

GENERAL PUMP *A member of the Interpump Group*

YU2122SS

Pressure Trapping Unloader, SS



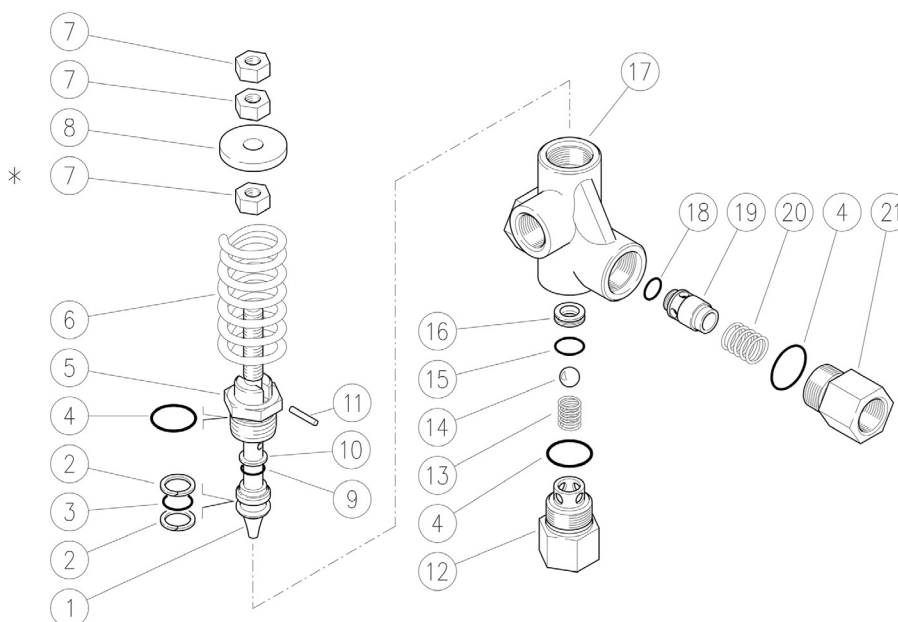
SPECIFICATIONS

Part Number	YU2122SS
Max Temperature	194° F ¹
Max Volume	21.0 GPM
Rated Pressure	2,200 PSI
Min Adjustable Pressure	218 PSI
Max Discharge Pressure	2,500 PSI
Trapped Pressure at Circuit Closure	10% ²
Pressure Drop to Reset Bypass	25% ³
Port Sizes:	
Inlet	1/2" NPT
Outlet	1/2" NPT
Bypass	1/2" NPT
Overall Dimensions	7.8" x 3.77" x 1.77"
Weight	3.1 lbs.
Materials	316 Stainless Steel, Viton 70

General Pump recommends using a safety relief device in conjunction with this unloader valve when installed on a positive displacement pump. General Pump is not liable and assumes no responsibility when used in a customer's high pressure system.

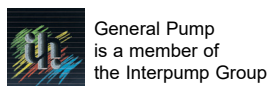
¹ This unloader has been designed to operate at a continuous water temperature of 140°F. It can be operated for short periods at a maximum temperature of 194°F.
² This is the max. pressure increase implemented in the circuit for the intervention of the valve and to bring fluid in bypass (% figures of the pressure set up).
³ This is the pressure reduction necessary in comparison to the set up, in order that the valve brings back pressure in the circuit (% figures of the pressure set up).

