

# DE-ICE EQUIPMENT



## ***300 GALLON TRUCK UNIT PARTS MANUAL***

**Dear Valued Customer:**

**We would like to take this time to thank you for your recent purchase of Agro-Chem De-Ice Equipment. If there is anything we can do to assist you in any other of your De-Ice needs please call us at 1-800-438-4489.**

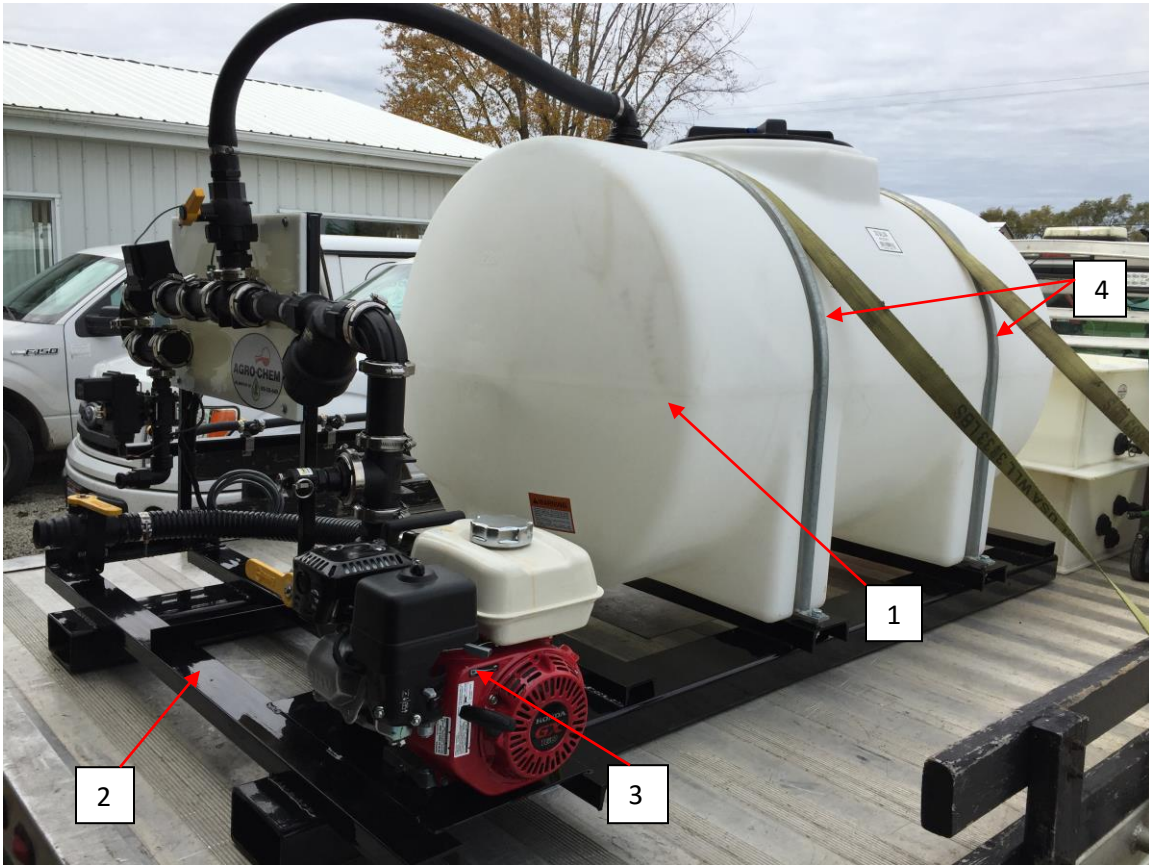
**Thank you,**

**Agro-Chem East Employees**

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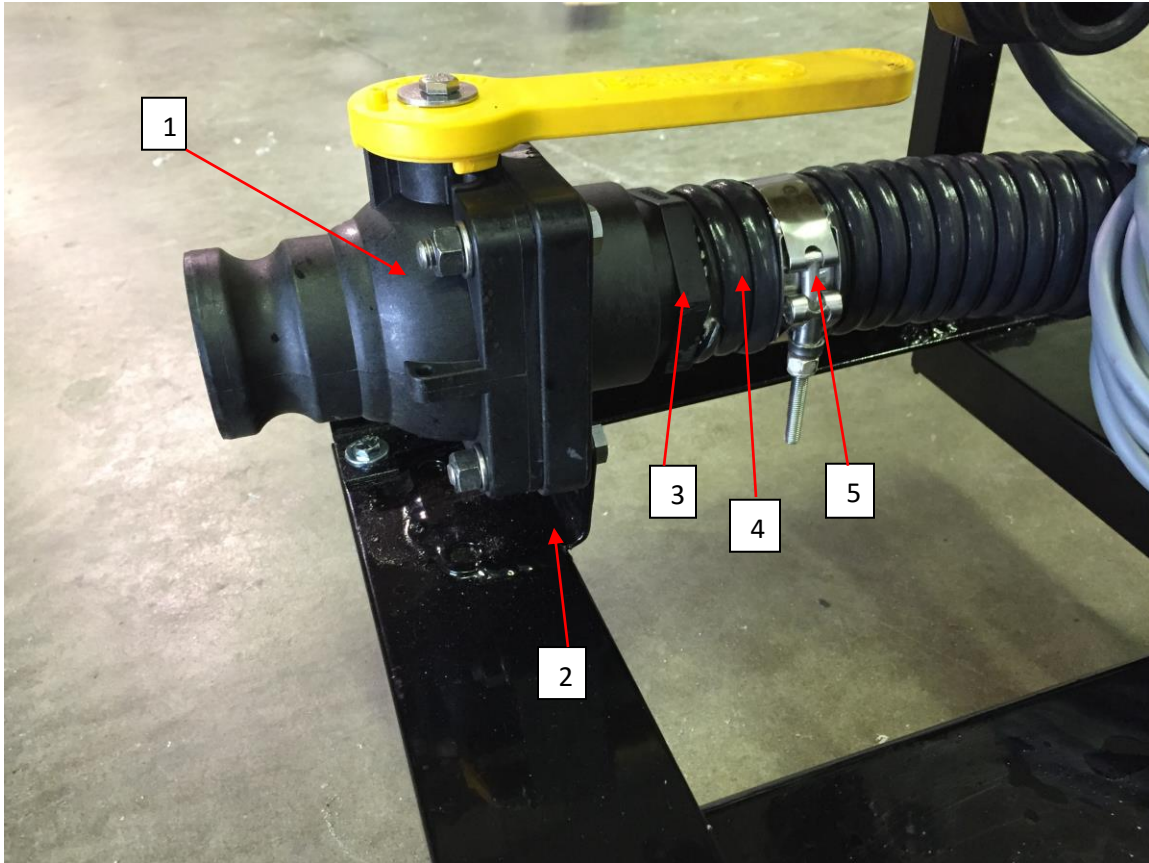
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# OVERVIEW



