

# Pressure Relief Valve

308547G

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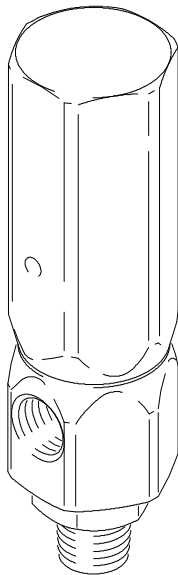
***For use with select Graco proportioners, pumps, and spray systems to help prevent system over-pressurization. For professional use only.***

See page 2 for model information, including maximum working pressure.



## **Important Safety Instructions**

Read all warnings and instructions in this manual and in your applicable related manual(s) before using the equipment. Be familiar with the proper control and usage of the equipment. Save these instructions.



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## Related Manuals

English Manual Number	Description
333309	M2K Spray Packages Instructions-Parts
308224	President® Hydra-Cat® Fixed Ratio Proportioning Pumps Instructions-Parts
308225	Bulldog® Hydra-Cat Fixed Ratio Proportioning Pumps Instructions-Parts
308226	King® Hydra-Cat Fixed Ratio Proportioning Pumps Instructions-Parts
3A3092	Hydra-Cat H.P. Variable Ratio Proportioning Pump Instructions-Parts
313875	VPM™ Instructions

## Models

Pressure relief valves prevent system overpressurization. Choose the valve model with the suggested working pressure range appropriate for your equipment and application. Cracking pressure is the pressure at which the valve will relieve pressure to the system.

Model, Series A	Cracking Pressure psi (MPa, bar)	Suggested Working Pressure Range psi (MPa, bar)
24W475	400 (27.6, 2.76)	275-350 (19-24, 1.9-2.4)
237060	750 (52, 5.2)	475-575 (33-40, 3.3-4.0)
2002878	1000 (69, 6.9)	710-865 (49-60, 4.9-6.0)
237061	1500 (103, 10.3)	950-1150 (66-79, 6.6-7.9)
237112	2250 (155, 15.5)	1400-1800 (97-124, 9.7-12.4)
237062	3000 (207, 20.7)	1800-2300 (124-159, 12.4-15.9)
237073	3750 (259, 25.9)	2300-2900 (159-200, 15.9-20.0)
237063	4500 (310, 31.0)	2900-3600 (200-248, 20.0-24.8)
237074	6000 (414, 41.4)	3600-5000 (248-345, 24.8-34.5)







# Overview

## Fluid Pressure Relief Valves

The fluid pressure relief valves are used to prevent pumps from generating pressures higher than the system rated pressure. If an overpressure situation occurs, the valve will open and discharge fluid from the bottom relief port.

Do not modify, remove, or plug the pressure relief valve.

# Installation

 <b>WARNING</b>				
				
<p>Installation of this valve involves potentially hazardous procedures. Only trained and qualified personnel who have read and who understand the information in this manual and the related manual(s) should install the valve.</p> <p><b>PRESSURIZED FLUID HAZARD</b>                      This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid, flying debris and moving parts, follow Pressure Relief Procedure in your applicable <b>Related Manuals</b>, page 2, before installing the valve.</p> <p><b>PERSONAL PROTECTIVE EQUIPMENT</b>                      Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns.</p>				

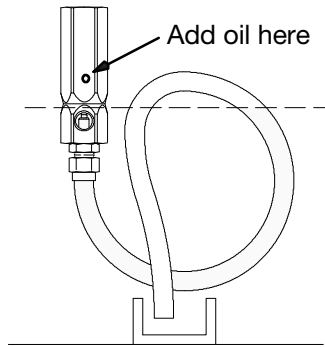
The installations shown in FIG. 1 and FIG. 2 are only guides for selecting and installing the valve; they are not actual system designs. Contact your Graco distributor for assistance in designing a system to meet your needs.

<b>NOTICE</b>
<p>Be sure that the fluid working pressure of your system is within the suggested working pressure range of the relief valve. Fluid leakage, nuisance cracking, or system component rupture may occur if the system working pressure does not fall within the suggested working pressure range.</p> <p>Do not modify, remove, or plug pressure relief valve.</p>

Install valve in pump outlet with suitable fittings.

Install a discharge line from 1/2 npt(m) relief port in bottom of valve to the supply container or a waste container.

