

USER GUIDANCE - LF MISTER: LOW-FLOW MISTING UNIT FOR DUST + ODOUR CONTROL

READ ALL THIS GUIDANCE BEFORE USING THE APPLIANCE



GENERAL: The LF Mister is a portable trolley mounted unit which pumps filtered pressurised water to misting / fogging nozzles embedded in flexible high-pressure lines. Nozzles produce either a water mist (typical droplet size 50 - 70 microns) or a fog (droplet size 5 - 15 microns) to suppress fugitive dust and odour.

Lines are supplied on 30m hose reels with a nozzle every 3 metres. The flexible line allows nozzles to be close together or up to 3 metres apart; lines are easily affixed to supporting structures - such as fences or roof truss - using cable ties or similar.

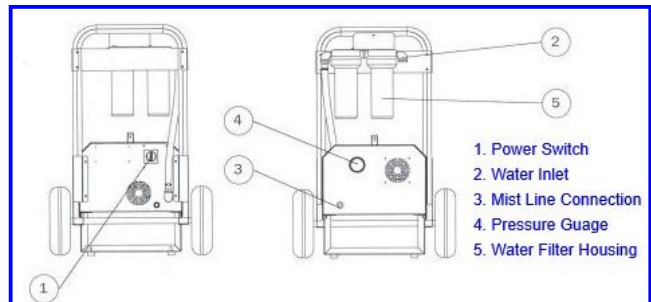
Each LF Mister will support 1 to 5 reels (30m to 150 metre length) of line in any configuration & automatically adjusts output to match the number of reels. Lines equipped with standard M-1.5 misting nozzles (silver tip) deliver 0.30 L/min mist from each nozzle (+/-0.06); lower throughput nozzles (bronze tip 0.15 L/min) are available on request.



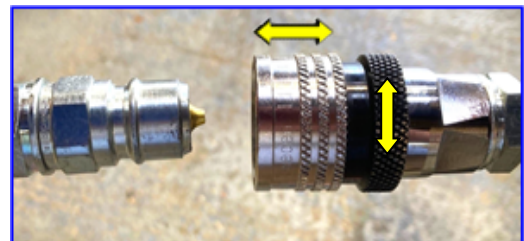
PRE-USE CHECKS / FILLING: Before each use visually inspect the trolley mounted pump unit and hose reels for evidence of damage. Check hoses / lines for visible signs of wear, cracks or leaks. Check power supply cable and power switch for any damage. Unscrew the water-filter housing, check water filters are in-situ (rinse clean if dirty), screw housing closed ensuring O-ring seal is in place; if the equipment is damaged do not use it.

OPERATING INSTRUCTIONS:

1. Couple a supply of cold, clean (potable) drinking water to the LF Mister water inlet.
2. Plug-in to 110v 16A supply and turn the power switch to "ON"; briefly run the mister until water discharges from the mist-line connection point, then switch "OFF".

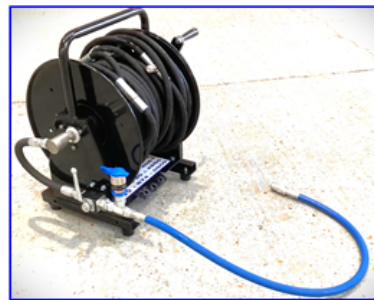
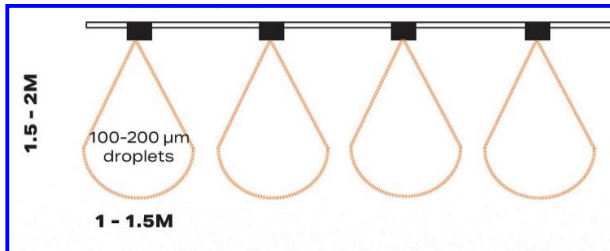


3. A 10m lead-line hose without nozzles is stowed on the LF Mister (orange reel pictured above) - couple one end to the LF Mister outlet, the other to the hose reel of the first misting-line (blue hose-tail shown on image overleaf). Lines are equipped with self-seal couplings - rotate the black knurled lock-ring to release the silver collar - pull back the silver collar to facilitate connection & disconnection.



4. Once joined together unroll the misting line from its reel and lay out according to your requirement.

To extend the length of a mist line: join the hose-tail of another reel to the end of the preceding mist line (see far right).



