



CS10 ***CS14***



Operator's Manual & Parts Catalogue

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Edition Notice

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This publication covers the following products:

CS10 and CS14 Compression Sprayers

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Micron Sprayers Ltd. CS10 and CS14 Compression Sprayers

Preface

This document has been produced to provide guidance in the installation and use of the CS10 and CS14 Compression Sprayers and associated accessories.

Operators of the CS10 and CS14 Compression Sprayers should read this document thoroughly. Operators **must** understand the correct use of this equipment and necessary safety precautions before attempting to install or operate the CS10 and CS14 Compression Sprayers or its associated accessories.

Readers should pay particular attention to the '**Important Information**' section of this document.

Please contact Micron Group or their agents if you require any assistance.

While reading this document please be aware of the following conventions:

Bold text has been used to highlight information of particular interest.

Italic text has been used to signify references, quoted text and text that provides additional information to the reader. This text may also be highlighted by the use of bold text.

For further information on the use of markers and symbols please refer to the '**Important Information**' section of this document.

Micron Group is the registered trademark of; Micron Sprayers Limited, Bromyard, Herefordshire, United Kingdom. All other trademarks used in this Handbook are the property of their respective owners.

Every care has been taken in the design of this equipment and the preparation of this Handbook. However, Micron Sprayers Limited cannot accept responsibility for errors or the consequences thereof.

The user must satisfy themselves that the equipment is suited to the intended use, is functioning correctly and its use is in compliance with local regulations controlling the application of pesticides.

All spray applications illustrated in this Handbook are provided for guidance only. Users should always refer to the product label when using pesticides for specific conditions of use.

IMPORTANT INFORMATION (PLEASE READ)

Instruction to operators

The equipment referred to in this document is designed for use by suitably qualified and experienced personnel. The user **must** ensure that they are fully compliant with any national or local regulations governing the use of pesticides and application equipment before attempting to use the CS10 and CS14 Compression Sprayers. If miss-used the CS10 and CS14 Compression Sprayers has the potential to cause harm to personnel or damage to the equipment, property or the environment. Please read the information in this guide thoroughly before installing and/or operating the equipment.

This document is not intended to contravene or supersede any national or international operating or safety standards. Where other national or international standards are available the higher standards should be used.

It is the operator's responsibility to ensure the safe use of the equipment and the safety of others during use of the equipment.




It is the operator's responsibility to minimise environmental impact from the use of the equipment.
















It is the operator's responsibility to ensure that all warning labels on the machine are legible. Any damaged labels must be replaced.

Working with this document

This document has been written to provide the information to correctly install and use the equipment safely. Various symbols are used on the equipment and in this document to provide guidance to the operator; please take time to become familiar with these symbols.

SYMBOLS USED ON THE EQUIPMENT AND IN THIS DOCUMENT

	Denotes a caution or warning – ‘things you should be aware of’ . A specific warning is given in or close to this symbol. NEGLIGENCE OF THIS MAY CAUSE THE DEATH OR SERIOUS INJURY OF A PERSON. OR SERIOUS DAMAGE TO THE EQUIPMENT OR ENVIRONMENT.
	Denotes a mandatory prohibition – ‘things you must not do’ . A specific prohibition is given in or close to this symbol.
	Denotes a mandatory instruction – ‘things you must do’ . A specific instruction is given in or close to this symbol
NEGLIGENCE OF ANY STATED WARNING, PROHIBITION OR MANDATORY INSTRUCTION MAY CAUSE THE DEATH OR SERIOUS INJURY OF A PERSON. OR SERIOUS DAMAGE TO THE EQUIPMENT OR ENVIRONMENT.	

	Mandatory Prohibition		Caution or Warning		Mandatory Instruction
	Do not insert fingers or foreign objects		Warning – danger from leaking substances		Refer to Instructions
	STOP - Do not proceed with this action		Wash hands – hands must be washed after handling		Protective Clothing – must be worn
	Face Shield – must be worn		Protective Boots – must be worn		Gloves – must be worn
	Toxic – risk of contact with toxic substances		Harmful – substance is harmful		Danger to the environment – risk of contamination

PROHIBITIONS IN USE

The CS10 and CS14 Compression Sprayers and CS10 and CS14 are designed for use with agricultural spray products that are approved for use in the intended crop situation.

The use of non approved pesticides is strictly prohibited.

The equipment should **not** be used to spray the following materials

- Any form of petrochemical fuel or oil
- Acids
- Concentrate solvents

For lubricating fluids refer to the maintenance section of this document.

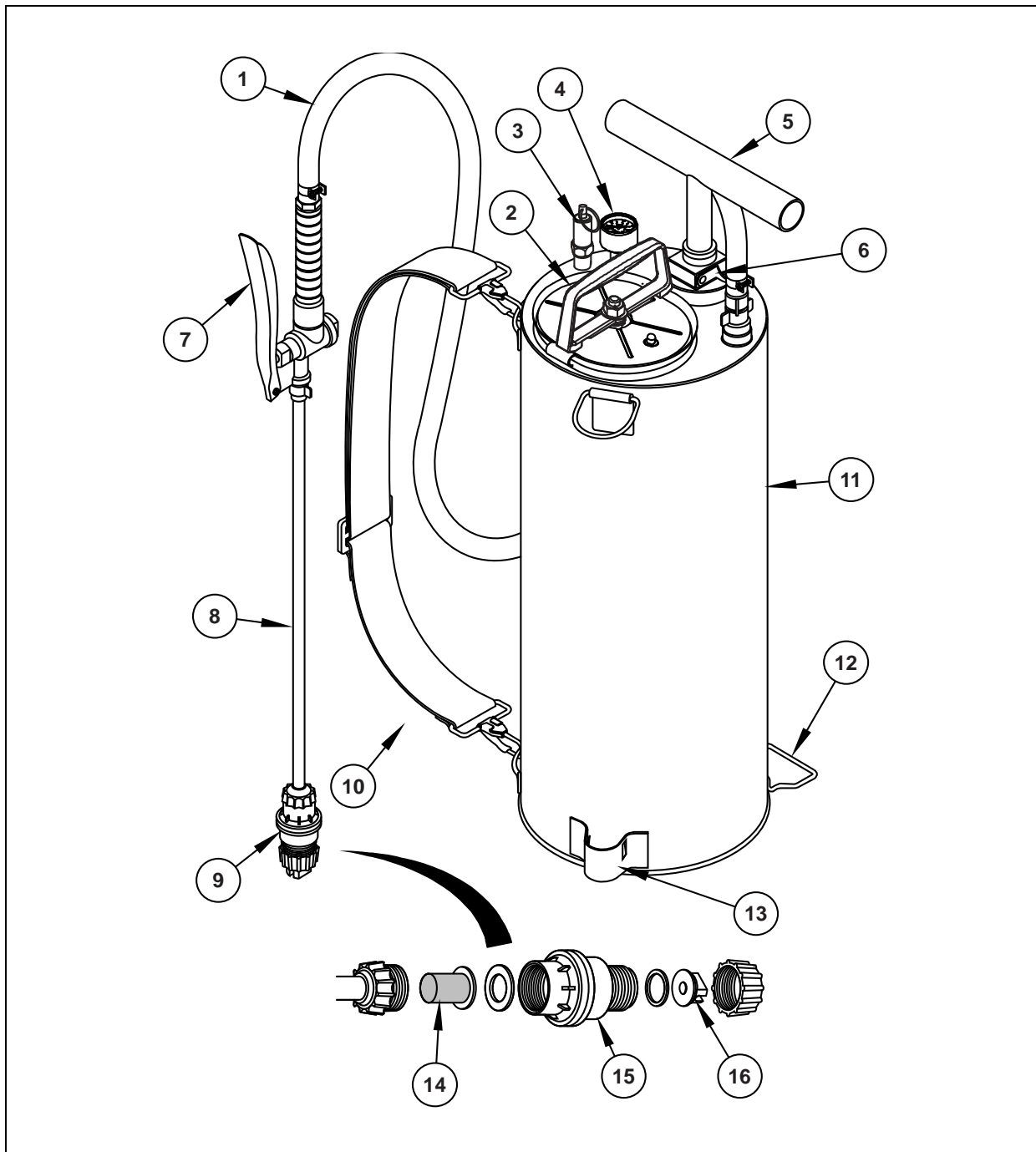
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1 INTRODUCTION

The Micron CS-10 & CS-14 compression sprayers are designed for use by professional spray operators. The sprayers are constructed to the highest standards and comply with international standards for vector control equipment. Fabricated from quality grade stainless steel and brass, the sprayers will last for many years in the most demanding environments. The CS-10 & CS-14 compression sprayers have been developed for the application of Indoor Residual Sprays (IRS) to combat mosquito-borne diseases such as malaria and dengue fever. The sprayers can also be used by private Pest Control Operators (PCOs) for the control of crawling insects in residential areas as well as for the application of specialist industrial spray treatments requiring high quality materials that resist degradation by aggressive chemicals. The sprayers consist of an all stainless steel pressure retaining tank with 4.2 bar (60 PSI) maximum working pressure for the CS-10 and 3.8 bar (55 PSI) maximum working pressure for the CS-14. Both tanks have a large filling aperture with a twist lock lid latch and Viton™ seal to prevent any leakage. Operation of the twist lock to open the tank lid automatically releases any air pressure prior to opening for maximum operator security. A separate air pump with all stainless steel cylinder, shaft and handle provides for a robust and durable pump action with a cup seal and non-return valve. This arrangement avoids the need to remove the pump mechanism for filling the tank. The sprayers incorporate a brass trigger valve with stainless lever and filter housing, a pressure gauge with an impact resistant glass window, a stainless lance, pressure relief valve, stainless or ceramic nozzle tips and an optional pressure control valve at the nozzle to ensure a constant discharge and application rate (CS-10 only).

1.1 Sprayer Features (model shown)









1	Hose	9	Nozzle Assembly
2	Lid	10	Shoulder Strap
3	Pressure Release	11	Spray Tank
4	Pressure Gauge	12	Foot Rest
5	Pump Handle	13	Nozzle Holder
6	Pump Lock	14	Filter
7	Lever	15	CFValve™
8	Lance	16	Nozzle Tip

Figure 1 - CS10 and CS14 component recognition

1.2 Technical Specification

CS10 and CS14 Specification		
Product Identification Details		
Trade name:	CS10	CS14
Description:	Stainless steel compression sprayer	
Model:	CS10	CS14
Manufacturer:	Micron Sprayers Ltd.	
Year of Manufacture:	Refer to serial number plate	
Weights and Measures		
Tank volume:	11.4 Litres	13.6 Litres
Maximum liquid capacity:	8.0 Litres	10.0 Litres
Net weigh (empty)t:	4.8 kg	5.1 kg
Dimensions:	Dia 20 x H 45.5 cm	Dia 20 x H 53.5 cm
Packing Dimensions:	W 21 x L 21 x H 61 cm	W 21 x L 21 x H 65 cm
Pressure gauge:	0 – 7 bar (0 – 100 PSI)	
Pressure relief valve:	Operates at 4.5 bar (66 PSI)	
Materials and Specified Components		
Tank Material:	Stainless Steel	
Pump cylinder:	Stainless steel with Viton™ non-return valve	
Pump handle:	T type stainless steel	
Filler lid:	Oval 12 x 10cm with twist latch and auto pressure release on opening	
Trigger valve:	Brass with Viton™ O rings and stainless lever	
Spray lance:	57 cm long, stainless steel	
Spray hose:	150 cm long	
Carrying strap:	Double woven heavy duty, 50 mm wide	
Spray nozzles:	Teejet™ 8002 stainless supplied as standard	
Environmental Conditions		
Minimum working temperature:	+5°C	
Restrictions in Use		
Maximum working pressure:	4.2 bar (60 PSI)	3.8 bar (55 PSI)

2 SAFETY

WARNINGS AND PROHIBITIONS	
	Do not insert fingers or any foreign object into the equipment. This may cause a risk of harm and may damage the equipment.
	<p>Do not dismantle or modify the equipment. This may cause a risk of harm and may damage the equipment.</p> <p>Do not operate the equipment if there are visible symptoms of a problem, such as leaking fluids, abnormal noise or structural damage. Operating the equipment under such conditions may cause a risk of harm or may damage the equipment or the environment.</p>
	Danger from leaking substances. Substances may be harmful and/or under high pressure.
 	<p>Risk of contact with toxic or hazardous substances.</p> <p>Always read and retain the instructions on chemical used in this equipment.</p> <p>Ensure that all instructions for the chemicals being used remain with the equipment until the equipment has been cleaned and is ready for storage or re-use. If practicable display the details of the chemicals, being used on the exterior of the equipment where they are easily visible.</p> <p>Do not drink fluids from any part of the equipment.</p> <p>Do not eat, drink or smoke when operating or handling the equipment.</p> <p>Do not dispose of toxic or hazardous chemicals or fluids into drains or water courses.</p>
	<p>Wash hands and face after operating or handling the equipment.</p> <p>Wash all equipment and clothing after use.</p>

2.1 Working with Pesticides



Wear
Gloves



Wear
Protective
Clothing



Wear Eye
Protection or a
face shield



Wear
Protective
Boots



Wear a
Face Mask



Wash
hands



Always read the product label before preparing spray mixes. Always adhered to recommended spray dose rates, volume rates and safety precautions.



