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FE3 Windfoil Electric 3-ft Covered Walking Sprayer



Assembly, Parts and Operator's Manual

Version FE-1205

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Safety

Many people die or suffer serious injury in job related accidents every year due to carelessness. Know your machinery and be aware of potential hazards. Put safety first in all your operations.

Review all instructions and procedures outlined in this manual annually. Every operator must familiarize himself with the operating instructions of the sprayer.

Operational Safety

Shut down sprayer and power unit and wait for all parts to stop before adjusting, cleaning, or lubricating the power unit or sprayer.

Before spraying a field familiarize yourself with any rocks, debris, trees, ditches or gullies that may be potentially dangerous. Plan the spraying route to avoid these hazards.

Spray only chemicals that unit was designed for, (ie turf application). Do not use products for which unit was not designed, (ie PAINT, sealants, cleaning fluids, dust inhibitors, ice surfaces).

Minimize Chemical Drift

The **Falcon** sprayer was designed in a wind tunnel to control air flow around and behind the sprayer minimizing drift to allow safer spraying in windy conditions.

Drift can blow off a field after it has been sprayed, especially in high winds. Reasonable caution should be taken in order to spray effectively and safely.

For maximum drift control, keep curtain in contact with the ground to ensure a seal to it. Drift control of the Falcon is less effective when the wind blows the curtain off the crop canopy breaking the seal between the curtain and the crop.

General Spraying Information

Application Tips

Always use clean filtered water in the sprayer tank.

Your **Falcon** Drift Containment Spray System (DCSS) comes standard with stainless steel insert tips. Please contact your manufacturer or see the application rate table in this manual for various sizes of tips available for your machine.

Check the flow rate from all nozzles using the capacity calibration technique; see the Calibration section for tables and instructions. Use clean filtered water for all calibration testing. Adjust the sprayer pressure to get the proper flow rate. The flow meters are not accurate enough in absolute terms to be used as a flow meter. In relative terms they are very accurate.

Caution:	Conventional tips are rated at 40 psi (3 bar), for example a 8004 tip at 40 psi (3 bar) delivers 0.4 US gal/min (1.5 litres/min) . Only conventional 80° tips are recommended for the Falcon FE series. Wider angle tips (110°) have a wider pattern than 80° and will hit the curtain at the ends of the boom and are not recommended.
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Nozzles

Despite being the most important component for accurate uniform spraying application, nozzles are often neglected and abused.

Nozzle flow rate depends on effective orifice size and pressure. Spray tip manufacturers have supplied tables of nozzle application rates at various pressures, for the best results it is recommended that you follow these guidelines.

The rule of thumb is that as you increase the pressure to your unit the average droplet size decreases. Normally with conventional open boom sprayers large droplets are used to control drift but large droplets can roll off plants without sticking. With the **Falcon** covered spray system you will be able spray with smaller droplets, increase coverage and not worry about drift.

The spray patterns must overlap for even coverage but should not interfere with one another. Nozzles are set at a 10° angle so that one edge of its pattern will be just behind the edge of its adjacent spray pattern, evading interference with each other.

Typically as a tip wears the spray pattern distorts output volumes usually increase and the droplet characteristics change. Recalibration may correct for output changes, but cannot correct for spray pattern changes or the drop size generated.

Caution: When spraying next to a flower bed, do not spray over the turf edge as the spray will go under the curtain and onto the flowers.
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Diaphragm Check Valve Nozzle Bodies

Diaphragm check valves close at approximately 15 psi (1 bar) to prevent excessive dripping. Should the cap on the valve loosen or the check valve diaphragm become misaligned, the body may leak. Stop the leak by, tightening the check valve cap or remove the cap and inspect the seal for damage or improper assembly.

To check for defective check valves when the spraying stop control has been actuated, the volume that drips from each nozzle should not exceed 2ml timed over a 5 minute period. The measuring is to start 8 seconds after the flow to the spray boom is shut off.

Nozzle caps are attached by engaging the cap and turning clockwise about a third of a turn. Self-aligning caps have a slot to align the tips. Ensure that the tips fit down into the slotted hole before installing caps on the diaphragm nozzle body assembly with the tip screens.

Non-aligning caps are also available for special tips.

Calibration

As a tip wears recalibration may be required. Collect the output from each nozzle for 60 seconds, using an accurate measuring cup. Use clear water for all testing. Record the output from each nozzle. Replace nozzles that are more than 5% above or below the average reading, or has a visibly distorted pattern.

Capacities of Electric Walkers

Table 1 below shows the range of tips that can be used in the 3 models of electric walkers that allow the sprayer to reach 40 psi. The 3 foot walker (WE3/FE3) is capable of using 8001 tips to 8006 tips, the 6 foot walker (WE6/FE6) can run properly with only 8001 to 8003 tips. Please note that smaller tips result in better agitation, where as the larger tips give you more output but less agitation. Table 2 below shows application rates for various units, all of the calculations are based on a 3 mph walking speed. Table 3 shows the spray times for both the standard 5 and optional 10 USG tanks. In addition it shows the coverage per tank fill based on a 3 mph walking speed and 40 psi spray pressure.

Table 1

USABLE TIPS FOR THE WE/FE SERIES WALKERS

Tip Size for Electric Walkers	8001	80015	8002	8003	8004	8005	8006
WE3/FE3 - 3' Electric Walker	Yes	Yes	Yes	Yes	Yes	Yes	Yes
WE4/FE4 - 4' Electric Walker	Yes	Yes	Yes	Yes	Yes	Yes	No
WE6/FE6 - 6' Electric Walker	Yes	Yes	Yes	Yes	No	No	No

Table 2

APPLICATION RATES BASED ON WALKING SPEED OF 3 MPH.

Tip Size for Electric Walkers	8001	80015	8002	8003	8004	8005	8006
Application rate-Gallons per acre (GPA)	16.5	24.8	33	49.5	66	82.5	99
Application rate USG/1000sqft	0.38	0.57	0.76	1.13	1.51	1.89	2.27
Application rate Liters/Hectare	154	231	309	463	617	771	925

Table 3

SPRAY TIMES AND COVERAGES BASED ON WALKING SPEED OF 3 MPH

WE3 & FE3 MODELS

Tip Size for Electric Walkers	8001	80015	8002	8003	8004	8005	8006
5 USG TANK							
5 USG Tank Spray Time (min)	16.7	11.1	8.3	5.6	4.2	3.3	2.8
Coverage 3' Walker (Acres)	0.30	0.20	0.15	0.10	0.08	0.06	0.05
Coverage 3' Walker (Sq ft)	13,200	8,800	6,600	4,400	3,300	2,640	2,200
Coverage 3' Walker (Hectares)	0.123	0.082	0.061	0.041	0.031	0.025	0.020
10 USG TANK							
10 USG Tank Spray Time (min)	33.3	22.2	16.7	11.1	8.3	6.7	5.6
Coverage 3' Walker (Acres)	0.61	0.40	0.30	0.20	0.15	0.12	0.10
Coverage 3' Walker (Sq ft)	26,400	17,600	13,200	8,800	6,600	5,280	4,400
Coverage 3' Walker (Hectares)	0.245	0.164	0.123	0.082	0.061	0.049	0.041

