«We want to simplify the life of those caring for plants, for work and for passion. We work so that every drop is used wisely, reducing the ecological footprint and resource waste to a minimum.»
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Commander EVO® controllers meet the irrigation needs of the most demanding crops for farms of any size. The Commander EVO® controllers combine the management of pH and EC with a more professional management of irrigation cycles.

What is more, they are equipped with radio remote control to be managed by a software program accessible via the Internet. All of this makes Irritec® Commande EVO® controllers for agriculture the best solution for every requirement.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>COMMANDER EVO® BASIC</th>
<th>COMMANDER EVO® PLUS</th>
<th>COMMANDER EVO® GOLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable for</td>
<td>farms with extensive crops</td>
<td>large farms with extensive crops</td>
<td>large farms with crops in soilless</td>
</tr>
<tr>
<td>Valves</td>
<td>up to 208 valves divided in 64 independent blocks</td>
<td>up to 216 valves divided in 64 independent blocks</td>
<td>up to 216 valves divided in 64 independent blocks</td>
</tr>
<tr>
<td>Valves with cable</td>
<td>112 + 96 radio</td>
<td>120 + 96 radio</td>
<td>120 + 96 radio</td>
</tr>
<tr>
<td>Irrigation programs with multiple starts</td>
<td>20 (4 valves at time) Irrigation precision in seconds</td>
<td>20 (4 valves at time) Irrigation precision in seconds</td>
<td>20 (4 valves at time) Irrigation precision in seconds</td>
</tr>
<tr>
<td>Type of irrigation</td>
<td>per: time / demand / temperature /sun radiation</td>
<td>per: time / demand / temperature /sun radiation</td>
<td>per: time / demand / temperature /sun radiation</td>
</tr>
<tr>
<td>Communication</td>
<td>GSM, SMS e Radio</td>
<td>GSM, SMS e Radio</td>
<td>GSM, SMS e Radio</td>
</tr>
<tr>
<td>Interface PC</td>
<td>NO</td>
<td>YES, easy to use</td>
<td>YES, easy to use</td>
</tr>
<tr>
<td>Pump</td>
<td>diesel or electric</td>
<td>5, diesel or electric</td>
<td>5, diesel or electric</td>
</tr>
<tr>
<td>Fertilizers</td>
<td>2 per tempo / volume (parallel or sequential)</td>
<td>6 per time / volume / proportional to the flow rate (parallel or sequential)</td>
<td>4 per EC / time / volume / proportional to the flow rate (parallel or sequential)</td>
</tr>
<tr>
<td>Pre irrigation</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Alarms</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Programmable mixers</td>
<td>YES (ON/OFF)</td>
<td>YES (ON/OFF)</td>
<td>YES (ON/OFF)</td>
</tr>
<tr>
<td>Backwash management</td>
<td>10 filters</td>
<td>10 filters</td>
<td>10 filters</td>
</tr>
<tr>
<td>Wash according to</td>
<td>time / pressure difference</td>
<td>time / volume / pressure difference</td>
<td>time / volume / pressure difference</td>
</tr>
<tr>
<td>Possibility to set a different time for each filter</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Enlargeable with modules for 16 zone (+96)</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Radio Connection</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Supply</td>
<td>230 VAC,12VDC, batteries</td>
<td>230 VAC,12VDC, batteries</td>
<td>230 VAC</td>
</tr>
<tr>
<td>Outputs</td>
<td>24 vac, 12 vdc, 9/12 vdc latch</td>
<td>24 vac, 12 vdc, 9/12 vdc latch</td>
<td>24 volt</td>
</tr>
<tr>
<td>Digital inputs</td>
<td>1 water meter 1 differential manometer 5 configurable</td>
<td>1 water meter 6 fertilizer meters 1 differential manometer 10 configurable</td>
<td>1 water meter 4 fertilizer meters 1 differential manometer 10 configurable</td>
</tr>
<tr>
<td>Analogue inputs</td>
<td>NO</td>
<td>pH, EC, temperature, sun radiation</td>
<td>pH, EC, temperature, sun radiation</td>
</tr>
<tr>
<td>Language</td>
<td>English, Spanish, Italian e German</td>
<td>English, Spanish, Italian e German</td>
<td>English, Spanish, Italian e German</td>
</tr>
</tbody>
</table>
**ICCEB - COMMANDER EVO BASIC**

The new Commander EVO BASIC is a compact, financially accessible and easy to use equipment. Characterised by an advanced programmer for the price of basic equipment.

