



PARTS PLUS CATALOG

YOUR CHOICE...WHEN QUALITY IS IMPORTANT

800-322-2637





GENERAL SALES POLICY



TERMS: Orders will be processed on an open account, after a good credit rating has been obtained. Request a credit application to obtain your credit rating. All other orders will be cash or COD. A service charge of 1 1/2% per month (or .50 minimum) on all accounts over 30 days past due. Past due account payments will be applied to service charges first and then to the past due invoices. Visa and Mastercard also accepted.

PRICES: ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. All shipments are billed at prices prevailing at time of shipment. All prices are quoted as unassembled units and FOB Sioux Falls. Dealer discounts are available to those who qualify.

CHARGED INVOICES: A \$5 handling charge will be added to all charged sales that do not exceed \$20 List price, exclusive of transportation and insurance charges.

SALES TAX: All orders are subject to the sales tax jurisdiction where possession of goods are taken. Goods to be resold will be exempt, if we have your tax exemption number on file.

SHIPMENTS: Shipments will be made by UPS, SPEE-DEE, ASAP Delivery, common carrier, or parcel post. If your order is received by any of the above carriers, REMEMBER all shortages or damages must be noted on the bill of lading and a claim file against the carrier by YOU.

SHIPPING ERRORS & RETURNS: Shipping errors must be reported to us within 10 days of shipment and returned to us immediately. When orders have been shipped correctly, all returns must be made prepaid and will have a minimum of 20% restocking/bookkeeping charge deducted. Additional charges will be made if goods must be put in to resalable condition. **We will NOT accept the return of items that were "special ordered"** (all parts that are not listed in the C & R catalog). **The picking ticket or a copy of the invoice must be with all returns.**

CLAIMS: All claims as to prices, terms, or service must be made within 5 days of invoice date otherwise will be considered VOID. All orders picked up and signed for by a customer or customers agent are considered complete as signed. The customer will receive a copy of the signed order at the time of loading. On open accounts the invoice will follow shortly.

COLLECTION CHARGES: Any and all expenses involved in collecting past due balances will be added to the balance due, and the debtor agrees to pay such charges.

WARRANTY AND LIABILITY INFORMATION: C & R fabricated units are warranted for one year, from date of shipment to the original purchaser as determined by our records, against defects in material and workmanship only, and limited to replacement or repair at our option. Warranty is limited to the repair or replacement of the part after it is returned to C & R prepaid and has been inspected by C & R to determine that the part is defective. Our liability for defective material is limited to the value of the material only. Expenses, inconveniences or other damages that may occur are not subject to any warranty. Parts or component parts supplied to C & R by other manufacturers will be limited to that manufacturer's warranty. **Important Note: All merchandise must meet EPA regulations; therefore, all items must be free of chemicals, fuels, etc. and cleaned for handling purposes. C & R will return any items, freight collect, if this procedure is not met.** There will be a \$10.00 disassembly charge for any repairable or non-repairable item. C & R will process a claim on a defective part to any of our suppliers for you. Return the part, prepaid, to C & R with proof of purchase and date of purchase. Disassembly of merchandise before returning could result in a void warranty. C & R will pass along any repair, replacement or credit of the part after the manufacturers approval following their inspection. Contact C&R if you have any questions about warranty coverage by any individual manufacturers.

3610 NORTH CLIFF AVE ~ SIOUX FALLS, SOUTH DAKOTA 57104 ~ 1 605-338-7210

ORDER PHONES — 1-800-322-2637 and 1-800-232-2637 FAX — 1-605-338-6015

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

BUSINESS HOURS:
MONDAY thru FRIDAY
8:00 a.m. to 5:00 p.m.
SATURDAY (APRIL-JUNE)
8:00 a.m. to 12:00 p.m.

E-MAIL — orders@crsupply.com
WEB SITE — www.crsupply.com

IF NO ANSWER
DIAL
1-605-351-5288
After hours cell number



ABOUT US



C & R Supply, Inc. has been a retailer/distributor/manufacturer of agricultural and roadside spray equipment for over 45 years. We are proud to offer quality spray equipment and parts through both our retail store and our network of dealers located throughout the United States and Canada.

We stock and service everything from a simple fitting to the most up-to-date precision farming products available. We also manufacture our own line of UTV and ATV spray units and specialize in custom built sprayers to meet your individual needs.

Our goal is to keep you up and running by offering an experienced sales staff, service on our products, and an extensive inventory available for same day shipment.

Call us, we are here to help!



800-322-2637



INDEX



A

ACE PUMPS	42-44
ACE TANKS	31-37
ANHYDROUS EQUIPMENT	
ACCESSORIES AND PARTS	116-120
ACCUFLOW SYSTEMS.....	119
ACMECOUP	116
ACME FITTINGS.....	116
BREAKAWAY COUPLERS.....	117
DECALS.....	116
GLOVES	118
HOSE.....	111
KNIVES.....	117
MANIFOLDS.....	118
SAFETY EQUIPMENT	118
PRESSURE GAUGES.....	90,117
SHANKS	117
TROUBLE SHOOTING	120
VALVES, SHUTOFF AND FLOW.....	119,131-132
ACCUBOOM	142
ATV SPRAYERS	27-28
AUTOBOOM	147-148

B

BALL VALVES	
BOLTED.....	92-95
BRASS.....	96
DEADMAN	96
ELECTRIC	131-133
UNION	95
STAINLESS STEEL	96
BANJO	
AIR SHUT OFF VALVES	96
BALL VALVES	93-95
CAM LOCKS.....	88-90
CHECK VALVES.....	100
DRY BREAK COUPLERS.....	94,100
FLANGED FITTINGS.....	87-88
FLANGED VALVES	88,94
FLOW METERS	128
MANIFOLD VALVES / FITTINGS	87-88
PIPE FITTINGS.....	84-86
PUMPS	47-49
STRAINERS.....	103-104
TANK FITTINGS	38
BASKET STRAINER	39
BLEEDER VALVES, NH3	116
BLOCKAGE SYSTEMS	17
BOOMLESS NOZZLES	61-62
BOOM	25
BOOM CLAMPS	80-81
BOOM CONTROLS	98,122-125
BRASS FITTINGS	82
BREAKAWAY COUPLERS	117
BUTTERFLY VALVES	96,131-132
BUTTRESS FITTINGS	39

C

CALIBRATION CONTAINER	59
CALIBRATION, SPRAYER	59
CAM LOCK	89-92
CARPET CLEANER PUMP	53
CENTRIFUGAL PUMPS	41-44
CHECK VALVES	100
CHEMBLADE	115
CHEMICAL	
GLOVES.....	118
INDUCTORS	115
INJECTION UNITS	18-20,127
METERS.....	108-109
PUMPS.....	107-110
CLAMPS	
FLANGE	88
HOSE.....	112
T-BOLT	112
COMPRESSION FITTINGS	106
CONE BOTTOM TANKS	34
CONTROLS	
RAVEN	122-125
COUPLERS	
ACME	116
ALUMINUM	90
BREAKAWAY.....	117
CAM LOCK.....	88-92
DRY BREAK.....	94,100
GARDEN HOSE	88
MICROMATIC	110
NH3.....	117
SAFETY.....	92
STAINLESS STEEL.....	90
COX HOSE REELS	113
CT6 PUMPS	110

D

DD6 PUMP	107
DE-ICE	23
DEADMAN VALVE	96
DECALS	116
DEFOAMING AGENT	59
DEF PUMPS	110
DENSITY SCALE	57
DIAPHRAGM PUMPS	52, 55
DOSATRON	19-20
DRIFT RETARDANT	59
DUAL APPLICATION PUCK	21
DUO LIFT TRAILERS	33
DURA PRODUCTS	109
DRY DISCONNECT	94,100



INDEX



E

ENCODERS	130
ELECTRIC VALVES	97-98,131-133
ENGINES	48
EVA TUBING	111
EXCESS FLOW VALVES, NH3	116

F

FERTILIZER EQUIPMENT

CDS FLOW DIVIDER.....	14
DROP TUBES.....	21,80-81
NH3 KNIVES.....	117
PISTON PUMPS.....	50
PLANTER TANKS & BRACKETS.....	7-9
STARTER FERTILIZER KITS.....	11-14
TOTALLY TUBULAR.....	15-16

FLANGE GASKETS & CLAMPS.....88

FLOAT VALVES.....39

FLOJET.....54

FLOW

DIVIDERS.....	14,117-18
INDICATORS.....	14
METERS.....	128-130
REGULATORS.....	99,131

FLY FOGGER.....58

FOAM.....59

FOAM MARKING SYSTEM.....22

G

GARDEN

CAM LOCKS.....	88
FITTINGS.....	85
NOZZLE.....	96
SHUT-OFF VALVE.....	96

GAUGES.....90

GLOVES.....118

GOGGLES.....118

GREEN GARDE.....102

GREENLEAF.....63

GROUND DRIVES & PUMPS.....50-51

GUIDANCE SYSTEMS.....137-140

GUNS, SPRAY.....101-102

H

HAND GUNS.....101-102

HAND PUMPS.....107

HANNAY HOSE REEL.....113-114

HERBICIDE METERS & PUMPS.....107-110

HONDA ENGINES.....48

HOSE.....111-112

BARBS.....84-86

CLAMPS.....112

CUTTERS.....112

FITTINGS.....83-86

REELS.....113-114

HYPRO PUMPS.....41,43-46

I

INDUCTORS.....115

IMPREGNATION UNITS.....115

INJECTION PUMPS.....19-20,127

INCORPORATION BRACKETS.....10

J

JET AGITATION.....39

JOHN GUEST.....106

JUG RINSE.....113

L

LAWN SPRAYERS.....26

LINE STRAINERS.....103-105

LIQUID BLOCKAGE SYSTEMS.....17

LIQUID FEED PUMPS.....55

M

MAG METERS.....130

MAGNETIC CLUTCHES.....43

METERS

CHEMICAL.....108-109

FLOW.....128-130

WATER.....113

WIND.....59

MICRO MATIC COUPLERS.....110

MIST BLOWERS.....58

MONITORS.....122-125

MOTOR CONTROLS.....11,55

N

NH3.....116-120

TROUBLE SHOOTING.....120

NORWESCO TANKS.....31-32,35-37

NOZZLE

BODIES.....78-81,86

CAPS.....80

CLEANERS.....59

FIRE.....96

HOLDERS.....80-81

SPRAY.....61-76

STRAINERS.....81

O

ORIFICE DISCS.....12

ORIFICE HOLDERS.....80-81



INDEX



P

PICKUP TANKS	37
PIPE FITTINGS	82-86
PISTON PUMPS	50
PLANTER BRACKETS	7-10
POLY TANKS	31-37
PRESSURE	
GAUGES.....	90
REGULATORS.....	99,131
RELIEF VALVES.....	99
WASHER PARTS.....	56
PLUMBING SYSTEMS	60
PUMPS	
12 VOLT.....	46,53-55
ACE.....	42-44
BANJO.....	47-49
BARREL.....	107
BELT DRIVEN.....	44
CENTRIFUGAL.....	41-44
CHEMICAL.....	107-110
DIAPHRAGM.....	52-55
DEF.....	108-110
DOSATRON.....	19-20
FEED SUPPLEMENT.....	55
FLOJET.....	54
FLOWSERVE.....	107,110
GAS DRIVEN.....	44
GEAR.....	43
GPI.....	107
GROUND DRIVEN.....	50
HAND.....	107
HYPRO.....	41,43-46
INJECTION.....	19-20,127
IRRIGATION.....	51
JOHN BLUE.....	48-50
LIQUID FEED.....	55
PARTS.....	45-46,153-168
PEDESTAL.....	43
PISTON.....	50
REMCO.....	55
ROLLER.....	46
SEED TREATMENT.....	110
SHURFLO.....	53
SOTERA.....	107
SUMP.....	51

Q

QUICK COUPLERS	56,89-92
QUICK JET NOZZLE BODIES	79-80

R

RAM MOUNTS	146
RATCHET STRAPS	39
RAVEN ELECTRONICS	121-152
REBOUNDERS	10
RECTORSEAL	83,89

RELIEF VALVE	99
REMCO PUMPS	55
RESPIRATORS	116
RINSE BALL	39
ROLLER PUMPS	46

S

SADDLE TANKS	29-30,37
SAFETY	
DECALS.....	116
EQUIPMENT.....	118
GLOVES.....	118
GOGGLES.....	118
TANKS.....	36,118
SEED INOCULATOR	57
SHANKS	117
SHURFLO PUMPS	53
SOTERA	107-108
SPEED SENSOR	134-136
SPOT SPRAYERS	28
SPRAYER CONTROLS	122-125
SPRAYERS	
ATV.....	28
BACKPACK.....	57
CUSTOM.....	23
DE-ICE.....	23
FIRE UNIT.....	23
HAND.....	57
PICKUP.....	24
ROADSIDE.....	24
SPOT.....	28
TRACTOR MOUNTED.....	27
TURF & LAWN.....	23-26
UTV.....	27
SPRAYER PLUMBING PARTS	
AGITATORS.....	39
AIR ACTUATED SHUT OFF.....	96
BOOM CONTROLS.....	97-98
CAM LEVER COUPLERS.....	89-92
DROP NOZZLE PIPES.....	21,80-81
DRY BREAKS.....	94,100
FITTINGS.....	82-86
FLANGE FITTINGS.....	87-88
GAUGE, PRESSURE.....	90
HANDGUNS.....	101-102
HOSE.....	111-112
HOSE CLAMPS.....	112
JOHN GUEST FITTINGS.....	106
MANIFOLDS.....	87-88
PRESSURE CONTROLS.....	99
QUICKJET NOZZLE HOLDERS.....	80-81
STAINLESS STEEL CHECK VALVES.....	100
STRAINERS, LINE & SUCTION.....	103-105
VALVES, SHUT OFF & REGULATING.....	92-99



INDEX



STAINLESS

CHECK VALVES	100
COUPLERS	90
FITTINGS	83
PRESSURE GAUGES	90
VALVES	96,131-132

STARTER FERTILIZER KITS

STRAINERS

SUMP PUMP

SWIVELS

T

TANKS

CONE BOTTOM	34
ELLIPTICAL (OVAL)	35
LEG	35
MINI-BULK TRANSFER	37
NURSE	31
PICKUP	37
RECTANGLE/PCO	36
SAFETY	36
SIDE MOUNTED/C-A-W/SLIMLINE	37
VERTICAL STORAGE	32

TANK

AGITATORS	39
CLEANER	59
FITTINGS	38-39
FLOAT	39
LIDS	40
SADDLES & SKIDS	35,37
STRAPS	39

TECHNICAL INFORMATION

TIPS & NOZZLES

AIR INDUCTION	63,71-74
BOOMLESS NOZZLES	61-62
CALIBRATION INFO	171
DOUBLE OUTLET FOR DROPS	70
DRIFT GUARD (DG)	71
EVEN SPRAY FOR BANDING	70
EXTENDED RANGE (XR)	68
FERTILIZER	75-76
FLAT FAN	67
FLOODJET WIDE ANGLE FLAT SPRAY	69
FULLJET WIDE ANGLE CONE SPRAY	69
OFF CENTER (OC)	70
PRESSURE WASHER	56
RAINDROP DRIFT REDUCTION	71
STREAMJET FERTILIZER	75-76
TURBO TEEJET	71
TWINJET TWIN FLAT SPRAY	74

TOTALLY TUBULAR

TRANSFER PUMPS

TUBING

V

VALVES

ANHYDROUS	116,119,131-132
BALL	92-96,131-132
BLEEDER	117
BOOM	133
BOOM FLUSH	78
BRASS	96
BUTTERFLY	96,132
BYBASS	99
CHECK	100
DEADMAN	96
DRUM	96
ELECTRIC	97-98,131-133
EXCESS FLOW	116
FLANGED	94
FLOAT	39
GARDEN	96
GLOBE	116
HYDRAULIC	132
MANIFOLD	94
MANUAL	98
MICRO	94
NH3	116,119,131-132
POP-OFF	116
PRESSURE RELIEF	99
REGULATING	99,131
SOLENOID	97-99
STAINLESS STEEL	96,131-132
THREE-WAY	93-95
THROTTLING	99

W-X-Y-Z

WATER METER

WILGER

WIND METERS

Y-2UBES

ZIP TIES

DirecSteer

Raven's new retrofit autosteer solution, DirecSteer, brings cost competitive and comfortable steering into the cab. Easy to install, DirecSteer can be moved between multiple machines of all major equipment brands. DirecSteer reduces operator fatigue and crop damage by delivering highly accurate steering in all conditions. Its electric drive packs high torque and silent operation into one simple unit. DirecSteer is powered by Raven's proven tech stack and is supported by industry leading technical service and support.

Features and Benefits

- High torque electric drive motor
- Easy to install and transfer between machines
- Silent operation
- Scalable from sub-meter to sub-inch accuracy
- Consistent in all field conditions
- Compatible with Viper 4+ or CR7



Call for Machine Specific Kits and Pricing



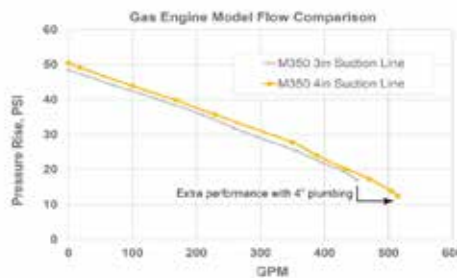
STAINLESS STEEL JUG RINSE (Fits a 16" lid)

Spinning rinse nozzle that provides fast and effective rinsing of both liquid and dry chemicals and helps prevent cross contamination.



500 JUGRINSE Jug Rinse

LIST
\$ 400.00*



M350 with FastFlow™ technology utilizing a customized diffuser design greatly increases flow rates. With performance over 500 gallons per minute, you'll spend less time filling, which means less downtime in the field and most importantly, less cost per acre.

ORDER NO.
102 M350P13HW
102 M350POW

DESCRIPTION
13 HP-Honda ES
PUMP ONLY

LIST
\$ 2218.75*
\$ 800.00*

MIC



Multi-Product Induction Cone

- The Multi-Product Induction cone enables you to never use a 12volt chemical pump again.
- MIC utilizes an oval gear meter that is factory calibrated to be +- .5% and being a gear meter, you don't have to change calibration between products. Features 1/10th gallon increments and back light display.
- Installs on the pressure side of your pump so you will never have chemical going through your pump
- Reduces chemical exposure
- Eliminate chemical cross contamination
- 60 gallon total drain cone tank with lockable hinged lid.
- 3" plumbing but will also work with a 2" pump
- Induct up to 4 products through the meter at a flow rate up to 20 GPM
- Tank rinse and manifold rinse
- Common options include the CHEM-BLADE or Jug rinse



ORDER NO.	DESCRIPTION	LIST
500 MIC60V3-4	M.I.C; 60 GAL X 3" VENTURI 4 PRODUCT	\$ 3725.00*
500 MIC-CHEMBLADE	CHEMBLADE KIT FOR MIC60V3-4	\$ 930.00*
500 MIC-JUGRINSE	JUGRINSE KIT FOR MIC60V3-4	\$ 400.00*
084 507006	REPLACEMENT BATTERY	\$ 32.19



High-Flow Dura-Meter

ORDER NO.	DESCRIPTION	LIST
139 DP-HFM2V	2" Meter w/M220 flanges 15-300 GPM	\$1500.00*
139 DP-HFM3V	3" Meter w/M300 flanges 15-700 GPM	\$1830.00*



- The High-Flow Dura-Meter™ is made of impact resistant Lexan™ faceplate, so it holds up to the toughest treatment. It can also can withstand impacts common in the agricultural market and beyond. Made with 100% moisture-sealed circuitry, the meter is impervious to water intrusion.
- This High-Flow meter can be calibrated to achieve + / - 0.5% accuracy and significantly reduce straight Inlet / outlet requirements. The (2) 9V batteries provide power that allows you to stay in the field longer. It is over-molded with Santoprene and filled with gel, so the face-plate has improved shock resistance.
- The High-Flow Dura-Meter™ uses an industry leading menu driven backlit display, so it is the easiest of all chemical meters on the market to use in all light conditions. Also, it is plumbed both for in-line and 90 degree applications, adding to its versatility.



PLANTER MOUNTED FERTILIZER TANKS



C&R Supply offers planter mounted fertilizer systems for most popular planters including John Deere, John Deere Bauer Bars, CIH, Kinze, and Agco/White. Pump options include contact & hydraulically driven John Blue piston, Hypro/Ace hydraulic centrifugal, or 12 volt with a motor control. Several plumbing options available. Totally Tubular stainless placement tubes are also available, as are Wilger & John Blue visual flow monitoring.

JOHN DEERE DB SERIES PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 SS-DB60TBX750	BRACKET, DB60 (All years)	CALL*
111 42PE750	TANK, 750 gallon Elip	CALL*
111 SKE750	SKID, 750 gallon	CALL*
111 46PE600	TANK, 600 gallon Elip	CALL*
111 SKE600	SKID, 600 gallon	CALL*

500 SS-JD1770/75NT-16	BRACKET, DB60 (All years)	CALL*
111 HE0500-57-YELLOW	TANK, 500 gallon Elip	CALL*
083 SKE500	SKID, 500 gallon	CALL*

ORDER NO.	DESCRIPTION	LIST
500 SS-DB90TB	BRACKET, DB90	CALL*
111 42PE750	TANK, 750 gallon Elip	CALL*
111 SKE750	SKID, 750 gallon	CALL*
111 46PE600	TANK, 600 gallon Elip	CALL*
111 SKE600	SKID, 600 gallon	CALL*



JOHN DEERE 1760/1765 PLANTER

(12row Wingfold)

ORDER NO.	DESCRIPTION	LIST
500 SS-JD1760/65WF	BRACKET, 1760/65 12 ROW 2-200	CALL*
083 26PE200	TANK, 200 gallon Elip x2	CALL*
083 SKE200	SKID, 200 gallon x2	CALL*



JOHN DEERE 1770/1775 NT PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 SS-JD1770/75NT-16	BRACKET, 1770/75NT 16row	CALL*
500 SS-JD1770/75NT-24	BRACKET, 1770/75NT 24row	CALL*
111 HE0500-57-YELLOW	Tank, 500 gallon Elip	CALL*
083 SKE500	Skid, 500 gallon	CALL*

500 SS-JD1770/75NT-24/600 GAL	BRACKET, 1770/75NT 24row	CALL*
111 46PE600	TANK, 600 gallon Elip	CALL*
111 SKE600	SKID, 600 gallon	CALL*



JOHN DEERE 1790/1795 PLANTERS

ORDER NO.	DESCRIPTION	LIST
644 TK-300E-1790MO	BRACKET, 1790 12row (12/23)	CALL*
083 30PE300	TANK, 300 gallon Elip	CALL*
083 SKE300	SKID, 300 gallon	CALL*

500 SS-JD1790-16/24	BRACKET, 1790 16 row (16/31)	CALL*
083 36PE400	TANK, 400 gallon Elip	CALL*
083 SKE400	SKID, 400 gallon	CALL*

500 SS-JD1790-16/24	BRACKET, 1790 24 row (24r-20")	CALL*
111 HE0500-57-YELLOW	TANK, 500 gallon Elip	CALL*
083 SKE500	SKID, 500 gallon	CALL*



DONT SEE YOUR PLANTER? GIVE US A CALL 800-322-2637



PLANTER MOUNTED FERTILIZER TANKS



CIH 1200-1255 PLANTERS

ORDER NO.	DESCRIPTION	LIST
644 TK-300TTMO 083 38P0300W 030 PS338A	1200 30'-40' NON BULK MOUNTS ONLY TANK, 300 gallon Rnd (WHT) x2 SKID, 300 gallon x2	CALL* CALL CALL*
644 TK-338CIH1230BMO 083 38P0300W 030 PS338A	BRACKET, 1250 BULK FILL 12R30 TANK, 300 gallon Rnd (WHT) SKID, 300 gallon	CALL* CALL CALL*
644 TK-500CIH2430MO 083 36PE500W 083 SKE500	BRACKET, 1250 BULK FILL 24 ROW TANK, 500 gallon Elip (WHT) SKID, 500 gallon	CALL* CALL* CALL*
644 TK-338CIH1255BMO 083 38P0300W 030 PS338A	BRACKET, 1255 BULK FILL 12R30 TANK, 300 Gallon Rnd. (WHT) SKID, 300 Gallon	CALL* CALL CALL*
500 LP-CIH1250/55-16 111 48P0500W 500 LP-RD500SKID	BRACKET, 1250/55 16 ROW TANK, 500 gallon Rnd (WHT) SKID, 500 gallon	CALL* CALL* CALL*
644 TK-500E-CIH16MO 083 36PE500W 083 SKE500	BRACKET, 1255 BULK 24 ROW TANK, 500 gallon Elip (WHT) SKID, 500 gallon	CALL* CALL* CALL*



CIH 1240 PLANTERS

ORDER NO.	DESCRIPTION	LIST
644 TK-250TT-1240 083 24PS250W 083 PS24250	BRACKET, 1240 16 row TANK, 250 gallon x2 SADDLE, 250 gallon x2	CALL* CALL* CALL*

CIH 1245 PLANTERS

ORDER NO.	DESCRIPTION	LIST
644 TK-200TT-1245 083 24PS200W 083 PS24200	BRACKET, 1245 12 row TANK, 200 gallon x2 SADDLE, 200 gallon x2	CALL* CALL* CALL*
644 TK-250TT-1245 083 24PS250W 083 PS24250	BRACKET, 1245 16 row TANK, 250 gallon x2 SADDLE, 250 gallon x2	CALL* CALL* CALL*



CIH 2150 PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 LP-CIH2150-12/16 111 48P0500W 500 LP-RD500SKID	BRACKET, 2150 12/16 Row TANK, 500 gallon Rnd (WHT) SKID, 500 gallon	CALL* CALL* CALL*
500 LP-CIH2150-24 111 48P0500W 500 LP-RD500SKID	BRACKET, 2150 24 Row TANK, 500 gallon Rnd (WHT) SKID, 500 gallon	CALL* CALL* CALL*



CIH 2160 PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 LP-CIH2160-24 111 48P0500W 500 LP-RD500SKID	BRACKET, 2160 24 row 30" TANK, 500 gallon Rnd (WHT) SKID, 500 gallon	CALL* CALL* CALL*



DONT SEE YOUR PLANTER? GIVE US A CALL 800-322-2637



PLANTER MOUNTED FERTILIZER TANKS



8200/9200 WHITE PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 WHITE8200	BRACKET & SKID, 8200 12 row (2-200 gallon)	CALL*
083 26PE200W	TANK, 200 gallon Elip x2	CALL*



Note: Skids are Welded to Brackets

8500/9500 WHITE PLANTERS

ORDER NO.	DESCRIPTION	LIST
644 TK-85-40-300MO	BRACKET, 85/9500 (2-300 gallon)	CALL*
083 30PE300W	TANK, 300 gallon Elip (WHT) x2	CALL*
083 SKE300	SKID, 300 gallon x2	CALL*



MUST SPECIFY PLANTER SIZE

8800/9800 WHITE PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 SS-WHITE8816/24	BRACKET, 88/9816/24 (2-250 gallon)	CALL*
083 24PS250W	TANK, 250 gallon sidemount (WHT)x2	CALL*
083 PS24250	SADDLE, 250 gallon x2	CALL*
500 SS-WHITE8816/24 BOX	BRACKET, 88/9816/24 BOX	CALL*
083 36PE500W	TANK, 500 gallon Elip (WHT)	CALL*
083 SKE500	SKID, 500 gallon	CALL*



KINZE 4900 PLANTERS

ORDER NO.	DESCRIPTION	LIST
500 SS-JD1770/75NT-24	BRACKET, Kinze 4900 16/24 Row 30"	CALL*
083 36PE500W	TANK, 500 Gallon Elip (WHT)	CALL*
083 SKE500	SKID, 500 Gallon	CALL*
500 SS-KINZE4900-24	BRACKET, Kinze 4900 24 Row 30" - 600 Elip	CALL*
111 46PE600W	TANK, 600 Gallon Elip (WHT)	CALL*
111 SKE600	SKID, 600 Gallon	CALL*



DONT SEE YOUR PLANTER? GIVE US A CALL 800-322-2637

Single Tank System Fill

QUICK FILL SYSTEM

Dual Tank System Fill



ORDER NO.
500 WWQF100
500 WWQF200

C&R Supply has put together a kit that gives you everything you need to add a Quick Fill system to your new or existing tank setup on your planter. Everything from the tank fittings to the 1-1/2" hose and 2" hose followed with the hose clamps and valves. Overflow fittings and hose also included (not shown in picture).

DESCRIPTION
Quick Fill System 2" Single Tank
Quick Fill System 2" Dual Tank



LIST
\$ 495.00*
\$ 745.00*



HYDRAULIC PUMP FERTILIZER KITS



Hydraulic Starter Fertilizer Kits include a HYD driven pump, Raven flowmeter and section valves, Wilger flow indicators, drip-less bodies and all necessary fittings and hoses to complete the system. This kit also includes universal pump and valve brackets. Choice of Ace FMCWS206PWM centrifugal pump or optional John Blue NGP6055HY pump with integrated PWM valve.

Placement Tubes, Tank & Tank Mounts Not Included.

ORDER NO.	DESCRIPTION	LIST
500 WHFK16-2	16 row, Hyd Pump, 2 section Fert kit	\$ 6150.00*
500 WHFK16-4	16 row, Hyd Pump, 4 section Fert kit	\$ 7075.00*
500 WHFK24-2	24 row, Hyd Pump, 2 section Fert kit	\$ 6565.00*
500 WHFK24-3	24 row, Hyd Pump, 3 section Fert kit	\$ 7000.00*
500 WHFK24-4	24 row, Hyd Pump, 4 section Fert kit	\$ 7490.00*
500 UPB	Universal Pump Bracket	\$ 80.00*
500 UVB	Universal Valve Bracket	\$ 70.00*
500 UGB	Universal Gauge Bracket	\$ 16.00*



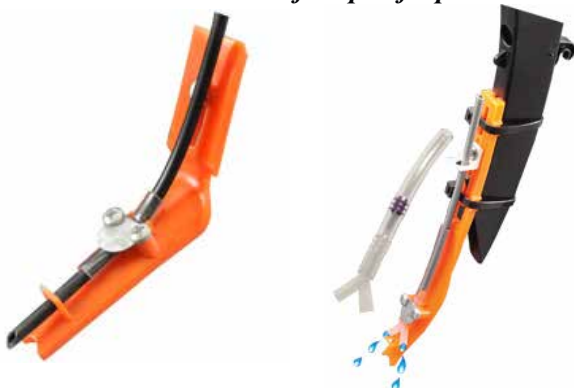
REBOUNDER SEED COVER

Schaffert Mfg's Rebounder Seed Cover keeps your seeds in check!

Features & Benefits Include:

- Smooth concave design keeps the seed covered in the furrow and prevents seed bounce
- Built-in "neck flex technology" allows for flexibility of the Rebounder in firmer soils
- Spoon shaped design forms to the Seed "V"
- Unique half moon tip prevents seed drag
- Unlike other seed placement attachments, the Rebounder won't build up with mud
- Designed to fit planters & drills
- Easy to install

Call for specific planter



INCORPORATION BRACKETS

Universal kit can be adapted to disc, harrow, or cultivator with frames up to 4" x 6". Used to apply pre-emerge incorporated chemicals in one pass. Each kit contains all necessary mounting hardware for the nozzle. Nozzle is sold separately.

ORDER NO.	DESCRIPTION	LIST
500 IK01	Kit, Single Incorporation	\$ 100.00*



EMC 150 Console



EMC 150 Electric Motor Control

C&R Supply is excited to announce our NEW 12 volt Electric **M**otor **C**ontrol Console. We took the idea of a simple motor control and created a controller that automatically compensates for pressure changes. Traditional controllers set the pump at a fixed speed regardless of pressure changes that occur as tank volume decreases. The EMC 150 works off the operator's reference point pressure setting. The controller automatically adjusts the pump output to maintain the desired pressure setting using a tested, accurate, high quality pressure transducer.

IT'S TESTED

IT'S DEPENDABLE

IT'S ACCURATE



FEATURES:

- **Automatic Pressure Compensation:** Quick, smooth pressure recovery to desired set point
- **Digital Pressure Readout:** Backlit for easy day or night visibility
- **Simple Install:** Simply connects into any 30amp 12v power source, and 12 volt "keyed" power source
- **Able To run Two Pumps:** Maximum of 30 Amps combined load
- **Easy Operation:** Press "master" to turn pump on, press ↓ ↑ to set desired pressure
- **Quality Stainless Steel Pressure Transducer**
- **Fuse Protection:** Fuse is in the in control box and has reverse polarity fuse protection
- **Tested & Dependable:** Each controller has an 8 hour burn it period before shipment to check for premature component failures
- **Durable:** Control box and all control buttons are water resistant & durable for long term use
- **Warranty:** Unit includes a 1 year warranty. **Made in the USA**



- **WHAT YOU GET:** EMC 150 Controller, 1 power supply cable, 1 motor supply cable & pressure transducer.

- **Optional Add On:** A whisker switch can easily be added for automatic on/off control as implement is raised / lowered
- **Optional Add On:** RAM™ mounting kit
- **Optional Cable:** 25' pressure transducer extension

Questions?? Call Us 1-800-322-2637

ORDER NO.	DESCRIPTION	LIST
505 EMC150	Kit, Electric Motor Control w/ Cables & Pressure Transducer	\$ 900.00*
505 040-0266	EMC Console Only	\$ 615.00*
505 080-0520	Replacement, Pressure Transducer; EMC 150	\$ 230.00*
505 315025	Cable, 25' Pres. Trans Extension, EMC 150	\$ 75.00*
500 IWS	Implement, Whisker Switch	\$ 200.00*





SPECIAL APPLICATION UNITS



PREMIER STARTER FERTILIZER KITS

Premier starter kits come complete with the New EMC 150 Electric Motor Control, 12 volt Shurflo pump, drip-less bodies, orifices, double filters, and all necessary fittings and hoses to complete the system for your planter. Choose from common line or Wilger flow monitors for manifold type. **Placement tubes and tank mounts not included.**



ORDER NO.	DESCRIPTION	LIST	ORDER NO.	DESCRIPTION	LIST
500 WCSF06	Common line manifold drip-free 6 row	\$ 1580.00*	500 WWSF06	Wilger manifold drip-free 6 row	\$ 1810.00*
500 WCSF08	Common line manifold drip-free 8 row	\$ 1675.00*	500 WWSF08	Wilger manifold drip-free 8 row	\$ 1910.00*
500 WCSF12	Common line manifold drip-free 12 row	\$ 1900.00*	500 WWSF12	Wilger manifold drip-free 12 row	\$ 2180.00*
500 WCSF16	Common line manifold drip-free 16 row	\$ 2260.00*	500 WWSF16	Wilger manifold drip-free 16 row	\$ 2835.00*
500 WCSF24	Common line manifold drip-free 24 row	\$ 2595.00*	500 WWSF24	Wilger manifold drip-free 24 row	\$ 3275.00*

placement tubes not included in kits....see page 15-16 for order information

020 MP # _____ \$ 3.94
Orifice Gasket 097 Q18999 \$ 1.40

CONVERSION FOR OTHER THAN WATER

10 lbs. per gallon .91 11 lbs. per gallon .87
10.7 lbs. per gallon .88 12 lbs. per gallon .83

Note: divide when using the above conversion factors

GPM = GPA X MPH X ROW SPACING

5940

	GPM							GPM							GPM								
	5 PSI	10 PSI	20 PSI	30 PSI	40 PSI	50 PSI		60 PSI	5 PSI	10 PSI	20 PSI	30 PSI	40 PSI		50 PSI	60 PSI	5 PSI	10 PSI	20 PSI	30 PSI	40 PSI	50 PSI	60 PSI
CP4916-008	0.003	0.004	0.006	0.007	0.008	0.009	0.010	CP4916-47	0.097	0.138	0.194	0.238	0.275	0.307	0.337	CP4916-98	0.442	0.625	0.884	1.08	1.25	1.40	1.53
CP4916-10	0.005	0.007	0.009	0.011	0.013	0.015	0.016	CP4916-48	0.101	0.143	0.202	0.248	0.286	0.320	0.350	CP4916-103	0.461	0.653	0.923	1.13	1.31	1.46	1.60
CP4916-12	0.007	0.010	0.013	0.016	0.019	0.021	0.023	CP4916-49	0.104	0.148	0.209	0.255	0.295	0.330	0.361	CP4916-107	0.518	0.733	1.04	1.27	1.47	1.64	1.79
CP4916-14	0.009	0.013	0.018	0.022	0.025	0.028	0.031	CP4916-51	0.116	0.165	0.233	0.285	0.329	0.368	0.403	CP4916-110	0.548	0.775	1.10	1.34	1.55	1.73	1.90
CP4916-15	0.010	0.015	0.021	0.025	0.029	0.032	0.036	CP4916-52	0.118	0.168	0.237	0.290	0.335	0.375	0.410	CP4916-115	0.605	0.855	1.21	1.48	1.71	1.91	2.09
CP4916-16	0.012	0.017	0.023	0.029	0.033	0.037	0.040	CP4916-54	0.127	0.180	0.255	0.312	0.360	0.402	0.441	CP4916-120	0.629	0.890	1.26	1.54	1.78	1.99	2.18
CP4916-18	0.015	0.021	0.030	0.036	0.042	0.047	0.051	CP4916-55	0.133	0.189	0.267	0.326	0.377	0.421	0.462	CP4916-125	0.693	0.980	1.39	1.70	1.96	2.19	2.40
CP4916-20	0.018	0.026	0.037	0.045	0.052	0.058	0.064	CP4916-57	0.141	0.200	0.283	0.346	0.400	0.447	0.490	CP4916-128	0.721	1.02	1.44	1.77	2.04	2.28	2.50
CP4916-22	0.022	0.031	0.043	0.053	0.061	0.068	0.075	CP4916-59	0.153	0.217	0.306	0.375	0.433	0.484	0.530	CP4916-132	0.774	1.10	1.55	1.90	2.19	2.45	2.68
CP4916-24	0.026	0.037	0.052	0.064	0.074	0.083	0.091	CP4916-61	0.165	0.233	0.330	0.404	0.466	0.521	0.571	CP4916-136	0.840	1.19	1.68	2.06	2.38	2.66	2.91
CP4916-25	0.028	0.040	0.056	0.068	0.079	0.088	0.097	CP4916-63	0.174	0.246	0.347	0.425	0.491	0.549	0.601	CP4916-140	0.894	1.27	1.79	2.19	2.53	2.83	3.10
CP4916-26	0.030	0.043	0.061	0.074	0.086	0.096	0.105	CP4916-65	0.185	0.261	0.369	0.452	0.522	0.584	0.639	CP4916-144	0.926	1.31	1.85	2.27	2.62	2.93	3.21
CP4916-27	0.032	0.046	0.064	0.079	0.091	0.102	0.111	CP4916-67	0.196	0.278	0.392	0.481	0.555	0.621	0.680	CP4916-147	0.953	1.35	1.91	2.33	2.70	3.01	3.30
CP4916-28	0.035	0.049	0.069	0.085	0.098	0.110	0.120	CP4916-68	0.203	0.287	0.405	0.496	0.573	0.641	0.702	CP4916-151	1.04	1.47	2.08	2.55	2.94	3.29	3.60
CP4916-29	0.038	0.054	0.076	0.094	0.108	0.121	0.132	CP4916-70	0.216	0.306	0.433	0.530	0.612	0.684	0.750	CP4916-156	1.10	1.55	2.20	2.69	3.11	3.47	3.80
CP4916-30	0.040	0.057	0.081	0.099	0.114	0.127	0.140	CP4916-72	0.226	0.320	0.453	0.554	0.640	0.716	0.784	CP4916-161	1.15	1.63	2.31	2.83	3.27	3.65	4.00
CP4916-31	0.043	0.062	0.087	0.107	0.123	0.138	0.151	CP4916-73	0.233	0.330	0.467	0.572	0.660	0.738	0.808	CP4916-166	1.21	1.72	2.43	2.97	3.43	3.84	4.20
CP4916-32	0.048	0.068	0.095	0.117	0.135	0.151	0.165	CP4916-75	0.245	0.347	0.491	0.601	0.694	0.776	0.850	CP4916-170	1.30	1.84	2.61	3.19	3.69	4.12	4.51
CP4916-34	0.052	0.074	0.104	0.127	0.147	0.164	0.180	CP4916-78	0.272	0.385	0.544	0.667	0.770	0.861	0.943	CP4916-172	1.36	1.92	2.71	3.32	3.84	4.29	4.70
CP4916-35	0.056	0.079	0.111	0.136	0.157	0.176	0.192	CP4916-80	0.280	0.397	0.561	0.687	0.793	0.887	0.971	CP4916-177	1.41	2.00	2.83	3.46	4.00	4.47	4.90
CP4916-37	0.061	0.086	0.122	0.149	0.172	0.192	0.211	CP4916-81	0.290	0.411	0.581	0.711	0.821	0.918	1.01	CP4916-182	1.47	2.08	2.95	3.61	4.17	4.66	5.10
CP4916-39	0.068	0.096	0.135	0.165	0.191	0.214	0.234	CP4916-83	0.317	0.449	0.634	0.777	0.897	1.00	1.10	CP4916-187	1.56	2.21	3.12	3.82	4.41	4.93	5.40
CP4916-40	0.072	0.102	0.144	0.177	0.204	0.228	0.250	CP4916-86	0.332	0.470	0.664	0.813	0.939	1.05	1.15	CP4916-196	1.73	2.45	3.46	4.24	4.90	5.47	6.00
CP4916-41	0.075	0.106	0.149	0.183	0.211	0.236	0.258	CP4916-89	0.346	0.490	0.693	0.849	0.980	1.10	1.20	CP4916-205	1.88	2.65	3.75	4.59	5.31	5.93	6.50
CP4916-43	0.082	0.116	0.163	0.200	0.231	0.258	0.283	CP4916-91	0.369	0.523	0.739	0.905	1.05	1.17	1.28	CP4916-218	2.11	2.98	4.21	5.16	5.96	6.66	7.30
CP4916-45	0.088	0.125	0.177	0.217	0.250	0.280	0.306	CP4916-93	0.387	0.547	0.774	0.947	1.09	1.22	1.34	CP4916-234	2.45	3.47	4.91	6.01	6.94	7.76	8.50
CP4916-46	0.095	0.135	0.191	0.234	0.270	0.302	0.331	CP4916-95	0.404	0.572	0.808	0.990	1.14	1.28	1.40	CP4916-250	2.83	4.00	5.66	6.93	8.00	8.94	9.80

Always insert the orifice plate with the side marked with the number facing the outlet



SPECIAL APPLICATION UNITS



JOHN BLUE VISAGAGE II STARTER FERTILIZER KITS



C&R Supply's John Blue kits come with the New **EMC 150 Electric Motor Control**, 12v Shurflo pump, drip-less bodies, orifices, double filters, and all necessary fittings and hose to complete the system for your planter. Using the John Blue Visagage Flow Monitors allows you to add the John Blue blockage system to your system with ease. **Placement tubes and tank mounts not included.**

- With the VisaGage II Flow Monitor you will know immediately if an outlet is plugged, thus preventing possible variations in your application rates.
- So easy - See the balls in line and know your rate is uniform.
- When ball is lower you know there is a restriction at the outlet, hose or opener supplied by that Flow Monitor.
- A ball higher than the others is an indication that hoses or fittings supplied by that specific Flow Monitor is broken or has a leak.

ORDER NO	DESCRIPTION	LIST
500 JBSF06	Kit, 6 Row fert with John Blue Visagage	\$ 1810.00*
500 JBSF08	Kit, 8 Row fert with John Blue Visagage	\$ 1910.00*
500 JBSF12	Kit, 12 Row fert with John Blue Visagage	\$ 2180.00*
500 JBSF16	Kit, 16 Row fert with John Blue Visagage	\$ 2835.00*
500 JBSF24	Kit, 24 Row fert with John Blue Visagage	\$ 3275.00*

PISTON PUMP FERTILIZER KITS



Piston pump fertilizer kits come complete with drip-less bodies, orifices, double filters, and all necessary fittings and hoses to complete the system for your planter or side dress toolbar. Choose from Wilger flow monitors with either 3/8" barb fittings or 3/8" push in for manifold type. **Placement tubes, pump and tank mounts not included.**

Placement tubes are not included in kits...see page 15-16 for more information

See metering plate options on page 12

See pumps on page 50

ORDER NO	DESCRIPTION	LIST
500 WPPK12	Plumbing Kit, 12 row w/ Wilgers 3/8 barb	\$ 1390.00*
500 WPPK12-3/8PI	Plumbing Kit, 12 row w/ Wilgers Push In	\$ 1390.00*
500 WPPK16	Plumbing Kit, 16 row w/ Wilgers 3/8 barb	\$ 1970.00*
500 WPPK16-3/8PI	Plumbing Kit, 16 row w/ Wilgers Push In	\$ 1970.00*
500 WPPK24	Plumbing Kit, 24 row w/ Wilgers 3/8 barb	\$ 2430.00*
500 WPPK24-3/8PI	Plumbing Kit, 24 row w/ Wilgers Push In	\$ 2430.00*
500 WPPK36	Plumbing Kit, 36 row w/ Wilgers 3/8 barb	\$ 3370.00*
500 WPPK36-3/8PI	Plumbing Kit, 36 row w/ Wilgers Push In	\$ 3370.00*



SPECIAL APPLICATION UNITS



WILGER MODULAR FLOW INDICATOR SYSTEM

This new design allows you to customize a manifold to your exact needs. Great for monitoring liquid fertilizer runs or spray nozzles when flow can't be confirmed from the operators position. In operation a ball floats in each column. If a ball is floating lower than its neighboring columns, this indicates a plugged run. For different flow rates there are four different weight balls to choose from for your particular application.

Ordering instructions:

Order a master column kit which includes; 1" fpt inlet tee, one column, four balls, ball retainer, and your choice of either 1/4" fpt, 3/8" HB, 1/4", or 3/8" Push In outlet adapter.

Order additional individual column kits to complete a manifold for your application. Individual column kits include column, four balls, ball retainer, 1/4" FPT, HB or Push In outlet adapter and U-clips.



ORDER NO.	DESCRIPTION	LIST
500 FIMK	Master column kit	\$ 36.92*
500 FIMK-HB	Master column kit 3/8 HB 90	\$ 36.92*
500 FIMK-1/4PI	Master column kit 1/4 Push In	\$ 39.45*
500 FIMK-3/8PI	Master column kit 3/8 Push In	\$ 39.41*
500 2046000	Individual column kit	\$ 23.01*
500 2046000-HB	Individual column kit 3/8 HB 90	\$ 24.11*
500 2046000-1/4PI	Individual column kit 1/4 Push In	\$ 26.38*
500 2046000-3/8PI	Individual column kit 3/8 Push In	\$ 26.38*
500 2046001	Replacement column	\$ 19.44
500 2048000W	Squeeze pump column kit	\$ 20.00*
500 2046003	O-ring	\$.39
500 20511	Outlet cap 3/8" HB el	\$ 3.98
500 20516	Outlet cap 1/4 Push In 90	\$ 7.07
500 20517	Outlet cap 3/8 Push In 90	\$ 7.84
500 20518	Outlet cap 1/4" FPT el	\$ 3.98
500 20519	Outlet cap 1/4 FPT	\$ 3.98
500 20521	Blank cap	\$ 4.68
500 20525	Flow indicator tee 1" FPT	\$ 10.64
500 WCM	Wilger column mount	\$ 65.00*



JOHN BLUE VISAGAGE II FLOW MONITOR SYSTEM

Monitoring flow rates of your liquid fertilizers and herbicides is easy with the cost-effective, simple to install VisaGage II. At a glance you can clearly monitor your liquid flow rate. The VisaGage II is manufactured with chemical resistant polypropylene adapters and a clear PVC body which has an additive for UV protection.



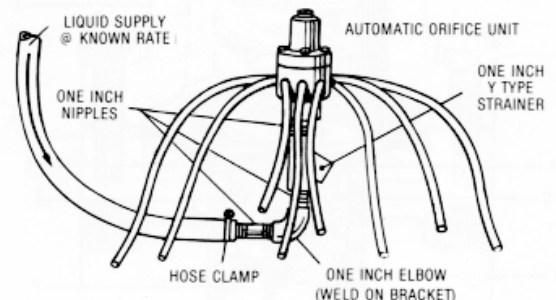
ORDER NO.	DESCRIPTION	LIST
413 SMFD4	4 Column for squeeze pump/manifolds 3/8" inlet/outlet	\$ 105.12*
413 SMSS4	4 Column kit for spraying 1/2" inlet X 3/8" outlet	\$ 98.76*
413 SMPT0004	1/2" fpt inlet adapter	\$ 1.81*
413 SMPT0006	Retainer clip	\$ 1.51*
413 SMPT0008	End cap	\$ 1.23*
413 SMPT0009	Ball storage box	\$ 10.84*
413 SMPT0014	Manifold tee w/o-rings 1" fpt	\$ 9.70*
413 SMPT0034	O-ring to retain orifice	\$ 1.20*
500 JBCM	Mount, John Blue Column	\$ 120.00*

JOHN BLUE FLOW DIVIDERS

These automatic flow dividers are 316 S.S with a teflon piston to evenly distribute liquid from rates as low as 5 gpa to as high as 80 gpa. A good choice for variable rate application.

ORDER NO	INLET	OUTLET	GPM PER OUTLET	LIST
413 FD1210ADJ	3/4"	12 X 1/4"	2.25	\$ 868.00*
413 FD0610ADJ	3/4"	6 X 1/4"	2.25	\$ 624.00*
413 FD2010ADJ	1"	20 X 1/4"	2.25	\$ 1600.00*

ORDER NO	DESCRIPTION	LIST
413 115406	Needle & seal kit FD1210	\$ 164.01*
413 115407	Seal kit FD1210	\$ 56.04*
413 115433	Needle & seal kit FD2010	\$ 360.61*
413 115434	Seal kit FD2010	\$ 80.25*
413 113989	Mount, FD Manifold	\$ 115.20*





STAINLESS STEEL LIQUID PLACEMENT TUBES

“Starter fertilizer has never been placed so well.”



ORDER NO.	DESCRIPTION	NET
500 TT001	JD 7000/7100/Kinze 2000 series	\$ 58.00**
500 TT001-OS	TT001 w/oversized roll pins	\$ 58.00**
500 TT002	JD 1700/7200/7300 non XP	\$ 58.00**
500 TT002-OS	TT002 w/oversized roll pins	\$ 58.00**

ORDER NO.	DESCRIPTION	NET
500 TT006	JD “XP” series	\$ 58.00**



ORDER NO.	DESCRIPTION	NET
500 TT007	JD MaxEmerge 5 series	\$ 58.00**

ORDER NO.	DESCRIPTION	NET
500 TT008	Seed bounce flap	\$ 12.00**



ORDER NO.	DESCRIPTION	NET
500 TT009	JD Exact Emerge	\$ 58.00**

ORDER NO.	DESCRIPTION	NET
500 TT300	Double shot assembly	\$ 53.00**



ORDER NO.	DESCRIPTION	NET
500 TT100	CIH 1200, 900, 800 (2011 & older)	\$ 30.00**

ORDER NO.	DESCRIPTION	NET
500 TT10012	CIH 1200 (2012 & newer)	\$ 33.00**



ORDER NO.	DESCRIPTION	NET
500 TT125	CIH 1200 below seed Fert Tube	\$ 27.00**

ORDER NO.	DESCRIPTION	NET
500 TT300/CASE	Double shot assembly	\$ 58.00**



ORDER NO.	DESCRIPTION	NET
500 TT321	Case 2150 packing wheel,tube/brkt	\$ 38.00**

ORDER NO.	DESCRIPTION	NET
500 TT001 & OS	JD 7000/7100/Kinze 2000 series	\$ 58.00**
500 TT002 & OS	JD 1700/7200/7300 non XP	\$ 58.00**
500 TT006	JD “XP” series (2004)	\$ 58.00**
500 TT007	JD MaxEmerge 5 series (New)	\$ 58.00**
500 TT008	Seed bounce flap	\$ 12.00**
500 TT009	JD Exact Emerge (New)	\$ 58.00**
500 TT100	CIH 1200, 900, 800 (2011 & older)	\$ 30.00**
500 TT10012	CIH 1200 (2012 & newer)	\$ 33.00**
500 TT125	CIH 1200 below seed Fert Tube	\$ 27.00**



STAINLESS STEEL LIQUID PLACEMENT TUBES

"Starter fertilizer has never been placed so well."



ORDER NO.	DESCRIPTION	NET
500 TT260	White 6000 series	\$ 70.00**

ORDER NO.	DESCRIPTION	NET
500 TT001	Kinze 2000 series	\$ 58.00**



ORDER NO.	DESCRIPTION	NET
500 TT200	White 8000 series	\$ 70.00**



ORDER NO.	DESCRIPTION	NET
500 TT301	Kinze 3000 series	\$ 48.00**



ORDER NO.	DESCRIPTION	NET
500 TT290	White 9000 series	\$ 70.00**



ORDER NO.	DESCRIPTION	NET
500 TT401	Kinze 4000 series	\$ 58.00**



ORDER NO.	DESCRIPTION	NET
500 TT390	White 9000 series closing wheel tube	\$ 58.00**



ORDER NO.	DESCRIPTION	NET
500 TT296	Agco/Fendt/Massey	\$ 70.00**

ORDER NO.	DESCRIPTION	NET
500 TT200	White 8000 series	\$ 70.00**
500 TT260	White 6000 series	\$ 70.00**
500 TT290	White 9000 series	\$ 70.00**
500 TT296	Agco/Fendt/Massey	\$ 70.00**
500 TT390	White 9000 series closing wheel tube	\$ 58.00**
500 TT301	Kinze 3000 series	\$ 48.00**
500 TT401	Kinze 4000 series	\$ 58.00**
500 TT300	Double shot assembly	\$ 53.00**
500 TT300/CASE	Tube/bracket CIH packing wheel	\$ 58.00**
500 TT314F	FurrowForce Dual Tube Bracket	\$ 75.00**
500 TT321	Case 2150 packing wheel,tube/brkt	\$ 38.00**
500 TT400	Great Plains planter	\$ 67.00**



ORDER NO.	DESCRIPTION	NET
500 TT314F	FurrowForce Dual Tube Bracket	\$ 75.00**



BLOCKAGE SYSTEMS

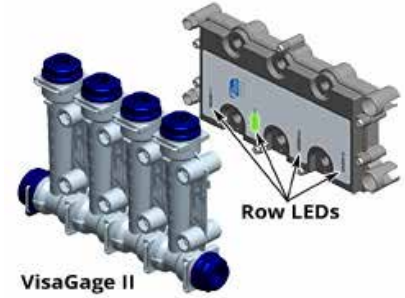


Standard (Wired) Premium (Wireless)



John Blue Liquid Blockage Monitor

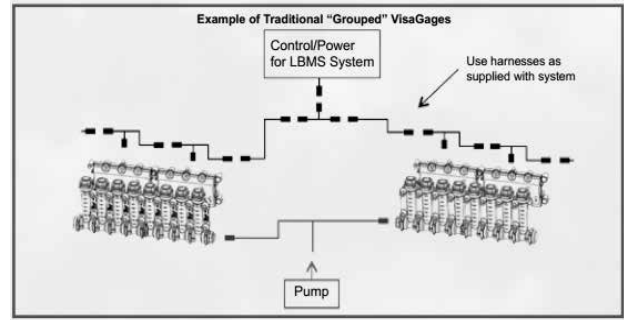
Sensor Assembly



- 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.
- Have the ability to "Pause" the system to capture problem rows for investigation later when you are able to stop.
- LBMS i-Pad App is free and available in the Apple App Store.
- From 8 Row to 48 Row

ORDER NO	DESCRIPTION	LIST
413 BM-08PL	Monitor, STD applicator Blockage	\$ 1835.59*
413 BMI-08	Monitor, Premium blockage "Ipad"	\$ 1791.68*
413 BMPT-001	Kit, Sensor Expansion	\$ 599.32*
413 BMPT-013	Harness, 15 ft	\$ 145.47*
413 BMPT-012	Harness, 28 ft	\$ 125.78*

VisaGage's sold in kits of 4 on Page 14



WILGER Flow Monitoring System



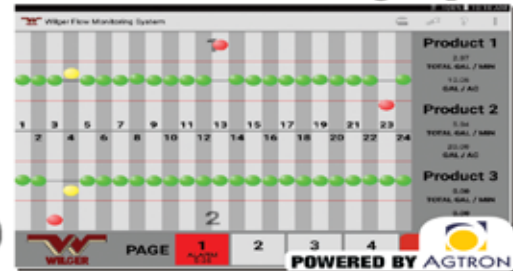
See Any Application Accurately

POWERED BY AGTRON

The new Electronic Flow Monitoring System is a modular system that monitors the liquid flow of application equipment (e.g. Planter/Seeder/Sprayer), and displays the flow on a screen inside the cab. It will visually show the flow rate variation, so any plugs or under/over applications can be swiftly rectified while in the field. This enables applications to be as accurate as possible, applying liquid fertilizer (or other chemicals) as effectively as possible.

The following information is specific to the system using Agtron precision blockage & flow monitoring equipment.

Wilger Electronic Flow Monitoring System + Wireless Flow Indicator App = Ultimate Flow Monitoring Setup



Simple & Reliable
Perfect for dark liquid or low vis. applications
Built-In WIFI communication

Simple & Powerful App
Responsive & adjustable warnings
Intuitive interface & design
Can run/alarm in background

Easy to Install & Retrofit
Retro-fits onto any existing flow indicators
Wireless app means no in-cab hookup

Monitors up to 3 Products/Rates
Allows monitoring of three different products or rates
Customizable layout to space out each section

Unlimited Configurations
Useable on any liquid application equipment (e.g. sprayers, seeders, planters)
Compatible with all ORS Components



SPECIAL APPLICATION UNITS



syngenta **FORCE[®] Evo** INJECTION



Raven and Syngenta have partnered to develop the new Force closed application system. The application system is an innovative new option for growers looking for improved corn **root-worm** control with an in-furrow application for Force Evo soil applied **insecticide**.



The application system is readily adaptable and can be installed on most planter makes and models.

ORDER NO.	CAN Injection System DESCRIPTION	LIST CALL*
084 117-0171-836	KIT, CAN INJECTION FORCE BOX	\$ 3236.41*
084 117-0171-565	KIT, SCS4400 CONSOLE w/007 cable	\$ 708.13*
084 115928	Cable, 12" CAN PWR/TEE	\$ 1232.14*
084 115951	Cable, 6' CAN PWR/TEE	\$ 1055.11*
084 115916	Cable, 12' CAN PWR/TEE	\$ 1182.57*
084 115917	Cable, 24' CAN PWR/TEE	\$ 1359.60*
084 115934	Cable, 36' CAN PWR/TEE	\$ 659.97*
084 063-0172-967	Switch, Whisker	\$ 78.86*
084 115-0172-040	Cable, 15' Adapter, for whisker	\$ 297.41*
084 115501	Cable, 20' WAS Extention	

ORDER NO.	ISO Injection System DESCRIPTION	LIST CALL*
084 117-0171-837	Kit, ISO Injection Force Box	\$ 385.22*
084 115-7100-001	Cable, 6FT ISO Ext	\$ 430.54*
084 115-7100-002	Cable, 12FT ISO Ext	\$ 567.92*
084 115-7100-004	Cable, 24FT ISO Ext	\$ 1359.60*
084 115958	Cable, ISO Tee	

ORDER NO.	ICD Injection System DESCRIPTION	LIST CALL*
084 117-0171-838	Kit, ICD Injection Force Box	\$ 385.22*
084 115-7100-001	Cable, 6FT ISO Ext	\$ 430.54*
084 115-7100-002	Cable, 12FT ISO Ext	\$ 567.92*
084 115-7100-004	Cable, 24FT ISO Ext	\$ 1359.60*
084 115958	Cable, ISO Tee	

syngenta **FORCE[®] Evo** **DOSATRON[®]**

NOW AVAILABLE

An economical solution to inject Force Evo for speed and pressure based systems. This system operates off the volume flow of your stater fertilizer so no need for a rate controller.

ORDER NO	DESCRIPTION	LIST
500 DOSINJ-D14--5% PLUMBING	Plumbing kit with D14 5% pump	\$ 1500.00*
500 FORCEBOX	New style product cabinet	\$ 950.00**
500 FB-001	Dosatron camlock kit	\$ 47.50
500 FB-002	Dosatron flow indicator kit	\$ 47.50





SPECIAL APPLICATION UNITS



The direct injection kit is designed to be a simple cost effective way to apply Fungicide or Insecticide in-furrow. Can be easily mounted onto your planter and includes a 15-gallon tank.

This unit operates off the volume flow of your starter fertilizer or carrier as a simple accurate, dependable way to apply in furrow.



ORDER NO.	DESCRIPTION	LIST
500 DOSINJ115	Kit, 14gpm Chemical Inj w/ 15 Gallon Tank	\$ 1290.00*
500 DOSINJ215	Kit, 14 gpm Chem Inj w/ Agitation & 15 Gallon Tank	\$ 1490.00*
500 DOSINJ115--5%	Kit, 14gpm 5% Chemical Inj w/ 15 Gallon Tank	\$ 1940.00*
500 DOSINJ115--10%	Kit, 14gpm 10% Chemical Inj w/ 15 Gallon Tank	\$ 2085.00*
500 DOSINJ215--5%	Kit, 14 gpm 5% Chem Inj w/ Agitation & 15 Gallon Tank	\$ 2140.00*
500 DOSINJ215--10%	Kit, 14gpm 10% Chem. Inj w/ Agitation & 15 Gallon Tank	\$ 2285.00*
500 DOSINJ-UPGRADE	Kit, Upgrade from standard to deluxe for Agitation	\$ 232.00*
664 D14	Pump Only, Dosatron 14gpm Injector .2%-2%	\$ 665.00*
664 D14MZ5	Pump Only, Dosatron 14gpm Injector .5%-5%	\$ 1265.00*
664 D14MZ10	Pump Only, Dosatron 14gpm Injector 1%-10%	\$ 1395.00*
500 DOS-STAND-15	Stand, Dosatron Pump & 15 Gallon Tank	\$ 225.00*
664 PDI115	Injection Check Valve 2%	\$ 68.15*
664 PDI117VF	Injection Check Valve 5%	\$ 85.50*
664 PPDI033	Body, Bottom Assembly	\$ 180.00*
664 PDI703	Bracket, Dosatron Pump Mount	\$ 22.50*
664 PDII703-STEEL	Bracket, Dosatron Pump Mount (steel)	\$ 30.00*
500 DOS-MOUNT-1770/75	Mount, Dosatron JD 1770/75	\$ 150.00*
045 1700065	Filter gasket for tank filter on 2% & 5% units	\$ 2.93
045 1700045	Filter gasket for mixing filter	\$ 6.17



See Page 162 for Dosatron Pump Replacement Parts



SPECIAL APPLICATION UNITS



PIVOT BIO

PROVEN[®] 40

Pivot Bio PROVEN[®] 40 microbes form a symbiotic relationship with the corn plant. These microbes take nitrogen from the air and create the ammonia that plants need to grow and thrive, supplying it to the plant throughout the most critical growth stages. Pivot Bio PROVEN[®] 40 adheres directly to the root of the corn plant and does not run off during weather events, providing farmers with a more reliable and consistent method for delivering plant nutrition.

ORDER NO.	DESCRIPTION	LIST
500 DOSINJ115--5%	Kit, 14gpm 5% Chemical Inj w/ 15 Gallon Tank	\$ 1940.00*
500 DOSINJ215--5%	Kit, 14 gpm 5% Chem Inj w/ Agitation & 15 Gallon Tank	\$ 2140.00*



AMVAC[™]

An American Vanguard Company



INDEX[®] Liquid At-Plant Insecticide, with two modes of action, delivers broad-spectrum, in-furrow control of corn rootworm, seed, and seedling-attacking pests to maximize yield and protect seeds and roots. INDEX performs as well as granular insecticide standards and outperforms bifenthrin-only-based products on corn rootworms. It is the ideal choice for narrow-row corn – or any row spacing a grower chooses. INDEX is applied using a Dosatron[®] system and has no herbicide application restrictions.

ORDER NO.	DESCRIPTION	LIST
500 AMVAC - 12V T.P.S	Kit, 12 Volt Transfer Pump System	\$ 900.00*
500 AMVAC - DOSINJ119--5%	Kit, 19Gal.Chem.Inj..5%-5% W/Dry Break	\$ 2125.00*

FERTILIZER Y DROPS

YOUR CHOICE...



WHEN QUALITY IS IMPORTANT



ECONOMICAL!

POST EMERGENCE APPLICATION MADE EASY

C&R "Y" DROP TUBE SYSTEM

When it's time to make in-season fertilizer, herbicide, insecticide or fungicide applications, you need to get the job done when the time and conditions are right. The **C&R "Y" DROP TUBE SYSTEM** is an economical, light weight and simple solution for post emergence application that can be easily mounted to your sprayer boom or toolbar.

SEE VIDEO AT CRSUPPLY.COM

KEY FEATURES:

- ▶ LIGHTWEIGHT
- ▶ ECONOMICAL
- ▶ FLEXIBLE
- ▶ STANDARD 3' 4' & 5' LENGTHS
- ▶ CUSTOM LENGTHS AVAILABLE
- ▶ SMOOTH IN-FIELD PERFORMANCE

TO LEARN MORE ABOUT LOW-COST C&R DROP TUBE SOLUTIONS, VISIT CRSUPPLY.COM OR GIVE US A CALL AT 800-322-2637

SIoux FALLS, SD



ORDER NO	DESCRIPTION	LIST
010 J20C	Kit, 36" HD Drop Tube & Primary Hose	\$ 150.00*
010 J20D	Kit, 48" HD Drop Tube & Primary Hose	\$ 150.00*
010 J20E	Kit, 60" HD Drop Tube & Primary Hose	\$ 150.00*
010 J15-PRIMARY HOSE	Upper Hose, Assy for Drop Tube	\$ 55.00*
010 J20C-TUBE ONLY	Replacement HD Drop Tube only, 36" -3/8"npt	\$ 112.50*
010 J20D-TUBE ONLY	Replacement HD Drop Tube only, 48" -3/8"npt	\$ 112.50*
010 J20E-TUBE ONLY	Replacement HD Drop Tube only, 60" -3/8" npt	\$ 112.50*
010 Y-2UBE KIT	Kit, Universal S.S "Y" 2ube; w/ Drag Hose	\$ 87.50*
010 Y-2UBE ONLY	Y-2ube only, Stainless Steel	\$ 72.50*
010 DRAG HOSE FOR Y-2UBE	Single 3' long drag hose	\$ 8.00*
010 DAP-PUCK ONLY-02	Dual Ap. Puck; 2 Outlet, Puck only	\$ 67.75*
010 DAP-02-B	Dual Ap. Puck; 2 Outet, Brass Fittings	\$ 78.00*
010 DAP-02-SS	Dual Ap. Puck; 2 Outlet, Stainless Steel Fittings	\$ 110.00*



Variable Rate Tips
See Pages 74-75



010 DTB

ORDER NO	DESCRIPTION	LIST
010 DTB	Kit, Drop Tube Bracket. 3 piece S.S Includes the 3 items below	\$ 150.00*
010 148-0005	Base Mount; Sprayer Boom	\$ 70.00*
010 148-0006	Top Mount; Sprayer Boom for Drop Tube	\$ 65.00*
010 148-0013	Swing Bracket w/o Ears for Drop Tube	\$ 27.50*
010 148-0013WC	Swing Bracket w/ Female Coupler 3/8"	\$ 37.50*
010 148-0010	Off-Set Bracket for 010 DTB (Optional for above item)	\$ 34.00*
010 148-0012	65" Channel Bracket	\$ 160.00*
010 148-0015	95" Channel Bracket	\$ 208.00*
010 148-0016	Boom Mount Drop Hanger	\$ 34.00*
010 148-0014	Channel Splice	\$ 55.00*

Channel Bracket



Hagie and Miller machine specific brackets available

Drop Tubes for tool bars

Custom lengths available

CALL FOR PRICING





FOAM MARKING SYSTEM



C&R Foam Markers are fully assembled, ready to use compact 12 volt systems designed for dependable, low cost operation. The standard foamer comes complete to equip up to a 60' boom. The twin line foamer combines air and foam solution at the end of the boom and is recommended for booms 60' and longer. All foamers include a switch box with 10' battery leads and 20' cable to the foamer module. These foamers feature molded mounting lugs in the bottom and strapping areas to allow easy installation on any sprayer. We recommend C&R 100:1 foam marking concentrate be used with this marking system. Where conditions require other than white foam, add C&R concentrate to produce bright blue, florescent, or pink foam. All foamers can be shipped UPS.

ORDER NO.	DESCRIPTION	LIST
500 FM006	6 Gallon turf system	\$ 970.00*
500 FM014C	14 Gallon system	\$ 1135.00*
500 FM014S	14 Gallon twin line system	\$ 1255.00*
500 FM025S	25 Gallon twin line system	\$ 1300.00*
500 FMCC	Foam marker cover	\$ 66.90*
500 FC1	Foam concentrate, gallon	\$ 67.75*
500 FDB	Foam dye blue, pt	\$ 14.00*
500 FDF	Foam dye florescent, pint	\$ 14.00*
500 FDR	Foam dye red, pint	\$ 14.00*
A PINT OF DYE TREATS 50 GAL		4.5 oz-14GAL 8oz-25GAL



- 32 oz foam/25 gal
- 18 oz foam/14 gal
- Patented Low-Amp Pump
- More Foam per Amp
- Superior Compressor Life

Your Choice...When Quality is Important Look-A-Likes only Look-A-Like

TWIN LINE REPLACEMENT PARTS STANDARD



ORDER NO.	QTY	DESCRIPTION	LIST
1.	500 FMAPG	1 Air Pump	\$ 290.00
2.	175 BRTE2026	1 Brass Ell	\$ 3.17
3.	003 SB038	1 3/8" Hose	\$ 1.10
4.	500 FMHCF	6 Clamp "F"	\$.66
5.	017 V025BS	1 1/4" Valve	\$ 13.51
6.	500 FMHCBB	12 Clamp "BB"	\$.53
7.	500 FMFG	2 Foam Generator	\$ 35.75
7a.	500 FMYAS	1 Foamer Assembly	\$ 11.25
8.	003 VS038	1 3/8" Sight Tube	\$.95
9.	500 FMLP3	1 Liquid Pump	\$ 182.04
10.	150 NTT038	1 3/8" Nozzle Tee	\$ 1.60
11.	097 N11750P	1 Poly Check	\$ 7.02
12.	020 MP37	1 #37 Metering plate	\$ 3.94
13.	150 K038	1 3/8" Shank	\$.45
14.	150 8027	1 Nozzle Cap	\$.50
15.	150 E025038	3 1/4" x 3/8" HB Elbow	\$.91
16.	250 22043	2 3-way Solenoid	\$ 136.17
17.	150 E025025	4 1/4" x 1/4" HB Elbow	\$.88
18.	Foam Sample	1 Mad Dog Plus (1 pint)	
19.	150 Z010	12 8" Nylon Strap	\$.29
20.	003 VF075	4 3/4" EVA Hose	\$ 1.81
21.	003 HC075	4 3/4" Hose Clamp	\$ 1.82
22.	003 HC100	2 1" Hose Clamp	\$ 1.87
23.	500 FMSA	1 Suction Assembly	\$ 20.00
24.	150 E3434F	2 3/4" FPT x 3/4" HB	\$ 2.48
25.	150 A075100	2 3/4" MPT x 1" HB	\$ 1.44
26.	500 FMFCL	2 Foam Collector	\$ 32.20
27.	500 FMCC	1 Enclosure	\$ 66.90
28.	111 L05A	1 Tank Lid	\$ 14.76
29.	022 14P0014/25	14 or 25 Gal Tank	\$ 125.00 / \$ 167.00
30.	500 FMPC	1 Primary Cable	\$ 145.00
31.	500 FMSC	1 Secondary Cable	\$ 29.00
32.	500 FMJC	2 Valve Jumper wire	\$ 5.00
33.	003 TL025	100 Twin Line Hose	\$ 2.14
34.	150 E038038	2 Poly, Elbow 3/8" x 3/8"	\$.99

(Not Pictured)

ORDER NO.	QTY	DESCRIPTION	LIST
1.	500 FMAPG	1 Air Pump	\$ 290.00
2.	175 BRTE2026	1 Brass Ell	\$ 3.17
3.	500 FMHCF	7 Clamp "F"	\$.66
4.	500 FMCV	1 Check Valve	\$ 15.95
5.	500 FMYA	1 Y-hose Assembly	\$ 27.50
6.	150 E075038	1 3/4" MPT x 3/8" HB	\$ 1.24
7.	017 V025BS	1 1/4" FPT Valve	\$ 13.51
8.	150 E025038	1 1/4" x 3/8" HB Ell	\$.91
9.	003 VS038	1 3/8" vinyl tubing	\$.95
10.	150 E038038	2 3/8" x 3/8" HB	\$.99
11.	500 FMLP3	1 Liquid Pump	\$ 182.04
12.	150 NTT038	1 3/8" nozzle tee	\$ 1.60
13.	020 MP30	1 #30 metering plate	\$ 3.94
14.	150 K038	1 3/8" Hose Shank	\$.45
15.	150 8027	1 Nozzle Cap	\$.50
16.	500 FMSA	1 Suction Assembly	\$ 20.00
17.	150 BE050	2 1/2" Barb Elbow	\$.87
18.	Foam Sample	1 Mad Dog Plus (1 pint)	
19.	500 FMCC	1 Enclosure	\$ 66.90
20.	500 FMHCH	8 Clamp "H"	\$.75
21.	111 L05A	1 Lid	\$ 14.76
22.	022 14P0014/25	1 Tank	\$ 125.00 / \$ 167.00
23.	500 FMPC	1 Primary Cable	\$ 145.00
24.	500 FMSC	1 Secondary Cable	\$ 29.00
25.	150 Z010	12 8" Nylon Strap	\$.29
26.	150 N075	1 3/4" Nipple	\$.76
27.	097 E1443F	1 3-way solenoid	\$ 217.34
28.	150 P075	1 3/4" Plug	\$.63
29.	150 E050050	2 1/2" MPT x Barb Ell	\$.98
30.	500 FMFG	1 Foam Generator	\$ 35.75
31.	500 FMFC	2 Foam Collector	\$ 16.00
32.	003 VF050	100 1/2" eva (not shown)	\$ 1.29



LAWN CARE, TURF & CUSTOM SPRAYERS DE-ICING UNITS



TURF APPLICATION SPRAYERS

Sprayers can be custom built for various self propelled vehicles for golf courses, parks and recreation, state and local government, wildlife lands, and others. Call for specifications and pricing.



CUSTOM LAWN CARE SPRAYER

Custom Sprayers that will meet and exceed your expectations! You dream it, we will build it!



DE-ICING UNITS

Liquid de-icer is becoming a more popular way of taking care of ice and snow on sidewalks, driveways, parking lots, and highways. Let C&R Supply build a unit for your State or Local Government, Institution, Business, or Property Management.





ROADSIDE



For any type of roadside or turf application call and speak to our sales staff. We will custom build a sprayer to your specifications using sprayer controls with chemical injection and boomless spray systems. You will be amazed at the affordability of a C & R Supply custom built sprayer.

ROADSIDE & CUSTOM SPRAY TRUCKS



SPRAY ACTUATOR

500 RSA

\$ 895.00**NET

This roadside actuator is universal and can accommodate up to 4 nozzles. It helps the operator adjust to the slope of the right-of-way. Mounts on bumper or bed. Wiring harness included. Actuator has a 250# rating.

NUTATING SPRAYHEAD



8 section nutating spray head with up to 28 feet of coverage. Utilizes electronic actuators for swing and tilt.



Call C&R for more information and pricing.



Truss T Booms

(ALL BOOMS ARE LESS NOZZLES-ORDER NOZZLES FROM PAGES 61-76)

ORDER NO.	DESCRIPTION	LIST
500 SSB	40" spot sprayer boom, 80" coverage	\$ 81.00*
030 DB12B	Boom, 12 ft. bare	\$ 315.00*
030 DB12	Boom, 12 ft. (4 tips) 3/8 standard nozzle holders	\$ 379.00*
030 DB12DF	Boom, 12 ft. (7 tips)	\$ 450.00*
030 DB18B	Boom, 18 ft. bare	\$ 450.00*
030 DB18	Boom, 18 ft. (6 tips) 3/8 standard nozzle holders	\$ 544.00*
030 DB18DF	Boom, 18 ft. (11 tips)	\$ 658.00*
030 DB21TB	Boom, 21 ft. bare	\$ 1037.50*
030 DB21T	21 ft. truss T-boom (13 tips) 1/2 standard nozzle holders	\$ 1270.00*
030 DB21TDF	Same as above with drip free nozzle holders	\$ 1325.00*
030 DB30TB	Boom, 30 ft. bare	\$ 1221.25*
030 DB30T	30 ft. truss boom (19 tips) 1/2 standard nozzle holders	\$ 1538.00*
030 DB30TDF	Same as above with drip free nozzle holders	\$ 1618.00*
030 DB45B	Boom, 45 ft. bare	\$ 3511.25*
030 DB45DF	45 ft. truss boom (27 tips) drip free nozzle holders	\$ 4220.00*



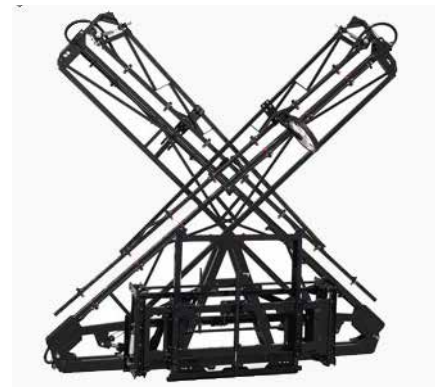
12 ft & 18 ft booms

BOOM OPTIONS FOR DB SERIES BOOMS

030 DTB3	Mounting brackets to attach to tractor 3-point	\$ 1142.50*
030 DB5	Mounting brackets to attach to RMS/RMSE 3-pt tank brackets	\$ 541.25*
030 DB9	Universal mounting bracket to attach to any trailer frame	\$ 646.25*
030 DBTP	Wheel assisted tip protector	\$ 377.50*
030 DBHY	Hydraulic boom wing leveling	\$ 1095.00*
030 DBFT	Floation boom mount	\$ 1512.50*
030 DMBHAH	Hydraulic whole boom height adjuster	\$ 2060.00*
030 DBSAL	Self leveling boom option	\$ 1055.00*

X-FOLD BOOM OPTIONS

030 DBX60DF	Boom, 60 ft. 3-point	\$ 16318.75*
030 DBXR60DF	Boom, 60 ft. rear mount	\$ 15931.25*
030 DBXH60DF	Boom, 60 ft. trailer/hydraulic height	\$ 20196.25*
030 DBXSS	Boom storage stand X-fold	\$ 798.75*
030 DBXTP	Wheel assisted tip protector	\$ 377.50*



X-FOLD BOOM

500 EZ003	Boom mount "L" 1" tubes set	\$ 55.00*
500 GSI100	Boom mount "L" 1" pipe set	\$ 150.00*

NOTE: X-FOLD ALSO AVAILABLE IN 45' LENGTH



DB BOOM



SPRAYERS AND ACCESSORIES



ESTATE SPRAYER

This pull type sprayer features a 12 Volt diaphragm pump and by-pass pressure control. 80" boom coverage is provided by two Flood-Jet nozzles. 15" lance style hand wand with adjustable nozzle is standard. It has 13.0 x 5.00 tires.

ORDER NO.	DESCRIPTION	LIST
500 ES030	30 Gallon Estate Sprayer	\$ 620.00*



60 GALLON ESTATE SPRAYER

To complete your sprayer select options from below.

1. Base Sprayer Package

ORDER NO.	DESCRIPTION	LIST
500 ES060	60 Gallon base Sprayer	\$1920.00*

2. Select Boom or Boomless Nozzles

ORDER NO.	DESCRIPTION	LIST
500 SIBB	30' Boomless Nozzle Option	\$295.00*
030 DB12	12' Boom with 4 tips (40" spacing)	\$379.00*
030 DB12DF	12' Boom with 7 tips (20" spacing)	\$450.00*
030 DB18	18' Boom with 6 tips (40" spacing)	\$544.00*
030 DB18DF	18' Boom with 11 tips (20" spacing)	\$658.00*
500 EZ003	L Arms	\$55.00*

If ordering Boom also need

3. Select Optional Equipment

ORDER NO.	DESCRIPTION	LIST
500 HRC450	50' Retractable Hose Reel	\$125.00**
500 HRC430	30' Retractable Hose Reel	\$85.00**
500 SI005	Mounting Bracket for HRC430	\$75.00*
500 SI-JoyStick	JoyStick, 1-Pump, 2 on/off	\$235.00*
500 SI-JoyStick Upgrade	JoyStick Upgrade	\$120.00**NET

***The new SI-Joystick is equipped with 2 on/off boom switches that can operate either a solenoid valve or a 3 wire ball valve. The green push button can operate any 12 volt pump up to 25 amps.

This pull type acreage sprayer comes with a 60 gallon tank, 12v pump along with either boomless or boomed option followed by your choice of retractable hose reel.



UTILITY SPRAYERS

110/150 Gallon

C&R Supply Utility Sprayers are custom built to your specifications. We start with a heavy duty powder coated frame and saddles for either a 110 or 150 gallon tank. We add only what you need to create a sprayer that can improve the quality and efficiency of your operation for years.

The axle is adjustable from front to rear to ensure proper tongue weight. Tire spacing is adjustable to fit any row spacing. All units come standard with 1250 lb spindles with bearing type hubs and 4 ply tires.



ORDER NO.	DESCRIPTION	LIST
500 BHK	Ball hitch kit	\$ 70.00*
500 GSI100	Boom mount "L" set 1" pipe	\$ 150.00*
500 SIBB	Boomless Nozzle Option	\$ 295.00*

To complete your sprayer select the appropriate items from the list of options below.

1. Select Trailer Package

ORDER NO.	DESCRIPTION	LIST
500 SS110	110 Gallon Trailer, Skid, Tank Only	\$ 3415.00*
500 SS150	150 Gallon Trailer, Skid, Tank Only	\$ 3515.00*

2. Select Pump

ORDER NO.	DESCRIPTION	LIST
045 1537	5.5 HP Honda /HyproCentrifugal Pump	\$ 1510.00*
002 GE85H	4 HP Honda/Ace Centrifugal pump	\$ 920.00*
064 SHURFLO11	12v 5.3gpm Shurflo bypass pump	\$ 333.75*

3. Select Boom or Boomless Nozzles

See page 25

4. Select Plumbing

See page 60

5. Select Valves

See page 97-98, 133

6. Select Handgun

See page 101-102



SPRAYERS



3-POINT MOUNTED BRACKETS

3-Point Rear Mount sprayers are ideal for small to full size spraying operations needing volume capacities in the range of 40 to 500 gallons. These Rear Mount sprayers are ready to accept poly tanks and feature easy hookup to your tractors 3-point hitch. (Categories 0,1,2,3 and "Quick Attach" units are available). They can be carried high enough to clear implements being pulled.

