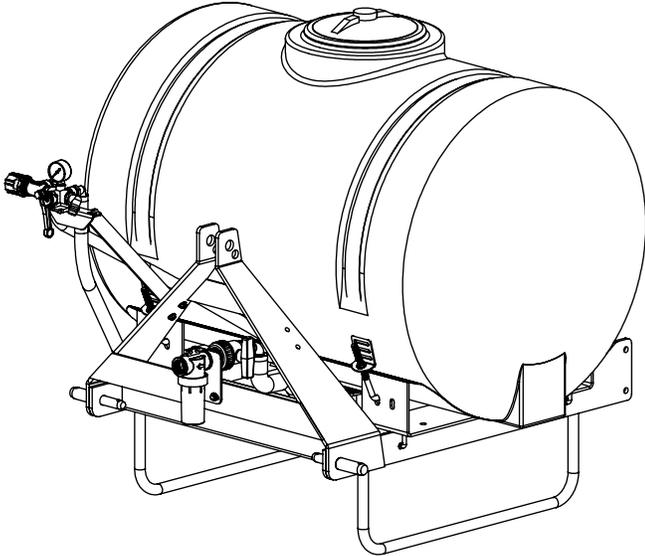


# OWNER'S MANUAL

Model: 150-3PT-5880 (5301252)

(150 Gallon 3-Point Carrier w/5880 'BoomJet' [Brass] Nozzle)



**BEFORE RETURNING THIS PRODUCT  
FOR ANY REASON, PLEASE CALL**

**1-800-831-0027**

**IF YOU SHOULD HAVE A QUESTION OR  
EXPERIENCE A PROBLEM WITH YOUR  
FIMCO INDUSTRIES PRODUCT:**

**1-800-831-0027**

**BEFORE YOU CALL, PLEASE HAVE THE  
FOLLOWING INFORMATION AVAILABLE:  
SALES RECEIPT & MODEL NUMBER. IN MOST  
CASES, A FIMCO INDUSTRIES EMPLOYEE CAN  
RESOLVE THE PROBLEM OVER THE PHONE.**

## Warranty/Parts/Service

For home usage, products are warranted for one year from date of purchase against manufacturer or workmanship defects.

Commercial users have a 90 day warranty.

Your authorized dealer is the best source of replacement parts and service. To obtain prompt, efficient service, always remember to give the following information...

- Correct Part Description and/or part number.
- Model number/Serial number of your sprayer.

Part descriptions and part numbers can be obtained from the illustrated parts list section(s) of this manual.

Whenever you need parts or repair service, contact your distributor/dealer first. For warranty work, always take your original sales slip, or other evidence of purchase date, to your distributor/dealer.

## General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your 3-Point sprayer. Please read it carefully, as it furnishes information which will help you achieve years of trouble-free operation.

## Assembly Instructions

1. Install the directo valve sub-assembly to the 3 point carrier valve mounting and position as shown.
2. Slip the 5/8" bypass hose (from the relief valve) over the fitting on the bottom of the tank. Slide the hose clamp to the end of the hose and secure.
3. Find the 1" x 36" pump feeder hose. Using a good quality thread sealant, carefully thread the 1" fitting into the strainer and the 3/4" fitting into the inlet side of the pump. Slip the hose all the way onto the fittings and secure with the hose clamps.
4. Attach the 3/4" hose coming off the valve assembly to the output side of the pump by threading the 3/4" fitting into the pump and securing with the hose clamp. Remember to use sealant.
5. The roller pump is NOT included with the assembly. Attach the adapter, the torque chain and S-hook to your pump. It is intended for your pump to be mounted directly to the tractor PTO. The torque chain needs to be secured to the tractor to keep your pump from spinning.
6. Remove the plug from the top of the directo valve and using sealant thread the gauge into the valve.
7. There is another 3/4" hose coming off the output side of the Directo-Valve. This hose needs to be connected to the fitting on the BoomJet nozzle assembly. Move the coupling mount into an upright position and fasten with the (2) 1/2" bolts provided.



