

Creating a Green World



LANDSCAPE AND TURF IRRIGATION 2016



INDEX

Sr. No.	Content	Page No.
1	HT-9KMMPR MINIPRO	4-5
2	HT-9KRPS75 - RPS 75	6-7
3	HT-9KRPS-RPS SELECT GEAR DRIVEN ROTORS	8-9
4	HT-9KPRP PROPLUS®	10-11
5	HT-9KSPR SUPERPRO®	12-13
6	HT-KPRS PROSPORT™	14-15
7	RPS SPRAYS	16
8	HT-9KPROS-PRO-S™ SPRAY	17
9	ADJUSTABLE ARC NOZZLE - FOR SPRAY POP-UPS	18
10	FIXED ARC & SPECIALITY NOZZLES-FOR SPRAY POP-UPS	19
11	RN SERIES ROTARY NOZZLES	20-21
12	900T SERIES POP-UP SPRINKLER	22
13	ALUMINUM ADJUSTABLE RISER16-30" WITH ADJUSTABLE NOZZLE	23
14	HT-9PGP - PLAY GROUND POP-UP	24-25
15	HT-40G (PENGUIN) & HT-42G (PELICAN)	26
16	HT-43G (SKIPPER)	27
17	HT-45G (DUPLEX)	28
18	HT-47G (MARINER)	29
19	TRAVELER IRRIGATOR SYSTEM	30-31
20	REGULAR DRIPLINES	32
21	DRIPNET PC™	33
22	TAP TIMER	34
23	AQUADRIIP AUTOMATIC WATERING SYSTEM FOR POTTED PLANTS	35
24	RAIN EVO ¹	36
25	RAIN IDEA	37
26	RAIN IDEA ² & RAIN IDEA ⁴	38
27	PROFESSIONAL IRRIGATION SYSTEM	39
28	ELITE	40
29	HT-AIC 10 AUTOMATIC IRRIGATION CONTROLLER	41
30	RPS 469 CONTROLLER	42
31	PRO EX MODULAR CONTROLLER	43
32	PRO-TWO 2 WIRE DECODER BASED CONTROLLER	44
33	LOGIC PLUS 2-WIRE DECODER BASED TECHNOLOGY CONTROLLER	45
34	PRO SERIES 150 VALVES	46
35	RN160 PLUS & RN180 VALVES	47
36	ADJUSTABLE PRESSURE REGULATOR	48
37	RAIN SENSOR	49
38	WATER LEVEL CONTROLLER	50
39	TURF PRODUCTS	51
40	IRRIGATION ACCESSORIES	52-53
41	QUICK PRESSURE RELIEF	54
42	VALVE BOXES	55
43	DISC FILTERS	56
44	SCREEN FILTERS	57
45	HYDROCYCLONE FILTER	58
46	AUTO FLUSH®	59-62
47	PRESSURE GAUGE & COMPRESSION DRIP FITTINGS	63

INTRODUCTION

Automat is one of the world's leading manufacturers of Sprinklers, Rainguns, Filtration systems, Quick Coupling valves, Control Valves, Safety Valves and other irrigation equipments for agriculture, landscape commercial and residential markets. With exports to more than 85 countries worldwide and an experience of more than 20 years in Irrigation industry, our advanced design and engineering have made HARIT/AQUA brands preferred over others by end users and contractors. Our irrigation experts with an experience of more than 25 years are capable to meet the requirements of any size and kind of landscape irrigation systems.

During the last decade Automat had tied up with world best irrigation companies like K Rain USA, Rain Spa Italy, Irriland Italy and Sime Italy to provide in the Indian market latest irrigation technology in gear drive rotors, sprayers, controllers and solenoid valves. We back up our products with the strongest warranty program in business –providing our distributors and contractors with confidence when installing our products range. We have a strong base of our own in house design and technical team to provide an innovative, durable and environment friendly irrigation system. Our commitment to our clients and associates is best highlighted through our experienced customer service team in a manner second to none in the industry.

