

With the expansion of landscape gardening on the one hand, and increase in water shortages on the other - smart, efficient and professional irrigation solutions are essential. NaanDanJain's extensive range of advanced irrigation technologies is designed to provide high-quality, user-friendly and efficient solutions to suit all professional and private gardening needs. These solutions include driplines, micro-sprinklers, pop-up sprinklers, sprinklers, controllers, electrical valves, valve boxes and accessories.







# Introduction

NaanDanJain, a world leader in irrigation solutions, is launching a new line of gardening and landscape products for both professional and private use in public, municipal or privately-owned areas.

With the expansion of landscape gardening on the one hand, and increase in water shortages on the other - smart, efficient and professional irrigation solutions are essential.

NaanDanJain's extensive range of advanced irrigation technologies is designed to provide high-quality, user-friendly and efficient solutions to suit all professional and private gardening needs. These solutions include driplines, micro-sprinklers, pop-up sprinklers, sprinklers, controllers, electrical valves, valve boxes and accessories. These are accompanied by years of experience, extensive know-how and ongoing support from our professional teams.



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# TAP TIMER

# **CLICK**



Four different models of tap timers help manage micro-irrigation on small residential gardens, such as planter boxes on balconies. Allows different combinations of frequency and duration within irrigation cycles. Easy and fast programming.

### **PROGRAMMING**

12 irrigation programs, combining 4 different durations with 3 different frequencies

#### **TECHNICAL FEATURES**

- I zone
- Inlet thread <sup>3</sup>/<sub>4</sub>"-1"
- Outlet thread 3/4"
- Flow rate: 5 25 l/m
- Working pressure: I.0 4.0 bar
- Diaphragm 9 VDC electric valve
- ABS body
- Powered by 2 X I.5 Volt AAA alkaline batteries

#### **CLICK**

- Simple to adjust and cost-effective
- Button settings
- · Starting time set to real time
- Duration options: 2, 5, 10, 15 minutes
- Frequency options: 12, 24, 48 hours

#### **CLICK PLUS**

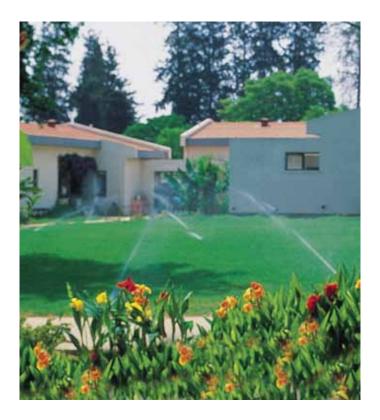
- Starting time set by choosing 'delay' from the moment you program it
- Duration options: 2, 5, 10, 15 minutes
- Frequency options: 12, 24, 48 hours

### **CLICK BLUETOOTH**

 Controlled by an app (Android or iPhone), which allows you to set a specific starting time and choose from pre-set programs

#### **CLICK MIST**

- Click Mist is the perfect solution for misting applications.
- Programs are quick misting cycles with short intervals, specifically set to refresh during the hot season.
- Duration options: 5, 10, 20, 30 seconds
- Frequency options: 1, 2, 5 minutes





# **TAP TIMER**

# AMICO +

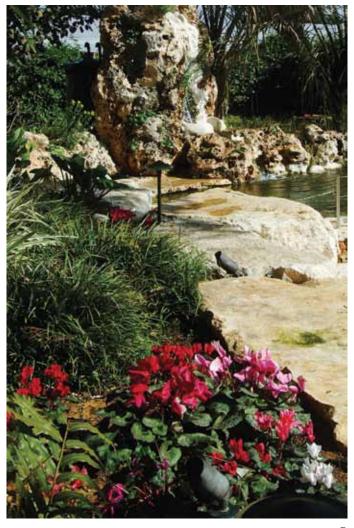


The Amico + tap timer is user-friendly and of a high quality. Easy programming with large 3" display. Backlight display and large characters to assist in simple and easy programming both day and night.

#### **PROGRAMMING**

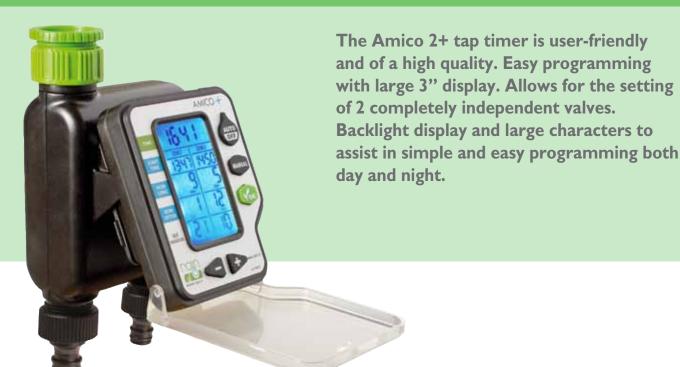
- I program
- Min/Max running time: I 240 minutes
- Watering frequency: once every 6 hours once every 15 days
- Current time indication
- Starting time indication
- Duration of watering indication
- Frequency indication
- Next irrigation indication
- Watering countdown
- Low battery function

- I zone
- Inlet thread 3/4"-1"
- Outlet thread 3/4"
- Flow rate: 5 40 l/m
- Max. working pressure: 6.0 bar
- Diaphragm 9 VDC electric valve
- · Removable control unit
- ABS body
- Hard plastic cover for LDC display protection
- Wide backlit 3" LCD display
- Powered by 2 X I.5 Volt AAA alkaline batteries





# TAP TIMER AMICO 2+



**PROGRAMMING** 

- I program
- Min/Max running time: I 240 minutes
- Watering frequency: once every 6 hours once every 15 days
- Current time indication
- Starting time indication
- Duration of watering indication
- Frequency indication
- Next irrigation indication
- · Watering countdown
- · Low battery function

- 2 zones
- Inlet thread 3/4" I"
- Outlet thread 3/4"
- Flow rate: 5 40 l/mn
- Max. working pressure: 6.0 bar
- Diaphragm 9 VDC electric valve
- · Removable control unit
- ABS Body
- Hard plastic cover for LDC display protection
- Wide backlit 3" LCD display
- Powered by 2 X I.5 Volt AA alkaline batteries





# **BATTERY/24 VAC CONTROLLER**

# **NEW**

# **C-DIAL PRO** 9 VDC/24 VAC INDOOR



Electronic indoor controller with 4 or 6 stations for residential applications. Easy setting of the programming in 3 steps: starting time, duration and frequency.

# Programming





Battery compartment



LCD screen

### **PROGRAMMING**

- 2 independent programs
- 2 starting times per program
- Running times: I 240 minutes per station
- · Shows next starting time
- Watering schedule: 7-day calendar with individual day selection
- Water budgeting mode: from 10% 200%
- Freeze program function (OFF)

### **TECHNICAL FEATURES**

#### 24 VAC model

- Indoor model with external transformer
- Electrical power supply: 220 VAC 50Hz
- Electrical output: 24 Volt AC, 0.8 AMP
- 2 x 1.5 Volt AA alkaline batteries for display viewing and permanent memory (for saving programs)
- Sensor connection
- Master valve/pump port

### 9 VDC model

- 4 x 1.5 Volt AA alkaline batteries
- Electrical output: 9 Volt DC for latching solenoids
- Sensor connection



Cover



# **BATTERY/24 VAC CONTROLLER**

# I-DIAL 9 VDC/24 VAC INDOOR & OUTDOOR



Electronic indoor controller with 4, 6 or 8 stations for residential applications. Easy setting of the programming in 3 steps: starting time, duration and frequency.

I-Dial Indoor

#### **PROGRAMMING**

- 4 independent programs
- I starting time per program
- Running times: I 240 minutes per station
- Shows next starting time
- Watering schedule:
  - By 7-day calendar with individual day selection
  - By cycle with watering intervals of I 19 days
- Water budgeting mode: from 10% 200%
- Freeze program function (OFF)
- Sensor connection, programmable per station
- Master valve/pump port can be enabled or disabled by station (only for 24 VAC version)

# TECHNICAL FEATURES 24 VAC model

- Wide backlit LCD display
- Sensor connection
- Master valve/pump port
- Indoor model:
  - external transformer
  - power output: 24 Volt AC, 0.8 AMP
- Outdoor model:
  - internal transformer
  - power output: 24 Volt AC, I.0 AMP
- Electrical power supply: 220 VAC 50Hz
- 2 x 1.5 Volt AA alkaline batteries for display viewing and permanent memory (for saving programs)



I-Dial Outdoor

#### 9 VDC model

- Wide backlit LCD display
- Sensor connection
- 4 x 1.5 Volt AA alkaline batteries
- Electrical output: 9 Volt DC for latching solenoids



# ELITE AC/DC 9 VDC/24 VAC INDOOR & OUTDOOR



Electronic controller for 4, 6, 8 or 10 stations with independent zone settings for starting times, duration, frequency and fertilizing functions. The controller works on a percentage (from 10% to 90%) of the irrigation time for each zone.

