

# solo<sup>®</sup>

49 00 567

*Instruction manual*

*Conversion kit for  
motorised sprayers*

***Important!***

Please read this instruction manual thoroughly before installation and first use, and in particular observe the safety instructions in this manual and those in the instruction manual of the blower.





## Introduction

Dear Customer,

Congratulations for choosing this SOLO quality product.

With this comprehensive conversion kit the above models can be converted to a fully operational sprayer (similar to the SOLO 450 quality sprayer) for horticultural use.

These instructions will only show the additional aspects of the motorised sprayer where they differ from that of the blower. The operating instructions for the blower should be observed in all cases.

We wish you many years of problem free, successful work.

Please contact your local SOLO dealer or our service department directly for any additional queries you may have after reading both these instructions and those of the blower.

### Supplement to the CE Declaration of Conformity in the blower operating instructions

The product description of the correctly modified motorised equipment is: **Motorised sprayer**  
All further information in the CE Declaration of Conformity in the operating instructions of the blower also applies to the correct conversion.

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## 1. Safety regulations

### 1.1 General safety instructions



This mistblower may only be started and used when completely assembled.



Before conversion and initial use, please read all operating instructions relating to both devices carefully and keep them in a safe place for future reference. First time users should be instructed by the seller or an expert.



The operator is liable towards others within the operating area of the mistblower.

Only operate the mistblower when in good physical condition. 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 or drugs.

The air exit speed from the nozzle is very high. Never point the nozzle towards persons or animals.

### 1.2 Personal protective equipment for your safety



To prevent injuries to head, eyes, hand, feet or damage to hearing, the following protective equipment should be worn:



Clothing should be appropriate for the job, i.e. not too loose and not too tight to be hindering. Do not wear work coat, shorts or sandals. The operator should not wear a scarf, a necktie or jewelry which may get caught by branches.



Protect your face and eyes with a face guard or safety glasses.

A breathing mask should be worn when using poisonous chemicals

To avoid damage to hearing, the operator should wear suitable personal noise protection such as ear muffs, ear plugs or similar.

Wear firm work shoes with non-slip soles.

Always observe accident prevention regulations issued by local trade organizations or workers compensation boards.

#### Notes for General Use

- € The machine should only be used for the scope of application as indicated in the instruction manual
- € Always observe all safety hints while using the machine.
- € The mistblower is suitable for the application of crop protection products which have been approved by the responsible, local Registration Authority. The output quantity can depend on the position of the spray tube.
- € If the spray tube is held upwards at an angle exceeding 30 deg. from the horizontal position, the installation of a liquid booster pump may be necessary. The booster pump is available as an accessory.
- € With the use of a granulate attachment (available as special attachment), the mistblower can be used to spread granular fertilizer, fish food granules or for the spreading of grass seed.
- € The mistblower, without using the formula tank, also doubles as air blower to remove fallen leaves, grass clippings, paper, dust or snow in parks, gardens, sports arenas, parking lots or drives.
- € The mistblower may only be used for the jobs it has been designed for – and no other!

### 1.3 Protection of Environment

#### Be aware of your surroundings

- € Watch out for animals which may be within your work area
- € Be aware that noise is harmful to the environment. Inquire about and respect possible local rest periods.

### 1.4 Operating Hints

- € Approach the target object with the engine at idling speed. Accelerate to full engine speed, then open formula on-off tap.
- € No other persons should be present within a circle of 15 meters from the operator. Watch out for children and animals. Objects carried by the air stream can deflect and injure nearby persons.
- € 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.

## 2. Assembly / fitting the conversion kit

### 2.1 Standard delivery

The conversion kit comprises:

