

OWNERS MANUAL

SKID MOUNTED HAND GUN SPRAYERS

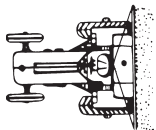
Since VAN'S EQUIPMENT'S beginnings we have used a generic owners manual. It was just too costly to have printed and keep on hand owner manuals specific to each size and type sprayer we manufacture.

We now have the technology in house to create sprayer specific manuals and to print them only as needed. We think we have made a good beginning, but these manuals are still in the development stage. At this point we would appreciate the input of our end user customer and our dealers as to how we can make these manuals more useful and user friendly.

This is the prototype manual. Please look over the manual and give us your input.

CALL VANS EQUIPMENT AT 1-800-765-1101 AND ASK FOR CRAIG

We appreciate your input on these manuals.



van's

EQUIPMENT COMPANY

P.O. BOX 3157 • 2169 SYLVESTER HIGHWAY • MOULTRIE, GEORGIA 31776-3157

We Appreciate You and Your Business!

(229) 985-1101

VAN'S EQUIPMENT
BUILT FOR FARMING INTEGRITY

WHEN SELECTING EQUIPMENT FOR FARMING THE NAME VAN'S means availability, reliability, and proven superiority. Maintaining a close association with farming customers has resulted in equipment design and manufacturing philosophy that reflects the exacting requirements of our customers.

Van's Equipment Company, Inc. appreciates your purchase of a new spray unit. This unit, is designed to give years of service with proper care. The following pages will be helpful in set-up and maintenance of your new unit.

PLEASE READ THIS MANUAL CAREFULLY BEFORE INITIAL START-UP IS ATTEMPTED.

WE APPRECIATE YOU
AND YOUR BUSINESS

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SKID MOUNTED HAND GUN SPRAYERS

Van's Skid Mounted Hand Gun Sprayers come in a wide range of different sizes from 30 gallon to 200 gallon, with pump capacity from 1.9 GPM @ 40 PSI through 15 GPM @ 550 PSI. They also have a wide variety of uses ranging from the Pest Control Industry to weed control around the farm, and insect control on livestock. Also, many are often used in disinfecting livestock barns and washing down buildings & equipment. The simple skid frame makes it easy to load on a pickup truck or flat bed trailer for mobility.

Standard Features Include:

- | | |
|---|--|
| 1) Polyethylene Tank | 3) Various Pump Choices for Different Jobs |
| 2) Heavy Duty Skid Frame w/Van's Exclusive 5 Year Structural Warranty | 4) Briggs & Stratton Engines |
| | 5) Hose Rack & 50' Hose & Hand Gun |

	12 VOLT ELECTRIC 1.9 GPM @ 40 PSI	10TA-17 4.8 GPM @ 275 PSI	3HP.4101C 9 GPM @ 150 PSI
30 GALLON	K3011		K3012
50 GALLON	K5011	K5012	K5013

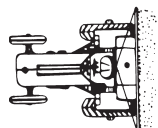
CAUTION: Chemicals can be dangerous. Always follow instructions on the chemical container label. Improper selection or use of chemicals can cause serious injury to humans and the environment. Be Safe. Select the right chemical and handle it with care.



	3HP 6500 CR 5.6 GPM @ 200 PSI	6.5HP 7560CR 10.3 GPM @ 200 PSI	5HP KAPPA-40/GR 11 GPM @ 560 PSI	8HP KAPPA-55/GR8 15 GPM @ 560 PSI
110 GALLON	K11012	K11022	K11032	K11052
150 GALLON	K15013	K15023	K15033	K15053
200 GALLON	K20014	K20024	K20034	K20054

- Options Include:**
- 1) Choice of 30 Gallon Through 200 Gallon Tank
 - 2) Choice of Pumps
 - 3) Manual Hose Reel
- Call For Price**

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

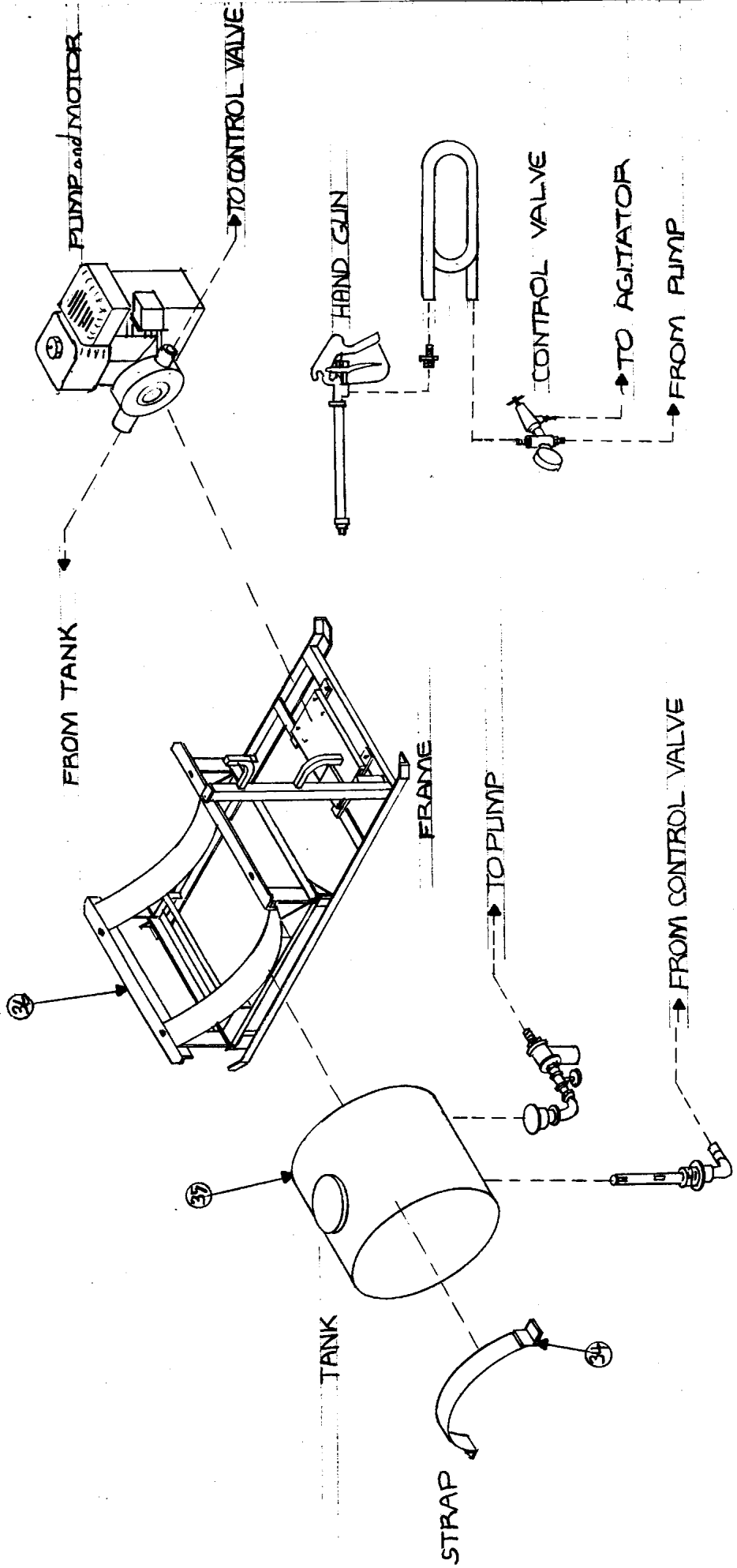


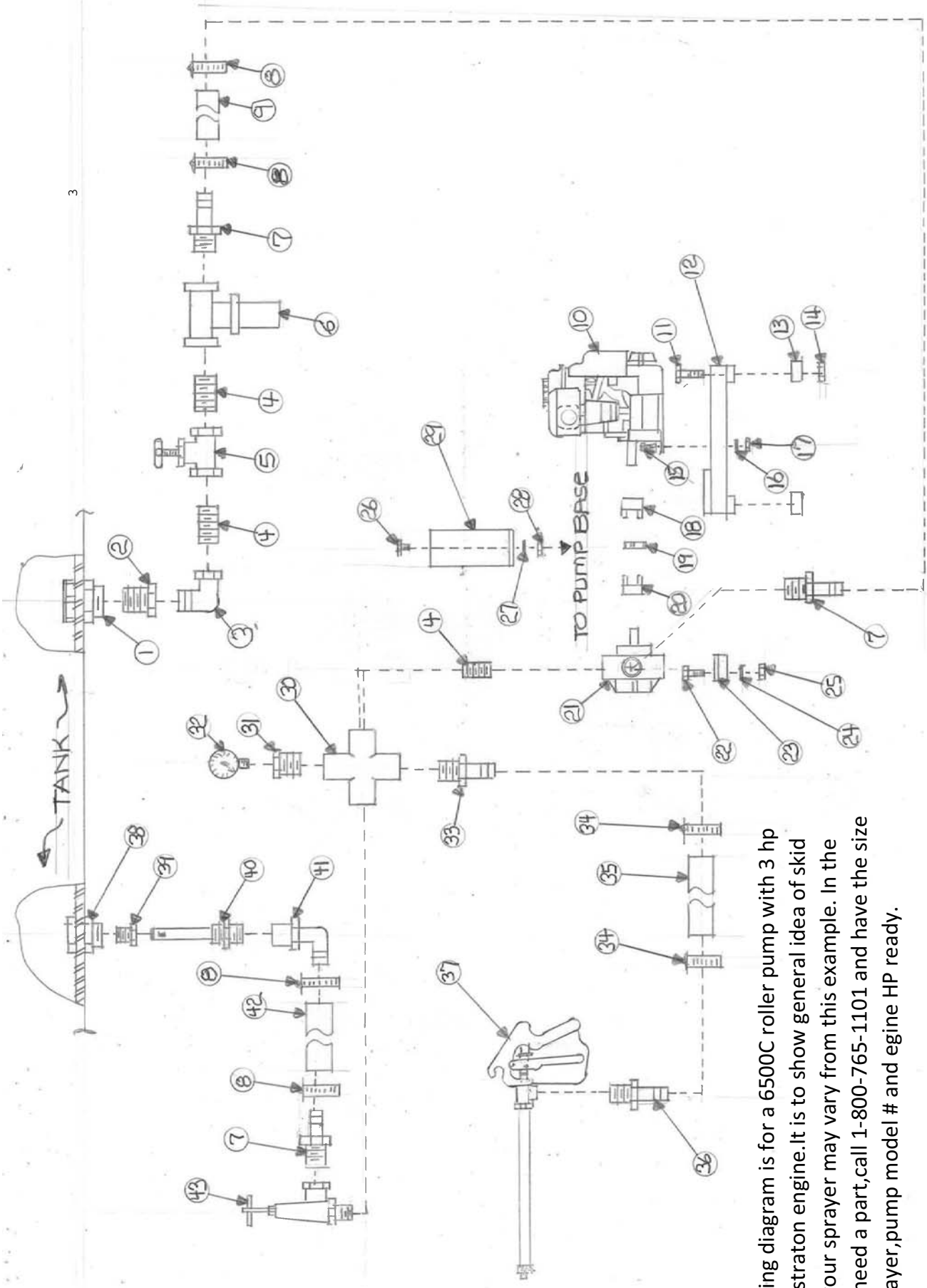
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This plumbing diagram is for a 6500C roller pump with 3 hp briggs and straton engine. It is to show general idea of skid plumbing, your sprayer may vary from this example. In the event you need a part, call 1-800-765-1101 and have the size of your sprayer, pump model # and engine HP ready.

ITEM NO.	DESCRIPTION	PART NO.
1	Tank Fitting 1 1/4" anti-Vortex	63065
2	Reducer Bushing 1 1/4" MPT x 3/4" FPT Nylon	RB11434
3	Street Elbow 3/4" Nylon	SE34
4	Nipple 3/4" x Close Galvanized	GN341.5
5	Gate Valve 3/4" FPT Brass	34BGV
6	Strainer 3/4" FPT 50 Mesh Nylon	AA126-ML-3-50
7	Hose Shank 3/4" MPT x 1/2" Barb Nylon	A3412
8	Hose Clamp 1/2"	8H
9	Hose Black Ag. 1/2"	10031730
10	Engine 3.5HP Briggs 3/4" Shaft 6 To 1 Gear Reduction	91252-1049
11	Bolt 7/16" x 2 1/2"	CS716212C
12	Pump Base	CALL
13	Shock Cushion	TRW82123
14	Lock Nut 7/16"	HLN716C
15	Bolt 5/16" x 1 3/4"	CS516134C
16	Lock Washer 5/16"	FW516
17	Nut 5/16"	HN516C
18	Shaft Coupling 3/4" Motor	2739-1002
19	Shaft Coupling Center Disc	2729-1001
20	Shaft Coupling 5/8" Pump	2739-1001
21	Pump 6 Roller	6500C
22	Bolt 5/16" x 3/4"	CS51634C
23	Base Kit	3420-0023
24	Lock Washer 5/16"	LW516
25	Nut 5/16"	HN516C
26	Bolt 1/4" x 3/4"	CS1434C
27	Lock Washer 1/4"	LW14
28	Nut 1/4"	HN14C
29	Safety Shield	2840-0012
30	Cross 3/4" Galvanized	GCR3400
31	Reducer Bushing 3/4" MPT x 1/4" FPT Galvanized	GB3414
32	Pressure Gauge 0-160 PSI Dry	SG-160
33	Hose Shank 3/4" MPT x 3/8" Barb Nylon	A3438
34	Hose Clamp 3/8"	6H
35	Hose Black Ag. 3/8"	10031720
36	Hose Shank 1/2" MPT x 3/8" Barb	A1238
37	Spray Gun	AA43LA-AL6
38	Tank Fitting 1 1/4" Double Thread	60403
39	Reducer Bushing 1 1/4" MPT x 3/4" FPT Nylon	RB11434
40	Jet Agitator	3371-0019
41	Elbow 3/4" FPT x 1/2" Barb 90 Nylon	EL3412F
42	Hose Red Ag 1/2"	3204-0405
43	Pressure Relief Valve 400 PSI	13895-6

CAUTIONS AND SAFETY

- A. Never allow anyone to ride sprayer while in operation.
- B. Be sure all driveline shields are in place and drive shaft is securely attached at both ends and shaft turns freely.
- C. NEVER SHUT RETURN LINE COMPLETELY OFF.
- D. Hitch only to recommended hitch points.
- E. Do not exceed pump Maximum RPM of 540.
- F. Never run pump dry.
- G. Check lug and hitch bolts before transporting.
- H. When Transporting always check that adjustable items are secure . Use lights or other warning devices to warn other vehicles.
- I. Always shut tractor off before attaching drive shaft.
- J. Check agitation frequently.
- K. Always have tank half full before adding chemical.
- L. Always adjust regulator while pump is running and never exceed capacity of gauge.
- M. Always use clean water and check strainer daily.
- N. Thoroughly clean sprayer after each use.

