

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 contact us.

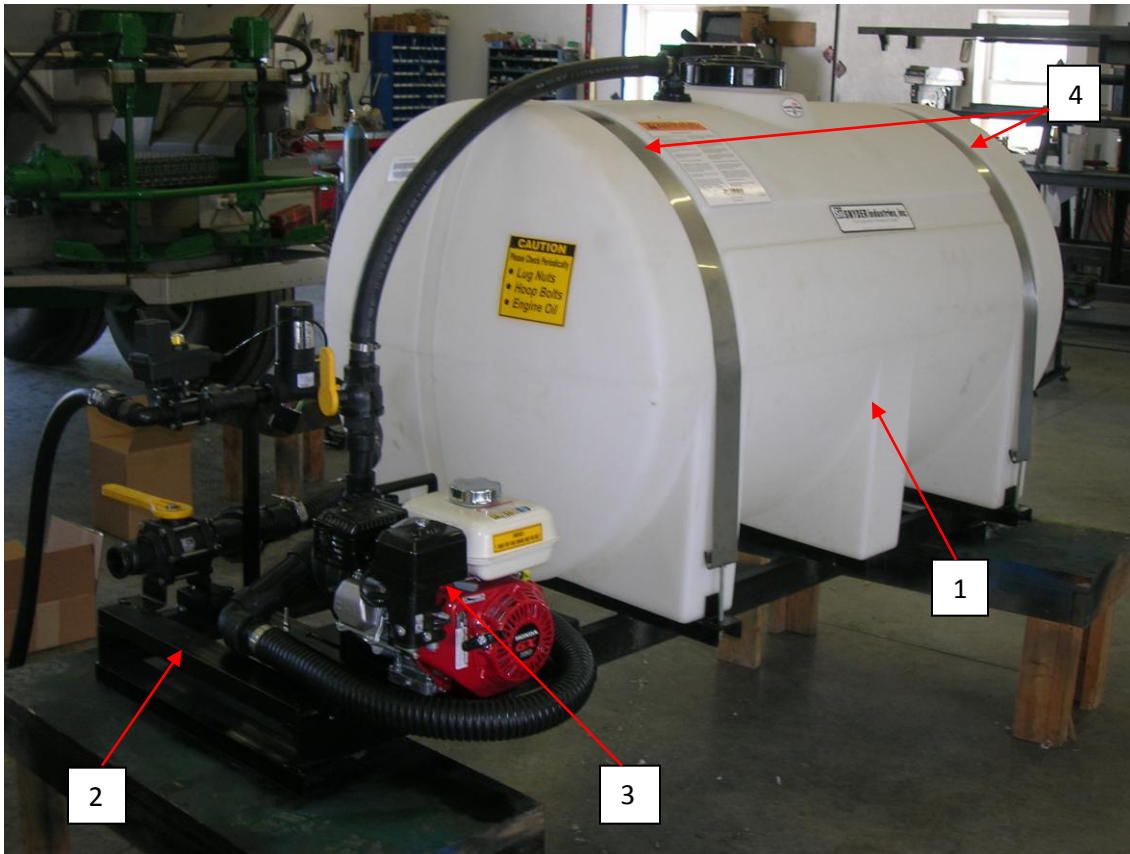
Thank you

Agro-Chem Employees

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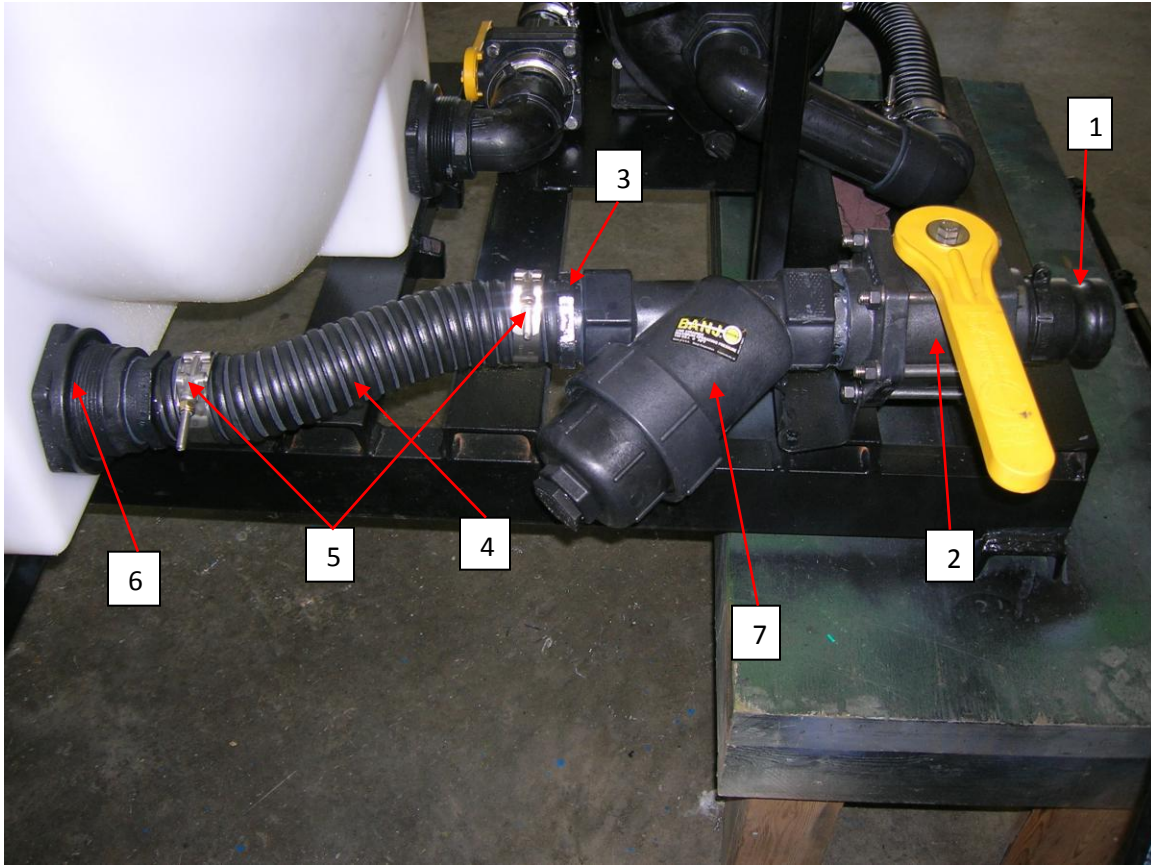
