

CROPLANDS

OPERATORS MANUAL
CROPPAK
12 VOLT SPRAYERS

US200F, US200F/15, US200F/15/HR, US300F/15, US300F/15/HR
US30S, US60S, US100S, US100A/15 | US200, US200/15

WWW.CROPLANDS.COM.AU

STOP

BEFORE COMMENCING
operation, **ENSURE** you read
& understand this manual, its
contents, and any additional
information supplied.



GP-OMCP12-D



CROPLANDS IS CONTRIBUTING TO A SUSTAINABLE FUTURE

INTRODUCTION

GENERAL MANAGER'S WELCOME



Sean Mulvaney
General Manager

Dear Customer

Congratulations on the purchase of your new sprayer and thank you for supporting another true blue Australasian manufacturer. For over 50 years Croplands have been delivering spraying solutions and ongoing support for a variety of applications whilst investing in long term partnerships with our suppliers, distributors, end users and local communities. These partnerships are absolutely key in our commitment to support our products into the future.

At Croplands, we are committed to sourcing the very best technology from around the globe and adapting these products to our specific requirements. When these products don't yet exist, we innovate through continuous investment in our own research and development.

Croplands is a wholly owned subsidiary of Nufarm Ltd, the largest supplier of crop protection products in Australasia. This brings a unique understanding and collaborative approach to new market developments, challenges and opportunities.

Please take the time to thoroughly read this manual before you operate your sprayer. This will provide direction to ensure safe usage and help optimise the performance of your investment. Your feedback is welcome and valued.

We trust you will be happy with your sprayer and the level of support - our goal is to be your preferred spraying solutions partner from this point onwards.

Yours Sincerely

Sean Mulvaney
General Manager

Croplands has taken steps to ensure this operator's manual is as current and as accurate as possible. Due to the ever-changing markets of cropping and farming, Croplands is constantly striving to be at the forefront of innovation and technology. While the information in this manual is considered accurate at the time of writing, Croplands reserves the right to change this information without notice. Croplands will not accept liability for any inaccuracy in this publication, or changes forthwith.



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SECTION 1

IMPORTANT INFORMATION

ABOUT THIS MANUAL

This manual provides assembly, setting up, operating and maintenance instructions for the CropPak 12 Volt sprayers as listed on the front cover.

The specifications of each sprayer is detailed in Section 3 (Product identification & specifications) of this manual. Some model types may also have different options available.

Some features explained in this manual may not be installed on your sprayer.

Please pass on this manual with the sprayer at the time of resale for usage by the new owner.

This manual, GP-OMCP12-D, was first published in June 2022. FSC revision in January 2024.

Check online as there may be more recent revisions of this manual. www.croplands.com.au

NOTE

To convey useful operating information.

WARNING

To stress potential dangers and the importance of personal safety.

TERMINOLOGY

These terms/symbols used throughout this manual:

NOTE	This Note sign is in place to convey useful information and will help you to identify the best possible way to operate the machine.
CAUTION	This Caution sign shows the potential for incident. An incident may include damage to the machine itself, or possible injury to the operator.
WARNING	This warning sign shows the potential for risk or injury and highlights the need for steps to be taken to protect ones safety.
DANGER	This Danger sign will be used in areas where the highest risk is present. Always read the information on these signs and ensure you are taking steps to prevent risk or injury.

CAUTION

To highlight potential injury or machinery damage.

DANGER

Probability of death or serious injury if an accident occurs

BEFORE OPERATING YOUR SPRAYER

Before attempting to use your sprayer, make sure you read all Operator Manuals for this sprayer including but not limited to:

This Operator's Manual, and all other supplied manuals for items such as Pump etc.

And properly understand:

- All Safety Issues.
- Assembly & Installation instructions.
- Calibration of the sprayer.
- Sprayer Operation.
- Sprayer Maintenance.

WARNING

CropPak Sprayers are designed for RTV/UTV side-by side vehicles, utilities or trailers. **NOT SUITABLE** for use on motorcycles. **NOT SUITABLE** for use on hill country as rolling over may occur.

INTENDED USE

Croplands sprayers are designed to be used for multipurpose spraying of herbicides, pesticides and fertilisers. The sprayer must not be used for any other purpose.

SECTION 1

IMPORTANT INFORMATION

WARRANTY POLICY

Each sprayer will be delivered with a Warranty & Pre-Delivery Booklet which includes:

- the sprayer's unique serial number,
- the Sprayer's specification sheet,
- a pre-delivery checklist and
- outlines the Croplands Warranty policy.

We ask that our customers complete these forms in the presence of a Dealer and/or Croplands representative as a part of the sprayer's delivery process.

Always contact your Croplands Dealer first and foremost for warranty matters.

NOTE

For full conditions of warranty & warranty policy, please see the Warranty & Pre-Delivery booklet provided with this sprayer.

CROPLANDS

WARRANTY & PRE-DELIVERY UTILITY SPRAYERS

WWW.CROPLANDS.COM.AU

STOP

BEFORE COMMENCING operation, **ENSURE** you read & understand this manual, its contents, and any additional information supplied.



GP-WARO-A

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SECTION 2

SAFETY

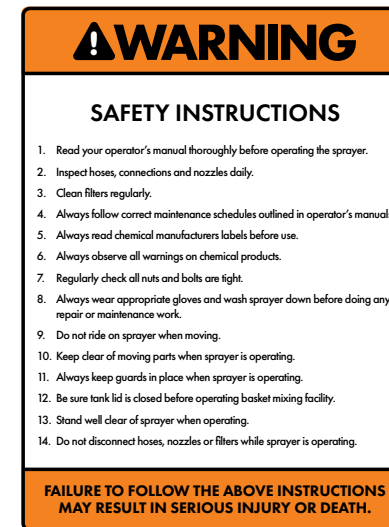
The supplied (as a separate document along with this sprayer) Croplands SAFETY manual must be read and understood before operating your Retraspray units.



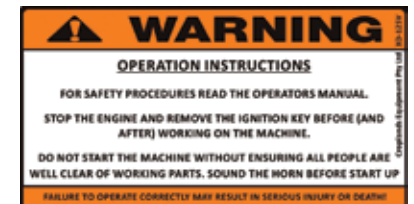
SAFETY SIGNS AND DECALS

All signs and decals for sprayer safety and operation must be maintained in good order and replaced if damaged or missing. Most Croplands labels have a part number printed on the decal to aid identification and replacement.

Some examples are shown below.



Part No: XD -123



Part No: XD -125V



Part No: XD -126V



Part No: XD -116V



Part No: XD -127V

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

PRODUCT IDENTIFICATION

Where applicable, always use the Model and Serial Number of the CropPak 12 Volt Sprayer when requesting service information or when ordering parts.

Early models or later models may use different parts, or it may be necessary to use a different procedure for specific service operations.



Bar code

SPRAYER PART & SERIAL NUMBER

Always use the serial number of the CropPak 12 Volt Sprayer when requesting service information or when ordering parts.

Where a serial plate is not provided, please use the part number from the bar code affixed to this manual or the Warranty & Pre-Delivery booklet.



Serial number plate

GENERAL SPECIFICATIONS

Tank

The Croplands CropPak range of tanks is constructed from a UV stabilised, medium density polythene for low distortion qualities and tough impact resistance.

All models (except the US200/15), come standard with a screw down main lid and basket strainer. A hand wash tank is fitted standard for operator safety and can be used to clean the suction filter in the field if needed. The skid mounted versions feature a sump providing excellent suction pick-up and allows the tank to completely drain.

Spray Lance & Hose reels

All CropPak models are supplied with a 6m hose and Swissmex spray lance. Selected models are supplied with 10 metre hose & reel.

Controls

Standard on the 12-volt models is a pressure regulator mounted on the pump outlet to regulate pressure & flow. Liquid not required for the boom or reel is bypassed back to tank. A pressure gauge is provided.

12-volt pumps are considered to be intermittent duty cycle pumps and extended operating periods will trigger the thermal overload switch. The motor must be allowed to settle to a lower (ideally ambient) temperature before recommencing operation.

An electric on/off switch and 15 amp fuse is provided in the 7m long power loom. Pump Model & Serial Number

The Pump Model & Serial Number is located on the pump. This plate shows name of manufacturer, type & model

of pump, serial number, maximum voltage, maximum amperage, maximum flow rate and maximum working pressure of the pump.

For further information see the pump's manual or Croplands website – www.croplands.com.au and search in the Parts Information section on the landing page.

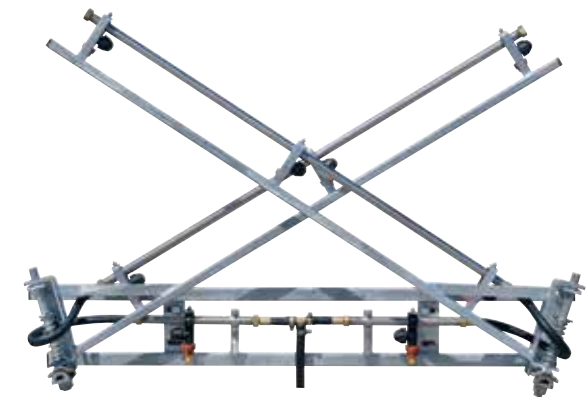
BOOMS

Booms can be (option) fitted to the models using 15 & 20L/min pumps, for use on utility vehicles and some RTV's.

See Croplands Compact Sprayers Buyers Guide for details of 2,3,4 and 6 metre booms and mounting kits for these models.

A separate boom manual will be supplied with your boom should you purchase a boom to suit your CropPak.

Other models utilising Honda motors are available. See the Croplands Compact Sprayers Buyers Guide for further information.



SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

PUMP & SERIAL NUMBER

Croplands uses well proven 12-volt positive displacement diaphragm pumps. The size and output of pumps vary depending on the machine specifications ordered.

The pump model and pump serial number is located on the pump itself. The plate shows the name of the manufacturer, type and model of the pump, serial number, maximum working pressure and other requirements.

For further information on parts for your pump, refer to the parts section on the Croplands website. Use the pump model as the reference.



Model & Serial number of a Flojet 3000 pump

12V PUMP SPECIFICATION

The nozzle chosen must be within the flow capability of the pump on your CropPak. CropPak sprayers are fitted with pumps that operate within a pressure range.

For detailed specifications, performance charts and operating conditions, refer to the pump manufacturer's manual, as supplied with each CropPak sprayer.

The pump model ShurFlo SHU8000-547-189 is a diaphragm pump with an internal bypass which allows the pump to work with a nozzle within a range of flow from approximately 1 litre per minute to 6.8 litres per minute in the correct pressure range for the pump.

This pump is used on the US30S, US60S, US100S, and US200F CropPak models.



ShurFlo SHU8000-547-189 pump.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

The pump model FloJet FL3521-139 is a diaphragm pump with an internal bypass which allows the pump to work with a nozzle within a range of flow from approximately 1 litre per minute to 15.1L per minute in the correct pressure range for the pump.

This pump is used on the US100A/15 CropPak models.



FloJet FL3521-139 pump.

The pump model ShurFlo SHU2088-313-544 pump is a diaphragm pump with an internal bypass which allows the pump to work with a nozzle within a range of flow from approximately 1 litre per minute to 15.1L per minute in the correct pressure range for the pump.

This pump is used on the US200F/15 and US300F/15 12V CropPak models.



ShurFlo SHU2088-313-544 pump.

All CropPak pumps are fitted with an inbuilt automatic shut off pressure switch which will switch the pump:

- ON, when low pressure is detected, and
- OFF, when the preset high pressure is reached.

This is ideal for spot spraying applications.

NOTE

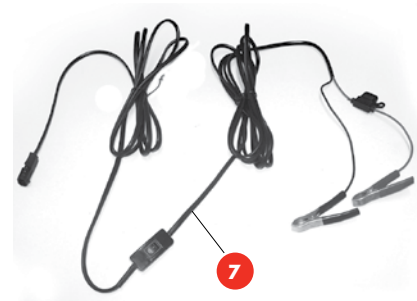
The CropPak 200F/15 and 300F/15 models have a regulator fitted on the outlet as a "boom-ready" feature to allow pressure regulation.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS



US100



Long (7 metre), fused, heavy duty power lead with rocker-switch for easy hook-up to your battery.

! WARNING
Ensure your vehicle is rated for the weight of the sprayer when full of liquid. Failure to do this may cause instability & serious injury.



US30



US60



US30, 60 & 100

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

CROPPAK 30 | 60 | 100 LITRE (S RANGE)

30/60/100 litre CropPaks – practical spot sprayers for a multitude of uses around the farm. Hook up to your 12 volt 30, 60 & 100 Litre 12 Volt Models power source and get spraying. For use in small trailers and/or utility vehicles, RTV vehicles, or 4-wheel motorbikes. Ensure your vehicle is rated for the weight of the sprayer when full of liquid.

KEY FEATURES

1. Cavity mounted pump - Total protection against the elements and damage. Low pump position ensures excellent priming
2. Translucent tank - Easy to see liquid level in the tank
2. Rugged design, locally made - Rotomolded tank has uniform thickness and can take high impact force
2. UV stabilised tank - Excellent UV resistance. Many imported models have no UV inhibitor in the material
3. Large carry handles - Easy handling and for storing hose neatly
4. Lance clips onto lid - Ensures neat storage and avoids lance dragging on the ground
4. Large filling lid - Helps prevent spillage when filling
5. Large suction filter, easy access - Very large filtering area with easy-clean filter screen. Simple and quick to access
6. 3-stage filtration - Large filling screen under lid; large suction filter; pressure filter in lance handle
7. Heavy-duty power cable - Long, heavy-duty 12 volt power lead with rockerswitch for easy hook-up to your battery
8. Quick-clip power connection - High quality electrical connector to the pump with waterproof plug for quick hook up and reliability
9. Metal lance with adjustable nozzle - Superior to plastic, higher strength. Many accessories are available to fit the lance - refer Croplands Compact Sprayers buyers guide
10. Large drain - Easy-to-use, large 'boat plug' drain for quick clean-out
11. 6 metres of high quality 20 bar rated spray hose fitted

ORDER CODE	DESCRIPTION
US30S	30 litre CropPak, with 12-volt on-demand 6.8 L/min open-flow ShurFlo pump, 6 metres of spray hose, spray lance and long power lead with on/off switch
US60S	60 litre CropPak, with 12-volt on-demand 6.8 L/min open-flow ShurFlo pump, 6 metres of spray hose, spray lance and long power lead with on/off switch
US100S	100 litre CropPak, with 12-volt on-demand 6.8 L/min open-flow ShurFlo pump, 6 metres of spray hose, spray lance and long power lead with on/off switch
US100S/15	100 litre CropPak, with 12-volt on-demand 15 L/min open-flow FloJet triplex pump, pressure regulator and gauge, 6 metres of spray hose, spray lance and long power lead with on/off switch.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

CROPPAK 200 | 300 LITRE (F RANGE)



US300F/15/HR



US200F - TANK & FRAME

LANCE OPTIONS



SW-LANCE-ASSY



SW-LANCE-ADJ-AS

! WARNING

Ensure your vehicle is rated for the weight of the sprayer when full of liquid. Failure to do this may cause instability & serious injury.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

KEY FEATURES

1. Translucent main tank with vented lid and calibration marks
1. Rugged - Rotomolded tanks can take high impact force
1. UV stabilised tanks - Excellent UV resistance
2. 3-stage filtration - filling basket under lid, suction filter and pressure filter in lance handle
3. Metal lance with adjustable nozzle. Clips into lid for easy storage
4. New galvanised frame for easy handling
5. 6 metres of high-quality 20-bar spray hose fitted with hose storage position hooks
6. Heavy-duty 12V power lead with rocker-switch
7. High-quality electrical connector to pump with waterproof plug for quick and reliable connection
8. Opaque red hand-wash tank with screw cap lid & tap

UNIT	WIDTH	LENGTH	HEIGHT
US200F	1320mm	610mm	690mm
US200F/15	1320mm	610mm	690mm
US300F/15	1325mm	610mm	850mm

Disclaimer: dimensional and weight information supplied is for base model only with no options. This information is subject to change without notice.

ORDER CODE	DESCRIPTION
US200F	New 200 litre CropPak with new galvanised frame, on-demand 6.8 L/min open-flow pump. 6m spray hose standard with spray lance. Power lead with on/off switch provided
US200F/15	New 200 litre CropPak with new galvanised frame, on-demand 15.1L/min open-flow pump, regulator and gauge. 3-way valve enables connection to a boom. 6m spray hose standard with spray lance. Power lead with on/off switch provided
US300F/15	New 300 litre CropPak with new galvanised frame, on-demand 15.1L/min open-flow pump, regulator and gauge. 3-way valve enables connection to a boom. 6m spray hose standard with spray lance. Power lead with on/off switch provided
US200F/15/HR	New 200 litre CropPak with galvanised frame, on-demand 115.1L/min open-flow pump, regulator and gauge. 3-way valve enables connection to a boom. 6m spray hose standard with Swissmex spray gun and lance. Power lead with on/off switch provided. Fitted with 10m hose reel.
US300F/15/HR	New 300 litre CropPak with galvanised frame, on-demand 15.1L/min open-flow pump, regulator and gauge. 3-way valve enables connection to a boom. 6m spray hose standard with Swissmex spray gun and lance. Power lead with on/off switch provided. Fitted with 10m hose reel.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

CROPPAK 200 LITRE



LANCE OPTIONS



! WARNING

Ensure your vehicle is rated for the weight of the sprayer when full of liquid. Failure to do this may cause instability & serious injury.

SECTION 3

PRODUCT IDENTIFICATION & SPECIFICATIONS

KEY FEATURES

1. 3-stage filtration. Large filling screen under lid; suction filter; pressure filter in lance handle.
2. Lance clips onto lid.
3. Metal lance with adjustable nozzle. Superior to plastic, higher strength.
4. Graduated, translucent tank. Easy to see liquid level in the tank with level marks.
5. Rugged design, locally made. Rotomolded tank has uniform thickness and can take high impact force.
6. UV stabilised tank. Many imported models have no UV inhibitor in the material.
7. Carry handles ensures safe handling.
8. Integrated baffles to avoid sudden liquid movement.
9. 6 metres of high quality 20 Bar rated spray hose fitted and hose holders mounted on tank.
10. Long, heavy duty 12-volt power lead with rocker-switch for easy hook-up to your battery.
11. High quality electrical connector to the pump with waterproof plug for quick hook up and reliability.

UNIT	WIDTH	LENGTH	HEIGHT	WEIGHT
US200	600mm	1190mm	600mm	35kg
US200/15	600mm	1190mm	600mm	40kg

Disclaimer: dimensional and weight information supplied is for base model only with no options. This information is subject to change without notice.

ORDER CODE	DESCRIPTION
US200	200 litre CropPak, on-demand 6.8 L/min open-flow pump, 6 metres of spray hose, spray lance and electrical power lead with on/off switch
US200/15	200 litre CropPak, on-demand 15.1L/min open-flow pump, pressure regulator and gauge. 3-way valve enables connection to a boom. 6 metres of spray hose standard with spray lance. Power lead with on/off switch provided

SECTION 4

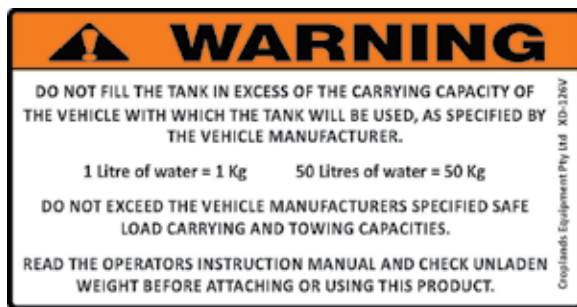
PRE-OPERATION

UNLOADING

Take care when loading / unloading sprayers. Many of these sprayers exceed the capacity for one or two people to manually handle. Most models have suitable sling pickup points. Be careful of the balance.

All loading / unloading should be done with tanks empty.

See Section 5 of the Safety manual.



FITMENT

Make sure the unit is securely fastened. Some models will require tie down straps, other models require bolting the unit to a vehicle.

Remember to factor in the weight of a full tank when determining the mounting, and always consult the vehicles manual for load ratings and suitable mounting points.

Check all nuts, bolts and plumbing fittings for tightness. Check the filters.

If a boom is fitted, read the boom manual.

HOOK-UP

Power connection. All 12-volt models are supplied with a heavy-duty power cable (UP-119B), which includes connections at the pump end.

Connect this power cable to a reliable 12-volt battery.

- The red (+ive) power lead to the positive (+ive) battery terminal, and
- The black (-ive) power lead to the negative (-ive) battery terminal.

Failure to connect leads to a battery of the correct voltage will cause damage to the electric motor.



The standard loom is supplied with alligator-type battery clamps which will suffice provided there is room for this type of connection, providing they can be securely attached to the battery terminals.



Using permanent connections attached to the battery terminals is preferred – these are not supplied but ask your Croplands dealer to assist with this battery connection unless you can do so yourself.



It is possible to have a male power socket fitted to the loom to plug into a standard vehicle 12-volt connection, but before doing so ensure the socket connection on the vehicle can supply a minimum of 12 volts and that the circuit has a minimum of a 20-amp fuse installed.



For the pump to perform correctly, strong and continuous power supply is a must.

SECTION 4

PRE-OPERATION

FUSE & SWITCH

The standard loom is fitted with a 15 amp blade style protective fuse to ensure the pump is protected from incorrect set up of the power supply.

The rocker switch on the power loom is used control spraying on / off whilst operating in the field.

Ensure the switch can be located close to your hands when in use.

DESCRIPTION OF THE PLUMBING

Shown is the free standing US200 model. Plumbing for the skid mount (F) range is very similar (but below the tank) and the US30 ~100 (S) range is much simpler.

- A. The suction line from the tank.
- B. Suction Filter. Check frequently, and especially at the commencement of any spray program (best checked before chemical is added).
- C. Pressure Regulator – and surplus flow goes back to tank via (D). This aids agitation.
- D. Return to tank.
- E. Ball valve to select flow – to (E) is the spray wand, or
- F. Spare spray connection point – maybe for a boom.

Note the ball valve (E) has 3 positions, with vertical (as pictured) also being OFF.



US200F / 300F range



US200 range

SECTION 4

PRE-OPERATION

SPRAY LANCE

All 12-Volt sprayers are supplied with the easy to use Swissmex Spray Lance.

Controls are a hand-held trigger and an adjustable nozzle. Practice the operation of the lance with fresh water before undertaking any chemical spraying.

For more information on accessories etc consult the Croplands Compact Spray Range catalogue.



Adjust the variable cone nozzle for the required spray pattern

FILLING, FILTERS & DRAINING

Both the lid and suction lines are fitted with a filter. It's important to use them and keep them clean. A careful, common sense approach to water quality, mixing of chemicals and care of filters, hoses and tank will ensure trouble free spraying.



Be careful to ensure that no solids enter the system to block or damage the pump or nozzles.

Filling is via the lid (with filter) – be very careful to not splash chemical when filling.

Draining is via a drain plug or cap. Be careful to dispose of any chemical in an environmentally responsible manner.



US30/60/100 Pump & Filter

SECTION 4

PRE-OPERATION

BEFORE OPERATING FOR THE FIRST TIME

Before operating the sprayer:

- Familiarise yourself with all supplied manuals.
- Check the sprayer is securely mounted.
- Check that the spray tank is clean, and drain bung or cap is installed and tight.
- Check that the suction line filter is clean.
- Check the spray lance is correctly installed.
- Check all plumbing and fittings are tight and not damaged. Fill the sprayer tank with clean water - making sure the basket filter is in place when filling and check for leaks.
- Connect the sprayer power leads to a 12-volt battery (Refer to "Hook-up" on pg 16).
- **Safety Manual** ... has been read, understood and appropriate preparations have been implemented.

FIRST TIME START-UP PROCEDURE, 12-VOLT SPRAYER

Always use fresh water for familiarisation, maintenance, testing or training. If the unit has seen chemical, always wear safety gloves (as a minimum precaution).

After installation procedures are complete, it is important to check that the pump will prime and operate properly.

- Fill the sprayer tank with sufficient clean water to enable testing and check for leaks.
- Check the ball valve (if fitted) is pointing towards the lance.

- Switch On the pump - flick the rocker switch on the power loom to the "on" position.
- The pump should prime quickly, and liquid will bypass through the Pressure Regulating Valve (PRV) to the tank.
- Hold down the hand grip lever of the spray lance / spray gun. Once the unit is spraying clean water, adjust the Pressure Regulating Valve (red knob, position C) to the desired pressure, using the pressure gauge to determine the operating pressure.
 - For spot spraying applications, 2-3 bar will be all that is required.
 - Do not exceed 3 bar pressure or damage to the pump may occur.



If you also have a small boom fitted to your sprayer, turn the selector ball-valve to the boom position (position F). Water should now spray from the nozzles. Adjust the spraying pressure to a MAXIMUM of 2 bar pressure for boom spraying. Whilst the pump is running, check all the nozzles to ensure the spray pattern is uniform and check there are no leaks from boom joints, fittings or the

nozzle bodies. Consult your spray boom manual for more information.

While the hand gun is spraying, check that the:

- Nozzle spray pattern is even,
- Pump pressure is constant and within the limit of the maximum pressure rating (3 Bar [43 psi]),
- If using a variable cone nozzle, adjust the cone for the required spray pattern.

Release the hand grip lever to stop spraying.

If required, make the necessary adjustments and re-check the sprayer operation. Use the power switch to turn the power off.



Adjust the variable cone nozzle for the required spray pattern

If the pump fails to prime ...

When the inside valves of the pump are dry, the pump will not automatically prime as the valves do not seal off the air. This can occur when the:

- Pump is new,

SECTION 4

PRE-OPERATION

- Pump has not been properly flushed with clean water after use, or
- Pump has not been used for a period of time.

This problem is easily fixed by wetting the valves. To wet the pump valves:

- a) Disconnect the spray lance from the gun itself (removing the restriction of the nozzle), run the pump and ...
- b) Squeeze the gun trigger so liquid flows unrestricted from the gun body. This liquid can be directed into the tank opening. Flow may take a few seconds.
- c) Reconnect the spray lance to the gun

This procedure should successfully prime the pump.

When not spraying for any length of time, switch the pump off or disconnect the unit from the battery.

After the initial start-up procedure is successfully completed, the sprayer is ready for operation.

Go to section 5, Operation.

NOTE

It is important to check that the pump is fully primed and operates properly. If this is not done the sprayer will not function properly.

CAUTION

When the tank becomes empty, the pump will continue to run. Running the pump dry temporarily will not cause damage. However, avoid letting the pump run dry for long periods of time because damage may occur from over heating.

CAUTION

The 15L/min Shurflo pump models should not be operated at more than 3.0 Bar (43psi). Exceeding this pressure may damage the pump and/or overheat the wiring loom.

NOTE

The 15L/min Flojet pump will continuously run bypassing liquid to the tank while the spray gun is closed.



Main tank lid & basket (above) and Hand-wash tank (below) for US 200F / 300 F



SECTION 5

OPERATION

The pre-operation tasks must be completed before commencing spray-operations.

SAFETY FIRST

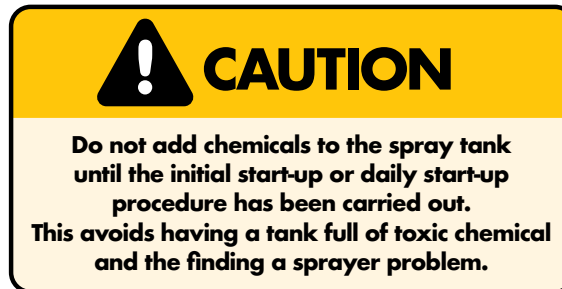
Before progressing further,

- Read and understand the Safety Manual (part no. GP-SAFE-A) supplied with this sprayer.
- Read and understand this manual to better familiarise yourself with the sprayer.

DAILY START UP PROCEDURE

To ensure trouble free operation, follow the procedure below at the start of each new spray session:

- Check that suction line filter is clean and not damaged. It should be checked & cleaned regularly. Be careful not to damage or deform the mesh or O-Ring while cleaning and refitting the suction line filter. If a filter screen is damaged, replace with a new screen.
- Put enough clean water into the spray tank to operate the pump and hand gun.
- Activate the pump and ensure it primes correctly - hold the spray gun / lance trigger down, until the hand gun sprays steadily.
- Adjust the pressure relief valve to obtain the required pressure. Excess liquid will bypass back to the tank. Once the pressure is set, it is normal for minor fluctuations to show on the pressure gauge when switching the hand gun on & off.
- Check that all hoses, hose clamps and connections do not leak. Repair or replace damaged components.



- Read and follow the instructions on the chemical manufacturers label before mixing and adding chemicals to the spray tank.
- Add chemical to the tank, as per below and proceed with your spray application.

ADDING CHEMICAL TO THE SPRAY TANK

The steps for adding chemical to the tank are:

1. Calculate the amount of chemical required.
2. Part fill the spray tank with water.
3. Measure and pre-mix the chemical.
4. Add the pre-mixed chemical to the tank.

Step 1: Calculate the Amount of Chemical Required (Also refer Section 6)

To add the correct amount of chemical to a tank, it is necessary to calculate the amount of chemical required.

The method of calculating the amount of chemical required for the sprayer tank is dependent on the chemical rate recommendations. Use the information supplied on the chemical label to determine the tank mix concentration.

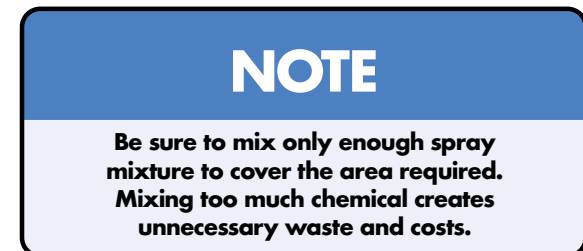
If you are unsure of the mix required, ALWAYS check with a qualified advisor or the supplier of the chemical you intend to use.



Step 2: Part Fill the Spray Tank with Water

Part fill the sprayer tank with clean water.

Use fresh water (preferably rainwater), free of suspended organic matter or clay. Some chemicals are deactivated when they contact these materials. Ensure water quantity is sufficient to allow correct product blending.



SECTION 5

OPERATION

Step 3: Measure & Pre-Mix the Chemical

Read and follow the instructions on the chemical manufacturers label before mixing & adding chemicals to the spray tank.

Chemicals should be accurately measured and thoroughly premixed in a separate container before adding to the spray tank:

- Measure out the required liquid chemical in a graduated measuring cylinder or bucket.
- Add chemical to a small volume of water in a container and thoroughly mix the chemical

Step 4: Add the Chemical to the Tank

Always make sure the filling basket is in place when adding water or chemical to the tank.

To add the premixed chemical to the tank:

- Add the pre-mixed chemical to the tank, thoroughly rinsing the chemical pre-mix container and adding the rinse to the tank.
- Top up the tank with water to the required volume.
- Close the tank lid securely.

Refer to next page re Tank Agitation.

OPERATING THE HAND GUN / LANCE

With the pump operating, and pressure regulator set, to operate the hand gun / spray lance:

- Aim the nozzle at the target area and hold down the hand grip lever to spray the target. Hold down the

hand grip lever to spray and check that the:

- o Spray pattern is even.
 - o Pump pressure is sufficient.
 - o If using a variable cone nozzle, adjust the cone to make the spray pattern required.
- Adjust the nozzle as required to completely spray the target.
 - Use the hand gun trigger to turn the spray on & off as required.

When finished, switch off the pump. Relieve any residual pressure in the hose with a final use of the spray gun.

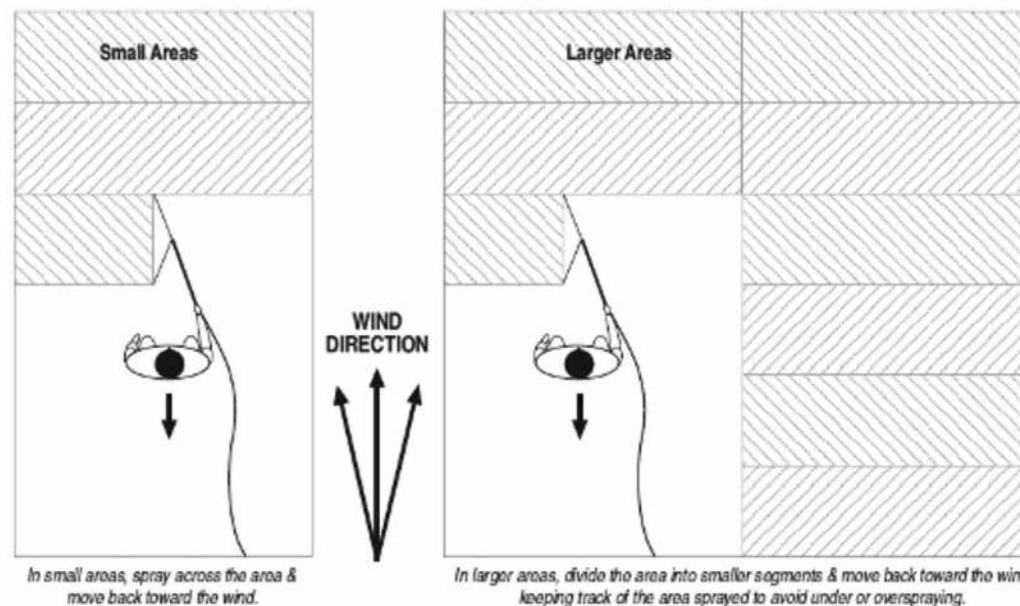
HAND GUN SPRAYING METHOD

It is always preferable to spray with your back toward the wind direction so that the wind carries spray away from the operator.

The operator should where possible, avoid walking on previously sprayed areas to avoid unnecessary fumes and contamination.

Operate with the sprayer situated behind the operator so that the hose from the sprayer can be kept on unsprayed areas.

This is important because the operator usually must handle, extend and rewind the hose many times, as the operator shifts from area to area. If the hose is kept relatively free from spray contamination, there is less exposure to chemical contamination.



SECTION 5

OPERATION

BOOM SPRAYING

Some customers will fit out their sprayers with a small boom, such as Croplands MBX-04. For further information on boom spraying, refer Section 6 - Spraying Information.

OPERATING POINTERS

While spraying continually observe that:

- Adequate operating pressure is being maintained.
- Your hand gun coverage is correct and constant for effective cover.
- The nozzle is operating correctly.
- Periodically check and clean filters.
- Avoid going too slow because over application will occur. Conversely, avoid going too fast because under application will occur.

Tank Agitation

It's important to use chemicals that remain in solution whilst in a spray tank. The tank can only be agitated by the bypass side of the Pressure Regulator unit. For this reason, it's important to make sure the pump is generating (slightly) more pressure than required for spraying ... if the pump is not generating enough pressure there will be no bypass/agitation.

EMERGENCY ACTION PLAN

Never operate the sprayer without an action plan in place for when things go wrong ...

“Take 5” to evaluate the risks

Actions for most foreseeable machine issues such as breakages start with ...

“Drop the speed”

“Dump the pressure”

then evaluate further.

12-VOLT PUMP DUTY CYCLE

12-volt pumps are not recommended for continuous duty service due to limited motor brush life. To protect the pump from excessive heat, the 12-volt pumps are fitted with a thermal cut-out switch.

Once the maximum thermal limit is reached, the motor must be allowed to settle to a lower (ideally ambient) temperature, before resuming operation.

Running the pump at or near the maximum thermal limit for an extended period of time will shorten the life of the pump and may result in immediate pump failure. Operation at lower pressures and temperatures, however, will extend overall pump service life.



WARNING

It is recommended to keep the hose from the sprayer on unsprayed ground and uncontaminated from the spray. This minimises contaminants on the hose and minimises exposure to chemicals when handling and rewinding the hose.

SECTION 5

OPERATION

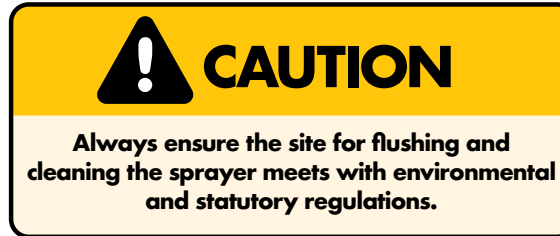
CLEAN & FLUSH THE SPRAYER

The CropPak sprayer should be thoroughly cleaned and flushed:

- Between chemical changes, and
- At the end of each day's spraying.

To completely flush and clean the sprayer:

- Remove the tank drain plug or cap to drain spray mixture from the tank.
- Ensure drained mixture is disposed of as required by law. Read the chemical instructions.
- After chemicals have drained from the main tank, thoroughly rinse out the tank. Thoroughly clean the filter(s) & reassemble.
- Close the tank drain and add clean water to the tank to thoroughly flush the lines, pump and spray gun (and /or boom if fitted). Switch On the pump.
- Hold down the hand grip lever until all mixture is flushed out of the hose and hand gun / lance.
- On completion of flushing, release the trigger of the hand gun and turn the power switch off.
- Repeat steps to more completely remove chemical residue from the tank and sprayer system.
- Wash/hose down the outside of the sprayer.



USING TANK & EQUIPMENT CLEANERS

If a cleaning agent is required (refer to chemical label), first completely flush the Sprayer with water as outlined previously.

To use the tank & equipment cleaner:

- Fill the spray tank approximately half full of freshwater.
- Add cleaning agent (use according to the manufacturer's instructions).
- Switch on the pump.
- Place the lance into the tank and hold down the hand grip lever to circulate cleaning fluid through the suction line, pressure line, hand gun and back to the tank.



- If you require the cleaning agent to soak or stand for a period, shut off the hand gun by releasing the hand grip lever and switch the power off.
- When soaking is completed, start the sprayer following steps 3 & 4 to flush the suction lines, pressure lines and hand gun.
- Stop flushing by releasing the hand grip lever and then switch the power off.
- Remove the spray tank drain plug and allow cleaning mixture to drain from the tank.
- Again, completely flush the sprayer with fresh water as outlined previously.
- Check the filter to ensure scale deposits are removed from the filter if they are present. Often the cleaning agent will dislodge chemical build-up from spray lines and fittings.

SECTION 6

SPRAYING INFORMATION & CALIBRATION

WHEN TO SPRAY

Spraying results are best when the wind speed and the temperature are low, but the relative humidity is reasonably high. An ideal time is at sun up or nearing the end of the day when these conditions are more likely to occur.

For more information, contact Croplands about our SprayWise® program, or purchase a copy of the SprayWise Application Guide from Croplands.

Also, the use of the WINDMATE™ Wind meter would be of excellent value to anyone doing regular spraying.

USEFUL FORMULA

Calculating the Tank Spray Area

Use this formula to calculate the area each tank full of spray will cover.

$$\text{Area Covered (ha)} = \frac{\text{Tank Volume (litres)}}{\text{Spray Application Rate (l/ha)}}$$

e.g. $\frac{250}{100} = 2.5 \text{ hectares.}$

Calculating the Total Liquid Volume Required

Use this formula to calculate the amount of spray liquid required to spray a given area.

$$\text{Total Liquid Volume Required (litres)} = \text{Area (ha)} \times \text{Spray Application Rate (l/ha)}$$

e.g. $2 \times 100 = 200 \text{ litres}$

CALIBRATION - GENERAL

We should strive for the most efficient use of spray chemicals for effective pest and disease control. Consumer and public pressures to minimise residues, requires us to achieve the target application rate (uniform spray coverage without over or under spraying).

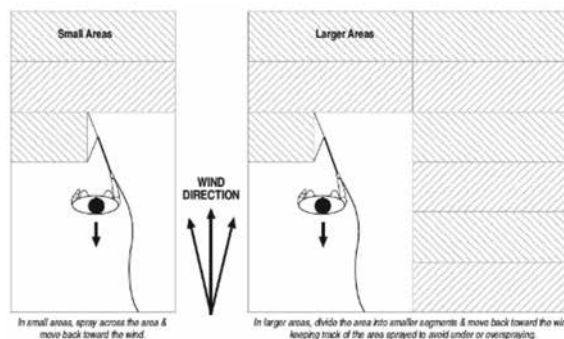
Applying the correct amount of chemical to a crop is only possible if the:

- Sprayer is calibrated correctly.
- Sprayer is maintained / operated correctly.

Correct chemical application rate can only be achieved if the variables of spray application are measured and controlled:

- Distance, time & working width are measured.
- Liquid & chemical volume applied.

This is done through sprayer calibration. Sprayer calibration is one of the single most important factors in establishing the correct application rate of the sprayer. Without calibration it is not possible to know the actual rate of spray application.



SPOT SPRAYER CALIBRATION

See section 5 for hand gun / lance spraying method.

CropPak sprayers are most commonly used for spot spraying using a hand gun with a single variable cone or flat fan nozzle.

Precise application rates are not usually achieved with hand guns because the application rate is entirely dependent on the operator.

Two steps are recommended for calibrating a spot sprayer:

1. Choose the appropriate nozzle.
2. Check the nozzle operates correctly.

Choose the Appropriate Nozzle.

The nozzles used should be appropriate for the chemical being used. The standard adjustable ConeJet should suffice for general Glyphosate-based formulations & applications. Follow the chemical manufacturer's recommendation for any specific nozzle requirements as per the manufacturers label.

The standard lance has a removable cap, the adjustable ConeJet can be removed and most 80 and 110degree flat fan nozzles can then be used with the cap & seal.

The nozzle chosen must be within the flow capability of the pump fitted to the sprayer.

The pump model ShurFlo SHU8000-547-189 has a range of flow up to 6.8 litres per minute. This pump is used on the US30S, US60S, US100S, and US200F CropPak models.

The model ShurFlo SHU2088-313-544 has a range of flow up to 15.1L per minute. This pump is used on the US200F/15 and US300F/15 12V CropPak models.

SECTION 6

SPRAYING INFORMATION & CALIBRATION

The pump model FloJet FL3521-139 has a range of flow up to 15.1L per minute. This pump is used on the US100A/15 CropPak models.

Note the above flow is recorded at "open" flow. Refer to the pump instruction booklets for flow performance charts, at pressure.

BOOM SPRAYING

Some customers will fit out their CropPak sprayers with a small boom, such as Croplands MB02. Note this is NOT a factory fitted option, and hence boom spraying is not covered in full by this manual.

Each Croplands boom comes supplied with a user manual and are fitted standard with non-drip nozzle bodies so that when the liquid flow is switched off, the nozzles will not drip. These booms are fitted with AirMix® air-induction ultra-low drift nozzles.

To ensure the right application of herbicide or crop protection product is applied to the target crop, the user should calibrate the boom to ensure the correct application rate is used for the chemical being used.

The spray target rate and spray quality information are usually supplied by the chemical manufacturer on their product label. Alternatively, a trained agronomist should be consulted.

Also see the Croplands Compact Spray Range Catalogue for nozzle selection and spray rate information.

Note the 12-volt pumps range will generally only be suitable for spraying up to 8-10 Km/hr - above this speed the pumps may not supply enough flow to the nozzles.

For 12-Volt Boom Sprayers

Liquid flow to the boom can be stopped & started as required (such as when turning at headlands or where the operator does not want to spray) by using the switch integrated into the standard electrical loom.

Part of the calibration process is to determine the maximum flow required to meet the required target spray rate, and this information can be used to determine what speed of travel will best suit your application.

In the case of the MB02, the speed will likely be a normal walking speed of approximately 4 km/h, which is well within the limits of the 12-volt pump fitted on the unit.

If you have purchased a boom to use with your CropPak with the 12-volt pump suitable for this application, you will be supplied with a boom manual that explains the calibration process in more detail.

A brief guide for calibration is set out below.

Calibration

There are 3 things you require to know or check:

1. Speed of travel,
2. Nozzle spacing, and
3. Nozzle pressure, or nozzle output in L/min.

1. Speed of travel

Check your vehicle speed. If you have an accurate speedometer, this will suffice. If not, measure the distance you have travelled in one minute in metres, and divide this by 16.7,

$$\begin{aligned} \text{e.g. } & 120 \text{ metres travelled in one minute} \\ & \div 16.7 \\ & = 7.18 \text{ km/hour} \end{aligned}$$

If this is impractical, measure the distance travelled in 30 seconds, double it, and then divide by 16.7.

Repeat at least twice, from a running start, to ensure accuracy.

2. Nozzle spacing

All Croplands booms suitable for CropPak sprayers have 50cm nozzle spacing.

3. Pressure or flow

If your sprayer has an accurate pressure gauge, set it to the desired pressure for the type of nozzle you are using. If you are unsure of this, generally 2 bar (30 psi) is ideal for most nozzles.

If you do not have an accurate gauge, measure the nozzle output, in litres per minute with an accurate measuring jug & stopwatch.

Use the following chart to determine your litre per hectare (L/ha) application rate.

In the example above,:

- The nozzle is a 110° 02 nozzle (yellow),
- At 2 Bar spraying pressure, it has an output of 0.65L/min, and

SECTION 6

SPRAYING INFORMATION & CALIBRATION

L/HA AT VARIOUS SPEEDS (KM/HR) BASED ON A 50CM NOZZLE SPACING

NOZZLE	BAR	L/MIN	4	6	8	10	11	12	13	14	15	16
110-02	1.5	0.56	167	112	84	67	61	56	52	48	45	42
	2	0.65	194	129	97	77	70	65	60	55	52	48
	3	0.79	237	158	119	95	86	79	73	68	63	59

- At 10 km/hr you will apply 77 litres per hectare of water,
- With the nozzles at 50cm spacing.

Multiple nozzles do not affect the outcome - if you have eight nozzles on your boom your application is the same per hectare.

To find more information on how to calibrate a boom for varying application rates,:

- Refer to the Croplands web site at www.croplands.com.au or
- Contact the Croplands Customer Service or Technical Support: Phone 1300 650 724.

SPRAY QUALITY

Spray quality is becoming extremely important for the correct application of chemicals. Refer to your advisor, local DPI or check the Croplands Buyers Guide for more information.

Many chemical labels now specify the spray quality required for the product being used. Loosely, spray quality falls into a droplet range of:

- » Ultra Coarse » Extremely Coarse
- » Very Coarse » Coarse
- » Medium » Fine
- » Very fine

CAUTION

Most spray applications will fall into the Medium to Very Coarse range, depending on the application. Talk to a qualified Agronomist or Advisor if uncertain.



It is more important than ever that the agricultural industry demonstrates responsible chemical usage to reduce the need for severe application restrictions.

The SprayWise stewardship program is a Nufarm and Croplands initiative to encourage best-practice spraying and drift management techniques.

Giving you access to tools, research results and training courses to assist you to better understand spray application parameters and to better manage your spraying activities.

SECTION 7

MAINTENANCE & TROUBLESHOOTING

DAILY MAINTENANCE

In the first few days of sprayer usage, thoroughly check the machine before starting each day of spraying.

- Check all nuts, bolts and tank tie downs.
- Check plumbing for leaks.
- Check all safety guards and decals are in place.

Pump – 12-Volt models

- Ensure your vehicle battery is fully charged if you are using a 12-volt model for your spraying job.

Filters

- It is important to clean filters daily as they can have a major impact on your sprayer's performance. Wash them out with a soft brush and constantly check for holes or tears. Clean the suction filter every time the tank is filled and at the end of the days spraying. Make sure O rings are in good condition and grease them with O ring grease in necessary. Clean out nozzle filters if installed.

Spray lines

- Never leave chemicals in the tank or the pump. Rinse the tank out completely with fresh water and operate machine to clear all spray lines. Remove boom tube caps if you have a boom fitted and flush the boom lines.

20 HOURS MAINTENANCE

- Grease the reel swivel if fitted / needed.

NOTE

Also refer to the pump Manual supplied with your sprayer for pump maintenance.

ANNUAL MAINTENANCE

In addition to daily maintenance.

General sprayer care

When spraying season has finished, clean the machine completely.

- For winter storage, if freezing conditions are expected, empty pump completely and flush with a mixture of water and antifreeze to prevent unrepairable damage to your unit.
- Check all electrical fuses as these can easily blow if corroded in the off season.

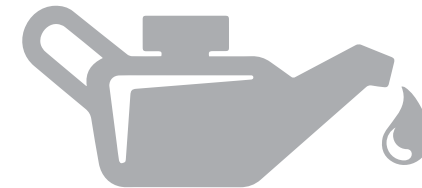


CAUTION

Do not leave water in the machine, particularly in cooler climates as this can freeze and ruin the pump.

Pump – 12-Volt models

- Ensure the pump is drained of liquid by undoing the inlet & outlet hoses. Also ensure the pump is fully flushed after every spray.



SECTION 7

MAINTENANCE & TROUBLESHOOTING

TROUBLESHOOTING 12VOLT PUMP PROBLEMS

PROBLEM	PROBABLE CAUSE	REMEDY
A. Failure to Prime motor operates, but no pump discharge	1. Restriction in intake or discharge line. 2. Air leak in intake line. 3. Punctured pump diaphragm. 4. Defective pump check valve. 5. Crack in pump housing. 6. Debris in filter or check valve.	1. Open all line valves, check for "jammed" check valve poppets & clean clogged lines. 2. Fix air leak in intake line. 3. Replace pump diaphragm. 4. Repair or replace pump check valve. 5. Replace pump housing. 6. Clean filter or check valve.
B. Motor Fails to Turn On	1. Pump motor not electrically connected. 2. Fuse blown. 3. Loose wiring or connection. 4. Pressure switch failure. 5. Defective motor or rectifier. 6. Frozen cam-bearing.	1. Make electrical connection. 2. Replace fuse. 3. Repair loose wiring or connection. 4. Replace pressure switch. 5. Replace motor or rectifier. 6. Repair or replace cam-bearing.
C. Low Flow and Pressure	1. Blocked suction filter. 2. Air leak at pump intake. 3. Accumulation of debris inside pump & plumbing. 4. Worn pump bearing (excessive noise). 5. Punctured pump diaphragm. 6. Defective rectifier or motor. 7. Insufficient voltage to pump.	1. Clean the suction filter. 2. Repair air leak on the pump intake. 3. Clean the inside of the pump and plumbing. 4. Replace pump bearing. 5. Replace pump diaphragm. 6. Replace rectifier or motor. 7. Correct voltage to pump.
D. Pulsating Flow Pump Cycling On and Off	1. Restricted pump delivery. 2. Nozzle too small.	1. Check discharge lines, fittings, valves & spray nozzles for clogging or undersizing. 2. Ensure nozzle is correct size.
E. Motor stops unexpectedly	1. Thermal switch triggered.	1. Allow motor to cool down before restart.

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

ALL PARTS INFORMATION is now listed on the Croplands website:

- Go to croplands.com.au
- Search in the Parts Information section linked to the home page.

NOTE

Drawings are for illustration purpose only - refer to sprayer for actual plumbing. Parts listed are indicative of the sprayer type. Items in italics or without a part number are non stocked items and may need to be specially ordered. For further parts information refer to: www.croplands.com.au

NOTE

Contact Croplands Technical Support for further information:
1300 650 724

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US60S & US100S	33
US100A/ 15	34
US200	35
US200F/ 15	36
US300F/ 15	37
US300-FM2/ US200-FM2	38
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SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

PUMPS

Flojet FL3521-139



ShurFlo SHU2088-313-544



Shurflo SHU8000-547-189



NOTE

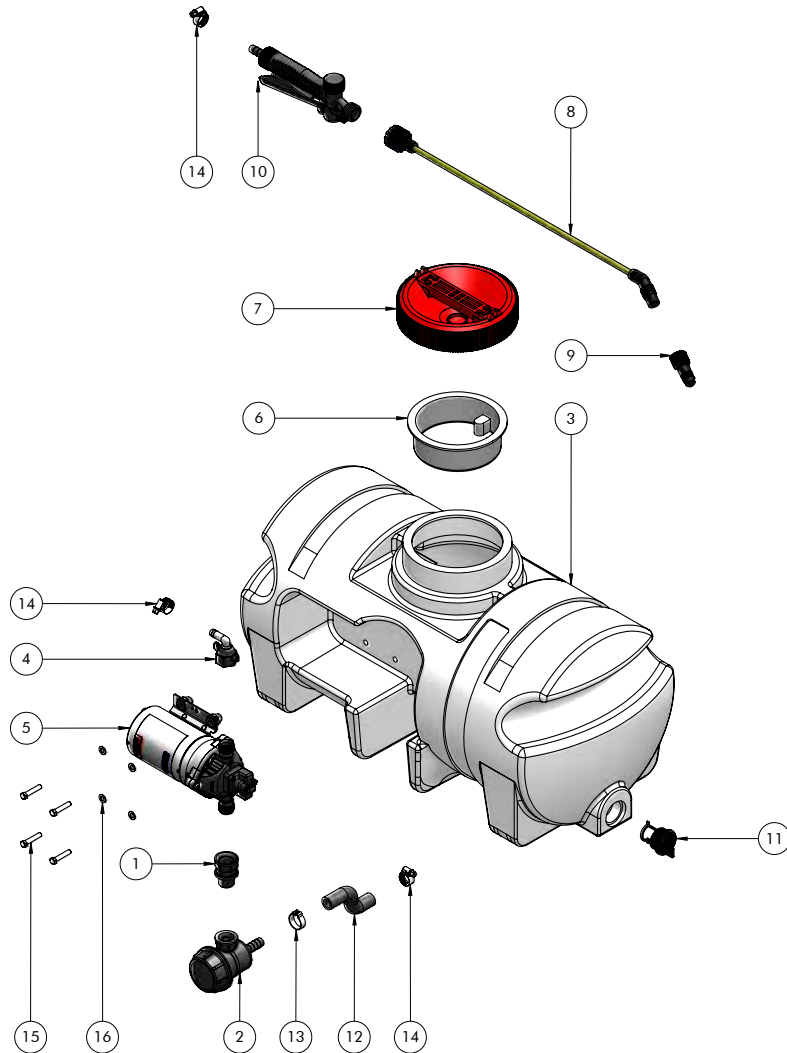
For the latest pump drawings and specifications see the Croplands website and go to the Sprayer Components section.

Please contact Technical support for further details

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US30S



Item	Part Number	US30S Parts Description	Qty
1	A245022	NIPPLE 1/2" MALE/FEMALE	1
2	A309953	FILTER 1/2" BLACK PP 50MESH	1
3	P30D-RAW	TANK 30LT POLY CROPPAK VERSION 2	1
4	SHU234-3916	1/2" NPT X 3/8" ELBOW SWIVEL BARB	1
5	SHU8000-547-189	PUMP 12V 107PSI 6.8L SANTO-VITON	1
6	SW501-004	LID STRAINER	1
7	SW502-001C	TANK LID ASSEMBLY RED	1
8	SW803-085	BRASS LANCE 52CM CURVED	1
9	SW803-262C	ADJ PLASTIC NOZZLE & CAP NUT	1
10	SW808-073C	SHUT OFF VALVE F/ 3/8" HOSE	1
11	UP-416	BOAT PLUG	1
12	UP-501	S BEND HOSE EPDM BLACK	1
13	COBRAC 18-19/8	COBRAC CLAMP 1/2" RED HOSE	1
14	TR38HC	HOSE CLAMP 10MM 3/8" WORM DRIVE	3
15	M6X30	M6 X 30 SET SCREW HT ZP	4
16	M6FWASHER	M6 FLAT WASHER ZP	4

NOTE

This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US60S

Item	Part Number	US60S Parts Description	Qty
1	A245022	NIPPLE 1/2" MALE/FEMALE	1
2	A309953	FILTER 1/2" BLACK PP 50MESH	1
3	P60B-RAW	TANK 60LT POLY CROPPAK W/O FITTING V2	1
4	SHU234-3916	1/2" NPT X 3/8" ELBOW SWIVEL BARB	1
5	SHU8000-547-189	PUMP 12V 107PSI 6.8L SANTO-VITON	1
6	SW501-004	LID STRAINER	1
7	SW502-001C	TANK LID ASSEMBLY RED	1
8	SW803-085	BRASS LANCE 52CM CURVED	1
9	SW803-262C	ADJ PLASTIC NOZZLE & CAP NUT	1
10	SW808-073C	SHUT OFF VALVE F/ 3/8" HOSE	1
11	UP-416	BOAT PLUG	1
12	UP-501	S BEND HOSE EPDM BLACK	1
13	COBRAC18-198	COBRAC CLAMP 1/2" RED HOSE	1
14	TR38HC	HOSE CLAMP 10MM 3/8" WORM DRIVE	3
15	M6X30	M6 X 30 SET SCREW HT ZP	4
16	M6FWASHER	M6 FLAT WASHER ZP	4

US100S

Item	Part Number	US100S Parts Description	Qty
1	A245022	NIPPLE 1/2" MALE/FEMALE	1
2	A309953	FILTER 1/2" BLACK PP 50MESH	1
3	P100D-RAW	TANK 100LT POLY CROPPAK VERSION 2	1
4	SHU234-3916	1/2" NPT X 3/8" ELBOW SWIVEL BARB	1
5	SHU8000-547-189	PUMP 12V 107PSI 6.8L SANTO-VITON	1
6	SW501-004	LID STRAINER	1
7	SW502-001C	TANK LID ASSEMBLY RED	1
8	SW803-085	BRASS LANCE 52CM CURVED	1
9	SW803-262C	ADJ PLASTIC NOZZLE & CAP NUT	1
10	SW808-073C	SHUT OFF VALVE F/ 3/8" HOSE	1
11	UP-416	BOAT PLUG	1
12	UP-501	S BEND HOSE EPDM BLACK	1
13	COBRAC18-198	COBRAC CLAMP 1/2" RED HOSE	1
14	TR38HC	HOSE CLAMP 10MM 3/8" WORM DRIVE	3
15	M6X30	M6 X 30 SET SCREW HT ZP	4
16	M6FWASHER	M6 FLAT WASHER ZP	4

NOTE

This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

Please contact Technical support for further details

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US100A/15

Item	Part Number	US100A/15 Parts Description	Qty
1	A309953	FILTER 1/2" BLACK PP 50MESH	1
2	A908006	GAUGE 40MM 0-6 BAR	1
3	A9620050	PRV 1/2" FAST COUPLING	1
4	AG4000B	FLAT SEAL 5/8" EPDM	1
5	B163.604.4	ELBOW 10MM 90DEG C/W1/2" WING NUT	1
6	CP8027-1-NYB	CAP NYLON LONG	1
7	FL20381-000	KIT 1/2" THREAD STRAIGHT PAIR	1
8	FL3521-139	PUMP 12V 60PSI-15.1LT SANTO-VITON	1
9	P100D-RAW	TANK 100LT POLY CROPPAK VERSION 2	1
10	SW501-004	LID STRAINER	1
11	SW502-001C	TANK LID ASSEMBLY RED	1
12	SW803-085	BRASS LANCE 52CM CURVED	1
13	SW803-262C	ADJ PLASTIC NOZZLE & CAP NUT	1
14	SW808-073C	SHUT OFF VALVE F/ 3/8" HOSE	1

Item	Part Number	US100A/15 Parts Description	Qty
15	UP-416	BOAT PLUG	1
16	UP-501	S BEND HOSE EPDM BLACK	1
17	8121-NYB-540TD	ELBOWSHANK NYLON 11/16"M-1/2"	1
18	8400-500-NYB	CAP HOSE SHANK 1/2" HOSE NYLON	1
19	COBRAC18-19/8	COBRAC CLAMP 1/2" RED HOSE	4
20	TR38HC	HOSE CLAMP 10MM 3/8" WORM DRIVE	3
21	M6X16	M6 X 16 SET SCREW HT ZP	4
22	M6FWASHER	M6 FLAT WASHER ZP	4

NOTE

This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US200



Item	Part Number	US200 Parts Description	Qty
	P200B-RAW	RAWTANK	1
	SHU8000-547-189	PUMP 12V 107PSI 6.8L SANTO-VITON	1
	A205020	BACKNUT	2
	AG40002	FLATSEAL	1
	COBRAC18-19/8	CLAMP	2
	A2402021	REDNIPPLE	1
	HPW10	HOSE	6
	SW808-073C	VALVE	1
	SW803-262C	JET	1
	SW803-085	LANCE	1
	HPW12	HOSE	1
	COBRAC15/8	CLAMP	2
	SW501-004	STRAINER	1
	UP-169	PIPE	1
	SW502-001C	LID	1
	UP-175	HOOK	4
	UP-416	PLUG	1
	B163.604.13	ELBOW	1
	BJHB038-90	ELBOW	1
	A309953	FILTER	1
	UP-119B	SWITCH KIT	1
	GP-OMCP12-D	MANUAL	1

NOTE

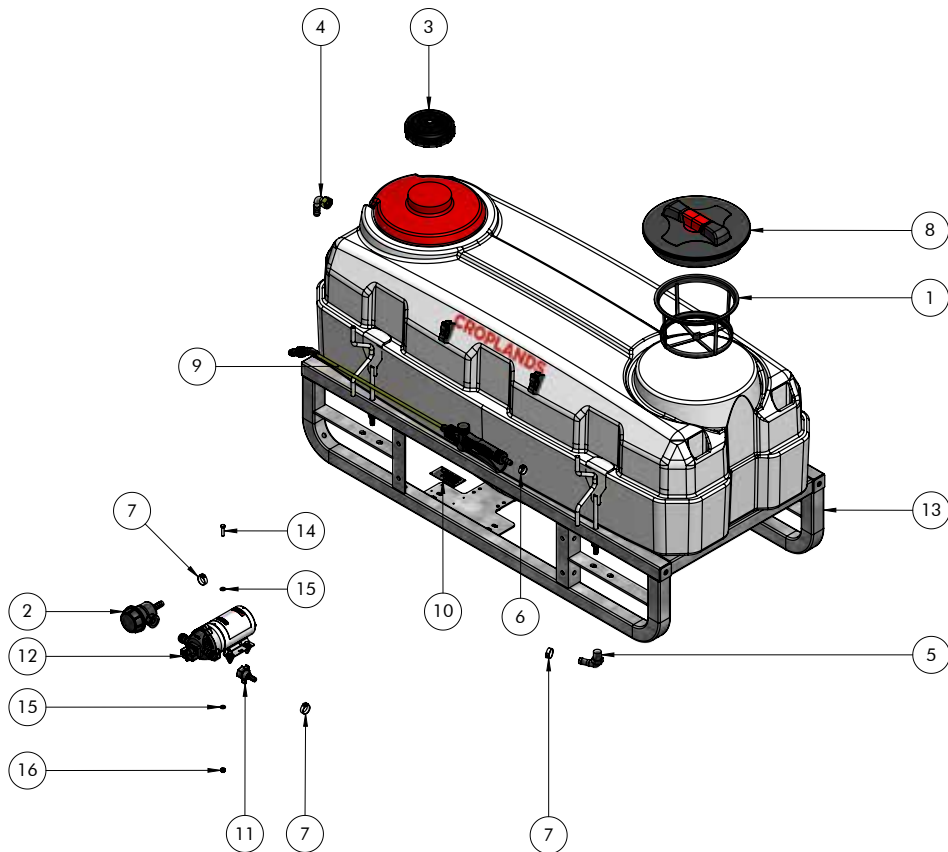
This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

Please contact Technical support for further details

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US200F



Item	Part Number	US200F Parts Description	Qty
1	A300110	FILTER BASKET SMALL 115MM DEEP	1
2	A309953	FILTER 1/2" BLACK PP 50MESH	1
3	A354030	LID 4" C/W BREATHER & SEAL	1
4	B163.604.13	ELBOW 1/2" C/W HEX NUT 1/2"	1
5	BJHB050-90	ELBOW 1/2" NPT X 1/2" BARB	1
6	COBRAC15_8	COBRAC CLAMP "3/8" BLACK HOSE	1
7	COBRAC18-198	COBRAC CLAMP 1/2" RED HOSE	3
8	G8149000	LID/RING KIT 255MM	1
9	RL10	GUN AND LANCE RL 10	1
10	S/NO	SERIAL NUMBER PLATE	1
11	SHU234-2916	1/2" NPT X 3/8" SWIVEL BARB POLY	1
12	SHU8000-547-189	PUMP 12V 107PSI 6.8L SANTO-VITON	1
13	US200-FM2	TANK AND FRAME 200LT CROPPAK	1
14	M6X25	M6 X 25 SET SCREW HT ZP	4
15	M6FWASHER	M6 FLAT WASHER ZP	8
16	M6NNUT	M6 NYLOC NUT HT ZP	4

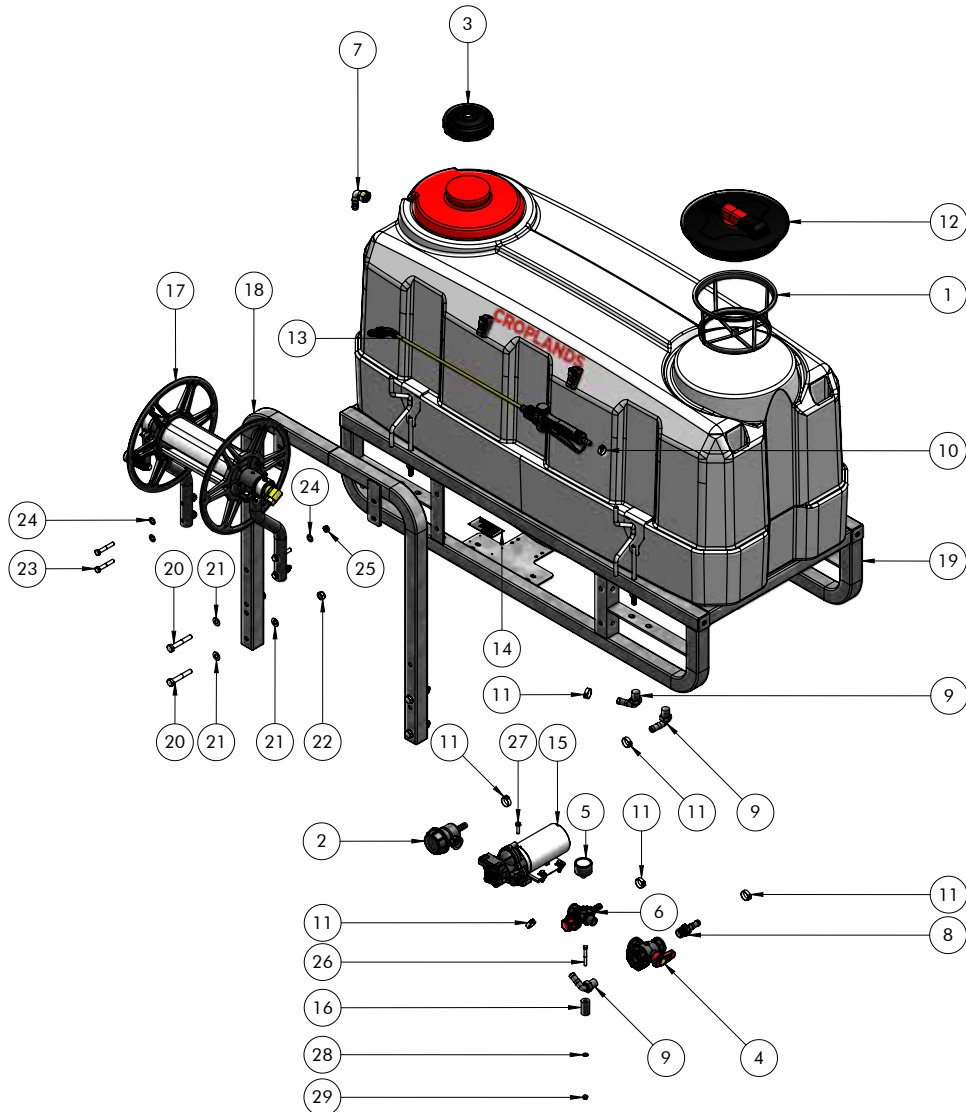
NOTE

This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US300F/15/HR



Item	Part Number	US300F/15/HR Parts Description	Qty
1	A300110	FILTER BASKET SMALL 115MM DEEP	1
2	A309953	FILTER 1/2" BLACK PP 50MESH	1
3	A354030	LID 4" C/W BREATHER & SEAL	1
4	A454232	BALL VALVE POLY 1/2" 3 WAY	1
5	A908006	GAUGE 40MM 0-6 BAR	1
6	A9620922	PRESSURE REGULATING VALVE 1/2F-1/2M 20LPM	1
7	B163.604.13	ELBOW 1/2" C/W HEX NUT 1/2'	1
8	BJHB050	HOSEBARB 1/2 NPT X 1/2 BARB	1
9	BJHB050-90	ELBOW 1/2" NPT X 1/2" BARB	3
10	COBRAC15/8	COBRAC CLAMP "3/8" BLACK HOSE	1
11	COBRAC18-19/8	COBRAC CLAMP 1/2" RED HOSE	6
12	G8149000	LID/RING KIT 255MM	1
13	RL10	GUN AND LANCE RL 10	1
14	S/NO	SERIAL NUMBER PLATE	1
15	SHU2088-313-544	PUMP 12V 45PSI 15.1 LPM	1
16	UP-252	SPACER PRV 20 X 36	1
17	UP-301B-7	HOSE REEL ALUMINIUM TZ	1
18	UP-306-5	HOSE REEL BRACKET	1
19	US300-FM2	TANK AND FRAME 300LT CROPPAK	1
20	M10X65BOLT	M10 X 65 BOLT HT ZP	4
21	M10FWASHER	M10 FLAT WASHER ZP	8
22	M10NNUT	M10 NYLOC NUT HT ZP	4
23	M8X50BOLT	M8 X 50 HEX HEAD BOLT HT ZP	4
24	M8FWASHER	M8 FLAT WASHER ZP	8
25	M8NNUT	M8 NYLOC NUT HT ZP	4
26	M6X50	M6 X 25 BOLT S/S	1
27	M6FWASHER	M6 X 25 SET SCREW HT ZP	4
28	M6FWASHER	M6 FLAT WASHER ZP	5
29	M6NNUT	M6 NYLOC NUT HT ZP	1
drain	A250040	NIPPLE 1"	1
drain	A210040	CAP 1'	1
drain	AG40004	FLAT SEAL 1"	1

NOTE

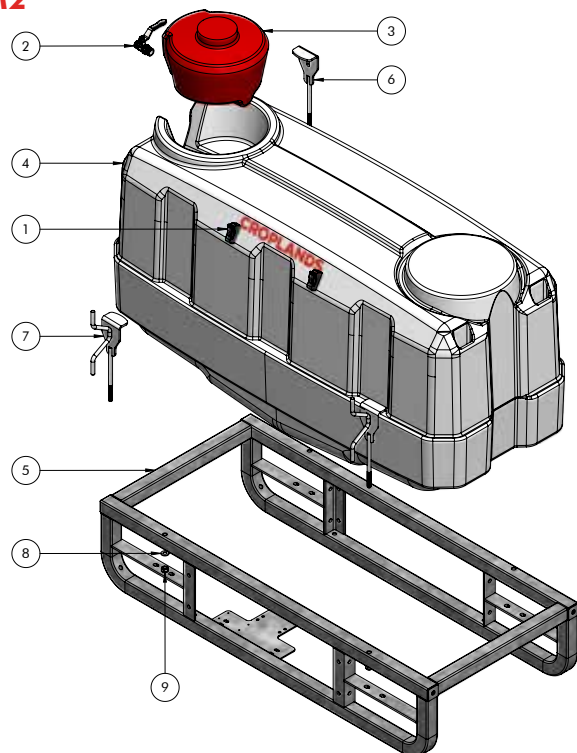
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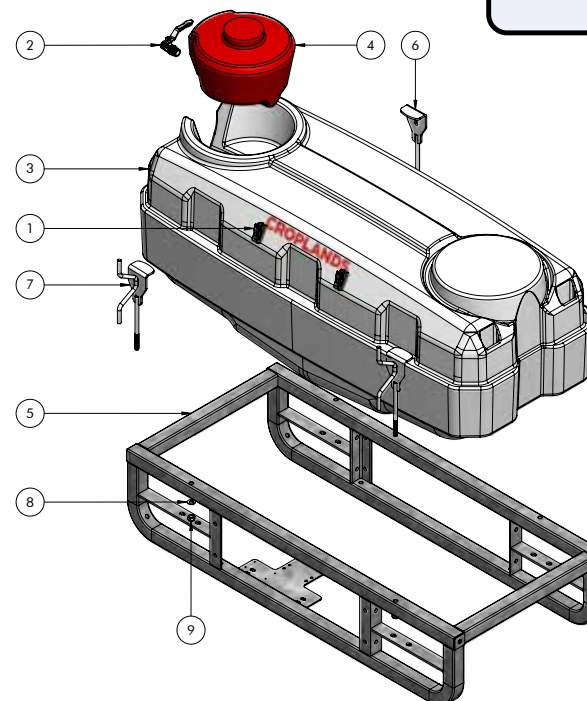
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ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

US300-FM2



US200-FM2



NOTE

This parts list is indicative of this model sprayer.
For further parts information refer to
www.croplands.com.au

Item	Part Number	US300-FM2 Parts Description	Qty
1	AS-GUNCLIP	GUNCLIP WITH SCREW RL10	2
2	B165.1501.5	BALL VALVE 1/2" X 1/2" RH	1
3	P200C-6L-RAW	TANK 6LT RTV HANDWASH WITH TAP	1
4	P300C-RAW	TANK 300LT RTV	1
5	UP-306-1	CROPPAK FRAME 200/300	1
6	UP-306-2	TIE DOWN CLAMP 200/300	2
7	UP-306-3	TIE DOWN CLAMP 200/300	2
8	M10FWASHER	M10 FLAT WASHER ZP	4
9	M10NNUT	M10 NYLOC NUT HT ZP	4

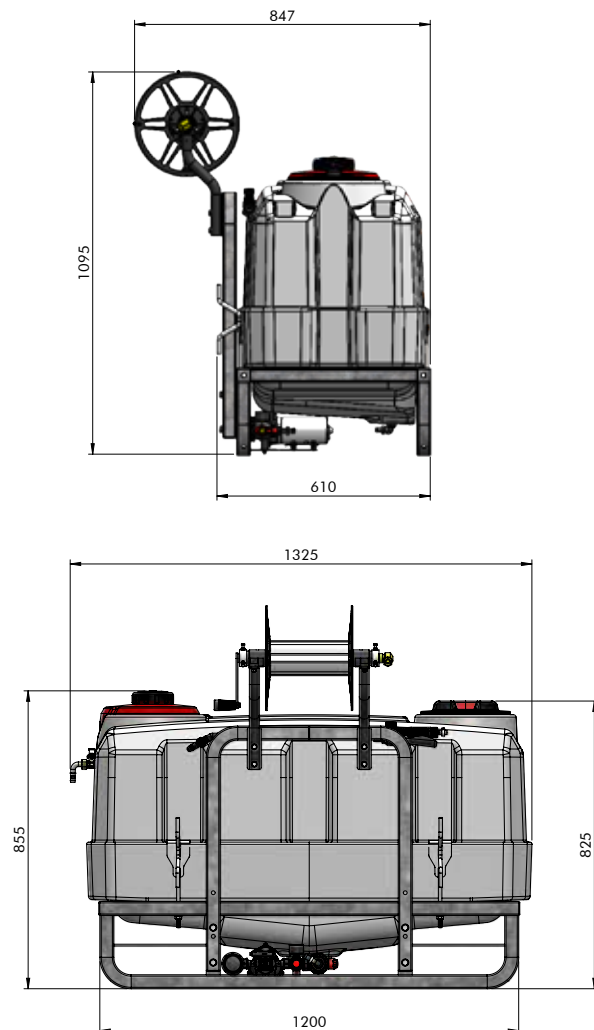
Item	Part Number	US200-FM2 Parts Description	Qty
1	AS-GUNCLIP	GUNCLIP WITH SCREW RL10	2
2	B165.1501.5	BALL VALVE 1/2" X 1/2" RH	1
3	P200C-RAW	TANK 200LT RTV	1
4	P200C-6L-RAW	TANK 6LT RTV HANDWASH WITH TAP	1
5	UP-306-1	CROPPAK FRAME 200/300	1
6	UP-306-2	TIE DOWN CLAMP 200/300	2
7	UP-306-3	TIE DOWN CLAMP 200/300	2
8	M10FWASHER	M10 FLAT WASHER ZP	4
9	M10NNUT	M10 NYLOC NUT HT ZP	4

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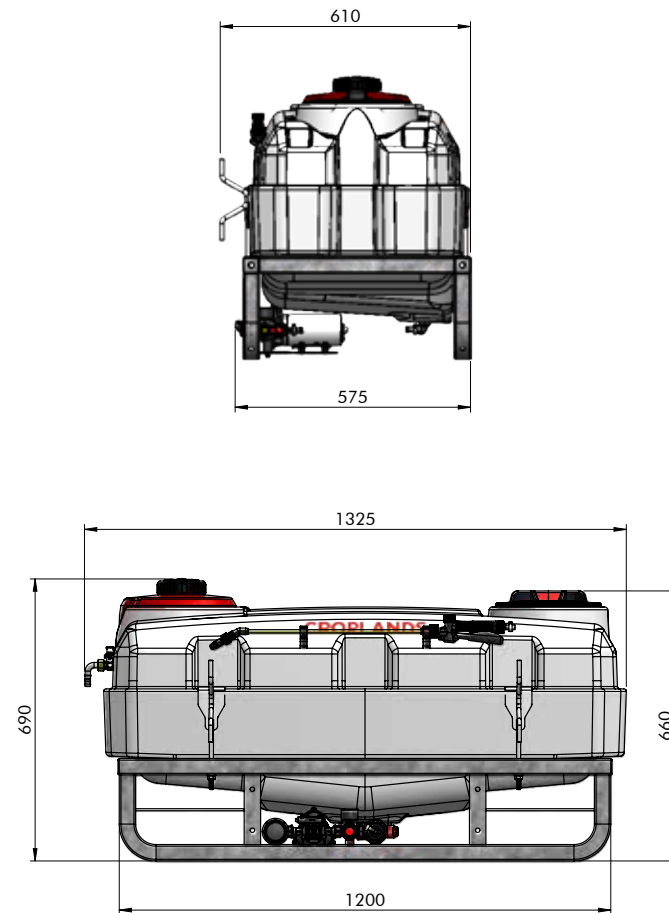
SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

DIMENSIONS CROPPAK US300F/15/HR



DIMENSIONS CROPPAK US200F/15

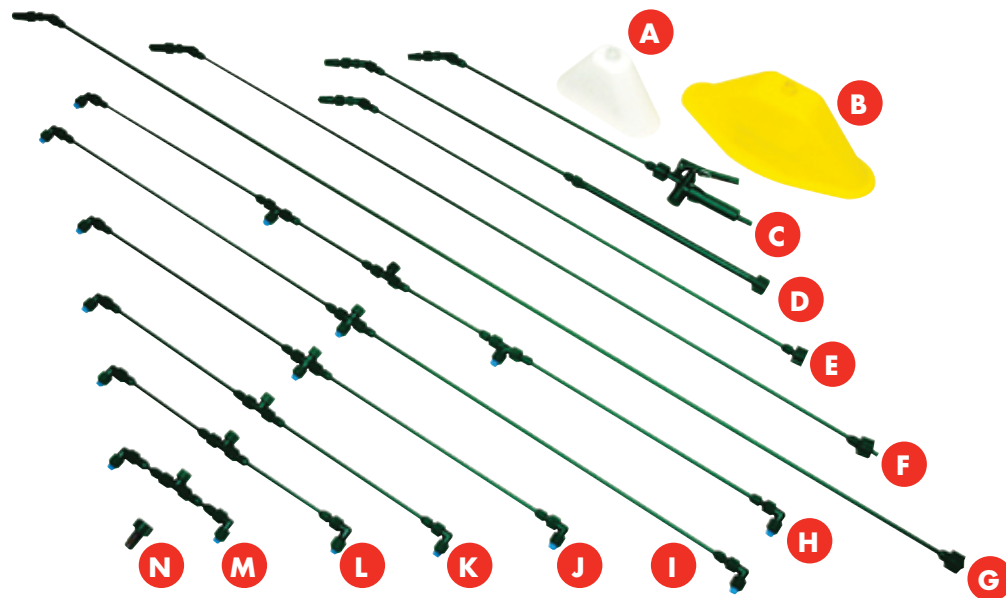


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SECTION 8

ASSEMBLY DRAWINGS, PARTS & SCHEMATICS

HAND GUN ACCESSORIES



Item	Part Number	Parts Description
A	SW219-117	Small spray guard, 22cm
B	SW219-099	Large spray guard, 40cm
C	SW-LANCE-P-ASSY	Gun & lance (plastic) assembly c/w 10mm tail
D	SW219-236C	Telescopic lance 94cm c/w adjustable nozzle
E	SW219-142C	Spray lance 100cm (plastic) c/w adjustable nozzle
F	SW219-143C	Spray lance 150cm (plastic) c/w adjustable nozzle
G	SW219-146C	Spray lance 200cm (plastic) c/w adjustable nozzle
H	SW219-282C	4-Nozzle boom 150cm (plastic)
I	SW219-151C	3-Nozzle boom 150cm (plastic)
J	SW219-138C	3-Nozzle boom 100cm (plastic)
K	SW219-148C	2-Nozzle boom 75cm (plastic)
L	SW219-140C	2-Nozzle boom 50cm (plastic)
M	SW219-147C	Double U Nozzle complete w/- caps
N	SW803-262C	Adjustable poly nozzle



Swivel Nozzle for all CropPak Sprayers
 SW803-262C (Plastic)
 SW219-089C (Brass)



Lance Hand Grip for all CropPak Sprayers
 SW808-073C



Swissmex Lance, 52cm, brass. For all CropPak Sprayers
 SW803-085

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