TEAM AUTOMAT



HT-9KMPR MINIPRO®

Short-Range Gear Driven Rotor



Applications :
Residential / Light Commercial
(Perfect for small lawns Landscape areas and for replacing fixed sprays)
Spacing: 5.2 to 9.1 mtr

Features

- Short to Medium Range Watering 5.2 - 9.1m
- Easily replaces any 1/2" Gear Drive
- K-Rain Patented Easy Arc set
- Arc setting Degrees shown on Top
- Plastic I.D. Cap
- Fixed left starting point
- Set wet or dry
- K-Rain patented reversing mechanism
- 4" (10cm) Riser height
- Advanced Riser Seal
- Multi functional K-key for arc set and or nozzle removal
- Optional check valve - Prevents low head discharge

Specifications

- 1/2" Female Threaded Inlet
- Arc Adjustment Range : 40° to 360°
- Flow Range : 2.8 - 12.5 ltr/min
- Operating Pressure : 2 - 3.5 kg/cm²
- Precipitation rate : 6.3 - 10.4 mm/hr
(depending on spacing and nozzle used)
- Overall height (popped down) : 6" (15.24 cm)
- Exposed Top Diameter : 1 1/4" (3.2 cm)
- Normal Radius : 5.2 - 9.1 m
- Nozzle trajectory : Standard 26°



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FACT

K-RAIN pioneered the flat blade screw driver method of rotor adjustment in 1989

Performance Data					
Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
0.75	2.0	5.2	2.8	7.3	6.3
	3.0	5.2	3.0	7.8	6.8
	3.5	5.5	3.4	7.8	6.8
1.0	2.0	6.1	3.4	6.4	5.5
	3.0	6.4	4.5	7.7	6.7
	3.5	6.4	4.9	8.3	7.2
1.5	2.0	7.0	5.3	7.5	6.5
	3.0	7.3	6.4	8.3	7.2
	3.5	7.3	7.2	9.3	8.1
2.0	2.0	7.6	6.8	8.1	7.0
	3.0	8.2	8.0	8.1	7.0
	3.5	8.2	9.1	9.3	8.0
3.0	2.0	8.5	10.2	9.7	8.4
	3.0	9.1	11.4	9.4	8.1
	3.5	9.1	12.5	10.4	9.0

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.



FIXED LEFT START POSITION



EASY ARC SETTING



SHORT RANGE TURF ROTOR



EASY NOZZLE REMOVAL

HT-9KRPS75 - RPS 75

Mid-Range Gear Driven Rotor



USA

www.krain.com



Applications : Residential / Light Commercial

Spacing : 7.6 to 13.7 mtr

Features

- Right Position Start-Rotor rotates counterclockwise from fixed right start position
- Flow control for reducing the radius by retaining the uniformity of distribution
- Riser fits in existing Hunter® PGP® cans-simply unscrew the existing riser from the PGP® can and replace with the RPS75 riser
- Top adjustment-no training necessary, the RPS75 has the same adjustment procedure as the Hunter® PGP®
- Full and Part circle rotation-provides a full range of adjustment from 40° to 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
- Universal adjustment tool-compatible with existing Hunter® products
- Rubber Cover-Seals out dirt and increases product durability
- Wide Selection of Nozzles-Including standard and low angle, provides flexibility in system design
- Available with Anti-Drain Check Valve option



Specifications

- 3/4" Female Threaded
- Arc Adjustment Range : 40° to 360°
- Flow Range : 1.9 - 32.6 l/m
- Pressure Rating : 2 - 4.8 kg/cm2
- Precipitation Rate : 3 to 10 mm/h
- Overall Height (Popped Down) : 7 3/8"
- Recommended Spacing : 7.6 to 13.7 mtr
- Radius : 6.7 to 15.5 mtr
- Nozzle Trajectory : 25°
- Low Angle Nozzle Trajectory : 11°
- 8 Standard and 4 Low Angle Nozzles Included
- Riser Height : 4"



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Performance Data - Standard

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)
0.5	2.1	8.5	1.9
	2.8	8.8	2.3
	3.4	8.8	2.7
	4.1	9.1	3.0
0.75	2.1	8.8	2.6
	2.8	9.1	3.0
	3.4	9.1	3.4
	4.1	9.4	3.8
1	2.1	9.1	3.4
	2.8	9.4	3.8
	3.4	9.4	4.5
	4.1	9.8	4.9
2	2.1	9.8	4.5
	2.8	10.1	5.3
	3.4	10.4	6.1
	4.1	10.4	6.8
3 Pre-Installed	2.1	11.0	7.6
	2.8	11.6	9.1
	3.4	12.2	10.2
	4.1	12.2	11.0
4	2.1	11.0	9.8
	2.8	12.2	11.4
	3.4	12.8	12.9
	4.1	12.8	14.0
6	2.1	11.6	15.9
	2.8	13.1	18.5
	3.4	14.0	20.8
	4.1	14.3	22.7
8	2.8	13.7	22.7
	3.4	14.6	25.7
	4.1	14.9	28.8
	4.8	15.5	31.0