[www.fimcoindustries.com](http://www.fimcoindustries.com)

1000 FIMCO Lane, P.O. Box 1700, North Sioux City, SD 57049  
Toll Free Phone: 800-831-0027 : Toll Free Fax: 800-494-0440  
Form No. 1414 [5004855 (08/13)] Printed in the U.S.A.

## Tip Information

### Important note about Tips:

When you refer to the rate charts found in this owners manual, these rates are based on water. Please read this tip selection section carefully before attempting to operate your boom assembly

The selection of proper tips for the boom is determined by the gallon per acre (GPA) requirement which is specified on the chemical label. The following characteristics also have a determining factor and must be considered:

1. Speed of spraying (MPH)
2. Boom nozzle spacing (specified in inches)
3. Solution weight and conversion factor (CF)
4. Gallons of solution to be sprayed per acre
5. Spraying pressure

### Useful Formulas:

GPM - Gallons Per Minute

GPA - Gallons Per Acre

MPH - Miles Per Hour

## Calibration

Chemical labels may show application rates in gallons per acre, gallons per 1000 square feet, or gallons per 100 square feet. You will note that the tip chart shows all 3 of these rating systems.

Once you know how much you are going to spray, then determine (from the tip chart) the spraying pressure (PSI), and the spraying speed (MPH).

Determining the proper speed of the pulling vehicle can be done by marking off 100, 200, & 300 feet. The speed chart indicates the number of seconds it takes to travel the distances. Set the throttle and with a running start, travel the distances. Adjust the throttle until you travel the distances in the number of seconds indicated by the speed chart. Once you have reached the throttle setting needed, mark the throttle location so you can stop and go again, returning to the same speed.

Add water and proper amount of chemical to the tank and drive to the starting place for spraying.

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.
1.0	68 sec.	136 sec.	205 sec.
2.0	34	68	102
3.0	23	45	68
4.0	17	34	51
5.0	14	27	41
6.0	11	23	34
7.0	9.7	19	29
8.0	8.5	17	26
9.0	7.6	15	23
10.0	6.8	14	20

## 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.

**Example:** Desired application rate is 20 GPA of 28% Nitrogen. Determine the correct nozzle size as follows:

$$\text{GPA (Solution)} \times \text{Conversion Factor} = \text{GPA}$$

$$20 \text{ GPA (28\%)} \times 1.13 = 22.6 \text{ GPA (Water)}$$

The applicator should choose a nozzle size that will supply 22.6 GPA of water at the desired pressure.

Weight of Solution	Specific Gravity	Conversion Factors
7.0 lbs per gallon	.84	.92
8.0 lbs per gallon	.96	.98
8.834 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
10.65 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

## Miscellaneous Conversion Factors

One Acre = 43,560 square feet = 0.405 Hectacre

One Hectacre = 2.471 Acres

One Gallon Per Acre = 9.35 Liters Per Hectacre

One Mile = 5280 Feet = 1610 Meters = 1.61 Kilometers

One Gallon = 128 Fluid Ounces = 8 Pints = 4 Quarts = 3.79

Liters = 0.83 Imperial Gallons

One Pound Per Square Inch = 0.069 bar. = 6.895 Kilo-Pascals

One Mile Per Hour = 1.609 Kilometers Per Hour

Higher pressure not only increases the flow rate of the nozzle, but it also influences the droplet size and the rate of orifice wear. As pressure is increased, the droplet size decreases and the rate of orifice wear is increased.

The values given in the tabulation section of this owners manual indicate the most commonly used pressure ranges for the associated spray tips.

## Tank Care and Maintenance

Warning: Do not use the tank as a container for fuel oils, kerosene, gasoline, or any other petroleum distillate product. All polyolefins are softened and permeated by such products. In an enclosed area the vaporization of these materials from the outside surface of the tank could create a dangerous condition.

The tank should not be used as a pressure vessel nor used with chemicals or solutions having a weight of more than 12 pounds per gallon.

Store the tank in a dry dark place when not in use. Storage out of sunlight will prolong the life of the trailer.

Do not drop, strike, or kick the tank, especially at low temperatures. Tanks become brittle and are subject to cracking at temperature below 20° Fahrenheit.

