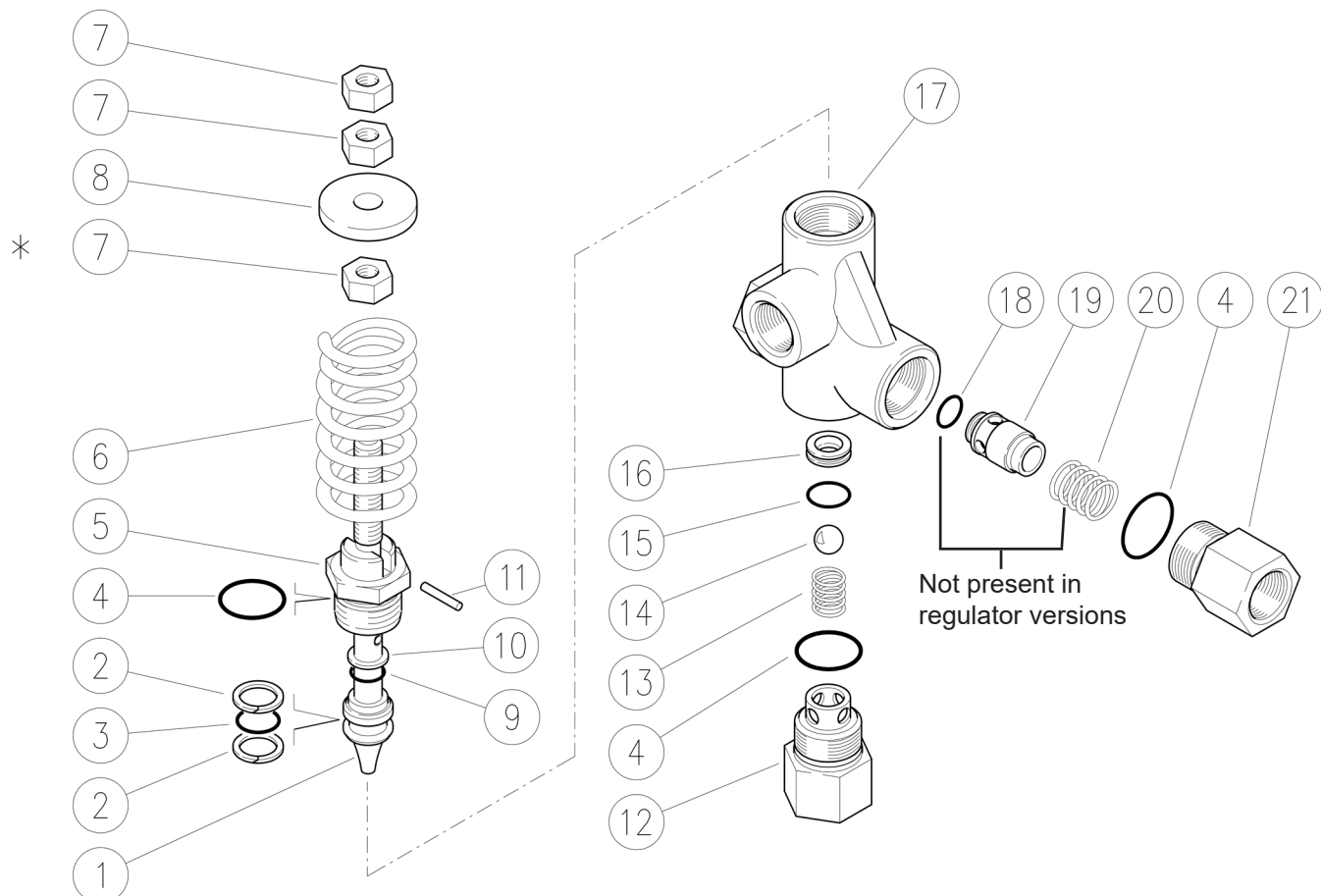


# Models

**316 Stainless Steel  
Pressure Actuated**

**22095-5000/22097-5000 - Unloaders**

**22096-5000/22098-5000 - Regulators**



## Parts List

Item	Part#	Description	Quantity
1	08747	Piston Rod	1
2	08758*	Back Ring	2
3	08739*	O-Ring, Viton	1
4	08831*	O-Ring, Viton	3
5	03271	Piston Housing	1
6	08764	Spring (Blue) 22095-5000/22096-5000	1
6	08763	Spring (White) 22097-5000/22098-5000	1
7	06812	Nut	3
8	08762	Spring Guide	1

