



Nebraska 800-742-7746
Other 800-228-4582
Local 402-947-2831



www.brothersequip.com

VOLUME 26

Company Policy Information

ORDERING INFORMATION

- (1) Specify quantity, part number, product description, and all other information necessary to properly fill the order.
- (2) Check merchandise immediately upon receipt. If received in bad condition or there is a shortage do not fail to note this fact on carriers receipt. Responsibility for filing claims rests with the customer but we will assist you whenever possible. Please report to us any shortages within 5 days of receipt of shipment.
- (3) All Prices contained in this catalog are FOB shipping point. Shipping point is normally Friend, NE but we reserve the right to ship from other locations at our discretion.
- (4) Shipments by UPS (United Parcel Service) or Parcel Post will be prepaid with the charges added to invoice. Shipments by Common Carrier will be collect, unless otherwise specified by customer at time of order. Shipments sent via Brothers Equipment personnel will be charged at a nominal fee and added to invoice.
- (5) Merchandise special ordered is not subject to cancellation or return for credit.
- (6) Product availability and prices are subject to change without notice.

CREDIT TERMS

- (1) Orders will be shipped open account to those customers that have prior approved credit with terms of net 10 days from date of invoice.
- (2) New Accounts will be shipped COD until credit is established.
- (3) There will be a 1 1/2% per month charge on past due accounts.
- (4) All accounts over 30 days past due may be put on COD.

CREDIT CARD POLICY

We will accept VISA, MASTERCARD and DISCOVER cards for payment only at the time the order is placed. Once charged to an open account, the invoices must be paid for within terms by cash or check. It is also our policy NOT to keep credit card numbers and information on file or in our computer database, so please have your card ready when paying by this method.

RETURN FOR CREDIT

- (1) Merchandise returned for credit must be authorized by Brothers Equipment and in saleable condition. All returns must include an authorization number and must be accompanied with a photocopy of invoice and a note explaining the reason for return.
- (2) All merchandise shipped to Brothers Equipment without authorization will be returned freight collect.
- (3) All merchandise must be returned freight prepaid by UPS (United Parcel Service) or insured mail only.
- (4) Credit will be issued for net invoice cost less all allowances, freight charges and a minimum 10% restocking charge.
- (5) We reserve the right to add additional charges if the items returned are in less than saleable condition or returned after 30 days from date of purchase.

WARRANTY

Brothers Equipment, Inc. does not warranty any product. All warranties are subject to the warranty of the original manufacturer. Warranty claims will be processed by Brothers Equipment, Inc., when items are returned to Brothers Equipment, Inc., transportation prepaid. Examination and determination of warranty if applicable, will be subject to and limited by the warranty of the original manufacturer. Brothers Equipment, Inc., assumes no liability for any unwarranted equipment. All items must be returned by UPS (United Parcel Service) or INSURED MAIL ONLY, and must be returned within 30 days of failure.

PRODUCT INDEX



A

Accu-Flow NH3 System (Raven)	117
Ace Pumps	56-59
Acme Gaskets	178
Adapters	
Nozzle	104, 107
Pump	52
Agitators	109
Ag-Runner Chemical Transfer	18
Anhydrous NH3 Control System	117
Applicators	
Liquid	206
Apron, Disposable	23
ATV Sprayer	62
Axle Assemblies	200

B

Backpack Sprayer	63
Banjo Products	
Baseplate Assemblies	28
Cam Lever Couplings (Poly)	138-141
Flanged Plumbing	147-154
Flowmeter	19
Poly Valves	142-145, 147-149
Pumps (Transfer)	24-35
Strainers	122-125, 150, 151
Swivels	132
Vent Cap	2
Barbs	
Manifold Hose	128, 171
Poly Hose	127-130
Stainless Steel Hose	128
Steel Hose	128
Barrel Probe	22
Basket Strainer	125
BBI Salford Fertilizer Spreader	Front Insert
Beavertail Sealers NH3	183
Belting Conveyor	1
Blades, Coulter	186
Blockage Monitor	65-68
Bolts, Hex Head	157, 158, 183
Bolts Metric	158
Boom Clamps	106
Boomless Sprayer Kit	62
Boots Rubber	23, 165

B cont.

Bumper	
Quik'n Easy Receiver (Truck)	212-216
Schuck Cushion Hitch (Truck)	217
Butterfly Valve	146
Bushing Reducer	132, 134-137

C

Calibration Container	21
CDS-John Blue Pumps	4-9, 35-37, 39-49
Chain Roller	156
Check 'In Line	10, 113, 114, 152, 179
Check Valve Nozzle	10, 113, 114, 152, 179
Chemical Eductor	20, 21
Chisel Knives (NH3)	181
Clamps	
Boom	106
Hose	159
Coulter	
Assembly	189, 190
Blades	186
Mounting Brackets	187
Replacement Parts	194, 195
Yetter	195
Continental NH3 Products	170-175
Controls	
Micro Trak	121
Raven	116-118
Spraying Systems Teejet	115
Container Rinse Nozzles	106
Conveyor Belting	1
Couplers	
Ammonia	173-175, 178, 179
Banjo - Terramax	133, 138, 139, 140
Cam Lever	139-141
Iron	135, 136
NH3 Breakaway	178, 179
PTO	52
Poly	130, 131, 133
Stainless Steel	137
Coveralls, Disposable	23
Cultivator Knives	181
Cylinders Hydraulic	196

PRODUCT INDEX



D

Decals	166-168
NH3 Safety	166
Location Diagram	166
Density Scale	1
Dials Ammonia	180
Diaphragm Pumps	17, 18, 60, 61
Directo Valves	111
Disc Sealers	188
Disc Sealer Replacement Parts	191, 192
Disposable Coveralls	23
Dalton, DMI, BluJet, Etc.	
Coulters	189, 190
Coulter Blades	186
Coulter Knife, Injection	189
Coulter Replacement Parts	194, 195
Cylinders Hydraulic	196
Hubs	197-200
Jack Assemblies	202
Knives	181, 182
Liquid Fertilizer Placement	189, 206
Sealers, Disc	188
Sealers, Disc, Replacement Parts	191, 192
Shanks	184, 185
Spindles	197
Drop Nozzles	105
Duct Tape	126
Dust Cap NH3	175

E-F

Electrical Tape	126
EVA Tubing	163
Faceshield Safety	23
Fertilizer Nozzle	94-99
Fillwells, Fill Lids Tank	2
Fittings	
Flanged	152-154
Iron	135, 136
Poly	129-134
Stainless Steel	137
Tank	2
Flange Bolts	146
Flange Companion	146
Flanged	
Fittings (Banjo)	152-154

E-F cont.

Flanged	
Strainers (Banjo)	150, 151
Valves (Banjo)	147-149
Flat Fan Tips	72-81, 89-93
FloodJet Nozzles	85-88
Flow Meter Banjo	19
Flow Meter Raven	118
Flow Monitor John Blue Ball Style	65-68
Fuel Hose	24
Fuel Nozzle	24

G

Garden Hose Fittings	130
Garden Hose Nozzle	63
Gaskets	
Acme	178
Cam Coupler	141
Flange	154
NH3 Quick Coupler	178, 179
Tank Fitting	2
Gauges	
Liquid Pressure	108, 180
NH3 Pressure	180
Volume (Float NH3 Tank)	180
Parts (Float Gauges)	180
Gloves	
Chemical (Nitrile)	23
NH3	165
Goggles Safety	23, 165
Ground Drive	201
Guidance System	120, 121
Guns, Sprayer	64

H

Hand Spray Gun, Spray Wand	64
Herbicide	
Accessories	21, 22
Calibration Container	21
Hose Assembly	22
Meters	16-19
Pumps	12-15, 17-20
Hitch	
Receiver Quik'n Easy (Truck)	212-213
Schuck (Truck)	217
Pins	156

PRODUCT INDEX



H cont.

Hose	
Pneumatic Spreader	162
Chemical	160-164
Chemical Assembly	22
Cutter	159
EVA	163
Fuel	25
Liquid	160-164
NH3 Transfer MxM Assemblies	164
Swivels	132, 136, 177
Hose Barbs	
Manifold	128, 171
Polypropylene	127-130
Stainless Steel	128
Steel	128
Hose Clamps	159
Hose Drops	105
Hose Menders	128, 129
Hubs DMI, Dalton, BlueJet, Etc.	197-200
Hydraulic Shutoff (NH3)	169
Hypro Pumps	31-34, 50, 51, 53-55
Hypro Spray Tips	89-93

I-J

Impellicone Manifold	171
Inductor Chemical	21, 22
Injector Coulter Knife	189
Injection Chemical	4-11
Injection Pump Pivot	5
Jack Assemblies	200

K

King Nipples	140, 142
Knives, NH3	
Accessories	183
Applicator	181, 182
Chisel	182
Cultivator	182
Liquid	181, 182
Tubes	183

L

Lids Poly Tank	3
Line Strainers	122-125, 150, 151
Liquid Fertilizer Placement	189

L cont.

Lynch Pins	156
------------	-----

M

Manifolds	
Flow Divider (John Blue)	38
Impellicone NH3	171
Nylon	109
NH3	171
Vertical Dam NH3	171
Mesh Chain	1
Metering Orifices	97-99
Meters	
Chemical	16-19
Metric Bolts	158
Monitors	
John Blue	65-67
Raven	116-117
Spraying Systems, Teejet	115
Montag Dry Fertilizer	211

N

NH3 Hose	164
NH3 Knives	181-182
Nipples	
Iron	135-136
King	135-136
Polypropylene	131-133
Stainless Steel	137
Nozzle	
Adapters	104-105
Blanks	107
Bodies	102-106, 108
Boomless	100-101
Drop	105
Flood	85-88
Fertilizer	94-99
Fuel	24
Garden Hose	63
Screens	107
Solid Stream	94-95
Air Stops	113
Variable Rate	115

PRODUCT INDEX



O-P

One Touch Fittings	114
Orings NH3 Breakaway	178
Orifices, Metering	97-99
Pins, Hitch	156
Pins, Lynch	156
Pipe Fittings	127-137
Pipe Sealant	126
Polypropylene Fittings	127-134
Portable Sprayer	62-63
Pressure Gauges	108, 180
Proble, Barrel	22
Precision NH3 Control System	169
Probe, Soil	155
PTO Adapters	52
Pump Baseplate	28
Pumps	
Ace	57-60
John Blue	4-9, 35-37, 39-49
Centrifugal	26-34, 53-59
Chemical Transfer	12-15, 17-18
Diaphragm 12V	60-61
Delavan	60
Hypro	31-34, 50, 51, 53-55
Inject-O-Meter (parts)	11
Liquid Injection	4-9, 11
Piston	39-49
Metering	4-9, 11, 35-37, 39-49
Roller	50-51
Scienco	12-15
Shur-Flo	18, 60-61, 70
Sotera Systems	17
Spra-Coupe Sprayer	53-55
Squeeze	35-37
Transfer (gas and electric motor)	26-34

Q-R

Quick Teejet Boom Components	102-106
Quick Turbo Floodjet Nozzles	87, 88, 138
Raven Products	
Accu-Flow NH3	117
Console & Components	116-119
Vortex NH3	117
Receiver Hitches	212, 217

Q-R cont.

Rector Seal	126
Relief Valve NH3	173
Reversible Disc Sealers	188, 191-192
Riser Valve Handle	145
Roller Chain	156
Roller Pumps	50-51
Rota Seal (hose swivel NH3)	177
Row Cleaners, Sunco	188, 193
Rotary Actuator	175

S

Safety Accessories	23, 165
Samplers, Soil	155
Scale, Density (dry fertilizer)	1
Scienco Products	12-16
Sealers, Beavertail	183
Sealers, Disc (assemblies)	188
Sealers, Replacement Blades	186
Sealants	126
Shanks, NH3	184-185
Shur-Flo Pumps	60-61
Shur-Flo Meters	16
Shutoffs (NH3)	119, 169-170
Shutoffs Liquid	110-112, 147
Sight Gauge Hose	163
SMV Decals	167
Soil Probes	155
Sotera Pumps	17
Speed Couplers, NH3	174-175
Speed Sensor, GPS	119
Spray Control Valves	112, 119
Spray Guns	63
Sprayer	
ATV	62
Controls	116
Portable	62-63
Pump-Up	62-63
Spot	62-63
Tips	72-101
Squibb Taylor Products	176-179
Stainless	
Check Valves	10
Fittings	137

PRODUCT INDEX



S cont.

Stainless	
Gauges	180
Valves	145
Strainer	
Basket	125
Liquid Line	122-125, 150-151
NH3 Cast Iron	180
Spray Tip	107
Strip-Till Points	182
Suction Pipes, Herbicide pumps	22
Sunco Row Cleaners	188, 193
Swivels, Nozzle Body	105

T

Tank	
Accessories	2-3
Cone Bottom	20
Covers, Lids, Fillwells	3
Fittings	2, 149
Tank Rinse Nozzle	107
Tape, Duct	126
Tape, Electrical	126
Tape, Teflon	126
Tarps	218-220
Technical Information Spraying	69-70
Technical Information General	221-222
Teflon Sealant	126
Ties, Nylon	159
Tips	
Air Induction	75, 78-80, 89-90
Boomless	100-101
Driftguard	73, 84, 92
Even Flat Fan	83-84
Flat Fan	72-84, 89-93
Flood	85-88
Toolbars Dalton	203-206
Toolbar Attachments	181-195
Transfer Pumps	26-34
Trigger Nozzle	22
Triple Nozzle Bodies	103
Tubes, NH3	183
Tube Protectors, NH3	183
Tubing, EVA	163

U-V

Valmar Pneumatic Application	Front Inserts
Valve	
Angle, Poly	142
Angle, NH3	172, 176-177
Banjo, Terremax, Poly	142-149
Bleeder, NH3	173
Butterfly	146
Continental NH3	172-174
Directo	111
Fill & Vapor, NH3	172, 176
Garden Hose	145
Globe, NH3	172, 176
Hydrostatic Relief	173
Injection	10
Lock	144
NH3 Shutoff	169-170
Regulating, Pressure	112, 119
Relief, Liquid	112, 173
Squibb Taylor NH3	176-177
Stainless Steel	145
Withdrawal, NH3	172, 176
Vapor Tube	183
Vertical Dam Manifolds	171
Vinyl Tubing	163
Volume Gauges, NH3 tanks	180

W - X - Y - Z

Walking Axle Assemblies, Dalton	200
Water Safety Container	166
Wako Knives, NH3	182
Wiese Knives, NH3	181



402-947-2831
Serving Agriculture Since 1975

www.brothersequip.com

PHONE: 402-947-2831



Tandem Axle

Fertilizer / Lime - Ground Wheel Drive



IS LIBERTY RIGHT FOR YOU?

- Medium Capacity
- Variety of Applications
- Ground Wheel Drive Conveyor
- PTO or Hydraulic Driven Spinners

Your Lowest "Cost In Use" Spreader

- UHMW and Stainless Steel reduces corrosion issues and extends the life of the spreader.
- UHMW Bearing Back keeps bearings clean resulting in longer bearing life and fewer failures.
- Proprietary BBI Spreader system delivers a wider, flatter more consistent pattern.
- Dual Rack and Pinion gate prevents jams.
- Overhead Spinner Motors are ABOVE the chemical resulting in extended motor life.
- PTO spinner spreads FERTILIZER 60' vs. traditional designs ranging from 30' - 50'.
- PTO spinner spreads LIME 60' vs. traditional designs that spread 30'.
- Hydraulic Spinners spread FERTILIZER 80' vs traditional designs that spread 50'.

- Save Fuel & Time
- Lower Maintenance Expense

BBI "Cost in Use" Calculator

	BBI	Other
Fuel Consumption gal / hour	7.0	7.0
Cost of Fuel	\$ 4	\$ 4
Fuel Cost per hour	\$ 28	\$ 28
Speed (mph)	7.0	7.0
Swath (ft)	80	60
Effective Driving Interval	80	55
Acres per Hour	67.9	46.7
Acres to Cover	1500	1500
Hours per application	22.1	32.1
Fuel Cost per application	\$ 619	\$ 900
Applications per Year	2	2
Fuel Cost per Year	\$ 1,238	\$ 1,800
Spreader Life (years)	7	7
Fuel Cost - Life of Spreader	\$ 8,663	\$12,600
Fuel Savings (Life of Spreader)	\$ (3,938)	-31.3%
Hours Saved (Life of Spreader)	(140.6)	-31.3%

*Values used in this example are representative of average numbers and are not intended to be specific to all applications

Endurance



*Variable Rate Ready
IsoBus Ready*

Pull Type Hydraulic

Litter, Lime, Shavings and Compost



IS ENDURANCE RIGHT FOR YOU?

- BBI Binary™ Manifold Precision Agriculture Ready
- Tandem or Single Axle Pull Type
- Option Rich - customized to your specific application
- Can handle any terrain

Your Lowest "Cost In Use" Spreader

- BBI Binary™ Manifold for quick install of ALL Precision Agriculture Tools.
- Extensive use of UHMW reduces corrosion issues and extends the life of the spreader.
- UHMW Bearing Back keeps bearings clean resulting in longer bearing life and fewer failures.
- Optional UHMW Poly Floor lasts the lifetime of the spreader. The drag coefficient is less than steel. Hydraulics run cooler and last longer with less stress on the system. Floor chain, motors, and gear cases last longer.
- 3/8" Fin - 33% thicker than traditional designs.
- Dual Rack and Pinion gate prevents jams.
- Flotation tires minimize compaction.
- Innovative Spinner Motor eliminates motor failure at the pressure seal.
- HD Two-Section Pumps run cooler / last longer.

- Fuel and time to apply is reduced by 50%.
- Lower Maintenance Expense

BBI "Cost in Use" Calculator

	BBI	Other
Fuel Consumption gal / hour	7.0	7.0
Cost of Fuel	\$ 4	\$ 4
Fuel Cost per hour	\$ 28	\$ 28
Speed (mph)	7.0	7.0
Swath (ft) with hydraulic spinner	50	30
Effective Driving Interval	50	25
Acres per Hour	42.4	21.2
Acres to Cover	600	600
Hours per application	14.1	28.3
Fuel Cost per application	\$ 396	\$ 792
Applications per Year	3	3
Fuel Cost per Year	\$ 1,188	\$ 2,376
Spreader Life (years)	7	7
Fuel Cost - Life of Spreader	\$ 8,316	\$16,632
Fuel Savings (Life of Spreader)	\$ (8,316)	-50.0%
Hours Saved (Life of Spreader)	(297.0)	-50.0%

* Values used in this example are representative of average numbers and are not intended to be specific to all applications

Brothers Equipment, Inc.

1002 1st Street

Friend, NE 68359

Phone: 800-228-4582

Serving Agriculture Since 1975

MagnaSpread

14' to 16' Tandem Axle

Fertilizer / Lime - Hydraulic



Variable Rate Ready
IsoBus Ready



IS MAGNASPREAD RIGHT FOR YOU?

- BBI Binary™ Manifold Precision Agriculture Ready
- Advanced Technology for the most sophisticated farmer!
- Spreads lime at up to 2 tons per acre at 14 mph with a 60' swath.
- Spreads fertilizer in 80' plus swaths!
- Largest fertilizer spreader available

Options to Fit Your Needs!

- UHMW and Stainless Steel reduces corrosion issues and extends the life of the spreader.
- SS Bearing Back keeps bearings clean, giving longer bearing life and fewer failures.
- Proprietary MagnaSpread system delivers a wider, flatter, more consistent pattern.
- Dual Rack and Pinion gate prevents jams.
- Overhead Spinner Motors are ABOVE the chemical resulting in extended motor life.
- Pull with a tractor - no need to maintain a dedicated chassis and power train.
- Variable rate technology or straight rate control.
- UHMW Comb Cover prevents streaking in the field.
- BBI Spreaders are "Option Rich" and can be customized to your specific application.
- Flotation tires and wide swath minimize compaction.

Brothers Equipment, Inc.

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Serving Agriculture Since 1975

Electronic Controls	STD	OPT
IC 18 ISOBUS Straight Rate System and CL250 - Standard	X	
Variable Rate Control with Guidance Available		X
Hopper		
14' Hopper (L type 238 cu ft struck, H type 294 cu ft struck)		
16' Hopper (L type 272 cu ft struck, H type 336 cu ft struck)		
45 degree sides, 409 Stainless Steel Hopper and Floor	X	
304 Stainless Steel Hopper and Floor		X
12" x 12" Sight Window		X
Ladder (Carbon Steel or Stainless Steel)		X
Extension Brackets with or without wood		X
Over-slung Inverted Center "V" for Lime	X	
Light Package - Rear Tail Lights with Turn Signal, Side and Center Markers, Corrosion Resistant Wiring Kit (not in conduit).		X
Hydraulic Options - Heat shrink fittings STANDARD on 14' and 16'		
BBI Binary Manifold™	X	
GR Hydraulic System	X	
Hydraulic Oil - STANDARD	X	
Tandem Gear Case with Tee Jet Port - STANDARD	X	
Plug to Tractor Hydraulic System - Requires 50 GPM - 2000 PSI; 1st Remote@30 GPM & 2nd Remote@20 GPM. Verify Pressure and Flow		X
Conveyor Options		
30" Belt Over Bar Chain	X	
Spinner		
24" MagnaSpread™ System	X	
Overhead Hydraulic Spinner Motors	X	
Stainless Steel Spinners & Fins	X	
Frame and Suspension		
BBI Walking Beam™ 14 Ton Heavy Duty Suspension (21.5 L 14 Ply Tires and 10-Bolt Hub) Includes CV Joint PTO shaft series 4, Heavy Duty Jack.	X	
Heavy Duty Clevis Hitch and Pintle Hitch	X	
PTO Drive Line Options		
1,000 RPM Series 6 CV Joint PTO Shaft		X
Tarps		
Agri-Cover Stainless Steel Tarps for H or B Hoppers		X

SALFORD

BBI MAGNASPREAD PLUS⁺



BENEFITS OF THE



MagnaSpread Plus⁺ one spreader to maximize both fertilizer and lime application widths, saving you time and money. Change from fertilizer applicator to lime applicator in minutes.

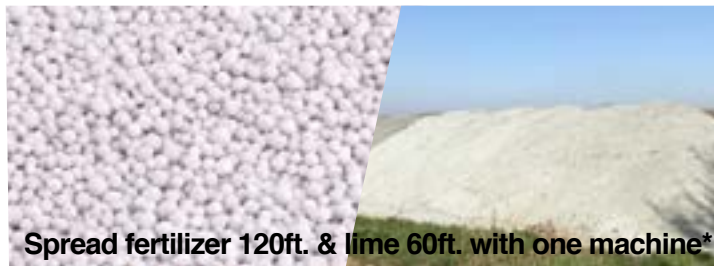


Fertilizer swath up to 120 ft.

30-40% greater swath than leading competitors



Lime swath up to 60 ft.



Spread fertilizer 120ft. & lime 60ft. with one machine*

Salford BBI spreaders are designed to save time and cost of application by achieving industry leading application widths. In order to maximize the application width with each material the MagnaSpread Plus requires a spinner and flow divider change over. Switch from fertilizer application to lime application with two people in under 30 minutes!

*Maximum application width varies by material quality

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GrassHopper10

10' Single Axle GrassHopper10

Fertilizer/Lime-Hydraulic



Is Grasshopper Right For You?

**Precision Agriculture
Ready.**

Variety of Applications

**Spreads Fertilizer in 80'
plus widths**

**Spread Lime at up to 2
tons per acre @ 14mph**

Your Lowest “Cost In Use” Spreader

- UHMW and Stainless Steel Reduces Corrosion Issues and Extends the Life of the Spreader
- Stainless Steel Bearing Backer keeps bearings clean resulting in longer bearing life and fewer failures.
- Proprietary Spinner system delivers a wider, flatter, more consistent pattern.
- Widest Pattern in the Industry Saves time and fuel.
- Flotation Tires Minimize Compaction
- Save Fuel and Time
- Hydraulics runs Cooler and Last Longer with Less Stress on the System.
- BBI Binary Manifold makes for a quick and stable installation and operation of ALL precision Agriculture Tools.
- Fine Adjustment Gate prevents jams and Increases accuracy
- UHMW Comb Cover prevents streaking in the field.
- Overhead Spinner Motors for Extended motor life.

Brothers EQUIPMENT, INC.
800-228-4582
www.brothersequip.com

TENDERS

Simonsen tenders provide the dependability that you demand!

SMC Rear Auger

10 TON OR 16 TON CAPACITY

Simonsen offers you two sizes: 320 cubic feet capacity for 10 tons, 480 cubic feet capacity for 16 tons. Up to 12' vertical reach with standard auger. Unloads 3,700 lbs. per minute, 16 tons in less than 10 minutes - pit unloading - deliver 2 separate orders on one trip. (Optional 2 ft. longer auger.) Rugged - Long Lasting - Trouble Free



BFT Side Auger Truck & Trailer Mount Tender

Truck Tenders available in 16, 18, 24 and 27 ton capacity with 2, 3, 4 or 5 compartments with splits available. Side discharge auger is 10" in diameter and 18' long reaching up to 16' high; powered by direct drive hydraulic motors with a high pressure tandem pump. Unloading capacity of up to 4000 lbs. / min. Individual 14" x 18" slide gates let you unload each compartment.



BFTSTA Top Auger Truck & Trailer Mount Tender

Truck and trailer tenders available in 16, 18, 24, and 27 ton capacity with 2, 3, 4, or 5 compartments with spits available. Top discharge design utilizes a 10"x13"x10" auger system with a 19' delivery auger length (optional longer augers available); powered by direct drive hydraulic motors with a high pressure tandem pump. Delivery auger rotates 270 degrees for easy unloading in multiple compartments. Unloading capacity of up to 3500 lbs./min. Individual 14"x18" slide gates are located under each compartment.



SALFORD

PATHFINDER & ST-10 APPLICATOR

More Accurate Fertilizer Blends:

The ST-10 models can carry two separate commodities with their 60/40 split tanks. Blending is done right at the meter, rather than in the air line. This ensures the most accurate blend possible.

Match Your Working Width:

ST-Series applicators can be fitted with 8, 12, 16, 18, 20 and 24 metering runs and the primary air delivery lines can be split downstream to deliver up to 48 rows of product.

Optional Pathfinder Cart:

Utilizes Ackerman steering to track more accurately behind implements and reduce stress on the implement, while reducing the horsepower required to maneuver.

Brothers Equipment, Inc.

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Friend, NE 68359

Phone: 800-228-4582

Serving Agriculture Since 1975

The **PATHFINDER** self-steering undercarriage is designed to carry aftermarket dry tanks for **STRIP-TILL** and **ROW CROP APPLICATION**.



VALMAR 8700 AIR BOOM APPLICATOR

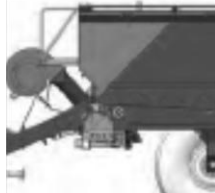


Salford's Valmar 8700 is a high-acreage, high speed, air boom applicator with either 72 feet of swath, or 60 feet of row crop application, capable of delivering up to 1000 lbs/acre at 8 mph. The highly accurate Venturi metering system is simple to calibrate and easy to operate allowing anyone to take to the field with the 8700. An optional secondary hopper compartment and secondary metering allows for the application of lower rate herbicides and micronutrients alongside your granular fertilizer. The 8700 is capable of variable rate application and left / right section control. Optional ISOBUS compatible ECU options allow the 8700 to follow prescription maps from many leading terminals.



72 Foot or 60 Foot Swath Widths

The full air boom hydraulically folds and locks, including boom tip. The newly offered 72' boom width offers added swath to cover more acres, while the 60' row crop boom allows post-emerge, inter-row application.



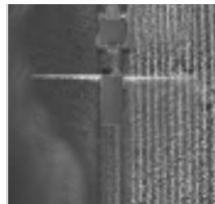
60 Cubic Foot Micro Hopper

Optional 60 cubic foot secondary hopper and metering for independent variable rate application and left / right section control.



Boom Suspension

The 8700's boom is protected by an updated suspension for stability at high speeds and hydraulically controlled pitch adjustment for uneven grounds.



Section Control

Primary metering conveyors and the optional secondary metering have left / right sections that can be switched on and off with ISOBUS control system.



Axle Spacing & Tire Options

The 8700's standard axle is adjustable from 72 inch to 88 inch with a 120 inch axle option also available. Floatation or row crop tires are also available.



Ground or Hydraulic Drive

The 8708 can be ordered either ground or hydraulically driven, while the 8711 is available strictly hydraulically driven.

Brothers Equipment, Inc.

1002 1st Street

Friend, NE 68359

Phone: 800-228-4582

Serving Agriculture Since 1975





VALMAR 56 SERIES GRANULAR

Whether you're seeding or applying herbicides, a Salford Valmar 56 Series implement-mount applicator is designed to deliver unparalleled accuracy under a wide variety of ground conditions. Its rugged construction is sturdy enough to withstand the rigors of commercial use. With this level of built-in durability, the 56 Series is the right choice for your farm operation. Moreover, it incorporates a number of innovative features designed to make granular application easier, safer, and more precise than ever.

FEATURES

Hopper

- Poly tank for simple clean out and greater longevity with a wider range of products.
- 40 cu.ft. capacity with 16 outlets.
- 60 cu.ft. capacity with 24 or 32 outlets.
- Easy-to-use lid hinged lid.
- Bin screen.
- Hopper bottom shut off slide gates.

Fan

- Single inlet radial blade with 18" impeller.

Metering and delivery system

- Individual venturi, open feed system.
- Stainless steel meter system to allow use with fertilizer.
- Magnetic Clutches for LH/RH section control.
- 28 groove red plastic metering rolls with additional set of 12 groove gray coarse material higher rate metering rolls.

- Hyd. motor metering drive for use with VRT includes PWM control valve, shaft sensor, fan rpm sensor and hopper sensor.
- Optional ISOBUS granular rate controller
- Optional mechanical metering drive with 60 speed gearbox (5% intervals), manifold gauge, in-cab warning light/buzzer and switches for section control.
- 1 1/4" hose with broadcast deflectors.



Brothers Equipment, Inc.

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Friend, NE 68359

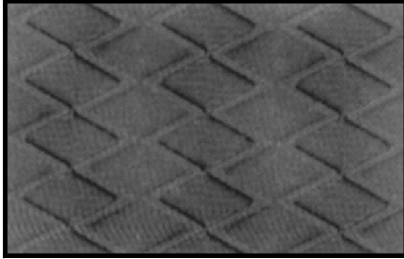
Phone: 800-228-4582

Serving Agriculture Since 1975

P.V.C. FERTILIZER CONVEYOR BELTING

“Z” - TOP

A unique pattern designed especially to handle free-flowing materials such as fertilizer. Exceptional incline capabilities.



Part #	DESCRIPTION
S110X	BELTING 12" WIDE (PER FOOT)
S110AX	12" CLIPPER BELT SPLICE NOT INSTALLED (PER PAIR)
S110BX	SPLICE CABLE STAINLESS STEEL (PER INCH)
S115X	BELTING 16" WIDE (PER FOOT)
S117X	BELTING 20" WIDE (PER FOOT)
S117AX	BELTING 24" WIDE (PER FOOT)
S118X	BELTING 30" WIDE (PER FOOT)
N/A	SPLICE INSTALLATION LABOR (UP TO 20" BELTING) (\$90 NET)
N/A	SPLICE INSTALLATION LABOR (24" & UP BELTING) (\$130 NET)

FERTILIZER DENSITY SCALE

- Portable
- Large Capacity
- Chemical Resistant
- Extremely Accurate Sliding Weight
- Simple to use
- Durable

Part #	DESCRIPTION
S100X	DENSITY SCALE



Conveyor & Spreader Mesh Chain



1" x 1" Stainless Steel Mesh

Part #	DESCRIPTION
F41MC1108X	8" MESH CHAIN SS (PER FOOT)
F41MC1116X	16" MESH CHAIN SS (PER FOOT)
F41MC1120X	20" MESH CHAIN SS (PER FOOT)
F41MC04SPX	8" CONNECTOR PIN W/NUT
F41MC16SPX	16" CONNECTOR PIN W/NUT
F41MC20SPX	20" CONNECTOR PIN W/NUT

MISCELLANEOUS TANK ACCESSORIES



POLYPROPYLENE BULKHEAD FITTINGS

- Double-sided threads.
- Standard with EPDM gasket. Viton Available

PART #	DESCRIPTION
TF050X	1/2" POLYPROPYLENE BULKHEAD TANK FITTING - 1 5/8" OD
TF075X	3/4" POLYPROPYLENE BULKHEAD TANK FITTING - 1 5/8" OD
TF100X	1" POLYPROPYLENE BULKHEAD TANK FITTING - 2 1/4" OD
TF125X	1 1/4" POLYPROPYLENE BULKHEAD TANK FITTING - 2 1/4" OD
TF150X	1 1/2" POLYPROPYLENE BULKHEAD TANK FITTING - 3" OD
TF200X	2" POLYPROPYLENE BULKHEAD TANK FITTING - 3" OD
TF220X	2" POLYPROPYLENE BULKHEAD TANK FITTING - 3 1/4" OD
TF300X	3" POLYPROPYLENE BULKHEAD TANK FITTING - 4 1/2" OD
TF400X	4" POLYPROPYLENE BULKHEAD TANK FITTING - 5 3/4" OD



EPDM

VITON

BULKHEAD FITTING GASKETS

- EPDM Standard
- Viton Optional

PART #	DESCRIPTION
B480X	REPLACEMENT GASKET (EPDM) FOR 1/2"- 3/4" TANK FITTING
B480VX	REPLACEMENT GASKET (VITON) FOR 1/2"- 3/4" TANK FITTING
B481X	REPLACEMENT GASKET (EPDM) FOR 1"- 1 1/4" TANK FITTING
B481VX	REPLACEMENT GASKET (VITON) FOR 1"- 1 1/4" TANK FITTING
B482X	REPLACEMENT GASKET (EPDM) FOR 1 1/2"- 2" TANK FITTING
B482VX	REPLACEMENT GASKET (VITON) FOR 1 1/2"- 2" TANK FITTING
TF220GX	REPLACEMENT GASKET (EPDM) FOR 2" TANK FITTING 3 1/4" OD
TF220GVX	REPLACEMENT GASKET (VITON) FOR 2" TANK FITTING 3 1/4" OD
TF300GX	REPLACEMENT GASKET (EPDM) FOR 3" TANK FITTING
TF300GVX	REPLACEMENT GASKET (VITON) FOR 3" TANK FITTING
TF400GX	REPLACEMENT GASKET (EPDM) FOR 4" TANK FITTING
TF400GVX	REPLACEMENT GASKET (VITON) FOR 4" TANK FITTING

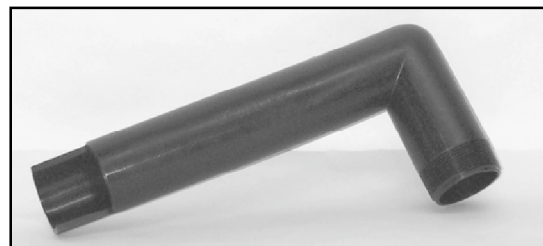


POLYPROPYLENE BOLTED TANK FLANGES

- Stainless steel studs.
- Poly foam gaskets.

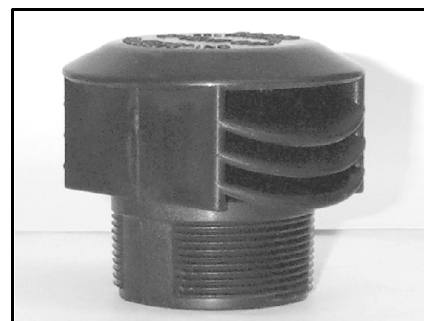
PART #	DESCRIPTION
BF100X	1" x 1" THREADED FLANGE
BF125X	1 1/4" x 1 1/4" THREADED FLANGE
BF150X	1 1/2" X 1 1/2" THREADED FLANGE
BF200X	2" X 2" THREADED FLANGE
BF300X	3" X 3" THREADED FLANGE
BF100GX	POLY FOAM GASKET 1"
BF200GX	POLY FOAM GASKET 1 1/2"- 2"
BF300GX	POLY FOAM GASKET 3"

Polypropylene Siphon Tubes



PART #	DESCRIPTION
ST200X	2" POLYPROPYLENE SIPHON TUBE
ST300X	3" POLYPROPYLENE SIPHON TUBE

Polypropylene Vent Cap

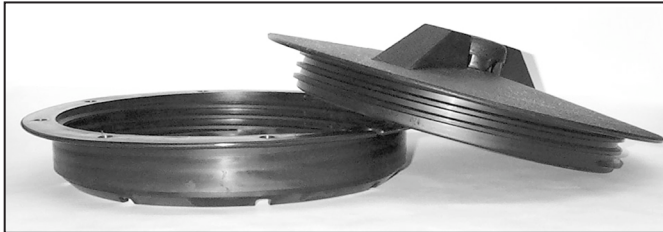


PART #	DESCRIPTION
VC230X	2" VENT CAP WITH 16 MESH SCREEN
VC330X	3" VENT CAP WITH 10 MESH SCREEN

MISCELLANEOUS TANK ACCESSORIES

Threaded Collar

10" Threaded Lid w/Vent



- Can be used only on flat surfaces.
- Provide a positive seal, thereby reducing loss of liquid.

Part #	DESCRIPTION
I228X	10" THREADED LID
K194CX	10" THREADED COLLAR

Screw-On Caps



Part #	DESCRIPTION
K175X	6" SCREW ON CAP W/VENT (CRM)
K175BX	O-RING

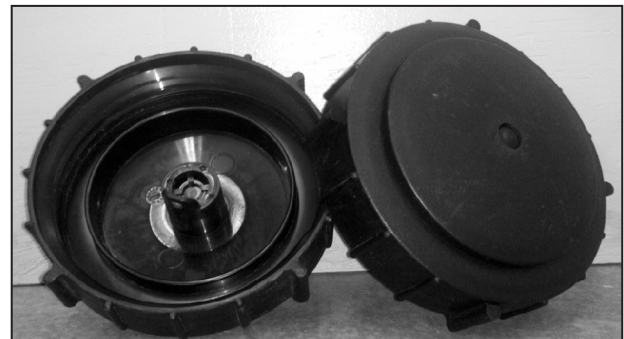


- For use on oval and vertical poly tanks where inside access is required.
- Constructed of polypropylene for resistance to ag chemicals.
- 16" includes 4" center cap with double air breathers.
- Large precision threads for secure fit and leak resistance.

Part #	DESCRIPTION
I252AX	16" TANK LID ASSY. INCLUDES 4" CENTER CAP W/VENT
I252X	4" CENTER CAP W/VENT
I253X	16" THREADED TANK NECK



Part #	DESCRIPTION
K191X	6" SCREW ON CAP



Part #	DESCRIPTION
F302X	5" TANK LID (SIMPSON)

JOHN BLUE COMPANY E-Z METER SERIES 2000 PUMPS

Best Built, Better Performing Injection Pump



The **E-Z Meter Series 2000** is designed for those growers who want a pump they can turn on and forget about. **E-Z Meter series 2000 Pumps** will accurately meter fertilizers, herbicides or pesticides through irrigation systems-drip, pivot, lateral or even nursery needs. The **Series 2000** combines superb quality and versatility with ruggedness and convenience.

Quality and versatility. The **Series 2000** is designed with only the highest quality materials available to withstand today's harsh chemicals, fertilizers and acid products. All wetted internal parts exposed to agricultural products are made from 316 stainless steel or Teflon, chemical-resistant plastics and the highest quality seals available today. The **E-Z Meter Pumps**, with their 150 psi pressure rating and wide capacity range, are a versatile choice to fit your application needs.

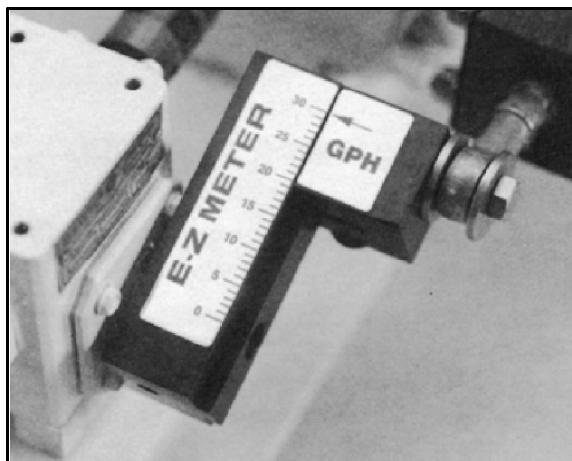
The **Series 2000** cylinder assemblies with built-in check valves provide better performance by virtually eliminating air locking. The pump comes equipped with large capacity double-ball check valves, available in either 316 stainless steel or strong, highly chemical-resistant plastic.

Ruggedness and Convenience. Besides versatility, there are many other features to the **Series 2000 Pump** that will save time and money. Simple installation, totally enclosed gearbox, self-lubricating bearings, highly corrosion-resistant materials and rugged construction. Pumps can be powered from single phase, three phase, 12- and 24-volt DC motors, plus fuel efficient 3 or 4 HP gasoline engines. The E-Z Meter Belt Drive Units have brackets that allow the pump to be run directly from an irrigation pump gear reducer.

The convenience of injecting the correct volume of fertilizer and/or chemicals to meet the changing needs of the growing season is easier than ever. A simple change of calibration sets the precise flow to be injected. A choice of pumps are offered that cover all practical injection rates, 0-7.5, 5-30 10-100 or 10-200 GPH, handling the widest scope of application rates.

All Series 2000 Pumps allow simple field adjustment of flow rate and choice of numerous power sources. Pumping cylinders can be mounted in tandem for large volume applications or for injection of non-compatible products.

Pump Calibration Assembly. As always, rate adjustments can be easily made in the field with only a wrench. Positive lock calibration assembly visually indicates the precise flow of product to be injected. The self-lubricating rod end bearing reduces wear and maintenance.



JOHN BLUE COMPANY E-Z METER SERIES 2000 PUMPS

5-30 to 10-200 gallons per hour

SIMPLEX MODELS (One Pump With One Cylinder)

Delivery Rate in GPH

PART #	MODEL #	DESCRIPTION
H167X	01620	SIMPLEX 5-30 GPH, V-BELT DRIVE
H169X	20620	SIMPLEX 5-30 GPH, ELECTRIC 220-440 3-PHASE
H171X	10620	SIMPLEX 5-30 GPH, ELECTRIC 110-220 1-PHASE
H172X	30620	SIMPLEX 5-30 GPH, 12 VOLT DC MOTOR

PART #	MODEL #	DESCRIPTION
H173X	01630	SIMPLEX 10-100 GPH, V-BELT DRIVE
H175X	21630	SIMPLEX 10-100 GPH, ELECTRIC 220-440 3-PHASE
H177X	11630	SIMPLEX 10-100 GPH, ELECTRIC 110-220 1-PHASE
H178X	30630	SIMPLEX 10-100 GPH, 12 VOLT DC MOTOR

- All pumps standard with polypropylene check valves.
- Replacement parts, reference pages 14 and 15.

PART #	MODEL #	DESCRIPTION
H200X	50520	DUPLEX CONVERSION KIT (5-30)
H205X	50530	DUPLEX CONVERSION KIT (10-100)

DUPLEX MODELS (One Pump With Two Cylinders)

Delivery Rate in GPH For Each Cylinder

PART #	MODEL #	DESCRIPTION
H185X	01622	DUPLEX 5-30/5-30 GPH, V-BELT DRIVE
H187X	20622	DUPLEX 5-30/5-30 GPH, ELECTRIC 220-440 3-PHASE
H189X	10622	DUPLEX 5-30/5-30 GPH, ELECTRIC 110-220 1-PHASE
H190X	30622	DUPLEX 5-30/5-30 GPH, 12 VOLT DC MOTOR

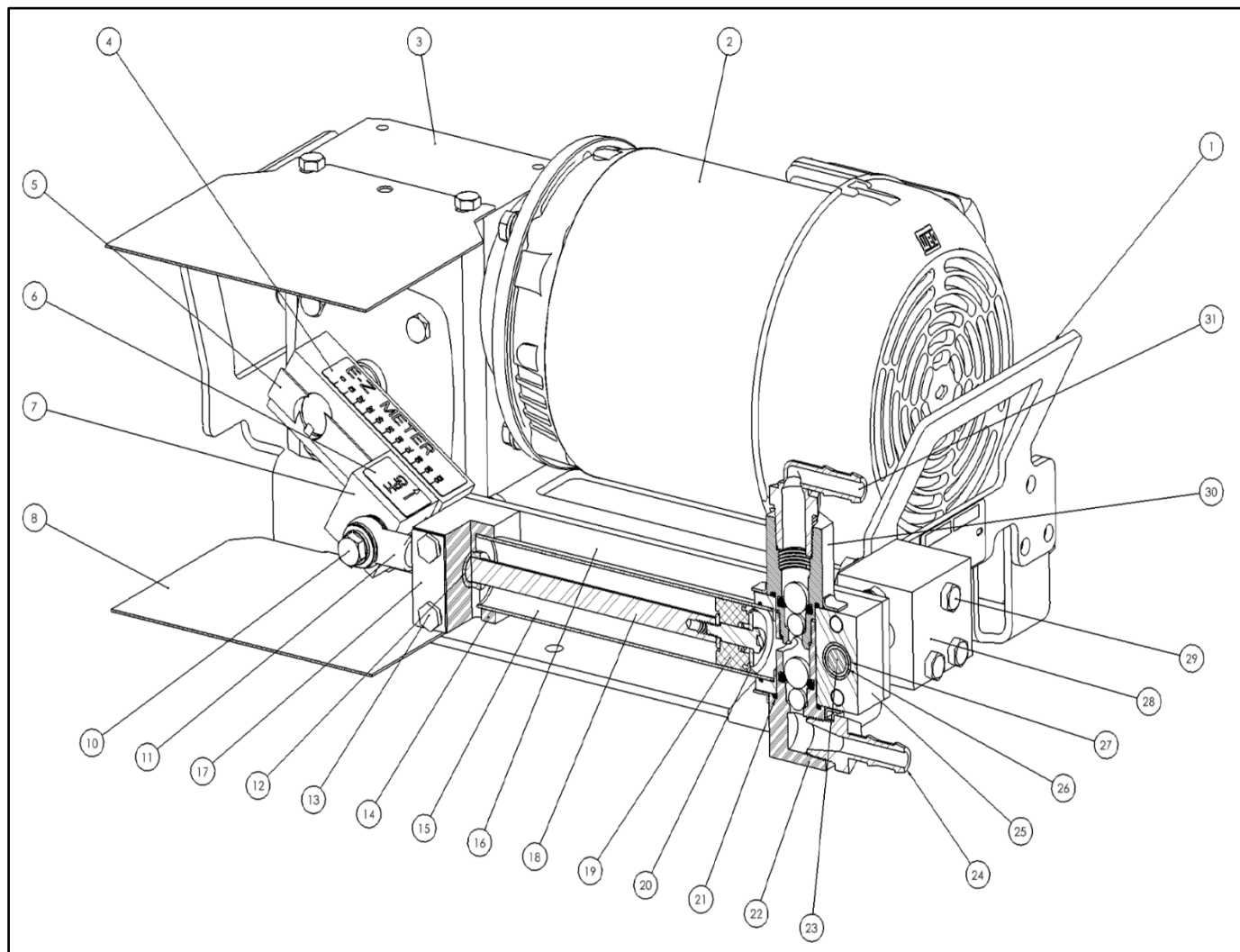
PART #	MODEL #	DESCRIPTION
H191X	01633	DUPLEX 10-100/10-100 GPH, V-BELT DRIVE
H193X	20633	DUPLEX 10-100/10-100 GPH, ELECTRIC 220-440 3-PHASE
H195X	10633	DUPLEX 10-100/10-100 GPH, ELECTRIC 110-220 1-PHASE
H196X	30633	DUPLEX 10-100/10-100 GPH, 12 VOLT DC MOTOR

- All pumps standard with polypropylene check valves.
- Other combinations of cylinder assemblies for duplex pumps available upon request.
Please call for pricing.
- 10-100 GPH pumps can be converted to duplex pumps in the field.
- Replacement parts, reference pages 14 and 15.

BROTHERS EQUIPMENT INC.

NEBRASKA 800-742-7746 • OUT OF STATE 800-228-4582

JOHN BLUE EZ-METER SERIES 2000 PUMPS REPLACEMENT PARTS (FOR PUMPS MANUFACTURED BEGINNING OCTOBER 1999)



REF#	DESCRIPTION	5-30 GPH	10-100 GPH	DUPLEX
1	Base Plate for Electric	G52-2001X	G52-3001X	G52-3001X
1	Base Plate for Belt Drive	G52-3001X	G52-3001X	G52-3001X
1	Base Plate for Gasoline Engine	G52-5001X	G52-5001X	G52-5001X
2	Motor Single Phase	G53-9006X	G53-9004X	G53-9004X
2	Motor Three Phase	G53-9005X	G53-9005X	G53-9005X
2	Motor 12 Volt	G53-9012X	G53-9012X	G53-9012X
3	Gear Box – All Electric Models	+G53-9002X	G53-9001X	G53-9001X
3	Gear Box – Belt and Gasoline Engine	G53-9003X	G53-9003X	G53-9003X
4	Calibration Scale	G50-3001X	G50-1001X	*
5	Crank Arm – Electric	++G50-0003X	G50-0002X	G50-0002X
5	Crank Arm – Belt and Gasoline Engine	G50-0002X	G50-0002X	G50-0002X
6	Calibration Arrow	G50-0001X	G50-0001X	G50-0001X
7	Crank Arm Adjuster	G50-0004X	G50-0004X	*
10	Crank Bolt with Washer	G54-0069X	G54-0069X	*

*Based on the Size of the Pump

+ Models with 7/8" Shaft, Serial Number 222500 and Above use Part # G53-9001X

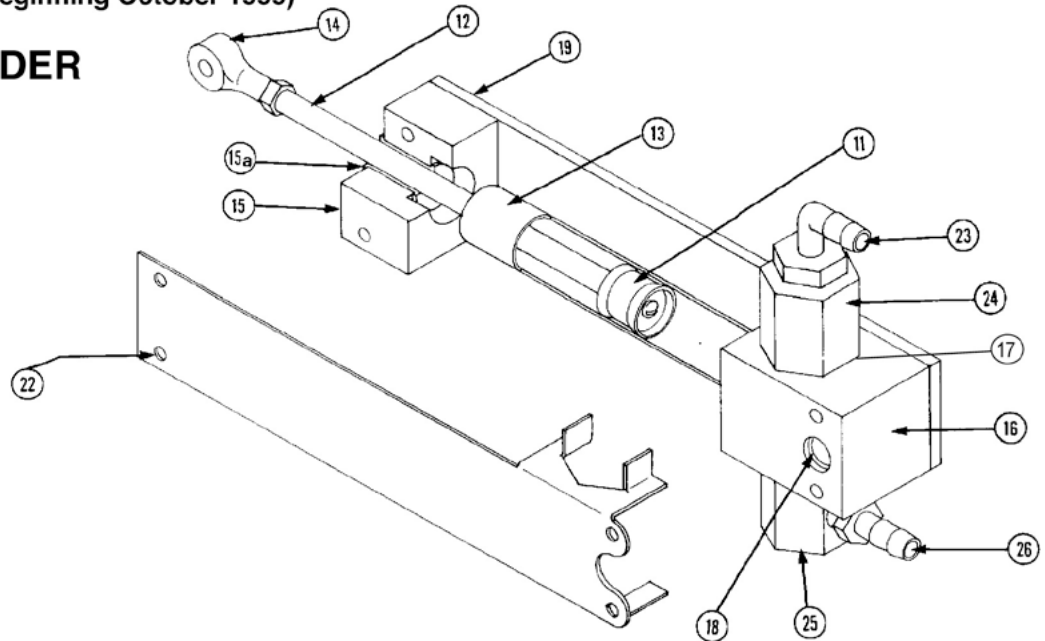
++ Models with 7/8" Shaft, Serial Number 222500 and Above use Part # G50-0002X

E-Z METER SERIES 2000 PUMPS

REPLACEMENT PARTS

(For pumps manufactured beginning October 1999)

COMPLETE CYLINDER ASSEMBLY



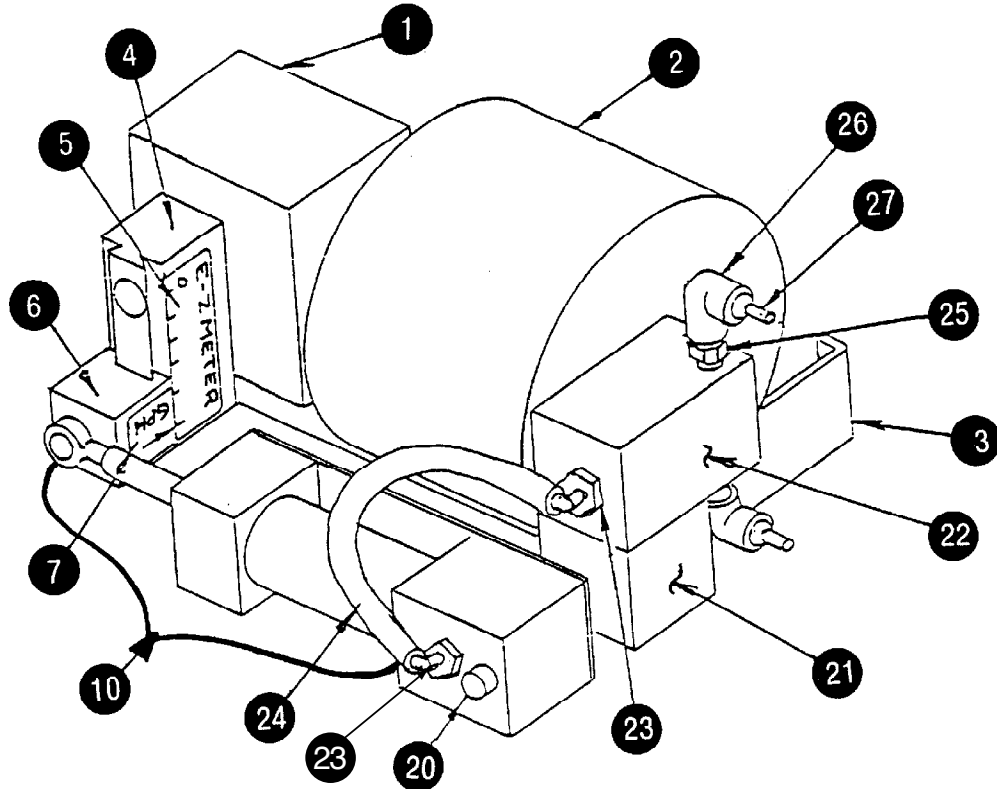
Item	DESCRIPTION	5-30 GPH	10-100 GPH
10	COMPLETE CYLINDER ASSEMBLY WITHOUT CHECK VALVES	G54-2100X	G54-3100X
10	COMPLETE CYLINDER ASSEMBLY W/O CHECK VALVES - TEFLON	G54-2100-1X	G54-3100-1X
11	PISTON CUP ASSEMBLY	G54-2001X	G54-3001X
12	CYLINDER PISTON ROD	G54-0001X	G54-0001X
13	CYLINDER TUBE - 316 SS	G54-0021X	G54-0020X
13	CYLINDER TUBE - TEFLON	G54-0021-SX	G54-0020-SX
14	ROD END BEARING	G54-9001X	G54-9001X
15	CYLINDER ROD BUSHING WITH MOUNTING	G54-0023X	G54-0016X
15	CYLINDER ROD BUSHING WITH MOUNTING FOR TEFLON CYLINDER	G54-0023X	G54-0016X
15A	CYLINDER ROD BUSHING	G54-0031X	G54-0031X
15A	CYLINDER ROD BUSHING FOR TEFLON CYLINDER	G54-0031X	G54-0031X
16	CYLINDER HEAD WITH PIVOT BUSHING AND O-RING	G54-0058X	G54-0059X
16	CYLINDER HEAD WITH PIVOT BUSHING AND O-RING - TEFLON	G54-0058X	G54-0059X
17	CYLINDER HEAD O-RING (NOT SHOWN)	G54-9012X	G54-9011X
18	PIVOT BUSHING - PLASTIC (NOT SHOWN)	G54-0033X	G54-0033X
19	CYLINDER MOUNTING PLATE	G54-0063X	G54-0063X
20	PIVOT BOLT	G55-9001X	G55-9001X
20A	PIVOT BOLT STEEL SLEEVE (NOT SHOWN)	G55-9001AX	G55-9001AX
21	PIVOT MOUNTING BLOCK	G55-0003X	G55-0003X/G55-0004X
22	FRONT PLATE	G54-0068X	G54-0068X
23	ELBOW HOSE TO PIPE (3/4" MPT X 1/2" HBEL)	AB147X	AB147X
24	OUTLET CHECK VALVE - 316 SS	G56-0022X	G56-0022X
24A	OUTLET CHECK VALVE - PLASTIC	G56-0027X	G56-0027X
25	INLET CHECK VALVE - 316 SS	G56-0021X	G56-0021X
25A	INLET CHECK VALVE - PLASTIC	G56-0026X	G56-0026X
26	INLET FITTING (1/2" MPT X 1/2" HB)	AB199X	AB199X

* A duplet pump is one pump with two cylinders, one on each side. The duplex uses a 10-100 GPH base that accepts any size cylinder: 0-7, 5-30, and 10-100 GPH on either side. When ordering parts for the duplex pump, reference parts based on specific pump size for each side.

E-Z METER PUMP

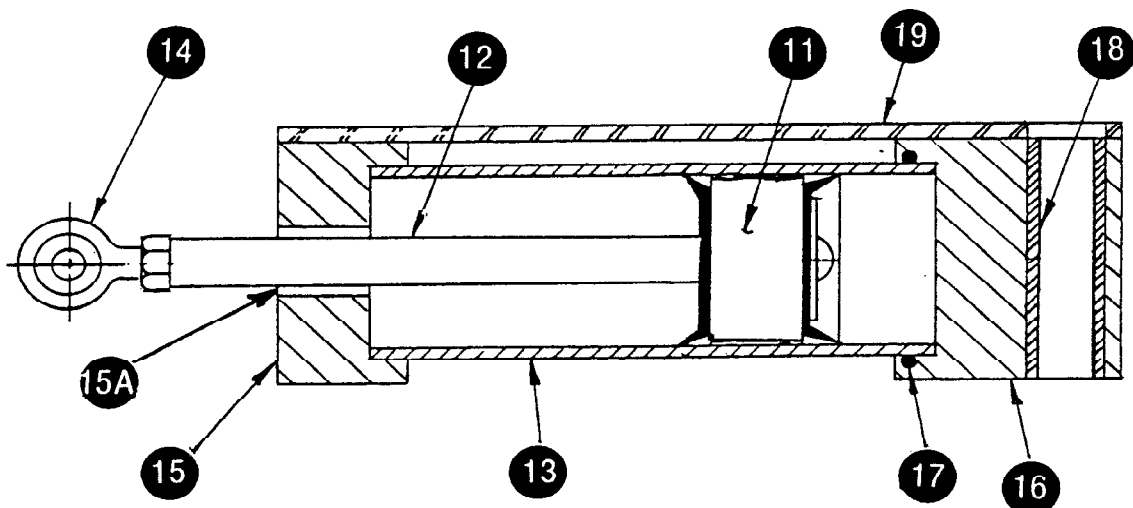
REPLACEMENT PARTS

(For pumps manufactured prior to October 1999)



NOTE: NOT SHOWN - Safety Cover, Safety Cover Base, Reference Parts Descriptions Next Page

CYLINDER ASSEMBLY



E-Z METER PUMP

REPLACEMENT PARTS

(For pumps manufactured prior to October 1999)

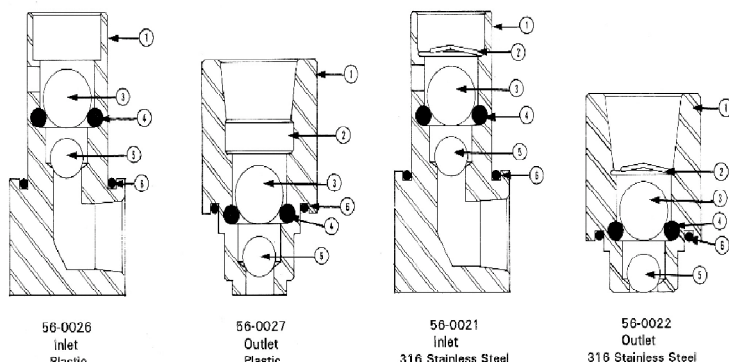
Item #	Description	5-30 GPH	10-100GPH	Duplex
1	Gear Box; All Electric	G53-9002X	G53-9001X	G53-9001X
1	Gear Box; Belt and Gasoline Engine	G53-9003X	G53-9003X	G53-9003X
2	Motor Single Phase	G53-9006X	G53-9004X	G53-9004X
2	Motor Three Phase	G53-9005X	G53-9005X	G53-9005X
3	Base Plate For Electric	G52-2001X	G52-3001X	G52-3001X
3	Base Plate For Belt Drive	G52-3001X	G52-3001X	G52-3001X
3	Base Plate For Gasoline Engine	G52-5001X	G52-5001X	G52-5001X
4	Crank Arm - Electric	G50-0003X	G50-0002X	G50-0002X
4	Crank Arm - Belt & Gas	G50-0002X	G50-0002X	G50-0002X
5	Calibration Scale	G50-3001X	G50-1001X	*
6	Crank Arm Adjuster	G50-0004X	G50-0004X	*
7	Calibration Arrow	G50-0001X	G50-0001X	G50-0001X
8	Safety Cover - Electric	G51-0001X	G51-0001X	G51-0001X
8	Safety Cover - Belt & Gas	G51-0001X	G51-0001X	G51-0001X
9	Safety Cover Base - Electric	G51-0002X	G51-0002X	G51-0002X
9	Safety Cover Base - Belt & Gas	G51-0002X	G51-0002X	G51-0002X
10	Complete Cylinder Assembly	G54-2000X	G54-3000X	*
11	Piston Cup Assembly	G54-2001X	G54-3001X	*
12	Cylinder Piston Rod	G54-0001X	G54-0001X	*
13	Cylinder Tube 316 SS	G54-0021X	G54-0020X	*
14	Rod End Bearing	G54-9001X	G54-9001X	*
15	Cylinder Rod Bushing With Mounting	G54-0023X	G54-0016X	*
15A	Cylinder Rod Bushing	G54-0031X	G54-0031X	*
16	Cylinder Head With Pivot Bushing & O-Ring	G54-0025X	G54-0024X	*
17	Cylinder Head O-Ring	G54-9012X	G54-9011X	*
18	Pivot Bushing	G54-0033X	G54-0033X	G54-0033X
19	Cylinder Mounting Plate	G54-0019X	G54-0019X	G54-0019X
20	Pivot Shoulder Bolt	G55-9001X	G55-9001X	G55-9001X
21	Pivot Mounting Block	G55-0001X	G55-0001X	G55-0002X
22	Manifold - Poly	G56-0002X	G56-0001X	*
23	Elbow, Hose to Pipe	G56-9024X	G56-9002X	*
24	High Pressure Hose With SS Clamps	G56-9014X	G56-9003X	*
25	Check Valve - Poly	G56-0005X	G56-0004X	*
25	Check Valve - 316 SS	G56-0006X	G56-0020X	*
26	Elbow NPT Female	G56-9010X	G56-9009X	*
27	Outlet Fitting	G56-9013X	G56-9011X	

* A duplex pump is one pump with two cylinders, one on each side. The duplex uses a 10-100GPH base that will accept any size CDS Cylinder: 0-7 1/2, 5-30 and 10-100 GPH on either side. When ordering parts for a duplex pump, reference parts based on specific pump size, for each side.

John Blue Series 2000 Check Valves

FEATURES

- Choose from 316 Stainless Steel or Plastic
- Double ball design
- Viton o-rings
- Outlet check valve 3/8" mpt, inlet check valve 1/2" mpt

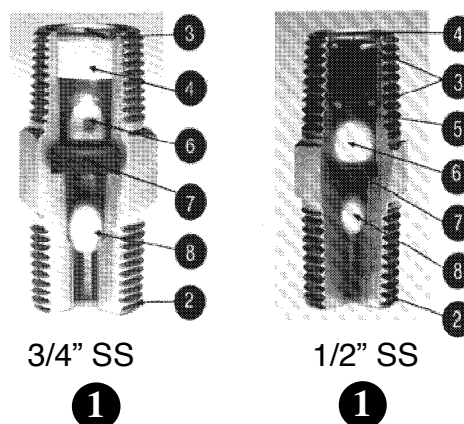


ITEM	DESCRIPTION	Plastic Inlet	Plastic Outlet	316 SS Inlet	316 SS Outlet
	Complete Check Valve	G56-0026X	G56-0027X	G56-0021X	G56-0022X
1	Body	56-0028	56-0029	56-0024	56-0025
2	Retainer Plastic	N/A	56-0030	N/A	N/A
2	Retainer Spring	N/A	N/A	56-0023	56-0023
3	Large Ball	G56-9017X	G56-9017X	G56-9017X	G56-9017X
4	O-Ring Seal	G56-9031X	G56-9031X	G56-9031X	G56-9031X
5	Small Ball	G56-9007X	G56-9007X	G56-9007X	G56-9007X
6	Check Valve Seal	G56-9052X	G56-9052X	G56-9052X	G56-9052X

John Blue Check Valves

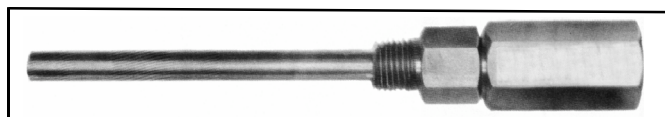
(For pumps manufactured prior to October 1999)

ITEM #	DESCRIPTION	3/4" SS	3/4" POLY	1/2" SS	1/2" POLY
1	Complete Check Valve	56-0020	56-0004	56-0006	56-0005
5	Spring	N/A	N/A	56-9027	56-9027
6	Large Ball	G56-9017X	G56-9017X	56-9006	56-9006
8	Small Ball	G56-9007X	G56-9007X	56-9005	56-9005

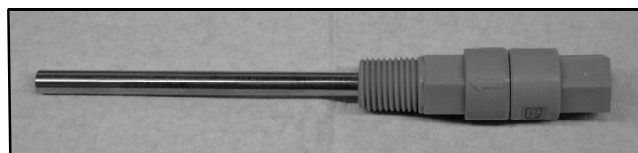


Injection Check Valve

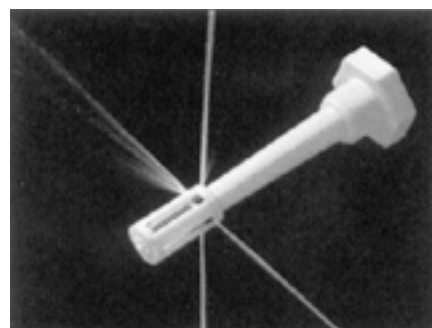
- More uniform distribution of products
- Prevents back flow, siphoning and bleed through of products
- Easy to install and maintain
- 1/4" FPT inlet, 1/4" MPT outlet
- 10 psi spring
- Maximum flow 100 Gal/Hr



G367X CDS JOHN BLUE SS INJECTION CHECK VALVE



G366X CDS JOHN BLUE POLY INJECTION CHECK VALVE



Poly Injection Check Valve

The ultimate in chemigation efficiency & control

- Four-directional release for positive mixing and improved product distribution and efficiency.
- Positive, mechanical spring-loaded shut-off.
- Moving parts continuously cleaned by water.
- Meets state and federal injection check valve regulations.
- Maximum volume: 60 gallons per hour.
- 3/4" MNPT for inserting into mainline, 1/4" FNPT inlet threads.

G369X POLY INJECTION CHECK VALVE

MODEL I-70 INJECTOR PUMP

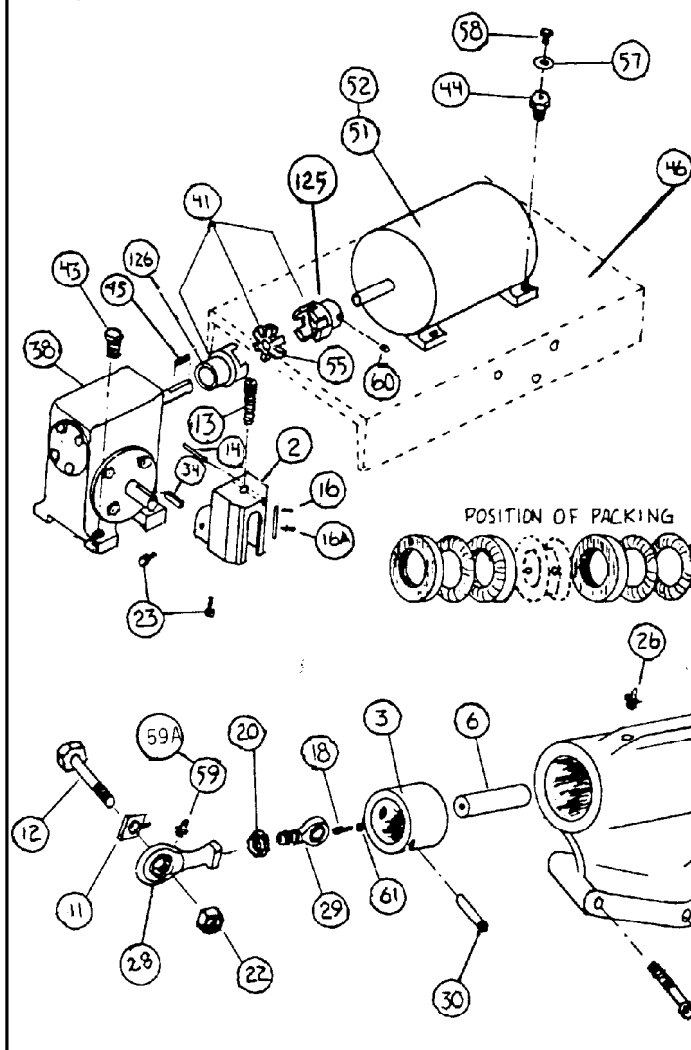
REPLACEMENT PARTS

ITEM#	PART #	I-O-M #	DESCRIPTION
3	G176X	021-076	CROSSHEAD
5A	G181X	021-081	GLAND NUT STAINLESS STEEL 3/4"
5A	G249X	021-149	GLAND NUT STAINLESS 3/8"
5A	G174X	021-074	GLAND NUT STAINLESS 1/4"
6	G179X	021-079	PISTON, 316 STAINLESS 3/4"
7A	G178X	021-078	LANTERN RING, PVC 3/4"
7B	G224X	021-124	LANTERN RING, STAINLESS 3/4"
7B	G158X	021-058	LANTERN RING, STAINLESS 1/4"
8A	G123X	021-023	PUMP VALVE - SINGLE BALL (TOP OR BOTTOM)
8A1	G129X	021-029	VALVE BALL - 316 STAINLESS
8A2	G127X	021-252	VALVE SPRINGS
8A3	G125X	021-025	VALVE SPRING KEEPERS
11	G149X	021-049	ECCENTRIC WASHER AND POINTER
12	G200X	021-100	ECCENTRIC TEE BOLT
13	G204X	021-104	ECCENTRIC ADJUST SCREW
14	G208X	021-108	ECCENTRIC ADJUST SCREW ROLL PIN
18	G203X	021-103	PISTON RETAINING SCREW
20	G310X	043-072	CONNECTING ROD JAM NUT
22	G201X	021-101	ECCENTRIC LOCK NUT
23	G292X	043-019	ECCENTRIC SET SCREWS (2 REQUIRED)
24	G294X	043-021	CYLINDER SET SCREW
25	G151AX	024-014	CYLINDER GREASE FITTING 1/8" (LONG SCREW IN TYPE)
27	G152X	021-052	CYLINDER GREASE RELIEF FITTING
28	G144X	021-044	ECCENTRIC CONNECTING ROD BEARING

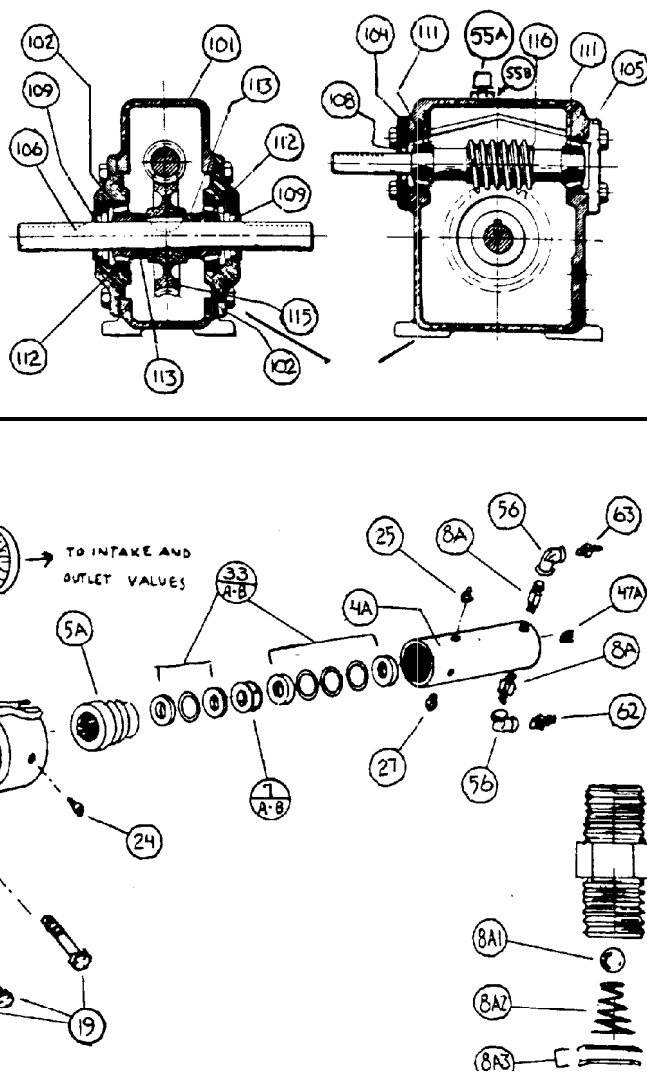
ITEM#	PART #	I-O-M #	DESCRIPTION
29	G147X	021-047	CROSSHEAD CONNECTING ROD BEARING
30	G202X	021-102	CROSSHEAD CLEVIS PIN
33B	G196X	021-096	PACKING NEOPRENE 3/4"
44	G297X	043-024	ELECTRIC MOTOR SUPPORT BOLTS (4 REQUIRED)
47A	G153X	021-053	CYLINDER PURGE PLUG STAINLESS
55	G341X	044-121	MOTOR COUPLER-SPIDER INSERT-3 JAW
55A	G160X	021-112	BREATHING VENT (GEARBOX ASSEMBLY)
59A	G146X	021-046	GREASE FITTING ECCENTRIC BRG. (DRIVE-IN TYPE)
60	G305X	043-062	SET SCREW - MOTOR COUPLER
61	G199X	021-099	LOCK WASHER - PISTON RETAINING SCREW
101	G100X	021-015	HOUSING
102	G101X	021-014	SLOW SPEED COVER - OPEN
104	G102X	021-012	HIGH SPEED CAP - OPEN
105	G103X	021-011	HIGH SPEED CAP - CLOSED
108	G105X	021-007	HIGH SPEED OIL SEAL FOR INPUT SHAFT
109	G106X	021-006	SLOW SPEED OIL SEAL FOR OUTPUT SHAFT
111	G107X	021-005	ROLLER BEARING - HIGH SPEED SINGLE ROW
111A	G108X	021-147	ROLLER BEARING RACE - HIGH SPEED
112	G113X	021-204	GASKETS - SLOW SPEED (2 REQUIRED) (OUTPUT SHAFT)
	G365AX	049-030	CHECK VALVE WATERLINE (2 PC. HD)
	G364AX	049-043	3/4" WATERLINE CHECK VALVE

Note: Prices Subject to Change Without Notice - Some parts limited to supply in stock (no-reorders)

INJECT-O-METER

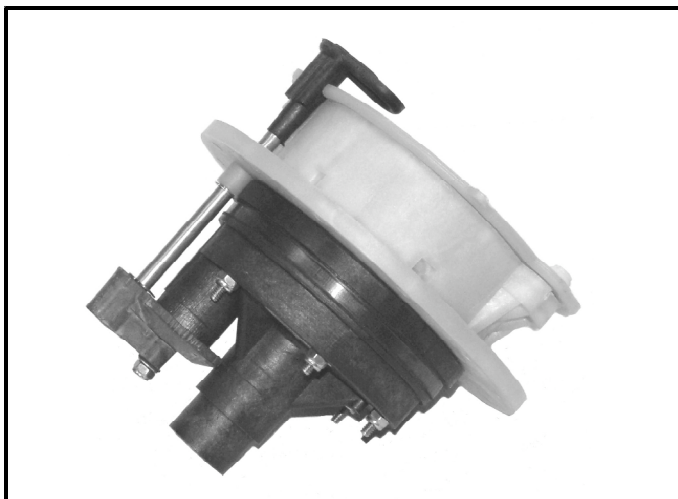


GEAR REDUCER PARTS



SCIENCO HERBICIDE PUMPS

DD6 DIAPHRAGM PUMP



The **DD6 diaphragm pump** is designed to mount directly into the mini-bulk container. The DD6 will pump low to high viscosity liquids with an internal recirculating feature for agitation capabilities. The discharge port configuration features a check valve to prevent chemical container leakage as the motor discharge hose is designed to break away in the event of an accident. This pump includes a vent, rain cover, mounting hardware and gasket. The flow rate is 7 to 9 GPM
(Motor and dip tubes not included.)

DD6 MOTOR

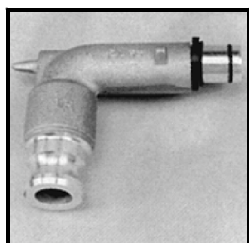


The **DD6 Motor** is the drive unit for the DD6 pump. It is powered by a 12 volt D.C. U.L. listed electric motor. It comes with the electrical hardware.
(Elbow discharge kits not included.)

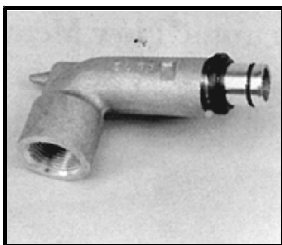
PART #	DESCRIPTION
D750X	DD6 PUMP W/CHECK VALVE
D755X	DD6 12-VOLT MOTOR ONLY
D751X	REPAIR KIT DD6 PUMP

Replacement Parts Reference Page 21

ELBOW KITS



KD-23-AC
(Not threaded)



KD-23-01
(Threaded)

PART #	DESCRIPTION
D753AX	KD-23-AC ELBOW KIT, NOT THREADED
D753X	KD-23-01 ELBOW KIT, THREADED
D754X	DD6M100 VITON "O" RING (SMALL)
D754AX	EP-37 VITON "O" RING (LARGE)
D754BX	DD6M-105 SPACER
D754CX	DD6M-106 WAVE WASHER

SCIENCO BC6 PUMP AND DRIVE UNIT



Versatile and Reliable Closed Pumping System

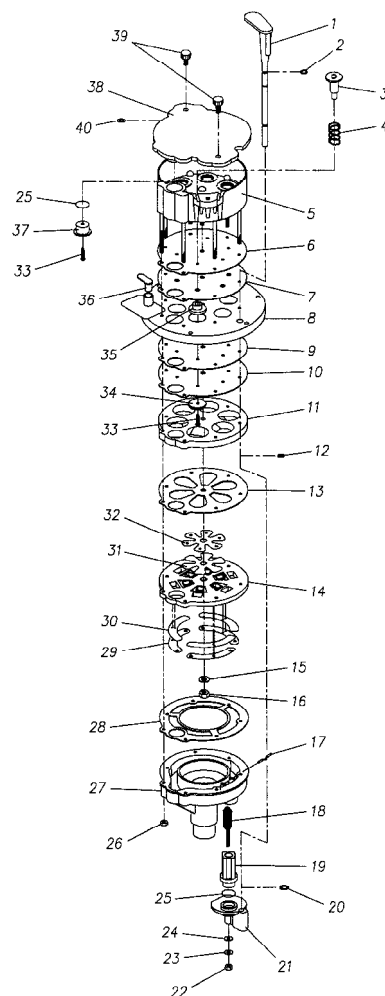
The Scienco BC6 pump is a versatile self-priming diaphragm pump designed for use with intermediate bulk containers. This rugged pump is capable of pumping high and low viscosity fluids as well as suspended solids. Its unique mounting design makes it ideal for closed system mixing, transferring and rinsing since the pump never needs to be removed and the container never needs to be opened for these operations. Its patented removable drive unit offers reduced total operating costs by enabling multiple unit pumping with single drive unit. Flows to 12 gpm.

PART #	DESCRIPTION
D752X	BC6 CAGE PUMP (DRIVE UNIT NOT INCLUDED)
D755X	DRIVE UNIT 12 VOLT

Model DD-6 REPLACEMENT PARTS

PUMP UNIT

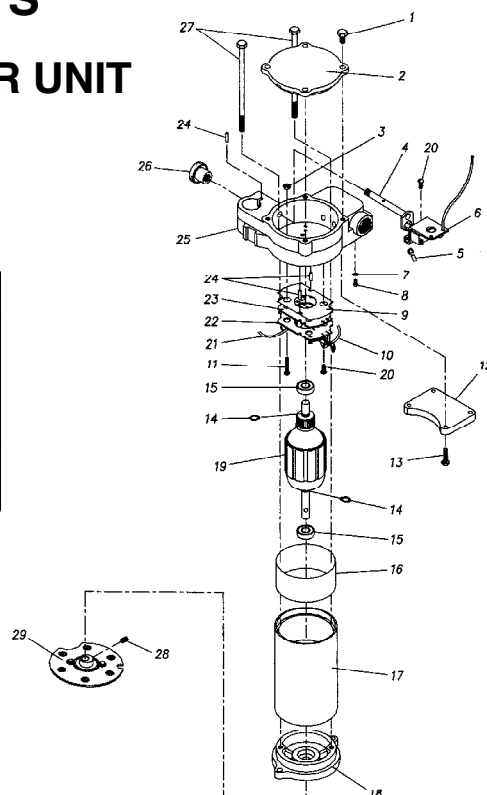
Part #	Description
D751X	REPAIR KIT INCLUDES REF #36, #23 #20, #13, #28
D751AX	DIAPHRAGM KIT INCLUDES REF #6, #7, #9, #10



Model DD-6 REPLACEMENT PARTS

MOTOR UNIT

Part #	Description
D755BX	WOBBLE PLATE WITH BEARING INCLUDES REF #29, #28
D758IX	SWITCH ASSEMBLY INCLUDES REF #6
D757X	BLACK HANDLE KIT (OLDSTYLE) INCLUDES REF # NOT SHOWN



NOTE: Replacement Parts Available in Repair Kits Only

SCIENCO HERBICIDE PUMPS



CT6

FEATURES:

- Market - leading flow rates
- Complete "out of box" pumping systems
- Self-priming from a dry state
- Multiple configurations for use with caged IBC's, mini-bulk tanks and drums
- Easy to service
- Flow rate up to 13 GPM

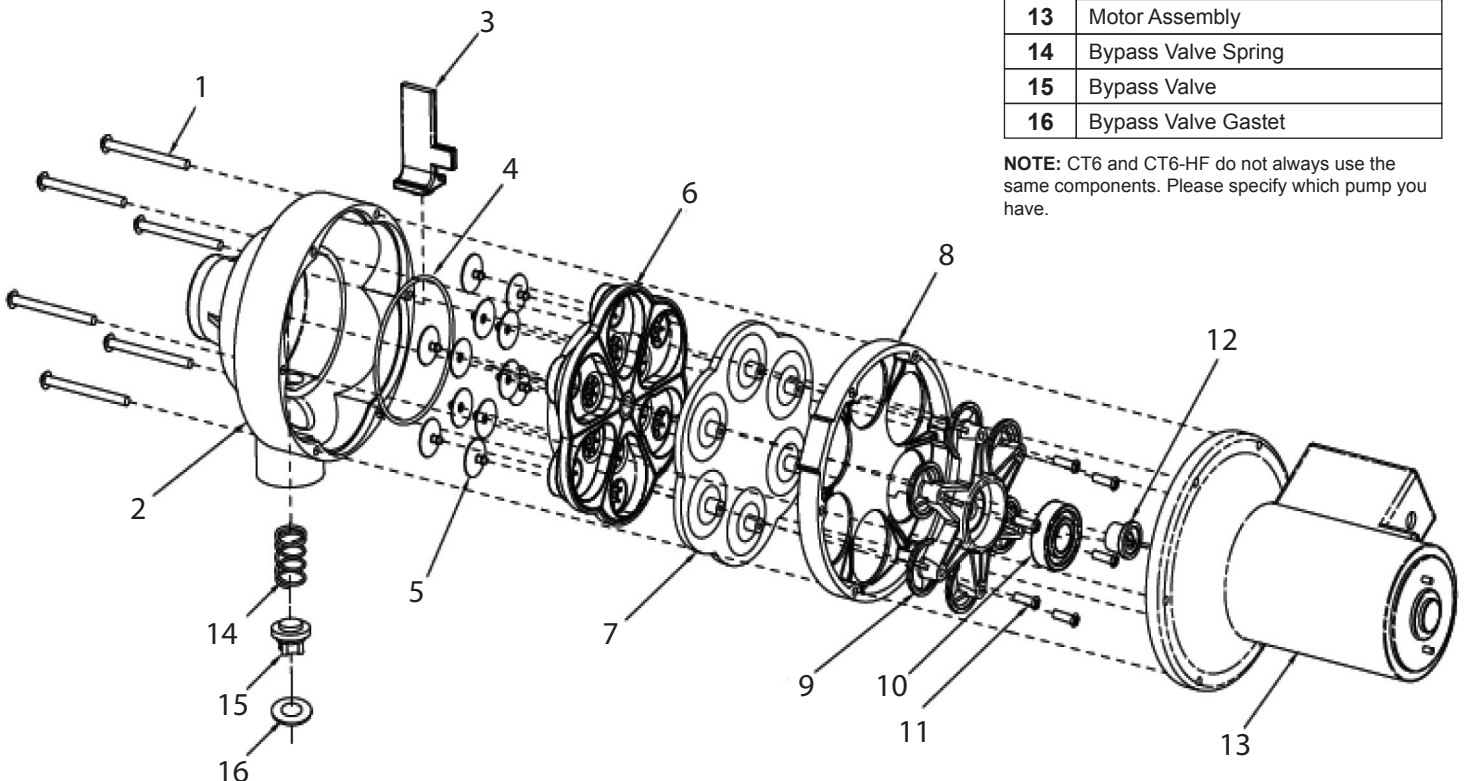
CT6 & CT6-HF BREAKDOWN

CT6-HF REPLACEMENT PARTS

Part #	DESCRIPTION
D659BX	12 Volt Motor (13)
D659CX	Wobble Plate (7, 8, 9, 10, 11, 12)
D659DX	Pump Housing EPDM (1, 2, 4, 14, 15, 16)
D659EX	Valve Plate, Viton (4, 5, 6)

Item	DESCRIPTION
1	Screw (Housing)
2	Housing - Inlet: NPT, Outlet: NPT
3	Bypass Support
4	O-Ring
5	Valves
6	Valve Plate
7	Diaphragm
8	Spacer (Aluminum)
9	Wobble Plate
10	Bearing
11	Screw (Wobble Plate)
12	Bushing
13	Motor Assembly
14	Bypass Valve Spring
15	Bypass Valve
16	Bypass Valve Gastet

NOTE: CT6 and CT6-HF do not always use the same components. Please specify which pump you have.



SCIENCO HERBICIDE PUMPS



CT6-HF: Designed for Transferring Virtually All Crop Protection Products

FEATURES:

- Market - leading flow rates
- Complete "out of box" pumping systems
- Self-priming from a dry state
- Multiple configurations for use with caged IBC's, mini-bulk tanks and drums
- Easy to service
- Flow rate up to 18 GPM

Part #	DESCRIPTION
D659AX	12-Volt Plastic Diaphragm Pump & Motor
D759PX	CT6-HF Caddy w/Meter Portable System Includes: CT6 Pump, SEM 10 Flowmeter, 1" x 12' Discharge and Suction Hose All Mounted in a Tubular Stand
D759IBCX	IBC Cage Pump HF

CT6-HF REPLACEMENT PARTS

Part #	DESCRIPTION
D659BX	12 Volt Motor (7)
D659CX	Wobble Plate (2)
D659DX	Pump Housing (11)
D659EX	Valve Plate, Viton (18)

PH6 PUMP

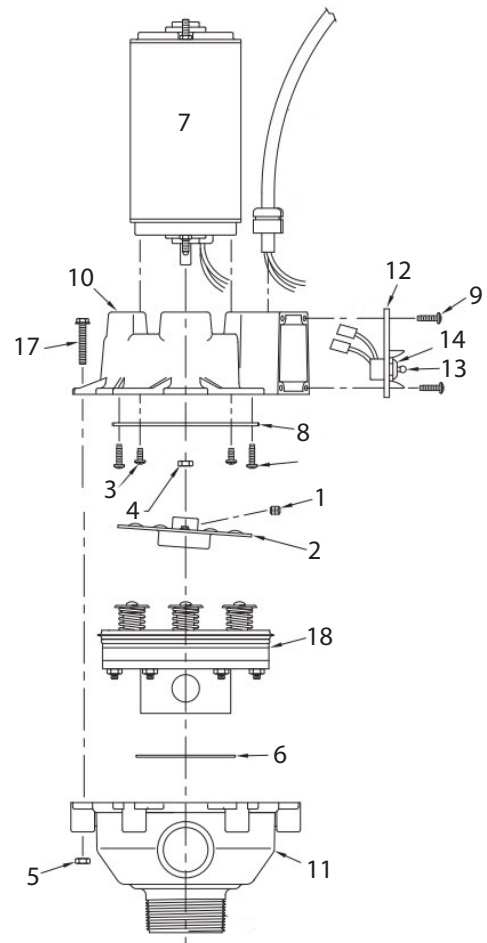
NOTE: This pump is no longer available.



PH6 REPLACEMENT PARTS

Part #	DESCRIPTION
D658CX	Cartridge Kit (Includes: 18, 6)
D658DX	Switch Kit (Includes: 14, 13, 12, 9)
D658EX	Seal Kit (Includes: 8, 6)
D658FX	Housing Kit (Includes: 17, 11, 5)

NOTE: Replacement Parts Available in Repair Kits Only



SCIENCO HERBICIDE METERES

SEM-10 (FIXED MOUNTING) ELECTRONIC FLOW METER



NOTE: Configuration enables meter to be directly mounted to pump discharge via 1" rear port.

The SEM-10 operates at 60 psi. Powered by three standard AA batteries, it has three calibration modes and is constructed of high-strength nylon. This meter is light weight with a large anti-glare display for easy readout. The SEM-10 operates in a temperature range of 150° F at a flow rate from 2 to 30 GPM.

FEATURES:

- Large 0.7 inch LCD display characters
- Simple one-touch operation
- Choice of three calibration procedures
- Extended battery life, Auto shut off in 40 seconds
- Positive displacement nutating disk accurate to +/- 0.5%
- Display measures up to 999,999.9 for greater accuracy
- 1" male NPT inlet and outlet

Part #	DESCRIPTION
D662X	SEM-10 Electronic Meter 1"
D662BX	SEM-10 Electronics
D662CX	SEM-10 Magnetic Kit
D662DX	SEM-10 Wobble Kit

The SEM-10 operates at 60 psi. Powered by three standard AA batteries, it has three calibration modes and is constructed of high-strength nylon. This meter is light weight with a large anti-glare display for easy readout. The SEM-10 operates in a temperature range of 150° F at a flow rate from 2 to 30 GPM.

FEATURES:

- Large 0.7 inch LCD display characters
- Simple one-touch operation
- Choice of three calibration procedures
- Extended battery life, Auto shut off in 40 seconds
- Positive displacement nutating disk accurate to +/- 0.5%
- Display measures up to 999,999.9 for greater accuracy
- 1" male NPT inlet and outlet

Part #	DESCRIPTION
D662FX	SEM-10FT Electronic Meter 1"
D662BX	SEM-10 Electronics
D662CX	SEM-10 Magnetic Kit
D662DX	SEM-10 Wobble Kit

SEM-10FT (FLOW THROUGH) ELECTRONIC FLOW METER



NOTE: Configuration enables meter to be directly mounted at hose end.

SOTERA SYSTEMS

SERIES 400B DIAPHRAGM PUMPS

MODELS AVAILABLE:

We combined many of the features of an air operated double diaphragm pump with the convenience and efficiency of an electromechanical drive design to create a compact, efficient product that will meet all your needs.



INLET / OUTLET PORTS

PUMP SPECS

- Reciprocating, Spring-Driven, Dual-Diaphragm Design
- Up to 15 GPM (1.5 CPS)

MATERIALS

- Glass Filled Polypropylene Exterior
- Polypropylene, Sanoprene EPDM, and Stainless Steel Wetted Internals

MOTOR

- Available in 12 Volt
- 1/4 - Horsepower
- Thermal Overload Protection

INLET / OUTLETS PORTS

- 1" FNPT

Part #	DESCRIPTION
D792X	12V Pump W/Motor Tote, Includes: suction tube, 12' outlet hose, 3' inlet hose, valve, and mounting hardware
D797X	115V Pump W/Motor Tote, Includes: suction tube, 12' outlet hose, 3' inlet hose, valve, and mounting hardware
D792IBCX	12V Pump W/IBC Mount, Includes: suction plumbing kit and mounting hardware
D792KITX	Series 400B Repair Kit (400KTH1457)

SS435B

12V DC, Chemtraveller, portable tubular frame with top and bottom adapter kits, Meter, 9' EPDM inlet hose, 12' EPDM discharge hose, shutoff valve, and all connection fittings.

Part #	DESCRIPTION
D793X	12V Chemtraveller W/825 Meter
D794X	12V Chemtraveller W/850 Meter



FEATURES:

- 2-20 GPM Flow Rate
- 125 PSI Max Pressure
- -10° F to 130° F Temperature Range
- Accuracy +/- 0.5% Using Calibration Factor
+/- 0.2% Using Liquid Calibration

Part #	DESCRIPTION
D795X	825 Digital Meter
D796X	850 Digital Meter W/Mass Air Sensor



SHURflo®

Mini-Bulk Chemical Transfer SYSTEMS & ACCESSORIES



AG Runner™

The SHURflo AG Runner™ system is ready to take anywhere. The AG Runner system is portable, flexible and extremely versatile, especially for those that use multiple containers. The entire system is mounted in a sturdy, easy-to-carry, welded frame.

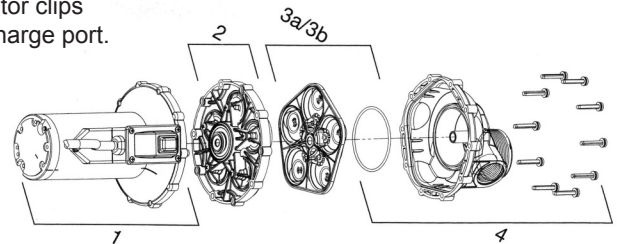
Part #	DESCRIPTION
D780X	Chemical Transfer Pump w/12-VDC motor; 20ft. cable; alligator clips and inline fuse; pump mounted (FM-1100) flow meter; 1-inch NPT x 12 ft. EPDM discharge hose w/ball valve & spout; and 1-inch NPT x 12 ft. EPDM inlet hose 1-inch elbow/ball valve/fitting assembly w/locking cam arms.
D780IX	Chemical Transfer Pump

Mini-Bulk Pump Model SF-1100

The SHURflo SF-1100 Transfer Pump is a 12-Volt DC, self-priming, positive displacement diaphragm pump. The SF-1100 is designed for non-flammable fluid transfer and recirculation. The pump includes a 20 ft. Power Cord with alligator clips and an inline fuse. It also features a 2-inch NPT inlet and a 1-inch NPT discharge port.



Part #	DESCRIPTION
D784X	SHURflo Mini-Bulk Pump SF-1100



REPLACEMENT PARTS

Item #	Part #	DESCRIPTION
1	D784AX	Motor Assy. Kit
2	D784BX	Diaphragm/Lower Housing/Drive Assy. Kit
3a	D784CX	Valve Housing Assy. Kit EPDM
3b	D784DX	Valve Housing Assy. Kit Viton®
4	D784EX	Upper Housing Assy. Kit

Mini-Bulk Flow Meters

- Highly accurate nutating disk design
- Large LCD Display makes meter reading easy from a distance on pump mounted systems
- Simple calibration steps and control button layout
- Long-life lithium batteries
- Easy-to-service electronics and batteries
- Available in both pump-mounted and hose-end configurations

Part #	DESCRIPTION
D785X	SHURflo Electronic Meter (FM-1100)
D785FTX	SHURflo Electronic Flow Through Meter (FM-1100)
D786X	Electronics FM-1100 Meter



BANJO 1"- 3" FULL PORT FLOW METER

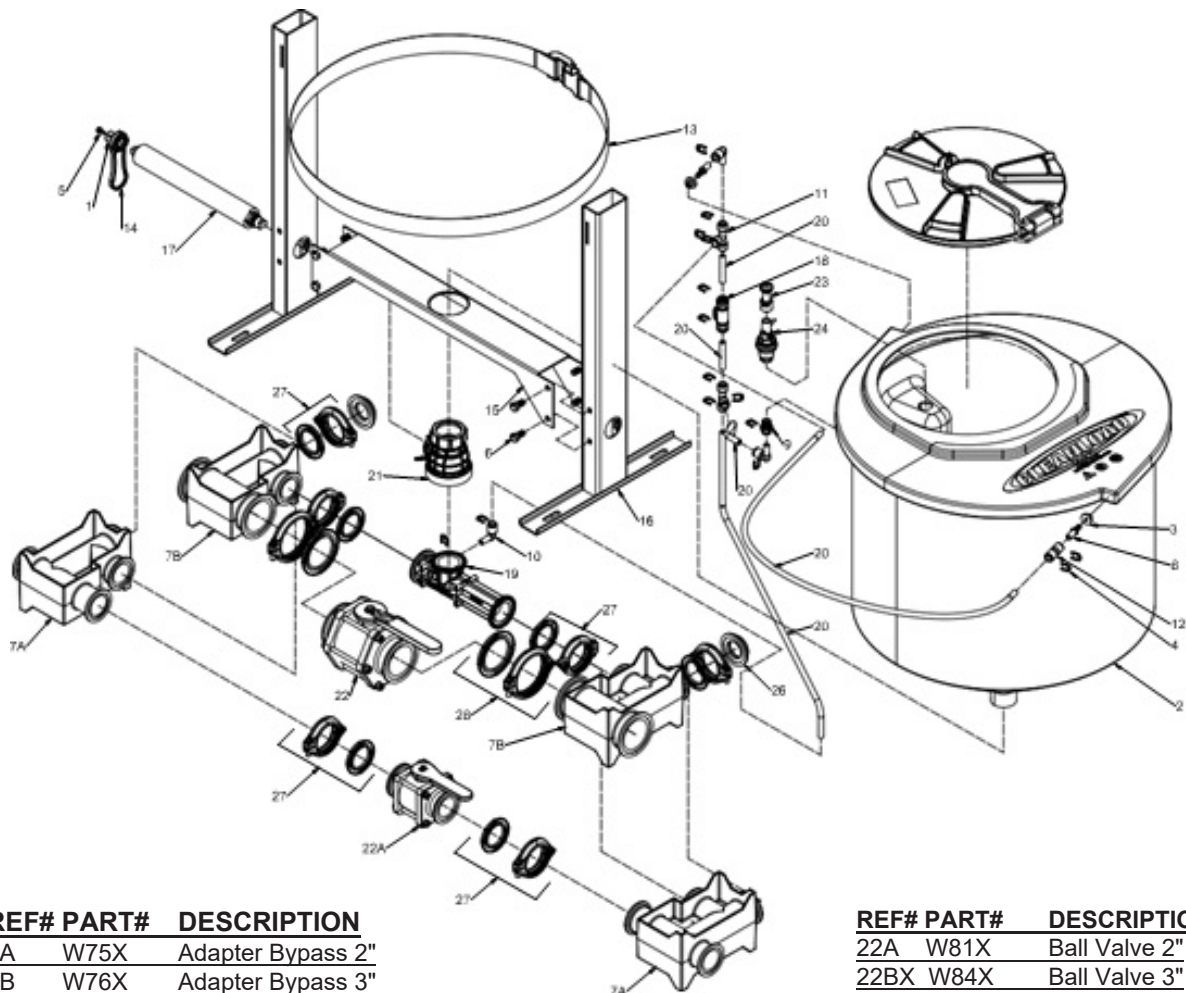


Features:

- Displays overall total volume & batch total volume
- Magnetic style meter with stainless steel electrodes
- Self calibrating meter
- Measures water and most conductive liquids
- Easy to change six (6) AA batteries
- No moving parts to fail during use
- Glass-reinforced polypropylene
- Temperature range from 0° F to 150° F
- Accuracy is 99% from 2 to 110 GPM for 1"
- Accuracy is 99% from 6 to 300 GPM for 2"
- Accuracy is 99% from 14 to 670 GPM for 3"

PART #	MFG #	DESCRIPTION
MFM100X	MFM100	1" Full Port Manifold Flow Meter
MFM220X	MFM220	2" Full Port Manifold Flow Meter
MFM300X	MFM300	3" Full Port Manifold Flow Meter

HYPRO CLEANLOAD CHEMICAL EDUCATOR ASSEMBLY



REF#	PART#	DESCRIPTION
7A	W75X	Adapter Bypass 2"
7B	W76X	Adapter Bypass 3"
18	W79X	Two Way Valve 1/2"
19	W77X	Eductor 2" and 3"
21	W78X	Tank Valve

REF#	PART#	DESCRIPTION
22A	W81X	Ball Valve 2"
22BX	W84X	Ball Valve 3"
23	A997X	Nozzle Container Rinse
27	W82X	Clamp/Gasket 2"
28	W83X	Clamp/Gasket 3"

CLEANLOAD MAX 3378 SERIES

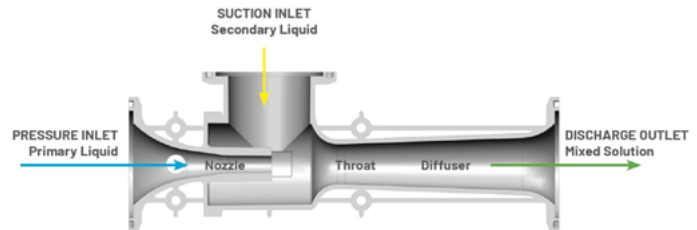
- Modular design allows flexibility in building an eduction system using multiple Cleanload Max, standard Cleanloads and auxiliary components for bulk transfer.
- 40 or 60 gallon, full draining, cone-bottomed tank for a 20:1 ratio with 800 or 1200 gallon sprayers.
- Translucent tank with molded in graduations allows user to easily see fluid levels.
- Market leading eduction rates allow operator to spend less time loading and more time spraying.
- 2" or 3" bypass educator plumbing system allows for direct filling of sprayer tank when not educting chemicals.
- CycloRinse and ProClean bottle rinse prevent cross contamination of chemicals.



PART #	DESCRIPTION
W70X	60 Gal. CleanLoad Max Sys. 2" Bypass
W71X	60 Gal. CleanLoad Max Sys. 3" Bypass
W72X	40 Gal. CleanLoad Max Sys. 2" Bypass
W73X	40 Gal. CleanLoad Max Sys. 3" Bypass

Note: Other options and models available, call for more information.

 **PENTAIR**
HYPRO*



- The chemical eductor is generally referred to as a jet pump. Pressurized liquid is "jetted" through the restricted throat area creating a vacuum at the suction inlet which is commonly known as the "Venturi Effect". The mixed solution is then pushed out the discharge.
- The jetted stream provides the proper mixing of chemicals by immediately placing it into a solution concentrate.
- Extends the life of transfer pumps by educting abrasive and corrosive chemicals downstream rather than through the transfer pump.



HERBICIDE TRANSFER ACCESSORIES

Manifold Inductor System

Draws Wettable Powders From Inductor Tank for thorough Chemical Mixing.



PART #	DESCRIPTION
MIS220AAX	2" FP Manifold Inductor System - Factory Assembled
MIS300AAX	3" FP Manifold Inductor System - Factory Assembled

Features:

- Installed after pump, suction completely empties inductor tank.
- Keeps tank free of chemicals.
- 2" full port flow.
- 3" full port flow.

CALIBRATION CONTAINER

An accurate, durable, lightweight, low cost, molded container for use with any meter for calibration purposes. Has Gallon and 5 Liter graduation marks. Detachable clear hose for pouring ease. For non-commercial use only.



PART #	DESCRIPTION
D904X	5 Gallon Calibration Container

CALIBRATION CONTAINERS

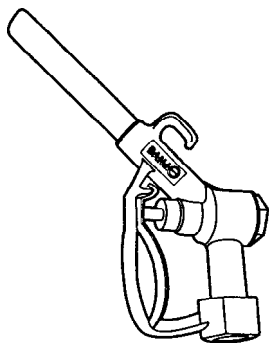
These Calibration Containers feature 64-oz., 32-oz. or 16 oz. capacities and a dual scale in both U.S. and metric graduations. The containers are molded in polypropylene for excellent chemical resistance and durability.



PART #	DESCRIPTION
A905X	64 oz. Calibration Container
A906X	32 oz. Calibration Container
A907X	16 oz. Calibration Container

HERBICIDE TRANSFER ACCESSORIES

CHEMICAL NOZZLE WITH TRIGGER HANDLE



- Glass filled polypropylene
- Stainless steel handle, spring and pin
- Teflon® pin bushing
- Viton® rubber parts
- Resists corrosion
- Padlock capability
- 75 P.S.I. Maximum

PART #	DESCRIPTION
B505X	Nozzle Valve
B505AX	Repair Kit

CHEMICAL NOZZLE WITH POLY VALVE



Hose End Nozzle Valve for use with Herbicide transfer pumps. Incorporates the "Single Union Poly Ball Valve". Polypropylene material is resistant to most chemicals and fertilizers. 45° spout assembly will fit and stay put in any tank opening. Has Full Flow Ball with 1" FPT Inlet.

PART #	DESCRIPTION
B762X	1" Single Union Poly Valve
B555X	Replacement 45° Nozzle

Note: Order both component parts to build hose end nozzle valve.

EPDM CHEMICAL RESISTANT HOSE ASSEMBLY

1" x 15' Hose Assembly with factory installed 1" NPT steel ends. EPDM tube construction reinforced with spiral polyester yarn. Black EPDM cover.



PART #	DESCRIPTION
D636CX	1" X 15' EPDM Hose Assy.

PLASTIC ADJUSTABLE SUCTION PIPE ASSEMBLY

Adjusts for tank sizes from 22" to 40" depths.



PART #	DESCRIPTION
D636AX	22" TO 40" Adjustable Pipe

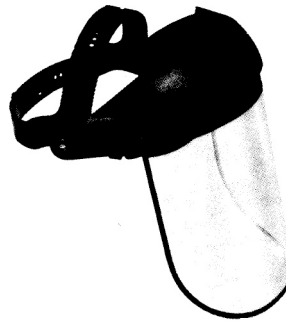
SAFETY ACCESSORIES



NITRILE CHEMICAL HANDLING GLOVES

Green Nitrile glove offers proven resistance against a broad range of chemicals.

PART #	DESCRIPTION
R508X	Green Nitrile Gloves, size 11
R509X	Green Nitrile Gloves, size 9
R510X	Green Nitrile Gloves, size 10



SAFETY FACESHIELD

Lightweight full-faced shield and headgear helps provide frontal protection of the face and neck from flying particles and liquid spray.

PART #	DESCRIPTION
R569X	Safety Faceshield

RUBBER BOOTS



Formulated of polyurethane and PVC for environments where severe conditions require a high degree of chemical resistance.

- 16" plain toe
- Nonslip soles for safety
- Self-cleaning soles clean while walking
- Pull-up and kick off lugs
- Molded-in pant stay
- Removable, washable cushion insole
- Steel shank for safety and comfort

PART #	DESCRIPTION
R535AX	Rubber Boots Size 9
R535BX	Rubber Boots Size 10
R535CX	Rubber Boots Size 11
R535DX	Rubber Boots Size 12

SAFETY GOGGLES

Goggles with clear frame and stack-trap vent. The ultimate in wearer comfort, safety and efficiency. Deep, well-proportioned frame fits easily and comfortably over prescription glasses.

Protects against splashing or spilling, dusts and sprays. A fogless, soft, flexible, non-vented goggle. Can be worn over most prescription glasses.



PART #	DESCRIPTION
R567X	Clear Lens, Vented Frame Goggles
R566X	Clear Lens, Non-Vented Frame Goggles



DISPOSABLE COVERALL

Disposable coverall is made of tyvek material for durability, economy, and practicality. Full cut for comfort with zipper front and attached hood. Unique polyolefin fabric provides an excellent barrier against dirt, grime and most chemicals.

PART #	DESCRIPTION
R536X	Disposable Coverall w/Hood X-Large
R537X	Disposable Coverall w/Hood Large

DISPOSABLE APRON

Disposable Tyvek apron, 27" x 36", for tough jobs requiring strong, tear and puncture resistant apparel.



PART #	DESCRIPTION
R539X	Disposable Tyvek Apron

FARM TANK FUEL HOSE

Application: Recommended for dispensing gasolines, kerosene and oil by electric pumps on agricultural, industrial, and construction sites.

FUEL DISPENSING NOZZLES



PART #	MFG#	DESCRIPTION
D676X	110155-1	MANUAL UNLEADED NOZZLE, 3/4 NPT
D677X	110155-4	MANUAL LEADED NOZZLE, 1" NPT
D678X	110155-8	AUTOMATIC UNLEADED NOZZLE, 3/4 NPT, STRAIGHT SPOUT
D679X	906005-1	AUTOMATIC DIESEL NOZZLE, 1" NPT, CURVED SPOUT

PART #	DESCRIPTION
C300X	3/4" X 10' HOSE ASSY.
C301X	3/4" X 12' HOSE ASSY.
C302X	3/4" X 15' HOSE ASSY.
C303X	1" X 10' HOSE ASSY.
C304X	1" X 12' HOSE ASSY.
C305X	1" X 15' HOSE ASSY.



3" Poly Transfer Pump at a Affordable Price

D112CX Banjo Poly Pump with 212CC, 6.5HP Predator Gas Engine

- 3" FPT INLET
- 3" FPT OUTLET
- 6.5HP PREDATOR GAS ENGINE
- GREAT FOR SMALL NURSE TRAILERS
- GREAT FOR RENTAL TRAILERS
- GREAT POWER AT A SMALL PRICE



BROTHERS EQUIPMENT EXCLUSIVE



3" BANJO POLY PUMP WITH 6.5 HP PREDATOR ENGINE

JOHN BLUE WET SEAL POLY CENTRIFUGAL PUMP



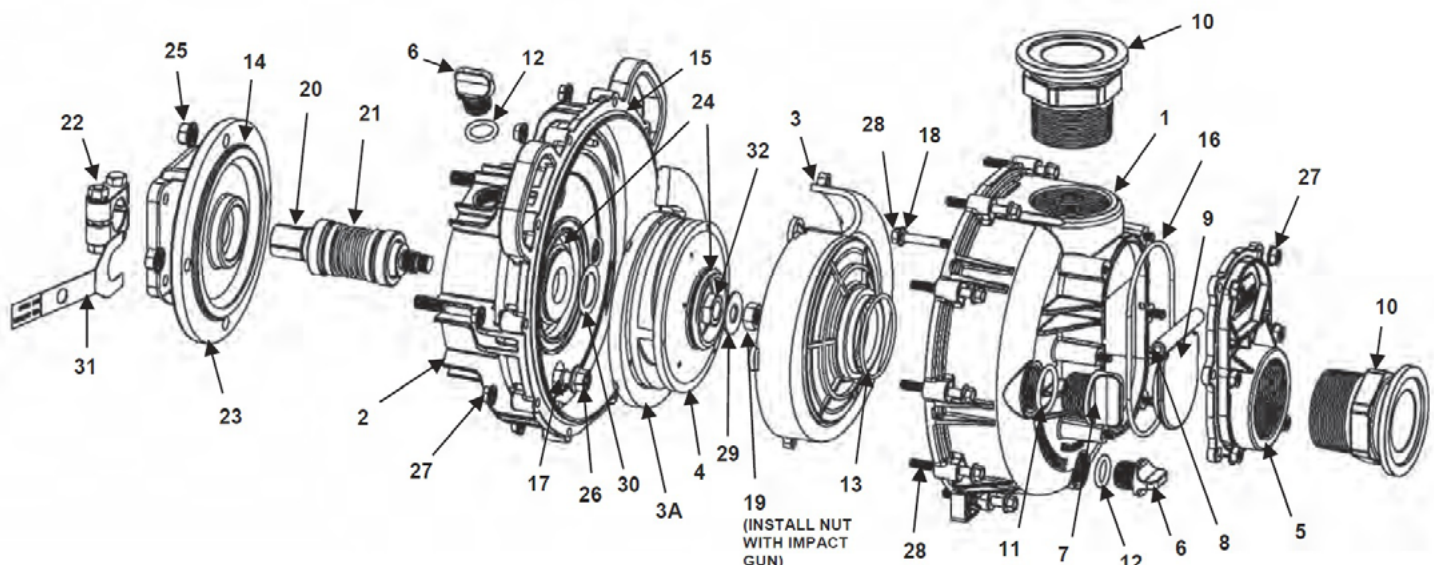
- Double wet seal design provides for continuous lubrication of the seal faces. This wet seal design allows the pump to be run dry for without seal failure. Seal is anti-freeze cooled.
- Closed impeller design minimizes thrust loading on the drive motor extending the life of the drive motor. Impeller wear actually increases performance.
- Polypropylene Body, FKM and Viton® Seals, 316SS Impeller Shaft for excellent chemical resistance.
- 1" FPT pressure access & ½" FPT drain port.
- Pump can be removed, or engine can be replaced without having to disassemble the pump.

JOHN BLUE GAS ENGINE DRIVEN POLY WET SEAL PUMPS

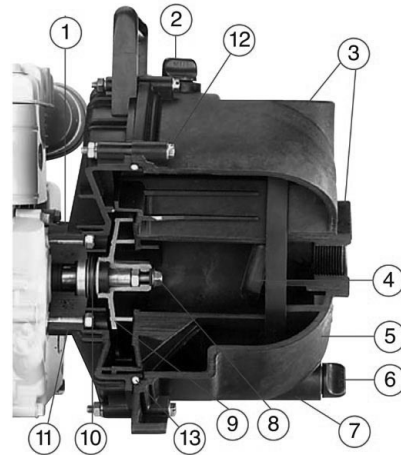
Part #	DESCRIPTION
D129X	2" Poly Wet Seal Pump w/6.5 HP Honda Engine
D130X	2" Poly Wet Seal Pump Only
D101DX	3" Poly Wet Seal Pump Only
D126AX	3" Poly Wet Seal Pump w/13 HP Honda Engine
D126FX	3" Poly Wet Seal Flanged Pump w/13 HP Honda Engine



Please call for availability on replacement parts.
Breakdown of 2" pump shown, 3" pump has some differences.



BANJO POLYPROPYLENE CENTRIFUGAL PUMP SELF-PRIMING



FEATURES

- Precision molded construction
- Corrosion resistant
- Low maintenance
- Lightweight
- Superior design

Maximum Engine Protection

- Pump end separated from engine!
- Heavy duty slinger seal on motor shaft!
- Large weep holes between pump end and engine!

High Performance precision molded impellers! “V” Shaped For Quicker Priming!

Material: The pump is molded from a special high strength polypropylene which is glass reinforced for strength and toughness. The tubber parts are made of EPDM compount.



NOTE: Do NOT use with flammable liquids

Replacement parts reference page 35

- 1 - Maximum engine protection - pump end is separated from engine
- 2 - Large prime plug thumb screw
- 3 - 1 1/2", 2" & 3" ports
- 4 - Check Valve
- 5 - "V" shaped body for quicker priming
- 6 - Large drain plug thumb screw
- 7 - High strength glass-filled polypropylene construction
- 8 - Impeller bolt easily removable
- 9 - High performance precision molded impellers
- 10 - Mechanical shaft seal (available in 3 materials)
- 11 - Large weep holes
- 12 - All stainless steel

GAS ENGINE DRIVEN POLYPROPYLENE PUMPS

Part #	MFG#	DESCRIPTION
D110X	200 P-3	2" x 2" Poly Pump x 3.5 HP Briggs
D111X	200 P6 Pro	2" x 2" Poly Pump x 6.5 HP Briggs Pro
D112X	200 PH-5	2" x 2" Poly Pump x 5.5 HP Honda
D112BX	300 PH-6	3" x 3" Poly Pump x 6.5 HP Honda
D112CX	300 P6 Pred	3" x 3" Poly Pump x 212cc-6.5HP Predator

NOTE: Engine warranty service available at authorized Briggs & Stratton and Honda dealers.

PEDESTAL PUMP AND PUMP ONLY



PEDESTAL PUMPS

With the addition of the Banjo bearing pedestal, the pump is easily adaptable to electric power. A flexible shaft coupling is used between motor and pump shaft. Pump and motor assembly is mounted on a metal base.

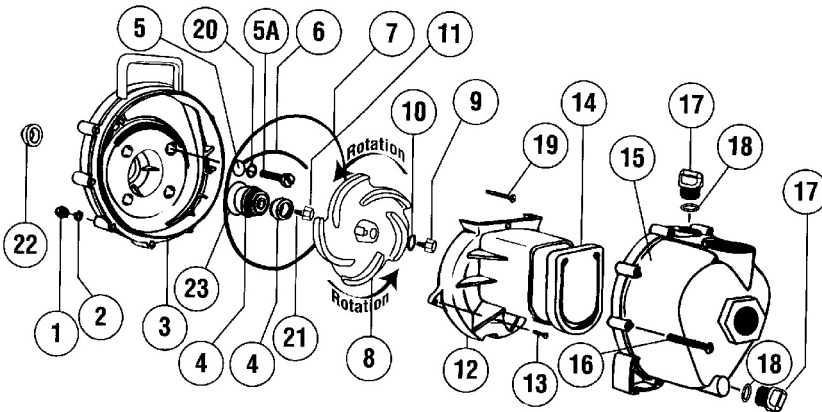
Part #	MFG#	DESCRIPTION
D101X	200 P-B	2" Pump/Bearing Pedestal
D101BX	300 P-B	3" Pump/Bearing Pedestal
D105X	200 PO	2" Pump Only
D101CX	300 PO	3" Pump Only
D131X	12882	Bearing Pedestal Only 3/4" Straight Shaft with 1/4" Key Way
D131AX	12883	3/4" Shaft & Bearings

PRECAUTION WARNING: Please do not run pumps dry, restrict or reduce port sizes or dead head pumps. This could cause component failure to pump.