BEFORE RUNNING PUMP

- A. Be sure oil is half way up sight tube. If needed fill with 20w-30w NON DETERGENT oil.
- B. Be sure there are no suction line restrictions.
- C. Check that all clamps are tight.
- D. All VAN,S sprayers with diaphragm pump come with 20 MESH screens in the strainer. Be sure when replacing the screen to use 20 MESH.
- E. Pulsation damper should be charged to 20 percent of operating pressure,(min 5 psi). There is a valve stem like on a tire on the damper head for this purpose.
- F. Run pump at 0 pressure for 1 minute to remove air from system.
- G. Donot exceed recommended pump speed and pressure.
- H. Do not restrict pump on suction side.VAN'S recommends wire coil hose on suction lines.
- I. Change oil every 200 hours or at end of season.To drain oil from pump,remove the drain plug,(see manufactures manual or see breakdown in this manual), slowly turn shaft until all oil is drained.To fill pump with oil,slowly pour oil into sight tube while turning shaft.Turning shaft purges air from crankcase. REQUIRES 87 oz. OF OIL.

SETUP AND USE

- A. Before every use inspect for damage.
- B. Look in tank to make sure its clean.
- C. Attach hitch to draw bar.Sprayer hitch has some adjustment to help level unit.
- D. Add about 50 Gallons of clean water,(no chemicals at this time.
- E. Open ball vale in suction line and adgitator line and check for leaks.
- F. Start pum and check for leaks throughout system.

- G. Always leave bypass line open during operation of pump. NEVER shut bypass completely off, This can cause serious injury or death and damage pump. Again NEVER shut pressure regulator completely off.
- H. The hand gun has an inline shut off ball valve at pump to shut off flow to gun. The trigger on gun can be used for intermittent use. The front handle on gun barrel is used to adjust spray pattern.
- I. The tips and boomless nozzle have individual shut offs on the manifold on rear of sprayer.
- J. The tips can be adjusted up and down and side to side. The boomless nozzle can be rotated 180 degrees the spray either floor or ceiling.

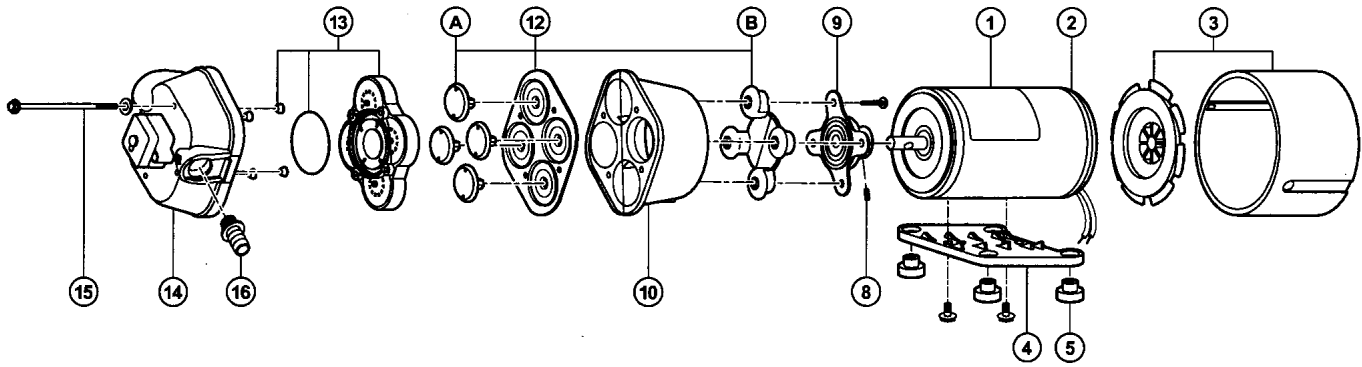
CLEANUP AND STORAGE

- A. Clean thoroughly, remove all chemical residues from tank, pump strainer, and tips. Flush entire system with clean water, followed by a solution of 1 quart household ammonia to 25 gallons of water.
- B. Clean all tips, nozzles, including gun tip with soft brush. NEVER use metal object to clean tips.
- C. Inspect tips for wear.
- D. Drain tank completely and leave outside to dry. Be sure all residue has been removed.
- E. For long term or off season storage, do all of above then add a few gallons of antifreeze and run at low pressure until liquid come out all tips then immediately shut off pump. This will fill system with antifreeze.
- F. Store in dry place out of weather. Keeping sprayer out of sunlight will lessen UV effects on tank.
- G. Never change from one chemical to another without thoroughly cleaning sprayer.

TROUBLE SHOOTING THE SPRAYER

PROBLEM	PROBABLE CAUSE	POSSIBLE REMEDY
Erratic pressure indication on pressure gauge	air leaking into suction line	Tighten all fittings and hoses between pump and tank
	Trash in control valve or pressure gauge	Remove and clean parts
	Suction line kinked or clogged	Remove suction line and clean-check tank and strainer
	Air leak in suction hose	Replace hose
Pressure gauge fluctuates excessively	Suction hose collapsed	Replace hose
	Pump is sucking in air through the suction line or air has not been entirely evacuated from strainer	Examine the suction hose and make sure it is firmly secured. Run the pump with outlet hose open to evacuate air from pump
Pump loses suction	Suction strainer clogged	Clean strainer and tank
	Air leak in suction hose	Replace hose
	Suction hose collapsed	Replace hose
	Pump air locked	Remove discharge line and pump liquid through pump
	Pump worn and clearances too great	Replace or repair pump
Pump does not draw water	Seals worn out or deteriorated	Replace pump seals
	One or more valves are seated improperly	Examine the valve seatings and clean them
	Suction line is plugged or collapsed clogged strainer	Examine suction line Clean strained
Noisy pump	Excessive pump speed	Slow the pump
	Air leak in suction line	Replace suction hose
	Partially clogged strainer	Clean strainer
Pump shows decreased capacity	Suction strainer clogged	Clean strainer
	Air leak in suction hose	Replace suction hose
	Moving parts worn	Replace worn parts
	Worn seal	Replace seal
	Pump roller stuck	Clean pump inside
	Pump operating too slow	Speed up pump
	Nozzles too large for capacity of pump	Use smaller nozzles or reduce number of nozzles on boom
Pump leaks	Worn out seal	Replace seal

PARTS LIST MODEL 4300 SERIES



KEY PART NO.	DESCRIPTION	QTY	4300 SERIES DASH NO.				
			-042	-141	-242	-500	-501 -502
1	02009-027 12V DC Mtr (TEFC)	1		X		X	X
	02029-039 115V AC Mtr (TEFC)	1	X				X
	02039-027 230V AC Mtr (TEFC)	1			X		
2	20115-114 Brush Endbell/Rect. Assy. (AC) w/BRG	1	X				X
	20115-219 Brush Endbell/Rect. Assy. (AC) wo/BRG	1	X				X
	20115-213 Brush Endbell Assy. (DC) wo/BRG	1		X		X	X
	20115-113 Brush Endbell Assy. (DC) w/BRG	1		X		X	X
3	20132-005 Fan/Shroud Kit	1	X	X	X	X	X
4	11028-101 Plastic Baseplate Assy. with Grommet & Screws	1	X	X	X	X	X
5	20132-000 Grommet Kit	Set of 4	X	X	X	X	X
8	20552-000 Cam/Bearing Set Screw	1	X	X	X	X	X
9	Cam/Bearing Kit w/Set Screw						
	20400-002	1	X	X	X	X	
	20400-003	1					X
10	20401-000 Bearing Cover P.P.	1	X	X	X	X	X
12	Diaphragm Kit w/Pistons & Screws						
	20403-040 Santoprene ®	1	X	X	X	X	X
	20403-050 Geolast ®						

KEY PART NO.	DESCRIPTION	QTY	4300 SERIES DASH NO.				
			-042	-141	-242	-500	-501 -502
13	Check Valve Kit w/"O" Ring & Ferrules						
	20407-020 Viton ®	1				X	X
	20407-030 EPDM	1	X	X	X		X
14	Upper Housing Assy Kit						
	20404-018 E/S SW45	1	X				
	20404-017 V/G SW45	1					X
	20404-001 E/S SW45	1		X			
	20404-007 V/G SW45	1				X	
	20404-020 E/S SW30	1			X		
	20404-003 E/S SW45	1					X
15	20405-000 Pump Screw Kit w/Washer & Ferrules	1	X	X	X		X
	20405-002 Geolast ®	1				X	X
16	20381-002 1/2" Port Kit EPOM	2	X	X	X		
	20381-015 1/2" Port Kit Viton ®	2				X	X
	20381-006 3/4" Port Kit EPOM	2					X
	20381-007 Garden Hose Port Kit	2					X
	Pump Head Assy						
	20406-020A	1	X				
	20406-021A	1					X
	20406-000A	1		X			
	20406-005A	1				X	
	20406-023A	1			X		
	20406-002A	1					X

SERVICE TIPS

DISASSEMBLY Remove four pump head screws (15). Rotate bearing cover (10) so drain notch is aligned with cam/bearing assembly set screw (8). Loosen set screw with 1/8" allen wrench and slide pump head off shaft. Always use complete FLOJET repair kits upon reassembly.

ASSEMBLY Install new single-piece outer piston (B) into lower housing (10) with piston tops pointing away from motor. Slightly bend outer piston (B) along premolded crease to aid assembly. Place diaphragm in lower housing (10) with the molded o-ring seals facing away from motor. Insert each inner piston (A) through diaphragm into outer piston. Turn each piston until fully seated. Align cam/bearing assembly (9) with outer piston (B). Secure with cam/piston screws using 18 inch pounds of torque. Reassemble lower housing (9, 10, 12) to motor. Set screw MUST be positioned over shaft indentation and secured tightly. Reassemble pump upper housing (13-16). Check that ferrules are installed in upper housing and O-ring is properly seated before inserting check valve assembly (13) into upper housing (14). Align pump assembly to motor and tighten pump head screws evenly with 25 inch pounds of torque.

WARRANTY

FLOJET warrants this product to be free of defects in material and/or workmanship for a period of one year after purchase by the customer from FLOJET. During this one year warranty period, FLOJET will at its option, at no charge to the customer, repair or replace this product if found defective, with a new or reconditioned product, but not to include costs of removal or installation. No product will be accepted for return without a return material authorization number. All return goods must be shipped with transportation charges prepaid. This is only a summary of our Limited Warranty. For a copy of our complete warranty, please request Form No. 100-101.

RETURN PROCEDURE

Prior to returning any product to FLOJET, call customer service for an authorization number. This number must be written on the outside of the shipping package. Place a note inside the package with an explanation regarding the reason for return as well as the authorization number. Include your name, address and phone number.

Flojet



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FLOJET

Model 4300 Industrial Series "Quad" Demand Pump

Model 4300 Industrial Series

PUMP INSTALLATION

MOUNTING

Flojet 4300 is a self priming pump. It may be located several feet from the tank, above or below the liquid level (It is not a submersible pump.) For vertical pump mounting be sure that the motor is located on top. This will prevent water from entering the motor chamber in event of a leak.

PLUMBING

For best performance, flexible hose is recommended instead of rigid piping at the pump. Flojet 4000 Series ports are a push in type retained by a "C" clip. To install the 4000 ports move "C" clips to rear of pump. Push the port until snug. Slide "C" clip forward to front of pump. Do not install pump such that plumbing causes excessive stress on either port.

It is essential that a 20 mesh strainer or filter be installed in the tank or in the pump inlet line to keep large foreign particles out of the system. The Flojet 1600 Series 40 or 20 mesh strainer is available with various connections to fit most installations. For more information, request Form No. 81000-072. The use of check valves in the plumbing system may interfere with the priming ability of the pump. Check valves, if used, must have cracking (opening) pressure of no more than 2 psi.

