

# Backpack Motorised Mist Sprayer



## INSTRUCTION MANUAL VECTORFOG BM100 BACKPACK MIST SPRAYER

When spraying outdoors, you should only spray for short periods at a time and when there is not much wind. When fogging indoors you should start at the furthest part of the building and work your way back until you get to the entrance or exit.

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

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

Is essential the use of protective equipment when handling chemicals and for this machine in particular.

Incorrect use of this equipment or handled by unqualified personnel could result in serious risk of injury, bad results when applying or create faults in the machine which are NOT covered under guarantee.

### 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.



<b>Tank capacity</b>	16 Litres
<b>Engine</b>	Air-cooled 2-stroke Gasoline engine
<b>Displacement</b>	40cc
<b>Spray distance</b>	20 Metres
<b>Starting system</b>	Standard recoil
<b>Dimension</b>	41.5 x 50.5 x 71 cm
<b>Weight</b>	10.6 kg
<b>Application range</b>	2600m <sup>2</sup>

VectorFog™ motorized backpack sprayers are 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. Do not run the engine at full speed without spraying liquids. This can cause the engine to overheat. Do not stop the machine whilst on full speed. Reduce the power of the machine before stopping.

**1 =Pleated hose**

For spraying, dusting or spreading in the desired direction.

**2 =Carrying harness**

For carrying the unit.

**3 =Back plate**

Helps protect the back of user.

**4 =Back rest pad**

Increases carrying comfort.

**5 =Air filter cover**

Covers the air filter element.

**6 =Rubber buffers**

Elements designed to reduce the transmission of vibrations created by the engine to the operators back.

**7 =Container filler cap**

For closing the container.

**8 =Container**

Contains the material to be sprayed.

**9 =Spark plug boot**

Connects the spark plug to the ignition wire.

**10 =Carburettor adjustment screws**

For tuning carburettor.

**11 =Choke knob**

Eases engine starting by enriching mixture.

**12 =Fuel filler cap**

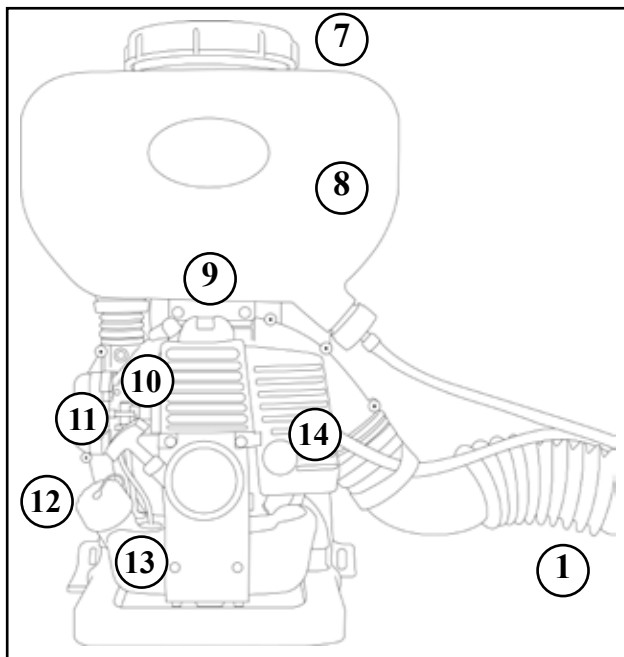
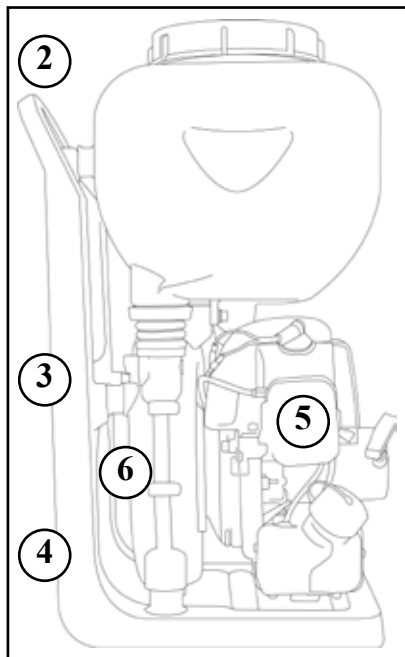
For closing the fuel tank.