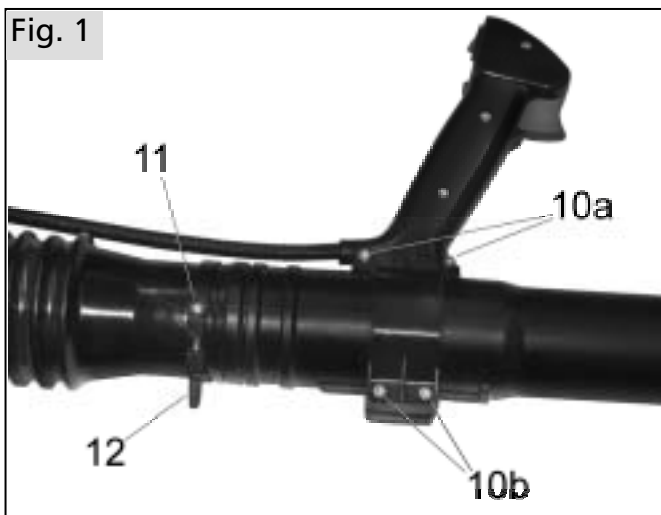
- € Tank 12 litres (Item 1)
- € 2 no. Velcro strip 60 x 20 mm (Item 2)
- € Spray wand (Item 3)
- € Accessories in the same bag:
  - o Standard spray wand (red) (Item 4) with fitted PVC hose 495 mm (Item 5)
  - o Nozzle (Item 6) with fitted deflector grille (Item 6a) and additional dual grille (Item 6b)
  - o Wide-range nozzle (Item 7) with additional wide-angle grille (Item 7a)
  - o Shut-off tap (Item 8) with 2 pcs. oval head screw 5 x 30 mm (Item 8a)
  - o PVC hose 840 mm (from tank to shut-off tap) (Item 9)
- € These operating instructions

### 2.2 Installation

Before installation and/or conversion, ensure that the fuel tank is drained and that the spark plug cap has been removed. The tank must be empty.

#### Installation of the spray wand:

For the conversion process you will need the Torx 25 screwdriver included in the standard delivery of the blower.



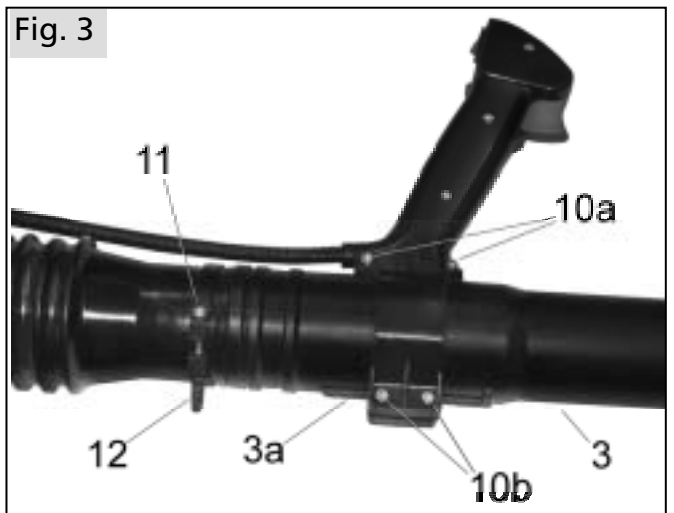
Release the four screws (10a/10b) on the operating handle and the screw (11) on the fixing clamp. Be careful not to lose the green cap (12) covering the screw.

Remove the complete blower pipe from the corrugated hose.



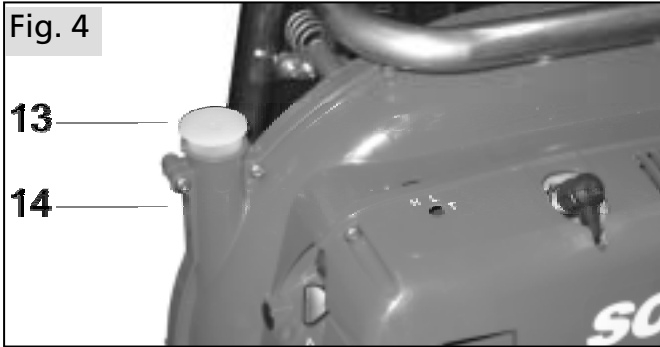
Release the two lower screws (10b) on the handle completely and remove the handle from the blower pipe.

Push the handle over the spray wand (3) and re-fit both screws underneath. Ensure that the handle is still adjustable at the corresponding guiding fin (3a) of the spray wand.



Push the spray wand (3) as far as possible into the corrugated hose. Tighten the fixing clamp with the screws (11). Ensure that the green cap (12) is replaced over the full length of the screw head. Secure the handle at the required position along the guiding fin (3a) with the four screws (10a and 10b).