Always flush the tank with water and a neutralizing agent (such as 'Nutra-Sol') at the end of each use, to prevent contamination of solutions.

## Information About The Sprayer

Roller pumps are positive displacement pumps, which means that the entire solution being pumped must go somewhere or the pump will break. In this roller pumping system, solution is drawn from the tank, and forced to a planned source, such as boom nozzles, or handgun. The pressure is controlled by a pressure relief valve, which is a spring-loaded device that controls the amount of fluid bypassed (or recirculated) to the tank. The gray handle is to be tightened to increase pressure, and loosened to decrease pressure.

The 'Directo-Valve' is the on/off control which allows the operator to manually control the solution going to the boom.

## After Spraying

After use, fill the sprayer tank part way with water. Start the sprayer, and allow the clear water to be pumped through the plumbing system and out through the spray nozzles. Refill the tank about half full with plain water and use FIMCO Tank Neutralizer and Cleaner, and repeat cleaning instructions above. Flush the entire sprayer with the neutralizing/cleaning agent, then flush out one more time with plain water. Follow the chemical manufacturer's disposal instructions of all wash or rinsing water. For the boom, (if applicable) remove the tips and screens from the nozzle assemblies. Wash these items out thoroughly. Blow the orifice clean and dry. If the orifice remains clogged, clean it with a fine bristle (NOT WIRE) brush, or with a toothpick. Do not damage the orifice. Water rinse and dry the tips before storing.

**WARNING: Some chemicals will damage the pump valves if allowed to soak untreated for a length of time! ALWAYS flush the pump as instructed after each use.**

## Testing the Sprayer

Attach the sprayer to the tractor 3 point hitch. Mount the pump to the PTO and affix the torque chain.

Open the tank lid and be sure the tank is clean and free of foreign material. Fill the tank about 1/2 full with plain water.

### NOTE:

**It is VERY important for you to test your sprayer with plain water before actual spraying is attempted. This will enable you to check the sprayer for leaks, without the possibility of losing any expensive chemicals.**

Before starting, open the suction line valve (located underneath the carrier frame), turn the relief valve handle out to lower the line pressure. This will help prime the pump.

**CAUTION: Always be sure that the water (or solution) has reached the pump before starting your sprayer. If the pump is allowed to run dry, serious damage to the pump will result.**

Always have the pressure line open to the tips so that the air which may be trapped in the line will be forced (or purged) out.

Start the tractor PTO. Check the entire system for leaks. Once the pump is primed, the pressure may be increased by turning the handle of the pressure relief valve in. Keep the pressure line open to the tips when setting the pressure. Set the pressure and then lock the relief valve handle in place. Shut off the directo-valve and check for leaks again. Pressure will increase when the pressure line valve is closed and then return to the preset pressure when the valve is opened again.

During the testing period, be sure to observe the spray pattern given by the spray nozzles. If there is any pattern distortion, it will be necessary to remove and clean the affected tips.

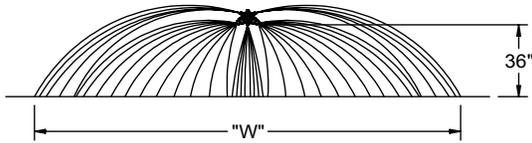
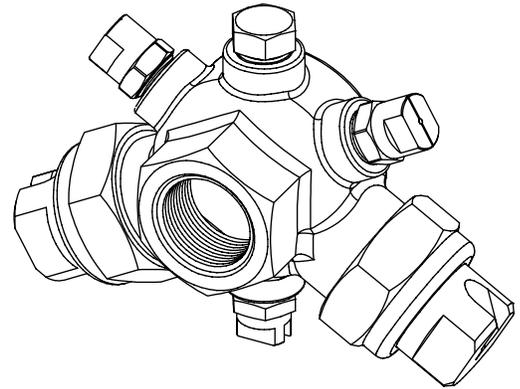
**Caution: Never use a metal object or other sharp item for cleaning a nozzle tip. It is better to use a nozzle brush (NOT wire brush) or compressed air for tip cleaning.**

## Winter Storage

Drain all water out of your sprayer, paying special attention to the pump, handgun, and valve(s). These items are especially prone to damage from chemicals and freezing weather.