#### **PROGRAMMING**

- 4 independent programs per station
- I starting time per program
- Running times: I 240 minutes per station
- Next starting time indication
- Watering schedule:
  - By 7-day calendar with individual day selection
  - By cycle with watering intervals of I to I5 days
- Fertilizer output activation: from 10% to 90%
- Water budgeting mode: from 10% to 200%
- Freeze program function (OFF)
- Sensor connection, programmable per station
- Master valve/pump port can be enabled or disabled on each station (only for 24 VAC version)

# TECHNICAL FEATURES 24 VAC model

- Wide backlit LCD display
- Sensor connection
- Master valve/pump port
- Indoor model:
  - external transformer
  - power output: 24 Volt AC, 0.8 AMP
- Outdoor model:
  - internal transformer
  - power output: 24 Volt AC, I.0 AMP
- Electrical power supply: 220 VAC 50Hz
- 2 x 1.5 Volt AA alkaline batteries for display viewing and permanent memory (for saving programs)

### 9 VDC model

- Wide backlit LCD display
- Sensor connection
- 4 x 1.5 Volt AA alkaline batteries
- Electrical output: 9 Volt DC for latching solenoids



# S-DIAL (Smart Dial) 24 VAC OUTDOOR



Unique controller for 6, 9, 12 or 16 stations. Can work in traditional stand-alone timer mode or be managed with artificial intelligence when connected to a link in the Fliwer system. Clear, user-friendly settings and graphic display.

#### **PROGRAMMING**

#### **Timer mode**

- 4 independent programs
- 2 starting times per program
- Running times: I 240 minutes per station
- · Remaining irrigation time is indicated
- Complete program settings summary screen
- Watering schedule:
  - By 7-day calendar with individual day selection
  - By cycle with watering intervals from once every hour to once every 99 days
- Freeze program function
- Sensor connection, programmable per connection
- Master valve/pump port can be enabled or disabled by station
- · Advanced manual start:
  - By customized durations on stations
  - By same duration for all stations
  - By programs

# Fliwer mode

- Infinite functionalities provided by Fliwer platform:
  - Guided by artificial intelligence
  - Remote-controlled by user
- Advance manual start:
  - By customizing durations for stations
  - By same duration for all stations
  - By programs



S-Dial Cover



S-Dial Programs



S-Dial Program Summary

- · Advanced graphic display on touch screen
- Available in 6, 9, 12, 16 zone versions
- Waterproof connection to 220 Volts
- Backup battery
- Integrated radio connection to Fliwer system
- Sensor/flowmeter port
- Master valve/pump port
- Hard transparent plastic cover



# AMICO PRO 9 VDC IP 68



Unique IP 68 battery controller for valve boxes in 1, 2 or 4 stations. User-friendly and of a high quality. Easy programming with large 3" display. Backlit display and large characters facilitate controller programming day or night.

#### **PROGRAMMING**

- 2 independent programs
- I starting time per program
- Running times: I 240 minutes per station
- Next starting time indication
- Watering schedule by cycle: from once every 6 hours once every 15 days
- Current time indication
- Starting time indication
- Duration of watering indication
- Frequency indication
- Next irrigation indication
- Watering countdown

- Available in 1, 2, 4 zone versions
- Wide backlit 3" LCD display
- · Low battery indication
- Powered by 2 X I.5 Volt AA alkaline batteries
- Fast, waterproof connections for 9 VDC latching solenoids
- Provided with holder for valve boxes





# W-DIAL 9 VDC IP 68



Waterproof controller for I, 2, 4 or 6 stations for battery-powered valve boxes. Backlit LCD display and large characters facilitate controller programming day or night. W-DIAL can work in both traditional stand-alone controller mode and in Fliwer mode connected by a link.

#### **PROGRAMMING**

## **Timer mode**

- 4 independent programs
- 3 starting times per program
- Running times: I 240 minutes per station
- Watering schedule:
  - By 7-day calendar with individual day selection
  - By cycle with watering intervals of once every hour to once every 99 days
- Freeze program function (OFF)
- Manual start by customized durations on stations

#### Fliwer mode

- Infinite functionalities provided by Fliwer platform:
  - Guided by artificial intelligence
  - Remote-controlled by user

- Available in 1, 2, 4, 6 zone versions
- Wide backlit LCD display
- ABS body, fully waterproof (IP 68)
- Sensor connection
- Integrated radio connection to Fliwer system
- Powered by 4 X I.5 Volt AA alkaline batteries
- Fast, waterproof connections for 9 VDC latching solenoids
- Maximum wire length to solenoids: 30 meters with I.5 mm<sup>2</sup> wire size
- Provided with holder for valves boxes



# TBD (TRUE BLUETOOTH DEVICE)



TBD (True Bluetooth Device) is the most flexible IP 68 battery controller for 1, 2, 4 or 6 stations for valve boxes. With the latest Bluetooth technology, it is managed with an advanced app on your mobile phone.

#### **PROGRAMMING**

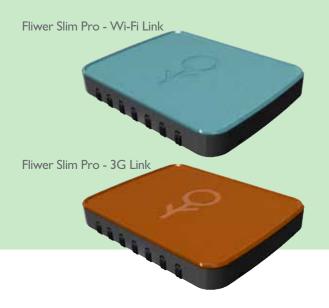
- 3 possible methods:
  - By A-B-C program (with 4 starting times per program)
  - By valve (I duration setting and 4 starting times)
  - By valve program (4 duration and starting time settings)
- Running times: from I minute to I full day per station
- Complex alarm system

- Available in 1, 2, 4. 6 zone versions
- Ultrasonic welded ABS housing, fully waterproof (IP 68)
- Powered by 2 X I.5 Volt AA alkaline batteries
- Fast waterproof connections for 9 VDC latching solenoids
- Valve short circuit detection system
- Maximum wire length to solenoids: 30 meters with 1.5 mm<sup>2</sup> wire size
- Bluetooth range: about 10 meters
- Provided with holder for valves boxes





# **FLIWER** SLIM PRO



#### **FLIWER LINK**

**Fliwer Slim Pro Link** allows you to connect any Fliwer device to the cloud, and to identify and manage the needs of your garden on a daily basis. This model has additional features for the professional market

The new antenna design and IP 68 case allow you to place the link indoors or outdoors.

The slim design is space-saving and the built-in magnet allows you to attach it to all other Fliwer devices. Available in **Wi-Fi** and **3G** to enable you to connect to the system of your choice. Two options are available: lithium battery pack or 220 Volts (with transformer).

Fliwer Lotus Pro Sensor



Fliwer Slim Pro Sensor

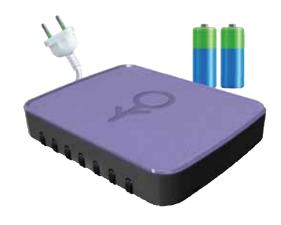


#### **FLIWER SENSOR**

Fliwer Lotus Pro Sensor is placed in a green area to build a phonological and representative profile of the environment. The number of sensors required will depend on the number of physical variations in the area; not only on the size of the area or the number of plants. Fliwer Sensor contains a rechargeable lithium battery for easy use and longevity. It detects light, environmental temperature and humidity, soil moisture and electro-conductivity.

**Fliwer Slim Pro Sensor** is the wired soil moisture sensor which can be plugged to **Fliwer Slim Pro Logger**, to allow you to monitor the soil at greater depth.

Fliwer Slim Pro Control



#### **FLIWER CONTROL**

Fliwer Slim Pro Control replaces conventional irrigation controllers in existing or new irrigation systems because it is fully compatible with all standard solenoid valves in the market. IP 68 allows you to place it both inside valve boxes and indoors. Easy to connect, it can control valves, pumps or master valves of up to 6 components. If more are needed, add more controls during installation.

Two versions are available: 9 Volt VDC for latching solenoid or 24 Volts. The slim design is space-saving and the magnet allows you to attach it to other Fliwer devices.



# FLIWER SLIM PRO

Fliwer Slim Pro Logger



#### **FLIWER LOGGER**

Fliwer Slim Pro Logger allows you to connect a maximum of 3 analogic or digital devices to the system, such as wired soil moisture sensors (like the Fliwer Slim Pro Sensor), wired electroconductivity sensors or flow meters. The Logger also has embedded light, humidity and temperature sensors. This product is ideal for professionals seeking a precise management system. The slim design is space-saving and the magnet allows you to attach it to all other Fliwer Slim Pro devices.

There are two available versions: lithium battery (not included) or 220 Volt transformer (included).

# Fliwer Slim Pro Display



#### **FLIWER DISPLAY**

**Fliwer Slim Pro Display** is for users who want a display that shows the main parameters of the system on site without a connection to the platform.

The IP 68 case allows you to place the pack indoors or outdoors. The slim design is space-saving and the magnet allows you to attach it to all other **Fliwer Slim Pro** devices.

There are two possible versions: lithium battery (not included) or 220 Volt transformer (included).

#### Fliwer Slim Pro Camera



### **FLIWER CAMERA**

**Fliwer Slim Pro Camera** is an IP 68 camera that works with battery or regular electric power, and allows you to visually control the status of your garden via the platform. The slim design is space-saving and the magnet allows you to attach it to all other **Fliwer Slim Pro** devices.

#### Fliwer Slim Pro Battery



#### **FLIWER BATTERY**

Fliwer Slim Pro Battery is a lithium battery pack that allows any device to work independently without a power source. The battery pack is rechargeable with a regular mini USB port. The IP 68 case allows you to place the pack indoors or outdoors. The slim design is space-saving and the magnet allows you to attach it to all other Fliwer Slim Pro devices.



