

# REPAIR AND PARTS

**Glas** **Craft**  
DISPENSING EXCELLENCE

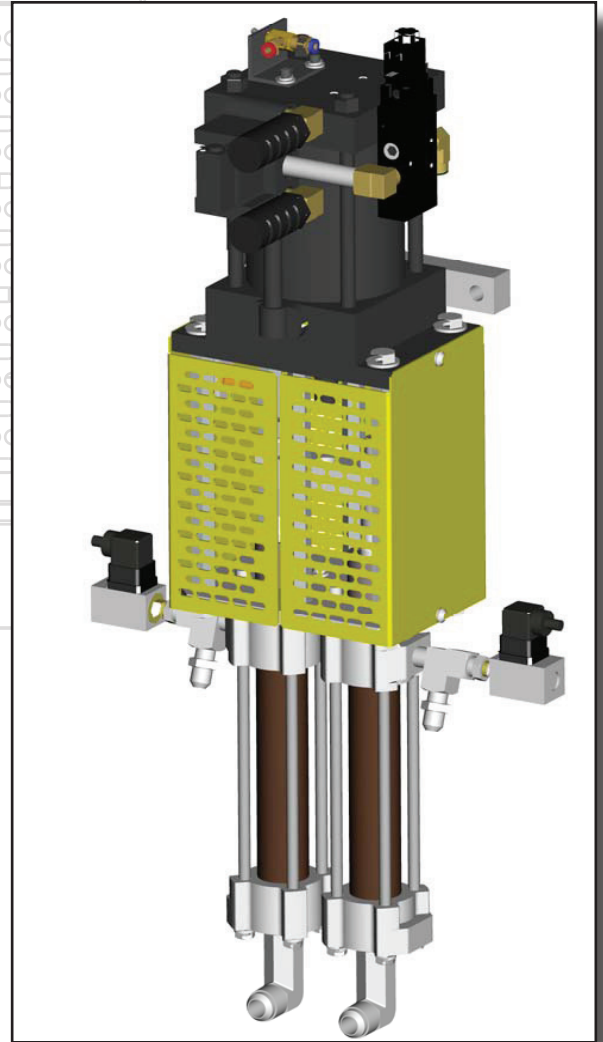
## Guardian A- Series *Material Pumps*

For use with non-flammable foam and polyurea.  
Not for use in explosive atmospheres.



### Important Safety Instructions

Read all warnings and instructions in this manual. Save these instructions.



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## Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbol refers to procedure-specific risk. Refer back to these warnings. Additional, product-specific warnings may be found throughout the body of this manual where applicable.

 <b>WARNING</b>	
	<p><b>ELECTRIC SHOCK HAZARD</b> Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> <li>• Turn off and disconnect power cord before servicing equipment.</li> <li>• Use only grounded electrical outlets.</li> <li>• Use only 3-wire extension cords.</li> <li>• Ensure ground prongs are intact on sprayer and extension cords.</li> <li>• Do not expose to rain. Store indoors.</li> </ul>
	<p><b>TOXIC FLUID OR FUMES HAZARD</b> Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> <li>• Read MSDS's to know the specific hazards of the fluids you are using.</li> <li>• Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.</li> <li>• Always wear impervious gloves when spraying or cleaning equipment.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b> You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Protective eyewear</li> <li>• Clothing and respirator as recommended by the fluid and solvent manufacturer</li> <li>• Gloves</li> <li>• Hearing protection</li> </ul>
	<p><b>SKIN INJECTION HAZARD</b> High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not point gun at anyone or at any part of the body.</li> <li>• Do not put your hand over the spray tip.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Close material shutoff valves and shutoff or disconnect air supply when not spraying.</li> <li>• Follow <b>Pressure Relief Procedure</b> in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.</li> </ul>

## Warnings

### ! WARNING

	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in work area can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
	<p><b>PRESSURIZED ALUMINUM PARTS HAZARD</b></p> <p>Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.</p>
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Data</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
	<p><b>MOVING PARTS HAZARD</b></p> <p>Moving parts can pinch or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> in this manual. Disconnect power or air supply.</li> </ul>
	<p><b>BURN HAZARD</b></p> <p>Equipment surfaces and fluid that's heated can become very hot during operation. To avoid severe burns, do not touch hot fluid or equipment. Wait until equipment/fluid has cooled completely.</p>

## Warnings



### Isocyanate Hazard

					
<p>Spraying materials containing isocyanates creates potentially harmful mists, vapors, and atomized particulates.</p> <p>Read material manufacturer's warnings and material MSDS to know specific hazards and precautions related to isocyanates.</p> <p>Prevent inhalation of isocyanate mists, vapors, and atomized particulates by providing sufficient ventilation in the work area. If sufficient ventilation is not available, a supplied-air respirator is required for everyone in the work area.</p> <p>To prevent contact with isocyanates, appropriate personal protective equipment, including chemically impermeable gloves, boots, aprons, and goggles, is also required for everyone in the work area.</p>					

To prevent exposing ISO to moisture:

- Always use a sealed container with a desiccant dryer in the vent, or a nitrogen atmosphere. **Never** store ISO in an open container.
- Keep the ISO lube pump reservoir filled with Graco Throat Seal Liquid (TSL), Part 206995. The lubricant creates a barrier between the ISO and the atmosphere.
- Use moisture-proof hoses specifically designed for ISO, such as those supplied with your system.
- Never use reclaimed solvents, which may contain moisture. Always keep solvent containers closed when not in use.
- Never use solvent on one side if it has been contaminated from the other side.
- Always park pumps when you shutdown.
- Always lubricate threaded parts with Part 217374 ISO pump oil or grease when reassembling.

### Material Self-Ignition

					
<p>Some materials may become self-igniting if applied too thickly. Read material manufacturer's warnings and material MSDS.</p>					

### Moisture Sensitivity of Isocyanates

Isocyanates (ISO) are catalysts used in two component foam and polyurea coatings. ISO will react with moisture (such as humidity) to form small, hard, abrasive crystals, which become suspended in the fluid. Eventually a film will form on the surface and the ISO will begin to gel, increasing in viscosity. If used, this partially cured ISO will reduce performance and the life of all wetted parts.



The amount of film formation and rate of crystallization varies depending on the blend of ISO, the humidity, and the temperature.

## Warnings

### Keep Components A and B Separate

#### CAUTION

To prevent cross-contamination of the equipment's wetted parts, never interchange component A (isocyanate) and component B (resin) parts. The gun is shipped with the A side on the left. The fluid manifold, fluid housing, side seal assembly, check valve cartridge, and mix chamber are marked on the A side.

### Foam Resins with 245 fa Blowing Agents

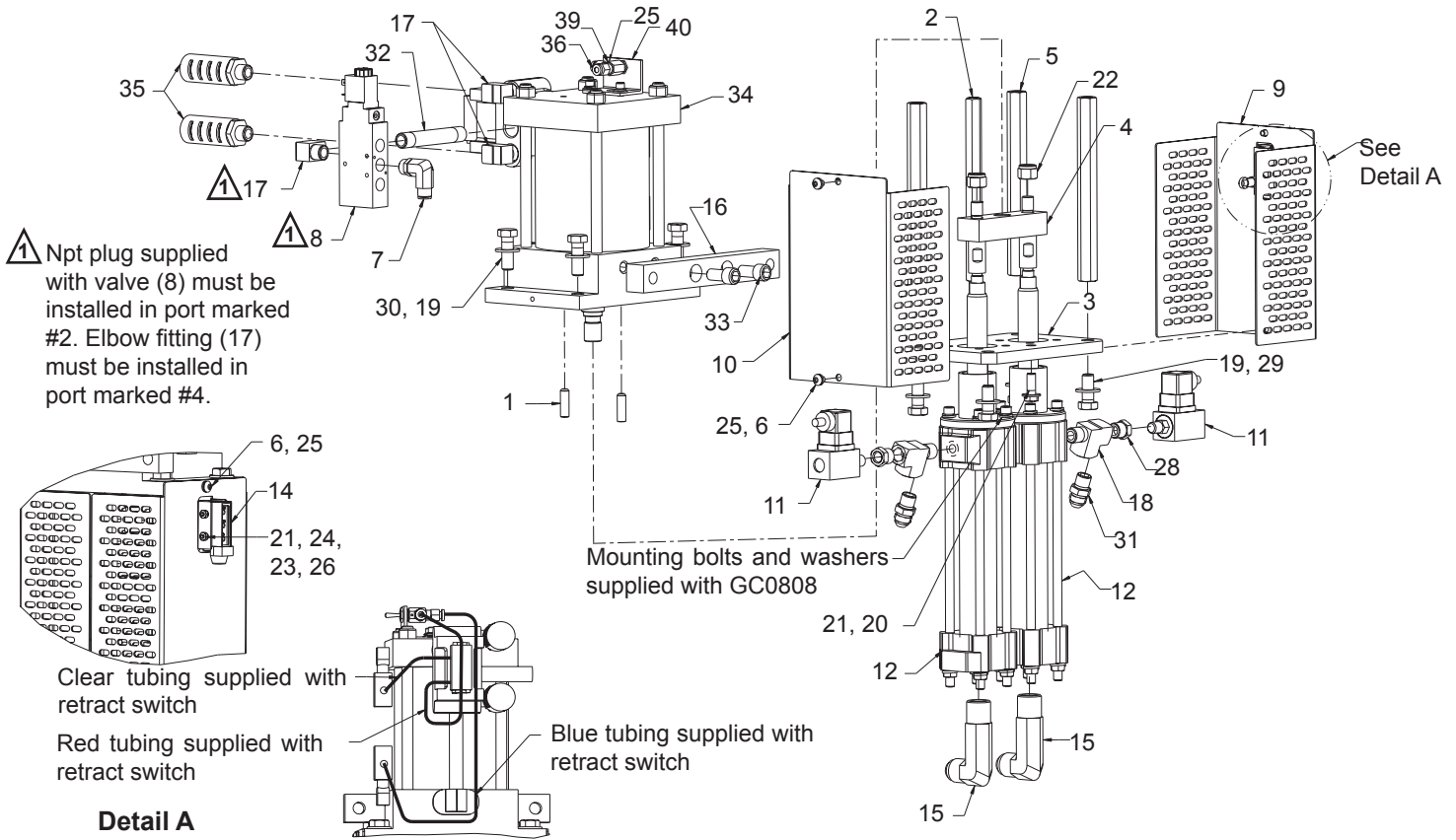
New foam blowing agents will froth at temperatures above 90°F (33 °C) when not under pressure, especially if agitated. To reduce frothing, minimize preheating in a circulation system.