To create a branch-line: connect the hose-tail of a reel to the T-piece coupling of the preceding reel (see image below and left).



You can link together from 1 to 5 lengths of mist line in any arrangement - a long line, or lines with branches off; the lever valves on the hose-reels allow control of individual branches.

5. Once the misting lines have been laid out switch on the LF Mister pump. Within a few seconds the nozzles will produce a cone of water mist. If no water mist is visible after 45 seconds check the water supply to the pump unit is turned on. Do not allow the pump to run without water for more than 60 seconds otherwise it may suffer damage from dry-running.
6. Check the LF Mister pressure guage - normal operating range is 20 - 70 bar (the figure will depend on the length of misting line and the type of nozzles).

A pressure below 10 bar indicates the water supply to the LF Mister may not be sufficient – ensure any taps in the supply to the pump are fully open; do not let the pump operate dry !



7. After Use: turn the rotary switch to OFF and wait until the spray subsides. If the machine will be standing for more than a week it is recommended:

- the lead-line is disconnected from the LF Mister and the coupling at the farthest end of the misting line is opened to facilitate drainage of the line (unscrew the “service plug” stored on the LF Mister - shown in image right - and insert to the end-of-line coupling to open it).
- the feed-water supply to the LF Mister is turned off; open the filter housings and pour away residual water.
- open the valve marked “pressure release / purge” and briefly switch on the machine to remove water residue from the pump (approx. 20 seconds). When no more water is discharged switch off the machine, close the purge valve & disconnect power.
- clean and refit water filters, screw filter-housing closed ensuring the O-rings are in place.



8. Flush Procedure:

- if the equipment has been unused for more than a week it is recommended that the user flush it with clean water prior to returning it to service (sanitising solution can also be used - see sanitising procedure in box further down this page).
- **Flush Procedure:** connect all hoses to the LF Mister, insert the service plug (as 7 above) to the end-of-line coupling to minimise spray generation, then switch on and flush with clean water. Flush for a minimum of 2 minutes, opening the pressure release / purge valve for the last 20 seconds [approx. 25 L of water is required to flush the LF Mister + 5 lengths of line].
- once the flush has been completed close the purge valve & return the end-of-line coupling to its "closed" position by removing the service plug (store plug back on the LF Mister). The equipment can now be returned to service.

IMPORTANT NOTES

!! IN EMERGENCY: TURN SWITCH TO "OFF" & UNPLUG FROM POWER SUPPLY !!

OPEN PRESSURE RELIEF / DRAIN VALVE TO DISSIPATE ANY RESIDUAL PRESSURE

This equipment is mobile and can be used and located in many different environments. Users are therefore reminded of the need to ensure that all tasks and locations are risk assessed before activity commences to ensure that significant hazards are identified with appropriate precautions put in place.

The LF Mister is not for use in explosive or flammable atmospheres. This equipment is designed for generating a fine water mist for dust & odour suppression. The mist should not be directed at non-waterproof electrical equipment or power cables. Do not attempt to couple or un-couple hoses or nozzles while the equipment is pressurised. The equipment should be operated by an able-bodied adult; this equipment must not be used by minors or anybody under the influence of drugs or alcohol.

Personal protective clothing must be worn. When operating the Multimister use gloves and visor or goggles as a minimum. The LF Mister generates low level noise - 68 dB(A) @ 3 metres.

This equipment contains water while in operation - do not allow it to freeze !!! If the pump has frozen DO NOT attempt to start it; allow to thaw and inspect for damage before use. If possible store indoors during frost. If you will not be using the equipment for more than a week you are advised to drain it down; purge with clean water before next use - see Step 7 & 8 of the operating procedures.

Legionella bacteria can grow at temperatures above 22°C, particularly in dirty or contaminated water. For this reason always supply the equipment with cold [not above 20°C] clean, potable drinking quality water only. If the water temperature is sustained above 20°C you are advised to risk assess (RA) your application for this; consider measures such as increased frequency of cleaning and treatment of the machine and lines with sanitising agent (such as Milton or a QUAT disinfectant). The user's attention is drawn to HSE guidance on Legionella ACoP L8; depending on your work environment and the temperature you may need to include the equipment within your Legionella management plan.