**PRODUCT WARRANTY IS VOID
IF INSTALLATION INSTRUCTIONS
ARE NOT FOLLOWED**

TROUBLESHOOTING

Motor operates, but no pump discharge (Failure to Prime)

- Restricted intake or discharge line. Open all line valves.
- Check for debris in check valves.
- Check for clogged inlet filter.
- Air leak in intake line.
- Punctured pump diaphragm.
- Defective pump check valve.
- Crack in pump housing.

Motor Fails to Turn On

- Pump or equipment not plugged in electrically.
- Loose wiring connection.
- Defective motor or rectifier.

ELECTRICAL

On 115 Volt AC pumps, the black wire lead is common, the white is neutral and green/yellow is ground. On 230 Volt AC pumps, the brown wire lead is common, the blue is neutral and the green/yellow is ground. Never connect the green (or green/yellow) wire to a five terminal. On 12 and 24 Volt DC pumps, match red (+) and black (-) power leads with red and black leads on motor or switch.

OPERATION

Allow pump to prime with discharge line (or spray valve) open, to avoid airlock. Built-in pressure switch will shutoff pump automatically when discharge valve is closed and will restart pump when valve is opened. When pump runs out of liquid, it will continue to operate. Running dry will not damage the pump. Turn off manually.

SPRAY TIP

In spraying applications the pressure generated by the pump is generally dependent upon the size of the spray nozzle. An undersized spray nozzle will cause the pump pressure switch to cycle on and off and create a pulsating flow from the pump. To maintain a smooth flow and constant operating pressure, the smallest size spray nozzles that may be used are as follows:

MODEL	MINIMUM NOZZLE SIZE	
	Equiv. Orifice Diam.	Last 2 Digits*
4300-042	9/64"	30
4300-142	9/64"	30

*Ref. Spraying Systems Catalog

Pump Fails to Turn Off after Discharge Valves are Closed

- Depletion of available liquid supply.
- Punctured pump diaphragm.
- Discharge line leak.
- Defective pressure switch.
- Insufficient voltage to pump.

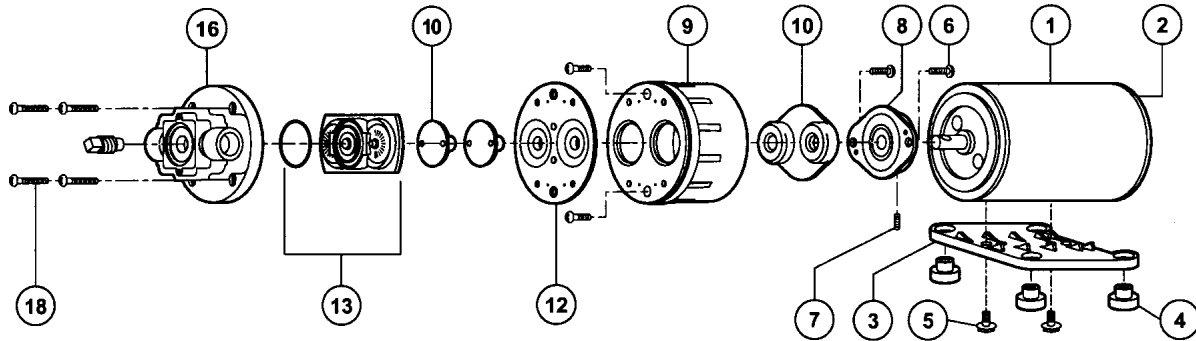
Low Flow and Pressure

- Air leak at pump intake.
- Accumulation of debris inside pump and plumbing.
- Worn pump bearing (excessive noise).
- Punctured pump diaphragm.
- Defective rectifier or motor

Pulsating Flow- Pump Cycles on and off

- Restricted pump delivery. Check discharge lines, fittings, valves and spray nozzles for clogging or undersizing.

2100 SERIES DEMAND PUMP



KEY	PART NO.	DESCRIPTION	QTY.
1	02029-000	Motor 115 Volt AC TENV	1
	02039-001	Motor 230 Volt AC TENV	
	02009-004	Motor 12 Volt DC TENV	
	02019-001	Motor 24 Volt DC TENV	
2	20115-111	Brush Endbell/Rect. Assy. (AC) TENV	1
	20115-219	Brush Endbell/Rect. Assy. (AC) TEFC N/BRG.	
	20115-116	Brush Endbell Assy. (DC) TENV	
	20115-213	Brush Endbell/Rect. Assy. (DC) TEFC N/BRG.	
	20252-500	Internal Rectifier w/Leads**	1
3	11028-101	Motor Base Plate Assy. (Plastic)	1
4	20132-000	Grommets	Set of 4
5	20131-002	Baseplate Screws	Set of 2

CAM BEARING / DIAPHRAGM KIT

	21004-100	#0 Cam, VITON ® Diaphragm	1
	21004-200	#0 Cam, BUNA Diaphragm	1
	21004-400	#0 Cam, SANTO Diaphragm	1
	21004-101	#1 Cam, VITON ® Diaphragm	1
Kit	21004-201	#1 Cam, BUNA Diaphragm	1
Incl.	21004-401	#1 Cam, SANTO Diaphragm	1
	6	#2 Cam, VITON ® Diaphragm	1
	7	#2 Cam, BUNA Diaphragm	1
	8	#2 Cam, SANTO Diaphragm	1
	10	#4 Cam, VITON ® Diaphragm	1
	12	#4 Cam, BUNA Diaphragm	1
	21004-404	#4 Cam, SANTO Diaphragm	1
	21004-105	#5 Cam, VITON ® Diaphragm	1
	21004-205	#5 Cam, BUNA Diaphragm	1
	21004-405	#5 Cam, SANTO Diaphragm	1

KEY	PART NO.	DESCRIPTION	QTY.
9	20428-100	Bearing Cover Poly Pro	1
*13		Check Valve Assy. (Single Bypass)	1
	20028-002	SANTOPRENE	
	20028-012	BUNA N/FAB	
	20028-045	VITON ®	
		Check Valve Assy (Double Bypass)	
	20028-003	SANTOPRENE	
	20028-022	BUNA N/FAB	
	20028-078	VITON ®	
		Check Valve Assy (Single Bypass Vented)	
	20028-048	SANTOPRENE	
	20028-079	VITON ®	
	20028-028	BUNA N/FAB	
*14		Bypass Springs & Poppet Kit	
*15	20378-000	For 30 PSI Bypass Nominal (Yellow)	Set of 2
	20378-001	For 50 PSI Bypass Nominal (Blue)	Set of 2
		Standard Bypass Springs shown above. For correct bypass spring part number for your model, request specific parts list, giving the complete pump model number.	
	20500-507	Pump Housing Poly Pro	1
16	21050**	Pump Head Ass'y. Use Pump Dash Number for Pumphead Number	
18	20131-001	Pump Screws	Set of 6
6-18		Brush Kit	Set of 2
	20097-000	For 115 & 230 Volt AC Motor	Set of 2
	20097-001	For 12 & 24 Volt DC Motor	Set of 2
	20132-005	Fan Shroud Kit	1

* Parts included In Pump Service Kit ** Not shown in diagram

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SERVICE TIPS

Refer to exploded view for key number. To disassemble, remove six pump head screws (18), rotate bearing cover (9) so drain notch is aligned with cam/bearing assembly set screw (7), loosen set screw (use 1/8" size Allen Wrench) and slide pump head off shaft. Pistons (10) should always be replaced when new diaphragm is installed. Replace worn parts and reassemble. Be sure raised side of diaphragm faces the motor and radiused corner of pistons face diaphragm. Hex stem of inner piston (10) must be aligned (free to enter) into Hex hole in outer piston set (10). Press pistons together by hand until pistons snap tight. Install flat head screws (6) through outer piston set and tighten screws partially, center pistons in diaphragm then tighten screws securely. Place cam bearing assembly over outer piston set, align locating pins in the holes in cam

bearing assembly. Install round head screws and tighten securely. (Torque to 18 inch pounds, coat motor shaft with grease prior to assembly.) Reassemble bearing and cam bearing assembly to motor and retighten the set screw securely. Set screw **MUST** be positioned in shaft indentation. Position of the screw is critical to avoid misalignment and subsequent diaphragm damage. Reassemble pump head parts, using care to properly seat "O" ring (13) in check valve assembly. With lower housing held vertically, place bypass poppet(s) (14) and spring(s) (15) on locating post(s) molded on diaphragm. Place pump head with check valve and "O" ring installed, over bypass poppet(s) making sure poppet(s) are aligned into bypass ports in check valve housing (13). Tighten pump head screws (18) evenly.

Flojet



ITT Industries
Engineered for life

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FLOJET

Model 2100 Industrial Series Bypass Pump

Model 2100 Bypass Pump

PUMP INSTALLATION

MOUNTING

Flojet 2100 is a self-priming pump. It may be located several feet from the tank, above or below the liquid level. (It is not a submersible pump.) For vertical pump mounting be sure that the motor is located on top. This will prevent water from entering the motor chamber in event of a leak. Pump head may be rotated in 90° increments to simplify plumbing.

PLUMBING

For best performance, flexible 3/8-inch minimum hose is recommended instead of rigid piping at the pump. *Use plastic fittings at the pump port. Brass fittings will break pump housing if over tightened.* Do not install pump such that plumbing causes excessive stress on either port.

It is essential that a 20 mesh strainer or filter be installed in the tank or in the pump inlet line to keep large foreign particles out of the system. The use of check valves in the plumbing system may interfere with the priming ability of the pump. Check valves, if used, must have a cracking (opening) pressure of no more than 2 psi.

ELECTRICAL

On 115 Volt AC pumps, the black wire lead is common, the white is neutral and green/yellow is ground. On 230 Volt AC pumps, the brown wire lead is common, the blue is neutral and the green/yellow is ground. Never connect the green (or green/yellow) wire to a live terminal. On 12 and 24 Volt DC pumps, match red (+) and black (-) power leads with red and black leads on motor or switch.

The bypass and standard pump (no bypass, no switch) must be started and stopped by an electrical (on-off) switch.

OPERATION

Allow pump to prime with discharge line (or spray valve) open, to avoid airlock. Built-in bypass will allow the pump to bypass internally when discharge is restricted or closed and will stop bypassing when the discharge valve is open.

When liquid supply to pump is depleted pump will continue to operate. Running dry will not damage the pump. Turn off manually.

When the bypass type pump is allowed to run against a closed valve the internal bypass will automatically recirculate the flow within the pump at the preset bypass pressure.

Caution: The standard series pump is not equipped with a bypass or pressure switch. Allowed to run against a closed valve the excessive pressure developed by the pump will cause system or pump damage.

TROUBLESHOOTING

Failure to Prime-

Motor operates, but no pump discharge

- Restricted intake or discharge line. Open all line valves, check for "jammed" check valve poppets and clean clogged lines.
- Air leak in intake line.
- Punctured pump diaphragm.
- Defective pump check valve.
- Crack in pump housing.
- Debris in check valves.

Motor Fails to Turn On

- Pump or equipment not plugged in electrically. Loose wiring connection.
- Defective motor or rectifier.
- Frozen cam/bearing.

Low Flow and Pressure

- Air leak at pump intake.
- Accumulation of debris inside pump and plumbing.
- Worn pump bearing (excessive noise).
- Punctured pump diaphragm.
- Defective rectifier or motor
- Insufficient voltage to pump

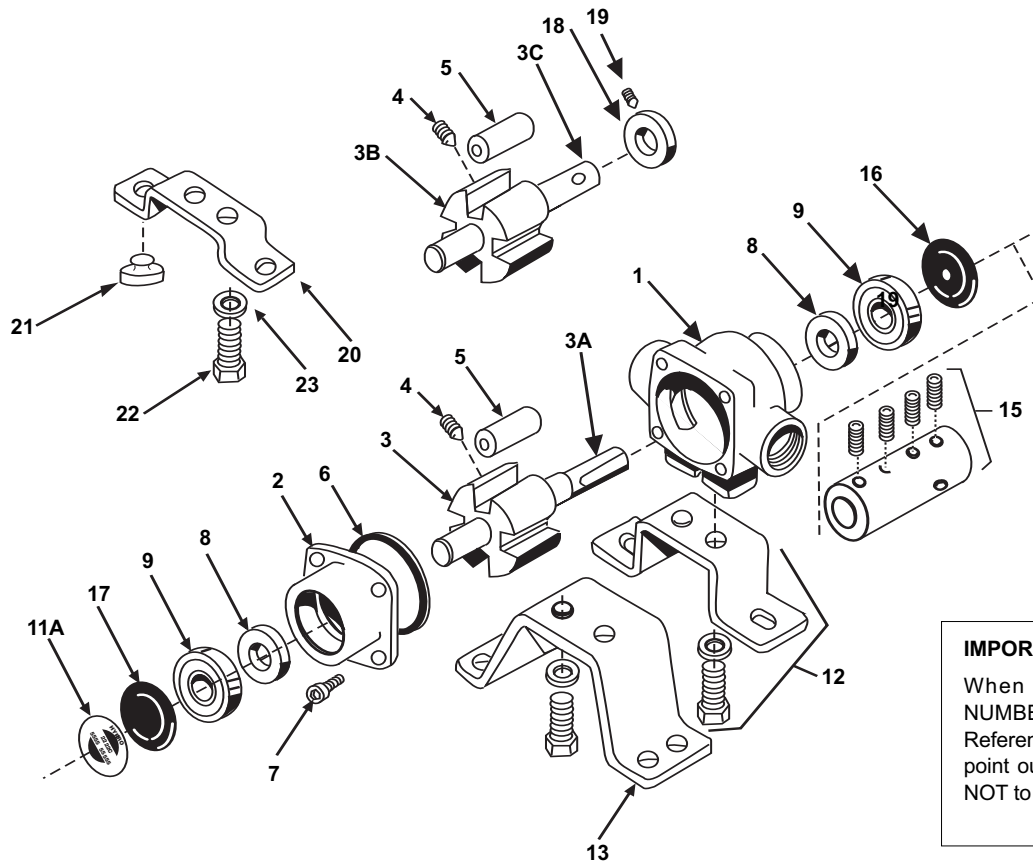
WARRANTY

FLOJET warrants this product to be free of defects in material and/or workmanship for a period of one year after purchase by the customer from FLOJET. During this one year warranty period, FLOJET will at its option, at no charge to the customer, repair or replace this product if found defective, with a new or reconditioned product, but not to include costs of removal or installation. No product will be accepted for return without a return material authorization number. All return goods must be shipped with transportation charges prepaid. This is only a summary of our Limited Warranty. For a copy of our complete warranty, please request Form No. 100-101.

