

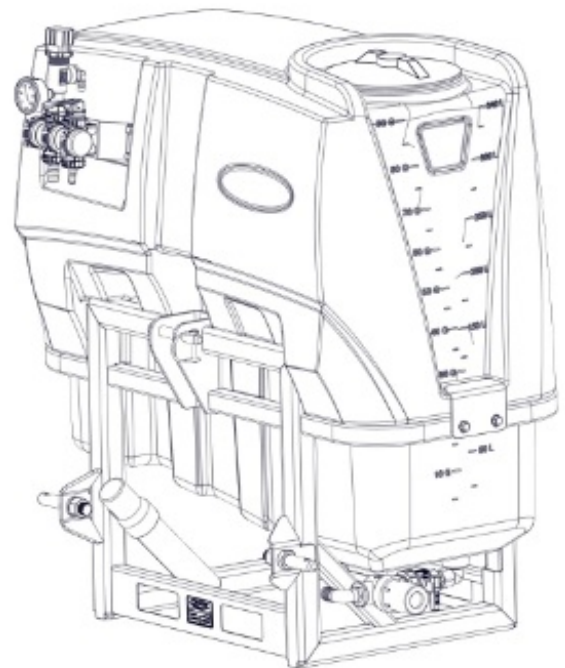
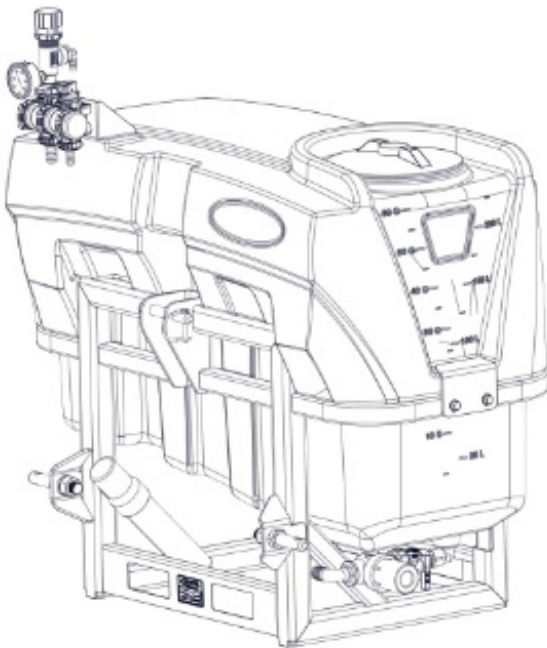


## CIMARRON MC1 Series 3 Point Sprayers Owner's Manual

[Home](#) » [Cimarron](#) » CIMARRON MC1 Series 3 Point Sprayers Owner's Manual 



OWNER'S MANUAL



**Cimarron MC1 Series 3 Point Sprayers**  
**60 & 90 Gallon 3-Point Sprayers**  
60 Gallon (5303641)  
90 Gallon (5303642)

## Contents

- 1 MC1 Series 3 Point Sprayers
- 2 Important Operation & Safety Information
- 3 Hooking Up the Sprayer
- 4 Sprayer Boom Controls
- 5 Calibrating the Sprayer
- 6 Operating Instructions
- 7 Spraying with the Boom
- 8 Maintenance Instructions
- 9 FSBK-3025BL (5301289) End Nozzle Assembly & Info
- 10 BXT Series Boomless Boom Component Breakdown & Parts List
- 11 Hamilton Boomless Assembly Component Breakdown & Parts List
- 12 MC-Electric Control Conversion Kits
- 13 Warranty Info
- 14 Documents / Resources
  - 14.1 References

## MC1 Series 3 Point Sprayers

### General Information

Thank You and Congratulations on purchasing your new three point hitch sprayer. The purpose of this manual is to assist you in operating and maintaining your 3-Point sprayer.



**WARNING:** Cancer and Reproductive Harm.

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Please read it carefully, as it furnishes information which will help you achieve years of trouble-free operation. All units can be custom equipped to meet all your spraying needs. The MC Series 3 Point is designed to fit Category I Lift Arms.



**WARNING:** To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Any Questions, Comments or Problems: Call your nearest Cimarron Location and speak with one of our Friendly Technical Support Staff.

[5195836 (08/23)]

BAKERSFIELD, CA 877-724-2236	COLUMBUS, NE 800-274-1025	DOTHAN, AL 800-227-4098	FARGO, ND 701-280-2862	HOPKINSVILLE, KY 800-637-7172
MANKATO, MN 507-388-6295	NEWTON, KS 800-394-7662	PASCO, WA 800-634-2026	TEMPE, AZ 877-974-7166	

## Important Operation & Safety Information



### WARNING

Read and understand this owner's manual completely before using the sprayer.

Read each chemical label's instructions before handling the chemical.

Improper use of the sprayer or handling of chemicals could result in serious injury or illness for the operator or nearby persons/animals, or cause damage to the environment.

LISTED BELOW is a summary of safety information of particular importance. See individual sections of this owner's manual for more details.

**BEFORE YOU BEGIN**



Please read and understand this manual and its instructions and warnings completely before operating the sprayer.

- Be aware of all safety guidelines, warnings and cautions including those of the tractor manufacturer
- Read and understand the chemical manufacturer's labels, warnings and instructions
- Know and fulfill all state pesticide applicator license requirements
- Familiarize yourself and other operators with the sprayer's components and how all parts are operated

---

### **General Safety Guidelines**

---



Every year many unnecessary accidents occur do to improper equipment handling and a disregard for safety precautions.

You, the operator, can avoid accidents by observing the precautions in this section.

- The operator should be a responsible adult. Do not allow persons to operate this sprayer until they have displayed a thorough understanding of sprayer safety precautions and operational use!
- All operators must also fulfill state pesticide applicator license requirements
- Never attempt to operate this sprayer when under the influence of alcohol or drugs.
- The best defense against accidents is a careful and responsible operator. If your sprayer is equipped with a PTO drive shaft, it is very important to take the proper safety precautions
- Failure to keep body parts or clothing clear of the sprayer's PTO drive shaft could result in serious injury or death. Cimarron assumes no liability for any possible injury
- Never step over or work near the PTO drive shaft during operation
- When transporting the sprayer on public roads, always follow state and local regulations regarding safety and transportation requirements



---

### **Before Operation**

---

- Carefully study and understand the owner's manual
- Read and follow chemical manufacturer's labels, warnings and instructions! A material safety data sheet (MSDS) should be provided by the chemical manufacturer
- To avoid injury from chemical hazards, wear the proper protective clothing. Each chemical manufacturer's clothing requirements are listed under the "Personal Protective Equipment (PPE)" section in the chemical instructions
- Never exceed your tractor's load rating
- Do not wear loose-fitting clothing which may catch in moving parts
- Give the sprayer a visual inspection for any worn parts, loose bolts or other visible problems and make any needed repairs
- Make sure the area is clear of any people or obstructions before using the sprayer
- Before adding chemicals, have all operators practice operating the sprayer (clean water only) and it's attachments until all operators are completely capable of safe operation



---

### **BEFORE SEASONAL USE**

---

- CHECK and TEST sprayer with water before adding chemical. Temperature change can cause material fitting expansion/ contraction. Serious injury could result from chemical leaks
- REPLACE any worn or frayed hoses. Hose failure can result in serious damage
- INSPECT pressure gauge. Insure the needle rests at zero when all pressure is relieved in the spray system. Failure to have a properly functioning pressure gauge can result in miss applications of chemical



### **DURING OPERATION**

- Always be aware of bystanders, particularly children! Always look before moving the sprayer or engaging the PTO
- Never leave running equipment unattended!
- Keep hands and body parts clear of all moving parts, especially the tractor PTO
- Be aware of dangerous terrain such as holes, slopes, drop-offs, banks, rocks and hidden hazards. Operate the tractor and sprayer up and down slopes, not across
- When operating on inclines, it is especially important that your tractor is equipped with Roll Over Protection System (ROPS)
- No passengers are allowed on or in the tractor or sprayer at anytime
- Allow for sprayer boom length when making turns
- Remember that accidents can even happen to seasoned operators. Always take your time and follow all safety instructions



### **General Chemical Safety**

- READ and FOLLOW all chemical label's instructions and warnings
- AVOID inhaling, ingesting or coming into contact with any chemicals
- KNOW applicable licensing and regulatory requirements for the chemical you plan to use
- KNOW emergency procedures before handling chemicals
- WEAR protective clothing, eye protection and chemical resistant gloves when filling, using and cleaning the sprayer. Wear additional protective gear, such as facemask or apron, as recommended on the chemical label
- EXERCISE EXTRA CAUTION around children or pets. Pesticides are especially toxic to them. Keep sprayer and spray materi- als away from them at all times
- DO NOT MIX OR POUR chemicals in an enclosed, unvented area
- DO NOT USE flammable or corrosive chemicals in the sprayer
- FLUSH the sprayer with clean water after every use AND before switching chemicals
- STORE pesticides in a correctly labeled container and in a secure location
- MONITOR the health of operators frequently exposed to pesticides, as recommended by the chemical label or local/federal regulations



### **Chemical Application Safety**

- INSPECT and PREPARE sprayer before each use as directed

- DO NOT TURN ON POWER to sprayer until ready to spray in order to avoid unintended spray release
- MAKE SURE NOZZLES ARE ORIENTED IN THE PROPER DIRECTION before starting the sprayer. As incorrectly positioned nozzle may spray chemicals on you or others
- KEEP sprayer and spray materials away from children and pets. Pesticides can be especially toxic to children and animals



### **Pump Safety Precautions**

- Never pump flammable or explosive fluids such as gasoline, fuel oil, kerosene, etc.
- Never pump acids (i.e. acid fertilizer) with super rollers. For acid fertilizer, Hypro recommends the Silver Series castings with Teflon rollers
- Never run the pump dry! Never pump faster than, or above, the maximum recommended speed and pressure
- Never pump liquids at temperatures higher than the recommended maximum temperature (140° F/60° C). Do not exceed this temperature
- Before servicing your pump, disconnect the power, release all pressure and drain all liquids



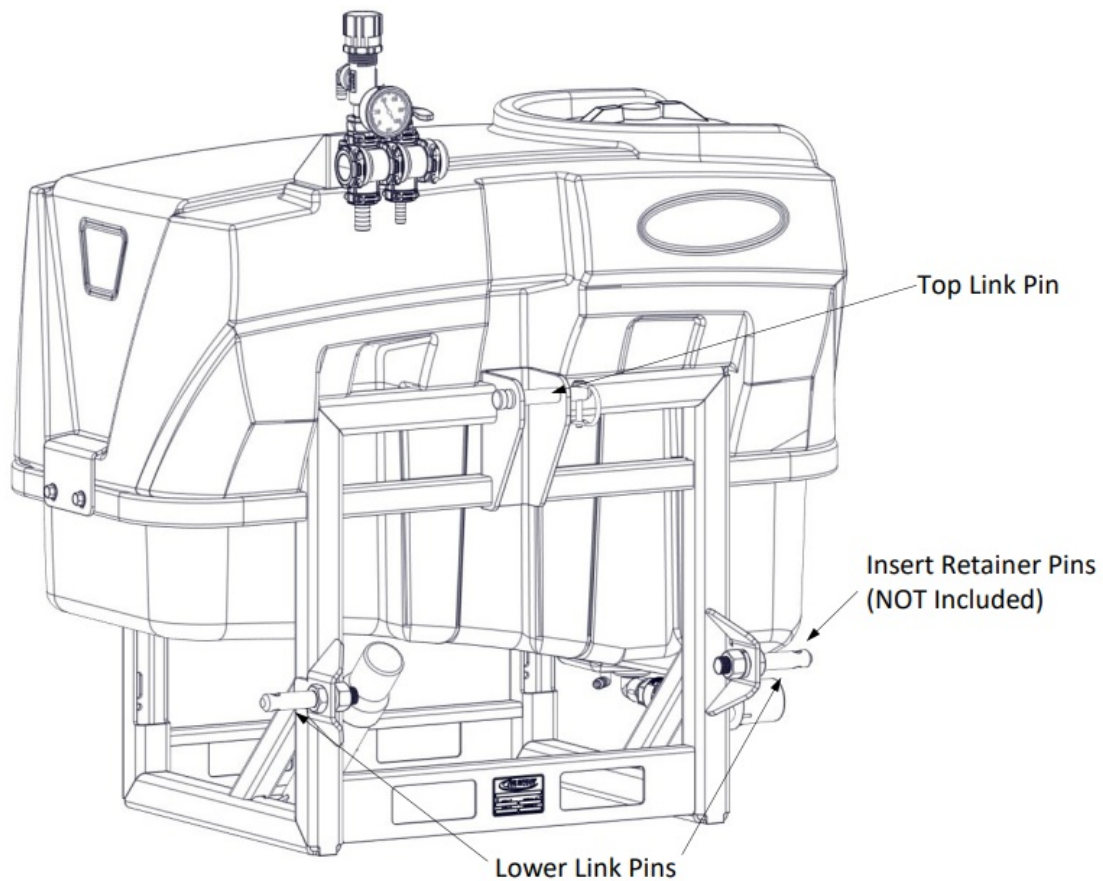
### **Following Operation**

- Following operation, it is very important that you completely rinse the entire sprayer and all of it's components of all chemical residue
- Following operation, stop the tractor unit, set the brakes, disengage PTO shaft, shut off the engine and remove the ignition key
- Park the sprayer on a hard level surface
- Store the sprayer away from human and livestock activity
- Do not permit children to play on or around sprayer

## **Hooking Up the Sprayer**

Your MC Series 3 Point sprayer is designed to allow for Category I 3 Point hitch. The hitch design will fit most brands of 3 Point Quick Tach. The unit comes standard with Category I lower link pins (7/8") and top link pin (3/4"). Once the lower link arms of the tractor are connected to the MC lower pins, install 3/8"-7/16" retainer pins (NOT Included) to hold the lower arms in place..

If using a CAT 1 Quick Tach: bushings should be added (NOT Supplied) to match your Quick Tach System.



## Sprayer Boom Controls

Familiarize yourself with the sprayer controls before use. Your sprayer may be equipped with manual or electric (optional) boom controls.

**If your sprayer is equipped with the manual lever controls:**

- Boom Section On/Off Valve—OFF when the lever is down or in the horizontal position, it is ON when the lever is up or in the vertical position.
- Pressure Relief/Regulating Valve. – loosen the jam nut and screw the knob down to increase pressure and up to decrease pressure.

Once desired pressure is obtained, tighten jam nut.

- Pressure Gauge – Monitor sprayer pressure. DO NOT exceed 100psi. Exceeding 100psi can cause premature gauge failure.

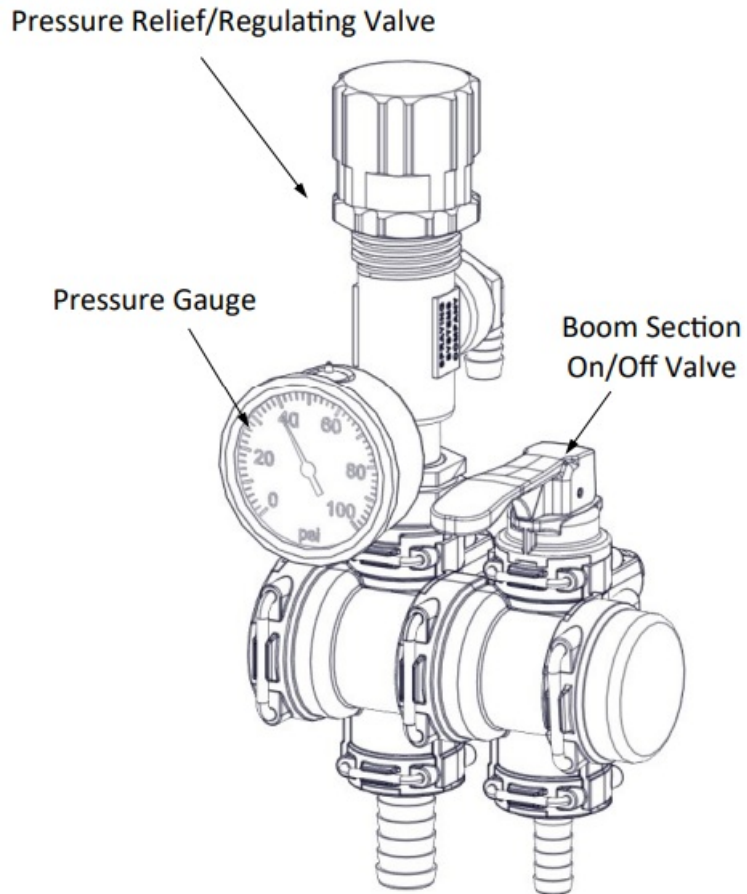


**If your sprayer is equipped with electric controls:**

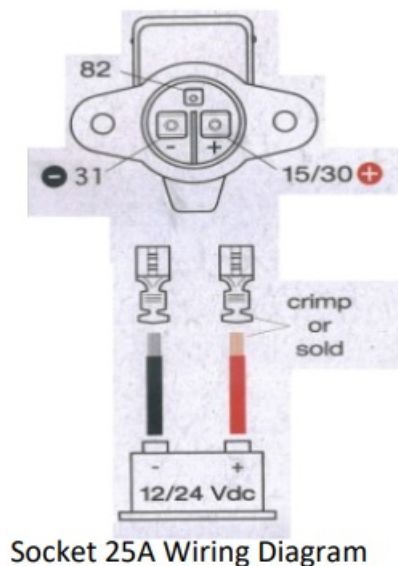
Determine the best location for the control box in the vehicle cab, according to the following guidelines:



- Switches should be within easy reach
- Controller bracket should rest on a flat surface
- 12 volt DC power source must be accessible.



The Electric Control Kit power cord comes with a 3 pin convenience plug. If your Tractor is not equipped with that type power plug, a Socket 25A is included in the kit. The Socket 25A plug will have to be wired into the tractor. See Socket 25A Wiring Diagram to the right for wiring details



## Calibrating the Sprayer

When spraying with a boom, the sprayer must be calibrated to ensure proper spray coverage and to combat over-application or under application. Before calibrating the sprayer, it is important to familiarize yourself with the operating instructions.

The calibration process is simplified when broken down into the following three steps:

1. Determine the speed of the tractor
2. Determine the nozzle size and use the calibration chart to find the correct pressure setting
3. Set the pressure accordingly using the pressure regulating valve

**Note:** All calibration must be done with clean water only!

**Note:** it is helpful for future references to record the exact RPM and gear that was used to attain the desired speed

Tractor RPM Tractor Gear = Speed

### 1. Determining the Speed

It is important to determine what speed the tractor will be traveling at, while spraying. While some tractors have speedometers, it is still recommended that speed is calculated for all tractors for accuracy purposes. To determine the speed follow these steps:

1. Set the tractor throttle to operate between 75%-100% of the tractor's RPM range. This will allow the pump to operate at full volume
2. Measure a 200 foot or 300 foot distance on a field or a surface similar to where you will be spraying
3. Drive the tractor and sprayer (tank half-full is optimal) across the measured distance at a constant rate of speed. There should be no changes in speed while you are measuring the time. This should be a comfortable speed for spraying
4. Have someone measure the amount of time (in seconds) it takes to travel the measured distance
5. Your speed can be found by entering your data into the equation below or by consulting the speed table

$$\text{Speed (MPH)} = (\text{Distance (FT)} \times 60) / (\text{Time (Seconds)} \times 88)$$

$$\text{____(MPH)} = \text{____(FT)} \times 60 / \text{____(SEC)} \times 88$$



**Note:** When calculating tractor speed be sure to select a gear that allows the tractor to operate between 75%-100% of the tractor's RPM range. This will allow the pump to operate at full volume. Selecting a higher gear will not allow the pump to work efficiently.

Speed Chart			
Speed in M.P.H. (Miles Per Hour)	Time Required in seconds to travel a distance of		
	100 Ft.	200 Ft.	300 Ft.
1	68 sec.	136	205
2	34	68	102
3	23	45	68
4	17	34	51
5	14	27	41
6	11	23	34
7	9.7	19	29
8	8.5	17	26
9	7.6	15	23
10	6.8	14	20

2. Determine the nozzle size and use the calibration chart

Always follow the chemical manufacturers label recommendations for application rate (GPA). There are five things you will need to know to be able to figure your nozzle size and pressure setting. They are:

1. Application rate — GPA or GAL/1000 Sq. Ft.
2. Speed — MPH
3. Width — Nozzle Spacing (in inches) for broadcast boom spraying — Spray width (in inches) for boomless nozzles
4. Spraying Pressure — Follow chemical label recommendations for pressure/droplet size requirements
5. Solution weight and conversion factor (CF)

### Spraying Solutions Other than Water

Since all the tabulations are based on spraying water, which weighs 8.34 lbs. per USA gallon, conversion factors must be used when spraying solutions which are heavier or lighter than water. To determine the proper size nozzle for the solution to be sprayed, first

multiply the desired GPM or GPA of solution by the rate conversion factor. Then use the new converted GPM or GPA rate to select the proper size nozzle and pressure.

**Example:** Desired application rate is 20 GPA of 28% Nitrogen. Determine the correct nozzle size as follows:  
 $\text{GPA (Solution)} \times \text{Conversion Factor} = \text{Converted GPA}$   
 $20 \text{ GPA (28\%)} \times 1.13 = 22.6 \text{ GPA (Water)}$ , the applicator should choose a nozzle size that will supply 22.6 GPA of water at the desired pressure. See the appropriate Application Chart for your boom spraying nozzle or boomless nozzle. Using the tractor speed, nozzle width or spray width, nozzle size being used and desired gallons per acre (GPA), find the pressure (psi) necessary to achieve the desired GPA.

