



ROGERS SPRAYERS INC.

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FY1000

1.0m Farm Yard Sprayer



Assembly, Parts and Operator's Manual

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Minimize Chemical Drift

The *Windfoil* sprayer has been designed in wind tunnels to control airflow around and behind the sprayer to minimize drift, allowing safe 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 canopy to ensure a seal to it.**

Nozzles

The FY1000 and FY1500 are equipped with 80° spray tips respectively, spaced at 16". Tips are mounted with self-aligning ¼ turn caps for easy removal or change.

Trouble Shooting

If dripping occurs, caused by the diaphragm not seating properly, the diaphragm may be hard, cracked, or the seating may be damaged.

Cleaning

Sprayers need to be cleaned to prevent corrosion, to prevent cross contamination of chemicals, and to prevent any grit or solids in the liquid that will reduce pressure. Flush with clean water, preferably after each day's operation. Rinse the outside of the sprayer.

Winterizing

After the sprayer is thoroughly cleaned, put 2 to 5 quarts of rust inhibitor or antifreeze in the tank for final system flushing to help prevent corrosion.

Calibration

To calibrate, operate the sprayer at the desired pressure. Collect the output from each nozzle for 60 seconds, using an accurate measuring cup. Record the output from each nozzle. Replace nozzles that are more than 5% above or below the average reading, or have a visibly distorted spray pattern.

Run a speed test in the area to be sprayed, with a full tank. The sprayer must be at operating speed before starting the test run. To determine the speed, mark off a distance as found on one of the tables below. Spray this distance, carefully noting and recording the time to cover the distance. The actual speed can be found for the specific distance traveled and time to travel, using the table.

After the nozzles have been individually checked, the sprayer should be calibrated to determine the correct speed for the desired application volume. To get area covered, multiply the width [FY1000, 52"(1m), FY1500, 64"(1.5m)] X distance.

Table 1: Time in seconds to travel a distance of:

Mph	10'	25'	50'	100'
2.5	2.7	6.8	13.6	27.3
3	2.3	5.7	11.4	22.7
4	1.7	4.3	8.5	17.0

Table 2: Time in seconds to travel a distance of:

Km/h	10m	25m	50m	100m
3	12.0	30.0	60.0	120.0
4	9.0	22.5	45.0	90.0
5	7.2	18.0	36.0	72.0