RETURN PROCEDURE

Prior to returning any product to FLOJET, call customer service for an authorization number. This number must be written on the outside of the shipping package. Place a note inside the package with an explanation regarding the reason for return as well as the authorization number. Include your name, address and phone number.

Series 4000



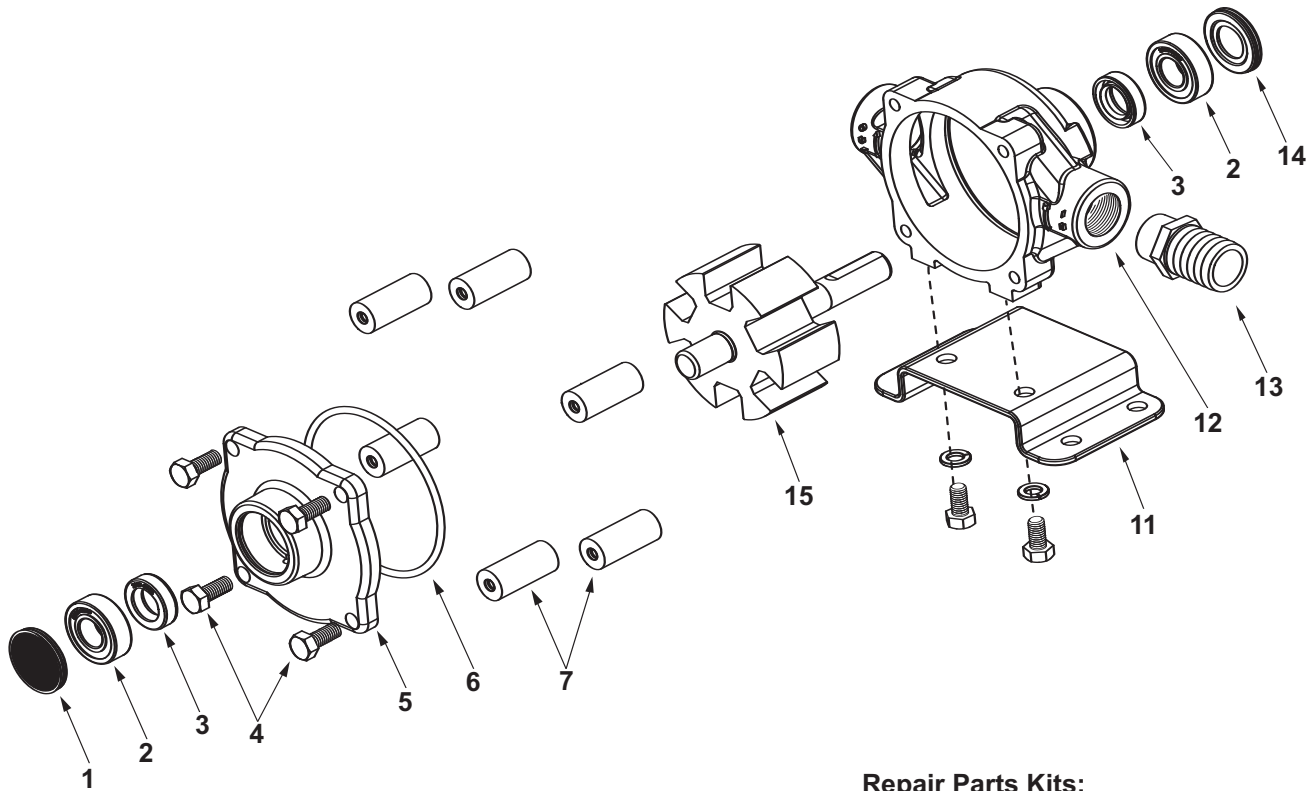
IMPORTANT:
When ordering parts, give PART NUMBER and PART DESCRIPTION. Reference Numbers are used ONLY to point out parts in the drawing and are NOT to be used as ordering numbers.

Ref. No.	Qty. Req'd.	Part Number	Description
1	1	0100-4001C	Body (Cast Iron) with Std. Seal (4001)
1	1	0100-4101C	Body (Cast Iron) with Std. Seal (4101)
1	1	0100-4001N	Body (Ni-Resist) with Std. Seal (4001)
1	1	0100-4101N	Body (Ni-Resist) with Std. Seal (4101)
1	1	0100-4001X	Body(SilverCast) with Std. Seal (4001)
1	1	0100-4101X	Body(SilverCast) with Std. Seal (4101)
2	1	0200-4001C	Endplate (Cast Iron) with Std. Seal (4001)
2	1	0200-4101C	Endplate (Cast Iron) with Std. Seal (4101)
2	1	0200-4001N	Endplate (Ni-Resist) with Std. Seal (4001)
2	1	0200-4101N	Endplate (Ni-Resist) with Std. Seal (4101)
2	1	0200-4001X	Endplate (SilverCast) with Std. Seal (4001)
2	1	0200-4101X	Endplate (SilverCast) with Std. Seal (4101)
3	1	0300-4001C	Rotor (Cast Iron) & Shaft Assembly (4001)
3	1	0300-4101C	Rotor (Cast Iron) & Shaft Assembly (4101)
3	1	0300-4001N	Rotor (Ni-Resist) & Shaft Assembly (4001)
3	1	0300-4101N	Rotor (Ni-Resist) & Shaft Assembly (4101)
3	1	0300-4001X	Rotor (SilverCast) & Shaft Assembly (4001)
3	1	0300-4101X	Rotor (SilverCast) & Shaft Assembly (4101)
3A	1	0500-6600	Shaft Only
3B	1	0301-4001N	Rotor (Ni-Resist) & Shaft Assembly (4001)
3B	1	0301-4101N	Rotor (Ni-Resist) & Shaft Assembly (4101)
3B	1	0301-4101X	Rotor (SilverCast) & Shaft Assembly (4101)
3B	1	0301-4001X	Rotor (SilverCast) & Shaft Assembly (4001)
3C	1	0551-4000	Shaft Only (Hollow Shaft)
4	1	2230-0002	Rotor Set Screw
4	1	2230-0016	Rotor Set Screw (SilverCast Only)
5	4	1005-0002	Super Rollers (Std.)
5	4	1002-0002	Polypropylene Rollers (Optional)
5	4	1001-0002	Buna-N Rollers (Optional)
5	4	1055-0002	Teflon Rollers (Optional)
6	1	1720-0104	O-Ring Gasket for Endplate

Ref. No.	Qty. Req'd.	Part Number	Description
7	4	2220-0018	Endplate Screw
8	2	2107-0002	Viton Seal (Std.)
8	2	2102-0001	Buna-N Seal (Optional)
8	2	2102-0001T	Teflon Coated Buna-N Seal (Optional)
9	2	2000-0010	Ball Bearing (High temp. grease)
11A	1		Name Plate (Specify pump model #)
12	1	3420-0024	Base Kit — Sold Separately Includes: 1 Base, 2 Bolts, and 2 Lock washers for mounting pump to electric motors with 3-1/2" shaft centerline
13	1	3420-0025	Base Kit — Sold Separately Includes: 1 Base, 2 Bolts, and 2 Lock washers for mounting pump to electric motors/gas engines with 4-3/16" shaft centerlines
15	1 kit	1320-0016	Adapter with 4 set screws for gas engine mount (5/8" x 5/8") - Sold Separately
15	1 kit	1320-0015	Adapter (5/8" x 3/4")
16	1	2300-0023	Shaft Bearing Cover
17	1	2300-0021	Bearing Cover
18	1	1420-0001	Locking Collar
19	1	2230-0001	Set Screw
20	1	1510-0054	Base — Sold Separately
21	2	1450-0003	Bumper — Sold Separately
22	2	2210-0003	Bolt — Sold Separately
23	2	2260-0002	Lock Washer — Sold Separately

Repair Parts Kit No. 3430-0390 Consists of: (4) Ref. 5 Super Rollers, (1) Ref. 6 O-Ring Gasket, (2) Ref. 8 Viton Seals.
Repair Parts Kit No. 3430-0158 Consists of: (4) Ref. 5 Polypropylene Rollers, (1) Ref. 6 O-Ring Gasket, (2) Ref. 8 Viton Seals.

Series 6500



IMPORTANT:
 When ordering parts, give PART NUMBER and PART DESCRIPTION. Reference Numbers are used ONLY to point out parts in the drawing and are NOT to be used as ordering numbers.

Repair Parts Kits:

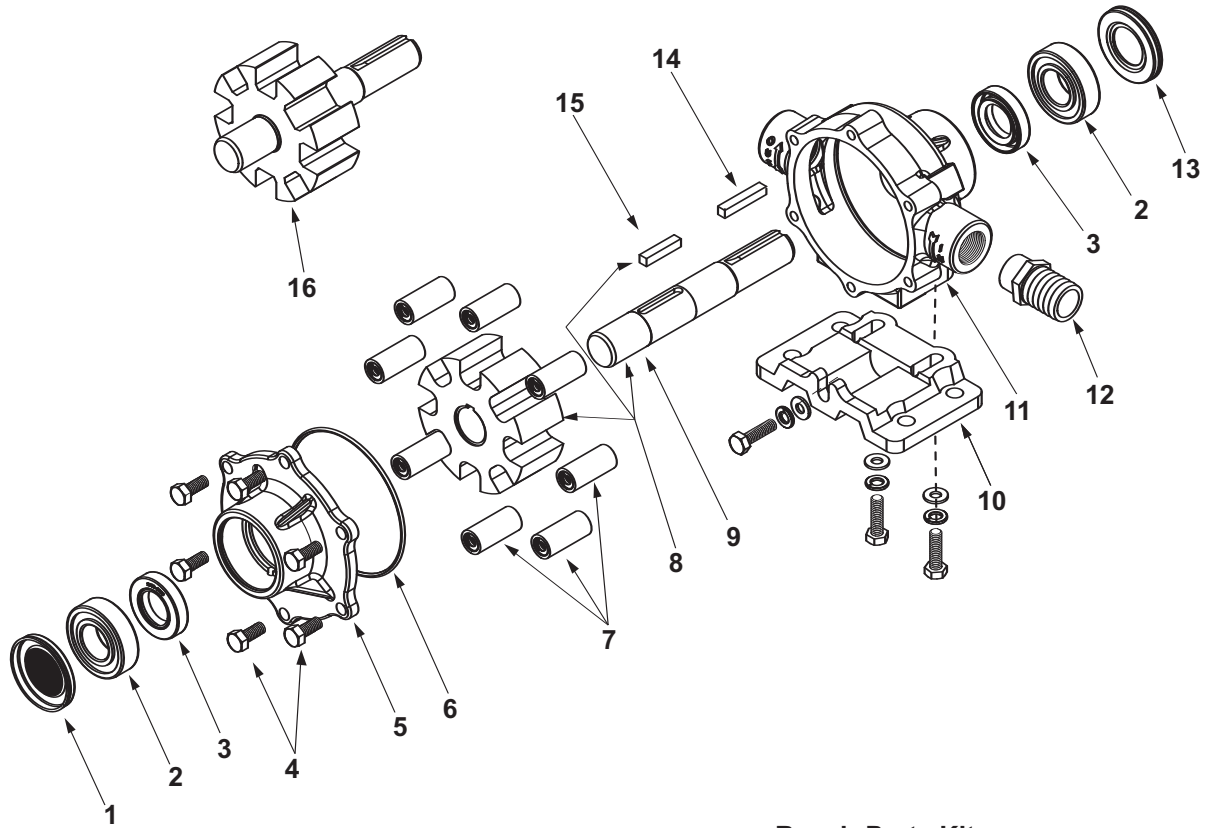
No. 3430-0380 Consists of (6) Ref. 7 Super Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton seals.

No. 3430-0175 Consists of (6) Ref. 7 Polypropylene Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton seals.