The Commander EVO BASIC manages irrigation valves using any type of solenoid or via radio, electrical or diesel pumping units, differentiated fertilisation, filter washing, alarm detection, GSM, PC, SMS communication, etc.

**Irrigation:**
- Time and volume
- Precise irrigation in seconds
- 16 valves + 96 expansions via cable + 96 radio
- 20 sequential or 4 simultaneous programs
- 64 blocks/combinations of valves
- Start timed irrigation or as required (sensor)
- Electrical or diesel pump
- 4 languages (Italian, English, Spanish, German)

**Fertilisation:**
- 2 fertilisers per time or volume, parallel or sequential mode
- Programmable pre-irrigation
- Alarms
- 1 programmable mixer

Management of a maximum of 10 filters accord to time and differential manometer. Different times for each filter.

**Modular:**
- Enlargeable in modules of 16 or 24 external outputs (+96)
- Radio transmission module connection (96 valves)

**Electrical characteristics**
- Power supply: 220VAC 12VDC 9VDC (batteries)
- Outputs: 16 (-1 latch version)
- Digital inputs: 1 differential manometer 1 water meter 2 fertiliser meters 5 configurable meters
- Communication: SMS, PC, GSM

**Field of application**
Controller to manage open field irrigation systems; specialist vegetable plots and orchards. Professional irrigation.
ICCEP - COMMANDER EVO PLUS

The Commander EVO PLUS programmers meet fertigation needs for the most demanding crops on small and medium sized farms. Up to 206 valves in 64 independent blocks with 20 irrigation programs having multiple starts, cyclic irrigation and at high frequency, irrigation and fertilisation according to time and volume, proportional fertilisation, reading of pH and EC values, 4 auxiliary pumps, diesel unit control, PC, GSM, SMS and radio communication, all with an intuitive and easy to use interface.

Irrigation:
- Time and volume
- Precise irrigation in seconds
- 24 valves + 96 expansions via cable + 96 radio
- Up to 64 blocks/combinations of valves
- 20 consecutive sequential or 4 simultaneous programs
- Irrigation starts according to hour, request, temperature and sun radiation
- Diesel pump or 5 electric pumps
- 4 languages (Italian, English, Spanish, German)

Fertilisation:
- 6 fertilisers per time, volume and proportional to flow rate, parallel or sequential mode
- pH and EC monitoring only
- Programmable pre-irrigation
- Alarms
- 1 ON/OFF programmable mixer

Management of a maximum of 10 filters accord to time, volume and differential manometer. Different cleaning times for each filter.

Modular:
- Enlargeable in modules of 16 or 24 external outputs (+96)
- Radio transmission module connection (+96)

Electrical characteristics
- Power supply: 220VAC
  12VDC
  9VDC (batteries)
- Outputs: 24 (-1 latch version)
- Digital inputs: 1 water meter
  6 fertiliser meters
  1 differential manometer
  10 configurable meters
- Analogue inputs: pH, EC, Temp, Rad.
- Communication: PC, GPRS

Field of application
Controller to manage open field and greenhouse irrigation systems (no soilless).
Professional irrigation.

- 10 digital configurable meters
- 10 configurable meters
- 5 DIESEL OR ELECTRIC PUMPS
- RADIO ANTENNA
- COMMANDER EVO PLUS
- www.irritec.com
ICCEG - COMMANDER EVO GOLD

The new Commander EVO GOLD combines the power of the Commander EVO PLUS with fertigation control to achieve pH and EC objectives in a compact and easy to use device. There are multiple fertilisation possibilities according to time, volume, proportional volume, pH and EC objectives, irrigation requests for thresholds, probes for radiation and ambient temperature, dosage of 4 fertilisers plus an acid with individual meters, PC, GSM, SMS and radio communication, making the Commander EVO GOLD a suitable device for greenhouses, hydroponic crops and farms where precise and controlled application of the nutrients is required.

