



OWNER'S MANUAL
FOR THE



**FOAM MARKER
FM50**

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SAFETY PRECAUTIONS

FOAM MARKERS

AN IMPORTANT MESSAGE FOR OWNERS & OPERATORS OF C-Dax ATTACHMENTS/ACCESSORIES

Be warned of the dangers of loading your vehicle in excess of its carrying capacity.

It is important to understand that any loads or attachments whether fastened to or placed on a vehicle will alter the stability or handling characteristics of that vehicle.

Spray tanks or other equipment must be filled only to a level where the gross weight is within the load limit of the vehicle.

Safety is a primary concern in the design, manufacture, sale, and use of spray tanks and other equipment. As manufacturers of spray tanks and other equipment we want to confirm to you, our customers, our concern for safety. We take this opportunity to remind you about the simple, basic and common sense rules of safety when using spray tanks and other equipment. Failure to follow these rules can result in severe injury or death to operators and bystanders.

It is essential that everyone involved in the assembly, operation, transport, maintenance and storage of this equipment be aware, concerned, prudent and properly trained in safety.

This also applies to equipment that is loaned or rented to someone who has not read the owner's manual and is not familiar with the operation of application equipment.

- NEVER EXCEED THE LOAD LIMIT CAPACITY OF THE TRACTOR OR OTHER VEHICLE.
- ALL TRACTOR AND TRAILED EQUIPMENT TYRES SHOULD BE INFLATED TO MANUFACTURERS RECOMMENDED OPERATING PRESSURES.
- PLEASE NOTE THAT FILLING THE SPRAY TANK OR OTHER EQUIPMENT COMPLETELY AND OR THE ATTACHMENT OF ADDITIONAL EQUIPMENT TO THE TRACTOR MAY EXCEED THE TRACTOR'S MAXIMUM LOAD CAPACITY, AND ADVERSELY AFFECT THE STABILITY OF THE TRACTOR OR OTHER VEHICLE.
- CARGO SHOULD BE PROPERLY DISTRIBUTED AND SECURELY ATTACHED.
- REDUCE SPEED WHEN CARRYING CARGO OR PULLING A TRAILER OR TRAILED APPLICATION EQUIPMENT AND ALLOW GREATER DISTANCE FOR BRAKING.
- NEVER ALLOW ANYONE TO RIDE ON YOUR SPRAYER OR OTHER EQUIPMENT.
- ALWAYS FOLLOW THE INSTRUCTIONS IN THE OWNER'S VEHICLE MANUAL FOR CARRYING CARGO OR PULLING A TRAILER.
- PROPER MAINTENANCE IN LINE WITH MANUFACTURER'S RECOMMENDED MAINTENANCE PROCEDURES IS ESSENTIAL.
- BEFORE APPLYING CHEMICALS, READ THE LABEL OF THE CHEMICAL MANUFACTURER OR SUPPLIER FOR PERSONAL PROTECTIVE EQUIPMENT AND OPERATE AS RECOMMENDED.

THE SAFETY OF ALL CHEMICALS USED IN AGRICULTURE IS UNDER THE JURISDICTION OF A GOVERNMENT AGENCY, IE N.Z. MINISTRY FOR THE ENVIRONMENT; USA ENVIRONMENTAL PROTECTION AGENCY. FURTHER LOCAL GOVERNMENT OR STATE LAWS MAY APPLY.

WARNING

To reduce the chance of VEHICLE instability, it is recommended to exercise EXTREME care while spraying on a slope or hillside.

Cautions, Warnings and Notes.

Throughout this document, text has been highlighted as warnings, cautions and notes.

Warnings are mandatory instructions. Failure to comply with these instructions may result in injury or damage.

Cautions are advisory. Failure to comply may result in poor operation or premature failure.

Notes are to assist with convenient operation of the equipment.

SAFETY

Before attempting to install or operate the equipment, read and understand the manual thoroughly. Failure to comply with this instruction constitutes improper use and will invalidate the warranty.

Before using your pesticide, STOP, Read The Label

Mixing pesticides is a most dangerous time as it involves handling the concentrated material. For toxic compounds, use protective clothing such as overalls, hat, gloves, boots and respirator.

