

# Models

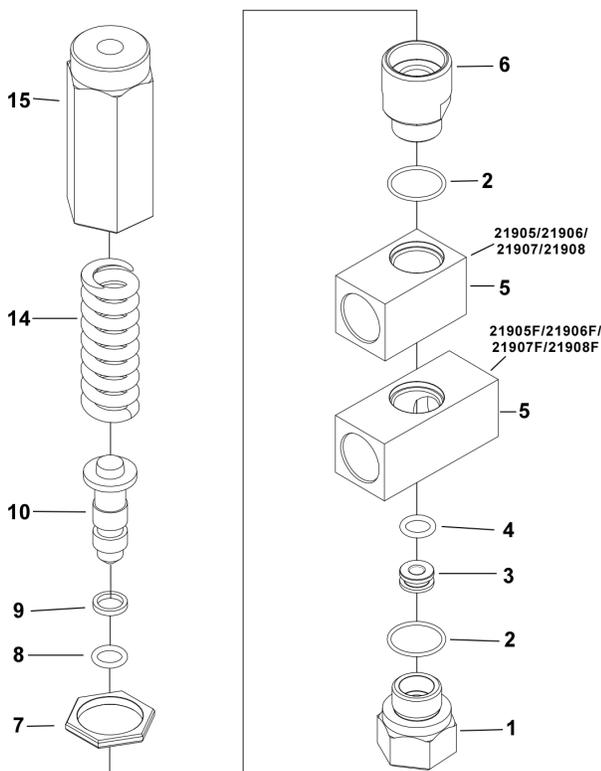
# Regulator/Relief Valve

21905/21905F/21906/21906F

21907/21907F/21908/21908F

## Operating Specifications

	<b>U.S.</b> .....	<b>Metric</b>
<b>Flow</b> .....	10 GPM.....	40 L/min
<b>Pressure Range:</b>		
(21905/21905F) .....	150-2000 PSI.....	10-140 Bar
(21906/21906F) .....	50-150 PSI.....	3.5-10 Bar
(21907/21907F) .....	150-2000 PSI.....	10-140 Bar
(21908/21908F) .....	50-150 PSI.....	3.5-10 Bar
<b>Max. Temperature:</b> .....	160 °F .....	70 °C
<b>Inlet Port [21905(F)/21906(F)]:</b> .....		3/8" FNPT
<b>Bypass [21905(F)/21906(F)]:</b> .....		3/8" FNPT
<b>Inlet Port [21907(F)/21908(F)]:</b> .....		1/4" FNPT
<b>Bypass [21907(F)/21908(F)]:</b> .....		1/4" FNPT
<b>Weight:</b> .....	12.5 oz.....	354 Grams
<b>Materials:</b> .....	Brass body, S.S. Wet End Metal Parts, Buna-N Seals	



Item	Part#	Description	Qty
1	05676	Bypass Fitting	1
2*	12007	O-Ring	2
3	05679	Seat	1
4*	07023	O-Ring	1
5	05673	Body (21905/21906)	1
5	05673F	Body (21905F/21906F)	1
5	05673-1.4	Body (21907/21908)	1
5	05673F-1.4	Body (21907F/21908F)	1
6	05675	Stem	1
7	05681	Locknut	1
8*	05684	Quad Ring	1
9*	05685	Backup Ring	1
10	04924	Piston	1
14	05683	Spring	1
14	04562	Spring	1
15	05674	Adjusting Cap	1
	*09666	Seal Repair Kit	

## Instructions

This product is to be utilized with clean fresh water (possibly with some normal detergents). More corrosive liquids should not be used with this valve. The valve should be used at nominal ratings of flow and pressure.

## Installation

As a **RELIEF VALVE**, this valve should be placed in an area that remains pressurized when the gun is shut-off. As a **PRESSURE REGULATOR**, the valve maintains the pressure in the system (even during flow changes). In this condition, always, use a suitable safety valve.

## Operation

The valve inlet is on the side (21905/21906) and on either side (21905F/21906F). The bypass is opposite the adjusting cap (15). The bypass should be returned to a baffled tank. If the valve is operated with a lot of bypass back to the inlet of the pump, Giant recommends a thermal relief valve (p/n 23422B) be installed to avoid dangerous water temperature increases.

## Pressure Adjustment/Setting

As a **RELIEF VALVE**, the adjustment has to be made in such a way that the pressure setting is higher than the systems's working pressure and its accessories. This prevents pressure spikes and high static pressure. As a **PRESSURE REGULATOR**, adjust the valve when the system is pressurized and the gun is open. As the adjusting cap (15) is turned, there should be a corresponding change in pressure. If you are trying to increase the pressure and turning the adjusting nut clockwise, but you don't see an increase in pressure, **do not continue** to turn the adjusting cap. Make sure that the correct nozzle is being used. Once the desired pressure is reached, tighten the lock nut (7) against the adjusting nut.

## Maintenance

This should be performed by a qualified technician. Check and lubricate seals regularly.

A) To change seat and o-ring only:

- 1) With a 7/8" wrench remove the bypass fitting (1) by means of.
- 2) With a wooden or brass rod, push the seat (3) with o-ring (4) out of the bottom of the bypass fitting.
- 3) Replace with new parts. Generously lubricate the o-ring (4) and press it back into the seat.  
NOTE: Be sure the sealing surface of the seat is facing toward the body (5).
- 4) Replace the o-ring(2) and screw the bypass fitting (1) back into the body (5).

B) To change the seals on the piston:

- 1) Remove the adjusting cap (15). Remove the spring (14) and the piston assembly (8, 9, 10).
- 2) Generously lubricate the quad ring (8) and backup ring (9) and replace on piston.
- 3) Reassemble all parts and secure with the adjusting cap (15).



**WARNING:** This product might contain a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm.

For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

# GIANT

Performance Under Pressure  
Giant Industries, Inc.  
900 N. Westwood Ave.  
Toledo, Ohio 43607  
PHONE: 419-531-4600  
FAX: 419-531-6836  
[www.giantpumps.com](http://www.giantpumps.com)

© Copyright 2018 Giant Industries, Inc.

## Dimensions-inches (mm)

