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FG6 Falcon Greensap

6-ft Covered Hose-fed Sprayer



Assembly, Parts and Operator's Manual

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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 ceramic insert tips. These tips are considered by most to be the best in the industry for wear resistance and spray pattern coefficient of variation. Please contact your manufacturer for various sizes of tips available for your machine.

Ensure that the pressure on the supply end of the hose used on hose reels is sufficient to deliver the proper pressure at the hand unit on the delivery end of the hose.

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 FG 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.

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.

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.

Diaphragm Check Valve Nozzle Bodies

Diaphragm check valves close at 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.

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 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.

Application Rates, 12" Spacing

80 Deg. Tips

| Rogers Part # | Tip Number | Liquid Press psi | Capacity 1 nozzle gpm | U. S. GALLONS PER ACRE | | | | | U. S. GALLONS PER 1000 SQ. FT. | | | | | Press bars |
|------------------|--|------------------------|-----------------------------|------------------------|-------|-------|-------|-------|--------------------------------|------|------|------|------|---------------|
| | | | | 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) | 30 | 0.058 | 11.5 | 9.6 | 7.2 | 5.7 | 4.1 | 0.26 | 0.22 | 0.16 | 0.13 | 0.09 | 2.07 |
| | | 40 | 0.067 | 13.3 | 11.1 | 8.3 | 6.6 | 4.7 | 0.30 | 0.25 | 0.19 | 0.15 | 0.11 | 2.76 |
| | | 50 | 0.075 | 14.8 | 12.4 | 9.3 | 7.4 | 5.3 | 0.34 | 0.28 | 0.21 | 0.17 | 0.12 | 3.45 |
| | | 60 | 0.082 | 16.2 | 13.5 | 10.2 | 8.1 | 5.8 | 0.37 | 0.31 | 0.23 | 0.19 | 0.13 | 4.14 |
| 01369 | 8001VS (100 mesh) | 30 | 0.087 | 17.1 | 14.3 | 10.7 | 8.6 | 6.1 | 0.39 | 0.33 | 0.25 | 0.20 | 0.14 | 2.07 |
| | | 40 | 0.100 | 19.8 | 16.5 | 12.4 | 9.9 | 7.1 | 0.45 | 0.38 | 0.28 | 0.23 | 0.16 | 2.76 |
| | | 50 | 0.112 | 22.1 | 18.4 | 13.8 | 11.1 | 7.9 | 0.51 | 0.42 | 0.32 | 0.25 | 0.18 | 3.45 |
| | | 60 | 0.122 | 24.2 | 20.2 | 15.2 | 12.1 | 8.7 | 0.56 | 0.46 | 0.35 | 0.28 | 0.20 | 4.14 |
| 00827 13351 | 80015VS or API-80015 (100 mesh) | 30 | 0.130 | 25.7 | 21.4 | 16.1 | 12.9 | 9.2 | 0.59 | 0.49 | 0.37 | 0.29 | 0.21 | 2.07 |
| | | 40 | 0.150 | 29.7 | 24.8 | 18.6 | 14.9 | 10.6 | 0.68 | 0.57 | 0.43 | 0.34 | 0.24 | 2.76 |
| | | 50 | 0.168 | 33.2 | 27.7 | 20.8 | 16.6 | 11.9 | 0.76 | 0.63 | 0.48 | 0.38 | 0.27 | 3.45 |
| | | 60 | 0.184 | 36.4 | 30.3 | 22.7 | 18.2 | 13.0 | 0.83 | 0.69 | 0.52 | 0.42 | 0.30 | 4.14 |
| 05876 14384 | 8002VS or AXI-8002 (50 mesh) | 30 | 0.173 | 34.3 | 28.6 | 21.4 | 17.1 | 12.2 | 0.79 | 0.65 | 0.49 | 0.39 | 0.28 | 2.07 |
| | | 40 | 0.200 | 39.6 | 33.0 | 24.8 | 19.8 | 14.1 | 0.91 | 0.76 | 0.57 | 0.45 | 0.32 | 2.76 |
| | | 50 | 0.224 | 44.3 | 36.9 | 27.7 | 22.1 | 15.8 | 1.01 | 0.84 | 0.63 | 0.51 | 0.36 | 3.45 |
| | | 60 | 0.245 | 48.5 | 40.4 | 30.3 | 24.2 | 17.3 | 1.11 | 0.93 | 0.69 | 0.56 | 0.40 | 4.14 |
| 05877 14385 | 8003VS or AXI-8003 (50 mesh) | 30 | 0.260 | 51.4 | 42.9 | 32.2 | 25.7 | 18.4 | 1.18 | 0.98 | 0.74 | 0.59 | 0.42 | 2.07 |