Irrigation:
- Time and volume
- pH and EC control
- 24 valves + 96 expansions via cable + 96 radio
- Up to 64 blocks/combinations of valves
- 20 sequential programs
- Irrigation starts according to hour, request, temperature and sun radiation
- 5 electric pumps
- 4 languages (Italian, English, Spanish, German)
- Analogue inputs: pH, EC, temperature, solar radiation

Fertilisation:
- 4 fertilisers according to EC, time, volume and proportional to flow rate, parallel or sequential mode.
- target pH control and acid or base injection.
- Programmable pre-irrigation
- Alarms
- ON/OFF programmable mixer

Management of a maximum of 10 filters according to time, volume and differential manometer. Different cleaning times for each filter.

Modular:
- Enlargeable in modules of 16 or 24 external outputs (+96)
- Radio transmission module connection (+96)

Electrical characteristics:
- Power supply: 220VAC
- Outputs: 24
- Digital inputs: 1 water meter, 4 fertiliser meters, 1 differential manometer, 10 configurable meters
- Analogue inputs: pH, EC, Temp, Rad.
- Communication: PC, GPRS

Field of application
Controller to manage open field and greenhouse irrigation systems with planting in soil or soilless. Advanced management of irrigation and fertiliser distribution.
Characteristics

- outputs 24 Vac, 12 Vdc and 9 Vdc latch
- 24 - 16 zones
- connection with cable RS-485

All the Commander EVO series programmers have the possibility of being increased to add another 96 outputs. This increase is obtained by connecting the programmer to the accessory extension units with 16 or 24 outputs.

Connection between the Commander EVO programmer and the various accessory modules is very simple. The connection diagram is as follows:

There are two types of extension units based on the 12 Vdc or 24 Vac power supply. The connection details are as follows:

**Note:** It is highly important not to invert the poles in these connections.

Interfacing between the Commander EVO programmer and an extension unit is implemented as illustrated in the following diagram:

If the Commander EVO programmer must manage multiple extension units, their installation is similar to that previously explained. Simply, connect the other extension modules after the first.

See the COMMANDER EVO instruction manual.
ACCESSORIES

(IC) MOD
modem for Commander EVO programmer

Characteristics
• GPRS/Internet
• International sim card with annual contract
• 220 VAC power supply

MODEM – CONTROLLER CONNECTION

= RS-232 serial connector on the “Commander Evo” controller Connect the connection cable for the modem or computer here. Only one connection can take place at a time.

= RS-232 modem serial port. Connect the connection cable of the controller here from connector 1

= RS-232 computer serial port. Connect the connection cable of the controller here from connector 1.

N.B.: If the computer does not have a RS-232 serial port, you need to use an adaptor

COMPUTER - CONTROLLER CONNECTION

(IJ) TS5
pH/EC transmitter for Commander EVO programmer

Characteristics
• 24 vac power supply
• 0/5 volt outputs

pH electrode - calibration on two points with solution pH 7.0 and pH 4.0
EC electrode - calibration on two points, 0 and EC 1.4 mS

If you want to connect the probes to the analogue signal, follow the instructions described in the graph alongside.
ACCESSORIES

(IJ) SS5
solar radiation sensor

Characteristics
• 24 vac power supply
• 4/20mA volt outputs

With the sun radiation sensor, Commander EVO can recognise instantaneous and accumulated sunlight, by setting the choice on the programmer.

Range: 0 - 1275 W/h
Precision: 10 W/h
Output signal: 4/20 mA

(IJ) SON
pH/EC electrodes for Commander EVO programmer

(IC) SCE
software for Commander EVO programmer plus USB / RS-232 cable
(IC) CER - EVO RADIO SYSTEM
Professional wireless irrigation control system.
The compact and autonomous ICCERRIC radio receiver activates 2 valves using latch solenoids.

