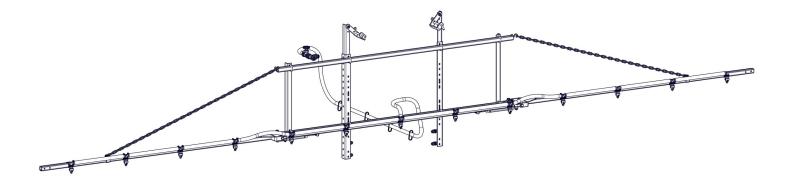
OWNER'S MANUAL

Model: BK-6 (5300260)

(6-Row Boom Assembly)



General Information

Thank you for purchasing this product. The purpose of this manual is to assist you in operating and maintaining your boom assembly.

BEFORE RETURNING THIS PRODUCT FOR ANY REASON, PLEASE CALL

1-800-831-0027

MONDAY-FRIDAY, 8:00 AM TO 5:00 PM CST

If you should have a question or experience a problem with your Fimco Industries Product: Visit our website @ www.fimcoindustries.com or call the Toll free number above. Our technical support representatives will be happy to help you. In most cases a customer service rep. can resolve the problem over the phone.

To obtain prompt, efficient service, always remember to give the following information....
Correct Part Description and/or part number
Model number and Serial Number
Part descriptions and numbers can be obtained from the illustrated parts list section(s) of this manual.

Retain a copy of your receipt for your unit, as it will be required to validate any warranty service.

Warranted against manufacturer or workmanship defects from date of purchase with copy of receipt:

Homeowner Usage: One Year.

Commercial Usage: 90 Days.



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



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 [5004255 (11/22)]

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Model: BK-6 (5300260)

(6-Row Boom Assembly)

Technical Specifications

- 6-Row, 13 Nozzles, 21' Wide (Folded Out)
 - Height Adjustment
 - 4-Way Hinge for Boom Protection
 - Cross-Over Folding
- Tips/Caps/Strainers are Standard (Tips: 'AIXR' series) (Air Induction eXtended Range)
 - Fits all FIMCO Carriers

This boom weighs approx. 90 Lbs.

