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Continued from July 2008 CTI Newsletter

### Getting the Most Out of Your Aquafofog 3300™

#### Why is dry ice fog the fog of choice for many designers and directors?

No other fog hugs the floor as tightly or is as thick as genuine dry ice fog. When low lying fog is required it is the fog of choice. Other types of technology have tried to duplicate it but none can achieve the denseness of dry ice fog.

#### What is dry ice fog?

Dry ice fog is a thick, dense, low-lying fog created exactly the way fog in nature is created, by condensing water vapor out of the atmosphere. We use dry ice (the solid form of carbon dioxide) to condense the water vapor out of the air. Dry ice fog contains no chemicals, glycols, or oils, and is truly a "water based" fog.

#### How does it compare with other types of fog?

Dry ice will not rise, since it is heavier than air. It will cover the ground, roll down stairs, and swirl if walked through. It will not rise into light beams like glycol type foggers and will not make a fine mist in the air like hazers. Dry ice fog has no odor, contains no chemicals, and leaves no oily residue. Actors and singers are comfortable with it and understand its safety.

#### How is the Aquafofog 3300 operated?

The fog machine is filled with water (28 gallons) and heated with its built-in heating elements. When the water has reached operating temperature (two hours from cold, less from room temperature), the ice chamber in the machine is loaded with dry ice through a door on top. When fog is needed, the pump is turned on and hot water is pumped into the ice chamber, immediately creating fog. The fan is turned on and the fog is blown out to the stage via a ducting hose.

#### What kind of power source do I need?

The Aquafofog 3300 for 120V use has 4 IEC edison plugs - 2 at 14 gauge with notches for the heating elements, (Note: these are heavy duty cords and are not the type found on your computer even though they are IEC) and 2 at 18 gauge--one for the pump and one for the fan. There are individual fan and pump switches in case someone wants to put the pump and fan on separate non-dims controlled from the console. You will need a minimum of two 20 amp 120v circuits--one for each heating element, and the fan and pump also plugged into one of the two circuits.

The Aquafofog 3301 230V version ships with the 4 IEC cords but with no connectors on the other end. The 3301 has a thermostat marked in Celsius and has an internal 230V fan and pump.

#### Where can I get dry ice?

Look in the yellow pages under "Ice" or "Dry Ice". Many companies will deliver ice to you each day as needed. Ask your dealer to provide you with two-inch cubes, or if you want maximum fog, pellets.

#### How can I store dry ice?

Dry ice can be stored in a cooler or ice chest. Stored ice will

# Aquafofog™

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evaporate relatively quickly, usually within 48 hours. Preferably, you should buy dry ice on the day of use. Do not buy dry ice more than one day in advance!

**How much dry ice will I need?**

75 pounds of dry ice will produce about 10 to 15 minutes of fog.

**How can I produce more fog?**

Output can vary with the ice - if you break it up into tiny pieces and pump really hot water you'll get a big volume that won't run as long as if you used big pieces of ice in cooler water. You can adjust the temperature between 100 and 160 degrees F - a single thermostat runs both elements (single on/off switch as well).

**Why is my Aquafog 3300 only producing a tiny amount of fog?**

To make a lot of fog, even for a short duration, you need a lot of ice. If you use a lot of ice and hot water, you will produce a lot of fog.

**How can I produce fog for a longer duration?**

As in the above paragraph, you can use larger pieces of ice, or lower water temperature.

**How big a stage can I cover?**

Our rule of thumb is one machine can cover a 20' x 20' stage for 10-15 minutes. If you have a 40' wide stage, you will need a machine on each side of the stage.

**Is dry ice fog safe?**

Remember that CO<sub>2</sub> is heavier than air and displaces oxygen. You must NEVER allow anyone to lie down in the fog and you need to use common sense and follow safe practices – remember that you're working with a device that uses both very cold and very hot elements. See the Dry Ice section of our [website](#) for more safety information.

**Repair tips:**

Steps to take if the Aquafog pump is not working:

-Be sure the tank is full of water. The pump needs water pressure to work.

-If the machine has been unused for a long time between uses, the water that has evaporated can leave sediment and minerals that lock up the impeller in the pump. Here are the steps to follow in that instance:

- With the tank filled with water, toggle pump on and off (pulse).

- Backfeed water from a hose into where it pumps water into the ice chamber.

**-Call us. . . we have other tips and tricks for freeing a stuck impeller! In most cases it is far easier to free a stuck impeller than to replace a pump.**