### Changing Materials

- When changing materials, flush the equipment multiple times to ensure it is thoroughly clean.
- Always clean the fluid inlet strainers after flushing.
- Check with your material manufacturer for chemical compatibility.
- Most materials use ISO on the A side, but some use ISO on the B side.
- Epoxies often have amines on the B (hardener) side. Polyureas often have amines on the B (resin) side.

# Section 1 - General Information: Assembly Drawings

## GC2616 Material Pump Assembly



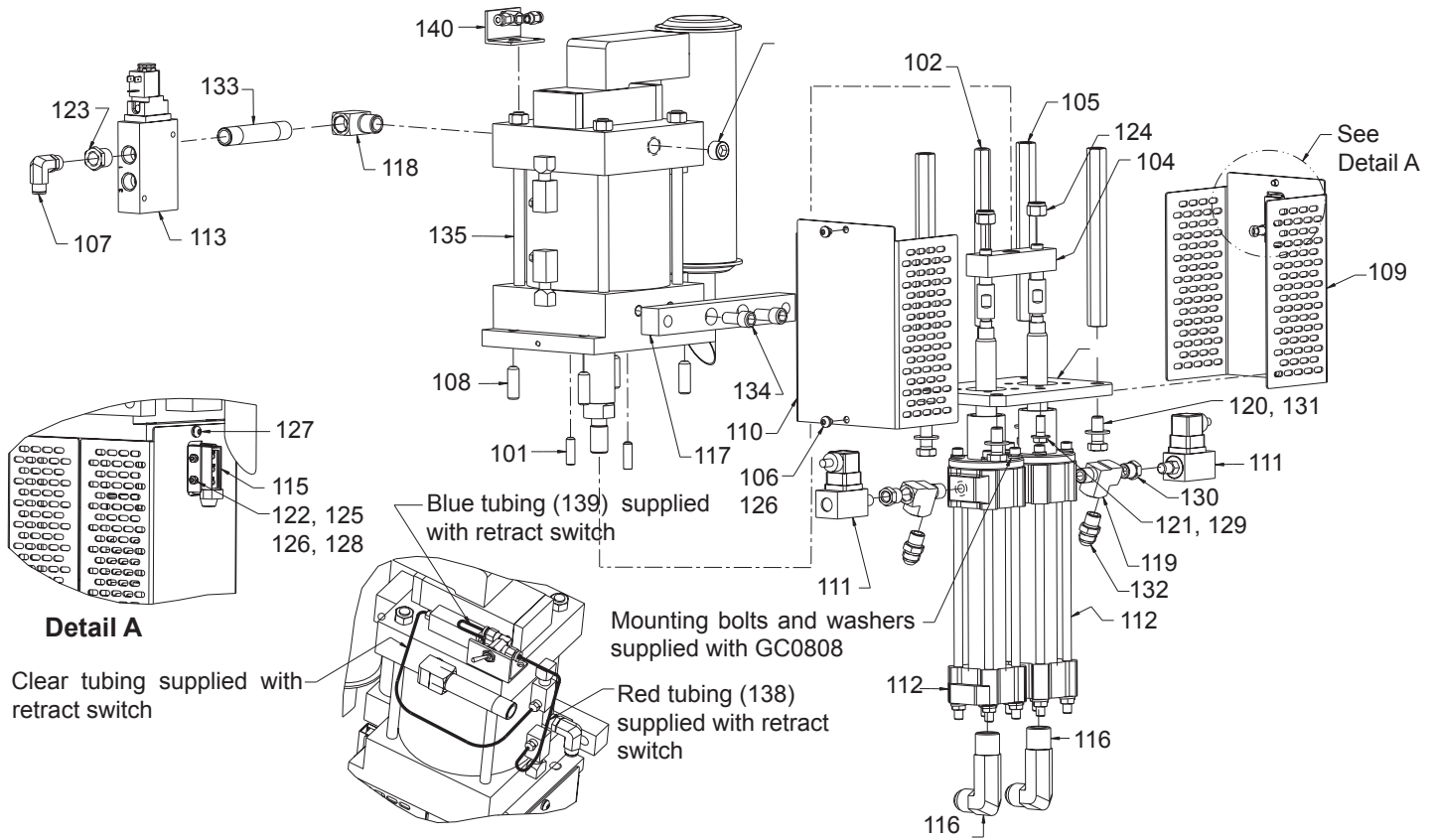
**Detail A**

Ref.	Part	Description	Qty.
1*		SCREW, SET, FLAT PT., 3/8-24	2
2	GC0324	EXTENSION, STANDOFF, AIR MOTOR	2
3	GC0325	PLATE, MTG, PUMP	1
4	GC0326	SADDLE, PUMP	1
5	GC0382	EXTENSION, STANDOFF, AIR MOTOR, 5 IN.	4
6	112925	SCREW, CAP, BTN HD	4
7	GC0495	FITTING, ELBOW, SW, 3/8 NPTM X 1/2 TUBE	1
8	GC0736	VALVE, 4-WAY, NO, 3/8 IN. NPTF, 24 VAC	1
9	GC0781	GUARD, SURROUND, LEFT	1
10	GC0782	GUARD, SURROUND, RIGHT	1
11	GC0805	SWITCH, PRESSURE, HIGH	2
12	GC0808	ASSY, PUMP, 1:1	2
14	GC0954	SWITCH, LIMIT, PLUNGER, ROLLER	1
15	GC1692	FITTING, ELBOW, LG, 1-1/16 X 3/4 STL	2
16	GC1737	BRACKET, MOUNTING, PUMP, A5-6000	1
17	GC1994	FITTING, ELBOW, 3/8 NPTM X 3/8 NPTF	3
18	803088	FITTING, PIPE, TEE, ST, 3/8, ZP	2
19	GC2041	WASHER, FLAT, STD	8
20	GC2047	WASHER, FLAT, STD	2
21	GC2052	WASHER, FLAT, STD	2
22	GC2086	NUT, HEX, SELF-LOCK	2

Ref.	Part	Description	Qty.
23	GC2092	NUT, HEX, STD	2
24	GC2107	WASHER, LOCK, SPRING	2
25	GC2109	WASHER, LOCK, SPRING	6
26	GC2119	SCREW, RDHD, CS, .164-32 X 1.250 ZP	2
27	GC2135	SCREW, HEX HD, CS, .375-24 X 1 ZP	2
28	GC2158	FITTING, PIPE, BUSH, 3/8 NPTM X 1/4 NPTF	2
29	GC2173	SCREW, HXHD, CS, .500-13 X 1.250 ZP	4
30	100017	SCREW, CAP, HEX HD	4
31	GC2203	FITTING, CONNECTOR	2
32	GC2228	FITTING, PIPE, NIPLLE, 3/8 NPT X 4	1
33	GC2261	SCREW, SHDC, SS, .500-13 X 1	2
34	GC2267	MOTOR, AIR, 5 IN.	1
35	GC2323	MUFFLER, SILENCER, EXHAUST	2
36	GC0501	FITTING, CONNECTOR	2
37*		HOSE, TUBING, POLYU, RED; 0.87 in. 1/4 OD, 1/8 ID	1
38*		HOSE, TUBING, POLYU, BLUE; 0.87 in. 1/4 OD, 1/8 ID	1
39	GC0753	VALVE, CONTROL, 2-WAY	1
40	GC0927	KIT, SWITCH, RETRACT, 500 SERIES; includes (36-39) and 25 (2).	1

