

## Fertigation | Automatic dosing systems



Specifications	For soilless crops	For soilless crops
Integrated controller	Commander EVO® Gold	Commander EVO® Gold
Dosage	from 2 to 4 fertilisers - 1 acid	from 2 to 4 fertilisers - 1 acid
Injection mode	to pH and EC set	proportional to flow rate / pH and EC set
Fertigation programmes	64 recipes	64 recipes
Irrigation programming	20	20
Outlet ports- valves	up to 216 (120 with cable +96 radio) with expansion modules from 16 and/or 24 outlet ports	up to 216 (120 with cable +96 radio) with expansion modules from 16 and/or 24 outlet ports
Digital inputs	1 water meter, 1 differential pressure gauge, 10 configurable	1 water meter, 4 fertiliser meters, 1 differential pressure gauge, 5 configurable
Analogue inputs	pH, EC, temperature, solar radiation	pH, EC, temperature, solar radiation
Backwash filter management	10 filters - time and/or press. diff. (DP) common or independent management of the elements	10 filters - time and/or press. diff. (DP) common or independent management of the elements
Pump and master valve management	1 master pump - 4 auxiliary pumps - 1 fertiliser pump	1 master pump - 4 auxiliary pumps - 1 fertiliser pump
Stirrer management	Yes	Yes
Radio system	Yes	Yes
Power supply	380 VAC (230 VAC upon request)	380 VAC (230 VAC upon request)
Communication	GPRS   WI-FI   ETHERNET	GPRS   WI-FI   ETHERNET
Web interface	Yes	Yes
Languages	English, Spanish, Italian and German	English, Spanish, Italian and German



Specifications	For open field crops and soilless crops	For extensive open field crops	For extensive open field crops	For extensive open field crops
Integrated controller	Commander NPK®	CCX	-	Ferticlick®
Dosage	3 fertiliser channels - 1 acid	3 fertilisers channels	2 fertiliser channels - 1 acid	1 fertiliser channels
Injection mode	proportional to flow rate / pH and EC SET	proportional to flow rate / number of litres per hour	by volume (manual adjustment)	proportional to flow rate / number of litres per hour
Digital inputs	1 external start - 1 water meter - 3 fertiliser meters	1 water meter - 3 fertiliser meters	-	1 water meter
sensors	1 pH sensor - 1 EC sensor (integrated transmitter)	1 pH sensor - 1 EC sensor (external transmitter)	1 pH sensor - 1 EC sensor (external transmitter)	-
Power supply	230 VAC	230 VAC	pump motor / 230 VAC	12 VDC
Analogue inputs	pH, EC	pH, EC	pH, EC	-



## Fertigation | Automatic dosing systems

### Shaker



### Shaker Set®

#### SHAKER SET 2/4 FERT BY 500 LT/H

- Acid injection channel
- Electric pump stainless steel impeller
- EC and pH monitoring and control
- Dosing by time
- Premixing tank
- Multi-recipe
- Advanced irrigation management
- Dosing to target pH and EC
- Inline and bypass applications



### Shaker Pro™

#### SHAKER PRO 2/4 FERT BY 500 LT/H

- Acid injection channel
- Electric pump stainless steel impeller
- EC and pH monitoring and control
- Volumetric dosage
- Premixing tank
- Multi-recipe
- Advanced irrigation management
- Dosing to target pH and EC and proportional to EC flow rate
- Inline and bypass applications

## Shaker Pro



### Description

The **Shaker Pro**™ is a "target-based as well as proportional" fertigation unit designed by Irritec to provide a precise and reliable system able to ensure optimal development of both soil and soilless crops. The simple programming and the advanced functions of the **Commander EVO**® programmer allow complete management of the irrigation system and ensure the correct supply of nutrients based on the pH and EC values set by the user or based on the desired percentage values. Precise and responsive, the Shaker Pro allows the user to inject up to 4 fertilisers per set plus a corrective acid. Operation is simple. For set mode management, enter the desired pH and conductivity values along with the relative percentages for each fertiliser solution (e.g. pH 6.0, EC 2 mS, 5% fert. A, 10% fert. B, 10% fert. C, 5% fert. D). Using information from the built-in pH and conductivity probes, the machine injects the necessary quantities of acid and fertiliser to constantly maintain the water at the values entered by the user. For proportionate management enter the pH values and percentage injection values for each individual fertiliser (e.g. pH 6.0, 0.5% fert. A, 0.5% fert. B, 0.3% fert. C, 0.2% fert. D). By combining the information received from the main water meter and the fertiliser injection meters, as well as from the pH probe, the machine will maintain the injected solution at the values entered by the user. The availability of multiple fertigation recipes, one for each irrigation block, and the integrated self-learning system make it possible to produce fertigation solutions with specific characteristics for each sector of the system in the shortest possible time.

### General Specifications

Suitable for greenhouse and soilless applications, and multi-recipe with frequent fertigation cycles



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### Shaker Pro

#### Principle functions:

- Dosage of two to four fertilisers in set mode, or with proportional mode
- Injection of a corrective acid
- Multiple fertigation recipes (one per irrigation block)
- 20 independent irrigation programmes
- Control via external sensor (humidity and temperature sensors)
- Backwashing management of 10 automatic filters, timed or induced by differential pressure switch
- Pump or master valve control
- Rain sensor inputs and analogue and digital sensor inputs
- Mixers management
- Web nterface via software (optional)

#### Configuration

- 100 litre mixing tank • Up to 4 high aspiration 500 l/h Venturi injectors for fertilisers • 1 high aspiration 350 l/h venturi injector for acid • Specific acid and fertiliser solenoid valves • Up to 4 fertiliser meters • Compact stainless steel structure 80 x 120 x 80 (LxWxD) • Commander EVO GOLD Programmer • Integrated electric pump • Conductivity probe • pH electrode • Power supply: (3 F+N+T) VAC 50 Hz

#### Installation diagram