# FLIWER DIY



#### **FLIWER SENSE & WATER**

**Fliwer Sense &Water Kit** allows you to monitor the state of your garden and the health of your plants. Suggestions and alerts are sent if something requires your attention.

Through your user interface on the platform, you can check all data provided by the Fliwer sensor, such as light, environmental temperature and humidity, soil moisture and the need of fertilization (indicated by the electro-conductivity of the soil). The sensor contains an electric valve, which can be used to control a micro-irrigation system.





Fliwer Sensor

9

Fliwer Sensor Bi-Zone



#### **FLIWER CONTROL**

**Fliwer Control** replaces conventional irrigation controllers in either existing or new irrigation systems because it is fully compatible with all standard solenoid valves (9 VDC and 24 VAC) in the market.

### **FLIWER SENSOR**

**Fliwer Sensor** is placed in a green area to build a phonological and representative profile of the environment.

The number of sensors required will depend on the number of physical variations in the area; not only on the size of the area or the number of plants.

**Fliwer Sensor** detects light, environmental temperature and humidity, soil moisture and electro-conductivity.



# **SENSORS**

# **RAINSTOP**



RAINSTOP is an electronic rain sensor which is set to cease irrigation when it rains - as soon as precipitation reaches 4 mm. In this way, the irrigation system is prevented from working while it rains. The high-quality electronic components all come from Japan.

### **FEATURES AND BENEFITS**

- RAINSTOP 3 wires can be connected to any 24 VAC controller that does not have a dedicated sensor port
- RAINSTOP 4 wires can be connected to any 24 VAC with a dedicated sensor port
- · Begins operating when rainfall reaches 4 mm
- The electronic sensor is sealed and well-protected.

# **RM SENSOR**



# **FEATURES AND BENEFITS**

- Can be adjusted to 3, 6, 12, 19 or 25 mm rainfall
- For use with all types of 24 VAC controllers
- 10 meters of connection wire included
- Model threads: 1/2" NPT or 1/2" slip

The RM Sensor prevents your automatic sprinkler system from irrigating when it rains. The rain sensor can be adjusted to accomodate rainfall of 3 - 25 mm. The freeze sensor prevents pipe damage caused by freezing water. RM Sensor includes a control feature.





# **UNION VALVES**



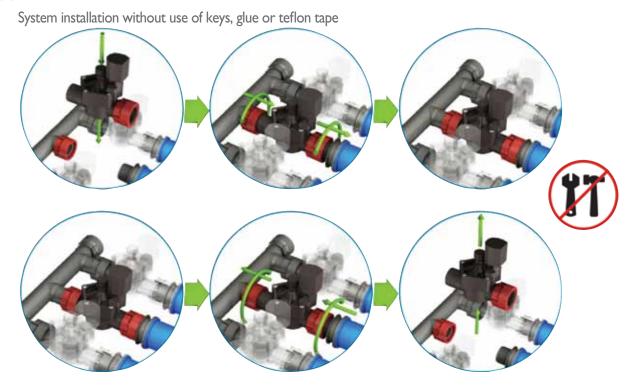
This unique patented solenoid valve system is easily and securely installed without the use of keys, glue or teflon tape, saving time and money.

### **FEATURES AND BENEFITS**

- PA 6 30% fiberglass
- Single-piece diaphragm for reliable leak-free valve closing
- Self-cleaning, stainless steel metering pin
- Stainless steel diaphragm with differential spring for smooth closing
- Solenoid certificate CE IP 68
- PN12 is tested piece by piece at 14 bar
- Bleed handle for manual opening with internal bleed
- Energy-efficient solenoid: 0.2 AMP, 4.8 VA
- Standard solenoid: 24 VAC
- Available solenoids: 12 VDC, 24 VDC, 110 VAC and 9 (6-40) VDC latching
- Flow control

# **OPERATING CONDITIONS**

- Min/Max operating pressure: I.0 I2.0 bar
- Temperature: 4°C 70°C





# JAR-TOP



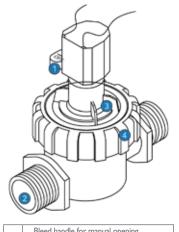
Electronic solenoid valve for professional contractors. Reliability and quality ensured by use of polyamide, TPE and AISIL stainless steel materials. Easy cleaning and maintenance. Compatible with manifold system for quick installation.

#### **FEATURES AND BENEFITS**

- PA 6 30% fiberglass
- Single-piece diaphragm for reliable leak-free valve closing
- Self-cleaning stainless steel metering pin
- Stainless steel diaphragm with differential spring for smooth closing
- Solenoid certificate CE IP 68
- PNI2 tested at I4 bar
- Bleed handle for manual opening with internal bleed
- Energy-efficient solenoid: 0.2 AMP, 4.8 VA
- Standard solenoid: 24 VAC
- Available solenoids: 12 VDC, 24 VDC, 110 VAC and 9 (6-40) VDC latching
- NPT thread version available on request: I" F code 100.3210910

## **OPERATING CONDITIONS**

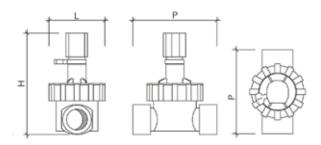
- Min/Max operating pressure: 1.0 12.0 bar
- Temperature: 4°C 70°C
- Flow rate: 20 70 l/m



JAR-TOP Loss of Charge (bar)

	3/4"	1"	l" MxU
30 l/min	0.38	0.28	0.33
45 I/min	0.38	0.30	0.34
60 l/min	0.40	0.30	0.35
75 I/min	0.40	0.35	0.35
90 l/min	0.46	0.40	0.40
I 05 I/min	0.52	0.40	0.45
I 20 I/min	0.62	0.50	0.56
135 I/min	0.71	0.60	0.65

JAR-TOP Dimensions (cm)



I	integrated in valve body
2	Threads available: male, female, union
3	Single-piece, co-injected diaphragm
4	JAR-TOP lid

	3/4" M	I" M	3/4" F	I"F	I" MxU
Н	14.0	14.0	14.0	14.0	14.0
Р	11.6	12.1	12.0	12.0	13.0
L	8.0	8.0	8.0	8.0	8.0



# RN 155 PLUS



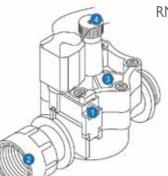
Electronic valve for professional landscape applications. Versatile with low loss in pressure. Easy manual opening integrated in the valve body, adjustable flow control and strong body.

#### **FEATURES AND BENEFITS**

- PA 6 30% fiberglass
- · Single-piece diaphragm for reliable leak-free valve closing
- Self-cleaning stainless steel metering pin
- Stainless steel diaphragm with differential spring for smooth closing
- Solenoid certificate CE IP 68
- PNI2 tested at I4 bar
- Bleed handle for manual opening with internal bleed
- Energy-efficient solenoid: 0.2 AMP, 4.8 VA
- Standard solenoid: 24 VAC
- Available solenoids: 12 VDC, 24 VDC, 110 VAC and 9 (6-40) VDC latching
- Flow control
- NPT thread version available on request

#### **OPERATING CONDITIONS**

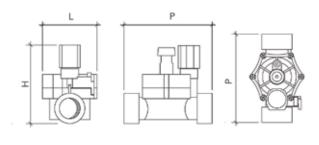
- Min/Max operating pressure: 1.0 12.0 bar
- Temperature: 4°C 70°C
- Flow rate: 35 90 l/m



RN 155 PLUS Loss of Pressure (bar) RN 155 PLUS Dimensions (cm)

	3/4"	1"	I" MxU
30 l/min	0.30	0.25	0.35
45 I/min	0.30	0.25	0.35
60 l/min	0.30	0.25	0.35
75 l/min	0.30	0.25	0.35
90 I/min	0.37	0.28	0.42
105 l/min	0.42	0.32	0.47
I 20 I/min	0.52	0.35	0.57
135 l/min	0.62	0.40	0.67
I 50 I/min	0.75	0.47	0.80

ı	Bleed handle for manual opening integrated in valve body
	mediated in variously
2	Threads available: male, female, union
3	Single-piece, co-injected diaphragm
	Flow control adjustment handle



	3/4" M	I" M	I"F	I" MxU
Н	11.5	11.5	11.5	11.5
Р	13.1	13.1	13.1	13.9
L	8.1	8.1	8.1	8.1

available



# RN 160 PLUS



Electronic valve for professional landscape and agricultural applications.

Versatile, reliable and strong with high performance.

