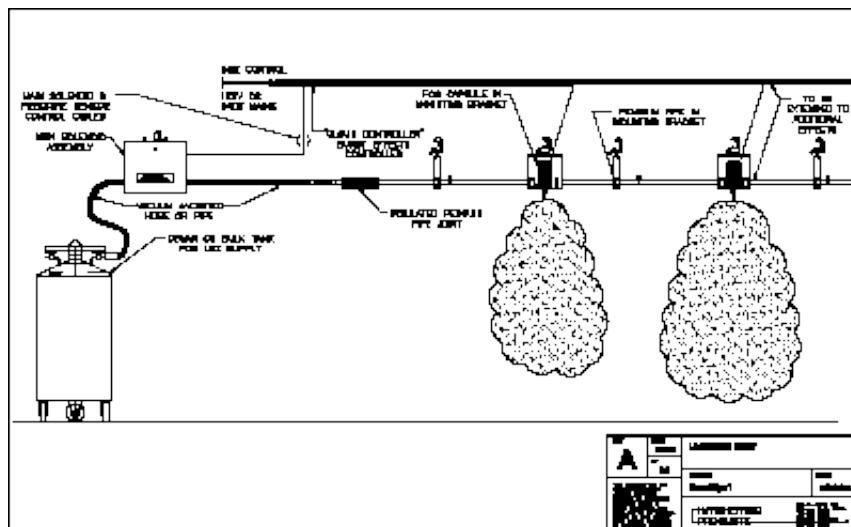


Products

Liquid Nitrogen (LN2) Distribution and Effects Products

Liquid Nitrogen Burst Systems

LN2 Burst Effects take advantage of the concentrated, extreme cold of LN2 to create small weather systems around each Burst nozzle. As LN2 is sprayed from the nozzle, it vaporizes and drives humidity in the surrounding air below dew point. When the dew point threshold is crossed, the humidity condenses into tiny droplets. These droplets are the fog and it is created in just the same way as clouds are created: humidity driven below dew point condenses into fog. Once the fog increases in temperature and the droplets evaporate, the fog disappears leaving nothing behind. The fog is white and takes the color or any reflected light, it has no odor or negative health effect and leaves no residue in the air. It is water condensed in the air to create a brief, visual punctuation to events or performances.



[Larger Sample System Riser](#) (shown above) in pdf format

Main Solenoid Assembly

The **Main Solenoid Assembly (MSA)** makes it easier and safer to use Liquid Nitrogen (LN2) for special effects and industrial applications. The entire mechanism is enclosed in a 16"x20" NEMA 1 box for easy wall mounting. All openings are gasketed or grommetted to minimize any moisture accumulation.

The assembly includes a solenoid to control LN2 flow from supply into the effects system, self-sealing, mechanical, pressure relief valves (PRVs) to protect both supply and effects sides from overpressure conditions and a pressure sensor to detect under-

pressure conditions so that all effects equipment operates within a suitable, safe pressure range. PRVs are tapped to receive NPT fittings so that waste gas can be piped away to a remote location. Integrated pipe clamps allow **Penguin Pipe™** or vacuum-jacketed hose to be connected securely to the enclosure. All air access to the closed-cell foam insulation are sealed to create an effective vapor barrier. Foam materials are extended to minimize “cold creep”. Since some special effects require that a minimum pressure be maintained, an integrated pressure sensor constantly monitors system pressure notifying the system if pressure falls so that safe operations can be maintained.

[Fog Capsule™](#)

The **Fog Capsule™** consists of a cryogenic solenoid enclosed in protective foam insulation for easy and safe installation of LN2 Burst effects. The inner foam jacket is wrapped in a PVC insulating shell and all seams are sealed to provide a suitable vapor barrier.

The **Fog Capsule™** is mounted in a Solenoid Mounting Bracket with integrated pipe clamps for secure delivery of LN2 to the solenoid. LN2 is delivered to the Capsule using JIC fittings for easy assembly. Effects nozzles are inserted into a standard threaded receptacle, which can also accommodate ball joint accessories for fine focusing of Burst Effects. All exposed joints in the LN2 system can be insulated upon system assembly to minimize frost accumulation.

