



## **Landscape Irrigation** EMEA Market

***Irritrol***<sup>®</sup>

# Follow us for updates, tutorials and much more!

---



For any information, photos and videos you would like to share, tag us in your post using one of the accounts listed below or email us the photos and videos with a brief description to [Social.italia@toro.com](mailto:Social.italia@toro.com) to allow us to share them.

**The suggested topics are:** new products, events, historical photographs, projects, videos, anniversaries, interesting shares, product delivery, new irrigation system and anything else concerning ISE.



**@ISE**

For any aspect related to ISE, specific to the Italian market



**@Irritrol Italia**

For all the news and announcements of Irritrol in Italy from our headquarters in Fiano Romano.

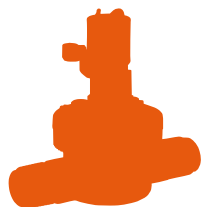


**@ISEontheweb**

For any aspect related to ISE, specific to the EMEA market



# TABLE OF CONTENTS



## CONTROLLERS

LIFE™ DC	6
ELECTRONIC TAP TIMER	8
ELECTROMECHANICAL TAP TIMER	9
LIFE™	10
LIFE™ PLUS	12
RAIN DIAL	14
TOTAL CONTROL	16
MC-E	18
ICOD PLUS	20

## VALVES

E-PIC	24
EURO F and M SERIES	26
S SERIES	28
2400 SERIES	30
2500 SERIES	32
200B SERIES	34
CENTURY PLUS SERIES	36
700 ULTRAFLOW SERIES	38
OMNIREG	40

## SPRAYHEADS and NOZZLES

SL SERIES	44
I-PRO SERIES	46
ROTARY NOZZLES	48
I-PRO NOZZLES	50
PRO-VAN NOZZLES	52
SPECIAL NOZZLES	54

## SPRINKLERS

430R	58
550R-SC	60
TITAN	62
PLATINUM	64
SIS120F AND SIS120P	66
SGS103	68
SPS178	70
WT118	72

## ACCESSORIES

HERCULES VALVE BOXES	76
CLIMATE LOGIC	78
RAIN SENSORS	80
PRESSURE REGULATORS	81
LASCO PVC MANIFOLDS	82
LASCO BLUE TWISTER MANIFOLDS	84
SWIVEL FITTINGS	85
MODULAR MANIFOLD	86
SUPER BLUE FLEX HOSE	87
WATERPROOF CONNECTOR	88
WATERPROOF CONNECTORS	88
CUT-OFF RISERS	89
BLAZING SADDLES	89
SELF-THREADING ELBOW	90
BLAZING ELBOWS	90
SWING JOINT	91
ANTIVANDALISM UNION	91
BLAZING CUTTERS	92
CHECK VALVE	92
DRAIN VALVE	93
BLAZING DRAIN VALVES	93
H2OCAD® 4.0 SOFTWARE	94

## MICRO IRRIGATION FOR LANDSCAPE

DRIP IN® PC BROWN	98
DRIP IN® CL BROWN	99
POLYETHYLENE HOSE	100
NGE AL	101
WHITE SPIDER	102
EURO-PLUS	103
EURO-KEY	104
VARIS & VARISTAKE	105
TRICKLER	105
VARIJET	106
ACCESSORIES FOR VARIJET	107
VORTEX FOGGER	108
BUBBLER	110
SCREEN IN-LINE FILTERS	110
M SERIES FILTERS	111
S AND F SERIES FILTERS	112
XD SERIES FILTERS	113
HERCULES VALVE BOXES	114
E-PIC	115
PRESSURE REGULATORS	115
AIR RELEASE VALVE	116
DRIP LINE FITTINGS AND PE HOSE	117





# CONTROLLERS

Comparison table

	Life™ DC	Electronic Tap Timer	Electromechanical Tap Timer	Life™	Life™ Plus	Rain Dial	Total Control	MC-E
Battery powered	✓	✓	✓					
Power supply				✓	✓	✓	✓	✓
Number of stations	1, 2, 4, 6	1	1	4, 6, 8	from 4 to 16	6, 9, 12	6, 9, 12, 15, 18, 24, 36, 48	18, 24, 36, 48
Independent programs	4	8	1	2	4	3	4	8
Starts per program	3	1	24	3	6	3	16	8
Indoor installation				✓	✓	✓		
Outdoor installation	✓	✓	✓	✓	✓	✓	✓	✓
Water Budget	✓			✓	✓	✓	✓	✓
Applications:								
Terraces and balconies	•	•	•	•	•			
Small gardens	•			•	•	•		
Medium sized gardens				•	•	•	•	
Large gardens and parks					•		•	•



## CONTROLLERS

Pages 6-21

LIFE™ DC	6
ELECTRONIC TAP TIMER	8
ELECTROMECHANICAL TAP TIMER	9
LIFE™	10
LIFE™ PLUS	12
RAIN DIAL	14
TOTAL CONTROL	16
MC-E	18
ICOD PLUS	20



# LIFE™ DC

The new Life DC battery-powered controller allows you to water your garden even where there is no electricity as it is possible to install it directly in the valve box thanks to the IP68 water-resistant coating.

Programming is fast and simple thanks to the Bluetooth connection that allows you to manage the controller from your device via the Life DC App.

## FEATURES

- Watering time: 1 min to 8 hours (1 min)
- Flexible scheduling:
  - Daily
  - Weekly
  - Even/odd days watering
  - Irrigation at intervals of 1 to 31 days
- Program that avoids "overlaps" between starts
- Automatic, semi-automatic and manual start
- Permanent memory
- Rain delay from 1 to 15 days or "permanent"

## ADDITIONAL FEATURES

- Compatible with Irritrol DCL solenoid (max pressure 6 bar)
- Maintains programs in the memory during battery replacement
- Maintains the time in case of malfunction



- 1, 2, 4, 6 stations (IP68)
- 4 independent programs
- 3 starts per program
- Water Budget from 0% to 200%
- Bluetooth connection

Download the new Life DC App, create your account and connect to the controller via Bluetooth!

## FOCUS

### IP68

The controller can be installed directly in the valve boxes and communicate via Bluetooth



## SPECIFICATIONS

- IP68 case, 100% water resistant
- UV resistant plastic
- Power supply: 9V battery
- 9V output for Irritrol DCL latching solenoid
- Operating temperature: -10 ° C + 50 ° C
- Maximum distance of 300 m between the controller and the DCL solenoid (cable section 0.75mm²)

## OPTIONS

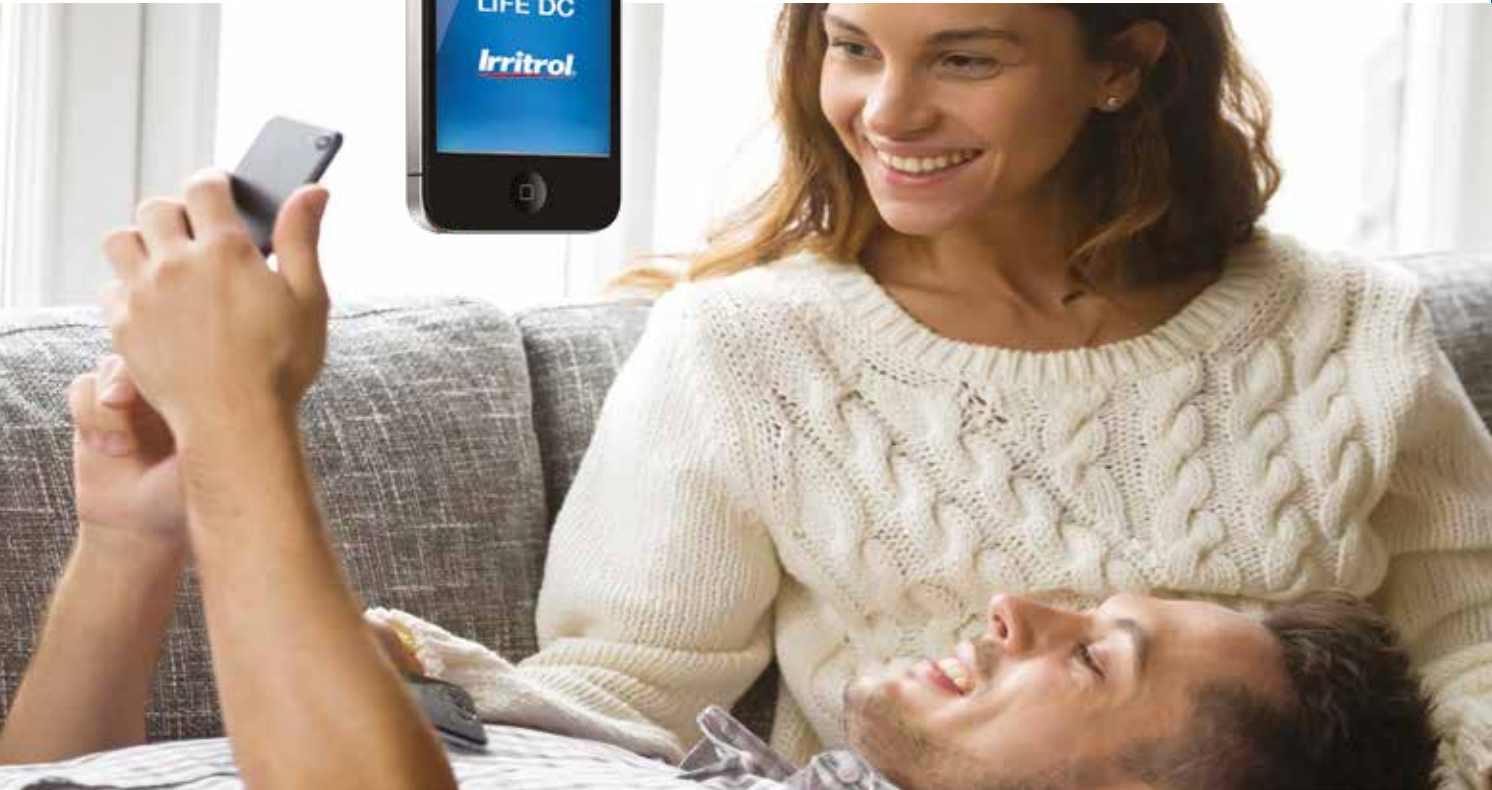
- Rain sensor connection

## DIMENSIONS

- Height: 12.0 cm
- Width: 11.5 cm
- Depth: 5 cm



Thanks to the Bluetooth technology, the LIFE™ DC can be controlled simply from your mobile phone



## Codification

Model	Description
LIFE-1-DC	Life DC, 1-station battery-powered controller with Bluetooth
LIFE-2-DC	Life DC, 2-station battery-powered controller with Bluetooth
LIFE-4-DC	Life DC, 4-station battery-powered controller with Bluetooth
LIFE-6-DC	Life DC, 6-station battery-powered controller with Bluetooth





# ELECTRONIC TAP TIMER

Electronic Tap Timer, the electronic single-station battery-powered Irritrol controller with built-in solenoid valve, very easy to use. It can be connected to a normal tap, be installed on any terrace or balcony without the need for special materials or equipment. It also comes with a cover to protect the display and a battery seal. Programming is quick and easy, also providing for the possibility of managing irrigation in manual or automatic mode.



- 1 station
- 8 independent programs
- 1 start per program
- Female 3/4" threaded connection

## FEATURES

- Watering time from 1 minute to 23 hours and 59 minutes
- Irrigation scheduling: weekly or every other day (from 1 to 30)
- Low battery indicator
- Button for deleting the program
- Cover to protect the display

## SPECIFICATIONS

- 9V output for Irritrol DCL latching solenoid
- Operating temperature: 5°C – 38°C
- Recommended water pressure: 1.4 to 6.9 bar
- Max operating pressure: 10 bar (with higher pressures use a pressure reducer)



### Codification

Model	Description
IT-ETT	Electronic tap timer, single-station battery-powered electronic controller with built-in solenoid valve

# ELECTROMECHANICAL TAP TIMER

The new Tap Timer, a single-station battery-powered electromechanical controller with built-in solenoid valve made by Irritrol, has a new and compact design. The presence of the solenoid valve with solenoid allows a precise and reliable irrigation, which makes it perfect for terraces. Programming is quick and easy since irrigation can be managed on the basis of two parameters: irrigation frequency and duration.



- 1 station
- 1 independent program
- 24 starts per program
- Female 3/4" threaded connection

## FEATURES

- Watering time from 0 to 120 minutes
- Irrigation scheduling: from 1 hour to 1 week
- Low battery indicator
- Delayed start of the program up to 12 hours

## SPECIFICATIONS

- Power supply: 2 AA alkaline batteries
- Valve with bi-stable solenoid
- Recommended water pressure: from 0.35 - 8.6 bar
- Max temperature (°C): 38°C



### Codification

Model	Description
IT-NTT	New Tap Timer, single-station electromechanical controller with 9V battery with female 3/4" threaded connection



# LIFE™

The innovative LIFE™ controller can be programmed comfortably from the sofa at home thanks to the possibility of detaching the programming module from the base, or, if you add the optional Wi-Fi module, even from your electronic device through the LIFE App™.

Life™ is the first controller which can be installed inside your apartment and become a furnishing accessory thanks to its colours and to its elegant and modern design.

## FEATURES

- Watering time: from 1 min to 8 hours (1-min increases)
- Flexible scheduling:
  - Daily
  - Weekly
  - Even/odd days watering
  - Irrigation at intervals of 1 to 30 days
- Program that avoids "overlaps" between starts
- Rain suspension option programmable up to 31 days
- Permanent memory
- The "Super Cap" option allows you to keep the time and date in the event of a power failure for more than 24 hours (no batteries needed)
- "Test" program for all stations
- "HELP" button that allows you to view suggestions at any time, thus avoiding having to use the instruction manual
- Multilingual display (Italian, English, Spanish, French, German)
- EC Certification

## ADDITIONAL FEATURES

- Modular controller: a single programming module can be used for all Life models for both indoor and outdoor use and for the various rear modules.
- Can be programmed even comfortably seated on your sofa (by detaching the programming module from the rear module)
- No batteries required



- 4, 6, 8 stations (for indoor and outdoor use)
- 2 independent programs
- 3 starts per program
- Water Budget from 0% to 200%
- Optional IOT Wi-Fi

## FOCUS

### SIMPLE AND INTUITIVE PROGRAMMING

Thanks to the easy-to-understand icons.



### EYE-CATCHING DESIGN

Thanks to its colours and to its modern and elegant look & feel, LIFE™ is also a furnishing accessory for your home.

## SPECIFICATIONS

- Input power:
  - 220 VAC, 50Hz
- Output power:
  - Max per station: 24 VAC (0.25 A)
  - Maximum total power (including MV control): 24 VAC (0.625 A)
- Operating temperature: from -10° to 60°C

## OPTIONS

- IOT Wi-Fi module
- Box with transformer for outdoor version



## DIMENSIONS

- Height: 14 cm
- Width: 18.6 cm
- Depth: 6.7 cm



Thanks to the optional Wi-Fi module you can program and control the controller from your mobile phone through the relative LIFE™ App.



### Codification - LIFE™

Model	Description
LIFE-4	Life, 4-station Controller with external 220 VCA transformer
LIFE-6	Life, 6-station Controller with external 220 VCA transformer
LIFE-8	Life, 8-station Controller with external 220 VCA transformer
LIFE-MOD	Life programming module
LIFE-B-4	4-station rear module with external 220 VAC transformer
LIFE-B-6	6-station rear module with external 220 VAC transformer
LIFE-B-8	8-station rear module with external 220 VAC transformer
LIFE-WF	Wi-Fi module for Life
LIFE-EXT	Outdoor box with transformer





# LIFE™ PLUS

The evolution of the basic LIFE™ is the “Plus” modular version: up to 16 stations can be managed with the same programming module. With LIFE™ PLUS it is also possible to control and program the irrigation of your garden at any time and from any place, by adding the optional internet Wi-Fi module and downloading the LIFE™ App on your mobile phone.

## FEATURES

- Watering time: from 1 min to 8 hours (1-min increases)
- Flexible scheduling:
  - Daily
  - Weekly
  - Even/odd days watering
  - Irrigation at intervals of 1 to 30 days
- Rain suspension option programmable up to 31 days
- Programmable delay between stations (from 1 sec. to 8 min.)
- Automatic, semi-automatic and manual start
- Permanent memory: the “Super Cap” option allows you to keep the time and date in the event of a power failure for more than 24 hours (no batteries needed)
- Program that avoids “overlaps” between starts
- “HELP” button that allows you to view suggestions at any time, thus avoiding having to use the instruction manual
- Multilingual display (Italian, English, Spanish, French, German)
- EC Certification

## ADDITIONAL FEATURES

- One of the 4 programs can be set as a continuous cycle program
- Possibility of working in m:h or s:m (up to 8 min.)
- The sensors can be managed in 5 different modes (off, start, stop, skip, pause)
- The pulse sensor is active even when the system is not in operation
- Hydraulic test
- Electrical test



- From 4 to 16 stations with expandable module of 4 stations each (internal and external)
- 4 independent programs
- 6 starts per program
- Water Budget from 0% to 200%
- Optional IOT Wi-Fi

## FOCUS

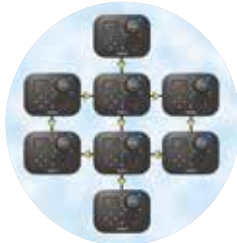
- *Optimise your irrigation by connecting LIFE™ PLUS to the Weather broadcasting service.*



- *Connect your LIFE™ PLUS to Alexa or Google Home to manage it with simple voice commands.*



- *Now you can connect up to 8 LIFE™ PLUS with each other with a maximum limit of 48 stations!*



## SPECIFICATIONS

- Power
  - Absorbed power: 220 VAC, 50 Hz;
  - Power output: max. per station: 24 VAC (0.5 A); Max. Total (including MV control): 24 VAC (1.0 A)
- Operating temperature: from -10° to 60°C

## OPTIONS

- Wi-Fi Internet module
- 4-station expansion module
- Box with transformer for outdoor version

## DIMENSIONS

- Height: 14 cm
- Width: 18.6 cm
- Depth: 6.7 cm



With the optional IOT Wi-Fi you will always be connected with your irrigation system at any time and wherever you are!



## Codification - LIFE™ PLUS

Model	Description
LIFE-P	Life Plus, 4-station controller with external 220 VCA transformer
LIFE-P-SM	4-station expansion module for Life Plus
LIFE-MOD	Life Plus programming module
LIFE-P-B	4-station rear module with external 220 VAC transformer
LIFE-WF	Wi-Fi module for Life Plus
LIFE-EXT	Outdoor box with transformer





# RAIN DIAL

The Rain Dial electronic controller was created for a fast and flexible irrigation setting in medium-sized parks and gardens. Thanks to the removable panel, it can be set up in any place and through its many programming possibilities it is one of the most complete Irritrol controllers and can be used in different situations.

## FEATURES

- Watering time: from 1 to 359 minutes (5.9 hours), in 1-minute increases per station
- Flexible irrigation scheduling:
  - Daily irrigation (up to 3 starts per day)
  - Weekly irrigation
  - Irrigation on even and odd days (with the 31st day of the month excluded)
  - Irrigation at intervals of 1 to 15 days
  - Day exclusion option: possibility of choosing the specific day or days you do not want to water
  - 365-day calendar
- Possibility of deleting a Stacking Program
- Rain off function for up to 9 days
- Automatic, semi-automatic and manual start per station or program
- Pump/master valve control per station
- Permanent memory
- Test program for all stations
- Delay option between 2 stations: possibility of setting an adjustable interval from 1 second to 2 hours between one station and the next (this facilitates the operation of the slow closing valves or the recovery of valve boxe water)
- Activation and deactivation of the pump/master valve even during the delay between 2 stations
- Container with cover and lock for the outdoor version
- Multilingual menu
- EC certification



- 6, 9, 12 stations
- 3 independent programs
- 3 starts per program
- Water Budget from 0% to 200%

## ADDITIONAL FEATURES

- Option to remove the program start time at four time intervals: 11:59 p.m./12:00 a.m.; 11:59 a.m./12:00 p.m.; 5:59 a.m./6:00 a.m. and 5:59 p.m./6:00 p.m.
- Reset to factory default settings

### FOCUS

#### DIAGNOSTIC SWITCH

*It allows the programmer to locate all stations with excess energy consumption, e.g. due to a faulty solenoid or a short circuit.*

*The station concerned is automatically bypassed and shown on the display*



## SPECIFICATIONS

- Input power:
  - Indoor model: 220 VAC, 50 Hz (0.5 Amp) (from plug transformer)
  - Outdoor model: 220 VAC, 50Hz (0.5 Amp)
- Output power for both models:
  - Max per station: 24 VAC (0.5 Amp)
  - Maximum total power (including pump control): 24 VAC (1.25 Amp)
- 2 Amp slow action fuse
- 9 Volt alkaline battery (not included)
- Operating temperature: from 0° to 60°C

## OPTIONS

- Rain sensor
- Climate Logic

## DIMENSIONS

- Indoor model:**
- Height: 46.3 cm
  - Width: 17.8 cm
  - Depth: 21.0 cm
- Outdoor model:**
- Height: 46.3 cm
  - Width: 65.8 cm
  - Depth: 10.2 cm



### Codification - RAIN DIAL

Model	Description
RD600-INT-LT	Rain Dial, 6-station 220 VAC controller, with external transformer
RD900-INT-LT	Rain Dial, 9-station 220 VAC controller, with external transformer
RD1200-INT-LT	Rain Dial, 12-station 220 VAC controller, with external transformer
RD600-EX-50H	Rain Dial, 6-station 220 VAC controller, with built-in transformer
RD900-EX-50H	Rain Dial, 9-station 220 VAC controller, with built-in transformer
RD1200-EX-50H	Rain Dial, 12-station 220 VAC controller, with built-in transformer
RD-6MOD-R	Module for 6-station Rain Dial
RD-9MOD-R	Module for 9-station Rain Dial
RD-12MOD-R	Module for 12-station Rain Dial



# TOTAL CONTROL

Total Control is the Irritrol controller designed for the irrigation of large gardens and parks, which can manage up to 48 stations. The flexibility it enjoys allows programming up to 16 daily starts and thanks to its large display and to the central selector, programming is in any case quick and easy even for systems with numerous stations.



- 6, 9, 12, 15, 18, 24, 36, 48 stations
- 4 independent programs
- 4 starts per program
- Water Budget from 0% to 200%

## FEATURES

- Watering time from 1 to 600 minutes (10 hours) in 1-minute increases
- Flexible irrigation scheduling:
  - Daily irrigation (up to 16 starts per day)
  - Weekly irrigation
  - Irrigation on even and odd days (with the 31st day of the month excluded)
  - Irrigation at intervals of 1 to 30 days
  - 365-day calendar
- Possibility of deleting a Stacking Program
- Rain off function for up to 7 days
- Automatic, semi-automatic and manual start
- Pump control/Master Valve for Permanent memory program up to 8 years
- Off switch to stop irrigation, keeping the program on for a programmable period of 1 to 7 days
- Activation of the rain sensor by switch Container with cover and lock
- Multilingual menu
- EC certification

## ADDITIONAL FEATURES

- Clock forward in the absence of power for up to 90 days
- Metal container with key lock for the 36 and 48-station versions

### FOCUS

#### AUTOMATIC PROGRAM FOR ELECTRONIC PROTECTION

*Identifies the valve in short circuit and removes it from the program*



## SPECIFICATIONS

- Input power:
  - 220 VAC, 50Hz (0.5 Amp)
- Output power:
  - Max per station: 24 VAC max 50 Hz (0.5 Amp)
  - Max total (including pump control): 24 VAC max 50 Hz (1.25 Amp)
- 250Volt, 2 Amp slow action fuse
- 9 Volt alkaline battery (not included)
- Operating temperature: from 0° to 60°C

## OPTIONS

- Rain sensor
- Climate Logic

## DIMENSIONS

- Height: 21.3 cm
- Width: 26.7 cm
- Depth: 12.7 cm



### Codification - TOTAL CONTROL

Model	Description
TC-6EX-R-50H	Total Control, 6-station controller, 220 VAC with built-in transformer
TC-9EX-R-50H	Total Control, 9-station controller, 220 VAC with built-in transformer
TC-12EX-R-50H	Total Control, 12-station controller, 220 VAC with built-in transformer
TC-15EX-R-50H	Total Control, 15-station controller, 220 VAC with built-in transformer
TC-18EX-R-50H	Total Control, 18-station controller, 220 VAC with built-in transformer
TC-24EX-R-50H	Total Control, 24-station controller, 220 VAC with built-in transformer
TC-36EX-R-50H	Total Control, 36-station controller, 220 VAC with built-in transformer, metal container
TC-48EX-R-50H	Total Control, 48-station controller, 220 VAC with built-in transformer, metal container
TC-6MOD-R	Module for 6-station Total Control
TC-9MOD-R	Module for 9-station Total Control
TC-12MOD-R	Module for 12-station Total Control
TC-15MOD-R	Module for 15-station Total Control
TC-18MOD-R	Module for 18-station Total Control
TC-24MOD-R	Module for 24-station Total Control
TC-36MOD-R	Module for 36-station Total Control
TC-48MOD-R	Module for 48-station Total Control





# MC-E

The MC-E electronic controller created to control the irrigation of large gardens and parks, offers numerous advantages for saving water. Thanks to the possibility of installing alarms, it is possible to detect both unexpected events and excessive water consumption.