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OVERVIEW



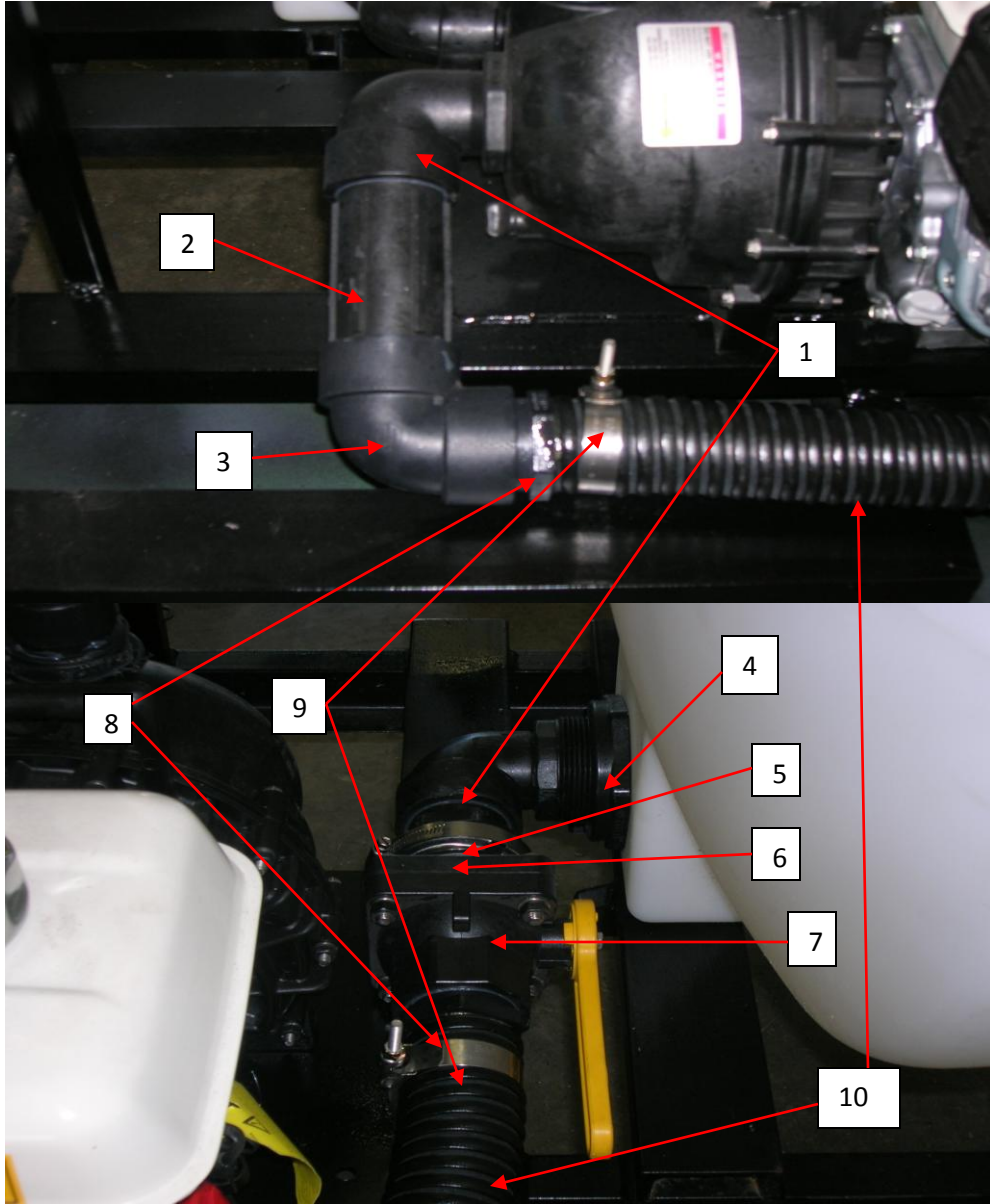
Item #	Qty	Description	Part #
1	1	300 Gallon leg tank	13237
2	1	Steel Frame	300 FRAME
3	1	Honda gas motor & 2" Banjo poly pump	200 PH5
4	2	96" S.S. Banding & T-Bolts	S.S. BANDING 96