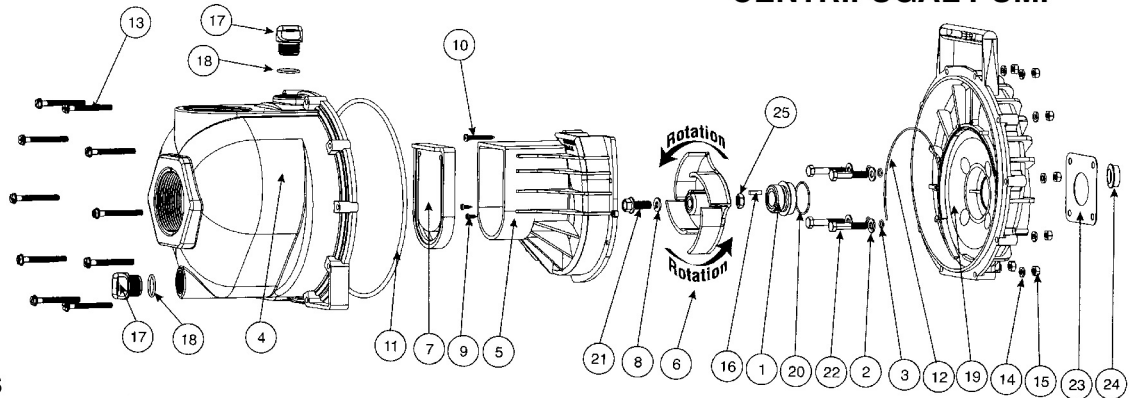
2" POLYPROPYLENE CENTRIFUGAL PUMP



REPLACEMENT PARTS



3" POLYPROPYLENE CENTRIFUGAL PUMP



PARTS LIST FOR 2" PUMPS

ITEM	PART #	QTY	DESCRIPTION
1	D141X	10	SS Body Nuts
2	D142X	10	SS Lock Washers
3	D143AX	1	Poly Pump Rear Bracket
*+ 4	D144X	1	Seal Assembly
*+ 5	D145X	4	O-Ring for Screw Head
5A	D146BX	4	SS Bracket Screws
*+ 6	D147X	1	O-Ring Segment
*+ 7	D148X	1	Body O-Ring
+ 8	D149BX	5	Vane Impeller
8	D149AX	1	3 Vane Impeller
9	D150AX	1	SS Impeller Bolt
*+ 10	D151AX	1	Impeller Bolt Gasket
11	D152AX	1	Impeller Hex Nut
12	D153AX	1	Poly Pump Volute
13	D154X	2	SS Volute Screws
+ 14	D155X	1	Check Valve (EPDM)
15	D158AX	1	Body Assembly, 2"
16	D159X	10	SS Body Screws
17	D160AX	2	Prime/Drain Plug
*+ 18	D160BX	2	Prime/Drain Plug O-Ring
19	D165X	4	SS Upper Volute Screw
20	D142AX	4	SS Rear Bracket Washer
21	D167AX	1	Impeller Key
*+ 22	D168AX	1	Poly Pump Slinger
*+ 23	D172X	1	O-Ring for Seal Assembly
*+ N/S	12099	1	7/16" -14 x 1 25" HHCS
N/S	D144CX	1	5 Vane Impeller Repair Kit (Items 4-8, 10, 14, 18, 22, 23 & 12099)
N/S	D144DX	1	Pump Seal/O-Ring Kit (Items 4-7, 10, 18, 22, 23 & 12099)

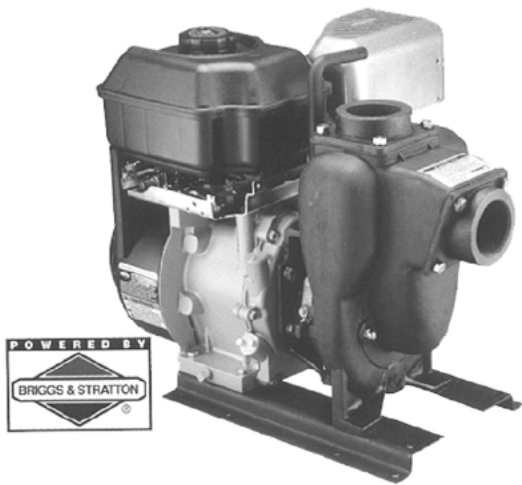
PARTS LIST FOR 3" PUMPS

ITEM	PART #	QTY	DESCRIPTION
*+ 1	D144X	1	Seal Assembly
2	D158BX	4	SS Rear Bracket Washer
*+ 3	D145X	4	O-Ring for Screw Head
4	13712	1	Body Assembly
5	D153BX	1	Poly Pump Volute
+ 6	D149CX	1	4 Vane Impeller
+ 7	D155X	1	Check Valve
*+ 8	D151AX	1	Impeller Bolt Gasket
9	D165X	4	SS Upper Volute Screw
10	D154X	2	SS Volute screws
*+ 11	D148X	1	Body O-Ring
*+ 12	D147X	1	O-Ring Segment
13	D159X	10	SS Body Screws
14	D142X	10	SS Lock Washers
15	D141X	10	SS BodyNuts

ITEM	PART #	QTY	DESCRIPTION
16	12902A	1	Impeller Key
17	13777	2	Prime/Drain Plug
*+ 18	13778	2	Prime/Drain Plug O-Ring
19	D143AX	1	Poly Pump Rear Bracket
*+ 20	12710	1	O-Ring for Seal Assembly
21	D150AX	1	SS Impeller Bolt 5/16 x 24 x 1.12 (300PH-6)
21	13765	1	SS Impeller Bolt 3/8x24x1.75 (300P11PRO)
22	D146BX	4	SS Bracket Screws
23	D140X	1	Rear Bracket Shim
*+ 24	12716	1	Poly Pump Slinger
25	D152AX	1	Impeller Hex Nut
*+ N/S	12099	1	7/16"-14 x 1 25" HHCS
N/S	D144EX	1	4 Vane Impeller Repair Kit (Items 1, 3, 6-8, 11, 12, 18, 20, 24 & 12099)
N/S	D144FX	1	Pump Seal/O-Ring Kit (Items 1, 3, 8, 11, 12, 18, 20, 24 & 12099)

NOTE:
PUMP SEAL & O-RING KIT INCLUDES ITEMS *
PUMP REBUILD KIT INCLUDES ITEMS +
N/S = NOT SHOWN

BANJO CAST IRON CENTRIFUGAL PUMP-SELF PRIMING



Features:

- Cast iron construction for rugged dependable service
- Stainless Steel shaft sleeve to protect engine shaft
- Carbon ceramic seal with stainless steel cup and spring with Viton rubber parts
- Replaceable inlet and outlet flanges
- Dynamic balanced impeller
- Available in 2" and 3" sizes

GAS ENGINE DRIVEN CAST IRON PUMPS

Part #	MFG#	DESCRIPTION
D114X	200-PI-3	2" x 2" C.I. Pump x 3.5 HP Briggs
D115X	200-PI-6 Pro	2" x 2" C.I. Pump x 6.6 HP Briggs Pro
D123X	200-PIH5	2" x 2" C.I. Pump x 5.5 HP Honda
D124X	300-PI-8	3" x 3" C.I. Pump x 8 HP Briggs
D124AX	300-PIH8	3" x 3" C.I. Pump x 8 HP Elec. Start Honda
D125X	300-PIH11	3" x 3" C.I. Pump x 11 HP Elec. Start Honda
D126X	300-PIH13	3" x 3" C.I. Pump x 13 HP Elec. Start Honda

Replacement Parts reference page 29

NOTE: DO NOT use with flammable liquids

NOTE: Engine warranty service available at authorized Briggs & Stratton and Honda dealers.

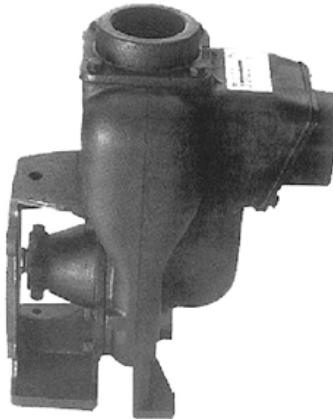
PUMP ONLY

Replacement Pump Only

FEATURES

Pump only packs complete and ready for attachment to gasoline engine.

NOTE: Engine with 3/4" shaft on 2" pumps, 1" shaft on 3" pumps, 1/4" Keyway required.

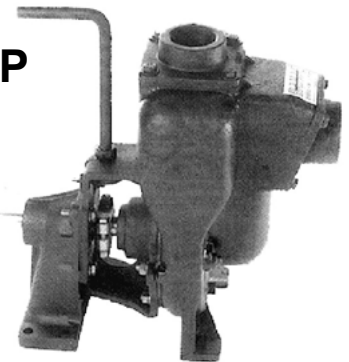


Part #	MFG#	DESCRIPTION
D119X	200-POI	2" x 2" C.I. Pump Only
D120X	300-POI	3" x 3" C.I. Pump Only

PEDESTAL PUMP

FEATURES

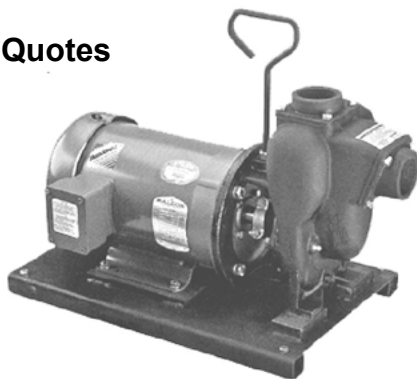
With the addition of the Banjo bearing pedestal, the pump is easily adaptable to electric motors.



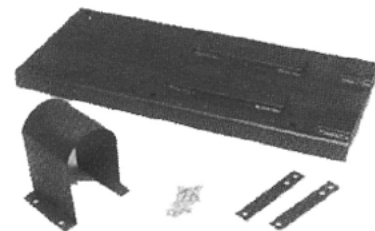
Part #	MFG#	DESCRIPTION
D117X	200-PBI	2" x 2" C.I. Pump w/Pedestal
D117AX	300-PBI	3" x 3" C.I. Pump w/Pedestal

ELECTRIC DRIVE PUMPS

Call For Price Quotes

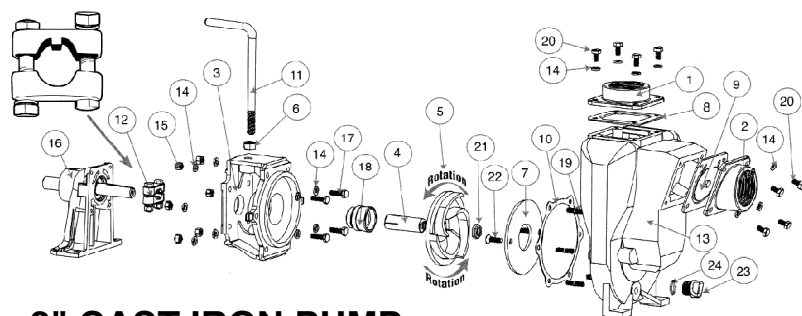


UNIVERSAL BASE PLATE ASSEMBLY



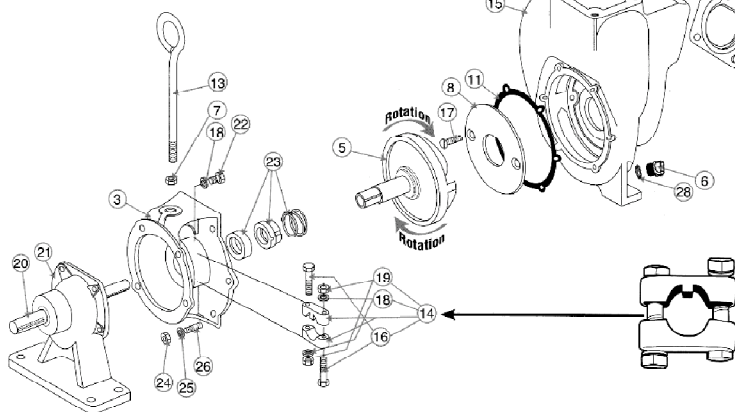
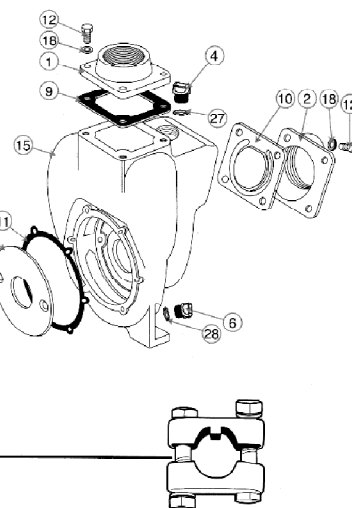
Part #	DESCRIPTION
D18700X	Base Plate Assembly Complete with bolts, washers, shims, and coupling guard

PRECAUTION - WARNING: Please DO NOT run pumps dry, restrict or reduce port sizes or dead head pumps. This could cause component failure to pump.



2" CAST IRON PUMP

3" CAST IRON PUMP



REPLACEMENT PARTS

PARTS LIST FOR 2" PUMPS

ITEM	PART #	QTY	DESCRIPTION
1	D17000X	1	Threaded Outlet Flange 2"
2	D17002X	1	Threaded Inlet Flange 2"
3	D17004X	1	Adapter for Gas Engine
3	17046	1	C-Flange Adapter
4	D17005X	1	5/8" Sleeve Drive for Electric Motor
* 4	D17006X	1	3/4" Sleeve Drive
4	D17007X	1	7/8" Sleeve Drive for Electric Motor
* 5	D17008X	1	5" Impeller
6	D17010X	1	1/2 " Hex Nut
* 7	D17011X	1	Wear Plate
8	D17013X	1	EPDM Gasket
9	D17016X	1	Check Valve Assembly
* 10	D17018X	1	Gasket Adapter
11	D17022X	1	Handle
12	D17023X	1	5/8" Clamp for 3/4" Shaft Assembly (Old Style)
12	D17123X	1	5/8" Clamp for 3/4" Shaft Assembly (Keyed)
12	D17024X	1	7/8" Clamp for Shaft Assembly
13	D17026X	1	Pump Housing
14	17031	18	5/16" Lock Washer
15	17038	6	5/16" - 18 SS Hext Nut
N/S	12882R	1	Housing
N/S	D131AX	1	Bearing Shaft Assembly
N/S	12884	1	Internal Retaining Clip for Pedestal
N/S	12883B	2	Bearings
16	D131X	1	Complete Pedestal Assembly
17	17040	4	5/16"- 24 x 1.00" Cap Screw
* 18	D17035X	1	FKM (viton type) Seal Assembly
19	D17042X	6	Stud
20	D17019X	8	5/16" - 18 x 3/4" Cap Screw
21	D17009X	1	5/8" Impeller Nut
22	D17130X	2	C Sink Flat Head Screw
23	12777	1	Plug
24	UV15163	1	O-Ring
N/S	17033	1	Z Rails (Pair)
N/S	17100	1	Repair Kit (Consists of 4*, 5* 7, 10, 18*)

PARTS LIST FOR 3" PUMPS

ITEM	PART #	QTY	DESCRIPTION
1	D18008X	1	3" Threaded Outlet Flange
2	D18012X	1	3" Threaded Inlet Flange
3	D18026X	1	Adapter for Gas Engine & Bearing Pedestal
4	13777	1	Plug
* 5	D18023X	1	1" Impeller & Drive Shaft for Gas Engine
6	12777	1	Plug
7	D18034X	1	5/8" SS Jam Nut
* 8	D18004X	1	Wear Plate
9	D18009X	1	EPDM Outlet Gasket
10	D18013X	1	Gasket Check Valve Assembly
* 11	D18021X	1	Adapter Gasket
12	D18010X	8	3/8" - 16 x 1 1/8" SS Cap Screw HXHD
13	18033	1	Handle
14	D18029X	1	Clamp Assembly (Old Style)
14	D18129X	1	Clamp Assembly (New Style)
15	D18001X	1	Pump Housing
16	D18218X	2	3/8" - 24 x 2 1/8" Bolt
* 17	D18006X	2	Wear Plate Flat Head Screw
18	V20018	8	3/8" Lock Washer
19	18032	2	3/8" x 24 SS Hex Nut
20	D18504X	1	1" Shaft
21	D18500X	1	Bearing Pedestal
N/S	D18502X	2	Bearing SKF 66306-2RS1/C3
22	17704	4	Bolt
* 23	D18025X	1	FKM (viton type) Seal Assembly
24	V20019	6	3/8" 16 SS Hex Nut
25	V20018	6	3/8" SS Lock Washer
26	18218	6	3/8" - 16 x 3/8" -24 x 1 1/2" SS Stud
27	13778	1	O-Ring
28	UV15163	1	O-Ring
N/S	18035	1	Z-Rail Mounting Bracket (Pair)
N/S	D18100X	1	Repair Kit (consists of items 5, 8, 11, 17 & 18)

* PARTS INCLUDED IN REPAIR KIT N/S = NOT SHOWN

* PARTS INCLUDED IN REPAIR KIT N/S = NOT SHOWN

WET SEAL SELF-PRIMING CENTRIFUGAL PUMP



NOTE: Do NOT use with flammable liquids

The **BANJO WET SEAL PUMP** is equipped with a double seal arrangement where the seal is contained in an ethylene glycol (antifreeze) reservoir. This enables the pump to run dry for short periods of time without damaging the seal.

Extended service of the seal substantially adds life to the pump and engine.

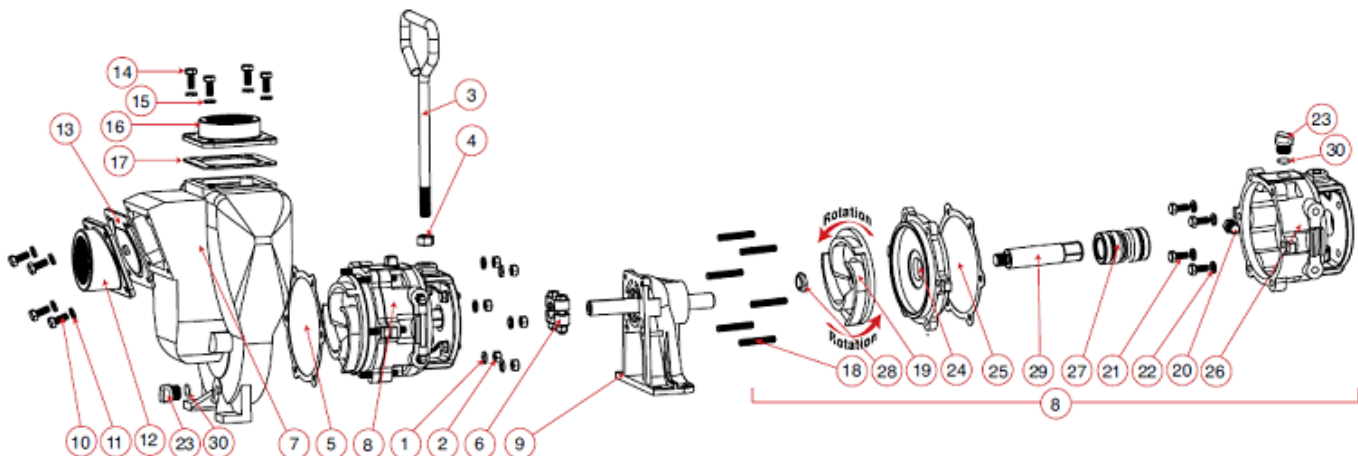
GAS ENGINE DRIVEN CAST IRON PUMPS

Part #	MFG#	DESCRIPTION
D222X	201PI-6W	2" C.I. Pump x 6.6 HP B&S Engine
D223X	201PIH5W	2" C.I. Pump x 5.5 HP Honda Engine
D224AX	301PIH13W	3" C.I. Pump x 13 HP Electric Start Honda Engine
D225X	201POIW	2" C.I. Wet Seal Pump Only

NOTE: Engine warranty service available at authorized Briggs & Stratton and Honda dealers.

BEARING PEDESTAL PUMPS

Part #	MFG#	DESCRIPTION
D226X	201PBIW	2" C.I. Pump/Bearing Pedestal 3/4" Shaft
D227X	301PBIW	3" C.I. Pump/Bearing Pedestal 1" Shaft



Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	6		V10118	5/16" Lock Washer
2	6		V10119	5/16" - 18 Hex Nut
3	1		15022	Handle
4	1		17010	1/2" Hex Nut
5	1	D17018X	17018	Gasket Adapter
6	1	D17123X	17123	5/8" Clamp, 3/4" Shaft Assy. Keyed
7	1		17226	Pump Housing
8	1		17200A	Wet Seal Assembly
9	1	D131X	12882A	Bearing Pedestal
10	4		17019	5/16" - 18 x 3/4" HHCS
11	4		V10118	5/16" Lock Washer
12	1	D17002X	17002	Inlet Flange
13	1	D17016X	17016	EPDM Check Valve Gasket Assy.
14	4		17019	5/16" - 18 x 3/4" HHCS
15	4		V10118	5/16" Lock Washer

Ref. No.	Qty.	Part #	Mfg. Part #	Description
16	1	D17000X	17000	Outlet Flange
17	1	D17013X	17013	EPDM Outlet Gasket
18	6		17242	Housing Stud
19	1		17208	Impeller
20	1		17032	Pipe Plug
21	4		17019	5/16" - 18 x 3/4" Cap Screw
22	4		V10118	5/16" Lock Washer
23	2	D160AX	12777	1/2" Plug
24	1		17202	Cover Plate
25	1	D17018X	17018	Gasket Adapter
26	1		17201A	Reservoir
27	1	D17235X	17235	FKM Viton Mech. Seal Assy.
28	1	D17009X	17009B	5/8" Impeller Nut
29	1	D17206AX	17206A	Adapter Shaft
30	2	B972X	UV15163	O-Ring

HYPRO®

Gas Engine Poly Transfer Pump

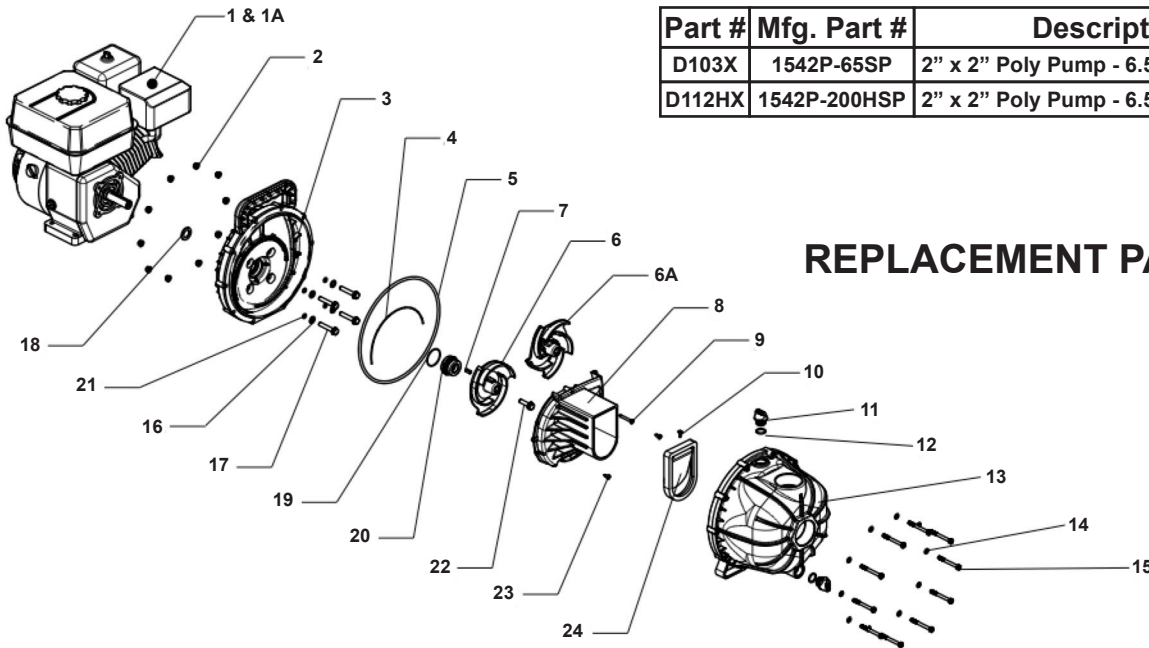


2" Model

Close-Coupled, Gas Engine-Driven, Self-Priming Poly Transfer Pump

Max Flow Rate: 200 GPM
Max Pressure: 58 PSI
Max Total Head: 134 Feet
Max Suction Lift: 25 Feet
Ports: 2" NPT Inlet
 2" NPT Outlet
Engine: PowerPro 6.5 H.P.
 Honda 6.5 H.P.

Ideal for chemical spraying and transferring a variety of fluids including Roundup® and Atrazine



REPLACEMENT PARTS

Part #	Mfg. Part #	Description
D103X	1542P-65SP	2" x 2" Poly Pump - 6.5 HP PowerPro
D112HX	1542P-200HSP	2" x 2" Poly Pump - 6.5 HP Honda

Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	1		2541-0043	5.5 HP PowerPro Gas Eng. (1542P-3SP)
1A	1	D261X	2541-0045	6.5 HP PowerPro Gas Eng. (1542P-5SP)
2	10	D182X	2250-0087	Hex Flange Nut, M6
3	1	D185X	0750-1540P	Mounting Flange
*4	1		1700-0209	Diffuser Gasket
*5	1	D188X	1720-0244	Pump Body O-Ring
6	1	D190X	0400-1540P	3 Vane Impeller (1542P-55SP)
6A	1	D190AX	0401-1540P	5 Vane Impeller (1542P-65SP)
7	1		1610-0044	Key 3/16" x 5/8" SS (1542P-55SP)
8	1		0150-1540P	Diffuser
9	1		2210-0144	Diffuser Mounting Screw (Long)
10	1		2210-0152	Screw
11	1	A73EX	2404-0350P	Fill/Drain Plug

Ref. No.	Qty.	Part #	Mfg. Part #	Description
12	2	A73FX	1720-0230	Plug O-Ring
13	1	D199X	0100-1540P	Pump Housing
14	10		2270-0115	Flat Housing
15	10	D181BX	2210-0141	Bolt 6M x 1" x 60
16	4		2270-0114	Washer 5/16" SS
17	4	D181X	2210-0153	Mounting Bolt 5/16" - 24 x 1"
18	1	D184X	1410-0083	Slinger Ring
*19	1	D187X	1720-0231	Seal O-Ring
*20	1	D189X	2120-0044	Mechanical Seal
*21	4		1720-0013	O-Ring
22	1	D193X	2210-0142	Impeller Bolt 5/16" - 24 x 1" x 1¼"
23	2	D196X	2210-0145	Diffuser Mounting Screw (Short)
24	1	D197X	1700-0208	Flapper Valve (EPDM)
NS	1	D192X	1700-0210	Impeller Gasket
NS		D189KX	3430-0635	Seal Repair Kit

* Parts Included in Repair Kit

NS = Not Shown

HYPRO®



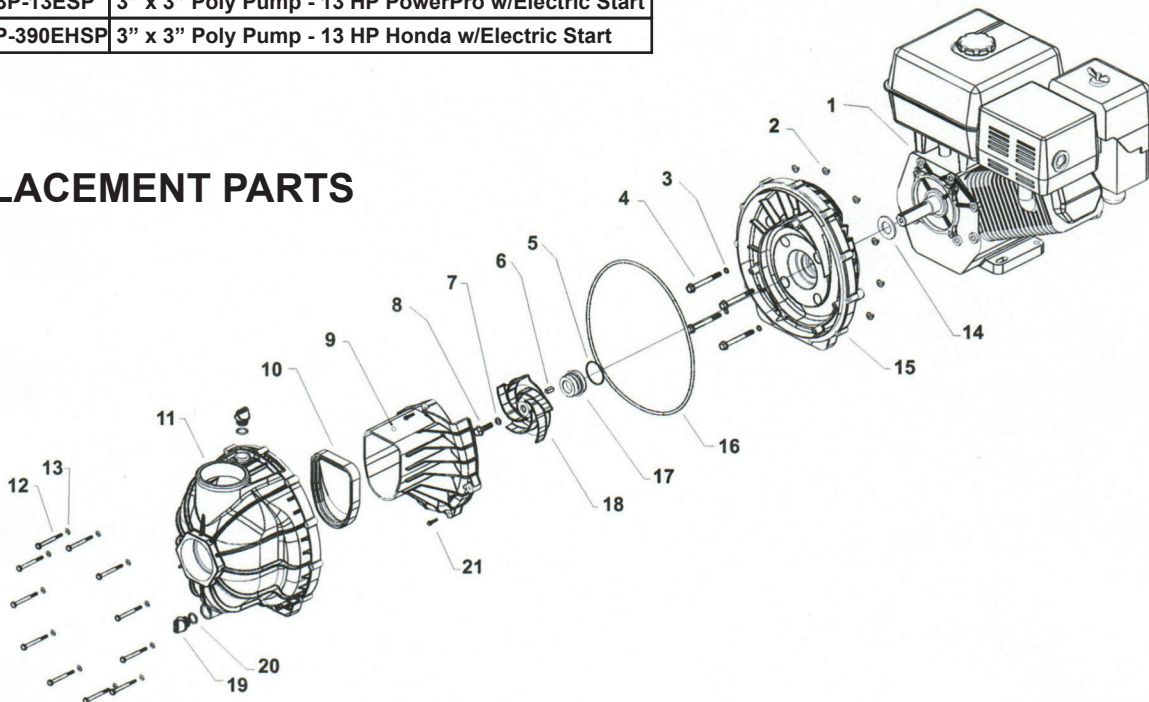
3" Model

Close-Coupled, Gas Engine-Driven, Self-Priming Poly Transfer Pump

Max Flow Rate: 440 GPM
Max Pressure: 54 PSI
Max Total Head: 125 Feet
Max Suction Lift: 25 Feet
Ports: 3" NPT Inlet
 3" NPT Outlet
Engine: PowerPro 13.0 H.P.
 Honda 13.0 H.P.

Part #	Mfg. Part #	Description
D103AX	1543P-13ESP	3" x 3" Poly Pump - 13 HP PowerPro w/Electric Start
D103HX	1543P-390EHSP	3" x 3" Poly Pump - 13 HP Honda w/Electric Start

REPLACEMENT PARTS



Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	1		2543-0049	13 HP Engine, Electric Start Power Pro
2	11	D182X	2250-0087	Hex Flange Nut
*3	4		1723-0149	O-Ring
4	4		2210-0182	Hex Flange Bolt
*5	1		1723-0148	O-Ring
6	1		1610-0069	Key (square)
*7	1		1723-0142	O-Ring
8	1		2210-0181	Hex Flange Bolt
9	1	D217AX	0150-1543P	Pump Volute
*10	1	D215CX	1700-0232	Flapper Valve

Ref. No.	Qty.	Part #	Mfg. Part #	Description
11	1	D218X	0100-1543P	Pump Housing
12	11		2210-0141	Hex Head Cap Screw
13	11		2270-0115	Flat Washer
14	1		1410-0091	Slinger Ring
15	1		0750-1543P	Back Plate
*16	1	D215X	1723-0146	O-Ring
*17	1	D217X	2120-0055	Mechanical Seal
18	1	D216X	0400-1543P	Impeller
19	2	D160AX	2404-350P	Fill/Drain Plug
20	2	A73FX	1720-0230	O-ring
21	4		2210-0183	Hex Washer Head Screw
NS		D217KX	3430-0757	Seal Repair Kit

* Parts Included in Repair Kit

NS = Not Shown

HYPRO®



2" Model

Close-Coupled, Gas Engine-Driven, Self-Priming Cast Iron Transfer Pump

Max Flow Rate: 170 GPM

Max Pressure: 42 PSI

Max Total Head: 97 Feet

Max Suction Lift: 25 Feet

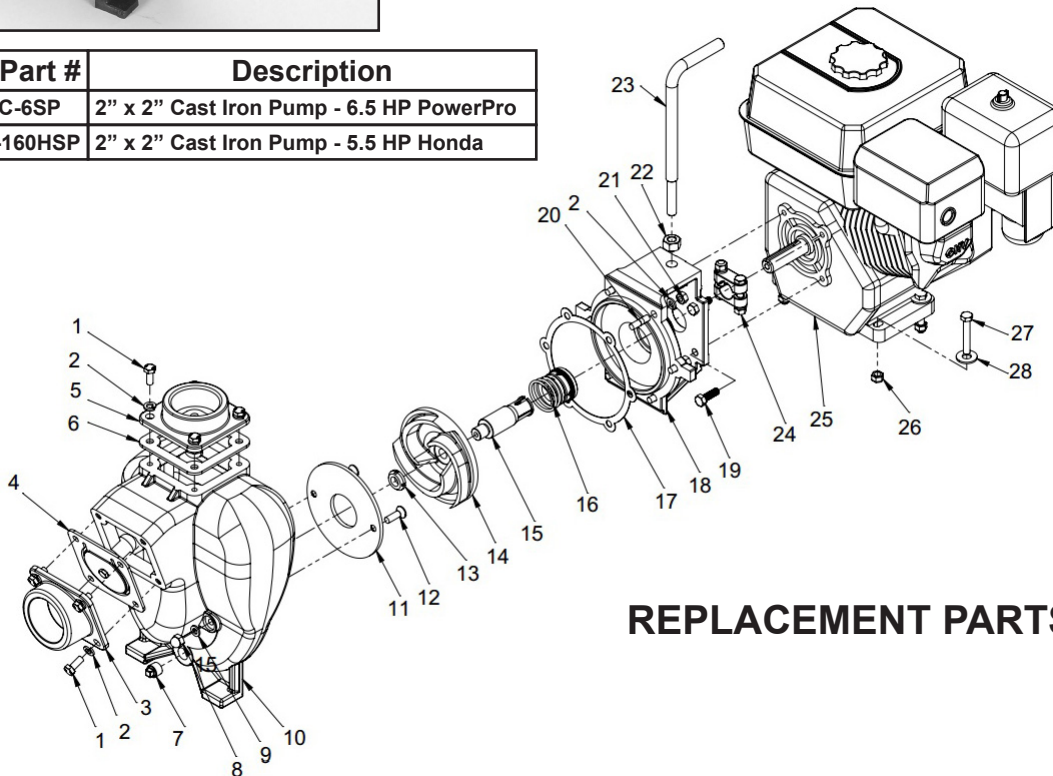
Ports: 2" NPT Inlet

2" NPT Outlet

Engine: PowerPro 6.5 H.P.

Honda 5.5 H.P.

Part #	Mfg. Part #	Description
D107X	1532C-6SP	2" x 2" Cast Iron Pump - 6.5 HP PowerPro
D123HX	1532C-160HSP	2" x 2" Cast Iron Pump - 5.5 HP Honda



REPLACEMENT PARTS

Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	8		2210-0160	Cap Screw 5/16-18
2	14		2260-0051	Lockwasher 5/16
3	1	D17002X	2404-0363	Inlet Flange (2" NPT)
4	1	D17016X	1700-0218	Flapper Valve Assembly
5	1	D17000X	2404-0362	Discharge Flange (2" NPT)
6	1	D17013X	1700-0217	Discharge Flange Gasket (EPDM)
7	1		2406-0041	External Square Drain Plug (3/8" NPT)
8	2		2253-0012	Acorn Nut 5/16-18 SS
9	2		1700-0021	Plastic Washer
10	1		0150-9032C	Self-Priming Chamber
11	1		3210-0094	Wear Plate
12	2		2215-0004	Screw 5/15-18
13	1		2250-0095	Impeller Nut 9/16-18
14	1	D17008X	0400-9032C	Impeller

Ref. No.	Qty.	Part #	Mfg. Part #	Description
15	1	D17006X	0501-9032	Shaft Sleeve 3/4"
16	1	D17035X	2120-0046	Mechanical Seal FKM 1"
17	1	D17018X	1710-0017	Gasket
18	1	D17004X	0750-9032C	Mounting Flange (Gas Engine)
19	4		2210-0143	Hex Head Bolt
20	6	D17042X	2205-0021	Stud
21	6		2250-0094	Hex Nut 5/16-18
22	1		2250-0093	Hex Nut 7/16-20
23	1		2801-0007	Handle
24	1		1420-0023	Shaft Sleeve Clamp
25	1		2541-0045	6.5 HP Gas Engine
26	4		18572-SHW	5/16-18 N.C. Zinc Locknut
27	4		2210-0008	5/16-18 UNC 2A HHCS
28	4		2270-0004	Flat Washer

HYPRO®



3" Model

Close-Coupled, Gas Engine-Driven, Self-Priming Cast Iron Transfer Pump

Max Flow Rate: 330 GPM

Max Pressure: 60 PSI

Max Total Head: 140 Feet

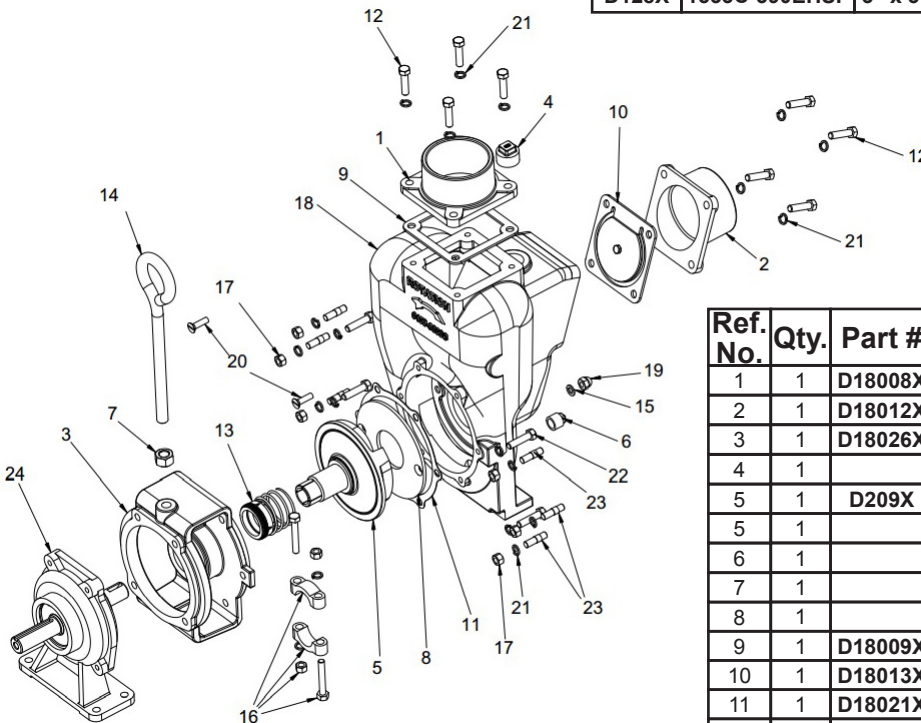
Ports: 3" NPT Inlet

3" NPT Outlet

Engine: PowerPro 13.0 H.P.

Honda 13.0 H.P.

Part #	Mfg. Part #	Description
D127X	1533C-13ESP	3" x 3" Cast Iron Pump - 13 HP PowerPro w/Electric Start
D128X	1533C-390EHSP	3" x 3" Cast Iron Pump - 13 HP Honda w/Electric Start

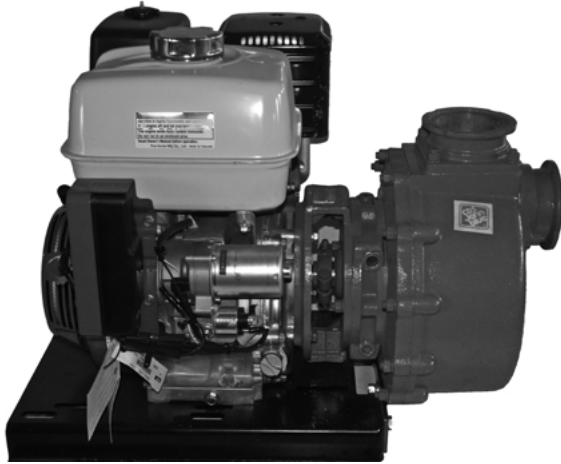


REPLACEMENT PARTS

Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	1	D18008X	2404-0361	Discharge Flange (3" NPT)
2	1	D18012X	2404-0364	Inlet Flange (3" NPT)
3	1	D18026X	0750-9033C	Mounting Flange (Gas Engine)
4	1		2406-0042	Fill Plug (1" NPT)
5	1	D209X	0400-0933C	Impeller w/shaft (1")
5	1		0400-9733C	Impeller w/shaft (1 3/8")
6	1		2406-0043	Drain Plug (½" NPT)
7	1		2250-0096	Nut 5/8-11 Zinc
8	1		3210-0095	Wear Plate
9	1	D18009X	1700-0219	Discharge Flange Gasket (EPDM)
10	1	D18013X	1700-0220	Flapper Valve Assembly (EPDM)
11	1	D18021X	1710-0018	Gasket
12	8		2210-0161	Cap Screw Hex Head 3/8-16 x 1-1/8 Zinc
13	11	D205X	2120-0047	Mechanical Seal (FKM)
14	1		2801-0008	Handle
15	2		1700-0221	Washer (Plastic)
16	1		1420-0024	Shaft Sleeve Clamp Assembly (1")
16	1		1420-0026	Shaft Sleeve Clamp Assembly (1.375")
17	6		2250-0097	Nut 3/8-24 SS
18	1		0150-9033C	Self Priming Chamber
19	2		2253-0011	Acorn Nut 3/8-16 SS
20	2		2215-0005	Screw Slotted Flat Head 3/8-16 x 1" SS
21	18		2260-0052	Lockwasher 3/8 Zinc
22	4		2210-0163	Cap Screw Hex Head 3/8-16 x 2-½ Zinc
23	6		2205-0022	Stud 3/8-24
24	1		0550-9233	Pedestal Assembly (1")

John Blue Centrifugal Wet Seal Pumps

Coupled to Gasoline Engines

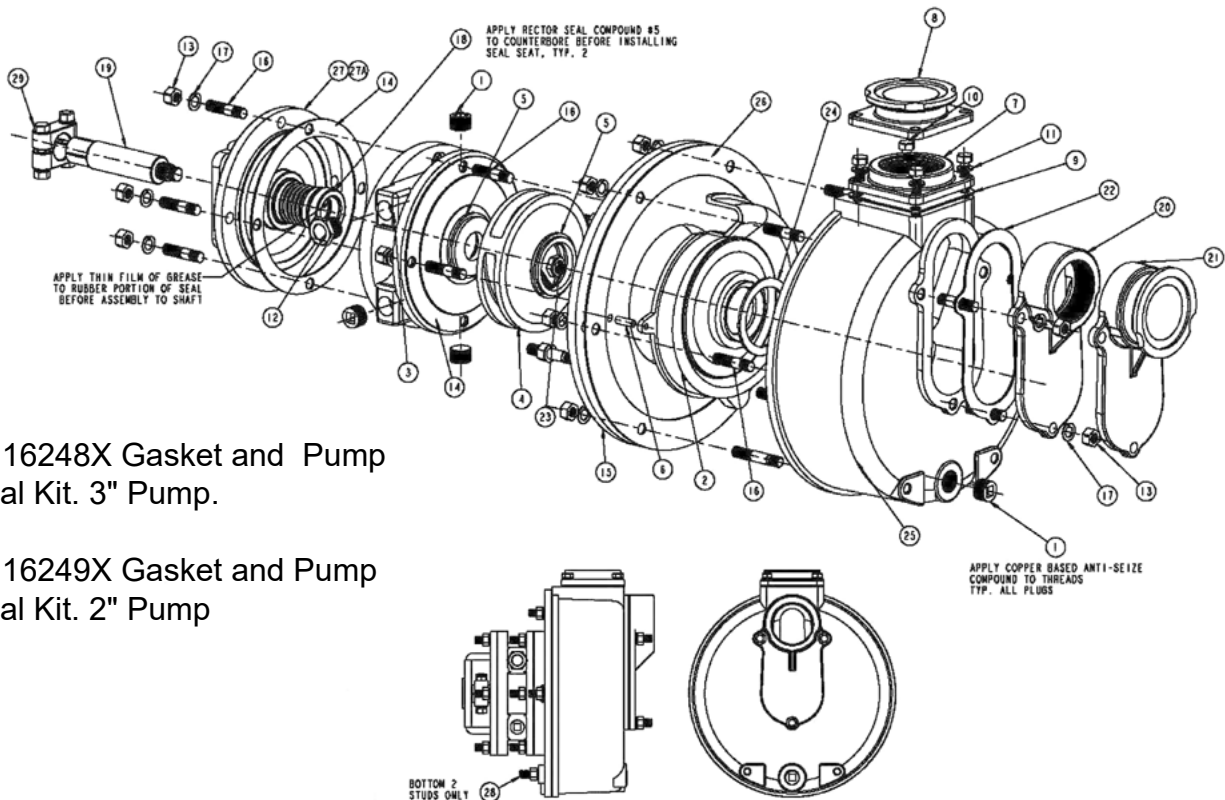


Pump Size	Max Capacity (gpm)	Capacity (@25 psi)	Max Pressure (psi @ shut-off)	Max Speed (rpm)	Max Power (hp)
2"	152	112	42	3600	5
3"	400	365	64	3600	13

Part #	Model	Description
D124X	SP-3220-G5H	2" 5-hp Honda engine
D124FX	SP-3220-G5H-FLG	2" 5-hp Honda engine w/ flanged fittings
D128AX	SP-3350-G13H	3" HF 13-hp, electric start, Honda engine
D128FX	SP-3350-G13H-FLG	3" HF 13-hp, electric start, Honda engine w/flanged fittings
D129POX	SP-3240	2" CI Pump Only
D137X	SP-3350	3" CI Pump Only
D138X	SP-3350-FLG	3" CI Flanged Pump Only

- Patented Vac-U-Seal impeller design creates a vacuum between the impeller and mechanical seal. Lack of pressure on the seal face minimizes seal wear and results in a longer seal life.
- Double wet seal design provides for continuous lubrication of the seal faces. This wet seal design allows the pump to be run dry for extended periods with no damage to the mechanical seal faces.
- Closed impeller design minimizes thrust loading on the drive motor extending the life of the drive motor. Impeller wear actually increases performance.
- Extra thick cast walls provide extra strength and extend the life of the unit due to abrasion and corrosion.

NOTE: Breakdown of 2" pump shown. 3" pump has some differences.



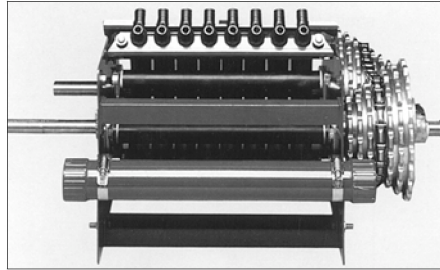
D116248X Gasket and Pump Seal Kit. 3" Pump.

D116249X Gasket and Pump Seal Kit. 2" Pump

John Blue Company Squeeze Tube Pumps

SQUEEZE PUMPS - 4 TO 24 OUTLET MODELS

SINGLE PUMPS are built with a single roller assembly and manifold. They come standard with a jackshaft, aluminum multi-sprockets, chain and standard clutch.



Model	OUTLETS	SIZE	PART #
8B	8	3/8"	D2611X
8L	8	5/8"	D2612X
12B	12	3/8"	D2608X
12L	12	5/8"	D2609X
16B	16	3/8"	D2602X
16L	16	5/8"	D2603X
24B	24	3/8"	D2601X

All pumps standard with S.S. fittings.

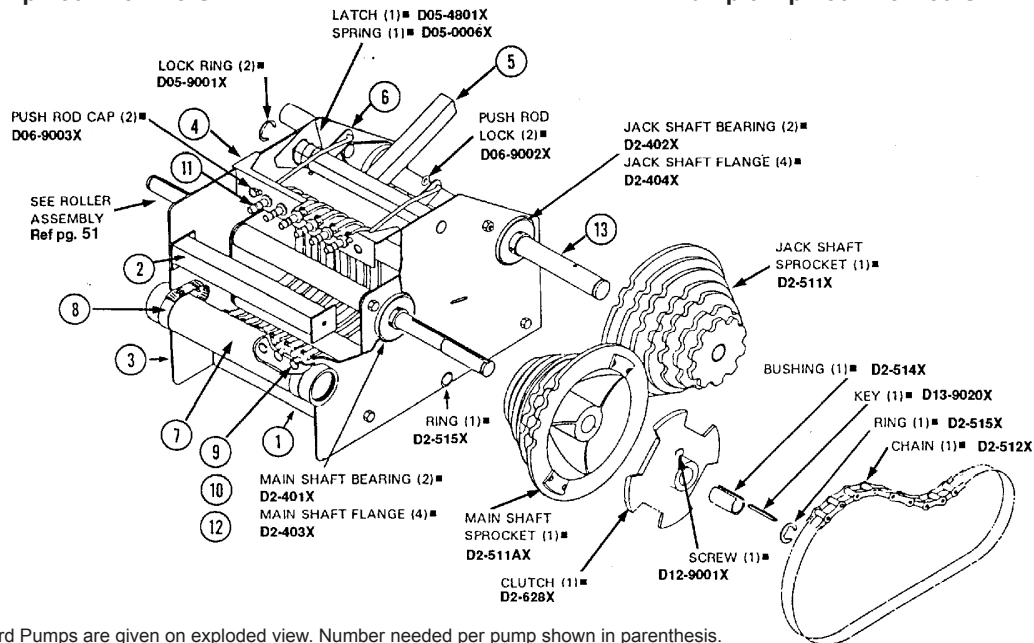
How to order the John Blue Company Pump You Need

1. Determine the number of outlets required (one for each application point). Example: If 14 outlets are required, the 16 outlet pump would be used.
2. Determine tube size (5/8" "L" model or 3/8" "B" model), using this formula: Spacing (inches) x Speed (mph) x Rate (GPA).
3. If result is 1501 or more use 5/8" "L" model, if 1000 to 1500 either can be used, if 1000 or less use 3/8" "B" model.

Squeeze Pump Maximum Output at 100 RPM (Pump may be operated as low as 5 RPM)

"B" Pump 5 mph 30" Row 25 GPA

"L" Pump 5 mph 30" Row 50 GPA



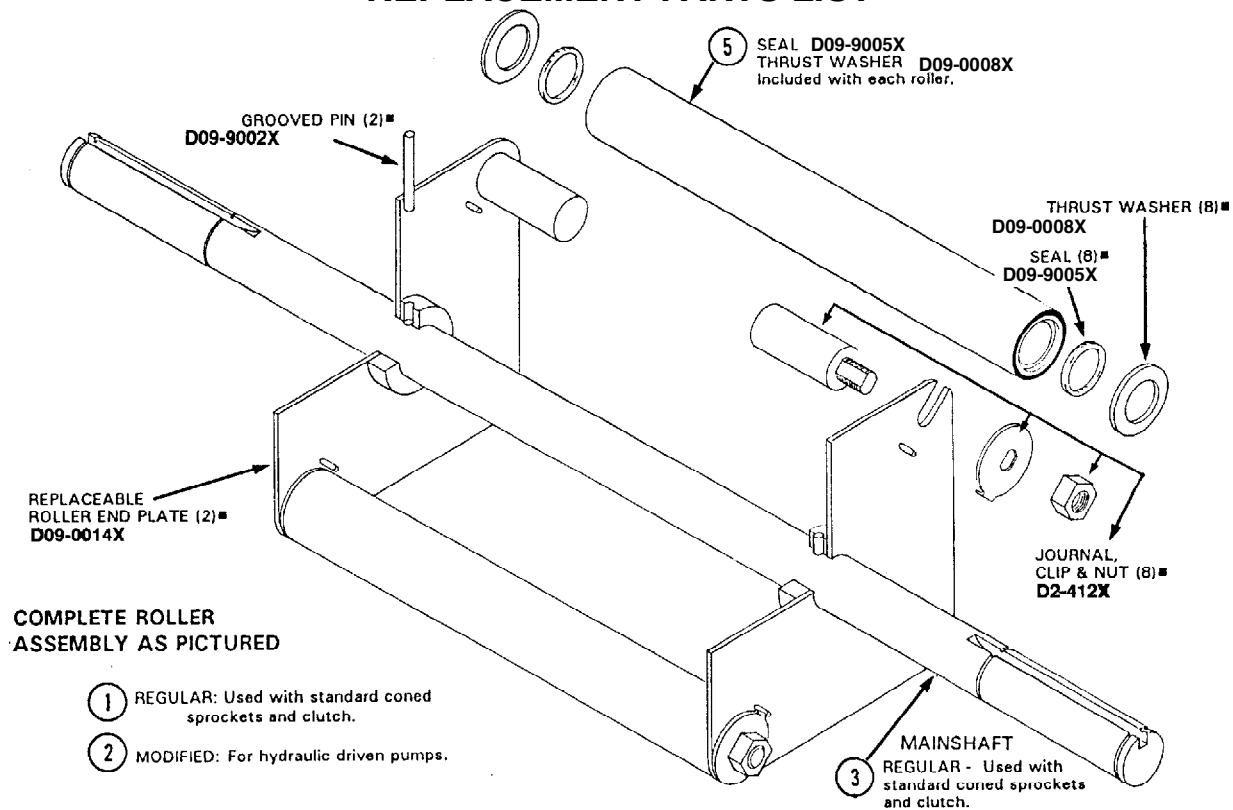
* Parts common to all Standard Pumps are given on exploded view. Number needed per pump shown in parenthesis.

Ref. No.	Description	Qty.	Model 8B Part #	Model 8L Part #	Model 12B Part #	Model 12L Part #	Model 16B Part #	Model 16L Part #	Model 24B Part #
1	Base Channel	2	D01-0810X	D01-0820X	D01-0820X	D01-1220X	D01-1610X	D01-1620X	D01-2410X
2	Frame Support	1	D02-0810X	D02-0820X	D02-0820X	D02-1220X	D02-1610X	D02-1620X	D02-2410X
3	Frame End Plate	2	D03-1610X	D03-1610X	D03-1610X	D03-2410X	D03-1610X	D03-2410X	D03-2410X
4	Outlet Ftg Rack	1	D04-0810X	D04-0820X	D04-1210X	D04-1220X	D04-1610X	D04-1620X	D04-2410X
5	Tube Tension Rack	1	D05-0810X	D05-0820X	D05-1210X	D05-1220X	D05-1610X	D05-1620X	D05-2410X
6	Push Rod	2	D06-0011X	D06-0021X	D06-0011X	D06-0021X	D06-0011X	D06-0021X	D06-0011X
7	Supply Manifold	1	D2-508X	D2-507X	D07-1210X	D07-1220X	D2-509X	D2-510X	D2-510AX
8	Manifold Clamp	2	D07-9001X	D07-9001X	D07-9001X	D07-9002X	D07-9001X	D07-9002X	D07-9002X
9	Squeeze Tube Hose	*	D2-623X	D2-624X	D2-623X	D2-624X	D2-623X	D2-624X	D2-623X
10	Inlet Fitting-Plastic	*	D2-627X	D2-627AX	D2-927X	D2-627AX	D2-627X	D2-627AX	D2-627X
	Inlet Fitting-S.S.	*	D2-627BX	D2-627CX	D2-627BX	D2-627CX	D2-627BX	D2-627CX	D2-627BX
11	Outlet Fitting-Plastic	*	D2-626X	D2-626AX	D2-626X	D2-626AX	D2-626X	D2-626AX	D2-626X
	Outlet Fitting-S.S.	*	D2-626BX	D2-626CX	D2-626BX	D2-626CX	D2-626BX	D2-626CX	D2-626BX
12	S.S. Screw Clamp	*	D08-9003X	D08-9004X	D08-9003X	D08-9004X	D08-9003X	D08-9004X	D08-9003X
13	Jack Shaft	1	D10-0811X	D10-0821X	D10-0821X	D10-1221X	D10-1611X	D10-1621X	D10-2411X

* As Required

JOHN BLUE SQUEEZE TUBE PUMP COMPLETE ROLLER ASSEMBLY

REPLACEMENT PARTS LIST



• Parts listed are common for all CDS Squeeze Pumps. Number needed per pump shown in parenthesis.

Item #	Description	Qty.	Model 8B Part #	Model 8L Part #	Model 12B Part #	Model 12L Part #
1	Reg. Roller Ass'y	1	D09-0810X	D09-0820X	D09-0820X	D09-1220X
3	Reg. Mainshaft	1	D10-0810X	D10-0820X	D10-0820X	D10-1220X
5	Rollers	4	D2-415X	D2-416X	D2-416X	D09-1221X

Item #	Description	Qty.	Model 16B Part #	Model 16L Part #	Model 24B Part #
1	Reg. Roller Ass'y	1	D09-1610X	D09-1620X	D09-2410X
3	Reg. Mainshaft	1	D10-1610X	D10-1620X	D10-2410X
5	Rollers	4	D2-419X	D2-420X	D2-422X

John Blue Company Flow Dividers

“Exacto-Flow” FD-1210/FD-2010 Flow Dividers

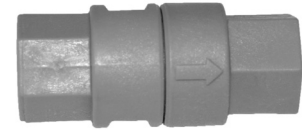
Features:

- Accurately divides liquid products in equal amounts to each row
- Excellent service in fertilizer and chemical applications
- Two or more flow dividers can be banked together for additional outlets while continuing to provide row-to-row precision
- 316 stainless steel body built to last a lifetime
- 3/4” FPT inlet, 1/4” FPT outlets

Part #	Description	Max. Flow Per Outlet
D7112X	Exacto-Flow Stainless Steel Flow Divider (12 outlet)	2.25 GPM
D7120X	Exacto-Flow Stainless Steel Flow Divider (20 outlet)	2.25 GPM
D7112AX	Seal Kit 12-outlet (1) each of #5, 6, 13 and (2) #7	
D7120AX	Seal Kit 20-outlet (1) each of #5, 6, 13 and (2) #7	
A281X	Check Valve 1/4” FPT (1 PSI)	
A282X	Check Valve 3/8” FPT (1 PSI)	



CHECK VALVE



Hose Barbs (Stainless Steel)

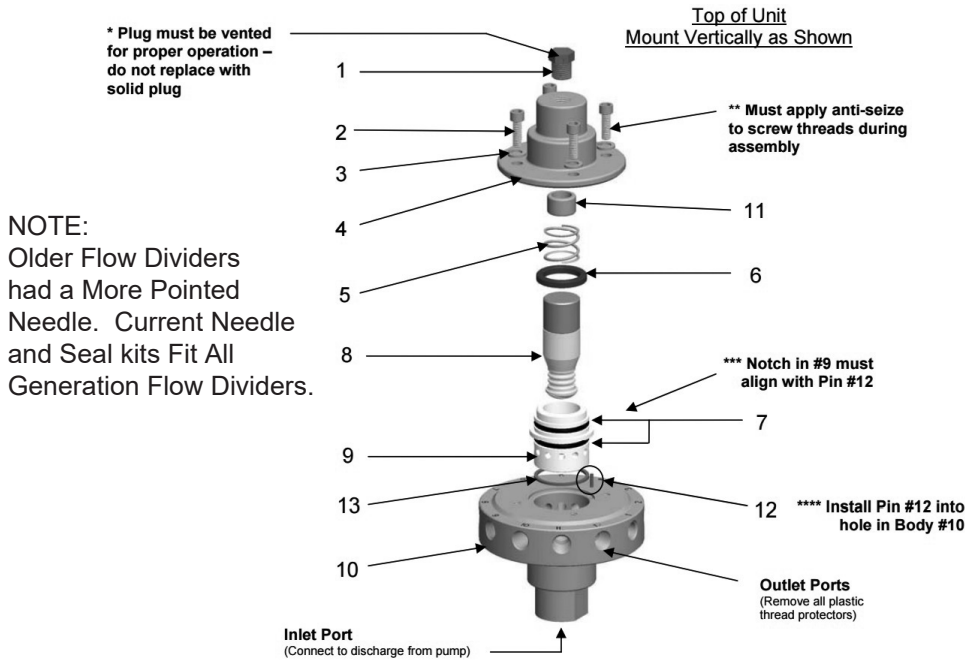


Part #	Description
A191SX	1/4” MPT X 1/4” HB
A192SX	1/4” MPT X 3/8” HB
A193SX	1/4” MPT X 1/2” HB
E901X	3/4” MPT X 3/4” HB
A206SX	3/4” MPT X 1” HB

PIPE PLUG (Stainless Steel)



Part #	Description
E884BX	1/4” SQ. Head Pipe Plug



NOTE:
Older Flow Dividers had a More Pointed Needle. Current Needle and Seal kits Fit All Generation Flow Dividers.

FD-1210 PARTS			FD-2010 PARTS		
Item	Part #	MFG #	Part #	MFG #	Description
1	DS350X	S-350	DS350X	S-350	Vented Cap Plug (* see note)
2	D7112GX	90514	D7112GX	90514	Socket Head Screw (** see note)
3		93022		93022	Lock Washer
4		115156-01		115401-01	Cap
5	D7112BX	115152-01	D7120BX	115399-01	Spring
6	D7112FX	115151-01	D7120FX	115398-01	Needle Seal
7		115025-01		115403-01	O-Ring
8	D7112HX	115106-91	D7120DX	115397-91	Needle
9	D7112EX	115387-01	D7120EX	115402-01	Sleeve (***) see note)
10		115147-01		115400-01	Body
11	D7112CX	115435-01	D7120CX	115438-01	Spacer
12		115495-01		115495-01	3/32 x 3/8 Roll Pin (**** see note)
13	D7112JX	115024-01		115025-01	O-Ring

John Blue Company Piston Metering Pumps

Over One Century of Knowledge Combined With the Latest Technology Makes John Blue Pumps the Standard in Liquid Fertilizer Metering Pumps

NEXT GENERATION PISTON PUMP NGP - 6055

EQUIVALENT LM-2450 SERIES



PART#	MAX GPM	RATED PRESSURE	RATES RPM	DESCRIPTION
D6055X	21.0	120	450	NGP-6055 Single Piston pump without clutch, 1 1/2" inlet, 1 1/2" outlet FPT ports.

NEXT GENERATION PISTON PUMP NGP - 7055

EQUIVALENT LM-4450 SERIES



PART#	MAX GPM	RATED PRESSURE	RATES RPM	DESCRIPTION
D7055X	34.2	120	450	NGP-7055 Single Piston pump without clutch, 1 1/2" inlet, 1 1/2" outlet FPT ports.

NEXT GENERATION PISTON PUMP NGP - 8055



PART#	MAX GPM	RATED PRESSURE	RATES RPM	DESCRIPTION
D8055X	42.0	120	450	NGP-8055 Double Piston pump without clutch, 1 1/2" inlet, 1 1/2" outlet FPT ports.

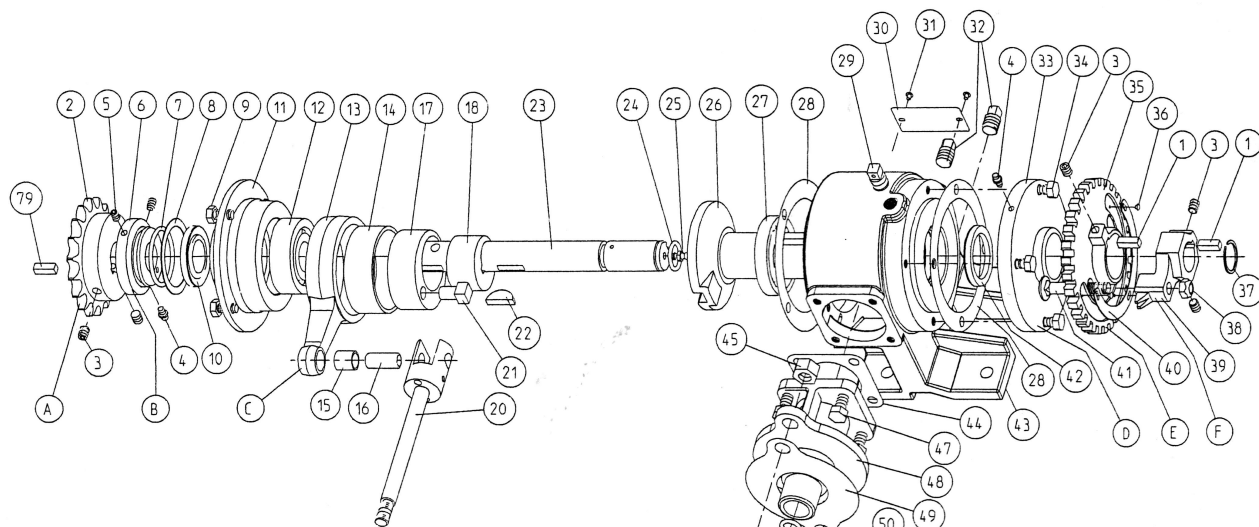
NEXT GENERATION PISTON PUMP NGP - 9055

EQUIVALENT LM-4950 SERIES



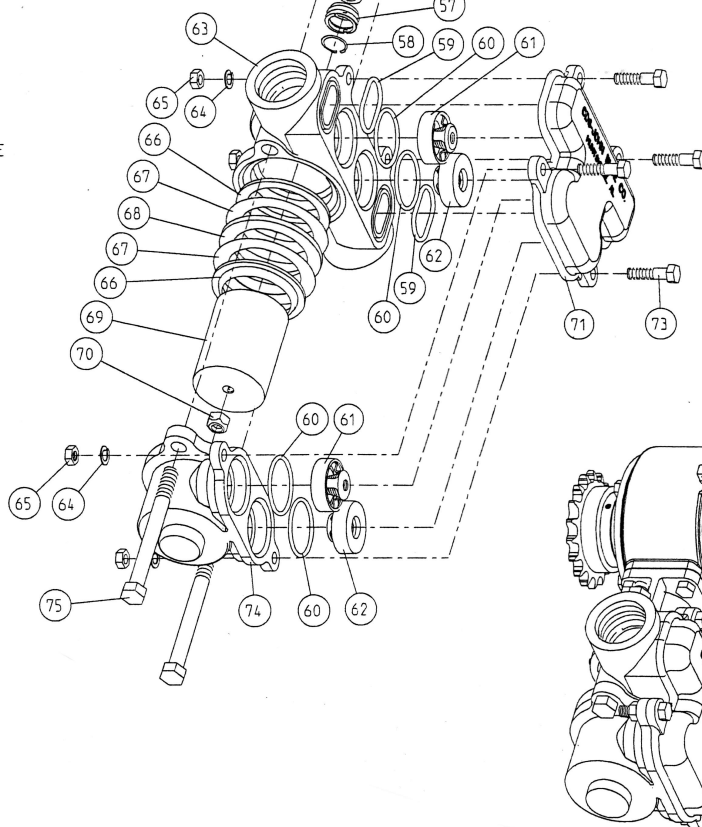
PART#	MAX GPM	RATED PRESSURE	RATES RPM	DESCRIPTION
D9055X	68.4	120	450	NGP-9055 Double Piston pump without clutch, 1 1/2" inlet, 1 1/2" outlet FPT ports.

NGP - 6050 & 7050 SERIES



ITEM	DESCRIPTION	INCLUDES ITEM #'S
A	SPROCKET	2 3
B	SPACER	4 5 6 7 8
C	CONNECTING ROD	13 14 15
D	FLANGE COVER	4 33
E	SETTING HUB	3 35 36 40
F	SETTING POINTER	3 39
G	GASKET KIT	7 8 10 15 24 28 37 42 44 49 50 51 52 53 56 58 59 60 66 67 68
H	OPERATORS KIT	NOT SHOWN

- (G) — GASKET KIT
(H) — OPERATORS KIT
— MANUAL
— WRENCH
— SLIDE CHART
— MOUNTING HARDWARE



BROTHERS EQUIPMENT INC.

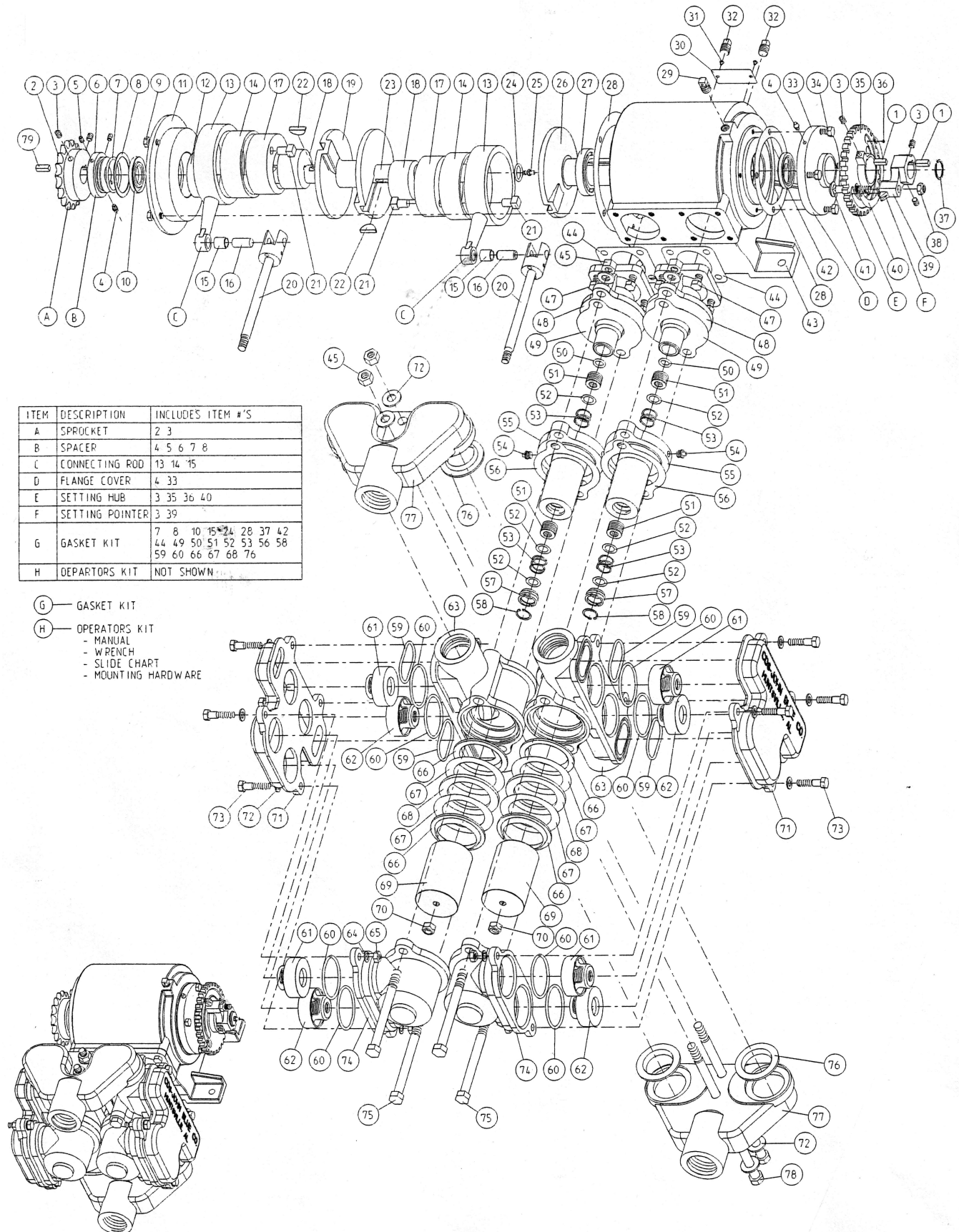
NEBRASKA 800-742-7746 • OUT OF STATE 800-228-4582

PARTS LISTING NGP-6050 & NGP-7050

ITEM	PART DESCRIPTION	NGP-6050 PART #	NGP-7050 PART #
1	KEY	DL1020X	DL1020X
2	SPROCKET RC50-18T	112661-01	112661-01
	-K NO SPROCKET	NOT USED	NOT USED
	-R SPROCKET RC40-18T	113905-01	113905-01
3	5/16" X 3/8" SET SCREW	D90532X	D90532X
4	GREASE FITTING	H-28	H-28
5	1/4" X 3/8" SET SCREW	D90532X	D90532X
6	SPROCKET SPACER	115625-01	115625-01
7	O'RING	S-316	S-316
8	THRUST WASHER	115626-01	115626-01
9	5/16" X 1" HEX BOLT	90637	90637
10	OIL SEAL	115621-01	115621-01
11	COVER PLATE	115723-01	115623-01
12	BEARING	DL3019X	DL3019X
13	CONNECTING ROD	L-1008-A	113630-01
14	JOURNAL BEARING	L-928	113629-01
15	ROD BUSHING	113588-01	113588-01
16	ROD PIN	D10589501X	D10589501X
17	ECCENTRIC - OUTER	L-1013-A	113633-01
18	ECCENTRIC - INNER	L-1015	L-3017
19	TRANSFER SLEEVE	NOT USED	NOT USED
20	PISTON ROD ASSEMBLY	115712-91	D10590091X
21	ECCENTRIC PIN	DL-3004X	DL-3004X
22	WOODRUFF KEY	108093-01	A-4333
23	CRANKSHAFT	115614-01	115614-01
24	O'RING	L-1022	L-1022
25	GREASE ZERK	115647-01	115647-01
26	SETTING SLEEVE	115718-01	115618-01
27	BEARING	DL1007AX	DL1007AX
28	GASKET	L-1006	L-3002
29	VENT PLUG	DS350X	DS350X
30	NAME PLATE	11958-01	111958-01
31	DRIVE SCREW	A-3557	A-3557
32	OIL PLUG	C-431-B	C-431-B
33	FLANGE COVER	115724-01	115724-01
34	5/16" X 1" HEX BOLT	90637	90637
35	SETTING HUB	D11562701X	D11562701X
36	SETTING SCALE SCREW	DA368X	DA368X
37	SNAP RING	115791-01	115791-01
38	3/8" SELF-LOCKING NUT	DA-3097X	DA-3097X
39	SETTING POINTER	D11562801X	D11562801X
40	SETTING SCALE	D11564501X	D11564501X
41	3/8" X 2" CARRIAGE BOLT	115646-01	115646-01
42	OIL SEAL	115622-01	115622-01
43	CRANKCASE	115720-01	115620-01
44	GASKET - CROSSHEAD	115711-01	115611-01
45	1/2" HEX NUT	92029	92029
	-S STAINLESS	92030	92030
46	NOT USED		
47	HEX BOLT	90637	90860
48	CROSSHEAD GUIDE	115700-01	115600-01
49	GASKET - STUFFING BOX	115610-01	115610-01
	-U FUMIGANT	104828-01	104828-01
50	O'RING	D11194301X	D11194301X
51	PACKING "V" SET	DL1109X	DL1109X
	-U FUMIGANT	L-1109U	L-1109U
52	PACKING WASHER	DL1041X	DL1041X
53	PACKING SPRING	DL1063X	DL1063X

ITEM	PART DESCRIPTION	NGP-6050 PART #	NGP-7050 PART #
54	GREASE ZERK	DH30X	DH30X
55	STUFFING BOX	115790-01	115690-01
56	-S STAINLESS	115790-01S	115690-01S
	GASKET-INBOARD CYL.	115710-01	115710-01
57	-U FUMIGANT	104826-02	104826-02
	STUFFING BOX INSERT	L-1031-2	L-1031-2
58	-S STAINLESS	NOT USED	NOT USED
	PACKING - SNAP RING	DL1042X	DL1042X
59	O'RING	S-316	115604-01
	-S STAINLESS	104824-01	115612-01
60	-U FUMIGANT	104824-01	115612-01
	O'RING	DL3031X	DA2848X
61	-S STAINLESS	114768-01	114870-01
	FUMIGANT	114768-01	114870-01
62	DISCHARGE VALVE	115707-91	D11560791X
63	SUCTION VALVE	115706-91	D11560691X
64	INBOARD CYLINDER	115701-02	115601-02
	-S STAINLESS	115701-02S	115701-02S
65	3/8" LOCK WASHER	93024	93024
	-S STAINLESS	93025	93025
66	3/8" HEX NUT	92024	92024
67	PLUNGER - PACKING	DL1045VX	DL1045VX
68	PLUNGER - GASKET	DL1098X	DL1098X
	-U FUMIGANT	114769-01	114769-01
69	PLUNGER - WASHER	DL1044AX	DL1044AX
70	PLUNGER	103290-91	D112816-91X
71	PLUNGER - LOCKING NUT	DL1047X	DL1047X
	VALVE COVER	115703-01	115603-01
72	-S STAINLESS	115703-01S	115603-01S
	NOT USED	NOT USED	NOT USED
73	-DR NOT USED	NOT USED	NOT USED
	3/8" X 1 1/2" HEX BOLT	90911	90911
74	-S STAINLESS	90654	90654
	OUTBOARD CYLINDER	115702-01	115602-01
75	-S STAINLESS	115702-01S	115602-01S
	1/2" HEX BOLT	90704	90705
76	-S STAINLESS (2-BOLTS)	90693/90687	90693/90687
	NOT USED		
77	-DR NOT USED		
	NOT USED		
78	-S NOT USED		
	-DR NOT USED		
79	-DR NOT USED		
	SPROCKET KEY	106493-01	106493-01
A	SPROCKET ASSY. RC50-18T	D10653201X	D10653201X
	-K NO SPROCKET	NOT USED	NOT USED
	-R SPROCKET ASSY. RC40-18T	113907-01	113907-01
B	SPROCKET SPACER ASSY.	115624-91	115624-91
C	CONNECTING ROD ASSY.	DL1008BX	D11364591X
D	FLANGE COVER ASSY.	115725-91	115725-91
E	SETTING HUB ASSY.	115629-91	115629-91
F	SETTING POINTER ASSY.	115630-91	115630-91
G	GASKET KIT	D115788X	D115688X
	-S GASKET KIT-STAINLESS	115788-S	115688-S
	-U GASKET KIT-FUMIGANT	115788-U	115688-U
H	OPERATORS KIT	115787	115787
N/S	SLIDE CHART	D11569891X	D11569891X
N/S	SETTING WRENCH	D11563101X	D11563101X

NGP - 8050 & 9050 SERIES



BROTHERS EQUIPMENT INC.

NEBRASKA 800-742-7746 • OUT OF STATE 800-228-4582

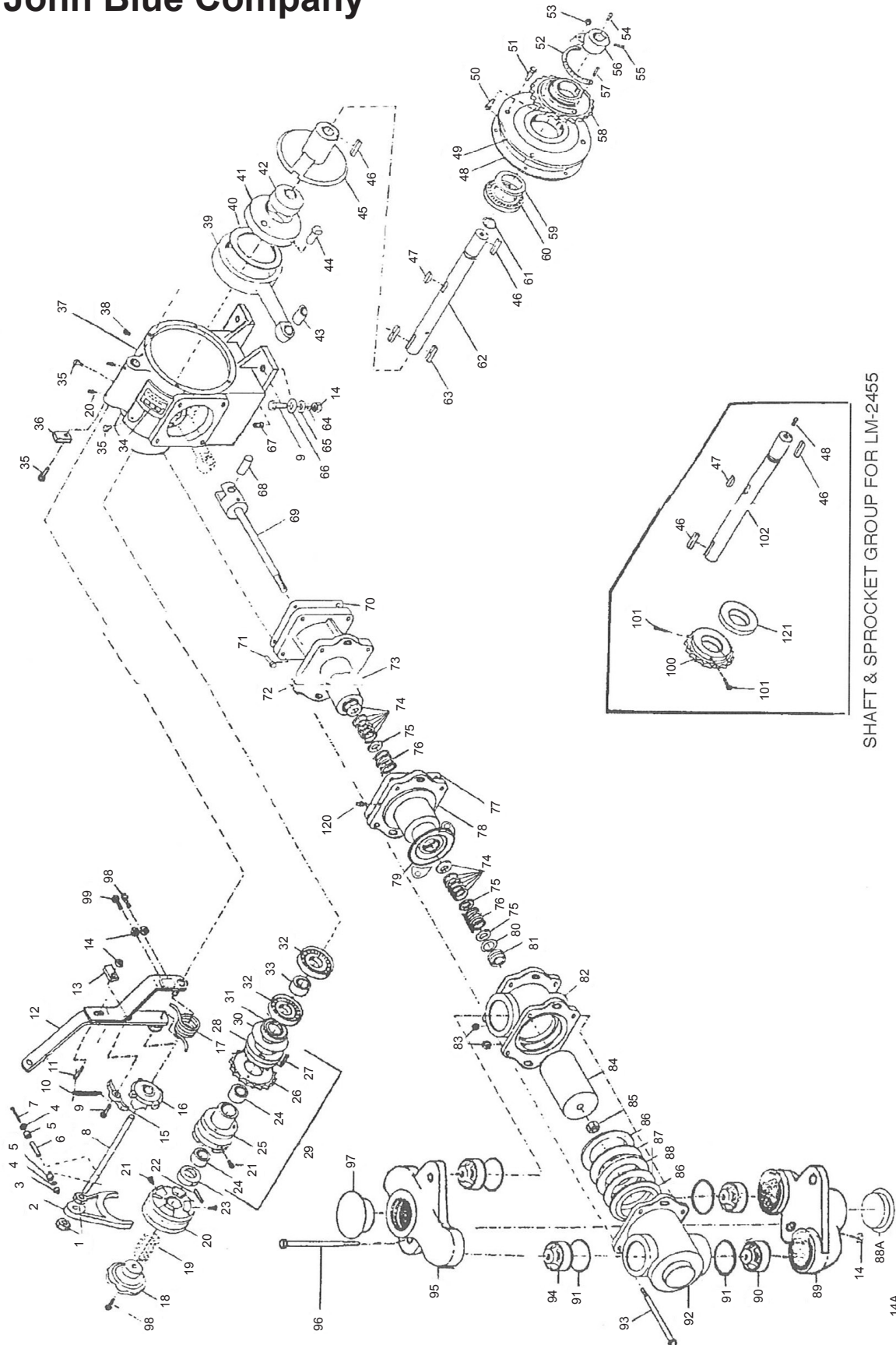
PARTS LISTING - NGP-8050 & NGP-9050 SERIES

ITEM	PART DESCRIPTION	NGP-8055 PART #	NGP-9050 PART #
1	KEY	DL1020X	DL1020X
2	SPROCKET RC50-18T	112661-01	112661-01
	-K NO SPROCKET	NOT USED	NOT USED
	-R SPROCKET RC40-18T	113905-01	113905-01
3	5/16" X 3/8" SET SCREW	D90532X	D90532X
4	GREASE FITTING	H-28	H-28
5	1/4" X 3/8" SET SCREW	90532	90532
6	SPROCKET SPACER	115625-01	115625-01
7	O'RING	S-316	S-316
8	THRUST WASHER	115626-01	115626-01
9	5/16" X 1" HEX BOLT	90637	90637
10	OIL SEAL	115621-01	115621-01
11	COVER PLATE	115723-01	115623-01
12	BEARING	DL3019X	DL3019X
13	CONNECTING ROD	L-1008-A	113630-01
14	JOURNAL BEARING	L-928	113629-01
15	ROD BUSHING	113588-01	113588-01
16	ROD PIN	D10589501X	D10589501X
17	ECCENTRIC - OUTER	L-1013-A	113633-01
18	ECCENTRIC - INNER	L-1015	L-3017
19	TRANSFER SLEEVE	115783-01	115683-01
20	PISTON ROD ASSEMBLY	115712-91	D10590091X
21	ECCENTRIC PIN	112686-01	L-3004
22	WOODRUFF KEY	108093-01	A-4333
23	CRANKSHAFT	115681-01	115681-01
24	O'RING	L-1022	L-1022
25	GREASE ZERK	115647-01	115647-01
26	SETTING SLEEVE	115718-01	115618-01
27	BEARING	DL1007AX	DL1007AX
28	GASKET	L-1006	L-3002
29	VENT PLUG	DS350X	DS350X
30	NAME PLATE	11958-01	111958-01
31	DRIVE SCREW	A-3557	A-3557
32	OIL PLUG	C-431-B	C-431-B
33	FLANGE COVER	115724-01	115724-01
34	5/16" X 1" HEX BOLT	90637	90637
35	SETTING HUB	D11562701X	D11562701X
36	SETTING SCALE SCREW	DA368X	DA368X
37	SNAP RING	115791-01	115791-01
38	3/8" SELF-LOCKING NUT	DA-3097X	DA-3097X
39	SETTING POINTER	D11562801X	D11562801X
40	SETTING SCALE	D11564501X	D11564501X
41	3/8" X 2" CARRIAGE BOLT	115646-01	115646-01
42	OIL SEAL	115622-01	115622-01
43	CRANKCASE	115780-01	115680-01
44	GASKET - CROSSHEAD	115711-01	115611-01
45	1/2" HEX NUT	92029	92029
	-S STAINLESS	92030	92030
46	NOT USED		
47	HEX BOLT	90637	90860
48	CROSSHEAD GUIDE	115700-01	115600-01
49	GASKET - STUFFING BOX	115610-01	115610-01
	-U FUMIGANT	104828-01	104828-01
50	O'RING	D11194301X	D11194301X
51	PACKING "V" SET	DL1109X	DL1109X
	-U FUMIGANT	L-1109U	L-1109U
52	PACKING WASHER	DL1041X	DL1041X
53	PACKING SPRING	DL1063X	DL1063X

ITEM	PART DESCRIPTION	NGP-8050 PART #	NGP-9050 PART #
54	GREASE ZERK	DH30X	DH30X
55	STUFFING BOX	115790-01	115690-01
56	-S STAINLESS	115790-01S	115690-01S
	GASKET-INBOARD CYL.	115710-01	115710-01
57	-U FUMIGANT	104826-02	104826-02
	STUFFING BOX INSERT	L-1031-2	L-1031-2
58	-S STAINLESS	NOT USED	NOT USED
	PACKING - SNAP RING	DL1042X	DL1042X
59	O'RING	S-316	115604-01
	-S STAINLESS	104824-01	115612-01
60	-U FUMIGANT	104824-01	115612-01
	O'RING	DL3031X	DA2848X
61	-S STAINLESS	114768-01	114870-01
	FUMIGANT	114768-01	114870-01
62	DISCHARGE VALVE	115707-91	D11560791X
63	SUCTION VALVE	115706-91	D11560691X
64	-S STAINLESS	115701-02	115601-02
	INBOARD CYLINDER	115701-02S	115701-02S
65	3/8" LOCK WASHER	93024	93024
	-S STAINLESS	93025	93025
66	3/8" HEX NUT	92024	92024
67	PLUNGER - PACKING	DL1045VX	DL1045VX
68	-U FUMIGANT	DL1098X	DL1098X
	PLUNGER - GASKET	DL1044AX	DL1044AX
69	PLUNGER - WASHER	DL1044AX	DL1044AX
70	PLUNGER	103290-91	D112816-91X
71	PLUNGER - LOCKING NUT	DL1047X	DL1047X
	VALVE COVER	115703-01	115603-01
72	-S STAINLESS	115703-01S	115603-01S
	1/2" FLAT WASHER	NOT USED	NOT USED
73	-DR NOT USED	NOT USED	NOT USED
	3/8" X 1 1/2" HEX BOLT	90911	90911
74	-S STAINLESS	90654	90654
	OUTBOARD CYLINDER	115702-01	115602-01
75	-S STAINLESS	115702-01S	115602-01S
	1/2" HEX BOLT	90704	90705
76	-S STAINLESS (2-BOLTS)	90693/90687	90693/90687
	GASKET - MANIFOLD	112696-01	112696-01
77	-DR NOT USED	NOT USED	NOT USED
	MANIFOLD - COMMON	115796-01	115696-01
78	-S NOT USED	115796-01S	115696-01S
	-DR NOT USED	NOT USED	NOT USED
79	1/2" HEX BOLT	115793-01	115693-01
	-DR NOT USED	NOT USED	NOT USED
80	SPROCKET KEY	106493-01	106493-01
A	SPROCKET ASSY. RC50-18T	D10653201X	D10653201X
	-K NO SPROCKET	NOT USED	NOT USED
	-R SPROCKET ASSY. RC40-18T	113907-01	113907-01
B	SPROCKET SPACER ASSY.	115624-91	115624-91
C	CONNECTING ROD ASSY.	DL1008BX	D11364591X
D	FLANGE COVER ASSY.	115725-91	115725-91
E	SETTING HUB ASSY.	115629-91	115629-91
F	SETTING POINTER ASSY.	115630-91	115630-91
G	GASKET KIT	D115789X	D115689X
	-S GASKET KIT-STAINLESS	115789-S	115689-S
	-U GASKET KIT-FUMIGANT	115789-U	115689-U
H	OPERATORS KIT	115787	115787
N/S	SLIDE CHART	D11569891X	D11569891X
N/S	SETTING WRENCH	D11563101X	D11563101X

LM-2450 SERIES PUMP REPLACEMENT PARTS

John Blue Company



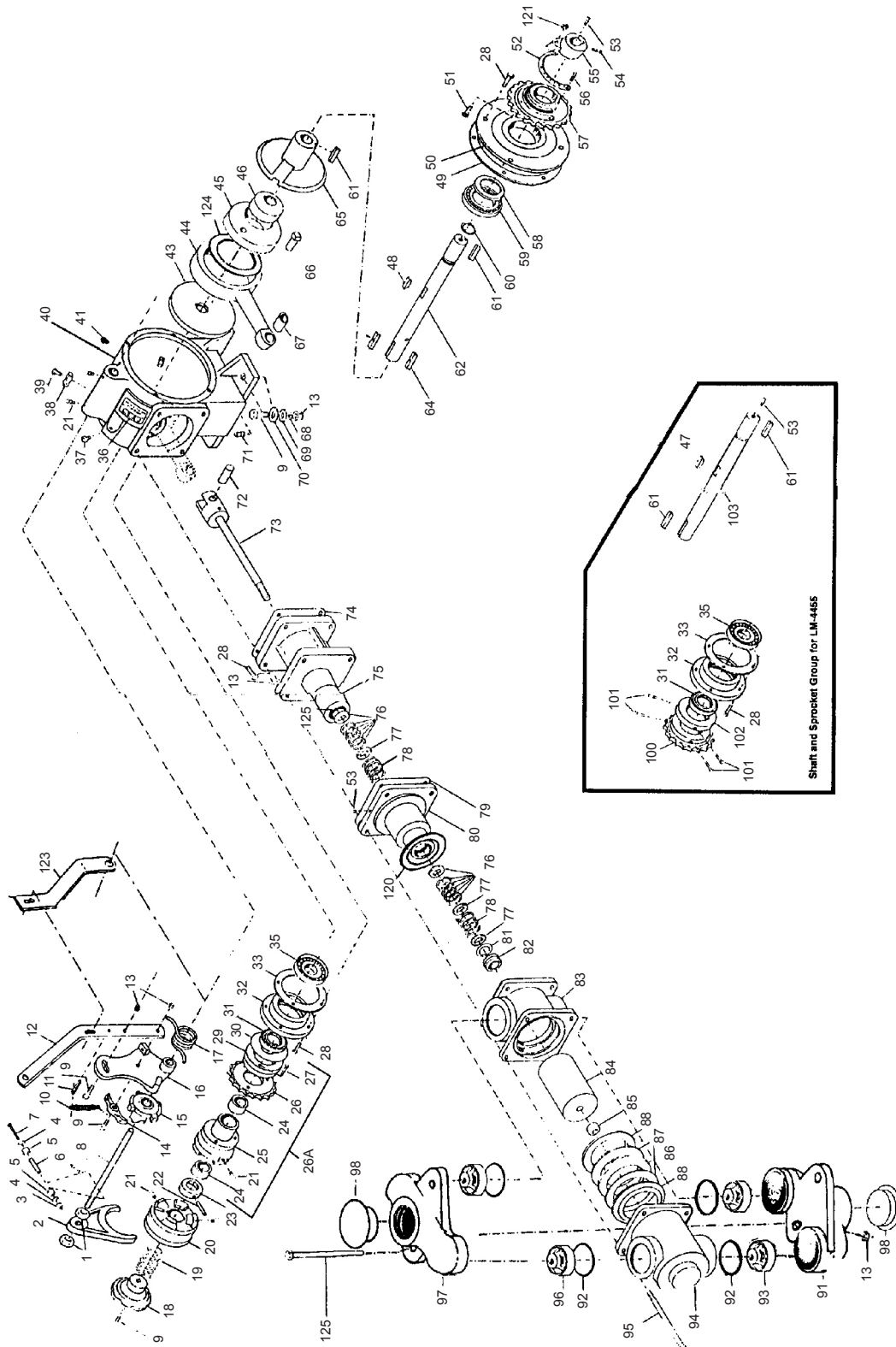
SHAFT & SPROCKET GROUP FOR LM-2455

John Blue Company

REF. NO.	PART NO.	DESCRIPTION	LM2450 QTY	LM2455 QTY
1	92037	5/8" JAM NUT	2	0
2	A-70	SHIFTER YOKE	1	0
3	92014	#10 SQUARE NUT	1	0
4	A-697	WASHER	2	0
5	A-2762	CAM ROLLER	2	0
6	A-2763	ROLL PIN	1	0
7	90953	2 1/4" RD HD SCREW	1	0
8	A-2761	SHIFTER ROD	1	0
9	90655	3/8" X 1 1/2" HEX BOLT	5	4
10	F-48	THROW-OUT LEVER SPRING	1	0
11	94010	5/32" X 1" COTTER PIN	1	0
12	A-2756	THROW-OUT LEVER	1	0
13	A-2760	SPRING CUP	1	0
14	92024	3/8" HEX NUT	11	6
**14	T-2010	3/8" NUT, SS	2	2
15	A-2758-A	PAWL	1	0
16	A-2757-A	THROW-OUT CAM	1	0
17	A-37-R	TORSION SPRING (R.H.)	1	0
18	A-50	HANDWHEEL	1	0
19	HA-57	SAFETY CLUTCH SPRING	1	0
19A	108907-01	SAFETY CLUTCH SPRING	0	0
20	A-260	CLUTCH	1	0
20A	108905-91	CLUTCH	0	0
21	H-28	GREASE FITTING (DR. TYP.)	5	1
22	L-4249	DRIVE PIN	1	0
23	105373-01	CLUTCH COLLAR	1	0
24	A-116	OILITE BUSHING	2	0
25	L-4008-A	CARRIER	1	0
25A	108906-01	CARRIER	0	0
26	L-4006	16T SPROCKET	1	0
27	90993	1/4" X 1 1/2" SOCKET HD BLT	3	0
27A	90637	5/16" X 1" HEX BOLT	4	4
28	L-4009	RETAINING COLLAR	1	0
29	L-4004	16T SPROCKET ASSEMBLY	1	0
*30	110155-91	WASHER	1	0
*31	DL1018X	OIL SEAL	1	1
32	DL1017X	CRANKSHAFT BEARING	2	2
33	L-1016	BEARING SPACER	1	1
34	111958-01	NAME PLATE	1	1
35	90634	5/16" X 1/2" HEX BOLT	3	3
36	A-2759	SPRING CLIP (LOWER)	1	0
37	L-1001-A	CRANKCASE	1	1
38	DS350X	VENT PLUG	1	1
39	DL1008BX	CONNECTING ROD	1	1
40	L-928	BEARING	1	1
41	1L-1013-A	ECCENTRIC, LARGE	1	1
42	L-1015	ECCENTRIC, SMALL	1	1
43	113588-01	BEARING	1	1
44	L-3004	ECCENTRIC PIN	1	1
45	L-1089	STROKE LOCATING SLEEVE	1	1
46	DL1020X	SETTING ARM KEY	2	2
47	108093-01	KEY, WOODRUFF	1	1
*48	L-1006	GASKET COVER PLATE	1	1
49	L-1004-A	COVER PLATE	1	1
50	D91017X	3/8" X 1 3/4" SQ HEAD BOLT	1	1
51	90636	5/16" X 3/4" HEX BOLT	4	4
52	L-1002	PUMP SETTING SCALE	1	1
53	DA3097X	3/8" SELF LOCKING NUT	1	1
54	DH30X	GREASE FITTING (THREAD)	1	1
55	D90532X	5/16" X 3/8" SET SCREW	3	3
56	D15033X	STROKE SETTING ARM	1	1
57	DA368X	SETTING SCALE SCREW	3	3
58	D10593291X	STROKE SETTING FLANGE	1	1
*59	DL1021X	OIL SEAL	1	1
60	DL1007AX	CRANKSHAFT BEARING	1	1
*61	L-1022	CRANKSHAFT O'RING	1	1
62	L-1019	CRANKSHAFT	1	0
63	A-261	SQUARE KEY	2	0
64	93024	3/8" LOCK WASHER	4	4
65	93011	3/8" FLAT WASHER	4	4

REF. NO.	PART NO.	DESCRIPTION	LM2450 QTY	LM2455 QTY
66	A-147	PUMP MOUNTING PAD	4	4
67	C-431-B	1/4" PLUG	3	3
68	D10589501X	CROSSHEAD PIN	1	1
69	D10592691X	PISTON ROD ASSEMBLY	1	1
*70	L-1038	CROSSHEAD GDE. GASKET	1	1
71	90637	5/16" X 1" HEX BOLT	4	4
72	90692	1/2" X 2" HEX BOLT	2	2
**72	90693	1/2" X 2" BOLT, SS	2	2
73	L-1000	CROSSHEAD GUIDE	1	1
*74	DL1109X	ROD VEE PACKING SET	2	3
75	DL1041X	WASHER, PACKING	3	2
76	DL1063X	SPRING, PACKING	2	1
*77	L-1030	GASKET STUFFING BOX	1	1
78	L-1031-1	OUTBOARD STUFFING BOX	1	1
**78	L-1031-1S	OUTBOARD STUFFING BOX, SS	1	1
*79	L-1023	GASKET	1	1
80	DL1042X	RETAINING RING	1	1
81	L-1031-2	STUFFING BOX INSERT	1	1
82	113650-01	CYLINDER, INBOARD	1	1
**82	113650-01S	CYLINDER, INBOARD, SS	1	1
83	92029	1/2" HEX NUT	4	4
**83	92030	1/2" NUT, SS	4	4
84	103290-91	PISTON PLUNGER ASSY.	1	1
85	DL1047X	SELF-LOCKING NUT	1	2
86	DL1045VA	PACKING, PLUNGER	2	2
*87	DL1098X	GASKET, FLANGE PACKING	2	1
*88	DL1044AX	WASHER, FLANGE PACKING	1	1
88A	L-3115	1-1/2" PLASTIC PLUG	1	1
89	113649-01	SUCTION MANIFOLD	1	1
**89	113649-01S	SUCTION MANIFOLD, SS	1	1
90	D10648992X	VALVE, SUCTION	2	2
*91	DL3031X	O'RING VALVE	4	4
92	113651-01	OUTBOARD CYLINDER	1	1
**92	113651-01S	OUTBOARD CYLINDER, SS	1	1
93	90689	1/2" X 1-1/2" HEX HEAD BOLT	2	2
**93	90687	1/2" X 1-1/2" BOLT, SS	2	2
94	D10649092X	DISCHARGE VALVE	2	2
95	113648-01	DISCHARGE MANIFOLD	1	1
**95	113648-01S	DISCHARGE MANIFOLD, SS	1	1
96	90672	3/8" X 7-1/2" HHMB	2	2
**96	91071	3/8" X 6" BOLT, SS	2	2
97	C-3518	1" THREAD PROTECTOR	1	1
98	90653	3/8" X 1-1/4" HHMB	2	0
99	90657	3/8" X 2" HHMB	1	0
100	113685-01	16T SPROCKET	1	0
101	90986	3/8" X 5/8" SCREW	0	2
102	L-1019-A	CRANKSHAFT	0	1
103	114706-91	THROW OUT ROD ASSEMBLY	0	0
104	93016	SAE FLAT WASHER	0	0
105	105448-01	BACK-UP RING	0	0
*106	A-3776	O'RING	0	0
107	105447-01	BODY	0	0
108	105452-01	BACK-UP RING	0	0
109	105461-01	O'RING, PISTON ROD	0	0
110	105449-01	PISTON	0	0
111	105462-01	BACK-UP RING	0	0
*112	A-2849	O'RING	0	0
113	105463-01	CYLINDER	0	0
*114	105500-01	BODY O'RING	0	0
115	93010	5/16" FLAT WASHER	0	0
116	113646-01	STRAP	0	0
117	92020	5/16" X HEX NUT	0	0
118	93023	5/16" LOCK WASHER	0	0
119	90636	5/16" X 3/4" HEX HEAD BOLT	0	0
120	114652-01	45° GEASE FITTING	1	1
121	110147-01	SPACER	0	1
N/A	D113717X	GASKET REPAIR KIT	1	1
N/A	D15027XS	PUMP SETTING WRENCH	1	1
N/A	P00100100AX	PUMP SETTING CHART	1	1

LM-4450 SERIES PUMP REPLACEMENT PARTS



John Blue Company

LM-4450 SERIES PUMP REPLACEMENT PARTS

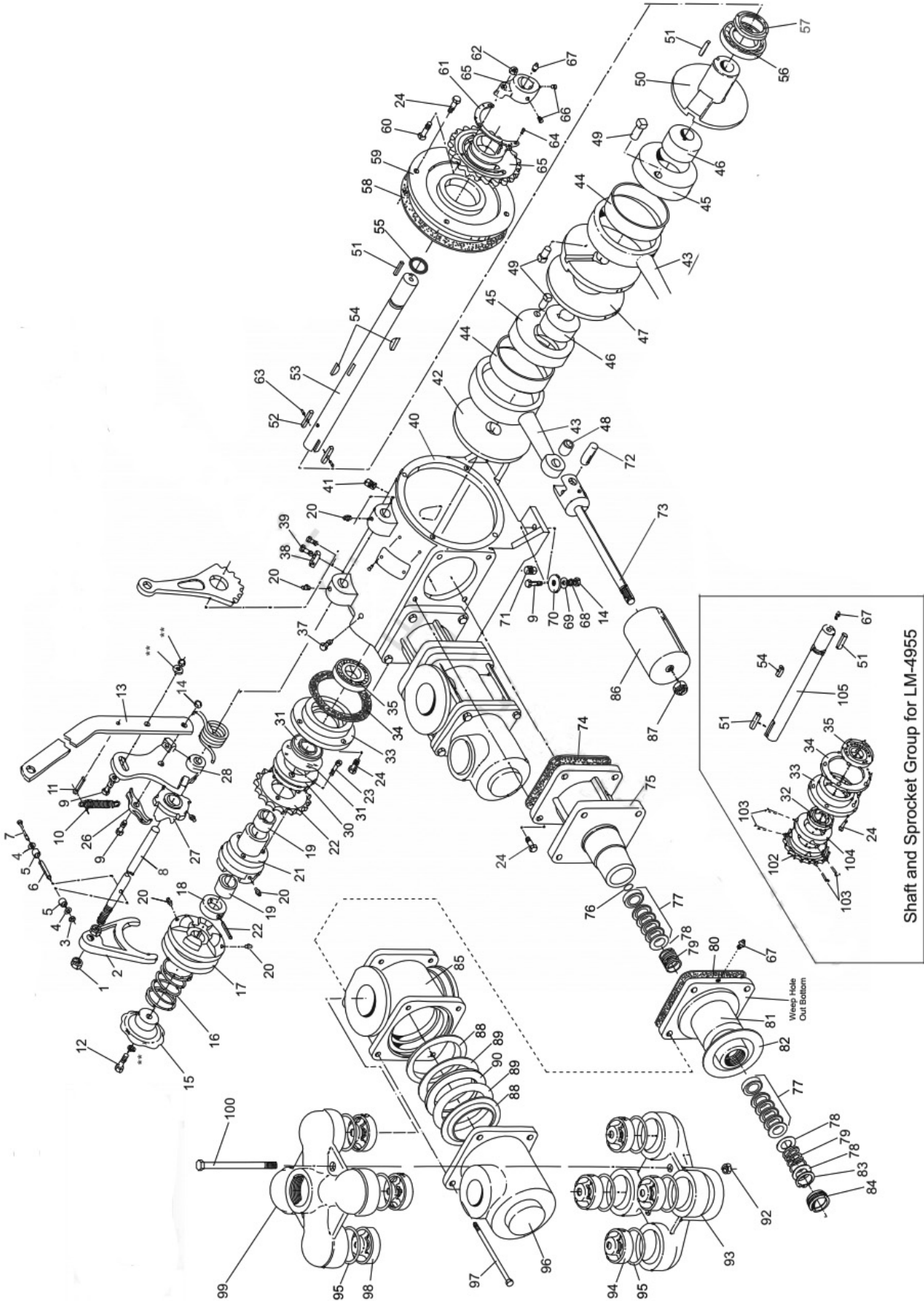
REF. NO.	PART NO.	DESCRIPTION	L-4450 QTY	L-4455 QTY
1	92037	5/8" JAM NUT	2	0
2	113628-01	THROW-OUT YOKE	1	0
3	92014	#10 SQUARE NUT	1	0
4	A-697	WASHER	2	0
5	A-2762	CAM ROLLER	2	0
6	A-2763	ROLL PIN	1	0
7	90953	2 - 1/4" RD HD SCREW	1	0
8	L-4011	THROW-OUT ROD	1	0
9	90655	3/8" X 1 - 1/2" HEX BOLT	6	4
10	F-48	THROW-OUT LEVER SPRING	1	0
11	94010	5/32" X 1" COTTER PIN	1	0
12	L-3064	THROW-OUT LEVER	1	0
13	92024	3/8" HEX NUT	10	8
14	A-2758-A	PAWL	1	0
15	A-2757-A	THROW-OUT CAM	1	0
16	L-3007	THROW-OUT BRACKET	1	0
17	114165-01	R H TORSION SPRING	1	0
18	A-50	HANDWHEEL	1	0
19	HA-57	SAFETY CLUTCH SPRING	1	0
20	A-260	CLUTCH	1	0
21	H-28	GREASE FITTING	5	2
22	L-4249	DRIVE PIN	1	0
23	105373-01	CLUTCH COLLAR	1	0
24	A-116	OILITE BUSHING	2	0
25	L-4008-A	CARRIER	1	0
26	L-4006	16T SPROCKET (OR)		
	L-4007	18T SPROCKET	1	0
26A	L-4004	16T SPROCKET ASSY (OR)		
	L-4005	18T SPROCKET ASSY	1	0
27	90993	1/4" X 1 - 1/2" BOLT	3	0
28	90637	5/16" X 1" HEX BOLT	12	12
29	L-4009	RETAINING COLLAR	1	0
*30	110155-01	WASHER	1	1
*31	DL1018X	OIL SEAL	1	1
32	L-3023	BEARING HOUSING	1	1
*33	DL3021X	BEARING HOUSING GASKET	1	1
35	DL3019X	CRANKSHAFT BEARING	1	1
36	111958-01	NAME PLATE	1	1
37	90634	5/16" X 1/2" HEX BOLT	1	2
38	L-4014	SPRING ANCHOR	1	0
39	90636	5/16" X 3/4" HEX BOLT	1	0
40	113632-01	CRANKCASE ASSEMBLY	1	1
41	DS350X	VENT PLUG	1	1
43	L-3020	CRANKSHAFT DISC	1	1
44	D11364591X	CONNECTING ROD	1	1
45	113633-01	LARGE ECCENTRIC	1	1
46	L-3017	SMALL ECCENTRIC	1	1
48	A-4333	#808 WOODRUFF KEY	1	1
*49	L-3002	COVER PLATE GASKET	1	1
50	L-3001	COVER PLATE	1	1
51	D91017X	3/8" X 1 - 3/4" SQ. HEAD BOLT	1	1
52	D11476301X	PUMP SETTING SCALE	1	1
53	DH30X	GREASE FITTING	2	2
54	D90532X	5/16" X 3/8" SET SCREW	3	3
55	D15033X	STROKE SETTING ARM	1	1
56	DA368X	SETTING SCALE SCREW	3	3
57	D10593291X	STROKE SETTING FLANGE	1	1
*58	DL1021X	OIL SEAL	1	1
59	DL1007AX	CRANKSHAFT BEARING	1	1
*60	L-1022	CRANKSHAFT O-RING	1	1
61	DL1020X	SETTING ARM KEY	2	3
62	L-4012	CRANKSHAFT	1	0
64	A-261	SQUARE KEY	2	0

REF. NO.	PART NO.	DESCRIPTION	L-4450 QTY	L-4455 QTY
65	L-3056	STROKE LOCATING SLV.	1	1
66	L-3004	ECCENTRIC PIN	1	1
*67	113588-01	CONNECTOR ROD BUSHING	1	1
68	93024	3/8" LOCK WASHER	4	4
69	93011	3/8" FLAT WASHER	4	4
70	A-147	LEG MOUNTING PAD	4	4
71	C-431-B	PLUG	3	3
72	D10589501X	CROSSHEAD PIN	1	1
73	D10590091X	PISTON ROD ASSEMBLY	1	1
*74	DL3052X	CROSSHEAD GDE.GASKET	1	1
75	111935-01	CROSSHEAD GUIDE	1	1
*76	DL1109X	ROD VEE PACKING SET	2	2
77	DL1041X	WASHER	3	3
78	DL1063X	PACKING SPRING	2	2
*79	L-3074	STUFFING BOX GASKET	1	1
80	111937-01	OUTBOARD STUFFING BOX	1	1
81	DL1042X	RETAINING RING	1	1
82	L-1031-2	STUFFING BOX INSERT	1	1
83	111938-01	INBOARD CYLINDER	1	1
84	D11281691X	PISTON PLUNGER ASSY	1	1
85	DL1047X	SELF-LOCKING NUT	1	1
86	DL1044AX	FLANGE PACKING WASHER	1	1
*87	DL1098X	PACKING ADJ. GASKET	2	2
*88	DL1045VX	FLANGE PLUNGER PACKING	2	2
90	L-3115	1/2" PLASTIC PLUG	1	1
91	D111945-01X	SUCTION MANIFOLD	1	1
*92	DA2848X	VALVE O-RING	4	4
93	D109112-92X	SUCTION VALVE ASSY	2	2
94	111940-01	OUTBOARD CYLINDER	1	1
95	91051	3/8" X 8" HEX BOLT	4	4
96	D109113-92X	DISCHARGE VALVE ASSY	2	2
97	D11194401X	DISCHARGE MANIFOLD	1	1
98	C-3517	PLASTIC PLUG	1	1
100	D10653201X	SPROCKET	0	1
101	90986	3/8" X 5/8" SCREW	0	4
102	110147-01	SPACER	0	1
103	103453-02	CRANKSHAFT	0	1
119	90636	5/16"-18 NC X 3/4" HHMB PL	1	0
*120	115134-01	GASKET	2	2
121	DA3097X	3/8" LOCK NUT	1	1
123	L-4025	SUPPORT HANDLE	1	0
124	113629-01	BEARING, CRANK PIN	1	1
*125	D11194301X	O-RING	1	1
126	91063	BOLT 3/8" X 8-1/2"	2	2
N/A	P34120003X	GASKET REPAIR KIT(111953)	1	1
N/A	D15027X	PUMP SETTING WRENCH	1	1
N/A	P00100100X	PUMP SETTING CHART	1	1

*Denotes Items Found in Repair Kit

John Blue Company

LM-4950 SERIES PUMP REPLACEMENT PARTS



John Blue Company

LM-4950 SERIES PUMP REPLACEMENT PARTS

REF. NO.	PART NO.	DESCRIPTION	L-4950 QTY	L-4955 QTY
1	92037	5/8" JAM NUT	2	0
2	113628-01	THROW-OUT YOKE	1	0
3	92014	#10 SQUARE NUT	1	0
4	A-697	WASHER	2	0
5	A-2762	CAM ROLLER	2	0
6	A-2763	ROLL PIN	1	0
7	90953	2 1/2" RD HD SCREW	1	0
8	L-3006	THROW-OUT ROD	1	0
9	90655	3/8" X 1 1/2" HEX BOLT	5	4
10	F-48	THROW-OUT LEVER SPRING	1	0
11	94010	5/32" X 1" COTTER PIN	1	0
12	90653	3/8" X 1-1/4" HEX BOLT	2	0
13	L-3064	THROW-OUT LEVER	1	0
14	92024	3/8" HEX NUT	14	12
15	A-50	HANDWHEEL	1	0
16	HA-57	SAFETY CLUTCH SPRING	1	0
16A	108907-01	SAFETY CLUTCH SPRING	0	0
17	A-260	CLUTCH	1	0
18	105373-01	CLUTCH COLLAR	1	0
19	A-116	OILITE BUSHING	2	0
20	H-28	GREASE FITTING	6	2
21	L-4008-A	SPROCKET CARRIER	1	0
22	L-4007	18T SPROCKET	1	0
23	90993	1/4" X 1-1/2" SOCKET HD BOLT	3	0
24	90637	5/16" X 1" HEX BOLT	16	16
25	L-4249	DRIVE PIN	1	0
26	A-2758-A	PAWL	1	0
27	A-2757-A	THROW-OUT CAM	1	0
28	L-3007	THROW-OUT BRACKET	1	0
29	114165-01	RIGHT-HAND TORSION SPRING	1	0
30	L-4009	RETAINING COLLAR	1	0
*31	110155-01	WASHER, NYLON	1	1
*32	DL1018X	OIL SEAL	1	1
33	L-3023	BEARING HOUSING	1	1
*34	DL3021X	BEARING HOUSING GASKET	1	1
35	DL3019X	CRANKSHAFT BEARING	1	1
36	111958-01	NAME PLATE	1	1
37	90634	5/16" X 1/2" BOLT	1	2
38	L-4014	SPRING ANCHOR	1	0
39	90636	5/16" X 3/4" BOLT	1	0
40	113634-01	CRANKCASE	1	1
41	DS350X	VENT PLUG	1	1
42	L-3020	CRANKSHAFT DISC	1	1
43	D11364591X	CONNECTING ROD	2	2
44	113629-01	BEARING CRANK PIN	2	2
45	113633-01	LARGE ECCENTRIC	2	2
46	L-3017	SMALL ECCENTRIC	2	2
47	L-3018	STROKE TRANSFER SLEEVE	1	1
*48	113588-01	CONNECTING ROD BUSHING	2	2
49	L-3004	ECCENTRIC PIN	3	3
50	L-3056	STROKE LOCATING SLEEVE	1	1
51	DL1020X	SETTING ARM KEY	2	2
52	A-261	CLUTCH KEY	2	0
53	L-3013	CRANKSHAFT	1	0
54	A-4333	KEY, WOODRUFF	2	2
*55	L-1022	CRANKSHAFT O-RING	1	1
56	L-1007-A	BEARING, LOCATING SLEEVE	1	1
*57	DL1021X	OIL SEAL	1	1
*58	L-3002	COVER PLATE GASKET	1	1
59	L-3001	COVER PLATE	1	1
60	D91017X	3/8" SQUARE HEAD BOLT	1	1
61	D11476301	PUMP SETTING SCALE	1	1
62	DA3097X	3/8" SELF - LOCKING NUT	1	1

REF. NO.	PART NO.	DESCRIPTION	L-4950 QTY	L-4955 QTY
63	D10593291X	STROKE SETTING FLANGE	1	1
64	DA368X	SETTING SCALE SCREW	3	3
65	D15033X	STROKE SETTING ARM	1	1
66	D90532X	5/16" X 3/8" SET SCREW	3	3
67	DH30X	GREASE FITTING	3	3
68	93024	3/8" LOCK WASHER	4	4
69	93011	3/8" FLAT WASHER	4	4
70	A-147	LEG MOUNTING PAD	4	4
71	C-431-B	PLUG	3	3
72	D10589501X	CROSSHEAD PIN	2	2
73	D10590091X	PISTON ROD ASSEMBLY	2	2
*74	DL3052X	CROSSHEAD, GUIDE GASKET	2	2
75	111935-01	CROSSHEAD GUIDE	2	2
*76	111943-01	O-RING	2	2
*77	DL1109X	ROD VEE PACKING SET	4	4
78	DL1041X	WASHER	6	6
79	DL1063X	PACKING SPRING	4	4
*80	L-3074	STUFFING BOX GASKET	2	2
81	111937-01	OUTBOARD STUFFING BOX	2	2
*82	115134-01	GASKET	2	2
83	DL1042X	RETAINING RING	2	2
84	L-1031-2	STUFFING BOX INSERT	2	2
85	111938-01	INBOARD CYLINDER	2	2
86	D11281691X	PISTON PLUNGER ASSEMBLY	2	2
87	DL1047X	SELF-LOCKING NUT	2	2
*88	DL1045VX	FLANGE PLUNGER PACKING	4	4
*89	DL1098X	PACKING ADJUSTMT. GASKET	4	4
90	DL1044AX	FLANGE PACKING WASHER	2	2
91	C-3519	2" THREAD PROTECTOR	1	1
92	92029	1/2" HEX NUT	4	4
93	111939-01	SUCTION MANIFOLD	1	1
94	D109112-92X	SUCTION VALVE	4	4
*95	DA2848X	VALVE O-RING	8	8
96	111940-01	OUTBOARD CYLINDER	2	2
97	91051	3/8" X 8" HEX HEAD BOLT	8	8
98	D109113-92X	DISCHARGE VALVE	4	4
99	111936-01	DISCHARGE MANIFOLD	1	1
100	111955-01	STUD, MANIFOLD	2	2
101	L-3115	1 1/2" THREAD PROTECTOR	1	1
102	D10653201X	18T SPROCKET	0	1
103	90986	3/8" X 5/8" SET SCREW	0	4
104	110147-01	SPACER	0	1
105	115031-01	CRANKSHAFT	0	1
N/S	115125-01	1/4" X 1-1/2" DOWEL PIN	0	1
N/A	D111947X	GASKET REPAIR KIT	1	1
N/A	D15027X	PUMP SETTING WRENCH	1	1
N/A	P00100100AX	PUMP SETTING CHART	1	1

*DENOTES ITEMS FOUND IN REPAIR KIT
NOTE: MOST PARTS INTERCHANGEABLE WITH CDS
G-2000 SERIES PUMPS

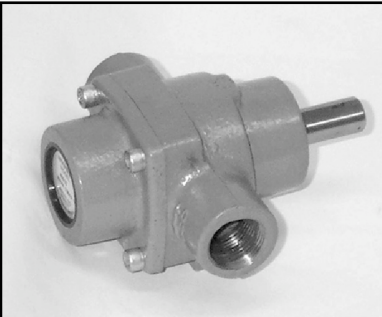
HYPRO ROLLER PUMPS

POSITIVE DISPLACEMENT, CAST IRON, NI-RESIST AND SILVERCAST PUMPS FOR MOST AG CHEMICAL SPRAYING AND OTHER FLUID TRANSFER APPLICATIONS

Hypro roller pumps are known for their durability and long running capabilities. In fact, Hypro pumps last (on average) 2 1/2 times longer than the competition. This is due, in part, to the pumps high "Brinell" rating. Other pumps use a softer iron that can't be finished as smoothly and, consequently, these pumps wear out earlier.

