

## Models

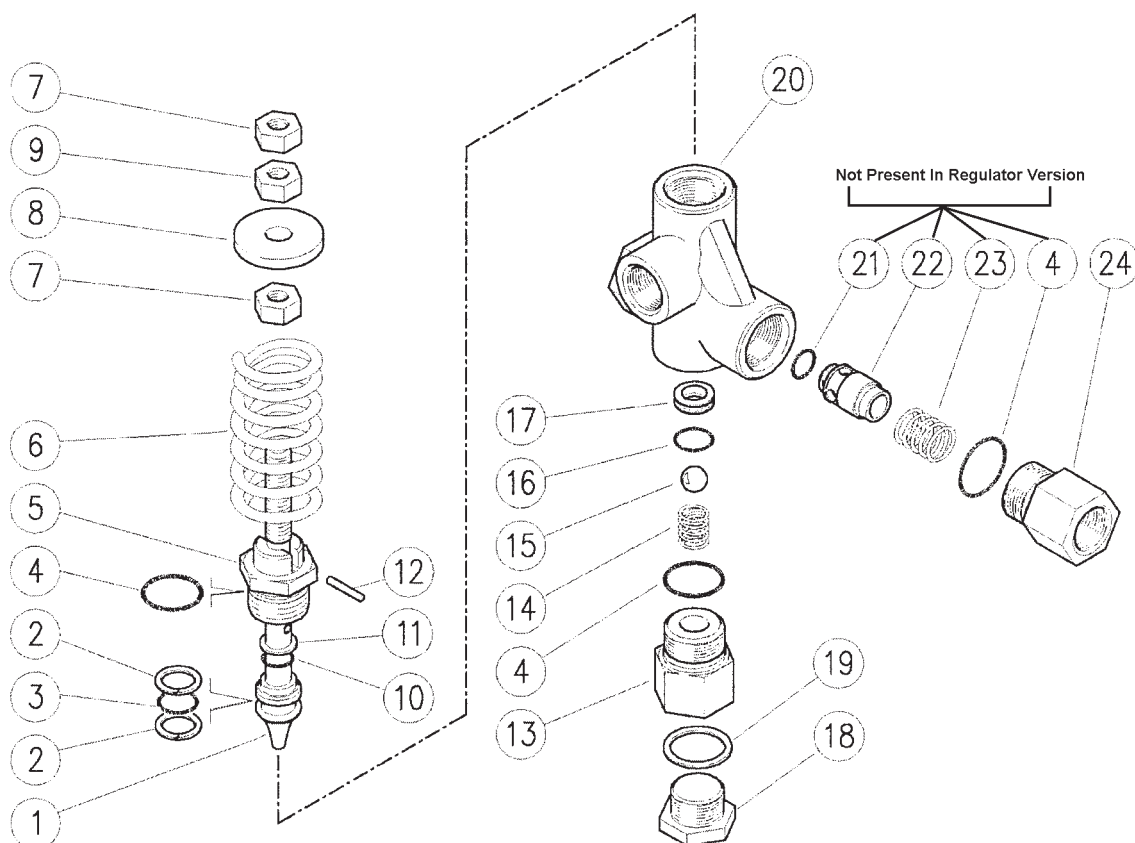
22095-4000/22097-4000 = Unloader, Nitrile

22095-4011/22097-4011 = Unloader, Viton

22096-4000/22098-4000 = Regulator, Nitrile

22096-4011/22098-4011 = Regulator, Viton

## Pressure Actuated Unloaders and Regulators



## Parts List

Item	Part#	Description	Qty	Item	Part#	Description	Qty
1	08774	Piston	1	13	08777	Inlet Fitting, 1/2" NPT	1
2	08758	Back-up Ring	2	14	08752	Spring	1
3	08773	O-ring Nitrile, (-4000 Series)	1	15	08727	Ball	1
3	08739	O-ring Viton, (-4011 Series)	1	16	08754	O-ring Nitrile, (-4000 Series)	1
4	08719	O-ring Nitrile, (-4000 Series)	3	16	08895	O-ring Viton, (-4011 Series)	1
4	08831	O-ring Viton, (-4011 Series)	3	17	08751	Seat	1
5	08772	Piston Housing	1	18	05447	Grub Screw, 1/2" NPT	1
6	08771	Spring, Black, 22095/22096	1	19	08541	Sealing Washer 1/2"	1
6	08763	Spring, White, 22097/22098	1	20	08775	S.S Valve Housing	1
7	06812	Nut	2	21*	08770	O-ring Nitrile, 22095-4000/22097-4000	1
8	08762	Spring Guide	1	21*	08896	O-ring Viton, 22095-4011/22097-4011	1
9	05446	Hex Nut	1	22*	08779	Check Valve, S.S., 22095/22097	1
10	08778	O-Ring Nitrile, (-4000 Series)	1	23*	08749	Spring, 22095/22097	1
10	06813	O-Ring Viton, (-4011 Series)	1	24	08780	S.S. Connection 1/2" NPT	1
11	08761	Back-up Ring	1				
12	08766	Pin	1				

\* Not present in Regulator Versions

**GIANT**

Performance Under Pressure

Giant Industries, Inc.

www.giantpumps.com

900 N. Westwood Ave., P.O. Box 3187 Toledo, Ohio 43607

419-531-4600 Fax: 419-531-6836

© Copyright 2014 Giant Industries, Inc.