QUICK FILL



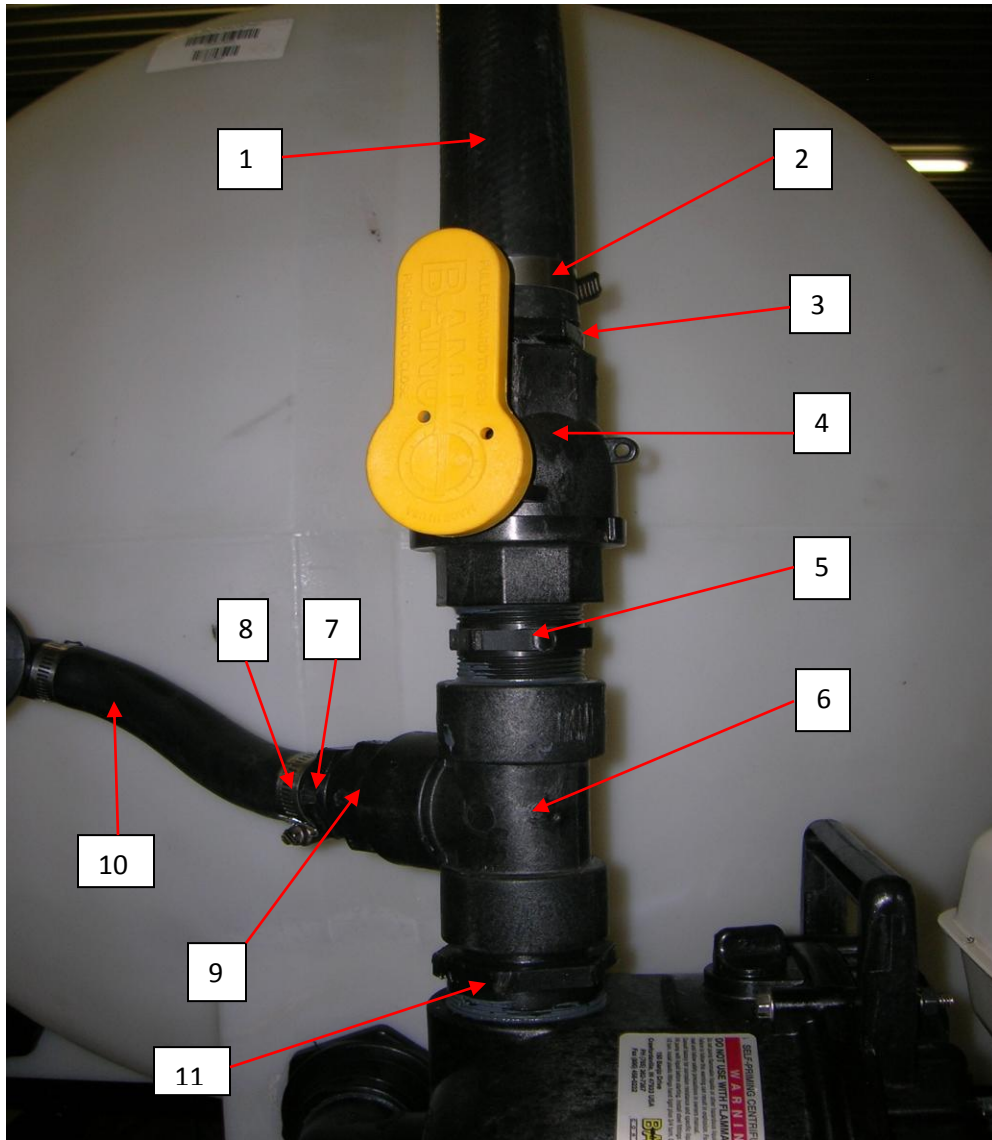
Item #	Qty	Description	Part #
1	1	Male adapter – 2” Male thread cam lock	200F
2	1	2” Full port valve	V 200 FP
3	2	2” Male thread x 2” Hose barb	HB 200
4	12”	2” EPDM Hose	390 SD 2”
5	2	2” T-Bolt hose clamp	TC 231
6	1	2” Poly bulkhead tank fitting	TF 220
7	1	2”x2” Strainer – 12 Mesh S.S. screen	LS 200 12