Models range from 4-8 rollers per pump and come standard with Hypro's new "Super Roller" material. The pumps operate efficiently at PTO speeds of 540 and 1000 rpm. Pressure ranges are up to 300 PSI with flow rates of 2-74 GPM. The pump should be run at maximum pressure for only short periods of time to prevent premature pump failure.

SERIES 4001 & 4101 4-ROLLER PUMP

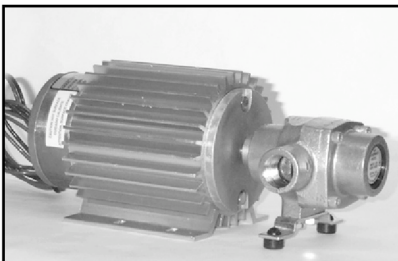


- Max flow: 4001: 9gpm at 1800 rpm
4101: 7gpm at 2600 rpm
- Max pressure: 150 psi
- Rated speeds: 1800 rpm/2600 rpm
- Port size: 3/4" NPT
- Shaft size: 5/8" solid
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast housing
- Pump shaft rotation: CW
- Less coupler

Part #	MFG#	DESCRIPTION
D500X	4001C	Cast Iron Roller Pump
D501X	4001N	Ni-Resist Roller Pump
D502X	4101C	Cast Iron Roller Pump
D503X	4101N	Ni-Resist Roller Pump
D501AX	4001XL	Silvercast Roller Pump
D503BX	4101XL	Silvercast Roller Pump
D504X	3420-0025	Mounting Base
D504AX	3430-0390	Repair Kit *
D454X	2000-0010	Ball Bearing

NOTE: * Repair kit includes 4 polly rollers, 1 o-ring gasket

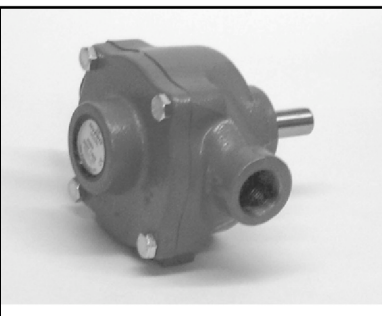
SERIES 4001-XLEH 12-VOLT ELECTRIC DRIVEN ROLLER PUMP



- Packaged unit includes:
A Hypro 4001XL-EH 4-roller
SilverCast Pump
A 12-volt DC motor locking collar
and torque arm
- Max. flow: 9 gpm
- Max. pressure: 15 psi continuous
duty
- Super rollers and viton seals
standard
- Pump shaft 1/2" hollow

Part #	MFG#	DESCRIPTION
D503AX	4001XLEH	Silver Cast Roller Pump w/12 Volt Electric Motor
D503DX	4001XL-H	Silver Cast Roller Pump Only (Hollow Shaft)
D504BX	4101XL-E2H	Silver Cast Roller Pump w/12 Volt Electric Motor
D503EX	4101XL-H	Silver Cast Roller Pump Only (Hollow Shaft)

SERIES 6500 6-ROLLER PUMP



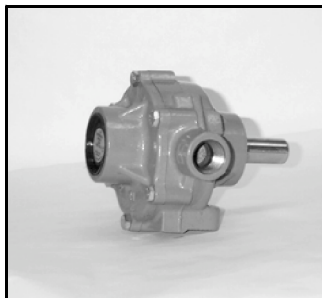
- Max flow: 9.7 gpm at 540 rpm
18.2 gpm at 1000 rpm
- Max pressure: 300 psi
- Max speed: 1200 rpm
- Port size: 3/4" NPT
- Shaft size: 5/8" solid
- 1" hose barb inlet fitting for 1000 rpm
operation
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast
housing
- Pump shaft rotation: CCW
- Less coupler

Part #	MFG#	DESCRIPTION
D505X	6500C	Cast Iron Roller Pump
D506X	6500N	Ni-Resist Roller Pump
D506AX	6500XL	Silvercast Roller Pump
D507X	3430-0380	Repair Kit *
D454X	2000-0010	Ball Bearing

NOTE: * Repair kit includes 6 polly rollers, 1 o-ring gasket, 2 viton seals

HYPRO ROLLER PUMPS

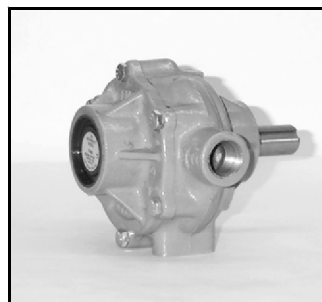
SERIES 7560 8-ROLLER PUMP



- Max. flow: 12 gpm at 540 rpm
22.5 gpm at 1000 rpm
- Max. pressure: 300 psi
- Max. speed: 1000 rpm
- Shaft size: 15/16" solid
- Port size: 3/4" NPT
- 1" hose barb inlet fitting for 1000 rpm operation
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast housing
- Shaft rotation: CCW
- Less coupler

PART#	MFG#	DESCRIPTION
D525X	7560C	CAST IRON ROLLER PUMP
D526X	7560N	NI-RESIST ROLLER PUMP
D526AX	7560XL	SILVERCAST ROLLER PUMP
D527X	3430-0381	REPAIR KIT (includes 8 nylon rollers, 1 "O" ring gasket, 2 viton seals)
D441X	2008-0001	BALL BEARING

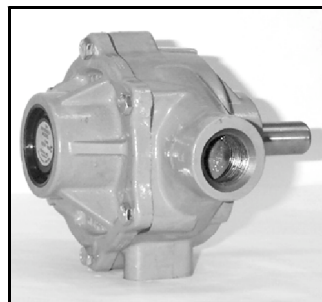
SERIES 7700 7-ROLLER PUMP



- Max. flow: 14.2 gpm at 540 rpm
22.1 gpm at 800 rpm
- Max. pressure: 200 psi
- Max. speed: 800 rpm
- Shaft size: 15/16" solid
- Port size: 3/4" NPT
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast housing
- Pump shaft rotation: CCW
- Less coupler

PART#	MFG#	DESCRIPTION
D520X	7700C	CAST IRON ROLLER PUMP
D521X	7700N	NI-RESIST ROLLER PUMP
D521AX	7700XL	SILVERCAST ROLLER PUMP
D527X	3430-0381	REPAIR KIT (includes 7 nylon rollers, 1 "O" ring gasket, 2 viton seals)
D441X	2008-0001	BALL BEARING

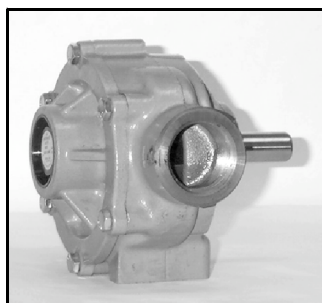
SERIES 1700 5-ROLLER PUMP



- Max. flow: 25 gpm at 540 rpm
45 gpm at 1000 rpm
- Max. pressure: 200 psi
- Max. speed: 1000 rpm
- Shaft size: 15/16" solid
- Port size: 1" NPT
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast housing
- Pump shaft rotation: CCW
- Less coupler

PART#	MFG#	DESCRIPTION
D510X	1700C	CAST IRON ROLLER PUMP
D511X	1700N	NI-RESIST ROLLER PUMP
D511AX	1700XL	SILVERCAST ROLLER PUMP
D512X	3430-0437	REPAIR KIT (includes 5 poly rollers, 1 "O" ring gasket, 2 viton seals)

SERIES 1500 6-ROLLER PUMP



- Max. flow: 33.1 gpm at 540 rpm
62.1 gpm at 1000 rpm
- Max. pressure: 150 psi
- Max. speed: 1000 rpm
- Shaft size: 15/16" solid
- Port size: 1 1/2" NPT
- Max. fluid temp.: 140° F
- Cast iron, Ni-Resist or SilverCast housing
- Pump shaft rotation: CCW
- Less coupler

PART#	MFG#	DESCRIPTION
D515X	1502C	CAST IRON ROLLER PUMP
D516X	1502N	NI-RESIST ROLLER PUMP
D516AX	1502XL	SILVERCAST ROLLER PUMP
D517X	3430-0387	REPAIR KIT (includes 6 poly rollers, 1 "O" ring gasket, 2 - Buna-N seals)
D517AX	3430-0386	REPAIR KIT (includes 6 poly rollers, 1 "O" ring gasket, 2 - Viton seals)

ROLLER PUMP ADAPTERS

STANDARD ADAPTER

Standard Adapters secure to PTO shaft with set screws



Hypro Adapters for Adapting Pumps to PTOs (Female to Female)

Part #	MFG #	PTO (I.D.)	PUMP END (I.D.)	MATERIAL	RPM	PUMP MODEL
D491X	1320-0053	1 3/8" (21 Spline)	5/8"	Die cast	1000	4000, 6500
D492X	1320-0033	1 3/8" (6 Spline)	15/16"	Die cast	540	1500, 1700, 7560, 7700
D492AX	1320-0038	1 3/8" (21 Spline)	15/16"	Die cast	1000	1500, 1700, 7560
D492BX	1320-0076	1 3/8" (6 Spline)	15/16"	Forged steel	540	1500, 1700, 7560, 7700
D490AX	1320-0077	1 3/8" (6 Spline)	5/8"	Forged steel	540	6500
D491AX	1320-0078	1 3/8" (21 Spline)	15/16"	Forged steel	1000	1500, 1700, 7560
D491BX	1320-0079	1 3/8" (21 Spline)	5/8"	Forged steel	1000	4000, 6500
D493X	1320-0080	1 3/4" (20 Spline)	15/16"	Forged steel	1000	1500, 1700, 7560

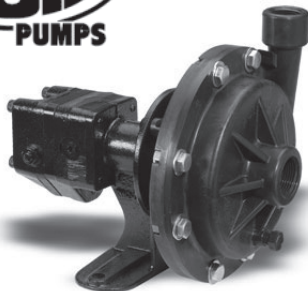
Quick Coupler

Quick Couplers for fast no-tool mounting on PTO shaft



Quick Couplers (Female to Female)

Part #	MFG #	PTO (I.D.)	PUMP END (I.D.)	MATERIAL	RPM	PUMP MODEL
D495X	1321-0006	1 3/8" (6 Spline)	5/8"	Die cast	540	6500
D497X	1321-0007	1 3/8" (6 Spline)	15/16"	Die cast	540	4000, 6500
D496X	1321-0008	1 3/8" (21 Spline)	5/8"	Die cast	1000	1500, 1700, 7560, 7700
D498X	1321-0009	1 3/8" (21 Spline)	15/16"	Die cast	1000	1500, 1700, 7560
D497AX	1323-0072	1 3/8" (6 Spline)	15/16"	Forged steel	540	1500, 1700, 7560, 7700
D498AX	1323-0073	1 3/8" (21 Spline)	15/16"	Forged steel	1000	6500
D495AX	1323-0074	1 3/8" (6 Spline)	5/8"	Forged steel	540	1500, 1700, 7560
D496AX	1323-0075	1 3/8" (21 Spline)	5/8"	Forged steel	1000	4000, 6500
D496BX	1323-0076	1 3/8" (6/21 Spline)	15/16"	Forged steel	540/1000	1500, 1700, 7560
D496CX	1323-0077	1 3/8" (6/21 Spline)	5/8"	Forged steel	540/1000	1500, 1700, 7560



HYDRAULIC CENTRIFUGAL POLY PUMP

The 206 motor requires 7GPM maximum hydraulic fluid input and fits virtually all tractor hydraulic systems.

Recommended for:

- Pressure Compensating Closed Center Systems
- Load Sensing Closed Center Systems
- Open Center Systems up to 16 GPM using internal needle valve bypass

Part #	MFG #	MAX GPM	MAX PSI	SUCTION	DISCHARGE
D418PX	FMC-75-HYD-206	27	100	1"	3/4"
D408PX	GE-26-75	Impeller			
D409PX	RK-GE-75	Repair Kit			

HYPRO CENTRIFUGAL PUMPS

NON-POSITIVE DISPLACEMENT PUMPS FOR LOWER PRESSURE SPRAYING
OF ABRASIVE AND CORROSIVE MATERIALS.

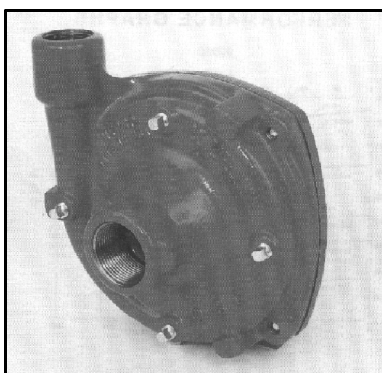
SERIES 9000 CAST IRON GEAR-DRIVEN MODELS



PART #	Max GPM	Max PSI	Max RPM	MFG#	DESCRIPTION
D430X	117	78	600	9006C-0	Cast iron pump with oil lubricated gear drive and 1 3/8" 540 rpm PTO hub w/locking collar and mounting clip. Clips pump to PTO shield of most tractors, 1 1/2" inlet, 1 1/4" outlet.
D432X	110	75	1000	9008C-0	Cast iron pump with oil lubricated gear drive and 1 3/8" 1000 rpm PTO hub w/locking collar and mounting clip. Clips pump to PTO shield of most tractors, 1 1/2" inlet, 1 1/4" outlet.
D431X	117	78	600	9016C-0	Cast iron pump with oil lubricated gear drive and 1" solid shaft, ports (NPT): 1 1/2" inlet, 1 1/4" outlet.
D433X	110	75	1000	9018C-0	Cast iron pump with oil lubricated gear drive and 1" solid shaft, ports (NPT): 1 1/2" inlet, 1 1/4" outlet.
D434X	110	75	1000	9028C-0	Cast iron pump with oil lubricated gear drive and 1 3/4" 1000 rpm PTO hub w/locking collar and mounting clip. Clips pump to PTO shield of most tractors, 1 1/2" inlet, 1 1/4" outlet.

SERIES 9200 CAST IRON PEDESTAL MOUNT MODELS

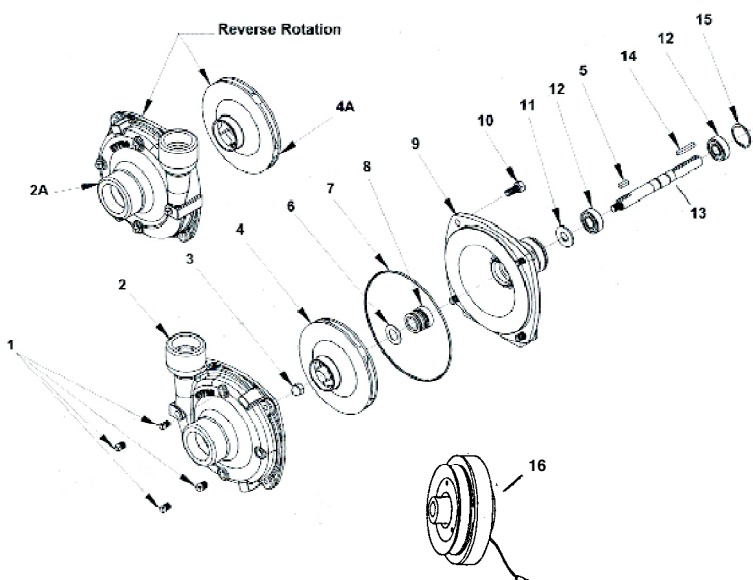
(Used on AGCO Spra-Coupes)



PART #	Max GPM	Max PSI	Max RPM	MFG#	DESCRIPTION
L6620618X	103	170	6000	9202C	Pedestal Mount Cast Iron Pump with 5/8" Solid Shaft and Viton Shaft Seal, 1 1/4" inlet; 1" outlet NPT Ports. (Used on all 100 series, 210 215, 216-220 S/N 6537 & Below)
L6648562X	140	170	6000	9203C	Pedestal Mount Cast Iron Pump with 5/8" Solid Shaft and Viton Shaft Seal, 1 1/2" inlet; 1 1/4" outlet NPT Ports. (Used on 220 S/N 2089-11001 & Above & All 230 models.)
L6661207X	140	170	6000	9203C-RB	Pedestal Mount Clockwise Rotation** Cast Iron Pump, with 5/8" Solid Shaft. Silicon Carbide seal and 1 1/2" x 1 1/4" NPT Ports. (Used on all AGCO 3000 & 4000 series coupes.)

** Rotation, clockwise or counterclockwise, is determined when looking at the shaft end of the pump.

SERIES 9200 REPLACEMENT PARTS



REF #	PART #	QTY. REQ.	MFG #	DESCRIPTION
1		4	2406-0007	Drain Plug (Cast series)
1		4	2406-0016	Drain Plug (316 Stainless series)
2	L6650114X	1	0150-9000C	Pump Casing (Cast series)
2		1	0150-9000S	Pump Casing (316 Stainless series)
2A	L6662773X	1	0150-9200C	Pump Casing - Reverse (Cast series)
2A		1	0152-9000S	Pump Casing - Reverse (Stainless series)
NS	L6620676X	1	0150-9000C	Pump Casing (9200C/9202C)
3	L6616763X	1	2253-0002	Impeller Nut (Cast series)
3		1	2253-0006	Impeller Nut (316 Stainless series)
4		1	0401-9100P	Impeller - Nylon
4	L6616219X	1	0402-9100P	Impeller - Poly
4A	L6662772X	1	0404-9100P	Impeller - Reverse (Cast series) - Nylon
4A		1	0403-9100P	Impeller- Reverse (Stainless series) - Poly
5		1	1610-0015	Key (Cast series)
5		1	1610-0044	Key (Stainless series)
6	L6616768X	1	1700-0100	Gasket
7	L6616209X	1	1720-0083	O-ring
8		1	2120-0008	Mechanical Seal (Optional Buna-N)
8	D917X	1	2120-0009	Mechanical Seal (Standard Viton)
8	L6723001AX	1	3430-0589	Mechanical Seal (Silicon Carbide)
				(Stainless) Includes Ref. #7 O-ring
9		1	0750-9200C3	Mounting Flange (Cast series)
9		1	0756-9200C	Mounting Flange (Stainless series)
10		4	2210-0020	Bolt (Cast series)
10		4	2210-0125	Bolt (Stainless series)
11	L6616765X	1	1410-0056	Slinger Ring
12	L6610653X	2	2000-0010	Ball Bearing
13	L6620675X	1	0505-9200	Pump Shaft
14		1	1610-0004	Key
15	L6616767X	1	1820-0013	Bearing Retainer
16	L6647823X	1		H.D. 12V Electric Clutch
16	L6626530X	1		H.D. 12V Electric Clutch (3000 series)

(Used on AGCO Spra-Coupes)

HYPRO CENTRIFUGAL PUMPS

Hydraulically-Driven, Cast Iron & Stainless Steel



- Available in cast iron and 316 stainless steel
- Hydraulic motor drive (for open center, closed center, and load-sensing systems)
- Port sizes: 1 1/2" NPT inlet, 1 1/4" NPT outlet (Series 9303)
- Port sizes: 2" NPT inlet, 1 1/2" NPT outlet (Series 9306)
- 220 x 200 universal flange available (U)(9203C-HMIC-BU)
- Impeller Nylon (cast iron models); polypropylene (stainless steel models); (GTX available)
- Motor: internal gear gerotor
- Hydraulic ports: 1/2" NPT inlet, 3/4" NPT outlet
- Max. motor psi: 3000
- Pump seals: Life Guard® silicon carbide standard
- Hydraulic motor seal: double-lip Teflon

Part #	Model #	MAX GPM	MAX PSI	MAX HYD GPM	HYDRAULIC SELECTION SYSTEM	PUMP CASING	SHAFT SEAL	INLET	OUTLET
D903X	9303C-HM1C-B	114	130	13	OPEN/CLOSED	CAST IRON	VITON CERAMIC	1 1/2"	1 1/4"
D903SX	9303S-HM1C	114	130	13	OPEN/CLOSED	STAINLESS STEEL	SILICON CARBIDE	1 1/2"	1 1/4"
* LWR126372X	9303C-HM1C-BU	114	130	13	OPEN/CLOSED	CAST IRON	SILICON CARBIDE	220 FL	200 FL
LWR126372SX	9303S-HM1C-BU	114	130	13	OPEN/CLOSED	STAINLESS STEEL	SILICON CARBIDE	220 FL	200 FL
D903AX	9303C-HM2C-B	97	95	6	CLOSED	CAST IRON	VITON CERAMIC	1 1/2"	1 1/4"
D903ASX	9303S-HM2C	97	95	6	CLOSED	STAINLESS STEEL	SILICON CARBIDE	1 1/2"	1 1/4"
D904X	9303C-HM3C-B	125	98	24	LARGE OPEN	CAST IRON	VITON CERAMIC	1 1/2"	1 1/4"
D904SX	9303S-HM3C	125	98	24	LARGE OPEN	STAINLESS STEEL	SILICON CARBIDE	1 1/2"	1 1/4"
D905X	9303C-HM4C-B	115	93	7	OPEN/CLOSED	CAST IRON	VITON CERAMIC	1 1/2"	1 1/4"
D905SX	9303S-HM4C	115	93	7	OPEN/CLOSED	STAINLESS STEEL	SILICON CARBIDE	1 1/2"	1 1/4"
** D907X	9306C-HM5C-B	212	140	17	OPEN/CLOSED	CAST IRON	VITON CERAMIC	2"	1 1/2"
** D907SX	9306S-HM5C	212	140	17	OPEN/CLOSED	STAINLESS STEEL	SILICON CARBIDE	2"	1 1/2"
** D907FX	9306C-HM5C-BU	212	140	17	OPEN/CLOSED	CAST IRON	VITON CERAMIC	220 FL	220 FL
** D908X	9306C-HM1C-B	207	130	13	OPEN/CLOSED	CAST IRON	VITON CERAMIC	2"	1 1/2"
** D908FX	9306C-HM1C-BU	207	130	13	OPEN/CLOSED	CAST IRON	VITON CERAMIC	220 FL	220 FL

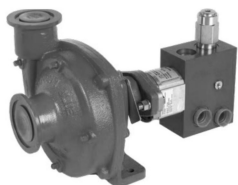
* NOTE: 9303C-HM1C-BU used on 7000 series SPRA COUPES

Replacement parts on page 55

** NOTE: Used on some John Deere and Rogator sprayers



Features double wet seal technology, durable construction, sealed double bearing system, and Vac-U-Seal impeller. Manifold block on motor regulates hydraulic flow and protects motor.



Part #	Model #	MAX GPM	MAX PSI	HYDRAULIC SELECTION SYSTEM	INLET	OUTLET
D980X	CS-150-HM	107	65	OPEN/CLOSED	1 1/2" & 220 FL	1 1/4" & 200 FL

SERIES 9300 REPLACEMENT PARTS

Ref. No.	Qty.	Part #	Mfg. Part #	Description	Ref. No.	Qty.	Part #	Mfg. Part #	Description
1	4		2406-0007	Drain/Vent Plug	24	1		1600-0042	Dowel Pin (HM2C/HM4C)
1	4		2406-0016	Drain/Vent Plug	24	1	D910EX	1600-0037	Dowel Pin (HM1C/HM5C)
2	1	L6650114X	0150-9000C	Pump Casing (9303C)	24	1		1600-0068	Dowel Pin (HM3C)
2	1	D917EX	0150-9000S	Pump Casing (9303S)	25	1		3900-0022	Gerotor (HM1C)
2A	1		0153-9000C	Pump Casing (Universal Flanged Model C-U)	25	1		3900-0023	Gerotor (HM2C)
2A	1		0153-9000S	Pump Casing (Universal Flanged Model S-U)	25	1		3900-0024	Gerotor (HM3C)
2A	1	D917FX	0153-9000S	Pump Casing (HM5C Uni. Flanged 220x200)	25	1		3900-0025	Gerotor (HM4C)
3	1	L6616763X		Impeller Nut	25	1		3900-0048	Gerotor (HM5C)
3	1		2253-0002	Impeller Nut	26	1		0701-2500C1	Gerotor Housing (HM2C) 1/4" wide
4	1	D908BX	0401-9100P	Impeller (Nylon Std. 9303C)	26	1		0700-2500C1	Gerotor Housing (HM1C) 1/2" wide
4	1	L6616219X	0402-9100P	Impeller (Poly Optional, Std. 9303S)	26	1		0703-2500C1	Gerotor Housing (HM4C) 5/16" wide
4	1	D917AX		Impeller (Nylon Std. 9306C)	26	1		0702-2500C1	Gerotor Housing (HM3C) 1" wide
4	1	D917BX		Impeller (Cast Iron Optional)	26	1		0704-2500C1	Gerotor Housing (HM5C) 5/8" wide
5	1	L6616209X	1720-0083	O-Ring	27	1		0254-2500C2	Motor End Plate (Includes needle bearing)
6	1	L6616768X	1700-0100	Gasket	28	4		2270-0039	Washer
7	1	D917X	2120-0009	Mechanical Seal (Viton/Ceramic)	29	4		2220-0045	Capscrew (HM2C/HM4C)
7	1	L6723001A	3430-0589	Mechanical Seal (Silicon Carbide)	29	4		2220-0021	Capscrew (HM1C)
8	1	D917DX	0750-9300C	Mounting Flange (9303C)	29	4		2220-0044	Capscrew (HM3C)
8	1		0756-9300S	Mounting Flange	29	4		2220-0032	Capscrew (HM5C)
9	4		2210-0020	Hex Head Cap Screw	30	1		1720-0108	O-Ring
9	4		2210-0125	Hex Head Cap Screw	31	1		3360-0021A	Pressure Port Adapter (Includes O-Ring)
10	1	L6616765X	1410-0056	Slinger Ring	32	1		1720-0262	O-Ring
11	1	D909X	1810-0014	Snap Ring	33	1		3320-0051A	Tank Port Adapter (Includes O-Ring)
12	1	L6616767X	1820-0013	Retaining Ring	34	1		3220-0029	Bypass Adjusting Screw
13	1	L6610653X	2000-0010	Ball Bearing	35	1	D914X	1700-0047	Gasket
14	1		1410-0131	Cartridge, Front	36	1		2270-0027	Washer
15	2		1720-0268	O-Ring	37	1		2250-0038	Lock Nut
16	1		2104-0010	Lip Seal	38	1		1610-0032	Roll Pin (HM2C/HM4C)
17	1		1410-0130	Seal Spacer	38	1		1610-0031	Roll Pin (HM1C/HM5C)
18	1	D909DX	2029-0014	Thrust Bearing Assembly	38	1		1610-0055	Roll Pin (HM3C)
19	1	D910X	0531-2500	Shaft (HM2C/HM4C)	39	1	D909EX	1810-0026	Snap Ring
19	1	D910AX	0533-2500	Shaft (HM1C/HM5C)	40	1	D910CX	1610-0012	Woodruff Key
19	1		0536-2500	Shaft (HM3C)	40	1		04432	Woodruff Key
20	4		0150-2500C	Motor Body (Includes Needle Bearing)					
21	2		2210-0005	Hex Head Cap Screw					
22	1		1720-0110	O-Ring					
23	1		1600-0045	Dowel Pin (HM2C/HM4C)					
23	1	D910EX	1600-0044	Dowel Pin (HM1C/HM5C)					
23	1		1600-0052	Dowel Pin (HM3C)					

Hyd. Motor Repair Kit

Part # D906AX No. 3430-0748

Part # D906FX No. 3430-0881 for

Pump SN's 18196 & Above

Contains: 13, 15, 16, 22, 30, 32, 35 & 36

Pump Repair Kits

Part # D917X

Repair Parts Kit - Viton

No. 3430-0332

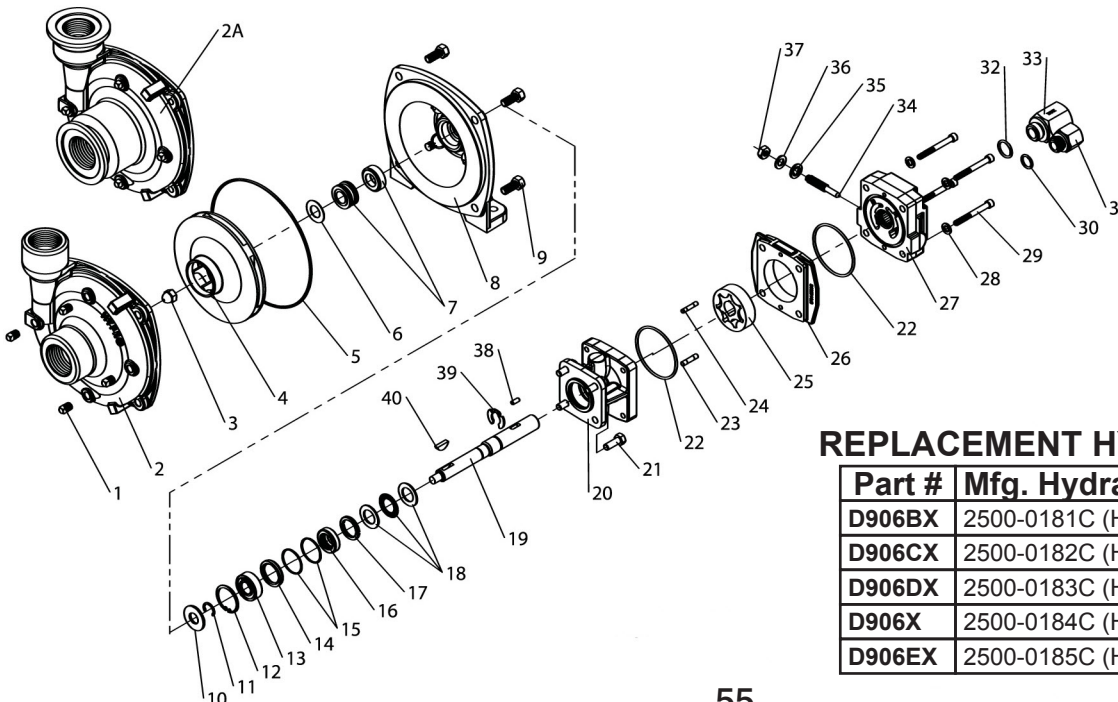
Contains: 5, 6, and 7

Part # L6723001AX

Repair Parts Kit - Carbide

No. 3430-0589

Contains: 5, 6, and 7

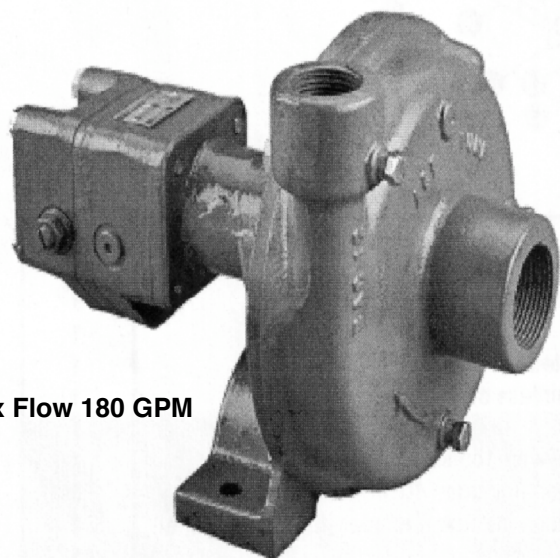


REPLACEMENT HYDRAULIC MOTORS

Part #	Mfg. Hydraulic Motor Part #'s
D906BX	2500-0181C (HM1C Models)
D906CX	2500-0182C (HM2C Models)
D906DX	2500-0183C (HM3C Models)
D906X	2500-0184C (HM4C Models)
D906EX	2500-0185C (HM5C Models)



HYDRAULIC MOTOR DRIVEN CENTRIFUGAL PUMPS



Max Flow 180 GPM

FMC-HYD

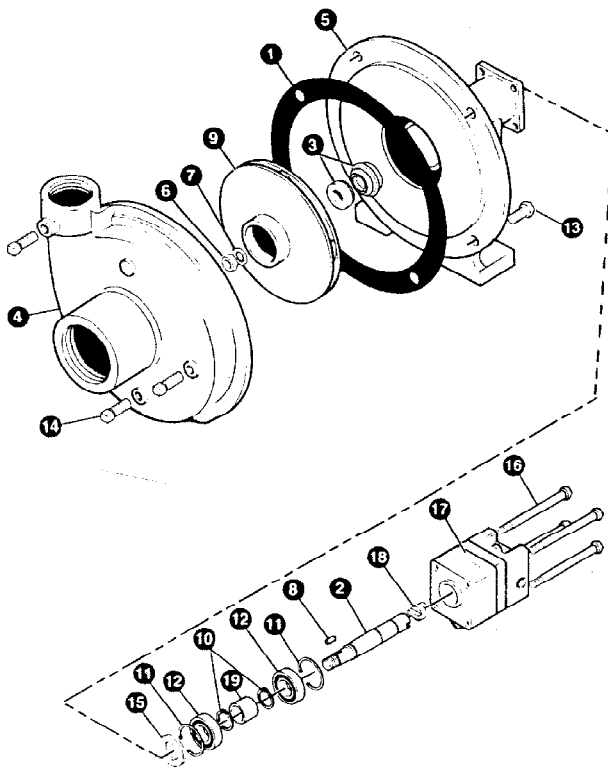
- Suction 1-1/4" Discharge 1"
- 204 motor requires 4 GPM hydraulic flow PC Closed and Open Center Systems
- 210 motor requires 8 GPM hydraulic flow LS Closed and Open Center Systems
- 310 motor requires 16 GPM hydraulic flow Large Open Center Systems
- Integral Needle Valve bypasses up to 9 GPM on Open Center Systems
- Standard Viton® Carbon/Ceramic seal
- Chemical Resistant Valox® Impeller
- Stainless Steel Shaft and Wear Ring
- Maximum Pressure 100 PSI (60 PSI for 310)

PART #	MFG #	DESCRIPTION
D415X	FMC HYD 204	ACE HYD CENTRIFUGAL PUMP (204)
D416X	FMC HYD 210	ACE HYD CENTRIFUGAL PUMP (210)
D417X	FMC HYD 310	ACE HYD CENTRIFUGAL PUMP (310)

Replacement Parts MODEL FMC-HYD

ITEM #	PART #	MFG #	DESCRIPTION
1	D409CX	BAC-4	4 HOLE GASKET
1	D409FX	BAC-4A	O-RING, BODY
2	D412X	BAC-6-HYD-SS	5/8" DRIVE SHAFT
3	D409X	BAC-7V	VITON SEAL FOR CENTRIFUGAL PUMP
5	D412GX	BAC-14-HYD	MOUNTING FRAME
6	D412FX	BAC-23-SS	3/8" NF SS HEX NUT
7	D412EX	BAC-24-HYD-SS	3/8" WASHER STAINLESS STEEL
9	D408BX	BAC-26-HYD-CI	CAST IRON IMPELLER WITH KEYWAY
9	D408CX	BAC-26-HYD-VLX	VALOX IMPELLER
10	D411AX	BAC-32	EXTERNAL SNAP RING FOR SHAFT
11	D411BX	BAC-33	INTERNAL SNAP RING FOR MOUNTING FRAME
12	D407X	BAC-37	NO. 666 SEALED BALL BEARING
13		40950	3/8" NC X 3/4" HEX HEAD CAP SCREW
14		41110	1/8" NPT PIPE PLUG
15	D407AX	BAC-54	SLINGER
16		41256	5/16" NC X 3 1/2" HEX HEAD CAP SCREW
17	D416AX	BAC-75-HYD-204	NO. 204 HYDRAULIC MOTOR
*18	D416CX	BAC-76-HYD	HYD. COUPLING FOR MOTOR
	D409BX	40160	O RING FOR SHAFT
	D409EX	RK-BAC-75-HYD	HYD-MOTOR REPAIR KIT 204, 206, 210
19	D411GX	BAC-325	SPACER FOR PUMP SHAFT

*NOTE: Not used in all pumps.





High Performance Hydraulic Motor Driven Centrifugal Pumps



FMC-150-HYD-206

- Suction 1 1/2" Discharge 1 1/4"
- 150-F Series Equipped with NPT ports and 220 Flange x 200 Flange
- Recommended for use on the following Hydraulic Systems:
 - Pressure Compensating Closed Center Systems
 - Load Sensing Closed Center Systems
 - Open Center from 7 to 16 GPM
- Integral Needle Valve bypasses up to 9 GPM on Open Center System
- Standard Viton® Carbon/Ceramic seal (150 series)
- Silicon Carbide Seal 150-F Series
- Chemical Resistant Valox®
- Stainless Steel Shaft and Wear Ring
- Maximum Pressure 120 PSI
- Maximum Flow 120 GPM

Part #	MFG#	DESCRIPTION
D418X	FMC150HYD 206	Ace (FMC-150-HYD-206) Cent. Pump
D418FX	FMCS150FHYD 206	Ace (FMC-150F-HYD-206) Cent. Pump

MODEL FMC-150-HYD-206 Replacement Parts

REF #	Part #	MFG#	DESCRIPTION
1		BAC-53	Pipe plug
1		41120	Pipe plug, stainless steel (optional)
2		BAC-12-150	Volute, 1 1/2" x 1 1/4"
3	D412FX	BAC-23-SS	Nut, 3/8" NF, cad plated
4	D412EX	BAC24-HYD-SS	Washer, 3/8" star, stainless steel
5	D408EX	BAC-26-150-P	Impeller, Valox, keyway
5	D408DX	BAC-26-150-CI	Impeller, cast iron, keyway (optional)
*6	D409X	BAC-7V	Seal, mechanical, Viton (includes 40160 O-Ring)
6	D409SCX	BAC-7SC	Seal, mechanical, silicon carbide (includes 40160 O-Ring) (optional)
6A	D409BX	40160	O-ring, shaft seal
*7	D409DX	BAC-4-150	O-ring, body seal
*7	D409FX	BAC-4A	O-ring, N.S., body seal, FMC-200-HYD-310
8		BAC-14-150-HYD	Mounting frame (for 200 series hydraulic motor)
9		40950	Cap screw, 3/8" NC x 3/4" hex head
9		40930	Cap screw, 3/8" NC x 3/4" head head, stainless steel (optional)
10	D407AX	BAC-54	Slinger
11	D411BX	BAC-33	Snap ring, internal, BAC-6 shaft
12	D407X	BAC-37	Ball Bearing, sealed, BAC-6 shaft
13	D411AX	BAC-32	Snap ring, external, BAC-6 shaft
14		BAC-32-S	Spacer for BAC-6 shaft
15		BAC-25	Key, 1/8" x 1/8" x 1/2"
16	D412X	BAC-6-HYD	Shaft, 5/8" diameter, keyway and tang slot
16		BAC-6-HYD-SS	Shaft, 5/8" diameter, keyway and tang slot, stainless steel (optional)
17		S200	Seal support spacer for 200 Series HYD motor, effective 6/00
18	*D416CX	BAC-76-HYD	Coupling for hydraulic motor
19	D416EX	BAC-75-HYD-206	Hydraulic motor, 7 GPM
20		41258	Cap screw, 5/16" N.C. x 3 3/4"
NS		RK-FMC-150	Repair kit for FMC-150 series pump
NS	D409EX	RK-BAC-75-HYD	Repair kit for 200 Series motor
NS		RK-BAC-75-HYD-L	Repair kit for 200-L Series motor
NS	D415FX	42030	Thread Seal

*NOTE: Not used in all pumps. NS = Not Shown



High Capacity Hydraulic Driven Centrifugal Pumps

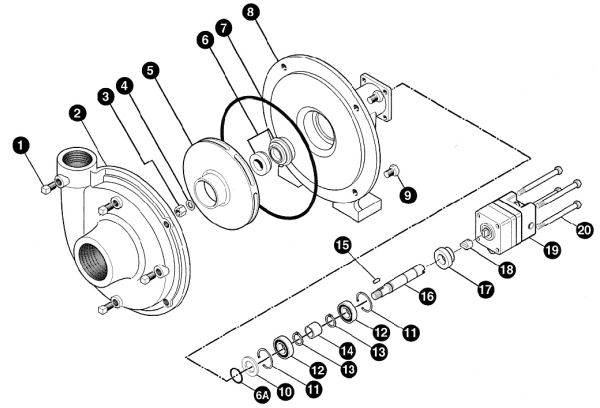


FMC-200-HYD-210 FMC-200-HYD-310

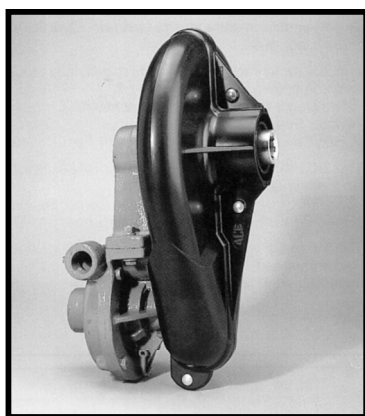
- Suction 2" Discharge 1 1/2"
- For High Volume Applications
- Max pressure 80 PSI (60 PSI for 310)
- Capacity to 180 GPM
- The 210 motor requires 8 GPM hydraulic input
 - PC Closed Center Systems
 - LS Closed Center Systems
 - Open Center Systems with capacities from 8-17 GPM
- The 310 motor requires 16 GPM hydraulic fluid input
 - Open Center Systems with capacities from 18-24 GPM
- Standard Viton® Carbon/Ceramic Seal
- Chemical Resistant Valox® Impeller
- Stainless Steel Shaft and Wear Ring

Part #	MFG#	DESCRIPTION
D419X	FMC200HYD 210	Ace (FMC-200-HYD-210) Cent. Pump
D420X	FMC200HYD 310	Ace (FMC-200-HYD-310) Cent. Pump

NOTE: Call for replacement parts.



PTO BELT DRIVEN CENTRIFUGAL PUMP



1 1/4" x 1"
Suction Discharge

**PTOC-600
PTOC-1000**

FEATURES:

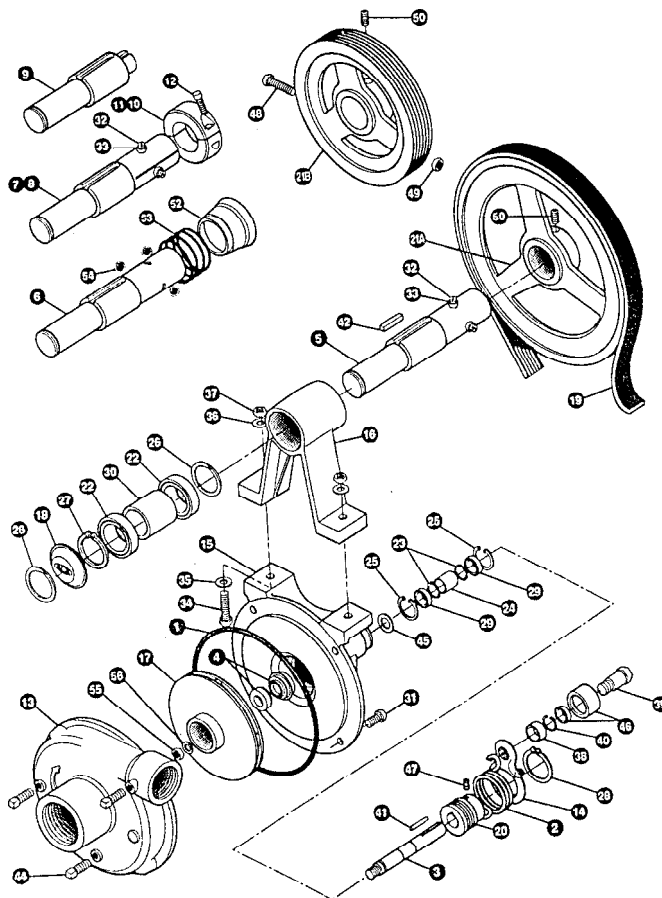
- 600 and 1000 rpm models
- Mounts directly on standard 1 3/8" tractor PTO shaft
- Fully guarded for operator safety
- Rugged construction
- Easily handles abrasive wettable powders and fertilizer solutions
- Pressure to 70 psi
- Output to 65 gpm

PART #	DESCRIPTION
D400X	PTOC 600-10SP (STD COUPLER)
D402X	PTOC 1000-10SP (STD COUPLER)
D421X	FMC-MIA REPLACEMENT PUMP

Replacement Parts

PTOC-600-10 PTOC-1000-10

ITEM #	PART #	MFG#	DESCRIPTION
1	D409CX	BAC-4	4-HOLE GASKET
2	D411CX	BAC-5	IDLER TORSION SPRING
3	D407DX	BAC-6	SHAFT FOR PTO PUMP
4	D409X	BAC-7V	VITON SEAL FOR CENTRIFUGAL PUMP
5	D404CX	BAC-10-6SP	1 3/8" 6 TOOTH SPLINE PTO DRIVE SHAFT
7	D404X	BAC-1021SP	1 3/8" 21 TOOTH SPLINE PTO DRIVE SHAFT
14	D407BX	BAC-13	IDLER ARM
15		BAC-14-MIA	MOLDED PTOC MOUNTING FRAME
16	D413CX	BAC-15	PTO DRIVE SHAFT HOUSING
17	D412AX	BAC-26CI	CAST IRON IMPELLER
17	D412BX	BAC-26VLX	VALOX IMPELLER
18	D413AX	BAC-27-P10	NAME PLATE
19	D410AX	BAC-28-10	10 GROOVE POLY BELT, 600 RPM
19	D410BX	BAC-28-10M	10 GROOVE POLY BELT, 1000 RPM
20	D406BX	BAC-29-10-1.5	10 GROOVE V-PULLEY, 1.5PD X 5/8" BORE
21A	D406AX	BAC-30-10	10 GROOVE POLY V-PULLEY, 10.6PD X 2" BORE
21B	D406X	BAC-30-10M	10 GROOVE PULLEY, 6.375PD X 1" BORE
22	D413X	BAC-31	SEALED BALL BEARING
23	D411AX	BAC-32	EXTERNAL SNAP RING FOR SHAFT
25	D411BX	BAC-33	INTERNAL SNAP RING FOR MOUNTING FRAME
26	D411X	BAC-34	INTERNAL SNAP RING FOR BEARING HOUSING
27	D413BX	BAC-35	EXTERNAL SNAP RING FOR DRIVE SHAFT
28	D412CX	BAC-36	EXTERNAL SNAP RING FOR IDLER ARM
29	D407X	BAC-37	NO. 666 SEALED BALL BEARING
30	D411DX	BAC-38	BEARING SPACER FOR DRIVE SHAFT
31		40950	3/8" NC X 3/4" HEX HEAD CAP SCREW
32		BAC-40	3/8" X 3/4" HEX HEAD CAP SCREW
33		40960	3/8" NC HEX NUT
34		BAC-42	3/8" NC X 1 3/4" HEX HEAD CAP SCREW
36		BAC-44	3/8" LOCKWASHER
37		BAC-45	3/8" NC HEX NUT
39	D411EX	BAC-47	5/8" NC X 2" HEX HEAD CAP SCREW
41		BAC-50	3/16" X 3/16" X 1 1/4" KEY
42		BAC-51	3/8" X 1/2" X 1 1/2" KEY
44		41110	1/8" NPT PLUG
45	D407AX	BAC-54	SLINGER
46	D411FX	BAC-55	IDLER BEARING ROLLER ASSEMBLY
N-S	D409BX	40160	O RING FOR SHAFT



High Performance PTO Belt Driven Centrifugal Pump



PART#	DESCRIPTION
D400150X	PTOC-150-600SP (STD COUPLER)
D402150X	PTOC-150-1000SP (STD COUPLER)

1 1/2" x 1 1/4"

Suction Discharge

100 PSI - 40 GPM at 600 or 1000 RPM due to increased pulley ration and larger 1 1/2" x 1 1/4" construction.

Provides higher pressure and greater volume for applications with large tanks and long spray booms.

Allows the applicator to save fuel by operating at lower engine speeds and still maintain adequate spraying pressure.

Replacement Parts: PTOC-600-10 and PTOC-1000-10

REF#	PART#	MFG#	DESCRIPTION
#		BGKB	Belt and shaft guard (for base mounted pumps)
#		BGKH	Belt and shaft guard (for PTO mounted centrifugal pumps)
1	D409DX	*BAC-4-150	"O" Ring, Volute Seal
2	D411CX	BAC-5	Idler mounted torsion spring
3		BAC-6-150/200	5/8" Driven Shaft w/Keyway
3		BAC-6-150/200-SS	5/8" Driven Shaft w/Keyway, SS (optional)
4	D409X	*BAC-7V	Viton Mechanical Seal (includes 40160 O-ring optional)
4		BAC-7SC	Silicon Carbide Mechanical Seal (includes 40160 O-ring optional)
4		BAC-7B	Buna N Mechanical Seal (includes 40160 O-ring Optional)
#		*40160	O-ring for Shaft
5		BAC-10-6SP	1 3/8" 6 Tooth PTO spline drive shaft
6		BAC-10-6SP-QC	1 3/8" 6 Tooth PTO spline drive shaft for quick coupler
7		BAC-10-175-20SP	1 3/4" 20 Tooth PTO spline drive shaft (includes BAC-11-175)
8		BAC-10-21SP	1 3/8" 21 Tooth PTO spline drive shaft (includes BAC-11)
9		BAC-10-S	1" Tumbledrod stub drive shaft
10		BAC-11	Split ring, locking collar (for BAC-10-21SP shaft)
11		BAC-11-175	Split ring, locking collar (for BAC-10-175-20SP shaft)
12		BAC-11-1	Set screw (for BAC-11 and BAC-11-175 locking collar)
13		BAC-12-150	Volute, 1 1/2" x 1 1/4"
14	D407BX	BAC-13	Idler Arm
15		BAC-14-150-MIA	Mounting frame, machined for idler arm
16	D413CX	BAC-15	PTO Drive shaft bearing housing
#		BAC-15-B	Tumbledrod drive shaft bearing housing w/mounting base
17		BAC-26-150	Impeller, Cast iron w/Keyway
18		BAC-27-150-M	Name plate (for PTOC-150-1000-21SP)
18		BAC-27-150-175-M	Name plate (for PTOC-150-1000-20SP)
18		BAC-27-150-600	Name plate (for PTOC-150-600)
19	D410DX	*BAC-28-10-150	Poly V-belt, 10 groove (for PTOC-150-600)
#	D410CX	*BAC-28-10M-150	Poly V-belt, 10 groove (for PTOC-150-1000)
20		BAC-29-10-1.35	1.35" P.D. x 5/8" Bore Poly-V pulley, 10 groove (for PTOC-150-600)
#		BAC-29-10-1.50	1.5" P.D. x 5/8" Bore Poly-V pulley, 10 groove (for PTOC-150-1000)
21A		BAC-30-10-150	11.6" P.D. x 2" Bore Poly-V pulley, 10 groove (for PTOC-150-600)
21B		BAC-30-175-150	7.9" P.D. x 2 3/8" Bore Poly-V pulley (for PTOC-150-1000-20SP)
21B		BAC-30-10M-150	7.9" P.D. x 2" Bore Poly-V pulley (for PTOC-150-1000-21SP)
22	D413X	BAC-31	Sealed ball bearing, BAC-10 drive shaft
23	D411AX	BAC-32	External snap ring for driven pump shaft
24		BAC-32S	Spacer for pump shaft
25	D411BX	BAC-33	Internal snap ring for mounting frame
26	D411X	BAC-34	Internal snap ring, BAC-15 bearing housing
27	D413BX	BAC-35	External snap ring, BAC-10 drive shaft
28	D412CX	BAC-36	External snap ring, BAC-13 idler arm
29	D407X	BAC-37	Sealed Ball Bearing for pump shaft
30	D411DX	BAC-38	Bearing spacer, drive shaft
31		40930	3/8" NC x 3/4" Hex head cap screw, SS (optional)
31		40950	3/8" NC x 3/4" Hex head cap screw
32		BAC-40	3/8" NC Slotted set screw
33		40960	3/8" NC Jam nut
34		BAC-42	3/8" x 1 3/4" Hex head cap screw
35		40980	3/8" Flat washer
36		BAC-44	3/8" Lock washer
37		BAC-45	3/8" NC Hex nut
38		BAC-46	5/8" Spacer
39	D411EX	BAC-47	5/8" NC x 2 1/8" Hex head idler cap screw
40		41070	Retainer ring
41		BAC-50	3/16" x 3/16" x 1 1/4" Key
42		BAC-51	3/8" x 1/2" x 1 1/2" Key, PTO drive shaft
#		BAC-52	1/4" Cold shut, torque chain anchor
44		41110	1/8" NPT pipe plug
44		41120	1/8" NPT pipe plug, SS (optional)
45	D407AX	BAC-54	Slinger
46	D411FX	BAC-55	Idler bearing and outer roller assembly
47		BAC-57	5/16" NC x 5/16" Allen head set screw for BAC-29-10 pulley
#		BAC-58	1/4" Zerk fitting, idler arm
48		41250	5/16" NC x 3 1/4" Hex head cap screw
49		BAC-63	5/16" NC Self locking nut for tumbledrod drive
50		41300	3/8" NC x 5/8" Allen head set screw
52		BAC-81-QC	Ball retainer sleeve for quick coupler
53		BAC-82-QC	Spring for quick coupler
54		BAC-83-QC	Ball for quick coupler
55		BAC-23-SS	3/8" NF Hex nut, SS
56		BAC-24-HYD-SS	3/8" Washer, SS
57		BACH-25	1/8" x 1/8" x 1/2" Key

ELECTRIC DIAPHRAGM PUMPS



PART #	DESCRIPTION
D550X	Standard Pump 1.0 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Demand Switch, 1/4" HB Ports, 12V on/off Switch (SLV10-AA40)
D551X	Standard Pump 1.8 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Demand Switch, 3/8" FPT Ports, 12V (8000-543-236)
D556X	Bypass Pump 1.8 gpm, Viton Valves, Santoprene Diaphragm, 45 psi Internal Bypass, 3/8" FPT Ports, 12V (8000-543-250)
D557X	Standard Pump 3.0 gpm, Viton Valves, Santoprene Diaphragm, 45 psi Demand Switch, 1/2" MPT Ports, 12V (2088-343-135)
D557CX	Premium Pump 3.6 gpm Fin Cooled, Viton Valves, Santoprene Diaphragm, 45 psi Demand Switch, 1/2" MPT Ports, 12V (2088-313-145)
D556AX	Standard Pump 4.0 gpm, Santoprene Valves, Santoprene Diaphragm, 45 psi Demand Switch, 1/2" MPT Ports, 12V (2088-514-144)
D556BX	Bypass Pump 4.0 gpm, Santoprene Valves, Santoprene Diaphragm, 45 psi Internal Bypass, 1/2" MPT Ports, 12V (2088-514-500)
D553X	Standard Pump 5.0 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Demand Switch, 1/2" FPT Ports, 12V (5059-1310-D011)
D554X	Bypass Pump 5.0 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Internal Bypass, 1/2" FPT Ports, 12V (5059-2611-D011)
D556CX	Premium Pump 7.0 gpm, DOUBLE HEAD, Viton Valves, Santoprene Diaphragm, 45 psi Demand Switch, 1/2" MPT Ports, 12V (4211-035)
D560X	Premium Pump 7.0 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Demand Switch, 1/2" FPT Ports, 12V (7871-101E-SB-HS)
D560AX	Bypass Premium Pump 7.0 gpm, Viton Valves, Santoprene Diaphragm, 60 psi Internal Bypass, 1/2" FPT Ports, 12V (7871-111E-SB-HS)

Shurflo Replacement parts reference page 61

Call For More Information on Delevan Pump Replacement Parts



CDS JOHN BLUE COMPANY MOTOR SPEED CONTROL

- Operates on 12 volts D.C.
- Automatic resetting circuit breaker
- Power indicator light
- Heavy Duty on/off switch
- Rugged heavy duty case
- Standard 60 PSI gauge
- Wiring harness



PART #	DESCRIPTION
D549AX	Motor Control w/Manual Gauge 35 amp
D549CX	Motor Control w/Digital Gauge 25 amp
D549DX	Motor Control w/Digital Gauge 35 amp

SWIVEL HEXNUT STRAIGHT FITTINGS

PART #	DESCRIPTION
D559X	1/2" FPT x 3/8" Barb (Swivel)
D559AX	1/2" FPT x 1/2" Barb (Swivel)

SWIVEL WINGNUT STRAIGHT FITTINGS

PART #	DESCRIPTION
D559JX	1/2" FPT x 3/4" Barb w/Wingnut (Swivel)

SWIVEL WINGNUT ELBOW FITTINGS

PART #	DESCRIPTION
D559EX	1/2" FPT x 3/4" Barb w/Wingnut (Swivel)
D559FX	1/2" FPT x 5/8" Barb w/Wingnut (Swivel)

SWIVEL HEXNUT ELBOW FITTINGS

PART #	DESCRIPTION
D559BX	1/2" FPT x 1/2" Barb (Swivel)
D559CX	1/2" FPT x 3/8" Barb (Swivel)

PRESSURE REGULATING VALVE

D560X QCM x 3/8" HB x 1/2" HB x MGMT
Includes: QCF x 3/8" MPT Fitting

D560AX Boom Shutoff Valve QCM x QCF

INLET STRAINER

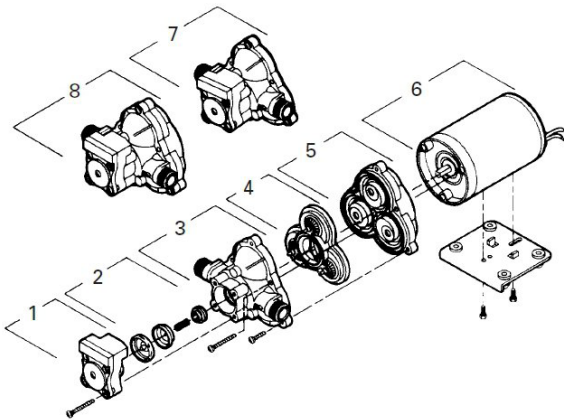
D561XM QC x 3/8" HB Inlet Strainer

D560BX QC Fitting Kit

Includes: QCM x 1/2" HB, QCM x 3/8" HB
QCM x 1/2" MPT, QCF x 3/8" MPT

SHURFLO ELECTRIC DIAPHRAGM PUMPS REPLACEMENT PARTS

2088 Series Parts Kit List



ITEM #	DESCRIPTION	MODEL 2088-343-135 PART #	MODEL 2088-343-145 PART #	MODEL 2088-514-144 PART #
1	Switch Assembly	D563X	D9423055X	D9423055X
2	Check Valve Assembly	D557DX	D557DX	D557DX
3	Upper Housing	D557BX	D557BX	D557BX
4	Valve Assembly	D9423205X	D9423205X	D9423205X
5	Diaphragm/Drive Assembly	D9423803X	D9423803X	D9423803X
6	Motor	1111100	1118506	1122606
NS	Upper Housing (by-pass)	N/A	N/A	D558EX
7	Complete Pump Head	N/A	9423615	9423615
8	Upper Housing/Switch Assy.	D557EX	D557EX	D557EX

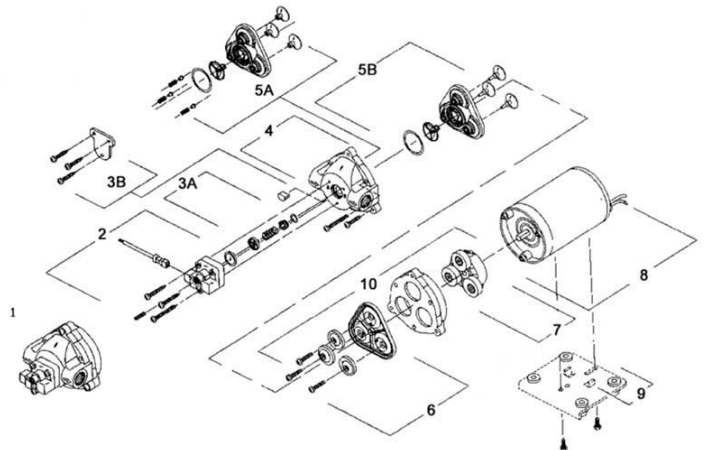
SHURflo reserves the right to update specifications or make substitutions without notice.

8000 Series Parts Kit List

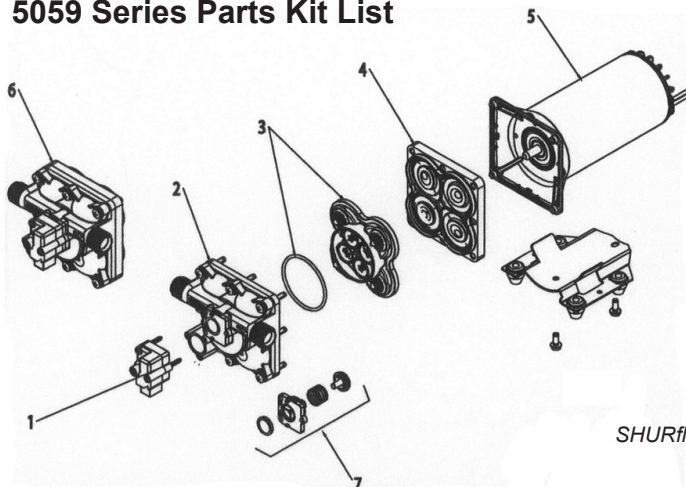
ITEM #	DESCRIPTION	MODEL 8000-543-236 PART #	MODEL 8000-543-250 PART #
1	Complete Pump Head	9438002	9438209
2	Switch Assembly	D562X	N/A
3a	Check Valve Assembly	D9437405X	D9437405X
3b	No Control Plate	N/A	N/A
4	Upper Housing	D9437900X	D9437900X
5a	By-Pass Valve Assembly	N/A	9439109
5b	Non-By-Pass Valve Assy.	9439005	N/A
6	Diaphragm	9439506	9439506
7	Drive Assembly	9438503	9438503
8	Motor	1111100	1111100

Note: Item #4 (Upper Housing) is available in 3/8" Female and 1/2" Male NPT

SHURflo reserves the right to update specifications or make substitutions without notice.



5059 Series Parts Kit List



ITEM #	DESCRIPTION	MODEL 5059-1310-D011 PART #
1	Switch Only	D9491002X
2	Upper Housing w/Switch	D9491011X
3	Valve Assembly	9491005
4	Drive Assembly	9491004
5	Motor	947100017
6	Pump Head	D9491010X
7	Check Valve	9491003

SHURflo reserves the right to update specifications or make substitutions without notice.

SPOT UTILITY SPRAYER



PART #	DESCRIPTION
W606X	15 Gal. utility spot sprayer includes 12 V. electric pump w/ demand switch 40-60 PSI (1.0 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8" x 15' EPDM rubber lead hose
W607X	25 Gal. utility spot sprayer includes 12 V. electric pump w/ demand switch 40-60 PSI (1.0 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8" x 15' EPDM rubber lead hose
J225EX	Poly spray gun with 15" extension wand and adjustable #8 Cone tip
J225CX	Poly spray gun with 24" extension wand and adjustable #8 Cone tip
W386X	#3 Adjustable poly cone tip
W388X	#6 Adjustable poly cone tip
J227X	#8 Adjustable poly cone tip
W386CX	#12 Adjustable poly cone tip
W387X	#18 Adjustable poly cone tip

ATV BOOM SPRAYER

PART #	DESCRIPTION
W608X	15 Gal. ATV Sprayer complete w/boom & plumbing includes: 12 V. electric pump w/bypass (2.2 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8 x 15' EPDM rubber lead hose
W609X	25 Gal. ATV Sprayer complete w/boom & plumbing includes: 12 V. electric pump w/bypass (2.2 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8 x 15' EPDM rubber lead hose
W609BX	Complete boom kit w/plumbing 10' (6 nozzles)
W609CX	Complete boom kit w/plumbing 13' (8 nozzles)
W609DX	Boom mounting kit



TRAILER BOOM SPRAYER

PART #	DESCRIPTION
W611X	25 Gal. Inline Trailer Sprayer complete w/boom & plumbing includes: 12 V. electric pump w/bypass (2.2 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8 x 15' EPDM rubber lead hose
W612X	25 Gal. Horizontal Trailer Sprayer complete w/boom & plumbing includes: 12 V. electric pump w/bypass (2.2 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8 x 15' EPDM rubber lead hose



BOOMLESS SPRAYER KIT



PART #	DESCRIPTION
W606BLX	15 Gal. boomless sprayer kit Includes: 12 volt electric pump w/bypass (2.2 GPM), 18" trigger jet spray gun w/adjustable cone tip and 3/8" x 10' EPDM rubber lead hose

NOTE: 16' swath pattern on boomless application

HANDHELD SPOT SPRAYERS



PART #	DESCRIPTION
J531X	6.5 Liter (1.7 Gallon) Handheld Sprayer. Includes Shoulder Strap, 48" Chemical Resistant Hose and 18" Spray Wand
J530X	8 Liter (2.1 Gallon) Handheld Sprayer. Includes Shoulder Strap, 48" Chemical Resistant Hose and 18" Spray Wand
J532X	2 Liter (.51 Gallon) Handheld Sprayer. Includes Single Conical Spray Tip, Wide Mouth Fill, Handle Action Trigger.

GARDEN HOSE SPRAY NOZZLE



Features

- Heavy-duty machined aluminum construction stands up to hard use
- Comfort-grip soft rubber provides a comfortable gripping texture
- Resists dents, mars, and scratches and also protects any surface that comes in contact with nozzle
- Aluminum hose connection provides a tight fit, will not rust
- Multiple spray pattern adjusts from a powerful jet stream to a gentle fan spray. Ideal for all your spraying needs
- Stainless steel spray cap for precise spray patterns

PART #	DESCRIPTION
W900X	3/4" Garden Hose Spray Nozzle

TeeJet
TECHNOLOGIES



MODEL 22670

The 22670 Triggerjet Spray Gun features a trigger lock which permits locking gun in an open position for continuous flow, adjustable conejet spray tip, choice of a 15" or 24" extension, straight and 45° adapters and a maximum operating pressure of 150 psi.

PART #	DESCRIPTION
J225EX	Poly Spray Gun with 15" extension wand and adjustable #8 cone tip
J225CX	Poly Spray Gun with 24" extension wand and adjustable #8 cone tip
W386X	#3 adjustable poly cone tip
W388X	#6 adjustable poly cone tip
J227X	#8 adjustable poly cone tip
W386CX	#12 adjustable poly cone tip
W387X	#18 adjustable poly cone tip
J225FX	15" replacement tube only
J226CX	24" replacement tube only
J225GX	Cap only for replacement tube
J226DX	1/4" FPT replacement handle
J225HX	Viton "O" ring for replacement tube
J225KX	45° adaptor poly
J226X	Trigger valve assembly
J226AX	Trigger valve repair kit

TeeJet
TECHNOLOGIES



High Pressure Spray Gun

Quality designed and built for heavy duty service. Stem extends through extension to valve seat located directly behind orifice disc for drip-free shutoff and instant operating response. Convenient trigger-lock for continuous spraying, operating pressures up to 800 psi.

Trigger handle control. 1/2" NPT (F) inlet connections

PART #	DESCRIPTION
A425X	43HAL High Pressure Aluminum Hand Gun 13"
A425BX	43HAL High Pressure Aluminum Hand Gun 22"
A425AX	Repair Kit 43H
A425CX	D-6 Disc
A425DX	D-8 Disc
A425EX	D-10 Disc
A425FX	Aluminum Inlet Body

SPRAY GUNS

TeeJet
TECHNOLOGIES



MODEL 50800

Features a trigger lock, adjustable spray tip, 15" poly or 21" aluminum extension wand and a maximum operating pressure of 100 psi.

PART #	DESCRIPTION
J224X	Poly Spray Gun with 15" poly extension wand and adjustable tip #12
J232X	Poly Spray Gun with 21" aluminum extension wand and adjustable tip #12

TeeJet
TECHNOLOGIES



Low Pressure Spray Gun

Features include dripless shutoff with a 8" extension. Maximum operating pressure 250 psi. Outlet connection is 11/16" - 16 TeeJet® thread. Body and trigger molded of tough Nylon.

PART #	DESCRIPTION
A426X	30L Low Pressure Hand Gun
A426AX	Repair Kit 30L

Hypco[®]



- Adjustable pattern spray gun
- 21" barrel
- 3mm nozzle
- 3/8" hose barb

3381-0021

PART #	DESCRIPTION
J230X	Adjustable Pattern Spray Gun

VALLEY INDUSTRIES



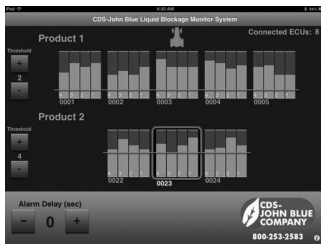
PART #	DESCRIPTION
J235X	18" Poly Spray Gun with extension wand, 3/8" HB Inlet and adjustable #18 cone tip

JOHN BLUE LIQUID BLOCKAGE MONITOR SYSTEM

Features

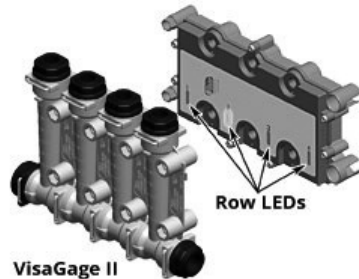
- Uses magnetic sensing technology mounted behind the VisaGage II Flow Monitors
- Sensors can be mounted to existing VisaGage II units; new magnetic balls are supplied with sensors
- Identifies where magnetic balls are floating in each row during liquid application
- Only LBMS shows both low-flow and no-flow. Plus, the Premium system also displays high flow for broken lines
- See a visual display and hear an audible alarm on the control panel right from your tractor cab
- Can be used with cloudy or dark liquids - LED is visible to the sides of the column
- Each row with a distribution problem will be highlighted by a flashing LED light at the row. No need to remember or search for which row is blocked after you come to a stop
- The alarm will reset automatically when the blockage has been corrected. Also have the ability to "Pause" the system to capture problem rows for investigation later when you are able to stop
- LBMS iPad App is free and available from the Apple App Store
- ISOBUS can now connect you to universal systems or John Deere® Planters.

**Call For
Pricing**



iPad Monitor View

Sensor Assembly



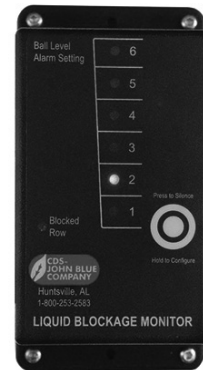
PREMIUM SYSTEM (Wireless)	
Model	Description
BMI-08	Premium 8 Row Kit Includes: • iPad ram mount bracket • Input harness • 28ft extension harness • Wireless sensor kit • Standard sensor kit • Two terminator plugs
BMPT-001	4-Row Sensor Expansion Kit for adding BMI-08 - Includes: standard sensor, tee harness, magnetic balls, and hardware

VisaGage II's are ordered separately: SMSS4 set of 4 flow monitor spray type and SMFD4 set of 4 flow monitor divider type.

NOTE: iPad NOT included

STANDARD CONTROL PANEL (Wired)	
Model	Description
BM-08AP	Applicator 8 Row Kit Includes: • Control panel with mount bracket • Input harness • 28ft extension harness • Tee harness • Two standard sensor kits • Two terminator plugs
BM-08PL	Planter 8 Row Kit Includes: • Control panel with mount bracket • Input harness • 28ft extension harness • Tee harness • Two standard sensor kits • Two terminator plugs • Two 15ft extension harnesses
BMPT-001	4-Row Sensor Expansion Kit for adding BM-08AP and BM-08PL - Includes: standard sensor, tee harness, magnetic balls, and hardware

Standard Monitor



PART #	DESCRIPTION
A853X	8 Row Monitor (Standard)
A854X	8 Row Monitor (Wireless)
A854JDX	8 Row J.D. ISOBUS Kit
A854UX	8 Row Universal ISOBUS Kit
A855X	4 Row Standard Sensor Kit
A856X	28' Extension Harness
A857X	15' Extension Harness
A859X	7" Extension Harness
A859AX	Magnetic Ball Set

VisaGage II's are ordered separately: SMSS4 set of 4 flow monitor spray type and SMFD4 set of 4 flow monitor divider type.

NOTE: iPad NOT included

VisaGage II

VISUAL FLOW MONITOR SYSTEM

SPRAY TYPE ASSEMBLY

This Flow Monitor is a simple gauge that allows you to visually monitor proper flow rate of your liquid fertilizer and herbicide applications. It shows immediately if a nozzle becomes plugged as little as 10% and it tells you, at a glance, any variation in your application rate.

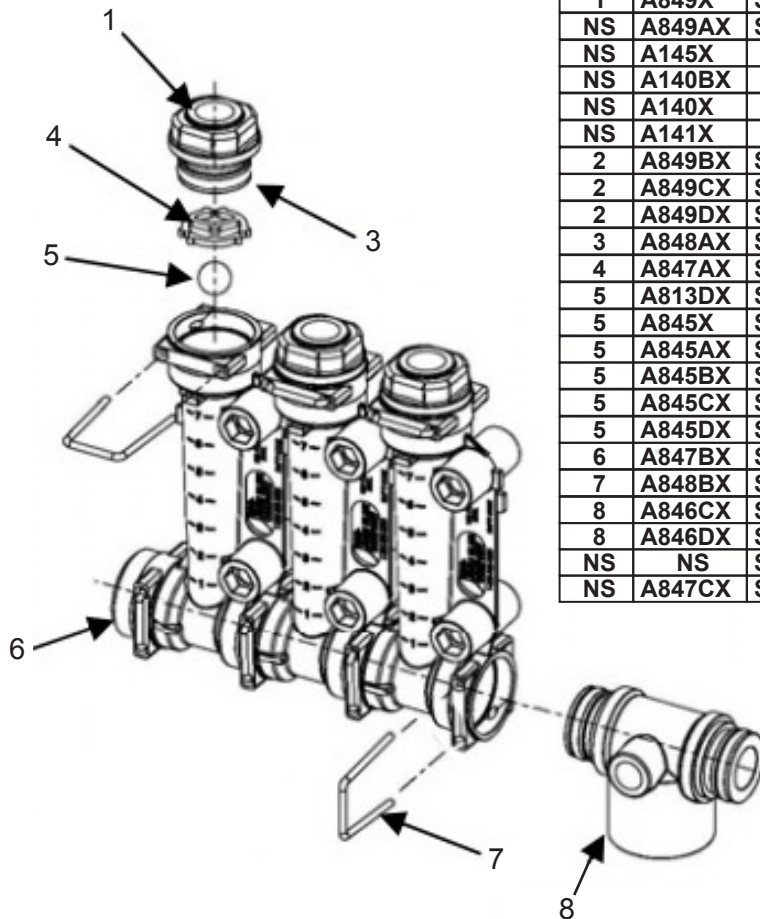
This Flow Monitor has no mechanical or electronic parts that could malfunction. Manufactured of a high-impact plastic, unaffected by chemical corrosion. Accurately monitors application rates, 4-row units can be mounted together for all application.



(4 column monitor with push connects shown)

- Rugged, reliable design
- Easy to install and use
- Detection of plugged nozzles
- Detection of worn or damaged tip
- Detection of leaks in hoses and connections
- Increase yields by proper application

PART #	DESCRIPTION
A830X	4-Column Monitor, 1/2" FPT Inlet, 3/8" FPT Outlet
A843X	1-Column Monitor, 1/2" FPT Inlet, 3/8" FPT Outlet



ITEM	PART #	MFG#	DESCRIPTION
1	A849X	SMPT-0003	3/8" FPT Adapter (Outlet)
NS	A849AX	SMPT-0004	1/2" FPT Adapter (Inlet)
NS	A145X		1/2" MPT x 3/4" Hose Barb Elbow
NS	A140BX		3/8" MPT x 1/4" Hose Barb Elbow
NS	A140X		3/8" MPT x 3/8" Hose Barb Elbow
NS	A141X		3/8" MPT x 1/2" Hose Barb Elbow
2	A849BX	SMPT-0051	1/4" Push Connect Elbow Cap
2	A849CX	SMPT-0052	5/16" Push Connect Elbow Cap
2	A849DX	SMPT-0053	3/8" Push Connect Elbow Cap
3	A848AX	SMPT-0007	O-Ring Viton
4	A847AX	SMPT-0005	Float Stop
5	A813DX	SMPT-0050	Ball, Yellow Plastic
5	A845X	SMPT-0016	Ball, Green Plastic
5	A845AX	SMPT-0018	Ball, Blue Plastic
5	A845BX	SMPT-0017	Ball, Black Plastic
5	A845CX	SMPT-0019	Ball, Blue Glass
5	A845DX	SMPT-0020	Ball, 1/2" Diameter - 316 S.S.
6	A847BX	SMPT-0008	Cap Plug
7	A848BX	SMPT-0006	U-Pin
8	A846CX	SMPT-0014	1" FPT Supply Tee (Optional)
8	A846DX	SMPT-0049	1" Flange Supply Tee (Optional)
NS	NS	SMPT-0013	Set of Replacement Balls (0016-0020, 4 each)
NS	A847CX	SMPT-0001	Column, Single

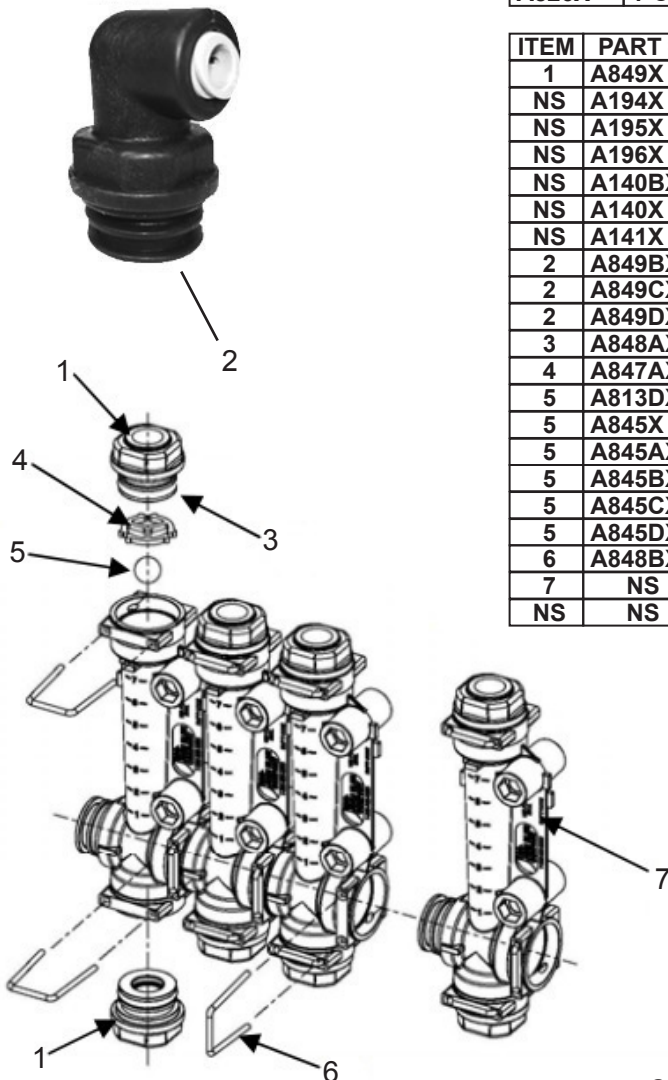




VisaGage II

VISUAL FLOW MONITOR SYSTEM

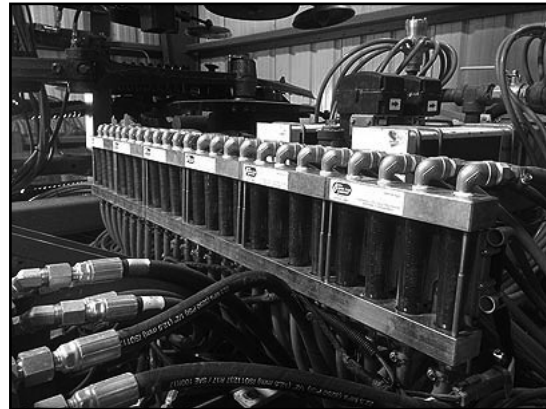
FLOW DIVIDER/SQUEEZE PUMP TYPE ASSEMBLY



PART #	DESCRIPTION
A825X	4-Column (Flow Divider Type) Monitor 3/8" FPT Inlet/Outlet
A826X	1-Column (Flow Divider Type) Monitor 3/8" FPT Inlet/Outlet

ITEM	PART #	MFG#	DESCRIPTION
1	A849X	SMPT-0003	3/8" FPT Adapter
NS	A194X		3/8" MPT x 1/4" Hose Barb Straight
NS	A195X		3/8" MPT x 3/8" Hose Barb Straight
NS	A196X		3/8" MPT x 1/2" Hose Barb Straight
NS	A140BX		3/8" MPT x 1/4" Hose Barb Elbow
NS	A140X		3/8" MPT x 3/8" Hose Barb Elbow
NS	A141X		3/8" MPT x 1/2" Hose Barb Elbow
2	A849BX	SMPT-0051	1/4" Push Connect Elbow Cap
2	A849CX	SMPT-0052	5/16" Push Connect Elbow Cap
2	A849DX	SMPT-0053	3/8" Push Connect Elbow Cap
3	A848AX	SMPT-0007	O-Ring Viton
4	A847AX	SMPT-0005	Float Stop
5	A813DX	SMPT-0050	Ball, Yellow Plastic
5	A845X	SMPT-0016	Ball, Green Plastic
5	A845AX	SMPT-0018	Ball, Blue Plastic
5	A845BX	SMPT-0017	Ball, Black Plastic
5	A845CX	SMPT-0019	Ball, Blue Glass
5	A845DX	SMPT-0020	Ball, 1/2" Diameter - 316 S.S.
6	A848BX	SMPT-0006	U-Pin
7	NS	SMPT-0002	Flow Divider Type Column - PVC
NS	NS	SMPT-0013	Set of Replacement Balls (0016-0020, 4 each)

NH₃ FLOW MONITOR AND BLOCKAGE SYSTEM



Now you can monitor NH₃ application flow directly from the cab of your tractor. No more second-guessing if a delivery line is plugged! The VisaGage NH₃ Flow Monitor and Blockage System helps you identify which row is being under-applied before yields are diminished. The system shows you both low-flow and no-flow problems in real time so you can correct it immediately saving you valuable time and money.

FEATURES:

- Maximum allowed pressure in the monitor is 100 PSI
- Only NH₃ Blockage Monitor Systems both low-flow and no-flow. Plus, the Premium Wireless System also displays high-flow for broken lines.
- See a visual display and hear an audible alarm on the control panel right from your tractor cab.
- Each row with a distribution problem will be highlighted by a flashing LED light at the row. No need to remember or search for which row is blocked after you come to a stop.
- Our system is available in three user-friendly options: standard wired control panel, Apple iPad® wireless, or the new Android® wireless system.
- Monitor system is now compatible with ISOBUS. Growers can know their flow from their cab using their own virtual terminal. Two ISOBUS options are available, universal system or system for John Deere® Planters.

Standard (wired)



Apple iPad® (wireless)



PART #	DESCRIPTION
A859BX	4 Row NH3 Monitor
A859CX	2 Row NH3 Monitor
A859DX	Orange Magnetic Ball
A859EX	Black Magnetic Ball
A859FX	Red Magnetic Ball
A859GX	O-ring (Bottom)
A859HX	O-ring (Top)
A859IX	Green Magnetic Ball
A859JX	Yellow Magnetic Ball
A859KX	Ball Screen
A859MX	Column NH3-TPX

TECHNICAL INFORMATION GUIDE

USEFUL FORMULAS

$$\text{GPM (Per Nozzle)} = \frac{\text{GPA} \times \text{mph} \times \text{W}}{5,940}$$

$$\text{GPM} = \frac{5,940 \times \text{GPA (Per Nozzle)}}{\text{MPH} \times \text{W}}$$

GPM - Gallons Per Minute

GPA - Gallons Per Acre

MPH - Miles Per Hour

W - Nozzle spacing (in inches) for broadcast spraying

- Spray width (in inches) for single nozzle, band

spraying or boomless spraying

- Row spacing (in inches) divided by the number of nozzles per row for directed spraying

MEASUREING TRAVEL SPEED

Measure a test course in the area to be sprayed or in an area with similar surface conditions. Minimum lengths of 100 and 200 feet are recommended for measuring speeds up to 5 and 10 mph respectively. Determine the time required to travel the test course. To help ensure accuracy, conduct the speed check with a loaded sprayer and select the engine throttle setting and gear that will be used when spraying. Repeat the above process and average the times that were measured. Use the following equation or the table below to determine ground speed.

$$\text{Speed (MPH)} = \frac{\text{Distance (ft)} \times 60}{\text{Time (seconds)} \times 88}$$

TRACTOR SPEEDS

SPEED IN MPH (MILES PER HOUR)	Time Required in Seconds to Travel a Distance of:		
	100 FT	200 FT	300 FT
3.0	23	45	68
3.5	20	39	58
4.0	17	34	51
4.5	15	30	45
5.0	14	27	41
6.0	-	23	34
7.0	-	19	29
7.5	-	18	27
8.0	-	17	26
9.0	-	15	23

Suggested Minimum Spray Heights

The nozzle height suggestions in the table below are based on the minimum overlap required to obtain uniform distribution. However, in many cases, typical height adjustments are based on a 1 to 1 nozzle spacing to height ratio. For example, 100° flat spray tips spaced 20 inches apart, are commonly set 20 inches above the target.

	(Inches)			
	65°	20°	30°	40°
TeeJet Standard, TJ	65°	22-24"	33-35"	NR*
TeeJet, XR, TX, DG, TJ	80°	17-19"	26-28"	NR*
TeeJet, XR, DG, TT, TJ, AI	110°	16-18"	20-22"	NR*
FullJet **	120°	10-18"	14-18"	14-18"
FloodJet TK, TF ***	120°	14-16"	15-17"	18-20"

* Not Recommended

** Nozzle height based on 30° to 45° angle of orientation

*** Wide angle spray tip height is influenced by nozzle orientation.

The critical factor is to achieve a double spray pattern overlap

NOZZLE SPACING

If the nozzle spacing on your boom is different than those tabulated, multiply the tabulated GPS coverages by one of the following factors

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

WHERE TABLES ARE BASED ON 40" NOZZLE SPACING

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 in this catalog 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 water 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% N.

Determine the correct nozzle size as follows:

GPA (solution) x Conversion factor = GPA (from table)

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
8.34 lbs. per gallon - WATER	1.00	1.00
9.0 lbs. per gallon	1.08	1.04
10.0 lbs. per gallon	1.20	1.10
10.65 lbs per gallon - 28% nitrogen	1.28	1.13
11.0 lbs. per gallon	1.32	1.15
12.0 lbs per gallon	1.44	1.20
14.0 lbs per gallon	1.68	1.30

MISCELLANEOUS CONVERSOIN FACTORS

One Acre = 43,560 square feet = 0.405 Hectares

One Hectare = 2.471 Acres

One Gallon Per Acre = 9.35 Liters Per Acre

One Mile = 5,280 Feet = 1,610 Meters = 1.61 Kilometers

One Gallon = 128 Fluid Ounces = 8 Pints = 4 Quarts = 3.79 Liters
= 0.83 Imperial Gal.

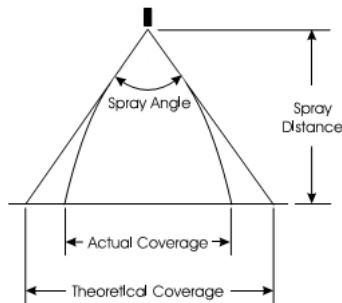
One Pound Per Square Inch = 0.069 bar = 6.896 Kilopascal

One Mile Per Hour = 1.6909 Kilometers Per Hour

TECHNICAL INFORMATION GUIDE

SPRAY COVERAGE INFORMATION

This table lists the theoretical coverage of spray patterns as calculated from the included spray angle of the spray and the distance from the nozzle orifice. These values are based on the assumption that the spray angle remains the same throughout entire spray distance. In actual practice, the tabulated spray angle does not hold for long spray distances.



Included Spray Angle	Theoretical Coverage at Various Spray Heights (in Inches)							
	8"	10"	12"	15"	18"	24"	30"	36"
15°	2.1	2.6	3.2	3.9	4.7	6.3	7.9	9.5
20°	2.8	3.5	4.2	5.3	6.4	8.5	10.6	12.7
25°	3.5	4.4	5.3	6.6	8.0	10.6	13.3	15.9
30°	4.3	5.4	6.4	8.1	9.7	12.8	16.1	19.3
35°	5.0	6.3	7.6	9.5	11.3	15.5	18.9	22.7
40°	5.8	7.3	8.7	10.9	13.1	17.5	21.8	26.2
45°	6.6	8.3	9.9	12.4	14.9	19.9	24.8	29.8
50°	7.5	9.3	11.2	14.0	16.8	22.4	28.0	33.6
55°	8.3	10.3	12.5	15.6	18.7	25.0	31.2	37.5
60°	9.2	11.5	13.8	17.3	20.6	27.7	34.6	41.6
65°	10.2	12.7	15.3	19.2	22.9	30.5	38.2	45.8
73°	11.8	14.8	17.8	22.0	27.0	36.0	44.0	53.0
80°	13.4	16.8	20.2	25.2	30.3	40.3	50.4	60.4
85°	14.7	18.3	22.0	27.5	33.0	44.0	55.4	66.4
90°	16.0	20.0	24.0	30.0	36.0	48.0	60.0	72.0
95°	17.5	21.8	26.2	32.8	40.3	52.4	65.5	78.6
100°	19.1	23.8	28.6	35.8	43.0	57.2	71.6	85.9
110°	22.8	28.5	34.3	42.8	51.4	68.5	85.6	130.0
120°	27.7	34.6	41.6	52.0	62.4	83.2	104.0	
130°	34.3	42.9	51.5	64.4	77.3	103.0		
140°	43.8	54.8	65.7	82.2	98.6			
150°	59.6	74.5	89.5					

NOZZLE NOMENCLATURE

Nozzle #	Spray Pattern	Spray Angle	Rated Pressure	Flow Rate	Rated Pressure
TP8004	Tapered Flat Spray	80°	@ 40 PSI	0.4 GPM	@ 40 PSI
XR8004	Tapered Flat Spray	80°	@ 15 PSI	0.4 GPM	@ 40 PSI
TJ60-8004	Twin Tapered Flat Spray	80°	@ 40 PSI	0.4 GPM	@ 40 PSI
TK-4	Wide Angle Flat Spray	120°	@ 10 PSI	0.4 GPM	@ 10 PSI
FL-10	Wide Angle Full Cone	120°	@ 15 PSI	1.0 GPM	@ 40 PSI
TX-4	Hollow Cone	80°	@ 40 PSI	4.0 GPM	@ 40 PSI
TT11004	Tapered Flat Spray	110°	@ 40 PSI	0.4 GPM	@ 40 PSI
TF-4	Wide Angle Flat Spray	120°	@ 10 PSI	0.4 GPM	@ 10 PSI

There are many types of nozzles available with each providing different flow rates, spray angles, droplet sizes, and patterns. Some of these spray tip characteristics are indicated by the tip number.

Each type of spray tip is rated under different operating conditions. For example, TeeJet® standard flat spray tips are rated in GPM whereas the TX ConeJet® hollow cone tips, which have much lower capacity, are rated in GPH.

Remember, when replacing tips, be sure to purchase the same tip number thereby insuring your sprayer remains properly calibrated.

SPOT-ON SPRAY CALIBRATOR



The Spot On Spray Tip Calibrator is an innovative and highly effective digital spray tip tester that provides accurate spray nozzle output readings in roughly 10 seconds. This allows users to confirm proper sprayer operations, choose the right nozzle for the job, as well as locating worn nozzles that may need replacing.

Features:

- Simple waterproof design has no moving parts
- Shows readings in either GPM, oz/min, or liter/min.
- Easy one handed operation
- Small size stores in cab, tool box, or hand bag
- Clear design allows for easy cleaning and troubleshooting
- Measurement range of 0 - 1.0 GPM
- Accuracy of +/- 2.5% or one least significant digit
- Battery life of 2 years with a low battery indicator

PART #	DESCRIPTION
LAG428355X	SpotOn Spray Calibrator

SAFETY GOGGLES

Goggles with clear frame and stack-trap vent. The ultimate in wearer comfort, safety and efficiency. Deep, well-proportioned frame fits easily and comfortably over prescription glasses.

Protects against splashing or spilling, dusts and sprays. A fogless, soft, flexible, non-vented goggle. Can be worn over most prescription glasses.



PART #	DESCRIPTION
R567X	Clear Lens, Vented Frame Goggles
R566X	Clear Lens, Non-Vented Frame Goggles



NITRILE CHEMICAL HANDLING GLOVES

Green Nitrile glove offers proven resistance against a broad range of chemicals.

PART #	DESCRIPTION
R508X	Green Nitrile Gloves, size 11
R509X	Green Nitrile Gloves, size 9
R510X	Green Nitrile Gloves, size 10

CALIBRATION CONTAINER

The TeeJet Calibration Container features a 64-oz. capacity and a dual scale in both U.S. and metric graduations. The container is molded in polypropylene for excellent chemical resistance and durability.



PART #	DESCRIPTION
A905X	64 oz. Calibration Container

TeeJet® VisiFlo® Flat Spray Tips

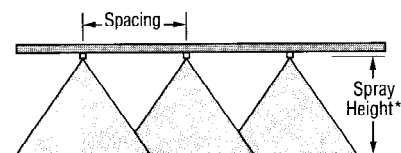
Typical Applications:

GOOD: Pre-Emerge Surface Applied Herbicides - Use a minimum spray pressure of 30 psi for uniform spray distribution. This provides medium size droplets for good soil coverage.

GOOD: Post-Emerge contact Herbicides - For application of contact herbicides use 40 psi and higher to provide good canopy penetration and small droplets for better foliar coverage.

Features:

- Tapered edge flat spray pattern for uniform coverage in broadcast spraying
- Spraying pressure 30-60 psi



* Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

BRASS

PART #	DESCRIPTION
A539X	8001
A539AX	8001.5
A540X	8002
A541X	8003
A542X	8004
A543X	8005
A543AX	8006
A543BX	8008
A543CX	8010
A543DX	8015

STAINLESS VS

PART #	DESCRIPTION
A544X	8001VS Orange
A544AX	8001.5VS Green
A545X	8002VS Yellow
A546X	8003VS Blue
A547X	8004VS Red
A548X	8005VS Brown
A549X	8006VS Gray
A550X	8008VS White
A551X	8010SS
A552X	8015SS
A553X	8020SS

Quick Teejet Caps

PART #	DESCRIPTION
L6630909X	Black Cap & Gasket
L6630909BX	Blue Cap & Gasket
L6630909GX	Green Cap & Gasket
L6630909YX	Yellow Cap & Gasket
L6630909RX	Red Cap & Gasket
L6630909OX	Orange Cap & Gasket
L6630909WX	White Cap & Gasket
L6630909NX	Brown Cap & Gasket
L6630909GRX	Gray Cap & Gasket
L6630909VX	Violet Cap & Gasket
A695X	Black Cap & Gskt(Lg Tip)
A697X	White cap & Gskt(Lg Tip)

Tip Color	TIP NO. (strainer screen size) 80° Series	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre - 20" Spacing							
				4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH
Orange	8001 (100 Mesh)	30	.09	6.4	5.1	4.3	3.7	3.2	2.6	2.1	1.8
		40	.10	7.4	5.9	5.0	4.2	3.7	3.0	2.5	2.1
		50	.11	8.3	6.6	5.5	4.7	4.2	3.3	2.8	2.4
		60	.12	9.1	7.3	6.1	5.2	4.6	3.6	3.0	2.6
Green	80015 (100 Mesh)	30	.13	9.7	7.7	6.4	5.5	4.8	3.9	3.2	2.8
		40	.15	11.1	8.9	7.4	6.4	5.6	4.5	3.7	3.2
		50	.17	12.5	10.0	8.3	7.1	6.2	5.0	4.2	3.6
		60	.18	13.6	10.9	9.1	7.8	6.8	5.5	4.6	3.9
Yellow	8002 (50 Mesh)	30	.17	12.9	10.3	8.6	7.4	6.4	5.1	4.3	3.7
		40	.20	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2
		50	.23	16.6	13.3	11.1	9.5	8.3	6.6	5.5	4.7
		60	.25	18.2	14.6	12.1	10.4	9.1	7.3	6.1	5.2
Blue	8003 (50 Mesh)	30	.26	19.0	15.4	12.9	11.0	9.7	7.7	6.4	5.5
		40	.30	22	17.8	14.9	12.7	11.1	8.9	7.4	6.4
		50	.34	25	19.9	16.6	14.2	12.5	10.0	8.3	7.1
		60	.37	27	22	18.2	15.6	13.6	10.9	9.1	7.8
Red	8004 (50 Mesh)	30	.35	26	21	17.2	14.7	12.9	10.3	8.6	7.4
		40	.40	30	24	19.8	17.0	14.9	11.9	9.9	8.5
		50	.45	33	27	22	19.0	16.6	13.3	11.1	9.5
		60	.49	36	29	24	21.0	18.2	14.6	12.1	10.4
Brown	8005 (50 Mesh)	30	.43	32	26	21	18.4	16.1	12.9	10.7	9.2
		40	.50	37	30	25	21	18.6	14.9	12.4	10.6
		50	.56	42	33	28	24	21.0	16.6	13.8	11.9
		60	.61	45	36	30	26	23.0	18.2	15.2	13.0
Gray	8006 (50 Mesh)	30	.52	39	31	26	22	19.3	15.4	12.9	11.0
		40	.60	45	36	30	25	22	17.8	14.9	12.7
		50	.67	50	40	33	28	25	19.9	16.6	14.2
		60	.74	55	44	36	31	27	22	18.2	15.6
White	8008 (50 Mesh)	30	.69	52	41	34	29	26	21	17.2	14.7
		40	.80	59	48	40	34	30	24	19.8	17.0
		50	.89	66	53	44	38	33	27	22	19.0
		60	.98	73	58	49	42	36	29	24	21.0
	8010 (No Strainer)	30	.87	64	51	43	37	32	26	21	18.4
		40	1.00	74	59	50	42	37	30	25	21
		50	1.12	83	66	55	47	42	33	28	24
		60	1.23	91	73	61	52	45	36	30	26
	8015 (No Strainer)	30	1.30	97	77	64	55	48	39	32	28
		40	1.50	111	89	74	64	56	45	37	32
		50	1.68	125	100	83	71	62	50	42	36
		60	1.84	136	109	91	78	68	55	46	39
	8020 (No Strainer)	30	1.73	128	103	86	73	64	51	43	37
		40	2.00	149	119	99	85	74	59	50	42
		50	2.23	166	133	111	95	83	66	55	47
		60	2.45	182	146	121	104	91	73	61	52

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

DG TeeJet® Drift Guard Flat Spray Tips

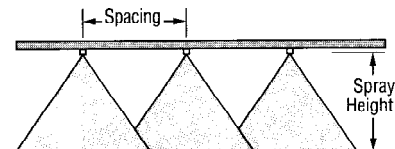
Typical Applications:

EXCELLENT: Pre-Emerge Surface Applied Herbicides - Minimum spray pressure of 30 psi.

EXCELLENT: Post-Emerge Systemic Herbicides - Minimum spray pressure of 30 psi.

Features:

- Pre-orifice design produces larger droplets and reduces the small drift prone droplets, minimizing off-target spray contamination.
- Tapered edge flat spray pattern provides uniform coverage when adjacent nozzle patterns are overlapped in broadcast spraying.
- The color-coded pre-orifice is removable for any necessary cleaning operations.
- Available in both 80° and 110° spray angles with durable stainless steel orifice.



* Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

Suggested Minimum Spray Height	
Spray Angle	Spray Height 20" Spacing
80°	17 - 19"
110°	15 - 18"

80 DEGREE DG

PART #	DESCRIPTION
A760X	DG8001.5VS
A761X	DG8002VS
A762X	DG8003VS
A763X	DG8004VS
A764X	DG8005VS

110 DEGREE DG

PART #	DESCRIPTION
A765X	DG11001.5VS
A766X	DG11002VS
A767X	DG11003VS
A768X	DG11004VS
A769X	DG11005VS

Tip Color	TIP NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre - 20" Spacing								
				4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	
Green	DG80015VS DG110015VS (100 Mesh)	30	0.13	9.7	7.7	6.4	5.5	4.8	3.9	3.2	2.8	
		35	0.14	10.4	8.3	6.9	5.9	5.2	4.2	3.5	3.0	
		40	0.15	11.1	8.9	7.4	6.4	5.6	4.5	3.7	3.2	
		50	0.17	12.5	10.0	8.3	7.1	6.2	5.0	4.2	3.6	
		60	0.18	13.6	10.9	9.1	7.8	6.8	5.5	4.6	3.9	
Yellow	DG8002VS DG11002VS (50 Mesh)	30	0.17	12.9	10.3	8.6	7.4	6.4	5.1	4.3	3.7	
		35	0.19	13.9	11.1	9.3	7.9	7.0	5.6	4.6	4.0	
		40	0.20	14.9	11.9	9.9	8.5	7.4	5.9	5.0	4.2	
		50	0.23	16.6	13.3	11.1	9.5	8.3	6.6	5.5	4.7	
		60	0.25	18.2	14.6	12.1	10.4	9.1	7.3	6.1	5.2	
Blue	DG8003VS DG11003VS (50 Mesh)	30	0.26	19.0	15.4	12.9	11.0	9.7	7.7	6.4	5.5	
		35	0.28	21	16.7	13.9	11.9	10.4	8.3	7.0	6.0	
		40	0.30	22	17.8	14.9	12.7	11.1	8.9	7.4	6.4	
		50	0.34	25	19.9	16.6	14.2	12.5	10.0	8.3	7.1	
		60	0.37	27	22	18.2	15.6	13.6	10.9	9.1	7.8	
Red	DG8004VS DG11004VS (50 Mesh)	30	0.35	26	21	17.2	14.7	12.9	10.3	8.6	7.4	
		35	0.37	28	22	18.5	15.9	13.9	11.1	9.3	7.9	
		40	0.40	30	24	19.8	17.0	14.9	11.9	9.9	8.5	
		50	0.45	33	27	22	19.0	16.6	13.3	11.1	9.5	
		60	0.49	36	29	24	21	18.2	14.6	12.1	10.4	
Brown	DG8005VS DG11005VS (50 Mesh)	30	0.43	32	26	21	18.4	16.1	13.0	10.5	9.2	
		35	0.47	35	28	23	20	17.4	14.0	11.6	10.0	
		40	0.50	37	30	25	21	18.6	15.0	12.5	10.5	
		50	0.56	42	33	28	24	21	16.6	13.9	11.9	
		60	0.61	46	36	30	26	23	18.0	15.0	13.0	

QUICK TEEJET CAPS

PART #	DESCRIPTION
L6630909X	Black Cap & Gasket
L6630909BX	Blue Cap & Gasket
L6630909GX	Green Cap & Gasket
L6630909YX	Yellow Cap & Gasket
L6630909RX	Red Cap & Gasket
L6630909OX	Orange Cap & Gasket
L6630909WX	White Cap & Gasket
L6630909NX	Brown Cap & Gasket
L6630909GRX	Gray Cap & Gasket
L6630909VX	Violet Cap & Gasket

SPRAY PATTERN



XR TeeJet® Extended Range Flat Spray Tips

Typical Applications:

EXCELLENT: Pre-Emerge Surface Applied Herbicides - At medium pressures (20-30 psi) produces medium size droplets for good surface coverage in applications such as minimum tillage.

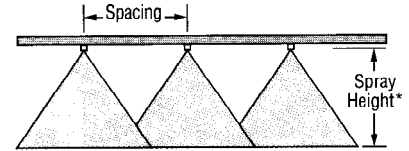
EXCELLENT: Post-Emerge Systemic Herbicides - At lower pressures (15-20 psi) helps to control drift.

GOOD: Post-Emerge Contact Herbicides - At higher pressures (30-60 psi) produces smaller droplets for better coverage. Wide angle 110° tips produce smaller droplets than 80° tip at equal pressures.

Pre-Plant Incorporated Herbicides - At lower pressure (15-20 psi) produces larger spray droplets and reduces drift.

Features:

- Excellent spray distribution over a wide range of pressures (15-20 psi).
- Ideal for rigs equipped with sprayer controllers.
- Reduces drift at lower pressures, better coverage at higher pressures.



* Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

Suggested Minimum Spray Height	
Spray Angle	Spray Height 20" Spacing
80°	17 - 19"
110°	15 - 18"

Tip Color	Tip No. (Strainer Screen Size)		Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre - 20" Spacing										Gallons Per Acre - 30" Spacing									
	80° Series	110° Series			5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH
Orange	XR8001 (100 Mesh)	XR11001 (100 Mesh)	15	.06	3.6	3.0	2.6	2.3	1.8	1.5	1.3	1.1	1.0	.91	2.4	2.0	1.7	1.5	1.2	1.0	.87	.76	.67	.61
			20	.07	4.2	3.5	3.0	2.6	2.1	1.8	1.5	1.3	1.2	1.1	2.8	2.3	2.0	1.8	1.4	1.2	1.0	.88	.78	.70
			30	.09	5.1	4.3	3.7	3.2	2.6	2.1	1.8	1.6	1.4	1.3	3.4	2.9	2.5	2.1	1.7	1.4	1.2	1.1	.95	.86
			40	.10	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5	4.0	3.3	2.8	2.5	2.0	1.7	1.4	1.2	1.1	.99
Green	XR80015 (100 Mesh)	XR110015 (100 Mesh)	15	.09	5.5	4.6	3.9	3.4	2.7	2.3	2.0	1.7	1.5	1.4	3.6	3.0	2.6	2.3	1.8	1.5	1.3	1.1	1.0	.91
			20	.11	6.3	5.3	4.5	3.9	3.2	2.6	2.3	2.0	1.8	1.6	4.2	3.5	3.0	2.6	2.1	1.8	1.5	1.3	1.2	1.1
			30	.13	7.7	6.4	5.5	4.8	3.9	3.2	2.8	2.4	2.1	1.9	5.1	4.3	3.7	3.2	2.6	2.1	1.8	1.6	1.4	1.3
			40	.15	8.9	7.4	6.4	5.6	4.5	3.7	3.2	2.8	2.5	2.2	5.9	5.0	4.2	3.7	3.0	2.5	2.1	1.9	1.7	1.5
Yellow	XR8002 (50 Mesh)	XR11002 (50 Mesh)	15	.12	7.3	6.1	5.2	4.6	3.6	3.0	2.6	2.3	2.0	1.8	4.9	4.0	3.5	3.0	2.4	2.0	1.7	1.5	1.4	1.2
			20	.14	8.4	7.0	6.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1	5.6	4.7	4.0	3.5	2.8	2.3	2.0	1.8	1.6	1.4
			30	.17	10.3	8.6	7.4	6.4	5.1	4.3	3.7	3.2	2.9	2.6	6.9	5.7	4.9	4.3	3.4	2.9	2.5	2.1	1.9	1.7
			40	.20	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0	7.9	6.6	5.7	5.0	4.0	3.3	2.8	2.5	2.2	2.0
Blue	XR8003 (50 Mesh)	XR11003 (50 Mesh)	15	.18	10.9	9.1	7.8	6.8	5.5	4.6	3.9	3.4	3.0	2.7	7.3	6.1	5.2	4.6	3.6	3.0	2.6	2.3	2.0	1.8
			20	.21	12.6	10.5	9.0	7.9	6.3	5.3	4.5	3.9	3.5	3.2	8.4	7.0	6.0	5.3	4.2	3.5	3.0	2.6	2.3	2.1
			30	.26	15.4	12.9	11.0	9.7	7.7	6.4	5.5	4.8	4.3	3.9	10.3	8.6	7.4	6.4	5.1	4.3	3.7	3.2	2.9	2.6
			40	.30	17.8	14.9	12.7	11.1	8.9	7.4	6.4	5.6	5.0	4.5	11.9	9.9	8.5	7.4	5.9	5.0	4.2	3.7	3.3	3.0
Red	XR8004 (50 Mesh)	XR11004 (50 Mesh)	15	.24	14.6	12.1	10.4	9.1	7.3	6.1	5.2	4.6	4.0	3.6	9.7	8.1	6.9	6.1	4.9	4.0	3.5	3.0	2.7	2.4
			20	.28	16.8	14.0	12.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2	11.2	9.3	8.0	7.0	5.6	4.7	4.0	3.5	3.1	2.8
			30	.35	21	17.1	14.7	12.9	10.3	8.6	7.4	6.4	5.7	5.1	13.7	11.4	9.8	8.6	6.9	5.7	4.9	4.3	3.8	3.4
			40	.40	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9	16.8	13.2	11.3	9.9	7.9	6.6	5.7	5.0	4.4	4.0
Brown	XR8005 (50 Mesh)	XR11005 (50 Mesh)	15	.31	18.2	15.2	13.0	11.4	9.1	7.6	6.5	5.7	5.1	4.6	12.1	10.1	8.7	7.6	6.1	5.1	4.3	3.8	3.4	3.0
			20	.35	21	17.5	15.0	13.1	10.5	8.8	7.5	6.6	5.8	5.3	14.0	11.7	10.0	8.8	7.0	5.8	5.0	4.4	3.9	3.5
			30	.43	26	21	18.4	16.1	12.9	10.7	9.2	8.0	7.2	6.4	17.2	14.3	12.9	10.7	8.6	7.2	6.1	5.4	4.8	4.3
			40	.50	30	25	21	18.6	14.9	12.4	10.6	9.3	8.3	7.4	19.8	16.5	14.1	12.4	9.9	8.3	7.1	6.2	5.5	5.0
Gray	XR8006 (50 Mesh)	XR11006 (50 Mesh)	15	.37	22	18.2	15.6	13.6	10.9	9.1	7.8	6.8	6.1	5.5	14.6	12.1	10.4	9.1	7.3	6.1	5.2	4.6	4.0	3.6
			20	.42	25	21	18.0	15.8	12.6	10.5	9.0	7.9	7.0	6.3	16.8	14.0	12.0	10.5	8.4	7.0	6.0	5.3	4.7	4.2
			30	.52	31	26	22	19.3	15.4	12.9	11.0	9.7	8.6	7.7	21	17.2	14.7	12.9	10.3	8.6	7.4	6.4	5.7	5.1
			40	.60	36	30	25	22	17.8	14.9	12.7	11.1	9.9	8.9	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4	6.6	5.9
White	XR8008 (50 mesh)	XR11008 (50 mesh)	15	.49	29	24	21	18.2	14.6	12.1	10.4	9.1	8.1	7.3	19.4	16.2	13.9	12.1	9.7	8.1	6.9	6.1	5.4	4.9
			20	.57	34	28	24	21	16.8	14.0	12.0	10.5	9.3	8.4	22	18.7	16.0	14.0	11.2	9.3	8.0	7.0	6.2	5.6
			30	.69	41	34	29	26	21	17.1	14.7	12.9	11.4	10.3	27	23	19.6	17.2	13.7	11.4	9.8	8.6	7.6	6.9
			40	.80	48	40	34	30	24	19.8	17.0	14.9	13.2	11.9	32	26	23	19.8	15.8	13.2	11.3	9.9	8.8	7.9
	XR8010SS	XR11010SS	15	.61	36	30	26	23	18.2	15.2	13.1	11.4	10.1	9.1	24	20	17.3	15.2	12.1	10.1	8.7	7.6	6.7	6.0
			20	.71	42	35	30	26	21	17.5	15.0	13.1	11.7	10.5	28	23	20	17.5	14.0	11.7	10.0	8.8	7.8	7.0
			30	.87	51	43	37	32	26	21	18.4	16.1	14.4	12.9	34	29	25	21	17.2	14.3	12.3	10.7	9.6	8.6
			40	1.00	59	50	42	37	30	25	21	18.6	16.5	14.9	40	33	28	25	19.8	16.5	14.1	12.4	11.0	9.9
	XR8015SS	XR11015SS	15	.92	55	45	39	34	27	23	19.5	17.1	15.2	13.9	36	30	26	23	18.2	15.2	13.0	11.4	10.1	9.1
			20	1.06	63	53	45	39	32	26	22	19.7	17.5	15.7	42	35	30	26	21	17.5	15.0	13.1	11.7	10.5
			30	1.30	77	64	55	48	39	32	28	24	21.5	19.3	51	43	37	32	26	21	18.4	16.1	14.3	12.9
			40	1.50	89	74	64	58	45	37	32	28	24.8	23.3	59	50	42	37	30	25	21	18.6	16.5	14.9
			60	1.84	1.09	91	78	68	55	46	39	34	30.1	27.3	73	61	52	45	36	30	26	23	20.2	18.2

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

80 DEGREE XR VS

PART #	DESCRIPTION
A704X	8001XR
A705X	8001.5XR
A706X	8002XR
A707X	8003XR
A708X	8004XR
A709X	8005XR
A710X	8006XR
A711X	8008XR
A712X	8010XRSS
A713X	8015XRSS

110 DEGREE XR VS

PART #	DESCRIPTION
A720X	11001XR
A721X	11001.5XR
A722X	11002XR
A723X	11003XR
A724X	11004XR
A725X	11005XR
A726X	11006XR
A727X	11008XR
A728X	11010XRSS
A728AX	11015XRSS

Quick Teejet Caps

PART #	DESCRIPTION
L6630909X	Black Cap & Gasket
L6630909BX	Blue Cap & Gasket
L6630909GX	Green Cap & Gasket
L6630909YX	Yellow Cap & Gasket
L6630909RX	Red Cap & Gasket
L6630909OX	Orange Cap & Gasket
L6630909WX	White Cap & Gasket
L6630909NX	Brown Cap & Gasket
A695X	Black Cap & Gskt(Lg Tip)
A697X	White Cap & Gskt(Lg Tip)
L6630909GRX	Gray Cap & Gasket
L6630909VX	Violet Cap & Gasket

AIXR TeeJet® Air Induction XR Flat Spray Tips

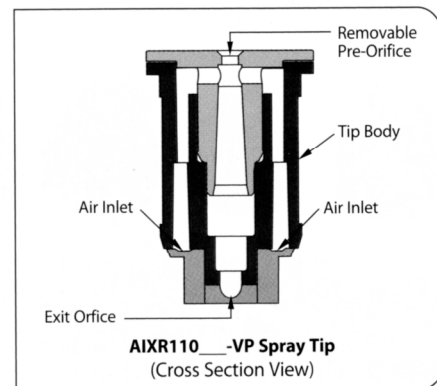
Features:

- 110° wide, tapered flat spray angle with air induction technology offers better drift management.
- Made of a two-piece UHMWPE polymer construction with VisiFlo® color-coding. UHMWPE provides excellent chemical resistance, including acids, as well as exceptional wear life.
- Compact size to prevent tip damage.
- Depending on the chemical, produces large sir-filled drops through a Venturi air aspirator.
- Removable pre-orifice
- Available in seven tip capacities with a wide operating pressure range: 15-90 PSI

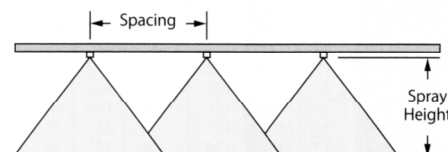


Tip Color	TIP NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	GALLONS PER ACRE 20 INCH SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Green	AIXR110015-VP (100 Mesh)	15	0.092	6.8	5.5	4.6	3.4	2.7	2.3	1.8	1.4
		20	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6
		30	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9
		40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		50	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		60	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		75	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
Yellow	AIXR11002-VP (50 Mesh)	90	0.23	17.1	13.7	11.4	8.5	6.8	5.7	4.6	3.4
		15	0.12	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8
		20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
Violet	AIXR110025-VP (50 Mesh)	75	0.27	20.0	16.0	13.4	10.0	8.0	6.7	5.3	4.0
		90	0.30	22.0	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		15	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	21.0	16.6	13.9	10.4	8.3	6.9	5.5	4.2
Blue	AIXR11003-VP (50 Mesh)	60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		75	0.34	25.0	20.0	16.8	12.6	10.1	8.4	6.7	5.0
		90	0.38	28.0	23.0	18.8	14.1	11.3	9.4	7.5	5.6
		15	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.0	17.8	14.9	11.1	8.9	7.4	5.9	4.5
Red	AIXR11004-VP (50 Mesh)	50	0.34	25.0	20.0	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.0	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		75	0.41	30.0	24.0	20.0	15.2	12.2	10.1	8.1	6.1
		90	0.45	33.0	27.0	22.0	16.7	13.4	11.1	8.9	6.7
		15	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		20	0.28	21.0	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		30	0.35	26.0	21.0	17.3	13.0	10.4	8.7	6.9	5.2
Brown	AIXR11005-VP (50 Mesh)	40	0.40	30.0	24.0	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.0	27.0	22.0	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.0	29.0	24.0	18.2	14.6	12.1	9.7	7.3
		75	0.55	41.0	33.0	27.0	20.0	16.3	13.6	10.9	8.2
		90	0.60	45.0	36.0	30.0	22.0	17.8	14.9	11.9	8.9
		15	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		20	0.35	26.0	21.0	17.3	13.0	10.4	8.7	6.9	5.2
Gray	AIXR11006-VP (50 Mesh)	30	0.43	32.0	26.0	21.0	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.0	30.0	25.0	18.6	14.9	12.4	9.9	7.4
		50	0.56	42.0	33.0	28.0	21.0	16.6	13.9	11.1	8.3
		60	0.61	45.0	36.0	30.0	23.0	18.1	15.1	12.1	9.1
		75	0.68	50.0	40.0	34.0	25.0	20.0	16.8	13.5	10.1
		90	0.75	56.0	45.0	37.0	28.0	22.0	18.6	14.9	11.1
		15	0.37	27.0	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		20	0.42	31.0	25.0	21.0	15.6	12.5	10.4	8.3	6.2
		30	0.52	39.0	31.0	26.0	19.3	15.4	12.9	10.3	7.7
		40	0.60	45.0	36.0	30.0	22.0	17.8	14.9	11.9	8.9
		50	0.67	50.0	40.0	33.0	25.0	19.9	16.6	13.3	9.9
		60	0.73	54.0	43.0	36.0	27.0	22.0	18.1	14.5	10.8
		75	0.82	61.0	49.0	41.0	30.0	24.0	20.0	16.2	12.2
		90	0.90	67.0	53.0	45.0	33.0	27.0	22.0	17.8	13.4

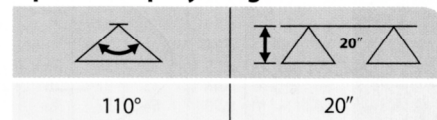
NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F



CONTACT PRODUCT	SYSTEMIC PRODUCT	DRIFT MANAGEMENT
GOOD	EXCELLENT	EXCELLENT



Optimum Spray Height



AI TeeJet Spray Tips

PART#	DESCRIPTION
A570X	AIXR110015-VP
A571X	AIXR11002-VP
A572X	AIXR11002.5-VP
A573X	AIXR11003-VP
A574X	AIXR11004-VP
A575X	AIXR11005-VP
A576X	AIXR11006-VP
A577X	AIXR11008-VP



AI Quick TeeJet Caps

PART#	DESCRIPTION
L6630909X	Black cap & gasket
L6630909BX	Blue cap & gasket
L6630909GX	Green cap & gasket
L6630909YX	Yellow cap & gasket
L6630909RX	Red cap & gasket
L6630909OX	Orange cap & gasket
L6630909WX	White cap & gasket
L6630909NX	Brown cap & gasket
L6630909GRX	Gray cap & gasket
L6630909VX	Violet cap & gasket

Turbo TeeJet® Wide Angle Flat Spray Tips

Typical Applications:

EXCELLENT: Pre-Emerge Surface Applied Herbicides - Minimum spray pressure of 15 psi.