## FEATURES

- Watering time:
  - From 10 to 59 seconds, with 1-second increases per station
  - From 1 minute to 9 hours and 59 minutes (10 hours), in 1-minute increases per station
- Flexible irrigation scheduling:
  - Daily irrigation
  - Irrigation on even and odd days (with the 31st day of the month excluded)
  - Irrigation at intervals of 1 to 60 days
- Up to 6 stations can run simultaneously
- Possibility of deleting a program
- Stacking Program
- Rain off function for up to 14 days
- Automatic, semi-automatic and manual start per station or program
- Pump/master valve control per station
- Permanent memory
- The backup battery holds the current time and date in the event of a power failure
- Test program for all stations
- Delay option between 2 stations: possibility of setting an adjustable interval from 1 second to 4 hours between one station and the next (this facilitates the operation of the slow closing valves or the recovery of valve boxe water)
- Activation and deactivation of the pump/master valve even during the delay between 2 stations
- Diagnostic switch to identify stations with excessive energy consumption, to highlight and stop them (they are automatically bypassed and highlighted on the display)
- Short circuit protection
- Multilingual menu
- EC certification



- 18, 24, 36 and 48 stations
- 8 independent programs
- 8 starts per program
- Water Budget from 0% to 250%

## ADDITIONAL FEATURES

- Adjustment of the Water Budget on a monthly basis and per program
- Possibility of entering a password to avoid tampering
- Setting for all programs of a "loop" Inputs for:
  - Flow meter
  - Sensor On
  - Sensor Off
- Metal container with key lock
- Possibility of fixing the controller on a metal pedestal

## FOCUS

### POSSIBILITY OF SETTING 3 TYPES OF ALARMS IN THE EVENT OF:

- Short circuit
- Excessive water flow
- Excessive water loss



## SPECIFICATIONS

- Input power:
  - 220 VAC, 50Hz (0.5 Amp)
- Output power:
  - Max per station: 24 VAC (1.25 Amp)
  - Max total power (including master valve): 24 VAC (2.08 Amp)

## OPTIONS

- Flow meter
- Rain sensor
- Climate Logic

## DIMENSIONS

- from 4 to 12 stations:
  - Height: 24.66 cm
  - Width: 27.13 cm
  - Depth: 10.79 cm
- from 18 to 48 stations:
  - Height: 31.42 cm
  - Width: 36.37 cm
  - Depth: 12.06 cm



### Codification - MC-E

Model	Description
MC-18E-50H	MC-E, 18-station controller, 220 VAC with built-in transformer
MC-24E-50H	MC-E, 24-station controller, 220 VAC with built-in transformer
MC-36E-50H	MC-E, 36-station controller, 220 VAC with built-in transformer
MC-48E-50H	MC-E, 48-station controller, 220 VAC with built-in transformer





# ICOD PLUS

Icod Plus, Irritrol's cod-decod system. It consists of a controller (Icod Plus) which codes the signals coming from the programmer in order to retransmit them through two non-polarised wires and of a decoder which decodes the signal transmitted by the controller. There are three types of decoders: one for the connection of the solenoid valves, one for the Main Valve and another for the Pump Control. Thanks to the six keys on the panel and to the alphanumeric display, programming is quick and easy even for non-experts.



- 8, 16, 24, 32, 40, 48 inputs depending on the modules installed (max from 1 to 6 modules)
- Max 4 Decoders per area or 3 valves per Decoder
- Adaptable to all programmers (not to those with open circuit alarm)

## FEATURES

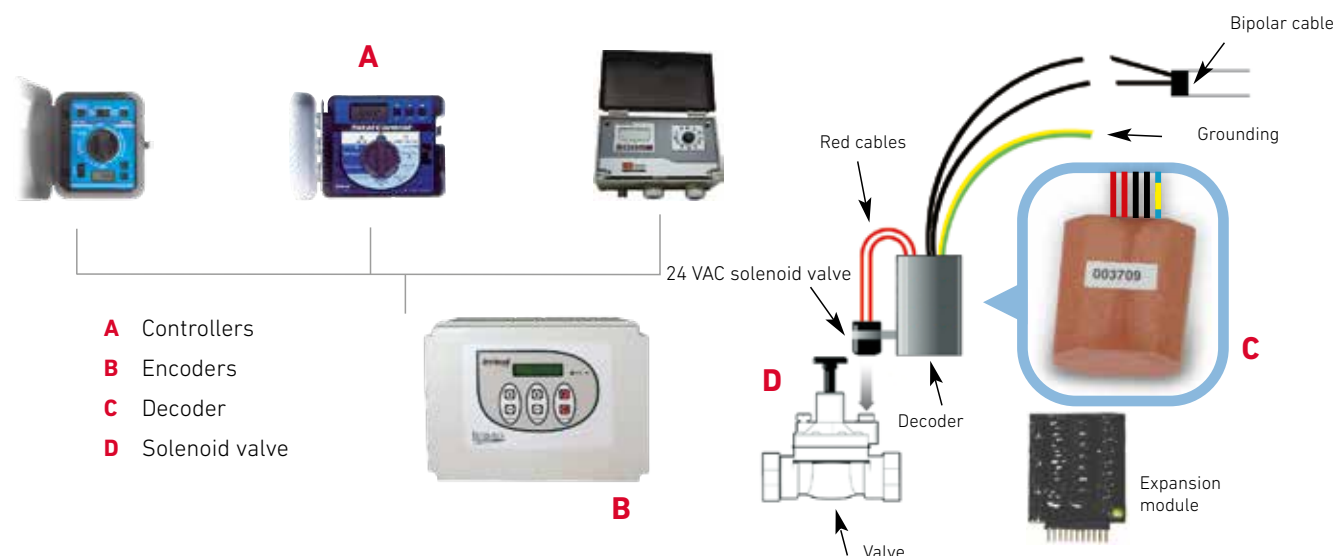
- The decoders are identified by a six-digit code which is automatically read by the controller
- Station activation in manual mode without the need for a controller to give the command
- 4 different types of alarm which respectively identify potential problems such as an open circuit, overload, short-circuit and one that is generic
- Possibility of updating the software and modifying the operating parameters (delay times between one decoder and another, EV maintenance voltage, alarms, etc.) through an RS232 socket for connecting to a PC.
- Possibility of changing the impedance to better adapt to the various electrical conditions of the system
- Extractable terminals to facilitate system wiring
- Multilingual system
- IP68 resin Decoder (up to 50 cm of depth)
- PVC container for indoor and outdoor use (IP56) and removable closing cover with 4 screws, wall mounting

### Codification - ICODE PLUS

Model	Description
IT-ICODPLUS	16-station Icod Plus encoder (expandable to 48)
IT-IDECODM	Main Valve (MV) Decoder
IT-IDECODP	Pump control decoder
IT-IDECODPLUS	Field decoder for IP68 valve
IT-IDECODPLUS-L	Field decoder for valve with latching solenoid
IT-IDECODPLUS-2	Multiple field decoder for 2 valves
IT-IDECODPLUS-4	Multiple field decoder for 4 valves
IT-IDECODPLUS-6	Multiple field decoder for 6 valves
IT-ICODEXP8PLUS	8-station internal expansion module with pre-wired terminal

## SPECIFICATIONS

- Input Power:
  - primary 230 VAC, 50 / 60Hz
  - Secondary A: 7 VAC, 400 mA
  - Secondary B: 33.5 VAC, 2.2 Amp
- Two-wire output power supply 46 VDC, max 2 Amp
- Sensor input power supply: N.F. switch
- Alarm output power supply: N.C. or N.O. Relay, 230VAC, 10 Amp
- Terminal boards:
  - Inputs: (1, 2, 3, ..., 48) 1 mm
  - outlet: max 6 mm
- Temperature: from -5° to + 50°C



### Maximum cable length

Cable FG7 Section (mm²)	Specific resistance (0hm / km)	Number of decoders connected to a single solenoid activatable simultaneously			
		1	2	3	4
1.0	17.70	3,700 m	2,300 m	1,700 m	1,300 m
1.5	12.20	5,500 m	3,500 m	2,600 m	1,800 m
2.5	7.35	9,300 m	5,800 m	4,400 m	3,400 m
4.0	4.60	14,900 m	9,400 m	7,000 m	5,500 m
6.0	3.06	22,300 m	14,100 m	10,500 m	8,300 m



# VALVES

Comparison table

	Height (cm)	Depth (cm)	Length (cm)	Operating pressure (bar)	Flow rate (m³/h)	In-line setting	In-line/ corner setting	Flow control	Omnireg	NPT	Small Gardens	Medium Gardens	Large Gardens
E-Pic F 3/4" - 1"	12.7	5.9	11.2	0.5-10.0	1.2-7.2	✓		Optional			•		
Euro M 3/4"	12.8	9.5	14.0	0.5-12.0	1.2-9.6	✓		Optional			•		
Euro M 1"	13.5	9.5	14.0	0.5-12.0	1.2-9.6	✓		Optional			•		
Euro M 1 1/4"	14.5	9.5	14.5	0.5-12.0	1.2-9.6	✓		Optional			•		
Euro F 3/4"	13.0	9.5	12.0	0.5-12.0	1.2-7.2	✓		Optional			•		
Euro F 1"	13.0	9.5	12.0	0.5-12.0	1.2-9.6	✓		Optional			•		
S 1 Series 1/2"	16.0	10.0	15.0	0.7-10.0	4.8-18.0	✓		Optional	✓			•	
S Series 2"	18.0	11.5	18.0	0.7-10.0	6.0-36.0	✓		Optional	✓				•
2400 1"	13.0	7.6	10.0	0.7-10.0	0.06-7.2	✓		Optional		✓	•		
2500 3/4" and 1"	13.0	7.0	12.7	0.7-10.0	0.06-7.2	✓		Optional		✓	•		
200 B 1 1/2"	20.3	10.6	13.6	1.4-10.0	4.8-18.0		✓	Standard	✓	✓		•	
200 B 2"	23.0	12.0	15.8	1.4-10.0	6.0-36.0		✓	Standard	✓	✓			•
100 Plus 1"	17.1	9.2	12.1	0.7-15.0	1.1-12.0		✓	Standard	✓	✓	•		
100 Plus 1-1/2"	18.4	9.2	12.1	0.7-15.0	7.2-24.0		✓	Standard	✓	✓		•	
100 Plus 2"	24.1	15.5	19.7	0.7-15.0	18.0-33.0		✓	Standard	✓	✓			•
100 Plus 3"	27.3	15.5	20.9	0.7-15.0	36.0-68.1		✓	Standard	✓	✓			•
700 UltraFlow 3/4 "	11.5	4.8	8.6	0.7-10.0	0.02-7.2	✓			✓	✓	•		
700 UltraFlow 1"	11.5	7.6	11.6	0.7-10.0	0.02-10.8	✓		Standard	✓	✓	•		
700 UltraFlow 1 1/2"	14.0	11.1	15.8	0.7-10.0	3.6-30.0	✓		Standard	✓	✓		•	
700 UltraFlow 2"	17.8	14.0	20.3	0.7-10.0	6.0-42.0	✓		Standard	✓	✓			•



## VALVES

Pages 24-40

E-PIC	24
EURO F and M SERIES	26
S SERIES	28
2400 SERIES	30
2500 SERIES	32
200B SERIES	34
CENTURY PLUS SERIES	36
700 ULTRAFLOW SERIES	38
OMNIREG	40



# E-PIC

E-pic is the Irritrol valve specially designed for small residential irrigation systems. The low flow rates it can guarantee and its small size, together with the very easy maintenance, make it the best choice for these applications.

## FEATURES

- Manual opening with standard internal drain
- Optional flow control
- Slow, anti-water hammer closing
- Double rib thermoplastic rubber diaphragm

## ADDITIONAL FEATURES

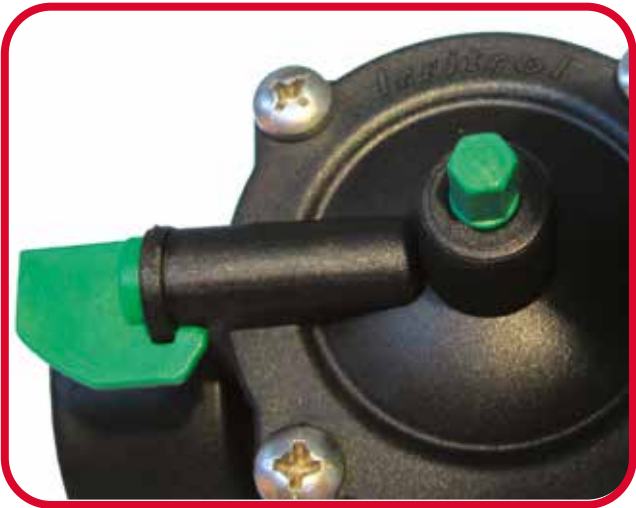
- 4-screw easy valve opening system
- Flow control with 6mm Allen screw system
- Serviceable auger removable from the outside
- Flow rate of 80.0 l/min with 0.6 bar of pressure drop

## SPECIFICATIONS

- Flow rate: 1.2 – 9.6 m³/h (20 – 160 l/min)
- Operating pressure: 0.5 - 12.0 bar
- Solenoid 24VAC - 50Hz:
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp



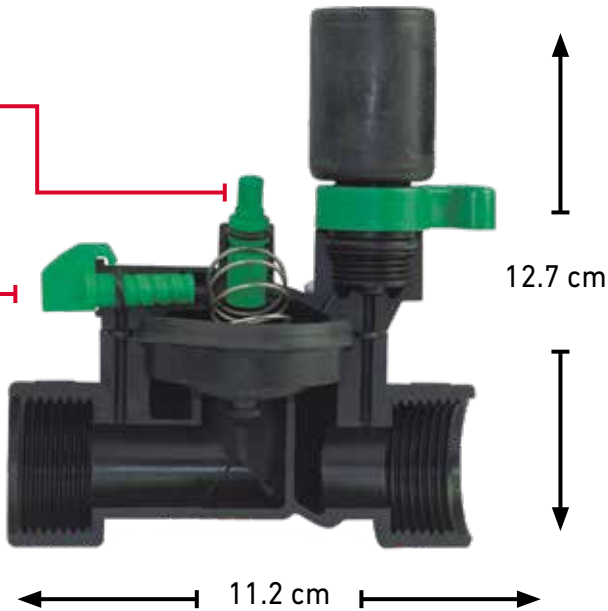
- ¾" and 1" Female thread
- In-line structure
- Body and lid in fiberglass reinforced nylon (30%)



## FOCUS

Easy and fast flow control thanks to the hexagonal head of the pin

Easy internal cleaning thanks to the removable auger



Compact design

PRESSURE DROP TABLE (bar)\*

m³/h	1.2	2.4	3.6	4.8	6.0	7.2
l/min	20	40	60	80	100	120
¾"	0.16	0.26	0.41	0.62	0.88	-
1"	0.16	0.26	0.41	0.60	0.86	1.12

\* Valve suitable for systems with flow rates starting from 20 l/min



## Codification - E-PIC

Model	Description
EU-EPIC-0.75-C	¾" Female E-pic Series Valve, With Flow Control
EU-EPIC-0.75-S	¾" Female E-pic Series Valve, Without Flow Control
EU-EPIC-1-C	1" Female E-pic Series Valve, With Flow Control
EU-EPIC-1-S	1" Female E-pic Series Valve, Without Flow Control



# EURO F and M SERIES

The Euro F and M series comprises a variety of valves that are very easy to install and use. A historical range for Irritrol who has always guaranteed high performance and reliability to its users.



## FEATURES

- Internal manual opening
- Models available with flow control
- Slow, anti-water hammer closing
- Double rib thermoplastic rubber diaphragm
- Captive watertight solenoid (the internal piston is held by the solenoid)
- Fastening with screws

- ¾", 1", 1 ¼" Male and female thread
- In-line structure
- Body and lid in fiberglass reinforced nylon (30%)

## SPECIFICATIONS

- Flow rate: 1.2 – 9.6 m³/h (20 – 160 l/min)
- Operating pressure: 0.5 - 12.0 bar
- Solenoid 24VAC - 50Hz:
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp

## OPTIONS

- DCL solenoid (bi-stable) for the Euro F model
- Possibility of having the Euro F valve in the same pack of the 1-station Life DC



SERIES F PRESSURE DROP TABLE (bar)

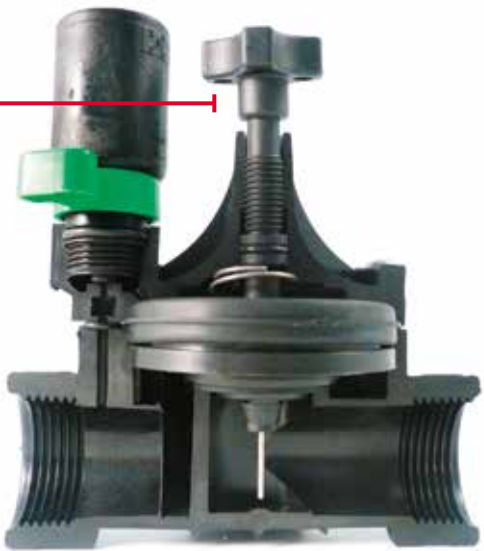
m³/h	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6
l/min	20	40	60	80	100	120	140	160
¾"	0.28	0.33	0.30	0.27	0.36	0.50	-	-
1"	0.28	0.33	0.30	0.27	0.36	0.50	0.68	0.89

M SERIES PRESSURE DROP TABLE (bar)

m³/h	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6
l/min	20	40	60	80	100	120	140	160
¾"	0.25	0.19	0.17	0.29	0.44	0.63	0.86	1.12
1"	0.28	0.33	0.30	0.27	0.36	0.50	0.68	0.89
1 ¼"	0.28	0.32	0.27	0.23	0.35	0.50	0.67	0.88

## FOCUS

Easy and fast flow control thanks to the removable handle



### Codification - EURO F

Model	Description
EU-VHE020033-1	¾" Female Euro F valve, Without Flow Control
EU-VHE020003-1	¾" Female Euro F valve, With Flow Control
EU-VHE025033-1	1" Female Euro F valve, Without Flow Control
EU-VHE025003-1	1" Female Euro F valve, With Flow Control
EU-VHE025003-1-DCL	1"Female Euro F valve, With Flow Control, with DCL latching solenoid
EU-VHE020033-4	¾" Female Euro F valve, Without Flow Control, without solenoid
EU-VHE020003-4	¾" Female Euro F valve, With Flow Control, without solenoid
EU-VHE025033-4	1" Female Euro F valve, Without Flow Control, without solenoid
EU-VHE025003-4	1" Female Euro F valve, With Flow Control, without solenoid
LIFE-1-DC-EUROF	1-station Life DC with Euro F 1" valve

### Codification - EURO M

Model	Description
EU-VHE020133-1	¾" Male Euro M valve, Without Flow Control
EU-VHE020103-1	¾" Male Euro M valve, With Flow Control
EU-VHE025133-1	1" Male Euro M valve, Without Flow Control
EU-VHE025103-1	1" Male Euro M valve, With Flow Control
EU-VHE032133-1	¼" Male Euro M 1 Valve, Without Flow Control
EU-VHE032103-1	¼" Male Euro M 1 valve, With Flow Control
EU-VHE020133-4	¾" Male Euro M valve, Without Flow Control, without solenoid
EU-VHE025103-4	1" Male Euro M valve, With Flow Control, without solenoid



# S SERIES \*

The S series is the special line of Irritrol valves equipped with a patented system for slow or fast closure. Furthermore, maintenance is made easy by the position of the filter in the upper part of the valve which makes it easy to service without having to disassemble it.

## FEATURES

- Internal manual opening
- Standard flow control
- Slow, anti-water hammer closing
- Double rib Santoprene diaphragm
- Captive watertight solenoid (the internal piston is held by the solenoid)

## ADDITIONAL FEATURES

- Labyrinth that allows slow or fast valve closure
- Easily serviceable internal filter
- Removable flow regulator

## SPECIFICATIONS

- Flow rate: 4.8 – 36.0 m³/h (80 – 600 l/min)
- Operating pressure: 0.7 - 10.0 bar
- 24VAC - 50Hz Solenoid (24VAC - 60Hz on request)
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp

## OPTIONS

- Compatible with the Omnireg pressure regulator



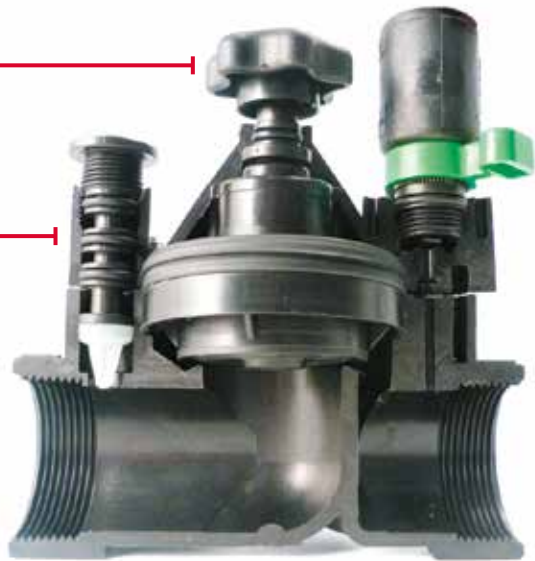
- 1 ½", 2" female thread
- In-line structure
- Body and lid in fiberglass reinforced nylon (30%)



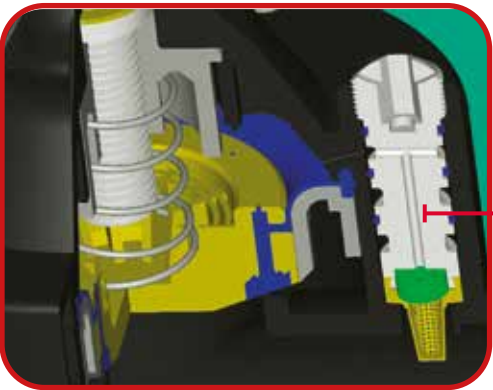
## FOCUS

Easy and fast flow control thanks to the handle

Easily serviceable filter



Labyrinth that ensures slow closure against water hammering



S SERIES PRESSURE LOSS TABLE (bar)

m³/h	4.8	6.0	7.2	8.4	9.6	10.8	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0
l/min	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600
1 ½"	0.21	0.19	0.18	0.16	0.16	0.19	0.23	0.32	0.38	-	-	-	-	-	-
2"	-	0.14	0.13	0.12	0.12	0.11	0.11	0.13	0.20	0.29	0.36	0.43	0.51	0.62	0.74

### Codification - S SERIES

Model	Description
EU-VIS040	1 ½" Female S Series Valve, With Flow Control
EU-VIS050	2" Female S Series Valve, With Flow Control

\* Patents No: US 6.877.714 B2



# 2400 SERIES

The 2400 series valves are the right answer to the needs for ease and convenience of installation and maintenance thanks to the in-line configuration and the ring nut closure on the upper part. Intended for use in small systems, they are characterised by a PVC body and by a double rib diaphragm that make them some of the most durable valves and resistant to UV rays and water leaks.

## FEATURES

- Internal and external manual opening
- Models available with flow control
- Slow, anti-water hammer closing
- Double rib Santoprene diaphragm
- Captive watertight solenoid (the internal piston is held by the solenoid)

## SPECIFICATIONS

- Flow rate: 0.06 – 7.2 m³/h (1 – 120 l/min)
- Operating pressure: 0.7 - 10.0 bar
- 24VAC - 50Hz Solenoid (24VAC - 60Hz on request)
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp

## OPTIONS

- DCL solenoid (bi-stable)
- Possibility of having the 2400 valve in the same pack of the 1-station Life DC



- 1" male and female thread
- In-line structure
- PVC body, lid and locking ring in fiberglass reinforced nylon (30%)



## FOCUS

For easier maintenance, the threaded ring nut allows removing the cover from the top without having to remove the solenoid

The replacement of the internal components can be made in minutes

The double rib diaphragm ensures protection against leaks



### 2400 SERIES PRESSURE LOSS TABLE (bar)

m³/h	0.06	0.45	1.2	2.4	3.6	4.8	6.0	7.2
l/min	1	8	20	17	60	80	100	120
1"	0.34	0.31	0.24	0.28	0.21	0.23	0.34	0.45

### Codification - 2400 SERIES

Model	Description
2400MT	1" Female 2400 valve, Without Flow Control
2400MTF	1" Female 2400 valve, With Flow Control
2400MT-DCL	1" Female 2400 valve, Without Flow Control, with DCL latching solenoid
2400MT-M	1" Male 2400 valve, Without Flow Control
2400MTF-M	1" Male 2400 valve, With Flow Control
LIFE-1-DC-2400 MT	1-station Life DC with 2400MT valve



# 2500 SERIES

The 2500 series valves are ideal for small- and medium-sized systems that use dirty or valve boxe water. The double rib diaphragm ensures high performance without water leaks for long periods of time even in the presence of debris.

## FEATURES

- Internal and external manual opening
  - Models available with flow control
  - Slow, anti-water hammer closing
  - Double rib Santoprene diaphragm
  - Captive watertight solenoid (the internal piston is held by the solenoid)
- Flow rate: 0.06 – 7.2 m³/h (1 – 120 l/min)
- Operating pressure: 0.7 - 10.0 bar
- 24VAC - 50Hz Solenoid (24VAC - 60Hz on request)
- Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp

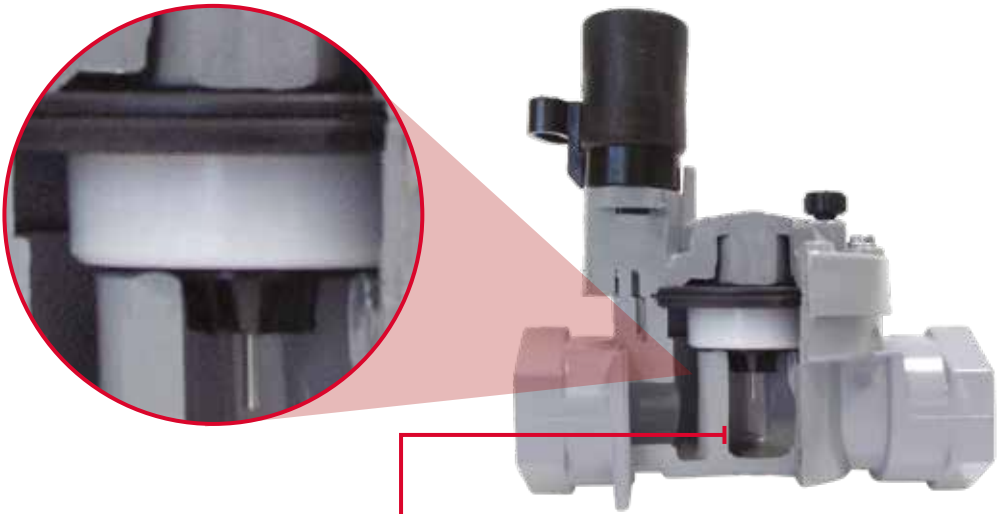
## SPECIFICATIONS



- ¾" and 1" Female thread
- In-line structure
- PVC body



## FOCUS



The patented, debris-tolerant "floating bleed needle system" makes this valve ideal for dirty water applications

### 2500 SERIES PRESSURE LOSS TABLE (bar)

m³/h	0.06	0.45	1.2	2.4	3.6	4.8	6.0	7.2
l/min	1	8	20	17	60	80	100	120
¾"	0.19	0.23	0.26	0.29	0.18	0.29	0.30	0.60
1"	0.37	0.27	0.20	0.16	0.14	0.23	0.37	0.52

### Codification - 2500 SERIES

Model	Description
2507TF-50H	¾" Female 2500 valve, With Flow Control
2500MT	1" Female 2500 valve, Without Flow Control
2500MTF	1" Female 2500 valve, With Flow Control



# 200B SERIES

Thanks to the PVC body and lid, the 200B series offers valves resistant to UV rays and even to corrosion as they are equipped with stainless steel screws. Both the base and the upper part of the structure are reinforced, making this range one of the most resistant on the market.