Tank installation:



Remove the plug (13) from the blower housing supports (14).

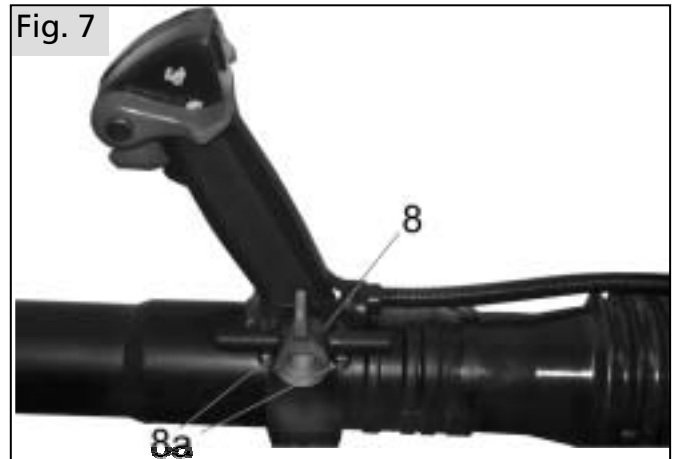


Use two Velcro strips on the tank to secure the tank to the casing. Clean the casing (e.g. with methylated spirit) before attaching the Velcro strips. Fix the two Velcro strips onto each side of the casing directly behind the folded section. The location of the strips must match.

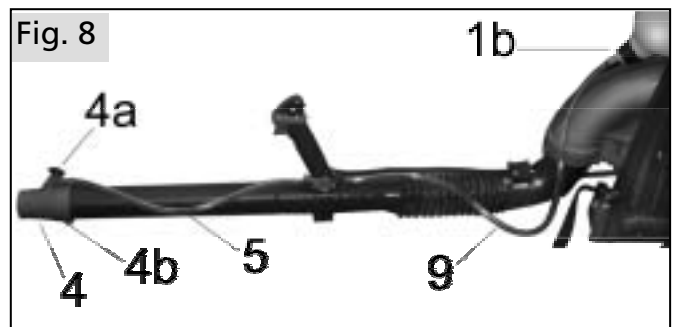


Push the tank completely out of the casing. Place the rubber bellow for venting the tank (1c) completely over the bead of the blower housing supports (14).