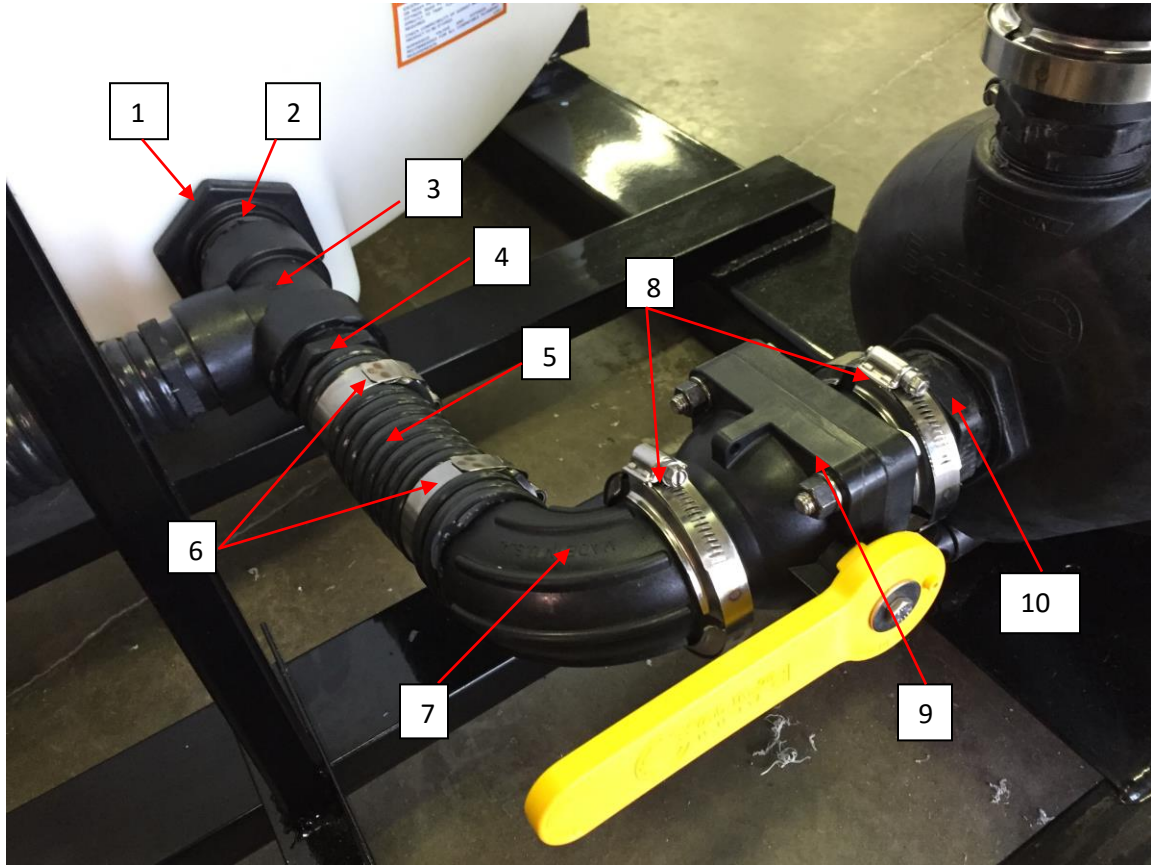
Item #	Qty	Description	Part #
1	1	325 Gallon Norwesco Leg Tank	40217
2	1	Steel Frame	300 FRAME
3	1	Honda Gas Motor with 2" Banjo 200P Poly Pump	200 PH5
	1	Replacement Mechanical Seal, EPDM	RS601ESS
4	2	325 Leg Tank Bands	60478

# QUICK FILL



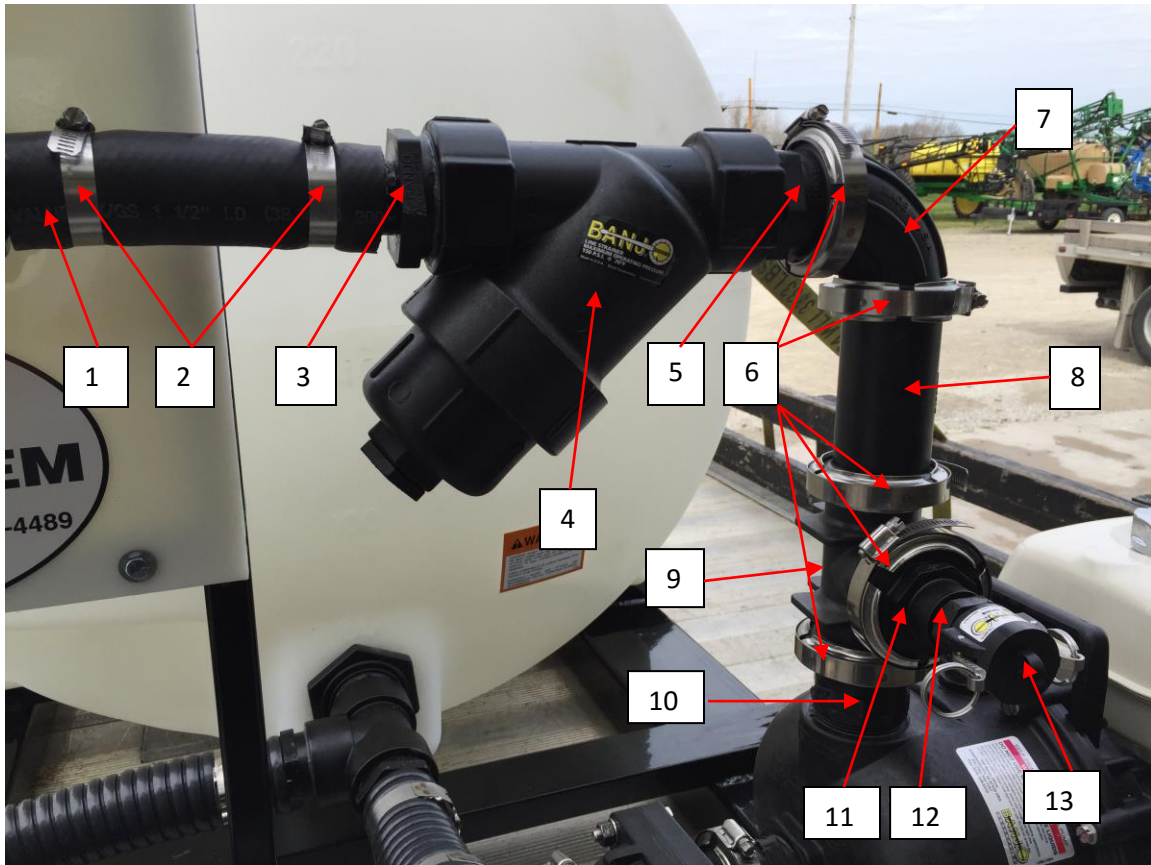
Item #	Qty	Description	Part #
1	1	2" Male Adapter x 2" Female NPT Valve	VSF204FP
2	1	90 Degree Valve Mounting Bracket	V25271
3	2	2" Male Thread x 2" Hose Barb	HB200
4	4'	2" EPDM Suction Hose	390-200
5	2	2" Super T-Bolt Hose Clamp	TC231