Always check the vehicle load rating before using a boom with sprayer, ensuring total weight is acceptable. Do not exceed the recommended rating.

~~~~~~~~~IMPORTANT~~~~~~~

It is <u>VERY</u> important to test the sprayer, after attaching any boom with plain water before actual spraying is attempted. This will enable you to familiarize yourself with the sprayer and check for leaks without the possibility of losing any expensive chemicals.

----WARNING------



<u>Read and Understand the Owner's Manual</u> before using this boom. Test and use in accordance to instructions. Read and Follow chemical label instructions and wear protective gear when filling, using, cleaning and servicing the boom.

Exercise Caution in vehicle handling when towing/hauling a filled sprayer to avoid loss of control or overturning.

Keep Sprayer and Spray materials away from other people, children and pets.

Do Not Turn on Power to the sprayer, until ready to spray in order to avoid unintentional spray release.

Do Not Use on steep slopes. A full sprayer could cause loss of control or overturn sprayer and vehicle.

Always operate up and down a slope, never across the face of a slope.

Keep all movement on slopes slow and gradual. Do not make sudden changes in speed, directions or turning. Do not start or stop suddenly when going uphill or downhill.

Stop on level ground, set the parking brake and shut off engine before leaving the operator's position for any reason.

Keep all parts in good condition and properly installed. Fix damaged or worn parts immediately.

Caution should be taken when towing and/or using any sprayer. The sprayer combined with the weight distribution, turning radius and speed of vehicle can result in damage to vehicle, sprayer and/or boom or severe injury or death, if not used properly.

Improper use or handling of chemicals could result in serious injury or illness, or could cause damage to the environment.

Assembly Instructions

- 1. Mount the upright angles to the inside of the mounts on the carrier, using the supplied bolts and nuts. Attach the backrack to the upright angles using the square U-bolts and nuts. NOTE: The back rack can be mounted in either a high or low position and the uprights can be adjusted for desired height. Attach the U-Brackets as shown in the exploded view drawing.
- Loosen the eye-bolts and remove the 7" hinge bolts. Line up the outer booms and reassemble the hinge bolt(s) through the outer boom yoke, the hinge casting and the spring connector. Tighten the eye-bolt until the spring is at the desired tension. Lock the eye-bolt in place with the inner whiz flange locknut. The 8 & 10 row booms use extensions on the outer booms. Bolt on the boom extensions using the bolts/nuts provided.
- 3. Hook an end of each boom chain on an "S" hook attached to the top bar tube. Place a slide clamp onto each outer boom. Place the other end of the boom chain between the ears of the slide clamp and secure with the bolt/nut. Level the outer booms by moving the slide clamps in or out as needed. Tighten the bolts in the slide clamps to hold the clamps in place.
- 4. Attach the appropriate hose assemblies onto each of the three boom sections, the center section has (5) nozzles with "ELL" connectors on each end. Starting at the center, the nozzles should be placed about 20" apart.
- 5. Join the designated feeder hose to each boom section and secure in place with hose clamps.
- 6. Make sure all hose clamps are tight before testing or spraying for the first time.
- 7. Your boom should be ready for operation.

After assembling, sprayer will be ready to TEST w/plain water before actual use.

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Testing the Sprayer/Operation

NOTE: It is VERY important to test your sprayer with plain water before actual spraying is attempted. This will enable you to familiarize yourself with the sprayer and boom and to check for leaks, without the possibility of losing any expensive chemicals. Follow the instructions in your sprayer manual for testing your sprayer.