Approximate Weight of WE Series

MODEL	Weight dry (lbs)	Weight dry (kg)	Wt w/5usg tank full (lbs)	Wt w/5usgal tank full (kg)	Wt w/10usg tank full (lbs)	Wt w/10usg tank full (kg)
FE3	57.6	26.1	99.3	45	141	63.9
FE4	63.4	28.8	105.1	47.7	146.8	66.6
FE6	71.4	32.4	113.1	51.3	154.8	70.2

Application rate tables (American & Metric)

American Application Rates at 12" Nozzle Spacing 80 Deg. Tips

Rogers Part #	Tip Number	Tip Mfg	Liquid Press psi	Liquid Press bars	Capacity 1 nozzle gpm	U. S. GALLONS PER ACRE					U. S. GALLONS PER 1000 SQ. FT.				
						2.5	3	4	5	7	2.5	3	4	5	7
						mph	mph	mph	mph	mph	mph	mph	mph	mph	mph
05872	800067SS (200 mesh)	Teejet	30	2.07	0.058	11.5	9.6	7.2	5.7	4.1	0.26	0.22	0.16	0.13	0.09
			40	2.76	0.067	13.3	11.1	8.3	6.6	4.7	0.30	0.25	0.19	0.15	0.11
			50	3.45	0.075	14.8	12.4	9.3	7.4	5.3	0.34	0.28	0.21	0.17	0.12
			60	4.14	0.082	16.2	13.5	10.2	8.1	5.8	0.37	0.31	0.23	0.19	0.13
01369	8001VS (100 mesh)	Teejet	30	2.07	0.087	17.1	14.3	10.7	8.6	6.1	0.39	0.33	0.25	0.20	0.14
			40	2.76	0.100	19.8	16.5	12.4	9.9	7.1	0.45	0.38	0.28	0.23	0.16
			50	3.45	0.112	22.1	18.4	13.8	11.1	7.9	0.51	0.42	0.32	0.25	0.18
			60	4.14	0.122	24.2	20.2	15.2	12.1	8.7	0.56	0.46	0.35	0.28	0.20
00827 13351	80015VS or API-80015 (100 mesh)	Teejet	30	2.07	0.130	25.7	21.4	16.1	12.9	9.2	0.59	0.49	0.37	0.29	0.21
			40	2.76	0.150	29.7	24.8	18.6	14.9	10.6	0.68	0.57	0.43	0.34	0.24
		Albuz	50	3.45	0.168	33.2	27.7	20.8	16.6	11.9	0.76	0.63	0.48	0.38	0.27
			60	4.14	0.184	36.4	30.3	22.7	18.2	13.0	0.83	0.69	0.52	0.42	0.30
05876 14384	8002VS or AXI-8002 (50 mesh)	Teejet	30	2.07	0.173	34.3	28.6	21.4	17.1	12.2	0.79	0.65	0.49	0.39	0.28
			40	2.76	0.200	39.6	33.0	24.8	19.8	14.1	0.91	0.76	0.57	0.45	0.32
		Albuz	50	3.45	0.224	44.3	36.9	27.7	22.1	15.8	1.01	0.84	0.63	0.51	0.36
			60	4.14	0.245	48.5	40.4	30.3	24.2	17.3	1.11	0.93	0.69	0.56	0.40
05877 14385	8003VS or AXI-8003 (50 mesh)	Teejet	30	2.07	0.260	51.4	42.9	32.2	25.7	18.4	1.18	0.98	0.74	0.59	0.42
			40	2.76	0.300	59.4	49.5	37.1	29.7	21.2	1.36	1.13	0.85	0.68	0.49
		Albuz	50	3.45	0.335	66.4	55.3	41.5	33.2	23.7	1.52	1.27	0.95	0.76	0.54
			60	4.14	0.367	72.7	60.6	45.5	36.4	26.0	1.67	1.39	1.04	0.83	0.59
05878 14061	8004VS or AXI-8004 (50 mesh)	Teejet	30	2.07	0.346	68.6	57.2	42.9	34.3	24.5	1.57	1.31	0.98	0.79	0.56
			40	2.76	0.400	79.2	66.0	49.5	39.6	28.3	1.81	1.51	1.13	0.91	0.65
		Albuz	50	3.45	0.447	88.5	73.8	55.3	44.3	31.6	2.03	1.69	1.27	1.01	0.72
			60	4.14	0.490	97.0	80.8	60.6	48.5	34.6	2.22	1.85	1.39	1.11	0.79
05879 14386	8005VS or AXI-8005 (50 mesh)	Teejet	30	2.07	0.433	85.7	71.4	53.6	42.9	30.6	1.96	1.64	1.23	0.98	0.70
			40	2.76	0.500	99.0	82.5	61.9	49.5	35.4	2.27	1.89	1.42	1.13	0.81
		Albuz	50	3.45	0.559	110.7	92.2	69.2	55.3	39.5	2.53	2.11	1.58	1.27	0.91
			60	4.14	0.612	121.2	101.0	75.8	60.6	43.3	2.78	2.31	1.74	1.39	0.99
05880 14387	8006VS or AXI-8006 (50 mesh)	Teejet	30	2.07	0.520	102.9	85.7	64.3	51.4	36.7	2.36	1.96	1.47	1.18	0.84
			40	2.76	0.600	118.8	99.0	74.3	59.4	42.4	2.72	2.27	1.70	1.36	0.97
		Albuz	50	3.45	0.671	132.8	110.7	83.0	66.4	47.4	3.04	2.53	1.90	1.52	1.09
			60	4.14	0.735	145.5	121.2	90.9	72.7	52.0	3.33	2.78	2.08	1.67	1.19