All pesticides **must** be handled and stored in accordance with the manufacturer's instructions.

All pesticides must be stored in their original containers.



Always Dispose of chemicals in accordance with the manufacturer's instructions.

It is the responsibility of the user to ensure all possible measures are taken to protect the environment.

It is the responsibility of the user to be familiar with, and adhere to, all relevant national and local restrictions, prohibitions and regulations concerning use of pesticides.

2.1.1 Operator Protection



Wear
Gloves



Wear
Protective
Clothing



Wear Eye
Protection or a
face shield



Wear
Protective
Boots



Wear a
Face Mask



Wash
hands

Operators **MUST** always read the product label **BEFORE** using pesticides. Operators **MUST** adhere to the required use of personal protective equipment (PPE). When handling concentrates operators should wear gloves, coveralls, boots and a face shield to protect eyes and skin from accidental splashes. Some products may also require the use of a respirator mask.

2.1.2 Product Labels

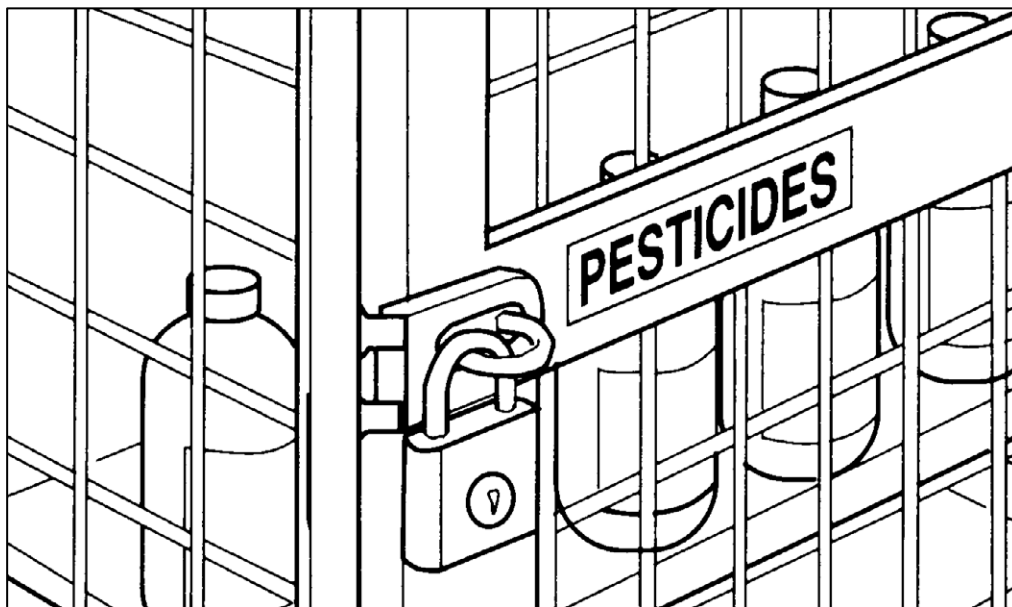


ALWAYS read the product label **BEFORE** using pesticides. **ALWAYS** adhere to the minimum and maximum dose rates, recommended mixing rates and any precautions regarding protection of the operator and environment.

2.1.3 Storage of Pesticides



Always store pesticides away from heat and sunlight in a secure area.
Pesticides Should be stored in their original containers.



2.2 Protection of the Environment



Pesticides should always be disposed of according to manufacturer's recommendation.

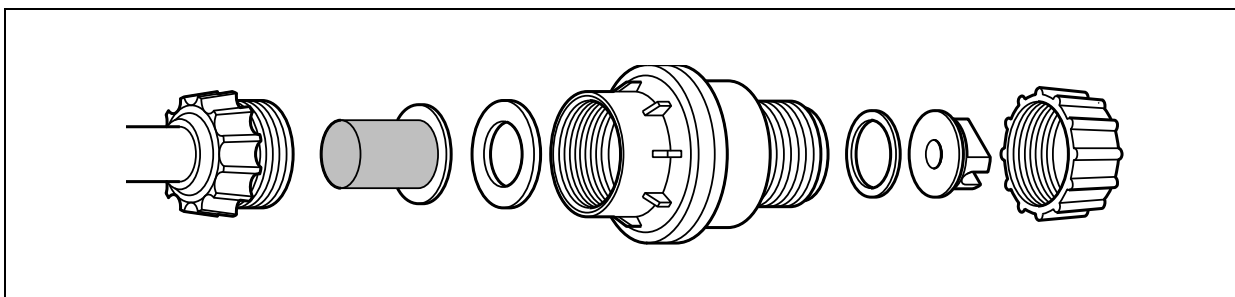


Tank washings and rinsate should always be sprayed out onto either the treated crop (taking care not to exceed maximum dose rates) or onto a designated area.

Avoid run off into ditches or waterways at all times.

3 INITIAL ASSEMBLY

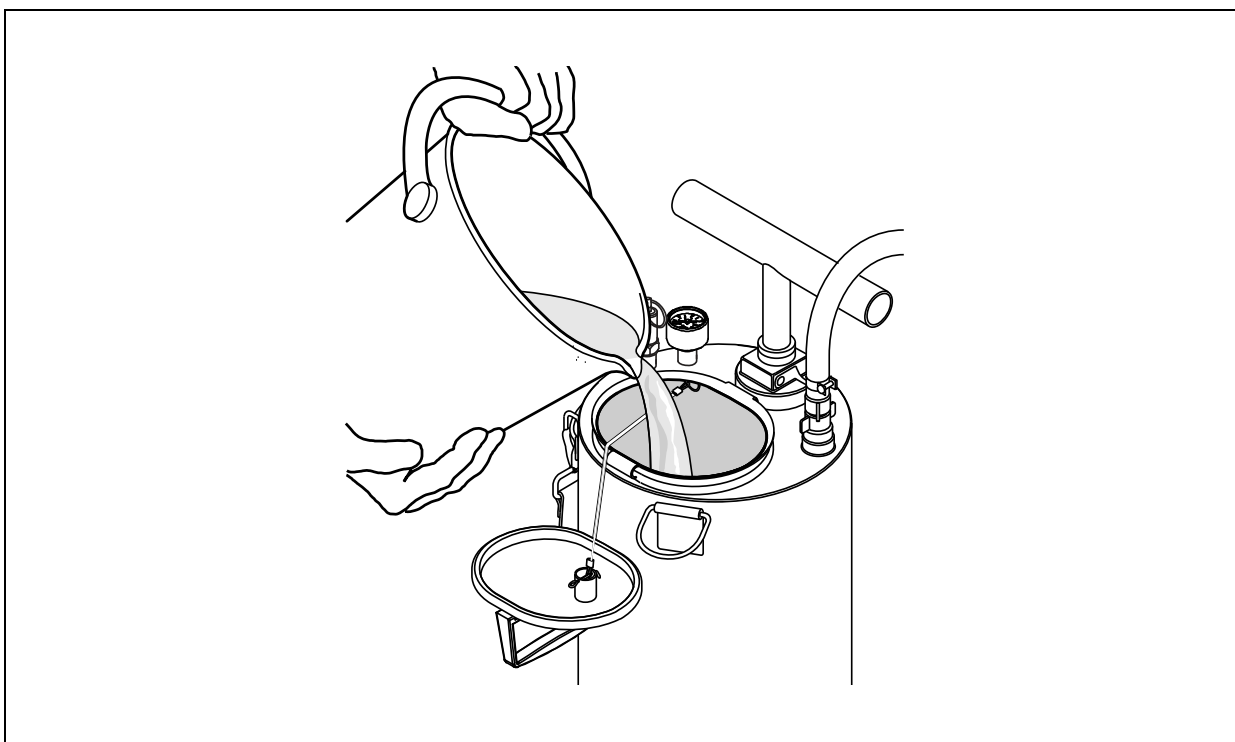
- The sprayer is delivered with the hose, lance and trigger valve disassembled.
- Remove the tank lid. Inside the tank there are 3 different spares kits, the carrying strap, trigger valve and hose.
- The hose trigger valve and lance should be assembled together, taking care that the threaded joints are secured with the soft polyethylene washers to prevent leakage under pressure.
- Fit the red CFValve™ pressure control device between the lance end and nozzle cap ensuring that the nozzle is orientated to spray horizontally to treat wall or floor surfaces.



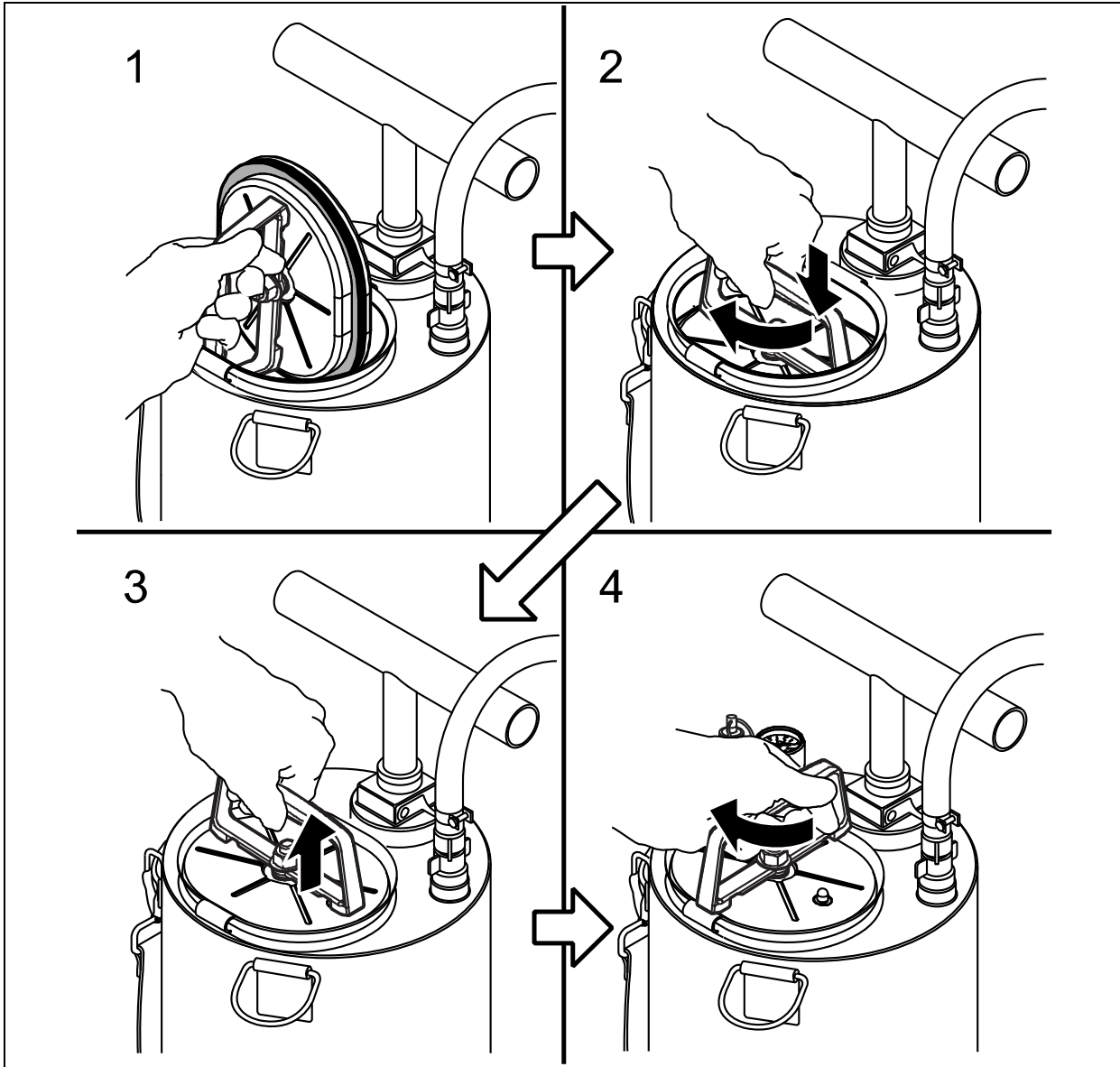
- Check that all fittings are secured tightly. Pull the pressure relief valve out to check the seal closure is aligned correctly and release.