The sprayer should be winterized before storage by pumping a solution of RV antifreeze through the entire plumbing system. This antifreeze solution should remain in the plumbing system during the winter months. When spring time comes and you are preparing your sprayer for the spray season, rinse the entire plumbing system out, clearing the lines of the antifreeze solution. Proper care and maintenance will prolong the life of your sprayer.

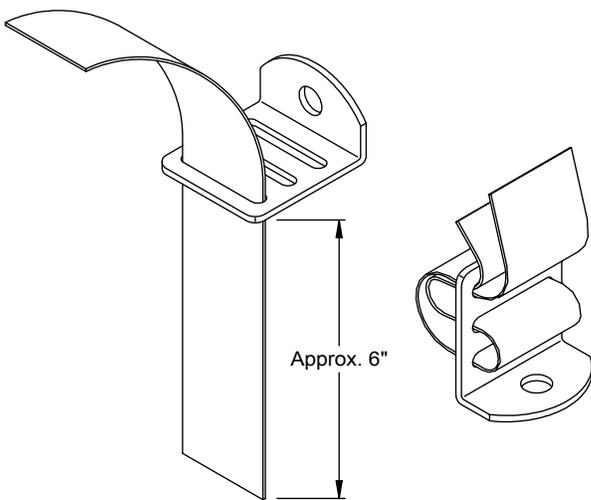
The 5880 BoomJet nozzle combines (2) off-center tips and (3) VeeJet nozzles to produce an overall wide swath flat spray. The nozzle assembly provides a good distribution for the wide pattern coverage obtained. It is also furnished with (1) additional 1/4" NPT pipe plug and (1) blank tip for allowing the BoomJet to spray to one side only.



W = Maximum effective coverage with nozzle mounted at 36" height.

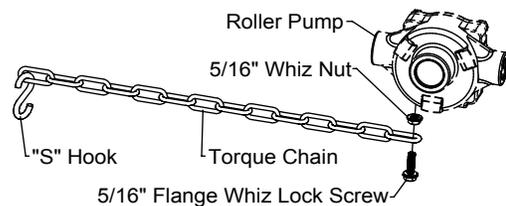
BoomJet Nozzle No.	OC Tips (2)	VeeJet Top Nozzles (2)	VeeJet Bottom Nozzle	Liquid Pressure (PSI)	Total Capacity (GPM)	"W" In Feet	Gallons per Acre				
							4 MPH	5 MPH	7.5 MPH	10 MPH	15 MPH
5880-3/4-2TOC10	OC10	H1/4U-0508HE	H1/4VVL-11004 w/50 Mesh Strainer	20	2.83	39.5	8.9	7.1	4.7	3.5	2.4
				30	3.46	40	10.7	8.6	5.7	4.3	2.9
				40	4.00	40.5	12.2	9.8	6.5	4.9	3.3
5880-3/4-2TOC20	OC20	H1/4U-0520HE	H1/4VVL-9506 w/50 Mesh Strainer	20	6.08	47	16	12.8	8.5	6.4	4.3
				30	7.45	50	18.4	14.8	9.8	7.4	4.9
				40	8.60	52	20	16.4	10.9	8.2	5.5

### Strap/Buckle Detail Strap Attachment to a "Bent" Buckle



The nylon straps are to be inserted in and out of the slots in the buckle, as shown. Be sure the straps are snug before tightening the hook bolts. In most cases, it will be necessary to re-tighten the straps after filling the tank with liquid.

### Torque Chain Attachment to a Roller Pump



A torque chain, "S" hook, nut, and bolt are included in this assembly, to secure your pump during operation.

1. Attach one end of the torque chain over the threaded stem of the bolt.
2. Thread the whiz nut onto the bolt. Hand-tighten.
3. Thread the bolt, chain, & nut 'pre-assembly' into the threaded hole on the underside of the pump. Tighten sufficiently.
4. Affix the "S" Hook to your frame (or hitch). Wrap the chain around the frame or hitch, and 'S-Hook' it in place. Make sure this connection is very secure! Not having a good, tight connection may result in the pump spinning on your PTO shaft, and damaging some components of your sprayer.

