



**CRYOTECH**  
INTERNATIONAL

SPECIALISTS IN CRYOGENIC EQUIPMENT



# UltraDoser™ S7200

Medium to high speed LN<sub>2</sub> dosing system for pressurization and inerting. Advanced capabilities optimize line performance. Features Siemens based controls.

All products come with Cryotech's renowned customer service from conceptual design to implementation and are backed by a one year warranty.

The UltraDoser S7200 is the ideal general purpose liquid nitrogen (LN<sub>2</sub>) dosing system. Using advanced cryogenic technology, Cryotech engineers designed an ultra-efficient, double walled, sealed vacuum unit likened to a "high-tech thermos." Typically installed after the filler and before the capper/sealer, the UltraDoser S7200 dispenses a measured dose of LN<sub>2</sub>. Once the LN<sub>2</sub> (-320F/-195C) is introduced into the container, it immediately picks up heat and turns into gaseous nitrogen, expanding 700 times in the process. When trapped inside the container, the gaseous nitrogen creates pressure and adds rigidity to the container. For headspace inerting applications, the rapidly expanding gas is allowed to escape before the product is sealed, flushing oxygen out of the container.

The UltraDoser S7200 has the following features:

- Sealed, vacuum insulation for frost-free operation
- Consistent, accurate dosing over all line speeds
- Rigid arm facilitates installation
- Compact footprint
- Pulse/discrete and steady stream modes
- User defined changeover point between discrete and continuous modes
- Speed compensation
- Pulse mode up to 1800 cpm during routine operations
- Siemens PLC
- Recipe storage
- Multiple language capabilities
- Encoder compatible
- Self monitoring system
- Remote container sensor location
- Electronic dose targeting
- 100% compatibility with Cryotech's SoftDose technology for hot-fill applications

## UltraDoser S7200 System Specifications

### Materials

Stainless Steel Series 300

### UltraDoser Weight

32 pounds (14.5kg)

### Body Dimensions

30" (762mm) H x 6.0" (152.4mm) W

### Dosing Head Dimensions

9.5" (241mm) H x 2.0" (50.8mm) W

### Controller Dimensions

8.5" (215.9mm) x 12" (304.8mm) x 19.5" (495.3mm)

### Controller Weight

22.5 lbs (10.2 kg)

### Dosing Range

Min. 0.1 - Max 12 g/sec

### Accuracy

+/- 5% of dose volume

### Timing range

Up to 500 ms in 1 ms intervals

### Nozzles

0.040" installed, 0.050" and 0.060" shipped with unit. Max nozzle size 0.120"

### Head Pressure

0.4 psig.

### Arm Reach

18" (457mm)

### System Utilities

#### Liquid Nitrogen:

3 - 22 psig (0.2 - 1.5 BAR)  
(10 micron filter provided)

#### Gaseous Nitrogen:

60 - 100 psig (4.1 - 6.9 BAR)

#### Electricity:

100 - 240 VAC, 50/60 HZ, 110 W

Internal Control: 24 VDC

### Steady State Consumption

4 cubic feet per hour of N<sub>2</sub> plus dewar connection loss (0-300 cfm)

### Production Certifications

NEMA 4X, IP 65 Controls/CE



### Advantages

- The UltraDoser S7200 ensures accurate, precise dosing by delivering pure LN<sub>2</sub> at a constant pressure for an exact dose duration.
- Durable electrical components including a dosing head heater, vent heater, container sensor, pocket sensor, solenoid valve, and valve confirmation sensor are modular in design for easy maintenance.
- Easy to use PLC based controller facilitates set-up procedures.
- Vacuum jacket technology prevents premature boil-off and eliminates the need for "blow-down" valves.
- Discrete dosing at line speeds up to 1800 containers per minute minimizes LN<sub>2</sub> waste and associated downtime.
- Exact dose control ensures safe line operation and avoids costly line jam-ups.

### Cost-Savings

One customer reported a 56% reduction in LN<sub>2</sub> costs with a Cryotech LN<sub>2</sub> injection unit. Contact Cryotech for a customized cost-savings assessment of your production line.



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Printed in the U.S.A. V2. 7.2007