# PUMP INTAKE



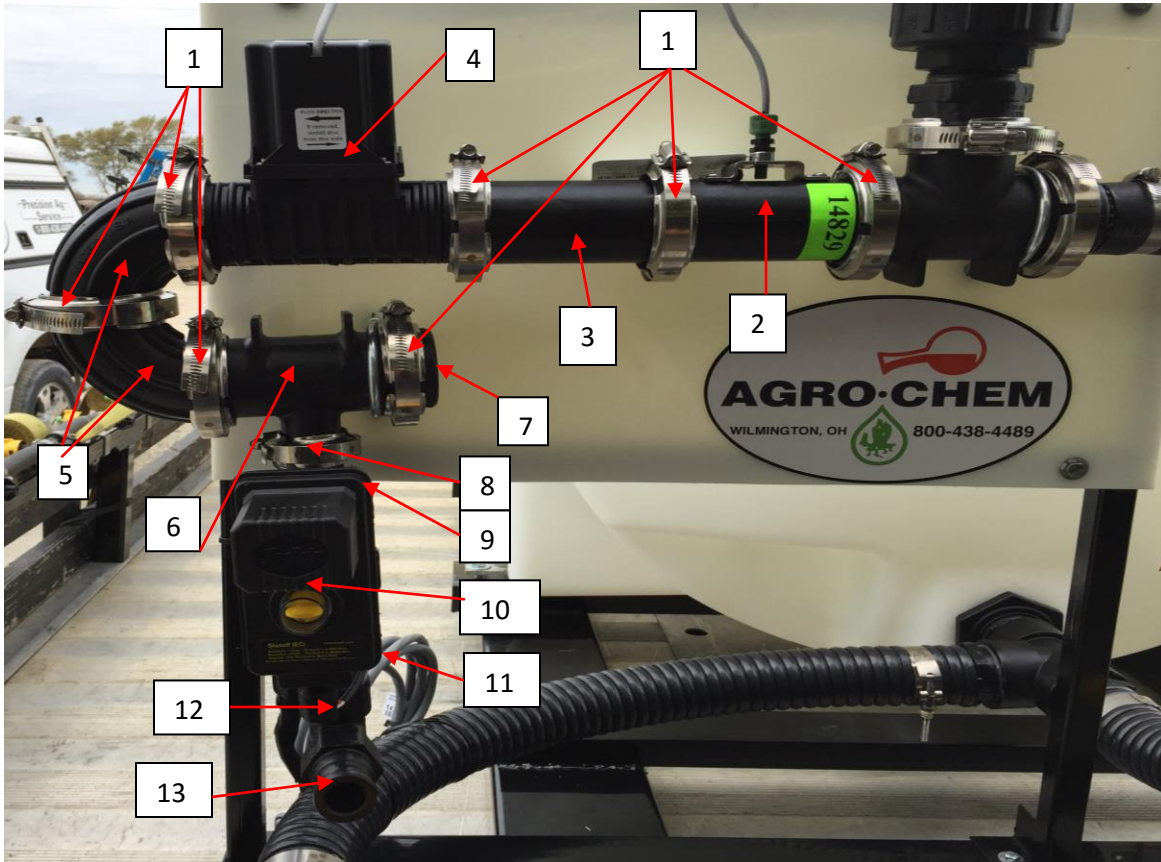
Item #	Qty	Description	Part #
1	1	2" Full Port Poly Bulkhead Tank Fitting	TF220
2	1	2" x Short Poly Pipe Nipple	NIP200-SH
3	1	2" Poly Pipe Tee	TEE200
4	1	2" Male Thread x 2" Hose Barb	HB200
5	1'	2" EDPM Suction Hose	390-200
6	2	2" Super T-Bolt Hose Clamp	TC231
7	1	2" Full Port Flanged Hose Shank Sweep	M220BRBWP90
8	2	2" Worm Screw Clamp – 220 Series Full Port	FC220
	2	220 Series EDPM Gasket (used with FC220)	200G
9	1	2" Full Port Flange x 2" Full Port Flange Valve	MVS220CF
10	1	2" Full Port Flange x 2" Male Thread	M220MPT

# PUMP DISCHARGE



Item #	Qty	Description	Part #
1	1'	1-1/2" Black Sprayer Hose	L 81 1-1/2"
2	1	Stainless Steel clamp 1-1/2"	28J
3	1	2" Male thread x 1-1/2" Hose barb	HB200/150
4	1	2" "Y" Strainer, 12 Mesh Screen	LS 200 12
5	1	2" Standard Port Flange x 2" Male Thread	M200MPT
6	5	2" Worm Screw Clamp – 200 Series Standard Port	FC200
	5	20 Series EDPM Gasket (used with FC200)	150G
7	1	2" Standard Port Flange x Flange Sweep	M200SWP90
8	1	2" Standard Port Flange Coupler	M200CPG
9	1	2" Standard Port Flanged Tee	M200TEE
10	1	2" Standard Port Flange x 2" Male Thread	M200MPT
11	1	2" Standard Port Flange Plug w/ 3/4" FPT	M200PLG075
12	1	3/4" Male Adapter with MPT	075F
13	1	3/4" Cam Lock Cap	075CAP

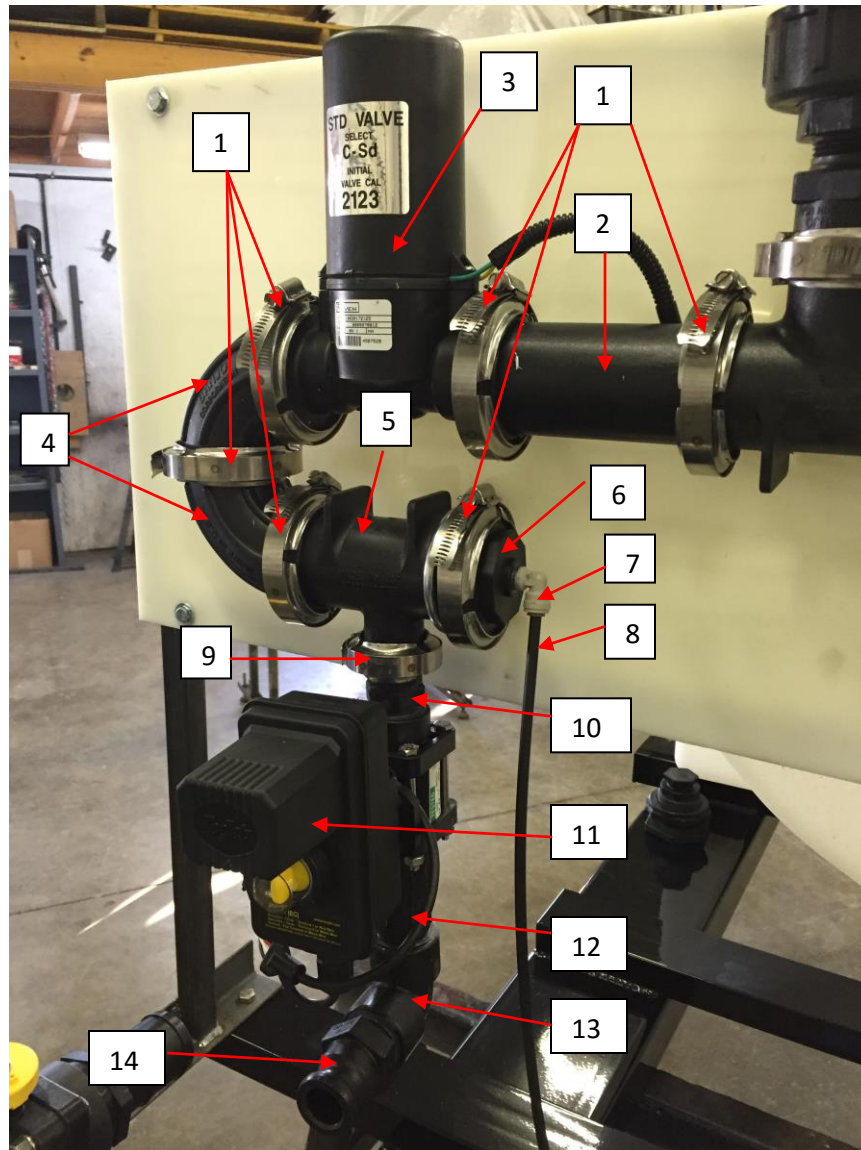
## REGULATING (MicroTrak)



