

ULV FOGGER

ULTRA LOW VOLUME FOGGING
MACHINE



Operations and Maintenance Manual



Fogger is used to saturate air with a disinfectant such that the product spreads throughout the target area & coats surfaces with thin, even layers. Use as a sprayer for direct application on contaminated surfaces is NOT RECOMMENDED.

ULV Fogging, works by compressing pesticides or disinfectants through a specially designed nozzle, producing a fine cold mist or aerosol. Electric portable versions are particularly ideal for indoor applications as they don't produce exhaust gases

Ultra-Low Volume application (ULV) of disinfectants depends on the volume to be fumigated, strength of disinfectant solution, time of exposure and particle size of fog produced.

Atomized liquids should be low density & non flammable. Refer to the dosage chart and MSDS for composition & compatibility, chemical safety and accidental exposure guidelines.

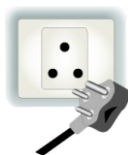
Read Operating Instructions overleaf, failure to comply may lead to reduced machine life, electric shock hazard, fire & accidents. **All maintenance operations by authorized personnel only**

Product Information

Specifications	
Model	Electric operate ULV Fogger
Power Supply	220V, 50Hz, 3.5A AC 1PH
Continuous Duty Hour	50 minutes
Compatible Chemicals	All water based disinfectants
Tank Capacity	5 liters
Droplet Size	5 ~ 10 microns
Coverage Area	30ft x 20ft, >7000cu.ft vol.
Material Dispersion Rate	50ml/min (Fix-flow system)
Optional	Timer & Rotator
Materials of Construction	
Body & Parts	Chemical resistant material
Strainer	Fine SS wire mesh

Areas of Application

Site/Treatment Specific	Aerial & surface disinfection treatment, closed space sanitization
	Control of mold & mildew
	Humidification
	Odor Control
	Control of flying pests
Industry Specific	
Pharmaceuticals & Biotechnology	Medical Devices, Bulk Drug Manufacturing, Microbiology Lab, R&D Center, Clinical Drug Trial Center, Tissue Culture Laboratories.
Hospitals	Operation Theatres, Intensive Care Units, AKD units, Post Operative Wards, Pathology Labs & Blood Banks
Agriculture and Horticulture	Greenhouses, Poly houses, Poultry sheds, Apiaries, Cut flowers and Vegetable Storage Areas etc.



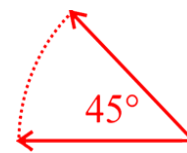
Use a 3/C terminal 220V power supply



Fill tank with pre-mixed disinfectant solution



Adjust the droplet size using regulator



Adjust orifice at 45° angle and Fumigate

BEFORE STARTING

- Connect the unit to a designated 220V,3.5A power supply Use a grounded 3 terminal extension cord if required
- DO NOT reposition device by pulling on the power cord
- Shut off ALL doors, windows, AC & ventilators in the room
- Switch off & cover ALL electrical leads, digital equipments and electro medicos etc with cloth or plastic sheet
- Remove any potential source of electric spark, or fire (heating element) from the area

OPERATING INSTRUCTIONS

- Prepare the disinfectant solution as per instructions on the disinfectant label and the area to be fumigated
- DO NOT mix chemicals in the tank; pre-mix & add to tank
- DO NOT add more than 5 liters liquid to tank; incase more than 5 liter solution is need, run in successive batches
- Never place device directly on the floor; always elevate with a stand or table to prevent dust & moisture clogging
- For optimum results over large volumes, repeat process from two adjacent corners of the area
- DO NOT operate in small enclosed areas beyond 30 minutes

Dosage Instructions

1. Volume of space to be fogged = Length x Width x Height
e.g. 20ft x 20ft x 10ft = 4000cu.ft

2. Recommended application rate: 400ml/1000cu.ft

3. Time required for fogging = Total Liquid to be fogged/flow rate

Liquid (ml) = Volume (4000cu.ft) x Application rate (400ml/1000cu.ft)
= 1600ml

Time required = Total liquid to be fogged/flow rate
= 1600ml/50ml/min
= 32 minutes

Fumigation volume (cu.ft)	Amount of Solution needed (ml)	Time required to Fumigate (minutes)
1000	400	8
2000	1150	23
3500	2300	46
5000	3450	69
7000	5000	100

