

# DE-ICE EQUIPMENT



## ***525 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**

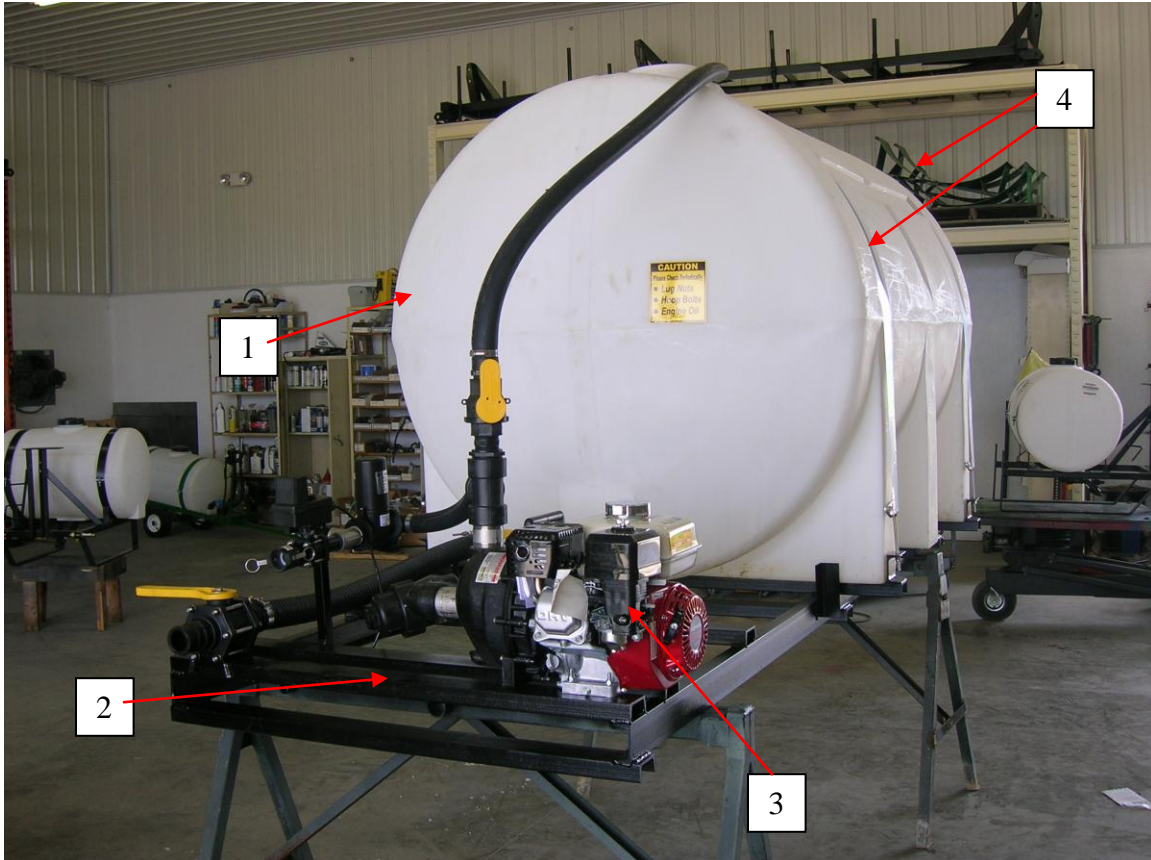
**Agro-Chem Employees**

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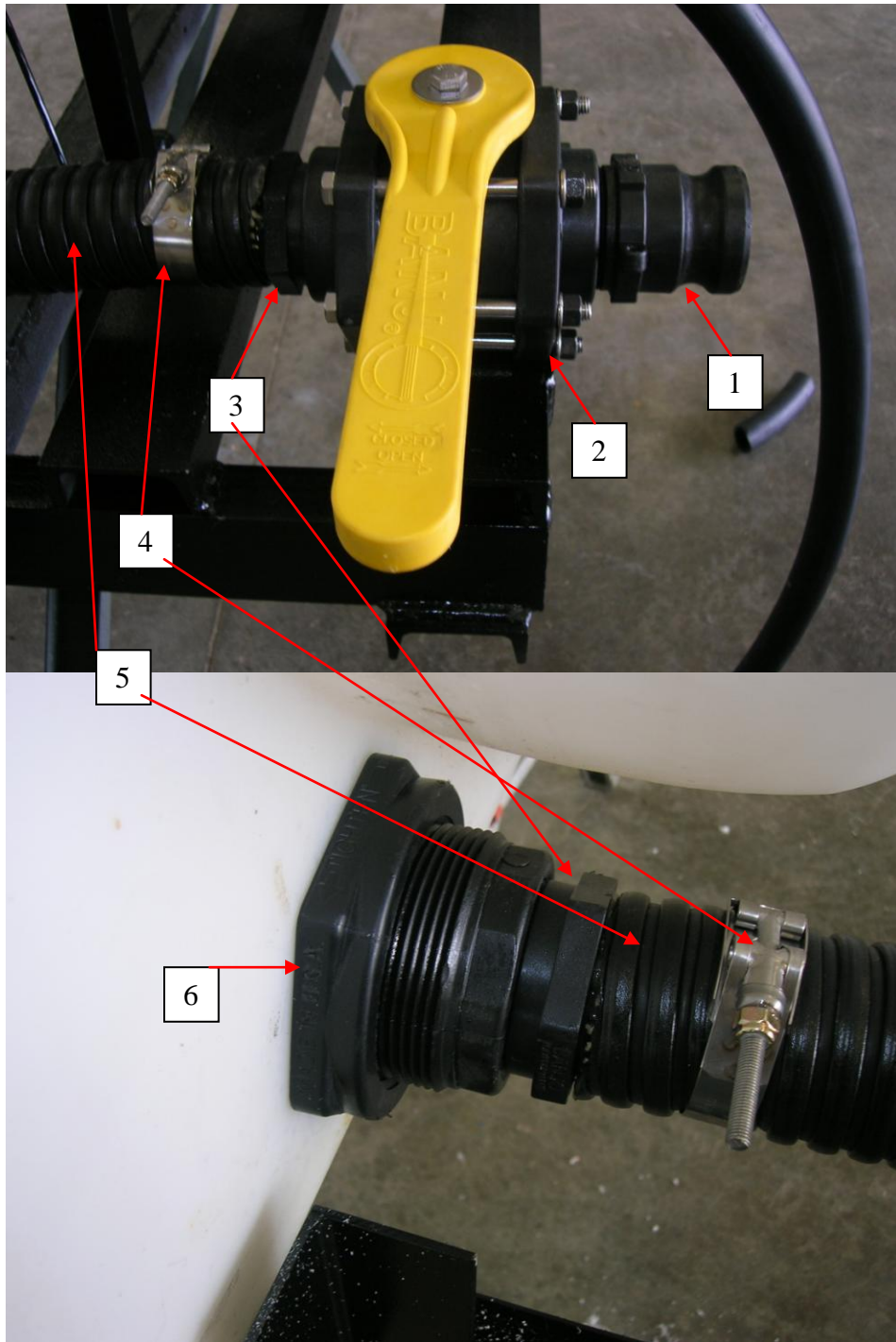


