

GENERAL PUMP *A member of the Interpump Group*

S455

Industrial Relief Valve



FEATURES

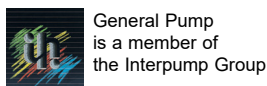
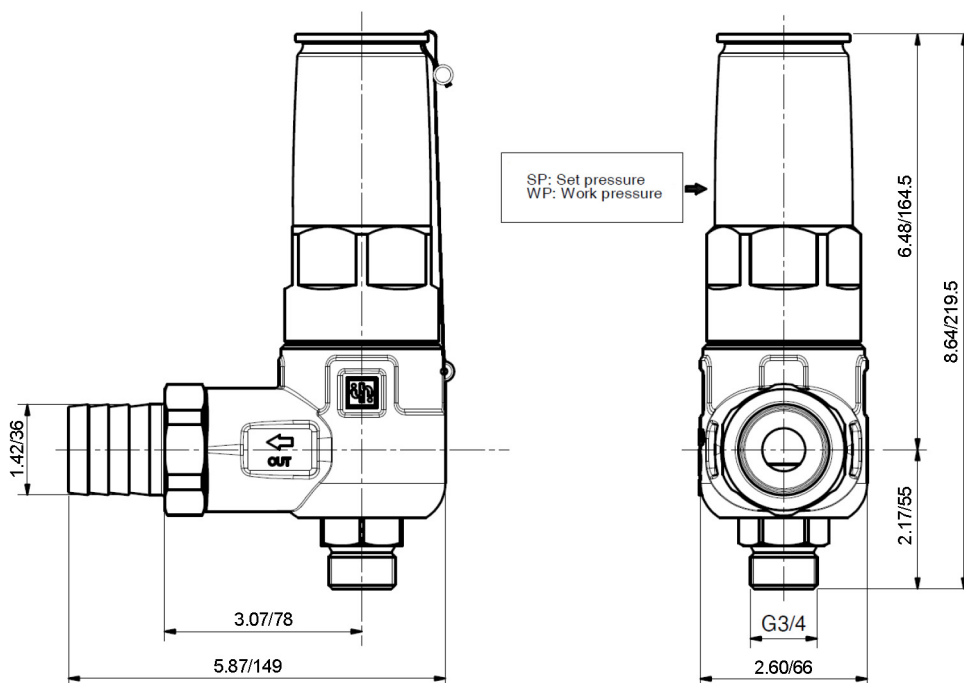
- Limits the pressure to the maximum working pressure of the system.
- When the max working pressure is exceeded it opens and discharges the total pump flow, eliminating the high pressure in the system.
- Pre-set and leaded according to the working pressure stamped on the valve body.

SPECIFICATIONS

Minimum Flow	21 GPM	
Maximum Flow	132 GPM	
Minimum Pressure	870 PSI	
Maximum Pressure	7830 PSI	
Maximum Temperature	185°F	
Port Sizes:	Inlet	3/4" BSP-M
	Outlet	36 mm Hose Barb
Weight	11.7 lbs.	

MODEL	PRESET PRESSURE
S455/100	1,450 PSI
S455/200	2,900 PSI
S455/300	4,350 PSI
S455/400	5,800 PSI
S455/450	6,525 PSI

DIMENSIONS



Ref 310146 Rev. A
10-18



INSTALLATION AND INSTRUCTIONS FOR USE

1. GENERAL INFORMATION

1.1 The **S455 relief valve** is a manually adjustable, pressure operated device, which, according to its setting, releases the excess of water when the pressure inside the pump/system exceeds the adjusted value, thus reducing the pressure. The normal working conditions can be restored by turning off and then restarting the system.

1.2 Since the S455 valve is used in conjunction with a high pressure water pump/system, which shall be called hereafter only "system", installation and use must be suited to the type of system used and comply with the safety regulations in force in the country where the valve is used.

1.3 Before using the valve, make sure that the system the valve is used with is certified to comply with the relevant directives and/or regulations.

1.4 Before installing and using the valve for the first time, we suggest you check that it is undamaged and make sure that the rated features correspond to the required ones. If this is not the case, do not use the valve and contact the Customer Service Department.

2. Package

2.1 Packages must be handled in compliance with the instructions stated on the packages themselves and/or provided by the General Pump

2.2 If valve is not used immediately, it must be stored in its integral package and placed in areas which are not exposed to the weather and protected from excessive humidity and from direct sunlight. It is advised to place a pallet or other device between package and floor/ground.

2.3 The package components must be disposed of in compliance of local laws.

3. INSTRUCTIONS FOR INSTALLATION

3.1 **The setting pressure (SP) is adjusted and fixed by the manufacturer and cannot be changed. The values of the setting pressure and suggested maximum working pressure (WP) are stated on the valve.**

3.2 The maximum flow rate depends on the setting pressure and ranges from 21 to 132 GPM (80 to 500 l/min). The exact value is stated on the valve.