#### **FEATURES AND BENEFITS**

- PA 6 30% fiberglass
- Self-cleaning stainless steel metering pin
- Stainless steel diaphragm with differential spring for smooth closing
- Solenoid certificate CE IP 68
- PNI2 tested at I4 bar
- · Bleed handle for manual opening with internal bleed
- Energy-efficient solenoid: 0.2 AMP, 4.8 VA
- Standard solenoid: 24 VAC
- Available solenoids: 12 VDC, 24 VDC, 110 VAC and 9 (6-40) VDC latching
- Flow control

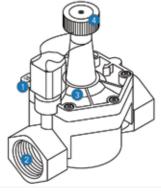
3

available

Two NPT versions available on request: I<sup>1</sup>/<sub>2</sub>" NPT W/FC or 2" NPT W/FC

#### **OPERATING CONDITIONS**

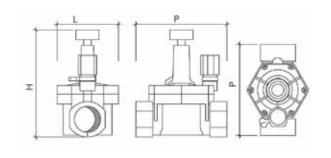
- Min/Max operating pressure: 1.0 12.0 bar
- Temperature: +4°C / 70°C
- Flow rate: 35 90 l/m



RN 160 PLUS Loss of Charge (bar)

	1"	I 1/4"	I 1/2"	2"
75 l/min	0.20	0.20		
I 00 I/min	0.27	0.20	0.20	0.16
125 l/min	0.32	0.21	0.20	0.16
150 l/min	0.42	0.27	0.20	0.16
175 l/min	0.58	0.30	0.21	0.18
200 l/min	0.75	0.40	0.25	0.21
225 l/min		0.48	0.29	0.23
250 l/min		0.58	0.34	0.28
275 l/min		0.69	0.39	0.32
300 l/min			0.45	0.38
325 I/min				0.41

RN 160 PLUS Dimensions (cm)



		325 I/min		0.41							
	Bleed handle for manual opening									=	01114
	integrated in valve body						I"F	I ¹/4" F	I ¹/2" <b>F</b>	2" F	2" MxU
					_						
-	Threads available: male, female, union					Н	18.4	18.4	18.4	18.4	18.4
	Single-piece, co-injected diaphragm					Р	14.5	14.8	15.7	18.3	17.5
_	Single piece, co injected diapin agin					L	10.6	10.6	10.6	10.6	10.6
	Flow control adjustment handle							1010		1010	

# RN 180 & RN 180 3-WAY

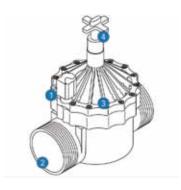


Electric high flow solenoid valve designed for agricultural and commercial applications.

Heavy-duty valve made of virgin nylon and 30% fiberglass. Slow and safe closure prevents water shock in the system.

#### **FEATURES AND BENEFITS**

- PA 6 30% fiberglass
- Self-cleaning stainless steel metering pin
- Stainless steel diaphragm differential spring for smooth closing
- Solenoid certificate CE, IP 68 9
- PNI2 tested at I4 bar
- Bleed handle for manual opening with internal bleed
- Energy-efficient solenoid: 0.2 AMP, 4.8 VA
- Standard solenoid: 24 VAC
- Available solenoids: 12 VDC, 24 VDC, 110 VAC and 9 (6-40) VDC latching
- Flow control
- RN 180 3-WAY model can work with dirty water.
   Internal filter brings clean water to solenoid.



I	Bleed handle for manual opening integrated in valve body
2	Threads available: male, female
3	Assembled diaphragm
4	Flow control adjustment handle available

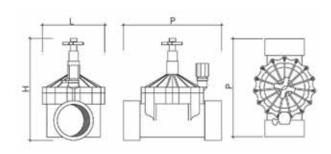
# RN 180 & RN 180 3-WAY Loss of Charge (bar)

	2"	3"
200 l/min	0.07	0.05
300 l/min	0.09	0.07
400 l/min	0.12	0.09
500 l/min	0.14	0.12
600 l/min	0.16	0.14
700 l/min	0.19	0.16
800 l/min	0.25	0.18
900 l/min	0.31	0.23
1000 l/min	0.38	0.28
l I 00 I/min	0.47	0.35

#### **OPERATING CONDITIONS**

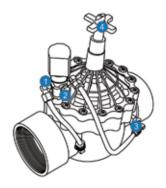
- Min/Max operating pressure: 1.0 12.0 bar
- Temperature: 4°C 70°C
- Flow rate: 200 1100 l/m

RN 180 & RN 180 3-WAY Dimensions (cm)



	3" M	3" F	2" F
Н	25.0	25.0	25.0
Р	24.0	25.3	25.3
L	17.0	17.0	17.0

## **RN 180 3-WAY**



I	Connection
2	3-way base
3	Inlet filter
4	Flow control adjustment handle available



# TAL BRASS VALVE



Hydraulic brass valves are designed to meets the needs of any commercial landscape irrigation. Tal brass valves are durable and have minimal head loss.

HYDRAULIC VALVE OPERATION

Fully-closed position – the device allows pressure into the

Fully-opened position - the device releases pressure out into

3-way control:

control chamber.

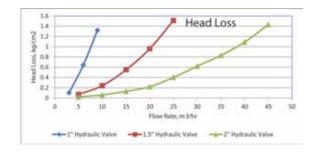
the atmosphere.

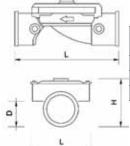
### **FEATURES AND BENEFITS**

- Inlet/outlet connection: I", I<sup>1</sup>/<sub>2</sub>" & 2" BSP/ NPT female threaded
- 3-way valve port: female threaded 1/4" 19" BSP or 1/4" 18" NPT
- Pressure ports: female threaded <sup>1</sup>/<sub>4</sub>" 19" BSP or <sup>1</sup>/<sub>4</sub>" 18" NPT
- Operating pressure range: 0.6-10 kg/cm<sup>2</sup> (8-145 PSI)
- Pressure rating: PNI0
- Temperature range: up to 60°C (with water)
- Simple and robust design with only 4 parts
- Light in weight for easy installation and maintenance
- Brass body and cover plate for durability and resistance to corrosion
- Metal-reinforced rubber valve lid designed for smooth operation without deformation at high pressure with drop tight shutoff
- · Significantly reduced down time
- · Minimal head loss due to interior design
- Arrow to assist with correct installation of hydraulic valve
- Compatible with most irrigation controllers in the market

# TAL VALVE Performance Table

Diamete	Diameter		I I/2"	2"	
Flow rate (m	³/hour)	2-5	5-12	10-25	





TAL VALVE Dimensions (mm)

Valve size (mm)	D (mm)	L (mm)	H (mm)	W (mm)
25	21.5	117	68.5	72
40	31	153.5	85	95
50	39	180.5	100	119



# PRESSURE REGULATOR



This adjustable, flexible pressure regulator is operated by a regulation screw, providing the specific pressure required by the user. Suitable only with Rain valves.

1	Manual opening
2	Installation base
3	Pressure gauge
4	Regulation screw

### **FEATURES AND BENEFITS**

- Made of nylon fiberglass and stainless steel
- Pressure gauge
- Regulation screw
- Suitable only with Rain valves

### **OPERATING CONDITIONS**

- Pressure output: 1.0 7.0 bar
- Pressure input: max 12 bar
- Min differential pressure: 1.0 bar
- Temperature: 4°C 70°C





# 3-WAY PRESSURE CONTROL VALVE



The 3-way brass pilot has a unique diaphragm that enables precise pressure control on hydraulic valves.

### **TECHNICAL FEATURES**

- Universal function (reducing, sustaining or relieving pressure)
- 3-way operating system
- Port connection: 1/4" BSP/ NPT female threaded
- 3-way pilot port: female threaded <sup>1</sup>/4" 19" BSP or <sup>1</sup>/4" 18" NPT
- 3 different pilot ports available with max. operating & pressure adjustment range
- Suitable for valve sizes 40 mm 150 mm (1<sup>1</sup>/2" 6")

Identification of pilot	Adjustment (bar)	Max. operating pressure (bar)
Natural color spring	0.7 - 6.5	16
Blue color spring	1 - 10	20
Red color spring	I - I6	20

#### **BENEFITS**

- Horizontal or vertical installation in the system
- Precise pressure control with very short reaction time
- Arrow and number markings assist in correct installation
- Minimal head loss due to its interior design

# **ADJUSTMENTS**

- Standard pressure adjustment: 3 kg/cm<sup>2</sup>
- Desired set pressure is attained by adjusting with adjusting screw on the pilot.

#### PRESSURE SUSTAINING/RELIEF VALVE FUNCTIONS:

- I. When the upstream pressure is lower than the desired set pressure (valve fully closed)
- 2. When the upstream pressure is equal to desired set pressure
- 3. When the upstream pressure position is higher than desired set position

### **APPLICATION**

The pressure-sustaining valve is installed in-line, sustaining minimum back pressure, and preventing line emptying and pump overloading.

The pressure relief valve is installed off-line: when the line pressure rises above a desired set pressure, the valve opens to reduce excessive upstream pressure. The hydraulic valve is controlled by a 3-way pilot valve. The pilot valve has a spring-loaded diaphragm which is sensitive to upstream pressure.

The pilot valve maintains constant upstream pressure, regardless of flow variations. The valve is in closed position if the upstream pressure is lower than the desired set pressure; and is fully open when the upstream pressure exceeds the desired set pressure.



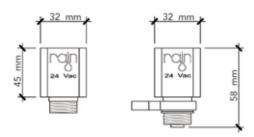
# RN SOLENOID



Solenoids are equipped with a handle adaptor, facilitating the manual opening and closing of valves with internal bleed.

Easy, comfortable and safe operation inside of a valve box.