Weight of Solution	Specific Gravity	Conversion Factors
7.0 lbs. per gallon	.84	.92
8.0 lbs. per gallon	.96	.98
8.345 lbs. per gallon(Water)	1.00	1.00
9.0 lbs. per gallon	1.08	1.04
10.0 lbs. per gallon	1.20	1.10
10.66 lbs. per gallon(28% Nitrogen)	1.28	1.13
11.0 lbs. per gallon	1.32	1.15
12.0 lbs. per gallon	1.44	1.20
14.0 lbs. per gallon	1.68	1.30

Example for traditional boom sprayer: Assume you have found your tractor speed to be 6 MPH, your nozzle spacing is 20", and you want to spray 15 GPA and your sprayer has blue AIXR11003VP nozzles. Upon looking at the application chart, you will find that you should set the sprayer's pressure at about 40 psi in order to apply about 15 GPA.

Example for boomless sprayer: Assume you have found your tractor speed to be 5 MPH, your nozzle will cover 216 inches (18 Ft) mounted 48" height above the target spray zone, and you will want to spray 15 GPA and your sprayer has yellow XT024 nozzles.

Upon looking at the application chart, you will find that you should set the sprayer's pressure at about 50 psi in order to apply about 15 GPA.

Useful Formulas

GPM (Per Nozzle) = GPA x MPH x W 5,940

GPM (Per Nozzle = GAL/1000 Sq. Ft. x MPH x W 136

GPM — Gallons Per Minute

GPA — Gallons Per Acre

GAL/1000 Sq. Ft. — Gallons Per 1000 Square Feet

MPH — Miles Per Hour

W — Nozzle Spacing (in inches) for broadcast spraying

— Spray width (in inches) for single nozzle, Band spraying or Boomless spraying

### 3. Adjusting the Sprayer Pressure

Once you have found the correct pressure (psi) setting, you must now adjust the sprayer to that pressure setting. Before you adjust the sprayer's pressure, it is important to follow these steps:

1. Make sure the sprayer tank is at least half full of clean water and the tank supply shutoff valve to the pump is open.
2. Make sure the pressure relief valve is backed out so at least 4 threads are showing. If not, loosen the jam nut and screw the knob out until at least 4 threads can be seen.
3. Make sure the valves to the agitator are open, if equipped.
4. With the booms on, idle tractor and engage the tractor PTO to start the pump. Slowly increase tractor RPM, paying attention to the sprayer pressure gauge. (Do NOT spike the sprayer pressure gauge). If you over pressurize the spray system you can damage the pressure gauge and sprayer plumbing. Increase the tractor's RPM until you reach RPM that was used to set the tractor's speed.
5. Adjust the pressure relief valve to reach your desired psi for your speed and GPA. This is achieved by loosening the jam nut on the pressure relief valve and screwing the knob in to increase pressure and out to decrease pressure. Once you have reached your desired pressure, tighten the jam nut to lock the pressure control knob. If you can not achieve enough pressure, slowly close the agitation valve. Tighten the valve nut to

lock the agitation valve, if equipped.

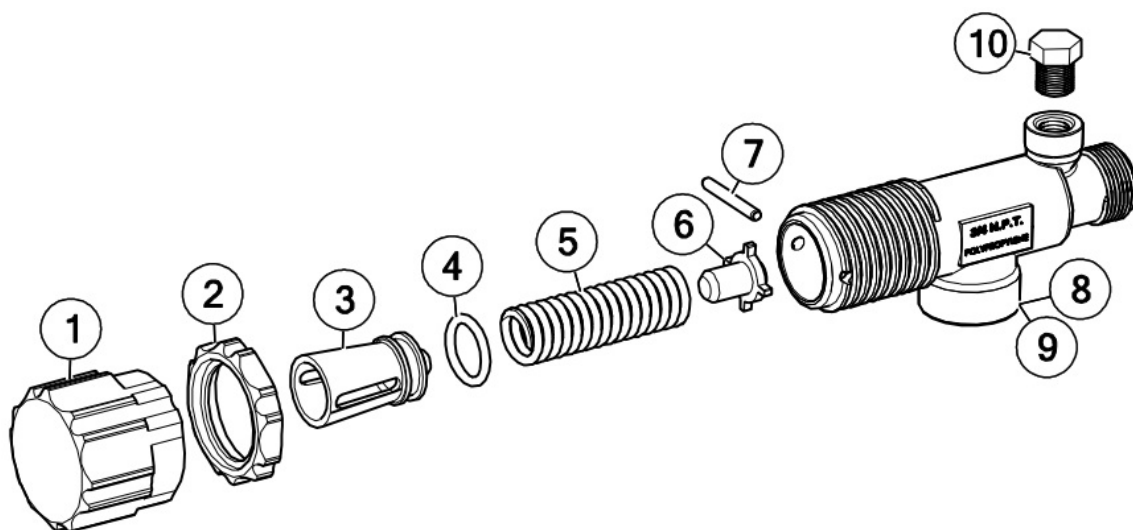
You have successfully calibrated the sprayer.

#### PISTON TYPE PRESSURE RELIEF/REGULATING VALVE

Bypasses excess liquid. Adjustable to maintain control of line pressure at any pressure within the valve operating range.

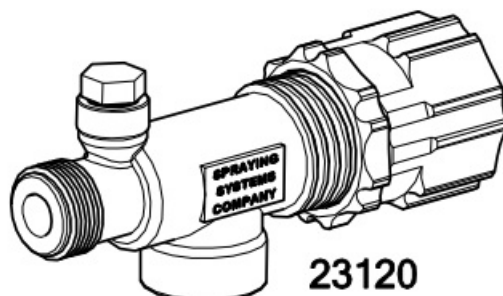
Selected pressure setting firmly held in place by locknut. Extra large passages to handle large flows.

- Polypropylene with stainless steel spring
- Excellent chemical resistance
- EPDM O-Rings
- For pressure to 150 p.s.i.
- 1/4" port for pressure gauge
- 3/4" NPT (M) inlet & (F) outlet connections





Ref. #	Part #	Mfg. Part #	Description	Qty
1	5046270	CP23122-NY	Adjusting Cap, Nylon (Gray)	1
2	5110266	CP23123-PP	Lock Ring	1
3	◆◆	CP23124-PP	Spring Retainer	1
4	* *	CP7717-15-EPR	O-Ring, EPDM Rubber	1
5	* *	CP23127-302SS	Spring	1
6	◆◆	CP23125-PP	Guide Seat	1
7	**	CP23126-302SS	Retaining Pin	1
8	CP23121-PP	CP23121-PP	Poly Body (3/4" NPT)	1
9	CP23128-PP	CP23128-PP	Poly Body (1/2" NPT)	1
10	5102022	F14	Pipe Plug, 1/4" MNPT	1

Fimco #	Mfg. Part #	Description
5143199	23120-3/4-PP	Pressure Relief Valve (3/4" NPT)
5143200	23120-1/2-PP	Pressure Relief Valve (1/2" NPT)
5168717	PK-AB23120-KIT	Repair Kit, Items Marked ‘ ‘



\* \* Available only in Repair Kit

  Only Available in Complete Assembly

#### Calibration Chart

There are many different sizes and styles of spray tips available to meet your spraying needs. If you need further information, please contact an Cimarron Service Center for assistance.

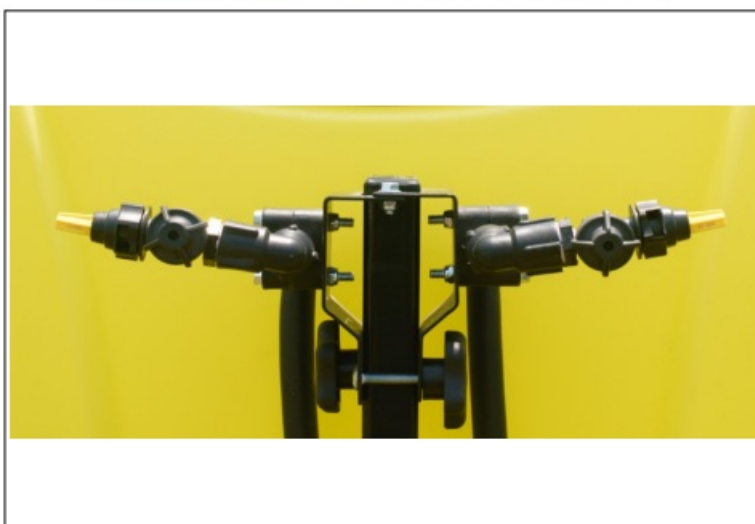
**Please Note:** Flow rates are calculated using fresh water.

Always remember to double check application rates.

Boomless Nozzle Application

**Hypro Boom X Tender**

**Boomless Nozzles**



Nozzle Size (MNPT)	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre								GAL/1000 Sq. Ft.				Swath (Ft) at 40 PSI 48" High
			MPH								MPH				
			4	5	6	8	10	12	15	20	2	3	4	5	
10 (1/4")	30	0.9	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8	0.41	0.27	0.20	0.16	13
	40	1.0	9.9	7.9	6.6	5.0	4.0	3.3	2.6	2.0	0.45	0.30	0.23	0.18	
	50	1.1	10.9	8.7	7.3	5.4	4.4	3.6	2.9	2.2	0.50	0.33	0.25	0.20	
	60	1.2	11.9	9.5	7.9	5.9	4.8	4.0	3.2	2.4	0.55	0.36	0.27	0.22	
15 (1/4")	30	1.3	10.9	8.7	7.3	5.4	4.4	3.6	2.9	2.2	0.53	0.35	0.26	0.21	14
	40	1.5	12.5	10.0	8.3	6.3	5.0	4.2	3.4	2.5	0.61	0.41	0.30	0.24	
	50	1.7	13.7	11.0	9.2	6.9	5.5	4.6	3.7	2.8	0.67	0.45	0.33	0.27	
	60	1.8	15.0	12.0	10.0	7.5	6.0	5.0	4.0	3.0	0.73	0.49	0.37	0.29	
20 (1/4")	30	1.7	13.6	10.9	9.0	6.8	5.4	4.5	3.6	2.7	0.62	0.42	0.31	0.25	15
	40	2.0	16.0	12.8	10.6	8.0	6.4	5.3	4.3	3.2	0.73	0.49	0.37	0.29	
	50	2.2	17.6	14.1	11.7	8.8	7.0	5.9	4.7	3.5	0.81	0.54	0.40	0.32	
	60	2.4	19.2	15.3	12.8	9.6	7.7	6.4	5.1	3.8	0.88	0.59	0.44	0.35	
24 (1/4")	30	2.1	16.2	13.0	10.8	8.1	6.5	5.4	4.3	3.2	0.75	0.50	0.37	0.30	16
	40	2.4	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	0.85	0.57	0.43	0.34	
	50	2.7	20.9	16.7	13.9	10.4	8.4	7.0	5.6	4.2	0.96	0.64	0.48	0.38	
	60	2.9	22.4	17.9	15.0	11.2	9.0	7.5	6.0	4.5	1.03	0.69	0.51	0.41	
43 (3/8")	30	3.7	31.6	25.3	21.1	15.8	12.6	10.5	8.4	6.3	1.45	0.97	0.72	0.58	14
	40	4.3	36.7	29.4	24.5	18.3	14.7	12.2	9.8	7.3	1.68	1.12	0.75	0.67	
	50	4.8	41.0	32.8	27.3	20.5	16.4	13.7	10.9	8.2	1.88	1.25	0.94	0.75	
	60	5.3	45.2	36.2	30.2	22.6	18.1	15.1	12.1	9.0	2.08	1.38	1.04	0.83	
80 (1/2")	30	6.9	68.3	54.6	45.5	34.2	27.3	22.8	18.2	13.7	3.14	2.09	1.57	1.25	13
	40	8.0	79.2	63.4	52.8	39.6	31.7	26.4	21.1	15.8	3.64	2.42	1.82	1.45	
	50	8.9	88.1	70.5	58.7	44.1	35.2	29.4	23.5	17.6	4.04	2.70	2.02	1.62	
	60	9.8	97.0	77.6	64.7	48.5	38.8	32.3	25.9	19.4	4.45	2.97	2.23	1.78	
167 (3/4")	30	14.5	128.0	103.0	85.4	64.1	51.3	42.7	34.2	25.6	5.88	3.92	2.94	2.35	15
	40	16.7	148.0	118.0	98.4	73.8	59.0	49.2	39.4	29.5	6.78	4.52	3.39	2.71	
	50	18.7	165.0	132.0	110.0	82.6	66.1	55.1	44.1	33.1	7.59	5.06	3.79	3.03	
	60	20.5	181.0	145.0	121.0	90.6	72.5	60.4	48.3	36.2	8.32	5.54	4.16	3.33	
215 (3/4")	30	18.6	144.0	115.0	95.9	71.9	57.5	48.0	38.4	28.8	6.60	4.40	3.30	2.64	16
	40	21.5	166.0	133.0	111.0	83.1	66.5	55.4	44.3	33.3	7.63	5.09	3.82	3.05	
	50	24.0	186.0	149.0	124.0	92.8	74.3	61.9	49.5	37.1	8.52	5.68	4.26	3.41	
	60	26.3	203.0	163.0	136.0	102.0	81.4	67.8	54.2	40.7	9.34	6.22	4.67	3.73	

NOTE: Application rates are based on overall swath widths listed at 48" height. Refer to operating instructions if using a different swath.

#### HAMILTON BOOMLESS NOZZLES

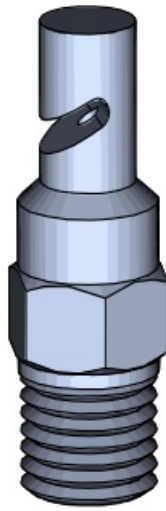


Operating Data for 1800 Nozzles								
Orifice No.	PSI	GPM 180°	Swath 180°	Gallons per Acre				
				3 MPH	4 MPH	5 MPH	8 MPH	10 MPH
#5	30	1.7	44'	6.4	4.8	3.8	2.4	1.9
	40	2.0	46'	7.2	5.4	4.3	2.7	2.2
	50	2.2	48'	7.6	5.7	4.5	2.9	2.3
	60	2.4	50'	7.9	5.9	4.8	3.0	2.4
#10	30	3.7	50'	12.2	9.2	7.3	4.6	3.7
	40	4.2	50'	13.9	10.4	8.3	5.2	4.2
	50	4.6	52'	14.6	10.9	8.8	5.5	4.4
	60	5.0	52'	15.8	11.9	9.5	5.9	4.8
#20	30	5.1	54'	15.6	11.6	9.3	5.8	4.7
	40	5.9	54'	18	13.5	10.8	6.8	5.4
	50	6.7	56'	19.7	14.8	11.8	7.4	5.9
	60	7.1	58'	20.2	15.1	12.1	7.6	6.1

**NOTE:** 90° nozzles have the same GPA, but 1/2 GPM and swath  
 BROADCAST & TURF APPLICATION CHART—20" SPACING



Nozzle Size	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20-inch Nozzle Spacing												GAL/1000 Sq. Ft. 20-inch Nozzle Spacing			
			MPH												MPH			
			4	5	6	7	8	10	12	14	16	18	20	2	3	4	5	
01	15	0.06	4.5	3.6	3.0	2.5	2.2	1.8	1.5	1.3	1.1	1.0	0.9	0.20	0.14	1.00	0.08	
	30	0.09	6.7	5.3	4.5	3.8	3.3	2.7	2.2	1.9	1.7	1.5	1.3	0.31	0.20	0.15	0.12	
	40	0.10	7.4	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5	0.34	0.23	0.17	0.14	
	60	0.12	8.9	7.1	5.9	5.1	4.5	3.6	3.0	2.5	2.2	2.0	1.8	0.41	0.27	0.20	0.16	
	80	0.14	10.4	8.3	6.9	5.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1	0.48	0.32	0.24	0.19	
	100	0.16	11.9	9.5	7.9	6.8	5.9	4.8	4.0	3.4	3.0	2.6	2.4	0.55	0.36	0.27	0.22	
015	15	0.09	12.6	10.1	8.4	7.2	6.3	5.0	4.2	3.6	3.2	2.8	2.5	0.58	0.39	0.29	0.23	
	30	0.13	9.7	7.7	6.4	5.5	4.8	3.9	3.2	2.8	2.4	2.1	1.9	0.44	0.30	0.22	0.18	
	40	0.15	11.1	8.9	7.4	6.4	5.6	4.5	3.7	3.2	2.8	2.5	2.2	0.51	0.34	0.26	0.20	
	60	0.18	13.4	10.7	8.9	7.6	6.7	5.3	4.5	3.8	3.3	3.0	2.7	0.61	0.41	0.31	0.25	
	80	0.21	15.6	12.5	10.4	8.9	7.8	6.2	5.2	4.5	3.9	3.5	3.1	0.72	0.48	0.36	0.29	
	100	0.24	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6	0.82	0.55	0.41	0.33	
02	15	0.12	18.6	14.9	12.4	10.6	9.3	7.4	6.2	5.3	4.6	4.1	3.7	0.85	0.57	0.43	0.34	
	30	0.17	12.6	10.1	8.4	7.2	6.3	5.0	4.2	3.6	3.2	2.8	2.5	0.58	0.39	0.29	0.23	
	40	0.20	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	0.68	0.45	0.34	0.27	
	60	0.24	17.8	14.3	11.9	10.2	8.9	7.1	5.9	5.1	4.5	4.0	3.6	0.82	0.55	0.41	0.33	
	80	0.28	20.8	16.6	13.9	11.9	10.4	8.3	6.9	5.9	5.2	4.6	4.2	0.95	0.64	0.48	0.38	
	100	0.32	23.8	19.0	15.8	13.6	11.9	9.5	7.9	6.8	5.9	5.3	4.8	1.09	0.73	0.55	0.44	
025	15	0.34	25.2	20.2	16.8	14.4	12.6	10.1	8.4	7.2	6.3	5.6	5.0	1.16	0.77	0.58	0.46	
	30	0.22	16.3	13.1	10.9	9.3	8.2	6.5	5.4	4.7	4.1	3.6	3.3	0.75	0.50	0.38	0.30	
	40	0.25	18.6	14.9	12.4	10.6	9.3	7.4	6.2	5.3	4.6	4.1	3.7	0.85	0.57	0.43	0.34	
	60	0.31	23.0	18.4	15.3	13.2	11.5	9.2	7.7	6.6	5.8	5.1	4.6	1.06	0.70	0.53	0.42	
	80	0.35	26.0	20.8	17.3	14.9	13.0	10.4	8.7	7.4	6.5	5.8	5.2	1.19	0.80	0.60	0.48	
	100	0.40	29.7	23.8	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	1.36	0.91	0.68	0.55	
03	15	0.42	31.2	24.9	20.8	17.8	15.6	12.5	10.4	8.9	7.8	6.9	6.2	1.43	0.95	0.72	0.57	
	30	0.15	11.1	8.9	7.4	6.4	5.6	4.5	3.7	3.2	2.8	2.5	2.2	0.51	0.34	0.26	0.20	
	40	0.22	16.3	13.1	10.9	9.3	8.2	6.5	5.4	4.7	4.1	3.6	3.3	0.75	0.50	0.38	0.30	
	60	0.25	18.6	14.9	12.4	10.6	9.3	7.4	6.2	5.3	4.6	4.1	3.7	0.85	0.57	0.43	0.34	
	80	0.31	23.0	18.4	15.3	13.2	11.5	9.2	7.7	6.6	5.8	5.1	4.6	1.06	0.70	0.53	0.42	
	100	0.35	26.0	20.8	17.3	14.9	13.0	10.4	8.7	7.4	6.5	5.8	5.2	1.19	0.80	0.60	0.48	
035	15	0.40	29.7	23.8	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	1.36	0.91	0.68	0.55	
	30	0.26	19.3	15.4	12.9	11.0	9.7	7.7	6.4	5.5	4.8	4.3	3.9	0.89	0.59	0.44	0.35	
	40	0.30	22.3	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	1.02	0.68	0.51	0.41	
	60	0.37	27.5	22.0	18.3	15.7	13.7	11.0	9.2	7.8	6.9	6.1	5.5	1.26	0.84	0.63	0.50	
	80	0.42	31.2	24.9	20.8	17.8	15.6	12.5	10.4	8.9	7.8	6.9	6.2	1.43	0.95	0.72	0.57	
	100	0.47	34.9	27.9	23.3	19.9	17.4	14.0	11.6	10.0	8.7	7.8	7.0	1.60	1.07	0.80	0.64	
04	15	0.51	37.9	30.3	25.2	21.6	18.9	15.1	12.6	10.8	9.5	8.4	7.6	1.74	1.16	0.87	0.70	
	30	0.21	15.6	12.5	10.4	8.9	7.8	6.2	5.2	4.5	3.9	3.5	3.1	0.72	0.48	0.36	0.29	
	40	0.30	22.3	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	1.02	0.68	0.51	0.41	
	60	0.35	26.0	20.8	17.3	14.9	13.0	10.4	8.7	7.4	6.5	5.8	5.2	1.19	0.80	0.60	0.48	
	80	0.43	31.9	25.5	21.3	18.2	16.0	12.8	10.6	9.1	8.0	7.1	6.4	1.47	0.98	0.73	0.59	
	100	0.49	36.4	29.1	24.3	20.8	18.2	14.6	12.1	10.4	9.1	8.1	7.3	1.67	1.11	0.84	0.67	
05	15	0.55	40.8	32.7	27.2	23.3	20.4	16.3	13.6	11.7	10.2	9.1	8.2	1.88	1.25	0.94	0.75	
	30	0.21	15.6	12.5	10.4	8.9	7.8	6.2	5.2	4.5	3.9	3.5	3.1	0.72	0.48	0.36	0.29	
	40	0.30	22.3	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	1.02	0.68	0.51	0.41	
	60	0.35	26.0	20.8	17.3	14.9	13.0	10.4	8.7	7.4	6.5	5.8	5.2	1.19	0.80	0.60	0.48	
	80	0.43	31.9	25.5	21.3	18.2	16.0	12.8	10.6	9.1	8.0	7.1	6.4	1.47	0.98	0.73	0.59	
	100	0.49	36.4	29.1	24.3	20.8	18.2	14.6	12.1	10.4	9.1	8.1	7.3	1.67	1.11	0.84	0.67	
06	15	0.59	43.8	35.0	29.2	25.0	21.9	17.5	14.6	12.5	11.0	9.7	8.8	2.01	1.34	1.01	0.80	
	30	0.30	22.3	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	1.02	0.68	0.51	0.41	
	40	0.35	26.0	20.8	17.3	14.9	13.0	10.4	8.7	7.4	6.5	5.8	5.2	1.19	0.80	0.60	0.48	
	60	0.43	31.9	25.5	21.3	18.2	16.0	12.8	10.6	9.1	8.0	7.1	6.4	1.47	0.98	0.73	0.59	
	80	0.49	36.4	29.1	24.3	20.8	18.2	14.6	12.1	10.4	9.1	8.1	7.3	1.67	1.11	0.84	0.67	
	100	0.57	42.3	33.9	28.2	24.2	21.2	16.9	14.1	12.1	10.6	9.4	8.5	1.94	1.30	0.97	0.78	
07	15	0.63	46.8	37.4	31.2	26.7	23.4	18.7	15.6	13.4	11.7	10.4	9.4	2.15	1.43	1.07	0.86	
	30	0.31	23.0	18.4	15.3	13.2	11.5	9.2	7.7	6.6	5.8	5.1	4.6	1.06	0.70	0.53	0.42	
	40	0.43	31.9	25.5	21.3	18.2	16.0	12.8	10.6	9.1	8.0	7.1	6.4	1.47	0.98	0.73	0.59	
	60	0.50	37.1	29.7	24.8	21.2	18.6	14.9	12.4	10.6	9.3	8.3	7.4	1.71	1.14	0.85	0.68	
	80	0.61	45.3	36.2	30.2	25.9	22.6	18.1	15.1	12.9	11.3	10.1	9.1	2.08	1.39	1.04	0.83	
	100	0.71	52.7	42.2	35.1	30.1	26.4	21.1	17.6	15.1	13.2	11.7	10.5	2.42	1.61	1.21	0.97	
08	15	0.79	58.7	46.9	39.1	33.5	29.3	23.5	19.6	16.8	14.7	13.0	11.7	2.69	1.80	1.35	1.08	
	30	0.52	38.6	30.9	25.7	22.1	19.3	15.4	12.9	11.0	9.7	8.6	7.7	1.77	1.18	0.89	0.71	
	40	0.60	44.6	35.6	29.7	25.5	22.3	17.8	14.9	12.7	11.1	9.9	8.9	2.05	1.36	1.02	0.82	
	60	0.73	54.2	43.4	36.1	31.0	27.1	21.7	18.1	15.5	13.6	12.0	10.8	2.49	1.66	1.24	1.00	
	80	0.85	63.1	50.5	42.1	36.1	31.6	25.2	21.0	18.0	15.8	14.0	12.6	2.90	1.93	1.45	1.16	
	100	0.95	70.5	56.4	47.0	40.3	35.3	28.2	23.5	20.2	17.6	15.7	14.1	3.24	2.16	1.62	1.30	
09	15	1.02	75.7	60.6	50.5	43.3	37.9	30.3	25.2	21.6	18.9	16.8	15.1	3.48	2.32	1.74	1.39	
	30	0.49	36.4	29.1	24.3	20.8	18.2	14.6	12.1	10.4	9.1	8.1	7.3	1.67	1.11	0.84	0.67	
	40	0.69	51.2	41.0	34.2	29.3	25.6	20.5	17.1	14.6	12.8	11.4	10.2	2.35	1.57	1.18	0.94	
	60	0.80	59.4	47.5	39.6	33.9	29.7	23.8	19.8	17.0	14.9	13.2	11.9	2.73	1.82			



