

GL-1[®] Injectors

308953ZAB

EN

For Single-Line Parallel Automatic Lubrication Systems.



Important Safety Instructions

Read all warnings and instructions in this manual and related automatic lubrication system instruction manuals. Save all instructions.

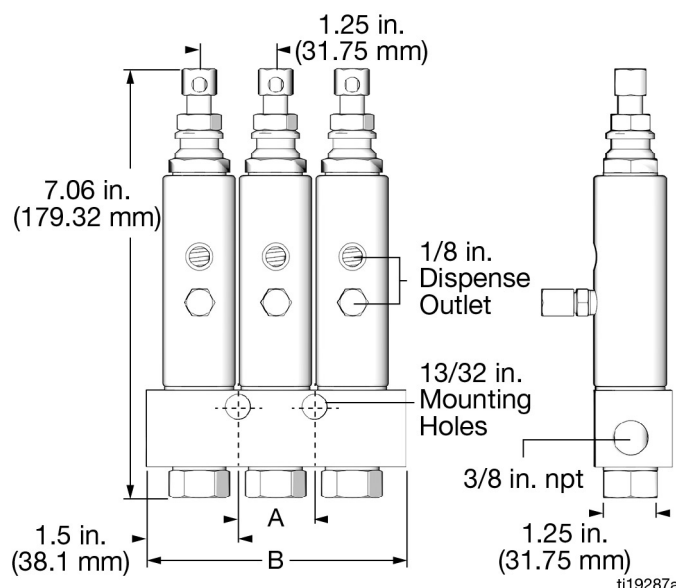






SKIN INJECTION HAZARD

Fluid from the injector, leaks, or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid injected into the skin might look like just a cut, but it is a serious injury. **Get immediate surgical treatment.** Fluid splashed in the eyes or on the skin can also cause serious injury. The equipment may be pressurized already, or it could become pressurized by an automatic lube cycle initiated by Lubrication Controller (timer). Disconnect power to the timer, and disconnect the air supply to the pump module to ensure that the system is depressurized. **See the pressure relief procedure in the pump manual included with your automatic lubrication system.**



Model 114903 Shown

GL-1 Injector Models

Part No.	Description	Dimension A	Dimension B	Bare Manifold Part No.
114901	Injector, GL-1, one point		2.48 in. (63.0 mm)	114911
114902	Injector, GL-1, two point		3.00 in. (76.0 mm)	114912
114903	Injector, GL-1, three point	1.25 in. (31.7 mm)	4.23 in. (107.5 mm)	114913
114904	Injector, GL-1, four point	2.50 in. (63.4 mm)	5.47 in. (139.0 mm)	114914
114905	Injector, GL-1, five point	3.75 in. (95.1 mm)	6.71 in. (170.5 mm)	114915
117206	Injector, GL-1, six point	4.99 in. (126.8 mm)	7.90 in. (202.7 mm)	118206
114909	Injector, GL-1, replacement			
25N109	Injector, SST, replacement			

Installation Instructions

Reference letters used in the following instructions, refer to figure on page 3.

- Group injectors to minimize feed line length.
- Install injectors in locations that allow easy and safe servicing access.
- Install injectors in areas that minimize accidental injector damage by moving equipment.
- Injector outputs can be combined for a common bearing point with a large grease requirement but the output for a single injector cannot be split into multiple bearing points.
- Graco recommends using steel tubing instead of pipe and hose for supply lines when possible. Pipe is often contaminated with scale and requires proper cleaning prior to use. Hose lines expand under pressure which leads to longer pump cycle time.



1. Relieve pressure. See **Pressure Relief Procedure**, in the pump instruction manual included with your automatic lubrication system.
2. Install injectors on a flat, hard surface using mounting brackets.
3. Connect fluid supply line to injectors.

NOTICE

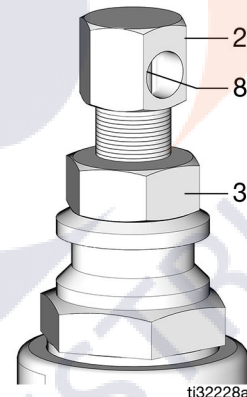
To prevent rupturing supply lines due to over-pressurizing the components, only use supply lines and fittings that meet or exceed the pressure rating of the injectors.

4. Connect lube point feed lines.
5. Flush the system with low viscosity oil or mineral spirits to remove contamination introduced during installation.

6. Use a purge gun or run the pump until clean lubricant is dispensed at the end of each feed line to purge the system of flushing fluid or air.
7. Run the system at full output and verify that all injectors are cycling.
8. Adjust injector volume output. (See Volume Adjustment page 2.)
9. Connect feed lines to lubrication points.