Application Rate Tables

Table 3: API Nozzle Application Rates for 16" (40cm) Spacing

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 mph	3 mph	4 mph	5 mph	7 mph	2.5 mph	3 mph	4 mph	5 mph	7 mph	
05872	800067SS (200 mesh)	30	0.058	8.6	7.2	5.4	4.3	3.1	0.20	0.16	0.12	0.10	0.07	2.07
		40	0.067	9.9	8.3	6.2	5.0	3.6	0.23	0.19	0.14	0.11	0.08	2.76
		50	0.075	11.1	9.3	7.0	5.6	4.0	0.25	0.21	0.16	0.13	0.09	3.45
		60	0.082	12.2	10.2	7.6	6.1	4.4	0.28	0.23	0.17	0.14	0.10	4.14
01369	8001VS (100 mesh)	30	0.087	12.9	10.7	8.0	6.4	4.6	0.29	0.25	0.18	0.15	0.11	2.07
		40	0.100	14.9	12.4	9.3	7.4	5.3	0.34	0.28	0.21	0.17	0.12	2.76
		50	0.112	16.6	13.8	10.4	8.3	5.9	0.38	0.32	0.24	0.19	0.14	3.45
		60	0.122	18.2	15.2	11.4	9.1	6.5	0.42	0.35	0.26	0.21	0.15	4.14
00827 13351	80015VS or API-80015 (100 mesh)	30	0.130	19.3	16.1	12.1	9.6	6.9	0.44	0.37	0.28	0.22	0.16	2.07
		40	0.150	22.3	18.6	13.9	11.1	8.0	0.51	0.43	0.32	0.26	0.18	2.76
		50	0.168	24.9	20.8	15.6	12.5	8.9	0.57	0.48	0.36	0.29	0.20	3.45
		60	0.184	27.3	22.7	17.1	13.6	9.7	0.62	0.52	0.39	0.31	0.22	4.14
05876 12422	8002VS or API-8002 (50 mesh)	30	0.173	25.7	21.4	16.1	12.9	9.2	0.59	0.49	0.37	0.29	0.21	2.07
		40	0.200	29.7	24.8	18.6	14.9	10.6	0.68	0.57	0.43	0.34	0.24	2.76
		50	0.224	33.2	27.7	20.8	16.6	11.9	0.76	0.63	0.48	0.38	0.27	3.45
		60	0.245	36.4	30.3	22.7	18.2	13.0	0.83	0.69	0.52	0.42	0.30	4.14
05877 13352	8003VS or API-8003 (50 mesh)	30	0.260	38.6	32.2	24.1	19.3	13.8	0.88	0.74	0.55	0.44	0.32	2.07
		40	0.300	44.6	37.1	27.8	22.3	15.9	1.02	0.85	0.64	0.51	0.36	2.76
		50	0.335	49.8	41.5	31.1	24.9	17.8	1.14	0.95	0.71	0.57	0.41	3.45
		60	0.367	54.6	45.5	34.1	27.3	19.5	1.25	1.04	0.78	0.62	0.45	4.14
05878 12423	8004VS or API-8004 (50 mesh)	30	0.346	51.4	42.9	32.2	25.7	18.4	1.18	0.98	0.74	0.59	0.42	2.07
		40	0.400	59.4	49.5	37.1	29.7	21.2	1.36	1.13	0.85	0.68	0.49	2.76
		50	0.447	66.4	55.3	41.5	33.2	23.7	1.52	1.27	0.95	0.76	0.54	3.45
