

# solo<sup>®</sup>

## Port 423 Evolution / MAX

**Original instructions**  
*Instruction manual*

**Notice originale**  
*Instructions d'emploi*

**Manual original**  
*Manual del usuario*

**Mistblower**

**Atomiseur**

**Pulverizador**

en

fr

es

**Important!**

Read this instruction manual carefully before first operation and strictly observe the safety regulations!

**Attention!**

Lire attentivement ce manuel avant la première mise en service et observer absolument les prescriptions de sécurité!

**¡Atención!**

Es indispensable leer con mucha atención las instrucciones de manejo antes de utilizarla por primera vez. ¡Preste especial atención a las recomendaciones de seguridad!

# Instruction manual

## Original instructions

 **Caution!** Prior to operating the unit, please read the owner's manual carefully, and most importantly, observe all safety rules.

Observe the maintenance guidelines closely to ensure the long service life of your equipment.

Your dealer will be glad to assist you with any questions.

### Packaging and disposal

Please keep the original packaging in order to protect the equipment against transport damage in case you ever need to ship it or transport it.

The original packaging and the device (at the end of its service life) must be properly disposed of according to the local environmental regulations.

## 1. Symbols

The following symbols are used in this manual and on the product:



Thoroughly read these operating instructions before undertaking any maintenance, installation and cleaning steps



Always handle this power tool with particular care



Wear the prescribed protective clothing.



Wear ear defenders before starting the engine



Wear face protection (e.g., safety goggles).



Wear protective gloves when handling and working with the equipment



A breathing mask should be worn when using poisonous chemicals



Petrol is highly flammable



Keep open flames away from the power tool and the fuel can.



Never smoke near the power tool or where the equipment is refuelled!



No-one else may remain in the vicinity of the motor appliance whilst it is operating.



Switch off engine

OPEN  
RUN



Choke open

CLOSE  
START



Operation and warm start

Choke closed,

Cold start position

### Type plate:

|                                                |                                       |                               |                                                                                       |
|------------------------------------------------|---------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|
| <b>SOLO KLEINMOTOREN GmbH</b>                  |                                       |                               |                                                                                       |
| Industriestraße 9, 71069 Sindelfingen, Germany |                                       |                               |                                                                                       |
| <b>Sprühgerät / Mist Blower</b>                |                                       |                               |                                                                                       |
| a                                              | Typ: 423                              | m <sub>net.</sub> = 11,9 kg   |  |
|                                                | model: 42318                          | m <sub>total.</sub> = 26,9 kg |                                                                                       |
| b                                              | SN: xxxxx                             | tank volume = 14 L            |                                                                                       |
| EM-EXP ENGINE NOT FOR USE IN EU MACHINERY      |                                       |                               |                                                                                       |
| c                                              | Baujahr / date of production: mm/jjjj |                               |                                                                                       |
| MADE IN GERMANY                                |                                       |                               |                                                                                       |

a: Type designation

b: Serial number

c: Build year

In the best interest of continued technological progress we reserve the right to change the design and configuration of any product without prior notice.

For that reason, no claims can be accepted with reference to text and illustrations in this manual.

## 2. Guarantee

SOLO guarantees problem-free quality and will assume the costs for defect remediation by replacing the defective parts in the case of material or manufacturing defects that occur within the guarantee period after the date of purchase. Please note that specific guarantee conditions apply in some countries. Ask your sales person if you have any questions. As vendor of the products he is responsible for the guarantee. We request your understanding that no guarantee can be assumed for damages due to the following:

- Non-compliance with the operating instructions.
- Neglecting required maintenance and repair work.
- Damages due to improper carburetor adjustment.
- Normal wear and tear.
- Obvious overload through persistently exceeding the upper performance limits.
- Using non-approved tools.
- The use of force, improper handling, misuse, or accident.
- Damages caused by overheating due to dirt build up on the ventilator casing.
- Unauthorized modification or changes made to the device.
- Intervention by non-specialized persons, or improper repair attempts.
- The use of unsuitable replacement parts or parts other than SOLO original parts to the extent that they cause damage.
- Using unsuitable fuel or fuel that has been stored too long.
- Damages that can be traced to implementation conditions from the rental business.

Cleaning, care, and adjustment work are not recognized as guarantee performances. All guarantee work must be carried out by a SOLO dealer.

## 3. Parts subject to tear and wear

Various parts are subject to application- specific or normal wear and must be replaced in good time, when required. The following parts are subject to normal wear and are not covered by the manufacturer's guarantee:

\* Air filter, \* Fuel filter, \* All rubber parts which come into contact with fuel, \* Spark plug, \* Starter

## 4. Safety regulations



This machine produces an electromagnetic field during operation. This field may under some circumstances interfere with active or passive medical implants. Persons with medical implants have to consult their physician and the medical implant manufacturer before operating this machine. You should request and receive instructions from the vendor on the safe operation if you are using this type of product for the first time.

### 4.1 Correct use / Application

Use the device only for application of liquid herbicides, pesticides and weed killers as well as liquid fertilisers, non-flammable disinfectants that are available in authorised specialist trade and approved by local/national authorities for use with portable mistblowers and for application of clean water.

Observe all instructions provided by the spraying agent manufacturer.

We recommend using only spraying agents that have been approved for use as spraying agent for the above mentioned areas of application by the relevant authorities in your country.

The pressure sprayer must not be used for any other purposes, e.g., for the spraying of liquid paint or applying any other media than the above mentioned liquids!

Particularly, aggressive, acid- or solvent-containing liquids or impregnating agents and flammable products must not be sprayed with this device!

Within certain limits, the amount to be applied is subject to the position of the spray tube. During operation, if the spray tube is directed upwards at an angle of more than 30° to the horizontal, use the liquid pump that is available as a special accessory.

The mistblower may only be used for the jobs it has been designed for – **and no other!**

Always observe all safety hints while using the machine.

## 4.2 General safety instructions

 Some parts on the machine have been removed for transport purposes. Prior to first use, the mistblower has to be completely assembled. This mistblower may only be started and used when completely assembled.