ORDER NO.	DESCRIPTION	LIST
030 RM150P	150 gallon (32" diameter) Category "1" "2" rear mount bracket	\$ 2085.00* (uses Truss T boom only)
030 RMS200P	200 gallon (32" diameter) Category "2" rear mount bracket	\$ 2250.00* (uses Truss T boom only)
030 RMSE300P	300 gallon (elliptical) Category "2" rear mount bracket	\$ 3981.25*
030 RMLE400P	400 gallon (elliptical) Category "2" "3" rear mount bracket	\$ 4116.25*
030 RMLE500P	500 gallon (elliptical) Category "2" "3" rear mount bracket	\$ 4237.50*
030 9464007	Boom-jet nozzle bracket	\$ 152.50*

TANKS FOR THE ABOVE UNITS

ORDER NO.	DESCRIPTION	LIST
083 32P0150	150 gallon, 32" diameter tank	CALL
083 32P0200	200 gallon, 32" diameter tank	CALL
083 30PE300	300 gallon elliptical tank	CALL*
083 36PE400	400 gallon elliptical tank	CALL*
111 HE0500-57(Y or W)	500 gallon elliptical tank	CALL*



Call C&R Supply to have a 3 point sprayer custom built to meet your specifications. 1-800-322-2637



JoyStick for Sprayer

The new SI-Joystick is equipped with 2 on/off boom switches that can operate either a solenoid valve or a 3 wire ball valve. The green push button can operate any 12volt pump up to 25 amps

ORDER NO.	DESCRIPTION	LIST
500 SI-JOYSTICK	JOYSTICK, 1-PUMP, 2-ON/OFF	\$235.00*



SLIDE IN SKIDS



Economical unit comes with a powder coated frame and a 60 gallon tank with drain. Left and right electric controls with wiring harness is standard. Shurflo 4 gpm bypass pump. Available with boomless option that sprays up to 30' or up to an 18' boom from page 25. Also comes with an 8 inch hand gun with adjustable tip for hand spraying. 24"W x 36"L x 26"H

ORDER NO.	DESCRIPTION	LIST
500 SI40BB	Slide in 40 gal tank	\$ 1290.00*
500 SI60BB	Slide in 60 gal tank	\$ 1290.00*
500 SI60-Boom	Slide in 60 gal tank w/ boom frame	\$ 1205.00*
111 SB00060	Tank only 60 gal	\$ 179.00*
111 SB00040	Tank only 40 gal	\$ 155.00*
500 SI005	Bracket, retractable hose reel	\$ 75.00*
500 HRC430	Reel, retractable 3/8" x 30'	\$ 85.00**
500 SI60F	Slide in frame only	\$ 180.00*
500 SI60F-B	Slide in frame only for boom	\$ 200.00*
500 SI60-3PT-F	3 point frame only	\$ 207.00*
500 SIPC	Primary cable; SI60BB	\$ 135.00
500 SISC	Secondary cable; SI60BB	\$ 36.00

This unit comes with a powder coated frame and a 50 or 100 gallon pest control tank. Also included in this package is a H30A handgun with adjustable nozzle, Shurflo 5 gpm pump, option of manual or electric controls. This unit can be set up with Boomless option or up to a 21ft boom from page 25. Frame dimension is 40"W x 54"L.

ORDER NO.	DESCRIPTION	LIST
500 SI50	Slide in 50 gal tank	\$ 2310.00*
500 SI100	Slide in 100 gal tank	\$ 2510.00*
500 SI100-E	Slide in 100 gal tank Electric Valves	\$ 2655.00*
500 SIBB	Boomless nozzle option	\$ 295.00*
500 GSIF	Slide in frame only	\$ 950.00*



SPRAYERS AND ACCESSORIES



E-Z ATV SPRAYERS

The E-Z Series of sprayers feature a 16 and 24 gallon tank specifically designed for ATV's. The unique wrap around design allows for a low center of gravity, complete drainage from twin sumps, and easy mounting and dismounting of sprayer as controls and booms are mounted to the tank and not the ATV rack. All models are standard with a 12 volt pump, no drip hand gun with 12 ft hose, in-line strainer, and main line valve.



500 EZBB



500 EZBB
with optional
spray shield

ORDER NO.
500 EZBB

LIST
\$ 1200.00*

This boomless unit includes 4.0 gpm 12 volt pump, trigger style handgun with adjustable brass nozzle, pressure control, and conveniently located left and right control valves for a pair of mounted Boominator stainless nozzles. Total spray width with both nozzles is 30 feet. GPA range from 12.4 gpa at 3 mph to 4.6 gpa at 8 mph at 30 psi.

500 EZSS \$ 715.00*

This spot sprayer unit includes 1.4 gpm 12 volt demand pump, trigger style handgun with adjustable brass nozzle.



500 EZ12

ORDER NO.

LIST

500 EZ12

\$ 1485.00*

500 EZ18

\$ 1645.00*

This unit includes 4.0 gpm 12 volt pump, trigger style handgun with adjustable brass nozzle, pressure control, and conveniently located boom on-off control valve for a 12' or 18' boom. The boom features spring loaded hinges to protect it from collisions and folds for transport. The boom is plumbed for flood nozzles on 40" spacing and is shipped with one set of #2 floods. Boom is easily removed by removing 2 lock pins.



EZ12 W/EZFT

ORDER NO.	DESCRIPTION	LIST
500 EZ001	Hose rack	\$ 25.00*
500 EZ002L	Receiver left	\$ 44.00*
500 EZ002R	Receiver right	\$ 44.00*
500 EZ003	"L" arms (pair)	\$ 55.00*
500 EZ004	Tank bracket	\$ 42.00*
500 EZ005	Nozzle bracket w/U bolt	\$ 25.00*
500 EZ006	Control bracket	\$ 68.00*
500 EZ007	Control bracket w/plumbing	\$ 265.00*
500 EZ008	Spray shield	\$ 160.00*
500 EZT016	Tank only 16 gallon	CALL*
500 EZT024	Tank only 24 gallon	CALL*

500 EZBB12 \$ 1750.00*

Features both Boom and Boomless options in one easy convenient package.

500 EZFT \$ 330.00*

Front mount 16 gallon add-on tank for extra capacity, weight balance, and longer spraying time. Plumbing included.

ATV MOUNTED SPRAYERS/SPOT SPRAYERS

All models are equipped with a 12V diaphragm pump, 12 ft of EPDM hose with a no-drip pistol grip handgun and adjustable tip. Units also feature pressure gauge and bypass control. To add a boom, select a complete package from **BELOW** or see **PAGE 25** for other sizes.

ORDER NO.	DESCRIPTION	LIST
500 SS014S	14 Gal spot sprayer w/gauge	\$ 470.00*
500 SS025S	25 Gal spot sprayer w/gauge	\$ 520.00*
500 ATV025	25 Gal w/12' Boom for ATV	\$1030.00*



SS SERIES



ATV Series



TRACTOR MOUNTED BRACKETS



Demco

Demco offers side mount brackets for many current tractor models. Demco products are of the highest quality in the market today. The brackets come with saddles, tank bands, carrier brackets, and all necessary bolts for complete installation. Tanks and plumbing are sold separately. *Call C&R Supply for availability and pricing.*







NURSE TANKS and HOOPS



MORE SIZES AVAILABLE/CALL FOR PRICING

ORDER NO.	GALLONS	LID	DIA. x LGH.	LBS.	LIST	SET HOOPS	LIST
083 48N500	500	16"	48" X 75"	172	CALL*	083 HA500	CALL*
083 48N750	750	16"	48" X 107"	246	CALL*	083 HA750	CALL*
083 48N1000	1000	16"	48" X 139"	302	CALL*	083 HA1000	CALL*
111 EL1035	1035	16"	78" X 90" X 52"	292	CALL*	111 HA1035	CALL*
111 EL1300	1300	16"	62" X 114"	427	CALL*	111 HA1300	CALL*
083 62N1650	1650	16"	62" X 139"	400	CALL*	083 HA1650	CALL*
111 EL1610	1610	16"	78" X 56" X 139"	530	CALL*	111 HA1610	CALL*
111 EL1850	1850	16"	78" X 63" X 139"	571	CALL*	111 HA1850	CALL*
111 EL2350	2350	16"	88" X 63" X 146"	920	CALL*	111 HA2350	CALL*
111 EL2750	2750	16"	88" X 70" X 146"	1150	CALL*	111 HA2750	CALL*
111 EL3250	3250	16"	88" X 79" X 146"	1208	CALL*	111 HA3250	CALL*
111 EL3750	3750	16"	88" X 91" X 146"	1422	CALL*	111 HA3750	CALL*
111 EL4200	4200	16"	92" X 80" X 194.5"	1648	CALL*	111 HA4200	CALL*
111 EL4250	4250	16"	88" X 101" X 146"	1617	CALL*	111 HA4250	CALL*

(1610,1850,2350,2750,3250,3750,4200,4250 have baffles)



EL1850 & Larger have 3" fittings

End Sump Tanks



ORDER NO.	GALLONS	LID	DIA. x LGH.	LBS.	LIST	SET HOOPS	LIST
111 EL2350-END 2350	2350	16"	88" X 146" X 63"	920	CALL*	111 HA2350	CALL*
111 EL2750-END 2750	2750	16"	88" X 146" X 70"	1150	CALL*	111 HA2750	CALL*
111 EL3250-END 3250	3250	16"	88" X 146" X 79"	1208	CALL*	111 HA3250	CALL*
111 EL3750-END 3750	3750	16"	88" X 146" X 91"	1422	CALL*	111 HA3750	CALL*
111 SKE2350-4250-END (SKID)			88" X 141"	1060	CALL*		

Center Sump Tanks

ORDER NO.	GALLONS	LID	DIA. x LGH.	LBS.	LIST	SET HOOPS	LIST
111 EL2350-CTR 2350	2350	16"	88" X 146" X 63"	920	CALL*	111 HA2350	CALL*
111 EL2750-CTR 2750	2750	16"	88" X 146" X 70"	1150	CALL*	111 HA2750	CALL*
111 EL3250-CTR 3250	3250	16"	88" X 146" X 79"	1208	CALL*	111 HA3250	CALL*
111 EL3750-CTR 3750	3750	16"	88" X 146" X 91"	1422	CALL*	111 HA3750	CALL*
111 SKE2350-4250-CTR (SKID)			88" X 141"	1060	CALL*		



Center Sump Tanks Require Plumbing Beneath Trailer

Split Tanks

ORDER NO.	GALLONS	LID	DIA. x LGH.	LBS.	LIST	SET HOOPS	LIST
111 EL3200-2T	3200	16"	88" X 172" X 74"	1208	CALL*	111 HA3200	CALL*
111 SKE3200	3200(SKID)		90" X 168"	1163	CALL*		

LADDER

ORDER NO.	DESCRIPTION	LIST
111 LAD3250	LADDER, 3250 ELIP	CALL*
111 LAD3750	LADDER, 3750 ELIP	CALL*
111 LAD4250	LADDER, 4250 ELIP	CALL*



Items in **RED** are non-stock products



POLY TANKS

VERTICAL STORAGE TANKS



ORDER NO.	GALLONS	LID	FITTING	DIA. x HT.	LBS.	LIST
111 16PV020	20	8"	3/4"	16" X 28"	13	CALL
111 18PV025	25	5"	3/4"	18" X 30"	12	CALL
111 18PV040	40	5"	3/4"	18" X 43"	17	CALL
111 20PV055	55	5"	1"	20" X 47"	22	CALL
111 20PV0055 (yellow)	55	5"	1"	20" X 47"	22	CALL
083 23PV065	65	8"	1 1/4"	23" X 42"	20	CALL
111 23PV075	75	7"	1"	23" X 50"	30	CALL
111 28PV100	100	7"	1"	28" X 45"	36	CALL*
111 23PV105	105	7"	1"	23" X 65"	40	CALL*
111 32PV110	110	5"	2" top	32" X 36"	40	CALL*
111 32PV130	130	8"	1"	32" X 46"	47	CALL*
111 28PV135	135	8"	1"	28" X 59"	47	CALL*
111 28PV160	160	8"	1"	28" X 68"	58	CALL*
111 31PV175	175	8"	1 1/2"	31" X 61"	56	CALL*
083 32PV210	210	16"	2"	32" X 69"	54	CALL*
111 40PV210	210	5"	2" top	40" X 48"	56	CALL*
111 31PV225	225	8"	1 1/2"	31" X 76"	67	CALL*
111 31PV265W	265	8"	1 1/2"	31" X 84"	74	CALL*
111 35PV300	300	8"	2"	35" X 81"	88	CALL*
111 42PV300	300	8"	2"	42" X 55"	73	CALL*
111 36PV325	325	8"	2"	36" X 81"	92	CALL*
111 42PV420	420	16"	2"	42" X 75"	102	CALL*
111 46PV500	500	8"	2"	46" X 77	120	CALL*
111 52PV550	550	8"	2"	52" X 66"	116	CALL*
111 46PV600	600	16"	2"	46" X 91"	132	CALL*
111 64PV625	625	8"	2"	64" X 50"	102	CALL*
111 46PV800	800	16"	2"	46" X 118"	175	CALL*
111 54PV850	850	8"	2"	54" X 94"	184	CALL*
111 46PV900	900	16"	2"	46" X 132"	220	CALL*
111 64PV1000	1000	16"	2"	64" X 81"	250	CALL*
111 86PV1050	1050	16"	2"	86" X 52"	190	CALL*
111 64PV1200	1200	16"	2"	64" X 97"	277	CALL*
111 86PV1350	1350	16"	2"	86" X 64"	228	CALL*
111 86PV1650	1650	16"	2"	86" X 74"	276	CALL*
111 64V2000	2000	16"	2"	64" X 156"	467	CALL*
111 90V2000	2000	16"	2"	90" X 84"	375	CALL*
111 86V2050	2050	16"	2"	86" X 93"	402	CALL*
111 90V2500	2500	16"	2"	90" X 100"	420	CALL*
111 90V3000	3000	16"	3"	90" X 118"	550	CALL*
111 96V4200	4200	16"	3"	96" X 148"	880	CALL*
111 102V5150	5150	16"	3"	102" X 159"	1350	CALL*
111 102V6250	6250	16"	3"	102" X 191"	1550	CALL*
111 120V6500	6500	16"	3"	120" X 152"	1502	CALL*
111 120V7800	7800	16"	3"	120" X 176"	1902	CALL*
111 120V8000	8000	16"	3"	120" X 180"	1932	CALL*
111 120V9500	9500	16"	3"	120" X 213"	2352	CALL*
111 142V7000	7000	16"	3"	142" X 123"	1600	CALL*
111 142V10500-LT	10,500	16"	3"	142" X 175"	2500	CALL*
111 142V10500	10,500	16"	3"	142" X 175"	2800	CALL*
111 142V12500	12,500	16"	3"	142" X 208"	3402	CALL*
111 142V15500	15,500	16"	3"	142" X 247"	4002	CALL*



**-RATED TO 140 DEGREES
-RATED FOR 14 lb material
-10% and 20% heavier material
is available**



All tanks 6500 gallons & larger will require a overwidth permit and will be direct shipped to the customers location

All tanks are white. Optional colors available
MORE SIZES AVAILABLE/CALL FOR PRICING
*3000 gallon and above come with 3" fitting
over width tanks require extra freight charges*

Items in **RED** are non-stock products



DUO LIFT



Manufacturing Company, Inc.

Duo Lift designs and manufactures trailers and running gears for agricultural, commercial and industrial markets in a number of standard and custom models and sizes.

The Cone Bottom Wagon is designed to accommodate a 1200 gallon cone bottom tank with a 15 degree slope. The wagon is easy to pull and maneuver in tight spots and allows for complete drainage on uneven terrain. With this nurse unit you will increase the time your implement is in the field, giving you greater flexibility and mobility. The complete drainage and larger capacity greatly increases your efficiency and production. 1200 cone trailers come standard with tail and brake lights.

1200 Gallon tank



16 inch high speed truck tires & leaf spring suspension

ORDER NO.	DESCRIPTION	LIST
500 TRAILER-TD1200CB	1200 gallon trailer	CALL**
500 TRAILER-TD1200CB.W/2AXLEBRAKES	1200 gallon trailer w/brakes	CALL**
111 90C1200	1200 Gallon cone tank (WHT)	CALL*
500 TRAILER-PLUMB SINGLE 2X2	Plumbing kit; 2" in x 2" out	CALL*

(Must add pump from page 47-48)

TEMPORARY STORAGE

With every new year brings new challenges in the farming world, everything from mother nature to getting across acres in a timely manner are a couple of items on a long list of obstacles. You can now take liquid storage off of that list. It does not matter if you are loading in the yard or farming 50 miles from home, DUO Lift has you covered.

Your choice of 6,000 or 9,000 gallon storage. Pull empty trailer to your location, lower the jacks, and fill. When empty jack back up and move to a new location.

ORDER NO.	DESCRIPTION	LIST
500 TRAILER-DC6000	6,000 Gallon trailer	CALL**
111 90C3000	3,000 Gallon tank (X2)	CALL*
500 TRAILER-PLUMB;DOUBLE3"X2"	Plumbing kit; 3" In x 2" Out	CALL*
500 TRAILER-PLUMB;DOUBLE3"X3"	Plumbing kit; 3" In x 3" Out	CALL*
(Must add pump from page 47-48)		
500 TRAILER-TD9000	9,000 Gallon trailer	CALL**
111 90C3000	3,000 Gallon tank (X3)	CALL*
500 TRAILER-PLUMB;TRIPLE3"X2"	Plumbing kit; 3" In x 2" Out	CALL*
500 TRAILER-PLUMB;TRIPLE3"X3"	Plumbing kit; 3" In x 3" Out	CALL*
(Must add pump from page 47-48)		



See Pages 47-48 for Pumps!



PLUMBING KITS INCLUDE TRAILER ASSEMBLY



1500 gallon & larger have
3" fitting

ORDER NO.	GALLONS	DIA. x HT	LBS.	LIST	STAND NO.	GALLONS	LIST
111 23C055	55	23" X 59"-15°	26	CALL*	111 SA100	55	CALL*
111 36C145	145	36" X 43"-15°	52	CALL*	111 SA325	145	CALL*
111 36C150	150	36" X 51"-45°	63	CALL*	111 SA150	150	CALL*
111 42C200	200	42" X 55"-45°	77	CALL*	111 SA350	200	CALL*
111 42C300	300	42" X 67"-45°	102	CALL*	111 SA350	300	CALL*
111 52C500	500	52" X 76"-45°	130	CALL*	111 SA500	500	CALL*
111 64C1000	1000	64" X 98"-45°	250	CALL*	111 SA1490	1000	CALL*
111 64C1490	1490	64" X 132"-45°	342	CALL*	111 SA1490	1490	CALL*
111 64C1500	1500	64" X 122"-15°	332	CALL*	111 SA1500	1500	CALL*
111 90C1000	1000	90" X 54"-15°	212	CALL*	111 SA3000	1000	CALL*
111 90C1200	1200	90" X 62"-15°	242	CALL*	111 SA3000	1200	CALL*
111 90C1300	1300	90" X 65"-15°	262	CALL*	111 SA3000	1300	CALL*
111 90C1550	1550	90" X 88"-30°	286	CALL*	111 SA2600	1550	CALL*
111 90C1600	1600	90" X 85"-30°	286	CALL*	111 SA2600	1600	CALL*
111 86C1700	1700	86" X 82"-15°	284	CALL*	111 SA1700	1700	CALL*
111 90C2495	2495	90" X 119"-30°	487	CALL*	111 SA2600	2495	CALL*
111 90C2500	2500	90" X 111"-15°	435	CALL*	111 SA3000	2500	CALL*
111 90C2550	2550	90" X 126"-30°	502	CALL*	111 SA2600	2550	CALL*
111 86C2600	2600	86" X 146"-45°	500	CALL*	111 SA2600-45°	2600	CALL*
111 90C2600	2600	90" X 122"-30°	500	CALL*	111 SA2600	2600	CALL*
111 90C3000	3000	90" X 128"-15°	550	CALL*	111 SA3000	3000	CALL*
111 102C4600	4600	102" X 155"-15°	1200	CALL*	111 SA4900	4600	CALL*
111 102C4900	4900	102" X 159"-15°	1300	CALL*	111 SA4900	4500	CALL*
111 122C6000	6000	122" X 150"-15°	1602	CALL*	111 SA8250	6000	CALL*
111 122C6900	6900	122" X 168"-15°	1702	CALL*	111 SA8250	6900	CALL*
111 122C8250	8250	122" X 195"-15°	2102	CALL*	111 SA8250	8250	CALL*

All tanks 6000 gallons & larger will require a overwidth permit and will be direct shipped to the customers location

MORE SIZES AVAILABLE/CALL FOR PRICING



SP0003RT

SP0005W
SP0010W
SP0015W



ORDER NO.	GAL.	DIA. x HT	LBS.	LIST
111 SP0003RT	3	7" X 12" X 14"	3	CALL
111 SP0005W	5	11" X 11" X 20"	5	CALL
111 SP0010W	10	13" X 13" X 21"	10	CALL
111 SP0015W	15	16" X 16" X 22"	12	CALL

ORDER NO.	GAL.	DIA. x HT	LBS.	LIST
111 SP0035RT	35	19" X 28" X 20"	19	CALL*
111 SP0056RT	56	20" X 38" X 26"	28	CALL*

FULL DRAIN INDUCTORS



ORDER NO.	GAL.	DIA. x HT	LBS.	LIST	STAND NO.	OVERALL HEIGHT	LIST
111 INF15	15	19" X 27" 1 1/2" fpt full drain	10	CALL	111 INST15	43"	CALL*
111 INF30	30	24" X 33" 2" mpt full drain	15	CALL	111 INST30T	46"	CALL*
111 INF40	40	30" X 34" 2" mpt full drain	26	CALL	111 INST60/85	46"	CALL*
111 INF60	60	30" X 38" 2" mpt full drain	22	CALL	111 INST60/85	49"	CALL*
111 INF85	85	30" X 48" 2" mpt full drain	37	CALL	111 INST60/85	58"	CALL*
111 INF110-30	110	30" X 56" 2" fpt full drain	44	CALL	111 INST60/85	65"	CALL*

SEE PAGE 115 FOR COMPLETE WITH PLUMBING INDUCTORS

Items in **RED** are non-stock products





POLY TANKS



HORIZONTAL TANKS and SADDLES

ORDER NO.	GALLONS	LID	DIA x LENGTH	LBS	LIST	SADDLE NO.	LIST
083 23P0025	25	5"	23" X 19"	11	CALL	All tanks must be carried in C & R saddles for warranty to be valid.	
083 23P0055	55	5"	23" X 37"	20	CALL		
083 23P0085	85	5"	23" X 55"	29	CALL	083 SA23	CALL*
083 30P0110	110	10"	30" X 44"	40	CALL	083 PS30150	CALL*
083 30P0150	150	10"	30" X 56"	50	CALL	083 PS30150	CALL*
083 32P0150	150	10"	32" X 50"	49	CALL	083 PS32200	CALL*
083 32P0200	200	10"	32" X 65"	74	CALL	083 PS32200	CALL*
083 38P0200	200	10"	38" X 47"	67	CALL	083 PS38200	Obsolete
083 38P0300	300	10"	38" X 69"	93	CALL	083 PS38300	CALL*
083 42P0400	400	10"	42" X 76"	112	CALL*	083 PS42400	CALL*
111 48P0500	500	8"	48" X 74"	135	CALL*	111 PS48500	CALL*

083 = RAVEN/NORWESCO
111 = ACE

NO SUFFIX = STANDARD YELLOW
ADD A FOR YELLOW DEEP SUMP
ADD W FOR STANDARD WHITE
ADD X FOR WHITE DEEP SUMP



DEEP SUMP ADD \$50.00 TO LIST PRICE

ELLIPTICAL TANKS AND SKIDS



ORDER NO.	GALLONS	LID	HT x WD x LGH	LBS.	LIST	SKID NO.	LBS.	LIST
083 24PE150	150	10"	24" X 38" X 56"	80	CALL*	083 SKE150	75	CALL*
083 26PE200	200	10"	26" X 40" X 66"	80	CALL*	083 SKE200	80	CALL*
083 30PE300 ²	300	16"	30" X 48" X 70"	115	CALL*	083 SKE300	90	CALL*
083 36PE400	400	16"	36" X 57" X 70"	140	CALL*	083 SKE400	128	CALL*
111 HE0500-57-Y	500	16"	36" X 57" X 82"	160	CALL*	083 SKE500	158	CALL*
111 46PE600	600	16"	46" X 64" X 84"	187	CALL*	111 SKE600	243	CALL*
083 42PE750	750	16"	42" X 69" X 88"	240	CALL*	083 SKE750	405	CALL*
111 42PE750	750	16"	42" X 69" X 89"	220	CALL*	111 SKE750	405	CALL*
083 49E1000	1000	16"	49" X 78" X 90"	300	CALL*	303 SKE1000	380	CALL*
111 60PE1250	1250	16"	60" X 78" X 92"	370	CALL*	111 SKE1250	520	CALL*
083 49E1600 ¹	1600	16"	49" X 78" X 138"	420	CALL*	111 SKE1600	630	CALL*

¹ This tank includes a STAINLESS STEEL baffle.

² Only available in deep sump

³ If this tank is used as replacement new bands need to be ordered

DEEP SUMP ADD \$50.00 TO LIST PRICE

FREE STANDING LEG TANKS

ORDER NO.	GALLONS	LID	DIA x LGH.	LBS.	LIST
111 18N0035	35	5"	18" X 34"	16	CALL
083 20N0035	35	5"	20" X 29"	16	CALL
111 24N0065	65	5"	24" x 39"	32	CALL
111 24N0070	70 Stackable	5"	24" X 38"	38	CALL
111 32N0125	125	8"	32" X 40"	56	CALL
111 32N0165	165	8"	32" X 51"	70	CALL
111 38N0225	225	8"	38" X 52"	85	CALL
111 38N0325	325	8"	38" X 72"	108	CALL
111 44N0335	335	8"	44" X 56"	116	CALL
111 48N0535	535	8"	48" X 78"	162	CALL



MORE SIZES AVAILABLE/CALL FOR PRICING

Items in **RED** are non-stock products



POLY TANKS



RECTANGLE TANKS

ORDER NO.	GALLONS	WD X HT X LGH	LID	LBS	LIST
022 12P0006	6	12" X 8" X 15"	2"	5	CALL
111 12P0008	8	12" X 17" X 16"	5"	6	CALL
111 SP0019-VMW 19	19	12" X 16" X 28"	5"	15	CALL



12P0006



12P0008

SPOT SPRAYER/FOAMER TANKS

ORDER NO.	GALLONS	WD X HT X LGH	LBS	LIST
022 14P0014	14	14" X 14" X 31"	12lbs	CALL
022 14P0025	25	18" X 17" X 36"	16lbs	CALL

(Available with sump or no sump)



(SPOT SPRAYERS ARE ON PAGE 28)

PCO (PEST CONTROL OPERATOR) TANKS

ORDER NO.	GALLONS	WD X HT X LGH	LID	LBS	LIST
083 12PC015	15	12" X 15" X 25"	5"	8	CALL
083 19PC030	30	19" X 20" X 25"	5"	17	CALL
111 19PC050	50	19" X 23" X 38"	8"	25	CALL
111 30PC100	100	30" X 29" X 38"	8"	50	CALL
111 37PC150	150	37" X 29" X 48"	12"	61	CALL
111 37PC200	200	37" X 38" X 48"	12"	82	CALL
111 37PC300*	300	37" X 40" X 69"	16"	160	CALL*

*300 gallon has BAFFLE

PCO

NO SUFFIX = YELLOW STANDARD
 W = WHITE STANDARD SUMP
 A = YELLOW DEEP SUMP
 X = WHITE DEEP SUMP



LOW PROFILE RECTANGLE TANKS

ORDER NO.	GALLONS	WD X HT X LGH	LID	LBS	LIST
111 SP0005RT	5	10" X 8" X 22"	5"	4	CALL
111 LP0050RT	50	24" X 43" X 15"	6"	37	CALL*
111 LP0068RT	68	26" X 17" X 42"	6"	40	CALL*
111 LP0110RT	110	35" X 19" X 48"	6"	59	CALL*
111 LP0200-RT	200	48" X 19" X 60"	8"	84	CALL*
111 LP0300-RT	300	48" X 21" X 80"	8"	135	CALL*

SP005RT



LP0110RT

UTILITY TANKS - FLAT BOTTOM

ORDER NO.	GALLONS	WD X HT X LGH	LID	LBS	LIST
111 SP0055MM	55	18" X 45" X 18"	5"	30	CALL*
111 SP0080RT	80	18" X 45" X 27"	5"	42	CALL*



SP0055MM



SP0080RT

FRESH WATER SAFETY TANK

Features 5/16" lugs on bottom and back for easy mounting and a storage compartment for safety equipment. Comes complete with spigot, hose, and fittings.

ORDER NO.	GALLONS	WD x HT x LG	LBS.	LIST
083 SF	9	20" X 10" X 13.5"	9	CALL



UTILITY TANKS - FLAT BOTTOM

ORDER NO.	GALLONS	WD X HT X LGH	LID	LBS	LIST
111 SP300UTW	300	29" X 53" X 62"	16"	159	CALL*
111 SP400UTW	400	29" X 66" X 62"	16"	207	CALL*
111 SP500UTW	500	31" X 74" X 70"	16"	223	CALL*
111 SP750UTW	750	35" X 82" X 86"	16"	318	CALL*



SP300UTW



SP400UTW

MORE SIZES AVAILABLE/CALL FOR PRICING

Items in **RED** are non-stock products



POLY TANKS



SIDE MOUNT C-A-W TANKS and SADDLES

ORDER NO.	GALLONS	DIA x HT x LGH	LBS.	LIST	SADDLE NO.	TANK SIZE	LBS.	LIST
083 24PS150	150	24" X 40" X 49"	68	CALL*	083 PS24150	no longer available		
083 24PS200	200	24" X 46" X 54"	84	CALL*	083 PS24200	24" X 200gal	88	CALL*
083 24PS250	250	24" X 51" X 60"	100	CALL*	083 PS24250	24" X 250gal	92	CALL*

NO SUFFIX = YELLOW STANDARD
A = YELLOW DEEP SUMP

W = WHITE STANDARD SUMP
X = WHITE DEEP SUMP

ADD \$50.00 FOR DEEP SUMP

PICKUP TANKS

ORDER NO.	GALLONS	HT. x LGH.	LBS.	LIST
111 52PU200	200	30 x 52	54	CALL*
111 52PU205	205	26 x 52	87	CALL*
111 60PU305	305	30 x 60	97	CALL*
111 62PU350	350	34 x 62	92	CALL*
111 62PU450	450	41 x 62	102	CALL*
111 PU200LC	200	70 x 29 x 42	120	CALL*
111 PU300LC	300	70 x 41 x 42	174	CALL*
111 PU400LC	400	70 x 52 x 42	202	CALL*

62PU350



PU400LC



TEAR DROP TANKS

ORDER NO.	GALLONS	DIA x HT x LGH	LBS.	LIST
111 TD0250-36-YELLOW	250	36" X 52" X 45"	97	CALL*
111 TD0250-36W	250	36" X 52" X 45"	97	CALL*
111 TD0300-36-YELLOW	300	36" X 62" X 45"	109	CALL*
111 TD0300-36W	300	36" X 62" X 45"	109	CALL*

CRADLE NO.	TANK SIZE	LBS.	LIST
111 TD0250-C	250	96	CALL*
111 TD0300-C	300	108	CALL*



MINI BULK TANKS/TOTES

ORDER NO.	GALLONS	LID	DIA. x HT.	LBS.	LIST
111 32PV110	110	5"	32" X 41"	40	CALL*
111 32PV110P	110	5"	32" X 41"	40	CALL*
111 40V110PP	110	5"	33" X 40" X 44"	68	CALL*
111 2X150PP	300	7"	51" X 43" X 47"	356	CALL*
111 40PV210	210	5"	40" X 48"	56	CALL*
111 40V210PP	210	5"	41" X 52"	84	CALL*
111 300-PP	300	7"	51" X 43" X 47"	356	CALL*
"NEW STYLE STACKABLE TOTES"					
111 ST0035	35	7"	32" X 32" X 15"	30	CALL*
111 ST0070	70	7"	32" X 32" X 25"	40	CALL*
111 ST0120	120	7"	32" X 32" X 38"	77	CALL*
111 STSKID			4-way pallet	50	CALL*
111 STLK			Leg kit		CALL*
111 STDT			Drip tray kit		CALL*
111 STP1			1 tote plumbing kit		CALL*
111 STP2			2 tote plumbing kit		CALL*
111 STP3			3 tote plumbing kit		CALL*

(sumped tank)
(pallet pak)
(pallet pak)
(pallet pak)



40V110PP



2X150PP

Bulk oil unit



Plumbing kits



- The 70 gallon can be stacked 3 high and the 120 gallon 2 high or a combo of one each
- Tanks come with 4 lift lugs
- Three 2" threaded ports for filling or dispensing
- Tanks have domed bottoms for excellent drainage
- A mild steel skid with 4-way entry is available
- Order additional kits for bulk oil storage



ST tote 30, 70, or 120 gallon



Drip tray

Items in **RED** are non-stock products



TANK ACCESSORIES



SOLAR BULKHEAD FITTINGS

ORDER NO.	DESCRIPTION	HOLE	LIST	GASKET NO.	LIST
022 TF050	1/2" Dbl Thread	1 3/8"	\$ 10.89	022 TF075G	\$ 4.14
022 TF075	3/4" Dbl Thread	1 3/8"	\$ 11.27	022 TF075G	\$ 4.14
022 TF100	1" Dbl Thread	1 3/4"	\$ 15.11	022 TF100G	\$ 7.21
022 TF125	1 1/4" Dbl Thread	2 1/4"	\$ 18.90	022 TF125G	\$ 7.30
022 TF150	1 1/2" Dbl Thread	3"	\$ 26.23	022 TF200G	\$ 14.43
022 TF200	2" Dbl Thread	3"	\$ 26.53	022 TF200G	\$ 14.43



BANJO BULKHEAD FITTINGS

POLY BULKHEAD FITTINGS

ORDER NO.	DESCRIPTION	HOLE	LIST	GASKET NO.	LIST
102 TF050	1/2"	1 5/8"	\$ 12.60	102 M150G	\$ 1.14
102 TF075	3/4"	1 5/8"	\$ 12.60	102 M150G	\$ 1.14
102 TF100	1"	2 1/4"	\$ 15.00	102 M200G	\$ 1.24
102 TF100AV	1" Anti vortex	2 1/4"	\$ 33.00	102 M200G	\$ 1.24
102 TF125	1 1/4"	2 1/4"	\$ 17.55	102 M200G	\$ 1.24
102 TF150	1 1/2"	3"	\$ 26.05	102 M300G	\$ 1.68
102 TF150AV	1 1/2" Anti vortex	3"	\$ 41.25	102 M300G	\$ 1.68
102 TF200	2" Standard	3"	\$ 26.05	102 M300G	\$ 1.68
102 MTF220	2" Manifold 220	3 1/4"	\$ 37.55	102 TF220G	\$ 7.70
102 TF220	2" HvyDuty	3 1/4"	\$ 34.45	102 TF220G	\$ 7.70
102 MTF300	3" Manifold	4 1/2"	\$ 64.05	102 TF300G	\$ 12.40
102 TF300	3"	4 1/2"	\$ 57.70	102 TF300G	\$ 12.40
102 TF400	4"	5 3/4"	\$ 157.75	102 TF400G	\$ 29.15

STAINLESS BULKHEAD FITTINGS

ORDER NO.	DESCRIPTION	HOLE	LIST
102 TF200SS	2" Dbl.	3"	\$ 386.25
102 TF220SS	2" Dbl. HD	3 1/4"	\$ 412.25
102 TF300SS	3" Dbl	4 3/8"	\$ 630.00
102 M300G	2" EPDM gasket		\$ 1.68
102 M300GV	2" Viton gasket		\$ 26.55
102 TF220G	2" HD EPDM gasket		\$ 7.70
102 TF220GV	2" HD Viton gasket		\$ 58.50
102 TF300G	3" EPDM gasket		\$ 12.40
102 TF300GV	3" Viton gasket		\$ 58.50



POLYPROPYLENE ANSI FLANGES

150 psi max

ORDER NO.	DESCRIPTION	LIST
102 AF200	2" FPT Ansi Flange	\$ 36.35
102 AF200G	2" EPDM gasket	\$ 13.55
102 AF300	3" FPT Ansi Flange	\$ 69.70
102 AF300G	3" EPDM gasket	\$ 15.20

1", 1 1/2", 2" & 4" available
(Cast & Stainless also available)



VENT CAP/ANTI VORTEX

ORDER NO.	DESCRIPTION	LIST
102 VC200	2" Vent cap/anti vortex no screen	\$ 15.20
102 VC300	3" Vent cap/anti vortex no screen	\$ 34.00
102 VC230	2" vent cap/anti vortex 16 mesh screen	\$ 24.50
102 VC330	2" vent cap/anti vortex 10 mesh screen	\$ 41.55



NORWESCO BULKHEAD FITTINGS

ORDER NO.	DESCRIPTION	HOLE	LIST	GASKET NO.	LIST
303 60401	3/4" Dbl Thread	1 1/2"	\$ 7.08	303 60402	\$ 1.58
303 60427	1" Dbl Thread	2 1/4"	\$ 9.05	303 60404	\$ 2.19
303 60403	1 1/4" Dbl Thread	2 1/4"	\$ 8.80	303 60404	\$ 2.19
303 63065	1 1/4" Anti vortex	2 1/4"	\$ 11.36	303 60404	\$ 2.19
303 60405	2" Std	3"	\$ 12.95	303 60406	\$ 3.10
303 60337	2" Dbl HD	3 1/4"	\$ 23.01	303 60336	\$ 4.84
303 62299	3" Dbl Thread	4 5/8"	\$ 69.40	303 60331	\$ 12.41

ACE BULKHEAD FITTINGS

ORDER NO.	DESCRIPTION	HOLE	LIST	GASKET NO.	LIST
111 10058	1/2" Poly	1 1/4"	\$ 9.76	111 10510	N/A
111 10484	3/4" Poly	1 3/4"	\$ 14.49	111 10502	\$ 2.51
111 10485	1" Poly	1 3/4"	\$ 14.49	111 10502	\$ 2.51
111 10918	1 1/4" Poly	2 1/4"	\$ 17.13	111 10112	\$ 3.83
111 10507	1 1/2" Poly	3"	\$ 24.62	111 10163	\$ 5.08
111 10508	2" Poly	3"	\$ 24.62	111 10163	\$ 5.08
111 10487	3" Stainless	4 1/2"	\$ 580.00*		
111 12528	3" Poly	4 1/2"	\$ 74.75		

THICK WALL TANK FITTINGS

(FOR VERTICAL TANKS 6,500-15,500)

ORDER NO.	DESCRIPTION	HOLE	LIST
111 13790-3/4	3/4" FPT	1 5/8"	\$ 76.25
111 13790-1	1" FPT	1 7/8"	\$ 82.50



These fittings are compatible with tanks up to a 2" side walls

BOLTED "BOTTOM DRAIN" EPDM



ORDER NO.	DESCRIPTION	MAX HOLE SIZE	LIST
102 BF075BD	3/4" X 1 1/2"	1 1/2"	\$ 71.85
102 BF100BD	1" X 1 1/2"	1 1/2"	\$ 71.85
102 BF150BD	1 1/2" X 2" Std	2 1/4"	\$ 72.50
102 BF200BD	2" X 2" Std	2 1/4"	\$ 72.50
102 BF220BD	2" X 2" FP	2 1/2"	\$ 77.00
102 BF300BD	3" X 3"	3.4"	\$ 106.00
102 MBF100BD	1" Flg X 1 1/2" fpt	1 1/2"	\$ 79.75
102 MBF200BD	2" Std flg X 2" fpt	2 1/4"	\$ 79.75
102 MBF220BD	2" FP flg X 2" fpt	2 1/2"	\$ 91.20
102 MBF300BD	3" flg X 3" fpt	3.4"	\$ 124.75

FOR VITON GASKETS ADD "V" TO PART NO.



TANK ACCESSORIES



FLOAT VALVES



500 FV100



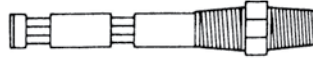
500 FV075
&
500 FV100T

ORDER NO.	DESCRIPTION	LIST
500 FV075	Tank float valve 3/4" Topaz	\$ 127.00*
500 FV100T	Tank float valve 1" Topaz	\$ 127.00*
500 FV100	Tank float valve 1"	\$ 45.00*
500 FV075K	Repair kit FV075	\$ 50.00*
500 FV100K	Repair kit FV100	\$ 18.00

AGITATORS



045 3371



045 3371019A



045 3371028

ORDER NO.	DESCRIPTION	LIST
045 3371	1/2" fpt agitator	\$ 8.84
045 3371019A	3/4" mpt agitator generic	\$ 8.70
045 3371019H	3/4" mpt agitator Hypro	\$ 10.21
045 3371028	3/4" mpt agitator 5-1	\$ 63.76
150 TT7575	3/4" fpt hi- rise agitator tee	\$ 7.81
097 46550	1 1/2" mpt eductor	\$ 142.31
097 46550-1/4-PP	1/4" mpt eductor	\$ 51.80

TANK RINSE BALL



ORDER NO.	DESCRIPTION	LIST
500 TRB	1" fpt rinse ball	\$ 108.00
045 PC1/2F-36075	1/2" fpt Proclean nozzle	\$ 72.77



ONE-WAY CHECK VALVES



Mauser collar
measures 2 3/16"

Schutz collar
measures 2 3/4"

ORDER NO.	DESCRIPTION	LIST
102 WFC230254	MAUSER w/QD outlet	\$ 75.30
102 WSFBC210	SCHUTZ/CLAWSON W/QD outlet	\$ 72.75

STRAINER BASKETS



ORDER NO.	DESCRIPTION	LIST
500 H200	Basket Strainer 2" FPT	\$ 14.00
500 H300	Basket Strainer 2" FPT	\$ 30.00
045 9950-08050	Basket Strainer, 8" Short	\$ 12.32
111 10535	8" Ace basket	\$ 45.50
083 5083R	10" Raven/Norwesco basket	\$ 96.64
111 10536	12" Ace basket	\$ 67.53
083 5474	16" Raven/Norwesco basket	\$ 56.62

SIPHON TUBES



ORDER NO.	DESCRIPTION	LIST
111 10511	2" siphon tube short	\$ 8.98
111 10488	2" siphon tube long	\$ 36.75
111 10489	3" siphon tube long	\$ 54.39

STRAPS AND ANCHORS



ORDER NO.	DESCRIPTION	LIST
030 TSAS	Tank strap anchor 1 3/4"	\$ 9.54*
030 TSAL	Tank strap anchor 4"	\$ 15.93*
030 TSB	Bolt 3/8" x 5"	\$ 1.90*
030 TSSB	Tank strap 1 3/4" black	\$ 3.55*
030 TSLB	Tank strap 4" black	\$ 6.11*
500 2615SH	Ratchet strap; 1" x 15', 1400#	\$ 10.75**NET
500 5027FH	Ratchet strap; 2" x 27', 11,000#	\$ 22.00**NET

TANK SEALS

ORDER NO.	DESCRIPTION	NET
500 PS-1000SS	1000" roll stainless steel wire	\$ 90.00**
500 PS-RED	Push seal for above with S/N	\$.65**
500 EZLOCSEAL16	16" cable w/seal & S/N	\$ 3.00**

BUTTRESS FITTINGS



ORDER NO.	DESCRIPTION	LIST
102 TA283	2" Buttress X 2" MPT w/gasket	\$ 26.80
102 TA283QD	2" Buttress X 2" male cam	\$ 20.85
102 V20275GS	Gasket for TA283/TA283QD	\$ 4.88
139 F0615	2" FPT x 2" Male buttress	\$ 21.00*

TANK LIDS

ORDER NO.	ITEM	DESCRIPTION	LIST
111 10631	AA	2" Ace Kelch cap	\$ 10.50
083 5469R	K	4" Vent cap	\$ 17.73
083 5052R	D	5" Splash guard(obsolete)	NA
615 63484	C	5" Norwesco	\$ 15.03
111 L05A	A	5" Ace	\$ 14.76
084 118043	B	6" Arag spring vent	\$ 23.84
111 12414	I	7" Ace spring vent	\$ 33.30
111 12427	I	7" Ace step vent	\$ 33.74
083 5476R	E	8" Raven	\$ 23.41
111 10525	E	8" Ace w/fillwell	\$ 32.78
083 5082R	F	10" Splash Guard(obsolete)	NA
083 5478R	G	10" Threaded	\$ 30.81
111 14762	H	16" Ace Non-Vented Hinge	\$ 96.22
111 14761	H	16" Ace Vented Hinge	\$ 109.00
111 10526	G	12" Ace non vent w/fillwell	\$ 50.87
111 10527	G	12" Ace vented w/fillwell	\$ 55.86
083 5470R	J	16" Cover assembly	\$ 42.44
303 63485	N	16" Blue vent lid/w fillwell	\$ 46.34
102 TL650E	L	IBC Lid non vented	\$ 19.70
102 TL652E	M	IBC Lid vented	\$ 27.30

FILLWELLS

ORDER NO.	DESCRIPTION	HOLE SIZE	LIST
083 5050R	5" Splash guard	5 1/2"	NA
083 5475R	8" Raven/Norwesco	8 5/8"	\$ 10.73
083 5079R	10" Raven-8 rivet	10 1/2"	NA
083 5479R	10" Threaded	11"	\$ 20.38
083 5464R	16" Raven-8 Rivet	16 1/4"	\$ 13.39
083 5075R	Stainless screws		\$.42

NOTE: Must specify tank diameter when ordering a replacement fillwell for a fiberglass tank.

LID GASKETS

ORDER NO.	DESCRIPTION	LIST
111 11042	5" gasket for L05A	\$ 20.07

MISCELLANEOUS

ORDER NO.	DESCRIPTION	LIST
083 5193	Lid tie down strap	\$ 1.93
111 10534	16" lanyard for 12" & 16" lid	\$ 2.50



If lid is (Obsolete) please ask us for alternatives



AA



A



B



C



D (obsolete)



E



F (obsolete)



G



H



I



J



K



L



M



N



CENTRIFUGAL PUMPS



HYPRO HYDRAULIC DRIVEN



Hypro centrifugal pumps are designed for agriculture and industrial spraying and transfer of a variety of fluids. Hypro hydraulic driven pumps provide smooth performance. They can be conveniently mounted on the tractor or sprayer, becoming part of the vehicle's hydraulic system and freeing the PTO for other uses. The broad, versatile line includes models with rugged housings of cast and stainless steel that stand up to strong chemical herbicides.

<i>HM Gerotor Housing Widths</i>	
<i>HM1</i>	<i>1/2"</i>
<i>HM2</i>	<i>1/4"</i>
<i>HM3</i>	<i>1"</i>
<i>HM4</i>	<i>5/16"</i>
<i>HM5</i>	<i>5/8"</i>

ORDER NO.	MAX GPM	MAX PSI	DESCRIPTION	WT.	LIST
045 9303HM1 (9303C-HM1C)	114	130	13 gpm hydraulic motor cast iron pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet	26 lbs.	\$ 1733.76
045 9303HM1U (9303C-HM1C-U)	114	130	Same as above but with 220 x 200 flanges	26 lbs.	\$ 1809.61
045 9303PHM1 (9303P-HM1C)	110	130	13 gpm hydraulic motor polypropylene pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet	20 lbs.	\$ 1812.87
045 9303HM2 (9303C-HM2C)	97	95	6 gpm hydraulic motor cast iron pump for closed center systems. 1 1/2" inlet; 1 1/4" outlet	26 lbs.	\$ 1733.76
045 9303HM3 (9303C-HM3C)	125	98	24 gpm hydraulic motor cast iron pump for large open center systems 1 1/2" inlet; 1 1/4" outlet	26 lbs.	\$ 1842.12
045 9303HM4 (9303C-HM4C)	115	93	7 gpm hydraulic motor cast iron pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet	26 lbs.	\$ 1733.76
045 9303PHM4 (9303P-HM4C)	82	85	7 gpm hydraulic motor poly pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet	19 lbs.	\$ 1812.87
045 9303HM5 (9303C-HM5C)	147	145	16 gpm hydraulic motor cast iron pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet	26 lbs.	\$ 1735.29
045 9303HM5U (9303C-HM5C-U)	147	145	same as above but with 220 x 200 flanges	26 lbs.	\$ 1810.13
045 9305HM3 (9305C-HM3C)	182	160	19 gpm hydraulic motor cast iron pump for large open center systems 2" inlet; 1 1/2" outlet	33 lbs.	\$ 2885.35
045 9306HM1 (9306C-HM1C)	207	130	13 gpm hydraulic motor cast iron pump for open/closed center systems 2" inlet; 1 1/2" outlet	33 lbs.	\$ 2010.08
045 9306HM5 (9306C-HM5C)	212	140	17 gpm hydraulic motor cast iron pump for open/closed center systems 2" inlet; 1 1/2" outlet	33 lbs.	\$ 2010.08
045 9306HM5U (9306C-HM5C-U)	212	140	same as above but with 220 x 220 flange	33 lbs.	\$ 2085.93
045 9306HM5BU (9306C-HM5C-BU)	212	140	same as above but with Life Guard silicon carbide seal	33 lbs.	\$ 2253.89
045 9307GM10 (9307C-GM10)	370	135	20 gpm hydraulic motor cast iron pump for open/closed center systems Life guard silicon carbide seal. 3" inlet; 2" outlet	86 lbs.	\$ 8189.19
045 9313C-M08	188	137	13 gpm hydraulic motor cast iron pump for open/closed center systems 1 1/2" inlet; 1 1/4" outlet (comparable to 9303C-HM1C)	26 lbs.	\$ 2839.76
045 9314CU-M08	227	132	13 gpm hydraulic motor cast iron pump for open/closed center systems 220 Flanges x 220 Flange (comparable to 9306C-HM1C-U)	26 lbs.	\$ 3043.38

See page 45 for common replacement parts



CENTRIFUGAL PUMPS



ACE HYDRAULIC DRIVEN

Ace hydraulic centrifugal pumps provide good resistance to abrasive solutions and supply extra flow for agitation. All hydraulic pumps are equipped with a stainless steel shaft and wear ring for excellent corrosion resistance. Mounting versatility, custom performance, and easy maintenance are key advantages to using Ace hydraulic driven pumps. Ace now offers wet seal technology with the "Oasis" Max series pumps.



ORDER NO.	MAX GPM	MAX PSI	DESCRIPTION	WT.	LIST
002 FMC-75-HYD-204	25	100	4 gpm hydraulic motor POLY pump with integral needle valve	17lbs.	\$ 1181.80
002 FMC-75-HYD-206	27	100	7 gpm hydraulic motor POLY pump with integral needle valve	17lbs.	\$ 1181.80
002 FMC204 (FMC-HYD-204-SS)	85	100	4 gpm hydraulic motor cast iron pump with integral needle valve 1 1/4" inlet; 1" outlet	26 lbs.	\$ 1487.70
002 FMCWS204 (FMCWS-125-HYD-204)	85	100	4 gpm hydraulic motor cast iron pump with integral needle valve (wet seal) 1 1/4" inlet; 1" outlet	51 lbs	\$ 2185.95
002 FMCSC-205F-HYD304	240	120	13 gpm hydraulic motor cast iron pump with integral needle valve 300 std flange inlet; 220 flange outlet	26 lbs	\$ 1991.20
002 FMC206 (FMC-150F-HYD-HYD-206-SS)	135	120	7 gpm hydraulic motor cast iron pump with integral needle valve 1 1/2" inlet; 1 1/4" outlet	31 lbs.	\$ 1490.55
002 FMCWS206PWM (FMCWS-125-HYD-206-PWM)	110	120	7 gpm hydraulic motor, e-coated cast iron pump (wet seal) with intergrated PWM valve 1 1/4" inlet; 1" outlet	58 lbs.	\$ 3358.25
002 FMC206F (FMC-150F-HYD-206)	145	120	Same as standard 206 but with 220 flange/1 1/2" inlet; 200 flange/1 1/4" outlet	31 lbs	\$ 1556.10
002 FMC210 (FMC-HYD-210)	100	120	10 hydraulic motor cast iron pump with integral needle valve 1 1/4" inlet; 1" outlet	33 lbs.	\$ 1433.55
002 FMC304 (FMC-200-HYD-304)	200	120	11 gpm hydraulic motor cast iron pump with integral needle valve 2" inlet; 1 1/2" outlet	38 lbs.	\$ 1742.30
002 FMC150304F (FMCSC-150F-HYD-304-e-coated)	155	130	11 gpm hydraulic motor cast iron pump with integral needle valve 220 flg/1 1/2" inlet and 200 flg/1 1/4" outlet. SC seal, e-coated	31 lbs.	\$ 1926.55
002 FMC307 (FMC-SC-200-HYD-307)	250	130	16-19 gpm hydraulic motor cast iron pump; SC seal; 2" inlet; 1 1/2" outlet	38 lbs	\$ 1860.10
002 FMC650F (FMC-650F-HYD)	170	160	14.5 gpm hydraulic motor cast iron pump with flange fittings 220 flg /1 1/2" inlet X 200 flg/1 1/4" outlet	39 lbs	\$ 2248.65
002 FMCWS650F (FMCWS-650F-HYD)	170	160	14.5 gpm hydraulic motor, E-coated cast iron with flange fittings; (wet seal) 220 flg/1 1/2" inlet X 200 flg/1 1/4" outlet	49 lbs	\$ 3170.15
002 FMC75022 (FMC-750-HYD-M22)	290	150	18 gpm hydraulic motor cast iron pump with flange fittings 300 flg inlet X 220 flg outlet	72 lbs	\$ 4128.70

See page 45 for common replacement parts



CENTRIFUGAL PUMPS



HYPRO PTO GEAR DRIVEN



ORDER NO.	MAX GPM	MAX PSI	MAX RPM	DESCRIPTION	WT	LIST
045 9006C (9006C-O)	117	80	540	Cast iron pump with oil lubricated gear drive and 1 3/8" 540 rpm female PTO hub with locking collar and mounting clip. Mounting clip is designed to accommodate most PTO shields. 1 1/2" inlet, 1 1/4" outlet.	45 lbs.	\$ 1885.00
045 9008C (9008C-O)	110	70	1000	Cast iron pump with oil lubricated gear drive and 1 3/8" 1000 rpm PTO hub with locking collar and mounting clip. Mounting clip is designed to accommodate most PTO shields. 1 1/2" inlet, 1 1/4" outlet.	46 lbs.	\$ 2003.41
045 9016C (9016C-O)	117	80	540	Cast iron pump with oil lubricated gear drive and 1" solid shaft. 1 1/2" inlet, 1 1/4" outlet.	43 lbs.	\$ 1861.87
045 9018C (9018C-O)	110	70	1000	Cast iron pump with oil lubricated gear drive and 1" solid shaft. 1 1/2" inlet, 1 1/4" outlet.	43 lbs.	\$ 1970.75
045 9028C (9028C-O)	110	70	1000	Cast iron pump with oil lubricated gear drive and 1 3/4" 1000 rpm female PTO hub with locking collar and mounting clip. Mounting clip is designed to accommodate most PTO shields. 1 1/2" inlet, 1 1/4" outlet.	49 lbs.	\$ 2324.60

HYPRO PEDESTAL MOUNT PUMPS



ORDER NO.	MAX GPM	MAX PSI	MAX RPM	DESCRIPTION	WT.	LIST
045 9202C (9202C)	105	170	6000	Pedestal mount, cast iron pump with 5/8" shaft and Viton shaft seal. 1 1/4" inlet, 1" outlet.	17 lbs.	\$ 773.05
045 9203C (9203C)	136	170	6000	Pedestal mount, cast iron pump with 5/8" shaft and Viton shaft seal. 1 1/2" inlet; 1 1/4" outlet.	17 lbs.	\$ 782.36
045 9203CR (9203C-R)	136	170	6000	Same as 9203C but clockwise rotation	17 lbs.	\$ 801.64
045 9203P (9203P-S)	100	80	4200	Pedestal mount poly pump designed for direct drive with an electric motor or belt and pulley drive with an electric motor or gas engine, 7/8" solid keyed 316 SS shaft, 1 1/2" inlet; 1 1/4" outlet.	14 lbs.	\$ 970.40
045 9205C (9205C)	180	190	4200	Pedestal mount, cast iron pump with 7/8" solid keyed shaft, Viton seal, and 2" inlet x 1 1/2" outlet.	38 lbs.	\$ 1961.32

ACE PEDESTAL MOUNT PUMPS



ORDER NO.	MAX GPM	MAX PSI	MAX RPM	DESCRIPTION	WT.	LIST
002 FMC (FMC-150-MIA)	130	120	5200	Cast iron frame mounted pump for belt drive applications. Equipped with Viton seal. 1 1/2" inlet; 1 1/4" outlet	23 lbs.	\$ 703.00
002 FMCCW (FMC-CW-150)	80	100	5200	Cast iron frame mounted pump clockwise rotation. Equipped with Viton seal. 1 1/2" inlet; 1 1/4" outlet.	20 lbs.	\$ 687.80
002 FMCCWMAG (FMC-CW-150MAG-DX3)				Same as FMCCW but comes with clutch	25 lbs.	\$ 1374.65

12 VOLT CLUTCH



ORDER NO.	DESCRIPTION	WT.	LIST
045 2526011	Magnetic clutch 5 1/4" for pedestal pumps with 7/8" shaft	8 lbs	\$ 1499.86

(PSI X GPM divide by 1460)=Electric HP(x 1.3 for gas engines)



CENTRIFUGAL PUMPS



HYPRO BELT DRIVEN



ORDER NO.	MAX GPM	MAX PSI	MAX RPM	DESCRIPTION	WT.	LIST
045 9403B6 (9403C-540Q)	140	104	600	1 3/8", 6 spline, quick coupler cast iron 12 groove belt drive 1 1/2" inlet; 1 1/4" outlet	45 lbs.	\$ 2136.80
045 9403B2 (9403C-1000)	140	104	1000	1 3/8" hollow shaft, 21 spline, cast iron 12 groove belt drive 1 1/2" inlet; 1 1/4" outlet	42 lbs.	\$ 2147.66
045 9403B3 (9403C-1000L)	140	104	1000	1 3/4" hollow shaft, 20 spline, cast iron 12 groove belt drive 1 1/2" inlet; 1 1/4" outlet	42 lbs.	\$ 2041.47
045 9403B4 (9403C-540S)	140	104	600	1" solid shaft cast iron 12 groove belt drive 1 1/2" inlet; 1 1/4" outlet	45 lbs.	\$ 2136.80

ACE BELT DRIVEN



ORDER NO.	MAX GPM	MAX PSI	MAX RPM	DESCRIPTION	WT.	LIST
002 PTO600 (PTOC-600-QC)	65	70	600	1 3/8", 6 spline quick coupler cast iron 10 groove belt drive 1 1/4" inlet; 1" outlet	46 lbs.	\$ 1692.90
002 PTO1000 (PTOC-1000-21SP)	65	70	1000	1 3/8", 21 spline with split ring locking collar cast iron 10 groove belt drive. 1 1/4" inlet; 1" outlet	43 lbs.	\$ 1698.60
002 PTO1175 (PTOC-1000-20SP)	65	70	1000	1 3/4", 20 spline with split ring locking collar cast iron 10 groove belt drive. 1 1/4" inlet; 1" outlet	45 lbs.	\$ 1753.70
002 PTO600B (PTOC600B)	65	70	600	1" diameter stub shaft cast iron 10 groove belt drive 1 1/4" inlet; 1" outlet	42 lbs.	\$ 1692.90
002 PTO156 (PTOC-150-600-6SPQC)	100	100	600	1 3/8", 6 spline quick coupler cast iron 10 groove belt drive 1 1/2" inlet; 1 1/4" outlet	51 lbs.	\$ 1900.95
002 PTO156B (PTOC-150-600-B)	100	100	600	1" diameter stub shaft cast iron 10 goove belt drive 1 1/2" inlet; 1 1/4" outlet	52 lbs.	\$ 1900.95
002 PTO151 (PTOC-150-1000-21SP)	100	100	1000	1 3/8", 21 spline with split ring locking collar cast iron 10 groove belt drive. 1 1/2" inlet; 1 1/4" outlet	48 lbs.	\$ 1906.65
002 PTO151B (PTOC-150-1000-B)	100	100	1000	1" diameter stub shaft cast iron 10 groove belt drive 1 1/2" inlet; 1 1/4" outlet	45 lbs.	\$ 1900.95

HYPRO/ACE GAS ENGINE DRIVEN



ORDER NO.	MAX GPM	MAX PSI	DESCRIPTION	WT.	LIST
045 1537 (1537)	110	80	1 1/2" x 1 1/4" Hypro centrifugal pump close coupled to a Honda 5.5 hp gas engine	65 lbs.	\$ 1510.00*
045 1538 (1538)	110	80	1 1/2" x 1 1/4" Hypro centrifugal pump kit unassembled. Requires 5/8" threaded shaft engine	14 lbs.	\$ 905.07
002 GE85H	24	70	1" x 3/4" ACE centrifugal poly pump close coupled to a 4hp Honda engine	28 lbs.	\$ 920.00*
002 GE75LE	24	70	1" x 3/4" ACE centrifugal poly pump kit only less engine for 5/8" shaft Unassembled	4 lbs.	\$ 361.95
002 GE85LE	24	70	1" x 3/4" ACE centrifugal poly pump kit only less engine for 3/4" shaft Unassembled	4 lbs.	\$ 361.95
002 GE-85SP-LE	24	65	1" x 3/4" ACE self priming centrifugal polypump less engine for 3/4" shaft Unassembled	7 lbs.	\$ 412.30
002 GE660LE	110	113	1 1/2" x 1 1/4" ACE pump kit less engine for 3/4" shaft unassembled (C&R Supply equips this pump with Valox Impeller)	20 lbs.	\$ 742.90





CENTRIFUGAL PUMP REPAIR PARTS



ACE BELT DRIVE (1 1/4 x 1)

002 BAC07V	Seal	\$ 55.60
002 BAC04	Gasket	\$ 4.50
002 BAC06S	Pump shaft	\$ 152.00
002 40160	Shaft O-ring	\$ 1.20
002 BAC26V	Impeller; Valox	\$ 102.85
002 BAC2810	540 Belt	\$ 65.10
002 BAC2810M	1000 Belt	\$ 66.00
045 2000010	Shaft bearing	\$ 14.49

ACE 150 SERIES BELT DRIVE (1 1/2 X 1 1/4)

002 BAC07V	Seal	\$ 55.60
002 BAC04150	Volute O-ring	\$ 8.80
002 BAC2615P	Impeller; Valox	\$ 102.85
002 BAC06150	Pump shaft	\$ 149.60
002 40611	540 Belt	\$ 71.25
002 40621	1000 Belt	\$ 72.45
002 BAC12150	Volute	\$ 362.40
045 2000010	Shaft bearing	\$ 14.49

ACE HYD SERIES 202, 204, 210, 310 (1 1/4 X 1)

002 BAC07V	Seal	\$ 55.60
002 BAC26HYV	Impeller; Valox	\$ 102.85
002 BAC6HYDS	Shaft	\$ 149.60
002 BAC04	Gasket	\$ 4.50
002 BAC04A	O-ring '96+	\$ 8.80
002 HYDRK	Motor kit	\$ 115.40
002 HYDRKL	Motor kit L series	\$ 68.65
002 HYDRK310	Motor kit 310	\$ 28.90
002 HYDK304L	Motor kit 310L	\$ 115.40
045 2000010	Bearing	\$ 14.49
002 BAC12	Volute	\$ 292.10

ACE 150 SERIES 206 (1 1/2 X 1 1/4)

002 BAC07V	Seal	\$ 55.60
002 BAC2615P	Impeller; Valox	\$ 102.85
002 BAC04150	O-ring	\$ 8.80
002 HYDRK	Motor kit	\$ 115.40
002 HYDRKL	Motor kit L series	\$ 68.65
002 BAC6HYDS	Shaft	\$ 149.60
045 2000010	Bearing	\$ 14.49
002 BAC12150	Volute	\$ 362.40

ACE 200 SERIES 210,304,307,310 (2 X 1 1/2)

002 BAC07V	Seal	\$ 55.60
002 BAC2620P	Impeller; Valox	\$ 148.70
002 BAC06200	Shaft	\$ 149.60
002 BAC04	Gasket	\$ 4.50
002 BAC04A	O-ring '96+	\$ 8.80
045 2000010	Bearing	\$ 14.49
002 HYDRK	Motor kit 210	\$ 115.40
002 HYDRKL	Motor kit 210L	\$ 68.65
002 HYDK304	Motor kit 304	\$ 115.40
002 HYDK304L	Motor kit 304L	\$ 115.40
002 HYDRK310	Motor kit 310	\$ 28.90
002 HYDK304L	Motor kit 310L	\$ 115.40
002 7AC-14-CCW	Volute	\$ 397.80
002 7AC-14-FLG	Flanged volute	\$ 497.55

ACE GE75/85 (1 X 3/4)

002 GE0775V	Seal GE75	\$ 54.40
002 BAC07660	Seal GE85	\$ 68.15
002 GE2675	Impeller GE75	\$ 68.15
002 GE2685	Impeller GE85	\$ 68.15
002 GE1275	Volute GE75/85	\$ 144.40
002 40017	Volute o-ring	\$ 15.20

ACE 650 SERIES

220 FLG & 1 1/2" X 200 FLG & 1 1/4"

002 BAC7650	Seal	\$ 106.65
002 BAC26650	Impeller	\$ 301.60
002 BAC75M16	Replacement motor	\$ 1116.50

DELEVAN HYDRAULIC

020 35745	Pump seal kit	\$ 63.00
-----------	---------------	----------

ACE GE660LE

002 ACAL-28-660-CI	Impeller-Cast	\$ 372.65
002 ACAL-28-660-P	Impeller-Poly	\$ 131.80
002 BAC07660	Seal	\$ 68.15
002 BAC04150	O-Ring	\$ 8.80

CDS 3" SP-3320

413 43005	Double seal	\$ 109.63*
413 S3638	4 Hole Gasket	\$ 10.27*
413 S3641	12 Hole Gasket	\$ 40.19*
413 S3648	Gasket Scroll Plate	\$ 11.23*
413 10203601	Scroll Plate	\$ 160.06*
413 102037-A	Impeller-NEW 327gpm	\$ 163.14*

HYPRO 1538 (1 1/2 x 1 1/4)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 04029200	Impeller	\$ 177.64
045 01529000	Volute	\$ 297.24

HYPRO 9203C (1 1/2 x 1 1/4)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 04029100	Impeller	\$ 67.45
045 01509000	Volute	\$ 315.56
045 3430-0844	Shaft	\$ 186.98

HYPRO 9203P-S (1 1/2 x 1 1/4)

045 3430-0333	Seal & O-ring	\$ 102.17
045 1721083	O-ring	\$ 22.79
045 3430-0846	Shaft kit	\$ 411.36
045 04039000	Impeller	\$ 77.46

HYPRO 9206C (2 x 1 1/2)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 4019200P	Impeller	\$ 142.90
045 3430-0844	Shaft Kit	\$ 186.98
045 1519200C	Volute	\$ 358.76

HYPRO 9205C (2 x 1 1/2)

045 3430-0537	Seal & O-ring	\$ 73.45
045 1720180	O-ring	\$ 6.55
045 3430-0846	Shaft Kit	\$ 411.36
045 04039200	Impeller	\$ 411.36
045 1529200C	Volute	\$ 625.04
045 2008001	Bearing	\$ 16.65

HYPRO HYDRAULIC MOTOR ONLY

045 2500081	HM1 Motor only	\$ 1367.64
045 2500084	HM4 Motor only	\$ 1367.64
045 2500085	HM5 Motor only	\$ 1367.64

above for Cast pumps only

9303HM HYDRAULIC (1 1/2 x 1 1/4)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 04029100	Impeller	\$ 67.45
045 3430748	Motor Kit(sn 18197 & below)	\$ 122.54
045 3430-0881	Motor Kit(sn 18198 & above)	\$ 105.06
045 3430-0850	Shaft HM2, HM4	\$ 331.22
045 3430-0855	Shaft HM3	\$ 427.39
045 3430-0852	Shaft HM1, HM5	\$ 240.39
045 01509000	Volute	\$ 315.56
045 01539000	Flanged volute	\$ 332.59

9304HM HYDRAULIC (2 x 1 1/2)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 4019200P	Poly Impeller	\$ 142.90
045 3430748	Motor Kit	\$ 122.54
045 3430-0855	Shaft HM3	\$ 427.39
045 3430-0852	Shaft HM1, HM5	\$ 240.39
045 1519200C	Volute	\$ 358.76

9305HM3 HYDRAULIC (2 x 1 1/2)

045 3430-0500	Seal & O-ring	\$ 81.13
045 1720180	O-ring	\$ 6.55
045 403920P1	Impeller	\$ 426.06
045 3430748	Motor Kit(sn 18197 & below)	\$ 122.54
045 3430-0881	Motor Kit(sn 18198 & above)	\$ 105.06
045 3430-0856	Shaft HM3	\$ 439.40
045 1529200C	Volute	\$ 625.04

9306HM HYDRAULIC (2 x 1 1/2)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 4019200P	Impeller	\$ 142.90
045 3430748	Motor kit	\$ 122.54
045 3430-0855	Shaft HM3	\$ 427.39
045 3430-0852	Shaft HM1, HM5	\$ 240.39
045 154920C1	Volute	\$ 475.46
045 01579200	Volute flanged	\$ 283.15

9307 HYDRAULIC (3 x 2)

045 3430604	Silicon carbide seal/o'ring	\$ 710.54
045 1721208	Volute o-ring	\$ 66.11
045 3430-0857	Shaft	\$ 544.92
045 1519300C	Flanged volute	\$ 2267.79
045 4009300S	Impeller	\$ 1450.43
045 2160-0096	Force Field Fluid 28oz	\$ 79.80

HYPRO 9401BD BELT DRIVE

045 3103009	540 Belt	\$ 100.83
045 3103010	1000 Belt	\$ 66.75

HYPRO 9402BD Belt Drive (1 1/4 x 1)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 3100005	1000 Belt	\$ 104.51
045 3100006	540 Belt	\$ 116.85
045 3430-0844	Shaft	\$ 186.98
045 04029100	Impeller	\$ 67.45
045 01509200	Volute	\$ 348.31

HYPRO 9403 Series Belt Drive (1 1/2 x 1 1/4)

045 3430-0332	Seal & O-ring	\$ 79.80
045 1720083	O-ring	\$ 4.77
045 3100006	540 Belt	\$ 116.85
045 3100005	1000 Belt	\$ 104.51
045 3430-0844	Pump shaft	\$ 186.98
045 04029100	Impeller	\$ 67.45
045 01509000	Volute	\$ 315.56

HYPRO 9600 TURBINE PUMP (1 1/2 x 1 1/2)

045 2112003	Shaft Seal	\$ 23.66
045 2008001	Bearing	\$ 16.65

HYPRO 9006 GEAR DRIVE

045 3430-0333	Seal & O-ring	\$ 102.17
045 1720083	O-ring	\$ 4.77
045 04039000	Impeller	\$ 77.46
045 3900039	Driver Gear/Oil Bath	\$ 53.77
045 3900010	Pinion Shaft	\$ 280.47
045 3900009	Ring Gear	\$ 111.53

HYPRO 9008/9028 GEAR DRIVE

045 3430-0333	Seal & O-ring	\$ 102.17
045 1720083	O-ring	\$ 4.77
045 04039000	Impeller	\$ 77.46
045 3900040	Driver Gear/Oil Bath	\$ 80.13
045 3900013	Sun Gear	\$ 265.77
045 05629002	Driver Hub	\$ 372.88
045 05501322	9028 Hub	\$ 495.49




SPRAYER PUMPS



ROLLER PUMPS

Roller pumps are used mainly in agriculture, park and turf management, and pest control. They operate efficiently at tractor PTO speeds. They handle suspensions of non-abrasive wetttable powders well and tolerate considerable wear before performance is adversely affected. Use Ni-Resist pumps for liquid fertilizers, soil fumigants, and insecticides containing phosphates. "C" is a cast iron body, "N" is for Ni-Resist, and "XL" is for stainless alloy. Viton seals are standard except for the 1500 series. Temperature range 20-140° F.



ORDER NO.	ROLLERS	RPM	0PSI		50PSI		100PSI		150PSI		List	SHAFT SIZE	PORT SIZE	LBS.
			GPM	HP	GPM	HP	GPM	HP	GPM	HP				
045 1500C	6	540	33.1	.51	27.8	1.4	24.3	2.4	21.0	3.5	\$ 1044.89	15/16	1.5	30
045 1500N	6	1000	62.1	2.0	56.9	3.6	53.9	5.3	50.9	7.1	\$ 1660.25	15/16	1.5	30
045 1700C	5	540	25.0	.27	21.0	1.1	19.0	2.1	17.0	2.8	\$ 680.74	15/16	1"	20
045 1700N	5	1000	45.0	1.4	43.0	3.0	41.0	4.6	39.0	6.0	DISC	15/16	1"	20
045 6500C	6	540	10.2	.09	8.1	.58	7.5	.83	6.7	1.1	\$ 329.18	5/8	3/4	9
045 6500N	6	1000	18.7	.25	16.4	1.1	15.8	1.5	14.7	2.1	\$ 753.83	5/8	3/4	9
045 7560C	8	540	12.0	.33	11.1	.74	10.3	1.2	9.5	1.7	\$ 430.00	15/16	3/4	14
045 7560N	8	1000	22.5	1.5	22.0	1.7	21.3	2.5	20.6	3.5	\$ 855.22	15/16	3/4	14
045 7700C	7										\$ 437.02			
045 7700N	7	540	14.2	.23	12.9	.56	11.9	1.1	11.2	1.6	\$ 814.49	15/16	3/4	14
045 4001C	4										\$ 329.18			
045 4001N	4	1800	9.1	.14	8.0	.46	7.3	.78	6.7	1.1	\$ 566.81	5/8	3/4	4
045 4101C	4										\$ 303.95			
045 4101N	4	2600	7.2	.16	6.6	.46	6.0	.76	5.4	1.0	\$ 546.83	5/8	3/4	4

NOTE: HYPRO "XL" SERIES PUMPS ARE AVAILABLE - CONTACT C & R FOR PRICING INFORMATION.

12 VOLT DC ELECTRIC MOTOR DRIVEN

ORDER NO.	0 PSI	20 PSI		40 PSI		LBS	LIST			
	GPM	AMPS	GPM	AMPS	GPM	AMPS				
045 4101NE	12V	7.5	10.4	6.2	15.8	5.4	22.5	16	\$ 1199.29	
045 4101XLE	12V	Same as above w/Silver Series Pump							14	\$ 1456.29
045 4101NH		Ni-Resist Pump Only; 1/2" Hollow Shaft							5	\$ 572.51
045 4101XLH		Silver Series Pump Only; 1/2" Hollow Shaft							5	\$ 835.22
045 4001NE2	12V	9.9	14.4	9.1	18.3	8.0	27.0	18	\$ 1350.65	
045 4001XLE2	12V	Same as above w/Silver Series Pump							18	\$ 1609.06
045 4001NH		Ni-Resist Pump Only; 1/2" Hollow Shaft							5	\$ 593.95
045 4001XLH		Silver Series Pump Only; 1/2" Hollow Shaft							5	\$ 853.78



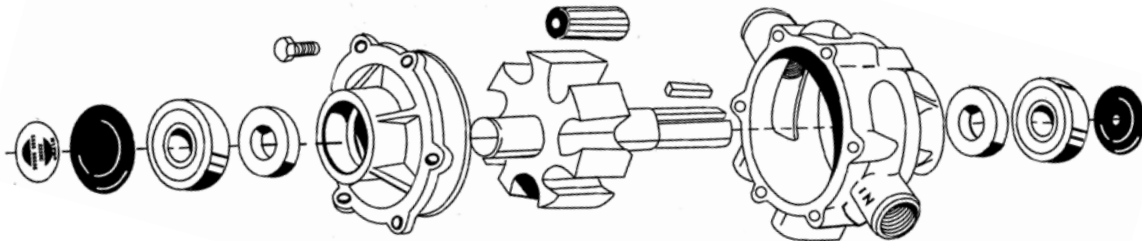
12V MOTOR SPEED CONTROLS ARE ON PAGE 55

045 1323074	5/8" 540 RPM - 1 3/8" PTO Quick Coupler	\$ 83.14
002 10345	5/8" 1000 RPM - 1 3/8" PTO Standard Adapter	\$ 61.50
045 1323075	Quick Coupler	\$ 107.84
045 1323072	15/16" 540 RPM - 1 3/8" PTO Quick Coupler	\$ 107.84

COUPLERS



045 1323073	15/16" 1000 RPM - 1 3/8" PTO Quick Coupler	\$ 103.51
045 1320081	1" 540 RPM - 1 3/8" PTO Standard adapter	\$ 109.52
045 1320080	1000 RPM - 1 3/4" PTO Standard adapter-15/16	\$ 105.50
045 1320015	SHAFT ADAPTERS 3/4" x 5/8" adapter	\$ 57.42
045 1320016	5/8" x 5/8" adapter	\$ 56.10



ROLLER PUMP REPAIR PARTS

PUMP MODEL	ROLLERS(QUA)	SEALS(2)	BEARINGS(2)	O-RING(1)
HYPRO 1500	045 1005005(6) \$ 11.51	045 2112003 \$ 23.66	045 2008001 \$ 16.65	045 1720003 \$ 4.20
HYPRO 1700	045 1005005(5) \$ 11.51	045 2112003 \$ 23.66	045 2008001 \$ 16.65	045 1720099 \$ 2.89
HYPRO 6500	045 1005004(6) \$ 5.24	045 2107002 \$ 14.93	045 2000010 \$ 14.49	045 1720008 \$ 2.16
HYPRO 7560	045 1005004(8) \$ 5.24	045 2112003 \$ 23.66	045 2008001 \$ 16.65	045 1720014 \$ 3.18
HYPRO 7700	045 1005004(7) \$ 5.24	045 2112003 \$ 23.66	045 2008001 \$ 16.65	045 1720014 \$ 3.18
HYPRO 4000	045 1005002(4) \$ 5.48	045 2107002 \$ 14.93	045 2000010 \$ 14.49	045 1720104 \$ 1.35



CENTRIFUGAL PUMPS



GAS ENGINE DRIVEN TRANSFER PUMPS

CALL FOR BEST PRICING

BANJO 2" POLY PUMP (EPDM SEAL) 195 GPM

ORDER NO.	ENGINE	LIST
102 200P6PRO	6.5HP-B/S-Pro	\$ 580.88*
102 200P5H	5.5HP-Honda	\$ 875.00*
102 205PO	PUMP ONLY	\$ 288.00*



BANJO 2" CAST PUMP (VITON SEAL) 225 GPM

ORDER NO.	ENGINE	LIST
102 222PI6	6.5HP-B/S Pro	\$ 1150.00*
102 222PI6H	6.5HP-Honda	\$ 1352.95*
102 222POI	PUMP ONLY (A)	\$ 570.50*
102 200POI	PUMP ONLY (B)	\$ 604.50*



BANJO 3" POLY PUMP (EPDM SEAL) 300 GPM



ORDER NO.	ENGINE	LIST
102 300P6H	6.5HP-Honda	\$ 1132.35*
102 300PO	PUMP ONLY	\$ 407.75*

BANJO 3" CAST PUMP (VITON SEAL) 330 GPM

ORDER NO.	ENGINE	LIST
102 300PI13H	13HP-Honda ES	\$ 2500.00*
102 300POI	PUMP ONLY	\$ 993.50*



BANJO 3" POLY WETSEAL PUMP 500 GPM



ORDER NO.	ENGINE	LIST
102 M350P13HW	13 HP-Honda ES	\$ 2218.75*
102 M350POW	PUMP ONLY	\$ 800.00*

CALL FOR BEST PRICING

*Replacement Part Diagrams
starting on page 151*



CENTRIFUGAL PUMPS



JOHN BLUE 2" POLY & CAST 200 GPM



ORDER NO.
413 32405HPOLY
413 PSP-3240
413 32406H
413 32406H-E
413 SP3240

ENGINE	CONST.
5.5HP-HONDA	Poly wet seal 2"
PUMP ONLY	Poly wet seal 2"
6.5 HP Honda	Cast wet seal 2"
6.5 HP ES Honda	Cast wet seal 2"
PUMP ONLY	Cast wet seal 2"

LIST
\$1070.00*
\$ 446.00*
\$ 1530.00*
\$ 1912.00*
\$ 823.00*



CALL FOR BEST PRICING

JOHN BLUE 3" CAST 400 GPM

2 YEAR warranty



ORDER NO.
413 335013H
413 SP3350BS
413 335013H-FLG
413 SP3350BS-FLG

ENGINE	CONST.
13HP ES Honda	Cast wet seal 3" FPT
PUMP ONLY	Cast wet seal 3" FPT
13HP ES Honda	Cast wet seal 3" FLG
PUMP ONLY	Cast wet seal 3" FLG

LIST
CALL*
\$ 1590.00*
CALL*
\$ 1590.00*



BANJO

PEDESTAL MOUNTED TRANSFER PUMPS

ORDER NO.	RPM	GPM	HP		SHAFT	INLET / OUTLET		LIST
102 205PB (A)	3450	195	5.0	Polypro body	3/4"	2"	2"	\$ 444.00*
102 222PBI (B)	3450	225	5.0	Cast Iron body	3/4"	2"	2"	\$ 779.00*
102 300PBI (C)	3450	320	5.0	Cast Iron body	1"	3"	3"	\$ 1459.00*
102 300PB (D)	3450	320	5.0	Polypro body	3/4"	3"	3"	\$ 673.00*
102 200PBI (E)	3450	190	5.0	Cast Iron body	3/4"	2"	2"	\$ 772.00*



POWERED by HONDA™

REPLACEMENT HONDA ENGINES



ORDER NO.	HP	DESCRIPTION	NET COST
500 GX120QX	4.0	STANDARD	CALL**
500 GX160HX	5.5	6-1 GEAR REDUCTION	CALL**
500 GX160QX	5.5	STANDARD	CALL**
500 GX160TX	5.5	5/8 THREAD SHAFT	CALL**
500 GX160QE	5.5	ELECTRIC START	CALL**
500 GX200QX	6.5	STANDARD	CALL**
500 GX200QE	6.5	ELECTRIC START	CALL**
500 GX270QA	9.0	STANDARD	CALL**
500 GX390QE	13.0	ELECTRIC START	CALL**
500 HON1010		OIL DRAIN KIT 3-6 HP	\$ 28.00*
500 HON1012		OIL DRAIN KIT 8-13 HP	\$ 28.00*
500 HON-RECOIL-390	13.0	HONDA GX390 RECOIL	\$ 37.00**



CENTRIFUGAL PUMPS

ELECTRIC DRIVEN CENTRIFUGAL PUMPS

ACE



ORDER NO.	MAX GPM	MAX PSI	VOLTS	HP	CONST.	IN/OUT	LIST
002 MPH-100-75SE	40	30	1 PH	3/4	CAST	1 1/4" X 1"	\$ 1927.60*
002 MPH-100-75TE	40	30	3 PH	3/4	CAST	1 1/4" X 1"	\$ 2384.30*



BANJO

ORDER NO.	MAX GPM	MAX PSI	VOLTS	HP	CONST.	IN/OUT	LBS	LIST
102 234PIE5	170	45	3 PH, Self Priming	5	CAST/VITON	2"	170	\$ 1926.50*
102 234PIE51	170	45	1 PH, Self Priming	5	CAST/VITON	2"	180	\$ 2455.88*
102 234PPE5	195	45	3 PH, Self Priming	5	POLY/VITON	2"	129	\$ 1911.75*
102 234PPE51	195	45	1 PH, Self Priming	5	POLY/VITON	2"	129	\$ 2110.25*



JOHN BLUE

ORDER NO.	MAX GPM	MAX PSI	VOLTS	HP	CONST.	IN/OUT	LBS	LIST
413 PSP-3240-E5D1B	200	45	1 PH, Self Priming	5	POLY	2"		\$ 1950.00*
413 SP-3340-E10TB-1	340	65	1 PH, Self Priming	10	CAST	3"		\$ 4810.00*
413 334010EW	340	65	3 PH, Self Priming	10	CAST	3"		\$ 3457.00*
413 335015EW	400	65	3 PH, Self Priming	15	CAST	3"		\$ 4040.00*
413 S-3220-E5D1	197	39	1 PH, STRAIGHT CENT.	5	CAST	2"		\$ 2522.00*
413 S-3220-E5T3	197	39	3 PH, STRAIGHT CENT	5	CAST	2"		\$ 2570.00*
413 PSP-3240-E	200	45	PUMP ONLY	5	POLY	2"		\$ 493.00*
413 S-3220-E	197	45	PUMP ONLY	5	CAST	2"		\$ 900.00*
413 SP-3340-E	340	65	PUMP ONLY	10	CAST	3"		\$ 1590.00*
413 SP-3350-E	400	65	PUMP ONLY	15	CAST	3"		\$ 1590.00*



Hydraulic Driven Pumps Available

Our Service Dept Specializes In Repair and Maintenance Using Only Genuine

OEM Parts!