| | | 40 | 0.300 | 59.4 | 49.5 | 37.1 | 29.7 | 21.2 | 1.36 | 1.13 | 0.85 | 0.68 | 0.49 | 2.76 |
| | | 50 | 0.335 | 66.4 | 55.3 | 41.5 | 33.2 | 23.7 | 1.52 | 1.27 | 0.95 | 0.76 | 0.54 | 3.45 |
| | | 60 | 0.367 | 72.7 | 60.6 | 45.5 | 36.4 | 26.0 | 1.67 | 1.39 | 1.04 | 0.83 | 0.59 | 4.14 |
| 05878 14061 | 8004VS or AXI-8004 (50 mesh) | 30 | 0.346 | 68.6 | 57.2 | 42.9 | 34.3 | 24.5 | 1.57 | 1.31 | 0.98 | 0.79 | 0.56 | 2.07 |
| | | 40 | 0.400 | 79.2 | 66.0 | 49.5 | 39.6 | 28.3 | 1.81 | 1.51 | 1.13 | 0.91 | 0.65 | 2.76 |
| | | 50 | 0.447 | 88.5 | 73.8 | 55.3 | 44.3 | 31.6 | 2.03 | 1.69 | 1.27 | 1.01 | 0.72 | 3.45 |
| | | 60 | 0.490 | 97.0 | 80.8 | 60.6 | 48.5 | 34.6 | 2.22 | 1.85 | 1.39 | 1.11 | 0.79 | 4.14 |
| 05879 14386 | 8005VS or AXI-8005 (50 mesh) | 30 | 0.433 | 85.7 | 71.4 | 53.6 | 42.9 | 30.6 | 1.96 | 1.64 | 1.23 | 0.98 | 0.70 | 2.07 |
| | | 40 | 0.500 | 99.0 | 82.5 | 61.9 | 49.5 | 35.4 | 2.27 | 1.89 | 1.42 | 1.13 | 0.81 | 2.76 |
| | | 50 | 0.559 | 110.7 | 92.2 | 69.2 | 55.3 | 39.5 | 2.53 | 2.11 | 1.58 | 1.27 | 0.91 | 3.45 |
| | | 60 | 0.612 | 121.2 | 101.0 | 75.8 | 60.6 | 43.3 | 2.78 | 2.31 | 1.74 | 1.39 | 0.99 | 4.14 |
| 05880 14387 | 8006VS or AXI-8006 (50 mesh) | 30 | 0.520 | 102.9 | 85.7 | 64.3 | 51.4 | 36.7 | 2.36 | 1.96 | 1.47 | 1.18 | 0.84 | 2.07 |
| | | 40 | 0.600 | 118.8 | 99.0 | 74.3 | 59.4 | 42.4 | 2.72 | 2.27 | 1.70 | 1.36 | 0.97 | 2.76 |
| | | 50 | 0.671 | 132.8 | 110.7 | 83.0 | 66.4 | 47.4 | 3.04 | 2.53 | 1.90 | 1.52 | 1.09 | 3.45 |
| | | 60 | 0.735 | 145.5 | 121.2 | 90.9 | 72.7 | 52.0 | 3.33 | 2.78 | 2.08 | 1.67 | 1.19 | 4.14 |
| 05881 | 8008VS (50 mesh) | 30 | 0.693 | 137.2 | 114.3 | 85.7 | 68.6 | 49.0 | 3.14 | 2.62 | 1.96 | 1.57 | 1.12 | 2.07 |
| | | 40 | 0.800 | 158.4 | 132.0 | 99.0 | 79.2 | 56.6 | 3.63 | 3.02 | 2.27 | 1.81 | 1.30 | 2.76 |
| | | 50 | 0.894 | 177.1 | 147.6 | 110.7 | 88.5 | 63.2 | 4.05 | 3.38 | 2.53 | 2.03 | 1.45 | 3.45 |
| | | 60 | 0.980 | 194.0 | 161.7 | 121.2 | 97.0 | 69.3 | 4.44 | 3.70 | 2.78 | 2.22 | 1.59 | 4.14 |
| 13674 | MR8010 (50 mesh) | 30 | 0.866 | 171.5 | 142.9 | 107.2 | 85.7 | 61.2 | 3.93 | 3.27 | 2.45 | 1.96 | 1.40 | 2.07 |
| | | 40 | 1.000 | 198.0 | 165.0 | 123.8 | 99.0 | 70.7 | 4.53 | 3.78 | 2.83 | 2.27 | 1.62 | 2.76 |
| | | 50 | 1.118 | 221.4 | 184.5 | 138.4 | 110.7 | 79.1 | 5.07 | 4.22 | 3.17 | 2.53 | 1.81 | 3.45 |
| | | 60 | 1.225 | 242.5 | 202.1 | 151.6 | 121.2 | 86.6 | 5.55 | 4.63 | 3.47 | 2.78 | 1.98 | 4.14 |
| 14010 | MR8015 (50 mesh) | 30 | 1.299 | 257.2 | 214.3 | 160.8 | 128.6 | 91.9 | 5.89 | 4.91 | 3.68 | 2.94 | 2.10 | 2.07 |
| | | 40 | 1.500 | 297.0 | 247.5 | 185.6 | 148.5 | 106.1 | 6.80 | 5.67 | 4.25 | 3.40 | 2.43 | 2.76 |
| | | 50 | 1.677 | 332.1 | 276.7 | 207.5 | 166.0 | 118.6 | 7.60 | 6.34 | 4.75 | 3.80 | 2.72 | 3.45 |
| | | 60 | 1.837 | 363.7 | 303.1 | 227.3 | 181.9 | 129.9 | 8.33 | 6.94 | 5.21 | 4.16 | 2.97 | 4.14 |
| 14195 | MR8020 (50 mesh) | 30 | 1.732 | 342.9 | 285.8 | 214.3 | 171.5 | 122.5 | 7.85 | 6.54 | 4.91 | 3.93 | 2.80 | 2.07 |
| | | 40 | 2.000 | 396.0 | 330.0 | 247.5 | 198.0 | 141.4 | 9.07 | 7.56 | 5.67 | 4.53 | 3.24 | 2.76 |
| | | 50 | 2.236 | 442.7 | 369.0 | 276.7 | 221.4 | 158.1 | 10.14 | 8.45 | 6.34 | 5.07 | 3.62 | 3.45 |
| | | 60 | 2.449 | 485.0 | 404.2 | 303.1 | 242.5 | 173.2 | 11.10 | 9.25 | 6.94 | 5.55 | 3.97 | 4.14 |

