

# Operating Instructions Nimbus Chauvet Dry Ice Fog Machine

\*\*\* Depending on various factors listed below it may take up to an hour to heat the machine ready for operation.

- The top plate has two LED indicators. One red and one green. The red LED indicates that the heater is on and the green LED indicates when the water is at its optimal operating temperature. The heater will not turn on unless there is enough water. Fill water to the "water line indicator"
- As the dry ice sublimates the green LED indicator will turn off indicating that the water temperature has dropped below its optimal operating temperature. This is normal and the Nimbus will continue to operate until all the dry ice has been used.
- During operation the top plate becomes very hot. **DO NOT TOUCH**
- There is an operational power input next to the main power input to increase the rate in which the water is heated. Use the included power cable and connect this secondary input to a separate circuit to heat the water in half the time. Do not plug both power cords into the same circuit as the breaker will trip
- The dry ice must be stored inside the internal basket for optimal performance. **Do not remove this basket as serious bodily injury may occur.**
- Note. The Fog Machine requires 5Kg Dry Ice which will produce 3-5 minutes of fog depending on output. This
  can be filled with a second batch of dry ice to run for a second run of 3-5 minutes before the water is cooled
  to a temperature which requires it to reheat before adding more dry ice. Filling hot water will reduce the
  heating time. There will be intervals between fog while the machine reheats

# Operation Instructions

- 1. Place the machine on a level surface. Plug the power cord into the wall.
- 2. Use second cord to speed heating time if second circuit is available
- 3. Open the lid and fill with water to yellow water level or until the red light comes on. The container can hold up to 17 litres water. Red light indicates heater is on. Wait for Green light to indicate heat is ready. It may take up to an hour to bring to full heat (unless using 2 power cords). Filling with hot water will reduce heating up time by half
- 4. Raise the basket to its highest level with the operation lever.
- 5. Using protective gear, load the basket with up to 5Kg of dry ice. The dry ice should be loaded at the last possible moment.
- 6. Close and latch the lid.
- 7. Grab the operating lever and slowly lower the handle to the middle notch for low output or all the way down for high output. The fog will run for 3-5 minutes depending on output
- 8. When output slows or stops, raise and refill the basket with dry ice.

Due to water evaporation, you may need to refill the fog machine with water to trigger the red LED indicator. Once the red light comes on, repeat steps 4 through 7.

# Safety Shutoff Feature

The machine is fitted with a safety shutoff feature, which prevents the unit's heaters from turning on when the water level is too low. If this safety shutoff feature has been engaged, simply add more water to continue using the Nimbus

#### ABOUT DRY ICE

Dry Ice is a solid form of carbon dioxide. The term "dry ice" is used because of its ability to sublimate (the process of transforming from a solid directly to a gas without any liquid formation). Dry Ice reaches temperature of -78\*C When immersed in hot or boiling water, dry ice sublimates and agitates the water. The release of cold CO2 gas causes the water vapour to form water droplets in the air. This expansion of gas and moisture pushes its way through the machine. Because the CO2 is cold and heavy the moisture sinks to the floor. The droplets in the air create the fog effect.

### DRY ICE WARNINGS

- 1. DO NOT cover or plug the output nozzle during operation. Compressing the dry ice will cause a chemical reaction that may lead to an explosion.
- 2. Do not handle dry ice with bare hands. Thick gloves must be worn.
- 3. Do not swallow dry ice. It will lead to severe internal injuries.
- 4. Do not use in a confined space. Make sure the room is well ventilated before using
- 5. Dry ice should never be stored in a sealed container that can lead to a pressure build-up and a risk of an explosion

#### **Dry Ice Safe Handling Instructions**

Only responsible, sober adults who have understood these safety instructions should handle Dry Ice. Children must be closely supervised at all times

The temperature of Dry Ice is extremely cold at -78°C. Do not allow Dry Ice to touch bare skin. Dry Ice in contact with skin may result in frostbite. Prolonged exposure will cause severe frostbite. Always wear protective gloves whenever handling Dry Ice and use a plastic or metal scoop

Do not swallow Dry Ice. Dry Ice can freeze tissue in your mouth, oesophagus, and stomach. However, the most significant risk is from the sublimation of dry ice into gaseous carbon dioxide. The extreme build-up of pressure could rupture your stomach, causing permanent injury or possibly death

#### **Dry Ice Storage Instructions**

Dry Ice will sublimate into Carbon Dioxide (CO2) gas. Store Dry Ice in an insulated container - the better the insulation, the slower the Dry Ice sublimation. Do not store Dry Ice in a refrigerator or a freezer (unless the Dry Ice is being used to maintain the proper holding temperature). Do not store Dry Ice in an airtight container; never store in a glass container. The sublimation of Dry Ice into Carbon Dioxide gas will cause an airtight container to expand, rupture or burst. Always store Dry Ice in a well ventilated area. Avoid storing Dry Ice in unventilated rooms, cellars, autos or boat holds. The sublimated Carbon Dioxide gas will sink to low areas and replace oxygenated air. Carbon Dioxide gas at elevated concentrations may be fatal when breathed. Some surfaces left in direct contact with Dry Ice may be damaged by the extreme cold. Adhesives may become brittle and break.

### **Dry Ice Ventilation Requirements**

Air is composed of 78% Nitrogen, 21% Oxygen and only 0.035% Carbon Dioxide (CO2). If the concentration of CO2 in the air rises above 0.5%, it can become dangerous. Lower concentrations - i.e. below 0.5% - can cause accelerated, laboured breathing and headache. If Dry Ice has been in a closed auto, van, room, or walk-in refrigerator for more than 10 minutes, open doors and allow adequate ventilation before entering. Leave the area immediately if breathing becomes difficult, or if dizziness, headache or light-headed feeling is noticed. Carbon Dioxide (CO2) is heavier than air and will accumulate in low spaces. Do not enter closed Dry Ice storage areas without first fully ventilating the space.

## **Dry Ice Pick Up & Transportation Instructions**

Plan to pick up Dry Ice as close as possible to the time it is being used. Bring a well-insulated esky. Foam eskies are available for purchase in various sizes. If Dry Ice is transported inside a car or van, make sure there is a constant supply of fresh air. Leave windows down to allow for ventilation in the cabin

Dry Ice WA takes no responsibility for any misuse of this product. Every customer must abide by these Safety Instructions and must always ensure the safety of themselves and others when using Dry Ice