Item #	Qty	Description	Part #
1	7	2" Worm Screw Clamp – 200 Series Standard Port	FC200
	7	20 Series EPDM Gasket (used with FC200)	150G
2	1	MicroTrak FM10100 Flowmeter Kit	01514
3	1	2" Standard Port Flange Coupler	M200CPG
4	1	MicroTrak Flanged Regulating Valve, 1-1/2"	01565
5	2	2" Standard Port Flange x Flange Sweep	M200SWP90
6	1	2" Standard Port x 1" Flanged Tee	M200100TEE
7	1	2" Standard Port Flange Plug	M200PLG
8	1	1" Worm Screw Clamp – 100 Series	FC100
	1	EPDM Gasket (1") – 100 Series	M100G
9	1	1" Flange x 1" Male Thread	M100MPT
10	1	TeeJet On/Off Electric Valve, 1" FPT	344BEC24C
11	1	1" x 4" Poly Pipe Nipple	NIP100-4
12	1	1" Poly Pipe Elbow, 90 Degrees	EL100-90
13	1	1" Male Adapter with MPT	100F

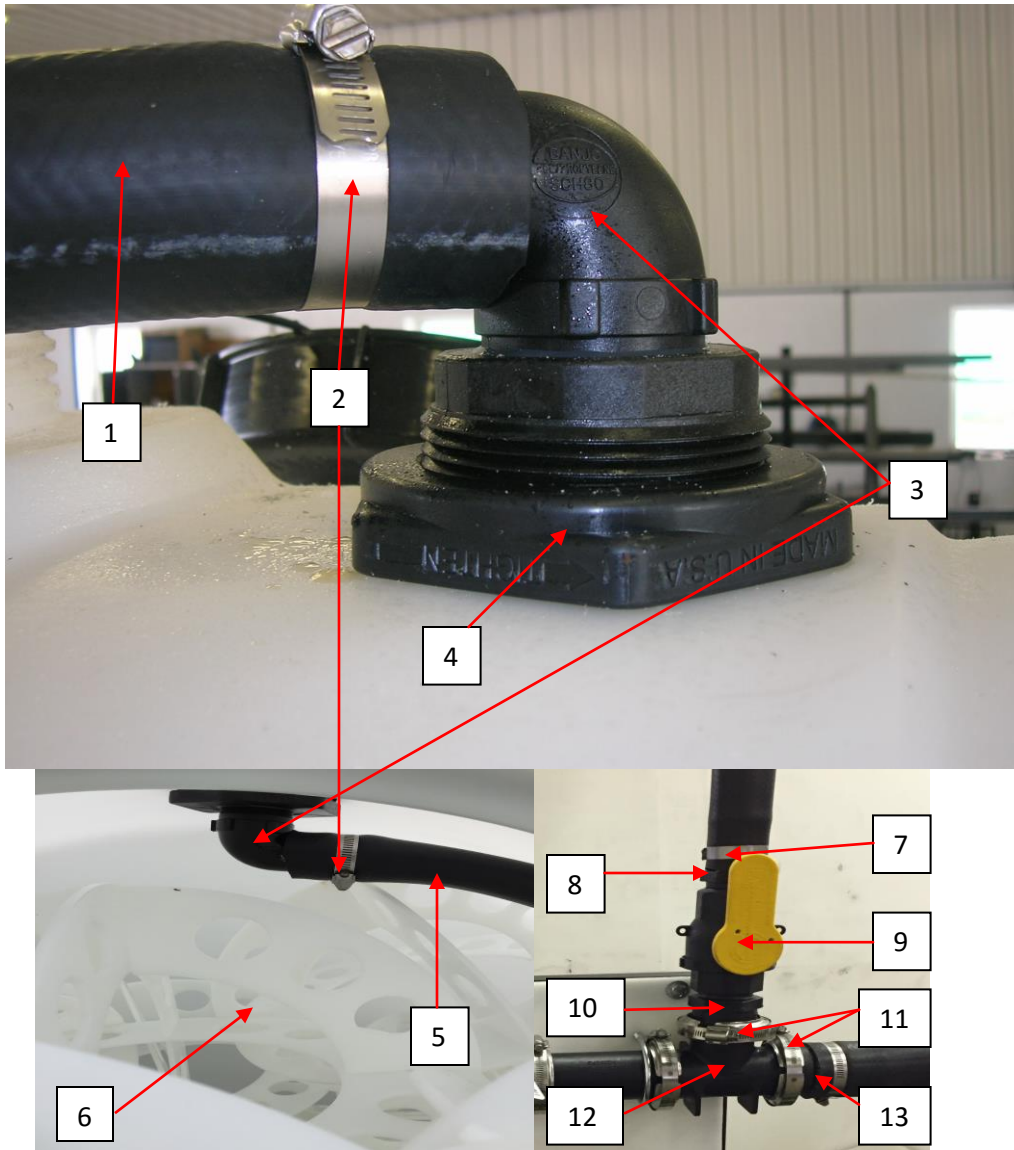


## REGULATING (Raven)



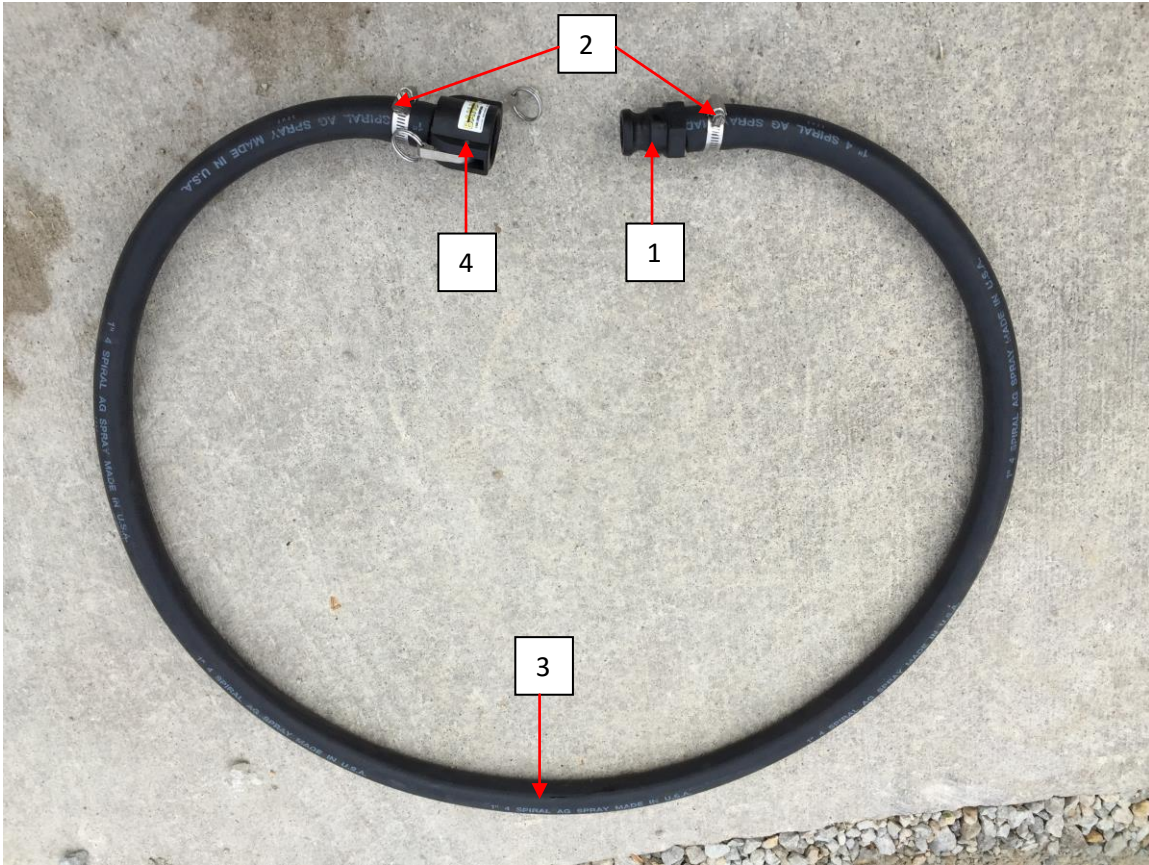
Item #	Qty	Description	Part #
1	6	2" Worm Screw Clamp – 200 Series Standard Port	FC200
	6	20 Series EPDM Gasket (used with FC200)	150G
2	1	2" Standard Port Flange Coupler	M200CPG
3	1	1-1/2" Raven Regulating Valve	063-0171-894
4	2	2" Standard Port Flange x Flange Sweep	M200SWP90
5	1	2" Standard Port x 1" Flanged Tee	M200100TEE
6	1	2" Standard Port Flange Plug with 1/4" FPT	M200PLG025