# Section 1 - General Information: Assembly Drawings

## GC2617 Material Pump Assembly



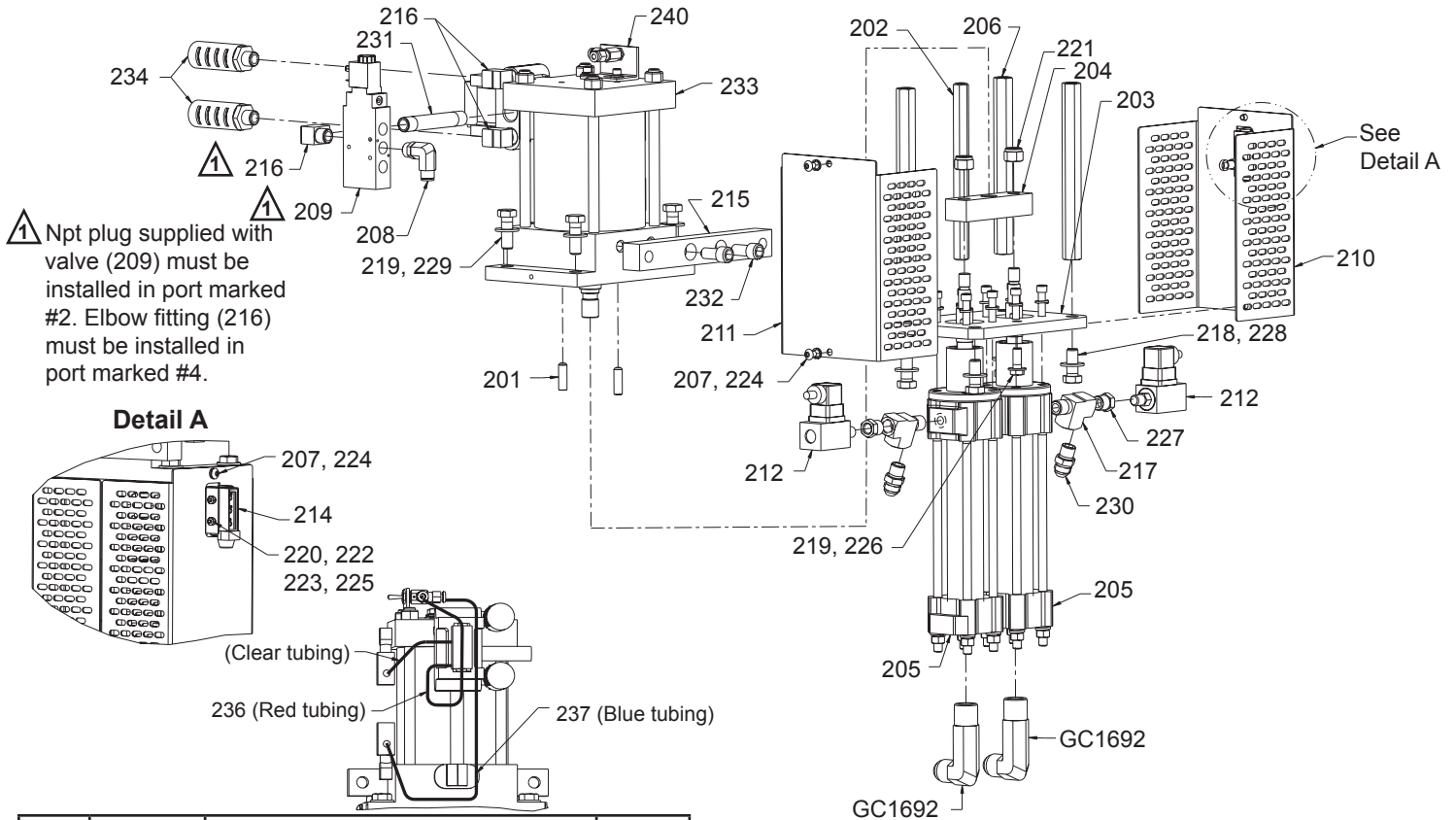
Ref.	Part	Description	Qty.
101*		SCREW, SET, FLAT PT., 3/8-24 THD.	2
102	GC0324	EXTENSION, STANDOFF, AIR MOTOR	2
103	GC0325	PLATE, MTG, PUMP, UNIVERSAL	1
104	GC0326	SADDLE, PUMP	1
105	GC0382	EXTENSION, STANDOFF, AIR MOTOR, 5 IN.	4
106	112925	SCREW, CAP, BTN HD	4.
107	GC0495	FITTING, ELBOW, SW, 3/8 NPTM X 1/2 TUBE	1
108	GC0749	SCREW, SET, CPPT, .500-13 X 1.5	4
109	GC0781	GUARD, SURROUND, LEFT	1
110	GC0782	GUARD, SURROUND, RIGHT	1
111	GC0805	SWITCH, PRESSURE, HIGH	2
112	GC0808	ASSY,PUMP,1:1	2
113	GC2401	VALVE, POPPET, INLINE, 1/2NPT, NC	1
115	GC0954	SWITCH, LIMIT, PLUNGER, ROLLER	1
116	GC1692	FITTING, ELBOW, LG, 1-1/16 X 3/4 STL	2
117	GC1737	BRACKET, MOUNTING, PUMP, A5-6000	1
118	GC1995	FITTING, ELBOW, 1/2 NPTM X 1/2 NPTF	1
119	803088	FITTING, PIPE, TEE, ST, 3/8, ZP	2.
120	GC2041	WASHER, FLAT, STD	4
121	GC2047	WASHER, FLAT, STD	2

Ref.	Part	Description	Qty.
122	GC2052	WASHER, FLAT, STD	2
123	GC2066	FITTING, PIPE, BUSHING	1
124	GC2086	NUT, HEX, SELF-LOCK	2
125	GC2092	NUT, HEX, STD	2.
126	GC2107	WASHER, LOCK, SPRING	2
127	GC2109	WASHER, LOCK, SPRING	4
128	GC2119	SCREW,RDHD,CS,.164-32X1.250ZP	2
129	GC2135	SCREW, HEX HD, CS, .375-24 X 1	2
130	GC2158	FITTING, PIPE, BUSH, 3/8 NPT(M) X 1/4 NPT(F)	2
131	GC2173	SCREW, HEX HD, CS, .500-13 X 1.250	4
132	GC2203	FITTING, CONNECTOR	2
133	GC2227	FITTING, PIPE, NIPPLE, 1/2 NPT X 4	1
134	GC2261	SCREW, SHDC, SS, .500-13 X 1	2
135	GC2273	MOTOR, AIR, 6 IN.	1
136	GC2376	FITTING, ELBOW, SWIVEL	1
137	GC0501	FITTING, CONNECTOR	2
138*		HOSE, TUBING, POLYU, 1/4, RED; 0.87 in. 1/4 OD, 1/8 ID	1
139*		HOSE, TUBING, POLYU, 1/4, BLUE; 0.87 in. 1/4 OD, 1/8 ID	1
140	GC0928	KIT, SWITCH, RETRACT, 600 SERIES; includes items 127 and 136-139	1



# Section 1 - General Information: Assembly Drawings

## GC2618 Material Pump Assembly



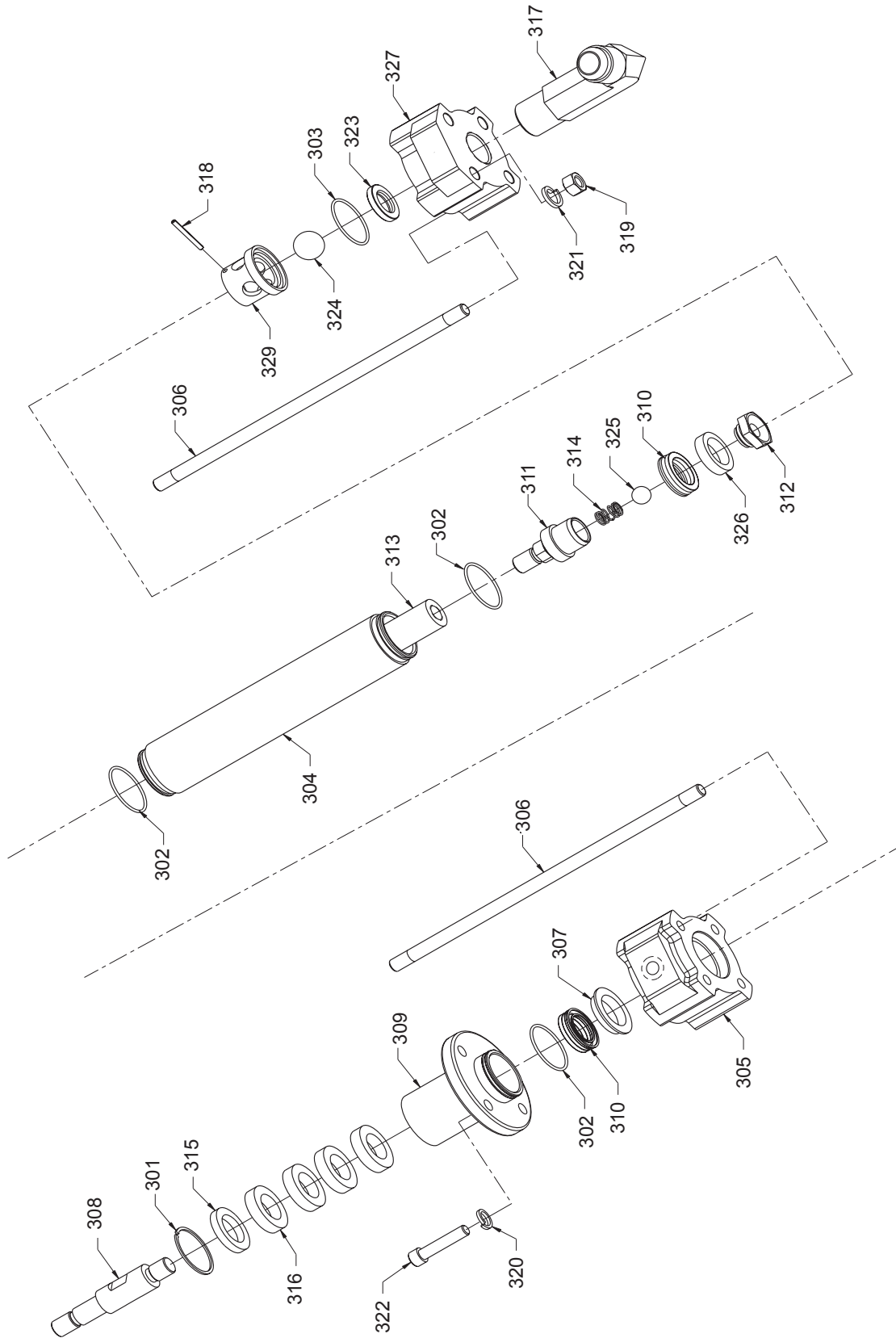
Ref. No.	Part	Description	Qty.
201*		SCREW, SET, FLAT PT., 3/8-24	2
202	GC0324	EXTENSION, STANDOFF, AIR MOTOR	2
203	GC0325	PLATE, MTG, PUMP, UNIVERSAL	1
204	GC0326	SADDLE,PUMP	1
205	GC0329	ASSY, PUMP, FLUID	2
206	GC0382	EXTENSION, STANDOFF, AIR MOTOR, 5 IN.	4
207	112925	SCREW, CAP, BTN HD	4
208	GC0495	FITTING, ELBOW, SW, 3/8 NPT(M) X 1/2 TUBE	1
209	GC0736	VALVE, 4-WAY, NO, 3/8 IN. NPT(F), 24 VAC	1
210	GC0781	GUARD, SURROUND, LEFT	1
211	GC0782	GUARD, SURROUND, RIGHT	1
212	GC0805	SWITCH, PRESSURE, HIGH	2
214	GC0954	SWITCH, LIMIT, PLUNGER, ROLLER	1
215	GC1737	BRACKET, MOUNTING, PUMP, A5-6000	1
216	GC1994	FITTING, ELBOW, 3/8 NPT(M) X 3/8 NPT(F)	3
217	803088	FITTING, PIPE, TEE, ST, 3/8, ZP	2
218	GC2041	WASHER, FLAT, STD	8
219	GC2047	WASHER, FLAT, STD	2
220	GC2052	WASHER, FLAT, STD	2
221	GC2086	NUT, HEX, SELF-LOCK	2