**Note:** Always remember to generously lubricate all moving parts with a light weight oil for easy reassembly and to give the moving parts protection when "running in" the unloader.

## SELECTION

This product is to be utilized clean, fresh water, even slightly additivated with normal detergents. For use involving different or corrosive liquids, contact Giant Industries. Appropriate filtration should be installed when using unclean liquids. Choose the valve in line with the data of nominal running (system rated pressure, max flow and max temperature). **In any case the pressure of the machine should not exceed the permissible rate imprinted on the valve.**

When using the lower inlet fitting the max flow rate is 7.9 GPM (30 LPM)

## INSTALLATION

This accessory, on a system that produces hot water, must be fitted in **front of the heat generator**. This product is bound to be incorporated on a finished machine. On a system that generates hot water, anticipate the fitting of accessories that limit the accidental increase of fluid temperature.

**ALWAYS INSTALL A SAFETY VALVE THAT PROTECTS THE PRESSURIZED INLET CHANNEL.**

Choose a correct nozzle size, which allows a regular discharge on bypass, at least 5% of the total flow of the system in order to achieve a constant pressure value and avoid troublesome pressure spikes at closure. If the nozzle wears out, the pressure drops. On installation of a new nozzle, re-adjust the system to the original pressure system. The use of the white spring (2,175 PSI / 150 bar), is advisable in the presence of low pressure, to decrease during lance aperture, motor strain caused by overpressure necessary to obtain bypass condition.

## OPERATION

The valve regulates the max pressure of the system through a piston, which act s on a ball correctly positioned, that closes the bypass opening. A check valve cuts out the delivery section, the pressure of which controls the drive of the piston. Each regulation should be made when the system is operational and the nozzle open. After adjusting the valve to set the pressure, tighten the nut (item # 7) and mark it with a drop of paint in order to emphasize any possible tampering.

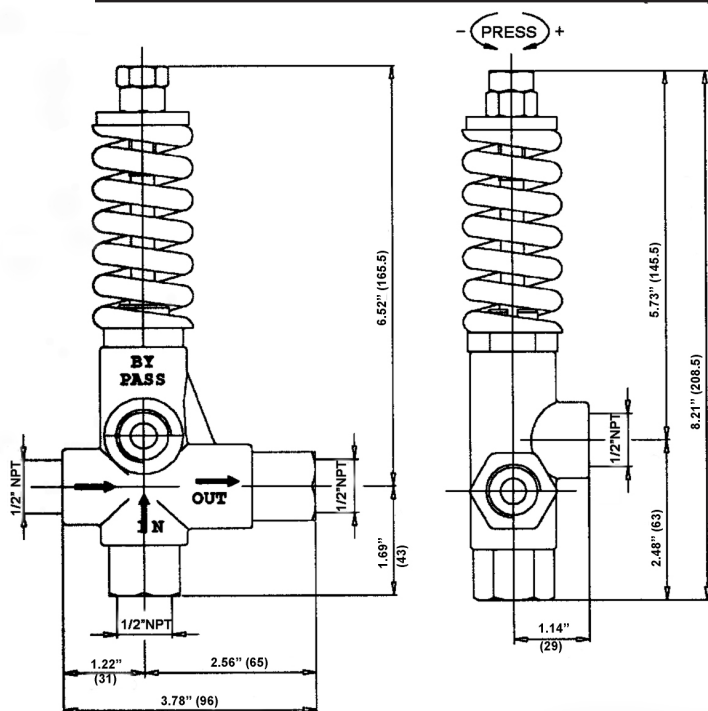
**ATTENTION: The nut (item # 7) must never be removed. It is a part of the safety feature that limits the maximum system pressure. Removal of this nut can lead to serious damage to equipment and/or injury to personnel.**



**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)

## DIMENSIONAL DRAWING INCHES (mm)



### Repair Kits:

Includes Items:

09188/09188-0011

2,3,4,10,11,15,16,17,21

### Operating Specifications - 22095/22096

Max. Flow (22095/22096):	21.1 GPM*	80 LPM
Normal Pressure Range:	580- 5800 PSI	40-400 Bar
Max. Operating Pressure:	6500 PSI	450 Bar

### Operating Specifications - 22097/22098

Max. Flow (22097/22098):	21.1 GPM*	80 LPM
Normal Pressure Range:	580- 2175 PSI	40-150 Bar
Max. Operating Pressure:	2465 PSI	170 Bar

### Common Specifications:

Continuous Duty Temp.:	140 ° F	60 ° C
Max. Permitted Temp.:	194 ° F	90 ° C
Weight:	2.93 lb	1.33 Kg
Inlet Port:		1/2 " FNPT
Outlet Port:		1/2 " FNPT
By-Pass:		1/2 " FNPT

\*This flow rate is for the side inlet port only. The bottom inlet port flow rate is 7.9 GPM (30 L/min).

## DISCHARGE SYSTEM AND WATER RETREIVAL

The bypass line should be returned into a tank with deflectors. By using a direct pump recycle, with elevated pressure intake, it is necessary to install a pressure reducer in order to have an even flow supply and to protect the circuit intake. When the system is opened and closed frequently, it is recommended to install a thermal protector valve in order to eliminate excessive temperature build-up.

For the pump return line, it is advisable to install a hose of at least 10.0" (250mm) in length.