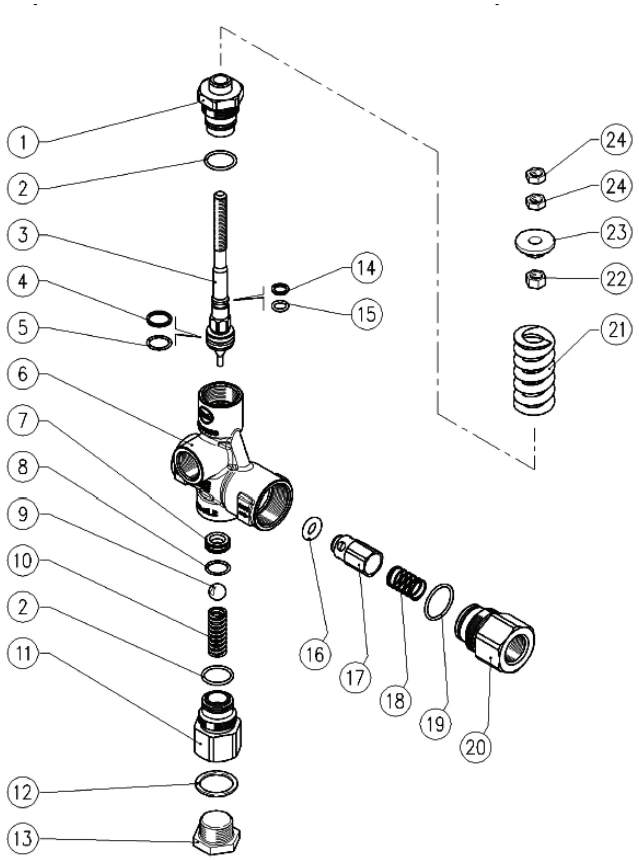
Models 22082/22082-SS/22082-SSS 22083/22083-SS/22083-SSS

Pressure Actuated Unloader

22082/22083 = Brass Inlet Fitting
22082-SS/22083-SS = SS Inlet Fitting
22082-SSS/22083-SSS = SS Inlet & Discharge Fittings



Item	Part#	Description	Quantity
1	05912	Piston Holder, brass	1
2	08736	O-Ring	2
3	04801	Piston (22082)	1
3	05913	Piston (22083)	1
4	08758	Support Ring (22082)	1
4	05906	Support Ring (22083)	1
5	08759	O-Ring (22082)	1
5	05907	O-Ring (22083)	1
6	05914	Housing	1
7	05908	Seat	1
8	04332	O-Ring	1
9	05565	Ball	1
10	04040	Spring	1
11	05915	Inlet Fitting, Brass (22082/22083)	1
11	05915-0400	Inlet Fitting, SS	1
		(22082-SS(S)/22083-SS(S))	
12	08756	Washer	1
13	05916	Plug	1
14	08588	Support Ring	1
15	08587	O-Ring	1
16	08770	O-Ring	1
17	05917	Kick-Back Valve	1
18	05918	Spring	1
19	05909	O-Ring	1
20	05919	Discharge Fitting, Brass	1
		(22082/22082-SS/22083/22083-SS)	
20	05919-0400	Discharge Fitting, SS	1
		(22082-SSS/22083-SSS)	
21	12366	Spring, Blue	1
21	05910	Spring, White	1
22	05911	Hexagon Nut	1
23	13083	Spring Holder	1
24	13060	Hexagon Nut	2

Repair Kit#	Includes Item Numbers:
09808 (22082)	2,4,5,7,8,9,14,15,16 and 19
09712 (22083)	2,4,5,7,8,9,14,15,16 and 19

Operating Conditions

Max. Flow (from bottom inlet):	10.6 GPM (40 L/min)
Max. Flow (from side inlet):	21.1 GPM (80 L/min)
Max Pressure (22083):	2320 PSI (160 Bar)
Permissible Pressure (22083):	2610 PSI (180 Bar)
Max Pressure (22082):	4060 PSI (280 Bar)
Permissible Pressure (22082):	4495 PSI (310 Bar)
Max. Temperature (Continuous):	140 °F (60 °C)
Max. Temperature (Intermittent):	194 °F (90 °C)
Inlet Port:	1/2" FNPT
Outlet Port:	1/2" FNPT
By-Pass:	1/2" FNPT

GIANT
Performance Under Pressure

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Toledo, Ohio 43607
419-531-4600
FAX 419-531-6836

09/13 22082-83.INDD

INSTRUCTIONS

This product is intended to be incorporated on a finished machine. This product is to be utilized with fresh clean water, even slightly addivated with normal detergents. For use involving different or corrosive liquids, contact the Giant technical department. Appropriate filtration should be installed when using impure liquids. Choose the valve in line with the working data of the machine where to be installed (permissible pressure, maximum flow rate and rated temperature of the system). In any case, the pressure of the machine must not exceed the permissible pressure imprinted on the valve.