Ref. No.	Part	Description	Qty.
222	GC2092	NUT, HEX, STD	2
223	GC2107	WASHER, LOCK, SPRING	2
224	GC2109	WASHER, LOCK, SPRING	6
225	GC2119	SCREW, RDHD, CS, .164-32 X 1.250 ZP	2
226	GC2135	SCREW,HEX HD, CS, .375-24 X 1 ZP	2
227	GC2158	FITTING, PIPE, BUSHING, 3/8 NPT(M) X 1/4 NPT(F)	2
228	GC2173	SCREW, HEX HD, CS, .500-13- X1.250ZP	4
229	100017	SCREW, CAP, HEX HD	4
230	GC2203	FITTING, CONNECTOR	2
231	GC2228	FITTING, PIPE, NIPPLE, 3/8 NPT X 4	1
232	GC2261	SCREW, SHDC, SS, .500-13 X 1	2
233	GC2267	MOTOR, AIR, 5 IN.	1
234	GC2323	MUFFLER, SILENCER, EXHAUST	2
236*		HOSE, TUBING, POLYU, 1/4, RED; 1.083 in., 1/4 OD, 1/8 ID	1
237*		HOSE, TUBING, POLYU, 1/4, BLUE; 1.083 in., 1/4 OD, 1/8 ID	1
240	GC0927	KIT, SWITCH, RETRACT, 500 SERIES; includes 224, 236, and 237	1

\* Source locally.

# Section 1 - General Information: Sub Assembly Drawings

## GC0329 Fluid Section Assembly



## Section 1 - General Information: Sub Assembly Drawings

### GC0329 Fluid Section Parts List

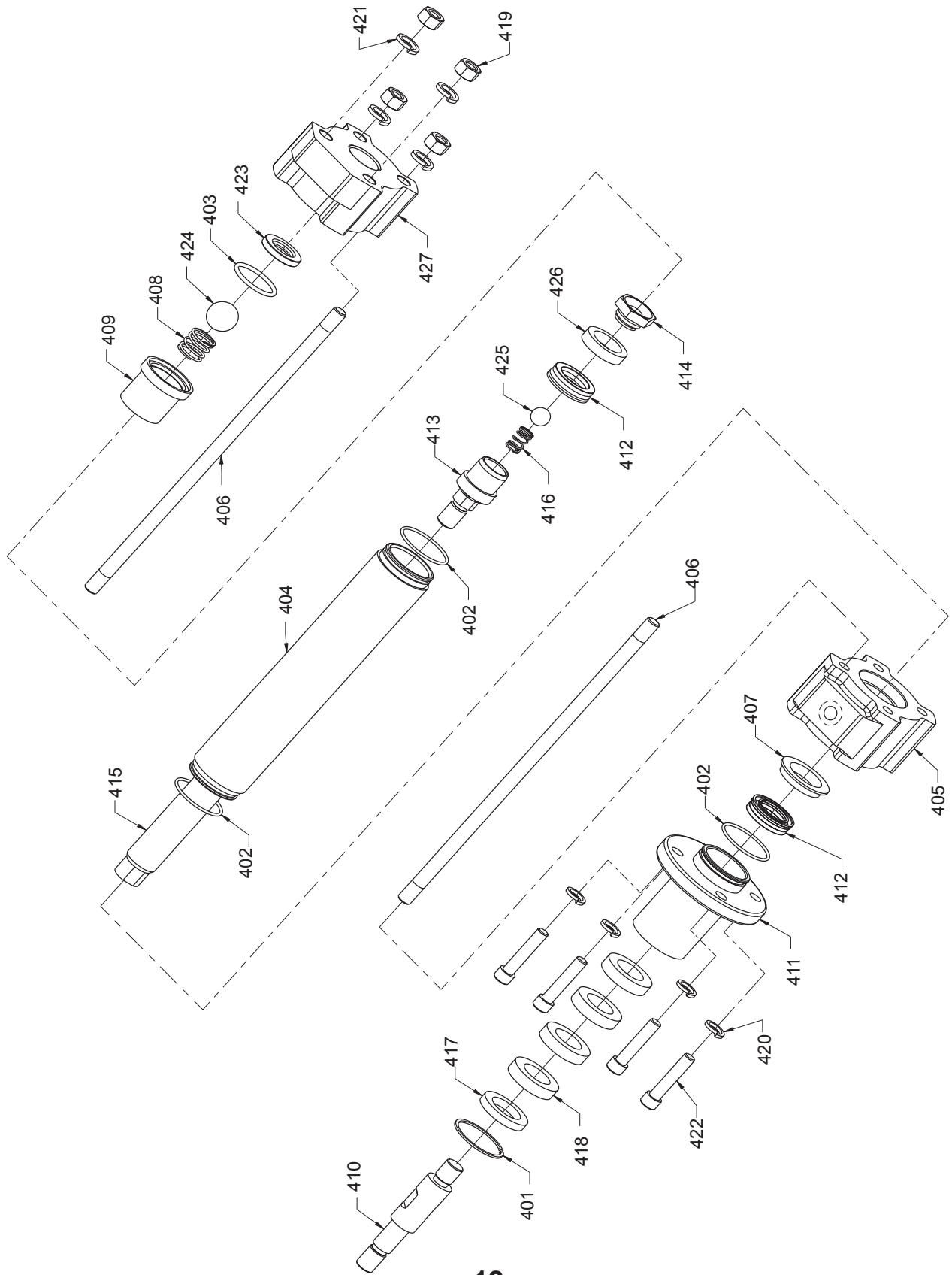
Ref. No.	Part	Description	Qty.
301	GC0015	RETAINER, RING	1
302	GC0049	O-RING	3
303	GC0050	O-RING	1
304	GC0229	CYLINDER, PUMP	1
305	GC0231	HEAD, PUMP, AIRLESS	1
306	GC0233	ROD, TIE, PUMP	4
307	GC0237	WASHER, SUPPORT, CUP, UPPER	1
308	GC0323	SHAFT, PUMP	1
309	GC0711	ADAPTER, CUP, SOLVENT	1
310	GC0745	SEAL, PUMP, URETHANE, 1:1	2
311	GC0746	HOUSING, TRANSFER, 1:1	1
312	GC0747	SEAT, HOUSING, TRANSFER, 1:1	1
313	GC0748	SHAFT, PUMP, 1:1	1
314	GC0778	SPRING, COMPRESSION	1
315	GC0868	RETAINER, PACKING, 1:1	1
316	GC0872	WIPER, FELT, 1:1	4
317	GC1692	FITTING, ELBOW, LG, 1-1/16 X 3/4 STL	1
318	GC1971	PIN, ROLL, 1/8 DIA X 1-3/16	1
319	GC2097	NUT, HEX, STD, 3/8-16, UNC	4
320	GC2110	WASHER, LOCK, SPRING	4
321	GC2113	WASHER, LOCK, SPRING, 3/8	4
322	GC2255	SCREW, SHDC, CS, .313-18X1.500 ZP	4

Ref. No.	Part	Description	Qty.
323	GC2276	SEAT, VALVE, FOOT	1
324	GC2277	BALL	1
325	GC2278	BALL	1
326	GC2291	GUIDE, PISTON, NYLON	1
327	GC2317	BASE, PUMP, 33:1	1
329	GC2391	HOUSING, VALVE, FOOT	1

GC0819 REPAIR KIT			
Ref. No.	Part	Description	Qty.
326	GC2291	GUIDE, PISTON, NYLON	1
302	GC0049	O-RING	3
303	GC0050	O-RING	1
310	GC0745	SEAL, PUMP, URETHANE, 1:1	2
315	GC0868	RETAINER, PACKING, 1:1	1
316	GC0872	WIPER, FELT, 1:1	4