Metric Application Rates at 12" Spacing (0.3 meters)
80 Deg. Tips

Rogers Part #	Tip Number	Tip Mfg	Liquid Press psi	Liquid Press bars	Capacity 1 nozzle gpm	U. S. GALLONS PER ACRE					Liters/Hectare				
						2.5	3	4	5	7	4	4.8	6.4	8	11.2
						mph	mph	mph	mph	mph	kph	kph	kph	kph	kph
05872	800067SS (200 mesh)	Teejet	30	2.07	0.058	11.5	9.6	7.2	5.7	4.1	107	90	67	54	38
			40	2.76	0.067	13.3	11.1	8.3	6.6	4.7	124	103	78	62	44
			50	3.45	0.075	14.8	12.4	9.3	7.4	5.3	139	116	87	69	50
			60	4.14	0.082	16.2	13.5	10.2	8.1	5.8	152	127	95	76	54
01369	8001VS (100 mesh)	Teejet	30	2.07	0.087	17.1	14.3	10.7	8.6	6.1	160	134	100	80	57
			40	2.76	0.100	19.8	16.5	12.4	9.9	7.1	185	154	116	93	66
			50	3.45	0.112	22.1	18.4	13.8	11.1	7.9	207	172	129	103	74
			60	4.14	0.122	24.2	20.2	15.2	12.1	8.7	227	189	142	113	81
00827 13351	80015VS or API-80015 (100 mesh)	Teejet	30	2.07	0.130	25.7	21.4	16.1	12.9	9.2	240	200	150	120	86
			40	2.76	0.150	29.7	24.8	18.6	14.9	10.6	278	231	174	139	99
		Albuz	50	3.45	0.168	33.2	27.7	20.8	16.6	11.9	310	259	194	155	111
			60	4.14	0.184	36.4	30.3	22.7	18.2	13.0	340	283	213	170	121
05876 14384	8002VS or AXI-8002 (50 mesh)	Teejet	30	2.07	0.173	34.3	28.6	21.4	17.1	12.2	321	267	200	160	115
			40	2.76	0.200	39.6	33.0	24.8	19.8	14.1	370	309	231	185	132
		Albuz	50	3.45	0.224	44.3	36.9	27.7	22.1	15.8	414	345	259	207	148
			60	4.14	0.245	48.5	40.4	30.3	24.2	17.3	453	378	283	227	162
05877 14385	8003VS or AXI-8003 (50 mesh)	Teejet	30	2.07	0.260	51.4	42.9	32.2	25.7	18.4	481	401	301	240	172
			40	2.76	0.300	59.4	49.5	37.1	29.7	21.2	555	463	347	278	198
		Albuz	50	3.45	0.335	66.4	55.3	41.5	33.2	23.7	621	517	388	310	222
			60	4.14	0.367	72.7	60.6	45.5	36.4	26.0	680	567	425	340	243
05878 14061	8004VS or AXI-8004 (50 mesh)	Teejet	30	2.07	0.346	68.6	57.2	42.9	34.3	24.5	641	534	401	321	229
			40	2.76	0.400	79.2	66.0	49.5	39.6	28.3	741	617	463	370	264
		Albuz	50	3.45	0.447	88.5	73.8	55.3	44.3	31.6	828	690	517	414	296
			60	4.14	0.490	97.0	80.8	60.6	48.5	34.6	907	756	567	453	324
05879 14386	8005VS or AXI-8005 (50 mesh)	Teejet	30	2.07	0.433	85.7	71.4	53.6	42.9	30.6	802	668	501	401	286
			40	2.76	0.500	99.0	82.5	61.9	49.5	35.4	926	771	579	463	331
		Albuz	50	3.45	0.559	110.7	92.2	69.2	55.3	39.5	1035	862	647	517	370
			60	4.14	0.612	121.2	101.0	75.8	60.6	43.3	1134	945	709	567	405
05880 14387	8006VS or AXI-8006 (50 mesh)	Teejet	30	2.07	0.520	102.9	85.7	64.3	51.4	36.7	962	802	601	481	344
			40	2.76	0.600	118.8	99.0	74.3	59.4	42.4	1111	926	694	555	397
		Albuz	50	3.45	0.671	132.8	110.7	83.0	66.4	47.4	1242	1035	776	621	444
			60	4.14	0.735	145.5	121.2	90.9	72.7	52.0	1360	1134	850	680	486

Speed Test tables

Run a speed test in the area to be sprayed. The sprayer must be up to speed before starting the test run. To determine the speed mark off a distance as found on one of the tables. Push the sprayer over this distance carefully noting and recording the time to cover the distance. The speed traveled can be found for the specific distance and time to travel using the tables below.

After the nozzles have been individually checked and matched, the sprayer should be calibrated to determine the correct speed for the desired application volume. To get area covered multiply the width (FE3 – 3ft(.91m), FE4 – 4ft(1.22m),

Table 4: Time in Seconds to Travel Distance of:

	10	25	50	100	200
mph	(ft)	(ft)	(ft)	(ft)	(ft)
1	6.8	17.0	34.1	68.2	136.0
1.5	4.5	11.4	22.7	45.5	90.9
2	3.4	8.5	17.0	34.1	68.2
2.5	2.7	6.8	13.6	27.3	54.5
3	2.3	5.7	11.4	22.7	45.5
4	1.7	4.3	8.5	17.0	34.1
5	1.4	3.4	6.8	13.6	27.3
6	1.1	2.8	5.7	11.4	22.7

Table 5: Time in Seconds to Travel a Distance of:

	10	25	50	100	200
Km/h	(m)	(m)	(m)	(m)	(m)
1	36.0	90.0	180.0	360.0	720.0
1.5	24.0	60.0	120.0	240.0	480.0
2	18.0	45.0	90.0	180.0	360.0
2.5	14.4	36.0	72.0	144.0	288.0
3	12.0	30.0	60.0	120.0	240.0
4	9.0	22.5	45.0	90.0	180.0
5	7.2	18.0	36.0	72.0	144.0
6	6.0	15.0	30.0	60.0	120.0

Note: Tip pressure is usually less than the pressure at the pump. Losses occur in valves, hoses, etc. Always check the flow by the above calibration method.

General Maintenance

Cleaning

Sprayers need to be cleaned to prevent corrosion and cross contamination of chemicals. Trace amounts of one chemical can react with another or carry over to the next spraying and cause crop damage, especially with pesticides. Long exposures with even small amounts of some chemicals can damage sprayer components either by corrosion or gum deposits. If you spray crops that are very susceptible to injury from the last chemical used (ie vegetables, turf, and ornamentals) clean the unit especially well.

Always try to end the day with an empty tank; avoid contamination of water supplies and injury to plants or animals. Do not make puddles that might be accessible to children, pets, farm animals, or wildlife. Flush with clean water preferably after each day's operation. If you plan to use the same material over several days most chemicals may be kept in the tank overnight, labels on the chemical usually indicates which may not. Rinse the outside of the sprayer. Surfactants combined with chemicals, when they are compatible, will provide some cleaning action in the sprayer.

Some chemical combinations (especially if oil is used) may produce a putty type paste (buttering out) in the sprayer tank and components; flushing with water after each load may prevent an accumulation. If water alone does not dissolve and remove the buildup, add solvent, kerosene, or other low flammable solvent; allow paste to dissolve, then agitate and flush. Next, flush with detergent and finally with clean water. Check with your chemical agent.