Maintenance Questions? Need Repair? Call Us

1-800-232-2637

AVOID SPRING RUSH - BE READY TO GET IN THE FIELD!



PISTON PUMPS

JOHN BLUE



The NGP piston pump maintains all the same accuracy, performance, and dependability as the "L" & "LM" pump while taking serviceability to a new level. The new NGP replaces the "L" & "LM" series that has been successfully used for years. The one piece valve cap and new outboard cylinder makes service easy without removing hoses. Many other new features have been added to ensure longer trouble free life and better accuracy. The NGP-6055 replaces the L4405 and LM-2455 and the NGP-7055 replaces the LM-4455. **Both pumps have 1 1/2" FPT inlet and outlets or 220 FLG.**



ORDER NO.	DESCRIPTION	LIST
413 NGP6055-FLG	Single piston, 21 gpm Flanged (220)	\$ 2050.00*
413 NGP7055-FLG	Single piston, 34 gpm Flanged (220)	\$ 2430.00*

NGP-6050 SERIES*

Single Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1 1/2" FPT
Rated Flow - 21.0 GPM	Outlet - 1 1/2" FPT
Rated Pressure - 120 PSI	Clutch - Various Options

NGP-7050 SERIES*

Single Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1 1/2" FPT
Rated Flow - 34.2 GPM	Outlet - 1 1/2" FPT
Rated Pressure - 120 PSI	Clutch - Various Options

*Equivalent LM-4455 series



ORDER NO.	DESCRIPTION	LIST
413 NGP8055D	Dbl piston; split manifold 120 psi max/gpm rated @ 450 rpm	\$ 3115.00*

NGP-8050 SERIES

Double Piston - Double Acting	Rated Speed - 450 RPM
Stroke - Variable	Inlet - 1 1/2" FPT
Rated Flow - 42 GPM	Outlet - 1 1/2" FPT
Rated Pressure - 120 PSI	Clutch - Various Options

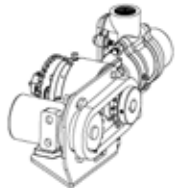


ORDER NO.	DESCRIPTION	LIST
413 NGP8055AR-FLG	Dual rate, Dbl piston, 5-1 ratio Flanged (220)	\$ 3200.00*

NGP-8055-AR DUAL RATE PISTON PUMP

Double Piston - Double Acting	Rated Speed - 450 RPM	Rated Pressure: 120 PSI
Stroke - Variable	Inlet - 1 1/2" FPT	
Rated Flow - 42 GPM total	Outlet - 1 1/2" FPT	
21 GPM per side	Clutch - No Clutch	

= Apply two products at two rates with one pump
= Max ratio 5 to 1



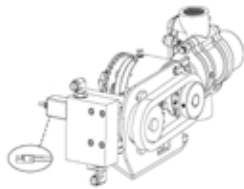
ORDER NO.	DESCRIPTION	LIST
413 116123-91	Drive kit for any Hyd control valve for NGP 6055/8055. Includes hyd motor	\$ 1301.07*
413 116124-91	Drive kit for any Hyd control valve for NGP 7055/9055. Includes hyd motor	\$ 1325.38*

116123-91

UNIVERSAL DRIVE KIT FOR USE WITH ANY HYDRAULIC FLOW CONTROL VALVE. MOTOR HAS 1/2" FEMALE PIPE PORTS FOR CONNECTION TO YOUR VALVE. Kit includes: mounting bracket for NGP-4055-F, 5055-DRF, 6055 and 8055 pumps, 1/2" FPT port motor (no-flow control valve), chain, sprockets and setup instructions.

116124-91

Same as above except with bracket to fit NGP-7055 and NGP-9055.



ORDER NO.	DESCRIPTION	LIST
413 VRH-PWM-15	Drive kit, NGP 6055. Bracket, PWM Valve, Hydraulic motor	\$ 2048.00*
413 VRH-PWM-17	Drive kit, NGP 7055. Bracket, PWM Valve, Hydraulic motor	\$ 2069.00*

VRH-PWM-15

VARIABLE RATE HYDRAULIC DRIVE KIT FOR RAVEN, AG LEADER™, TRIMBLE™ AND OTHER SYSTEMS THAT CAN CONTROL A PWM VALVE.

Motor has manifold with PWM valve and Raven-type plug. Kit includes: mounting bracket for NGP-4055-F, 5055-DRF, 6055 and 8055 pumps, chain, sprockets, hydraulic motor, PWM flow control manifold and setup instructions.

VRH-PWM-17

Same as above except with bracket to fit NGP-7055 and NGP-9055.



tire not included

ORDER NO.	DESCRIPTION	LIST
413 DRV3200 (B)	Universal planter pump bracket Specify size of main frame tube	\$ 1120.72*
413 DRV3300 (A)	Ground drive w/pump mount Push or pull/specify tube size/tire not included	\$ 2385.86*



John Blue has now made the already popular NGP pump even more versatile by pairing it up with a Hyd. motor and making it a direct drive system.



ORDER NO.	DESCRIPTION	LIST
413 NGP6055HY-FLG	NGP6055 Pump Only, Direct Drive	\$ 1370.00*
413 NGP7055HY-FLG	NGP7055 Pump Only, Direct Drive	\$ 1642.00*
413 116205-91D	Kit, HYD Motor/PWM Valve, Dead Head, Direct Dr.	\$ 1425.00*
413 116205-91	Kit, HYD Motor/PWM Valve, Direct Dr	CALL*
413 116115-01	Valve, PWM Replacement	\$ 836.79*

Need to order pump & hydraulic motor separately

DIRECT MOTOR /PWM MANIFOLD KITS:

- ← SHOWN: NGP-6055-HY with 116205-91 (Flow-thru style manifold)
- NEW 116205-91D (Dead-head style manifold; no hydraulic oil flow through)
- Draw fluid from remotely mounted tanks
- Lower-cost and more compact solution
- Quick adjustment to application rates
- Application rates won't change with temperature
- Incredible suction capability



SPECIAL APPLICATION PUMPS

LIL' THUMPER GROUND DRIVEN PUMPS



Injection molded case is made of durable Dupont Rynite to resist corrosion from ag chemicals and clear liquid fertilizer. Eccentrics are specially machined 4140 steel bearing material. Lil' Thumper piston pumps can be mounted on most trailer sprayers and will adapt to other application equipment. Single piston pump has 7.35 GPM output at 100 RPM full stroke. Double piston pump has 14.7 GPM output at 100 RPM full stroke. Maximum RPM 275.

ORDER NO.	DESCRIPTION	LIST
030 5232	Single piston 1.25" diameter solid shaft	\$ 2595.00*
030 5233	Double piston 1.25" diameter solid shaft	\$ 3956.25*



IRRIGATION INJECTION PUMPS

Full product line of John Blue injection pumps available. These pumps deliver accurate injection rates, maximum dependability and long-term reliability.



E-Z Meter Injection Pumps					
Power Source	5-30 GPH	10-100 GPH	5-30 5-30 GPH	5-30 10-100 GPH	10-100 10-100 GPH
110-220 1ph	10620	11630	10622	10623	10633
220-440 3ph	20620	21630	20622	20623	20633
Belt Drive	01620	01630	01622	01623	01633
Honda Engine	02620	02630	02622	02623	02633
12V DC Motors	30620	30630	30622	30623	30633

*-1 after the part number indicates pumps with Teflon™ cylinders, ideal for acid applications. For stainless steel check valves contact the factory.



Piston Pump Injection Pumps							
Model Number	Phase	Model Type	Low Range GPH	High Range GPH	Max PSI	Motor Size	GPH Range
IN-11610-NGP	Single	Simplex	2.6-26.2	5.9-59	120	1 1/2	2.6-117
		Duplex	5.2-52.4	11.7-117.4	120	1 1/2	
IN-11630-NGP	Three	Simplex	1.6-15.5	5.7-57	120	3/4	1.6-114
		Duplex	3.1-31	11.4-114	120	3/4	
IN-23510-NGP	Single	Simplex	5.5-55	12-122	120	1 1/2	5.5-242
		Duplex	11-108	24-242	120	1 1/2	
IN-23530-NGP	Three	Simplex	3-32	12-119	120	3/4	3-235
		Duplex	6-64	24-235	120	3/4	
IN-47010-NGP	Single	Simplex	8.2-81.9	18.4-183.8	120	1 1/2	8.2-363
		Duplex	16.2-162	36.3-363	120	1 1/2	
IN-47030-NGP	Three	Simplex	6-64.8	24-238	120	1 1/2	6-470
		Duplex	12-128	48-470.2	120	1 1/2	

*316 stainless steel available on any IN-235 or IN-470 models. Add -S after the part number.

STAINLESS STEEL SUMP PUMP



This submersible sump pump features stainless steel construction, 1/3 hp motor, auto float switch, and 20 foot cord. Pumps up to 35 GPM, (5 gpm with 24' head) with 1 1/4" discharge. 11 lbs.

ORDER NO.	DESCRIPTION	NET
190 EPPD3	1/3 hp sump pump	\$ 340.00**



SPECIAL APPLICATION PUMPS



DIAPHRAGM PUMPS

Diaphragm pumps provide economical and trouble free spraying. They are lightweight and compact compared to other pump types with similar flow and pressure ratings. They are also self-priming and require less horse-power. Models which require pulsation dampening have the dampners built into the manifold. All performances are maximum at 540RPM.



9910-D30 - 9.5GPM-550PSI

ORDER NO.	DESCRIPTION	LIST
045 D30	1"HB Inlet, 1/2"HB Outlet, Flanged	\$ 990.00
045 D30GRGI	D30 w/gear reduction and control unit	\$ 1855.00
045 KIT1703	1" Solid shaft kit	\$ 132.00
045 KIT1640	6:1 Gearbox for 5HP gas engine	\$ 750.00
045 GS40GI	Control unit, 2-1/2" outlets	\$ 287.00
045 KIT1916	D30 O-ring parts kit	\$ 15.38
045 KIT1724	D30 Diaphragm kit	\$ 76.75
045 KIT1917	D30 Valve parts kit	\$ 162.00
045 HYD5312	Hyd Mounting Flange	\$ 360.00

9910-D50 - 14.0GPM-550PSI

ORDER NO.	DESCRIPTION	LIST
045 D50	1 1/4"HB Inlet, 1/2"HB Outlet, Flanged	\$ 1725.00
045 KIT1707	1" Solid shaft kit	\$ 150.00
045 KIT1642	6:1 gearbox for 8-18 HP engine	\$ 825.00
045 GS40GI	Control Unit, 2-1/2" outlets	\$ 287.00
045 KIT1725	D50 Diaphragm parts kit	\$ 83.50
045 KIT1920	D50 Valve parts kit	\$ 166.00



9910-D70 - 19.0GPM-290PSI

ORDER NO.	DESCRIPTION	LIST
045 D70	1 1/4"HB Inlet, 1"HB Outlet	\$ 1325.00
045 KIT1711	1" Solid shaft kit	\$ 275.00
045 HYD2495	Hyd Mounting Flange	\$ 435.00
045 KIT1720	D70 Diaphragm parts kit	\$ 92.00
045 KIT2364	D70 Valve parts kit	\$ 210.37
045 KIT2365	D70 O-ring kit	\$ 23.95



9910-D115 - 30GPM-290PSI-550 RPM

ORDER NO.	DESCRIPTION	LIST
045 D115	1 1/2" HB Inlet, 1" HB Outlet	\$ 1985.00
045 KIT1711	1" Solid shaft kit	\$ 275.00
045 HYD2495	Hyd Mounting Flange	\$ 435.00
045 KIT1721	Diaphragm kit desmopan	\$ 120.00
045 KIT2370	D115 Valve kit	\$ 312.00
045 KIT2026	D115 O-ring kit	\$ 37.00



FULL LINE OF DIAPHRAGM PUMPS AVAILABLE

*** CALL FOR INFORMATION ***

3.5 gpm - 66 gpm

175 psi - 725 psi



045 2160038
Hypro Oil, Quart
\$ 21.36



SPECIAL APPLICATION PUMPS



SHURFLO 12 & 115 VOLT DIAPHRAGM PUMPS

12 Volt and 115 Volt Diaphragm pumps are compact, dependable, light-weight, quiet, and versatile. These are positive displacement pumps, available with internal bypass or demand switch motors. 12V pumps have Viton or Santoprene valves and continuous duty motors. 115V pumps have EPDM or Santoprene valves. All have santoprene diaphragms. Will handle up to 170° temperature. Pump speed controller available on page 55.

ORDER NO.	Maximum GPM/PSI	STYLE	MFG.NO.	VALVES	DIAPHRAM	APPLICATION	LIST
064 SHURFLO1	4.0 / 45	Switch	2088-514-144	Santo	Santo	Fin cooled/12 volt	\$ 315.33
064 SHURFLO2	3.3 / 45	Switch	2088-594-154	Santo	Santo	115V	\$ 255.73
064 SHURFLO3	4.0 / 45	Bypass	2088-514-500	Santo	Santo	12 Volt	\$ 301.24
064 SHURFLO4	1.8 / 60	Switch	8000-543-236	Viton	Santo	Spot Sprayer	\$ 179.88
064 SHURFLO5	1.8 / 60	Switch	8007-543-836	Viton	Santo	Fuse/Switch	\$ 201.55
064 SHURFLO6	1.4 / 60	Switch	8005-233-236	Epdm	Santo	115V	\$ 238.39
064 SHURFLO7	1.4 / 45	Bypass	8006-543-250	Viton	Santo	Foam Marker	\$ 178.79
064 SHURFLO8	1.4 / 45	Bypass	8000-933-250	Epdm	Santo	115V	\$ 238.39
064 SHURFLO9	3.0 / 45	Switch	2088-343-135	Viton	Santo	12 Volt	\$ 230.81
064 SHURFLO10	5.3 / 60	Switch	5059-1311-D011	Viton	Santo	12 Volt	\$ 333.75
064 SHURFLO11	5.3 / 90	Bypass	5059-3611-D011	Viton	Santo	12 Volt	\$ 333.75
064 DHP2	6.25 / 45	Switch	4311-035	Viton	Santo	12 Volt	\$ 563.47
500 FMLP3	.18 / 45	Bypass	8006-591-250	EPDM	Santo	Foam Marker	\$ 182.04
064 8-543250	1.4 / 50	Bypass	8000-543-250	Viton	Santo	12 Volt	\$ 193.96
064 8-812288	1.4 / 100	Switch	8000-812-288	Viton	Santo	115V Carpet cleaner	\$ 296.91
064 2-343500	3.3 / NA	1/4"ADAP	2088-343-500	Viton	Santo	12 Volt	\$ 182.04*
064 2-344500	3.0 / 45	Bypass	2088-344-500	Viton	Santo	12 Volt	\$ 212.39
064 2-594144	3.0 / 45	Switch	2088-594-144	Santo	Santo	115 V w/CORD	\$ 309.91
064 2088-594-500	3.3 / 50	Bypass	2088-594-500	Santo	Santo	115 V w/CORD	\$ 309.91
064 8007-543-850	1.8 / 50	Bypass	8007-543-850	Viton	Santo	12 Volt	\$ 196.13



2088 series



8000 Series



SWIVEL FITTINGS

ORDER NO.	DESCRIPTION	LIST
064 807100	Swivel 3/8" straight	\$ 1.80
064 806000	Swivel 3/8" elbow	\$ 1.70
064 807000	Swivel 1/2" straight	\$ 1.70
064 803400	Swivel 1/2" elbow	\$ 1.70
064 815401	Swivel 5/8" straight	\$ 3.42
064 815501	Swivel 5/8" elbow	\$ 2.90
064 815601	Swivel 3/4" straight	\$ 2.02
064 815701	Swivel 3/4" elbow	\$ 2.02

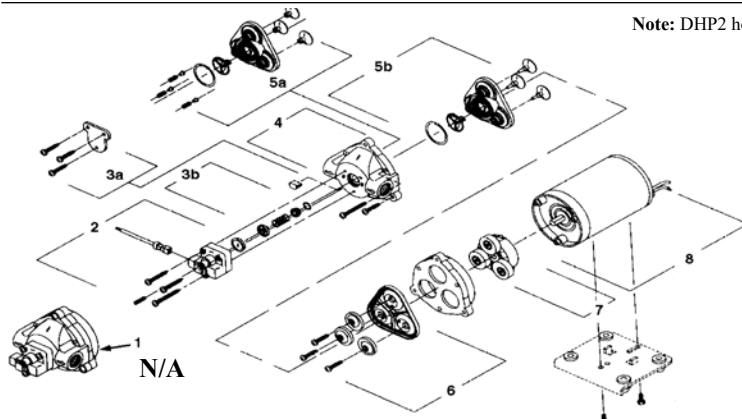


DHP2

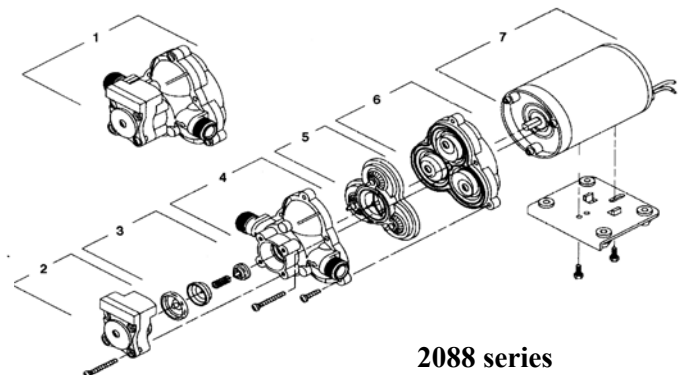
SHURFLO REPLACEMENT PARTS

MODEL NO.	6 DIAPHRAGM	5 VALVE KIT	2 SWITCH KIT	3 CK. VALVE KIT	4 HOUSING	1 HOUSING&SW.
SHURFLO1/FAN	064 9423803(santo)	064 9423205(viton)	064 9423055(viton)	064 9423705(viton)	064 9423130	064 9423105
2088-344-135	\$ 53.61	\$ 78.06	\$ 48.52	\$ 35.39	\$ 22.95	\$ 85.54
SHURFLO1/FIN	064 9423803(santo)	064 9423205(viton)	064 9423055(viton)	064 9423705(viton)	064 9423130	064 9423105
2088-313-145/2088-514-144	\$ 53.61	\$ 78.06	\$ 48.52	\$ 35.39	\$ 22.95	\$ 85.54
SHURFLO2	064 9423803(santo)	064 94232(santo)	064 9423035(santo)	064 9423705(viton)	064 9423130	064 9423105
2088-594-154	\$ 53.61	\$ 26.30	\$ 20.67	\$ 35.39	\$ 22.95	\$ 85.54
064 SHURFLO3	064 9423803(santo)	064 94232(santo)			064 9423800	
2088-514-500	\$ 53.61	\$ 26.30			\$ 53.66	
SHURFLO4	064 9438532(santo)	064 9439005(viton)	064 9437505(viton)	064 9437405(viton)	064 94379	
8000-543-236	\$ 73.64	\$ 59.58	\$ 49.54	\$ 18.00	\$ 30.38	
SHURFLO6	064 9438532(santo)	064 9439006(epdm)	064 9437505(viton)	064 9437405(viton)	064 94379	
8005-233-236	\$ 73.64	\$ 29.09	\$ 49.54	\$ 18.00	\$ 30.38	
SHURFLO7	064 9438532(santo)	064 9439109(viton)		064 9437405(viton)	064 94379	
8006-543-250/8000-543-250	\$ 73.64	\$ 73.45		\$ 18.00	\$ 30.38	
SHURFLO8	064 9438532(santo)	064 9439106(epdm)		064 9437405(viton)	064 94379	
8000-933-250	\$ 73.64	\$ 35.41		\$ 18.00	\$ 30.38	
SHURFLO9	064 9423803(santo)	064 9423205(viton)	064 9423035(santo)	064 9423705(viton)	064 9423130	064 9423105
2088-343-135	\$ 53.61	\$ 78.06	\$ 20.67	\$ 35.39	\$ 22.95	\$ 85.54
SHURFLO10/11	064 9491004	064 9491005(viton)	064 9491002	064 9491003	064 9491014 (11 only)	064 9491001 (10 only)
5059-1311-D011	\$ 117.45	\$ 75.04	\$ 32.24	\$ 21.37	\$ 64.74	\$ 64.16
DHP1&2	064 9423803(santo)	064 9423205(viton)	064 9423040(viton)	064 9423705(viton)	064 9423130	064 9423105
4111-035	\$ 53.61	\$ 78.06	\$ 44.17	\$ 35.39	\$ 22.95	\$ 85.54

Note: DHP2 housing for non-switch end of pump is part #064 9423140 \$21.05



8000 series



2088 series



SPECIAL APPLICATION PUMPS



FLOJET 12 & 115 VOLT DIAPHRAGM PUMPS

12 Volt and 115 Volt Diaphragm pumps are compact, dependable, light-weight, quiet, and versatile. These are positive displacement pumps available with internal bypass or demand switch motors.

ORDER NO.	VOLTS	GPM	PSI	STYLE	VALVES	DIAPHRAGM	LIST
289 2100-840	12	2.15	50	BYPASS	BUNA	BUNA	\$ 316.51
289 2100-856	115	1.6	60	SWITCH	VITON	BUNA	\$ 253.21
289 2100-894	12	2.15	40	BYPASS	VITON	BUNA	\$ 280.78
289 D21X003A	12	1.8	60	BYPASS	VITON	SANTO	\$ 250.15
289 4300-142	12	3.5	45	SWITCH	EPDM	SANTO	\$ 311.41
289 4300-143	12	4.9	45	SWITCH	EPDM	SANTO	\$ 311.41
289 4300-500	12	3.5	45	SWITCH	VITON	SANTO	\$ 331.83
289 4300-504	12	4.9	45	SWITCH	VITON	SANTO	\$ 280.78
289 4300-515	115	4.5	45	SWITCH	VITON	SANTO	\$ 362.46
289 R8621134A	12	6.0	70	BYPASS	VITON	SANTO	\$ 301.20



AIR DRIVEN DIAPHRAGM PUMP (.6-2.0 cubic ft/min)							
289 G575205A	AIR	5.0	100	AIR	SANTO	SANTO	\$ 153.15**
289 2073000A				Diaphragm kit for G57			\$ 40.92

G57 air driven pump

FLOJET REPLACEMENT PARTS

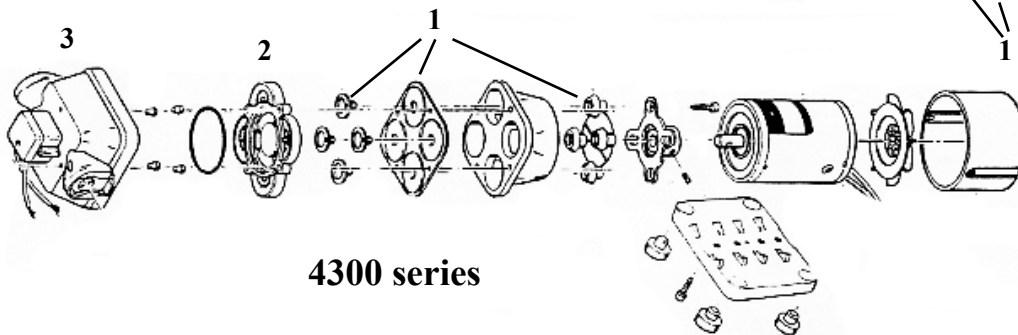
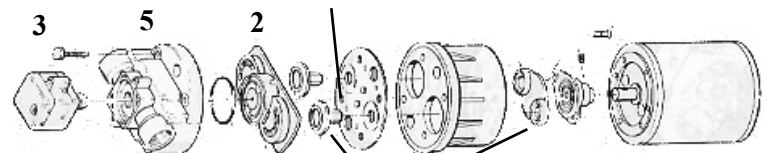
MODEL	DIAPHRAGM	VALVE KIT	SWITCH KIT	BYPASS KIT	HOUSING
	1	2	3	4	5
289 2100-774	289 21010001 \$ 68.41	289 20028035 \$ 47.91	no switch	no bypass	289 20500507 \$ 30.81
289 2100-840	289 21010001 \$ 68.41	289 20028086 (2BP) \$ 54.73	no switch	289 20378001 \$ 14.09	289 20500507 \$ 30.81
289 2100-856	289 21010001 \$ 68.41	289 20028035 \$ 47.91	289 02095100 \$ 69.79	no bypass	289 20500507 \$ 30.81
289 2100-894	289 21010001 \$ 68.41	289 20028086 (2BP) \$ 54.73	no switch	289 20378001 \$ 14.09	289 20500507 \$ 30.81
289 2100-914	289 21010001 \$ 68.41	289 20028086 (2BP) \$ 54.73	no switch	289 20378002 \$ 14.09	289 20500507 \$ 30.81
289 2100-959	289 21010001 \$ 68.41	289 20028089 (1BP) (obsolete)	no switch SW & HOUSING	289 20378003 \$ 16.96	289 20500507 \$ 30.81
289 4300-142	289 20403040 \$ 30.66	289 20407030 \$ 47.91	289 20404001 \$ 110.78		
289 4300-143	289 20403040 \$ 30.66	289 20407030 \$ 47.91	289 20404001 \$ 110.78		
289 4300-500	289 20403040 \$ 30.66	289 20407020 \$ 61.58	289 20404001 \$ 110.78		
289 4300-504	289 20403040 \$ 30.66	289 20407020 \$ 61.58	289 20404001 \$ 110.78		
289 4300-515	289 20403040 \$ 30.66	289 20407020 \$ 61.58	289 20404001 \$ 110.78		

PORT KITS 4300 SERIES

ORDER NO.	DESCRIPTION	LIST
289 20381000	Port X 1/2" mpt	\$ 6.59
289 20381002	Port X 1/2" hose barb	\$ 6.59
289 20381006	Port X 3/4" hose barb	\$ 6.59
289 20381008	Port X 1/2" mpt 90	\$ 6.59
289 20381009	Port X 1/2" hose barb 90	\$ 6.59
289 20381010	Port X 3/4" hose barb 90	\$ 6.59

2100 series

4-Bypass only; springs & poppets



4300 series



SPECIAL APPLICATION PUMPS



REMCO 12 VOLT DIAPHRAM PUMPS

ORDER NO.	VOLTAGE	GPM	PSI	TYPE	VALVES	DIAPHRAM	LIST
020 3214-82B	12	3.2	60	Switch	Viton	Santo	\$ 185.00
020 5537-82B	12	5.3	60	Switch	Viton	Santo	\$ 252.00
020 5538-94A	12	7.0	60	Switch	Viton	Santo	\$ 525.00

12V DC ELECTRIC MOTOR CONTROL WIRED & WIRELESS

EMC 150



ORDER NO.	DESCRIPTION	LIST
505 EMC150	Kit, Electric Motor Control w/Cables & Pressure Transducer	\$ 900.00*
505 040-0266	EMC Console Only	\$ 615.00*
505 080-0520	Pressure Transducer	\$ 230.00*
505 315025	Cable, 25' Pressure Transducer Ext	\$ 75.00*
500 IWS	Implement, Whisker Switch	\$ 200.00*

See page 11 for more information on the EMC

12V DC MOTOR SPEED CONTROLS

Ideal for spot sprayers, garden sprayers, and fertilizer applications. Regulates the pumps speed to match the output of nozzle or orifice being used. Stainless gauge. ESC models have 10' battery cable and 15' motor cable. Extension cable listed below.

ORDER NO.	DESCRIPTION	LIST
500 ESCNG	Control, 12 Volt, no gauge	\$ 475.00*
500 ESC30	Control, 12 Volt, Gauge, 30 Amp w/Stainless gauge	\$ 550.00*
500 ESCDD	Control, 12 Volt, Digital Gauge, 30 Amp	\$ 700.00*
500 215650	Cable, 25' Motor Control to pump	\$ 55.00*
500 215652	Cable, 10' Battery to Motor Control	\$ 51.25*
500 215651	Cable, 15' Motor Control Extension	\$ 50.00*
500 ESCDDTR	Pressure Transducer, ESCDD	\$ 115.00*
500 PWSC	PWM Motor Speed Control (requires flowmeter)	\$ 700.00*
500 PWSC-Raven	Kit, Raven, Elec. PWM Control Module (requires flowmeter)	\$ 740.00*

500 ESC30



500 ESCDD



LIQUID FEED APPLICATION

Using a John-Blue 2 inch wet seal pump mated with a 5.0 hp electric motor allows you to top off your feed in a matter of seconds. With the pump producing up to 195 gpm the pump can agitate & supply your product in a timely matter. From updating your existing system to building from scratch. C&R Supply can provide everything from the pump to the tank to the unloading arm.



ORDER NO.	DESCRIPTION	LIST
413 S-3220-E5D1	1 PH, Straight Cent, Cast 2"	\$ 2522.00*
413 S-3220-E5T3	3 PH, Straight Cent, Cast 2"	\$ 2570.00*
413 S-3220-E	Pump Only, 2" Wet Seal (Replacement)	\$ 900.00*
500 I104A-R115	5HP Electric Motor 1 PH (Replacement)	\$ 1550.00*
500 GT0012-R115	5HP Electric Motor 3 PH (Replacement)	\$ 1350.00*
500 3220BASE	Base for 3220 Pump & Motor	\$ 80.00*
500 3220ARM	Arm, Discharge	\$ 975.00*

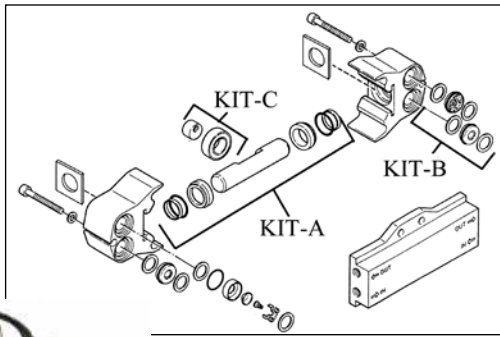
See Tank options on Page 34

Motor / Pump assembly mounted on Base



Tank shown with Discharge Arm

Breakdown PumpTec pump



ORDER NO.	DESCRIPTION	LIST
500 PT112	112 Series pump motor 1.5 gpm/250 psi max w/built in pressure control	CALL

PUMPTEC REPAIR KITS

ORDER NO.	DESCRIPTION	LIST
500 PTK112A	Plunger, seals 112 pump	\$ 70.00
500 PTK112B	Valves, o-rings 112 pump	\$ 42.75
500 PTK112C	Cam, bearing 112 pump	\$ 24.00
500 PTK356A	Plunger, seals 356 pump	\$ 109.00
500 PTK356B	Valves, o-rings 356 pump	\$ 47.75
500 PTK356C	Cam, bearing 356 pump	\$ 26.25

MISC PARTS

ORDER NO.	DESCRIPTION	LIST
500 PTM44	Motor only for model 1200	CALL
500 PTINJECT	Chem inject for model 1200	\$ 90.00
500 PTPULSE	Pulse hose 3/8" dampner	\$ 41.00
500 PTPRV	Relief valve for model 1200	\$ 80.25
500 PTCORD	35' GFI power cord; 115V	\$ 85.00
500 PTHL	Hi-lo nozzle 2.2 gpm	\$ 50.00
500 PTCART	2-wheel cart	\$ 225.00**

WASH OUT PUMP



Available with a 10 or 15 hp single or 3 phase motor coupled to a Hypro 9205C pump or 13 hp Honda coupled to a Ace GE860. Ideal for washing off equipment or cleaning out livestock trailers. Ask about available hose, reels and nozzles.

Call for more information and pricing.



MISCELLANEOUS

ORDER NO.	DESCRIPTION	LIST
045 3390063	Unloader, 1000psi-5gpm	\$ 121.00
045 3390067	Unloader, 1500psi-5gpm	\$ 121.00
500 ST265	Unloader, 3000psi-8gpm	\$ 100.00
045 2160038	Hypro oil, quart	\$ 21.36
045 33810032	Handgun only, 4000 psi	\$ 72.82



HIGH PRESSURE SPRAY TIPS ZERO DEGREE ROTARY NOZZLES

ORDER NO.	NOZZLE NO.	MAX PSI	MAX TEMP	INLET (NPT)	LIST PRICE
045 3325240	4.0	2600	190 F	1/4 F	\$ 254.40



15° FLAT SPRAY TIPS

ORDER NO.	DESCRIPTION	LIST
020 LF0415S	1000PSI-2GPM and 2600PSI-3.2GPM	\$ 13.37
020 LF0515S	1500PSI-3.2GPM	\$ 13.37
020 LF0615S	500PSI-2.2GPM and 800PSI-2.8GPM	\$ 13.37
020 LF0815S	500PSI-3.1GPM	\$ 13.37

STRAIGHT-THRU QUICK COUPLERS

SIZE	PSI	FEMALE	List	MALE	LIST
1/4"	1200	045 25FS	\$ 26.50	045 25FPB	\$ 11.50
3/8"	1000	045 38FS	\$ 33.50	045 38FPB	\$ 14.25
1/2"	700	045 50FS	\$ 47.50	045 50FPB	\$ 20.00
3/4"	500	045 75FS	\$ 62.50	045 75FPB	\$ 27.75

ALL COUPLERS HAVE FEMALE PIPE THREAD.





SPECIAL APPLICATION UNITS



Dandy-Lion Killer

These applicators feature roller wick with height adjustment for use with 2-4D or Roundup. These units eliminate all drift. Both hand push and trailer type are gravity fed for simple no maintenance plumbing

ORDER NO.	DESCRIPTION	NET
500 WR48	48", WEED ROLLER 12 gal (pull-type)	\$ 640.00**
500 WR72	72", WEED ROLLER 25gal (pull-type)	\$ 915.00**



Preservative Applicator

Liquid Applicators are designed for use on balers, baggers, and other equipment to apply liquid inoculants and preservatives. These applicators are versatile to cover many different crops and application rates, and are easily mounted on most equipment.



ORDER NO.	DESCRIPTION	LIST
500 SS025H	Preservative Applicator, 25 Gal (For Electronic control see page 55)	\$ 485.00*

BACK PACK SPRAYER

The Hudson "NeverPump" Bak-Pak Sprayer can spray for 10 hours on a single charge. 4 different nozzles allow you to spray a variety of adjustable patterns; stream, dual mist, fan, shower. Viton seals and a selection of nozzles are included to give a wide range of spraying options. Battery fully charges in 10 hours.



ORDER NO.	DESCRIPTION	NET
500 H19001	Backpack Sprayer; 4 gal, Battery	\$ 150.00**

SEED TREATER

Treat your seed with this 5 gallon unit. Comes complete with cone bottom tank for complete clean out, choice of 12 volt or 115 volt Shurflo pump, bypass pressure adjustment, filter, gauge, hose, and nozzles.



ORDER NO.	DESCRIPTION	LIST
500 ST05A	Seed treater 5 gal./12 volt	\$ 600.00*
500 ST05B	Seed treater 5 gal./115 volt	\$ 660.00*

HAND SPRAYERS

"HUDSON" quality and dependability sets these apart from the others. Great for household and small jobs. Heavy duty spray wand, viton seals, and poly tank.



ORDER NO.	DESCRIPTION	NET
500 H79142	2 1/2 qt sprayer	\$ 14.00**
500 H90162	2 gallon Pro sprayer	\$ 50.00**

DENSITY SCALE



GRAIN TEST WEIGHT SCALE is a valuable tool for evaluating grain production. FERTILIZER DENSITY SCALE accurately measures the density of various fertilizer blends by both, pounds per cubic foot and kilograms per cubic meter.

ORDER NO.	DESCRIPTION	LIST
500 FDS	Scale, Fertilizer Density	\$ 82.00*
500 GWS	Scale, Grain Density	\$ 82.00*



SPECIAL APPLICATION UNITS



MIST BLOWERS

Use these sprayers to spray insecticides, herbicides, and fungicides. Great for use in livestock insect control, pasture/rangeland weed control, roadside ditches, fence rows, creek beds, lagoons, levees, produce, public areas like camp grounds, golf courses, municipal uses for insect control, and barrier treatment for all types of insects.



ORDER NO. 500 LS20 CALL FOR PRICE

9 hp stand alone skid mount unit with 20 gal tank for UTV. Up to 60' coverage.



ORDER NO. 500 3PTH55 CALL FOR PRICE

3 point mounted unit, with 55 gal tank, hydraulic controlled valve, 4 roller pump, and electric on/off spray control with wiring harness. Fits category I or II. Up to 100' of coverage.

FLY FOGGER/SPRAYER



500 FS006



500 FS006C

This 12 volt system lets you fog or straight stream your choice of fly sprays. Use with premix products or concentrates that mix with your choice of carrier. The pump delivers up to 1 gpm at a maximum 225 psi. An adjustable relief valve lets the operator decide the pressure from 0-225psi. The unit comes with a 6 gallon tank and 18" spray gun with quick couplers to a 25 ft. hose to let you move about with ease. A 15 ft. wiring harness with battery clips lets you hook to a vehicle battery or to a deep cycle marine battery. This versatile sprayer is used for livestock on pasture, in feedlots, confinement, dairy barns, manure pits, bunklines, or anywhere flies are a problem. Choice of hand carry model or wheeled cart model. Battery/battery box not included. The unit may also be used as a weed sprayer.

ORDER NO.	DESCRIPTION	LIST
500 FS006	6 Gal fly sprayer	\$ 905.00*
500 FS006C	6 Gal w/ cart	\$ 1105.00*
500 PTF5	Pump Only	\$ 480.00*
003 AH025038-25ft	Replacement Hose	\$ 15.00*

SPRAY IT SAFE! Wear protective clothing while spraying and handle all chemicals with care. Protective Equipment is on page 118.



ORDER NO. 500 LS60 CALL FOR PRICE

9 hp stand alone skid mount unit with 60 gal tank for UTV or pickup bed application. Up to 60' of coverage.



SPRAYER ACCESSORIES



GUNDOWN FOAM ELIMINATOR

Formulated to aggressively neutralize high density foam in pesticide tank mixes where nitorgen-based adjuvants or fertilizers are used. Eliminates foam spillovers and has long lasting control. For antifoam use 1-2 ounces per 100 gallons. As a general defoamer use 2-4 ounces per 100 gallons. Follow label recommendations for mixing.



ORDER NO.	DESCRIPTION	LIST
500 GUNDOWN	Foam eliminator quarts	\$ 31.75*
500 73701	Foam eliminator gallons	\$ 71.75*

DIRECT DRIFT RETARDANT

Reduces drift risk and maximizes pesticide performance by binding ultra small spray particles together into larger droplets, which are more capable of hitting their intended target. The use rate is 1 to 4 ounces per 100 gallons of spray solution.



ORDER NO.	DESCRIPTION	LIST
500 DIRECT	Drift retardant Quart	\$ 37.00*

FOAM & FOAM DYE



Mad Dog Plus is specifically formulated to maximize marking foam performance by generating greater volumes of heat-stable marking foam under low to moderate pressures. Mad Dog Plus produces large volumes of thick, long-lasting foam that allows applicators to drop more foam at higher speeds. In side by side field tests Mad Dog Plus has out lasted ordinary marking foams by twice as long. Use rate is 100-1 or 12-13 oz. per 100 gallons water.

ORDER NO.	DESCRIPTION	LIST
500 FC1	Foam concentrate, gal	\$ 67.75*
500 FDB	Foam dye blue, pint	\$ 14.00*
500 FDF	Foam dye florescent, pint	\$ 14.00*
500 FDR	Foam dye red, pint	\$ 14.00*

CALIBRATION EQUIPMENT

Plastic containers calibrated in ounces and gallons.

ORDER NO.	SIZE	LIST
084 106454	50oz	\$ 47.50*
139 116002	5gal	\$140.00*
500 MP34	34 oz.	\$ 9.00*
500 MP128	128 oz.	\$ 16.50*

500 SC1 Electronic calibrator \$ 220.00*
Provides quick and accurate flow rate checking of individual nozzles



WIND METERS

Pocket air velocity meters with displays of temperature, humidity, dew point. LCD display with user selectable measuring units. Auto shutoff, water resistant, and will float if dropped in water. Hard case and lanyard included. Two year warranty.

ORDER NO.	DESCRIPTION	LIST
500 WVM	Mechanical wind speed only	\$ 56.00*
500 K1000	Wind speed only	\$ 100.00**NET
500 K2000	Wind speed, Temp, Wind Chill	\$ 125.00**NET
500 K3000	Wind speed, Temp, Humidity, Wind Chill	\$ 200.00**NET



TEEJET CLEANING BRUSH

Clean your tips and nozzles without hurting the pattern.

ORDER NO.	LIST
097 N20016	\$ 11.37



DRY TANK CLEANER

ORDER NO.	DESCRIPTION	LIST
010 M2	1 lb Can Dry	\$ 15.00*

Use approximately 1 lb per 300 gallon of tank capacity.
Always read directions.

LIQUID TANK CLEANER

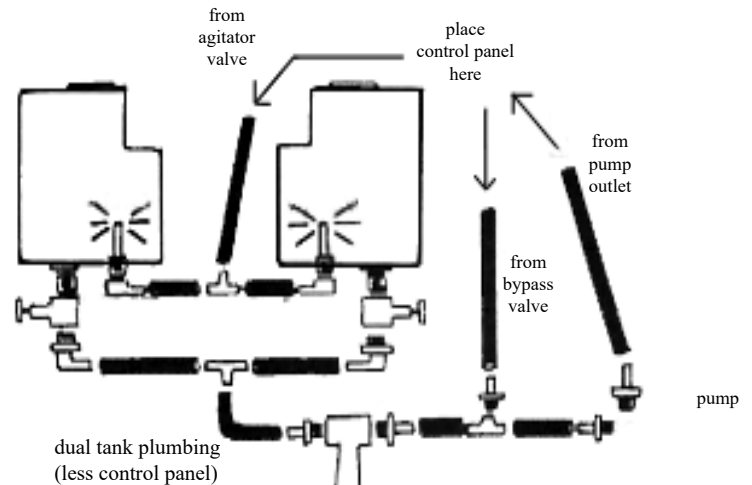
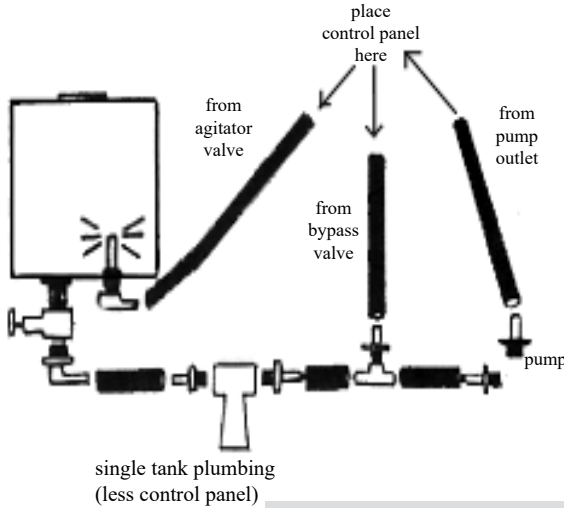
A powerful, liquid spray tank cleaner formulated to emulsify and bond pesticide residues to the rinse water solution for complete purging. No undissolved grit to plug screens and nozzles
40 CFR-approved status
Antiredeposition aids improved cleanout
High pH neutralizes organic acids
Penetrates residue buildup
Contains corrosion inhibitors
Concentrated liquid formula

ORDER NO	Description	List
500 ERASE	1 gal Liquid	\$ 48.00*

Use one quart per 100 gallons of clean water rinsate

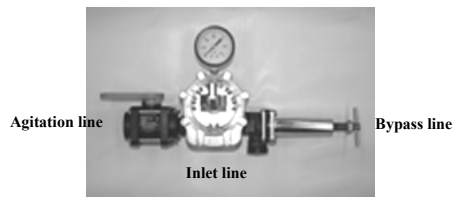


Basic plumbing kits are available for roller or centrifugal pumps (please specify type of pump being used). These kits are packaged for either single or dual tank spraying units. Kits include all valves, strainer, bypass agitation, hose, hose barbs, clamps and choice of control panel.

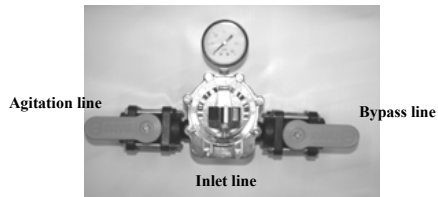


ELECTRIC KITS PRICED LESS ELECTRIC BOOM VALVES
SEE PAGES 97-98, 133 FOR ELECTRIC VALVE CHOICES

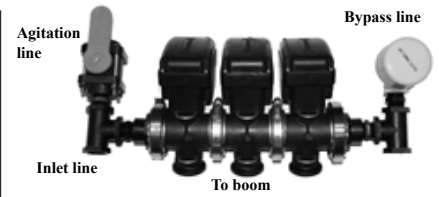
SINGLE TANK SYSTEMS					DUAL TANK SYSTEMS				
ORDER NO.	NUMBER OUTLETS	TIP CONTROL	FLOW CONTROL	LIST	ORDER NO.	NUMBER OUTLETS	TIP CONTROL	FLOW CONTROL	LIST
500 PS050	0	None	None	\$ 48.00*	500 PD050	0	None	None	\$ 81.00*
500 PS100	3	Manual	Manual	\$ 392.00*	500 PD100	3	Manual	Manual	\$ 590.00*
500 PS200	1	Manual	Manual	\$ 300.00*	500 PD200	1	Manual	Manual	\$ 498.00*
500 PS300	1	Electric	Manual	\$ 271.00*	500 PD300	1	Electric	Manual	\$ 450.00*
500 PS400	2	Electric	Manual	\$ 656.00*	500 PD400	2	Electric	Manual	\$ 830.00*
500 PS500	3	Electric	Manual	\$ 656.00*	500 PD500	3	Electric	Manual	\$ 830.00*
500 PS600	1	Electric	Electric	\$ 558.00*	500 PD600	1	Electric	Electric	\$ 750.00*
500 PS700	2	Electric	Electric	\$ 760.00*	500 PD700	2	Electric	Electric	\$ 910.00*
500 PS800	3	Electric	Electric	\$ 760.00*	500 PD800	3	Electric	Electric	\$ 910.00*
500 PS900	3	Electric	SCS450	CALL	500 PD900	3	Electric	SCS450	CALL
500 PS075	Dual agitation for over 400 gal tanks.			\$ 73.00*	500 PD075	Extension kit for 4WD and front mounts.			\$ 70.00*



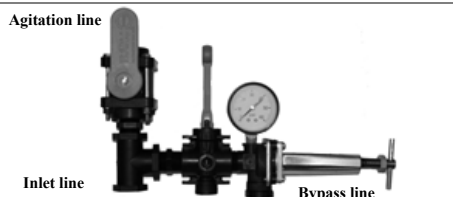
P(SorD)100 Roller Pump



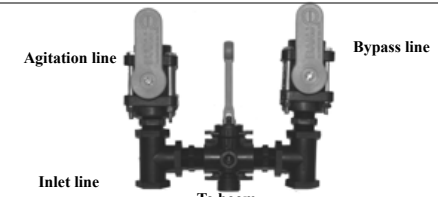
P(SorD)100 Cent. Pump



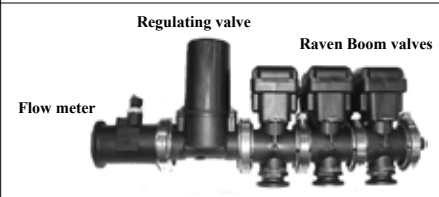
P(SorD)800



P(SorD)200 Roller Pump



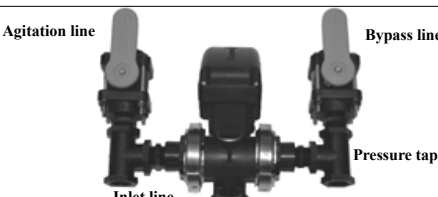
P(SorD)200 Cent. Pump



P(SorD)900



P(SorD)300 Roller Pump



P(SorD)300 Cent. Pump





BOOMLESS NOZZLES



BOOMJET BOOMLESS NOZZLE

Type 5880 boomjet nozzle combines two off-center tips and three veejet nozzles to produce an overall wide swath flat spray. Nozzle assembly provides good distribution for the wide pattern coverage obtained. Supplied with one additional 1/4" npt pipe plug and one blank tip for setting boomjet to spray to one side only. The 5880 also has a 1/4" npt pressure gauge port. 2 lbs.

ORDER NO.	OC TIPS (Two)	VEEJET TOP TWO	VEEJET BOTTOM NOZZLE	LIQUID PSI	TOTAL GPM	"W" FEET	GALLONS PER ACRE				
							4 MPH	5 MPH	7.5 MPH	10 MPH	15 MPH
097 B5880A \$ 322.81	OC06	H1/4VV-1506	H1/4VVL-9502	20	1.8	33	6.8	5.4	3.5	2.7	1.8
				30	2.3	34	8.2	6.6	4.4	3.3	2.2
097 B5880B \$ 322.81	OC10	H1/4U-0508HE	H1/4VVL-11004	20	2.8	39	8.9	7.1	4.7	3.5	2.4
				30	3.5	40	10.7	8.6	5.7	4.3	2.9
097 B5880C \$ 322.81	OC20	H1/4U-0520HE	H1/4VVL-9506	20	6.1	47	16	12.8	8.5	6.4	4.3
				30	7.4	50	18.4	14.7	9.8	7.4	4.9
				40	8.6	52	20	16.4	10.9	8.2	5.5



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

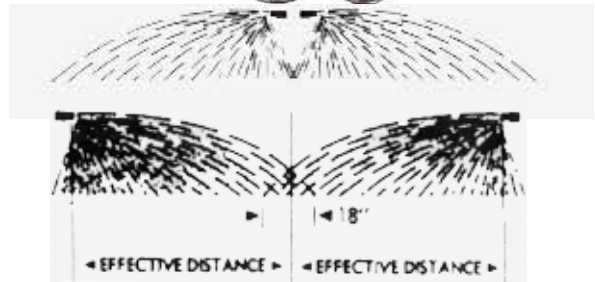


W=Maximum Effective Coverage with nozzle mounted at 36" height.

BOOMBUSTER SPRAY NOZZLES

Spray nozzles that work without booms. All types of spraying applications can be completed fast and easy without the need for booms, and there is no need for fine mesh strainers that plug up the boombuster nozzles. ADD "R" TO SPECIFY FOR ROADSIDE WORK. (no kickback)

ORDER NO.	NOZZLE ANGLE	LIQUID PSI	NOZZLE GPM	BOOM BUSTER EFF. DIST.	SOLID STAINLESS STEEL				
					4 MPH	5 MPH	7 MPH	10 MPH	12 MPH
500 BB1203 (1/4 thread) \$ 119.00*	DOWN	30	1.7	3	70	56	40	28	23
	DOWN	40	2.0	3	83	66	47	33	27
	DOWN	50	2.2	3	91	73	52	36	30
500 BB1205 (1/4 thread) \$ 119.00*	DOWN	30	1.7	5	42	34	24	17	14
	DOWN	40	2.0	5	50	40	28	20	17
	DOWN	50	2.0	5	54	44	31	22	18
500 BB125 (1/4 thread) \$ 119.00*	LEVEL	20	1.5	14	13.3	10.6	7.6		
	LEVEL	30	1.7	15.5	13	11	7.8		
	LEVEL	40	2.0	15.5	16	13	9.1		
500 BB140 (1/4 thread) \$ 127.00*	LEVEL	30	2.0	16.5	15	12	8.5	6	5
	LEVEL	40	2.4	16.5	18	14	10	7	6
	LEVEL	50	2.7	16.5	20	16	12	8	6.8
500 BB1806 (3/8 thread) \$ 133.00*	DOWN	30	3.6	6	74	59	42	30	25
	DOWN	40	4.3	6	89	71	51	35	30
	DOWN	50	4.8	6	100	79	57	40	33
500 BB18010 (3/8 thread) \$ 133.00*	DOWN	30	3.6	10	45	36	25	18	15
	DOWN	40	4.3	10	53	43	30	21	18
	DOWN	50	4.8	10	59	48	34	24	20
500 BB187 (3/8 thread) \$ 133.00*	LEVEL	30	3.6	18.5	24	19	14	9.6	8
	LEVEL	40	4.3	18.5	29	23	16	12	9.6
	LEVEL	50	4.8	18.5	32	26	18	13	11
500 BB265 (1/2 thread) \$ 147.00*	LEVEL	30	6.8	19.5	43	35	25	17	14
	LEVEL	40	8.0	19.5	51	41	29	20	17
	LEVEL	50	8.8	19.5	56	45	32	22	19
500 BB375 (3/4 thread) \$ 155.00*	LEVEL	30	14.4	21.5	83	66	47	33	28
	LEVEL	40	16.7	21.5	96	77	55	38	32
	LEVEL	50	18.8	21.5	108	87	62	43	36
500 BB437 (3/4 thread) \$ 162.00*	UP	30	18.5	29.5	78	62	44	31	26
	UP	40	21.5	29.5	90	72	52	36	30
	UP	50	24.2	29.5	102	81	58	41	34
500 BB500 (1" thread) \$ 194.00*	LEVEL	30	29	20	179	142	102	72	60
	LEVEL	40	33	20	204	164	116	82	68
	LEVEL	50	37	20	229	182	130	91	76
500 BB504 (1" thread) \$ 194.00*	UP	30	29	41	90	72	51	36	30
	UP	40	33	41	102	82	58	41	34
	UP	50	37	41	114	91	65	46	38



ROAD SIDE NOZZLE COMBINATIONS		
5-15MPH	180-6	(6')
	260-11	(11')
	375	(21')
	437	(29')
4-10MPH	120-5	(5')
	180-10	(10')
	265	(19')

OPERATION

In multiple pass spraying, the end of the pattern should overlap approximately 18".

Use effective distance in feet for all calculations. See effective distance in feet in chart.

A coarse mesh inline strainer may be necessary if tank becomes contaminated with large particles.

Small mesh nozzle strainers are not necessary due to the large orifice opening in these nozzles.

With these nozzles high and gusty wind can cause some pattern shifting. Use good judgement when windy.

NOZZLE INSTALLATION

For single nozzle installation, the supply line must be one size larger than the nozzle thread size. Example, if the nozzle has a 1/2" thread, the supply line must be 3/4".

Boombuster nozzles are tested at a height of 48" but can be operated lower or higher than 48".

Some nozzles must be installed with the nozzle angled up, some angled down, and some level with the ground. This is necessary and important for proper operation of the nozzle. See chart for the nozzle in use.

Nozzles mounted back to back should be close enough to insure proper overlap between the nozzles.

Use street elbows for quick and easy nozzle adjustment.

SPRAY IT SAFE! Wear protective clothing while spraying and handle all chemicals with care. Protective equipment is on page 118.



Hypro Guardian Air Twin Nozzles



Spray Tip	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20 inch nozzle spacing								
			MPH								
			6	7	8	9	10	12	15	18	
015	20	0.11	5.4	4.7	4.1	3.6	3.3	2.7	2.2	1.8	
	30	0.13	6.4	5.5	4.8	4.3	3.9	3.2	2.6	2.1	
	40	0.15	7.4	6.4	5.6	5.0	4.5	3.7	3.0	2.5	
	50	0.17	8.4	7.2	6.3	5.6	5.0	4.2	3.4	2.8	
	60	0.18	8.9	7.6	6.7	5.9	5.3	4.5	3.6	3.0	
	70	0.20	9.9	8.5	7.4	6.6	5.9	5.0	4.0	3.3	
	80	0.21	10.4	8.9	7.8	6.9	6.2	5.2	4.2	3.5	
90	0.23	11.4	9.8	8.5	7.6	6.8	5.7	4.6	3.8		
02	20	0.14	6.9	5.9	5.2	4.6	4.2	3.5	2.8	2.3	
	30	0.17	8.4	7.2	6.3	5.6	5.0	4.2	3.4	2.8	
	40	0.20	9.9	8.5	7.4	6.6	5.9	5.0	4.0	3.3	
	50	0.22	10.9	9.3	8.2	7.3	6.5	5.4	4.4	3.6	
	60	0.24	11.9	10.2	8.9	7.9	7.1	5.9	4.8	4.0	
	70	0.26	12.9	11.0	9.7	8.6	7.7	6.4	5.1	4.3	
	80	0.28	13.9	11.9	10.4	9.2	8.3	6.9	5.5	4.6	
90	0.30	14.9	12.7	11.1	9.9	8.9	7.4	5.9	5.0		
025	20	0.18	8.9	7.6	6.7	5.9	5.3	4.5	3.6	3.0	
	30	0.22	10.9	9.3	8.2	7.3	6.5	5.4	4.4	3.6	
	40	0.25	12.4	10.6	9.3	8.3	7.4	6.2	5.0	4.1	
	50	0.28	13.9	11.9	10.4	9.2	8.3	6.9	5.5	4.6	
	60	0.31	15.3	13.2	11.5	10.2	9.2	7.7	6.1	5.1	
	70	0.33	16.3	14.0	12.3	10.9	9.8	8.2	6.5	5.4	
	80	0.35	17.3	14.9	13.0	11.6	10.4	8.7	6.9	5.8	
90	0.38	18.8	16.1	14.1	12.5	11.3	9.4	7.5	6.3		
03	20	0.21	10.4	8.9	7.8	6.9	6.2	5.2	4.2	3.5	
	30	0.26	12.9	11.0	9.7	8.6	7.7	6.4	5.1	4.3	
	40	0.30	14.9	12.7	11.1	9.9	8.9	7.4	5.9	5.0	
	50	0.34	16.8	14.4	12.6	11.2	10.1	8.4	6.7	5.6	
	60	0.37	18.3	15.7	13.7	12.2	11.0	9.2	7.3	6.1	
	70	0.40	19.8	17.0	14.9	13.2	11.9	9.9	7.9	6.6	
	80	0.42	21	17.8	15.6	13.9	12.5	10.4	8.3	6.9	
90	0.45	22	19.1	16.7	14.9	13.4	11.1	8.9	7.4		
04	20	0.28	13.9	11.9	10.4	9.2	8.3	6.9	5.5	4.6	
	30	0.35	17.3	14.9	13.0	11.6	10.4	8.7	6.9	5.8	
	40	0.40	19.8	17.0	14.9	13.2	11.9	9.9	7.9	6.6	
	50	0.45	22	19.1	16.7	14.9	13.4	11.1	8.9	7.4	
	60	0.49	24	21	18.2	16.2	14.6	12.1	9.7	8.1	
	70	0.53	26	23	19.7	17.5	15.7	13.1	10.5	8.7	
	80	0.57	28	24	21	18.8	16.9	14.1	11.3	9.5	
90	0.60	30	26	22	19.8	17.8	14.9	11.9	9.9		

Spray Tip	Pressure (PSI)	Flow Rate (GPM)	Gallons per Acre 20 inch nozzle spacing								
			MPH								
			6	7	8	9	10	12	15	18	
05	20	0.35	17.3	14.9	13.0	11.6	10.4	8.7	6.9	5.8	
	30	0.43	21	18.2	16.0	14.2	12.8	10.6	8.5	7.1	
	40	0.50	25	21	18.6	16.5	14.9	12.4	9.9	8.3	
	50	0.56	28	24	21	18.5	16.6	13.9	11.1	9.2	
	60	0.61	30	26	23	20	18.1	15.1	12.1	10.1	
	70	0.66	33	28	25	22	19.6	16.3	13.1	10.9	
	80	0.71	35	30	26	23	21	17.6	14.1	11.7	
90	0.75	37	32	28	25	22	18.6	14.9	12.4		
06	20	0.42	21	17.8	15.6	13.9	12.5	10.4	8.3	6.9	
	30	0.52	26	22	19.3	17.2	15.4	12.9	10.3	8.6	
	40	0.60	30	25	22	19.8	17.8	14.9	11.9	9.9	
	50	0.67	33	28	25	22	19.9	16.6	13.3	11.1	
	60	0.73	36	31	27	24	22	18.1	14.5	12.0	
	70	0.79	39	34	29	26	23	19.6	15.6	13.0	
	80	0.85	42	36	32	28	25	21	16.8	14.0	
90	0.90	45	38	33	30	27	22	17.8	14.9		
08	20	0.57	28	24	21	18.8	16.9	14.1	11.3	9.4	
	30	0.69	34	29	26	23	20	17.1	13.7	11.4	
	40	0.80	40	34	30	26	24	19.8	15.8	13.2	
	50	0.89	44	38	33	29	26	22	17.6	14.7	
	60	0.98	49	42	36	32	29	24	19.4	16.2	
	70	1.06	52	45	39	35	31	26	21	17.5	
	80	1.13	56	48	42	37	34	28	22	18.6	
90	1.20	59	51	45	40	36	30	24	20		
10	20	0.71	35	30	26	23	21	17.6	14.1	11.7	
	30	0.87	43	37	32	29	26	22	17.2	14.4	
	40	1.00	50	42	37	33	30	25	19.8	16.5	
	50	1.12	55	48	42	37	33	28	22	18.5	
	60	1.22	60	52	45	40	36	30	24	20	
	70	1.32	65	56	49	44	39	33	26	22	
	80	1.41	70	60	52	47	42	35	28	23	
90	1.50	74	64	56	50	45	37	30	25		
15	20	1.06	52	45	39	35	32	26	21	17.5	
	30	1.30	64	55	48	43	39	32	26	21	
	40	1.50	74	64	56	50	45	37	30	25	
	50	1.68	83	71	62	55	50	42	33	28	
	60	1.84	91	78	68	61	55	46	36	30	
	70	1.98	98	84	74	65	59	49	39	33	
	80	2.12	105	90	79	70	63	52	42	35	
90	2.25	111	95	84	74	67	56	45	37		

ORDER NO.	DESCRIPTION	LIST
045 GAT110-__	Guardian Air Twin w/ Filter	\$ 18.13
045 65-BS205	Replacement O-ring	\$.64

GuardianAIR Twin spray nozzles are a great choice for high coverage applications where on-target spray delivery is important. They are ideal for row 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 or litre compared to other air-induced sprays
- Easy-to-install, patent-pending locking ring and o-ring seal design
- FastCap complete includes nozzle, cap, gasket and is available with removable filter.

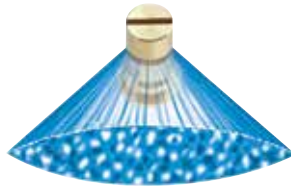




SPRAY TIPS



40" SPACING



Floodjet Wide Angle Flat Spray

Visa flo and TF use Quickjet Cap 25600
#15 & larger use Cap 25608

ORDER NO.	Liquid Capacity GPA BASED ON 40"					
	Pressure 1 nozzle in PSI	5 in GPM	6 MPH	8 MPH	14 MPH	14 MPH
020 D00.5 (100 Mesh)	10 20 30 40	.05 .07 .08 .10	1.5 2.1 2.6 3.0	1.3 1.8 2.1 2.5	0.9 1.3 1.6 1.9	.5 .75 .92 1.1
020 D01 (100 Mesh)	10 20 30 40	.10 .14 .17 .20	3.0 4.2 5.1 5.9	2.5 3.5 4.3 5.0	1.9 2.6 3.2 3.7	1.1 1.5 1.8 2.1
020 D01.5 (50 Mesh)	10 20 30 40	.15 .21 .26 .30	4.5 6.3 7.7 8.9	3.7 5.3 6.4 7.4	2.8 3.9 4.8 5.6	1.6 2.3 2.8 3.2
020 D02 (50 Mesh)	10 20 30 40	.20 .28 .35 .40	5.9 8.4 10.3 11.9	5.0 7.0 8.6 9.9	3.7 5.3 6.4 7.4	2.1 3.0 3.7 4.2
*RED						
020 D02.5 (50 Mesh)	10 20 30 40	.25 .35 .43 .50	7.4 10.5 12.9 14.9	6.2 8.8 10.7 12.4	4.6 6.6 8.0 9.3	2.7 3.8 4.6 5.3
020 D03 (50 Mesh)	10 20 30 40	.30 .42 .52 .60	8.9 12.6 15.4 17.8	7.4 10.5 12.9 14.9	5.6 7.9 9.7 11.1	3.2 4.5 5.5 6.4
*GRAY						
020 D04	10 20 30 40	.40 .57 .69 .8	11.9 16.8 21 24	9.9 14.0 17.2 19.6	7.4 10.5 12.9 14.9	4.2 6.0 7.4 8.5
*WHITE						
020 D05	10 20 30 40	.50 .71 .87 1.0	14.9 21 26 30	12.4 17.5 21 25	9.3 13.1 16.1 18.6	5.3 7.5 9.2 10.6
**LT. BLUE						
020 D06 OBSOLETE	10 20 30 40	.60 .85 1.0 1.2	17.8 25 31 36	14.8 21 26 30	13.9 16 19.5 22.5	6.3 9.0 10.6 12.7
*PURPLE						
020 D07.5	10 20 30 40	.75 1.1 1.3 1.5	22 32 39 45	18.6 26 32 37	13.9 19.7 24 28	8.0 11.3 13.8 15.9
**LT. GREEN						
020 D10	10 20 30 40	1.0 1.4 1.7 2.0	30 42 51 59	25 35 43 50	18.6 26 32 37	10.6 15 18.4 21
**BLACK						
020 D15S	10 20 30 40	1.5 2.1 2.6 3.0	45 63 77 89	37 53 64 74	28 39 48 56	15.9 23 28 32
\$ 12.71						
020 D20S	10 20 30 40	2.0 2.8 3.5 4.0	59 84 103 119	50 70 86 99	37 53 64 74	21 30 37 42
\$ 12.71						

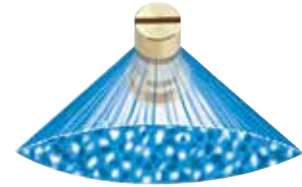
THERE IS NO STANDARD SPRAY HEIGHT FOR FLOODJET TIPS. RAISE OR LOWER SPRAY BOOM OR ROTATE NOZZLE BODIES TO DOUBLE OVERLAP SPRAY PATTERNS AND PROVIDE OPTIMUM COVERAGE ALONG SPRAY BOOM

Brass - \$ 8.54

Nylon*(add 'N') - \$ 3.76

Stainless Steel w/VisiFlo coding**(add 'S') -\$ 14.82

Turbo-Flood (add TF) - \$ 16.43



FloodJet-Stainless Steel Threaded Spacing-60"

ORDER NO.	Liquid Capacity Pressure 1 nozzle in PSI	GPA BASED ON 60"			
		10 in GPM	12 MPH	14 MPH	16 MPH
097 14KSS15 (1/4" mpt)	10 20 30 40	1.50 2.12 2.6 3	14.9 17.5 21 25	12.4 15 18.4 21	9.3 13.1 16.1 18.6
\$ 23.98					
097 14KSS20 (1/4" mpt)	10 20 30 40	2 2.83 3.46 4	19.8 28 34 40	16.5 23 29 33	14.1 20 24 28
\$ 23.98					
097 38KSS30 (3/8" mpt)	10 20 30 40	3 4.2 5.2 6	30 42 51 59	25 35 43 50	19.1 27 33 38
\$ 32.14					
097 38KSS40 (3/8" mpt)	10 20 30 40	4 5.7 6.9 8	40 56 69 79	33 47 57 66	28 40 49 57
\$ 32.14					



FullJet Full Cone Spray



Liquid ORDER NO.	Pressure 1 nozzle in PSI	Capacity GPA BASED ON 40"			
		4 in GPM	5 MPH	6 MPH	7.5 MPH
097 FL5	15 20 25 30 40	.34 .38 .42 .45 .52	12.4 14.1 15.6 16.9 19.1	9.9 11.3 12.5 13.5 15.3	8.3 9.4 10.4 11.2 12.8
*BROWN					
\$ 14.80					
097 FL8	15 20 25 30 40	.51 .58 .64 .70 .79	19.1 22 24 26 29	15.3 17.3 19.1 21 24	12.7 14.4 15.9 17.3 19.6
*WHITE					
\$ 14.80					
097 FL10	15 20 25 30 40	.67 .76 .84 .91 1.0	25 28 31 34 38	19.9 23 25 27 31	16.6 18.8 21 22 26
*LT. BLUE					
\$ 14.80					
097 FL15	15 20 25 30 40	.96 1.1 1.2 1.3 1.5	36 40 44 48 55	28 32 36 39 44	24 27 30 32 36
*LT. GREEN					
\$ 14.80					

SPRAY PATTERNS SHOULD BE OVERLAPPED 30-50% ON EACH EDGE AND ANGLED 30-45° FOR UNIFORM SPRAY DISTRIBUTION.

FIELDJET NOZZLE

The KLC FieldJet nozzle is a one piece nozzle design that projects spray to both sides to form a wide swath flat spray. Spray pattern not as uniform as with a boom sprayer.



ORDER NO.	MILES PER HOUR									
	PSI	GPM	FT	2	3	4	5	7.5	10	
097 14KLC9 Brass 1/4" mpt	10 20 30 40	.9 1.3 1.6 1.8	16 18 19 21	13.9 17.9 20 21	9.3 11.9 13.6 14.1	7.0 8.0 10.1 10.6	5.6 7.2 8.1 8.5	3.7 4.8 5.4 5.7	2.8 3.6 4.1 4.2	
\$ 52.61										
097 14KLC18 Brass 1/4" mpt	10 20 30 40	1.8 2.5 3.1 3.6	18 20 21 22	16.5 21 24 27	12.4 15.5 18.3 20	9.9 12.4 14.2 16.2	6.6 8.2 9.7 10.8	6.6 8.2 9.7 10.8	5.0 6.2 7.3 8.1	
\$ 52.61										

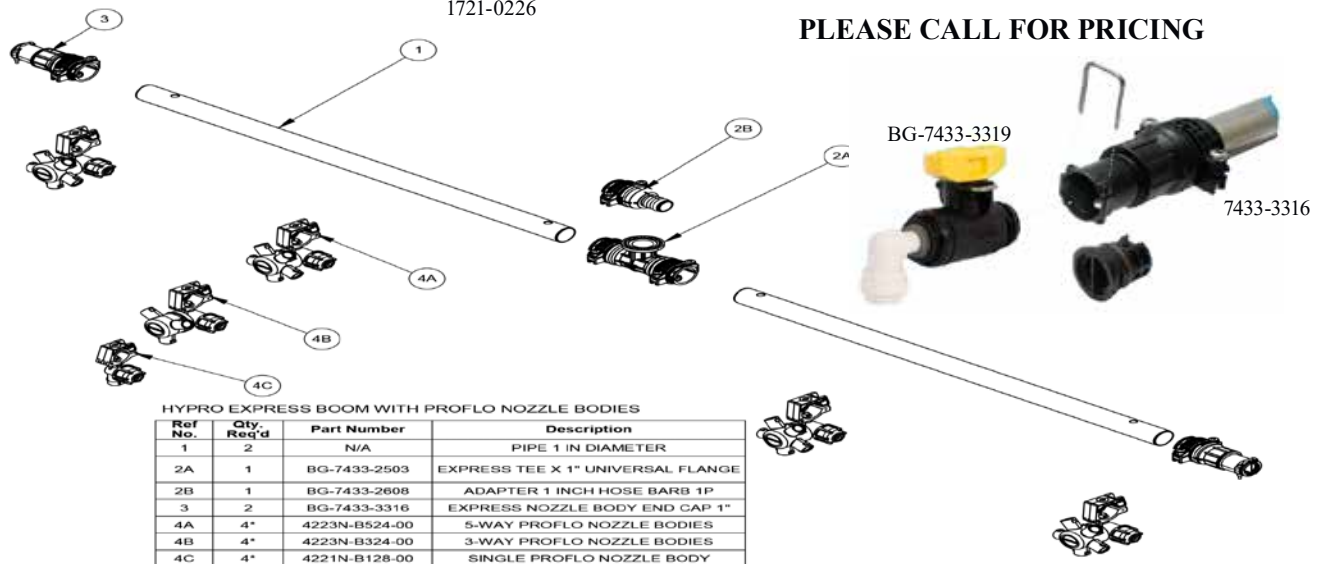
The Hypro Express Boom Assemblies come in a variety of configurations to suit your spraying needs. With these pre-assembled booms there is less labor and scheduling necessary. Each boom is constructed of 1" Schedule 5 SS pipe with 15" or 20" spacing available. They feature the Hypro Express End Cap which allows the operator to clean out or flush the boom. The booms are equipped with 5-way Hypro nozzle bodies (4223N-B524) and C&R Supply stocks a wide variety of nozzles to finish your boom (check related products).



The nozzle body end cap works by allowing air to escape through the nozzle body, eliminating the trapped air. It also allows standard nozzle bodies to have much faster reaction times in response to GPS boom shutoff control signals, turning off spray quicker and decisively on overlaps, end rows, and boundary areas. If liquid completely fills the boom, the nozzle body's diaphragm check valve activation time is considerably improved by up to 85%.

Also, by using this Hypro Nozzle Body End Cap, you create a much cleaner look by terminating the pipe at the last nozzle body, eliminating 6" of dead-end from each pipe and reducing pipe costs by as much as 10%. This helps to eliminate buildup and air accumulation caused from chemical residue, while creating a much cleaner looking plumbing system by eliminating the need for an extra fitting at the end of the boom.