3.1 Leak Test

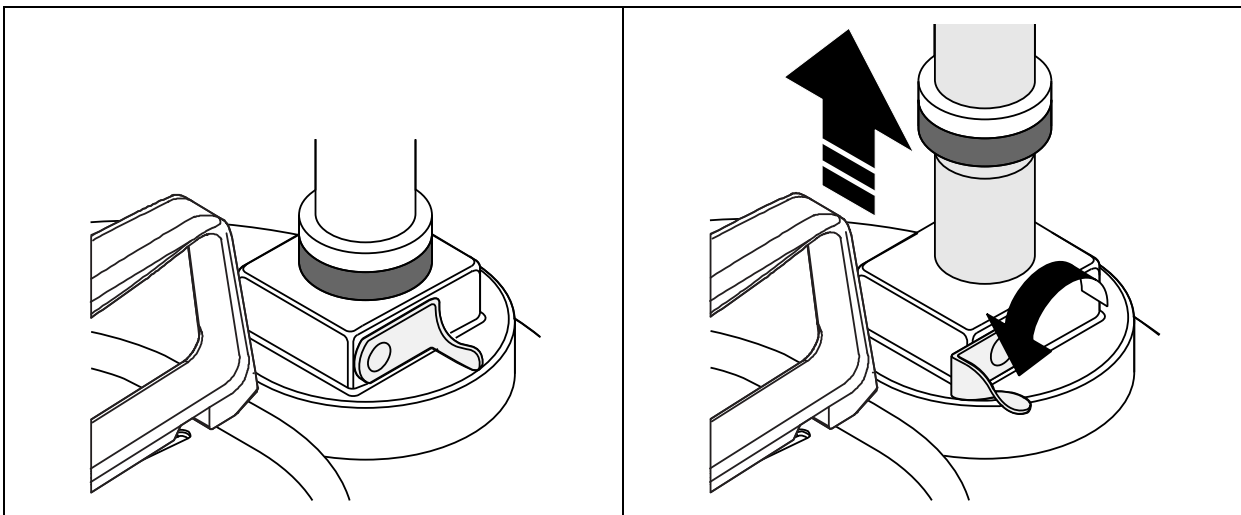
- Test the sprayer for leaks by filling the tank with approximately 4 litres of **clean** water.



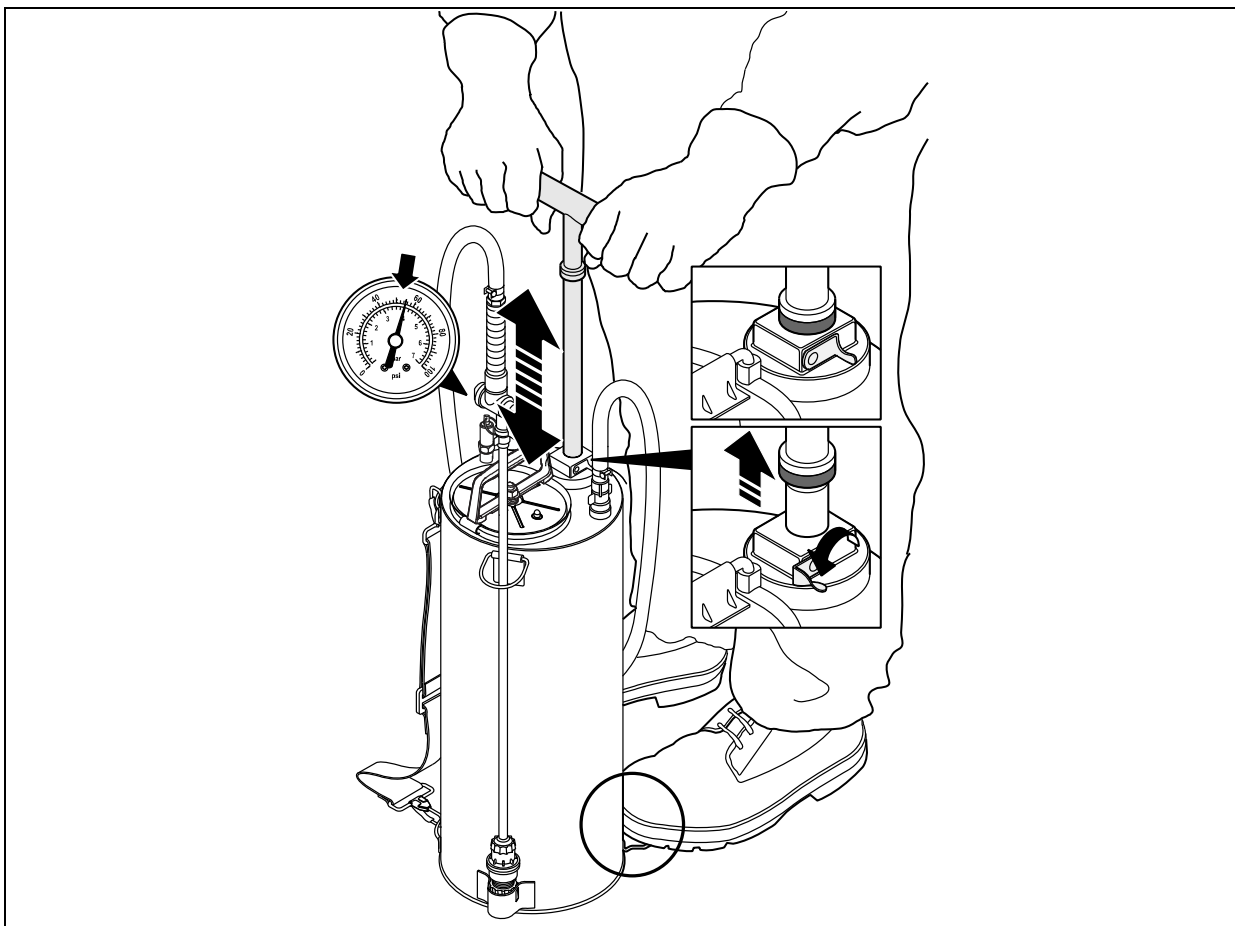
- Secure the Lid



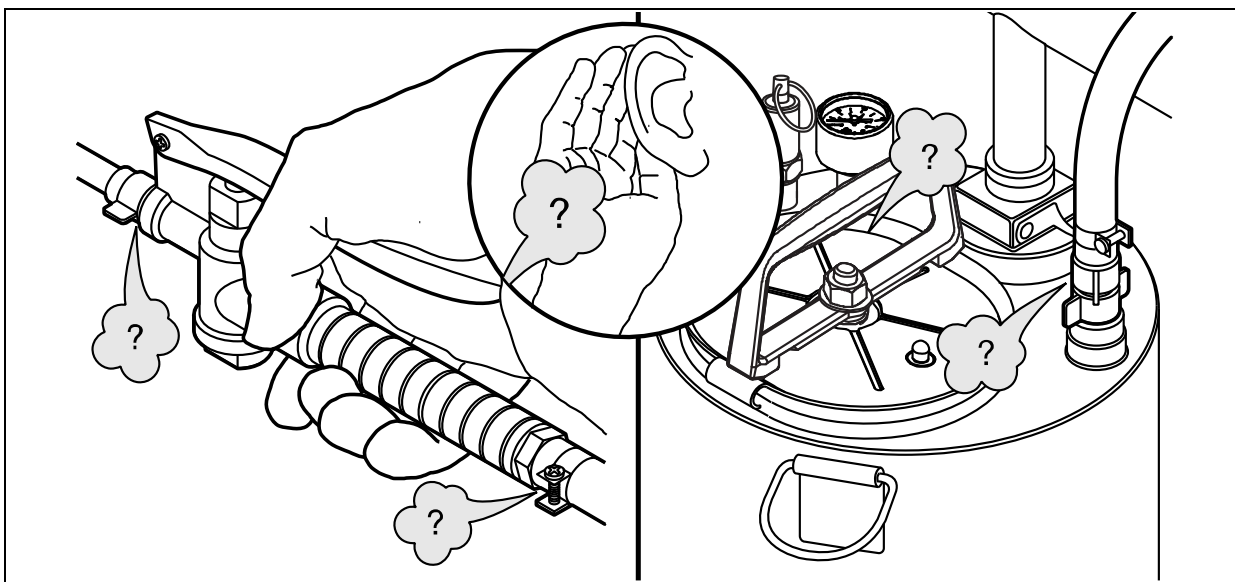
- Unlock the pump handle by moving the locking device through 180 degrees. This will allow the handle to be raised freely.



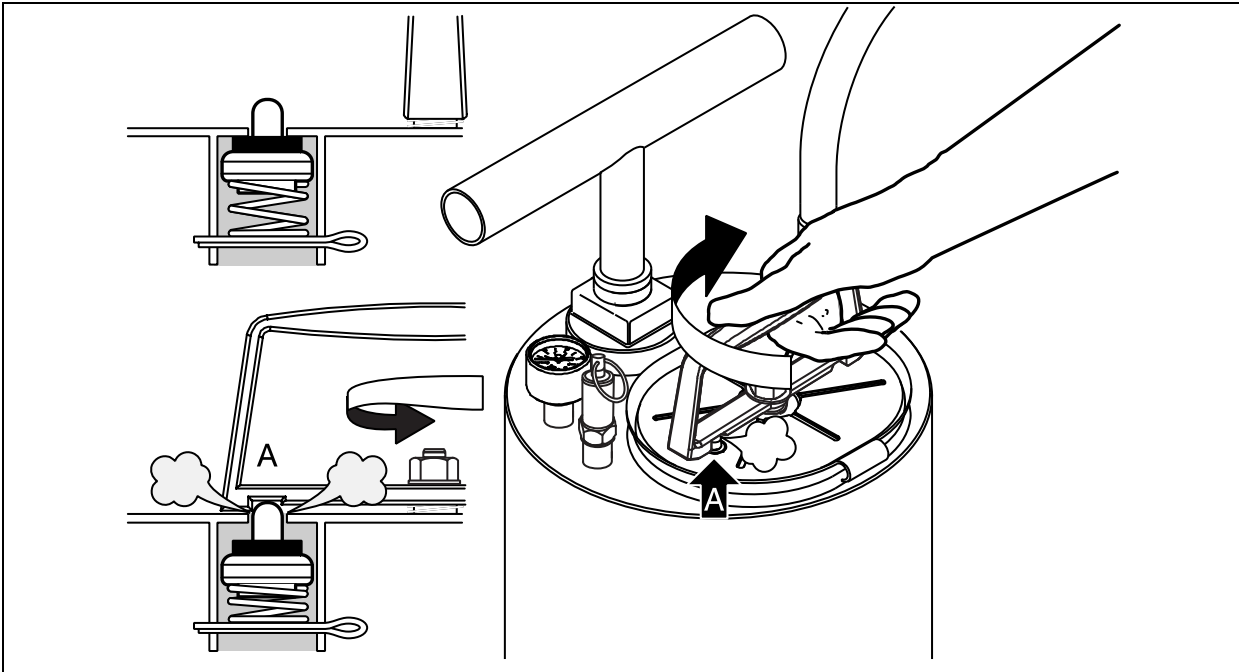
- Raise the pump handle to the top of its stroke and pump continuously for 40 – 50 strokes to pressurise the tank to 4.2 bar (60 PSI) for the CS-10 or 3.8 bar (55 PSI) for the CS-14 as indicated on the pressure gauge. Stabilise the tank during pumping by standing on the foot rest.



- Spray into a bucket by opening the trigger valve for a few seconds whilst checking for any leaks. Tighten any leaking fittings.



- Once satisfied there are no leaks, release the tank pressure by rotating the latch on the tank lid to the open position. This automatically opens the release valve to allow air to escape. Once all air has been released and the tank no longer pressurised, open the lid and empty any remaining water from the tank.



4 CALIBRATION

4.1 Application and Dilution Rates for Chemicals

Read the product label to discover the recommended application rate. This will usually be expressed as dose rate of product per m^2 of wall surface. Some products will be packaged in sachets for each fill of the spray tank, typically to treat a surface area of 250 m^2 .



Note: when using the CS-10 one 7.5 litre tank fill (product + water) will treat 250 m^2 of surface when applying 30 ml/m^2 of liquid with an 8002 nozzle tip and the red CFValve™ operating at 1.5 bar. When using the CS-14 one 10 litre tank fill (product + water) will treat 250 m^2 of surface when applying 40 ml/m^2 of liquid with an 8002 nozzle tip.

4.2 Nozzle Output Flow Rate

At 1.5 bar pressure with the CFValve™ the flow rate should be around 560 ml/min.

The formula to calculate the required flow rate from the sprayer is as follows

FORMULA

$$\text{Flow (ml/min)} = \text{Volume Rate (ml/m}^2\text{)} \times \text{Band (m)} \times \text{Lance Speed (m/sec)} \times 60$$

Where:

Flow	Output from nozzle in 1 minute at constant pressure
Volume rate	Volume in ml applied per m ² (e.g. 30 ml / m ²)
Band	Distance between spray bands (usually 0.7 m, representing a 75 cm wide band less 5 cm overlap)
Lance Speed	Speed in m/sec that the lance is moved up or down a wall. Typically 2 m is treated in 4.5 seconds or 0.44 m/sec

NOTE: The units (ml, m, m² & sec) must be correct to use above formula

Example: to apply 30 ml/m² with a 70 cm band spacing (75 cm band less 5 cm overlap) treating a 2 m high vertical strip every 4.5 seconds we have:

$$\begin{aligned}
 \text{Flow Required (ml/min)} &= 30 \times 0.70 \times (2 \text{ m} / 4.5 \text{ sec}) \times 60 \\
 &= 30 \times 0.70 \times 0.4444 \times 60 \\
 &= \underline{560 \text{ ml/min}}
 \end{aligned}$$

Table 1

Application Parameters with 1.5 Bar Red CFValve™ and 8002 nozzle.

