

Direct Mount Vent Valve for G3 Pumps

3A1963F
EN

Used to reduce system pressure and allow injector to reset. For professional use only.

Part No. Right Side Mount Models:

12 VDC, NPT - 571169, 24M478; 24 VDC, NPT - 571170, 24M479, 25C652

12 VDC, BSPP - 571171, 24M481; 24 VDC, BSPP - 571172, 24M482



115 VAC, NPT - 24M480
115 VAC, BSPP - 24M483
230 VAC, NPT - 24N182
230 VAC, BSPP - 24M484

Part No. Left Side Mount Models:

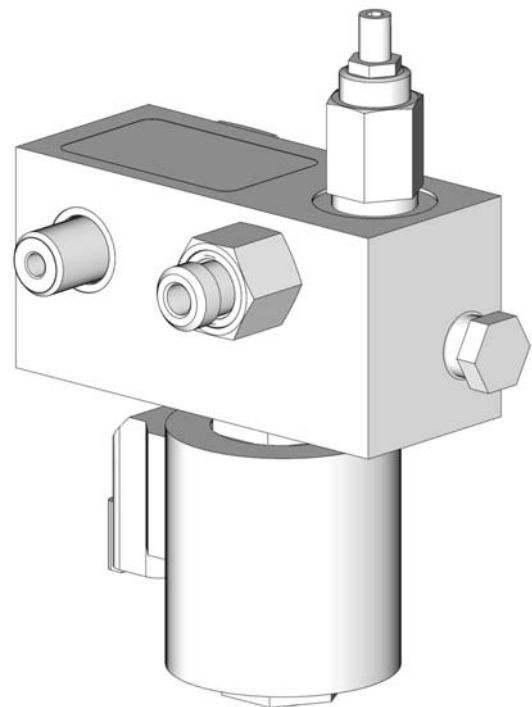
230 VAC, NPT - 24T178
24 VDC, NPT - 25A211

Maximum Working Pressure: 3500 psi (241 bar, 24 MPa)



Important Safety Instructions





Read all warnings and instructions in this manual and the G3 Pump instruction manual included with your unit. Save these instructions.



Instructions

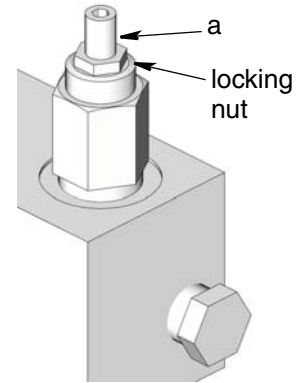
Warnings

Also see the G3 Pump Instruction manual for additional warnings.

					
ELECTRIC SHOCK HAZARD					
This equipment must be grounded. Improper grounding, setup, or usage of the system can cause electric shock.					
<ul style="list-style-type: none"> • Turn off and disconnect power cord before servicing equipment. • Connect only to grounded electrical outlets. • Use only 3-wire extension cords. • Ensure ground prongs are intact on power and extension cords. • Do not expose to rain. Store indoors 					
SKIN INJECTION HAZARD					
High-pressure fluid from dispense device, 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. Get immediate surgical treatment.					
Follow Pressure Relief Procedure in this manual, when you stop dispensing and before cleaning, checking, or servicing equipment.					

Pressure Relief Valves

The pressure relief valve uses a pressure adjustment screw (a) to set the pressure release point. **It is not intended as a way to relieve pressure during normal operation** but as a protective measure in the event there is an unintended pressure increase in the system.



NOTE:

- **Do not use this pressure relief valve as a means of relieving pressure in day-to-day, normal cycle operation. Use the pressure relief procedure described on page 3 of this manual to relieve pressure during normal cycle operation.**
- **The pressure relief valve included in this kit can only be used with the Graco G3 Pump. It is not intended for use with any other products.**
- **Factory set to 4000 psi (275.8 bar, 27.6 MPa).**

The pressure adjustment screw (a) will require periodic adjustments. Whenever the valve is set/adjusted (after the set point is found) it is important to ensure that the valve is not bottomed out and there is at least 1/2 turn of adjustment remaining. This is determined by turning the screw (a) 1/2 turn and then back turning it out again.

NOTE: Turning adjustment screw (a) clockwise, increases pressure.

Installation

Pressure Relief

Relieve pressure in system by using two wrenches working in opposite directions on pump element and pump element fitting to **only** loosen fitting.

NOTE: When loosening pump element fitting, do NOT loosen **pump element**. Loosening pump element will change the output volume.