**13 =Starter grip**

The grip of the pull starter.

**14 =Muffler**

Attenuates exhaust noises and diverts exhaust gases away from operator.



## ASSEMBLY

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 elbow onto the body of the machine first line the elbow up in a position to allow for the pleated hose to point forward. Loosen the screw controlled crimps from the end of the elbow and slide over the body as far as it will go. Tighten the screw back up into the housing of the crimps.

### MOUNTING THE SPRAYING ATTACHMENT

Insert the sprayer extension tube into the pleated end of the elbow. Tighten the screw in the crimp at the end of the elbow to attach. To attach the spraying attachment with 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 counterclockwise 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 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 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 top of the back plate and loop back through the buckles.



## FILLING THE 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 in order 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 fuelling, 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 fuelling your machine. To reduce the risk of burns or other personal injury from escaping gas vapour and fumes, remove the fuel filler cap carefully so as to allow any pressure build-up in the tank to release slowly.

After fuelling, tighten 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 THE 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. Open the fuel valve by sliding the switch up to the open position. Pull the starter grip slowly with your right hand until you feel the rope go taught 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 cranking the engine until it begins to fire. Then open the choke immediately. To stop the engine, slide the stop switch to "CLOSED"



1. Open the Fuel Valve



2. Pull the starter until taught



3. Quickly pull the started until the engine is running



4. Return the starter without letting go



5. To stop the engine slide the Fuel Valve down to the closed position.



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

Check for fuel leakage while refuelling and during operation. If fuel or oil leakage is found, do not start or run the engine until leak is fixed and spilled fuel has been wiped away. Take care 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. In order to reduce risk of fuel spillage and fire, tighten fuel cap by hand with as much force as possible.

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

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

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

Your mistblower produces poisonous exhaust fumes as soon as the combustible engine is 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 mistblower 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 mistblower, 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.

Exercise extreme caution when handling chemicals. Follow all safety precautions and instructions laid down by the manufacturer. Avoid contact with chemicals and chemical solutions. Be sure the mistblower is the proper tool for the job.

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

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

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.

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



## PRODUCT GUARANTEE

This product is guaranteed for 12 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 authorised distributor from whom you purchased the unit. Transportation charges or duties shall be borne by Purchaser.

The guarantee is subject to the following provisions:

- The guarantee does not cover normal wear, accidental damage, misuse, damage or used for a purpose for which 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 in 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. Running the machine without cooling for longer periods than recommended in this manual will invalidate this guarantee.
- The guarantee will be rendered invalidated 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 revised prior to operation. Oxygen and chlorine releasing chemicals (e.g. peroxides) and other acids should only be used with approved acid resistant equipment models. If not approved for acid resistance a Ph-value should be limited from 4,5-8,5. After use, fog with some 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 due to humidity by wrongful storage will invalidate this guarantee.
- 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 or explosion if there is a source of ignition. Observe the explosion limit of a pesticide and avoid over dosage accordingly. Only use non-flammable 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 with a temperature exceeding 35°C. Only treat closed rooms. 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. Secure treated rooms against unauthorized access (i. e. provide warnings outside). Always keep treated rooms closed and eliminate leakages. Ventilate treated rooms sufficiently before re-using them. If the machine stops fogging unintentionally, turn the machine off (dripping of chemical may occur)
- Specifications are subject to change without notice. The manufacturer disclaims any liability for the incidental or consequential damages. The guarantee is in addition to, and does not diminish your statutory or legal rights. In the event of a problem with the product within the guarantee period call the Customer



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