\*\*\* Insure that this connection point will not allow the roller pump to spin on the PTO shaft \*\*\*

# 'DIRECTO VALVE' - MANUALLY OPERATED CONTROL VALVE

- Corrosion Resistant Materials: Wetted Parts  
Polypropylene, 316SS and Polyethylene

- Maximum Pressure = 150 p.s.i.

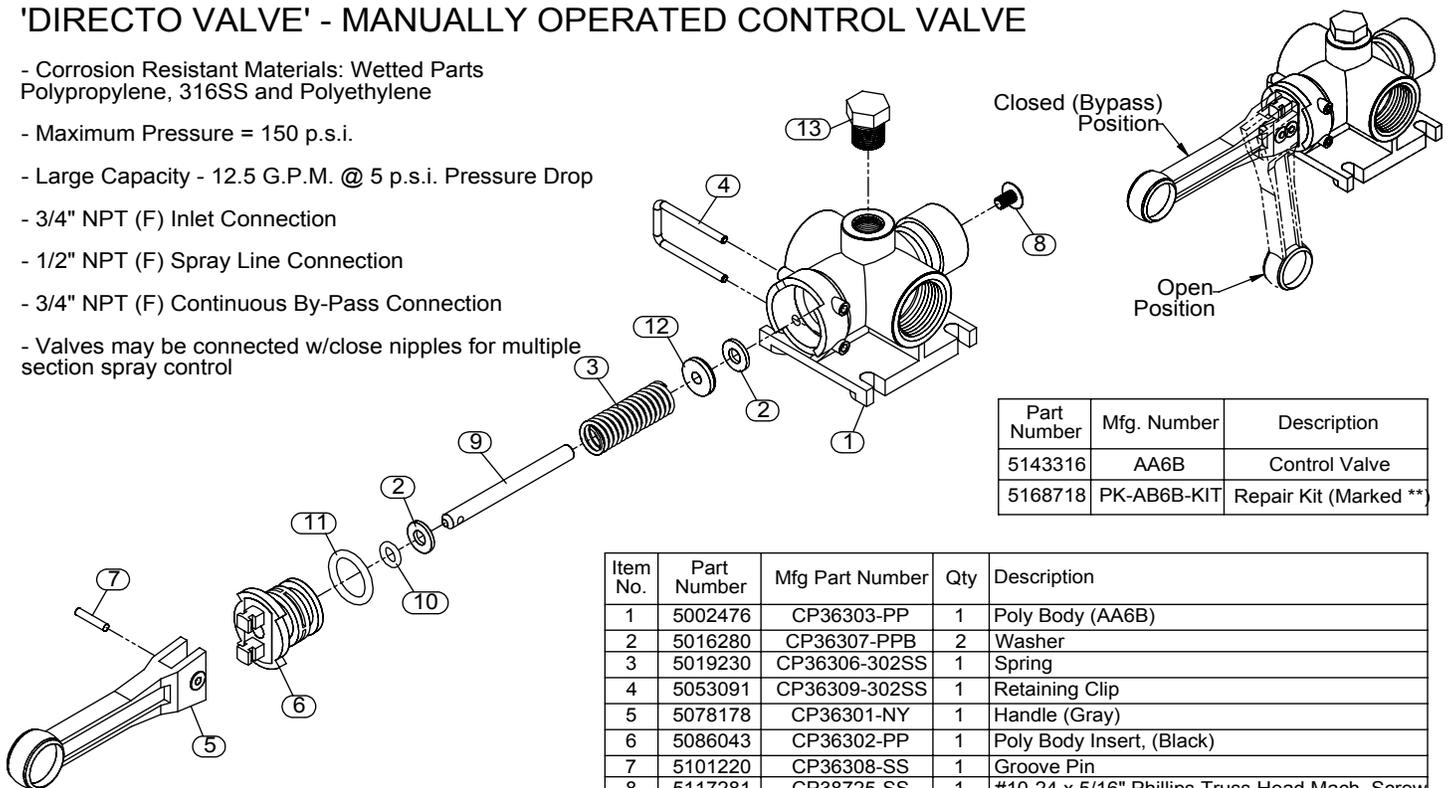
- Large Capacity - 12.5 G.P.M. @ 5 p.s.i. Pressure Drop