		60	0.490	72.7	60.6	45.5	36.4	26.0	1.67	1.39	1.04	0.83	0.59	4.14
05879 12424	8005VS or API-8005 (50 mesh)	30	0.433	64.3	53.6	40.2	32.2	23.0	1.47	1.23	0.92	0.74	0.53	2.07
		40	0.500	74.3	61.9	46.4	37.1	26.5	1.70	1.42	1.06	0.85	0.61	2.76
		50	0.559	83.0	69.2	51.9	41.5	29.6	1.90	1.58	1.19	0.95	0.68	3.45
		60	0.612	90.9	75.8	56.8	45.5	32.5	2.08	1.74	1.30	1.04	0.74	4.14
05880 12425	8006VS or API-8006 (50 mesh)	30	0.520	77.2	64.3	48.2	38.6	27.6	1.77	1.47	1.10	0.88	0.63	2.07
		40	0.600	89.1	74.3	55.7	44.6	31.8	2.04	1.70	1.28	1.02	0.73	2.76
		50	0.671	99.6	83.0	62.3	49.8	35.6	2.28	1.90	1.43	1.14	0.81	3.45
		60	0.735	109.1	90.9	68.2	54.6	39.0	2.50	2.08	1.56	1.25	0.89	4.14
05881	8008VS (50 mesh)	30	0.693	102.9	85.7	64.3	51.4	36.7	2.36	1.96	1.47	1.18	0.84	2.07
		40	0.800	118.8	99.0	74.3	59.4	42.4	2.72	2.27	1.70	1.36	0.97	2.76
		50	0.894	132.8	110.7	83.0	66.4	47.4	3.04	2.53	1.90	1.52	1.09	3.45
		60	0.980	145.5	121.2	90.9	72.7	52.0	3.33	2.78	2.08	1.67	1.19	4.14
13674	MR8010 (50 mesh)	30	0.866	128.6	107.2	80.4	64.3	45.9	2.94	2.45	1.84	1.47	1.05	2.07
		40	1.000	148.5	123.8	92.8	74.3	53.0	3.40	2.83	2.13	1.70	1.21	2.76
		50	1.118	166.0	138.4	103.8	83.0	59.3	3.80	3.17	2.38	1.90	1.36	3.45
		60	1.225	181.9	151.6	113.7	90.9	65.0	4.16	3.47	2.60	2.08	1.49	4.14
14010	MR8015 (50 mesh)	30	1.299	192.9	160.8	120.6	96.5	68.9	4.42	3.68	2.76	2.21	1.58	2.07
		40	1.500	222.8	185.6	139.2	111.4	79.6	5.10	4.25	3.19	2.55	1.82	2.76
		50	1.677	249.0	207.5	155.7	124.5	88.9	5.70	4.75	3.56	2.85	2.04	3.45
		60	1.837	272.8	227.3	170.5	136.4	97.4	6.25	5.21	3.90	3.12	2.23	4.14
14195	MR8020 (50 mesh)	30	1.732	257.2	214.3	160.8	128.6	91.9	5.89	4.91	3.68	2.94	2.10	2.07
		40	2.000	297.0	247.5	185.6	148.5	106.1	6.80	5.67	4.25	3.40	2.43	2.76
		50	2.236	332.1	276.7	207.5	166.0	118.6	7.60	6.34	4.75	3.80	2.72	3.45
		60	2.449	363.7	303.1	227.3	181.9	129.9	8.33	6.94	5.21	4.16	2.97	4.14