Application Rates, 12" Spacing
80 Deg. Tips

| Rogers Part # | Tip Number | Liquid Press psi | Capacity 1 nozzle gpm | U. S. GALLONS PER ACRE | | | | | Liters/Hectare (L/Ha) | | | | | Press bars |
|---------------|-------------------------|------------------|-----------------------|------------------------|-------|-------|-------|-------|-----------------------|---------|---------|---------|----------|------------|
| | | | | 2.5 mph | 3 mph | 4 mph | 5 mph | 7 mph | 4 kph | 4.8 kph | 6.4 kph | 8 kph | 11.2 kph | |
| | | | | | | | | | | | | | | |
| 05872 | 800067SS (200 mesh) | 30 | 0.058 | 11.5 | 9.6 | 7.2 | 5.7 | 4.1 | 107.42 | 89.52 | 67.14 | 53.71 | 38.36 | 0.28 |
| | | 40 | 0.067 | 13.3 | 11.1 | 8.3 | 6.6 | 4.7 | 124.04 | 103.36 | 77.52 | 62.02 | 44.30 | 0.33 |
| | | 50 | 0.075 | 14.8 | 12.4 | 9.3 | 7.4 | 5.3 | 138.68 | 115.56 | 86.67 | 69.34 | 49.53 | 0.37 |
| | | 60 | 0.082 | 16.2 | 13.5 | 10.2 | 8.1 | 5.8 | 151.91 | 126.59 | 94.95 | 75.96 | 54.25 | 0.40 |
| 01369 | 8001VS (100 mesh) | 30 | 0.087 | 17.1 | 14.3 | 10.7 | 8.6 | 6.1 | 160.33 | 133.61 | 100.20 | 80.16 | 57.26 | 0.42 |
| | | 40 | 0.100 | 19.8 | 16.5 | 12.4 | 9.9 | 7.1 | 185.13 | 154.28 | 115.71 | 92.57 | 66.12 | 0.49 |
| | | 50 | 0.112 | 22.1 | 18.4 | 13.8 | 11.1 | 7.9 | 206.98 | 172.48 | 129.36 | 103.49 | 73.92 | 0.55 |
| | | 60 | 0.122 | 24.2 | 20.2 | 15.2 | 12.1 | 8.7 | 226.74 | 188.95 | 141.71 | 113.37 | 80.98 | 0.60 |
| 00827 | 80015VS or | 30 | 0.130 | 25.7 | 21.4 | 16.1 | 12.9 | 9.2 | 240.49 | 200.41 | 150.31 | 120.25 | 85.89 | 0.63 |
| | | 40 | 0.150 | 29.7 | 24.8 | 18.6 | 14.9 | 10.6 | 277.70 | 231.41 | 173.56 | 138.85 | 99.18 | 0.73 |
| 13351 | API-80015 (100 mesh) | 50 | 0.168 | 33.2 | 27.7 | 20.8 | 16.6 | 11.9 | 310.47 | 258.73 | 194.05 | 155.24 | 110.88 | 0.82 |
| | | 60 | 0.184 | 36.4 | 30.3 | 22.7 | 18.2 | 13.0 | 340.11 | 283.42 | 212.57 | 170.05 | 121.47 | 0.90 |
| 05876 | 8002VS or | 30 | 0.173 | 34.3 | 28.6 | 21.4 | 17.1 | 12.2 | 320.65 | 267.21 | 200.41 | 160.33 | 114.52 | 0.85 |
| | | 40 | 0.200 | 39.6 | 33.0 | 24.8 | 19.8 | 14.1 | 370.26 | 308.55 | 231.41 | 185.13 | 132.24 | 0.98 |
| 14384 | AXI-8002 (50 mesh) | 50 | 0.224 | 44.3 | 36.9 | 27.7 | 22.1 | 15.8 | 413.96 | 344.97 | 258.73 | 206.98 | 147.84 | 1.09 |
| | | 60 | 0.245 | 48.5 | 40.4 | 30.3 | 24.2 | 17.3 | 453.47 | 377.90 | 283.42 | 226.74 | 161.96 | 1.20 |
| 05877 | 8003VS or | 30 | 0.260 | 51.4 | 42.9 | 32.2 | 25.7 | 18.4 | 480.98 | 400.82 | 300.61 | 240.49 | 171.78 | 1.27 |
| | | 40 | 0.300 | 59.4 | 49.5 | 37.1 | 29.7 | 21.2 | 555.39 | 462.83 | 347.12 | 277.70 | 198.35 | 1.46 |
| 14385 | AXI-8003 (50 mesh) | 50 | 0.335 | 66.4 | 55.3 | 41.5 | 33.2 | 23.7 | 620.94 | 517.45 | 388.09 | 310.47 | 221.77 | 1.64 |
| | | 60 | 0.367 | 72.7 | 60.6 | 45.5 | 36.4 | 26.0 | 680.21 | 566.84 | 425.13 | 340.11 | 242.93 | 1.79 |
| 05878 | 8004VS or | 30 | 0.346 | 68.6 | 57.2 | 42.9 | 34.3 | 24.5 | 641.31 | 534.42 | 400.82 | 320.65 | 229.04 | 1.69 |
| | | 40 | 0.400 | 79.2 | 66.0 | 49.5 | 39.6 | 28.3 | 740.52 | 617.10 | 462.83 | 370.26 | 264.47 | 1.95 |
| 14061 | AXI-8004 (50 mesh) | 50 | 0.447 | 88.5 | 73.8 | 55.3 | 44.3 | 31.6 | 827.93 | 689.94 | 517.45 | 413.96 | 295.69 | 2.18 |
| | | 60 | 0.490 | 97.0 | 80.8 | 60.6 | 48.5 | 34.6 | 906.95 | 755.79 | 566.84 | 453.47 | 323.91 | 2.39 |
| 05879 | 8005VS or | 30 | 0.433 | 85.7 | 71.4 | 53.6 | 42.9 | 30.6 | 801.64 | 668.03 | 501.02 | 400.82 | 286.30 | 2.11 |
| | | 40 | 0.500 | 99.0 | 82.5 | 61.9 | 49.5 | 35.4 | 925.65 | 771.38 | 578.53 | 462.83 | 330.59 | 2.44 |
| 14386 | AXI-8005 (50 mesh) | 50 | 0.559 | 110.7 | 92.2 | 69.2 | 55.3 | 39.5 | 1034.91 | 862.42 | 646.82 | 517.45 | 369.61 | 2.73 |
| | | 60 | 0.612 | 121.2 | 101.0 | 75.8 | 60.6 | 43.3 | 1133.69 | 944.74 | 708.55 | 566.84 | 404.89 | 2.99 |
| 05880 | 8006VS or | 30 | 0.520 | 102.9 | 85.7 | 64.3 | 51.4 | 36.7 | 961.96 | 801.64 | 601.23 | 480.98 | 343.56 | 2.54 |
| | | 40 | 0.600 | 118.8 | 99.0 | 74.3 | 59.4 | 42.4 | 1110.78 | 925.65 | 694.24 | 555.39 | 396.71 | 2.93 |
| 14387 | AXI-8006 (50 mesh) | 50 | 0.671 | 132.8 | 110.7 | 83.0 | 66.4 | 47.4 | 1241.89 | 1034.91 | 776.18 | 620.94 | 443.53 | 3.27 |
| | | 60 | 0.735 | 145.5 | 121.2 | 90.9 | 72.7 | 52.0 | 1360.42 | 1133.69 | 850.26 | 680.21 | 485.87 | 3.59 |
| 05881 | 8008VS (50 mesh) | 30 | 0.693 | 137.2 | 114.3 | 85.7 | 68.6 | 49.0 | 1282.62 | 1068.85 | 801.64 | 641.31 | 458.08 | 3.38 |
| | | 40 | 0.800 | 158.4 | 132.0 | 99.0 | 79.2 | 56.6 | 1481.04 | 1234.20 | 925.65 | 740.52 | 528.94 | 3.90 |
| | | 50 | 0.894 | 177.1 | 147.6 | 110.7 | 88.5 | 63.2 | 1655.85 | 1379.88 | 1034.91 | 827.93 | 591.38 | 4.36 |
| | | 60 | 0.980 | 194.0 | 161.7 | 121.2 | 97.0 | 69.3 | 1813.90 | 1511.58 | 1133.69 | 906.95 | 647.82 | 4.78 |
| 13674 | MR8010 (50 mesh) | 30 | 0.866 | 171.5 | 142.9 | 107.2 | 85.7 | 61.2 | 1603.27 | 1336.06 | 1002.05 | 801.64 | 572.60 | 4.23 |
| | | 40 | 1.000 | 198.0 | 165.0 | 123.8 | 99.0 | 70.7 | 1851.30 | 1542.75 | 1157.06 | 925.65 | 661.18 | 4.88 |
| | | 50 | 1.118 | 221.4 | 184.5 | 138.4 | 110.7 | 79.1 | 2069.82 | 1724.85 | 1293.64 | 1034.91 | 739.22 | 5.46 |
| | | 60 | 1.225 | 242.5 | 202.1 | 151.6 | 121.2 | 86.6 | 2267.37 | 1889.48 | 1417.11 | 1133.69 | 809.78 | 5.98 |
| 14010 | MR8015 (50 mesh) | 30 | 1.299 | 257.2 | 214.3 | 160.8 | 128.6 | 91.9 | 2404.91 | 2004.09 | 1503.07 | 1202.45 | 858.90 | 6.34 |
| | | 40 | 1.500 | 297.0 | 247.5 | 185.6 | 148.5 | 106.1 | 2776.95 | 2314.13 | 1735.59 | 1388.48 | 991.77 | 7.32 |
| | | 50 | 1.677 | 332.1 | 276.7 | 207.5 | 166.0 | 118.6 | 3104.72 | 2587.27 | 1940.45 | 1552.36 | 1108.83 | 8.18 |
| | | 60 | 1.837 | 363.7 | 303.1 | 227.3 | 181.9 | 129.9 | 3401.06 | 2834.21 | 2125.66 | 1700.53 | 1214.66 | 8.96 |
| 14195 | MR8020 (50 mesh) | 30 | 1.732 | 342.9 | 285.8 | 214.3 | 171.5 | 122.5 | 3206.55 | 2672.12 | 2004.09 | 1603.27 | 1145.19 | 8.45 |
| | | 40 | 2.000 | 396.0 | 330.0 | 247.5 | 198.0 | 141.4 | 3702.60 | 3085.50 | 2314.13 | 1851.30 | 1322.36 | 9.76 |
| | | 50 | 2.236 | 442.7 | 369.0 | 276.7 | 221.4 | 158.1 | 4139.63 | 3449.69 | 2587.27 | 2069.82 | 1478.44 | 10.91 |
| | | 60 | 2.449 | 485.0 | 404.2 | 303.1 | 242.5 | 173.2 | 4534.74 | 3778.95 | 2834.21 | 2267.37 | 1619.55 | 11.95 |