[Cloud Controller II™](#)

The Interesting Products **Cloud Controller II™** is designed for the safe control of LN2 Burst Effects. The controller is designed for 120VAC/ 60Hz or 220VAC/ 50Hz operation. It offers manual and automated DMX triggering options while providing key-lock security, positive manual main solenoid control, clear system status information and low-pressure interlock. Two cables connect the **Cloud Controller II™** to a **Main Solenoid Assembly** and one cable connects to each **Fog Capsule™**. Front-panel thumb switches allow for convenient DMX address selection for easy set-up. Ready lights show system power and system ready (main Solenoid on and sufficient system pressure).

The controller can directly address up to six Burst Effects and multiple controllers can be chained together to control larger effects systems. **The Cloud Controller II™** offers a number of features focused on the safe and efficient operation of liquid nitrogen (LN2) Burst Effects

[Penguin Pipe™](#)

Penguin Pipe™ is a double walled stainless steel pipe specifically manufactured for the distribution of cryogenic (very cold) liquids. The inner stainless pipe is insulated from its outer jacket by a high vacuum and special wrappings to curtail both convection and radiant heat transmission. All of our **Penguin Pipe™** systems maintain a static vacuum and do not require ongoing vacuum pumping. Sections are usually assembled with vacuum-insulated bayonet connectors. VIP systems can be costly but their extreme

efficiency justifies the expense for long term or permanent systems.

All of our **Penguin Pipe™** systems are modular and include vacuum ports on each section for ongoing maintenance. We can assist with VIP system designs and supervise installation on site as each job requires.

Vacuum-Insulated Hose

Our **Vacuum-Insulated Hose** is double-walled, stainless steel, highly insulated hose designed for distributing cryogenic liquids for effects applications. Because effects systems move during their normal operations or must be constantly disassembled and reassembled on tour, hose systems are frequently the best choice for LN2 effects systems. Hoses can be provided in a variety of diameters and lengths. Our hose is extremely flexible with a bend radius of 13".

Please contact us with your application requirements since **Penguin Pipe™** and vacuum-insulated hose system design can require additional engineering consideration.

Dry Fogger® Machines and Fog Distribution Equipment

[Sample System Riser](#) in pdf format

Dry Fogger® Portable

This single-output **Dry Fogger®** is suitable for ground fog, small fog curtains, or small multiple-output fog systems. Standard features include automatic water feed and temperature control, adjustable LN2 flow control and selectable remote control voltages. Digital temperature control available. Available for a variety of voltages. Call for Availability.



Dry Fogger® Mammoth II

The Newly redesigned **Dry Fogger®** is suitable for large scale ground fog, fog curtains, or multiple-output fog systems. It can easily be ganged with other Dry Foggers to create larger effects. Standard features include automatic water feed and digital temperature control, adjustable LN2 flow control, system status Readback and selectable remote control voltages. Available for a variety of voltages.



Fog Diverter™ and Diverter Controller

These are remote control devices used to automatically purge steam from fog systems and to distribute fog from **Dry Foggers®** to multiple effects locations. Diverter can be powered by waste nitrogen gas or compressed air and are triggered by 24VDC analog signals, line voltage of 120VAC or 240VAC or DMX-512.

Fog Manifold™

These curtain manifold sections are designed to accept fog from Dry Foggers every 10' (~3m) and convert it into a long uniform fog curtain. The **Fog Manifold™** is manufactured in 10' sections with five adjustable fog nozzles integrated into its length. **Fog Manifolds™** are designed to work with either **Dry Fogger® Portable** or **Dry Fogger® Mammoth** machines depending on the length and height of curtain desired. If properly shielded from wind and air currents these curtains can be used for projections and to cover entrances.

Air Injector™

These air flow control devices attach to the ends of Interesting Product's **Fog Manifolds™** and between sections of Manifold. **Air Injectors™** increase the rate of fog flow within the manifold. This dries the fog, avoids accumulation of moisture and assists in creating a uniform curtain of fog across the **Fog Manifold's™** length. **Air Injectors™** can also be used in ground fog systems to increase fog volume and shorten fog lifespan.

Interesting Products

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