#### KLC FieldJet Nozzles used on FSBK-1 Boom Assembly

The KLC FieldJet nozzle is typically used to spray areas not accessible with a boom sprayer. It's one-piece nozzle design projects spray to both sides to form a wide swath flat spray. The round orifice minimizes clogging. Uniformity across the swath is not as good as with a properly operated boom sprayer.

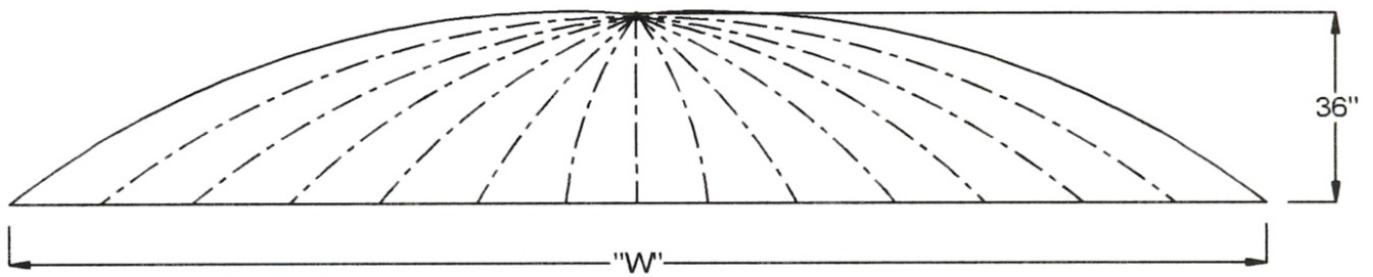
\*Available in brass or stainless steel.

(\*Uniformity can be optimized by double overlapping spray swaths on successive sprayer passes. Remember, this also doubles the application volume.)

Rate Chart: Type 1/4-KLC and Type 3/4-KLC FieldJet Nozzles

Tip Number	Pipe Connection	PSI	Capacity (One Nozzle) in GPM	„w„ in Feet	GPA (Gallons per Acre)				GPA (Gallons per 1000 Sq. Ft.)			
					3 MPH	4 MPH	5 MPH	8 MPH	3 MPH	4 MPH	5 MPH	8 MPH
1/4KLC-5	1/4"	20	0.71	17	6.9	5.2	4.1	2.6	0.16	0.12	0.09	0.06
		30	0.87	18	8.0	6.0	5.	3.0	0.18	0.14	0.11	0.07
		40	1.00	21	7.9	5.9	5.	3.	0.18	0.13	0.11	0.07
1/4KLC-9	1/4"	20	1.56	18	12.	8.7	7.0	4.	0.27	0.20	0.16	0.10
		30	2.55	19	11.6	10.2	8.	5.1	0.31	0.23	0.19	0.12
		40	1.80	21	13.5	10.6	9.	5.3	0.32	0.24	0.19	0.12
1/4KLC-18	1/4"	20	3.12	20	14.1	15.8	13.	7.9	0.48	0.36	0.29	0.18
		30	3.60	21	25.0	18.4	15.	9.2	0.56	0.42	0.34	0.21
		40	3.60	22	27.0	20.0	16.	10.1	0.62	0.46	0.37	0.23
1/4KLC-36	1/4"	20	5.09	22	38.0	29.0	23.0	14.3	0.87	0.66	0.52	0.33
		30	6.24	24	43.0	32.0	26.0	16.1	0.98	0.74	0.59	0.37
		40	7.20	26	46.0	34.0	27.0	17.1	1.00	0.78	0.63	0.39

**NOTE:** Always double-check your application rates.



Turbo FloodJet Nozzles used Based on the minimum overlap required to obtain uniform distribution with 120° tips and 40" spacing.

Suggested Minimum Spray Height: 18"20" above what is being sprayed (to plant, not ground).

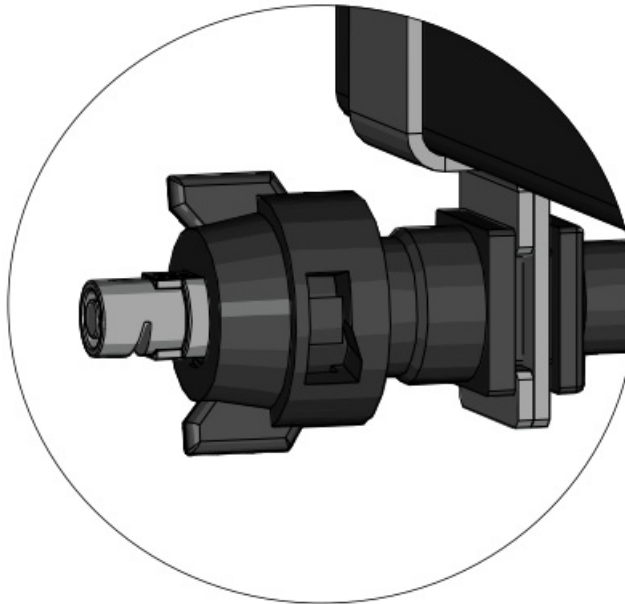
Optimum Spray Height: 39"

Wide angle spray nozzle height is influenced by nozzle orientation.

The critical factor is to achieve a minimum 30% overlap.

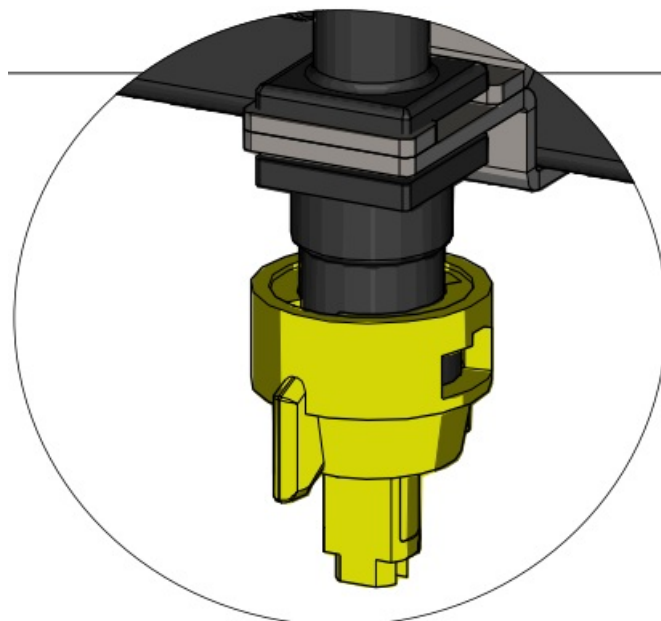
Turbo FloodJet Nozzles used on FSBK-2 Boom Assembly

Tip Chart for TKT-VP3, TF-VP3 & 30DT3.0 (Gray) Tips									
	Pressure (psi)	Capacity (GPM)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	7.5 MPH	10 MPH
Gallons Per Acre Based on Water	10	.30	44	22	14.9	11.1	8.9	5.9	4.5
	20	.42	63	31.5	20.9	15.7	12.6	8.4	6.3
	30	.52	76	38	26	19.3	15.4	10.3	7.7
	40	.60	90	45	30	22	17.8	11.8	8.9
Gallons Per 1000 Sq. Ft. Based on Water	10	.30	1.01	.5	.34	.254	.204	.135	.103
	20	.42	1.4	.72	.48	.36	.29	.19	.14
	30	.52	1.74	.87	.596	.44	.35	.236	.176
	40	.60	2.06	1.00	.688	.50	.408	.27	.20
Gallons Per 100 Sq. Ft. Based on Water	10	.30	.10	.05	.034	.025	.02	.013	.01
	20	.42	.14	.072	.048	.036	.029	.019	.014
	30	.52	.174	.087	.059	.044	.035	.023	.017
	40	.60	.206	.10	.068	.05	.04	.027	.02



AIXR11002VP Nozzles used on FSBK-5 & FSBK-70 Boom Assemblies

AIXR11002VP Spray Tip Rate Chart (20" Spacing)										
	Pressure (psi)	Capacity (GPM)	1 MPH	2 MPH	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH	10 MPH
Gallons Per Acre Based on Water	15	.12	35.6	17.8	11.8	8.9	7.1	5.9	4.5	3.6
	20	.14	41.6	20.8	13.8	10.4	8.3	6.9	5.2	4.2
	30	.17	50.4	25.2	16.8	12.6	10.1	8.4	6.3	5.0
	40	.20	59.6	29.8	19.8	14.9	11.9	9.9	7.4	5.9
Gallons Per 1000 Sq. Ft. Based on Wa ter	15	.12		.41	.27	.20	.16			
	20	.14		.48	.32	.24	.19			
	30	.17		.58	.39	.29	.23			
	40	.20		.68	.45	.34	.27			



Based on the minimum overlap required to obtain uniform distribution with 110° tips and 20" spacing.

Suggested Minimum Spray Height: 16"-18" above what is being sprayed (to plant, not ground).  
Optimum Spray Height: 20"

## **Operating Instructions**

Before operating the sprayer, it is important that you read this entire manual and know all the safety precautions. Always take your time and be alert when operating your sprayer. This will allow you to safely spray without accident or interruption.

### **Spraying with the Boom**

1. Calibrate the sprayer using the calibration instructions and application charts. This will determine what pressure to spray at in order to achieve the desired Gallons per Acre (GPA).
2. Connect the PTO coupler and torque bar to the tractor.
3. Fill the tank with some water in order to set the pressure and test for leaks.
4. Prepare the sprayer for spraying. Open the ball valve on the suction line, make sure the boom valves are off and make sure the spray gun is closed (if applicable).
5. Start the tractor and engage the pump. The tractor should be running at the RPM rate determined when you calibrated your sprayer. Ensure that the pump is primed and that there are no leaks in any of the lines.
6. Using the relief valve (manual controls), or pressure adjustment switch (electric controls), adjust the sprayers pressure to the pressure rating found when you calibrated your sprayer. You may need to readjust the pressure when you open the boom control valves.
7. You may now fill the tank with the amount of water and chemicals recommended by the chemical manufacturer. Before filling the tank make sure the pump is disengaged.
8. After filling the tank, engage the pump and allow an ample amount of time for the jet agitator to mix the water and chemicals.  
Note: See chemical instructions for necessary agitation time. You are now ready to begin spraying.
9. Upon arriving at the spraying location, unfold booms (if applicable), engage pump, open the boom control valves and make sure the pressure setting is correct. While spraying always remember to maintain constant level of speed and RPM (rates found when calibrated).

### **Spraying with the Spray Gun**

1. Connect the pump's PTO coupler and torque bar.
2. Fill the tank with some water in order to set the pressure and test for leaks.
3. Make sure the spray gun is closed and the booms are off.
4. Start the tractor and engage the pump. Ensure that the pump is primed and that there are no leaks in any of the lines.
5. Adjust the sprayer's pressure using the relief valve to your desired setting. When you open the spray gun, you may need to readjust the pressure.
6. You may now fill the tank with the amount of water and chemicals recommended by the chemical manufacturer. Before filling the tank make sure the pump is disengaged.
7. After filling the tank, engage the pump and allow an ample amount of time for the jet agitator to mix the water and chemicals.

Note: See chemical instructions for necessary agitation time. You are now ready to begin spraying.

8. Upon arriving at the spraying location, engage the pump and make sure the pressure setting is correct. Adjust the gun to the desired spray pattern when spraying.

## Maintenance Instructions

### Routine Maintenance

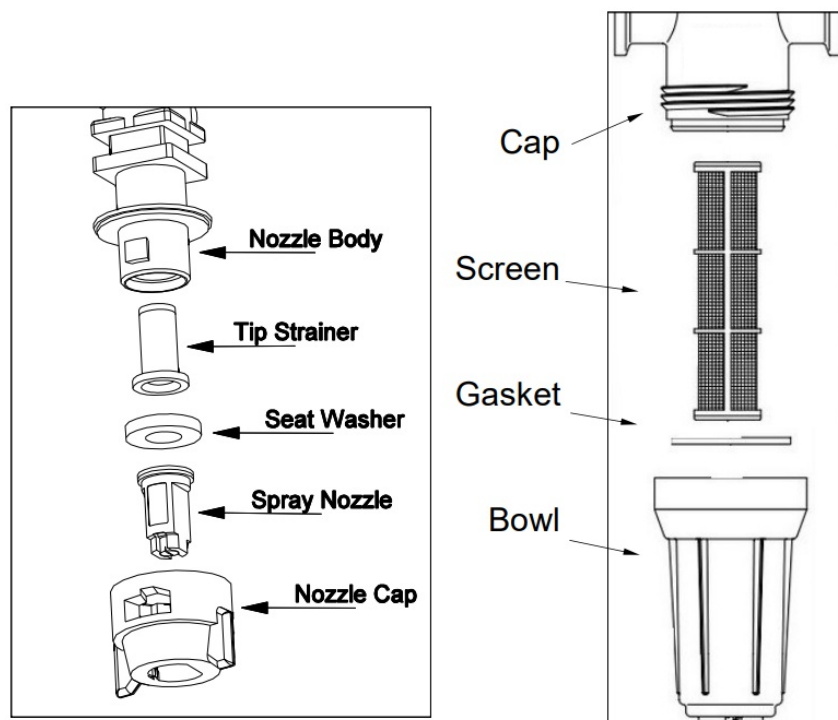
It is very important to perform routine maintenance on your sprayer before and after each use. Good maintenance practices will help to guard against sprayer breakdowns or accidents.

1. It is recommended to perform a visual and physical inspection for any worn parts, loose bolts or other visible problems. Make all necessary repairs before spraying. Please contact an authorized Cimarron dealer to order parts or to receive technical help.
2. After each use, it is important to rinse the sprayer and all components by running a good quality tank cleaner (Tank Neutralizer and Cleaner) through the system (if no tank cleaner is available, you may substitute a good grade of dish soap for this step. Turn pump on and circulate through the sprayer for 15 minutes and then spray out through boom and handgun nozzles. Refill sprayer part way with clean fresh water and repeat. Rinsing the sprayer after use will greatly improve the life of the pump and other components.

3. Failure to properly rinse the sprayer and all components after each use, will void the manufacturer's warranty.

**Note:** All rinsates must be sprayed in field according to chemical regulations!

4. The screen of the in-line filter on the suction line should be taken out and rinsed. Note: Be careful not to lose the gasket in the filter bowl. The filter will leak without this gasket.
5. Tip strainer (if applicable), should also be taken out and rinsed after each use. Tips strainers are small screens that are located behind each spray nozzle on the boom.



### Pump Maintenance

1. Follow all pump safety precautions and warnings. Following these guidelines will help to ensure many years of smooth and trouble-free service.
2. Flush the pump, as directed in routine maintenance, after every use. It is also very important to winterize your



pump to prevent freezing and corrosion. Please see Winterizing your Sprayer section below for instructions.

3. After many years of use, you may find that your pump is leaking or has experienced a decrease in performance. You may need to change the seals and rollers. Contact an authorized Cimarron Dealer for parts and technical support.

#### **Drain the Tank**

Close the valve on the tank outlet. Remove the filter bowl by unscrewing from the filter body. Pay attention when removing the filter bowl that the screen and gasket be removed and kept with the bowl.

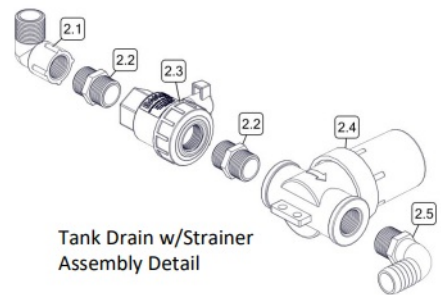
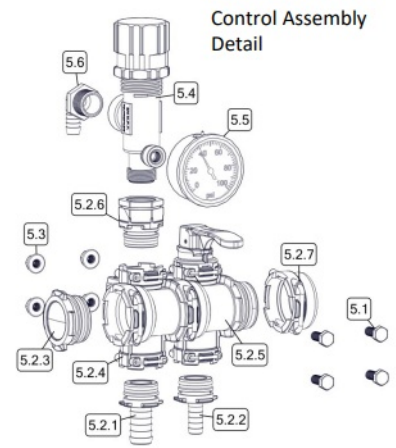
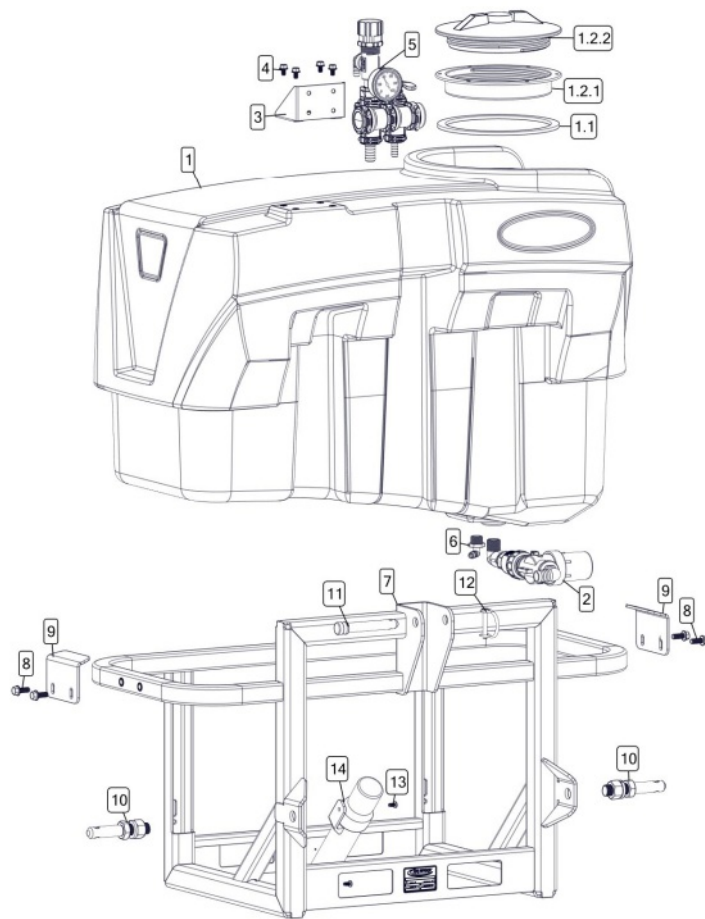
Once the filter bowl, screen and gasket have been removed, open the valve on the tank outlet to allow the fluid to drain from the tank. While the filter screen is off, rinse with clean water and inspect to make sure in good operating condition. When done, reinstall filter bowl with gasket and screen.

