

VECTORFOG[®]
EXPERTS IN FOGGING TECHNOLOGY™

BM100 Backpack Motorized Mist Sprayer



INSTRUCTION MANUAL

When spraying outdoors, you should only spray for short periods of time and when there is minimal wind. When fogging indoors you should start at the furthest point away from the building and work your way until you get to the entrance or exit.

It is essential to read the chemical manufacturer's instructions before you start using the product, including diluting ratio and safety precautions. Only experienced personnel should operate this equipment.

You must exercise caution if fuel or chemicals are spilt, to avoid the risk of fire or contamination.

It is essential to use protective equipment when handling chemicals especially for this machine.

Incorrect use of this equipment, or operation by unqualified personnel, could result in serious risk of injury, issues when product is in use and may also create faults in the machine which will NOT be covered under the warranty.

CAUTION MARKS



Please read this manual before using the equipment.



You must wear protective equipment (face/breathing mask, protective clothing, gloves, etc.) when handling potentially hazardous chemicals.



It is advisable to wear ear plugs to protect the user from the high noise produced by the machine.



The interior of the machine heats up to high temperatures. Do not add fuel or chemicals during the operation of the machine or when it is hot after use.



Avoid spraying chemicals upwind.



Risk of electric shock. Do not turn on the machine when the spark plugs electrode is exposed.



SPECIFICATIONS

Tank capacity	4.2 Gal (16 Liters)
Engine	Air-cooled 2-stroke Gasoline engine
Fuel tank capacity	0.5 Gal (1.9 Liters)
Displacement	1.3 oz. (40cc)
Spray distance	65 ft. (20 Meters)
Starting system	Standard recoil
Dimensions	41.5 x 50.5 x 71 cm
Weight	23.3 lbs. (10.6 kg)
Application range	28000 ft ² (2600m ²)

Vectorfog® BM100 Backpack Mist Sprayer is powered by a two stroke engine. The ratio between gasoline and oil is 25:1. You can use leaded or unleaded gasoline and oil marked as suitable for two stroke engines. Let the engine heat up for 3-5 minutes before application.

The BM100 can be used for spraying chemicals and/or liquids to control pests and weeds in fruit and vegetable gardens, on trees and bushes, citrus, coffee, tobacco, cotton and many other areas. It is also useful in the maintenance of young trees, controlling bark beetle and other plant diseases.

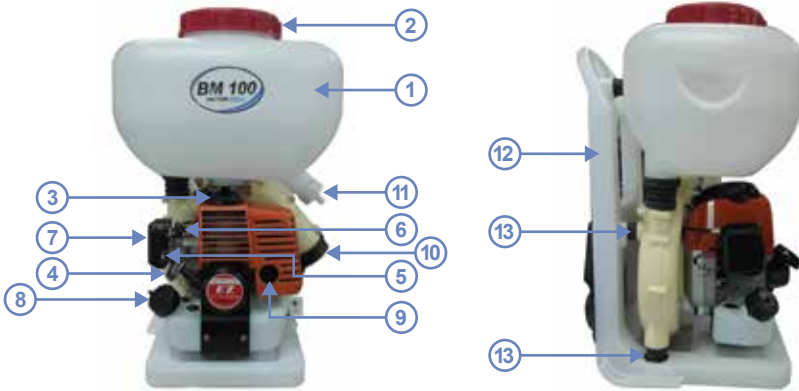
CUSTOMER SERVICE

Vectorfog®

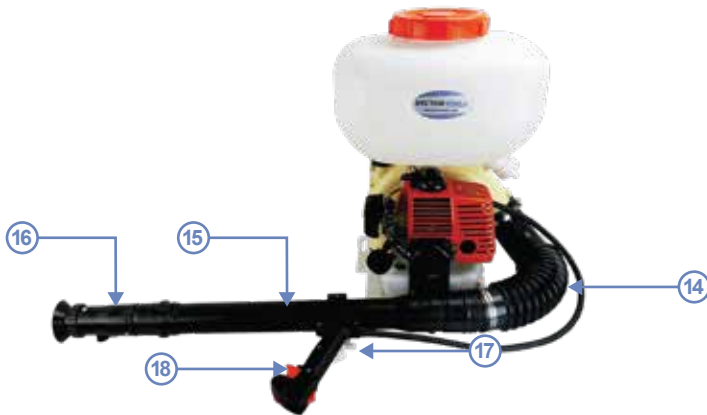
10 Industrial Ave, Suite 4, Mahwah, NJ 07430, USA