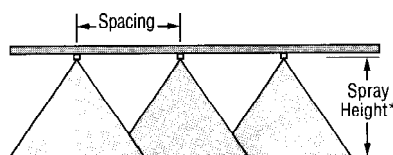
EXCELLENT: Post-Emerge Contact Herbicides - Typical pressures of 40 psi and higher.



PART #	DESCRIPTION
A771X	TT11001VP
A772X	TT11001.5VP
A773X	TT11002VP
A773AX	TT110025VP
A774X	TT11003VP
A775X	TT11004VP
A776X	TT11005VP
A776AX	TT11006VP
A777X	TT11008VP
A776BX	TT11010VP

Features:

- Tapered edge wide angle flat spray pattern for uniform coverage in broadcast spraying.
- Large, round free passages to minimize clogging.
- Excellent resistance to corrosive solutions.
- Superior wear characteristics.
- Larger droplets for less drift.
- Wider pressure range (15 to 90 psi)



* Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

Suggested Minimum Spray Height	
Nozzle Spacing	Suggested Spray Height
20"	15 - 18"
30"	20 - 22"

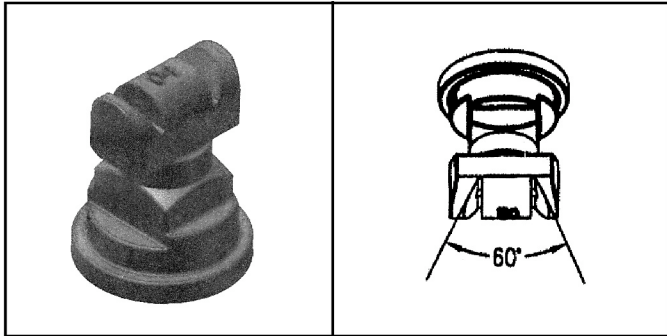
Quick Teejet Caps

PART #	DESCRIPTION
L6630909X	Black Cap & Gasket
L6630909BX	Blue Cap & Gasket
L6630909GX	Green Cap & Gasket
L6630909YX	Yellow Cap & Gasket
L6630909RX	Red Cap & Gasket
L6630909OX	Orange Cap & Gasket
L6630909WX	White Cap & Gasket
L6630909NX	Brown Cap & Gasket
A776CX	Lt. Blue Cap & Gasket
L6630909GRX	Gray Cap & Gasket
L6630909VX	Violet Cap & Gasket

Nozzle (Tip Screen) Color	Pressure (psi)	Numbers in Table Body are mph, nozzle spacing = 20 in									
		Flow rate (US gpm)	4 gpa	5 gpa	6 gpa	8 gpa	10 gpa	12 gpa	15 gpa	20 gpa	
TT11001VP (100 Mesh) Orange	20	0.07	5.3	4.2	3.5	2.6	2.1	1.8	1.4	1.1	
	30	0.09	6.4	5.1	4.3	3.2	2.6	2.1	1.7	1.3	
	40	0.10	7.4	5.9	5.0	3.7	3.0	2.5	2.0	1.5	
	50	0.11	8.3	6.6	5.5	4.2	3.3	2.8	2.2	1.7	
	60	0.12	9.1	7.3	6.1	4.5	3.6	3.0	2.4	1.8	
	70	0.13	9.8	7.9	6.5	4.9	3.9	3.3	2.6	2.0	
	80	0.14	10.5	8.4	7.0	5.3	4.2	3.5	2.8	2.1	
90	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2		
TT110015VP (100 Mesh) Green	20	0.11	7.9	6.3	5.3	3.9	3.2	2.6	2.1	1.6	
	30	0.13	9.6	7.7	6.4	4.8	3.9	3.2	2.6	1.9	
	40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2	
	50	0.17	12.5	10.0	8.3	6.2	5.0	4.2	3.3	2.5	
	60	0.18	13.6	10.9	9.1	6.8	5.5	4.5	3.6	2.7	
	70	0.20	14.7	11.8	9.8	7.4	5.9	4.9	3.9	2.9	
	80	0.21	15.8	12.6	10.5	7.9	6.3	5.3	4.2	3.2	
90	0.23	16.7	13.4	11.1	8.4	6.7	5.6	4.5	3.3		
TT11002VP (50 Mesh) Yellow	20	0.14	10.5	8.4	7.0	5.3	4.2	3.5	2.8	2.1	
	30	0.17	12.9	10.3	8.6	6.4	5.1	4.3	3.4	2.6	
	40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0	
	50	0.22	16.6	13.3	11.1	8.3	6.6	5.5	4.4	3.3	
	60	0.24	18.2	14.5	12.1	9.1	7.3	6.1	4.8	3.6	
	70	0.26	19.6	15.7	13.1	9.8	7.9	6.5	5.2	3.9	
	80	0.28	21.0	16.8	14.0	10.5	8.4	7.0	5.6	4.2	
90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5		
TT110025VP (50 Mesh) Violet	20	0.18	13.1	10.5	8.8	6.6	5.3	4.4	3.5	2.6	
	30	0.22	16.1	12.9	10.7	8.0	6.4	5.4	4.3	3.2	
	40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	
	50	0.28	20.8	16.6	13.8	10.4	8.3	6.9	5.5	4.2	
	60	0.31	22.7	18.2	15.2	11.4	9.1	7.6	6.1	4.5	
	70	0.33	24.6	19.6	16.4	12.3	9.8	8.2	6.5	4.9	
	80	0.35	26.3	21.0	17.5	13.1	10.5	8.8	7.0	5.3	
90	0.38	27.8	22.3	18.6	13.9	11.1	9.3	7.4	5.6		
TT11003VP (50 Mesh) Blue	20	0.21	15.8	12.6	10.5	7.9	6.3	5.3	4.2	3.2	
	30	0.26	19.3	15.4	12.9	9.6	7.7	6.4	5.1	3.9	
	40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5	
	50	0.34	24.9	19.9	16.6	12.5	10.0	8.3	6.6	5.0	
	60	0.37	27.3	21.8	18.2	13.6	10.9	9.1	7.3	5.5	
	70	0.40	29.5	23.6	19.6	14.7	11.8	9.8	7.9	5.9	
	80	0.42	31.5	25.2	21.0	15.8	12.6	10.5	8.4	6.3	
90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7		
TT11004VP (50 Mesh) Red	20	0.28	21.0	16.8	14.0	10.5	8.4	7.0	5.6	4.2	
	30	0.35	25.7	20.6	17.1	12.9	10.3	8.6	6.9	5.1	
	40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9	
	50	0.45	33.2	26.6	22.1	16.6	13.3	11.1	8.9	6.6	
	60	0.49	36.4	29.1	24.2	18.2	14.5	12.1	9.7	7.3	
	70	0.53	39.3	31.4	26.2	19.6	15.7	13.1	10.5	7.9	
	80	0.57	42.0	33.6	28.0	21.0	16.8	14.0	11.2	8.4	
90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9		
TT11005VP (50 Mesh) Brown	20	0.35	26.3	21.0	17.5	13.1	10.5	8.8	7.0	5.3	
	30	0.43	32.2	25.7	21.4	16.1	12.9	10.7	8.6	6.4	
	40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4	
	50	0.56	41.5	33.2	27.7	20.8	16.6	13.8	11.1	8.3	
	60	0.61	45.5	36.4	30.3	22.7	18.2	15.2	12.1	9.1	
	70	0.66	49.1	39.3	32.7	24.6	19.6	16.4	13.1	9.8	
	80	0.71	52.5	42.0	35.0	26.3	21.0	17.5	14.0	10.5	
90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1		
TT11006VP (50 Mesh) Gray	20	0.42	31.5	25.2	21.0	15.8	12.6	10.5	8.4	6.3	
	30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7	
	40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9	
	50	0.67	49.8	39.8	33.2	24.9	19.9	16.6	13.3	10.0	
	60	0.73	54.6	43.6	36.4	27.3	21.8	18.2	14.5	10.9	
	70	0.79	58.9	47.1	39.3	29.5	23.6	19.6	15.7	11.8	
	80	0.85	63.0	50.4	42.0	31.5	25.2	21.0	16.8	12.6	
90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4		
TT11008VP (50 Mesh) White	20	0.57	42.0	33.6	28.0	21.0	16.8	14.0	11.2	8.4	
	30	0.69	51.4	41.2	34.3	25.7	20.6	17.1	13.7	10.3	
	40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9	
	50	0.89	66.4	53.1	44.3	33.2	26.6	22.1	17.7	13.3	
	60	0.98	72.7	58.2	48.5	36.4	29.1	24.2	19.4	14.5	
	70	1.06	78.6	62.9	52.4	39.3	31.4	26.2	21.0	15.7	
	80	1.13	84.0	67.2	56.0	42.0	33.6	28.0	22.4	16.8	
90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8		
TT11010VP Light Blue	20	0.71	52.5	42.0	35.0	26.3	21.0	17.5	14.0	10.5	
	30	0.87	64.3	51.4	42.9	32.2	25.7	21.4	17.1	12.9	
	40	1.00	74.3	59.4	49.5	37.1	29.7	24.8	19.8	14.9	
	50	1.12	83.0	66.4	55.3	41.5	33.2	27.7	22.1	16.6	
	60	1.22	90.9	72.7	60.6	45.5	36.4	30.3	24.2	18.2	
	70	1.32	98.2	78.6	65.5	49.1	39.3	32.7	26.2	19.6	
	80	1.41	105.0	84.0	70.0	52.5	42.0	35.0	28.0	21.0	
90	1.50	111.4	89.1	74.3	55.7	44.6	37.1	29.7	22.3		

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Turbo TwinJet



Features:

- Tip produces dual, tapered edge, wide angle, flat spray pattern for uniform coverage in broadcast spraying.
- Dual angled spray patterns help to penetrate the crop canopy and provide thorough leaf coverage.
- Large, round passages to minimize clogging.
- All acetal construction for excellent chemical and wear resistance.
- Large droplet size for improved drift control.
- Suggested spray pressure range: 20-90 PSI

Typical Applications:

- Best for pre-emerge surface applied herbicides - minimum spray pressure of 15 PSI.
- Best for post-emerge contact herbicides - minimum spray pressures of 40 PSI and higher.
- Excellent for fungicide applications.

Spray Angle	Optimum Spray Height	
	20" Spacing	30" Spacing
110°	20"	30"

TTJ Spray Tip

Part #	Description
A750X	TTJ60-11002-VP
A750AX	TTJ60-110025-VP
A751X	TTJ60-11003-VP
A751AX	TTJ60-11004-VP
A752X	TTJ60-11005-VP
A753X	TTJ60-11006-VP
A753AX	TTJ60-11008-VP
A754X	TTJ60-11010-VP

Quick TeeJet Caps

Part #	Description
L6630909X	Black Cap
L6630909BX	Blue Cap
L6630909GX	Green Cap
L6630909YX	Yellow Cap
L6630909RX	Red Cap
L6630909OX	Orange Cap
L6630909WX	White Cap
L6630909NX	Brown Cap
L6630909VX	Violet Cap
L6630909GRX	Gray Cap

Note: All caps come with Gaskets



SHOP PARTS ONLINE

Tip Color VisiFlo	Tip NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre 20" Spacing				Gallons Per Acre 30" Spacing			
				5 MPH	6 MPH	7 MPH	8 MPH	5 MPH	6 MPH	7 MPH	8 MPH
Yellow	TTJ60-11002-VP	20	0.14	8.3	6.9	5.9	5.2	5.5	4.6	4.0	3.5
		30	0.17	10.1	8.4	7.2	6.3	6.7	5.6	4.8	4.2
		40	0.20	11.9	9.9	8.5	7.4	7.9	6.6	5.7	5.0
		50	0.22	13.1	10.9	8.9	8.2	8.7	7.3	6.2	5.4
		60	0.24	14.3	11.9	10.0	8.9	9.5	7.9	6.8	5.9
		75	0.27	16.0	13.4	11.5	10.0	10.7	8.9	7.6	6.7
Violet	TTJ60-110025-VP	90	0.30	17.8	14.9	12.7	11.1	11.9	9.9	8.5	7.4
		20	0.18	10.7	8.9	7.6	6.7	7.1	5.9	5.1	4.5
		30	0.22	13.1	10.9	9.3	8.2	8.7	7.3	6.2	5.4
		40	0.25	14.9	12.4	10.6	9.3	9.9	8.3	7.1	6.2
		50	0.28	16.6	13.9	11.9	10.4	11.1	9.2	7.9	6.9
		60	0.31	18.4	15.3	13.2	11.5	12.3	10.2	8.8	7.7
Blue	TTJ60-11003-VP	75	0.34	20.0	16.8	14.5	12.6	13.5	11.2	9.6	8.4
		90	0.38	23.0	18.8	16.1	14.1	15.0	12.5	10.7	9.4
		20	0.21	12.5	10.4	8.9	7.8	8.3	6.9	5.9	5.2
		30	0.26	15.4	12.9	11.0	9.7	10.3	8.6	7.4	6.4
		40	0.30	17.8	14.9	12.7	11.1	11.9	9.9	8.5	7.4
		50	0.34	20.0	16.8	14.4	12.6	13.5	11.2	9.6	8.4
Red	TTJ60-11004-VP	60	0.37	22.0	18.3	15.7	13.7	14.7	12.2	10.5	9.2
		75	0.41	24.0	20.0	17.4	15.2	16.2	13.5	11.6	10.1
		90	0.45	27.0	22.0	19.1	16.7	17.8	14.9	12.7	11.1
		20	0.28	16.6	13.9	11.9	10.4	11.1	9.2	7.9	6.9
		30	0.35	21.0	17.3	14.9	13.0	13.9	11.6	9.9	8.7
		40	0.40	24.0	19.8	17.0	14.9	15.8	13.2	11.3	9.9
Brown	TTJ60-11005-VP	50	0.45	27.0	22.0	19.1	16.7	17.8	14.9	12.7	11.1
		60	0.49	29.0	24.0	21.0	18.2	19.4	16.2	13.9	12.1
		75	0.55	33.0	27.0	23.0	20.0	22.0	18.2	15.6	13.6
		90	0.60	36.0	30.0	25.0	22.0	24.0	19.8	17.0	14.9
		20	0.35	21.0	17.3	14.9	13.0	13.9	11.6	9.9	8.7
		30	0.43	26.0	21.0	18.2	16.0	17.0	14.2	12.2	10.6
Gray	TTJ60-11006-VP	40	0.50	30.0	25.0	21.0	18.6	19.8	16.5	14.1	12.4
		50	0.56	33.0	28.0	24.0	21.0	22.0	18.5	15.8	13.9
		60	0.61	36.0	30.0	26.0	23.0	24.0	20.0	17.3	15.1
		75	0.68	40.0	34.0	29.0	25.0	27.0	22.0	19.2	16.8
		90	0.75	45.0	37.0	32.0	28.0	30.0	25.0	21.0	18.6
		20	0.42	25.0	21.0	17.8	15.6	16.6	13.9	11.9	10.4
White	TTJ60-11008-VP	30	0.52	31.0	26.0	22.0	19.3	21.0	17.2	14.7	12.9
		40	0.60	36.0	30.0	25.0	22.0	24.0	19.8	17.0	14.9
		50	0.67	40.0	33.0	28.0	25.0	27.0	22.0	19.0	16.6
		60	0.73	43.0	36.0	31.0	27.0	29.0	24.0	21.0	18.1
		75	0.82	49.0	41.0	35.0	30.0	32.0	27.0	23.0	20.0
		90	0.90	53.0	45.0	38.0	33.0	36.0	30.0	25.0	22.0
Light Blue	TTJ60-11010-VP	20	0.57	34	28	24	21	23	18.8	16.1	14.1
		30	0.69	41	34	29	26	27	23	19.5	17.1
		40	0.80	48	40	34	30	32	26	23	19.8
		50	0.89	53	44	38	33	35	29	25	22
		60	0.98	58	49	42	36	39	32	28	24
		75	1.10	65	54	47	41	44	36	31	27
		90	1.20	71	59	51	45	48	40	34	30
		20	0.71	42	35	30	26	28	23	20	17.6
		30	0.87	52	43	37	32	34	29	25	22
		40	1.00	59	50	42	37	40	33	28	25
		50	1.12	67	55	48	42	44	37	32	28
		60	1.22	72	60	52	45	48	40	35	30
		75	1.37	81	68	58	51	54	45	39	34
		90	1.50	89	74	64	56	59	50	42	37

Note: Always double check your application rates. Tabulations are based on spraying water at 70° F.

Turbo TeeJet® Induction Flat Spray Tips

Features:

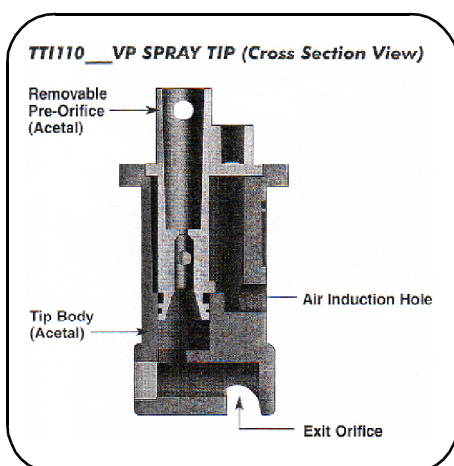
- All acetal construction for excellent chemical and wear resistance.
- Removable pre-orifice for fast and easy cleaning.
- Large, round passages to minimize plugging.
- Tip insert produces tapered edge flat spray pattern for uniform coverage in broadcast spraying.
- Large droplets are produced through the use of a venturi air aspirator, resulting in less drift.
- Ideal for sprayers equipped with automatic control systems.

Spray Angle	Optimum Spray Height	
	20" Spacing	30" Spacing
110°	20"	30"



Typical Applications:

- Excellent for pre-emerge surface applied herbicides.
- Excellent for post-emerge systemic herbicides.
- Good for post-emerge contact herbicides.



TTI Spray Tip

PART#	DESCRIPTION
A797BX	TTI 11001.5 VP
A797CX	TTI 11002 VP
A797X	TTI 11002.5 VP
A797A	TTI 11003 VP
A798X	TTI 11004 VP
A799X	TTI 11005 VP
A799AX	TTI 11006VP
A799BX	TTI 11008VP with Cap



Quick TeeJet Caps

PART#	DESCRIPTION
A660X	Green Cap & Gasket
A661X	White Cap & Gasket
A662X	Black Cap & Gasket
A663X	Yellow Cap & Gasket
A664X	Blue Cap & Gasket
A665X	Red Cap & Gasket
A666X	Brown Cap & Gasket
A668X	Violet Cap & Gasket
A669X	Gray Cap & Gasket

Nozzle (Tip Screen) Color	Pressure (psi)	Numbers in Table Body are mph, nozzle spacing = 20 in									
		Flow rate (US gpm)	4 gpa	5 gpa	6 gpa	8 gpa	10 gpa	12 gpa	15 gpa	20 gpa	
TTI110015VP (100 Mesh) Green	20	0.11	7.9	6.3	5.3	3.9	3.2	2.6	2.1	1.6	
	30	0.13	9.6	7.7	6.4	4.8	3.9	3.2	2.6	1.9	
	40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2	
	50	0.17	12.5	10.0	8.3	6.2	5.0	4.2	3.3	2.5	
	60	0.18	13.6	10.9	9.1	6.8	5.5	4.5	3.6	2.7	
	70	0.20	14.7	11.8	9.8	7.4	5.9	4.9	3.9	2.9	
TTI11002VP (50 Mesh) Yellow	80	0.21	15.8	12.6	10.5	7.9	6.3	5.3	4.2	3.2	
	90	0.23	16.7	13.4	11.1	8.4	6.7	5.6	4.5	3.3	
	20	0.14	10.5	8.4	7.0	5.3	4.2	3.5	2.8	2.1	
	30	0.17	12.9	10.3	8.6	6.4	5.1	4.3	3.4	2.6	
	40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0	
	50	0.22	16.6	13.3	11.1	8.3	6.6	5.5	4.4	3.3	
TTI110025VP (50 Mesh) Violet	60	0.24	18.2	14.5	12.1	9.1	7.3	6.1	4.8	3.6	
	70	0.26	19.6	15.7	13.1	9.8	7.9	6.5	5.2	3.9	
	80	0.28	21.0	16.8	14.0	10.5	8.4	7.0	5.6	4.2	
	90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5	
	20	0.18	13.1	10.5	8.8	6.6	5.3	4.4	3.5	2.6	
	30	0.22	16.1	12.9	10.7	8.0	6.4	5.4	4.3	3.2	
TTI11003VP (50 Mesh) Blue	40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7	
	50	0.28	20.8	16.6	13.8	10.4	8.3	6.9	5.5	4.2	
	60	0.31	22.7	18.2	15.2	11.4	9.1	7.6	6.1	4.5	
	70	0.33	24.6	19.6	16.4	12.3	9.8	8.2	6.5	4.9	
	80	0.35	26.3	21.0	17.5	13.1	10.5	8.8	7.0	5.3	
	90	0.38	27.8	22.3	18.6	13.9	11.1	9.3	7.4	5.6	
TTI11004VP (50 Mesh) Red	20	0.21	15.8	12.6	10.5	7.9	6.3	5.3	4.2	3.2	
	30	0.26	19.3	15.4	12.9	9.6	7.7	6.4	5.1	3.9	
	40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5	
	50	0.34	24.9	19.9	16.6	12.5	10.0	8.3	6.6	5.0	
	60	0.37	27.3	21.8	18.2	13.6	10.9	9.1	7.3	5.5	
	70	0.40	29.5	23.6	19.6	14.7	11.8	9.8	7.9	5.9	
TTI11004VP (50 Mesh) Red	80	0.42	31.5	25.2	21.0	15.8	12.6	10.5	8.4	6.3	
	90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7	
	20	0.28	21.0	16.8	14.0	10.5	8.4	7.0	5.6	4.2	
	30	0.35	25.7	20.6	17.1	12.9	10.3	8.6	6.9	5.1	
	40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9	
	50	0.45	33.2	26.6	22.1	16.6	13.3	11.1	8.9	6.6	
TTI11005VP (50 Mesh) Brown	60	0.49	36.4	29.1	24.2	18.2	14.5	12.1	9.7	7.3	
	70	0.53	39.3	31.4	26.2	19.6	15.7	13.1	10.5	7.9	
	80	0.57	42.0	33.6	28.0	21.0	16.8	14.0	11.2	8.4	
	90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9	
	20	0.35	26.3	21.0	17.5	13.1	10.5	8.8	7.0	5.3	
	30	0.43	32.2	25.7	21.4	16.1	12.9	10.7	8.6	6.4	
TTI11006VP (50 Mesh) Gray	40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4	
	50	0.56	41.5	33.2	27.7	20.8	16.6	13.8	11.1	8.3	
	60	0.61	45.5	36.4	30.3	22.7	18.2	15.2	12.1	9.1	
	70	0.66	49.1	39.3	32.7	24.6	19.6	16.4	13.1	9.8	
	80	0.71	52.5	42.0	35.0	26.3	21.0	17.5	14.0	10.5	
	90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1	
TTI11008VP (50 Mesh) White	20	0.42	31.5	25.2	21.0	15.8	12.6	10.5	8.4	6.3	
	30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7	
	40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9	
	50	0.67	49.8	39.8	33.2	24.9	19.9	16.6	13.3	10.0	
	60	0.73	54.6	43.6	36.4	27.3	21.8	18.2	14.5	10.9	
	70	0.79	58.9	47.1	39.3	29.5	23.6	19.6	15.7	11.8	

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Air Induction Turbo TwinJet® Twin Flat Spray Tips

Features:

- Air induction with dual 110° flat fan patterns
- 60° between leading and trailing spray patterns
- Good coverage with increased canopy penetration and best drift control
- Best suited for postemergence applications
- Excellent drift control with coarse to very coarse droplets
- Pressure ranges from 20-90 PSI



AITT Spray Tip

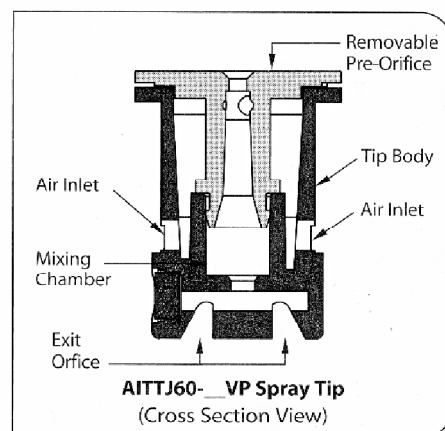
PART#	DESCRIPTION
A580X	AITTJ 60 11002 VP
A581X	AITTJ 60 110025 VP
A582X	AITTJ 60 11003 VP
A583X	AITTJ 60 11004 VP
A584X	AITTJ 60 11005 VP
A585X	AITTJ 60 11006VP

Quick TeeJet Caps

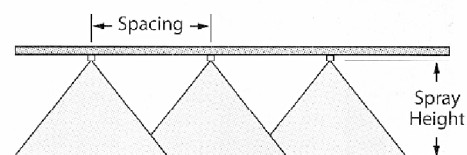
PART#	DESCRIPTION
A660X	Green Cap & Gasket
A661X	White Cap & Gasket
A662X	Black Cap & Gasket
A663X	Yellow Cap & Gasket
A664X	Blue Cap & Gasket
A665X	Red Cap & Gasket
A666X	Brown Cap & Gasket
A668X	Violet Cap & Gasket
A669X	Gray Cap & Gasket

Tip Color	TIP NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre - 20" spacing							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Yellow	AITTJ60-11002VP (100Mesh)	20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		80	0.28	21.0	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		90	0.30	22.0	17.8	14.9	11.1	8.9	7.4	5.9	4.5
Violet	AITTJ60-110025VP (100Mesh)	20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	21.0	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		70	0.33	25.0	19.6	16.3	12.3	9.8	8.2	6.5	4.9
		80	0.35	26.0	21.0	17.3	13.0	10.4	8.7	6.9	5.2
		90	0.38	28.0	23.0	18.8	14.1	11.3	9.4	7.5	5.6
Blue	AITTJ60-11003VP (50Mesh)	20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.0	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		50	0.34	25.0	20.0	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.0	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		70	0.40	30.0	24.0	19.8	14.9	11.9	9.9	7.9	5.9
		80	0.42	31.0	25.0	21.0	15.6	12.5	10.4	8.3	6.2
		90	0.45	33.0	27.0	22.0	16.7	13.4	11.1	8.9	6.7
Red	AITTJ60-11004VP (50Mesh)	20	0.28	21.0	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		30	0.35	26.0	21.0	17.3	13.0	10.4	8.7	6.9	5.2
		40	0.40	30.0	24.0	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.0	27.0	22.0	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.0	29.0	24.0	18.2	14.6	12.1	9.7	7.3
		70	0.53	39.0	31.0	26.0	19.7	15.7	13.1	10.5	7.9
		80	0.57	42.0	34.0	28.0	21.0	16.9	14.1	11.3	8.5
		90	0.60	45.0	36.0	30.0	22.0	17.8	14.9	11.9	8.9
Brown	AITTJ60-11005VP (50Mesh)	20	0.35	26.0	21.0	17.3	13.0	10.4	8.7	6.9	5.2
		30	0.43	32.0	26.0	21.0	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.0	30.0	25.0	18.6	14.9	12.4	9.9	7.4
		50	0.56	42.0	33.0	28.0	21.0	16.6	13.9	11.1	8.3
		60	0.61	45.0	36.0	30.0	23.0	18.1	15.1	12.1	9.1
		70	0.66	49.0	39.0	33.0	25.0	19.6	16.3	13.1	9.8
		80	0.71	53.0	42.0	35.0	26.0	21.0	17.6	14.1	10.5
		90	0.75	56.0	45.0	37.0	28.0	22.0	18.6	14.9	11.1
Gray	AITTJ60-11006VP (50Mesh)	20	0.42	31.0	25.0	21.0	15.6	12.5	10.4	8.3	6.2
		30	0.52	39.0	31.0	26.0	19.3	15.4	12.9	10.3	7.7
		40	0.60	45.0	36.0	30.0	22.0	17.8	14.9	11.9	8.9
		50	0.67	50.0	40.0	33.0	25.0	19.9	16.6	13.3	9.9
		60	0.73	54.0	43.0	36.0	27.0	22.0	18.1	14.5	10.8
		70	0.79	59.0	47.0	39.0	29.0	23.0	19.6	15.6	11.7
		80	0.85	63.0	50.0	42.0	32.0	25.0	21.0	16.8	12.6
		90	0.90	67.0	53.0	45.0	33.0	27.0	22.0	17.8	13.4

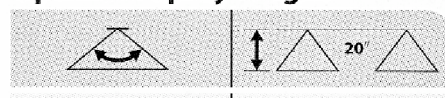
NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F



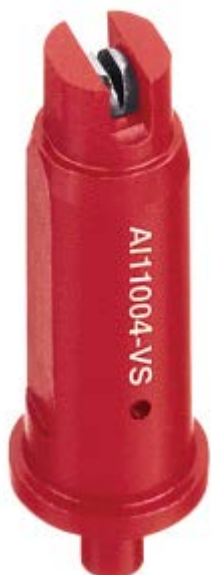
CONTACT PRODUCT	SYSTEMIC PRODUCT	DRIFT MANAGEMENT
GOOD	EXCELLENT	EXCELLENT



Optimum Spray Height



AI TeeJet® Air Induction Flat Spray Tips



Typical Applications:

Excellent: Soil incorporated and pre-emerge herbicides.

Excellent: Post-emerge systemic herbicides, systemic fungicides and insecticides.

Excellent: Liquid fertilizer application at lower pressures.

Features:

- Stainless steel insert produces tapered edge flat spray pattern for uniform coverage in broadcast spraying
- Polymer insert holder and pre-orifice with VisiFlo® color-coding
- Larger droplets for less drift
- Depending on the chemical, produces large air-filled drops through the use of a venturi air aspirator
- Uniform coverage in broadcast spraying
- Nozzle spacing- 20 inches
- Spraying pressure - 30-100 PSI

				Gallons per acre - 20"spacing											
TIP Color	TIP NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle in GPM.	4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	
Green	AI110015-VS (100 mesh)	30	0.13	9.7	7.7	6.4	5.5	4.8	4.3	3.9	3.2	2.8	2.4	2.1	
		40	0.15	11.1	8.9	7.4	6.4	5.6	5.0	4.5	3.7	3.2	2.8	2.5	
		50	0.17	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.2	3.6	3.2	2.8	
		60	0.18	13.4	10.7	8.9	7.6	6.7	5.9	5.3	4.5	3.8	3.3	3.0	
		70	0.20	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.0	4.2	3.7	3.3	
		80	0.21	15.6	12.5	10.4	8.9	7.8	6.9	6.2	5.2	4.5	3.9	3.5	
		90	0.23	17.1	13.7	11.4	9.8	8.5	7.6	6.8	5.7	4.9	4.3	3.8	
	100	0.24	17.8	14.3	11.9	10.2	8.9	7.9	7.1	5.9	5.1	4.5	4.0		
Yellow	AI11002-VS (50 mesh)	30	0.17	12.6	10.1	8.4	7.2	6.3	5.6	5.0	4.2	3.6	3.2	2.8	
		40	0.20	14.9	11.9	9.9	8.5	7.4	6.6	5.9	5.0	4.2	3.7	3.3	
		50	0.22	16.3	13.1	10.9	9.3	8.2	7.3	6.5	5.4	4.7	4.1	3.6	
		60	0.24	17.8	14.3	11.9	10.2	8.9	7.9	7.1	5.9	5.1	4.5	4.0	
		70	0.26	19.3	15.4	12.9	11.0	9.7	8.6	7.7	6.4	5.5	4.8	4.3	
		80	0.28	21	16.6	13.9	11.9	10.4	9.2	8.3	6.9	5.9	5.2	4.6	
		90	0.30	22	17.8	14.9	12.7	11.1	9.9	8.9	7.4	6.4	5.6	5.0	
	100	0.32	24	19.0	15.8	13.6	11.9	10.6	9.5	7.9	6.8	5.9	5.3		
Violet	AI110025-VS (50 mesh)	30	0.22	16.3	13.1	10.9	9.3	8.2	7.3	6.5	5.4	4.7	4.1	3.6	
		40	0.25	18.6	14.9	12.4	10.6	9.3	8.3	7.4	6.2	5.3	4.6	4.1	
		50	0.28	21	16.6	13.9	11.9	10.4	9.2	8.3	6.9	5.9	5.2	4.6	
		60	0.31	23	18.4	15.3	13.2	11.5	10.2	9.2	7.7	6.6	5.8	5.1	
		70	0.33	25	19.6	16.3	14.0	12.3	10.9	9.8	8.2	7.0	6.1	5.4	
		80	0.35	26	21	17.3	14.9	13.0	11.6	10.4	8.7	7.4	6.5	5.8	
		90	0.38	28	23	18.8	16.1	14.1	12.5	11.3	9.4	8.1	7.1	6.3	
	100	0.40	30	24	19.8	17.0	14.9	13.2	11.9	9.9	8.5	7.4	6.6		
Blue	AI11003-VS (50 mesh)	30	0.26	19.3	15.4	12.9	11.0	9.7	8.6	7.7	6.4	5.5	4.8	4.3	
		40	0.30	22	17.8	14.9	12.7	11.1	9.9	8.9	7.4	6.4	5.6	5.0	
		50	0.34	25	20	16.8	14.4	12.6	11.2	10.1	8.4	7.2	6.3	5.6	
		60	0.37	27	22	18.3	15.7	13.7	12.2	11.0	9.2	7.8	6.9	6.1	
		70	0.40	30	24	19.8	17.0	14.9	13.2	11.9	9.9	8.5	7.4	6.6	
		80	0.42	31	25	21	17.8	15.6	13.9	12.5	10.4	8.9	7.8	6.9	
		90	0.45	33	27	22	19.1	16.7	14.9	13.4	11.1	9.5	8.4	7.4	
	100	0.47	35	28	23	19.9	17.4	15.5	14.0	11.6	10.0	8.7	7.8		
Red	AI11004-VS (50 mesh)	30	0.35	26	21	17.3	14.9	13.0	11.6	10.4	8.7	7.4	6.5	5.8	
		40	0.40	30	24	19.8	17.0	14.9	13.2	11.9	9.9	8.5	7.4	6.6	
		50	0.45	33	27	22	19.1	16.7	14.9	13.4	11.1	9.5	8.4	7.4	
		60	0.49	36	29	24	21	18.2	16.2	14.6	12.1	10.4	9.1	8.1	
		70	0.53	39	31	26	22	19.7	17.5	15.7	13.1	11.2	9.8	8.7	
		80	0.57	42	34	28	24	21	18.8	16.9	14.1	12.1	10.6	9.4	
		90	0.60	45	36	30	25	22	19.8	17.8	14.9	12.7	11.1	9.9	
	100	0.63	47	37	31	27	23	21	18.7	15.6	13.4	11.7	10.4		
Brown	AI11005-VS (50 mesh)	30	0.43	32	26	21	18.2	16.0	14.2	12.8	10.6	9.1	8.0	7.1	
		40	0.50	37	30	25	21	18.6	16.5	14.9	12.4	10.6	9.3	8.3	
		50	0.56	42	33	28	24	21	18.5	16.6	13.9	11.9	10.4	9.2	
		60	0.61	45	36	30	26	23	20	18.1	15.1	12.9	11.3	10.1	
		70	0.66	49	39	33	28	25	22	19.6	16.3	14.0	12.3	10.9	
		80	0.71	53	42	35	30	26	23	21	17.6	15.1	13.2	11.7	
		90	0.75	56	45	37	32	28	25	22	18.6	15.9	13.9	12.4	
	100	0.79	59	47	39	34	29	26	23	19.6	16.8	14.7	13.0		
Gray	AI11006-VS (50 mesh)	30	0.52	39	31	26	22	19.3	17.2	15.4	12.9	11.0	9.7	8.6	
		40	0.60	45	36	30	25	22	19.8	17.8	14.9	12.7	11.1	9.9	
		50	0.67	50	40	33	28	25	22	19.9	16.6	14.2	12.4	11.1	
		60	0.73	54	43	36	31	27	24	22	18.1	15.5	13.6	12.0	
		70	0.79	59	47	39	34	29	26	23	19.6	16.8	14.7	13.0	
		80	0.85	63	50	42	36	32	28	25	21	18.0	15.8	14.0	
		90	0.90	67	53	45	38	33	30	27	22	19.1	16.7	14.9	
	100	0.95	71	56	47	40	35	31	28	24	20	17.6	15.7		
White	AI11008-VS	30	0.69	51	41	34	29	26	23	20	17.1	14.6	12.8	11.4	
		40	0.80	59	48	40	34	30	26	24	19.8	17.0	14.9	13.2	
		50	0.89	66	53	44	38	33	29	26	22	18.9	16.5	14.7	
		60	0.98	73	58	49	42	36	32	29	24	21	18.2	16.2	
		70	1.06	79	63	52	45	39	35	31	26	22	19.7	17.5	
		80	1.13	84	67	56	48	42	37	34	28	24	21	18.6	
		90	1.20	89	71	59	51	45	40	36	30	25	22	19.8	
	100	1.26	94	75	62	53	47	42	37	31	27	23	20		

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Suggested Minimum Spray Height



Adjust spray height in the field to overlap approximately 30% of each edge of pattern.



AI TeeJet Spray Tips

PART#	DESCRIPTION
A790X	AI110015-VS
A791X	AI11002-VS
A791AX	AI11002.5-VS
A792X	AI11003-VS
A793X	AI11004-VS
A794X	AI11005-VS
A795X	AI11006-VS
A796X	AI11008-VS



AI Quick TeeJet Caps

PART#	DESCRIPTION
A660X	Green cap & gasket
A661X	White cap & gasket
A662X	Black cap & gasket
A663X	Yellow cap & gasket
A664X	Blue cap & gasket
A665X	Red cap & gasket
A666X	Brown cap & gasket
A667X	Orange cap & gasket
A668X	Violet cap & gasket
A669X	Gray cap & gasket

BROTHERS EQUIPMENT INC.

NEBRASKA 800-742-7746 • OUT OF STATE 800-228-4582

TeeJet®

73 DEGREE BRASS FLAT SPRAY TIPS

PART #	DESC.
A475X	730039
A476X	730077
A477X	730116
A478X	730154
A479X	730231
A480X	730308
A481X	730385
A482X	730462
A483X	730616
A485X	730770
A486X	730924

TIP NO. (Strainer Screen Size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	GALLONS PER ACRE—20" SPACING										TIP NO. (Strainer Screen Size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	GALLONS PER ACRE—20" SPACING									
			4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	4 MPH				5 MPH	6 MPH	7 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH		
730039 •2.5 GPA (200 Mesh)	20	.028	2.1	1.6	1.4	1.2	1.0	—	—	—	—	730385 •25 GPA (50 Mesh)	20	.27	20	16.2	13.5	11.6	10.1	8.1	6.7	5.8	5.1		
	25	.031	2.3	1.8	1.5	1.3	1.1	—	—	—	—		25	.30	23	18.1	15.1	12.9	11.3	9.0	7.5	6.5	5.7		
	30	.034	2.5	2.0	1.7	1.4	1.3	1.0	—	—	—		30	.33	25	19.8	16.5	14.2	12.4	9.9	8.3	7.1	6.2		
	40	.039	2.9	2.3	1.9	1.7	1.5	1.2	—	—	—		40	.385	29	23	19.1	16.3	14.3	11.4	9.5	8.2	7.2		
	50	.044	3.2	2.6	2.2	1.9	1.6	1.3	1.1	1.2	—		50	.43	32	26	21	18.3	16.0	12.8	10.7	9.1	8.0		
730077 •5 GPA (100 Mesh)	20	.054	4.0	3.2	2.7	2.3	2.0	1.6	1.4	1.5	1.2	730462 •30 GPA (50 Mesh)	20	.33	24	19.4	16.2	13.9	12.1	9.7	8.1	6.9	6.1		
	25	.061	4.6	3.6	3.0	2.6	2.3	1.8	1.5	1.3	1.1		25	.37	27	22	18.1	15.5	13.6	10.9	9.0	7.8	6.8		
	30	.067	5.0	4.0	3.3	2.8	2.5	2.0	1.7	1.4	1.2		30	.40	30	24	19.8	17.0	14.9	11.9	9.9	8.5	7.4		
	40	.077	5.7	4.6	3.8	3.3	2.9	2.3	1.9	1.6	1.4		40	.462	34	27	23	19.6	17.2	13.7	11.4	9.8	8.6		
	50	.086	6.4	5.1	4.3	3.7	3.2	2.6	2.1	1.8	1.6		50	.52	38	31	26	22	19.2	15.3	12.8	11.0	9.6		
730116 •7.5 GPA (100 Mesh)	20	.08	6.1	4.9	4.1	3.5	3.1	2.4	2.0	1.7	1.5	730616 •40 GPA (50 Mesh)	20	.44	32	26	22	18.5	16.2	12.9	10.8	9.2	8.1		
	25	.09	6.8	5.5	4.5	3.9	3.4	2.7	2.3	2.0	1.7		25	.49	36	29	24	21	18.1	14.5	12.1	10.3	9.0		
	30	.10	7.5	6.0	5.0	4.3	3.7	3.0	2.5	2.1	1.9		30	.53	40	32	26	23	19.8	15.8	13.2	11.3	9.9		
	40	.116	8.6	6.9	5.7	4.9	4.3	3.5	2.9	2.5	2.2		40	.616	46	37	30	26	23	18.3	15.3	13.1	11.4		
	50	.13	9.6	7.7	6.4	5.5	4.8	3.9	3.2	2.8	2.4		50	.69	51	41	34	29	26	20	17.1	14.6	12.8		
730154 •10 GPA (100 Mesh)	20	.11	8.1	6.6	5.4	4.6	4.0	3.2	2.7	2.3	2.0	730770 •60 GPA (50 Mesh)	20	.54	40	32	27	23	20	16.2	13.5	11.6	10.1		
	25	.12	9.0	7.2	6.0	5.2	4.5	3.6	3.0	2.6	2.3		25	.61	45	36	30	26	23	18.1	15.1	12.9	11.3		
	30	.13	10.0	7.9	6.6	5.7	5.0	4.0	3.3	2.8	2.5		30	.67	50	40	33	28	25	19.8	16.5	14.2	12.4		
	40	.154	11.4	9.2	7.6	6.5	5.7	4.6	3.8	3.3	2.9		40	.770	57	46	38	33	29	23	19.1	16.3	14.3		
	50	.17	12.8	10.2	8.5	7.3	6.4	5.1	4.3	3.7	3.2		50	.86	64	51	43	37	32	26	21	18.3	16.0		
730231 •15 GPA (50 Mesh)	20	.16	12.1	9.7	8.1	6.9	6.1	4.9	4.0	3.5	3.0	730924 •80 GPA (50 Mesh)	20	.65	49	39	32	28	24	19.4	16.2	13.9	12.1		
	25	.18	13.5	10.9	9.0	7.8	6.8	5.4	4.5	3.9	3.4		25	.73	54	43	36	31	27	22	18.1	15.5	13.6		
	30	.20	15.0	11.9	9.9	8.6	7.4	6.0	5.0	4.2	3.7		30	.80	60	48	40	34	30	24	19.8	17.0	14.9		
	40	.231	17.1	13.7	11.4	9.8	8.6	6.9	5.7	4.9	4.3		40	.924	69	55	46	39	34	27	23	19.6	17.2		
	50	.26	19.2	15.3	12.8	11.0	9.6	7.7	6.4	5.5	4.8		50	1.03	77	61	51	44	38	31	26	22	19.2		
730308 •20 GPA (50 Mesh)	20	.22	16.1	12.9	10.8	9.2	8.1	6.5	5.4	4.6	4.0	730924 •80 GPA (50 Mesh)	20	.65	49	39	32	28	24	19.4	16.2	13.9	12.1		
	25	.24	18.1	14.5	12.1	10.3	9.0	7.2	6.0	5.2	4.5		25	.73	54	43	36	31	27	22	18.1	15.5	13.6		
	30	.27	20.1	15.8	13.2	11.3	9.9	7.9	6.6	5.7	5.0		30	.80	60	48	40	34	30	24	19.8	17.0	14.9		
	40	.308	23	18.3	15.3	13.1	11.4	9.2	7.0	6.5	5.7		40	.924	69	55	46	39	34	27	23	19.6	17.2		
	50	.34	26	20	17.1	14.6	12.8	10.2	8.5	7.3	6.4		50	1.03	77	61	51	44	38	31	26	22	19.2		

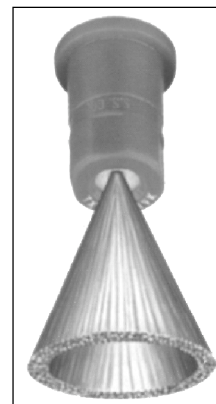
ConeJet® Visiflo® Hollow Cone Spray Tips

Typical Applications:

EXCELLENT: Post-Emerge Contact Herbicides - Used for band application of contact herbicides. To assure finely atomized spray droplets reach target areas, the nozzles are often directed from top and sides of rows by using drop pipes and swivel connectors. Also well suited for application of insecticides, fungicides, defoliants, and foliar fertilizers at pressures of 40 psi and above.

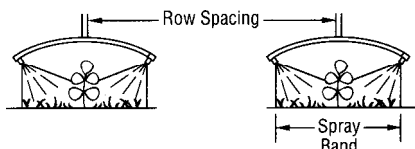
Features:

- VisiFlo color-coded version consists of stainless steel or ceramic orifice in polypropylene body. Maximum operating pressure 300 psi. Spray angle is 80° at 100 psi.
- Ideal for banding with two or three nozzles over the row.
- Finely atomized spray pattern provides thorough coverage.

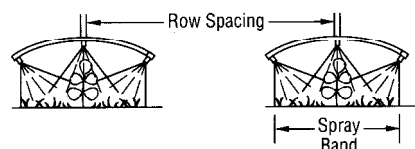


PART #	DESCRIPTION
A745X	TX-VS4
A746X	TX-VS6
A747X	TX-VS8
A748X	TX-VS10
A749X	TX-VS12
A749AX	TX-VS18

2 Nozzles Per Row



3 Nozzles Per Row



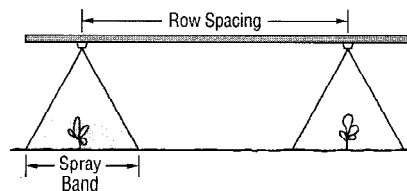
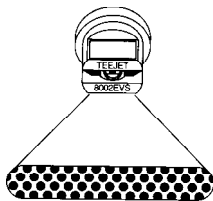
Band Width	GPA* Conversion Factors	
	30" Row Spacing	40" Row Spacing
8"	3.8	5.0
10"	3.0	4.0
12"	2.5	3.3
15"	2.0	2.6

*To find GPA rate on band widths, multiply the tabulated GPA for ROW SPACING by the conversion factors.

Tip Color	Tip No. (Strainer Screen Size)	Liquid Pressure In PSI	Capacity 2 Nozzle In GPM	Gallons Per Acre 30" Spacing			Gallons Per Acre 40" Spacing			Liquid Pressure In PSI	Capacity 3 Nozzle In GPM	Capacity 3 Nozzle In oz./min.	Gallons Per Acre 30" Spacing			Gallons Per Acre 40" Spacing		
				4 MPH	5 MPH	7 MPH	4 MPH	5 MPH	7 MPH				4 MPH	5 MPH	7 MPH	4 MPH	5 MPH	7 MPH
Green	TX-VS4 (50 Mesh)	40	.13	6.6	5.3	3.8	5.0	4.0	2.8	40	.20	26	9.9	7.9	5.7	7.4	5.9	4.2
		50	.15	7.3	5.9	4.2	5.5	4.4	3.1	50	.22	28	11.0	8.8	6.3	8.2	6.6	4.7
		60	.16	7.9	6.3	4.5	5.9	4.8	3.4	60	.24	31	11.9	9.5	6.8	8.9	7.1	5.1
Red	TX-VS6 (50 Mesh)	40	.20	9.9	7.9	5.7	7.4	5.9	4.2	40	.30	38	14.9	11.9	8.5	11.1	8.9	6.4
		50	.22	11.0	8.8	6.3	8.2	6.6	4.7	50	.33	42	16.4	13.1	9.4	12.3	9.9	7.0
		60	.24	11.9	9.5	6.8	8.9	7.1	5.1	60	.36	47	18.2	14.5	10.4	13.6	10.9	7.8
Gray	TX-VS8 (50 Mesh)	40	.26	13.2	10.6	7.5	9.9	7.9	5.7	40	.40	51	19.8	15.8	11.3	14.9	11.9	8.5
		50	.29	14.7	11.7	8.4	11.0	8.8	6.3	50	.45	58	22	17.8	12.7	16.7	13.4	9.5
		60	.32	16.0	12.8	9.1	12.0	9.6	6.9	60	.48	62	24	19.1	13.7	17.9	14.4	10.3
Black	TX-VS10 (50 Mesh)	40	.33	16.5	13.2	9.4	12.4	9.9	7.1	40	.50	64	25	19.8	14.1	18.6	14.9	10.6
		50	.36	18.2	14.5	10.4	13.6	10.9	7.8	50	.55	70	27	22	15.6	20	16.3	11.7
		60	.40	19.8	15.8	11.3	14.9	11.9	8.5	60	.60	77	30	24	17.0	22	17.8	12.7
Brown	TX-VS12 (50 Mesh)	40	.40	19.8	15.8	11.3	14.9	11.9	8.5	40	.60	77	30	24	17.0	22	17.8	12.7
		50	.45	22	17.8	12.7	16.7	13.4	9.5	50	.66	85	33	26	18.9	25	19.8	14.1
		60	.48	24	19.1	13.7	17.9	14.4	10.3	60	.73	94	36	29	21	27	22	15.6
Orange	TX-VS18 (50 Mesh)	40	.60	30	24	17.0	22	17.8	12.7	40	.90	115	45	36	26	33	27	19.1
		50	.66	33	26	18.9	25	19.8	14.1	50	1.00	128	50	40	28	37	30	21
		60	.73	36	29	21	27	22	15.6	60	1.10	141	55	44	31	41	33	23

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

TeeJet® Even Flat Spray Tips



Typical Applications:

EXCELLENT: Pre-Emerge Herbicides - For band application of surface applied herbicides. Used at medium pressures (20-40 psi) to produce medium size droplets and to control drift.

EXCELLENT: Post-Emerge Systemic Herbicides - Used at lower pressures (20-30 psi) for banding systemic herbicides.

GOOD: Post-Emerge Contact Herbicides - For band application of contact herbicides. Used at 40 psi and above to produce small droplets for better coverage.

Features:

- Ideal for banding over the row or in row middles
- Provides uniform distribution throughout the flat spray pattern.
- Easily mounted on spray boom or planter.

Band Width	Approximate Spray Height		GPA Conversion Factor*	
	80° Series	95° Series	30" Row Spacing	40" Row Spacing
8"	5"	4"	3.8	5.0
10"	6"	5"	3.0	4.0
12"	7"	6"	2.5	3.3
15"	9"	8"	2.0	2.6

*To find GPA rate on band widths multiply the tabulated GPA for ROW SPACING by the conversion factor.

BRASS

PART #	DESCRIPTION
A553AX	8001E
A553BX	8001.5E
A553CX	8002E
A553DX	8003E
A553EX	8004E
A554AX	8005E
A554BX	8006E
A554CX	8008E
A554DX	8010E
A554EX	8015E

STAINLESS EVS

PART #	DESCRIPTION
A556X	8001.5EVS
A557X	8001EVS
A557AX	8002EVS
A558X	8003EVS
A559X	8004EVS
A560X	8005EVS
A561X	8006EVS
A562X	8008EVS
A563X	8010ESS
A564X	8015ESS

Tip Color	TIP NO. (strainer screen size)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	GPA - Gallons Per Acre*							
				3 mph		4 mph		5 mph		7 mph	
				30" Row Spacing	40" Row Spacing	30" Row Spacing	40" Row Spacing	30" Row Spacing	40" Row Spacing	30" Row Spacing	40" Row Spacing
Orange	8001EVS (100 Mesh)	20	0.07	4.6	3.5	3.5	2.6	2.8	2.1	2.0	1.5
		30	0.09	5.9	4.5	4.5	3.3	3.6	2.7	2.5	1.9
		40	0.10	6.6	5.0	5.0	3.7	4.0	3.0	2.8	2.1
Green	80015EVS (50 Mesh)	20	0.11	7.3	5.4	5.4	4.1	4.4	3.3	3.1	2.3
		30	0.13	8.6	6.4	6.4	4.8	5.1	3.9	3.7	2.8
		40	0.15	9.9	7.4	7.4	5.6	5.9	4.5	4.2	3.2
Yellow	8002EVS (50 Mesh)	20	0.14	9.2	6.9	6.9	5.2	5.5	4.2	4.0	3.0
		30	0.17	11.2	8.4	8.4	6.3	6.7	5.0	4.8	3.6
		40	0.20	13.2	9.9	9.9	7.4	7.9	5.9	5.7	4.2
Blue	8003EVS (50 Mesh)	20	0.21	13.9	10.4	10.4	7.8	8.3	6.2	5.9	4.5
		30	0.26	17.2	12.9	12.9	9.7	10.3	7.7	7.4	5.5
		40	0.30	19.8	14.9	14.9	11.1	11.9	8.9	8.5	6.4
Red	8004EVS (50 Mesh)	20	0.28	18.5	13.9	13.9	10.4	11.1	8.3	7.9	5.9
		30	0.35	23.1	17.3	17.3	13.0	13.9	10.4	9.9	7.4
		40	0.40	26.4	19.8	19.8	14.9	15.8	11.9	11.3	8.5
Brown	8005EVS (50 Mesh)	20	0.35	23.1	17.3	17.3	13.0	13.9	10.4	9.9	7.4
		30	0.43	28.4	21.3	21.3	16.0	17.0	12.8	12.2	9.1
		40	0.50	33.0	24.8	24.8	18.6	19.8	14.9	14.1	10.6
Gray	8006EVS (50 Mesh)	20	0.42	27.7	20.8	20.8	15.6	16.6	12.5	11.9	8.9
		30	0.52	34.3	25.7	25.7	19.3	20.6	15.4	14.7	11.0
		40	0.60	39.6	29.7	29.7	22.3	23.8	17.8	17.0	12.7
White	8008EVS (50 Mesh)	20	0.57	37.6	28.2	28.2	21.2	22.6	16.9	16.1	12.1
		30	0.69	45.5	34.2	34.2	25.6	27.3	20.5	19.5	14.6
		40	0.80	52.8	39.6	39.6	29.7	31.7	23.8	22.6	17.0

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

DG TeeJet® Drift Guard Even Flat Spray Tips

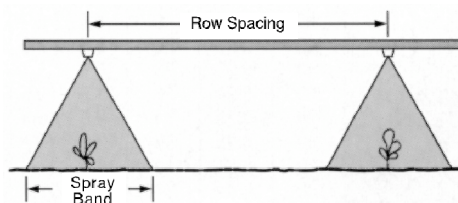
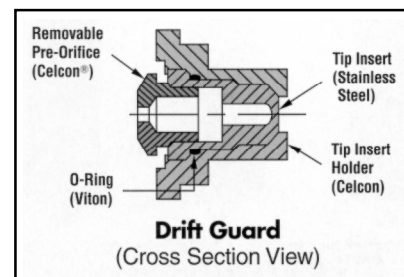
Typical Applications:

Excellent: Pre-emerge herbicides (at lower pressure).

Excellent: Post-emerge band systemic herbicides (at lower pressure).

Excellent: Application of banded systemic fungicides and insecticides (at lower pressure).

Good: Post-emerge band contact herbicides, fungicides, insecticides and liquid fertilizer.



Features:

- Pre-orifice design produces large droplets to reduce drift.
- Excellent for band application of surface applied herbicides.
- Ideal for banding over the row or in row middles.
- Provides uniform distribution throughout the flat spray pattern.
- Spraying pressure - 30-60 PSI.
- Easily mounted on spray boom or planter.
- Stainless steel with VisiFlo® color-coding.

Band Width	Approximate Spray Height	GPA Conversion Factor*
8"	4"	3.8
10"	5"	3.0
12"	5"	2.5
15"	7"	2.0
18"	8"	1.7

*To find GPA rate on band widths, multiply the tabulated GPA for ROW SPACING by conversion factors.

PART #	DESCRIPTION
A769EX	DG95015EVS
A769AX	DG9502EVS
A769BX	DG9503EVS
A769CX	DG9504EVS
A769DX	DG9505EVS

Tip Color	Tip No. (Strainer Screen Size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre - 30" Spacing												
				3 mph	3.5 mph	4 mph	4.5 mph	5 mph	5.5 mph	6 mph	6.5 mph	7 mph	7.5 mph	8 mph	8.5 mph	
Green	DG95015EVS (100 MESH)	30	0.13	8.6	7.4	6.4	5.7	5.1	4.7	4.3	4.0	3.7	3.4	3.2	3.0	
		40	0.15	9.9	8.5	7.4	6.6	5.9	5.4	5.0	4.6	4.2	4.0	3.7	3.5	
		50	0.17	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5	4.2	4.0	
		60	0.18	11.9	10.2	8.9	7.9	7.1	6.5	5.9	5.5	5.1	4.8	4.5	4.2	
Yellow	DG9502EVS (50 MESH)	30	0.17	11.2	9.6	8.4	7.5	6.7	6.1	5.6	5.2	4.8	4.5	4.2	4.0	
		40	0.20	13.2	11.3	9.9	8.8	7.9	7.2	6.6	6.1	5.7	5.3	5.0	4.7	
		50	0.22	14.5	12.4	10.9	9.7	8.7	7.9	7.3	6.7	6.2	5.8	5.4	5.1	
		60	0.24	15.8	13.6	11.9	10.6	9.5	8.6	7.9	7.3	6.8	6.3	5.9	5.6	
Blue	DG9503EVS (50 MESH)	30	0.26	17.2	14.7	12.9	11.4	10.3	9.4	8.6	7.9	7.4	6.9	6.4	6.1	
		40	0.30	19.8	17.0	14.9	13.2	11.9	10.8	9.9	9.1	8.5	7.9	7.4	7.0	
		50	0.34	22.0	19.2	16.8	15.0	13.5	12.2	11.2	10.4	9.6	9.0	8.4	7.9	
		60	0.37	24.0	21.0	18.3	16.3	14.7	13.3	12.2	11.3	10.5	9.8	9.2	8.6	
Red	DG9504EVS (50 MESH)	30	0.35	23.0	19.8	17.3	15.4	13.9	12.6	11.6	10.7	9.9	9.2	8.7	8.2	
		40	0.40	26.0	23.0	19.8	17.6	15.8	14.4	13.2	12.2	11.3	10.6	9.9	9.3	
		50	0.45	30.0	25.0	22.0	19.8	17.8	16.2	14.9	13.7	12.7	11.9	11.1	10.5	
		60	0.49	32.0	28.0	24.0	22.0	19.4	17.6	16.2	14.9	13.9	12.9	12.1	11.4	
Brown	DG9505EVS (50 MESH)	30	0.43	28.0	24.0	21.0	18.9	17.0	15.5	14.2	13.1	12.2	11.4	10.6	10.0	
		40	0.50	33.0	28.0	25.0	22.0	19.8	18.0	16.5	15.2	14.1	13.2	12.4	11.6	
		50	0.56	37.0	32.0	28.0	25.0	22.0	20.0	18.5	17.1	15.8	14.8	13.9	13.0	
		60	0.61	40.0	35.0	30.0	27.0	24.0	22.0	20.0	18.6	17.3	16.1	15.1	14.2	

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Turbo TeeJet®

Wide Angle Flat Spray Tips

Typical Applications:

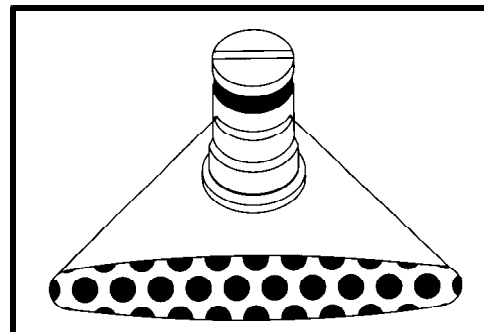
EXCELLENT: Soil Incorporated Herbicides - Use at lower pressures (10-25 psi) to produce larger droplets for reduced drift. Mount on 30-40" spacings.

EXCELLENT: Pre-Emerge Herbicides - Use at 10-25 psi to reduce drift and provide uniform coverage. Also good for broadcast application of liquid fertilizers.

EXCELLENT: Post-Emerge Systemic Herbicides - Use at 20-30 psi to control drift. Provides uniform coverage along spray boom. 30" spacings are suggested for post-emerge applications.

Features:

- Excellent spray distribution for uniform coverage along the boom.
- Nozzle design incorporates a pre-orifice to produce larger droplets for less drift.
- Large, round orifice reduces clogging.
- Stainless steel with VisiFlo® color-coding band for easy size identification.



PART #	DESCRIPTION
A512X	TFVS-2
A513X	TFVS-2.5
A514X	TFVS-3
A515X	TFVS-4
A516X	TFVS-5
A517X	TFVS-7.5
A518X	TFVS-10

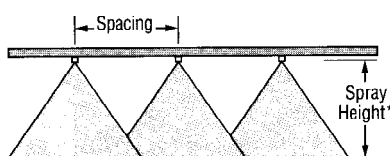
Tip Color	TIP NO. (strainer screen size)	Liquid Pressure in PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre 30" Spacing				Gallons Per Acre 40" Spacing			
				5 MPH	6 MPH	7 MPH	8 MPH	5 MPH	6 MPH	7 MPH	8 MPH
Red	TF-VS2 (50 Mesh)	10	.20	7.9	6.7	5.6	4.9	5.9	5.0	4.2	3.7
		20	.28	11.2	9.3	8.0	7.1	8.4	7.0	6.0	5.3
		30	.35	13.7	11.4	9.7	8.5	10.3	8.6	7.3	6.4
Brown	TF-VS2.5 (50 Mesh)	10	.25	9.9	8.3	7.1	5.7	7.4	6.2	5.3	4.6
		20	.35	14.0	11.7	10.0	8.8	10.5	8.8	7.5	6.6
		30	.43	17.2	14.3	12.3	10.7	12.9	10.7	9.2	8.0
Gray	TF-VS3 (50 Mesh)	10	.30	11.9	9.9	8.5	7.4	8.9	7.4	6.4	5.6
		20	.42	16.8	14.0	12.0	10.5	12.6	10.5	9.0	7.9
		30	.52	21	17.2	14.7	12.9	15.4	12.9	11.0	9.7
White	TF-VS4	10	.40	15.9	13.2	11.3	9.9	11.9	9.9	8.5	7.4
		20	.57	22	18.7	16	14.0	16.8	14.0	12.0	10.5
		30	.69	28	23	19.6	17.2	21	17.2	14.7	12.9
L. Blue	TF-VS5	10	.50	19.9	16.5	14.1	12.4	14.9	12.4	10.6	9.3
		20	.71	28	23	20	17.5	21	17.5	15.0	13.1
		30	.87	35	28	25	22	26	21	18.4	16.1
L. Green	TF-VS7.5	10	.75	29	25	21	18.5	22	18.6	15.9	13.9
		20	1.1	43	35	31	26	32	26	23	19.7
		30	1.3	52	43	37	32	39	32	28	24
Black	TF-VS10	10	1.0	40	33	28	25	30	25	21	18.6
		20	1.4	56	47	40	35	42	35	30	26
		30	1.7	68	57	49	43	51	43	37	32

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

TURBO FLOOD QUICK TEEJET CAPS



PART #	DESCRIPTION
A675X	BLACK CAP & GASKET
A676X	WHITE CAP & GASKET
A677X	RED CAP & GASKET
A678X	BLUE CAP & GASKET
A679X	GREEN CAP & GASKET
A680X	YELLOW CAP & GASKET
A681X	BROWN CAP & GASKET
A682X	ORANGE CAP & GASKET



* Adjust spray height in the field to overlap approximately 30% of each edge of pattern.

Suggested Minimum Spray Height	
Nozzle Spacing	Suggested Spray Height at 45° Angle
20"	14 - 16"
30"	15 - 17"
40"	18 - 20"

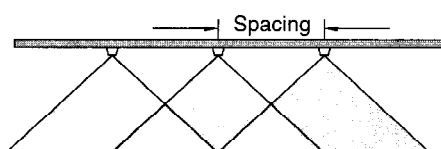
FloodJet® Wide Angle Flat Spray Tips



FloodJet Tip



FloodJet Nozzle



TKVS FLOOD JET TIPS

TIP COLOR	PART #	DESCRIPTION
	A500X	TKSS-1
	A501X	TKSS-1.5
RED	A502X	TKVS-2
BROWN	A503X	TKVS-2.5
GRAY	A504X	TKVS-3
WHITE	A505X	TKVS-4
L BLUE	A506X	TKVS-5
L GREEN	A507X	TKVS-7.5
BLACK	A508X	TKVS-10
	A509X	TKSS-15
	A510X	TKSS-20
	A511X	TKSS-30

KSS FLOOD JET NOZZLES

PART #	DESCRIPTION
A519X	1/4" KSS-2
A520X	1/4" KSS-3
A520BX	1/8" KSS-4
A521X	1/4" KSS-5
A522X	1/4" KSS-7.5
A523X	1/4" KSS-10
A523AX	1/4" KSS-12
A524X	1/4" KSS-15
A525X	1/4" KSS-20
A527X	3/8" KSS-30
A528X	3/8" KSS-40
A529X	1/2" KSS-50
A530X	1/2" KSS-60
A531X	1/2" KSS-80
A532X	3/4" KSS-100
A533X	3/4" KSS-120
A534X	3/4" KSS-180

The FloodJet Tips and Nozzles produce a very wide deflector type flat spray pattern. Round orifice minimizes clogging.

There is no recommended spray height for standard FloodJet tips. Raise or lower spray boom - or rotate nozzle bodies to double overlap spray patterns and provide optimum coverage along spray boom.

Tip No. (Strainer Screen Size)		Liquid Pressure in PSI	Capacity in GPM	Gallons Per Acre - 40" Spacing									
FloodJet Tip No.	FloodJet Nozzle No.			4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	20 MPH	
TK-SS1 (100 Mesh)	1/8K-SS1	10	.10	3.7	3.0	2.5	1.9	1.5	1.2	1.1	.93	7.4	
		20	.14	5.3	4.2	3.5	2.6	2.1	1.8	1.5	1.3	1.1	
		30	.17	6.4	5.1	4.3	3.2	2.6	2.1	1.8	1.6	1.3	
		40	.20	7.4	5.9	5.0	3.7	3.0	2.5	2.1	1.9	1.5	
TK-SS1.5 (50 Mesh)	1/8K-SS1.5	10	.15	5.6	4.5	3.7	2.8	2.2	1.9	1.6	1.4	1.1	
		20	.21	7.9	6.3	5.3	3.9	3.2	2.6	2.3	2.0	1.6	
		30	.26	9.7	7.7	6.4	4.8	3.9	3.2	2.8	2.4	1.9	
		40	.30	11.1	8.9	7.4	5.6	4.5	3.7	3.2	2.8	2.2	
TK-VS2 (50 Mesh)	1/4K-SS2	10	.20	7.4	5.9	5.0	3.7	3.0	2.5	2.1	1.9	1.5	
		20	.28	10.5	8.4	7.0	5.3	4.2	3.5	3.0	2.6	2.1	
		30	.35	12.9	10.3	8.6	6.4	5.1	4.3	3.7	3.2	2.6	
		40	.40	14.9	11.9	9.9	7.4	5.9	5.0	4.2	3.7	3.0	
TK-VS2.5 (50 Mesh)	1/4K-SS2.5	10	.25	9.3	7.4	6.2	4.6	3.7	3.1	2.7	2.3	1.9	
		20	.35	13.1	10.5	8.8	6.6	5.3	4.4	3.8	3.3	2.6	
		30	.43	16.1	12.9	10.7	8.0	6.4	5.4	4.6	4.0	3.2	
		40	.50	18.6	14.9	12.4	9.3	7.4	6.2	5.3	4.6	3.7	
TK-VS3 (50 Mesh)	1/4K-SS3	10	.30	11.1	8.9	7.4	5.6	4.5	3.7	3.2	2.8	2.2	
		20	.42	15.8	12.6	10.5	7.9	6.3	5.3	4.5	3.9	3.2	
		30	.52	19.3	15.4	12.9	9.7	7.7	6.4	5.5	4.8	3.9	
		40	.60	22	17.8	14.9	11.1	8.9	7.4	6.4	5.6	4.5	
TK-VS4	1/8K-SS4	10	.40	14.9	11.9	9.9	7.4	5.9	5.0	4.2	3.7	3.0	
		20	.57	21	16.8	14.0	10.5	8.4	7.0	6.0	5.3	4.2	
		30	.69	26	21	17.2	12.9	10.3	8.6	7.4	6.4	5.1	
		40	.80	30	24	19.6	14.9	11.9	9.9	8.5	7.4	5.9	
TK-VS5	1/4K-SS5	10	.50	18.6	14.9	12.4	9.3	7.4	6.2	5.3	4.6	3.7	
		20	.71	26	21	17.5	13.1	10.5	8.8	7.5	6.6	5.3	
		30	.87	32	26	21	16.1	12.9	10.7	9.2	8.0	6.4	
		40	1.0	37	30	25	18.6	14.9	12.4	10.6	9.3	7.4	
TK-VS7.5	1/4K-SS7.5	10	.75	28	22	18.6	13.9	11.1	9.3	8.0	7.0	5.6	
		20	1.1	39	32	26	19.7	15.8	13.1	11.3	9.8	7.9	
		30	1.3	48	39	32	24	19.3	16.1	13.8	12.1	9.7	
		40	1.5	56	45	37	28	22	18.6	15.9	13.9	11.1	
TK-VS10	1/4K-SS10	10	1.0	37	30	25	18.6	14.9	12.4	10.6	9.3	7.4	
		20	1.4	53	42	35	26	21	17.5	15.0	13.1	10.5	
		30	1.7	64	51	43	32	26	21	18.4	16.1	12.9	
		40	2.0	74	59	50	37	30	25	21	18.6	14.9	
	1/4K-SS12	10	1.20	45	36	30	22	17.8	14.9	12.7	11.1	8.9	
		20	1.70	63	50	42	32	25	21	18.0	15.8	12.6	
		30	2.08	77	62	51	39	31	26	22	19.3	15.4	
		40	2.40	89	71	59	45	36	30	25	22	17.8	
TK-SS15	1/4K-SS15	10	1.5	56	45	37	28	22	18.6	15.9	13.9	11.1	
		20	2.1	79	63	53	39	32	26	23	19.7	15.8	
		30	2.6	96	77	64	48	39	32	28	24	19.3	
		40	3.0	111	89	74	56	45	37	32	28	22	
TK-SS20	1/4K-SS20	10	2.0	74	59	50	37	30	25	21	18.6	14.9	
		20	2.8	105	84	70	53	42	35	30	26	21	
		30	3.5	129	103	86	64	51	43	37	32	26	
		40	4.0	149	119	99	74	59	50	42	37	30	
TK-SS30	3/8K-SS30	10	3.0	111	89	74	56	45	37	32	28	22	
		20	4.2	158	126	105	79	63	53	45	39	32	
		30	5.2	193	154	129	96	77	64	55	48	39	
		40	6.0	223	178	149	111	89	74	64	56	45	
	3/8K-SS40	10	4.0	149	119	99	74	59	50	42	37	30	
		20	5.7	210	168	140	105	84	70	60	53	42	
		30	6.9	257	206	171	129	103	86	73	64	51	
		40	8.0	297	238	198	149	119	99	85	74	59	
	1/2K-SS50	10	5.0	186	149	124	93	74	62	53	46	37	
		20	7.1	263	210	175	131	105	88	75	66	53	
		30	8.7	322	257	214	161	129	107	92	80	64	
		40	10.0	371	297	248	186	149	124	106	93	74	
	1/2K-SS60	10	6.0	223	178	149	111	89	74	64	56	45	
		20	8.5	315	252	210	158	126	105	90	79	63	
		30	10.4	386	309	257	193	154	129	110	96	77	
		40	12.0	446	356	297	223	178	149	127	111	89	
	1/2K-SS80	10	8.0	297	238	198	149	119	99	85	74	59	
		20	11.3	420	336	280	210	168	140	120	105	84	
		30	13.9	514	412	343	257	206	171	147	129	103	
		40	16.0	594	475	396	297	238	198	170	149	119	
	3/4K-SS100	10	10.0	371	297	248	186	149	124	106	93	74	
		20	14.1	525	420	350	263	210	175	150	131	105	
		30	17.3	643	514	429	322	257	214	184	161	129	
		40	20.0	743	594	495	371	297	248	212	186	149	
	3/4K-SS120	10	12.0	446	356	297	223	178	149	127	111	89	
		20	17.0	630	504	420	315	252	210	180	158	126	
		30	20.8	772	617	514	386	309	257	220	193	154	
		40	24.0	891	713	594	446	356	297	255	223	178	
	3/4K-SS180	10	18.0	668	535	446	334	267	223	191	167	134	
		20	25.5	945	756	630	473	378	315	270	236	189	
		30	31.2	1157	926	772	579	463	386	331	289	231	
		40	36.0	1337	1069	891	668	535	446	382	334	267	

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

FloodJet®

Wide Angle Flat Spray Tips

NOZZLE NUMBER Color-Code	PRESSURE (PSIG)	CAPACITY 1-NOZZLE (GPM)	GALLONS PER ACRE — BASED ON WATER																
			40" SPACING					60" SPACING						120" SPACING*					
			4 MPH	5 MPH	6 MPH	10 MPH	15 MPH	4 MPH	5 MPH	6 MPH	10 MPH	15 MPH	18 MPH	4 MPH	5 MPH	6 MPH	10 MPH	15 MPH	18 MPH
F20	10	2.0	74	59	50	30	19.8	50	40	33	19.8	13.2	11.0	25	19.8	16.5	9.9	6.6	5.5
	20	2.8	105	84	70	42	28	70	56	47	28	18.7	15.6	35	28	23	14.0	9.3	7.8
	30	3.5	128	103	86	51	34	86	68	57	34	23	19.1	43	34	29	17.1	11.4	9.5
	40	4.0	148	119	99	59	40	98	80	66	40	26	22	49	40	33	19.8	13.2	11.0
F30	10	3.0	111	89	74	45	30	74	60	50	30	19.8	16.5	37	30	25	14.9	9.9	8.2
	20	4.2	158	126	105	63	42	106	84	70	42	28	23	53	42	35	21	14.0	11.7
	30	5.2	193	154	129	77	51	128	102	86	52	34	29	64	51	43	26	17.1	14.3
	40	6.0	223	178	148	89	59	148	118	99	60	40	33	74	59	50	30	19.8	16.5
F40	10	4.0	149	119	99	59	40	100	80	66	40	26	22	50	40	33	19.8	13.2	11
	20	5.7	210	168	140	84	56	140	112	93	56	37	31	70	56	47	28	18.7	15.6
	30	6.9	257	206	171	102	69	172	138	114	68	46	38	86	69	57	34	23	19.1
	40	8.0	297	238	198	119	79	198	158	132	80	53	44	99	79	66	40	26	22
F50	10	5.0	186	149	124	74	50	124	100	82	50	33	28	62	50	41	25	16.5	13.8
	20	7.1	263	210	175	105	70	176	140	117	70	47	39	88	70	58	35	23	19.4
	30	8.7	322	257	214	129	86	214	172	143	86	57	48	107	86	71	43	29	24
	40	10.0	371	297	248	149	99	248	198	165	100	66	55	124	99	82	50	33	28
F60	10	6.0	223	178	148	89	59	148	118	99	60	40	33	74	59	50	30	19.8	16.5
	20	8.5	315	252	210	126	84	210	168	140	84	56	47	105	84	70	42	28	23
	30	10.4	386	309	257	154	103	258	206	171	102	69	57	129	103	86	51	34	29
	40	12.0	445	356	297	178	119	298	238	198	118	79	66	149	119	99	59	40	33
F80	10	8.0	297	238	198	119	79	198	158	132	80	53	44	99	79	66	40	26	22
	20	11.3	420	336	280	168	112	280	224	187	112	75	62	140	112	93	56	37	31
	30	13.9	514	412	343	206	137	342	274	229	138	91	76	171	137	114	69	46	38
	40	16.0	594	475	396	238	158	396	316	264	158	106	88	198	158	132	79	53	44
F100	10	10.0	371	297	248	149	99	248	198	165	100	66	55	124	99	82	50	33	28
	20	14.1	525	420	350	210	140	350	280	233	140	93	78	175	140	117	70	47	39
	30	17.3	643	514	429	257	171	428	342	286	172	114	95	214	171	143	86	57	48
	40	20.0	743	594	495	297	198	496	396	330	198	132	110	248	198	165	99	66	55
F120	10	12.0	446	356	297	178	119	298	238	198	118	79	66	149	119	99	59	40	33
	20	17	630	504	420	252	168	420	336	280	168	112	93	210	168	140	84	56	47
	30	20.8	772	617	514	309	206	514	412	343	206	137	114	257	206	171	103	69	57
	40	24.0	891	713	594	356	238	594	476	396	238	158	132	297	238	198	119	79	66
F180	10	18.0	668	535	446	267	178	446	356	297	178	119	99	223	178	148	89	59	50
	20	25.5	945	756	630	378	252	630	504	420	252	168	140	315	252	210	126	84	70
	30	31.2	1157	926	772	463	309	772	618	514	308	206	171	386	309	257	154	103	86
	40	36.0	1337	1069	891	535	356	892	712	594	356	238	198	446	356	297	178	119	99
F210	10	21.0	780	624	520	312	208	520	416	346	208	139	116	260	208	173	104	69	58
	20	29.7	1103	882	735	441	294	736	588	490	294	196	163	368	294	245	147	98	82
	30	36.4	1350	1080	900	540	360	900	720	600	360	240	200	450	360	300	180	120	100
	40	42.0	1599	1247	1039	624	416	1040	832	693	416	277	231	520	416	346	208	139	116

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

*At 120" spacing, viscosity or specific gravity of the material may seriously affect coverage.

STAINLESS FLOOD

PART #	DESCRIPTION
A120X	F20QCSS 3/4"
A122X	F30QCSS 3/4"
A124X	F40QCSS 3/4"
A126X	F50QCSS 3/4"
A128X	F60QCSS 3/4"
A130X	F80QCSS 3/4"
A132X	F100QCSS 3/4"
A134X	F120QCSS 3/4"
A136X	F180QCSS 3/4"
A136AX	F210QCSS 3/4"



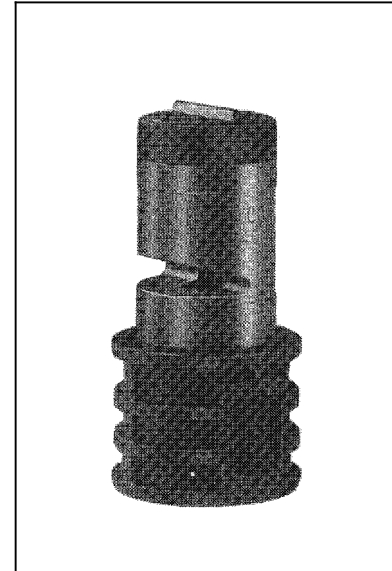
Quick Floodjet

Quick Turbo FloodJet® Wide Angle Flat Spray Tips

The revolutionary Quick Turbo FloodJet nozzle combines the precision and uniformity of a flat spray nozzle with the clog-resistance and wide angle pattern of flooding nozzles. It uses an exclusive new design to increase droplet size and distribution uniformity.

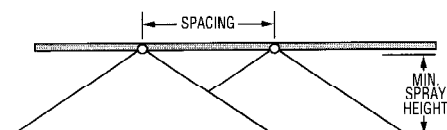
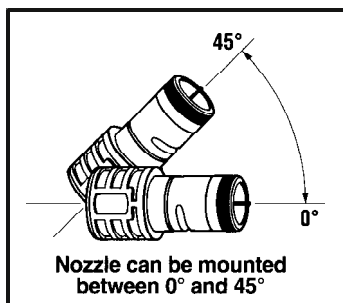
Exclusive Quick Turbo FloodJet Features:

- Patented turbulence chamber creates a dramatic improvement in pattern uniformity.
- Pre-orifice design produces larger droplets for reduced drift.
- Large, round orifice reduces clogging.
- Grooved side molding for automatic alignment with any quick-connect coupler.
- Stainless steel with color-coding for easy size identification.
- Available in standard sizes from 1.5 up to 24.0 GPM at pressures of 10 to 40 psi.



Tip Color	Nozzle No.	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Gallons Per Acre - 40" Spacing				Gallons Per Acre - 60" Spacing			
				10 MPH	12 MPH	14 MPH	16 MPH	10 MPH	12 MPH	14 MPH	16 MPH
Beige	QCTF-VS15	10	1.5	22	18.6	15.9	13.9	14.9	12.4	10.6	9.3
		20	2.1	32	26	23	19.7	21	17.5	15.0	13.1
		30	2.6	39	32	28	24	26	21	18.4	16.1
White	QCTF-VS20	10	2.0	30	25	21	18.6	19.8	16.5	14.1	12.4
		20	2.8	42	35	30	26	28	23	20	17.5
		30	3.5	51	43	37	32	34	29	25	21
Yellow	QCTF-VS30	10	3.0	45	37	32	28	30	25	21	18.6
		20	4.2	63	53	45	39	42	35	30	26
		30	5.2	77	64	55	48	51	43	37	32
Red	QCTF-VS40	10	4.0	59	50	42	37	40	33	28	25
		20	5.7	84	70	60	53	56	47	40	35
		30	6.9	103	86	73	64	69	57	49	43
Gray	QCTF-VS50	10	5.0	74	62	53	46	50	41	35	31
		20	7.1	105	88	75	66	70	58	50	44
		30	8.7	129	107	92	80	86	71	61	54
Blue	QCTF-VS60	10	6.0	89	74	64	56	59	50	42	37
		20	8.5	126	105	90	79	84	70	60	53
		30	10.4	154	129	110	96	103	86	73	64
Black	QCTF-VS80	10	8.0	119	99	85	74	79	66	57	50
		20	11.3	168	140	120	105	112	93	80	70
		30	13.9	206	171	147	129	137	114	98	86
L. Blue	QCTF-VS100	10	10.0	149	124	106	93	99	83	71	62
		20	14.1	210	175	150	131	140	117	100	88
		30	17.3	257	214	184	161	171	143	122	107
Orange	QCTF-VS120	10	12.0	178	149	127	111	119	99	85	74
		20	17.0	252	21	180	158	168	140	120	105
		30	21	309	257	220	193	206	171	147	129

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F



*Adjust spray height in the field to a minimum overlap approximately 30% of each edge of pattern.

PART #	DESCRIPTION
A90X	QCTF-VS15
A91X	QCTF-VS20
A92X	QCTF-VS30
A93X	QCTF-VS40
A94X	QCTF-VS50
A95X	QCTF-VS60
A96X	QCTF-VS80
A97X	QCTF-VS100
A98X	QCTF-VS120

Suggested Minimum Spray Height*	
Nozzle Spacing	Spray Height
40"	18-20"
60"	25-28"
120"	50-55"

*When nozzle is mounted parallel to the ground.

GuardianAIR™ 110° Flat Fan Spray Tips



The Hypro® GuardianAIR™ spray tip is the first and only tip to feature technology developed by Hypro for the Syngenta® Amistar™ spray tip. A unique rearward spray incline provides more uniform coverage with 10 gpm spray rates. Higher flow tips used at faster speeds have a greater spray incline.

- Air-induced sprays reduce drift while increasing droplet deposition and retention on foliage
- Provides better coverage with more drops per gallon compared to other common air-induced spray tips
- Speed-optimized spray incline allows more uniform coverage
- Each tip is clearly marked with an arrow indicating the direction of travel

Hypro®

Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Air Eduction
Material	Polyacetal
Spray Angle	110°
Pressure Range	15-115 PSI
Configuration	Tips FastCap
Application Selection Guide	
Foliar Contact	Excellent
Foliar Systemic	Excellent
Soil Applied	Very Good
Drift Control	Very Good

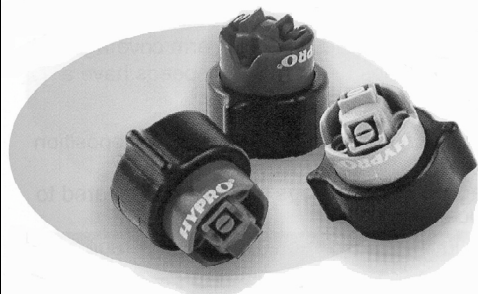
PART#	DESCRIPTION
A960X	GA110-015
A961X	GA110-02
A962X	GA110-025
A963X	GA110-03
A964X	GA110-035
A965X	GA110-04
A966X	GA110-05

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Tip Color	TIP NO.	Pressure In PSI	Capacity In GPM	GALLONS PER ACRE 20 INCH NOZZLE SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Green	GA110-015	15	0.09	6.7	5.3	4.5	3.3	2.7	2.2	1.8	1.3
		20	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6
		30	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9
		40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		50	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		60	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		70	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		80	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		90	0.23	17.1	13.7	11.4	8.5	6.8	5.7	4.6	3.4
		100	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		115	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
Yellow	GA110-02	15	0.12	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8
		20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8
		115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
Lilac	GA110-025	15	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9
		80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6
		100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
Blue	GA110-03	15	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		70	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		80	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
		90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0
		115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6
Dark Red	GA110-035	15	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		20	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		30	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		40	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		50	0.39	29.0	23.2	19.3	14.5	11.6	9.7	7.7	5.8
		60	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
		70	0.46	34.2	27.3	22.8	17.1	13.7	11.4	9.1	6.8
		80	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		90	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
		100	0.55	40.8	32.7	27.2	20.4	16.3	13.6	10.9	8.2
		115	0.59	43.8	35.0	29.2	21.9	17.5	14.6	11.7	8.8
Red	GA110-04	15	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		20	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
		80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4
		115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1
Brown	GA110-05	15	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		20	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4
		50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3
		60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1
		70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8
		80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
		90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1
		100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6

GuardianAIR™ Twin 110°

Flat Fan Spray Tips - FastCap



Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Air Eduction
Material	Polyacetal
Spray Angle	110°
Pressure Range	30-115 PSI
Configuration	FastCap Complete
Application Selection Guide	
Foliar Contact	Excellent
Foliar Systemic	Excellent
Soil Applied	
Drift Control	Very Good
Replacement Tip Strainer	
TS02-50	50 mesh strainer for all sizes

PART#	DESCRIPTION
A970X	GAT110-02
A971X	GAT110-025
A972X	GAT110-03
A973X	GAT110-04
A974X	GAT110-05
A975X	GAT110-06
A976X	GAT110-08

The GuardianAIR™ spray tips are the best choice for high coverage applications where on-target spray delivery is important. They are ideal for low crops with complex canopies, such as vegetables, where thorough coverage of the target and protection of the surroundings are of high importance.

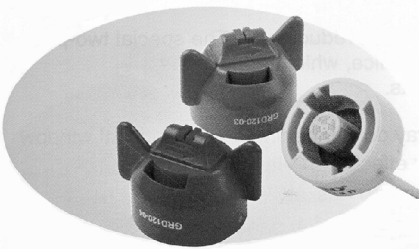
- High-coverage forward and rear facing fans help penetrate complex canopies
- Engineered to provide better coverage with more drops per gallon compared to other air-induced sprays
- Easy-to-install, patent-pending locking ring and o-ring seal design
- FastCap® complete includes tip, cap, gasket and integrated strainers

Tip Color	TIP NO.	Pressure In PSI	Capacity In GPM	GALLONS PER ACRE 20 INCH NOZZLE SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Yellow	GAT110-02	30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.4	4.8	3.6
		70	0.26	19.3	15.4	12.6	9.7	7.7	6.4	5.1	3.9
		80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8
		115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
Lilac	GAT110-025	30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9
		80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6
		100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
Blue	GAT110-03	30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		70	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		80	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
		90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0
		115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6
Red	GAT110-04	30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
		80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4
		115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1
Brown	GAT110-05	30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4
		50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3
		60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1
		70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8
		80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
		90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1
		100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
Gray	GAT110-06	30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7
		40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		50	0.67	49.7	39.8	33.2	24.9	19.9	16.6	13.3	9.9
		60	0.73	54.2	43.4	36.1	27.1	21.7	18.1	14.5	10.8
		70	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		80	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
		90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4
		100	0.95	70.5	56.4	47.0	35.3	28.2	23.5	18.8	14.1
		115	1.02	75.7	60.6	50.5	37.9	30.3	25.2	20.2	15.31
White	GAT110-08	30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2
		40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9
		50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2
		60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6
		70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
		80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8
		90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8
		100	1.26	93.6	74.8	62.4	46.8	37.4	31.2	24.9	18.7
		115	1.36	101	80.8	67.3	50.5	40.4	33.7	26.9	20.2

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Guardian™ 120°

Flat Fan Spray Tips - FastCap



The Guardian™ spray tips are ideal for insecticide and fungicide applications. The Guardian's unique 20° inclined spray pattern allows users to aim the spray rearward for general spraying, forward for vertical targets, or alternate nozzles to create a twin spray.

- Delivers a more consistent droplet and spray pattern
- The pattern is inclined 20° to enhance application versatility
- A bold arrow indicates incline direction for easy installation
- FastCap® complete includes tip, cap, gasket and Miniclean™ Strainer



Features	
Common Use	Plant Health
Pattern	Tapered Flat Fan
Technology	Pre-Orifice
Material	Polyacetal
Spray Angle	120°
Pressure Range	15-115 PSI
Configuration	FastCap Complete
Application Selection Guide	
Foliar Contact	Excellent
Foliar Systemic	Excellent
Soil Applied	Very Good
Drift Control	Good
Replacement Tip Strainer	
TS02-50	50 mesh strainer for all sizes
TS02-100	100 mesh strainer for size 04-08

PART#	DESCRIPTION
A950X	GRD120-01
A951X	GRD120-015
A952X	GRD120-02
A953X	GRD120-025
A954X	GRD120-03
A955X	GRD120-04
A956X	GRD120-05
A957X	GRD120-06
A958X	GRD120-08

Tip Color	TIP NO.	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	GALLONS PER ACRE 20 INCH SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Orange	GRD120-01	15	0.06	4.5	3.6	3.0	2.2	1.8	1.5	1.2	0.9
		20	0.07	5.2	4.2	3.5	2.6	2.1	1.7	1.4	1.0
		30	0.09	6.7	5.3	4.5	3.3	2.7	2.2	1.8	1.3
		40	0.10	7.4	5.9	5.0	3.7	3.0	2.5	2.0	1.5
		50	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6
		60	0.12	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8
		70	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9
		80	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		90	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		100	0.16	11.9	9.5	7.9	5.9	4.8	4.0	3.2	2.4
		115	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
Green	GRD120-015	15	0.09	6.7	5.3	4.5	3.3	2.7	2.2	1.8	1.3
		20	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6
		30	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9
		40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		50	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		60	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		70	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		80	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		90	0.23	17.1	13.7	11.4	8.5	6.8	5.7	4.6	3.4
		100	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		115	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
Yellow	GRD120-02	15	0.12	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8
		20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8
		115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
Lilac	GRD120-025	15	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9
		80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6
		100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
Blue	GRD120-03	15	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		70	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		80	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
		90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0
		115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6
Red	GRD120-04	15	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		20	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
		80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4
		115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1
Brown	GRD120-05	15	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		20	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4
		50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3
		60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1
		70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8
		80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
		90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1
		100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
Gray	GRD120-06	15	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		20	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
		30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7
		40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		50	0.67	49.7	39.8	33.2	24.9	19.9	16.6	13.3	9.9
		60	0.73	54.2	43.4	36.1	27.1	21.7	18.1	14.5	10.8
		70	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		80	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
		90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4
		100	0.95	70.5	56.4	47.0	35.3	28.2	23.5	18.8	14.1
		115	1.02	75.7	60.6	50.5	37.9	30.3	25.2	20.2	15.1
White	GRD120-08	15	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		20	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2
		40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9
		50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2
		60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6
		70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
		80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8
		90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8
		100	1.26	93.6	74.8	62.4	46.8	37.4	31.2	24.9	18.7
		115	1.36	101	80.8	67.3	50.5	40.4	33.7	26.9	20.2

NOTE: Always double check your application rates.
Tabulations are based on spraying water at 70°F

Ultra Lo-Drift™ 120°

Flat Fan Spray Tips - FastCap



The ULD - Ultra Lo-Drift is the ideal spray tip for use where drift reduction is paramount. The tip produces large air-filled droplets, which cut drift dramatically compared with a standard fan and conventional low-drift spray tips. Ideal for use with pre-emergence and broad spectrum products.

- Creates air-filled droplets which significantly reduce spray drift
- Wide spray angle (120°) enables boom height to be lowered to further decrease drift
- Small, compact size reduces the chances of accidental breakage
- FastCap® complete includes tip, cap, gasket and New Miniclean™ strainer for sizes 015-06



Features	
Common Use	Weeds
Pattern	Tapered Flat Fan
Technology	Air Eduction
Material	Polyacetal
Spray Angle	120°
Pressure Range	15-115 PSI
Configuration	Tips, FastCap Complete
Application Selection Guide	
Foliar Contact	Good at High Pressure
Foliar Systemic	Excellent
Soil Applied	Excellent
Drift Control	Excellent
Replacement MiniClean™ Strainer	
30Q3623	blue for size 015-04
30Q3624	red for size 05-06

PART#	DESCRIPTION
A880FCX	FC-ULD 120-015
A881FCX	FC-ULD 120-02
A882FCX	FC-ULD 120-025
A883FCX	FC-ULD 120-03
A884FCX	FC-ULD 120-04
A885FCX	FC-ULD 120-05
A886FCX	FC-ULD 120-06
A887FCX	FC-ULD 120-08

Tip Color	TIP NO.	Pressure In PSI	Capacity In GPM	GALLONS PER ACRE 20 INCH NOZZLE SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
Green	FC-ULD 120-015	15	0.09	6.7	5.3	4.5	3.3	2.7	2.2	1.8	1.3
		20	0.11	8.2	6.5	5.4	4.1	3.3	2.7	2.2	1.6
		30	0.13	9.7	7.7	6.4	4.8	3.9	3.2	2.6	1.9
		40	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		50	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		60	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		70	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		80	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		90	0.23	17.1	13.7	11.4	8.5	6.8	5.7	4.6	3.4
		100	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		115	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
Yellow	FC-ULD 120-02	15	0.12	8.9	7.1	5.9	4.5	3.6	3.0	2.4	1.8
		20	0.14	10.4	8.3	6.9	5.2	4.2	3.5	2.8	2.1
		30	0.17	12.6	10.1	8.4	6.3	5.0	4.2	3.4	2.5
		40	0.20	14.9	11.9	9.9	7.4	5.9	5.0	4.0	3.0
		50	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		60	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		70	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		80	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		90	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		100	0.32	23.8	19.0	15.8	11.9	9.5	7.9	6.3	4.8
		115	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
Lilac	FC-ULD 120-025	15	0.15	11.1	8.9	7.4	5.6	4.5	3.7	3.0	2.2
		20	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		30	0.22	16.3	13.1	10.9	8.2	6.5	5.4	4.4	3.3
		40	0.25	18.6	14.9	12.4	9.3	7.4	6.2	5.0	3.7
		50	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		60	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		70	0.33	24.5	19.6	16.3	12.3	9.8	8.2	6.5	4.9
		80	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		90	0.38	28.2	22.6	18.8	14.1	11.3	9.4	7.5	5.6
		100	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		115	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
Blue	FC-ULD 120-03	15	0.18	13.4	10.7	8.9	6.7	5.3	4.5	3.6	2.7
		20	0.21	15.6	12.5	10.4	7.8	6.2	5.2	4.2	3.1
		30	0.26	19.3	15.4	12.9	9.7	7.7	6.4	5.1	3.9
		40	0.30	22.3	17.8	14.9	11.1	8.9	7.4	5.9	4.5
		50	0.34	25.2	20.2	16.8	12.6	10.1	8.4	6.7	5.0
		60	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		70	0.40	29.7	23.8	19.8	14.95	11.9	9.9	7.9	5.9
		80	0.42	31.2	24.9	20.8	.6	12.5	10.4	8.3	6.2
		90	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		100	0.47	34.9	27.9	23.3	17.4	14.0	11.6	9.3	7.0
		115	0.51	37.9	30.3	25.2	18.9	15.1	12.6	10.1	7.6
Red	FC-ULD 120-04	15	0.24	17.8	14.3	11.9	8.9	7.1	5.9	4.8	3.6
		20	0.28	20.8	16.6	13.9	10.4	8.3	6.9	5.5	4.2
		30	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		40	0.40	29.7	23.8	19.8	14.9	11.9	9.9	7.9	5.9
		50	0.45	33.4	26.7	22.3	16.7	13.4	11.1	8.9	6.7
		60	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		70	0.53	39.4	31.5	26.2	19.7	15.7	13.1	10.5	7.9
		80	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		90	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		100	0.63	46.8	37.4	31.2	23.4	18.7	15.6	12.5	9.4
		115	0.68	50.5	40.4	33.7	25.2	20.2	16.8	13.5	10.1
Brown	FC-ULD 120-05	15	0.31	23.0	18.4	15.3	11.5	9.2	7.7	6.1	4.6
		20	0.35	26.0	20.8	17.3	13.0	10.4	8.7	6.9	5.2
		30	0.43	31.9	25.5	21.3	16.0	12.8	10.6	8.5	6.4
		40	0.50	37.1	29.7	24.8	18.6	14.9	12.4	9.9	7.4
		50	0.56	41.6	33.3	27.7	20.8	16.6	13.9	11.1	8.3
		60	0.61	45.3	36.2	30.2	22.6	18.1	15.1	12.1	9.1
		70	0.66	49.0	39.2	32.7	24.5	19.6	16.3	13.1	9.8
		80	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
		90	0.75	55.7	44.6	37.1	27.8	22.3	18.6	14.9	11.1
		100	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		115	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
Gray	FC-ULD 120-06	15	0.37	27.5	22.0	18.3	13.7	11.0	9.2	7.3	5.5
		20	0.42	31.2	24.9	20.8	15.6	12.5	10.4	8.3	6.2
		30	0.52	38.6	30.9	25.7	19.3	15.4	12.9	10.3	7.7
		40	0.60	44.6	35.6	29.7	22.3	17.8	14.9	11.9	8.9
		50	0.67	49.7	39.8	33.2	24.9	19.9	16.6	13.3	9.9
		60	0.73	54.2	43.4	36.1	27.1	21.7	18.1	14.5	10.8
		70	0.79	58.7	46.9	39.1	29.3	23.5	19.6	15.6	11.7
		80	0.85	63.1	50.5	42.1	31.6	25.2	21.0	16.8	12.6
		90	0.90	66.8	53.5	44.6	33.4	26.7	22.3	17.8	13.4
		100	0.95	70.5	56.4	47.0	35.3	28.2	23.5	18.8	14.1
		115	1.02	75.7	60.6	50.5	37.9	30.3	25.2	20.2	15.1
White	FC-ULD 120-08	15	0.49	36.4	29.1	24.3	18.2	14.6	12.1	9.7	7.3
		20	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2
		40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9
		50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2
		60	0.98	72.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6
		70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
		80	1.13	83.9	67.1	55.9	42.0	33.6	28.0	22.4	16.8
		90	1.20	89.1	71.3	59.4	44.6	35.6	29.7	23.8	17.8
		100	1.26	93.6	74.8	62.4	46.8	37.4	31.2	24.9	18.7
		115	1.36	101	80.8	67.3	50.5	40.4	33.7	26.9	20.2

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Hi-Flow™ 140°

Wide-Angle Flat Fan Spray Tip - FastCap



The Hypro Hi-Flow tip is the best way to outfit a sprayer to achieve wide-angle coverage plus drift control. The 140° pattern ensures unmatched uniformity across the spray boom and allows lower spray heights to reduce the risk of drift during sensitive applications.

- Straight-through design to reduce clogging
- Incredibly uniform application across the boom
- Lower spray heights and pre-orifice technology reduce drift
- FastCap® complete includes tip, cap, gasket



Features	
Common Use	Fertilizer
Pattern	Tapered Flat Fan
Technology	Pre-Orifice
Material	Polyacetal
Spray Angle	140°
Pressure Range	20-80 PSI
Configuration	FastCap
Application Selection Guide	
Foliar Contact	
Foliar Systemic	Excellent at High Volume
Soil Applied	Excellent
Drift Control	Excellent

PART#	DESCRIPTION
A980X	HF140-08
A981X	HF140-10
A982X	HF140-15
A983X	HF140-20
A984X	HF140-30
A985X	HF140-40
A986X	HF140-50
A987X	HF140-60

Tip Color	TIP NO.	Pressure In PSI	Capacity In GPM	GALLONS PER ACRE 20 INCH NOZZLE SPACING							
				4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	15 MPH	20 MPH
White	HF140-08	20	0.57	42.3	33.9	28.2	21.2	16.9	14.1	11.3	8.5
		30	0.69	51.2	41.0	34.2	25.6	20.5	17.1	13.7	10.2
		40	0.80	59.4	47.5	39.6	29.7	23.8	19.8	15.8	11.9
		50	0.89	66.1	52.9	44.1	33.0	26.4	22.0	17.6	13.2
		60	0.98	725.8	58.2	48.5	36.4	29.1	24.3	19.4	14.6
		70	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
		80	1.13	83.1	67.1	55.9	42.0	33.6	28.0	22.4	16.8
Blue	HF140-10	20	0.71	52.7	42.2	35.1	26.4	21.1	17.6	14.1	10.5
		30	0.87	64.6	51.7	43.1	32.3	25.8	21.5	17.2	12.9
		40	1.00	74.3	59.4	49.5	37.1	29.7	24.8	19.8	14.9
		50	1.12	83.2	66.5	55.4	41.6	33.3	27.7	22.2	16.6
		60	1.22	90.6	72.5	60.4	45.3	36.2	30.2	24.2	18.1
		70	1.32	98.0	78.4	65.3	49.0	39.2	32.7	26.1	19.6
		80	1.41	105	83.8	69.8	52.3	41.9	34.9	27.9	20.9
Green	HF140-15	20	1.06	78.7	63.0	52.5	39.4	31.5	26.2	21.0	15.7
		30	1.30	96.5	77.2	64.4	48.3	38.6	32.2	25.7	19.3
		40	1.50	111	89.1	74.3	55.7	44.6	37.1	29.7	22.3
		50	1.68	125	99.8	83.2	6.4	49.9	41.5	33.3	24.9
		60	1.84	137	109	91.1	68.3	54.6	45.5	36.4	27.3
		70	1.98	147	118	98.0	73.5	58.8	49.0	39.2	29.4
		80	2.12	157	126	105	78.7	63.0	52.5	42.0	31.5
Black	HF140-20	20	1.41	105	83.8	69.8	52.3	41.9	34.9	27.9	20.9
		30	1.73	128	103	85.6	64.2	51.4	42.8	34.3	25.7
		40	2.00	149	119	99.0	74.3	59.4	49.5	39.6	29.7
		50	2.24	166	133	111	83.2	66.5	55.4	44.4	33.3
		60	2.45	182	146	121	91.0	72.8	60.6	48.5	36.4
		70	2.65	197	157	131	98.4	78.7	65.6	52.5	39.4
		80	2.83	210	168	140	105	84.1	70.0	56.0	42.0
Tan	HF140-30	20	2.12	157	126	105	78.7	63	52.5	42.0	31.5
		30	2.60	193	154	129	96.5	77.28	64.4	51.5	38.6
		40	3.00	223	178	149	111	9.1	74.3	59.4	44.6
		50	3.35	249	199	166	124	99.5	82.9	66.3	49.7
		60	3.67	272	218	182	136	109	90.8	72.7	54.5
		70	3.97	295	236	197	147	118	98.3	78.6	59.0
		80	4.24	315	252	210	157	126	105	84.0	63.0
White	HF140-40	20	2.83	210	168	140	105	84.1	70.0	56.0	42.0
		30	3.46	257	206	171	128.1	103	85.6	68.5	51.4
		40	4.00	297	238	198	149	19	99.0	79.2	59.4
		50	4.47	332	266	221	166	133	111	88.5	66.4
		60	4.90	364	291	243	182	146	121	97.0	72.8
		70	5.29	393	314	262	196	157	131	105	78.6
		80	5.66	420	336	280	210	168	140	112	84.1
Lilac	HF140-50	20	3.54	263	210	175	131	105	87.6	70.1	52.6
		30	4.33	322	257	214	161	129	107	85.7	64.3
		40	5.00	371	297	248	186	149	124	99.0	74.3
		50	5.59	415	332	277	208	166	138	111	83.0
		60	6.12	454	364	303	227	182	151	121	90.9
		70	6.61	491	393	327	245	196	164	131	98.2
		80	7.07	525	420	350	262	210	175	140	105
Yellow	HF140-60	20	4.24	315	252	210	157	126	104	84.0	63.0
		30	5.20	386	309	257	193	154	129	103	77.2
		40	6.00	446	356	297	223	178	149	119	89.1
		50	6.71	498	399	332	249	199	166	133	99.6
		60	7.35	546	437	364	273	218	182	146	109
		70	7.94	590	472	393	295	236	197	157	118
		80	8.49	630	504	420	315	252	210	168	126

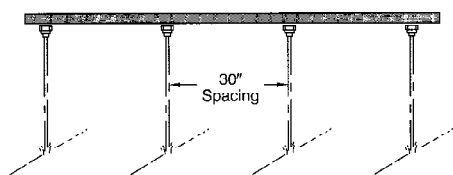
NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

StreamJet®

Solid Stream Spray Nozzles

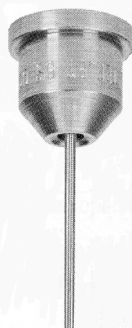
Stainless Steel for Banding Fertilizers

- Permits banding fluids at high rig speeds.
- Large orifices with no internal obstructions permit non-clogging suspension applications.
- Lower drift potential.
- Coverage tabulation based on water and 30" nozzle spacing.



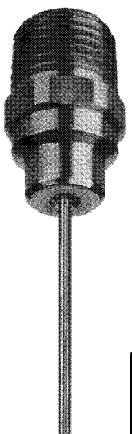
CAP STYLE

PART #	DESCRIPTION
A777AX	#1.5 TIP S.S.
A778X	#2 TIP S.S.
A779X	#3 TIP S.S.
A779BX	#4 TIP S.S.
A779AX	#5 TIP S.S.
A781X	#6 TIP S.S.
A780X	#8 TIP S.S.
A782X	#10 TIP S.S.
A782BX	#12 TIP S.S.
A783X	#15 TIP S.S.
A784X	#20 TIP S.S.
A785X	#30 TIP S.S.
A786X	#40 TIP S.S.



1/4" MPT THREADED STYLE

PART #	DESCRIPTION
A779EX	1/4" MPT #1.5 TIP S.S.
A779FX	1/4" MPT #2 TIP S.S.
A779GX	1/4" MPT #3 TIP S.S.
A779DX	1/4" MPT #4 TIP S.S.
A779CX	1/4" MPT #5 TIP S.S.
A781AX	1/4" MPT #6 TIP S.S.
A780AX	1/4" MPT #8 TIP S.S.
A782AX	1/4" MPT #10 TIP S.S.
A783AX	1/4" MPT #15 TIP S.S.
A784AX	1/4" MPT #20 TIP S.S.
A785AX	1/4" MPT #30 TIP S.S.
A786AX	1/4" MPT #40 TIP S.S.
A787AX	1/4" MPT #50 TIP S.S.
A788AX	1/4" MPT #60 TIP S.S.



			Gallons Per Acre - 30" Spacing									
	Liquid Pressure In PSI	Capacity In GPM	3 MPH	4 MPH	5 MPH	6 MPH	7 MPH	8 MPH	9 MPH	10 MPH	11 MPH	12 MPH
StreamJet Nozzle No.												
TP00015-SS	30	.13	8.6	6.4	5.1	4.3	3.7	3.2	2.9	2.6	2.3	2.1
	40	.15	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	2.7	2.5
	50	.17	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8
	60	.18	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6	3.2	3.0
	70	.20	13.2	9.9	7.9	6.6	5.7	5.0	4.4	4.0	3.6	3.3
	80	.21	14	10.4	8.3	6.9	5.9	5.2	4.6	4.2	3.8	3.5
TP0002-SS	30	.17	11.2	8.4	6.7	5.6	4.8	4.2	3.7	3.4	3.1	2.8
	40	.20	13.2	9.9	7.9	6.6	5.7	5.0	4.4	4.0	3.6	3.3
	50	.22	15	10.9	8.7	7.3	6.2	5.4	4.8	4.4	4.0	3.6
	60	.24	16	11.9	9.5	7.9	6.8	5.9	5.3	4.8	4.3	4.0
	70	.26	17	12.9	10.3	8.6	7.4	6.4	5.7	5.1	4.7	4.3
	80	.28	18	14	11.1	9.2	7.9	6.9	6.2	5.5	5.0	4.6
TP0003-SS	30	.26	17	12.9	10.3	8.6	7.4	6.4	5.7	5.1	4.7	4.3
	40	.30	20	15	11.9	9.9	8.5	7.4	6.6	5.9	5.4	5.0
	50	.34	22	17	13	11.2	9.6	8.4	7.5	6.7	6.1	5.6
	60	.37	24	18	15	12.2	10.5	9.2	8.1	7.3	6.7	6.1
	70	.40	26	20	16	13.2	11.3	9.9	8.8	7.9	7.2	6.6
	80	.42	28	21	17	14	11.9	10.4	9.2	8.3	7.6	6.9
H1/4U-SS0004 TP0004-SS	30	.35	23	17	14	11.6	9.9	8.7	7.7	6.9	6.3	5.8
	40	.40	26	20	16	13.2	11.3	9.9	8.8	7.9	7.2	6.6
	50	.45	30	22	18	15	12.7	11.1	9.9	8.9	8.1	7.4
	60	.49	32	24	19	16	13.9	12.1	10.8	9.7	8.8	8.1
	70	.53	35	26	21	17	15.0	13.1	11.7	10.5	9.5	8.7
	80	.57	38	28	23	19	16	14.1	12.5	11.3	10.3	9.4
TP0005-SS	30	.43	28	21	17	14	12.2	10.6	9.5	8.5	7.7	7.1
	40	.50	33	25	20	17	14	12.4	11.0	9.9	9.0	8.3
	50	.56	37	28	22	18	16	14	12.3	11.1	10.1	9.2
	60	.61	40	30	24	20	17	15	13.4	12.1	11.0	10.1
	70	.66	44	33	26	22	19	16	15	13.1	11.9	10.9
	80	.71	47	35	28	23	20	18	16	14.1	12.8	11.7
H1/4U-SS0006 TP0006-SS	30	.52	34	26	21	17	15	13	11	10	9	8.6
	40	.60	40	30	24	20	17	15	13	12	11	10
	50	.67	44	33	27	22	19	17	15	13	12	11
	60	.73	48	36	29	24	21	18	16	14	13	12
	70	.79	52	39	31	26	22	20	17	16	14	13
	80	.85	56	42	34	28	24	21	19	17	15	14
H1/4U-SS0008 TP0008-SS	30	.69	45.5	34.2	27.3	22.8	19.5	17.1	15.2	13.7	12.4	11.4
	40	.80	52.8	39.6	31.7	26.4	22.6	19.8	17.6	15.8	14.4	13.2
	50	.89	58.7	44.1	35.2	29.4	25.2	22.0	19.6	17.6	16.0	14.7
	60	.98	64.7	48.5	38.8	32.3	27.7	24.3	21.6	19.4	17.6	16.2
	70	1.06	70.0	52.5	42.0	35.0	30.0	26.2	23.3	21.0	19.1	17.5
	80	1.13	75	55.9	44.7	37.3	32.0	28.0	24.9	22.4	20.3	18.6
H1/4U-SS0010 TP0010-SS	30	.87	57	43.1	34.5	28.7	24.6	21.5	19.1	17.2	15.7	14.4
	40	1.00	66	50	39.6	33.0	28.3	24.8	22.0	19.8	18.0	16.5
	50	1.12	74	55	44	37.0	31.7	27.7	24.6	22.2	20.2	18.5
	60	1.22	81	60	48	40.3	34.5	30.2	26.8	24.2	22.0	20.1
	70	1.32	87	65	52	43.6	37.3	32.7	29.0	26.1	23.8	21.8
	80	1.41	93	70	56	47	39.9	34.9	31.0	27.9	25.4	23.3
H1/4U-SS0012 TP0012-SS	30	1.04	68.6	51.5	41.2	34.3	29.4	25.7	22.9	20.6	18.7	17.2
	40	1.20	79.2	59.4	47.2	39.6	33.9	29.7	26.4	23.8	21.6	19.8
	50	1.34	88.4	66.3	53.1	44.2	37.9	33.2	29.5	26.5	24.1	22.1
	60	1.47	97	72.8	58.2	48.5	41.6	36.4	32.3	29.1	26.5	24.3
	70	1.59	104.9	78.7	63	52.5	45	39.4	35	31.5	28.6	26.2
	80	1.70	112.2	84.2	67.3	56.1	48.1	42.1	37.4	33.7	30.6	28.1
H1/4U-SS0015 TP0015-SS	30	1.30	86	64	51	43	37	32	28.6	25.7	23.4	21.5
	40	1.50	99	74	59	50	42	37	33	29.7	27.0	24.8
	50	1.68	111	83	67	55	48	42	37	33.3	30.2	27.7
	60	1.84	121	91	73	61	52	46	40	36	33.1	30.4
	70	1.98	131	98	78	65	56	49	44	39	35.6	32.7
	80	2.12	140	105	84	70	60	52	47	42	38	35.0
H1/4U-SS0020 TP0020-SS	30	1.73	114	86	69	57	49	43	38	34	31	28.5
	40	2.00	132	99	79	66	57	50	44	40	36	33
	50	2.24	148	111	89	74	63	55	49	44	40	37
	60	2.45	162	121	97	81	69	61	54	49	44	40
	70	2.65	175	131	105	87	75	66	58	52	48	44
	80	2.83	187	140	112	93	80	70	62	56	51	47
H1/4U-SS0030	30	2.60	172	129	103	86	74	64	57	51	47	42.9
	40	3.00	198	149	119	99	85	74	66	59	54	50
	50	3.35	221	166	133	111	95	83	74	66	60	55
	60	3.67	242	182	145	121	104	91	81	73	66	61
	70	3.97	262	197	157	131	112	98	87	79	71	66
	80	4.24	280	210	168	140	120	105	93	84	76	70
H1/4U-SS0040 TP0040-SS	30	3.46	228.4	171.3	137.0	114.2	97.9	85.6	76.1	68.5	62.3	57.1
	40	4.00	264.0	198.0	158.4	132.0	113.1	99.0	88.0	79.2	72.0	66.0
	50	4.47	295.0	221.3	177.0	147.5	126.4	110.6	98.3	88.5	80.5	73.8
	60	4.90	323.4	242.6	194.0	161.7	138.6	121.3	107.8	97.0	88.2	80.9
	70	5.29	349.1	261.9	209.5	174.6	149.6	130.9	116.4	104.7	95.2	87.3
	80	5.66	373.6	280.2	224.1	186.8	160.1	140.1	124.5	112.1	101.9	93.4
H1/4U-SS0050	30	4.33	285.8	214.3	171.5	142.9	122.5	107.2	95.3	85.7	77.9	71.4
	40	5.00	330.0	247.5	198.0	165.0	141.4	123.8	110.0	99.0	90.0	82.5
	50	5.59	368.9	276.7	221.4	184.5	158.1	138.4	123.0	110.7	100.6	92.2
	60	6.12	403.9	302.9	242.4	202.0	173.1	151.5	134.6	121.2	110.2	101.0
	70	6.61	436.3	327.2	261.8	218.1	187.0	163.6	145.4	130.9	119.0	109.1
	80	7.07	466.6	350.0	280.0	233.3	200.0	175.0	155.5	140.0	127.3	116.7
H1/4U-SS0060	30	5.20	343.2	257.4	205.9	171.6	147.1	128.7	114.4	103.0	93.6	85.8
	40	6.00	396.0	297.0	237.6	198.0	169.7	148.5	132.0	118.8	108.0	99.0
	50	6.71	442.9	332.1	265.7	221.4	189.8	166.1	147.6	132.9	120.8	110.7
	60	7.35	485.1	368.8	291.1	242.6	207.9	181.9	161.7	145.5	132.3	121.3
	70	7.94	524.0	393.0	314.4	262.0	224.6	196.5	174.7	157.2	142.9	131.0
	80	8.49	560	420.3	336.2	280.2	240.1	210.1	186.8	168.1	152.8	140.0

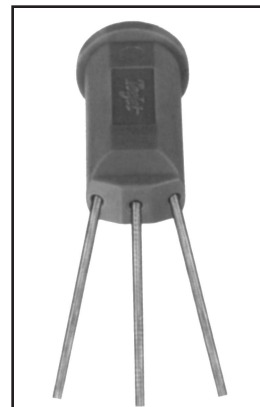
StreamJet® SJ3 Fertilizer Nozzles

Typical Applications:

- Excellent for application of liquid fertilizer on bare ground or in standing crop.
- 3-stream pattern is ideal for directed application

Features:

- VisiFlo® color-coding system
- Three solid streams of equal velocity and capacity
- Removable metering orifice for easy cleaning
- Ten sizes for a wide range of application rates
- Equally spaced distribution at 20"
- Use with Quick TeeJet® cap 25598-*-NYR
- All acetal construction for excellent chemical resistance
- Recommended operation pressure: 20-60 PSI
- Solid stream pattern minimizes leaf burn and virtually eliminates drift.