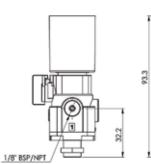
Solenoid's thread: 3/4" - 20" UNF standard

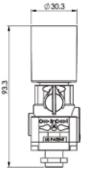


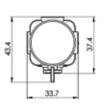
# **RN 3-WAY SOLENOID**











## **TECHNICAL FEATURES**

- Function: 3-way N/O (normally open)
- Port size: 1/8" BSP & NPT
- Orifice: I.8 mm
- Materials in contact with media:
- Manual override: reinforced nylon
- Main valve: reinforced nylon
- Seals: EPDM
- Spring: stainless steel
- Manual Override
- I. A Auto (COM port 3 open)
- 2. Turn clockwise (COM port I open)
- 3. Turn counter-clockwise (COM port 3 open)
- Colors:
- Orange: 24 VAC solenoid
- Blue: latching solenoid

Optional COM port: you can choose between "COM" on the side or "COM" at the bottom of the valve, while the other port is plugged in.

## **OPERATING CONDITIONS**

- Pressure range: 0 10 bar
- Temperature range:
  - Water passing through 5°C 50°C
  - External environment -10°C 50°C



S 020



Pop-up 1/2" sprays are designed with contractors in mind, featuring a narrow profile and a co-molded wiper seal.

### **FEATURES AND BENEFITS**

- Available in 2" and 4" models, providing flexibility in system design
- Accepts female threaded nozzles
- Stainless steel retraction spring facilitates reliable retraction of the riser in all soil conditions.
- Ratcheting riser allows for easy pattern alignment by turning the riser.
- Co-molded wiper seal ensures leak-free, full pop-up operation even in low-pressure conditions.
- Narrow profile body makes it easy to retrofit with existing systems in minutes.
- Color-coded nozzle

### **TECHNICAL DATA**

• Operating pressure: 1.4 - 3.5 bar

• Flow range: 1.9 - 17.5 l/min

• Inlet: 1/2" female thread





CHECK VALVE



## **S 020 Performance Table**

Nozzle color		8A - 0	Green	IOA -	Blue	12A -	Brown	I5A -	Black	17A -	Grey
	Р	D	Q	D	Q	D	Q	D	Q	D	Q
	(bar)	(m)	(m³/h)	(m)	(m³/h)	(m)	(m³/h)	(m)	(m³/h)	(m)	$(m^3/h)$
	1.38	1.8	0.06	2.7	0.10	3.4	0.11	4.6	0.17	4.9	0.21
90°	2.07	2.1	0.07	2.7	0.11	3.7	0.12	4.9	0.18	5.2	0.23
90	2.76	2.4	0.07	3.0	0.12	3.7	0.14	5.2	0.20	5.5	0.25
	3.45	2.4	0.08	3.4	0.14	4.0	0.15	5.2	0.23	5.8	0.28
	1.38	2.1	0.12	2.7	0.20	3.4	0.22	4.0	0.34	4.6	0.42
1000	2.07	2.1	0.14	3.0	0.21	3.4	0.23	4.3	0.36	4.9	0.45
180°	2.76	2.4	0.14	3.4	0.24	3.7	0.27	4.6	0.40	5.2	0.50
	3.45	2.7	0.17	3.7	0.27	4.0	0.30	4.6	0.45	5.5	0.57
	1.38	2.4	0.19	3.0	0.29	3.0	0.33	4.0	0.51	4.3	0.63
270:	2.07	2.4	0.20	3.0	0.32	3.4	0.35	4.3	0.54	4.6	0.68
270°	2.76	2.7	0.21	3.4	0.35	3.7	0.41	4.6	0.60	4.9	0.75
	3.45	3.0	0.25	3.7	0.41	4.0	0.44	4.6	0.68	5.2	0.85
	1.38	2.4	0.25	2.7	0.39	3.0	0.44	4.0	0.68	4.3	0.80
2.600	2.07	2.7	0.27	3.0	0.42	3.4	0.46	4.3	0.73	4.6	0.91
360°	2.76	3.0	0.28	3.4	0.47	3.7	0.54	4.6	0.80	4.9	1.00
	3.45	3.4	0.33	3.7	0.54	4.0	0.59	4.6	0.91	5.2	1.14



# PRO-S<sup>™</sup> SPRAYS



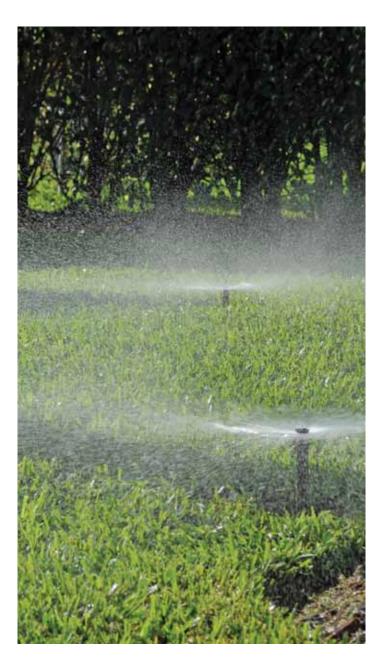
Pop-up 1/2" sprays are distinguished by their robust construction, rugged body and cap, co-molded seal and heavy duty retraction spring. The co-molded wiper seal ensures proper operation time after time with minimal flow by. Compatible with all standard female threaded nozzles.

### **FEATURES AND BENEFITS**

- Co-molded wiper seal ensures a leak-free, full pop-up operation even in low-pressure conditions.
- · Cartridge design allows for easy removal and cleaning.
- Treated with UV inhibitors for long life. Seal is microbe-resistant to reduce degradation and stick-ups.
- Accepts female threaded nozzles
- Ratcheting riser permits quick, easy alignment of spray pattern.
- Heavy-duty retraction spring strongest spring in the industry for positive retraction in all soil conditions.
- Side inlet standard on 12" (30.5 cm) model
- 6" model available with or without side inlet
- Wide selection of sizes available in 2", 3", 4", 6" and 12" (5, 7.5, 10, 15 and 30.5 cm) models
- Pre-installed flush cap
- Optional in-stem pressure regulator available for 4", 6" and 12"
   (10, 15 and 30.5 cm) models, factory preset at 40 Psi (2.8 bar)
- Optional in-stem check valve is installed in the field and holds up to 10" (3 m) of head pressure.
- Optional pre-installed nozzle guard

# **TECHNICAL DATA**

- Operating pressure: 1.4 4.8 bar
- Flow rate: 0.6 bar, 1.9 17.5 l/m
- Inlet: 1/2" (1.3 cm) female threaded NPT











Pop-up I/2" adjustable K Rotary nozzles, designed to fit into a standard pop-up spray head, provide increased uniform coverage over conventional fixed pattern spray nozzles, while delivering matched precipitation. The highly efficient water delivery reduces soil erosion and runoff, saving water and money. A perfect solution for low water pressure areas while still delivering precise, even coverage.

## **FEATURES AND BENEFITS**

- · Durable design molded with high-impact engineered resin for long life
- Superior uniformity multi-stream technology provides outstanding coverage, eliminating brown spots.
- Matched precipitation low precipitation rate is proportionate even after arc and radius adjustment.
- Water smart technology reduces water use by up to 30% without sacrificing turf quality.
- Double pop-up design delivers additional protection from dirt/ particulate intrusion and harsh conditions.
- Simple to adjust
- Color-coded 6 standard nozzles and 3 specialty nozzles in the field

Nozzle code	Pattern	Nozzle color	P (bar)	Width x Length (m)	Q (m³/h)
			2.06	1.22 x 4.6	1.14
Diales and assis			2.46	1.5 x 4.6	1.21
Right end strip		Copper	2.75	1.5 x 4.6	1.32
RNS-RES-515			3.10	1.8 x 4.9	1.43
			3.45	1.8 x 4.9	1.51
	0	Olive	2.06	1.22 x 4.6	1.14
1 -6 1			2.46	1.5 x 4.6	1.21
Left end strip RNS-LES-515			2.75	1.5 x 4.6	1.32
KINO-LEO-DID			3.10	1.8 x 4.6	1.43
			3.45	1.8 x 4.9	1.51
Side strip RN-SS-530			2.06	1.22 x 8.8	1.80
			2.46	1.5 x 9.1	2.08
		Brown	2.75	1.5 x 9.1	2.30
			3.10	1.8 x 9.4	2.46
			3.45	2.1 x 9.7	2.64