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.

Table 3: Time in Seconds to Travel Distance

| or. mph | 10 (ft) | 25 (ft) | 50 (ft) | 100 (ft) | 200 (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 4: Time in Seconds to Travel a Distance of:

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 mount).

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 *Falcon* 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.
- ⇒ Orient the handle so that the hose is to the right.

Hose attachment

- ⇒ Attach hose from flow indicator to valve on handle with gear clamps as provided

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

Ceramic insert tips are supplied with the **Falcon FG Series**; it can also use stainless steel, brass or plastic insert tips that give an actual 80° spray pattern.

Attach a supply hose to the camlock fitting on the control valve, located on the sprayer handle. The supply pressure of the fluid should be between 40 and 60 psi (3-4 bar). A rough estimate due to losses in the system is that when you have 45psi (3.2 bar) at the handle, you probably have 40psi (3 bar) at the tips. Each of the balls in the spray monitor should raise to an equal level as the flow increases. 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.

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 FG** are not UV resistant.

Keep the unit covered or stored indoors.

Approximate Weight of Units

| MODEL | Weight Lbs | Weight Kg |
|-------|---------------|--------------|
| FG3 | 53.6 | 24.3 |
| FG4 | 55.4 | 25.1 |
| FG6 | 61.4 | 27.9 |

Drawings and Replacement Parts

See the following pages for a parts breakdown and accessories for your unit.