- 3/4" NPT (F) Inlet Connection

- 1/2" NPT (F) Spray Line Connection

- 3/4" NPT (F) Continuous By-Pass Connection

- Valves may be connected w/close nipples for multiple section spray control



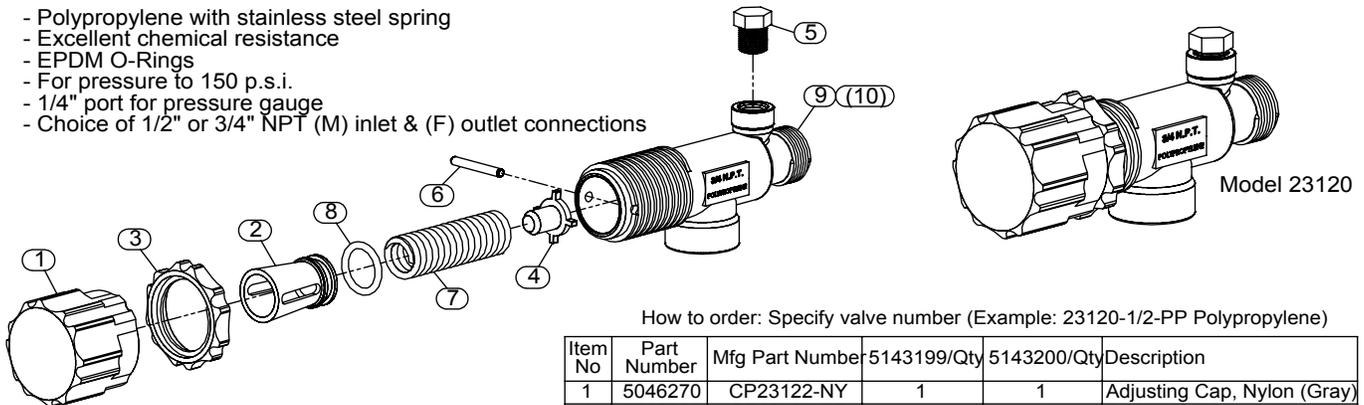
Part Number	Mfg. Number	Description
5143316	AA6B	Control Valve
5168718	PK-AB6B-KIT	Repair Kit (Marked **)

Item No.	Part Number	Mfg Part Number	Qty	Description
1	5002476	CP36303-PP	1	Poly Body (AA6B)
2	5016280	CP36307-PPB	2	Washer
3	5019230	CP36306-302SS	1	Spring
4	5053091	CP36309-302SS	1	Retaining Clip
5	5078178	CP36301-NY	1	Handle (Gray)
6	5086043	CP36302-PP	1	Poly Body Insert, (Black)
7	5101220	CP36308-SS	1	Groove Pin
8	5117281	CP38725-SS	1	#10-24 x 5/16" Phillips Truss Head Mach. Screw
9	5132071	CP36304-SS	1	Stem
10	**	CP7717-2/108-VI	1	O-Ring, Viton
11	**	CP7717-2/209-VI	1	O-Ring, Viton
12	**	CP38726-VI	1	Shut-Off Washer, Viton
13	**	F14	1	Pipe Plug, 1/4" MNPT

# PISTON TYPE PRESSURE RELIEF/REGULATING VALVES

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
- Choice of 1/2" or 3/4" NPT (M) inlet & (F) outlet connections