3.3 The setting pressure (SP) is the pressure at which the valve opens, thus determining the maximum pressure value that the system cannot exceed.

3.4 The installation must be made by qualified and authorized staff only, who must have the required skills to handle high pressure systems and be informed of the operating and safety instructions contained in this document.

3.5 Tighten the fittings as follows:

G3/4 Fitting - Torque to 40.5 ft lb (180 Nm)

For proper seal, fit a metal washer with a rubber ring between the fittings, or use a proper sealant on the thread



IMPORTANT! During use, never exceed the maximum values of pressure, flow-rate and temperature as stated in this document and/or indicated on the valve.



IMPORTANT: For a correct use of the valve, it is necessary to install it in the area of the system reaching the higher pressure during use. Moreover, we suggest you install it by the component that you wish to protect most from pressure peaks.

4. WARNINGS

4.1 The installer must provide the ultimate consumer with the proper instructions for the correct use of the system the valve will be used in connection with.

4.2 The fittings used to connect the valve to the system must be suited to the valve performance features.

4.3 Use soft and filtered water only. In case of salt water and/or of water containing solid particles of a size exceeding 20 µm, the internal components of the valve will be subject to quick wear; furthermore, this might compromise the correct functioning of the valve. Addition agents can be used in the water, provided that they are delicate, biodegradable and always complying with the regulations in force in the country where the valve is used.

INSTRUCTIONS FOR USE (CONT.)



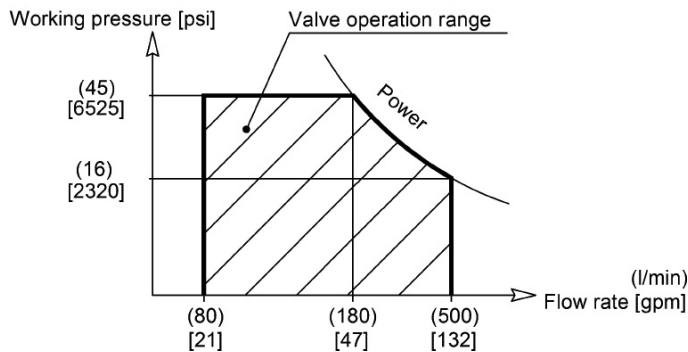
4.4 In the systems for hot water production, the temperature of the liquid that comes into contact with the valve must always be lower than the value stated in this instruction manual and indicated on the valve itself. **Avoid the formation of steam or overheated water.**

4.5 Before operating the system, it is advisable to start it for a preliminary test run in order to check that the system is properly installed.



4.6 IMPORTANT: Do not obstruct or cover the water discharge area of the valve in any way. Do not try and convey the discharged water; instead, always release into the atmosphere. Failure to comply with these simple instructions will result in a reduced safety of the system.

4.7 In order to optimize the pump-valve coupling, it is necessary to keep the valve operation range, as a function of the pump pressure and flow rate, within a maximum power of 190 HP (140 kW). As shown in the chart below, this means using pumps producing a flow rate of approximately 47.5 GPM (180 l/min) for maximum working pressures of 45 MPa (6526 PSI/450 bar), and generating a pressure of approximately 16 MPa (2320 PSI/160 bar) for maximum flow rates of 132 GPM (500 l/min).



4.8 Should the relief valve open, turn off the system and find out what is the cause of the pressure increase.

4.9 **Warning:** if the valve is used in low temperatures involving the risk of frost, make sure that there is no ice formation inside and/or that the valve is not blocked before using it.

Warning: Do not use the valve in systems covered by Directive 97/23/CE (PED) - Categories I - II - III- IV

5. MAINTENANCE

5.1 Maintenance and repair must be carried out by qualified and authorized staff only.



5.2 We suggest you check, at least every 2 years or after reaching 500 working hours of the system, that the valve opens correctly in order to verify the correspondence with the seeing pressure.

5.3 The valve is entirely made of non-toxic and safe materials; however, in case of disposal, we suggest you do not dispose of in environment but take it to an authorized disposal center or contact the General Pump Service Department.



IMPORTANT: The valve shall not be tampered with for any reason and/or used for any purpose other than the use it has been designed for. In case of tampering, the manufacturer disclaims all

6. WARRANTY CONDITIONS

6.1 The period and conditions of warranty are specified in the purchase contract.

6.2 Warranty is voided in case the valve is used for improper purposes, used at higher performances than the rated ones, repaired with non-original spare parts or if it turns out to be damaged due to the non-compliance with the operating instructions or to unauthorized tampering.