## FEATURES

- Manual opening with internal and external drain
- Standard flow control
- Slow, anti-water hammer closing
- Synthetic rubber diaphragm reinforced with double rib
- Captive watertight solenoid (the internal piston is held by the solenoid)
- Cover for closing the unused inlet with "O-Ring" gasket that guarantees a hermetic closure without the need for Teflon

## SPECIFICATIONS

- Flow rate: 4.8 – 36.0 m³/h (80 – 600 l/min)
- Operating pressure: 1.4 - 10.0 bar
- 24VCA - 50Hz Solenoid
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp



- 1-½" and 2" female thread
- In-line/corner structure
- Body and lid in PVC



## OPTIONS

- Compatible with the Omnireg pressure regulator

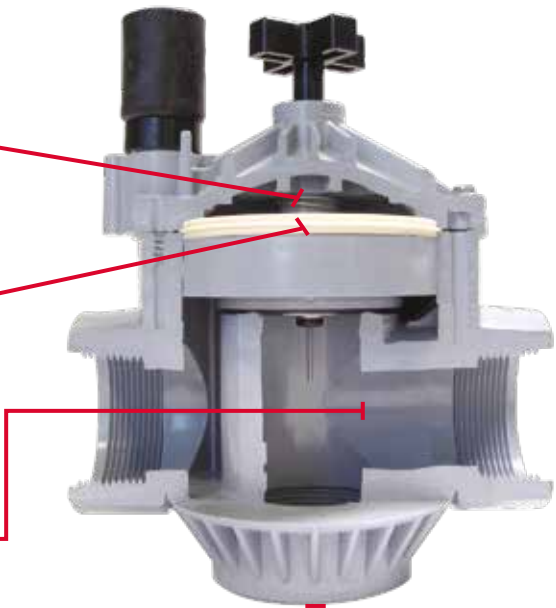
## FOCUS

The ribs in the lid contribute to reinforcing the valve structure

The double rib Santoprene diaphragm ensures protection against leaks

The thicker PVC edge makes the valve even more durable over time

The cap to close the water inlet from the bottom and the O-Ring allow installing the valve both in a straight line and at an angle



### 200B SERIES PRESSURE LOSS TABLE (bar)

m³/h	4.8	6.0	7.2	8.4	9.6	10.8	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0
l/min	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600
1 ½" line	0.21	0.19	0.18	0.16	0.16	0.19	0.23	0.32	0.38	-	-	-	-	-	-
1 ½" angle	0.19	0.17	0.15	0.14	0.15	0.15	0.21	0.25	0.30	-	-	-	-	-	-
2" line	-	0.14	0.13	0.12	0.12	0.11	0.11	0.13	0.20	0.30	0.36	0.43	0.51	0.62	0.74
2" angle	-	0.14	0.13	0.12	0.12	0.11	0.11	0.12	0.15	0.19	0.25	0.33	0.61	0.61	0.61

### Codification - 200B SERIES

Model	Description
216B-M	1 ½" Female 200B Series Valve, With Flow Control
216-M-LS	1 ½" Female 200B Series Valve, With Flow Control, without solenoid
217B-M	2" Female 200B Series Valve, With Flow Control
217B-M-LS	2" Female 200B Series Valve, With Flow Control, without solenoid





# CENTURY PLUS SERIES

The Century Plus series comprises valves of excellent quality intended for use in both medium- and large-sized systems. Highly pressure resistant, this range allows achieving high performance confirming it as one of the best on the market.

## FEATURES

- Manual opening with internal and external drain
- Standard flow control
- Slow, anti-water hammer closing
- Rubber diaphragm reinforced with double rib
- Captive watertight solenoid (the internal piston is held by the solenoid)
- Cover for closing the unused inlet with "O-Ring" gasket that guarantees a hermetic closure without the need for Teflon

## ADDITIONAL FEATURES

- Fastening of the upper part to the body by means of nuts and threaded pins incorporated in the die
- Self-cleaning control holes
- Brass flow control rod for 2" and 3" models

## SPECIFICATIONS

- Flow rate: 1.1 - 68.1 m³/h (18 - 1135 l / min)
- Operating pressure:
  - 0.7 -15.0 bar for the 1" and 1.5" models
  - 1.4 - 15.0 bar for the 2" and 3" models
- 24VCA - 50Hz Solenoid
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp



- 1", 1 ½", 2" and 3" female thread
- In-line/corner structure
- Body and lid in fiberglass reinforced nylon (30%)



## OPTIONS

- Compatible with the Omnireg pressure regulator

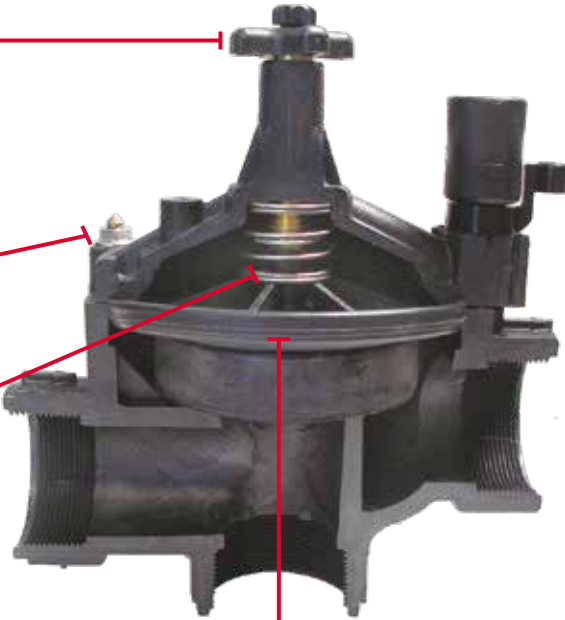
## FOCUS

Self-cleaning control holes. All the parts are easily accessible without having to remove the valve from the valve box

The shaped internal pins allow a good fit of the lid to the body

The steel spring and the reinforced membrane ensure valve strength even in difficult conditions

The rubber diaphragm reinforced with double rib ensures protection against leaks



### CENTURY PLUS SERIES PRESSURE LOSS TABLE (bar)

m³/h	1.1	1.2	2.4	3.6	4.5	6.0	7.2	8.4	9.6	10.8	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	68.1
l/min	18	20	40	60	76	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1135
1" line	0.43	0.32	0.29	0.24	0.22	0.25	0.32	0.43	0.55	0.69	0.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1" angle	0.43	0.32	0.29	0.24	0.21	0.19	0.22	0.30	0.39	0.49	0.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 ½" line	-	-	-	-	-	-	0.12	0.14	0.18	0.22	0.28	0.43	0.32	0.90	1.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 ½" angle	-	-	-	-	-	-	0.09	0.10	0.12	0.17	0.22	0.34	0.48	0.65	0.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2" line	-	-	-	-	-	-	-	-	-	-	-	-	0.14	0.20	0.25	0.32	0.40	0.48	-	-	-	-	-	-	-	-	-	-	-
2" angle	-	-	-	-	-	-	-	-	-	-	-	-	0.08	0.12	0.15	0.19	0.24	0.29	-	-	-	-	-	-	-	-	-	-	-
3" line	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.18	0.20	0.23	0.28	0.32	0.36	0.41	0.47	0.52	0.58	0.70
3" angle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	0.16	0.19	0.22	0.26	0.30	0.34	0.38	0.43	0.49	0.58

### Codification - CENTURY PLUS SERIES

Model	Description
100P1-BSP	1" Female Century Plus valve, With Flow Control
100P1.5-BSP	1 ½" Female Century Plus valve, With Flow Control
100P2-BSP	2" Female Century Plus valve, With Flow Control
100P3-BSP	3" Female Century Plus valve, With Flow Control
100P1-LS-BSP	1" Female Century Plus valve, With Flow Control, without solenoid
100P1.5-LS-BSP	1 ½" Female Century Plus valve, With Flow Control, without solenoid
100P2-LS-BSP	2" Female Century Plus valve, With Flow Control, without solenoid
100P3-LS-BSP	3" Female Century Plus valve, With Flow Control, without solenoid





# 700 ULTRAFLOW SERIES

The 700 Ultraflow series offers the right solution when working with very dirty water even in large systems; in fact, the stainless steel filter ensures regular valve operation even in the presence of debris. In addition, the water runs through the valves on a straight path without curves thus ensuring considerable reduction in pressure drops.

## FEATURES

- Internal manual opening
- Standard flow control (excluding the ¾" model)
- Slow, anti-water hammer closing
- Diaphragm in fabric-reinforced Buna-N
- Captive watertight solenoid (the internal piston is held by the solenoid)

## ADDITIONAL FEATURES

- Internal filter in 150 Mesh stainless steel (excluding ¾" model)
- Direct passage flow for lower pressure drops
- Brass rod and stainless steel plate at the end of the stroke, for greater protection of the membrane

## SPECIFICATIONS

- Flow rate: 0.02 – 42.0 m³/h (0.3 – 700 l/min)
- Operating pressure: 0.7 - 10.0 bar
- 24VCA - 50Hz Solenoid
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp



- ¾", 1", 1 ½", 2" Female thread
- In-line structure
- Body and lid in fiberglass reinforced nylon (30%)

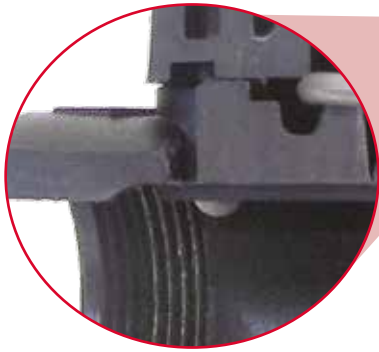


## OPTIONS

- Compatible with the Omnireg pressure regulator

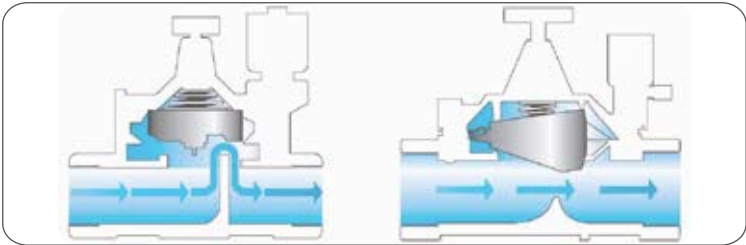
## FOCUS

Water cleanliness is ensured by the internal 150 mesh stainless steel filter



Standard labyrinth

Straight labyrinth without detours - Ultraflow



### 700 ULTRAFLOW SERIES PRESSURE DROP TABLE (bar)

m³/h	0.02	0.45	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8	12.0	15.0	18.0	21.0	24.0	27.0	30.0	33.0	36.0	39.0	42.0
l/min	0.3	8	20	40	60	80	100	120	140	160	180	200	250	300	350	400	450	500	550	600	650	700
¾"	0.02	0.02	0.06	0.09	0.15	0.25	0.37	0.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1"	0.15	0.11	0.12	0.13	0.16	0.17	0.19	0.24	0.32	0.43	0.54	-	-	-	-	-	-	-	-	-	-	-
1 ½"	-	-	-	-	0.02	0.03	0.04	0.05	0.07	0.08	0.10	0.11	0.18	0.26	0.36	0.47	0.59	0.73	-	-	-	-
2"	-	-	-	-	-	-	0.04	0.05	0.05	0.06	0.07	0.07	0.10	0.14	0.16	0.23	0.27	0.32	0.38	0.44	0.51	0.60

### Codification - 700 ULTRAFLOW SERIES

Model	Description
700B-.75-50H	¾" Female 700 Ultraflow Valve, Without Flow Control
700-1-BSP	1" Female 700 Ultraflow valve, With Flow Control
700-1.5-BSP	1 ½" Female 700 Ultraflow valve, With Flow Control
700-2-BSP	2" Female 700 Ultraflow valve, With Flow Control
700-.75-LS	¾" Female 700 Ultraflow Valve, Without Flow Control, without solenoid
700-1-BSP-LS	1" Female 700 Ultraflow valve, With Flow Control, without solenoid
700-1.5-BSP-LS	1 ½" Female 700 Ultraflow valve, With Flow Control, without solenoid
700-2-BSP-LS	2" Female 700 Ultraflow valve, With Flow Control, without solenoid





# OMNIREG

The Omnireg pressure regulator is a very useful accessory when you need to maintain the pressure downstream of the system constant. It does not require the use of a pressure gauge and its "visible" vertical position on the valve makes it easy to install and also allows easy adjustment and considerable space saving.

## FEATURES

- It is installed vertically in the solenoid holder cavity with two screws specially provided \*.
- It does not need a pressure gauge as the central selector indicates the outlet pressure in both Bar and Psi
- At the outlet, the desired pressure can be calibrated both with the system stopped and in operation
- It maintains a constant downstream pressure for greater accuracy in low pressure conditions
- It eliminates the need for a double stock of valves
- Accuracy level with a degree of approximation of  $\pm 0.2$  bar

\* The solenoid is placed in the side cavity of the Omnireg

## SPECIFICATIONS

- Flow rate: 3.8 – 1136 l/min
- Inlet pressure: up to 13.8 bar
- Outlet pressure adjustment:
  - OMR-30 model: from 0.35 to 2.1 bar
  - OMR-100 model: from 0.35 to 6.9 bar
- A pressure differential between the inlet and the outlet of at least 0.7 bar is required
- The speed must not exceed 2.3 m/sec in order to reduce water hammering

## OPTIONS

- "Schrader" connection to allow verifying the programmed pressure

### Codification - OMNIREG

Model	Description
OMR-30	Omnireg pressure regulator (up to 2.1 bar)
OMR-100	Omnireg pressure regulator (up to 6.9 bar)
OMR-DS	Downstream pressure measurement kit



- Suitable for the 200, 700 Ultraflow and Century Plus Series valves
- Installation in vertical position
- Body in fiberglass reinforced nylon, metal components constructed with steel and brass

## FOCUS

### EASY TO USE

To set the desired pressure, just turn the central selector







# SPRAYHEADS AND NOZZLES

## Comparison table

### SPRAYHEADS

	SL SERIES	I-PRO SERIES
Pop-up height	2", 4", 6"	3", 4", 6", 12"
Inlet size	1/2" Female	1/2" Female
Operating pressure (bar)	1.5-3.0	1.5-3.5
Optional check valve	•	•
Optional pressure regulator		•
Recycled water indication option		•
Pre-installed nozzle option	•	•

### NOZZLES

	ROTARY NOZZLES	I-PRO NOZZLES	PRO-VAN NOZZLES	SPECIAL NOZZLES
Arc	Full circle and adjustable	fixed	adjustable	fixed
Radius (m)	4.3-8.0	1.2-4.9	2.1-5.1	3.9-14.7
Flow rate (l/min)	0.68-15.82	0.19-18.0	1.7-16.0	1.6-5.1
Operating pressure (bar)	1.7-5.2	1.5-3.5	1.0-2.0	1.4-2.7



## SPRAYHEADS and NOZZLES

Pages 44-53

SL SERIES	44
I-PRO SERIES	46
ROTARY NOZZLES	48
I-PRO NOZZLES	50
PRO-VAN NOZZLES	52
SPECIAL NOZZLES	54



# SL SERIES

The SL series is a family of pop-up sprayheads with a compact design that ensures flexibility, reliability and convenience. It is ideal for small and medium-sized systems and is adaptable to both fixed and variable arc nozzles.



## FEATURES

- One-piece moulded sprinkler body for increased durability
- Self-cleaning active seal to remove debris from the lifting piston
- Stainless steel spring that ensures proper riser retraction
- Nozzles with matched precipitation
- The arc of the Pro-Van nozzles can be adjusted even when the sprinkler is running
- Available with pre-installed Pro-Van nozzles with 10', 12', 15', 17' radius

- Models 2", 4" & 6" with 5, 10 and 15 cm pop-up height
- ½" female threaded internal coupling
- Compatible nozzles: Pro-Van, I-Pro, Rotary Nozzles, special nozzles

## SPECIFICATIONS

- Exposed diameter: 3,18 cm
- Recommended operating pressure: 1,5-3,0 bar
- Flushing
  - 1,9 l/min from 0 to 0,7 bar
  - 0 l/min (no flow) from 0.7 bar or greater
- Body height:
  - SL200: 10,5 cm
  - SL400: 15,5 cm
  - SL600: 20,6 cm

## ADDITIONAL FEATURES

- Removable nozzles, internal filter and other components for quick cleaning and maintenance of the sprinkler
- Anti-debris label applied on models without nozzle



## FOCUS



### OPTIONAL CHECK VALVE

Check valve prevents low-head drainage, eliminating flood or erosion damage by keeping water in lateral pipes in elevation changes up to 2,1 meter

### Codification - SL SERIES

Model	Description
<b>SL series body only</b>	
SLP200	SL 2" Sprayhead – pop-up height 5 cm
SLP400	SL 4" Sprayhead – pop-up height 10 cm
SLP600	SL 6" Sprayhead – pop-up height 15 cm
SL-VC	Check valve for SL Sprayhead
<b>SL Series with Pro Van 10 pre-assembled nozzle, 2.7-3.0m Radius, 10° trajectory</b>	
SLP210	SL 2" Sprayhead – pop-up height 5 cm, with 10' adjustable Pro-Van nozzle
SLP410	SL 4" Sprayhead – pop-up height 10 cm, with 10' adjustable Pro-Van nozzle
<b>SL Series with Pro Van 12 pre-assembled nozzle, 3.0-3.7m Radius, 15° trajectory</b>	
SLP212	SL 2" Sprayhead – pop-up height 5 cm, with 12' adjustable Pro-Van nozzle
SLP412	SL 4" Sprayhead – pop-up height 10 cm, with 10' adjustable Pro-Van nozzle
<b>SL Series with Pro Van 15 pre-assembled nozzle, 4.1-4.6m Radius, 20° trajectory</b>	
SLP215	SL 2" Sprayhead – pop-up height 5 cm, with 15' adjustable Pro-Van nozzle
SLP415	SL 4" Sprayhead – pop-up height 5 cm, with 15' adjustable Pro-Van nozzle
<b>SL Series with Pro Van 17 pre-assembled nozzle, 4.3-5.1m Radius, 26° trajectory</b>	
SLP217	SL 2" Sprayhead – pop-up height 5 cm, with 17' adjustable Pro-Van nozzle
SLP417	SL 4" Sprayhead – pop-up height 5 cm, with 17' adjustable Pro-Van nozzle



# I-PRO SERIES

The I-PRO series sprinklers are suitable for most landscape configurations and are easy and fast to install thanks to their rough body and non-slip grip. With this range, Irritrol offers the market sprayheads with superior efficiency, allowing time and money saving and at the same time meeting the needs of professional installers.

## FEATURES

- Rough and sturdy body that facilitates installation thanks to the non-slip grip
- Pressure activated seal with lubricating additive
- Stainless steel spring that ensures proper riser retraction
- Nozzles with matched precipitation rate
- The arc of the Pro-Van nozzles can be adjusted even when the sprinkler is running

## ADDITIONAL FEATURES

- Pre-installed flush plug makes system flushing a breeze and allows easy nozzle installation
- Side and bottom inlets on 6" and 12' models that allow reducing the installation time (the 6" model also available with non-side inlet)

## OPTIONS

- Pre-installed in-riser pressure regulator maintains optimum nozzle performance at 2,0 bar and eliminates misting in varying pressure applications
- Pre-installed check valve prevents low-head drainage, eliminating flood or erosion damage by keeping water in lateral pipes in elevation changes up to 3,3 meter
- Purple recycled-water indicator cap (I-PRO-NPC)



- 3", 4", 6" 12" models with 7,5 - 10 - 15 and 30 cm pop-up height
- Inlet size 1/2" female
- Compatible nozzles: Pro-Van, I-Pro, Rotary nozzles, special nozzles
- Compatible nozzles: Pro-Van, I-Pro, Rotary nozzles, special nozzles

## SPECIFICATIONS

- Side inlet: 11 cm (from the centre of the side inlet to the top of the cap)
- Exposed diameter: 5.6 cm Body diameter: 4 cm
- Recommended operating pressure:
  - Standard model: 1.5-3.5 bar (max 5.0 bar)
  - Model with check valve (CV): 1.7 - 3.4 bar (max 5.0 bar)
  - Model with pressure regulator (PR): 2.0 - 4.8 bar (max 5.0 bar)
- Body height:
  - I-PRO300: 12.5 cm
  - I-PRO400: 14.6 cm
  - I-PRO600: 23.5 cm
  - I-PRO1200-SI: 40.5 cm



## FOCUS

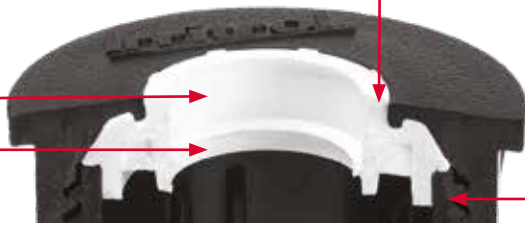
### Superior performing wiper seal

Additional lubricant additive further eliminates stick-ups

Tapered lip design prevents the intrusion of debris

Lip creates positive seal to prevent body to cap leaks

Pressure-activated lip seal ensures a positive seal around the riser and reduces "flow-by"



### Codification - IPRO SERIES

Model	Description
I-PRO300	I-Pro 3" Sprayhead – riser height 7,5 cm
I-PRO400	I-Pro 4" Sprayhead – riser height 10 cm
I-PRO400-CV	I-Pro 4" Sprayhead – riser height 10 cm with check valve
I-PRO400-PR	I-Pro 4" Sprayhead – riser height 10 cm with pressure regulator
I-PRO400-PR-CV	I-Pro 4" Sprayhead – riser height 10 cm with check valve and pressure regulator
I-PRO600	I-Pro 6" Sprayhead – riser height 15cm
I-PRO600-CV	I-Pro 6" Sprayhead – riser height 15 cm with check valve
I-PRO600-PR	I-Pro 6" Sprayhead – riser height 15 cm with pressure regulator
I-PRO600-PR-CV	I-Pro 6" Sprayhead – riser height 15 cm with check valve and pressure regulator
I-PRO600-SI	I-Pro 6" Sprayhead – riser height 15 cm with side inlet
I-PRO600-SI-PR	I-Pro 6" Sprayhead – riser height 15 cm with side inlet and pressure regulator
I-PRO1200-SI	I-Pro 12" Sprayhead – riser height 30 cm
I-PRO1200-SI-CV	I-Pro 12" Sprayhead – riser height 30 cm with side inlet and check valve
I-PRO1200-SI-PR	I-Pro 12" Sprayhead – riser height 30 cm with side inlet and pressure regulator
I-PRO1200-SI-PR-CV	I-Pro 12" Sprayhead – riser height 30 cm with side inlet, check valve and pressure regulator



# ROTARY NOZZLES

Irritrol Rotary Nozzles have been created to manage your garden in a more balanced and efficient way. Thanks to an innovative internal mechanism that allows a slower and more uniform release of water, the Rotary Nozzles ensure greater water savings than traditional nozzles.

## FEATURES

- Gear driven system
- Consistent speed of rotation not affected by pressure
- Consistent uniformity
- Easy arc adjustment
- Pre-attached screen for easy installation
- Radius reduction up to 25%
- Color coded for easy radius identification

## ADDITIONAL FEATURES

- Maintains precipitation rate as radius is reduced
- Maximum height of 20° trajectory to fight through wind



- 2 Models: full circle (360°) and adjustable circle (45° -270°)
- Female threaded compatible with any male-threaded riser
- Matched precipitation rate of 14 mm/h

## SPECIFICATIONS

- Radius: from 4.3 to 8.0 m
- Flow rate: from 0.68 to 15.82 l/min
- Operating pressure: from 1.7 to 5.2 bar

## FOCUS

### Steps



### REGULAR UNIFORMITY

Thanks to the presence of 15 streams “steps” of a different shape ensures a uniform even and continuous is very close to the maximum radius of the head..

### EASE OF USE OF ROTARY NOZZLES

A proven planetary gear drive, variable stator and turbine to rotate the nozzle.



## PERFORMANCE

Pressure (bar)	Arc	Flow rate (l/min)	Radius (m)	■ (mm/h)	▲ (mm/h)
1.7	45	0.68	4.3	17.65	20.38
	90	1.7	4.9	16.99	19.62
	120	1.93	4.9	14.47	16.71
	180	2.88	4.6	16.33	18.86
	240	4.24	4.6	18.03	20.82
	270	4.09	4.3	17.7	20.43
	360	6.85	4.6	19.42	22.43
2.4	45	0.95	4.9	18.99	21.93
	90	2.04	5.8	14.55	16.81
	120	2.88	6.1	13.93	16.09
	180	3.94	5.8	14.05	16.23
	240	5.49	5.8	14.69	16.96
	270	5.19	5.5	13.73	15.85
	360	8.9	5.8	15.87	18.33
3.1	45	1.55	5.8	22.12	25.54
	90	2.54	6.7	13.58	15.68
	120	3.48	7	12.78	14.76
	180	4.96	6.7	13.26	15.31
	240	6.36	6.4	13.97	16.14
	270	6.93	6.4	13.54	15.63
	360	11.96	6.7	15.99	18.46
3.8	45	1.74	6.1	22.45	25.92
	90	2.84	7	13.91	16.06
	120	3.79	7.3	12.8	14.78
	180	5.53	7	13.54	15.64
	240	7.15	6.7	14.34	16.55
	270	8.06	6.7	14.36	16.59
	360	13.55	7	16.59	19.16
4.5	45	1.21	6.1	15.61	18.02
	90	3.14	7.6	13.05	15.07
	120	4.2	7.6	13.09	15.11
	180	6.25	7.6	12.98	14.99
	240	7.87	7	14.46	16.69
	270	8.93	7.3	13.41	15.48
	360	14.61	7.3	16.45	18.99
5.2	45	1.32	6.7	14.11	16.3
	90	3.37	7.9	12.96	14.96
	120	4.47	7.6	13.93	16.09
	180	6.7	7.9	12.88	14.88
	240	8.52	7.3	14.39	16.62
	270	9.88	7.6	13.68	15.8
	360	15.82	7.6	16.43	18.98

The data indicated is the result of tests conducted in zero wind conditions

## Codification - ROTARY NOZZLES

Model	Description
IPN-R360	Full circle nozzle 360°
IPN-RADJ	Adjustable arc nozzle 45°-270°
IPN-RT00L	Key for rotary nozzle adjustment



# I-PRO NOZZLES

The I-PRO fixed nozzles with balanced precipitation rate (Matched Precipitation Rate) ensure uniform water distribution allowing accurate control of the precipitation rate, the range and the flow so as to considerably reduce leaks and over-irrigation.

