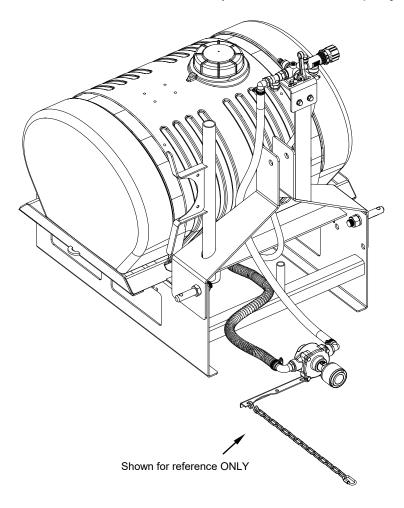
# **OWNER'S MANUAL**

# 55 Gallon Quic-Tach (CAT I) 3 Point Sprayer

(55 Gallon-3PT Sprayer w/Plumbing)



#### **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.

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 QT 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.



WARNING: Cancer and Reproductive Harm www.P65Warnings.ca.gov

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



[5194689

(11/19)]

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

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#### **▲** 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.

### ----- <u>BEFORE YOU BEGIN</u> ------



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. Ag Spray 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

# ------<u>BEFORE SEASONAL USE</u> ------



- 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

## 



- 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
  materials 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

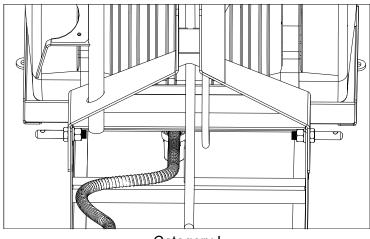
## ------Following Operation ------



- 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 QT Series 3 Point sprayer is designed to allow for a 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"). You will need to supply a top link pin. One is NOT furnished because of the WIDE range of top link arm attachments.



Category I

## **Sprayer Boom Control**

Familiarize yourself with the sprayer control before use. Sprayer is equipped with a manual boom control.

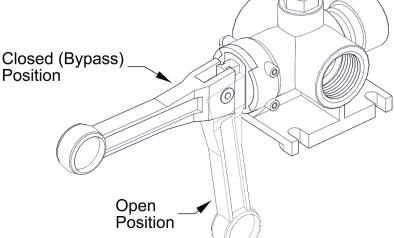
#### Your sprayer is equipped with the AA6B manual control valve:

The spray booms will be **ON** when the handle is in the **down or activated position**.

The booms will be OFF when the handle is pointed straight out or deactivated position.

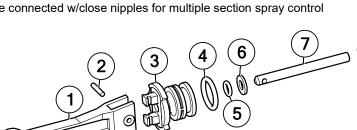
When you are ready to start spraying, push the selector handle down to activate the boom.

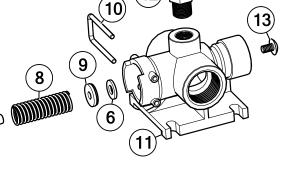
To shut off the booms, pull the handle straight out.



## '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





Fimco #	Mfg. Part #	Description
5143316	AA6B	Directo-Valve (AA6B)
5168718	PK-AB6B-KIT	Repair Kit, Items Marked * *

Ref. #	Part #	Mfg. Part #	Description	Qty
1	5078178	CP36301-NY	Handle (Gray)	1
2	5101220	CP36308-SS	Groove Pin	1
3	5086043	CP36302-PP	Poly Body Insert, (Black)	1
4	* *	CP7717-2/209-VI	O-Ring, Viton	1
5	* *	CP7717-2/108-VI	O-Ring, Viton	1
6	<b>* *</b>	CP36307-PPB	Washer	2
7	<b>* *</b>	CP36304-SS	Stem	1
8	<b>* *</b>	CP36306-302SS	Spring	1
9	* *	CP38726-VI	Shut-Off Washer, Viton	1
10	<b>* *</b>	CP36309-302SS	Retaining Clip	1
11	5002476	CP36303-PP	Poly Body (AA6B)	1
12	5102022	F14	Pipe Plug, 1/4" MNPT	1
13	5117281	CP38725-SS	#10-24 x 5/16" Phillips Truss Head Mach. Screw	1

- \* \* Available only in Repair Kit
- ♦ ♦ Only Available in Complete Assembly

When spraying with a boom, the sprayer must be calibrated to ensure proper spray coverage and to combat overapplication 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

#### 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
- 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

Speed (MPH) = (Distance (FT) x 60)/(Time (Seconds) x 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									
	Time Required in seco	onds to travel a distance of							
Speed in M.P.H. (Miles Per Hour)	200 Ft.	300 Ft.							
1.0	136	205							
1.5	91	136							
2.0	68	102							
2.5	55	82							
3.0	45	68							
3.5	39	58							
4.0	34	51							
4.5	30	45							
5.0	27	41							
5.5	25	37							
6.0	23	34							
6.5	21	31							
7.0	19	29							
8.0	17	26							
9.0	15	23							
10.0	14	20							

#### 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
- 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:

GPA (Solution) x Conversion Factor = Converted GPA

20 GPA (28% x 1.13 = 22.6 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
8.934 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

#### 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 GPA x MPH x W** (Per Nozzle) 5,940

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

GPM — Gallons Per Minute GPA — Gallons Per Acre

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

MPH - Miles Per Hour

Nozzle Spacing (in inches) for broadcast spraying

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

#### 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:

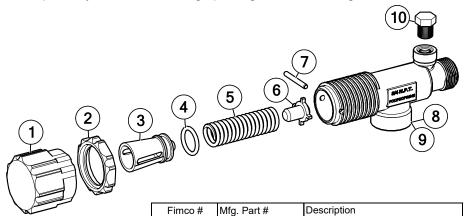
- 1. Make sure the sprayer tank is at least half full of clean water and the tank supply shutoff valve to the pump is open
- 2. Make sure the pressure relief valve is backed out so at least 4 threads are showing. If not, loosen the jam nut and screw the knob out until at least 4 threads can be seen
- 3. Make sure the valves to the agitator are open
- 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.

You have successfully calibrated the sprayer.

### Piston Type Pressure Relief/Regulating Valves

Bypasses excess fluid. 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
- Fore 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



23120-3/4-PP

23120-1/2-PP PK-AB23120-KIT

5143199

5143200

5168717

Ref. #	Part #	Mfg. Part #	Description	Qty
1	5046270	CP23122-NY	Adjusting Cap, Nylon (Gray)	1
2	5110266	CP23123-PP	Lock Ring	1
3	<b>* *</b>	CP23124-PP	Spring Retainer	1
4	* *	CP7717-15-EPR	O-Ring, EPDM Rubber	1
5	* *	CP23127-302SS	Spring	1
6	<b>* *</b>	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



Pressure Relief Valve (3/4" NPT)

Pressure Relief Valve (1/2" NPT)

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 Ag Spray 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

