

PRESSURE REGULATORS AND HOW THEY WORK FACTS

Senninger manufactures several models of pressure regulators to meet various irrigation needs. These cover flows from 0.5 to 100 gpm and outlet pressures from 6 to 60 psi. Available in NPT, BSPT, and Hose thread connections.



2-Years

WARRANTY

Senninger pressure regulators are backed with a two-year warranty on materials, workmanship, and performance.

1966 Senninger Pressure Regulator



PSR-2 Today's Senninger Regulator



HISTORY

Senninger introduced the first in-line pressure regulator to the irrigation industry in 1966.



NORMAL PRESSURE VARIATIONS

Inlet pressure should be at least 5 psi above the pressure rating. For example: a 10 psi pressure regulator should have an inlet pressure of at least 15 psi.

100%

QUALITY

Every Senninger pressure regulator is 100% pressure tested to ensure our world-class standard of quality and performance.



SennREG App

For Android and Apple

Verify pressure regulator outlet pressure (psi/bar) based on your system's UP3 nozzle sizes and flow (gpm/Ls). Convenient graph displays the condition of the tested regulator.



FLOW DIFFERENCE

- Typically, flow variations greater than 10% of calculated values are caused by partially plugged nozzles or a problem with pressure regulators.
- Like sprinklers, pressure regulators do not last forever. If you have concerns that your regulators are approaching their usable life, contact your irrigation equipment dealer to have your regulators tested.
- Investing in new pressure regulators is worth the investment when compared with the time and money lost in wasted input costs and potential yield loss.

FLOW VS. PRESSURE

- Pressure regulators control excessive and varying inlet pressures to a constant outlet pressure. Without regulators, sprinkler FLOW would vary.
- In addition to flow, when sprinklers operate outside the recommended pressure range, it affects droplet size, radius of throw, and distribution pattern.

PRESSURE CHANGE	DESIGN PRESSURE						
	6 psi (0.41 bar)	10 psi (0.69 bar)	15 psi (1.03 bar)	20 psi (1.38 bar)	30 psi (2.07 bar)	40 psi (2.76 bar)	50 psi (3.45 bar)
1 psi (0.69 bar)	16.7	10.0	6.7	5.0	3.3	2.5	2.0
2 psi (0.138 bar)	33.3	20.0	13.3	10.0	6.7	5.0	4.0
3 psi (0.207 bar)	50.0	30.0	20.0	15.0	10.0	7.5	6.0
4 psi (0.276 bar)	66.7	40.0	26.7	20.0	13.3	10.0	8.0
5 psi (0.345 bar)	83.3	50.0	33.3	25.0	16.7	12.5	10.0
6 psi (0.414 bar)	100.0	60.0	40.0	30.0	20.0	15.0	12.0
7 psi (0.483 bar)	N/A	70.0	46.7	35.0	23.3	17.5	14.0
8 psi (0.552 bar)	N/A	80.0	53.3	40.0	26.7	20.0	16.0
Percentage of Pressure Variation (%)							

Pressure regulators are recommended if there is a 20% pressure variation.
 A 20% pressure variation equals a 10% flow variation.
 The lower a system's operating pressure, the more critical it is to control pressure accurately.



WHEN GOOD REGS GO BAD

Factors that contribute to pressure regulator wear:

- Poor Water quality
- Unflushed chemicals in the system
- Suspended abrasive materials in the water
- Operating hours

The most common signs of bad or faulty pressure regulators include:

- Leakage between the housings
- Noticeable differences in sprinkler performance
- Over-watered or under-watered areas in the crop.

POOR WATER DISTRIBUTION

Worn pressure regulators mean poor water distribution. These over-watered and under-watered areas impact yield. The number of acres affected is greater if they are located on the outer spans of the machine.

