

DF-50 DIFFUSION HAZER

OPERATING INSTRUCTIONS



INTRODUCTION

The DF-50 Diffusion Hazer is a cost-effective atmospheric fogger that uses less than 2 ounces of fluid an hour! The Haze produced is totally odorless and can only be detected visually. No more sore throats or burning eyes. This patented machine utilizes a filtered system that breaks down the High Performance Fluid (food grade mineral oil) to tiny particles of haze. The unit is self-contained needing only the proper power rating and a sufficient amount of fluid.

UNPACKING

Each DF-50 is carefully checked and tested to strict factory standards before being shipped. In each carton is the DF-50 and accompanying power cord.

Warning: Do not connect the power cord to the unit and switch on until you have thoroughly read the operating instructions section of this manual.

OPERATING INSTRUCTIONS OVERVIEW

The DF-50 Diffusion Haze should NOT be considered a standard haze machine. Because of the minute particulate size of the haze produced and its long lasting hang time (3+ hours in an enclosed area) it is not necessary to have the concentration of haze that is normally associated with other machines. The particles produced are so minute that they are hardly visible to the eye. Although you may think the concentration is insufficient, you will find that after a very short period of use the DF-50 will have produced more than a sufficient amount of atmosphere.

Due to the efficiency of the machine it is recommended that the machine be used intermittently, NOT continuously, and in situations where an operator does not monitor the machine, it is suggested you use a timer to switch the machine ON and OFF. Under normal conditions you may find that a running time of 10 minutes ON each 15-20 minutes should provide the desired atmosphere, however length of running time will vary for each job.

Another important factor in the operation of the DF-50 is that it should NOT be fully enclosed, unless enclosed in a case approved by the manufacturer. If the air temperature around the machine rises too high the thermal sensor in the machine will turn it OFF. The machine works on the principle of drawing air from the back of the machine and passing air through the machine, then out the front of the machine mixed with the diffusion particles, which have gone through a filtration process. Therefore, a steady flow of cool air is recommended for the machine, hence it is best operated in an unobstructed position.

If the machine is used non-stop (this is NOT recommended) over a long duration, you may create a situation whereby the concentration of smoke is too much, which can result in build-up of residue in the environment. You may also experience some residue after a long duration of using the machine as recommended. This residue can be seen on equipment close by, especially those with air filters and fans etc. However, returning to intermittent use, using an on/off timer will prevent the buildup from being severe. If the machine is to be used continuously, then a timer should be used to create a 10-minute off period to allow the water trap and internal filter to automatically drain, cleaning itself.

OPERATING

Always

1. Transport the unit right side up when in your own possession. When shipping, it is mandatory to empty the unit completely. If you receive the unit and oil is in the box, it is an indication that it wasn't emptied completely before being shipped.
2. Before operating, fill with High Performance Fluid just below the halfway distance of the tank window on the side of the unit. **ALWAYS TAKE CARE NOT TO OVERFILL.**
3. Check the machine for the correct voltage and amperage. Never use a long extension cord that is not able to easily provide twice the proper amperage needed.
4. Check the female plug for a tight connection before plugging the male end into an AC voltage receptacle. Never plug into line DC voltage. This will result in permanent damage to the machine.
5. If the circuit breaker trips, then turn OFF the machine and reset by depressing the breaker button, then turn back ON. Be sure to plug directly into a wall outlet or use a 1 4/3 (2.5mm²) extension cord. Note: When starting, the voltage must not drop less than 80% of nameplate voltage. If it is cold, you must have the temperature at least 70 degrees F. If it continues to trip contact your dealer.
6. The machine must be level to operate properly.

FILLING INSTRUCTIONS

1. Unscrew the cap on the top of the unit and pour High Performance Fluid into the opening. Be careful not to overfill (If overfilled, see fill inst #2).
2. Do not use more than 2 liter's or 1/2 gallon of fluid. **DO NOT OVERFILL.** If you overfill, then it may be necessary to remove the fluid with a turkey baster to lower the level to halfway up the glass. If it has spilled over and inside the unit, you may need to remove the cover to clean up the excess fluid inside (this is not a sealed tank). If this is required **DISCONNECT** the machine from the power supply before opening.
3. Check the level by using the sight window on the side of the unit. Fill only to half way up on the sight glass.

CAUTION

Only **High Performance Fluid** may be used in the operation of the DF50. Any other fluid may clog the machine, create a health hazard, cause damage to the machine and will void the warranty coverage.

DO NOT ATTEMPT TO SERVICE THE DF-50! CALL YOUR DEALER IF YOU HAVE ANY QUESTIONS!

ROUTINE MAINTENANCE

FLUID LEVEL: Using the sight glass on the side of the machine, fill with a sufficient amount of fluid to approximately ½ the distance below the top level. If you overfill, then tip the machine on its side to dispose of the excess.

COMPRESSOR: Maintenance is required, keeping the filters clean, and not blocking any air passages. No attempt should be made to service the compressor. The compressor is rated at MTBF 5000+ hours before any rebuild may be necessary, however, keeping it in a cool operating temperature is going to extend the life of the unit.

AIR FILTER: Remove top of the black filter element. By twisting counter clockwise 1/4 turn. Remove wool element and wash in soap and water, then reassemble.

WATER TRAP: To maintain maximum filtering efficiency and to avoid excessive pressure drop, the filter must be kept clean. To access the filter you need to remove the cover of the DF-50. Turn the drain valve to remove any bowl accumulation before it reaches level of lower baffle. A visible coating of dirt or condensation on the filter element or excessive pressure drop indicates cleaning is necessary.

To clean, depressurize air line and remove bowl. Wash filter elements with household soap. Elements should be replaced if soiled or creating excessive pressure drop. Blow out body with compressed air. **Clean bowl only with household soap.**

TANK: No maintenance is required and no attempt should be made to service.

If any problems occur, you should contact your dealer

USEFUL TIPS

The DF-50 Diffusion Hazer provides a fine atmospheric mist. The maximum recommended level for use in an eight-hour day is 5mg/M³. If OSHA levels have to be met, please contact your dealer for information on the Diffusion Fog Meter.

Always use High Performance Fluid (formerly called Diffusion Fluid). Operation with any other fluid will invalidate the warranty and fail to meet CAL/OSHA tested standards.

It is helpful to use a Director Fan to disperse the haze produced, but it is not recommended to haze through the fan as this will result in build-up on the fan blades.

It is NOT necessary to place the unit where haze is required, as the DF-50 will provide an even amount of atmospheric ambiance in the entire space.

Do not leave the machine ON continuously in a small room as this will result in too high a concentration and may leave unwanted residue.