 Read the operating instructions carefully before placing in service and keep them in a safe place. The operating instructions must be kept available at all times wherever the device is used or stored. First time users should be instructed by the seller or an expert.

You can put your life at risk by failing to follow the safety instructions. It is also important to follow any relevant health and safety regulations that apply to your place of work. Anyone who fails to follow the safety instructions, operating instructions or maintenance instructions will make themselves liable for any damage and consequential damage caused as a result.

Never use the device if any part of it is unsafe or if it is not in an overall condition that makes it safe to use. Before using the device always check whether it is safe to use.

 The operator is liable towards others within the operating area of the mistblower. Only operate the mistblower when in good physical condition, well rested and healthy. Fatigue and illness lead to carelessness and accidents. Proceed in a careful and alert manner.

- Never use a machine while under the influence of alcohol, drugs or medication that could impair your reaction speed.
- Persons under the age of 18 are only permitted to use this plant protection device under supervision.
- The air exit speed from the nozzle is very high. Never point the nozzle towards persons or animals.
- This equipment must only be hired out, lent or passed on to persons who are familiar with this type of equipment and its operation and who have read the operating instructions. Always ensure that you hand over the operating instructions together with the device.
- The device must not be altered in any way, as this could adversely affect the safety of the device and potentially cause an accident or injury.
- For transport in a vehicle, ensure the mistblower is well secured to avoid fuel spillage.
- Completely empty the fuel tank before extended storage or shipment.

## 4.3 Personal protective equipment for your safety

 Always wear appropriate clothing and protective equipment whenever this power tool is used.

Wear appropriate protective clothing which covers all body parts. This includes gloves, head protection, foot protection, body protection and possibly an apron or breathing mask. Clothing should be suitable, i.e. tight without being obstructive.

Do not wear a scarf, necktie, jewellery or any clothing which can get caught on shrubs or branches.

- Wear firm shoes with good traction, preferably safety shoes.

 Wear protective gloves with non-slip grip.

  Use personal ear protection (such as ear muffs, ear plugs or similar) and a face mask or safety goggles to protect against spray drift or airborne debris.

 Always wear a breathing mask when working in dense and tall plants, in greenhouses, in dips in the ground or in trenches and when using dangerous spraying agents.

- Any clothing soaked with spraying agents or petrol should be changed immediately.
- Wash the work clothing regularly.

#### 4.4 Operating Hints

- While running, the engine produces toxic exhaust gas which is odourless and invisible. Never start or operate the machine in closed rooms. Ensure for adequate ventilation in confined areas such as ditches or dips.
- No other persons should be present within a circle of 15 meters from the operator.
- Keep persons and animals away from areas in which you are working. Never spray in the direction of other persons, animals or objects that could be damaged as a result. Bear in mind that the liquid emerges at high speed from the spray tube. Objects could be kicked up as a result, and this could in some cases represent a risk. The user is responsible for any hazards or accidents involving other persons and/or their property.
- Never operate on unstable ground. Watch out for any obstacles such as tree stumps, tree roots, ditches, etc.
- Take special care while working along slopes.
- Never touch a hot exhaust.

#### 4.5 Irregularities, incidents, accidents

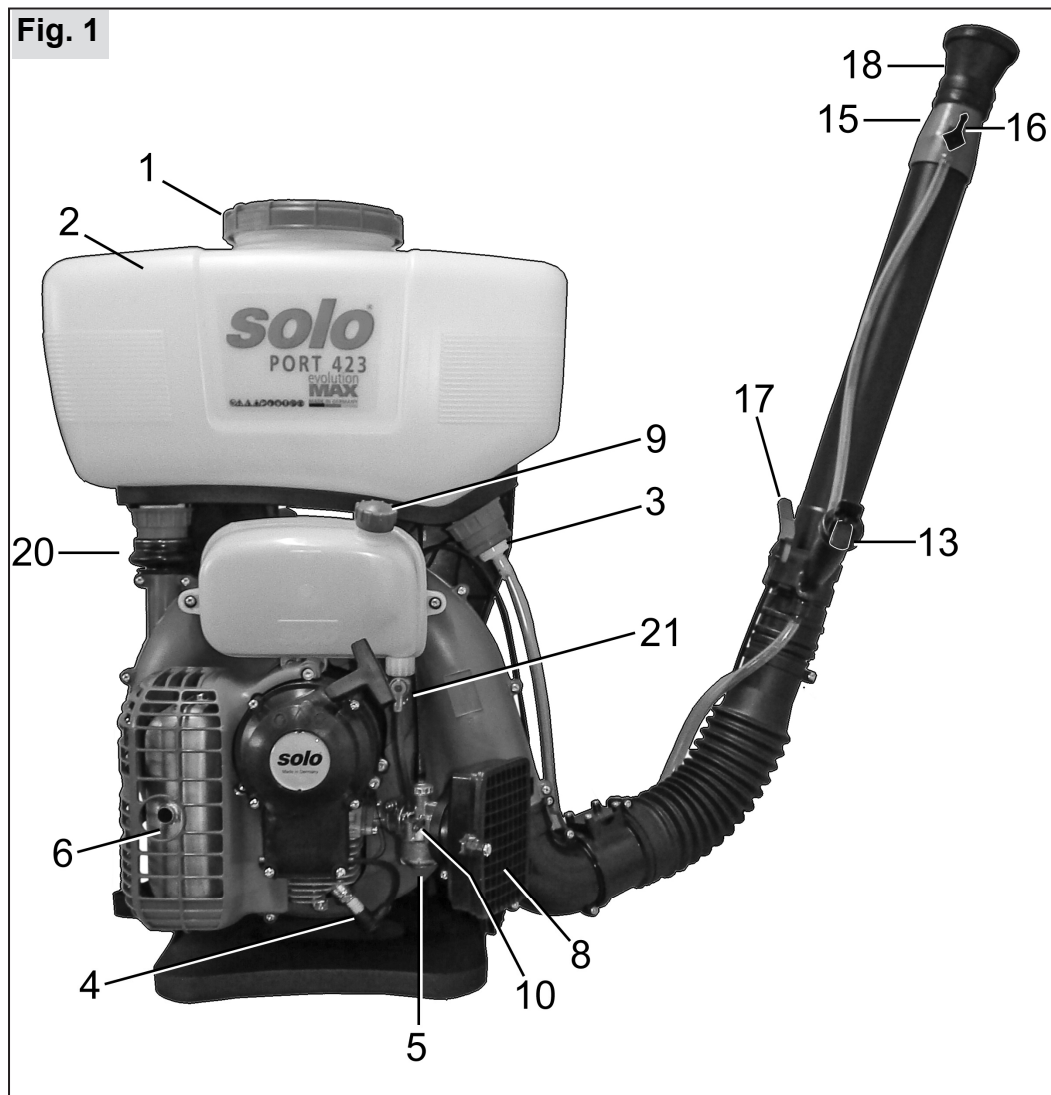
- In case of irregularities, leaks, visible damage or reduced efficiency, do not commence work, but leave the unit from a dealer check.
- When irregularity, leaks or malfunctions occur during operation, turn off the stop switch immediately and put the machine on the ground immediately. The device may only be used again if it is checked by a specialist workshop and the cause of the fault has been eradicated.
- In case of serious disturbances or accidents during operation of the unit as smoke, strong odors from the device or the device is in flames instantly remove the unit from your body and take a safe distance. In case of fire, you have to call the fire department immediately.