Receiver characteristics:
• Power supply with lithium batteries and 9 volt batteries
• Programmable safety disconnection system
• Radio receiver indication
• Electronically isolated outputs with led lighting
• Indications of overall status and outputs with led lighting
• Output independent activation

The iccrrta radio transmitter enables management of up to 16 sectors plug a main valve or a pump extendible up to 352 sectors via radio transmission at 27.3 mega hz.
The ICCRTRA radio transmitter can be connected to the valve outputs of any irrigation programmer, converting the 24 volt signal into a coded digital signal and transmits it to the field receiver limited to 16 analogue outputs up to 96 if connected to any controller in the Commander EVO series.

Transmitter characteristics:
• 220 VAC power supply

<table>
<thead>
<tr>
<th>Price list ref.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICCERTRA</td>
<td>Radio transmitter</td>
</tr>
<tr>
<td>ICCERRIC</td>
<td>Radio receiver - 2 zones</td>
</tr>
<tr>
<td>ICCERKIC</td>
<td>Antenna and cable</td>
</tr>
<tr>
<td>ICCERBAT</td>
<td>3.6 V lithium replacement battery</td>
</tr>
</tbody>
</table>
PROGRAMMERS

**(IC) CEF**
Filters backwash programmer Commander Evo Filter with incorporated differential pressure switch

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 VAC</td>
<td>8 outputs - 24 VAC</td>
</tr>
<tr>
<td>batteries</td>
<td>8 outputs - 12 VDC latch</td>
</tr>
</tbody>
</table>

- independent parameters for each filter
- wash to time or volume
- flow sensor
- time and working calendar window
- integrated pressure differential with instantaneous reading on the display
- backwash operations log

**Power supply Description**
- batteries 2 outputs - 12 VDC latch
- batteries 3 outputs - 12 VDC latch
- batteries 4 outputs - 12 VDC latch

**(IC) PCL**
Programmer for filter backwashing with integrated pressure differential + pressure support

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>batteries</td>
<td>2 outputs - 12 VDC latch</td>
</tr>
<tr>
<td>batteries</td>
<td>3 outputs - 12 VDC latch</td>
</tr>
<tr>
<td>batteries</td>
<td>4 outputs - 12 VDC latch</td>
</tr>
</tbody>
</table>

- wash to time
- incorporated pressure differential
- alarm led anomalies

**Power supply Description**
- batteries 2 - 4 - 6 - 8 - 10 outputs, latch
- batteries 8 outputs - 24 VAC
- batteries 8 outputs - 12 VDC latch

**(IC) 1-10**
Filter backwash programmer mod. FILTRON with integrated differential pressure switch and 220VAC power supply

<table>
<thead>
<tr>
<th>Power supply</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>220 VAC</td>
<td>2 - 4 - 6 - 8 - 10 outputs</td>
</tr>
<tr>
<td>batteries</td>
<td>2 - 4 - 6 - 8 - 10 outputs, latch</td>
</tr>
</tbody>
</table>

- wash to time
- incorporated pressure differential
- alarm led anomalies

**FILTER WASHING KIT**

**(IF) KPB**
backwash automation kit with battery-operated PCL programmer kit, solenoids, pressure differential switch and support bracket and connection micropipes

**(IF) KFB**
backwash automation kit with battery-operated FILTRON programmer kit, solenoids, pressure differential switch and support bracket and connection micropipes

**(IF) KCB**
backwash automation kit with battery-operated COMMANDER EVO FILTER programmer kit, solenoids, pressure differential switch and support bracket and connection micropipes
FERTIGATION SYSTEMS

IRRITEC® fertigation systems combine practicality and reliability with a modern injection system of nutrient solutions. The management of the fertilizer is regulated by simple fertigation recipes that can be set according to the agronomical/nutritional needs of the crops. The correct hydraulic management, which is essential to convey the adequate nutrients to plants, is guaranteed by years of experience in the measuring of machinery, equipment and by reliable and certified material.