#### **Winterizing your Sprayer**

It is essential that you winterize your sprayer to avoid damage and to allow for optimal performance. The winterization process should be undertaken before freezing conditions and/or after each season of use. Failure to winterize your sprayer will void the manufacturer's warranty.

1. Verify that the tank is empty and rinsed out. Pour 1-2 gallons of RV nontoxic antifreeze into the tank. It is not recommended to use engine antifreeze. Engine antifreeze can be harmful to humans, animals, crops and the environment.
2. Engage the pump and spray with the boom and spray gun (if applicable). Make sure that the antifreeze has been pumped through the entire system, including all spray nozzles.
3. See pump manufacturers operators manual for proper winter storage of your sprayer pump.
4. Before spraying in the spring, it is recommended to flush the sprayer with fresh water to cleanse it of the antifreeze and any other buildup. It would also be beneficial to do a thorough inspection of all sprayer components before spraying.

#### **MC1 60 Gallon 3-PT Component Breakdown & Parts List**



**Tank Drain w/Strainer  
Assembly Detail**

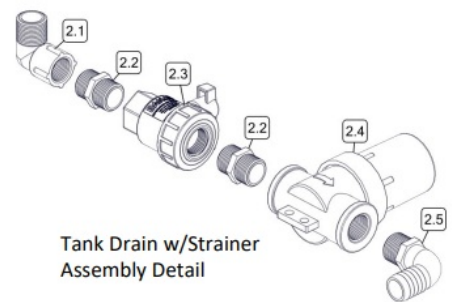
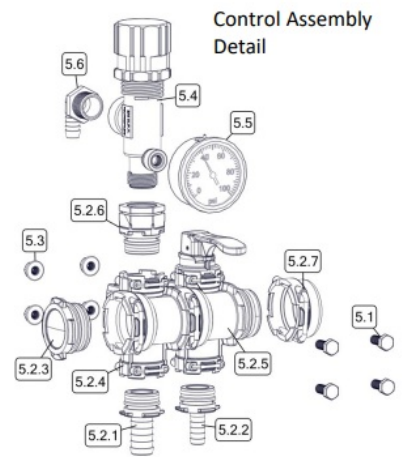
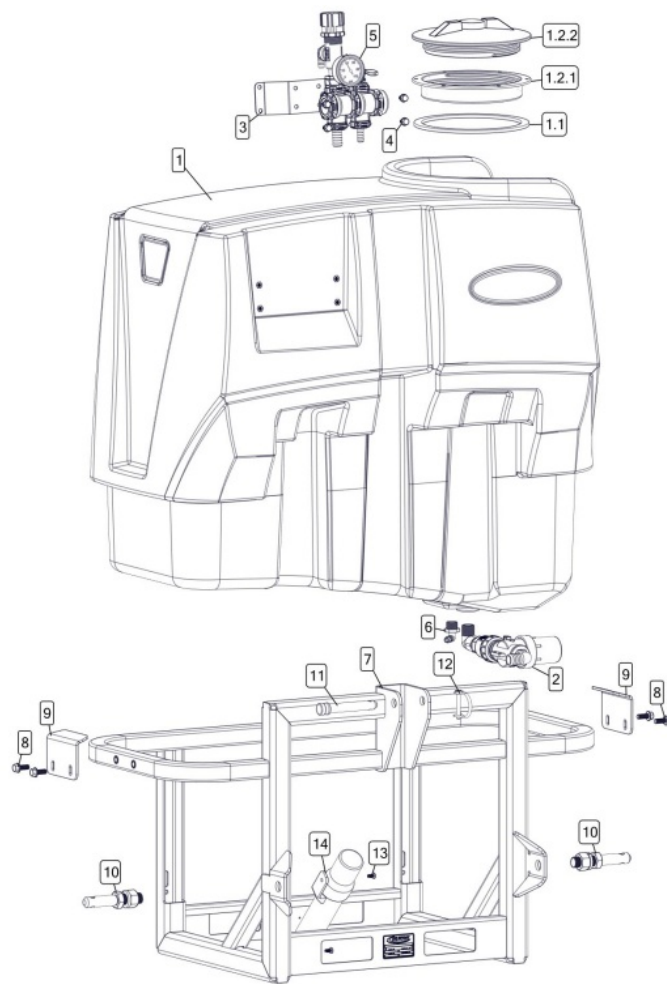
Ref. #	Part #	Description	Qty
1	5169364	60 Gallon MC1 Tank (Yellow)	1
1.1	63600	Norwesco 8" Lid Gasket	1
1.2	60032	Norwesco 8" Lid w/Vent & Ring Assembly	1
1.2.1	60003	8" Tank Lid Ring ONLY (for TL8N Lid)	1
1.2.2	TL8N	8" Poly Tank Lid w/Airvent	1
2	5282516	MC1 Tank Drain w/Strainer Assembly	1
2.1	5010244	Poly Street Elbow, 3/4" FNPT x 3/4" MNPT	1
2.2	5011140	Poly Close Nipple, 3/4" MNPT	2
2.3	5143407	3/4" Union Poly Ball Valve	1
2.4	5116322	3/4" Black Poly Strainer	1
2.4.1	5072229	EPDM Gasket	1
2.4.2	5116323	40 Mesh Screen	1
3.	5010210	Poly Elbow, 3/4" MNPT x 1" HB	1
3	5070255-BLK	Control Mount Bracket	1
4	5034604	5/16-18 x 0.5 Flng Hex Bolt	4
5	5282517	MC1 1-SEC Control Assembly	1
5.1	5034038	5/16-18 x 0.75 Hex Bolt	4
5.2	5282495	ARAG NPT+1 Two SEC Valve Assembly	1
5.2.1	1091320	T3 Male x 3/4" Hose Barb Straight	1
5.2.2	1091313	T3 Male x 1/2" Hose Barb Straight	1

Ref. #	Part #	Description	Qty
5.2.3	219150	T5 Male Plug Fitting	1
5.2.4	463T001.010	Single 463T Body Bare	1
5.2.5	5143560	1-Sec. Manual Valve T5XT3	1
5.2.6	239133N	3/4" FNPT x T3 Male Fitting	1
5.2.7	219050	T5 Female Blank Cap	1
5.3	5006389	5/16-18 FIng Top-Lock Hex Nut	4
5.4	5143199	Pressure Relief Valve, (3/4" NPT)	1
5.5	5167108	2 1/2" Liquid Filled 100# Back Mount Gauge	1
5.6	5010207	Poly Elbow, 3/4" MNPT x 1/2" HB	1
6	5010207	Poly Elbow, 3/4" MNPT x 1/2" HB	1
7	5282512-BLU	MC1 3PT Frame Assembly	1
8	5034764	3/8-16 x 1.00 FIng Hex Bolt	4
9	5070253-BLU	MC1 Tank Retainer	2
10	LAP1	Lift Arm Pin, CAT I-II, 1 1/8" Dia. x 1 13/16" Usable Length	2
11	5101356	Top Link Pin 3/4" Dia. x 3 7/8" Usable	1
12	5101260	5/16" x 1-3/4" Lynch Pin	1
13	5117317	1/4-20 x 0.50 PH Pan Head Self-Tapping Screw	2
14	70111	Owner's Manual Canister (Small)	1

**Not Shown:**

EPDM12	5 Ft.	1/2" – 200 PSI EPDM Spray Hose	HC08	Qty.: 2	1/2" Hose Clamp
EPDM34	5 Ft.	3/4" – 200 PSI EPDM Spray Hose	HC12	Qty.: 2	3/4" Hose Clamp
KF1300BLK	4 Ft.	1"-50 PSI Kanaflex Suction Hose	HC16	Qty.: 2	1" Hose Clamp

**MC1 90 Gallon 3-PT Component Breakdown & Parts List**



Ref. #	Part #	Description	Qty
1	5169365	90 Gallon MC1 Tank (Yellow)	1
1.1	63600	Norwesco 8" Lid Gasket	1
1.2	60032	Norwesco 8" Lid w/Vent & Ring Assembly	1
1.2.1	60003	8" Tank Lid Ring ONLY (for TL8N Lid)	1
1.2.2	TL8N	Norwesco 8" Poly Tank Lid w/Airvent	1
2	5282516	MC1 Tank Drain w/Strainer Assembly	1
2.1	5010244	Poly Street Elbow, 3/4" FNPT x 3/4" MNPT	1
2.2	5011140	Poly Close Nipple, 3/4" MNPT	2
2.3	5143407	3/4" Union Poly Ball Valve	1
2.4	5116322	3/4" Black Poly Strainer	1
2.4.1	5072229	EPDM Gasket	1
2.4.2	5116323	40 Mesh Screen	1
2.5	5010210	Poly Elbow, 3/4" MNPT x 1" HB	1
3	5070256-BLK	Control Mount Bracket	1
4	5034604	5/16-18 x 0.5 Flng Hex Bolt	4
5	5282517	MC1 1-SEC Control Assembly	1
5.1	5034038	5/16-18 x 0.75 Hex Bolt	4
5.2	5282495	ARAG NPT+1 Two SEC Valve Assembly	1
5.2.1	1091320	T3 Male x 3/4" Hose Barb Straight	1
5.2.2	1091313	T3 Male x 1/2" Hose Barb Straight	1

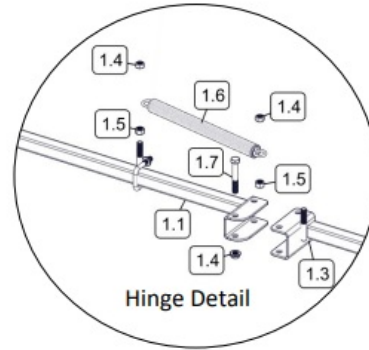
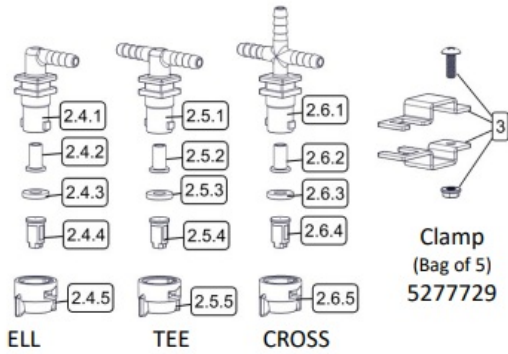
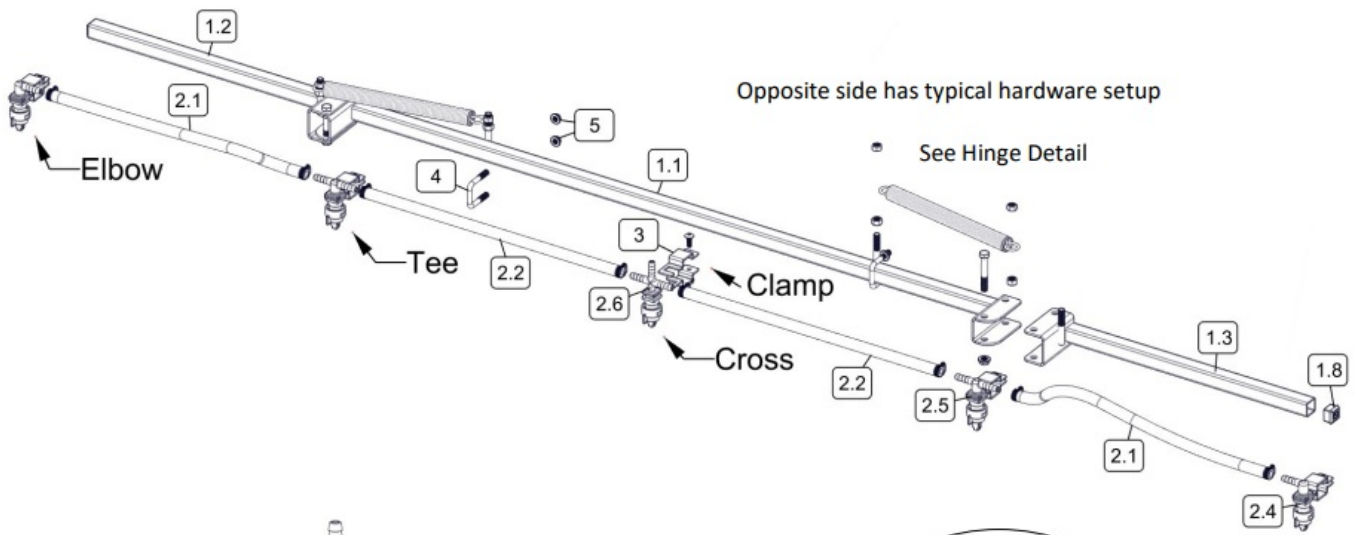


Ref. #	Part #	Description	Qty
5.2.3	219150	T5 Male Plug Fitting	1
5.2.4	463T001.010	Single 463T Body Bare	1
5.2.5	5143560	1-SEC Manual Valve T5XT3	1
5.2.6	239133N	3/4" FNPT x T3 Male Fitting	1
5.2.7	219050	T5 Female Blank Cap	1
5.3	5006389	5/16-18 Fling Top-Lock Hex Nut	4
5.4	5143199	Pressure Relief Valve, (3/4" NPT)	1
5.5	5167108	2 1/2" Liquid Filled 100# Back Mount Gauge	1
5.6	5010207	Poly Elbow, 3/4" MNPT x 1/2" HB	1
6	5010207	Poly Elbow, 3/4" MNPT x 1/2" HB	1
7	5282512-BLU	MC1 3PT Frame Assembly	1
8	5034764	3/8-16 x 1.00 Fling Hex Bolt	4
9	5070253-BLU	MC1 Tank Retainer	2
10	LAP1	Lift Arm Pin, CAT I-II, 1 1/8" Dia x 1 13/16" Usable Length	2
11	5101356	Top Link Pin 3/4" Dia. x 3 7/8" Usable	1
12	5101260	5/16" x 1-3/4" Lynch Pin	1
13	5117317	1/4-20 x 0.50 PH Pan Head Self-Tapping Screw	2
14	70111	Owner's Manual Canister (Small)	1

**Not Shown:**

EPDM12	5 Ft.	1/2" – 200 PSI EPDM Spray Hose	HC08	Qty.: 2	1/2" Hose Clamp
EPDM34	5 Ft.	3/4" – 200 PSI EPDM Spray Hose	HC12	Qty.: 2	3/4" Hose Clamp
KF1300BLK	4 Ft.	1"-50 PSI Kanaflex Suction Hose	HC16	Qty.: 2	1" Hose Clamp

**FSBK-5 (5300976) Component Breakdown & Parts List**

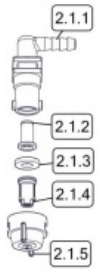
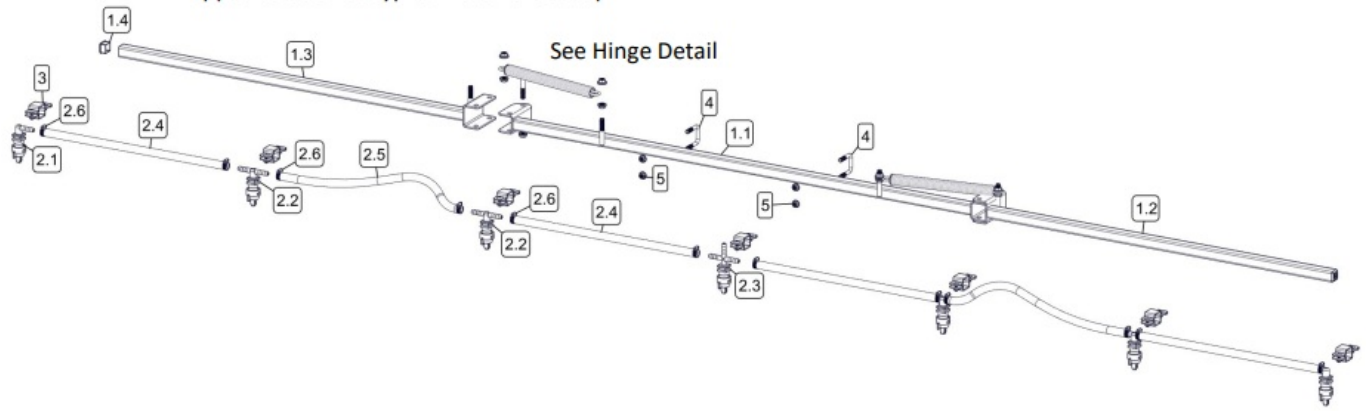


Ref. #	Part #	Description	Qty
1	5277779	Boom Sub-Assembly (1" Sq. Tube)	1
1.1	5277838-BLK	Center Boom Tube 1" Sq.	1
1.2	5277834-BLK	LH Outer Boom Tube 1" Sq.	1
1.3	5277835-BLK	RH Outer Boom Tube 1" Sq.	1
1.4	5006345	318"-16 Flange Locknut (Grade F)	6
1.5	5006259	3/8"-16 Hex Whiz (Flange) Locknut	4
1.6	5019228	Extension Spring	2
1.7	5034169	H.H.C.S., 3/8"-16 x 2 1/2"	2
1.8	5046106	Square Cap, Black (1" Square Tube)	2
2	5277695	5-Nozzle Harness (3/8" & 1" Sq Tube)	1
2.1	5020534	Hose, 3/8"-1 Brd. x 21"	2
2.2	5020531	Hose, 318"-1 Brd. x 19-3/8"	2
2.3	5051144	Hose Clamp, 3/8"	8
2.4	5277689	"ELL" Nozzle Sub-Assembly (3/8")	2
2.4.1	5056113	Single Hose Shank (3/8" Hose)	1
2.4.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.4.3	5016157	Seat Washer (QJ Caps)	1
2.4.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.4.5	5046219	Quick TeeJet Cap ONLY (Yellow)	1
2.5	5277690	"TEE" Nozzle Sub-Assembly (3/8")	2

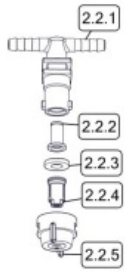
Ref. #	Part #	Description	Qty
2.5.1	5056114	Double Hose Shank (3/8" Hose)	1
2.5.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.5.3	5016157	Seat Washer (QJ Caps)	1
2.5.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.5.5	5046219	Quick TeeJet Cap ONLY (Yellow)	2
3.	5277691	"Cross" Nozzle Sub-Assembly (3/8")	1
2.6.1	5056115	Triple Hose Shank (3/8" Hose)	1
2.6.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.6.3	5016157	Seat Washer (QJ Caps)	1
2.6.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.6.5	5046219	Quick TeeJet Cap ONLY (Yellow)	1
3	5277923	Boom Clamp Assembly (1in Sq.)	5
4	5034159	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	2
5	5006307	5/16"-18 Hex Whiz (Flange) Locknut	4
6	5277926	1/2" Hose to 3/8" Hose Conversion Kit	1
6.1	5067228	1/2" x 3/8" Poly Hose Mender	1
6.2	5020417	Hose, 3/8"-1 Brd. x 5-1/2"	1
6.3	5051144	Hose Clamp, 3/8"	2

