

# FertiMix



The **Fertimix**, designed and manufactured by Galcon, is a unique Fertigation Machine, used especially for simple and reliable mixing of nutrients with the irrigation water, as well as advanced Irrigation Control by Galcon's sophisticated GALILEO-2000, GALILEO-32 or GALILEO-16 computerized controllers.



**Models:** Standard models available can accommodate water capacity of up to 9,25 or 35 cubic meters/hr .at 2.5-3 Bar. A Special high-flow model (50 m<sup>3</sup>/H) X 3.5 bar is available by special request.

The models are defined by the type of controller installed and the system's capacity (for example):

- FertiMix-2000 -25 M<sup>3</sup>H.
- FertiMix -32-35M<sup>3</sup> / H

## General Description

### The FertiMix consists of the following components:

- A polyethylene mixing tank with high and low level sensor.
  - A triple purpose water pump, supplying pressure for irrigation, fertilizers suction and mixing process.
  - 3 Venturi fertilizer injectors (350 lt/h each) with electrically controlled fertilizer valves, (up to 5 more injectors can be supplied by special request).
  - pH and EC industrial electrodes installed in a sampling cell.
  - A Ph / EC monitor unit consisting of a 4-20 MA transmitter connected to the controller, a large LCD display, Galvani.
  - Isolation and an optional key board for quick and easy calibration.
  - A by-pass valve for manual operation.
  - A water- meter which emits an electric. pulse for monitoring.
  - Hydraulic inlet and outlet valves.
  - A float for automatic inlet flow control.
  - PVC non-corrosive piping.
  - An electric control panel with a manual switch, a protection unit for the pump and a liquid level controller.
  - An Galileo controller (model 16,32,2000).
- All installed on a well designed aluminum frame.

## Operation Characteristics

- Direct monitoring or programming via the controller's keyboard or an external PC. Quantity based irrigation determined through up to 100 independent programs.
- Proportional Fertigation by 3-8 injectors using as many as 10 different fertilization programs.
- Accurate Ph and EC On-Line control with complete stability due to a perfect mixturing of nutrients in the water.
- Automatic back-flushing filters (up to 10 units).
- 20, time-based, misting programs.
- Operation of Drain-Water sampling system – DAGAN (optional), far monitoring and recording of Ph, EC and Quantity of drainage and for automatic adjustments of Fertigation programs in response to reading.
- Automatic start of irrigation cycles in accordance to readings of Solar Radiation, Temperature, Humidity, Tensiometers, Start-Trays etc....
- Stable outlet irrigation pressure, regardless of fluctuation of water source pressure.
- Stop and / or alarm output in case of water or fertilizer supply failures.
- Automatic reset after termination of faulty conditions.
- Manual suspension through the controller's key board with Automatic or Manual release.

### Additional options:

- A Full, advanced, Climate control program that can maintain optimal environmental conditions within the greenhouse.
- Communication with a remote PC, via direct cable, Telephone Line, Cellular phone or radio transmitter, for Monitoring, Programming and Data logging, in conjunction with a complete network of controllers.
- Each of the defined Elements can be freely adapted to any suitable Output/Input of the controller.
- The total No. of available I/Os, in Galileo-2000, is dictated by the selected combination of I/O cards.
- In Galileo-24 the I/O number is fixed.(32 out, 14 Analog Inp., 8 discrete Inp.)
- In Galileo-16 the I/O number is fixed. (16 out, 8 Analog Inp., 8 discrete Inp.)



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