



SC Poly Unit Quick Reference Sheet



DIAPHRAGM PUMP CALIBRATION

The following steps illustrate how to calibrate a SC Poly Unit with a Diaphragm Pump. A stop watch and measuring cup will be needed during the calibration process.

1. Calibrate the seed flow of the seed treater before calibrating the SC Poly Unit. Seed flow calibrations should be done with at least 40 units or 2000 lbs of seed.
2. Premix enough liquid for the amount of seed you are treating and pour into the poly mixing tank. It's always a good practice to mix up 20% extra slurry to help fill all the lines.
3. Turn the calibration valve to the "CALIBRATE" position.
4. Turn the "CHEMICAL PUMP" switch to "HAND", and adjust the to metering valve to about "90". This will allow chemical to fill all the lines and pump. Use the measuring cup to catch the chemical as it empties out the end of the calibration hose.
5. Let chemical flow for at least 15 minutes to ensure all air has been removed from the liquid lines.
7. After all the air has been removed from the chemical lines, turn the "Hand/Off/Auto" switch to "Off". Determine the number of ounces needed in one minute.

EXAMPLE: Seed Flow Rate = 7.00 cwt/min. x 4 oz. slurry/cwt. = 28 oz./min.
28 oz. is the rate the pump should be flowing in one minute.

8. Set the Metering Valve. You can use the chart on the next page to find a starting point.

EXAMPLE: The ounces needed in one minute = 28 oz/min. A good starting point is approximately dial setting 50 on the metering valve (right).

9. Use the stop watch and measuring cup to determine the pump flow rate. Position the calibration valve to "CALIBRATE". Position the measuring cup under the calibration hose. Turn the "CHEMICAL PUMP" switch to "HAND" and begin timing for one minute as soon as liquid begins flowing into the measuring cup
10. As soon as one minute is up, turn the "CHEMICAL PUMP" switch to "OFF". Read the level on the side of the measuring cup. This number should equal the number of ounces needed to flow through the pump in one minute. If the ounces needed per minute have not been met, adjust the metering valve up or down accordingly and repeat steps 9 & 10 until the liquid flow rate has been matched.



Metering Valve at Dial Setting 50

PERISTALTIC PUMP CALIBRATION

The following steps illustrate how to calibrate a peristaltic pump on a SC Poly Unit. A stop watch and measuring cup will be needed during the calibration process.

1. Lock down the pump tubing in the pump head.
2. Premix enough liquid for the amount of seed you are treating and pour into the poly mixing tank. It's always a good practice to mix up 20% extra slurry to help fill all the lines.
3. Turn the calibration valve to the "CALIBRATE" position.
4. Turn the pump direction switch to "FORWARD".
5. Turn the "CHEMICAL PUMP" switch to the "HAND" position and set the Liquid Adjustment dial to about "500" or half speed. Liquid should begin circulating from the bottom of the mix tank, through the pump, and out the calibration hose. Use the measuring cup or other container to catch the liquid.
6. Let chemical flow for at least 15 minutes to ensure all air has been removed from the liquid lines. This also helps to break-in the pump tubing, which is critical before checking liquid calibration.
7. After you have allowed the liquid to circulate you are ready to calibrate the liquid flow. Turn the "CHEMICAL" switch to "OFF". Determine the number of ounces needed in one minute.

EXAMPLE: The seed treatment slurry rate is 4 ounces per cwt.
Seed Flow Rate = 7.00 cwt/min. x 4 oz./cwt. = 28 oz./min.
28 oz. is the rate the pump should be pumping in one minute.

8. Set the Liquid Adjustment Dial . You can use the chart on the next page to find a starting point.

EXAMPLE: The ounces needed in one minute = 28 oz/min. Assume we are using a 6-600 Masterflex pump. A good starting point is approximately 34.8 volts.

9. Use the stop watch and measuring cup to determine the pump flow rate. Position the calibration valve to "CALIBRATE". Position the measuring cup under the calibration hose. Turn the "CHEMICAL PUMP" switch to "HAND" and begin timing for one minute as soon as liquid begins flowing into the measuring cup.
10. As soon as one minute is up, turn the "CHEMICAL PUMP" switch to "OFF". Read the level on the side of the measuring cup. This number should equal the number of ounces needed to flow through the pump in one minute. If the ounces needed per minute have not been met, adjust the pump speed up or down accordingly and repeat steps 9 & 10 until the liquid flow rate has been matched.

Refer to the Owners Manual for Further Details



SC Poly Unit, Pump Settings



**NOTE: ALL CALIBRATIONS WERE DONE USING WATER.
NUMBERS ARE NOT EXACT, ONLY USE THESE NUMBERS AS A STARTING POINT OR FOR TROUBLESHOOTING.**



Diphragm Pump with Metering Valve

<u>Dial Setting</u>	<u>OZ./Min</u>	<u>ml./Min</u>	<u>Dial Setting</u>	<u>OZ./Min.</u>	<u>ml./Min.</u>
25	1.0	30	105	156.2	4,620
30	2.9	86	110	161.6	4,780
35	6.8	201	115	164.6	4,869
40	11.6	343	120	167.0	4,940
45	18.0	532	125	168.1	4,972
50	28.2	834	130	170.3	5,037
55	37.7	1,115	135	172.0	5,088
60	51.8	1,532	140	174.2	5,153
65	68.1	2,014	145	175.0	5,177
70	84.5	2,500	150	175.5	5,191
75	99.1	2,931	155	176.5	5,221
80	113.2	3,348	160	177.1	5,239
85	128.7	3,807	165	177.5	5,250
90	139.1	4,115	170	178.0	5,265
95	147.0	4,348	175	179.0	5,295
100	152.0	4,496	180	179.5	5,310

6-600 Peristaltic Pump Masterflex L/S 35 Pump Hose

<u>Volts</u>	<u>OZ./Min.</u>	<u>ml./Min.</u>
10.5	7.4	219
14.6	10.5	311
18.8	14.1	417
22.9	17.7	524
27.0	21.3	630
31.2	24.9	737
35.3	28.5	843
39.4	32.1	950
43.6	35.7	1,056
47.7	39.3	1,162
51.8	42.9	1,269
55.9	46.5	1,375
60.1	50.1	1,482
64.2	53.7	1,588
68.3	57.3	1,695
72.5	60.9	1,801
76.6	64.5	1,908
80.7	68.1	2,014
84.9	71.7	2,121
89.0	75.3	2,227

2-200 Peristaltic Pump Masterflex I/P 82 Pump Hose

<u>Volts</u>	<u>OZ./Min.</u>	<u>ml./Min.</u>
10.0	12.7	376
14.1	19.3	570
18.2	25.8	764
22.3	32.4	959
26.3	39.0	1,153
30.4	45.5	1,347
34.5	52.1	1,541
38.6	58.7	1,736
42.7	65.2	1,930
46.8	71.8	2,124
50.8	78.4	2,318
54.9	84.9	2,513
59.0	91.5	2,707
63.1	98.1	2,901
67.2	104.7	3,096
71.3	111.2	3,290
75.3	117.8	3,484
79.4	124.4	3,678
83.5	130.9	3,873
87.6	137.5	4,067