Instruction manual

Please read carefully before operating

Le Maitre

Mini-Mist turbo

Portable smoke generating machine

Electrical connections

It is imperative that this machine is earthed under all circumstances. Failure to ensure correct earthing can lead to serious injury.

Mains lead colour coding
Brown – live, connect to plug terminal marked L
Blue – Neutral, connect to plug terminal marked N
Green/Yellow – Earth, connect to plug terminal marked E or earth symbol

UK connector plugs should be fitted with a 5 amp fuse.

Power rating – 1KW 240 volts AC 50Hz

Fail safe mechanism – Live line circuit break on excessive temperature. This is a non-resetable device and a failure will require a technical inspection.

Operating instructions

Attach a **Le Maitre** smoke fluid canister – NATO no. 1365-99-496-1225 to the fluid connector assembly at the rear of the machine. Please note that this assembly contains a special sealing 'O' ring, which prevents fluid leakage when the canister is fully tightened. In fitting the first few canisters, where the thread in the assembly is not 'worn-in', fluid leakage might be noted. This will necessitate further tightening, since the newness of the thread has only given the impression of a proper seal.

Also note, that, although alternative manufacturer's fluid canisters might be offered, it would be extremely unwise to entertain their usage. Not only will it invalidate any guarantees, their use could be responsible for the issue of uncertain smoke quality, i.e. toxic vapours, and cause damage to the internal heat exchanger and safety control.

Operating instructions *continued*

The **mini-mist** should now be connected to a suitable mains supply.

The mains on, and heating indicators will show that mains is present and that the machine is in its heating mode.

Depending upon the starting temperature, the machine warm-up time will be in the order of nine minutes, after which the heating indicator will turn off.

The **mini-mist** is now ready to product smoke output.

During the first few heating cycles of a new machine, small wisps of smoke may appear to emerge from the ventilation slots. This is merely insulation binder burn-off, which settles after a short period of time, and should not be a cause for concern.

Smoke issue cannot be produced by depressing the smoke button.

On machines fitted with a smoke control valve, the output can be set to the required issue rate. Turning this control clockwise will reduce the flow.

Because the mini-mist has been designed to include operation whilst disconnected from mains supply, automatic shut down under low temperature conditions does not occur. Since this is the case, a visual check on the *dryness* of the smoke issue must be made. On mains usage, a warning will be given by the heating legend turning on again (further output is possible, but should be monitored).

Below a critical temperature, incomplete aromisation will result in the issue of *wet* vapour. This could lead to undesirable film deposits on any surfaces close to the machine.

Further smoke issue should be halted, and the machine allowed to reheat.

As a guide to noting incomplete vapour conversion, there should always be a small *gas gap* between the smoke output nozzle and the actual start of the smoke vapour. This gas gap will decrease in length and become streaked with fine fluid traced at the onset of *wet* smoke output.

On removing smoke canisters from machines, a small amount of fluid flow back will occur. This will be contained by the connector assembly, and should be wiped dry with an absorbent cloth, ensuring no foreign particles enter the threaded section.

Ducting

There is a provision on the **mini-mist** for the attachment of a ducting adaptor (optional extra), which will allow the use of flexible ducting. Owing to the nature of the smoke fluid which is water based, there is a tendency for the water to condense in the ducting hose.

Arrangements should be made for this to be cleared via a 'U' bend section.

A clearance distance of at least 100mm (4 inches) should exist between the smoke output nozzle and the beginning of the ducting hose. If this air gap is not created then excessive condensation and incorrect smoke conversion will occur.

To secure a long and reliable life time, the following points should be noted:

If the **mini-mist** is to be used for very short smoke issues over a long period of time, it is suggested that the machine be powered down. Although the mini-mist has many safety features, the lift of the heat exchanger could be reduced if the machine is not switched off after each working period.

The optimum working orientation of the mini-mist is that of a horizontal position. Other angles of operation, may, in some cases lead to premature fail-safe action, due to inadequate ventilation.

After long periods of storage, or continual canister replacement, if fluid leakage is notices the sealing 'O' ring in the fluid connector assembly may require replacement. This relatively simple operation can be affected by the user or by technical personnel.

'O' ring NATO, stock no. 5330-99-780-4022.

Le Maitre would advise the inspection of all machines where any doubts concerning electrical safety exist, or in the case of machines having been stored in unheated surroundings for long periods of time. In any case, all machined should have a yearly inspection by qualified technicians.

If large amounts of smoke issued are to be effected in public areas, the user should be satisfied that all Health and Safety Regulations are being complied with.

If any doubt exists about the application aspects of the mini-mist machine, please consult your supplier or Le Maitre Sales Ltd.

Warnings

Keep all persons and objects away from the smoke jet. Smoke output, close to the nozzle is very hot, and can cause burns. The smoke will condense on objects up to 30cm (12 inches) away and could burn exposed skin.

Never operate the machine where hot fluid/vapour could come in contact with personnel.

Never use alternative fluids – toxicity free output is your responsibility.

Additional note relating to smoke production times

For 'off mains' application, in order to obtain maximum smoke producing capabilities, the machine should have just switched off its heating mode (i.e. heat exchanger at its maximum temperature).

With the machine set to its maximum output setting (smoke control valve set fully anti-clockwise), it is possible to achieve one minute smoke production before the re-application of mains power is required.

Reheat time from this state will be in the order of 2 to 2.5 minutes.

Soft carry case NATO stock no. 1365-99-573-1475, has been specifically designed to facilitate the mini-mist turbo smoke machine. Whilst the machine is in use, the main securing flap of this case must remain in the open position.

Le Maitre

6 Forval Close
Wandle Way, Mitcham
Surrey CR4 4NE

Tel 020 8646 2222
Fax 020 8646 1955

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