PARTS LIST

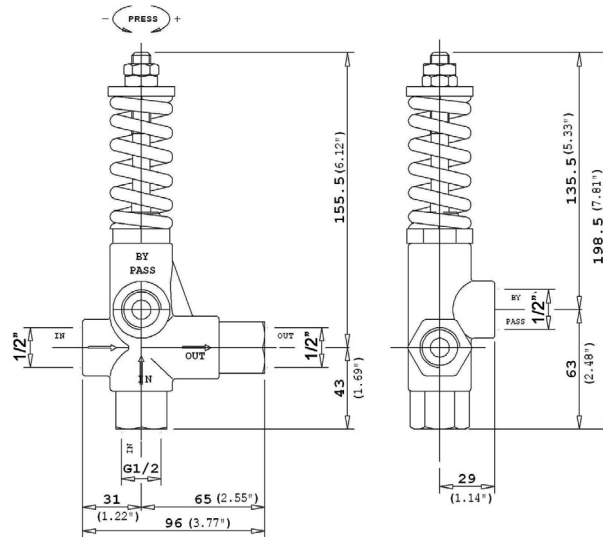


No.	Part No.	Description	Qty.
1	Y60043260	Piston	1
2*†	Y10401400	Back-up Ring, Open, 18 x 13.5 x 1.2 mm	2
3*†	Y10317810	O-ring, 2.62 x 13.1, Viton	1
4*†	Y10307210	O-ring, 1.78 x 20.35, Viton	3
5	Y60040460	Piston Holder, 316 SS	1
6	Y60041161	Spring, Holder	1
7	Y11462750	Hex Nut, M10, SS	3
8	Y60040631	Spring Holding Washer, Brass	1
9*†	Y10317410	O-ring, 2.62 x 9.93, Viton	1
10*†	Y10401500	Back-up Ring, 10 x 14.35 x 1.2	1
11	Y15103200	Roll Pin, 3 x 18, SS	1
12	Y60043860	Inlet Fitting, 1/2 NPT, 316 SS	1
13	Y60041060	Spring, 1.6 x 11.5 x 20, 316 SS	1

No.	Part No.	Description	Qty.
14*	Y14746101	Ball, 13/32", 316 SS	1
15*†	Y10306010	O-ring, 1.78 x 12.42, Viton	1
16*†	Y60040860	Seat, 8.5 x 15.9 x 4.5, 316 SS	1
17	Y60043660	Valve Housing, NPT	1
18*†	Y10329210	O-ring, 4 x 8, Viton	1
19	Y60040360	Shutter Pin, 316 SS	1
20	Y60040960	Spring, 0.8 x 15.4 x 13, 316 SS	1
21	Y60043760	Outlet Connection, 1/2" NPT, 316 SS	1
*	Y60044524	Repair Kit	
†	Y60044624	Repair Kit	



DIMENSIONS



INSTRUCTIONS

SELECTION

This product is to be used with clean water which can contain the addition of normal detergents. For use involving different or corrosive liquids, contact the General Pump Customer Service Department. Appropriate filtration should be installed when using water that may contain any sort of debris. Choose the valve appropriate for the system rated pressure, maximum flow rate and maximum temperature. In any case, the pressure of the machine should not exceed the permissible pressure rate imprinted on the valve.

INSTALLATION

This unloader, on a system that produces hot water must be fitted in **front of the heat generator**. This unloader is meant 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.

Choose a correct nozzle size that is able to discharge regularly, on bypass, at least 5% of the total flow of the system, in order to achieve a constant pressure, and avoid troublesome pressure spikes.

When the nozzle wears, the pressure drops. After installing a new nozzle, re-adjust the system to the original pressure setting.

OPERATIONS

The valve regulates the maximum pressure of the system through a piston, which acts 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 setting operation should be made when the system is operational and the nozzle open.

ATTENTION: The nut (item 7) must never be removed. Removal will compromise a mechanical safety feature that limits the maximum pressure, thus could result in serious damage to people and equipment.

When the system is opened and closed frequently, it is recommended to install a PTP (pump thermal protector) in order to eliminate excessive temperature build-up.

TROUBLESHOOTING

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Frequent Unloader Cycles	Damaged check valve o-ring Leaking connections Restricted bypass	Replace Check and renew Clean or adapt
Unloader does not come up to pressure	Unloader not properly sized Piston O-rings worn out Debris between seat and shutter Worn nozzle	Change spring or type of valve Replace Clean the seat Replace
Excessive pressure spikes	There is not a minimum of 5% flow in bypass Excessive flow in bypass Spring totally compressed	Reset Change type of valve or adjust passages Loosen knob and change nozzle
Unloader does not bypass at low pressure	Jammed check valve Check valve O-ring worn Debris in check valve	Clean or replace Replace Clean

MAINTENANCE

Maintenance must be carried out by Qualified Technicians.

STANDARD: Every 400 working hours (10,000 cycles), check and lubricate the seals with water resistant grease.

SPECIAL: Every 800 working hours (20,000 cycles), check the wear of the seals and internal parts and, if necessary, replace with original General Pump parts taking care during installation and to lubricate with water resistant grease.

Attention: reassemble the valve in the correct manner paying special attention to the Nut (item 31 on parts drawing) which must always be in place.

The manufacturer is not responsible for damage as a result of incorrect fitting and maintenance.