PLEASE CALL FOR PRICING



HYPRO EXPRESS BOOM WITH PROFLO NOZZLE BODIES

Ref No.	Qty. Req'd	Part Number	Description
1	2	N/A	PIPE 1 IN DIAMETER
2A	1	BG-7433-2503	EXPRESS TEE X 1" UNIVERSAL FLANGE
2B	1	BG-7433-2608	ADAPTER 1 INCH HOSE BARB 1P
3	2	BG-7433-3316	EXPRESS NOZZLE BODY END CAP 1"
4A	4*	4223N-B524-00	5-WAY PROFLO NOZZLE BODIES
4B	4*	4223N-B324-00	3-WAY PROFLO NOZZLE BODIES
4C	4*	4221N-B128-00	SINGLE PROFLO NOZZLE BODY

A choice of turret styles that can accommodate one, three or five nozzles on a holder

Consistent and reliable turret indexing mechanism with positive shut-off

Diaphragm Check Valves rated at 0.55 bar are fitted as standard. A range of other spring pressure DCVs are also available

Manufactured in Polyacetal and Nylon for chemical resistance, performance and durability. Available with EPDM or Viton® seals

Hinged clamps to fit all common pipe sizes: 1/2, 3/4, 1 inch, 20 and 25 mm

ProStop™ air-actuated nozzle valve offered as an alternative to the DCV. Can be supplied pre-fitted and leak tested on all ProFlo™ nozzle bodies

Dry boom options also available



JOHN DEERE HIGH FLOW



ORDER NO.	DESCRIPTION	LIST
045 CJ363100	3-way body, 1" split-eyelet	\$ 19.98
045 CJ365100	5-way body, 1" split-eyelet	\$ 27.56
045 4200-0004E	Arag Diaphragm; Epdm	\$ 1.03
045 4200-0004V	Arag Diaphragm; Viton	\$ 3.25
045 CJ365100HF	5-Way Body: High Flow, 1" 17mm Hole	\$ 52.00

Wilger Boom Flush Valves



41402-V0 - TWS (CNH) Style

25175-V0 - QN SST Version

25176-V0 - 1" NPT Female
(Adapter 25137-V0 w/ 25175-V0)

FEATURES

- Special short compact design to accommodate existing boom constructions.
- Large internal diameter to maximize flow and **minimize residue buildup**.
- Quick and easy installation.
- Chemical and UV resistant material.
- Two versions: TWS (CNH) and 1" QN SST
- Viton o-rings standard



ORDER NO.	DESCRIPTION	LIST
500 25176-V0	Boom Flush Valve, 1" fpt	\$ 35.44
500 41402-V0	TWS Boom Flush Valve 1-1/4" (CNH only)	\$ 29.87



TWS (CNH ONLY)



QUICK TACH BODY ASSEMBLIES



DRY BOOM NOZZLE BODIES



QJL
125PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL038	3/8" Quick-jet	\$ 5.03
097 QJL050	1/2" Quick-jet	\$ 5.03
097 QJL075	3/4" Quick-jet	\$ 5.03



QJT
125PSI

ORDER NO.	DESCRIPTION	LIST
097 QJT038	3/8" Quick-jet	\$ 5.03
097 QJT050	1/2" Quick-jet	\$ 5.03
097 QJT075	3/4" Quick-jet	\$ 5.03



QJX
125PSI

ORDER NO.	DESCRIPTION	LIST
097 QJX038	3/8" Quick-jet	\$ 5.03
097 QJX050	1/2" Quick-jet	\$ 5.03
097 QJX075	3/4" Quick-jet	\$ 5.03

DRY BOOM NOZZLE BODIES W/DIAPHRAMS



QJL-D
200PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL038D	3/8" Quick-jet w/diaphragm	\$ 12.41
097 QJL050D	1/2" Quick-jet w/diaphragm	\$ 12.41
097 QJL075D	3/4" Quick-jet w/diaphragm	\$ 12.41



QJT-D
200PSI

ORDER NO.	DESCRIPTION	LIST
097 QJT038D	3/8" Quick-jet w/diaphragm	\$ 12.41
097 QJT050D	1/2" Quick-jet w/diaphragm	\$ 12.41
097 QJT075D	3/4" Quick-jet w/diaphragm	\$ 12.41



QJX-D
200PSI

ORDER NO.	DESCRIPTION	LIST
097 QJX038D	3/8" Quick-jet w/diaphragm	\$ 12.41
097 QJX050D	1/2" Quick-jet w/diaphragm	\$ 12.41
097 QJX075D	3/4" Quick-jet w/diaphragm	\$ 12.41



QJL-DH
300PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL038DH	3/8" QJ w/high pressure	\$ 10.27
097 QJL050DH	1/2" QJ w/high pressure	\$ 10.27
097 QJL075DH	3/4" QJ w/high pressure	\$ 10.27



QJT-DH
300PSI

ORDER NO.	DESCRIPTION	LIST
097 QJT038DH	3/8" QJ w/high pressure	\$ 10.27
097 QJT050DH	1/2" QJ w/high pressure	\$ 10.27
097 QJT075DH	3/4" QJ w/high pressure	\$ 10.27



24230
125PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL050T	1/2" Triple body ell	\$ 26.67
097 QJT050T	1/2" Triple body tee	\$ 26.67
097 QJL075T	3/4" Triple body ell	\$ 26.67
097 QJT075T	3/4" Triple body tee	\$ 26.67



QJ363
300PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL363A	3 nozzle 1/2" ell	\$ 24.23
097 QJT363A	3 nozzle 1/2" tee	\$ 24.23
097 QJL363B	3 nozzle 3/4" ell	\$ 24.23
097 QJT363B	3 nozzle 3/4" tee	\$ 24.23
097 QJL363C	3 nozzle 1" ell	\$ 24.23
097 QJT363C	3 nozzle 1" tee	\$ 24.23

(4 outlet available by special order only)



QJ365
300PSI

ORDER NO.	DESCRIPTION	LIST
097 QJL365A	5 nozzle 1/2" ell	\$ 24.23
097 QJT365A	5 nozzle 1/2" tee	\$ 24.23
097 QJL365B	5 nozzle 3/4" ell	\$ 24.23
097 QJT365B	5 nozzle 3/4" tee	\$ 24.23
097 QJL365C	5 nozzle 1" ell	\$ 24.23
097 QJT365C	5 nozzle 1" tee	\$ 24.23



DEMCO
DRIP FREE

ORDER NO.	DESCRIPTION	LIST
030 NTL12DF	1/2" Demco screw on	\$ 18.51
030 NTT12DF	1/2" Demco screw on	\$ 18.51
030 NTL34DF	3/4" Demco screw on	\$ 18.51
030 NTT34DF	3/4" Demco screw on	\$ 18.51
030 NTFT	Self aligning cap, yellow	\$ 1.78
030 NTFD	Round hole cap, red	\$ 1.78
030 NTG	Replacement gasket epdm	\$ 1.03
030 NTDV	Replacement diaphragm vit.	\$ 2.64

WET BOOM NOZZLE BODIES



ORDER NO.	DESCRIPTION	LIST
097 QJ7421B	3/4" split eyelet	\$ 5.06
097 QJ7421C	1" split eyelet	\$ 5.06



ORDER NO.	DESCRIPTION	LIST
097 QJ17560A	1/2" split eyelet w/diaphragm	\$ 3.81
097 QJ17560B	3/4" split eyelet w/diaphragm	\$ 3.81
097 QJ17560C	1" split eyelet w/diaphragm	\$ 3.81



ORDER NO.	DESCRIPTION	LIST
097 QJ24216A	1/2" split eyelet triple	\$ 14.62
097 QJ24216B	3/4" split eyelet triple	\$ 14.62
097 QJ24216C	1" split eyelet triple	\$ 14.62



QUICK TACH BODY ASSEMBLIES



ORDER NO.	DESCRIPTION	LIST
097 QJ363050	3 nozzle 1/2" wet boom	\$ 19.40
097 QJ363075	3 nozzle 3/4" wet boom	\$ 19.40
097 QJ363100	3 nozzle 1" wet boom	\$ 19.40



ORDER NO.	DESCRIPTION	LIST
097 QJ364100	4 nozzle 1" wet boom	\$ 19.40



ORDER NO.	DESCRIPTION	LIST
097 QJ365050	5 nozzle 1/2" wet boom	\$ 19.40
097 QJ365075	5 nozzle 3/4" wet boom	\$ 19.40
097 QJ365100	5 nozzle 1" wet boom	\$ 19.40

OTHER QUICK TACH BODIES



ORDER NO.	DESCRIPTION	LIST
097 QJ8360	Diaphragm check-1/4" mpt	\$ 6.28
097 QJ8360Y	Diaphragm check-1/4" mpt	\$ 8.06



ORDER NO.	DESCRIPTION	LIST
097 QJT8360	Diaphragm check-11/16"	\$ 6.84



ORDER NO.	DESCRIPTION	LIST
097 QJT025	Adapter 1/4" fpt	\$ 3.46



ORDER NO.	DESCRIPTION	LIST
097 QJ	Adapter 1/4" mpt	\$ 3.46



ORDER NO.	DESCRIPTION	LIST
097 QJ8600A	QJ single swivel	\$ 9.15
097 QJ8600B	QJ double swivel	\$ 11.04



ORDER NO.	DESCRIPTION	LIST
097 QJ98592-1/4-10	JG QJ Body 1/4 10 psi	\$ 14.62
097 QJ98590-3/8-10	JG QJ Body 3/8 10 psi	\$ 14.62
097 QJ98592-1/4-2	JG QJ Body 1/4-2 psi	\$ 14.62
097 QJ98590-3/8-2	JG QJ Body-3/8-2 psi	\$ 14.62
097 QJ114400-5/16-2	JG QJ Body-5/16-2 psi	\$ 14.62



ORDER NO.	DESCRIPTION	LIST
097 QJ8355B	Diaphragm check 90-1/4" fpt	\$ 12.59



ORDER NO.	DESCRIPTION	LIST
097 QJT	Adapter 11/16" nozzle thread	\$ 6.38



ORDER NO.	DESCRIPTION	LIST
010 J15AQ	15" QJ nylon drop	\$ 14.85
010 J15BQ	24" QJ nylon drop	\$ 14.85

QUICK-JET CAPS & MISC PARTS



ORDER NO.	DESCRIPTION	LIST
097 Q25598	AI, Twinjet, TTI, Streamjet	\$ 1.50
097 Q25600	Visa flow and Turbo floods	\$ 1.50
097 Q25608	Round hole cap; Floods	\$ 1.50
097 Q25610	Fulljet, Conejet, Cones, Hose shanks	\$ 1.50
097 Q25612	Flat spray #10 and larger	\$ 1.32
097 Q19843	Flat spray thru #8	\$ 2.82
097 Q19843	Blank cap	\$ 2.95
097 QJ4676	QJ x 1/4" fpt	\$ 2.95
097 QJ467645	QJ x 1/4" fpt 45 degree	\$ 5.57
097 QJ467690	QJ x 1/4" FPT 90 degree	\$ 5.57
097 Q19438	Replacement epdm gasket	\$.66
097 Q19438V	Replacement viton gasket	\$ 2.64
097 Q18999	Orifice gasket	\$ 1.40
097 QJ902	QJ DBL outlet adapter	\$ 5.57
097 50854	QJ body extender	\$ 4.86
097 Q21398Y	Hardi cap yellow; AI & TJ	\$ 1.55
097 55240-CELR	Hardi nozzle body to QJ Cap	\$ 3.46
500 4020300	Wilger nozzle body to QJ cap	\$ 2.95
500 4020400	QJ nozzle body to Wilger cap	\$ 2.92
500 67577	Blumhardt nozzle body to QJ cap	\$ 4.00
097 QJ98588-1/4	QJ x 1/4" PTC	\$ 7.04
097 QJ98586-3/8	QJ x 3/8" PTC	\$ 7.04
097 QJ114398-5/16	QJ x 5/16" PTC	\$ 7.04

add suffix to specify color:
 none = black (1)
 W = white (2)
 R = red (3)
 B = blue (4)
 G = green (5)
 Y = yellow (6)
 BR = brown (7)
 O = orange (8)



097 QJ98588-1/4

REPLACEMENT DIAPHRAMS



ORDER NO.	DESCRIPTION	LIST
097 N21953	Teejet EPDM	\$.61
097 N21953V	Teejet VITON	\$ 1.88
030 NTDV	Demco VITON	\$ 2.64



REPLACEMENT DIAPHRAM CAP

ORDER NO.	DESCRIPTION	LIST
097 N21950	Diaphragm cap 10psi	\$ 4.55
097 N21950Y	Diaphragm cap yellow 2psi	\$ 4.55
097 N58140	Chem saver cap	\$ 7.58

QUICK-JET BOOM CLAMPS



ORDER NO.	DESCRIPTION	LIST
097 Q111050	1/2" Round pipe	\$ 3.33
097 Q111075	3/4" Round pipe	\$ 3.33
097 Q111100	1" Round pipe	\$ 3.33
097 Q111125	1 1/4" Round pipe	\$ 3.33
097 Q111075S	3/4" Square tubing	\$ 3.33
097 Q11100S	1" Square tubing	\$ 3.33
097 Q111125S	1 1/4" Square tubing	\$ 3.33
097 Q111150S	1 1/2" Square tubing	\$ 3.33



NOZZLE ACCESSORIES



NOZZLE CAPS



ORDER NO.	DESCRIPTION	LIST
150 8027	Poly nozzle cap	\$.50
150 8027W	Winged poly nozzle cap	\$ 1.22
020 1165	Brass nozzle cap	\$ 1.73
097 B3819	3/4" Brass	\$ 13.37
097 CP1325-SS	SS nozzle cap	\$ 10.15

NOZZLE BLANKS/CAPS



ORDER NO.	DESCRIPTION	LIST
020 2201	Brass blank	\$.56
150 8028	Poly cap	\$.67

NOZZLE STRAINERS



ORDER NO.	DESCRIPTION	LIST
020 26642A	50 mesh poly (blue)	\$ 1.50
020 26642B	100 mesh poly (green)	\$ 1.50
020 28175A	50 mesh brass	\$ 3.59
020 28175B	100 mesh brass	\$ 3.59

NOZZLE CHECKS



1.5 GPM 2.25GPM 16 GPM

ORDER NO.	DESCRIPTION	LIST
097 N4193A	50M-poly- 5psi-.8gpm	\$ 4.98
097 N4193B	100M-poly-5psi-.8gpm	\$ 4.98
020 35288A	50M brass-5psi-.8gpm	\$ 6.25
020 35288B	100M brass-5psi-.8gpm	\$ 6.25
097 N11750	Brass-5 psi to 1.5 gpm	\$ 8.24
097 N11750P	Poly -5 psi	\$ 7.02
097 N8360	1/4" Diaphragm-10 psi	\$ 20.57
097 N12328	3/4" Diaphragm-10 psi	\$ 108.65

MALE NOZZLE BODIES



ORDER NO.	DESCRIPTION	LIST
020 1171	1/8" Brass	\$ 2.82
020 1167	1/4" Brass	\$ 2.82
150 1167N	1/4" Poly	\$.56
150 1150N	1/2" Poly	\$.64
097 CP1322SS	1/4" SS	\$ 18.61

FEMALE NOZZLE BODIES



ORDER NO.	DESCRIPTION	LIST
020 1173	1/8" Brass	\$ 2.82
020 1169	1/4" Brass	\$ 2.82
150 1169N	1/4" Poly	\$ 1.98
097 B3817	3/4" Brass	\$ 22.93

BRASS & STAINLESS CONNECTOR BODIES



ORDER NO.	DESCRIPTION	LIST
020 37576	3/8" Brass single	\$ 9.49
020 37575	3/8" Brass double	\$ 9.49
020 37577	1/2" Brass single	\$ 9.49
020 37578	1/2" Brass double	\$ 9.49
097 12670-406TD-SS	Single Nozzle Connections	\$ 64.13

NOZZLE BODY ADAPTERS



ORDER NO.	DESCRIPTION	LIST
020 12035	1/8" Brass	\$ 3.53
020 12036	1/4" Brass	\$ 3.53
150 36762	1/4" Poly	\$ 1.28
097 4676-SS-1/4	1/4" SS	\$ 11.87
097 4676-SS-3/8	3/8" SS	\$ 19.22

SPLIT EYELET BODIES



ORDER NO.	DESCRIPTION	LIST
097 17421A	1/2" Brass	\$ 8.92
097 17421B	3/4" Brass	\$ 8.92
097 17421C	1" Brass	\$ 8.92
097 N25775B	3/4" Poly (Teejet)	\$ 6.87

BOOM VARI SPACE CLAMPS



ORDER NO.	DESCRIPTION	LIST
097 V111050	1/2" Round	\$ 5.70
097 V111075	3/4" Round	\$ 5.70
097 V111100	1" Round	\$ 5.70
097 V111125	1 1/4" Round	\$ 9.51
097 V111100S	1" Square	\$ 6.53
097 V111125S	1 1/4" Square	\$ 9.81
097 V111150S	1 1/2" Square	\$ 11.67

DROP NOZZLES



Quick-jet drops on page 80

ORDER NO.	DESCRIPTION	LIST
010 J15	18" Aluminum	\$ 40.00
010 J15A	15" Nylon	\$ 9.84
010 J15B	24" Nylon	\$ 10.93

SWIVEL NOZZLE BODIES



ORDER NO.	DESCRIPTION	LIST
097 N7620	Single-brass	\$ 12.21
097 N8600A	Single-nylon	\$ 10.63
097 N7450	Double-brass	\$ 17.17
097 N8600B	Double-nylon	\$ 12.81

ORDER NO.	DESCRIPTION	LIST
120 V111075	3/4" Round	\$ 3.26
120 V111100	1" Round	\$ 3.55
120 V111100S	1" Square	\$ 3.55
120 V111125S	1 1/4" Square	\$ 3.65



MPT X HOSE BARB

ORDER NO.	SIZE	LIST
175 BRTA1022	1/8	\$ 1.21
175BRTA1023	1/8 X 3/16	\$ 1.15
175 BRTA1024	1/8 X 1/4	\$ 1.45
175 BRTA1025	1/8 X 5/16	\$ 1.36
175 BRTA1026	1/8 X 3/8	\$ 1.76
175 BRTA1042	1/4X 1/8	\$ 1.65
175 BRTA1044	1/4 X 1/4	\$ 1.63
175 BRTA1045	1/4 X 5/16	\$ 1.87
175 BRTA1046	1/4 X 3/8	\$ 1.63
175 BRTA1048	1/4 X 1/2	\$ 2.35
175 BRTA1064	3/8 X 1/4	\$ 2.41
175 BRTA1065	3/8 X 5/16	\$ 2.51
175 BRTA1066	3/8 X 3/8	\$ 2.26
175 BRTA1068	3/8 X 1/2	\$ 2.82
175 BRTA10610	3/8 X 5/8	\$ 3.11
175 BRTA10612	3/8 X 3/4	\$ 6.88
175 BRTA1084	1/2 X 1/4	\$ 4.24
175 BRTA1086	1/2 X 3/8	\$ 4.11
175 BRTA1088	1/2 X 1/2	\$ 3.96
175 BRTA10810	1/2 X 5/8	\$ 3.89
175 BRTA10812	1/2 X 3/4	\$ 5.39
175 BRTA10126	3/4 X 3/8	\$ 5.55
175 BRTA10128	3/4 X 1/2	\$ 6.51
175 BRTA101210	3/4 X 5/8	\$ 5.39
175 BRTA101212	3/4 X 3/4	\$ 6.56
175 BRTA101216	3/4 X 1	\$ 8.19



FPT X HOSE BARB

ORDER NO.	SIZE	LIST
175 BRTAF1022	1/8 X 1/8	\$ 1.95
175 BRTAF1023	1/8 X 3/16	\$ 1.69
175 BRTAF1024	1/8 X 1/4	\$ 2.14
175 BRTAF1025	1/8 X 5/16	\$ 3.41
175 BRTAF1026	1/8 X 3/8	\$ 2.99
175 BRTAF1042	1/4 X 1/8	\$ 5.97
175 BRTAF1043	1/4 X 3/16	\$ 6.89
175 BRTAF1044	1/4 X 1/4	\$ 2.18
175 BRTAF1045	1/4 X 5/16	\$ 2.93
175 BRTAF1046	1/4 X 3/8	\$ 2.55
175 BRTAF1048	1/4 X 1/2	\$ 3.45
175 BRTAF1064	3/8 X 1/4	\$ 3.09
175 BRTAF1065	3/8 X 5/16	\$ 6.61
175 BRTAF1066	3/8 X 3/8	\$ 2.77
175 BRTAF1068	3/8 X 1/2	\$ 6.40
175 BRTAF1086	1/2 X 3/8	\$ 4.99
175 BRTAF1088	1/2 X 1/2	\$ 5.11
175 BRTAF101212	3/4 X 3/4	\$ 9.04
175 BRTAF101216	3/4 X 1	\$ 22.32



BARB X BARB MENDER

ORDER NO.	SIZE	LIST
175 BRTC7022	1/8 X 1/8	\$ 1.58
175 BRTC7033	3/16 X 3/16	\$ 2.10
175 BRTC7044	1/4 X 1/4	\$ 1.76
175 BRTC7055	5/16 X 5/16	\$ 1.69
175 BRTC7066	3/8 X 3/8	\$ 1.79
175 BRTC7088	1/2 X 1/2	\$ 2.82
175 BRTC71010	5/8 X 5/8	\$ 3.44
175 BRTC71212	3/4 X 3/4	\$ 6.00



PIPE NIPPLES

ORDER NO.	SIZE	LIST
175 BRTN5022	1/8 X 1/8	\$.68
175 BRTN5044	1/4 X 1/4	\$ 1.27
175 BRTN5066	3/8 X 3/8	\$ 2.15
175 BRTN5088	1/2 X 1/2	\$ 2.61
175 BRTN51212	3/4 X 3/4	\$ 4.86



ELBOW MPT x BARB

ORDER NO.	SIZE	LIST
175 BRTE2023	1/8 X 3/16	\$ 3.41
175 BRTE2024	1/8 X 1/4	\$ 2.90
175 BRTE2025	1/8 X 5/16	\$ 3.57
175 BRTE2026	1/8 X 3/8	\$ 3.17
175 BRTE2044	1/4 X 1/4	\$ 4.00
175 BRTE2045	1/4 X 5/16	\$ 4.72
175 BRTE2046	1/4 X 3/8	\$ 4.00
175 BRTE2048	1/4 X 1/2	\$ 4.99
175 BRTE2065	3/8 X 5/16	\$ 7.70
175 BRTE2066	3/8 X 3/8	\$ 4.83
175 BRTE2068	3/8 X 1/2	\$ 5.97
175 BRTE20610	3/8 X 5/8	\$ 8.16
175 BRTE2086	1/2 X 3/8	\$ 5.23
175 BRTE2088	1/2 X 1/2	\$ 7.44
175 BRTE20810	1/2 X 5/8	\$ 7.33



HEX PLUGS

ORDER NO.	SIZE	LIST
175 BRTP4002	1/8	\$.93
175 BRTP4004	1/4	\$ 1.30
175 BRTP4006	3/8	\$ 1.85
175 BRTP4008	1/2	\$ 3.42
175 BRTP4012	3/4	\$ 4.84
175 BRTP4016	1	\$ 16.36



REDUCERS

ORDER NO.	SIZE	LIST
175 BRRB42	1/4 X 1/8	\$ 1.33
175 BRRB62	3/8 X 1/8	\$ 1.86
175 BRRB64	3/8 X 1/4	\$ 2.44
175 BRRB82	1/2 X 1/8	\$ 3.48
175 BRRB84	1/2 X 1/4	\$ 4.08
175 BRRB86	1/2 X 3/8	\$ 3.05
175 BRRB122	3/4 X 1/8	\$ 12.58
175 BRRB124	3/4 X 1/4	\$ 5.14
175 BRRB126	3/4 X 3/8	\$ 6.02
175 BRRB128	3/4 X 1/2	\$ 5.76
175 BRRB164	1 X 1/4	\$ 12.07
175 BRRB166	1 X 3/8	\$ 11.44
175 BRRB168	1 X 1/2	\$ 11.36
175 BRRB1612	1 X 3/4	\$ 8.83



CROSS

ORDER NO.	SIZE	LIST
175 BRCR2	1/8	\$ 9.13
175 BRCR4	1/4	\$ 9.46
175 BRCR6	3/8	\$ 11.30
175 BRCR8	1/2	\$ 21.47
175 BRCR12	3/4	\$ 34.21



FPT TEE

ORDER NO.	SIZE	LIST
175 BRTT2	1/8	\$ 4.02
175 BRTT4	1/4	\$ 5.88
175 BRTT6	3/8	\$ 9.46
175 BRTT8	1/2	\$ 15.11
175 BRTT12	3/4	\$ 29.02



FEMALE ELBOWS

ORDER NO.	SIZE	LIST
175 BREL22	1/8	\$ 3.86
175 BREL44	1/4	\$ 5.57
175 BREL66	3/8	\$ 6.93
175 BREL88	1/2	\$ 10.16
175 BREL1212	3/4	\$ 21.20



MGH X MPT

ORDER NO.	SIZE	LIST
175 BRGPN6	3/4 X 3/8	\$ 4.64
175 BRGPN8	3/4 X 1/2	\$ 5.47
175 BRGPN12	3/4 X 3/4	\$ 5.79



FGH X HB

ORDER NO.	SIZE	LIST
175 BRGHFS6	3/4 X 3/8	\$ 5.79
175 BRGHFS8	3/4 X 1/2	\$ 5.73
175 BRGHFS10	3/4 X 5/8	\$ 6.16
175 BRGHFS12	3/4 X 3/4	\$ 6.61



FGH X FGH

ORDER NO.	SIZE	LIST
175 BRGHN12	3/4 X 3/4	\$ 3.81



MGH X FPT

ORDER NO.	SIZE	LIST
175 BRGFA124	3/4 X 1/4	\$ 6.72
175 BRGFA126	3/4 X 3/8	\$ 8.27
175 BRGFA128	3/4 X 1/2	\$ 4.22
175 BRGFA1212	3/4 X 3/4	\$ 5.20



FGH X MPT

ORDER NO.	SIZE	LIST
175 BRGHFSM124	3/4 X 1/4	\$ 7.49
175 BRGHFSM126	3/4 X 3/8	\$ 6.37
175 BRGHFSM128	3/4 X 1/2	\$ 8.99



MGH X HB

ORDER NO.	SIZE	LIST
175 BRGA106	3/4 X 3/8	\$ 5.27
175 BRGA108	3/4 X 1/2	\$ 4.72
175 BRGA1010	3/4 X 5/8	\$ 5.23
175 BRGA1012	3/4 X 3/4	\$ 5.07



FGH X FPT

ORDER NO.	SIZE	LIST
175 BRGHF128	3/4 X 1/2	\$ 6.83
175 BRGHF1212	3/4 X 3/4	\$ 6.56



STAINLESS FITTINGS & GAUGES

304 STAINLESS FITTINGS



MPT X HOSE BARB

ORDER NO.	SIZE	LIST
168 A025025S	1/4	\$ 7.30
168 A025038S	1/4 X 3/8	\$ 7.30
168 A025050S	1/4 X 1/2	\$ 7.30
168 A038038S	3/8	\$ 9.03
168 A038050S	3/8 X 1/2	\$ 9.03
168 A050050S	1/2	\$ 11.73
168 A075075S	3/4	\$ 12.94
168 A075100S	3/4 X 1	\$ 14.57
168 A100100S	1	\$ 19.72
168 A125125S	1 1/4	\$ 26.45
168 A150150S	1 1/2	\$ 34.62
168 A200200S	2	\$ 58.88
168 A300300S	3	\$ 215.91



CROSS

ORDER NO.	SIZE	LIST
168 CR025S	1/4	\$ 15.87
168 CR038S	3/8	\$ 18.98
168 CR050S	1/2	\$ 23.46
168 CR075S	3/4	\$ 37.38
168 CR100S	1	\$ 56.06
168 CR125S	1 1/4	\$ 64.40
168 CR150S	1 1/2	\$ 79.64
168 CR200S	2	\$ 118.45
168 CR300S	3	\$ 244.95



FEMALE COUPLINGS

ORDER NO.	SIZE	LIST
168 FC025S	1/4	\$ 4.08
168 FC038S	3/8	\$ 4.77
168 FC050S	1/2	\$ 6.73
168 FC075S	3/4	\$ 9.78
168 FC100S	1	\$ 14.89
168 FC125S	1 1/4	\$ 23.58
168 FC150S	1 1/2	\$ 27.83
168 FC200S	2	\$ 39.33
168 FC300S	3	\$ 111.32



FEMALE ELBOWS

ORDER NO.	SIZE	LIST
168 LL018S	1/8	\$ 5.98
168 LL025S	1/4	\$ 5.98
168 LL038S	3/8	\$ 7.36
168 LL050S	1/2	\$ 7.82
168 LL075S	3/4	\$ 11.04
168 LL100S	1	\$ 15.76
168 LL125S	1 1/4	\$ 27.60
168 LL150S	1 1/2	\$ 36.80
168 LL150S45	1 1/2	\$ 32.43
168 LL200S	2	\$ 46.69
168 LL200S45	2 X 45°	\$ 46.69
168 LL300S	3	\$ 149.50
168 LL300S45	3 X 45°	\$ 129.66



PIPE NIPPLES

ORDER NO.	SIZE	LIST
168 N018S	1/8	\$ 2.65
168 N025S	1/4	\$ 3.13
168 N0254S	1/4 X 4	\$ 7.07
168 N038S	3/8	\$ 4.37
168 N038112S	3/8 X 1 1/2	\$ 4.54
168 N0383S	3/8 X 3	\$ 6.84
168 N050S	1/2	\$ 4.54
168 N0504S	1/2 X 4	\$ 10.93
168 N0506S	1/2 X 6	\$ 15.81
168 N075S	3/4	\$ 5.98
168 N100S	1	\$ 7.53
168 N1003S	1 X 3	\$ 13.05
168 N1004S	1 X 4	\$ 16.73
168 N1006S	1 X 6	\$ 24.09
168 N125S	1 1/4	\$ 10.06
168 N150S	1 1/2	\$ 12.77
168 N1504S	1 1/2 X 4	\$ 24.67
168 N200S	2	\$ 18.98
168 N2004S	2 X 4	\$ 31.80
168 N300S	3	\$ 54.34
168 N3004S	3 X 4	\$ 75.04
168 N3006S	3 X 6	\$ 101.20



HEX PLUGS

ORDER NO.	SIZE	LIST
168 P018S	1/8	\$ 2.93
168 P025S	1/4	\$ 2.93
168 P038S	3/8	\$ 3.62
168 P050S	1/2	\$ 5.46
168 P075S	3/4	\$ 6.44
168 P100S	1	\$ 8.80
168 P125S	1 1/4	\$ 14.89
168 P150S	1 1/2	\$ 17.83
168 P200S	2	\$ 28.29



REDUCERS

ORDER NO.	SIZE	LIST
168 R025018S	1/4 X 1/8	\$ 3.68
168 R038025S	3/8 X 1/4	\$ 4.31
168 R050018S	1/2 X 1/8	\$ 4.72
168 R050025S	1/2 X 1/4	\$ 4.66
168 R050038S	1/2 X 3/8	\$ 4.72
168 R075025S	3/4 X 1/4	\$ 6.96
168 R075050S	3/4 X 1/2	\$ 6.96
168 R100075S	1 X 3/4	\$ 11.04
168 R125100S	1 1/4 X 1	\$ 15.30
168 R150125S	1 1/2 X 1 1/4	\$ 22.94
168 R200150S	2 X 1 1/2	\$ 35.19
168 R300200S	3 X 2	\$ 100.05
168 R400300S	4 X 3	\$ 110.23



STREET ELBOWS

ORDER NO.	SIZE	LIST
168 SE018S	1/8	\$ 5.00
168 SE025S	1/4	\$ 5.29
168 SE038S	3/8	\$ 5.98
168 SE050S	1/2	\$ 8.97
168 SE075S	3/4	\$ 14.61
168 SE100S	1	\$ 22.71
168 SE125S	1 1/4	\$ 36.05
168 SE150S	1 1/2	\$ 47.50
168 SE200S	2	\$ 74.29
168 SE300S	3	\$ 172.79
168 SE400S	4	\$ 280.60



FPT TEE

ORDER NO.	SIZE	LIST
168 TT018S	1/8	\$ 7.88
168 TT025S	1/4	\$ 7.88
168 TT038S	3/8	\$ 9.95
168 TT050S	1/2	\$ 10.70
168 TT075S	3/4	\$ 16.68
168 TT100S	1	\$ 21.28
168 TT125S	1 1/4	\$ 42.38
168 TT150S	1 1/2	\$ 52.61
168 TT200S	2	\$ 67.45
168 TT300S	3	\$ 207.00
168 TT300200NS 3"ft X 2"mpt		\$ 210.00*
168 TT400S	4	\$ 379.50



PIPE SEALANT

ORDER NO.	DESCRIPTION	LIST
036 4X227	260" tape	\$ 1.63
036 4X543	520" tape	\$ 2.18
150 Y002	2 oz. liquid tef	\$ 8.64
150 Y004	4 oz. liquid tef	\$ 16.27
150 Y008	8 oz. liquid tef	\$ 29.74
150 RS21	8 oz. Rectorseal	\$ 40.00
150 RSTB	8 oz. Tru-Blu	\$ 36.50
150 RSTB2	2 oz. Tru-Blu	\$ 11.50



FLANGE FITTINGS



CROSS



ORDER NO.		LIST
102 M100CR	1"	\$ 24.05
102 M200CR	2"	\$ 39.25
102 M220CR	2"FP	\$ 43.10
102 M300CR	3"	\$ 86.75

FLANGE X HOSE TEE



ORDER NO.		LIST
102 M100075HBT	1" Flange x 3/4" barbs	\$ 16.04
102 M100BT	1" Flange x 1" barbs	\$ 10.20

COUPLINGS



ORDER NO.		LIST
102 M100C	1" x 1"	\$ 7.15
102 M200100C	2" x 1"	\$ 17.35
102 M200C	2" x 2"	\$ 15.25
102 M220100C	2"FP x 1"	\$ 19.10
102 M220200C	2"FP x 2"	\$ 19.10
102 M220C	2"FP x 2"FP	\$ 17.15
102 M220C6	2" FP x 2"FP x 6"	\$ 24.15
102 M300200C	3" x 2"	\$ 44.55
102 M300220C	3" x 2"FP	\$ 40.50
102 M300C	3" x 3"	\$ 20.25
102 M300C7	3" x 3" x 7"	\$ 23.85
102 M300C12	3" x 3" x 12"	\$ 123.50

HOSE CONNECTOR



ORDER NO.		LIST
102 M100075B	1" x 3/4"	\$ 2.92
102 M100B	1" x 1"	\$ 2.92
102 M100125B	1" x 1-1/4"	\$ 2.92
102 M200100B	2" x 1"	\$ 6.35
102 M200125B	2" x 1-1/4"	\$ 6.60
102 M200150B	2" x 1-1/2"	\$ 5.80
102 M200B	2" x 2"	\$ 6.35
102 M220125B	2"FP x 1-1/4"	\$ 6.35
102 M220150B	2"FP x 1-1/2"	\$ 6.35
102 M220B	2" x 2"	\$ 5.80
102 M300220B	3" x 2"FP	\$ 19.60
102 M300B	3" x 3"	\$ 17.75

45° HOSE CONNECTOR

ORDER NO.		LIST
102 M100B45	1" x 1"	\$ 17.50
102 M200B45	2" x 2"	\$ 24.65
102 M220B45	2"FP x 2"	\$ 23.75
102 M300B45	3" x 3"	\$ 83.00

PLUGS



ORDER NO.		LIST
102 M100P	1"	\$ 3.37
102 M200P	2"	\$ 5.60
102 M220P	2"FP	\$ 7.15
102 M300P	3"	\$ 19.10
102 M100P025	1" x 1/4"	\$ 13.20
102 M200P018	2" x 1/8"	\$ 17.10
102 M200P025	2" x 1/4"	\$ 17.10
102 M200P038	2" x 3/8"	\$ 18.70
102 M200P050	2" x 1/2"	\$ 17.10
102 M200P075	2" x 3/4"	\$ 17.10
102 M200P100	2" x 1"	\$ 17.10
102 M220P075	2"FP x 3/4"	\$ 26.00
102 M300P100	3" x 1"	\$ 31.80

FLANGE SWEEPS



ORDER NO.		LIST
102 M100BS (A)	1" X Hose Barb	\$ 17.45
102 M100S (C)	1" Flg X 1" Flg	\$ 16.05
102 M220AS (B)	2" FP X Male Cam	\$ 17.20
102 M220BS (A)	2" FP X 2 Hose Barb	\$ 39.70
102 M220MS (D)	2" FP X 2" Mpt	\$ 18.90
102 M220S (C)	2" FP Flg X 2" FP Flg	\$ 16.80

45° and 90° ELBOW



ORDER NO.		LIST
102 M10090	1" x 1"	\$ 8.90
102 M10045	1" x 1"	\$ 13.25
102 M20090	2" x 2"	\$ 14.90
102 M20045	2" x 2"	\$ 15.60
102 M20090SH	2" x 2" short	\$ 14.90
102 M22090	2"FP x 2"FP	\$ 13.55
102 M22045	2"FP x 2" FP	\$ 18.80
102 M30090	3" x 3"	\$ 64.40
102 M30045	3" x 3"	\$ 77.05

90° HOSE CONNECTOR



ORDER NO.		LIST
102 M100075E	1" x 3/4"	\$ 3.54
102 M100E	1" x 1"	\$ 3.54
102 M100125E	1" x 1-1/4"	\$ 3.54
102 M100150E	1" x 1 1-1/2"	\$ 21.40
102 M200100E	2" x 1"	\$ 11.80
102 M200125E	2" x 1-1/4"	\$ 11.80
102 M200150E	2" x 1-1/2"	\$ 10.75
102 M200E	2" x 2"	\$ 11.80
102 M220150E	2"FP x 1-1/2"	\$ 11.80
102 M220E	2"FP x 2"	\$ 11.80
102 M300220E	3" x 2"	\$ 19.50
102 M300E	3" x 3"	\$ 47.45

ADAPTER



A



M220D



M303D

ORDER NO.		LIST
102 M100A	1" x 1" Male cam	\$ 7.75
102 M200A	2" x 2" Male cam	\$ 10.40
102 M220A	2"FP x 2" Male cam	\$ 11.40
102 M220D	2"FP x 2" Female cam	\$ 26.20
102 M300A	3" x 3" Male cam	\$ 22.10
102 M303D	3" x 3" Female cam	\$ 50.30

FLANGE SWEEPS w/ GAUGE PORT



ORDER NO.

ORDER NO.		LIST
102 M300ASG	3" flg X Male Cam	\$ 86.80
102 M300MSG	3" flg X 3" Mpt	\$ 86.80
102 M300SG	3" flg X 3" Flg	\$ 86.80
102 M300BS	3" flg X 3" HB	\$ 77.15

TEES



ORDER NO.		LIST
102 M100T	1"	\$ 8.15
102 M101T	1" LONG	\$ 8.20
102 M200100T	2" x 2" x 1"	\$ 16.50
102 M200T	2"	\$ 15.65
102 M220T	2"FP	\$ 15.65
102 M220100T	2"FP x 2"FP x 1"	\$ 17.45
102 M300T	3"	\$ 73.90
102 M200TV75	Venturi tee	\$ 56.90

ADAPTERS FPT



Flange x FPT

ORDER NO.		LIST
102 M100050F	1" x 1/2"	\$ 3.02
102 M100075F	1" x 3/4"	\$ 3.02
102 M100F	1" x 1"	\$ 5.60
102 M200F	2" x 2"	\$ 16.35
102 M220F	2"FP x 2"FP	\$ 26.35
102 M300F	3" x 3"	\$ 42.45

ADAPTERS MPT



Flange x MPT

ORDER NO.		LIST
102 M100075M	1" x 3/4"	\$ 3.37
102 M100M	1" x 1"	\$ 3.37
102 M100125M	1" x 1-1/4"	\$ 3.37
102 M200125M	2" x 1-1/4"	\$ 5.60
102 M200150M	2" x 1-1/2"	\$ 5.60
102 M200M	2" x 2"	\$ 5.60
102 M220M	2"FP x 2"	\$ 5.60
102 M300M	3" x 3"	\$ 15.65



FLANGE FITTINGS



CLAMPS



ORDER NO.	DESCRIPTION	LIST
102 MFC100	1" CLAMP	\$ 6.75
102 MFC200	2" CLAMP	\$ 7.95
102 MFC220	2"FP CLAMP	\$ 8.20
102 MFC300	3" CLAMP	\$ 11.25



ORDER NO.	DESCRIPTION	LIST
102 MFC220TB	2" Hi-Trq T-Bolt Flange	\$ 34.75
102 MFC300TB	3" Hi-Trq T-Bolt Flange	\$ 36.35



ORDER NO.	DESCRIPTION	LIST
102 MFC220B	2" Bolted Flange Clamp	\$ 55.30
102 MFC300B	3" Bolted Flange Clamp	\$ 62.30



ORDER NO.	DESCRIPTION	LIST
045 UFC0100	Flange Clamp, 1"	\$ 11.56
045 UFC0150	Flange Clamp, 2" Standard	\$ 12.36
045 UFC0200	Flange Clamp, 2" Full Port	\$ 14.74
045 UFC0300	Flange Clamp, 3"	\$ 15.47

FLANGED "Y" STRAINER



ORDER NO.	DESCRIPTION	LIST
102 MLS200	2" X 20mesh X 200 flg	\$ 119.50
102 MLS220	2"FP X 50mesh X 220 flg	\$ 166.50
102 MLS300	3" X 20 mesh X 300 flg	\$ 606.50

GASKETS



ORDER NO.	DESCRIPTION	LIST
102 M100G	1" EPDM	\$ 2.48
102 M100GV	1" VITON	\$ 7.10
102 M150G	2" EPDM	\$ 1.14
102 M150GV	2" VITON	\$ 12.50
102 M200G	2" FP EPDM	\$ 1.24
102 M200GV	2" FP VITON	\$ 19.35
102 M300G	3" EPDM	\$ 1.68
102 M300GV	3" VITON	\$ 26.55



ORDER NO.	DESCRIPTION	LIST
102 M201G	2" Ribbed EPDM	\$ 2.40
102 M221G	2" FP Ribbed EPDM	\$ 2.57
102 M301G	3" FP Ribbed EPDM	\$ 2.85



ORDER NO.	SIZE	LIST
205 FG100	1"	\$ 1.80
205 FG200	1 1/2"	\$ 1.93
205 FG220	2"	\$ 1.96
205 FG300	3"	\$ 2.81



FLANGED "T" STRAINER



ORDER NO.	DESCRIPTION	LIST
102 MLST100	1" X 50 Mesh	\$ 55.85
102 MLST150	1 1/2" X 50 Mesh	\$ 94.60

ORDER NO.	DESCRIPTION	LIST
102 MV100CF	1" Full Port	\$ 52.80
102 MV200CF	2" X 2" Flg	\$ 72.70
102 MV220CF	2" X 2" FP Flg	\$ 96.90
102 MVS220FP	2"FP flg X 2" FPT	\$ 108.00
102 MVS220HSFP	2"FP flg x flg w/SS ball stem and handle	\$ 230.25
102 MV300	3"Flg X 3" Std port	\$ 159.00
102 MV300CF	3"FlgX3"Full Port	\$ 230.50
102 MVSF200	2" flg X male cam	\$ 74.70
102 MVSF220	220 flg X male cam	\$ 90.20
102 MVSF300	300 flg X male cam	\$ 179.25
102 MVS300HSFP	3" FP flg X flg w/SS ball, stem, and handle	\$ 431.75
102 MVS300CFPP	3" FP flg X 3" FP flg Stubby style	\$ 219.25



3-WAY FLG BALL VALVES



Bottom



Side load

ORDER NO.	DESCRIPTION	LIST
102 MV100BL	1" Bottom load	\$ 83.05
102 MV100SL	1" Side load	\$ 83.05
102 MV200BL	2" Bottom load	\$ 95.15
102 MV200SL	2" Side load	\$ 107.25
102 MV220BL	2" FP Bottom load	\$ 137.75
102 MV220SL	2" FP Side load	\$ 137.75
102 MV300BL	3" Bottom load	\$ 369.00

BOOM NOZZLE PIPE ADAPTER



ORDER NO.	DESCRIPTION	LIST
102 M100PAT	1" Flg pipe adapter tee	\$ 62.95
102 M100PA	1" Flg pipe adapter	\$ 56.60

SWITCH-A-ROOS



ORDER NO.	DESCRIPTION	LIST
A-ft		
102 75A025	3/4" Male x 1/4" fpt	\$ 7.30
102 75A038	3/4" Male x 3/8" fpt	\$ 6.10
102 75A050	3/4" Male x 1/2" fpt	\$ 7.30
102 75A075	3/4" Male x 3/4" fpt	\$ 6.10
B-mpt		
102 75B050	3/4" Female x 1/2" mpt	\$ 16.75
102 75B075	3/4" Female x 3/4" mpt	\$ 13.95

Garden Hose Cam Couplers



ORDER NO.	DESCRIPTION	LIST
102 GHFT075A	Male x 3/4" FGHT	\$ 6.60
102 GHFT075D	Female x 3/4" FGHT	\$ 23.30
102 GHMT075B	Female x 3/4" MGHT	\$ 20.55
102 GHMT075F	Male x 3/4" MGHT	\$ 6.60
102 GHKIT	Kit, 5 PC Garden Hose Camlock	\$ 26.75*

Poly Swivels



ORDER NO.	DESCRIPTION	LIST
102 SW100	Poly swivel 1" mpt x 1" fpt	\$ 20.15
102 SW150	Poly swivel 1 1/2"	\$ 24.65
102 SW220	Poly swivel 2"	\$ 46.05
102 MSW220	Swivel; 2" FP flg x 2" FP flg	\$ 47.80



BANJO POLY CAM COUPLINGS



Features include stainless steel rings, arms, and pins. Some 3" and all 4" have 3 arms for positive seal. Couplers thru 2" are rated at 125 psi at 70 degrees F. Couplers 3" & 4" are rated at 75 psi. Standard gasket is EPDM. Viton is available. **Stainless Steel also available on page 90.**



ORDER NO.	DESCRIPTION	LIST
102 050A	Male x 1/2" fpt	\$ 7.30
102 075A	Male x 3/4" fpt	\$ 6.10
102 100A	Male x 1" fpt	\$ 6.10
102 125A	Male x 1 1/4" fpt	\$ 6.10
102 150A	Male x 1 1/2" fpt	\$ 6.90
102 200A	Male x 2" fpt	\$ 8.15
102 300A	Male x 3" fpt	\$ 19.75
102 400A	Male x 4" fpt	\$ 36.10



ORDER NO.	DESCRIPTION	LIST
102 050D	Female x 1/2" fpt	\$ 13.95
102 075D	Female x 3/4" fpt	\$ 13.95
102 100D	Female x 1" fpt	\$ 16.00
102 125D	Female x 1 1/4" fpt	\$ 16.00
102 150D	Female x 1 1/2" fpt	\$ 18.80
102 200D	Female x 2" fpt	\$ 22.90
102 300D	Female x 3" fpt	\$ 38.45
102 400D	Female x 4" fpt	\$ 76.20



PLUG

ORDER NO.	DESCRIPTION	LIST
102 075PL	Plug for 1/2" & 3/4"	\$ 6.60
102 100PL	Plug for 1" & 1 1/4"	\$ 6.30
102 150PL	Plug 1 1/2"	\$ 8.45
102 200PL	Plug 2"	\$ 9.55
102 300PL	Plug 3"	\$ 20.05
102 400PL	Plug 4"	\$ 28.40

45-90 Degree Couplings



ORDER NO.	DESCRIPTION	LIST
102 90150A	Male x 1 1/2" fpt 90	\$ 13.10
102 90150C	Female x 1 1/2" barb 90	\$ 27.00
102 90150D	Female x 1 1/2" fpt 90	\$ 27.00
102 90150F	Male x 1 1/2" mpt 90	\$ 15.70
102 90200A	Male x 2" fpt 90	\$ 14.95
102 90200B	Female x 2" mpt 90	\$ 33.50
102 90200C	Female x 2" barb 90	\$ 27.90
102 90200D	Female x 2" fpt 90	\$ 27.90
102 90200F	Male x 2" mpt 90	\$ 14.05
102 200F45	Male x 2" mpt 45	\$ 26.40



ORDER NO.	DESCRIPTION	LIST
102 050B	Female x 1/2" mpt	\$ 16.75
102 075B	Female x 3/4" mpt	\$ 13.95
102 100B	Female x 1" mpt	\$ 16.00
102 125B	Female x 1 1/4" mpt	\$ 16.00
102 150B	Female x 1 1/2" mpt	\$ 18.80
102 200B	Female x 2" mpt	\$ 22.90
102 201B	Female x 2" mpt long	\$ 22.90
102 300B	Female x 3" mpt	\$ 38.45
102 303B	Female x 3" mpt long	\$ 49.30
102 400B	Female x 4" mpt	\$ 91.45



ORDER NO.	DESCRIPTION	LIST
102 050E	Male x 1/2" barb	\$ 6.60
102 075E	Male x 3/4" barb	\$ 6.60
102 100E	Male x 1" barb	\$ 7.30
102 125E	Male x 1 1/4" barb	\$ 7.30
102 150E	Male x 1 1/2" barb	\$ 7.35
102 200E	Male x 2" barb	\$ 9.60
102 300E	Male x 3" barb	\$ 25.30
102 400E	Male x 4" barb	\$ 36.10



ORDER NO.	DESCRIPTION	LIST
102 200FF	2" x 2" male adapter	\$ 24.60
102 300F200F	3" x 2" male adapter	\$ 60.45
102 300FF	3" x 3" male adapter	\$ 60.45



CAP

ORDER NO.	DESCRIPTION	LIST
102 075CAP	Cap 1/2" & 3/4"	\$ 13.95
102 100CAP	Cap 1" & 1 1/4"	\$ 15.40
102 150CAP	Cap 1 1/2"	\$ 18.80
102 200CAP	Cap 2"	\$ 22.90
102 300CAP	Cap 3"	\$ 38.45
102 400CAP	Cap 4"	\$ 55.55



ORDER NO.	DESCRIPTION	LIST
102 300B200A	3" female x 2" male	\$ 68.65



ORDER NO.	DESCRIPTION	LIST
102 050C	Female x 1/2" barb	\$ 13.95
102 075C	Female x 3/4" barb	\$ 13.95
102 100C	Female x 1" barb	\$ 16.00
102 125C	Female x 1 1/4" barb	\$ 16.00
102 150C	Female x 1 1/2" barb	\$ 18.80
102 200150C	Female 2" x 1 1/2" barb	\$ 25.95
102 200C	Female x 2" barb	\$ 22.90
102 300C	Female x 3" barb	\$ 49.30
102 400C	Female x 4" barb	\$ 76.20



ORDER NO.	DESCRIPTION	LIST
102 050F	Male x 1/2" mpt	\$ 6.60
102 075F	Male x 3/4" mpt	\$ 6.60
102 100F	Male x 1" mpt	\$ 7.30
102 125F	Male x 1 1/4" mpt	\$ 7.30
102 150F	Male x 1 1/2" mpt	\$ 7.35
102 200F	Male x 2" mpt	\$ 9.60
102 300F	Male x 3" mpt	\$ 25.30
102 400F	Male x 4" mpt	\$ 36.10

Replacement Extra Thick Gaskets

ORDER NO.	DESCRIPTION	LIST
102 075G	Coupler gasket 1/2" & 3/4"	\$ 1.71
102 100G	Coupler gasket 1" & 1 1/4"	\$ 1.88
102 150G	Coupler gasket 1 1/2"	\$ 2.10
102 200G	Coupler gasket 2"	\$ 2.67
102 300G	Coupler gasket 3"	\$ 3.59
102 400G	Coupler gasket 4"	\$ 3.27

add "V" for VITON

Replacement SS Cam Arms

ORDER NO.	DESCRIPTION	LIST
102 075KS	Cam arm 1/2" & 3/4"	\$ 4.85
102 100KS	Cam arm 1" & 1 1/4"	\$ 4.85
102 150KS	Cam arm 1 1/2" & 2"	\$ 6.55
102 300KS	Cam arm 3" & 4"	\$ 9.25



PIPE SEALANT

ORDER NO.	DESCRIPTION	LIST
036 4X227	260" tape	\$ 1.63
036 4X543	520" tape	\$ 2.18
150 Y002	2 oz. liquid tef	\$ 8.64
150 Y004	4 oz. liquid tef	\$ 16.27
150 Y008	8 oz. liquid tef	\$ 29.74
150 RS21	8 oz. Rectorseal	\$ 40.00
150 RSTB	8 oz. Tru-Blu	\$ 36.50
150 RSTB2	2 oz. Tru-Blu	\$ 11.50



STAINLESS & ALUMINUM CAMLOCKS



Chemical resistant, Durable 316 S.S. & Aluminum cam lock couplers come standard with Buna gaskets and are compatible with cam locks of different compositions and from other manufacturers.

A



ORDER NO.	DESCRIPTION	LIST
102 100ASS	1" STAINLESS	\$ 13.00
102 200ASS	2" STAINLESS	\$ 27.00
102 300ASS	3" STAINLESS	\$ 50.80

102 200A-AL	2" ALUMINUM	\$ 6.00
102 300A-AL	3" ALUMINUM	\$ 10.35

D



ORDER NO.	DESCRIPTION	LIST
102 100DSS	1" STAINLESS	\$ 22.50
102 200DSS	2" STAINLESS	\$ 42.00
102 300DSS	3" STAINLESS	\$ 76.85

102 200D-AL	2" ALUMINUM	\$ 14.90
102 300D-AL	3" ALUMINUM	\$ 26.15



ORDER NO.	DESCRIPTION	LIST
102 100PL/SS	1" STAINLESS	\$ 7.80
102 200PL/SS	2" STAINLESS	\$ 26.66
102 300PL/SS	3" STAINLESS	\$ 42.72

102 200PL-AL	2" ALUMINUM	\$ 10.35
102 300PL-AL	3" ALUMINUM	\$ 9.30

B



ORDER NO.	DESCRIPTION	LIST
102 100BSS	1" STAINLESS	\$ 21.90
102 200BSS	2" STAINLESS	\$ 41.60
102 300BSS	3" STAINLESS	\$ 79.00

102 200B-AL	2" ALUMINUM	\$ 14.00
102 300B-AL	3" ALUMINUM	\$ 21.10

E



ORDER NO.	DESCRIPTION	LIST
102 100ESS	1" STAINLESS	\$ 12.50
102 200ESS	2" STAINLESS	\$ 36.75
102 300ESS	3" STAINLESS	\$ 62.50

102 200E-AL	2" ALUMINUM	\$ 9.40
102 300E-AL	3" ALUMINUM	\$ 16.20



ORDER NO.	DESCRIPTION	LIST
102 100CAP/SS	1" STAINLESS	\$ 16.00
102 200CAP/SS	2" STAINLESS	\$ 37.49
102 300CAP/SS	3" STAINLESS	\$ 59.11

102 200CAP-AL	2" ALUMINUM	\$ 13.60
102 300CAP-AL	3" ALUMINUM	\$ 19.40

C



ORDER NO.	DESCRIPTION	LIST
102 100CSS	1" STAINLESS	\$ 21.85
102 200CSS	2" STAINLESS	\$ 46.80
102 300CSS	3" STAINLESS	\$ 72.75

102 200C-AL	2" ALUMINUM	\$ 15.65
102 300C-AL	3" ALUMINUM	\$ 25.80

F

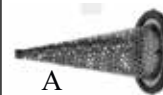


ORDER NO.	DESCRIPTION	LIST
102 100FSS	1" STAINLESS	\$ 13.15
102 200FSS	2" STAINLESS	\$ 32.20
102 300FSS	3" STAINLESS	\$ 59.00

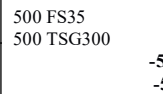
102 200F-AL	2" ALUMINUM	\$ 9.30
102 300F-AL	3" ALUMINUM	\$ 15.25



Sold as individual parts



ORDER NO.	DESCRIPTION	LIST
500 FS25	(A) 2" STRAINER	\$ 26.00
500 TSG200	(B) 2" SIGHT GLASS	\$ 56.00



500 FS35	(A) 3" STRAINER	\$ 28.50
500 TSG300	(B) 3" SIGHT GLASS	\$ 90.00

-5 MESH SCREEN
-500 PSI RATING

ITEM "A" CAN ONLY BE INSERTED INTO A "D" STYLE FEMALE CAM-LOCK

DO NOT USE A WRENCH ON SIGHT GLASS



2 1/2" & 4" BRASS GAUGES DRY & FILLED

ORDER NO.	DESCRIPTION	LIST
017 G030	30 psi brass	\$ 9.20
017 G030F	30 psi filled brass	\$ 23.42
017 G060	60 psi brass	\$ 9.20
017 G060F	60 psi filled brass	\$ 23.42
017 G604	60 psi brass 4"	\$ 28.62
017 G100	100 psi brass	\$ 9.20
017 G100F	100 psi filled brass	\$ 23.42
017 G104	100 psi brass 4"	\$ 28.62
017 G104F	100 psi filled brass 4"	\$ 70.48
017 G200	200 psi brass	\$ 9.20
017 G200F	200 psi filled brass	\$ 23.42
017 G3000F	3000 psi filled brass	\$ 23.42



2 1/2" & 4" SS GAUGES DRY & FILLED

ORDER NO.	DESCRIPTION	LIST
017 GS060	60 psi stainless ammonia	\$ 22.14
017 GS604	60 psi stainless 4" ammonia	\$ 56.35
017 G604FS	60 psi filled stainless 4"	\$ 126.50
017 G104FS	100 psi filled stainless 4"	\$ 126.50
017 GS160	160 psi stainless ammonia	\$ 22.14
017 GS164	160 psi stainless 4" ammonia	\$ 56.35
017 G204FS	200 psi filled stainless 4"	\$ 126.50
017 GS400	400 psi stainless ammonia	\$ 22.14



2391



G5

ORDER NO.	DESCRIPTION	LIST
017 G5	Pigtail protector	\$ 32.75*
045 2404047	Gauge dampner	\$ 44.73
250 2391	Gauge isolator 1/4" FPT	\$ 109.69



ORDER NO.	SIZE	LIST
102 100SL	1"	\$ 4.08
102 150SL	1 1/2"	\$ 4.58



**FLANGE COUPLING
w/ GAUGE PORT**



ORDER NO.	SIZE	LIST
205 M300CPG	3"	\$ 19.08



Plug with Handle

ORDER NO.	SIZE	LIST
205 200PLH	2"	\$ 17.78
205 300PLH	3"	\$ 27.13



Cap with Handle

ORDER NO.	SIZE	LIST
102 200SBC	2"	\$ 28.65

STAINLESS



ORDER NO.	SIZE	LIST
102 300B200ASS	3" F X 2" M	\$ 103.00

ALUMINUM



ORDER NO.	SIZE	LIST
102 300DA45-AL	3"	\$ 57.70

STAINLESS

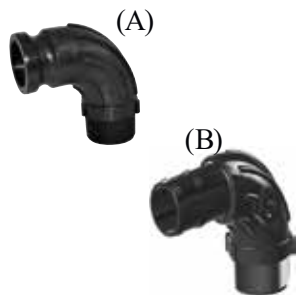


ORDER NO.	SIZE	LIST
102 4030DASS	4" F X 3" M	\$ 124.00



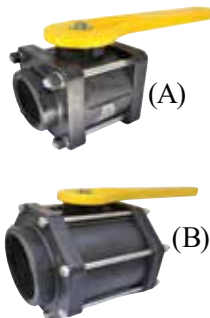


CAMLOCK SWEEP



ORDER NO.	SIZE	LIST
205 200FSW90 (A)	2"	\$ 15.45
205 300FSW90 (A)	3"	\$ 42.16
205 HB200SW90 (B)	2"	\$ 12.33
205 HB300SW90 (B)	3"	\$ 42.31

2" & 3" BOLTED VALVES



ORDER NO.	SIZE	LIST
205 V200Y (A)	2"	\$ 58.74
205 V200FPY (B)	2" FP	\$ 82.72
205 V300FPY (B)	3" FP	\$ 184.72

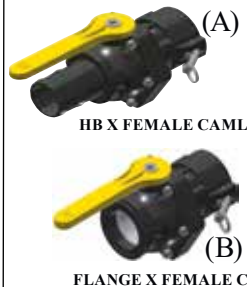
100 MAX PSI

MANIFOLD FLANGE GASKET

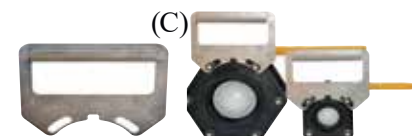


ORDER NO.	SIZE	LIST
205 FG100	1"	\$ 1.80
205 FG200	1 1/2"	\$ 1.93
205 FG220	2"	\$ 1.96
205 FG300	3"	\$ 2.81

STUBBY VALVES



ORDER NO.	SIZE	LIST
205 VSHBD204FP (A)	2" FP	\$ 100.79
205 VSHBD300FP (A)	3" FP	\$ 239.89
205 MVSD220FP (B)	2" FP	\$ 100.79
205 MVSD300FP (B)	3" FP	\$ 239.89
205 V25272 (C)	Handle	\$ 31.71



FITS=V125FP, V150, V200, V300, V300FP

Safety Camlock Coupling features:

- Glass Filled Polypropylene
- 1/2" thru 2" Maximum Operating Pressure 125 psi @ 70°F.
- 3" Maximum Operating Pressure 75 psi @ 70°F.
- E.P.D.M. Gaskets

SAFETY CAMLOCK

The Safety Camlock was designed to provide enhanced safety with exclusive cam lever locking mechanism. This mechanism helps reduce the possibility of unintentional opening of the cam levers during use, which could result in personal injury and costly spills



ORDER NO.	SIZE	LIST
205 SAF300200D	3" X 2" FPT	\$ 39.57

FEMALE COUPLER X FEMALE NPT



ORDER NO.	SIZE	LIST
205 SAF300B200A	3" X 2"	\$ 39.57

FEMALE COUPLER X MALE ADAPTER

B SERIES



ORDER NO.	SIZE	LIST
205 SAF100B	1"	\$ 16.49
205 SAF200B	2"	\$ 23.53
205 SAF300B	3"	\$ 39.57

FEMALE COUPLER X MALE NPT

C SERIES



ORDER NO.	SIZE	LIST
205 SAF100C	1"	\$ 16.49
205 SAF200C	2"	\$ 23.53
205 SAF300C	3"	\$ 39.57

FEMALE COUPLER X HOSE BARB

D SERIES



ORDER NO.	SIZE	LIST
205 SAF100D	1"	\$ 16.49
205 SAF200D	2"	\$ 23.53
205 SAF300D	3"	\$ 39.57

FEMALE COUPLER X FEMALE NPT

CAPS



ORDER NO.	SIZE	LIST
205 SAF200CAP	2"	\$ 23.53
205 SAF300CAP	3"	\$ 39.57

CAP FOR MALE ADAPTER



VALVES



4 BOLT BALL VALVES



ORDER NO.	SIZE	LIST
102 V050	1/2" fpt	\$ 47.90
102 V075	3/4" fpt	\$ 47.90
102 V100	1" fpt	\$ 47.90
102 V100FP	1" fpt	\$ 52.80
102 V125	1 1/4" fpt	\$ 52.80
102 V125FP	1 1/4" fpt	\$ 67.85
102 V150	1 1/2" fpt	\$ 67.85
102 V200	2" fpt	\$ 67.85
102 V204FP	2" fpt	\$ 88.15

2" & 3" STUBBY VALVES



ORDER NO.	SIZE	LIST
102 VS200 (A)	2"	\$ 79.45
102 VSF204FP (B)	FP 2"	\$ 90.20
102 VSMT204FP (C)	FP 2"	\$ 90.20
102 VS204FP (D)	2"	\$ 90.20
102 VSFMT204 (A)	FP 2"	\$ 90.20
102 VSF300 (B)	3"	\$ 179.25
102 VSFMT300 (E)	3"	\$ 179.25
102 VSMT300 (F)	3"	\$ 230.25

4-6 BOLT BALL VALVES



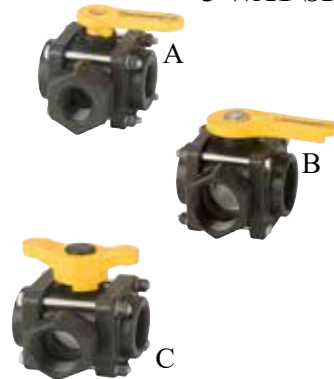
ORDER NO.	SIZE	LIST
102 V200FP	2" fpt 6 bolt	\$ 93.00
102 VSB200FP(A)	2" mpt x Camlock	\$ 108.00
102 V300(B)	3" fpt	\$ 149.50
102 V300FP	3" fpt	\$ 222.25
102 V400	4" fpt	\$ 485.50
102 VSBHB205FP(C)	2" barb x Female Camlock	\$ 140.25
102 VSBHB305FP(C)	3" barb x Female Camlock	\$ 297.75

3 WAY BOTTOM LOAD VALVES



ORDER NO.	SIZE	LIST
102 V075SBL (A)	3/4"	\$ 69.15
102 V100SBL (A)	1"	\$ 69.15
102 V125SBL (C)	1 1/4"	\$ 107.25
102 V150SBL (C)	1 1/2"	\$ 107.25
102 V200SBL (B)	2"	\$ 132.75

3 WAY SIDE LOAD VALVES



ORDER NO.	SIZE	LIST
102 V075SL (A)	3/4"	\$ 69.15
102 V100SL (A)	1"	\$ 69.15
102 V125SL (C)	1 1/4"	\$ 107.25
102 V150SL (C)	1 1/2"	\$ 107.25
102 V200SL (B)	2"	\$ 132.75

ANGLED NOZZLE VALVES



ORDER NO.	DESCRIPTION	LIST
102 VA100	1" fpt- 3/4" ball	\$ 65.00
102 VA150	1 1/2" fpt- 1 1/2" ball	\$ 81.70
102 VA200	2" fpt- 1 1/2" ball	\$ 81.70
102 VA200FP	2" fpt- 2 1/16" ball	\$ 118.75
102 VN100	1" trigger valve	\$ 84.80

BOLTED VALVE SS MOUNTING BRACKETS

ORDER NO.	DESCRIPTION	LIST
102 V10270	1" STRAIGHT	\$ 43.30
102 V10271	1" 90 DEGREE	\$ 12.40
102 V25270	STRAIGHT	\$ 20.65
102 V25271	90 DEGREE	\$ 24.20

(fits valves V150-V300FP)

ONE-WAY CHECK VALVES



ORDER NO.	DESCRIPTION	LIST
102 WFC230254	MAUSER w/QD outlet	\$ 75.30
102 WSFBC210	SCHUTZ/CLAWSON W/QD outlet	\$ 72.75



VALVES

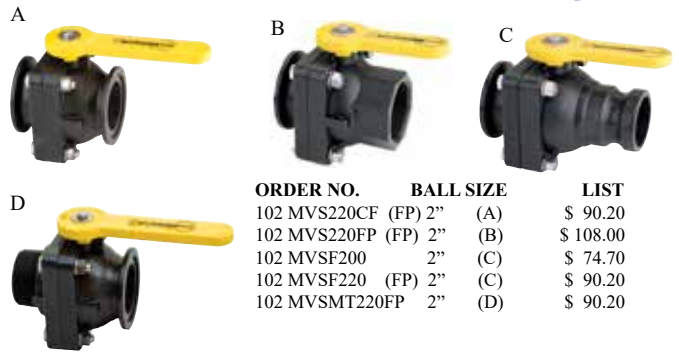


4 & 6 BOLT FLANGE VALVES



ORDER NO.	SIZE	LIST
102 MV100CF	1"	\$ 52.80
102 MV200CF	2"	\$ 72.70
102 MV220CF (FP)	2"	\$ 96.90
102 MV300	3"	\$ 159.00
102 MV300CF (FP)	3"	\$ 230.50

2" STUBBY FLANGE VALVES



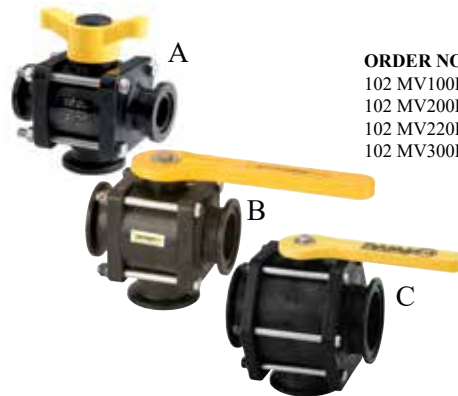
ORDER NO.	BALL SIZE	LIST
102 MVS220CF (FP) 2"	(A)	\$ 90.20
102 MVS220FP (FP) 2"	(B)	\$ 108.00
102 MVSF200	2" (C)	\$ 74.70
102 MVSF220 (FP) 2"	(C)	\$ 90.20
102 MVSMT220FP	2" (D)	\$ 90.20

2" & 3" STAINLESS BALL & HANDLE FLANGE VALVES



ORDER NO.	SIZE	LIST
102 MVS220HSFP(A) 2"		\$ 230.25
102 MVS300HSFP(B) 3"		\$ 431.75
102 MVSF300HSFP(C) 3"		\$ 289.25

3 WAY BOTTOM LOAD FLANGE VALVES



ORDER NO.	SIZE	LIST
102 MV100BL (A)	1"	\$ 83.05
102 MV200BL (A)	2"	\$ 95.15
102 MV220BL (B) (FP) 2"		\$ 137.75
102 MV300BL (C)	3"	\$ 369.00

3 WAY SIDE LOAD FLANGE VALVES



ORDER NO.	SIZE	LIST
102 MV100SL	1"	\$ 83.05
102 MV200SL	2"	\$ 107.25
102 MV220SL (FP) 2"		\$ 137.75

3" STUBBY FLANGE VALVES



ORDER NO.	SIZE	LIST
102 MVSF300 (A)	3"	\$ 179.25
102 MVSF300FP (A) 3" FP		\$ 224.50
102 MVS300CFPP (B) 3" FP		\$ 219.25
102 MVSMT300 (C)	3"	\$ 230.25

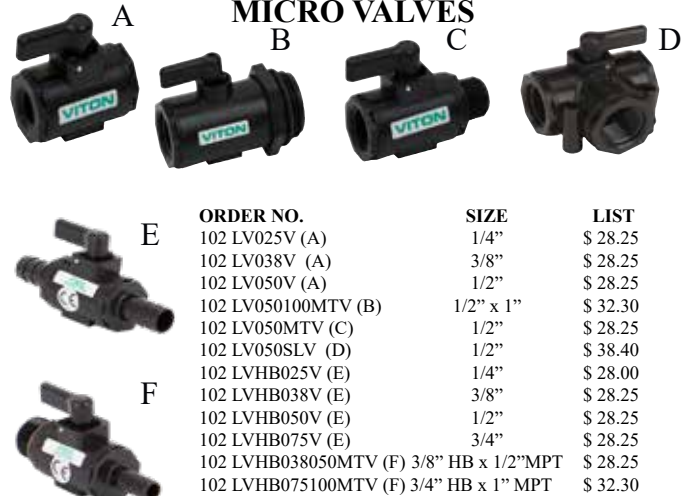


DRY-DISCONNECT

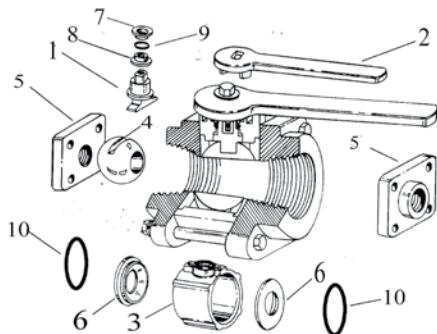


ORDER NO.	SIZE	FITTING	LIST
102 DM200A	2"	FPT	\$ 216.25*
102 DM220A	2" FP	FPT	\$ 247.50*
102 DM200ACF	2"	FLG	\$ 216.25*
102 DM200D	2"	FPT	\$ 231.00*
102 DM220D	2" FP	FPT	\$ 286.00*
102 DM200DCF	2"	FLG	\$ 231.00*
102 DM300AFP	3" Male FP X Female NPT		\$ 387.75*
102 DM300DFP	3" Female FP X Female NPT		\$ 433.25*

MICRO VALVES



ORDER NO.	SIZE	LIST
102 LV025V (A)	1/4"	\$ 28.25
102 LV038V (A)	3/8"	\$ 28.25
102 LV050V (A)	1/2"	\$ 28.25
102 LV050100MTV (B)	1/2" x 1"	\$ 32.30
102 LV050MTV (C)	1/2"	\$ 28.25
102 LV050SLV (D)	1/2"	\$ 38.40
102 LVHB025V (E)	1/4"	\$ 28.00
102 LVHB038V (E)	3/8"	\$ 28.25
102 LVHB050V (E)	1/2"	\$ 28.25
102 LVHB075V (E)	3/4"	\$ 28.25
102 LVHB038050MTV (F) 3/8" HB x 1/2" MPT		\$ 28.25
102 LVHB075100MTV (F) 3/4" HB x 1" MPT		\$ 32.30



VALVE REPAIR KITS - MARKED IN **YELLOW**

ORDER NO.	SIZE	LIST
102 V10200	1"FP, 1 1/4"	\$ 32.50
102 V20200	1 1/4" FP, 1 1/2", 2"	\$ 46.15
102 V25200	2" FP	\$ 64.05
102 V30200	3"	\$ 90.15
102 V35200	3" FP	\$ 165.50

**-MAXIMUM OPERATING PRESSURE-100 PSI
-STAINLESS STEEL BOLTS**

ITEM	DESCRIPTION	V050		V100FP		V125FP		V200FP		V300		V300FP	
		V075	V100	V125	V150	V200	V200FP	V300	V300FP				
1	Stem	102 V07151	\$ 4.88	102 V10151	\$ 6.25	102 V20151	\$ 11.25	102 V25151	\$ 18.30	102 V30251	\$ 18.30	102 V35251	\$ 18.30
2	Handle-straight	102 V10153	\$ 6.65	102 V10153	\$ 6.25	102 V20153	\$ 11.25	102 V25153	\$ 18.35	102 V30253	\$ 18.35	102 V35253	\$ 18.35
	Handle-angle												
3	Valve body	102 V07254	\$ 11.25	102 V10254	\$ 11.25	102 V20254	\$ 17.20	102 V25254	\$ 23.15	102 V30254	\$ 32.65	102 V35254	\$ 44.50
4	Valve ball	102 V07155	\$ 8.95	102 V10155	N/A	102 V20255	\$ 17.20	102 V25255	\$ 18.10	102 V30255	\$ 29.95	102 V35255	\$ 48.05
5	End plate-1/2"	102 V05256	N/A										
	End plate-3/4"	102 V07257	\$ 12.45										
	End plate-1"	102 V07256	\$ 12.45	102 V10257	\$ 16.00								
	End plate-1 1/4"			102 V10256	\$ 16.65	102 V20267	N/A						
	End plate-1 1/2"					102 V20257	\$ 18.35						
	End plate-2"					102 V20256	\$ 18.35	102 V25256	\$ 25.50				
	End plate-3"									102 V30264	\$ 43.30	102 V35264	\$ 61.10
	Angled end-2"					102 V20261	\$ 34.65	102 V25261	\$ 52.80				
	Angled end-1 1/2"					102 V20262	N/A						
6	Teflon seat	102 V07258	N/A	102 V10258	\$ 8.85	102 V20258	\$ 12.40	102 V25258	\$ 17.15	102 V30258	N/A	102 V35258	\$ 27.75
7	Upper stem bushing	102 V07159	N/A	102 V10159	\$ 3.32	102 V20159	\$ 4.85	102 V25160	\$ 6.25	102 V25160	\$ 6.25	102 V25160	\$ 6.25
8	Lower stem bushing	102 V07159	N/A	102 V10159	\$ 3.32	102 V20159	\$ 4.85	102 V25160	\$ 6.25	102 V25160	\$ 6.25	102 V25160	\$ 6.25
9	Stem oring-viton	102 V07163	\$ 2.44	102 V10163	\$ 2.72	102 V20163	\$ 3.44	102 V25163	\$ 5.05	102 V25163	\$ 5.05	102 V25163	\$ 5.05
10	Valve body oring	102 V07264	\$ 6.00	102 V10264	\$ 9.75	102 V20264	\$ 12.40	102 V25264	\$ 14.95	102 V30265	\$ 15.90	102 V35265	N/A
*NOT SHOWN	*Nozzle pipe-VA100	102 V07161	\$ 19.60			102 V20166	\$ 8.95						
	*Nozzle pipe-1 1/2"					102 V25165	\$ 10.10	102 V25165	\$ 10.10				
	*Nozzle pipe-2"												

BOLTED VALVE LOCKING DEVICE

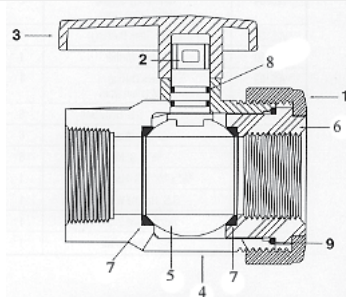
ORDER NO.	DESCRIPTION	LIST
102 VL20153	LOCK KIT; V125-V200	\$ 22.85
102 VL25153	LOCK KIT; V200FP-V400	\$ 42.45

(comes with handle & locking device, less padlock)

SINGLE UNION POLY BALL VALVES

VALVES INCLUDE EPDM ORINGS. MAX. 125PSI.

ORDER NO.	SIZE	LIST
017 V025	1/4"	\$ 16.75
017 V050	1/2"	\$ 23.30
017 V075	3/4"	\$ 23.30
017 V100	1"	\$ 29.15
017 V125	1 1/4"	\$ 50.05
017 V150	1 1/2"	\$ 49.70
017 V200	2"	\$ 63.10



ITEM	DESCRIPTION	017 V050		017 V075		017 V100		017 V125		017 V150		017 V200	
		ORDER NO.	LIST	ORDER NO.	LIST	ORDER NO.	LIST	ORDER NO.	LIST	ORDER NO.	LIST	ORDER NO.	LIST
1	End cap	102 UV07150	\$ 10.30	102 UV07150	\$ 10.30	102 UV10150	\$ 10.80	102 UV15150	\$ 16.50	102 UV15150	\$ 16.50	102 UV20150	\$ 17.60
2	Stem											102 UV20151	\$ 14.20
3	Handle	102 UV07153	\$ 9.05	102 UV07153	\$ 9.05	102 UV10153	\$ 9.65	102 UV15153	\$ 14.20	102 UV15153	\$ 14.20	102 UV20153	\$ 14.20
4	Body											102 UV20254	\$ 14.90
5	Ball	102 UV07255	N/A	102 UV07255	N/A	102 UV10255	N/A	102 UV15255	\$ 18.75	102 UV15255	\$ 18.75	102 UV20255	\$ 23.20
6	End plate	102 UV07256	N/A	102 UV07256	N/A	102 UV10256	\$ 9.65					102 UV20257	\$ 16.50
7	Seat	102 UV07258	\$ 4.65	102 UV07258	\$ 4.65	102 UV10258	\$ 5.75	102 V20258	\$ 12.40	102 V20258	\$ 12.40	102 UV20258	\$ 11.65
8	Stem oring	102 UV07163	\$ 1.61	102 UV07163	\$ 1.61			102 UV15163	\$ 1.26	102 UV15163	\$ 1.26	102 UV20163	\$ 2.16
9	Body oring	102 UV07264	\$ 3.05	102 UV07264	\$ 3.05	102 UV10264	\$ 3.56	102 UV15264	\$ 6.10	102 UV15264	\$ 6.10	102 UV20264	N/A
10	Thrust washer											102 V25060	N/A

3-WAY BALL VALVES

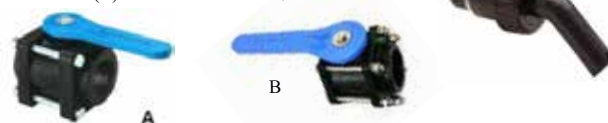
UNION STYLE 3-WAY VALVE

ORDER NO.	SIZE	LIST
017 454232N	1/2"	\$ 33.49
017 454233N	3/4"	\$ 33.49
017 454234N	1"	\$ 42.81
017 454235N	1 1/4"	\$ 74.50
017 454236N	1 1/2"	\$ 73.47
017 454237N	2"	\$ 92.03
084 334037	(viton) 1/2"	\$ 40.00



NORWESCO ON/OFF VALVES

ORDER NO.	SIZE	LIST
303 NV200 (A)	2"	\$ 56.32
303 NV200FP (B)	2" FP	\$ 79.38
303 NV300FP (B)	3"	\$ 187.89
303 60479 (C)	1"	\$ 25.44
303 60446 (C)	Handle	\$ 4.53





VALVES



BRASS VALVES

Two piece, full port, 1/4 turn, 600 psi



ORDER NO.	DESCRIPTION	LIST
017 V038B	3/8" Brass valve	\$ 11.11
017 V050B	1/2" Brass valve	\$ 18.71
017 V075B	3/4" Brass valve	\$ 21.18
017 V100B	1" Brass valve	\$ 36.01

STAINLESS STEEL LOCKING BALL VALVES

Two piece, full port 316SS 1/4 turn. 1000PSI



ORDER NO.	SIZE	LIST
017 V025S	1/4"	\$ 29.14
017 V038S	3/8"	\$ 30.19
017 V050S	1/2"	\$ 30.77
017 V075S	3/4"	\$ 44.52
017 V100S	1"	\$ 64.84
017 V125S	1 1/4"	\$ 88.46
017 V150S	1 1/2"	\$ 138.60
017 V200S	2"	\$ 182.70
017 V300S	3"	\$ 511.50*

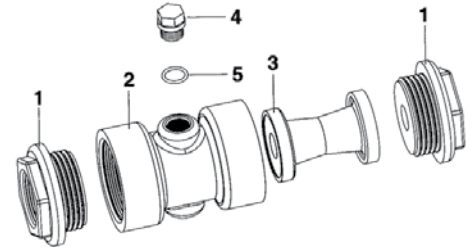
BUTTERFLY VALVES



ORDER NO.	SIZE	NET
500 CL200	2"	\$ 115.00**
500 CL300	3"	\$ 150.00**
500 CL400	4"	\$ 182.00**

Cast Iron Body, 316 stainless steel disc and shaft with EPDM seat. Operating Pressure: 150 PSI

POLY AIR ACTUATED SHUTOFF VALVES



ORDER NO.	DESCRIPTION	LIST
102 PV075	3/4" x 3/4" poly pinch valve	\$ 76.90*
102 PV100	1" x 1" poly pinch valve	\$ 76.90*
102 PV10265	(#3) EPDM bladder	\$ 22.85

DEADMAN VALVE

Stainless Steel



ORDER NO.	DESCRIPTION	LIST
500 V7650501	1" S.S Deadman ball valve	CALL*

FIRE NOZZLE/GARDEN HOSE NOZZLE



NT10B/NT15B



FN112B



GHN075

The fire nozzle is an excellent high pressure nozzle made of corrosion resistant nylon. An adjustable pattern from a straight stream to a wide spray is easily attained simply by rotating the end nozzle. 1" & 1 1/2" fpt

The GHN075 garden nozzle features machined aluminum construction for hard use. Soft rubber comfort grip for comfortable gripping. Aluminum hose connection for a tight connection and stainless spray cap for precise adjustable spray patterns. Higher flow rates than most garden nozzles.

ORDER NO.	DESCRIPTION	LIST
500 NT10B	Fire nozzle w/1" fpt	\$ 27.00* 22 gpm @ 100 psi
500 NT15B	Fire nozzle w/ 1 1/2" fpt	\$ 27.00* 75 gpm @ 100 psi
500 FN112B	Brass fire nozzle w/ 1 1/2" fpt	\$ 56.00* 75 gpm @ 100 psi
102 GHN075	Garden hose spray nozzle	\$ 35.60*

MISCELLANEOUS VALVES

ORDER NO.	DESCRIPTION	LIST
017 V025B	1/4" Chromed brass, 300 psi	\$ 13.51
017 V025BS	1/4" Br.Short handle, 300 psi	\$ 13.51
017 V025BSM	1/4" Br.Short handle, mpt-fpt	\$ 13.51
045 3304025	1/2" 3-way brass	\$ 72.00
017 GHV1	Garden Hose Valve	\$ 3.30
017 LA23	3-Way Garden Hose	\$ 4.25
150 V075	3/4" Drum Valve	\$ 5.90
150 V200	2" Drum Valve	\$ 65.00



3304025



V075/V200



V025BSM



V025B



LA23



V025BS



GHV1



BOOM CONTROL VALVES



ELECTRIC BOOM CONTROL

These solenoid valves operate on 12 volt DC and feature female pipe thread inlet, bypass, and outlet. EPDM seals are standard.

ORDER NO.	UNITS	INLET/ BYPASS	OUTLETS	GPM/ OUTLET	PSI	AMP/ VALVE	LIST
097 E144A	1	3/4"	1/2"	10	100	2.5	\$ 193.98
097 E144B	2	3/4"	1/2"	10	100	2.5	\$ 392.94
097 E144C	3	3/4"	1/2"	10	100	2.5	\$ 591.95
097 E145H	1	1"	1"	15	100	2.9	\$ 444.10

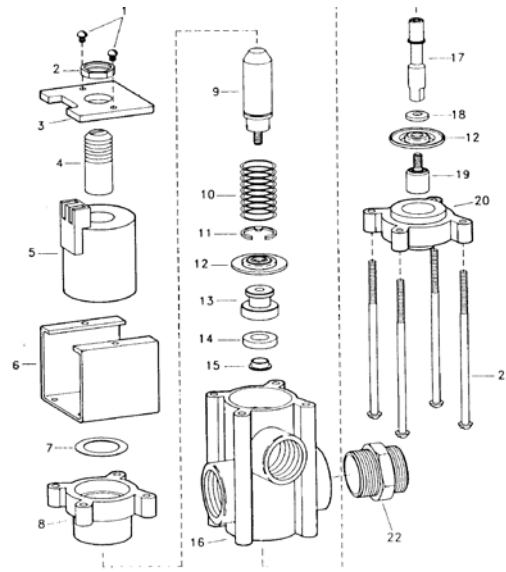
REPAIR KITS BELOW INCLUDE SEAT, DIAPHRAGMS, AND SPRING.

097 E144AK	Repair kit for single 144A valve	\$ 34.86
097 E145HK	Repair kit for 100psi 145 valve	\$ 62.75

(*items included in repair kit)

097 E144A PARTS LIST

1.	097 E14933	\$ 1.98	12.	*097 E36101	\$ 9.13
2.	097 E15168	\$ 6.53	13.	097 E14807	\$ 20.75
3.	097 E15166	\$ 5.72	14.	*097 E14802	\$ 7.04
4.	097 E15161	\$ 13.93	15.	097 E14811	\$ 6.00
5.	097 E15163	\$ 64.23	16.	097 E14801	\$ 18.43
6.	097 E14927	\$ 10.63	17.	097 E14812	\$ 23.49
7.	097 E15169	\$ 2.54	18.	097 E14806	\$ 6.87
8.	097 E15164	\$ 6.81	19.	097 E15162	\$ 13.07
9.	097 E15170	\$ 25.66	20.	097 E15165	\$ 25.30
10.	*097 E15167	\$ 6.84	21.	097 E14819	\$ 2.31
11.	097 E14813A	\$ 2.54			



097 E144A

144H ELECTRIC BOOM CONTROL

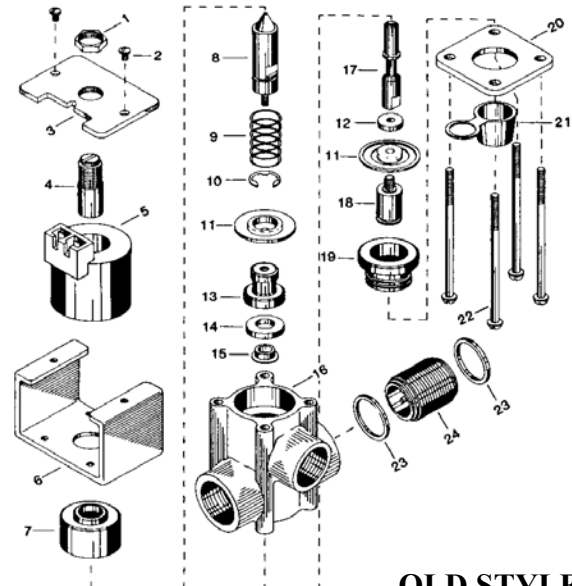
OLD STYLE

Operates on 12 volt DC (optional 24 volt coil available). Each unit has a volume of up to 6 gpm with a pressure drop of only 5 psi and an operating pressure of 100 psi. Available in single, double, or triple units. 3/4" inlets and 1/2" outlet. 1 3/4 lbs. each.

NOTE: OLD STYLE 144H ELECTRIC BOOM CONTROL

097 E144K Repair kit *items included \$ 34.86

1.	097 E14814	N/A	13.	097 E14807	\$ 20.75
2.	097 E14933	\$ 1.98	14.	*097 E14802	\$ 7.04
3.	097 E14926	N/A	15.	097 E14811	\$ 6.00
4.	097 E14809	N/A	16.	097 E14801	\$ 18.43
5.	097 E14810	N/A	17.	097 E14812	\$ 23.49
6.	097 E14927	\$ 10.63	18.	097 E14817	N/A
7.	097 E14816	N/A	19.	097 E14808	N/A
8.	097 E14815	N/A	20.	097 E14804	\$ 6.66
9.	*097 E14859	N/A	21.	*097 E14878	\$ 9.05
10.	097 E14813	\$ 2.59	22.	097 E14819	\$ 2.31
11.	*097 E14818	\$ 13.37	23.	097 D8432	N/A
11a.	097 E14818V	\$ 28.20	24.	097 D8343	N/A
12.	097 E14806	\$ 6.87			



OLD STYLE

12V SOLENOID VALVE-1/4"

Weather pack Connector

These 12 volt solenoid valves are ideal for use with boom fence line nozzles. The inlet is 1/4" fpt with a choice of 1/4" fpt outlet or Quick-jet. 250 2601A comes with weather pack seal connection. Rated at 1 gpm and draws 1 amp.

ORDER NO.	DESCRIPTION	LIST
250 2601A	1/4 fpt x QJ, 1 gpm; 125 psi	\$ 144.43
250 2202A	1/4 fpt x 1/4 fpt 1 gpm; 80 psi	\$ 113.09



12V HIGH PRESSURE SOLENOID VALVE

This valve features 3/4" fpt inlet, 3/4" mpt outlet and 1/2" fpt boom outlet. For multiple units, simply screw one valve to another. This valve is constructed of glass filled nylon, viton, and 430 stainless steel. 2.0 amp, 8 gpm, 175 psi max.



ORDER NO.	DESCRIPTION	LIST
250 2502	Solenoid valve, 12 volt 8 gpm	\$ 175.34
250 2352	Repair kit	\$ 43.09

ELECTRIC BOOM CONTROL

Fiberglass reinforced nylon, santoprene diaphragm, viton o-rings, stainless steel metal parts. 1" in-line valve has an 8 psi drop at 30 gpm and 150 psi maximum operating pressure.

