LIQUID NITROGEN INJECTION SYSTEMS



Vacuum Barrier's NITRODOSE® liquid nitrogen injection systems provide the most precise liquid nitrogen dosing to add strength to non-carbonated beverages for light-weight packaging and displace oxygen to extend shelf life.

MiniDose precisely delivers low pressure liquid nitrogen at line speeds up to 200 BPM.

EasyDose G2 Lite precisely delivers low pressure liquid nitrogen at line speeds up to 450 BPM.

EasyDose G2 precisely delivers low pressure liquid nitrogen at line speeds up to 450 BPM. Available with Low-Profile Pneumatic Valve.

EasyDose G2 Plus precisely delivers low pressure liquid nitrogen at line speeds up to 2000 BPM.

NITRODOSE® G2 precisely delivers low pressure liquid nitrogen at line speeds up to 450 BPM and is continuously self-monitored with alarm outputs and beacon.

NITRODOSE® G2 PRO precisely delivers low pressure liquid nitrogen at line speeds up to 2000 BPM and is continuously self-monitored with alarm outputs and beacon.

NITRODOSE® G2 SERVODOSER™ provides the highest level of control in liquid nitrogen dosing. Adjustable flow rate during discrete and continuous dosing without a nozzle change.

LINERTER III delivers moderate pressure liquid nitrogen at line speeds up to 500 BPM to greatly reduce oxygen levels in large volume containers.

HS Aseptic precisely delivers sterile, low pressure liquid nitrogen for all aseptic filling lines and is continuously self-monitored with alarm outputs and beacon.

Our Service — Your Guarantee

- Engineered, designed and fabricated our own cryogenic equipment since 1958
- Trained worldwide staff
- Different models available to cover a wide variety of applications
- Standard models available from stock



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VBC NITRODOSE® SYSTEMS

| | MiniDose | EasyDose G2 Lite | EasyDose G2 | EasyDose G2 Plus | NITRODOSE G2 | NITRODOSE G2 Pro | NITRODOSE G2 Servo- doser | Linerter III | HS Aseptic |
|---|----------------------|----------------------|----------------|---------------------|-------------------------|-------------------------|---------------------------------|----------------------|-------------------------|
| Maximum Discrete Dosing Speed (CPM) | 200 | 450 | 450 | 2000 | 450 | 2000 | 2000 | 500 | 800 |
| Continuous Stream Capabilities | | | std | std | std | std | adj | | std |
| Allen Bradley PLC | | | ML1100 | ML1400 | ML1100 | ML1400 | ML1400 | | ML1400 |
| Siemens PLC | S7-1200 | S7-1200 | S7-1200 | S7-1200 | S7-1200 | S7-1200 | S7-1200 | S7-1200 | S7-1200 |
| AB Panelview Component 800, 7" touchscreen HMI | | | color | color | color | color | color | | color |
| Siemens KTP 700, 7" touchscreen HMI | color (4") | color (4") | color | color | color | color | color | color (4") | color |
| Minimum Dose Duration | 25 ms | 25 ms | 25 ms | 6 ms | 25 ms | 6 ms | 4 ms | 12 ms | 12 ms |
| Smartsync Technology | | | std | std | std | std | std | | std |
| Programmable Motion Profile Dosing Valve | | | | | | | std | | |
| Dose stroke verification | | | | | | | std | | |
| Long Life Servo Actuator | | | | | | | std | | |
| Accuracy by dose weight | +/- 5% | +/- 3% | +/- 3% | +/- 3% | +/- 3% | +/- 3% | +/- 1% | +/- 3% | +/- 3% |
| Real-Time Graphical User Interface (GUI) | std | std | std | std | std | std | std | std | std |
| Speed & Dose Compensation | speed only | speed only | std | std | std | std | std | speed only | std |
| Recipe Storage | | | 10 | 10 | 10 | 10 | 10 | | 5 |
| Five on-board languages | universal symbols | universal symbols | std | std | std | std | std | universal symbols | std |
| Continually self-monitored for alarm conditions | std | std | std | std | std | std | std | std | std |
| Number of built-in alarm relays | | | 1 | 1 | 2 | 2 | 2 | | communi- cation link |
| Maximum direct LN ₂ feed pressure, psi (bar) | 22 (1.5) | 22 (1.5) | 22 (1.5) | 22 (1.5) | 125 (8.6) | 125 (8.6) | 125 (8.6) | 9 (0.6) | 125 (8.6) |
| Required air pressure, psi (bar) | | | | | 50 - 100 (3.4 - 6.9) | 50 - 100 (3.4 - 6.9) | 50 - 100 (3.4 - 6.9) | 50 (3.44) | 75 (5.2) |
| Rapid warm-up feature | | | | | std | std | std | | |
| Electronic dosing valve | std | std | std | std | std | std | servo | pneumatic | pneumatic |
| Low-Profile Pneumatic Valve to fit confined spaces (50-100 psi/3.4-6.9 bar) | | opt | opt | | | | | | |
| Clean hygienic design | std | std | std | std | std | std | std | std | std |
| Lowest dosing pressure, 0.3 psi (0.02 bar) | std | std | std | std | std | std | std | | std |
| Self-Generating N ₂ purge | std | std | std | std | std | std | std | | std |
| Sub-cooled LN ₂ to improve dosing accuracy | std | std | std | std | std | std | std | | std |
| Automatic CIP Protection | | opt | opt | opt | opt | opt | opt | | std |
| Directional Dose Dispersion blocks | | | opt | opt | opt | opt | opt | | |
| Dosing Software for In-Line Fillers/Cappers | | | opt | opt | opt | opt | opt | | |