FACT

HT-9KRPS75 is the direct replacement for Hunter® PGP® Rotors

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

Easy Arc Setting



**Arc Selection
40° to
360°**

Adjust From Right Start

Performance Data - Low Angle

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)
1	2.0	6.7	4.5
	3.0	7.3	6.4
	3.5	7.9	6.8
	4.0	8.5	7.6
3	2.0	8.8	11.4
	3.0	9.8	11.7
	3.5	10.7	13.2
	4.0	11.3	14.4
4	2.0	9.4	12.9
	3.0	10.4	14.8
	3.5	11.3	16.7
	4.0	11.6	17.8
6	3.0	11.6	24.6
	3.5	12.2	27.6
	4.0	12.8	30.3
	5.0	13.4	32.6

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

HT-9KRPSS-RPS SELECT GEAR DRIVEN ROTORS

Mid-Range Gear Driven Rotor



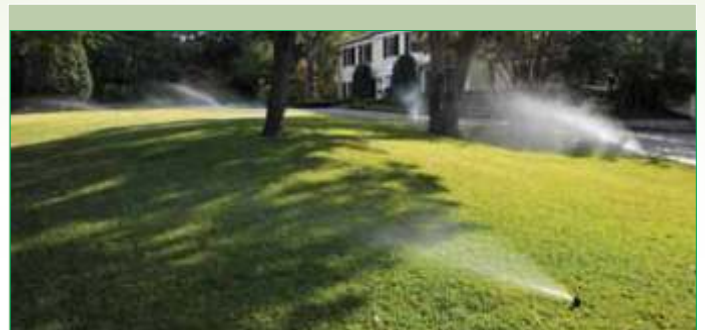
New

Applications : Residential / Light Commercial

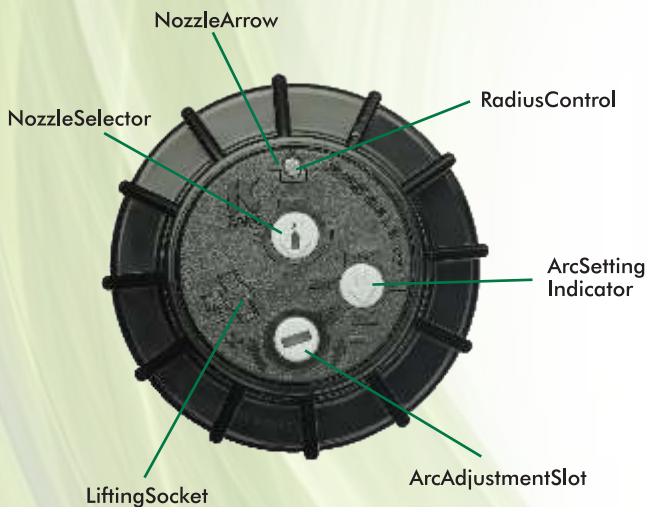
Spacing : 9.8 to 12 mtr

Features

- Four built-in selectable nozzles to match different arc settings. (#1-#4)
- Adjustable arc (40°-360°) All adjustments made from the top-wet or dry. No special tools needed.
- Balanced precipitation rates when nozzle setting matched to arc.
- Precision-engineered nozzles for water-saving efficiency.
- Standard rubber cover.
- Proven water-lubricated gear-drive design common to RPS 75 Series. Large dirty-water filter screen for compatibility with reclaimed and recycled water sources.
- Internal assembly interchanges with Hunter® PGP® rotors.
- Low-pressure operation.
- Effluent / reclaimed water identification cover available.



K-Rain's new RPS Select rotary sprinkler is the first gear-driven sprinkler that makes matched precipitation fast and easy, without the need for cumbersome changing of nozzles or sprinkler heads in the field. The RPS Select offers a choice of 4 selectable nozzles built-in. With a twist of a screwdriver, quickly select the correct nozzle flow to match the arc setting of the sprinkler, wet or dry. No nozzle trees to carry or lose. Fewer chances for errors. Using a combination of the four nozzles, it's easy to achieve matched precipitation across all arc settings. Many gear driven rotors are supplied with only a single factory-installed nozzle. Independent research reveals that most contractors don't change out this factory-installed nozzle to match the sprinkler's area of coverage. When the same 3.0 gallon nozzle is used for all arcs, the result is areas that are dramatically over-watered or under-watered. The RPS Select offers factory-nozzle convenience with greater water efficiency. The four on-board nozzles also make the RPS Select a convenient universal replacement sprinkler for other brands.