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. Keep the pressure line open to the tips when setting the pressure. Set the pressure and then lock the relief valve handle in place. Pressure will increase when the pressure line valve is closed and then return to the pressure when the valve is opened again.

The bypass valve is the "pressure control" for the entire plumbing system. The more the valve is open, the lower your line pressure. Almost fully closed provides maximum pressure to boom and/or handgun. **NEVER run your system with this valve 100% closed**.

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.

Conditions of weather and terrain must be considered when setting the sprayer. Do not spray on windy days. Protective clothing must be worn in some cases.

Be sure to read the chemical label(s) before application!

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 2 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 and 300 feet. The speed chart indicates the number of seconds it takes to 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.

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
: Per e Water	15	.12	35.6	17.8	11.8	8.9	7.1	5.9	4.5	3.6
ons Per Acre on Wat	20	.14	41.6	20.8	13.8	10.4	8.3	6.9	5.2	4.2
Gallons l Acre Based on V	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
: Per q. Ft. Water	15	.12		.41	.27	.20	.16			
ns Per Sq. Ft. n Wat	20	.14		.48	.32	.24	.19			
	30	.17		.58	.39	.29	.23			
Gallc 100C Based	40	.20		.68	.45	.34	.27			

Speed Chart						
Time Required in seconds Speed in M.P.H. to travel a distance of						
(Miles Per Hour)	100 Ft.	200 Ft.	300 Ft.			
1.0	68 sec.	136	205			
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			

Tip Selection

Important Note: The tips supplied as standard with this boom assembly are number AIXR11003VP tips, when you refer to the spray tip rate chart found in this owner's 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

Nozzle Spacing

If the nozzle spacing on your boom is different from those tabulated, multiply the tabulated GPA coverage by one of the following actors.

Where Tables are Based on 20" Nozzle Spacing									
Other Spacing	8"	10"	12"	14"	16"	18"	22"	24"	30"
Conversion Factor	2.5	2	1.67	1.43	1.25	1.11	.91	.83	.66
Where Tables are Based on 30" Nozzle Spacing									
Other Spacing	26"	28"	32"	34"	36"	38"	40"	42"	44"
Conversion Factor	1.15	1.07	.94	.88	.83	.79	.75	.71	.68
Whe	re Tab	les ar	e Base	ed on 4	40" No	ozzle S	Spacin	g	
Other Spacing	28"	30"	32"	34"	36"	38"	42"	44"	48"
Conversion Factor	1.43	1.33	1.25	1.18	1.11	1.05	.95	.91	.83

Spraying Solutions Other Than Water

Since all the tabulations are based on spraying water, which weights 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:

GPA (Solution) x Conversion Factor = 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.

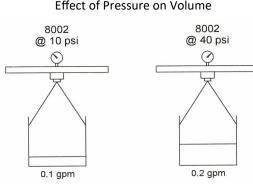
Weight of Solution	Specific Gravity	Conversion Factors
7.0 lbs. per gallon	.84	.92
8.0 lbs. per gallon	.96	.98
8.345 lbs. per gallon (Water)	1.00	1.00
9.0 lbs. per gallon	1.08	1.04
10.0 lbs. per gallon	1.20	1.10
10.66 lbs. per gallon (28% Nitrogen)	1.28	1.13
11.0 lbs. per gallon	1.32	1.15
12.0 lbs. per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

Miscellaneous Conversion Factors

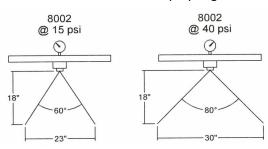
One Acre = 43,560 square feet = 0.405 Hectare One Hectare = 2.471 Acres One Gallon Per Acre = 9.35 Liters Per Hectare One Mile = 5280 Feet = 1610 Meters = 1.61 Kilometers One Gallon = 128 Fluid Ounces = 8 Pints = 4 Quarts = 3.79 Liters = 0.83 Imperial Gallons One Pound Per Square Inch = 0.069 bar. = 6.895 Kilopascals One Mile Per Hour = 1.609 Kilometers Per Hour

Flow Rate

Nozzle flow rate varies with spraying pressure. In general, the relationship between GPM and pressure is as follows: This equation is explained by the illustration below. Simply stated, to double the flow through a nozzle, the pressure be increased four times