Tip Color	Tip No. (Strainer Screen Size)	Gallons per acre 20 Inch spacing												
		PSI	Capacity One Nozzle In GPM	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH
Green	SJ3-015-VP (100 Mesh)	20	0.11	10.9	8.2	6.5	5.4	4.1	3.3	2.7	2.3	2.0	1.8	1.6
		30	0.13	12.9	9.7	7.7	6.4	4.8	3.9	3.2	2.8	2.4	2.1	1.9
		40	0.15	14.9	11.1	8.9	7.4	5.6	4.5	3.7	3.2	2.8	2.5	2.2
		50	0.16	15.8	11.9	9.5	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.4
		60	0.17	16.8	12.6	10.1	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5
Yellow	SJ3-02-VP (50 Mesh)	20	0.14	13.9	10.4	8.3	6.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1
		30	0.17	16.8	12.6	10.1	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5
		40	0.20	19.8	14.9	11.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0
		50	0.21	21	15.6	12.5	10.4	7.8	6.2	5.2	4.5	3.9	3.5	3.1
		60	0.22	22	16.3	13.1	10.9	8.2	6.5	5.4	4.7	4.1	3.6	3.3
Blue	SJ3-03-VP (50 Mesh)	20	0.24	24	17.8	14.3	11.9	8.9	7.1	5.9	5.1	4.5	4.0	3.6
		30	0.27	27	20	16.0	13.4	10.0	8.0	6.7	5.7	5.0	4.5	4.0
		40	0.30	30	22	17.8	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5
		50	0.33	33	25	19.6	16.3	12.3	9.8	8.2	7.0	6.1	5.4	4.9
		60	0.35	35	26	21	17.3	13.0	10.4	8.7	7.4	6.5	5.8	5.2
Red	SJ3-04-VP (50 Mesh)	20	0.30	30	22	17.8	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5
		30	0.36	36	27	21	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3
		40	0.40	40	30	24	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9
		50	0.43	43	32	26	21	16.0	12.8	10.6	9.1	8.0	7.1	6.4
		60	0.47	47	35	28	23	17.4	14.0	11.6	10.0	8.7	7.8	7.0
Brown	SJ3-05-VP (50 Mesh)	20	0.36	36	27	21	17.8	13.4	10.7	8.9	7.6	6.7	5.9	5.3
		30	0.45	45	33	27	22	16.7	13.4	11.1	9.5	8.4	7.4	6.7
		40	0.50	50	37	30	25	18.6	14.9	12.4	10.6	9.3	8.3	7.4
		50	0.55	54	41	33	27	20	16.3	13.6	11.7	10.2	9.1	8.2
		60	0.59	58	44	35	29	22	17.5	14.6	12.5	11.0	9.7	8.8
Gray	SJ3-06-VP (50 Mesh)	20	0.42	42	31	25	21	15.6	12.5	10.4	8.9	7.8	6.9	6.2
		30	0.54	53	40	32	27	20	16.0	13.4	11.5	10.0	8.9	8.0
		40	0.60	59	45	36	30	22	17.8	14.9	12.7	11.1	9.9	8.9
		50	0.66	65	49	39	33	25	19.6	16.3	14.0	12.3	10.9	9.8
		60	0.70	69	52	42	35	26	21	17.3	14.9	13.0	11.6	10.4
White	SJ3-08-VP	20	0.56	55	42	33	28	21	16.6	13.9	11.9	10.4	9.2	8.3
		30	0.72	71	53	43	36	27	21	17.8	15.3	13.4	11.9	10.7
		40	0.80	79	59	48	40	30	24	19.8	17.0	14.9	13.2	11.9
		50	0.88	87	65	52	44	33	26	22	18.7	16.3	14.5	13.1
		60	0.94	93	70	56	47	35	28	23	19.9	17.4	15.5	14.0
Lt Blue	SJ3-10-VP	20	0.65	64	48	39	32	24	19.3	16.1	13.8	12.1	10.7	9.7
		30	0.90	89	67	53	45	33	27	22	19.1	16.7	14.9	13.4
		40	1.00	99	74	59	50	37	30	25	21	18.6	16.5	14.9
		50	1.11	110	82	66	55	41	33	27	24	21	18.3	16.5
		60	1.19	118	88	71	59	44	35	29	25	22	19.6	17.7
Lt Green	SJ3-15-VP	20	0.99	98	74	59	49	37	29	25	21	18.4	16.3	14.7
		30	1.24	123	92	74	61	46	37	31	26	23	20	18.4
		40	1.50	149	111	89	74	56	45	37	32	28	25	22
		50	1.68	166	125	100	83	62	50	42	36	31	28	25
		60	1.83	181	136	109	91	68	54	45	39	34	30	27
Black	SJ3-20-VP	20	1.41	140	105	84	70	52	42	35	30	26	23	21
		30	1.75	173	130	104	87	65	52	43	37	32	29	26
		40	2.00	198	149	119	99	74	59	50	42	37	33	30
		50	2.28	226	169	135	113	85	68	56	48	42	38	34
		60	2.49	247	185	148	123	92	74	62	53	46	41	37

SJ-3 Fertilizer Nozzles

PART #	DESCRIPTION
A620X	SJ3-015-VP
A621X	SJ3-02-VP
A622X	SJ3-03-VP
A623X	SJ3-04-VP
A624X	SJ3-05-VP
A625X	SJ3-06-VP
A626X	SJ3-08-VP
A627X	SJ3-10-VP
A628X	SJ3-15-VP
A629X	SJ3-20-VP

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

AI Quick TeeJet Caps

PART#	DESCRIPTION
A662X	BLACK CAP & GASKET
A663X	YELLOW CAP & GASKET
A664X	BLUE CAP & GASKET
A665X	RED CAP & GASKET
A666X	BROWN CAP & GASKET
A660X	GREEN CAP & GASKET
A661X	WHITE CAP & GASKET

StreamJet® SJ7 Fertilizer Nozzles

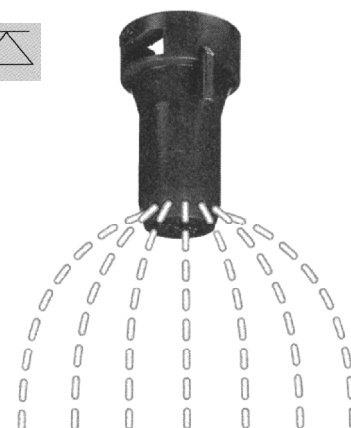
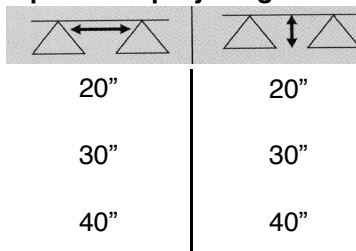
Typical Applications:

- Excellent for application of liquid fertilizer on bare ground or in standing crop.
- 7-stream pattern is ideal for broadcast application

Features:

- Creates seven identical fluid streams of equal velocity and capacity
- Excellent spray distribution quality
- Removable metering orifice for easy cleaning
- Offered in a variety of sizes for a wide range of application rates
- VisiFlo® color-coding for easy capacity identification
- All acetal construction for excellent chemical resistance
- Recommended operation pressure: 20-60 PSI
- Solid stream pattern minimizes leaf burn and virtually eliminates drift.

Optimum Spray Height



Tip Color	Tip No. (Strainer Screen Size)			Gallons per acre 20 Inch spacing											
		PSI	Capacity One Nozzle in GPM	3 MPH	4 MPH	5 MPH	6 MPH	8 MPH	10 MPH	12 MPH	14 MPH	16 MPH	18 MPH	20 MPH	
Green	SJ7-015-VP (100 Mesh)	20	0.10	9.9	7.4	5.9	5.0	3.7	3.0	2.5	2.1	1.9	1.7	1.5	
		30	0.12	11.9	8.9	7.1	5.9	4.4	3.6	3.0	2.5	2.2	2.0	1.8	
		40	0.15	14.9	11.1	8.9	7.4	5.6	4.5	3.7	3.2	2.8	2.5	2.2	
		50	0.16	15.8	11.9	9.5	7.9	5.9	4.8	4.0	3.4	3.0	2.6	2.2	
		60	0.18	17.8	13.4	10.7	8.9	6.7	5.3	4.5	3.8	3.3	3.0	2.7	
Yellow	SJ7-02-VP (50 Mesh)	20	0.14	13.9	10.4	8.3	6.9	5.2	4.2	3.5	3.0	2.6	2.3	2.1	
		30	0.17	16.8	12.6	10.1	8.4	6.3	5.0	4.2	3.6	3.2	2.8	2.5	
		40	0.20	19.8	14.9	11.9	9.9	7.4	5.9	5.0	4.2	3.7	3.3	3.0	
		50	0.23	23	17.1	13.7	11.4	8.5	6.8	5.7	4.9	4.3	3.8	3.4	
		60	0.25	25	18.6	14.9	12.4	9.3	7.4	6.2	5.3	4.6	4.1	3.7	
Blue	SJ7-03-VP (50 Mesh)	20	0.22	22	16.3	1.1	10.9	8.2	6.5	5.4	4.7	4.1	3.6	3.3	
		30	0.27	27	20	16.0	13.4	10.0	8.0	6.7	5.7	5.0	4.5	4.0	
		40	0.30	30	22	17.8	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	
		50	0.33	33	25	19.6	16.3	12.3	9.8	8.2	7.0	6.1	5.4	4.9	
		60	0.35	35	26	21	17	13.0	10.4	8.7	7.4	6.5	5.8	5.2	
Red	SJ7-04-VP (50 Mesh)	20	0.30	30	22	17.8	14.9	11.1	8.9	7.4	6.4	5.6	5.0	4.5	
		30	0.35	35	26	21	17.3	13.0	10.4	8.7	7.4	6.5	5.8	5.2	
		40	0.40	40	30	24	19.8	14.9	11.9	9.9	8.5	7.4	6.6	5.9	
		50	0.43	43	32	26	21	16.0	12.8	10.6	9.1	8.0	7.1	6.4	
		60	0.46	46	34	27	23	17.1	13.7	11.4	9.8	8.5	7.6	6.8	
Brown	SJ7-05-VP (50 Mesh)	20	0.38	38	28	23	18.8	14.1	11.3	9.4	8.1	7.1	6.3	5.6	
		30	0.45	45	33	27	22	16.7	13.4	11.1	9.5	8.4	7.4	6.7	
		40	0.50	50	37	30	25	18.6	14.9	12.4	10.6	9.3	8.3	7.4	
		50	0.54	53	40	32	27	20	16.0	13.4	11	10.0	8.9	8.0	
		60	0.58	57	43	34	29	22	17.2	14.4	12.3	10.8	9.6	8.6	
Gray	SJ7-06-VP (50 Mesh)	20	0.45	45	33	27	22	16.7	13.4	11.1	9.5	8.4	7.4	6.7	
		30	0.54	53	40	32	27	20	16.0	13.4	11.5	10.0	8.9	8.0	
		40	0.60	59	45	36	30	22	17.8	14.9	12.7	11.1	9.9	8.9	
		50	0.65	64	48	39	32	24	19.3	16.1	13.8	12.1	10.7	9.7	
		60	0.70	69	52	42	35	26	21	17.3	14.9	13.0	11.6	10.4	
White	SJ7-08-VP (50 Mesh)	20	0.57	56	42	34	28	21	16.9	14.1	12.1	10.6	9.4	8.5	
		30	0.72	71	53	43	36	27	21	17.8	15.3	13.4	11.9	10.7	
		40	0.80	79	59	48	40	30	24	19.8	17.0	14.9	13.2	11.9	
		50	0.87	86	65	52	43	32	26	22	18.5	16.1	14.4	12.9	
		60	0.93	92	69	55	46	35	28	23	19.7	17.3	15.3	13.8	
Lt Blue	SJ7-10-VP (50 Mesh)	20	0.71	70	53	42	35	26	21	17.6	15.1	13.2	11.7	10.5	
		30	0.90	89	67	53	45	33	27	22	19.1	16.7	14.9	13.4	
		40	1.00	99	74	59	50	37	30	25	21	18.6	16.5	14.9	
		50	1.09	108	81	65	54	40	32	27	23	20	18.0	16.2	
		60	1.16	115	86	69	57	43	34	29	25	20	19.1	17.2	
Lt Green	SJ7-15-VP (50 Mesh)	20	1.03	102	76	61	51	38	31	25	22	19.1	17.0	15.3	
		30	1.29	128	96	77	64	48	38	32	27	24	21	19.2	
		40	1.50	149	111	89	74	56	45	37	32	28	25	22	
		50	1.64	162	122	97	81	61	49	41	35	30	27	24	
		60	1.76	174	131	105	87	65	52	44	37	33	29	26	

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

SJ-7 Fertilizer Nozzles

PART #	DESCRIPTION
A590X	SJ7-015-VP
A591X	SJ7-02-VP
A592X	SJ7-03-VP
A593X	SJ7-04-VP
A594X	SJ7-05-VP
A595X	SJ7-06-VP
A596X	SJ7-08-VP
A597X	SJ7-10-VP
A598X	SJ7-15-VP



Flow Regulators

This orifice disc is used when metering or regulating the flow of chemicals. They are normally mounted behind soil knives for sub-surface application. Also used for dribble applications.



NOTE: Always insert Orifice Plate with side marked with number facing the outlet of the nozzle body.

MATERIAL: Stainless Steel

To find the GPA rate for spacings other than 20" multiply the rate in the table by the conversion factor for that spacing.

Conversion Factors Based on 20" Spacing									
Other Spacing	8"	10"	12"	14"	16"	18"	22"	24"	30"
Conversion Factors	2.5	2.0	1.67	1.43	1.25	1.11	0.91	0.83	0.66

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A601X	4916-15	5	.010	.99	.74	.59	.50	.37
		10	.014	1.4	1.0	.83	.69	.52
		20	.020	2.0	1.5	1.2	.99	.74
		30	.025	2.5	1.9	1.5	1.2	.93
A601AX	4916-16	5	.012	1.2	.89	.71	.59	.45
		10	.016	1.6	1.2	.95	.79	.59
		20	.023	2.3	1.7	1.4	1.1	.85
		30	.028	2.8	2.1	1.7	1.4	1.0
A602X	4916-20	5	.018	1.8	1.3	1.1	.89	.67
		10	.026	2.6	1.9	1.5	1.3	.97
		20	.037	3.7	2.7	2.2	1.8	1.4
		30	.045	4.5	3.3	2.7	2.2	1.7
A602CX	4916-22	5	.022	2.2	1.6	1.3	1.1	.82
		10	.031	3.1	2.3	1.8	1.5	1.2
		20	.043	4.3	3.2	2.6	2.1	1.6
		30	.053	5.2	3.9	3.1	2.6	2.0
A602BX	4916-24	5	.026	2.6	1.9	1.5	1.3	.97
		10	.037	3.7	2.7	2.2	1.8	1.4
		20	.052	5.1	3.9	3.1	2.6	1.9
		30	.064	6.3	4.8	3.8	3.2	2.4
A602DX	4916-25	5	.028	2.8	2.1	1.7	1.4	1.0
		10	.040	4.0	3.0	2.4	2.0	1.5
		20	.056	5.5	4.2	3.3	2.8	2.1
		30	.068	6.7	5.0	4.0	3.4	2.5
A601BX	4916-26	5	.030	3.0	2.3	1.8	1.5	1.1
		10	.043	4.2	3.2	2.6	2.1	1.6
		20	.061	6.0	4.5	3.6	3.0	2.3
		30	.074	7.4	5.5	4.4	3.7	2.8
A602EX	4916-28	5	.035	3.5	2.6	2.1	1.7	1.3
		10	.049	4.9	3.6	2.9	2.4	1.8
		20	.069	6.8	5.1	4.1	3.4	2.6
		30	.085	8.4	6.3	5.0	4.2	3.2
A602FX	4916-29	5	.038	3.8	2.8	2.3	1.9	1.4
		10	.054	5.3	4.0	3.2	2.7	2.0
		20	.076	7.5	5.7	4.5	3.8	2.8
		30	.093	9.2	6.9	5.5	4.6	3.5
A602AX	4916-30	5	.040	4.0	3.0	2.4	2.0	1.5
		10	.057	5.6	4.2	3.4	2.8	2.1
		20	.081	8.0	6.0	4.8	4.0	3.0
		30	.099	9.8	7.4	5.9	4.9	3.7
A603EX	4916-31	5	.043	4.3	3.2	2.6	2.1	1.6
		10	.061	6.1	4.6	3.6	3.0	2.3
		20	.087	8.6	6.4	5.1	4.3	3.2
		30	.106	10.5	7.9	6.3	5.3	3.9
A603BX	4916-32	5	.048	4.8	3.6	2.9	2.4	1.8
		10	.067	6.6	5.0	4.0	3.3	2.5
		20	.095	9.4	7.1	5.6	4.7	3.5
		30	.116	11.5	8.6	6.9	5.7	4.3

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A603X	4916-35	5	.056	5.5	4.2	3.3	2.8	2.1
		10	.079	7.8	5.9	4.7	3.9	2.9
		20	.111	11.0	8.2	6.6	5.5	4.1
		30	.136	13.5	10.1	8.1	6.7	5.0
A603DX	4916-37	5	.061	6.0	4.5	3.6	3.0	2.3
		10	.086	8.5	6.4	5.1	4.2	3.2
		20	.121	12.0	9.0	7.2	6.0	4.5
		30	.148	14.7	11.0	8.8	7.4	5.5
A603CX	4916-39	5	.067	6.6	5.0	4.0	3.3	2.5
		10	.095	9.4	7.1	5.6	4.7	3.5
		20	.135	13.4	10.0	8.0	6.7	5.0
		30	.165	16.3	12.3	9.8	8.2	6.1
A603AX	4916-40	5	.072	7.1	5.3	4.3	3.6	2.7
		10	.102	10.1	7.6	6.1	5.0	3.8
		20	.144	14.3	10.7	8.6	7.1	5.3
		30	.177	17.5	13.1	10.5	8.8	6.6
A604X	4916-41	5	.074	7.3	5.5	4.4	3.7	2.7
		10	.105	10.4	7.8	6.2	5.2	3.9
		20	.149	14.8	11.1	8.9	7.4	5.5
		30	.182	18.0	13.5	10.8	9.0	6.8
A604AX	4916-43	5	.081	8.0	6.0	4.8	4.0	3.0
		10	.115	11.4	8.5	6.8	5.7	4.3
		20	.163	16.1	12.1	9.7	8.1	6.1
		30	.200	19.8	14.9	11.9	9.9	7.4
A605X	4916-45	5	.088	8.7	6.5	5.2	4.4	3.3
		10	.125	12.4	9.3	7.4	6.2	4.6
		20	.176	17.4	13.1	10.5	8.7	6.5
		30	.216	21.0	16.0	12.8	10.7	8.0
A605AX	4916-46	5	.095	9.4	7.1	5.6	4.7	3.5
		10	.135	13.4	10.0	8.0	6.7	5.0
		20	.191	18.9	14.2	11.3	9.5	7.1
		30	.233	23.0	17.3	13.8	11.5	8.7
A605BX	4916-47	5	.097	9.6	7.2	5.8	4.8	3.6
		10	.137	13.6	10.2	8.1	6.8	5.1
		20	.194	19.2	14.4	11.5	9.6	7.2
		30	.238	24.0	17.7	14.1	11.8	8.8
A605DX	4916-48	5	.101	10.0	7.5	6.0	5.0	3.8
		10	.143	14.2	10.6	8.5	7.1	5.3
		20	.202	20.0	15.0	12.0	10.0	7.5
		30	.247	25.0	18.4	14.7	12.3	9.2

NOTE: Always double check your application rates.
Tabulations are based on spraying water at 70°F

* Indicates Gallons Per Acre coverage based on water.
See page 80 for conversion factors for other weight solutions.



Flow Regulators

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A605CX	4916-49	5	.104	10.3	7.7	6.2	5.1	3.9
		10	.147	14.6	10.9	8.7	7.3	5.5
		20	.208	21.0	15.4	12.4	10.3	7.7
		30	.255	25.0	18.9	15.1	12.6	9.5
A606X	4916-51	5	.116	11.5	8.6	6.9	5.7	4.3
		10	.164	16.2	12.2	9.7	8.1	6.1
		20	.232	23.0	17.2	13.8	11.5	8.6
		30	.284	29.0	21	16.9	14.1	10.5
A606AX	4916-52	5	.118	11.7	8.8	7.0	5.8	4.4
		10	.167	16.5	12.4	9.9	8.3	6.2
		20	.237	23.0	17.6	14.1	11.7	8.8
		30	.290	29.0	22	17.2	14.4	10.8
A606BX	4916-54	5	.127	12.6	9.4	7.5	6.3	4.7
		10	.180	17.8	13.4	10.7	8.9	6.7
		20	.255	25.0	18.9	15.1	12.6	9.5
		30	.312	31.0	23	18.5	15.4	11.6
A607X	4916-55	5	.133	13.2	9.9	7.9	6.6	4.9
		10	.188	18.6	14.0	11.2	9.3	7.0
		20	.266	26.3	19.8	15.8	13.2	9.9
		30	.326	32.3	24.2	19.4	16.1	12.1
A607BX	4916-57	5	.141	14.0	10.5	8.4	7.0	5.2
		10	.200	19.8	14.9	11.9	9.9	7.4
		20	.283	28.0	21.0	16.8	14.0	10.5
		30	.346	34.3	25.7	20.6	17.1	12.8
A607AX	4916-59	5	.152	15.0	11.3	9.0	7.5	5.6
		10	.215	21.3	16.0	12.8	10.6	8.0
		20	.304	30.1	22.6	18.1	15.0	11.3
		30	.372	36.8	27.6	22.1	18.4	13.8
A607CX	4916-61	5	.166	16.3	12.3	9.8	8.2	6.1
		10	.233	23.1	17.3	13.8	11.5	8.7
		20	.330	32.7	24.5	19.6	16.3	12.3
		30	.404	40.0	30.0	24.0	20.0	15.0
A608X	4916-63	5	.174	17.2	12.9	10.3	8.6	6.5
		10	.246	24.4	18.3	14.6	12.2	9.1
		20	.347	34.4	25.8	20.6	17.2	12.9
		30	.425	42.1	31.6	25.2	21.0	15.8
A608AX	4916-65	5	.185	18.3	13.7	11.0	9.2	6.9
		10	.261	25.8	19.4	15.5	12.9	9.7
		20	.369	36.5	27.4	21.9	18.3	13.7
		30	.452	44.7	33.6	26.8	22.4	16.8

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A608BX	4916-67	5	.196	19.4	14.6	11.7	9.7	7.3
		10	.278	27.0	21.0	16.5	13.7	10.3
		20	.393	39.0	29.0	23.0	19.4	14.6
		30	.481	48.0	36.0	29.0	24.0	17.9
A609X	4916-70	5	.216	21.4	16.0	12.8	10.7	8.0
		10	.306	30.3	22.7	18.2	15.1	11.4
		20	.433	42.9	32.2	25.7	21.4	16.1
		30	.530	52.5	39.4	31.5	26.2	19.7
A609DX	4916-72	5	.226	22.4	16.8	13.4	11.2	8.4
		10	.320	31.7	23.8	19.0	15.8	11.9
		20	.453	44.8	33.6	26.9	22.4	16.8
		30	.554	54.8	41.1	32.9	27.4	20.6
A609FX	4916-73	5	.233	23.1	17.3	13.8	11.5	8.7
		10	.330	32.7	24.5	19.6	16.3	12.3
		20	.467	46.2	34.7	27.7	23.1	17.3
		30	.572	56.6	42.5	34.0	28.3	21.1
A609AX	4916-75	5	.245	24.3	18.2	14.6	12.1	9.1
		10	.347	34.4	25.8	20.6	17.2	12.9
		20	.491	48.6	36.5	29.2	24.3	18.2
		30	.601	59.5	44.6	35.7	29.7	22.3
A609CX	4916-78	5	.272	26.9	20.2	16.2	13.5	10.1
		10	.385	37.1	28.6	22.9	19.1	14.3
		20	.544	53.9	40.4	32.3	26.9	20.2
		30	.667	66.0	49.5	39.6	33.0	24.8
A609BX	4916-80	5	.280	27.7	20.8	16.6	13.9	10.4
		10	.397	39.3	29.5	23.6	19.7	14.7
		20	.561	55.5	41.7	33.3	27.8	20.8
		30	.687	68.0	51.0	40.8	34.0	25.5
A609GX	4916-81	5	.290	28.7	21.5	17.2	14.4	10.8
		10	.411	40.7	30.5	24.4	20.3	15.3
		20	.581	57.5	43.1	34.5	28.8	21.6
		30	.711	70.4	52.8	42.2	35.2	26.4
A609HX	4916-83	5	.318	31	24	18.9	15.7	11.8
		10	.449	44	33	27	22	16.7
		20	.635	63	47	38	31	24
		30	.778	77	58	46	39	29
A609EX	4916-86	5	.332	33	25	19.7	16.4	12.3
		10	.470	47	35	28	23	17.4
		20	.664	66	49	39	33	25
		30	.813	80	60	48	40	30

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

* Indicates Gallons Per Acre coverage based on water.
See page 80 for conversion factors for other weight solutions.



Flow Regulators

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A610DX	4916-89	5	.346	34	26	21	17.2	12.9
		10	.490	49	36	29	24	18.2
		20	.693	69	51	41	34	26
		30	.849	84	63	50	42	32
A610X	4916-91	5	.369	37	27	22	18.3	13.7
		10	.523	52	39	31	26	19.4
		20	.739	73	55	44	37	27
		30	.905	90	67	54	45	34
A610AX	4916-93	5	.387	38	29	23	19.2	14.4
		10	.547	54	41	32	27	20
		20	.774	77	57	46	38	29
		30	.948	94	70	56	47	35
A610BX	4916-95	5	.404	40	30	24	20	15.0
		10	.572	57	42	34	28	21
		20	.808	80	60	48	40	30
		30	.990	98	74	59	49	37
A610CX	4916-98	5	.442	44	33	26	22	16.4
		10	.625	62	46	37	31	23
		20	.884	88	66	53	44	33
		30	1.08	107	80	64	53	40
A611X	4916-103	5	.461	46	34	27	23	17.1
		10	.653	65	48	39	32	24
		20	.923	91	69	55	46	34
		30	1.13	112	84	67	56	42
A611BX	4916-107	5	.518	51	38	31	26	19.2
		10	.733	73	54	44	36	27
		20	1.04	103	77	62	51	39
		30	1.27	126	94	75	63	47
A611CX	4916-110	5	.548	54	41	33	27	20
		10	.775	77	58	46	38	29
		20	1.10	109	82	65	54	41
		30	1.34	133	99	80	66	50
A611DX	4916-115	5	.605	60	45	36	30	22
		10	.855	85	63	51	42	32
		20	1.21	120	90	72	60	45
		30	1.48	147	110	88	73	55
A612X	4916-120	5	.629	62	47	37	31	23
		10	.890	88	66	53	44	33
		20	1.26	125	94	75	62	47
		30	1.54	152	114	91	76	57
A612BX	4916-125	5	.693	69	51	41	34	26
		10	.980	97	73	58	49	36
		20	1.39	137	103	82	69	51
		30	1.7	168	126	101	84	63

Part #	Orifice plate No.	Pressure In PSI	Capacity 1 Nozzle in GPM	Gallons Per Acre* 20" Row Spacing				
				3 MPH	4 MPH	5 MPH	6 MPH	8 MPH
A612AX	4916-128	5	.722	71	54	43	36	27
		10	1.02	101	76	61	51	38
		20	1.44	143	107	86	71	54
		30	1.77	175	131	105	88	66
A613X	4916-140	5	.894	89	66	53	44	33
		10	1.27	126	94	75	63	47
		20	1.79	177	133	106	89	66
		30	2.19	217	163	130	108	81
A613AX	4916-144	5	.927	92	69	55	46	34
		10	1.31	130	97	78	65	49
		20	1.85	183	138	110	92	69
		30	2.27	225	169	135	112	84
A613BX	4916-156	5	1.10	109	82	65	54	41
		10	1.55	153	115	92	77	58
		20	2.20	218	163	131	109	82
		30	2.69	266	200	160	133	100
A614X	4916-177	5	1.41	140	105	84	70	52
		10	2.00	198	149	119	99	74
		20	2.83	280	210	168	140	105
		30	3.46	343	257	206	171	128
A618X	4916-196	5	1.73	171	128	103	86	64
		10	2.45	243	182	146	121	91
		20	3.46	343	257	206	171	128
		30	4.24	420	315	252	210	157
A615X	4916-218	5	2.11	209	157	125	104	78
		10	2.98	295	221	177	148	111
		20	4.21	417	313	250	208	156
		30	5.16	511	383	307	255	192
A616X	4916-250	5	2.83	280	210	168	140	105
		10	4.00	396	297	238	198	149
		20	5.66	560	420	336	280	210
		30	6.93	686	515	412	343	257

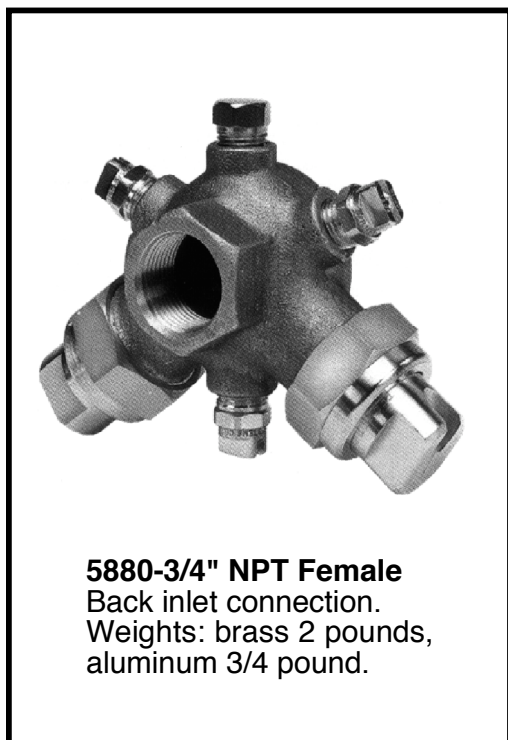
Part #	Description
A690X	Gasket, Disc Core

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

* Indicates Gallons Per Acre coverage based on water.
See page 80 for conversion factors for other weight solutions.

BoomJet®

Boomless Nozzles with Extra Wide Flat Spray Projection



5880-3/4" NPT Female
Back inlet connection.
Weights: brass 2 pounds,
aluminum 3/4 pound.

Type 5880 BoomJet Nozzle is used for spraying areas not easily accessed with a boom sprayer. It combines two off-center tips and three VeeJet® nozzles to produce an overall wide swath flat spray. The nozzle assembly provides good distribution considering the wide pattern coverage obtained; however, the uniformity is not as good as with a properly operated boom sprayer. Supplied with one additional 1/4" NPT pipe plug and one blank tip for setting BoomJet to one side only. Also has a 1/4" NPT pressure gauge port.



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

Part #	BoomJet Nozzle No.	OC Tips (Two)	VeeJet Top Nozzles (Two)	VeeJet Bottom Nozzle	Liquid Pressure psi	Nozzle Capacity GPM	"W" in feet	Gallons Per Acre				
								4 mph	5 mph	7.5 mph	10 mph	15 mph
A455X	5880-3/4-2TOC06	#6733-OC06	H1/4VV-1506	H1/4VVL-9502 with 50 mesh strainer	20	1.84	33.5	6.8	5.4	3.6	2.7	1.8
					30	2.25	34	8.2	6.6	4.4	3.3	2.2
					40	2.60	34.5	9.3	7.5	5.0	3.7	2.5
A456X	5880-3/4-2TOC10	OC10	H1/4U-0508HE	H1/4VVL-11004 with 50 mesh strainer	20	2.83	39.5	8.9	7.1	4.7	3.5	2.4
					30	3.46	40	10.7	8.6	5.7	4.3	2.9
					40	4.00	40.5	12.2	9.8	6.5	4.9	3.3
A457X	5880-3/4-2TOC20	OC20	H1/4U-0520HE	H1/4VVL-9506 with 50 mesh strainer	20	6.08	47	16.0	12.8	8.5	6.4	4.3
					30	7.45	50	18.4	14.8	9.8	7.4	4.9
					40	8.60	52	20	16.4	10.9	8.2	5.5
A458X	5880-3/4-2TOC40	OC40	H1/4U-0540HE	H1/4U-9510	20	12.0	56	27	21	14.1	10.6	7.1
					30	14.7	60	30	24	16.2	12.1	8.1
					40	17.0	63	33	27	17.8	13.4	8.9

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

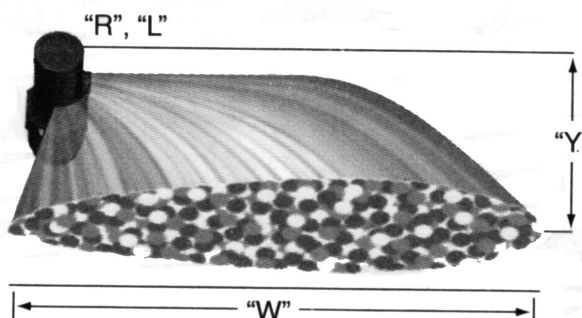
XP BoomJet® Boomless Flat Spray Nozzles

Typical Applications

- Boomless field spray applications
- Roadside and right-of-way applications.
- End row spraying
- Orchard spraying.
- De-icing Applications.
- Forestry.

Features:

- Unique orifice geometry produces wide spray pattern while maintaining superior distribution across entire width.
- Pre-orifice design minimizes drift.
- Extra wide spray pattern - up to 18.5 feet - using a single nozzle.
- Removable polymer pre-orifice.
- Acetal or stainless steel construction for excellent chemical resistance.
- Recommended spray pressure range: 20-60 PSI.



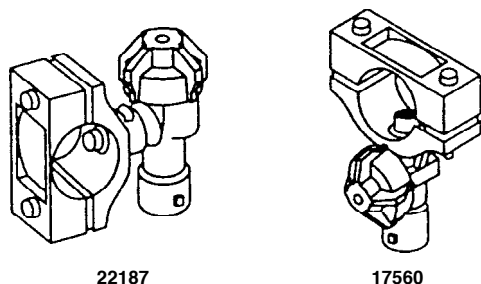
Part #	Tip & Pre-Orifice Color	Tip No.	Thread Size (NPT & BSPT)	Liquid Pressure In PSI	Capacity 1 Nozzle In GPM	Spray Width "W" (ft)		Gallons Per Acre (Single Nozzle)- 24" Height						Gallons Per Acre (Single Nozzle) - 36" Height					
						24" Height	36" Height	4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH	4 MPH	6 MPH	8 MPH	10 MPH	15 MPH	20 MPH
A430RX	Orange	1/4XP10R-VP	1/4"	20	0.71	8.5	10.0	10.3	6.9	5.2	4.1	2.8	2.1	8.8	5.9	4.4	3.5	2.3	1.8
A430LX		1/4XP10L-VP		30	0.87	10.0	11.0	10.8	7.2	5.4	4.3	2.9	2.2	9.8	6.5	4.9	3.9	2.6	2.0
				40	1.00	11.0	12.5	11.3	7.5	5.6	4.5	3.0	2.3	9.9	6.6	5.0	4.0	2.6	2.0
				50	1.12	12.5	13.5	11.1	7.4	5.5	4.4	3.0	2.2	10.3	6.8	5.1	4.1	2.7	2.1
				60	1.22	13.0	14.5	11.6	7.7	5.8	4.6	3.1	2.3	10.4	6.9	5.2	4.2	2.8	2.1
A431RX	Yellow	1/4XP20R-VP	1/4"	20	1.42	9.0	11.0	19.5	13.0	9.8	7.8	5.2	3.9	16.0	10.7	8.0	6.4	4.3	3.2
A431LX		1/4XP20L-VP		30	1.75	11.5	12.0	18.8	12.6	9.4	7.5	5.0	3.8	18.0	12.0	9.0	7.2	4.8	3.6
				40	2.00	13.5	14.0	18.3	12.2	9.2	7.3	4.9	3.7	17.7	11.8	8.8	7.1	4.7	3.5
				50	2.25	14.5	15.0	19.2	12.8	9.6	7.7	5.1	3.8	18.6	12.4	9.3	7.4	5.0	3.7
				60	2.50	15.0	16.0	21.0	13.8	10.3	8.3	5.5	4.1	19.3	12.9	9.7	7.7	5.2	3.9
A433RX	Violet	1/4XP25R-VP	1/4"	20	1.74	10.5	11.0	21.0	13.7	10.3	8.2	5.5	4.1	19.6	13.1	9.8	7.8	5.2	3.9
A433LX		1/4XP25L-VP		30	2.13	12.0	13.5	22.0	14.6	11.0	8.8	5.9	4.4	19.5	13.0	9.8	7.8	5.2	3.9
				40	2.50	13.5	14.5	23.0	15.3	11.5	9.2	6.1	4.6	21.0	14.2	10.7	8.5	5.7	4.3
				50	2.75	14.5	15.0	23.0	15.6	11.7	9.4	6.3	4.7	23.0	15.1	11.3	9.1	6.1	4.5
				60	3.00	15.0	16.0	25.0	16.5	12.4	9.9	6.6	5.0	23.0	15.5	11.6	9.3	6.2	4.6
A435RX	Red	1/2XP40R-VP	1/2"	20	2.87	11.0	12.0	32.0	22.0	16.1	12.9	8.6	5	30.0	19.7	14.8	11.8	7.9	5.9
A435LX		1/2XP40L-VP		30	3.53	13.0	14.5	34.0	22.0	16.8	13.4	9.0	6.7	30.0	20.0	15.1	12.1	8.0	6.0
				40	4.00	14.0	15.5	35.0	24.0	17.7	14.1	9.4	7.1	32.0	21.0	16.0	12.8	8.5	6.4
				50	4.55	15.0	16.0	38.0	25.0	18.8	15.0	10.0	7.5	35.0	23.0	17.6	14.1	9.4	7.0
				60	5.00	16.0	17.5	39.0	26.0	19.3	15.5	10.3	7.7	35.0	24.0	17.7	14.1	9.4	7.1
A437RX	White	1/2XP80R-VP	1/2"	20	5.60	13.0	15.5	53.0	36.0	27.0	21.0	14.2	10.7	45.0	30.0	22.0	17.9	11.9	8.9
A437LX		1/2XP80L-VP		30	6.83	15.0	16.5	56.0	38.0	28.0	23.0	15.0	11.3	51.0	34.0	26.0	20.0	13.7	10.2
				40	8.00	16.0	17.5	62.0	41.0	31.0	25.0	16.5	12.4	57.0	38.0	28.0	23.0	15.1	11.3
				50	8.73	16.5	18.0	65.0	44.0	33.0	26.0	17.5	13.1	60.0	40.0	30.0	24.0	16.0	12.0
				60	9.60	17.5	18.5	68.0	45.0	34.0	27.0	18.1	13.6	64.0	43.0	32.0	26.0	17.1	12.8

NOTE: Always double check your application rates. Tabulations are based on spraying water at 70°F

Quick TeeJet®

Diaphragm Check Valve Wet Boom Nozzle Assemblies

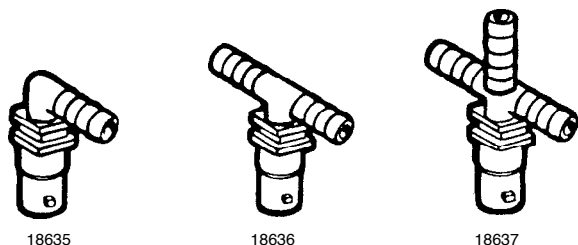
- Can be mounted to 3/4" or 1" pipe or equivalent size tubing.
- Includes ChemSaver® drip-free shutoff.
- Requires 10 psi at the nozzle to open check valve.
- Mounts to a 3/8" hole drilled in pipe or tubing.
- Maximum operating pressure of 300 psi.
- 1/2" and 3/4" sizes include a mounting hole in upper clamp subassembly for mounting to flat surfaces.



PART #	MFG #	DESCRIPTION
A249FX	QJ22187-3/4-NYB	3/4" WET BOOM BODY W/DIA
A249HX	QJ22187-1-NYB	1" WET BOOM BODY W/DIA
A249KX	QJ17560-3/4"-NYB	3/4" WET BOOM BODY W/DIA
A249IX	QJ17560-1-NYB	1" WET BOOM BODY W/DIA

QJ100 Series Quick TeeJet Nozzle Assemblies

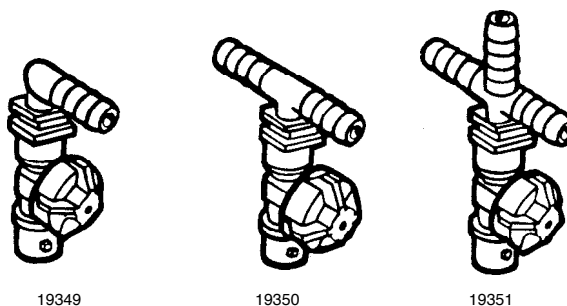
- Hose barb sizes for 3/8", 1/2" or 3/4" I.D. hose
- Maximum operating pressure is 125 psi.



PART #	MFG #	DESCRIPTION
A248BX	18635-111-406 NYB	SINGLE 3/8" Nozzle Body
A244BX	18636-112-406 NYB	DOUBLE 3/8" Nozzle Body
A248DX	18637-113-406 NYB	TRIPLE 3/8" Nozzle Body
A249BX	18638-111-540 NYB	SINGLE 1/2" Nozzle Body
A244CX	18639-112-540 NYB	DOUBLE 1/2" Nozzle Body
A245EX	18640-113-540 NYB	TRIPLE 1/2" Nozzle Body
A248CX	18719-111-785 NYB	SINGLE 3/4" Nozzle Body
A248EX	18720-112-785 NYB	DOUBLE 3/4" Nozzle Body
A248FX	18721-113-785 NYB	TRIPLE 3/4" Nozzle Body

QJ200 Series Diaphragm Check Valve Quick TeeJet Nozzle Assemblies

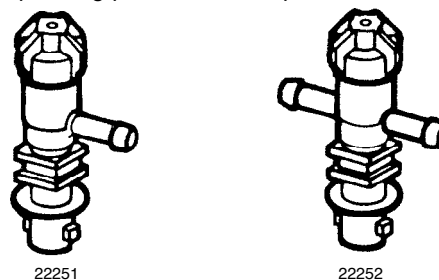
- Drip-free shutoff.
- Opening pressure is 10 psi.
- Maximum operating pressure is 125 psi.
- Available in single, double or triple hose shanks.



PART #	MFG #	DESCRIPTION
A241X	19349-211-406 NYB	SINGLE 3/8" Nozzle Body
A241AX	19350-212-406 NYB	DOUBLE 3/8" Nozzle Body
A241BX	19351-213-406 NYB	TRIPLE 3/8" Nozzle Body
L6633638X	CP21953-EPR	DIAPHRAGM ONLY (EPDM)
L6649520X	CP21953-VI	DIAPHRAGM ONLY (VITON)
L6633637X	21950-10-NYB	10 PSI DIAPHRAGM CAP ONLY
L6633637AX	21950-2-NYB	2 PSI DIAPHRAGM CAP ONLY
L6633637BX	21950-5-NYB	5 PSI DIAPHRAGM CAP ONLY

QJ300 Series Diaphragm Check Valve Quick TeeJet Nozzle Assemblies

- Low profile design allows maximum protection against damage.
- Available with single and double hose shanks for 3/8", 1/2" and 3/4" I.D. hose.
- Opening pressure is 10 psi.
- Drip-free shutoff.
- Maximum operating pressure is 300 psi.



PART #	MFG#	DESCRIPTION
A246AX	22251-311-375 NYB	SINGLE 3/8" Nozzle Body
A244DX	22252-312-375 NYB	DOUBLE 3/8" Nozzle Body
A245CX	22251-311-500 NYB	SINGLE 1/2" Nozzle Body
A245BX	22252-312-500 NYB	DOUBLE 1/2" Nozzle Body
A245DX	19351-213-540 NYB	TRIPLE 1/2" Nozzle Body
L6630903X	22251-311-750 NYB	SINGLE 3/4" Nozzle Body
L6630904X	22252-312-750 NYB	DOUBLE 3/4" Nozzle Body
L6630905X	19351-213-785 NYB	TRIPLE 3/4" Nozzle Body
L6633638X	CP21953-EPR	DIAPHRAGM ONLY (EPDM)
L6649520X	CP21953-VI	DIAPHRAGM ONLY (VITON)
L6633637X	21950-10-NYB	10 PSI DIAPHRAGM CAP ONLY
L6633637AX	21950-2-NYB	2 PSI DIAPHRAGM CAP ONLY
L6633637BX	21950-5-NYB	5 PSI DIAPHRAGM CAP ONLY

Quick Teejet



Part #	MFG #	DESCRIPTION
A250BX	24230-1-540	1/2" Triple Nozzle Body Single Shank
A250CX	24230-2-540	1/2" Triple Nozzle Body Double Shank
A250DX	24230-1-785	3/4" Triple Nozzle Body Single Shank
A250EX	24230-2-785	3/4" Triple Nozzle Body Double Shank
A250KX	24231-NYB	1/4" MPT Triple Nozzle



Part #	MFG #	DESCRIPTION
A250IX	24216-3/4-NYB	3/4" Wet Boom Triple Nozzle Body
A250HX	24216-1-NYB	1" Wet Boom Triple Nozzle Body

HYPRO



Part #	MFG #	DESCRIPTION
LAG519562X	4012265	3 Nozzle Body 1" Wet Boom (Used on 7000 Series Spra Coupes)
L532468D1X	9950-0015	3 Nozzle Body 3/4" Wet Boom (Used on 4000 Series Spra Coupes)
A254PL	4223N-13523	5 Nozzle Body 3/4" Wet Boom
A268X	4223N-13524	5 Nozzle Body 1" Wet Boom
LAG609738X	4200-0004E	Diaphragm EPDM



Part #	MFG #	DESCRIPTION
A251AX	QJ363	3 Nozzle 1/2" Single Shank
A251BX	QJ363	3 Nozzle 1/2" Double Shank
A252AX	QJ363	3 Nozzle 3/4" Single Shank
A252BX	QJ363	3 Nozzle 3/4" Double Shank
A251CX	QJ365	5 Nozzle 1/2" Single Shank
A251DX	QJ365	5 Nozzle 1/2" Double Shank
A252CX	QJ365	5 Nozzle 3/4" Single Shank
A252DX	QJ365	5 Nozzle 3/4" Double Shank



Part #	MFG #	DESCRIPTION
A254LX	QJ363-3/4-NYB	3 Nozzle 3/4" Wet Boom
A254BX	QJ363-1-NYB	3 Nozzle 1" Wet Boom
A254PX	QJ363-F-1-NYB	3 Nozzle 1" Wet Boom w/Fert. Nozzle
A254AX	QJ365-3/4-NYB	5 Nozzle 3/4" Wet Boom
A254X	QJ365-1-NYB	5 Nozzle 1" Wet Boom
A254CX	QJ365-F-1-NYB	5 Nozzle 1" Wet Boom w/Fert. Nozzle (Used on GVM Sprayers)
A254GX	CP77172/110	Small O-Ring



Part #	MFG #	DESCRIPTION
A254HFX	QJ383-1-NYB	Hi-Flow Nozzle Body (Used on John Deere)
A254JDX	CP98488-VI	John Deere Nozzle Body Adapter
A253CX	CP98583-1-3/4-SS	Rapid Stop Insert QJ360C, QJ380, QJ380F 3/4" Pipe
A253DX	CP98583-1-1-SS	Rapid Stop Insert QJ360C, QJ380, QJ380F 1" Pipe
A253EX	CP98583-3-1-SS	Rapid Stop Insert QJ360F 1" Pipe Only
A 253FX	CP98583-2-3/4-SS	Rapid Stop Insert QJ17560A 3/4" Pipe
A253GX	CP98583-2-1-SS	Rapid Stop Insert QJ17560a 1" Pipe

Quick TeeJet®

Type QJT8360-NYB

- Permits use of Quick TeeJet System with standard 11/16"-16 TeeJet thread.
- Includes ChemSaver no-drip shutoff. Requires 10 psi at the nozzle to open check valve.
- Standard diaphragm of EPDM.
- Maximum operating pressure of 300 psi.



PART #	DESCRIPTION
A273BX	Q.J. ADAPTOR W/DIAPHRAGM CHECK & 11/16" FPT
A273DX	11/16" REPLACEMENT GASKET

Type QJ8360-NYB

- Allows use of Quick TeeJet System from 1/4" NPT female connections.
- Includes ChemSaver no-drip shutoff. Requires 10 psi at the nozzle to open check valve.
- Maximum operating pressure of 300 psi.



PART #	DESCRIPTION
L6631481X	Q.J. ADAPTOR W/DIAPHRAGM CHECK & 1/4" MPT

Type QJ1/4TT-NYB

- Allows use of Quick TeeJet System from 1/4" NPT female connections.
- Maximum operating pressure of 300 psi.



PART #	DESCRIPTION
A271BX	Q.J. ADAPTOR 1/4" MPT

Type 22674-1/4-NYB

- Allows use of Quick TeeJet System from 1/4" NPT female connections.
- Dust flange minimizes dirt buildup for easy cap removal and attachment.



PART #	DESCRIPTION
A273EX	Q.J. 45° ADAPTOR 1/4" MPT

Type QJ8360-NYB

- Allows use of Quick TeeJet System from 1/4" NPT Female connections.
- Includes ChemSaver no-drip shutoff. Requires 10 psi at the nozzle to open check valve.
- Side mounting provides protection of the nozzle body.
- Maximum operating pressure of 300 psi.



PART #	DESCRIPTION
A270X	Q.J. ADAPTOR W/DIAPHRAGM 1/4" FPT
A270AX	Q.J. ADAPTOR W/DIAPHRAGM 1/8" FPT

Type QJT-NYB & QJ1/4T-NYB

- Allows use of Quick TeeJet System from 1/4" NPT male connections.
- Permits use of Quick TeeJet System with standard 11/16"-16 TeeJet Thread.
- Maximum operating pressure of 300 psi.



PART #	DESCRIPTION
A273CX	Q.J. ADAPTOR 11/16" FPT
A273DX	11/16" REPLACEMENT GASKET
A271DX	Q.J. ADAPTOR 1/4" FPT

Quick TeeJet Caps

PART #	DESCRIPTION
L6630909X	BLACK CAP & GASKET
L6630909BX	BLUE CAP & GASKET
L6630909GX	GREEN CAP & GASKET
L6630909YX	YELLOW CAP & GASKET
L6630909RX	RED CAP & GASKET
L6630909OX	ORANGE CAP & GASKET
L6630909WX	WHITE CAP & GASKET
L6630909NX	BROWN CAP & GASKET
L6630909PX	PLUGGED CAP & GASKET
L6631550X	BLACK UNIVERSAL CAP & GASKET
A271FX	ADAPTER CAP 1/8" FPT
A271CX	ADAPTER CAP 1/4" FPT
A271GX	ADAPTER CAP 90° 1/4" FPT
A271HX	ADAPTER CAP 45° 1/4" FPT
L6630910X	EPDM GASKET ONLY
L6630910VX	VITON GASKET ONLY

The Quick TeeJet caps are designed with grooves that fit locating lugs on the nozzle body. Caps are made of nylon and are available for use with all TeeJet spray tips. Maximum operating pressure of 300 psi.



L6630909X



L6631550X



L6630910X



L6630909PX



A271CX



A271GX

TeeJet®

Hose Drops



NOTE:
QJ1/4 T_NYB can be attached to hose drops for use with Quick TeeJet caps.

Material:
Hose Drop - Nylon with Celson Quick TeeJet Cap and EPDM Gasket.

Hose drops connect to Quick TeeJet nozzle bodies and can also be used with swivels. Available in 15" and 24" lengths. Maximum operating pressure 125 psi.

PART #	DESCRIPTION
L6624991AX	QUICK JET DROP 15"
L6624991X	QUICK JET DROP 24"
A271DX	QJ ADAPTOR 1/4" FPT

TeeJet Nozzle Bodies

Type - TT
Male Inlet
Connection



PART #	MFG#	DESCRIPTION
A266BX	1322SS	1/4" MPT S.S.
A266X	8028NY	1/4" MPT NYLON
A265X		1/2" MPT NYLON
A271BX	QJ1/4TT	1/4" MPT

Type - T
female Inlet
Connection



PART #	MFG#	DESCRIPTION
A271AX	1321BR	1/4" FPT BRASS
A271EX	1321SS	1/4" FPT STAINLESS STEEL
A271X	12094NY	1/4" FPT NYLON
A273BX	QJT8360NY	11/16" W/DIAPHRAGM NYLON
A273CX	QJT-NY	11/16" W/O DIAPHRAGM NYLON

Swivel Nozzle Bodies

TeeJet swivel nozzle bodies are primarily for use with tips employed in row crop spraying. A locknut holds swivel bodies firmly in position at selected spray projection angle so they are not affected by jarring and vibration. For use at pressures up to 125 psi.



PART #	DESCRIPTION
A402AX	SINGLE SWIVEL 1/8" FPT - NYLON
A403X	DOUBLE SWIVEL 1/4" FPT - NYLON
A403AX	SINGLE SWIVEL 1/4" FPT - NYLON

Quick TeeJet Swivel Nozzle Bodies

QJ8600 swivel Quick TeeJet nozzle body assemblies provide the same spray tip adjustability of a standard TeeJet threaded swivel plus the quick change and self-aligning features of the Quick TeeJet System.



PART #	DESCRIPTION
L6631066X	Q.J. DOUBLE SWIVEL 1/4" FPT - NYLON
A403BX	Q.J. SINGLE SWIVEL 1/4" FPT - NYLON

TeeJet Hose Shanks

Fit all TeeJet nozzle caps, replacing spray tips. For attaching hose to nozzle body.



PART #	DESCRIPTION
A406X	1/4" HOSE SHANK - NYLON
A406SX	1/4" HOSE SHANK - STAINLESS STEEL
A407X	3/8" HOSE SHANK - NYLON
A407SX	3/8" HOSE SHANK - STAINLESS STEEL
A410X	1/2" HOSE SHANK - NYLON

HOSE SHANK NOZZLE BODIES

Designed to mount in an 11/16" I.D. hole in an angle iron etc...or through one of the prefabricated clamp assemblies.



Straight

PART #	DESCRIPTION
A243X	3/8" 1HB POLY
A243AX	1/2" 1HB POLY



Elbow

PART #	DESCRIPTION
A248X	3/8" L POLY
A249X	1/2" L POLY
A250X	3/4" L POLY
A251X	1" L POLY
A248AX	3/8" L BRASS
A249AX	1/2" L BRASS



Tee

PART #	DESCRIPTION
A244X	3/8" T POLY
A245X	1/2" T POLY
A246X	3/4" T POLY
A247X	1" T POLY
A244AX	3/8" T BRASS
A245AX	1/2" T BRASS



Cross

PART #	DESCRIPTION
A242AX	3/8" 3HB POLY
A242X	1/2" 3HB POLY
A242BX	3/4" 3HB POLY

CLAMP ASSEMBLIES

Consist of upper and lower clamps and bolt for use with Hose Shank Nozzle Bodies



PART #	DESCRIPTION
A255X	VSCR 1/2" ROUND PIPE
A256X	VSCR 3/4" ROUND PIPE
A257X	VSCR 1" ROUND PIPE
A258X	VSCR 1 1/4" ROUND PIPE
A259X	VSCR 1" SQUARE PIPE
A259AX	VSCR 1 1/4" SQUARE PIPE

VARI-SPACING CLAMPS

For use on all dry boom Quick TeeJet bodies



PART #	MFG#	DESCRIPTION
A255AX	QJ111-1/2	1/2" ROUND PIPE
A256AX	QJ111-3/4	3/4" ROUND PIPE
A257AX	QJ111-1	1" ROUND PIPE
A258AX	QJ111-1 1/4	1 1/4" ROUND PIPE
A260AX	QJ111SQ-3/4	3/4" SQUARE PIPE
A260X	QJ111SQ-1	1" SQUARE PIPE
A261X	QJ111SQ-1 1/4	1 1/4" SQUARE PIPE
A262X	QJ111SQ-1 1/2	1 1/2" SQUARE PIPE

CONTAINER RINSE NOZZLES



1

Fixed Rinse Nozzle
1/2" FPT
40 Orifices
Nylon Body

Rotating Rinse Nozzle
1/2" FPT



2

REF #	PART #	DESCRIPTION
1	A995X	FIXED CONTAINER RINSE NOZZLE
2	A997X	ROTATING CONTAINER RINSE NOZZLE

TANK RINSE NOZZLE



Rotating Rinse Nozzle
3/4" FPT
Provides 360 Degree Coverage
For Tanks Up To 10 Ft. Diameter
Self-lubricating & Self-flushing

PART #	DESCRIPTION
A996X	TANK RINSE NOZZLE

TEEJET NOZZLE CAP ADAPTERS

For attaching drop pipes or pipe extensions. Specify choice of 1/8", 1/4", and 3/8" NPT Female outlet connections.



PART #	MFG#	DESCRIPTION
A418BX	4676-BR1/4	1/4" BRASS
A418CX	4676-BR3/8	3/8" BRASS
A420AX	4676-NY1/8	1/8" NYLON
A420BX	4676-NY1/4	1/4" NYLON
A420CX	4676-SS1/4	1/4" STAINLESS STEEL

TEEJET STRAINERS

Strainer protects spray tip orifice from clogging and damage. Polypropylene or brass strainer body and cap with stainless steel mesh screen.



PART #	MFG#	DESCRIPTION
A275AX	5053BR	50 MESH BRASS
A275BX	5053BR	100 MESH BRASS
A273X	8079NY	50 MESH NYLON
A273AX	8079NY	100 MESH NYLON
A272GX	8079-PP-80	80 MESH NYLON

TEEJETNOZZLE CAPS



Secure interchangeable TeeJet tips to the various nozzle bodies. The winged TeeJet cap allows quick change of spray tips with no tool required.

PART #	MFG#	DESCRIPTION
A272AX	1325BR	NOZZLE CAP BRASS
A272X	8027NY	NOZZLE CAP NYLON
A272BX	45134	WINGED NOZZLE CAP NYLON
A272EX	1325SS	NOZZLE CAP STAINLESS STEEL
A272DX		NOZZLE CAP NYLON PLUGGED

TEEJET STRAINER/CHECK VALVES

Minimizes nozzle dripping, fits all TeeJet nozzles. Ball check opens at 5 PSI. Recommended for flow rates up to 0.8 GPM.



Note: Use of these ball check valves results in a pressure drop of 5 to 10 PSI depending on spring rating.

PART #	MFG#	DESCRIPTION
A277AX	4193BR	50 MESH BRASS
A277BX	4193BR	100 MESH BRASS
A276X	4193NY	50 MESH NYLON
A276AX	4193NY	100 MESH NYLON

NOZZLE BLANKS

No. CP3942 Plug Tip is used to temporarily shutoff selected nozzles by replacing spray tips with these plug tips. Quick, easy way to change spacing of nozzles along boom.

Materials: Brass, Polypropylene, or Stainless Steel



PART #	MFG#	DESCRIPTION
A413X	3942-BR	NOZZLE BLANK - BRASS
A414X		NOZZLE BLANK - POLY
A415X	3942-SS	NOZZLE BLANK - STAINLESS



For larger capacity TeeJet nozzles where strainers are not required. Ball check opens at 5 PSI, 10 PSI spring also available. Recommended for flow rates from .40 to 1.5 GPM. Made in choice of stainless steel or polypropylene with stainless steel ball and spring.

PART #	MFG#	DESCRIPTION
A278X	11750-SS	S.S CHECK VALVE
A278AX	11750-PP	POLY CHECK VALVE

BALL CHECK ASSEMBLY

This ball check assembly is ideal as an in-line valve to stop drip when applying chemicals. 10 PSI shut off pressure.



PART	MFG#	DESCRIPTION
A284X	NBC10	BALL CHECK ASSY 11/16" X 11/16"

DIAPHRAGM CHECK VALVES



Made of Nylon with Celcon bonnet. Check valve opens at 7 psi pressure. (M) inlet connection and (F) outlet connections. Choice of 1/2" and 3/4" NPT sizes. Large capacity flow rates: up to 10 GPM for 1/2" NPT size, up to 15 GPM for 3/4" NPT size. Overall length 3".

PART #	DESCRIPTION
A290X	12328-1/2" 10 GPM
A291X	12328-3/4" 15 GPM
A291AX	REPLACEMENT DIAPHRAGM
A291BX	REPLACEMENT DIAPHRAGM

DIAPHRAGM CHECK VALVE NOZZLE BODIES



Made of Nylon with Nylon/Polypropylene end cap assembly. Check valve opens at 10 psi pressure. 1/4" NPT (M) inlet connection. For flow rates up to 2 GPM. Overall length 2".

PART #	DESCRIPTION
A285X	8360-1/4" 2 GPM
A285AX	REPLACEMENT DIAPHRAGM

TEE-FEMALE THREAD WITH 1/4" GAUGE PORT



PART #	DESCRIPTION
E629AX	1/2" GAUGE TEE W/ 1/4" FPT GAUGE PORT
E629X	3/4" GAUGE TEE W/ 1/4" FPT GAUGE PORT
E629BX	1" GAUGE TEE W/ 1/4" FPT GAUGE PORT

PRESSURE GAUGES



2 1/2" DRY GAUGE

PART #	DESCRIPTION
A313X	0-60 GAUGE
A314X	0-100 GAUGE
A315X	0-200 GAUGE
A316X	0-400 GAUGE
R476X	0-60 STAINLESS
R477X	0-150 STAINLESS
R478X	0-400 STAINLESS

2 1/2" LIQUID GAUGE

PART #	DESCRIPTION
A318X	0-60 GAUGE
A319X	0-100 GAUGE
A320X	0-160 GAUGE
A321X	0-200 GAUGE
A322X	0-400 GAUGE
R476LX	0-60 STAINLESS
R477LX	0-160 STAINLESS
R478LX	0-400 STAINLESS

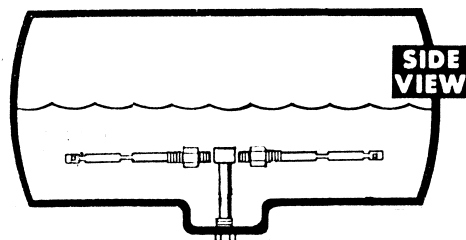
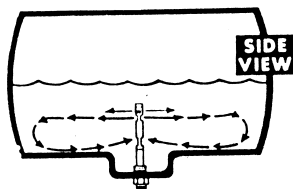
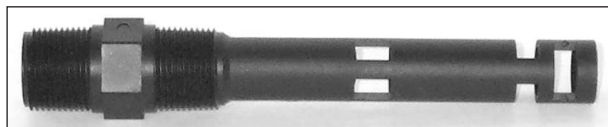
4" DRY GAUGE

PART #	DESCRIPTION
A317AX	0-60 GAUGE
A317X	0-100 GAUGE
R476AX	0-60 STAINLESS
R477AX	0-150 STAINLESS
R478AX	0-400 STAINLESS

4" LIQUID GAUGE

PART #	DESCRIPTION
A318AX	0-60 GAUGE
A319AX	0-100 GAUGE
R476LAX	0-60 STAINLESS
R477LAX	0-160 STAINLESS

SPRAY TANK JET AGITATOR

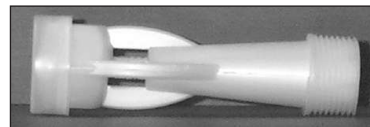


Adapts to your installation. Fits directly into 3/4" NPT tank opening. Mounts vertically or horizontally. Four nozzle sizes, 1/8", 5/32", 3/16" & 1/4", are included. Increases effective output flow up to 3 times the input for thorough agitation. 3/4" (M) NPT inlet.

PART #	DESCRIPTION
A308X	JET AGITATOR

"HYPRO" JET AGITATOR

No. 3371 HYPRO JET AGITATOR: Required for effective agitation of spray tanks. If properly installed will help keep spray materials from settling out. Low pressure unrestricted discharge reduces foaming. Supplied with three nozzle sizes, 1/8", 3/16", 5/32" and spacer ring. The MINIMUM requirement for each jet agitator is 2 GPM - preferably 3 GPM. 1/2" (F) NPT inlet, 3/4" (M) NPT outlet.



PART #	DESCRIPTION
A308BX	HYPRO 3371 JET AGITATOR

HIGH-VOLUME AGITATOR

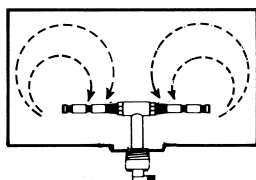


Hypro 3371-0028

Agitator output flow can be up to 5.5 times that of the inlet flow. Must be fed by separate line. Snap in interchangeable orifices included. 3/4" (M) NPT.

PART #	DESCRIPTION
A308CX	HYPRO HIGH VOLUME AGITATOR

AGITATOR TEE



PART #	DESCRIPTION
A305X	3/4" AGITATOR TEE

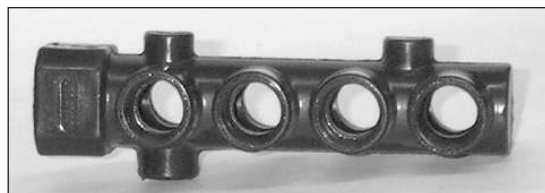
ADAPTER ELBOW



3/4" FPT X BARB

PART #	DESCRIPTION
A300X	1/2" HOSE BARB
A302X	3/4" HOSE BARB

8-WAY MANIFOLD



PART #	DESCRIPTION
A311X	8 WAY MANIFOLD 3/4" INLET X 1/2" OUTLETS

Piston-Type Pressure Relief/Regulating Valve

Bypasses excess liquid. Adjustable to maintain control of line pressure at any pressure within the valve's operating range. Selected pressure setting firmly held in place by locknut. Extra large valve passages to handle large flows.

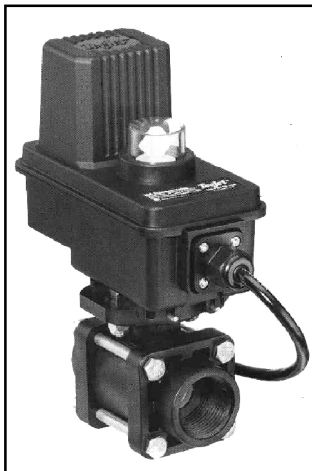
Model 23120

- Stainless steel spring
- Excellent chemical resistance
- 1/4" blind port for pressure gauge to be drilled by customer

PART #	DESCRIPTION
A327X	3/4" REGULATING VALVE POLY
A327AX	REPAIR KIT



Teejet Electric Ball Valves 344BE/344BEC



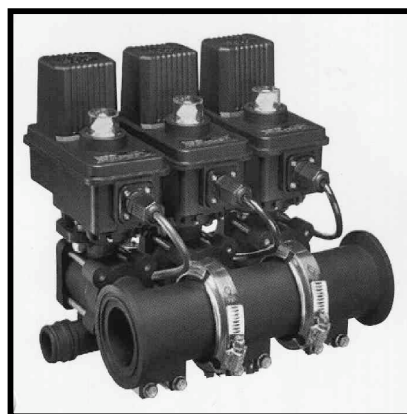
FEATURES

- High pressure capacity 300 PSI.
- Unrestricted flow when fully open.
- 1" NPT (F) connections.
- Wetted parts: Nylon, Teflon, Polypropylene and Viton.
- Operates on 12 volt DC System.
- 1 amp power consumption.
- 5 psi pressure drop for 32 GPM flow.
- 3/4 second response.
- The 344BEC works with a simple pole on/off switch and is compatible with all sprayer controls.

PART #	DESCRIPTION
L6617351X	344BE-2 VALVE 1"
A360X	344BEC-2 VALVE 1"
L6649652X	*344BE-2 REPAIR KIT
A360AX	MOTOR ASSY E-C
L6617351MX	MOTOR ASSY E

* Repair kit includes thrust washer, valve stem, o-rings, dust plug, seals and ball

Flow Back Valves Electrically Operated Ball Valves



TeeJet®

FEATURES

- One second shutoff time
- Compatible with all levels of sprayer control systems from simple to sophisticated
- Simple installation - single liquid return line
- No additional wiring or sensors
- Compact design suitable for increasing numbers of boom sections
- Excellent companion to BoomPilot automatic boom section control systems

PART #	DESCRIPTION
A361X	3 SECTION FLOW BACK VALVE
A360AX	MOTOR ASSY E-C
A364X	450 VALVE TEE BODY

Raven Flanged Boom Valve



Raven's motorized boom valves help you get the job done on time - every time.

FEATURES:

- 40 GPM flow rate at 5 psi per valve
- 175 psi working pressure
- .7 second cycle speed
- Stainless steel, wettable parts
- Plunger-style design creates better seal
- Quick and easy installation

PART #	DESCRIPTION
L0630171926X	SINGLE MANIFOLD VALVE
L0630171928X	THREE SECTION MANIFOLD VALVE
L0630172039X	FIVE SECTION MANIFOLD VALVE
L0630171927X	MOTOR ASSEMBLY
L1170159906X	PLUNGER SEAL KIT

NOTE: Flanged fittings reference pages 156 thru 159.

2 - Way Electrical Operated Solenoid Valves



Model 144-A Parts Breakdown (New Style)

FEATURES:

144A Control Valve

- 10 GPM flow with 5 psi pressure drop
- For pressures to 100 psi
- 2.5 Amp current draw

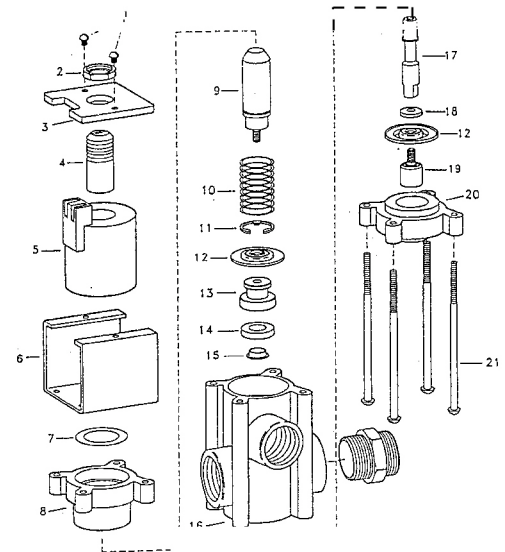
145H Control Valve

- 15 GPM flow with 5 psi pressure drop
- For pressures to 100 psi
- 2.9 Amp current draw

Part #	MFG#	DESCRIPTION
A358X	144-1	3/4" Inlet x 1/2" Outlet
A358VX	144-1VI	3/4" Inlet x 1/2" Outlet (Viton)
A358AX	145H-1	1" Inlet x 1" Outlet

REF#	PART#	DESCRIPTION
1	A382X	Screw - SS (2 required)
2	A357AX	Jam Nut
3	A383AX	Coil Cover
4	A357BX	Armature Stop
5	A357CX	Coil Assembly
6	A384AX	Strap
7	A357DX	Washer - SS
8	A357EX	Upper Diaphragm Housing
9	A357FX	Armature
*10	A387AX	Spring - SS
11	A388AX	Retaining Ring
*12	A389AX	Diaphragm - EPDM
13	A391X	Seat Washer Retainer - SS
*14	A392X	Seat Washer - EPDM
15	A393X	Spacer - SS
16	A395X	Body - Polypropylene
17	A394AX	Stem - SS
18	A390X	Washer - SS
19	A357GX	Lower Diaphragm Piston - SS
20	A357HX	Lower Diaphragm Housing
21	A398X	Screw - SS
N/S	A356DX	Repair Kit (EPDM)
N/S	A356FX	Repair Kit (Viton)
		Repair Kit Includes * Items

N/S = Not Shown



Repair Kits for 145, 146 Control Valves

PART#	DESCRIPTION
A382X	145 H Valve Repair Kit (Viton)

Solenoid Operated Electric Shut-Off Valve



FEATURES:

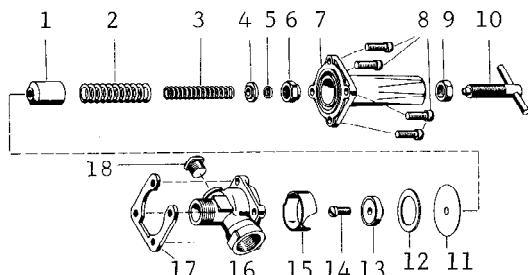
- Use with any application where individual shutoff is important
- 100 psi maximum pressure rating
- 1/4 second response time
- All wettable parts are stainless steel or viton

PART#	DESCRIPTION
A55280X	55280 - Electric Solenoid Shut-Off Valve
A55280AX	O-Ring, Viton (Large)
A55280BX	O-Ring, Viton (Small)

Pressure Relief/Regulating Valve



PARTS LIST



Model 8460

Diaphragm Type Pressure Relief Valves

Offer maximum corrosion resistance to all farm chemicals since diaphragm seals off operating parts from liquid flow. Special diaphragm material remains resilient, assures chatter-free, responsive pressure control. Dual stainless steel internal springs.

3/4" NPT (M) inlet and (F) outlet connections. For all pressures up to 300 psi. Flow rates to 70 GPM for 3/4" size.

PART #	DESCRIPTION
A326X	8460 3/4"
A326AX	8460 REPAIR KIT
A326BX	VITON DIAPHRAGM

Pressure Regulating Valves

244C-3/4 Remote Control Electric Regulating Valve

The 244C-3/4 butterfly valve provides remote pressure control. Features two-wire lead for use in 12VDC system, reduced pressure loss (1 psi for 20 GPM flow), and maximum operating pressure of 100 psi. 3/4" NPT (F) connections. Low current draw (0.15 amp).

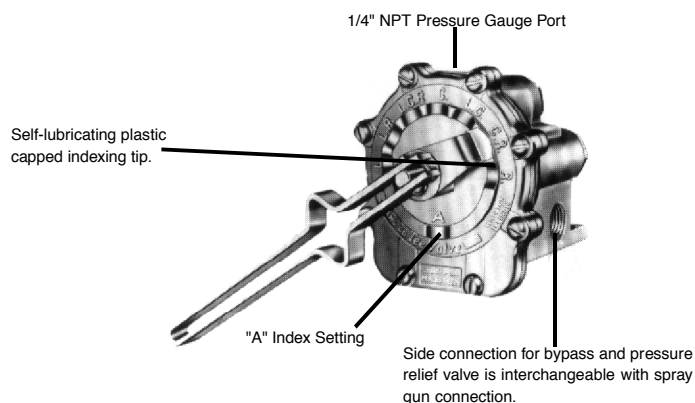


PART #	DESCRIPTION
A377X	244C-3/4" REGULATING VALVE

Control Valve

For selective control of three section boom sprayers at pressures up to 300 psi.

- Use to open any of three boom section lines in any desired combination.
- Raise lever to open, lower lever to close the valve without changing the indexed position.
- Aluminum construction with stainless steel and plastic internal parts for maximum corrosion resistance.

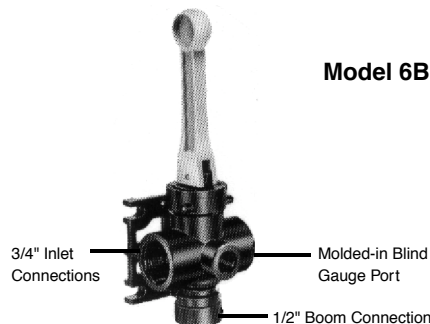


PART #	IN	OUT	BOOM
A350X	17-Y	1"	3/4"
A350AX	REPAIR KIT		

Manual Control Valve

- Molded of corrosion resistant materials, all wetted parts are polypropylene, stainless steel and polyethylene.
- Maximum pressure of 150 psi.
- Large capacity, 12.5 GPM at 5 psi pressure drop.
- Molded-in mounting flange and blind 1/4" NPT gauge port.
- Valves can be ganged together using hex nipple for multiple-boom control.
- Easily repaired without removing valve from spray line.

Model 6B



PART #	DESCRIPTION
A363X	6B1 NYLON
A364X	6B2 NYLON
A365X	6B3 NYLON
A366X	REPAIR KIT FOR 6B1
A366AX	HANDLE

POLY AIR ACTUATED SHUTOFF VALVES

Features

- Open position allows full, unobstructed flow, 50-60 gpm
- Air pressure collapses the internal rubber sleeve to provide positive shutt off
- Standard EPDM rubber bladder seal, FKM (viton type) available
- Female NPT threads



PART #	DESCRIPTION
NSV66NFX	Nozzle Stop Valve 3/4" x 3/4" NY, Less Ftgs.
NSV68NFX	Nozzle Stop Valve 3/4" x 1" NY, Less Ftgs.
NSV88NFX	Nozzle Stop Valve 1" x 1" NY, Less Ftgs.
NZ603X	NSV Sleeve (EPDM)

NZ9216X	Quick Release Valve (1993)
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NZ9219X	Check Valve Element
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NZ705X	Airswitching Valve (Master)
NZ2802X	3/16" Nylon Tubing (per ft.)
NZ2803X	1/4" Nylon Tubing (per ft.)
NZ2804X	3/8" Nylong Tubing (per ft.)

NOTE: The polypropylene air actuated valve is normally an open valve and has a maximum liquid pressure of 70 PSI.

The pressure differential (pressure it takes to close the valve) is 15 to 20 PSI.

PUSH TO CONNECT FITTINGS



Features and Benefits

- Available for both 1/4" and 3/8" tubing sizes
- For use with linear, low-density, polyethylene tubing
- Choice of body, cap, or body and cap combination
- Bodies feature proven Quick TeeJet diaphragm check valve (2 PSI)
- Integrated mounting lugs for easy installation
- Flow rate of 2.25 GPM at 5 PSI pressure drop, 3.18 GPM at 10 PSI pressure drop
- Maximum pressure rating of 100 PSI

PART #	DESCRIPTION
A273GX	QJ Body w/1/4" QC, 2 PSI
A273HX	QJ Body w/5/16" QC, 2 PSI
A273FX	QJ Body w/3/8" QC, 2 PSI
A271JX	QJ Adapter Cap w/1/4" QC
A271KX	QJ Adapter Cap w/5/16" QC
A271IX	QJ Adapter Cap w/3/8" QC
A849BX	Push Connect Elbow Cap 1/4" CDS
A849CX	Push Connect Elbow Cap 5/16" CDS
A849DX	Push Connect Elbow Cap 3/8" CDS



ONE - TOUCH FITTINGS



PART #	DESCRIPTION
NZ9221X	1/8" MPT x 3/16" Straight (QC)
NZ9210X	1/4" MPT x 1/4" Straight (QC)
NZ9204X	3/8" MPT x 3/8" Straight (QC)
NZ9224X	1/4" MPT x 5/16" Straight (QC)
NZ9212X	1/4" MPT x 3/8" Straight (QC)
NZ9237X	3/8" MPT x 1/4" Straight (QC)
NZ9244X	1/2" MPT x 1/2" Straight (QC)



PART #	DESCRIPTION
NZ0655X	1/4" Union Elbow (QC)
NZ0653X	5/16" Union Elbow (QC)
NZ0656X	3/8" Union Elbow (QC)
NZ0661X	1/2" Union Elbow (QC)



PART #	DESCRIPTION
NZ010X	1/4" Union Tee (QC)
NZ012X	3/8" Union Tee (QC)
NZ013X	3/8" x 3/8" x 1/4" Union Tee (QC)
NZ014X	1/2" Union Tee (QC)



PART #	DESCRIPTION
NZ9201X	1/4" MPT x 1/4" Stem (QC)
NZ9202X	3/8" MPT x 5/16" Stem (QC)
NZ9234X	1/4" MPT x 5/16" Stem (QC)
NZ0659X	1/4" MPT x 3/8" Stem (QC)
NZ0660X	3/8" MPT x 3/8" Stem (QC)



PART #	DESCRIPTION
NZ9250X	1/4" Valve (QC)
NZ9251X	3/8" Valve (QC)
NZ9252X	1/2" Valve (QC)



PART #	DESCRIPTION
NZ9236X	1/4" "Y" (QC)
NZ9238X	3/8" "Y" (QC)

PART #	DESCRIPTION
NZ9211X	1/4" FPT x 1/4" Straight (QC)
NZ9220X	1/4" FPT x 3/8" Straight (QC)



PART #	DESCRIPTION
NZ009X	1/4" MPT x 1/4" Elbow (QC)
NZ011X	1/4" MPT x 3/8" Elbow (QC)
NZ9213X	3/8" MPT x 1/4" Elbow (QC)
NZ9215X	3/8" MPT x 3/8" Elbow (QC)



PART #	DESCRIPTION
NZ0657X	1/4" Stem x 1/4" Elbow (QC)
NZ9241X	3/8" Stem x 3/8" Elbow (QC)
NZ9242X	3/8" Stem x 1/4" Elbow (QC)
NZ9243X	1/2" Stem x 1/2" Elbow (QC)



PART #	DESCRIPTION
NZ0654X	1/4" Union (QC)
NZ9214X	3/8" Union (QC)
NZ0652X	5/16" Union (QC)
NZ9239X	1/4" x 3/16" Union (QC)
NZ9223X	1/4" x 5/16" Union (QC)
NZ9222X	3/8" x 1/4" Union (QC)
NZ9208X	3/8" x 5/16" Union (QC)



PART #	DESCRIPTION
NZ9256X	3/8" Check Valve 2 PSI (QC)



PART #	DESCRIPTION
NZ2802X	3/16" Nylon Tubing (per ft.)
NZ2803X	1/4" Nylon Tubing (per ft.)
NZ2804X	3/8" Nylon Tubing (per ft.)
NZ2805X	1/2" Nylon Tubing (per ft.)

VARIABLE RATE NOZZLE

- The QJ-VR and PTC-VR line of variable rate fertilizer assemblies feature a variable diameter orifice that produces a wide range of flow rates—its like having several metering orifices in one.
- Allows for a wider range of ground speeds and/or application rates from a single size for improved productivity.
- Also ideal for variable rate prescription map applications.
- Both QJ-VR and PTC-VR are ideal for installation on planters and toolbars for liquid fertilizer metering and application.
- PTC-VR features nylon construction for excellent strength and chemical resistance.
- QJ-VR features acetal and nylon construction with choice of nylon or stainless steel hose barbs for strength and excellent chemical resistance.
- Simple, elastomer (EPDM) variable orifice for reliable, long-term operation.



A271VX QC 1.0 Variable Rate Nozzle 3/8"
A271WX QC 2.0 Variable Rate Nozzle 3/8"



A271PX 1.0 Variable Rate Nozzle 3/8" SSHB
A271NX 2.0 Variable Rate Nozzle 3/8" SSHB

Sprayer Control System

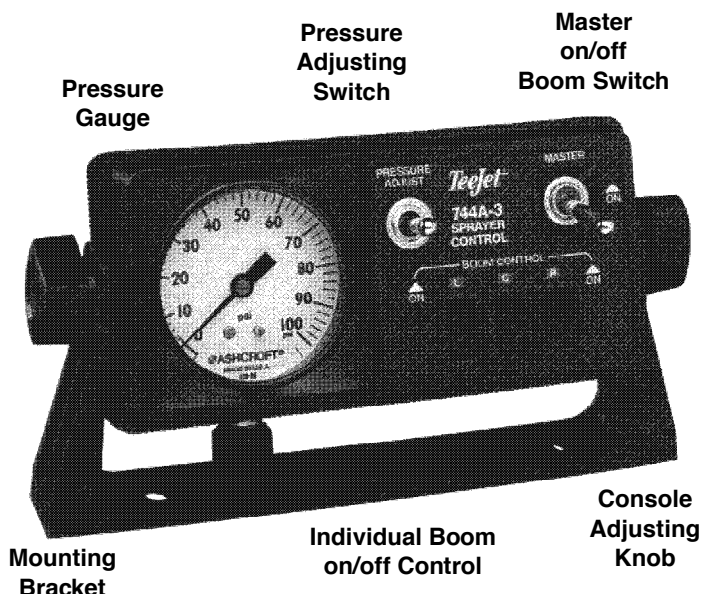
Quality with Fingertip Convenience

744A Control System

The **744A Sprayer Control** has been designed to meet the most demanding conditions with features found in no other control of its type.

Features:

- Best in class TeeJet quality engineering and manufacturing.
- 100% factory tested to meet traditional TeeJet quality assurance standards.
- Quick and easy installation designed for todays sprayers.
- Easy maintenance design for quick and convenient field serviceability.
- An easily replaceable automotive type blade fuse protects the system from electrical overload.
- Heavy-duty commercial grade switches and gauges.
- 16 foot electrical cables are standard with all controls
- Includes all necessary mounting hardware - bracket, bolts, wiring harness and gauge connections.
- A responsive 244 boom pressure regulator valve is included for precision pressure control.



PART #	DESCRIPTION
A376LX	TRIPLE CONTROL UNIT W/244 3/4" REG. VALVE, LIQUID GUAGE (LESS SHUTOFF VALVES)

RAVEN INDUSTRIES

SPRAYER CONTROL SYSTEMS

Set your application rate and the SCS450 automatically maintains that rate throughout your entire spraying job regardless of vehicle speed or terrain. You have more data at your fingertips with the SCS450 than is available with any other system. You have instant access to: volume left in tank; total area worked (cumulative); field area (sub-plot); vehicle speed; distance traveled (feet or meters); area worked per hour (acres, hectares, or thousand square feet); volume applied per minutes (gallons or liters). The optional tip monitor feature immediately informs you of the location of any plugged tip. You can program two different application rates. Then just flip the switch to rate 1 or rate 2. Or, you can switch to "Manual" for spot spraying. A complete system includes the SCS450 console, flowmeter, control valve, speed sensor and requires cables.



28 Character Digital Display
and Serial Interface

Call about ISOBUS control

RAVEN SPRAYER CONTROL SYSTEMS

SCS450 SPRAYER CONTROL SYSTEM 1 - 60 GPM

Part #	QTY	DESCRIPTION
L0630171220X	1	SCS450 Console
L1150171085X	1	10' Console Control Cable
L1150171055X	1	12' Flow Control Cable
L0630171793X	1	RFM 60 Flowmeter
L0630172125X	1	1" Poly Control Valve

*Above less speed sensor.

*For above systems select a speed sensor or radar interface cable to fit your application.

MISCELLANEOUS ACCESSORIES

Part #	DESCRIPTION
L1150171085X	10' Console Control Cable N.S.
L1150159418X	10' Console Control Cable O.S.
L1150171055X	12' Flow Control Cable N.S. (3-Boom WP)
L1150159405X	12' Flow Control Cable O.S. (3-Boom Spade)
L1150171129X	12' Flow Control Cable (6-Boom WP)
L1150159496X	12' Flow Control Cable (6-Boom Spade)
L1150159856X	12' Flow Extension Control Cable N.S. (16 Pin-RD)
L1150159409X	12' Flow Extension Cable O.S. (6 Pin SQ.)
L6655025X	Speed Sensor Assy. w/21' Cable
L1150159032X	12' Speed Sensor Extension Cable
L1150159018X	24' Speed Sensor Extension Cable
L1150159017X	12' Flow Meter Extension Cable
L4220000090X	Pressure Transducer

RADAR INTERFACE CABLES

(used to adapt system to tractors with radar)

Part #	DESCRIPTION
L1150159700X	John Deere 7000/8000
L1150171670X	John Deere 30 Series
L1150159519X	John Deere
L1150159517X	Case IH/Ford/White
L1150159529X	Ford/White (Prior to '94)
L1150159709X	Ford Genesis/Versatile
L1150159518X	Challenger
L1150159627X	Challenger C-MOD
L1150159526X	Dickey-john
L1150159432X	Case IH
L1150159580X	MT765 Cat
L1150171304X	Case MX

NOTE: Cable identification pictures reference pages 122 & 123

SYSTEM SPEED SENSORS

Part #	DESCRIPTION
L6018X	Wheel Drive Speed Sensor Kit
L6031X	Astro 5 Speed Sensor - Raven Connector

RAVEN
INDUSTRIES

ACCU-FLOW ATTACHMENT

FOR MORE ACCURATE INCORPORATION OF NH₃

SCS450 Sprayer Control System for the ultimate in anhydrous application control

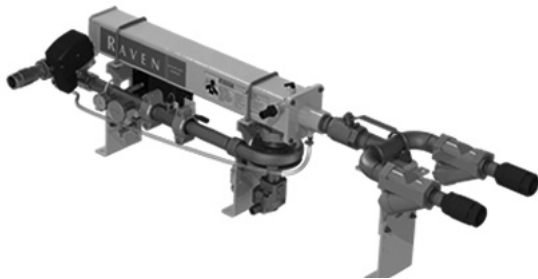
There is always a certain amount of gas formed in any anhydrous ammonia fertilizer system. This gas cannot be metered. The Raven Accu-Flow with Stainless Steel Cooler, changes all gas back to liquid before it gets to the meter. This allows you to measure 100% of the NH₃.

Set the per acre rate and you get that exact rate on every acre. The system compensates for variations in speed, temperature, tank pressure and terrain.



Call about ISOBUS control

VORTEX ACCU-FLOW COOLER



Raven has raised NH₃ application to new levels of performance with the Vortex Accu-Flow Stainless Steel Cooler. Provides up to 50 GPM flow capacity (depending on your system setup) or up to 80 GPM with optional variable speed hydraulic driven pump.

Part #	DESCRIPTION
L1170171716X	SS Vortex AccuFlow Dual Valve Dual Inlet
R657BX	3/4" Vapor Tube (4 Required)
C107X	1" Sprayer Hose (Typically 40 ft.)
C106X	3/4" Sprayer Hose (Typically 20 ft.)

L6080X - SCS450 NH₃ CONTROL SYSTEM 30 GPM WITH TWO VALVES KIT

Part #	QTY	DESCRIPTION
L0630171220X	1	SCS450 Console
L1150171085X	1	10' Console Control Cable
L1150171800X	1	12' Flow Control Cable (Single Section)
L1170171730X	1	SS Accu-Flow Kit w/1" Control Valve, 1" On/Off Valve, RGM 60S Flowmeter
L1170171410X	1	1/2" Vapor Tube Kit

Part #	DESCRIPTION
L1150171085X	10' Console Control Cable N.S.
L1150171800X	12' Flow Control Cable (single section) N.S.
L1150171836X	12' Flow Control Cable (3 section) N.S.
L1150171838X	12' Flow Control Cable (6 section) N.S.
L1150159856X	12' Flow Extension Cable N.S. (16 pin RD)
L1150171840X	12' Flow Extension Cable (6 section w/ auxilliary power for sections 4-6 16 pin RD)
L6655025X	Speed Sensor Assy. w/21' Cable
L1150159032X	12' Speed Sensor Extension Cable
L1150159018X	24' Speed Sensor Extension Cable
L1150159017X	12' Flow Meter Extension Cable
L1150171833X	12' On/Off Valve Extension Cable
L1170171121X	Super Cooler Gasket Kit

NITROGEN STABILIZER



INJECTION SYSTEM

Includes: Raven low volume injection pump, product cable; 55 gallon poly tank w/plumbing preassembled on skid, and stainless steel injection check valve.

L6090X	----	Gen II CAN Compatible
L6093X	----	John Deere ISO compatible includes ISO power/adaptor cable

RAVEN FLOW COMPONENTS

RFM-60SG Vortex Meter



Part #	DESCRIPTION
L0630173618X	RFM60SG Vortex Flow Meter
L2190003267X	Gasket - Vortex Flow Meter

RFM-60S



Part #	DESCRIPTION
L0630171666X	RFM60S NH3 Flow Meter
L0630171669X	Sensor Assy. (RFM60)
L0630172004X	Sensor Assy. HP (RFM60HP)

RFM-15 Poly

Polypropoylene housing. Low volume, .3 to 15 GPM flow rate. 1 1/4" NPT female inlet and outlet. 175 PSI rating. For use with chemical and liquid fertilizer.



Part #	DESCRIPTION
L0630172040X	RFM15 Poly Flow Meter

RFM-100 Poly

Polypropoylene housing. 3 to 100 GPM flow rate. 2" NPT female inlet and outlet. 150 PSI rating.



Part #	DESCRIPTION
L0630171066X	RFM100 Poly Flow Meter

RFM-60 Poly

Polypropoylene housing. 1 to 60 GPM flow rate. 1 1/2" FPT inlet and outlet. 175 PSI rating. For use with chemical and liquid fertilizer.



Part #	DESCRIPTION
L0630171793X	RFM60P Poly Flow Meter
L0630171669X	Sensor Assy. (RFM60P)
L0630172004X	Sensor Assy. HP (RFM60P HP)

RFM-200 Poly

High density polyethylene construction. 15 to 200 GPM flow rate. 3" NPT female inlet and outlet. 90 PSI rating.



Part #	DESCRIPTION
L0630159751X	RFM200 Poly Flow Meter



POLY BUTTERFLY VALVE

All polypropylene construction features high torque, 12V DC motor. 175 PSI rating. For use with chemicals and liquid fertilizers. 1" FMPT inlet/outlet.

PART #	DESCRIPTION
L0630172125X	1" Poly Control Valve w/butterfly
L0630172165X	1" Poly Control Valve w/S.S. Ball
L0630171894X	1 1/2" Poly Control Valve w/butterfly

STAINLESS STEEL BUTTERFLY VALVE

2" stainless steel butterfly valve is for high volume applications and high pressure; 300 PSI rating. Viton O-rings and seals.



PART #	DESCRIPTION
L0630172177X	2" SS Control Valve N.S.
L0630172144X	Motor Assy. N.S.



ON/OFF VALVE

NOTE: Order adapter cable when combining Round 4-Pin Motor Harness and O.S. 3-Wire Harness

STAINLESS STEEL ON/OFF VALVE

PART #	DESCRIPTION
L0630172978X	1" SS On/Off Valve N.S.
L0630173207X	Motor Assy. N.S. (On/Off Valve 1" & 1 1/4")
LK110X	KZ Motor Assy. (On/Off Valve 1" & 1 1/4")
L1150171808X	On/Off Valve Adapter Cable
L0630173256X	1" SS Replacement Valve w/bracket
L1170171355X	1" and 1 1/4" Valve Seal Kit
LK100X	KZ 1" SS On/Off Valve
LK100MX	KZ Motor Assy (On/Off Valve LK100X)
L0630173668X	1 1/2" SS On/Off Valve (Vortex HP)

1 1/4" ON/OFF VALVE

NOTE: Raven discontinued 1 1/4" Valve, PrecisoNH3 valve may be substituted.

PART #	DESCRIPTION
LCABBVT125SOX	1 1/4" On/Off Valve (PrecisoNH3)
LK100MX	Motor Assy. Only (PrecisoNH3)

CONTROL VALVES

NOTE: Order adapter cable when combining Round 4-Pin Motor Harness and O.S. 4-Wire Harness



1" STAINLESS STEEL CONTROL VALVE

PART #	DESCRIPTION
L0630172977X	1" SS Control Valve N.S.
L0630173206X	Motor Assy. (Control Valve 1" & 1 1/4") N.S.
LK120X	KZ Motor Assy. (Control Valve 1" & 1 1/4")
L1150171807X	Control & Fast Valve Adapter Cable
L0630173256X	1" SS Replacement Valve w/bracket
L1170171355X	1" and 1 1/4" Valve Seal Kit

1 1/4" & 1 1/2" STAINLESS STEEL CONTROL VALVE

PART #	DESCRIPTION
LCACBVT125CTX	1 1/4" Control Valve (PrecisoNH3 120 Deg.)
LCV125MX	120 Deg. Motor Assy. Only (PrecisoNH3)
L0630173667X	1 1/2" Control Valve (Vortex HP)



ON/OFF CONTROL VALVE (FAST VALVE)

NOTE: Order adapter cable when combining Round 4-Pin Motor Harness and O.S. 4-Wire Harness

1" STAINLESS STEEL FAST

PART #	DESCRIPTION
L0630172979X	1" CS On/Off Control (Fast Valve) N.S.
L0630172982X	Motor Assy. (Fast Valve) N.S.
LK130X	KZ Motor Assy. (Fast Valve)
L1150171807X	Control & Fast Valve Adapter Cable
L0630173256X	1" SS Replacement Valve w/bracket

ASTRO GPS SPEED SENSOR



- Boost Productivity and efficiency by putting powerful GPS technology to work for you
- Flexible mounting option and compact size make the Astro a clear choice; easily transfer it from one vehicle to another
- Rugged design consistently perform in tough field conditions; unaffected by dust, vibration, and changes in crop canopy

PART #	DESCRIPTION
L6031X	Astro 5 Speed Sensor - Raven Connector

Matrix 430

The compact Matrix 430 is an easy to use, low cost, graphical guidance system ideal for first-time users. The full-color, touchscreen display allows the operator to efficiently navigate fields with minimal skips and overlaps in coverage.

- High-contrast, full-color, 4.3 in / 110 mm graphic touchscreen display provides superior visibility in bright light conditions
- High-quality, internal GPS/GLONASS engine with ClearPath technology that enhances GNSS performance in areas where reception is poor or in regions where SBAS differential correction is not readily available
- Minimal setup needed before operating
- Guidance modes include: Straight AB, Curved AB, Circle Pivot, and Last Pass
- Boundary function allows for easy and precise measurement of field area
- Implement ON/OFF status can be manually activated on screen for single or multiple sections or for single section only with status detect wire



AutoGlideXR Boom Height Control

- Can be installed on any sprayer with electric-over-hydraulic controls. There are no additional hydraulics to install
- Is the most cost effective system on the market today
- Simple to install and easy to operate



A compact cab controller allows engaging and disengaging automatic mode, as well as adjusting the boom height on the go. Use the simple menu to configure and calibrate the system.



Ultrasonic range sensors mounted in sturdy brackets with a break-away design are easily attached to the spray boom with provided brackets.

CR7 & CR12

The CR7 and CR12 is a 7" and 12" lightweight field computer with customizable in-job layouts. A simple widget concept, easily accessible settings, and ISO Universal Terminal and Task Controller capabilities make this a mighty unit.



VIPER 4



Viper® 4 integrates with Raven's full line of products into one networked platform that offers a responsive touchscreen and an intuitive, tablet-style interface with swiping features and horizontal or vertical orientation. Customize your Viper® 4 by user and machine - it's colorblind which means it works with equipment of every brand. Easy job set-up, fewer touches, and greater efficiency allow for extraordinary data management capabilities.

Benefits

- Preloaded with AgX standard database
- 12.1" LED backlit display
- Customizable interface
- State-of-the-art, rugged magnesium alloy enclosure

Works With:

- SmarTrax and SmarTrax RTK
- Phoenix DGPS Receivers
- AccuFlow and AccuFlow HPTM
- Sidekick Pro
- Slingshot and Slingshot RTK
- AutoBoom
- AccuBoom
- WatchDog Weather Station

The Rate Control Module (RCM) is the most versatile controller on the market and was created to make your time in the field easier. Built on our legacy of application innovation, this state-of-the-art module can run up to six profiles, accepts device plug-ins, and instantly recognizes every program and file. RCM makes it easy to start your workflow immediately — hassle-free.

RCM fits a variety of applications — product and granular control, anhydrous ammonia (with AccuFlow™ HP+), air carts, generic applicators, planters, and seeders. It runs the same interface for displays, machines, sensors, radars, guidance systems, and more.

The RCM's customizable user interfaces give you the flexibility to see and control what fits your needs. Its configurable machine profiles, compatibility with most ISOBUS virtual terminals, and magnetic mount allow the RCM to move easily between machines and implements without resetting machine configurations. It's the most innovative and versatile application control systems on the market today.

RAVEN



RATE CONTROL MODULE (RCM)



MATRIX[®] 908

TeeJet[®]

The TeeJet Matrix[®] 908 is an all new field computer with expandable options to appeal to any agricultural application. You can choose between navigation models for guidance use or choose an ISO model that includes application control in addition to guidance. Multiple GNSS accuracy options are available and require no change in hardware to upgrade. The bright 8" display and fully updated menu structure offers intuitive operations and quick setup.

FEATURES

- Bright, high-resolution 8-inch touch screen display
- Integrated, dual frequency GNSS receiver with external antenna
- Simple, Intuitive menu structure
- Rugged, Magnesium alloy housing
- Available ISO application rate control
- Expandable platform that can support automatic steering, automatic section control, video cameras, external lightbar, droplet size monitoring, and more

POLYPROPYLENE "Y" STRAINERS

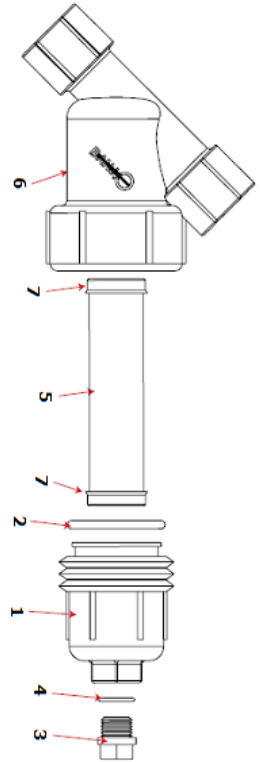


FEATURES:

- Precision molded construction
- Corrosion resistant
- Lightweight
- Fiberglass reinforced
- Easy grip and cap
- 304 stainless steel screen
- EPDM gasket
- Heavy duty end capthreads
- 75 PSI maximum
- Clean-out plug
- 1/2" - 1 1/4" 75 PSI maximum
- 1 1/2" - 2" 150 PSI maximum

SCREEN COLOR CHART

Mesh Size	Rib Color Old Style	ISO Color Standard
6 Mesh	White	White
12 Mesh	Black	Black
20 Mesh	Beige	Beige
30 Mesh	Yellow	Red
50 Mesh	Red	Blue
80 Mesh	Blue	Yellow



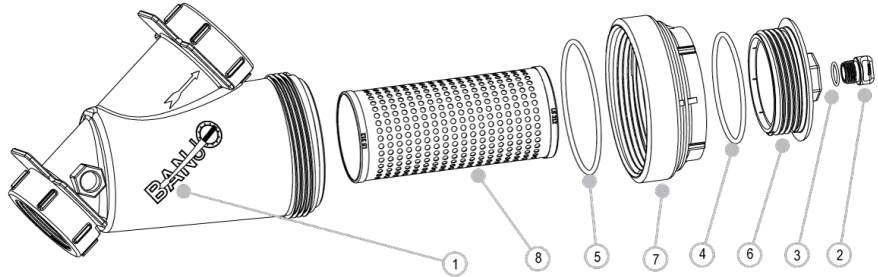
REPLACEMENT PARTS LST200

REF #	PART #	MFG #	DESCRIPTION
N/S	A1AX	LS-050B/C	"Y" BODY 1/2" & CAP
N/S	A4AX	LS-075B/C	"Y" BODY 3/4" & CAP
N/S	A6AX	LS-100B/C	"Y" BODY 1" & CAP
N/S	A8AX	LS-125B/C	"Y" BODY 1 1/4" & CAP
N/S	A16AX	LS-150B/C	"Y" BODY 1 1/2" & CAP
N/S	A16BX	LS-200B/C	"Y" BODY 2" & CAP
1	A4GX	LS-075C	END CAP (FITS 1/2" & 3/4")
1	A6GX	LS-100C	END CAP (FITS 1" & 1 1/4")
1	A11HX	LS-150C	END CAP (FITS 1 1/2" & 2" N.S.)
2	A4EX	LS-075G	GASKET (FITS 1/2" & 3/4")
2	A6EX	LS-100G	GASKET (FITS 1" & 1 1/4")
2	A11FX	LS-150G	GASKET (FITS 1 1/2" & 2" N.S.)
3	A11LX	12723	1/4" DRAIN PLUG (FITS 1/2" & 3/4")
3	D160AX	12777	1/2" DRAIN PLUG (FITS 1" & 1 1/4")
3	A77EX	LSQ200-PL	1" DRAIN PLUG (FITS 1 1/2" & 2")
4	A11MX	12724	EPDM O-RING (FITS 1/2" & 3/4")
4	A73FX	UV15163	EPDM O-RING (FITS 1" & 1 1/4")
4	A77GX	LSQ200-RV	EPDM O-RING (FITS 1 1/2" & 2")
5	A4BX	LS-720	20M SCREEN (FITS 1/2" & 3/4")
5	A4CX	LS-740	40M SCREEN (FITS 1/2" & 3/4")
5	A4DX	LS-780	80M SCREEN (FITS 1/2" & 3/4")
5	A6BX	LS-120	20M SCREEN (FITS 1" & 1 1/4")
5	A6CX	LS-140	40M SCREEN (FITS 1" & 1 1/4")
5	A6DX	LS-180	80M SCREEN (FITS 1" & 1 1/4")
5	A11X	LS-206	6M SCREEN (FITS 1 1/2" & 2")
5	A11AX	LS-212	12M SCREEN (FITS 1 1/2" & 2")
5	A11BX	LS-220	20M SCREEN (FITS 1 1/2" & 2")
5	A11GAX	LS-230	30M SCREEN (FITS 1 1/2" & 2")
5	A11DX	LS-250	50M SCREEN (FITS 1 1/2" & 2")
5	A11CX	LS-280	80M SCREEN (FITS 1 1/2" & 2")
5	A11KX	LS-2120	120M SCREEN (FITS 1 1/2" & 2")
7	A6HX	LS-125G	EPDM O-RING (FITS 1" & 1 1/4")
7	A11IX	LS-141G	EPDM O-RING (FITS 1 1/2" & 2")

COMPLETE STRAINERS

PART #	MFG #	DESCRIPTION
A2BX	LS-050-20	1/2" X 20M LINE STRAINER
A2CX	LS-050-40	1/2" X 40M LINE STRAINER
A2EX	LS-050-80	1/2" X 80M LINE STRAINER
A3BX	LS-075-20	3/4" X 20M LINE STRAINER
A3CX	LS-075-40	3/4" X 40M LINE STRAINER
A3EX	LS-075-80	3/4" X 80M LINE STRAINER
A5BX	LS-100-20	1" X 20M LINE STRAINER
A5CX	LS-100-40	1" X 40M LINE STRAINER
A5EX	LS-100-80	1" X 80M LINE STRAINER
A7BX	LS-125-20	1 1/4" X 20M LINE STRAINER
A7CX	LS-125-40	1 1/4" X 40M LINE STRAINER
A7EX	LS-125-80	1 1/4" X 80M LINE STRAINER
A10X	LS-150-06	1 1/2" X 6M LINE STRAINER
A10AX	LS-150-12	1 1/2" X 12M LINE STRAINER
A10BX	LS-150-20	1 1/2" X 20M LINE STRAINER
A10CX	LS-150-30	1 1/2" X 30M LINE STRAINER
A10DX	LS-150-50	1 1/2" X 50M LINE STRAINER
A10EX	LS-150-80	1 1/2" X 80M LINE STRAINER
A10FX	LS-150-120	1 1/2" X 120M LINE STRAINER
A15X	LS-200-06	2" X 6M LINE STRAINER
A15AX	LS-200-12	2" X 12M LINE STRAINER
A15BX	LS-200-20	2" X 20M LINE STRAINER
A15CX	LS-200-30	2" X 30M LINE STRAINER
A15DX	LS-200-50	2" X 50M LINE STRAINER
A15EX	LS-200-80	2" X 80M LINE STRAINER
A15FX	LS-200-120	2" X 120M LINE STRAINER

3" POLYPROPYLENE "Y" STRAINERS



FEATURES

- Lightweight
- High volume
- 75 PSI maximum
- 3" Female NPT Threads
- Constructed of glass filled polypropylene
- 1/2" drain plug in bottom of cap
- Reinforced stainless steel screen

COMPLETE STRAINERS

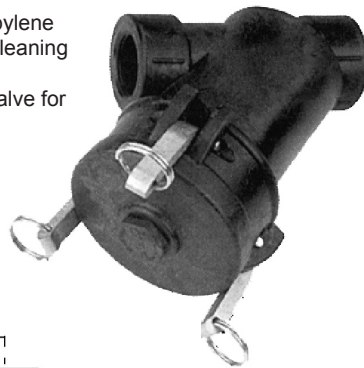
PART #	MFG #	DESCRIPTION
A12X	LS-300-04	3" X 4M LINE STRAINER
A12AX	LS-300-08	3" X 8M LINE STRAINER
A12BX	LS-300-12	3" X 12M LINE STRAINER
A12CX	LS-300-20	3" X 20M LINE STRAINER
A12DX	LS-300-50	3" X 50M LINE STRAINER

REF #	PART #	MFG #	DESCRIPTION
1	A14EX	MLS300B1	3" Strainer Body
7	A14LX	MLS300CAP	3" Strainer Cap Only
8	A13X	LS-304	4 Mesh Screen
8	A13AX	LS-308	8 Mesh Screen
8	A13BX	LS-312	12 Mesh Screen
8	A13CX	LS-320	20 Mesh Screen
8	A13DX	LS-350	50 Mesh Screen
2	A14GX	13777	Clean-out Plug - 1/2"
3	A14FX	13778	O-ring Clean Out Plug - EPDM
5	A14HX	MLS300G	3" MLS EPDM Cap Gasket
5	A14IX	MLS300GV	3" MLS FKM (Viton) Cap Gasket
4	A14DX	MLS300ECG	End Cap Gasket
4	A14JX	MLS300ECGV	End Cap Gasket FKM (Viton)
6	A14KX	LS300EC	End Cap Only (Plug Not Included)

LSQ POLYPROPYLENE LINE STRAINERS

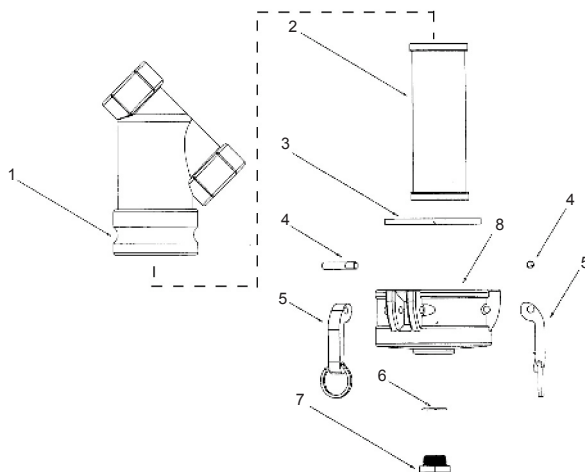
FEATURES

- Precision molded in glass reinforced polypropylene
- Cam lever configuration for easy access for cleaning and servicing
- 3/4" plug in cam lever cap for attaching ball valve for draining or back flushing
- Stainless steel screens
- EPDM lathe cut gasket
- 75 PSI maximum



COMPLETE LSQ STRAINERS

PART #	MFG #	DESCRIPTION
A18AX	LSQ-150-12	1 1/2" x 12M Line Strainer
A18BX	LSQ-150-20	1 1/2" x 20M Line Strainer
A18CX	LSQ-150-30	1 1/2" x 30M Line Strainer
A18EX	LSQ-150-50	1 1/2" x 50M Line Strainer
A18FX	LSQ-150-80	1 1/2" x 80M Line Strainer
A19AX	LSQ-200-12	2" x 12M Line Strainer
A19BX	LSQ-200-20	2" x 20M Line Strainer
A19CX	LSQ-200-30	2" x 30M Line Strainer
A19EX	LSQ-200-50	2" x 50M Line Strainer
A19FX	LSQ-200-80	2" x 80M Line Strainer



REPLACEMENT PARTS

REF #	PART #	MFG #	DESCRIPTION
1&8	A18GX	LSQ-150-B/C	1 1/2" LSQ Line Strainer Body
1&8	A19GX	LSQ-200-B/C	2" LSQ Line Strainer Body
2	A11X	LS206	6 Mesh Screen
2	A11AX	LS212	12 Mesh Screen
2	A11BX	LS220	20 Mesh Screen
2	A11GAX	LS230	30 Mesh Screen
2	A11DX	LS250	50 Mesh Screen
2	A11CX	LS280	80 Mesh Screen
2	A11KX	LS2120	120 Mesh Screen
3	A19HX	LSQ200-G	2" Gasket EPDM
4	B486X	300P	Cam Pin Stainless Steel
5	B484X	300K	Cam Arm Stainless Steel 3" w/Ring
6	A19MX	LSQ200/R1	O-ring For Clean-out Plug - EPDM
7	A19LX	PLUG075S	1" Clean-out Plug
8	A18HX	LSQ200-C	2" Cap

Note: Parts 2-8 Fit both 1 1/2" and 2" Strainers.