Ref. No.	Qty. Req'd.	Part Number	Description
1	1	2300-0021	Bearing Cover
2	2	2000-0010	Sealed Ball Bearing
3	2	2107-0002	Viton Seal (Standard)
3	2	2102-0001	Buna-N Seal (Optional)
3	2	2102-0001T	Teflon-coated Buna-N Seal (Optional)
4	4	2210-0004	Bolts
5	1	0200-6600C	Endplate (Cast Iron) with Seal
5	1	0200-6600N	Endplate (Ni-Resist) with Seal
5	1	0200-6600X	Endplate (SilverCast) with Seal
6	1	1720-0008	O-ring Gasket for Endplate
7	6	1005-0004	Super Roller (Standard)
7	6	1002-0004	Polypropylene Roller (Optional)
7	6	1052-0004	Buna-N Roller (Optional)
7	6	1055-0004	Teflon Roller (Optional)

Ref. No.	Qty. Req'd.	Part Number	Description
11	1 kit	3420-0023	Base Kit - Sold Separately Includes: (1) Base, (2) Bolts and (2) Washers
12	1	0100-6600C	Body (Cast Iron) with Seal
12	1	0100-6600N	Body (Ni-Resist) with Seal
12	1	0100-6600X	Body (SilverCast) with Seal
13	1	2404-0052	1" Hose Barb
14	1	2300-0023	Shaft Bearing Cover
15	1	0300-6600C	Rotor Assembly (Cast Iron)
15	1	0300-6600N	Rotor Assembly (Ni-Resist)
15	1	0300-6600X	Rotor Assembly (SilverCast)

Series 7560



Repair Parts Kits:

No. 3430-0381 Consists of (8) Ref. 7 Super Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton seals

No. 3430-0167 Consists of (8) Ref. 7 Polypropylene Rollers, (1) Ref. 6 O-ring, and (2) Ref. 3 Viton seals

IMPORTANT:

When ordering parts, give PART NUMBER and PART DESCRIPTION. Reference Numbers are used ONLY to point out parts in the drawing and are NOT to be used as ordering numbers.

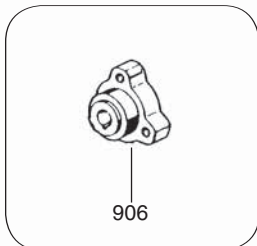
Ref. No.	Qty. Req'd.	Part Number	Description
1	1	2300-0020	Bearing Cover
2	2	2008-0001	Sealed Ball Bearing
3	2	2112-0003	Viton Seal (Standard)
3	2	2112-0001	Buna-N Seal (Optional)
4	6	2210-0004	Bolts
5	1	0204-7500C	Endplate (Cast Iron) with Seal
5	1	0204-7500N	Endplate (Ni-Resist) with Seal
5	1	0204-7500X	Endplate (SilverCast) with Seal
6	1	1720-0014	O-ring Gasket for Endplate
7	8	1005-0004	Super Roller (Standard)
7	8	1002-0004	Polypropylene Roller (Optional)
7	8	1052-0004	Buna-N Roller (Optional)
7	8	1055-0004	Teflon Roller (Optional)

Ref. No.	Qty. Req'd.	Part Number	Description
8	1	3430-0745	Rotor Assembly (Std. N & XL)
9	1	0510-7500	Shaft (416 Stainless)
10	1 kit	3420-0003	Base Kit - Sold Separately Includes: (1) Base, (3) Bolts and (3) Washers
11	1	0104-7500C	Body (Cast Iron) with Seal
11	1	0104-7500N	Body (Ni-Resist) with Seal
11	1	0104-7500X	Body (SilverCast) with Seal
12	1	2404-0052	1" Hose Barb
13	1	2300-0022	Shaft Bearing Cover
14	1	1610-0005	Key
15	1	1610-0059	Key (Stainless Steel)
16	1	0308-7560C	Rotor Assembly (Cast Iron only)

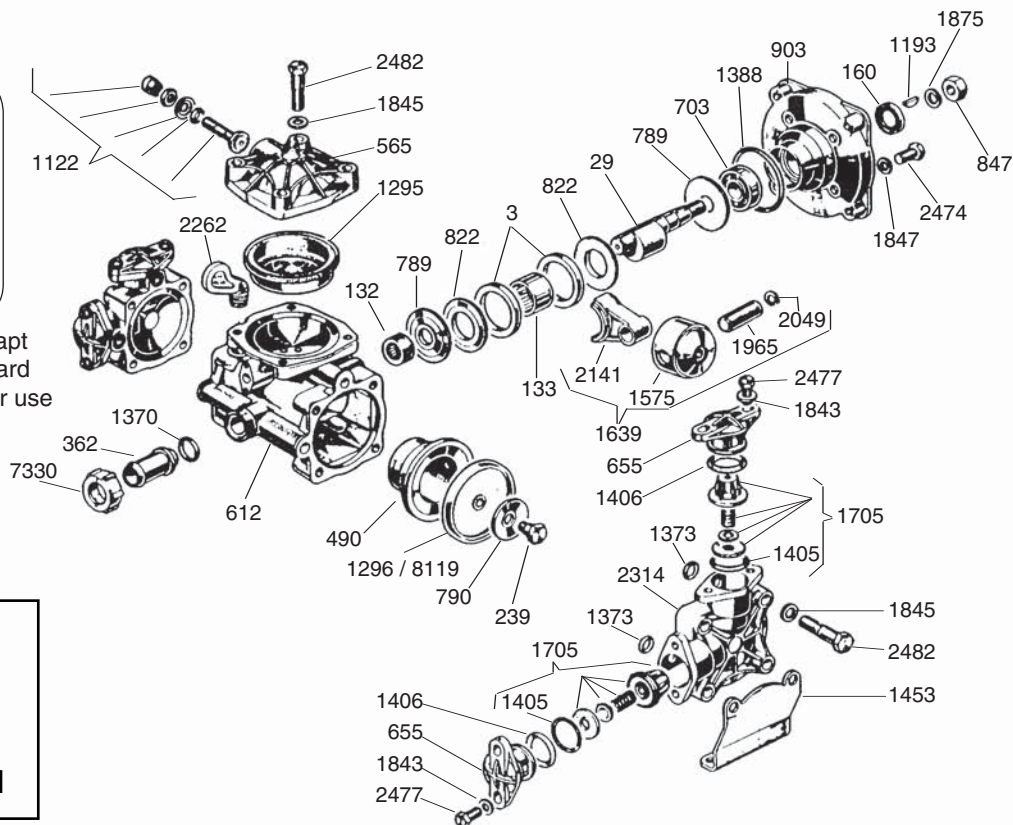


IOTA-17

Exploded View Diagram and Parts List



Ref #906 is needed to adapt the crank shaft to a standard 3-bolt mounting pattern for use with all shaft kits.



IOTA-17 PUMP
Requires 7 oz.
UDOR LUBE,
or SAE 30W
Non-detergent Oil

REF#	PART#	DESCRIPTION	QTY	REF#	PART#	DESCRIPTION	QTY
3	0001.04	Retainer Ring	2	*1373	1101.11	O-Ring	4
29	0002.10	Crankshaft	1	1378	1101.16	O-Ring	1
132	0006.01	Bearing	1	1387	1101.35	O-Ring	1
133	0006.02	Bearing	1	1388	1101.36	O-Ring	1
160	0007.11	Seal	1	1405	1101.10	O-Ring	4
239	0102.02	Diaphragm Bolt	2	1406	1101.17	O-Ring	4
362	0202.27	Suction Barb	1	1453	1202.17	Base	2
490	0206.16	Piston Sleeve	2	1575	1205.13	Aluminum Piston	2
565	0208.31	Accumulator Head	1	1639	6000.04	Piston & Rod Assembly	2
612	0209.19	Pump Body	1	1671	6010.23	Control Valve Assembly	1
655	0211.04	Valve Retainer	4	1705	6006.04	Valve Assembly	4
703	0214.08	Ball Bearing	1	1843	1403.07	Washer	8
789	0301.08	Washer	2	1845	1403.10	Washer	8
790	0301.09	Retainer Washer	2	1847	1403.12	Washer	4
822	0302.11	Pump Spacer	2	1875	1404.01	Washer	1
847	0303.10	Hex Nut	1	1965	1502.04	Connecting Rod Pin	2
903	0501.47	Flange	1	2049	1506.11	Snap Ring	4
906	0501.05	Crankshaft Adapter	1	2141	1519.07	Aluminum Connecting Rod	2
1122	0608.16	Air Valve Assembly	1	2262	1603.24	Plug	1
1193	0801.03	Key	1	2314	1604.30	Head	2
*1295	0903.08	Accumulator Diaphragm	1	2474	1804.57	Bolt	4
1296	0903.09	Piston Diaphragm (BUNA-N) optional	2	2477	1804.67	Bolt	8
1370	1101.06	O-Ring	1	2482	1804.09	Bolt	12
				7330	0604.29	Barb Nut	1
				*8119	0903.41	Piston Diaphragm (DESMOPAN)	2

* Parts Included in Diaphragm Repair Kit - #8700.01. (Also available in BUNA-N - #8700.08.)



IOTA-17

Low Pressure Diaphragm Pump

IOTA-17 low pressure diaphragm pumps are excellent for various horticultural, agricultural, lawn care, nursery and turf spraying applications. They are also effectively utilized in other applications such as hydrostatic testing, concrete seal-coating and cleaning. Simplicity of design and common parts allow easy and affordable maintenance. Built-in pulsation dampener, control valve and pressure gauge are standard.

The IOTA-17 is constructed of anodized aluminum with stainless steel and anodized aluminum liquid handling parts.

Several drive options are available, including:

Part Number	Description
5028.76	3-5 HP Gear Reduction
7750.31	3/4" Solid Keyed Shaft and Bolts
7751.A3	1" Solid Keyed Shaft and Bolts
7752.A2/BK-17	1-3/8" 6-Spline Female Adapter & Bolts Torque Arm, Chains and Safety Shield.
5035.74	Gear Reduction for 2.2-3.5 HP w/ 5/8" Shaft.



For industrial uses and spraying applications not listed, please consult UDOR U.S.A.

SPECIFICATIONS

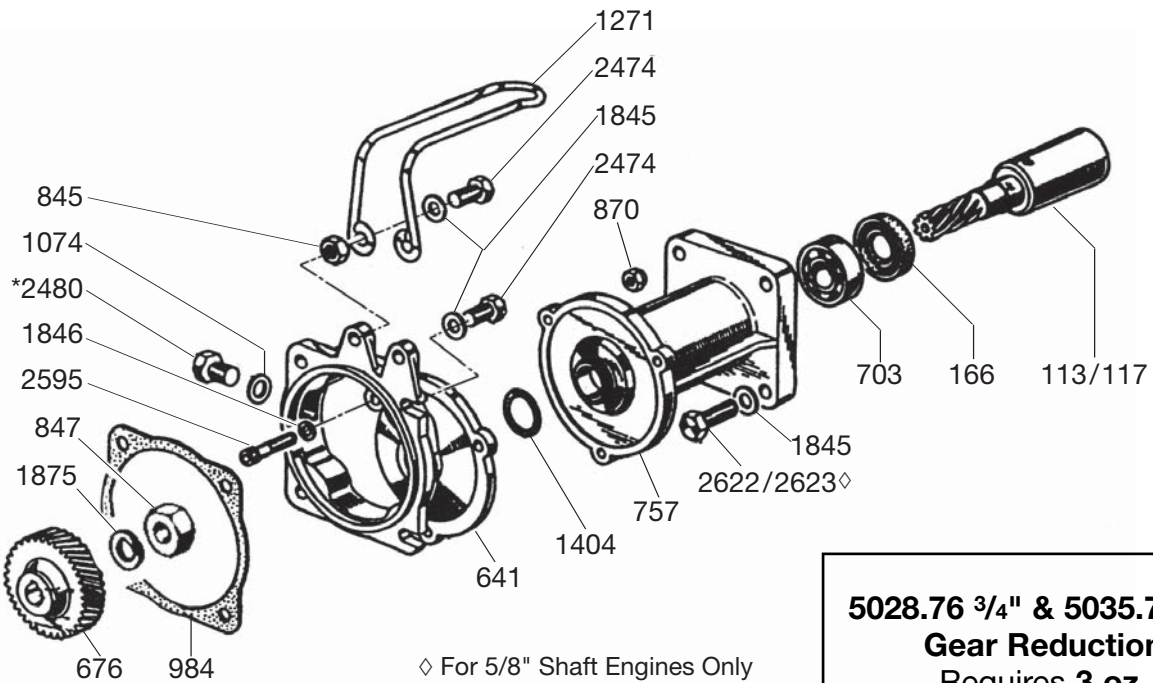
Maximum Flow	4.5 GPM
Maximum Pressure	275 PSI
Maximum Temperature	140°F
Hose Barb Ports	
In	3/4"
Out	3/8"
Bypass	5/8"
Dimensions	L-8.2" x W-7.5" x H-8.2"
Weight	14 lbs.
Diaphragm Material	
Standard	DESMOPAN
Optional	BUNA-N

NOTE - Protect pumps from freezing. If freezing conditions exist, flush pump and system with a 50/50 mixture of antifreeze and water.