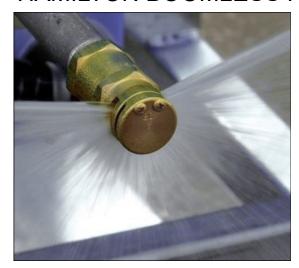




Tresult	Nozzle		Flow				Gallons	per Acre					GAL/100	0 Sq. Ft.		Swath (Ft)
10	Size	Pressure	Rate				M	PH					M	PH		at 40 PSI
10	(MNPT)	(1 01)	(GPM)	4	5	6	8	10	12	15	20	2	3	4	5	48" High
1/4"   50		30	0.9	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8	0.41	0.27	0.20	0.16	
114"   50	10	40	1.0	9.9	7.9	6.6	5.0	4.0	3.3	2.6	2.0	0.45	0.30	0.23	0.18	40
15   10   13   109   8.7   7.3   5.4   4.4   3.6   2.9   2.2   0.53   0.35   0.26   0.21   15   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   16   1.6   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   16   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   17   13.8   11.9   9.0   6.8   5.4   4.5   3.6   2.7   0.62   0.42   0.31   0.25   18   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   18   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   0.32   19   24   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   11   41   1.4   1.3   10.8   8.1   6.5   5.4   4.3   3.2   0.75   0.50   0.57   0.50   0.37   0.30   10   2.7   20.9   16.7   13.8   10.4   8.4   7.0   5.6   4.2   0.96   0.64   0.48   0.38   10   2.9   2.24   17.9   15.0   11.2   9.0   7.5   6.0   4.5   10.3   0.69   0.51   0.41   11   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   13   40   4.3   36.7   294   24.5   18.3   14.7   12.2   9.8   7.3   1.68   1.12   0.95   0.75   0.67   14   30   6.9   6.8   54.6   45.5   34.2   27.3   22.8   18.2   13.7   3.14   2.09   1.57   1.25   14   30   40   8.0   79.2   63.4   52.8   39.6   31.7   26.4   21.1   15.8   3.64   2.42   18.2   1.45   15   40   8.0   79.2   63.4   52.8   39.6   31.7   26.4   21.1   15.8   3.64   2.42   18.2   1.45   16   40   16.7   148.0   118.0   98.4   73.8   59.0   49.2   39.4   29.5   6.78   4.52   33.9   2.71   16   40   16.7   148.0   118.0   98.4   73.8   59.0   49.2   39.4   29.5   6.78   4.52   33.9   2.71   16   40   16.7   148.0   118.0   98.4   73.8   59.0   49.2   39.4   29.5   6.78   4.52   33.9   2.71   16   40   16.7   148.0   118.0   96.4   73.8   59.0   49.2   39.4   29.5   6.78   4.52   33.9   2.71   17   50   18.0   145.0   120.0   130.0   85.4   66.1   55.1   44.1   33.1   7.59   5.66   3.79   3.03	(1/4")	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	13
15		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	
114"		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	
1/4"   50	15	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	1.1
20	(1/4")	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	14
15   16   16   16   12   16   12   16   16		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	
114") 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 15.6 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 16.4 19.2 15.3 12.8 9.6 7.7 6.4 5.1 3.8 0.88 0.59 0.44 0.35 17.1 16.2 13.0 10.8 8.1 6.5 5.4 4.3 3.2 0.75 0.50 0.37 0.30 0.31 0.34 17.4 16.2 13.0 10.8 8.1 6.5 5.4 4.3 3.2 0.75 0.50 0.37 0.30 0.34 17.4 18.6 14.9 12.4 9.3 7.4 6.2 5.0 3.7 0.85 0.57 0.43 0.34 17.4 17.4 17.4 17.4 17.4 17.4 17.4 17.		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	
(1/4") 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 0.24 19.2 15.3 12.8 9.6 7.7 6.4 5.1 3.8 0.88 0.59 0.44 0.35 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 0.34 (1/4") 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 0.69 0.51 0.41 0.60 2.9 22.4 17.9 15.0 11.2 9.0 7.5 6.0 4.5 10.3 0.69 0.51 0.41 0.60 2.9 12.4 17.9 15.0 11.2 9.0 7.5 6.0 4.5 10.3 0.69 0.51 0.41 0.41 0.32 0.33 0.3.7 31.6 25.3 21.1 15.8 12.6 10.5 8.4 6.3 1.45 0.97 0.72 0.58 0.67 0.43 0.34 0.34 0.34 0.35 0.50 0.37 0.85 0.57 0.43 0.34 0.34 0.34 0.35 0.59 0.51 0.41 0.41 0.32 0.35 0.59 0.51 0.41 0.41 0.32 0.35 0.59 0.51 0.41 0.41 0.32 0.35 0.59 0.51 0.41 0.41 0.32 0.35 0.59 0.51 0.41 0.41 0.32 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.59 0.51 0.41 0.41 0.35 0.51 0.41 0.51 0.51 0.41 0.51 0.51 0.41 0.51 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.41 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.51 0.41 0.51 0.51 0.51 0.51 0.51 0.51 0.51 0.5	20	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	15
24	(1/4")	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	13
24		60	2.4	192	15.3	12.8	9.6	7.7	6.4	5.1	3.8	0.88	0.59	0.44	0.35	
(1/4") 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 16 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 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 4.8 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 14.8 14.0 32.8 27.3 20.5 16.4 13.7 10.9 8.2 1.88 1.25 0.94 0.75 12.5 16.6 0 5.3 45.2 36.2 30.2 22.6 18.1 15.1 12.1 9.0 2.08 13.8 1.04 0.83 10.4 0.83 10.4 0.80 10.5 8.4 6.3 1.4 1.4 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5		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
(1/4") 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 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 3.0 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 1.4 4.1 0.5 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	24	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	
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 40 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 14.8 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 10.	(1/4")	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	
43 (3/8")  40		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	
(3/8") 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 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 1.25 1.25 1.25 1.25 1.25 1.25 1.25		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	
(3/8") 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 1.04 0.83 1.04 0.83 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.05	43	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	1/
80	(3/8")	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	14
80		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	
13 13 142") 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 1.78 165 14.5 128.0 103.0 85.4 64.1 51.3 42.7 34.2 25.6 5.88 3.92 2.94 2.35 167 167 167 148.0 118.0 98.4 73.8 59.0 49.2 39.4 29.5 6.78 4.52 3.39 2.71 167 167 167 165.0 132.0 110.0 82.6 66.1 55.1 44.1 33.1 7.59 5.06 3.79 3.03 16.6 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 17.1 16.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18		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	
(1/2") 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 1.78 1.78 1.78 1.78 1.78 1.78 1.78		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	13
167 (3/4") 50 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 (3/4") 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 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 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 (3/4") 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	(1/2")	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	10
167 (3/4") 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 15   (3/4") 50 18.7 166.0 132.0 110.0 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   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   215 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 (3/4") 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	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	
(3/4") 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 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 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 (3/4") 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		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	
(3/4") 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 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 21.5 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 (3/4") 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		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	15
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 2.64 215 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 (3/4") 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	(3/4")	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	13
215     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       (3/4")     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	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	
(3/4") 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		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	
(3/4") 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	-	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	16
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	(3/4")	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	PSI	GPM	Swath		Gallons per Acre								
No.	P 31	180°	180°	3 MPH	4 MPH	5 MPH	8 MPH	10 MPH					
	30	1.7	44'	6.4	4.8	3.8	2.4	1.9					
#5	40	2.0	46'	7.2	5.4	4.3	2.7	2.2					
#5	50	2.2	48'	7.6	5.7	4.5	2.9	2.3					
	60	2.4	50'	7.2 7.6 7.9 12.2 13.9	5.9	4.8	3.0	2.4					
	60 2.4	30 3		50'	12.2	9.2	7.3	4.6	3.7				
#10	40	4.2	50'	13.9	10.4	8.3	5.2	4.2					
#10	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					
	30	5.1	54'	15.6	11.6	9.3	5.8	4.7					
#20	40	5.9	54'	18.0	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