Tel: +1-844-780-6711 info@vectorfog.com

PRODUCT OVERVIEW



1. Container	2. Container Cap	3. Ignition Wire and Plug
4. Starter Grip	5. Choke Knob	6. Adjustment Screws
7. Air Filter Cover	8. Fuel Tank Cap	9. Muffler
10. Pleated Hose Rubber	11. Material Outlet Nozzle	12. Back Plate with Reset Pad
13. Rubber Buffers		



14. Pleated Hose	15. Air Pipe for Spray Nozzle	16. Air Pipe
17. Handle Grip Assembly	18. Chemical Hose Valve	

SPARE PARTS



1. Container



2. Spark Plug



3. Choke Knob



4. Starter Grip



5. Fuel Tank



6. Fuel Tank Plate



7. Muffler



8. Motor Cover

SPARE PARTS



9. Motor



10. Ignition Coil Cap



11. Ignition Coil



12. Blow Fan



13. Mist Spray Nozzle Assembly



14. Air Pipe for Spray Nozzle



15. Pleated Hose



16. Throttle Cable

SPARE PARTS



17. Chemical Hose Valve



18. Handle Grip Assembly



19. Assembly Tool



20. Chemical Hose



21. Pipe Clip



22. Hose Clip

ASSEMBLING BM100

The unit is partly disassembled for ease of shipment and must be completely assembled before it is used for the first time.

The only tools required for assembly are a Philips (+) screwdriver and a pair of pliers.

MOUNTING THE ELBOW

To mount the pleated elbow hose onto the body of the machine, first line the elbow up in a position to allow for the hose to point forward. Loosen the screw that controls the crimp clamp from the end of the elbow and slide over the body as far as it will go into the body of the machine. Tighten the screw back to secure the crimp clamp on the body of the machine.

MOUNTING THE SPRAYING ATTACHMENT

Insert the sprayer extension tube into the end of the pleated elbow hose. Loosen the screw on the crimp clamp at the end of the elbow to attach. To attach the spraying attachment with the handle and trigger, position the grooves of the tube in line with the extruded guides and slide onto the extension tube. Once this is as far as it can move rotate the spraying attachment counter clock-wise until you can hear an audible click. Repeat these steps to attach the sprayer nozzle onto the end of the spraying attachment.

Attaching the Elbow



Attaching the spraying attachment



CONNECTING THE CHEMICAL HOSE

First slide a hose clip onto either end of both chemical hoses. Push one end of the chemical hose onto the stub leading from the solution tank. Using a pair of pliers, open the hose clip and slide it over the hose and stub and close the clip again. Repeat this process connecting the other end of the hose to the stub just below the handle. Using the supplied Velcro grips that are attached to the pleated elbow, secure the chemical hose to the pleated end of the elbow. Repeat this process with the second tube leading from below the trigger to the sprayer nozzle.

ATTACHING THE STRAPS

To attach the carry straps to the back of the machine; hook the metal hooks onto the bottom of the back plate, wrap the other end of the straps around the top of the back plate and loop back through the buckles.



FILLING FUEL AND CHEMICAL TANKS

This engine is certified to operate on unleaded petrol and with the mix ratio 50:1. Your engine requires a mixture of gasoline and quality two-stroke engine oil with the classification TC. Use regular unleaded gasoline with a minimum octane rating of 90 RON. If the octane number of the regular grade gasoline in your area is lower use premium unleaded fuel. Do not use BIA or TCW (two-stroke water cooled) mix oils.

The canister should be kept tightly closed, to avoid any moisture getting into the mixture.

The fuel tank and the canister in which fuel mix is stored should be cleaned from time to time. Before fueling, clean the filler cap and the area around it to ensure that no dirt falls into the tank.

Thoroughly shake the mixture in the canister before fueling your machine. To reduce the risk of burns or other personal injury from escaping gas vapor and fumes, remove the fuel filler cap carefully to allow any pressure build-up in the tank to release slowly.