# RN - 100, 200, 300 Performance Table

Nozzle	Pattern	Nozzle	P	D	Q
code	rattern	INOZZIE	(bar)	(m)	(m³/h)
			2.07	3.96	0.83
RN 100			2.41	4.27	0.91
	90°	Green	2.76	4.27	0.94
90-270			3.10	4.57	1.10
			3.45	4.57	1.13
			2.07	3.96	1.66
RN 100			2.41	4.27	1.78
	0 180°	Green	2.76	4.27	1.89
90-270	270		3.10	4.57	2.19
			3.45	4.57	2.27
			2.07	3.96	2.50
RN 100			2.41	4.27	2.69
	270°	Green	2.76	4.27	2.84
90-270			3.10	4.57	3.25
			3.45	4.57	3.40
	_		2.07	3.96	3.33
RN 100		Limba	2.41	4.27	3.56
	O 360°	Light	2.76	4.27	3.78
360		Green	3.10	4.57	4.35
			3.45	4.57	4.54
			2.07	4.87	1.29
DVI 200			2.41	5.18	1.44
RN 200	90°	Blue	2.76	5.48	1.55
90-270			3.10	5.79	1.59
			3.45	5.79	1.78
			2.07	4.87	2.53
DA 1 000			2.41	5.18	2.84
RN 200 90-270	180°	Blue	2.76	5.48	3.14
			3.10	5.79	3.18
			3.45	5.79	3.56
			2.07	4.87	3.82
DN 1 200			2.41	5.18	4.28
RN 200	270°	Blue	2.76	5.48	4.69
90-270			3.10	5.79	4.77
			3.45	5.79	5.34
			2.07	4.87	5.07
DA 1 000		12.15	2.41	5.18	5.68
RN 200	o 360°	Light	2.76	5.48	6.24
360		Blue	3.10	5.79	6.36
			3.45	5.79	7.11
			2.07	7.92	3.03
DN 1 200			2.41	7.92	3.22
RN 300	90°	Grey	2.76	8.23	3.40
90-270		/	3.10	8.53	3.59
			3.45	8.53	3.78
	_		2.07	7.92	5.30
DNI 200			2.41	8.23	5.68
RN 300	0 180°	Grey	2.76	8.23	6.05
90-270	100	0.0/	3.10	8.84	6.43
			3.45	9.14	6.81
			2.07	7.92	9.27
DN 1 200			2.41	8.23	9.65
RN 300	270°	Grey	2.76	8.53	10.41
90-270	273	5.07	3.10	8.53	10.98
			3.45	8.23	11.73
			2.07	7.92	11.73
D 1 1 2 C 2		1.1	2.41	8.23	12.11
RN 300	360°	Light	2.76	8.53	13.25
360	300	Grey	3.10	8.53	13.43
			3.45	9.10	14.00
			נד.נ	7.10	17.00



# 427 B



# Full- and part-circle impact sprinkler

Available as hose-end on spike or sled bases

#### **FEATURES AND BENEFITS**

- Spacing up to 14 m
- Color-coded bayonet nozzles for easy service
- Integrated stream-straightening vane for maximum range
- High-impact, heavy-duty plastic materials provide resistance to corrosion, chemicals and UV radiation
- WP hammer keeps all water inside the pattern and prevents the irrigation of roads and neighboring areas.

### **427 B Performance Table**

Nozzle color	Р	Q	D
(mm)	(bar)	(m³/h)	(m)
2.8	2.0	0.450	23
Orange	3.0	0.550	23
Orange	4.0	0.630	24
3.0	2.0	0.510	23
Red	3.0	0.630	24
Red	4.0	0.720	25
3.2	2.0	0.570	23
Green	3.0	0.700	24
Green	4.0	0.810	26
3.5	2.0	0.660	23
Blue	3.0	0.810	24
Diue	4.0	0.930	26
4.0*	2.0	0.850	24
Black	3.0	1.030	26
DIACK	4.0	1.180	26

**525** 



# Full- and part-circle gear-driven sprinkler 1/2" male thread

#### **FEATURES AND BENEFITS**

- Full- or part-circle gear-driven sprinkler with mechanism for quiet operation
- Water lubrication ensures reliable, long-lasting operation.
- Color-coded adjustable parts for easy identification
- Removable filter screen eliminates nozzle clogging.
- User-friendly, fingertip adjustment to full- or part-circle sprinklers
- Baffle deflector allows radius adjustment: 5.0 11.5 m
- Color-coded nozzles

## **TECHNICAL DATA**

- Spacing between sprinklers: up to 12.0 m
- Operating pressure: 2.0 4.0 bar

#### **525** Performance Table

Nozzle color (mm)	P (bar)	Q (m³/h)	D (m)
` ′	2.0	0.51	23
3.2	3.0	0.63	25
Orange	4.0	0.72	26
	2.0	0.57	24
3.2* Green	3.0	0.70	26
Green	4.0	0.81	27
4.0%	2.0	0.85	25
4.0* Red	3.0	1.03	27
Ked	4.0	1.18	28

\*Standard nozzle

## **ACCESSORIES**

# **QUICK COUPLING VALVE (PLASTIC)**





## **FEATURES AND BENEFITS**

- Click lock on lid
- Stainless steel spring
- Specially designed grommet
- UV stabilized
- Rugged two-piece valve body design
- "Turn & Lock" key with ribbed grip
- Specially designed for applications in public areas



S 050, S 050 S



Gear-driven, rotary sprinklers for small lawn and landscape areas and for replacing fixed sprays.

### **FEATURES AND BENEFITS**

#### S 050

- Right starting position rotor rotates counter-clockwise from fixed right starting position.
- Rubber cover seals out dirt and increases product durability.

### S 050 S

- Left starting position rotor rotates clockwise from fixed leftstarting position.
- Patented arc set degree markings clearly indicate the current watering pattern and simplify arc set adjustment.

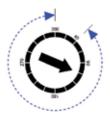
#### S 050 & S 050 S

- Time-proven patented reversing mechanism ensures continuous reverse and return.
- Ratcheting riser allows for easy adjustment of the starting position with a simple turn of the riser.
- Wide selection of nozzles provides flexibility in system design.
- Optional check valve prevents low head drainage.

### **TECHNICAL DATA**

- Inlet: 1/2"
- Arc adjustment range: 40°- 360°
- Flow range: 2.8 12.5 l/m
- Operating pressure: 1.4 5.0 bar
- Precipitation rate: 0.5 1.0 cm per hour (depending on spacing and nozzle used)
- Overall height: 15.2 cm
- Recommended spacing: 5.2 8.5 m
- Radius: 5.2 9.1 m
- Nozzle trajectory: 26°
- Riser height: 10.2 cm

Arc set degree markings - only on S 050 S model



Check valve



### S O50 & S050 S Performance Table

Nozzle	P (bar)	D (m)	Q (m³/h)
	2.1	5.1	0.2
0.75	2.8	5.1	0.2
	3.4	5.4	0.2
	2.1	6.0	0.2
I	2.8	6.3	0.3
	3.4	6.3	0.3
1.5	2.1	6.9	0.3
Pre-installed	2.8	7.2	0.4
Fre-installed	3.4	7.2	0.4
	2.1	7.5	0.4
2	2.8	8.1	0.5
	3.4	8.1	0.5
	2.1	8.4	0.6
3	2.8	9.0	0.7
	3.4	9.0	0.8



# S 075 D

Gear-driven, <sup>3</sup>/<sub>4</sub>" rotary sprinklers for basic residential and light commercial application. Ideal for low flow applications.





### **FEATURES AND BENEFITS**

- Right starting position rotor rotates counterclockwise from fixed right starting position.
- Full and part circle rotation provides a full range of adjustment from 40° - 360°.
- Non-flushing wiper seal reduces leaks caused by debris trapped under seal.
- 3/4" inlet replaces all standard rotors.
- Ideal for low flow applications
- Rubber cover seals out dirt and increases product durability.
- Wide selection of nozzles provides flexibility in system design.

# **TECHNICAL DATA**

- Inlet: 3/4"
- Arc adjustment range: 40° 360°
- Flow range: 1.9 54.4 l/m
- Operating pressure: 2.0 5.0 bar
- Precipitation rate: 0.3 2.9 cm per hour
- Overall height: 18.7 cm
- Recommended spacing: 7.6 13.7 m
- Radius: 6.7 15.5 m
- Nozzle trajectory: 25°
- Low angle nozzle trajectory: II°
- 8 standard and 4 low angle nozzles included
- Riser height: 10.2 cm

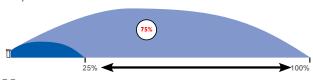
S075, S075 D
Performance Table II°

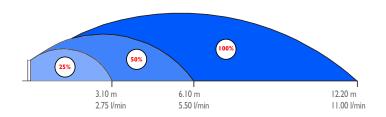
	Р	D	Q
Nozzle	(bar)	(m)	(m <sup>3</sup> /h)
	2	6.7	0.3
	3	7.3	0.4
I	3.5	7.9	0.4
	4	8.5	0.5
	2	8.8	0.7
2	3	9.8	0.7
3	3.5	10.7	0.8
	4	11.3	0.9
	2	9.4	0.8
_	3	10.4	0.9
4	3.5	11.3	1.0
	4	11.6	1.1
	2	11.6	1.5
5	3	12.2	1.7
5	3.5	12.8	1.8
	4	13.4	2.0

**S075, S075 D**Performance Table 25°

NI I.	Р	D	Q
Nozzle	(bar)	(m)	(m <sup>3</sup> /h)
2	2.1	11.0	0.5
3	2.8	11.6	0.5
Pre-	3.4	12.2	0.6
installed	4.1	12.3	0.7
	2.1	8.5	0.1
0.5	2.8	8.8	0.1
0.5	3.4	8.8	0.2
	4.1	9.1	0.2
	2.1	8.8	0.2
	2.8	9.1	0.2
0.75	3.4	9.1	0.2
	4.1	9.4	0.2
	2.1	9.1	0.2
	2.8	9.4	0.2
I	3.4	9.4	0.3
	4.1	9.8	0.3
	2.1	9.8	0.3
	2.8	10.1	0.3
2	3.4	10.4	0.4
	4.1	10.4	0.4
	2.1	11.0	0.6
4	2.8	12.2	0.7
4	3.4	12.8	0.8
	4.1	12.8	0.8
	2.1	11.6	1.0
,	2.8	13.1	1.1
6	3.4	14.0	1.2
	4.1	14.3	1.4
	2.1	13.7	1.4
0	2.8	14.6	1.5
8	3.4	14.9	1.7
	4.1	15.5	1.9









S 075 S





Gear-driven 3/4" rotary sprinklers.