### Features SET | PRO
---|---
**Suitable for** | Hydroponic | Hydroponic
**Dosage** | from 2 to 4 fertilizers | from 2 to 4 fertilizers
**Mode** | pH and EC set injection | Proportional injection to the flow rate and pH and EC set injection
**Fertilization** | 8 different fertigation programs for various sectors | 8 different fertigation programs for various sectors
**Independent irrigation programs** | 20 | 20
**Valves** | 216 [120 with cable+96 radio] divided in 6 blocks (max. 4) | 216 [120 with cable+96 radio] divided in 64 blocks (max. 4)
**Backwash management** | 10 automatic filters, a time and/or press. diff. | 10 automatic filters, a time and/or press. diff.
**Pump control or master valve** | 5 pumps 1 master valve | 5 pumps 1 master valve
**Inputs** | 1 rain sensor and 5 emergency sensors | 1 rain sensor and 5 emergency sensors
**Management of mixers** | YES | YES
**Self learning system** | YES | YES
**Communication** | GSM, SMS and radio | GSM, SMS and radio
**Interface PC** | YES, Easy to use | YES, Easy to use
**Language** | English, Spanish, Italian and German | English, Spanish, Italian and German

### Features DosaBox® Junior AUTOMATIC | DosaBox® Junior | FERTICLICK®
---|---|---
**Suitable for** | extensive crops in the open field | extensive crops in the open field | extensive crops in the open field
**Dosage** | 3 fertilizers | 2 fertilizers | 1 fertilizer
**Mode** | Proportional injection (with pulse meter) from 0.1% to 1% | Volumetric injection | Injection proportional to the flow rate
**Injection pump** | Injection pump with impeller and S.S. seals 304 - 220 volt AC (20lt/min at 56 mt-80lt/min at 36 mt) | Injection motor pump | 12V DC injection motor pump or by pass Venturi
**Electric switch** | ON/OFF and automatic pump control | - | -
**Characteristics** | • display and probes - pH and EC control | • pH and EC control | • reed contact for water meter
| • connections (in 1” male OUT 1” female) | • stainless steel frame | • stainless steel frame
| • inlet filter (5 μm a screen 120 mesh) | • alarms for insufficient flow-rate
| • non return valve | • mixers outlet
The Shaker Set is a unit for “target fertigation” designed by Irritec to offer a precise and reliable system capable of guaranteeing optimal development of the crops both in the ground and above the ground. The easy programming and the advanced functions of the Commander EVO programmer allow complete management of the irrigation system and ensure correct contribution of nutrients based on pH and EC values set by the user.

Precise and prompt response
The Shaker Set allows injection of up to 4 set fertilisers plus an acid for pH correction. Operation is simple: the required pH and conductivity values, and the percentages of fertiliser solution are entered (e.g. pH 6.0, EC 2 mS, 5% fert. A, 10% fert. B, 10% fert. C, 5% fert. D). The machine, using the information from the built-in pH and conductivity sensors, will inject the quantities of acid and fertilisers necessary to maintain water constant at the values set by the user. The availability of multiple fertigation recipes, one for each irrigation block, and the integrated self-learning system, allows the preparation of specific fertigation solutions for each section of the crop in minimal time.
FERTIGATION - AUTOMATIC DOSAGE SYSTEMS

Main functions:
- Dosage of two to four fertilisers with set modality
- Injection of correction acid
- Multiple fertigation recipes (one for each irrigation block)
- 20 independent irrigation programs
- Command by external sensors
- Backwash management of 10 automatic filters, timed or caused by differential pressure switch
- Pump or master valve command
- Inputs for rain sensor and analogue and digital sensors
- Stirrer management
- Can be interfaced with PC via software (optional)

Configuration
- 100 l mixing canister
- Up to 4 Venturi, high intake injectors with 500 l/h for fertilisers
- Up to 1 Venturi, high intake injector with 350 l/h for the acid
- Specific solenoid valves for use of acid and fertilisers
- Compact, stainless steel structure: 80 (L.) x 120 (h) x 80 (D.)
- Commander EVO GOLD Programmer
- Integrated electric pump
- Conductivity probe
- pH electrode
- Power supply: (3 P+N+E) VAC 50 Hz

OPTIONAL
IJSHP
ADVANCED FERTILISER DOSAGE SYSTEM
The Shaker Pro is a unit for “target but also proportional fertigation” designed by Irritec to offer a precise and reliable system capable of guaranteeing optimal development of the crops both in the ground and above the ground. The easy programming and advanced functions of the Commander EVO programmer allow complete management of the irrigation system and ensures correct contribution of nutrients based on the pH and EC values set by the user or based on the required percentage values.