INSTALLATION

On a system that produces hot water, this accessory must be fitted upstream of the heat generator. On a system that generates hot water, it is advisable to fit in accessories that limit the accidental increase of fluid temperature. **Always install a safety valve that protects the pressurized inlet channel.** It is recommended to use a nozzle with a size that, at gun opened, allows to discharge from the valve bypass at least 5% of the flow supplied by the pump in order to obtain a constant pressure value, and an easy adjustment and to avoid troublesome pressure spikes at gun closure. If the nozzle wears out, the working pressure decreases. To reset the pressure back to work level, it is necessary to replace the worn out nozzle. When a new nozzle is fitted, resetting the system to its original working pressure is necessary.

OPERATION

The valve regulates the pressure of the system by altering the flow discharged by the bypass. The adjustment is carried out by changing, by means of a piston, the position of a ball that partially shuts the bypass opening. At gun closure, a check valve closes and isolates the part of the circuit downstream of the valve: the pressure increase that remains trapped is used to activate the complete opening of bypass. All the flow supplied by the pump is therefore discharged at low pressure through the bypass and the pump works at low pressure.

PRESSURE ADJUSTMENT/CALIBRATION

The desired working pressure must be adjusted with the system running and the gun opened. Adjust the pressure by screwing or unscrewing the adjustment screw/knob. The operation is easier if the correct nozzle has been chosen (see paragraph "installation"). When screwing the screw/knob a consequent pressure increase must be matched. If, before reaching the desired pressure, there is no pressure increase when screwing the screw/knob, do not insist but check the correct ration nozzle/flow rate - pressure and, if necessary, fit a nozzle with an inferior size. With the knob version it is possible to set up the minimum working pressure with the provided locknut (pos. 26).

ATTENTION: The nut (22) must never be removed. Removal of this item means that there is no way to limit the maximum pressure, which put people and equipment in danger.

DISCHARGE SYSTEM AND WATER SUPPLY

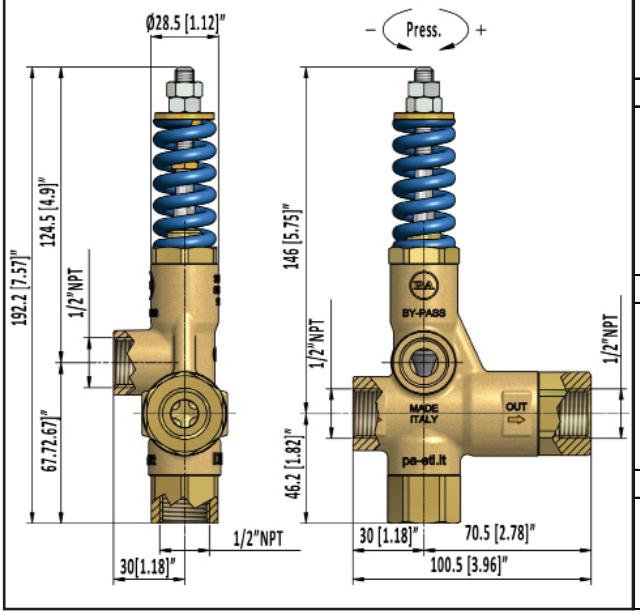
The bypass discharge can be sent back to the pump intake or returned into a tank; in such case it is advisable that the tank be fitted with deflectors to reduce eventual turbulence and air bubbles generated by the emission of the bypass flow which could be harmful for the pump.

MAINTENANCE

Maintenance has to be carried out by qualified technicians.
STANDARD: every 400 working hours (about 10,000 cycles), check and lubricate the seals with water resistant grease.
SPECIAL: every 800 working hours (about 20,000 cycles), control the wear of the seals and internal parts and, if necessary, replace with new 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 (24*) by fastening it with a drop of strong glue. The manufacturer is not to be considered responsible for damage as a result from incorrect fitting and maintenance.

Dimensions - mm [inches]



Troubleshooting Guide

Problem	Cause	Remedy
Cycling	Damaged check valve O-ring	Replace
	Leaky connections	Check and re-new
	Restricted bypass	Clean and adjust
Does not reach pressure	Unloader not properly sized	change spring or type of valve
	Piston O-rings worn out	Replace
	Material matter between seat and kick back valve	Clean the seat
	Worn out nozzle	Replace
Pressure peaks	There is not a minimum of 5% of total flow in bypass	Reset
	Excessive flow in bypass	Change type of valve or adjust passages
	Spring totally compressed	Loosen know and change nozzle
High bypass pressure	Jammed check valve	Clean or replace
	Check valve O-ring worn out	Replace
	Material matter on check valve	Clean