# OVERVIEW



Item #	Qty	Description	Part #
1	1	525 gallon leg tank	14037
2	1	Steel frame	730 frame
3	1	Honda gas motor and 2 inch banjo poly pump	200PH5
4	2	119" Stainless Steel Banding and 2 T Bolts	SS Banding 119

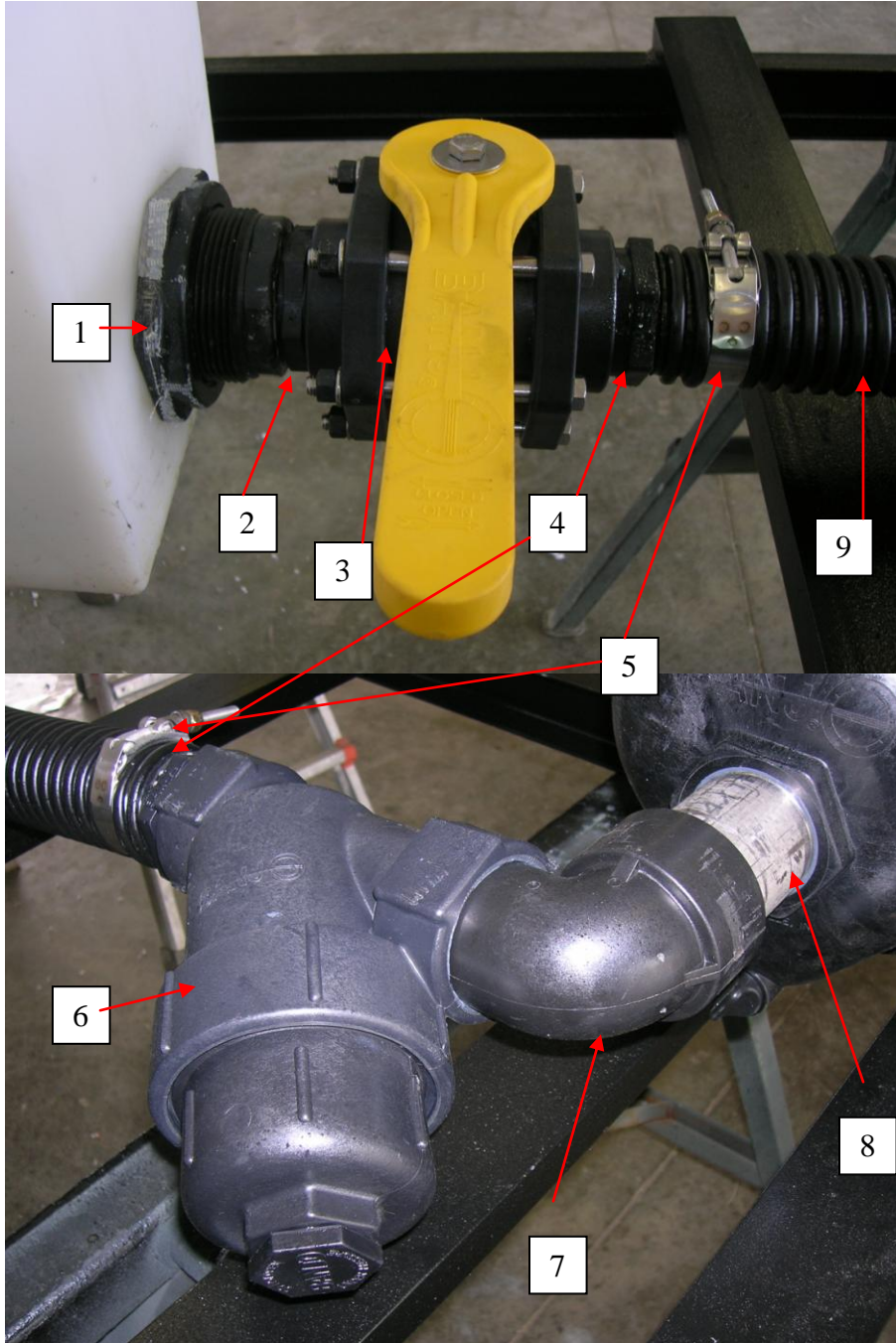
# QUICK FILL



Item #	Qty	Description	PART #
1	1	2" male adapter – 2" male thread camlock	200 F
2	1	2" full port valve	V 200 FP
3	2	2" male thread x 2" hose barb	HB 200
4	2	Stainless Steel clamp	TC 231
5	54"	2" black hose (this is the same hose)	390 SD 2"
6	1	2" poly bulkhead EPDM tank fitting	TF 220