Precise and prompt response
The Shaker Pro allows injection of up to 4 set and proportional fertilisers plus a correction acid. Simple to operate. For set management, the required pH and conductivity values, and the percentages of fertiliser solution are entered (e.g. pH 6.0, EC 2 mS, 5% fert. A, 10% fert. B, 10% fert. C, 5% fert. D). The machine, using the information from the built-in pH and conductivity sensors, will inject the correct quantities of acid and fertilisers necessary to maintain water constant at the values set by the user. For proportional management, the values are set of the pH and the percentages of injection of each fertiliser (e.g. pH 6.0 0.5% fert. A, 0.5% fert. B, 0.3% fert. C, 0.2% fert. D). The machine, combining the information received from the main water meter and the fertiliser injection meters, as well as from the pH probe, will maintain the solution injected at the values set by the user. The availability of multiple fertigation recipes, one for each irrigation block, and the integrated self-learning system, allows the preparation of specific fertigation solutions for each section of the crop in minimal time.
**Main functions:**
- Dosage of two to four fertilisers with set modality, or with proportional modality
- Injection of correction acid
- Multiple fertigation recipes (one for each irrigation block)
- 20 independent irrigation programs
- Command by external sensors (humidity and temperature probes)
- Backwash management of 10 automatic filters, timed or caused by differential pressure switch
- Pump or master valve command
- Inputs for rain sensor and analogue and digital sensors
- Stirrer management
- Can be interfaced with PC via software (optional)

**Configuration**
- 100 l mixing canister
- Up to 4 Venturi, high intake injectors with 500 l/h for fertilisers
- Up to 1 Venturi, high intake injector with 350 l/h for the acid
- Specific solenoid valves for use of acid and fertilisers
- Up to 4 fertiliser meters
- Compact, stainless steel structure: 80 (L.) x 120 (h) x 80 (D.)
- Commander EVO GOLD Programmer
- Integrated electric pump
- Conductivity probe
- pH electrode
- Power supply: (3 P+N+E) VAC 50 Hz
IJDSP
A SIMPLE, COMPACT AND ECONOMIC SOLUTION
FOR FERTILISER AND ACID* INJECTION
Irritec has designed this proportional fertigation unit as a system which, through an accurate and user-friendly programmer, can make fertiliser dosage and management of the irrigation system more efficient for any farm wishing to move towards an automated system in a simple way with limited costs.

Reliable and easy to use
The Dosa Pro allows proportional injection of 6 fertiliser solutions. Operation is simple: set the desired fertiliser percentage for each of the 6 solutions (e.g. 1% solution A and 2% solution B; ...). The machine, using the information from the water meter (not included) and the fertiliser meters, will inject the quantities of fertilisers necessary to produce a precise and homogeneous fertigation solution.

*optional
Main functions:
- Proportional dosage of 6 nutrient solutions
- 20 independent irrigation programs
- 20 consecutive sequential or 4 simultaneous programs
- Backwash management of 10 automatic filters, caused by differential pressure switch or timed
- 5 pumps or master valve command
- Inputs for rain sensor and emergency sensors (pressure, flow, etc.)
- Can be interfaced with PC via software (optional).

Configuration
- 60 l mixing canister
- 2 meters with impulse emitter specifically for fertilisers
- High intake Venturi 500 l/h
- Compact, stainless steel structure: 80 (L.) x 120 (h) x 80 (D)
- Commander EVO Plus Programmer
- Electric pump
- pH and EC display, optional
- Power supply: (3 P+N+E) VAC 50 Hz
FERTIGATION - AUTOMATIC DOSAGE SYSTEMS

IJD BOX
VOLUMETRIC FERTIGATION KIT
The DosaBox is a valuable tool for any business which needs an economical and simple method to get started with fertigation. The fertigation unit, manually operated but easily automated, is an important first step towards a modern and effective management of crop nutrition.