FG6 Parts Breakdown

Parts List

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|----------|----------------------------------|
| 1 | 1 | 14203 | FRAME LP6 |
| 2 | 1 | 14028 | CASTOR MOUNT ASSEMBLY |
| 3 | 1 | 01599 | CASTOR WHEEL, LP |
| 4 | 1 | 14279 | SHROUD FG6 |
| 5 | 1 | 13041101 | TANK MOUNT WALKER LEFT |
| 6 | 1 | 13041101 | TANK MOUNT WALKER RIGHT |
| 7 | 1 | 01654 | AIR/OIL 88" |
| 8 | 1 | 14208 | FLEXISHIELD 9.625" x 151" |
| 9 | 1 | 14206 | FLEXISHIELD HANGER, 151" |
| 10 | 1 | 14207 | FLEXISHIELD HANGER, 44.625" |
| 11 | 1 | 14209 | FLEXISHIELD 9.625" x 44.625" |
| 12 | 4 | 13478 | STANDOFF, BACK (SHORT) |
| 13 | 4 | 13479 | STANDOFF, FRONT (LONG) |
| 14 | 3 | 05459 | BOLT, 5/8"x5", PLD |
| 15 | 1 | 01051 | NUT, NYLOCK, 5/8UNC, Pld |
| 16 | 2 | 00965 | PIN STL COTTER 3/16x1-1/2" |
| 17 | 1 | 00972 | FTG, STL GREASE NIPPLE, 1/4NF |
| 18 | 4 | 00966 | BOLT, 1/4"NCx2.5, PLD |
| 19 | 28 | 00968 | NUT, NYLOCK 1/4" PLD |
| 20 | 8 | 05409 | BOLT, 1/4"NCx1.75, PLD |
| 21 | 2 | 13709 | NUT, JAM 5/8NC, Pld |
| 22 | 16 | 01154 | BOLT, 1/4"NCx3/4, PLD |
| 23 | 2 | 14212 | BUSHING (G 1.0x875x.75"WF/FLANGE |
| 24 | 3 | 14261 | CURTAIN SUPPORT LP FRONT |
| 25 | 6 | 01156 | SCREW TEK #12x1-1/4 |
| 26 | 2 | 01151 | SCREW TEK #12x1 |
| 27 | 2 | 01056 | PLUG, 1" SO, PLASTIC |
| 28 | 6 | 09754 | WASHER, 1/4" FENDER |
| 29 | 3 | 14475 | WHEEL POLY ASSY 5/8ID |
| 30 | 1 | 14529 | HANDLE BAR ASSY HFED |
| 31 | 4 | 01152 | SCREW/MACH #10-24x3/4, TRUSS |

TO ATTACH SHROUD TO FRAME AND EXTRUSION USE:

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|--------|------------------------|
| 11 | 1 | 01156 | SCREW TEK #12 x 1-1/4" |
| 8 | 8 | 01152 | SCREW TEK #10-24x3/4" |
| 8 | 8 | 01153 | NUT NYLOCK #10 PLD |
| 4 | 4 | 05804 | POP RIVET |

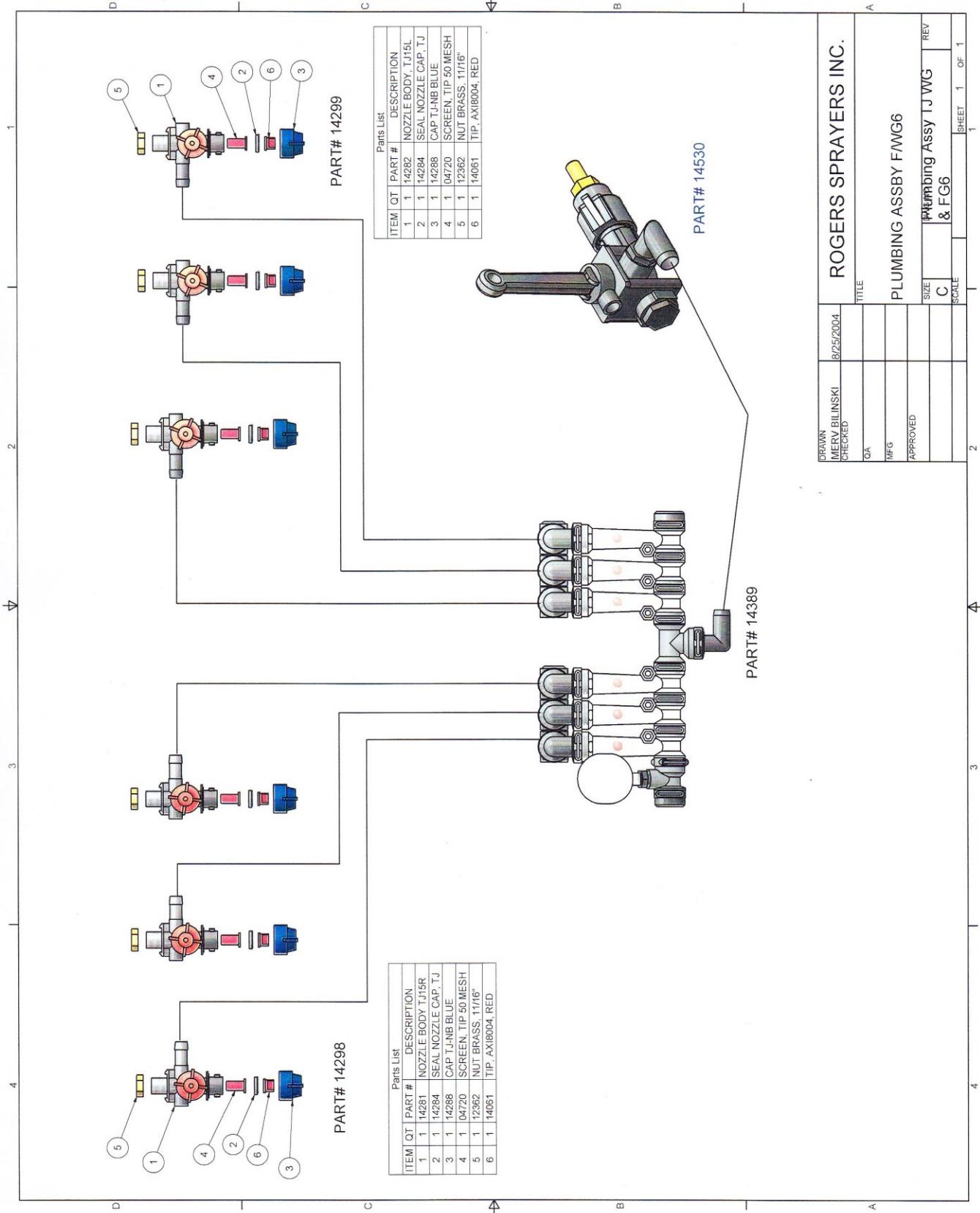
DECALS:

| ITEM | QTY | PART # | DESCRIPTION |
|------|-----|--------|--------------|
| 2 | 2 | 01396 | WNDFOIL LOGO |
| 1 | 1 | 01397J | FALCON DECAL |