## FEATURES

- 6 arc settings \*
- Ribbed edge for a non-slip grip
- Radius reduction up to 25%
- Colour code for easy radius identification

\* 5', 8' and 10' nozzles are not available with TT and TQ arc settings

## SPECIFICATIONS

- Radius: 1.2 – 4.9 m
- Flow rate: 0.19-18.0 l/min
- Recommended operating pressure: 1.5 - 3.5 bar

### Codification - I PRO NOZZLES

Model	Description
IPN-5XX	I Pro Series 5 nozzle: 1.3-1.8m radius
IPN-8XX	I Pro Series 8 nozzle: 2.2-2.7 m radius
IPN-10XX	I Pro Series 10 nozzle: 2.8-3.7 m radius
IPN-12XX	I Pro Series 12 nozzle: 3.4-4.3 m radius
IPN-15XX	I Pro Series 15 nozzle: 4.3-4.9 m radius

XX: add "F" for 360°, "H" for 180°, "T" for 120°, "Q" for 90°, "TQ" for 270°, "TT" for 240°



- 5 Models: 5', 8' 10', 12', 15'
- Female-threaded compatible with any male-threaded riser in the industry
- Matched precipitation rate ensures even water distribution



## PERFORMANCE

5'

Arc	Description	Pressure (bar)	Flow rate (l/min)	Radius (m)
	IPN-5Q	1.5	0.21	1.2
		2.0	0.38	1.5
		2.5	0.50	1.8
		3.0	0.55	1.7
		3.5	0.63	1.8
	IPN-5T	1.5	0.29	1.2
		2.0	0.49	1.5
		2.5	0.66	1.8
		3.0	0.71	1.7
		3.5	0.82	1.8
	IPN-5H	1.5	0.40	1.2
		2.0	0.76	1.5
		2.5	0.92	1.8
		3.0	1.00	1.7
		3.5	1.08	1.8
	IPN-5F	1.5	0.09	1.2
		2.0	1.55	1.5
		2.5	1.84	1.8
		3.0	2.00	1.7
		3.5	2.16	1.8

8'

Arc	Description	Pressure (bar)	Flow rate (l/min)	Radius (m)
	IPN-8Q	1.5	0.70	2.1
		2.0	0.98	2.4
		2.5	1.07	2.7
		3.0	1.16	2.6
		3.5	1.19	2.7
	IPN-8T	1.5	0.99	2.1
		2.0	1.29	2.4
		2.5	1.54	2.7
		3.0	1.68	2.6
		3.5	1.72	2.7
	IPN-8H	1.5	1.46	2.1
		2.0	1.97	2.4
		2.5	2.28	2.7
		3.0	2.48	2.6
		3.5	2.56	2.7
	IPN-8F	1.5	2.91	2.1
		2.0	3.94	2.4
		2.5	4.57	2.7
		3.0	4.97	2.6
		3.5	5.12	2.7

10'

Arc	Description	Pressure (bar)	Flow rate (l/min)	Radius (m)
	IPN-10Q	1.5	1.14	2.7
		2.0	1.51	3.0
		2.5	1.89	3.4
		3.0	2.06	3.5
		3.5	2.27	3.7
	IPN-10T	1.5	1.62	2.7
		2.0	2.01	3.0
		2.5	2.51	3.4
		3.0	2.73	3.5
		3.5	2.89	3.7
	IPN-10H	1.5	2.35	2.7
		2.0	3.07	3.0
		2.5	3.67	3.4
		3.0	3.99	3.5
		3.5	4.28	3.7
	IPN-10F	1.5	4.62	2.7
		2.0	6.21	3.0
		2.5	6.71	3.4
		3.0	7.30	3.5
		3.5	7.71	3.7

12'

Arc	Description	Pressure (bar)	Flow rate (l/min)	Radius (m)
	IPN-12Q	1.5	1.73	3.4
		2.0	2.16	3.7
		2.5	2.59	4.0
		3.0	2.82	4.0
		3.5	2.72	4.0
	IPN-12T	1.5	2.25	3.4
		2.0	2.84	3.7
		2.5	3.43	4.0
		3.0	3.73	4.0
		3.5	3.82	4.0
	IPN-12H	1.5	3.79	3.4
		2.0	4.35	3.7
		2.5	5.19	4.0
		3.0	5.65	4.0
		3.5	6.19	4.0
	IPN-12TT	1.5	4.53	3.4
		2.0	5.87	3.7
		2.5	6.60	4.0
		3.0	7.71	4.0
		3.5	7.28	4.0
	IPN-12TQ	1.5	4.41	3.4
		2.0	6.51	3.7
		2.5	6.93	4.0
		3.0	7.54	4.0
		3.5	7.56	4.0
	IPN-12F	1.5	6.58	3.4
		2.0	8.63	3.7
		2.5	9.26	4.0
		3.0	10.07	4.0
		3.5	10.60	4.0

15'

Arc	Description	Pressure (bar)	Flow rate (l/min)	Radius (m)
	IPN-15Q	1.5	2.76	4.3
		2.0	3.44	4.6
		2.5	4.21	4.9
		3.0	4.58	4.9
		3.5	4.98	4.9
	IPN-15T	1.5	3.89	4.3
		2.0	4.50	4.6
		2.5	5.32	4.9
		3.0	5.79	4.9
		3.5	5.94	4.9
	IPN-15H	1.5	5.72	4.3
		2.0	6.89	4.6
		2.5	8.43	4.9
		3.0	9.17	4.9
		3.5	8.94	4.9
	IPN-15TT	1.5	7.38	4.3
		2.0	9.12	4.6
		2.5	11.0	4.9
		3.0	12.0	4.9
		3.5	11.8	4.9
	IPN-15TQ	1.5	8.44	4.3
		2.0	10.40	4.6
		2.5	12.10	4.9
		3.0	13.11	4.9
		3.5	13.70	4.9
	IPN-15F	1.5	11.20	4.3
		2.0	14.10	4.6
		2.5	16.50	4.9
		3.0	17.92	4.9
		3.5	18.0	4.9



# PRO VAN NOZZLES

The Pro-Van adjustable nozzles allow you to adjust the arc according to need and to reduce the range thanks to the jet breaker screw. In addition, they offer excellent tolerance to dirt and highly uniform performance.



- 5 Models with adjustable arc from 0° to 360°
- Female thread compatible with I-PRO and SL sprinklers

## FEATURES

- Excellent emission uniformity
- Excellent dirt tolerance
- Pre-assembled filter for easy installation
- Possibility of a radius reduction up to 25%
- Colour code for easy radius identification

## SPECIFICATIONS

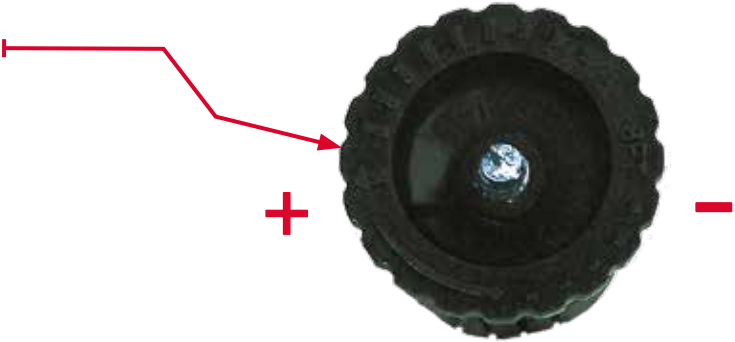
- Radius: 2.1 – 5.1 m
- Flow rate: 1.7 - 16.0 l/min
- Recommended operating pressure: 1.0 - 2.0 bar



## FOCUS

### EASY TO USE

Top-visible arrow quickly indicates left edge of arc setting when adjusted



## PERFORMANCE

Adjustable Nozzle		Mod. 8 Radius 2.4m Trajectory 5°		Mod. 10 Radius 3.0m Trajectory 10°		Mod. 12 Radius 3.7m Trajectory 15°		Mod. 15 Radius 4.6m Trajectory 20°		Mod. 17 Radius 5.2m Trajectory 26°	
		Flow rate (l/min)	Radius (m)	Flow rate (l/min)	Radius (m)	Flow rate (l/min)	Radius (m)	Flow rate (l/min)	Radius (m)	Flow rate (l/min)	Radius (m)
360°	1	6.8	2.1	7.2	2.7	9.2	3.0	10.0	4.1	12.0	4.3
	1.5	8.0	2.4	9.6	3.0	10.8	3.4	12.0	4.3	14.0	4.8
	2	9.6	2.4	10.8	3.0	12.0	3.7	14.0	4.6	16.0	5.1
180°	1	3.4	2.1	3.6	2.7	4.6	3.0	5.0	4.1	6.0	4.3
	1.5	4.0	2.4	4.8	3.0	5.4	3.4	6.0	4.3	7.0	4.8
	2	4.8	2.4	5.4	3.0	6.0	3.7	7.0	4.6	8.0	5.1
90°	1	1.7	2.1	1.8	2.7	2.3	3.0	2.5	4.1	3.0	4.3
	1.5	2.0	2.4	2.4	3.0	2.7	3.4	3.0	4.3	3.5	4.8
	2	2.4	2.4	2.7	3.0	3.0	3.7	3.5	4.6	4.0	5.1

The data shown represent tests carried out in zero wind conditions. Adapt according to local conditions. The radius can be reduced by up to 25% with the adjusting screw (this may alter the uniformity).

## Codification - PRO VAN NOZZLES

Model	Description
PRO-VAN8	Series 8 nozzle, 0° -360° adjustable arc, 2.1-2.4 m radius, brown
PRO-VAN10	Series 10 nozzle, 0° -360° adjustable arc, 2.7-3.0 m radius, red
PRO-VAN12	Series 12 nozzle, 0° -360° adjustable arc, 3.0-3.7 m radius, green
PRO-VAN15	Series 15 nozzle, 0° -360° adjustable arc, 4.1-4.6 m radius, black
PRO-VAN17	Series 17 nozzle, 0° -360° adjustable arc, 4.3-5.1 m radius, grey



# SPECIAL NOZZLES

The range of special Irritrol nozzles has been designed so that they can be adapted to the most varied situations and they can also be arranged at any point in the system.

## FEATURES

- Suitable for irregular configurations
  - SS = strip side
  - CS = centre of strip
  - ES = end of strip
- Filter included in the package
- Radius reduction up to 25%

## SPECIFICATIONS

- Radius: 0.9 x 4.3 - 1.5 x 9.8 m
- Flow rate: 1.6 - 5.1 l / min
- Recommended operating pressure: 1.4 - 2.7 bar



- Models: 9', 15'
- Female thread compatible with I-PRO and SL sprinklers
- Balanced precipitation rates with standard I-PRO nozzles

Code	9' nozzles			15' nozzles		
	bar	WxL (m)	l/min	bar	WxL (m)	l/min
<b>SS</b> 	1.4	0.9 x 4.9	3.2	1.4	0.9 x 8.5	4.2
	2.0	1.2 x 5.5	3.4	2.0	1.2 x 9.1	4.6
	2.7	1.5 x 6.1	3.7	2.7	1.5 x 9.8	5.1
<b>CS</b> 	1.4	0.9 x 4.9	3.2	1.4	0.9 x 8.5	4.2
	2.0	1.2 x 5.5	3.4	2.0	1.2 x 9.1	4.6
	2.7	1.5 x 6.1	3.7	2.7	1.5 x 9.8	5.1
<b>ES</b> 	1.4	0.9 x 2.4	1.6	1.4	0.9 x 4.3	2.0
	2.0	1.2 x 2.7	1.7	2.0	1.2 x 4.6	2.3
	2.7	1.5 x 3.0	1.8	2.7	1.5 x 5.2	2.6

W = width L = length  
The values shown in these tables represent the flow rate for each nozzle at each pressure point (full rotation operation)

### Codification - SPECIAL NOZZLES

Model	Description
IPN-9SST	Strip side - for 9" nozzle family
IPN-9CST	Centre of strip - for 9" nozzle family
IPN-9EST	End of strip - for 9" nozzle family
IPN-15SST	Strip side - for 15" nozzle family
IPN-15CST	Centre of strip - for 15" nozzle family
IPN-15EST	End of strip - for 15" nozzle family





# SPRINKLERS

Comparison table

	430R	550R-SC	TITAN	PLATINUM	SIS120	SGS103	SPS178	WT118
Adjustable arc	40°-360°	40°-360°	20°-340°	45°-360°	30°-330°	30°-330°	180°	tractor sprinkler
Inlet	1/2"	3/4"	1"	1"	1 1/2"	1 1/2"	2"	
Radius (m)	5.1-9.0	7.6-15.2	9.7-13.8	14.9-24.1	19.0-36.5	21.0-32.0	34.0-54.0	33.0-40.0
Flow rate (l/min)	2.8-12.5	2.8-36.7	5.7-28.7	279-115.9	71.6-451.6	86.6-386.6	383-1803	58.0-77.0
Operating pressure (bar)	2.0-3.5	1.7-4.5	2.0-3.5	2.8-6.9	3.0-8.0	3.5-7.0	4.0-8.0	4.0
Shrub		✓						
High Pop		✓						
Applications:								
Small to medium sized gardens	•	•						
Large gardens and parks			•	•				
Sports fields				•	•	•	•	•



## SPRINKLERS

Pages 58-73

430R	58
550R-SC	60
TITAN	62
PLATINUM	64
SIS120F AND SIS120P	66
SGS103	68
SPS178	70
WT118	72



# 430R

The 430R sprinkler has everything a ½” turbine can offer for irrigating small areas. Because the arc is easy to adjust and the right and left block are easy to check, the 430R is a sprinkler that can also be used by inexperienced persons.



- Inlet with ½” female thread
- Adjustable arc: 40° - 360°
- 5 interchangeable nozzles

## FEATURES

- Pressure activated seal
- Positive left and right stops reduces st-up time by allowing you to quick check the arc
- Part and full-circle model in one unit
- Adjustments can be made with a normal screwdriver without needing to use special tools

## SPECIFICATIONS

- Radius: 5.1 – 9.0 m
- Flow rate: 2.8 - 12.5 l/min
- Operating pressure: 2.0 - 3.5 bar
- Overall height: 15 cm (turret retracted)
- Riser height:: 10 cm
- Standard nozzle trajectory: 25°



## FOCUS

### NO SPECIAL TOOLS REQUIRED

All arc adjustments made from the top with a standard screwdriver reduces set up time



## PERFORMANCE

Pressure (bar)	Nozzles	Radius (m)	Flow rate (l/min)	■ (mm/h)	▲ (mm/h)
2.0	0.75	5.1	2.8	5.67	6.54
	1.0	6.0	3.4	6.46	7.46
	1.5	6.9	5.3	6.68	7.71
	2.0	7.5	6.8	7.25	8.38
	3.0	8.4	10.2	8.67	10.01
2.8	0.75	5.4	3.0	6.17	7.13
	1.0	6.3	4.5	6.80	7.85
	1.5	7.2	6.4	7.41	8.55
	2.0	8.1	8.0	7.32	8.45
	3.0	9.0	11.4	8.44	9.75
3.5	0.75	5.4	3.4	7.00	8.08
	1.0	6.3	4.9	7.41	8.55
	1.5	7.2	7.2	8.33	9.62
	2.0	8.1	9.1	8.32	9.61
	3.0	9.0	12.5	9.26	10.69

- Precipitation with sprinklers arranged with a "square-shaped" layout
- ▲ Precipitation with sprinklers arranged with a "triangle-shaped" layout
- Distance between sprinklers corresponds to the radius

The data shown represent tests carried out in zero-wind conditions

## Codification - 430R

Model	Description
430R	430R ½” rotor 40° -360°



# 550R-SC

The Irritrol 550R-SC 3/4" sprinkler offers ease of use and operating reliability in one single device. Thanks to the innovative Slip Clutch system it is now possible to adjust the arc manually without using any tools.

## FEATURES

- Familiar top adjustment, wet or dry
- Non-flushing wiper seal reduces leaks caused by debris trapped under seal
- Standard rubber cover provides added protection against debris
- Right (fixed) and left stops allow you to easily check the arc thus reducing the installation time.
- One model for part- and full-circle irrigation

## ADDITIONAL FEATURES

- Filter with double surface area for better resistance to clogging and tolerance to debris.
- Body made of ABS and hence more robust.
- Single thread (rather than 5 like the competitors) to reduce the risk of blockage due to the intrusion of debris.

## OPTIONS

- Check valve holds up to 2,1 m of elevation change eliminates water waste
- Recycled-water indicator cover (purple)



Irritrol

I.S.E. S.r.l reserves the right to change the product specifications without prior notice and without incurring any penalties.



- Inlet with 3/4" female thread
- Adjustable arc: 40° - 360°
- 8 standard angle nozzles and 4 low angle nozzles

## SPECIFICATIONS

- Radius: 7.6 – 15.2 m
- Flow rate: 2.8 - 36.7 l / min
- Operating pressure: 1.7 - 4.5 bar (3.0 bar recommended pressure)
- Overall height (retracted): 19 cm
- Riser height: 12.7 cm
- Standard nozzle trajectory: 25°
- Low angle nozzle trajectory: 12°
- Pre-assembled nozzle 3.0

## FOCUS

180° Arc  
(factory default setting)



Adjustable left edge

Adjustable right edge



## PERFORMANCE

550R-SC - Standard 25° angle trajectory

Pressure (bar)	Nozzles	Radius (m)	Flow rate (l/min)	■ (mm/h)	▲ (mm/h)
1.7	1.5	10.0	4.3	2.58	2.98
	2.0	10.6	5.5	2.94	3.39
	2.5	10.6	6.7	3.58	4.13
	3.0	11.0	8.3	4.12	4.75
	4.0	11.3	11.2	5.26	6.08
	5.0	11.9	14.2	6.02	6.95
	6.0	11.9	16.0	6.78	7.83
	8.0	11.0	21.7	10.76	12.42
2.4	1.5	10.4	5.2	2.88	3.33
	2.0	11.0	6.8	3.37	3.89
	2.5	11.0	8.3	4.12	4.75
	3.0	11.6	9.8	4.37	5.05
	4.0	12.2	13.4	5.00	6.24
	5.0	12.5	17.0	6.53	7.54
	6.0	13.1	19.6	6.85	7.91
	8.0	13.1	26.8	9.37	10.82
3.1	1.5	10.7	6.0	3.14	3.63
	2.0	11.3	8.0	3.76	4.34
	2.5	11.3	9.6	4.51	5.21
	3.0	12.2	11.5	4.64	5.35
	4.0	12.8	15.5	5.68	6.55
	5.0	13.1	19.3	6.75	7.79
	6.0	13.4	23.0	7.69	8.87
	8.0	14.3	30.5	8.95	10.33
3.8	1.5	10.7	6.6	3.46	3.99
	2.0	11.3	8.7	4.09	4.72
	2.5	11.3	10.6	4.98	5.75
	3.0	12.2	13.3	5.36	6.19
	4.0	12.8	16.8	6.15	7.10
	5.0	13.7	21.7	6.94	8.01
	6.0	14.3	25.1	7.36	8.50
	8.0	14.7	33.9	9.54	11.02
4.5	1.5	11.0	7.1	3.52	4.07
	2.0	11.3	9.7	4.56	5.26
	2.5	11.3	11.5	5.40	6.24
	3.0	12.2	14.4	5.80	6.70
	4.0	13.1	18.3	6.40	7.39
	5.0	13.7	23.0	7.35	8.49
	6.0	14.6	27.4	7.71	8.91
	8.0	15.2	36.7	9.53	11.00

550R-SC - Low 12° angle trajectory

Pressure (bar)	Nozzles	Radius (m)	Flow rate (l/min)	■ (mm/h)	▲ (mm/h)
1.7	1.0	7.6	2.8	2.91	3.36
	1.5	8.2	4.1	3.66	4.22
	2.0	8.8	5.3	4.11	4.74
	3.0	8.8	8.3	6.43	7.43
2.4	1.0	8.5	3.5	2.91	3.36
	1.5	9.1	5.1	3.70	4.27
	2.0	9.4	6.5	4.41	5.10
	3.0	10.0	9.8	5.88	6.79
3.1	1.0	8.8	3.9	3.02	3.49
	1.5	9.4	5.7	3.87	4.47
	2.0	9.7	7.8	4.97	5.74
	3.0	10.3	11.5	6.50	7.51
3.8	1.0	8.8	4.3	3.33	3.85
	1.5	9.4	6.6	4.48	5.17
	2.0	10.0	8.5	5.10	5.89
	3.0	11.0	12.9	6.40	7.39
4.5	1.0	8.8	4.7	3.64	4.20
	1.5	9.4	7.2	4.89	5.65
	2.0	10.0	9.3	5.58	6.44
	3.0	11.0	14.0	6.94	8.02

- Precipitation with sprinklers arranged with a "square-shaped" layout
- ▲ Precipitation with sprinklers arranged with a "triangle-shaped" layout
- Distance between sprinklers corresponds to the radius

The data shown represent tests carried out in zero-wind conditions

## Codification - 550R-SC

Model	Description
550R-SC	550R (3/4") turbine sprinkler, 40° -360°, 12.7 cm spray angle, with slip-clutch
550R-SS-SC	550R (3/4") turbine sprinkler with Slip Clutch, 40° -360°, 12.7 cm spray angle, with stainless steel turret
550RHP	550R SC High Pop turbine sprinkler: 30 cm spray angle
550RS	Shrub - Adapter for 550R SC



Irritrol



# TITAN

The Titan impact sprinkler is designed for use in small- and medium-sized gardens. The compact design with reinforcement ribs at the side ensures durability. The self-cleaning seal removes any debris so that the piston can move up and down without jamming.



- Base connection ¾" female and ½" female side ways
- Adjustable arc setting: 20° - 340°
- 5 interchangeable nozzles (1 pre-installed)

## FEATURES

- Pressure-activated seal
- Positive left and right stops reduce set-up time by allowing you to quick check the arc
- Part and full-circle model in one unit
- All adjustments made with a standard screwdriver. No special tools required
- Radius reduction screw breaks water into smaller droplets for uniform watering

## SPECIFICATIONS

- Radius: 9.7 – 13.8 m
- Flow rate: 5.7 – 28.7 l/min
- Operating pressure: 2.0 - 3.5 bar
- Diameter: 12.7 cm
- Overall height: 23.6 cm
- 11.0 l/min pre-assembled nozzle (black)



## FOCUS

### WATER LEAKAGE PREVENTION

Pre-calibrated arm for flow control and prevention of lateral water leaks

### EASY INSTALLATION

Upper body edge designed to facilitate installation in the ground at the right depth while also preventing the intrusion of debris

### REINFORCED CONTAINER

Durable container with side ribs that ensure a long life



## PERFORMANCE

Pressure (bar)	Radius (m)	Flow rate (l/min)	Nozzles colour code	Coverage
2.0	9.7	5.7	Orange	90°
	10.0	7.6	Rouge	120°
	10.6	11.0	Noir	180°
	11.6	14.4	Bleu	270°
	11.9	21.9	Vert	360°
2.5	10.3	6.4	Orange	90°
	10.8	8.0	Rouge	120°
	11.4	12.6	Noir	180°
	12.2	15.3	Bleu	270°
	12.6	23.6	Vert	360°
3.0	10.8	7.5	Orange	90°
	11.6	8.7	Rouge	120°
	12.1	14.2	Noir	180°
	12.6	17.1	Bleu	270°
	13.3	25.9	Vert	360°
3.5	11.0	8.8	Orange	90°
	12.3	9.5	Rouge	120°
	12.5	15.3	Noir	180°
	12.8	19.6	Bleu	270°
	13.8	28.7	Vert	360°

The data shown represent tests carried out in zero-wind conditions

## Codification - TITAN

Model	Description
TITAN	Titan impact rotor 20° -340°



# PLATINUM

The Platinum 1" sprinkler is ideal for sports fields and medium-sized parks. All the adjustments can be made on the upper part of the turbine, and what's more, the permanent arc memory guarantees regular operation even when tampered with.

## FEATURES

- The nozzles are easy to fit and remove from the upper part (using a dedicated wrench)
- Standard rubber cover provides added protection against debris
- Part and full-circle model in one unit
- Stainless steel radius adjustment screw allows up to 25% radius reduction
- View arc indicator simplifies adjustments
- Antivandalism permanent arc memory. Resets the sprinkler to the working arc set during adjustment even after alterations during operation.
- Vandalism locking cap screw

## ADDITIONAL FEATURES

- Water-lubricated gear drive assembly enhances reliability
- Nozzle support/Break up screw
- Reversible check valve eliminates low-head drainage
- Also available with stainless steel riser



- Inlet with 1" female thread
- Adjustable arc: 45° - 360°
- 7 interchangeable nozzles

## SPECIFICATIONS

- Radius: 14.9 – 24.1 m
- Flow rate: 27.9 - 115.9 l/min
- Operating pressure: 2.8 - 6.9 bar (4.8 bar recommended pressure)
- Cover diameter: 5.6 cm
- Body diameter: 6.9 cm
- Riser height: 12.7 cm
- Body height: 22.4 cm
- Nozzle trajectory: 25°
- Pre-assembled nozzle n. 12
- Arc set at 180°

## FOCUS

### EASY ARC ADJUSTMENT

Easily accessible indicator placed in the head



## PERFORMANCE

Pressure (bar)	Nozzles	Radius (m)	Flow rate (l/min)	■ (mm/h)	▲ (mm/h)
3.4	7	14.9	27.9	7.50	8.66
	9	15.5	31.3	7.77	8.97
	12	15.5	43.7	10.86	12.54
	16	17.1	57.2	11.79	13.61
	20	17.7	66.4	12.75	14.72
	24	18.3	66.2	11.88	13.72
4.1	27	19.8	88.5	13.54	15.63
	7	15.2	30.6	7.91	9.13
	9	15.9	32.6	7.85	9.06
	12	16.2	47.9	11.02	12.73
	16	18.0	61.4	11.40	13.17
	20	18.6	73.9	12.82	14.80
4.8	24	19.2	73.2	11.92	13.76
	27	22.3	89.2	10.81	12.48
	7	15.5	33.2	8.25	9.52
	9	16.2	35.7	8.21	9.48
	12	16.5	52.3	11.58	13.37
	16	18.6	66.1	11.48	13.26
5.5	20	18.6	78.1	13.56	15.65
	24	19.8	78.3	11.97	13.82
	27	22.9	97.6	11.20	12.94
	7	16.2	35.7	8.20	9.47
	9	16.5	37.6	8.33	9.62
	12	16.8	55.6	11.87	13.71
6.2	16	18.6	71.1	12.34	14.25
	20	19.8	83.9	12.82	14.80
	24	20.4	84.5	12.15	14.03
	27	23.5	103.8	11.31	13.06
	7	16.2	38.8	8.93	10.32
	9	16.8	41.3	8.81	10.18
6.9	12	17.1	59.1	12.18	14.06
	16	19.2	75.7	12.32	14.22
	20	20.4	89.5	12.88	14.87
	24	20.4	90.1	12.97	14.97
	27	23.8	110.0	11.68	13.49
	7	16.8	40.5	8.66	10.00
6.9	9	17.1	43.6	8.98	10.37
	12	17.4	62.5	12.42	14.34
	16	19.2	79.7	12.97	14.97
	20	20.4	94.0	13.52	15.61
	24	21.6	95.6	12.25	14.15
	27	24.1	115.9	11.99	13.85

- Precipitation with sprinklers arranged with a "square-shaped" layout
- ▲ Precipitation with sprinklers arranged with a "triangle-shaped" layout
- Distance between sprinklers corresponds to the radius

The data shown represent tests carried out in zero-wind conditions

## Codification - PLATINUM

Model	Description
PTSPORT-BSP	Platinum 1" Rotor 45° -360°
PTSPORT-BSP-SS	Platinum 1" Rotor 45° -360°,stainless steel riser



# SIS 120F AND SIS 120P

The SIS series impact sprinklers are intended for use on sports grounds and in parks and also allow inserting natural grass in the turf cup.