# Section 1 - General Information: Sub Assembly Drawings

## GC0808 Fluid Section Assembly



## Section 1 - General Information: Sub Assembly Drawings

### GC0808 Fluid Section Parts List

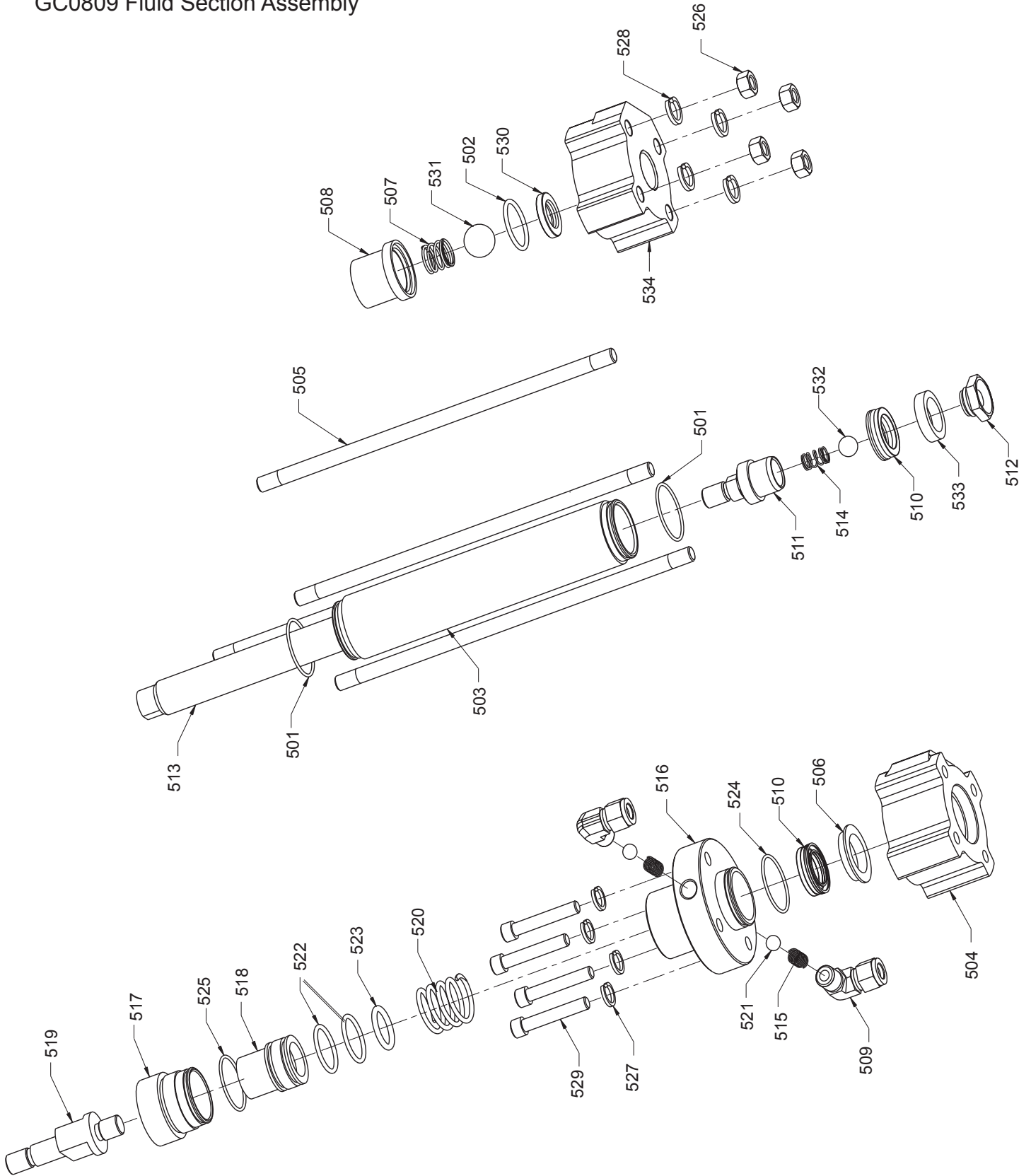
Ref. No.	Part	Description	Qty.
401	GC0015	RETAINER, RING	1
402	GC0049	O-RING	3
403	GC0050	O-RING	1
404	GC0229	CYLINDER, PUMP	1
405	GC0231	HEAD, PUMP, AIRLESS	1
406	GC0233	ROD, TIE, PUMP	4
407	GC0237	WASHER, SUPPORT, CUP, UPPER	1
408	GC0306	SPRING, COMPRESSION	1
409	GC0307	HOUSING, VALVE, FOOT	1
410	GC0323	SHAFT, PUMP	1
411	GC0711	ADAPTER, CUP, SOLVENT	1
412	GC0745	SEAL, PUMP, URETHANE, 1:1	2
413	GC0746	HOUSING, TRANSFER, 1:1	1
414	GC0747	SEAT, HOUSING, TRANSFER, 1:1	1

Ref. No.	Part	Description	Qty.
415	GC0748	SHAFT, PUMP, 1:1	1
416	GC0778	SPRING, COMPRESSION	1
417	GC0868	RETAINER, PACKING, 1:1	1
418	GC0872	WIPER, FELT, 1:1	4
419	GC2097	NUT, HEX, STD, 3/8-16, UNC	4
420	GC2110	WASHER, LOCK, SPRING	4
421	GC2113	WASHER, LOCK, SPRING	4
422	GC2255	SCREW, SHDC, CS, .313-18 X 1.5 ZP	4
423	GC2276	SEAT, VALVE, FOOT	1
424	GC2277	BALL	1
425	GC2278	BALL	1
426	GC2291	GUIDE, PISTON, NYLON	1
427	GC2317	BASE, PUMP, 33:1	1

GC0819 REPAIR KIT			
Ref. No.	Part	Description	Qty.
426	GC2291	GUIDE, PISTON, NYLON	1
402	GC0049	O-RING	3
403	GC0050	O-RING	1
412	GC0745	SEAL, PUMP, URETHANE, 1:1	2
417	GC0868	RETAINER, PACKING, 1:1	1
418	GC0872	WIPER, FELT, 1:1	4

# Section 1 - General Information: Sub Assembly Drawings

GC0809 Fluid Section Assembly



## Section 1 - General Information: Sub Assembly Drawings

### GC0809 Fluid Section Parts List

Ref. No.	Part	Description	Qty.
501	GC0049	O-RING	2
502	GC0050	O-RING	1
503	GC0229	CYLINDER, PUMP	1
504	GC0231	HEAD, PUMP, AIRLESS	1
505	GC0233	ROD, TIE, PUMP	4
506	GC0237	WASHER, SUPPORT, CUP, UPPER	1
507	GC0306	SPRING, COMPRESSION	1
508	GC0307	HOUSING, VALVE, FOOT	1
509	GC0430	FITTING, ELBOW, 1/4NPT(M) X 3/8 TUBE SS	2
510	GC0745	SEAL, PUMP, URETHANE, 1:1	2
511	GC0746	HOUSING, TRANSFER, 1:1	1
512	GC0747	SEAT, HOUSING, TRANSFER, 1:1	1
513	GC0748	SHAFT, PUMP, 1:1	1
514	GC0778	SPRING, COMPRESSION	1
515	GC1834	SPRING, COMPRESSION; .360 IN. OD	2
516	GC1836	ADAPTER, SOLVENT CUP	1

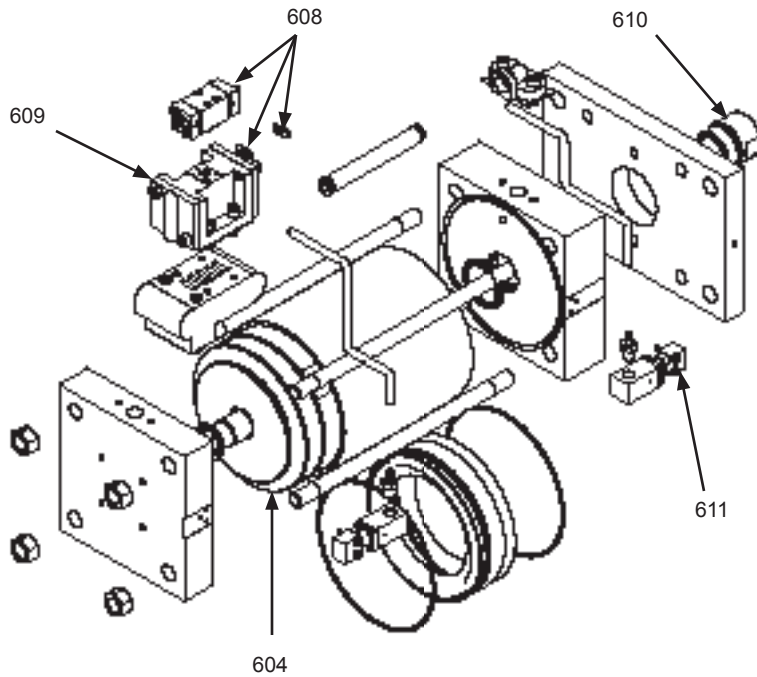
Ref. No.	Part	Description	Qty.
517	GC1837	INSERT, SOLVENT CUP	1
518	GC1838	PISTON, RECIRCULATION	1
519	GC1839	SHAFT, PUMP	1
520	GC1841	SPRING, COMPRESSION; 1.218 IN. OD	1
521	GC1843	BALL, S TEEL, 3/8 IN. OD	2
522	GC1928	O-RING; FLUOROELASTOMER	2
523	GC1929	O-RING; FLUOROELASTOMER	1
524	GC1930	O-RING; FLUOROELASTOMER	1
525	GC1934	O-RING; FLUOROELASTOMER	1
526	GC2097	NUT, HEX, STD, 3/8-16, UNC	4
527	GC2110	WASHER, LOCK, SPRING	4
528	GC2113	WASHER, LOCK, SPRING	4
529	GC2256	SCREW, SHDC, SS, .313-18 X 1.875	4
530	GC2276	SEAT, VALVE, FOOT	1
531	GC2277	BALL	1
532	GC2278	BALL	1
533	GC2291	GUIDE, PISTON, NYLON	1
534	GC2317	BASE, PUMP, 33:1	1