Volume Adjustment

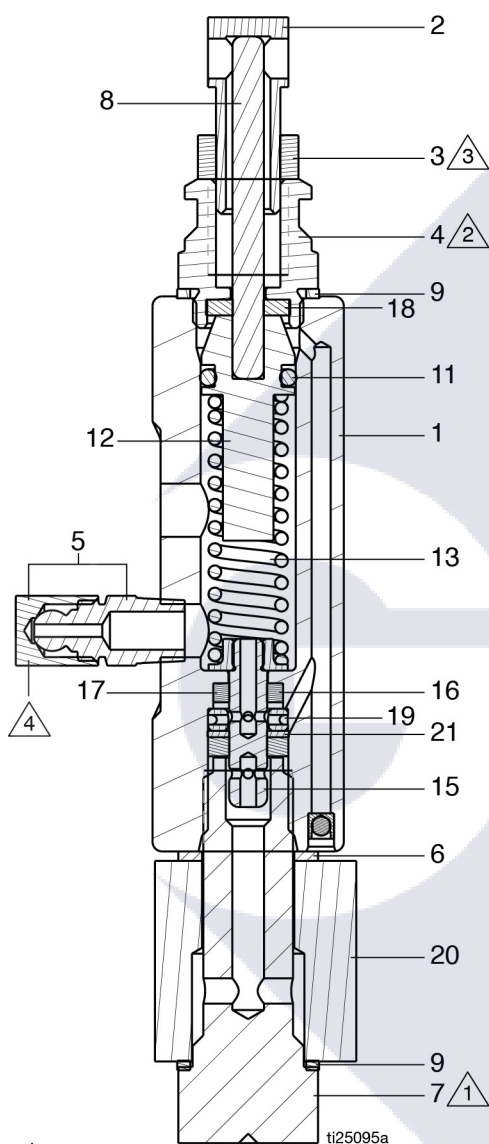
*Maximum adjustment setting is when adjusting screw (2) is just making contact with the indicator pin (8) with no inlet pressure. Turn adjusting screw clockwise (in), to reduce output. To adjust, loosen lock nut (3) and turn adjusting screw (2) the number of turns indicated on the GL-1 Volume Adjustment Table to obtain the desired volume. Tighten lock nut (3) when desired volume setting is reached.



GL-1 Volume Adjustment Table

Description	Number of Turns	Volume	
		in. ³	cc
Maximum Adjustment*	0	0.080	1.31
360° Clockwise Turn	1	0.071	1.16
360° Clockwise Turn	2	0.062	1.02
360° Clockwise Turn	3	0.053	0.87
360° Clockwise Turn	4	0.044	0.72
360° Clockwise Turn	5	0.035	0.57
360° Clockwise Turn	6	0.026	0.43
360° Clockwise Turn	7	0.017	0.28
Minimum Adjustment	8	0.008	0.13

Injector Service Parts



- 1 Torque to 50-55 ft-lbs (68-74.6 N•m)
 2 Torque to 35-40 ft-lbs (47-54 N•m)
 3 Torque to 5-10 ft-lbs (6.5-13.5 N•m)
 4 Torque to 60-70 in-lbs (6.7-7.9 N•m) *Lubricated

Ref	Part No.		Description	Qty
	Carbon Steel	SST		
1	-	-	Injector body	1
2	◆	†	Adjusting screw	1
3	◆	†	Lock nut	1
4	114908	114908	Packing housing	1
5	17Y511	17Y498	Zerk fitting and cap assembly	1
6	★	★	Copper gasket	1
7	-	-	Adapter bolt (used on all manifold models)	1
8	-	-	Indicator pin	1
9	★	★	Steel gasket	2
11	★	★	Fluoroelastomer o-ring (PN 114997)	1
12			Displacement piston	1
13	★	★	Compression spring	1
15	★	★	Poppet Assembly	1
16	★	★	Fluoroelastomer packing	1
17	★	★	Fluoroelastomer packing	1
18	★	★	Fluoroelastomer packing	1
19	★	★	Inlet valve	1
20			Manifold, bare	1
21	★	★	Back up ring	1
	114911	25N101	• One bank	
	114912	25N102	• Two bank	
	114913	25N103	• Three bank	
	114914	25N104	• Four bank	
	114915	25N105	• Five bank	
	118206	25N106	• Six bank	
★ Included in Injector Repair Kit 241234 only				
◆ Included in Screw with Adjusting Nut Kit 17Y510				
† Included in Screw with Adjusting Nut Kit 17Y489				

Available Kits

Use Only Genuine Graco Repair Parts

Graco Part No. 114909 . . . Replacement Injector only (does not include manifold).