Simple and efficient
DosaBox is a modular unit which allows volumetric dosing of 2 to 4 fertilizers; the intake speed of each substance can be regulated. Flowmeters and pH and EC monitors enable constant monitoring of the characteristics of the irrigation water used, and can be modified by manual adjustment of the injection of the individual aspiration channels. DosaBox pre-mixes the fertilizers to obtain a homogeneous nutrient solution, and does not cause pressure loss on the main line.
**Characteristics:**
- From 2 to 4 fertiliser aspiration channels, each 500 l/h
- Volume supplied from 10 to 500 l (at intervals of 10 l) for each channel
- Electric pump 1.2 Kw with rotor in stainless steel
- Pre-mixing tank
- Constant control of the tank level (level valve + sensor)
- Continuous monitoring of the pH and EC
- Easily automated
- Power supply: (3 P+N+E) VAC 50 Hz
IJDBJC
VOLUMETRIC AND PROPORTIONAL FERTIGATION KIT
The automatic DosaBox™ junior is a valuable tool for any business which needs an economical and simple method to get started with fertigation. This manually operated fertigation unit, equipped with a device to make its proportional management of nutrient injection automatic, offers the user the possibility of optimal results with minimum effort.

Simplicity and precision
The automatic DosaBox™ junior is a modular device that allows dosing of 3 fertilisers in volumetric and proportional mode. pH and EC monitors enable constant monitoring of the characteristics of the irrigation water used, and can be modified by semi-automatic adjustment of the injection of the individual aspiration channels.
FERTIGATION - AUTOMATIC DOSAGE SYSTEMS

Characteristics:
• 3 aspiration channels (max 500 l/h)
• 3 fertiliser meters (10 impulses /litre)
• Injection pump with rotor and seals in stainless steel 304-220 volt AC (20l/min at 56 m-80l/min at 36 m)
• Electrical ON/OFF switch and pump automatic command
• Display and pH and EC probes
• Outflow control probes support with automatic flow control valve
• Connections (IN 1” male OUT 1” female)
• Inbound filter (5 m3/h with 120 mesh)
• Check valve
• Dimensions:
  Height 75 cm
  Width 66 cm
  Depth 27 cm
• Stainless steel support structure
• Dosage: proportional (with impulse emitting meter) from 0.1% to 1%
• Insufficient flow rate alarms
DosaBox Junior is a valuable tool for any business lacking in electricity which needs an economical and simple method to get started with fertigation. The fertigation unit, manually operated but easily automatised, is an important first step towards a modern and effective management of crop nutrition.

Simple and efficient
DosaBox Junior is a device which allows dosing of 2 fertilisers in volumetric mode and adjustment of the intake speed of each of the nutrients used. Flowmeters and pH and EC monitors enable constant monitoring of the characteristics of the irrigation water used, and can be modified by manual adjustment of the injection of the individual aspiration channels. DosaBox Junior injects fertilisers and, thanks to the motor pump installed, does not cause load loss on the main line.

Characteristics:
- 2 fertiliser aspiration channels, each 500 l/h
- Volume supplied from 10 to 500 l (at intervals of 10 l) for each channel
- Two-stroke motor pump 3m head
- Continuous monitoring of the pH and EC
- Easily automated
ACCESSORIES

(IJ) 12582
pH/EC panel indicator
with digital display of parameters and integrated electrodes.
pH calibration is carried out with buffer solutions with known titre:
pH 4.00, 7.00 and 9.00; you can calibrate from one to three solutions.
EC calibration is carried out on a point with buffer solutions with known titre: 1.41mS or 12.90mS

CONNECTION DIAGRAM

Description of the connector strips:

-12V  • power supply - Negative
+12V  • power supply - Positive
CS    • central wire conductivity cell
Pt1000• two cables of the temperature probe (interchangeable)
pH    • central wire pH electrode
• braided cable pH electrode
IJFTK - PUMP

The Ferticlick Pump system is an accurate system for simple proportional or volumetric fertigation of fertiliser. It is composed of an easily programmable electronic board, a 12 volt gear pump and a volumetric meter (10 impulses/litres).

Automatic proportional dosage system 12 VDC.