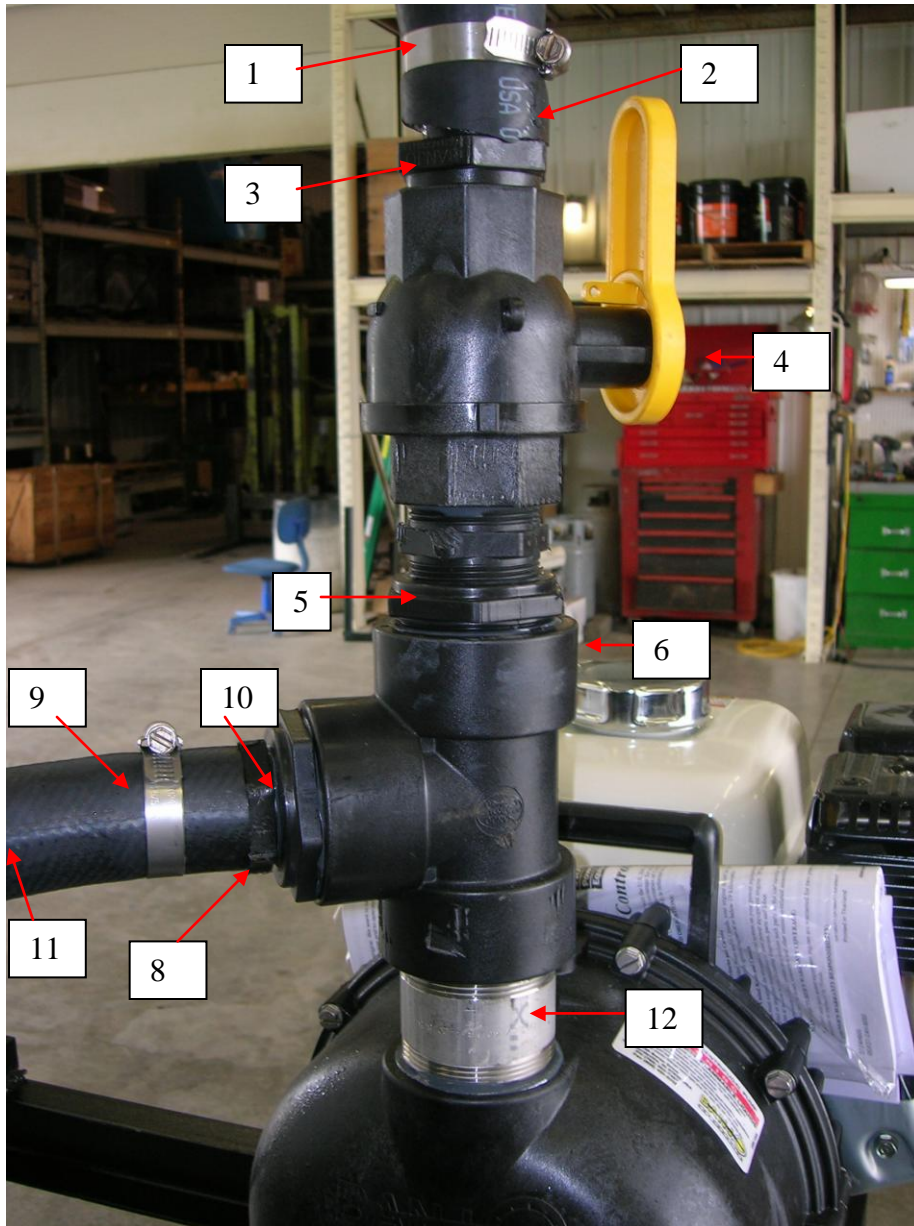


# PUMP INTAKE



Item #	Qty	Description	Part #
1	1	2" poly bulkhead EPDM tank fitting	TF220
2	1	2" short poly nipple	NIP 200 SH
3	1	2" full port valve	V 200 FP
4	2	2" male thread x 2" hose barb	HB 200
5	2	Stainless Steel clamp	TC 231
6	1	2" strainer with #12 mess screen	LS 200 12
7	1	2" 90 Poly street elbow	SL 200 90
8	1	2" x 4" Stainless Steel nipple	200 x 4 NP SS
9	28"	2" black hose	390 SD 2"