Pressure (Bar)	Flow Rate (ml/min)	Spray time	Vol. Rate (ml/m ²)	Band (m)	Speed (m/sec)	Time to treat 2m strip (s)	Total Area* (m ² per fill)
1.5	560	13 min 24 s	20	0.70	0.67	3.0	375.0
			30	0.70	0.44	4.5	250.0
			40	0.70	0.33	6.0	187.5

Note: Spray time and area treated based on 7.5 litre fill

If no CFValve™ is used and products are required to be applied at 1.7 – 3.8 bar (25 – 55 PSI) then the following application parameters apply.

Table 2

Alternative Application Parameters if no CFValve™ is used (note that figures are averages as the pressure and flow vary as the tank empties)

CS-10 with 8002E nozzle tip

Pressure (Bar)	Flow Rate (ml/min)	Spray time	Vol. Rate (ml/m ²)	Band (m)	Speed (m/sec)	Time to treat 2m strip (s)	Total Area* (m ² per fill)
1.7 – 3.8	580 – 880	9.5 min	30	0.70	0.59	3.4	250.0
			40	0.70	0.44	4.5	187.5

Note: Spray time and area treated based on 7.5 litre fill

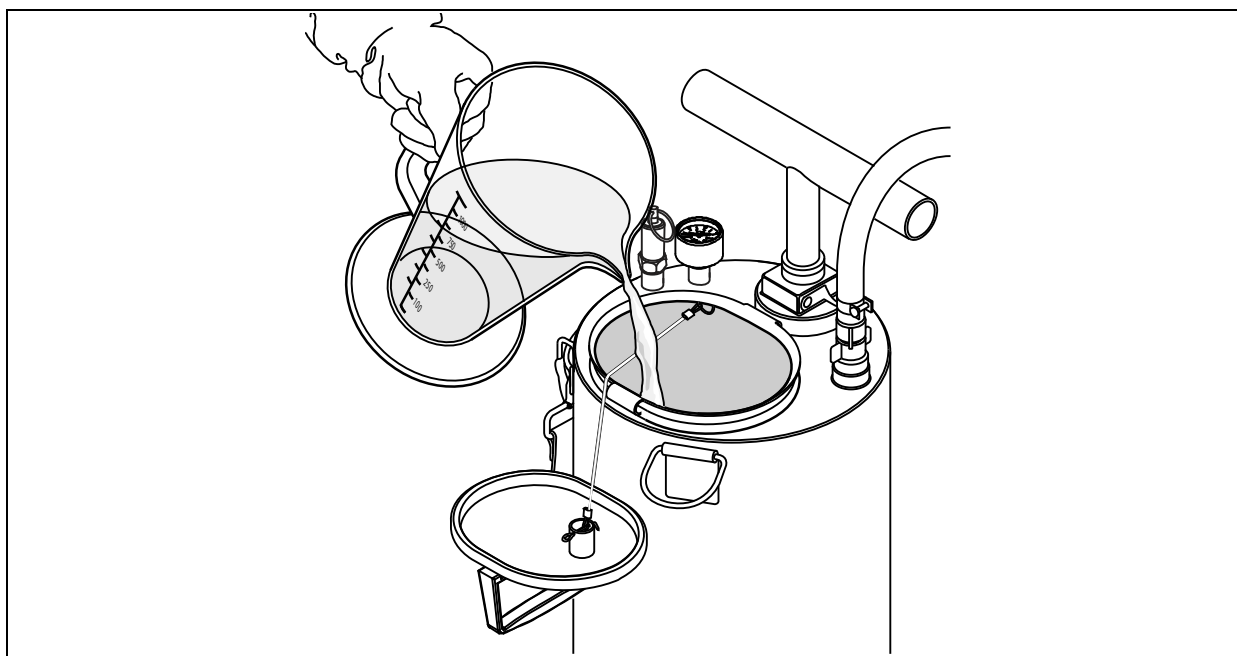
CS-14 with 8002E nozzle tip

Pressure (Bar)	Flow Rate (ml/min)	Spray time	Vol. Rate (ml/m ²)	Band (m)	Speed (m/sec)	Time to treat 2m strip (s)	Total Area* (m ² per fill)
1.7 – 3.8	580 – 880	12.7 min	30	0.70	0.59	3.4	333.3
			40	0.70	0.44	4.5	250.0

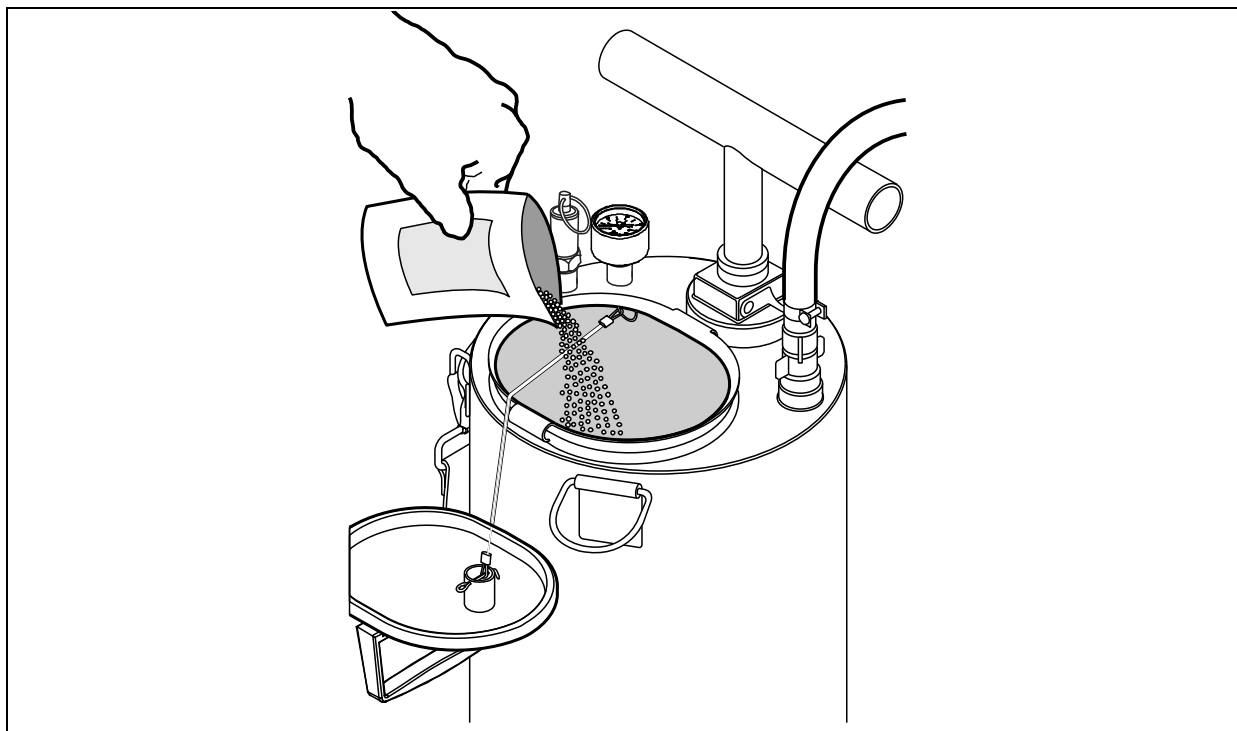
Note: Spray time and area treated based on 10 litre fill

5 PREPARING FOR SPRAYING

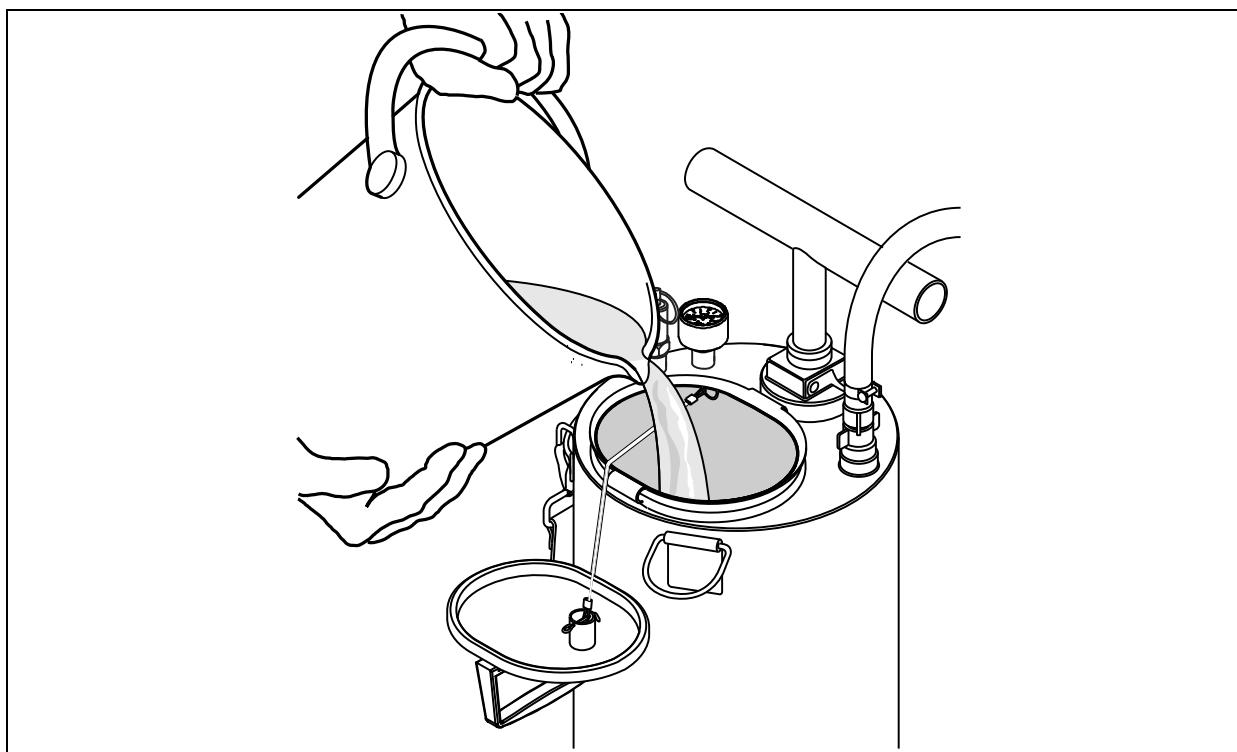
- First check that all hose connections and fittings are secure. Remove the tank lid by rotating the latch handle. Place the tank on a flat surface in a secure well ventilated area away from streams, ponds or other water sources. Partially fill the tank with about 4 litres of clean water.



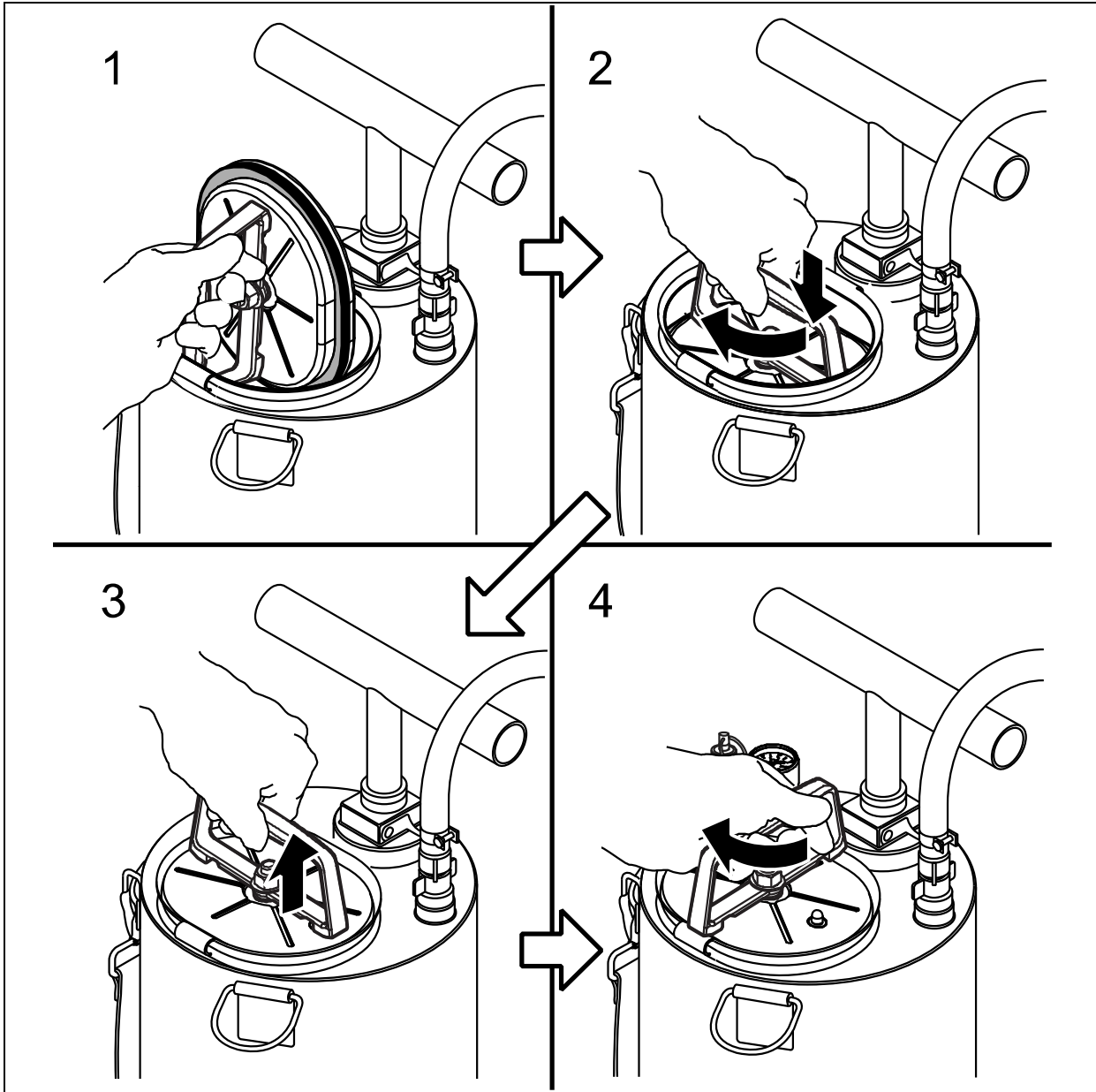
- Read the product label once more to confirm what quantity of product should be added for the treatment (typically to cover 250 m² of surface).
- Measure the exact quantity of product to be mixed in 7.5 litres of water for the CS-10 or 10 litres of water for the CS-14 and pour this into the tank