Hose connections



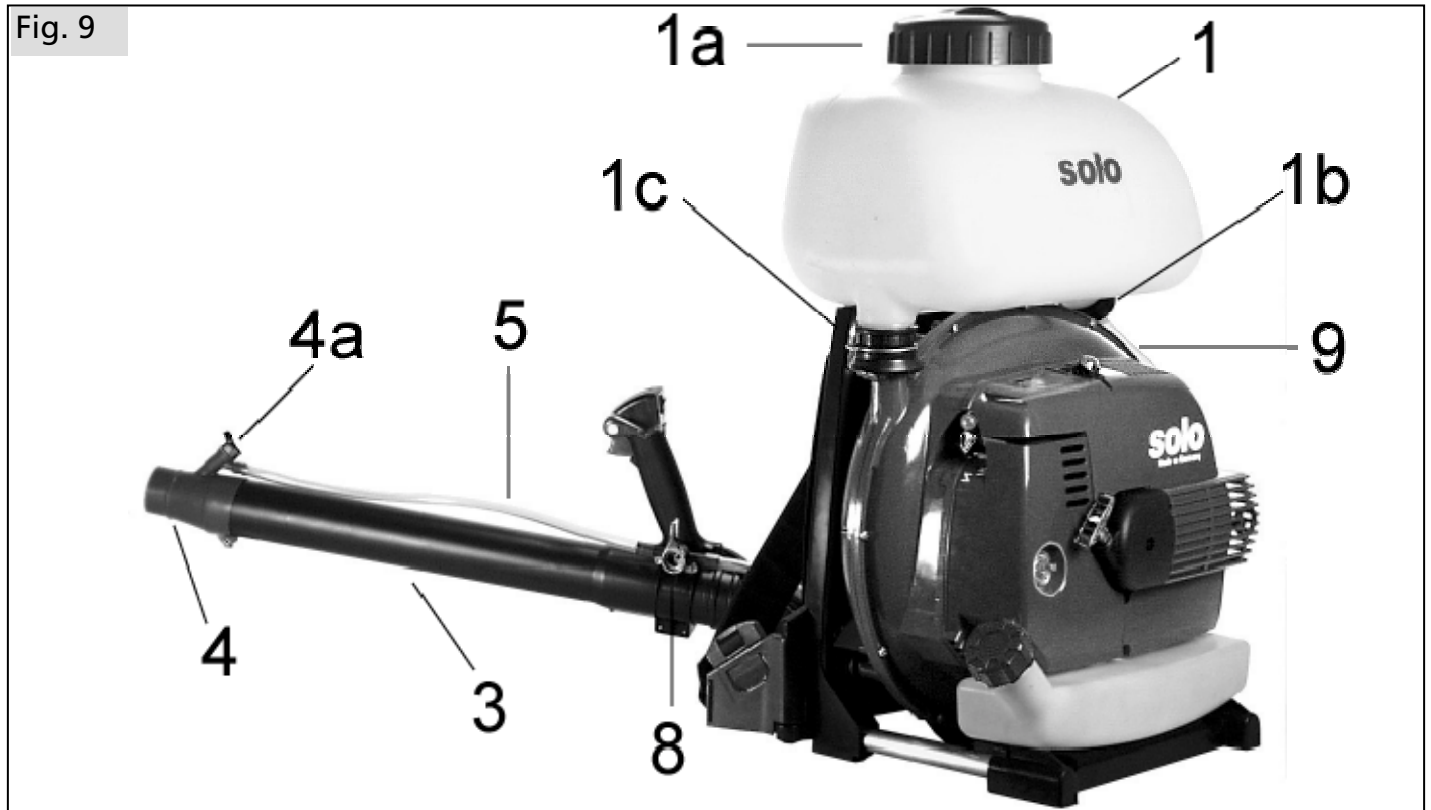
Secure the shut-off tap (8) onto the handle with both oval head screws (8a); the yellow marking on the shut-off tap should be facing upwards.



Release the screw (4b) on the spray nozzle and push the spray nozzle (4) onto the spray wand. The metering body (4a) should be located in the top position, relative to the handle. Secure the screw (4b).

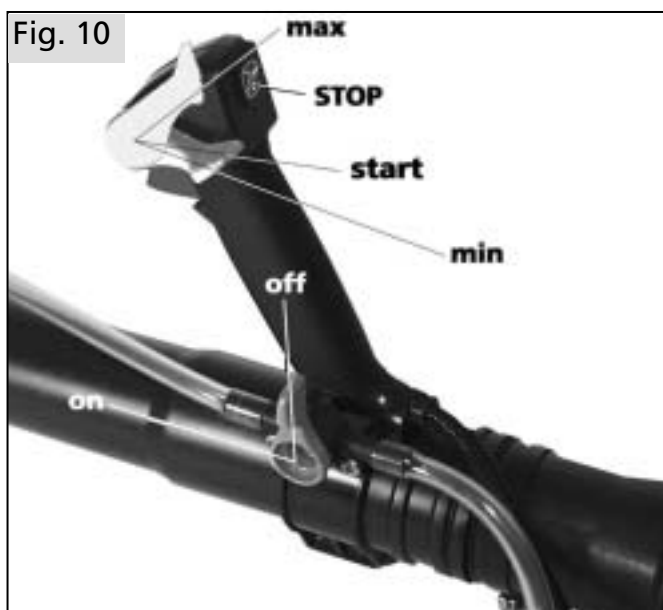
**Tip:** To make the PVC hose connections easier, we recommend carefully squashing the ends or warming them briefly in 80°C hot water. Push the PVC hose (5) from the spray nozzle onto the corresponding connector on the shut-off tap. Position the second PVC hose (9) with one end on the tank discharge connector (1b) and the other end on the corresponding connector on the shut-off tap. Ensure that the PVC hose is not kinked.