#### **FSBK-70 (5301100) Component Breakdown & Parts List**

Opposite side has typical hardware setup



Elbow



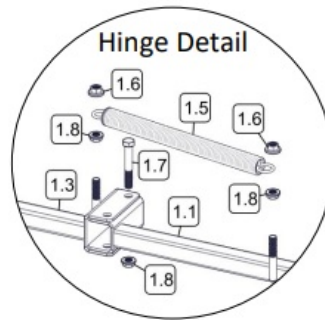
Tee



Cross



Clamp  
Bag of 7: 5277730



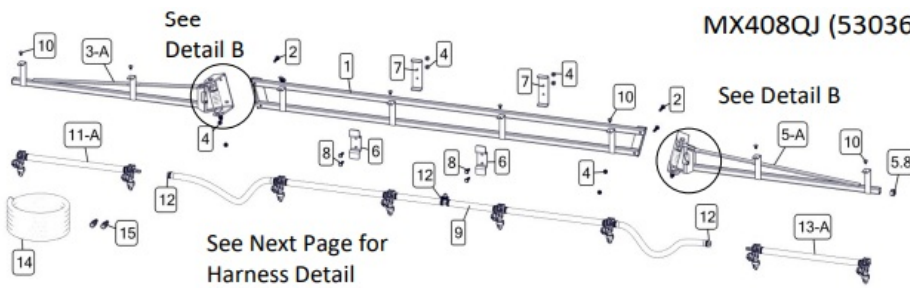
Ref. #	Part #	Description	Qty
1	5277780	7-Nozzle Boom Assembly	1
1.1	5277838-BLK	Center Boom Weldment (1" Sq. Tube)	1
1.2	5277837-BLK	Outer Boom Weldment (LH) (1" Sq Tube)	1
1.3	5277836-BLK	Outer Boom Weldment (RH) (1" Sq Tube)	1
1.4	5046106	Square Cap, Black (1" Square)	2
1.5	5019228	Extension Spring	2
1.6	5006259	3/8"-16 Hex Whiz (Flange) Locknut	4
1.7	5034169	H.H.C.S., 3/8"-16 x 2 1/2"	2
1.8	5006345	3/8"-16 Flange Locknut	6
2	5277696	7-Nozzle Harness (3/8")	1
2.1	5281304	"ELL" Nozzle Sub-Assembly (3/8")	2
2.1.1	5056113	Single Hose Shank (3/8" Hose)	1
2.1.2	5143543	Nozzle Strainer, Blue (50 Mesh)	1
2.1.3	5016157	Seat Washer (QJ Caps)	1
2.1.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.1.5	5046219	Quick TeeJet Cap ONLY (Yellow)	1
2.2	5281307	"TEE" Nozzle Sub-Assembly (3/8")	4
2.2.1	5056114	Double Hose Shank (3/8" Hose)	1
2.2.2	5143543	Nozzle Strainer, Blue (50 Mesh)	1
2.2.3	5016157	Seat Washer (QJ Caps)	1



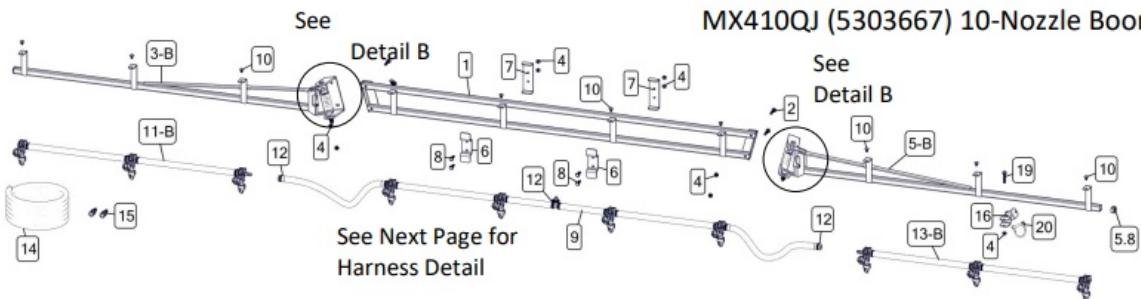
Ref. #	Part #	Description	Qty
2.2.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.2.5	5046219	Quick TeeJet Cap ONLY (Yellow)	1
2.	5281308	"Cross" Nozzle Sub-Assembly (3/8")	1
2.3.1	5056115	Triple Hose Shank (3/8" Hose)	1
2.3.2	5143543	Nozzle Strainer, Blue (50 Mesh)	1
2.3.3	5016157	Seat Washer (QJ Caps)	1
2.3.4	5018371	Air-Induction XR Flat Spray Tip (AIXR11002VP)	1
2.3.5	5046219	Quick TeeJet Cap ONLY (Yellow)	1
2.4	5020510	Hose, 3/8"-1 Brd. x 19-3/8"	4
2.5	5020347	Hose, 3/8"-1 Brd. x 21"	2
2.6	5051144	Hose Clamp, 3/8"	12
3	5277923	Boom Clamp Assembly (1in Sq.)	7
4	5034159	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	2
5	5006307	5/16"-18 Hex Whiz (Flange) Locknut	4
6	5277926	1/2" Hose to 3/8" Hose Conversion Kit	1
6.1	5067228	1/2" x 3/8" Poly Hose Mender	1
6.2	5020417	Hose. 3/8"-1 Brd. x 5-1/2"	1
6.3	5051144	Hose Clamp, 3/8"	2

#### **MX4 Series Boom Component Breakdown & Parts List**

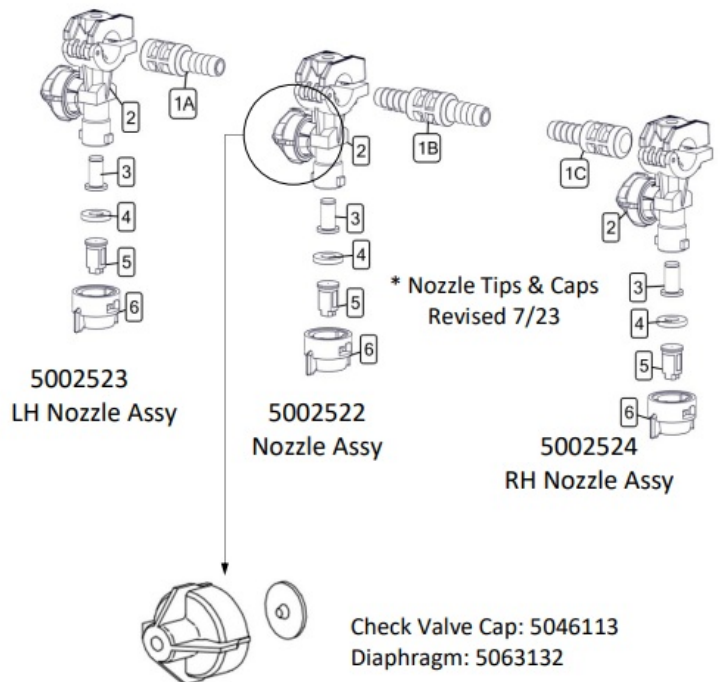
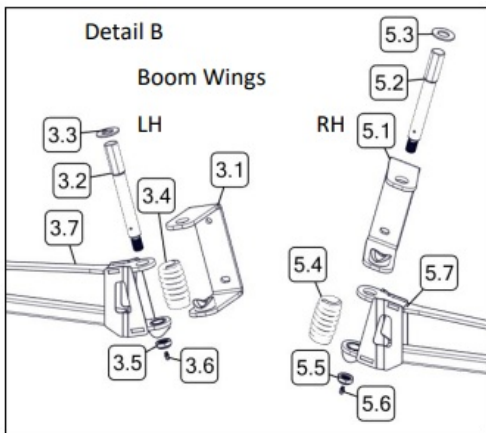
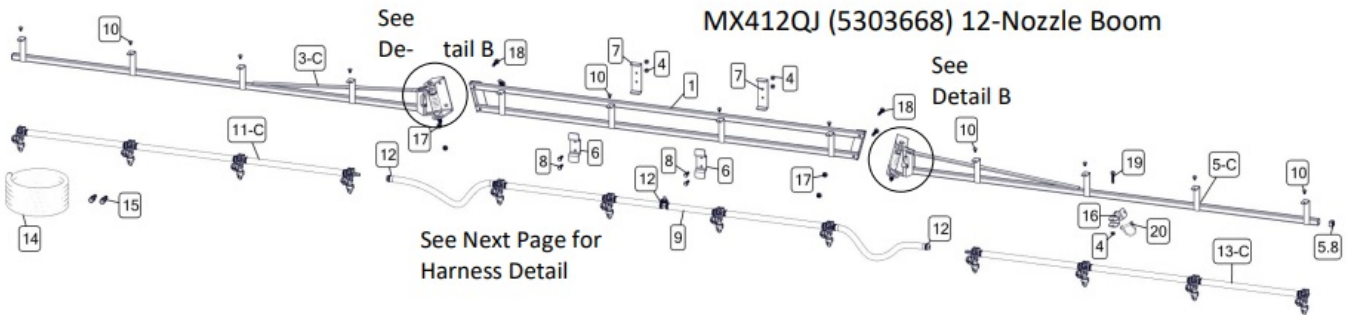
### MX408QJ (5303666) 8-Nozzle Boom



### MX410QJ (5303667) 10-Nozzle Boom

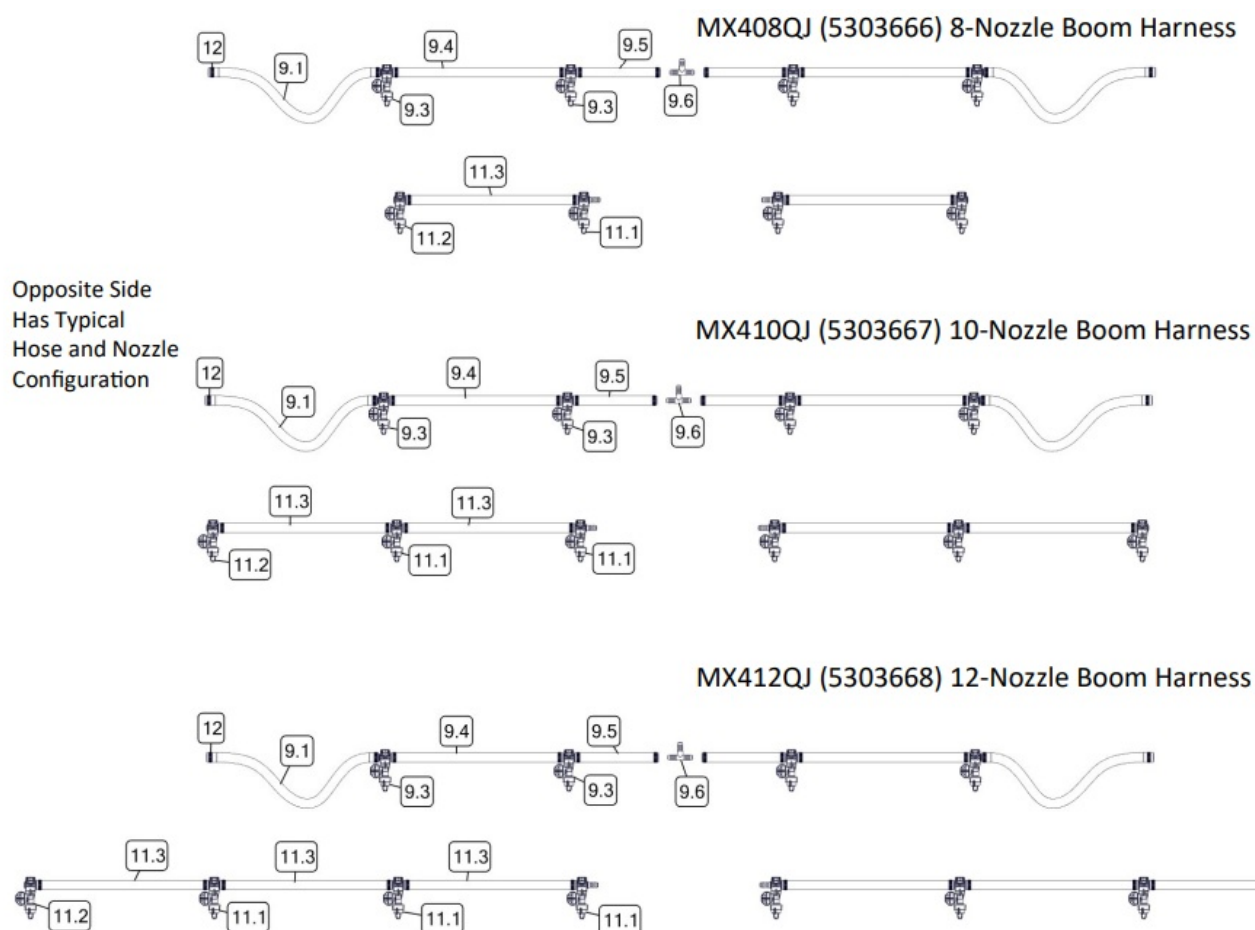


### MX412QJ (5303668) 12-Nozzle Boom



Ref. #	Part #	Description
1A	5002514	Single 1/2" HB Nozzle Dry Boom Adapter (RH/LH)
1B	5002513	Double 1/2" HB Nozzle Dry Boom Adapter
10	5002514	Single 1/2" HB Nozzle Dry Boom Adapter (RH/LH)
2	5056125	QJ17560A-1/2, 1/2" Wet Boom QJ Nozzle Body
3	5116019	Nozzle Strainer, Blue (50 Mesh)
4	5016157	Seat Washer – EPDM – QJ Caps
5	AIXR11003VP	Air-Induction XR Flat Spray Tip
6	5046217	Quick Cap – Blue

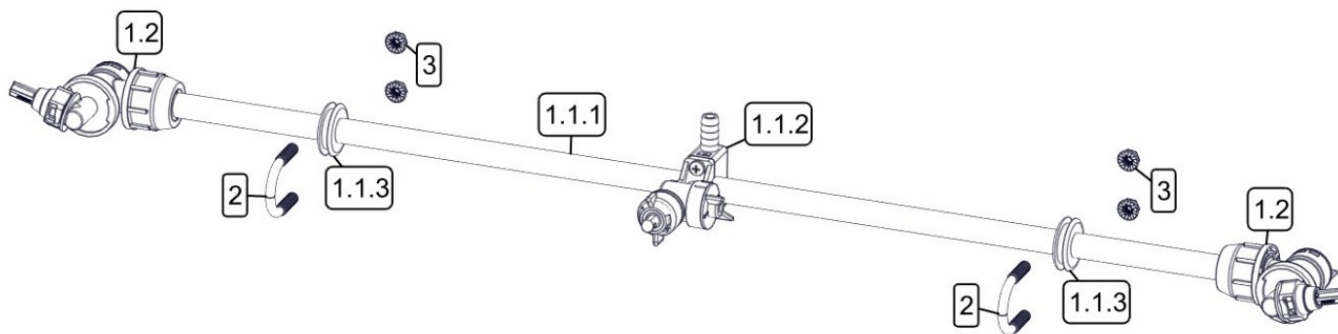
### MX4 Series Boom Component Breakdown & Parts List



Ref. #	Part #	Description	408	410	412
1	5282551-BLK	MX4 Center Section	1	1	1
2	5034871	5/16-18 x 1.75 Carriage Bolt	4	4	4
3-A	5282563	MX4 2-Nozzle Wing Assembly, LH	1	—	—
3-B	5282565	MX4 3-Nozzle Wing Assembly, LH	—	1	—
3-C	5282567	MX4 4-Nozzle Wing Assembly, LH	—	—	—

3.1	5282560-BLK	MX4, LH Wing Mount	1	1	1
3.2	5101378	Pivot Pin	1	1	1
3.3	5016323	3/4 (.785) X 1.50" OD Flat Washer	1	1	1
3.4	5019762	Compression Spring, 3 3/4"	1	1	1
3.5	5034869	5/8-18 Top-Lock Hex Jam Nut	1	1	1
3.6	5012025	3/16" Straight Drive Bal Check Grease Fitting	1	1	1
3.7A	5282554-BLK	MX4 2-Nozzle Wing, LH	1	—	—
3.7B	5282556-BLK	MX4 3-Nozzle Wing, LH	—	1	—
3.7C	5282558-BLK	MX4 4-Nozzle Wing, LH	—	—	1
3.8	5046106	Square Cap, Black (1" Square Tube)	1	1	1
4	5006389	5/16-18 Flng Top-Lock Hex Nut	8	9	5
5-A	5282564	MX4 2-Nozzle Wing Assembly, RH	1	—	—
5-B	5282566	MX4 3-Nozzle Wing Assembly, RH	—	1	—
5-C	5282568	MX4 4-Nozzle Wing Assembly, RH	—	—	—
5.	5282561-BLK	MX4, RH Wing Mount	1	1	1
5.	5101378	Pivot Pin	1	1	1
5.	5016323	3/4 (.785) X 1.50" OD Flat Washer	1	1	1
5.	5019762	Compression Spring, 3 3/4"	1	1	1
6.	5034869	5/8-18 Top-Lock Hex Jam Nut	1	1	1
6.	5012025	3/16" Straight Drive Bal Check Grease Fitting	1	1	1
5.7A	5282555-BLK	MX4 2-Nozzle Wing, RH	—	—	—
5.7B	5282557-BLK	MX4 3-Nozzle Wing, RH	—	1	—
5.7C	5282559-BLK	MX4 4-Nozzle Wing, RH	—	—	1
5.8	5046106	Square Cap, Black (1" Square Tube)	1	1	1
6	5051179-BLK	MX4 Saddle Mount Clamp	2	2	2
7	5029212-BLK	MX4 Saddle Base	2	2	2
8	5034637	5/16-18 x 1.25 Flng Hex Bolt	4	4	4

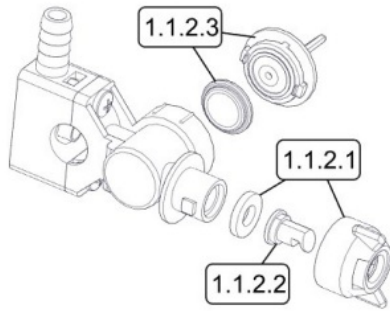
Ref. #	Part #	Description	408	410	412
9	5282569	MX4 Boom Harness, 1-Way, Center	1	1	1
9.1	5020576	Hose, 1/2" (2SP) x 26"	2	2	2
9.2	5051114	Hose Clamp (1/2")	10	10	10
9.3	5002522	QJ17560A Nozzle Body, 11003 AIXR Tip, 1/2" HB Tee	4	4	4
9.4	5020977	Hose, 1/2"-1 Brd. x 18 1/2"	2	2	2
9.5	5020572	Hose, 1/2"-1 Brd. x 10"	2	2	2
9.6	5086026	Poly Hose Tee, 1/2" HB	1	1	1
10	5117342	5/16-18 x 0.50 PH Truss Head Screw	8	10	12
11-A	5282570	MX4 Boom Harness, 2-Nozzle Wing, LH	1	—	—
11-B	5282572	MX4 Boom Harness, 3-Nozzle Wing, LH	—	1	—
11-C	5282574	MX4 Boom Harness, 4-Nozzle Wing, LH	—	—	1
11.1	5002522	QJ17560A Nozzle Body, 11003 AIXR Tip, 1/2" HB Tee	1	2	3
11.2	5002523	QJ17560A Nozzle Body, 11003 AIXR Tip, 1/2" HB (LH)	1	1	1
11.3	5020977	Hose, 1/2"-1 Brd. x 18 1/2"	1	2	3
11.4	5051114	Hose Clamp (1/2")	2	4	6
12	5051114	Hose Clamp (1/2")	3	3	3
13-A	5282571	MX4 Boom Harness, 2-Nozzle Wing, RH	1	—	— — —
13-B	5282573	MX4 Boom Harness, 3-Nozzle Wing, RH	—	—	—
13-C	5282575	MX4 Boom Harness, 4-Nozzle Wing, RH	—	—	1
13.2	5002522	QJ17560A Nozzle Body, 11003 AIXR Tip, 1/2" KB Tee	1	2	3
13.3	5002524	QJ17560A Nozzle Body, 11003 AIXR Tip, 1/2" HB (RH)	1	1	1
13.4	5020977	Hose, 1/2"-1 Brd. x 18 1/2"	1	2	3
13.	5051114	Hose Clamp (1/2")	2	4	6
14	5020973	Hose, 1/2"-1Brd x 18 Ft.	1	1	1
15	5002514	Single 1/2" Barb Dry Boom Nozzle Adaptor	2	2	2
16	5282562-BLK	MX4 Boom, Wing Lock	— — —	1	1
17	5006345	3/8-16 Flng Top-Lock Hex Nut	—	—	4
18	5034485	3/8-16 x 2.00 Carriage Bolt	—	—	4
19	5034639	5/16-18 x 1.75 Flng Hex Bolt (Full Thread)	— — —	1	1
20	5101260	5/16" x 1-3/4" Lynch Pin	— — —	1	1



Ref. #	Part #	Description	Qty
1	5275260	"Wet Boom" Assembly	1
1.1	5275712	Wet Boom Sub-Assembly	1
1.1.1	5100316	Boom Tube	1
1.1.2	5275123	Center Nozzle Assembly (Wet Boom)	1
1.1.2.1	5274862	Center Boomless Nozzle Cap w/Gasket	1
1.1.2.2	5018329	Center Spray Tip	1
1.1.2.3	5088024	Valve (On/Off) Knob w/Diaphragm	1
1.1.2.3.1	5063255	Diaphragm	1

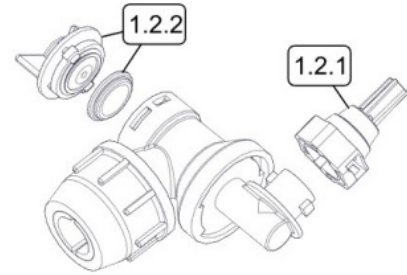
Ref. #	Part #	Description	Qty
1.1.3	5075016	Rubber Grommet	2
1.2	5275122	End Nozzle Assembly (Wet Boom)	2
1.2.1	5274861	XT Spray Nozzle, Cap, & O-Ring	1
1.2.2	5088024	Valve (On/Off) Knob w/Diaphragm	1
1.2.2.1	5063255	Diaphragm	1
2	5034220	Round U-Bolt, 5/16"-18 x 1 5/16" x 1 3/4"	2
3	5006307	5/16-18nc Hex Flanged Whiz Nut Gr. 5	4