Distance and water flow can be adjusted at the same time, saving time and water.

#### **FEATURES AND BENEFITS**

- Revolutionary patented easy arc set allows for wet or dry adjustment in seconds.
- 2NI adjustable or continuous rotation provides a full range of adjustment from 40° to 360°.
- Patented arc set degree markings clearly indicate the current watering pattern and simplify arc set adjustment.
- Arc memory clutch prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced out of adjustment.
- Time-proven patented reversing mechanism ensures continuous reverse and return.
- Ratcheting riser allows for easy adjustment of the left starting position with a simple turn of the riser.
- Rubber cover seals out dirt and increases product durability.
- Optional check valve prevents low head drainage.
- Rugged stainless steel spring 0.093 gauge 302 stainless steel spring extends the life of the rotor.

# **TECHNICAL DATA**

- Inlet: <sup>3</sup>/<sub>4</sub>" threaded NPT
- Arc adjustment range: 40° 360°
- Flow range: I.9 36 l/m
- Operating pressure: I.4 4.8 bar
- Precipitation rate: 5.39 30.89 mm/hr
- Overall height: 19 cm
- Recommended spacing: 8.5 13.4 m
- Radius: 7.9 14.9 m
- Nozzle trajectory: 26°
- Low angle nozzle trajectory: 12°
- Standard and low angle nozzle included
- Riser height: 12.7 cm

#### **S075S** Performance Table 12°

Nozzle	Р	D	Q
INOZZIE	(bar)	(m)	(m <sup>3</sup> /h)
	2	6.7	4.5
ı	3	7.3	6.4
LA	3.5	7.9	6.8
	4	8.5	7.6
	2	8.8	11.4
3	3	9.8	11.7
LA	3.5	10.7	13.2
	4	11.3	14.4
	2	9.4	12.9
4	3	10.4	14.8
LA	3.5	11.3	16.7
	4	11.6	17.8
5 LA	2	11.6	24.6
	3	12.2	27.6
	3.5	12.8	30.3
	4	13.4	32.6

**\$075\$** Performance Table 25°

Vozzle	Р	D	Q
VOZZIE	(bar)	(m)	$(m^3/h)$
2	2.1	11.0	7.6
3	2.8	11.6	9.1
Pre-	3.4	12.2	10.2
installed	4.1	12.3	11.0
	2.1	8.5	1.9
٥.	2.8	8.8	2.3
0.5	3.4	8.8	2.7
	4.1	9.1	3.0
	2.1	8.8	2.6
0.75	2.8	9.1	3.0
0.75	3.4	9.1	3.4
	4.1	9.4	3.8
	2.1	9.1	3.4
.	2.8	9.4	3.8
I	3.4	9.4	4.5
	4.1	9.8	4.9
	2.1	9.8	4.5
_	2.8	10.1	5.3
2	3.4	10.4	6.1
	4.1	10.4	6.8
	2.1	11.0	9.8
4	2.8	12.2	11.4
4	3.4	12.8	12.9
	4.1	12.8	14.0
	2.1	11.6	15.9
,	2.8	13.1	18.5
6	3.4	14.0	20.8
	4.1	14.3	22.7
	2.1	13.7	22.7
8	2.8	14.6	25.7
0	3.4	14.9	28.8
	4.1	15.5	31.0



# POPSTAR PLUS 565



Gear-driven, pop-up plastic sprinkler

#### **FEATURES AND BENEFITS**

- Excellent performance in a wide range of applications
- Easy tool-free hold & rotate arc adjustment
- Color-coded nozzles for easy identification and monitoring
- Range of nozzles for adaptation of uniform irrigation rates to different irrigation sectors
- Uniform irrigation distribution uniformity above CU 88%
- Quick and simple maintenance
- Ribbed canister for anti-vandalism anchoring
- Ratchet mechanism for safe head rotation
- Unique nozzle shape for optimum close-to-sprinkler watering
- Arc memory for one-time arc adjustment especially designed for public areas

#### **TECHNICAL DATA**

- Pop-up height: 10 cm
- Arc adjustment range: 40° 360°
- Jet height: 2.3 3.0 m (according to nozzle and pressure)
- Recommended working pressure: 2.5 4.5 bar
- Spacing: up to 12 m
- Integral anti-drainage device: 1.2 m
- 3/4" water inlet

#### **POPSTAR 565 Performance Table**

Nozzle	Р	Q	D	(m)
color	(bar)	(m³/h)	max.	min.
2	2.0	0.17	18.4	16.0
2 Gray	3.0	0.20	18.4	16.0
Gray	4.0	0.24	18.4	16.0
	2.0	0.24	18.4	13.0
3 Purple	3.0	0.30	18.4	13.0
rurpie	4.0	0.35	19.0	13.0
4	2.0	0.31	20.0	11.0
4 Orange	3.0	0.39	21.0	11.0
Oralige	4.0	0.45	21.0	11.0
6*	2.0	0.52	22.0	17.0
Green	3.0	0.67	23.0	17.0
Green	4.0	0.78	23.0	17.0
	2.0	0.62	22.0	18.0
8 Blue	3.0	0.80	23.0	18.0
Dide	4.0	0.93	23.0	18.0
9	2.0	0.85	22.0	19.0
Black	3.0	1.10	24.0	19.0
DidCK	4.0	1.27	25.0	19.0

<sup>\*</sup> Standard nozzle





# **POP-UP 805**



- **FEATURES AND BENEFITS** • Reliable impact plastic head for underground
- Color-coded bayonet nozzles for easy service
- Full- or part-circle pattern adjustment
- Diffuser screw breaks water into smaller droplets for uniform watering.
- Extra high 7.60 cm pop-up clearance
- Rugged ribbing case for maximum strength and durability - also provides anti-vandalism anchorage
- Sandproof seals and removable filter screen for easy maintenance

## **TECHNICAL DATA**

installation

- Spacing between sprinklers: up to 12.0 m
- Min/Max operating pressure: 2.0 4.0 bar
- · 1/2" female water inlet

# Pop-up plastic impact sprinkler



**POPUP 805 Performance Table** 

Nozzle color (mm)	P (bar)	Q (m³/h)	D (m)
	2.0	0.450	21
2.8 Orange	3.0	0.550	23
Orange	4.0	0.630	23
	2.0	0.510	22
3.0 Red	3.0	0.630	24
rica	4.0	0.720	25
	2.0	0.570	23
3.2 Green	3.0	0.700	24
Green	4.0	0.810	25
	2.0	0.660	23
3.5 Blue	3.0	0.810	24
Dide	4.0	0.930	26
	2.0	0.850	24
4.0* Black	3.0	1.030	25
DIACK	4.0	1.180	26

<sup>\*</sup> Standard nozzle







Gear-driven, pop-up sprinkler for sports turf.

The standard \$100 comes with a unique triple nozzle configuration, with a primary nozzle for long distance coverage and two secondary nozzles for mid and short distance coverage. This nozzle design provides even water distribution from 13 - 23 meters.

Available in a high-speed version for quick wet down.

#### **FEATURES AND BENEFITS**

- Revolutionary patented top arc set simplified arc set allows for wet or dry adjustment in seconds.
- Triple nozzle configuration ensures even distribution of water.
- Arc adjustment range: 40° 360°
- Top arc set degree markings clearly indicate the current watering pattern and simplify arc set adjustment.
- Arc memory clutch prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced out of adjustment.
- Time-proven patented reversing mechanism ensures continuous reverse and return.
- Heavy-duty rubber cover and mud guard protects against physical injury and reduces liability.
- Factory-installed check valve prevents low head drainage.