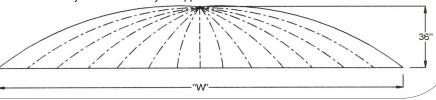
Nozzle	Pressure	Flow Rate		•	•	•		ons per Nozzle			•	•	•			0 Sq. Ft. zle Spac	
Size	(PSI)	(GPM)						MPH								PH	
	15	0.06	4.5	5 3.6	6 3.0	7 2.5	8 2.2	10 1.8	12 1.5	1.3	16 1.1	18	0.9	0.20	3 0.14	1.00	5 0.08
	30 40	0.09 0.10	6.7 7.4	5.3 5.9	4.5 5.0	3.8 4.2	3.3 3.7	2.7 3.0	2.2 2.5	1.9 2.1	1.7 1.9	1.5 1.7	1.3 1.5	0.31 0.34	0.20 0.23	0.15 0.17	0.12 0.14
01	60 80	0.12 0.14	8.9 10.4	7.1 8.3	5.9 6.9	5.1 5.9	4.5 5.2	3.6 4.2	3.0	2.5 3.0	2.2	2.0	1.8 2.1	0.41 0.48	0.27 0.32	0.20 0.24	0.16 0.19
	100 115	0.16 0.17	11.9 12.6	9.5 10.1	7.9 8.4	6.8 7.2	5.9 6.3	4.8 5.0	4.0 4.2	3.4	3.0	2.6 2.8	2.4 2.5	0.55 0.58	0.36 0.39	0.27 0.29	0.22 0.23
	15 30	0.09 0.13	6.7 9.7	5.3 7.7	4.5 6.4	3.8 5.5	3.3 4.8	2.7	2.2	1.9	1.7	1.5	1.3 1.9	0.31	0.20	0.15 0.22	0.12 0.18
015	40	0.15	11.1	8.9	7.4	6.4	5.6	4.5	3.7	3.2	2.8	2.5 3.0	2.2	0.51	0.34	0.26	0.20
015	60 80	0.18 0.21	13.4 15.6	10.7	8.9 10.4	7.6 8.9	6.7 7.8	5.3 6.2	4.5 5.2	3.8 4.5	3.3	3.5	2.7 3.1	0.61	0.41	0.31	0.25
	100 115	0.24 0.25	17.8 18.6	14.3 14.9	11.9 12.4	10.2 10.6	8.9 9.3	7.1 7.4	5.9 6.2	5.1 5.3	4.5 4.6	4.0 4.1	3.6 3.7	0.82 0.85	0.55 0.57	0.41 0.43	0.33 0.34
	15 30	0.12 0.17	8.9 12.6	7.1 10.1	5.9 8.4	5.1 7.2	4.5 6.3	3.6 5.0	3.0 4.2	2.5 3.6	2.2 3.2	2.0 2.8	1.8 2.5	0.41 0.58	0.27 0.39	0.20 0.29	0.16 0.23
02	40 60	0.20 0.24	14.9 17.8	11.9 14.3	9.9 11.9	8.5 10.2	7.4 8.9	5.9 7.1	5.0 5.9	4.2 5.1	3.7 4.5	3.3 4.0	3.0 3.6	0.68 0.82	0.45 0.55	0.34	0.27 0.33
-	80 100	0.28 0.32	20.8	16.6 19.0	13.9 15.8	11.9 13.6	10.4 11.9	8.3 9.5	6.9 7.9	5.9 6.8	5.2 5.9	4.6 5.3	4.2	0.95 1.09	0.64 0.73	0.48 0.55	0.38 0.44
	115 15	0.34 0.15	25.2 11.1	20.2	16.8 7.4	14.4 6.4	12.6 5.6	10.1 4.5	8.4 3.7	7.2	6.3	5.6 2.5	5.0	1.16 0.51	0.77	0.58 0.26	0.46 0.20
	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
025	40 60	0.25 0.31	18.6 23.0	14.9 18.4	12.4 15.3	10.6 13.2	9.3 11.5	7.4 9.2	6.2 7.7	5.3 6.6	4.6 5.8	4.1 5.1	3.7 4.6	0.85 1.06	0.57 0.70	0.43 0.53	0.34 0.42
	80 100	0.35 0.40	26.0 29.7	20.8	17.3 19.8	14.9 17.0	13.0 14.9	10.4 11.9	8.7 9.9	7.4 8.5	6.5 7.4	5.8 6.6	5.2 5.9	1.19 1.36	0.80 0.91	0.60 0.68	0.48 0.55
	115 15	0.42 0.18	31.2 13.4	24.9 10.7	20.8 8.9	17.8 7.6	15.6 6.7	12.5 5.3	10.4 4.5	8.9 3.8	7.8 3.3	6.9 3.0	6.2 2.7	1.43 0.61	0.95 0.41	0.72	0.57 0.25
	30 40	0.26 0.30	19.3 22.3	15.4 17.8	12.9 14.9	11.0 12.7	9.7 11.1	7.7 8.9	6.4 7.4	5.5 6.4	4.8 5.6	4.3 5.0	3.9 4.5	0.89 1.02	0.59 0.68	0.44 0.51	0.35 0.41
03	60 80	0.37 0.42	27.5 31.2	22.0 24.9	18.3	15.7 17.8	13.7 15.6	11.0 12.5	9.2	7.8 8.9	6.9 7.8	6.1 6.9	5.5 6.2	1.26 1.43	0.84 0.95	0.63 0.72	0.50 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
	115 15	0.51 0.21	37.9 15.6	30.3 12.5	25.2 10.4	21.6 8.9	7.8	15.1 6.2	12.6 5.2	4.5	9.5 3.9	3.5	7.6 3.1	1.74 0.72	1.16 0.48	0.87	0.70
	30 40	0.30 0.35	22.3 26.0	17.8 20.8	14.9 17.3	12.7 14.9	11.1 13.0	8.9 10.4	7.4 8.7	6.4 7.4	5.6 6.5	5.0 5.8	4.5 5.2	1.02 1.19	0.68 0.80	0.51 0.60	0.41 0.48
035	60 80	0.43 0.49	31.9 36.4	25.5 29.1	21.3 24.3	18.2 20.8	16.0 18.2	12.8 14.6	10.6 12.1	9.1 10.4	8.0 9.1	7.1 8.1	6.4 7.3	1.47 1.67	0.98 1.11	0.73 0.84	0.59 0.67
	100 115	0.55 0.59	40.8 43.8	32.7 35.0	27.2 29.2	23.3 25.0	20.4 21.9	16.3 17.5	13.6 14.6	11.7 12.5	10.2 11.0	9.1 9.7	8.2 8.8	1.88 2.01	1.25 1.34	0.94 1.01	0.75 0.80
	15 30	0.24 0.35	17.8 26.0	14.3	11.9 17.3	10.2	8.9 13.0	7.1	5.9 8.7	5.1 7.4	4.5 6.5	4.0	3.6 5.2	0.82 1.19	0.55	0.41	0.33 0.48
04	40	0.40	29.7	23.8	19.8	17.0	14.9 18.2	11.9	9.9	8.5	7.4	6.6	5.9	1.36	0.91	0.68	0.55
04	60 80	0.49 0.57	36.4 42.3	29.1 33.9	24.3	20.8	21.2	14.6	12.1	10.4	9.1	8.1 9.4	7.3 8.5	1.67 1.94	1.11	0.84	0.67 0.78
	100 115	0.63 0.68	46.8 50.5	37.4 40.4	31.2 33.9	26.7 28.9	23.4 25.2	18.7 20.2	15.6 16.8	13.4 14.4	11.7 12.6	10.4 11.2	9.4 10.1	2.15 2.32	1.43 1.55	1.07 1.16	0.86 0.93
	15 30	0.31 0.43	23.0 31.9	18.4 25.5	15.3 21.3	13.2 18.2	11.5 16.0	9.2 12.8	7.7 10.6	6.6 9.1	5.8 8.0	5.1 7.1	4.6 6.4	1.06 1.47	0.70 0.98	0.53 0.73	0.42 0.59
05	40 60	0.50 0.61	37.1 45.3	29.7 36.2	24.8 30.2	21.2 25.9	18.6 22.6	14.9 18.1	12.4 15.1	10.6 12.9	9.3 11.3	8.3 10.1	7.4 9.1	1.71 2.08	1.14 1.39	0.85 1.04	0.68 0.83
	80 100	0.71 0.79	52.7 58.7	42.2 46.9	35.1 39.1	30.1 33.5	26.4 29.3	21.1 23.5	17.6 19.6	15.1 16.8	13.2 14.7	11.7 13.0	10.5 11.7	2.42 2.69	1.61 1.80	1.21 1.35	0.97 1.08
	115 15	0.85 0.37	63.1	50.5 22.0	42.1 18.3	36.1 15.7	31.6 13.7	25.2 11.0	21.0 9.2	18.0 7.8	15.8 6.9	14.0 6.1	12.6 5.5	2.90	1.93 0.84	1.45 0.63	1.16 0.50
	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
06	40 60	0.60 0.73	44.6 54.2	35.6 43.4	29.7 36.1	25.5 31.0	22.3	17.8 21.7	14.9 18.1	12.7 15.5	11.1	9.9	8.9 10.8	2.05	1.36 1.66	1.02	0.82 1.00
	80 100	0.85 0.95	63.1 70.5	50.5 56.4	42.1 47.0	36.1 40.3	31.6 35.3	25.2 28.2	21.0 23.5	18.0 20.2	15.8 17.6	14.0 15.7	12.6 14.1	2.90 3.24	1.93 2.16	1.45 1.62	1.16 1.30
	115 15	1.02 0.49	75.7 36.4	60.6 29.1	50.5 24.3	43.3 20.8	37.9 18.2	30.3 14.6	25.2 12.1	21.6 10.4	18.9 9.1	16.8 8.1	15.1 7.3	3.48 1.67	2.32 1.11	1.74 0.84	1.39 0.67
	30 40	0.69 0.80	51.2 59.4	41.0 47.5	34.2 39.6	29.3 33.9	25.6 29.7	20.5 23.8	17.1 19.8	14.6 17.0	12.8 14.9	11.4 13.2	10.2 11.9	2.35 2.73	1.57 1.82	1.18 1.36	0.94 1.09
08	60 80	0.98 1.13	72.8 83.9	58.2 67.1	48.5 55.9	41.6 47.9	36.4 42.0	29.1 33.6	24.3	20.8	18.2	16.2 18.6	14.6 16.8	3.34 3.85	2.23	1.67 1.93	1.34 1.54
	100	1.26	93.6	74.8	62.4	53.5	46.8	37.4	31.2	26.7	23.4	20.8	18.7	4.30	2.86	2.15	1.72
	115 15	1.36 0.61	101.0 45.3	80.8 36.2	67.3 30.2	57.7 25.9	50.5 22.6	40.4 18.1	33.7 15.1	28.9 12.9	25.2 11.3	10.1	9.1	2.08	3.09 1.39	1.04	1.86 0.83
	30 40	0.87 1.00	64.6 74.3	51.7 59.4	43.1 49.5	36.9 42.4	32.3 37.1	25.8 29.7	21.5 24.8	18.5 21.2	16.1 18.6	14.4 16.5	12.9 14.9	2.97 3.41	1.98 2.27	1.48 1.71	1.19 1.36
010	60 80	1.22 1.41	90.6 104.7	72.5 83.8	60.4 69.8	51.8 59.8	45.3 52.3	36.2 41.9	30.2 34.9	25.9 29.9	22.6 26.2	20.1 23.3	18.1 20.9	4.16 4.81	2.77 3.21	2.08 2.40	1.66 1.92
	100 115	1.58 1.70	117.3 126.2	93.9	78.2 84.2	67.0 72.1	58.7 63.1	46.9 0.5	39.1 42.1	33.5 36.1	29.3 31.6	26.1 28.1	23.5 25.2	5.39 5.80	3.59 3.86	2.69	2.16 2.32
	15	0.92	68.3	54.6	45.5	39.0	34.2	27.3	22.8	19.5	17.1	15.2	13.7	3.14	2.09	1.57	1.25
045	30 40	1.30	96.5 111.4	77.2 89.1	64.4 74.3	55.2 63.6	48.3 55.7	38.6 44.6	32.2 37.1	27.6 31.8	24.1	21.5 24.8	19.3	4.43 5.12	2.96 3.41	2.22	1.77 2.05
015	60 80	1.84 2.12	136.6 157.4	109.3 125.9	91.1 104.9	78.1 89.9	68.3 78.7	54.6 63.0	45.5 52.5	39.0 45.0	34.2 39.4	30.4 35.0	27.3 31.5	6.27 7.23	4.18 4.82	3.14 3.61	2.51 2.89
	100 115	2.37 2.54	176.0 188.6	140.8 150.9	117.3 125.7	100.6 107.8	88.0 94.3	70.4 75.4	58.7 62.9	50.3 53.9	44.0 47.1	39.1 41.9	35.2 37.7	8.08 8.66	5.39 5.77	4.04 4.33	3.23 3.46