## Center Nozzle Assembly

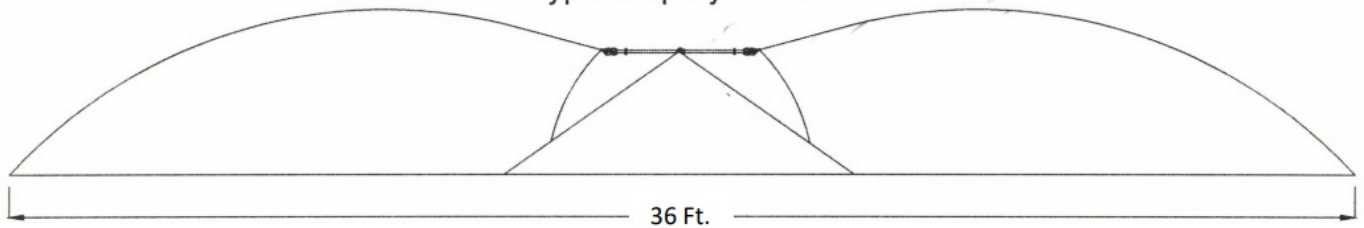


## End Nozzle Assembly

See Next Page for proper assembly of  
End nozzles on the tube



Typical Spray Pattern

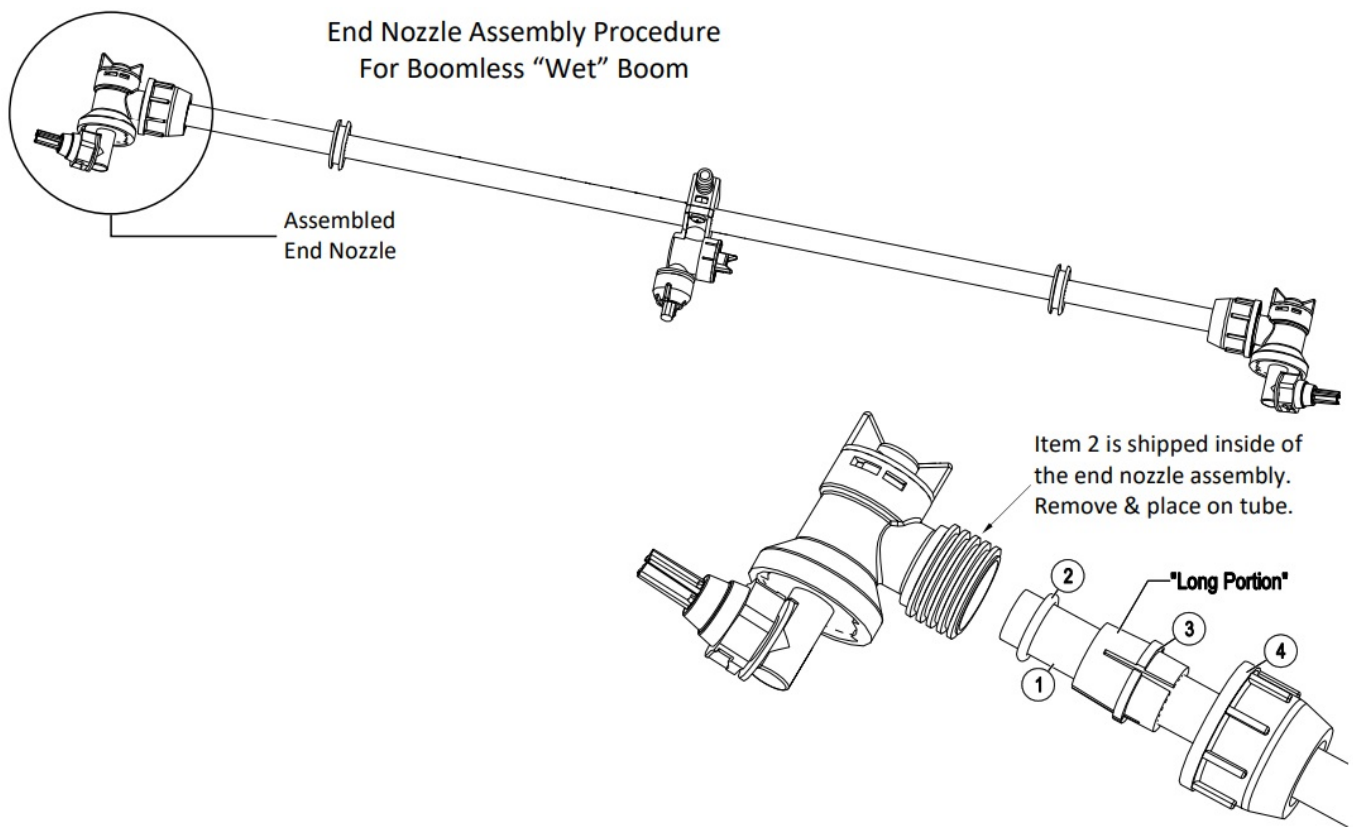


\* Check the spray pattern. Usually you can see the coverage better on a solid concrete surface, such as a driveway.

\* Approximate height: 33"

- The (3) nozzles are fixed at 17-1/2" spacing
- All (3) nozzles spraying at the same time will allow a maximum coverage of 36 feet
- The center nozzle will spray an 80" swath
- Each of the (3) nozzles has a shutoff valve, so you can shut off each nozzle individually. This may help in achieving the actual coverage needed for your application.

## FSBK-3025BL (5301289) End Nozzle Assembly & Info



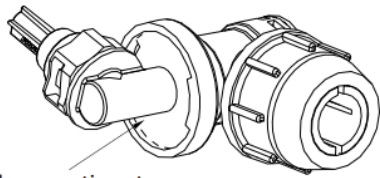
1. First REMOVE O-Ring, Item 2 (#5072517) from the end nozzle body assembly.
2. Start by sliding Item 4, 3, 2 onto the boom tube (Item 1) as shown, leaving about 1/2" to 3/4" between the end of the boom tube and Item 2. Make sure the "Long" portion of Item 3 is facing the nozzle end.
3. Slide the (complete) end nozzle assembly onto the stainless steel boom tube, with somewhat of a "twisting" motion, so that the end face of the boom tube "butts" up against the surface face inside the nozzle body.
4. Now push the "compression olive" (Item 3) against O-ring (Item 2) and slide (both) into the nozzle body opening firmly.
5. Firmly tighten flynut (Item 4) onto threads of nozzle body

Repeat for other side.

**NOTE:** If water is shooting back on the boom tube, item 2 is not in the correct placement.

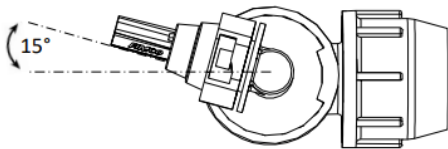


### End Nozzle Information (5275122)



This nozzle mounting stem  
Has a ratcheting motion.

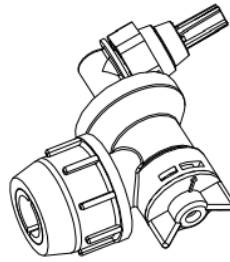
**\*\* Each "click" of the ratcheting motion  
is approx. 15° \*\***



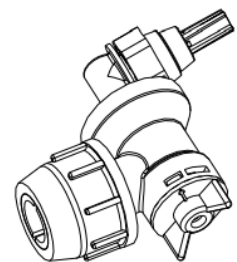
For proper/optimal spray coverage,  
The nozzle must be at a 15° angle

The 15° angle shown will prevent the outer  
Nozzles from overlapping with the center nozzle.

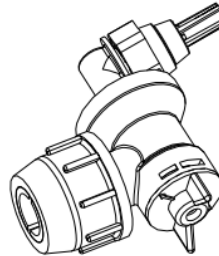
### "On/Off" Valve Positions



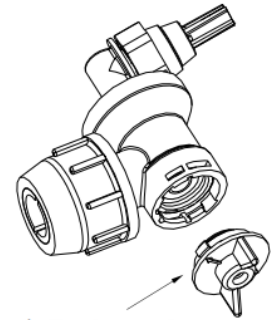
Valve "Open"



Valve "Closed"



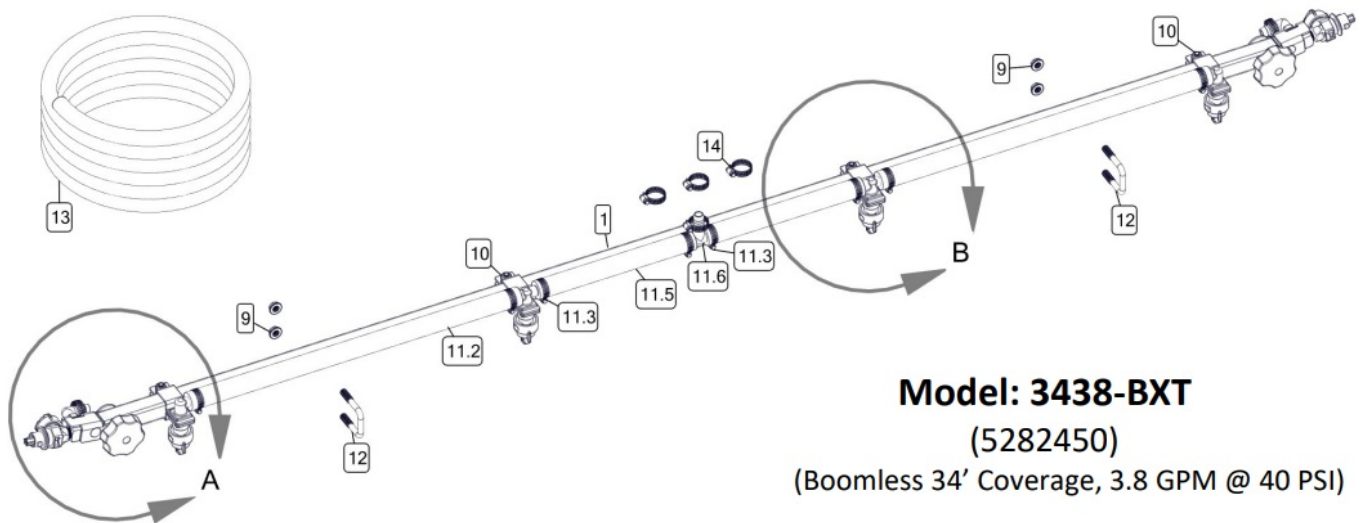
Service Position



On/Off Valve Knob  
Eliminate line pressure, then pull

Note: The check valve & diaphragm can fall out during transport, if the  
knob is not turned to the "ON" or "OFF" position.

## BXT Series Boomless Boom Component Breakdown & Parts List



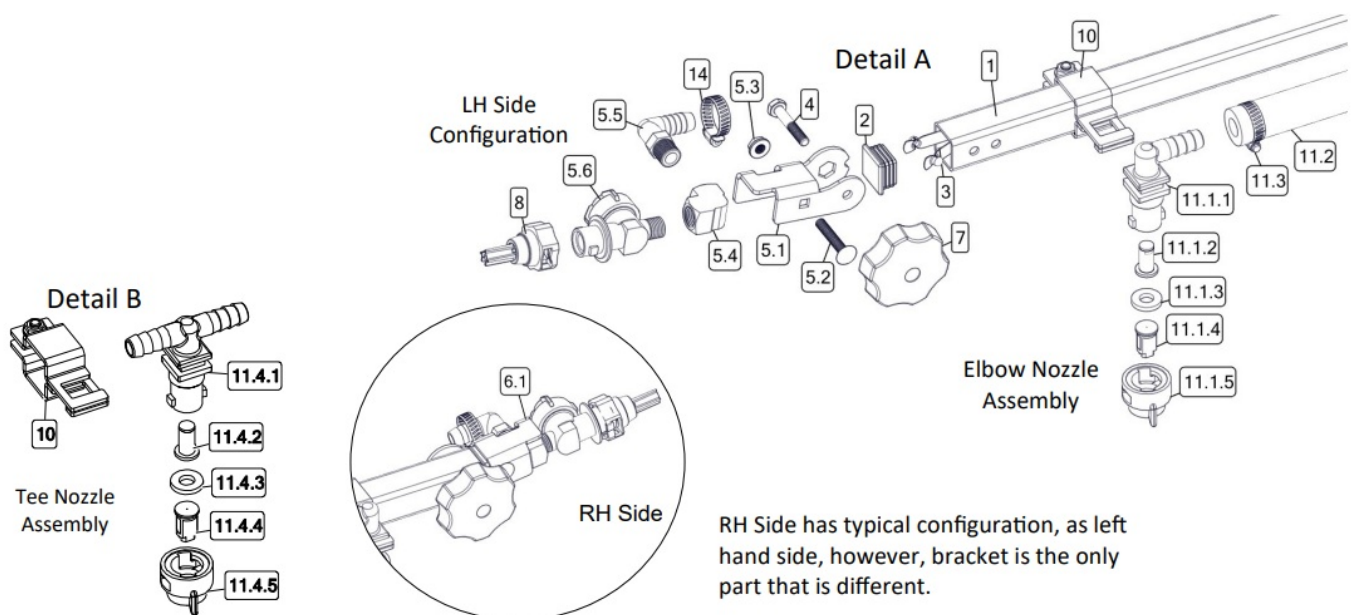
**Model: 3438-BXT**

(5282450)

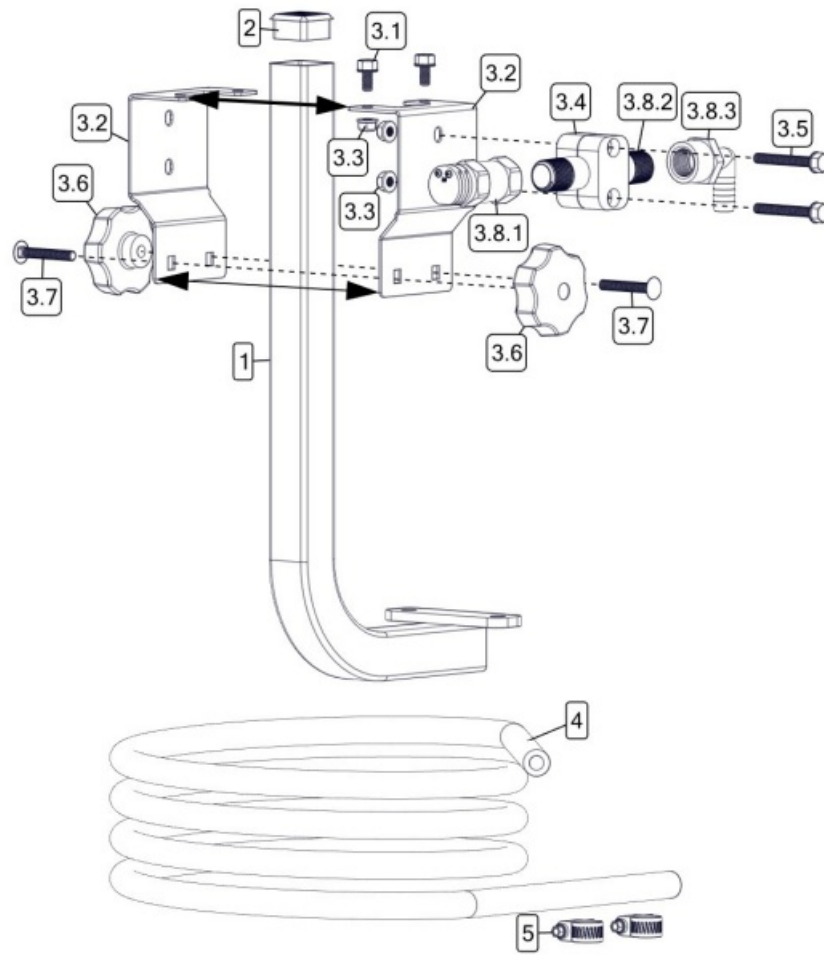
(Boomless 34' Coverage, 3.8 GPM @ 40 PSI)

Ref. #	Part #	Description	Qty
1	5011313-BLK	Center Boom Tube, 1" Square	1
2	5046459	Tube Cap, 1" Square	2
3	5101377	Spring Steel Button Pin	2
4	5034156	1/4-20 x 1.50 Hex Bolt	2
5	5282464	BXT Pivot Assembly, LH	1
5.1	5070194-BLK	BXT Bracket, LH	1
5.	5034527	1/4-20 x 1.50 Carriage Bolt	1
5.2	5006306	1/4-20 Serrated Fling Hex Nut	1
5.3	5149210	1/4" FNPT 90° Brass Elbow	1
5.4	5010197	Poly Elbow, 1/4" MNPT x 1/2" HB	1
5.5	5002380	QJ Diaphragm Check Valve 1/4 MNPT	1
6	5282465	BXT Pivot Assembly, RH	1
6.1	5070195-BLK	BXT Bracket, RH	1
6.2	5034527	1/4-20 x 1.50 Carriage Bolt	1
6.3	5006306	1/4-20 Serrated Fling Hex Nut	1
6.4	5149210	1/4" FNPT 90° Brass Elbow	1
6.5	5010197	Poly Elbow, 1/4" MNPT x 1/2" HB	1
6.6	5002380	QJ Diaphragm Check Valve 1/4 MNPT	1
7	5088026	5 Lobe Knob 1/4-20UNC	2
8	FC-XT015	Hypro Boom X-Tender Spray Nozzle (Green)	2
9	5006307	5/16-18 Serrated Fling Hex Nut	4
10	5277923	Nozzle Clamp, 1"	4

Ref. #	Part #	Description	Qty
11	5282466	4-Nozzle BXT Harness AIXR	1
11.1	5281311	Elbow Nozzle Assembly, 1/2"	2
11.1.1	5056065	Nozzle Body – QJ – Elbow – 1/2"	1
11.1.2	5143543	Nozzle Check Strainer, Blue (50 Mesh)	1
11.1.3	5016157	Seat Washer – EPDM – QJ Caps	1
11.1.4	5018371	Air-Induction XR Flat Spray Tip – AIXR11002VP	1
11.1.5	5046219	Quick Cap – Yellow	1
11.2	5020569	Hose, 1/2"-1 Brd. x 19 3/8"	2
11.3	5051114	Hose Clamp (1/2")	8
11.4	5281313	Tee Nozzle Assembly, 1/2"	2
11.4.1	5056067	Nozzle Body – QJ – Tee – 1/2"	1
11.4.2	5143543	Nozzle Check Strainer, Blue (50 Mesh)	1
11.4.3	5016157	Seat Washer – EPDM – QJ Caps	1
11.4.4	5018371	Air-Induction XR Flat Spray Tip – AIXR11002VP	1
11.4.5	5046219	Quick Cap – Yellow	1
11.5	5020572	Hose, 1/2"-1 Brd. x 10"	2
11.6	5086026	Poly Hose Tee, 1/2" HB	1
12	5034159	5/16-18 x 1.3125 x 1.875 Square U-Bolt	2
13	5020973	Hose, 1/2"-1 Brd x 18'	1
14	5051114	Hose Clamp (1/2")	6



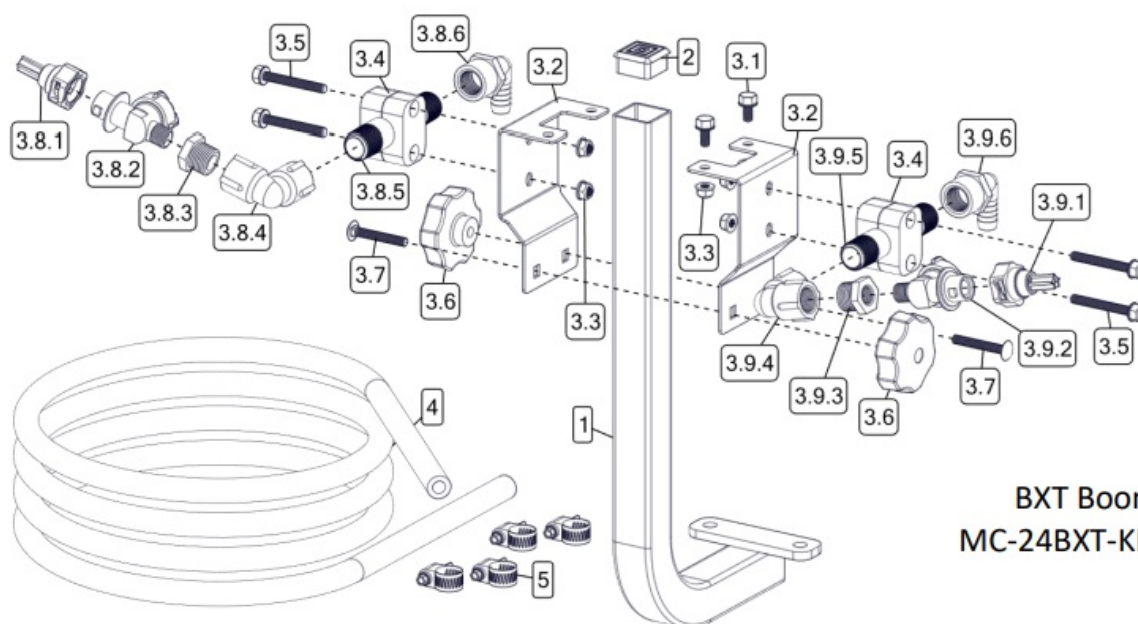
## Hamilton Boomless Assembly Component Breakdown & Parts List



Hamilton #10 Boomless Kit MC1-10HAM-KIT (5282538)