When using concentrated sprays, full protection is necessary.

When using diluted sprays, wear a hat, long-sleeved cotton overalls, and boots. If you use pesticides regularly, it is a good idea to always wear a respirator to avoid cumulative effect.

Other protection may be required. Check the label. It may have specific directions for the particular chemical.

Protective clothing should be properly cared for. Rinse heavily contaminated clothes in the open before washing in the laundry.

Wash and dry protective clothing every day, but keep them separate from other washing.

Respirators need special care. Clean your respirator after spraying. Use soapy water then rinse and allow drying completely before storing in a clean plastic bag. Replace canisters in respirator after eight hours use.

C-Dax

FOAM MARKER

OWNERS MANUAL

(Pt.No 2400-6100 Issue 15, April 2017)

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INTRODUCTION

CONGRATULATIONS on the purchase of your new C-Dax Foam marker. You join the many thousands of New Zealand and overseas farmers who have recognised the remarkable usefulness and uniqueness of C-Dax accessories.

DESCRIPTION

The C-Dax foam marker is available in models, single and double sided

The 50 litre model foam marker is compatible with the 600L, 800L, and 1000L GoldLine model sprayers only, and comes complete with zinc plated steel mounting bracket to suit GoldLine sprayer frames. The 50 litre single foam marker comes with a single 50L tank and single dropper, the 50 litre double foam marker comes with a single 50L tank and two droppers with an electric solenoid to switch the foam flow from left to right.

The tanks are moulded from tough, high quality translucent UV stabilised polyethylene with easy access lids and basket filters.

All models are supplied with a 12V compressor with adjustable rate air control, electric remote switch box, battery lead, and 7 metres of tough non-kinking foam hose per side.

SPECIFICATIONS

(Specifications subject to change without notice)

Tank	UV stabilised polyethylene
Tank Size	50L (single and double)
Lid	Non-vented screw-on
Tank Filter	Lid strainer basket
Compressor	12VDC, 5A current draw, 19psi max continuous pressure
Air control	Adjustable bleed valve
Foam solenoid (FM50D only)	3 way, 12VDC, 2.5A current draw

ORDER INFORMATION

NZ & Aus

50 Litre, Single Foam Marker

To suit Goldline 600L, 800L, 1000L sprayers
Order FM50S

Pt.No.1049

50 Litre, Double Foam Marker

To suit Goldline 600L, 800L, 1000L sprayers
Order FM50D

Pt.No.1050

WARRANTY

1 WARRANTY AND LIABILITY

Use of the equipment

- 1.1 You must satisfy yourself as to the suitability of the equipment for your intended use(s) of the equipment.

Your relationship with the retailer

- 1.2 Where you consider you have a warranty claim (or any other claim) in relation to the equipment, you must contact the retailer who sold you the equipment, not C-Dax directly. The retailer is responsible for liaising with C-Dax in respect of your claim.

Warranty

- 1.3 C-Dax warrants to the original purchaser that the equipment is sold free from defects in materials and workmanship for a period of 12 months from date of first retail sale (6 months from date of first retail sale if the equipment is sold in the U.K.) subject to the terms set out below.
- 1.4 C-Dax will at its option repair or replace the defective equipment (or part of the equipment) or notify the retailer of the equipment to refund the purchase price for such defective equipment to you in the event of a breach of this warranty, subject to the terms set out below.

Liability

- 1.5 Except for the warranty set out in clause 1.2 above, all warranties and representations (including those expressed or implied by law) in respect of the equipment or advice relating to the equipment provided to you by C-Dax are excluded to the extent permitted by law.
- 1.6 Notwithstanding anything else in this manual, C-Dax's maximum liability to you (in the event that such liability exists) in respect of any breach of warranty, any matter set out in this manual, or for defective equipment or advice relating to the equipment provided is limited at C-Dax's option to:
- (a) repairing or replacing the equipment (or part of the equipment); or
 - (b) notifying the retailer of the equipment to refund the price for the equipment paid by you.
- 1.7 Notwithstanding anything else in this manual, in no event will C-Dax be liable, whether in contract, tort (including negligence) or otherwise:
- (a) where you have altered or modified the equipment, misused or misapplied the equipment, or the equipment has been subjected to any unusual, excessive or non-recommended use, service or handling (including as set out in this manual);