DO NOT connect discharge line to a pressurized line, such as the transmission line between a feed pump and the proportioning pump.

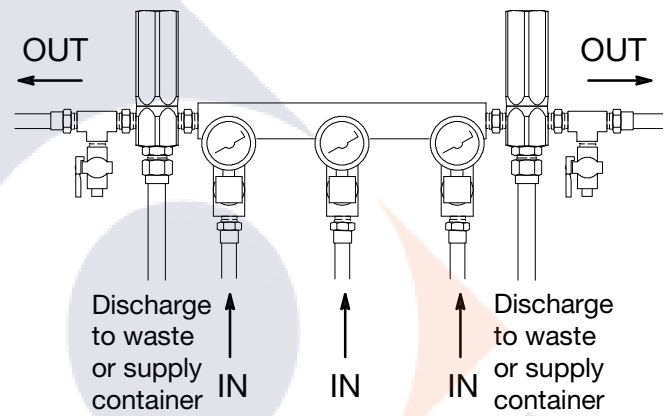


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FIG. 1

<b>! WARNING</b>				
<b>FLYING DEBRIS HAZARD</b>				
Materials that cure when exposed to air may defeat the ability of the safety valve to relieve an overpressure condition, resulting in burst components and serious injury.				
Keep the valve in good operating condition. Clean the valve daily when using materials that can cure or obstruct the internal moving parts of the valve.				

For materials that cure when exposed to air, add a loop in the discharge line and fill with compatible oil to prevent the discharge line from plugging after relieving. See Fig. 1.




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FIG. 2: Typical Installation






Do not connect the discharge line to the supply container to prevent contamination from the oil. Also add compatible oil to cap through hole to prevent needle/seal from curing in case of fluid seepage.

<b>! WARNING</b>				
<b>FIRE AND EXPLOSION HAZARD</b>				
To avoid fire and explosion, always ground valve. Follow grounding instructions in your applicable <b>Related Manuals</b> , page 2.				

# Maintenance



## WARNING

**PRESSURIZED FLUID HAZARD**  
 This valve stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow Pressure Relief Procedure in your applicable **Related Manuals**, page 2, before cleaning, checking or servicing the valve.

**PERSONAL PROTECTIVE EQUIPMENT**  
 Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns.

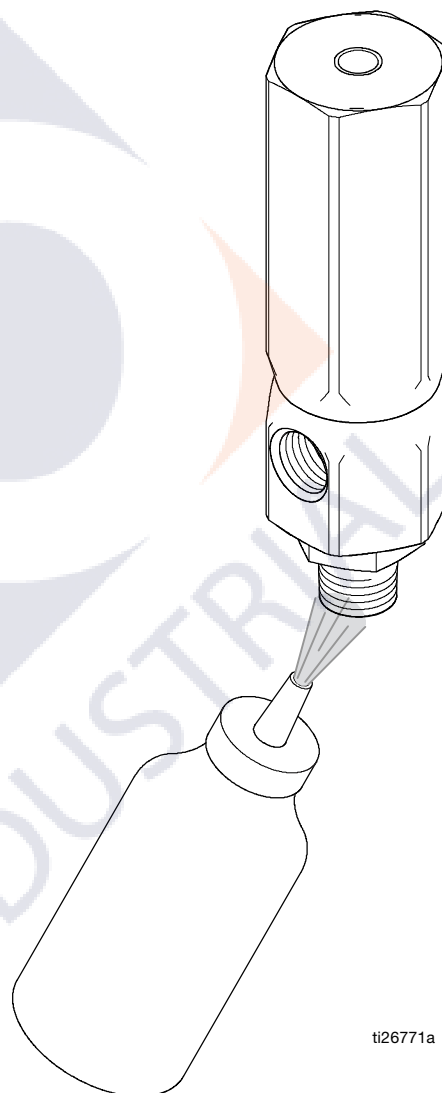
### NOTICE

Keep the valve in good operating condition. Clean the valve daily when using filled materials or materials that can cure. Filled or cured materials may obstruct the internal moving parts of the valve.

When using ISO catalyst, clean fluid outlet port each time the relief valve is activated. This will prevent buildup of dried catalyst.

Dried catalyst can prevent the valve from releasing when needed.