5028.76 & 5035.74 Gear Reduction

Installation Instructions for IOTA-17/GR



5028.76 3/4" & 5035.74 5/8"
Gear Reduction
 Requires **3 oz.**
90W Gear Lube

REF#	PART#	DESCRIPTION	QTY	REF#	PART#	DESCRIPTION	QTY
113	0004.19	Engine Gear, 3/4"	1	1074	0605.41	Gasket	1
117	0004.24	Engine Gear, 5/8"	1	1271	0902.19	Handle	1
166	0007.21	Seal	1	1404	1101.61	O-Ring	1
641	0210.25	Gear Case	1	1845	1403.10	Washer	8
676	0213.13	Pump Gear	1	1846	1403.07	Washer	1
703	0214.08	Bearing	1	1875	1404.01	Washer	1
757	0228.24	Mounting Flange	1	2474	1804.57	Bolt	6
845	0303.01	Nut	2	2480	1804.76	Oil Level Plug	1
847	0303.10	Nut	1	2595	1805.19	Bolt	3
870	0304.02	Nut	3	2622	1807.07	Bolt - 5/16" x 1"	4
984	0602.25	Gasket	1	◇2623	1804.63	Bolt - 8mm x 1.25	4

NOTE - USE BLUE THREADLOCKER OR EQUIVALENT ON ALL BOLTS.

- Before installing assembly onto engine, remove oil level plug (Ref. #2480) and add 3 oz. of 90 W gear lube to gear box.
- Apply a light coating of anti-seize compound or grease to engine shaft and install 3/16" key, which is provided with the engine. Slide assembly over engine shaft and fasten to engine using (4) 5/16" x 1" bolts (Ref. #2622) and (4) washers (Ref #1845) provided.

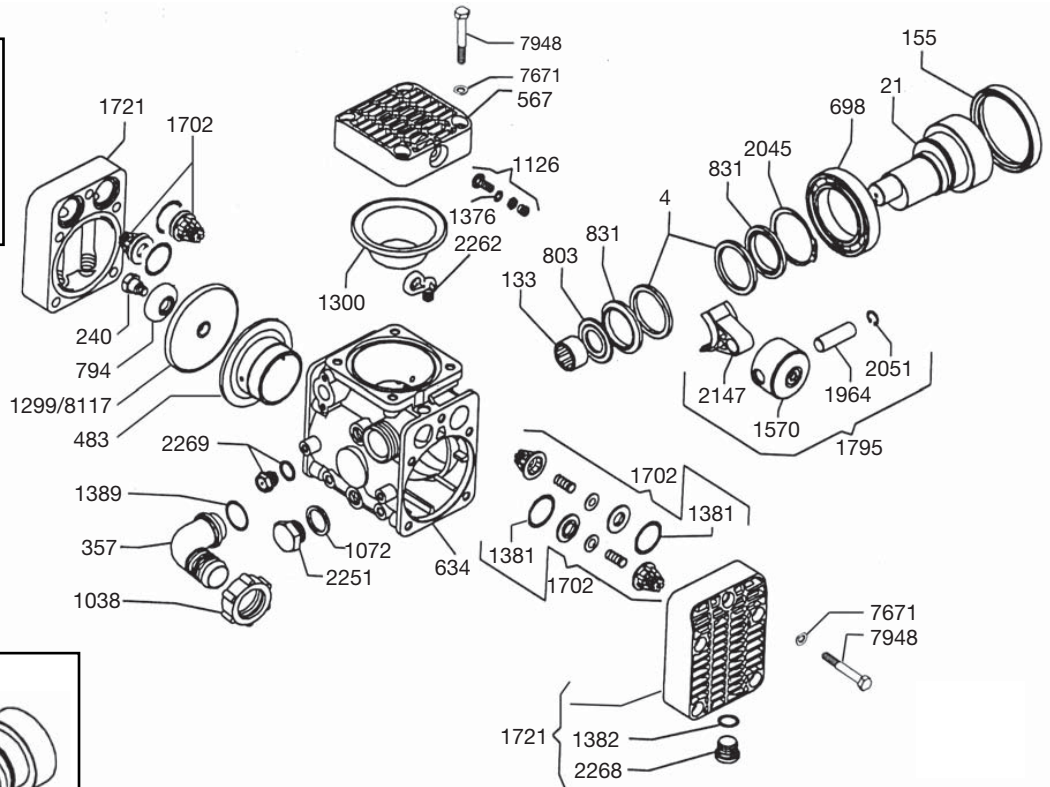


KAPPA-30/40

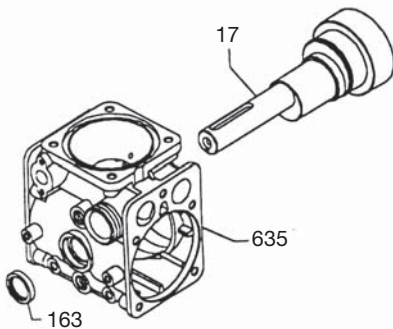
Exploded View Diagram and Parts List

KAPPA-30/40 PUMPS

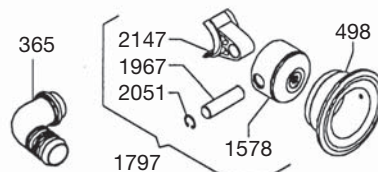
Require **20 oz.**
UDOR LUBE,
or SAE 30W
Non-detergent Oil



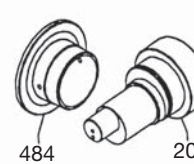
FOR KAPPA-40/TS ONLY



FOR KAPPA-50 ONLY



FOR KAPPA-30 ONLY



Old Style (Allen Head) Head Bolt. For use on pumps purchased prior to 12-1-98

KAPPA-30/40

REF#	PART#	DESCRIPTION	QTY	REF#	PART#	DESCRIPTION	QTY
4	0001.06	Retaining Ring	2	1382	1101.29	O-Ring	4
***17	0002.72	KAPPA 40/50 Crankshaft (T.S.)	1	1389	1101.41	O-Ring	1
20	0002.70	KAPPA-30 Crankshaft	1	1570	1205.07	Piston - KAPPA-30/40	2
21	0002.71	KAPPA-40/50 Crankshaft	1	**1578	1205.18	Piston - KAPPA-50	2
133	0006.02	Bearing	1	1702	6006.01	Valve Assembly	4
155	0007.01	Seal	1	1721	6017.06	Head Assembly	2
***163	0007.19	Seal	1	1795	6015.21	Piston/Rod Assembly - KAPPA-30/40	2
240	0102.04	Diaphragm Bolt	2	**1797	6015.23	Piston/Rod Assembly - KAPPA-50	2
357	0202.18	Inlet Hose Barb (KAPPA-30/40)	1	1964	1502.03	Connecting Rod Pin - KAPPA-30/40	2
**365	0202.52	KAPPA-50 Inlet Hose Barb	1	**1967	1502.07	Connecting Rod Pin - KAPPA-50	2
483	0206.08	KAPPA-40 Piston Sleeve	2	2045	1506.01	Snap Ring	1
484	0206.09	KAPPA-30 Piston Sleeve	2	2051	1506.15	Snap Ring	4
**498	0206.25	KAPPA-50 Piston Sleeve	2	2147	1519.18	Connecting Rod (KAPPA-30/40/50)	2
567	0208.34	Accumulator Head	1	2251	1603.02	Plug	1
634	0209.40	Pump Body (KAPPA-30/40/50)	1	2262	1603.24	Oil Plug	1
***635	0209.41	Pump Body (T.S.)	1	2268	1603.32	Head Plug	4
698	0214.01	Ball Bearing	1	2269	1603.33	Oil Sight Glass	1
794	0301.14	Retainer Washer	2	2602	1805.25	Head Bolt (Allen Head - Old Style)	14
803	0301.30	Washer	1	7671	1403.09	Washer (Use with Ref #7948 Only)	14
831	0302.50	Spacer	2	7948	1804.45	Head Bolt (Hex Head - New Style)	14
1038	0604.18	Suction Nut	1	*8117	0903.38	Piston Diaphragm (DESMOPAN)	2
1072	0605.09	Gasket	1				
1126	0608.16	Air Valve Assembly	1				
1299	0903.13	Piston Diaphragm (BUNA-N) optional	2				
*1300	0903.14	Accumulator Diaphragm	1				
1376	1101.16	O-Ring	1				
*1381	1101.27	O-Ring	4				

*Parts included in Diaphragm Repair Kit - #8700.02

Diaphragm Repair Kit also available in BUNA-N - #8700.12

**Parts for KAPPA-50 only.

***Parts for KAPPA-40/TS only.



KAPPA-30/40

Medium Pressure Diaphragm Pump

KAPPA-30 & KAPPA-40 medium pressure, 2-cylinder diaphragm pumps are excellent choices for various horticulture, agricultural, lawn care, pest control and turf spraying applications. They are also effectively used in other applications such as aircraft de-icing, hydrostatic testing and cleaning.

KAPPA-30 & KAPPA-40 pumps are constructed of anodized aluminum with anodized aluminum and stainless steel liquid handling parts. Built-in pulsation dampener, control valve and pressure gauge are standard on all models.



Drive options include:

4155.01/R	Hydraulic Motor Mounting Kit
5027.75	4-6.5 HP Gear Reduction
7702.01	1-3/8", 6-spline male PTO shaft, base, bolts & safety shield.
7751.A1	1" solid keyed shaft, base & bolts.
7752.A2	1-3/8" 6-spline female PTO adapter & bolts, torque arms, chains & safety shield.

For applications not listed, please consult UDOR U.S.A.

SPECIFICATIONS

Maximum Flow	
KAPPA-30	9.5 GPM
KAPPA-40	10.5 GPM
Maximum Pressure	560 PSI
Maximum RPM	540 RPM
Maximum Temperature	140°F
Inlet Port - Hose Barb	1"
Outlet Ports - Hose Barb (Ball Valve Controlled)	1/2" (2)
Bypass - Hose Barb	3/4"
Dimensions	L-10.5" x W-11" x H-13"
Weight	28 lbs.
Diaphragm Material	
Standard	DESMOPAN
Optional	BUNA-N

NOTE - Protect pumps from freezing. If freezing conditions exist, flush pump and system with a 50/50 mixture of antifreeze and water.



KAPPA-55

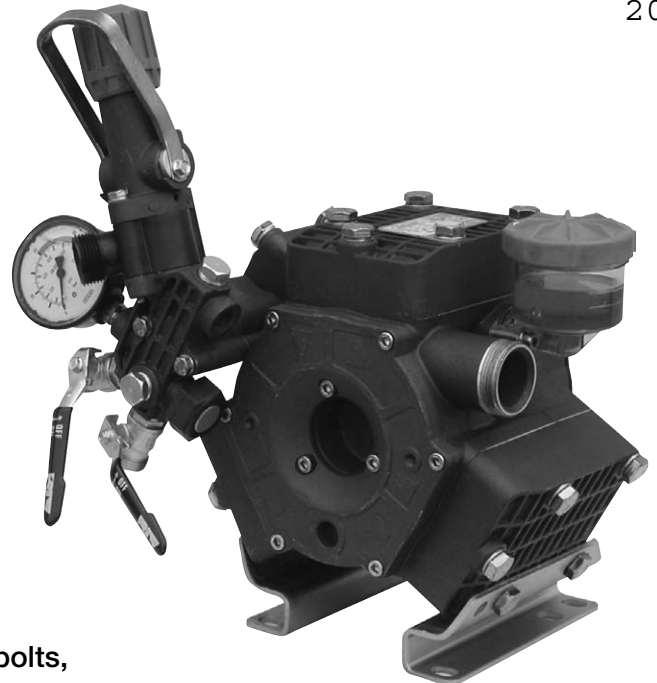
Medium Pressure Diaphragm Pump

KAPPA-55 3-cylinder, medium pressure diaphragm pumps are excellent choices for various horticulture, agricultural, lawn care, nursery, pest control and turf spraying applications. They are also effectively used in other applications such as aircraft de-icing, hydrostatic testing and cleaning.

KAPPA-55 pumps are constructed of anodized aluminum with anodized aluminum and stainless steel liquid handling parts. Built-in pulsation dampener, control valve and pressure gauge are standard on all models.

Drive options include:

Part Number	Description
4155.00	Hydraulic Motor Mounting Kit.
5027.75	4 - 6.5 HP Gear Reduction.
5033.A4	8-13 HP Gear Reduction.
7751.A3	1" solid keyed shaft.
7752.A2	1-3/8" 6-spline female PTO adapter & bolts, torque arms, chains & safety shield.
7753.A6*	1-3/8", 6-spline male PTO shaft.



* For ALL PTO drive applications, Safety Shield #1219.02 (ordered separately) MUST be used.

For applications not listed, please consult UDOR U.S.A.

SPECIFICATIONS

Maximum Flow	15 GPM
Maximum Pressure	560 PSI
Maximum RPM	540 RPM
Maximum Temperature	140°F
Inlet Port - Hose Barb	1-1/4"
Outlet Ports - Hose Barb (Ball Valve Controlled)	1/2" (2)
Bypass - Hose Barb	3/4"
Dimensions	L-11.5" x W-12.5" x H-10"
Weight	37 lbs.
Diaphragm Material	
Standard	DESMOPAN
Optional	BUNA-N

NOTE - Protect pumps from freezing. If freezing conditions exist, flush pump and system with a 50/50 mixture of anti-freeze and water.

UDOR U.S.A., INC.