#### 4.6 Safe handling of spraying agents

- Avoid contaminating the environment, the mains water supply and/or public sewer systems with spraying agent or cleaner!  
Ensure to avoid contamination when mixing, filling, using, draining, cleaning, servicing and transporting by using adequate procedures and suitable containers.
- Spraying agents and cleaners must never be allowed to enter the mains water supply – not even by back-suction when filling, public sewer systems, sprayed onto wastelands, allowed to drain into natural bodies of water or disposed of together with normal domestic waste. This also means that appropriate care must be taken during filling to ensure that none of the spraying agent is drawn back into water pipes. Spraying agents and cleaners and any unused leftovers of spraying agents and cleaners must always be collected in a suitable container and disposed of via approved facilities for household chemical waste. Please contact your local authorities for information about your nearest disposal facilities.
- Avoid any direct contact with spraying agents. In case of contact with harmful pesticides rinse the affected body parts immediately with plenty of water, any clothing soaked with spraying agents should be changed immediately, seek medical advice if needed.
- Stop working immediately if you start to feel unwell while working, or if you become unusually tired. Seek medical advice if the condition persists.
- Never allow children or anybody who is not familiar with handling this type of spraying agent to handle the spraying agent.
- Clean the spraying agent tank and all other spraying agent carrying parts whenever the spraying agent is changed. To flush out any residue from the agent tank and the hose, run the device with clean water after cleaning the spraying agent tank and before the next spraying agent is filled in. This will prevent the risk of any chemical reactions taking place between the different substances.
- Never use the device in narrow or enclosed spaces – spraying agents are toxic and there is a risk of poisoning. Spraying equipment must for example only be used in greenhouses if adequate ventilation is provided. Signs must be put up in greenhouses that have been treated. Nobody should enter the greenhouse again until it has been thoroughly ventilated.
- When you have finished working, prepare the device for storage according to section 13.6 / section 14, thoroughly wash your face and hands with soap, take off your work clothing and ensure that it is washed regularly. Any unused spraying agent that is left over in the device could cause corrosion and hence damage the device. Special attention must be paid to wearing parts like hoses, filters and seals.

## 5. Important Components

Fig. 1



1. Tank lid / Filler basket with filter
2. Formula tank
3. Formula outlet
4. Spark plug
5. Carburetor
6. Muffler
7. Starter handle
8. Air filter
9. Fuel tank cap
10. Choke
13. Liquid tap
14. Spray tube
15. Spray nozzle
16. Dosage sleeve
17. Throttle lever
18. Wide range nozzle
20. Tank ventilation
21. Fuel tap

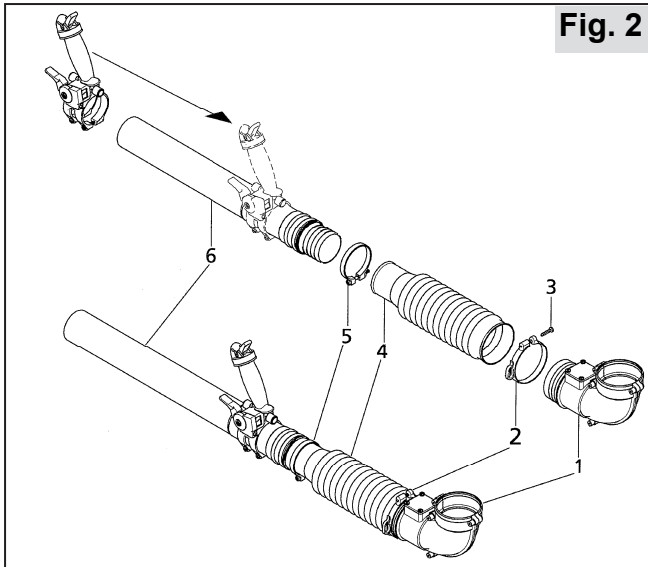
Please obtain the following practical accessories from your SOLO Dealer:

| 6. Accessories              |                                                                                                                                                                       | Part No. |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>ULV-nozzle</b>           | ULV-Nozzle with ULV dosage selector for application of minute amounts of high concentrated substances (ultra-low volume application technique), with dosage accuracy. | 49480    |
| <b>Double Nozzle</b>        | To broaden spray stream or to treat two rows simultaneously.                                                                                                          | 49137    |
| <b>Liquid Booster Pump</b>  | Increases formula output and application range.                                                                                                                       | 49117    |
| <b>Extension Tube 60 cm</b> | Multiple Combinations possible with use of Liquid Booster Pump                                                                                                        | 49333    |

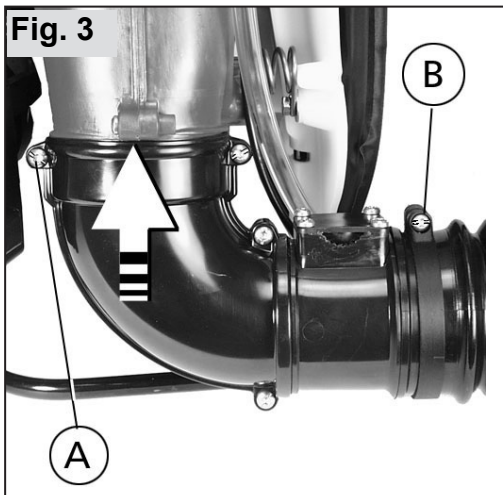
## 7. Assembly of misting equipment



Completely assemble the mistblower before its first use.