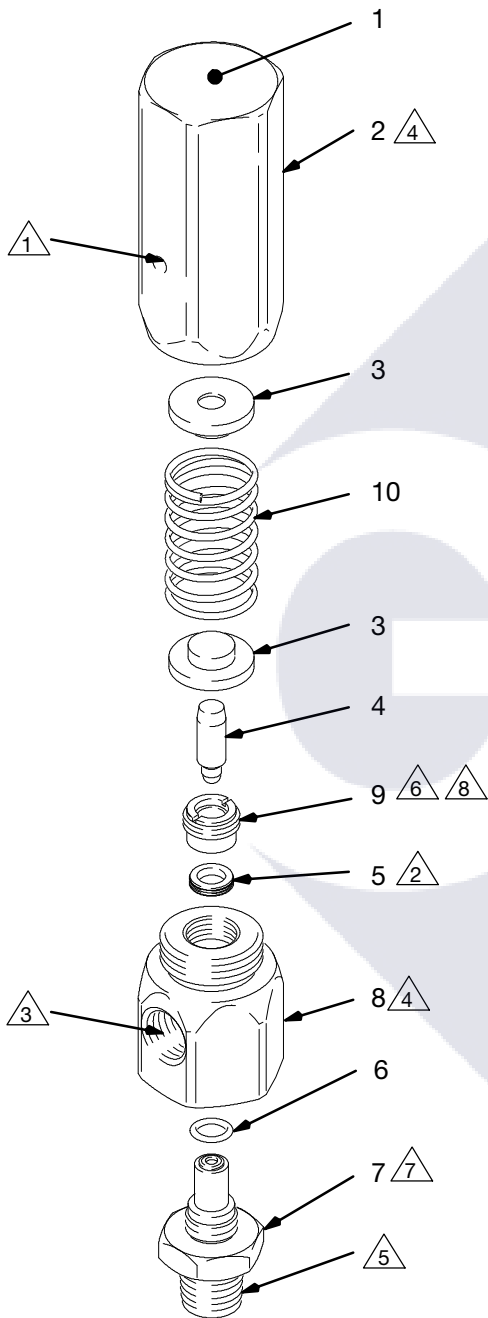
Use squeeze bottle with cleaning solvent to clean out the port.



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**FIG. 3**

# Parts



Ref.	Part	Description	Qty
1†	---	LABEL, warning	1
2	---	SPRING HOUSING	1
3	189992	GUIDE, spring	2
4❖		NEEDLE, valve	1
	237018	(all other models)	
	24W476	(model 24W475)	
5❖		SEAL, spring loaded;	1
	111364	graphite-filled PTFE	
	16N786	UHMWPE (model 24W475)	
6❖	107505	PACKING, o-ring	1
7❖	237019	SEAT, valve	1
8		HOUSING, valve	1
	189994	(all other models)	
	17C238	(model 24W475)	
9		RETAINER, seal	1
	189997	(all other models)	
	17C237	(model 24W475)	
10	---	SPRING	1

❖ *Keep these spare parts on hand to reduce down time.*

† *Do not remove the Warning Label. It contains important warnings and instructions.*

△1 Replace seal (Ref. No. 5) if leakage is observed.

△2 Apply lubricant. Face lips towards housing (Ref. No. 8).

△3 1/2 npt(f) inlet and outlet

△4 Apply lubricant. Torque to 50--60 ft-lb (68--81 NSm).

△5 1/2 npt(m) relief port

△6 Apply anti-sieze lubricant. Torque to 13--15 ft-lb (18--20 NSm).

△7 Apply anti-sieze lubricant. Torque to 75--85 ft-lb (102--115 NSm).

△8 9/16 in. drag-link socket required.

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# Technical Specifications

Equipment Name	
Valve type	spring-loaded needle
Inlet and outlet port size	1/2 npt(f)
Relief port size	1/2 npt(m)
Wetted parts	304 stainless steel, graphite-filled PTFE, UHMWPE (model 24W475), tungsten carbide (nickel binder)
Noise level	<70 dBA

## California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – [www.P65warnings.ca.gov](http://www.P65warnings.ca.gov).



# 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.

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For patent information, see [www.graco.com/patents](http://www.graco.com/patents).

**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

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**Graco Headquarters:** Minneapolis

**International Offices:** Belgium, China, Japan, Korea

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