

In-Line Dosing Systems

Heron's in-Line dosing system is accurate, easy to use, and requires minimum maintenance.

The In-line dosing system has many design features to ensure that acid and fertilizer are dosed accurately and safely.

The Heron In-Line dosing system can be used for many growing mediums, but is ideal to meet the demands of hydroponics or using bag growing mediums. This system is suitable for large irrigation flow rates of up to 60 cubic metres per hour.

Heron's inline dosing system also offers a cost effective alternative to mechanical fertilizer injectors.

- Up to 6 fertilizer injectors and one acid injector can be fitted.
- Up to 16 dosing recipes can be programmed.
- Venturis are used for fertilizer and acid dosing to provide a rugged design with minimum moving parts.
- As standard, fertilizer dosing is controlled by measuring electrical conductivity (EC).
- Proportional dosing of fertilizer available when using a flow meter.
- Dosing system uses a unique algorithm to give accurate pH and EC control with varying flow rates.
- Concentrated acid (70%) can be used as the Heron inline dosing system automatically pre-dilutes the acid.
- No moving parts or seals in contact with the concentrated acid.
- Changing acid barrels could not be simpler or safer. Just drop the acid line in the new barrel.



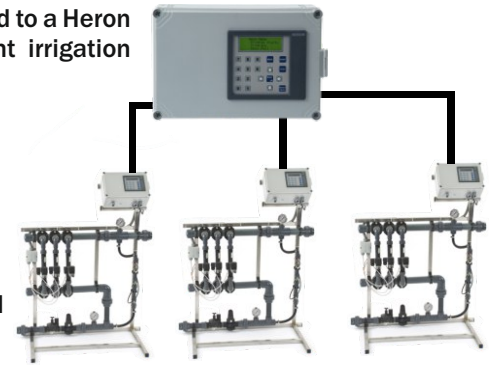
Features

Heron's inline dosing system can be stand alone or connected to a Heron irrigation controller. Up to 5 dosing rigs can be connected to one Heron irrigation controller. If connected to a Heron irrigation controller, dosing recipes can be changed automatically as different irrigation programmes are run.

For each dosing recipe you can specify :-

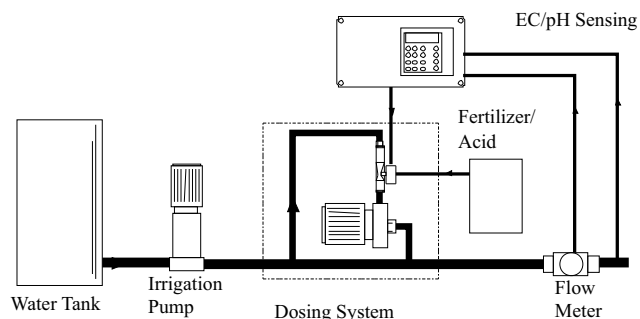
- Which fertilizer injectors to use
- Whether the fertilizer injector is to be controlled by EC or proportion
- The percentage (0 to 100%) that each injector will contribute to the recipe
- Whether acid injection is required and the required pH level.

Additionally, the dosing rig can be controlled or monitored via Heron's "Ground Control" PC software.



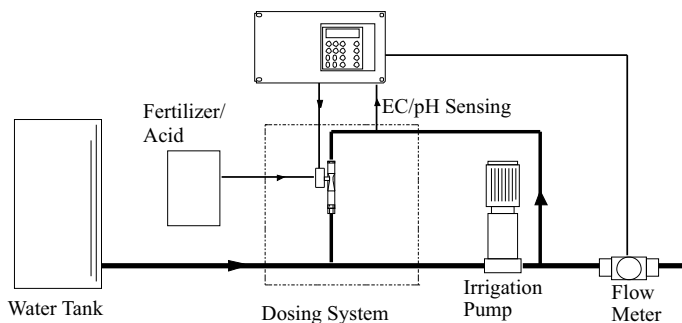
Booster Pump Configuration

A booster pump is used to drive the venturi injectors. The size of the booster required pump will be dependent upon the line pressure and the number of injectors. Various sizes of dosing rigs are available.



Feedback Configuration

In this lower cost solution configuration, the irrigation pump is used to drive the venturis. The irrigation pump must have spare capacity to drive venturi injectors.



Specifications

pH Range	Measuring : pH 8.9 to pH 2.5 Controlling pH 7.5 to pH 5.5
EC Range	Measuring 0.00 mS to 9.99. mS Controlling 0.2 to 5.0mS
Irrigation Flow Rate Range	3:1 (The maximum flow rate cannot be more than 3 times minimum flow rate)
Injector Flow Rate	Standard fertilizer injector 3 LPM High flow fertilizer injector 5.5 LPM
Outputs	Alarm output (24VAC) activated by 11 alarm conditions Digital connection to Irrigation Controller
Inputs	2 x Remote Start Inputs Flow meter input for paddle wheel or pulse type flow meters

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