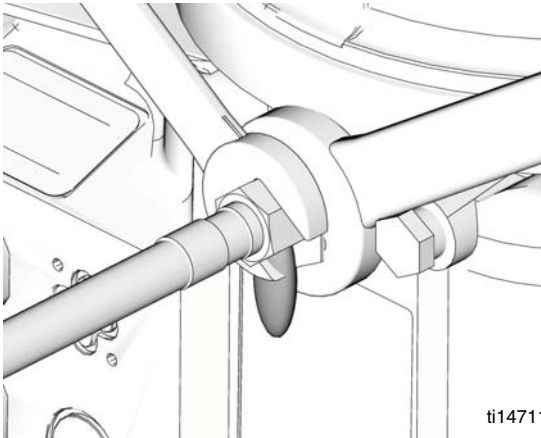


FIG. 1

Vent Valve Installation



Reference numbers used in these instructions correspond to parts included in Kit and are provided on page 6. Parts identified with an alpha character are user provided or already installed components.

1. Disconnect power source.
2. If unit has already been in service, **relieve pressure**.

3. Be sure the two o-rings (8, 9) are correctly installed on the bolt (7) as shown in FIG. 2.

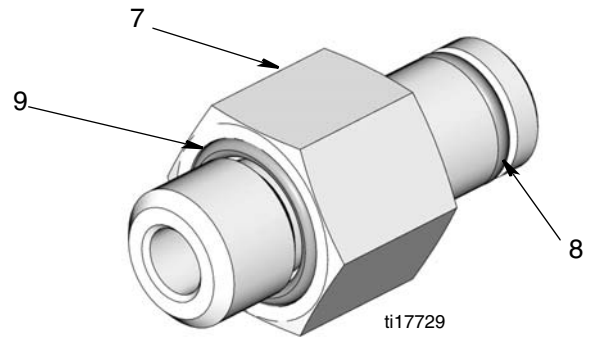


FIG. 2

4. Remove plug from G3 and install vent valve alignment bolt (7) in it's place as shown in FIG. 3. Torque to 30 in. lbs. (0.2 N.m).

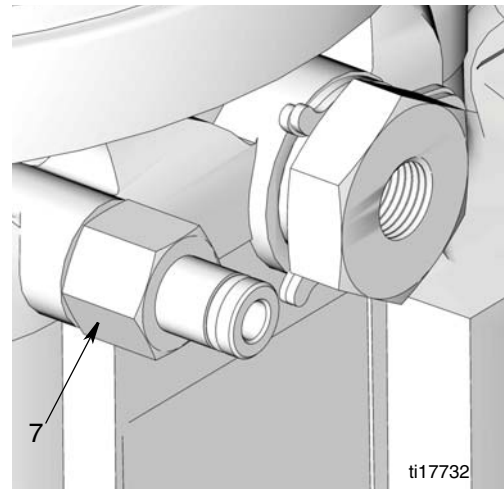


FIG. 3

- Grease o-ring (6) and install in block opening (1a) as shown in FIG. 4.

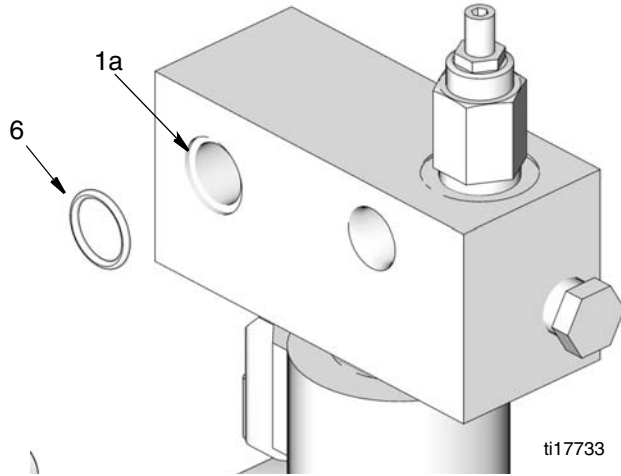


FIG. 4:

- Be sure o-ring (5) is installed on bolt (4) as shown in FIG. 5.
- Install vent valve mounting bolt (4) through hole (1b) in block (1) and into G3 pump (FIG. 5). Tighten mounting bolt (4) securely then torque to 35 ft. lbs. (47.45 N.m).

NOTE: System connection is made through primary outlet (4a).