ORDER NO.	DESCRIPTION	LIST
500 EVC700	1" Single unit	CALL





BOOM CONTROL VALVES



ELECTRIC BY-PASS CONTROL VALVE

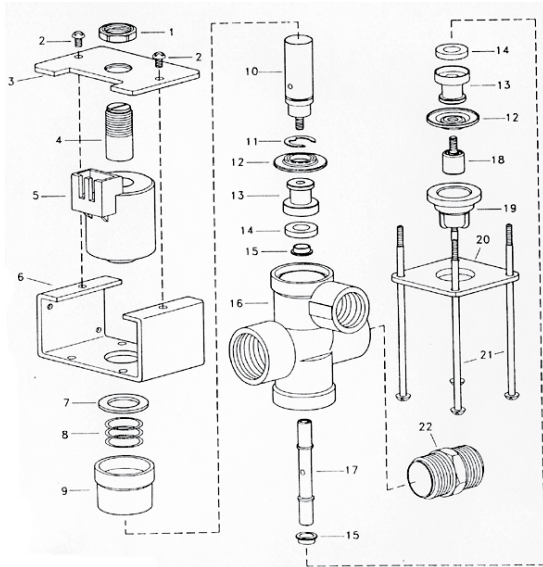
The three-way solenoid bypasses boom flow to maintain constant spraying pressure when one or more boom sections are shut off. To maintain pressure, outlet 2 must be regulated to match the total capacity of the nozzles on that boom section. 1 3/4 lbs.

ORDER NO.	DESCRIPTION	LIST
097 E1443	Solenoid Valve *Chromed*	\$ 263.95
097 E1443F	Solenoid Valve *Foamer 3 way*	\$ 217.34
097 E1443AK	Repair kit *items included	\$ 40.00

NOTE: PARTS FOR OLD STYLE VALVE ARE AVAILABLE UPON REQUEST



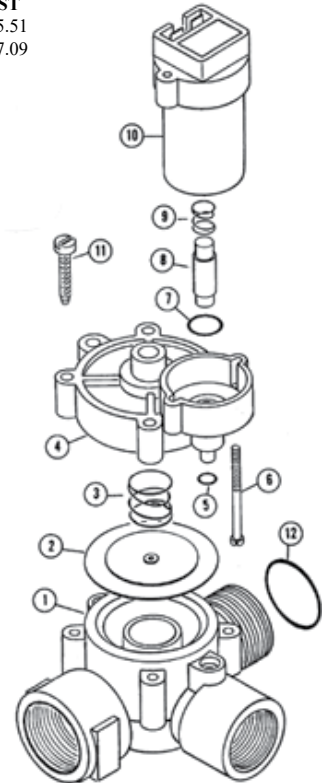
1. 097 E15168	\$ 6.53	8. *097 E38076	\$ 8.21	15. 097 E14811	\$ 6.00
2. 097 E14933	\$ 1.98	9. 097 E38074	\$ 20.88	16. 097 E21672	\$ 34.81
3. 097 E15166	\$ 5.72	10. 097 E38072	\$ 26.47	17. 097 E21674	\$ 33.26
4. 097 E38073	\$ 14.39	11. 097 E14813	\$ 2.59	18. 097 E15162	\$ 13.07
5. 097 E15163	\$ 64.23	12. *097 E14818	\$ 13.37	19. 097 E38075	\$ 37.30
6. 097 E14927	\$ 10.63	13. 097 E25678	\$ 8.39	20. 097 E14804	\$ 6.66
7. 097 E15169	\$ 2.54	14. *097 E14802	\$ 7.04	21. 097 E21673	\$ 5.72



TEXAS INDUSTRIAL REMCOR SOLENOID VALVE

Model 1999 valve has a 1" fpt inlet, 1" mpt bypass outlet, and a 3/4" fpt boom line outlet for high volume. 5 psi drop at 18 gpm. Current draw of only 1 amp polypropylene body and viton diaphragm and seals. 175 psi maximum. For multiple valve units, simply screw valves together.

ORDER NO.	DESCRIPTION	LIST
250 1999	Single unit	\$ 235.51
250 2113	Repair kit	\$ 107.09

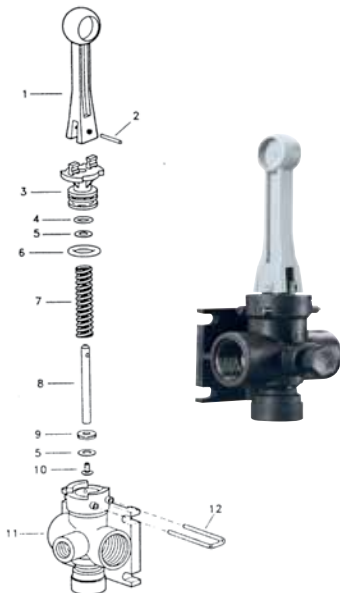


1. 250 1962	\$ 45.11
2. 250 1974	\$ 59.49
3. 250 1975	\$ 9.17
4. 250 1963	\$ 52.20
5. 250 1976	\$ 5.66
7. 250 1977	\$ 6.40
8. 250 1978	obsolete
8. 250 2239	\$ 40.49
("new" short style plunger)	
9. 250 1979	\$ 9.34
10. 250 2515	\$ 109.39
12. 250 2168	\$ 4.20
10. 250 2613	\$ 120.06
Kit, Includes #7, 8, 9, 10	

DIRECTOVALVE MANUAL CONTROL VALVE

Fast acting dependable valves with 3/4" fpt threads. 150 psi max and 12 gpm at 5 psi drop. Corrosion resistant polypropylene body and stainless internal parts. For multiple valves simply screw together with 3/4" nipples.

ORDER NO.	DESCRIPTION	LIST
097 D6B1	Single Unit	\$ 63.82
097 D6B1K	Repair kit *items included	\$ 26.80



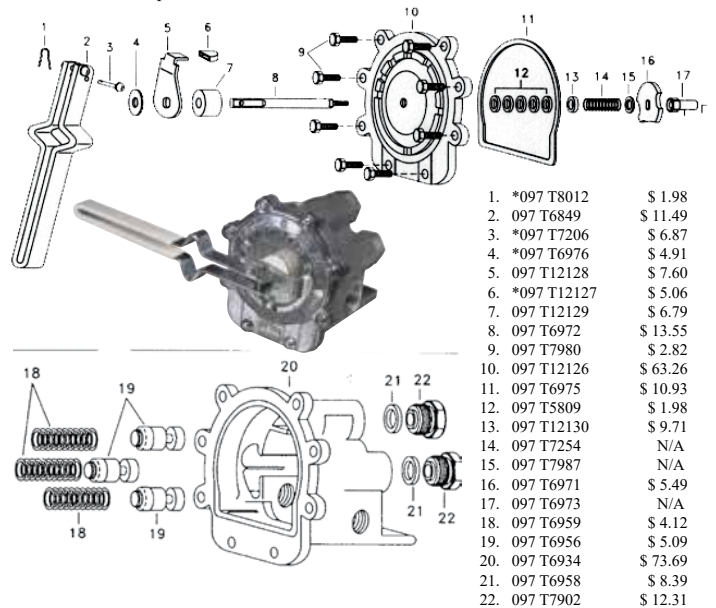
NEW STYLE

ORDER NO.	DESCRIPTION	LIST
1. 097 36301		\$ 7.04
2. 097 36308		\$ 1.60
3. 097 36302		\$ 6.36
4. *097 77172108		\$ 6.36
5. 097 36307		\$ 2.34
6. *097 77172209		\$ 10.50
7. 097 36306		\$ 4.20
8. *097 36304		\$ 7.50
9. *097 38726		\$ 9.03
10. 097 38725		\$ 2.44
11. 097 36303		\$ 20.65
12. 097 36309		\$ 4.04

TEEVALVE CONTROL VALVE

For selective control of a three section boom at pressures up to 300 psi. Control lever may be set at any of seven indexed locations for opening any of the three boom section lines in any desired combinations 2 3/4 lbs.

ORDER NO.	DESCRIPTION	LIST
097 T17L	3/4" Inlet-3/4" Outlets	\$ 162.04
097 T17K	Repair kit *items included	\$ 45.00



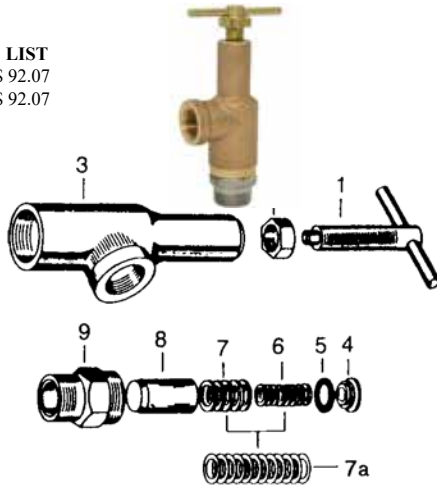
1. *097 T8012	\$ 1.98
2. 097 T6849	\$ 11.49
3. *097 T7206	\$ 6.87
4. *097 T6976	\$ 4.91
5. 097 T12128	\$ 7.60
6. *097 T12127	\$ 5.06
7. 097 T12129	\$ 6.79
8. 097 T6972	\$ 13.55
9. 097 T7980	\$ 2.82
10. 097 T12126	\$ 63.26
11. 097 T6975	\$ 10.93
12. 097 T5809	\$ 1.98
13. 097 T12130	\$ 9.71
14. 097 T7254	N/A
15. 097 T7987	N/A
16. 097 T6971	\$ 5.49
17. 097 T6973	N/A
18. 097 T6959	\$ 4.12
19. 097 T6956	\$ 5.09
20. 097 T6934	\$ 73.69
21. 097 T6958	\$ 8.39
22. 097 T7902	\$ 12.31

PRESSURE RELIEF VALVE

Brass or aluminum with stainless steel springs. Choice of 1/2" or 3/4" for pressures to 300 psi. Optional 300-700 psi spring is available. 1 1/4 lbs.-Brass 1/2 lbs.-Aluminum

ORDER NO.	TYPE	LIST
097 R6815B1	1/2" Brass	\$ 92.07
097 R6815B2	3/4" Brass	\$ 92.07

1. 097 R5896	\$ 7.48
2. 097 R5898	\$ 2.31
3. 097 R6818	\$ 63.13
4. 097 R6545	\$ 2.31
5. 097 R5899	\$ 1.91
6. 097 R6547	\$ 4.02
7. 097 R6546	\$ 4.60
7a. 097 R11714	\$ 10.55
(700 psi spring)	
8. 097 R6544	\$ 9.48
9. 097 R6789	\$ 12.59

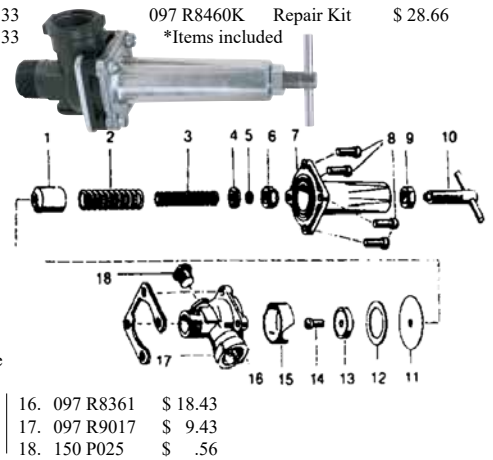


PRESSURE RELIEF VALVE

Nylon inlet body with aluminum bonnet. Diaphragm type valve in choice of 1/2" or 3/4" ports. Flow rates of 56 gpm for 1/2" and to 70 gpm for 3/4". Pressures up to 300 psi. 1 lbs.

ORDER NO.	SIZE	LIST
097 R8460A	1/2"	\$ 79.33
097 R8460B	3/4"	\$ 79.33

1. 097 R8367	\$ 9.48
2. *097 R8373	\$ 11.04
3. *097 R8374	\$ 8.87
4. 097 R8371	\$ 5.11
5. *097 R8369	\$ 3.61
6. 097 R8368	\$ 9.99
7. 097 R8362	\$ 26.27
8. 097 R7688	\$ 4.20
9. 097 R5898	\$ 2.31
10. 097 R5896	\$ 7.48
11. *097 R8366	obsolete
12. 097 R8365	\$ 5.80
13. *097 R8364	\$ 5.72
14. 097 R8477	\$ 1.91
15. 097 R8389	\$ 8.39



PRESSURE RELIEF VALVE

Nylon valve for pressures to 250 psi. Choice of 1/2" or 3/4" inlet with 3/4" outlet. 4 oz.

ORDER NO.	SIZE	LIST
020 13895B	3/4"	\$ 42.00

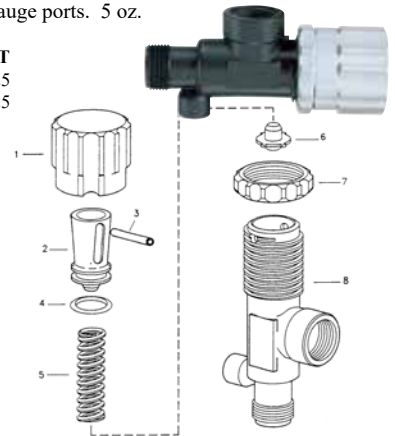


PRESSURE RELIEF VALVE

Polypropylene with stainless steel spring and viton o-rings. Choice of 1/2" or 3/4" ports. Pressures to 100 psi. 1/4" gauge ports. 5 oz.

ORDER NO.	SIZE	LIST
097 R23120A	1/2"	\$ 43.25
097 R23120B	3/4"	\$ 43.25

1. 097 R23122	\$ 13.86
2. 097 R23124	\$ 7.04
3. 097 R23126	\$ 4.40
4. 097 R771715	\$ 8.21
5. 097 R23127	\$ 9.94
6. 097 R23125	\$ 5.47
8. 097 R23128(1/2")	\$ 26.06
097 R23121(3/4")	\$ 26.06



PRESSURE RELIEF VALVE

1/4" Brass with stainless steel spring. Operating pressure up to 300 PSI

ORDER NO.	SIZE	LIST
097 R110	1/4" Brass	\$ 69.31



THROTTLING VALVE

-Polypropylene construction for excellent chemical resistance.
 -Pressures to 150 PSI.
 -1/2" and 3/4" NPT
 -Flow rate at 40 PSI is 16 GPM for 1/2" size and 34 GPM for 3/4" size.



ORDER NO.	SIZE	LIST
097 R23520A	1/2"	\$ 37.48
097 R23520B	3/4"	\$ 37.48



CHECK VALVES



POLY DRY BREAKS

Designed with maximum environmental protection and time savings in mind, Dry Break Coupling gives you clean, quick, and easy connections on herbicide and chemical transfer systems. This dual, flat-faced coupling is ideal for pump-to-tank, tank-to-hose, or hose-to-pump connections. The coupler accepts standard hose fittings. Order just the nipple, the coupler, or together as the Dry Break Coupling.

Rated for 30 gpm/70psi max

ORDER NO.	DESCRIPTION	LIST
205 QD100F	Female Dry Poppet, 1" Viton	\$ 73.54*
205 QD100NPS	Male Dry Poppet, 1" Viton (1" fpt and 2" mpt)	\$ 58.40*



Banjo Drymates

ORDER NO.	DESCRIPTION	LIST
102 DM150A	Male 1 1/2" X FPT	\$ 216.25*
102 DM150D	Female 1 1/2" X FPT	\$ 231.00*
102 DM200A	Male 2" X FPT	\$ 216.25*
102 DM200D	Female 2" X FPT	\$ 231.00*

See Page 94

STAINLESS STEEL CHECK VALVES

ORDER NO.	DESCRIPTION	LIST
500 CVSE050	1/2" fpt check valve	\$ 29.90*
500 CVSE075	3/4" fpt check valve	\$ 37.95*
500 CVSE100	1" fpt check valve	\$ 48.30*
500 CVSE125	1 1/4" fpt check valve	\$ 64.40*
500 CVSE150	1 1/2" fpt check valve	\$ 78.20*
500 CVSE200	2" fpt check valve	\$ 136.85*
500 CVSE300	3" fpt check valve	\$ 450.00*
500 CVSE400	4" fpt check valve	\$ 825.00*

These SS check valves are solid 304 stainless steel (with no lead) and viton. They are perfectly suited for the corrosive environments typical to the fertilizer industry. 1psi



CVSE

Flanged Check Valves

One piece glass filled polypropylene construction with flanged connections. 150 psi maximum with 1 psi stainless steel springs. EPDM gasket standard with FKM optional



ORDER NO.	DESCRIPTION	LIST
102 MCV100	1" Flanged poly check valve 1 psi	\$ 23.10
102 MCV200	2" Flanged poly check valve 1 psi	\$ 29.90
102 MCV221	2" FP Flanged poly check valve .5 psi	\$ 39.40
102 MCV220	2" FP flanged poly check valve 1 psi	\$ 35.95
102 MCV300	3" FP flanged poly check valve 1 psi	\$ 59.90
102 MCV301	3" FP flanged poly check valve .5 psi	\$ 59.00

Manifold Pressure Spike Valves



ORDER NO.	DESCRIPTION	LIST
102 MPRV100-050	Pressure Relief Valve, 50 psi M100	\$ 105.25
102 MPRV100-075	Pressure Relief Valve, 75 psi M100	\$ 105.25
102 MPRV100-100	Pressure Relief Valve, 100 psi M100	\$ 97.10

PVC Check Valves



ORDER NO.	DESCRIPTION	LIST
500 CVPE025	1/4" push in 1 psi	\$ 17.00
500 CVPE025F	1/4" fpt 1 psi	\$ 13.25
500 CVPE038	3/8" push in 1 psi	\$ 17.85

Poly FPT Check Valves



POLYPROPYLENE

ORDER NO.	DESCRIPTION	LIST
500 CVPE038F	3/8" fpt 1 psi	\$ 13.75
500 CVPE050F	1/2" fpt 1 psi	\$ 14.75
500 CVPE075F	3/4" fpt 1 psi	\$ 15.75
102 CV221	2" fpt 1/2 psi	\$ 39.40
102 CV300	3" fpt 1 psi	\$ 57.90
102 CV301	3" fpt .5 psi	\$ 57.05

Poly FPT x MPT Check Valves



ORDER NO.	DESCRIPTION	LIST
102 CV100MT	1" fpt x 1" mpt epdm 1 psi	\$ 23.65



H143 TWIST GRIP GUN

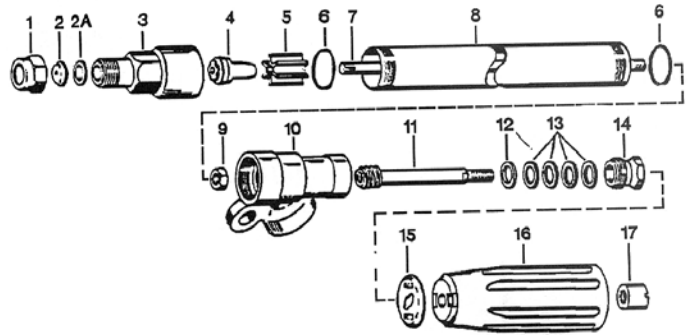
360° rotating handle from shut-off to full open. Spray changes from cone to straight stream. Aluminum rated to 800 psi. 1 1/4 lbs.

ORDER NO.	SIZE	LIST
097 H143A	3/4" fpt	\$ 113.63
097 H143B	3/4" fght	\$ 113.63
097 H143K	Repair kit	\$ 36.66

*items included

REPLACEMENT PARTS

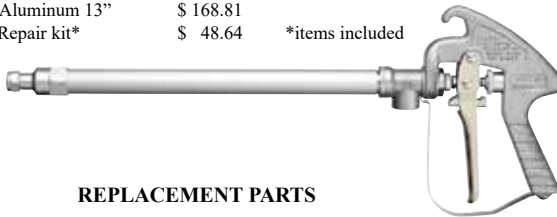
1. 020 1165	\$ 1.78	6. 097 H6943	\$ 1.98	12. 097 H5883	\$ 1.98
2. 020 DT06	\$ 1.88	7. 097 H10576	\$ 25.02	13. *097 H5809	\$ 1.98
2a. 097 H4743	\$ 1.98	8. 097 H6604	\$ 47.27	14. 097 H5811	\$ 4.30
3. 097 H10566	\$ 22.15	9. 097 H6618	\$ 1.91	15. 097 H5884	\$ 10.09
4. *097 H10565	\$ 35.39	10. 097 H6898	\$ 40.10	16. 097 H5994	\$ 11.70
5. 097 H10571	\$ 10.48	11. 097 H5882	\$ 13.76	17. 097 H5813	\$ 3.25



H43 TRIGGER TYPE GUN

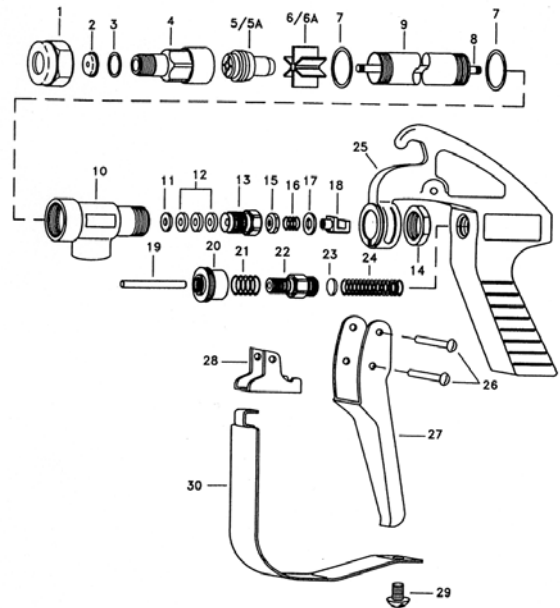
Built for heavy duty service with a drip-free shut off. Pressures to 800psi. for the 22" aluminum, 200 psi for brass. With 1/2" fpt inlet. Wt. 3 lbs.

ORDER NO.	TYPE	LIST	
097 H43A	Aluminum 22"	\$ 176.26	
097 H43B	Brass 22"	\$ 212.13	
097 H43LAAL	Aluminum 13"	\$ 168.81	
097 H43K	Repair kit*	\$ 48.64	*items included



REPLACEMENT PARTS

1. 020 1165	\$ 1.78	11. *097 H6601	\$ 5.06	21. 097 H6594	\$ 2.03
2. 020 DT06	\$ 1.88	12. *097 H6602	\$ 4.40	22. 097 H6588	\$ 6.20
3. *097 H4743	\$ 1.98	13. 097 H19237	\$ 6.36	23. 097 H6592	\$ 3.15
4. 097 H10566	\$ 22.15	14. 097 H6599	\$ 4.30	24. 097 H6593	\$ 6.36
5. *097 H10565	\$ 35.39	15. 097 H9641	\$ 6.97	25. 097 H14477	\$ 69.03
6. 097 H10571	\$ 10.48	16. 097 H6595	\$ 3.79	26. 097 H7623	\$ 1.91
7. 097 H6943	\$ 1.98	17. 097 H7991	\$ 1.91	27. 097 H6509	\$ 7.48
9. 097 H6604	\$ 47.27	19. 097 H6591	\$ 4.50	29. 097 H11757	\$ 5.16
10. 097 H6492	\$ 36.92	20. 097 H6589	\$ 5.87	30. 097 H13798	\$ 13.32



H30 LOW PRESSURE HANDGUNS

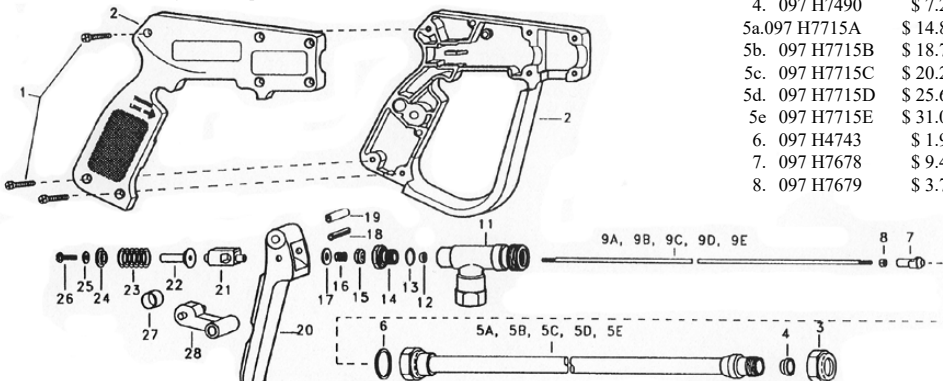
Rated to 250psi and 5gpm. Valve stem extends the entire length for drip-free shut-off.

ORDER NO.	LENGTH	LIST	
097 H30L	Gun only	\$ 78.82	
097 H30A	8"	\$ 124.23	WAND & STEM LENGTHS A - 8" C - 24" E - 48" B - 18" D - 36"
097 H30B	18"	\$ 132.40	
097 H30C	24"	\$ 140.33	
097 H30K	Repair Kit	\$ 24.08	
097 I5500	Adjustable tip brass	\$ 24.26	
168 AN18	Adjustable tip brass	\$ 10.24	



REPLACEMENT PARTS

1. 097 H17103	\$ 1.70	9a. 097 H22427A	\$ 43.58	18. 097 H17720	\$ 2.64
2. 097 H19684	\$ 53.75	9b. 097 H22427B	\$ 47.65	19. 097 H19820	\$ 4.12
3. 020 1165	\$ 1.78	9c. 097 H22427C	\$ 51.28	20. 097 H17703	\$ 6.53
4. 097 H7490	\$ 7.22	9d. 097 H22427D	\$ 54.82	21. 097 H19810	\$ 12.69
5a. 097 H7715A	\$ 14.87	9e. 097 H22427E	\$ 152.58	22. 097 H19815	\$ 10.91
5b. 097 H7715B	\$ 18.74	11. 097 H22136	\$ 38.19	23. 097 H22138	\$ 2.31
5c. 097 H7715C	\$ 20.24	12. 097 H14255	\$ 7.17	24. 097 H19816	\$ 5.57
5d. 097 H7715D	\$ 25.60	13. 097 H19812	\$ 4.75	25. 097 H19818	\$ 1.91
5e. 097 H7715E	\$ 31.02	14. 097 H19811	\$ 5.67	26. 097 H19819	\$ 1.91
6. 097 H4743	\$ 1.98	15. 097 H7484	\$ 3.97	27. 097 H19805	\$ 2.31
7. 097 H7678	\$ 9.46	16. 097 H7489	\$ 1.91	28. 097 H19806	\$ 6.87
8. 097 H7679	\$ 3.79	17. 097 H7622	\$ 1.91		



Swivels

168 HBSW025038 \$ 6.60



SPRAY GUNS



GREEN GARDE GUN



Ruggedly-built, precision machined, and built for comfortable all day use. Adjustable from fine mist to long distance straight stream. Trigger lock and gauge tap are standard. 3-8 gpm tip is standard.

ORDER NO.	DESCRIPTION	LIST
500 JD9C	Complete gun	\$ 189.00**NET
500 38511	Teflon repair kit	\$ 28.00**NET
500 38505	Economy model/no parts	\$ 112.00**NET

ADJUSTABLE PATTERN GUN



Spray pattern ranges from a straight stream to a cone mist by moving the forward hand grip. Up to 850 psi with 1/2" mpt. Several nozzle sizes to choose from. Ideal for spraying trees.

ORDER NO.	DESCRIPTION	LIST
045 3381010	17" Long, max 30 gpm	\$ 361.33

TRIGGERJET SPRAY GUN

A light weight spray gun of molded polypropylene for excellent chemical resistance. Comes with adjustable tip and viton seals. 150 psi max pressure.

ORDER NO.	DESCRIPTION	LIST
097 H22670	Complete gun	\$ 54.87
097 H22650	Gun only	\$ 34.81
097 I5500P	Adjustable tip poly	\$ 11.09



ECONOMY SPRAY GUNS

Light weight spray guns designed for use with backpack or other low pressure sprayers.



Made of polypropylene for excellent chemical resistance and durability. Comes standard with 15" lance, X-18 adjustable Conejet tip with 30 degree offset, trigger lock, 3/8" hose barb connection, and poly strainer located inside handle to prevent clogging. 100 psi max pressure.

ORDER NO.	DESCRIPTION	LIST
097 H50800	Complete gun	\$ 20.06

Blue 18" pistol spray gun w/ #18 tip & 3/8" hose barb
500 SG2218 Spray Gun; Priston Grip #18 \$ 45.14

HIGH PRESSURE HANDGUNS

Durable and dependable spray guns for higher pressure applications. Extension wands available for H30 & H60.

ORDER NO.	DESCRIPTION	LIST
097 H30	5gpm-1500psi-1/4"	\$ 78.82
097 H30K	Repair kit	\$ 24.08
097 H60	6gpm-2500psi-3/8"	\$ 88.99
097 H60K	Repair kit	\$ 45.28
500 PTC920	4000 psi-7gpm with extension	\$ 107.00



LAWN SPRAY GUN

Designed specifically for use in the lawn care industry. 3/4" FPT Inlet.



MODEL NO.	NOZZLE TIP NO.	NOZZLE TIP COLOR	CAPACITY (GPM) AT VARIOUS PRESSURES **							
			2 PSI	4 PSI	6 PSI	8 PSI	10 PSI	15 PSI	20 PSI	
*25660-0			---	---	---	---	---	---	---	---
25660-1.5	25670-1.5-NY	GRAY	1.4	1.9	2.3	2.6	2.9	3.4	4.0	
25660-3.0	25670-3.0-NY	BLACK	2.0	2.7	3.2	3.6	4.1	4.9	5.6	
25660-4.0	25670-4.0-NY	RED	2.3	3.1	3.7	4.3	4.7	5.6	6.4	

ORDER NO.	DESCRIPTION	LIST
097 H25660A,B,C	Complete gun w/nozzle	\$ 123.04
097 H25670A	Gray #1.5 nozzle	\$ 17.37
097 H25670B	Black #3 nozzle	\$ 17.37
097 H25670C	Red #4 nozzle	\$ 17.37
097 H25660K	Repair kit	\$ 23.44
097 H25990	3/4" swivel	\$ 15.94



LINE & SUCTION STRAINERS

BANJO "T" LINE STRAINERS



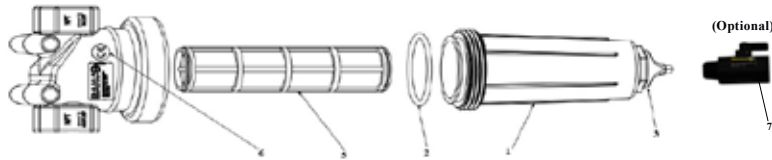
Heavy duty glass reinforced polypropylene, clean out plug, stainless steel screens, 50 mesh screen and EPDM gasket are standard, 150 psi maximum

REPLACEMENT PARTS 3/4" & 1"



ORDER NO.	SIZE	LIST
THREADED "T" STRAINERS		
102 LST075	3/4"	\$ 46.10
102 LST100	1"	\$ 43.10
FLANGED "T" STRAINERS		
102 MLST100	1"	\$ 55.85

ORDER NO.	DESCRIPTION	LIST
1. 102 LST100B	Bowl	\$ 18.95
2.. 102 LST100G	EPDM O-ring	\$ 4.90
2. 102 LST100GV	VITON O-ring	\$ 10.15
3. 102 12777	Plug	\$ 3.61
4. 102 UV15163	Plug o-ring EPDM	\$ 1.26
4. 102 UV15163V	Plug o-ring VITON	\$ 5.10
5. 102 LST116S	16 mesh screen	\$ 27.60
5. 102 LST130S	30 mesh screen	\$ 27.60
5. 102 LST150S	50 mesh screen	\$ 25.10
5. 102 LST180S	80 mesh screen	\$ 25.10
5. 102 LST1100S	100 mesh screen	\$ 26.95
6. 102 LST075H	3/4" Head	\$ 16.20
6. 102 LST100H	1" Head	\$ 16.20
6. 102 MLST100H	1" Flanged head	\$ 19.80
7. 102 LV050MTV	Drain valve	\$ 28.25



BANJO "T" LINE STRAINERS

Heavy duty glass reinforced polypropylene, clean out plug, stainless steel screens, 50 mesh screen and EPDM gasket are standard, 150 psi maximum



ORDER NO.	SIZE	LIST
THREADED "T" STRAINERS		
102 LST125	1 1/4"	\$ 101.00
102 LST150	1 1/2"	\$ 91.85
FLANGED "T" STRAINERS		
102 MLST150	1 1/2"	\$ 94.60
500 FWB	Filter wrench	\$ 25.00*

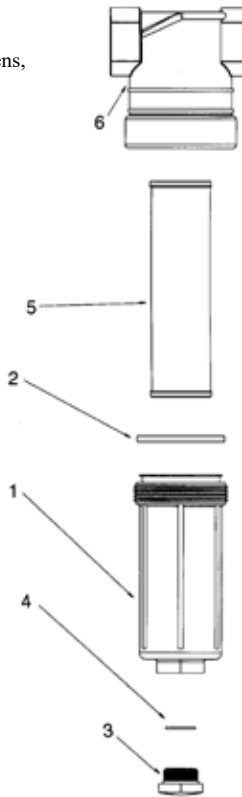
REPLACEMENT PARTS 1 1/4" & 1 1/2"

ORDER NO.	DESCRIPTION	LIST
1. 102 LST150B	Bowl	\$ 31.00
2. 102 LST150G	EPDM O-ring	\$ 4.90
2. 102 LST150GV	VITON O-ring	\$ 11.35
3. 102 LSQ200PL	Plug	\$ 4.21
4. 102 LSQ200R	Plug o-ring EPDM	\$ 1.31
4. 102 LSQ200RV	Plug o-ring	\$ 2.13
5. 102 LST1516	16 mesh screen	\$ 42.40
5. 102 LST1530	30 mesh screen	\$ 42.40
5. 102 LST1550	50 mesh screen	\$ 42.40
5. 102 LST1580	80 mesh screen	\$ 42.40
5. 102 LST15100	100 mesh screen	\$ 42.40
6. 102 LST125H	1 1/4" Head	\$ 38.60
6. 102 LST150H	1 1/2" Head	\$ 34.65
6. 102 MLST150H	Flanged head 1 1/2"	\$ 39.00
7. 102 LVHB075100MTV	Drain valve	\$ 32.30

THREADED SPRAYING SYSTEMS STRAINER MESH COLOR CODE CROSS-REFERENCE CHART

Mesh Size	Current Color	New ISO Color
10	Gray	Brown Red
20	Beige	Beige*
24	White	White*
25/30	Yellow	Flame Red
50/60	Red	Gemini Blue
80	Blue	Zinc Yellow
100	Green	Traffic Green
120	Brown	Brown*
200	Orange	Light Pink

*Mesh Size not covered by ISO standard, color will not change



(Optional)



Filter wrench

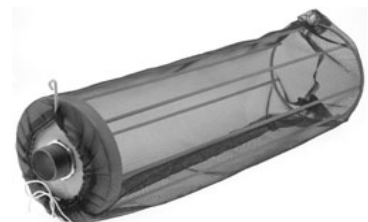


SUCTION STRAINERS & CHECK VALVES

ORDER NO.	DESCRIPTION	LIST
500 H200	2" FPT Strainer	\$ 14.00
500 H300	3" FPT Strainer	\$ 30.00
500 KF100	2" MPT Kleen Flo	\$ 95.00*
500 KF101	Kleen Flo Bag	\$ 28.50



H200/H300



KF100



LINE & SUCTION STRAINERS



BANJO "Y" TYPE POLYPROPYLENE LINE STRAINERS

Precision molded construction, corrosion resistant, stainless steel screens (40M in 1-1 1/4", 20M in 1 1/2-2", and 12M in 3"), and EPDM gaskets are standard. 75psi max on 1 1/2" and 2". 50 psi max on 3".

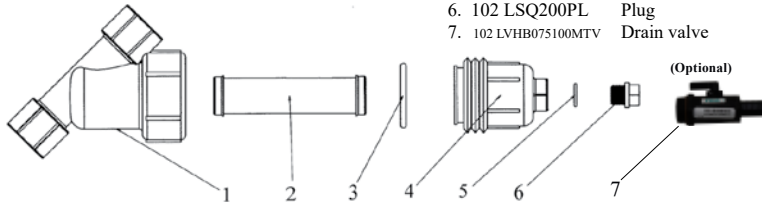
ORDER NO.	DESCRIPTION	LIST
COMPLETE STRAINERS		
102 LS050	1/2" strainer	\$ 43.55
102 LS075	3/4" strainer	\$ 43.55
102 LS100	1" strainer	\$ 40.75
102 LS125	1 1/4" strainer	\$ 44.85
102 LS150	1 1/2" strainer	\$ 89.80
102 LS200	2" strainer	\$ 89.80
102 MLS200	2" Flanged strainer	\$ 119.50
102 LSQ200	2" strainer cam lever	\$ 156.25
500 FWB	Filter wrench	\$ 25.00*



Filter wrench



ORDER NO.	DESCRIPTION	LIST
1" & 1 1/4"		
1. 102 LS100B/C	Bowl & cap 1"	\$ 24.85
1. 102 LS125B/C	Bowl & cap 1 1/4"	\$ 24.85
2. 102 LS120	20 mesh screen	\$ 31.60
2. 102 LS140	40 mesh screen	\$ 31.60
2. 102 LS180	80 mesh screen	\$ 28.75
3. 102 LS100G	O-ring 1" & 1 1/4"	\$ 4.90
3. 102 LS100GV	O-ring 1" & 1 1/4" Viton	\$ 8.95
4. 102 LS100C	Cap 1" & 1 1/4"	\$ 18.95
5. 102 UV15163	Plug o-ring	\$ 1.26
5. 102 UV15163V	Plug o-ring Viton	\$ 5.10
6. 102 12777	Plug	\$ 3.61
7. 102 LV050MTV	Drain valve	\$ 28.25



ORDER NO.	DESCRIPTION	LIST
1 1/2" & 2"		
1. 102 LS150B/C	Bowl & cap 1 1/2"	\$ 55.65
1. 102 LS200B/C	Bowl & cap 2"	\$ 55.65
1. 102 LSQ200B	2" LSQ body	\$ 69.80
1. 102 MLS200B	2" Flanged body	\$ 53.35
2. 102 LS206S	6 mesh screen	\$ 62.60
2. 102 LS212	12 mesh screen	\$ 56.90
2. 102 LS220	20 mesh screen	\$ 56.90
2. 102 LS230	30 mesh screen	\$ 56.90
2. 102 LS250	50 mesh screen	\$ 56.90
2. 102 LS280	80 mesh screen	\$ 56.90
3. 102 LS150G	O-ring	\$ 4.90
(above o-ring replaces older quad style)		
3. 102 LSQ200G	Gasket LSQ (EPDM)	\$ 10.15
4. 102 LS150C	Cap 1 1/2" & 2"	\$ 32.90
4. 102 LSQ200C	Cap cam lever LSQ	\$ 93.95
5. 102 LSQ200R	O-ring EPDM	\$ 1.31
5. 102 LSQ200RV	O-ring Viton	\$ 2.13
6. 102 LSQ200PL	Plug	\$ 4.21
7. 102 LVHB075100MTV	Drain valve	\$ 32.30

2" "Y" Strainers Flanged

ORDER NO.	DESCRIPTION	LIST
102 MLS220	Flanged strainer, 50 mesh	\$ 166.00
	220 Flanges	
	(if other than 50 mesh specify size)	
500 FWB	Filter wrench	\$ 25.00*



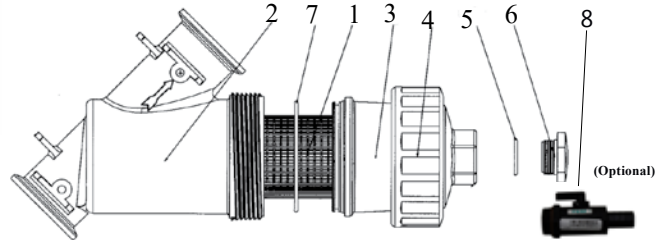
Filter wrench

TELEFLUID SYSTEMS STRAINER MESH COLOR CODE CROSS REFERENCE CHART

Mesh Size	Current Color	New ISO Color
18	Gray	Brown Red
20	Beige	Beige*
24	White	White*
25/30	Yellow	Flame Red
30/50	Red	Cerise Blue
40	Blue	Zinc Yellow
100	Green	Traffic Green
120	Brown	Brown*
200	Orange	Light Pink

* Mesh Size not covered by ISO standard, color will not change.

ORDER NO.	DESCRIPTION	LIST
1. 102 LST 230SS	30 mesh screen	\$ 78.25
1. 102 LST250SS	50 mesh screen	\$ 78.25
1. 102 LST280SS	80 mesh screen	\$ 86.10
1. 102 LST2100SS	100 mesh screen	\$ 86.10
2. 102 MLS222B	Strainer body	\$ 55.80
3. 102 MLS220C1	Strainer cap	\$ 36.90
4. 102 MLS220R1	Strainer ring	\$ 20.85
5. 102 LSQ200R	Plug gasket	\$ 1.31
6. 102 LSQ200PL	Plug	\$ 4.21
7. 102 MLS220G	Body gskt old style quad	N/A
7. 102 MLS220G1	Body gskt new style o-ring	\$ 5.40
8. 102 LVHB075100MTV	Drain valve	\$ 32.30

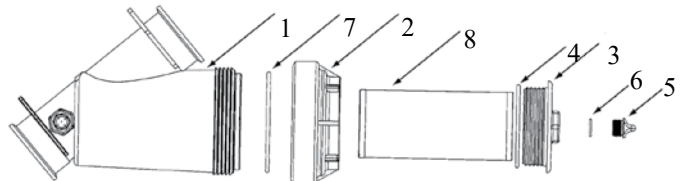


3" "Y" Strainers

ORDER NO.	DESCRIPTION	LIST
102 LS300	3" FPT strainer, 12 mesh	\$ 598.00
102 MLS300	3" Flanged strainer, 20mesh	\$ 606.50
	(if other than mesh stated specify size)	



ORDER NO.	DESCRIPTION	LIST
1. 102 MLS300B	3" manifold body	\$ 414.75
1. 102 MLS300B1	3" threaded body	\$ 414.75
2. 102 MLS300 CAP	3" Strainer cap	\$ 228.00
3. 102 LS300EC	End cap	\$ 42.90
4. 102 MLS300ECG	End cap gasket	\$ 17.30
4. 102 MLS300ECGV	VITON end cap gasket	\$ 34.85
5. 102 13777	End cap plug	\$ 5.60
6. 102 13778	Plug gasket	\$ 2.40
7. 102 MLS300G	Cap gasket	\$ 8.95
7. 102 MLS300GV	Cap gasket	N/A
8. 102 LS308	8 mesh screen	\$ 188.25
8. 102 LS312	12 mesh screen	\$ 188.25
8. 102 LS320	20 mesh screen	\$ 171.25
8. 102 LS350	50 mesh screen	\$ 171.25





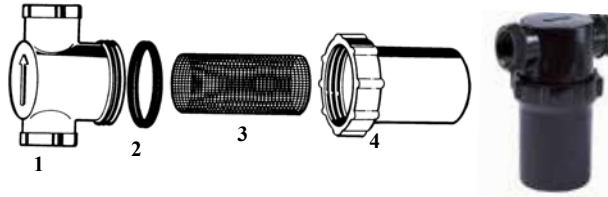
LINE & SUCTION STRAINERS



POLYPROPYLENE LINE STRAINERS

Female ports with pressure rating to 150PSI. 40 mesh screens and EPDM gaskets are standard. Also available with a clear bowl. (NOT RECOMMENDED FOR USE WITH ALCOHOL)

ORDER NO.	SIZE	LIST
045 3350046	1/2"	\$ 16.91
045 3350034	3/4"	\$ 15.98
045 3350058	1"	\$ 31.09
045 3350072	1 1/4"	\$ 31.65
045 3350113	1 1/2"	\$ 32.11



1/2" & 3/4"		1"		1 1/4"		1 1/2"	
1.	045 3351007 (1/2") \$ 5.65	045 3351014 \$ 15.15	045 3351016 \$ 15.15	045 3351026 \$ 15.15			
	045 3351006 (3/4") \$ 5.65						
2.	045 1700044 * \$ 1.01	045 1700057 * \$ 1.55	045 1700057 * \$ 1.55	045 1700057 * \$ 1.55			
	045 1700045 ** \$ 6.17	045 1700058 ** \$ 8.41	045 1700058 ** \$ 8.41	045 1700058 ** \$ 8.41			
3.	045 3800029 (20M) \$ 6.40	045 3800040 (20M) \$ 8.25	045 3800043 (20M) \$ 9.17	045 3800065 (20M) \$ 9.95			
	045 3800025 (40M) \$ 6.01	045 3800041 (40M) \$ 8.25	045 3800044 (40M) \$ 9.17	045 3800066 (40M) \$ 9.95			
	045 3800026 (80M) \$ 7.33	045 3800042 (80M) \$ 12.26	045 3800045 (80M) \$ 12.64	045 3800067 (80M) \$ 13.03			
4.	045 3351005 \$ 6.12	045 3351013 \$ 10.05	045 3351013 \$ 10.05	045 3351013 \$ 10.05			

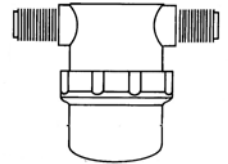
* EPDM gasket ** VITON gasket

MINI LINE STRAINERS

Polypropylene strainers with 1/2" mpt external threads. 40 mesh screen and EPDM gasket. 150 PSI.

ORDER NO.	LIST
045 3350079	\$ 11.17

- 045 3351022 head \$ 4.03
 - 045 1700064* gasket \$.75
 - 045 1700065** gasket \$ 2.93
 - 045 3800048 (20M) \$ 3.16
 - 045 3800046 (40M) \$ 3.16
 - 045 3800047 (80M) \$ 4.40
 - 045 3351020 bowl \$ 3.75
- * EPDM **VITON



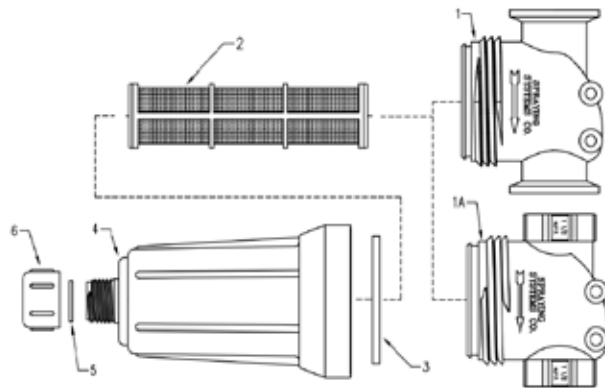
Available with various male/female thread and hose barb combinations. Other screen sizes and gaskets are optional as shown.



Teejet Strainer: M100, 3/4" & 1"

ORDER NO.	DESCRIPTION	LIST
097 S126ML-075	Complete, 3/4" FPT strainer	\$ 41.04
097 S126ML-100	Complete, 1" FPT strainer	\$ 41.04
097 S126ML-M100	Complete, M100 strainer	\$ 41.04

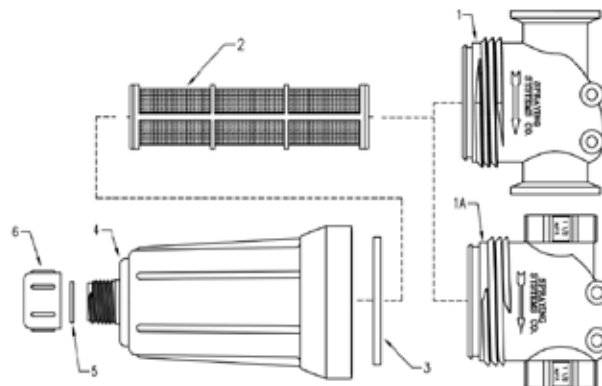
ORDER NO.	DESCRIPTION	LIST
1.	097 S50491-M100 Strainer head, M100	\$ 15.08
1a.	097 S50492-075 Strainer head, 3/4" FPT	\$ 15.08
1a.	097 S50492-100 Strainer head, 1" FPT	\$ 15.08
2.	097 S16903-16 Screen, 16 mesh	\$ 16.50
2.	097 S16903-30 Screen, 30 mesh	\$ 16.50
2.	097 S16903-50 Screen, 50 mesh	\$ 16.50
2.	097 S16903-80 Screen, 80 mesh	\$ 16.50
2.	097 S16903-100 Screen, 100 mesh	\$ 16.50
2.	097 S16903-200 Screen, 200 mesh	\$ 16.50
3.	097 S50494-E Body gasket, EPDM	\$ 2.77
3.	097 S50494-V Body gasket, Viton	\$ 7.02
4.	097 S50493-PP Strainer bowl	\$ 14.87
5.	097 S63150-E End cap gasket, EPDM	\$ 3.66
5.	097 S63150-V End cap gasket, Viton	\$ 9.33
6.	097 S48655-PP End cap	\$ 5.44



Teejet Strainer: M200, 1 1/4" & 1 1/2"

ORDER NO.	DESCRIPTION	LIST
097 S126ML-125	Complete, 1 1/4" strainer	\$ 83.96
097 S126ML-150	Complete, 1 1/2" strainer	\$ 83.96
097 S126ML-M200	Complete, M200 strainer	\$ 83.96

ORDER NO.	DESCRIPTION	LIST
1.	097 S63025-M200 Strainer head, M200	\$ 30.74
1a.	097 S63065-125 Strainer head, 1 1/4" FPT	\$ 30.74
1a.	097 S63066-150 Strainer head, 1 1/2" FPT	\$ 30.74
2.	097 S15941-16 Screen, 16 mesh	\$ 23.21
2.	097 S15941-30 Screen, 30 mesh	\$ 23.21
2.	097 S15941-50 Screen, 50 mesh	\$ 23.21
2.	097 S15941-80 Screen, 80 mesh	\$ 23.21
2.	097 S15941-100 Screen, 100 mesh	\$ 23.21
2.	097 S15941-120 Screen, 120 mesh	\$ 23.21
3.	097 S48656-E Body gasket, EPDM	\$ 5.95
3.	097 S48656-V Body gasket, Viton	\$ 11.65
4.	097 S48654-PP Strainer bowl	\$ 30.44
5.	097 S63150-E End cap gasket, EPDM	\$ 3.66
5.	097 S63150-V End cap gasket, Viton	\$ 9.33
6.	097 S48655-PP End cap	\$ 5.44

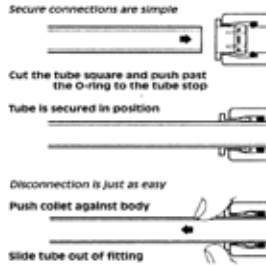




PUSH-IN TUBE FITTINGS



-NO TOOLS NEEDED, EASY TO INSTALL
 -NSF LISTED, FDA APPROVED MATERIALS
 -FIT TUBES FROM 5/32" TO 1/2" OD
 SPECIFICATIONS: TEMP-AIR: -14F TO 167F
 WATER: 33F TO 140F
 PRESSURE: 0-150 LBS PSI



TUBING

OD	ID	ORDER NO.	PSI	LIST
POLYETHYLENE-100' COIL				
.250	.170	003 JGPT43	135	\$.33
.375	.250	003 JGPT64	120	\$.56
.500	.375	003 JGPT86	90	\$.78

NYLON AVAILABLE

Mpt	OD	ORDER NO.	LIST
1/8	5/32	150 JGMC2532	\$ 2.71
1/4	5/32	150 JGMC4532	\$ 3.15
1/8	3/16	150 JGMC23	\$ 2.88
1/8	1/4	150 JGMC24	\$ 2.28
1/4	1/4	150 JGMC44	\$ 2.65
3/8	1/4	150 JGMC64	\$ 3.45
1/8	5/16	150 JGMC25	\$ 3.38
1/4	5/16	150 JGMC45	\$ 3.53
3/8	5/16	150 JGMC65	\$ 5.08
1/8	3/8	150 JGMC26	\$ 5.01
1/4	3/8	150 JGMC46	\$ 3.77
3/8	3/8	150 JGMC66	\$ 4.33
1/2	3/8	150 JGMC86	\$ 6.73
3/8	1/2	150 JGMC68	\$ 5.83
1/2	1/2	150 JGMC88	\$ 6.29



OD	OD	ORDER NO.	LIST
5/32	5/32	150 JGUC532	\$ 3.68
3/16	3/16	150 JGUC33	\$ 3.99
1/4	1/4	150 JGUC44	\$ 3.41
5/16	5/16	150 JGUC55	\$ 4.82
3/8	3/8	150 JGUC66	\$ 4.61
1/2	1/2	150 JGUC88	\$ 5.34
1/4	3/16	150 JGRUC43	\$ 4.99
5/16	5/32	150 JGRUC532	\$ 4.94
5/16	3/16	150 JGRUC53	\$ 4.99
5/16	1/4	150 JGRUC54	\$ 4.99
3/8	3/16	150 JGRUC63	\$ 6.10
3/8	1/4	150 JGRUC64	\$ 4.63
3/8	5/16	150 JGRUC65	\$ 6.25
1/2	5/16	150 JGRUC85	\$ 8.07
1/2	3/8	150 JGRUC86	\$ 6.29



Fpt	OD	ORDER NO.	LIST
1/4	1/4	150 JGFC44	\$ 5.37
1/4	3/8	150 JGFC46	\$ 6.16



OD	OD	ORDER NO.	LIST
5/32	150	JGUTC532	\$ 5.83
3/16	150	JGUTC333	\$ 6.00
1/4	150	JGUTC444	\$ 4.96
5/16	150	JGUTC555	\$ 6.75
3/8	150	JGUTC666	\$ 6.13
1/2	150	JGUTC888	\$ 7.42
3/8	1/4	150 JGUTC466	\$ 7.90
1/2	3/8	150 JGUTC688	\$ 8.24



Mpt	OD	ORDER NO.	LIST
1/8	1/4	150 JGME24	\$ 3.41
1/4	1/4	150 JGME44	\$ 3.90
3/8	1/4	150 JGME64	\$ 4.62
1/4	3/8	150 JGME46	\$ 5.83
3/8	3/8	150 JGME66	\$ 6.38



OD	OD	ORDER NO.	LIST
3/8	150	JGCR6	\$ 10.79



OD	OD	ORDER NO.	LIST
5/32	5/32	150 JGULC532	\$ 4.23
3/16	3/16	150 JGULC33	\$ 4.23
1/4	1/4	150 JGULC44	\$ 3.90
5/16	5/16	150 JGULC55	\$ 5.95
3/8	3/8	150 JGULC66	\$ 5.83
1/2	1/2	150 JGULC88	\$ 6.94



OD	OD	ORDER NO.	LIST
1/4	150	JGDC444	\$ 5.54
5/16	150	JGDC555	\$ 7.40
3/8	150	JGDC666	\$ 6.22
3/8	5/16	150 JGDC655	\$ 7.86



StOD	T/OD	ORDER NO.	LIST
5/16	3/16	150 JGRLC53	\$ 6.25
5/16	1/4	150 JGRLC54	\$ 6.56
3/8	3/16	150 JGRLC63	\$ 8.33
3/8	1/4	150 JGRLC64	\$ 6.47
3/8	5/16	150 JGRLC65	\$ 8.57
1/2	3/8	150 JGRLC86	\$ 7.63



(Also available in 90°)

StOD	T/OD	ORDER NO.	LIST
5/16	1/4	150 JGTRC54	\$ 4.36
3/8	1/4	150 JGTRC64	\$ 3.76
3/8	5/16	150 JGTRC65	\$ 5.16
1/2	3/8	150 JGTRC86	\$ 7.14



StOD	HB	ORDER NO.	LIST
1/4	1/4	150 JGTS44	\$ 2.18
3/8	1/4	150 JGTS64	\$ 3.16
3/8	3/8	150 JGTS66	\$ 3.41
3/8	1/2	150 JGTS68	\$ 4.60
1/2	3/8	150 JGTS86	\$ 3.86
1/2	1/2	150 JGTS88	\$ 4.79



StOD	T/OD	ORDER NO.	LIST
1/4	1/4	150 JGTEC44	\$ 3.50
3/8	1/4	150 JGTEC64	\$ 4.69
3/8	3/8	150 JGTEC66	\$ 5.96
1/2	1/2	150 JGTEC88	\$ 7.13



OD	ORDER NO.	LIST
1/4	150 JGV44	\$ 10.56
3/8	150 JGV66	\$ 13.05
1/2	150 JGV88	\$ 16.40

OD	ORDER NO.	LIST
1/4	150 JGES4	\$ 2.28
3/8	150 JGES6	\$ 2.84

OD	ORDER NO.	LIST
1/4	150 JGTP4	\$.96
3/8	150 JGTP6	\$ 1.57



MORE SIZES AVAILABLE



HERBICIDE PUMPS



SOTERA SS415

This 12 volt double action diaphragm pump transfers all types of materials from thin liquids to thick encapsulated products and suspensions. The patented spring driven diaphragm design allows flow rates up to 13 gpm. Comes with 20' battery cable. Order stand pipe and discharge hose separately.



ORDER NO.	DESCRIPTION	LIST
139 SS415	12 Volt Pump	\$ 840.00*
139 SS460BX731	115 Volt Pump	\$ 840.00*
139 F6917	Single diaphragm (pre 2009)	\$ 114.00*
139 400KTH1178	Diaphragm kit (2009 & newer)	\$ 163.20*
139 400KTH1457	Rebuild kit (2009 & newer)	\$ 365.00*

FLOWERVE PH6

Replacement Parts

ORDER NO.	DESCRIPTION	LIST
139 PH04	Top housing	\$ 40.35*
139 PH05N	Outer housing	\$ 86.50*
139 PHPKIT02	Oring, gskt; epdm	\$ 17.75
139 PHPKIT2V	Oring, gskt; viton	\$ 55.00
139 PH25	Bung adapter	\$ 53.50*
139 FITN19G	Cam gasket	\$ 14.60*
139 FITN33	2 1/2" Camlok	\$ 69.40*



SOTERA ChemTraveller

115V AC Electric Diaphragm Pump with reciprocating, spring driven configuration that maintains constant pressure regardless of load. Large, portable tubular frame with top and bottom tote adapter kits, santoprene diaphragms, and EPDM elastomers. Includes telescoping, polypropylene suction tube, 1x12' EPDM hose, 1x9' EPDM hose, and shutoff ball valve.



ORDER NO.	DESCRIPTION	LIST
139 SS465BX713	ChemTraveller, 115v kit (No Meter)	\$ 1575.00*

SHURFLO SF-1105

The SF1105 is a 12 volt 5 chamber diaphragm pump. It features polypropylene housing, Viton valves, and santoprene diaphragm. 2" mpt inlet x 1" fpt outlet. 10 gpm. Order bung adapter, tank coupling, stand pipe, or discharge hose as needed.

ORDER NO.	DESCRIPTION	LIST
139 SF1105	Pump/motor/cord/10gpm	\$ 588.61*
139 SF1105-110V	115 Volt Pump	\$ 564.34*
064 9472005	Viton valve kit	\$ 121.06*
064 94719	Diaph/drive kit	\$ 103.97*
064 94721	Housing	\$ 90.30*
064 94747	Switch kit	\$ 20.33*
139 PH25	Bung adapter	\$ 53.50*
139 FITN19	Cam gasket	\$ 14.60*
139 FITN33	2 1/2" Camlok	\$ 69.40*



CT6 REPLACEMENT PARTS

ORDER NO	DESCRIPTION	LIST
139 CT6KIT-207	CT6 Housing; 2" Inlet/1" Outlet	\$ 105.00*
139 CT6KIT-304	Valve Assembly, CT6 HF EPDM	\$ 98.00*
139 CT6KIT-305	Valve Assembly, CT6 HF VITON	\$ 115.00*
139 CT6KIT-601	Wobble/Spacer/Diaphragm - Standard Pump	\$ 92.00*
139 CT6KIT-602	Wobble/Spacer/Diaphragm - High FLOW Pump	\$ 103.00*
139 CT6-107	CT6 switch kit	\$ 87.25*
139 PH25	Bung adapter	\$ 53.50*
139 FITN19G	Cam gasket	\$ 14.60*
139 FITN33	2 1/2" Camlok	\$ 69.40*

SCIENCO AP30 PUMP

The AP30 is a durable and reliable air driven double action piston pump. It is constructed of stainless steel and aluminum with teflon seals. It operates with an air supply of 50-125psi. Air consumption in 9 cfm to deliver 30 gpm. 48" solid stand pipe is included. Order discharge hose separately.

ORDER NO.	DESCRIPTION	LIST
139 AP30	Air pump	\$ 915.00*
139 AP30KIT	Repair kit	\$ 199.00*



GPI LP50H HAND PUMP

This single piston hand pump features poly and viton construction and a linkage and shaft design for a smooth, easy, stroke that eliminates side load. Output is one pint per stroke through 3/4" barb. Fits 2" NPT barrel bungs and includes 36" adjustable stand pipe.



ORDER NO.	DESCRIPTION	LIST
139 LP50H	Hand Pump	\$ 105.00*

DURA PARTS & ACCESSORIES

ORDER NO	DESCRIPTION	LIST
139 DP-H4001A-V	Bottom Housing, w/ Viton Gasket	\$ 125.00*
139 DP-P4013A	Drive Plate	\$ 90.00*
139 DP-P4017A-E	Cartridge, Dura Pump EPDM	\$ 260.00*
139 DP-P4017A-V	Cartridge, Dura Pump Viton	\$ 275.00*
139 DP-P4001AG-V	Gasket, Bottom Housing DuraPump	\$ 29.50*
139 DP-G4001A-V	Gasket Kit, Viton, Dura Pump	\$ 70.00*



HERBICIDE METERS



SOTERA 850 "NO AIR" METER

This is the first digital meter that can sense air and only counts the liquid going through it. Features include polypropylene construction and 20 stored calibration factors. Simply refer to the pocket chart for product and temperature and enter the number.



ORDER NO.	DESCRIPTION	LIST
139 850	1" fpt/2-20gpm/120psi	\$ 470.00*

SOTERA 825 METER

This positive displacement disc meter can handle a max psi of 125 with a GPM range of 2-20. With temperature range from -10 to 130 F. All powered by 2 AA batteries (supplied).



ORDER NO.	DESCRIPTION	LIST
139 825	1" fpt/2-20gpm/125psi	\$360.00*

SCIENCO SEM100 METER

This nylon disc meter is light weight and features a large anti-glare digital display, three calibration modes, one touch operation, and field replaceable AA batteries. Auto shut off after 40 seconds extends battery life.



ORDER NO.	DESCRIPTION	LIST
139 SEM10	1" mpt/2-30gpm/60psi	\$ 356.00*
139 SEM100FT	1" mpt/2-30gpm/60psiFlowThro	\$ 356.00*
139 SEM10K01	Electronic kit	\$ 244.00*
139 SEM10K2	Chamber kit; viton	\$ 86.75*

TUTHILL MECHANICAL METERS

These meters feature easy-to-read register displays in 1/10 increments. A handy knob resets display. Cast aluminum construction with nickel internal coatings. These meters are rated up to 150° F and 50 psi. The 807 has 100 batch/100,000 totalizer; 901 has 1,000 batch/1,000,000 totalizer.



ORDER NO.	DESCRIPTION	LIST
139 807CN1	1" fpt/5-20gpm	\$ 440.00*
139 901N1.5	1-1/2" fpt/6-40gpm	\$ 560.00*

HERBICIDE ACCESSORIES

ORDER NO.	DESCRIPTION	LIST
102 VA100	Ball type nozzle valve	\$ 65.00
102 VN100	Trigger type nozzle valve	\$ 84.80
003 139HG	1" x 12' hose assy	\$ 45.00*
139 HGK	Ball nozzle valve w/hose	\$ 94.00*
139 KTF0236	Anti drip spout	\$ 28.80*
139 XTUBE	Adjustable stand pipe	\$ 35.15*
139 ASP	GPI 40" adj. stand pipe	\$ 40.00*
500 MP128	128 oz. Pitcher	\$ 16.50*
139 116002	5 gal calibration jug	\$140.00*
303 60479	1" union valve 45 degree	\$ 25.44



DURA-METER

- Made of impact resistant Lexan™ faceplate
- 100% moisture-sealed circuitry
- Menu driven backlit display
- Plumbed both for in-line and 90-degree applications
- Features a 2-year Warranty & Maintenance Program



ORDER NO	DESCRIPTION	LIST
139 DP-3000V	Dura-Meter, Meter Only/Viton	\$ 430.00*
139 DP-MFP01	Dura-Meter, Faceplate Only	\$ 360.00*

139 116002



500 MP128

JOHN BLUE

- Shuts off your 12 v pump after the programmed volume is reached
- Will work with most 12v pumps to maximize use of existing pumps
- Turbine style meter for improved accuracy
- No batteries required
- Easy to program
- 1" MPT



ORDER NO.	DESCRIPTION	LIST
413 12VBC-100	Meter, Batch Controller 12V	\$440.00*

FLOWMEC

This industrial oval gear meter is factory calibrated to be +/- .5% and being a gear meter you don't need to change calibration between products. Features 1/10th gallon increments, back light displpy. Flow rate of 2.5-40 GPM with a max PSI of 70.



ORDER NO.	DESCRIPTION	LIST
139 OM025P001-826R7G	1" FLOWMEC Gear Meter	\$1125.00*
084 507006	Replacement battery	\$ 32.19



HERBICIDE PUMPS & METERS



Dura brand goes beyond excellent design to incorporate smart thinking that anticipates people's needs, providing thoughtful innovations and inspirational designs that delight. From a moisture-sealed construction and a robust poly-housing that allows for multiple mounting capabilities to a large LCD display and a Calibration Quick List, Dura-Meter provides a better way to experience agricultural meters.



DURA-PUMP AUTOBATCH SYSTEM (METER INCLUDED)

ORDER NO	DESCRIPTION	NET
139 DPABS-6318V-12	Dura-Pump, Auto Batch System 12V, Viton	\$ 1430.00**
139 DPABS-6318V-110	Dura-Pump, Auto Batch System 110V, Viton	\$ 1495.00**



DURA-PUMP EASY CADDY (METER NOT INCLUDED)

ORDER NO	DESCRIPTION	LIST
139 DPE-6018V-12	Easy Caddy, 12V Viton	\$ 1050.00*
139 DPE-6018V-110	Easy Caddy, 110V Viton	\$ 1150.00*

ORDER NO	DESCRIPTION	LIST
139 DP-6018V-12	Pump Only Dura-Pump only 12V, Viton	\$ 880.00*



ORDER NO	DESCRIPTION	LIST
139 DP-3000V	Dura-Meter, Meter Only/Viton	\$ 430.00*
139 DP-MFP01	Dura-Meter, Faceplate Only	\$ 360.00*

DURA-ABS DI

- Lowest cost automated sprayer filling system
- Reduction of sprayer load time by up to 80%
- Automated; operator can multi-task
- Provides recirculation, maximizing chemical performance
- Simultaneously direct injects chemical
- Accurately dispenses repeatable batches
- Return on investment in less than 9 spraying days
- Maximize the capacity of existing equipment
- Reduce labor and machinery costs
- Optimize loading efficiency for narrow application windows



SEE PAGE 107 FOR REPLACEMENT PARTS

HERBICIDE PUMPS & METERS

FlowServe CT6 Pumps



Features CT6:

- Market-leading flow rates
- Complete, "out of the box", pumping systems
- Self-priming from a dry state
- Multiple configurations for use with caged IBCs, mini bulk tanks and drums
- Easy to service

Options:

- Up to 13 gpm (CT6); 18 gpm (CT6 HF)
- 12 Volt and 115 Volt option
- Multiple configurations including horizontal, vertical and side mounted
- Hoses available in standard EPDM with optional cross-linked poly

ORDER NO	DESCRIPTION	LIST
139 CT6HF-EPDM	CT6 pump only, 12v, High Flow, EPDM, 18gpm	\$ 617.00*
139 CT6HF-EPDM-CAGE	Kit, CT6HF pump, EPDM, Hose, Sidemount, 18gpm	\$ 812.00*
139 CT6HF-EPDM-CAGE-METER	Kit, CT6HF pump, EPDM-CAGE-METER, 18gpm	\$ 968.00*
139 CT6HF-EVAC-EPDM-METER	12V HF Evac system w/hose and meter	\$ 965.00*
139 CT6HFV	CT6 pump only, 12v Viton-High Flow, 18gpm	\$ 640.00*
139 CT6HFV-CAGE	Kit, CT6HF pump, Viton, Hose, Side Mount, 18gpm	\$ 836.00*
139 CT6HFV-CAGE-METER	Kit, CT6HF pump, Viton, Hose, Meter Side Mount, 18gpm	\$ 992.00*
139 CT6-115V-CAGE	Kit, CT6 115v, Cage, Viton w/Hose	\$ 900.00*
139 CT6POV	CT6 pump only, 12v Viton, 13gpm	\$ 547.00*
139 CT6POV-115V	CT6 pump only, 115v, Viton, 15gpm	\$ 617.00*

SEE PAGE 107 FOR REPLACEMENT PARTS

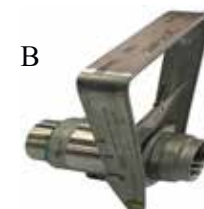
DEF **APPROVED** PRODUCTS

ORDER NO	DESCRIPTION	LIST
139 CT6DEF-CAGE	IBC, Def Kit, Micro Matic, 12v, 13gpm	\$ 900.00*
139 CT6DEF-CAGE-METER	IBC, Def Kit, Micro Matic, 12v w/ meter, 13gpm	\$ 1020.00*
139 CT6DEF-CAGE-METER-115V	Kit, CT6HF, 115v, Epdm, Meter, Hose, Side Mount, 15gpm	\$ 1080.00*

ORDER NO	DESCRIPTION	LIST
139 DEF-VN100M	Trigger Valve, Manual 1" FPT	\$ 84.80
139 DEF-VN075A	Trigger Valve, Auto 3/4" FPT	\$ 315.00*
139 DEFE-6018ME-12	Kit, DEF Easy Caddy 12v Manual	\$ 985.00*
139 DEFE-6018ME-110	Kit, DEF Easy Caddy 115v Manual	\$ 1015.00*
139 DP-3000V	Dura-Meter, Meter Only/Viton	\$ 430.00*
139 MM5702	MicroMatic; DEF 3/4" HB	\$ 120.00*



CT6 Seed Treatment System



The CT6 Seed treatment system comes complete with 115 volt pump, micromatic suction coupler, 3 way valve for recirculation. Dry lock connection for recirculation, and hose & valve assembly.

ORDER NO	DESCRIPTION	LIST
139 CT6-SEED TREATMENT SYS	Kit, CT6, 115v, Seed Treatment System	\$ 925.00**
139 MM5073	MicroMatic, AG 1" MNPT, Viton S.S (A)	\$ 250.00*
139 MM744-003	MicroMatic, AG 1" FPT, Viton S.S (B)	\$ 228.00*



HOSE

CALL FOR FULL ROLL DISCOUNT



EVA TUBING

Ethyl vinyl acetate plastic tubing used for herbicides and anhydrous ammonia. 75 psi./125°

B=Black

ORDER NO.	SIZE	LIST	LBS/100'	ROLL
003 VF018	1/8"	\$.30	2	1000'
003 VF025	1/4"	\$.82	4	1000'
003 VF038	3/8"	\$ 1.04	6	500'
003 VF038B	3/8"	\$ 1.04	6	500'
003 VF050	1/2"	\$ 1.29	7	300'
003 VF050B	1/2"	\$ 1.29	7	300'
003 VF058	5/8"	\$ 1.64	8	200'
003 VF075	3/4"	\$ 1.81	14	200'
003 VF100	1"	\$ 2.71	26	100'



REINFORCED EVA TUBING

150 psi/125°

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 VR038	3/8"	\$ 1.20	10	250#	300'
003 VR050	1/2"	\$ 1.60	13	250#	300'
003 VR075	3/4"	\$ 1.90	16	150#	200'
003 VR100	1"	\$ 3.90	25	150#	200'



VINYL SIGHT GAUGE TUBING

150° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 VS025	1/4"	\$.80	8	70#	100'
003 VS038	3/8"	\$.95	11	60#	100'
003 VS050	1/2"	\$ 1.15	13	45#	100'
003 VS058	5/8"	\$ 1.35	16	40#	100'
003 VS075	3/4"	\$ 1.90	18	35#	100'
003 VS100	1"	\$ 1.85	24	25#	100'
003 VS125	1 1/4"	\$ 5.70	33	40#	50'
003 VS150	1 1/2"	\$ 5.70	38	35#	50'
003 VS200	2"	\$ 7.25	47	30#	50'

REINFORCED SIGHT GAUGE TUBING

003 VSR025	1/4"	\$.80	6	250#	300'
003 VSR038	3/8"	\$.95	10	225#	300'
003 VSR050	1/2"	\$ 1.15	14	200#	300'
003 VSR075	3/4"	\$ 2.10	22	150#	300'
003 VSR100	1"	\$ 3.20	31	150#	200'



EPDM RUBBER SPRAY HOSE

High EPDM content for maximum resistance to agricultural chemicals. Use double braid for suction applications.

SINGLE BRAID/180° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 SB025	1/4"	\$ 1.05	9	150#	500'
003 SB038	3/8"	\$ 1.10	15	150#	500'
003 SB050	1/2"	\$ 1.55	24	150#	500'
003 SB075	3/4"	\$ 2.30	37	200#	500'
003 SB100	1"	\$ 3.15	44	200#	500'

DOUBLE BRAID/180° temp

003 TB038	3/8"	\$ 2.10	18	300#	500'
003 TB050	1/2"	\$ 2.55	24	300#	500'
003 TB058	5/8"	\$ 2.85	29	200#	500'
003 TB075	3/4"	\$ 3.20	40	300#	500'
003 TB100	1"	\$ 5.10	52	300#	500'
003 TB125	1 1/4"	\$ 6.50	79	200#	400'
(003 TB125 Also available in 50' & 100' rolls)					
003 TB150	1 1/2"	\$ 8.60	91	200#	400'
003 TB200	2"	\$ 10.30	108	200#	300'



BOXED EPDM RUBBER SPRAY HOSE

High EPDM content for maximum resistance to agricultural chemicals. Use double braid for suction applications.

SINGLE BRAID/180° temp

ORDER NO.	SIZE	LIST	psi	BOX
003 SB038-100	3/8"	\$ 110.00	150#	100'
003 SB038-250	3/8"	\$ 275.00	150#	250'
003 SB050-100	1/2"	\$ 155.00	150#	100'
003 SB075-100	3/4"	\$ 230.00	200#	100'
003 SB100-100	1"	\$ 315.00	200#	100'



SUCTION HOSE EPDM WIRE REINFORCED

180° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 ES125	1 1/4"	\$ 7.35	75	150	100'
003 ES150	1 1/2"	\$ 8.65	80	150	100'
003 ES200	2"	\$ 10.15	113	120	100'
003 ES300	3"	\$ 14.00	225	85	100'
003 ES400	4"	\$ 19.25	300	75	100'



EPDM/POLYETHYLENE BLENDED (BUMBLEBEE)

SUCTION HOSE

140° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 FS100	1"	\$ 3.80	23	80#	100'
003 FS125	1 1/4"	\$ 4.30	30	70#	100'
003 FS150	1 1/2"	\$ 4.95	47	60#	100'
003 FS200	2"	\$ 7.15	69	60#	100'
003 FS250	2 1/2"	\$ 14.50	93	50#	100'
003 FS300	3"	\$ 13.10	119	50#	100'
003 FS400	4"	\$ 23.00	181	45#	100'



BUMBLE BEE with NYLON BRAID FOR PRESSURE APPLICATIONS

140° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 KF125	1 1/4"	\$ 6.10	34	100#	100'
003 KF150	1 1/2"	\$ 7.10	47	100#	100'
003 KF200	2"	\$ 9.40	87	100#	100'
003 KF300	3"	\$ 15.70	205	85#	100'
003 KF400	4"	\$ 32.25	229	70#	100'



PVC SUCTION-WATER/FERTILIZER

130° temp

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 PS075	3/4"	\$ 2.20	20	100#	100'
003 PS100	1"	\$ 2.70	26	90#	100'
003 PS125	1 1/4"	\$ 3.20	32	70#	100'
003 PS150	1 1/2"	\$ 3.95	45	70#	100'
003 PS200	2"	\$ 5.60	63	60#	100'
003 PS250	2 1/2"	\$ 8.00	91	60#	100'
003 PS300	3"	\$ 7.80	116	50#	100'
003 PS400	4"	\$ 13.45	182	45#	100'



LAY FLAT DISCHARGE HOSE
PVC-LAY FLAT-WATER ONLY

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 PD150	1 1/2"	\$.85	14	75#	300'
003 PD200	2"	\$.90	17	70#	300'
003 PD300	3"	\$ 2.00	28	55#	300'
003 PD400	4"	\$ 2.90	36	45#	300'

MILL HOSE-POLYESTER JACKET OVER EPDM

ORDER NO.	SIZE	LIST	LBS/100'	psi	ROLL
003 MH150	1 1/2"	\$ 5.10	15	250#	50'
003 MH200	2"	\$ 5.75	20	250#	50'
003 MH300	3"	\$ 9.50	37	250#	50'



LAWN CARE HOSE

ORDER NO.	SIZE	NET	ROLL
003 TH038	3/8"	CALL**	300'
003 TH050	1/2"	\$ 275.00**	300'
003 TH058	5/8"	CALL**	200'

Hose reels see page 113



NH3 HOSE

ORDER NO.	SIZE	LENGTH	LIST
003 NH1003	1"	3'	\$ 100.00*
003 NH10012	1"	12'	\$ 240.00*
003 NH10015	1"	15'	\$ 288.00*
003 NH1253	1 1/4"	3'	\$ 198.00*
003 NH1254	1 1/4"	4'	\$ 221.00*
003 NH1257	1 1/4"	7'	\$ 291.00*
003 NH1259	1 1/4"	9'	\$ 338.00*
003 NH12512	1 1/4"	12'	\$ 416.00*
003 NH12515	1 1/4"	15'	\$ 483.00*

(Custom lengths available)

HEAVY DUTY PRESSURE SEAL CLAMPS



ORDER NO.	SIZE	LIST
003 HDHC075	3/4"	\$ 3.30
003 HDHC100	1"	\$ 3.30
003 HDHC125	1 1/4"	\$ 3.60
003 HDHC238	1 1/2" (TC181)	\$ 5.40
003 HDHC288	2" (TC218)	\$ 5.40
003 HDHC300	2" (TC231)	\$ 6.00
003 HDHC400	3" (TC331 & 343)	\$ 6.00

BOLT CLAMP



ORDER NO.	SIZE	LIST
003 BC252	2" (2.52"-2.64")	\$ 7.50
003 BC362	3" (3.62"-3.82")	\$ 8.50
003 BC445	4" (4.45"-4.76")	\$ 12.00

HOSE CUTTERS

ORDER NO.	ITEM	LIST
010 B8993	Lil Nipper (cuts hose to 1 1/4")	\$ 13.85*
010 B8983	Blade only (2-pack)	\$ 10.00*
010 B16368	Big Nipper	\$ 19.00*



SCREW-TYPE HOSE CLAMPS ALL STAINLESS



ORDER NO.	SIZE	LIST
003 HC025	1/4"	\$ 1.30
003 HC038	3/8"	\$ 1.30
003 HC050	1/2"	\$ 1.30
003 HC075	3/4"	\$ 1.82
003 HC100	1"	\$ 1.87
003 HC125	1 1/4"	\$ 2.08
003 HC150	1 1/2"	\$ 2.10
003 HC200	2" (#32)	\$ 2.23
003 HC200L	2" (#36)	\$ 2.33
003 HC300	3" (#48)	\$ 3.29
003 HC300L	3" (#56)	\$ 3.84

T-BOLT HOSE CLAMPS



ORDER NO.	DESCRIPTION	MIN/MAX DIA.	LIST
102 TC120	1" T-Bolt	1.20"/1.34"	\$ 9.60
102 TC130	1 1/4" T-Bolt	1.25"/1.75"	\$ 10.55
102 TC150	1 1/2" T-Bolt	1.50"/1.75"	\$ 10.65
102 TC162	1 1/4" T-Bolt	1.62"/1.87"	\$ 10.70
102 TC181	1 1/2" T-Bolt	1.81"/2.06"	\$ 9.80
102 TC218	2" T-Bolt	2.18"/2.50"	\$ 9.80
102 TC231	2" T-Bolt	2.31"/2.62"	\$ 10.20
102 TC250	2" T-Bolt	2.50"/2.81"	\$ 11.15
102 TC287	2" T-Bolt	2.87"/3.18"	\$ 11.15
102 TC312	3" T-Bolt	3.12"/3.49"	\$ 11.40
102 TC331	3" T-Bolt	3.31"/3.62"	\$ 10.75
102 TC343	3" T-Bolt	3.43"/3.75"	\$ 10.90
102 TC438	4" T-Bolt	4.38"/4.76"	\$ 21.50
102 TC456	4" T-Bolt	4.56"/4.94"	\$ 21.50

T-BOLT SIZE CHART

HOSE SIZE	CLAMP SIZE
ES125	TC162
ES150	TC181
ES200	TC231
ES300	TC343
ES400	TC456
FS100	TC120
FS125	TC150
FS150	TC181
FS200	TC218/TC231
FS250	TC287
FS300	TC343
FS400	TC438
KF125	TC162
KF150	TC181
KF200	TC231
KF300	TC343
KF400	TC456
PS100	TC120
PS125	TC130
PS150	TC162
PS200	TC218
PS250	TC250
PS300	TC331
SB/TB100	TC130
TB125	TC150
TB150	TC181
TB200	TC231



Lawn Care Reels



ORDER NO.	DESCRIPTION	NET PRICE
HANNAY HOSE REELS		
500 HRH	Series 1500 manual	\$ 340.00**
500 HRE	Series 1500 12 volt	\$ 815.00**
	-Standard model holds 300' 1/2" hose	
	-Available up to 475'	
	-Standard rating of 3,000 psi	
	-Available up to 10,000 psi	
	(Other models available)	
500 C2	Roller Assembly	CALL **
500 HRSA	1/2" replacement swivel (fits 1500 series)	\$ 50.00**
500 HRS	Spool for 1500 series	\$ 180.00**
500 9917.0021	Circuit breaker 50 amp	\$ 48.00**
500 9917.0025	Replacement, Solenoid	CALL
500 9917.0004	Replacement, Push button	CALL



500 HRH

500 HRE with C2 rollers assembly



ORDER NO.	DESCRIPTION	NET PRICE
COX HOSE REELS		
500 HRC38100	Manual, 3/8" x 100'	\$ 205.00**
500 HRC38150	Manual, 3/8" x 150'	\$ 205.00**
500 HRC50225	Manual, 1/2" x 225'	\$ 260.00**
500 HRC50350	Manual, 1/2" x 350'	\$ 260.00**

Standard rating of 4000 psi
Great for pressure washers!