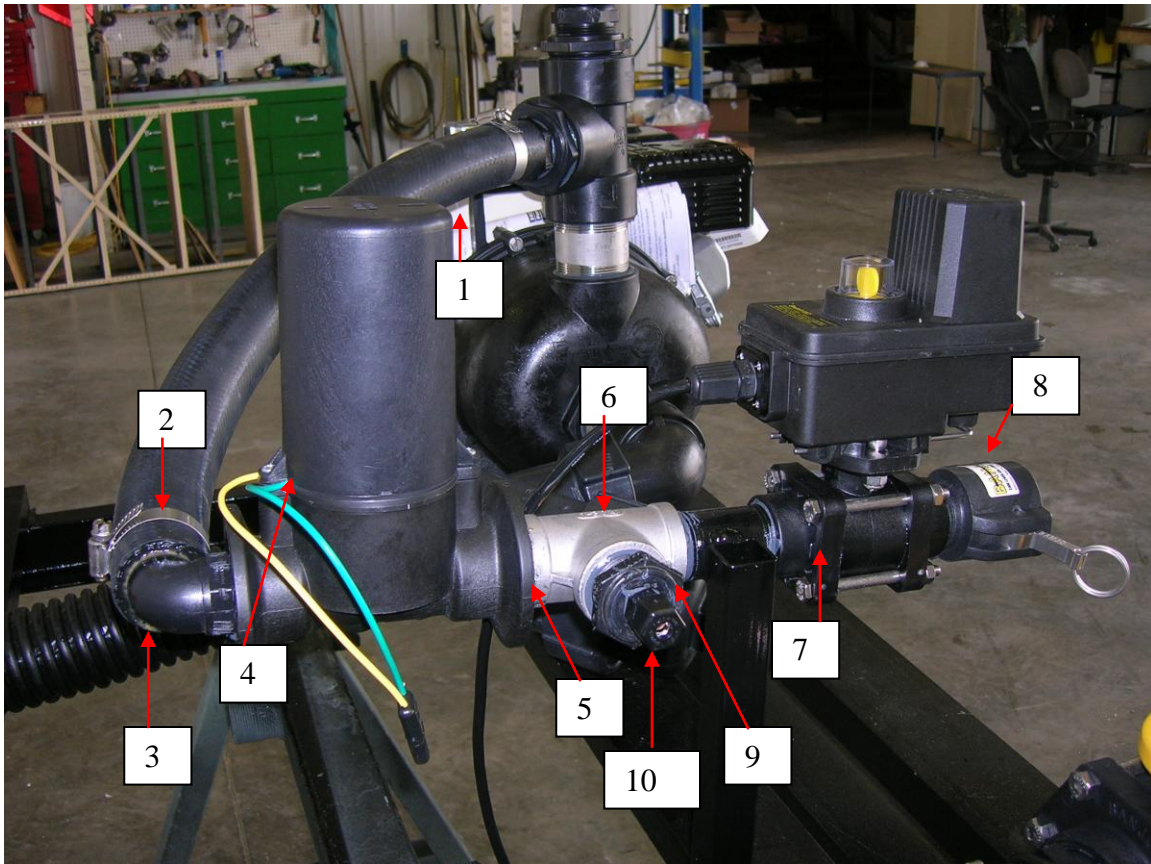
## PUMP DISCHARGE



Item #	Qty	Description	Part #
1	1	Stainless steel clamp	28 J
2	7'	1 1/2" Black hose (Goes to return pg. 8)	L 81 1 1/2
3	1	1 1/2" male thread x 1 1/2" hose barb	HB 150
4	1	1 1/2" poly valve	WV 150 FP
5	1	1 1/2" short poly nipple	NIP 150 SH
6	1	2" MPT x 1 1/2" FPT reducer bushing	RB 200 150
7	1	2" Poly Tee	TEE 200
8	1	1 1/4" male thread x 1 1/4" hose barb	HB 125
9	1	Stainless steel clamp	24 J
10	1	2" MPT x 1" FPT reducer bushing	RB 200 100
11	21"	1 1/4" black hose (Goes to regulating pg. 7)	L 81 1 1/4
12	1	2 x 2" stainless steel nipple	200 x 2 NP SS