POLYPROPYLENE "T" LINE STRAINERS

FEATURES:

- Heavy-duty glass reinforced polypropylene
- Clean-out plug
- 304 stainless steel reinforced screens
- 150 P.S.I. at 70° F



3/4" and 1"

1 1/4" and 1 1/2"

COMPLETE STRAINERS

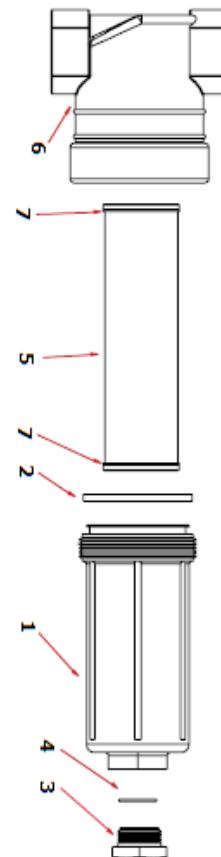
PART #	MFG #	DESCRIPTION
A70X	LST-075-16	3/4" X 16M LINE STRAINER
A70AX	LST-075-30	3/4" X 30M LINE STRAINER
A70BX	LST-075-50	3/4" X 50M LINE STRAINER
A70CX	LST-075-80	3/4" X 80M LINE STRAINER
A70DX	LST-075-100	3/4" X 100M LINE STRAINER
A71X	LST-100-16	1" X 16M LINE STRAINER
A71AX	LST-100-30	1" X 30M LINE STRAINER
A71BX	LST-100-50	1" X 50M LINE STRAINER
A71CX	LST-100-80	1" X 80M LINE STRAINER
A71DX	LST-100-100	1" X 100M LINE STRAINER
A74X	LST-125-16	1 1/4" X 16M LINE STRAINER
A74AX	LST-125-30	1 1/4" X 30M LINE STRAINER
A74BX	LST-125-50	1 1/4" X 50M LINE STRAINER
A74CX	LST-125-80	1 1/4" X 80M LINE STRAINER
A74DX	LST-125-100	1 1/4" X 100M LINE STRAINER
A75X	LST-150-16	1 1/2" X 16M LINE STRAINER
A75AX	LST-150-30	1 1/2" X 30M LINE STRAINER
A75BX	LST-150-50	1 1/2" X 50M LINE STRAINER
A75CX	LST-150-80	1 1/2" X 80M LINE STRAINER
A75DX	LST-150-100	1 1/2" X 100M LINE STRAINER

3/4" & 1" REPLACEMENT PARTS

REF #	PART #	MFG #	DESCRIPTION
1	A73BX	LST-100B	BOWL ONLY 3/4" & 1"
2	A73X	LST-100-G	GASKET (EPDM)
2	A73AX	LST-100-GV	GASKET (VITON)
3	D160AX	12777	CLEAN OUT PLUG
4	A73FX	UV15163	"O" RING EPDM CLEAN OUT PLUG
4	A73GX	UV15163V	"O" RING VITON CLEAN OUT PLUG
5	A72X	LST-116	16 MESH SCREEN
5	A72AX	LST-130	30 MESH SCREEN
5	A72BX	LST-150	50 MESH SCREEN
5	A72CX	LST-180	80 MESH SCREEN
5	A72DX	LST-1100	100 MESH SCREEN
6	A73DX	LST-075H	3/4" HEAD ONLY
6	A73CX	LST-100H	1" HEAD ONLY
7	A73HX	13778	EPDM "O" RING

1 1/4" & 1 1/2" REPLACEMENT PARTS

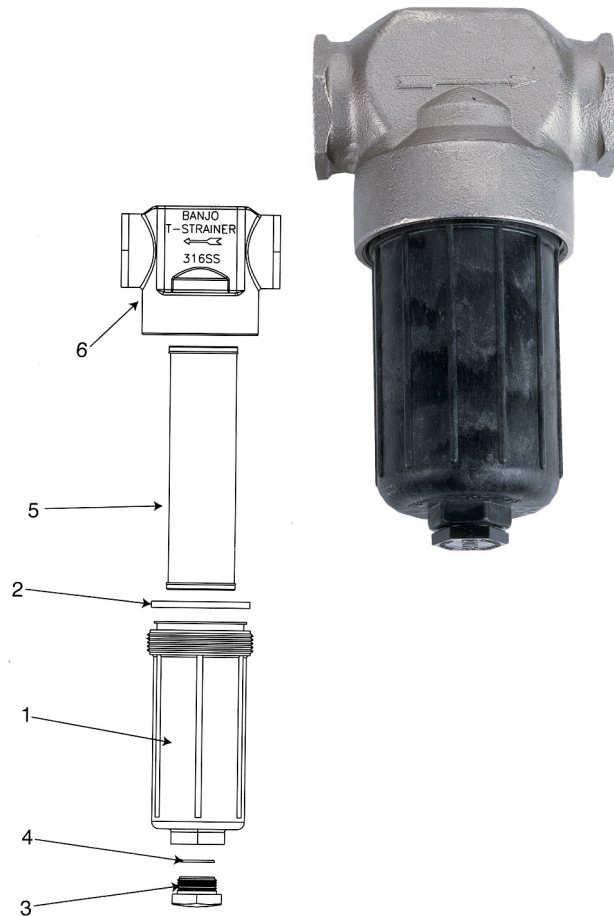
REF #	PART #	MFG #	DESCRIPTION
1	A77BX	LST-150B	BOWL ONLY 1 1/4" & 1 1/2"
2	A77X	LST-150-G	GASKET (EPDM)
2	A77AX	LST-150-GV	GASKET (VITON)
3	A77EX	LSQ-200-PL	CLEAN OUT PLUG
4	A77FX	LSQ-200-R	"O" RING EPDM CLEAN OUT PLUG
4	A77GX	LSQ-200-RV	"O" RING VITON CLEAN OUT PLUG
5	A76X	LST-1516	16 MESH SCREEN
5	A76AX	LST-1530	30 MESH SCREEN
5	A76BX	LST-1550	50 MESH SCREEN
5	A76CX	LST-1580	80 MESH SCREEN
5	A76DX	LST-15100	100 MESH SCREEN
6	A77CX	LST-125H	1 1/4" HEAD ONLY
6	A77DX	LST-150H	1 1/2" HEAD ONLY
7	A77HX	LST-035-G	EPDM "O" RING



2" "T" LINE STRAINERS - POLY/STAINLESS COMBO

FEATURES:

- 316 Stainless Steel Head
- Glass Reinforced Polypropylene Bowl
- Clean-Out Plug
- 316 Stainless Steel Reinforced Screens
- 150 P.S.I. at 70° F



2" POLY/SS "T" STRAINER COMPLETE

PART #	MFG #	DESCRIPTION
A79X	LST200-04SS	2" X 2" T Strainer 4 Mesh Screen
A79AX	LST200-06SS	2" X 2" T Strainer 6 Mesh Screen
A79BX	LST200-08SS	2" X 2" T Strainer 8 Mesh Screen
A79CX	LST200-10SS	2" X 2" T Strainer 10 Mesh Screen
A79DX	LST200-16SS	2" X 2" T Strainer 16 Mesh Screen
A79EX	LST200-30SS	2" X 2" T Strainer 30 Mesh Screen
A79FX	LST200-50SS	2" X 2" T Strainer 50 Mesh Screen
A79GX	LST200-80SS	2" X 2" T Strainer 80 Mesh Screen
A79IX	LST200-100SS	2" X 2" T Strainer 100 Mesh Screen

REPLACEMENT PARTS LST200

REF #	PART #	MFG #	DESCRIPTION
1	A78X	LST200-B	2" Poly Bowl (includes 2 and 3)
2	A78AX	LST200-GV	2" FKM (Viton Type) Gasket
3	A78MX	LSQ200-PL	1" Clean Out Plug
4	A78NX	LSQ200-RV	FKM (Viton Type) O-Ring for Clean Out Plug
5	A78LX	LST204SS	4 Mesh SS Screen
5	A78FX	LST206SS	6 Mesh SS Screen
5	A78HX	LST208SS	8 Mesh SS Screen
5	A78GX	LST210SS	10 Mesh SS Screen
5	A78EX	LST216SS	16 Mesh SS Screen
5	A78CX	LST230SS	30 Mesh SS Screen
5	A78BX	LST250SS	50 Mesh SS Screen
5	A78DX	LST280SS	80 Mesh SS Screen
5	A78FX	LST2100SS	100 Mesh SS Screen
6	A78PX	LST200-HSS	2" SS Head
6	A78QX	LST200-HBSS	2" SS Head, Poly Bowl & Gasket

LOW PROFILE MPT LINE STRAINER



PART #	DESCRIPTION
A44X	1/2" MPT X 20 Mesh Strainer
A44AX	Clear Bowl
A44BX	Strainer Head 1/2" MPT
A44CX	Gasket
A44DX	20 Mesh SS Screen
A44EX	40 Mesh SS Screen

BASKET STRAINERS



PART #	MFG #	DESCRIPTION
A1505BSX	150SBS	1 1/2" Poly Suction Basket Strainer
A2005BSX	200SBS	2" Poly Suction Basket Strainer
A3005BSX	300SBS	3" Poly Suction Basket Strainer

LIQUID TEFLON SEALANT

- Easy application liquid teflon
- Fast thread sealing
- Cans come with dauber applicator

NOTE: Not recommended for polypropylene fittings



PART #	DESCRIPTION
E224CX	LIQUID TEFLON 2 OZ. TUBE
E224BX	LIQUID TEFLON 4 OZ. CAN
E224DX	LIQUID TEFLON 8 OZ CAN

TEFLON TAPE

- Heavy duty industrial grade
- Ideal for sealing threaded connections
- 1/2" x 520" single roll

NOTE: Not recommended for polypropylene fittings



PART #	DESCRIPTION
E224AX	TEFLON TAPE 1/2" X 520"

RECTOR SEAL NO. 21

- Pipe thread compound
- Color black, slow dry, soft set
- Applicable for use on threaded steel, iron, copper and stainless steel pipe
- Non-seizing - breaks out easily without stripping, galling or damaging threads
- Brushable to plus 20° F
- Brush top can



PART #	DESCRIPTION
E224X	RECTOR SEAL #21 (1/2 PINT)

DUCT TAPE

- Heavy Duty all purpose
- 2" x 60 yards single roll



PART #	DESCRIPTION
E224FX	DUCT TAPE ROLL

RECTOR SEAL TRU-BLU

- Brush top can
- Fast drying
- Applicable for use on metal and plastic pipe
- Flexible set thread sealent
- High vibration environment



PART #	DESCRIPTION
E224GX	RECTOR SEAL TRU-BLU

PVC ELECTRICAL TAPE

- Tough 7 mill PVC tape
- Excellent adhesive ability
- 3/4" x 60' single roll



PART #	DESCRIPTION
E224EX	PVC ELECTRICAL TAPE

POLYPROPYLENE HOSE BARBS

(SCHEDULE 80)

- Precision molded in polypropylene
- Glass reinforced for stability, strength and toughness
- Hose barbs are molded specifically to fit properly into hoses
- Sizes range from 1 1/2" to 4"
- Combination sizes available for elbows and straight barbs
- Excellent chemical resistance
- Pressure to 150 psi at 70° F

POLY STRAIGHT HOSE BARBS



Part #	MPT X HB
AB191X	1/4" X 1/4"
AB192X	1/4" X 3/8"
AB193X	1/4" X 1/2"
AB194X	3/8" X 1/4"
AB195X	3/8" X 3/8"
AB196X	3/8" X 1/2"
AB197X	1/2" X 1/4"
AB198X	1/2" X 3/8"
AB199X	1/2" X 1/2"
AB201X	1/2" X 3/4"
AB202X	3/4" X 3/8"
AB203X	3/4" X 1/2"
AB203AX	3/4" X 5/8"
AB205X	3/4" X 3/4"
AB206X	3/4" X 1"
AB207X	1" X 3/4"
AB216X	1" X 1"
AB209X	1" X 1 1/4"
AB210AX	1 1/4" X 3/4"
AB216AX	1 1/4" X 1"
AB217X	1 1/4" X 1 1/4"
AB212X	1 1/4" X 1 1/2"
AB217AX	1 1/2" X 1"
AB213X	1 1/2" X 1 1/4"
AB218X	1 1/2" X 1 1/2"
AB218AX	1 1/2" X 2"
AB219AX	2" X 1 1/2"
AB219X	2" X 2"
AB220X	3" X 3"
AB220AX	4" X 4"

Part #	FPT X HB
AB219FX	2" X 2"

POLY 90° HOSE BARBS

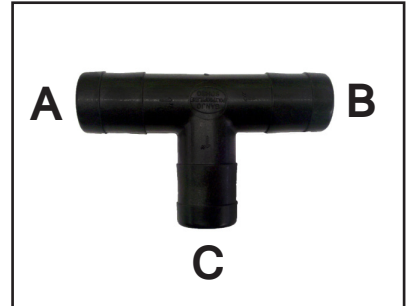


Part #	MPT X HB
AB137X	1/4" X 1/4"
AB138X	1/4" X 3/8"
AB139X	1/4" X 1/2"
AB140X	3/8" X 3/8"
AB142X	1/2" X 3/8"
AB143X	1/2" X 1/2"
AB145X	1/2" X 3/4"
AB147X	3/4" X 1/2"
AB149X	3/4" X 3/4"
AB150X	3/4" X 1"
AB153X	1" X 3/4"
AB221BX	1" X 1"
AB154BX	1" X 1 1/4"
AB155X	1 1/4" X 1"
AB221CX	1 1/4" X 1 1/4"
AB156AX	1 1/4" X 1 1/2"
AB156BX	1 1/2" X 1 1/4"
AB221X	1 1/2" X 1 1/2"
AB221AX	2" X 1 1/2"
AB222X	2" X 2"
AB222SW90X	2" X 2" Sweep
AB223X	3" X 3"
AB223SW90X	3" X 3" Sweep



SHOP PARTS ONLINE

POLYPROPYLENE HOSE BARBS (SCHEDULE 80)



HOSE BARB MENDER

Part #	DESCRIPTION
AB185X	1/4" HOSE MENDER
AB186X	3/8" HOSE MENDER
AB187X	1/2" HOSE MENDER
AB188AX	3/4" HOSE MENDER
AB188BX	1" HOSE MENDER
AB188DX	1 1/4" HOSE MENDER
AB188CX	1 1/2" HOSE MENDER
AB188EX	2" HOSE MENDER
AB188FX	3" HOSE MENDER

HOSE BARB TEE

Part #	A	B	C
AB160X	1/4"	1/4"	1/4"
AB161X	3/8"	3/8"	3/8"
AB162X	1/2"	1/2"	3/8"
AB163X	1/2"	1/2"	1/2"
AB165X	1/2"	1/2"	3/4"
AB163AX	3/4"	3/4"	1/2"
AB166X	3/4"	3/4"	3/4"
AB166BX	3/4"	3/4"	1"
AB166CX	1"	1"	3/4"
AB166AX	1"	1"	1"
AB168AX	2"	2"	2"
AB169X	3"	3"	3"



STAINLESS HOSE BARB

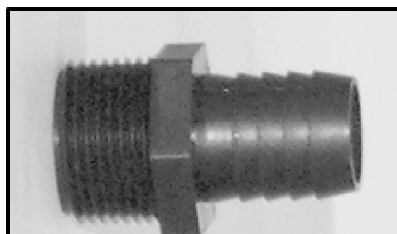
Part #	MPT X HB
A191SX	1/4" X 1/4"
A192SX	1/4" X 3/8"
A193SX	1/4" X 1/2"
A195SX	3/8" X 3/8"
A196SX	3/8" X 1/2"
E900X	1/2" X 1/2"
A200SX	1/2" X 5/8"
A201SX	1/2" X 3/4"
E901X	3/4" X 3/4"
A206SX	3/4" X 1"
E902X	1" X 1"
E903X	1 1/4" X 1 1/4"
E904X	1 1/2" X 1 1/2"
E905X	2" X 2"
E905AX	3" X 3"
E905BX	4" X 4"

STEEL HOSE BARB

Part #	MPT X HB
A190EX	1/8" X 3/8"
A191EX	1/4" X 1/4"
A192EX	1/4" X 3/8"
A193EX	1/4" X 1/2"
A194EX	3/8" X 1/4"
A197EX	1/2" X 1/4"
A198EX	1/2" X 3/8"
E379X	1/2" X 1/2"
A201EX	1/2" X 3/4"
A202EX	3/4" X 3/8"
A203EX	3/4" X 1/2"
E380X	3/4" X 3/4"
E381X	1" X 1"
E382X	1 1/4" X 1 1/4"
E383X	1 1/2" X 1 1/2"
E384X	2" X 2"
E385X	3" X 3"
E386X	4" X 4"

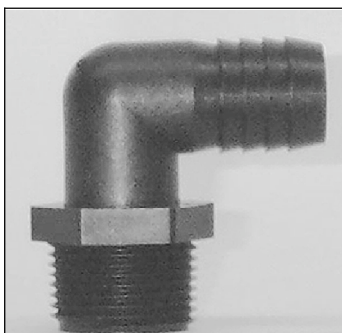
POLYPROPYLENE HOSE BARBS (ECONOMY)

(NOTE: SOME ITEMS ONLY AVAILABLE IN NYLON)



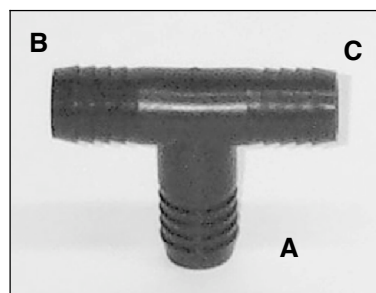
MPTX HOSE BARB

PART #	MPT X HB
A189X	1/8" X 1/4"
A190X	1/8" X 3/8"
A191X	1/4" X 1/4"
A192X	1/4" X 3/8"
A193X	1/4" X 1/2"
A194X	3/8" X 1/4"
A195X	3/8" X 3/8"
A196X	3/8" X 1/2"
A196AX	3/8" X 5/8"
A197X	1/2" X 1/4"
A198X	1/2" X 3/8"
A199X	1/2" X 1/2"
A199AX	1/2" X 5/8"
A201X	1/2" X 3/4"
A201BX	1/2" X 1"
A201AX	3/4" X 1/4"
A202X	3/4" X 3/8"
A203X	3/4" X 1/2"
A203AX	3/4" X 5/8"
A205X	3/4" X 3/4"
A206X	3/4" X 1"
A207X	1" X 3/4"
A208X	1" X 1"
A209X	1" X 1 1/4"
A210X	1 1/4" X 1"
A210AX	1 1/4" X 3/4"
A211X	1 1/4" X 1 1/4"
A212X	1 1/4" X 1 1/2"
A213X	1 1/2" X 1 1/4"
A214X	1 1/2" X 1 1/2"
A215X	2" X 2"



MPT X HOSE BARB EL.

PART #	MPT X HB - EL
A137AX	1/8" X 1/4"
A137BX	1/8" X 3/8"
A137X	1/4" X 1/4"
A138X	1/4" X 3/8"
A139X	1/4" X 1/2"
A139AX	1/4" X 5/8"
A140X	3/8" X 3/8"
A140AX	3/8" X 5/8"
A140BX	3/8" X 1/4"
A141X	3/8" X 1/2"
A141AX	1/2" X 1/4"
A142X	1/2" X 3/8"
A143X	1/2" X 1/2"
A144X	1/2" X 5/8"
A145X	1/2" X 3/4"
A145AX	1/2" X 1"
A146BX	3/4" X 1/4"
A146X	3/4" X 3/8"
A147X	3/4" X 1/2"
A148X	3/4" X 5/8"
A149X	3/4" X 3/4"
A150X	3/4" X 1"
A151X	1" X 1/2"
A153X	1" X 3/4"
A154X	1" X 1"
A154AX	1 1/4" X 3/4"
A155X	1 1/4" X 1"
A156X	1 1/4" X 1 1/4"
A156AX	1 1/4" X 1 1/2"
A156BX	1 1/2" X 1 1/4"
A157X	1 1/2" X 1 1/2"
A158X	2" X 2"



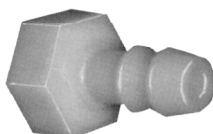
HOSE BARB TEES

PART #	A	B	C
A159X	1/8"	1/8"	1/8"
A160X	1/4"	1/4"	1/4"
A161X	3/8"	3/8"	3/8"
A162X	3/8"	1/2"	1/2"
A163X	1/2"	1/2"	1/2"
A163AX	1/2"	3/4"	3/4"
A164X	1/2"	3/8"	3/8"
A164AX	5/8"	5/8"	5/8"
A165X	3/4"	1/2"	1/2"
A166X	3/4"	3/4"	3/4"
A166AX	1"	1"	1"
A167X	1 1/4"	1 1/4"	1 1/4"
A168X	1 1/2"	1 1/2"	1 1/2"
A168AX	2"	2"	2"



HOSE BARB MENDERS

PART #	HB X HB
A185X	1/4" X 1/4"
A186X	3/8" X 3/8"
A179X	3/8" X 1/4"
A187X	1/2" X 1/2"
A180X	1/2" X 1/4"
A181X	1/2" X 3/8"
A188X	5/8" X 5/8"
A182X	5/8" X 3/8"
A183X	5/8" X 1/2"
A188AX	3/4" X 3/4"
A188BX	1" X 1"
A188DX	1 1/4" X 1 1/4"
A188CX	1 1/2" X 1 1/2"
A188EX	2" X 2"



FPT X HOSE BARB

PART #	DESCRIPTION
A191FX	1/4" FPTX X 1/4" HB
A192FX	1/4" FPTX X 3/8" HB
A193FX	1/4" FPTX X 1/2" HB
A194FX	3/8" FPTX X 1/4" HB
A199FX	1/2" FPTX X 1/2" HB
A197FX	1/2" FPTX X 1/4" HB
A198FX	1/2" FPTX X 3/8" HB
A199FX	1/2" FPTX X 1/2" HB
A203FX	3/4" FPTX X 1/2" HB
A205FX	3/4" FPTX X 3/4" HB



**DOUBLE HOSE
BARB ELBOWS**

PART #	HB X HB
A224X	1/4" X 1/4"
A225X	3/8" X 3/8"
A226X	1/2" X 1/2"
A226AX	5/8" X 5/8"
A227X	3/4" X 3/4"
A228X	1" X 1"
A229X	1 1/4" X 1 1/4"
A230X	1 1/2" X 1 1/2"
A231X	2" X 2"

GARDEN HOSE FITTINGS



MGHT X HOSE BARB

Part #	DESCRIPTION
A233X	3/4" MGHT X 3/8" BARB
A233AX	3/4" MGHT X 1/2" BARB
A233BX	3/4" MGHT X 5/8" BARB
A233CX	3/4" MGHT X 3/4" BARB



FLAT SEAT HOSE BARB

Part #	DESCRIPTION
A236AX	1/4" BARB
A237X	3/8" BARB
A238X	1/2" BARB
A239X	5/8" BARB
A240X	3/4" BARB



FGHT - SWIVEL NUT

Part #	DESCRIPTION
A235X	3/4" GHTF NUT
A236X	3/4" IPTF NUT



FGHT - CAP

Part #	DESCRIPTION
A234X	3/4" FGHT CAP



WASHER

Part #	DESCRIPTION
A235AX	G.H. WASHER



FGHT X MPT

Part #	DESCRIPTION
A177BX	3/4" FGHT X 3/4" MPT



MGHT X MPT

Part #	DESCRIPTION
A177CX	3/4" MGHT X 1/2" MPT
A177AX	3/4" MGHT X 3/4" MPT



MGHT X FPT

Part #	DESCRIPTION
A177EX	3/4" MGHT X 1/2" FPT
A177HX	3/4" MGHT X 3/4" FPT



ADAPTER X FGHT

Part #	DESCRIPTION
A232AX	3/4" ADAPTER X 3/4" FGHT



ADAPTER X MGHT

Part #	DESCRIPTION
A232FX	3/4" ADAPTER X 3/4" MGHT



COUPLER X MGHT

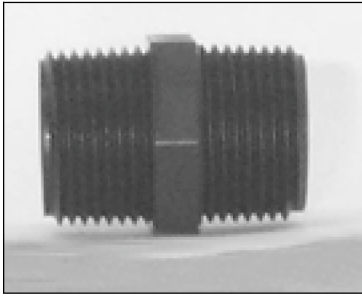
Part #	DESCRIPTION
A232BX	3/4" COUPLER X 3/4" MGHT



COUPLER X FGHT

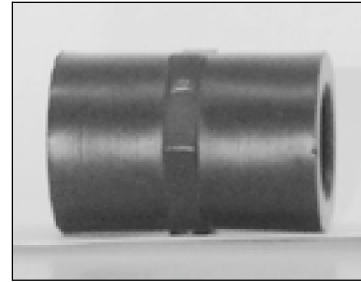
Part #	DESCRIPTION
A232DX	3/4" COUPLER X 3/4" FGHT

POLYPROPYLENE PIPE FITTINGS (ECONOMY)



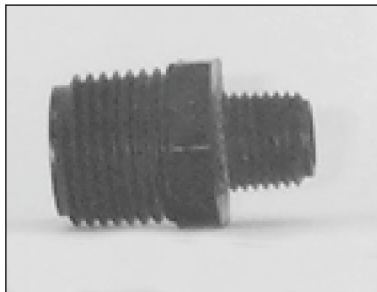
PIPE NIPPLES

PART #	DESCRIPTION
A169X	1/8" MPT X 1/8" MPT PIPE NIPPLE
A170X	1/4" MPT X 1/4" MPT PIPE NIPPLE
A171X	3/8" MPT X 3/8" MPT PIPE NIPPLE
A172X	1/2" MPT X 1/2" MPT PIPE NIPPLE
A173X	3/4" MPT X 3/4" MPT PIPE NIPPLE
A174X	1" MPT X 1" MPT PIPE NIPPLE
A175X	1 1/4" MPT X 1 1/4" MPT PIPE NIPPLE
A176X	1 1/2" MPT X 1 1/2" MPT PIPE NIPPLE
A177X	2" MPT X 2" MPT PIPE NIPPLE



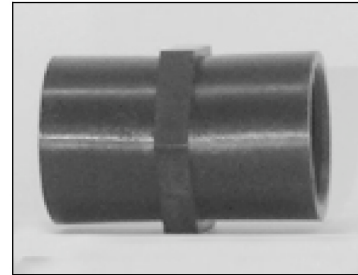
PIPE COUPLINGS

PART #	DESCRIPTION
E653BX	1/8" FPT COUPLING
E653CX	1/4" FPT COUPLING
E653DX	3/8" FPT COUPLING
E654X	1/2" FPT COUPLING
E655X	3/4" FPT COUPLING
E656X	1" FPT COUPLING
E657X	1 1/4" FPT COUPLING
E658X	1 1/2" FPT COUPLING
E659X	2" FPT COUPLING



REDUCER NIPPLES

PART #	DESCRIPTION
A170AX	1/4" MPT X 1/8" MPT PIPE NIPPLE
A171BX	3/8" MPT X 1/4" MPT PIPE NIPPLE
A172BX	1/2" MPT X 1/4" MPT PIPE NIPPLE



REDUCER COUPLINGS

PART #	DESCRIPTION
E661X	1/4" FPT X 1/8" FPT RED. COUPLING
E662X	3/8" FPT X 1/4" FPT RED. COUPLING
E663X	1/2" FPT X 3/8" FPT RED. COUPLING
E664X	3/4" FPT X 1/2" FPT RED. COUPLING



PIPE ELBOWS 90°

PART #	DESCRIPTION
E648X	1/2" FPT 90° ELBOW
E649X	3/4" FPT 90° ELBOW
E650X	1" FPT 90° ELBOW
E651X	1 1/4" FPT 90° ELBOW
E652X	1 1/2" FPT 90° ELBOW
E653X	2" FPT 90° ELBOW



STREET ELBOWS 90°

PART #	DESCRIPTION
E612X	1/4" FPT X 1/4" MPT 90° ST ELBOW
E613X	1/2" FPT X 1/2" MPT 90° ST ELBOW
E614X	3/4" FPT X 3/4" MPT 90° ST ELBOW
E615X	1" FPT X 1" MPT 90° ST ELBOW
E616X	1 1/4" FPT X 1 1/4" MPT 90° ST ELBOW
E617X	1 1/2" FPT X 1 1/2" MPT 90° ST ELBOW
E618X	2" FPT X 2" MPT 90° ST ELBOW

POLYPROPYLENE PIPE FITTINGS

(ECONOMY)



PIPE TEES

Part #	Description
E622X	1/4" PIPE TEE
E623X	1/2" PIPE TEE
E624X	3/4" PIPE TEE
E625X	1" PIPE TEE
E626X	1 1/4" PIPE TEE
E627X	1 1/2" PIPE TEE
E628X	2" PIPE TEE



REDUCER BUSHINGS

Part #	Description
E630AX	1/4" X 1/8" R.B.
E630X	3/8" X 1/8" R.B.
E631X	3/8" X 1/4" R.B.
E631AX	1/2" X 1/4" R.B.
E632X	1/2" X 3/8" R.B.
E632AX	3/4" X 1/8" R.B.
E633X	3/4" X 1/2" R.B.
E634X	3/4" X 1/4" R.B.
E635X	3/4" X 3/8" R.B.
E635AX	1" X 1/2" R.B.
E636X	1" X 3/4" R.B.
E637X	1 1/4" X 1/2" R.B.
E638X	1 1/4" X 3/4" R.B.
E639X	1 1/4" X 1" R.B.
E641X	1 1/2" X 3/4" R.B.
E642X	1 1/2" X 1" R.B.
E643X	1 1/2" X 1 1/4" R.B.
E645X	2" X 3/4" R.B.
E645AX	2" X 1" R.B.
E645BX	2" X 1 1/4" R.B.
E646X	2" X 1 1/2" R.B.
E647X	3" X 2" R.B.

PIPE PLUGS



Part #	Description
E600X	1/8" MPT PLUG
E601X	1/4" MPT PLUG
E602X	3/8" MPT PLUG
E603X	1/2" MPT PLUG
E604X	3/4" MPT PLUG
E605X	1" MPT PLUG
E606X	1 1/4" MPT PLUG
E608X	1 1/2" MPT PLUG
E607X	2" MPT PLUG

POLYPROPYLENE SWIVELS

FEATURES

- Teflon thrust bearing
- Viton O-rings
- Heavy duty reinforced polypropylene
- Hex flats
- S.S. drive stud.
- 75 P.S.I. maximum

Part #	Description
E798X	1" FEMALE X 1" MALE POLY SWIVEL
E798AX	1 1/2" FEMALE X 1 1/2" MALE POLY SWIVEL
E799X	2" FEMALE X 2" MALE POLY SWIVEL
E799AX	2" FEMALE FULL PORTX 2" MALE FULL PORT POLY SWIVEL



POLYPROPYLENE PIPE FITTINGS (SCHEDULE 80)

FEATURES

- Reinforced Polypropylene.
- Heavy duty (Schedule 80).
- Lightweight with excellent strength.
- NPT threads.
- Excellent chemical resistance.
- Pressure to 150 P.S.I. at 70°F.



PIPE NIPPLES

PART #	DESCRIPTION
E745BX	1/4" X SHORT NIPPLE
E745AX	3/8" X SHORT NIPPLE
E746AX	1/2" X SHORT NIPPLE
E746BX	1/2" X 3" NIPPLE
E747X	3/4" X SHORT NIPPLE
E747AX	3/4" X 4" NIPPLE
E747BX	3/4" X 6" NIPPLE
E748X	1" X SHORT NIPPLE
E748AX	1" X 4" NIPPLE
E748BX	1" X 6" NIPPLE
E749X	1 1/4" X SHORT NIPPLE
E749AX	1 1/4" X 4" NIPPLE
E749BX	1 1/4" X 6" NIPPLE
E750X	1 1/2" X SHORT NIPPLE
E750AX	1 1/2" X 3" NIPPLE
E751X	1 1/2" X 4" NIPPLE
E751AX	1 1/2" X 5" NIPPLE
E752X	1 1/2" X 6" NIPPLE
E755X	2" X SHORT NIPPLE
E756X	2" X 4" NIPPLE
E757X	2" X 6" NIPPLE
E758X	3" X SHORT NIPPLE
E759X	3" X 4" NIPPLE
E759AX	3" X 6" NIPPLE
E760AX	4" X SHORT NIPPLE



PIPE COUPLINGS

PART #	DESCRIPTION
E720AX	1/4" PIPE COUPLING
E719BX	3/8" PIPE COUPLING
E720X	1/2" PIPE COUPLING
E721X	3/4" PIPE COUPLING
E722X	1" PIPE COUPLING
E723X	1 1/4" PIPE COUPLING
E724X	1 1/2" PIPE COUPLING
E725X	2" PIPE COUPLING
E726X	3" PIPE COUPLING



REDUCER COUPLINGS

PART #	DESCRIPTION
E774X	1" X 3/4" RED. COUPL.
E775X	1 1/2" X 1" COUPLING
E776X	1 1/2" X 1 1/4" COUPL.
E784X	2" X 1 1/2" COUPLING
E785X	2" X 1" COUPLING
E786X	2" X 1 1/4" COUPLING
E787X	2" X 1 1/2" COUPLING
E788X	3" X 2" COUPLING

REDUCER NIPPLES

PART #	DESCRIPTION
E705AX	1/2" X 3/8" RED. NIP.
E706X	3/4" X 1/2" RED. NIP.
E706BX	1" X 1/2" RED. NIP.
E706AX	1" X 3/4" RED. NIP.
E707BX	1 1/4" X 3/4" RED. NIP.
E707X	1 1/4" X 1" RED. NIP.
E707CX	1 1/2" X 1" RED. NIP.
E707AX	1 1/2" X 1 1/4" RED. NIP.
E707DX	2" X 1 1/4" RED. NIP.
E708X	2" X 1 1/2" RED. NIP.
E708AX	3" X 2" RED. NIP.



PIPE ELBOWS 45°

PART #	DESCRIPTION
E717BX	1" ELBOW 45°



STREET ELBOWS 45°

PART #	DESCRIPTION
E717X	3/4" ST. ELBOW
E717AX	1" ST. ELBOW
E718X	1 1/4" ST. ELBOW
E718AX	1 1/2" ST. ELBOW
E719X	2" ST. ELBOW
E719AX	3" ST. ELBOW



PIPE ELBOWS 90°

PART #	DESCRIPTION
E738X	1/4" ELBOW
E739X	3/8" ELBOW
E740X	1/2" ELBOW
E741X	3/4" ELBOW
E742X	1" ELBOW
E743X	1 1/4" ELBOW
E744X	1 1/2" ELBOW
E745X	2" ELBOW
E746X	3" ELBOW



SHOP PARTS ONLINE

POLYPROPYLENE PIPE FITTINGS (SCHEDULE 80)

FEATURES

- Reinforced Polypropylene.
- Heavy duty (Schedule 80).
- Lightweight with excellent strength.
- NPT threads.
- Excellent chemical resistance.
- Pressure to 150 P.S.I. at 70°F.



STREET ELBOWS 90°

PART #	DESCRIPTION
E709AX	1/4" STREET ELBOW
E709X	3/8" STREET ELBOW
E710X	1/2" STREET ELBOW
E711X	3/4" STREET ELBOW
E712X	1" STREET ELBOW
E713X	1 1/4" STREET ELBOW
E714X	1 1/2" STREET ELBOW
E715X	2" STREET ELBOW
E716X	3" STREET ELBOW



CROSS

PART #	DESCRIPTION
E700X	1/4" CROSS
E700AX	3/8" CROSS
E701AX	1/2" CROSS
E701X	3/4" CROSS
E702X	1" CROSS
E702 AX	1 1/4" CROSS
E703X	1 1/2" CROSS
E704X	2" CROSS



REDUCER BUSHINGS

PART #	DESCRIPTION
E758AX	3/8" X 1/4" RED. BUSH.
E759GX	1/2" X 3/8" RED. BUSH.
E759HX	1/2" X 1/4" RED. BUSH.
E758BX	3/4" X 1/8" RED. BUSH.
E759IX	3/4" X 1/4" RED. BUSH.
E759KX	3/4" X 3/8" RED. BUSH.
E759BX	3/4" X 1/2" RED. BUSH.
E758EX	1" X 1/8" BUSHING
E758FX	1" X 1/4" BUSHING
E759CX	1" X 1/2" BUSHING
E759DX	1" X 3/4" BUSHING
E759EX	1 1/4" X 3/4" BUSHING
E759FX	1 1/4" X 1" BUSHING
E760X	1 1/2" X 3/4" BUSHING
E761X	1 1/2" X 1" BUSHING
E762X	1 1/2" X 1 1/4" BUSHING
E763X	2" X 3/4" BUSHING
E765X	2" X 1" BUSHING
E766X	2" X 1 1/4" BUSHING
E767X	2" X 1 1/2" BUSHING
E770X	3" X 1 1/2" BUSHING
E771X	3" X 2" BUSHING
E771AX	4" X 3" BUSHING



PIPE TEES

PART #	DESCRIPTION
E728X	1/4" PIPE TEE
E729X	3/8" PIPE TEE
E730X	1/2" PIPE TEE
E731X	3/4" PIPE TEE
E732X	1" PIPE TEE
E733X	1 1/4" PIPE TEE
E734X	1 1/2" PIPE TEE
E735X	2" PIPE TEE
E736X	3" PIPE TEE



PIPE PLUGS

PART #	DESCRIPTION
E794EX	1/4" PIPE PLUG
E794FX	3/8" PIPE PLUG
E794DX	1/2" PIPE PLUG
E794AX	3/4" PIPE PLUG
E794BX	1" PIPE PLUG
E794CX	1 1/4" PIPE PLUG
E795X	1 1/2" PIPE PLUG
E796X	2" PIPE PLUG
E797X	3" PIPE PLUG



PIPE CAPS

PART #	DESCRIPTION
E790BX	1/4" PIPE CAP
E790CX	3/8" PIPE CAP
E790AX	1/2" PIPE CAP
E790X	3/4" PIPE CAP
E791X	1" PIPE CAP
E791AX	1 1/4" PIPE CAP
E792X	1 1/2" PIPE CAP
E793X	2" PIPE CAP
E794X	3" PIPE CAP

MALLEABLE IRON FITTINGS (SCHEDULE 40)

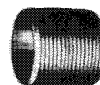
MALL. IRON 45 DEG. ELBOWS

PART #	DESCRIPTION
E279X	1/4"
E280X	1/2"
E281X	3/4"
E282X	1"
E283X	1 1/4"
E284X	1 1/2"
E285X	2"
E286X	3"
E287X	4"



MALL. IRON BUSHINGS

PART #	DESCRIPTION
E225X	1/4" X 1/8"
E226X	3/8" X 1/4"
E227AX	1/2" X 1/8"
E227X	1/2" X 1/4"
E228X	1/2" X 3/8"
E229X	3/4" X 1/4"
E230X	3/4" X 3/8"
E231X	3/4" X 1/2"
E231AX	1" X 3/8"
E232X	1" X 1/2"
E233X	1" X 3/4"
E234X	1 1/4" X 1/2"
E235X	1 1/4" X 3/4"
E236X	1 1/4" X 1"
E237X	1 1/2" X 1/2"
E238X	1 1/2" X 3/4"
E239X	1 1/2" X 1"
E240X	1 1/2" X 1 1/4"
E240AX	2" X 3/4"
E241X	2" X 1"
E242X	2" X 1 1/4"
E243X	2" X 1 1/2"
E244X	3" X 1 1/2"
E247X	3" X 2"
E247AX	4" X 1 1/2"
E248AX	4" X 2"
E248X	4" X 3"



MALL. IRON 90 DEG. ELBOWS

PART #	DESCRIPTION
E289X	1/8"
E290X	1/4"
E292X	3/8"
E293X	1/2"
E294X	3/4"
E295X	1"
E296X	1 1/4"
E297X	1 1/2"
E298X	2"
E299X	3"
E300X	4"



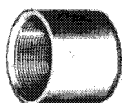
MALL. IRON 90 DEG. ST. ELBOWS

PART #	DESCRIPTION
E301X	1/8"
E302X	1/4"
E303X	3/8"
E304X	1/2"
E305X	3/4"
E306X	1"
E307X	1 1/4"
E308X	1 1/2"
E309X	2"
E310X	3"
E311X	4"



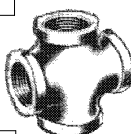
IRON BELL RED. COUPLINGS

PART #	DESCRIPTION
E250AX	3/8" X 1/4"
E251X	1/2" X 1/4"
E253X	1/2" X 3/8"
E255X	3/4" X 3/8"
E256X	3/4" X 1/2"
E258X	1" X 3/4"
E259AX	1 1/4" X 3/4"
E260X	1 1/4" X 1"
E262X	1 1/2" X 1"
E263X	1 1/2" X 1 1/4"
E265X	2" X 1 1/2"
E267X	3" X 2"



MALL. IRON COUPLINGS

PART #	DESCRIPTION
E249X	1/4"
E250X	3/8"
E252X	1/2"
E254X	3/4"
E257X	1"
E259X	1 1/4"
E261X	1 1/2"
E264X	2"
E266X	3"
E266AX	4"



MALL. IRON CROSS

PART #	DESCRIPTION
E270BX	1/4"
E271X	1/2"
E272X	3/4"
E273X	1"
E274X	1 1/4"
E275X	1 1/2"
E276X	2"
E276AX	3"



STEEL KING NIPPLES

PART #	DESCRIPTION
E379X	1/2"
E380X	3/4"
E381X	1"
E382X	1 1/4"
E383X	1 1/2"
E384X	2"
E385X	3"
E386X	4"
E387X	6"

WELDED STEEL NIPPLES

PART #	DESCRIPTION
E315X	1/8" X CLOSE
E315AX	1/8" X 1 1/2"
E316X	1/4" X CLOSE
E316AX	1/4" X 1/2"
E317X	1/4" X 2"
E318X	1/4" X 4"
E318AX	1/4" X 6"
E319X	1/4" X 12"
E320X	3/8" X CLOSE
E321X	3/8" X 2"
E322X	3/8" X 4"
E323X	3/8" X 6"
E323BX	3/8" X 8"
E324X	1/2" X CLOSE
E324AX	1/2" X 1 1/2"
E325X	1/2" X 2"
E326X	1/2" X 4"
E327X	1/2" X 6"
E328X	3/4" X CLOSE
E329X	3/4" X 2"
E329AX	3/4" X 3"
E330X	3/4" X 4"
E331X	3/4" X 6"
E332X	1" X CLOSE
E333X	1" X 2"
E334X	1" X 4"
E335X	1" X 6"
E336X	1 1/4" X CLOSE
E337X	1 1/4" X 2"
E337AX	1 1/4" X 3"
E338X	1 1/4" X 4"
E339X	1 1/4" X 6"
E339AX	1 1/4" X 8"
E339DX	1 1/4" X 10"
E340X	1 1/2" X CLOSE
E341X	1 1/2" X 4"
E342X	1 1/2" X 6"
E343X	2" X CLOSE
E344X	2" X 4"
E345X	2" X 6"
E345AX	2" X 12"
E346X	3" X CLOSE
E346BX	3" X 4"
E347X	3" X 6"
E348X	4" X CLOSE
E349X	4" X 4"
E349AX	4" X 6"



CAST IRON PIPE PLUGS

PART #	DESCRIPTION
E351X	1/8"
E352X	1/4"
E353X	3/8"
E354X	1/2"
E355X	3/4"
E356X	1"
E357X	1 1/4"
E358X	1 1/2"
E359X	2"
E360X	3"
E361X	4"
E362X	5"



MALL. IRON TEES

PART #	DESCRIPTION
E364X	1/8"
E365X	1/4"
E366X	3/8"
E367X	1/2"
E368X	3/4"
E369X	1"
E370X	1 1/4"
E371X	1 1/2"
E373X	2"
E376X	3"
E377X	4"

SCHEDULE 80 & FORGED STEEL FITTINGS

ELBOWS 45°

Part #	DESCRIPTION
E281AX	3/4" ELBOW 45°
E282AX	1" ELBOW 45°
E283AX	1 1/4" ELBOW 45°
E283BX	1 1/2" ELBOW 45°



ELBOWS 90°

Part #	DESCRIPTION
E293BX	1/2" ELBOW
E294AX	3/4" ELBOW
E295AX	1" ELBOW
E296AX	1 1/4" ELBOW
E297AX	1 1/2" ELBOW
E298AX	2" ELBOW



ST. ELBOWS 90°

Part #	DESCRIPTION
E302AX	1/4" ST. ELBOW
E305BX	3/4" ST ELBOW
E306AX	1" ST. ELBOW
E307AX	1 1/4" ST. ELBOW
E308BX	1 1/2" ST. ELBOW



NIPPLES

Part #	DESCRIPTION
E317AX	1/4" X 2"
E325AX	1/2" X 2"
E328AX	3/4" X CLOSE
E329BX	3/4" X 3"
E332AX	1" X CLOSE
E332BX	1" X 2"
E333AX	1" X 3"
E334AX	1" X 4"
E334BX	1" X 5"
E335AX	1" X 6"
E335BX	1" X 8"
E336AX	1 1/4" X CLOSE
E336BX	1 1/4" X 2"
E337BX	1 1/4" X 3"
E338AX	1 1/4" X 4"
E338BX	1 1/4" X 5"
E338CX	1 1/4" X 6"
E339BX	1 1/4" X 8"
E340CX	1 1/2" X CLOSE
E340DX	1 1/2" X 2"
E341AX	1 1/2" X 3"
E341BX	1 1/2" X 4"
E342BX	1 1/2" X 6"
E342AX	2" X CLOSE
E346AX	3" X CLOSE



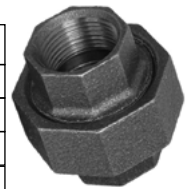
CROSS

Part #	DESCRIPTION
E273AX	1" CROSS
E274AX	1 1/4" CROSS



3000# UNION

Part #	DESCRIPTION
E267AX	1" UNION
E268AX	1 1/4" UNION
E269AX	1 1/2" UNION
E270AX	2" UNION



3000# COUPLINGS

Part #	DESCRIPTION
E249AX	1/4" COUPLING
E254AX	3/4" COUPLING
E257AX	1" COUPLING
E259BX	1 1/4" COUPLING
E261AX	1 1/2" COUPLING
E264AX	2" COUPLING



3000# RED. COUPLINGS

Part #	DESCRIPTION
E258AX	1" X 3/4"
E260AX	1 1/4" X 1"



3000# RED. BUSHINGS

Part #	DESCRIPTION
E227BX	1/2" X 1/4"
E229AX	3/4" X 1/4"
E230AX	3/4" X 1/2"
E233AX	1" X 3/4"
E234AX	1 1/4" X 1/2"
E236BX	1 1/4" X 1/4"
E236AX	1 1/4" X 1"
E239AX	1 1/2" X 1"
E239BX	1 1/2" X 1 1/4"
E242AX	2" X 1 1/4"
E243AX	2" X 1 1/2"



TEE

Part #	DESCRIPTION
E365AX	1/4" TEE
E365BX	1/2" TEE
E368AX	3/4" TEE
E369BX	1" TEE
E370AX	1 1/4" TEE
E371AX	1 1/2" TEE



PLUG

Part #	DESCRIPTION
E356AX	1" Plug
E357AX	1 1/4" Plug



MALE PIPE SWIVEL ADAPTER

Part #	DESCRIPTION
P15081006X	1" MANIFOLD SWIVEL
P15081006AX	1 1/4" MANIFOLD SWIVEL
P15081006BX	1 1/4" MPT X 1" MANIFOLD SWIVEL
P15081006CX	1 1/2" MANIFOLD SWIVEL
P15081006DX	1" MPT X 1 1/4" MANIFOLD SWIVEL



304 STAINLESS STEEL FITTINGS

STAINLESS KING NIPPLES

Part #	DESCRIPTION
E900X	1/2"
E901X	3/4"
E902X	1"
E903X	1 1/4"
E904X	1 1/2"
E905X	2"
E905AX	3"
E905BX	4"



STAINLESS RED. BUSHING

Part #	DESCRIPTION
E800X	1/4" X 1/8"
E801X	3/8" X 1/4"
E802X	1/2" X 1/4"
E803X	1/2" X 3/8"
E805X	3/4" X 1/2"
E805AX	3/4" X 1/4"
E806AX	1" X 3/8"
E806X	1" X 1/2"
E807X	1" X 3/4"
E808X	1 1/4" X 3/4"
E808AX	1 1/4" X 1"
E809X	1 1/2" X 1"
E810X	1 1/2" X 1 1/4"
E810AX	2" X 1"
E811X	2" X 1 1/2"
E813X	3" X 2"
E814X	4" X 3"

STAINLESS 90° ST. ELBOW

Part #	DESCRIPTION
E847X	1/8"
E848X	1/4"
E849X	3/8"
E850X	1/2"
E851X	3/4"
E852X	1"
E853X	1 1/4"
E854X	1 1/2"
E854AX	2"
E854BX	3"
E854CX	4"



STAINLESS 90° ELBOW

Part #	DESCRIPTION
E837X	1/8"
E838X	1/4"
E839X	3/8"
E840X	1/2"
E841X	3/4"
E842X	1"
E843X	1 1/4"
E844X	1 1/2"
E845X	2"
E846X	3"
E846AX	4"



STAINLESS PLUG

Part #	DESCRIPTION
E884AX	1/8"
E884BX	1/4"
E884CX	3/8"
E884DX	1/2"
E884EX	3/4"
E884X	1"
E885X	1 1/4"
E886X	1 1/2"
E887X	2"
E888X	3"
E888AX	4"

STAINLESS 45° ELBOW

Part #	DESCRIPTION
E827X	1/8"
E828X	1/4"
E829X	3/8"
E830X	1/2"
E831X	3/4"
E832X	1"
E833X	1 1/4"
E834X	1 1/2"
E835X	2"
E836X	3"
E836AX	4"



STAINLESS TEE

Part #	DESCRIPTION
E889AX	1/8"
E889BX	1/4"
E889X	3/8"
E890X	1/2"
E891X	3/4"
E892X	1"
E893X	1 1/4"
E894X	1 1/2"
E895X	2"
E896X	3"
E896AX	4"



STAINLESS CROSS

Part #	DESCRIPTION
E897BX	2"
E898AX	4"



STAINLESS COUPLINGS



Part #	DESCRIPTION
E817X	1/8"
E818X	1/4"
E819X	3/8"
E820X	1/2"
E821X	3/4"
E822X	1"
E823X	1 1/4"
E824X	1 1/2"
E825X	2"
E826X	3"
E827AX	4"

STAINLESS NIPPLES



Part #	DESCRIPTION
E855X	1/8" X CLOSE
E855AX	1/8" X 1 1/2"
E855BX	1/8" X 2"
E855FX	1/8" X 2 1/2"
E855CX	1/8" X 3"
E855DX	1/8" X 4"
E855EX	1/8" X 6"
E856X	1/4" X CLOSE
E856AX	1/4" X 1 1/2"
E856BX	1/4" X 2"
E856CX	1/4" X 3"
E856DX	1/4" X 4"
E856EX	1/4" X 6"
E857X	3/8" X CLOSE
E857AX	3/8" X 1 1/2"
E857BX	3/8" X 2"
E858X	3/8" X 3"
E858BX	3/8" X 3 1/2"
E858AX	3/8" X 4"
E859X	3/8" X 6"
E860X	1/2" X CLOSE
E860AX	1/2" X 1 1/2"
E860BX	1/2" X 2"
E861X	1/2" X 3"
E861AX	1/2" X 4"
E862X	1/2" X 6"
E863X	3/4" X CLOSE
E863AX	3/4" X 2"
E864X	3/4" X 3"
E864AX	3/4" X 4"
E865X	3/4" X 6"
E866X	1" X CLOSE
E866AX	1" X 2"
E867X	1" X 3"
E867AX	1" X 4"
E868X	1" X 6"
E869X	1 1/4" X CLOSE
E869AX	1 1/4" X 2"
E870X	1 1/4" X 3"
E870AX	1 1/4" X 4"
E871X	1 1/4" X 6"
E871EX	1 1/4" X 10"
E872X	1 1/2" X 3"
E873X	1 1/4" X 10"
E873AX	1 1/2" X 4"
E874X	1 1/2" X 6"
E875X	2" X CLOSE
E876X	2" X 3"
E876AX	2" X 4"
E877X	2" X 6"
E880X	3" X CLOSE
E880AX	3" X 3"
E880BX	3" X 4"
E882X	3" X 6"
E883X	4" X CLOSE
E883AX	4" X 4"
E883BX	4" X 6"

POLYPROPYLENE SWITCH-A-ROOS

FEATURES

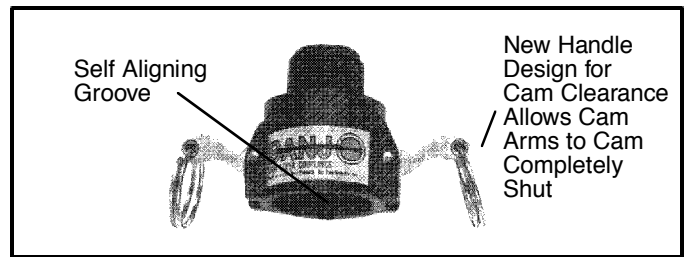
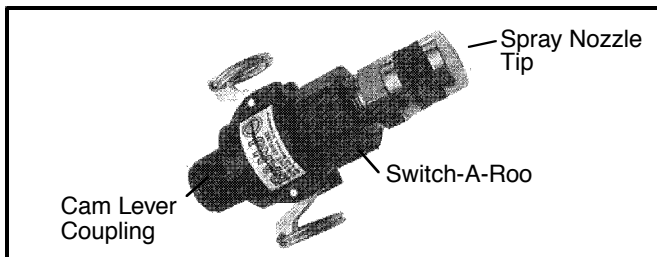
- The Switch-A-Roo is a fast, convenient method of changing spray nozzles on fertilizer application equipment.
- Precision molded in polypropylene (fiberglass reinforced) for high strength and toughness.
- The female coupling is available in either 1/2" or 3/4" pipe thread and normally mounted on the spray boom.
- The male adapter is available in four different thread sizes 1/4", 3/8", 1/2" and 3/4" to fit all size spray nozzles.
- Switch-A-Roo's available with self-aligning grooves.



PART #	DESCRIPTION
B412AX	FEMALE COUPLER 3/4" MPT
B411X	FEMALE COUPLER 1/2" MPT
B404X	MALE COUPLER 3/4" FPT
B403X	MALE COUPLER 1/2" FPT
B402X	MALE COUPLER 3/8" FPT
B401X	MALE COUPLER 1/4" FPT
B403AX	MALE COUPLER 1/2" FPT SELF ALIGNING GROOVE
B402AX	MALE COUPLER 3/8" FPT SELF ALIGNING GROOVE
B401AX	MALE COUPLER 1/4" FPT SELF ALIGNING GROOVE



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CAM LEVER COUPLINGS



POLYPROPYLENE

PART#	DESCRIPTION
B403X	1/2" 50A
B404X	3/4" 75A
B405X	1" 100A
B405AX	1 1/4" 125A
B406X	1 1/2" 150A
B407X	2" 200A
B408X	3" 300A
B409X	4" 400A



POLYPROPYLENE

PART#	DESCRIPTION
B416AX	2" 201B
B417AX	3" 303B



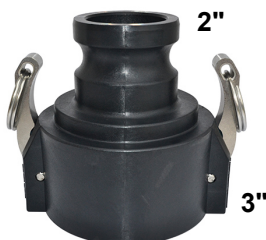
POLYPROPYLENE

PART#	DESCRIPTION
B411X	1/2" 50B
B412AX	3/4" 75B
B413X	1" 100B
B414X	1 1/4" 125B
B415X	1 1/2" 150B
B416X	2" 200B
B417X	3" 300B
B417DX	4" 400B



POLYPROPYLENE

PART#	DESCRIPTION
B417BX	1/2" 50C
B417CX	3/4" 75C
B418X	1" 100C
B419X	1 1/4" 125C
B420X	1 1/2" 150C
B421X	2" 200C
B421AX	2" x 1 1/2" 200150C
B422X	3" 300C
B422AX	4" 400C



POLYPROPYLENE

PART#	DESCRIPTION
B416BX	303B200A



POLYPROPYLENE

PART#	DESCRIPTION
B423X	1/2" 50D
B424X	3/4" 75D
B425X	1" 100D
B426X	1 1/4" 125D
B427X	1 1/2" 150D
B428X	2" 200D
B429X	3" 300D
B429AX	4" 400D



POLYPROPYLENE

PART#	DESCRIPTION
B430X	1/2" 50E
B431X	3/4" 75E
B432X	1" 100E
B433X	1 1/4" 125E
B434X	1 1/2" 150E
B435X	2" 200E
B436X	3" 300E
B436AX	4" 400E



POLYPROPYLENE

PART#	DESCRIPTION
B437X	1/2" 50F
B438X	3/4" 75F
B439X	1" 100F
B440X	1 1/4" 125F
B441X	1 1/2" 150F
B442X	2" 200F
B443X	3" 300F
B444X	4" 400F

WARNING: Couplings should not be operated under pressure or with liquid in the line.

CAM LEVER COUPLINGS



POLYPROPYLENE

PART#	DESCRIPTION
B452X	3/4" 75PL
B453X	1" 100PL
B453X	1 1/4" 125PL
B455X	1 1/2" 150PL
B456X	2" 200PL
B457X	3" 300PL
B458X	4" 400PL



POLYPROPYLENE

PART#	DESCRIPTION
B445X	3/4" 75CAP
B446X	1" 100CAP
B446X	1 1/4" 125CAP
B448X	1 1/2" 150CAP
B449X	2" 200CAP
B450X	3" 300CAP
B451X	4" 400CAP



POLYPROPYLENE

PART#	DESCRIPTION
B463X	2" 200B90



POLYPROPYLENE

PART#	DESCRIPTION
B461X	1 1/2" 150A90
B462X	2" 200A90



POLYPROPYLENE

PART#	DESCRIPTION
B464X	1 1/2" 150C90
B465X	2" 200C90
B465SWP90X	2" SWEEP 200C90



POLYPROPYLENE

PART#	DESCRIPTION
B466X	2" SPOOL ADAPTER
B466AX	2" x 3" SPOOL ADAPTER
B466BX	3" SPOOL ADAPTER



POLYPROPYLENE

PART#	DESCRIPTION
B468X	1 1/2" 150D90
B469X	2" 200D90



POLYPROPYLENE

PART#	DESCRIPTION
B471X	1 1/2" 150F90
B472X	2" 200F90
B472SWP90X	2" SWEEP 200F90
B473SWP90X	3" SWEEP 300F90



POLYPROPYLENE

PART#	DESCRIPTION
B467X	2" 200F45

WARNING: Couplings should not be operated under pressure or with liquid in the line.

BANJO LEVER COUPLING REPLACEMENT PARTS

COUPLING REPLACEMENT GASKETS

PART #	MFG #	DESCRIPTION
B478X	075-G	3/4" Coupling Gasket (EPDM)
B479X	100-G	1" and 1 1/4" Coupling Gasket (EPDM)
B480X	150-G	1 1/2" Coupling Gasket (EPDM)
B481X	200-G	2" Coupling Gasket (EPDM)
B482X	300-G	3" Coupling Gasket (EPDM)
B482AX	400-G	4" Coupling Gasket (EPDM)



EXTRA THICK GASKETS

PART #	MFG #	DESCRIPTION
B478AX	075-GXT	3/4" Coupling Gasket (EPDM)
B479AX	100-GXT	1" and 1 1/4" Coupling Gasket (EPDM)
B480AX	150-GXT	1 1/2" Coupling Gasket (EPDM)
B481AX	200-GXT	2" Coupling Gasket (EPDM)
B483AX	300-GXT	3" Coupling Gasket (EPDM)
B483BX	400-GXT	4" Coupling Gasket (EPDM)



COUPLING REPLACEMENT GASKETS (VITON)

PART #	MFG #	DESCRIPTION
B479VX	100-GV	1" and 1 1/4" Coupling Gasket (VITON)
B480VX	150-GV	1 1/2" Coupling Gasket (VITON)
B481VX	200-GV	2" Coupling Gasket (VITON)
B482VX	300-GV	3" Coupling Gasket (VITON)
B483VX	400-GV	4" Coupling Gasket (VITON)

SHIMS

PART #	DESCRIPTION
B473X	3/4" Shim
B474X	1" Shim
B475X	1 1/2" Shim
B476X	2" Shim
B477X	3" Shim
B477AX	4" Shim

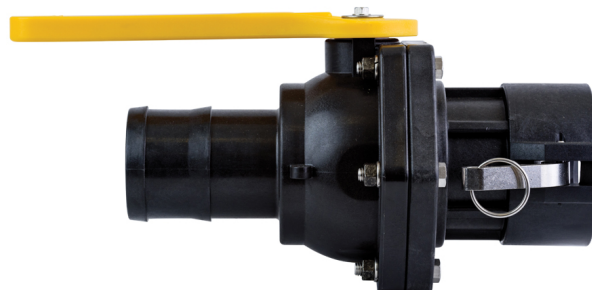
COUPLING CAM ARMS & PINS

PART #	MFG #	DESCRIPTION
B489X	75K	1/2" & 3/4" S.S. Cam Arm w/Ring
B488X	75P	1/2" & 3/4" S.S. Cam Pin
B490X	100K	1" & 1 1/4" S.S. Cam Arm w/Ring
B491X	100P	1" & 1 1/4" S.S. Cam Pin
B483X	150/200K	1 1/2" & 2" S.S. Cam Arm w/Ring
B485X	150/200P	1 1/2" & 2" S.S. Cam Pin
B484X	300K	3" S.S. Cam Arm w/Ring
B486X	300P	3" S.S. Cam Pin



POLYPROPYLENE BOLTED BALL VALVES

- Stainless Steel Bolts
- Viton Seals
- 100% Teflon Seats



PART #	MFG #	DESCRIPTION	OPENING THRU BALL
B500X	V050	1/2" Valve - Full Port	3/4"
B503X	V075	3/4" Valve - Full Port	3/4"
B506X	V100	1" Valve - Standard Port	3/4"
B509X	V100FP	1" Valve - Full Port	1"
B512X	V125	1 1/4" Valve - Standard Port	1"
B513X	V125FP	1 1/4" Valve - Full Port	1 1/2"
B520X	V150	1 1/2" Valve - Full Port	1 1/2"
B525X	V200	2" Valve - Standard Port	1 1/2"
B525AX	V204FP	2" Valve - Full Port (4-Bolt)	2"
B526X	V200FP	2" Valve - Full Port (6-Bolt)	2 1/16"
B540X	VSHBD204FP	2" Valve - Full Port 2" HB x 2" F-Coupler	2"
B541X	VSHBD300FP	3" Valve - Full Port 3" HB x 3" F-Coupler	3"
B530X	V300	3" Valve - Standard Port	2 1/2"
B531X	V300FP	3" Valve - Full Port	3"
B531AX	V400	4" Valve - Standard Port	3 1/2"

FEATURES

- Stainless Steel Bolts
- Precision molded in polypropylene. Polypropylene is reinforced with fiberglass for additional strength.
- Self-aligning ball moves freely against the Teflon seats for smooth operation. The valve opens and closes with very little pressure on the handle.
- Ball is diamond turned, after molding, to make it spherically perfect, which provides precise contact between ball and seats.
- Viton "O" ring stem seal.
- Teflon self-lubricating stem bushings and seats cannot stick or bind.
- Maximum operating pressure 100 PSI.

Replacement Handles Reference Page 155

POLYPROPYLENE NOZZLE VALVES



FEATURES

Lightweight hose end valve for convenient transfer of liquids into drums, tanks, etc. Angled end flange with 8" long polypropylene fill spout.

**ALL
STAINLESS
BOLTS!**



PART #	MFG #	DESCRIPTION	PIPE SIZE	OPENING THRU BALL
B521X	VA150	1 1/2" Bolted Valve - Full Port - Viton With 90° Elbow	1 1/2" x 8"	1 1/2"
B527X	VA200	2" Bolted Valve - Standard Port - Viton With 90° Elbow	2" x 8"	1 1/2"

PART #	MFG #	DESCRIPTION	PIPE SIZE	OPENING THRU BALL
B528X	VA200FP	2" Bolted Valve - Full Port - Viton With 90° Elbow	2" x 8"	2 1/16"

2" FULL PORT

Polypropylene Bolted Ball Valve

2" Male Adapter x 2" Male Thread

FEATURES

- Stainless Steel Bolts
- Precision molded in polypropylene. Polypropylene is reinforced with fiberglass for additional strength.
- Self-aligning ball moves freely against the Teflon seats for smooth operation. The valve opens and closes with very little pressure on the handle.
- Ball is diamond turned, after molding, to make it spherically perfect, which provides precise contact between ball and seats.
- Viton "O" ring stem seal.
- Teflon self-lubricating stem bushings and seats cannot stick or bind.
- Maximum operating pressure 100 PSI.



PART #	MFG#	DESCRIPTION	OPENING THRU BALL
B532X	VFMT200FP	2" Valve - 2" Male Adapter x 2" Male NPT Thread	2"

3-WAY POLY BALL VALVES

FEATURES

- Stainless Steel Bolts
- Precision molded in polypropylene. Polypropylene is reinforced with fiberglass for additional strength.
- Self-aligning ball moves freely against the Teflon seats for smooth operation. The valve opens and closes with very little pressure on the handle.

- Ball is diamond turned, after molding, to make it spherically perfect, which provides precise contact between ball and seats.
- Viton "O" ring stem seal.
- Teflon self-lubricating stem bushings and seats cannot stick or bind.
- Maximum operating pressure 100 PSI.

SIDE LOAD

Directional flow either right or left.
Valve cannot be turned off.



V125SL/V150SL

PART #	MFG #	DESCRIPTION	OPENING THRU BALL
B535X	V075SL	3/4" 3-Way Side Load Poly Valve	1"
B536X	V100SL	1" 3-Way Side Load Poly Valve	1"
B537X	V125SL	1 1/4" 3-Way Side Load Poly Valve	1 1/2"
B538X	V150SL	1 1/2" 3-Way Side Load Poly Valve	1 1/2"
B539X	V200SL	2" 3-Way Side Load Poly Valve	2"

STUBBY VALVE



Polypropylene Bolted Ball Valves

FEATURES

- Glass filled polypropylene.
- All Teflon seals.
- Stainless steel bolts.
- Unique compact design.
- Lightweight.



VSFMT200



VSMT200

PART #	MFG #	DESCRIPTION	OPENING THRU BALL
B533X	VSF200	2" Male Adapter x 2" Female NPT Thread	1 1/2"
*B533AX	VSMT200	2" Female NPT x 2" Male NPT Thread	1 1/2"
B533BX	VSF300	3" Male Adapter x 3" Female NPT Thread	2 1/2"
B533CX	VSF204FP	2" Male Adapter x 2" Female NPT Thread	2"
B533DX	VSMT204FP	2" Female NPT Thread x 2" Male NPT Thread	2"

PART #	MFG #	DESCRIPTION	OPENING THRU BALL
*B534X	VSFMT200	2" Male Adapter x 2" Male NPT Thread	1 1/2"
B534AX	VSFMT300	3" Male Adapter x 3" Male NPT Thread	2 1/2"
B534BX	VS204FP	2" Female NPT Thread x 2" Female NPT Thread	2"
B534CX	VSFMT204FP	2" Male Adapter x 2" Male NPT Thread	2"

* Item pictured above

*Item pictured above

SINGLE POLYPROPYLENE BALL VALVE

ITEM	QTY	DESCRIPTION
1	1	UV Body
2	1	UV Endplate
3	1	Mach Ball
4	2	Valve Seal
5	1	UV Handle
6	1	Retaining Pin
7	1	UV Adapter Endplate
8	1	UV Ring
9	1	O'Ring
10	3	O'Ring
11	1	Cap Plug

- Glass reinforced polypropylene
- Teflon seats
- EPDM O-ring
- Double O-rings
- Maximum operating pressure 100 PSI at 72° F



Single Union Polypropylene
Ball Valves

Replacement handles
for single union valves

PART #	MFG #	DESCRIPTION
B950X	UV07153	HANDLE UV-050-FP, UV-075-FP
B953X	UV10153	HANDLE UV-100-FP
B954X	UV15153	HANDLE UV-125-FP, UV-150-FP
B955X	UV20153	HANDLE UV-200-FP

PART #	MFG #	DESCRIPTION	OPENING
B760X	UV-050-FP	1/2" SINGLE UNION VALVE	3/4"
B761X	UV-075-FP	3/4" SINGLE UNION VALVE	3/4"
B762X	UV-100-FP	1" SINGLE UNION VALVE	1"
B763X	UV-125-FP	1 1/4" SINGLE UNION VALVE	1 1/2"
B764X	UV-150-FP	1 1/2" SINGLE UNION VALVE	1 1/2"
B765X	UV-200-FP	2" SINGLE UNION VALVE	2"

REPLACEMENT HANDLES FOR BOLTED BALL VALVES



PART #	MFG #	DESCRIPTION
B552X	V-07153	HANDLE V050, V075, V100
B576X	V-10153	HANDLE V100FP, V125
B602X	V-20153	HANDLE V150, V200, V125FP
B631X	V-25153	HANDLE V200FP, V300, V300FP
B601X	V-20152	HANDLE VA150, VA200
B632X	V-25152	HANDLE VA200FP

LOCKING HANDLE

- Stainless Steel Hardware
- Locks in open and closed positions
- Locking handle replaces standard handle



PART #	MFG #	DESCRIPTION
B650X	VL-25153	LOCKING HANDLE V200FP, V300FP (PADLOCK NOT INCLUDED)



HANDLE RISERS

PART #	DESCRIPTION	VALVE APPLICATION
V10153138BL	1" X 1 3/8" Handle Offset	3/4" X 1" 3-Way BL Valves
V10153138X	1" X 1 3/8" Handle Offset	1" FP & 1 1/4" SP, 3/4" & 1" 3-Way SL Valves
V20153138BL	2" X 1 3/8" Handle Offset	1 1/4" & 1 1/2" 3-Way BL Valves
V20153138X	2" X 1 3/8" Handle Offset	1 1/4" FP - 2" SP, 1 1/4" & 1 1/2" 3-Way SL Valves
V25153138BL	2" FP X 1 3/8" Handle Offset	2" & 3" FP 3-Way BL Valves
V25153138X	2" FP X 1 3/8" Handle Offset	2" FP Valve & 2" 3-Way SL Valves

POLYPROPYLENE BALL VALVE

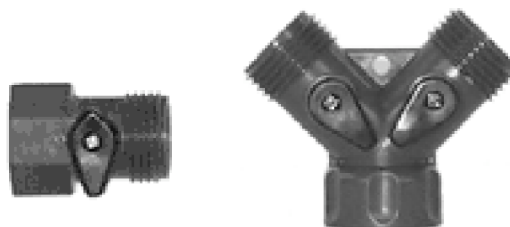


FEATURES

- Made from polypropylene with EPDM o-ring seals
- Rated at 25 psi for liquids compatible with polypropylene and EPDM

PART #	DESCRIPTION
B690X	1/4" FPT POLY BALL VALVE

GARDEN HOSE THREAD VALVES



FEATURES

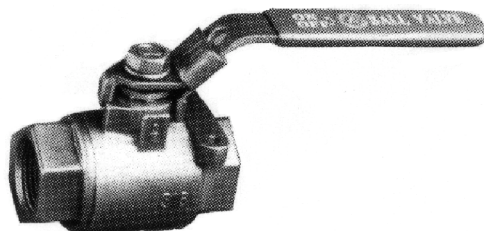
- Cyclac body and ball with Buna N seals
- All ports feature 3/4" GHT
- 75 psi working pressure

PART #	DESCRIPTION
W300X	SINGLE GHT VALVE
W301X	DOUBLE GHT VALVE

316 STAINLESS STEEL FULL PORT BALL VALVES

FEATURES

- Full port
- Two piece
- Class 800 WOG



PART #	DESCRIPTION
B869X	1/4" FULL PORT VALVE S.S.
B870X	3/8" FULL PORT VALVE S.S.
B871X	1/2" FULL PORT VALVE S.S.
B872X	3/4" FULL PORT VALVE S.S.
B873X	1" FULL PORT VALVE S.S.
B874X	1 1/4" FULL PORT VALVE S.S.
B875X	1 1/2" FULL PORT VALVE S.S.
B876X	2" FULL PORT VALVE S.S.
B877X	3" FULL PORT VALVE S.S.

BUTTERFLY VALVES



BUTTERFLY VALVE

Part #	Description
B800KX	2" C-Butterfly Valve
B801KX	3" C-Butterfly Valve
B802KX	4" C-Butterfly Valve
B803KX	6" C-Butterfly Valve

NOTE: Above priced with handle

Materials of Construction

Body: Cast Iron
Disc: 316 Stainless Steel
Stem: 316 Stainless Steel
Seat: EPDM
Stem Bushing: Acetal
Disc Screws: 316 Stainless Steel
Stem Packing: Buna N

Extra heavy seat has moulded-in o-rings that effect a positive seal between flange face and valve body. No gaskets between the valve and flange faces are required.

Universal seat design has famous patented dovetail seat retention. No bonding to valve body is required. The seat can be replaced at the valve location in the field.

Thru-stem design provides high strength and positive disc control. Shaft ends are standardized for operator interchangeability.

Self-locking stainless steel disc screws allow quick, easy disassembly.

NC HEX FLANGE BOLTS W/NUTS

Flange Pipe Size	No. of Bolts for Set	Dia. of Bolt	Length of Bolt
1 1/2"	4	1/2"	2"
2"	4	5/8"	2 1/4"
2"	4	5/8"	4"
3"	4	5/8"	2 1/2"
3"	4	5/8"	4 1/2"
4"	8	5/8"	3"
4"	8	5/8"	4 1/2"
5"	8	3/4"	3"
5"	8	3/4"	5 1/2"
6"	8	3/4"	3 1/4"
6"	8	3/4"	5 1/2"
8"	8	3/4"	3 1/2"
8"	8	3/4"	5 1/2"

COMPANION FLANGES

125 LB. CAST IRON



Part #	Pipe Size	Dia. of Flange OD. In.
E199X	1 1/2"	5"
E200X	2"	6"
E201X	3"	7 1/2"
E202X	4"	9"
E202AX	5"	10"
E203X	6"	11"

COMPANION FLANGE NEOPRENE GASKETS

Part #	Description
B815X	2" Gasket
B816X	3" Gasket
B817X	4" Gasket
B817AX	5" Gasket
B818X	6" Gasket
B819X	8" Gasket

POLYPROPYLENE CLASS 150 ANSI FLANGES

Features:

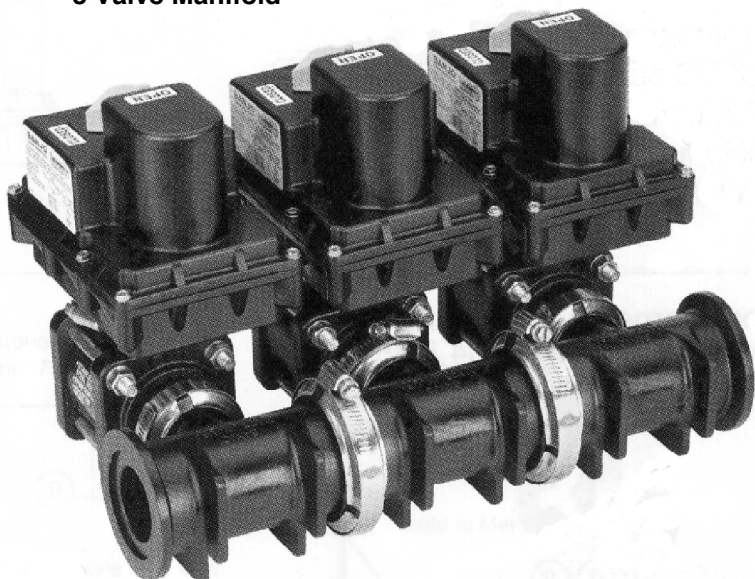
- Glass reinforced for stability, strength, and durability
- Precision molded solid, one-piece construction
- 150 PSI maximum operating pressure

Part #	Description
E209X	1" female thread flange poly
E210X	1 1/2" female thread flange poly
E211X	2" female thread flange poly
E212X	3" female thread flange poly
E213X	4" female thread flange poly



1" Banjo Electric Manifold Valve Assemblies

3 Valve Manifold



PART #	DESCRIPTION
MEV100CFX	1" Flange x 1" Flange Electric Full Port Ball Valve
MEV103CFX	1" Banjo Manifold Valve Assembly
MEV3100X	1" Motor Assembly
MEV100XRIX	1" Valve Sub Assembly

FEATURES

- 316 stainless steel ball & stem.
- Fiberglass reinforced polypropylene.
- Glass reinforced PTFE seats.
- FKM (viton type) or EPDM O-rings.
- 12-volt DC operated.
- 150 P.S.I. maximum pressure.
- Internally fused/automatic reset.
- Open/closed indicator.

1" Electric Manifold Valve



PART # DESCRIPTION

MEVX10024X	1" Flange on/off Valve MEVX with Motor
MEVX100HX	1" Stubby Flange Valve Only
MEVX101X	1" MEVX Flange Valve Only
MEVX20024X	2" Flange on/off Valve MEVX with Motor
MEVX200HX	2" Stubby Flange Valve Only
MEPV20001X	U-Pin Clip EV Valves
MEVX103	1" MEVX 3 Valve Manifold 2" in 1" Out
MEPV22A10320X	EVX on/off Motor Only



Manifold Bolted Ball Valves 4 and 6 Bolt Valves

FEATURES

- FKM(viton type) seals.
- PTFE self-lubricating stem bushings and seats cannot stick or bind.
- Precision molded in polypropylene. Polypropylene is reinforced with fiberglass for additional strength.
- Self-aligning ball moves freely against the PTFE seats for smooth operation. The valve opens and closes with very little pressure on the handle.
- Ball is diamond turned, after molding, to make it spherically perfect, which provides precise contact between ball and seats.

PART #	DESCRIPTION	MAX PSI	OPENING THRU BALL
MV100CFX	1" Flange Ball Valve	150	1"
MV200CFX	2" Flange Ball Valve	150	1 1/2"
MV220CFX	2" Full Port Flange Ball Valve	150	2"
MV300CFX	3" Full Port Flange Ball Valve	150	3"
MV300BLX	3" FP Bottom Load Flg Valve	150	3"

FLANGE 3-WAY SIDE LOAD VALVES

PART #	DESCRIPTION	PSI	PIPE	OPENING
MV100SLX	1" Flange 3-Way Side Load Valve	150	1"	1"
MV220SLX	2" FP Flange 3-Way Side Load Valve	150	2"	2"

MV100CF
MV200CF
MV220CF

MV300CF

MV100SL
MV220SL

Manifold Valves 2" Standard Port Manifold "Stubby" Valve

FEATURES

- Stainless steel bolts.
- Glass filled polypropylene.
- Multiple design options.
- Unique patented compact design.
- Lightweight.



VSMT200CF



VSF200CF

PART #	DESCRIPTION	MAX PSI	PIPE SIZE	OPENING THRU BALL
VSMT200CFX	2" Flange x 2" Male NPT	100	2"	1 1/2"
VSF200CFX	2" Flange x 2" Male Adapter	100	2"	1 1/2"

Manifold Valves 1" Full Port Manifold Union Valve

FEATURES

- Glass filled polypropylene.
- Interlocking body and end plate to allow easy thread connection when installing valves.
- EPDM o-rings top handle fertilizer and most chemicals.
- Compact design.
- Lightweight.



PART #	DESCRIPTION	MAX PSI
MSUV100FPX	1" Full Port Flange Union	300

Manifold Valves 3" Manifold "Stubby" Valve



PART #	DESCRIPTION	MAX PSI	PIPE SIZE	OPENING THRU BALL
MVSF300X	3" Flange X 3" Male Adapter	100	3"	2 1/2"
MVSF300FPX	3" Full Port Flange X 3" Male Adapter	100	3"	3"
MVSMT300X	3" Flange X 3" Male NPT	100	3"	2 1/2"
MVS300CFX	3" Flange X 3" Flange	100	3"	2 1/2"
MVS300CFFPX	3" Full Port Flange X 3" Flange	100	3"	3"
MVSD300FPX	3" Full Port Flange X 3" FQC	100	3"	3"

Manifold Valves 2" FP Manifold "Stubby" Valve



PART #	DESCRIPTION	MAX PSI	PIPE SIZE	OPENING THRU BALL
MVS220FPX	2" FP Flange x 2" Female NPT	100	2"	2"
MVSF220FPX	2" FP Flange x 2" Male Adapter	100	2"	2"
MVS220CFX	2" FP Flange x 2" FP Flange	100	2"	2"
MVSMT220FPX	2" FP Flange x 2" Male NPT	100	2"	2"
MVSD220FPX	2" FP Flange x 2" Female Coupler	100	2"	2"

Manifold Tank Fittings "Bottom Drain"™



PART #	DESCRIPTION
MBF100BDX	1" Flange x 1" EPDM Female Thread
MBF200BDX	2" Flange x 2" EPDM Female Thread
MBF220BDX	2" Full Port Flange x 2" EPDM Female Thread
MBF300BDX	3" Flange x 3" EPDM Female Thread
MTF220BDX	2" Full Port Flange Bottom Drain
MTF300BDX	3" Flange Bottom Drain

Manifold Bolted Tank Fittings



PART #	DESCRIPTION
MBF100X	1" Flange x 1" EPDM Female Thread
MBF200X	2" Flange x 2" EPDM Female Thread
MBF220X	2" Full Port Flange x 2" EPDM Female Thread
MBF300X	3" Flange x 3" EPDM Female Thread
MTF220X	2" Full Port Flange
MTF300X	3" Flange

Manifold T Line Strainers



1" Manifold T Line Strainers

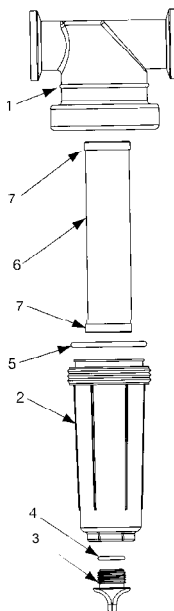
FEATURES

- EPDM gaskets
- 316 stainless steel screens.
- 150 P.S.I. maximum.

PART #	DESCRIPTION
MLST10030X	1" Manifold T Strainer w/30 Mesh Screen
MLST10050X	1" Manifold T Strainer w/50 Mesh Screen
MLST10080X	1" Manifold T Strainer w/80 Mesh Screen

2" Manifold T Line Strainers

PART #	DESCRIPTION
MLST15030X	2" Manifold T Strainer w/30 Mesh Screen
MLST15050X	2" Manifold T Strainer w/50 Mesh Screen
MLST15080X	2" Manifold T Strainer w/80 Mesh Screen



Replacement Parts MLST100

ITEM	PART #	DESCRIPTION	QTY
1	MLST100H	1" Flanged T Strainer head	1
2*	A73BX	1" Flanged T Strainer Bowl (LST100B)	1
3	D160AX	1" Flanged T Strainer Plug (12777)	1
4	A73FX	1" Flanged T Strainer O-Ring (UV15163)	1
5	A73X	1" EPDM Gasket (LST100-G)	1
5	A73AX	1" FKM(viton type) Gasket (LST100-GV)	1
6	A72X	16 Mesh Screen (LST116)	1
6	A72AX	30 Mesh Screen (LST130)	1
6	A72BX	50 Mesh Screen (LST150)	1
6	A72CX	80 Mesh Screen (LST180)	1
6	A72DX	100 Mesh Screen (LST1100)	1
7	A73HX	3/4" EPDM O-Rng for Screen (13778)	2

* Includes Items 2, 3, and 4

Replacement Parts MLST150

ITEM	PART #	DESCRIPTION	QTY
1	MLST150H	1 1/2" Flanged T Strainer Head	1
2*	A77BX	1 1/2" Flanged T Strainer Bowl (LST150-B)	1
3	A77EX	1 1/2" Flanged T Strainer Plug (LSQ200-PI)	1
4	A77FX	1 1/2" Flanged T Strainer O-Ring (LSQ200-R)	1
5	A77X	1 1/2" EPDM Gasket (LST150G)	1
5	A77AX	1 1/2" FKM (viton type) Gasket (LST150-GV)	1
6	A76X	16 Mesh Screen (LST1516)	1
6	A76AX	30 Mesh Schreen (LST1530)	1
6	A76BX	50 Mesh Screen (LST1550)	1
6	A76CX	80 Mesh Screen (LST1580)	1
6	A76DX	100 Mesh Screen (LST15100)	1
7	A77HX	1 1/2" EPDM O-Ring for Screen (LST034G)	2

* Includes Items 2, 3, and 4

Manifold Y Line Strainers

1" Manifold Y Line Strainers

PART #	DESCRIPTION
MLS10020X	1" Manifold Y Strainer w/20 Mesh Screen
MLS10040X	1" Manifold Y Strainer w/40 Mesh Screen
MLS10050X	1" Manifold Y Strainer w/50 Mesh Screen
MLS10080X	1" Manifold Y Strainer w/80 Mesh Screen

Replacement Parts MLS100

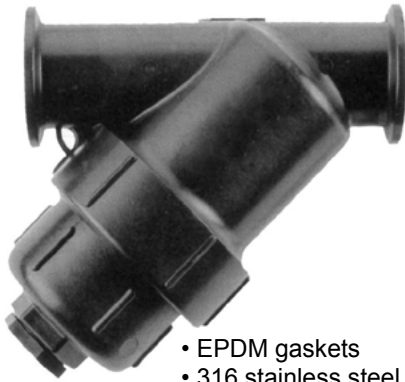
ITEM	PART #	DESCRIPTION	QTY
1	MLS100B	1" Y Strainer Body	1
2*	A6GX	1" Y Strainer Cap. (LS100-C1)	1
3	D160AX	1" Flanged Y Strainer Plug (12777)	1
4	A73FX	1" Flanged Y Strainer O-Ring (UV15163)	1
5	A6EX	1" EPDM Gasket (LS100-G)	1
6	A6BX	20 Mesh Screen (LS120)	1
6	A6CX	40 Mesh Screen (LS140)	1
6	LS150	50 Mesh Screen	1
6	A6DX	80 Mesh Screen (LS180)	1
7	A6HX	1" EPDM O-Ring for Screen (LS125G)	2

* Includes Items 2, 3, and 4

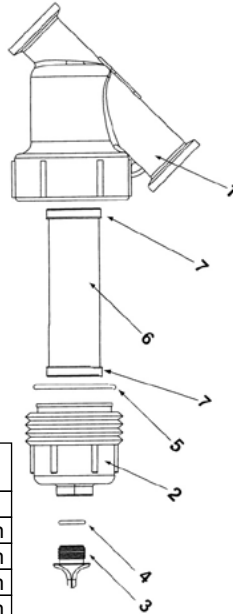
FEATURES

- EPDM gaskets
- 316 stainless steel screens.
- 75 P.S.I. maximum.





- EPDM gaskets
- 316 stainless steel screens
- 150 P.S.I. maximum



2" Manifold Y Line Strainers

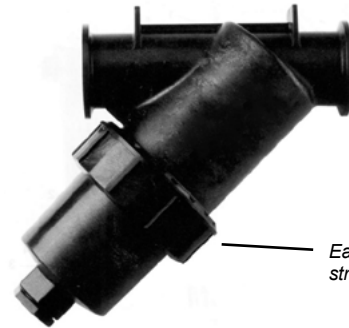
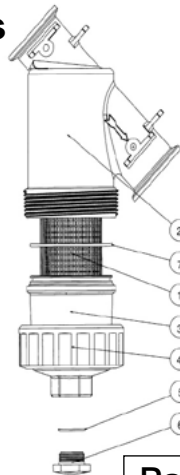
Item#	Part #	MFG#	Description
1		MLS200B	2" Y Strainer Body
2*	A11HX	LS150-C	2" Y Strainer Cap
3	A77EX	LSQ200-PL	2" Flanged Y Strainer Plug
4	A77GX	LSQ200-R	2" Flanged Y Strainer O'ring
5	A11FX	LS150G	2" EPDM Gasket
5	A11FVX	LS150-GV	2" FKM (Viton) Gasket
6	A11X	LS206	6 Mesh Screen
6	A11AX	LS212	12 Mesh Screen
6	A11BX	LS220	20 Mesh Screen
6	A11GAX	LS230	30 Mesh Screen
6	A11DX	LS250	50 Mesh Screen
6	A11CX	LS280	80 Mesh Screen
6		LS2100	100 Mesh Screen
6	A11KX	LS2120	120 Mesh Screen
6		LS2150	150 Mesh Screen
7	A11IX	LS141G	2" EPDM O'ring for Screen

* Includes items 2, 3, and 4.

Part #	Description
MLS200BCX	2" Flanged Body & Cap
MLS20020X	2" Manifold Y Strainer w/20 Mesh Screen
MLS20030X	2" Manifold Y Strainer w/30 Mesh Screen
MLS20050X	2" Manifold Y Strainer w/50 Mesh Screen
MLS20080X	2" Manifold Y Strainer w/80 Mesh Screen

2" Full Port Manifold Y Line Strainers

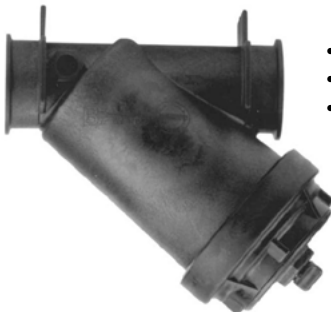
Item	Part #	MFG#	Description
1		LST204SS	4 SS Mesh Screen
1	A78FX	LST206SS	6 SS Mesh Screen
1	A78HX	LST208SS	8 SS Mesh Screen
1	A78GX	LST210SS	10 SS Mesh Screen
1	A78EX	LST216SS	16 SS Mesh Screen
1	A78CX	LST230SS	30 SS Mesh Screen
1	A78BX	LST250SS	50 SS Mesh Screen
1	A78DX	LST280SS	80 SS Mesh Screen
2	MLS220B1X	MLS220B1	2" Flanged Y Strainer Body
3	MLS220C1X	MLS220C1	2" Flanged Y Strainer Cap
4	MLS220R1X	MLS220R1	2" Flanged Y Strainer Ring
5	A77GX	LSQ200-R	2" Plug Gasket
6	A77EX	LSQ200-PL	2" Plug
7	MLS220G1X	MLS220G1	2" Body Gasket



Easy off threaded strainer ring!

- EPDM gaskets
- 316 stainless steel screens
- 150 P.S.I. maximum

Part #	Description
MLS22230X	2" Full Port Manifold Y Strainer w/30 Mesh Screen
MLS22250X	2" Full Port Manifold Y Strainer w/50 Mesh Screen
MLS22280X	2" Full Port Manifold Y Strainer w/80 Mesh Screen



- EPDM gaskets
- 304 stainless steel screens
- 100 P.S.I. maximum

Threaded end cap to remove screen!

Part #	Description
MLS30004X	3" Manifold Y Strainer w/4 Mesh Screen
MLS30008X	3" Manifold Y Strainer w/8 Mesh Screen
MLS30012X	3" Manifold Y Strainer w/12 Mesh Screen
MLS30020X	3" Manifold Y Strainer w/20 Mesh Screen
MLS30050X	3" Manifold Y Strainer w/50 Mesh Screen

Manifold Y Line Strainers

Item#	Part #	MFG#	Description
1		MLS300B	3" Flanged Y Strainer Body
2	A14LX	MLS300CAP	3" Flanged Y Strainer Cap
3		LS300EC	3" End Cap
4	A14DX	MLS300ECG	3" EPDM End Cap Gasket
4		MLS300ECGV	3" FKM (viton) End Cap Gasket
5	A14GX	13777	3" End Cap Plug
6	A14FX	13778	3" End Cap Plug Gasket
7	A14HX	MLS300G	3" EPDM Cap Gasket
7		MLS300GV	3" FKM (viton) Cap Gasket
8	A13X	LS304	4 SS Mesh Screen
8	A13AX	LS308	8 SS Mesh Screen
8	A13BX	LS312	12 SS Mesh Screen
8	A13CX	LS320	20 SS Mesh Screen
8	A13DX	LS350	50 SS Mesh Screen

WARNING: 3" Polypropylene "Y" Strainer to be used on suction side or non-pressure side in all applications.

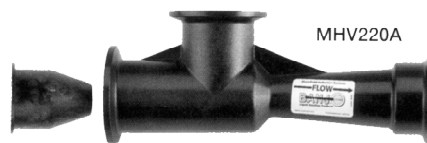
FLANGED FITTINGS



Flanged Poly Check Valves

PART #	DESCRIPTION	PSI	FLOW
MCV100X	1" Flange Poly Check Valve	150	1"
MCV200X	2" Flanged Poly Check Valve	150	1 1/2"
MCV220X	2" Full Port Flanged Poly Check Valve	150	2"
MCV300X	3" Full Port Flanged Poly Check Valve	150	3"

PART #	DESCRIPTION
M100SWP90X	1" Flange x Flange Sweep
M200SWP90X	2" Flange x Flange Sweep
M220SWP90X	2" Full Port Flange x Flange Sweep
M220200SWP90X	2" Full Port Flange x 2" Flange Sweep
M220ASWP90X	2" Full Port Flange x 2" MA Sweep
M220MPTSWP90X	2" Full Port Flange x 2" MPT Sweep
M300SWP90X	3" Flange x Flange Sweep
M300SWPG90X	3" Flange x Flange Sweep w/1/4 FPT Port
M300ASWP90X	3" Flange x 3" MA Sweep
M300MPTSWP90X	3" Flange x 3" MPT Sweep



PART #	DESCRIPTION	Pressure at Pump	Volume Draw*	Opening Size
MHV220AX	2" FP Manifold Poly Venturi	50 PSI	49 GPM	9/16"

NOTE: *Gauge not included.



PART #	DESCRIPTION
M100CPG45X	1" x 1" 45° Flange Coupling
M200CPG45X	2" x 2" 45° Flange Coupling
M220CPG45X	2" FP x 2" FP 45° Flange Coupling
M300CPG45X	3" x 3" 45° Flange Coupling

PART # DESCRIPTION

M220Y45X	2" Full Port 45° Y Flange
M220YG45X	2" Full Port 45° Y Flange w/3/4" gauge port*
M300Y45X	3" Full Port 45° Y Flange
M300YG45X	3" Full Port 45° Y Flange w/3/4" gauge port*



PART # DESCRIPTION

UB100X	100 Series Mounting U-bolt
UB202X	200 Series Mounting U-bolt
UB220X	220 Series Mounting U-bolt

PART #	DESCRIPTION
M100CPGX	1" Flange x 1" Flange
M200CPGX	2" Flange x 2" Flange
M220CPGX	2" FP Flange x 2" FP Flange
M220CPG6X	2" FP Flange x 2" FP Flange - 6" long
M300CPGX	3" FP Flange x 3" FP Flange
M300CPG7X	3" FP Flange x 3" FP Flange - 7" long
M300CPG12X	3" FP Flange x 3" FP Flange-12" long

BANJO MANIFOLD PRESSURE SPIKE VALVES

PART#	DESCRIPTION	PSI
MPRV10050X	1" Spike Valve	50
MPRV10075X	1" Spike Valve	75
MPRV100100X	1" Spike Valve	100
MPRV100125X	1" Spike valve	125



FLANGED FITTINGS



PART #	DESCRIPTION
M100CPG90X	1" Flange x 1" Flange 90°
M200CPG90X	2" Flange x 2" Flange 90°
M200CPG90SHX	2" Flange x 2" Flange 90° Short
M220CPG90X	2" F.P. Flange x 2" F.P. Flange 90°
M300CPG90X	3" Flange x 3" Flange 90°

PART #	DESCRIPTION
M100TEEX	1" Flange Tee
M101TEEX	1" Flange Tee Long
M200100TEEX	2" x 1" Flange Tee
M200TEEX	2" Flange Tee
M220100TEEX	2" F.P. Flange x 1" Flange Tee
M220200TEEX	2" F.P. Flange x 2" Flange Tee
M220TEEX	2" F.P. Flange Tee
M300TEEX	3" F.P. Flange Tee



PART #	DESCRIPTION
M220DX	2" Full Port Flange x 2" Female Coupler
M303DX	3" Flange x 3" Female Coupler



PART #	DESCRIPTION
M100BRB45X	1" Flange x 1" 45° Hose Barb Elbow
M200BRB45X	2" Flange x 2" 45° Hose Barb Elbow
M220BRB45X	2" Full Port Flange x 2" 45° Hose Barb Elbow
M300BRB45X	3" Flange x 3" 45° Hose Barb Elbow

PART #	DESCRIPTION
M100075BRBX	1" Flange x 3/4" Hose Barb
M100BRBX	1" Flange x 1" Hose Barb
M100125BRBX	1" Flange x 1 1/4" Hose Barb
M200100BRBX	2" Flange x 1" Hose Barb
M200125BRBX	2" Flange x 1 1/4" Hose Barb
M200150BRBX	2" Flange x 1 1/2" Hose Barb
M200BRBX	2" Flange x 2" Hose Barb
M220100BRBX	2" F.P. Flange x 1" Hose Barb
M220125BRBX	2" F.P. Flange x 1 1/4" Hose Barb
M220150BRBX	2" F.P. Flange x 1 1/2" Hose Barb
M220BRBX	2" F.P. Flange x 2" Hose Barb
M300220BRBX	3" F.P. Flange x 2" Hose Barb
M300BRBX	3" Flange x 3" Hose Barb



M200THB100



M220200HBT & M300300HBT



PART #	DESCRIPTION
M200THB100X	2" Flange Tee x 1" Hose Barb
M220200HBTX	2" FP Flange x 2" Barb x 2" Barb Tee
M300300HBTX	3" Flange x 3" Barb x 3" Barb Tee

PART #	DESCRIPTION
M100CRX	1" Flanged Cross
M200CRX	2" Flanged Cross
M220CRX	2" Full Port Flanged Cross
M300CRX	3" Full Port Flanged Cross



PART #	DESCRIPTION
M100AX	1" Flange x 1" Male Adapter
M200AX	2" Flange x 2" Male Adapter
M220AX	2" F.P. Flange x 2" Male Adapter
M300AX	3" Flange x 3" Male Adapter



PART #	DESCRIPTION
M100075MPTX	1" Flange x 3/4" MPT
M100MPTX	1" Flange x 1" MPT
M100125MPTX	1" Flange x 1 1/4" MPT
M200125MPTX	2" Flange x 1 1/4" MPT
M200150MPTX	2" Flange x 1 1/2" MPT
M200MPTX	2" Flange x 2" MPT
M220MPTX	2" F.P. Flange x 2" MPT
M300MPTX	3" F.P. Flange x 3" MPT

FLANGED FITTINGS



PART #	DESCRIPTION
M100050FPTX	1" Flange x 1/2" FPT
M100075FPTX	1" Flange x 3/4" FPT
M100FPTX	1" Flange x 1" FPT
M200FPTX	2" Flange x 2" FPT
M220FPTX	2" F.P. Flange x 2" FPT
M300FPTX	3" Flange x 3" FPT



PART #	DESCRIPTION
M200100CPGX	2" x 1" Reducer Coupling
M220100CPGX	2" Full Port x 1" Reducer Coupling
M220200CPGX	2" Full Port x 2" Reducer Coupling
M300200CPGX	3" Full Port x 2" Reducer Coupling
M300220CPGX	3" Full Port x 2" F.P. Reducer Coupling



PART #	DESCRIPTION
M100PLGX	1" Flange Plug
M100PLG025X	1" Flange Plug w/1/4" FPT Outlet
M200PLGX	2" Flange Plug
M200PLG025X	2" Flange Plug w/1/4" FPT Outlet
M200PLG038X	2" Flange Plug w/3/8" FPT Outlet
M200PLG050X	2" Flange Plug w/1/2" FPT Outlet
M200PLG075X	2" Flange Plug w/3/4" FPT Outlet
M200PLG100X	2" Flange Plug w/1" FPT Outlet
M220PLGX	2" F.P. Flange Plug
M220PLG075X	2" F.P. Flange Plug w/3/4" FPT Outlet
M300PLGX	3" Flange Plug
M300PLG075X	3" Flange Plug w/3/4" FPT Outlet
M300PLG100X	3" Flange Plug w/1" FPT Outlet

PART #	DESCRIPTION
M100075BRB90X	1" Flange x 3/4" Hose Barb 90° Elbow
M100BRB90X	1" Flange x 1" Hose Barb 90° Elbow
M100BRBSWP90X	1" Flange x 1" Hose Barb Sweep 90° Elbow
M100BRBSWPG90X	1" Flange x 1" Hose Barb Sweep 90° El w/1/4" FPT Port
M100125BRB90X	1" Flange x 1 1/4" Hose Barb 90° Elbow
M100125BRBSWP90X	1" Flange x 1 1/4" Hose Barb Sweep 90° Elbow
M100150BRB90	1" Flange x 1 1/2" Hose Barb 90° Elbow
M200100BRB90X	2" Flange x 1" Hose Barb 90° Elbow
M200125BRB90X	2" Flange x 1 1/4" Hose Barb 90° Elbow
M200150BRB90X	2" Flange x 1 1/2" Hose Barb 90° Elbow
M200BRB90X	2" Flange x 2" Hose Barb 90° Elbow
M220150BRB90X	2" Full Port Flange x 1 1/2" Hose Barb 90° Elbow
M220BRB90X	2" Full Port Flange x 2" Hose Barb 90° Elbow
M220BRBSWP90X	2" Full Port Flange x 2" Hose Barb Sweep 90° Elbow
M300220BRB90X	3" Flange x 2" Hose Barb 90° Elbow
M300BRB90X	3" Flange x 3" Hose Barb 90° Elbow
M300BRBSWP90X	3" Flange x 3" Hose Barb Sweep 90° Elbow



PART #	DESCRIPTION
FC100X	1" Worm Screw Clamp
FC200X	2" Worm Screw Clamp
FC220X	2" FP Worm Screw Clamp
FC220BX	2" FP Flange Bolted Clamp
FC220TBX	2" FP T-Bolt Hi-Torque Clamp
FC300X	3" Worm Screw Clamp
FC300BX	3" Flange Bolted Clamp
FC300TBX	3" T-Bolt Hi-Torque Clamp
M100GX	1" Gasket (EPDM)
M101GX	1" Gasket w/Rib (EPDM)
FG100X	1" Gasket w/Single Lip (EPDM)
MUFG0100EX	1" Gasket w/Double Lips (EPDM)
M100GVX	1" Gasket (Viton)
FG100VX	1" Gasket w/Single Lip (Viton)
B480X	2" Gasket (EPDM)
M201GX	2" Gasket w/Rib (EPDM)
FG200X	2" Gasket w/Single Lip (EPDM)
MUFG0150EX	2" Gasket w/Double Lips (EPDM)
B480VX	2" Gasket (Viton)
FG200VX	2" Gasket w/Single Lip (Viton)
B481X	2" Full Port Gasket (EPDM)
M221GX	2" Full Port Gasket w/Rib (EPDM)
FG220X	2" FP Gasket w/Single Lip (EPDM)
MUFG0200EX	2" FP Gasket w/Double Lip (EPDM)
B481VX	2" Full Port Gasket (Viton)
FG220VX	2" FP Gasket w/Single Lip (Viton)
B482X	3" Gasket (EPDM)
M301GX	3" Gasket w/Rib (EPDM)
FG300X	3" Gasket w/Single Lip (EPDM)
MUFG0300EX	3" FP Gasket w/Double Lip (EPDM)
B482VX	3" Gasket (Viton)
FG300VX	3" Gasket w/Single Lip (Viton)

SOIL SAMPLING EQUIPMENT



MODEL K

- Made from high quality, chrome plated steel
- Footstep for hard-to-penetrate soils
- Sampling tube is 3/4" X 11"
- Overall length 3'
- Replaceable screw on tip

PART #	DESCRIPTION
X144X	MODEL K SOIL PROBE

PART #	DESCRIPTION
X141X	MODEL B SOIL PROBE

MODEL B

3 foot Tube Kit, is shown at left.

It contains:

- (1) 12" handle
- (2) 12" extension rods
- (1) 12" tube with replaceable screw on tip
- (1) 13" heavy fiberboard case



MODEL HC

- Take up to 20 1/2" samples
- Sampling tube diameter is 3/4"
- Overall length 21"
- Replaceable screw-on tip
- 8" slide out handle for easy transport

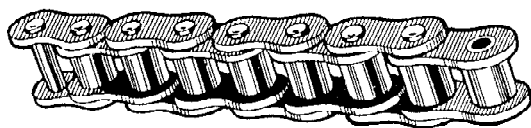
PART #	DESCRIPTION
X140X	MODEL HC SOIL PROBE

SOIL PROBE REPLACEMENT PARTS

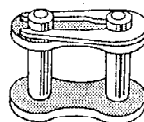
PART #	DESCRIPTION
X147X	12" EXTENSION ROD
X152X	12" PROBE ONLY
X157X	HANDLE ONLY

PART #	DESCRIPTION
X153X	SCREW ON TIP S-1 (Dry)
X146X	SCREW ON TIP S-2 (Regular)
X151X	SCREW ON TIP S-3 (Wet)
X155X	SCREW ON TIP S-4 (Heavy Duty)

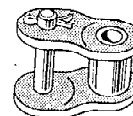
ROLLER CHAIN



ROLLER CHAIN



CONNECTING LINK



OFFSET LINK

STANDARD

PART #	DESCRIPTION
AG202X	#50 ROLLER CHAIN

PART #	DESCRIPTION
AG228X	#50 CONNECTING LINK

PART #	DESCRIPTION
AG230X	#50 OFFSET LINK

STAINLESS

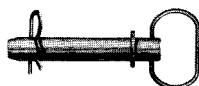
PART #	DESCRIPTION
AG202AX	#50 ROLLER CHAIN S.S.
AG203SX	#60 ROLLER CHAIN S.S.

PART #	DESCRIPTION
AG228AX	#50 CONNECTING LINK S.S.
AG232SX	#60 CONNECTING LINK S.S.

PART #	DESCRIPTION
AG230AX	#50 OFFSET LINK S.S.
AG233SX	#60 OFFSET LINK S.S.

(ROLLER CHAIN SOLD IN 10' BOXED LENGTHS ONLY)

HITCH PINS



HEAVY DUTY HITCH PINS

*HIGH STRENGTH STEEL *PRECISION MACHINED
*ZINC PLATED

PART #	DESCRIPTION
C51X	3/4" X 6" HITCH PIN W/CLIP
C52X	7/8" X 6" HITCH PIN W/CLIP
C53X	1" X 6" HD HITCH PIN W/CLIP
C55X	3/4" X 6 1/2" HD HITCH PIN W/CLIP
C56X	7/8" X 6 1/2" HD HITCH PIN W/CLIP
C57X	1" X 6 1/2" HD HITCH PIN W/CLIP

HAIRPIN COTTERS



HAIRPIN CLIPS



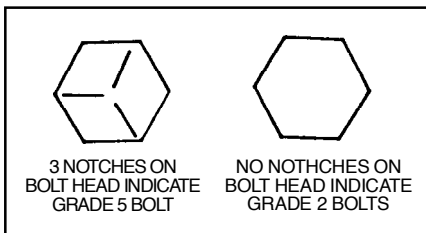
PART #	DESCRIPTION
C51AX	HAIRPIN COTTER ONLY
C51BX	H.D. HAIRPIN COTTER ONLY
C51CX	HAIRPIN CLIP

LYNCH PINS



PART #	DESCRIPTION
P14710814X	1/4" LYNCH PIN
C51DX	5/16" LYNCH PIN
P14710816X	7/16" LYNCH PIN

GRADE 5 ZINC PLATED HEX HEAD BOLTS AND HARDWARE



PART #	DESCRIPTION	
W141X	1/4" X 1"	Hex Bolt Gr. 5
W1412X	1/4" X 1 1/2"	Hex Bolt Gr. 5
W142X	1/4" X 2"	Hex Bolt Gr. 5
W1425X	1/4" X 2 1/2"	Hex Bolt Gr. 5
W143X	1/4" X 3"	Hex Bolt Gr. 5
W144X	1/4" X 4"	Hex Bolt Gr. 5
W145X	1/4" X 5"	Hex Bolt Gr. 5
W146X	5/16" X 1"	Hex Bolt Gr. 5
W1465X	5/16" X 1 1/2"	Hex Bolt Gr. 5
W147X	5/16" X 2"	Hex Bolt Gr. 5
W1475X	5/16" X 2 1/2"	Hex Bolt Gr. 5
W148X	5/16" X 3"	Hex Bolt Gr. 5
W149X	5/16" X 4"	Hex Bolt Gr. 5
W150X	5/16" X 5"	Hex Bolt Gr. 5
W151X	3/8" X 1"	Hex Bolt Gr. 5
W1515X	3/8" X 1 1/2"	Hex Bolt Gr. 5
W152X	3/8" X 2"	Hex Bolt Gr. 5
W153X	3/8" X 3"	Hex Bolt Gr. 5
W154X	3/8" X 4"	Hex Bolt Gr. 5
W155X	3/8" X 5"	Hex Bolt Gr. 5
W156X	7/16" X 1"	Hex Bolt Gr. 5
W1565X	7/16" X 1 1/2"	Hex Bolt Gr. 5
W157X	7/16" X 2"	Hex Bolt Gr. 5
W158X	7/16" X 3"	Hex Bolt Gr. 5
W159X	7/16" X 4"	Hex Bolt Gr. 5
W160X	7/16" X 5"	Hex Bolt Gr. 5
W161X	1/2" X 1"	Hex Bolt Gr. 5
W1615X	1/2" X 1 1/2"	Hex Bolt Gr. 5
W162X	1/2" X 2"	Hex Bolt Gr. 5
W163X	1/2" X 3"	Hex Bolt Gr. 5
W164X	1/2" X 4"	Hex Bolt Gr. 5
W165X	1/2" X 5"	Hex Bolt Gr. 5
W166X	5/8" X 1"	Hex Bolt Gr. 5
W1665X	5/8" X 1 1/2"	Hex Bolt Gr. 5
W167X	5/8" X 2"	Hex Bolt Gr. 5
W168X	5/8" X 3"	Hex Bolt Gr. 5
W169X	5/8" X 4"	Hex Bolt Gr. 5
W170X	5/8" X 5"	Hex Bolt Gr. 5

PART #	DESCRIPTION	
W171X	3/4" X 1"	Hex Bolt Gr. 5
W1715X	3/4" X 1 1/2"	Hex Bolt Gr. 5
W172X	3/4" X 2"	Hex Bolt Gr. 5
W173X	3/4" X 3"	Hex Bolt Gr. 5
W174X	3/4" X 4"	Hex Bolt Gr. 5
W175X	3/4" X 5"	Hex Bolt Gr. 5

HEX NUTS

W200X	1/4"	Hex Nut
W201X	5/16"	Hex Nut
W202X	3/8"	Hex Nut
W203X	7/16"	Hex Nut
W204X	1/2"	Hex Nut
W205X	5/8"	Hex Nut
W206X	3/4"	Hex Nut

STOVER LOCKNUT

W207X	1/4"	Locknut
W208X	5/16"	Locknut
W209X	3/8"	Locknut
W210X	7/16"	Locknut
W211X	1/2"	Locknut
W212X	5/8"	Locknut
W213X	3/4"	Locknut

LOCKWASHERS

W214X	1/4"	Lockwasher
W215X	5/16"	Lockwasher
W216X	3/8"	Lockwasher
W217X	7/16"	Lockwasher
W218X	1/2"	Lockwasher
W219X	5/8"	Lockwasher
W220X	3/4"	Lockwasher

FLATWASHERS

W221X	1/4"	Flatwasher
W222X	5/16"	Flatwasher
W223X	3/8"	Flatwasher
W224X	7/16"	Flatwasher
W225X	1/2"	Flatwasher
W226X	5/8"	Flatwasher
W227X	3/4"	Flatwasher

304 SERIES STAINLESS STEEL HEX HEAD BOLTS AND HARDWARE

PART #	DESCRIPTION	
W141SX	1/4" X 1"	Hex Bolt
W1412SX	1/4" X 1 1/2"	Hex Bolt
W142SX	1/4" X 2"	Hex Bolt
W1425SX	1/4" X 2 1/2"	Hex Bolt
W143SX	1/4" X 3"	Hex Bolt
W144SX	1/4" X 4"	Hex Bolt
W145SX	1/4" X 5"	Hex Bolt
W146SX	5/16" X 1"	Hex Bolt
W1465SX	5/16" X 1 1/2"	Hex Bolt
W147SX	5/16" X 2"	Hex Bolt
W1475SX	5/16" X 2 1/2"	Hex Bolt
W148SX	5/16" X 3"	Hex Bolt
W149SX	5/16" X 4"	Hex Bolt
W150SX	5/16" X 5"	Hex Bolt
W151SX	3/8" X 1"	Hex Bolt
W1515SX	3/8" X 1 1/2"	Hex Bolt
W152SX	3/8" X 2"	Hex Bolt
W153SX	3/8" X 3"	Hex Bolt
W154SX	3/8" X 4"	Hex Bolt
W155SX	3/8" X 5"	Hex Bolt
W156SX	7/16" X 1"	Hex Bolt
W1565SX	7/16" X 1 1/2"	Hex Bolt
W157SX	7/16" X 2"	Hex Bolt
W158SX	7/16" X 3"	Hex Bolt
W159SX	7/16" X 4"	Hex Bolt
W160SX	7/16" X 5"	Hex Bolt
W161SX	1/2" X 1"	Hex Bolt
W1615SX	1/2" X 1 1/2"	Hex Bolt

PART #	DESCRIPTION	
W162SX	1/2" X 2"	Hex Bolt
W163SX	1/2" X 3"	Hex Bolt
W164SX	1/2" X 4"	Hex Bolt
W165SX	1/2" X 5"	Hex Bolt
W166SX	5/8" X 1"	Hex Bolt
W1665SX	5/8" X 1 1/2"	Hex Bolt
W167SX	5/8" X 2"	Hex Bolt
W168SX	5/8" X 3"	Hex Bolt
W169SX	5/8" X 4"	Hex Bolt
W170SX	5/8" X 5"	Hex Bolt
W171SX	3/4" X 1"	Hex Bolt
W1715SX	3/4" X 1 1/2"	Hex Bolt
W172SX	3/4" X 2"	Hex Bolt
W173SX	3/4" X 3"	Hex Bolt
W174SX	3/4" X 4"	Hex Bolt
W175SX	3/4" X 5"	Hex Bolt

HEX NUTS

PART #	DESCRIPTION	
W200SX	1/4"	Hex Nut
W201SX	5/16"	Hex Nut
W202SX	3/8"	Hex Nut
W203SX	7/16"	Hex Nut
W204SX	1/2"	Hex Nut
W205SX	5/8"	Hex Nut
W206SX	3/4"	Hex Nut

NYLON INSERT LOCKNUTS

PART #	DESCRIPTION	
W207SX	1/4"	Locknut
W208SX	5/16"	Locknut
W209SX	3/8"	Locknut
W210SX	7/16"	Locknut
W211SX	1/2"	Locknut
W212SX	5/8"	Locknut
W213SX	3/4"	Locknut

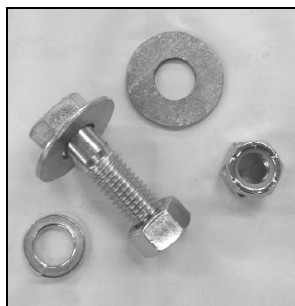
LOCKWASHERS

PART #	DESCRIPTION	
W214SX	1/4"	Lockwasher
W215SX	5/16"	Lockwasher
W216SX	3/8"	Lockwasher
W217SX	7/16"	Lockwasher
W218SX	1/2"	Lockwasher
W219SX	5/8"	Lockwasher
W220SX	3/4"	Lockwasher

FLATWASHERS

PART #	DESCRIPTION	
W221SX	1/4"	Flatwasher
W222SX	5/16"	Flatwasher
W223SX	3/8"	Flatwasher
W224SX	7/16"	Flatwasher
W225SX	1/2"	Flatwasher
W226SX	5/8"	Flatwasher
W227SX	3/4"	Flatwasher

METRIC ZINC PLATED HEX HEAD BOLTS AND HARDWARE



LARGER GRADE 8 BOLTS AND HARDWARE

PART #	DESCRIPTION
W1288X	1" x 8" GR8 Hex Bolt
W1308X	1" GR8 Flatwasher
W1298X	1" GR8 Crown Lock Nut
W1258X	1 1/4" x 10" GR8 Hex Bolt
W1278X	1 1/4" GR8 Flatwasher
W1268X	1 1/4" GR8 Crown Lock Nut

PART #	DESCRIPTION
WM616X	M6 X 16 MM Hex Bolt
WM620X	M6 X 20 MM Hex Bolt
WM625X	M6 X 25 MM Hex Bolt
WM630X	M6 X 30 MM Hex Bolt
WM635X	M6 X 35 MM Hex Bolt
WM640X	M6 X 40 MM Hex Bolt
WM645X	M6 X 45 MM Hex Bolt
WM650X	M6 X 50 MM Hex Bolt
WM660X	M6 X 60 MM Hex Bolt
WM812X	M8 X 12 MM Hex Bolt
WM816X	M8 X 16 MM Hex Bolt
WM820X	M8 X 20 MM Hex Bolt
WM825X	M8 X 25 MM Hex Bolt
WM830X	M8 X 30 MM Hex Bolt
WM835X	M8 X 35 MM Hex Bolt
WM840X	M8 X 40 MM Hex Bolt
WM845X	M8 X 45 MM Hex Bolt
WM850X	M8 X 50 MM Hex Bolt
WM860X	M8 X 60 MM Hex Bolt
WM1016X	M10 X 16 MM Hex Bolt
WM1020X	M10 X 20 MM Hex Bolt
WM1025X	M10 X 25 MM Hex Bolt
WM1030X	M10 X 30 MM Hex Bolt
WM1035X	M10 X 35 MM Hex Bolt
WM1040X	M10 X 40 MM Hex Bolt
WM1045X	M10 X 45 MM Hex Bolt
WM1050X	M10 X 50 MM Hex Bolt
WM1055X	M10 X 55 MM Hex Bolt
WM1060X	M10 X 60 MM Hex Bolt
WM1220X	M12 X 20 MM Hex Bolt
WM1225X	M12 X 25 MM Hex Bolt
WM1230X	M12 X 30 MM Hex Bolt
WM1235X	M12 X 35 MM Hex Bolt
WM1240X	M12 X 40 MM Hex Bolt
WM1245X	M12 X 45 MM Hex Bolt
WM1250X	M12 X 50 MM Hex Bolt
WM1260X	M12 X 60 MM Hex Bolt
WM1270X	M12 X 70 MM Hex Bolt
WM1280X	M12 X 80 MM Hex Bolt

HEX NUTS

PART #	DESCRIPTION
WM206X	6MM Hex Nut
WM208X	8MM Hex Nut
WM210X	10MM Hex Nut
WM212X	12MM Hex Nut

NYLON LOCK NUTS

PART #	DESCRIPTION
WM207X	6MM Nylon Lock Nut
WM209X	8MM Nylon Lock Nut
WM211X	10MM Nylon Lock Nut
WM213X	12MM Nylon Lock Nut

FLAT WASHERS

PART #	DESCRIPTION
WM216X	6MM Flatwasher
WM218X	8MM Flatwasher
WM220X	10MM Flatwasher
WM222X	12MM Flatwasher

LOCK WASHERS

PART #	DESCRIPTION
WM226X	6MM Lockwasher
WM228X	8MM Lockwasher
WM230X	10MM Lockwasher
WM232X	12MM Lockwasher

U-BOLTS

PART #	DESCRIPTION
P16310011X	5/8" X 4" X 5 1/2" U-Bolt (4x4)
P16310050X	5/8" X 4" X 7 1/2" U-Bolt (4x6)
P16310030X	5/8" X 6" X 5 1/2" U-Bolt (6x4)
P87427163X	5/8" X 6" X 7 1/2" U-Bolt (6x6)
P16312220X	3/4" X 4" X 5 1/2" U-Bolt (4x4)
P16312020X	3/4" X 4" X 7 1/2" U-Bolt (4x6)
P16312240X	3/4" X 6" X 5 1/2" U-Bolt (6x4)
P87427188X	3/4" X 6" X 7 1/2" U-Bolt (6x6)
PAP510755X	3/4" X 7" X 8 1/2" U-Bolt (7x7)
PAP305648X	1/2" X 1 1/4" X 3 1/2" U-Bolt
PAP505525X	1/2" X 2" X 2 1/2" U-Bolt



HOSE CLAMPS

All Stainless Steel Band, Housing, & Drive Screw



PART #	FITS APPROX.
C2BX	MM4 - 1/4"
C2AX	MM5 - 3/8"
C2CX	MM6 - 1/2" Narrow
C2X	#8 - 1/2"
C3X	#12 - 3/4"
C3AX	#16 - 1"
C4X	#20 - 1 1/4"
C5X	#28 - 1 1/2"
C6X	#36 - 2"
C7X	#40 - 2 1/2"
C8X	#56 - 3"
C9X	#72 - 4"
C10X	#80 - 5"

HEAVY DUTY HOSE CUTTER



C299X HOSE CUTTER

PRESSURE SEAL LINED HD CLAMPS

PART #	FITS APPROX.
C221X	3/4" Pressure Clamp
C222X	1" Pressure Clamp
C223X	1 1/4" Pressure Clamp
C224X	1 1/2" Pressure Clamp
C225X	2" PVC Pressure Clamp
C226X	2" Pressure Clamp
C228X	3" Pressure Clamp



NYLON TIES



S.S. T-BOLT HOSE CLAMPS



PART #	FITS APPROX.	HOSE SIZE
C201CX	1.20" - 1.34"	1"
C201BX	1.34" - 1.50"	1 1/4"
C201EX	1.50" - 1.62"	1 1/4"
C201AX	1.62" - 1.87"	1 1/4"
C201DX	1.84" - 2.12"	1 1/2"
C201X	1.93" - 2.18"	1 1/2"
C204X	2.18" - 2.50"	2" PVC
C205X	2.31" - 2.62"	2"
C206X	2.87" - 3.18"	2"
C213X	3.28" - 3.50"	3"
C211X	3.31" - 3.62"	3" PVC
C212X	3.43" - 3.75"	3" W.B.
C215X	4.38" - 4.75"	4" W.B.

PART #	DESCRIPTION	L & S
C14001X	100 PC NATURAL	4" 18lb
C14002X	100 PC BLACK	4" 18lb
C14003X	100 PC BLACK	8" 18lb
C14008X	100 PC GREEN	4" 18lb
C14011X	100 PC RED	4" 18lb
C14012X	100 PC YELLOW	4" 18lb
C14030X	100 PC NATURAL	5.7" 40lb
C14031X	100 PC BLACK	5.7" 40lb
C14032X	100 PC NATURAL	8" 40lb
C14033X	100 PC BLACK	8" 40lb
C14060X	100 PC NATURAL	8" 50lb
C14061X	100 PC BLACK	8" 50lb
C14062X	100 PC NATURAL	11.8" 50lb
C14063X	100 PC BLACK	11.8" 50lb
C14064X	100 PC NATURAL	14.6" 50lb
C14065X	100 PC BLACK	14.6" 50lb
C14071X	100 PC ASSORT.	8" 50lb
C14072X	100 PC BLUE	8" 50lb
C14075X	100 PC GREEN	8" 50lb
C14076X	100 PC ORANGE	8" 50lb
C14079X	100 PC RED	8" 50lb
C14080X	100 PC YELLOW	8" 50lb
C14081X	100 PC ASSORT.	11.8" 50lb
C14085X	100 PC GREEN	11.8" 50lb
C14086X	100 PC ORANGE	11.8" 50lb
C14088X	100 PC RED	11.8" 50lb
C14089X	100 PC YELLOW	11.8" 50lb
C14150X	100 PC NATURAL	7.9" 120lb

PART #	DESCRIPTION	L & S
C14151X	100 PC BLACK	7.9" 120lb
C14154X	100 PC NATURAL	14.5" 120lb
C14155X	100 PC BLACK	14.5" 120lb
C14156X	50 PC NATURAL	18" 120lb
C14157X	50 PC BLACK	18" 120lb
C14170X	50 PC NATURAL	17" 175lb
C14171X	50 PC BLACK	17" 175lb
C14172X	25 PC NATURAL	24.9" 175lb
C14173X	25 PC BLACK	24.9" 175lb
C14174X	10 PC NATURAL	36.5" 175lb
C14175X	10 PC BLACK	36.5" 175lb
C14176X	10 PC NATURAL	48" 175lb
C14177X	10 PC BLACK	48" 175lb
C14193X	10 PC NATURAL	40" 250lb
C14194X	10 PC BLACK	40" 250lb
C14200X	200 PC CAMO	8" 50lb
C14210X	5 PC STAINLESS	7.9" 100lb
C14221X	5 PC STAINLESS	14.2" 250lb
C14590X	Tensioning Tool	
C14450X	100 PC NATURAL	8" 50lb
C14451X	100 PC BLACK	8" 50lb
C14452X	100 PC NATURAL	14.5" 50lb
C14453X	100 PC BLACK	14.5" 50lb
C14491X	100 PC NATURAL	7.6" 50lb
C14502X	100 PC NATURAL	7.9" 50lb
C14503X	100 PC BLACK	7.9" 50lb
C14520X	25 PC BLACK	8.25" 50lb
C14521X	25 PC BLACK	11.8" 50lb
C14452X	100 PC NATURAL	7.9" 50lb



GOOD CHEMICAL RESISTANCE

Application: General service air and water hose for various industrial, construction, and agricultural applications, including those using Monsanto's Lasso. Hose has limited oil resistance.