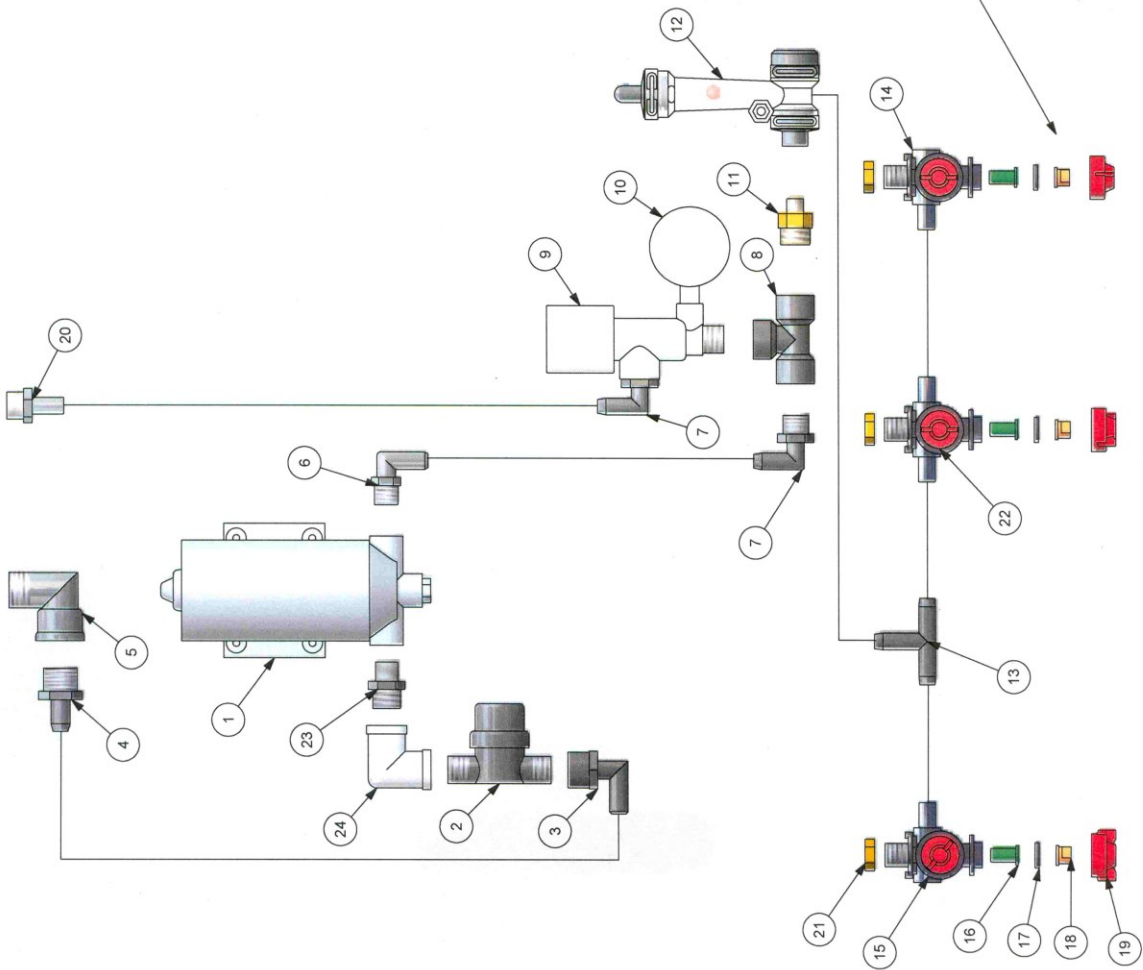
Electrical Assembly



Item	Description	Part #	Qty
1	Battery Clamp, Red	13257	1
2	Battery Clamp, Black	13256	1
3	Fuse, Blade, 10A, 12V	05106	1
4	Fuse Holder, Blade Type, Inline	01268	1
6	Butt Connector, 14-16Ga, Insulated	09323	2
7	Heat Shrink	12297	2
8	Cable, 14/2X180, Black, Rubber Jacketed	13325	1
9	Ring Connector, 14/16GaX.170	01303	2
10	Switch Handle, FY1000	13323	1
11	Heat Shrink	12298	1
12	Toggle Switch, 6V/35A	13324	1
13	Switch Boot, Rubber	12736	1
14	Connector Kit, Weather-Pak, 2M/F	11823	1