7	1	1/4" Male Thread x 1/4" Connector, 90 Degree	ME140140
8	22	1/4" Airline (Included in SCS Extension Cable)	AIRLINE 1/4
9	1	1" Worm Screw Clamp – 100 Series	FC100
	1	EPDM Gasket (1") – 100 Series	M100G
10	1	1" Flange x 1" Male Thread	M100MPT
11	1	TeeJet On/Off Electric Valve, 1" FPT	344BEC24C
12	1	1" x 4" Poly Pipe Nipple	NIP100-4
13	1	1" Poly Pipe Elbow, 90 Degrees	EL100-90
14	1	1" Male Adapter with MPT	100F

# RETURN LINE



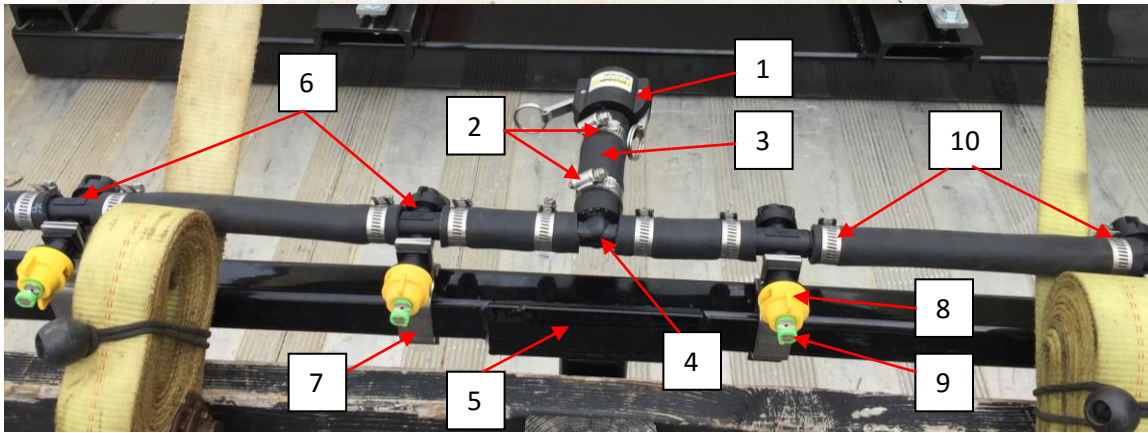
Item #	Qty	Description	Part #
1	7'	1-1/2" Black Sprayer Hose	L81 1-1/2"
2	2	Stainless Steel Clamp, 1-1/2"	28J
3	2	1-1/2" Male Thread x 1-1/2" Hose Barb 90 Degree	HB150-90
4	1	1-1/2" Poly Bulkhead EPDM Tank Fitting	TF 150
5	5'	1 1/2" Black Sprayer Hose	L81 1-1/2"
6	30	Baffle Balls	LSS1575
7	1	Stainless Steel Clamp, 1-1/2"	28J
8	1	1-1/2" Male Thread x 1-1/2" Hose Barb	HB150
9	1	1-1/2" Full Port Single Union Ball Valve	SUV150FP
10	1	2" Standard Port Flange x 1-1/2" Male Thread	M200150MPT
11	2	2" Worm Screw Clamp – 200 Series Standard Port	FC200
	2	EPDM Gasket (1-1/2") – 200 Series Standard Port	150G
12	1	2" Standard Port Flanged Tee	M200TEE
13	1	2" Standard Port Flange x 1-1/2" Hose Barb	M200150BRB

