

SennREG Tutorial

AGRICULTURAL IRRIGATION

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SennREG: Pressure Regulator App

Know Your Flow

- SennREG is a handy tool to bring into the field when checking your pressure regulator's performance.
- With just a few clicks, you'll know exactly what to expect out of your pressure regulator – from what your output pressure should be to when you should start thinking about replacements.

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SennREG

SennREG

Efficient irrigation systems use pressure regulators to limit excessive and varying inlet pressures to a constant outlet pressure.

The SennREG calculator will show you the relationship your pressure has on your flow in both US and Metric units. SennREG is compatible with mobile devices.



Done



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SennREG: Pressure Regulator App

Instructions

- To begin, scroll down and click **DONE**

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Done

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SennREG: Getting Started

Instructions

- SennREG opens the program with Imperial units (PSI and GPM) selected by default.
- To switch to metric units of measurement, click on the  settings icon, select **UNITS**.



SennREG 

RESULTING PSI
11.4 ⓘ

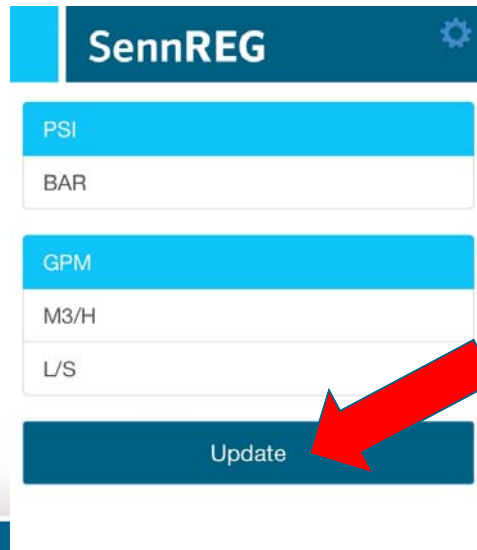
Make Selection

PRESSURE PSI 65 Maximum 90 psi	NOZZLE 6
FLOW GPM 0.85 Minimum 0.5 Maximum 15	REGULATOR PSR : 10 PSI

SennREG: Units & About

Instructions

- Choose **UNITS**. Select PSI or BAR. Select GPM, M3/H, or L/S. Then, click **UPDATE**
- Choose **ABOUT** for more information about the app. Scroll down to click **DONE** when you have finished reading.



SennReg

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SennREG: Selecting a Model

Instructions

- Click on the text below **REGULATOR** to select your Senninger pressure regulator **model** and desired output **pressure**.

Note: Be sure you have at least 5 psi (0.34 bar) above the regulated pressure available for the regulator pressure selected.

SennREG

RESULTING PSI
11.4

Make Selection

PRESSURE PSI 65 Maximum 90 psi	NOZZLE 6
FLOW GPM 0.85 Minimum 0.5 Maximum 15	REGULATOR PSR : 10 PSI

SennREG

35 PSI

40 PSI

PSR

06 PSI

10 PSI

12 PSI

SennREG: Enter Nozzle

Instructions

- Click on the text below **NOZZLE** and select the UP3 nozzle size (number) currently installed on your sprinkler.

The screenshot shows the SennREG mobile application interface. At the top, there's a dark blue header with 'SennREG' in white. Below the header, the text 'RESULTING PSI' is displayed in bold, followed by the value '11.4' and a small information icon. A light blue bar with the text 'Make Selection' is positioned below. The main content area is divided into four quadrants: 'PRESSURE PSI' with a value of '65' and a note 'Maximum 90 psi'; 'NOZZLE' with a value of '6'; 'FLOW GPM' with a value of '0.85' and a note 'Minimum 0.5 Maximum 15'; and 'REGULATOR' with a value of 'PSR : 10 PSI'. A red arrow points from the 'NOZZLE' section to a dropdown menu on the right. The dropdown menu lists nozzle sizes: 11.5, 12, 12.5, 13, 13.5, and 14. The '13.5' option is highlighted in blue, and another red arrow points to it.