PUMP INTAKE



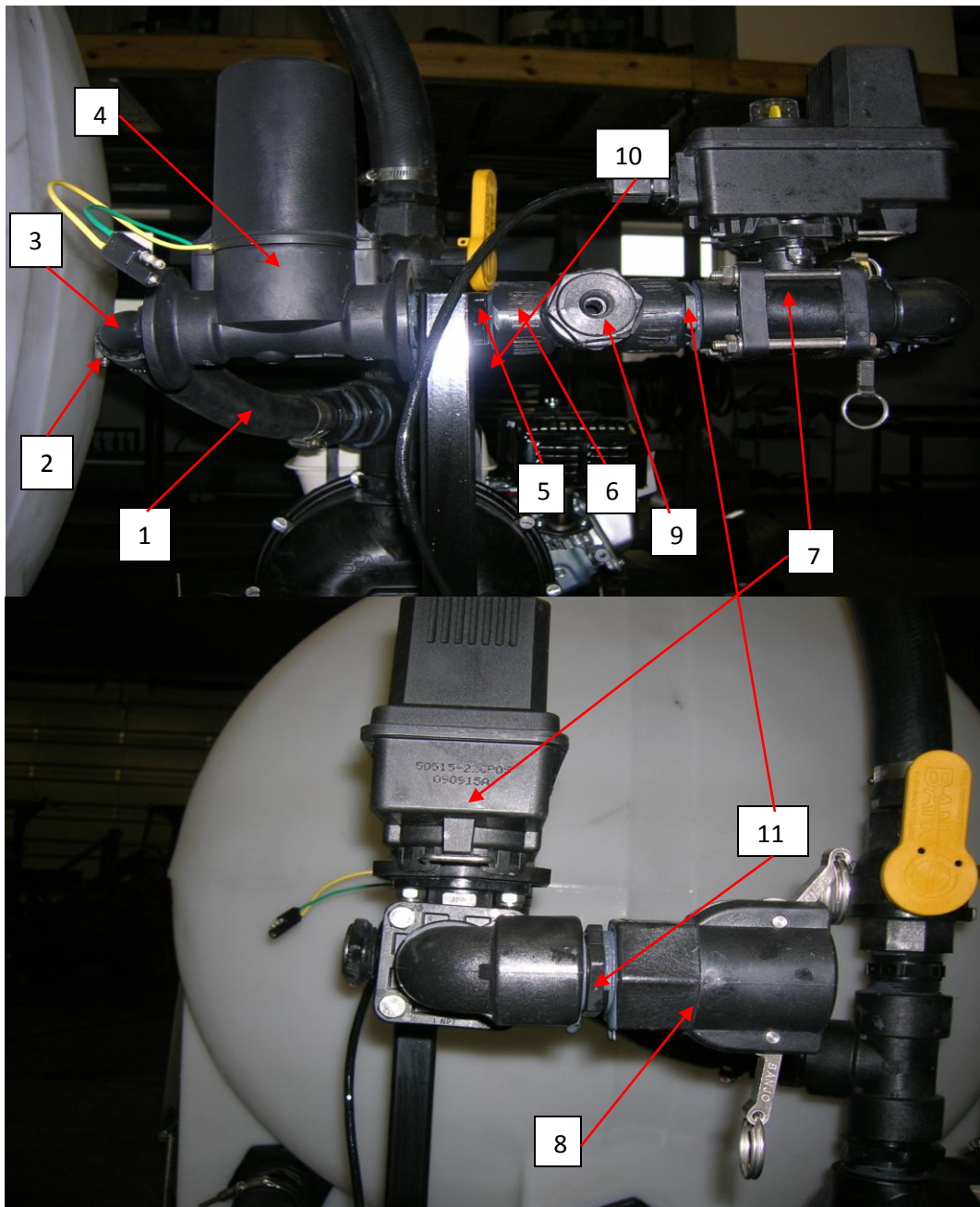
Item #	Qty	Description	Part #
1	2	2" Poly pipe street elbow, 90 degree	SL 200 90
2	1	2" x 6" Poly nipple	NIP 200 6
3	1	2" Poly pipe elbow, 90 Degree	EL 200 90
4	1	2" Poly bulkhead tank fitting	TF220
5	2	2" FP Flange x 2" Male thread	M 220 MPT
	2	220 Series gasket EPDM in M220 MPT	200G
6	1	220 Series worm screw clamp	FC 220
7	2	2" Poly spinweld valve	WV 200 FP
8	2	2" Male thread x 2" HB	HB 200
9	2	2" T-Bolt hose clamp	TC 231
10	48"	2" EPDM Hose	390 SD 200