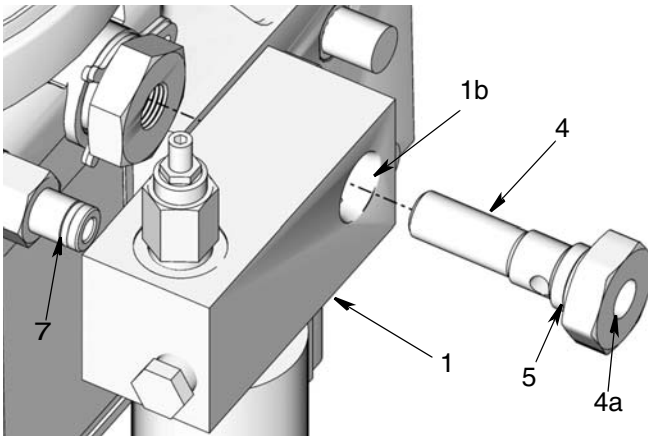


FIG. 5: Right Side Installation Shown

- Plug (10) can be removed to install a pressure gauge or to use this port as an outlet.

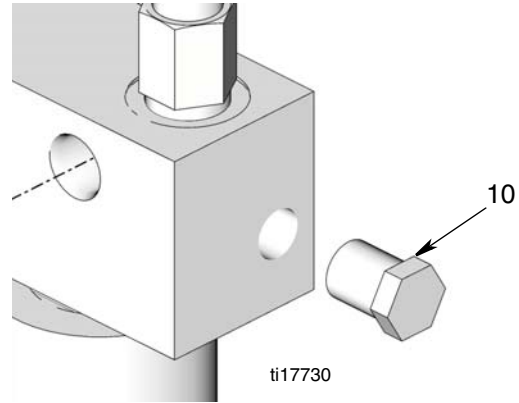


FIG. 6

Step 9 applies to models 571169, 571170, 571171, 571172 only. All other models skip this step and continue instructions with Step 10.

- Connect end of cable (13) to the G3 (FIG. 7).

NOTE: To verify the correct port on the G3 is selected, locate the symbol shown in FIG. 7 on the G3 label.