## FEATURES

- High rotation speed <1 min/360°
- High stability of the jet even in the presence of wind
- All installation and maintenance operations can be performed from the top of the sprinkler (also in the version with valve in head)
- Also suitable for gray water
- SIS120F model with bowl for synthetic lawn

### In the SIS120P model:

- Sector easily adjustable - no tools required
- SIS120PG and SIS120PGV models have synthetic turf cover with flexible cushioning to reduce the risk of player injuries

## ADDITIONAL FEATURES

- One-click removable cover for faster and easier maintenance
- The new stainless steel piston improves operation efficiency
- Manual control can be performed from the top of the sprinkler (ON-OFF-AUTO)
- Excellent distribution accuracy confirmed by CIT

## SPECIFICATIONS

- Radius: 19.0 – 36.8 m
- Flow rate: 4.6 - 28.6 m³/h
- Operating pressure: 3.0 - 8.0 bar
- Trajectory: 22°



- Inlet with 1 ½" female thread
- 2 models:
  - SIS120F: 360° Full circle
  - SIS120P: 30° - 330° Parte circle
- Nozzle range: 7 – 17.5 mm

## FOCUS

### HIGH QUALITY MATERIALS

Stainless steel piston to ensure greater wear resistance and better operating efficiency



## PERFORMANCE

### Part circle

2 SIS120P Nozzles	7 mm Nozzle		8 mm Nozzle		9 mm Nozzle *		10 mm Nozzle		11 mm Nozzle		12 mm Nozzle		13 mm Nozzle		14 mm Nozzle		15 mm Nozzle		16 mm Nozzle		17.5 mm Nozzle	
Operating pressure	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m
4.0 bar	5.2	19.5	6.5	20.5	7.8	21.2	9.0	21.9	10.2	22.5	11.5	24.0	12.9	25.0	14.6	26.0	16.3	27.0	17.0	27.3	19.6	27.7
5.0 bar	5.8	20.6	7.2	21.5	8.7	22.4	10.0	23.3	11.3	24.2	12.8	26.0	14.4	27.5	16.3	29.0	18.1	30.0	19.0	30.3	21.8	30.6
6.0 bar	6.4	21.4	7.9	22.5	9.5	23.6	11.0	25.0	12.4	25.8	14.0	27.2	15.7	29.0	17.8	30.5	19.8	31.7	20.8	32.6	23.9	33.3
7.0 bar	6.8	21.9	8.5	23.3	9.2	24.7	11.8	26.5	13.3	27.2	15.1	28.4	16.9	30.5	19.2	32.0	21.4	33.0	22.4	34.0	25.8	35.5
8.0 bar	7.3	22.3	9.1	24.0	10.9	25.7	12.6	27.9	14.2	28.4	16.1	29.7	18.9	32.0	20.5	33.5	22.9	34.2	24.0	35.5	27.5	36.8

### Full Circle Model

3 SIS120P Nozzles	7 mm Nozzle		8 mm Nozzle		9 mm Nozzle		10 mm Nozzle		11 mm Nozzle		12 mm Nozzle		13 mm Nozzle *		14 mm Nozzle		15 mm Nozzle		16 mm Nozzle		17.5 mm Nozzle	
Operating pressure	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m
4.0 bar	6.3	19.5	7.6	20.5	8.9	21.2	10.1	21.9	11.3	22.5	12.6	24.0	14.0	25.0	15.7	26.0	17.4	27.0	18.1	27.3	20.7	27.7
5.0 bar	7.1	20.6	8.5	21.5	10.0	22.4	11.3	23.3	12.6	24.2	14.1	26.0	15.7	27.5	17.6	29.0	19.4	30.0	20.3	30.3	23.1	30.6
6.0 bar	7.9	21.4	9.4	22.5	11.0	23.6	12.5	25.0	13.9	25.8	15.5	27.2	17.2	29.0	19.3	30.5	21.3	31.7	22.3	32.6	25.4	33.3
7.0 bar	8.3	21.9	10.1	23.3	11.8	24.7	13.4	26.5	14.9	27.2	16.7	28.4	18.5	30.5	20.8	32.0	23.0	33.0	24.0	34.0	27.4	35.5
8.0 bar	9.0	22.3	10.8	24.0	12.7	25.7	14.3	27.9	16.0	28.4	17.8	29.7	19.8	32.0	22.2	33.5	24.6	34.2	25.7	35.5	28.6	36.8

\* Standard nozzle

The radius derives from tests in real outdoor conditions, with rotary sprinkler installed at ground level (model without valve)

## DIMENSIONS

SPRINKLER MODEL	SIS120-PG	SIS120-PGV	SIS120-F	SIS120-FV
Installation height	394 mm	472 mm	584 mm	662 mm
Rising height	107 mm	107 mm	205 mm	205 mm
Outer Ø housing	247 mm	247 mm	251 mm	251 mm
Outer Ø lid	181 mm	181 mm	223 mm	223 mm

## Codification - SIS120 SERIES

Model	Description
SIS120-F	SIS120 1-½" F Impact sprinkler, 360° with turf cup
SIS120-FV	SIS120 1-½" F Impact sprinkler, 360° with turf cup and built-in solenoid valve
SIS120-P	SIS120 1-½" Impact sprinkler, 30° -330° 9mm nozzle
SIS120-PV	SIS120 1-½" Impact sprinkler, 30° -330° with built-in solenoid valve, 9mm nozzle
SIS120-PG	SIS120 1-½" F Impact sprinkler, 30° -330° 9mm nozzle with artificial turf
SIS120-PGV	SIS120 1-½" F Impact sprinkler, 30° -330° 9mm nozzle with built-in solenoid valve and artificial turf



# SGS103

The SGS103 turbine is intended for use on sports fields. Its manual control and pressure adjustment are easy and fast thanks to the controls and the dial being positioned on top of the sprinkler.

## FEATURES

- High rotation speed 60-140 sec/180°
- Adjustment can only take place when the sprinkler is not running
- All installation and maintenance operations can be performed directly from the top of the sprinkler
- Central flow system reduces hydraulic friction and improves performance efficiency
- Manual control and pressure adjustment can be performed from the top of the sprinkler (ON-OFF-AUTO)
- Externally replaceable nozzles
- The cover and top of the adjustable sector sprinkler are covered with artificial turf and the full circle sprinkler has a rubber turf cup



- Inlet with 1 ½" female thread in brass
- Adjustable ard: 30° - 330°
- Nozzle range: 7 - 11 mm

## SPECIFICATIONS

- Radius: 20.0 – 29.0 m
- Flow rate: 4.2 - 12.8 m³/h
- Operating pressure: 3.5 - 7.0 bar
- Trajectory: 25°

## ADDITIONAL FEATURES

- Easy removal of the cover thanks to the new round shape which adapts perfectly to the body of the sprinkler
- Screw-on turbine filter which prevents the nozzle from loosening caused by strong pressure changes
- Self-cleaning technology that ensures correct operation of the sprinkler during the turret lifting and re-entry phase
- Inside the sprinkler there are high-strength ball bearings



## FOCUS

### EASY SECTOR ADJUSTMENT

The left stop (+/-90°) and the right stop (30-330°) can be set to adjust the sector



## PERFORMANCE

SGS103 3 Nozzles	7 mm Nozzle		8 mm Nozzle		9 mm Nozzle		10 mm Nozzle *		11 mm Nozzle	
	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m
4.0 bar	4.2	20.0	5.4	21.0	6.3	22.0	7.5	23.0	8.6	24.0
5.0 bar	4.8	22.0	6.0	23.0	7.1	24.0	8.4	25.0	9.7	26.0
6.0 bar	5.2	24.0	6.5	25.0	7.8	26.0	9.2	27.0	10.6	28.0
7.0 bar	5.6	25.0	7.0	26.0	8.5	27.0	10.0	28.0	11.4	29.0

SGS103-PZ 4 Nozzles	7 mm Nozzle		8 mm Nozzle		9 mm Nozzle		10 mm Nozzle		11 mm Nozzle	
	m³/h	m	m³/h	m	m³/h	m	m³/h	m	m³/h	m
4.0 bar	5.4	20.0	6.5	21.0	7.4	22.0	8.6	23.0	9.7	24.0
5.0 bar	6.1	22.0	7.3	23.0	8.4	24.0	9.6	25.0	10.9	26.0
6.0 bar	6.7	24.0	7.9	25.0	9.2	26.0	10.6	27.0	11.9	28.0
7.0 bar	7.2	25.0	8.5	26.0	9.9	27.0	11.5	28.0	12.8	29.0

\* Standard nozzle  
The radius derives from tests in real outdoor conditions, with rotary sprinkler installed at ground level (model without valve)

## DIMENSIONS

	SGS103	SGS103-PZ
Installation height	350 mm	427 mm
Rising height	80 mm	126 mm
Outer Ø housing	172 mm	116 mm (65 mm exposed)
Outer Ø lid	65 mm	65 mm

## Codification - SGS103 series

Model	Description
SGS103-PZ	SGS103 1 ½" F, 360° turbine sprinkler, with turf cup, 10mm nozzle
SGS103	SGS103 1 ½" F, 30-330° turbine sprinkler, 10mm nozzle, with built-in valve and artificial turf



# SPS178

The SPS178 pop-up sprinkler is the most powerful sprinkler in the Irritrol range. Intended for soccer fields with artificial turf and all large sports facilities, it must be installed outside the playing area without the need for other sprinklers inside. In fact, it ensures a uniform coverage of the field thanks to the wide trajectory range up to 54 metres which, together with the reduced water flow it requires, ensures it is unique.

## FEATURES

- 180° Rotation speed: adjustable from 50 to 120 seconds
- New technology nozzles to obtain excellent uniformity and reduced water consumption even with radiuses greater than 50 m
- Piston motor technology for precise irrigation
- Valve in head for individual control and reduction of costs and installation time. Flow-optimised valve with low pressure drop
- Slow closing of the valve to avoid water hammering
- All installation and maintenance operations can be performed directly from the top of the sprinkler
- Lid with bowl for synthetic lawn

## ADDITIONAL FEATURES

- Filter built-in the body (50 Micron) for the control water
- Inside the sprinkler there are high-strength ball bearings
- Self-draining system when the connection hose is pressureless



- Inlet with 2" female thread in brass
- Full circle and adjustable arc
- Nozzle range: 16 - 24 mm

## SPECIFICATIONS

- Radius: 34.0 – 54.0 m
- Flow rate: 26.0 - 69.0 m³/h
- Operating pressure: 4.0 - 8.0 bar
- Trajectory: 25°
- 24 VAC-50 Hz solenoid:
  - Surge current absorption 0.34A
  - Standard absorption 0.20A

## FOCUS

### GREATER EMISSION UNIFORMITY

Presence of a side nozzle and of 3 other smaller nozzles to irrigate the area around the sprinkler



## PERFORMANCE

Operating pressure	16 mm Nozzle		20 mm Nozzle *		24 mm Nozzle	
	m³/h	m	m³/h	m	m³/h	m
4.0 bar	25.9	34.0	36.1	40.0	48.7	42.0
5.0 bar	29.0	37.0	40.4	42.0	54.4	44.0
6.0 bar	31.7	40.0	44.3	45.0	59.6	49.0
7.0 bar	34.3	42.0	47.9	48.0	64.4	52.0
8.0 bar	36.7	44.0	51.2	50.0	68.9	54.0

\* Standard nozzle  
The radius derives from tests in real outdoor conditions, with rotary sprinkler installed at ground level

## DIMENSIONS

Installation height	720 mm
Rising height	120 mm
Outer Ø housing	350 mm
Outer Ø lid	267 mm

## Codification - SPS178 SERIES

Model	Description
SPS178	SPS178 2" F BSP Turbine sprinkler, 30°-360° adjustable with built-in valve and turf cup, 20mm nozzle
SPS178-SPZ	SPS178 2" F BSP Turbine sprinkler, 30°-360° with built-in valve, 20mm nozzle



# WT118

WT118 is a tractor sprinkler that irrigates on its own and for this reason is ideal for irrigating large green areas and sports grounds but also nurseries and gardens. Thanks to its compact design and to the little maintenance it requires, the Irritrol travelling sprinkler is an innovative easy-to-use product.



- Possibility of defining the path to follow
- Adjustable sector or full circle irrigation
- Materials: Aluminium, brass, high-strength plastic

## FEATURES

- Forward speed: 10 – 20 m/h
- Possibility of defining the area to be irrigated
- Adjustable water flow for better adaptation to different applications
- Water distribution is uniform thanks to the accuracy of the sprinkler located on the machine and to the latter's constant speed
- The gears have a very low friction factor and are therefore maintenance-free
- Backward movement that allows the machine to move on the part of the lawn that is dry and still needs to be irrigated

## SPECIFICATIONS

- Irrigated area width: 28.0 – 36.0 m
- Irrigated area length: 120 m
- Flow rate: 3.5-4.6m³/h (58.0-77.0 l / min)
- Minimum operating pressure: 4 bar (measured at the sprinkler inlet)
- Total weight: 27Kg
- Overall dimensions: 77x47x40 cm
- Feed hose not included with sprinkler:
  - Inner diameter 25 mm
  - Length: 60 – 100 m

## OPERATION

Through a hose connected to a fixed hydrant, the water reaches the sprinkler which, moving slowly along a nylon cable, irrigates the lawn following a predetermined path. Once it has reached the end of the cable and has therefore irrigated the entire designated area, the WT118 automatically interrupts the flow of water and stops.



## FOCUS

### PREDETERMINED IRRIGATION AREA

Possibility of defining the path to follow thanks to the nylon cable



## PERFORMANCE

OPERATING PRESSURE	4.0 bar		5.0 bar		6.0 bar		7.0 bar	
20 MM	m³/h	m	m³/h	m	m³/h	m	m³/h	m
7 mm	3.49	18.8	4.09	19.8	4.44	20.8	4.61	21.8

NOZZLE	Operating pressure (bar)	Speed (m/h)	Flow rate (m³/h)
7 mm	4.0	10	3.2
	5.0	↕	↕
	6.0	↕	↕
	7.0	22	4.2

### Codification - WT118

Model	Description
WT118	Travelling sprinkler





# ACCESSORIES



## ACCESSORIES

*Pages 76-94*

HERCULES VALVE BOXES	76
CLIMATE LOGIC	78
RAIN SENSORS	80
PRESSURE REGULATORS	81
LASCO PVC MANIFOLDS	82
LASCO BLUE TWISTER MANIFOLDS	84
SWIVEL FITTINGS	85
MODULAR MANIFOLD	86
SUPER BLUE FLEX HOSE	87
WATERPROOF CONNECTOR	88
WATERPROOF CONNECTORS	88
CUT-OFF RISERS	89
BLAZING SADDLES	89
SELF-THREADING ELBOW	90
BLAZING ELBOWS	90
SWING JOINT	91
ANTIVANDALISM UNION	91
BLAZING CUTTERS	92
CHECK VALVE	92
DRAIN VALVE	93
BLAZING DRAIN VALVES	93
H2OCAD® 4.0 SOFTWARE	94



# HERCULES VALVE BOXES

Hercules is the range of Irritrol valve boxes designed to blend maximum protection of underground systems (valves and related instruments) with ease of use as they easily adapt to new or existing systems.

## FEATURES

### Round Models

- **Cover:**
  - Comfortable 2-finger grip, indicating the closing direction
  - Quick bayonet locking system, with optional screw protection
  - Round edge to cover the body, facilitated positioning and protection from the entry of water or soil
  - Non-slip surface
  - Shade of green to match the turf
- **Body:**
  - Conical profile, for guaranteed stability in the ground
  - Walls with reinforced thicknesses, against structural cave-ins
  - Ready-to-use and easily expandable hose passages

### Rectangular models

- **Cover:**
  - Convenient opening with hand guide
  - Edge to cover the body, facilitated positioning and protection from the entry of water or soil
  - Optional screw tightening system
  - Non-slip surface
  - Shade of green to match the turf
- **Body:**
  - Inclined and shaped profile, for guaranteed stability in the ground
  - Innovative design for quick and safe drilling on site, without the need for electricity
  - Reinforced corners against structural cave-ins



- Resistance
- Versatility
- Range in line with the EN124 standard, designed to withstand loads up to 1.5 tons

### Codification BASIC MODELS WITHOUT HOLES

Model	Description
EU-HCS	Small round valve boxe with cover
EU-HCM	Medium round valve boxe with cover
EU-HRS	Standard rectangular valve boxe with cover without holes
EU-HRJ	Jumbo rectangular valve boxe with cover without holes
EU-HCSL	Small round valve boxe cover
EU-HCML	Medium round valve boxe cover
EU-HRSL	Standard rectangular valve boxe cover without holes
EU-HRJL	Jumbo rectangular cover

Optional tightening after manual drilling and locking kit available separately EU-HCK

### MODELS WITH ONE HOLE - Locking kit not included EU-HRK

Model	Description
EU-HRSO	Standard rectangular valve boxe with cover with one hole
EU-HRJO	Jumbo rectangular valve boxe with cover with one hole
EU-HRSLO	Standard rectangular valve boxe cover with one hole
EU-HRJLO	Jumbo rectangular valve boxe cover with one hole

### MODELS WITH MULTIPLE HOLES - (tightening hole and ventilation holes) Locking kit not included EU-HRK

Model	Description
EU-HRSM	Standard rectangular valve boxe with cover with multiple holes
EU-HRJM	Jumbo rectangular valve boxe with cover with multiple holes
EU-HRSLM	Standard rectangular valve boxe cover with multiple holes
EU-HRJLM	Jumbo rectangular valve boxe cover with multiple holes

### ACCESSORIES

Model	Description
EU-HCK	Locking kit for round models (M5x35 screw + M5x8 hexagonal nut)
EU-HRK	Locking kit for rectangular models (M6x25 hexagonal bolt + M6 G 24x16x11 plate)
EU-HRC	Cable support for rectangular models

LOADS UP  
TO 1.5 TONS



### ROUND MODEL MEASUREMENTS

The measurements are given in cm.

SMALL  
ROUND



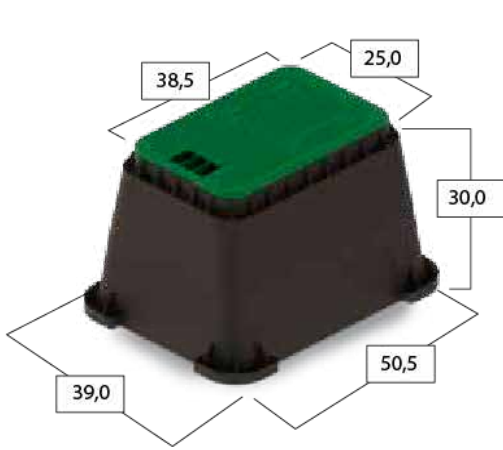
MEDIUM  
ROUND



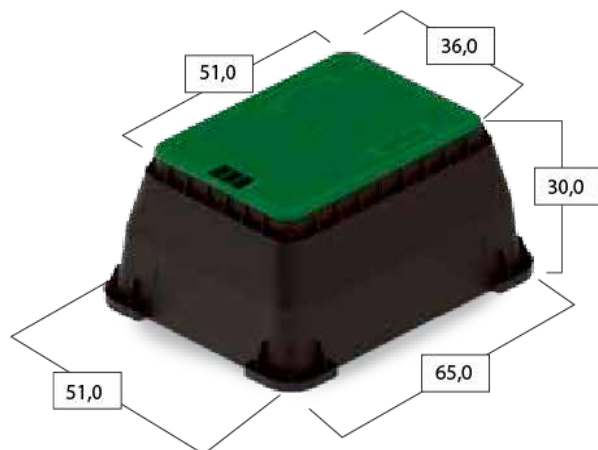
### RECTANGULAR MODEL MEASUREMENTS

The measurements are given in cm.

STANDARD  
RECTANGULAR



JUMBO  
RECTANGULAR



Customisable covers, contact for details

Patented design: UAMI no. 002417675



# CLIMATE LOGIC

Wireless system for measuring evapotranspiration in your garden



## FEATURES

- Adjustment of the water budget per program
- Possibility of going over 100% of the water budget if necessary
- Possibility of deciding during the day when to start and/or stop irrigation (0-24 hours)
- Possibility of defining the time interval on which to base evapotranspiration calculation (1-7 days)
- Automatic system shutdown in case of rain or very low temperatures
- Definition of the system reactivation times after a thunderstorm or frost
- Storage of all the daily data collected for 2 years



## COMPONENTS

### 1. Weather transmitter:

- Collects the data from the sensors and sends them to the receiver module
- Composed of:
  - Rain sensor
  - Air temperature sensor
  - Solar radiation sensor

### 2. Receiver Module:

- It converts the data received and adds them to those of the database taking as reference the meteorological data of the worst month for the place where it is located
- It modifies the water budget data of the controller
- It connects to the controller with only one adapter cable

### 3. SD Meteo Card:

- Database that contains the European meteorological data of the last 10 years
- The place where it is located is identified by entering the latitude and the longitude

## TECHNICAL SPECIFICATIONS

- Connection via radio for easy and fast wireless installation
- Maximum distance of 300 metres for the radio connection between the weather transmitter and the receiver module
- Control of several receiver modules with only one weather transmitter
- System compatible with:
  - Kwik Dial- Rain Dial (including the old model)
  - Total Control (including the old model)
  - MC-E
- Automatic identification of the receiver module with the controller used

## ELECTRICAL SPECIFICATIONS

- Weather transmitter:
  - 9V battery (lifetime 5 years)
  - Sustainable temperature between -10° and +60°C
- Receiver module:
  - Power supply from the controller
  - Same model for both indoor and outdoor use

## OPTIONS

- Kit for Climate Logic to be used to operate the controller in manual mode (maximum distance 300 metres)



## REMOTE CONTROL KIT



### Codification - CLIMATE LOGIC

Model	Description
CL-100W-EU	Climate Logic system, weather transmitter, receiver module and adapter cable
R-100-KIT-EU	Remote Control Kit - Remote control, mini receiver and adapter cable



# RAIN SENSORS

## RS500 – Wired model

- Irrigation cut-off set point is adjustable from 3-25mm of precipitation accumulation
- Potentially compatible with all AC powered controllers
- 7.6 m cable (white, anti-UV, UL certified) for greater installation flexibility



## RS1000-I Wireless model



- Irrigation cut-off set point is adjustable from 3-25mm of precipitation accumulation
- Compatible with all controllers
- Indicator that certifies correct communication and signal integrity
- The transmission range of up to 91.4m offers virtually limitless installation options
- Easy and versatile assembly of the sensor's single body which does not require special tools
- Status indicator
- Smart Bypass™ system that allows the sensor to reactivate automatically
- Interlocking cover that protects the receiver
- 5-year battery life

## OPERATIONAL SPECIFICATIONS

- Type of sensor: standard-industrial with hygroscopic discs
- Operating temperature: from -29°C to +49°C
- Material: anti-UV polymer
- Features for wireless sensors:
  - Transmission range: up to 91.4m
  - Battery: 2 CR2032 3V cell

### Sensor settings

1/8"	Precipitation min. 3 mm
1/4"	Precipitation min. 6 mm
1/2"	Precipitation min. 13 mm
3/4"	Precipitation min. 19 mm
1"	Precipitation min. 25 mm

## ELECTRICAL SPECIFICATIONS

- Receiver power supply: 22-28VAC, 100mA
- Normally open or normally closed (3A @ 24VCA)
- UL certification

### Codification - RAIN SENSORS

Model	Description
RS500	Irritrol wired rain sensor (length 7.6 m)
RS1000-I	Irritrol wireless rain sensor

# PRESSURE REGULATORS



## FEATURES

- Ideal for areas where irrigation pressure is low and where there is a variation in pressure along the line
- The piston-valve assembly is built in DuPont Zytel for increased durability and consistent operation
- ABS body, ultrasonic welding of component parts
- Silicone O-ring seal to ensure lower pressure drop
- Spring in stainless steel

## SPECIFICATIONS

- Thread: 3/4" male and female
- Operating pressure: 1.4 - 7.0 bar

### MODEL 15

Inlet pressure (bar)	Outlet pressure (bar)					
1.4	0.87	1.22	1.07	0.90	0.87	
2.1	1.21	1.38	1.35	1.19	1.19	
2.8	1.44	1.42	1.35	1.24	1.22	
3.4	1.48	1.43	1.34	1.25	1.19	
4.1	1.47	1.45	1.32	1.23	1.18	
4.8	1.47	1.46	1.32	1.19	1.15	
5.5	1.47	1.46	1.32	1.17	1.13	
6.2	1.46	1.49	1.31	1.16	1.15	
6.9	1.44	1.46	1.31	1.16	1.15	
l/min	3.8	7.6	15.1	22.7	30.3	

### MODEL 19

Inlet pressure (bar)	Outlet pressure (bar)					
1.4	1.04	1.30	1.03	0.76	0.57	
2.1	1.34	1.50	1.39	1.05	0.79	
2.8	1.51	1.58	1.51	1.33	1.03	
3.4	1.59	1.56	1.51	1.41	1.23	
4.1	1.61	1.55	1.48	1.41	1.34	
4.8	1.59	1.52	1.46	1.37	1.30	
5.5	1.59	1.51	1.44	1.35	1.26	
6.2	1.55	1.49	1.41	1.35	1.26	
6.9	1.50	1.48	1.38	1.32	1.23	
l/min	3.8	7.6	15.1	22.7	30.3	

### MODEL 25

Inlet pressure (bar)	Outlet pressure (bar)					
1.4	1.33	1.36	1.30	1.20	1.06	
2.1	2.02	1.92	1.78	1.63	1.74	
2.8	2.08	2.01	1.90	1.80	1.69	
3.4	2.13	2.01	1.91	1.82	1.73	
4.1	2.14	2.01	1.92	1.80	1.72	
4.8	2.14	1.97	1.93	1.77	1.69	
5.5	2.09	1.97	1.92	1.76	1.67	
6.2	2.07	1.88	1.94	1.76	1.66	
6.9	2.01	1.88	1.95	1.75	1.63	
l/min	3.8	7.6	15.1	22.7	30.3	

### Codification - PRESSURE REGULATOR

Model	Description
IT-VRR2020151	3/4" pre-calibrated pressure regulator, model 15
IT-VRR2020191	3/4" pre-calibrated pressure regulator, model 19
IT-VRR2020251	3/4" pre-calibrated pressure regulator, model 25