500 HRC

ECONOMY RETRACTABLE

ORDER NO.	DESCRIPTION	NET PRICE
500 HRC430	Retractable, 3/8" x 30'	\$ 85.00**



500 HRC430

ORDER NO.	DESCRIPTION	NET PRICE
500 HRC450	Retractable, 3/8" x 50'	\$ 125.00**



500 HRC450
300 PSI

Call for custom hose reel pricing and availability



JUG RINSER NOZZLE



ORDER NO.	LIST
500 JR100	\$ 46.00*
3/4" FGHT	



Ag Reels

HANNAY HOSE REELS



Made in the USA

- Heavy duty reels built of the highest quality materials
- Top choice from industry professionals

ORDER NO.	DESCRIPTION	NET PRICE
500 HRH200	Series 8000 manual 2"	CALL**
500 HRE200	Series 8000 12 volt, 2"	CALL**

(2" Hose reels choose 60', 75', or 100' capacity)

- Standard model holds 75' of 2" hose
- Larger capacity available

500 EP9346	Series 9000, 3", 12V, 50'	CALL**
500 EP9338	Series 9000, 3", 12V, 80'	CALL**

(Circuit breakers required on all 12V Hannay reels)



Replacement Parts Available



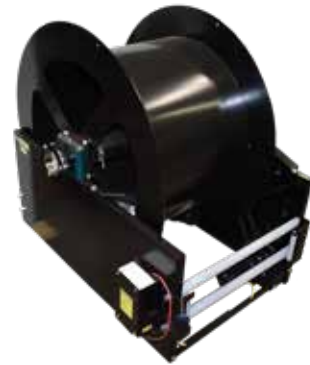
SUPER REEL

Made in the USA

- Economical reels with a handy wireless remote control
- Stainless steel swivel now standard on all models

ORDER NO.	DESCRIPTION	NET PRICE
500 HRFSH200	Economy, 2" manual 75' max	CALL**
500 HRFSE200	Economy, 2" 12V 75' max	CALL**
500 HRFSE300	Economy, 3" 12V 75' max	CALL**
500 CHR1123	O-ring, 2" Hose Reel	\$ 3.00
500 CHR1124	O-ring, 3" Hose Reel	\$ 5.00

Replacement Parts Available



Hannay EP9346 mounted on a custom spray trailer





LIQUID HANDLING EQUIPMENT



MANIFOLD INDUCTOR SYSTEM

- Installed after pump; suction completely empties tank
- Keeps tanks free of chemical
- Full port flow 2" & 3"
- No chemicals go through the pump

ORDER NO.	DESCRIPTION	LIST
MANIFOLD ONLY		
102 MIS220HB	2" manifold only	\$ 604.50*
102 MIS300A	3" manifold only	\$ 1020.50*
COMPLETE UNITS WITH TANK & STAND		
500 CI15V	2" x 15 gal w/stand	CALL*
500 CI30V	2" x 30 gal w/stand	CALL*
500 CI40V	2" x 40 gal w/stand	CALL*
500 CI60V	2" x 60 gal w/stand	CALL*
500 CI30V3	3" x 30 gal w/stand	CALL*
500 CI40V3	3" x 40 gal w/stand	CALL*
500 CI60V3	3" x 60 gal w/stand	CALL*



SUCTION CONE BOTTOM INDUCTORS



CI30

ORDER NO.	DESCRIPTION	LIST
500 CI15	15 gallon 2" full drain	CALL*
500 CI30	30 gallon 2" full drain	CALL*
500 CI40	40 gallon 2" full drain	CALL*
500 CI60	60 gallon 2" full drain	CALL*
500 CI85	85 gallon 2" full drain	CALL*
500 CI15-3	15 gallon 3" full drain	CALL*
500 CI30-3	30 gallon 3" full drain	CALL*
500 CI40-3	40 gallon 3" full drain	CALL*
500 CI60-3	60 gallon 3" full drain	CALL*
500 CI85-3	85 gallon 3" full drain	CALL*

(units come complete with valve and fittings)



CI60

CHEMICAL JUG RINSE

500 JUGRINSE	Jug Rinse	NET \$ 343.75*
--------------	-----------	----------------



CHEM-BLADE ORIGINAL

500 CB0016	Chem-Blade, Original	NET \$ 875.00*
------------	----------------------	----------------



Inductor cone needs to have a 16" lid

PLANT IMPREGNATION UNITS

- Easy to use self contained unit to simplify the addition of nitrogen stabilizers or pre plant herbicide to your dry fertilizer blend
- Available in 1 phase, 3 phase or 115V
- Can be used with anything from tower blending to smaller stand alone units

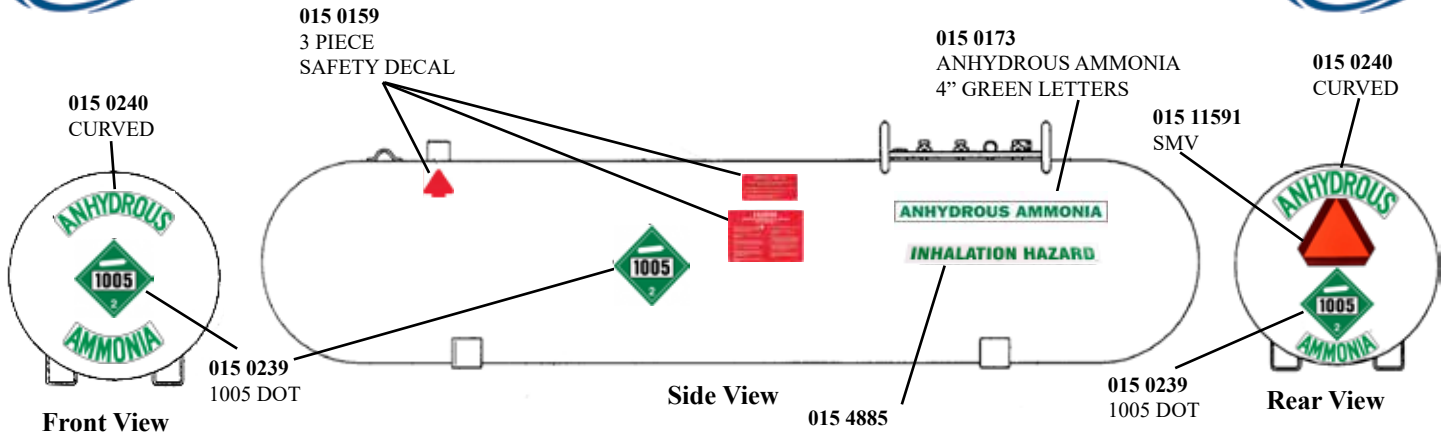


ORDER NO.	SIZE	NET
139 IU015	15gal Unit	\$ 1275.00**
139 IU030	30gal Unit	\$ 1320.00**
139 IU1PH	Add for 1 phase	CALL
500 SFP15	15 gal, Impregnation Unit	\$ 700.00**





NH₃ ACCESSORIES



Storage tanks require; (2) 015 0239; (2) 015 0173; (2) 015 07155



1005 NON FLAMMABLE GAS
015 0239 \$ 3.15**



ANHYDROUS AMMONIA
015 0240 curved 4" \$ 5.35**
015 0173 straight 4" \$ 4.65**



INHALATION HAZARD
015 4885 3" Green \$ 8.75**
015 07155 4" Green \$ 9.60**
(use 4" on storage tanks)



3-PART CAUTION
015 0159 \$ 4.35**



VAPOR/LIQUID SET
015 48045 \$ 2.35**



SLOW MOVING
015 11591 \$ 17.30**

COMPLETE DECAL SET

- (4) 015 0239 1005 Decal
 - (2) 015 0240 4" Anhyd Ammonia curved
 - (2) 015 0173 4" Anhyd Ammonia
 - (2) 015 4885 3" Inhalation Hazard
 - (1) 015 0159 3-part Caution
 - (1) 015 11591 Slow Moving
- 015 21488 \$ 68.00**

of Nitrogen X 1.22 = # of NH₃

of NH₃ X .82 = # of Nitrogen

of Nitrogen X FT. X MPH X .1212 =

Nitrogen per hour at 100# PSI

Multiplier for different tank pressures		Multiplier for different tank pressures	
psi	mult	psi	mult
50	1.25	100	1.00
60	1.20	110	.97
70	1.15	120	.95
80	1.10	130	.93
90	1.05	140	.92



FILLER/VAPOR VALVE
015 A1201 \$ 289.00*



COMBINATION VALVE
015 A1205 \$ 395.00*



WITHDRAWAL VALVE
015 A1206E 1" \$ 275.00*
015 A1206F 1 1/4" \$ 305.00*



1" ANGLE VALVE
015 A1250 \$ 250.00*



GLOBE VALVES
015 A1350 1" \$ 215.00*
015 A2525H 1 1/4" \$ 378.00*

VALVE REPAIR KIT — 015 A2212RK - \$ 44.50*

SAFETY RELIEF VALVES

ORDER NO.	DESCRIPTION	LIST
015 A402VA	3/4" 250PSI	\$ 88.00*
015 A402NDCC	Dust cap	\$ 3.25*
015 A417A	1 1/4" 250PSI	\$ 334.00*
015 A417DC	Dust cap	\$ 5.35*



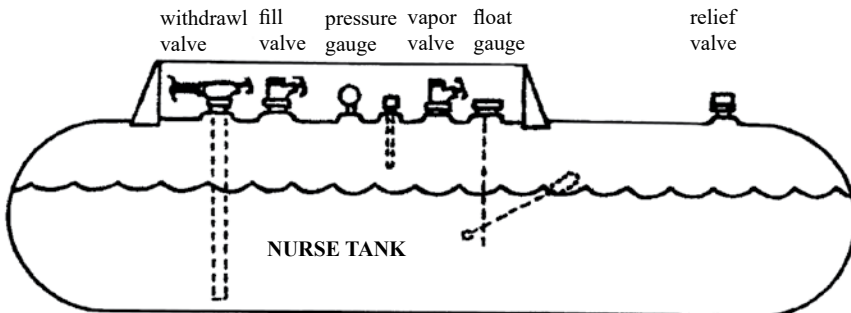
ACME COUPLINGS (1 3/4" ACME)

ORDER NO.	DESCRIPTION	LIST
015 A521B	Standard	\$ 71.00*
015 A571B	"Safety" 1"	\$ 122.50*
015 A577C	"Safety" 1 1/4"	\$ 199.00*
015 A577D	"Safety" 2 1/4"	\$ 230.00*



1 3/4" ACME ADAPTERS

ORDER NO.	SIZE	LIST
015 A524B	1" mpt Acme	\$ 36.75*
015 A524C	1 1/4" mpt Acme	\$ 45.00*
015 A524WB	Hose hanger	\$ 22.75*
015 A2263FC	Acme dust cap	\$ 7.75*
015 2271F	Acme gasket	\$.67





NH₃ ACCESSORIES



BREAK-A-WAY COUPLERS

Designed to prevent the escape of NH₃ in case of accident. Not to be used as a quick disconnect.

ORDER NO.	SIZE	LIST
015 4500A	1" Pioneer coupler	CALL*
015 4500AK	1" Pioneer kit	\$ 5.00*
015 4500B	1 1/4" Pioneer coupler	\$ 775.00*
015 4500BK	1 1/4" Pioneer kit	\$ 3.75*
015 113046	1 1/4" Squibb repair kit	\$ 23.40*
015 113028	1 1/4" Squibb coupler w/ EZ bracket	\$ 1260.00*
015 113202	1 1/2" Squibb coupler w/ EZ bracket	\$ 2000.00*



SQUIBB



RBI Bracket



EZ Bracket



PIONEER

MISCELLANEOUS PARTS

ORDER NO.	DESCRIPTION	LIST
017 GS060	60 PSI Stainless gauge	\$ 22.14
017 GS160	160 PSI Stainless gauge	\$ 22.14
017 GS400	400 PSI Stainless gauge	\$ 22.14
015 A411S	1/4" mpt Bleeder valve	\$ 25.00*
015 A400	1/4" 375PSI Relief valve	\$ 51.75*
015 A018038	Steel hose barb, 1/8" x 3/8"	\$ 6.88
015 A025038	Steel hose barb, 1/4" x 3/8"	\$ 4.38
015 A050075	Steel hose barb, 1/2" x 3/4"	\$ 7.33



A400



A411S



NH₃ MANIFOLDS

1" inlet and 1/8" outlets. Equipped with 1/2" bolt and washer for mounting.

ORDER NO.	OUTLETS	LIST
015 A6007C	24	CALL*

(See page 118 for CDS impellicone manifolds)



APPLICATOR SHANK

DMI - 1-1/4" square coil shank. For 3" and 4" square tool bars. Knife plates required.

ORDER NO.	NET
015 KSC90	CALL**



APPLICATOR SHANK

DMI - 1" x 2" flat shank. Flattened on the 2" side to accommodate side mount knives.

ORDER NO.	NET
015 KSC1298	CALL**



CHISEL KNIFE

Chisel and apply NH₃ at the same time. Drop forged from alloy steel with chromium carbide insert.

ORDER NO	NET
015 CPK1	CALL**



FRONT SWEEP KNIVES

Chrome alloy toe and tube protectors, high carbon steel shank, & heat treated. Bar stock.

ORDER NO	NET
015 K4T	CALL**



APPLICATOR SHANK

Titan/Blue-Jet 1 1/4" square coil shank for 4" x 6" tool bars. No knife plates required.

ORDER NO.	NET
015 KSC95	CALL**



KNIFE CLAMP

Used to attach a knife to a 1 1/4" sq. shank.

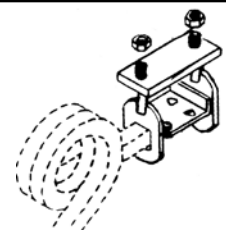
ORDER NO.	NET
015 KSC385	CALL**



"QUICK-TACH" SHANK CLAMP & PLATE

Used to attach a coiled shank to tool bar.

ORDER NO.	NET
015 KSC384	CALL**





NH₃ ACCESSORIES

VERTICAL DAM MANIFOLD AND FLOW SEPARATOR



This manifold is made for custom application with the exact number of outlets (3-16 for wheat and 3-13 for corn), thus eliminating the need for plugged outlets. The unique design promotes an even distribution across the tool bar. These manifolds have a 1" female pipe thread inlet. All hoses must be of equal length.

The following information is needed to order the proper manifold(s).

- Exact number of outlets
- Outlet barb size (3/8" or 1/2")
- Knife spacing
- Application speed Minimum and Maximum
- Pounds per acre Minimum and Maximum

ORDER NO.	DESCRIPTION	LIST
015 AMVD	Custom manifold with exact number of outlets	CALL*



015 AMVD

The flow separator is designed for tool bars requiring 3, 4, or 5 manifolds. Please specify number of outlets required when ordering. Separator has 1" FPT inlet and outlet. Rated at 1200#/hr per outlet.

ORDER NO.	DESCRIPTION	LIST
015 ASVD	Flow divider	CALL*



015 ASVD

IMPELLICONE FLOW DIVIDER

The CDS-John Blue Impellicone is a flow divider designed for NH₃. It distributes NH₃ to multiple rows across an applicator with the accuracy and evenness to the number of outlets you need. It can be used for all NH₃ applications at normal rates, while also offering the flexibility to plug unused outlets without sacrificing accuracy. The impellicone's superior accuracy allows better control of targeted rates greatly reducing the over application of NH₃. Inlet size is 1" and outlet ports are 1/4". All hoses must be of equal length for maximum accuracy. **When using 3 or more impellicones use a CDS splitter manifold.**

ORDER NO.	DESCRIPTION	LIST
413 IP0600	6 Outlet NH ₃ flow divider	\$ 355.00*
413 IP1300	13 Outlet NH ₃ flow divider	\$ 455.00*
413 IP1800	18 Outlet NH ₃ flow divider	\$ 585.00*
413 113989	Mount, IP & FD manifolds	\$ 115.20*
413 IPS4	4-Port splitter 1 1/4" inlet, 1" outlet	\$ 462.00*
413 IPS6	6-Port splitter 1 1/4" inlet, 1" outlet	\$ 492.00*
413 114106	Mount, IPS splitter	\$ 100.00*



SAFETY EQUIPMENT

GLOVES, SUITS, & GOGGLES

Ideal for use with chemicals as well as anhydrous ammonia.

ORDER NO.	DESCRIPTION	LIST
015 P513	NH ₃ gloves	\$ 3.40*
015 P513C	Chemical gloves	\$ 3.40*
015 P513G	Green nitrile gloves	\$ 3.15*
015 P513GL	Lined green nitrile gloves	\$ 3.45*
015 A551	Goggles; non vent	\$ 8.00*
015 A551V	Goggles; vented	\$ 9.00*
015 P514	Safety suit	\$ 9.50*
015 P514X	XL safety suit	\$ 9.50*
015 P514XXL	XXL safety suit	\$ 10.50*
015 P515	Safety apron	\$ 5.85*

015 P513



015 P513C



015 P513G



015 P513GL



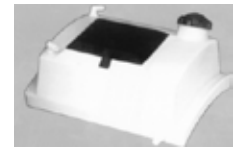
015 P514



015 A551



015 A551V



WATER CONTAINER

A polyethylene 6.9 gallon tank that mounts on top of the nurse tank. This tank has a storage compartment for safety equipment.

ORDER NO.	DESCRIPTION	LIST
022 WC	Tank only	CALL*
022 WCC	Complete	CALL*

FRESH WATER SAFETY TANK



Features lugs on bottom and back for easy mounting and a storage compartment for safety equipment. Comes complete with spigot, hose, and fittings

ORDER NO.	DESCRIPTION	LIST
083 SF	9 Gal tank	\$ 182.00

INSTANT SOAP *N WATER

A foaming cleanser to clean pesticides from your hands & surfaces. Balanced ph. 9 oz.

ORDER NO.	LIST
500 ISW	\$ 18.50*





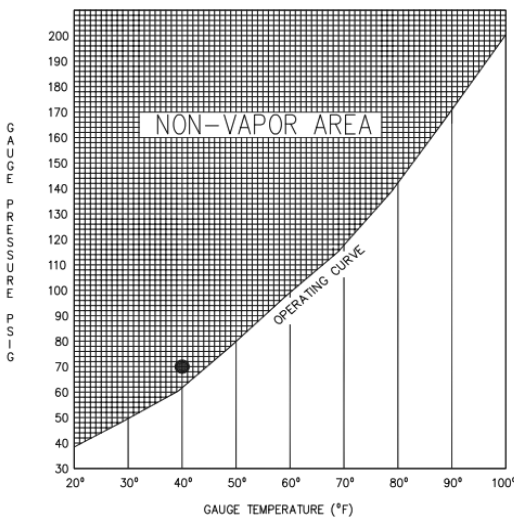
NH₃ ACCU-FLOW KITS



ACCU-FLOW VORTEX

Raven has raised NH₃ application technology to new levels of performance with the AccuFlow Vortex cooler and AccuFlow HP (high performance) Plus. Both models use super cooling technology to stabilize NH₃ as a liquid for superior accuracy and control. This pre-assembled system is the epitome of time-savings. The AccuFlow Vortex allows you to apply more anhydrous at faster speeds and cooler temperatures, with less weight on the toolbar.

ORDER NO.	DESCRIPTION	LIST
084 SCS612	Kit, Fast valve, VORTEX, Single Inlet (No on/off valve)	CALL*
084 SCS613	Kit, Standard valve, VORTEX Cooler Single Inlet(on/off valve included)	CALL*
084 SCS573	Kit, Fast valve VORTEX Cooler Dual Inlet(No on/off valve)	CALL*
084 SCS574	Kit, Standard Valve VORTEX Cooler Dual Valve(on/off valve included)	CALL*
084 SCS571	Kit, HP Plus Pump, VORTEX w/ Fast Valve Only	CALL*
Replacement Parts		
084 RFM60SG	Flowmeter, Stainless 60 GPM Vortex (only)	\$ 1444.58*
084 117-0171-591	Vortex Seal kit	\$ 112.93
084 333-9000-071	40 Mesh Screen for 2 inch Strainer	\$ 237.52
084 219-0000-161	Teflon Gasket Washer for 2 inch Strainer	\$ 63.84



Given an observed pressure reading 70 PSI and temperature reading 40° F. The point where these two readings intersect is within the non-vapor area.



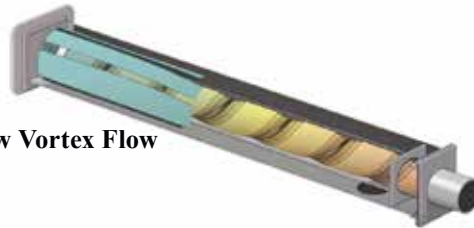
Vapor tubes and Vapor hose are no longer included in kits....order separately if needed

ACCU-FLOW REPLACEMENT PARTS



ORDER NO.	DESCRIPTION	LIST	ORDER NO.	DESCRIPTION	LIST
084 RFM60S	Stainless Flowmeter	\$ 1387.93*	084 219076	Teflon Gasket 1" Union	\$ 54.01
084 RFM60SG	Stainless Flowmeter (Vortex Cooler only)	\$ 1444.58*	084 219027	Teflon Gasket 1 1/4" Union	\$ 57.29
084 063-0173-877	Standard 1" SS Reg. Valve	\$ 1069.27*	084 417009	Temp Gauge	\$ 332.24
	(For use w/SCS991)		084 333025	1 1/4" Y-strainer	\$ 178.40
084 063-0173-878	Fast 1" SS Reg. Valve	\$ 1506.06*	084 063-0173-312	1 1/2" Y-strainer	\$ 266.77
	(For use w/SCS157)		084 333032	Screen, 20 mesh 1 1/4" Y strainer	\$ 122.76
084 063-0173-876	1" SS on/off valve	\$ 1062.19*	084 333067	Screen, 20 mesh 1 1/2" Y strainer	\$ 204.58
084 117121	Cooler Gasket Kit (2006 & older)	\$ 230.76	084 219062	Strainer gasket	\$ 67.11
084 219143	Cooler Gasket (2007+)	\$ 40.92	084 334002	1" Ball Valve	\$ 197.87
084 219036	Cooler O'ring (2 required)	\$ 5.75	084 019245	1 1/4" Ball Valve-Emergency Shutoff	\$ 396.05
084 117-0171-591	Seal Kit, Vortex Cooler	\$ 112.93	084 019571	1 1/2" Ball Valve-Emergency Shutoff	\$ 597.36
084 117-0171-706	Standard 1-1/4" SS Reg valve	\$ 1168.41*	084 214002	Vapor Tube	\$ 27.83
084 117-0171-705	1-1/4" SS on/off valve	\$ 1168.41*	084 418001	Magnet	\$ 14.01
084 117-0171-707	Fast 1-1/4" SS Reg.Valve	\$ 1562.19*			

Accuflow Vortex Flow



1. Why don't I have a rate reading?
-Bad cabling, flowmeter, or transducer.

2. Why do I have an erratic rate?
-More than 5lb pressure drop from tank to cooler
-Plugged strainer
-Vapor tubes plugged
-Temperature vs. pressure problems

3. Why can't I reach my desired rate?
-Tank pressure is too low due to low temperature; need to reduce ground speed.

4. Why am I getting green streaks in my fields?
-Will have to increase from 2 to 4 shanks from the vapor tubes.

5. Vapor comes out of the vapor tubes when my valve is shut.
-Orings inside cooler are bad
-Removed shut off valve on 2 valve system and are just using the section shutoff valves to shut off flow. This will not shut off the flow prior to the return line, thus allowing a free flow through the vapor tubes.

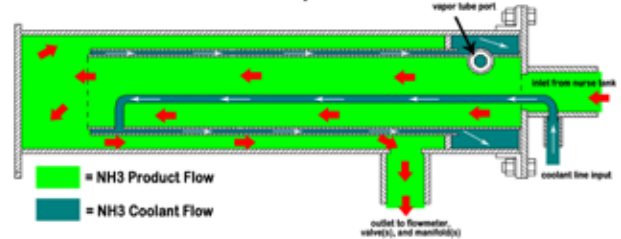
6. Fast valve not working correctly.
-Check valve type programmed in console.

7. Part # of adapter harnesses to go from new valves to old flow cable.
-084 115807 Adapter cable, NH3 Regulating Valve
-084 115808 Adapter cable, NH3 On/Off Valve

8. Why is my rate way too high?
-Didn't change meter cal to pounds of actual N and were still trying to apply in gallons.

9. Why is my rate erratic or takes a long time to find the rate when applying a lower rate with a Fast Valve?
-Fast valve has trouble finding low rates and either we change the valve cal or go to a 2 valve system.

AccuFlow Super Cooler



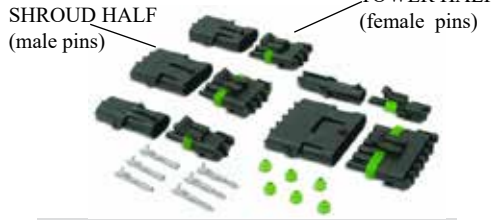
Valve	Cable
<p>NH3 ON/OFF VALVE CONNECTION (408-4001-908)</p> <p>Pin 1: Ground Pin 2: Signal Pin 3: Not used Pin 4: 12 v power</p> <p>MATING END</p>	<p>NH3 CABLE ON/OFF CONNECTION (408-4001-909)</p> <p>Pin 1: Ground Pin 2: Signal Pin 3: Not used Pin 4: 12 v power</p> <p>MATING END</p>
<p>NH3 CONTROL VALVE CONNECTION (408-4001-907)</p> <p>Pin 1: Ground Pin 2: Inc Pin 3: Dec Pin 4: 12 v power</p> <p>MATING END</p>	<p>NH3 CABLE CONTROL CONNECTION (408-4001-906)</p> <p>Pin 1: Ground Pin 2: Inc Pin 3: Dec Pin 4: 12 v power</p> <p>MATING END</p>



ELECTRICAL SUPPLIES



WEATHER PACK CONNECTORS



Note: body comes complete w/pins & seals

ORDER NO.	DESCRIPTION	LIST
CONNECTOR BODIES		
084 WPS1	Weather pack shroud 1 contact	\$ 2.50
084 WPS2	Weather pack shroud 2 contact	\$ 3.45
084 WPS3	Weather pack shroud 3 contact	\$ 4.90
084 WPS4	Weather pack shroud 4 contact	\$ 6.45
084 WPS6	Weather pack shroud 6 contact	\$ 8.50
084 WPT1	Weather pack tower 1 contact	\$ 3.45
084 WPT2	Weather pack tower 2 contact	\$ 4.35
084 WPT3	Weather pack tower 3 contact	\$ 5.90
084 WPT4	Weather pack tower 4 contact	\$ 8.50
084 WPT6	Weather pack tower 6 contact	\$ 9.20
084 WPS4S	Weather pack shroud 4 square	\$ 5.40
084 WPT4S	Weather pack tower 4 square	\$ 7.10



REPLACEMENT PINS

084 W30034	18-20 gauge male pin	\$.61
084 W31034	14-16 gauge male pin	\$.63
084 W30035	18-20 gauge female pin	\$.61
084 W31035	14-16 gauge female pin	\$.62



REPLACEMENT CABLE SEALS

084 W39004	Cable seal 20 gauge red	\$.18
084 W39000	Cable seal 16-18 gauge green	\$.29
084 W39001	Cable seal 14 gauge gray	\$.27
084 W39002	Cable seal 12 gauge blue	\$.27
084 W39010	Cavity plug	\$.39

QUICK DISCONNECT



ORDER NO.	DESCRIPTION	LIST
084 WSB50	Quick disconnect 6 ga.	\$ 13.20
084 WSB50C	Disconnect cover	\$ 3.70

MOLDED CONNECTORS



ORDER NO.	DESCRIPTION	LIST
500 SSCORD	Spot sprayer 2 pin/4 ft.-16 ga.	\$ 9.30
500 EZCORD	EZ 2 pin/4 ft.-12 ga.	\$ 11.50

SWITCH BOXES

ORDER NO.	DESCRIPTION	LIST
084 422BOX	Enclosure 4 x 2 x 2	\$ 15.75
500 FMSB	Enclosure 3.25 x 1.5 x 2	\$ 10.50

AMP CONNECTORS



SOCKET

PLUG

Note: For complete connector order plug/socket pins, backshell separately

ORDER NO.	DESCRIPTION	LIST
084 408079	Amp 4 pin male plug	\$ 34.38
084 408080	Amp 4 pin female socket	\$ 26.18
084 408083	Amp 4 pin backshell	\$ 27.83
084 408028	Amp 9 pin plug female	\$ 26.18
084 408029	Amp 9 pin socket male	\$ 34.38
084 408030	Amp 9 pin backshell std	\$ 22.91
084 408031	Amp 9 pin backshell large	\$ 14.74
084 408017	16 pin sq. flange socket male	\$ 36.01
084 408018	Amp 16 pin plug female	\$ 37.66
084 408025	16 pin free hanging socket male	\$ 26.18
084 408019	Amp 16 pin backshell large	\$ 29.46
084 408033	Amp 22 pin male socket	\$ 37.66
084 408034	Amp 22 pin female plug	\$ 55.64
084 408035	Amp 22 pin backshell	\$ 32.73

PINS

084 408162	Pin male 16/18 gauge	\$ 3.20
084 408163	Pin female 16/18 gauge	\$ 5.88
084 408164	Pin male 20/24 gauge	\$ 3.46
084 408165	Pin female 20/24 gauge	\$ 4.01
084 408166	Pin male 8/10 gauge	\$ 39.27
084 408167	Pin female 8/10 gauge	\$ 67.11

CABLE LOOM



ORDER NO.	DESCRIPTION	LIST
084 LCP125	Loom .125 ID	\$.24
084 LCP250	Loom .250 ID	\$.25
084 LCP350	Loom .350 ID	\$.27
084 LCP413	Loom .413 ID	\$.38
084 LCP500	Loom .500 ID	\$.41
084 LCP625	Loom .625 ID	\$.69

DIELECTRIC GREASE



ORDER NO.	DESCRIPTION	NET
084 GREASE	Dielectric grease 1/3 oz.	\$ 7.50**
084 CRC03082	Dielectric grease 10 oz. aerosol can	\$ 35.00**

ALLIGATOR CLIPS



ORDER NO.	DESCRIPTION	LIST
084 W46B	Alligator clip - Black.	\$ 2.50
084 W46R	Alligator clip - Red	\$ 2.50

RAVEN CONNECTORS



SOCKET

PLUG

NOTE: comes complete w/pins & backshell no individual parts available

ORDER NO.	DESCRIPTION	LIST
084 408010	Speed plug male pins	\$ 45.82
084 408016	Speed socket female pins	\$ 47.47
084 408013	Speed socket console mount	\$ 42.55
084 408014	Flow socket male pins	\$ 29.46
084 408015	Flow plug female pins	\$ 26.18
084 408906	Valve plug female pins	\$ 73.66
084 408907	Valve socket male pins	\$ 50.75
084 408908	Valve plug male pins	\$ 65.47
084 408909	Valve socket female pins	\$ 96.37

CABLE/WIRE

ORDER NO.	DESCRIPTION	LIST
084 433002	Shielded cable (per foot)	\$ 4.56
084 WP142	Bonded cable 14ga. 2 wire	\$.92
084 WG16	16 gauge wire (color)	\$.38
084 WG18	18 gauge wire (color)	\$.29
084 WB4	4 gauge battery cable	\$ 5.40
084 WB6	6 gauge battery cable	\$ 3.70
084 WD123	12-3 jacketed wire	\$ 3.05

FUSE HOLDERS/FUSES

W46003

W46004



ORDER NO.	DESCRIPTION	LIST
084 W46003	Fuse holder 30 Amp max	\$ 4.20
084 W46004	Fuse holder waterproof 30amp	\$ 11.00
084 510001	5 amp fuse	\$ 1.31
084 510003	15 amp fuse	\$.53

TOOLS



ORDER NO.	DESCRIPTION	NET
084 W421	Weather pack pin removal tool	\$ 9.90**
084 W428	Universal U-type crimper	\$ 81.00**
084 W440	Weather pack crimper	\$ 183.00**
084 W9140	AMP pin removal tool	\$ 29.00**

MISC CLEANER



ORDER NO.	DESCRIPTION	NET
084 CRC03130	Contact cleaner 11 oz.	\$ 20.00**
084 222-0000-020	Corrosion X-HD	\$ 26.50**



JoyStick for Sprayer

The new SI-Joystick is equipped with 2 on/off boom switches that can operate either a solenoid valve or a 3 wire ball valve. The green push button can operate any 12volt pump up to 25 amps

ORDER NO.	DESCRIPTION	LIST
500 SI-JOYSTICK	Joystick, 1-Pump, 2-On/Off	\$235.00*



RC-103

The RC-103 allows boom control of up to three individual sections with a master switch to control all. (Boom control valves not included and should be ordered from page 97-98, 133).



ORDER NO.	DESCRIPTION	LIST
250 RC-103	Controller, Tir 3 Boom, No Pressure	\$ 392.00*

RC-11

The RC-11 is simple and robust. Ideal for all single valve projects, this 12-Volt control system is built for single section with pressure control.



ORDER NO.	DESCRIPTION	LIST
250 RC-11	Controller, Tir 1 Sec, w/ 3/4" Reg Valve	\$ 352.00*

RC-203L



The RC-203L allows boom control of up to three individual sections with a master switch to control all. Pressure control is also included in the unit. (Boom control valves not included and should be ordered from page 97-98, 133).

ORDER NO.	DESCRIPTION	LIST
250 RC-203L	Kit, Controller, 3 BM w/ Press 3/4" Reg	\$ 566.00*
250 PR.1560B	3/4" Pressure Regulating Valve	\$ 140.00*
250 HRN.2851.WP	Cable, 12' RC-203L Final, WP	\$ 156.00*

SCS203 CONTROLLER

Replacement Parts



ORDER NO.	DESCRIPTION	LIST
084 063001	3/4" 360° Butterfly Valve	\$ 220.95
084 417002	Pressure gauge	\$ 58.92
084 417018	Pressure gauge liquid filled	\$ 106.39
084 412037	Master switch	\$ 21.29
084 412039	Pressure switch	\$ 49.03
084 333004A	Gauge fitting-1/8"	\$ 7.70
084 333008	Union fitting	\$ 7.75
084 115010	Console cable	\$ 140.74
084 333007	Male fitting-1/4"	\$ 4.90
084 510003A	Fuse holder	\$ 39.27
CABLES		
084 115013	6' Final	\$ 227.50
084 115015	12' Final	\$ 227.50
084 107025	12' Extension cable	\$ 248.76



RAVEN SCS 450 CONTROLLER



The SCS 450 Controller provides automatic control of chemical application rate regardless of vehicle speed. Capable of changing from RATE1 to RATE2 with a flip of a switch. Also provides "on-command" display of volume remaining in tank, time, total area worked, total volume applied, field area, field volume, vehicle speed, distance traveled, area worked per hour, and volume per minute. Non-Volatile memory and fast valve feature are standard. Both have serial port which allows for two way transmission of data with other devices.



SCS 450



The SCS 450 gives you all the benefits of a SCS 440 but allows you to control 3 more booms, giving you 6 boom control capability.

Listed below are some of the more common configurations. (To substitute a component simply subtract it and add the desired one. A selection of meters and valves are found on pages 129-131).

ORDER CHOICE OF SPEED SENSOR FROM PAGE 134.
ELECTRIC SHUTOFF VALVES AVAILABLE FROM PAGES 97-98,133.

ORDER NO.	DESCRIPTION	FLOW METER	REGULATOR	PRIMARY CABLE	SECONDARY CABLE	LIST
084 063220	SCS450 W/Serial Port (Console ONLY)					\$ 3144.08*
084 SCS450C	SCS450 W/Serial Port 6 Boom Console	Poly (1-60GPM) 084 RFM60P	1" Poly 084 063125	10' Console Cable 084 115085	6' Valve Cable 084 115495	\$ 5565.00*
084 SCS450CW	SCS450 W/Serial Port (Weather Pack Cable Ends)	Poly (1-60GPM) 084 RFM60P	1" Poly 084 063125	10' Console Cable 084 115085	6' Valve Cable 084 115086	\$ 5825.00*

SCS 440 CABLES

ORDER NO.	DESCRIPTION	LIST
084 115418	10' Primary	\$ 641.53
084 115404	6' Final	\$ 415.69
084 115405	12' Final	\$ 512.25
084 115409	12' Extension	\$ 469.70
084 115414	24' Extension	\$ 566.25
084 115016	6' Flow only	\$ 208.15
084 115017	12' Flow only	\$ 219.25
084 115019	24' Flow only	\$ 265.35

New Syle SCS 440 Cables With Weather Pack Ends

084 115858	6' Final	\$ 536.79
084 115055	12' Final	\$ 675.91
084 115800	12' sgl valve final NH3	\$ 759.36
084 115836	12' Multi valve final NH3	\$ 1513.82

SCS 450 CABLES

084 115085	10' Primary	\$ 698.82
084 115495	6' Final	\$ 427.15
084 115496	12' Final	\$ 548.26

New Syle SCS 450 Cables With Weather Pack Ends

084 115085	10' Primary	\$ 698.82
084 115086	6' Final	\$ 731.55
084 115129	12' Final	\$ 790.46
084 115838	12' 6 boom NH3 final	\$ 2430.30
084 115840	12' NH3 extension 4-6 sect	\$ 607.17
084 115856	12' Extension	\$ 744.65
084 115857	24' Extension	\$ 731.55

SCS 440/450/460 PARTS

ORDER NO.	DESCRIPTION	LIST
084 412048	Power switch	\$ 39.27
084 412046	Master switch (SCS450)	\$ 44.20
084 412010	Boom switch (SCS450)	\$ 47.47
084 412047	Boom switch (SCS440)	\$ 36.01
084 412050	Rate switch	\$ 67.11
084 412049	Inc/Dec switch	\$ 62.19
084 510018	Fuse holder	\$ 16.05
084 510003	Fuse (AGC 15)	\$.53
084 106437	Bracket	\$ 40.92
084 106438	Knob	\$ 5.43
084 115415	Polarity reverse cable	\$ 27.83
084 117637	Update NVM/Com Port	\$ 682.38*
Options For Pressure Transducer on New Style SCS 450/460		
084 422090	Pressure Transducer	\$ 606.16*
084 115153	3' Console Pressure Cable	\$ 229.11
084 115152	10' Console Pressure Cable	\$ 286.41
084 115176	30' Console Pressure Cable	\$ 317.49
084 115151	12' Final Pressure Cable	\$ 255.31

MANUALS

Old Style (Two Window Display)

084 016605	SCS450 Manual	\$ 32.73
084 016479	SCS460 Manual	\$ 49.10

New Style (28 Character Display)

084 016831	SCS450 Manual	\$ 80.21
084 016823	SCS460 Manual	\$ 19.34



RAVEN SCS 660 CONTROLLER



**SCS 660 Console
With Serial Port**

The SCS 660 Controller provides automatic control of chemical application rate OR granular application rate. Capable of changing from RATE1 to RATE2 with a flip of a switch. Also provides "on-command" display of volume remaining in tank or bin, time, total area worked, total volume applied, field area, field volume, vehicle speed, distance traveled, area worked per hour, and volume per minute.

Non-Volatile memory and fast valve feature are standard.

Beyond these functions the SCS 660 Console with serial port allows for two way transmission of data with other devices. When linked to these systems it supplies a simple, fast, and complete application record while also accepting variable rate commands from the Viper Pro using generated prescription maps if desired. The SCS 660 with Serial Port features a longer 28 character display and the ability to display pressure when in liquid mode with the optional electronic pressure transducer and cables.

SELECTION OF METERS, ENCODERS, AND VALVES FOUND ON PAGES 129-131.

ELECTRIC SHUTOFF VALVES AVAILABLE FROM PAGES 97-98, 133.

ORDER CHOICE OF SPEED SENSOR FROM PAGE 134.

ORDER NO.	DESCRIPTION	LIST
084 063221	SCS660 Console only	\$ 3646.85*
084 063542	SCS660 Console with master switch	\$ 3540.63*

SCS460/660 CONSOLE CABLES

ORDER NO.	DESCRIPTION	LIST
084 115786	3' Primary	\$ 851.01
084 115708	24' Final (Liquid)	\$ 973.76
084 115787	21' Final (Granular)	\$ 834.64
084 115301	12' Extension (22 Pin)	\$ 744.65
084 115717	24' Extension (22 Pin)	\$1096.50
084 115016	6' Flow only	\$ 208.15
084 115017	12' Flow only	\$ 219.25
084 115019	24' Flow only	\$ 265.35

New style Cables with Weather Pack Ends

084 115194	10' Primary manure cable	\$ 721.73
084 115195	12' Final manure cable	\$ 626.82
084 115196	12' Extension manure cable	\$ 469.70
084 115206	24' Final (Liquid) (460/660)	\$1170.15

Options For Pressure Transducer on New Style SCS 660

084 422090	Pressure Transducer	\$ 606.16*
084 115153	3' Console pressure cable	\$ 229.11
084 115152	10' Console pressure cable	\$ 286.41
084 115176	30' Console pressure cable	\$ 317.49
084 115151	12' Final pressure cable	\$ 255.31

SCS660 Parts

ORDER NO.	DESCRIPTION	LIST
084 412048	Power switch	\$ 39.27
084 412050	Rate switch	\$ 67.11
084 412049	Inc/Dec switch	\$ 62.19
084 510018	Fuse holder	\$ 16.05
084 510003	Fuse (AGC 15)	\$.53
084 106437	Bracket	\$ 40.92
084 106438	Knob	\$ 5.43

MANUALS

Old Style (Two Window Display)

084 016625	SCS660 Manual (Liquid)	DISC
084 016572	SCS660 Manual (Granular)	DISC

New Style (28 Character Display)

084 016841	SCS660 Manual (Liquid)	DISC
084 016845	SCS660 Manual (Granular)	DISC

SCS 700/750/760 Cables & Parts

ORDER NO.	DESCRIPTION	LIST
084 115865	21' boom control (710)	\$ 153.24
084 115456	Valve adapter	\$ 220.94*
084 115561	3' console cable	\$ 1227.42
084 063907	5 boom control box	\$ 924.66
084 412048	Power switch	\$ 39.27
084 412046	Master switch	\$ 44.20
084 412047	Boom switch	\$ 36.01
084 412050	Rate switch	\$ 67.11
084 412049	Inc/Dec switch	\$ 62.19
084 510018	Fuse holder	\$ 16.05
084 510003	Fuse (AGC 15)	\$.53
084 106437	Bracket	\$ 40.92





RAVEN SCS 4000/5000 SERIES CONTROLLERS



SCS 5000 Console



SCS 4400 Console

The SCS 4000/5000 Series Controllers are versatile consoles that will control up to five products at once - liquid, dry, NH3 or injection. The consoles use CANbus technology which allows for simple product upgrades and up to 10 boom capability. They provide automatic control of chemical application rate regardless of vehicle speed. Also provides "on-command" display of volume remaining in tank, time, total area worked, total volume applied, field area, field volume, vehicle speed, distance traveled, area worked per hour, and volume per minute. Non-Volatile memory and fast valve feature are standard.

Beyond these functions the SCS 4000/5000 Series Consoles have serial ports allowing for two way transmission of data with other devices such as GPS Systems like the Raven Data Boy or Viper System. When linked to these systems it supplies a simple, fast, and complete application record while also accepting variable rate commands from the Viper using generated prescription maps if desired. All the SCS 4000/5000 Series Consoles also have the ability to display pressure with the optional electronic pressure transducer and cables.

ORDER NO.	DESCRIPTION	LIST
084 0632894	SCS 5000 Console (Console Only) (CANbus system Only)	\$ 2900.30*
084 117924	SCS 4400 Console and bracket (Standard wiring for first product and CANbus wiring for up to 4 additional products)	\$ 3867.52*
084 117926	SCS 4600 Console and bracket (Standard wiring for first product and CANbus wiring for up to 4 additional products)	DISCONTINUED
084 107415	Console Bracket (SCS 5000/4400/4600)	\$ 104.74

SCS 4000/5000 CABLES

084 115334	3' Primary	\$ 542.43*
084 115419	6' Boom Sense	\$ 236.52*
084 115213	21' Boom Valve (With Weatherpack ends)	\$ 771.86*

**** (See Page 126 to complete the CANbus wiring and components needed)****

SCS 4400 CABLES

084 115299	3' Primary	\$ 1175.49*
084 115300	15' Primary	\$ 1508.31*
084 115315	12' Product 5 Boom Liq.	\$ 771.86*
084 115316	24' Product 5 Boom Liq.	\$ 934.73*
084 115313	12' Product 10 Boom Liq.	\$ 1090.51*
084 115314	24' Product 10 Boom Liq.	\$ 1352.52*
084 115365	24' Product, Granular	\$ 1005.54*
084 1151418	5' Product Extension	\$ 1133.00*
084 115319	12' Product Extension	\$ 1161.33*
084 115320	24' Product Extension	\$ 1210.90*

**** (To add on additional Products - Order CANbus wiring and components from Page 126)****

SCS 4600 CABLES

084 115317	3' Primary	\$ 1352.52*
084 115318	15' Primary	\$ 1352.52*
084 115315	12' Product 5 Boom Liq.	\$ 771.86*
084 115316	24' Product 5 Boom Liq.	\$ 934.73*
084 115313	12' Product 10 Boom Liq.	\$ 1090.51*
084 115314	24' Product 10 Boom Liq.	\$ 1352.52*
084 115365	24' Product, Granular	\$ 1005.54*
084 1151418	5' Extension	\$ 1133.00*
084 115319	12' Extension	\$ 1161.33*
084 115320	24' Extension	\$ 1210.90*
084 115417	6' Boom Sense/Power	\$ 264.84*

**** (To add on additional Products - Order CANbus wiring and components from Page 126)****

Pressure Transducer For SCS 4400/4600

084 422090	Pressure Transducer	\$ 606.16*
084 115235	6' Sensor Cable	\$ 237.31
084 115151	12' Sensor Cable	\$ 255.31
084 115224	37' Sensor Cable	\$ 392.77
084 115296	44' Sensor Cable	\$ 410.78



RAVEN CANbus COMPONENTS



CAN POWER CABLE and TERMINATOR *(Need one Power Adapter and Two Terminators)*

ORDER NO.	DESCRIPTION	LIST
084 117923	Kit, Power Adapter "T" Cable with two Terminators	\$ 501.35*
084 115368	Power Adapter "T" only Cable	\$ 314.41*
084 063369	Terminator (Passive)	\$ 328.57*

CAN CABLES *(Need one "T" cable for every node)*

084 115326	6' CANbus "T" Cable	\$ 490.02*
084 115362	12' CANbus "T" Cable	\$ 514.10*
084 115363	24' CANbus "T" Cable	\$ 555.17*
084 115364	Short CANbus "T" Cable (use for multiple nodes mounted in same location)	\$ 206.77*
084 115385	6' CANbus Extension Cable	\$ 236.52*
084 115386	12' CANbus Extension Cable	\$ 246.43*
084 115387	24' CANbus Extension Cable	\$ 247.85*

CAN BOOM SENSE/SPEED NODE AND CABLES

084 0632272	Boom sense/Speed Node	\$ 778.94*
084 1151405	Boom and 12v Radar Interface Cable to Node	\$ 589.16*
084 115419	6' Boom sense cable to external boom switches (or you will need a 5 or 10 boom switch box)	\$ 236.52*

CAN LIQUID PRODUCT CONTROL NODE AND CABLES

084 063304	Single Product Control Node (Need one for every product)	\$ 1841.13*
084 115380	Liquid Product Control Cable	\$ 1012.62*

CAN GRANULAR PRODUCT CONTROL NODE AND CABLES

084 063304	Single Product Control Node (Need one for every product)	\$ 1841.13*
084 115381	Granular Product Control Cable	\$ 1352.52*
084 063315	Node; Granular and Spinner Dual Product Control	\$ 2047.13*
084 115382	Cable; Granular control product 1	\$ 1090.51*
084 115400	Cable; Spinner control product 2	\$ 369.65*
084 415009	CAN Relay; 40 amp	\$ 37.66
084 063929	Relay; 100 Amp	\$ 147.00
084 117640	Bin level sensor kit	\$ 722.29*
084 063252	Sensor only	\$ 560.84*

GEN II CABLES

084 115928	Cable, Gen II CAN/PWR Imp Tee 12"	\$ 708.13*
084 115951	Cable, Gen II CAN/PWR Imp Tee 6'	\$ 1232.14*
084 115916	Cable, Gen II CAN/PWR Imp Tee 12'	\$ 1055.11*
084 115917	Cable, Gen II CAN/PWR Imp Tee 24'	\$ 1182.57*
084 115934	Cable, Gen II CAN/PWR Imp Tee 36'	\$ 1359.60*
084 063224	Terminator, Gen II	\$ 509.85*
084 115-3001-085	Cable, Gen II CAN/PWR 12' extension	\$ 1210.90*
084 115-3001-087	Cable, Gen II CAN/PWR 24' extension	\$ 1582.20*

Cables, SmarTrax 3D

084 115070	Cable, 6" tee SmarTrax to cab/chassis cables	\$ 456.03*
084 115071	Cable, 72" tee SmarTrax to cab/chassis cables only needed when using 115915, 936, 937, 938 Power/CAN cables	\$ 722.29*
084 115-4001-085	Cable, Power Chassis steer only systems (includes terminators)	\$ 524.01*



SIDEKICK PRO & ISO SIDEKICK PRO



The new Sidekick Pro injection system has all the benefits of the standard Sidekick system but has a more advanced system design. The system uses a high resolution encoder for smoother pump control. The new automatic closed-system calibration is simple and fast. No more catch tests. The Sidekick Pro is compatible with the Raven line of field computers and the SCS 4000 series and SCS 5000 series spray consoles.



ORDER NO.	DESCRIPTION	LIST
084 063201	Kit, Injection Pump less tank, 1-40oz/min	CALL*
084 063200	Kit, Injection Pump less tank, 5-200 oz/min	CALL*
084 063212	Kit, Injection Pump w/24 gal tank, 1-40 oz/min	CALL*
084 063213	Kit, Injection Pump w/24 gal tank, 5-200 oz/min	CALL*
084 115192	Cable; CAN motor control w/ agitator	\$ 1508.31*
084 115191	Cable; Node Injection Pump (Gen II & ISO)	\$ 892.24*

ISO INJECTION PUMPS, SIDEKICK PRO

084 063420	ISO pump, less tank, 1-40 oz/min	CALL*
084 063421	ISO pump, less tank, 5-200 oz/min	CALL*
084 063422	ISO pump, with 24 gal tank, 1-40 oz/min	CALL*
084 063423	ISO pump, with 24 gal tank, 5-200 oz/min	CALL*
084 115106	Cable; ISO Sidekick Pro w/ agitator	\$ 1302.95*
084 115107	Cable; ISO Sidekick Pro w/o agitator	\$ 1055.11*

ICD INJECTION PUMPS, SIDEKICK PRO

084 063-0173-781	ICD pump, less tank, 1-40 oz/min	CALL*
084 063-0173-780	ICD pump, less tank, 5-200 oz/min	CALL*
084 063-0173-772	ICD pump, with 24 gal tank, 5-200 oz/min	CALL*
084 063-0173-771	ICD pump, with 24 gal tank, 1-40 oz/min	CALL*

Motor Control

084 063226	Motor Control (Non CANbus Systems)	\$ 1068.63*
084 063360	Motor Control (CANbus Systems)	\$ 1590.06*
084 063479	Motor Control w/agitator control (CANbus Systems)	DISC

Mounting Kit

084 117984	Motor Control Mounting Kit	\$ 81.82
------------	----------------------------	----------

PICK AND SWITCH TANKS

ORDER NO.	DESCRIPTION	LIST
084 117554	Tank saddle and Strap	\$ 417.80*
084 117541	24 gal tank 18"W 11 1/2"L 37"H	\$ 565.09*
084 117760	Plumbing Kit	\$ 615.34

MECHANICAL AGITATORS

ORDER NO.	DESCRIPTION	LIST
084 117544	Agitator for 24 gal Pick & Switch	\$ 1777.40*

An in-line flow mixer and check valves are required if one or more products are to be injected.

MIXERS

ORDER NO.	DESCRIPTION	LIST
084 063432	1" Low Flow Mixer	\$ 541.01*
084 063-0173-770	1 1/2" S.S NH3 mixer	\$ 570.75*
084 063632	1 1/4" Poly mixer, 1-50 GPM of carrier	\$ 371.06*
084 063300	2" Stainless mixer, 1-50 GPM of carrier	\$ 429.13*
084 333010S	3" Stainless mixer, 5-120 GPM of carrier	\$ 1472.90*

CHECK VALVES

084 333078	3/8" Stainless Check valve NH3	\$ 194.03*
500 CVSE050	1/2" Stainless Check Valve	\$ 29.90*
500 CVSE200	2" Stainless Check Valve	\$ 136.85*
500 CVSE200A	2" Stainless Check Valve w/ sgl port	\$ 161.00*

SCS SIDEKICK CABLES

084 115130	Console Cable 15'	\$ 1121.50
084 115305	Product Cable 3'	\$ 267.80
084 115138	Product Cable 27'	\$ 826.47
084 115147	Adapter Cable, Non-Raven	\$ 216.02
084 115165	Adapter Cable, JD (4700, 4710,4720)	\$ 425.50
084 115757	Adapter Cable, JD (4730, 4830)	\$ 1243.79
084 1151522	Cable, JD 4920 Boom (4920, 4930)	\$ 513.88
084 1151523	Cable, Boom Sense JD (4920, 4930)	\$ 3191.28

INJECTION PARTS

ORDER NO.	DESCRIPTION	LIST
084 063677	Intake valve (428-510)	\$ 322.41
084 063504	Exhaust valve (428-510)	\$ 324.04
084 117824	Piston Seal kit (898,967)	\$ 197.87
084 063893	Intake valve (898,967)	\$ 108.60
084 063894	Exhaust valve (898,967)	\$ 99.68
084 063666	12V motor hi-vol	\$ 644.40*
084 063620	Pump sensor (898,967)	DISC
084 063351	Pump sensor (428,510)	\$ 322.41
084 063784	Tach generator hi-vol (898,967)	\$ 225.85
084 063833	Tach generator lo-vol (898,967)	DISC
084 063312	Tach generator (428,510)	\$ 364.96
084 106454	Calibration Flask	\$ 48.93*
084 117987	Pump kit, Sidekick Pump	\$ 147.29
084 063-0172-924	Complete, Inj Pump Housing w/ Valves	\$ 2959.96*

MOTOR CONTROLS

084 063297	3 wire motor ctrl (pre 2002)	\$ 991.38*
	replaces 084 063788	
084 063226	Low profile mtr ctrl (2002+)	\$ 1068.63*

FLOW SWITCH

084 063525	Universal Flow Switch Sensor	\$ 535.17
------------	------------------------------	-----------



CALL FOR MACHINE SPECIFIC KITS



DURA FLOWMETER



- Intuitive menu-driven backlit display
- Impact resistant Lexan™ faceplate
- Accuracy +/- 0.5%
- 2" & 3" Manifold flanged meter body
- Multiple plumbing options
- 100% moisture-sealed circuitry
- Includes a 2-year Warranty
- Easily serviced
- Extended battery life with use of (2) 9V batteries
- Paddlewheel Meter
- Displays batch and total volume

ORDER NO.	DESCRIPTION	LIST
139 DP-HFM2V	2" Meter w/M220 flanges 15-300 GPM	\$1500.00*
139 DP-HFM3V	3" Meter w/M300 flanges 15-700 GPM	\$1830.00*

BANJO FLOWMETER



- Displays overall total volume & batch total volume
- Flow rate allows for gallons or liters per minute
- Digital readout in Metric or Standard (SI)
- Magnetic style with stainless steel electrodes
- Self calibrating meter
- Measures water and most conductive liquids
- Easy to change (6) AA batteries
- No moving parts to fail during use
- Glass-reinforced polypropylene
- Temperature range from 0° to 150°F
- Accuracy is 99%

ORDER NO.	DESCRIPTION	LIST
102 MFM100	1" Mag meter w/100 flanges 110 GPM	\$ 1007.00*
102 MFM220	2" Mag meter w/220 flanges 300 GPM	\$ 1145.00*
102 MFM300	3" Mag meter w/300 flanges 670 GPM	\$ 1436.50*



FLOW METERS

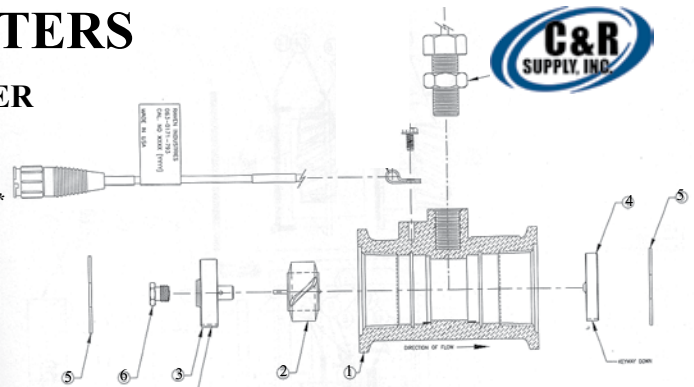


RFM15

RFM15 POLY FLOWMETER

1 1/2" FPT X 2" Flange Poly
.3-15 GPM, 300 PSI

084 RFM15F COMPLETE		\$ 635.90*
1) 084 106550 Poly Body		\$ 106.39
2) 084 063041 Rotor		\$ 335.50
3) 084 063674 Hub/Bearing Assy		\$ 204.58
4) 084 063769 Rotor Stop & Brg		\$ 72.01
5) 084 335278 Snap Ring		\$ 21.29
6) 084 063062 Stud Bearing		\$ 44.20
7) 084 063669 Sensor Assy		\$ 333.85

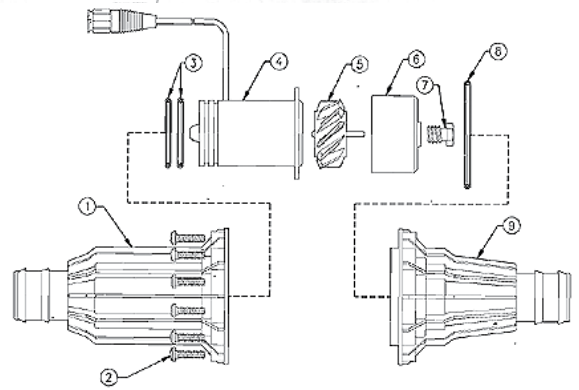


RFM55

RFM55 POLY FLOWMETER

1 1/4" Barb Poly, 1-55 GPM, 200 PSI

084 063571 COMPLETE		DISC
1) 084 019085 Sensor Housing		DISC
2) 084 311037 10-32x3/4 Screw		\$ 3.59
3) 084 2192030 Xder O'Ring		\$ 3.93
4) 084 063749 Transducer		DISC
5) 084 117020 Rotor only		\$ 120.51
6) 084 063563 Hub/inner bearings		DISC
7) 084 063062 Stud bearing		\$ 44.20
8) 084 219042 Inlet oring (viton)		\$ 10.55
9) 084 063776 Hub Housing		DISC
10) 084 325005 Inner hub sapphire		\$ 17.85
084 219040 Outlet oring (Old)		\$ 6.29
084 325012 Tungsten bearing		\$ 17.85

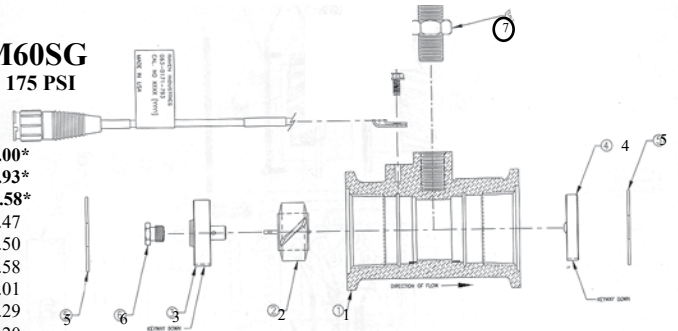


RFM60SG

RFM60P, RFM60S & RFM60SG

1 1/2" FPT X 2" Flange Poly, 1-60GPM, 175 PSI
1 1/2" Stainless, 1-60GPM, 300 PSI

084 RFM60P Poly Complete		\$ 871.00*
084 RFM60S Complete Stainless		\$ 1387.93*
084 RFM60SG Complete Stainless (Vortex On)		\$ 1444.58*
1) 084 106514 Poly Body		\$ 47.47
2) 084 063673 Rotor		\$ 335.50
3) 084 063674 Hub/Bearing Assy		\$ 204.58
4) 084 063769 Rotor Stop & Brg		\$ 72.01
5) 084 335278 Snap Ring		\$ 21.29
6) 084 063062 Stud Bearing		\$ 44.20
7) 084 063669 Sensor Assy		\$ 333.85



RFM60P

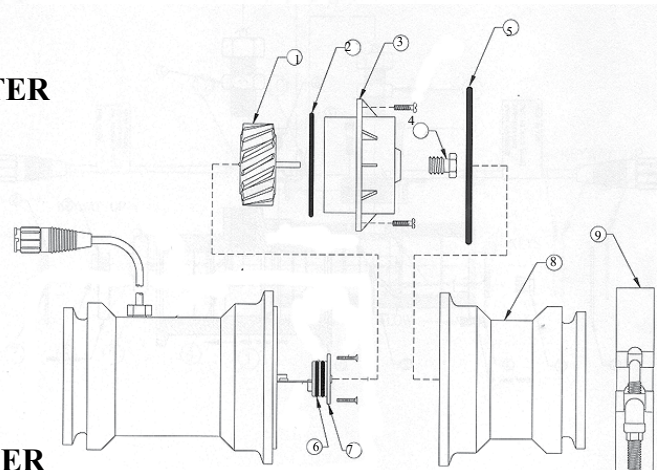
RFM60S



RFM100 POLY FLOWMETER

2" FPT Poly, 3-100GPM, 150 PSI

084 063066 COMPLETE		DISC
1) 084 063002 Rotor only		\$ 114.56
2) 084 219140 Hub O'ring		\$ 5.75
3) 084 321222 Hub w/Bearings		\$ 464.78
4) 084 063082 Stud Bearing		DISC
5) 084 219238 Body O'ring		\$ 12.29
6) 084 219018 O-ring, x-ducer		\$ 5.75
7) 084 117567 Plug/PC Assy		\$ 391.15
8) 084 107005 Hub Housing, Inlet		\$ 81.82
9) 084 435032 Band Clamp		\$ 148.94
10) 084 325016 Sapphire Bearing		\$ 108.02
084 117441 Cable Kit		\$ 227.50

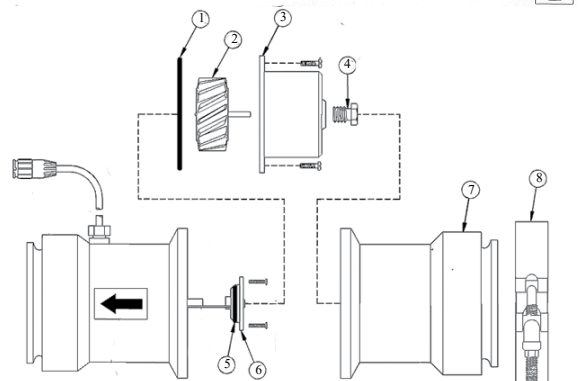


RFM100

RFM200 POLY FLOWMETER

3" FPT Poly, 15-200GPM, 90 PSI

084 063751 COMPLETE		DISC
1) 084 219051 Oring (EPDM)		\$ 7.60
084 219052 Oring (viton)		\$ 67.11
2) 084 063-0173-003 Rotor only		\$ 108.02
3) 084 063564 Hub w/bearings		\$ 641.53
4) 084 063575 Stud bearing		\$ 157.11
5) 084 219040 O-ring, X-ducer		\$ 6.29
6) 084 063646 Plug/PC Assy		\$ 448.05
7) 084 107618 Hub Housing		DISC
8) 084 435031 Retainer Clamp		\$ 121.11
084 325006 Turbine bearing		\$ 116.20
084 117441 Cable Kit		\$ 227.50



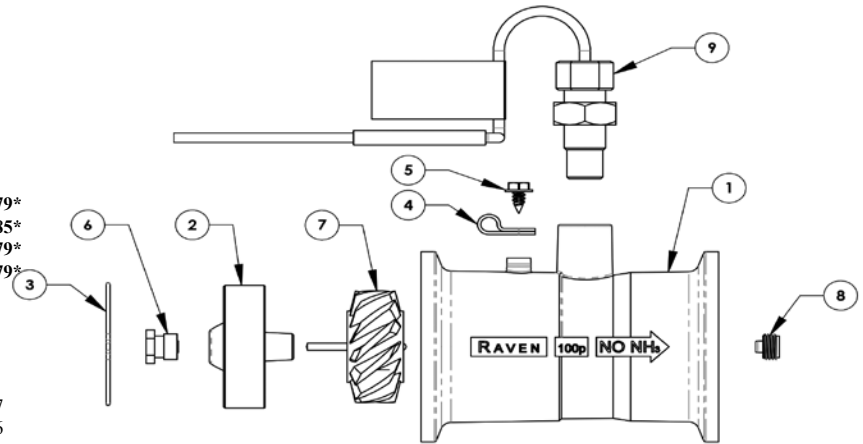
RFM200 POLY



RFM100 POLY FLOWMETER

2" Flange Poly, 3-100GPM, 150 PSI

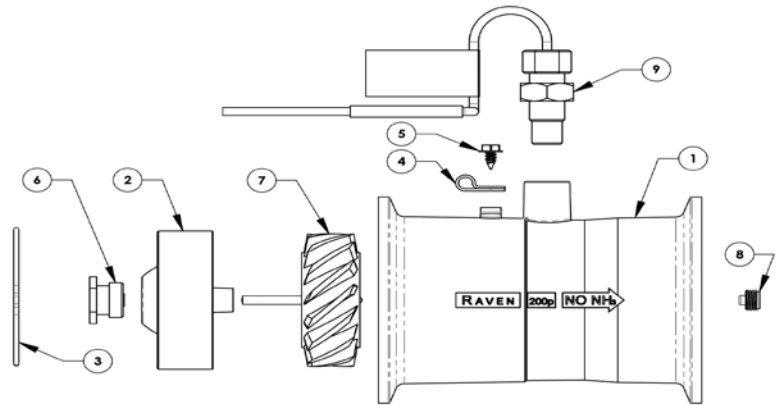
ORDER NO.	DESCRIPTION	LIST
084 RFM100P	COMPLETE FLOWMETER	\$ 1288.79*
084 RFM100P-CASE	FLOWMETER, CASE	\$ 1380.85*
084 RFM100P-AGCO	FLOWMETER, AGCO	\$ 1288.79*
084 RFM100P-JD	FLOWMETER, JOHN DEERE	\$ 1288.79*
1)	(not available)	
2)	(not available)	
3)	(not available)	
4)	(not available)	
5)	(not available)	
6)	084 063057 Stud Bearing	\$ 65.47
7)	084 063596 Rotor Only	\$ 320.76
8)	084 063744 Stud, DownStream Bearing	\$ 81.82
9)	084 063004 Sensor Assembly; Raven	\$ 368.24
	084 063458 Sensor Assembly; Case	\$ 461.51



RFM200 POLY FLOWMETER

3" Flange Poly, 15-200GPM, 150 PSI

ORDER NO.	DESCRIPTION	LIST
084 RFM200P	COMPLETE FLOWMETER	\$ 1933.19*
084 RFM200P-CASE	FLOWMETER, CASE	\$ 2067.73*
1)	(not available)	
2)	084 063581 Hub/Bearing Upstream	\$ 254.22
3)	(not available)	
4)	(not available)	
5)	(not available)	
6)	084 063575 Stud Bearing	\$ 157.11
7)	084 063597 Rotor Only	\$ 320.76
8)	084 063744 Stud, DownStream Bearing	\$ 81.82
9)	084 063004 Sensor Assembly; Raven	\$ 368.24
	084 063458 Sensor Assembly; Case	\$ 461.51

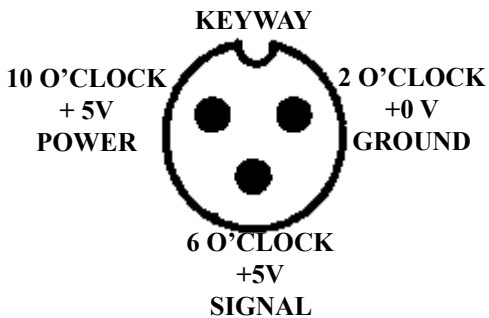


Mag Meter



Encoder

ORDER NO.	DESCRIPTION	LIST
MAGMETERS		
084 063149	4" Magmeter 35-1500 GPM	\$ 11988.56*
084 0633150	6" Magmeter 70-3000 GPM	\$ 13957.15*
ENCODERS		
084 063071	180 Pulse/Rev. Encoder	\$ 695.38*
084 063114	36 Pulse/Rev. Encoder	\$ 695.38*
084 063-0171-786	360 Pulse/Rev. Encoder 12v RCM/AGCO	\$ 621.74*
GEAR TOOTH SENSOR		
084 063-0173-686	Gear tooth speed sensor	\$ 266.77
084 063981	Gear tooth flow sensor	\$ 214.40



PROCEDURE TO TEST FLOW CABLES

- Hold connector so keyway is at the 12 o'clock position
- Enter a METER CAL number of 1 in meter cal key
- Place BOOM switches to ON along with the Master Switch
- With a small jumper wire, short between the 2 and 6 o'clock pins. Each time a contact is made, the TOTAL VOLUME should increase. If volume does not increase check next connection if any. Replace defective cable as required.
- Check for 5 volts between 2 & 10 o'clock and 2 & 6 o'clock
- If cables test good, replace/repair flow sensor/meter



REGULATING VALVES



3-15GPM 150psi

ORDER NO.	DESCRIPTION	LIST
084 063001	3/4" FPT, 360° Butterfly, Poly	\$ 220.95
084 063120	3/4" FPT, Butterfly, Poly	\$ 355.48*



ORDER NO.	DESCRIPTION	LIST
097 E344R	1" Polypropylene ball valve	1-27GPM, 300psi \$ 278.62*
097 E244C	3/4" Butterfly (360°)	1-28GPM, 100psi \$ 168.39*



3-30GPM 175psi

ORDER NO.	DESCRIPTION	LIST
084 063125	1" FPT, Butterfly, Poly	\$ 575.00*
084 063165	1" FPT, Stainless ball, Poly	\$ 699.63*
<u>PARTS</u>		
084 117810	1" ISO kit	\$ 164.29*
084 106407	Valve cover	\$ 21.29
084 219020	Cover tetraseal	\$ 4.10
084 115415	Polarity reverse cable	\$ 27.83



7-55GPM 175psi

ORDER NO.	DESCRIPTION	LIST
084 0631894	1 1/2" FPT, Butterfly, Poly	\$ 645.81*
<u>PARTS</u>		
084 117739	1.5" ISO kit	\$ 230.85*
084 106407	Valve cover	\$ 21.29
084 219020	Cover tetraseal	\$ 4.10
084 115415	Polarity reverse cable	\$ 27.83

STAINLESS STEEL CONTROL VALVES



3-15GPM 300psi

ORDER NO.	DESCRIPTION	LIST
084 063173	1/4" FPT, Ball, Stainless,	\$ 984.30*
084 063-0173-206	Motor, Replacement Std	\$ 662.81*



NH₃



1", 2-100GPM 800psi

ORDER NO.	DESCRIPTION	LIST
084 063-0173-877	1" FPT, Ball, NH ₃ , Std,	\$ 1069.27*
084 063-0173-878	1" FPT, Ball, NH ₃ , Fast,	\$ 1506.06*
084 063-0173-664	Motor, Replacement Std. (2018+)	\$ 998.46*
084 063-0173-666	Motor, Replacement, Fast (2018+)	\$ 1531.00*



1 1/4", 2-100GPM 800psi

ORDER NO.	DESCRIPTION	LIST
084 117-0171-706	1 1/4" FPT, Ball, NH ₃ , SS, Std	\$ 1168.41*
084 117-0171-707	1 1/4" FPT, Ball, NH ₃ , SS FAST	\$ 1562.19*
084 063-0173-664	Motor, Replacement Std. (2018+)	\$ 998.46*
084 063-0173-666	Motor, Replacement, Fast (2018+)	\$ 1531.00*

ORDER NO.	DESCRIPTION	LIST
084 0632177	2" FPT, Butterfly, Stainless, 5-300GPM, 300psi	\$ 1465.82*
084 063181	3" FPT, Butterfly, Stainless, 20-600GPM, 300psi	\$ 2669.64*
084 0632980	Motor, Replacement Con-x-all, 4 pin	\$ 627.40*
084 063144	Motor, Replacement 2 pin Trailer plug	\$ 611.82*

1 1/2", 2-100GPM 750psi

ORDER NO.	DESCRIPTION	LIST
084 063-0173-667	1 1/2" FPT, Ball, NH ₃ , SS, Std	\$ 1713.66*
084 063-0173-626	1 1/2" FPT, Ball, NH ₃ , SS FAST	\$ 2139.04*
084 063-0173-664	Motor, Replacement Std. (2018+)	\$ 998.46*
084 063-0173-666	Motor, Replacement, Fast (2018+)	\$ 1531.00*

MOTORS & PARTS

084 0632980	Motor Assy 1" Std valve	\$ 627.40*
084 063-0173-206	Motor Assy Std for 1 1/4" valve fits 063-0173-202 1 1/4"	\$ 662.81*
084 063-0173-207	Motor 1" & 1 1/4" on/off SS	\$ 778.94*
084 0632982	Motor Assy Fast (4 Wire)	\$ 1390.63*
Replaces 063146 (may need 084 115807 adapter cable)		



2002-2017

084 107393	Coupler	\$ 45.82
084 107394	Coupler clamp	\$ 32.73
084 117892	Retro Brkt and Coupler kit	\$ 69.93
084 115807	Valve adapter cable	\$ 245.48
084 117219	Indicator decal kit	\$ 38.69

OLD STYLE PARTS PRE-2002

084 063619	Motor Assy (805/557)	\$ 723.06
084 107608	Coupler 1" valve (557)	\$ 36.01
084 117410	Seal kit 1" old steel valve	\$ 173.47



HYDRAULIC CONTROL VALVE



STANDARD HYDRAULIC VALVE



ORDER	DESCRIPTION		LIST
084 0633160	Hydraulic Regulating Valve	0-8 GPM	\$ 946.31*
084 0632195	Hydraulic Regulating Valve	0-16 GPM	\$ 1133.00*
084 0632196	Hydraulic Regulating Valve	0-30 GPM	\$ 1104.68*
084 063244	Motor Assy Std (2 Wire)		\$ 596.25*
084 063619	Motor Assy (Old Style Pre-2002)		\$ 723.06

FAST HYDRAULIC VALVE



ORDER	DESCRIPTION		LIST
084 0633162	Fast Hyd Regulating Valve	0-8 GPM	\$ 1168.41*
084 0633163	Fast Hyd Regulating Valve	0-16 GPM	\$ 1168.41*
084 0633164	Fast Hyd Regulating Valve	0-30 GPM	\$ 1168.41*
084 063150	Motor Assy Fast (2 Wire)		\$ 692.55*

PWM HYDRAULIC VALVE



ORDER	DESCRIPTION		LIST
084 063841	PWM Hyd Regulating Valve	0-5 GPM	\$ 1373.76*
084 063842	PWM Hyd Regulating Valve	0-10 GPM	\$ 1395.01*
084 063843	PWM Hyd Regulating Valve	0-15 GPM	\$ 1373.76*
084 063846	PWM Hyd Regulating Valve	0-30 GPM	\$ 1741.99*

ON/OFF VALVES



2018 and newer

ORDER NO.	DESCRIPTION	LIST
084 063-0173-876	1" NH3, Ball, Stainless Steel	\$ 1062.19*

NEW STYLE PARTS

ORDER NO.	DESCRIPTION	LIST
084 063-0173-665	Motor, Replacement (2018+)	\$ 892.24*
084 107393	Coupler	\$ 45.82
084 107394	Coupler Clamp	\$ 32.73
084 117-0171-686	1" SS valve only	\$ 522.60*

OLD STYLE PARTS PRE 2002

084 063487	Motor assy	Disc
084 117410	Seal kit 1" valve	\$ 173.47
084 107608	Coupler 1" valve	\$ 36.01



NH₃

ORDER NO.	DESCRIPTION	LIST
084 117-0171-705	1 1/4" NH3, Ball Stainless Steel	\$ 1168.41*
084 063-0173-668	1 1/2" NH3, Ball Stainless Steel	\$ 1770.31*

NEW STYLE PARTS

ORDER NO.	DESCRIPTION	LIST
084 063-0173-665	Motor, Replacement (2018+)	\$ 892.24*
084 107393	Coupler	\$ 45.82
084 107394	Coupler Clamp	\$ 32.73
084 117-0171-686	1" SS valve only	\$ 522.60*
084 115808	Valve adapter cable	\$ 245.48
084 117892	Retro Brkt and coupler kit	\$ 69.93
084 117219	Indicator decal kit	\$ 38.69
084 117355	Seal kit NH3 valve 1 1/4"	\$ 158.75



2018 and newer



NH₃

ORDER NO.	DESCRIPTION	LIST
084 063184	1 1/2" Ball, Poly	\$ 714.56*
084 063185	2" Ball, Poly	\$ 785.36*
084 063145	Replacement Motor	\$ 681.22*



ORDER NO.	DESCRIPTION	LIST
084 063178	2" Butterfly, Stainless Steel	\$ 1494.15*
084 063182	3" Butterfly, Stainless Steel	\$ 1718.81*
084 063145	Replacement Motor	\$ 681.22*





ON/OFF VALVES



RAVEN BOOM VALVES

Get Raven reliability and performance with this new boom valve. It has a 40 GPM flow rate at a 5 PSI pressure drop. Close time is .7 seconds. Banjo flange fittings are standard. Outlet has 3/4" FPT and Banjo flanges. It has a working pressure of 175 PSI. Made by Raven in the USA.



ORDER NO.	DESCRIPTION	LIST
084 063926	Boom valve single unit One clamp and gasket included	\$ 414.97*
084 063928	Boom valve 3 bank unit	\$ 1217.98*
084 063039	Boom valve 5 bank unit	\$ 1989.84*
084 063330	Replacement motor	\$ 384.40*

Add single units for desired multiple units.

NEW STYLE PARTS



084 106522	Manifold Body	\$ 57.29
084 107327	Clip	\$ 3.59
084 219214	Outlet O-Ring	\$ 4.10
084 106523	Outlet 1"	\$ 7.79
084 219099	Plunger Seat	\$ 24.56
084 117906	Kit, Boom valve with screw	\$ 62.19
084 063330	Motor only	\$ 384.40*

Select desired inlet flange fitting, clamp, & gasket from page 87-88 to complete valve bank.

CASE IH

ORDER NO.	DESCRIPTION	LIST
084 063-0172-868	Boom valve, CNH HF (A)	\$ 465.95*
084 063-0172-869	Boom valve, CNH HF IN-LN (B)	\$ 465.95*



Wiring schematic: Red - 12volts (A)
White-ground (B)
Black-boom signal (C)

BANJO MOTORIZED BALL VALVES

Female Pipe Thread

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 EVX071	3/4" Fpt 12 volt	.75	\$ 409.50*
102 EVX101	1" Fpt 12 volt	.75	\$ 419.75*
102 EVX121	1 1/4" Fpt 12 volt	.75	\$ 409.50*
102 EVX151	1 1/2" Fpt 12 volt	1.5	\$ 600.50*
102 EVX201	2" Fpt 12 volt	1.5	\$ 600.50*
102 EVX221	2" FP Fpt 12 volt	1.5	\$ 649.50*



Welded Flange

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 MEVX100B	1" Flanged 12 volt	.75	\$ 440.25*
102 MEVX200	2" Flanged 12 volt	1.5	\$ 620.50*
102 MEVX220	2" FP Flanged 12 volt	1.5	\$ 649.50*
102 MEVX300	3" Flanged 12 volt	4	\$ 1181.00*



Bolted Flange

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 MEVX101	1" Flanged 12 volt	.75	\$ 419.75*
102 MEVX201	2" Flanged 12 volt	1.5	\$ 620.50*
102 MEVX221	2" FP Flanged 12 volt	1.5	\$ 649.50*



3 WAY SIDE LOAD

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 MEVX100SL	1" Flange 12 volt	.75	\$ 471.75*
102 MEVX200SL	2" Flange 12 volt	1.5	\$ 681.00*
102 EVX220SL	2" Fpt x Fpt x FP Flange	1.5	\$ 713.50*
102 MEVX220SL	2" FP Flange 12 volt	1.5	\$ 731.50*



3 WAY BOTTOM LOAD

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 EVX100BL	1" Fpt x Fpt x Flange	.75	\$ 460.25*
102 MEVX100BL	1" Flange 12 volt	.75	\$ 471.75*
102 EVX200BL	2" Fpt x Fpt x Flange	1.5	\$ 664.50*
102 MEVX200BL	2" Flange 12 volt	1.5	\$ 681.00*
102 EVX220BL	2" Fpt x Fpt x FP Flange	1.5	\$ 713.50*
102 MEVX220BL	2" FP Flange 12 volt	1.5	\$ 731.50*
102 MEVX300BL	3" Flange 12 volt	4	\$ 1299.50*



**All EVX 3-way valves come with 2-Fpt ports and 1-Flange port

BANJO EVX & MEVX REPLACEMENT MOTORS

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 EP21A10310	Motor only 3/4"-1 1/4" On/off & 3 way	.75	\$ 346.50*
102 EP31B10310	Motor only 1 1/2"-2" On/off & 3 way	1.50	\$ 485.00*
102 EP61C10310	Motor only 3" On/off	4.00	\$ 920.00*
102 EP61C10310A	Motor only 3" 3 way	4.00	\$ 878.00*



TEEJET 12 VOLT MOTORIZED BALL VALVE WITH FLANGES

Polypropylene construction with viton and teflon seals. 1 amp draw during open/close cycle. Max pressure is 200 psi and 32 gpm. Easy mounting with built in brackets. Internal resettable fuse. Internal relay to allow wiring to any sprayer control.

ORDER NO.	DESCRIPTION	LIST
097 E451	Single	\$ 277.96*
097 E453	Bank of Three	\$ 868.57*
097 E455	Bank of Five	\$ 1433.52*
097 EC344	Valve, Ball 1" 12v	\$ 271.12*
097 E50515	Replacement motor	\$ 229.66*



The 450 series flow back valves allow pressure from the boom lines to be relieved back to the tank when the valve is switched to the off position. Max pressure is 200 psi and 32 gpm. Flange connections need to be ordered separately. This valve is ideal for autoboom shut off systems where instant shut off is required..

ORDER NO.	DESCRIPTION	LIST
097 E451F	Single	\$ 305.73*
097 E453F	Bank of Three	\$ 955.41*
097 E455F	Bank of Five	\$ 1576.86*
097 E45529A	1/2" Mnfld barb kit	\$ 10.78
097 E45529B	3/4" Mnfld barb kit	\$ 10.78
097 E37166	C-Clip; quick connect	\$ 2.97
097 E55222	Plug; quick connect	\$ 6.48
097 E50515	Replacement motor	\$ 229.66*



Wiring schematic: Red - 12V
White-boom signal
Black-Ground

Companion flanges, gaskets, and clamps must be ordered separately from page 87-88.

BANJO LEV MOTORIZED VALVES

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 LEV038	3/8" fpt 12 volt	.33	\$ 159.50*
102 LEV050	1/2" fpt 12 volt	.33	\$ 159.50*
102 MLEV100	1" Flanged 12 volt	1.25	\$ 170.50*



BANJO OLD STYLE REPLACEMENT MOTORS

ORDER NO.	DESCRIPTION	SECONDS	LIST
102 EV3300	Motor only 3/4" - 1 1/4" valves	.75	\$ 276.50*
102 EV3304	Motor only 4 wire	.75	\$ 276.50*
102 EV4300	Motor only 1 1/2" - 2"	1.25	\$ 380.25*

Replacement motors for EV series valves





SPEED SENSORS



The Teejet is a 4 Hz GPS speed sensor. Acquisition time is less than 1 minute. Speed range from .5-80mph. Sensor mounts in cab and has power indicator, GPS status indicator, and speed indicator when speed is present.

The Sensor-1 is a 1 Hz GPS speed sensor. It is a WAAS enabled GPS receiver, that is replacement for radar guns. The small 2.4" antenna can be mounted inside or outside the cab. The optional Digital In-Line speed read out model gives the operator true ground speed so that it can be compared to their monitor or tractor. It can be used as a stand alone speed read out or cabled to your sprayer or corn planter monitor with additional cabling. Optional 5 Hz and 10 Hz models available.