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

	Rate Cha	art: T	pe 1/4-K	LC and	d Typ	e 3/4	-KLC	Field	Jet I	Vozzl	es
Tip	Pipe		Capacity	"\^/"		PA (Gallons per 10					
. TIP	Libe.	PSI	(One Nozzle)		3	4	5	8	3	4	5

Tip	Pipe		Capacity "W"		GP/	GPA (Gallons per Acre)			GPA (Gallons per 1000 Sq. Ft.)			
Number	Connection	PSI	(One Nozzle)	in Feet	3	4	5	8	3	4	5	8
Number	Connection		in GPM	III I CCL	MPH	MPH	MPH	MPH	MPH	MPH	MPH	MPH
		20	0.71	17	6.9	5.2	4.1	2.6	0.16	0.12	0.09	0.06
1/4KLC-5	1/4"	30	0.87	18	8.0	6.0	4.8	3.0	0.18	0.14	0.11	0.07
		40	1.00	21	7.9	5.9	4.7	2.9	0.18	0.13	0.11	0.07
		20	1.27	18	11.6	8.7	7.0	4.4	0.27	0.20	0.16	0.10
1/4KLC-9	1/4"	30	1.56	19	13.5	10.2	8.1	5.1	0.31	0.23	0.19	0.12
		40	1.80	21	14.1	10.6	8.5	5.3	0.32	0.24	0.19	0.12
		20	2.55	20	21.0	15.8	12.6	7.9	0.48	0.36	0.29	0.18
1/4KLC-18	1/4"	30	3.12	21	25.0	18.4	14.7	9.2	0.56	0.42	0.34	0.21
		40	3.60	22	27.0	20.0	16.2	10.1	0.62	0.46	0.37	0.23
		20	5.09	22	38.0	29.0	23.0	14.3	0.87	0.66	0.52	0.33
1/4KLC-36	1/4"	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.



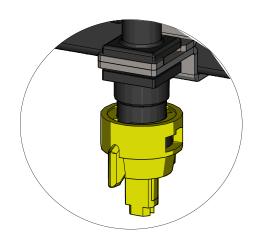
The KLC FieldJet nozzle is typically used to spray areas not accessible with a boom sprayer. It's one-piece nozzle design projects spray to both sides to form a wide swath flat spray. The round orifice minimizes clogging. Uniformity across the swath is not as good as with a properly operated boom sprayer.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

# Turbo FloodJet Nozzles used on FSBK-2 Boom Assembly



	Tip Chart for TKT-VP3, TF-VP3 & 30DT3.0 Tips									
Tip	_		Gallons Per Acre - Based on Water							
No.	Pressure (psi)	Capacity (GPM)	1	2	3	4	5	7.5	10	
(Color)	(psi)	(GPIVI)	MPH	MPH	MPH	MPH	MPH	MPH	MPH	
	10	.30	44	22	14.9	11.1	8.9	5.9	4.5	
3	20	.42	63	31.5	20.9	15.7	12.6	8.4	6.3	
(Gray)	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	
Tip	D	Cit		Gallons I	Per 1000	) Sq. Ft Based on Water				
No.	Pressure (psi)	Capacity (GPM)	1	2	3	4	5	7.5	10	
(Color)	(þsi)	(GPIVI)	MPH	MPH	MPH	MPH	MPH	MPH	MPH	
	10	.30	1.01	.5	.34	.254	.204	.135	.103	
3	20	.42	1.4	.72	.48	.36	.29	.19	.14	
(Gray)	30	.52	1.74	.87	.596	.44	.35	.236	.176	
	40	.60	2.06	1.00	.688	.50	.408	.27	.20	
Tip				Gallo	ns Per A	cre - Bas	ed on W	/ater		
No.	Pressure (psi)	Capacity (GPM)	1	2	3	4	5	7.5	10	
(Color)	(psi)	(GPIVI)	MPH	MPH	MPH	MPH	MPH	MPH	MPH	
	10	.30	.10	.05	.034	.025	.02	.013	.01	
3	20	.42	.14	.072	.048	.036	.029	.019	.014	
(Gray)	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



