

GENERAL PUMP *A member of the Interpump Group***2100284****Pressure Trapping Unloader****FEATURES**

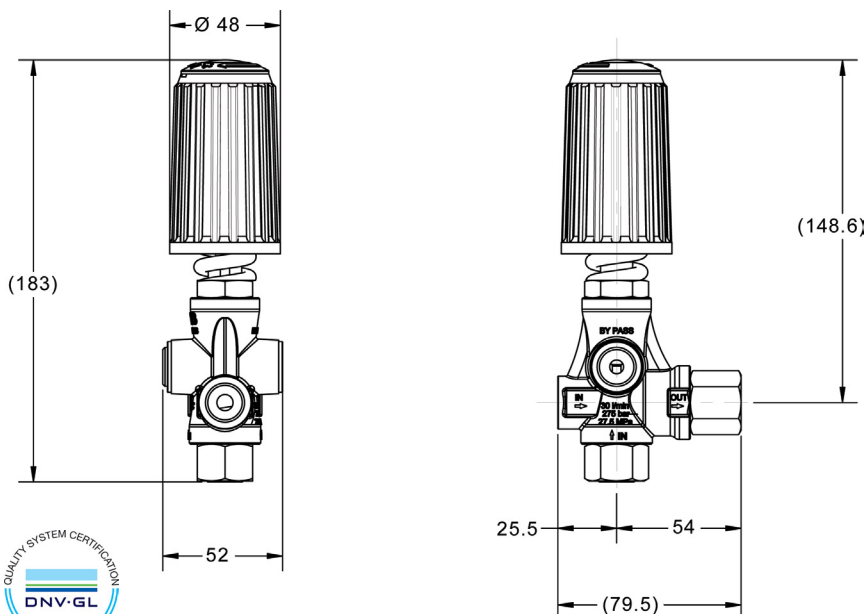
- Sturdy brass and steel construction
- Multiple connections for easy installation
- Powerful spring action provides reliable pressure adjustment
- Hexagonal shaped check valve avoids jamming
- Knob is fitted with a locknut for minimum and maximum pressure regulation

SPECIFICATIONS

PART NUMBER		2100284
Maximum Volume*		7.8 GPM
Rated Pressure		4000 PSI
Maximum Pressure		4000 PSI
Maximum Temperature		194°
Note: The valve has been designed for continuous use at a water temperature of 86° F. It can operate for short periods at a maximum temperature of 194° F.		
Port Sizes	Inlet	(2) 3/8" NPT-F
	Outlet	3/8" NPT-F
	Bypass	(2) 3/8" NPT-F
Overall Dimension		7.0" x 3.2" x 2.3"
Weight		1.88 Lbs.

General Pump recommends using a pressure reducing 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.

*NOTE: If unloader is fed through the lower connection max flow rate: 5.3 GPM / 20 l/min

DIMENSIONS

General Pump
is a member of
the Interpump Group



Ref 300834 Rev. D
06-24



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. The supply of the lower connection is possible with reduced flow rate (see point 1).

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.

Always install a safety valve that protects the pressurized inlet channel.

Choose the 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 nuts (item 20 - 2 pieces) 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.

MAINTENANCE

Maintenance should be carried out by specialized technicians.

Standard: every 400 working hours (10,000 cycles), control and lubricate the seals with water resistant grease.

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

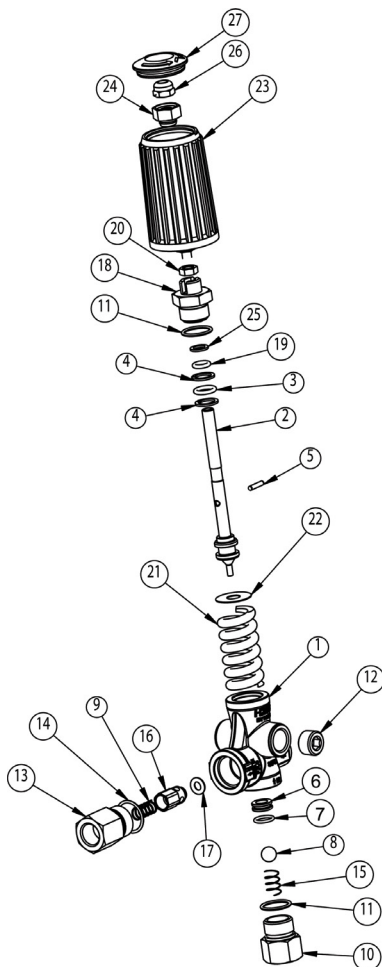
ATTENTION: reassemble the valve in the correct sequence paying special attention to the nuts (item 20) by fastening them with a drop of strong glue.

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

TROUBLESHOOTING

PROBLEMS	PROBABLE CAUSES	SOLUTIONS
Frequent unloader cycles	Damaged check valve o-ring Leaking connections Restricted bypass	Replace Check and replace Clean or adapt
Unloader does not come up to pressure	Unloader not properly sized Debris lodged in unloader Unloader piston o-ring worn Worn nozzle	Change spring or type of valve Clean unloader Replace 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 won't go into bypass	Discharge check valve jammed Worn discharge check valve o-ring Debris in unloader valve	Clean or replace Replace Clean unloader

PARTS LIST



No.	Part No.	Description	Qty.
1	2452017	Body	1
2	2520083	Stem	1
3	2701043	O-ring	1
4	2710012	Back-up Ring	2
5	2202016	Lock Pin	1
6	2520081	Seat	1
7	2701055	O-ring	1
8	2520082	Ball	1
9	2720020	Poppet Spring	1
10	2510190	Inlet Fitting	1
11	2510191	O-ring	2
12	2510191	Plug, 3/8" NPT	2
13	2510192	Outlet Fitting	1
14	2701041	O-ring	1
15	2720021	Bypass Spring	1
16	2510151	Poppet	1
17	2701042	O-ring	1
18	2510153	Stem Fitting	1
19	2701044	O-ring	1
20	2203008	Nut, M8	2
21	2720024	Stem Spring	1
22	2203408	Washer	1
23	2660142	Handle	1
24	2510152	Insert	1
25	2710011	Back-up Ring	1
26	2200012	Nut, M8 x 1.25	1
27	2660143	Cap	1
*	2100301	Repair Kit	

WARNING: High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices properly could result in personal injury or damage to pump or property. GP does not assume any liability or responsibility for the operation of the user's high pressure system.



WARNING: This product can expose you to chemicals including lead, which is 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