- (b) where the equipment is not transported, stored, handled or used in accordance with any directions given by C-Dax (or the retailer) to you (including as set out in this manual);
- (c) where the equipment:
 - (i) has been subject to neglect, accident or hireage, or the damage arises from fair wear and tear, battery damage or chemical attack;
 - (ii) has been built to a customer's specifications; or
 - (iii) has been dismantled, repaired or serviced other than by an authorised service agent of C-Dax;
- (d) for loss or damage caused by any factors beyond C-Dax's control; or
- (e) for any loss of profit or revenue, or for any special, indirect, incidental or consequential damage, loss or injury of any kind suffered by you.

1.8 Where C-Dax elects to repair or replace the equipment it will use reasonable endeavours to do so as soon as practicable but will not be liable for any delay in doing so.

1.9 You agree that the transactions entered into between you and the retailer (and C-Dax) are for the purposes of trade and that, having regard to all relevant circumstances of the transactions, it is fair and reasonable that the provisions of the Consumer Guarantees Act 1993 (NZ) do not apply to those transactions to the fullest extent permitted by law.

INSTALLATION

The C-Dax Foam Marker differs from all other types of Foam Marker in that the compressor is a unitised 12 volt motor and diaphragm compressor - maximum continuous pressure 275 Kpa, 19 psi (1.3 bar) with 5 amp draw. It is therefore necessary to connect the motor directly to the battery of the vehicle. The cable, switch and fuse are supplied for this purpose.

NOTE

Negative to earth vehicles, put the fuse in the positive lead. Positive to earth vehicles, put the fuse in the negative lead.

FM50 Models

Foam Tank

Locate the tank and mount bracket from kit.

Fit the tank mount bracket into the recess on the bottom of the tank and offer the complete tank into the cavity on L/H side of the sprayer frame.

Fit the lip on top of the tank into the recess underneath the main tank and firmly push up, swing the base of the tank and mount bracket onto rear rib on the base of the sprayer frame and line up the hole in rib with the hole in mount bracket. Secure with the M10 bolt and nyloc nut from kit box.

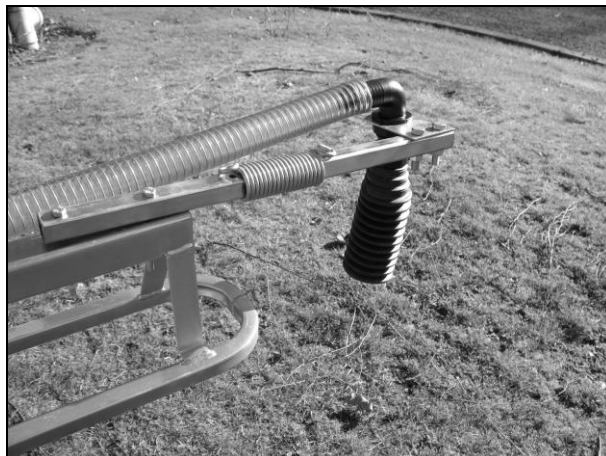
NOTE

The foam tank will fit into either cavity on the main sprayer tank. However it is recommended to fit foam tank to the rear cavity to allow the front cavity to be available for a chemical rinse tank if required.



Foam Hose

For a single foam marker, route the foam hose from the outlet fitting on the tank to the dropper. Ensure foam hose is clear of moving parts and the boom can be folded without damaging or kinking the foam hose.



Compressor

The FM50, and FM50D foam markers for the GoldLine 3PL sprayers require the fitting of the compressor. Attach the compressor to the pre-mounted base plate .

Double Foam Marker

The C-Dax Foam Marker is available in single and double versions. The double foam marker version allows foam marks to be dropped from either end of the spray boom.

NOTE

The double foam markers will not drop foam on both sides at the same time.

The double foam marker is controlled with a single switch remote control pane, which controls the electrical supply to the system, and selects which side of the solenoid is operated.

For a double foam marker, it is necessary to mount the foam solenoid in a convenient position (a firm surface on the spray boom or similar) where it is easily accessible to plumb the foam hose to the hose fittings. Plumb the foam hose from the tank to the foam solenoid inlet fitting. Plumb the two outlets of the solenoid to the foam droppers on either end of the spray boom.