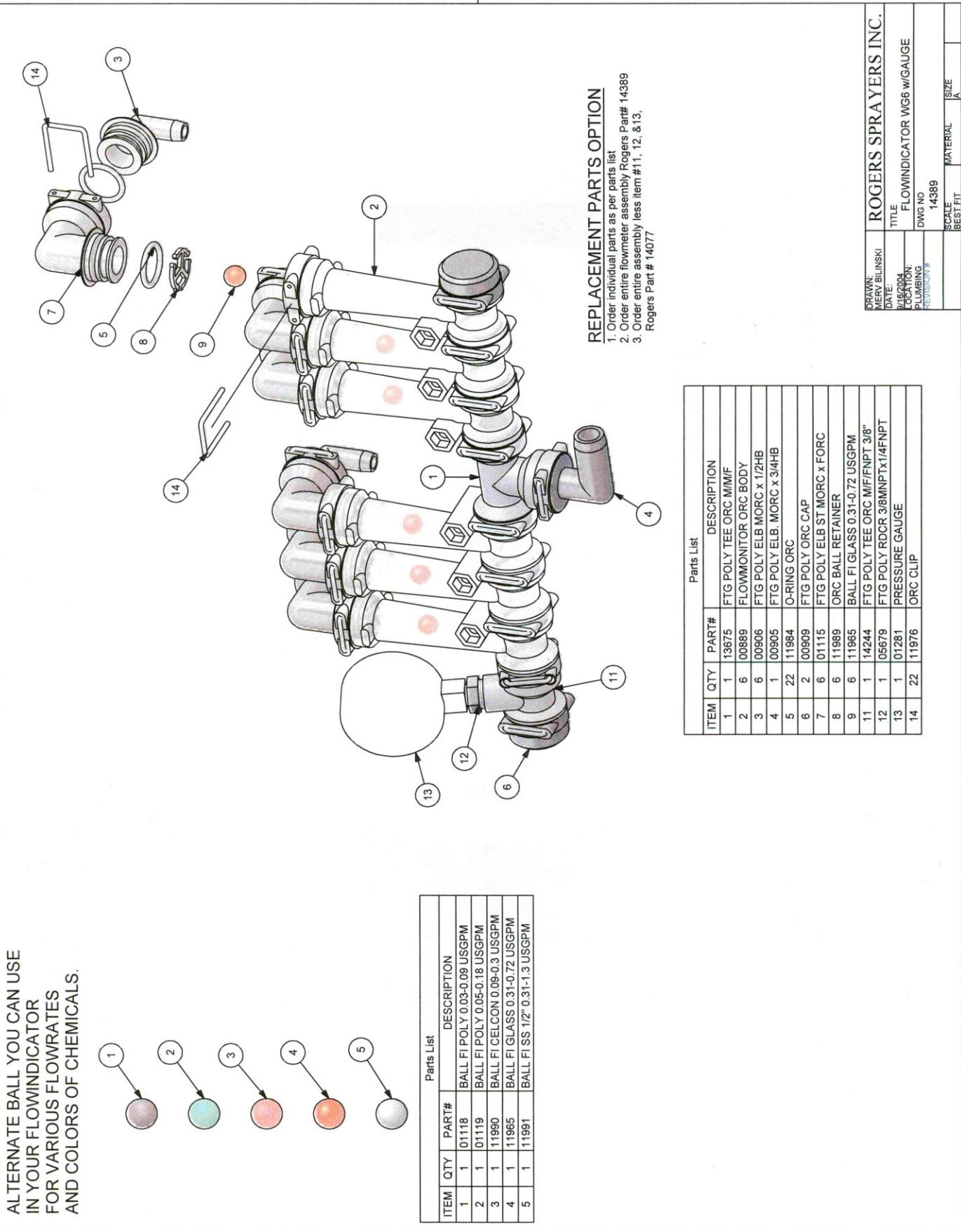
DRAWN BY: MERV BULINSKI
DATE: 2/14/2005
LOCATION: LOW PROFILE
REVISOR #: FG6 Assembly