Teejet

Sensor-1



Sensor-1 digital



ORDER NO.	DESCRIPTION	LIST
097 9002404	Teejet GPS Speed Sensor for Raven	\$ 742.22*
097 9002371	Teejet GPS Speed Sensor for Dickey-john	\$ 742.22*
097 7850155	Antenna only	CALL*
084 SENSOR1R	Sensor 1 GPS speed sensor for Raven	\$ 475.00*
084 SENSOR1D	Sensor 1 GPS speed sensor for Dickey-john	\$ 475.00*
084 SENSORDD	Sensor 1 speed sensor w/digital read out (comes with Dickey john end only; adapters available)	CALL*



RAVEN RADAR II

RADAR SPEED SENSORS

ORDER NO.	DESCRIPTION	LIST
084 117822	RAVEN RADAR II (with power cable)	\$ 1926.10*
084 115539	Raven 12' Power cable	\$ 374.79

MAGNETIC WHEEL SPEED SENSOR

ORDER NO.	DESCRIPTION	LIST
084 063484	COMPLETE (4 Magnet)	\$ 610.41*
084 063539	COMPLETE (2 Magnet)	\$ 533.93*
084 063402	Red (N) magnet	\$ 67.11
084 063403	Black (S) magnet	\$ 68.73
084 063438	21' Switch Only	\$ 417.34

PROXIMITY SENSOR

084 063-0173-686	Proximity/Gear Sensor	\$ 266.77
------------------	-----------------------	-----------

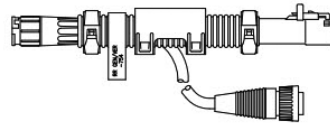
SPEED EXTENSION CABLES

ORDER NO.	DESCRIPTION	LIST
084 115020	6' Speed Extension (Raven)	\$ 200.00
084 115032	12' Speed Extension (Raven)	\$ 214.50
084 115018	24' Speed Extension (Raven)	\$ 244.70
084 115DJ6	6' Speed Extension (Dickey John)	\$ 124.00
084 115DJ12	12' Speed Extension (Dickey John)	\$ 135.00
084 115DJ24	24' Speed Extension (Dickey John)	\$ 150.00

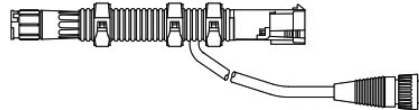
SEE PAGE 135-136 FOR PICTORIAL OF INTERFACE CABLES

Raven Radar to Third Party Adapter:

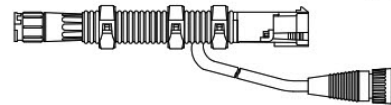
084 115754 – Ford Gen/Vers/New Holland Tractors



084 115550 – John Deere Tractors

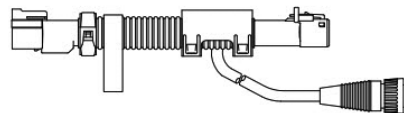


084 115551 – CaseIH Tractors

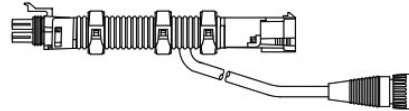


Third Party Radar to Raven Speed Sensor Interface Cable:

084 115709 – Ford Gen/Vers/New Holland



084 115519 – John Deere w/Magnavox Radar



084 215100 – John Deere 30 Series 7 pin to Raven

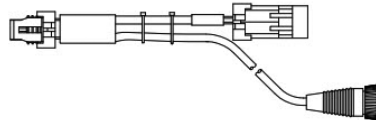
084 215101 – John Deere 30 Series 7 pin to DJ

084 215102 – John Deere 30 Series 7 pin to Rav & DJ

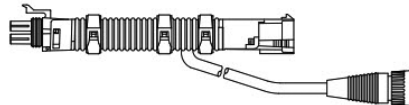


084 115700 – John Deere 7000/8000/9000 Series

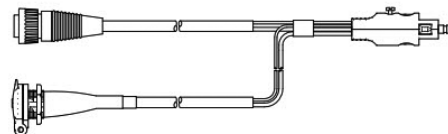
084 115701 – John Deere 7000/8000/9000 Series w/o T



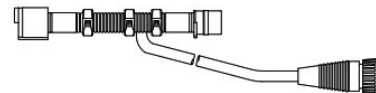
084 115517 – CaseIH and New Holland TG



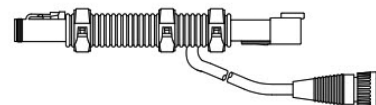
084 115304 – Case MX or STX Vehicles, New Holland TG, TJ



084 115518 – CAT Challenger Models 65 & 75



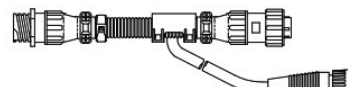
084 115627 – CAT Challenger 65C, 75C, 65D, 75D, 5D, & Row Crop 35, 45, & 55



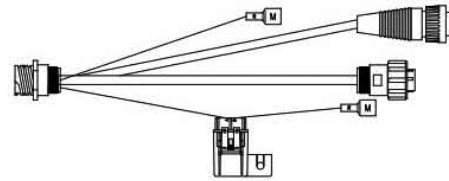
084 115580 – CAT Vehicles Adaptor/Dickey John Adapter (Console with Rev "E" or later)



084 115529 – Ford/White/AGCO Allison/Dickey John



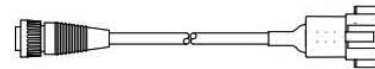
084 115526 – Dickey John with External Power



084 115432 – CaselH w/TRW Radar Adapter

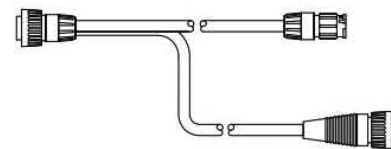


084 115288 – CaselH Maxim 110–170 Adapter

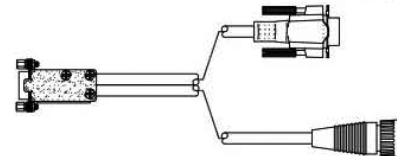


Raven GPS Speed Adapter Cables:

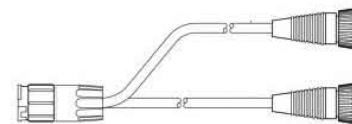
084 115166 – Cable, Speed Adapter, 210/310/400C/410/P300



084 115216 – Cable, Speed Adapter, 110/115/P200

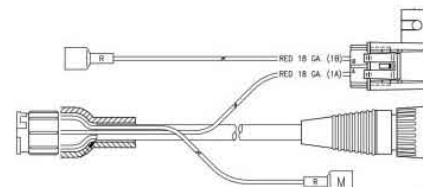


084 115 472 - "Y" cable Raven connections



084 115522 - Raven power cable 18"

084 115539 - Raven power cable 12'

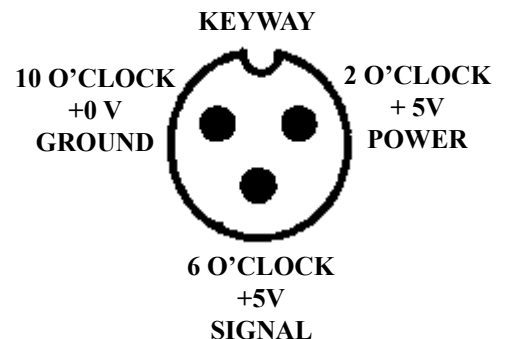


MISC CABLES

- 084 115MXR - CIH MX,STX, New Holland TG, TJ in cab to Raven
- 084 115MXD - CIH MX in cab to DJ
- 084 215007 - JD Starfire to Raven console 19'
- 084 500115 - DJ to Raven w/ power

PROCEDURE TO TEST SPEED CABLES

- Verify if console is in SP1 or SP2
- Hold connector so keyway is at 12 o'clock position
- Enter speed cal number of 1000 for SP1 or 9999 for SP2 under speed cal key
- Depress DISTANCE key
- With small jumper wire, short between the 10 and 6 o'clock pins. Each time a contact is made, the DISTANCE total should increase
- Perform voltage tests between 10 & 6 and 10 & 2. Should get 5 volts
- If above tests fail replace cable
- If above test check good replace/repair speed sensor





PRECISION AG SYSTEMS

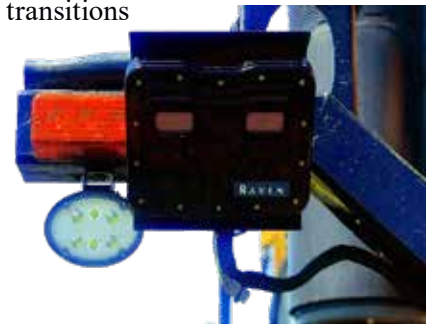
VSNTM Visual Guidance



The latest technology advancement from Raven, VSNTM transforms machine guidance through emerged crops. This patent-pending innovation utilizes a non-contact stereo vision camera to navigate crop rows, allowing the operator to focus on all other aspects of effective application control. Minimizing crop damage, covering more acres in a day and essentially providing an easier machine operation leads to a quick return on investment to maximize yield profitability.

How VSN Enhances Your Operation

- Reduces operator fatigue
- Enhanced steering control and simple operation results in minimal crop damage and more acres covered in each available day
- Operates at high speeds, exceeding 20 mph
- Operates in challenging terrains, with demonstrated success in areas exceeding eight degrees of slope
- Maintains row guidance in crops from less than four inches to nearly full canopy
- Quick, one-time calibration with up to five saved profiles for easy crop transitions
- Proven in corn, soybeans, cotton and sorghum



Features & Benefits

- Enhanced machine control for sprayer efficacy
- Reduces operator fatigue and crop damage
- Uses state-of-the-art image sensor and processing technologies to deliver quick response rate and better control
- Tracks machine paths accurately to the actual planting vs. theoretical
- Allows machine ability to automatically adjust to planting inconsistencies or adjustments
- Enables faster vehicle speed
- Works in areas of limited GPS/GNSS coverage — next to tree lines, ditches, hills, etc.
- Live video row overlays in CRX and ROS platforms
- In-field calibration
- ISO UT user interface, custom control widgets
- Slingshot® telematics and OTA software update support
- Pair with Viper® 4+ and RS1™ or SC1™ guidance



MATRIX 430

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

Features:

- Versatile GNSS guidance in a compact, portable package.
- High-contrast, full color, 4.3” graphic touchscreen display provides superior visibility in bright light conditions
- Guidance modes include: Straight AB, Curved AB, Circle Pivot & Last Pass
- Return-to-point feature allows operator to easily resume jobs or mark field hazards
- Simple reporting function provides coverage reports in .KML or .PDF format downloaded via USB port.



ORDER NO.	DESCRIPTION	LIST
097 GD430-GLO-R30-L	KIT, MATRIX 430, RXA30	CALL*

CR7

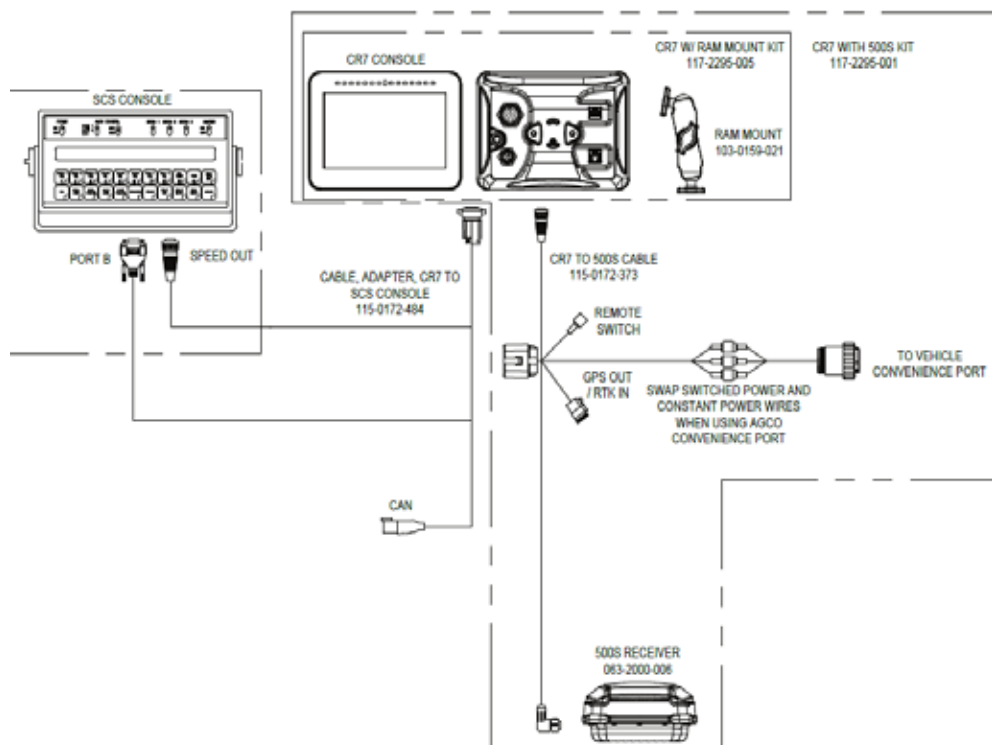
The latest innovation from Raven is a small, yet powerful field computer. The CR7 is a 7" lightweight field computer with customizable in-job layouts. A simple widget concept, easily accessible settings, and ISO Universal Terminal and Task Controller capabilities make this mighty unit an affordable, plug-and-play system.

KEY BENEFITS

- Multiple language support and customizable units
- Simplified, customizable widget layout
- Ability to access settings page from inside a job
- Map-based navigation
- Auto field boundaries keep you organized automatically
- Interactive field/job list and map view
- Slingshot-ready for file transfer, remote support, and OTA software updates
- Compatible with Raven AccuBoom, serial SCS consoles, and external lightbar support
- ISO Universal Terminal and Task Controller functionality via unlock
- Straight A-B, A plus heading, pivot, contour, and last pass guidance
- Compatible with autosteer products including SmarTrax and SmarTrax MD
- Sub-meter single frequency GPS and GLONASS (optional external)
- Scalable GPS (optional external)



ORDER NO.	DESCRIPTION	LIST
084 117-2295-001	Kit, CR7 w/GPS	CALL*
084 117-2295-001UN	Kit, CR7 w/GPS & UT unlock	CALL*
084 117-2295-001TN	Kit, CR7 w/GPS & UT,TC unlock	CALL*
084 117-2295-001TS	Kit, CR7 w/GPS & UT,TC,single Prod	CALL*
084 117-2295-001TC	Kit, CR7 w/GPS \$ UT,TC & Multi Prod	CALL*
084 117-2295-005TC	Kit, CR7 no GPS & UT,TC & Multi Prod	CALL*
084 216090	Cable, CR7 Speed Output to Raven	\$ 280.00*
084 216091	Cable, CR7 Speed Output to DJ	\$ 290.00*
084 115-0172-484	Cable, CR7 to SCS Console & Accuboom	\$ 470.20*
084 115-4001-085	Cable, Chassis, Steering Only System	\$ 524.01*
084 115-7300-107	Cable, Console, CR7, Can w/ Gen3	\$ 3087.43*





PRECISION AG SYSTEMS



ENVIZIO PRO II

VIPER PRO



Replacement Parts

ORDER NO.	DESCRIPTION	LIST
084 117112	Viper PRO kit w/guidance/sgl product VRA	Obsolete
084 063879	Console only	Obsolete
084 107415	Viper PRO mounting bracket	\$ 104.74*
084 115746	Cable, Viper PRO main	\$ 771.86*
084 115745	Cable, Viper PRO auxiliary	\$ 406.47*
084 115744	Cable, Viper PRO/Envizio Pro combination	\$ 1125.92*
084 115742	Cable, Viper to Viper PRO interface	\$ 567.92*
084 115823	Cable, Viper PRO to 4000/5000	\$ 842.67*
084 1151763	*Cable, Viper PRO CAN to 460/660	\$ 3037.86*
084 1151764	*Cable, Viper PRO CAN to 661	\$ 3037.86*
(Note; must use AgChem product node)		
084 1151766	*Cable, Viper Pro CAN to 4600	\$ 3420.25*
084 115767	*Cable, Viper PRO CAN to 440/450	\$ 3037.86*
(*requires a product node & boom sense/speed node)		
084 115773	Cable, Ext. Lightbar to E Pro/V Pro	\$ 576.42*
084 016122	Viper Pro Manual	\$ 73.66
084 016147	Viper Pro Quick Start Guide	\$ 28.26
084 077152	Software, Multi product variable rate	\$ 1685.34*
084 117059	TM1 tilt sensor	\$ 1087.94*

POWER/CAN CHASSIS CABLES, ENVIZIO PRO II/XL

ORDER NO.	DESCRIPTION	LIST
084 115001	Cable, Envizio Pro II chassis interface	\$ 1387.93*
084 115915	Cable, Power; Tracked & row crop tractors w/front mounted batteries	\$ 1508.31*
084 115936	Cable, Power; 4WD Tractors w/mid mounted batteries	\$ 1706.59*
084 115937	Cable, Power, CIH/Challenger/New Holland row crop tractors	\$ 1586.20*
084 115938	Cable, Power; JD & Buhler row crop tractors	\$ 1352.52*
084 115-4001-085	Cable, Power; Generic row crop tractors (steering & AccuBoom systems only)	\$ 524.01*
084 077062	E-Pro II RTK authorization key	\$ 6698.86*

ENVIZIO PRO KITS/PARTS

ORDER NO.	DESCRIPTION	LIST	ORDER NO.	DESCRIPTION	LIST
084 117141	Helix antenna kit; MBA-7 antenna w/cable	\$ 1848.21*	084 215095	Cable, E-Pro to Dickey John	\$ 138.00
084 115689	Cable; GPS "Y" single to double	\$ 490.02*	084 077031	Envizio Pro variable rate key	\$ 1267.55*
084 115746	Cable, Envizio Pro main	\$ 771.86*	084 117059	TM1 tilt sensor	\$ 1087.94*
084 115745	Cable, Envizio Pro auxiliary	\$ 406.47*	084 1151787	Cable; 20' helix antenna	\$ 274.75*
084 115744	Cable, Viper Pro/Envizio Pro combination	\$ 1125.92*	084 063101	Patch antenna	\$ 178.45*
084 115742	Cable, Old Viper to Envizio Pro interface	\$ 567.92*	084 117182	Node mounting bracket to E-Pro console	\$ 177.68*
084 215094	Cable, E-Pro Speed to Raven console	\$ 135.00	084 016149	Quick start guide	\$ 28.26
			084 016148	Envizio Pro manual	\$ 73.66

(See Viper Pro section for interface cables to other consoles)



PRECISION AG SYSTEMS



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 color-blind which means it works with equipment of every brand. Easy job set-up, fewer touches, and greater efficiency allow for extraordinary data management capabilities.

- Sleek new design - 12.1" LED backlit display with responsive touchscreen
- Raven Operating System featuring customizable interface for portrait or landscape orientation
- State-of-the-art, rugged magnesium alloy enclosure
- Dustproof for tough environments
- An abundance of storage capacity
- 4 camera inputs for monitoring bin levels, blind spots, etc.
- 2 USB ports
- Slingshot® ready

ORDER NO.	DESCRIPTION	LIST
084 117-5010-068	Kit, Viper 4+ w/o GPS	CALL*
084 115023	Cable, Viper 4+ adapter to Viper Pro / Envizio Pro	\$ 376.72*
084 115-0172-090	Cable, Viper 4+ ethernet	\$ 297.41*

RS1

INCREDIBLE ACCURACY AND POWER

The RS1 combines autosteer, GPS, and Slingshot® into one intuitive, easy-to-use unit. Incredible accuracy at both high and low speeds with quick line acquire improves efficiency and gives you the power to cover more acres in a day. Best-in-class diagnostics gather machine performance data while you work, alerting Raven of issues and connecting you to support as you need it. The unit is designed with a simple set up and integrated help guides, enhanced further by Slingshot - providing remote support, file transfer, OTA software updates and fleet management and logistics

- Enhanced Steering Performance in a wide range of terrain
- Enhanced 3D compensation for rugged terrain
- Wide Temperature Range for Inertial Sensors (-40 to 70 deg. C)
- Simplified Field Calibration Procedure
- Fully Scalable GPS Solution
- Enhanced Diagnostics and Health Tests
- Remote Service Support (OTA Updates, Remote Service, Telematics)
- Multiple Methods of System Connectivity (Cellular, WiFi, Ethernet)
- Serial GPS Output (NMEA 0183) or Radar Output
- Multi-lingual support
- Compatible with ISOBUS 11783 Curvature Messages for both
- ISO Steer Ready and Raven Aftermarket Steering Controllers



CALL FOR PRICE





PRECISION AG SYSTEMS



RAVEN CAN SWITCH BOX

The Raven CAN (Controller Area Network) Switch Box offers hands-off automatic 10-section control.
It serves boom sense/speed functions on Raven CANBUS.

Features:

- Simple installation for Raven Gen 1 or Gen 2 cabling
- Switches can be mapped to control up to 16 sections
- INC/DEC switch allows for quick rate bumps or manual control
- Master ON/Off control of system with an Override ON function
- Integrated CAN Terminator
- Ability to read vehicle speed via GPS, Radar, etc.
- Reduction in overlap
- Reduced stress



Raven CAN Switch Box Kits

ORDER NO.	DESCRIPTION	LIST
084 117-5020-001	Kit, Raven CAN Switch Box for Envizio Pro II	\$ 1727.83*
084 117-5020-002	Kit Raven CAN Switch Box for Viper Pro	\$ 1331.28*
084 117-5020-003	Kit Raven CAN Switch Box for SCS 5000	\$ 1593.29*

Kits include Level II node, node cable and CAN terminator. Purchase CAN/Power Tee and product cabling separately

ORDER NO.	DESCRIPTION	LIST
084 117-5100-001	Kit, CAN product controller, liquid only to 16 pin product cable	\$ 3845.12*
084 117-5100-002	Kit, CAN product controller, liquid/granular to 37 pin product cable	\$ 4085.89*
084 117-5100-004	Kit, CAN product controller, multi-product	\$ 4574.49*
084 117-5300-001	CAN AccuFlow HP, 3 section	\$ 4517.84*
084 063236	Node, GenII product control level II	\$ 2867.91*

RAVEN SWITCH PRO

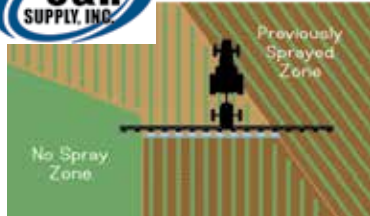


Raven's Switch Pro integrates with the Raven Viper Pro, Envizio Pro, and Envizio Pro II. Switch Pro eliminates consoles from the cab providing more room by combining single product control (liquid or NH3), 10 boom section control, a speed sense control, and AccuBoom boom section control into one easy to use console. The Switch Pro connects to 4400 style cabling and adapts effortlessly to 440/450 cabling.

ORDER NO.	DESCRIPTION	LIST
084 117167	Kit, SCS 440/450 cable for Envizio Pro or Viper Pro	\$ 5633.05*
084 117168	Kit, SCS 4400 cable for Envizio Pro or Viper Pro <i>(the above kits are if Envizio/Viper Pro are already installed)</i>	\$ 5448.27*
084 115-0171-820	Cable; Combo Switch Pro, SCS 440/450	\$ 2478.44*
084 115-0171-821	Cable; E-Pro/Switch Pro, SCS 4400	\$ 1692.42*
084 117181	Bracket; Viper Pro to Switch Pro	\$ 177.04*



PRECISION AG SYSTEMS



AccuBoom

Automatic Boom Section Control



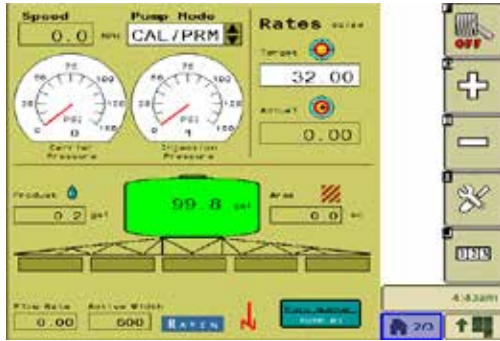
Using the Raven VIPER, Viper PRO, Envizio Plus/Pro and GPS positioning technology, the AccuBoom feature automatically turns boom sections on and off in the field according to previously-recorded applied areas. This reduces overlap. With its hands-off control, AccuBoom reduces operator fatigue. Up to 10 boom control with CAN systems. Systems are machine specific and are available for self-propelled and pull type sprayers/spreaders. It requires a Viper, Viper PRO, Envizio Plus, or Envizio Pro to be installed. The Raven touch-screen consoles will also display and data log boom sections as they turn off and on throughout the field. AccuBoom kits have customized cables to allow easy installation with minimal effort and hassle. All kits have been designed using actual machines. This means that cables will be the right length and will have the correct connections for your application. It also means that you must make sure that you have correctly identified the make and model of your sprayer or spreader to avoid issues with incorrect cables. With AccuBoom's wireless receiver and remote control option, you can check each section by yourself outside the cab. This handy accessory lets you turn each boom section on and off while you are standing right there to see. A system requires five components:

1. Viper PRO, Envizio Plus, Envizio Pro, Cruiser 2 or Viper 4+
2. DGPS receiver (4 Hz or faster)
3. Raven SCS rate control console (such as a SCS 440 or SCS4600) or Raven CANbus controller.
4. Machine specific AccuBoom kit (Call for pricing)
5. Choice of 2 AccuBoom control nodes

Call C&R Supply for pricing for your make and model of sprayer/spreader. You will need 1 kit plus 1 of the 2 node kits listed below.

ORDER NO.	DESCRIPTION	LIST
084 063316	AccuBoom control node no remote	\$ 4938.21*
084 063714	AccuBoom combo node	\$ 6556.96*
	(*used on 2009 & newer Ag Chem machines and 2010 and newer Spra-Coupe)	
084 117284	AccuBoom control node w/remote	\$ 5873.83*

ISObus PRODUCT CONTROL FOR JOHN DEERE or CASE



SEE PAGE 127 FOR ISO CHEMICAL INJECTION

ORDER NO.	DESCRIPTION	LIST
084 117-6100-001	Kit, ISO sgl product, liquid/granular to 16 pin product cable	\$ 3760.15*
084 117-6100-002	Kit, ISO sgl product, liquid/granular to 37 pin product cable	\$ 4156.70*
084 117-6100-003	Kit, ISO sgl product, liquid/granular to 22 pin product cable	\$ 4439.95*
084 117-6300-001	Kit, ISO AccuFlow HP, 3 section	\$ 4248.75*
084 117-6300-002	Kit, ISO AccuFlow HP, 6 section	\$ 4553.25*
084 115958	Cable, ECU Adapter, JD ISO	\$ 1359.60*
084 115974	Cable, ISOBUS hitch to Raven ECU, 12'	\$ 1210.90*
084 115975	Cable, ISOBUS hitch to Raven ECU, 36'	\$ 1586.20*
084 21400	Cable, Adapter 16 pin Raven to 37 pin JD	\$ 260.00*
084 115960	ISO tee cable; 6"	\$ 955.97*
084 115961	ISO tee cable; 6'	\$ 1062.19*
084 115931	ISO tee cable; 12'	\$ 1232.14*
084 115932	ISO tee cable; 24'	\$ 1479.99*
084 115933	ISO tee cable; 36'	\$ 1706.59*
084 115313JD	Cable, ISO John Deere Rate Controller, 10 section, 12'	\$ 1075.00*
084 115315JD	Cable, ISO John Deere Rate Controller, 5 section, 12'	\$ 760.00*

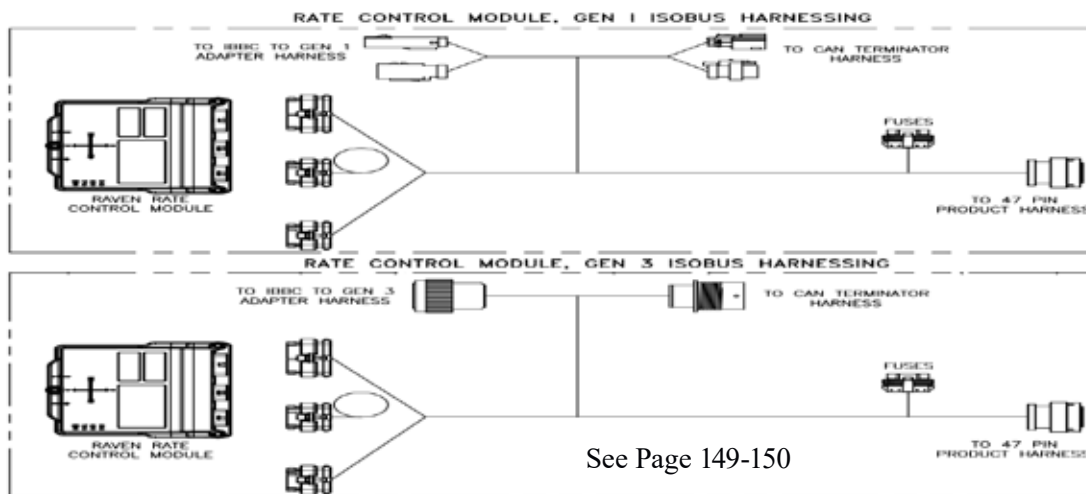
The RCM is incredibly user friendly. We've simplified the set-up, introduced integrated help content, and added advanced diagnostic information to quickly identify issues and reduce costly downtime. Customizable user interfaces give the operator the flexibility to see and control what fits their needs, and configurable machine profiles allow the RCM to easily move between machines and implements without re-setting machine configurations. The RCM is compatible with many ISOBUS virtual terminals on the market, including the Viper® 4 and Viper® 4+ from Raven.



Features & Benefits

- Liquid, NH3 and dry applications
- Easily navigate and manage multiple products, tallies, and sensor data
- Diagnostic tests and reading to easily calibrate, tune, and troubleshoot system
- ISOBUS compliant CAN channel, plus 3 available CAN subnets
- Compatible with ISOBUS Virtual Terminal and Task Controllers
- Integrated Bluetooth providing wireless connectivity for control, monitoring, and diagnostic features
- Multi-language support including English, French, Russian, Spanish, and Portuguese
- IP 67 environmental rating for the harshest of environmental conditions
- Integrated magnet mount option to easily attach and detach with any metal frame
- Dynamically configure run screen based on operator preferences to show most relevant data

ALL ADAPTER HARNESSSES WORK WITH JOHN DEERE RATE CONTROLLER 2000



See Page 149-150

ORDER NO.	DESCRIPTION	LIST
084 117-7100-001	KIT, RCM LVL 0 GEN 3 HARNESS	CALL*
084 117-7100-002	KIT, RCM LVL 1 GEN 3 HARNESS	CALL*
084 117-7100-003	KIT, RCM LVL 2 GEN 3 HARNESS	CALL*
084 117-7100-004	KIT, RCM LVL 0 GEN 1 ISOBUS	CALL*
084 117-7100-005	KIT, RCM LVL 1 GEN 1 ISOBUS	CALL*
084 117-7100-006	KIT, RCM LVL2 GEN 1 ISOBUS	CALL*
084 115-7347-008	CABLE, ADAPTER 47PIN TO 37PIN	\$ 576.42*
084 115-7347-012	CABLE, ADAPTER 47PIN TO 16PIN	\$ 608.99*
084 115-7347-022	CABLE, ADAPTER 47PIN TO 22PIN	\$ 652.90*
084 115-7347-055	CABLE, 6FT LIQUID 6 SECTION WEATHERPACK	\$ 948.89*
084 115-7347-054	CABLE, 6FT LIQUID 10 SECTION WEATHERPACK	\$ 991.38*

SLINGSHOT + AGSYNC THE MOST COMPLETE AND POWERFUL LOGISTICS ENGINE IN AGRICULTURE



Work Order Management

- Field Mapping
- Organized Field List
- Work Order Creation
- Work Order Approval
- Contract Approval
- Service Provider Assignment
- Sensitive Drift Areas
- Record Compliance

Dispatch & Asset Control

- Schedule Work Orders
- Assign Personnel
- Assign Equipment
- Monitor Work
- Monitor Assets
- Monitor Personnel
- Application Tracking
- Application Details

Reports & Notifications

- Live Work Order Updates
- Spatial Activity View
- Job Status Notification
- Traceability Reporting
- Application Record
- Compliance
- Completion Approval

API Web Service

- Avoid Duplicate Entry
- ERP Order Exchange
- ERP Order Updates
- Agronomy Ordering
- Guidance System Exchange
- ERP Invoice Creation
- Integration Support

FIELD HUB 2.0



STAY CONNECTED

The core of the Slingshot experience is the Field Hub. A small device that fits neatly into the cab of your vehicle, the hub connects your precision ag hardware to Slingshot's suite of services. Get up to 4G LTE speeds on major phone networks in North America and around the world.

It connects your operator, managers and Slingshot support to each other via the Internet and puts a complete web experience on your Raven field computer.

In addition to the features and functionality available directly through the Slingshot web portal, Slingshot also lets you utilize the benefits of connectivity and cloud-based solutions in the software package of your choice. Slingshot's open platform means you can integrate the functionality of Slingshot directly into the applications that you already use to manage your business and operations. Slingshot works in a culture of collaboration with leading agriculture software and application providers.

WIRELESS OPTIONS

- ▶ Field Hub 2.0, Gen 2, Verizon
- ▶ Field Hub 2.0 Kit, Gen 2, Verizon
- ▶ Field Hub 2.0, Gen 2, Verizon, WiFi
- ▶ Field Hub 2.0 Kit, Gen 2, Verizon, WiFi

FEATURES AND BENEFITS

- ▶ 4G LTE connectivity
- ▶ Durable and reliable
- ▶ Highspeed Wi-Fi connectivity for external devices
- ▶ Flexible data plans
- ▶ Faster file transfers and software updates reduce costly downtime
- ▶ Take advantage of growing 4G coverage throughout North America
- ▶ Standardized data plans through Raven eliminates contracts, meaning you only pay for the data you use

Compatible with Viper® 4/Viper® 4+

- ▶ Use Slingshot Link™ for wireless over-the-air software updates (no USB drive needed)
- ▶ API compatibility, including SST Sirrus® and Summit
- ▶ Access to Fleet View, Remote Support and File Transfer
- ▶ Slingshot RTK GPS correction signals

Compatible with CR7™ and CR12™

- ▶ Use Slingshot Link™ for wireless over-the-air software updates (no USB drive needed)



DirecSteer

Raven’s new retrofit autosteer solution, DirecSteer, brings cost competitive and comfortable steering into the cab. Easy to install, DirecSteer can be moved between multiple machines of all major equipment brands. DirecSteer reduces operator fatigue and crop damage by delivering highly accurate steering in all conditions. Its electric drive packs high torque and silent operation into one simple unit. DirecSteer is powered by Raven’s proven tech stack and is supported by industry leading technical service and support.

Features and Benefits

- High torque electric drive motor
- Easy to install and transfer between machines
- Silent operation
- Scalable from sub-meter to sub-inch accuracy
- Consistent in all field conditions
- Compatible with Viper 4+ or CR7



Call for Machine Specific Kits and Pricing



CAN SmarTrax/SmarTrax 3D

The CAN SmarTrax provides a more integrated and seamless installation. The yaw sensor has been integrated into the control node and all programming and operation can now be performed via the Viper Pro, Envizio Pro, Cruizer 2 & Viper 4+. The 3D upgrade provides compensation for roll, pitch and yaw to improve performance in rough and uneven terrain. When combined with a Phoenix 300 or 600S receiver utilizing Satellite GS or Slingshot GS correction, 2”-4” swath accuracy can be achieved up to 10 mph with 3D activated. CAN SmarTrax kits consist of 3 or 4 components:

- CAN SmarTrax node kit
- Machine-specific hydraulic installation kit
- Viper 4+, Viper Pro, Envizio Pro, or Cruizer
- DGPS receiver (not required with Envizio Pro w/GPS or Cruizer 2)

Call for Machine Specific Kits and Pricing

REPLACEMENT PARTS

ORDER NO.	DESCRIPTION	LIST
	<u>STEERING POSITION SENSOR KTS (SPS)</u>	
084 0631001	Linear Steering Position Sensor Assembly (300mm)	\$ 811.13*
084 063003	Linear Steering Position Sensor Assembly (450mm)	\$ 154.50**
084 063007	Linear Steering Position Sensor Assembly (350mm)	Disc
084 063009	Linear Steering Position Sensor Assembly (500mm)	\$ 154.50**
084 063013	Rotary Sensor only	\$ 2152.70*
084 063684	Yaw sensor only	\$ 1968.59*
084 422074	Pressure sensor	\$ 899.32*
	<u>FOOT SWITCH</u>	
084 0632470	Foot Switch, Smartrax enable	\$ 345.57*



PRECISION AG SYSTEMS HAWKEYE NOZZLE CONTROL



The most precise nozzle control system, Hawkeye® 2 ensures accurate droplet coverage up to 2.5 times more accurate out of the tip than comparable systems. It provides consistency across the boom which ensures precise droplet coverage, optimizing input costs. And Raven's legacy of performance and support means less down-time and more acres covered in a day.

The next generation nozzle control valve (NCV) builds upon the previous system: individual nozzle control reduces skips and overlaps; consistent droplet rate and size reduces drift and increases application quality; and turn compensation minimizes over and under application, achieving the ideal application rate across the boom.

Hawkeye 2's scalable platform sets up your operation for years of success

- Base Package
- PWM enabled with 16 virtual sections
- Turn Compensation
- Blockage Detection (go/no-go)
- Premium Package
- Individual nozzle control up to 192 sections when paired with compatible field computer



ORDER NO.	DESCRIPTION	LIST
084 063-0173-672	NCV TEEJET HAWKEYE (A)	\$ 419.21*
084 063-0173-673	NCV HYPRO/ARAG	\$ 419.21*
084 063-0173-674	NCV WILGER HAWKEYE (A)	\$ 419.21*
084 063-2005-001	NCV TEEJET HAWKEYE 2 (B)	\$ 496.13*
084 063-2005-003	NCV WILGER HAWKEYE 2 (B)	\$ 496.13*

RAM MOUNTS



ORDER NO.	DESCRIPTION	LIST
084 RAM101	RAM mount 1.5"	\$ 82.00*



ORDER NO.	DESCRIPTION	LIST
084 RAMB201	Ram arm 1" ball	\$ 23.50*
084 RAM201	Ram arm 1.5" ball	\$ 36.00*



ORDER NO.	DESCRIPTION	LIST
084 RAM202U	Base 1.5" ball	\$ 22.25*



ORDER NO.	DESCRIPTION	LIST
084 RAMB111	RAM mount 1"	\$ 53.00*



ORDER NO.	DESCRIPTION	LIST
084 RAMB202	Base 1" ball	\$ 13.00*



ORDER NO.	DESCRIPTION	LIST
084 RAMB238	Base 1" ball	\$ 11.50*



ORDER NO.	DESCRIPTION	LIST
084 RAM231	Mount 1.5" ball	\$ 29.00*



ORDER NO.	DESCRIPTION	LIST
084 RAMB166	Mount suction cup	\$ 57.00*
084 RAP224	Suction cup only	\$ 20.00*
084 RAMB238	Base 1" ball	\$ 11.50*
084 RAMB201	Arm 1" ball	\$ 23.50*



ORDER NO.	DESCRIPTION	LIST
084 RAMHOLUN7BU	Cell phone Ram	\$ 44.00*




ORDER NO.	DESCRIPTION	LIST
084 RAMB231	Mount 1" ball	\$ 25.75*
084 RAP319	Clamp adapter	\$ 4.00*



PRECISION AG SYSTEMS



AutoBoom® XRT

Raven's latest advancement in boom control is AutoBoom XRT. Industry-leading radar sensor technology uses simultaneous ground and canopy detection to maintain optimal spray height for maximum product efficacy. Pressure-based control allows for smooth movement and quicker reaction time while center rack stability technology with optional dampers gives the operator complete control, maximizing boom life.

Features & Benefits

- Full boom management solution maintains optimal spray height for maximum product efficacy
- Radar sensor technology
- Simultaneous ground and canopy detection
- Enables a larger maximum distance measurement, not affected by temperature or spray drift
- Five non-contact sensors come standard with the option of adding an additional two sensors
- Center rack stability technology with optional dampers
- Pressure-based for smooth movement and quicker reaction time
- Machine chassis roll sensing
- Complete control maximizes boom life
- Faster Sampling and Update Rates than standard ISO AutoBoom
- ISOBUS compatible



CALL FOR PRICING

ULTRAGLIDE

The UltraGlide features ultrasonic sensors, one-button calibration, and simple installation. The ultrasonic sensors detect ground height and then automatically adjusts the boom with hydraulic pressure. The system is available in CAN or standard configuration and can be operated through a Raven Viper 4+, Viper, Viper PRO, Envizio Plus/Pro, or SCS 4000/5000 series consoles.

ORDER NO.	DESCRIPTION	LIST
084 1177024	UltraGlide controller kit CANbus (Viper, Viper PRO, Envizio Plus/Pro, 4000/5000 series consoles)	\$ 10408.90*
084 117923	Kit, Power adapter Tee cable with two terminators (not needed if used with existing CAN systems)	\$ 501.35*
084 117025	Kit and Console to adapt when Viper, Viper PRO, Envizio Plus/Pro, 4000/5000 series console not used	\$ 1776.75*
084 117320__	Installation kit (call for machine specific part number and pricing)	CALL*

CAN DUAL ULTRASONIC SENSOR KITS

084 117-0137-XXX	CAN UltraGlide kits do not include wheel kits. Add-on wheels can be added. Dual sensor kits available for 120' booms	CALL*
------------------	---	-------

MISCELLANEOUS PARTS

084 063-0130-009	Ultrasonic sensor only	\$ 1657.01*
084 063-0130-012	Ultrasonic sensor; Right	\$ 2485.52*
084 063-0130-013	Node; CAN autoboom Ultraglides	\$ 8549.26*
084 063-0130-014	Ultrasonic sensor; Left	\$ 2485.52*
084 063-0130-018	Ultrasonic sensor; Center	\$ 2485.52*
084 106-0159-626	Ultrasonic sensor arm	\$ 91.65*
084 106-0159-627	Ultrasonic sensor lower housing	\$ 91.65*
084 106-0159-628	Ultrasonic sensor cover	\$ 73.66*





PRECISION AG SYSTEMS



GPS RECEIVERS

PHOENIX 50

The Phoenix 50 GPS receiver provides ground speed as well as standard NMEA GPS output on two serial ports, providing position updates to two external devices up to **four times per second**.

ORDER NO.	DESCRIPTION	LIST
084 117164	Phoenix 50 Dual Port	\$ 1848.21*



700S RECEIVER

Raven is proud to announce the newest addition to our lineup of precision technology, the 700S! The 700S is a fully scalable GNSS smart antenna that comes standard with GLONASS and Dual Frequency GLIDE.

Receive the full benefits of 700S through a simple upgrade into GS and RTK corrections to enhance the performance of your entire precision suite of technology. Upgrading to GS corrections will enhance the performance of your steering system, as well as variable rate applications, planter and seeder controls, AccuBoom™ section control and Hawkeye™ nozzle control.

- High performance dual-frequency receiver
- Sub-meter pass-to-pass accuracy
- Full scalability for enhanced accuracy
- SBAS, decimeter, RTK, and autonomous GS corrections
- GLONASS & dual frequency
- Simple and fast setup
- Seamless integration

ORDER NO.	DESCRIPTION	LIST
084 117-2000-004	Kit, 700S SBAS	\$ 4439.95*
084 117-2000-005	Kit, 700S GS PRO	\$ 8413.02*
084 115303	Cable, Adapter P200 to 600S	\$ 286.08*



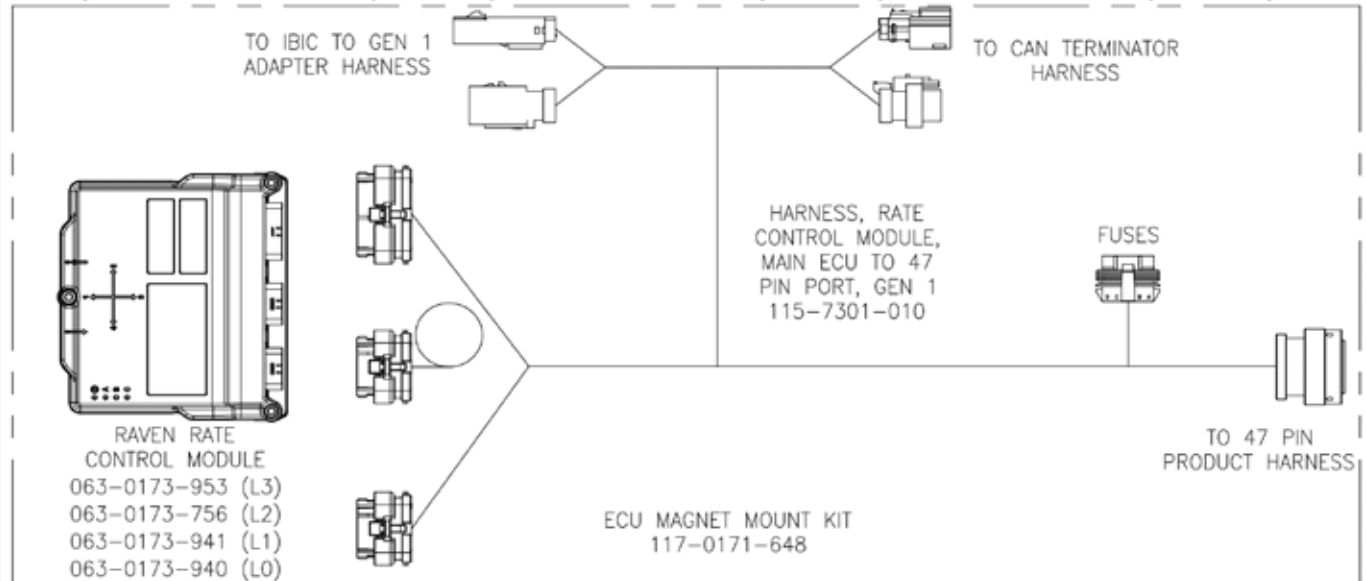
RAVEN CRUIZER



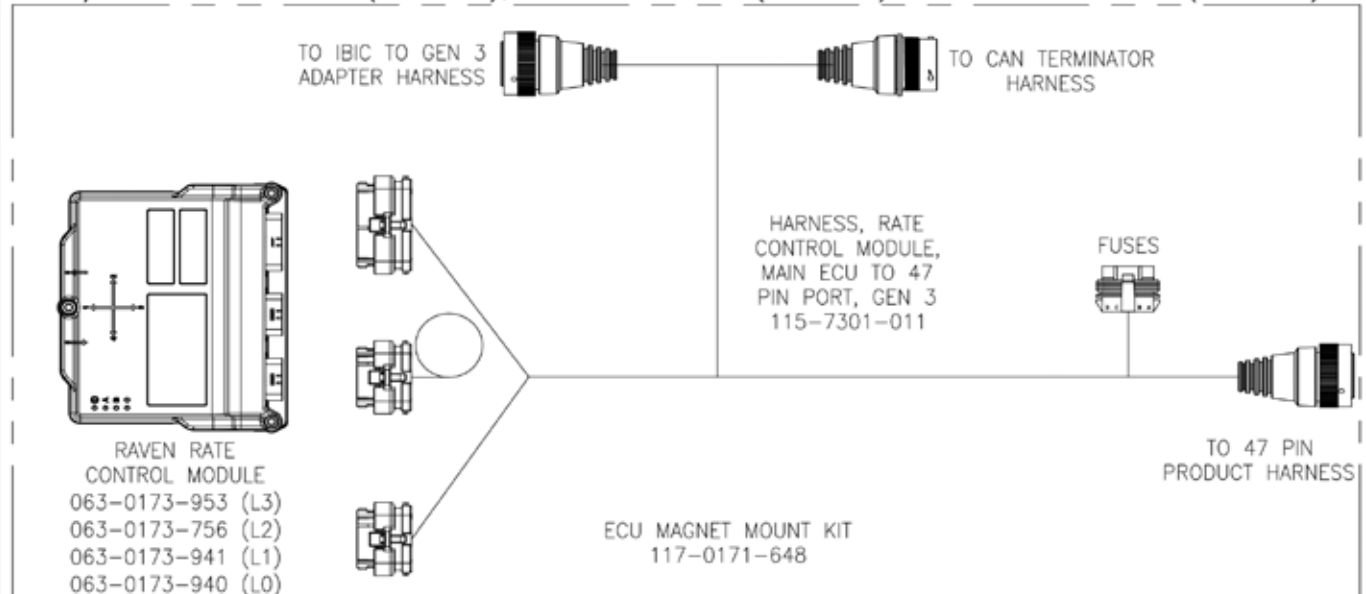
ORDER NO.	DESCRIPTION	LIST
084 117141	Helix antenna kit; MBA-7 antenna w/cable	\$ 1848.21*
084 117059	Optional TM1 Tilt sensor	\$ 1087.94*
084 115791	Cable, Expander less speed	\$ 287.50*
084 115792	Cable, boom sense	\$ 101.97*
084 115793	Cable, Port Exp. w/speed output	\$ 423.46*
084 115794	Cable, Y adap. tilt/boom sense	\$ 294.58*
084 115835	Cable; Cruiser to SmartBoom	\$ 403.64*
084 115886	Cable; Adapter CAN for Cruiser II only	\$ 211.03*
084 1151787	Cable; 20' Helix	\$ 274.75*
084 063101	Patch antenna	\$ 178.45*
084 215090	Cable; Raven speed output	\$ 118.00*
084 215091	Cable; Dickey John speed output	\$ 135.00*
084 420008	Cable; 12 volt power	\$ 58.92*

RAVEN RATE CONTROL MODULE

RATE CONTROL MODULE, GEN 1 ISOBUS HARNESSING: KIT P/N 117-7100-007 (LEVEL 3),
KIT P/N 117-7100-006 (LEVEL 2), 117-7100-005 (LEVEL 1), 117-7100-004 (LEVEL 0)



RATE CONTROL MODULE, GEN 3 ISOBUS HARNESSING: KIT P/N 117-7100-008 (LEVEL 3),
KIT P/N 117-7100-003 (LEVEL 2), 117-7100-002 (LEVEL 1) OR 117-7100-001 (LEVEL 0)



NOTES:

1. RCM KIT INCLUDES ECU, MAIN ECU HARNESS, AND MAGNET MOUNTING KIT. OPERATOR'S MANUAL AVAILABLE ONLINE.

2. ORDER SEPARATELY:

A) IBIC TO GEN 1 OR GEN 3 ISOBUS ADAPTER HARNESS AND CAN TERMINATOR:
REFERENCE 054-7000-002

B) MASTER/SECTION SENSE OPTIONS

C) REFERENCE RCM NPI GUIDE FOR SOFTWARE ACTIVATIONS

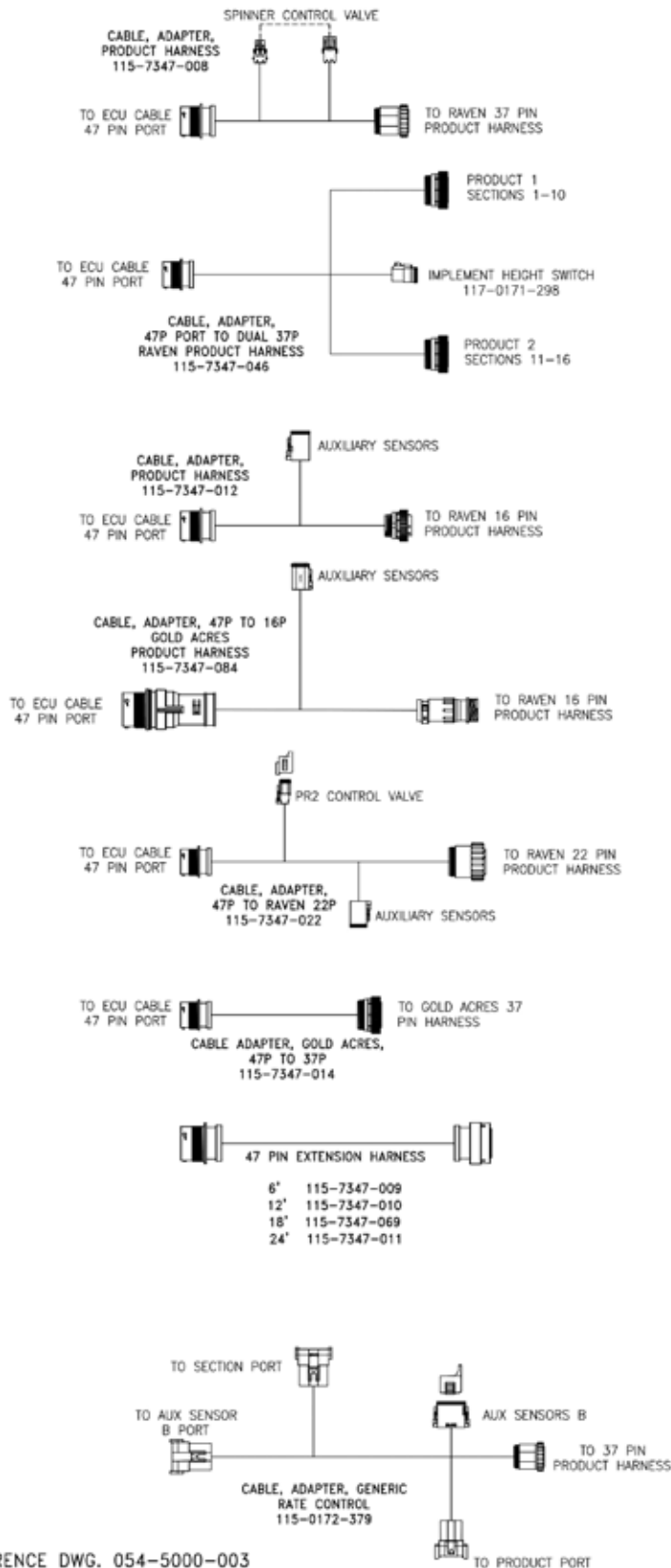
D) ISOBUS IMPLEMENT CONNECTOR (IF NOT EQUIPPED):
REFERENCE 054-7000-002

E) PRODUCT HARNESS
SEE FOLLOWING PAGES

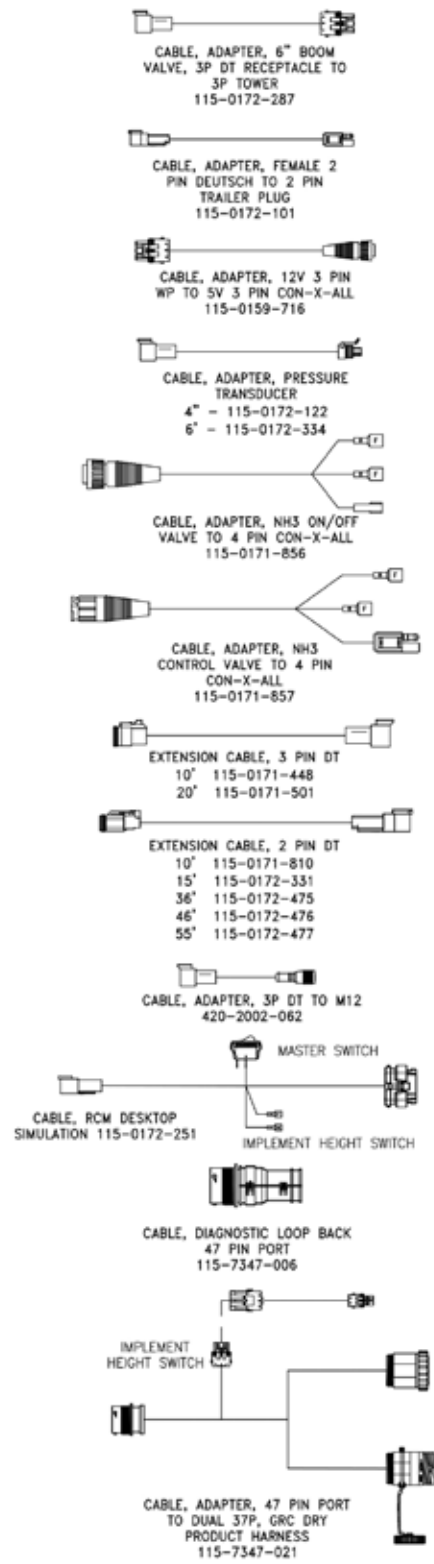
F) OPTIONAL MOUNTING PLATE KIT
117-0171-680

G) OPERATOR'S MANUAL
016-0171-637

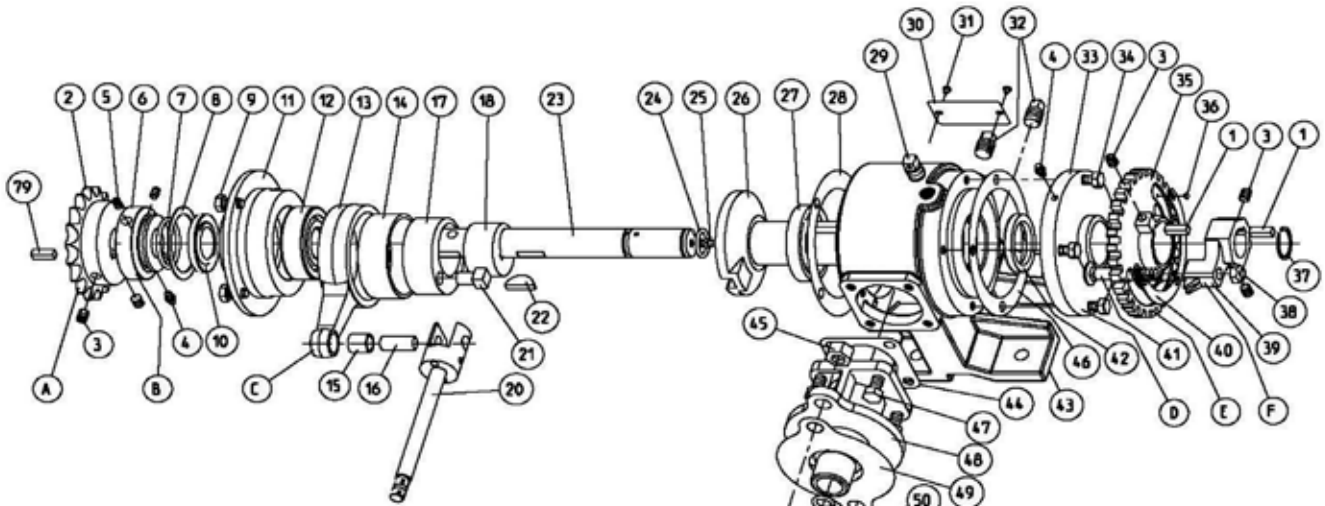
RAVEN RCM ADAPTER HARNESSES/ACCESSORIES



NOTE
REFERENCE DWG. 054-5000-003
FOR ADDITIONAL OPTIONS
PAGE 13 OF 16

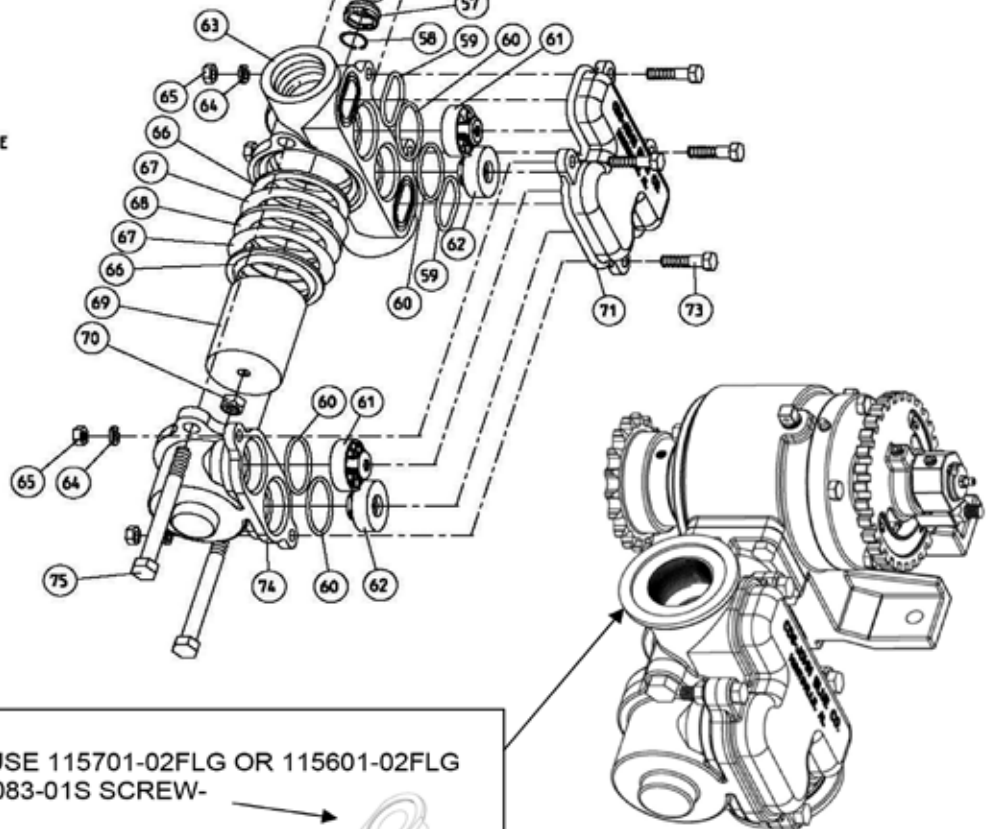


NGP- 405x / 605x / 705x SERIES



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



220 FLANGE ADAPTERS:

- CAST IRON PUMPS USE 115701-02FLG OR 115601-02FLG
- STAINLESS USE 116083-01S SCREW-IN ADAPTERS



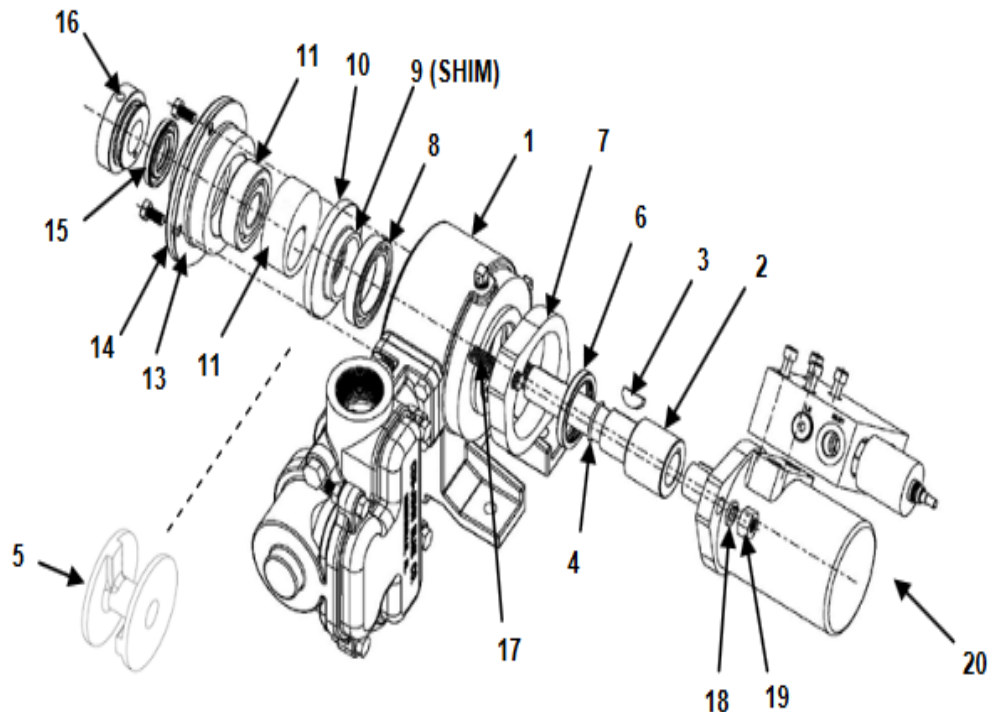


PARTS LISTING – NGP- 405x / 605x / 705x Series

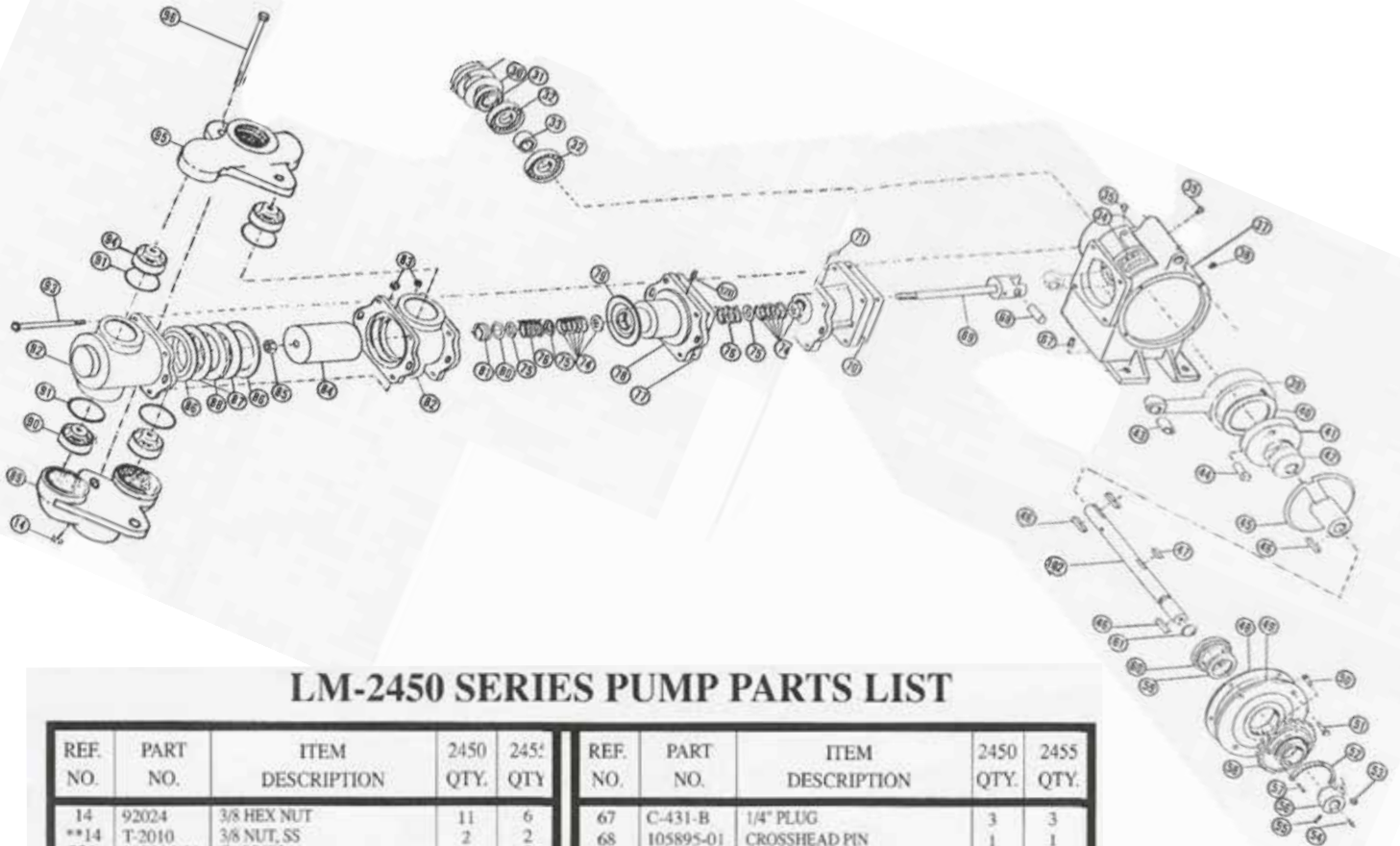
ITEM	PART DESCRIPTION	NGP-4050 PART #	NGP-6050 PART #	NGP-7050 PART #
1	KEY	L-1020	L-1020	L-1020
2	SPROCKET RC50-18T	112661-01	112661-01	112661-01
	-K NO SPROCKET	NOT USED	NOT USED	NOT USED
	-R SPROCKET RC40-18T	113905-01	113905-01	113905-01
3	5/16x3/8 SETSCREW	90532	90532	90532
4	GREASE FITTING	H-28	H-28	H-28
5	5/16x3/8 SETSCREW	90532	90532	90532
6	SPROCKET SPACER	115625-01	115625-01	115625-01
7	O-RING	S-316	S-316	S-316
8	THRUST WASHER	115626-01	115626-01	115626-01
9	5/16x1 HEX BOLT	90637	90637	90637
10	OIL SEAL	115621-01	115621-01	115621-01
11	COVER PLATE	115723-01	115723-01	115623-01
12	BEARING	L-3019	L-3019	L-3019
13	CONNECTING ROD	L-1008-A	L-1008-A	113630-01
14	JOURNAL BEARING	L-928	L-928	113629-01
15	ROD BUSHING	113588-01	113588-01	113588-01
16	ROD PIN	105895-01	105895-01	105895-01
17	ECCENTRIC - OUTER	L-1013-A	L-1013-A	113633-01
18	ECCENTRIC - INNER	L-1015	L-1015	L-3017
19	NOT USED			
20	PISTON ROD ASM	116078-91	115712-91	105900-91
21	ECCENTRIC PIN	L-3004	L-3004	L-3004
22	WOODRUFF KEY	108093-01	108093-01	A-4333
23	CRANKSHAFT	115614-01	115614-01	115614-01
24	O-RING	L-1022	L-1022	L-1022
25	GREASE ZERK	115647-01	115647-01	115647-01
26	SETTING SLEEVE	115718-01	115718-01	115618-01
27	BEARING	L-1007-A	L-1007-A	L-1007-A
28	GASKET – DRIVE SIDE	L-1006	L-1006	L-3002
29	VENT PLUG	S-350	S-350	S-350
30	NAME PLATE	111958-01	111958-01	111958-01
31	DRIVE SCREW	A-3557	A-3557	A-3557
32	OIL PLUG	C-431-B	C-431-B	C-431-B
33	FLANGE COVER	115724-01	115724-01	115724-01
34	5/16 X 1 HEX BOLT	90637	90637	90637
35	SETTING HUB	115627-01	115627-01	115627-01
36	SCREW	A-368	A-368	A-368
37	SNAP RING	115791-01	115791-01	115791-01
38	3/8 SELF-LOCK NUT	A-3097	A-3097	A-3097
39	SETTING POINTER	115628-01	115628-01	115628-01
40	SETTING SCALE	115645-01	115645-01	115645-01
41	3/8x2-1/4 CARR.BOLT	115646-01	115646-01	115646-01
42	OIL SEAL	115622-01	115622-01	115622-01
43	CRANKCASE	115720-01	115720-01	115620-01
44	CROSSHEAD GASK.	115711-01	115711-01	115611-01
45	1/2 HEX NUT	92029	92029	92029
46	GASKET– FLG COVER	L-1006	L-1006	L-1006
47	HEX BOLT	90637	90637	90860
48	CROSSHEAD GUIDE	116069-01	115700-01	115600-01
49	STUFF. BOX GASK.	116075-01	115610-01	115610-01
	-U FUMIGANT	N/A	104828-02	104828-02
50	O-RING	116074-01	111943-01	111943-01
51	PACKING "V" SET	L-1113	L-1109	L-1109
	@ CROSSHD GUIDE	USE 4 "V"s	N/A	N/A
	-U FUMIGANT	N/A	L-1109-U	L-1109-U
52	PACKING WASHER	112694-01	L-1041	L-1041
53	PACKING SPRING	112697-01	L-1063	L-1063
54	GREASE ZERK	H-30	H-30	H-30

ITEM	PART DESCRIPTION	NGP-4050 PART #	NGP-6050 PART #	NGP-7050 PART #
55	STUFFING BOX	116070-01	115790-01	115690-01
-S	STAINLESS	N/A	115790-01S	115690-01S
56	INBOARD CYL. GASK.	116076-01	115710-01	115710-01
	-U FUMIGANT	N/A	104828-02	104828-02
57	STUFF. BOX INSERT	116068-01	L-1031-2	L-1031-2
	-S STAINLESS	NOT USED	NOT USED	NOT USED
58	PACKING - SNAP RING	112698-01	L-1042	L-1042
	-S STAINLESS AND FUM.	N/A	116210-01	116210-01
59	O-RING	S-316	S-316	115604-01
	-S STAINLESS	N/A	104824-01	115612-01
-U	FUMIGANT	N/A	104824-01	115612-01
60	O-RING	S-316	L-3031	A-2848
	-S STAINLESS	N/A	114768-01	114870-01
-U	FUMIGANT	N/A	114768-01	114870-01
61	DISCHARGE VALVE	116127-91	115707-91	115607-91
62	SUCTION VALVE	116126-91	115706-91	115606-91
63	INBOARD CYLINDER	N/A	115701-02	115601-02
	-F FLANGED	116071-01	115701-02FLG	115801-02FLG
-S	STAINLESS	N/A	115701-02S	115601-02S
64	3/8 LOCK WASHER	93024	93024	93024
	-S STAINLESS	N/A	93025	93025
65	3/8 HEX NUT	92024	92024	92024
66	PLUNGER – PACKING	112696-01	L-1045-V	L-1045-V
	-B BUNA PACKING	N/A	L-1045-A	L-1045-A
67	PLUNGER – GASKET	112712-01	L-1098	L-1098
	-U FUMIGANT	N/A	114769-01	114769-01
68	PLUNGER – WASHER	112695-01	L-1044-A	L-1044-A
69	PLUNGER	112700-91	103290-91	112816-91
70	PLUNGER – LOCKNUT	92125	L-1047	L-1047
71	VALVE COVER	116073-01	115703-01	115603-01
	-S STAINLESS	N/A	115703-01S	115603-01S
72	NOT USED			
73	3/8 X 1-1/2 HEX BOLT	90911	90911	90911
	-S STAINLESS	N/A	90654	90654
74	OUTBOARD CYL.	116072-01	115702-01	115602-01
	-S STAINLESS	N/A	115702-01S	115602-01S
75	1/2 HEX BOLT	90704	90704	90705
	-S STAINLESS (2 BOLTS)	N/A	90693/90687	90693/90687
76	NOT USED			
77	NOT USED			
78	NOT USED			
79	SPROCKET KEY	106493-01	106493-01	106493-01
A	RC50-18T SPRKT ASM	106532-01	106532-01	106532-01
	-K NO SPROCKET	NOT USED	NOT USED	NOT USED
-R	RC40-18T SPRKT ASM	113907-01	113907-01	113907-01
B	SPRKT. SPACER ASM	115624-91	115624-91	115624-91
C	CONN. ROD ASM	L-1008-B	L-1008-B	113645-91
D	FLANGE COVER ASM	115725-91	115725-91	115725-91
E	SET HUB ASM	115629-91	115629-91	115629-91
F	SET POINTER ASM	115630-91	115630-91	115630-91
G	GASKET KIT	116134	115788	115688
	-S GASKET KIT - SS	N/A	115788-S	115688-S
	-U GASKET KIT - FUM	N/A	115788-U	115688-U
H	OPERATORS KIT	115787	115787	115787
N/S	SLIDE CHART	115698-91	115698-91	115698-91
N/S	SETTING WRENCH	115631-01	115631-01	115631-01

Parts Specific to Direct Hydraulic Drive Models:



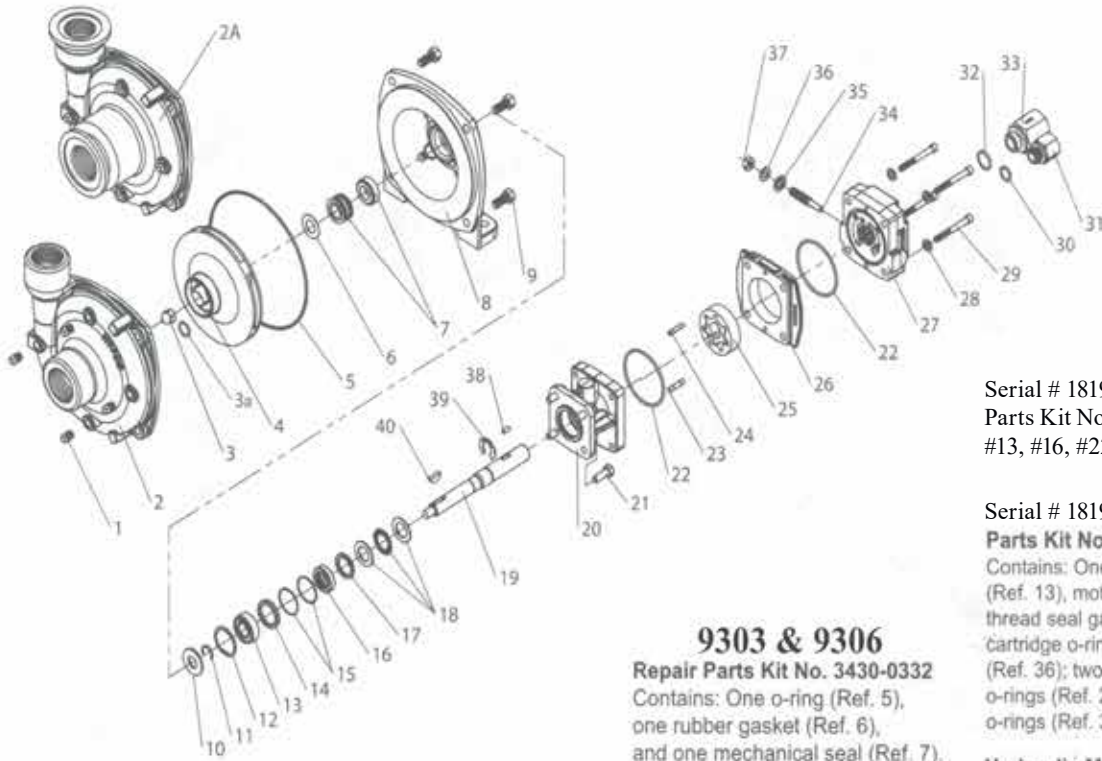
ITEM	PART DESCRIPTION	NGP-40/6055-HY	NGP-7055-HY	NGP-9055-HY
		PART #	PART #	PART #
1	CRANKCASE	116194-01	116201-01	116274-01
2	MAIN SHAFT	116195-01	116195-01	116276-01
3	WOODRUFF KEY	108093-01	108093-01	108093-01
4	SHAFT SPACER (7055 ONLY)	N/A	116204-01	N/A
5	SPACER SLEEVE (9055 ONLY)	N/A	N/A	116275-01
6	DRIVE SIDE SEAL	116199-01	116199-01	116199-01
7	MOTOR SPACER	116200-01	116200-01	116200-01
8	DRIVE SIDE BEARING	116198-01	116198-01	116198-01
9	DRIVE SIDE SHIM (7055/9055 ONLY)	N/A	116343-01	116343-01
10	BEARING SPACER	116197-01	116203-01	116203-01
11	ECCENTRIC	116196-01	116202-01	116202-01
12	OUTBOARD BEARING	L-3019	L-3019	L-3019
13	COVER PLATE GASKET	L-1006	L-3002	L-3002
14	COVER PLATE	115723-01	115623-01	115623-01
15	OUTBOARD SEAL	115621-01	115621-01	115621-01
16	SHAFT COLLAR ASSEM	115624-91	115624-91	115624-91
17	STUD - 1/2"-13 X 3" LG	90716	90716	90716
18	1/2" LW, PLATED	93004	93004	93004
19	1/2"-13 NUT, PLATED	92029	92029	92029
20	OPTIONAL HYDRAULIC MOTOR & MANIFOLD ASSEMBLY	116205-91	116205-91	116205-91



LM-2450 SERIES PUMP PARTS LIST

REF. NO.	PART NO.	ITEM DESCRIPTION	2450 QTY.	2455 QTY.	REF. NO.	PART NO.	ITEM DESCRIPTION	2450 QTY.	2455 QTY.
14	92024	3/8 HEX NUT	11	6	67	C-431-B	1/4" PLUG	3	3
**14	T-2010	3/8 NUT, SS	2	2	68	105895-01	CROSSHEAD PIN	1	1
25A	108906-01	CARRIER	0	0	69	105926-91	PISTON ROD ASSEMBLY	1	1
27A	90637	5/16 X 1 HEX BOLT	4	4	*70	L-1038	CROSSHEAD GDE.GASKET	1	1
*30	110155-01	WASHER	1	0	71	90637	5/16 X 1 HEX BOLT	4	4
*31	L-1018	OIL SEAL	1	1	72	90692	1/2 X 2 HEX BOLT	2	2
32	L-1017	CRANKSHAFT BEARING	2	2	**72	90693	1/2 X 2 BOLT, SS	2	2
33	L-1016	BEARING SPACER	1	1	73	L-1000	CROSSHEAD GUIDE	1	1
34	111958-01	NAME PLATE	1	1	*74	L-1109	ROD VEE PACKING SET	2	3
37	L-1001-A	CRANKCASE	1	1	75	L-1041	WASHER, PACKING	3	2
38	S-350	VENT PLUG	1	1	76	L-1063	SPRING, PACKING	2	1
39	L-1008-B	CONNECTING ROD	1	1	*77	L-1030	GASKET STUFFING BOX	1	1
40	L-928	BEARING	1	1	78	L-1031-1	OUTBOARD STUFFING BOX	1	1
41	L-1013-A	ECCENTRIC, LARGE	1	1	**78	L-1031-1S	OUTBOARD STUFFING BOX, SS	1	1
42	L-1015	ECCENTRIC, SMALL	1	1	*79	L-1023	GASKET	1	1
*43	113588-01	BEARING	1	1	80	L-1042	RETAINING RING	1	1
44	L-3004	ECCENTRIC PIN	1	1	81	L-1031-2	STUFFING BOX INSERT	1	1
45	L-1089	STROKE LOCATING SLEEVE	1	1	82	113650-01	CYLINDER, INBOARD	1	1
46	L-1020	SETTING ARM KEY	2	2	**82	113650-01S	CYLINDER, INBOARD, SS	1	1
47	108093-01	KEY, WOODRUFF	1	1	83	92029	1/2 HEX NUT	4	4
*48	L-1006	GASKET COVER PLATE	1	1	**83	92030	1/2 NUT, SS	4	4
49	L-1004-A	COVER PLATE	1	1	84	103290-91	PISTON PLUNGER AS'MBLY	1	1
50	91017	3/8 X 1 3/4 SQ. HEAD BOLT	1	1	85	L-1047	SELF-LOCKING NUT	1	2
51	90636	5/16 X 3/4 HEX BOLT	4	4	*86	L-1045-V	PACKING, PLUNGER	2	2
52	L-1002	PUMP SETTING SCALE	1	1	*87	L-1098	GASKET, FLANGE PACKING	2	2
53	A-3097	3/8 SELF LOCKING NUT	1	1	88	L-1044-A	WASHER, FLANGE PACKING	1	1
54	H-30	GREASE FITTING (THREAD)	1	1	89	113649-01	SUCTION MANIFOLD	1	1
55	90532	5/16 X 3/8 SET SCREW	3	3	**89	113649-01S	SUCTION MANIFOLD, SS	1	1
56	105933-91	STROKE SETTING ARM	1	1	90	106489-92	VALVE, SUCTION	2	2
57	A-368	SETTING SCALE SCREW	3	3	91	L-3031	'O' RING VALVE	4	4
58	105932-91	STROKE SETTING FLANGE	1	1	92	113651-01	OUTBOARD CYLINDER	1	1
*59	L-1021	OIL SEAL	1	1	**92	113651-01S	OUTBOARD CYLINDER, SS	1	1
60	L-1007-A	CRANKSHAFT BEARING	1	1	93	90689	1/2 X 1-1/2 HEX HEAD BOLT	2	2
*61	L-1022	CRANKSHAFT 'O'RING	1	1	**93	90687	1/2 X 1-1/2 BOLT, SS	2	2
63	A-261	SQUARE KEY	2	0	94	106490-92	DISCHARGE VALVE	2	2
113717	Gasket Kit				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
					102	L-1019-A	CRANKSHAFT	0	1
					120	114652-01	45° GREASE FITTING	1	1
					121	110147-01	SPACER	0	1

HYPRO® CENTRIFUGAL PUMPS



Serial # 18198 & above
Parts Kit No. 3430-0881 Contains
#13, #16, #22, #30 & #32

Serial # 18197 & above
Parts Kit No. 3430-0748

Contains: One each ball bearing (Ref. 13), motor shaft seal (Ref. 16), thread seal gasket (Ref. 35), two cartridge o-rings (Ref. 15) and washer (Ref. 36); two each motor housing o-rings (Ref. 22), and port adapter o-rings (Ref. 30 & 32).