Effect of Pressure on Spray Angle



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 owner's manual indicate the most commonly used pressure ranges for the associated spray tips.

Spray Angle and Coverage

Depending on the nozzle type and size, the operating pressure can have a significant effect on spray angle and quality of spray distribution. As shown above for an 8002 flat spray tip, as an example, lowering the pressure results in a smaller spray angle and a significant reduction in spray coverage.

Tabulations for spray tips shown in this owner's manual are based on spraying water. Generally, liquids more viscous than water form relatively smaller spray angles. Whereas, liquids with surface tensions lower than water will produce wider spray angles. In situations where the uniformity of spray distribution is important, be careful to operate your spray tips within the proper pressure range.

NOTE: Suggested minimum spray heights for broadcast spraying are based upon nozzles spraying water at the rated spray angle.

Suggested Minimum Spray Heights							
Nozzle Height							
Nozzle Type	Spray	20"	30"	40"			
	Angle	Spacing	Spacing	Spacing			
TeeJet (Flat Spray)	65°	22"-24"	33"-35"	NR*			
TeeJet (XR TeeJet)	80°	17"-19"	26"-28"	NR*			
TeeJet (XR TeeJet)	110°	12"-14"	16"-18"	NR*			
FloodJet	120°	***	***	***			

* Not Recommended

*** Wide Angle Spray Tip is influenced by nozzle orientation. The critical factor is to achieve a double spray patter overlap.

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"

- 110° wide, tapered flat spray angle with air induction technology for better drift management
- Made of 2-piece UHMWPE polymer construction which provides excellent chemical resistance, including acids, as well as exceptional wear life
- Compact size to prevent tip damage
- Excellent for systemic products and drift management

Maintenance During/After Spraying

After use, fill your 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, 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.

Winterizing your Sprayer

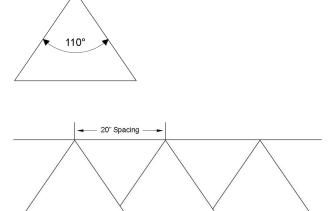
It is essential that you winterize your sprayer to avoid damage and to allow for optimal performance. The winterization process should be undertaken before freezing conditions and/or after each season of use.

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.

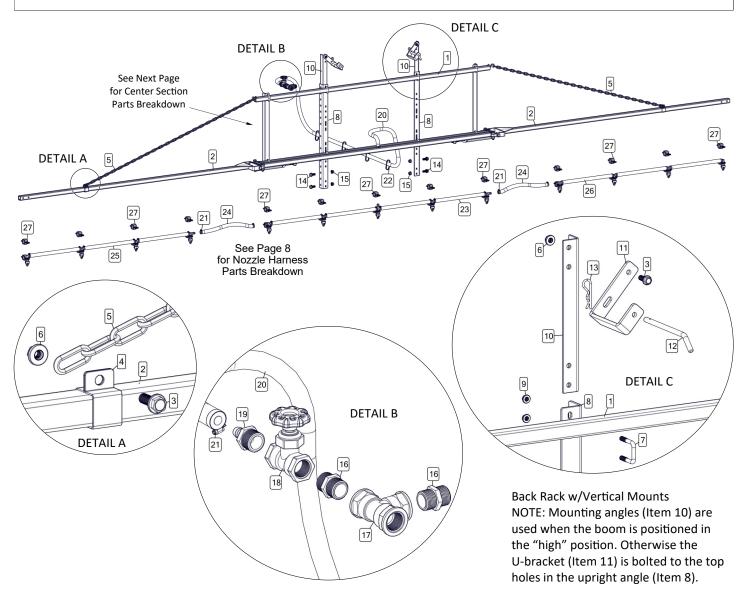
The sprayer should be winterized before storage by pumping a solution of automotive antifreeze (containing a rust inhibitor) through the entire plumbing system. This antifreeze solution should remain in the plumbing system during the winter months.

- Verify that the tank is empty and rinsed out. Pour 1-2 gallons of antifreeze into the tank. Using a solution of automotive antifreeze (containing a rust inhibitor).
- 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. 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.

Proper care and maintenance will prolong the life of your sprayer.

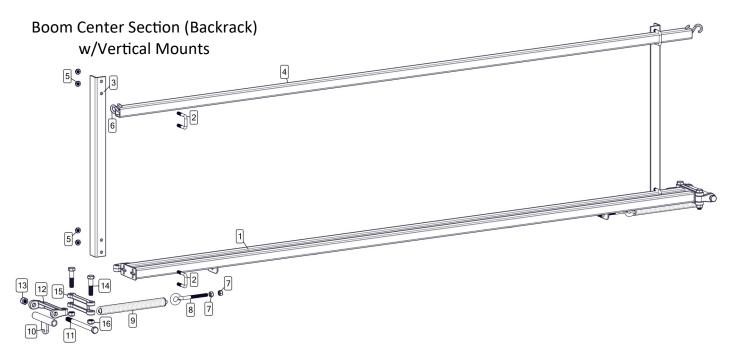


Exploded View/Parts List: BK-6 (5300260)



Ref. #	Part #	Description	Qty
1	5277359	257 Boom Center Section Assembly	1
2	5273313-BLK	End Boom Weldment	2
3	5117307	3/8-16 x 1.00 FIng Hex Bolt	4
4	5051085-BLK	Slide Clamp	2
5	5049018	Boom Chain (7 Ft.)	2
6	5006259	3/8-16 Serrated Fing Hex Nut	4
7	5034159	5/16-18 x 1.3125 x 1.875 Square U-Bolt	4
8	5022255-BLK	Boom Upright Angle	2
9	5006307	5/16-18 Serrated Fing Hex Nut	8
10	5022238-BLK	Mounting Angle	2
11	5038317-BLK	U-Bracket	2
12	5101231	Bent Hitch Pin, 3/8 x 7.75	2
13	5101065	Hair Pin, #211 x 2.50	2
14	5034691	1/2-13 x 1.25 Flng Hex Bolt	4

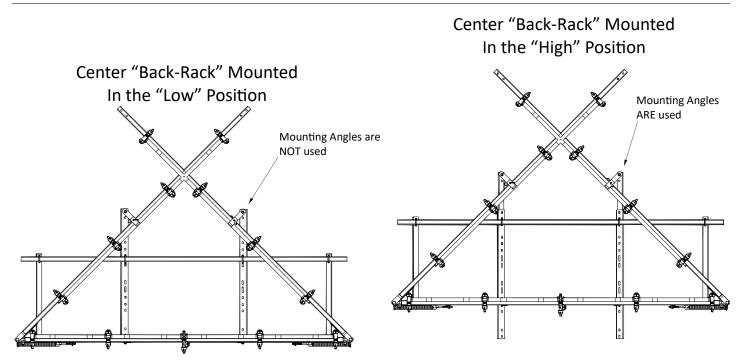
Ref. #	Part #	Description	Qty
15	5006365	1/2-13 Fing Top-Lock Hex Nut	4
16	5011140	Poly Close Nipple, 3/4" MNPT	2
17	5010231	Poly Tee, 3/4" FNPT	1
18	5143123	Valve Celcon Globe, 3/4"	1