Whenever pesticides are changed, or before sprayer storage, clean sprayers thoroughly with a cleaning solution. The solution used depends on the chemical to be removed from the sprayer. Check the chemical label for cleaning instructions.

First flush with water, then add the cleaning solution to the tank and thoroughly agitate before flushing. Always flush with clean water to remove the cleaning solution. Remove nozzle tips and screens; clean them in a strong detergent solution or kerosene, using a soft brush such as an old toothbrush. Never use a metal probe to clean the orifice of a spray tip!

Follow the same safety precautions during cleaning as for applications. Use a respirator, rubber gloves, or other protective gear as may be directed by label instructions.

If a nozzle becomes blocked, turn the sprayer off. Note that the spray lines could still be pressurized therefore prior to removing the cap on the nozzle body, proper safety equipment should be worn, (ie gloves, eye protection, etc).

Sunshine

Many plastic sprayer parts are degraded by ultra violet light, especially the nozzle flow indicators. Store the sprayer in the shade to extend the length of service.

Winterizing

After the sprayer is thoroughly cleaned, put 2-5 gallons (7-19 litres) of rust inhibitor or antifreeze in the tank prior to the final flushing to help prevent corrosion. As the water is pumped from the sprayer, the antifreeze will leave a protective coating on the inside of the tank, pump, and plumbing. Remove nozzle tips, screens and no-drip valves (if used) and store them in a can of light oil such as diesel fuel or kerosene to prevent corrosion. Close nozzle openings with tape to prevent dirt, insects, mice, or other contaminants from entering.

During the final cleaning, completely check the sprayer. Look at the hoses, clamps, connections, nozzle tips, and screens for needed replacements. Store the sprayer in a reasonably clean and dry building.

Assembly

There is more than one way to successfully assemble your **Falcon** sprayer. Following the outlined steps will help to ensure a simple, trouble free assembly. All assembly references to left and right are referring to the sprayer left and right when facing the rear of the sprayer. Two people are required to remove sprayer from carton, or for any general lifting of the equipment (ie lifting into transport).

Front Wheel Installation

- ⇒ See General Assembly drawing for layout.
- ⇒ Locate four, (4) holes on the front of the sprayer, two, (2) to each side of the Windfoil logo.
- ⇒ Bolt the front wheel mount to these holes.
- ⇒ Slide front castor fork through castor bushing and insert cotter pins to secure.
- ⇒ Grease castor prior to use if required.
- ⇒ Install all three poly wheels.

Handle Attachment

- ⇒ Place the handle in position so that the tube is on the outside of the mounting plates.
- ⇒ Bolt handle into place.
- ⇒ Plug in pump wire harness

Hose & Tank

- ⇒ Thread one end of hose (1/2" FNPT) into bottom fitting on tank (if required). Insert other end into input on pump (left side), slide lock down to clamp into place.
- ⇒ Set tank on brackets, studs in tank should line up with holes on brackets. Secure with 1/4" nylock nuts.

Last Check

- ⇒ Recheck all assembled parts for completeness and secure connections.
- ⇒ Locate the grease nipple on the front caster wheel and grease it.
- ⇒ Your sprayer is now ready for a wet test, to ensure complete operation

Operation

Stainless Steel insert tips are supplied with the **Falcon FE series**; it can also use ceramic, brass or plastic insert tips that give an actual 80° spray pattern.

With the unit fully assembled, attach the battery clips to the battery on the front of the unit. (be sure that the toggle switch on the handle bar is off, pump should not run once clips are on battery). (NOTE: red clip is for positive post on battery). With liquid in the tank, loosen the pressure regulator fully, ie loosen lock nut on regulator and turn top knob on pressure regulator counter clockwise. Next turn unit on by flipping the switch on the handle bar, slowly tighten pressure regulator (turn clockwise) until pressure on gauge rises to 40 psi (3 bar). (NOTE: to obtain optimum pattern, you should always try and operate your spray nozzles as close to 40 psi (3bar) as possible). Due to losses in the system you might want to run your system at 42-43 psi, this should give you close to 40 psi at the tip. (NOTE: Be careful not to run the pump on an empty tank, this could cause a vapour lock in the system. To fix the problem, make sure there is something in the tank, remove the output supply hose on the pump and start the system, take precautions as your chemical will start coming through the pump, once the liquid starts flowing shut the system off, reconnect the line and continue spraying). Watch each of the balls in the flow indicator as you spray, they should all raise to an equal level. If they are not equal the lower ball(s) indicated tips that are plugged or partially plugged. Check and clean the appropriate tip(s). If the balls are right at the top, the flow rate is too high for them. Replace them with the required balls for the tips (see the flow monitor page).

Test the unit using clear water on a firm surface such as asphalt or concrete before using spray solution. This will illustrate the effectiveness of the individual spray patterns.

Note: As this is a self contained sprayer with a small tank and does not have a separate fresh water tank, it is recommended that when filling and working with chemicals a fresh water supply is always kept in close proximity for safety reasons.

Battery

A 12 volt battery is not supplied with the sprayer. The recommended battery is a sealed, deep cycle battery with bolt on connections, but any small utility battery will work. Recommended battery dimensions are approximately 8" long x 5" wide x 6" high.

Maintenance

Cleaning and flushing with clear water after using.