## 2.3 The fully converted sprayer



- |  |                    |
|--|--------------------|
| 1) Tank                                | 4) Spray nozzle    |
| 1a) Tank lid / fill cage with strainer | 4a) Metering body  |
| 1b) Drain                              | 5) PVC hose 495 mm |
| 1c) Tank vent                          | 8) Shut-off tap    |
| 3) Spray wand                          | 9) PVC-hose 840 mm |

## 3. Additional information on starting



- ⚠ Switch ignition switch to "I" and close (OFF) formula on/off tap.
- ⚠ Move throttle lock lever to "Start" position. Observe all further information on starting and stopping the engine in the blower operating instructions.

## 4. Additional instructions

Before every use and before every start of the motorised blower, check and ensure that 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 motorised blower, 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 re-fuelling site.

### 4.1 Filling

- ⊘ For filling the equipment, always use the strainer inside the filler neck and observe the filler area through the filling process.
- ⊘ Prevent any direct contact between the external filling hose and the tank contents.
- ⊘ The spray medium must not be allowed to enter the water mains through backlash.
- ⊘ When filling with spray medium ensure, that neither environment, nature nor the water mains ever make contact with the spray medium.
- ⊘ Prevent the tank from overflowing, the contamination of public water, foul water and drainage channels.
- ⊘ The strainer has a grille size of 0.55 mm. Only use original SOLO strainers, part no.: 42 00 104 with standard grille size.



### 4.2 Spraying

Open formula on/off tap: Lever in horizontal position – ON – (Fig.10).



Shut formula on/off tap: Lever in vertical position – OFF - .

The liquid output volume is adjusted by turning the metering sleeve to different positions

#### Guide values converted blower 471


Metering body	A *)	B	C
			
Position 1	0,45 L/min	0,41 L/min	0,47 L/min
Position 2	0,82 L/min	1,01 L/min	0,91 L/min
Position 3	1,37 L/min	1,69 L/min	1,55 L/min
Position 4	2,25 L/min	2,40 L/min	3,02 L/min

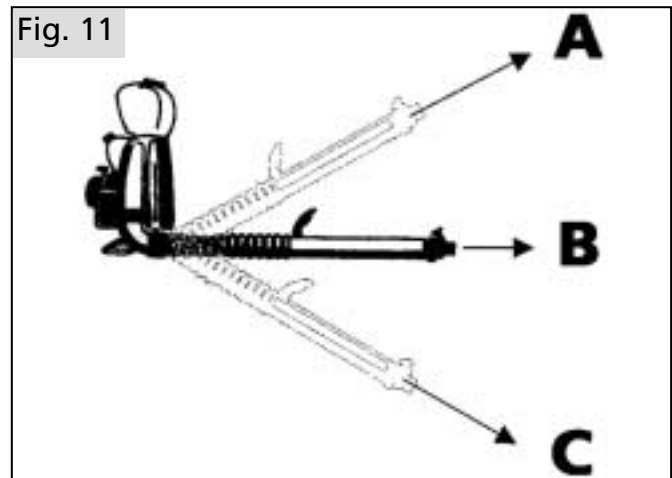
#### Guide values converted blower 472

Metering body	A *)	B	C
			
Position 1	0,57 L/min	0,50 L/min	0,57 L/min
Position 2	0,98 L/min	1,19 L/min	1,10 L/min
Position 3	1,63 L/min	2,01 L/min	1,88 L/min
Position 4	2,59 L/min	2,82 L/min	3,67 L/min

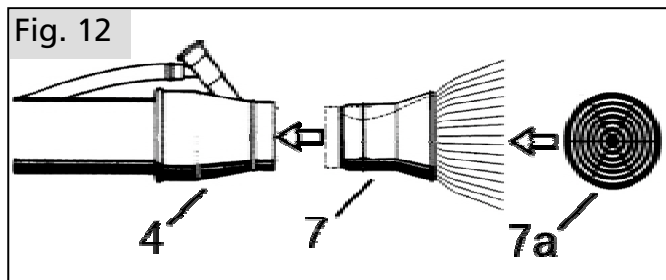
\*) The delivery values when using a liquid pump (accessories) apply to every position of the spray wand.

