# CALIBRATION PROCESS

## Calibrating the Analog Dosing Valve

The following section details how to calibrate the dosing valve when using Venturi Pumps.

1. Ensure that all dosing channels are physically connected to the fertilizer tanks.

△ For purposes of calibrating the dosing, the tanks can be filled with water.

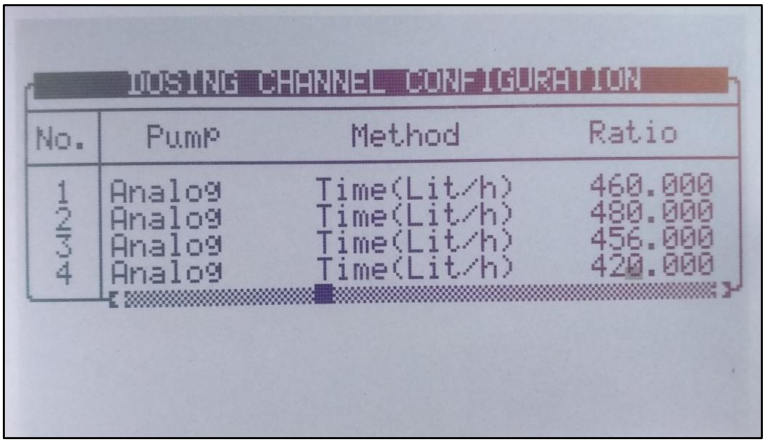
2. Verify that the needle valve is completely open (100%).
3. Go to Testing > Relays.
4. Manually operate the Irrigation Program and Dosing Booster.
5. Go to Test > Analog Output.
    a. Set the status as Manual.
    b. Define all openings as 25%.
    c. Check the injection rate/fertilizing rate on the Rotameter.

Example: If the observed rate is 100 liters per hour when set at 25%, the maximum rate should be 400 liters per hour (formula: 100 / 0.25 = 400).

△ Even when the Venturi capacities are the same, and the opening percentage is the same for each valve, there can be small variations in the actual flow rate.

△ Be aware that when you use water to calibrate the Rotameter valves, there can different reading when fertilizer is actually used.

6. Go to Configuration > Dosing Channel Configuration.
7. Under Ratio, enter the calculated injection rate/fertilizing rate. In the following screen, these numbers would be changed to 400 (the result of the equation shown in step 5c).




8. To fine tune the ratio:
    a. Prepare an Irrigation Program using the most common dosing capacity program.

b. Run the program.

c. Check the actual flow on the Rotameter.

d. Adjust all Rotameters to the same flow by adjusting the Ratio settings as needed.

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△ Decreasing the flow in the controller settings increases the actual flow seen in the Rotameter.

△ The goal of this process is to equate (to the greatest extent possible) the Rotameter's actual flow rate to the flow rate shown in HotKey 4.

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