SennREG: Enter Flow

Instructions

- If your pressure regulator is installed just below a gooseneck, you need to manually enter your output flow (GPM, M3/H, or L/S) according to what is shown on your sprinkler package printout.
- Click on the text below **FLOW** and enter your expected flow **numerically**.

The screenshot shows the SennREG interface with the following fields and values:

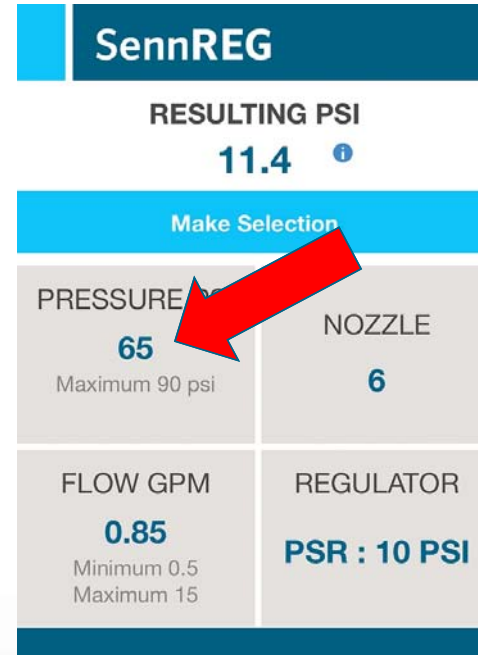
SennREG	
RESULTING PSI 11.4	
Make Selection	
PRESSURE PSI 65 Maximum 90 psi	NOZZLE 6
FLOW GPM 0.85 Minimum 0.5 Maximum 15	REGULATOR PSR : 10 PSI

A red arrow points to the 'FLOW GPM' field.

SennREG: Adjust System Pressure

Instructions

- Note that the **PRESSURE** defaults to **65** psi (4.48 bar).
- Adjust this number to reflect your overall system pressure.




The screenshot displays the SennREG control interface. At the top, a dark blue header contains the text "SennREG". Below this, the text "RESULTING PSI" is followed by the value "11.4" and a small blue information icon. A light blue bar with the text "Make Selection" is positioned below. The main interface is divided into four quadrants. The top-left quadrant is labeled "PRESSURE" and shows a value of "65" with the subtext "Maximum 90 psi". A red arrow points to this value. The top-right quadrant is labeled "NOZZLE" and shows a value of "6". The bottom-left quadrant is labeled "FLOW GPM" and shows a value of "0.85" with subtext "Minimum 0.5" and "Maximum 15". The bottom-right quadrant is labeled "REGULATOR" and shows "PSR : 10 PSI".

SennREG	
RESULTING PSI 11.4 ⓘ	
Make Selection	
PRESSURE 65 Maximum 90 psi	NOZZLE 6
FLOW GPM 0.85 Minimum 0.5 Maximum 15	REGULATOR PSR : 10 PSI

SennREG: Resulting Pressure

Instructions

- After inputting all your information, your **RESULTING PRESSURE** will be shown above numerically.
- Click on the info icon  to see if this is in an acceptable range.

SennREG	
RESULTING PSI 11.4	
Make Selection	
PRESSURE PSI 65 Maximum 90 psi	NOZZLE 6
FLOW GPM 0.85 Minimum 0.5 Maximum 15	REGULATOR PSR : 10 PSI