# LASCO PVC MANIFOLDS



## FEATURES

- Faster assembly of valves in groups without the use of Teflon
- Sliding “valve connection” without the need to add new parts
- Finish with O-ring that ensures no dripping
- Cannot be used in piping systems with compressed air or gas

## SPECIFICATIONS

- Thread: 1”
- Operating pressure: 10.0 bar

### Codification - LASCO PVC MANIFOLDS FOR VALVES WITH FEMALE THREAD

Model	Description
1301-010	1” Tee Lasco manifold - Ring nut + valve connection + male thread
1301-210	1” Double Tee Lasco Manifold - Ring nut + two valve connections + male thread
1301-310	1” Triple Tee Lasco Manifold - Ring nut + three valve connections + male thread
1301-410	1” Quadruple Tee Lasco manifold - Ring nut + four valve connections + male thread
1303-010	1” Tee Lasco Manifold - Ring nut + two valve connections + male thread
1306-010	Elbow Lasco Manifold from 1” - Male thread + valve connection
1312-010	1” Elbow Lasco Manifold - Ring nut + valve connection + male thread
1320-010	1” Cross Lasco Manifold - Ring nut + two valve connections + male thread

# LASCO PVC MANIFOLDS



## WARNINGS

- Modifying these products voids the 2-year warranty
- Do not use products harmful to PVC

### Codification - LASCO PVC MANIFOLDS FOR VALVES WITH MALE THREAD

Model	Description
1201-010	1” Tee Lasco manifold - Ring nut + valve connection + female thread
1201-210	1” Double Tee Lasco Manifold - Ring nut + two valve connections + female thread
1201-310	1” Triple Tee Lasco Manifold - Ring nut + three valve connections + female thread
1201-410	1” Quadruple Tee Lasco manifold - Ring nut + four valve connections + female thread
1203-010	1” Tee Lasco Manifold - Ring nut + two valve connections + female thread
1206-010	1” Elbow Lasco Manifold - Female thread + valve connection + female thread
1212-010	1” Elbow Lasco Manifold - Ring nut + valve connection + female thread
1220-010	1” Cross Lasco Manifold - Ring nut + two valve connections + female thread
1239-131	1” Male x ¾” Female Lasco adapter
1282-010	1” Male x 1” Male Lasco adapter
1282-131	1” Male x ¾” Male Lasco adapter



# BLUE TWISTER MANIFOLDS



3100-005



3101-004



3300-005  
3300-007



3201-004



3302-005



3400-005  
3400-007

## FEATURES

- Double helix self-tapping connection
- Quick and easy installation; just rotate the fitting until the double helix is completely covered
- No need to use tools
- Material: Blue acetal resin

## SPECIFICATIONS

- Thread: 1/2" and 3/4"
- Use with Super Blue Flex Hose or other PE hoses with 12.5mm ID and 2.4mm thickness
- Maximum operating pressure: 7.0 bar

### Codification - BLUE TWISTER MANIFOLDS

Model	Description
3100-005	1/2" Tee Lasco Blue Twister Manifold + two male double helix couplings
3101-004	1/2" Tee Lasco Blue Twister Manifold + three male double helix couplings
3300-005	1/2" male Elbow Lasco Blue Twister Manifold + one male double helix connection
3300-007	3/4" male Elbow Lasco Blue Twister Manifold + one male double helix connection
3302-005	1/2" female Elbow Lasco Blue Twister Manifold + one male double helix connection
3201-004	1/2" male Lasco Blue Twister Manifold + two male double helix connection
3400-005	1/2" male Lasco Blue Twister Manifold + one male double helix connection
3400-007	3/4" male Lasco Blue Twister Manifold + one male double helix connection

# SWIVEL FITTINGS



IT-FPT9224



IT-FPT9260



IT-FPE9218



IT-FPE9220



IT-FPC9232  
IT-FPC9265



IT-FPN9270

## FEATURES

- Quick assembly of the valves thanks to the swivel joints
- Tee and Elbow models
- Material: polypropylene

## SPECIFICATIONS

- Thread: 1"

### Codification - NUT FITTINGS

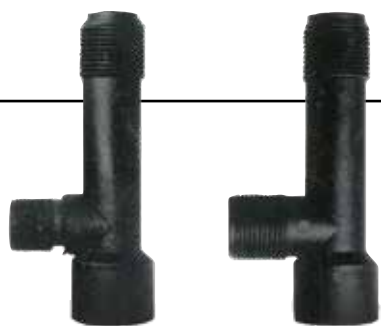
Model	Description
IT-FPT9260	1"Mx1"Gx1"G Modular Tee fitting with O-ring
IT-FPT9224	1"Gx1"Gx1"G Modular Tee fitting with O-ring
IT-FPC9232	ø32mmx1"G Modular compression fitting (female thread)
IT-FPC9265	Ø25mmx1"G Modular compression fitting (female thread)
IT-FPE9218	90° 1"Gx1"G Elbow
IT-FPE9220	90° 1"Mx1"G Elbow
IT-FPN9270	1"Mx1"M nipple with O-ring
MA8306-131BT	1" M by 3/4" M nipple with PVC O-ring



# MODULAR MANIFOLD

## FEATURES

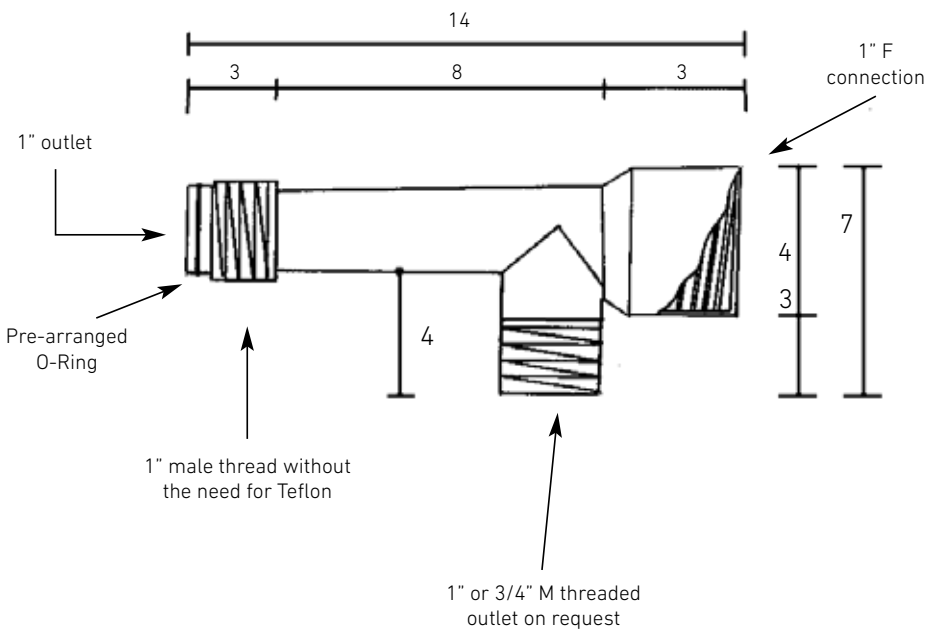
- Quick assembly of valves in groups without the use of Teflon or adhesives
- Seal O-ring that allows the valves to rotate on their axis without leaks
- It simplifies plant maintenance



## SPECIFICATIONS

- 2 models:
  - Thread: 1" F x 3/4" M x 1" M
  - Thread: 1" F x 1" M x 1" M

MANIFOLD DIMENSIONS (out of scale drawing - measurements in cm.)



### Codification - MODULAR MANIFOLDS

Model	Description
EU-FMV020-1	1" F x 3/4" M x 1" M modular manifold
EU-FMV025-1	1" F x 1" M x 1" M modular manifold

# SUPER BLUE FLEX HOSE

## FEATURES

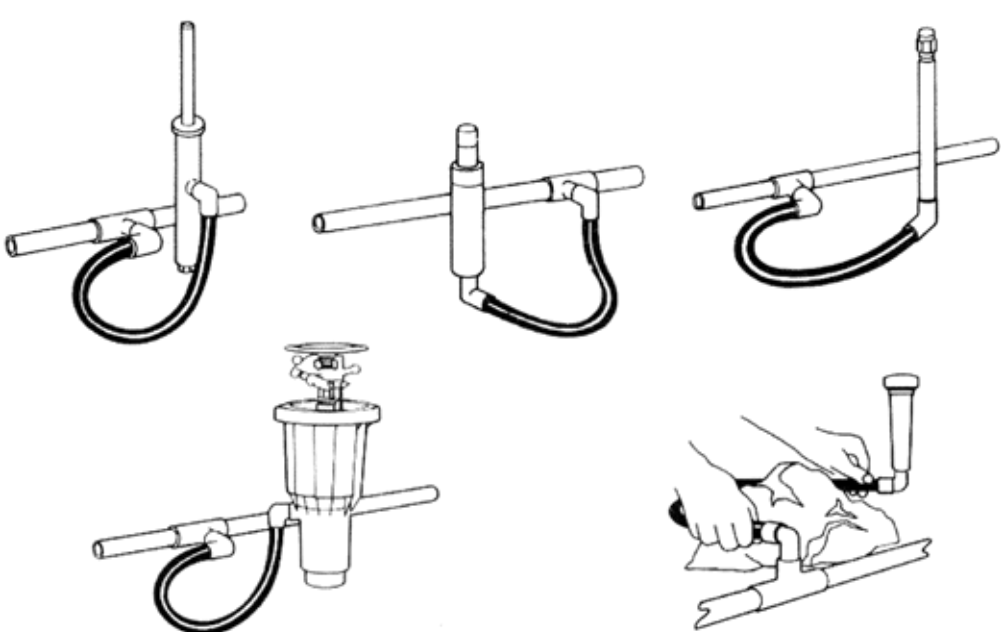
- Very low density polyethylene material
- High flexibility
- Reels easily unrolled from the centre (inside reel)
- Compatible with all Toro, Rain Bird, Olson EZ-ELL and Dura fittings



## SPECIFICATIONS

- Reel length: 30 metres
- Inner diameter 12.5 mm
- Minimum wall thickness: 2.4 mm
- Maximum operating pressure: 5.5 bar at 35°C

### EXAMPLES OF INSTALLATION



### Codification - SUPER BLUE FLEX HOSE

Model	Description
EHR1295-010	Super Blue Flex Hose 30m flexible Reel



# WATERPROOF CONNECTOR

## FEATURES

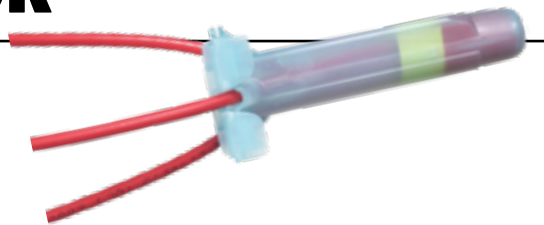
- Sturdy connector designed for fast and reliable connections in damp environments or for direct underground positioning
- Suitable for solenoid and decoder connections
- The insulating gel does not harden and this allows the watertight connection to be disassembled without having to cut the cables

### CONDITIONS OF USE:

- Working temperature range: from 0 to 40°C
- Maximum storage temperature: 49°C

### Codification - WATERTIGHT CONNECTOR

Model	Description
DBR/Y-6	DBR/Y-6 connector



Connection Combinations			
Cross Section Capacity	2.0 - 16 mm²		
Connector Combination	Quantity	Measurement (mm²)	Type
	5-7	0.5	sol / str
	3-7	0.75	sol / str
	2-8	1.0	sol / str
	2-7	1.5	sol / str
	2-5	2.5	sol / str
	2-4	4.0	sol / str
	2	6.0	sol / str

# WATERPROOF CONNECTOR

## FEATURES

- High moisture protection and superior grip compared to others
- Filled with high quality silicone which does not harden over time

## SPECIFICATIONS

- 0.75 to 1.5mm² cable connector
- 0.75 to 2.0mm² cable connector
- Suitable for electrical systems up to 50 V - 10 A
- Temperature resistant up to 107°C
- It complies with the UL486D standard (corresponds to CEI EN 60947-7-1/-2)

### Codification - WATERTIGHT CONNECTORS

Model	Description
BVS-1	Waterproof connector for cables from 0.75 to 1.5 mm²
BVS-2	Waterproof connector for cables from 0.75 to 2 mm²



# CUT-OFF RISERS

## FEATURES

- To be connected directly to the sprinklers
- Possibility of cutting at any height
- Can also be used with the bubbler



## SPECIFICATIONS

- Thread: 3/4" and 1/2"

### Codification - PLASTIC EXTENSIONS

Model	Description
EU-TPR1515-1	Cut off riser 1/2"x1/2"
EU-TPR1520-1	Cut off riser 1/2"x3/4"
IT-TPR15201	Cut off riser to screwing 1/2"x3/4"
EU-TPR2020-1	Cut off riser 3/4"x3/4"

# BLAZING SADDLES

## FEATURES

- ABS product for strength and durability
- No problem of core drilling shavings
- Quick fastening to polyethylene or PVC hose
- No need to use additional tools for installation

## SPECIFICATIONS

- Thread: 1/2" and 3/4"
- Long-term endurance test with 1,060,000 on/off cycles at 4.2 bar with no leaks

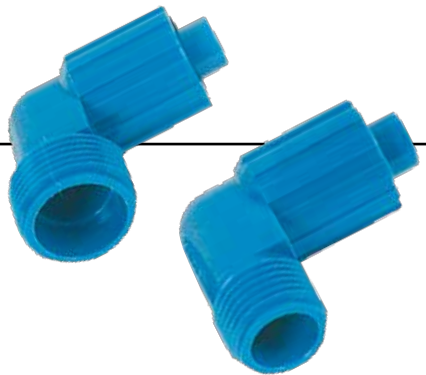
### Codification - PLASTIC EXTENSIONS

Model	Description
BS2550	Blazing saddles for 25mm - 1/2" female hose
BS2575	Blazing saddles for 25mm - 3/4" female hose
BS2590	Blazing saddles for 25mm hose - with 3/8" connection for Blue Flex Hose
BS3350	Blazing saddles for 33mm - 1/2" female hose
BS3375	Blazing saddles for 33mm - 3/4" female hose
BS3390	Blazing saddles for 33mm hose - with 3/8" connection for Blue Flex Hose





# SELF-THREADING ELBOW



## FEATURES

- Automatic connection of the hose in the elbow
- No need to use glue or tools
- 90° configuration for easy installation
- Always use with the Super Blue Flex Hose

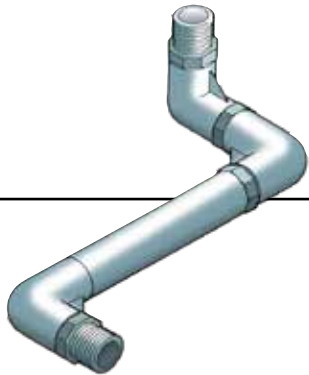
## SPECIFICATIONS

- Thread: ½" and ¾" male
- Maximum operating pressure: 7.0 bar

### Codification - SELF-TAPPING ELBOW

Model	Description
3300-005	½" male Elbow Lasco Blue Twister Manifold + one male double helix connection
3300-007	¾" male Elbow Lasco Blue Twister Manifold + one male double helix connection

# SWING JOINT



## FEATURES

- Hi-Impact PVC body
- 360° rotation in three directions
- Essential for perfect levelling of sprinklers on the ground
- Pre-assembled unit that facilitates and speeds up the installation of the sprinklers

## SPECIFICATIONS

- Thread: 1" and 1 ½" male
- Maximum operating pressure: 13.6 bar at 22°C

### Codification - ARTICULATED JOINT

Model	Description
IT-TPK025	2 x 1" male, 30.5 cm Swing joint
IT-TPK040	2 x 1 ½" male, 30.5 cm Swing joint

# BLAZING ELBOW



## FEATURES

- Drainage fittings
- Automatic connection of the hose in the elbow
- No need to use additional tools
- 90° configuration for easy installation

## SPECIFICATIONS

- Thread: ½" and ¾" male

### Codification - BLAZING ELBOWS

Model	Description
FP1800	Blazing Drainage Elbow – graft ½" male
FP1900	Blazing Drainage Elbow – graft ¾" male

# ANTIVANDALISM UNION



## FEATURES

- Prevents system malfunctions caused by tampering

## SPECIFICATIONS

- Thread: ½"

### Codification - VANDAL-RESISTANT JOINT

Model	Description
TAV020	¾" M x ¾" F Antivandalism union



# BLAZING CUTTERS

## FEATURES

- Adjustability to cut multiple size polyethylene and PVC hoses
- It ensures a clean, precise and straight cut

## SPECIFICATIONS

- 40 mm hoses

### Codification - BLAZING CUTTERS

Model	Description
SB6000	Adjustable cutter for PVC polyethylene hoses
46350	Cutter (for 40 mm hose)
BLRC50	Spare blade for RC5000 cutter
BLRC70	Replacement blade for RC7000 cutter
BL6001	Spare blade for SB6000 cutter



# CHECK VALVE

## FEATURES

- It prevents the piping from draining at low points
- It allows immediate closure at the end of irrigation, without percolation
- Materials: plastic

## SPECIFICATIONS

- Thread: 1/2"
- Setting range: 0.12-0.96 bar
- Adjustment for closing with pressures below 0.4 bar
- By turning clockwise the closing pressure increases and vice versa (each turn of the screw corresponds to 0.12 bar)

### Codification - ANTI-DRAIN VALVE

Model	Description
IT-VHCV015	1/2" plastic check valve
IT-VHCV020	3/4" plastic check valve



# DRAIN VALVE

## FEATURES

- Allows drainage of hoses at the end of irrigation
- Materials: bronze

## SPECIFICATIONS

- Thread: 1/2"
- A spring opens the valve automatically when the pressure drops below 0.2 bar

### Codification - DRAIN VALVE

Model	Description
IT-VAD0150	1/2" drain valve in bronze



# BLAZING DRAIN VALVES

## FEATURES

- Slow automatic drainage to avoid puddles
- Fabric-reinforced filter, no need to create a gravel bed
- Self-cleaning at each irrigation cycle. The EPDM rubber ball seal varies its position each time.
- ABS body

## SPECIFICATIONS

- Thread: 1/2" and 3/4" male
- It opens automatically when the pressure drops below 0.7 - 1 bar

### Codification - BLAZING DRAIN VALVES

Model	Description
22163-EU	Blazing drain valve for side connection - 1/2" male
23167-EU	Blazing drain valve - 3/4" male



22163-EU



23167-EU



# H<sub>2</sub>OCAD® 4.0

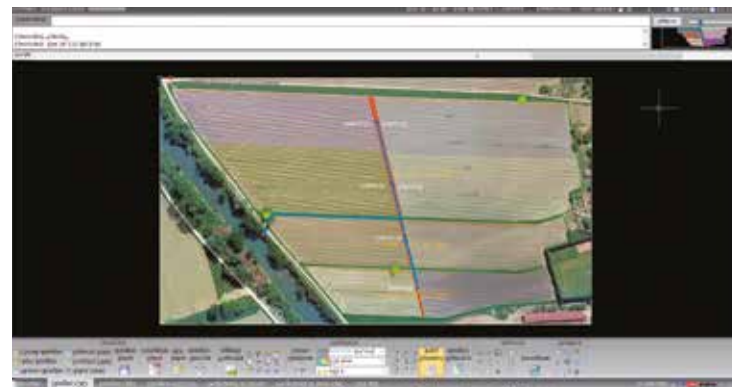
The irrigation system design software

H<sub>2</sub>OCAD® is an integrated application which aims to simplify the design of irrigation systems allowing a significant reduction in implementation times.

H<sub>2</sub>OCAD® is useful not only for drawing, but also to calculate everything you need for a valve boxe-designed system, including pressure drops, evapotranspiration (FAO formula), dimensioning of electrical cabling, pumps and irrigation sectors and much more.

The new version of the software includes a powerful vector drawing engine, a new graphic interface and the expansion of the calculation and design functions.

It contains an impressive database which includes 5,000 products, 13,000 varieties of plants, 6,000 climate data; the database is linked to calculation algorithms to ensure compliance with UNI irrigation standards.



## FEATURES

**High degree of design automation:** the software can automate a number of operations, facilitating, for example, the positioning of the sprinklers and drip lines, also allowing a very fast division into sectors.

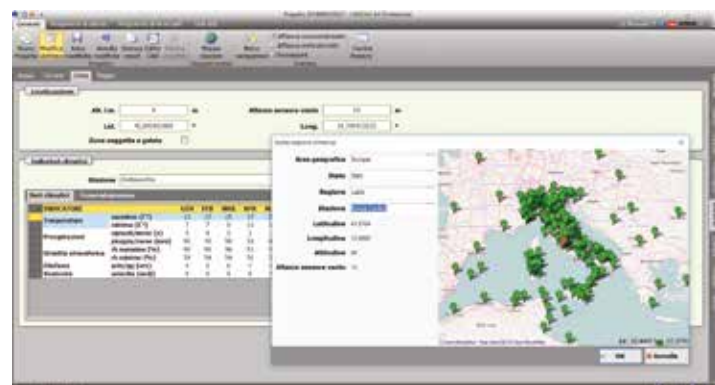
**Metric calculation:** with H<sub>2</sub>OCAD® 4.0 it is possible to automatically obtain the estimate metric calculation. Layout plans: H<sub>2</sub>OCAD® 4.0 contains the starting layout plans of the project, the post-survey plans, the rough plan and the finished project.

**Precise project design:** the software incorporates a powerful vector drawing motor able to draw all the constituent elements of the project: tubing, electrical wiring, excavations, measurements and accessories.

**Importing and exporting:** H<sub>2</sub>OCAD® 4.0 can import and export both raster and vector files.

**Prints:** the software has a function that allows printing the projects with a highly professional print layout (with logos, project data sheet and legend).

*Innovation and completeness ensure H<sub>2</sub>OCAD 4.0® is a unique product, intended to make the work of those involved in irrigation design more effective and efficient.*



For further information, contact our Engineering Department.







# MICRO-IRRIGATION FOR GARDENING



## MICRO-IRRIGATION FOR LANDSCAPE

*Pages 98-117*

DRIP IN® PC BROWN	98
DRIP IN® CL BROWN	99
POLYETHYLENE HOSE	100
NGE AL	101
WHITE SPIDER	102
EURO-PLUS	103
EURO-KEY	104
VARIS & VARISTAKE	105
TRICKLER	105
VARIJET	106
ACCESSORIES FOR VARIJET	107
VORTEX FOGGER	108
BUBBLER	110
SCREEN IN-LINE FILTERS	110
M SERIES FILTERS	111
S AND F SERIES FILTERS	112
XD SERIES FILTERS	113
HERCULES VALVE BOXES	114
E-PIC	115
PRESSURE REGULATORS	115
AIR RELEASE VALVE	116
DRIP LINE FITTINGS AND PE HOSE	117



# DRIP IN® PC BROWN

Drip line with self-compensating cylindrical Emitter



Drip In® PC brown is the drip line with self-compensating cylindrical Emitter ideal for irrigating lands and gardens that are not perfectly flat.

The Drip In® PC Emitter guarantees:

- Efficient operation;
- Distribution uniformity;
- Multi-year durability.

Drip In® PC brown can be installed on the surface or underground.

## SPECIFICATIONS

- 16 mm nominal diameter
- 33 cm spacing
- Emitter 2.0 l/h
- Max operating pressure 3.5 bar
- 4 reel lengths available:
  - 25 m / 50 m / 100 m / 400 m

## FEATURES

- Pressure compensating system guaranteeing a constant flow rate even when the pressure varies;
- High clogging resistance, thanks to the design of the Emitter, studied for a multi-year duration:
  - Self-cleaning diaphragm
  - The raised inlet prevents sediment deposits from entering the Emitter;
- Two outlet holes on opposite sides prevent take-up of impurities;

## ADDITIONAL FEATURES

- Shade of brown particularly suitable for blending into flower beds and hedges
- Excellent flexibility that allows adapting the hose to the path
- Possibility of burying it completely

### Technical Data

Diameter	Spacing	Max Operating Pressure	Coil length	Weight	Coil dimensions (Ø X H)
16 mm	33 cm	3.5 bar	25 cm	1.5 kg	52 cm x 12 cm
			50 cm	2.8 kg	58 cm x 15 cm
			100 m	5.4 kg	59 cm x 18 cm
			400 m	22.4 kg	83 cm x 30 cm

### Codification - DRIP IN® PC BROWN

Model	Description
EHPCB162-33-25	Drip In PC Brown 16mm, 33cm, 2.0 l/h, 25m
EHPCB162-33-50	Drip In PC Brown 16mm, 33cm, 2.0 l/h, 50m
EHPCB162-33-100	Drip In PC Brown 16mm, 33cm, 2.0 l/h, 100m
EHPCB162-33-400	Drip In PC Brown 16mm, 33cm, 2.0 l/h, 400m

# DRIP IN® CL BROWN

Drip line with cylindrical Emitter



Drip In® CL brown is the drip line with cylindrical Emitter ideal for irrigating gardens, hedges and multi-year crops. The Drip In® CL Emitter ensures:

- Resistance to clogging;
- Durability;
- Excellent irrigation results on flat land.

Drip In® CL brown is designed and manufactured according to the best quality standards and represents an accessible and convenient investment guaranteeing perfect irrigation.

Drip In® CL brown can be installed on the surface.

## SPECIFICATIONS

- 16 mm nominal diameter
- 33 cm spacing
- Emitter 2.0 l/h
- Max operating pressure 3.5 bar
- 4 reel lengths available:
  - 25 m / 50 m / 100 m / 400 m

## FEATURES

- High clogging resistance, thanks to the design of the Emitter, studied for a multi-year duration;
- High resistance to accidental blows due to the use of machines or simply to bumps. This resistance allows a greater ease of installation.

## ADDITIONAL FEATURES

- Shade of brown particularly suitable for blending into flower beds and hedges;
- Excellent flexibility that allows adapting the hose to the path.

### Technical Data

Diameter	Spacing	Max Operating Pressure	Coil length	Weight	Coil dimensions (Ø X H)
16 mm	33 cm	3.5 bar	25 cm	1.6 kg	52 cm x 12 cm
			50 cm	3.2 kg	58 cm x 15 cm
			100 m	6.5 kg	59 cm x 18 cm
			400 m	26.0 kg	83 cm x 30 cm

### Coding - DRIP IN® CL BROWN

Model	Description
EHCLB162-33-25	Drip In PC CL Brown 16mm, 33cm, 2.0 l/h, 25m
EHCLB162-33-50	Drip In PC CL Brown 16mm, 33cm, 2.0 l/h, 50m
EHCLB162-33-100	Drip In PC CL Brown 16mm, 33cm, 2.0 l/h, 100m
EHCLB162-33-400	Drip In PC CL Brown 16mm, 33cm, 2.0 l/h, 400m

# POLYETHYLENE HOSE

## Polyethylene hose with Oval and Round section

The low density polyethylene hose is made from selected polymers to guarantee reliability, value for money and practicality. Its composition ensures a long working life, even in the most adverse environmental conditions. The mechanical characteristics of the polyethylene hose ensure the barbed Emitters are easy and secure to insert.