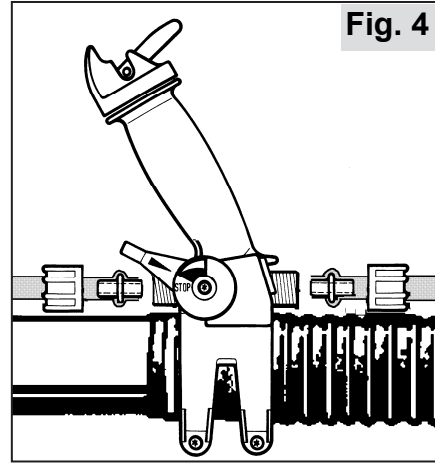


Affix spraying-attachments to unit as shown in Fig. 2 and 3. (Installation sequence from 1 to 6)



Make sure the elbow of the pleated hose is pushed all the way over the welt on the blower outlet. Then tighten the clamp securely (Fig. 3, Pos. A).  
Secure pleated hose to elbow with clamp (Fig. 3, Pos. B).

Fig. 4

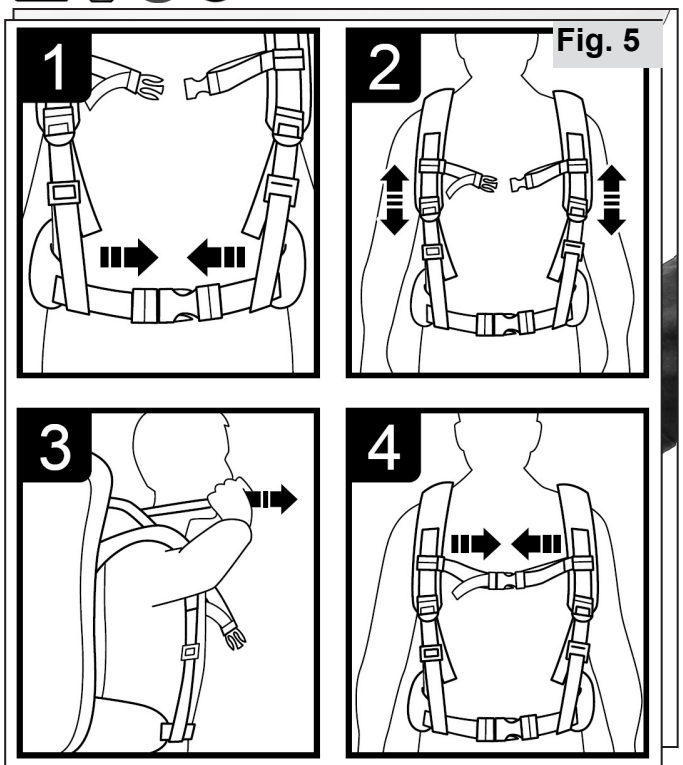


Check hose connection to on/off tap and retighten cap nut if required.

Shut on/off tap, fill some plain water in formula tank and check for any leakage.

**Note:** The spray tube can be twisted and turned in the pleated hose with the handle. Ensure that all hose and cable connections are safe and without sharp bends.

## 8. Carry straps



A four-part pictogram, as shown in Fig. 4, is sewn onto a shoulder strap.

- 1** : Put on the device and fasten the hip belt.
- 2** : Adjust the height of the fastening parts for the chest strap by sliding them.
- 3** : Tighten the two upper straps so that the device rests against your back.
- 4** : Fasten the chest strap.

## 9. Fuel information



A high performance two-stroke engine operated with a petrol:oil mixture (petrol + oil = fuel mixture) or with a special fuel mixture for two-stroke engines available from specialists powers this machine.

We recommend the proprietary "**Aspen 2-takt**" special fuel mixture. Please observe the special fuel manufacturer's instructions.

### Information on individual mixing of the fuel mixture

The fuel mix must be formed from the following components:

- Lead-free regular petrol or lead-free super petrol with a minimum octane number of 92 RON.
- Branded 2-stroke engine oil corresponding to the standard ISO-L-EGD or JASO FD

Recommendation:

Use the "SOLO Profi 2-stroke engine oil" at a mixing ratio of oil:petrol of 1:50 (2 %).

Store the fuel mix no longer than 3 weeks.

### **Mix table for fuel mix:**

| Oil:petrol ratio = 1:50 (2 %) |        |
|-------------------------------|--------|
| Branded 2-stroke engine oil   | Petrol |
| 20 ml                         | 1 l    |
| 40 ml                         | 2 l    |
| 100 ml                        | 5 l    |
| 200 ml                        | 10 l   |

Unsuitable petrol or deviations in the mixing ratio may lead to serious engine damage!

- Smoking or open flame is prohibited
- Allow engine to cool before re-fuelling
- Fuel may contain solvent-like substances. Avoid skin and eye contact with mineral products. Wear gloves while refueling. Frequently change and clean protective clothing. Do not inhale fuel vapors.
- Do not spill fuel or oil. In case of spillage, immediately wipe off mistblower. Do not allow fuel mix to contact clothing. If fuel mix is spilled on clothing, change clothing immediately.
- Ensure fuel or oil do not contaminate soil (environmental protection). Always use a suitable protective soil cover.
- Do not re-fuel in unventilated rooms. Fuel vapors collect at ground level (danger of explosion).
- Transport and store fuel and oil only in approved and clearly marked containers. Children should have no access to fuel or oil.
- Ensure you do not inhale exhaust fumes while

using the machine. The use of the motorized mistblower is prohibited in closed rooms.