9	06813*	O-Ring, Viton	1
10	08761*	Back Ring	1
11	08766	Pin	1
12	08735-NPT	Inlet Fitting	1
13	08734	Ball Spring	1
14	08894*	Ball	1
15	08895*	O-Ring, Viton	1
16	08733*	Seat	1
17	06814-FNPT	Body	1
18	08896**	O-Ring, Viton	1
19	08893+	Check Valve	1
20	08892+	Kick Back Valve Spring	1
21	08732-NPT	Outlet Fitting	1

\*09187 Repair Kit

\*Not present in Regulator versions

**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.

**GIANT**

Performance Under Pressure

Giant Industries, Inc.

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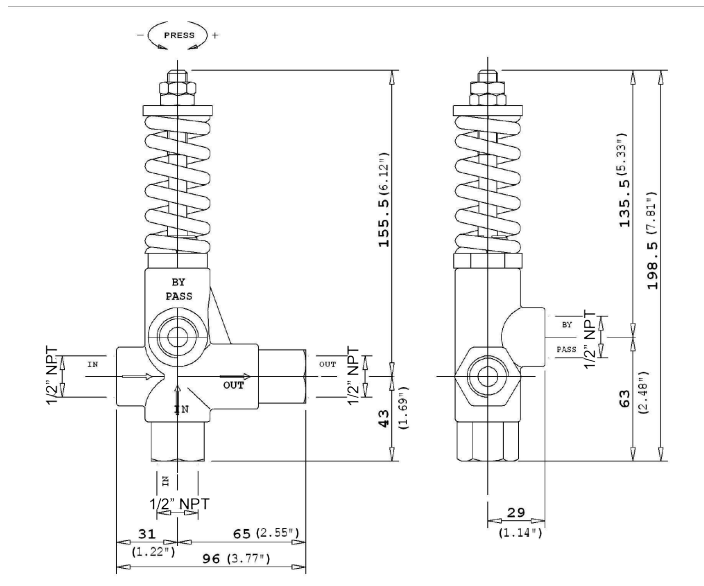
## Operating Conditions

### U.S. (Metric)

**Max Flow:** ..... 21 GPM\* (79 LPM)  
**22097-5000/22098-5000**  
**Normal Pressure Range:**..... 200 to 2200 PSI (15-150 bar)  
**Permissible Pressure:**..... 2465 PSI (170 bar)  
**22095-5000/22096-5000**  
**Normal Pressure Range:**..... 400 to 4000 PSI (28-280 bar)  
**Permissible Pressure:** ..... 4500 PSI (310 bar)  
**Continuous Duty Temperature:** ..... 140 °F (60 °C)  
**Intermittent Duty Temperature:** ..... 195 °F (90 °C)  
**Weight:** ..... 2.6 lbs. 1.2 kg  
**Inlet Port:**..... 1/2 " FNPT  
**Outlet Port:** ..... 1/2 " FNPT  
**Bypass:**..... 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).

## Dimensions - Inches (mm)



## SELECTION

This product is to be utilized with clean fresh water, even slightly additivated with normal detergents. For use involving different or corrosive liquids, contact the Giant technical department. 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 more than 10% the rated pressure and will not exceed the permissible pressure.

**The feeding from the lower fitting is possible with a reduced flow rate.**

## 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 setting. The use of the white spring 2200 PSI (150 bar), is advisable in presence of low pressure, to decrease during lance aperture, motor strain caused by overpressure necessary to obtain bypass condition.

## OPERATIONS

The valve regulates the maximum pressure of the system through a piston. The piston forces a ball into the correct position that allows fluid to go to the outlet or bypass. A check valve stops the fluid in the outlet fitting (21) which then drives the piston (1) downward. The pressure is set when the system is operational and the nozzle is open. After adjusting the valve to the set pressure, tighten the nut (pos.7\*) and mark it with a drop of paint in order to prove that a change has been made.

**\*ATTENTION: The nut (7) must never be removed; otherwise, a mechanical safety feature that limits the maximum pressure will be missing which can cause serious damage to people and equipment.**

## DISCHARGE SYSTEM AND WATER RETRIEVAL

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 fit a hose at least 10 inches (250mm) in length.



**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)