



***Instruction Manual***

MANRP-1 REV H 13/05/20

**BOOMLESS NOZZLE KIT  
M99-75B  
S3B**



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## Silvan Warranty

**Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.**

We warrant our goods to be free from defects in materials and workmanship for the warranty period of 12 months from the date the product is delivered to the consumer.

Silvan warrants its authorised Dealer, who in turn warrants the original purchaser (consumer) of each new Silvan product that it will repair or replace the product, or, pay the cost of repair or replacement, as determined by Silvan without charge for labour or any defective or malfunctioning parts in accordance with the warranty limitations below.

This Warranty is in addition to any other rights and remedies available to consumers under the law

### This Warranty Covers

Only conditions resulting directly from defects in workmanship or material under normal use and service.

### Warranty Exclusions

The Warranty does not cover:

- Conditions resulting from misuse, use of incompatible chemicals, exceeding machine specifications including overloading, impact damage, negligence, accidental damage or failure to perform recommended maintenance services as specified in the Owner/Operator Manual applicable to the product.
- Damage caused by continued use of a product after initial failure
- Any product which has been repaired by other than an authorised Silvan service outlet in a way which, in the sole and absolute judgment of Silvan, adversely affect its performance or reliability.
- The replacement of maintenance items such as diaphragms, batteries, V belts and ground engaging components, etc.

### How To Claim Warranty

Return the goods to the place of purchase at your cost and within the warranty period along with evidence of the purchase date. If the original supplier cannot be contacted, then contact Silvan as below and we can direct you on how to proceed with your warranty claim.

### How Your Claim Will Be Managed

The repair of a defective product qualifying under this warranty will be performed by any authorised Silvan service outlet within a reasonable time following the delivery of the product, at the cost of the owner, to the service outlet's place of business. The product will be repaired or replaced depending on the extent of the problem at the discretion of Silvan and the Silvan dealer.

# Safety Instructions



Before attempting to operate or install the sprayer carefully read and take note of the following safety warnings.

Failure to comply with these warnings may result in serious injury or death.

**Warning!** This sprayer is designed and manufactured solely for the purpose of applying agricultural chemicals to plants. Under no circumstances may it be used for any other purposes.

**Warning!** Before using this sprayer all operators and users must have read and understood the contents of this manual and any other manual supplied with the sprayer or associated equipment.

**Warning!** Do not exceed the the vehicle manufacturer's specified safe load and carrying capacity.

**Warning!** Exercise extreme care when operating in hilly or uneven terrain to ensure proper stability. Refer also to the vehicle manufacturer's operating and safety instructions

**Warning!** Refer to the chemical manufacturer's label for correct use and safe handling instructions of chemicals before use. Make sure correct safety equipment and clothing are used in accordance with the chemical manufacturer's instructions.

**Warning!** Never allow inadequately trained personnel to attach or operate this sprayer.

**Warning!** Before carrying out maintenance work, wash the sprayer thoroughly to remove all toxic chemicals that may contaminate the sprayer.

**Warning!** Overtightening plastic fittings can result in damage, leading to exposure to spray chemicals or improper application .

# Specifications



## GENERAL

The Selecta Boomless Sprayers have been designed for the application of agricultural chemicals to plants. They have been particularly designed for operation by 12V diaphragm pumps.

## STANDARD SPECIFICATIONS

M99-75B, S3B (KIT for 200L Truckpak)

- Supplied with 2 x Fast Cap style Boomless Nozzles
- Typically suits 12V Diaphragm pressure pumps with open flow rates 10-20L/min (max pump pressure must exceed 40psi)

# Installation



Do not exceed the vehicle manufacturer's specified safe load, towing and carrying capacity.

Boomless Nozzles can be fitted in place of the spraygun on most Silvan 12volt sprayers, such as the Spotpak, Rakpak, Trukpak, Utepak. The nozzle kit may mount to the vehicle for optimal spray pattern.

The M99-75B uses a clamp that can be attached to a vehicle, trailer or ATV Motor Bike, however, depending on circumstances, the bracket may require some modification. The suggested height of the nozzles is 70cm – 1m. Connect the hose directly to the pump.