**The handling of fuel requires caution and consideration. It is imperative that all safety instructions are observed! Only refuel when the engine has been stopped!**

- Clean the area around filler inlet before refueling.
- Remove tank lid and fill fuel mix up to the lower edge of the filler neck. Do not overfill. If possible, always use a fuel funnel with filter.
- Fill in card fully to avoid spilling of fuel or oil.
- Replace and secure fuel tank lid.

## 10. Filling



When handling the spraying agents, always follow the safety instructions of these operating instructions (pay special attention to section 4.6) and the information provided by the manufacturer of the particular spraying agent.

### Spraying agent volume:

Mix the spraying agents according to the instructions provided by the manufacturer of the spraying agent. Choose the appropriate volume according to requirements.

### Mixing spraying agents:

Only mix spraying agents out in the open. Never do this inside living spaces, stables or in storage spaces that are used for food or animal feed.

Never mix the spraying agent directly in the spraying agent tank.

When using spraying agents that have been mixed from herbal preparations, the liquid needs to be pre-filtered.

For filling the equipment, always use the strainer inside the filler neck and observe the filler area through the filling process.

The strainer has a mesh size of 0.5 mm. Only use original SOLO strainers, part no.: 15137 with standard mesh size.

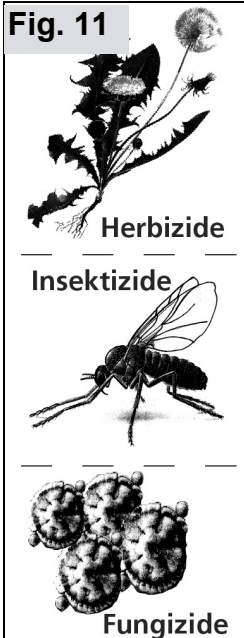
Avoid any direct contact of the filling hose and the contents of the spraying agent tank.

Fill level markings are applied to the backside of the spraying agent tank.

When filling up the tank, ensure that you do not fill above the top marking (maximum fill volume).

Never allow the spraying agent tank to overflow or public bodies of water, rainwater drains or sewage drains to become contaminated.

Immediately wipe up any spilled spraying agent.



#### Identification of the tank contents:

Attach the relevant sticker to the spraying agent tank to indicate the contents of the tank (i.e., herbicide, fungicide or insecticide).

The designation of the spraying agent used has to be attached to the device and has to be updated every time when the spraying agent is changed.

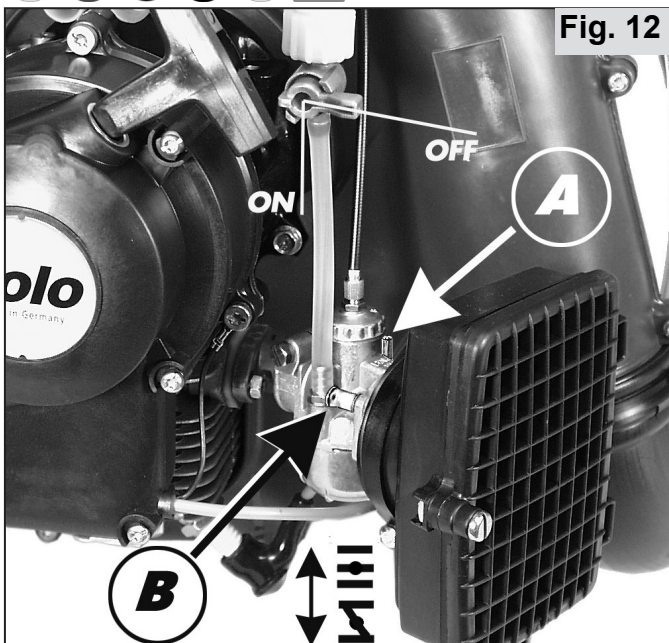


#### **CAUTION:**

Never fill different spraying agents into the spraying agent tank without first thoroughly cleaning the tank and all parts that come into contact with the spraying agent and flushing the system with plenty of clean water.

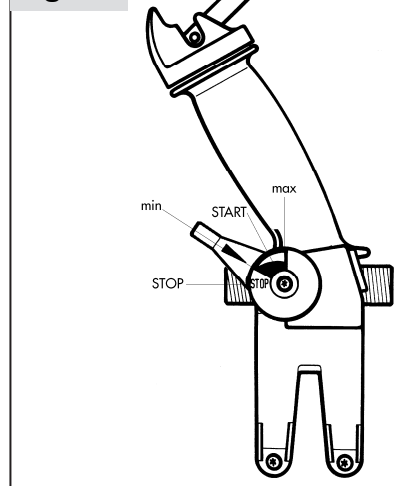
Never use aggressive, acid- or solvent-containing cleaning agents (gasoline for example).

### **11. Starting / Stopping the engine**



1. Open fuel valve (ON).
2. Push primer (Fig A) until float-chamber is filled with fuel (only when engine is cold).

**Fig. 13**



3. Open throttle lever to half position (Pos. START).
4. Close choke (Fig. 7 - B) only when engine is cold.
5. Hold the device down with your left hand. Place a foot on the base additionally if necessary. Start engine with recoil starter. DO NOT yank starter suddenly; first pull starter rope until pawls engage (resistance of recoil spring is felt). Lead starter grip slowly back to starter housing.
6. Open choke as soon as the engine fires and "tries" to start. Repeat the starting procedure if required.

#### **Stopping the engine:**

Push throttle lever past minimum (idling) position to STOP position. Close fuel tap (OFF).

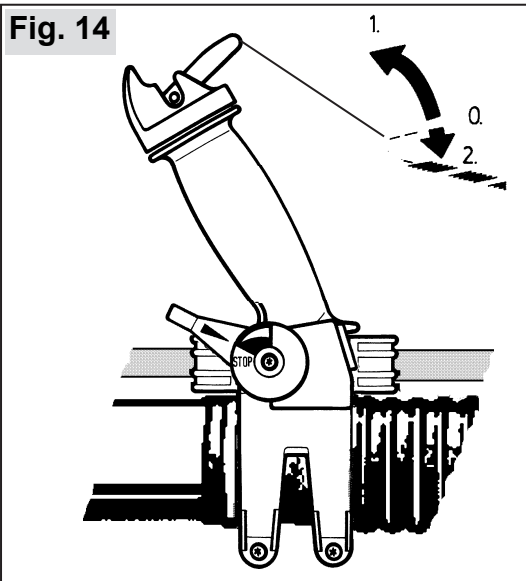
## 12. Operation hints



- Before every use and before every start of the mistblower check and ensure the machine is in good and safe condition. (throttle operation, ignition switch, safety devices, shoulder strap and check for fuel leaks)
- During the starting procedure and while operating the mistblower, the operator must have secure footing and have a safe body position.
- The engine starting site should be at least 3 meters away from the refueling site.