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, remove the pump for that reason.**



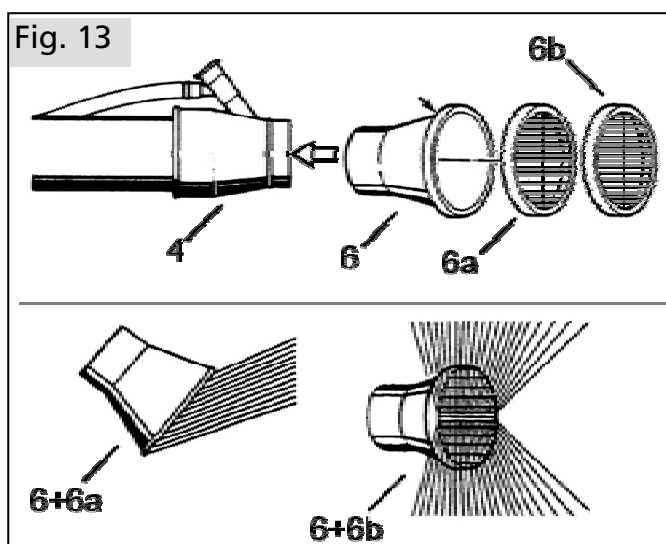
Wide-range nozzle (7):



When spraying plants and trees we recommend fixing the wide-range nozzle (7) onto the red standard nozzle (4). 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 (7a) 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 (6):

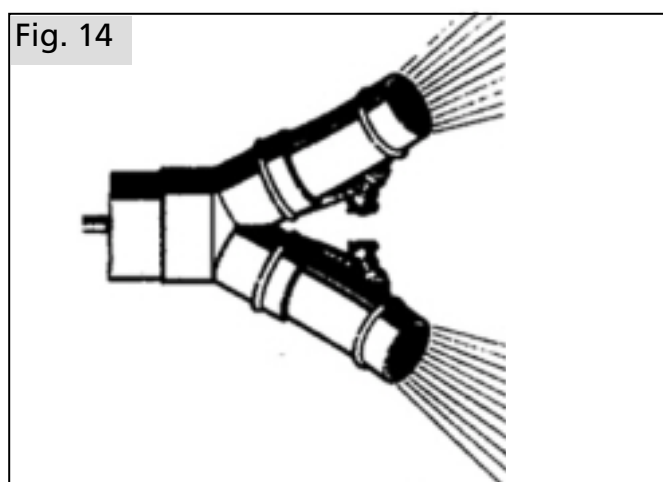


The nozzle attachment (6) is positioned onto the standard nozzle (4) with the selected grille.

Use the dual grille (6a) 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 (6b). 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.: 49 00 137):



Remove standard nozzle (4) from the spray wand and push the dual nozzle onto the spray wand.

**4.3 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.

**4.4 Strainer for accessory sets**

When using the liquid pump (accessory part no.: 44 00 235) or the ULV accessory (part no.: 49 00 479), a strainer is integrated into the tank connector.

The strainer has a mesh size of 0.32 mm. Only use original strainer part no.: 25 00 198 with standard mesh size when replacing the strainer.

**4.5 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 (see also item „Maintenance schedule“).

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.: 40 74 165).

When using accessory sets (liquid pump part no.: 44 00 235 or ULV accessory, part no.: 49 00 479) 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.: 25 00 198).

#### 4.6 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. 15



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.