#### GC0820 REPAIR KIT

Ref. No.	Part	Description	Qty.
501	GC0049	O-RING	2
502	GC0050	O-RING	1
510	GC0745	SEAL, PUMP, URETHANE, 1:1	2
522	GC1928	O-RING; FLUOROELASTOMER	2
523	GC1929	O-RING; FLUOROELASTOMER	1
524	GC1930	O-RING FLUOROELASTOMER	1
525	GC1934	O-RING FLUOROELASTOMER	1
533	GC2291	GUIDE, PISTON, NYLON	1

## Section 1 - General Information: Sub Assembly Drawings

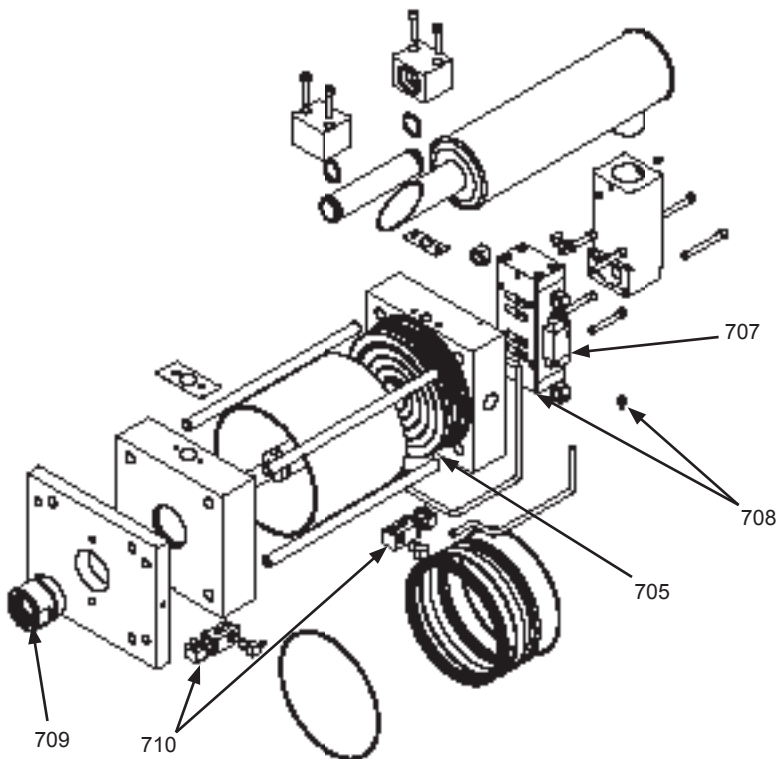
GC2267 5 in. Air Motor Assembly



GC2267 REPAIR KIT		
Ref. No.	Description	Qty.
604	ROD, PISTON	1
608	VALVE, SHIFTING	1
609	VALVE, SLAVE	1
610	BUSHING, ROD	1
611	VALVE, STROKE SIGNAL	1

Not all repair parts are listed. See GlasCraft Air Motor Repair Kit manual 3A0393 for all repair parts.

GC2273 6 in. Air Motor Assembly



GC2273 REPAIR KIT		
Ref. No.	Description	Qty.
705	ROD, PISTON	1
707	VALVE, SHIFTING	1
708	VALVE, MAIN	1
709	BUSHING, ROD	1
710	VALVE, STROKE SIGNAL	1

Not all repair parts are listed. See GlasCraft Air Motor Repair Kit manual 3A0393 for all repair parts.



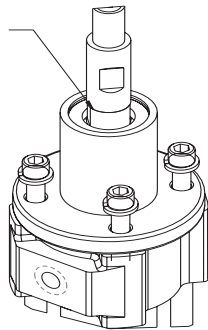
## Section 1 - General Information: Maintenance

### Fluid Section Maintenance & Overhaul Procedure

#### Daily Routine Maintenance

1. Visually inspect the system for leaks.
2. Check desiccant dryer beads to insure they are still purple and have not changed to pink.
3. Check and lube top of the fluid section.

Wipe off residual material and add a tablespoon of throat seal liquid (TSL).



#### Weekly Maintenance

1. Place a small amount of grease on the air motor shaft.
2. See related manuals.

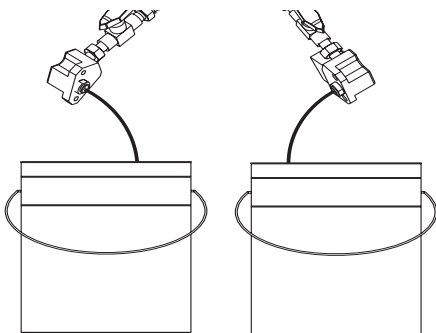
#### Overhaul Procedure GC0329 (-01) Pumps / GC0808 Pumps

1. Dump pressure off system



*Be sure the air and power are off to system.*

This is achieved by removing side blocks from the gun, opening ball valves and purging materials into clean containers.

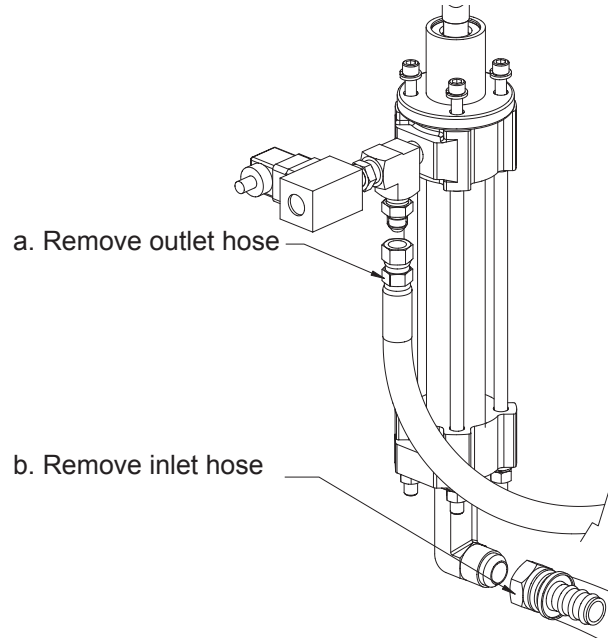


2. Flush system side to be rebuilt with suitable solvent.

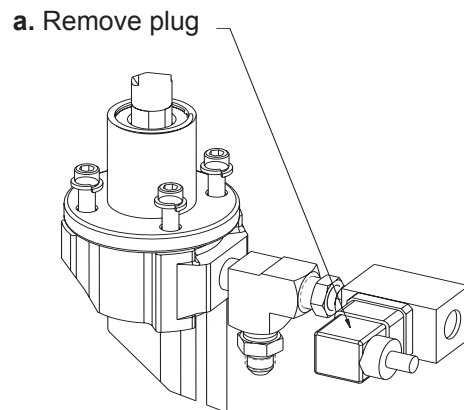


*Step three is optional, but it makes the process easier.*

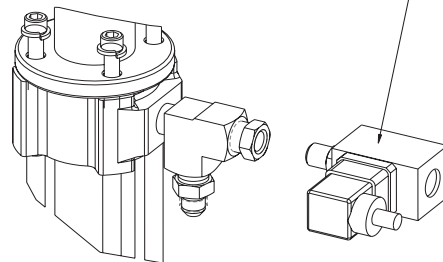
3. Disconnect inlet and outlet fittings from the pump.



4. Disconnect the din connector from over pressure switch.



- b. Remove Switch from fitting.

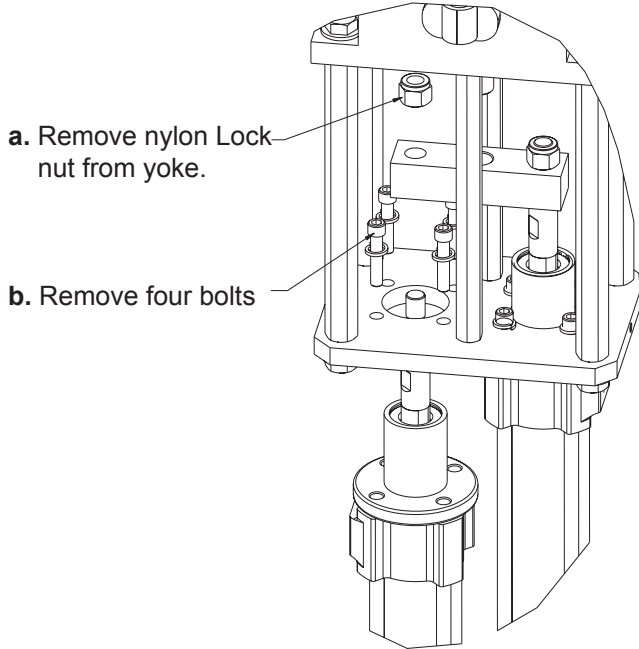


## Section 1 - General Information: Maintenance



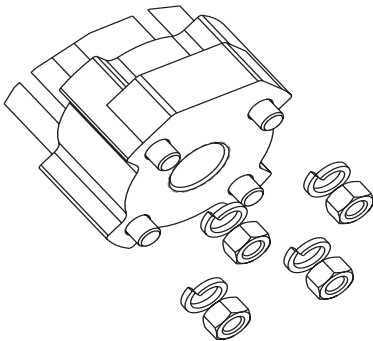
Do not immerse Over Pressure Valve in solvents externally. (Flushing will not affect).