Ref. #	Part #	Description	Qty
1	5070259-BLK	MC 3-PT BXT Boom Bracket	1
2	5046448	Square Cap, Black (1 1/4" Square Tube)	1
3	5282537	Hamilton #10 Boomless Assembly	1
3.1	5034609	1/4-20 x 0.50 Flng Hex Bolt	2
3.2	5095983-BLK	Boomless Nozzle Mount	2
3.3	5006344	1/4-20 Flng Top-Lock Hex Nut	4
3.4	5051174	1/2" Wet Boom Clamp (2-Piece)	1
3.5	5034615	1/4-20 x 2.00 Flng Hex Bolt (Full Thread)	2
3.6	5088026	5 Lobe Knob 1/4-20UNC	2
3.7	5034807	1/4-20 x 1.75 Carriage Bolt	2
3.8	5282536	Hamilton #10 Boomless Kit	1
3.8.1	654101	W.L. Hamilton #10 Boomless Nozzle	1
3.8.2	5011258	1/2" Pipe Nipple, 4" Long, 304 SS	1
3.8.3	5149158	Poly Elbow, 1/2" FNPT x 1/2" Hose Barb	1
4	5020099	Hose, 3/8"-2 Brd. x 25 Ft.	1
5	HCO8	Hose Clamp, 1/2"	2

### BXT Boomless Nozzle Component Breakdown & Parts List

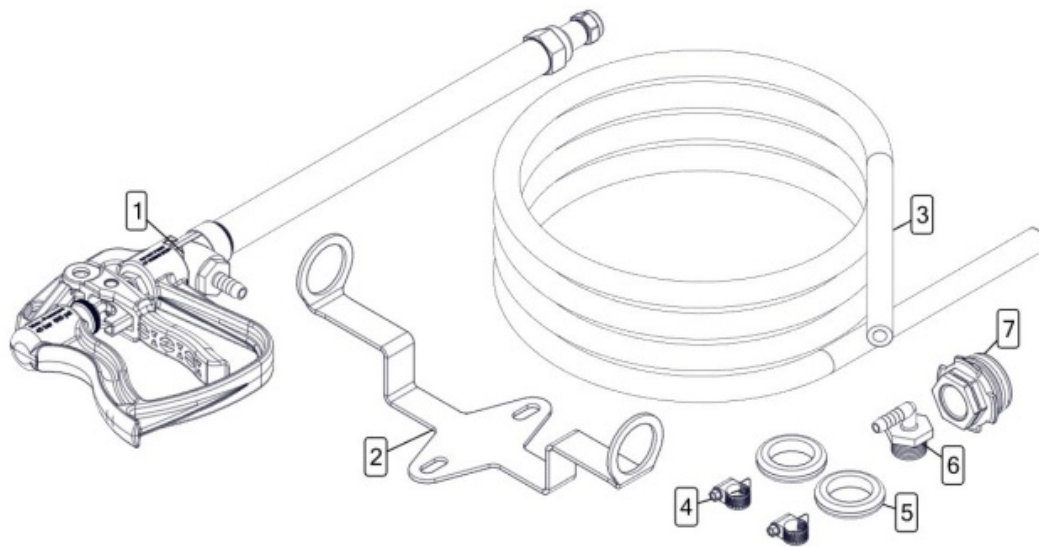


**BXT Boomless Kit  
MC-24BXT-KIT (5282522)**

Ref. #	Part #	Description	Qty
1	5070259-BLK	MC 3-PT BXT Boom Bracket	1
2	5046448	Square Cap, Black (1 1/4" Square Tube)	1
3	5282521	BXT Boomless Assembly	1
3.1	5034609	1/4-20 x 0.50 Fling Hex Bolt	2
3.2	5095983-BLK	Boomless Nozzle Mount	2
3.3	5006344	1/4-20 Fling Top-Lock Hex Nut	6
3.4	5051174	1/2" Wet Boom Clamp (2-Piece)	2
3.5	5034615	1/4-20 x 2.00 Fling Hex Bolt (Full Thread)	4
3.6	5088026	5 Lobe Knob 1/4-20UNC	2
3.7	5034807	1/4-20 x 1.75 Carriage Bolt	2
3.8	5282520	BXT Boomless Nozzle Assembly (LH)	1
3.8.1	FC-XT024	Hypro Fast Cap Boom X-tender (Yellow)	1
3.8.2	5002380	QJ Diaphragm Check Valve 1/4 MNPT	1
3.8.3	5041073	Poly Reducing Bushing, 1/2" MNPT x 1/4" FNPT	1

Ref. #	Part #	Description	Qty
3.8.4	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
3.8.5	5011258	1/2" Pipe Nipple, 4" Long, 304 SS	1
3.8.6	5149158	Poly Elbow, 1/2" FNPT x 1/2" Hose Barb	1
3.9	5282519	BXT Boomless Nozzle Assembly (RH)	1
3.9.1	FC-XT024	Hypro Fast Cap Boom X-tender (Yellow)	1
3.9.2	5002380	QJ Diaphragm Check Valve 1/4 MNPT	1
3.9.3	5041073	Poly Reducing Bushing, 1/2" MNPT x 1/4" FNPT	1
3.9.4	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
3.9.5	5011258	1/2" Pipe Nipple, 4" Long, 304 SS	1
3.9.6	5149158	Poly Elbow, 1/2" FNPT x 1/2" Hose Barb	1
4	5020099	Hose. 3/8"-2 Brd. x 25 Ft.	1
5	HCO8	CLAMP, 1/2" HOSE	4

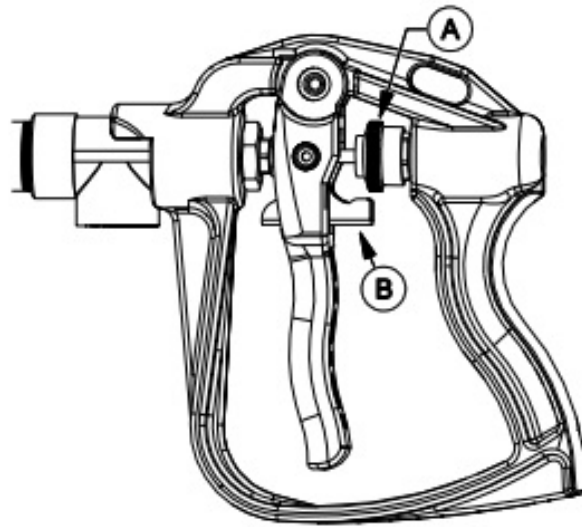
#### Handgun Kits Component Breakdown & Parts List



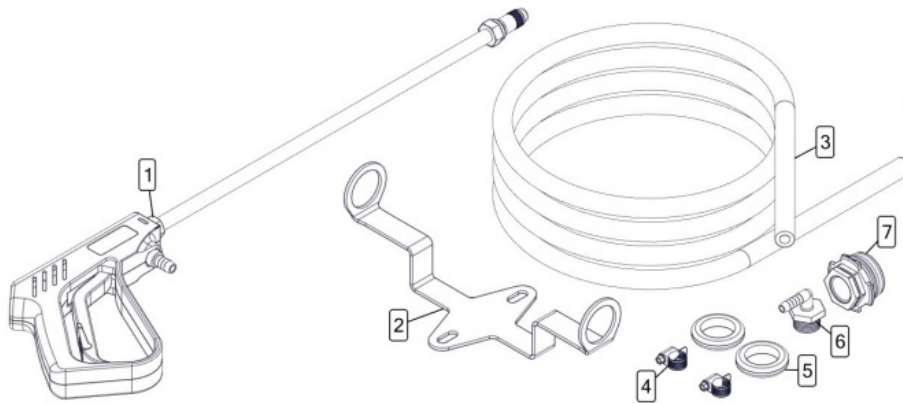
**MC-PRO22-HG-KIT**  
**MC 3-PT 22" Pro Series Handgun Kit**  
**#5282518**

- No Drip Shut Off
- Easy Pull Trigger Handle
- Chemical Resistant Construction
- 600 PSI, 8 GPM
- 38' Horizontal Throw & 27' Vertical Throw

Ref. #	Part #	Description	Qty
1	5163150	22" HP Spray Gun with 3/8" Hose Barb	1
1.1	5163136	High Pressure Aluminum Spray Gun 22"	1
1.2	5067130	Poly Fitting, 1/2" MNPT x 3/8" HB	1
2	5070257-BLU	Handgun & Hose Bracket	1
3	5020099	Hose, 3/8"-2 Brd. x 25 Ft.	1
4	HCO6	Hose Clamp (3/8")	2
5	5075014	Rubber Grommet (Black)	2
6	5010206	Poly Elbow, 3/4" MNPT x 3/8" HB	1
7	5149213	3/4" FNPT T5 Male Fitting w/EPDM O-Ring	1



To adjust the spray pattern, the nut needs to be adjusted (Ref. A). Spinning it off, towards the lever, will make a cone pattern and spinning it on, away from the lever, will make a stream. The lever (Ref. B), is the lock that can be used to lock the lever when pulled, holding the valve open. Squeezing the trigger, will release the lock.

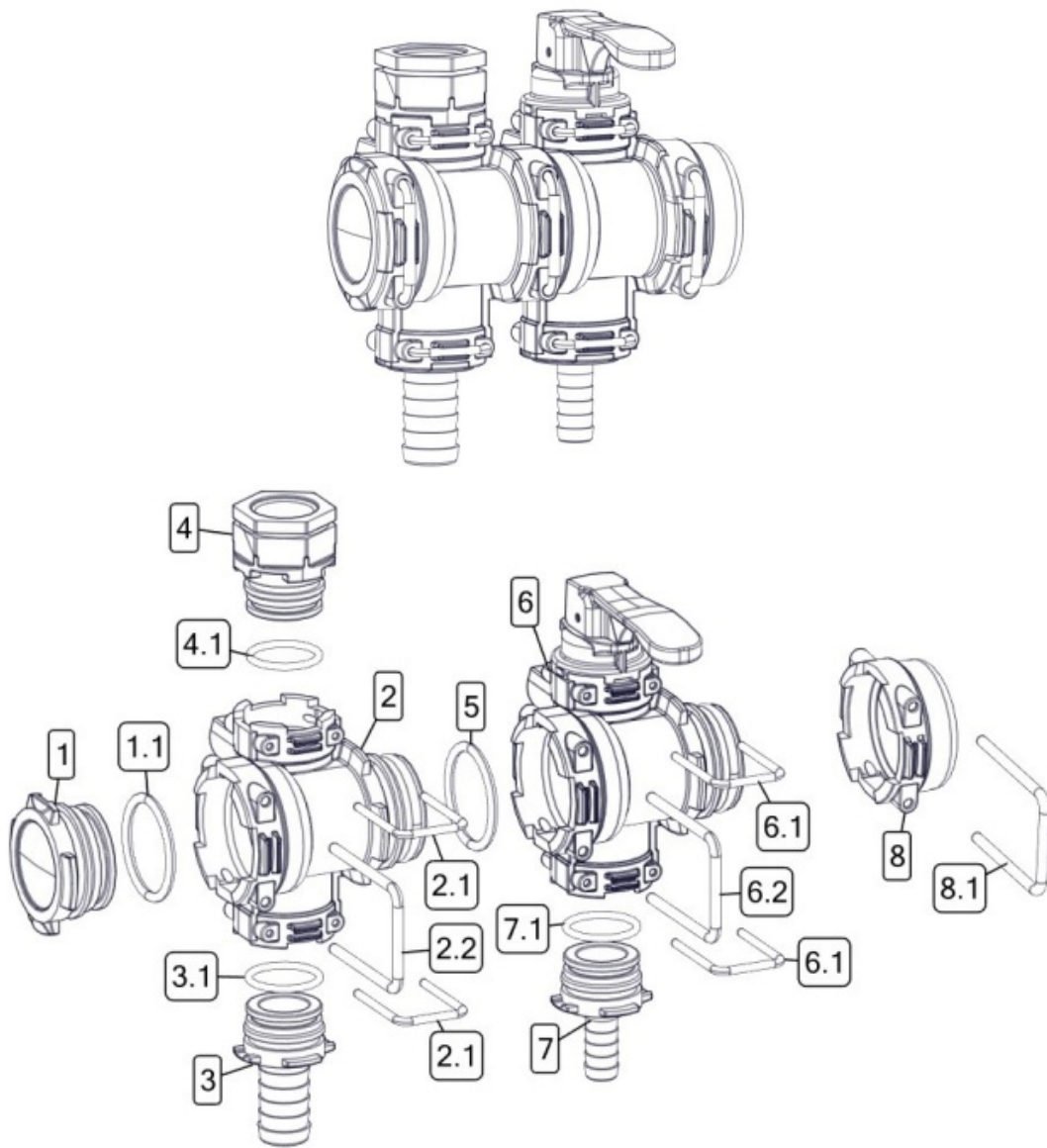


**MC-406-HG-KIT**  
**MC 3-PT Deluxe Handgun Kit**  
**#5282546**

Ref. #	Part #	Description	Qty
1	5273959	Deluxe Pistol-Grip Handgun w/X-26 Tip	1
1.	5018331	Brass Handgun Tip (X-26)	1
2	5070257-BLU	HANDGUN & HOSE BRACKET	1
3	5020099	Hose, 3/8"-2 Brd. x 25 Ft.	1
4	HCO6	CLAMP, 3/8" HOSE	2
5	5075014	Rubber Grommet (Black)	2
6	5010206	Poly Elbow, 3/4" MNPT x 3/8" HB	1
7	5149213	3/4" FNPT T5 Male Fitting w/EPDM O-Ring	1

**Valve Assembly Component Breakdown & Parts List**



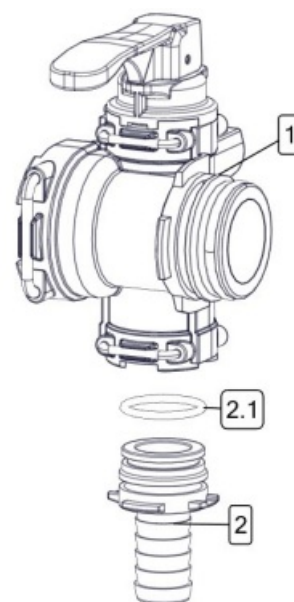
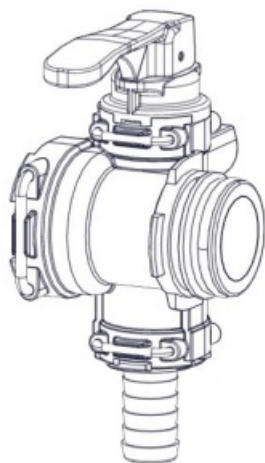


ARAG NPT+1  
Two Sec Valve Assembly  
#5282495

Ref. #	Part #	Description	Qty
1	219150	T5 Male Plug Fitting	1
1.1	5072548	T5 O-Ring Viton	1
2	463T001.010	Single 463T Body Bare	1
2.1	5069006	T3 Fork D.3 Dist, 29	2
2.2	5069007	T5 Fork D.3 Dist, 42	1
3	1091320	T3 Male x 3/4" Hose Barb Straight	1
3.1	5072545	T3 O-Ring EPDM	1
4	239133N	3/4" FNPT x T3 Male Fitting	1
4.1	5072545	T3 O-Ring EPDM	1
5	5072548	T5 O-Ring Viton	1
6	5143560	1-Sec. Manual Valve T5XT3	1
6.1	5069006	T3 Fork D.3 Dist, 29	2
6.2	5069007	T5 Fork D.3 Dist, 42	1
7	1091313	T3 Male x 1/2" Hose Barb Straight	1
7.1	5072545	T3 O-Ring EPDM	1
8	219050	T5 Female Blank Cap	1
8.1	SweepI	T5 Fork D.3 Dist, 42	1

### Manual On/Off Section Valve Component Breakdown & Parts List

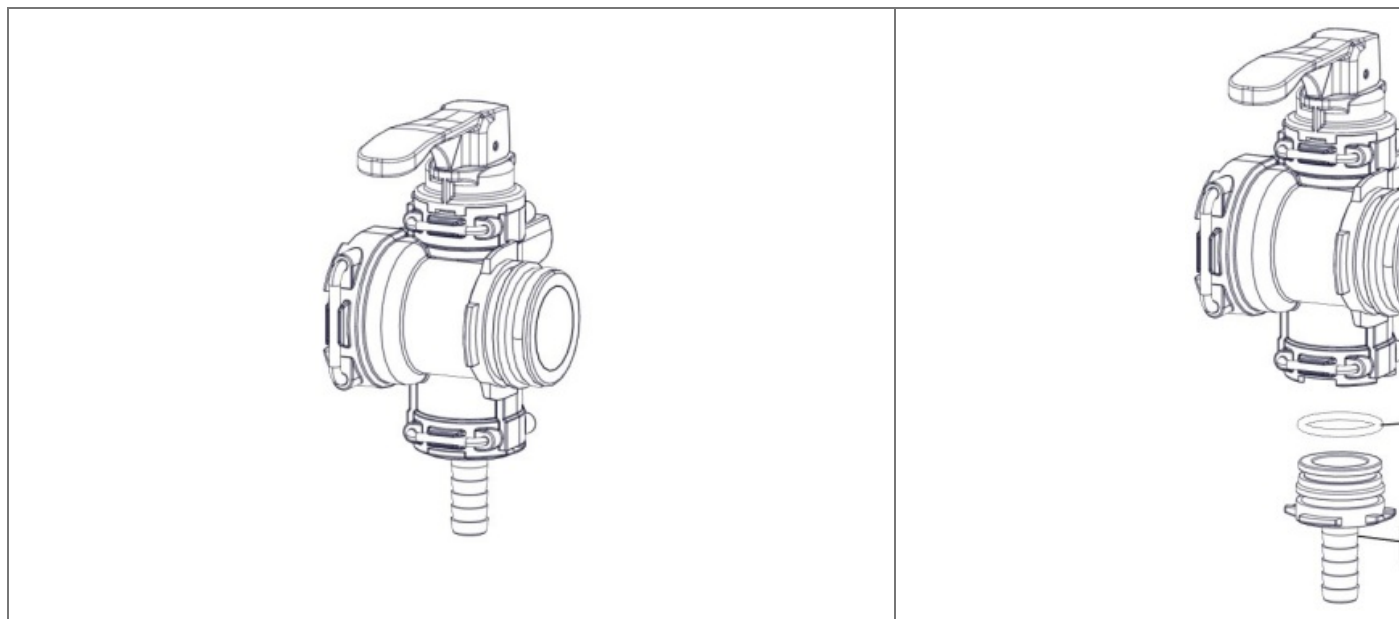
#### ARAG 1-Sec Valve Assembly w/1/2" HB #5282497



Ref. #	Part #	Description	Qty
1	5143560	1-Sec. Manual Valve T5XT3 (Yellow Lever)	1
2	1091313	T3 Male x 1/2" Hose Barb Straight	1
2.1	5072545	T3 O-Ring EPDM	1

## Handgun Valve Component Breakdown & Parts List

### ARAG 1-Sec Valve Assembly w/3/8" HB #5282496

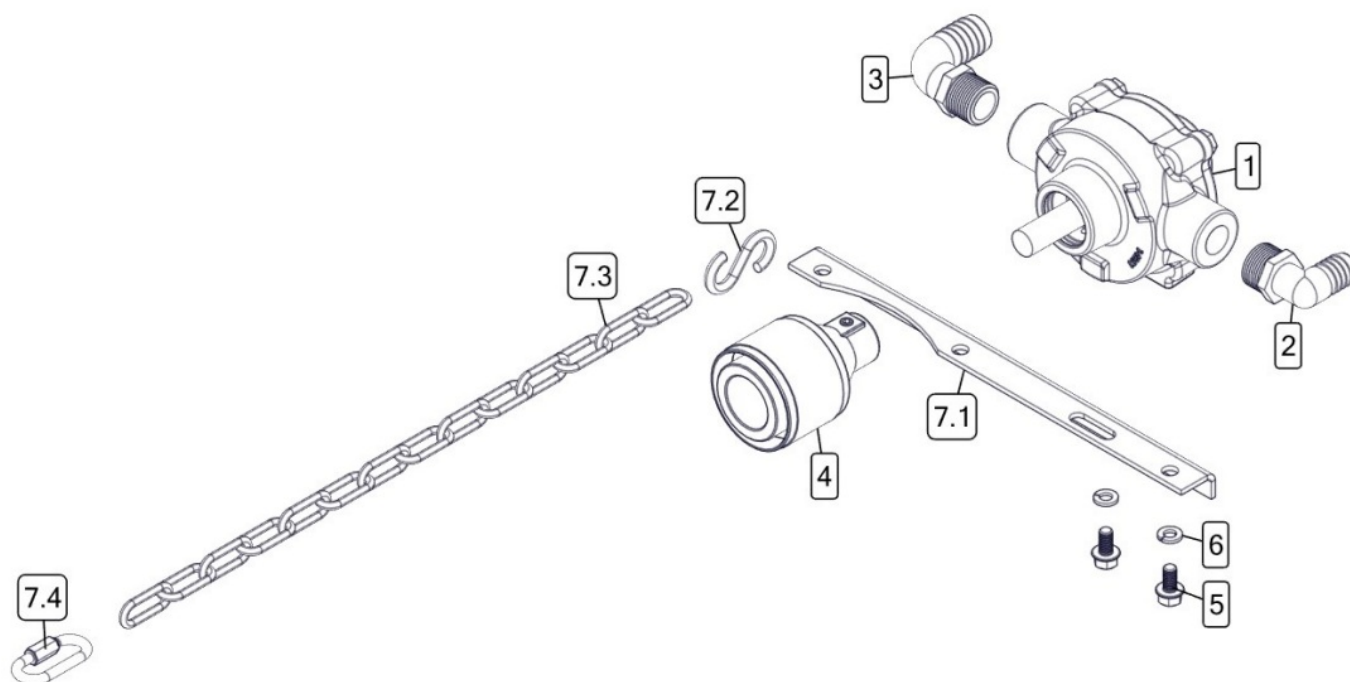


Ref. #	Part #	Description	Qty
1	5143560	1-Sec. Manual Valve T5XT3	1
2	1091310	T3 Male x 3/8" Hose Barb Straight	1
2.1	5072545	T3 O-Ring EPDM	1