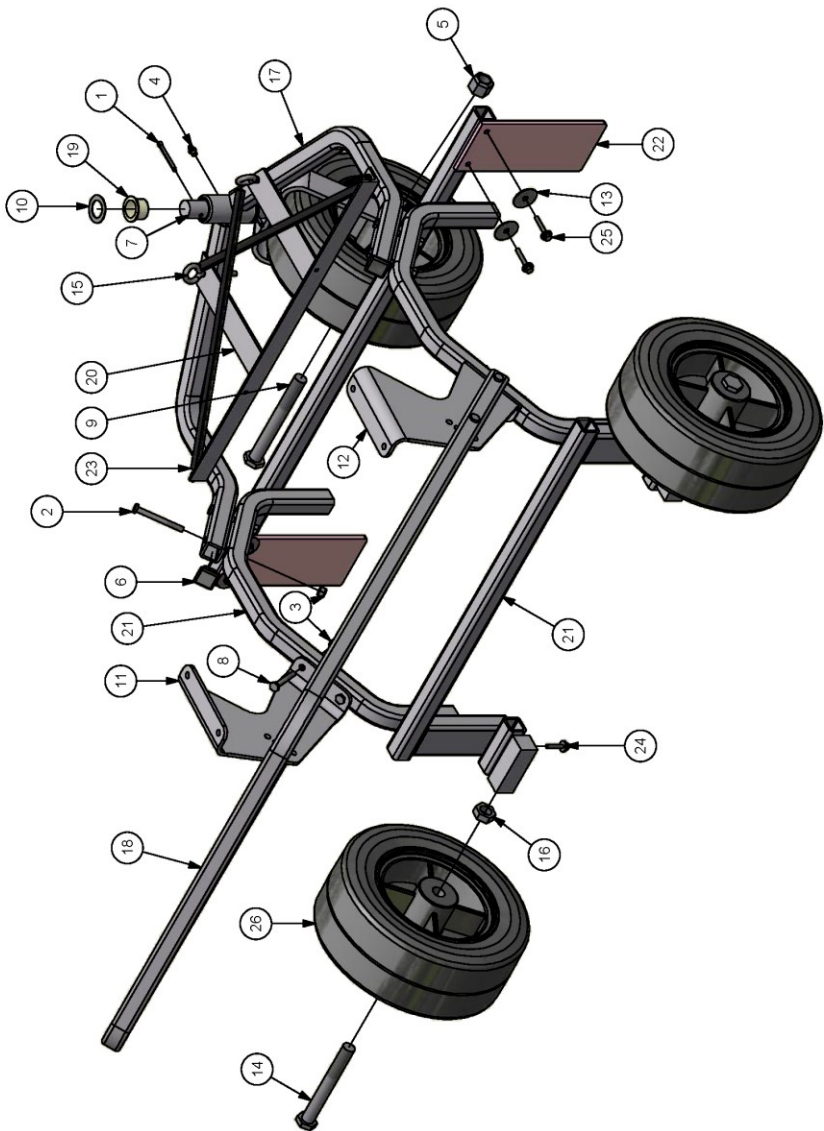
Do not leave water in the unit at freezing temperatures. When storing the sprayer at freezing temperatures, run some windshield washer antifreeze through to prevent ice damage in the plastic parts.

Avoid storage of your sprayer in direct sunlight for prolonged periods. Certain plastic parts on the **Falcon FE** are not UV resistant.

Keep the unit covered or stored indoors.

FE3 Frame Assembly

Parts List			
ITEM	QTY	PART#	DESCRIPTION
1	2	00965	PIN STL COTTER 3/16"x1-1/2"
2	4	00966	BOLT, 1/4NCX2.5, PLD
3	14	00968	NUT, NYLOCK 1/4" PLD
4	1	00972	FTG, STL GREASE NIPPLE, 1/4NF
5	1	01051	NUT, NYLOCK, 5/8NC, PLD
6	2	01056	PLUG, 1" SQ PLASTIC
7	1	01599	CASTOR WHEEL, LP
8	8	05409	BOLT, 1/4NCX1.75, PLD
9	1	05459	BOLT, 5/8X5.5", PLD
10	2	05593	WASHER MACHINE, 1-3/8X7/8
11	1	07134L	TANK MOUNT WALKER LEFT
12	1	07134R	TANK MOUNT WALKER RIGHT
13	4	09754	WASHER, 1/4" FENDER
14	2	12387	BOLT, 5/8X5", PLD
15	2	12684	EYEBOLT 1/4-20X3X3/8"
16	2	13709	NUT, JAM 5/8NC, PLD
17	1	14028	CASTOR MOUNT ASSEMBLY
18	1	14184	HANDLE ASSBY, SQR
19	2	14212	BUSHING IG 1.0x.875x.75" W/FLANGE
20	1	14216	BATTERY SUPPORT
21	1	14256	FRAME LP3
22	2	14261	CURTAIN SUPPORT LP FRONT
23	2	14264	STRAP TARP RUBBER 9"
24	4	14471	SCREW TEK #12X1
25	4	14472	SCREW TEK #12X1-1/4
26	3	14475	WHEEL POLY LD



PART #15188
FRONT CASTOR MNT ASSY

DRAWN: P. FREDERIKSEN	ROGERS SPRAYERS INC.		
DATE: 10/11/2005	TITLE FRAME ASSY DRAWING, FE3 WE3		
BY: P. FREDERIKSEN	DWG NO. 15198		
REVISION #	SCALE 1:1		
	MATERIAL		SIZE A

Shroud Assembly

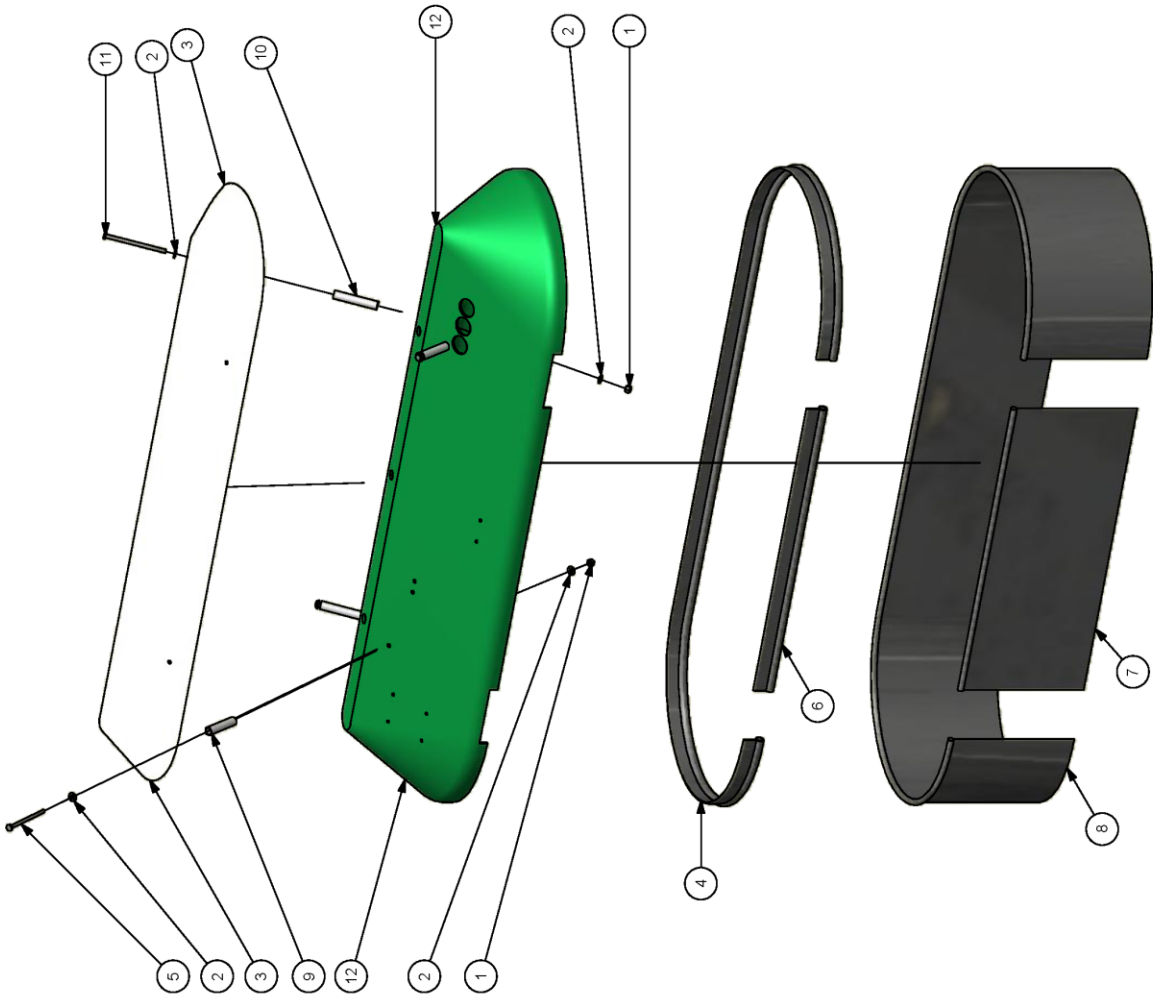
Parts List		
ITEM	QTY	PART# DESCRIPTION
1	4	00988 NUT, NYLOCK 1/4" PLD
2	8	01157 WASHER FLAT, 1/4"
3	1	01500 AIRFOIL 48" w/holes
4	1	02566 FLEXSHIELD HANGER 91"
5	2	05415 BOLT, 1/4NCX4, PLD
6	1	14267 FLEXSHIELD HANGER, 23.5"
7	1	14270 FLEXSHIELD 9.625" x 23.5"
8	1	14271 FLEXSHIELD 9.625" x 91"
9	2	14843 AIRFOIL STANDOFF BACK CPVC
10	2	14844 AIRFOIL STANDOFF FRONT CPVC
11	2	14845 BOLT, 1/4NCX4.5, PLD
12	1	15190 SHROUD FE3, DEL