FITTINGS ATTACHED TO TANK

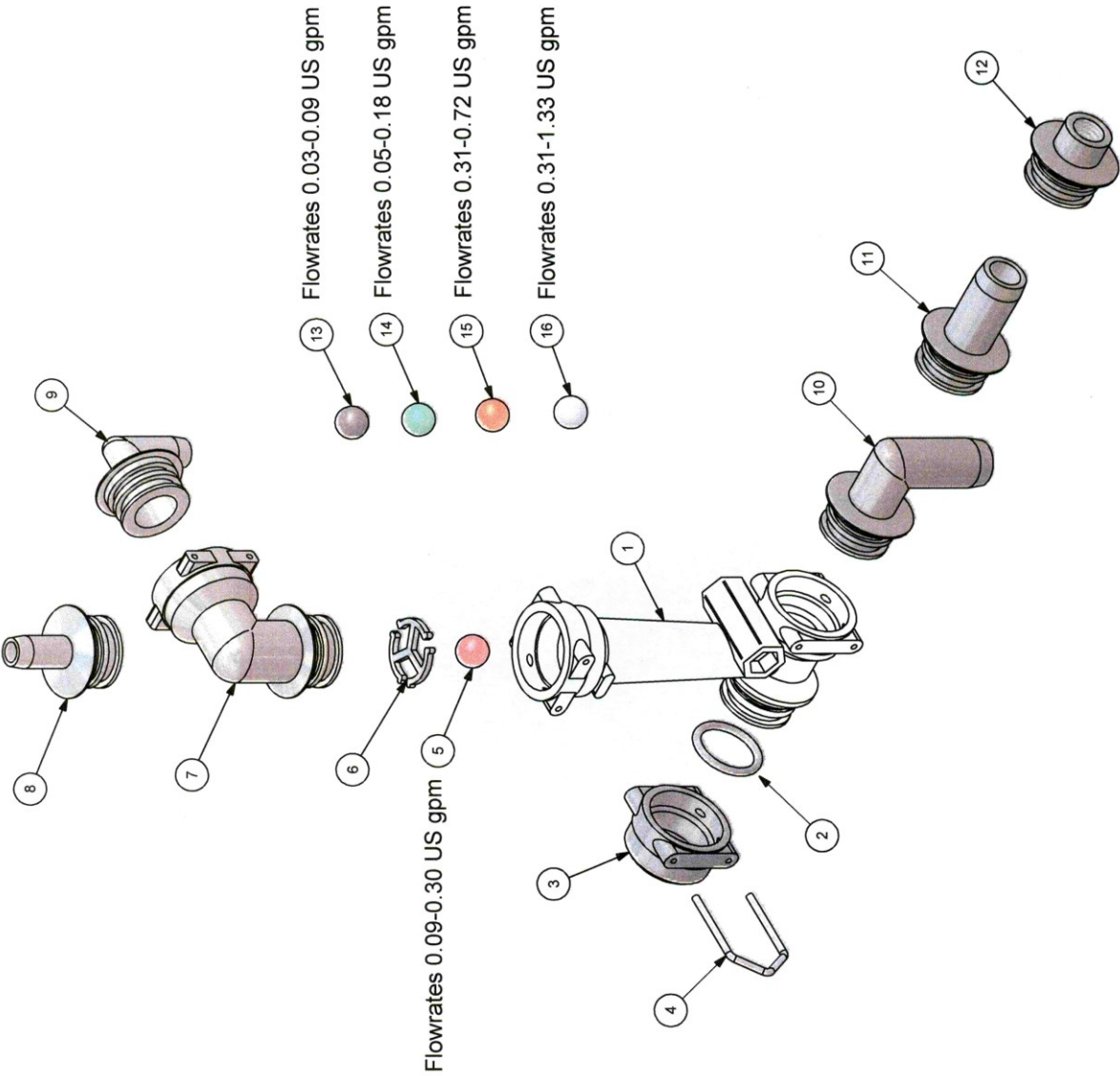
Parts List			DESCRIPTION
ITEM	QTY	PART#	
1	1	14498	Pump 12V DEL 7812 Series
2	1	07103	STRAINER LINE 1/2MNPT TAPPED
3	1	14361	FTG POLY ELB 1/2FNPT x 1/2HB
4	1	05529	FTG POLY ADPT 3/4MNPTx1/2HB
5	1	01076	FTG POLY ELB ST 3/4MNPTx3/4FNPT
6	1	01247	FTG POLY ELB 3/8MNPTx1/2HB
7	2	01235	FTG POLY ELB 1/2MNPTx1/2HB
8	1	01084	FTG POLY TEE 1/2NPT F/F
9	1	12818	REGULATOR PRESSURE NYLON 1/2"
10	1	01281	PRESSURE GAUGE
11	1	12931	FTG BRASS NIPPLE 1/2x1/4MNPT
12	1	14102	FLOW INDICATOR FY MODELS
13	1	05816	FTG NYL TEE 1/2HB/HB/HB
14	1	00831	NOZZLE BODY ASSY. L
15	1	00830	NOZZLE BODY ASSY. R
16	3	00829	SCREEN, TIP 100 MESH
17	3	01521	SEAL, WILGER CAP
18	3	01369	TIP 8001VS ORANGE
19	3	01532	CAP. WILGER NOZZLE BODY, RED
20	1	05527	FTG POLY ADPT 1/2MNPTx1/2HB
21	3	12362	NUT BRASS, 11/16"
22	1	01341	NOZZLE BODY ASSY. TEE
23	1	12357	FTG POLY NIPPLE 3/8 x1/2MNPT
24	1	05271	FTG POLY ELB 1/2NPT F/F



NOTE: THE TIP IN YOUR PARTICULAR UNIT MAY BE DIFFERENT FROM WHAT IS DISPLAYED IN THE DRAWING. SEE APPLICABLE APPLICATION RATE CHART FOR TIP USED IN UNIT.