### 12.1 Spraying

Fig. 14



To open on tap:

Move lever upwards into position "1".

To shut off tap:

Move lever into horizontal position "0". When shutting tap, move lever slowly against spring tension to position "0". Do not let the lever flick back.

#### Note:

For spot spraying (treatment of single plants or smaller area), push the lever momentarily into position "2" (spot spraying).

The correct output is obtained according to dosage-sleeve setting

When spraying predominantly upwards (tall trees) we recommend using the liquid pump offered as an accessory (part no.: 49117)

## Misting Output Guide

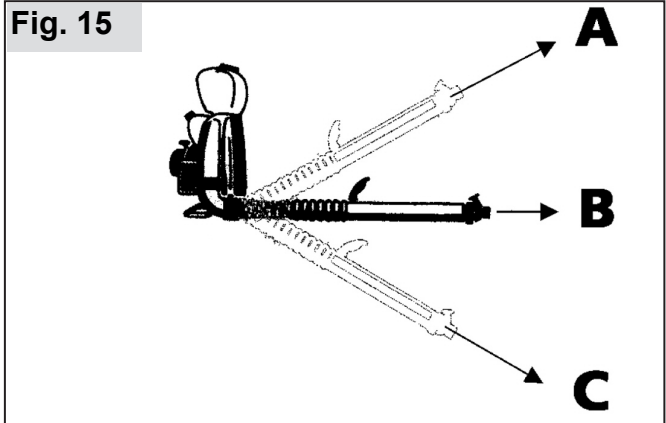
| Dosage sleeve | A          | B          | C          |
|---------------|------------|------------|------------|
|               |            |            |            |
| Position 1    | 0.32 L/min | 0.17 L/min | 0.33 L/min |
| Position 2    | 0.63 L/min | 0.31 L/min | 0.54 L/min |
| Position 3    | 1.03 L/min | 0.54 L/min | 1.04 L/min |
| Position 4    | 1.46 L/min | 0.65 L/min | 1.42 L/min |

\*) The delivery values when using a liquid pump (accessories) apply to every position of the spray wand.

Note: The liquid pump attachment comprises a special metering body, which should be installed when using a liquid pump.

**Please note: When using a liquid pump, ensure that the tank contains sufficient liquid. The liquid pump can sustain severe damage, if it is permitted to run dry. When using the equipment as a mister and as blower, remove the pump for that reason.**

Fig. 15

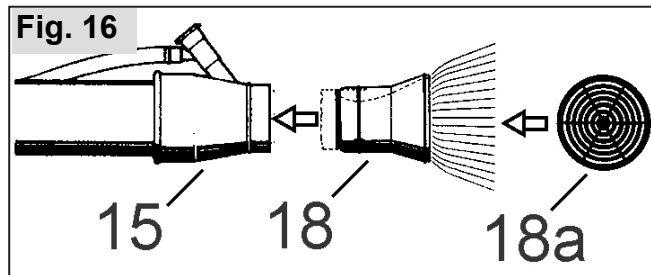


- When applying spraying agent, ensure by using appropriate measures and procedures that the unintended release of agent to other areas is minimized and the drift to the surrounding areas is prevented.
- Always proceed with the greatest care when spraying.
- Never use the device under windy conditions or if it is raining, as this would risk widespread drifting of the spraying agent.
- Check the wind direction before starting work and select the spraying direction downwind of the user.
- It is best to perform spraying work in the morning or evening, as it tends to be less windy then.
- Ensure that you only wet what is in fact intended to be covered with spraying agents.
- Never spray the agent towards persons, animals, open windows or doors, cars or anything else that could be damaged by the spraying agent.

### Spraying:

Approach the target object with the engine at idling speed. Accelerate to full engine speed, then open formula on-off tap.

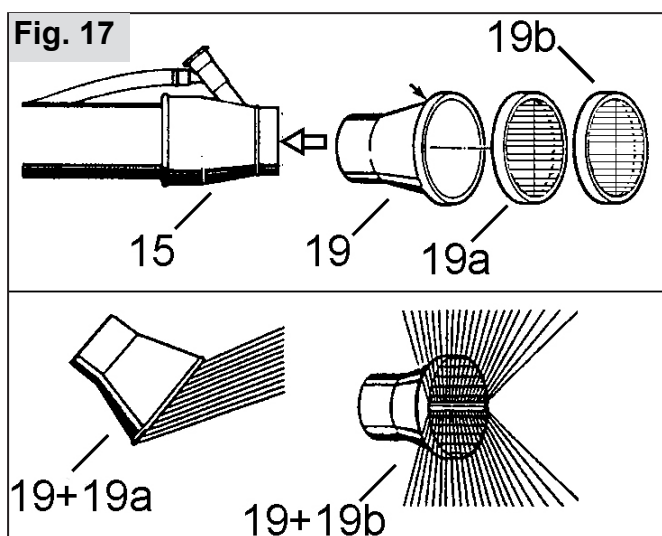
### Wide-range nozzle (18):



When spraying plants and trees we recommend fixing the wide-range nozzle (18) onto the red standard nozzle (15). This ensures that a large area can be sprayed at one time. Push the wide-range nozzle onto the standard nozzle, until the bead engages.

In narrow spaces and for aftercare, we recommend placing the wide-angle grille (18a) onto the wide-range nozzle. This ensures that the spray velocity is reduced and the spray is applied more widespread, to prevent damage to leaves.