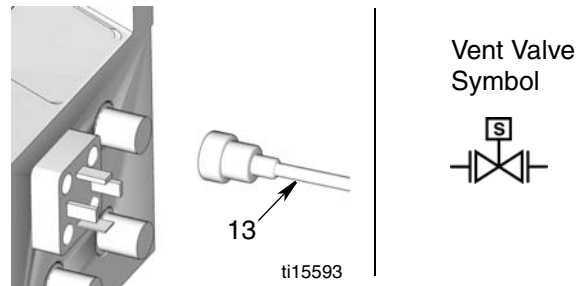


FIG. 7

10. Connect cable connector (13) to solenoid valve (a) (FIG. 8).

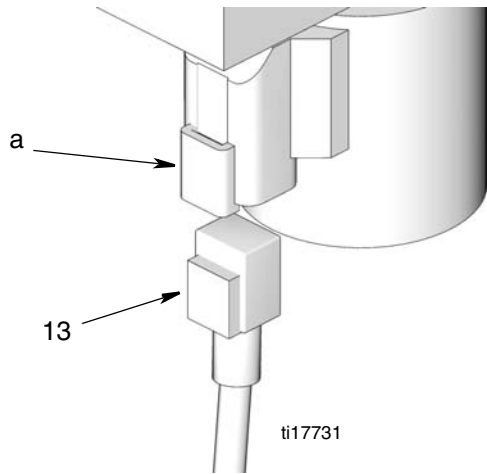


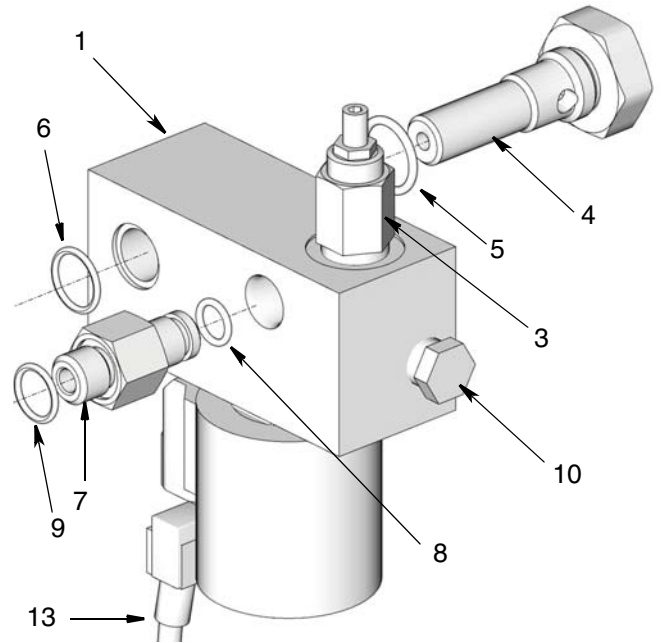
FIG. 8

11. For G3 Max models only, see the G3 Pump instruction manual for Vent Valve Timer Setup instructions.

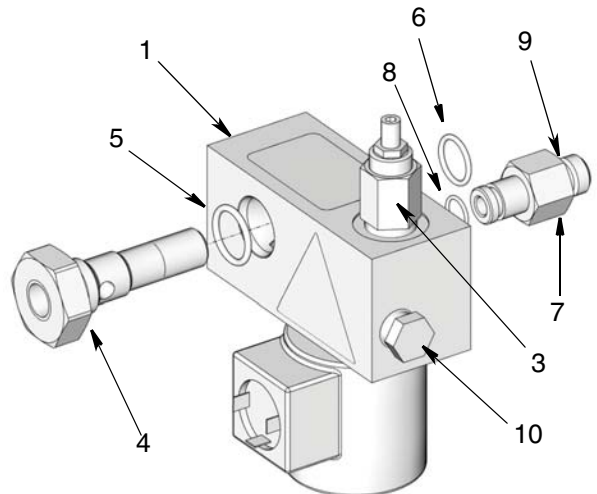
NOTE: For all other externally controlled G3 pump models, see your separate controller instructions.

Parts

Right Side Installation Shown



Left Side Installation Shown (Ref. 13 not shown)



Parts

Ref.	Description	Quantity used with G3 Max Pump					Quantity Used with G3 No Control and Pro Pump									
		571169	571170	571171	571172	25A211	24M478	24M479	24M480	24N182	24M481	24M482	24M483	24M484	24T178	25C652
1	MANIFOLD, vent valve, 12 VDC, N.C. DEU, NPT	1														
	MANIFOLD, vent valve, 24 VDC, N.C. DEU, NPT		1													
	MANIFOLD, vent valve, 12 VDC, N.C. DEU, BSPP			1												
	MANIFOLD, vent valve, 24 VDC, N.C. DEU, BSPP				1											
	MANIFOLD, vent valve, 12 VDC, N.O. DEU, NPT						1									
	MANIFOLD, vent valve, 24 VDC, N.O. DEU, NPT					1		1								
	MANIFOLD, vent valve, 115 VAC, N.O. DIN NPT								1							
	MANIFOLD, vent valve, 230 VAC, N.O. DIN NPT									1					1	
	MANIFOLD, vent valve, 24 VDC, N.O. DIN, NPT															1
	MANIFOLD, vent valve, 12 VDC, N.O. DEU, BSPP										1					
	MANIFOLD, vent valve, 24 VDC, N.O. DEU, BSPP											1				
	MANIFOLD, vent valve, 115 VAC, N.O. DIN, BSPP												1			
	MANIFOLD, vent valve, 230 VAC, N.O. DIN, BSPP													1		
3	VALVE, pressure relief	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
4	BOLT, vent valve, NPT	1	1			1	1	1	1	1					1	1
	BOLT, vent valve mount, BSPP			1	1	1					1	1	1	1		
5	O-RING, 908	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	O-RING, 015	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
7	BOLT, vent valve	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8	O-RING, 012	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	O-RING, 014	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
10	PLUG, 1/4, hex hd	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	CABLE, 6 ft, 2 pin	1	1	1	1	1	❖	❖	†	†	❖	❖	†	†	†	†
14	CABLE, 19", 2 pin					1										

❖ Graco Part No. 24N402 (Cable, 6 ft, vent valve, 2 pin) is available for use with this pump model.

† Graco Part No. 123358 (Cable, DIN, bar lead, power 15 ft.) is available for use with this pump model.

Technical Data

DIRECT MOUNT VENT VALVE FOR G3 PUMPS		
	US	Metric
Maximum working pressure	3500 psi	24 MPa, 241 bar
Pressure Relief Valve		
Factory Set Pressure	4000 psi ± 10%	27.6 MPa, 275.8 bar ± 10%
Reset Pressure	80% of pressure	
Relief Rate	0.13 gallons/sec @3000 psi	0.57 liters/sec @21 MPa. 207 bar
Solenoid Valve		
Flow	Up to 5 gpm (18.9 lpm)	
Materials of Construction		
Wetted materials on all models	zinc plated steel, carbon steel, 6061 T6 aluminum, fluoroelastomer, polyurethane	
Weight	37.72 oz.	1069.5 grams

Solenoid Coil	Resistance (DC) @ 68°F (20°C) (Ohms)	Initial Current Draw (Amps)
12 Volt DC	7.2	1.67
24 Volt DC	28.8	0.83
115 AC*	568	0.17
230 AC*	2304	0.09

* AC service coils are internally rectified and can be used in 50 or 60 Cycle (Hz) lines.

NOTE: AC voltage service with transient surges over 1000 volts may require a varistor to be placed in parallel with the coil.

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

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

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