DRAWN: JEFF BILINSKI	ROGERS SPRAYERS INC.		
DATE: 1/2/2007	TITLE: PLUMBING ASSY FY1000		
LOCATION: PLUMBING	DWG NO:		
REVISION # 01	Plumbing Assy FY1000		
SCALE: BEST FIT	MATERIAL: A	SIZE: A	

ORC Rotometer Parts Part # 11992

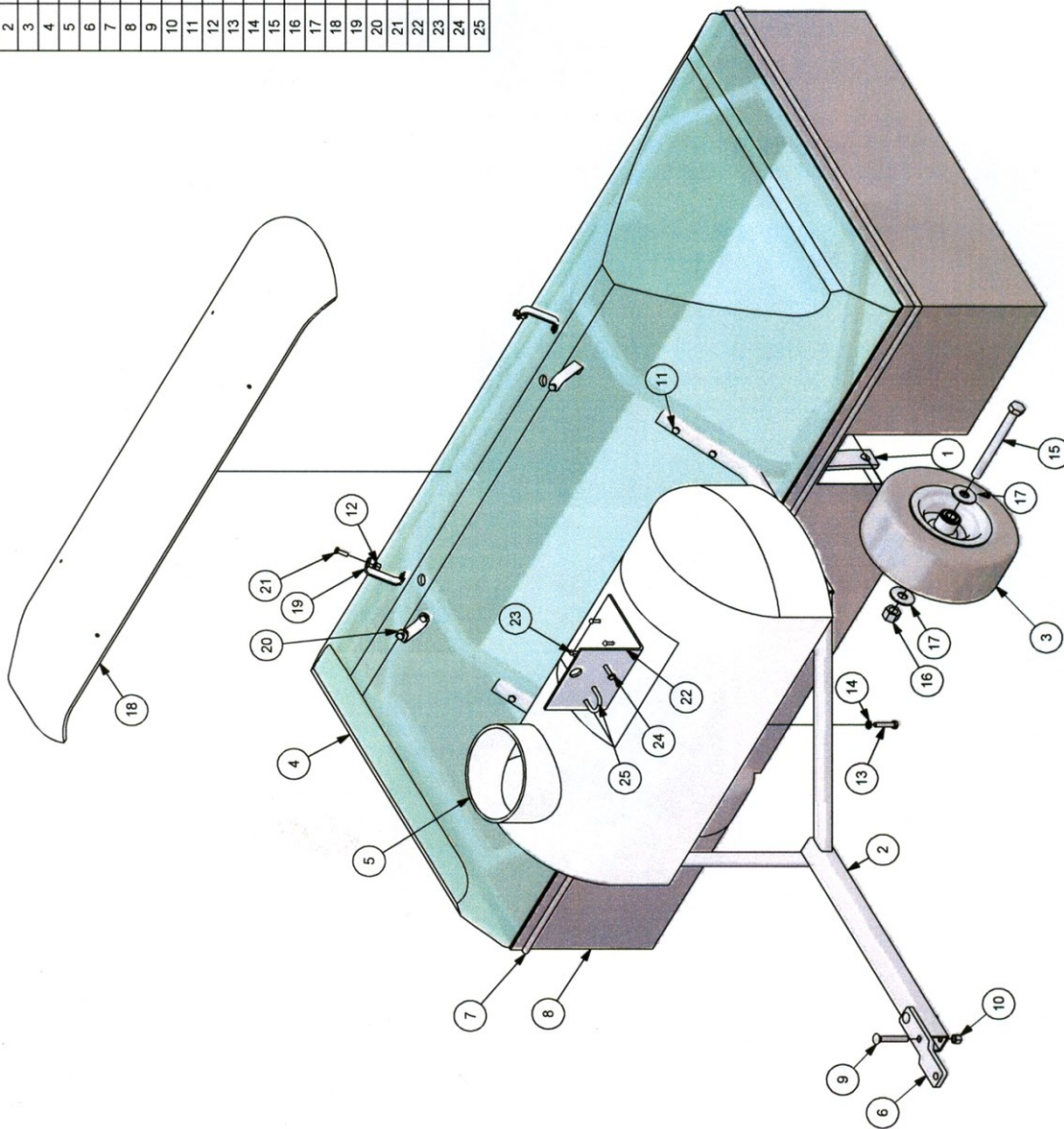


Parts List			
ITEM	QTY	PART#	DESCRIPTION
1	1	00889	FLOWMONITOR ORC BODY
2	1	11984	O-RING ORC
3	1	00909	FTG POLY ORC CAP
4	1	11976a	ORC CLIP
5	1	11990	BALL FI CELCON 0.09-0.3 USGPM
6	1	11989	ORC BALL RETAINER
7	1	01115	FTG POLY ELB ST MORC x FORC
8	1	11975	FTG POLY ADPT MORC x 1/2HB
9	1	00906	FTG POLY ELB MORC x 1/2HB
10	1	00905	FTG POLY ADPT MORC x 3/4HB
11	1	00903	FTG POLY ADPT MORC x 1/4FNPT
12	1	12727	BALL FI POLY 0.03-0.09 USGPM
13	1	01118	BALL FI POLY 0.05-0.18 USGPM
14	1	01119	BALL FI GLASS 0.31-0.72 USGPM
15	1	11965	BALL FI SS 1/2" 0.31-1.33 USGPM
16	1	11991	BALL FI SS 1/2" 0.31-1.33 USGPM

DRAWN: MERV BILINSKI		ROGERS SPRAYERS INC.	
DATE: 4/19/2006		TITLE: ORC ROTOMETER PARTS	
BY: J. BILINSKI		DWG NO: 11992	
CHECKED: J. BILINSKI		SCALE: BEST FIT	
REVISION#		MATERIAL: A	

General Assembly

Parts List		
ITEM	QTY	PART# DESCRIPTION