PUMP DISCHARGE



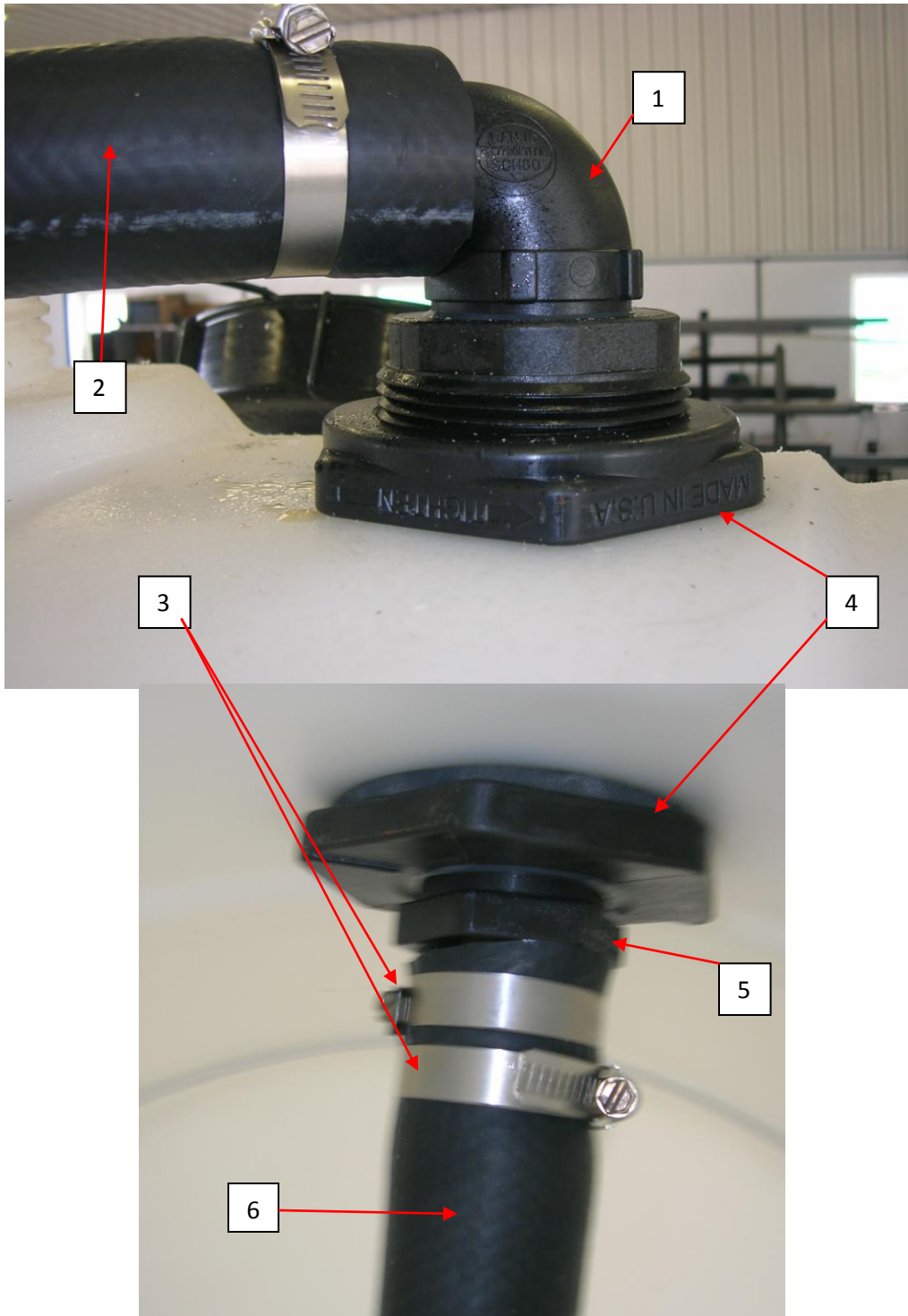
Item #	Qty	Description	Part #
1	5'	1 1/2" Black hose (Goes to return)	L 81 1 1/2"
2	1	Stainless steel clamp 2"	32 J
3	1	1 1/2" Male thread x 1 1/2" Hose barb	HB 150
4	1	2" Poly spinweld valve	WV 150 FP
5	1	1 1/2" Short poly nipple	NIP 150 SH
6	1	1 1/2" Poly pipe tee	TEE 150
7	1	1" Male thread x 1" hose barb	HB 100
8	1	Stainless steel clamp 1"	16J
9	1	1 1/2" MPT x 1" Poly reducing bushing	RB 150 100
10	10"	1" Black hose (Goes to regulating)	L 81 1"
11	1	2" x 1 1/2" Poly reducer nipple	RN 200 150