19	5067125	Poly Fitting, 3/4" MNPT x 1/2" HB	1
20	5020167	Hose, 1/2"-1 Brd. x 90"	1
21	5051114	Hose Clamp (3/8"-1/2")	6
22	5133095	Nylon Cable Tie	4
23	5277817	Center Nozzle Harness (BK-6)	1
24	5020307	Hose, 1/2"-1 Brd. x 23"	2
25	5277818	L.H. Nozzle Harness (BK-6)	1
26	5277819	R.H. Nozzle Harness (BK-6)	1
27	5272165	Vari-Quick Clamp (1 1/4" Sq. Tube)	13



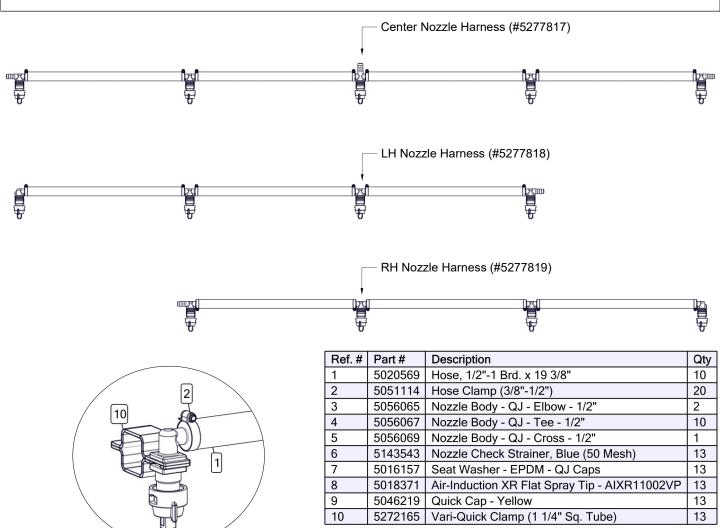
Opposite side has typical Hardware setup

Ref. #	Part #	Description	Qty
1	5281559-BLK	257 Center Boom Weldment	1
2	5034159	5/16-18 x 1.3125 x 1.875 Square U-Bolt	4
3	5022256-BLK	End Angle (257 Boom)	2
4	5009635-BLK	Top Bar Tube (257 Boom)	1
5	5006307	5/16-18 Serrated Fing Hex Nut	8
6	5082006	"S" Hook	2
7	5006054	3/8-16 Hex Nut	4
8	5034107	3/8-16 x 4.00 Eye Bolt	2
9	5019097	Hinge Spring	2

Ref. #	Part #	Description	Qty
10	5271580-BLK	Spring Connector Weldment	2
11	5034074	1/2-13 x 7.00 Hex Bolt	2
12	5080011-BLK	Outer Hinge Section	2
13	5006142	1/2-13 Nylock Hex Nut	2
14	5034308	1/2-13 x 2.25 Hex Bolt	4
15	5080012-BLK	Center Hinge Section	2
16	5006091	1/2-13 Top-Lock Hex Nut	4



Harness Assembly Parts List



NOTES:

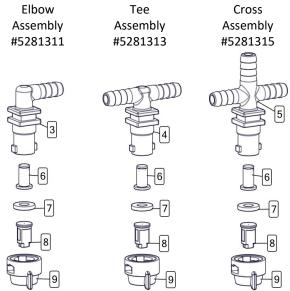
All hoses in harness assemblies are part #5020569 (Item 1)

All hose clamps (2 per hose) are #5051114 (Item 2)

The AIXR TeeJet Flat Spray Tip offers the benefits of obtaining excellent drift resistance without compromising spray coverage. Tips producing very coarse droplets do minimize drift but do not provide the same surface coverage as tips that produce smaller droplets. In some applications, inadequate coverage decreases the effectiveness of the applied chemicals. AIXR Features and Benefits

- 110° wide, tapered flat spray angle with air induction technology for better drift management
- Made of 2-piece UHMWPE polymer construction which provides excellent chemical resistance, including acids, as well as exceptional wear life
- Compact size to prevent tip damage
- Removable pre-orifice
- Excellent for systemic products and drift management

Typical Nozzle Assembly Configurations



Assemblies consist of "Elbow", "Tee" & "Cross" style nozzles.

Assemblies include: Nozzle Body, Strainer, Seat Washer, AIXR11003VP Nozzles & Nozzle Cap

NOTES:

Warranty Info

LIMITED WARRANTY FOR NEW FIMCO, INC.

WHO MAY USE THIS LIMITED WARRANTY. This limited warranty (the "Limited Warranty") is provided by Fimco, Inc. to the original purchaser ("you") of the Equipment (as defined below) from Fimco, Inc. or one of Fimco, Inc.'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. Fimco, Inc. warrants that any registered 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 Fimco, Inc. 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 Fimco, Inc. or its authorized dealers; (3) damage or depreciation due to normal wear and tear; (4) defects or damage due to failure to follow Fimco, Inc.'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 Fimco, Inc.'s reasonable control; (6) accessories, attachments, tools or parts that were not manufactured by Fimco, Inc., 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 Fimco, Inc. 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: Fimco, Inc., 1000 Fimco Lane, North Sioux City, SD 57049; and (2) make the Equipment available to Fimco, Inc. or an authorized dealer within a reasonable period of time. For more information about this Limited Warranty, please call: **800-831-0027**

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, Fimco, Inc. shall, at its own cost, and at its option, either repair or replace the defective Equipment or part. Fimco, Inc. 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 FIMCO, INC.'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 LIM-ITED 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 FIMCO, INC.'S LIABILITY UNDER THIS LIMITED WARRANTY EX-CEED THE ACTUAL AMOUNT PAID BY YOU FOR THE DEFECTIVE EQUIPMENT, NOR SHALL FIMCO, INC. 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.