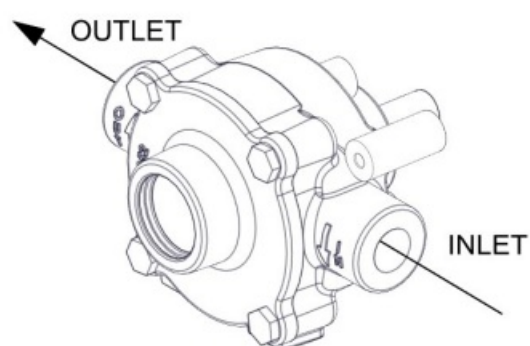
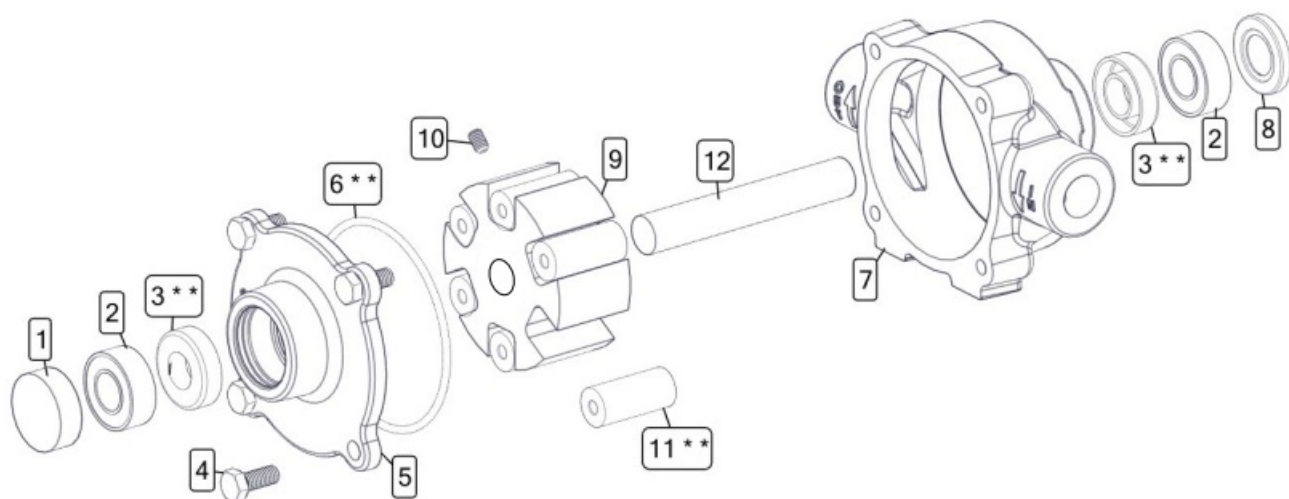
## RP-600 Series 6-Roller Pump Component Breakdown & Parts List

Ref. #	Part #	Description	Qty
1	RP-600C-BLU	6-Roller Cast Iron Pump	1
2	5010209	Poly Elbow, 3/4" MNPT x 3/4" HB	1
3	5010210	Poly Elbow, 3/4" MNPT x 1" HB	1
4	5057145	Quick Coupler (5/8")	1
5	5034634	5/16-18 x 0.625 Fling Hex Bolt	2
6	5016026	5/16 Lock Washer	2
7	5271623	Torque Bar & Chain Assembly	1
7.	5038513-BLK	Torque Bracket	1
7.	5082006	"5" Hook	1
7.	5049017	Torque Chain, 24"	1
7.	5094039	1/4" Rapid/Quick Link	1

**RP-600C-B-PUMP-KIT**  
**#5282526**



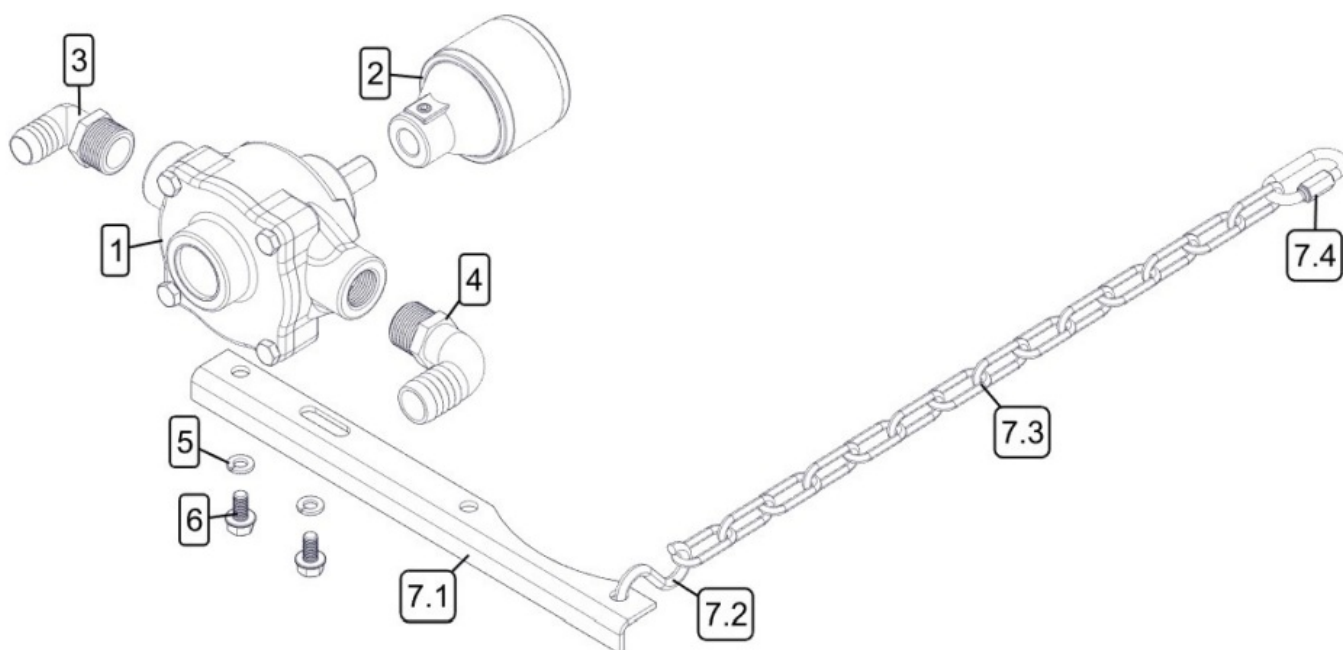
Imperial	0 PSI		50 PSI		100 PSI		150 PSI		200 PSI		250 PSI		300PSI	
	GP M	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
540 RPM	9.7	0.80	8.0	0.38	7.2	0.68	6.6	0.97	5.6	1.29	4.9	1.65	4.3	1.91
1000 RP M	18.2	0.20	16.5	0.71	15.4	1.26	14.7	1.80	14.0	2.	13.	3.	13.	3.47
1200 RP M	21.8	0.30	20.1	0.90	19.1	1.51	18.2	2.14	17.3	2.84	16.5	3.48	15.7	4.17



Ref. #	Part #	Description	Qty
1	◆◆	Dust Cap, Cover	1
2	14859	Bearing, Sealed	2
3 **	14858	Seal, FKM	2
4	GE-60-SS	Cap Screw, 5/16" x 3/4"	4
5	◆◆	End Plate, Cast Iron	1
6 **	14861	O-Ring, Body Seal	1
7	◆◆	Body, Cast Iron	1
8	◆◆	Dust Cap, Body	1
9	◆◆	Rotor, Cast Iron (Includes #10)	1
10	5117100	Cap Screw, 5/16"nc x 5/16" Allen Head	1
11 **	— — —	Roller	6
12	**	Shaft, SS	1

## 6500XL Series 6-Roller Pump Component Breakdown & Parts List

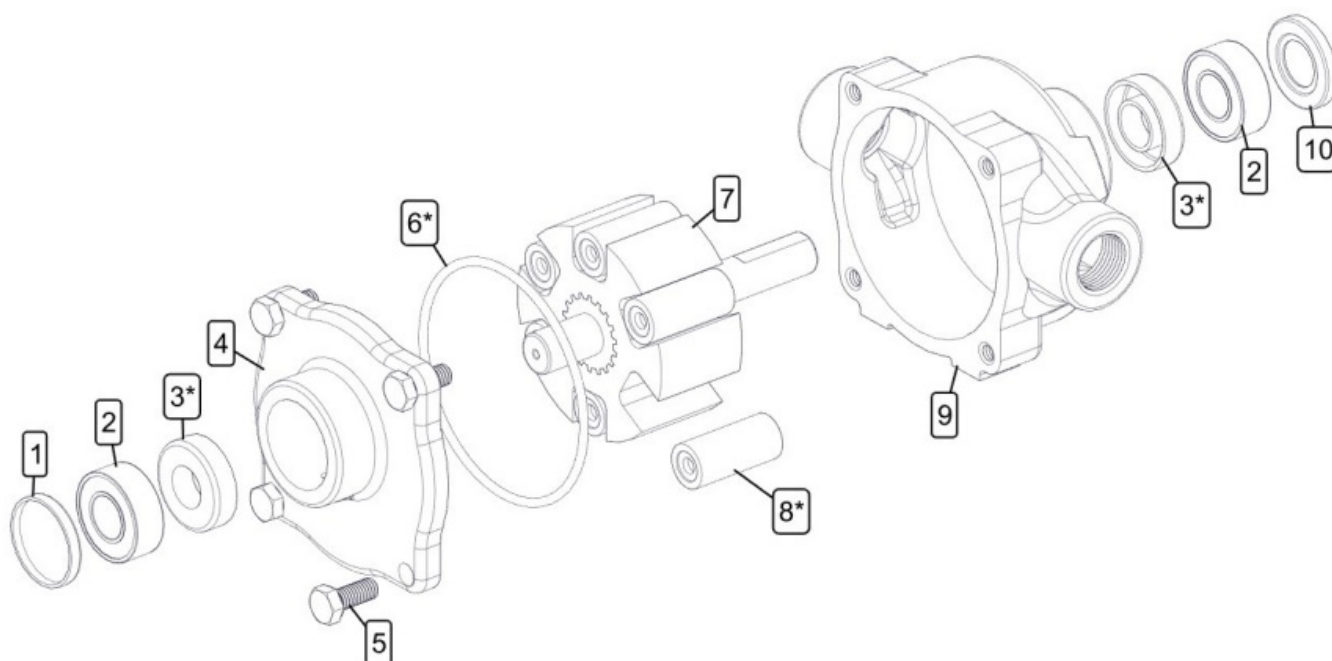
6500XL-PUMPKIT



Ref. #	Part #	Description	Qty
1	5273024	6-Roller Pump (6500XL)	1
2	5057145	Quick Coupler (5/8")	1
3	5010209	Poly Elbow, 3/4" MNPT x 3/4" HB	1
4	5010210	Poly Elbow, 3/4" MNPT x 1" HB	1
5	5016026	Lockwasher, 5/16"	2
6	5034634	H.H.C.S. Flanged 5/16"-18nc x 5/8" Long	2
7	5271623	Torque Bar & Chain Assembly	1
7.1	5038513-BLK	Torque Bracket	1
7.2	5082006	"S" Hook	1
7.3	5049017	Torque Chain, 24"	1
7.4	5094039	1/4" Rapid/Quick Link	1

Imperial	0 PSI		50 PSI		100 PSI		150 PSI		200 PSI		250 PSI		300PSI	
	GP M	HP	GP M	HP	GP M	HP	GPM	HP	GPM	HP	GPM	HP	GPM	HP
540 RPM	9.7	0.1	8.0	0.4	7.2	0.7	6.6	1.0	5.6	1.3	4.9	1.7	4.3	1.9
1000 RP M	18.2	0.2	16.5	0.7	15.4	1.3	14.7	1.8	14.0	2.3	13.4	2.9	12.7	3.5
1200 RP M	21.8	0.3	20.1	0.9	19.1	1.5	18.2	2.1	17.3	2.8	16.5	3.5	15.7	4.2

Silver Cast  
6-Roller Pump Assembly  
#5273024 (Hypro 6500XL)



\* \* Available only in Repair Parts Kit #7771795 (3430-0380)

(Super Rollers are also included in Repair Parts Kit)

♦♦ Only Available in Complete Assembly

Ref. #	Part #	Description	Qty
1	5017481	Bearing Cover	1
2	5031113	Ball Bearing (Sealed)	2
3*	5110052	Seal (Viton)	2
4	♦♦	End Plate (SilverCast) w/Seal	1
5	5034038	H.H.C.S. 5/16"-18nc x 3/4" Long	4
6*	5072056	O-Ring Gasket	1
7	♦♦	Rotor/Shaft Assembly (SilverCast)	1
8*	5112030	Super Roller (Standard)	6
9	♦♦	Body w/Seal (SilverCast)	1
10	5017480	Shaft Bearing Cover	1

## MC-Electric Control Conversion Kits

MC-1E-CONVRN-KIT (5282543)

MC-2E-CONVRN-KIT (5282544)

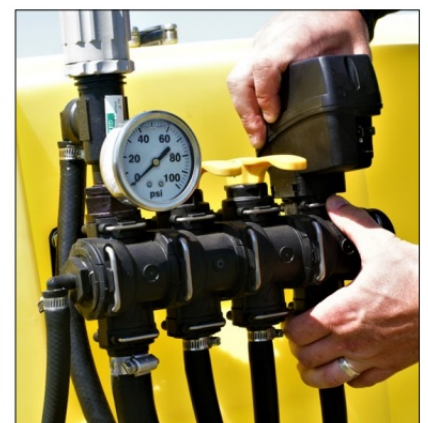
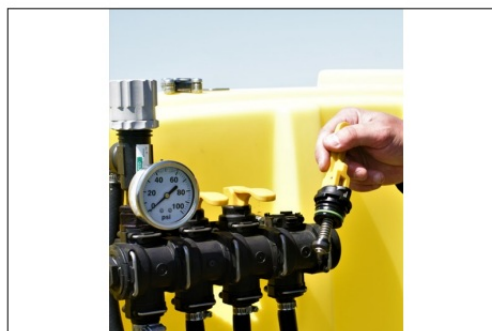
MC-3E-CONVRN-KIT (5282545)





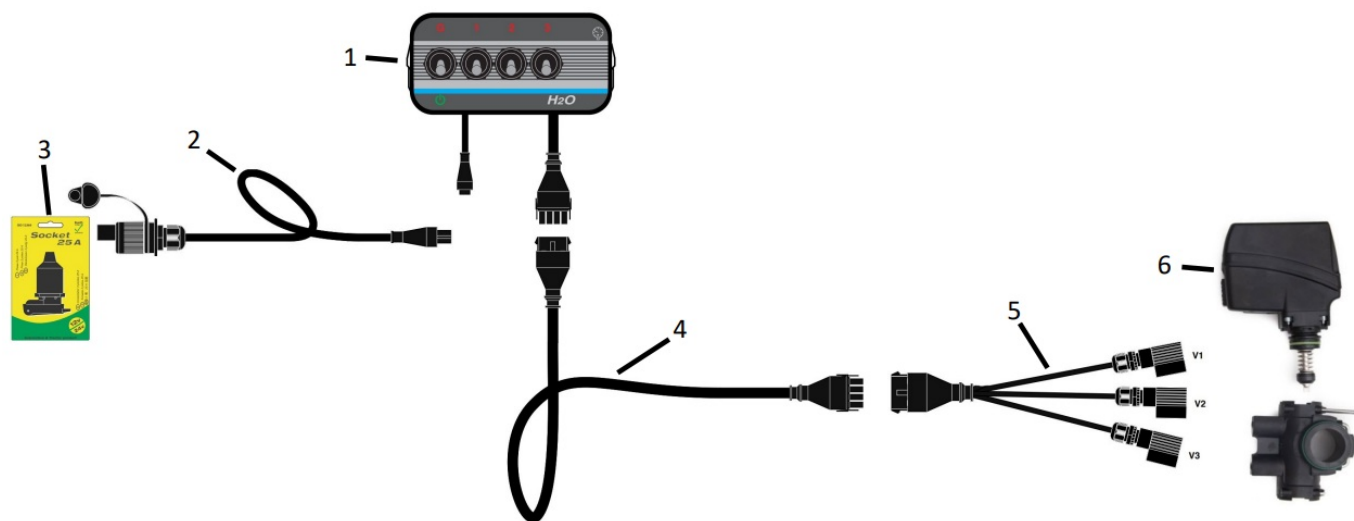
#### Conversion from Manual Controls to Electric Boom Section Control:

1. Remove the fork wire clip below the manual lever
2. Lift the manual lever out of the manifold
3. Insert the electric motor with electric connection facing forward making sure the alignment grooves matchup and motor is down completely
4. Reinstall the fork wire clip now holding the electric motor in place
5. Connect the 3-tab electric plugs to the electric motor(s) using the gasket and screw included with the wire harness
6. Mount the control box in the tractor
7. Plug power cord into 12VDC convenience plug. If tractor does not have one, install the socket 25A in the tractor according to the diagram on page 7
8. Connect wiring harness and power cord to control box
9. Test control box making sure all valve(s) function when the toggle switches and master switch are actuated.





Ref. #	Item 44	Description	Qty.
1	910320	Control Box, Up to 3 Section	1
2	901208.	Power Cord	1
3	BL-400504	Socket 25A, Power Plug	1
4	919049-5.0	16' Extension Cable for 910320	1
5	770252	End Cable— 3 valve	1
6	863T001	863T Electric Valve	1



## Warranty Info

### LIMITED WARRANTY FOR NEW Cimarron EQUIPMENT

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the “Limited Warranty”) is provided by Fimco, Inc. (“Cimarron Equipment”) to the original purchaser (“you”) of the Equipment (as defined below) from Cimarron Equipment or one of Cimarron Equipment’s authorized dealers.

This Limited Warranty does not apply to any subsequent owner or other transferee of the Equipment. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

WHAT THIS LIMITED WARRANTY COVERS AND FOR HOW LONG. Cimarron Equipment warrants that any new Equipment will be free from defects in material and workmanship for a period of one (1) year (homeowner), 90 days (commercial user), after delivery of the Equipment to you (the “Warranty Period”). The Warranty Period is not extended if Cimarron Equipment repairs or replaces the Equipment.

WHAT IS NOT COVERED BY THIS LIMITED WARRANTY. This Limited Warranty does not apply to: (1) used Equipment; (2) any Equipment that has been altered, changed, repaired or treated since its delivery to you, other than by Cimarron Equipment or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Cimarron Equipment’s operator’s manual, specifications or other written instructions, or improper storage, operation, maintenance, application or installation of parts; (5) defects or damage due to mis-use, accident or neglect, “acts of God” or other events beyond Cimarron Equipment’s reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Cimarron Equipment, whether or not sold or operated with the Equipment; or (7) rubber parts, such as tires, hoses and grommets.

HOW TO OBTAIN WARRANTY SERVICE. To obtain warranty service under this Limited Warranty, you must (1) provide written notice to Cimarron Equipment of the defect during the Warranty Period and within thirty (30) days

after the defect becomes apparent or the repair becomes necessary, at the following address: Cimarron Equipment, 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Cimarron Equipment or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: 800-274-1025

WHAT REMEDIES ARE AVAILABLE UNDER THIS LIMITED WARRANTY. If the conditions set forth above are fulfilled and the Equipment or any part thereof is found to be defective, Cimarron Equipment shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Cimarron Equipment will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

LIMITATION OF IMPLIED WARRANTIES AND OTHER REMEDIES. THE REMEDIES DESCRIBED ABOVE ARE YOUR SOLE AND EXCLUSIVE REMEDIES, AND Cimarron EQUIPMENT'S SOLE LIABILITY, FOR ANY BREACH OF THIS LIMITED WARRANTY. TO THE EXTENT APPLICABLE, ANY IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED IN DURATION TO THE WARRANTY PERIOD, AND THE REMEDIES AVAILABLE FOR BREACH THEREOF SHALL BE LIMITED TO THE REMEDIES AVAILABLE UNDER THIS EXPRESS LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. IN NO EVENT SHALL Cimarron EQUIPMENT'S LIABILITY UNDER THIS LIMITED WARRANTY EXCEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE EQUIPMENT, NOR SHALL Cimarron EQUIPMENT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR ANY CONSEQUENTIAL, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES OR LOSSES, WHETHER DIRECT OR INDIRECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.



## Documents / Resources

A thumbnail image of the Cimarron MC1 Series 3 Point Sprayers Owner's Manual. It shows a technical diagram of the sprayer and some text. The Cimarron logo is visible at the bottom.	<p><b>CIMARRON MC1 Series 3 Point Sprayers</b> [pdf] Owner's Manual</p> <p>60 Gallon 5303641, 90 Gallon 5303642, MC1 Series 3 Point Sprayers, 3 Point Sprayers, Sprayers</p>
--	--

## References

- [P65Warnings.ca.gov](https://www.p65warnings.ca.gov/)