

Fertimix

Galcon's Fertimix is a top of the line fertigation machine that mixes various kinds of fertilizers. Each Fertimix machine includes a mixing tank, and comes with a Galileo controller and EC/pH control.

According to their needs, customers can choose from four models: Fertimex 1, 2, 3 or 4. All models have an inlet pressure of more than 2.5 bars and an outlet pressure of up to 4.5 bars. Each Fertimex system can be equipped with up to 8 fertilizer pumps (350 L/H). All Fertimix machines include two kinds of pumps: a Venturi pump and a booster pump.



Galcon's Fertimix is a top of the line fertigation machine that mixes various kinds of fertilizers. Each Fertimix machine includes a mixing tank, and comes with a Galileo controller and EC/pH control.

According to their needs, customers can choose from four models: Fertimex 1, 2, 3 or 4. All models have an inlet pressure of more than 2.5 bars and an outlet pressure of up to 4.5 bars. Each Fertimex system can be equipped with up to 8 fertilizer pumps (350 L/H). All Fertimix machines include two kinds of pumps: a Venturi pump and a booster pump.

Models:

Fertimix 1"	up to 9 cubic meters per hour	100 liter tank
Fertimix 2"	up to 25 cubic meters per hour	200 liter tank
Fertimix 3"	up to 35 cubic meters per hour	300 liter tank
Fertimix 4"	up to 60 cubic meters per hour (high flow)	500 liter tank

Additional components include:

- Water meter with an electric pulse connected to the controller.
- Hydraulic inlet and outlet valves.
- A float for balancing the water inlet into the tank (with the outlet onto the field).
- A triple purpose electric pump for fertilizer suction and pressure for irrigation and mixing power.
- Water temperature sensor in order to prevent that water will boil due to low flow rate.

All Fertimex machines have the following machine components:

- A strong, modular, non-corrosive frame out of Aluminium
- PVC non-corrosive piping and fittings
- All necessary connections (electric cables) ready for use including a starter for the booster pump.

A **Venturi pump** is a T-shape device with a unique nozzle inside. It converts the speed of the water into suction and causes the fertilizer to mix in the water. Models include a standard model of 350 l/hr and a high flow model of 1,200 l/hr.

Electric valves	Installed on the entrance of the machine. Fully open/closed. Connected to the controller. Controlled by the controller.
Controller	Calculates the required injection rate and operates the solenoid accordingly
Changing rate	1-2 second working/pausing time
Flow meter	Transparent conic tube with a ball inside that rises according to the momentary flow rate of the fertilizer. Includes a small valve for adjustment of the flow rate.
Fertimeter (optional)	Sends pulses to the controller
Fertilization	According to volume
Hydraulic valve	Normally closed to prevent leakage of fertilizer into the empty line when the system is idle

The **booster pump** is an electric stainless steel (non-corrosive) pump, ranging from 2HP up to 25HP. It enables high speed flow through the Venturi for suction of the fertilizer. In the Fertimix itself, it also builds up irrigation water pressure.

- Electric pressure stat prevents any operation in the electric pump in "no water" cases.
- The pressure sustaining valve prevents cavity in the electric pump.
- Level sensor for automation and information.

The **EC/pH system** includes a sampling cell with two electrodes EC and pH that are connected to an electronic monitor. The monitor converts the electrodes signal to a standard 4-20 mA signal that is read by the Galileo controller. The monitor is equipped with a display and a keyboard for constant and clear presentation of data during operations. The monitor also enables calibration of the electrode readings.