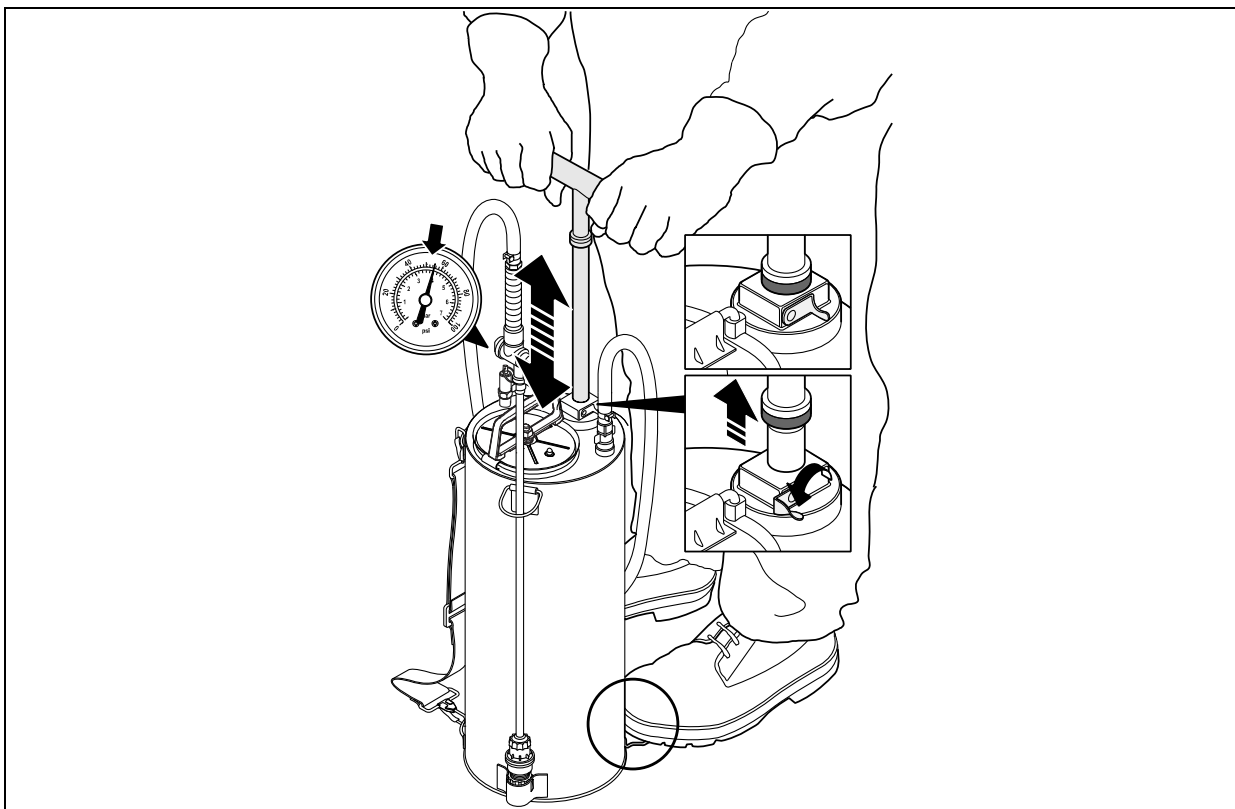
- Fill the tank with clean water up to the 7.5 litre mark for the CS-10 or the 10 litre mark for the CS-14 as indicated by the graduations embossed on the side of the tank. These graduation marks can be seen on the inside of the tank through the filling aperture.



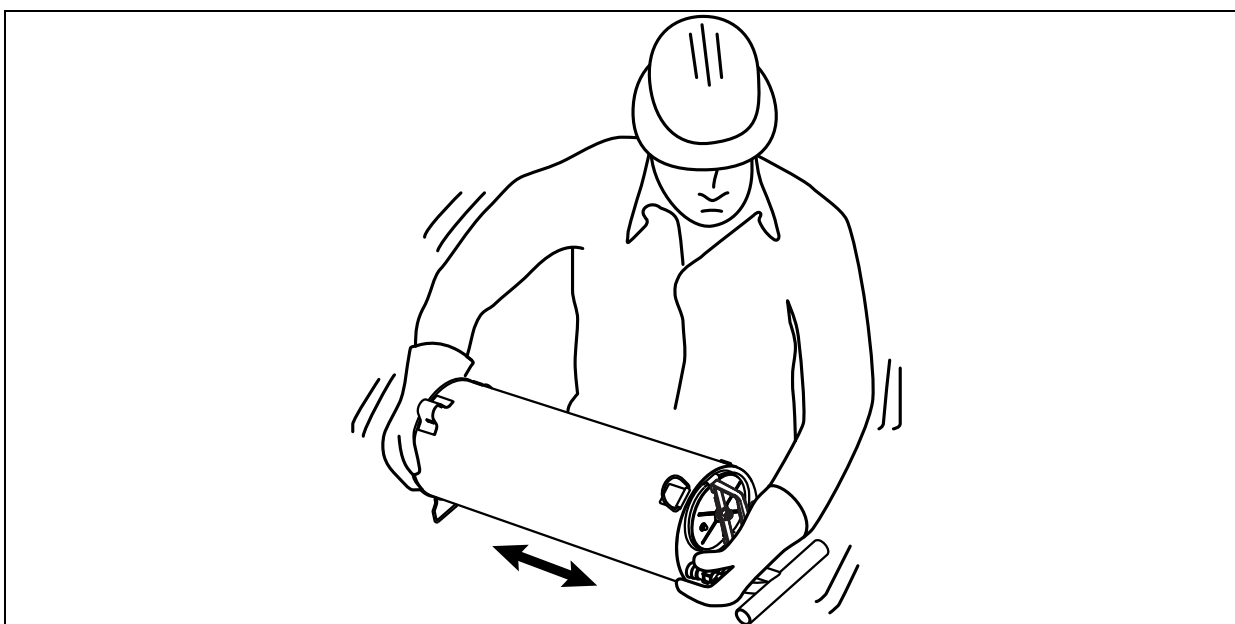
- Replace the tank lid and secure position by rotating the latch handle.



- Release the lock on the pump handle and pressurise the sprayer to 4.2 bar (60 PSI) for the CS-10 or 3.8 bar (55 PSI) for the CS-14 as indicated on the pressure gauge. Stabilise the tank during pumping by standing on the foot rest. Check for any leaks as described in section 3 above.

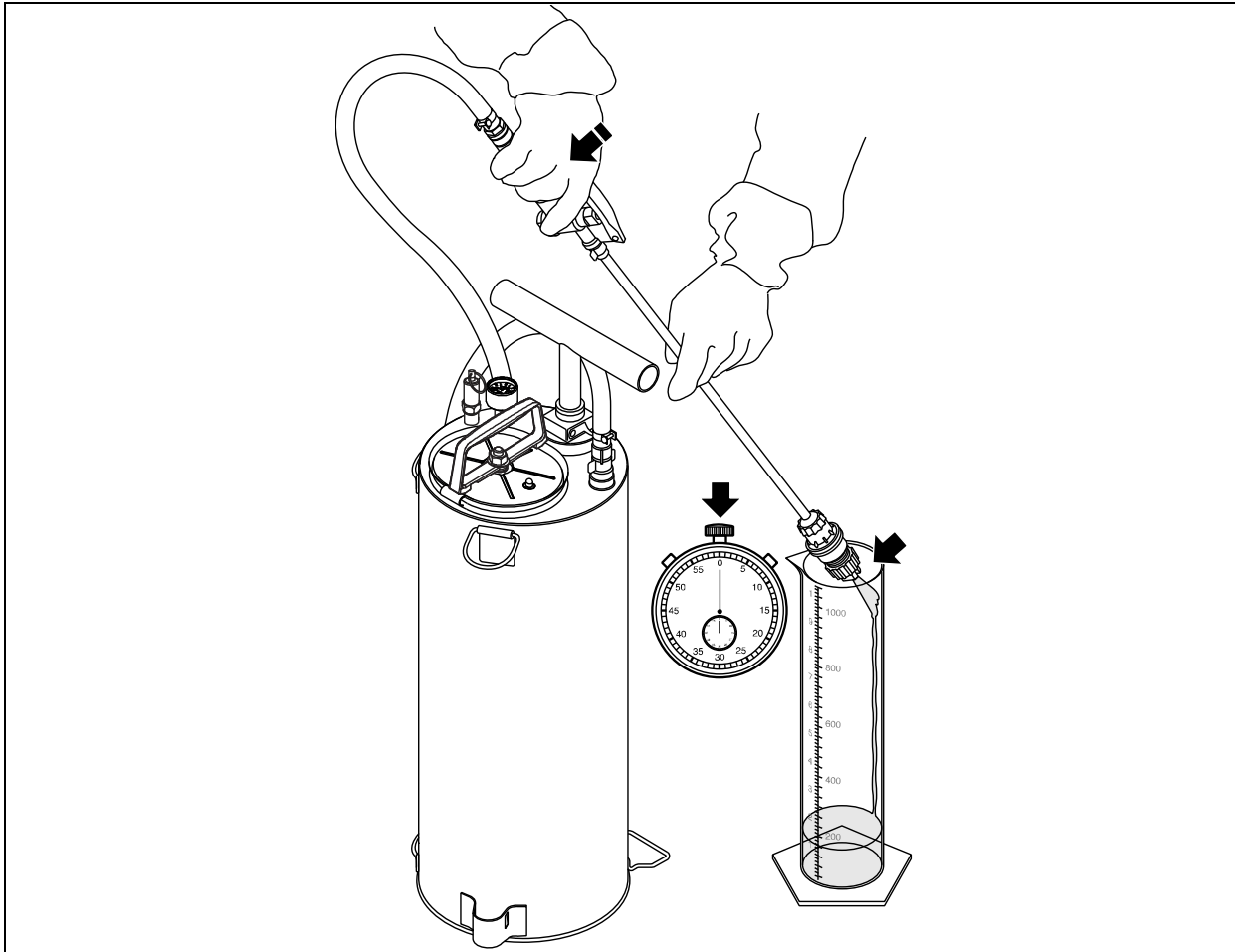


- Agitate the spray mix by vigorously shaking the tank from side to side



- Operate the trigger and spray some liquid into a container. Check for leaks and an even spray pattern from the nozzle.

- Check the flow rate from the nozzle by spraying into a graduated measuring cylinder and measuring the volume sprayed in one minute. Use a stopwatch to time the output from the nozzle.