REGULATING



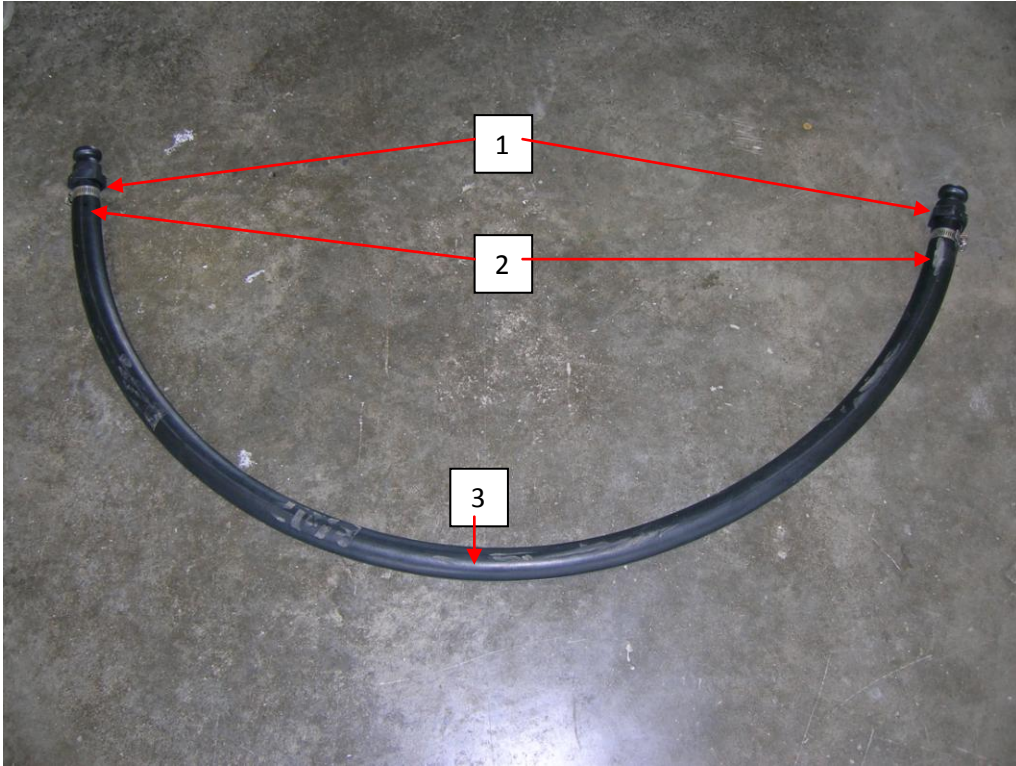
Item #	Qty	Description	Part #
1	10''	1'' Black hose (Goes to discharge)	L 81 1''
2	1	Stainless Steel clamp 1''	16J
3	1	1'' Male thread x 1'' Hose barb, 90 degree	HB 100-90
4	1	Raven poly regulating valve	063-0172-125
5	1	1'' x 3'' Stainless steel nipple	100 x 3NP SS
6	1	1'' Poly pipe tee	TEE 100
7	1	Teejet electric ball valve	344 BEC
8	1	1'' Female coupler – Female thread	100D
9	1	1'' MPT x 1/4'' FPT reducer bushing	RB 100 025
10	1	1'' Pipe street elbow, 90 degree	SL 100-90
11	2	1'' x Short poly nipple	NIP 100-SH