TO ATTACH SHROUD TO FRAME AND EXTRUSION USE:

QTY	PART #	DESCRIPTION
7	14472	SCREW TEK #12 x 1-1/4"
8	01152	SCREW MACH. #10-24X3/4"
8	01153	NUT NYLOCK #10 PLD
4	05804	RIVET, POP

Decals:

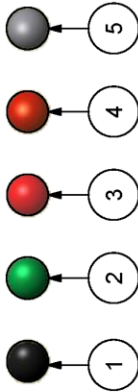
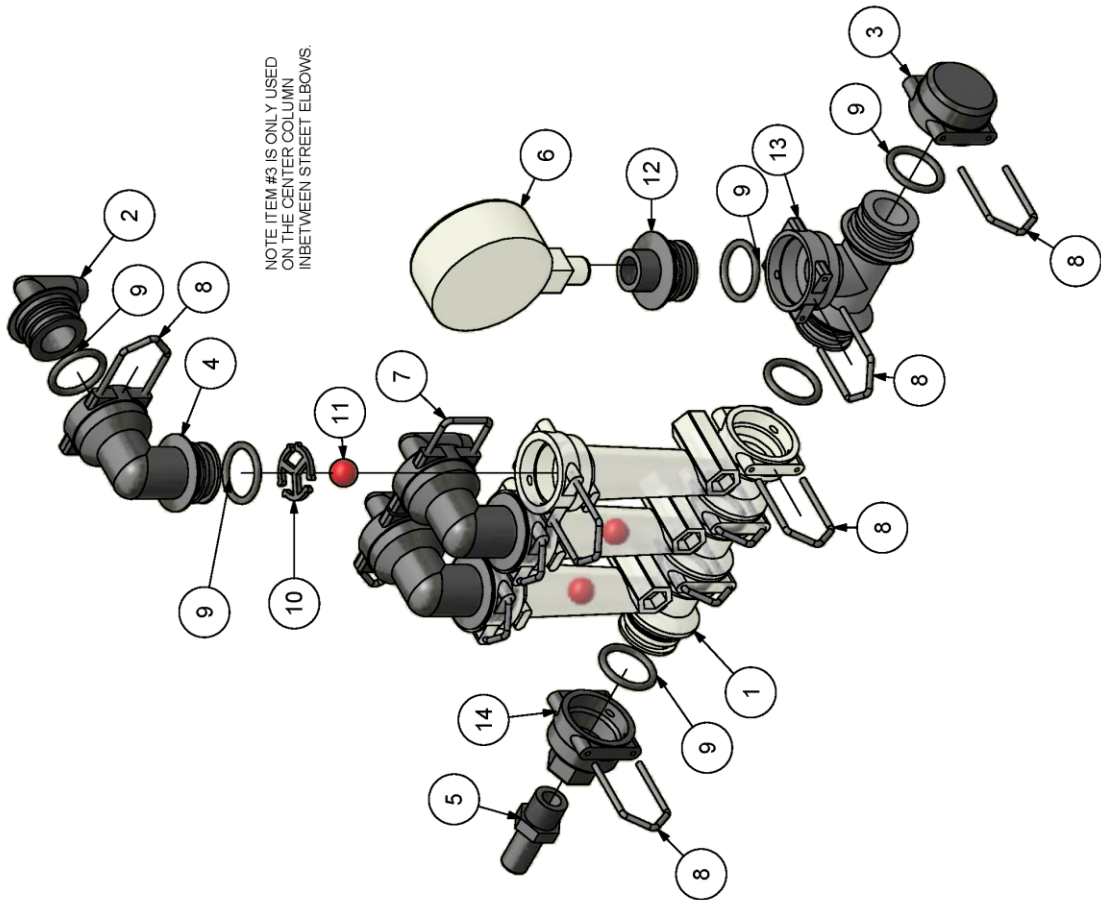
2	01396	DECAL, WINDFOIL LOGO
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DRAWN: P. FREDERIKSEN		ROGERS SPRAYERS INC.	
DATE: 01/12/12		TITLE: SHROUD ASSEMBLY DRAWING, FE3	
DESIGN: J. FREDERIKSEN		DWG NO: 15196	
LOW PROFILE		SCALE: MATERIAL: SIZE: A	
REVISION #			

Flow Monitor Assembly

PARTS LIST - FLOW MONITOR ASSBY		
ITEM	QTY	DESCRIPTION
1	3	00889 FLOWMONITOR ORC BODY
2	3	00906 FTG POLY ELB MORC x 1/2HB
3	1	00909 FTG POLY ORC CAP
4	3	01115 FTG POLY ELB ST MORC x FORC
5	1	01206 FTG POLY ADPT 3/8MNPTx1/2HB
6	1	01281 PRESSURE GAUGE
7	1	11976 ORC CLIP FLAT
8	11	11976a ORC CLIP A STYLE
9	12	11984 O-RING ORC
10	3	11989 ORC BALL RETAINER
11	3	11990 BALL FI CELCON 0.09-0.3 USGPM
12	1	12727 FTG POLY ADPT MORC x 1/4FNPT
13	1	13675 FTG POLY TEE ORC M/M/F
14	1	14424 FTG WIL POLY CAP W-3/8FNPT