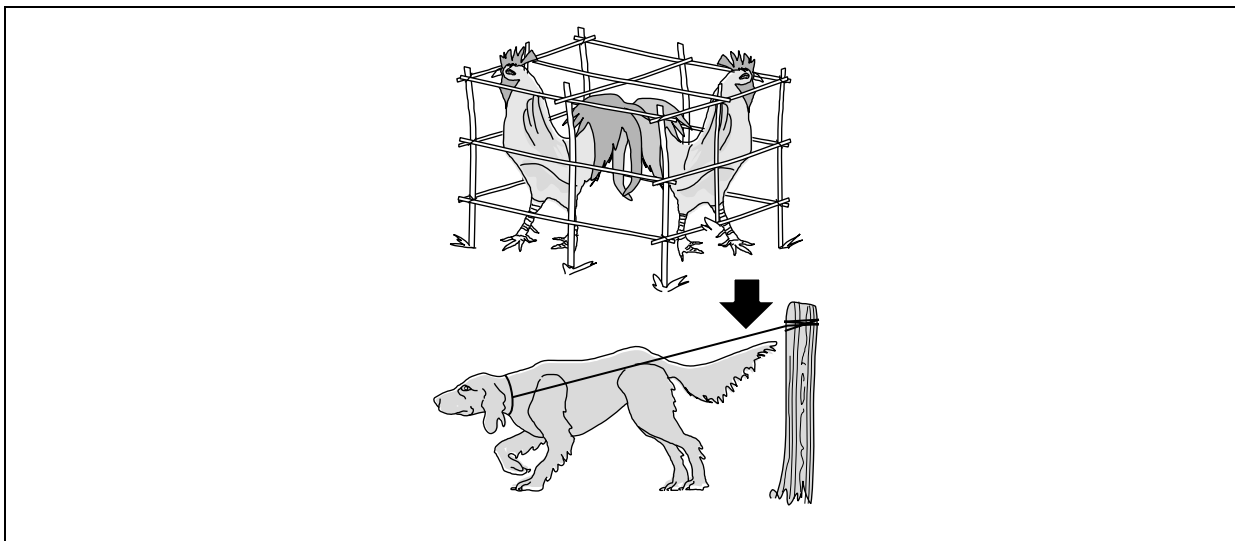
- Verify that the flow rate is within $\pm 5\%$ of that used for the calibration calculation above. If the flow varies significantly from that used then the spraying speed must be adjusted by using the following formula:

FORMULA

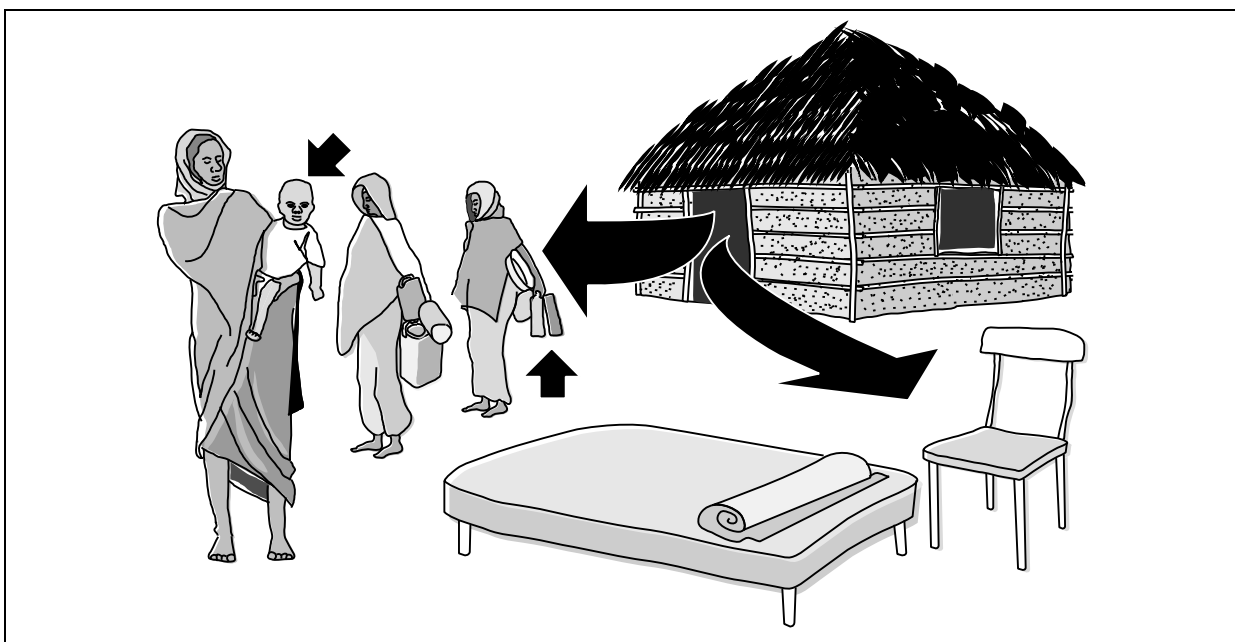
$$\text{Lance Speed (m/sec)} = \frac{\text{Flow Rate (ml/min)}}{\text{Volume Rate (ml/m}^2\text{) x Band (m) x 60}}$$

6 BEFORE SPRAYING

- Consult with local residents to advise them that spraying will be taking place.
- Before spraying make sure all people and animals are evacuated from the structure to be sprayed and that people and animals are prevented from re-entry until it is safe to do so.

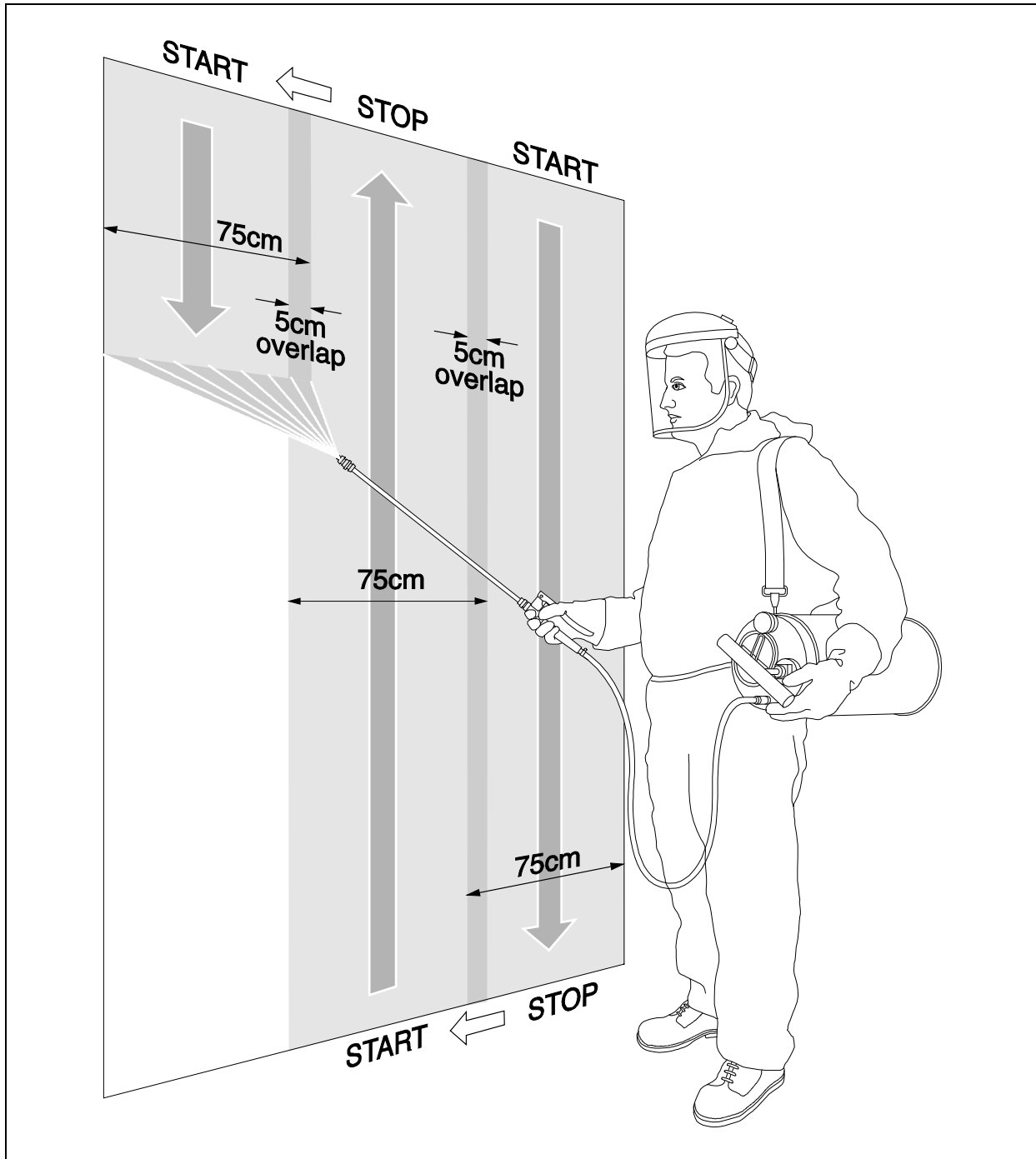


- Ensure that all foodstuffs, drinking water and cooking utensils are removed from the structure before spraying. It is also recommended to remove any loose items such as small tables and chairs, bedding and other objects to facilitate ease of access for spray operators and to avoid any unnecessary contamination. If possible, move any remaining items of furniture away from wall surfaces so all areas can be reached and treated effectively.



7 SPRAYING

- Spray all wall surfaces by holding the nozzle tip 45 cm from the wall surface and spraying a strip 75 cm wide with each spray pass. Alternate between spraying up and down and separate each spray pass by 70 cm, leaving a 5 cm wide overlap between successive passes.



- Whenever possible, start spraying at the furthestmost point from the door so that the operator always works towards the door.

8 CLEANING



Wear
Gloves



Wear
Protective
Clothing



Wear Eye
Protection or a
face shield



Wear
Protective
Boots

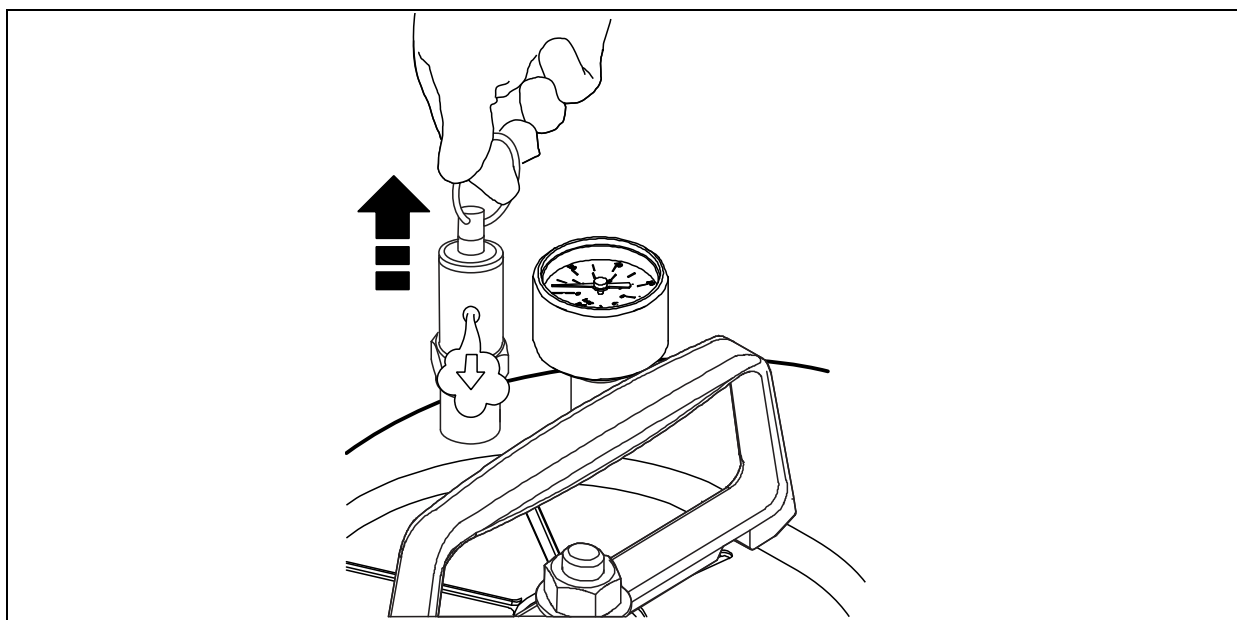


Wear a
Face Mask



Wash
hands

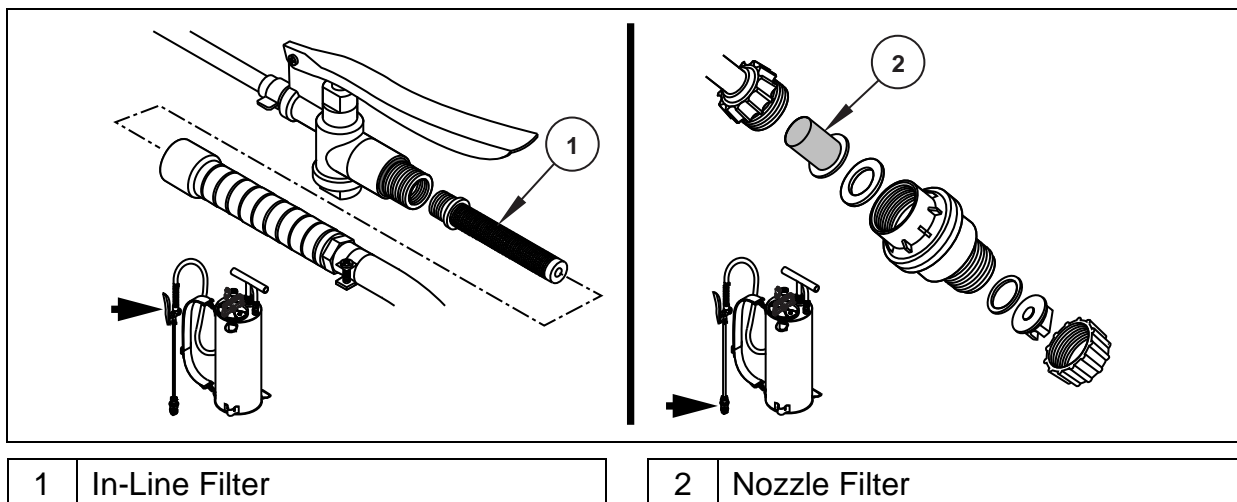
- The sprayer must be cleaned after use. Before cleaning, any pesticide remaining in the tank should be sprayed onto wall surfaces in the treatment area.
- When empty, the sprayer must be de-pressurised by rotating the lid latch handle until it actuates the pressure release valve. Alternatively, air can be released by pulling on the ring of the pressure relief valve.



- Open the tank lid and pour 3 – 5 litres of clean water in the tank. Replace the lid and re-pressurise the tank to about 2 bar (25 – 30 PSI).
- Agitate the contents of the tank and then spray the washing water onto a suitable surface such as external walls in the spray area. Do not spray washings onto plants or any crops that could be eaten by people or animals.
- Repeat step (4) above to completely remove all pesticide residue from the sprayer. If necessary a small quantity of liquid soap can be added to the washing water.
- Open the lid and hang the sprayer upside down until it is completely dry both inside and outside.

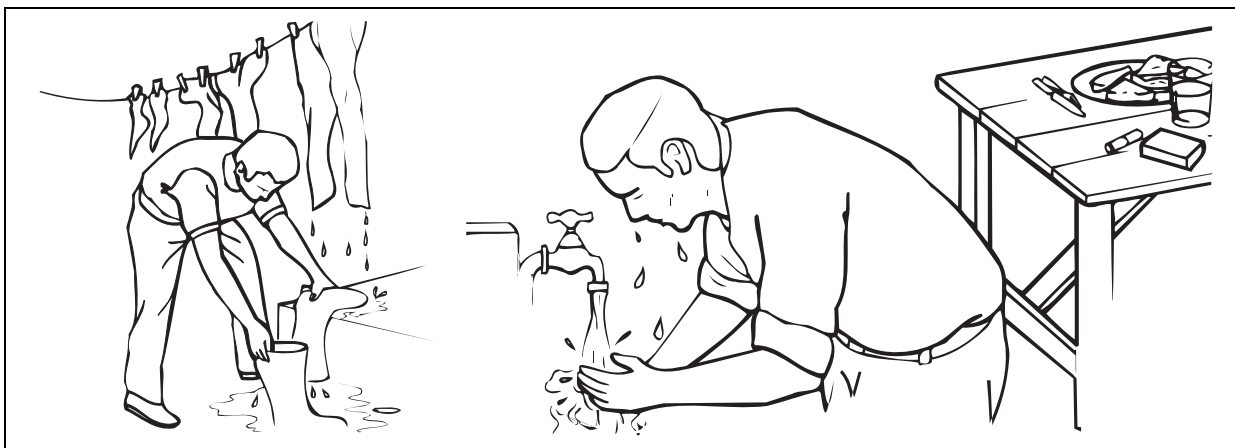
It is important that this procedure is followed after each use of the sprayer to avoid deposits of dried pesticide forming and blocking nozzles or filters. If working with water dispersible powders or granules it is recommended that the in-line filter on the trigger valve should be cleaned by unscrewing the filter housing and washing the filter mesh.

It is also recommended that the nozzle tip, CFValve™ and nozzle filter should be removed and immersed in clean water to remove any deposits or blockages.



Note: When cleaning the sprayer it is important to wear the appropriate personal protective equipment (PPE).

Operators should only remove their protective clothing after the sprayer has been thoroughly cleaned and left to dry. The operator's hands and face must be washed with soap and water and the protective clothes must be washed before being worn again.



8.1 Disposal of Rinsate



Remove residues in accordance with the manufacturer's instructions.

Dispose of chemicals in accordance with the manufacturer's instructions.

Harmful chemicals **must** always be handled and stored in accordance with the manufacturer's instructions.



Harmful chemicals **must** be stored in their original containers.

It is the responsibility of the user to ensure all possible measures are taken to protect the environment.

It is the responsibility of the user to be familiar with, and adhere to, all relevant national and local restrictions, prohibitions and regulations.

If the system should fail during operation or an excessive quantity of fluid is left in the tank(s) after spraying remove any excess liquid from the system. Collect all fluids in suitable containers. The main tanks can be drained via the drain valves. Pump any residual fluid out of the system via the hose outlet. Store or dispose of the fluid in accordance with the manufacturer's instruction. Micron Sprayers Ltd. will not provide advice on storage and/or disposal of spraying fluids or chemicals.

9 MAINTENANCE

After spraying at the end of each day it is vital that the sprayer should be cleaned as described in section 8 above.

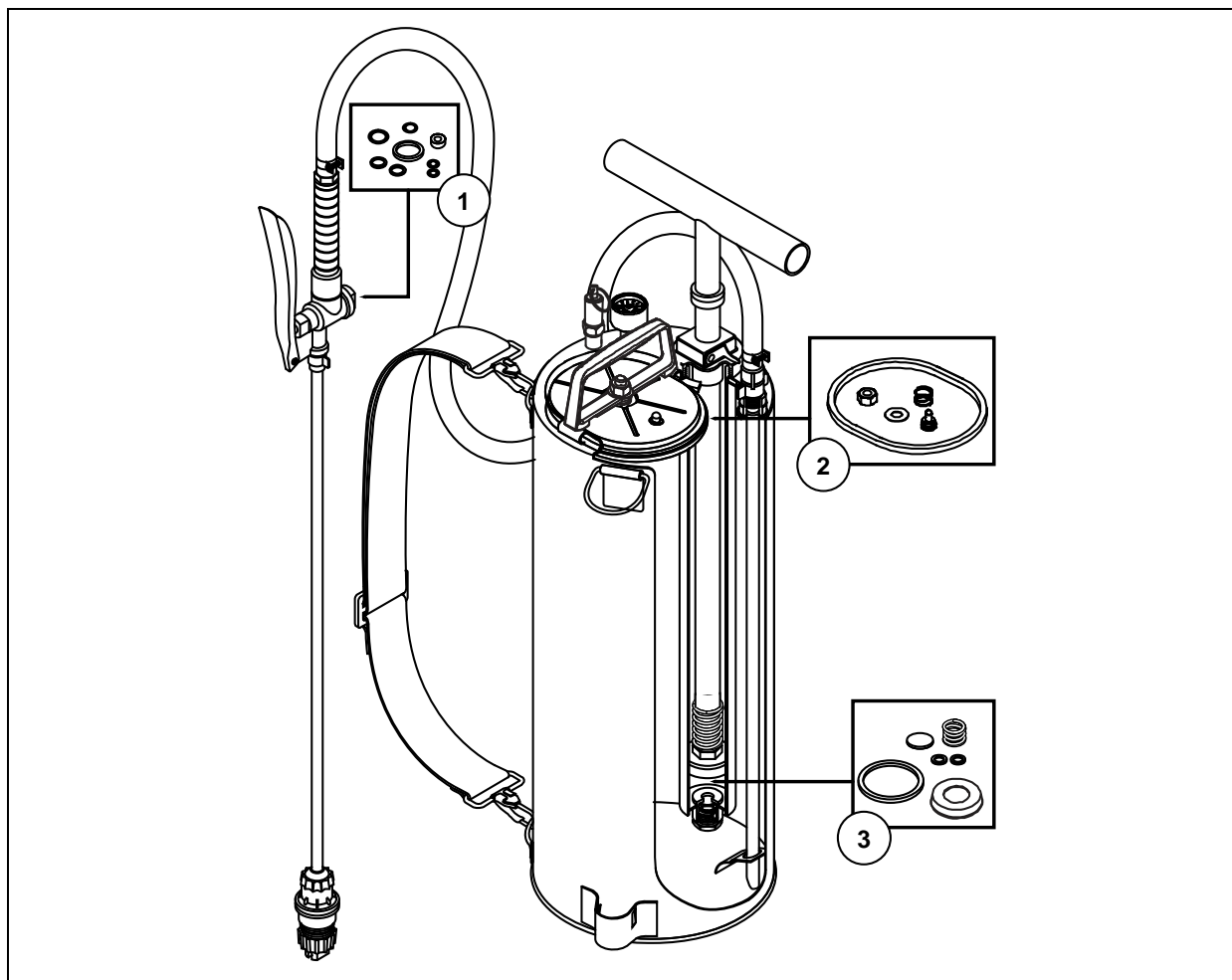
The hose should be checked regularly for signs of wear and replaced if necessary. Hose connections must be tightened if leaks are found. Ensure there is no sand or debris on the connection surfaces and replace any damaged sealing washers.

The pump should be disassembled after each week of use and the cup seal lubricated with silicone grease.

The seal of the tank lid seal should be checked before use to ensure that it is correctly positioned. A light coating of silicone grease should be applied to the surface of the seal after each week of use.

Care must be taken to prevent operators from dropping the tank. The condition of the tank, lance and fittings should be checked regularly to ensure they have not been damaged during use or transport.

Consumable items for routine maintenance are provided in the service kits of spare parts provided with each sprayer.



1	510-016-000	Trigger Valve Service Kit
2	514-017-000	Tank Lid Service Kit
3	510-015-000	Pump Service Kit

9.1 Fault Finding

Problem	Possible Cause	Action
Pump does not pressurise	Cup seal is too dry or distorted	Apply silicone grease or replace seal
	Non-return valve at bottom of pump cylinder is not operating	Disassemble non-return valve assembly. Check condition of spring & seal and clean or replace as necessary
Pump operates but tank does not pressurise	Air leakage at tank lid seal	Reposition seal and apply a thin film of silicone grease. Pump vigorously for a few seconds to pressurise tank and create a seal
	Air leakage at pump cylinder gasket seal	Tighten the pump assembly onto the tank. Check condition of gasket under top of tank and replace if necessary
	Air leak from pressure gauge or relief valve fitting	Tighten fitting or replace sealing washer as required
	Air leak from relief valve	Manually reset the relief valve by pulling on the valve ring against the spring then release to realign the seal
Spray pattern from nozzle is uneven or irregular	Partially blocked nozzle tip	Remove nozzle tip and rinse in clean water. If problem persists replace nozzle tip
Liquid leaks from hose or trigger valve assembly	Leaking connection	Check that all hose connections are tight and there is no contamination on the sealing surfaces. Replace sealing washers as necessary
Tank pressurises but liquid does not flow or flow rate is low	Blockage in trigger valve filter	Disassemble and clean
	CFValve™ not opening	Check for blockage and ensure that tank pressure exceeds 1.7 bar (25 PSI)
	Blocked nozzle tip	Remove and clean

10 SPRAYER DISPOSAL



It is the responsibility of the user to ensure the disposal of the equipment is in accordance with any and all national or local restrictions, prohibitions and regulations.

Remove chemical residues in accordance with the manufacturer's instructions.

Dispose of chemicals in accordance with the manufacturer's instructions.



Harmful chemicals **must** always be handled and stored in accordance with the manufacturer's instructions.

Harmful chemicals **must** be stored in their original containers.

It is the responsibility of the user to ensure all possible measures are taken to protect the environment.

It is the responsibility of the user to be familiar with, and adhere to, all relevant national and local restrictions, prohibitions and regulations.

To dispose of the equipment reduce the equipment to its component parts.
Thoroughly clean all components inside and out.

Dispose of the component parts by material and type in accordance with any and all national and local restrictions, prohibitions and regulations.