Characteristics:
- 1 fertiliser with volumetric and proportional dosage at medium flow rate injection 500 l/h at 4 bar
- Insufficient flow rate alarm
- Power supply: 12 VDC
- Outputs: 12 VDC
**FERTICATION - AUTOMATIC DOSAGE SYSTEMS**

**IJBPC - BY PASS**

The Ferticlick Bypass is an accurate system for simple, proportional or volumetric fertigation. It is composed of: an easily programmed electronic board, a Venturi bypass, a volumetric meter (10 impulses/litre) and a common solenoid valve.

**Simple programming**

Simply set the adjustment section to the percentage or volume desired. In order for the machine to work as a percentage, you need an impulse emitting meter - 100 or 1000 l per impulse - installed on the main line. On the contrary, injection is volumetric from 50 to 350 l/h. The fertyclick control unit has two leds: the green one confirms operation, the red insufficient, useful flow rate to reach the percentage set.

**Specifications:**
- intake 80 - 350 litres/h
- minimum supply flow rate 130 litres/h

**Electrical specifications:**
- 12/24 volt DC power supply
- fertiliser meter input
- fertiliser valve output
- fertiliser pump output
IIoDSM - DOSMATIC PUMPS

The hydraulically operated MiniDos and SuperDos volumetric dosing systems have been designed to introduce liquid concentrates into the water supply network in the absence of electricity by exploiting the flow of fluids as an energy source.

MiniDos and SuperDos are equipped with a patented internal mixing chamber that allows a homogeneous mixing, while keeping corrosive chemicals away from the fundamental internal components.

Characteristics:
- MiniDos and SuperDos are available in various models to meet the requirements of the most demanding applications.
- MiniDos and SuperDos are made with a composite material superior to PVDF for chemical compatibility and mixing with aggressive chemicals.
- The SuperDos 30 and 45 models are supplied with the integrated on/off switch to stop the supply but not the system.
- Separate internal mixing chamber that avoids direct contact of chemicals with the engine piston, for a longer life cycle and uniform mixing.
- Operating pressure according to the highest industry standards to minimize damage due to pressure peaks.
- The MiniDos and SuperDos volume dispensers are equipped with interchangeable intake groups that can be adjusted during operation.

General Specifications

<table>
<thead>
<tr>
<th></th>
<th>MiniDos</th>
<th>SuperDos</th>
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<tr>
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<td>Proprietary composite material</td>
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<tr>
<td>Dosage</td>
<td>+/- 10%</td>
<td>+/- 5%</td>
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<tr>
<td>Repeatability</td>
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<td>+/- 3%</td>
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<td>Max fluid temperature</td>
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<tr>
<td>Max vertical suction of concentrate</td>
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Available sealing material: Aflas - Viton - EPDM - Kalrez

* Contact your local representative for information on specific chemical properties

Technical data

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<tr>
<th>Model</th>
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<th>Model number</th>
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<th>Dilution %</th>
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BASIC INSTALLATION

- Linear installation
- Installation of the supply tank
- Linear double-sided installation
- Derivation installation
The new venturi injectors, with the renewed technical design, widen Irritec range for the in line injection of fertilizers. Available in the sizes ¾” - 1” - 1½” - 2”, built with materials of high mechanical and chemical resistance, they assure the regular distribution of fertilizers in the irrigation system. Precise and efficient, they need a small pressure difference to assure a high aspiration performance. Irritec finds the correct equilibrium between technique and practicality in the simplicity of the physical principle, designing a secure and efficient injector.

**VENTURI**

**IJIVP - VENTURI**

Installation

**by pass**

with pressure regulator

by pass with suction pump

by pass with pressurized pump

on line

1 INJECTOR
2 METERING VALVE
3 FILTER
4 ELECTRIC PUMP
5 PRESSURE GAUGE
6 PRESSURE REDUCTION DEVICE

A INLET PRESSURE
B OUTLET PRESSURE
C INLET FLOW RATE
D SUCTION FLOW RATE

FLOW RATE
### FERTIGATION - INJECTION SYSTEMS

#### INJECTOR 3/4"

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#### INJECTOR 1"

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### Notes

- NS: no suction
## CERTIFICATIONS

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<th>Description</th>
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