ROGERS SPRAYERS INC.
TITLE: FG6 ASSEMBLY
DWG NO: FG6 Assembly
SCALE: BEST FIT
MATERIAL: A
SIZE: _____

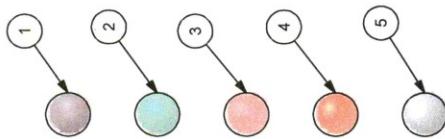
Plumbing Assembly WG & FG6



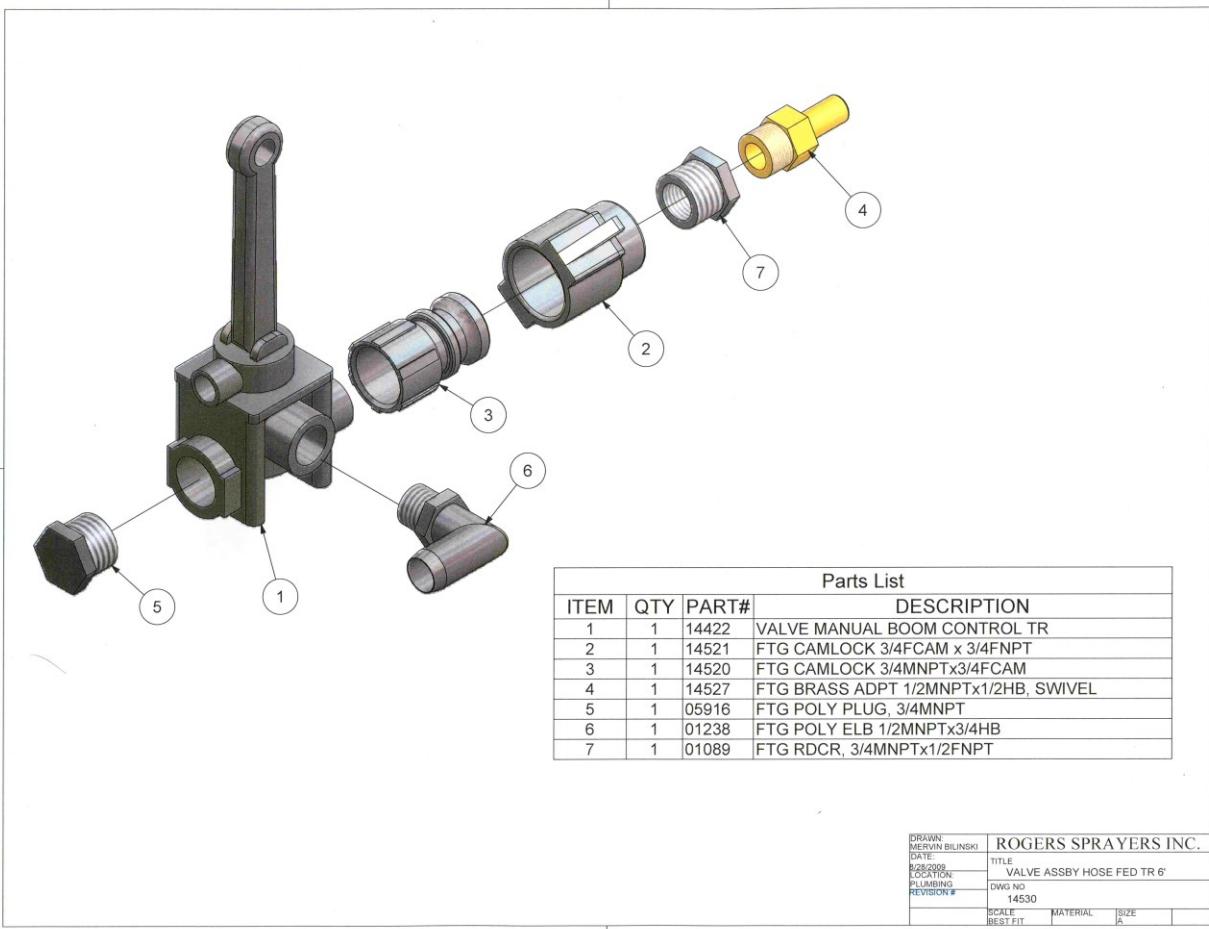
Flowmonitor Assembly



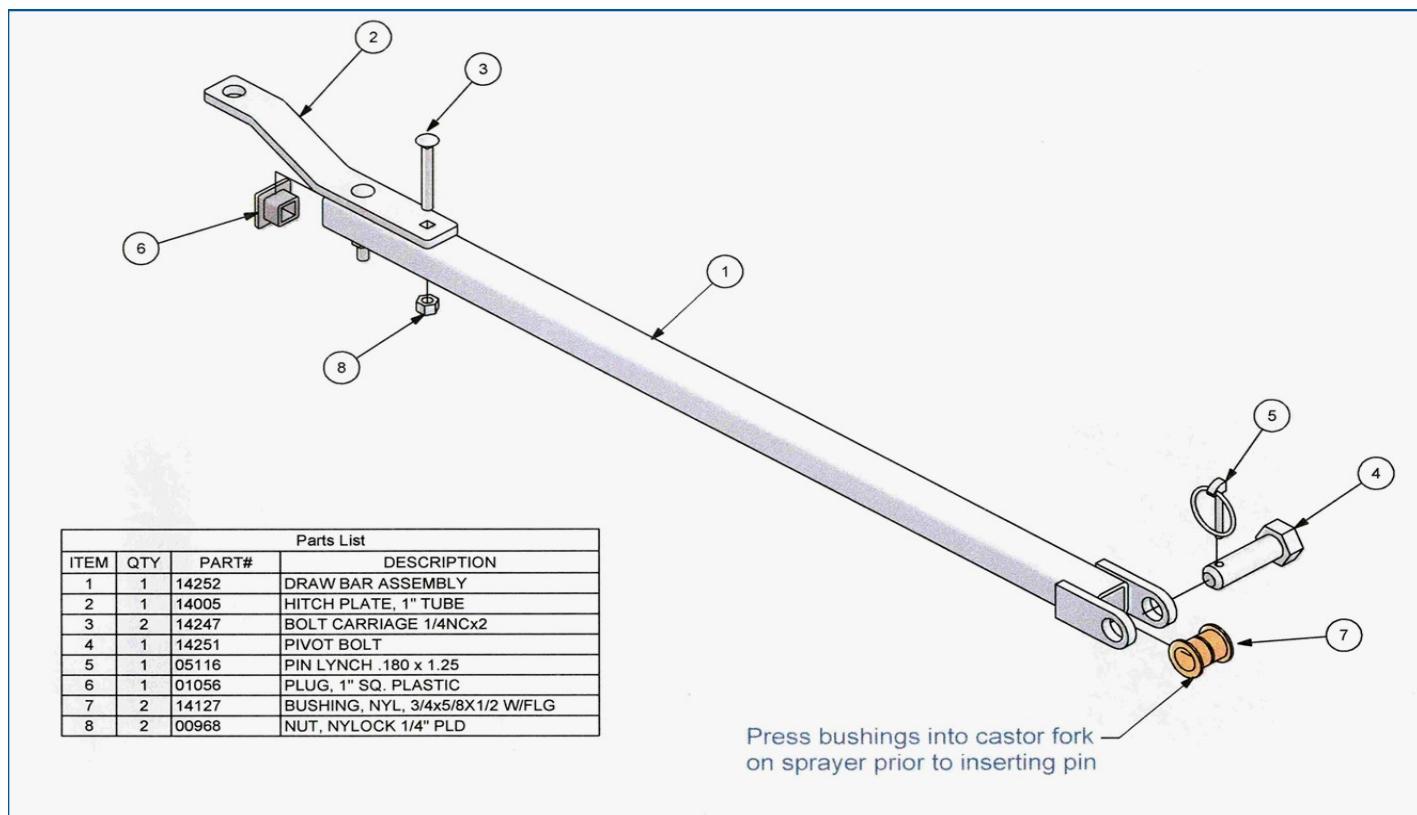
ALTERNATE BALL YOU CAN USE
IN YOUR FLOWINDICATOR
FOR VARIOUS FLOWRATES
AND COLORS OF CHEMICALS.