Spray Tip Rate Chart (20" Spacing)									
Gallons Per Acre - Based on Water									
Tip	Pressure	Capacity	1	2	3	4	5	6	8
NO.	No. (psi)	(GPM)	МРН	МРН	MPH	MPH	МРН	MPH	МРН
	15	.12	35.6	17.8	11.8	8.9	7.1	5.9	4.5
AIXR11002VP	20	.14	41.6	20.8	13.8	10.4	8.3	6.9	5.2
AIXKIIUUZVP	30	.17	50.4	25.2	16.8	12.6	10.1	8.4	6.3
	40	.20	59.6	29.8	19.8	14.9	11.9	9.9	7.4
<b>-</b>			Ga	llons Pe	er 1000	Sq. Ft.	- Based	on Wa	ter
Tip No.	Pressure	Capacity (GPM)	1	2	3	4	5	6	8
NO.	(psi)	(GPIVI)	MPH	MPH	MPH	MPH	MPH	MPH	MPH
	15	.12		.41	.27	.20	.16		
AIXR11002VP	20	.14		.48	.32	.24	.19		
AIANT1002VP	30	.17		.58	.39	.29	.23		
	40	.20		.68	.45	.34	.27		

### **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), 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 bypass (return) line to mix (agitate) the water and chemicals. Note: See chemical instructions for necessary agitation time. You are now ready to begin spraying.
- Upon arriving at the spraying location, unfold booms (if applicable), engage pump, open the boom control valve 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

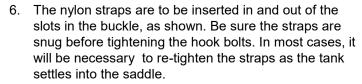
- 1. Connect the pump's PTO coupler and torque bar.
- 2. Fill the tank with some water in order to set the pressure and test for leaks.
- 3. Make sure the spray gun is closed and the booms are off.
- 4. Start the tractor and engage the pump. Ensure that the pump is primed and that there are no leaks in any of the lines.
- 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 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.

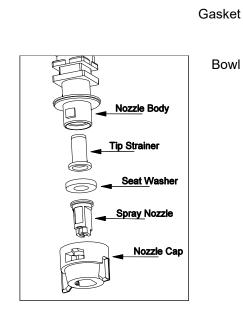
#### Maintenance Instructions

#### **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.

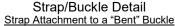
- 1. It is recommended to perform a visual and physical inspection for any worn parts, loose bolts or other visible problems. Make all necessary repairs before spraying. Please contact an authorized Ag Spray dealer to order parts or to receive technical help.
- 2. After each use, it is important to rinse 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.
- 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.
- 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.

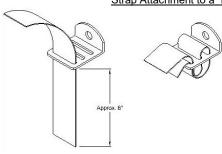




Cap

Screen





#### Maintenance Instructions

#### **Pump Maintenance**

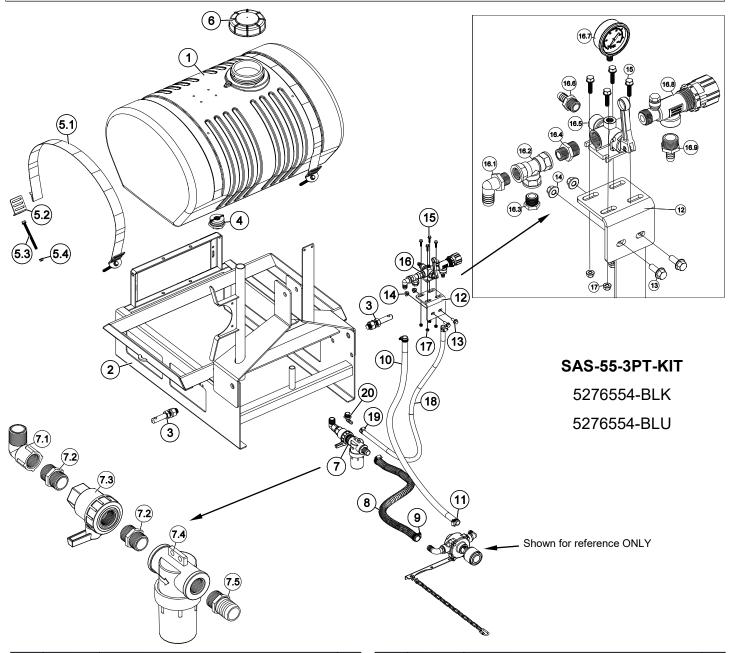
- 1. Follow all pump safety precautions and warnings. Following these guidelines will help to ensure many years of smooth and trouble-free service.
- 2. Flush the pump, as directed in routine maintenance, after every use. It is also very important to winterize your pump to prevent freezing and corrosion.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

#### 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.** 

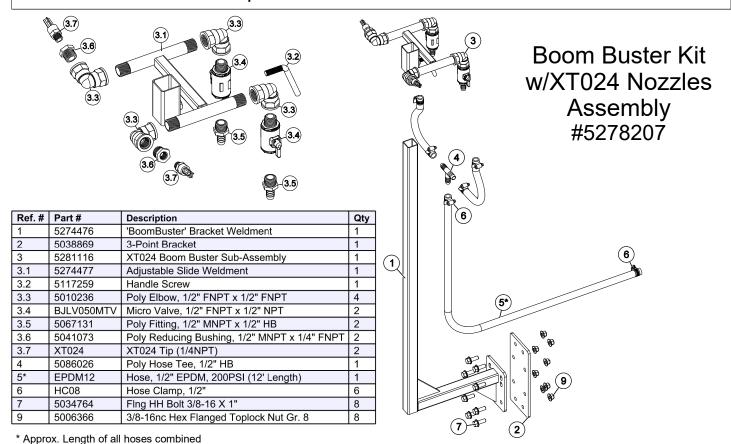
- 1. Verify that the tank is empty and rinsed out. Pour 1-2 gallons of RV nontoxic antifreeze into the tank. It is not recommended to use engine antifreeze. Engine antifreeze can be harmful to humans, animals, crops and the environment.
- 2. Engage the pump and spray with the boom and spray gun (if applicable). 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.

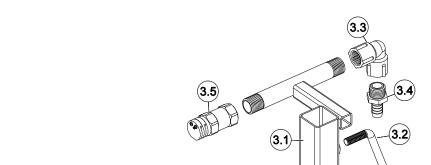
# 55 Gallon 3-PT Component Breakdown & Parts List



Ref. #	Part #	Description	Qty
1	TA55YS	55 Gallon Tank (Yellow)	1
1.1	5273736	3/4" Double-Threaded Poly Tank Bulkhead Fitting	1
1.1.1	60401	EPDM Gasket	1
2	5278405	Weldment, 55 Gallon Quick Attach Frame	1
3	LAP1	Lift Arm Pin, CAT I-II, 1 1/8" Dia. x 1 13/16" Usable Length	2
4	5273736	3/4" Double-Threaded Poly Tank Bulkhead Fitting	1
4.1	60401	EPDM Gasket	1
5	5278115	55 Gal. 3PT Strap Kit	1
5.1	5133101	Nylon Strap (2" x 72")	2
5.2	5108041	Tank Strap Buckle, Bent	4
5.3	5034745	H.H.C.S. Flanged 3/8"-16nc x 5"	4
5.4	5006259	3/8-16nc Hex Flanged Whiz Nut Gr. 5	4
6	5058189	5" Lid (NO Lanyard)	1
7	5281070	55 Gal 3PT Banjo Line Strainer Assembly	1
7.1	5010244	Poly Street Elbow, 3/4" FNPT x 3/4" MNPT	1
7.2	5011140	Poly Close Nipple, 3/4" MNPT	2
7.3	5143407	3/4" Union, Poly Ball Valve	1
7.4	5116322	3/4" Black Poly Strainer	1
7.4.1	5072229	EPDM Gasket	1
7.4.2	5116323	40 Mesh Screen	1
7.5	5067128	Poly Fitting, 3/4" MNPT x 1" HB	1
8	KF1300BLK	KF1300BLK Hose, 1" x 5'	1