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FACT

RPS is the direct replacement for Hunter® PGP® Rotors



Performance Data - Standard

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)
#1	2.1	9.8	4.5
	2.8	10.4	4.9
	3.4	11.0	6.1
#2	2.1	10.1	9.1
	2.8	10.4	9.5
	3.4	10.4	11.7
#3	2.1	10.4	14.0
	2.8	10.4	15.1
	3.4	10.7	17.4
#4	2.1	10.1	17.8
	2.8	10.7	20.1
	3.4	11.0	23.1

Specifications

- Radius : 32'-36' (9.8 to 11.0m)
- Flow rate : 1.2-6.1 GPM (4.5 to 23.1 l/m)
- Recommended operating pressure : 25-75 PSI (2,0 to 5,0 bars)
- Optimum nozzle performance : 50 PSI (3,4 bars)
- Standard 4" pop-up for lawn areas
- 3/4" female-threaded inlet
- Optional drain check valve controls up to 10' of elevation change

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

HT-9KPRP PROPLUS®

Mid-Range Gear Driven Rotor



Applications : Residential / Light Commercial

Spacing : 8.5 to 13.4 mtr

Features

- **Revolutionary Patented Easy Arc Set-** Easily adjusted from the top with flat blade screwdriver.
- **2N1 Adjustable or Continuous Rotation-** Provides a full range of adjustable from 40° to a full 360°.
- **Patented Arc Set Degree Markings-** Shows the degree of adjustment with the point of an arrow on the top cover.
- **Vandal resistant clutch with Auto Reset-** Prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced past its stop.
- **Time Proven Patented Reversing Mechanism-** Assures continuous reverse and return... over a 20 year history.
- **Ratcheting Riser-** Easily adjust your left stop position by turning the riser.
- **Heavy Duty Rubber Cover-** Protects against physical injury and reduces liability.
- **Wide Selection of Nozzles-** Including standard and low angle, provides flexibility in system design to achieve matched precipitation.
- **5" riser height**
- **Optional Check Valve-** Prevents low head rainage, saves water and reduces liability.



Specifications

- 3/4" Female Threaded Inlet
- Arc Adjustment Range : 40° to Continuous 360°
- Flow Range : 1.8 to 11.3 ltr/min
- Pressure Rating : 2.0 to 5.0 kg/cm²
- Precipitation Rate : 1.6 to 12.9 mm/hr
- Overall Height (Popped Down) : 7 1/2"
- Recommended Spacing : 8.5 to 13.4 mtr
- Radius : 8.5 to 15.2 mtr
- Nozzle Trajectory : 26°
- Low Angle Nozzle Trajectory : 12°
- Standard and Low Angle Nozzle : Included
- Riser Height : 5"



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Performance Data - Standard

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
0.5	2.0	8.5	1.9	1.8	1.6
	3.0	8.8	2.3	2.0	1.7
	3.5	8.8	2.6	2.3	2.0
	4.0	9.1	3.0	2.5	2.2
0.75	2.0	8.8	2.6	2.3	2.0
	3.0	9.1	3.0	2.5	2.2
	3.5	9.4	3.4	2.6	2.3
	4.0	9.8	3.8	2.8	2.4
1	2.0	11.3	9.1	4.9	4.3
	3.0	12.2	9.5	4.4	3.8
	3.5	12.8	11.4	4.8	4.2
	4.0	13.1	12.5	5.0	4.4
2	2.0	11.3	9.1	4.9	4.3
	3.0	12.2	9.5	4.4	3.8
	3.5	12.8	11.4	4.8	4.2
	4.0	13.1	12.5	5.0	4.4
2.5 Pre-Installed	2.0	11.6	9.5	4.9	4.2
	3.0	11.9	10.6	5.2	4.5
	3.5	12.2	12.1	5.6	4.9
	4.0	12.5	13.2	5.9	5.1
3	2.0	11.6	13.6	7.0	6.1
	3.0	11.9	15.9	7.8	6.8
	3.5	12.5	17.4	7.7	6.7
	4.0	12.8	18.9	8.0	6.9
4	2.0	13.1	16.7	6.7	5.8
	3.0	13.4	19.3	7.4	6.4
	3.5	14.0	21.2	7.5	6.5
	4.0	14.9	22.3	6.9	6.0
6	3.0	13.7	22.3	8.2	7.1
	3.5	14.0	22.7	8.0	6.9
	4.0	14.6	23.8	7.7	6.7
	5.0	14.9	25.4	7.9	6.8
8	3.0	12.8	30.3	12.8	11.1
	3.5	13.7	32.2	11.8	10.3
	4.0	14.9	36.0	11.2	9.7
	5.0	15.2	37.9	11.3	9.8

FACT

K-RAIN founder Carl Kah, holds over 90 patents specific to the irrigation industry. Notable patents include the reversing mechanism and K-RAIN's arc set indicator.