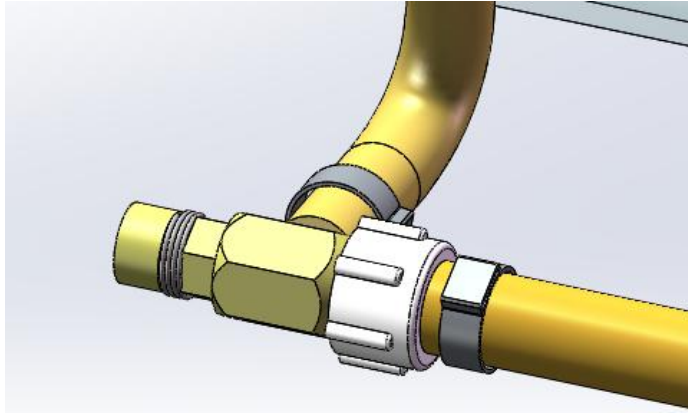
Connect the solenoid cable from the control box to the outlet cable on the solenoid.

With electrical power to the solenoid off, flow to outlet 1 is stopped, and foam flows to outlet 2. With electrical power to the solenoid on, flow to outlet 2 is stopped, and foam flows to outlet 1.

RATE OF FOAM PRODUCTION

The rate of foam production (blobs per minute) is determined by the air input into the tank. The lower the rate, the more time between refills.

For example, on flat pasture it is unnecessary to have blobs close together. Therefore increase the area covered per tank by reducing the air input, conversely in rough conditions or when spraying mature crops, blobs can be put closer together.



To regulate the air input an adjustment is made on the air relief valve at the outlet of the compressor. See picture above.

To reduce the rate of foam production, turn the air regulator valve anti-clockwise. To increase the rate of foam production, turn the valve clockwise.

WATER QUALITY

Water quality will affect foam production.

Hard water will require a higher rate of foaming agent than recommended, while soft water may require less. If in doubt the user should experiment with rates under his/her specific conditions.

Anti-freeze used in some cold weather spraying could slightly reduce a foam's persistence and quality. Slightly higher mix rates should help to compensate for this problem.

Read the foaming agent instructions carefully. Some have water softeners or similar additives, which may be affected by residues of other foaming agents. Hence it is always advisable to flush the foam tank before switching to another foam. This can be done quickly by using a hose and allowing the water to flow out the top of the tank. (Do not wet the compressor!)

CAUTIONS

The foam blobs will dissipate within an hour, or within a day, depending on environmental conditions.