Ref. #	Part #	Description	Qty
9	HC16	Hose Clamp, 3/4"	2
10	EPDM34	Hose, 3/4" EPDM, 200 PSI, 10'	1
11	HC12	Hose Clamp, 5/8"-3/4"	2
12	5038768	Tee Valve Mounting Bracket	1
13	5034764	Fing HH Bolt 3/8-16 X 1"	2
14	5006366	3/8-16nc Hex Flanged Toplock Nut Gr. 8	2
15	5117301	H.H.C.S. Flanged 1/4"-20nc x 1"	4
16	5281066	Pressure Head for 55 Gal. QT 3PT Assembly	1
16.1	5010205	Poly Elbow, 1/2" MNPT x 3/4" HB	1
16.2	5010230	Poly Tee, 1/2" FNPT	1
16.3	5102070	Poly Pipe Plug, 1/2" MNPT	1
16.4	5011147	Poly Reducing Nipple, 3/4" MNPT x 1/2" MNPT	1
16.5	5143316	Directo-Valve (AA6B)	1
16.6	5067131	Poly Fitting, 1/2" MNPT x 1/2" HB	1
16.7	PG100D	Pressure Gauge, 0-100#, Dry, 2.5" Face, Bottom Mount	1
16.8	5143199	Pressure Relief Valve, (3/4" NPT)	1
16.9	5067125	Poly Fitting, 3/4" MNPT x 1/2" HB	1
17	5006386	Flng Head Lock Nut 1/4-20	4
18	EPDM12	Hose, 1/2" EPDM, 200 PSI, 7'	1
19	HC08	Hose Clamp, 1/2"	2
20	5010207	Poly Elbow, 3/4" MNPT x 1/2" HB	1

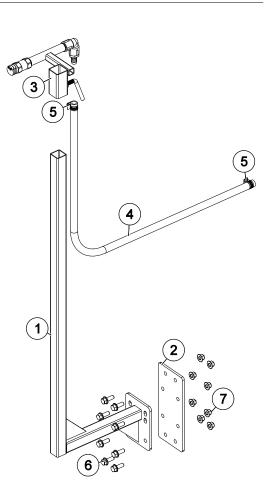




## Rooster Kit w/#10 Hamilton Nozzle #5278206

Ref. #	Part #	Description	Qty
1	5274476	'BoomBuster' Bracket Weldment	1
2	5038869	55 3-Point Bracket	1
3	5281095	Hamilton #10 Boomless Nozzle Sub-Assembly	1
3.1	5278112	Sprayer Mount Weldment	1
3.2	5117259	Handle Screw	1
3.3	5010236	Poly Elbow, 1/2" FNPT x 1/2" FNPT	1
3.4	5067131	Poly Fitting, 1/2" MNPT x 1/2" HB	1
3.5	6541-1	W.L. Hamilton #10 Boomless Nozzle	1
4	EPDM12	Hose, 1/2" EPDM, 200PSI (9' Length)	1
5	HC08	Hose Clamp, 1/2"	2
6	5034764	Fing HH Bolt 3/8-16 X 1"	8
7	5006366	3/8-16nc Hex Flanged Toplock Nut Gr. 8	8

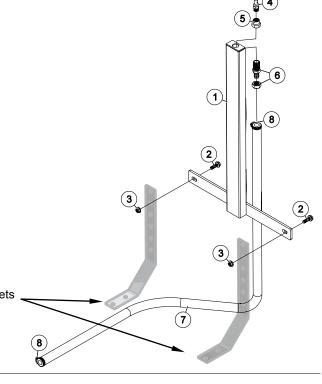
<sup>\*</sup> Approx. Length of all hoses combined



# Model: FSBK-1 (5301139)

(Single Nozzle (Boomless) Boom Assembly w/Mounting Brackets)

Ref. #	Part #	Description	Qty
1	5274379	Nozzle Mount Weldment	1
2	5117300	5/16"-18 x 1" Flange Whiz Lock Screw	2
3	5006307	5/16"-18 Hex Whiz (Flange) Locknut	2
4	5138619	FieldJet Nozzle	1
5	5005137	Nylon Adapter, 11/16" UNF x 1/4" FNPT	1
6	5002397	Poly Nozzle Fitting 11/16" M.P.S. x 1/2" HB	1
6.1	5006212	Poly Nut (11/16" Nozzle Thread)	1
7	5020123	Hose, 1/2"-1 Brd. x 60"	1
8	5051114	Hose Clamp (3/8"-1/2")	2

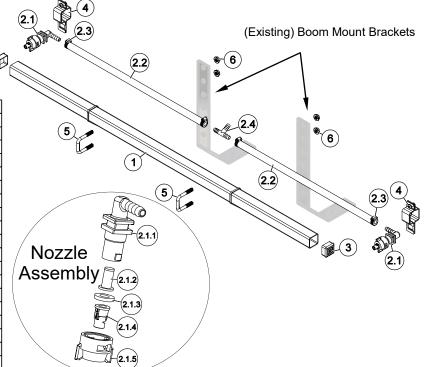


(Existing) Boom Mount Brackets

# Model: FSBK-2 (5300975)

(2-Nozzle Boom Kit w/7' Coverage)

Ref. #	Part #	Description	Qty
1	5009321	Boom Tube	1
2	5277692	2-Nozzle Harness (3/8")	1
2.1	5281306	ELL Nozzle Sub-Assembly (3/8")	2
2.1.1	5056113	Single Hose Shank (3/8" Hose)	1
2.1.2	5143543	Check Valve Strainer, 50 Mesh, 5 PSI	1
2.1.3	5016157	Seat Washer (QJ Caps)	1
2.1.4	5018274	Turbo FloodJet Tip (TF-VP3)	1
2.1.5	5046251	QJ Cap Only (Black)	1
2.2	5020531	Hose, 3/8"-1 Brd. x 19-3/8"	2
2.3	5051144	Hose Clamp, 3/8"	4
2.4	5086025	Poly Hose Tee, 3/8" HB	1
3	5046344	Square Cap, Black (1 1/4" Square)	2
4	5272165	Vari-Quick Clamp (1 1/4" Sq. Tube)	2
5	5034159	Square U-Bolt, 5/16" x 1 5/16" x 1 7/8"	2
6	5006307	5/16"-18 Hex Whiz (Flange) Locknut	4
7	5277926	1/2" Hose to 3/8" Hose Conversion Kit	1
7.1	5067228	1/2" x 3/8" Poly Hose Mender	1
7.2	5020417	Hose, 3/8"-1 Brd. x 5-1/2"	1
7.3	5051144	Hose Clamp, 3/8"	2

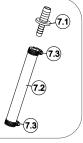


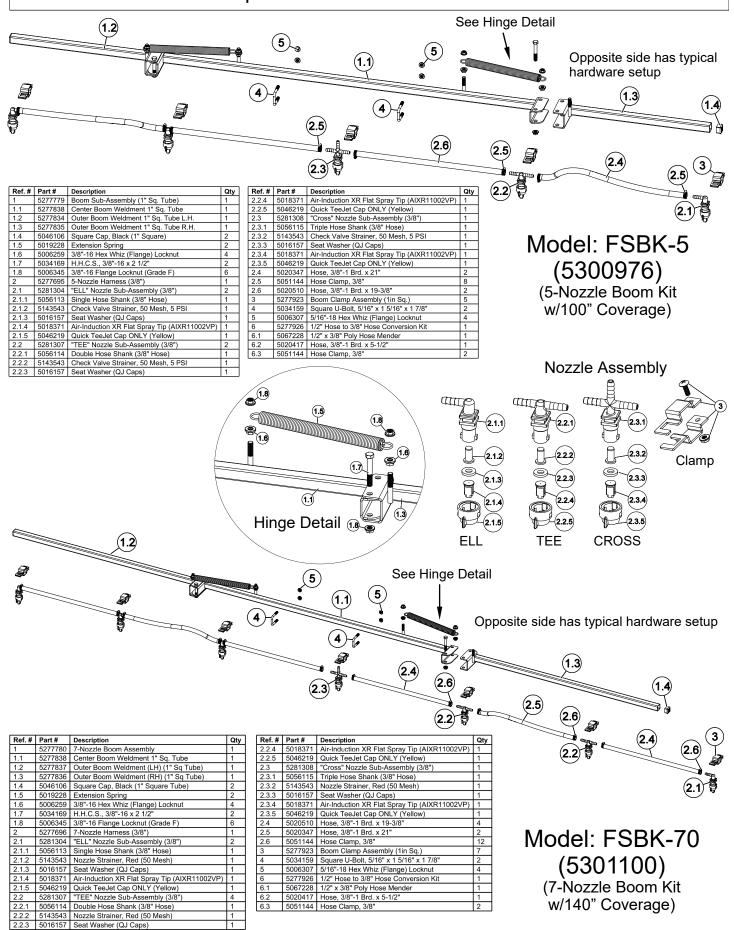
## 1/2" to 3/8" Conversion Kit (#5277926)

If your existing sprayer has a 1/2" I.D. hose supplying your original boom and you now have a boom with 3/8" I.D. hose, this conversion kit allows you to easily convert your supply line to fit onto the 3/8" I.D. hose of your new boom.