5. Remove pump from base.



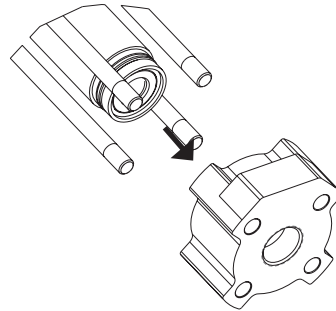
### Breaking Down Pump

1. Remove four nuts at the base of pump break loose, in a criss-cross pattern.

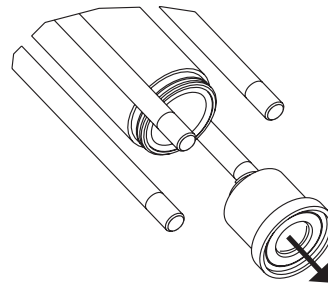


On P/N GC0808 pumps, watch out for GC2276, GC2277, and GC0306. The spring will push these parts out. Observe which side of the GC2276 comes out, Keep right side up for diagnostics.

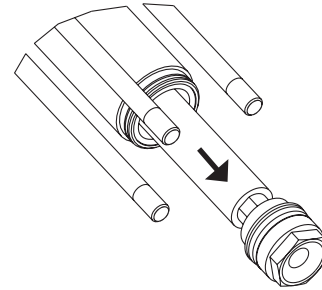
2. Remove Base from Tie Rods.



3. Remove Valve Housing from the cylinder.  
P/N GC2391 on GC0329 pump.  
P/N, GC0307 on GC0808 pump.

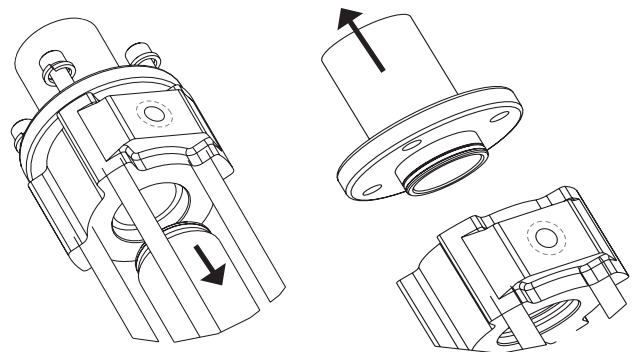


4. Using a rubber mallet, tap shaft out through the bottom of the cylinder.



5. a. Remove cylinder, P/N GC0229 from pump head  
P/N GC0231.

b. Remove Cup Adapter, P/N GC0711 from pump head  
P/N GC0231.

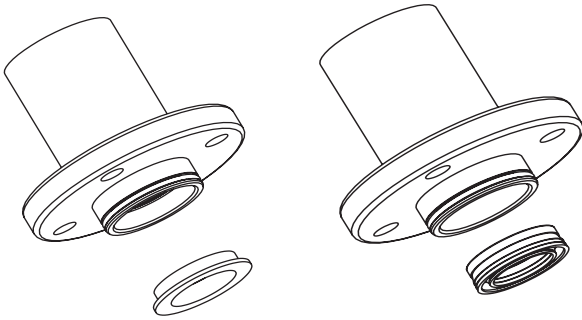


## Section 1 - General Information: Maintenance

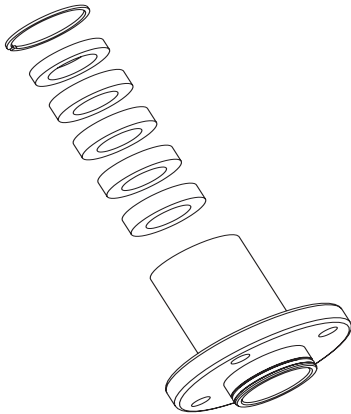
### Disassemble Sub-Assemblies

#### 1. Cup Adapter, P/N GC0711.

- a. Remove Support Washer, P/N GC0237.
- b. Remove Seal, P/N GC0745.



- c. Remove Snap Ring, P/N GC0015, Nylon Washer, P/N GC0868, & Felt Wipers, P/N GC0872.

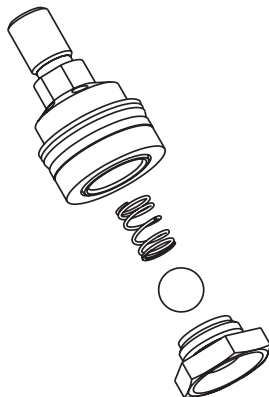


#### 2. Shaft Assembly:

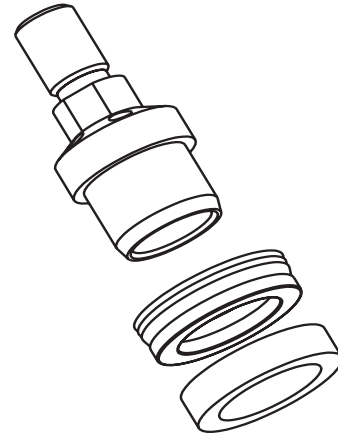
- a. Remove P/N GC0747, Transfer Seat from P/N GC0746, Transfer Housing.



*P/N GC2278, Ball is loaded with spring tension.*



- b. Remove GC2291, Piston Guide and P/N GC0745 Pump Seal.



### Cleaning

1. Thoroughly wash all parts in suitable solvent.
2. If parts have any build-up of hardened material, it is acceptable to polish parts with fine sand paper, (1200 grit) or steel wool(000).
3. It is recommended that the cylinder be honed with a fine grit bead honer, (P/N RK5-2).

### Inspection

1. The Pump Cylinder, P/N GC0229 inner wall should be smooth. No pitting or scarring should be seen. If slight scars show in the wall, they must not be able to be felt with a finger nail.
2. The Pump Shaft, P/N GC0748 must not have any scoring, pitting, or build up of any debris on the shaft.
3. Set the Ball, P/N GC2278 in the Seat, P/N GC0747 and hold up to a light. Observe for light between the seat surface and the ball.



*If a large sliver of light shows, check for debris or scaring on Seat or Ball.*


4. P/N GC2277 & P/N GC2276 repeat the above step.



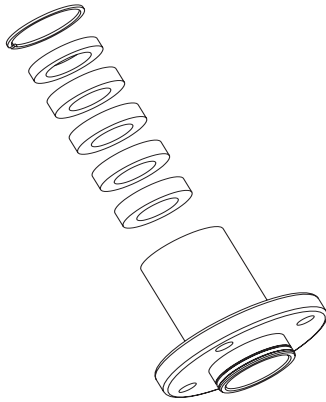
*The GC2276 is reversible, you can use either side.*

## Section 1 - General Information: Maintenance

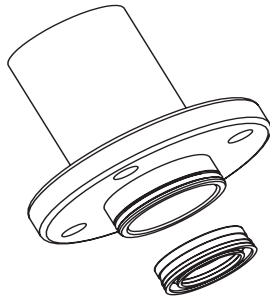
### Re-Assemble

 All parts underlined are contained in Repair Kit.

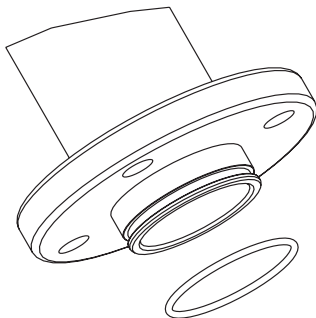
1. Soak P/N GC0872 in a light weight, non detergent oil, then install in P/N GC0711.
2. Install P/N GC0868, push down and install Snap Ring P/N GC0015 in groove.



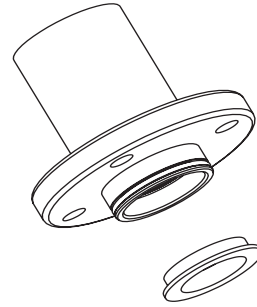
3. On bottom side of P/N GC0711 install P/N GC0745 so that the lip faces out



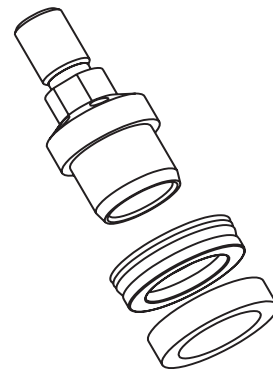
4. Lubricate and install O-Ring, P/N GC0049 on bottom groove.



5. Install P/N GC0237 with lip facing toward the seal P/N GC0745.

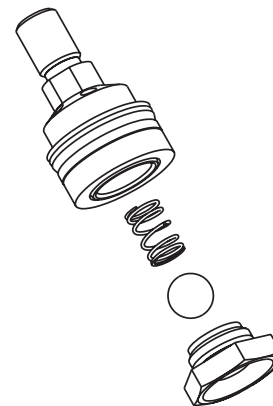


6. Place P/N GC0745 Seal and P/N GC2291 guide on P/N GC0746. The lips of the Seal will face away from P/N GC2291.



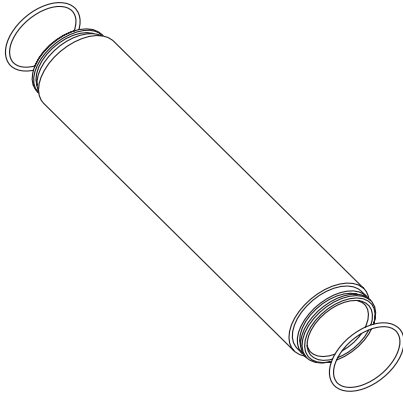
7. Set P/N 21803-00 spring in P/N GC0746 housing and set GC2278 ball on Spring.