Graco Part No. 25N109 . . . Replacement SST Injector only (does not include manifold).

Graco Part No. 17L754 . Clear Polycarbonate Injector Cover (see page 4 for installation instructions)

Graco Part No. 133095 Crossover Kit (for connecting the injector outlets for increased output)

Graco Part No. 241234 Injector Repair Kit (See Kit 241234 parts in **Injector Service Parts** list.)

Graco Part No. 25D336: Cap kit (see page 4)

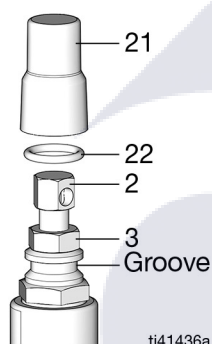
Spacer Kits - 10 Pack: . . See Table and instructions, page 4.

Injector Cover Kit 17L754

Item	Description	Qty
21	CAP	1
22	O-RING	1

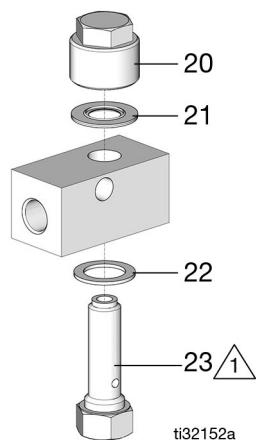
Installation Instructions

1. Apply a light coating of transparent lubricant to the inside of cap (21).
2. Slide the o-ring (22) down over the indicator stem to the groove in the piston plug.
3. Slide cap (21) over the indicator stem of the injector far enough to cover the groove in the piston plug.



Cap Kit 25D336

Ref	Description	Qty
20	PLUG	1
21	WASHER, bonded 13.8 I.D.	1
22	GASKET, steel, 18.3 ID x 26.5 OD	1
23	BOLT, adapter	1



 Torque to 50-55 ft-lbs (67.8-74.6 N•m)

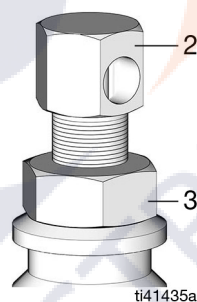
Spacer Kits

Spacer Kit Table

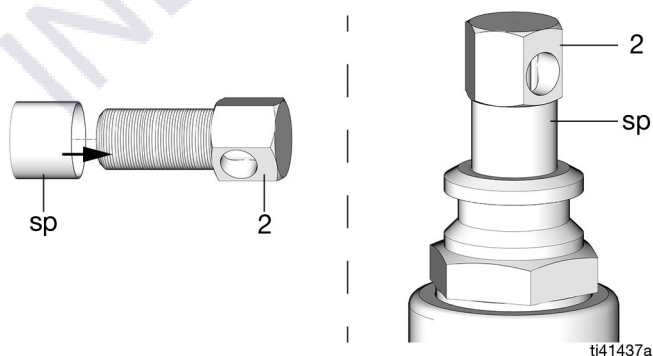
Part No.	color	Output Target		Output Target Ratio	
		cu. in.	cc	From minimum	From max
NA	NA	0.01	0.1	1.0	0.10
17K601	Red	0.03	0.5	2.0	0.50
17K602	Sliver	0.04	0.7	3.0	0.60
17K603	Gold	0.06	0.8	4.0	0.80
17K604	Green	0.07	1.2	5.0	1.00
17K417	NA	0.112	1.87	NA	NA



1. Relieve pressure. See **Pressure Relief Procedure**, in the pump instruction manual included with your automatic lubrication system.
2. Remove adjusting screw (2) and jam nut (3) from injector. Discard jam nut.



3. Insert color-coded spacer (sp) for desired output (see Spacer Kit Table). Reinstall adjusting screw (2) in injector. Hand tighten securely. Torque to 60 in.-lbs (6.7 N•m) $\pm$ 10.



Technical Data

Maximum operating pressure	3500 psi (24 MPa, 241 bar)
Suggested operating pressure	2500 psi (17 MPa, 172 bar)
Reset pressure	600 psi (4.1 MPa, 41 bar)
Output volume per cycle	adjustable*: 0.008 to 0.08 in. ³
Wetted parts	carbon steel, stainless steel, UHMWPE, fluoroelastomer
Recommended fluids	N.L.G.I. #2 grease down to 32° F (0° C)

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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.

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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.

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For patent information, see www.graco.com/patents.

Original instructions. This manual contains English. MM 308953

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