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

Easy Arc Setting



Adjust From Left Start

**Arc Selection
40° to
Continuous
360°**

Performance Data - Low Angle

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
1	2.0	6.7	4.5	7.0	6.1
	3.0	7.3	6.4	8.3	7.2
	3.5	7.9	6.8	7.5	6.5
	4.0	8.5	7.6	7.2	6.2
3	2.0	8.8	11.4	10.1	8.7
	3.0	9.8	11.7	8.5	7.4
	3.5	10.7	13.2	8.1	7.0
	4.0	11.3	14.4	7.8	6.8
4	2.0	9.4	12.9	10.0	8.6
	3.0	10.4	14.8	9.5	8.2
	3.5	11.3	16.7	9.1	7.9
	4.0	11.6	17.8	9.2	8.0
6	3.0	11.6	24.6	12.7	11.0
	3.5	12.2	27.6	12.9	11.2
	4.0	12.8	30.3	12.8	11.1
	5.0	13.4	32.6	12.5	10.9

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

HT-9KSPR SUPERPRO®

Professional Gear Driven Rotor W/Flow Shut - Off



USA

www.krain.com



5" riser height

Flow Shut-Off



Allows to stop the flow right at the head!

Applications : Residential / Light Commercial

Spacing : 7.9 to 14.9 mtr

Features

- **Flow Shut-Off-** Stop the flow right at the head with the turn of a screwdriver or K-Key for quick and easy nozzle changes.
- **Revolutionary Patented Easy Arc Set-** Easily adjusted from the top with a flat blade screwdriver.
- **2N1 Adjustable or Continuous Rotation-** Provides a full range of adjustable from 40° to a full 360°.
- **Patented Arc Set Degree Marking-** Shows the degree of adjustment with the point of an arrow on the top cover.
- **Vandal resistant clutch with Auto Reset-** Prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced past its stop.
- **Time Proven Patented Reversing Mechanism-** Assures continuous reverse and return... every time.
- **Ratcheting Riser-** Easily adjust your left stop position by turning the riser.
- **Heavy Duty Rubber Cover-** Protects against physical injury and reduces liability.
- **Wide Selection of Nozzles-** Including standard and low angle, provides flexibility in system design to achieve matched precipitation.
- **5" riser height**
- **Optional Check Valve-** Prevents low head drainage, saves water and reduces liability.

Specifications

- 3/4" Female Threaded Inlet
- Arc Adjustment Range : 40° to Continuous 360°
- Flow Range : 1.7 - 36.0 ltr/min
- Pressure Range : 2.0 - 5.0 kg/cm²
- Precipitation Rate : 1.4 - 11.6 mm/hr
- Overall Height (Popped Down) : 7 1/2"
- Recommended Spacing : 8.5 - 13.4 mtr
- Radius : 7.9 - 14.9mtr
- Nozzle Trajectory : 26°
- Low Angle Nozzle Trajectory : 12°
- Standard and Low Angle Nozzle : Included
- Riser Height : 5"

FACT

K-RAIN'S exclusive patented top arc indication makes their rotors the easiest in the world to adjust.



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ADJUSTMENT %	75%		50%		25%			
#1 NOZZLE	2.44 m .09 m ³ /h	8 ft. 0.4 GPM	4.88 m .14 m ³ /h	16 ft. 0.6 GPM	7.32 m .20 m ³ /h	24 ft. 0.9 GPM	9.75 m .30 m ³ /h	32 ft. 1.3 GPM
#2 NOZZLE	3.05 m .14 m ³ /h	10 ft. 0.6 GPM	5.79 m .27 m ³ /h	19 ft. 1.2 GPM	8.53 m .43 m ³ /h	28 ft. 1.9 GPM	11.58 m .57 m ³ /h	38 ft. 2.5 GPM
#4 NOZZLE	3.35 m .25 m ³ /h	11 ft. 1.1 GPM	6.71 m .50 m ³ /h	22 ft. 2.1 GPM	10.06 m .75 m ³ /h	33 ft. 3.3 GPM	13.40 m 1.04 m ³ /h	44 ft. 4.6 GPM
#6 NOZZLE	3.66 m .34 m ³ /h	12 ft. 1.5 GPM	7.32 m .70 m ³ /h	24 ft. 3.1 GPM	10.97 m 1.14 m ³ /h	36 ft. 5.0 GPM	14.63 m 1.45 m ³ /h	48 ft. 6.4 GPM