Construction: EPDM tube reinforced with 2 and 4 spiral polyester yarn, with an EPDM cover.

EPDM RUBBER SPRAYER HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT. ROLL
C101X	1/4" 2 Spiral	150	100
C102X	3/8" 2 Spiral	150	100
C104X	1/2" 2 Spiral	150	100
C105X	5/8" 2 Spiral	150	100
C106X	3/4" 2 Spiral	150	100
C107X	1" 2 Spiral	150	100
C108X	1 1/4" 2 Spiral	150	400
C109X	1 1/2" 2 Spiral	150	400
C110X	2" 2 Spiral	150	250



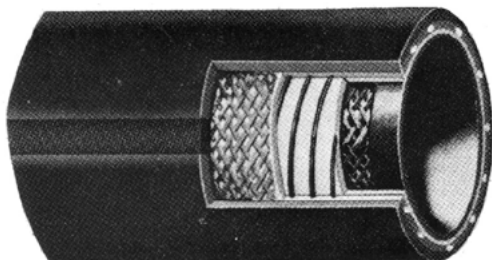
GOOD CHEMICAL RESISTANCE

Application: A lightweight and flexible hose for contractor or agricultural usage. Will handle full vacuum ratings and pressures up to 150 PSI. Smooth EPDM tube is adaptable as a material handling, vacuum or ducting hose.

Construction: EPDM tube reinforced with synthetic cord and spiral helix wire adds flexibility and crush resistance. EPDM cover is resistant to abrasion and rough handling conditions.

EPDM WIRE BRAID SUCTION HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT. ROLL
C114X	1" w/Wire Helix	170	100
C115X	1 1/4" w/Wire Helix	170	100
C116X	1 1/2" w/Wire Helix	200	100
C117X	2" w/Wire Helix	150	100
C118X	3" w/Wire Helix	150	100
C119X	4" w/Wire Helix	100	100
C120X	6" w/Wire Helix	100	100



EXCELLENT CHEMICAL RESISTANCE

Application: ULTRA CHEM is a lightweight, flexible chemical transfer hose that will handle 98% of all common agricultural and industrial chemicals and is ideal for pressure, gravity flow, and suction service.

ULTRA CHEM (CHEMICAL TRANSFER HOSE)

PART #	DESCRIPTION	WP (PSI)	APPROX FT. ROLL
C165X	1"	250	100
C166X	1 1/4"	250	100
C167X	1 1/2"	250	100
C168X	2"	250	100
C169X	3"	250	100

Construction: The ULTRA CHEM tube is made of ultra high molecular weight polyethylene, backed with compatible rubber layer that lends support and flexibility to the hose. It is reinforced with multiple synthetic textile cords and a dual wire helix. The cover is abrasion and chemical resistant EPDM. Plus, the green color, with a bright yellow mylar spiral brand and black letters, makes ULTA CHEM a standout and easily identified.



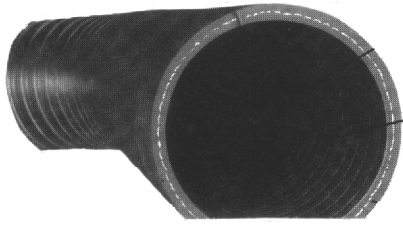
GOOD RESISTANCE TO LASSO & ERADICANE

Application: A rugged, flexible suction and discharge hose for the agricultural and construction industry. Lightweight and resistant to herbicides and pesticides including Lasso. Temperature range of -30° F to 140° F with good flexibility even in cold weather.

EPDM FERTILIZER SOLUTION HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT. ROLL
C129BX	1" EPDM Blend	80	100
C129AX	1 1/4" EPDM Blend	70	100
C130X	1 1/2" EPDM Blend	60	100
C131X	2" EPDM Blend	60	100
C132X	3" EPDM Blend	50	100

Construction: EPDM with polyethylene helix reinforcement that also serves as a scuff strip.



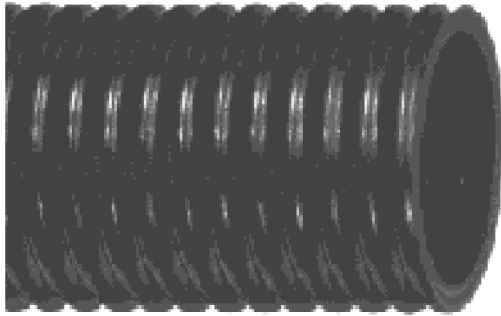
**HIGH PRESSURE - ALL WEATHER -
GOOD CHEMICAL RESISTANCE**

Application: Suction and discharge of liquids in the construction and agricultural industries such as agricultural chemicals and liquid fertilizers.

390 SUCTION DISCHARGE HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C136X	1 1/4" 390 S&D	100	100
C137X	1 1/2" 390 S&D	100	100
C138X	2" 390 S&D	100	100
C139X	3" 390 S&D	90	100

Construction: EPDM rubber, polyethylene helix, synthetic braiding, smooth bore, corrugated outer cover.



Suction and discharge hose for the agricultural and construction industry.

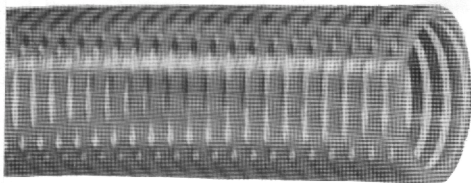
ENFORCER SUCTION DISCHARGE HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C132BX	1 1/4" ENFORCER S&D	100	100
C132AX	1 1/2" ENFORCER S&D	100	100
C133X	2" ENFORCER S&D	100	100
C134X	3" ENFORCER S&D	90	100
C135X	4" ENFORCER S&D	75	100

FEATURES:

- Remains flexible in sub-zero temp.: -30°F to 140°F.
- Lighter than conventional rubber EPDM hose.
- Resistant to diluted herbicides and pesticides
- Scuff protected with a polyethylene helix.

Construction: EPDM tube, polyethylene helix with hi-tensile fabric reinforcement.



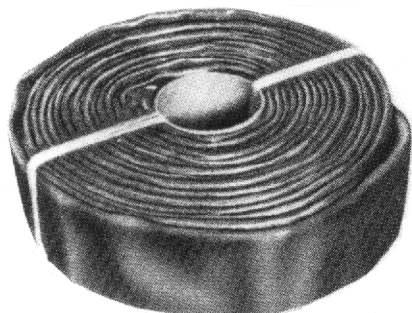
**GOOD FOR FERTILIZER - LOW
RESISTANCE TO LASSO & ERADICANE**

P.V.C. SUCTION AND DISCHARGE HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C123X	3/4" PVC S&D	100	100
C124X	1" PVC S&D	100	100
C125X	1 1/4" PVC S&D	90	100
C126X	1 1/2" PVC S&D	90	100
C127X	2" PVC S&D	70	100
C127AX	2 1/2" PVC S&D	65	100
C128X	3" PVC S&D	60	100
C129X	4" PVC S&D	50	100

Application: A PVC suction and discharge hose for pumping service in the construction, marine, irrigation and agriculture industry.

Construction: A smooth bore hose made of flexible abrasion-resistant extruded PVC with a rigid PVC helix.



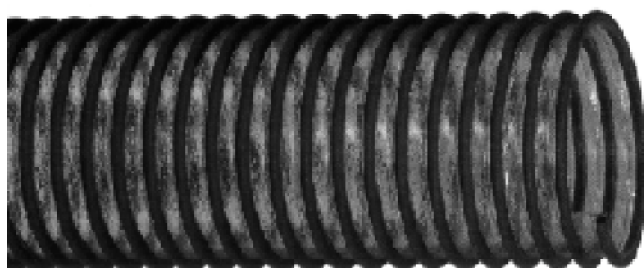
**GOOD FOR FERTILIZER & WATER
LOW CHEMICAL RESISTANCE**

Construction: Tube and cover are PVC and reinforcement is a spiral of high grade cord fabric.

BLUE ROYAL PVC DISCHARGE HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C140X	1 1/2" PVCD	70	300
C147X	2" PVCD	65	300
C148X	3" PVCD	55	300
C149X	4" PVCD	50	300

Application: An economical hose for discharging water in construction, mining, agriculture, etc. Stays flexible at -5° F. Maximum temperature -130° F. Resistant to oils, grease and many chemicals and acids. Non water-absorbing. Mildew-proof.



TIGERFLEX "UREVAC" BLOWER HOSE

PART #	DESCRIPTION	WP 68°F (PSI)	APPROX FT./ROLL
F90708064X	3" UREVAC	10	50

GENERAL APPLICATIONS:

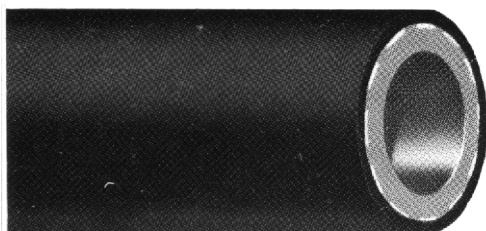
Abrasive material chutes.
Lawn cleaning.
Insulation blowing.
Leaf collection.
(For pneumatic system for dry dust collecting and blowing only).

FEATURES:

Polyurethane, lightweight blower hose. Designed with green outside PVC helix reinforcement for maximum flexibility in sub-zero temperatures. Smooth bore for unrestricted flow when laid straight with ends secured.

SERVICE TEMP:

Static condition - 40° F to 150°F.
Dynamic condition - 22° F to 104°F.



**GOOD CHEMICAL RESISTANCE COLD
WEATHER FLEXIBILITY U.V. AND
OZONE RESISTANT**

Application: For use in agriculture spraying, air hose.

GENERAL PURPOSE AIR AND WATER HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C155RX	3/8" POLYAIR RED	250	500
C155GX	3/8" POLYAIR GRAY	250	500

Construction: Covers PVC compound, spiral polyester yarn with additional longitudinal, which reduces elongation under pressure.



**EXCELLENT FOR ANHYDROUS
VERY GOOD CHEMICAL RESISTANCE**

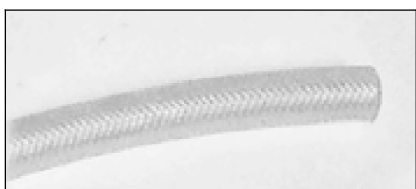
Application: An Ethyl Vinyl Acetate plastic tubing which handles common herbicides and insecticide solutions including Monsanto's Lasso. This hose is used in applying anhydrous ammonia, aqua ammonia, herbicides, phosphates and all liquid fertilizers.

EVA TUBING

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C151X	3/8" EVA	75	500
C151BX	3/8" EVA (BLACK)	75	500
C152X	1/2" EVA	75	500
C153X	3/4" EVA	60	200
C154X	1" EVA	60	100

Construction: Compound is 18% Vinyl Acetate.

WARNING: Not for transfer of anhydrous ammonia under pressure. Recommended for open end discharge only (low pressure).



**EXCELLENT FOR ANHYDROUS
VERY GOOD CHEMICAL RESISTANCE**

Application: For use in agriculture spraying, drinking water lines, and beverage dispensing.

BRAIDED EVA TUBING

PART #	DESCRIPTION	WP (PSI)	APPROX FT./ROLL
C160X	1/4" EVA - BRAIDED	300	300
C161X	3/8" EVA - BRAIDED	250	300
C162X	1/2" EVA - BRAIDED	200	300
C163X	3/4" EVA - BRAIDED	200	300
C163AX	1" EVA - BRAIDED	200	200

Construction: Ethylene vinyl acetate, reinforced with a synthetic cord. It is highly flexible, extremely tough, with a very good stress and crack resistance at low temperatures.

WARNING: Not for transfer of anhydrous ammonia under pressure. Recommended for open end discharge only (low pressure).



**GOOD FOR FERTILIZER -
LOW CHEMICAL RESISTANCE**

Application: Good to excellent resistance to acids, fair to excellent resistance to alkalis, and excellent resistance to most solvents except ketones, esters, and some aromatic hydro-carbons.

CLEAR VINYL SIGHT GAUGE HOSE

PART #	DESCRIPTION	WP (PSI)	APPROX FT. ROLL
C170X	1/4" CLEAR 1/8" WALL	70	100
C171X	3/8" CLEAR 1/8" WALL	60	100
C172X	1/2" CLEAR 1/8" WALL	45	100
C172AX	5/8" CLEAR 1/8" WALL	40	100
C173X	3/4" CLEAR 1/8" WALL	35	100
C174X	1" CLEAR 1/8" WALL	25	100
C174AX	1 1/4" CLEAR 1/4" WALL	40	50
C177X	1 1/2" CLEAR 1/4" WALL	35	50

Construction: Crystal clear polyvinyl chloride tubing.

ANHYDROUS AMMONIA HOSE (Nylon Braid)

For nurse tank usage involving NH₃.
Pro-rated 6 year warranty for agriculral applications only when coupled by MFG.

Tube: Low Permeation EPDM
Reinforcement: Nylon Braid
Cover: Black EPDM with Longitudinal Stripe; Branded Continuously with Removal Date



1" HOSE ASSEMBLIES

<u>PART #</u>	<u>DESCRIPTION</u>	
C183CX	1" X 3 FT	COUPLED MXM HOSE ASSEMBLY
C183DX	1" X 4 FT	COUPLED MXM HOSE ASSEMBLY
C183EX	1" X 5 FT	COUPLED MXM HOSE ASSEMBLY
C183GX	1" X 6 FT	COUPLED MXM HOSE ASSEMBLY
C183LX	1" X 7 FT	COUPLED MXM HOSE ASSEMBLY
C183FX	1" X 8 FT	COUPLED MXM HOSE ASSEMBLY
C183MX	1" X 9 FT	COUPLED MXM HOSE ASSEMBLY
C184X	1" X 10 FT	COUPLED MXM HOSE ASSEMBLY
C183AX	1" X 12 FT	COUPLED MXM HOSE ASSEMBLY
C183JX	1" X 14 FT	COUPLED MXM HOSE ASSEMBLY
C183BX	1" X 15 FT	COUPLED MXM HOSE ASSEMBLY
C183KX	1" X 20 FT	COUPLED MXM HOSE ASSEMBLY
C183HX	1" X 28 FT	COUPLED MXM HOSE ASSEMBLY

**THREADS WILL
MEASURE 1 1/4"**



1 1/4" HOSE ASSEMBLIES

<u>PART #</u>	<u>DESCRIPTION</u>	
C186MX	1 1/4" X 2 FT	COUPLED MXM HOSE ASSEMBLY
C186CX	1 1/4" X 32 inches	COUPLED MXM HOSE ASSEMBLY
C186JX	1 1/4" X 3 FT	COUPLED MXM HOSE ASSEMBLY
C186FX	1 1/4" X 4 FT	COUPLED MXM HOSE ASSEMBLY
C186EX	1 1/4" X 5 FT	COUPLED MXM HOSE ASSEMBLY
C186IX	1 1/4" X 6 FT	COUPLED MXM HOSE ASSEMBLY
C186DX	1 1/4" X 7 FT	COUPLED MXM HOSE ASSEMBLY
C186HX	1 1/4" X 8 FT	COUPLED MXM HOSE ASSEMBLY
C186GX	1 1/4" X 10 FT	COUPLED MXM HOSE ASSEMBLY
C186AX	1 1/4" X 12 FT	COUPLED MXM HOSE ASSEMBLY
C186BX	1 1/4" X 15 FT	COUPLED MXM HOSE ASSEMBLY
C186KX	1 1/4" X 20 FT	COUPLED MXM HOSE ASSEMBLY
C186LX	1 1/4" X 30 FT	COUPLED MXM HOSE ASSEMBLY

**THREADS WILL
MEASURE 1 5/8"**



1 1/2" HOSE ASSEMBLIES

<u>PART #</u>	<u>DESCRIPTION</u>	
C187CX	1 1/2" X 3 FT	COUPLED MXM HOSE ASSEMBLY
C187HX	1 1/2" X 8 FT	COUPLED MXM HOSE ASSEMBLY
C187EX	1 1/2" X 10 FT	COUPLED MXM HOSE ASSEMBLY
C187AX	1 1/2" X 12 FT	COUPLED MXM HOSE ASSEMBLY

**THREADS WILL
MEASURE 2"**

ANHYDROUS AMMONIA HOSE (Stainless Steel Braid)

For nurse tank usage involving NH₃. Pro-rated 8 year warranty for agriculral applications only when coupled by MFG. ALL STAINLESS STEEL BRAIDED HOSES ARE SPECIAL ORDER.

SAFETY ACCESSORIES

Keep Water And Safety Equipment Quickly Available

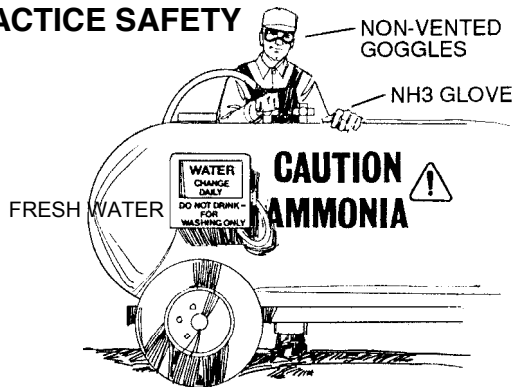
GLOVES FOR NH3



ANHYDROUS AMMONIA GLOVE - Black PVC Plastic Coated Glove for handling Anhydrous Ammonia. Fully coated for superior chemical and abrasion resistance. Large Size 14" Gauntlet, with a jersey liner for worker comfort. Excellent wet or dry grip. Proven durability and economy.

PART #	DESCRIPTION
R576X	14" AMMONIA GAUNTLET
R576X	14" AMMONIA GAUNTLET 48 PAIR OR MORE

PRACTICE SAFETY



- Use proper equipment
- Keep fresh water available
- Take care of the equipment
- Follow safe practices

RUBBER BOOTS

Formulated of polyurethane and PVC for environments where severe conditions require a high degree of chemical resistance.



- 16" plain toe
- Nonslip soles for safety
- Self-cleaning soles clean while walking
- Pull-up and kick off lugs
- Molded-in pant stay
- Removable, washable cushion insole
- Steel shank for safety and comfort

PART #	DESCRIPTION
R535AX	RUBBER BOOTS SIZE 9
R535BX	RUBBER BOOTS SIZE10
R535CX	RUBBER BOOTS SIZE11
R535DX	RUBBER BOOTS SIZE12



Safety Goggles NON-VENTED

Protects against splashing or spilling, dusts and sprays. A fogless, soft flexible non-vented goggle. Can be worn over most prescription glasses.

PART #	DESCRIPTION
R566X	CLEAR LENS, NON-VENTED FRAME GOGGLES

Full Face Respirator Ammonia Vapor Cartridges

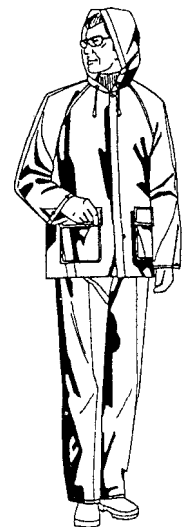
Helps provide respiratory protection from ammonia



PART #	DESCRIPTION
R6800MX	Full Face Respirator, Medium (Less Cartridges)
R6004X	Ammonia Vapor Cartridges (Pair)

RAINSUITS

- PVC outside coating
- Non conductive plastic snaps
- Abrasion resistant



PART #	DESCRIPTION
R528AX	HOODED JACKET AND PANTS SMALL
R528BX	HOODED JACKET AND PANTS MEDIUM
R528CX	HOODED JACKET AND PANTS LARGE
R528DX	HOODED JACKET AND PANTS X-LARGE

SAFETY ACCESSORIES

Keep Water and Safety Equipment Quickly Available



Part# Description

R541X.....Side Mount Water Container

* Does Not Include Mounting Kit

* Does Not Include Vinyl Hose

R552X.....Mounting Strap Kit

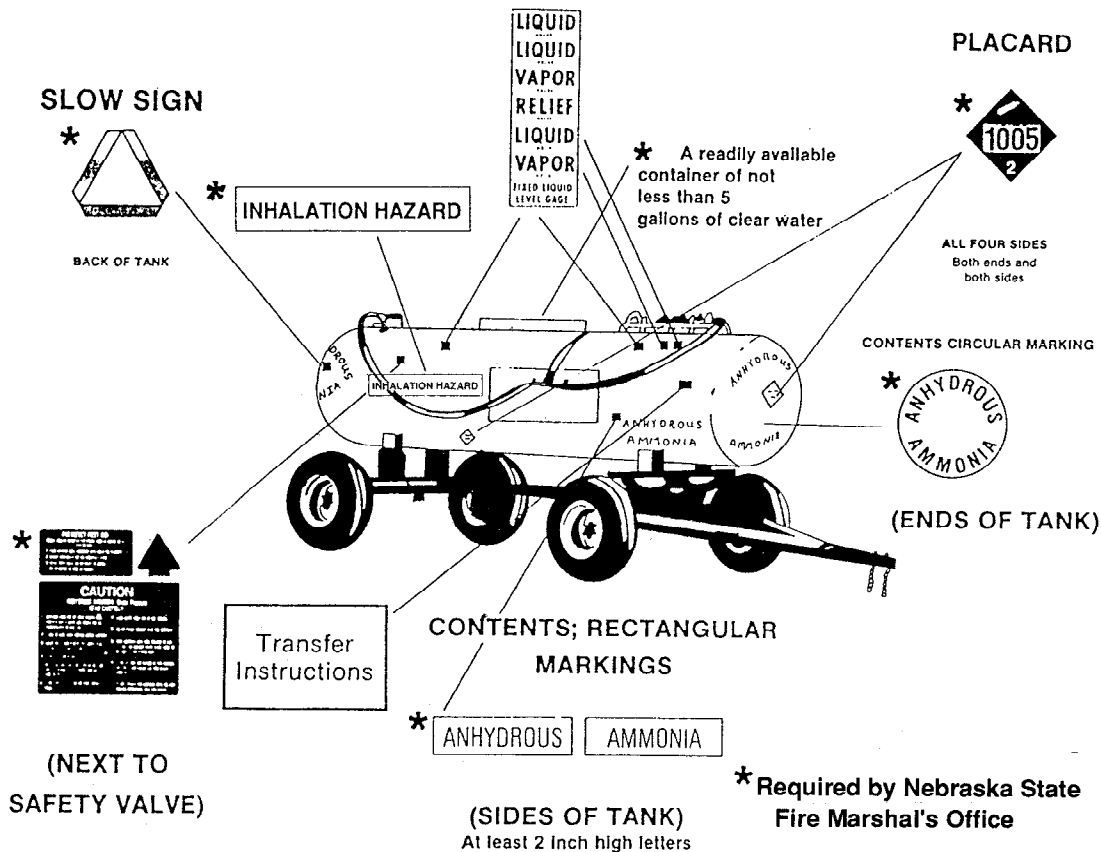
R542X.....SM Water Container Lid

C172AX....5/8" Clear Vinyl Hose 1 ft.



NURSE TANK DECAL PLACEMENT

VALVE MARKINGS



NOTE: State regulations vary and you should check with the proper agency to see what else might be required.

Decals continued on next page.

NURSE TANK DECALS

Prepare your nurse tanks for the D.O.T. marking regulations. The D.O.T. regulation states that any nurse tank 1000 gallons and larger must have a round "Anhydrous Ammonia" decal on each end and a rectangular "Anhydrous Ammonia" decal on each side, (road side and shoulder side). These decals should be at least 4" high and in a contrasting color. Each nurse tank must also have a "NON-FLAMMABLE GAS" placard on both ends and both sides. These placards cannot be closer than 3" to any other marking on the nurse tank. The "Inhalation Hazard" decal should be on each side, (road side and shoulder side). The slow moving vehicle emblem is still necessary.

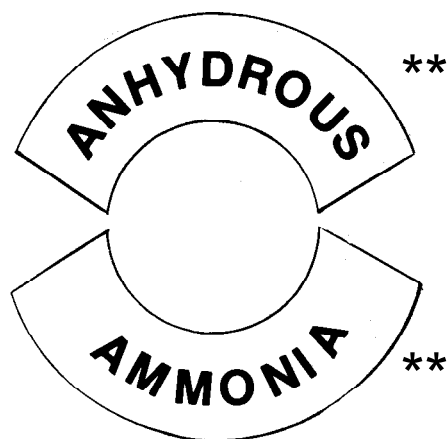
Decal Set for Nurse Tanks

DECAL PACKAGE INCLUDES ITEMS IN REQUIRED AMOUNTS
LESS SMV DECAL

- (2) ROUND "ANHYDROUS" (RED)
- (2) ROUND "AMMONIA" (RED)
- (2) REC. "ANHY. AMM." (RED)
- (4) SQ. "NON FLAMMABLE"
- (2) INHALATION HAZARD
- (1) 3-PART SAFETY DECAL
- (1) VALVE LABEL

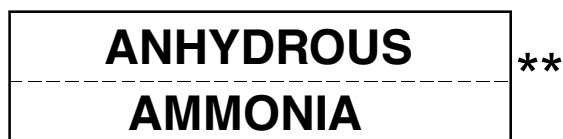
PART #	DESCRIPTION
R638X	DECAL PACKAGE

NOTE: STATE REGULATIONS VARY AND YOU SHOULD CHECK WITH THE PROPER AGENCY TO SEE WHAT ELSE MIGHT BE NEEDED.



4" Red letter on white background. Pressure sensitive diecut to fit compound curve of nurse tank.

PART #	DESCRIPTION
R640X	ROUND "ANHY. AMM." (RED)
R640AX	ROUND "ANHY. AMM." (GREEN)



Red on white 10" x 24" pressure sensitive decal. Has 4" letters. Can also be used in straight line by cutting along dotted lines.

PART #	DESCRIPTION
R642X	REC. "ANHY. AMM." (RED)
R642AX	REC. "ANHY. AMM." (GREEN)



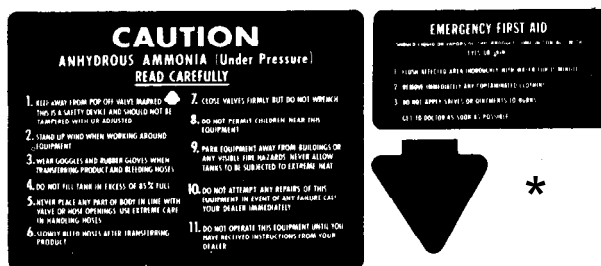
Green on white 10 1/2" x 10 1/2" diamond decal. Pressure sensitive adhesive.

PART #	DESCRIPTION
R644X	SQ. "NON FLAMMABLE"

INHALATION HAZARD **

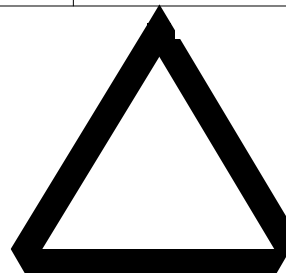
Green on white decal with 3" lettering. Adhesive pressure sensitive backing.

PART #	DESCRIPTION
R639X	INHALATION HAZARD



Three piece decal with caution information. First aid information and pointed arrow.

PART #	DESCRIPTION
R645X	3-PART SAFETY DECAL



Standard SMV slow moving vehicle decal. Adhesive pressure sensitive backing.

PART #	DESCRIPTION
R647X	SMV DECAL
R647AX	SMV SIGN (STEEL BACK)

**FIXED LIQUID
LEVEL GAGE
VAPOR
HOSE
VAPOR
VALVE
RELIEF
VALVE
LIQUID
VALVE
LIQUID
VALVE
LIQUID
HOSE**

*

Seven individual 1" x 3" red on white valve identification decals on one sheet.

PART #	DESCRIPTION
R648X	VALVE LABEL

**WEAR YOUR
GOGGLES**

White on green 4" x 6" "Wear Your Goggles" safety reminder decal.

PART #	DESCRIPTION
R645AX	"WEAR YOUR GOGGLES"

**+ FIRST AID +
WATER**

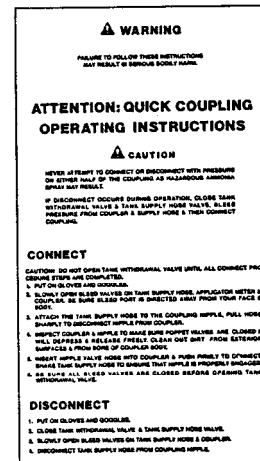
Red on white "Water" safety information decal.

PART #	DESCRIPTION
R645BX	"WATER"

0123456789

Available in our regular Vinyl Plastic with permanent pressure sensitive adhesive backing in Black 4" lettering.

PART #	DESCRIPTION
R646X	"INDIVIDUAL" NUMBERS ONLY 0-9
R646SX	0-9 NUMBER SET



Step by step instructions for connecting and disconnecting ammonia couplers.

PART #	DESCRIPTION
R643X	NH3 Q.C. INSTRUCTION DECAL

**MAXIMUM
PULLING SPEED
25 M.P.H.
Pulling Vehicle Responsible**

PART #	DESCRIPTION
R645CX	MAX. PULLING SPEED

NH₃ 82% NITROGEN

Green on white 5" x 24" decal with 4" lettering.
Adhesive pressure sensitive backing.

PART #	DESCRIPTION
R649AX	82% NITROGEN

STORAGE TANK

**CAUTION
AMMONIA**

Red on white decal with 6" lettering.

PART #	DESCRIPTION
R649BX	"CAUTION AMMONIA"

CONTINENTAL NH₃ IN-LINE ROTARY ACTUATOR

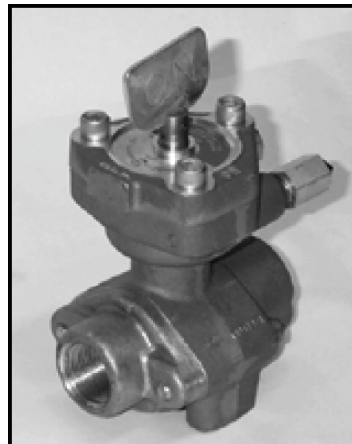
The **R-9590** hydraulic in-line rotary actuator is designed to be mounted quickly and easily in front on any NH metering device. Using standard 1/4" ports of hydraulic hook-up makes this shut-off easily integrated with any tractor hydraulic system. The **R-9590** uses a rotor actuated ball valve insuring a long and maintenance free life.

FEATURES

- Available in 1" FPT or 1-1/4" FPT.
- ON/OFF indicator flag.
- Stainless steel rotor and shaft for maximum corrosion resistance.
- Steel resistors stop hydraulic fluid from slamming against the rotor body.
- Contamination dump prevents ammonia from entering hydraulic system.
- Vented ball allows any trapped ammonia to escape.

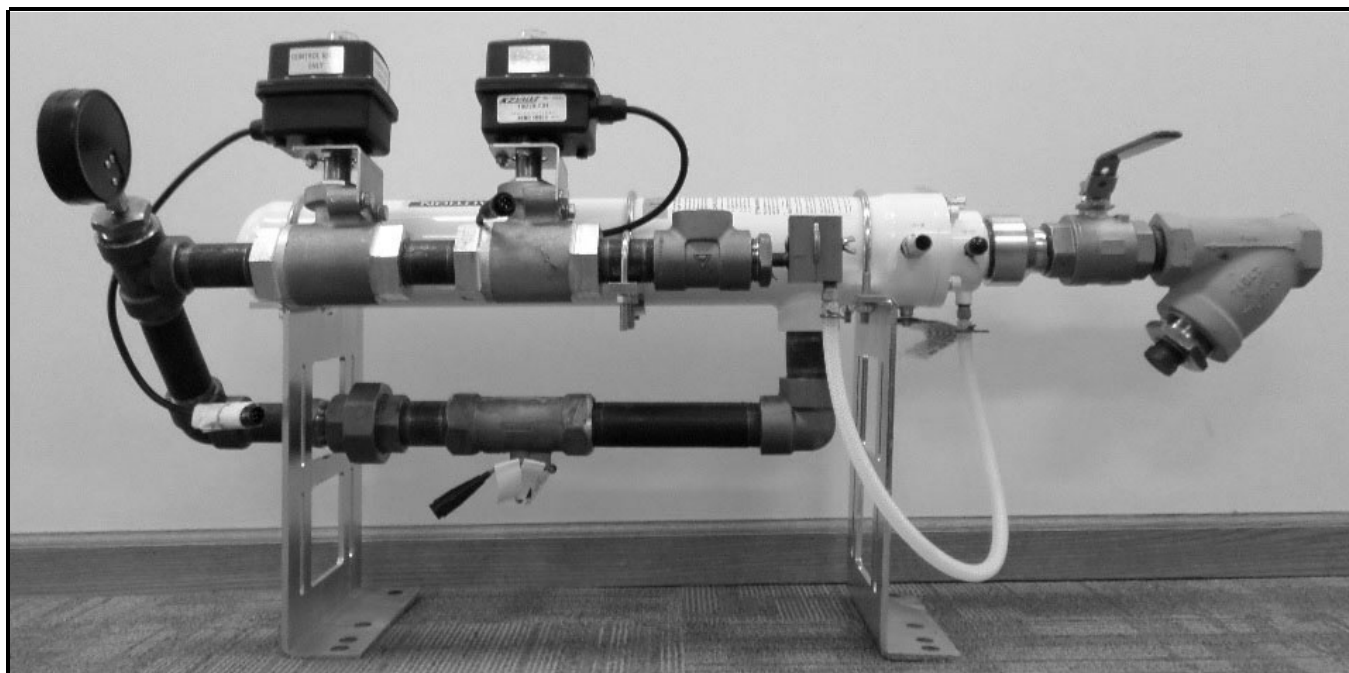
PART #	DESCRIPTION
R720X	1" IN LINE ROTARY ACTUATOR
R725X	1 1/4" IN LINE ROTARY ACTUATOR
R722X	REPAIR KIT

Replacement parts reference page 180

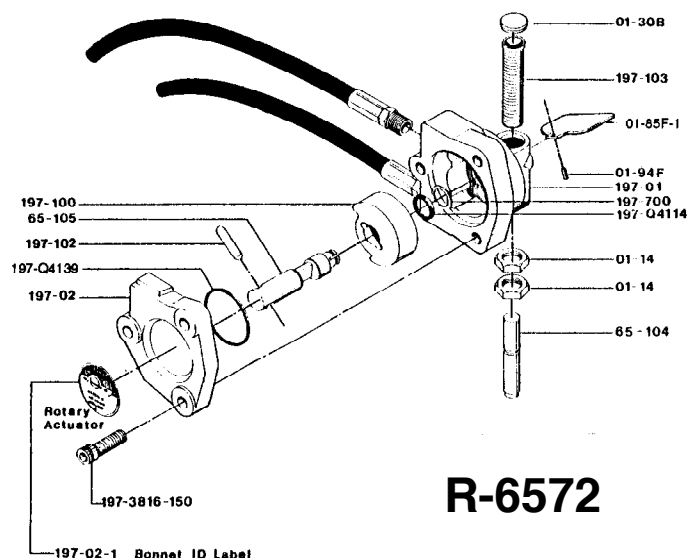


PrecisioNH₃ Control System

- Automatic NH₃ rate control when paired with a Console or ISOBUS Controller
- Continental Supercooler has 30+ GPM capacity at 60 psi tank pressure
- Stainless steel internal tubes prevent corrosion caused by nitrogen stabilizers
- 120 degree control valve with "V" ball opening allows more accurate control and less rate oscillation at lower rates or with section control



PART #	DESCRIPTION
LCASF3000GHX	PrecisioNH ₃ Control System with Vapor Tube Kit
LCACBVT125CTX	Control Valve 1 1/4" 120 Degree Turn
LCABBVT125SOX	On/Off Valve 1 1/4"

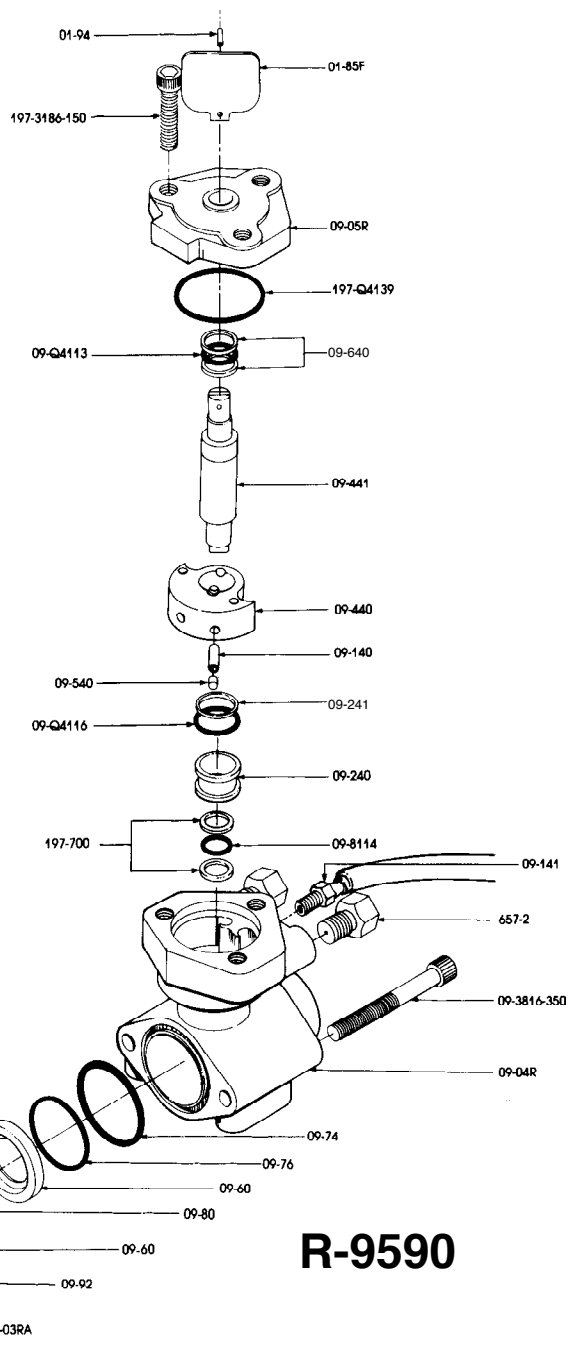


R-6572

R-6572 Rotary Actuator Parts List

PART #	MFG#	DESCRIPTION
R37X	01-14	LOCK NUT
R51X	01-30-B	CAM HOUSING CAP
R75X	01-85-F	INDICATOR FLAG
*R85X	01-94-F	FLAG LOCK PIN
	197-01	ROTARY ACTUATOR BODY
	197-02	ROTARY ACTUATOR BONNET
	197-100	ROTOR
R701X	65-105	CAM FOR METER MATICS
	197-102	ROTOR RETAINING PIN
R703X	197-103	ADJUSTING SCREW
	65-104	CAM ROD
*	197-700	CAP SEAL BACK UP WASHER
	197-3816-150	BODY SCREW
*	197-Q4139	BODY SEAL O-RING
*	197-Q4114	CAM SEAL QUAD RING
	197-02-1	BONNET ID LABEL

* Denotes Items Found In Repair Kit (R702X)



R-9590

CONTINENTAL NH₃ PRODUCTS

R-9590 Rotary Actuator Parts List

PART #	MFG #	DESCRIPTION
R75X	01-85F	INDICATOR FLAG
*R85X	01-94	FLAG LOCK PIN
R723X	09-03RA	INLET/OUTLET BODY
	09-04R	ROTOR SHUT-OFF BODY
	09-05R	ROTOR SHUT-OFF BONNET
	09-05R1	ON/OFF DECAL
	09-440	ROTOR
	09-441	SHUT-OFF PINION
	09-140	ROTOR SHAFT PIN
	09-740	LOWER SHAFT SEAL BACK UP RING
*R722AX	09-60	BALL VALVE SEAL (2 Required)
*	09-540	WEAR PAD (FOR ROTOR PIN)
*R722BX	09-74	BODY O-RING
*R722CX	09-76	O-RING SEAL: SHUT OFF BODY

PART #	MFG #	DESCRIPTION
	197-700	SEAL FOR BACK UP WASHER (2 Required)
R723AX	09-80	SHUT-OFF BALL
R723CX	09-92	BALL VALVE TENSION WASHER
	09-3816-350	SHUT-OFF BODY CAP SCREW (2 Required)
*	09-Q4113	UPPER SHAFT SEAL
*	09-Q4116	LOWER SHAFT SEAL
	09-8114	CAP SEAL
	197-3186-150	BONNET SCREW (3 Required)
*	197-Q4139	BONNET QUAD RING
R29AX	657-2	CYLINDER ORIFICE ADAPTER (2 Required)
R29IX	09-141	DRAIN HOSE CONNECTOR
R722X	R-9590-RK	REPAIR KIT
	09-240	SHAFT SEAL GLAND
	09-640	SEAL BACK-UP WASHER (2 Required) (Teflon)

* Denotes Items Found In Repair Kit (R722X)

Impellicone Flow Divider for Anhydrous Ammonia

The CDS-John Blue Impellicone is a flow divider designed for Anhydrous Ammonia (NH₃). Impellicone's name comes from the unique shaped needle, which spins and mixes the liquid and gas phases distributing them evenly to the number of outlets you need. The CDS-John Blue Impellicone can be used for all NH₃ applications at normal rates, while also offering the flexibility to plug unused outlets without sacrificing accuracy.

Part #	DESCRIPTION
R752X	6 OUTLET MANIFOLD 1/4" FPT
R750X	13 OUTLET MANIFOLD 1/4" FPT
R751X	18 OUTLET MANIFOLD 1/4" FPT
R756X	IMPELLICONE SPLITTER 4-PORT (1 1/4" INLET X 1" OUTLET)
R750AX	NEEDLE (13-PORT & 6-PORT)
R750BX	O-RING (13-PORT & 6-PORT)
R751AX	NEEDLE (18-PORT)
R751BX	O-RING (18-PORT)

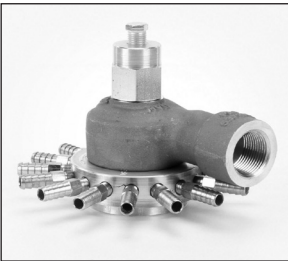


IMPELLICONE



SPLITTER 4-PORT

Continental A-MVD Vertical Dam Manifold System



Separates the vapor from the liquid in order to allow the NH₃ to divide evenly across the entire swath. Hose barbs are included.

Part #	MFG#	DESCRIPTION
R705CX	A-MVD5A12	5-OUTLET VERTICAL MANIFOLD 3/8"
R706CX	A-MVD6A12	6-OUTLET VERTICAL MANIFOLD 3/8"
R707CX	A-MVD7A12	7-OUTLET VERTICAL MANIFOLD 3/8"
R708CX	A-MVD8A12	8-OUTLET VERTICAL MANIFOLD 3/8"
R709CX	A-MVD9A12	9-OUTLET VERTICAL MANIFOLD 3/8"
R710CX	A-MVD10A12	10-OUTLET VERTICAL MANIFOLD 3/8"
R711CX	A-MVD11A12	11-OUTLET VERTICAL MANIFOLD 3/8"
R712CX	A-MVD12A12	12-OUTLET VERTICAL MANIFOLD 3/8"
R713CX	A-MVD13A13	13-OUTLET VERTICAL MANIFOLD 3/8"
R705CRX	MVD-R-5A12	5-OUTLET RING ONLY - 3/8"
R706CRX	MVD-R-6A12	6-OUTLET RING ONLY - 3/8"
R707CRX	MVD-R-7A12	7-OUTLET RING ONLY - 3/8"
R708CRX	MVD-R-8A12	8-OUTLET RING ONLY - 3/8"
R709CRX	MVD-R-9A12	9-OUTLET RING ONLY - 3/8"
R710CRX	MVD-R-10A12	10-OUTLET RING ONLY - 3/8"
R711CRX	MVD-R-11A12	11-OUTLET RING ONLY - 3/8"
R712CRX	MVD-R-12A12	12-OUTLET RING ONLY - 3/8"
R713CRX	MVD-R-13A12	13-OUTLET RING ONLY - 3/8"
R704AX	MVD-RK	VERTICAL MANIFOLD REPAIR KIT



HOSE CONNECTORS

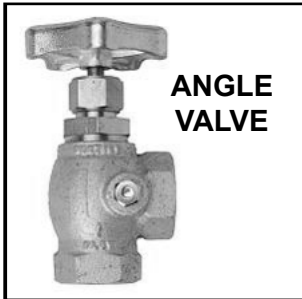
Part #	DESCRIPTION
A190EX	HOSE CONNECTOR 1/8" MPT X 3/8" HB
A190FX	HOSE CONNECTOR 1/8" MPT X 1/2" HB
A192EX	HOSE CONNECTOR 1/4" MPT X 3/8" HB
A193EX	HOSE CONNECTOR 1/4" MPT X 1/2" HB
A192SX	HOSE CONNECTOR 1/4" MPT X 3/8" HB Stainless
A193SX	HOSE CONNECTOR 1/4" MPT X 1/2" HB Stainless



MANIFOLD PLUGS

Part #	DESCRIPTION
E351X	HEX STEEL PLUG 1/8" MPT
E352X	HEX STEEL PLUG 1/4" MPT
E884AX	HEX STAINLESS STEEL PLUG 1/8" MPT
E884BX	HEX STAINLESS STEEL PLUG 1/4" MPT

CONTINENTAL NH3 VALVES



PART #	CONT#	DESCRIPTION
R370X	B-1275	Angle valve 3/4" FPT x 3/4" FPT plugged
R369X	B-1250	Angle valve 1" FPT x 1" FPT w/1/4" FPT plugged
R374X	A-2425	Angle valve 1 1/4" FPT x 1 1/4" FPT w/1/4" FPT plugged
R375X	A-2450	Angle valve 1 1/2" FPT x 1 1/2" FPT w/1/4" FPT plugged
R377X	A-2600	Angle valve 2" FPT x 2" FPT w/1/4" FPT plugged
R372X	B-1375	Globe valve 3/4" FPT x 3/4" FPT w/1/4" FPT plugged
R371X	B-1350	Globe valve 1" FPT x 1" FPT w/1/4" FPT plugged
R371AX	A-2525	Globe valve 1 1/4" FPT x 1 1/4" FPT w/1/4" FPT plugged
R371CX	B-1650	Globe valve (straight) 1" FPT x 1" FPT w/1/4" FPT plugged
R371DX	A-1625	Globe valve (straight) 1 1/4" FPT x 1 1/4" FPT w/1/4" FPT plugged
R376X	A-2550	Globe valve 1 1/2" FPT x 1 1/2" FPT w/1/4" plugged
R378X	A-2700	Globe valve 2" FPT x 2" FPT w/1/4" FPT plugged
R373X	A-2212RK	Repair kit for 3/4" and 1" valves (A - Series Only)
R373AX	A-24RK	Repair kit for 1 1/4" and 1 1/2" valves
R373BX	A-26RK	Repair kit for 2" valves
R373CX	A2550HRK	Repair kit 2550H and A217L 1 1/2" valves
R373DX	B-22-HRK	Repair B Series valves
R373EX	A-25-HRK	Repair A215, A216 valves



FILL AND VAPOR VALVES

The **A-1201** is designed to be used as a fill or vapor return valve. The built in excess flow check assembly provides maximum safety in the event of an accidental hose break. Excess flow check closing rate is 42 GPM/NH3. It has a stainless steel stem and teflon v-stem packing. Container connection - 1 1/4" MPT; Outlet filling connection - 1 3/4" Male Acme 1/4" FPT side outlet plugged.

The **A-1204** because of the unique angle inlet design has an extremely high capacity filling rate. They are the only Anhydrous Ammonia Valves on the market that capitalize on this superior design. The **A-1204** is also an excellent vapor return or a liquid withdrawal valve.

PART #	CONT#	DESCRIPTION
R353X	B-1201	Manual fill and vapor valve 1 1/4" MPT x 1 3/4" Male Acme w/1/4" FPT plugged
R354X	B-1201C	Same as above w/A411 bleeder installed



LIQUID WITHDRAWAL VALVES

The **A-1206E** and **A-1206EBP** are primarily used for liquid withdrawal in nurse tanks. Liquid withdrawal excess flow closing rate is 42 GPM at no more than 15 PSI differential closing pressure. It has a stainless steel stem and teflon v-stem packing. Container connection - 1 1/4" MPT; Outlet connection - 1" FPT.

Continental NH3 products is introducing its all new high capacity 1 1/4" **A-1406F** tank withdrawal valve. This valve fits on standard 1 1/4" tank withdrawal connections. The patented "two-stage" excess flow check allows you to achieve an output increase of 17% or better on the B9500 meter (as compared with standard 1 1/4" withdrawal valves).

PART #	CONT#	DESCRIPTION
R357X	A-1202D	Liquid withdrawal valve 45° - 1 1/4" MPT x 3/4" FPT outlet w/1/4" FPT plugged 42 GPM
R359X	B-1206E	Liquid withdrawal valve - 1 1/4" MPT x 1" FPT outlet w/1/4" FPT plugged 42 GPM
R393X	B-1206EBP	Liquid withdrawal valve, same as above w/bypass stem installed w/1/4" FPT plugged 42 GPM
R359AX	B-1206F	Liquid withdrawal valve 1 1/4" MPT x 1 1/4" FPT outlet w/1/4" FPT plugged 42 GPM
R359BX	A-1406F	Liquid withdrawal valve 1 1/4" MPT x 1 1/4" FPT outlet w/1/4" FPT plugged 45GPM
R359CX	A-1406G	Liquid withdrawal valve 1 1/4" MPT x 1 1/2" FPT outlet w/1/4" FPT plugged 45 GPM
R359DX	A-1507G	Liquid withdrawal valve 1 1/2" MPT x 1 1/2" FPT outlet w/1/4" FPT plugged 60 GPM

CONTINENTAL NH₃ VALVES

10 or more of one item 10% discount.

"MAX FLOW" HOSE END VALVE



The A-215 valve has a 1 1/4" FPT inlet and a 1 1/4" FPT outlet with a 1 3/4" Female Acme coupling attached. The larger valve body and coupling promotes a substantial increase in flow as compared to a 1" hose end valve. The A-216-L is a 1 1/4" globe valve with a 2 1/4" acme coupling that will permit maximum flow for 1 1/4" hoses. The A-217 is a 1 1/2" globe valve with 2 1/4" acme coupling that can achieve increases up to 50 percent when used with Continentals 1 1/2" heat exchanger toolbar coupler and tank valve.

PART#	CONT#	DESCRIPTION
R371BX	A-215	1 1/4" FPT hose end valve w/1 3/4" Acme Female coupling installed w/bleeder valve
R371EX	A-216-L	1 1/4" FPT hose end valve w/2 1/4" Acme Female coupling installed w/bleeder valve
R371FX	A-217	1 1/2" FPT hose end valve w/2 1/4" Acme Female coupling installed w/bleeder valve



HYDROSTATIC RELIEF VALVES

Hydrostatic relief valves are designed to relieve liquid pressure in valves, hoses, or piping where liquid may be trapped. Note: All safety relief and hydrostatic relief valves must be changed five years after date of manufacture.

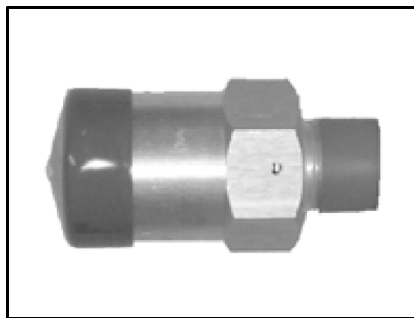
PART#	CONT#	DESCRIPTION
R311X	A-400	Hydrostatic relief valve 1/4" MPT 375#
R311AX	A-400DC	Dust Cap for A-400



BLEEDER AND OUTAGE VALVES

The A-411 bleeder valves have a T-handle and are designed to bleed-off trapped liquid or vapor NH₃ in hose valves, couplings and piping. Also for installation in tanks as an 85% liquid level gauge.

PART#	CONT#	DESCRIPTION
R317X	A-411	Outage and bleeder valve 1/4" MPT



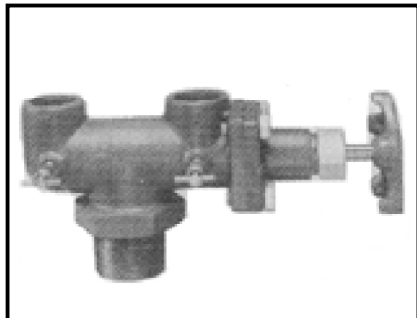
VAPOR RELIEF VALVES

The A-402VA and A-417A are safety valves designed to open when the tank pressure rises above 250 PSI. Used on applicator, storage and nurse tanks. They will protect tanks, piping or hose from excessive pressure caused by overfilling or fire. Relief valves should be replaced 5 years after the date of manufacture which is stamped on the valve. 3/4" valves are used on applicator tanks and nurse tanks. 1 1/4" valves are used on storage tanks.

PART#	CONT#	DESCRIPTION
R315X	A-402VA	Vapor relief valve 3/4" MPT 250#
R315AX	A-417A	Vapor relief valve 1 1/4" MPT 250#
R316X	A-402NDCC	Dust cap pop off w/chain (3/4")
R316AX	A-417-DC	Dust cap pop off w/chain (1 1/4")

CONTINENTAL NH₃ ACCESSORIES

10 or more of one item 10% discount.



RELIEF VALVE MANIFOLD

The **A-462** Relief Valve Manifold provides two 1 1/4" FPT openings for installation of safety relief valves. Stainless steel bleeder valves are provided below each of the two openings to evacuate the chamber before removing the relief valves for periodic inspection and maintenance. The shut off assembly is designed so that only one port may be closed at one time thereby assuring the protection of one relief valve at all times.

PART#	CONT#	DESCRIPTION
R319X	A-462	Relief valve manifold w/two - 1 1/4" FPT outlets and 2" MPT

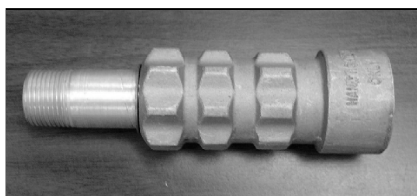


NEEDLE VALVE

The **A-1000** Needle Valve is designed for use in ammonia tanks to provide a shut off for the pressure gauge. Its purpose is to allow the operator to remove the gauge for repair or replacement without evacuating the container.

The **A-1000** is also used on applicators to shut off the supply of NH₃ to one or more knives.

PART#	CONT#	DESCRIPTION
R349X	A-1000	Needle valve - 1/4" MPT X 1/4" FPT



SAFETY EXTENSION COUPLINGS

The **A-577** and **A-577B** Continental Safety Couplings combine a rugged light-weight aluminum casting molded around a steel insert, insuring strength and reliability for a high flow extension coupling. This coupling is designed to reduce the undesirable flashing of liquid on the operator when making connections. It also provides a more convenient arrangement when tank fitting guards present a hook-up problem.

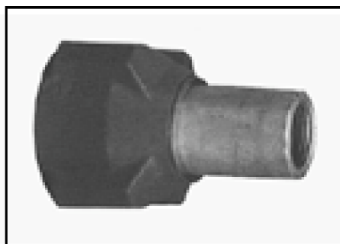
PART#	CONT#	DESCRIPTION
R345X	A-577B	Safety extension coupling - 1" MPT X 1 3/4" Female Acme - 6" length
R345AX	A-577C	Safety extension coupling - 1 1/4" MPT X 1 3/4" Female Acme - 6" length
R345BX	A-577D	Safety extension coupling - 1 1/4" MPT X 2 1/4" Female Acme - 6" length
R345CX	A-577G	Safety extension coupling - 1 1/2" MPT X 2 1/4" Female Acme - 6" length



MALE PIPE X ACME COUPLING

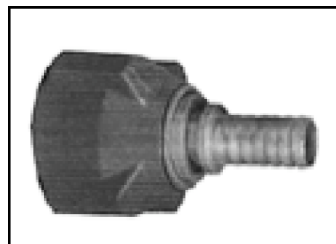
PART#	CONT#	DESCRIPTION
R321X	B-521	Liquid filler coupling 3/4" MPT X 1 3/4" Female Acme
R322X	B-521B	Liquid filler coupling 1" MPT X 1 3/4" Female Acme
R333X	A-527	Liquid filler coupling 1 1/4" MPT X 2 1/4" Female Acme
R342X	A-551	Liquid filler coupling 2" MPT X 3 1/4" Female Acme

NH₃ ACCESSORIES



FEMALE PIPE X ACME COUPLING

PART#	CONT#	DESCRIPTION
R323X	B-522	Liquid filler coupling 3/4" FPT X 1 3/4" Female Acme
R323AX	B-522B	Liquid filler coupling 1" FPT X 1 3/4" Female Acme



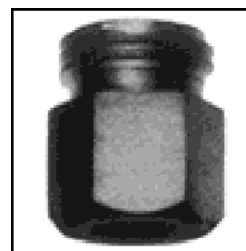
HOSE BARB X ACME COUPLING

PART#	CONT#	DESCRIPTION
R332X	B-526B	Liquid filler coupling 1/2" hose barb X 1 3/4" Female Acme
R330X	B-526	Liquid filler coupling 3/4" hose barb X 1 3/4" Female Acme
R331X	B-526A	Liquid filler coupling 1" hose barb X 1 3/4" Female Acme
R334X	A-528X	Liquid filler coupling 1 1/4" hose barb X 2 1/4" Female Acme
R343X	A-552X	Liquid filler coupling 2" hose barb X 3 1/4" Female Acme



MALE ACME X MALE PIPE ADAPTER

PART#	CONT#	DESCRIPTION
R324X	A-524	Adapter 3/4" MPT X 1 3/4" Male Acme
R325X	A-524A	Adapter 1/2" MPT X 1 3/4" Male Acme
R326X	A-524B	Adapter 1" MPT X 1 3/4" Male Acme
R327X	A-524C	Adapter 1 1/4" MPT X 1 3/4" Male Acme
R336X	A-532	Adapter 1 1/4" MPT X 2 1/4" Male Acme
R336AX	A-533G	Adapter 1 1/2" MPT X 2 1/4" Male Acme
R337X	A-534	Adapter 2" MPT X 2 1/4" Male Acme
R339X	A-540	Adapter 2" MPT X 3 1/4" Male Acme

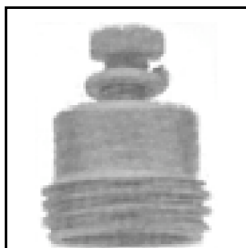


PIPE ADAPTER MALE ACME X FEMALE

PART#	CONT#	DESCRIPTION
R328X	A-525	Adapter 3/4" FPT X 1 3/4" Male Acme
R329X	A-525B	Adapter 1" FPT X 1 3/4" Male Acme
R340X	A-544	Adapter 2" FPT X 3 1/4" Male Acme

MALE ACME COUPLING

HOSE HANGER ADAPTOR & PLUG



PART#	CONT#	DESCRIPTION
R320X	A-520	Adapter coupler 1 3/4" Male Acme X 1 3/4" Female Acme
R583X	A-524WB	1 3/4" Acme hose hanger adaptor & plug with 3/8" bolt
R333AX	A-582	Adapter coupler 1 3/4" Male Acme X 2 1/4" Female Acme
R333BX	A-584	Adapter coupler 1 3/4" Male Acme X 3 1/4" Female Acme
R333CX	A-586	Adapter coupler 1 3/4" Female Acme X 2 1/4" Male Acme

DUST CAPS



PART#	CONT#	DESCRIPTION
R580X	22-63F	Dust cap 1 3/4" Acme plastic
R581X	22-63FC	Dust cap 1 3/4" Acme plastic w/chain
R335X	A529	Dust cap 1 3/4" Acme (steel)
R338X	A535	Dust cap 2 1/4" Acme (steel)
R341X	A545	Dust cap 3 1/4" Acme (steel)

SQUIBB TAYLOR NH₃ VALVES



NH₃ GLOBE VALVES

These valves are widely used in bulk plant piping systems on bobtail and transport trucks and for liquid filling or vapor return service. Working pressure is 400 PSI WOG. A 1/4" FPT plugged side outlet permits installation of a bleeder valve or a hydrostatic valve.

PART#	SQUIBB#	DESCRIPTION
R388X	AL-308P	Globe valve 3/4" w/1/4" FPT plugged
R389X	AL-310P	Globe valve 1" w/1/4" FPT plugged
R376AX	AL-312P	Globe valve 1 1/4" w/1/4" FPT plugged
R390X	AL-314P	Globe valve 1 1/2" w/1/4" FPT plugged
R391X	AL-316P	Globe valve 2" w/1/4" FPT plugged
R392X	AL-320P	Globe valve 3" w/1/4" FPT plugged



NH₃ ANGLE VALVES

These valves are widely used in bulk plant piping systems on bobtail and transport trucks and for liquid filling or vapor return service. Working pressure is 400 PSIG WOG. A 1/4" FPT plugged side outlet permits installation of a bleed valve or hydrostatic valve.

PART#	SQUIBB#	DESCRIPTION
R382X	AL-309P	Angle valve 3/4" w/1/4" FPT plugged
R383X	AL-311P	Angle valve 1" w/1/4" FPT plugged
R384X	AL-313P	Angle valve 1 1/4" w/1/4" FPT plugged
R385X	AL-315P	Angle valve 1 1/2" w/1/4" FPT plugged
R386X	AL-317P	Angle valve 2" w/1/4" FPT plugged
R387X	AL-321P	Angle valve 3" w/1/4" FPT plugged



FILL AND VAPOR VALVES

The **A-1590P** consists of a service valve, a filling connection and an excess flow valve. Vapor closing flow (NH₃) of excess flow valve is 19,000 CFH at 100 PSIG inlet. Can be used for filling or vapor return. Container connection - 1 1/4" MPT. Outlet connection - 1 3/4" Male Acme. Filling connection - 1 3/4" Male Acme. 1/4" FPT side outlet - plugged.

PART#	SQUIBB#	DESCRIPTION
R379X	A-1590P	Top outlet manual shut-off filler or vapor return valve 1 1/4" MPT X 1 3/4" Male Acme w/1/4" FPT plugged



LIQUID WITHDRAWAL VALVE

The **A-1597R** valve consists of a service valve and an excess flow valve. Container connection 1 1/4" MPT. Outlet connection - 1" FPT. Built in tri-guard internal relief valve on the **A-1597R** bleeds product back to the tank when hose pressure exceeds tank pressure by 50 PSIG. In this way, hose life is extended, chance of hose rupture is reduced, and personnel are protected.

PART#	SQUIBB#	DESCRIPTION
R393AX	A-1597R	Liquid withdrawal angle valve 1 1/4" MPT inlet by 1" FPT outlet w/built-in relief valve

SQUIBB TAYLOR NH3 VALVES AND ACCESSORIES



HIGH FLOW ANGLE VALVE

The High Flow Angle Valve can be used for liquid or vapor service and is supplied with an excess flow valve. Besides NH3 applicator and nurse tank installations, the valves are also used on bulk plant or truck piping systems.

PART#	SQUIBB#	DESCRIPTION
R394X	AR491NP-70	Angle valve 2" MPT x 1" FPT w/1/4" plug
R394AX	A480N-60	Angle valve 1 1/2" MPT x 1 1/4" FPT w/1/4" plug
R394BX	AR492NP-70	Angle Valve 2" MPT x 1 1/4" FPT w/1/4" plug



QUICK CLOSING HOSE END VALVES

The **AL-344P** and **AL-345P** are intended for NH3 hose end service, these quick acting shut-off valves are available in globe or angle body styles. A special locking clip on the valves operating handle minimizes the chance of accidental opening.

PART#	SQUIBB#	DESCRIPTION
R398X	AL-344P	Quick closing globe valve 1" FPT
R399X	AL-345P	Quick closing angle valve 1" FPT
R398AX	AL-361	Quick closing angle valve 1 1/4" FPT



MINIMUM LOSS HOSE END VALVE

The AL-344 has the same features as the AL-345P Angle Hose End Valve listed above, but minimizes NH3 leakage when disconnecting by locating the seat disc in the bottom of the filler coupling. It has a 1" FPT inlet connection and a 1 3/4" Female Acme outlet connection. The AL-362 offers a 1 1/4" FPT inlet connection.

PART#	SQUIBB#	DESCRIPTION
R399AX	AL-343	Quick closing valve w/1 3/4" Female Acme 1" FPT
R399CX	AL-362	Quick closing valve w 1 3/4" Female Acme 1 1/4" FPT



ROTA SEAL HOSE SWIVEL

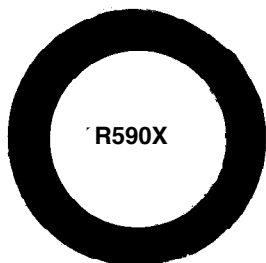
The Rota Seal increases freedom of movement to make attaching or disconnecting hose end valves easier. It also prevents twisting of the hose. It is rated at 400 PSI maximum working pressure and has a 5 year limited warranty. Unique TFE pressure core seal eliminates the need for O-Rings or lip seals, giving longer working life. The double sealed radial ball bearing make rotation torque of the swivel unaffected by pressure in the hoses. Lightweight with full bore opening for no flow restriction.

PART#	SQUIBB#	DESCRIPTION
R386DX	106-1000	3/4" MPT X 3/4 FPT hose swivel
R386AX	108-1000	1" MPT X 1" FPT hose swivel
R386BX	110-1000	1 1/4" MPT X 1 1/4" FPT hose swivel

VALVE REPAIR KITS FOR SQUIBB-TAYLOR VALVES

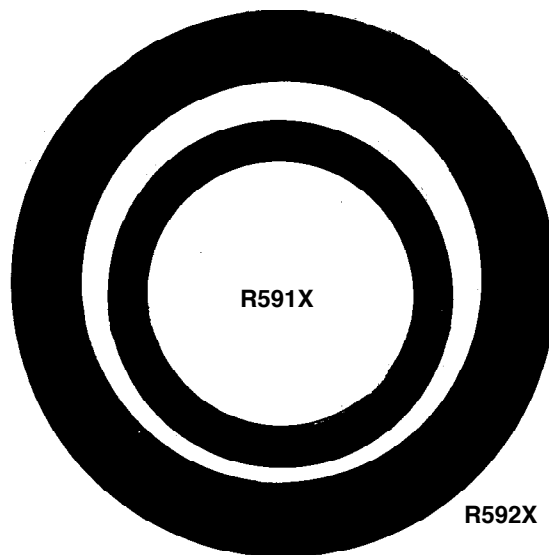
PART#	SQUIBB#	DESCRIPTION	FOR VALVE NUMBERS
R389DX	308-22	Valve repair kit	AL308, AL309, A1570, A1571, A1572, A1574, A1578
R389AX	310-22	Valve repair kit	AL310, AL311, A477, A1590, A1591, A1592, A1593, A1595, A1596, A1597
R389EX	312-22	Valve repair kit	AL312 and AL313
R389FX	314-22	Valve repair kit	AL314 and AL315
R389GX	316-22	Valve repair kit	AL316 and AL317
R389HX	320-22	Valve repair kit	AL320, AL321, AL320P, AL321P
R389IX	340-22	Valve repair kit	AL340 and AL341
R389JX	344-22	Valve repair kit	AL344 and AL345
R389CX	1105-22	Valve repair kit	1105-25, A1578, A1592
R397X	310-9N	Valve disc seat	AL310, AL311, AL477, A1587, A1590, A1591, A1592, A1596, A1597, A1598, A1599
R389KX	343-22	Valve repair kit	AL342, AL343, AL362, L339
R389LX	363-20	Valve repair kit	L424A, AL343A, AL362A, AL363, AL366, L364

ACME GASKETS



PART #	DESCRIPTION
R590X	RUBBER GASKET FOR 1 3/4" ACME
R591X	RUBBER GASKET FOR 2 1/4" ACME
R592X	RUBBER GASKET FOR 3 1/4" ACME

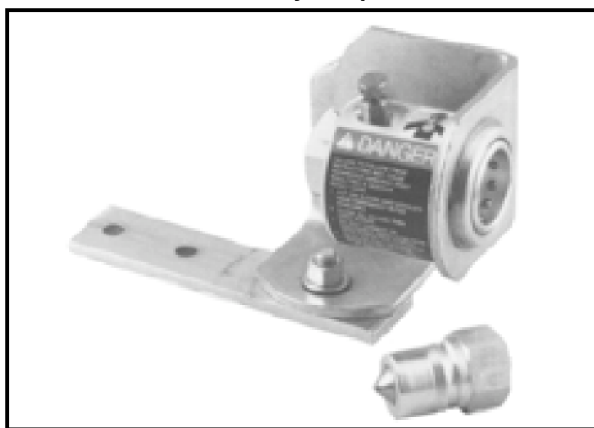
NOTE: Actual size shown



Pioneer NH₃ Breakaway Couplers

Poppet type valves assure positive shut-off. Steel body material, Buna-N O'Ring, poppet seal is neoprene cadmium plated finish. UL approved for anhydrous ammonia in accordance with OSHA regulations. UL approval is voided if coupler is serviced or rebuilt in the field. **Manufacturer suggests removal after three years.**

1" Pioneer NH₃ Breakaway Coupler



PART #	DESCRIPTION
R596X	1" COUPLER COMPLETE W/1" FPT
R596AX	1" COUPLER COMPLETE W/1" ACME TIP
R599AX	1" MALE TIP W/ACME
R596BX	1" FEMALE ASSY. W/BRACKET
R599X	1" MALE TIP W/FPT
R597X	TEFLON BACKUP WASHER
R597AX	O-RING SEAL
R598AX	SNAP RING

1 1/4" Pioneer NH₃ Breakaway Coupler

Provides more than 15% additional flow potential compared to 1" coupler.

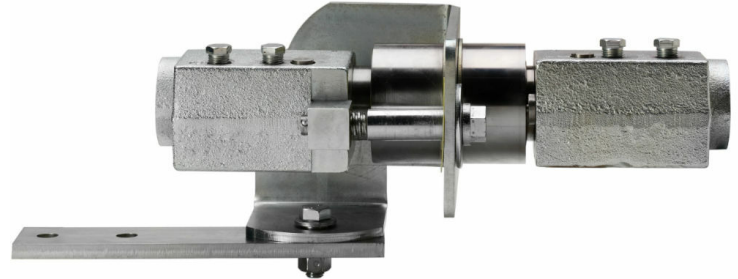


PART #	DESCRIPTION
R595BX	1 1/4" COUPLER COMPLETE W/1 1/4" FPT
R595EX	1 1/4" MALE TIP W/FPT
R595DX	1 1/4" FEMALE ASSY. W/BRACKET
R597AX	O-RING SEAL (2) REQUIRED
R598AX	SNAP RING

- Designed for high flow cold weather application
- Up to 50% flow increases when using 1 1/2" equipment
- 40% larger than 1 1/4" model
- Bleeder valves included
- Less investment than pumping systems
- Traditional design with proven locking collet system



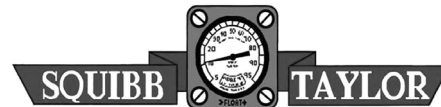
SWING VALVE COUPLER



PART #	DESCRIPTION
R595FX	1 1/4" NH3 Coupler Complete w/1 1/4" FPT
R595GX	1 1/2" NH3 Couple Complete w/1 1/2" FPT
R597BX	1 1/4" QC Repair Kit (OS Coupler)
R597CX	1 1/2" QC Repair Kit (OS Coupler)
R595SX	1 1/4" & 1 1/2" QC Rebuild Kit (NS Coupler)
R595RX	1 1/4" & 1 1/2" QC Repair Kit (NS Coupler)

FLO-MAX SAFETY COUPLER

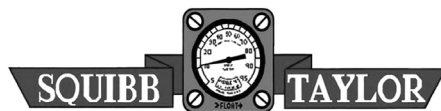
FLO-MAX COUPLER



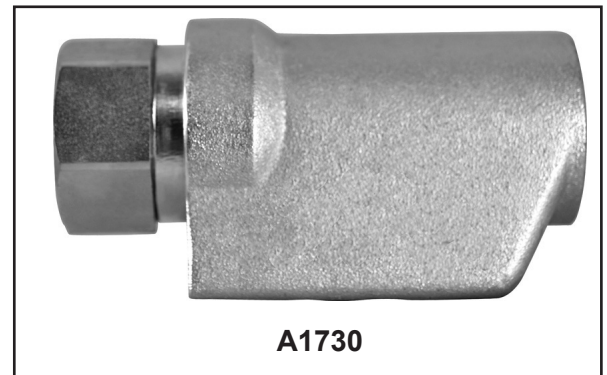
PART #	MFG #	DESCRIPTION
R594X	FM-126-1006	1 1/4" Flow-Max Coupler w/E-Z Bracket
R594AX	FM-125-0024	Repair Kit 1 1/4" Flow-Max
R317X	A-411	Outage and Bleeder Valve 1/4" MPT
R311X	A-400	Hydrostatic Relief Valve 1/4" MPT 375#
R595X	FM-150-1001	1 1/2" Flow-Max Coupler w/E-Z Bracket
R595AX	FM-150-0024	Repair Kit 1 1/2" Flow-Max

NOTE: Flo-Max requires 2 Bleeder Valves (R317) and 1 Hydrostatic Relief Valve (R311) Not included in kit.

BACK CHECK VALVES



IN-LINE FULL FLOW SWING CHECK



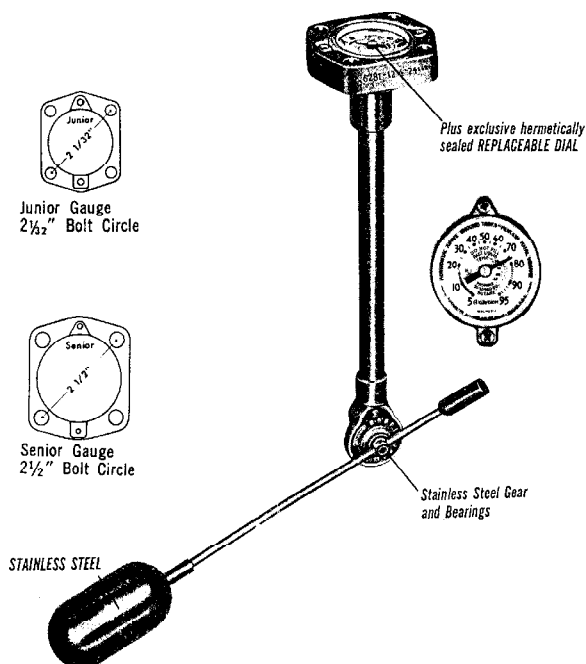
PART #	MFG #	DESCRIPTION
R593X	A1730	1 1/4" In-Line Swing Check Valve
R593AX	A1731	1 1/2" In-Line Swing Check Valve

NH3 "Y" STRAINER



PART #	DESCRIPTION
R587X	1" A.A STRAINER WITH SCREEN
R587AX	1 1/4" A.A. STRAINER WITH SCREEN
R587BX	1 1/2" A.A. STRAINER WITH SCREEN

FLOAT GAUGES



FLOAT GAUGES-FOR NURSE TANKS

PART #	DESCRIPTION
R411X	41" TOP MOUNT SENIOR FLOAT GA.
R413X	46" TOP MOUNT SENIOR FLOAT GA.

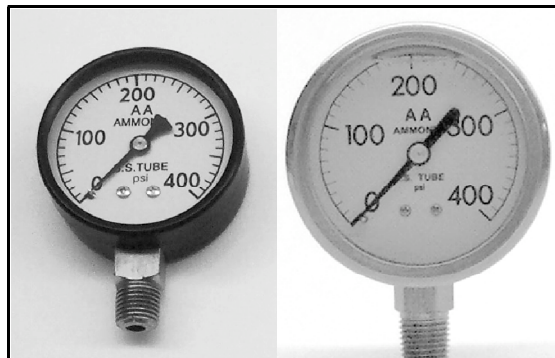
HOW TO ORDER FLOAT GAUGES

To order a replacement gauge, simply furnish the information stamped on the head of the gauge. If that is not available, determine gauge head size - Junior or Senior. Specify diameter of tank. If you do not know the tank diameter, check the name plate. Specify top, end, side or angle mounting. Specify "H" or "Riser" dimension. This is the dimension in inches from the gauge gasket surface to the outside surface of the tank.

PARTS FOR GAUGES

PART #	MFG #	DESCRIPTION
R453X	5-2-SR	SR. MAGNETIC DIAL
R454X	5-40-JR	JR. MAGNETIC DIAL
R457X		JR. FLOAT GAUGE GASKET
R458X		SR. FLOAT GAUGE GASKET
R459X		MOUNT SCREW

NH3 DIALS AND GAUGES PRESSURE GAUGES



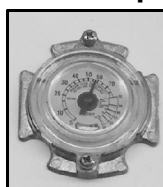
DRY GAUGES

PART #	DESCRIPTION
R476X	2 1/2" FACE DIA. PRESS. GA. - 60#
R477X	2 1/2" FACE DIA. PRESS. GA. - 150#
R478X	2 1/2" FACE DIA. PRESS. GA. - 400#
R476AX	4" FACE DIA. PRESS. GA. 60#
R477AX	4" FACE DIA. PRESS. GA. 150#
R478AX	4" FACE DIA. PRESS. GA. 400#

LIQUID GAUGES

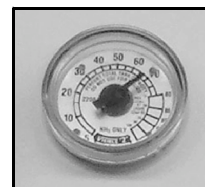
PART #	DESCRIPTION
R476LX	2 1/2" FACE DIA. PRESS. GA. - 60#
R477LX	2 1/2" FACE DIA. PRESS. GA. - 150#
R478LX	2 1/2" FACE DIA. PRESS. GA. - 400#

SQUIBB TAYLOR Replacement Dial Assemblies



R452X

"Visible" 2"



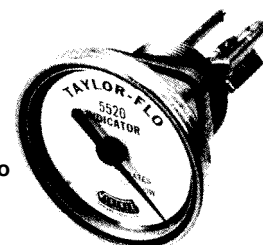
R451X

2208CV dial

PART #	MFG #	DESCRIPTION
R451X	130018	JR. SR. VISIDIAL 2"
R452X	130015	SENIOR VISIDIAL 2"

Taylor Flow Indicator

STEEL ADAPTER, for Easy Installation. DIE CAST ALUMINUM Flapper Assembly. Die Cast DIAL CHAMBER. 4-inch DIAL FACE, Easy to Read. Large Pointer. Hermetically Sealed.



Taylor-Flo Indicators are installed in liquid pipelines to give visual indication of flow direction or the absence of flow. Capable of showing flow in both directions, the indicator mounts in a standard tee fitting.

PART #	DESCRIPTION
R462X	2" FLOW INDICATOR

APPLICATOR KNIVES



Thin profile chisel plow knife with chromium carbide insert and tube protector. 1/2" hole punching on 2 1/4" centers.

R686X
W/ 3/8" TUBE



Thin profile anhydrous knife for field cultivators with chromium carbide insert. 7/16" hole punching on 1 5/8" to 2" centers.

R688X
W/ 3/8" TUBE



R678X	W/ 3/8" TUBE
R679X	W/ 3/8" TUBE & SEALER

Thin profile knife
Well suited to conservation tillage applications. With chromium carbide insert and tube protector



FREEZELESS KNIFE

- 1/2" Thick Shank
- Chromium Point
- Chromium Tube Protector
- No Tube, Slide in your 3/8" Delivery Hose
- Vapor Tubes Can be Added

R695X Standard Knife
R695V1/2X Standard Knife w. 1/2 Vapor
R695V3/4X Standard Knife w. 3/4 Vapor



FREEZELESS MOLE KNIFE

- 1/2" Thick Shank
- Chromium Strip-Till Mole Point
- No Tube, Slide in your 3/8" Delivery Tube
- 1/2" and 3/4" Vapor Tubes can be Added.

R698X

Freezeless Strip-Till Mole Knife

A50H



- 1/2" Thick HD Shank
- High Chromium Point with Rear Flow Divider
- Chromium Tube Protector
- Open Discharge Tube

R692X

Heavy Duty Knife with 3/8" Tube



APPLICATOR KNIVES



WAKO MAG50

- 1/2" Thick Shank
- Chromium Carbide Point
- Chromium Carbide Tube Protection.
- Open Tube Discharge

PART#	DESCRIPTION
R691X	Knife with 3/8" Tube
R691BX	Knife with 1/2" Tube
R691DX	Knife with Dual 3/8" Tubes



Tuff One II

- 1/2" Thick Shank
- Chromium Carbide Point
- Chromium Carbide Tube Protection.
- Open Tube Discharge

PART#	DESCRIPTION
R690X	Knife with 3/8" Tube
R690V1/2X	Knife with 3/8" + 1/2" Vapor
R690V3/4X	Knife with 3/8" + 3/4" Vapor



HI-PRO B33 MOLE HD

- 1/2" Thick Shank
- Chromium Carbide Point
- Chromium Carbide Tube Protection.
- Chromium Carbide Mole Toe

PART#	DESCRIPTION
R694X	Mole with 3/8" Tube
R694V1/2X	Mole with 3/8" + 1/2" Vapor
R694V3/4X	Mole with 3/8" + 3/4" Vapor

WIESE A50MM (MINIMUM MOVEMENT)

- Designed for Precision Fertilizer Placement
- Chromium Carbide Point
- Chromium Carbide Tube Protection.

PART#	DESCRIPTION
R699X	50MM with 3/8" Tube



Vapor Tubes Can Be Added

STRIP-TILL POINT PIN-ON TIP



PART#	DESCRIPTION
R680POX	16" Strip-Till w/3/8" Tube + Standard Point
R680PONTX	16" Strip-Till without Tube + Standard Point
R6680PODX	16" Strip-Till w/3/8" Tube & 1 1/2" Dry Tube
R680POSX	16" Strip-Till Shank Only w/3/8" Tube
R680PONT SX	16" Strip-Till Shank Only without Tube
R680PODSX	16" Strip-Till Shank Only w/3/8" Tube & 1 1/2" Dry Tube
R680TIPX	Replacement Standard Point Only
R680LDX	Replacement Low Draft Point Only
R680DFX	Replacement Deep Furrow Point Only
R680MX	Replacement Mini Deep Furrow Point Only
R680PINX	Replacement Roll Pin

STRIP-TILL POINT WELD-ON TIP

Designed Specifically for
8" – 12" Deep Application
And Subsoil Shattering on
Strip-Till Applicators

Other Tube Options are
Available.

PART#	DESCRIPTION
R680X	16" Strip-Till with 3/8" Tube
R681X	18" Strip-Till with 3/8" Tube
R680BX	16" Strip-Till with 3/8" Tube & 1 1/2" Dry Tube



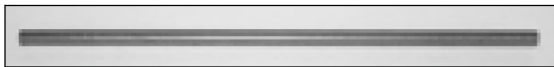
APPLICATOR KNIFE ACCESSORIES

Delivery Tubes



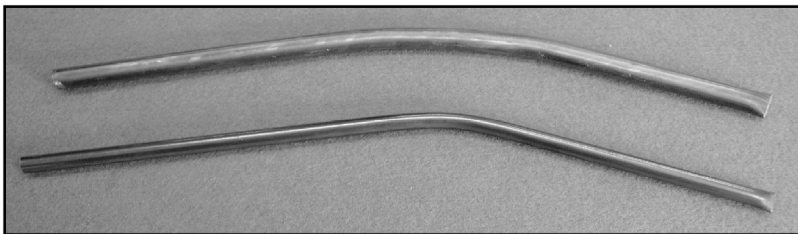
STANDARD DELIVERY TUBES, 12" LONG,
CLOSED AT LOWER END W/TWO 3/32"
HOLES FOR AMMONIA DELIVERY.

PART #	DESCRIPTION
R655AX	3/8" TUBE
R655BX	1/2" TUBE

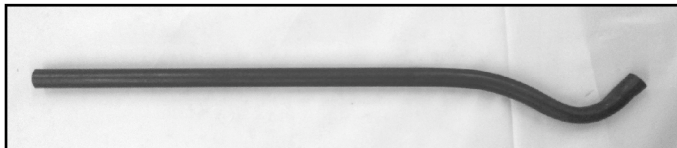


LIQUID DELIVERY TUBES ARE 3/8" O.D.
OR 1/2" O.D. WITH OPEN END.

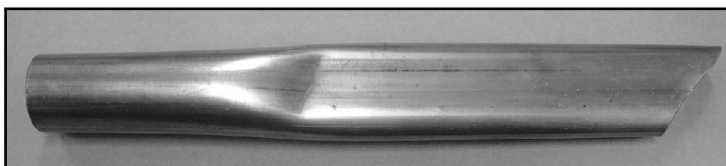
PART #	DESCRIPTION
R656X	3/8" LIQUID TUBE
R656AX	1/2" LIQUID TUBE



PART #	DESCRIPTION
R682BX	3/8" NH3 TUBE ST-16
R682AX	1/2" NH3 TUBE ST-16



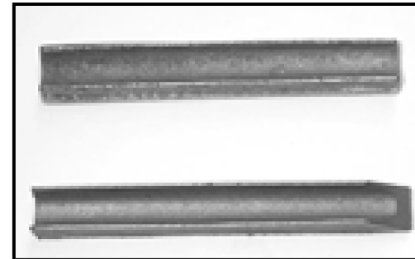
PART #	DESCRIPTION
R682X	3/8" LIQUID TUBE BENT BACKWARD
R682SX	3/8" LIQUID TUBE SS BENT BACKWARD



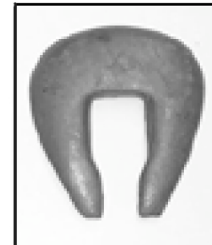
PART #	DESCRIPTION
R682CX	1 1/2" DRY TUBE ST-16

TUBE PROTECTORS

PART #	DESCRIPTION
R657AX	TUBE PROTECTOR
R657CX	TUBE PROTECTOR (THIN KNIFE)



SEALERS



R670AX

The Beavertail Sealer, our most popular sealing device, can be installed on any knife. It aids sealing under almost all soil conditions. It should be installed about 4" above the knife heel (working position) and angled down slightly. (Caution: too steep an angle will adversely affect performance.)

PART #	DESCRIPTION
R670AX	5/8" (FOR 1/2" KNIFE)

APPLICATOR KNIFE BOLTS



PART #	DESCRIPTION
W162X	1/2" X 2" BOLT GD 5
W182X	1/2" X 2 1/2" BOLT GD 8
W204X	1/2" NUT
W182FTX	1/2" x 2 1/2" BOLT GD 8 (FINE THREAD)



PART #	DESCRIPTION
R680V1/2X	1/2" Vapor Tube - Shield
R680V3/4X	3/4" Vapor Tube - Shield

Note: Specify if tube is to be attached and height to be attached.

Weld Labor per tube: \$10.50 NET

APPLICATOR SHANKS

1" x 2" Shank (KSC-1298)

1 1/4" x 2" Shank (KSC-1299)



KSC-1298 is a Dalton or DMI 1"x2" replacement shank

KSC-1299 heavy duty shanks are perfect for strip-till rigs

PART #	DESCRIPTION
R659BX	1" x 2" Shank
R659CX	1 1/4" x 2" Shank

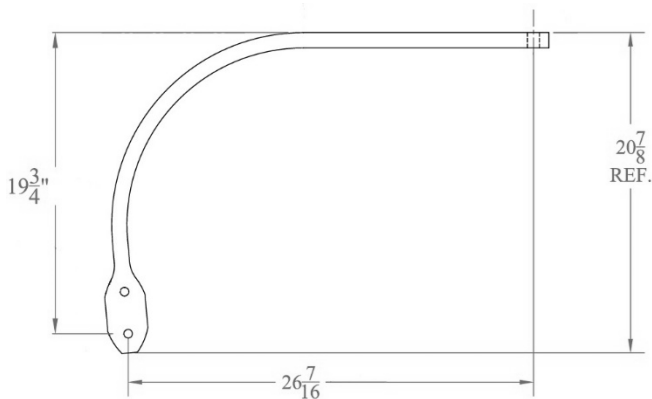
1 1/4" x 2" Edge Bent Shank (KSC1325)



**KSC-1325 Fits
BluJet and Shield
Ag Row Units with
Edge Bent Shanks.**

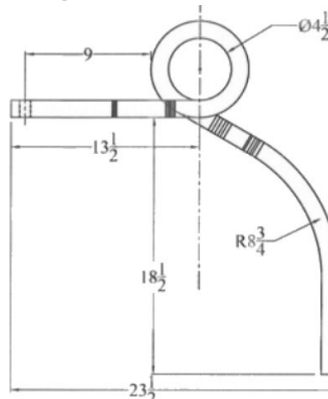
R659EX Edge Bent Shank 1 1/4" x 2"

1" x 2" BLU-JET Shank (KSC-1295)



PART #	DESCRIPTION
R652X	1" x 2" Blu-Jet Shank

Long John Blue Coil Shank (KSC-95)



Long John Blue 1 1/4" square coil shank. High grade alloy steel. KNIFE PLATES REQUIRED

PART #	DESCRIPTION
R650X	John Blue 1 1/4" Coil Shank

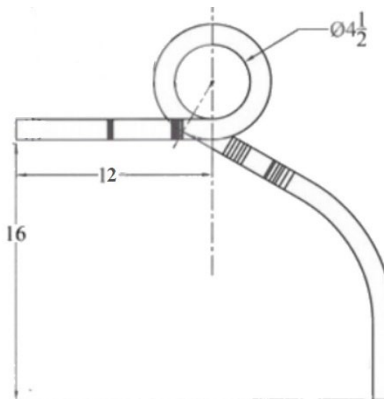
DALTON 1 1/4" x 2" Shank



**Fits Dalton Sonic Row
Units Used on Shadow
Applicators**

P4441156X 1 1/4" x 2" Dalton Shank

Universal Coil Shank (KSC-93)

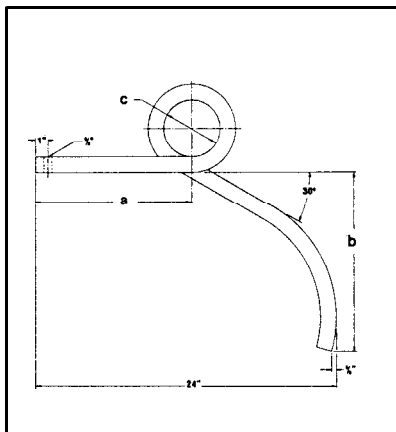


Universal "Stubby" 1 1/4" square coil shank. High grade alloy steel. Fits Tyler & M&W. No top hole. KNIFE PLATES REQUIRED.

PART #	DESCRIPTION
R654BX	DMI 1 1/4" Coil Shank

APPLICATOR SHANKS

UNIVERSAL COIL SHANK (KSC-94)

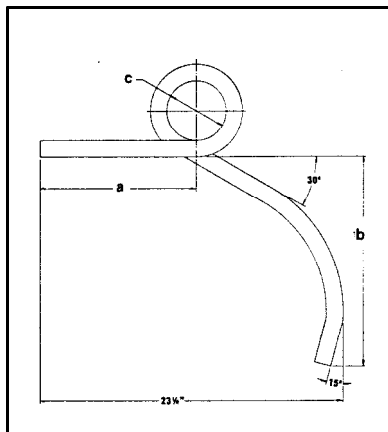


1-hole Universal 1 1/4" square coil shank. High grade steel. Fits Clark and Tote tool bars. For 3" or 4" square tool bars. KNIFE PLATES REQUIRED.

Dimensions
a 13 1/2"
b 14 1/4"
c 4 1/2"

R654AX

UNIVERSAL COIL SHANK (KSC-93)

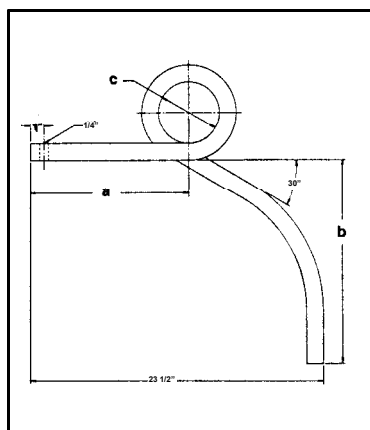


Universal "Stubby" 1 1/4" square coil shank. High grade steel. Fits Tyler and M & W. No top hole. KNIFE PLATES REQUIRED.

Dimensions
a 12"
b 16"
c 4 1/2"

R654BX

LONG JOHN BLUE SHANK (KSC-97)

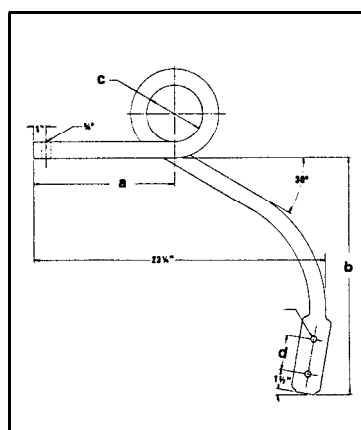


Long John Blue - 1 1/4" square coil shank. High grade steel. For 3" or 4" square tool bars. KNIFE PLATES REQUIRED.

Dimensions
a 13 1/2"
b 18 1/2"
c 4 1/2"

R650X

CHAMPION SHANK (KSC-96)

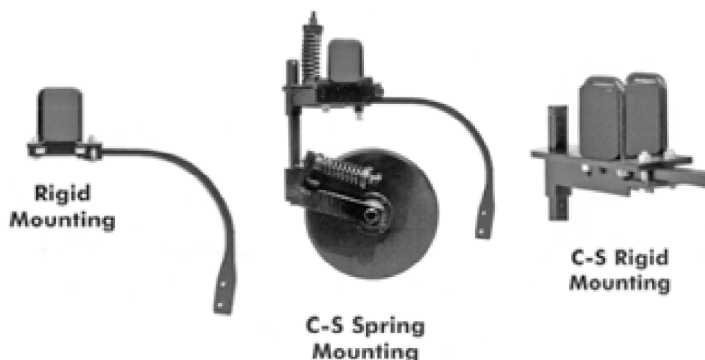
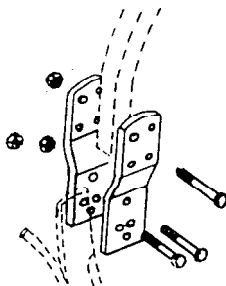
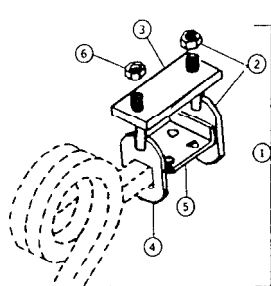


Champion 1 1/4" square coil shank. High grade alloy steel. For 3" or 4" square tool bars. No knife plates required.

Dimensions
a 11 1/4"
b 20"
c 4 1/2"
d 2 3/4"

R651X

MOUNTING BRACKETS



REF. #	PART #	DESCRIPTION
1	R662X	4" X 4" CLAMP ASSY.
2	R662AX	EYEBOLT W/NUT
5	R662BX	STABILIZER PLATE
	R660X	KNIFE PLATE MOUNT BRACKETS W/BOLTS (UNIVERSAL)

PART #	DESCRIPTION
P84428992X	SHANK HD SPRING MOUNTING BRACKET (4X6 BAR)
R659GX	SHANK RIGID MOUNTING BRACKET (4X6 BAR)
P87385950X	HD C-S SPRING MOUNTING BRACKET (4X6 BAR)
P04663900X	C-S RIGID MOUNTING BRACKET (4X6 BAR)

Replacement parts reference page 197

COULTER BLADES

PLAIN REPLACEMENT BLADES

- Center Hole Diameter 3 11/16"
- Bolt Circle 5"
- Bolt Hole 17/32"

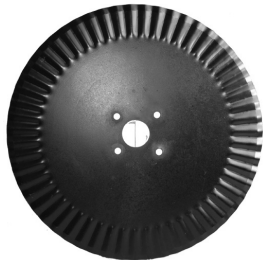


PART #	DESCRIPTION
R815X	20" Plain (8-Hole Universal) Coultter Blade
R823X	24" Plain (8-Hole Universal) Coultter Blade

NOTE: Universal coultter blade has both a 5" and 5 1/4" bolt circle.

FLUTED REPLACEMENT BLADES

- Center Hole Diameter 3 11/16"
- Bolt Circle 5"
- Bolt Hole 17/32"



PART #	DESCRIPTION
R820X	20" Fluted (8-Hole Universal) Coultter Blade

NOTE: Universal coultter blade has both a 5" and 5 1/4" bolt circle.

NOTCHED REPLACEMENT BLADES

- Center Hole Diameter 3 11/16"
- Bolt Circle 5"
- Bolt Hole 17/32"



PART #	DESCRIPTION
R822X	20" Notched (8-Hole Universal) Coultter Blade

DALTON SONIC SERRATED REPLACEMENT BLADE

- Center Hole Diameter - NO Center Hole
- Bolt Circle 4 on 98mm
- Bolt Hole 13.5mm



PART#	DESCRIPTION
P4441811X	21" Serrated Coultter Blade (Dalton)

DISC SEALER REPLACEMENT BLADES

- Fits DMI Reversible Disc Sealer Assemblies

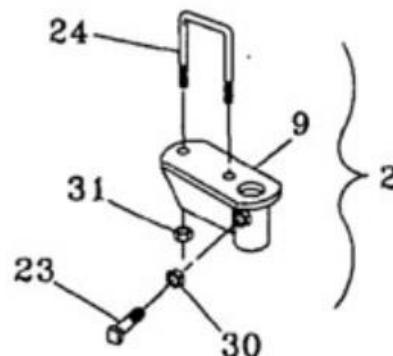


PART #	DESCRIPTION
P33551445X	14" Reversible Sealer Blade
P33551445NX	14" Reversible Sealer Blade (Notched)
R830X	17" Wavy Sealer Blade
P443625AIX	18" Reversible Sealer Blade (Dull)
P443630AIX	18" Reversible Sealer Blade (Notched)
P84374420X	18" Reversible Sealer Blade (Notched, Mud Resistant)

TOOLBAR COULTER AND SHANK MOUNTINGS

STANDARD COULTER MOUNTING FOR 20" AND 24" COLTERS WITH 1 3/4" SHAFT

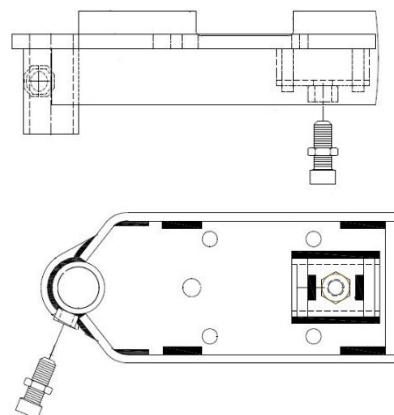
REF#	PART NUMBER	DESCRIPTION
2	P04663400X	STANDARD MOUNT COMPLETE 4" X 6"
9	P04663410X	STANDARD MOUNT ONLY
23	16812084	SQUARE-HEAD SET SCREW
24	P16312220X	U-BOLT 3/4" X 4" X 5 1/2" (4 X 4)
24	P16312020X	U-BOLT 3/4" X 4" X 7 1/2" (4 X 6)
30	14031201	JAM NUT
31	W206X	3/4" HEX NUT



RIGID COULTER/SHANK (CS) MOUNTING FOR 20" COLTERS AND 1" X 2" OR 1 1/4" X 2" SHANK

PART NUMBER	DESCRIPTION
KSC-466392	RIGID COULTER SHANK MOUNT ONLY (4 X 4, 4 X 6)
KSC-466396	RIGID COULTER SHANK MOUNT ONLY (6 X 4, 6 X 6)
KSC-466397	RIGID COULTER SHANK MOUNT ONLY (7 X 7)
106-B1	SET SCREW
N6J	JAM NUT

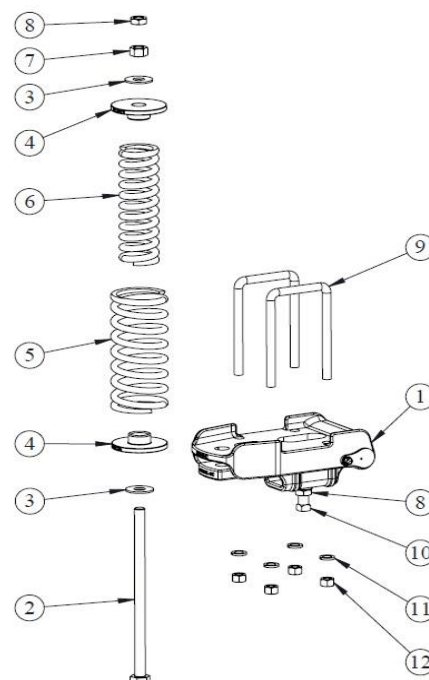
SEE PAGE 163 FOR U-BOLT SELECTION

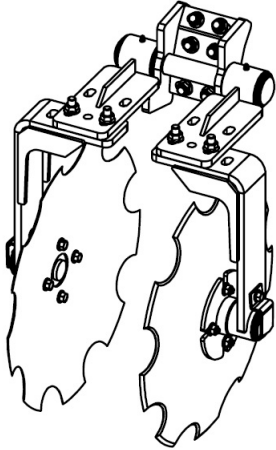


SPRING COULTER/SHANK (CS) MOUNTING FOR 20" COLTERS AND 1" X 2" OR 1 1/4" X 2" SHANK

REF#	PART NUMBER	DESCRIPTION
NS	KSC-466540	SPRING LOADED CS MOUNT COMPLETE (4 X 6)
1	KSC-466540-MP	SPRING LOADED CS MOUNTING PLATE ONLY
2	106-N1	3/4" X 14" HEX BOLT
3	MF6H	HIGH STRENGTH WASHER
4	SASC06-C	LARGE SPRING CAP
5	SPR-2	OUTER SPRING
6	SPR-1	INNER SPRING
7	N6H	HEX NUT
8	N6J	JAM NUT
9	P16310050X	5/8" X 4 X 7 1/2" U-BOLT (4 X 6)
10	16812084	SQUARE-HEAD SET SCREW

OTHER MOUNTS AVAILABLE FOR DIFFERENT SIZE TOOLBAR FRAMES
CALL FOR MORE INFORMATION.

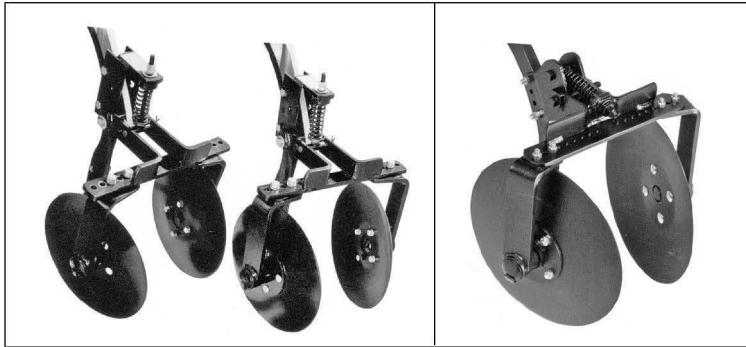




18" INDEPENDENT ARM DOUBLE DISC SEALER

Independent arms help both blades to stay in contact with the soil. Blades are notched and can be staggered for maximum residue flow. Cone bearings on the arm pivots prevent corrosion or grime build up from hindering arm movement and provide trouble free, long wearing performance.

Part #	DESCRIPTION
PKSC441100	18" INDEPENDENT ARM DOUBLE DISC SEALERS COMPLETE



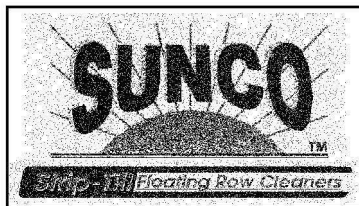
14 IN. REVERSIBLE SPRING DOUBLE DISC SEALERS

The most durable and versatile 14 in. sealer available offers two disk blade mounting options for use with a standard 1 in. x 2 in. shank or the older 1-1/4 in. coil shank. The standard position offers more aggressive sealing, while the reversed position leaves more residue on the surface while directing loose soil over the knife slot. Extra spring down pressure reduces sealer bouncing and the durable H-frame allows for numerous mounting positions and blade angles.

PART #	DESCRIPTION
R806X	14" SPRING LOADED REVERSABLE DOUBLE DISC SEALER
R808X	18" H.D. SPRING LOADED REVERSABLE DOUBLE DISC SEALER

18 IN. REVERSIBLE SPRING DOUBLE DISC SEALERS

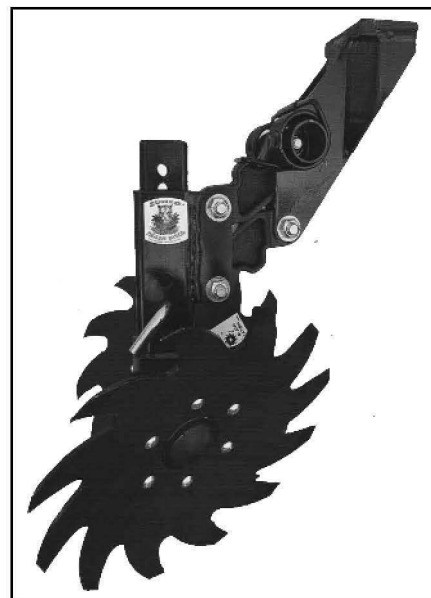
The heavy duty version of the 14" sealer is built stronger to handle the larger blades with a heavy, 1" diameter hardened bushing pivot. The 18" blades are available in either notched or Smooth Blades. Fits 1 x 2 Shank or 2 x 1 1/4 Edge Bent shank.



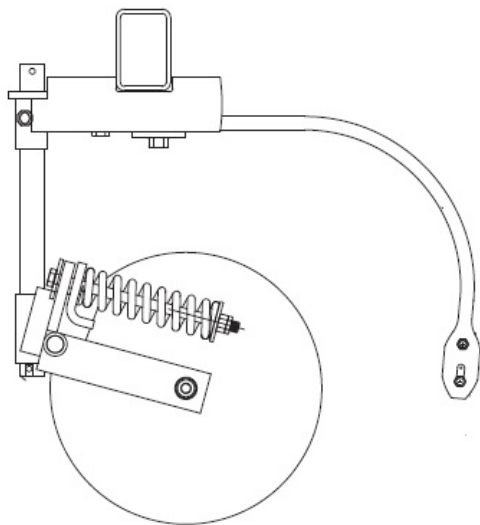
- Sunco Saber Tooth "No-plug" Row Cleaners
- Spring Down Pressure to reduce bounce and prevent riding over heavy trash
- Height adjusts to assure maximum performance and prevent gouging in loose soils
- Greaseless linkage bearings for long wearing, trouble free performance

PART #	DESCRIPTION
P5011156X	ROW CLEANER LINKAGE (NO BLADES)
P5011157X	ROW CLEANER COMPLETE

Replacement parts reference page 203.



APPLICATOR ACCESSORIES ADD VALUE AND PERFORMANCE!



NOTE: Shown with C-S (Rigid Mounting)

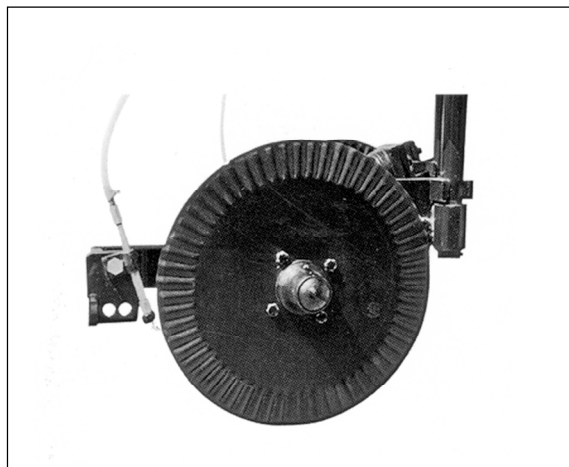
20 IN. & 24 IN. SPRING-LOADED SWIVEL COULTERS

The 16° taper blade self-sharpens for a longer useable life, and slices through residue to eliminate plugging and bunching. The swivel coulters are built rugged with 1-3/4 in. diameter shafts along with heavy-duty 3 in. diameter springs for added durability. The 20 in. coulters have 3/4 in. x 3 in. steel arms, while the 24 in. coulters, designed for operation in extra-heavy residue, have 1 in. x 2-1/2 in. arms.

PART #	DESCRIPTION
R803X	20" COULTER, SPRING LOADED W/ C-S MOUNTING BRACKET
R805X	20" COULTER, SPRING LOADED W/ STD. MOUNTING BRACKET
R804X	24" COULTER, SPRING LOADED W/ STD. MOUNTING BRACKET

Replacement Parts Reference Page 206.

LIQUID COULTER ASSEMBLIES consist of a 20" rippled coulters with 3/4" x 3" arm and mount on 4" x 4" or 4" x 6" bars. They create **minimal soil disturbance** and require **little horsepower** for liquid fertilizer application. For versatility, one assembly accepts either a DMI knife or an injector with a straight stream nozzle.



The liquid injector directs a high-pressure stream of liquid fertilizer into the coulters slot. Liquid injectors are very low maintenance. 40-100 PSI is recommended for precise application.

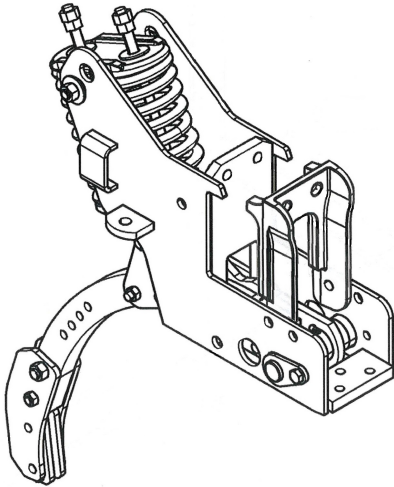
PART #	DESCRIPTION
R817X	20" LIQUID COULTER W/MTG & KNIFE KIT
R818X	20" LIQUID COULTER W/MTG & INJECTOR KIT
R819X	20" DMI FLUTED REPLACEMENT BLADE
R820X	20" FLUTED REPLACEMENT BLADE
P05302856X	1/2" LIQUID INJECTOR KIT
P34600030X	CHECK VALVE ASSEMBLY
P34600030AX	REPLACEMENT BALL
P34600030BX	REPLACEMENT SPRING
A272EX	NOZZLE CAP STAINLESS STEEL

Replacement Parts Reference Page 206.



The cast chromium carbide 1/4 in. knife assures that all liquid fertilizer is applied at knife depth. Minimum 10 PSI is recommended.

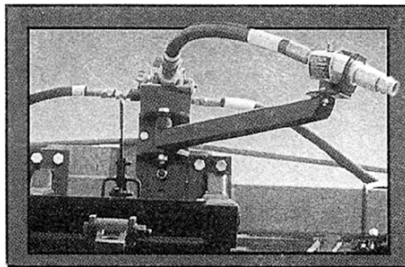
QUALITY APPLICATOR ACCESSORIES EXPAND YOUR APPLICATIONS!



HCS (HIGH CLEARANCE SHANK) ASSEMBLY

- Designed for extremely tough soil conditions such as those with rocks and hidden debris
- Adjustable holding force of 1250 lbs. or 850 lbs. for more consistent nutrient placement.
- Trip clearance 7 1/2" to clear buried obstructions.
- Durable heat treated 1.25" x 2" edge-end style shank.
- Knife plates with shear bolt protect knife.
- Mount can fit 4"x6" vertical or 6"x6" bar.

PART #	DESCRIPTION
P87379645X	HCS (HIGH CLEARANCE SHANK) ASSEMBLY
P47961944AX	KNIFE PLATE KIT

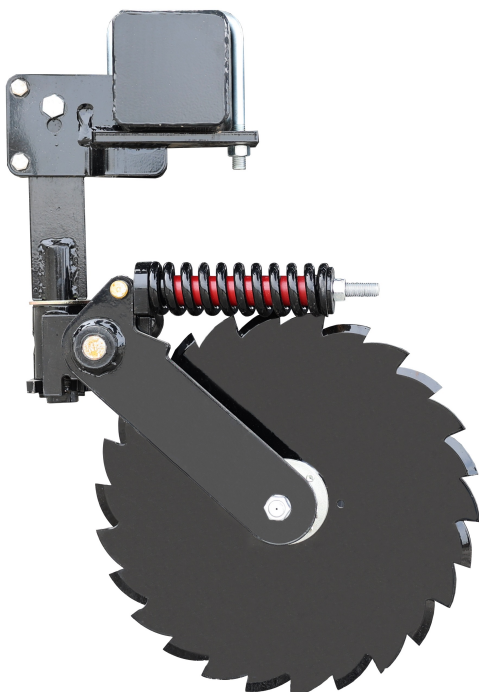


**SAFETY-SWING
QUIC-COUPLER STAND**

SAFETY-SWING QUIC-COUPLER STAND

Regulator is mounted stationary and quic-coupler is mounted on 180° swinging arm for **constant alignment** with the anhydrous nurse wagon.

R825X REGULATOR & Q.C. STAND ASSY. FITS 4" X
4" & 4" X 6" BARS



DALTON 21" SPRING LOADED SONIC COULTER

The NEW Sonic Coulter has a Serrated Blade that Cuts Through Field Trash Rather than Pushing or Riding over the Top. This will Help to Keep the Stubble and Trash from Getting Caught up in Your Knives and Sealers.

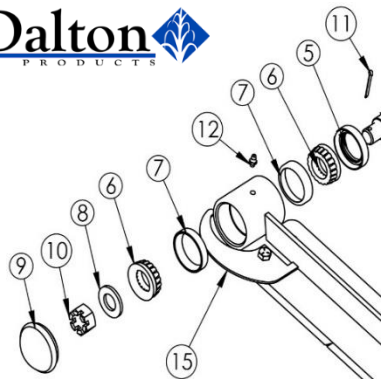
The Progressive Down Pressure Spring will Increase the Down Pressure of the Sonic Blade to Keep in Turning and Cutting Through The Trash.

Utilizing a Zero Maintenance Unit Bearing Hub Significantly reduces Maintenance time and Keeps you in The Field Running. The Unit Bearing Hub is Also Used on the Double Disc Sealer and the Springs are Used on the Dalton Spring Loaded Shank Mounting. Common Parts Across the Dalton Line-up Means Less Repair Parts To Keep on Hand.

P SONICX Dalton Sonic Coulter Assy with Standard Coulter Only
Mount. fits 4" x 6" Bars, 6" x 6" Bars & 6" x 4" Bars.

BROTHERS EQUIPMENT INC.

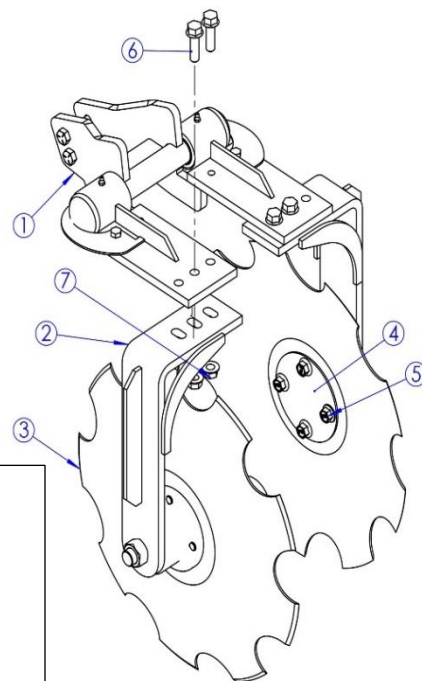
NEBRASKA 800-742-7746 • OUT OF STATE 800-228-4582



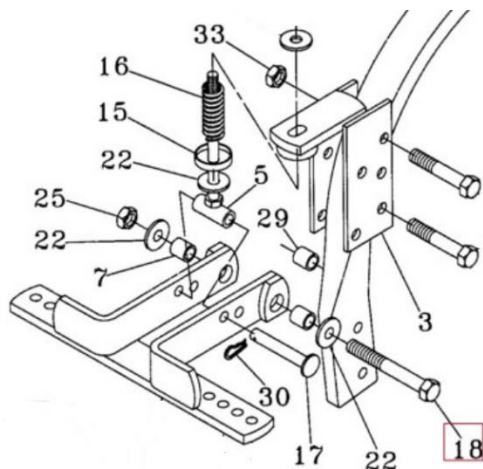
REF#	PART NO.	DESCRIPTION
1	P4410794X	Sealer Assembly
2	P4410900X	Hub/Arm Assy
2	P4441760X	Hub Only
3	P4440785X	Notched Blade
4	P4431391X	Hub Cap
5	P158312X	Flange Bolt
6	P158006X	Flange Bolt
7	P158009X	Flange Nut

REF#	PART NUMBER	DESCRIPTION
5	P4440815X	Seal
6	P4440816X	Bearing
7	P4440817X	Cup
8	P158012X	Washer
9	P4440814X	Hub Cap
10	P158003X	Slotted Nut
11	150409	Cotter Pin

Dalton Gen 2 Sealers Feature Unit Bearing Hubs for Longer Life, Reduced Maintenance and Eliminate Foreign Material Wrap Up around the Spindle seal.