### Nozzle attachment (19):

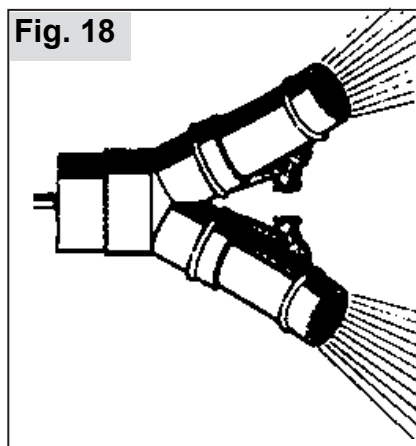


The nozzle attachment (19) is positioned onto the standard nozzle (15) with the selected grille.

Use the dual grille (19a) when spraying cultures in rows (e.g. vines, tomatoes, nurseries), to achieve a good covering on the underside of the leaves.

The deflector grille can be replaced with a dual grille (19b). The dual grille provides a 90° - 110° spray pattern. The dual grille is usually used for spraying two rows at a time. The deflector grille and the dual grille can be placed onto the external diameter of the nozzle, until the bead engages.

### Dual nozzle (accessories, part no.: 49137):



Remove standard nozzle (15) from the spray wand and push the dual nozzle onto the spray wand.

### *12.2 Residual spray medium*

Switch off the appliance as soon as no further liquid is expelled, when the metering body is correctly positioned for spraying, or air bubbles are visible inside the lance supply hose.

The tank will then contain less than 100 ml residual medium.

If you don't want to refill the tank with spray medium and you want to terminate spraying, dilute the residual medium with 2 l of water. Dispose of this solution on the treated area.

### *12.3 Strainer for accessory sets*

When using the liquid pump (accessory part no.: 49117) or the ULV accessory (part no.: 49480), a strainer is integrated into the tank connector.

The strainer has a mesh size of 0.32 mm. Only use original strainer part no.: 12289 with standard mesh size when replacing the strainer.

### *12.4 Checking the spray medium flow rate*

At the beginning of the spraying season, check whether the equipment flow rate (l/min) still corresponds to the „Guide values“ table.

For this, fill the equipment up to the maximum marker with water, start using the equipment and spray for one minute exactly at maximum operating pressure. Then measure the water volume required to bring the water level back up to the maximum marker.

The actual volume measured represents the flow rate of the equipment in l/min at maximum operating pressure.

It should not deviate by more than 10 % from those listed in the „Guide values“ table. Should the actual value be too low, sediments inside the metering body may be the cause. Clean the corresponding parts and repeat the checking procedure.

Should the actual value be too high, the metering body may be worn or damaged. In that case, replace the metering body with a new one (part no.: 13008).

When using accessory sets (liquid pump part no.: 49117 or ULV accessory, part no.: 49480) a strainer will be integrated into the tank connector.

In that case, an incorrect flow rate can also be due to a contaminated or worn strainer.

Clean or replace the contaminated/worn strainer (part no.: 12289).

## 13. Maintenance and care



Any cleaning, maintenance or repair jobs should only be performed when the engine is stopped and with removed spark plug cap.

The exception, of course, is carburetor tuning.

Any service jobs, other than those described in this manual, should only be carried out by an authorized service center. Only original parts may be used for any maintenance and service work.

Never modify your motorized mistblower – your personal safety is at risk.

Never service or store the machine near an open flame.

Regularly check the fuel tank lid for sealing and tank ventilation. Only use recommended spark plugs. Check ignition cable for any damage.

After a running in period of approx. 5 hours, all accessible screws and nuts (except for carburetor mixture adjustment needles) have to be checked and re-tightened if required.

Never operate a motorized mistblower with a damaged muffler or without muffler (fire risk and risk of damage to hearing). Do not touch hot muffler.

### 13.1 Fuel tap

Remove the fuel cock at regular intervals to clean the fuel strainer. - Make sure to keep the vent hole of the fuel tank cap open at all times.

### 13.2 Formula Tank Lid

Watch seal of the spray tank lid and service by lubricating the rubber gasket inside the lid. Failing this, pressure built-up in the container is impaired and dosage of emission becomes irregular.

### 13.3 Liquid Tap

Maintain the tap on a regular basis and apply oil or grease. To disassemble the tap, twist the upper part 1/4 turn to the left (anti-clockwise). Apply oil or

grease to the valve stem and o-ring, then re-assemble. Replace o-ring if required.

### 13.4 Air Filter

The air filter separates and retains dirt before the air reaches the combustion chamber. This reduces engine wear.

**Regular maintenance increases engine life.**

Clogged air filters cause performance loss and increased fuel consumption. This leads to a higher toxin level in the exhaust gas and also makes starting more difficult.

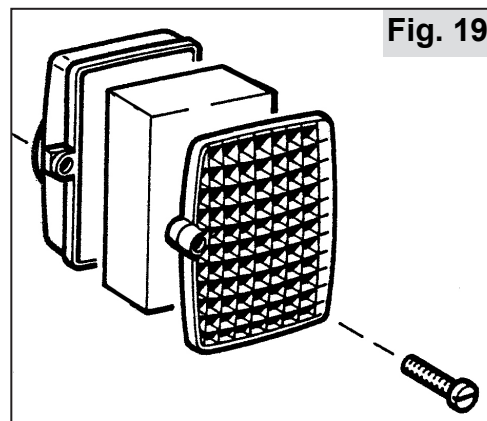
For daily cleaning:

Tap the air filter against an object or use an air gun.

With heavy dust conditions and for normal weekly check:

thoroughly clean the filter and replace filter if damaged.

#### Cleaning of air filter



Before opening the air filter, close the choke  to prevent dirt entering the carburettor.

For removal of the air filter, remove filter cover screw and filter cover.

When re-fitting, ensure the filter is positioned and seated properly.

When the machine is used all day, the air filter should be cleaned daily. In severe dust conditions clean more often.

Simply tapping the filter against an object is the best method of cleaning.

Wash a heavily soiled filter in non-flammable cleaning solvents (warm soapy water).

Never insert moist or wet foam filters!

Immediately replace damaged filter parts.

Warranty claims cannot be accepted for damaged engine parts caused by improper care and maintenance.

