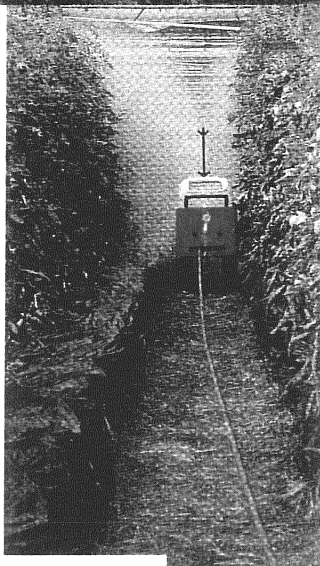


# MARUYAMA

## MSC1-103DW

### SHUTTLE SPRAYER



It automatically switches forward to backward at the end of Furrow of crop, then it returns with winding hose.

- The magnet sensor is equipped on both front and back of the machine.

It detects the marker in the end of Furrow, it automatically switches forward to backward. Then it returns winding hose.

- It stops if it detects the marker of the No-Crop-Open-Space.

It shuttles smoothly along Furrows

- Because of Maruyama Special clutch system, it runs smoothly also in a somewhat curved Furrow.

It is possible to move to the next Furrow easily, because it is a simple structure of an electric lift and a manual turn.

It floats when a supplementary wheel is lowered with the lift switch.

The fulcrum is supplementary wheels. it turns the machine, and press either the forward or the backward button, then move it to the next Furrow.

You can use your own power sprayer with you for this machine, as like you usually do. No-man spraying is carried out with the feeling of usual spraying.

- The mixing ratio between Agricultural chemical and water is the same as usual spraying you do. The special mixture of chemicals is not necessary. After connecting with the your own power sprayer set and putting a marker on the end of Furrow, then leave it to the machine.

- It is suitable not only the greenhouse but also the disinfection of the livestock barn

It is easy to operate it because running and the application are left to a multifunctional microcomputer.

- The touch switch can confirm the operation by lighting of LED and the electronic sound.

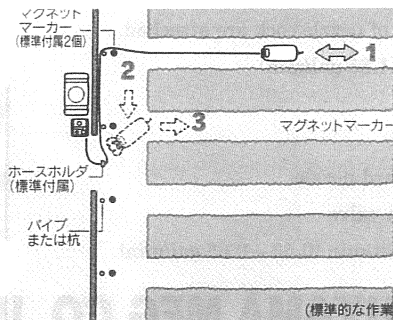
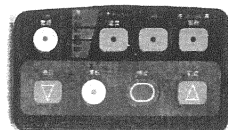
- The best application amount can be set in detail by combining the application modes, such as "3 stages of travelling velocity", "Goes up and down", and "One-way application".

- It high-speed runs automatically when no application travelling in the one way mode. So the work efficiency improves.

- The safety brake is built into. The brake hangs automatically in motor and winding drum, when switching of running direction and running backward are stopped. Therefore, it prevents the hose being crooked.

The microcomputer observes the battery.

- The microcomputer checks the voltage of the battery. You do not need to rely on your

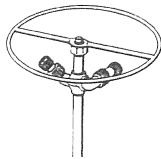
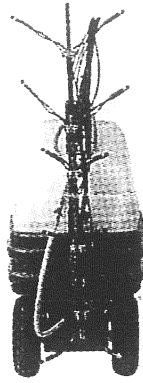
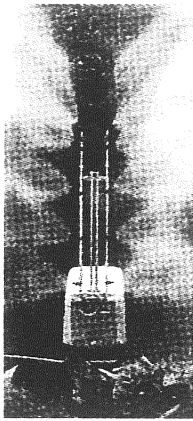


**MARUYAMA MFG.CO.,INC.**

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Optional accessories :

Protector(#111567)

To protect nozzles not to hook crops, nets, or poles.

Extended Nozzle(#112640)

To install it to the tip of standard nozzle for extension.

2-heads Wide Nozzle built-in valve.

Spraying volume : 2 - 2.6 lit/min (0.53 - 0.68 gal/min)

The length of nozzle : 310mm (12.2 inch)



Boom Nozzle(#178462)

Satisfactional spraying is available even though extended or folded.

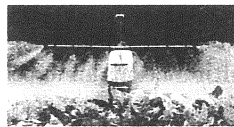
12-heads Wide Nozzle built-in valve.

Nozzle width : 2490mm (8.1 feet)

Height of support bracket : 1200mm (3.9 feet)

Height of folded nozzle : 1240mm (4 feet)

Spraying volume : 12.7 - 16.4 lit/min (3.36 - 4.33 gal/min)

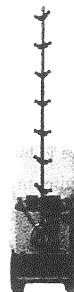


Rose Nozzle(#112635)

Texture spraying pattern is available thanks to nozzle intervals is close.

7-stages and 14-heads Wide nozzle built-in valve.

Spraying volume : 5.5 - 7 lit/min (1.45 - 1.85 lit/min)



Centipede Nozzle(#112648)

The spraying direction of each nozzle is adjustable by hands.

12-heads Wide Nozzle, 2 pcs of nozzle cock are attached.

Spraying volume : 7 lit/min (1.85 gal/min)



Blow-up Nozzle(#112647)

To install underneath standard nozzle.

2-heads Wide Nozzle built-in valve

Spraying volume : 2 - 2.6 lit/min (0.53 - 0.68 gal/min)

Dimension without Nozzle	1110 x 450 x 810 mm (43.7 x 17.7 x 31.9 inch)
Dimension with Nozzles	1155 x 450 x 1260mm (45.2 x 17.7 x 49.6 inch)
Dry weight	102 kg (225 lbs)
Drive way	4 wheel drive(only Forward), 2 wheel drive(only Backward)
Running mode	
Running for apply Chemical	3 missions for Forward, and 3 missions for Backward
Running for travelling	1 mission for Forward, and 1 mission for Backward
Running velocity	0.51/0.45/0.33 m/s, (1.67/1.48/1.08 ft/s)
Tire	3.50-4(265x85mm) 3.50-4(10.4x3.3inch)
Furrow (required) Width x Hight	More than 40cm x 10cm (More than 15.7inch x 3.9inch)
Battery	24V (12V x 2 pcs)
Operating hours after full charged	10-12 hours
Output of running electric motor	45W
Running function by changing switch	Magnet sencer (2 pcs). Automatic change of Forward and Backforward at the Furrow ends by the Magnet sencer (2pcs). Automatic stop at the no-crop open-space by Backward. Turning by manual at the no-crop open-space with lift by electric Motor.
Apply chemical mode	Goes up and down. Forward. Backward. No apply. Apply chemical with staying.
Spray hose winding	Automatic winding stand in row, automatic adjusting velocity of winding. Wiping-off-dirt brush is equipped.
Spray hose	8.5mm dia x 100m (0.33inch dia x 329feet)
Spray nozzle	4-step 8 heads, wide nozzle, stop-valve equipped in the nozzle. Hight and angle are adjustable.
Spray volume	8-10.4 lit/min. (2.12-2.75 gal/min.)
Other functions	Slow start function : Set-up velocity is available in a 1. second after "Slow Start". Automatic breaking function : Prevention slack of spray hose when stop. Battery check function : Alarm sound less than 22 Voltage. Automatic stop function is started less than 20 vantage. Protection against over-load function : Equipped on travelling and hose winding motor, apply chemical motor.
Required Power Sprayer	More than the specification of MS330(Suction volume : 6-7.9 gal/min, Max. pressure : 500 psi.)



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