After fueling, tighten the fuel cap as securely as possible by hand.



1. Remove fuel cap



2. Remove fuel filter



3. Fill with fuel



4. Replace filter and cap

STARTING MACHINE

Before starting, place the unit on a clear patch of ground. Make sure you have a firm foothold, keep a firm grip on the machine and check that there are no objects which could be sucked in by the fan (between engine and back plate).

To start the machine, hold the top of the machine with your left hand and put one foot on the base plate to prevent the machine from slipping while starting. Slide the switch to the on position on the handle grip gun. Close the choke knob by sliding the switch up to the close position. Pull the starter grip slowly with your right hand until you feel the rope go tight then give it a short fast pull. Do not pull the starter rope out more than about 15 inches as it might break if pulled too far.

Do not let go of the starter rope, rather guide it slowly back into the housing so that it can rewind correctly.

Continue to pull back the starter grip until it begins to operate. Then slide down the choke knob to the open position slowly. Switch the handle grip to the on position. To stop the engine, slide the switch to the off position on the handle grip gun.



1. Close the choke nob



2. Slide switch to ON position



3. Quickly pull the starter until the engine is running



4. Return the starter without letting go



5. After the engine has started, slide the choke knob down slowly to the opened position

VECTORFOG BM100 BACKPACK MIST SPRAYER CAUTIONS

BEFORE RUNNING THE MACHINE

Be sure the mist sprayer is the proper tool for the job.

Exercise extreme caution when handling chemicals. Follow all safety precautions and instructions laid down by the manufacturer. Avoid contact with chemicals and chemical solutions.

Do not spray flammable liquids, such as gasoline or paint thinner, such substances create a risk of fire or explosion and may damage the sprayer. Do not spray caustic or acid solutions. Contact with such substances may cause serious or fatal injury or damage the property, including the sprayer.

Check for any leaks while refueling and during operation. If fuel or oil leakage is found, do not start or run the engine until the leak is fixed and spilled fuel has been wiped away. Be careful not to get fuel on your clothing. If this happens, change your clothing immediately.

Unit vibrations can cause an improperly tightened fuel cap to loosen or come off and spill quantities of fuel. To reduce the risk of fuel spillage and fire, tighten the fuel cap by hand with as much force as possible.

Never operate your machine if it is damaged, improperly adjusted or not completely and securely assembled.

RUNNING THE MACHINE

To reduce the risk of serious injury from burns, never attempt to refuel the unit until it has been completely removed from the operator.

Place the machine on firm ground or another solid surface in an open area. Maintain good balance and secure footing.

Do not run the engine at full speed without spraying liquids. This can cause the engine to overheat. Do not stop the machine while on full speed. Reduce the power of the machine before stopping.

When spraying, stand so that the wind blows the spray away from you and any by-standers. Keep children and pets away from areas that have just been sprayed.

BM100 Backpack Mist Sprayer is a one-person machine. To reduce the risk of eye or other injury from thrown objects, insure that bystanders are at least 50 feet (15m) away during use. Stop the engine immediately if you are approached. The assistance of another person may be needed in placing the unit on your back after starting. In order to reduce the risk of injury to the assistant from thrown objects or from contact with fumes, the engine should be kept at idle speed during this brief period, and your assistant should not stand in the area of the outlet nozzle or exhaust.

Otherwise, the unit should be started and operated without assistance. For specific starting instructions, see the appropriate section of your owner 's manual.

The BM100 produces poisonous exhaust fumes as soon as the combustible engine starts running. These gases (e.g. carbon monoxide) may be colorless and odorless. To reduce the risk of serious or fatal injury from breathing toxic fumes, never run the BM100 indoors or in poorly ventilated locations. Ensure proper ventilation when working in trenches or other confined areas. Keep the space behind the engine clear at all times to allow for the escape of hot and toxic exhaust fumes. Operate your machine under good visibility and daylight conditions only. Work carefully.

When working with the BM100, always wear it on your back using the carrying harness. Wrap your fingers tightly around the handle, keeping the control handle cradled between your thumb and forefinger. Keep your hand in this position to have your machine under control at all times.

When you pull the starter grip, don't wrap the starter rope around your hand. Do not allow the grip to snap back, guide the starter rope slowly back to permit the rope to rewind properly. Failure to follow this procedure may result in injury to your hand or fingers and may damage the starter mechanism.