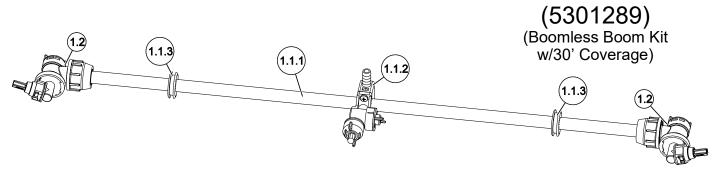
Slip the hose mender's 1/2" barb (larger side) into your existing 1/2" feeder hose and clamp in place with (existing) original hose clamp. Slip the (included) 3/8" hose (5-1/2" long) onto the 3/8" barb of the hose mender and clamp in place with one of the supplied hose clamps.

Now attach the open end of the hose onto the fitting on your boom which accepts the feeder line hose. Make sure you place the hose clamp onto that hose prior to attaching it to your boom.



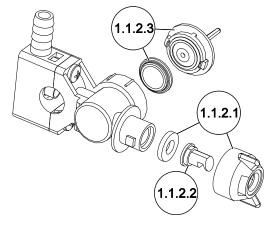


# Model: FSBK-3025BL (5301289)

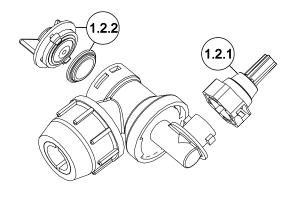


Ref. #	Part #	Description	Qty
1	5275260	"Wet Boom" Assembly	1
1.1	5275712	Wet Boom Sub-Assembly	1
1.1.1	5100316	Boom Tube	1
1.1.2	5275123	Center Nozzle Assembly (Wet Boom)	1
1.1.2.1	5274862	Center Boomless Nozzle Cap w/Gasket	1
1.1.2.2	5018329	Center Spray Tip	1
1.1.2.3	5088024	Valve (On/Off) Knob w/Diaphragm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

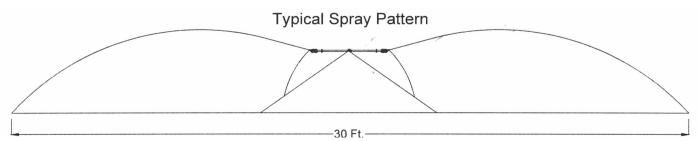
Ref. #	Part #	Description	Qty
1.1.2.3.1	5063255	Diaphragm	1
1.1.3	5075016	Rubber Grommet	2
1.2	5275122	End Nozzle Assembly (Wet Boom)	2
1.2.1	5274861	XT Spray Nozzle, Cap, & O-Ring	1
1.2.2	5088024	Valve (On/Off) Knob w/Diaphragm	1
1.2.2.1	5063255	Diaphragm	1

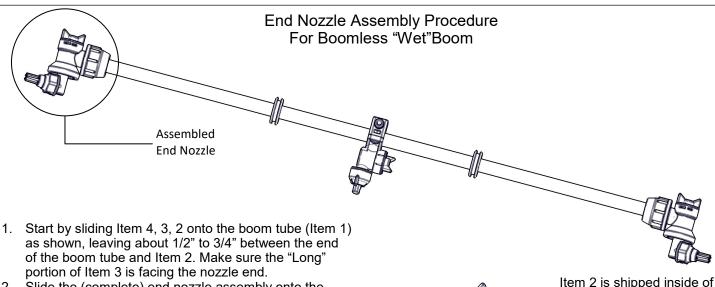


Center Nozzle Assembly 5275123



End Nozzle Assembly
5275122
See Next Page for proper assembly of
End nozzles on the tube





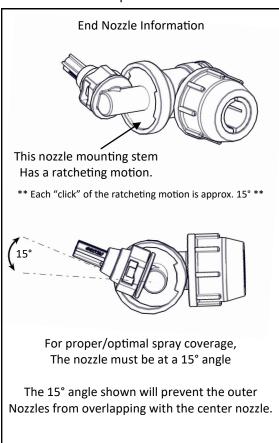
 Slide the (complete) end nozzle assembly onto the stainless steel boom tube, with a somewhat "twisting" motion, so that the end face of the boom tube "butts" up against the "surface face inside the nozzle body.

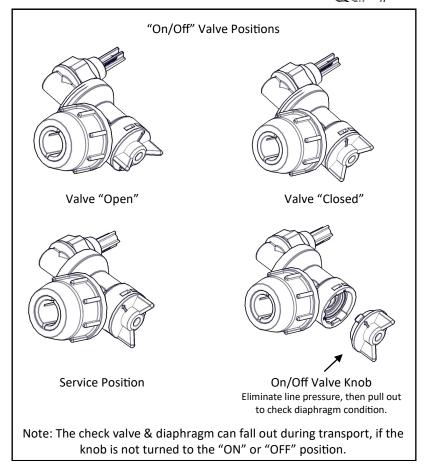
3. Now push the "compression olive" (Item 3) against O-ring (Item 2) and slide (both) into the nozzle body opening firmly.

4. 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.





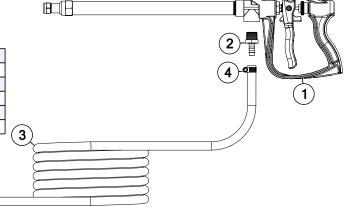
the end nozzle assembly.

Remove & place on tube.

"Long" Portion

#### SAS3PT-22PS-Kit Deluxe Handgun Kit w/25' Hose #5281261

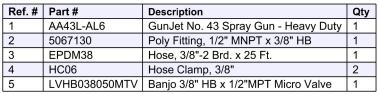
Ref. #	Part #	Description	Qty
1	5163136	High Pressure Aluminum Spray Gun 22"	1
2	5067130	Poly Fitting, 1/2" MNPT x 3/8" HB	1
3	EPDM38	Hose, 3/8" x 25' EPDM, 200 PSI	1
4	HC06	Hose Clamp, 3/8"	2
5	LVHB038050MTV	Banjo Micro Valve, 3/8" HB x 1/2" MPT, Poly	1

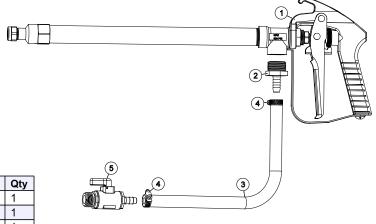


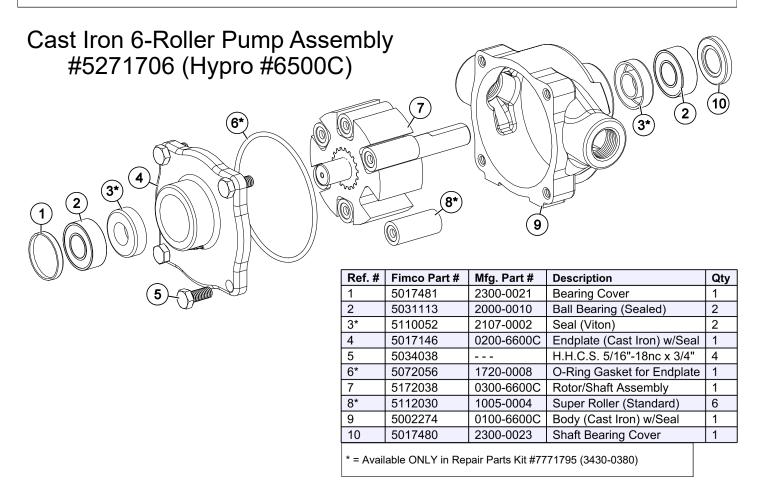


Ref. #	Part #	Description	Qty
1	5273959	Deluxe Pistol Grip Handgun w/X-26 Tip	1
1.1	5018331	Brass Handgun Tip (X-26)	1
2	EPDM38	Hose, 3/8", 200 psi (25' Length)	1
3	HC06	Hose Clamp, 3/8"	2
4	LVHB038050MTV	Banjo 3/8" HB x 1/2" MPT Micro Valve	1

