



IntroDoser[®] Manual Fill Liquid Nitrogen Dosing System

The IntroDoser[®] LN₂ Dosing System is an economic design based on our popular UltraDoser[®] and CryoDoser[®] LN₂ Dosing Systems. The IntroDoser system is perfect for start-ups, hand bottling or packaging applications, laboratory environments, or any other normal nitrogen dosing application. It is coupled with a controller engineered specifically for this product. This system utilizes the current pneumatic head actuator and will be compatible with the new DoserEASE™ Electric Actuator.

The IntroDoser system comes with a handle for ease of transport. The system can also sit on a table or be mounted to a pole or stand. The same Chart Vacuum Technology[®] and quality of manufacturing used to create the UltraDoser and CryoDoser dosing systems are used to make the IntroDoser system.

Features

- **Cost-Effective**
- **Manually Filled**
- **Specific IntroDoser Controller**
- **System functions with the standard bottle detect sensor or foot pedal**
- **2 Year Vacuum Warranty**
- **1 Year IntroDoser Controller Warranty**



How it Works

The IntroDoser system is manually filled by either using an open top dewar or using a transfer hose from a low pressure liquid source. A sensor detects the presence of a container or a foot pedal can be used to dose each container. If a sensor is used, the dosing head will open when a container is detected and an exact amount of LN₂ will be dispensed. When using a foot pedal, each depression of the pedal will activate the dosing head cycle. A PLC (Programmable Logic Controller) is the brains behind the sensor/foot pedal communication, the controls, and the human interface via 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
- **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



IntroDoser® Technical Specifications



Materials	Stainless Steel Series 300
Weight	25 lbs (11.5 kg)
Body Dimensions	17"H x 7"W (432 x 203 mm)
Dosing Head Dimensions	13.5"H x 2"W (338 x 50.8 mm)
Arm Reach	5" (127 mm)
Head Pressure	0.3 - 0.4 psi (0.027 - 0.035 bar)
Nozzles	Ships with 0.040", 0.050", 0.060" 0.020" - 0.100" (0.005" increments) available
System Utilities	Liquid Nitrogen: Open Top Dewar or Low Pressure source under 22 psi (below 1.5 bar) Gaseous Nitrogen: 60 - 100 psi (4.1- 6.9 bar) Electricity: 110 - 240 VAC Single Phase, 47 - 65 Hz
Quick Service Feature	No
Vacuum Insulated	Yes
Flexible Arm	No
SoftDose™ Compatible	No

Controller Technical Specifications

Model	IntroDoser®
PLC/Display Platform	Idec FT1A (4 in Touch Screen)
Actuator	Pneumatic, EASE (Electronic)
Dose Cycles	20 million
Dose Duration	15 to 10,000 ms (0.1 ms intervals)
Encoder Compatible	No
Maximum Discrete Dosing (cpm) (cph)	250* (15,000)
MicroDose™ Technology	No
Line Speed Auto Detect	No
Electronic Dose Targeting	No
Fixed Delay Mode	Yes
Speed Compensated Mode	No
Accuracy	± 2% of dose weight
Multiple Languages	No
RemoteDose™ Capable	No
IntelliDose™ Capable	No
Recipe Storage	No
Dose Trigger	Sensor, Push Button, Foot Switch
Minimum Delay	15 ms
Power Supply	Wall Transformer (International)
Supply Voltage	100 - 240 VAC Single Phase, 47 - 65 Hz
Supply Current	0.8 - 0.4 A
Controller Voltage	24 VDC
Controller Current	1.25 A
Operating Temperature	0°C - 50°C
Enclosure Type	Type 1, Indoor Use Only

* Results obtained under specific conditions.

IntroDoser® Controller



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