“With FLOW SHUT OFF mechanism. Radius reduction can be done up to 75% (No other pop up in the world has this feature). Pattern of spray remain undistorted in case of radius reduction.”

Performance Data - Standard

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
0.5	2.0	7.9	1.7	1.4	1.2
	3.0	7.9	1.9	1.7	1.5
	3.5	8.8	2.3	2.5	2.2
	4.0	9.1	2.6	2.9	2.5
0.75	2.0	9.8	2.6	1.9	1.7
	3.0	9.8	3.0	2.2	1.9
	3.5	10.1	3.4	2.3	2.0
	4.0	10.1	3.8	2.6	2.2
1	2.0	9.1	4.2	3.5	3.0
	3.0	9.8	4.9	3.6	3.1
	3.5	10.1	5.7	3.9	3.4
	4.0	10.1	6.1	4.1	3.6
2	2.0	11.6	8.7	4.5	3.9
	3.0	11.6	9.5	4.9	4.2
	3.5	12.2	10.2	4.8	4.1
	4.0	12.8	11.4	4.8	4.2
2.5 Pre-Installed	2.0	10.7	9.5	5.8	5.0
	3.0	11.0	10.6	6.1	5.3
	3.5	11.3	12.1	6.6	5.7
	4.0	11.6	13.6	7.0	6.1
3	2.0	10.7	12.9	7.8	6.8
	3.0	11.0	14.9	8.3	7.2
	3.5	11.6	15.9	8.2	7.1
	4.0	11.9	18.2	8.9	7.7
4	2.0	12.8	15.5	6.6	5.7
	3.0	13.4	17.4	6.7	5.8
	3.5	13.7	19.3	7.1	6.2
	4.0	14.0	21.6	7.6	6.6
6	3.0	14.0	22.0	7.7	6.7
	3.5	14.6	24.2	7.8	6.8
	4.0	14.9	26.5	8.2	7.1
	5.0	14.9	28.4	8.8	7.6
8	3.0	12.8	28.4	12.0	10.4
	3.5	13.7	31.0	11.4	9.9
	4.0	14.6	34.1	11.0	9.5
	5.0	14.6	36.0	11.6	10.1

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

Performance Data - Low Angle

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
1	2.0	7.9	4.9	5.4	4.7
	3.0	8.2	5.7	5.8	5.0
	3.5	8.2	6.4	6.6	5.7
	4.0	8.5	7.2	6.8	5.9
3	2.0	8.8	11.0	9.7	8.4
	3.0	9.1	12.5	10.4	9.0
	3.5	9.4	12.9	10.0	8.6
	4.0	10.1	15.1	10.4	9.0
4	2.0	8.5	15.1	14.4	12.5
	3.0	9.4	17.8	13.8	12.0
	3.5	10.4	18.9	12.2	10.6
	4.0	11.0	22.7	13.1	11.3
6	3.0	9.1	22.7	18.8	16.3
	3.5	10.4	26.5	17.1	14.8
	4.0	11.3	29.5	16.1	13.9
	5.0	11.6	31.0	16.0	13.9

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

Easy Arc Setting



Adjust From Left Start

Arc Selection
40° to
Continuous
360°



Flow Shut-Off

Allow to
stop the
flow right
at the head

HT-KPRS PROSPORT™

Long Range Gear Driven Rotor



Applications : Commercial / Sports Turfs & Golf Courses

Spacing : 12 to 21 mtr

Features

- **Triple Nozzle configuration-** Ensures even distribution of water.
- **2N1 Adjustable or continuous rotation-** Provides a full range of adjustment from 40° to a continuous full circle.
- **Vandal resistant clutch with Auto Reset-** Prevents internal gear damage and returns rotor to its prior setting automatically if nozzle turret is forced past its stop.
- **Patented Easy Arc Set Degree Marking.**
- **Heavy duty Rubber Cover.**
- **Advanced Riser Seal.**
- **Time proven patented Reversing Mechanism -** Assures continuous reverse and return....everytime.
- **Heavy Duty Rubber Cover.**
- **Easily retrofit to any other system.**
- **Factory installed check valve -** Prevent low head discharge.



