

# PRESSURE RELATES TO FLOW

## FLOW VS. PRESSURE

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

| DESIGN PRESSURE  | Pressure Variations (psi) |      |      |      |
|------------------|---------------------------|------|------|------|
|                  | 1                         | 2    | 3    | 4    |
| 10 psi           | 5.0                       | 10.0 | 20.0 | 40.0 |
| 20 psi           | 2.5                       | 5.0  | 10.0 | 20.0 |
| 30 psi           | 1.7                       | 3.3  | 6.7  | 13.3 |
| 40 psi           | 1.3                       | 2.5  | 5.0  | 10.0 |
| % Flow Variation |                           |      |      |      |

## FLOW DIFFERENCE

- Typically, flows 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.



## 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

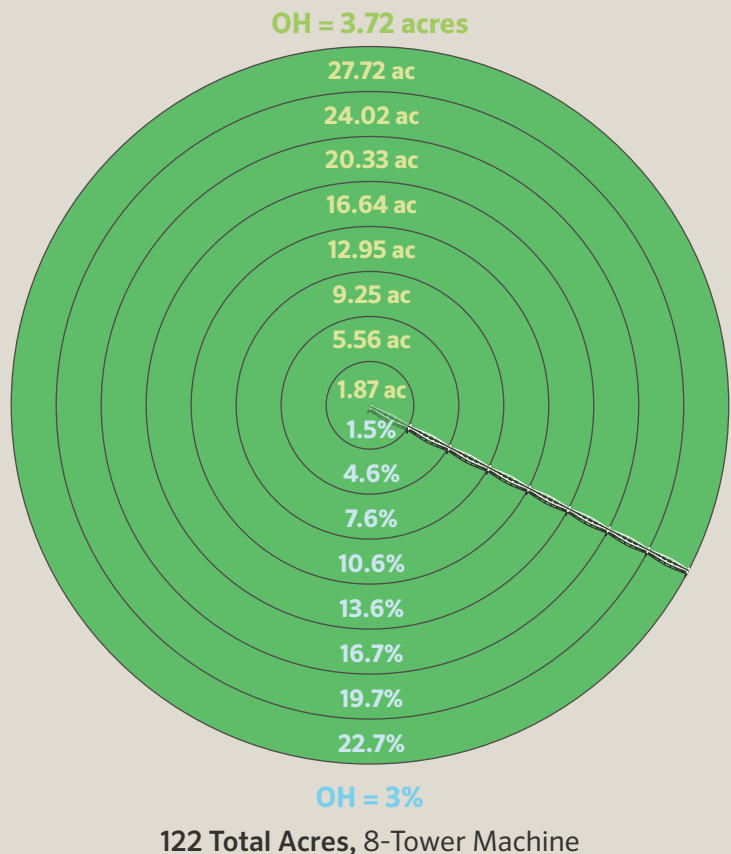
### The most common signs of bad or faulty pressure regulators include:

- Leakage between the housings
- Noticeable differences in sprinkler performance
- Over-watered or under-watered strips beneath the spans



## 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.



# PRESSURE REGULATOR 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 connection threads.



# 2 Years

## WARRANTY

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



## NORMAL PRESSURE VARIATIONS

- Inlet pressure should be at least 5 psi above the pressure rating. For example: a 10 psi pressure regulator should have inlet pressure of at least 15 psi.
- The outlet pressure of all Senninger regulators is designed to be accurate within +/- 6% of its performance curve.



**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.

# 100%

## QUALITY

Senninger pressure regulators are designed and built to rigorous quality standards and are 100% water-tested before they are shipped.