### **TECHNICAL DATA**

- Inlet: 2.5 cm threaded NPT (domestic)
- 2.5 cm threaded BSP (international)
- Arc adjustment range: 40° to continuous 360°
- Flow range: 19.3 123 l/m
- Recommended working pressure: 2.8 6.2 bar
- Precipitation rate: 12.2 34.3 mm/hr (depending on spacing and nozzle used)
- Overall height (popped down): 24.1 cm
- Recommended spacing: 12.2 19.8 m
- Radius: 13 23 m
- Nozzle trajectory: 26°
- Riser height: 10.2 cm





# Modular Group



Complete range of micro-sprinklers and micro-jets for trees, shrubs, flowerbeds and pot plants

Wetted diameter (m) at 2.0 bar and 0.25 m above ground level

				Static Sp	oreaders	
-	9		90°	180°	Flat	Small black
W	r		₩			
Nozzle color	Nozzle (mm)	Q (m³/h)			Matthe	
Grey	1.16	70	2.5	2.7	3.4	6.0
Orange	1.50	120	4.5	2.7	4.0	6.0

### **FEATURES AND BENEFITS**

- User-friendly static spreaders and swivel microsprinklers
- Removable unique mini-valve
- Assembled with swivel, bridge, spike and tube
- Wide range of wetted diameters and flow rates
- Light irrigation with fine droplets
- Full- and part-circle patterns

### **TECHNICAL DATA**

- Static:  $90^{\circ}$ ,  $180^{\circ}$ ,  $360^{\circ}$  with 70 l/h nozzle for irrigation range up to 3 m
- Swivel: 120 l/h for irrigation range up to 6 m
- Recommended working pressure: 1.5 3.5 bar





# PC & NON-PC CYLINDRICAL DRIPLINE

# TifDrip & NaanPC

# TifDrip 16 mm







2.0 l/h

4.0 l/h

# NaanPC 16 mm







1.6 l/h

2.2 l/h

# PC FLAT DRIPLINE

# AmnonDrip & TopDrip HD

# AmnonDrip PC AS 16 mm





# TopDrip HD PC AS 16 mm





**Applications:** Lawns, shrubs, trees, flowerbeds, slopes, narrow planting areas (particularly long areas) and subsurface or surface installation.

#### **FEATURES AND BENEFITS**

- Round dripper with innovative Cascade labyrinth
- Unique vortex labyrinth for self-flushing
- High clogging resistance
- Durable tube for years of trouble-free use
- Brown UV-protected tube blends with ground or mulch colors

### NaanPC

- State-of-the-art, round, pressure-regulated dripper
- Uniform flow rate along lateral

#### **TECHNICAL DATA**

- Wall thickness: 0.9.1.0, 1.15 mm
- Dripper flow rate: 2 l/h
- Recommended working pressure:
  - -TifDrip: 0.5 3.5 bar -NaanPC: 0.5 - 4.0 bar
- Recommended filtration: 120 mesh
- Coil length: 25, 50, 100, 400 m

#### NaanPC 16 mm

Head loss (m) in relation to lateral length (m), dripper flow rate and spacing (cm)

Flow rate (I/h)	2.2				
Pressure regulating range	Dripper spacing (cm)				
(bar)	30	50			
1.5	75	115			
2.0	90	140			
2.5	100	150			
3.0	110	160			
	Flow rate (I/h) Pressure regulating range (bar) 1.5 2.0 2.5	Flow rate (l/h)   2			

PC AS: Pressure-compensating, anti-syphon design prevents suction at draining stage. Suitable for subsurface drip irrigation.

# **AmnonDrip PC AS**

- Flow rates: 0.5, 1.1, 1.6, 2.0, 2.2, 3.8 l/h
- PC AS: Opening pressure 0.5 bar
- Pressure regulating range: PC AS models 0.5 4.0 bar
- Recommended filtration: 130 micron (120 mesh)

# TopDrip HD PC AS

- Flow rates: 0.6, 1.0 1.6, 2.0, 2.2, 3.5 l/h
- Pressure regulating range: 0.4 4.0 bar
- Operating pressure: 0.4 4.0 bar, according to wall thickness
- Wall thickness: 0.9 1.2 mm
- Recommended filtration: 130 micron (120 mesh)





# ON-LINE PC BUTTON DRIPPERS

# ClickTif HD



Heavy-duty, pressure-compensating (PC) and compensating non-leakage (CNL) online button dripper



3/5 PVC or PE extension Stabilizer tube stabilizer stake stake

### **TECHNICAL DATA**

- Nominal discharge: I.3, 2.0, 4.0 l/h
- Regulating pressure range: 1.0 4.0 bar
- Very low CV
- Non-leakage (CNL): Opening pressure 8.0 m

Closing pressure - 3.0 m

• Filtration recommendation: 130 micron (120 mesh)





802908



802920

802940

**Multi-level connectors** 





802948





# **FITTINGS**

# Dripline Connectors 16 mm

	Barbed connector
Ĺ	Elbow barb
-	T barb
	T barb, <sup>3</sup> / <sub>4</sub> " female
	T barb, <sup>3</sup> / <sub>4</sub> " male
	Y connector, <sup>3</sup> / <sub>4</sub> " male

	Barb connector, <sup>3</sup> / <sub>4</sub> " male
	Elbow barb, <sup>3</sup> / <sub>4</sub> " male
	Quick start for PE & PVC
٥	Grommet for quick start for PVC
00	End line
S	Snap clip
00	Dripper plug for AmnonDrip & TopDrip

# Lateral Flush Valve Lateral LPD

Automatic lateral flush valve for efficient dripline maintenance

**Dripline leakage prevention device** 

## **OPERATING PRESSURE**

- Opening pressure 14 m
- Closing pressure 6 m









# **FITTINGS**

# **PVC MANIFOLD**

### **MULTI-PORT PVC MANIFOLDS I"**







<b>D</b> 1		<b>N4</b> A	IFO	
-	,,			 

ı	I"T
2	ELBOW FxM I"
3	ELBOW FxF I"
4	CROSS FxFxFxM I"
5	CROSS FxFxFxF I"
6	NIPPLE I"
7	ADAPTOR FxM I"
8	NIPPLE <sup>3</sup> / <sub>4</sub> " - 1"
9	NIPPLE 1.5"

# PVC MANIFOLD 1.5" & 2"

	 <del></del>	
ı	1.5", 2" T	
2	ELBOW FxM 1.5", 2"	
3	ELBOW FxF 1.5", 2"	
4	CROSS FxFxFxM 1.5", 2"	
5	NIPPLE 1.5" X 1"	
6	NIPPLE I.5"	

# **PP VALVES**





# **CUT-OFF & TELESCOPIC RISERS**





# **ACCESSORIES**

# **ROUND VALVE BOXES**



ROUND VALVE BOXES "EZOPEN"PAT

Valve boxes are opened by simply lifting and pulling a discreet handle embedded in the lid. Each valve box has an anti-vandal bolt for additional security. A specially designed model bracket inside the box allows easy and tidy wire installation.

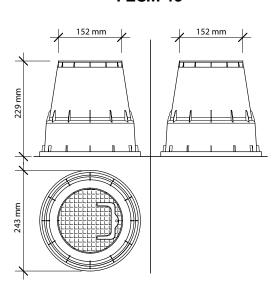
#### **TECHNICAL DATA**

- Material: 100% polypropylene
- UNI EN 124 A class A 15 (Peak load > 15 Kn)

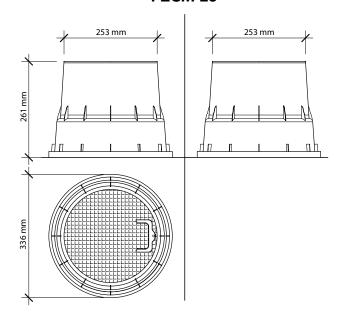
#### **ROUND VALVE BOXES "EZOPEN"PAT**

Model	Height (mm)	Depth (mm)
PZCM RN15	230	150/240
PZCM RN25	260	250/340

#### **PZCM 15**



#### **PZCM 25**



# ROUND VALVE BOX WITH 3/4" BALL VALVE

# **TECHNICAL DATA**

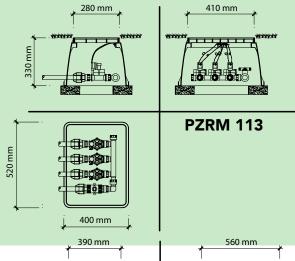
- Material: 100% polypropylene
- Valve material: zinc alloy
- Valve 3/4" male thread
- Inlet 3/4" female thread
- High resistance lid
- PZCR RN15 Depth: 210/210 x Height:130 mm
- Black body Green lid



# **ACCESSORIES**

# **RECTANGULAR VALVE BOXES**





## **RECTANGULAR VALVE BOXES "EZOPEN"PAT**

Model		Height	Depth (mm)
PZRM 113		330	520/400
pzrm 115	Jumbo	330	670/490
PZRM 117	Super Jumbo	410	810/590

- Black body Green lid
- Green body Green lid

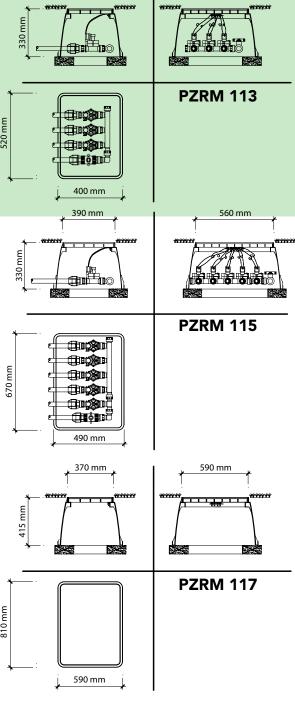


**RECTANGULAR VALVE BOXES** 117 "EZOPEN"PAT

# **VALVE BOX RACK FOR "EZOPEN"PAT FEATURES AND BENEFITS**

- Customizable in many different configurations
- Easy installation on walls of technical rooms
- Helps maintain orderly, clean valve box to make the maintenance easier and cleaner
- Manifold hooks facilitate easy installation of the valve box.

Available for rectangular valve boxes - 113, 115 series







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