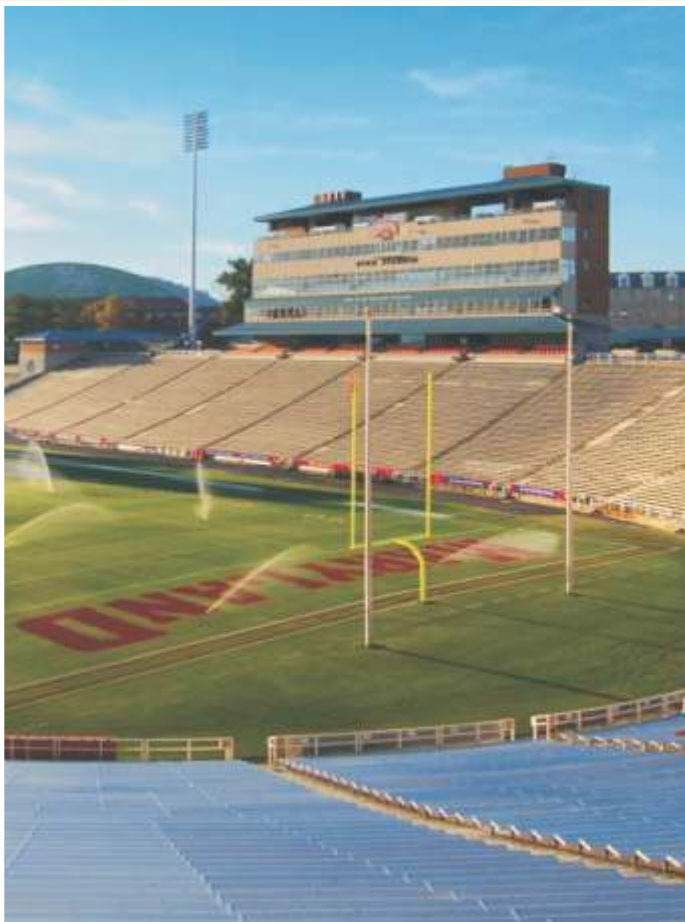
Specifications

- 1" Female Threaded Inlet.
- Arc Adjustment Range : 40° to continuous 360°
- Flow Range : 19.3 to 110.5 ltr/min
- Operating Pressure : 2.7 to 6.2 kg/cm²
- Precipitation rate : 7.1 to 60.4 mm/hr
- Overall height (popped down) : 9½"
- Exposed Diameter : 1.85"
- Radius : 13.7 to 21.6 mtr
- Nozzle Trajectory : 26°
- Riser height : 4"



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FACT

K-RAIN'S Revolutionary Patented Easy Arc Set - Simplifies arc set allows for wet or dry adjustment in seconds

Performance Data - Standard

Nozzle	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)	Precipitation Rate*	
				Triangular (mm/hr)	Square (mm/hr)
5	2.76	13.7	19.3	7.14	6.18
	3.45	14.3	22.3	7.57	6.55
	4.14	14.3	24.6	8.36	7.24
	4.83	14.9	26.9	8.37	7.24
10 Pre- Installed	3.45	16.2	40.1	10.60	9.18
	4.14	15.9	44.3	12.15	10.52
	4.83	16.2	47.7	12.58	10.90
	5.52	16.8	51.1	12.52	10.84
15	3.45	17.4	49.2	11.25	9.74
	4.14	18.0	53.8	11.51	9.97
	4.83	18.0	58.3	12.47	10.80
	5.52	19.2	62.5	11.75	10.17
20	4.14	19.8	71.5	12.64	10.94
	4.83	20.4	77.6	12.93	11.20
	5.52	21.0	82.9	13.01	11.27
	6.21	21.6	87.8	13.04	11.30
25	4.14	20.4	86.3	14.37	12.45
	4.83	21.6	93.9	13.93	12.07
	5.52	22.9	100.3	13.26	11.48
	6.21	23.5	101.4	12.71	11.01
30	4.14	20.4	89.7	14.93	12.93
	4.83	21.0	96.9	15.21	13.17
	5.52	21.0	104.1	16.37	14.17
	6.21	21.6	110.5	16.41	14.21

* Performance is based on ideal conditions of Temperature Wind Velocity and Humidity.