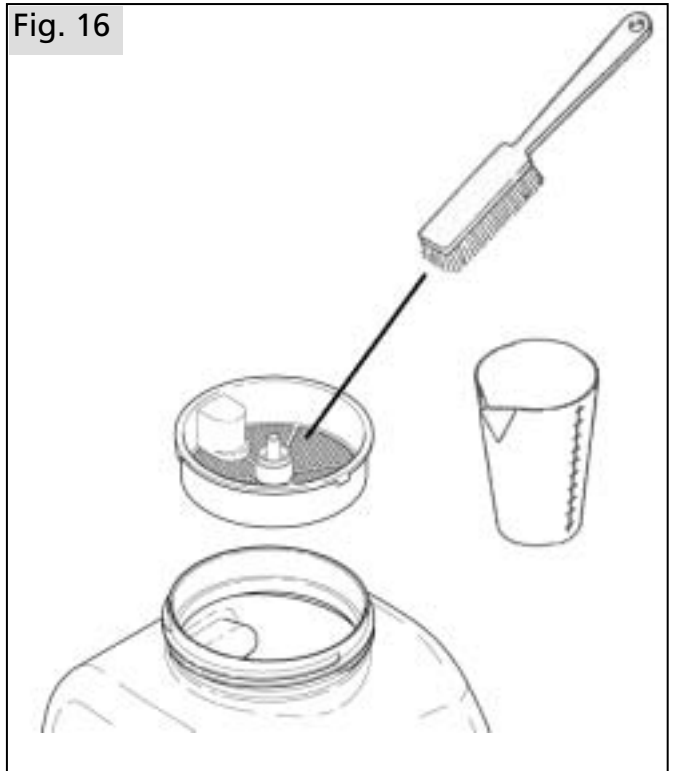
Dispose of residual spray medium correctly at disposal sites licensed for specialised waste.

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

Observe cleaning instructions supplied with the herbicide/fungicide.

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

Fig. 16



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.

#### 4.7 Application

According to its type designation, this equipment is suitable for:

- € Agriculture,
- € horticulture,
- € orchards,
- € green spaces,
- € vineyards,
- € nurseries;

## 5. Maintenance Plan

The following information is based on standard operating conditions.  
For special conditions, such as prolonged daily use, the recommended maintenance intervals should be reduced accordingly.

		before starting work	daily	weekly	after the first 5 hours	after every 50 hours work	as required	before spray season
<b>Carburettor</b>	Check idling speed	X						
	Adjust idling speed						X	
<b>Air filter</b>	Clean		X					X
	Replace						X	
<b>Spark plug</b>	Check the electrode gap and adjust, if required					X		X
	Replace						X	
<b>Cooling air inlet</b>	Clean			X			X	X
<b>Cylinder fins</b>	Clean			X				X
<b>Fuel tank</b>	Clean					X		X
<b>All accessible screws</b> (except for adjusting screws)	Retighten				X		X	X
<b>Operating handle</b>	Check function	X						
<b>Overall Unit</b>	Visual inspection	X						
	Clean						X	X
<b>Spray medium flow rate</b>	Check							X
<b>Spray medium tank</b>	Clean		X					
<b>Strainer inside the filler neck</b>	Clean						X	X
<b>Strainer for accessory sets</b>	Clean						X	X
<b>Metering body</b>	Clean						X	X
<b>Soundness of all equipment parts</b>	Check	X						X
<b>Hand valve function</b>	Check	X						X

Implement all maintenance jobs regularly. If required, authorise a specialist service centre to maintain the machine for you. The owner of the machine is responsible for:

- ⊘ Any damage caused by a lack of maintenance, incorrect or late maintenance and repairs
- ⊘ Consequential losses - including corrosion - from incorrect storage

## 6. Additional specification

Only those specifications, where the sprayer differs from the usual blower, are listed below. Further technical information can be found in the blower operating instructions.

		Converted blower <b>471</b>	Converted blower <b>472</b>
Total formula tank capacity	L	13	
Nominal formula tank capacity	L	12	
Strain funneled mesh size	mm	0,55	
Residual volume which the equipment cannot properly apply	ml	< 100	
Strainer for accessory sets mesh size	mm	0,32	
Max. Blower Air Volume	m <sup>3</sup> /h	595	710
Max. Air Speed	m/s	58	70
Weight	kg	10,8	
Dimensions without Spray Tube	mm	Höhe: 690 / Breite: 550 / Tiefe: 280	

## 7. Motorised sprayer - accessories

	Part no.
<b>Dual nozzle</b> For extending the spray width or for simultaneous spraying of two rows of plants	49 00 137
<b>ULV nozzle</b>	49 00 479
<b>ULV metering equipment</b>	49 00 169
<b>Liquid pump</b>	44 00 235
<b>Extension wand, 60 cm</b> Multiples can be combined in conjunction with the liquid pump	49 00 333
<b>Mister attachment</b> incl. 20 l bottle	49 00 550
<b>SOLO plant protection unit cleaner</b> in a metering bottle 500 ml	49 00 600

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.

# **solo**<sup>®</sup>

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