DURING OPERATION

- Adjust the droplet size using the regulator on the tank
- An ideal ULV fog is an invisible jet spray because of very small droplet size; finer the droplets, greater the efficacy
- Turning the regulator by one full turn results in a visible power mist that may deposit on nearby surfaces
- Adjust the head of the device at an approximate 45° angle to the metal base cylinder and switch on the equipment
- Leave the area during fumigation process

AFTER FUMIGATION

- Adjust the droplet size using the regulator on the tank
- An orifice with clean nozzle will produce uniform droplets
- An ideal ULV fog is an invisible jet spray because of very small droplet size; finer the droplets, greater the efficacy
- Turning the regulator by one full turn results in a visible power mist that may deposit on nearby surfaces
- DO NOT switch on the device with a closed regulator
- Adjust the head of the device at an approximate 45° angle to the metal base cylinder and switch on the equipment
- Leave the area during fumigation process

Quick Troubleshoot

Problem	Fog and power mist is weak
Solution	Re-calibrate orifice regulator
Problem	Liquid forms around the base of the motor housing
Solution	Extended operation time resulting in mist deposition on metal base
Problem	Fogger is operating erratically; frequently turning on & off
Solution	Electric cord & plug may be loose/damaged or Motor failure
Problem	Fogger becomes very warm (hot) during normal operation
Solution	Filter and strainer systems may be blocked and need cleaning



ROUTINE MAINTENANCE

Clean your fogger after each use. Drain the unused chemical from the tank, rinse it with the water after using water base product or kerosene after using oil based product. Always fog for a few minutes with clean water to flush chemical residues from the internal lines.

Nozzle cleaning -If any deposits are formed into the nozzle parts, it requires to be cleaned. Follow instructions from dealer to clean solid residues left in the nozzle parts. Run the machine with plain water to flush out the residues.

Tank Cleaning -To separate tank for cleaning, unscrew the wing nuts on the tank lid and lift the blower head. The tank is separated for cleaning. Clean strainer & tank as needed. Do not leave fogging solution in tank for long period of time. Always empty tank after each use before storage.

Motor Brushes- Graphite motor brushes conduct electricity to the motor commutator. Brushes are a wear part, with a life of about 400 operating hours. Contact dealer for replacing motor brushes.

Intake Air Filter- Air borne particles, dirt, dust, & chemical being fogged can cause internal corrosion & premature wear of motor parts. Warranty does not cover damages from such causes.

Dirty & clogged filter may be washed with water, dried and used (Do not squeeze)

(Life of the intake air filter depends upon frequency of the machine used, type of chemical used. While replacing ensure that filter gets firm grip. Filter life is 75 hours of use or maximum six months.

PRECAUTIONS

Refer to MSDS of chemical to be fogged & follow dosage instruction, restriction & safety precautions specified.

Comply with requirement of goggles, gloves, facial masks recommended by chemical label.

Do not dispense flammable liquids such as acetone, benzene, gasoline, alcohol etc. Never fog around open flame.

Do not touch the blower orifice while the unit is in operation. The cooling time is 10 to 15 minutes after switch off.

Do not use to dispense highly corrosive liquids, paint or lacquer.

Do not fog a non-approved product which can damage machine parts and accelerate motor wear.

Do not switch ON the machine in absence of intake air filter, replace it when dirty.

Do not restrict the air intake of the ULV Fogger by blocking hand, holding it quiet near to body.

Do not insert any instrument or wire into the machine from front or rear end or nozzle end.

Always use 3 wire grounded electrical system. Do not disconnect the safety ground or use extension cords to convert this machine to 2 wire system. This defeats the purpose of safety ground and may result in electrical shock.

Extension cord current rating if used must be greater than the amperage shown on the fogger nameplate.

Do not operate Fogger without strainer at the rear end of the liquid suction tube to avoid clogging of nozzle and tubes.

Do not expose to rain or immerse the machine in water or liquid to clean it.

Do not swing Fogger in running condition as motor rotates at very high speed.

Do not start damaged, broken or partially opened machine.

Allow fog to dissipate for 15 minutes before opening windows &/or ventilators to recirculate room with fresh air



Certifications and Approvals:

Chemtex Speciality Limited

111, Haute Street Corporate Park, 86 A, Topsia Road (S) Kolkata -700046, WB, India
Tel: +91 (33) 7111-1111 | Fax: +91 (33) 7111-1117 | Email: cnh@chemtexlimited.com

www.chemtexlimited.com