## FEATURES

- The low density polyethylene hose is characterised by:
  - Long working life even in the most severe working conditions;
  - Easy insertion of barbed Emitters such as Euro Key / Euro Plus / NGE AL.

## ADDITIONAL FEATURES

- The low density polyethylene hose allows transporting water in all applications in which the use of barbed Emitters is preferable or where secondary or branch lines are required.

### Oval Section Polyethylene Hose Dimensions (PHW codes)

Diameter	Wall thickness	Max Operating Pressure	Coil length	Weight	Coil dimensions (Ø X H)
16 mm	0.9 cm	3.5 bar	450 m	17.9 kg	80 cm x 30 cm
	1.1 cm	4.0 bar		22.0 kg	
20 mm	0.9 cm	3.5 bar	300 m	15.5 kg	80 cm x 30 cm
	1.1 cm	4.0 bar		17.6 kg	

### Circular Section Polyethylene Hose Dimensions (EHHOB codes)

Diameter	Wall thickness	Max Operating Pressure	Coil length	Weight	Coil dimensions (Ø X H)
16 mm	1.0 mm	3.5 bar	100 m	5.2 kg	59 cm x 18 cm



## SPECIFICATIONS

- The low density polyethylene hose range includes the following products:
  - Black oval section hose with blue stripe (code PHW):
    - 16 mm diameter, 0.9\* and 1.1 mm wall thickness
    - 20 mm diameter, 0.9\* and 1.2 mm wall thickness
  - Brown circular section hose (code EHHOB):
    - 16mm diameter, 1.0mm wall thickness
- The round section hose is suitable for inserting barbed Emitters (Euro Key/Euro Plus/ NGE/Vortex Fogger nebulisers) while the one with an oval section is particularly suitable for making connections between the main lines and the drip lines.



### Codification - POLYETHYLENE HOSE

Model	Description
EHHOB16-100	Brown circular cross-section polyethylene hose, 16mm, 1.0mm, 100m
PHW1609	Black oval cross-section polyethylene hose, 16mm, 0.9mm, 450m
PHW1611	Black oval cross-section polyethylene hose, 16mm, 1.1mm, 450m
PHW2009	Black oval cross-section polyethylene hose, 20mm, 0.9mm, 300m
PHW2012	Black oval cross-section polyethylene hose, 20mm, 1.2mm, 300m

# NGE AL

## Pressure-Compensating Anti-Leak Dripper

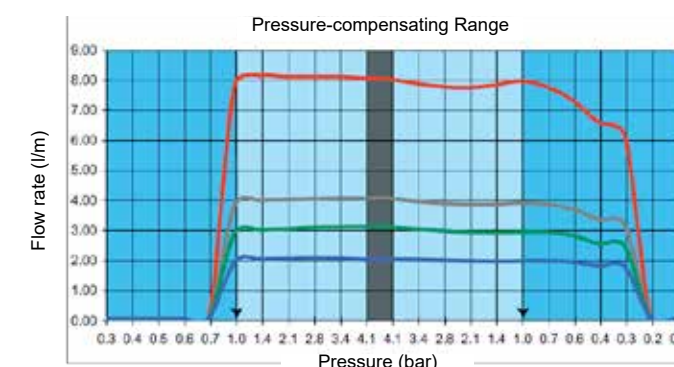
The Pressure-compensating Anti-leakage NGE®AL Dripper is ideal for the irrigation of potted plants and for any other application which requires a precise and accurate irrigation. Each dripper provides precise delivery while its anti-leakage device eliminates the possibility of drips when the system is closed.

## FEATURES

- The dripper and the self-compensating membrane design allow:
- The opening of the dripper when the pressure of 0.9 bar is reached. As a consequence, the start-up time of the system is reduced to a minimum and the uniformity of emission is maximum.
- Self-cleaning during plant operation.
- The drippers close at pressure values between 0.24 and 0.34 bar depending on the flow rate. This avoids the drainage of the system, allowing short irrigation cycles to be carried out efficiently.
- The closure of the dripper when the system stops avoids problems of occlusion due to the siphon effect.
- The inlet filter with semi-round section and the labyrinth with a large cross section guarantee a high resistance to clogging.
- Coefficient of Variation CV≤3%.
- Available with Male Adapter (-MA) for single or double output Spider.
- Compliant with ISO 9261:2004 standard



Dripper Flow vs. Pressure



### Technical Data

NGE® AL Specifications		DPCT02	DPCT03	DPCT04	DPCT08
Nominal Flow Rate	l / h	2.0	3.0	4.0	8.0
Pressure-compensating Range	bar	from 0.9 to 4.1			
Closing Pressure	bar	0.24	0.28	0.34	0.34
Coefficient of Variation (CV)		≤ 3%			
Minimum Filtration Required		140 mesh. (105 microns)			
Colour / Colour Code		Blue / BLUE	Green / GRN	Grey / BLK	Red / RED

- Light blue 2.0 l / h
- Light green 3.0 l / h
- Grey 4.0 l / h
- Light red 8.0 l / h

### Codification - NGE AL

Model	Description
DPCT02-MA-AL-BLUE	NGE Anti-Leak 2 l/h with male adapter
DPCT03-MA-AL-GRN	NGE Anti-Leak 3 l/h with male adapter
DPCT04-MA-AL-BLK	NGE Anti-Leak 4 l/hwith male adapter
DPCT08-MA-AL-RED	NGE Anti-Leak 8 l/h with male adapter

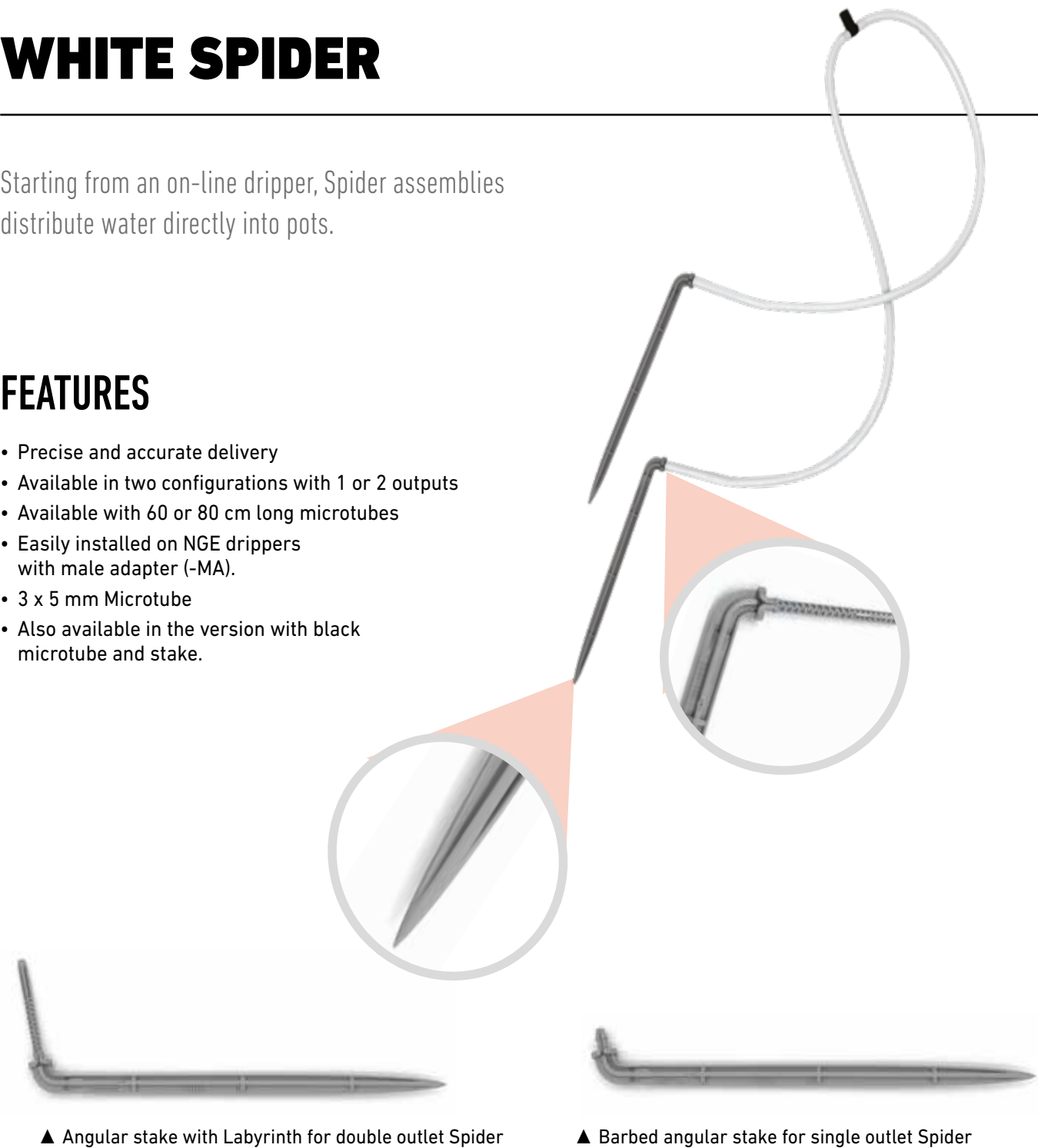


# WHITE SPIDER

Starting from an on-line dripper, Spider assemblies distribute water directly into pots.

## FEATURES

- Precise and accurate delivery
- Available in two configurations with 1 or 2 outputs
- Available with 60 or 80 cm long microtubes
- Easily installed on NGE drippers with male adapter (-MA).
- 3 x 5 mm Microtube
- Also available in the version with black microtube and stake.



▲ Angular stake with Labyrinth for double outlet Spider

▲ Barbed angular stake for single outlet Spider

### Codification - WHITE SPIDER

Model	Adapter	Microtube	Stake
<b>1-OUTLET WHITE SPIDER</b>			
IT-DBS1WQBX-60	1-outlet straight	1 x 60 cm White	1 90° Grey Barbed Stake
IT-DBS1WQBX-80	1-outlet straight	1 x 80 cm White	1 90° Grey Barbed Stake
<b>2-OUTLET WHITE SPIDER</b>			
IT-DBS2WQTX-60	2-outlet Tee	2 x 60 cm White	2 x 90° Grey Turbulent Flow Stakes
IT-DBS2WQTX-80	2-outlet Tee	2 x 80 cm White	2 x 90° Grey Turbulent Flow Stakes

# EURO-PLUS

Maintainable Pressure-compensating Dripper

## FEATURES

- Serviceable dripper to allow quick and easy maintenance of the system.
- Lug-equipped base to hold the dripper in position along the drip line.
- Silicone membrane.
- 4 mm barbed inlet.
- Male outlet with connection for 4x6mm microtube.



## SPECIFICATIONS

- Nominal flow rate: 4, 8 and 16 l/h.
- Pressure-compensating Range: 1.0-3.0 bar.
- Coefficient of Variation (CV) ≤5%.
- Recommended filtration: 150 mesh.
- Compliant with ISO 9261:2004 standard.

### Technical Data

Code	Flow rate in l/h @				
	1.0 bar	1.5 bar	2.0 bar	2.5 bar	3.0 bar
IT-DPJ04-2	4.2	4.3	4.6	4.7	4.6
IT-DPJ08-2	8.2	9	9.2	9.1	8.7
IT-DPJ15-2	12.2	14	15.5	16.5	15.5



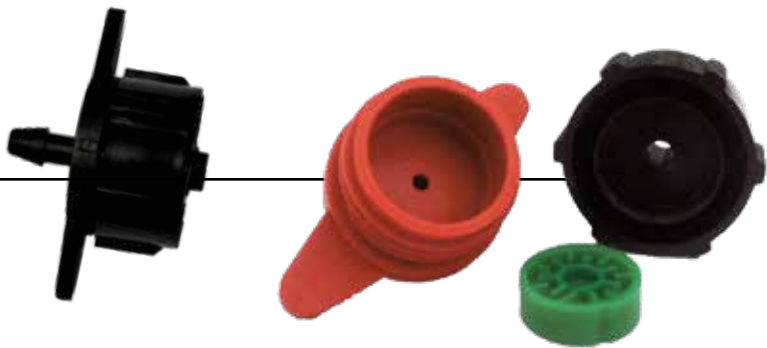
### Codification - EURO PLUS

Model	Description
IT-DPJ04-2	Euro-Plus Maintainable Dripper with 4 l/h flow rate
IT-DPJ08-2	Euro-Plus Maintainable Dripper with 8 l/h flow rate
IT-DPJ15-2	Euro-Plus Maintainable Dripper with 16 l/h flow rate



# EURO-KEY

Maintainable Emitter



## FEATURES

- Maintainable dripper to allow easy system monitoring
- Lug-equipped base for dripper line stability
- Compliant with ISO 9261:2004 standard
- Coefficient of Variation (CV) ≤5%
- Large turbulent flow labyrinth providing great resistance to clogging
- Key available (EUDNK00)

## SPECIFICATIONS

- Nominal flow rate: 2, 4, 8, 16, 24 l/h
- Recommended operating pressure: 1.0 - 2.0 bar
- VC ≤ 5%
- Inlet: 4 mm barbed connection
- Male outlet with connection for 4x6 mm microtube

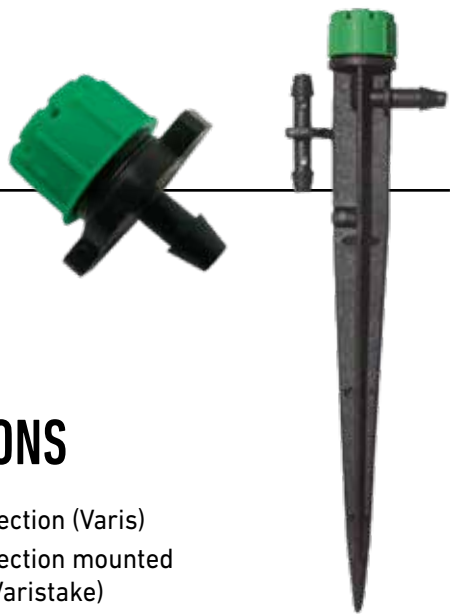
### Technical Data

Model	Disc Colour	Flow rate in l/h @		
		1.0 bar	1.25 bar	1.5 bar
Euro-Key 2 l/h	White	2.0 l/h	2.4 l/h	2.8 l/h
Euro-Key 4 l/h	Black	4.0 l/h	5.0 l/h	5.6 l/h
Euro-Key 8 l/h	Green	8.0 l/h	9.7 l/h	11.2 l/h
Euro-Key 16 l/h	Red	16.0 l/h	16.8 l/h	19.5 l/h
Euro-Key 24 l/h	Yellow	24.7 l/h	29.0 l/h	34.0 l/h

### Codification - EURO KEY

Model	Description
EU-DNK02-2-BLUE	Euro Key 2 l/h, dripper with blue base
EU-DNK04-2	Euro Key 4 l/h, dripper with black base
EU-DNK08-2-RED	Euro Key 8 l/h, dripper with red base
EU-DNK16-2-MB	Euro Key 16 l/h, dripper with brown base
EU-DNK24-2-GREEN	Euro Key 24 l/h, dripper with green base

# VARIS & VARISTAKE



## APPLICATIONS

Irrigation of potted plants, flower beds in residential and landscaped environments, on balconies, patios and terraces.

## FEATURES

- Adjustable flow rate from 0 to 40 l/h
- 8 outlet holes for a more uniform 360° water distribution
- Precise flow regulation thanks to the internal slip clutch
- Easily serviceable
- Operating pressure: 0.75-2.25 bar
- PE Micro-tube hose barbed connection supplied with the Varistake
- Varis can be installed directly on the PE hose or at the end of the microtube
- Varistake can be planted in the ground thanks to the built-in 12 cm stake

## SPECIFICATIONS

- 4 mm barbed connection (Varis)
- 4 mm barbed connection mounted on a 12 cm stake (Varistake)

### Codification - VARIJET

Model	Description
EU-DAK05	Varis, 0-40 l/h, 4 mm barbed connection
EU-DAK15	Varistake, 0-40 l/h, 4 mm barbed connection mounted on a 12 cm stake

# TRICKLER



## APPLICATIONS

Irrigation of potted plants, flower beds in residential and landscaped environments, on balconies, patios and terraces.

## FEATURES

- Adjustable flow rate from 0 to 30 l/h
- 12 outlet holes for a more uniform 360° water distribution
- Precise flow regulation thanks to the internal slip clutch
- Easily serviceable
- Operating pressure: 0.75-2.25 bar

## SPECIFICATIONS

- Connection with 4 mm male thread

### Codification - TRICKLER

Model	Description
1011292	Trickler, 0-30 l/h, 4 mm male thread



# VARIJET



## APPLICATIONS

Irrigation of flower beds and gardens.

## FEATURES

- Adjustable flow rate from 0 to 53 l/h
- Operating pressure: 0.5-2.5 bar
- Radius from 1.25 to 2.90 m
- 3 models available with 360° x 15, 180° and 90° trajectories
- Easily installed on PE hoses

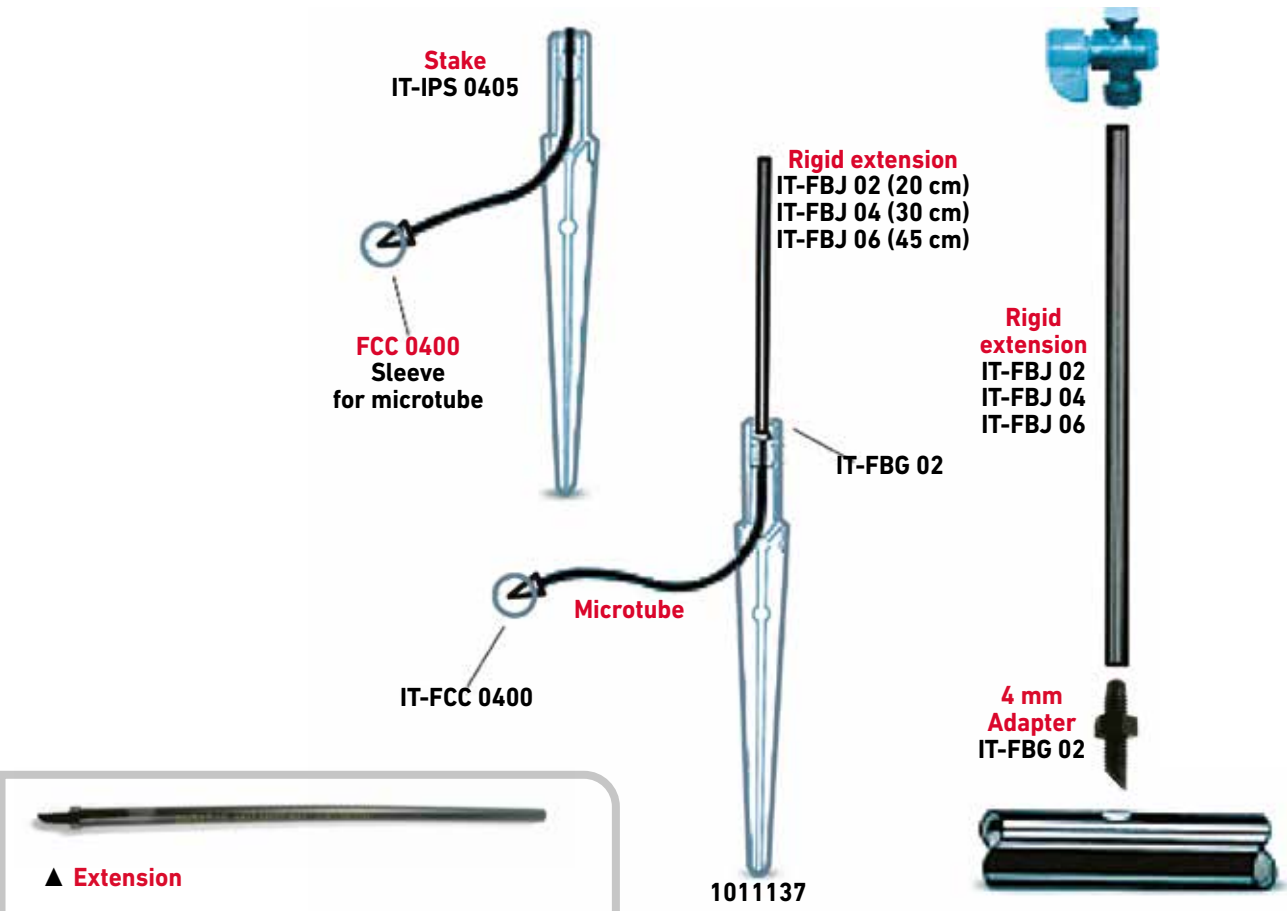
### Technical Data

Pressure (bar)	Flow rate (l/h)	SBB601 360° x 15	SBB607 180°	SBB609 90°
Radius (m)				
0.5	22	1.25	1.70	1.70
1.0	32	1.55	1.80	1.80
1.5	40	1.75	2.05	2.05
2.0	47	1.90	2.45	2.45
2.5	53	1.95	2.90	2.90

### Codification - VARIJET

Model	Description
SBB601	Varijet, 360° micro-sprinkler
SBB607	Varijet, 180° micro-sprinkler
SBB609	Varijet, 90° micro-sprinkler

# ACCESSORIES FOR VARIJET



▲ **Extension**  
IT-FBJ02 20cm extension with threaded adapter  
IT-FBJ04 30cm extension with threaded adapter  
IT-FBJ06 45cm extension with threaded adapter

◀ **IT-FVT04-1**  
Ø 4 mm barbed  
Mini Valve

◀ **IT-FVT04**  
Mini valve with  
male thread,  
Ø 4 mm

◀ **IT-FBG02**  
Male thread adapter,  
Ø 4 mm

◀ **1011137**  
Jet stake for Varijet  
to be used with  
IT-FBJ0x extension

◀ **IT-FBG01**  
Punch with key  
for Microjet

◀ **EU-FMP09**  
Punch



# VORTEX FOGGER

## Nebulisers

The Vortex Fogger is suitable for flower beds, bushes and trees where a very fine mist at low pressure and low flow is required, allowing local control of temperature and humidity. Nebulisers are traditionally used for cooling the air and therefore the foliage and for irrigating plants during germination and propagation. They are also increasingly being installed on or within the canopy of the plant and used for traditional outdoor crops to cool the plant during extreme heat.

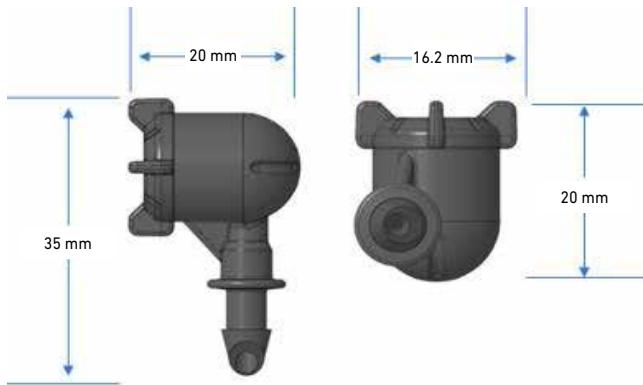
## FEATURES

- Simple two-part design (body + nozzle)
- It produces a fine spray (mist) at a relatively low operating pressure (170 kPa/1.7 bar)
- Used both where there are no pressure pumps and with existing systems designed for drip irrigation that traditionally operate at low pressure (100-250 kPa/1.0-2.5 bar)
- The body is offered in two colours:
  - Grey: offers the ability to divert heat and keep the temperature of the water mist low
  - Black: allows to significantly reduce the visual impact
- The Vortex Fogger produces a finer mist as the operating pressure increases. The flow rate of each nozzle will also increase as the operating pressure increases.
- Construction materials:
  - Body: POM M270
  - Nozzle: POM M270



## SPECIFICATIONS

- Flow rates (@ 170 kPa / 1.7 bar):
  - 8 l/h Green nozzle (0.43mm)
  - 12 l/h Black nozzle (0.76 mm)
  - 16 l/h Red nozzle (1.07 mm)
- Min. Pressure: 100 kPa/1.0 bar
- Max: Pressure: 500 kPa/5.0 bar
- Nominal pressure: 170 kPa/1.7 bar
- Recommended filtration:
  - 8 l/h - 120 mesh/125 micron
  - 12 l/h and 16 l/h - 80 mesh/200 micron
- Horizontal coverage (@ 100-500 kPa/1.0-5.0 bar)
  - Green nozzle: 1.9 m - 2.7 m
  - Black nozzle: 2.6 m - 2.9 m
  - Red nozzle: 2.45 m - 3.1 m
- Vertical coverage @ 2.0m from the ground (@100-500 kPa/1.0-5.0 bar)
  - Green nozzle: 0.5m - 1.0m
  - Black nozzle: 0.5m - 1.2m
  - Red nozzle: 0.5m - 1.3m

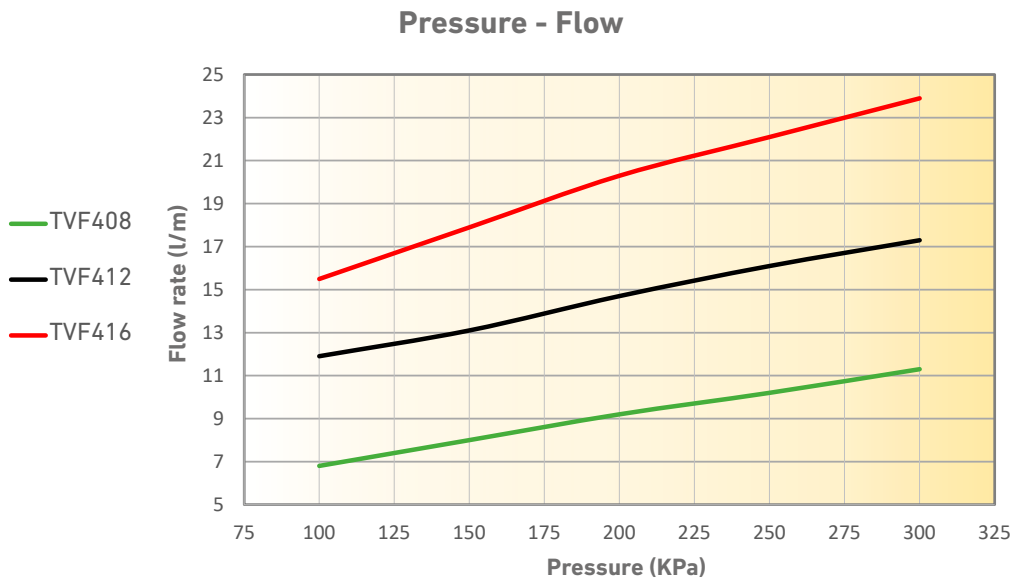


## INSTALLATION

- Insert it directly into the PE hose by drilling a 3.0mm hole or insert it into a PE microtube with an internal diameter of 4.0mm.
  - Inlet: 4.0mm barbed connection
  - Microtube: 4.0 mm I.D.
  - Recommended drilling: 3.0 mm
- The nebulisers can be operated in any direction (orientation).
- For cooling, install the nebuliser with a horizontal spray.
- For propagation, install at a height of 1.2-2.0 m and direct it downwards.