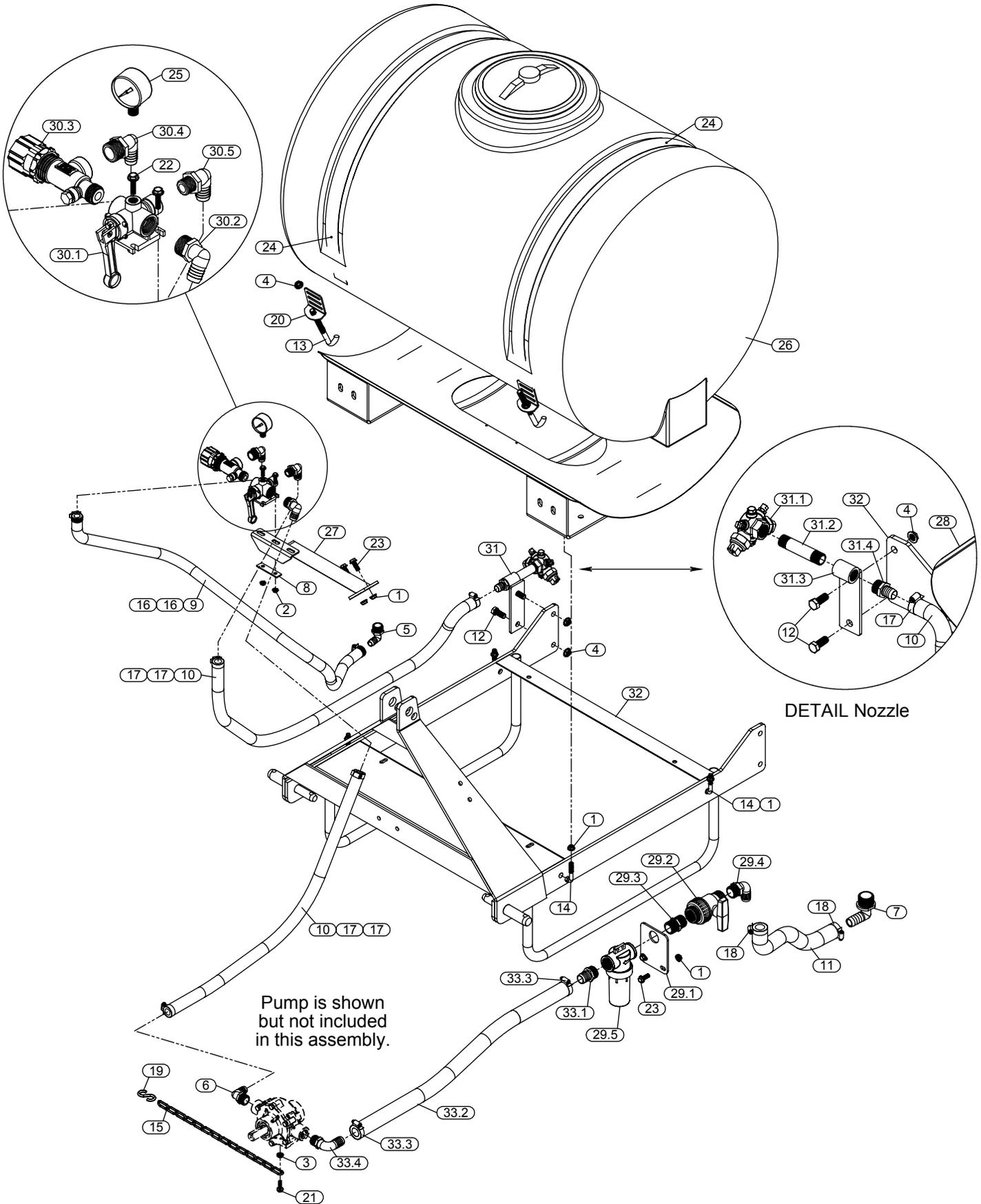


How to order: Specify valve number (Example: 23120-1/2-PP Polypropylene)

FIMCO Number	Mfg Part Number	Description
5143199	23120-3/4-PP	3/4" Poly Valve
5143200	23120-1/2-PP	1/2" Poly Valve
5168717	PK-AB23120-KIT	Repair Kit, Items Marked **

Item No	Part Number	Mfg Part Number	5143199/Qty	5143200/Qty	Description
1	5046270	CP23122-NY	1	1	Adjusting Cap, Nylon (Gray)
2	5108095	CP23124-PP	1	1	Spring Retainer
3	5110266	CP23123-PP	1	1	Lock Ring
4	5115078	CP23125-PP	1	1	Guide Seat
5	**	F14	1	1	Pipe Plug, 1/4" MNPT
6	**	CP23126-302SS	1	1	Retaining Pin
7	**	CP23127-302SS	1	1	Spring
8	**	CP7717-15-EPR	1	1	O-Ring, EPDM Rubber
9	---	CP23121-PP	1	-	Poly Body (3/4" NPT)
10	---	CP23128-PP	-	1	Poly Body (1/2" NPT)

Exploded View: 150-3PT-5880 (5301252)



DETAIL Nozzle

Pump is shown but not included in this assembly.