# BOOM HOSE



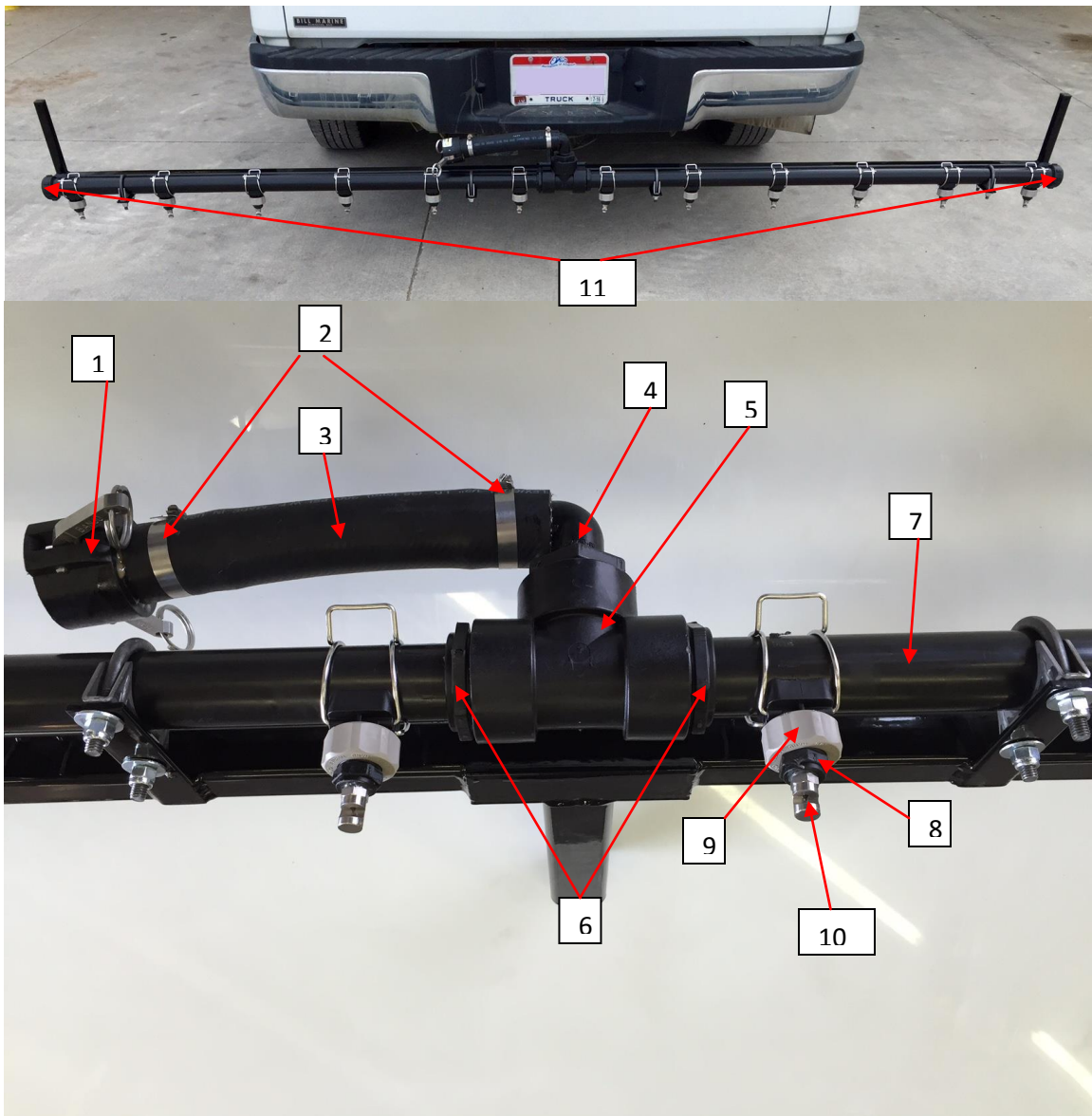
Item #	Qty	Description	Part #
1	1	1" Male Adapter – 1" Hose Shank Cam-Lock	100E
2	2	Stainless Steel Clamp, 1"	16J
3	5'	1" Black hose	L81 1"
4	1	1" Shank Coupler Cam-Lock	100C

# BOOM



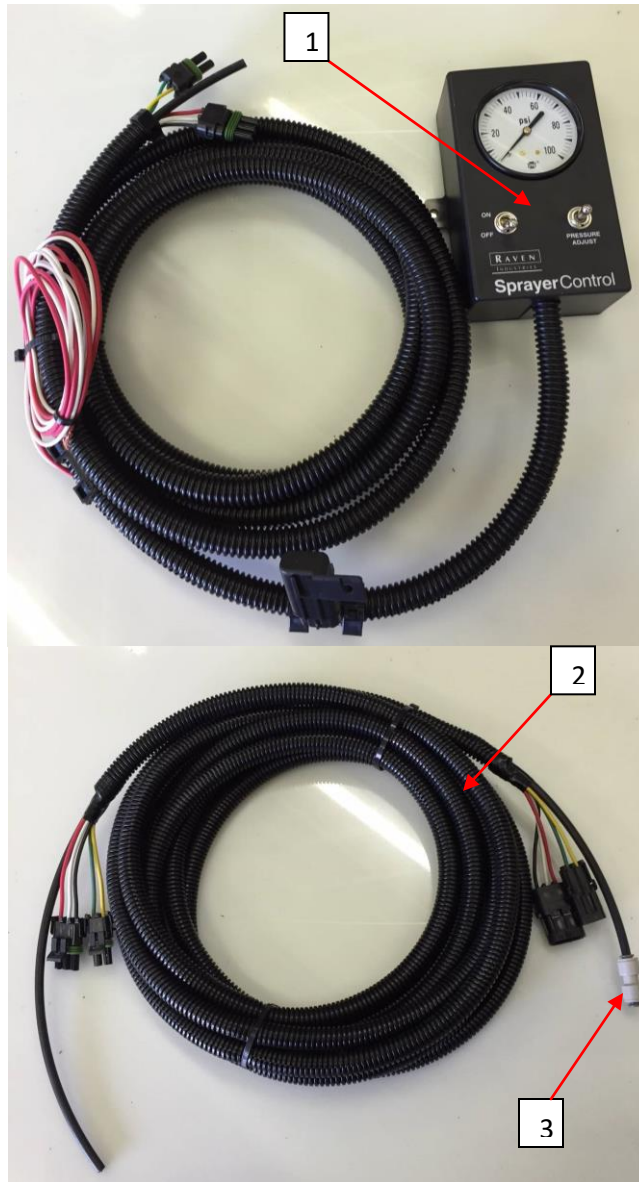
Item #	Qty	Description	Part #
1	1	1" Shank Coupler Cam-Lock	100C
2	2	Stainless Steel Clamp, 1"	16J
3	1'	Black Sprayer Hose, 1"	L81 1"
4	1	3/4" x 3/4" x 1" Poly Hose Barb Tee	HBT-075-100
5	1	Steel Frame with Receiver Hitch	Deice Boom
6	8	3/4" Double Hose Shank Nozzle Body	312 750 NYB
	2	3/4" Single Hose Shank Nozzle Body	311 750 NYB
7	10	Vari-Spacing Boom Clamp, 1-1/2" Stainless Steel	QJ111SQ1-1/2 304S
8	10	Quick TeeJet Caps w/ EPDM Gasket	25600-1NYR
9	10	TeeJet Wide Angle Flat Spray Tip	TK-VS7.5
10	22	3/4" Stainless Steel Clamp	12J