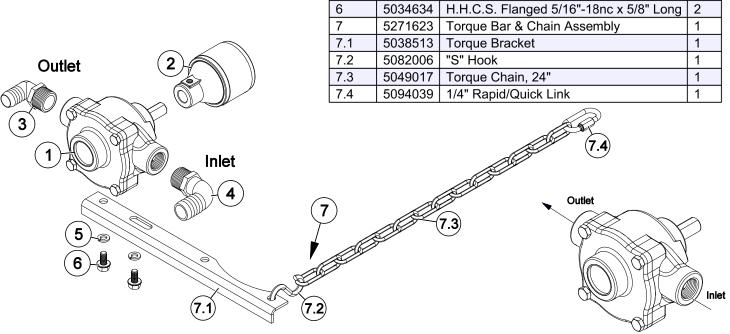
SAS3PT-411-Kit Heavy Duty Handgun Kit w/25' Hose #5276813











Ref. #

3

4

5

Part #

5271706

5057145

5010209

5010210

5016026

Description

Quick Coupler (5/8")

Lockwasher, 5/16"

6-Roller Pump Assembly (6500C)

Poly Elbow, 3/4" MNPT x 3/4" HB

Poly Elbow, 3/4" MNPT x 1" HB

Qty

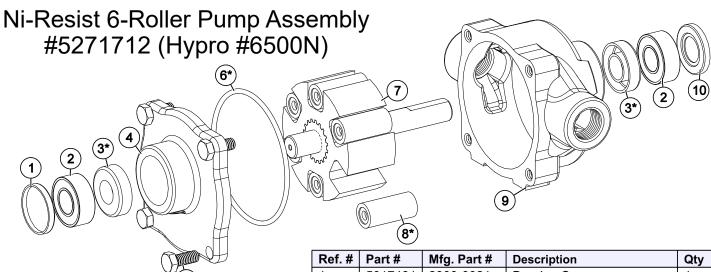
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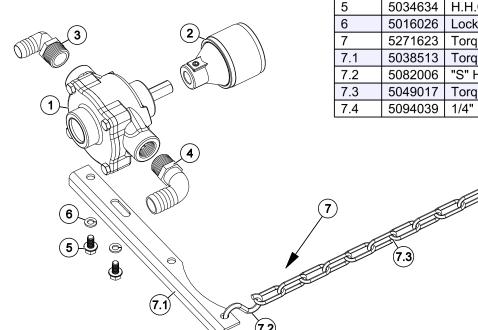
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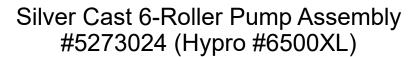


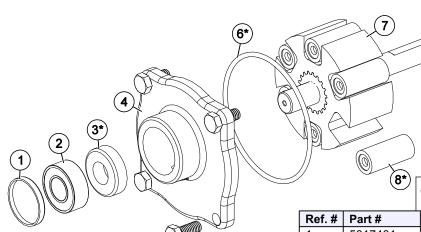
Ref. #	Part #	Mfg. Part #	Description	Qty
1	5017481	2300-0021	Bearing Cover	1
2	5031113	2000-0010	Ball Bearing (Sealed)	2
3*	5110052	2107-0002	Seal (Viton)	2
4	N/A	0200-6600N	Endplate (Ni-Resist) w/Seal	1
5	5034038		H.H.C.S. 5/16"-18nc x 3/4"	4
6*	5072056	1720-0008	O-Ring Gasket for Endplate	1
7	5172039	0300-6600N	Rotor Assembly (Ni-Resist)	1
8*	5112030	1005-0004	Super Roller (Standard)	6
9	N/A	0100-6600N	Body (Ni-Resist) w/Seal	1
10	5017480	2300-0023	Shaft Bearing Cover	1
T .				

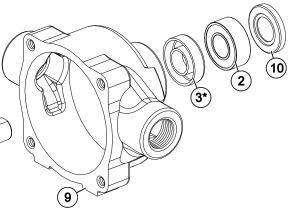
<sup>\* =</sup> Available ONLY in Repair Parts Kit #7771795 (3430-0380)

# 6500N-Pump Kit #5276976





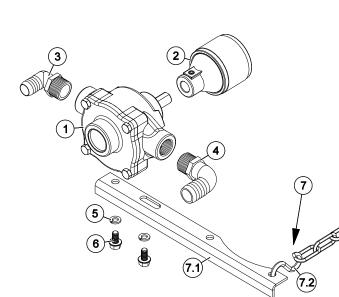




\* = Available ONLY in Repair Parts Kit #7771795 (3430-0380)

Ref. #	Part #	Mfg. Part #	Description	Qty
1	5017481	2300-0021	Bearing Cover	1
2	5031113	2000-0010	Ball Bearing (Sealed)	2
3*	5110052	2107-0002	Seal (Viton)	2
4	0200-6600X	0200-6600X	Endplate (SilverCast) w/Seal	1
5	5034038		H.H.C.S. 5/16"-18nc x 3/4"	4
6*	5072056	1720-0008	O-Ring Gasket for Endplate	1
7	0300-6600X	0300-6600X	Rotor/Shaft Assembly (SilverCast)	1
8*	5112030	1005-0004	Super Roller (Standard)	6
9	N/A	0100-6600X	Body (SilverCast) w/Seal	1
10	5017480	2300-0023	Shaft Bearing Cover	1

# 6500XL-Pump Kit #5276977



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	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

#### Warranty

#### LIMITED WARRANTY FOR NEW AG SPRAY EQUIPMENT

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Ag Spray Equipment to the original purchaser ("you") of the Equipment (as defined below) from Ag Spray Equipment or one of Ag Spray 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. Ag Spray 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 Ag Spray 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 Ag Spray Equipment or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Ag Spray 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 misuse, accident or neglect, "acts of God" or other events beyond Ag Spray Equipment's reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Ag Spray 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 Ag Spray 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: Ag Spray Equipment, 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Ag Spray Equipment or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-274-1025** or your local Ag Spray location.

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, Ag Spray Equipment shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Ag Spray Equipment will pay for shipping and handling fees to return the repaired or replacement Equipment or part to you.

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BAKERSFIELD, CA 4618 SACO RD, 93308

661.391.9081

Toll Free: 877.724.2236 F: 661.391.9085 BAKERSFIELD@AGSPRAY.COM

MANKATO, MN 907 SOUTHBEND AVE, 56001

507.377.6295

Toll Free: 800.722.9376 F: 507.388.4668 MANKATO@AGSPRAY.COM COLUMBUS, NE 5834 23rd ST, 68601

402.564.4544

Toll Free: 800.274.1025 F: 402.564.0549 COLUMBUS@AGSPRAY.COM

**NEWTON, KS** 7000 SCHABEN CT, 67114

316.283.4444 Toll Free: 800.394.7662 F: 316.293.4646 NEWTON@AGSPRAY.COM

DOTHAN, AL 2401 FORRESTER RD, 36301

334.673.0580

Toll Free: 800.227.4098 F: 334.673.1974 DOTHAN@AGSPRAY.COM

PASCO, WA 3035 TRAVEL PLAZA WAY, 99301

509.488.6631

Toll Free: 800.634.2026 F: 509.488.2927 OTHELLO@AGSPRAY.COM

FARGO, ND 4350 48th AVE N, 58102 701.280.2862

Toll Free: 800.373.4084

F: 701.293.0961 FARGO@AGSPRAY.COM

TEMPE, AZ 8464 KYRENE RD, 85284

480.705.8047

Toll Free: 877.705-8047 F: 480.705.8048 TEMPE@AGSPRAY.COM

HOPKINSVILLE, KY 3303 PEMBROKE RD, 42240 270.886.0296

Toll Free: 800.637.7172 F: 270.885.7392 HOPKINSVILLE@AGSPRAY.COM