Sanitising Procedure: The LF Mister - when coupled with 5 x 30m lengths of line - requires 15 litres of sanitiser to contact all internal wetted surfaces. Connect a hose between the container of sanitising agent and the water inlet of the LF Mister. Ensure the mist line's end-of-line coupling is open (i.e. the service plug is inserted) and place a container under it to capture any excess sanitising agent discharged. Switch on the LF Mister, allow it to run until all the sanitising agent has been drawn into the machine - about 90 seconds; during the 90 seconds briefly open the purge valve for approx. 10 seconds (collect the sanitising agent discharged in a container). Once all the sanitising agent has been drawn into the machine switch it off and allow the agent the dwell time recommended (refer to agent manufacturer's instructions). In you are using Milton this is typically 15 minutes.

Once the dwell time has expired connect a supply of clean water to the pump unit and turn the LF Mister on for a minimum of 2 minutes to flush sanitising agent from the machine and lines; open the purge valve for approx. the last 20 seconds of the flush. Collect the spent agent discharged during the flush and dispose of in accordance with the manufacturer's instructions. Restore the end-of-line coupling to its closed position (by removing the service plug) and close the purge valve. The machine is now ready to use for misting once again.

! Observe the precautions and directions given by the manufacturer of the sanitising agent !

Envirogard Hires

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Setting Hire Standards



Manchester 01613 208 587

Ashford 01303 814 930

Tamworth 01827 304 955

Barnsley 01226 740 900

TECHNICAL:

DIMENSIONS:	LF Mister Pump Unit Length 750mm, Width 720mm, Height 1050mm, Mass: 88 kg
CONNECTIONS:	Power 16 Amps @ 110v, 50Hz. Feed water 2-5 bar, 11.5 L/min, clean potable water.
PUMP OUTPUT:	3.5-11.5 L/min @ 20-80 bar; capable of supplying 1 to 5 lengths of misting line. Standard operating temperature +2°C to +20°C (21°C to 45°C subject to R.A. and extra measures).
MISTING LINE:	Reels carrying 30m lengths of flexible 3/8" H.P. line, with nozzles every 3m (10 per length). Max. 5 x 30m reels (150m) per LF Mister. Quick-couplings allow rapid configuration of lines in straight or branched configuration without tools. 30m Mist Line Reel Length 500, Width 550, Height 550, Mass: 25 kg
SERVICE:	User's are required to sanitise the equipment regularly when in service; the frequency will depend on the user's R.A. and application; in any event at intervals not exceeding 6 months. Pump + gearbox oil change at 500hr intervals is a supplier responsibility; an hour meter is fitted to facilitate this - please contact the supplying depot when/if this service is required.

TROUBLE SHOOTING:

Loss of Pressure:	Check feed water supply to pump unit is fully open; check / clean water filters.
Pump Noisy:	Air in pump - check filter housing is tightly closed and O-ring seal is in place.
Poor Spray Pattern:	Check water filters are installed. Run descaling / sanitising cleaning cycle.



Noise



High Pressure Water



Wear Hearing & Eye Protection

A SELECTION OF OTHER MISTING EQUIPMENT THAT WE SUPPLY IS SHOWN BELOW. FOR MORE INFORMATION ABOUT OUR RANGE OF HIRE EQUIPMENT CONTACT OUR HIRE DEPOTS OR SEE OUR WEBSITE www.envirogard.co.uk

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DUST AND ODOUR CONTROL - WATER MISTING CANNONS FOR HIRE



The **Commando Dustguard** mast-mounted spray throws water mist 25+ metres. A powered drive can rotate the spray head from side to side – ideal when larger areas require application of water mist.

The Dustguard also has an integral 200 bar jet wash with 30m of reel-mounted hose + lance, delivering 18 litre water/min @ 2900 psi - for serious cleaning !

Powered from its integral electric-start Hatz diesel engine and drawing water from the 1000 litre bowser, this self-contained unit is a "roll up, switch on" product requiring only periodic refill with water & fuel.

For a more compact portable unit – small enough to move by hand - that will operate from 110v power look no further than a **DF Smart Dustfighter**.

Connect water from a standard ½" hose, plug in 110v power and switch on – the Dustfighter will throw a plume of water mist up to 13 metres (50').

Tilt adjustment allows the vertical angle to be changed, and the unit can be pushed and turned to face any direction required.