The S3B kit is specially designed for the 200L Trukpak Sprayers. The kit is supplied with two screws that allow the bracket to be attached directly to the side of the tank at the moulded holes as per the image (do not over tighten).



# Operation



1. Connect the Boomless Nozzles to the pump.
2. Fill the sprayer with clean water.
3. Check suction line strainer for dirt or damage.
4. Run the pump and ensure it primes correctly.
5. Check all pipes, hoses, hose clamps and connections for leaks or damage.
6. Be sure to wear safety equipment as recommended by the chemical manufacturer before adding chemical to the sprayer.
7. Nozzles are switched on and off by the electric switch on the pump.

# Maintenance



Dispose of unused chemical and water used for rinsing in a manner that will not endanger people, animals or the environment.

1. After spraying rinse out the spray lines with clean water.
2. The filters fitted to the nozzle holders should be checked and cleaned if necessary.
3. Appropriate protective equipment should be used whenever maintenance is carried out.
4. If heavy frosts are experienced, run the pump to make sure pump and spray line is dry. This will prevent water freezing in the pump or spray lines and damaging sprayer.

# Calibration

APPLICATION RATE CHART L/ha:

| DESCRIPTION                                      | CODE        | PSI   | BAR  | L/min | SWATH WIDTH (m) | 6km/h | 8km/h | 12km/h | 16km/h | 24km/h |
|--|-------------|-------|------|-------|-----------------|-------|-------|--------|--------|--------|
| Boomless Nozzle Kit 2 jet Suits pumps 10-20L/min | M99-75B S3B | At 30 | At 2 | 7.6   | 7.4             | 93    | 70    | 47     | 35     | 23     |
|  |             |       |      |       |                 | L/ha  |       |        |        |        |

# Calibration (cont.)



## GENERAL INFORMATION

### WHEN TO SPRAY

Results will be best when wind speed is low, temperature low and relative humidity high. An ideal time is at sun up when these conditions are most likely to apply.

### APPLICATION RATE

The application rate can be determined using the following formula:

- Speed of travel - increasing speed reduces application rate and vice versa.
- Pattern swath can be adjusted to fit your application by angling the spray tip above or below parallel to the lay of the land and target selected. This will increase or decrease the swath width and change the rated litres per hectare applied. If you change the spray tip from parallel to the terrain, recalculate the litres per hectare with the following formula:

$$\text{Application Rate (L/ha)} = \frac{\text{Total Nozzle Output (l/min)} \times 600}{\text{Speed (km/hr)} \times \text{Swath Width (m)}}$$

### SPEED

The speedometer on many vehicles may not be sufficiently accurate at the slow speeds used when spraying. If in doubt it should be checked by the following method.

Measure and mark 100 metres. Approach the starting mark at the required spraying speed and accurately measure the time in seconds to reach the finishing mark. The ground speed can then be calculated as follows.

$$\text{Speed (km/hr)} = \frac{360}{\text{time in seconds for 100m}}$$

As the output to the Boomless Nozzle/s cannot be regulated on standard units, the application rate can only be varied by changing the operating speed. The slower you drive, the higher the application rate.

### NOZZLE OUTPUT

1. Partly fill the sprayer tank with water and mark the level or refer to the sight gauge.
2. Run the sprayer for several minutes with Boomless Nozzle/s operating and measure the time carefully.
3. Refill the sprayer tank to the mark using a measuring jug and record the amount added.
4. The average output for one nozzle in litres per minute can be calculated as follows.

$$\text{Nozzle Output (l/min)} = \frac{\text{Litres Used}}{\text{Number of Nozzles} \times \text{Number of Minutes}}$$

# Fitting Instructions (200L Trukpak TK200-S3)



Connect the nozzle assembly to the pump



Fit the end of the spray lance hose onto the free leg of the Tee piece



Screw the nozzle assembly onto the tank using the 2 screws supplied. Take care not to over tighten the screws and damage the plastic holes.