SennREG	
RESULTING PSI 11.4 	

SennREG: Analyzing Your Pressure

Instructions

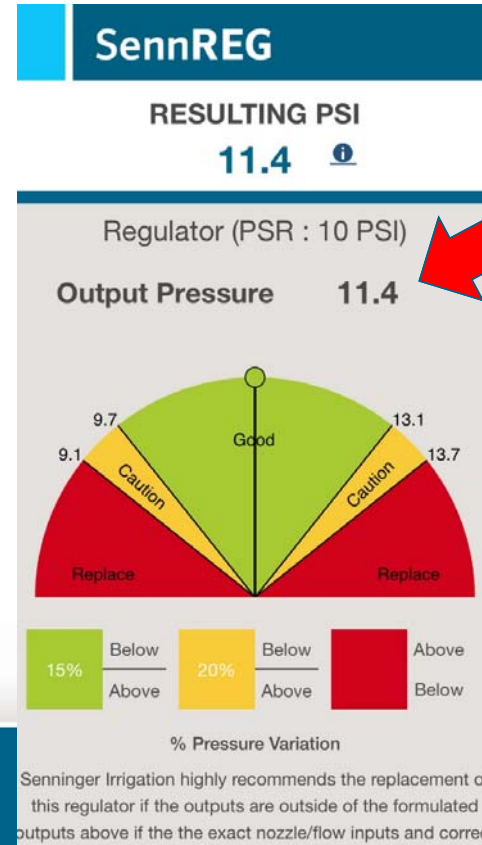
- The resulting pressure will be shown as **OUTPUT PRESSURE** above a gauge.
- At this point, you should test your pressure regulator to see if its current output pressure closely matches the range the app is displaying.



SennREG: Analyzing Your Pressure

Instructions

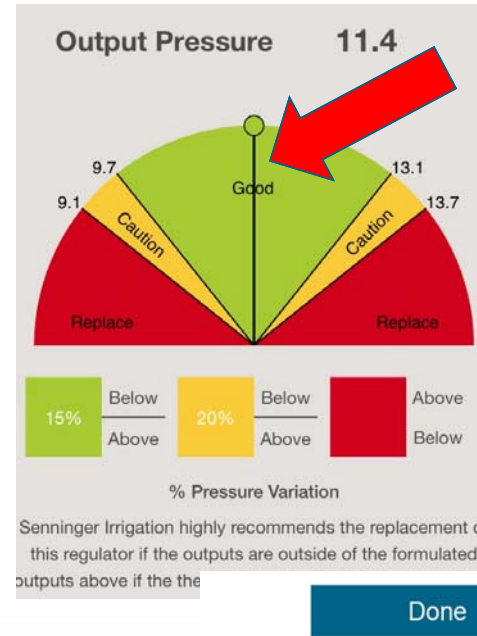
- Once you have tested your pressure regulator with an accurate gauge, replace the **OUTPUT PRESSURE** with your **actual** output pressure.
- Review the results in the graph.



SennREG: Analyzing Your Pressure

Instructions

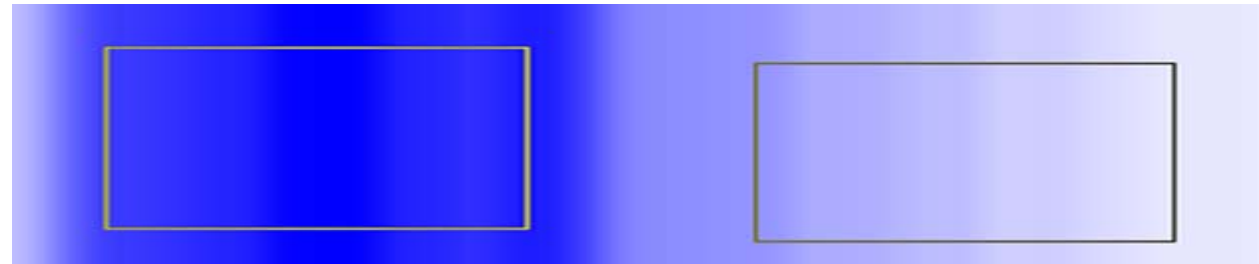
- If the line falls within the
 - **green** area, the pressure regulator operates as intended
 - **yellow** area, use caution and monitor system performance
 - **red** area, it is time to replace your regulator
- Scroll down to click **Done**



SennREG: Pressure Regulator App

If the output pressure is outside of the manufacturer's specifications for the sprinklers, there will be problems with:

- Uniformity
- Radius of throw
- Application rate consistency
- Crop yield



AREA		
CU	93.21%	●
DU	90.53%	●
SC 5%	1.15	●

Normal Pressure

AREA		
CU	70.80%	●
DU	58.31%	●
SC 5%	2.25	●

Under Pressure