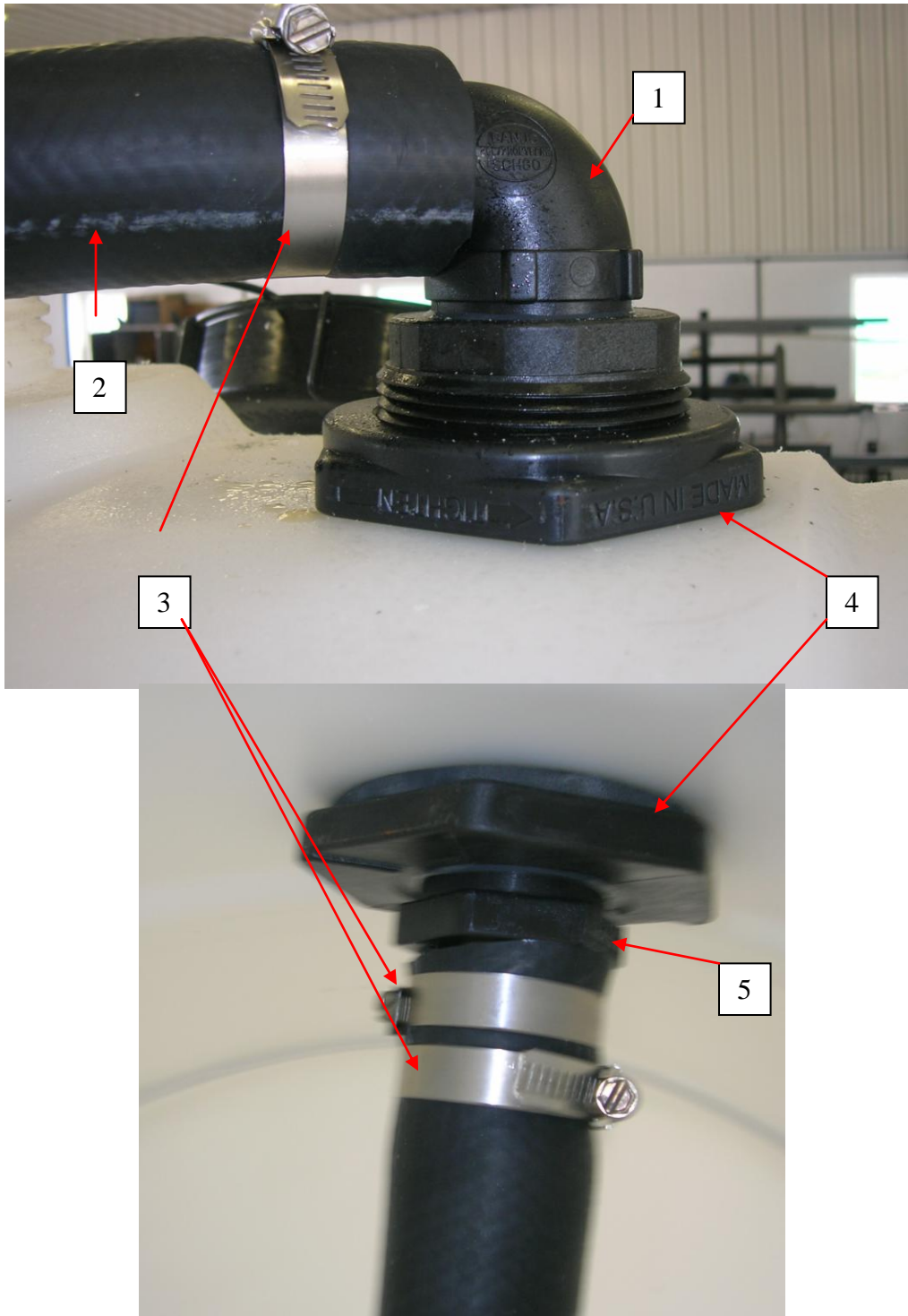


# REGULATING



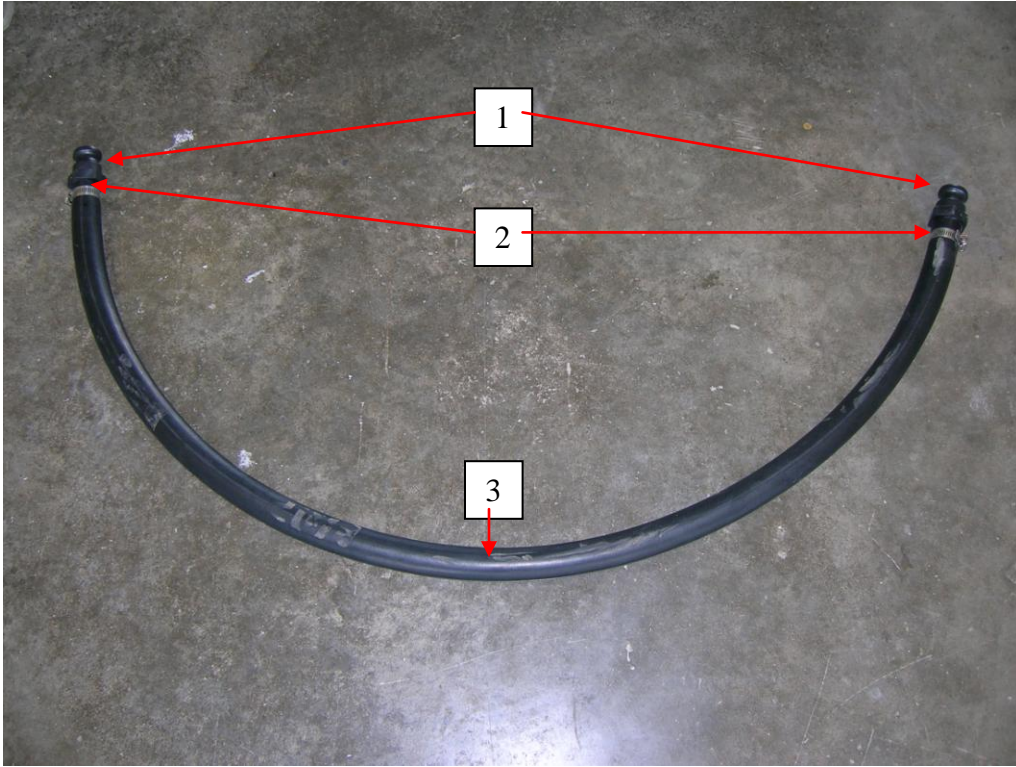
Item #	Qty	Description	Part #
1	21''	1 1/4'' black hose (Goes to discharge pg. 6)	L 81 1 1/4
2	1	Stainless steel clamp	24 J
3	1	1'' male thread x 1 1/4'' 90 hosebarb	HB 100/125 90
4	1	Regulating valve	063-0172-125
5	1	1'' short stainless steel nipple	100 x CLNP SS
6	1	1'' stainless steel Tee	100 TEE SS
7	1	On/Off valve	344 BEC
8	1	1'' female coupler - 1'' male thread camlock	100 B
9	1	1'' MPT x 1/4''FPT reducer bushing	RB 100 025
10	1	1/4'' airline fitting	MT2620404

## 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 pg. 6)	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" hosebarb	HB 150
6	5'	1 1/2" black hose	L 81 1 1/2"