8. Apply blue lock-tite to the threads of P/N GC0747 and install on P/N GC0746. Tighten these two parts!

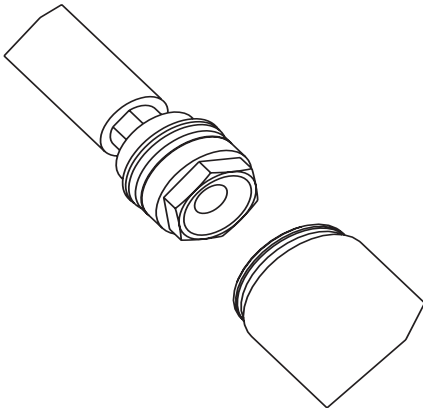


## Section 1 - General Information: Maintenance

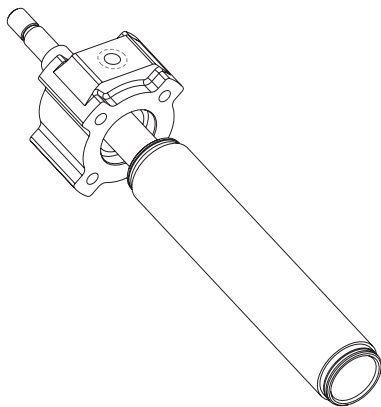
9. Lubricate and install two P/N GC0049 O-Rings on P/N GC0229 cylinder.



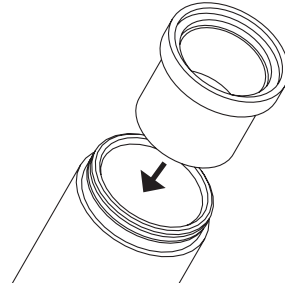
10. Using a light weight non-detergent oil, coat the seal on the shaft assembly and the walls of the cylinder, then install the shaft assembly into the cylinder, leave approximately 4" of the shaft exposed on the top side.



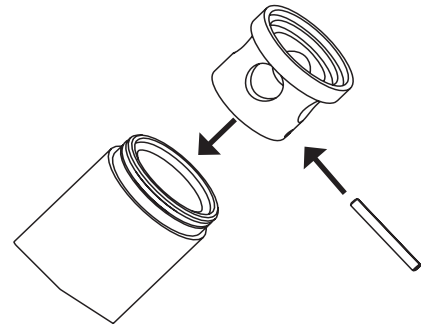
11. Install cylinder/shaft assembly into P/N GC0231 pump Head, careful not to cut O-Ring for pump P/N GC0808.



12. With the Pump Assembly upside down, (easy if clamped in a vise) install Foot Valve Housing



P/N GC0307. (GC0808 Pump)

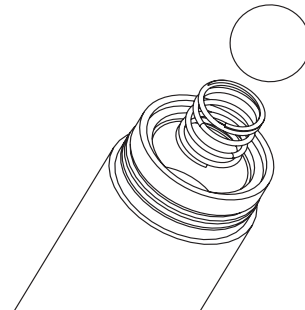


P/N GC2391 & P/N GC1971 (GC0329 Pump)

13. Set P/N GC0306 Spring in place and set P/N GC2277 Ball on Spring.

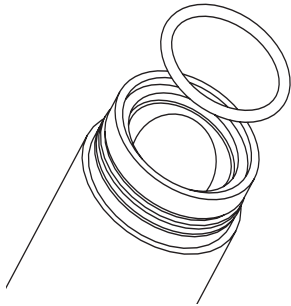


*For the GC0329 pump, set the GC2277 ball in the housing.*

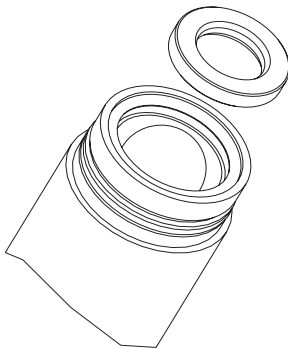


## Section 1 - General Information: Maintenance

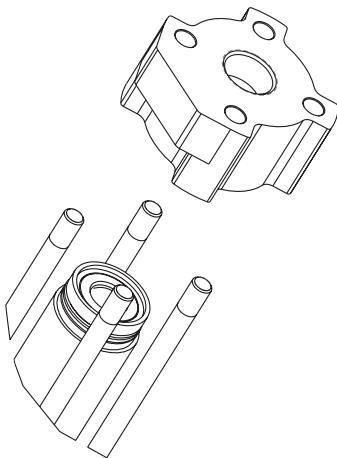
- 14.** Lubricate and install P/N GC0050 O-Ring in the groove of P/N GC0307.



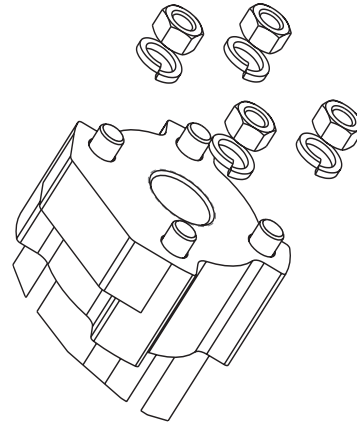
- 15.** Lubricate the outer edge of P/N GC2276 and set top of ball, square and center flats of P/N GC2276 and P/N GC0307.



- 16.** Gently set P/N GC2317 through P/N GC0233 Tie Rods and push down square and firm until it sets down over cylinder O-Ring.



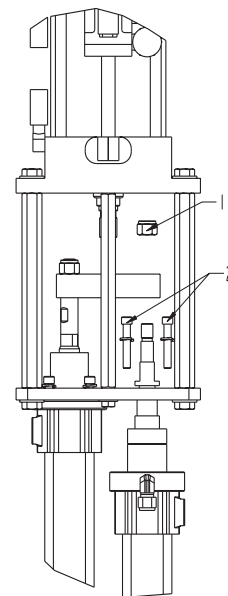
- 17.** Continue holding GC2317 down, install (4) P/N GC2113 Lock Washers and hand thread (4) P/N GC2097 Nuts. Tighten P/N GC2097 in a criss-cross pattern until tight.



- 18.** Reattach the ISO pump to the pump plate. Attach the pump shaft extension to the pump saddle *ONE* and *TWO*. Tighten the pump to the plate using the new mounting bolts and lock washers provided with the kit (this will allow for proper alignment).

*To ensure proper alignment:*

- With shaft nut (1) and mounting bolt (2) loosely threaded, slightly rotate pump back and forth within pump plate until it is centered.*
- Tighten shaft nut (1). (Must perform this step before tightening mounting bolts.)*
- Tighten four mounting bolts (2).*



- 19.** Reconnect hoses fittings and connectors removed in steps 3 and 4.



## Section 2 - Warranty and Reference Information: Limited Warranty Policy

### Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

#### **FOR GRACO CANADA CUSTOMERS**

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

### Graco Information

For the latest information about Graco products, visit [www.graco.com](http://www.graco.com).

**TO PLACE AN ORDER**, contact your Graco distributor or call to identify the nearest distributor.  
Phone: 612-623-6921 or Toll Free: 1-800-328-0211 Fax: 612-378-3505



## Section 2 - Warranty and Reference Information: Technical Assistance

### ***Thank You for selecting GlasCraft spray equipment***

*Should you have any questions or need technical assistance, contact your factory authorized GlasCraft distributor.*

*Distributor:* \_\_\_\_\_

*Phone:* \_\_\_\_\_

*Contact:* \_\_\_\_\_

For any issues your distributor cannot address, the GlasCraft technical service department is always available to assist you with the operation of your spray equipment. To help our technical representatives expedite your call and better address your questions, please have the following information ready and available when you phone GlasCraft.

**\* If your questions are not urgent, You can e-mail all correspondence to [service@glascraft.com](mailto:service@glascraft.com)**

Model: \_\_\_\_\_

Spray gun: \_\_\_\_\_

Serial number: \_\_\_\_\_

Material pump: \_\_\_\_\_

Serial number: \_\_\_\_\_

Catalyst pump: \_\_\_\_\_

Chopper: \_\_\_\_\_

Serial number: \_\_\_\_\_

Type of material: \_\_\_\_\_

Type of catalyst: \_\_\_\_\_

Catalyst percentage: \_\_\_\_\_

Air compressor size: \_\_\_\_\_

Compressor to system supply line: \_\_\_\_\_

Pressure at the system: \_\_\_\_\_

Main air line volume: \_\_\_\_\_

#### *System gauge pressures*

AAC pressure: \_\_\_\_\_

Atomizing air pressure: \_\_\_\_\_  
(external mix)

Material pump pressure: \_\_\_\_\_

Solvent flush pressure: \_\_\_\_\_



Quality and Performance...

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DISPENSING EXCELLENCE



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**313277D**  
**ENG**

Original instructions.  
This manual contains English.  
Revised 05/2011

**A GRACO COMPANY**

GRACO INC.  
P.O. BOX 1441  
MINNEAPOLIS, MN 55440-1441

Phone 612-623-6921  
Toll Free 1-800-328-0211  
Fax 612-378-3505