RETURN LINE



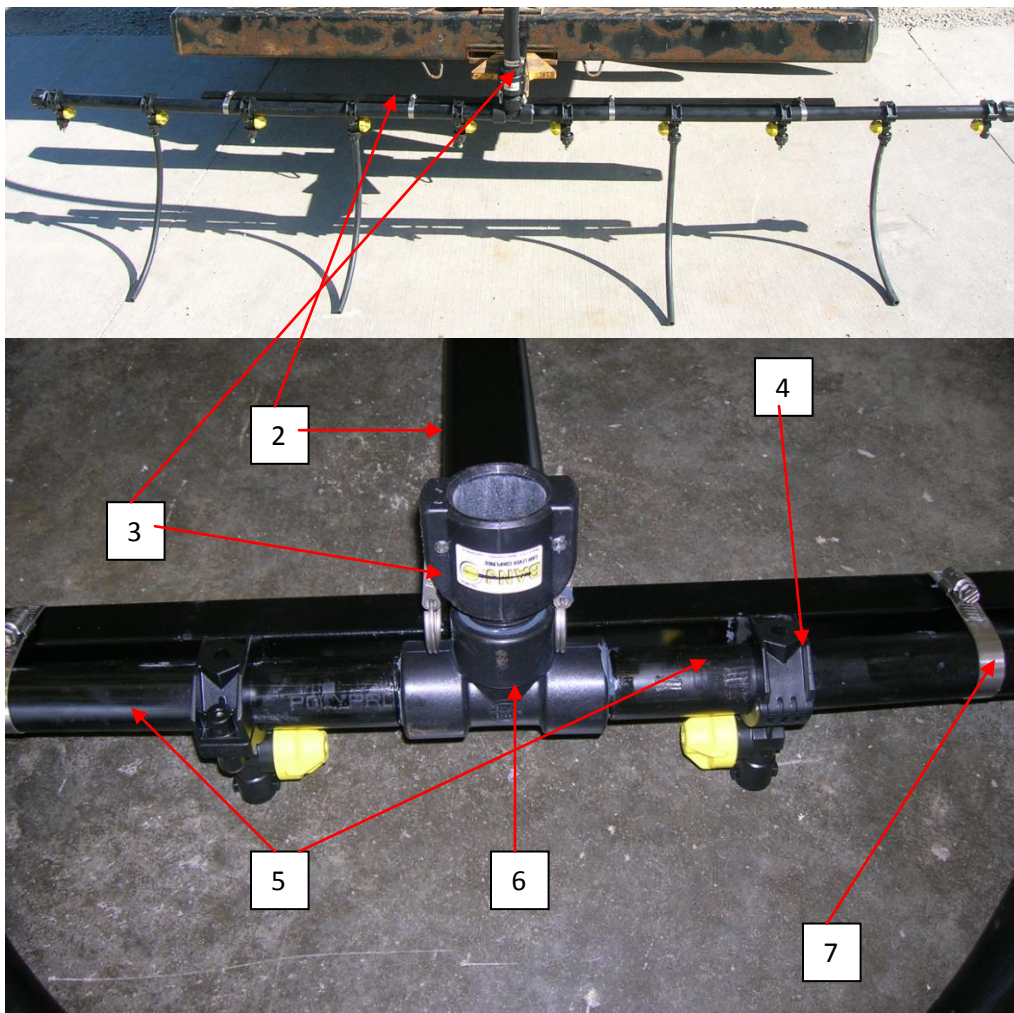
Item #	Qty	Description	Part #
1	1	1 1/2" male thread x 1 1/2" 90 hosebarb	HB 150 90
2	7'	1 1/2" Black hose (Goes to discharge)	L 81 1 1/2"
3	3	Stainless Steel clamp	28 J
4	1	1 1/2" Poly bulkhead EPDM tank fitting	TF 150
5	1	1 1/2" Male thread x 1 1/2" hose barb	HB 150
6	5'	1 1/2" black hose	L 81 1 1/2"

BOOM HOSE



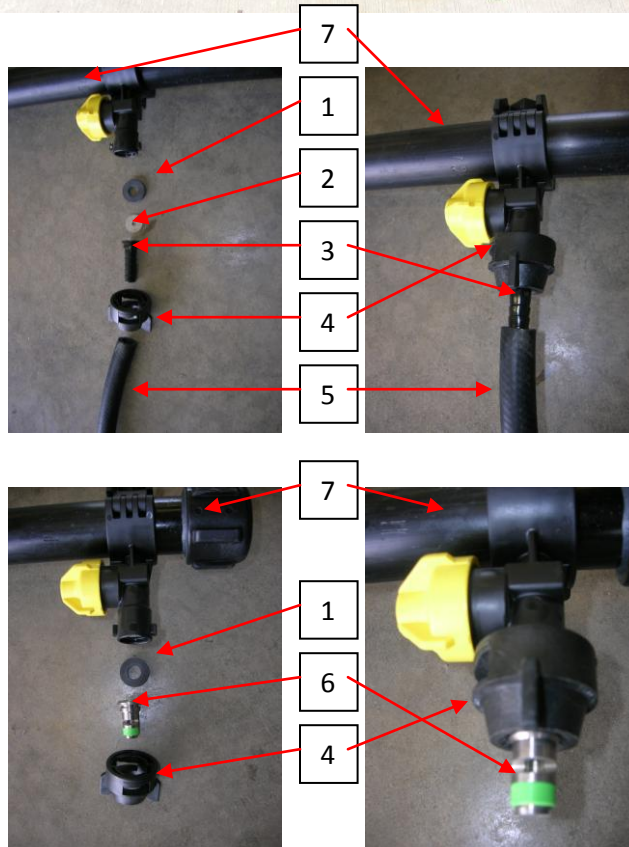
Item #	Qty	Description	Part #
1	2	1" Male adapter – 1" hose shank cam-lock	100 E
2	2	Stainless steel clamp	16J
3	5'	1" Black hose	L 81 1"