500 Apollo Drive
Lino Lakes, MN 55014
TEL. (651) 785-0666
FAX. (800) 732-2670
www.udorusa.com

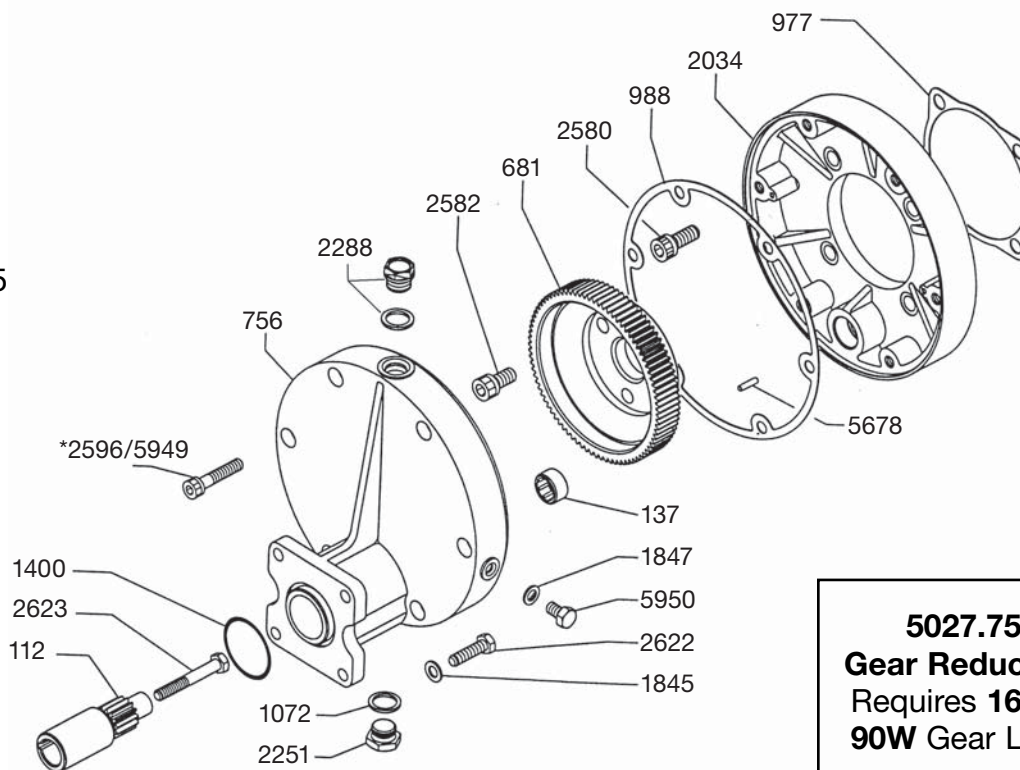


5027.75 Gear Reduction

Installation Instructions & Parts List

For use with:

RO-70/GR-5
TAU-35/GR
KAPPA-30/GR
KAPPA-40/GR
KAPPA-35/GR
KAPPA-55/GR-5
ZETA-40P/GR
ZETA-85/GR
ZETA-85P/GR

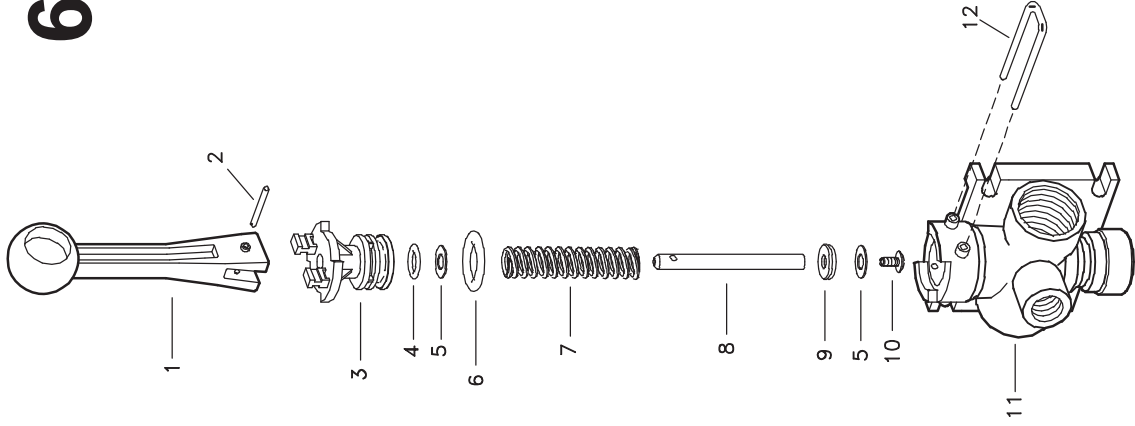


REF#	PART#	DESCRIPTION	QTY	REF#	PART#	DESCRIPTION	QTY
112	0004.18	Engine Gear	1	2251	1603.02	Oil Plug	1
137	0006.08	Bearing	1	2288	1603.81	Vent Cap	1
681	0213.22	Pump Gear	1	2580	1805.01	Bolt	4
756	0228.23	Gear Case Half	1	2582	1805.04	Bolt	3
977	0602.05	Gasket	1	*2596	1805.23	Bolt (old style) Allenhead	6
988	0602.27	Gasket	1	2622	1807.07	Bolt - 5/16" x 1"	4
1072	0605.01	Gasket	1	2623	1807.08	Bolt - 5/16" x 2-1/4"	1
1400	1101.57	O-Ring	1	5678	1512.08	Guide Pin	1
1845	1403.10	Washer	4	5950	1804.77	Side Plug	1
1847	1403.12	Aluminum Gasket	1	5949	1804.72	Bolt	6
2034	1505.29	Gear Case Half	1				

NOTE - USE BLUE THREADLOCKER OR EQUIVALENT ON ALL BOLTS.

1. Apply a light coating of anti-seize compound or grease to engine shaft and install 3/16" key, which is supplied with the engine.
2. Install engine gear (Ref #112) on engine shaft and secure with 5/16" x 2-1/4" bolt (Ref #2623) provided.
3. Install O-Ring (Ref #1400) into groove on gear box and mount assembly onto engine. Secure assembly to engine using the (4) 5/16" x 1" bolts (Ref #2622) and (4) washers (Ref #1845) provided.
4. Fill gear box with 16 oz. of 90W gear lube to level plug (Ref #5950).

6B Directo Valve

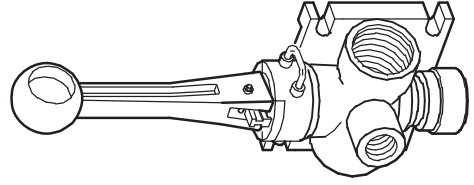
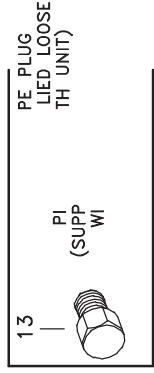


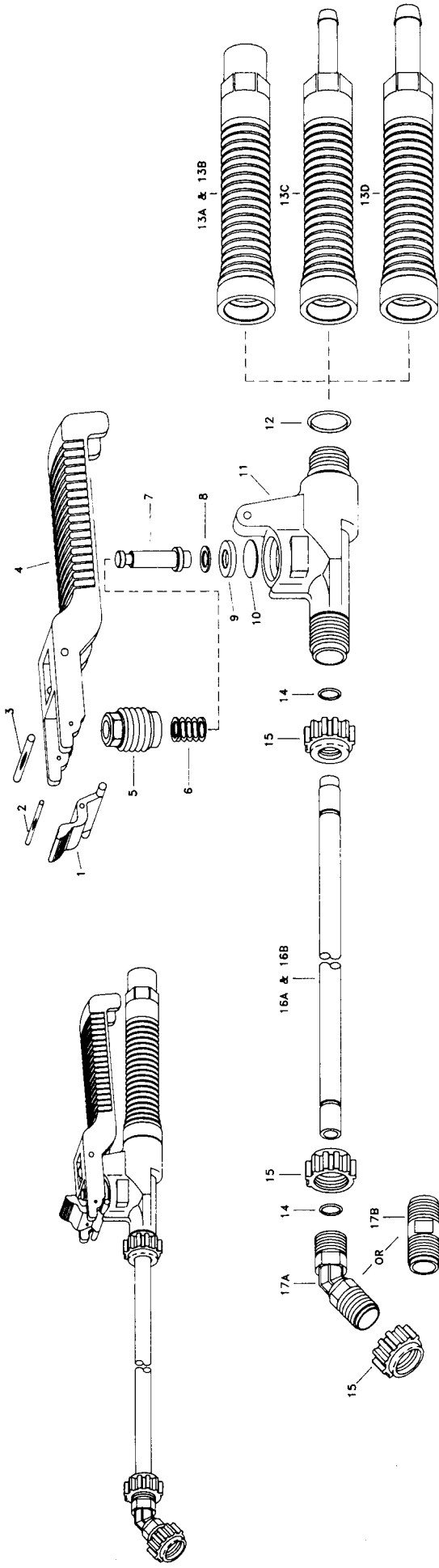
ITEM	PART NO.	DESCRIPTION
1	CP36301-NY	HANDLE, NYLON (GRAY)
2	CP36308-SS	GROOVE PIN, TYPE 303 STAINLESS STEEL
3	CP36302-PP	BODY INSERT, POLYPROPYLENE (BLACK)
4	CP7717-2/108-VI	O-RING, VITON
5	CP36307-PPB	WASHER, POLYPROPYLENE (BLACK) 2 RFQD
6	CP7717-2/209-VI	O-RING, VITON
7	CP36306-302SS	SPRING, TYPE 302 STAINLESS STEEL
8	CP36304-SS	STEM, TYPE 303 STAINLESS STEEL
9	CP38726-VI	SHUT-OFF WASHER, VITON
10	CP38725-SS	PHILLIPS HEAD SCREW, TYPE 302 STAINLESS STEEL
11	CP36303-PP	BODY (NPT), POLYPROPYLENE (BLACK) (FOR MODEL AA6B)
12	CP36309-302SS	RETAINING CLIP, TYPE 302 STAINLESS STEEL
13	8400-1/4-PPB	PIPE PLUG (NPT), POLYPROPYLENE (BLACK) (FOR MODEL AA6B)
		No. AA6B Directo Valve Manual Control Valve (NPT Threads)
		PK-AB6B-KIT Spare Parts Kit (Includes all items marked with *)

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ITEM	PART NO.	DESCRIPTION
1	CP22656-NY	Trigger Lock, Nylon (Gray)
2	CP22671	Groove Pin, Brass
3	CP22672	Groove Pin, Brass
4	CP22655-PP	Trigger, Polypropylene (Black)
5	CP22658-PP	Spring Retainer, Polypropylene (Black)
6	CP22660-PHSS	Spring, Type 17-7PH Stainless Steel
7	CP22657-NY	Stem, Nylon (Gray)
8	CP22676-NEO	Gasket, Neoprene
9	CP22659-PP	Washer, Polypropylene (Black)
10	CP22661-VI	Diaphragm, Viton
11	CP22651-PP	Body, Polypropylene (Black)
12	CP7717-2/016-VI	O'Ring, Viton
13A	CP22654-PP	Handle (1/4" NPT (F) Conn.), Polypropylene (Black) For 22570-PP--1/4
13B	CP822654-PP	Handle (1/4" BSPT (F) Conn.), Polypropylene (Black) For B22570-PP--1/4
13C	CP22653-1/4-PP	Handle (1/4" Hose Shank Conn.), Polypropylene (Black) For 22570-PP--300
13D	CP22652-3/8-PP	Handle (3/8" Hose Shank Conn.), Polypropylene (Black) For 22570-PP--406
14	CP7717-2/110-VI	O'Ring, Viton (2 Req'd) Standard
15	CP22668-PP	Cap, Polypropylene (Black) 2 Req'd
16A	CP22663-15-FRP	Extension Tube 15" Length, Polyester (Black), For 22570-PP-15--
16B	CP22663-24-FRP	Extension Tube 24" Length, Polyester (Black), For 22570-PP-24--

ITEM	PART NO.	DESCRIPTION
17A	CP22673-PP	45° Adapter, Polypropylene (Black)
17B	CP22664-PP	Straight Adapter, Polypropylene (Black)
	22665-15-PP	Extension Tube Sub-Asb. For 22570-PP-15-- (Includes Items 14, 15 & 16A)
	22665-24-PP	Extension Tube Sub-Asb. For 22570-PP-24-- (Includes Items 14, 15 & 16B)
	No. 22570-PP-15-1/4	TriggerJet Spray Gun with 15" Extension
	No. B22570-PP-15-1/4	TriggerJet Spray Gun with 15" Extension
	No. 22570-PP-15-300	TriggerJet Spray Gun with 15" Extension
	No. 22570-PP-15-406	TriggerJet Spray Gun with 15" Extension
	No. 22570-PP-24-1/4	TriggerJet Spray Gun with 24" Extension
	No. B22570-PP-24-1/4	TriggerJet Spray Gun with 24" Extension
	No. 22570-PP-24-300	TriggerJet Spray Gun with 24" Extension
	No. 22570-PP-24-406	TriggerJet Spray Gun with 24" Extension