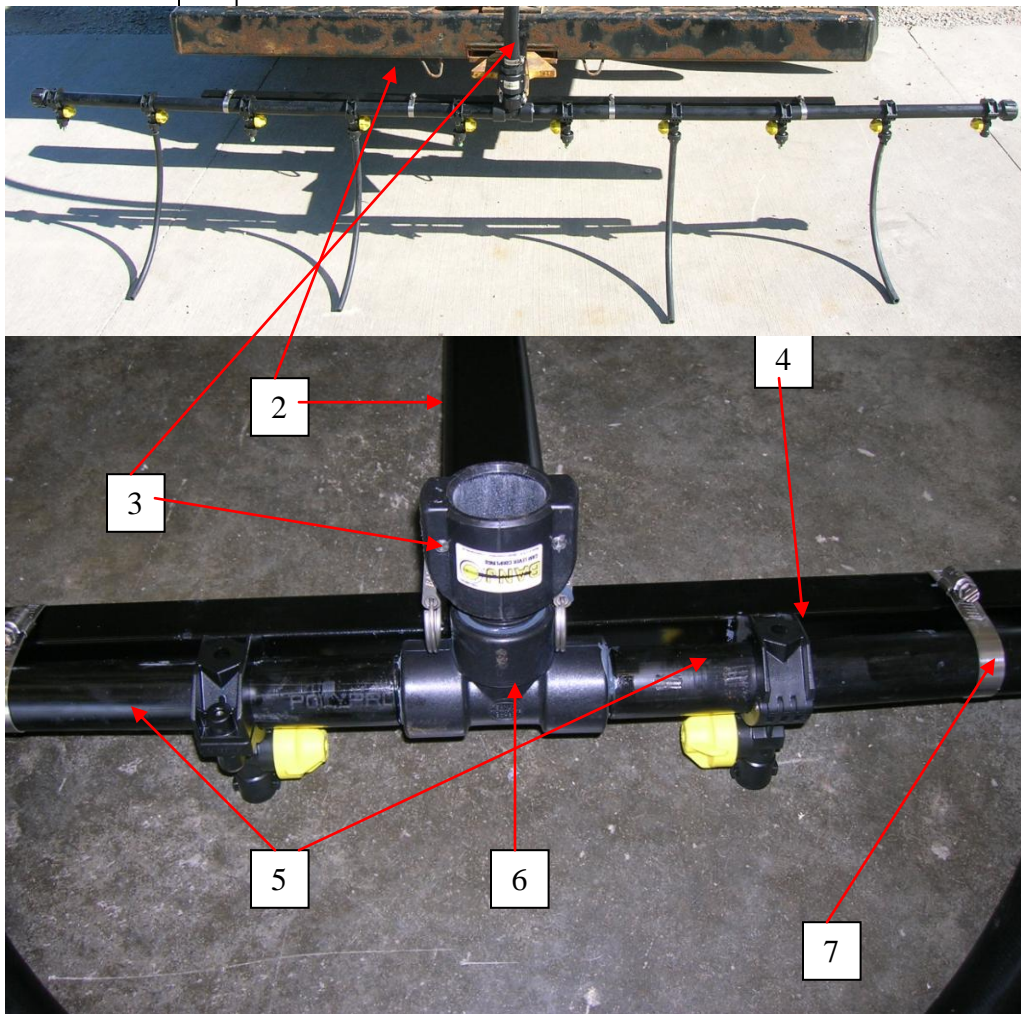
# BOOM HOSE



Item #	Qty	Description	Part #
1	2	1" male adapter – 1" hose shank camlock	100 E
2	2	Stainless steel clamp	16 J
3	5'	1" black hose	L 81 1"

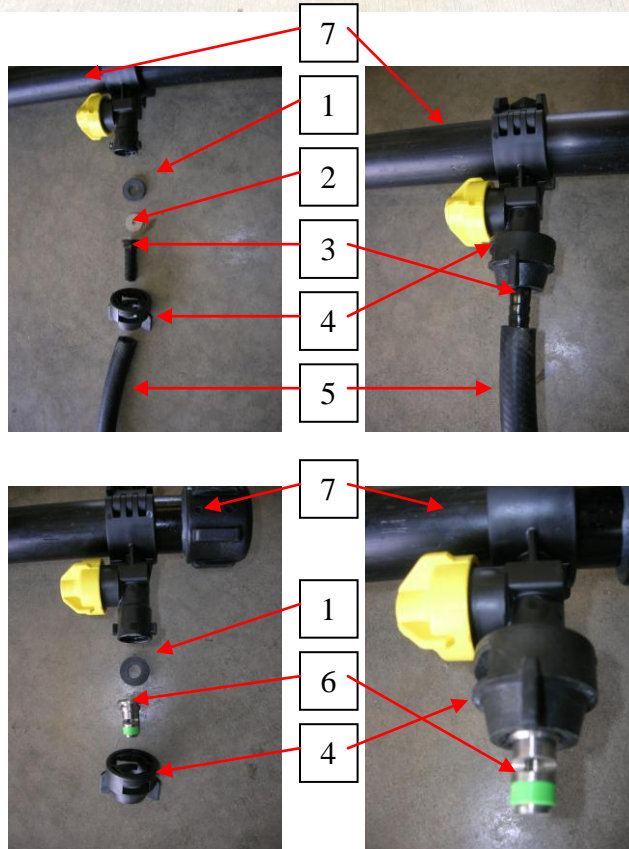


# BOOM



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	36J
8	2	1" poly cap	CAP 100