### Technical Data - Pressure and Flow

Pressure (kPa)	TVF408 (l/h)	TVF412 (l/h)	TVF416 (l/h)
100	6.8	11.9	15.5
150	8.0	13.1	17.9
200	9.2	14.7	20.3
250	10.2	16.1	22.1
300	11.3	17.3	23.9
350	12.1	18.5	25.5
400	12.9	19.6	27.0
450	13.4	20.3	28.1
500	14.0	21.2	29.4
Filtration	125 Micron	200 Micron	



### Codification - VORTEX FOGGER NEBULISERS

Model	Description
TVF408	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 8 l/h, Green nozzle, Black body
TVF408-G	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 8 l/h, Green nozzle, Grey body
TVF412	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 12 l/h, Black nozzle, Black body
TVF412-G	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 12 l/h, Black nozzle, Grey body
TVF416	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 16 l/h, Red nozzle, Black body
TVF416-G	4.0 mm barbed VORTEX FOGGER nebuliser, flow rate 16 l/h, Red nozzle, Grey body

# BUBBLER

## APPLICATIONS

For local irrigation of flowerpots, flower beds, single plants and shrubs.

## FEATURES

- Adjustable flow rate from 0 to 400 l/h
- Operating pressure from 1 to 3 bar
- Easy flow adjustment
- ½" female thread



### Codification - BUBBLER

Model	Description
EU-SHW401-2N	Bubbler, flood micro-sprinkler

# M SERIES FILTERS

Small plastic filters



## FEATURES

- Cartridge:
  - 150 mesh stainless steel screen
  - 150 mesh plastic discs
- Body and lid in polypropylene, fiberglass reinforced nylon locking ring
- Filtering surface area:
  - 135 cm² screen cartridge
  - 170 cm² disc cartridge
- Intermediate dimensions between the S and F models
- ½" male outlet (with optional cap) for quick self-cleaning

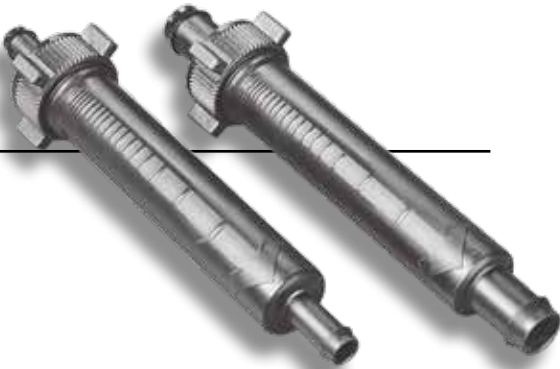
## SPECIFICATIONS

- From ¾" to 1" ½ male thread
- Maximum operating pressure: 10 bar

# SCREEN IN-LINE FILTERS

## FEATURES

- Two models available:
  - Ø 13 mm connection
  - Ø 19 mm connection
- Maximum operating pressure: 3 bar
- 80 mesh screen cartridge
- Indication of the flow direction printed on the filter body



### Codification - IN-LINE FILTERS

Model	Description
1011111B	In-line filter for 16 mm external Ø hose, 2 barbed Ø 13 mm connections, 80 mesh
1011113B	In-line filter for 25 mm external Ø hose, 2 barbed Ø 19 mm connections, 80 mesh

### Technical Data

Model	Screen filters	Disc filters	Inlet/Outlet Male	Micron	Mesh	Max flow rate (l/h)
M20	EU-ABF2015-2MW	EU-ABF2015-3MW	3/4	100	~ 150	100
M25	EU-ABF2515-2MW	EU-ABF2515-3MW	1"	100	~ 150	120
M32	EU-ABF3215-2MW	EU-ABF3215-3MW	1" 1/4	100	~ 150	180
M40	EU-ABF4015-2MW	EU-ABF4015-3MW	1" 1/2	100	~ 150	250

The maximum flow rates detailed in the table refer to a pressure drop of 0.5 bar (clean water)

### Codification - M SERIES FILTERS

Model	Description
EU-ABF2015-2MW	¾" male screen M Filter, 150 mesh without discharge
EU-ABF2515-2MW	1" male screen M Filter, 150 mesh without discharge
EU-ABF3215-2MW	1" ¼ male screen M Filter, 150 mesh without discharge
EU-ABF4015-2MW	1" ½ male screen M Filter, 150 mesh without discharge
EU-ABF2015-3MW	¾" male disc M Filter, 150 mesh without discharge
EU-ABF2515-3MW	1" male disc M Filter, 150 mesh without discharge
EU-ABF3215-3MW	1" ¼ male disc M Filter, 150 mesh without discharge
EU-ABF4015-3MW	1" ½ male disc M Filter, 150 mesh without discharge



# S and F SERIES FILTERS

Small plastic filters

## FEATURES

- Cartridge:
  - 150 mesh stainless steel screen
  - 150 mesh plastic discs
- Body and lid in polypropylene, fiberglass reinforced nylon locking ring
- Filtering surface area:
  - 114 cm<sup>2</sup> screen cartridge (S Filter)
  - 225 cm<sup>2</sup> screen cartridge (F Filter)
  - 280 cm<sup>2</sup> disc cartridge (F Filter)
- Easy to disassemble for easy cleaning
- ½" male outlet (with optional cap) for quick self-cleaning

## SPECIFICATIONS

- From ¾" to 1" ½ male thread
- Maximum operating pressure: 10 bar



### Technical Data

Model	Screen filters	Disc filters	Inlet/Outlet Male	Micron	Mesh	Max flow rate (l/h)
F20-S	EU-ABF2015-2SW	-	3/4	100	~ 150	80
F25-S	EU-ABF2515-2SW	-	1"	100	~ 150	80
F25	EU-ABF2515-2FW	EU-ABF2515-3FW	1" 1/4	100	~ 150	200
F32	EU-ABF3215-2FW	EU-ABF3215-3FW	1" 1/2	100	~ 150	250
F40	EU-ABF4015-2FW	EU-ABF4015-3FW		100	~ 150	300

The maximum flow rates detailed in the table refer to a pressure drop of 0.5 bar (clean water)

### Codification - SERIES S AND F FILTERS

Model	Description
EU-ABF2015-2SW	¾" male screen S Filter, 150 mesh without discharge
EU-ABF2515-2SW	1" male screen S Filter, 150 mesh without discharge
EU-ABF2515-2FW	1" male screen F Filter, 150 mesh without discharge
EU-ABF3215-2FW	1" ¼ male screen F Filter, 150 mesh without discharge
EU-ABF4015-2FW	1" ½ male screen F Filter, 150 mesh without discharge
EU-ABF2515-3FW	1" male disc F Filter, 150 mesh without discharge
EU-ABF3215-3FW	1" ¼ male disc F Filter, 150 mesh without discharge
EU-ABF4015-3FW	1" ½ male disc F Filter, 150 mesh without discharge

# XD SERIES FILTERS

Big plastic filters

## FEATURES

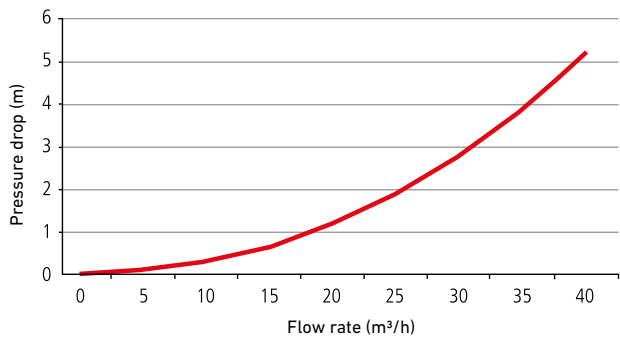
- Innovative disc design
- Disc cartridge: 120, 150, 200 mesh
- Body, lid and locking ring in fiberglass reinforced nylon
- Filtering surface area:
  - 2" and 3" model with short body: 10,800 cm<sup>2</sup>
  - 3" Model: 18,000 cm<sup>2</sup>
- Ring-nut closure for easy assembly/disassembly without tools
- Pressure gauge connections to be perforated if necessary, to allow measuring the pressure and thus the cleanliness of the filter
- The filter allows for very long cleaning intervals



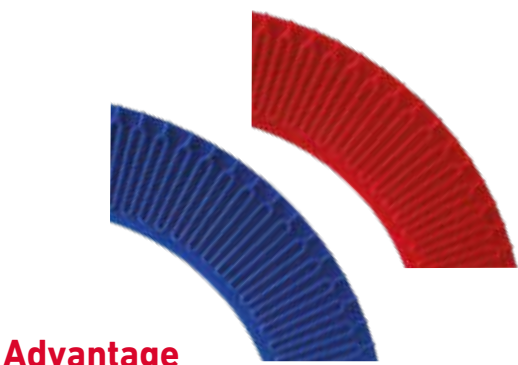
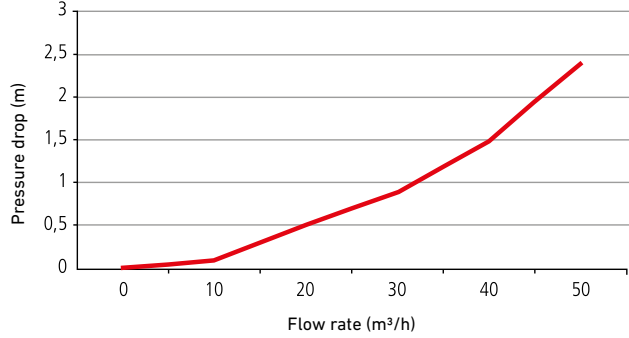
## SPECIFICATIONS

- 1" male threaded connection to be drilled for using air release valves
- Maximum operating pressure: 10 bar
- 2 Gauge mounting points: 1/4" female Gas
- Nominal flow rates:
  - 2" Model: 25 m<sup>3</sup>/h
  - 3" Model (short and long lid): 50 m<sup>3</sup>/h
- Dimensions:
  - 2" Model: L274 mm; H540 mm
  - 3" Model: L320 mm; H785 mm

2" pressure drop table



3" pressure drop table



### Advantage

The innovative design of the XD disc allows obtaining a very large filtering surface area (with the same cartridge size) compared to a traditional disc filter, thus ensuring a high filtering capacity.

### Codification - XD SERIES FILTERS

Model	Description
EU-ABF5012-3X	2" XD disc Filter, 120 mesh
EU-ABF5015-3X	2" XD disc Filter, 150 mesh
EU-ABF5020-3X	2" XD disc Filter, 200 mesh
EU-ABF7512-3XS	3" XD disc Filter, short cover, 120 mesh
EU-ABF7515-3XS	3" XD disc Filter, short cover, 150 mesh
EU-ABF7520-3XS	3" XD disc Filter, short cover, 200 mesh
EU-ABF7512-3X	3" XD disc Filter, 120 mesh
EU-ABF7515-3X	3" XD disc Filter, 150 mesh
EU-ABF7520-3X	3" XD disc Filter, 200 mesh

# HERCULES VALVE BOXES

Hercules is the range of Irritrol valve boxes designed to blend maximum protection of underground systems (valves and related instruments) with ease of use as they easily adapt to new or existing systems.

## FEATURES

### Circular Models

- **Cover:**
  - Convenient 2-hole handle, with closing direction shown
  - Bayonet coupling system with optional locking screw
  - Circular edge covering the body, rapid positioning, protection against water/soil entry
  - Non-slip surface
  - Grass green colour
- **Body:**
  - Conical shape for guaranteed stability in the ground
  - Reinforced wall thickness to protect against structural collapse
  - Ready-to-use and easily enlargeable tubing inlets

### Rectangular models

- **Cover:**
  - Access handle for easy opening
  - Edge covering the body, rapid positioning, protection against water/soil entry
  - Optional locking screw system
  - Anti-slip surface
  - Grass green colour
- **Body:**
  - Oblique shape for guaranteed stability in the ground
  - Innovative design to quickly, safely make holes on-site without using electricity
  - Reinforced angles to protect against structural collapse

For the measurements, see page 77 in this catalogue  
\* Customisable covers, contact for details



- Resistance
- Versatility
- Range in line with the EN124 standard, designed to withstand loads up to 1.5 tons

### Codification - HERCULES VALVE BOXES

#### Basic models without holes

Model	Description
EU-HCS	Small round valve boxe with cover
EU-HCM	Medium round valve boxe with cover
EU-HRS	Standard rectangular valve boxe with cover without holes
EU-HRJ	Jumbo rectangular valve boxe with cover without holes
EU-HCSL	Small round valve boxe cover
EU-HCML	Medium round valve boxe cover
EU-HRSL	Standard rectangular valve boxe cover without holes
EU-HRJL	Jumbo rectangular cover

Optional tightening after manual drilling and locking kit available separately EU-HCK

#### Models with one hole - Locking kit not included EU-HRK

Model	Description
EU-HRSO	Standard rectangular valve boxe with cover with one hole
EU-HRJO	Jumbo rectangular valve boxe with cover with one hole
EU-HRSLO	Standard rectangular valve boxe cover with one hole
EU-HRJLO	Jumbo rectangular valve boxe cover with one hole

#### Models with multiple holes - (tightening hole and ventilation holes) locking kit not included EU-HRK

Model	Description
EU-HRSM	Standard rectangular valve boxe with cover with multiple holes
EU-HRJM	Jumbo rectangular valve boxe with cover with multiple holes
EU-HRSLM	Standard rectangular valve boxe cover with multiple holes
EU-HRJLM	Jumbo rectangular valve boxe cover with multiple holes

#### Accessories

Model	Description
EU-HCK	Locking kit for round models (M5x35 screw + M5x8 hexagonal nut)
EU-HRK	Locking kit for rectangular models (M6x25 hexagonal bolt + M6 G 24x16x11 plate)
EU-HRC	Cable support for rectangular models

# E-PIC

## FEATURES

- Manual opening with standard internal drain
- Slow, anti-water hammer closing
- Double rib thermoplastic rubber diaphragm

## ADDITIONAL FEATURES

- 4-screw easy valve opening system
- Serviceable auger, removable from the outside
- Flow rate of 80.0 l/min with 0.5 bar of pressure drop

### Codification - E-PIC

Model	Description
EU-EPIC-0.75-S	¾" Female E-pic Series Valve, Without Flow Control
EU-EPIC-1-S	1" Female E-pic Series Valve, Without Flow Control



## SPECIFICATIONS

- Flow rate: 1.2-7.2 m³/h (20 – 120 l/min)
- Operating pressure: 0.5-10.0 bar
- Solenoid, 24 VAC - 50 Hz:
  - Surge current absorption 0.34 Amp
  - Standard absorption 0.20 Amp

# PRESSURE REGULATOR

## FEATURES

- Ideal for areas where irrigation pressure is low and where there is a variation in pressure along the line
- The piston-valve assembly is built in DuPont Zytel for increased durability and consistent operation
- ABS body, ultrasonic welding of component parts
- Silicone O-ring seal to ensure lower pressure drop
- Spring in stainless steel

## SPECIFICATIONS

- Thread: ¾" male and female
- Operating pressure: 1.4 – 7.0 bar

### Codification - PRESSURE REGULATOR

Model	Description
IT-VRR2020151	¾" pre-calibrated pressure regulator, model 15
IT-VRR2020191	¾" pre-calibrated pressure regulator, model 19
IT-VRR2020251	¾" pre-calibrated pressure regulator, model 25



### Technical Data

Inlet pressure (bar)	Outlet pressure (bar) MODEL 15					Outlet pressure (bar) MODEL 19					Outlet pressure (bar) MODEL 25				
1.4	0.87	1.22	1.07	0.90	0.87	1.04	1.30	1.03	0.76	0.57	1.33	1.36	1.30	1.20	1.06
2.1	1.21	1.38	1.35	1.19	1.19	1.34	1.50	1.39	1.05	0.79	2.02	1.92	1.78	1.63	1.74
2.8	1.44	1.42	1.35	1.24	1.22	1.51	1.58	1.51	1.33	1.03	2.08	2.01	1.90	1.80	1.69
3.4	1.48	1.43	1.34	1.25	1.19	1.59	1.56	1.51	1.41	1.23	2.13	2.01	1.91	1.82	1.73
4.1	1.47	1.45	1.32	1.23	1.18	1.61	1.55	1.48	1.41	1.34	2.14	2.01	1.92	1.80	1.72
4.8	1.47	1.46	1.32	1.19	1.15	1.59	1.52	1.46	1.37	1.30	2.14	1.97	1.93	1.77	1.69
5.5	1.47	1.46	1.32	1.17	1.13	1.59	1.51	1.44	1.35	1.26	2.09	1.97	1.92	1.76	1.67
6.2	1.46	1.49	1.31	1.16	1.15	1.55	1.49	1.41	1.35	1.26	2.07	1.88	1.94	1.76	1.66
6.9	1.44	1.46	1.31	1.16	1.15	1.50	1.48	1.38	1.32	1.23	2.01	1.88	1.95	1.75	1.63
l/min	3.8	7.6	15.1	22.7	30.3	3.8	7.6	15.1	22.7	30.3	3.8	7.6	15.1	22.7	30.3



# AIR RELEASE VALVE

## APPLICATIONS

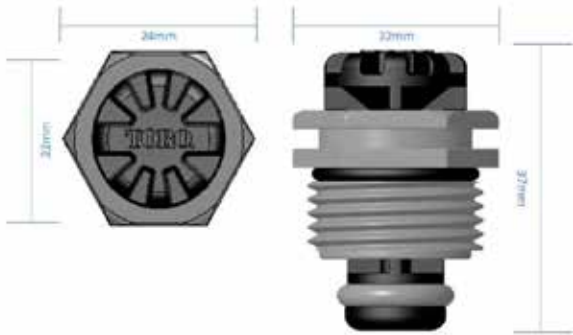
Air release valve designed to let the air out of the lines when filling the lines and to allow the air to return, avoiding the vacuum effect, during emptying.

## OPERATION

- The valve expels air from the irrigation network as the lines fill. When the water reaches the inside of the valve, the floater rises and seals the outlet.
- The valve also prevents the creation of a vacuum and subsequent collapse of the piping as the lines empty. When the pressure is reduced, the floater drops opening the valve and allowing outside air to enter the irrigation network.

## INSTALLATION

- Install vertically at the highest points or at the end of the irrigation network where air can accumulate during operation.



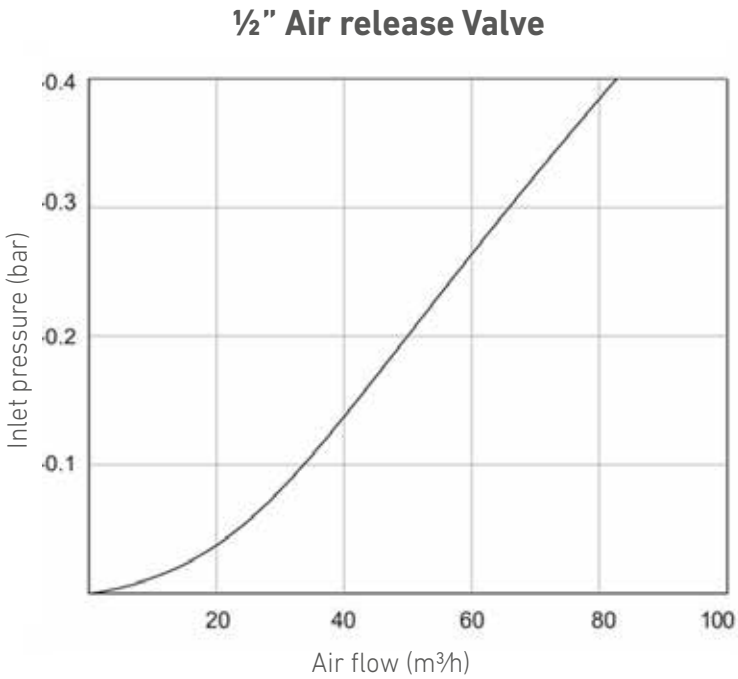
### Codification – AIR RELEASE VALVE

Model	Description
TVB15	1/2" male threaded kinetic air release valve



## SPECIFICATIONS

- Dimensions: 37mm high x 22mm wide x 22mm depth
- Thread: 1/2" NPT
- Minimum pressure: 0.3 bar
- Max pressure: 10.0 bar
- Operating range: from 3.0 bar to 6.0 bar
- Air release volume (flush): up to 80m³/h at -0.4 bar



# DRIP LINE FITTINGS AND PE HOSE

	Model	Description
	IT-FCC617	Fitting for 16 mm Drip line
	IT-FCC618	Fitting for 20 mm Drip line
	IT-FTT612	Tee fitting for 16x16x16mm Drip line
	IT-FTT616	Tee fitting for 20x20x20mm Drip line
	IT-FGA6191	3/8" male threaded starter for 16mm Drip line
	IT-FGA6192	3/8" male threaded starter for 20mm Drip line
	IT-FGA619	10 mm barbed starter for 16 mm Drip line
	IT-FGA620	10 mm barbed starter for 20 mm Drip line
	1011231	Line end cap for 16mm Drip line
	1011233	Line end cap for 20mm Drip line
	IT-IPS1501	Locator stake for 16 mm Drip line
	IT-FMP457	7 mm punch tool for 10 mm barbed connections

# PROMOTIONAL ITEMS

## LITERATURE




Code	Description
IT-QCATIR-E/23	Irritrol Catalogue, 2023
IT-QIRRD-E	Irritrol range Brochure
IT-QLIFR-E/20	Life Brochure
IT-QLIFE-E/22	Life Plus Brochure
IT-QLIFEL-E	Life Data Sheet
IT-QLIFEDCL-E	Life DC Data Sheet, English/French
IT-QEPIC-E	E-Pic Valve Sheet
IT-QHER-E	Hercules Valve boxes Sheet
IT-QIPN-R-E	Rotary Nozzles Sheet
IT-QCL-E	Climate Logic Sheet
IT-Q550R-E	550R-SC Sheet

## MERCHANDISING



Code	Description
IT-QMIGMA2	Irritrol T-Shirt
IT-QMUGCA2	Irritrol Cap
IT-QMIGMA5	Irritrol Polo
IT-QIRJACK	Irritrol Jacket
IT-QGILIR	Irritrol Gilet
IT-QSHIRTL	Life T-Shirt
IT-QSHIRTIPN	Rotary Nozzles T-Shirt
IT-QMIGRA1	Irritrol Binder
IT-QMIGPE	Irritrol Pen
IT-QIRRFOL	Irritrol Folder
IT-QSHOP-IRR	Irritrol Cotton Bag
IT-QMUA2T	Irritrol PVC Banner
IT-QVFLAG-IRR	Irritrol Upright flag
IT-QMKES	Irritrol Counter Display
IT-QMUGBA1	Irritrol red flag for sprinkler positioning
IT-QMUGBA2	Irritrol white flag for sprinkler positioning
IT-QMUGBA3	Irritrol green flag for sprinkler positioning
IT-QIRAD-1912	Irritrol Sticker (19x12 cm)
IT-QIRAD-52	Irritrol Sticker (5x2.2 cm)
IT-QLIFEPOS	Life Poster (50x70cm)
IT-QTOTEML	Life Totem
IT-QBANLIFE	Irritrol Banner
IT-Q550RPOS	550R Poster (70x100cm)
IT-QVALPOS	Richdel Valves Poster (70x100cm)
IT-QHERCUT	Hercules Cutter
IT-QHERPOS	Hercules Poster (50 x 70 cm)

# CONTACTS



### WULF KOLLMEIER - General Sales Manager Europe, Africa and Middle East for Ag and ResCom Irrigation

 Phone: +39 0765 40191  
 Mobile: +39 335 8304051  
 Email: [wulf.kollmeier@toro.com](mailto:wulf.kollmeier@toro.com)


### ALVARO ROYO-VILLANOVA LARRAÑAGA - Area Manager for Spain, Portugal, Netherlands, UK, Greece, Malta and Israel

 Mobile: +34 619833500  
 Email: [Alvaro.Royo-Villanova@toro.com](mailto:Alvaro.Royo-Villanova@toro.com)



### FAYCAL CHELIOUT - Area Manager for France, Belgium, Morocco, Algeria, Tunisia and Switzerland

 Mobile: +33 (0)680683297  
 Email: [faycal.cheliout2@toro.com](mailto:faycal.cheliout2@toro.com)



### PATRICK DELLA CORTE - Area Manager for France

 Mobile: +33 7 83 44 94 18  
 Email: [patrick.dellacorte@toro.com](mailto:patrick.dellacorte@toro.com)

### MOHAMMED GHADDAR - Area Manager for Middle East, South Africa, Egypt, Sub-Saharan Africa

 Mobile: +961 3 387873  
 Email: [mohammed.ghaddar@toro.com](mailto:mohammed.ghaddar@toro.com)

### ROBERT SUTERSKI - Area Manager for Belarus, Czech Republic, Hungary, Poland, Russia, Slovak Republic, Ukraine, Denmark, Finland, Norway, Sweden, Estonia, Latvia, Lithuania

 Mobile: +48 501 583 214  
 Email: [robert.suterski@toro.com](mailto:robert.suterski@toro.com)



# CONTACTS

---

## **RUSTAM SHADRAIMOV - Area Manager for Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Azerbaijan, Tajikistan**



**Mobile:** +7 701 2227338



**Email:** [rustam.shadraimov@toro.com](mailto:rustam.shadraimov@toro.com)

## **CRISTIAN MARGHERI- Technical Sales Manager EMEA Agriculture & ResCom Irrigation**



**Mobile:** +39 338 7294563



**Email:** [cristian.margheri@toro.com](mailto:cristian.margheri@toro.com)

## **HEADQUARTERS**



**Via dell'Artigianato, 1/3 00065 Fiano Romano (Rome)**



**Phone Number:** +39 0765 40191



**Fax:** +39 0765 455386

## **WAREHOUSE**



**Località Mola Saracena 31 - 00060 Capena (Rome)**

## **COMMERCIAL TECHNICAL INFORMATION**



**Website:** [www.irritrol.it](http://www.irritrol.it)



**Phone Number:** +39 0765 40191



IT-QCATIR-E/23

**I.S.E. S.r.l.** Via dell'Artigianato, 1-3  
00065 Fiano Romano (Roma) • Italy  
Tel. +39 0765 40191  
Fax +39 0765 455386  
[irritrol.it](http://irritrol.it)

 [@ISEontheweb](#)

 [@Irritrol Italia](#)

 [@ISE](#)