Valve Assembly G-Series Part # 14530



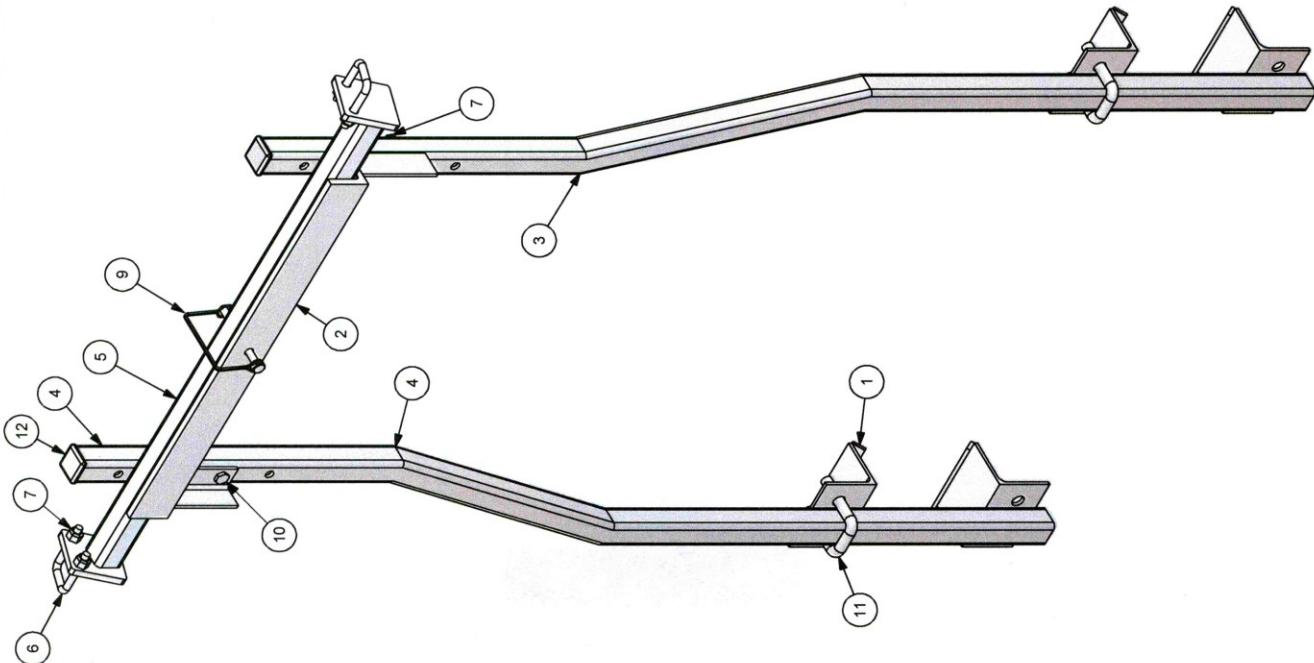
F111 Tow Hitch



F107 Front Transport Mount

| Parts List | | | |
|------------|-----|--------|----------------------------------|
| ITEM | QTY | PART# | DESCRIPTION |
| 1 | 2 | 13426 | BUMPER CLIP, JD PROGATOR |
| 2 | 1 | 02616 | TOP MOUNT, F107 |
| 3 | 1 | 01125L | MOUNTING TUBES, WELDED |
| 4 | 1 | 01125R | MOUNTING TUBES, WELDED |
| 5 | 1 | 02019 | CROSS HANDLE SUPPORT |
| 6 | 2 | 01049 | UBOLT, 1/4X1/2, SQ. |
| 7 | 8 | 00968 | NUT, NYLOCK 1/4 PLD |
| 8 | 4 | 00956 | NUT, NYLOCK, 3/8NC, Pld |
| 9 | 1 | 01319 | PIN STL, SQ. WIRE LOCK 1/4x2-1/2 |
| 10 | 4 | 05406 | BOLT, 1/4NCx1.5, PLD |
| 11 | 2 | 12379 | UBOLT, 3/8x1/2-25 |
| 12 | 2 | 01056 | PLUG, 1" SQ. PLASTIC |

| | |
|-------------|----------------------|
| DRAWN BY: | ROGERS SPRAYERS INC. |
| DATE: | TITLE |
| 10/31/04 | F107 PARTS BREAKDOWN |
| LOCATION: | DWG NO |
| LOW PROFILE | F107 |
| REV/STN # | 2 |
| SCALE | MATERIAL |
| | SIZE |
| | A |



DECLARATION OF CONFORMITY
(According to ISO/IEC Guide 22 And EN 45014)

We, ROGERS SPRAYERS INC.
813B 50-TH STREET EAST
SASKATOON, SASKATCHEWAN. S7K 3Y5

declare that the following product:

SPRAY BOOM, MODELS WA5000, WA5000E, WA6000, WA6000E, WS5000,
WS5000E, WS6000, WS6000E, FA5000, FA5000E, FA6000, FA6000E, FS5000,
FS5000E, FS6000, FS6000E
PEDESTRIAN BOOM MODELS WG3, WG4, WG6, FG3, FG4, FG6
PEDESTRIAN SPRAYER MODELS WE3, WE4, WE6, FE3, FE4, FE6

is in conformity with the provisions of the following European Directives:

Council Directive 98/37/EC; as amended by 98/79/EEC:

And the following standards:

SS-EN 907

Done at SASKATOON, SASKATCHEWAN, CANADA **on** SEPTEMBER 25, 2006


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.....



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