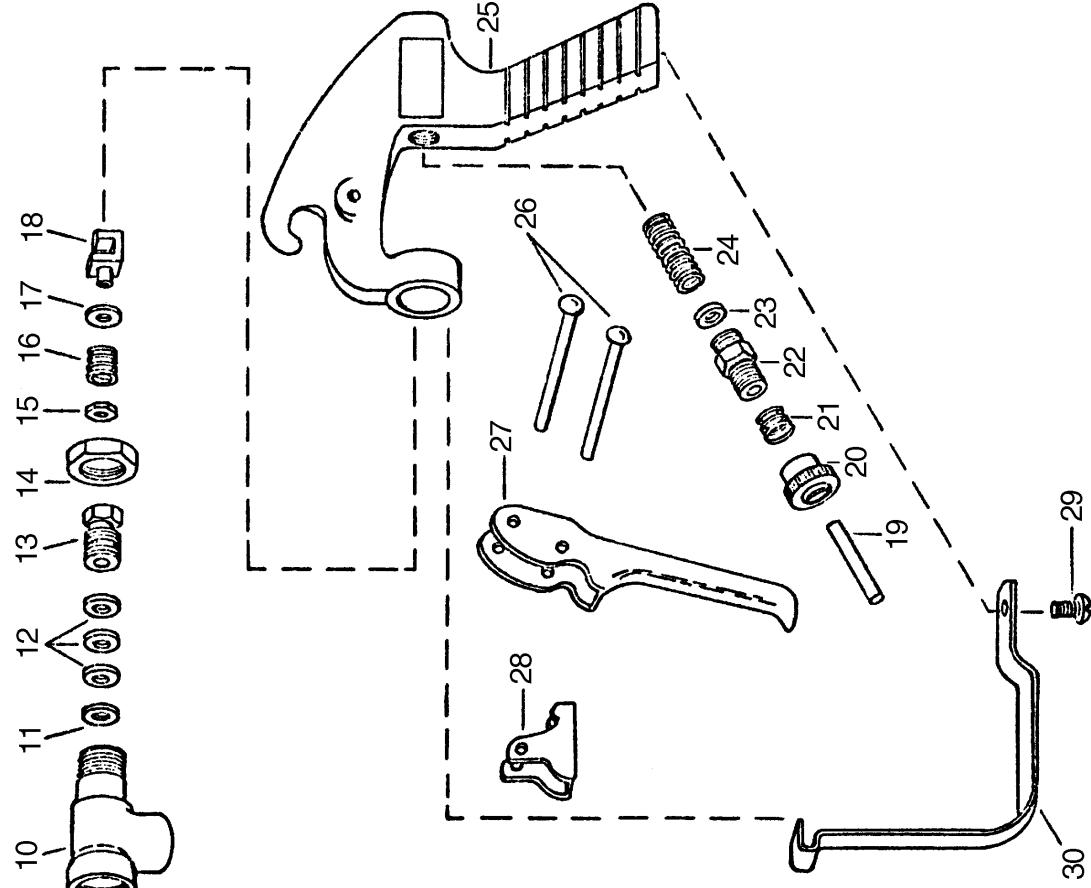
PK-AB22570-PP-KIT Spare Parts Kit (Includes all items marked with *)

PARTS LIST
NO. 22570-PP--
TRIGGERJET® SPRAY GUN
WITH EXTENSION

Spraying Systems Co.
 Spray Nozzles and Accessories
 North Avenue at Schmale Rd. • P.O. Box 7900
 Wheaton, Ill. 60189-7900

DATE 4/18/94 NO. PL 22570-PP

No. 43L & No. 43H GUNJETS (13" Extension)



Item	Part No.	Description
1	Brass (#43-)	
2	Aluminum (#43-AL)	
3	1325-AL	Cap, Brass or Aluminum
4	D-**	Orifice disc, hardened stainless steel
5	4743-NY	Gasket, nylon
6	10566-AL	Nozzle housing, brass or aluminum
7	10565-AL	Seat plug, seat plate, washer & core subassy.
8	10571-AL	Guide vane, brass or aluminum
9	6943-AL	Gasket, aluminum (2 Req'd)
10	19238-416SS	Stem, type 416 stainless steel
11	6604-AL	Tubing, brass or aluminum
12	6492-AL	Inlet body, brass or aluminum
13	6601-302SS	Packing washer, type 302 stainless steel
14	6602-LEA	Packing, leather (3 Req'd) (Standard)
15	6602-TEF	Packing, teflon (3 Req'd) (Optional)
16	19237-AL	Packing screw, brass or aluminum
17	6599-IZP	Locknut, brass or steel-zinc plated
18	9641-INP	Stem nut, steel-nickel plated
19	6595-SS	Trigger stop spring, stainless steel
20	7991-IZP	Washer, steel-zinc plated
21	6597-INP	Trigger guide, steel-nickel plated
22	6591-SS	Spring stud, stainless steel
23	6589-IZP	Stop adj nut, steel-zinc plated
24	6594-SS	Spring for Stop adj nut, stainless steel
25	6588-IZP	Spring screw, steel-zinc plated
26	6592-302SS	Spring guide washer, type 302 stainless steel
27	6593-1-SS	Main spring, stainless steel (For #43L-)
28	6593-2-SS	Main spring, stainless steel (For #43H-)
29	14477-1-AL	Handle body, aluminum
30	7623-IZP	Rivet, steel-zinc plated (2 Req'd)
31	6509-INP	Trigger, steel-nickel plated
32	6510-INP	Trigger stop, steel-nickel plated
33	11757-INP	Screw, steel-nickel plated
34	13798-INP	Trigger Guard, steel-nickel plated
35	Gunjet No. 43L- Brass, complete, for pressures up to 200 PSI	
36	Gunjet No. 43L-AL- Aluminum, complete, for pressures up to 200 PSI	
37	Gunjet No. 43H- Brass, complete, for pressures from 200 to 800 PSI	
38	Gunjet No. 43H-AL- Aluminum, complete, for pressures from 200 to 800 PSI	
39	AB43-KIT Spare Parts Kit (Includes all items marked with *)	
40	AB43-AL-KIT Spare Parts Kit (Includes all items marked with *)	
41	ABCK43-KIT (Conversion kit for Adj. stem) - items 8, 13 & 15	
42	ABCK43-AL-KIT (Conversion Kit for Adj. Stem) - Items 8, 13 & 15	



**Specify Orifice Disk Size



7.901.103 (Turbine) & 13.901.151 (Long Range)

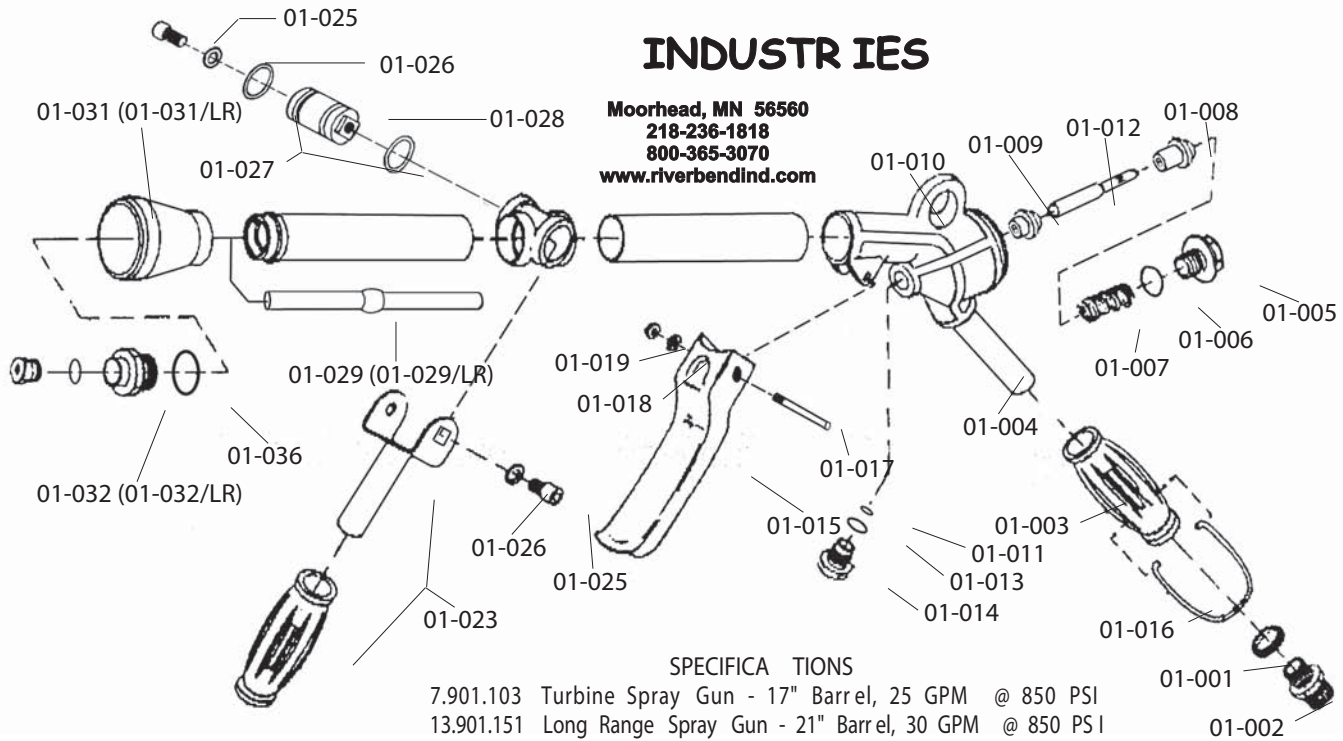
High Performance Adjustable Spray Gun

UDOR High Performance Spray Guns have a spray pattern that is adjustable from a concentrated 0° straight stream to a 60° fine mist cone.

They are an excellent choice for a wide variety of applications including tree & shrub spraying, pest control, fire fighting, air craft de-icing and equipment cleaning.

INDUSTRIES

Moorhead, MN 56560
218-236-1818
800-365-3070
www.riverbendind.com



SPECIFICATIONS

7.901.103 Turbine Spray Gun - 17" Barrel, 25 GPM @ 850 PSI
13.901.151 Long Range Spray Gun - 21" Barrel, 30 GPM @ 850 PSI

PA RT #	DESCRIPTION	QTY	PA RT #	DESCRIPTION	QTY
01-001	Washer	1	01-017	Trigger Pin	1
01-002	Inlet Adapter	1	01-018	Washer	1
01-003	Handle	1	01-019	Nut	1
01-004	Inlet Tube	1	01-023	Front Grip Assembly	1
01-005	Plug	1	01-025	Bolt	2
* 01-006	O-Ring	1	01-026	Washer	2
01-007	Spring	1	* 01-027	O-Ring	2
* 01-008	Poppet	1	01-028	Regulator	1
* 01-009	Seat	1	01-029	Inner Tube	1
01-010	Body	1	01-029/LR	Inner Tube - Long Range	1
* 01-011	O-Ring	1	01-031	Nozzle Protector	1
01-012	Plunger	1	01-031/LR	Nozzle Protector - Long Range	1
* 01-013	O-Ring	1	01-032	Nozzle Retainer	1
01-014	Guide	1	01-032/LR	Nozzle Retainer - Long Range	1
01-015	Trigger	1	* 01-036	O-Ring	1
01-016	Trigger Clip	1			

* Parts Included in Repair Kit # Kit 10/11.

SPRAY TIP PERFORMANCE CHART (High Performance Spray Guns) - Gallons Per Minute/Maximum THrow in Feet

PA RT #	Orifice (mm)	Material	100 PSI	200 PSI	400 PSI	600 PSI	800 PSI
68.1802.54	2.3	Ceramic	2.0 / 24	2.5 / 29	4.0 / 34	5.0 / 42	5.5 / 45
68.1802.16	2.5	Ceramic	2.5 / 23	3.0 / 28	4.5 / 32	5.5 / 40	6.5 / 44
68.1802.17	3.0	Ceramic	3.0 / 28	4.5 / 29	6.5 / 34	8.0 / 41	9.0 / 4
13.1802.73	3.5	S/S	4.5 / 31	6.0 / 36	8.5 / 41	11.0 / 50	12.0 / 54
13.1802.58	4.0	S/S	5.0 / 35	7.5 / 38	10.0 / 43	13.5 / 53	14.5 / 59
13.1802.59	4.5	S/S	6.5 / 37	9.0 / 39	12.5 / 44	16.5 / 54	18.0 / 62
13.1802.60	5.0	S/S	7.5 / 33	10.0 / 41	14.0 / 47	18.5 / 59	21.0 / 67
13.1802.61	5.5	S/S	8.0 / 35	11.5 / 42	16.0 / 47	21.0 / 59	23.0 / 70
13.1802.75	6.0	S/S	9.0 / 38	12.5 / 44	18.0 / 54	23.0 / 66	26.0 / 74
13.1802.74	7.0	S/S	9.5 / 21	13.5 / 47	19.0 / 57	24.0 / 70	27.0 / 77

SKID MOUNTED HAND GUN SPRAYERS

Since VAN'S EQUIPMENT'S beginnings we have used a generic owners manual. It was just too costly to have printed and keep on hand owner manuals specific to each size and type sprayer we manufacture.

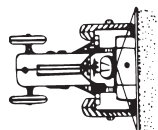
We now have the technology in house to create sprayer specific manuals and to print them only as needed. We think we have made a good beginning, but these manuals are still in the development stage. At this point we would appreciate the input of our end user customer and our dealers as to how we can make these manuals more useful and user friendly.

This is the prototype manual. Please look over the manual and give us your input.

CALL VANS EQUIPMENT AT 1-800-765-1101 AND ASK FOR CRAIG

We appreciate your input on these manuals.

Thanks Vans Equipment



van's

EQUIPMENT COMPANY

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