9303 & 9306

Repair Parts Kit No. 3430-0332

Contains: One o-ring (Ref. 5), one rubber gasket (Ref. 6), and one mechanical seal (Ref. 7).

Hydraulic Motor Part Nos.

- 2500-0081C (HM1C Models)
- 2500-0082C (HM2C Models)
- 2500-0083C (HM3C Models)
- 2500-0084C (HM4C Models)
- 2500-0085C (HM5C Models)

9305

Repair Parts Kit No. 3430-0500

Contains: One o-ring (Ref. 5), one rubber gasket (Ref. 6), and one mechanical seal (Ref. 7).

Silicon Seal Kit No. 3430-0601

Contains one each; (Ref. 5) and one mechanical seal (silicon carbide) (Ref.7).

Silicon Seal Kit No. 3430-0589

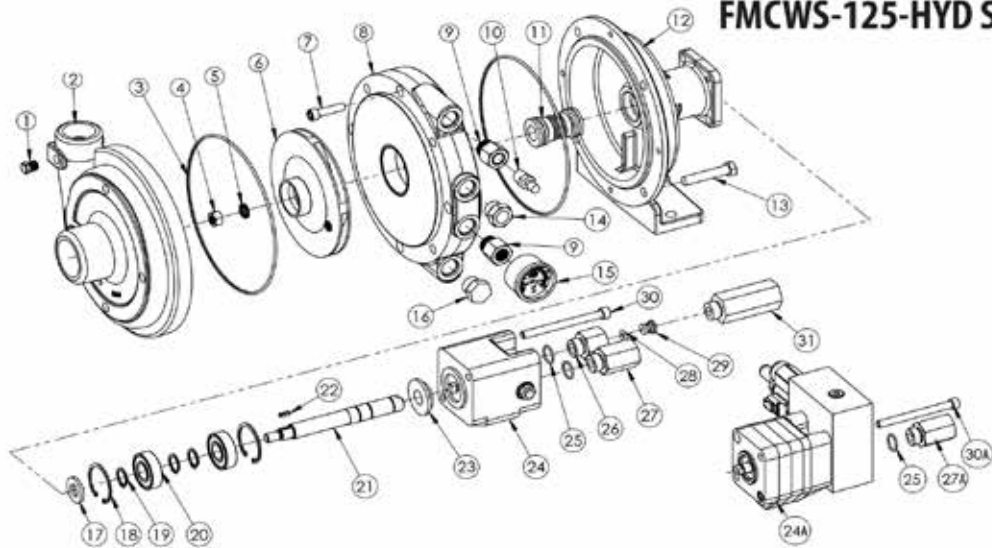
Contains one each; (Ref. 5) and one mechanical seal (silicon carbide) (Ref.7).

REF. #	9303	9305	9306	DESCRIPTION	REQ.
1	2406-0007	2406-0007	2406-0007	Pipe plug	4
1	2406-0016	2406-0016	2406-0016	Pipe plug, stainless steel (optional)	4
2	0153-9000C		0157-9200C	Volute, cast iron, NPT & flanged	1
2	0150-9000C	0152-9200C	0154-9200C1	Volute, cast iron, NPT	1
2	0153-9000S			Volute, stainless steel, NPT & flanged	1
2	0150-9000S			Volute, stainless steel, NPT	1
2			0158-9200C	Volute, cast iron, flanged, 300x220	1
2			0158-9200S	Volute, stainless steel, flanged 300x220	1
3	2253-0002	2253-0002	2253-0002	Nut	1
3	2253-0006	2253-0006	2253-0006	Nut, SS (optional)	1
3A		2270-0071		Washer	1
4	0401-9100P	0403-9200P1	0401-9200P2	Impeller, nylon	1
4	0402-9100P		0405-9100P2	Impeller, polypropylene	1
4				Impeller, cast iron	1
4				Impeller, 316 stainless steel, keyway	1
4			0407-9306P	Impeller, GTX	1
5	1720-0083	1720-0180	1720-0083	O-ring, body seal	1
6	1700-0100	0403-9200P1	1700-0100	Gasket	1
7	2120-0009	2120-0009	2120-0009	Seal, viton/ceramic	1
7	3430-0589	3430-0601	3430-0589	Seal, silicon carbide	1
8	0750-9300C	0752-9200C	0750-9300C2	Mounting flange, cast	1
8	0756-9300S		0756-9300S	Mounting frame, stainless steel	1
9	2210-0020	2210-0086	2210-0020	Cap screw, 3/8" NC x 3/4" hex head	4
9	2210-0125	2210-0125	2210-0125	Cap screw, 3/8" NC x 3/4" hex head, stainless steel	4
10	1410-0056	1410-0056	1410-0056	Slinger	2
11	1810-0014	1810-0014	1810-0014	Snap ring	1
12	1820-0013	1820-0013	1820-0013	Retaining ring	1
13	2000-0010	2000-0010	2000-0010	Ball bearing	1
14	1410-0131	1410-0131	1410-0131	Cartridge, front	1
15	1720-0268	1720-0268	1720-0268	O-ring	2
16	2104-0010	2104-0010	2104-0010	Lip seal	1
17	1410-0130	1410-0130	1410-0130	Seal spacer	1
18	2029-0014	2029-0014	2029-0014	Thrust bearing assembly	1
19	0531-2500			Shaft, HM2/HM4	1
19	0533-2500		0533-2500	Shaft, HM1/HM5	1
19	0536-2500	0537-2500	0536-2500	Shaft, HM3	1
20	0150-2500C	0150-2500C	0150-2500C	Motor body	1

REF. #	9303	9305	9306	DESCRIPTION	REQ.
21	2210-0005	2210-0005	2210-0005	Cap screw, 5/16" NC x 3/4" hex head	4
22	1720-0110	1720-0110	1720-0110	O-ring	2
23	1600-0045			Dowel pin HM2/HM4	1
23	1600-0044		1600-0044	Dowel pin HM1/HM5	1
23	1600-0052	1600-0052	1600-0052	Dowel pin HM3	1
24	1600-0042			Dowel pin HM2/HM4	1
24	1600-0037		1600-0037	Dowel pin HM1/HM5	1
24	1600-0068	1600-0068	1600-0068	Dowel pin HM3	1
25	3900-0022		3900-0022	Gerotor HM1	1
25	3900-0023		3900-0023	Gerotor HM2	1
25	3900-0024	3900-0024	3900-0024	Gerotor HM3	1
25	3900-0025			Gerotor HM4	1
25	3900-0048		3900-0048	Gerotor HM5	1
26	0700-2500C1		0700-2500C1	Gerotor housing HM1	1
26	0701-2500C1			Gerotor housing HM2	1
26	0702-2500C1	0702-2500C1	0702-2500C2	Gerotor housing HM3	1
26	0702-2500C1			Gerotor housing HM4	1
26	0704-2500C1		0704-2500C1	Gerotor Housing HM5	1
27	0254-2500C2	0254-2500C2	0254-2500C2	Motor end plate	1
28	2270-0039	2270-0039	2270-0039	Washer	4
29	2220-0045			Cap screw, HM2/HM4	4
29	2220-0021		2220-0021	Cap screw, HM1	4
29	2220-0044	2220-0044	2220-0044	Cap screw HM3	4
29	2220-0032		2220-0032	Cap screw HM5	4
30	1720-0108	1720-0108	1720-0108	O-ring	1
31	3360-0021A	3360-0021A	3360-0021A	Pressure port adapter	1
32	1720-0262	1720-0262	1720-0262	O-ring	1
33	3320-0051A	3320-0051A	3320-0051A	Tank port adapter	1
34	3220-0029	3220-0029	3220-0029	Bypass adjusting screw	1
35	1700-0047	1700-0047	1700-0047	Gasket	1
36	2270-0027	2270-0027	2270-0027	Washer	1
37	2250-0038	2250-0038	2250-0038	Lock nut	1
38	1610-0032			Roll Pin HM2/HM4	1
38	1610-0031		1610-0031	Roll pin HM1/HM5	1
38	1610-0055	1610-0055	1610-0055	Roll pin HM3	1
39	1810-0026	1810-0026	1810-0026	Snap ring	1
40	1610-0012	1610-0053	1610-0012	Key	1
40	4432		4432	Key, stainless steel	1



FMCWS-125-HYD Series

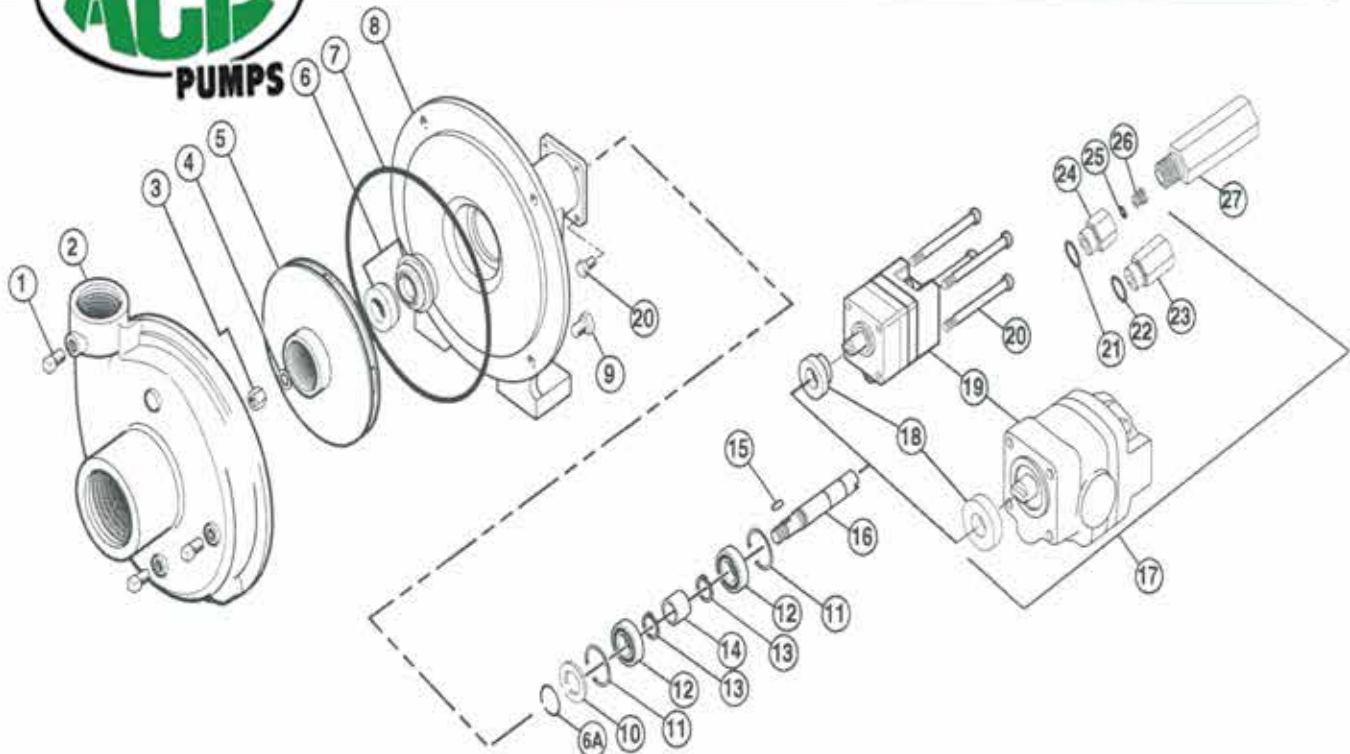


PARTS LIST

REF. #	PART NUMBER	EDP #	DESCRIPTION	REQ.
1	BAC-53	41100	Pipe plug	4
1	41120	41120	Pipe plug, stainless steel (optional)	4
2	BAC-12-125	30147	Volute, 1-1/4" NPT x 1" NPT	1
3 [Ⓞ]	BAC-4-150	40015	O-ring, body seal	2
4	BAC-23-B-SS	40393	Nut, 3/8" NF, SS	1
5	BAC-24-B-SS	42702	Washer, 3/8" SS, vibration proof	1
6	BAC-26-125-P	40444	Impeller, thermoplastic, keyway	1
7	72762	72762	Bolt, 5/16" - 18 x 1-1/4", socket head, SS	4
8	BAC-16	45285	Seal plate, cast iron, e-coated	1
9	41107	41107	Bushing, #8 SAE x 1/4" FNPT, with o-ring	2
10	41316	41316	Air valve, 1/4" NPT	1
11 [Ⓞ]	BAC-7-WS	40139	Seal, dual seal assembly, Type 21, 5/8" shaft	1
12	BAC-14-5-HYD	40288	Mounting frame, cast iron, e-coated	1
13	BAC-42	40970	Cap screw, 5/16" - 16 x 2", hex head	4
14	55851	55851	Sight gauge, #8 SAE, with o-ring	1
15	50150	50150	Pressure gauge, 0-160 PSI, 1/4" NPT	1
16	41108	41108	Plug, #8 SAE, hex head, with o-ring	1
17	BAC-54	41130	Slinger	1
18	BACH-33	40820	Snap ring, internal, mounting frame	2
19	BACH-32-HD	40385	Snap ring, external, shaft	3
20	40880	40880	Bearing	2
21	BAC-6-125-HYD-SS-WS	41581	Shaft, .625 Dia, 125-155, SS, WS	1
22	BACH-25	40420	Key, 1/8" x 1/8" x 7/16" SS	1
23	S255	40177	Seal support spacer	1
24	BAC-75-HYD-204-PRO5	41325	Hydraulic motor, 4 GPM (includes 25-30)	1
24	BAC-75-HYD-206-PRO5	41329	Hydraulic motor, 7 GPM (includes 25-30)	1
24A	BAC-75-HYD-206-PRO5-PWM	41290	HYD motor, integrated PWM valve, 7GPM (includes 27A, 30A)	1
25	41875	41875	O-ring, #8 SAE fitting	2
26	BAC-80-BSAE	41455	Body, restrictor orifice, #8 SAE x 1/2" NPT, w/ O-ring	1
27	BAC-78-BSAE	41441	Reverse check assembly, #8 SAE x 1/2" NPT, w/ O-ring	1
27A	BAC-78-10XBSAE	41462	Reverse check assembly, #10 SAE x 8 SAE, w/ O-ring	1
28	41448	41448	O-ring, restrictor	1
29	BAC-79-5	41457	Orifice, restrictor insert (204), w/ O-ring	1
29	BAC-79-7	41456	Orifice, restrictor insert (206), w/ O-ring	1
30	41252	41252	Cap screw, 5/16" NC x 3-1/2" socket head, SS (for 204 motor)	2
30	41259	41259	Cap screw, 5/16" NC x 3-3/4" socket head, SS (for 206 motor)	2
30A	41263	41263	Cap screw, 5/16" NC x 5-1/2" socket head, SS (for 206-PWM motor)	2
31	LS-204N	41417	Flow limiting valve, #8 MSAE x 1/2" FNPT (204) (optional)	1
31	LS-206N	41418	Flow limiting valve, #8 MSAE x 1/3" FNPT (206) (optional)	1
*32 [Ⓞ]	55032	55032	Barrier fluid, quart	-
Ⓞ	RK-FMCWS-PRO5	52728	Repair kit, includes items 3 (2 each), 11, and 32	-
*	RK-BAC-75-HYD-L	41374	Repair kit; 200 series hyd motor with high pressure lip seal	-

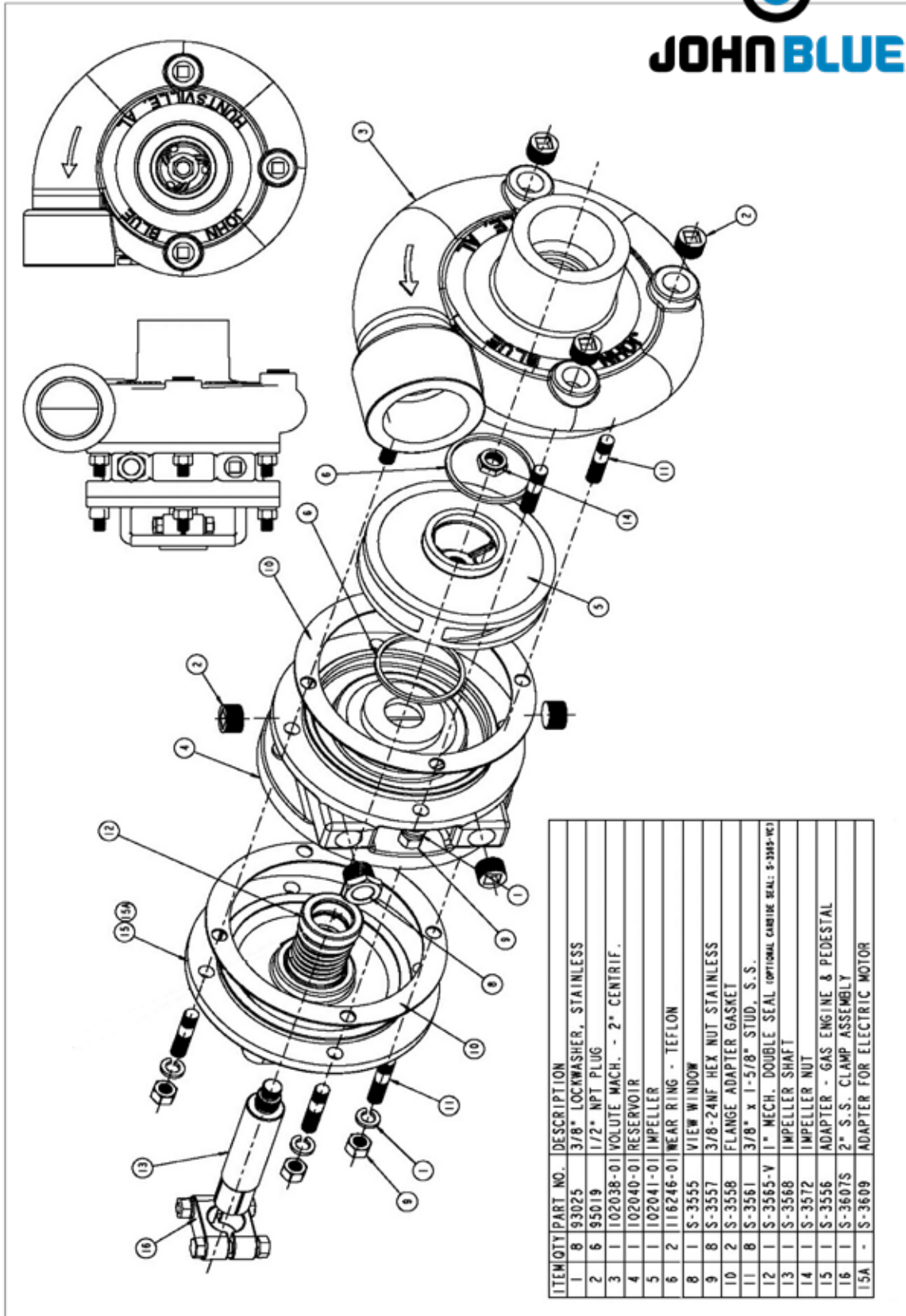
* Not shown in parts diagram

HYDRAULIC PUMPS



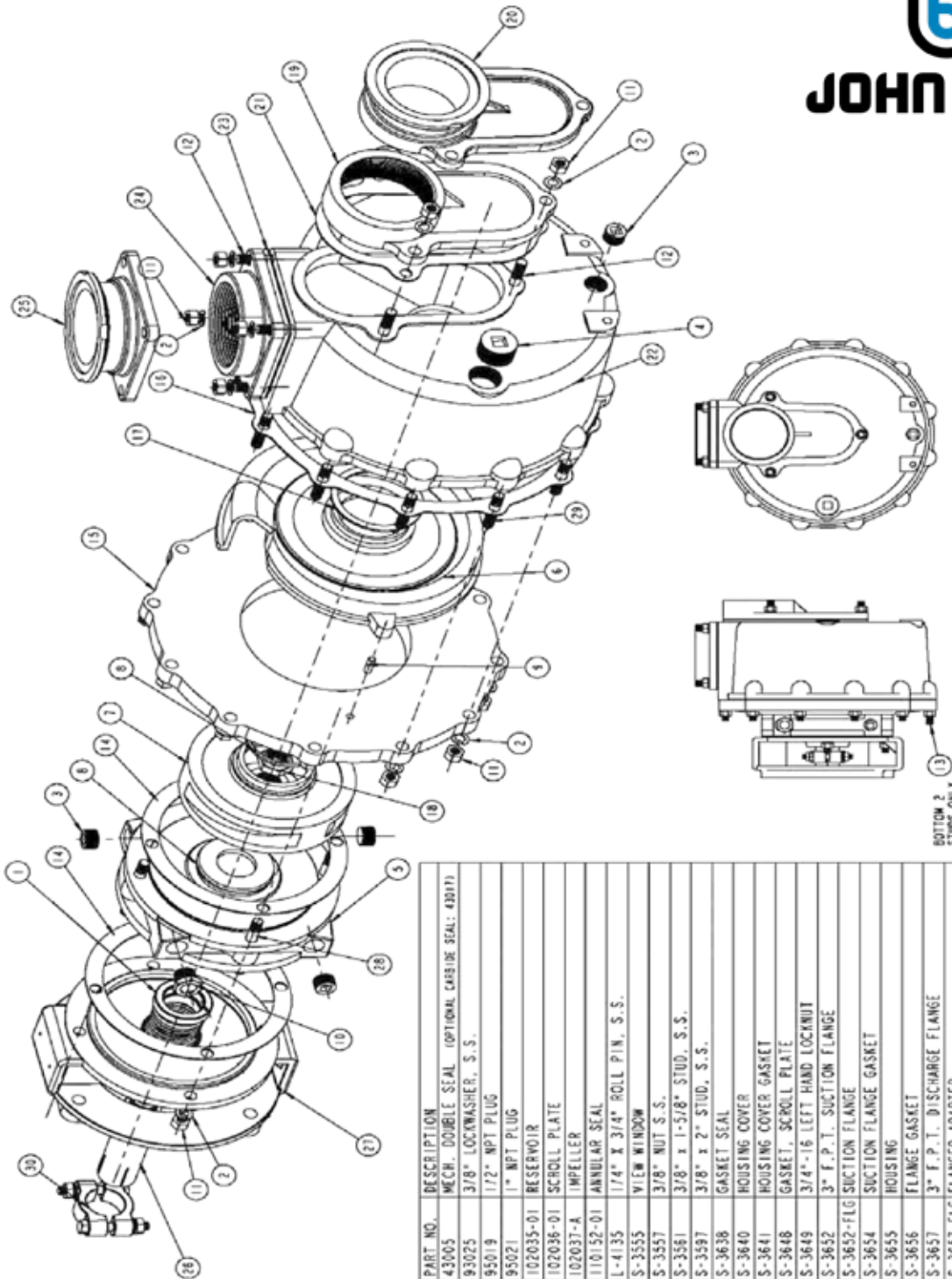
REF. #	FMC-150-204	FMC-150-HYD-206	FMC-200-HYD-304	FMC-150-HYD-304	FMC-205F-HYD-304	DESCRIPTION	REQ.
1	BAC-53	BAC-53	BAC-53	BAC-53	BAC-53	Pipe plug	4
1	41120	41120	41120	41120	41120	Pipe plug, stainless steel (optional)	4
2		BAC-12-150-FLG	7AC-14-FLG	BAC-12-150-FLG	7AC-14-FLG	Volute, cast iron, NPT & flanged	1
2	BAC-12	BAC-12-150	7AC-14-CCW	BAC-12-150-FLG	BAC-12-150-FLG	Volute, cast iron, NPT	1
3	BAC-23-A	BAC-23-A	BAC-23-A	BAC-23-A	BAC-23-A	Nut, 3/8" NF, cad plated	1
3	BAC-23-B-SS	BAC-23-B-SS	BAC-23-B-SS	BAC-23-B-SS	BAC-23-SS	Nut, 3/8" NF, SS (optional)	1
4	BAC-24-HYD-SS	BAC-24-HYD-SS	BAC-24-HYD-SS	BAC-24-HYD-SS	BAC-24-HYD-SS	Washer, 3/8" star, stainless steel	1
4	BAC-24-B-SS	BAC-24-B-SS	BAC-24-B-SS	BAC-24-B-SS	BAC-24-B-SS	Washer, 3/8" SS, vibration proof (optional)	1
5	BAC-26-HYD-VALOX	BAC-26-150-P	BAC-26-200-P	BAC-26-150-P	BAC-26-200-P	Impeller, Valox, keyway	1
5	BAC-26-HYD-CI	BAC-26-150-CI	BAC-26-200-SS	BAC-26-150-CI	BAC-26-200-CI	Impeller, cast iron, keyway (optional)	1
5					BAC-26-200-SS	Impeller, 316 stainless steel, keyway	1
6	BAC-7V	BAC-7V	BAC-7V	BAC-7V		Seal, carbon/ceramic/Viton	1
6	BAC-7SC	BAC-7SC	BAC-7SC	BAC-7SC	BAC-7SC-205V	Seal, silicon carbide/Viton	1
6A	40160	40160	40160	40160		O-ring, shaft seal	1
7	BAC-4A	BAC-4-150	BAC-4A	BAC-4-150	BAC-4A	O-ring, body seal	1
8	BAC-14-HYD	BAC-14-150-HYD	BAC-14-HYD-300A	BAC-14-150-HYD-300	BAC-14-205-HYD	Mounting frame, cast iron	1
9	40950	40950	40950	40950	40950	Cap screw, 3/8" NC x 3/4" hex head	4
9	40930	40930	40930	40930	40930	Cap screw, 3/8" NC x 3/8" hex head, stainless steel (optional)	4
10	BAC-54	BAC-54	BAC-54	BAC-54	BAC-54	Slinger	1
11	BAC-33	BAC-33	BAC-33	BAC-33	BACH-33	Snap ring, internal, BAC-14 mounting frame	2
12	BAC-37	BAC-37	BAC-37	BAC-37	40880	Ball Bearing, sealed	2
13	BAC-32	BAC-32	BAC-32	BAC-32	BACH-32-HD	Snap ring, external	2or3
14	BAC-32-S	BAC-32-S	BAC-32-S	BAC-32S		Spacer for BAC-6 shaft	1
15	BACH-25	BACH-25	BAC-25	BACH-25	BAC-25	Key, 1/8" x 1/8" x 1/2"	1
16	BAC-6-HYD-SS	BAC-6-HYD-SS	BAC-6-HYD-200-SS	BAC-6-HYD-SS	BAC-6-205-HYD-SS	Shaft, 5/8" diameter, keyway and tang slot, stainless steel	1
17	BAC-75-HYD-204	BAC-75-HYD-206	BAC-75-HYD-304	BAC-75-HYD-304	BAC-75-HYD-304	Hydraulic motor	1
18	S200	S200	S300	S300	S305	Seal support spacer	1
19	BAC-75-HYD-204N	BAC-75-HYD-206N	BAC-75-HYD-304N	BAC-75-HYD-304N	BAC-75-HYD-304N	Hydraulic motor (motor only - no external fittings)	1
20	41253	41255	41330	41330	41330	Cap screw	4
21	41875	41875	41875	41875	41875	O-ring	1 or 2
22	41875	41875	41445	41445	41445	O-ring	1
23	BAC-78-8SAE	BAC-78-8SAE	BAC-78-10SAE	BAC-78-10SAE	BAC-78-10SAE	Reverse check valve, x 1/2" NPTF	1
24	BAC-80-8SAE	BAC-80-8SAE	BAC-80-8SAE	BAC-80-8SAE	BAC-80-8SAE	Adapter, restrictor body, x 1/2" NPT female	1
25	41448	41448	41448	41448	41448	O-ring, orifice insert	1
26	BAC-79-5	BAC-79-7	BAC-79-8	BAC-79-8	BAC-79-8	Orifice, restrictor insert	1
27	LS-204N	LS-206N	LS-304N	LS-304N	LS-304N	Flow limiting valve	1
⊕	RK-FMC	RK-FMC-150	RK-FMC	RK-FMC-150		Repair kit	-
⊕	RK-FMCSC	RK-FMCSC-150	RK-FMCSC	RK-FMCSC-150	RK-FMCSC-205	Repair kit with silicon carbide shaft seal	-
#	RK-BAC-75-HYD-L	RK-BAC-75-HYD-L	RK-BAC-75-HYD-300-L	RK-BAC-75-HYD-300-L	RK-BAC-75-HYD-300-L	Repair kit for motor with high pressure lip seal	-

PARTS LISTING: S-3220 (2" STRAIGHT)



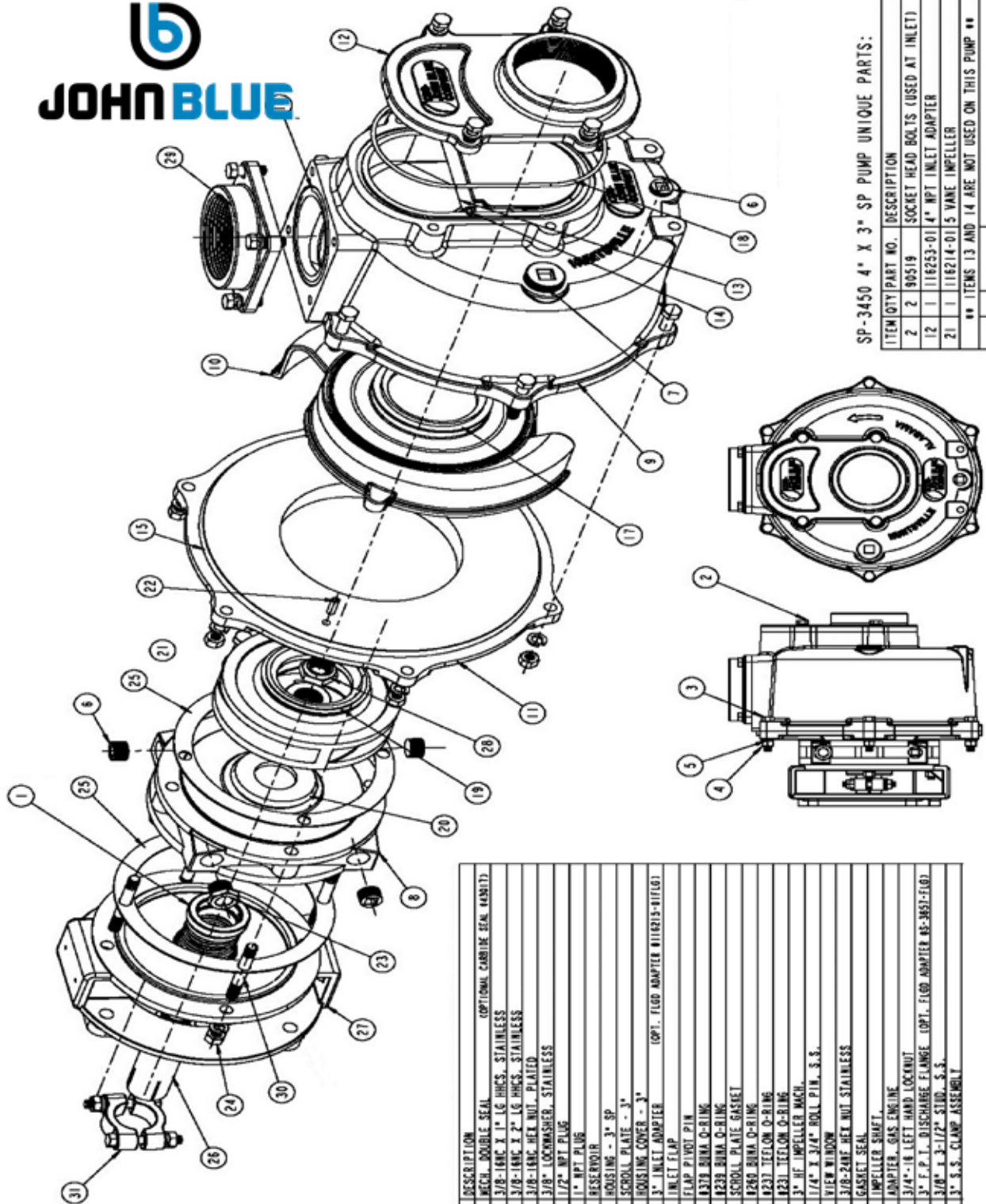
ITEM/	PART NO.	DESCRIPTION
1	8	93025 3/8" LOCKWASHER, STAINLESS
2	6	95019 1/2" NPT PLUG
3	1	102038-01 VOLUTE MACH. - 2" CENTRIF.
4	1	102040-01 RESERVOIR
5	1	102041-01 IMPELLER
6	2	116246-01 WEAR RING - TEFLON
8	1	S-3555 VIEW WINDOW
9	8	S-3557 3/8"-24NF HEX NUT STAINLESS
10	2	S-3558 FLANGE ADAPTER GASKET
11	8	S-3561 3/8" x 1-5/8" STUD. S.S.
12	1	S-3565-V 1" MECH. DOUBLE SEAL (OPTIONAL CARBIDE SEAL: S-3565-1V2)
13	1	S-3568 IMPELLER SHAFT
14	1	S-3572 IMPELLER NUT
15	1	S-3556 ADAPTER - GAS ENGINE & PEDESTAL
16	1	S-3607S 2" S.S. CLAMP ASSEMBLY
15A	-	S-3609 ADAPTER FOR ELECTRIC MOTOR

PARTS LISTING: SP-3320 (3" SELF-PRIMING)



ITEM/QUANTITY	PART NO.	DESCRIPTION
1	43005	MECH. DOUBLE SEAL (OPTIONAL CARBINE SEAL: 43011)
2	93025	3/8" LOCKWASHER, S.S.
3	95019	1/2" NPT PLUG
4	95021	1" NPT PLUG
5	102035-01	RESERVOIR
6	102036-01	SCROLL PLATE
7	102037-A	IMPELLER
8	110152-01	ANNULAR SEAL
9	L-4135	1/4" X 3/4" ROLL PIN, S.S.
10	S-3555	VIEW WINDOW
11	S-3557	3/8" NUT S.S.
12	S-3591	3/8" x 1-5/8" STUD, S.S.
13	S-3597	3/8" x 2" STUD, S.S.
14	S-3638	GASKET SEAL
15	S-3640	HOUSING COVER
16	S-3641	HOUSING COVER GASKET
17	S-3648	GASKET, SCROLL PLATE
18	S-3649	3/4"-16 LEFT HAND LOCKNUT
19	S-3652	3" F.P.T. SUCTION FLANGE
20	S-3652-FLG	SUCTION FLANGE
21	S-3654	SUCTION FLANGE GASKET
22	S-3655	HOUSING
23	S-3656	FLANGE GASKET
24	S-3657	3" F.P.T. DISCHARGE FLANGE
25	S-3657-FLG	FLANGED ADAPTER
26	114524-01	IMPELLER SHAFT
27	102189-01	ADAPTER, GAS ENGINE
28	S-3664	3/8" x 3-1/2" STUD, S.S.
29	S-3666	3/8" x 1-7/8" STUD, S.S.
30	S-3608AS	3" S.S. CLAMP ASSEMBLY

PARTS LISTING: SP-3340/SP-3350/SP-3450 (3" & 4")

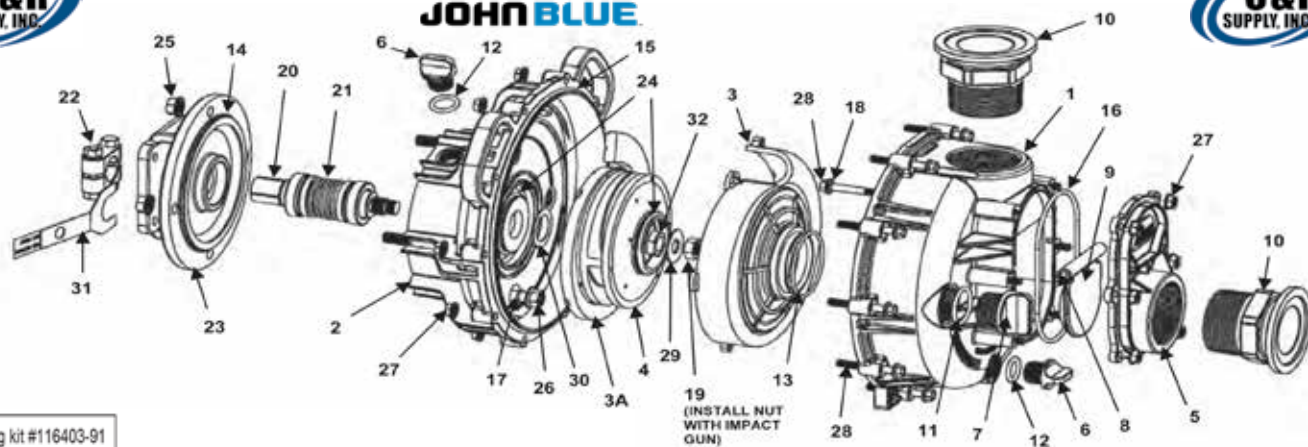


SP-3450 4" X 3" SP PUMP UNIQUE PARTS:

ITEM	QTY	PART NO.	DESCRIPTION
2	2	90519	SOCKET HEAD BOLTS (USED AT INLET)
12	1	116233-01	4" NPT INLET ADAPTER
21	1	116214-01	5 VANE IMPELLER
** ITEMS 13 AND 14 ARE NOT USED ON THIS PUMP **			

ITEM	QTY	PART NO.	DESCRIPTION
1	1	43005	MECH. DOUBLE SEAL (OPTIONAL CARBIDE SEAL 45001)
2	8	58852	3/8-16NC X 1" LG IHCS, STAINLESS
3	6	51858	3/8-16NC X 2" LG IHCS, STAINLESS
4	6	52024	3/8-16NC HEX NUT, PLATED
5	16	53025	3/8" LOCKWASHER, STAINLESS
6	4	53019	1/2" NPT PLUG
7	1	55021	1" NPT PLUG
8	1	102035-01	RESERVOIR
9	1	116211-01	HOUSING - 3" SP
10	1	116212-01	SCROLL PLATE - 3"
11	1	116213-01	HOUSING COVER - 3"
12	1	116215-01	3" INLET ADAPTER (OPT. FLOD ADAPTER 1116215-011G1)
13	1	116216-01	INLET FLAP
14	1	116211-01	FLAP PIVOT PIN
15	1	116218-01	4378 BUNA O-RING
16	1	116219-01	4239 BUNA O-RING
17	1	116220-01	SCROLL PLATE GASKET
18	1	116221-01	4240 BUNA O-RING
19	1	116222-01	4233 TEFLON O-RING
20	1	116223-01	4231 TEFLON O-RING
21	1	116227-01	3" HF IMPELLER MACH.
22	2	L-4135	1/4" X 3/4" ROLL PIN, S.S.
23	1	S-3655	VIEW WINDOW
24	4	S-3657	3/8-24HF HEX NUT STAINLESS
25	2	S-3638	GASKET SEAL
26	1	114584-01	IMPELLER SHAFT
27	1	102189-01	ADAPTER GAS ENGINE
28	1	S-3649	3/4"-18 LEFT HAND LOCKNUT
29	1	S-3657	3" F.P.T. DISCHARGE FLANGE (OPT. FLOD ADAPTER 95-3657-FL02)
30	4	S-3654	3/8" X 3-1/2" STD. S.S.
31	1	S-3686AS	3" S.S. CLAMP ASSEMBLY

SCALE 3:16

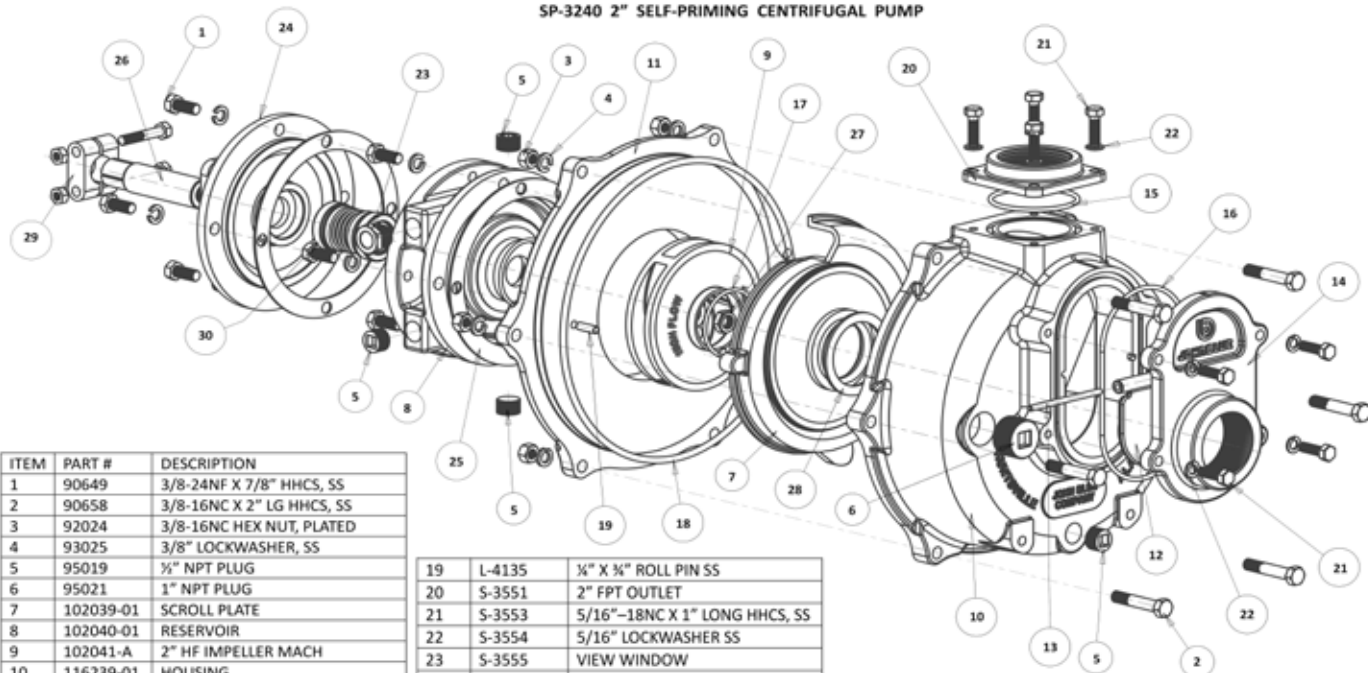


Seal & O-ring kit #116403-91

Item	Description	Part #
1	HOUSING	116282-01
2	BACKPLATE	116283-01
3/3A	SCROLL PLATE / SCROLL PLATE INSERT	116284-01A / 02A
4	IMPELLER	116285-91
5	INLET FLANGE - NPT	116286-01
6	1/2" PLUG	116288-01
7	1" PLUG	116289-01
8	PIVOT PIN - 316SS	116290-01
9	FLAP - EPDM	116241-01
10	M220 FLANGE ADAPTER TO 2" MPT - OPTIONAL	116287-01
11	#123 VITON O-RING - 1" PLUG	116293-01
12	#115 VITON O-RING - 1/2" PLUG	116294-01
13	#139 VITON O-RING - VOLUTE	116295-01
14	#049 VITON O-RING - ENGINE ADAPTER	116296-01
15	M4X228 VITON O-RING - HOUSING	116297-01
16	#158 VITON O-RING - INLET FLANGE	116298-01

17	#012 VITON O-RING - 3/8" BOLTS	116300-01
18	#010 VITON O-RING - 1/2" BOLTS	SMPT-0067
19	1/2" IMPELLER RETAINING NUT - 316SS (approx. 30 ft-lb - use impact gun)	92033
20	IMPELLER SHAFT - 316SS	116299-01
21	DOUBLE SEAL - 1" VITON, CERAMIC	S-3565-V
22	SHAFT CLAMP	S-3607S
23	ENGINE ADAPTER	S-3556
24	TEFLON RING	116246-01
25	3/8"-16 FLANGED NUT (10 ft-lb max. for re-assembly)	91077
26	3/8"-16 X 3" LG. FLANGED BOLT, 316SS	116291-01
27	1/4"-20 FLANGED NUT (5 ft-lb max. for re-assembly)	92017
28	1/4"-20 X 2" LG. FLANGED BOLT, 316SS	116292-01
29	IMPELLER WASHER - 316SS	93044
30	PTFE REAR IMPELLER SHIM	116441-01
31	SHAFT INSTALLATION TOOL	116301-01
32	5/8" IMPELLER INSERT NUT - 316SS	116470-01

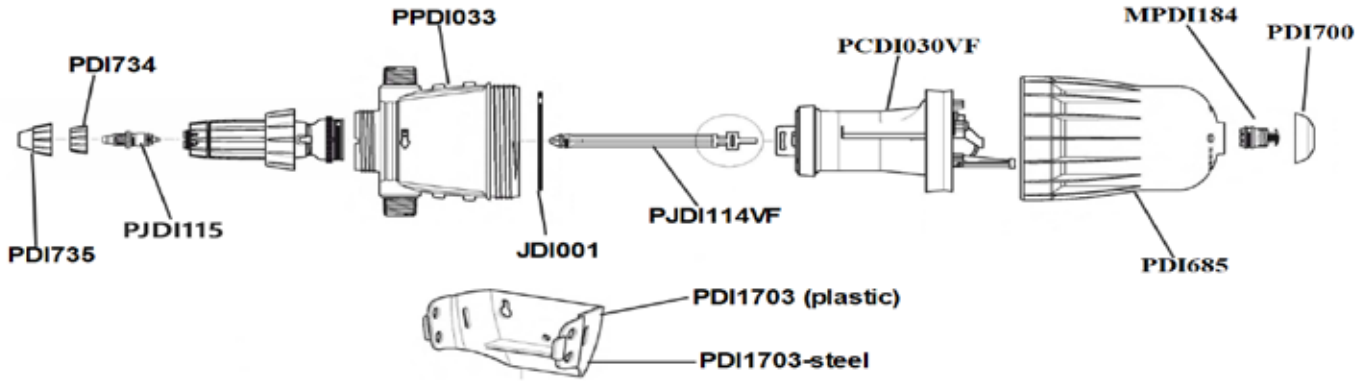
SP-3240 2" SELF-PRIMING CENTRIFUGAL PUMP



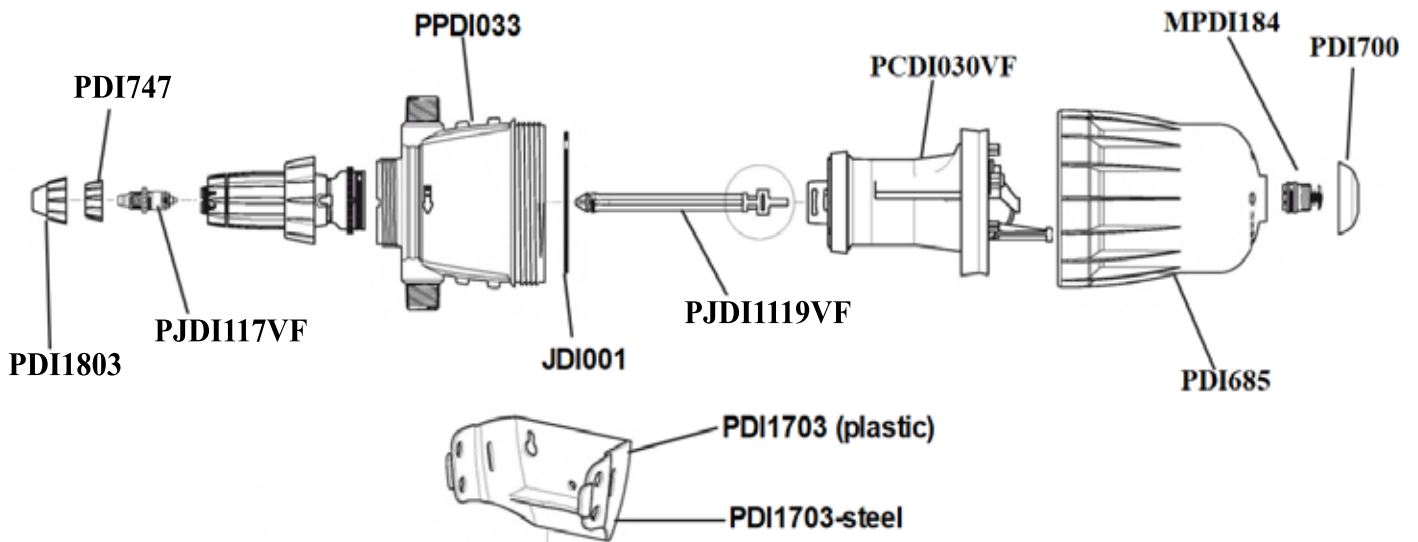
ITEM	PART #	DESCRIPTION
1	90649	3/8-24NF X 7/8" HHCS, SS
2	90658	3/8-16NC X 2" LG HHCS, SS
3	92024	3/8-16NC HEX NUT, PLATED
4	93025	3/8" LOCKWASHER, SS
5	95019	1/2" NPT PLUG
6	95021	1" NPT PLUG
7	102039-01	SCROLL PLATE
8	102040-01	RESERVOIR
9	102041-A	2" HF IMPELLER MACH
10	116239-01	HOUSING
11	116240-01	HOUSING COVER
12	116241-01	INLET FLAP
13	116242-01	FLAP PIVOT PIN
14	116243-01	2" INLET ADAPTER
15	116244-01	#231 BUNA O-RING
16	116245-01	#253 BUNA O-RING
17	116246-01	3mm X 54mm TEFLON O-RING
18	116247-01	#377 BUNA O-RING

19	L-4135	1/4" X 3/4" ROLL PIN SS
20	S-3551	2" FPT OUTLET
21	S-3553	5/16"-18NC X 1" LONG HHCS, SS
22	S-3554	5/16" LOCKWASHER SS
23	S-3555	VIEW WINDOW
24	S-3556	FLANGE ADAPTER GASKET
25	S-3558	FLANGE ADAPTER GASKET
26	S-3568	IMPELLER SHAFT
27	S-3572	IMPELLER NUT
28	S-3577	GASKET
29	S-3607	CLAMP ASSEMBLY
30	S-3565-V	1" MECH DOUBLE SEAL
31	S-3609	ADAPTER - ELECTRIC MOTOR

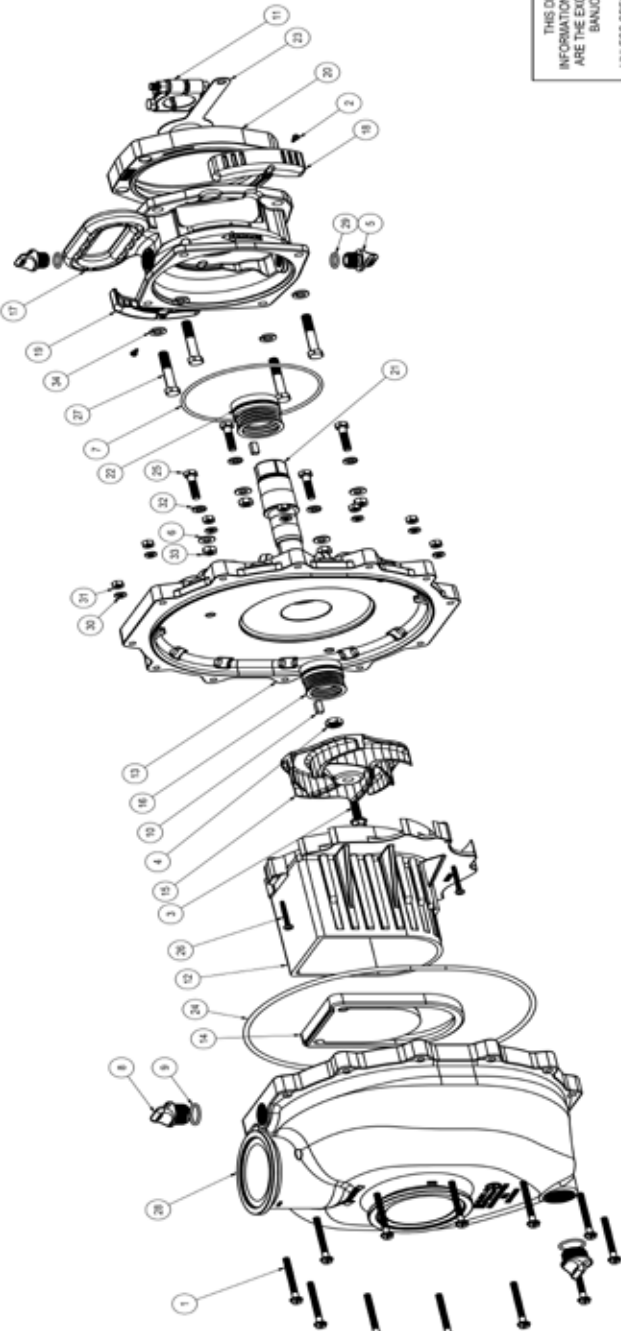
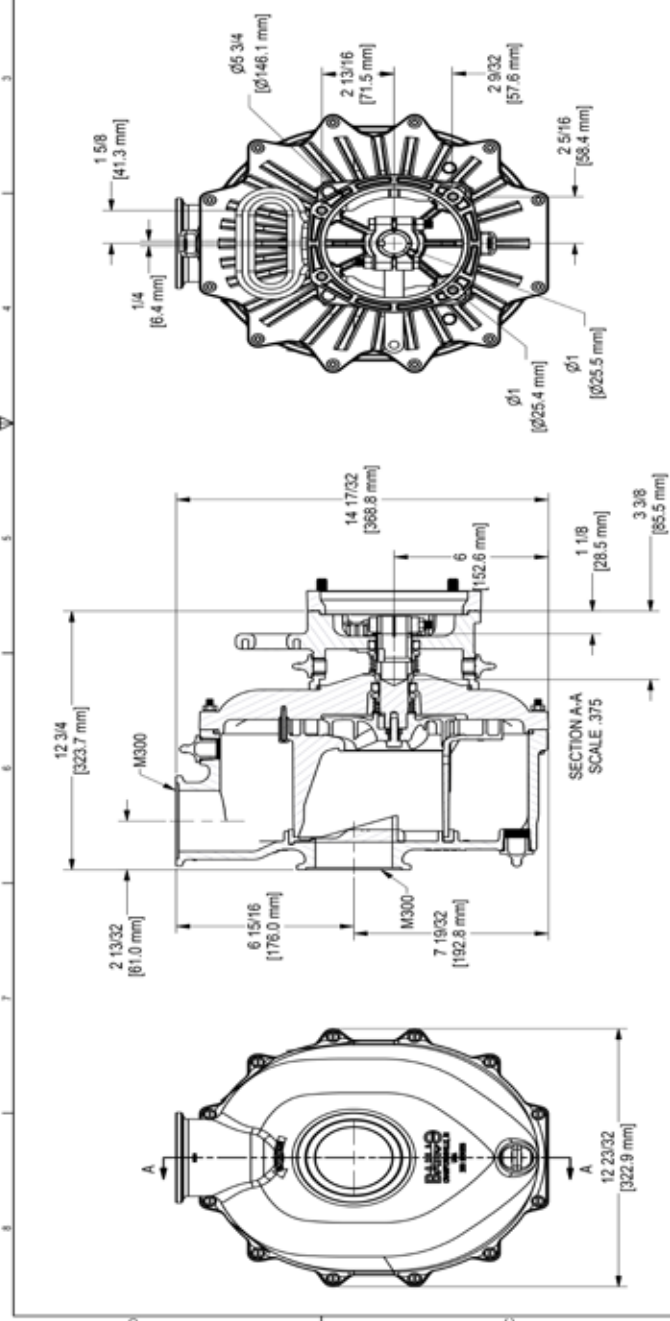
D14MZ2
.2% - 2%



D14MZ5
.5% - 5%



ITEM	QTY	PART NUMBER	DESCRIPTION
1	12	12720	14.00 X 2.10" SL. HD. HEX WASHER HEAD SCREEN
2	2	12725	HD X 1.02" FPM SMS
3	1	12760A	5/16-18 X 1.18" HFS
4	1	12765A	1/16-14 HEX NUT
5	2	12777	1/2" DRAIN PLUG
6	6 (4 SHOWN)	12601	5/16" FLAT WASHER
7	1	13779	ASSMBA-258 O-RING, EPDM, BLACK
8	2	13778	3/4" DRAIN PLUG, MOLDED
9	2	13778	3/4" DRAIN PLUG, MOLDED
10	2	1662/55	1/4" O.D. X 5/16" HET'Y 18-8 SS
11	1	18029	CLAMP
12	1	20002	M350 DIFFUSER
13	1	20004	M350 REAR BRACKET
14	1	20005	3" HET. SEAL, POLY PUMP CHECK VALVE
15	1	20073	M350 5-VANE IMPELLER
16	1	20118	1.125" MECHANICAL SEAL, EPDM, BLACK
17	1	20201	M350 WET SEAL RESERVOIR
18	1	20202	LEFT SHAFT GUARD FOR M350P
19	1	20203	RIGHT SHAFT GUARD FOR M350P
20	1	20248	M350 ENGINE BRACER
21	1	20250A	3" HET. SEAL POLY PUMP SHAFT ADAPTER FOR BEMTS-100
22	1	20251B	1.375" MECHANICAL SEAL, EPDM, BLACK
23	1	20251F	350 PUMP SEAL SPACING TOOL
24	1	20251F	350 PUMP SEAL SPACING TOOL
25	1	20251F	350 PUMP SEAL SPACING TOOL
26	1	20251F	350 PUMP SEAL SPACING TOOL
27	4	20251F	350 PUMP SEAL SPACING TOOL
28	1	20251F	350 PUMP SEAL SPACING TOOL
29	2	1515/53	ASSMBA-114 O-RING, EPDM, BLACK
30	2	1515/53	ASSMBA-114 O-RING, EPDM, BLACK
31	12	107019	1/4" LOCKWASHER
32	12	107019	1/4" LOCKWASHER
33	12	107019	1/4" LOCKWASHER
34	4	107024	5/16" X 1.125" HCS
35 (NS)	1	17024	5/16" X 1.125" HCS
36 (NS)	1	20033	2-RAIL FOR M350PH13W



BANJO
Liquid Handling Products

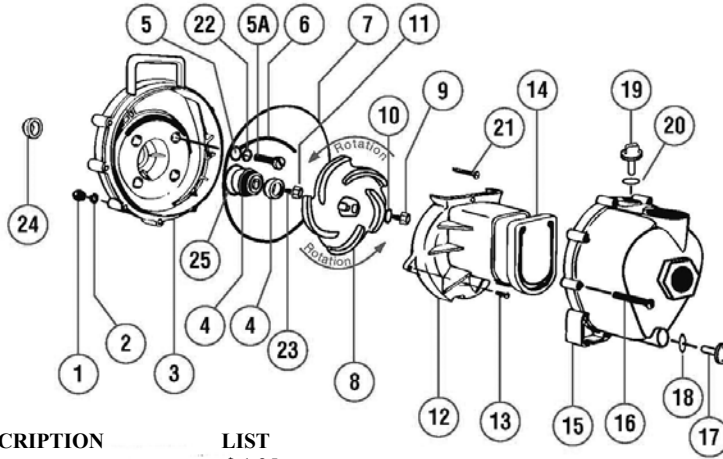
BANJO CORPORATION
A DIV. OF C&R CORPORATION
199 BANJO DRIVE, CHANDLERVILLE, IN 47533
WEB SITE: WWW.BANJOCORP.COM
E-MAIL: BANJOCAL@C&RCORP.COM

THIS DRAWING AND ALL INFORMATION CONTAINED THEREON ARE THE EXCLUSIVE PROPERTY OF BANJO CORPORATION.

UNLESS SPECIFICALLY NOTED, THIS DRAWING AND ITEMS SHOWN ON THIS DRAWING ARE SUBJECT TO CHANGE AT ANY TIME.

3" WET SEAL POLY PUMP ONLY
M350POW

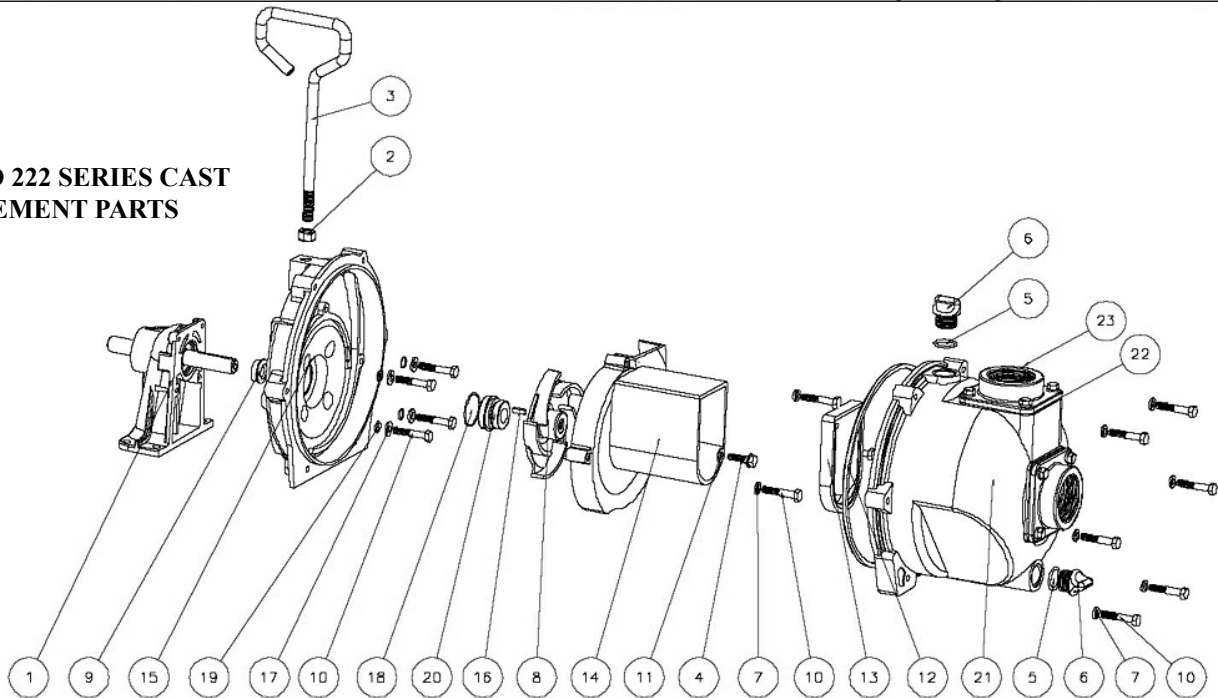
2" BANJO POLY REPLACEMENT PARTS 1996 & NEWER



PART NO.	DESCRIPTION	LIST
1.	102 V07019	Body nuts \$ 1.25
2.	102 V07018	Lock washers \$ 1.25
3.	102 12703A	Pump rear bracket \$ 111.00
4.	102 12713	Seal, EPDM \$ 54.40
4.	102 12713V	Seal, VITON \$ 90.50
5.	102 12717	Screw o-ring \$ 1.16
5A	102 12715A	Bracket screws \$ 4.70
6.	102 12754	O-ring segment \$ 7.45
7.	102 12719A	Body o-ring \$ 17.75
8.	102 12772	5 Vane impeller \$ 52.10
9.	102 12765A	SS impeller bolt \$ 22.35
10.	102 12774VA	Impeller bolt gskt \$ 2.03
11.	102 12775A	Impeller hex nut \$ 17.75
12.	102 12702A	Pump volute \$ 83.60
13.	102 12725	Volute screws \$ 5.00

PART NO.	DESCRIPTION	LIST
14.	102 12705	Check valve \$ 20.05
15.	102 12712A	Pump body \$ 171.75
16.	102 12720	Body screws \$ 5.00
17.	102 12777	Prime/drain plug \$ 3.61
18.	102 UV15163	O-ring \$ 1.26
19.	102 12777	Prime/drain plug \$ 3.61
20.	102 UV15163	O-ring \$ 1.26
21.	102 12900	Upper volute screw \$ 1.96
22.	102 12901	Washer \$ 1.16
23.	102 12902A	Key \$ 2.28
24.	102 12716	Slinger \$ 7.45
25.	102 12710	O-ring \$ 4.70
	102 12999A	Pump seal/o-ring kit \$ 69.65*

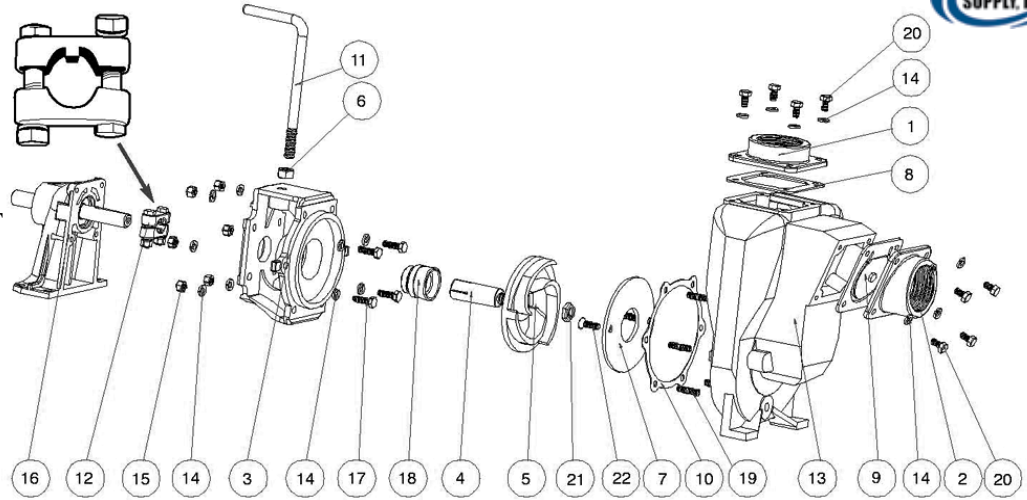
2" BANJO 222 SERIES CAST REPLACEMENT PARTS



PART NO.	DESCRIPTION	LIST
1.	102 12882	Pedestal assembly \$ 270.25
2.	102 17010	Jam nut \$ 1.71
3.	102 15022	Handle \$ 18.10
4.	102 12765A	Impeller bolt \$ 23.35
5.	102 13778	O-ring \$ 2.40
6.	102 13777	Prime/drain plug \$ 5.60
7.	102 V10118	Lock washer \$ 1.25
8.	102 15772	Impeller 5 vane \$ 88.35
9.	102 12716	Slinger \$ 7.45
10.	102 12715A	Bolt \$ 4.70
11.	102 12774VA	Bolt gasket \$ 2.03
12.	102 12719A	Body o-ring \$ 17.75

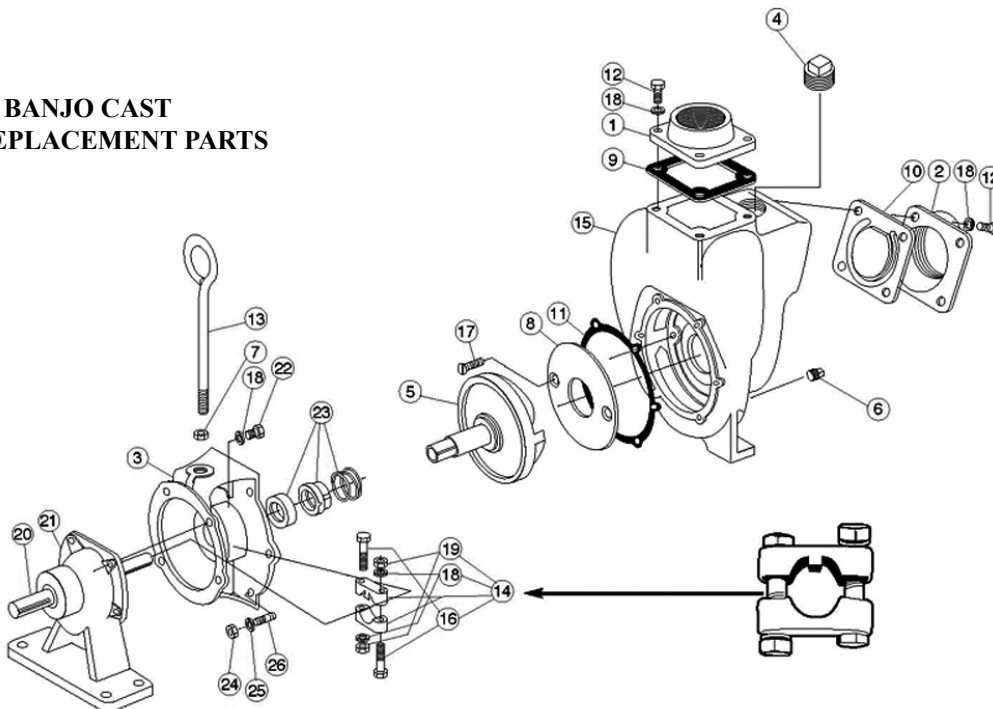
PART NO.	DESCRIPTION	LIST
13.	102 12705	Check valve \$ 20.05
14.	102 15702	Volute \$ 133.00
15.	102 15703	Rear bracket \$ 157.25
16.	102 12902A	Key \$ 2.28
17.	102 12901	Washer \$ 1.16
18.	102 12710	O-ring \$ 4.70
19.	102 12717	O-ring \$ 1.16
20.	102 12713V	Seal \$ 90.50
21.	102 15712	Body \$ 254.00
22.	102 17013	Gasket \$ 9.05
23.	102 17000	Threaded flange \$ 39.75

2" BANJO 200 SERIES CAST REPLACEMENT PARTS



PART NO.	DESCRIPTION	LIST	PART NO.	DESCRIPTION	LIST
1.	102 17000	Outlet flange \$ 39.75	12.	102 17123	Clamp keyed \$ 69.55
2.	102 17002	Inlet flange \$ 55.35	13.	102 17026	Pump housing \$ 302.50
3.	102 17004	Motor adapter \$ 133.25	14.	102 V10118	Lock washer \$ 1.25
4.	102 17006	Shaft \$ 121.00	15.	102 V10119	Hex nut \$ 1.25
5.	102 17008	Impeller \$ 94.40	16.	102 12882A	Pedestal \$ 270.25
6.	102 17010	Hex nut \$ 1.71	17.	102 17040	Cap screw \$ 4.98
7.	102 17011	Wear plate \$ 49.45	18.	102 17035	Seal \$ 92.00
8.	102 17013	EPDM gasket \$ 9.05	19.	102 17042	Stud N/A
9.	102 17016	Check valve \$ 27.20	20.	102 17019	Cap screw N/A
10.	102 17018	Gasket \$ 9.05	21.	102 17009	Hex nut \$ 12.65
11.	102 15022	Handle \$ 18.10	22.	102 17130	Screw \$ 3.27

3" BANJO CAST REPLACEMENT PARTS



PART NO.	DESCRIPTION	LIST	PART NO.	DESCRIPTION	LIST
1.	102 18008	Outlet flange \$ 77.10	14.	102 18129	Clamp (new style) \$ 86.05
2.	102 18012	Inlet flange \$ 86.15	15.	102 18001	Pump housing \$ 774.50
3.	102 18026	Adapter gas engine \$ 228.50	16.	102 18030	Bolt N/A
4.	102 13777	Plug \$ 5.60	17.	102 18106	Wear plate screw \$ 3.27
5.	102 18023	Impeller for gas engine \$ 450.25	18.	102 V20018	Lock washer N/A
6.	102 12777	Plug 1/2" \$ 3.61	19.	102 18032	Hex nut N/A
7.	102 18034	Jam nut N/A	20.	102 18504	1" shaft \$ 86.75
8.	102 18004	Wear plate \$ 83.15	21.	102 18500	Pedestal \$ 518.50
9.	102 18009	EPDM outlet gasket \$ 12.75	22.	102 17704	Bolt N/A
10.	102 18013	Gasket/check valve \$ 63.05	23.	102 18025	Seal \$ 145.25
11.	102 18021	Gasket \$ 10.30	24.	102 V20019	Hex nut N/A
12.	102 18010SS	Bolt N/A	25.	102 V20018	Lock washer N/A
13.	102 18033	Handle \$ 26.15	26.	102 18218	Stud N/A



PUMP MAINTENANCE & REPAIR



3610 N Cliff Ave
Sioux Falls SD, 57104
1-800-232-2637

Our Service Dept Specializes In Repair and Maintenance Using Only Genuine OEM Parts!



RAVEN INJECTION PUMP

We offer:

Hydraulic pump inspection, seal and o-ring replacement

Chemical pump cartridge, gasket and o-ring replacement

Piston pump oil change and inspection of valves, o-rings, and pistons

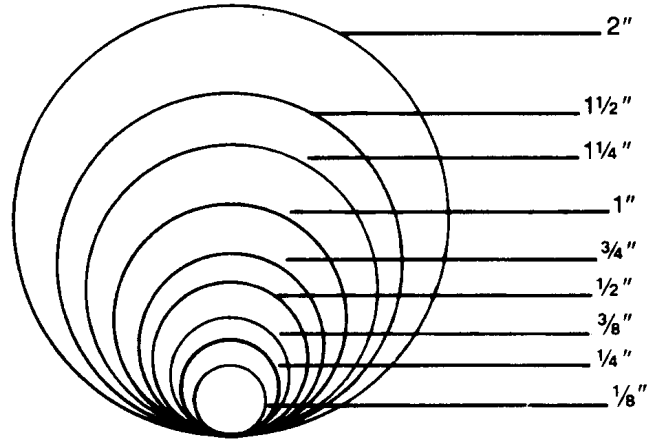
Raven injection pump inspection, replacement of o-rings, test and calibrate

Maintenance Questions? Need Repair? Call Us
1-800-232-2637

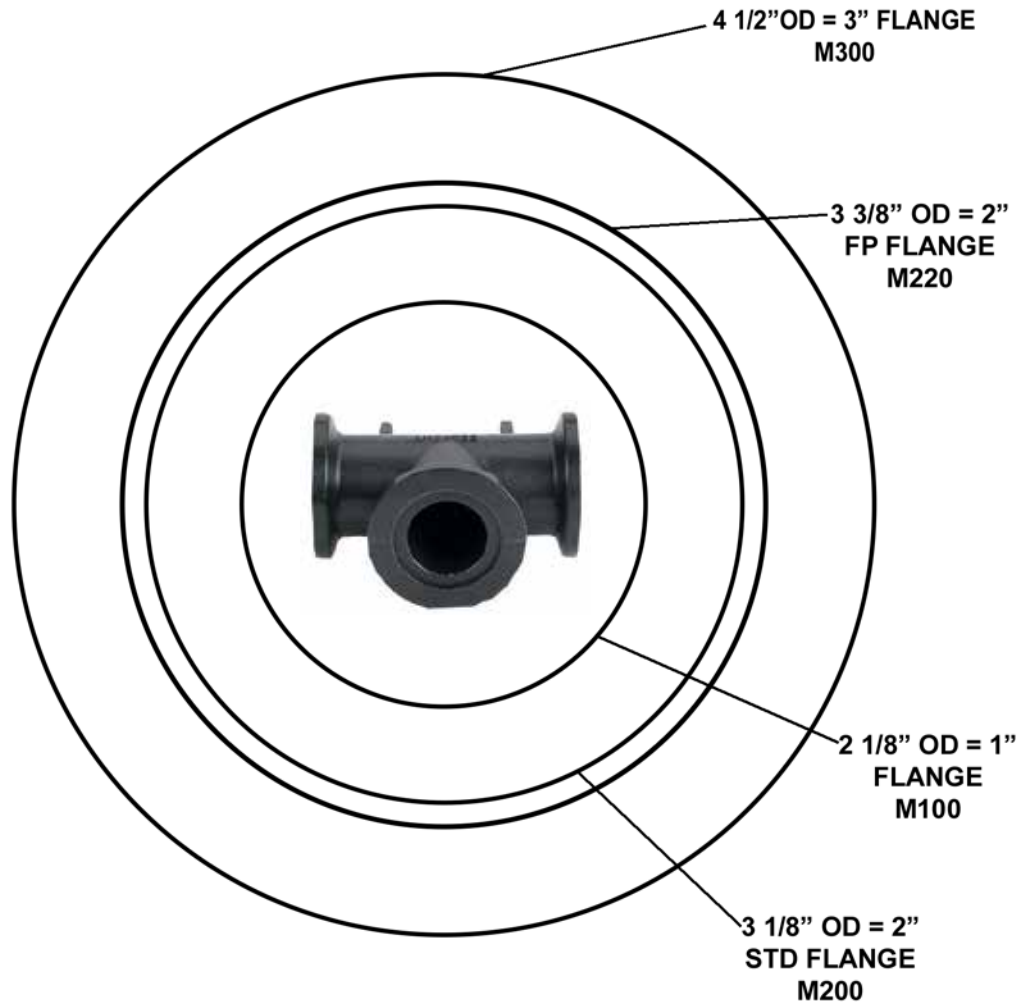
AVOID SPRING RUSH - BE READY TO GET IN THE FIELD!

MALE PIPE (NPTF) THREAD SIZE ACTUAL SIZE

- ABBREVIATIONS**
 MPT - MALE PIPE THREAD
 FPT - FEMALE PIPE THREAD
 MGHT - MALE GARDEN HOSE
 THREAD
 FGHT - FEMALE GARDEN HOSE
 THREAD
 P - POLYETHYLENE
 PP - POLYPROPYLENE



MANIFOLD FLANGE CONNECTOR





TECHNICAL INFORMATION



All tabulations in the spray charts are based on spraying water which weighs 8.34 lbs. per 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 **divide** the desired GPM or GPA of solution by the water rate conversion factor. Then use the new converted number to select the proper nozzle size.

Weight of Solution	Spec. Gravity	Conversion factor
7.0 lbs. per gallon	.84	1.09
8.0 lbs. per gallon	.96	1.02
8.34 lbs. per gallon-Water	1.00	1.00
9.0 lbs. per gallon	1.08	.96
10.0 lbs. per gallon	1.20	.91
10.65 lbs. per gallon 28%	1.28	.87
12.0 lbs. per gallon	1.44	.83
14.0 lbs. per gallon	1.68	.77

NOTE: be sure to divide by this number

COMMON FORMULAS

Round tank Capacity = Dia²(inches) x Length(inches) x .0034

Rectangular Tank Capacity = $\frac{L \times W \times H \text{ in inches}}{231}$

Gallons per foot in Round tanks = Dia(ft)² x 5.875

Circumference of Circle = Diameter x 3.1416

Area of Circle = 3.1416 x radius²

Acres = L(ft)xW(ft) divided by 43,560

Acres/hour = $\frac{\text{swath(inches)} \times \text{mph}}{100}$

USEFUL INFORMATION

1 acre = 43,560 ft.²

1 mile = 5,280 ft.

1 gallon = 128 ounces

8 pints

4 quarts

3.79 liters

.1337 cubic ft.

1 cubic ft. = 7.48 gallon

1 cup = 8 ounces

1 ounce = 2 tablespoons = 3 teaspoons = 28.35 grams

PRESSURE DROP

Flow gpm	Pressure drop in PSI (10 ft. length less couplings)				
	1/4"ID	3/8"ID	1/2"ID	3/4"ID	1"ID
0.5	1.4	.2			
1.0		.7			
1.5		1.4	.4		
2.0		2.4	.6		
2.5		3.4	.9		
3.0			1.2		
4.0			2.0		
5.0			2.9	.4	
6.0			4.0	.6	
8.0				.9	.3
10.0				1.4	.4

USEFUL FORMULAS

$$\text{GPM per nozzle} = \frac{\text{GPA} \times \text{MPH} \times \text{W(inches)}}{5940}$$

$$\text{GPA} = \frac{5940 \times \text{GPM (per nozzle)}}{\text{MPH} \times \text{Width (inches)}}$$

Volume in hose in Oz.

$$\text{Oz} = 5.236 \times \text{ID squared (in)} \times \text{length (ft)}$$

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

$$(\text{PSI} \times \text{GPM divide by } 1460) = \text{Electric HP} (\times 1.3 \text{ for gas engines})$$

RAVEN FORMULAS

$$\text{New speed cal. \#} = \frac{\text{cal. \#} \times 5280}{\text{console distance reading (1 mile)}}$$

$$\text{New meter cal. \#} = \frac{\text{cal. \#} \times \text{console volume reading}}{\text{actual volume}}$$

ANHYDROUS AMMONIA

Pounds per Gallon of NH₃ = 5.15

Pounds per Gallon of actual "N" = 4.22

SPEED CALIBRATION

Speed	Time in seconds to travel a distance of:		
	100 feet	200 feet	300 feet
3.0	23	45	68
4.0	17	34	51
5.0	14	27	41
6.0	11	23	34
7.0	9.7	19	29
8.0	8.5	17	26
9.0	7.6	15	23
10.0	6.8	14	20
12.0	5.7	11	17
15.0	4.5	11	13.6
20.0	3.4	6.8	10.2

NOZZLE SPACING CONVERSION

Factors of 20" Spacing

Row Spacing	10"	12"	14"	15"	16"	18"	20"	22"	24"	26"	28"	30"
Factor	2.0	1.67	1.43	1.34	1.25	1.11	1.00	.91	.86	.77	.71	.67

Factors for 40" spacing

Row Spacing	22"	24"	26"	28"	30"	32"	34"	36"	38"	40"
Factor	1.83	1.67	1.54	1.43	1.33	1.25	1.18	1.11	1.05	1.00

NOTE: MULTIPLY WHEN USING ABOVE.

SUGGESTED MINIMUM SPRAY HEIGHT

SPRAY SPRAY HEIGHT

ANGLE	20" Spacing	30" Spacing
73°	20" to 22"	29" to 31"
80°	17" to 19"	26" to 28"
110°	10" to 12"	14" to 18"



3610 North Cliff Ave.
Sioux Falls So Dak 57104

PRESORTED
STANDARD
US POSTAGE PAID
SIOUX FALLS, SD
PERMIT NO. 1209



“YOUR CHOICE...WHEN QUALITY IS IMPORTANT!!”

3610 NORTH CLIFF ~ SIOUX FALLS, SOUTH DAKOTA 57104

ORDER PHONES — 1 800-322-2637

1 605-338-7210

Fax Number 1 605-338-6015

www.crsupply.com e-mail orders@crsupply.com

We accept VISA, MasterCard & Discover