# WET BOOM



Item #	Qty	Description	Part #
1	1	1-1/2" Shank Coupler	150C
2	2	Banjo Super T-Bolt Clamp (Stainless Steel)	TC193
3	1'	Black Sprayer Hose, 1-1/2"	L81 1-1/2
4	1	2" Male Thread x 1-1/2" Hose Shank 90 Degree	HB200/150-90
5	1	2" Poly Pipe Tee	TEE200
6	2	2" x 1-1/2" Poly Pipe Reducer Bushing	RB200-150
7	10'	1-1/2" I.D. Poly Tubing	ACPT112
8	12	TeeJet Threaded Ball, 1/4"	20570D11/2PPB
9	12	TeeJet Dual Eyelet Clip, 1-1/2"	205821/2PPB
10	12	TeeJet Turbo FloodJet Spray Tip	TF-VS7.5
11	2	Poly Pipe Cap, 1-1/2"	CAP150

# RAVEN SCS 11 CONTROLLER



Item #	Qty	Description	Part #
1	1	SCS 11 Controller	070-0159-011
2	1	SCS 11 Extension Cable	CUSTOM
3	1	1/4" Airline Connector	MT2650404

## SCS 11 WIRING CONNECTIONS

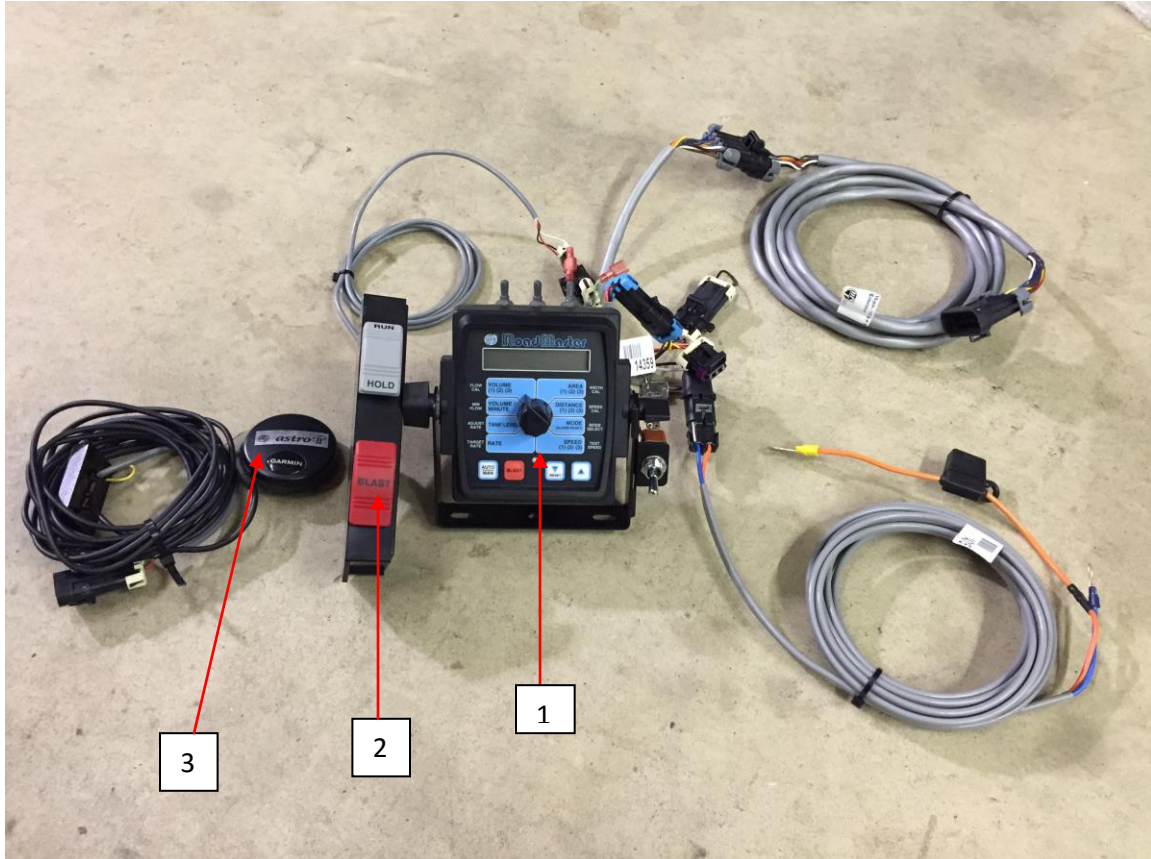
### Top Picture

Red	12 VOLT POWER WIRE
White	GROUND WIRE

### Bottom Picture

Yellow & Green	Regulating Valve Wires (2 pin WP)
Red/White/Black	On/Off Valve Wires (3 pin WP)
Black Hose	1/4" Airline
White Airline Coupler	Airline Fitting on Sprayer

# MICROTRAK ROADMASTER CONTROLLER



Item #	Qty	Description	Part #
1	1	RoadMaster De-ice Rate Controller (cables included)	01590
2	1	Blast/Run/Hold Remote Switch Box	01744
3	1	Astro 5 GPS Speed Sensor (5 Hz)	01425
	1	FM10100 Flowmeter Kit (Item #2 on Page 8)	01514
	1	Flanged Regulating Valve Kit, 1-1/2" (Item #4 on Pg. 8)	01565

FOR WIRING DIRECTIONS AND BEST INSTALLATION PRACTICES  
PLEASE REFER TO THE ROADMASTER MANUAL OR THE  
MICROTRAK CHEAT SHEET PROVIDED BY AGRO CHEM.

# CALIBRATION

To ensure that the correct rate is applied, use the following formula and chart.

**Step 1: Determine gallons per lane mile to apply**

**Step 2: Determine approximate driving speed**

**Step 3: Measure distance between nozzles (Inches).**

**Step 4: Measure lane width in feet**

**Step 5: Calculate GPM / nozzle**

$$\text{GPM} = \frac{(\text{Gal/Lane Mile}) \times \text{MPH} \times \text{Nozzle Spacing}}{(720 \times \text{Lane Width})}$$

Example:



$$\text{GPM} = \frac{20 \times 55 \times 10}{720 \times 8}$$

$$\text{GPM} = 1.9$$

**Step 6: Take GPM and match it to the chart**

This will give you the correct nozzle size and pressure to apply the desired amount of product if using nozzles or the chart on page 16 if using drops.