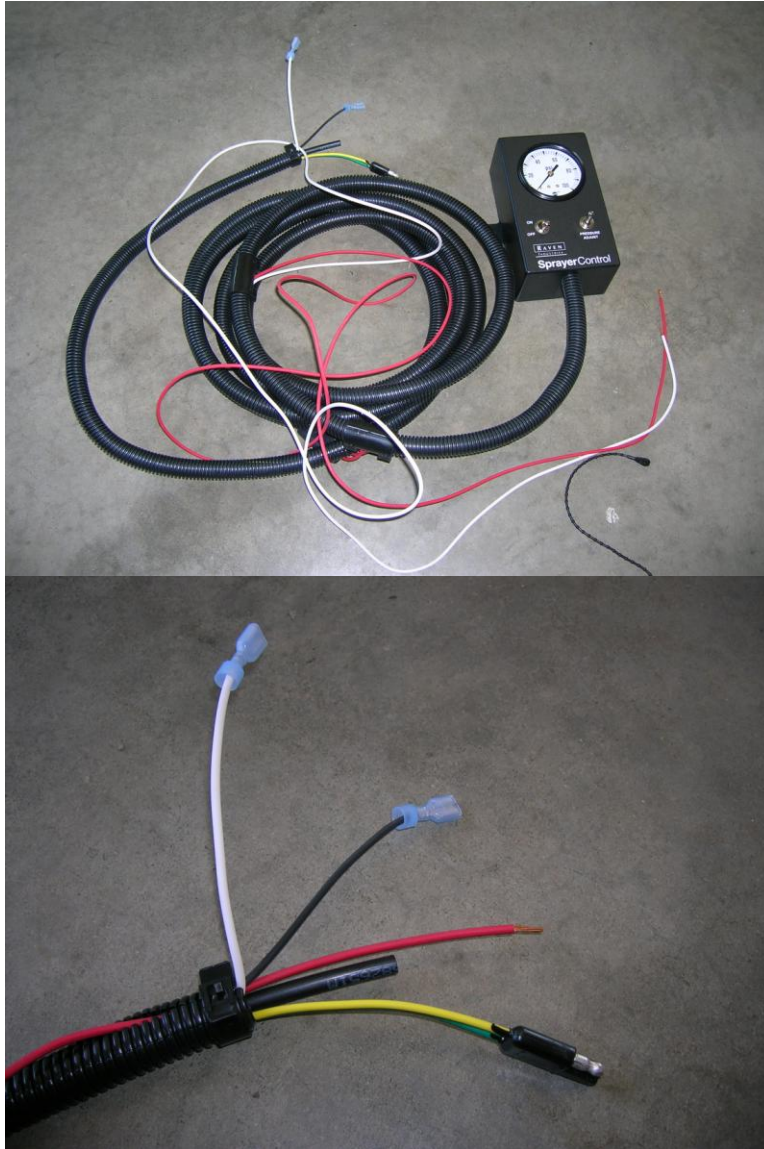
# BOOM ATTACHMENTS



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-VSx
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

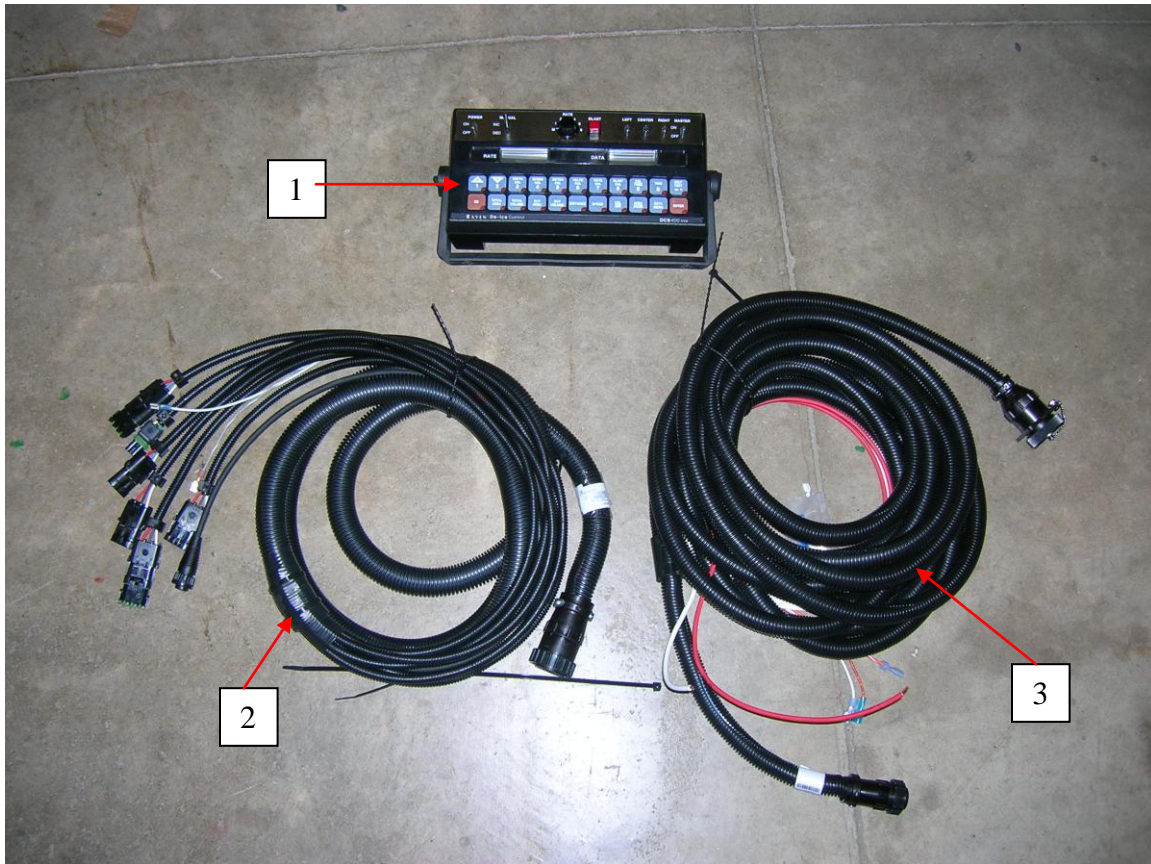
### Top Picture

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:




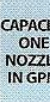
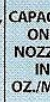


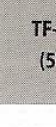
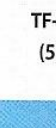



$$\text{GPM} = \frac{20 \times 55 \times 10}{720 \times 8}$$

$$\text{GPM} = 1.9$$

**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 20 30 40	.026 .037 .045 .052	4916-37	10 20 30 40	.086 .121 .148 .171	4916-55	5 10 20 30	.133 .188 .266 .326	4916-80	5 10 20 30	.280 .397 .561 .687	4916-120	5 10 20 30	.629 .890 1.26 1.54	4916-172	5 10 20 30	1.3 1.92 2.71 3.32
4916-22	10 20 30 40	.031 .043 .053 .061	4916-39	10 20 30 40	.095 .135 .165 .191	4916-57	5 10 20 30	.141 .200 .283 .346	4916-81	5 10 20 30	.290 .411 .581 .711	4916-125	5 10 20 30	.883 .980 1.39 1.70	4916-177	5 10 20 30	1.41 2.00 2.83 3.46
4916-24	10 20 30 40	.037 .053 .064 .074	4916-40	10 20 30 40	.102 .144 .177 .204	4916-59	5 10 20 30	.152 .215 .304 .372	4916-83	5 10 20 30	.317 .449 .634 .777	4916-128	5 10 20 30	.721 1.02 1.44 1.77	4916-182	5 10 20 30	1.47 2.08 2.95 3.61
4916-25	10 20 30 40	.040 .056 .069 .080	4916-41	10 20 30 40	.105 .149 .182 .211	4916-61	5 10 20 30	.165 .233 .330 .404	4916-86	5 10 20 30	.332 .470 .664 .613	4916-132	5 10 20 30	.774 1.10 1.55 1.90	4916-187	5 10 20 30	1.56 2.21 3.12 3.82
4916-26	10 20 30 40	.043 .061 .074 .085	4916-43	10 20 30 40	.115 .163 .199 .230	4916-63	5 10 20 30	.174 .246 .347 .425	4916-89	5 10 20 30	.346 .490 .693 .849	4916-136	5 10 20 30	.840 1.18 1.68 2.06	4916-196	5 10 20 30	1.73 2.45 3.46 4.24
4916-27	10 20 30 40	.045 .064 .078 .090	4916-45	10 20 30 40	.125 .177 .216 .249	4916-65	5 10 20 30	.185 .261 .369 .452	4916-91	5 10 20 30	.389 .523 .739 .905	4916-140	5 10 20 30	.894 1.27 1.79 2.19	4916-205	5 10 20 30	1.88 2.65 3.75 4.59
4916-28	10 20 30 40	.049 .069 .085 .098	4916-46	10 20 30 40	.135 .191 .233 .269	4916-67	5 10 20 30	.196 .278 .392 .481	4916-93	5 10 20 30	.387 .547 .774 .947	4916-144	5 10 20 30	.926 1.31 1.85 2.27	4916-218	5 10 20 30	2.11 2.98 4.21 5.16
4916-29	10 20 30 40	.054 .076 .093 .107	4916-47	10 20 30 40	.137 .194 .238 .275	4916-68	5 10 20 30	.203 .287 .405 .496	4916-95	5 10 20 30	.404 .572 .808 .990	4916-147	5 10 20 30	.953 1.35 1.91 2.33	4916-234	5 10 20 30	2.45 3.47 4.91 6.01
4916-30	10 20 30 40	.057 .081 .099 .114	4916-48	10 20 30 40	.143 .202 .247 .285	4916-70	5 10 20 30	.218 .306 .433 .530	4916-98	5 10 20 30	.442 .625 .884 1.08	4916-151	5 10 20 30	1.04 1.47 2.08 2.55	4916-250	5 10 20 30	2.83 4.00 5.66 6.83
4916-31	10 20 30 40	.061 .087 .106 .122	4916-49	10 20 30 40	.147 .208 .255 .294	4916-72	5 10 20 30	.226 .320 .453 .554	4916-103	5 10 20 30	.461 .653 .823 1.13	4916-156	5 10 20 30	1.10 1.55 2.20 2.69			
4916-32	10 20 30 40	.067 .095 .117 .135	4916-51	10 20 30 40	.165 .233 .285 .329	4916-73	5 10 20 30	.233 .330 .467 .572	4916-107	5 10 20 30	.518 .733 1.04 1.27	4916-161	5 10 20 30	1.15 1.63 2.31 2.83			
4916-34	10 20 30 40	.073 .104 .127 .147	4916-52	10 20 30 40	.167 .237 .290 .335	4916-75	5 10 20 30	.245 .347 .491 .601	4916-110	5 10 20 30	.548 .775 1.10 1.34	4916-166	5 10 20 30	1.21 1.72 2.43 2.97			
4916-35	10 20 30 40	.078 .111 .136 .157	4916-54	10 20 30 40	.180 .255 .312 .360	4916-78	5 10 20 30	.272 .385 .544 .667	4916-115	5 10 20 30	.605 .855 1.21 1.48	4916-170	5 10 20 30	1.30 1.84 2.61 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](mailto: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

No.

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	Extension Price
Total						

Credit Card	Number	Exp. Date	Verification

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

\_\_\_\_\_ Signature

\_\_\_\_\_ Date