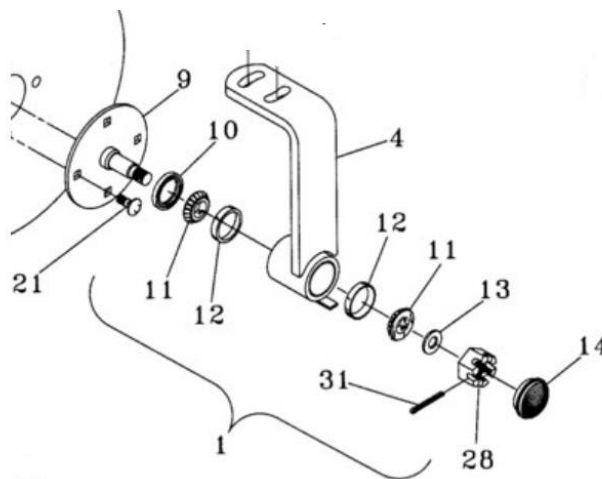
DMI 14" REVERSIBLE DOUBLE DISC SEALER



REF#	PART NUMBER	DESCRIPTION
5	P02333500	Pivot Bolt
16	P24120701X	Comp Spring

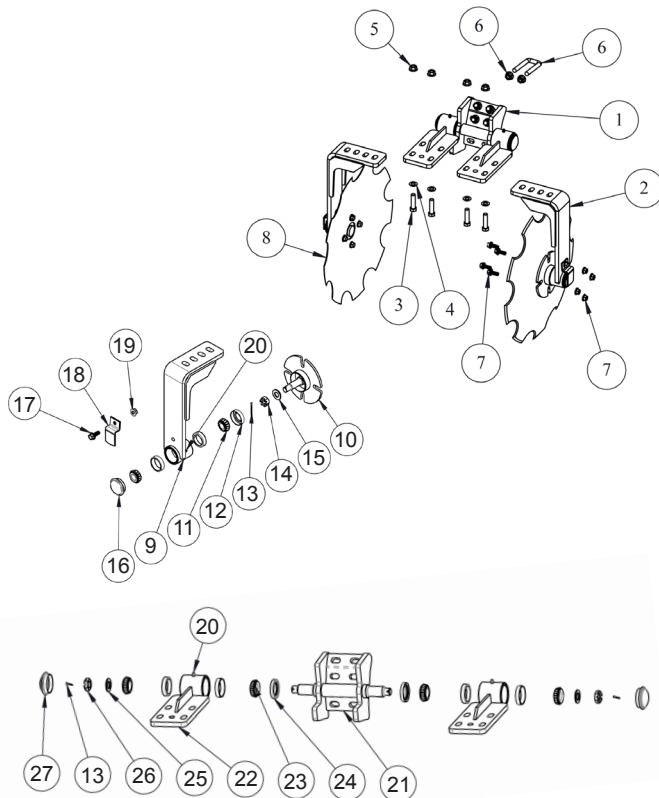
Note: Ref# 9 Substitute Dalton Hub and Bearing Set Includes Hub, Seals, Bearings, Cups, Nut, Washers and Hub Cap.

Part Number: P4420201KITX



REF#	PART NUMBER	DESCRIPTION
9	04666410	Hub with Shaft
10	P21931000X	Seal
11	P21870750X	Bearing
12	P21881780X	Cup
13	P17112000X	Washer
28	P158003X	Slotted Nut
14	P28400400X	Hub Cap
NS	P33551445X	14" Disc Blade

SHIELD AG 18" DISC SEALER



REF.

NO. PART NO. QTY. DESCRIPTION

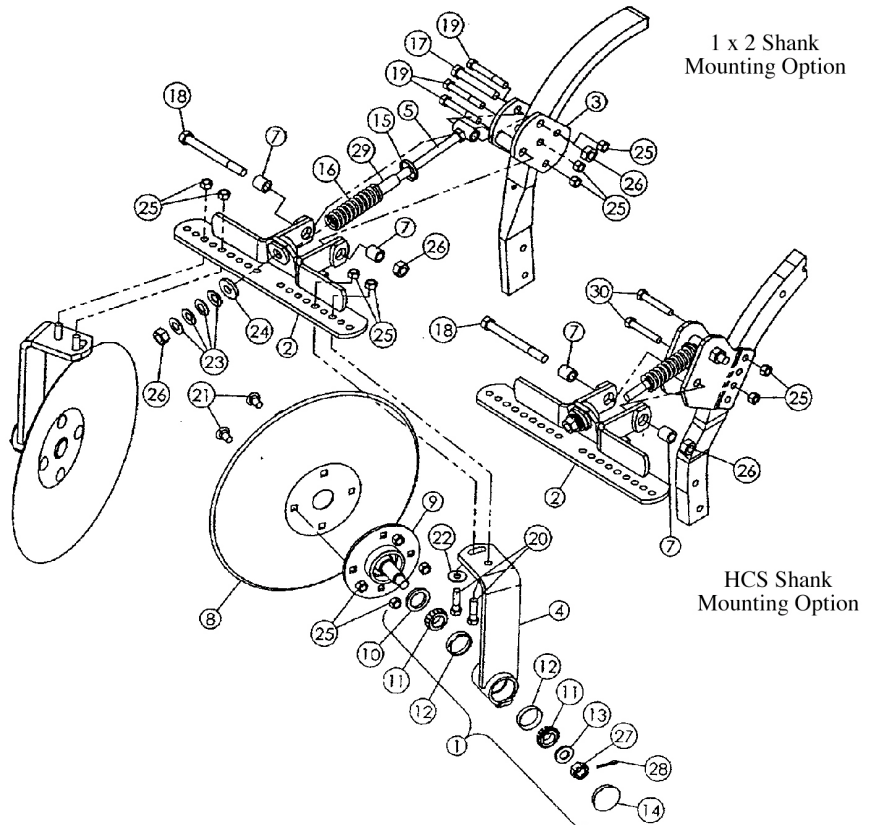
1	KSC-441096	1	Upper Sealer Arm Assy
2	PKSC-441095X	2	Lower Sealer Arm Assy
3	104-B1	4	1/2-13 x 2" Hex Bolt Grd 5
4	MF4	4	1/2" Flat Washer
5	AP-500589	4	1/2-13 Flange Serrated Top Lock Nut
6	PAP505525X	3	U-Bolt 1"x2" or 1 1/4"x2" Shank
6	KSC-441072-U2	1	1 1/4" x 2" "Edge On" Shank Pack
7	KSC-441072-B1	1	Hub Hardware Pack
8	18-DB11-NO	2	18" Notched Blade
9	KSC-441091	1	Lower Arm
10	KSC-441094	1	Disc Spindle
11	P21870750X	2	Lower Bearing Cone
12	PKSC-906297X	1	Lower End Seal
13	AP-515454	1, 2	1/8" x 1 1/2" Cotter Pin
14	PKSC-442953X	1	5/8"-18 Castle Nut
15	AP-500488	1	5/8" Flat Washer
16	KSC-909912	1	Lower Hub Cap
17	AP-510694	1	3/8"-16 x 1" Flange Bolt
18	KSC-441097C	1	Sealer Lower Arm Clip
19	AP-500585	1	3/8" Flange Nut
20	KSC-466360-GF	1, 2	Grease Zerk
21	KSC-441093	1	Center Assy
22	PKSC-441092X	2	Upper Pivot Arm
23	PKSC-L44649X	4	Upper Bearing Cone
24	PKSC-906298X	2	Upper Spindle Seal
25	KSC-913608	2	3/4" Spindle Washer
26	KSC-442954	2	3/4"-16 Castle Jam Nut
27	PKSC-909913X	2	Upper Hub Cap

DMI 18" REVERSIBLE SPRING DOUBLE DISC SEALER

REF.

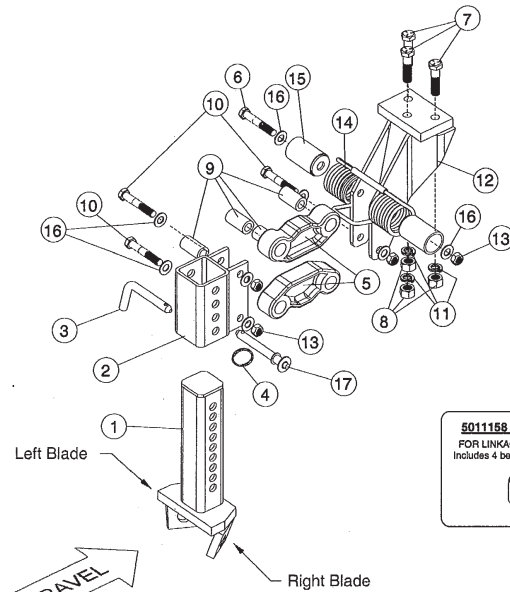
NO. PART NO. DESCRIPTION

5	P04693150X	T-Bolt
8	P443625A1X	18" Disc Blade
9	P09103120X	Hub and Shaft
10	P21931375X	Seal
11	P21871000X	Bearing
12	P21881980X	Cup
13	P17412001X	Washer
16	P24120701X	Comp. Spring



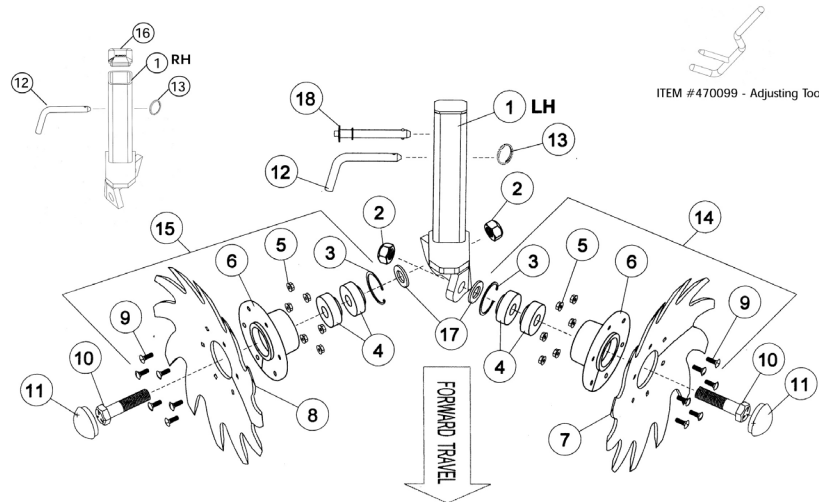
ROW CLEANER PARTS (NEW STYLE)

ITEM	QTY	PART #	DESCRIPTION
1	1	P470131X	Stem Paralink DMI Saber Tooth
2	1	P470142X	Receiver Tube 4 1/2 x 4 Holes
3	1	360202	Pin Bent 1/2" x 2.75" Plated
4	1	P203141X	Ring Kickout 1.25" 0.80"
5	2	470251	Casting Link Arm
6	1	200344	HHCS 1/2"-20 x 3 1/4" GR. 8
7	3	200335	HHCS 1/2" x 2" GR. 5 Plated
8	3	201116	Nut 1/2"-13 Hex Plated
9	4	P210062X	Bushing 0.88" OD x 0.53" ID x 1.61"
10	3	200341	HHCS 1/2"-20 x 3" GR. 8
11	3	202116	Washer 1/2" Split Lock
12	1	P470141X	Frame Mount - Heavy Paralink DMI S/T
13	4	201130	Nut 1/2"-20 Hex Top Lock
14	1	204305	Spring - Double Torsion
15	2	360030	Support - Torsion Spring
16	8	202217	Washer 1/2" SAE Hardened
17	1	P360205X	Pin - Quick Adjust Pin



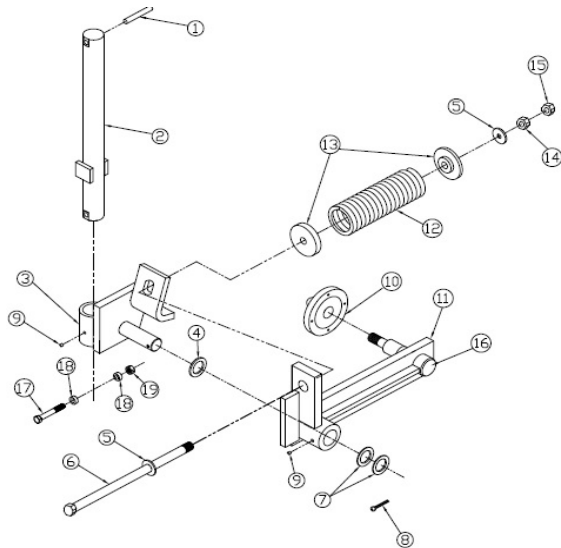
P470202X Kit - Torsion Spring Retrofit (Items 6, 13, 14, 15, & 16)
P5011158X Kit - Bearing Replacement for Cast Link Arms
P470208X Kit - Linkage NS Black

DISC HUB BEARING ASSEMBLY



ITEM	QTY	PART #	DESCRIPTION
1	1	P470162LX	Stem L.H.
		P470162RX	Stem R.H.
2	2	201152	Nut 3/4" Hex Top Lock GR. 8
3	2	P204385X	Snap Ring x 2" Internal
4	4	P210030X	Bearing 2" x .75"
5	12	201108	Nut 1/4" Flange Whiz Lock
6	2	210079	Hub Trash Disc
7	1	166015	Disc Blade 13" Saber Tooth Left
8	1	166016	Disc Blade 13" Saber Tooth Right
9	12	200114	Carriage Bolt 1/4" x 7/8" GR. 5
10	2	200405	HHCS 3/4" x 3" GR. 5
11	2	P210089X	Hub Cap
14	1	P3012603X	Disc Hub Bearing Assy. LH (includes items 3-9)
15	1	P3012604X	Disc Hub Bearing Assy. RH (includes items 3-9)

SHIELD AG 20" & 24" COULTER ASSEMBLY

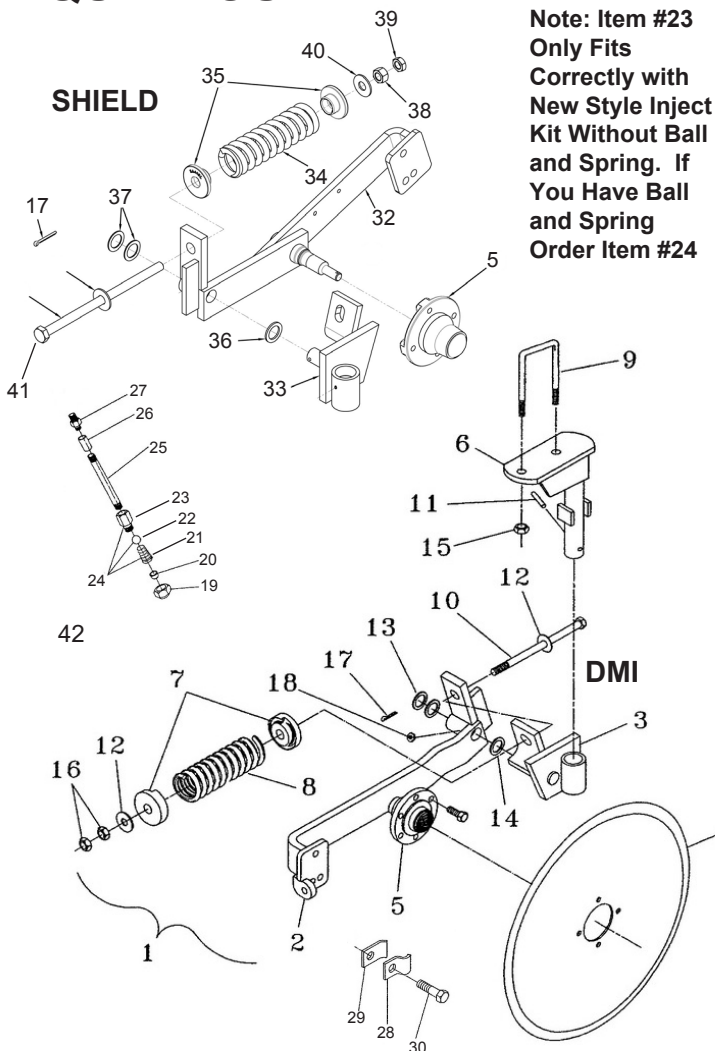


All Parts are Interchangeable with DMI and Case 20" and 24" Coulters.

REF. NO.	PART NO.	DESCRIPTION
1	P14741412X	Spring Pin 7/16" x 3"
2	PKSC466315X	Coulter Shaft 20" & 24" Coulters
3	P04663200X	Coulter Pivot
4	P17620030X	Bushing 10GA
5	MF6H	Washer
6	P106N1X	3/4" x 14" Bolt Gr5
6	P87439266X	5/8" x 13.5" Bolt Gr5 (DMI)
7	P17620020X	Bushing 14GA
8	KSC466360CP	Cotter Pin
9	KSC466360GF	Grease Fitting
10	P28163310X	Hub Assembly (DMI) (reference page 211)
10	PKSC466300HUBX	Hub Assembly (reference page 211)
11	PKSC466300X	Coulter Arm 20"
11	PKSC466305X	Coulter Arm 24"
12	PSPR1X	Coulter Spring
12	*PSPR1KITX	*Coulter Spring Kit (DMI Conversion Kit)
13	PS1244SLSPCX	Spring Cap
14	W206X	Hex Nut
15	W206X	Hex Nut
16	P28363311X	Spindle 4.5"
17	PKSC500476X	7/16" x 3" Bolt Gr8
18	PKSCBE0013X	Spacer Roller
19	W210X	Lock Nut

* DMI Coulter Spring Conversion Kit Includes: Spring, Spring Caps, Bolt, Washers, Nuts

LIQUID COULTER



Note: Item #23 Only Fits Correctly with New Style Inject Kit Without Ball and Spring. If You Have Ball and Spring Order Item #24

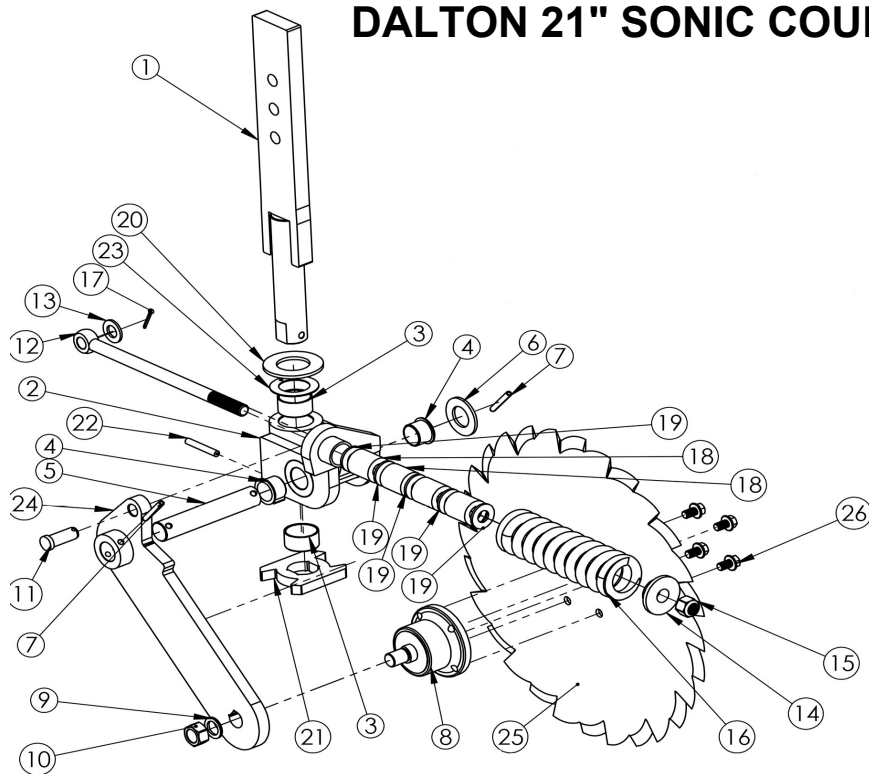
REF.

NO.	PART NO.	DESCRIPTION
1	P05310100X	Coulter Arm Assembly 20" (includes 2, 3, 7, 8, 10, 12, 13, 14, 16, 17, 18)
2	P05310200X	Coulter Arm 20" (includes 5)
3	P04663200X	Coulter Pivot
4	R819X	Coulter Blade 20" rippled
5	P28063321X	633 Hub and Spindle (reference page 211)
6	P05302700X	Coulter Mount
7	P20090050X	Spring Holder Casting
8	P24143880X	Compression Spring
9	P16312020X	3/4" NC x 4" x 7 1/2" U-Bolt (4" x 6" Tube)
10	P87439266X	5/8" NC x 12 1/4" Hex Bolt
11	P14741412X	7/16" x 2 1/2" Roll Pin
12	P17411012X	5/8" x 1 1/4" Thick Washer
13	P17620020X	1 1/4" Machine Bushing - 14 Gauge
14	P17620030X	1 1/4" Machine Bushing - 10 Gauge
15	14111201	3/4" NC Stover Lock Nut
16	14001001	5/8" NC Hex Nut
17	P14700803X	1/4" x 2" Cotter Pin
18	15302005	1/8" NPT Grease Zerk
19	A272EX	Nozzle Cap, SS
20	See Chart	Nozzle Reference page 96
21	P34600030BX	Spring, Stainless Steel
22	P34600030AX	Ball, Stainless Steel
23	A271EX	11/16" x 1/4" FPT Nozzle Body
24	P34600030X	Check Valve Assembly
25	E856EX	1/4" Nipple x 6" Long
26	E818X	1/4" NPT Coupler
27	A193SX	1/4" NPT x 1/2" Hose Barb
28	P05310130X	Outer Clamp
29	P05310140X	Inner Clamp
30	W167SX	5/8" x 2" NC Hex Bolt, Stainless
31	W205SX	5/8" NC Hex Nut, Stainless
42	P05302856X	Injector Kit w/Hardware (includes 19, 21-31 order nozzle using chart on page 96)
32	P0531000LHX	Coulter arm assy. LH
33	PKSC466320LHX	Coulter Pivot LH
34	PSPR1X	Compression Spring LH
35	PS1244SLSPCX	Spring Holder Casting LH
36	P17620030X	Machine Bushing, 10 Gauge
37	P17620020X	Machine Bushing, 14 Gauge
38	PN6X	Nut, Hex, 3/4" High Strength
39	PN6JX	Nut, Hex, Jam, 3/4" Plated
40	PMF6HX	Flat Washer 3/4" High Strength
41	P106N1X	3/4" NC x 14" Hex Bolt (Shield)

BROTHERS EQUIPMENT INC.

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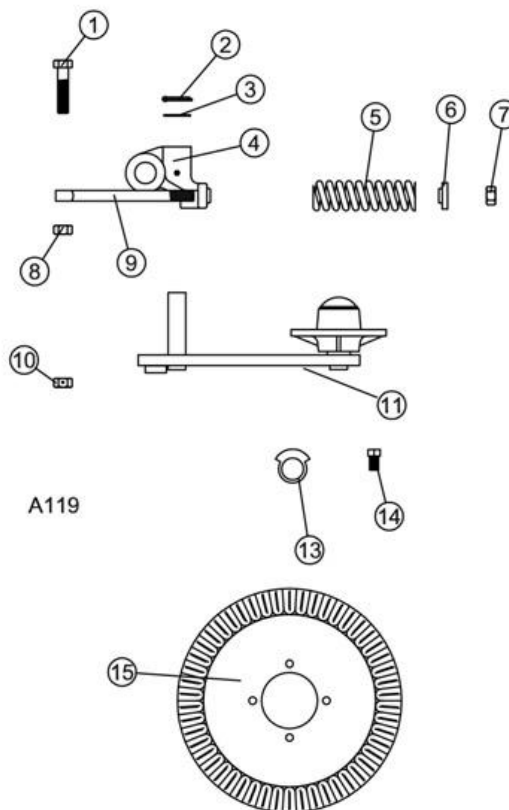
DALTON 21" SONIC COULTER



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	4421913	WELDMENT, COULTER SHANK	1
2	4421912	KNUCKLE WELDMENT	1
3	4441802	SLEEVE BEARING, 1.75 X 1.00	2
4	4441803	FLANGED SLEEVE BEARING 1.25 X 1.00 IN	2
5	4431706	PIN, PIVOT	1
6	2001119	WASHER, SAE FLAT, 1.25 PLATED	1
7	158173	ROLL PIN, .3125 X 2.25	2
8	4441760	HUB, UNIT BEARING, DISC SEALER	1
9	158335	WASHER, LOCKING FLAT, ZINC PLATED	1
10	158334	NUT, M22-1.5 GR 8.8, ZINC	1
11	4441801	CLEVIS PIN, SAE, .75 X 1.91	1
12	4431703	SPRING ROD	1
13	158284	WASHER, FLAT .750 SAE PLATED	1
14	4420280	SPRING CAP, MACHINED	1
15	158336	NUT, NYLOCK .75-10 GR 5, ZIN	1
16	641480	SPRING	1
17	158338	COTTER PIN, Ø.156 X 1.25, ZINC PLATED	1
18	4431598	URETHANE SPRING	4
19	4431600	SPACER WASHER	5
20	158337	WASHER, SAE FLAT, 1.75, HARDENED, ZINC PLATED	1
21	4431714	COLLAR, SWING LIMITING	1
22	158014	ROLL PIN, .375 X 2.5	1
23	4441800	THRUST BEARING, 1.750 X 2.75 X .058	1
24	4421911	ARM WELDMENT, COULTER	1
25	4441811	COULTER BLADE, 21IN, SONIC	1
26	158312	FLANGE BOLT, M12-1.25 X 20, GR 10.9, ZINC	4

YETTER 2910 COULTER (USED ON OLDER DALTON APPLICATORS)

KEY.	QTY.	PART NO.	DESCRIPTION
1	1	2502-410	3/4-16 X 3" HHCS GR5 ZP
2	1	2531-125	1/4 X 1 3/4" COTTER KEY
3	1	2526-561	1-17/64"ID X 7/8" X 14GA MACHINERY BUSHING
4	1	2910-320	PIVOT CASTING
5	1	2910-311	SPRING
6	1	2910-302	SPRING BUSHING
7	1	2520-516	3/4-10 LOCK HEX NUT ZP
8	1	2520-508	3/4-16 HEX NUT ZP
9	1	2570-125	EYEBOLT, 3/4" EYE
10	1	2520-511	3/4-16 LOCK HEX NUT ZP
11	1	2910-201	COULTER ARM W.A.
12	1	2910-127	SPRING CUSHIONED BRKT. AND HUB ASSEMBLY (INCLUDES 1-11)
13	1	2910-301	LOCKING COLLAR
14	1	2503-379	5/8"-11 X 1 SQ. HCPSS GR. 2
15	OPT.	2571-076	20" RIPPLE BLADE
	OPT.	2571-077	17" RIPPLE BLADE



UPDATED 02/20/15

REPLACEMENT HYDRAULIC CYLINDERS



PART #	DESCRIPTION	APPLICATION
P25330121X	3" X 12" Hydraulic Cylinder	DMI 2800-16 Liquid Applicator
P25032101X	3 1/4" X 10" Rephasing Hydraulic Cylinder	DMI 4250, 5250, 4300, 5300, 5310
P25035101X	3 1/2" x 10" Rephasing Hydraulic Cylinder	DMI 4250, 5250, 4300, 5300, 5310
P25340241X	4" x 24" Hydraulic Cylinder	DMI 2800-16 Liquid Applicator
P25340360X	4" x 36" Hydraulic Cylinder	DMI 5300, 5310
300-10-125	3" x 10" x 1 1/4" Rod Hydraulic Cylinder	Dalton
300-10-125R	3" x 10" x 1 1/4" Rod Rephasing Hyd. Cylinder	Dalton
325-10-125R	3 1/4" x 10" x 1 1/4" Rod Rephasing Hyd. Cylinder	Dalton
350-10-125R	3 1/2" x 10" x 1 1/4" Rod Rephasing Hyd. Cylinder	Dalton
350-10-125	3 1/2" x 10" x 1 1/4" Rod Hydraulic Cylinder	Dalton
350-12-125R	3 1/2" x 12" x 1 1/4" Rod Rephasing Hyd. Cylinder	Dalton
350-30-150	3 1/2" x 30" x 1 1/2" Rod Hydraulic Cylinder	Dalton
400-36-150	4" x 36" x 1 1/2" Rod Hydraulic Cylinder	Dalton

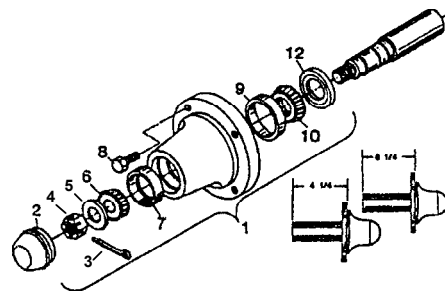
HUBS, SPINDLES, BEARINGS

IMPORTANT: To order you **MUST** know the HUB NUMBER. It is located on the flat side.

633 4-BOLT

USED ON DMI, DALTON, BLU-JET APPLICATORS. INCLUDING
COULTERS AND SOME 4 BOLT GAUGE WHEELS

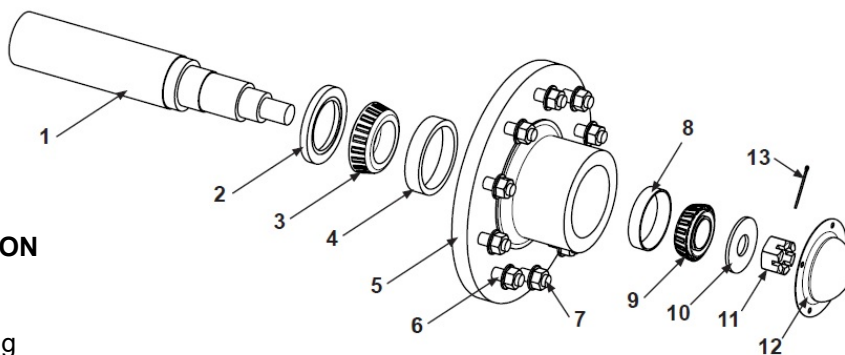
REF. NO.	PART NO.	DESCRIPTION
	P28163310X	633 4-Bolt Hub Assembly (Coulters) Hub
2	P28463300X	Cap
NA	P28363311X	Coulter Spindle only (4 1/2" long)
3	14700502	5/32" x 1-1/2" Cotter Pin
4	P14051202X	3/4" NF SLOTTED NUT
5	P17112000X	3/4" SAE WASHER
6	P21870750X	.75" Bore Cone
7	P21881780X	1.78" Cup
8	16408053	1/2" x 1" Tapered Lug Bolt (Gauge Wheel)
	PS0000210X	1/2" x 1 1/4" Flat Head Lug Bolt (Coulters)
9	P21882330X	2.33" OD Cup
10	P21871250X	1.25" Bore Cone
12	P21931501X	1.50" ID x 2.33" OD Seal
NS	P633BRGKITX	Bearing Repair Kit. Includes 6, 7, 9, 10, 12



871 HUB & SPINDLE 10-BOLT

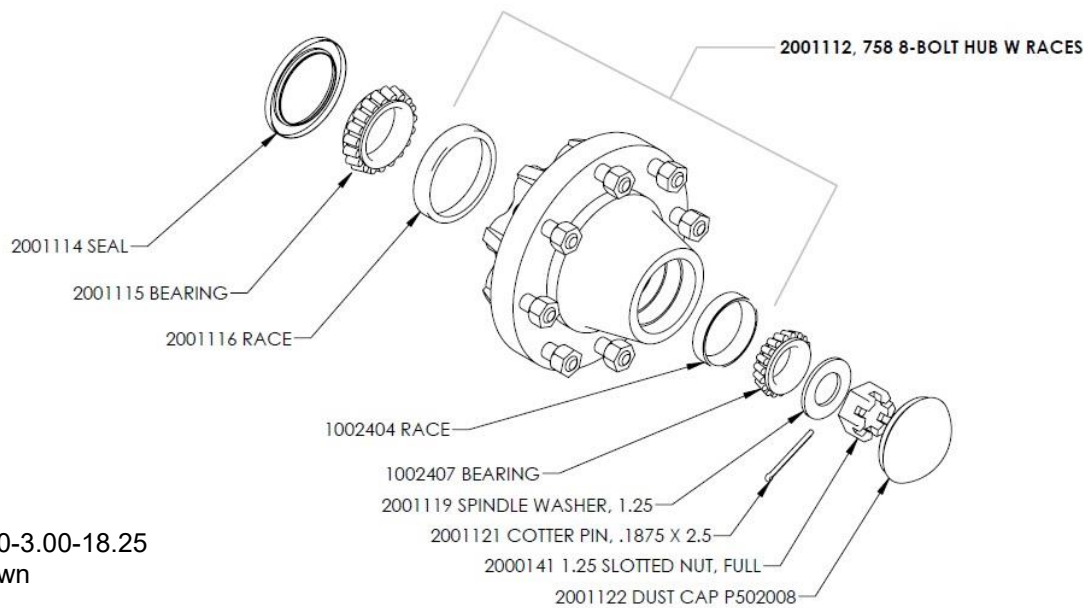
Used on DMI Model 2800-16 Liquid Applicators, DMI Model 920 Liquid Applicators & Salford/BBI Pull Type Dry Fertilizer Spreaders with 20T Axles.

REF#	PART NUMBER	DESCRIPTION
1		Spindle
2	P21933000X	Seal
3	P21872505X	Inner Bearing
4	P21884430X	Inner Cup
5	P28187101X	871 10-Bolt Hub Assembly
6	P16412418X	Wheel Stud Gr8
7	P14091203X	Wheel Nut
8	P21884250X	Outer Cup
9	P21871750X	Outer Bearing
10	14952632	Heavy Washer
11	14052003	1 1/4" NF Castle Nut
12	P28487101X	Hub Cap
13	14700600	3/16" x 2" Cotter Pin



DALTON 8 BOLT 758 HUB ASSEMBLY AND PARTS

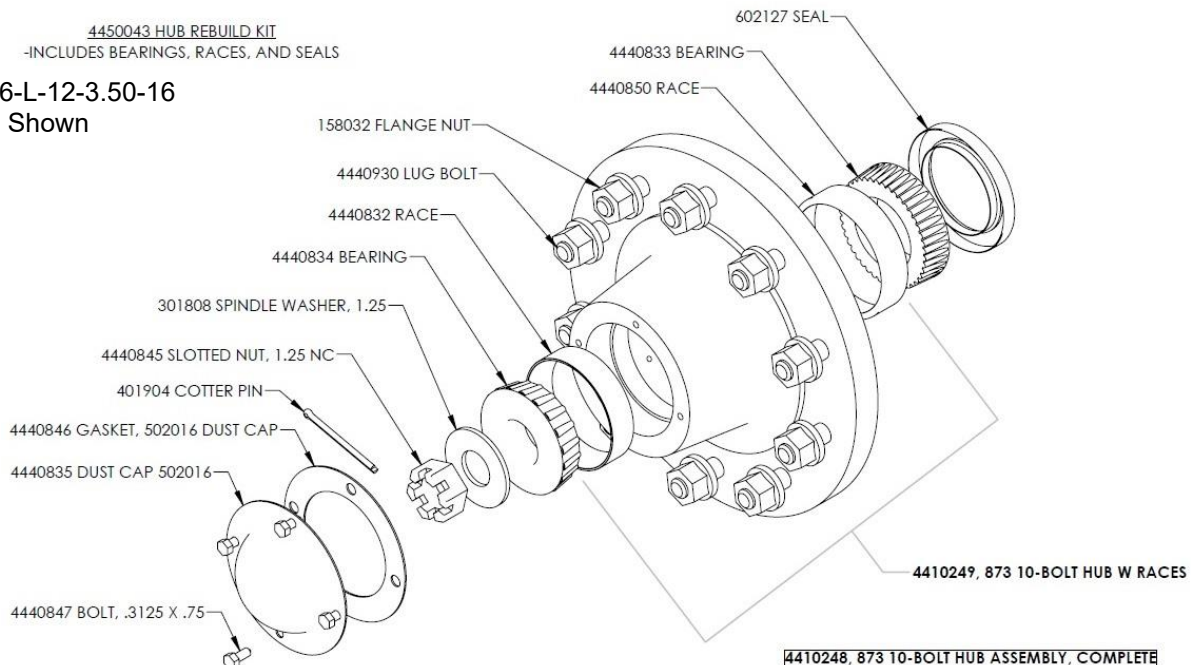
Fits Standard Axle Dalton DLQ Liquid Applicators with 8 Bolt Carrier Wheels



Uses S5199-K-00-3.00-18.25
spindle. Not Shown

DALTON 10 BOLT 873 HUB ASSEMBLY AND PARTS

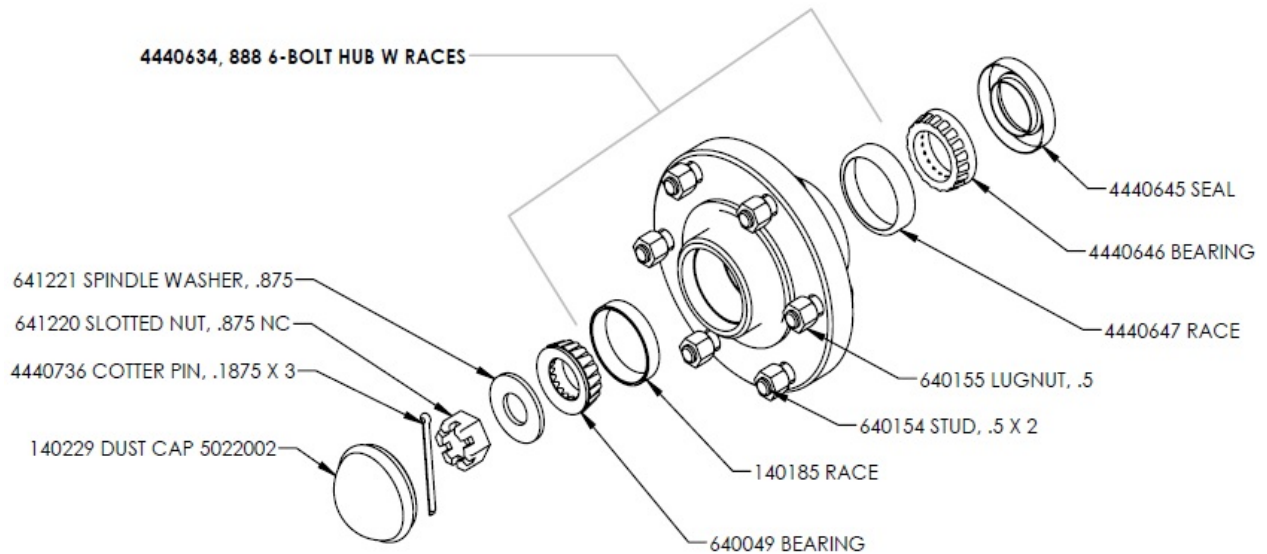
Fits Heavy Duty Axle Dalton DLQ Liquid Applicators with 10 Bolt Carrier Wheels



HUB & SPINDLE ASSEMBLIES

888 6-BOLT

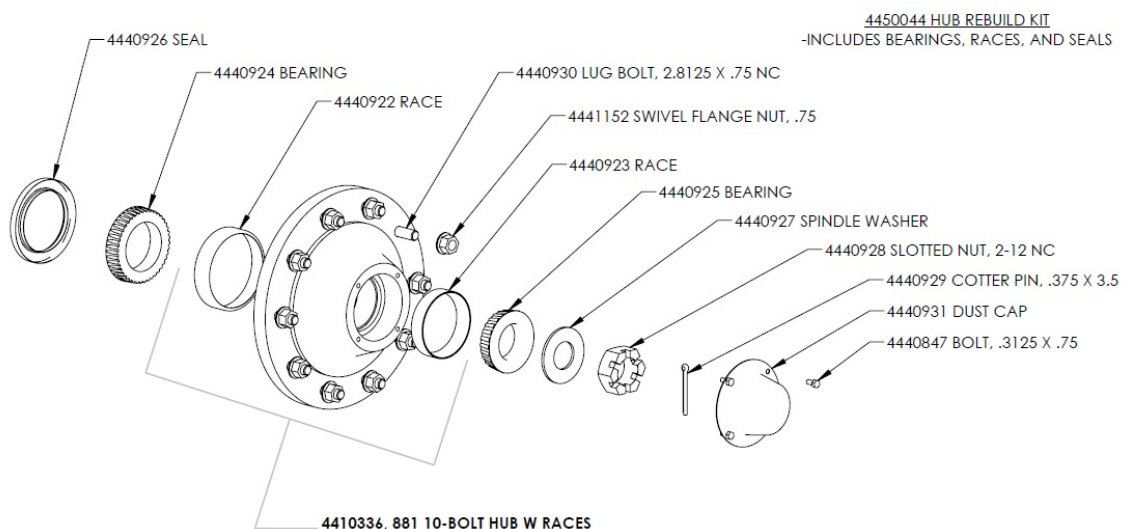
Used on Models DMI 4250, 4300, and 5300 Main Frame Walking Axle Assemblies Models 4250 and 5250 Wing Walking Axle Assemblies. Used on Dalton DLQ, DLHQ Liquid Applicator Gauge Wheels.



4410086 888 6-BOLT HUB ASSEMBLY, COMPLETE

881-10 BOLT

Used on Dalton DLQHD 2000 Gallon Liquid Applicator



4450044 HUB REBUILD KIT
-INCLUDES BEARINGS, RACES, AND SEALS

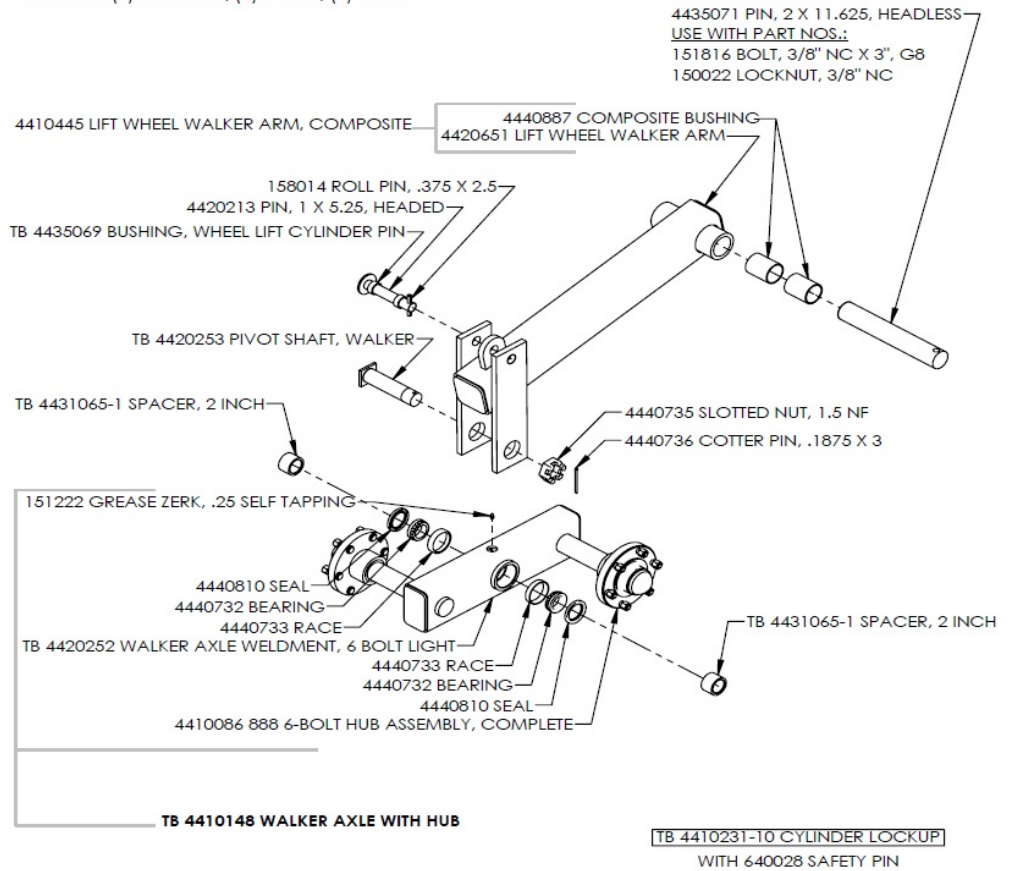
4410337, 881 10-BOLT HUB ASSEMBLY



DALTON 6 BOLT WALKER AXLE FOR DW APPLICATORS

Used On Dalton DW Applicators
Prior to Shadow Series

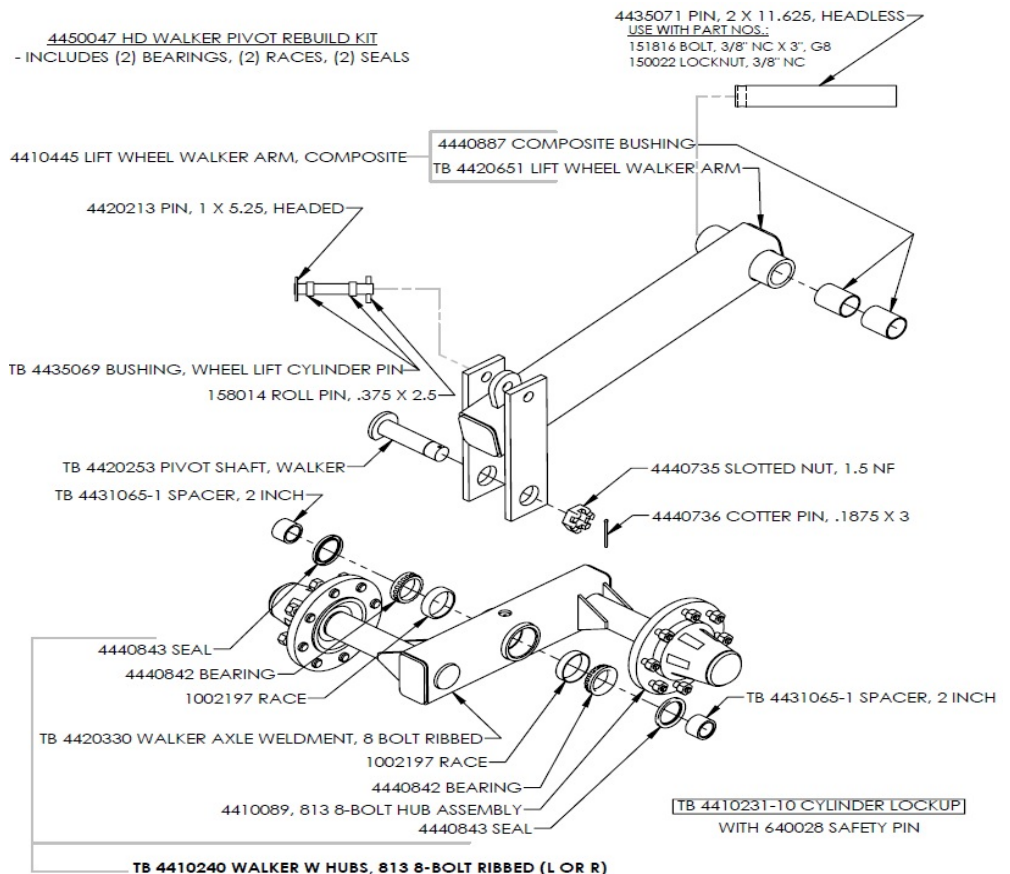
4450046 WALKER PIVOT REBUILD KIT
- INCLUDES (2) BEARINGS, (2) RACES, (2) SEALS



DALTON 8 BOLT WALKER AXLE FOR DW APPLICATORS

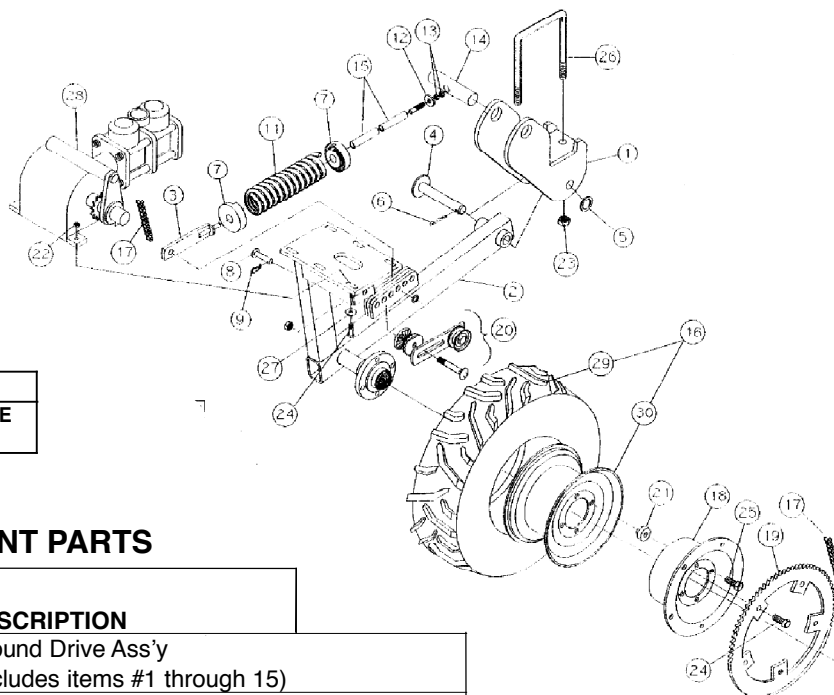
Used on Dalton DW Applicators
Prior to Shadow Series

4450047 HD WALKER PIVOT REBUILD KIT
- INCLUDES (2) BEARINGS, (2) RACES, (2) SEALS



DMI GROUND DRIVE ASSEMBLY

Spring-cushioned ground drive mounts on the toolbar. When the toolbar is lowered the pump runs and when the toolbar is lifted out of the ground the pump shuts off. This unit can be mounted on either 4x4 or 4x6 tool bars. (Please specify bar size when placing order.)



PART #	DESCRIPTION
P1028060X	GROUND DRIVE COMPLETE W/TIRE (LESS PUMP)

NOTE: Metering Pump Not Included

REPLACEMENT PARTS

REF. NO.	PART NO.	QTY NO.	DESCRIPTION
	P05302680X	1	Ground Drive Ass'y (Includes items #1 through 15)
1	P05302690X	1	Pump Mount Weld
2	P05302630X	1	Spindle Mount Weld
3	P05302660X	1	Spring Linkage Weld
4	P14816466X	1	1" O.D. x 5.81" E.L. Pin
5	17016001	1	1" Standard Washer
6	P14700801X	1	1/4" x 1 1/2" Cotter Pin
7	P20090100X	2	Spring Casting
8	P14810090X	1	5/8" O.D. x 1 5/8" E.L. Pin
9	P14720411X	1	1/8" Hair Pin
10	17010001	1	5/8" Standard Washer
11	P24143900X	1	Compression Spring
12	P17409010X	1	Special Washer
13	P14020801X	2	1/2" Heavy Hex Nut
14	P05302670X	1	Trunnion
15	P06210370X	2	Bushing
16	10005147	1	7.0 x 14 (4-ply) Tire & Wheel Assy
17	P21205020X	1	#50 SS Roller Chain
18	P34120010X	1	Hub Sprocket Adapter
19	P34120011X	1	60T Roller Chain Sprocket
20	P34120012X	1	Single Spool Idler W/Bracket
21	P34120013X	4	Spacer
22	14000601	4	3/8" NC Hex Nut, Gd. 5
23	14001201	2	3/4" NC Hex Nut
24	16006059	5	3/8" x 1 1/4" NC Hex Bolt, Gd. 5
25	P16008087X	4	1/2" x 2 1/2" NF Wheel Bolt
26	P16312220X	1	3/4" x 4" x 5 1/2" U Bolt
26	P16312020X	1	3/4" x 4" x 8" U Bolt
27	17006001	4	3/8" Standard Washer
28	N/A	1	Pump (CDS-John Blue) Ref. page 39
28	N/A	1	Double Pump (CDS-John Blue) Ref. Page 39
29	11007144	1	7.00 X 14 (4-PLY) Traction Tire
30	P10105146X	1	14" X 5KB SAE #401 Wheel

NOTE: Call for pricing on non-stock items.

JACK ASSEMBLIES

Brothers 
EQUIPMENT INC.
402-947-2831
Serving Agriculture Since 1975
www.brothersequip.com



PART #	DESCRIPTION
P32230000X	Jack Assembly

32230000 jack assembly (3000 lbs. lift) is for the tongue on the following DMI toolbars:

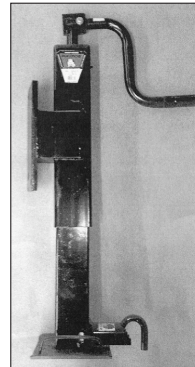
- 3300 • 4300 • 5300
- 4250 • 5250 • 3250
- 3100 • 3200
- 4100 • 4200 • 4200II
- PT and pull hitch attachment



The 87416370 topwind jack assembly is for the tongue on the following DMI toolbars:

- DMI 5300
- DMI 5310
- DMI 2800-16

PART #	DESCRIPTION
P87416370X	Jack Assembly, N.S. (7000# lift)



Topwind 12,000 lbs. lift

Brothers Equipment Modified Jack to fit DMI Model 2800-16 Liquid Applicators.

PART #	DESCRIPTION
P182304X	H.D. Jack Assembly



VI-020 top wind Jack with a lift of 10" and height of 11 1/4". The max weight is 2000 lbs.

PART #	DESCRIPTION
I99X	2,000# 10" Jack



VI-050 and VI-550 side wind jack. 5,000 lbs. max weight. VI-050 lift is 10" height 11" while the VI-550 lift is 15" height 15 1/2".

PART #	DESCRIPTION
I98AX	5,000# 10" Jack
I98X	5,000# 15" Jack

Dalton
A G P R O D U C T S

SHADOW

D-3 Point

Mounted Fertilizer Applicator



Exclusive Features

- 4"x6" Heavy Duty Frame
- Hydraulic Wing Fold
- Telescoping & Swinging Rear Hitch
- Hydraulic Hose & Gauge Stand
- Working Width Up To 58'6"
- Various Row Spacing Options
- Optional Inline Transport
- Available With Shanks, Coulters, Sealers, High Speed Row Units or Liquid Injection Coulters to Fit Your Application Needs
- Optional Raven NH3 or Liquid Control Systems

D SERIES (3 POINT) TOOLBAR SPECIFICATIONS

FEATURES	CLASS 1	CLASS 2
Rows	9 to 13	15 to 23
Row Spacing	30" Standard	30" Standard
Custom Row Spacing	Optional	Optional
Inline Transport	Optional	Optional
Working Width	Up to 32'	Up to 55'
Center Section Width	13'	13', 14', 15.5', 16'
Frame Tubing	Standard: 4" x 6"	Standard: 4" x 6"
Rank	30"	30"
Hitch	CAT 3 or 4 - 3 Point	CAT 3 or 4 - 3 Point
HD Rear Hitch	Standard	Standard
Wing Sections	3 Sections	3 or 5 Sections
Quick Coupler Stand	Standard	Standard
Pin-Type Gauge Wheels	Standard	Standard
Greaseless Primary Pivot Points	Standard	Standard
Hydraulic Hose & Gauge Stand	Standard	Standard
Light Kit	Standard	Standard
2 Year Main Frame Warranty	Standard	Standard
Powder Coat Paint	Shadow Gray	Shadow Gray

Dalton **SHADOW**

DW Pull-Type Applicator



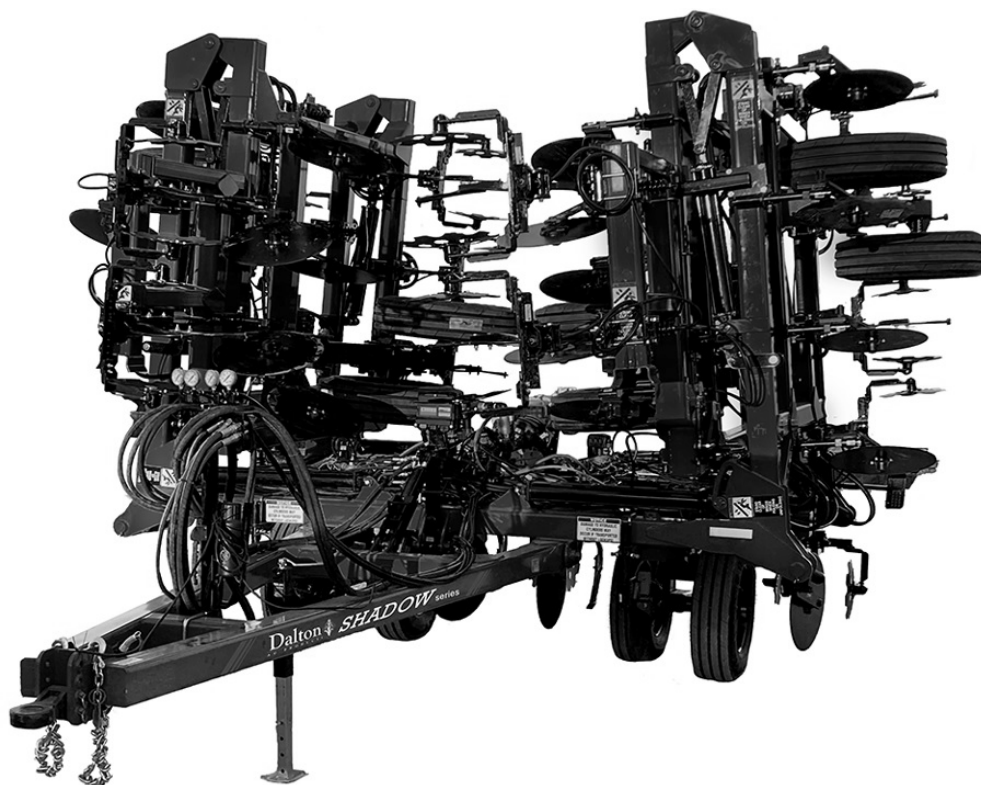
Exclusive Features

- 6"x6" Heavy Duty Frame
- Walking Tandem Axles with No Maintenance Pivots
- Radial Stubble Resistant Tires
- Single Point Depth Control
- Self-Leveling Telescoping & Swinging Rear Hitch
- Working Widths From 27.5' To 57.5'
- Various Row Spacing Options
- Various Shanks, Coulters, Sealers or High Speed Row Units to Fit Your Application Needs
- Optional Raven Control Systems

DW SERIES TOOLBAR SPECIFICATIONS			
FEATURES	DW CLASS 1	DW CLASS 2	DW CLASS 3
Rows	11 to 14	15 to 18	19 to 23
Row Spacing	30" Standard	30" Standard	30" Standard
Custom Row Spacing	Optional	Optional	Optional
Working Width	Up to 35'	Up to 45'	57.5'
Center Section Width	13'	13', 14', 15.5'	15.5', 16'
Frame Tubing	6" x 6"	6" x 6"	6" x 6"
Rank	72"	72"	72"
Heavy Duty Pin On Adjustable Tongue	6" x 6"	6" x 6"	6" x 6"
Hitch	CAT4 Bull Pull	CAT4 Bull Pull	CAT4 Bull Pull
Telescoping/Swinging HD Self - Leveling Rear Hitch	Standard	Standard	Standard
Wing Sections	3 Sections	3 or 5 Sections	5 Sections
Quick Coupler Stand	Standard	Standard	Standard
Tires	320/70 R15	320/70 R15	320/70 R15
Axles - Lift & Gauge Wheels	Walker	Walker	Walker
Hydraulic Outboard Gauge Wheels	N/A	Hydraulic	Hydraulic
Greaseless Primary Pivot Points	Standard	Standard	Standard
Hydraulic Hose & Gauge Stand	Standard	Standard	Standard
Light Kit	Standard	Standard	Standard
HP Requirement (Typical Application)	165-280	225-360	285-460
2 Year Main Frame Warranty	Standard	Standard	Standard
Single Point Depth Control	Standard	Standard	Standard

Dalton
A G P R O D U C T S**SHADOW**

TR Pull-Type Applicator



Exclusive Features

- 6"x6" Heavy Duty Frame
- Walking Tandem Axles with No Maintenance Pivots
- Radial Stubble Resistant Tires
- Single Point Depth Control
- Self-Leveling Telescoping & Swinging Rear Hitch
- Working Widths From 45' To 60'
- Various Row Spacing Options
- Various Shanks, Coulters, Sealers or High Speed Row Units to Fit Your Application Needs
- Optional Raven Control Systems

TR SERIES TOOLBAR SPECIFICATIONS	
FEATURES	
Rows	18, 20 or 24
Row Spacing	30"
Working Width	Up to 60'
Center Section Width	14'
Transport Height	14'
Transport Width	18.5'
Frame Tubing	6" x 6"
Degree of Wing Downflex	15 °
Heavy Duty Pin On Adjustable Tongue	Standard
Hitch	CAT4 Bull Pull
Telescoping/Swinging HD Self - Leveling Rear Hitch	Standard
Wing Sections	18 & 20 - Double fold 22 & 24 - Triple Fold
Quick Coupler Stand	Standard
Tires	(12) 295/75 R22.5
Axles - Lift & Gauge Wheels	Walking Tandem
Hydraulic Outboard Gauge Wheels	Hydraulic Walking Tandem
Greaseless Primary Pivot Points	Standard
Hydraulic Hose & Gauge Stand	Standard
Light Kit	Standard
HP Requirement (Typical Application)	17-20 HP per row or 300-500
2 Year Main Frame Warranty	Standard
Single Point Depth Control	Standard

Dalton **STEALTH**

A G P R O D U C T S

Liquid Applicator



Stealth 1000



Stealth Elite

Exclusive Features

- Heavy Duty Tubular Frame
- Superior Ground Clearance
- Greaseless Wing Pivot Points
- 1000, 1350 or 1750 Gallon Tanks
- Working Widths From 27.5' To 57.5'
- Various Spacing Options
- Optional Gull Wing
- Optional Down Pressure
- Optional Manual Gauge Wheels
- Hydraulic Pump With Raven Control Systems or Ground Driven Piston Pump

STEALTH SERIES LIQUID FERTILIZER APPLICATOR		
FEATURES	STEALTH	STEALTH PRO
Rows	11 to 15	11 to 23
Row Spacing	Standard: 30"	Standard: 30" Custom Spacing Available
Working Width	Up to 35'	Up to 60'
Center Section Width	10.7', 13', 15.5'	10.7', 13', 15.5'
Toolbar Frame	7" x 7" Steel Tubing (Single Row)	4" x 6" Steel Tubing (Double Row)
Bar	11 Knife or 11-15 Knife combo	11-15 Knife combo 13-17 Knife combo 23 Knife
Crop Clearance to Toolbar Frame when Raised	49"	53"
Liquid Delivery Mode	Injection or Knife	Injection or Knife
Pump Drive System	Ground Drive or Hydraulic Drive	Ground Drive or Hydraulic Drive
Two-Speed Jack	Standard	Standard
Hitch	CAT4 Bull Pull	CAT4 Bull Pull
Axle	120"	120"
Parallel Linkage System	Standard	Standard
Tank Type	Cone Bottom	Cone Bottom
Tank Size	1,000 Gallon	1,300 or 1,750 Gallon
Tires & Wheels	320/90/R46	380/90/R46 VF 380/90 R46 - 1,750 tank
Greaseless Primary Wing Pivot Points	Standard	Standard
Hand Wash Station	Standard: 3 Gallon	Standard: 3 Gallon
Light Kit	Standard	Standard
Gull Wing Feature	Optional	Optional Standard on 23 row
Down Pressure Feature	Optional	Optional
Manual Gauge Wheels	Optional	Optional
Frame Warranty	24 Months	24 Months
Powder Coat Paint	Black	Black

WNDT-GN Series Wagon



For Dual 1000 or 1450 Gallon or Single 2000 or 3000 Gallon NH3 Tanks

Standard Features Include:

- 60 Inch Front Track
- 102 Inch Rear Track Single Axle
- Goose Neck design minimizes the turning radius
- Safety Chains
- Helper Lift Assist on tongue for easier hookups
- 425/65R22.5 Super Single Tires (Used) on 8-Bolt Rims
- Standard Black Powder Coat Paint

Options Available:

- Tandem Rear Axle
- 2-Wheel Brakes
- 120" Rear Track
- Extendable Tongue
- Hose Holder

Dalton 
A G P R O D U C T S



Dry Fertilizer Spreaders

Available in 6-ton, 8-ton and 12-ton Sizes



World Class Standard Features Include

- *Stainless Steel Hopper Bolted to Spreader Trailer Frame
- *Available with Ground Drive Bed Chain or Variable Rate Ready
- *Agri-Cover Stay Tight Roll Tarp with Stainless Steel End Caps
- *24" Diameter Dual Spinners for Maximum Spread Accuracy
- *Light Kit with Sealed Connections and Tractor Connector
- *Adjustable Heavy Duty Row Crop Axle
- *24 Month Standard Warranty



NURSE TRAILERS M SERIES

**Many Plumbing
and Trailer
Options to
Choose From.
Customize the
Trailer to Fit
Your Needs.*

*MC Single Available in
1300 or 1700 Gallon*



MC Single



MC Double

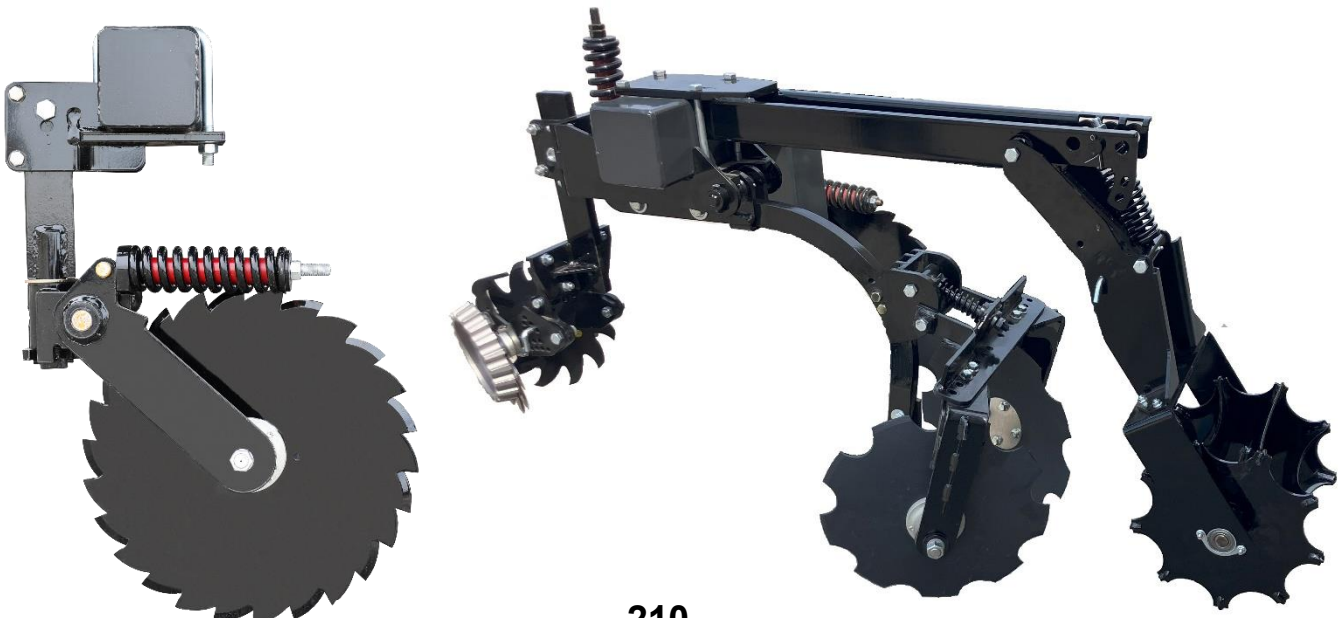
*MC Double Available in
2500 or 3000 Gallon
Complete Drain Cone
Bottom Tanks*

Dalton Shadow Strip-Till Applicators



Simple And Effective Strip-Till From Dalton

- *Dalton Shadow Split Applicator Frame.
- *Up Front HD 21" Spring Loaded Sonic Colter Assembly.
- *Heavy Duty 2" x 1" Spring Loaded Edge Bent Shank Assy.
- *Heavy Duty 18" Spring Down Pressure Berm Builder.
- *Optional – HD Spring Loaded 14" Berm Conditioner Basket.
- *Option – HD Shark Tooth Row Cleaner.





The image features the MonTag logo at the top, which consists of a green stylized leaf graphic above the word "MonTag" in a large, blue, italicized serif font. Below the logo is a diagram with a blue horizontal line and a green vertical line intersecting at a right angle, with arrows pointing in all four directions. Below this, the text "We Specialize in Fertilizer Placement Done Right" is displayed in a bold, serif font. The bottom half of the image shows a large, dark-colored MonTag fertilizer tank being pulled by a yellow tractor in a field of harvested corn. The tank has the MonTag logo on its side and is connected to a complex system of hoses and nozzles for fertilizer application.

***Available in 6, 8, 13 or 16 ton Units and 8, 12, 16, 18 and 24 Row Manifolds**

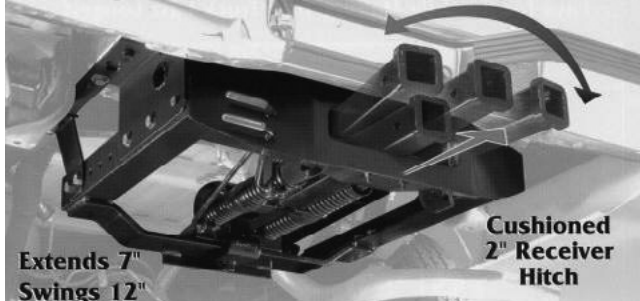
***Can be Mounted Separate or with Montag Steerable Cart Option. Carts Available in 6, 9 and 12 Ton.**

*** 50 lbs./Acre – 800 lbs./Acre Application Rate Capabilities @ 5mph**

*** Scale Kits and Rate Control Options Available for All Units**

Quic'n Easy RECEIVER HITCH™

The Complete System That Makes Towing Quick and Easy.



Extends 7"
Swings 12"

Cushioned
2" Receiver
Hitch

FEATURES

- Mounts directly to your truck frame - no need to remove your OEM bumper
- Tow bar extends 7" from frame and swings 12" for quick, one-person hook-up, no need to accurately position your truck
- Independent release for swing and extension. Handles are protected within hitch frame
- SAE Class IV specifications without weight distribution system
- Prevents receiver hang-up when centering on heavy loads, reduces wear.
- Full-cushion springs reduce transmission, differential, brake, suspension, and frame stress, taking the "jerk" out of towing.
- 3" x 3" angle frame adds strength to the towing system - reduces stress on truck frame
- Accepts a variety of adapters: drawbar, ball, step-up or step-down, pintle hook, and weight distribution system
- Chain hooks manufactured as a part of the hitch frame to provide additional strength
- Mounting kit designed for strength - mounts without drilling holes in truck frame
- Welded structural members - Lifetime warranty
All mountings kits, bumpers, and components - 1 year
- Exceeds SAE Class IV certification (18,000 GTW, 1,800 TW) always check your truck owner's manual

Available Hitches

PART #	HITCH
P47070007X	Quic'n Easy Hitch
P47090001X	Cush'n Combo Hitch

Esthetic Option

PART #	OPTION	Model	Options	Frame
P47082201X	Stainless Steel Face Plate	All	All	All

Options

Truck Model	Year	Drive	Frame	Part #
Cab & Chassis	1972-Current	4wd	34"	P47027005X

Note: Hitch NOT recommended for use with rear fuel tank.

Replacement Parts Reference pages 232 and 233.

Cush'n Combo



Chevy-GMC Mounting Kits

Truck Model	Year	Bed	Frame	Part Number
1500 OBS	1988-1999	All	37"	P47082020X
1500 NBS	1999-2014	All	42"	P47082080X
1500 NBS	2014-2019	All	42"	P47082800X
2500 OBS	1988-1999	All	37"	P47082020X
2500 NBS, LD	1999-2004	All	42"	P47082080X
2500 HD 8' Box	2001-2010	Long Bed	42"	P47082021X
2500 HD 6'6" Box	2001-2010	Short Bed	42"	P47082022X
3500 OBS	1988-2000	All	37"	P47082020X
3500 NBS	2001-2010	Long Bed	42"	P47082021X
2500/3500	2011-2019	Long Bed	42"	P47082500X
2500/3500	2011-2019	Short Bed	42"	P47082550X
2500/3500	2020-Curr.	Long Bed	42"	P47082850X
2500/3500	2020-Curr.	Short Bed	42"	P47082570X

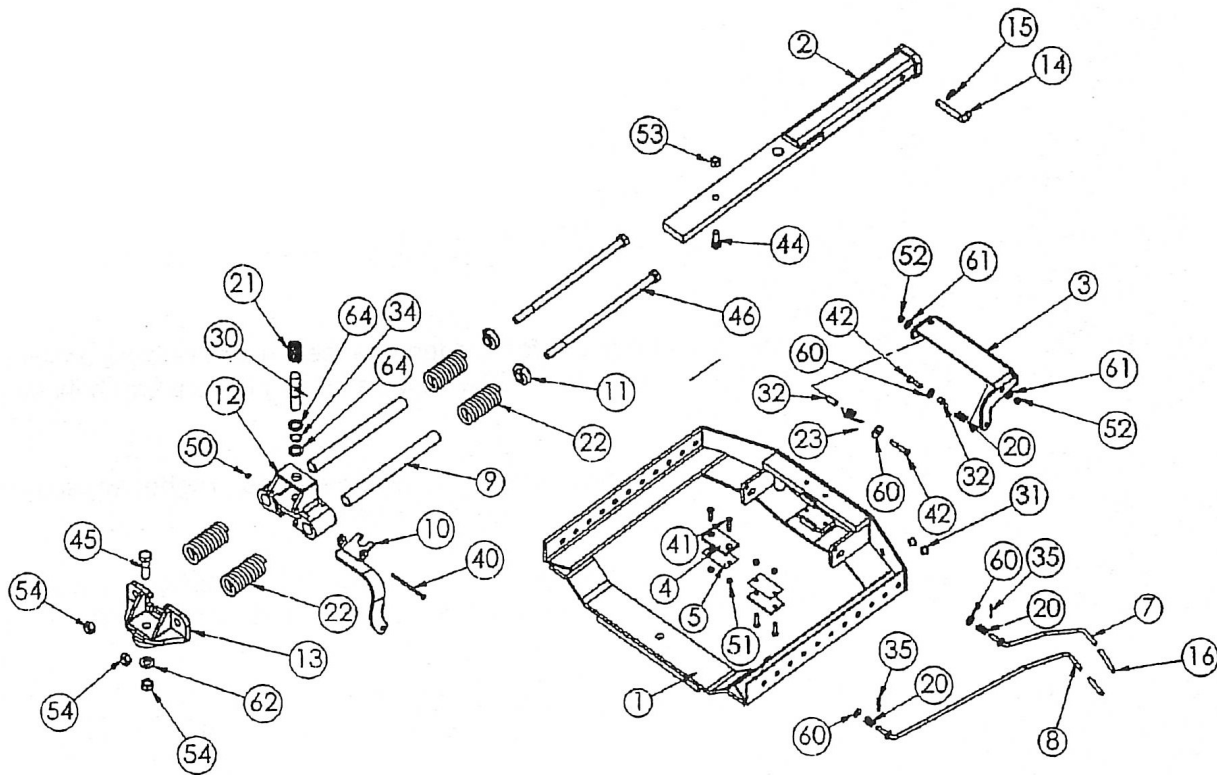
Dodge Mounting Kits

Truck Model	Year	Drive	Frame	Part Number
Ram	1994-2001	2wd & 4wd	38"	P47082090X
Ram	2002-2008	2wd & 4wd	42"	P47082095X
RAM 1500	2009-2014	2wd & 4wd	38"	P47082400X
Ram 2500/3500	2009-2013	2wd & 4wd	42"	P47082095X
Ram 2500/3500	2013-2019	2wd & 4wd	42"	P47082651X
Ram 2500/3500	2020-Curr.	2wd & 4wd	42"	P47082600X
Dakota	1997-2005	2wd & 4wd	38"	P47082030X

Ford Mounting Kits

Truck Model	Year	Drive	Frame	Part Number
F-150	1978-1996	2wd & 4wd	38"	P47082040X
F-150	1997-2003	2wd & 4wd	35 3/4"	P47082010X
F-150	2004-2005	2wd & 4wd	35 3/4"	P47082015X
F-150	2006-2008	2wd & 4wd	35 3/4"	P47082300X
F-150	2008-2016	2wd & 4wd	35 3/4"	P47082700X
F-150	2018-2019		35 3/4"	P47082900X
F-250 LD	1997-2002	2wd & 4wd	35 3/4"	P47082010X
F-250 SD	1978-1998	2wd & 4wd	38"	P47082040X
F-250 SD	1999-2016	2wd & 4wd	38"	P47082070X
F-350 SD	1978-1998	2wd & 4wd	38"	P47082040X
F-350 SD	1999-2016	2wd & 4wd	38"	P47082070X
F-250/350	2017-Curr.			P47082050X

Quic'n Easy Assembly

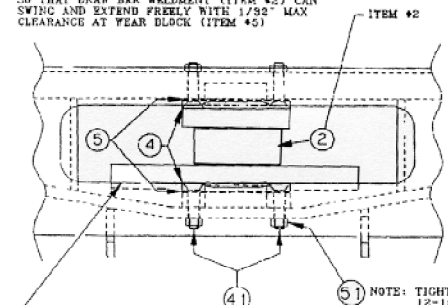


REF. NO.	PART NO.	QTY.	DESCRIPTION
1	47070007F	1	Bumper Frame Weldment
2	P47077438X	1	Draw Bar Weldment
3	P47077640X	1	Lock, slide Swing
4	P47077425X	2	Wear Block
5	P47077426X	2	Shim, Wear Block .020"
7	P47077485X	1	Handle, Slide Lock
8	P47077480X	1	Handle, Pin Lever
9	47070010	2	Pipe
10	47077470	1	Lever
11	20092160	2	Spring Retainer Casting
12	20092161	1	Spring Mount Casting
13	P20092170X	1	Towbar Mounting Casting
14	47077915	1	5/8" Dia. Receiver Pin
15	14710610	1	3/16" Dia. Klik Pin
16	30003400	2	Plastic Cap, Handle
20	P24108100X	2	Compression Spring, Handle
21	24111201	1	Compression Spring, Lock Pin
22	P24140610X	4	Compression Spring, Cushion
23	P24512512X	1	Torsion Spring, Slike Lock

REF. NO.	PART NO.	QTY.	DESCRIPTION
30	47077250	1	Pin, Draw Bar Lock
31	30003300	2	Grommet, Black Plastic Snap-In
32	P44003802X	2	Pivor Bushing, 1 1/8" Long
34	14610100	1	Snap Ring, Draw Bar Pin
35	14700502	2	5/32" x 1 1/2" Cotter Pin
40	16004184	2	1/4" - 20 x 4 1/2" NC Hex Bolt
41	16900000	4	5/16" x 1 1/2" NC HFMS
42	16006095	2	3/8" - 16 x 2 1/2" NC Hex Bolt
44	16010075	1	5/8" - 11 x 1 1/2" NC Hex Bolt
45	16912115	1	3/4" - 10 x 2 3/4" NE Hex Bolt
46	16912645	2	3/4" x 16" NC Hex Bolt
50	14110401	1	1/4" NC Hex Nyloc Locknut
51	14010501	4	5/16" NC Hex Nyloc Locknut
52	14110601	2	3/8" NC Hex Nyloc Locknut
53	14111001	1	5/8" NC Hex Nyloc Locknut
54	14111201	3	3/4" NC Hex Nyloc Locknut
60	17006001	4	3/8" Washer
61	P17610010X	2	9/16" Mach. Bushing Washer, 18 ga.
62	P17112000X	1	3/4" SAE ZP Flat Washer
64	17616011	2	1" Machine Bushing Washer 10

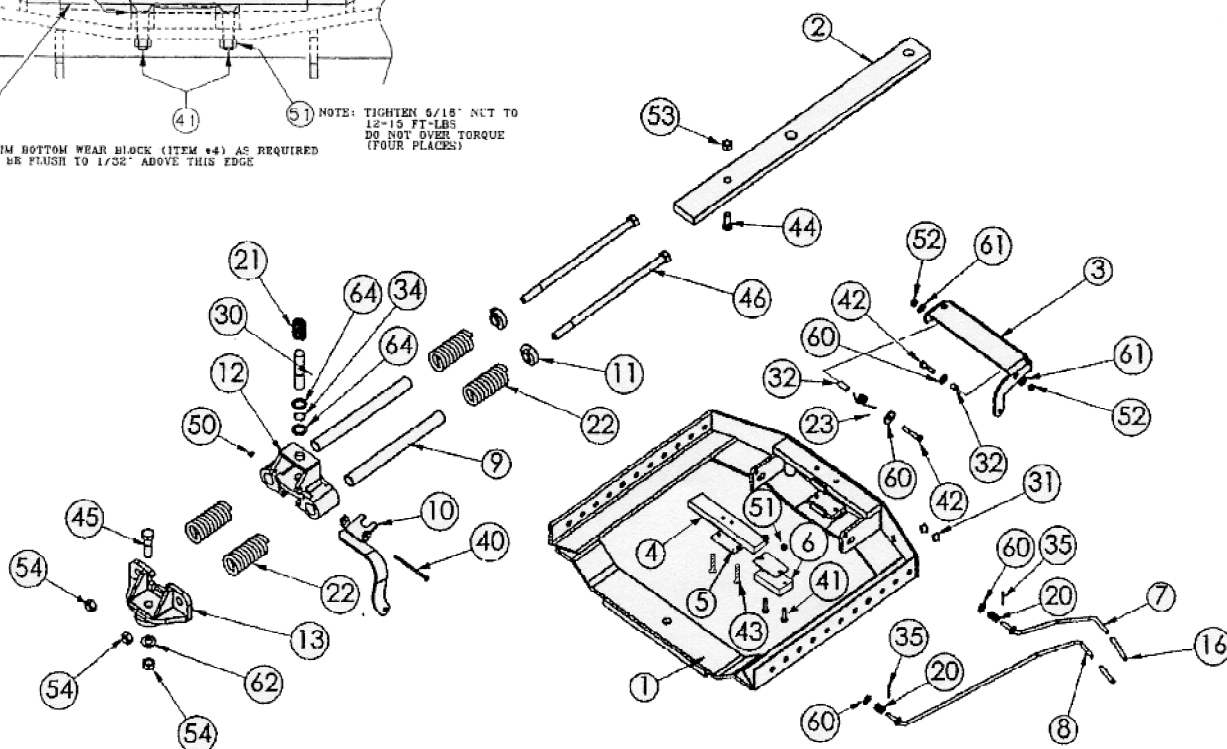
Cush'n Combo Repacement Parts

NOTE: SHIM TOP WEAR BLOCK (ITEM #5) AS REQUIRED SO THAT DRAW BAR WELDMENT (ITEM #2) CAN SWING AND EXTEND FREELY WITH 1/32" MAX CLEARANCE AT WEAR BLOCK (ITEM #5)



SHIM BOTTOM WEAR BLOCK (ITEM #4) AS REQUIRED TO BE FLUSH TO 1/32" ABOVE THIS EDGE

NOTE: TIGHTEN 5/16" NUT TO 12-15 FT-LBS DO NOT OVER TORQUE (FOUR PLACES)

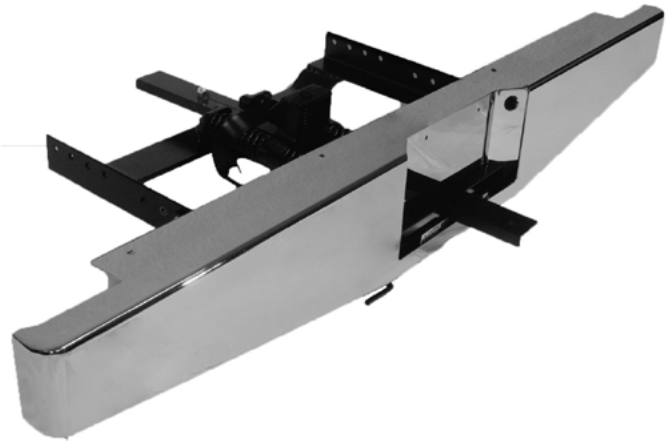


REF. NO.	PART#	QTY.	DESCRIPTION
1	47070007F	1	Bumper Frame Weldment
2	47070022	1	Towbar
3	P47077640X	1	Lock, Slide Swing
4	44003804	1	Wear Block(Bottom)
5	P47077426X	1	Shim, Wear Block .020"
6	44003007	A/R	Wear Block (Top)
7	P47077485X	1	Handle, Slide Lock
8	P47077480X	1	Handle, Pin Lever
9	47070010	2	Pipe
10	47077470	1	Lever
11	20092160	2	Spring Retainer Casting
12	20092161	1	Spring Mount Casting
13	P20092170X	1	Towbar Mounting Casting
16	30003400	2	Plastic Cap, Handle
20	P24108100X	2	Compression Spring, Handle
21	24111201	1	Compression Spring, Lock Pin
22	P24140610X	4	Compression Spring, Cushion
23	P24512512X	1	Torsion Spring, Slide Lock
30	47077250	1	Pin, Draw Bar Lock
31	30003300	2	Grommet, Black Plastic Snap-In
32	P44003802X	2	Pivot Bushing, 1-1/8" Long

REF. NO.	PART#	QTY.	DESCRIPTION
34	14610100	1	Snap Ring, Draw Bar Pin
35	14700502	2	5/32" x 1-1/2" Cotter Pin
40	16004184	2	1/4" -20 x 4-1/2" NC Hex Bolt
41	14525061	2	5/16" x 1-1/2" NC HFMS
42	16006095	2	3/8"-16 x 2-1/2" NC Hex Bolt
43	16900001	2	5/16" x 1-3/4" NC Hex Bolt
44	16010075	1	5/8"-11 x 1-1/2" NC Hex Bolt
45	16912115	1	3/4" -10 x 2-3/4" NC Hex Bolt
46	16912645	2	3/4" x 16" NC Hex Bolt
50	14110401	1	1/4" NC Hex Nyloc Locknut
51	14010501	2	5/16" NC Hex Nyloc Locknut
52	14110601	2	3/8" NC Hex Nyloc Locknut
53	14111001	1	5/8" NC Hex Nyloc Locknut
54	14111201	3	3/4" NC Hex Nyloc Locknut
60	17006001	4	3/8" Washer
61	P17610010X	2	9/16" Mach. Bushing Washer, 18 ga.
62	P17112000X	1	3/4" SAE ZP Flat Washer
64	17616011	2	1" Machine Bushing Washer, 10 ga.

QUIC-CUSH N^{II}

By DMI
The Premier Towing System



FEATURES

- Heavy duty tow bar extends 11" and swings 17" for quick, safe, one person hookups.
- 18,000 lbs. GTW, 1,800 lbs. TW
- Hide-away towbar stores flush to prevent leg injuries when walking behind truck.
- Four cushion springs reduce transmission, differential, suspension, and frame stress...takes the "jerk" out of towing.
- Factory-fit face channel is sleek, with attractive contoured design.
- Color availability - metallic silver, chrome, or white.
- Optional gravel shield (valance) closes gap between truck body and bumper top.
- Interchangeable mounting brackets make your Quic Cush'n II Interchangeable from truck to truck with no drilling
- WELDED STRUCTURAL MEMBERS - LIFETIME WARRANTY
ALL MOUNTING KITS, BUMPERS, AND COMPONENTS 1 YEAR WARRANTY

Available Hitches

PART #	HITCH
P47070001X	Quic-Cush'n 2 Frame

Drop Center Face Channels

PART #	Color	Year/Options
P47060140X	White	All
P47060150X	Silver	All
P47060160X	Chrome	All

Note: Hitch NOT recommended for use with rear fuel tank.

Replacement Parts Reference pages 235.

Chevy-GMC Mounting Kits

Truck Model	Year	Bed	Drive	Frame	Part Number
All Old Body Style	1972-1987	All	4wd Only	34"	P47027000X
All Old Body Style	1988-2001	Long Bed	2wd & 4wd	37"	P47073000X
All Old Body Style	1988-2001	Short Bed	2wd & 4wd	37"	P47073300X
1500 New Body Style	1999-2014	All	2wd & 4wd	42"	P47073060X
2500 NBS LD	1999-2004	All	2wd & 4wd	42"	P47073060X
2500 NBS, Heavy Duty	2001-2010	Long Bed	2wd & 4wd	42"	P47073080X
2500 NBS, Heavy Duty	2001-2010	Short Bed	2wd & 4wd	42"	P47073090X
3500 NBS	2001-2010	Long Bed	2wd & 4wd	42"	P47073080X
2500/3500 HD 8' Box	2011-2019	Long Bed	2wd & 4wd	42"	P47073400X
2500/3500 HD 6'6" Box	2011-2019	Short Bed	2wd & 4wd	42"	P47073450X

Dodge Mounting Kits

Truck Model	Year	Bed	Drive	Frame	Part Number
Ram	1978-2001	Long Bed	2wd & 4wd	38"	P47026000X
Ram	Pre-1993	Short Bed	2wd & 4wd	38"	P47026000X
Ram	1994-1995	Short Bed	2wd & 4wd	38"	P47026500X
Ram	1996-2001	Short Bed	2wd & 4wd	38"	P47026600X
RAM 1500	2002-2008	All	2wd & 4wd	42"	P47073095X
Ram 2500/3500	2002-2012	All	2wd & 4wd	42"	P47073095X
Ram 2500/3500	2013-2019	All	2wd & 4wd	42"	P47073500X

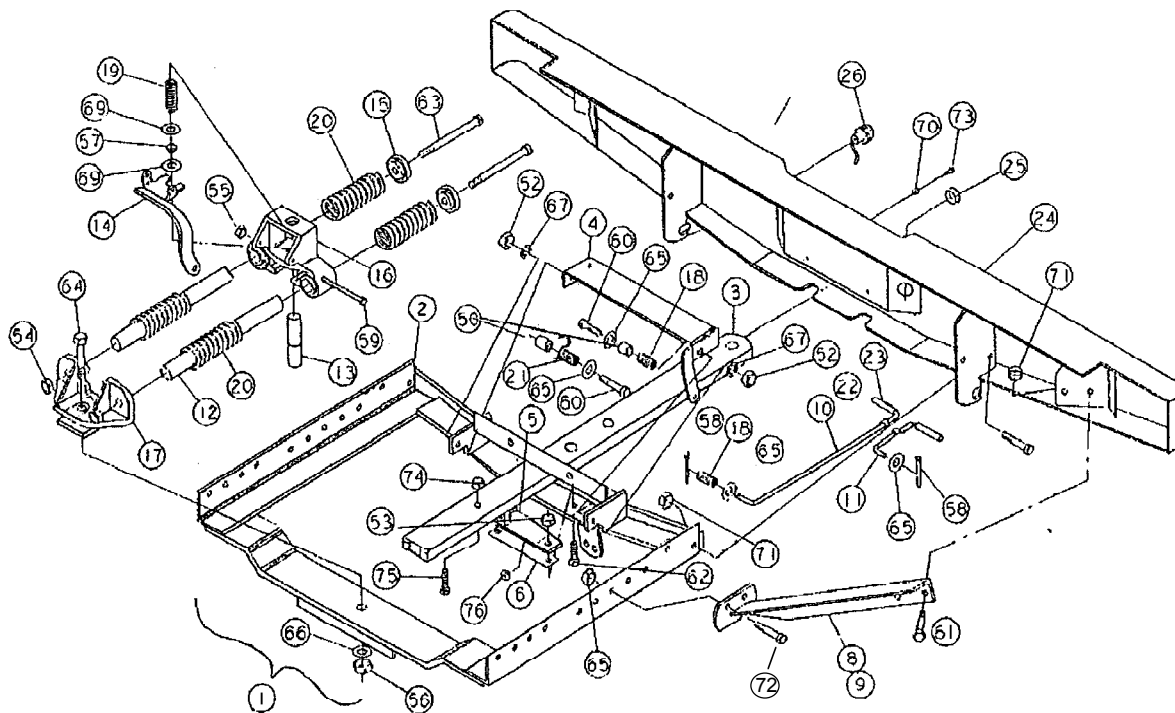
Ford Mounting Kits

Truck Model	Year	Bed	Drive	Frame	Part Number
F-150	1978-1996	All	2wd & 4wd	38"	P47056100X
F-150	1997-2003	All	2wd & 4wd	35 3/4"	P47056200X
F-150 Super Crew Cab	All	All	2wd & 4wd	35 3/4"	Unavailable
F-250 LD	1997-2002	All	2wd & 4wd	35 3/4"	P47056200X
F-250 HD	1978-1998	All	2wd & 4wd	38"	P47056100X
F-250 SD	1975-1997	Long Bed	2wd & 4wd	34"	P47027000X
F-250 SD	1999-2016	All	2wd & 4wd	38"	P47056400X
F-350	1978-1998	All	2wd & 4wd	38"	P47056100X
F-350 SD	1975-1997	Long Bed	2wd & 4wd	34"	P47027000X
F-350 SD	1999-2016	All	2wd & 4wd	38"	P47056400X

Options

Truck Model	Year	Drive	Frame	Part #
Cab & Chassis	1972-Current	4wd	34"	P47027000X

Quic-Cush'n II Assembly Repacement Parts



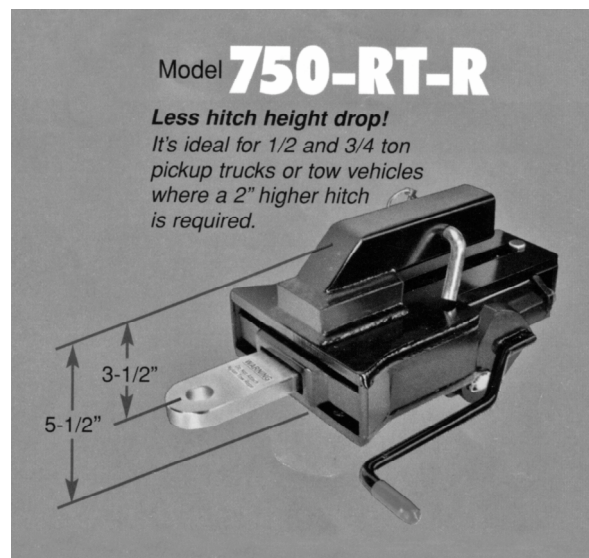
REF. NO.	PART# NO.	QTY.	DESCRIPTION
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1	47077200	1	Drop Center Bumper Frame Assembly
3	P47070021X	1	Bumper Frame Weldment
4	P47077266X	1	Towbar
5	P47010002X	1	Stoplock
6	47017100	A/R	UHMW Pad
			Shim
8	47076031	1	LH Brace
9	47076041	1	RH Brace
10	P47077241X	1	Long Handle
11	47077246	1	Short Handle
12	47070010	2	Pipe
13	47077250	1	Lock Pin
14	47077470	1	Lever
15	20092160	2	Spring Retainer Casting
16	P20092161X	1	Spring Casting
17	P20092170X	1	Towbar Mounting Casting
18	P24108100X	2	Handle Spring
19	24111201	1	Lock Pin Compression Spring
20	P24140610X	4	Compression Spring
21	P24512512X	1	Torsion Spring
22	30003300	2	Snap-in Grommet
23	30003400	2	Plastic Handle Grip
24	P47060140X	1	Drop Center Channel; White
	P47060150X	1	Drop Center Channel; Silver
	P47060160X	1	Drop Center Channel; Chrome
25	30003200	1	Pry-out Plug
26	P27501230X	2	License Light

REF. NO.	PART# NO.	QTY.	DESCRIPTION
----------	-----------	------	-------------

50	P44003802X	2	Bushing
52	14110601	2	3/8" NC Hex Nyloc Locknut
53	14110801	2	1/2" NC Hex Nyloc Locknut
54	14111201	2	3/4" NC Hex Nyloc Locknut
55	14110401	1	1/4" NC Hex Nyloc Locknut
56	14111201	1	3/4" NC Hex Nyloc Locknut
57	14610100	1	Snap Ring
58	14700502	2	5/32" x 1-1/2" Cotter Pin
59	16004184	1	1/4"-20 x 4-1/2" NC Hex Bolt
60	16006095	2	3/8"-16 x 2-1/4" Hex Bolt
61	16008055	2	1/2"-13 x 1-1/4" Hex Bolt
62	16008365	2	1/2"-13 x 2-1/4" FHSC Bolt
63	16912645	2	3/4" x 16" NC Hex Bolt
64	16912115	1	3/4"-10 x 2-3/4" GRD 8 HHCS
65	17006001	4	3/8" Washer
66	17112000	1	3/4" SAE ZP Flat Washer
67	17006001	2	3/8" Washer
69	17616011	2	1" Machine bushing Washer, 10 ga.
70	14090300	4	Plastic Fastener
71	14000801	10	1/2" NC Hex Nut
72	16008065	10	1/2" x 1-1/2" NC Hex Bolt, GD 5 - Z.P.
73	16900351	4	#10 x 5/8" Hex Sheet Metal Screw
74	14111001	1	5/8"-11 Nylock Locknut
75	16010075	1	5/8"-11 x 1-1/2" Hex Bolt

THE *Schuck* CUSHION HITCH™ ADVANTAGE



Schuck cushion hitches are engineered to absorb minor or major tongue thrust shocks from towing loads, off road, or on the highway. The innovative design of each hitch contains injection molded Urethane Cushions to absorb end thrust shock, and high density Polyethane Bearings to increase tongue loads. There is no metal to metal contact, which translates into a smoother, and quieter ride. This unique design is built for years of service, and is virtually maintenance-free. It's what truck and utility vehicle driver's want!

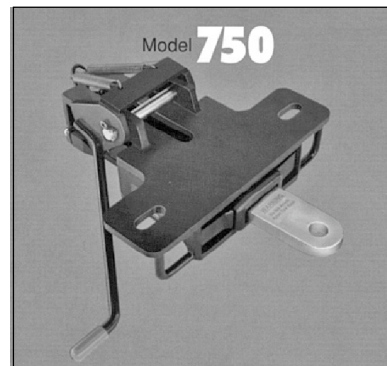
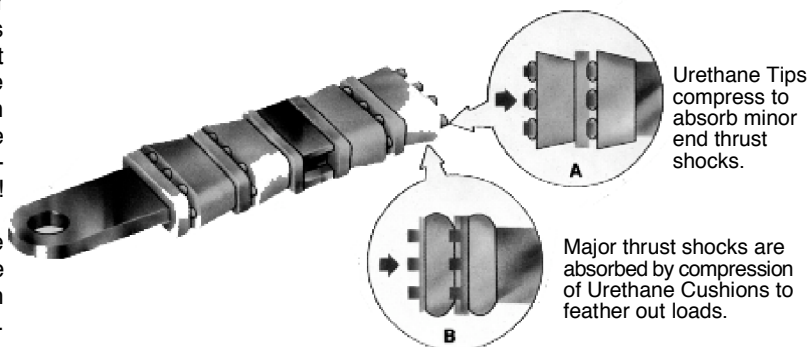
Best of all when you buy a Schuck Cushion Hitch, you'll be reducing wear on the truck or, utility vehicles entire drive train. You'll increase tow vehicle overall performance through reduction of load shock and greatly reduce driver fatigue.

Spring Loaded Hitches, unlike Urethane are built to a predetermined load. When that load is insufficient, or exceeded, the spring does not function properly. They either do not work at all, or they bottom out.

Swivel Tongue for quick easy hookups

Save time and effort on every hookup, and that means saving money for you. It eliminates the frustrating job of backing into an exact position for hookup. The telescoping, swivel cushion tongue extends out a full (7) seven inches beyond the "Tow" position and swivels 60° laterally (or 12" left to right) for fast, easy hookups.

When the towing member is hooked-up, simply back up the tow vehicle to engage the self-adjusting cam latch. That's all there is to it. The positive cam latch system is rattle-free, and provides secure automatic latching.



Part #	Description
P700X	MODEL 750 Fits most trucks 10 1/2" to 12" holes on center
P702X	MODEL 750 GM Fits 1988 & newer GM factory bumpers 8" holes on center
P705X	MODEL 750 D fits 1994 & newer Dodge factory bumpers 8" holes on center
P706X	MODEL 750RT Fits 2" receiver tubes
P707X	MODEL 750RT-R Fits 2" receiver tubes
P70725X	MODEL 750RT-R Fits 2 1/2" receiver tubes
P710AX	700 SERIES BEARING KIT

NOTE:
All models include stiffening braces and mounting bolts.

Brothers Equipment, Inc.

Serving Agriculture Since 1975

Phone: 402-947-2831

ACCESS
ROLL-UP COVER

LOOK FOR THE SLANTBACK
REAR DESIGN*

**NOW YOUR TRUCK
HAS A BEST FRIEND TOO™**

Make sure it's the original roll-up cover
with our exclusive Slantback Rear Design.
*The Slantback Rear Design is a trademark of Agr-Cover, Inc.

AUTOLATCH™ **SIDE SEALING SYSTEM** **TIGHT BITE™ CLAMPS** **XT-DIAL™**

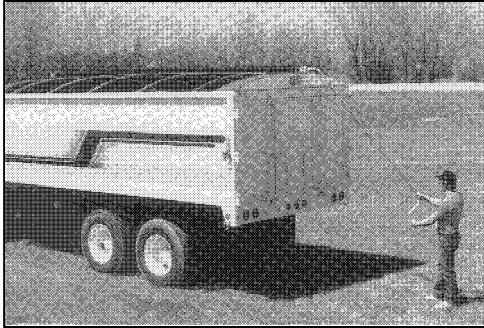
BROTHERS EQUIPMENT IS PROUD TO ANNOUNCE THAT WE ARE NOW HANDLING THE TRUCK ROLL-UP COVER FROM AGRICOVER. AGRICOVER IS THE SAME GREAT MANUFACTURER WHO SUPPLIES THE SRT2 ROLL OVER COVER FOR AGRICULTURAL TRAILERS, TENDERS AND GRAIN CARTS.

THE SUPERIOR CHOICE IN ROLL-UP COVERS

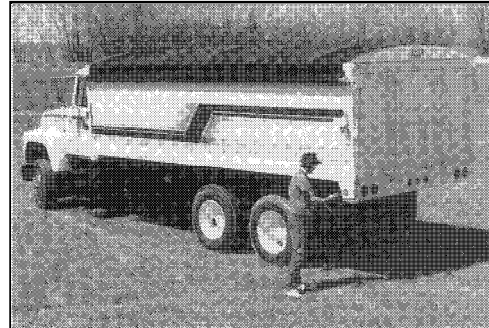
- Accessory Friendly - Compatible with bed rails, bed caps, tailgate protectors as well as drop in, under the rail and spray on bedliners.
- One man operation, takes only seconds to open and close.
- Why hassle with taking a cover off when you can just roll this one up.
- Installs in minutes.
- Tension control dial ensures the tightest roll-up cover on the road. Can be adjusted if needed with the turn of a dial.
- 24 hour protection when closed - full bed usage instantly when rolled open.
- Increased fuel mileage by reducing the drag against your tailgate.
- Lifetime Warranty includes the entire cover, even the fabric.
- Optional Accessory - 12" LED truckbed light strip.

AGRI-COVER

THE SRT-2 COVERS YOUR LOAD IN TWO EASY STEPS



(1) From the ground you simply crank the cover over the box.



(2) When the tarp is completely unrolled, store the crank handle in its holder.

SRT-2 Spool Roll Tarp

- This farm truck cover takes only seconds to operate from the ground with no tie downs.
- Simply crank the cover over the box. Store the crank handle in its holder.
- The telescoping crank handle can be stored away from doors and grain gates.
- The tarp remains secure during the rolling operation even in windy conditions.
- Excellent quality, very dependable, fast, attractive, and economical to own.

SRT-2 Tarp Features

- Fast and easy installation.
- Comes standard with arched 7" galvanized steel end caps, bows and ridge strap (as pictured).
- Steel components are zinc plated.
- The tarp is made of heavy duty double coated fabric.
- Tarp color is available in white, black, gray, blue, red, orange, yellow, green and brown.
- Quick release brackets allow for easy tarp removal.
- Optional quick release end cap kits.
- Also available optional arched 12" galvanized steel end caps and bows.
- Electric option also available.

Call Brothers Equipment for current pricing.
All orders F.O.B. factory.



ENGINEERED TARPING SOLUTIONS 4500 SERIES ELECTRIC UPGRADE

4500 Series Features

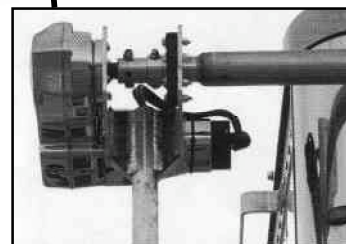
- SPIRAL SPRING RETURNS
- FRONT AND REAR TORSION ARMS
- FLEXIBLE JOINT/ELBOW
- UNIVERSAL MOUNTING BRACKET
- EXPOSED SPLINE
- AVAILABLE REMOTE
- MOTOR OPTIONS



Super-Charge Your Shur-Lok®

The strongest, smoothest roll tarp operation ever - without cables, straps or bungees to break or need replacing. Our 4500 Series Electric Upgrade moves the tarp evenly over loads.

We've got the power - the 4500 Series provides constant return force for adverse conditions! Our patented design uses four spiral spring returns, front and back, to open and close the tarp with powerful, consistent tension - even in moderate wind situations.



High Torque Electric Motor

ProTrap Electric Hopper Door Opener

ProTrap Features

- HIGH-TORQUE MOTOR W/ELECTRONIC BRAKE
- UNIVERSAL MOUNTING BRACKET
- ONE-BOLT MANUAL CHANGEOVER
- STANDARD 5-CHANNEL SMART TRANSMITTER
- MASTER DISCONNECT SWITCH
- PRE-ASSEMBLED FOR QUICKER INSTALL



Introducing the ProTrap!

Avoid the dust of grain unloading with our new ProTrap Electric Hopper Door Opener. It does the work with the push of a button!

The cleaner, faster way to unload grain! Hopper doors open; while the operator stands back, out of the dust. When the grain is unloaded, another push of the button closes the hopper and you're ready to go!

Miscellaneous Information

PIPE AND PIPE FITTINGS

Dimension in Inches • Standard Black or Galvanized
A common error made when sizing threaded fittings occurs whenever a ruler or tape measure is used. Pipe sizes must be measured by a pipe scale - see illustration below.

NOMINAL PIPE SIZE, INCHES	ACTUAL INSIDE DIAMETER	ACTUAL OUTSIDE DIAMETER
1/4"	0.364	0.540
3/8"	0.493	0.675
1/2"	0.622	0.840
3/4"	0.824	1.050
1"	1.049	1.315
1 1/4"	1.380	1.660
1 1/2"	1.610	1.900
2"	2.057	2.375
2 1/2"	2.469	2.875
3"	3.068	3.500

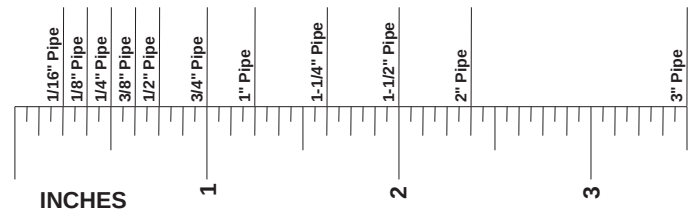
XH MALLEABLE PIPE FITTINGS RATINGS

Table below is working pressure for fittings of different sizes
Per ANSI B-16-3

PIPE SIZE IN INCHES	WSP OR HOT OIL UP TO 550° F	NON-SHOCK COLD WOG TO 150° F
1/4" - 1"	300 PSI	2000 PSI
1 3/4" - 2"	300 PSI	1500 PSI
2 1/2" - 3"	300 PSI	1000 PSI

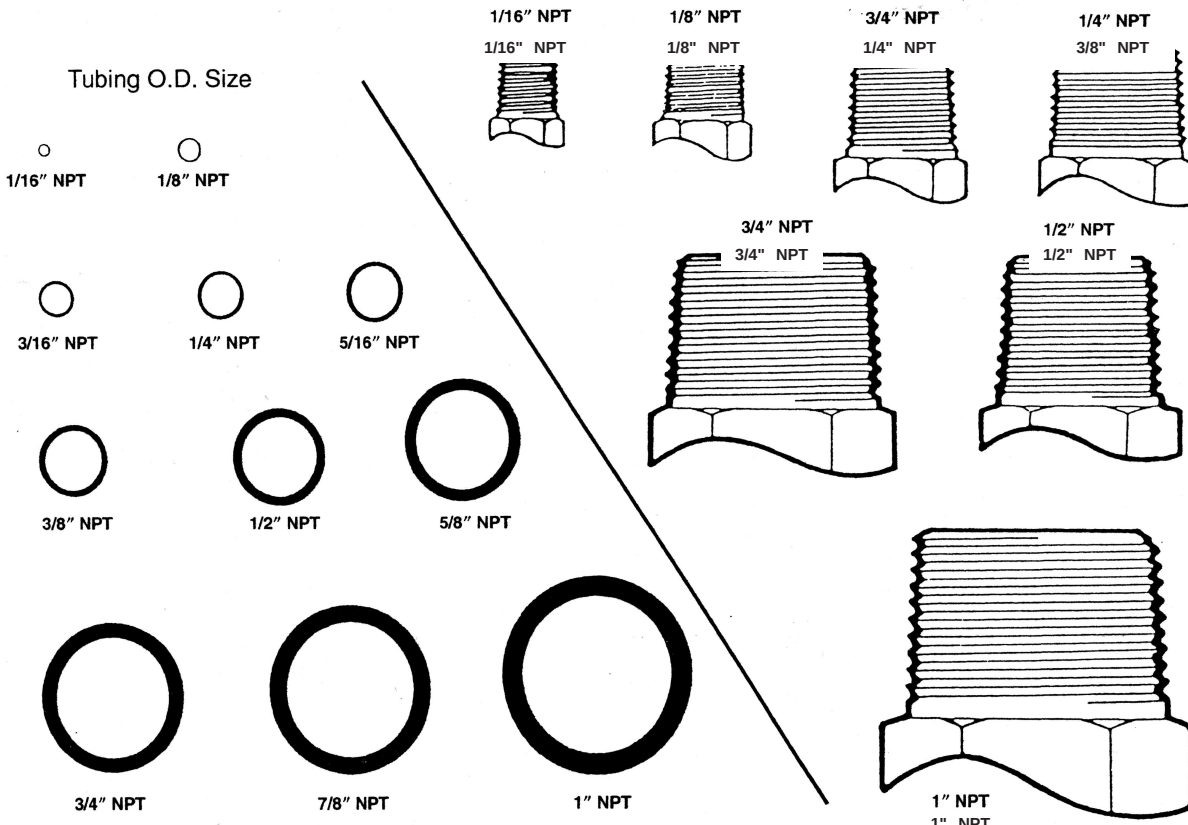
WOG - Water, Oil, Gas

WSP - Working Steam Pressure



PIPE AND TUBING SIZE CHART

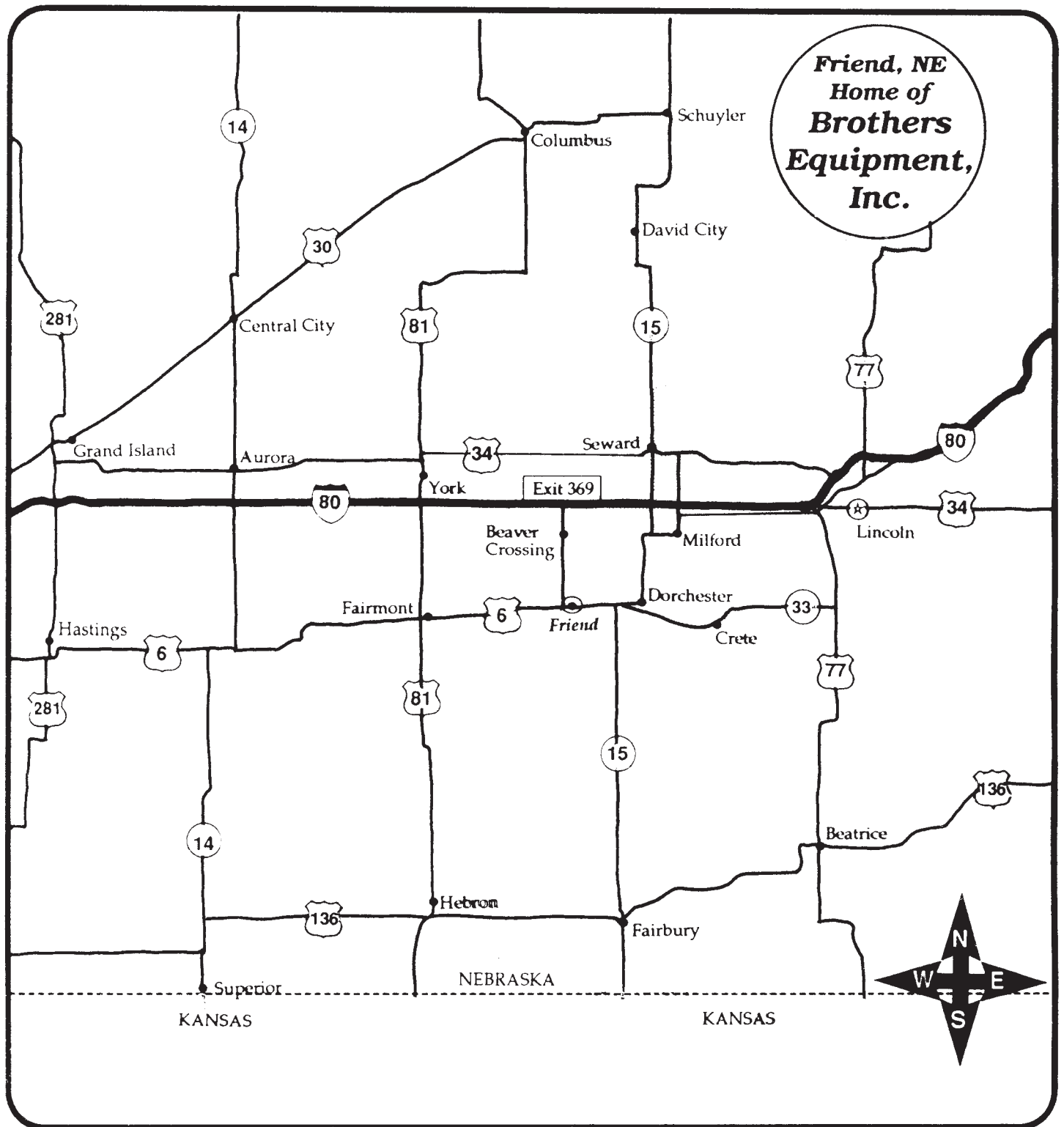
Pipe Thread Size NPT



Miscellaneous Information - Measurement Conversion Factors

GENERAL	
One Acre	43,560 Square feet or 0.405
One Hectare	2,471 Acres
One gallon per acre	9.35 Acres
One mile	5,280 feet or 1610 meters or 1.61 KM
One gallon	128 fluid ounces or 8 pints or 4 quarts
One gallon	3.79 liters or 0.83 imperial gallons
One pound per sq. inch (PSU)	0.070 kg/cm ²
One pound per sq. inch (PSU)	6.895 kPa (Kilopascal)
One pound	454 kilograms
One inch	2.54 centimeters
AREA MEASURE	
144 sq. inches	1 sq. foot
9 sq. feet	1 sq. yard
30 1/4 sq. yards	1 sq. rod
160 sq. rods	1 acre
1 acre	43,560 sq feet
640 acres	1 sq. mile
1 sq. mile	1 section (of land)
1 rod	16.5 feet
LINEAR MEASURE	
12 inches	1 foot
3 feet	1 yard
5 1/2 feet	1 rod
40 rods	1 furlong
8 furlongs	1 mile
1 mile	5,280 ft.=320 rods
LIQUID MEASURE	
1/16 pint	1 ounce
4 ounces	1 gill
4 gills	1 pint=16 oz.
2 pints	1 quart=32 oz.
4 quarts	1 gallon
3 1/2 gallons	126 quarts
3 1/2 gallons	126 quarts
HEAD	
1 pound per sq. inch (PSI)	2.31 feet of water/2.04 inch Mercury
1 foot of water	0.433 lbs. per sq. inch/0.585 inch Mercury
1 inch of Mercury	1.132 ft. of water
1 kilogram per sq. cm.	14.22 lbs. per sq. inch
1 atmosphere (at sea level)	14.7 lbs. per sq. in./33.9 ft of water/10.35 meters of water
1 meter of water	3.28 feet of water
WEIGHT OF SOLUTION	
	Specific Gravity Factors Conversion
7.0 lbs. per gallon	841.09
8.0 lbs. per gallon	961.02 1.00
8.34 lbs. per gallon	1.00 .96
9.0 lbs. per gallon	1.08 .91
10.0 lbs. per gallon	1.20 .87
11.0 lbs. per gallon	1.32 .83
12.0 lbs. per gallon	1.44 .77
14.0 lbs. per gallon	1.68 .72
16.0 lbs. per gallon	1.92 .68
18.0 lbs. per gallon	2.16 .65
20.0 lbs. per gallon	2.40
Imperial gallon	1.20 USA Gallons

GENERAL	
1 US gallon	231 cu. in./0.137 cu.ft/3.785 liters
	.00379 cu. meters/0.833 imperial gallons
1 imperial gallon	1.2 US gallons/277.274 cu. in.
1 cubic foot	9.35 liters per hectare
1 liter	5,280 feet or 1610 meters or 1.61 KM
1 cubic meter	128 fluid ounces or 8 pints or 4 quarts
1 acre foot	3.79 liters or 0.83 imperial gallons
1 acre inch	0.070 kg/cm
1 barrel (oil)	6.895 kPa (Kilopascal)
METRIC CONVERSION	
LINEAR MEASURE	
1 centimeter	0.3937 inches
1 inch	2.54 centimeters
1 decimeter	3.937 inches or 0.328 feet
1 foot	3.048 decimeters
1 meter	39.37 inches or 1.0936 yards
1 yard	0.9144 meter
1 dekameter	1.9884 rods
1 rod	0.5029 dekameter
1 kilometer	0.62137 mile
1 mile	1.6093 kilometers
SQUARE MEASURE	
1 square centimeter	0.1550square inch
1 square inch	6.452 centimeters
1 square decimeter	0.1076 square foot
1 square foot	9.2903 square decimeters
1 square meter	1.196 yards
1 square yard	0.8361 square meter
1 acre	160 square rods
1 square rod	0.00625 acre
1 hectare	2.47 acres
1 acre	0.4047 hectare
1 square kilometer	0.386 square mile
1 square mile	2.59 square kilometers
MEASURE OF VOLUME	
1 cubic centimeter	0.051 cubic inch
1 cubic inch	16.39 cubic centimeters
1 cubic decimeter	0.0353 cubic foot
1 cubic foot	28.317 cubic decimeters
1 cubic yard	0.7646 cubic meter
1 liter	0.908 quart dry or 1.0567 quarts liquid
1 quart dry	1.101 liters
1 quart liquid	0.9463 liter
1 dekaliter	2.6417 galloons or 1.135 pecks
1 gallon	0.3785 dekaliter
1 peck	0.881 dekaliter
1 hectoliter	2.8375 bushels
1 bushel	0.3525 hectoliter
WEIGHTS	
1 gram	0.03527 ounce
1 ounce	28.35 grams
1 kilogram	2.2046 pounds
1 pound	0.4536 kilogram
1 metric ton	0.98421 English Ton
1 English ton	1.016 metric ton



Brothers Equipment Inc.

NEBRASKA WATTS

800-742-7746

OUT OF STATE WATTS

800-228-4582

1002 1st. ST., FRIEND, NE 68359

Brothers Equipment, Inc.

**1002 - 1st Street
Friend, NE 68359**

***Nebraska 800-742-7746
Other 800-228-4582***

***Local 402-947-2831
Fax 402-947-2077***

www.brothersequip.com