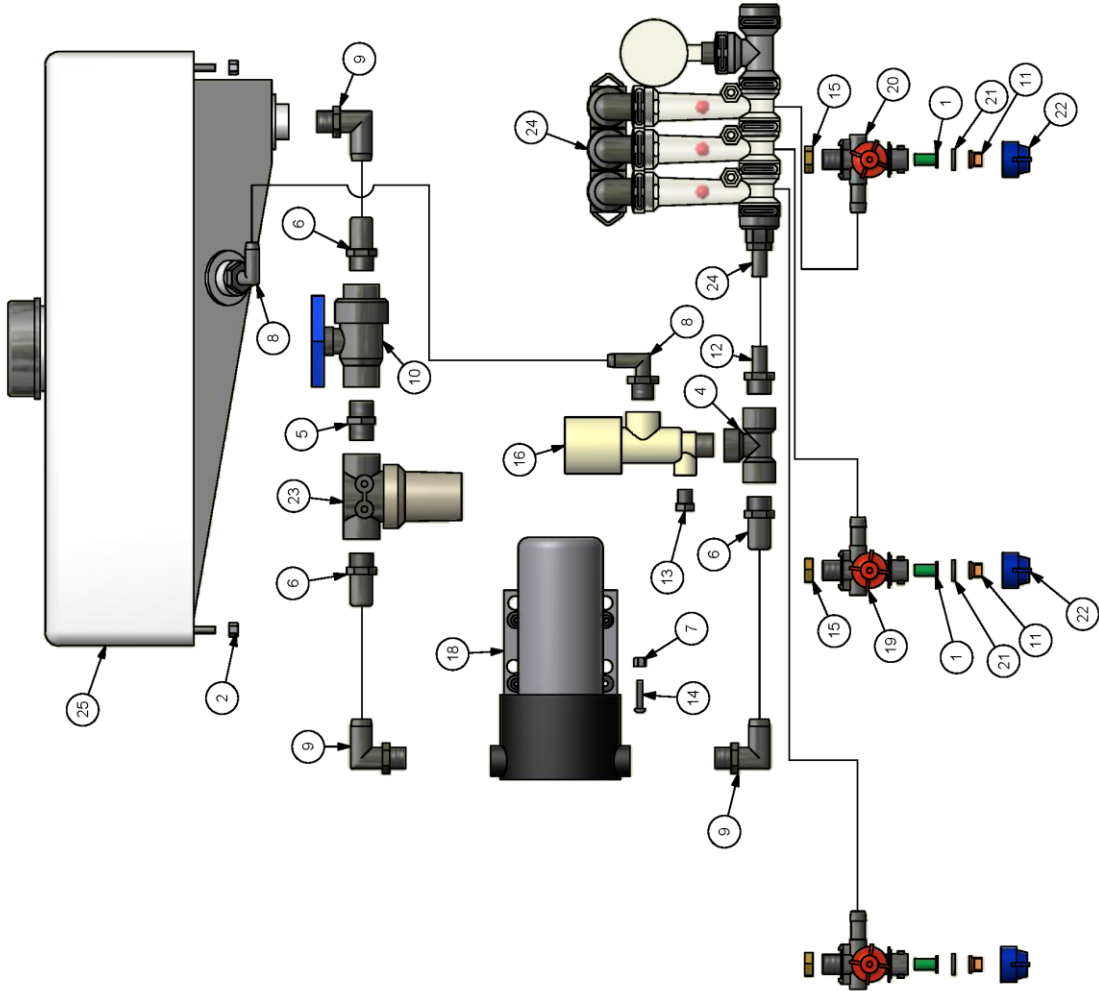


PARTS LIST - OPTIONAL FLOW MONITOR BALLS		
ITEM	QTY	DESCRIPTION
1	1	01118 BALL FI POLY 0.03-0.09 USGPM
2	1	01119 BALL FI POLY 0.05-0.18 USGPM
3	1	11990 BALL FI CELCON 0.09-0.3 USGPM
4	1	11965 BALL FI GLASS 0.31-0.72 USGPM
5	1	11991 BALL FI SS 1/2" 0.31-1.3 USGPM

DRAWN: KIERVIN BLINSKI		ROGERS SPRAYERS INC.	
DATE: 08/06/06	LOCATION: PLUMBING	TITLE: FLOWMONITOR ASSY 3 COL. ELEC.	
REVISION #	14826	DWG NO	
SCALE: 1/3	MATERIAL	SIZE	