1	1	14220S FRAME, FY1000
2	1	14227 HITCH ASSEMBLY, FY
3	2	00920 WHEEL ASSY 5/8"ID SEALED BRG
4	1	00849.1 SHROUD 3 NOZ. FY. RED/GREEN
5	1	14125 TANK 14 GAL. SPOT SPRAYER
6	1	14229 HITCH TAB, FY
7	1	14231 FLEXISHIELD HANGER, FY1000
8	1	14230 FLEXISHIELD FY1000
9	2	13993 BOLT CARRIAGE 3/8NCx2-1/2
10	2	00956 NUT, NYLOCK, 3/8NC, PLD
11	4	00966 BOLT, 1/4NCx2.5, PLD
12	15	00988 NUT, NYLOCK 1/4" PLD
13	6	05455 BOLT, 5/16"x1.5", PLD
14	6	05570 WASHER LOCK 5/16 PLD
15	2	01166 BOLT, 5/8"x6.5", PLD
16	2	01051 NUT, NYLOCK, 5/8NC, PLD
17	4	00960 WASHER, 5/8", PLD
18	1	01500 AIRFOIL 48" w/holes
19	2	13478 STANDOFF, BACK (SHORT)
20	2	13479 STANDOFF, FRONT (LONG)
21	8	01154 BOLT, 1/4NCx3/4, PLD
22	1	14232 PLUMBING MOUNTING PLATE
23	4	05385 SCREW MACH, C #10-24x1-1/4
24	1	05409 BOLT, 1/4NCx1.75, PLD
25	1	05111 UBOLT 1/4NC x 1 x 2, ROUND



DRAWN: MERV BLINSKI		ROGERS SPRAYERS INC.	
DATE: 01/15/2004		TITLE: FARM YARD 1000 ASSEMBLY	
LOCATION: FARM TOWER		DWG NO:	
REVISION:		Farm Yard Assembly	
SCALE:		MATERIAL:	
BEST FIT		SIZE: A	



ROGERS SPRAYERS INC.

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