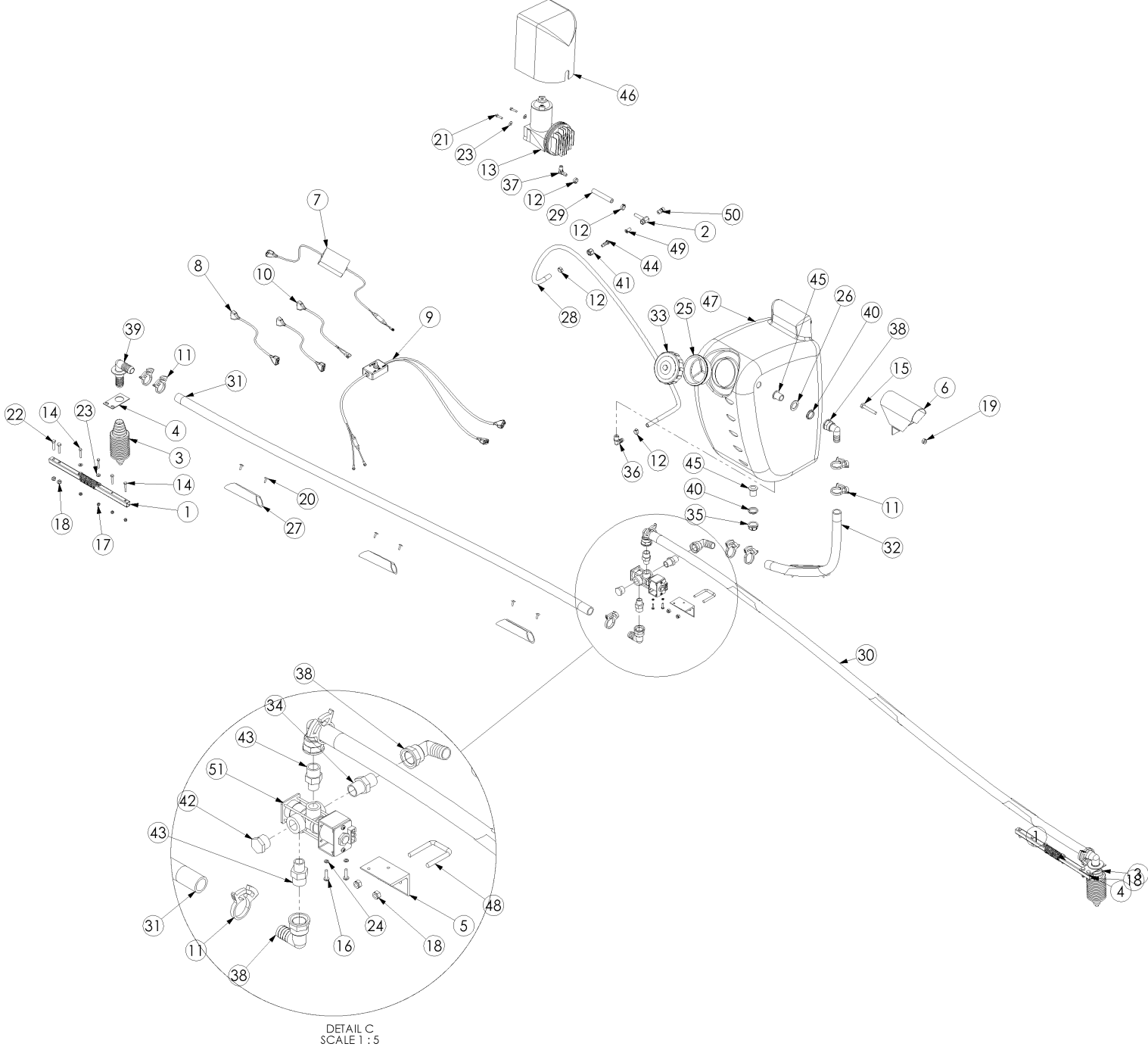
High temperature, low humidity, high winds, and rainfall or overhead irrigation will shorten the foam's life.

High temperature, low humidity, and high winds will not only affect the life of the foam, but also the life and effectiveness of the spray droplets. **As a guide**, it would be wise to **stop spraying** if the foam is not lasting more than 10 to 15 minutes on the ground. In such cases most of the droplets will be evaporating before passing chemical to the target. Also there is a great risk of some chemicals drifting and damaging nearby susceptible crops.

DO'S AND DON'TS

- DON'T make the mix stronger than recommended,
- DON'T overfill the foam tank, leave about 20% from the top for best results.
- DO expect to mark about 10 hectares from one tank of mix, when using a 12 metre boom.
- DO turn on the marker about two minutes before starting to spray.