BOOM



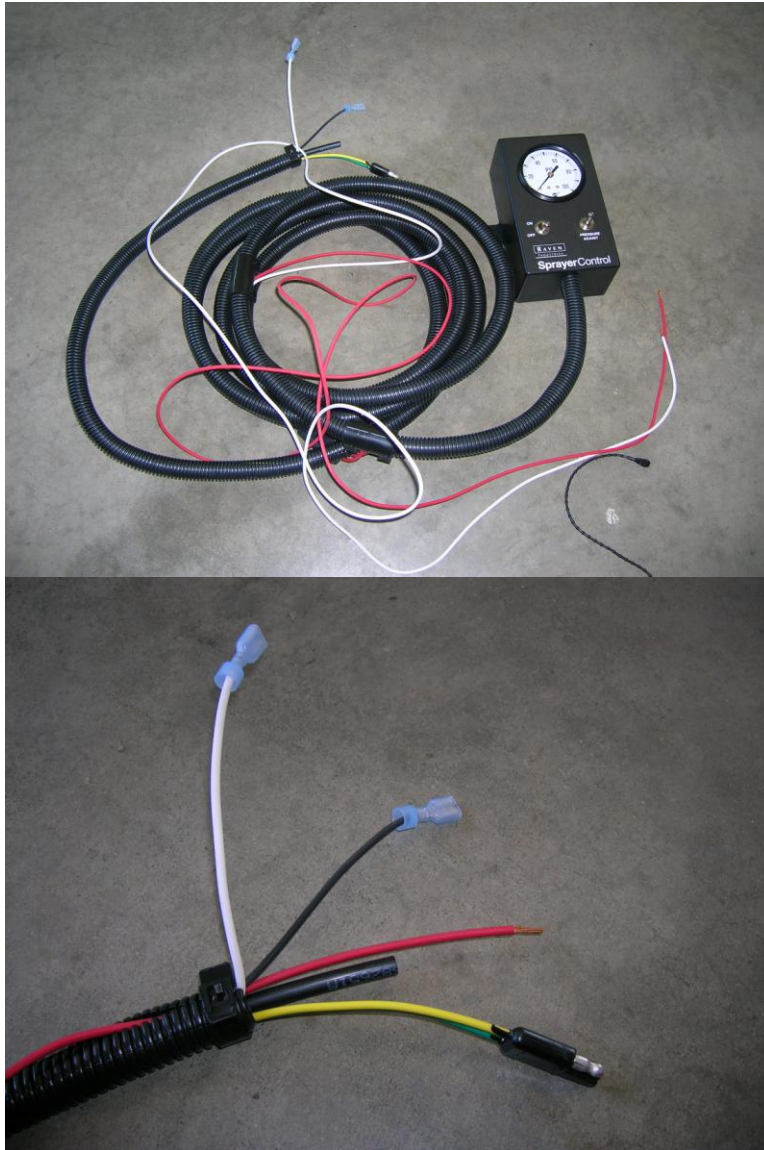
Item #	Qty	Description	Part #
1	1	Boom Hose (from pg. 9)	
2	1	Steel frame w/ receiver hitch	
3	1	Stainless steel clamp	100 B
4	10	1" Wet boom nozzle body	QJ17560A 1 NYB
5	2	Schedule 80 black pipe 46" threaded	D
6	1	1" Poly tee	TEE 100
7	4	Stainless Steel clamp	36 J
8	2	1" Poly cap	CAP 100

BOOM ATTACHMENTS



Item #	Qty	Description	Part #
1	10	Rubber washer	19438-EPR
2	10	Orifice (X is dependent on calibration on pg 14 & 15)	4916 - X
3	10	Hose shank	8400 406 NYB
4	10	Cap	25608 - 1 -NYR
5	10	3/8" black hose	L 81 3/8" x 18"
6	10	Nozzle (x is dependent on calibration on pg 14)	TF-VS _x
7	1	Boom (from pg. 10)	

CONTROLLER SCS 11



Item #	Qty	Description	Part #
1	1	SCS 11 controller	070-0159-011
2	1	extension cable if needed	115-0159-005

WIRING CONNECTIONS

Top Picture

RED	POWER
WHITE	GROUND

Bottom Picture

Yellow & Green	To yellow & green of p/n 4 pg. 9
Red	To Red of p/n 7 pg. 9
Black	To White of p/n 7 pg. 9
White	To Black of p/n 7 pg. 9
Hose	To connection of p/n 10 pg. 9

CONTROLLER DCS 400



Item #	Qty	Description	Part #
1	1	DCS 400	063-0171-272
2	1	Flow Cable	115-0159-955
3	1	Console Cable	115-0159-971

FOR WIRING PLEASE REFER TO THE RAVEN DCS 400 MANUAL.

CALIBRATION

To insure 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 the distance between nozzles in inches.

Step 4: Measure lane width in feet

Step 5: Calculate GPM / nozzle

$$\text{GPM} = \frac{(\text{gal/lane mile}) \times \text{MPH} \times \text{inches}}{(720 \times \text{lane width})}$$

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 14 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 copy a copy of the attached order form and fax the form to 1-888-400-2642
3. Send an email to aceast@agrochem.com and we will send you an order form in excel that you can email to us to order parts.

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

Page 1

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

Qty Ordered	Qty Shipped	Qty B/O	Part Number	Description	Unit Price	Extention Price
Total						

Credit Card	Number	Exp. Date	Verification

Customer's Phone No. _____

_____ Signature

_____ Date