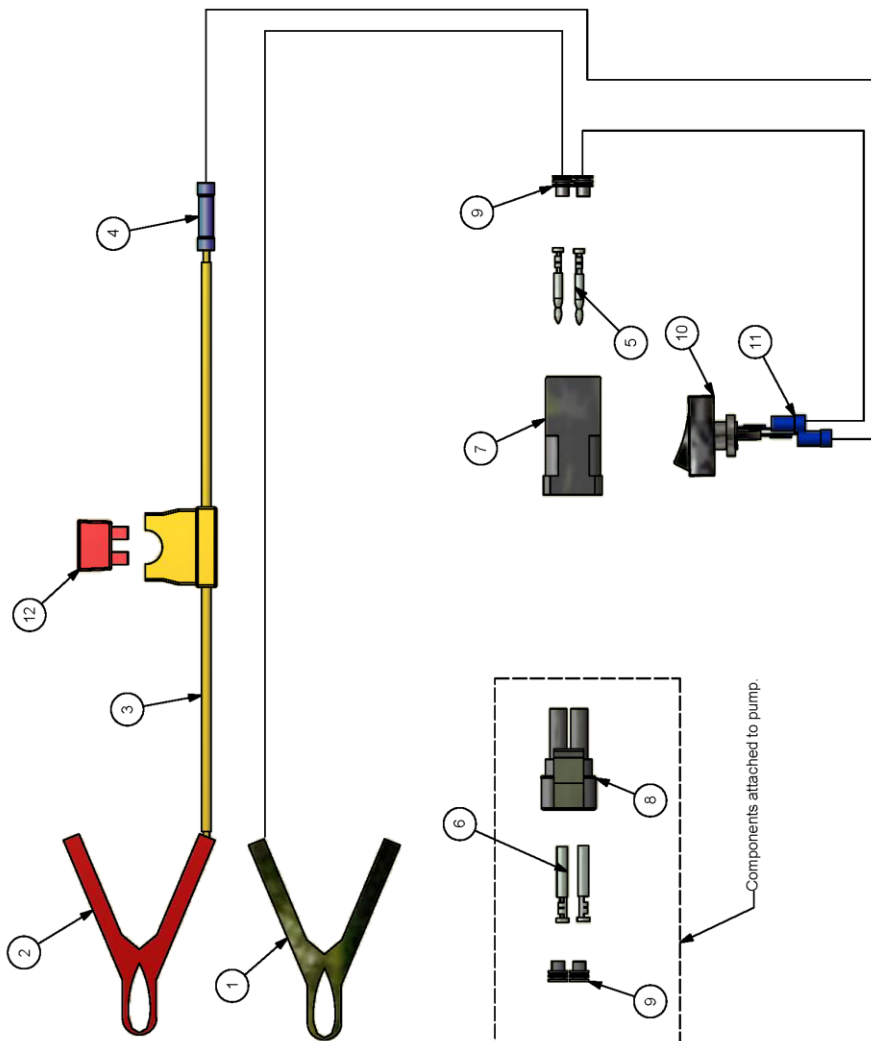
Plumbing Assembly

Parts List		
ITEM	QTY	DESCRIPTION
1	3	SCREEN, TIP 100 MESH
2	6	NUT, NYLOCK 1/4" PLD
3	2	BOLT, 1/4X2, PLD
4	1	FTG POLY TEE 1/2NPT F/F
5	1	FTG POLY NIPPLE 1/2MNPT/MNPT
6	3	FTG POLY ADPT 1/2MNPTx3/4HB
7	4	NUT, NYLOCK #10-24 PLD
8	2	FTG POLY ELB 1/2MNPTx1/2HB
9	3	FTG POLY ELB 1/2MNPTx3/4HB
10	1	VALVE BALL POLY 1/2FRPT
11	3	TIP 8001VS ORANGE
12	1	FTG POLY ADPT 1/2MNPTx1/2HB
13	1	FTG POLY PLUG, 3/4MNPT
14	4	SCREW MACH. #10-24x1, TRUSS
15	3	NUT BRASS, 11/16"
16	1	REGULATOR PRESSURE NYLON 1/2"
17	1	PLATE BACK FLOWMONITOR WING
18	1	PUPM 12V DEL 5650 SERIES
19	2	NOZZLE BODY T.115R
20	1	NOZZLE BODY, T.115L
21	3	SEAL NOZZLE CAP, TJ
22	3	CAP T.115B BLUE
23	1	STRAINER LINE 1/2 COMPACT W/M/T
24	1	FLOWMONITOR ASSY 3 COOL. ELEC.
25	1	TANK RECT 5.0 USG WE/FE



DRAWN:	ROGERS SPRAYERS INC.
DATE:	TITLE
APPROVED:	PLUMBING ASSBY FEWE3
LOCATION:	DWG NO
PLUMBING:	14830
REVISION #	SCALE
	BEST FIT
	MATERIAL
	SIZE

Electrical Assembly



Parts List			
ITEM	QTY	PART#	DESCRIPTION
1	1	13256	CLIP ALLIGATOR BATTERY BLK
2	1	13257	CLIP ALLIGATOR BATTERY RED
3	1	01268	FUSE HOLDER INLINE BLADE 12Ga
4	1	09323	CONN BUTT 14-16 Ga
5	2	01215	TERMINAL 14-16 GAGE M
6	2	01219	TERMINAL 14-16 GAGE F
7	1	01274	CONNECTOR WEATHER-PAK 2M
8	1	01276	CONNECTOR WEATHER-PAK 2F
9	4	01216	SEAL SILICONE GREY, 14-16 Ga
10	1	14245	SWITCH TOGGLE MARINE ROCKER
11	2	05228	CONNECTOR SPADE 14-16 Ga M
12	1	05208	FUSE BLADE 10 AMP 12V

DRAWN: MIER WILINSKI	ROGERS SPRAYERS INC.		
DATE: 10/07/2005	TITLE ELECTRIC WALKER ASSEMBLY		
BY: ELECTRICAL	DWG NO 12737		
REVISION #			
	SCALE	MATERIAL	SIZE A

Optional Parts for WE/FE Series Sprayer

10 US Gallon Tank Upgrade

Part # 14302

This tank is a direct drop-in for the standard 5 US gallon tank that comes standard on all WE/FE series sprayers. It provides twice the spraying time while still retaining the sprayers agility. This part can be ordered to be installed from factory or is easily installed later.



Tow Hitch Upgrade

Part # F111

This attachment allows you to tow your sprayer behind a small utility vehicle outfitted with a pin hitch. The hitch attaches to a mounting bracket located on the front castor wheel of the sprayer. Tow bar installs and removes in seconds.

*Note: It is not recommended to tow the unit with full tank and battery installed.



Speedometer Kit

Part # 13368

The Speedometer Kit provides a reading in mph or kph of your forward speed. This aids in the accuracy of applying specific application rates. This option can be ordered installed from factory or later on as a kit.



Sprayer Wand Kit

Part # 13357

The Wand Kit is a very handy device that allows the operator to spot spray directly from their WE/FE series sprayer. Includes spray wand, 25' coil hose, ball valve, handle bar hook, and necessary fittings to tap into existing plumbing. This option can be ordered installed from factory or as a kit.

Optional Flow Monitor Balls

See *Flow Monitor Assembly Drawing* for Part Numbers

Various colors and weights of balls are available to assist accurate viewing of the flow indicators. I.e. Heavier balls are used for larger application rates.

EC Declaration of Conformity

WE,

Rogers Sprayers Inc.
141 - 105th St East
Saskatoon, Saskatchewan, S7N 1Z2
Canada

declare that the following products

Machine Type: Rear mounted spray boom

Model: WGF11, FGF11, WA5000E, WA5000, FA5000E, FA5000

Machine Type: Pedestrian Boom

Model: WG3, WG4, WG6, FG3, FG4, FG5

Machine Type: Pedestrian Spray Boom

Model: WE3, WE4, WE6, FE3, FE4, FE6

is in conformity with the provisions of the following European Directive(s)

Directive	Number	Certification Method
Machinery Directive	98/37/EC	Self-Certification
Machinery Directive	2006/42/EC	Self-Certification

And the following Standard:

SS-EN 907
EN ISO 4254-1:2009
EN ISO 4254-6:2009

The original copy of this document is kept at Rogers Sprayers Inc. with copies of the relevant test data and certificates, which constitute the required technical file for self declaration.

Place of declaration: Saskatoon, Saskatchewan, Canada
Date of declaration: May 3, 2011



Name: Mervin Bilinski, P. Eng.
Title: President
Rogers Sprayers Inc.



ROGERS SPRAYERS INC.

141 - 105th Street East
Saskatoon, SK S7N 1Z2
Canada

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