Exploded Parts Diagram



Parts List

Item No.	QTY.	part no	description
1	2	1072-5590	Arm-Dropper-Foam Marker-ZP
2	1	1200-8900	Body-Valve-Air-Foam Marker-11/16UNFMx1/4BSPFx1/8BSPM-Brass
3	2	1280-1600	Boot-Clutch-Convolute-CDIT300/400-Rubber
4	2	1300-4400	Bracket-Foam marker dropper-ZP
5	1	1300-6500	Bracket-Mount-Solenoid-Double Foam Marker-ZP
6	1	1300-8300	Bracket-Tank Stand 50L-Goldline 3PL-ZP
7	1	1500-3000	Cable-Electrical-Loom-1 Switch Box-3.0M
8	2	1500-4500	Cable-Electrical-Loom-Extension-1.50M
9	1	1500-4900	Cable-Electrical-Loom-Foam Marker-FM24D-Control Box
10	1	1500-6200	Cable-Electrical-Loom-Solenoid Feed-FM24D
11	10	2000-0032	Clamp-Hose-Herbi-P-Ratchet-32.0<>34.8mm-Black-Nylon
12	4	2000-2014	Clamp-Hose-Oetiker-Single Ear Stepless-14.5<>7.0mm-S/S
13	1	2170-2400	Compressor-Electrical-Foam-12VDC
14	8	2840-0635	Fastener-Bolt-Hex-8.8 Grade-M6x35-ZP
15	1	2840-1065	Fastener-Bolt-Hex-8.8 Grade-M10x65-ZP
16	2	3110-0275	Fastener-Machine-Screw-Pan-3/16x3/4-Slot-ZP
17	8	3170-0006	Fastener-Nut-Nyloc-M6-ZP
18	6	3170-0008	Fastener-Nut-Nyloc-M8-ZP
19	1	3170-0010	Fastener-Nut-Nyloc-M10-ZP
20	14	3240-0018	Fastener-Rivet-Blind-Truss Head-3/16x18mm-Aluminium
21	2	3290-0625	Fastener-Set Screw-Hex-8.8 Grade-M6x25-ZP
22	4	3290-0835	Fastener-Set Screw-Hex-8.8 Grade-M8x35-ZP
23	6	3310-6006	Fastener-Washer-Flat-M6-ZP
24	2	3330-8005	Fastener-Washer-Spring-M5-ZP
25	1	3400-1100	Filter-Basket-D122
26	2	3700-9170	Gasket-Washer-26x40x3-Rubber
27	7	4080-3905	Holder-Handgun-INEX Turf & Garden-Gas Tube-150LG-BLACK-MDPE
28	1	4100-0010	Hose-Spray-Delivery-40 Bar-10mm ID-Yellow (0.75m)
29	1	4100-0010	Hose-Spray-Delivery-40 Bar-10mm ID-Yellow (0.45m)
30	1	4100-3025	Hose-Suction-Wire Reinforced-25mm ID-Clear Plastic (7m)
31	1	4100-3025	Hose-Suction-Wire Reinforced-25mm ID-Clear Plastic (7m)
32	1	4100-3025	Hose-Suction-Wire Reinforced-25mm ID-Clear Plastic (0.8m)
33	1	5000-1310	Lid-Tank-D122-Unvented
34	1	6200-1160	Pipe-Fitting-Barrel Nipple-Hex-3/4BSPMx3/4BSPM-Plastic
35	1	6200-1300	Pipe-Fitting-Cap-3/4BSPF-Plastic
36	1	6200-2420	Pipe-Fitting-Elbow-10 Shankx3/8NPTM-Hose Shank-Nylon
37	1	6200-2430	Pipe-Fitting-Elbow-10x1/4BSPM-Brass
38	4	6200-2558	Pipe-Fitting-Elbow-25 Shankx3/4BSPF-Nylon
39	2	6200-2620	Pipe-Fitting-Elbow-Thru Tank-25 Shankx25 Shankx1BSPM-Nylon
40	2	6200-5440	Pipe-Fitting-Nut-Back-3/4BSP-Plastic
41	1	6200-5550	Pipe-Fitting-Nut-Swivel-11/16UNFF-Plastic
42	1	6200-6240	Pipe-Fitting-Plug-Hex-3/4NPTM-Plastic
43	2	6200-7410	Pipe-Fitting-Reducer-3/4BSPMx1/2BSPM-Plastic
44	1	6200-8220	Pipe-Fitting-Straight-10 Shank-Swivel-Suit Fly Nut-Plastic
45	2	6200-9440	Pipe-Fitting-Thru Tank-Straight-3/4BSPM-Nylon
46	1	7500-1405	Rota-Cover-Compressor-Foam Marker-Blue-MDPE
47	1	7500-3501	Rota-Tank-50L-Foam INC LABEL-GDL-Yellow-MDPE
48	1	8850-1200	U Bolt-Square-M8x66Longx48Centres-ZP
49	1	8900-1520	Valve-Check-Teejet-Top Hat Style
50	1	8900-5200	Valve-Needle Adjustable-1/4BSPM-No Filter-Brass
51	1	8900-7010	Valve-Solenoid-Teejet-Foam-12V-3/4BSPFx1/2BSPF-50PSI

NOTES: