023 bar)
<b>Nozzles</b>	Ships with 3 Standard Nozzles: 0.020" - 0.100" (0.005" increments) available
<b>System Utilities</b>	<b>Liquid Nitrogen:</b> 3 - 100 psi (125 psi MAWP / 0.2 - 7 bar) <b>Gaseous Nitrogen:</b> 60 - 80 psi (4.1- 5.2 bar) for Purge <b>Electricity:</b> 110 - 240VAC; 50/60Hz, 110W
<b>Steady State Consumption</b>	0.035 gal (0.13 liters) / hour
<b>Vacuum Insulated</b>	Yes
<b>Interchangeable Arms</b>	Yes
<b>Fill Level Adjustment</b>	Yes

## CryoDoser Flex<sup>®</sup> Dimensions



Shown with EDS

# Controller Technical Specifications

Model	Pack Premier	Craft Custom
<b>PLC Platform</b>	Siemens S7-1200	Siemens S7-1200
<b>Display</b>	7" (178 mm) TFT Color LCD Touch Screen	4.3" (109 mm) TFT Color LCD Touch Screen
<b>Dose Actuator</b>	DoserEASE or Electro-Pneumatic "EP"	DoserEASE
<b>Dose Duration min/max</b>	25 ms to Unlimited	20 ms to Unlimited
<b>Dose Duration Resolution</b>	0.1 ms	1 ms
<b>Minimum Dose Volume</b>	0.002 grams/dose	0.002 grams/dose
<b>Discrete Dosing cpm (cph) min/max</b>	1 to 2000* (60 to 120,000)	30 to 750* (1800 to 45,000)
<b>ExactTrack™</b>	✓	
<b>Electronic Dose Targeting</b>	✓	
<b>Container Detection</b>	✓	✓
<b>Fixed Delay Mode w/ Step</b>	✓	✓
<b>Repeatability</b>	± 2% of dose	± 2% of dose
<b>Multiple Languages</b>	✓	
<b>MicroDose™ Technology</b>	✓	✓
<b>RemoteDose™ Capable**</b>	✓	
<b>SoftDose™ Capable</b>	✓	
<b>User Sensor Interface</b>	✓	
<b>User Signal Interface</b>	✓	
<b>User Ethernet Interface</b>	✓	
<b>User USB Interface</b>	✓	✓
<b>Recipe Storage</b>	Unlimited	4
<b>Liquid Level Control</b>	✓	✓
<b>Liquid Supply Pressure psi (bar)</b>	3 to 100 (125 MAWP) / (0.2 to 7)	3 to 100 (125 MAWP) / (0.2 to 7)
<b>Standard Purge</b>	✓	✓
<b>ThermoPurge</b>	Standard	Standard
<b>Certifications</b>	UL, CE, IP67, NEMA Type 4	UL, CE, IP67, NEMA Type 4

\* Results achieved at Chart laboratory conditions. \*\* Access to the internal network is necessary for this function.

## Your Local Representative



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