### 13.5 Spark Plug

The correct spark plug with thermal range 145 is available under the following brands:

**BOSCH W8AC**  
**Champion RL86C**

The correct electrode gap is 0.5mm.



**Caution:** Check the plug after every 50 operating hours and replace if electrodes are worn.

### 13.6 Storage Hints

If the unit is to be laid up or kept idle for any length of time, proceed as follows:

- Rinse and clean thoroughly. Never use formula container of your mist blower for storing chemicals.
- Shut off fuel cock and keep engine running until lines and carburetor are empty. Otherwise gasoline evaporates, and the remaining lubricant would clog the carburetor ducts.
- Remove spark plug and squirt an ounce or two of corrosion inhibitor (LPS, WD-40 etc.) or plain engine oil into the cylinder. Crank engine several times to spread the agent, and then reinsert spark plug.
- Please store your machine away from sunlight, order to protect of the materials against influence of ultraviolet radiations.
- Before putting the unit back into service, remove and clean spark plug; crank engine a few times with plug removed.



**For transport in a vehicle, ensure the mistblower is well secured to avoid fuel spillage.**

Completely empty the fuel tank before extended storage or shipment.

## 14. Draining and cleaning the tank



For cleaning purposes, the tank can be fully drained into a suitable container via the supply hose.

For this, the engine must be cooled down.

Position the equipment onto a stable higher support, so that the spray medium can drain into a suitable container below.

**Fig. 20**



Above the container, pull the supply hose from the shut-off valve.

If required, tip the equipment slightly to drain the tank completely.

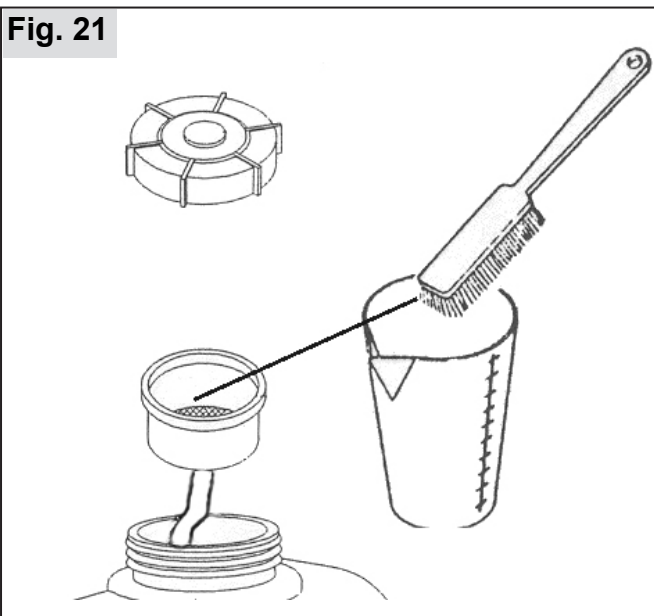
Ensure that the spray medium does not run over the equipment (especially the engine), but drains directly into the suitable container.

Dispose of residual spray medium correctly at disposal sites licensed for specialised waste.

Empty the spray medium tank daily after work and flush thoroughly with water.

Observe cleaning instructions supplied with the herbicide/fungicide.

**Fig. 21**



Occasionally clean the strainer inside the filler neck, the strainer in the accessory set and all parts in contact with the medium, with water and a soft brush.

After cleaning, let the spray medium container dry in an open state.

## 15. Technical Specifications

| Mistblower                                             |                     | Port 423 Evolution                                           | Port 423 Evolution MAX |
|--------------------------------------------------------|---------------------|--------------------------------------------------------------|------------------------|
| Engine type                                            |                     | SOLO single cylinder, two-cycle                              |                        |
| Displacement                                           | cm <sup>3</sup>     | 72.3                                                         |                        |
| Bore/Stroke                                            | mm                  | 48/40                                                        |                        |
| Power                                                  |                     | 3.0 kW (4,1 HP / 5700 1/min                                  |                        |
| Carburetor                                             |                     | Float Type                                                   |                        |
| Ignition                                               |                     | electronically controlled magneto ignition, maintenance-free |                        |
| Fuel Tank Capacity                                     | l                   | 1,4                                                          |                        |
| Total Formula Tank Capacity                            | l                   | approx. 16                                                   | approx. 20             |
| Nominal Formula Tank Capacity                          | l                   | 14                                                           | 18                     |
| Max. Blower Air Volume.                                | m <sup>3</sup> /h   | 1400                                                         |                        |
| Dimensions (without Spray Tube) height / width / depth |                     | 73 / 51 / 34                                                 | 78 / 51 / 34           |
| Weight - net<br>-max. with full tank                   | m <sub>net</sub> kg | 11.9                                                         | 12.0                   |
|                                                        | m <sub>tot</sub> kg | 26.9                                                         | 31.0                   |

## 16. Maintenance Chart

|                                                                    |                      | Before any use | Daily | Weekly | After 5 hours   | After 50 hours | As required |
|--------------------------------------------------------------------|----------------------|----------------|-------|--------|-----------------|----------------|-------------|
| <b>Carburetor</b>                                                  | check idling         | X              |       |        |                 |                |             |
| <b>Air Filter</b>                                                  | clean                |                | X     |        |                 |                |             |
|                                                                    | replace              |                |       |        |                 |                | X           |
| <b>Spark Plug</b>                                                  | adjust electrode gap |                |       |        |                 | X              |             |
|                                                                    | replace              |                |       |        |                 |                | X           |
| <b>Cooling air inlet</b>                                           | clean                |                |       | X      |                 |                |             |
| <b>Cylinder Fins</b>                                               | clean                |                |       | X      |                 |                |             |
| <b>Fuel Tank</b>                                                   | clean                |                |       |        |                 | X              |             |
| <b>All accessible screws</b><br>except for carburetor adj. screws) | retighten            |                |       |        | X <sup>1)</sup> | X              |             |
| <b>Operating handle</b>                                            | functional check     | X              |       |        |                 |                |             |
| <b>Overall Unit</b>                                                | visual check         | X              |       |        |                 |                |             |
|                                                                    | clean                |                |       |        |                 |                | X           |

<sup>(1)</sup> = one time



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