## Parts List: 150-3PT-5880 (5301252)

Item No	Part Number	Qty	Description
1	5006259	8	3/8"-16 Hex Whiz (Flange) Locknut
2	5006306	2	1/4"-20 Hex Whiz (Flange) Locknut
3	5006307	1	5/16"-18 Hex Whiz (Flange) Locknut
4	5006337	6	1/2"-13 Hex Whiz (Flange) Locknut
5	5010208	1	Poly Elbow, 3/4" MNPT x 5/8" HB
6	5010209	1	Poly Elbow, 3/4" MNPT x 3/4" HB
7	5010215	1	Poly Elbow, 1 1/4" MNPT x 1" HB
8	5017597	1	Clamp Plate for Directo Valve
9	5020117	1	Hose, 5/8"-1 Brd. x 4 Ft. (48")
10	5020179	2	Hose, 3/4"-2 Brd. x 6 Ft. (72")
11	5020315	1	Hose, 1"-2 Brd. x 24"
12	5034019	2	H.H.C.S. 1/2"-13nc x 1 1/4" Long
13	5034111	4	1/2" x 6" Hook Bolt
14	5034138	4	J-Bolt
15	5049017	1	Torque Chain, 24"
16	5051023	2	Hose Clamp, 5/8"
17	5051024	4	Hose Clamp, 3/4"
18	5051025	2	Hose Clamp, 1"
19	5082006	1	"S" Hook
20	5108041	4	Tank Strap Buckle, Bent
21	5117300	1	5/16"-18 x 1" Flange Whiz Lock Screw
22	5117301	2	1/4"-20 x 1" Hex Flange Screw
23	5117307	4	3/8"-16 x 1" Whiz (Flange) Lockscrew
24	5133102	2	Polyester Tank Strap, 2" x 84"
25	5167005	1	Gauge, 0-400 p.s.i. (Dry)

Item No	Part Number	Qty	Description
26	5169020	1	150 Gallon Tank (32" Dia.) (White)
27	5271771	1	Valve Mount
28	5273925	1	Saddle Weldment (32"-150 Gallon)
29	5274765	1	Strainer Sub-Assembly
29.1	5038247	1	Strainer Bracket
29.2	5143207	1	1" Single Union Ball Valve
29.3	5011141	1	Poly Close Nipple, 1" MNPT
29.4	5010213	1	Poly Elbow, 1" MNPT x 1" HB
29.5	5116441	1	1" Nylon Strainer (Black, 40 Mesh)
30	5275072	1	Directo Valve Sub-Assembly
30.1	5143316	1	Directo-Valve (AA6B)
30.2	5010209	1	Poly Elbow, 3/4" MNPT x 3/4" HB
30.3	5143199	1	Pressure Relief Valve, (3/4" NPT)
30.4	5010208	1	Poly Elbow, 3/4" MNPT x 5/8" HB
30.5	5010205	1	Poly Elbow, 1/2" MNPT x 3/4" HB
31	5275073	1	Boomjet Nozzle Sub-Assembly
31.1	5138475	1	Boomjet Nozzle (Brass)
31.2	5011060	1	4" (Galv.) Pipe Nipple, 3/4" MNPT
31.3	5273741	1	Coupling Mount Weldment
31.4	5067127	1	Poly Fitting, 3/4" MNPT x 3/4" HB
32	5275776	1	27-D (3-Point) Frame Weldment (Red)
33.1	5067118	1	Poly Fitting, 1" MNPT x 1" HB
33.2	5020338	1	Hose, 1"-2 Brd. x 36"
33.3	5051025	2	Hose Clamp, 1"
33.4	5010210	1	Poly Elbow, 3/4" MNPT x 1" HB

### Strainer #5116441

