



FLOW RATES - LPS & LPM & WATER SUPPLY

This section deals with determining flow rates and relating this to an irrigation system involving pop up sprinklers or shrub heads plus micro irrigation to garden beds.

If a person informs you that it takes 14 seconds to fill a 9 litre bucket from the tap that they want to connect an irrigation system to, you have to first determine the flow rate.

The flow rate in Litres per Second (LPS) is the volume of the bucket divided by the time in seconds.

This means 9 litres divided by 14 seconds which equals 0.64 litres per second (LPS)

This is the amount of water in litres coming out of the tap per second.

This is the flow rate.

This is not how much water you have available for use in your irrigation system. As a rule of thumb we say that you have three quarters of the flow rate available to you. This means that you have three quarters of 0.64 LPS – i.e. $0.64 \times \frac{3}{4} = 0.48$

Thus, you have 0.48LPS available to you to design an irrigation system.

The reason why we only use three quarters of the water available to you is because a flow test is taken with the tap open full. Generally speaking you do not have all the water available to you because you need pressure to run your irrigation system and you increase pressure by reducing the amount of water use. The pressure is required to pop the sprinklers and drive the sprinkler or rotate the micro sprays that apply water to the garden.

Having determined the flow rate you have then determined the available water supply by multiplying the flow rate by $\frac{3}{4}$.

In some cases flow Charts are in Litres per Minute.

** to convert Litres per Second (LPS to Litres per Minute (LPM) multiply Litres per second by 60 seconds. i.e. $0.48 \text{ LPS} \times 60 = 28.8 \text{ LPM}$.

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