11 PARTS LIST

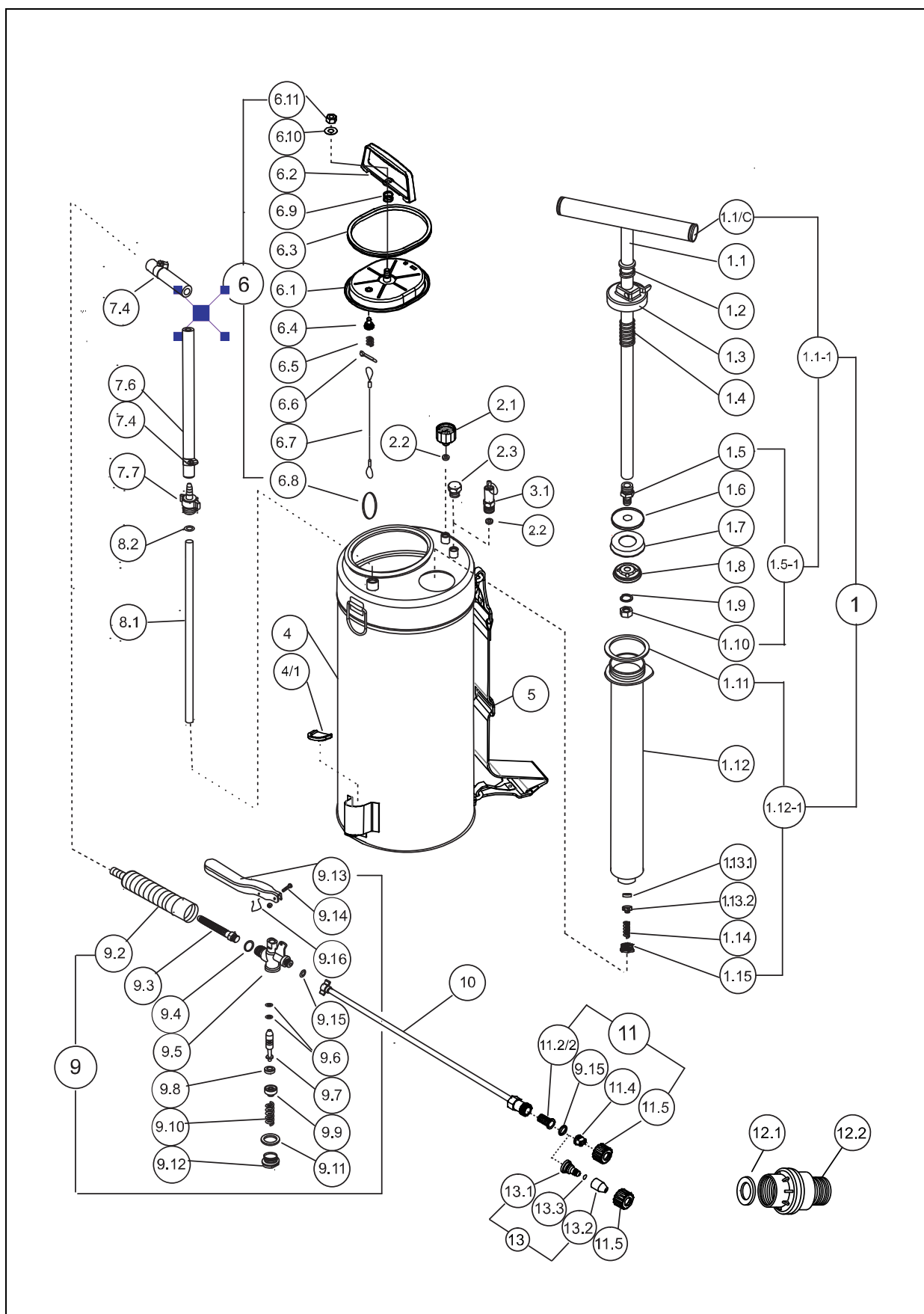


Figure 2 – Parts List

ITEM	PART NO.	DESCRIPTION
1	514-001-000	Pump Complete S.S.
1.1-1	514-001-011	Plunger Assembly (S.S. UPP)
1.1	510-001-010	Rod
1.1/C	510-001-014	Plug x2
1.2	510-001-020	Spring
1.3	510-001-030	Cap
1.4	510-001-040	Spring
1.5-1	514-001-051	Pump Cup Assembly (S.S. UPP)
1.5	514-001-050	Adapter (for S.S. UPP)
1.6	514-001-060	Upper Piston Plate S.S. (UPP)
1.7	510-001-070	Pump Cup
1.8	510-001-080	Lower Piston Plate
1.9	505-001-090	Spring Washer
1.10	505-001-100	Nut
1.11	510-001-110	Gasket (Viton)
1.12-1	514-001-121	Pump Cylinder Assembly S.S.
1.12	514-001-120	Pump Cylinder S.S.
1.13	505-001-130	Non-return valve
1.13.1	505-001-131	Sealing Plate
1.13.2	505-001-132	Valve Seat
1.14	505-001-140	Spring
1.15	505-001-150	Nut
2.1	505-002-010	Pressure Gauge
2.2	505-002-020	Gasket
2.3	504-002-030	Plug
3.1	505-003-010	Pressure Relief Valve
4	510-004-010	Tank (CS-10) MICRON
4	514-004-010	Tank (CS-14) MICRON
4/1	514-004-100	Nozzle Protection Pad
5	510-005-000	Carrying Strap
6	514-006-000	Tank Lid Assembly
6.1	514-006-010	Tank Lid
6.2	514-006-020	Twist Handle
6.3	514-006-030	Cover Seal
6.4	514-006-040	Valve Pin Assembly
6.5	510-006-050	Valve Pin Spring
6.6	510-006-060	Cotter Pin
6.7	510-006-070	Cover Securing Cable
6.8	510-006-080	Ring
6.9	514-006-090	Spring
6.10	514-004-100	Washer
6.11	514-006-110	Lock Nut

Parts List - continued

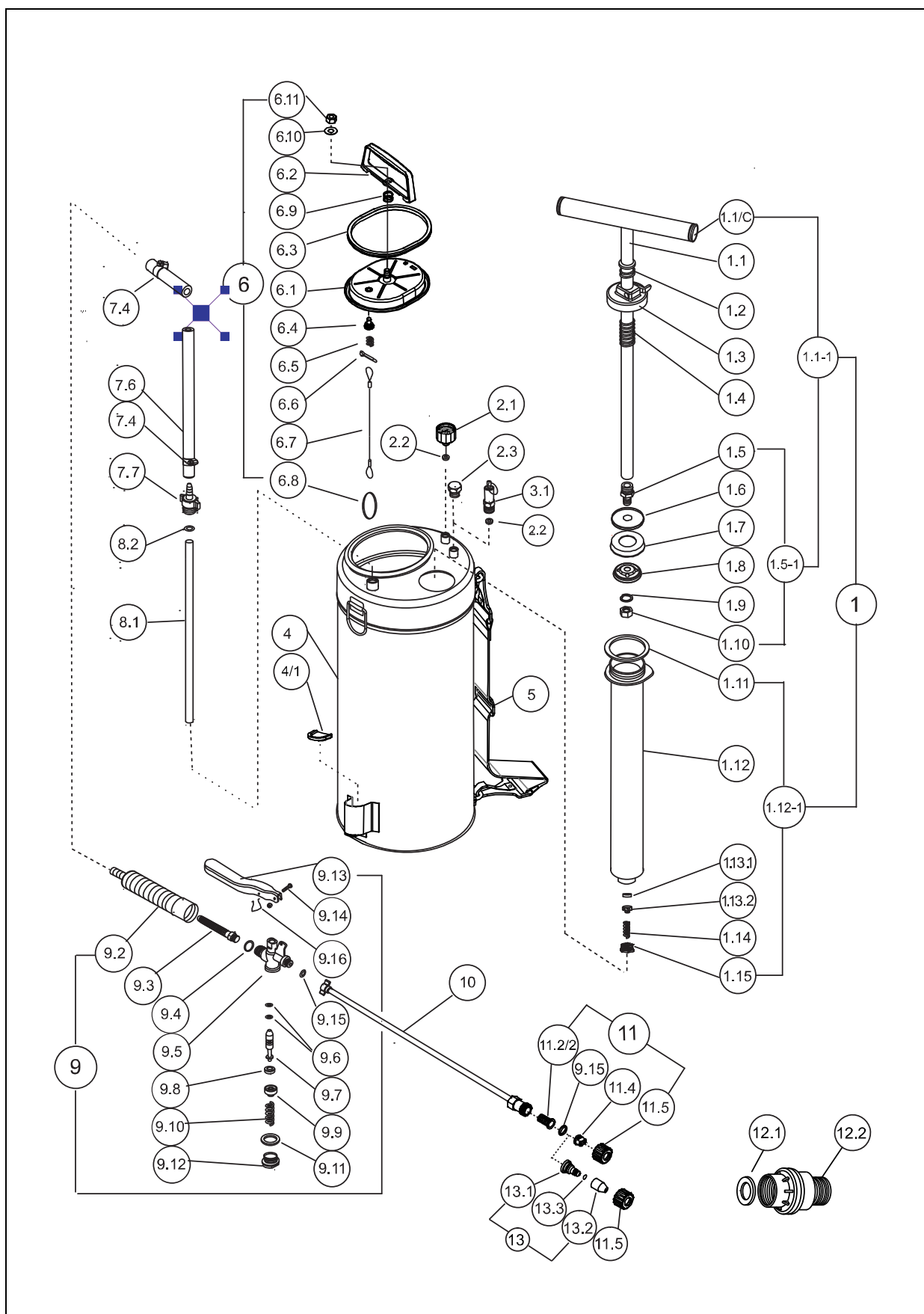


Figure 3 – Parts List Continued

ITEM	PART NO.	DESCRIPTION
7.4	510-007-040	Hose Clamp
7.6	510-007-060	Hose 1.5m
7.7	510-007-070	Hose Adapter
8.1	510-008-010	Supply Tube CS-10
8.1	514-008-010	Supply Tube CS-14
8.2	505-008-020	O-Ring
9	510-009-000	Trigger Valve Assembly
9.2	514-009-020	Handle S.S.
9.3	505-009-030	Strainer
9.4	505-009-040	O-Ring 16x2
9.5	505-009-050	Valve Body
9.6	505-009-060	O-Ring
9.7	505-009-070	Stem Guide
9.8	505-009-080	Sealing Plate
9.9	505-009-090	Seat
9.10	505-009-100	Spring
9.11	505-090-110	Gasket
9.12	505-009-120	Cap
9.13	505-009-130	Trigger
9.11	505-009-110	Gasket
9.14	505-009-140	Pin
9.15	505-009-150	Gasket, PE
9.16	505-009-160	Locking Ring
10	514-010-000	Spray Lance, Straight S.S.
11	510-011-000	Nozzle Cpl.
11.2/2	510-011-022	In-line Filter
11.4	510-011-041	Fan Nozzle 8002E-SS
11.4	510-011-042	Fan Nozzle 8001E-VS
11.4	8702	Fan Nozzle C8002E Ceramic
11.4	510-011-043	Fan Nozzle 8002E-VS
11.5	510-011-050	Nozzle Cup
12.1	7077	Seal
12.2	6093	CFValve™
13	510-013-003	Cone Nozzle Assembly 1.2
13.1	510-013-010	Cone Nozzle Body
13.2	504-011-023	Cone Nozzle Cap 1.2
13.3	500-009-180	O-ring 4.5x1.8
	510-015-000	Pump Service Kit (1.7+1.11+1.13/1+1.14+2.2x2)
	510-016-000	Trigger Valve Service Kit (9.4+9.6+9.8+9.11+9.15x2+8.2)
	514-017-000	Tank Lid Service Kit (6.3+6.4)
	510-510-010	Instruction Manual MICRON

Appendix A -		Conversion Factors
1 yard	= 3 feet	= 0.91 metre
1 metre	= 39.37 inches	= 1.09 yards
1 statute mile	= 0.87 nautical mile	= 1.61 kilometres
1 nautical mile	= 1.15 statute mile	= 1.85 kilometres
1 kilometre	= 0.62 statute mile	= 0.54 nautical mile
1 statute mile	= 1760 yards	= 5280 feet
1 nautical mile	= 2027 yards	= 6081 feet
1 kilometre	= 1094 yards	= 3282 feet
1 metre/sec	= 2.237 miles per hr	= 196.9 ft/min
1 acre	= 43560 sq feet	= 4840 sq yards
1 acre	= 4047 sq metres	= 0.40 hectare
1 hectare	= 107600 sq feet	= 11955 sq yards
1 hectare	= 10000 sq metres	= 2.47 acres
1 sq mile	= 640 acres	= 259 hectares
1 sq kilometre	= 247 acres	= 100 hectares
1 US gal	= 0.83 Imp gal	= 3.78 litres
1 Imp gal	= 1.20 US gals	= 4.54 litres
1 litre	= 0.26 US gal	= 0.22 Imp gal
1 US pint	= 16 US fl ounces	= 0.47 litres
1 Imp pint	= 20 Imp fl ounces	= 0.57 litre
1 US gal/acre	= 8 US pint/acre	= 9.45 litres/hectare
1 Imp gal/acre	= 8 Imp pints/acre	= 11.35 litres/hectare
1 litre/hectare	= 0.11 US gal/acre	= 0.081 Imp gal/acre
1 pound	= 16 ounces	= 0.45 kilogram
1 kilogram	= 2.20 pounds	= 35.3 ounces
1 ounce	= 28.35 grams	
1 pound/sq inch	= 0.068 atmosphere	= 0.067 bar
1 atmosphere	= 14.70 pounds/sq in	= 1.01 bar
1 bar	= 14.50 pounds/sq in	= 0.98 atmosphere
1 kilopascal	= 0.01 bar	= 0.145 pounds/sq in

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Notes

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