CLEANING THE MACHINE

Always empty and clean the liquid container after each use. Residual chemicals may have undesirable effects during subsequent spraying with a different type of chemical (e.g., residual herbicide may damage or kill plants being sprayed with a pesticide). It is best to fill the container with clean water and let it drain out with the tap open. Be cautious where you drain the liquid during the cleaning process. Never store liquid in the container for more than one day.

FREQUENTLY ASKED QUESTIONS

1. Is this product only used for liquid solutions?

Yes, this product can only be used with liquid solutions.

2. What type of motor does this product have?

Our BM100 uses a 2-cycle petrol engine.

3. What is the flow rate?

The flow rate is 180 lph.

4. What is the droplet size this product will produce?

This product will produce a droplet size under 60 microns.

PRODUCT WARRANTY



This product is warranted for twelve months from the date of original purchase. Any defect that arises due to faulty materials or workmanship will either be replaced or repaired during this period by the seller or authorized distributor from whom you purchased the unit. Transportation charges or duties shall be borne by Purchaser.


Purchaser must register the product for warranty coverage on the website (VECTORFOG.COM/WARRANTY). Proof of purchase is required to register.

The warranty is subject to the following provisions:

- The warranty does not cover normal wear, accidental damage, misuse or damage resulting from use for a purpose for which it is not designed; altered in any way; or subjected to any but the specified voltage if applicable.
- The product must be operated only by trained and skilled personnel and it must be correctly handled and operated in accordance with the instructions contained within this manual. The functional safety of the unit (e.g. by trial fogging with water) must be checked before putting the unit in operation. Any loose or leaking valves or lines should be repaired and fixed. If functional safety is not ensured, do not put the unit into operation.
- The warranty will be rendered invalid if the product is re-sold, fitted with non-original spare parts or damaged by inexpert repair.
- Chemical solutions must be officially approved for the intended application and the material safety data sheet of the chemical solution should be checked prior to operation. HOCL (Hypochlorous Acid) is a powerful oxidizing agent and is not recommended for use with this machine. Using a home-made HOCL solution with this machine is not covered under our 12 month warranty. If not approved for acid resistance, the pH-value should be limited to a range between 4 - 10 at 200 PPM. Using solutions out of the pH-value 4 - 10 will make the warranty null and void. After use, fog with clean water for about 3 minutes to remove any chemicals still left in the system. Ensure all the water is used up and the machine is dried prior to storage. **Damage caused by corrosion will invalidate the warranty!**
- Any formation of aerosols or fogs from flammable substances or acids releasing oxygen and a mixture with air and/or dust always involves the risk of fire and/or explosion if there is a source of ignition. Observe the explosion limit of all solutions and avoid over dosage accordingly. Only use non-inflammable liquids (without a flash point) for treatments in rooms where a dust explosion hazard exists. Unit is not explosion proof.
- Operators owe a duty of care to prevent unreasonable risk of harm or injury. Operators should not fog towards hot surfaces or electric cables nor fog in rooms where temperatures exceed 35°C. Position the unit in a safe and upright position with the hand piece hooked or carry it with the strap over your shoulder. In case of stationary use, do not leave the unit unattended.
- If the machine stops fogging unintentionally, turn off the unit immediately. If the issue persists, contact the supplier, distributor or Vectorfog[®]. After a return due to malfunctioning of the unit, the supplier, distributor or Vectorfog[®] will inspect the unit to determine whether or not warranty service applies. Upon arrival at the facility, inspection will take 7 - 14 business days. Vectorfog[®] will then contact the Purchaser with an evaluation of the product warranty.
- Specifications are subject to change without notice. The manufacturer disclaims any liability for the incidental or consequential damages. The warranty is in addition to and does not diminish your statutory or legal rights. In the event of a problem with the product within the warranty period call the Customer Helpline: (US) +1 844 780 6711 or email cs@vectorfog.com.



NL OFFICE | KOREA OFFICE | US OFFICE

 **NL +31 (20) 899 0992**
KOREA +82 (0)70 4694 2489
US +1 305 479 2301

 info@vectorfog.com  www.vectorfog.com