 	PSI	DROP SIZE	CAPACITY ONE NOZZLE IN GPM	CAPACITY ONE NOZZLE IN OZ./MIN.
TF-†2 (50)	10	XC	0.20	26
	20	XC	0.28	36
	30	XC	0.35	45
	40	XC	0.40	51
TF-†2.5 (50)	10	XC	0.25	32
	20	XC	0.35	45
	30	XC	0.43	55
	40	XC	0.50	64
TF-†3 (50)	10	XC	0.30	38
	20	XC	0.42	54
	30	XC	0.52	67
	40	XC	0.60	77
TF-†4 (50)	10	XC	0.40	51
	20	XC	0.57	73
	30	XC	0.69	88
	40	XC	0.80	102
TF-†5	10	XC	0.50	64
	20	XC	0.71	91
	30	XC	0.87	111
	40	XC	1.00	128
TF-†7.5	10	XC	0.75	96
	20	XC	1.06	136
	30	XC	1.30	166
	40	XC	1.50	192
TF-†10	10	XC	1.00	128
	20	XC	1.41	180
	30	XC	1.73	221
	40	XC	2.00	256



Orifice Plate No.	Pressure in PSI	Capacity in GPM	Orifice Plate No.	Pressure in PSI	Capacity in GPM	Orifice Plate No.	Pressure in PSI	Capacity in GPM	Orifice Plate No.	Pressure in PSI	Capacity in GPM	Orifice Plate No.	Pressure in PSI	Capacity in GPM	Orifice Plate No.	Pressure in PSI	Capacity in GPM	
4916-20	10	.026	4916-37	10	.086	4916-55	5	.133	4916-80	5	.280	4916-120	5	.629	4916-172	5	1.3	
	20	.037		20	.121		10	.188		10	.397		10	.890		10	1.92	
	30	.045		30	.148		20	.266		20	.561		20	1.26		20	2.71	
	40	.052		40	.171		30	.326		30	.687		30	1.54		30	3.32	
4916-22	10	.031	4916-39	10	.095	4916-57	5	.141	4916-81	5	.290	4916-125	5	.883	4916-177	5	1.41	
	20	.043		20	.135		10	.200		10	.411		10	.980		10	2.00	
	30	.053		30	.165		20	.283		20	.581		20	1.39		20	2.83	
	40	.061		40	.191		30	.346		30	.711		30	1.70		30	3.46	
4916-24	10	.037	4916-40	10	.102	4916-59	5	.152	4916-83	5	.317	4916-128	5	.721	4916-182	5	1.47	
	20	.053		20	.144		10	.215		10	.449		10	1.02		10	2.08	
	30	.064		30	.177		20	.304		20	.634		20	1.44		20	2.95	
	40	.074		40	.204		30	.372		30	.777		30	1.77		30	3.61	
4916-25	10	.040	4916-41	10	.105	4916-61	5	.165	4916-86	5	.332	4916-132	5	.774	4916-187	5	1.56	
	20	.056		20	.149		10	.233		10	.470		10	1.10		10	2.21	
	30	.069		30	.182		20	.330		20	.664		20	1.55		20	3.12	
	40	.080		40	.211		30	.404		30	.613		30	1.90		30	3.82	
4916-26	10	.043	4916-43	10	.115	4916-63	5	.174	4916-89	5	.346	4916-136	5	.840	4916-196	5	1.73	
	20	.061		20	.163		10	.246		10	.490		10	1.18		10	2.45	
	30	.074		30	.199		20	.347		20	.693		20	1.68		20	3.46	
	40	.085		40	.230		30	.425		30	.849		30	2.06		30	4.24	
4916-27	10	.045	4916-45	10	.125	4916-65	5	.185	4916-91	5	.389	4916-140	5	.894	4916-205	5	1.88	
	20	.064		20	.177		10	.261		10	.523		10	1.27		10	2.65	
	30	.078		30	.216		20	.369		20	.739		20	1.79		20	3.75	
	40	.090		40	.249		30	.452		30	.905		30	2.19		30	4.59	
4916-28	10	.049	4916-46	10	.135	4916-67	5	.196	4916-93	5	.387	4916-144	5	.926	4916-218	5	2.11	
	20	.069		20	.191		10	.278		10	.547		10	1.31		10	2.98	
	30	.085		30	.233		20	.392		20	.774		20	1.85		20	4.21	
	40	.098		40	.269		30	.481		30	.947		30	2.27		30	5.16	
4916-29	10	.054	4916-47	10	.137	4916-68	5	.203	4916-95	5	.404	4916-147	5	.953	4916-234	5	2.45	
	20	.076		20	.194		10	.287		10	.572		10	1.35		10	3.47	
	30	.093		30	.238		20	.405		20	.808		20	1.91		20	4.91	
	40	.107		40	.275		30	.496		30	.990		30	2.33		30	6.01	
4916-30	10	.057	4916-48	10	.143	4916-70	5	.218	4916-98	5	.442	4916-151	5	1.04	4916-250	5	2.83	
	20	.081		20	.202		10	.306		10	.625		10	1.47		10	4.00	
	30	.099		30	.247		20	.433		20	.884		20	2.08		20	5.66	
	40	.114		40	.285		30	.530		30	1.08		30	2.55		30	6.83	
4916-31	10	.061	4916-49	10	.147	4916-72	5	.226	4916-103	5	.461	4916-156	5	1.10				
	20	.087		20	.208		10	.320		10	.653		10	1.55				
	30	.106		30	.255		20	.453		20	.823		20	2.20				
	40	.122		40	.294		30	.554		30	1.13		30	2.69				
4916-32	10	.067	4916-51	10	.165	4916-73	5	.233	4916-107	5	.518	4916-161	5	1.15				
	20	.095		20	.233		10	.330		10	.733		10	1.63				
	30	.117		30	.285		20	.467		20	1.04		20	2.31				
	40	.135		40	.329		30	.572		30	1.27		30	2.83				
4916-34	10	.073	4916-52	10	.167	4916-75	5	.245	4916-110	5	.548	4916-166	5	1.21				
	20	.104		20	.237		10	.347		10	.775		10	1.72				
	30	.127		30	.290		20	.491		20	1.10		20	2.43				
	40	.147		40	.335		30	.601		30	1.34		30	2.97				
4916-35	10	.078	4916-54	10	.180	4916-78	5	.272	4916-115	5	.605	4916-170	5	1.30				
	20	.111		20	.255		10	.385		10	.855		10	1.84				
	30	.136		30	.312		20	.544		20	1.21		20	2.61				
	40	.157		40	.360		30	.667		30	1.48		30	3.19				

# PARTS ORDER

To order parts, please use one of the following 3 options:

1. Call 1-800-438-4489
2. Make a copy of the attached order form and fax the form to 1-888-400-2642
3. Send an email to [aceast@agrochem.com](mailto:aceast@agrochem.com) and we will send you a Microsoft Excel spreadsheet order form that you can email to our Parts Department.

AGRO CHEM EAST  
 6522 St Rte 22 & 3 E  
 Wilmington, OH 45177  
 (937)-584-4645  
 Fax: (937) 584-4645

Date	Salesperson

Sold To

Ship To

Your Order No.	Date Shipped	Shipped Via	FOB Point	Terms
				Net 30

Qty Ordered	Qty Shipped	Qty B/O	Part Number	Description	Unit Price	Extension Price
					<b>Total</b>	

Credit Card	Number	Exp. Date	Verification

Customer's Phone No. \_\_\_\_\_

\_\_\_\_\_ Signature \_\_\_\_\_ Date