Easy Arc Setting



Adjust From Left Start

Allow to stop the flow right at the head

RPS SPRAYS

Application: Residential/Light Commercial



Models	
RPS-2	2" Narrow Profile Spray Body
RPS-4	4" Narrow Profile Spray Body

Narrow Profile Sprays

K-Rain's RPS pop-up spray heads are ideal for watering smaller areas, ground cover and shrub areas.

RPS pop-up sprays are built with the contractor in mind. With the narrow profile, replacement is effortless. The RPS Spray is the only narrow profile spray with a co-molded wiper seal. The co-molded wiper seal ensures proper operation year after year with minimal flow by.



Features

- Available in 2" and 4" Models-Provides flexibility in system design.
- Accepts female threaded nozzles
- Stainless Steel Retraction Spring-Provides 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 under low- pressure situations.
- Narrow Profile Body - Easy to retrofit with existing systems.
- Two year limited warranty.



Co-Molded Wiper Seal



K-Rain's co-molded wiper seal reduces flow by-pass at start up and provides durability for longer life.

Specifications

- 1/2" Female threaded inlet
- Pressure Rating : 1.5 -3.5 Kg/cm²
- Flow Range : 1.9 - 20.4 ltr/min
- Precipitation rate :7.6 - 101.6 mm/hr
- Nominal Radius : 2.7 - 5.5 mtr



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HT-9KPROS-PRO-S™ SPRAY

Applications : Residential / Commercial



Features

- **Co-Molded Wiper Seal-** Ensures a leak free, full pop-up operation even under low-pressure situations. 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 and Bottom Inlets-** On 6" and 12" models.
- **Wide Selection of Sizes-** Available in 2", 3", 4", 6" and 12" models.
- **Pre-Installed Flush Cap.**
- **Optional In-stem Pressure Regulator-** available for 4", 6" and 12" models.
- **Five Year Limited Warranty.**



CO-MOLDED WIPER SEAL

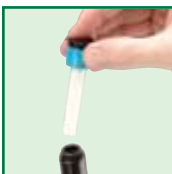
Ensures a leak free, full pop-up operation even under low-pressure situations. Unique cartridge design featuring microbe-resistant durable material prevents degradation and stick-ups.



Pre-installed flush cap.



Male threaded body is compatible with all standard female nozzles.



RUGGED CONSTRUCTION

The K-Rain Pro-S line of sprays is distinguished by its robust construction, rugged body and cap, co-molded seal and heavy-duty retraction spring.



Models

78002	2" Pop-up (5 cm)	78006 6" Pop-up (15 cm)
78003	3" Pop-up (7.5 cm)	78012 12" Pop-up (30 cm)
78004	4" Pop-up (10 cm)	

OTHER OPTIONS: ADD TO PART NUMBER
- PR Pressure Regulator (4", 6" & 12" Models only)

ADJUSTABLE ARC NOZZLE-FOR SPRAY POP-UPS

KVF NOZZLES

K-Rain's KVF Adjustable Nozzles have a female thread configuration to fit RPS and PRO-S spray bodies and 4" K-Spray 74001-M



8'GREEN 10'BLUE 12'BROWN 15'BLACK 17' GREY-KV ONLY

Models

KVF Nozzles

KVF - 2	8" Spray, Green
KVF - 10	10" Spray, Blue
KVF - 12	12" Spray, Brown
KVF - 15	15" Spray, Black
KVF - 17	17" Spray, Gray

How to specify



Metric

ARC	PRESSURE		8'GREEN		10'BLUE		12'BROWN		15'BLACK		17' GREY-KV ONLY	
	KPa	Bars	Radius (mtr)	Flow (ltr/min)	Radius (mtr)	Flow (ltr/min)	Radius (mtr)	Flow (ltr/min)	Radius (mtr)	Flow (ltr/min)	Radius (mtr)	Flow (lit/min)
90	138	1.38	2.7	1.5	2.7	1.5	3.0	1.7	4.0	2.1	5.2	3.0
	172	1.72	2.7	1.6	2.7	1.6	3.4	2.0	4.3	2.4	5.5	3.6
	207	2.07	3.0	1.7	3.0	1.7	3.7	2.1	4.6	2.6	5.8	4.0
	276	2.76	3.0	1.9	3.0	1.9	3.7	2.3	4.9	3.0	5.8	4.9
180	138	1.38	2.7	3.8	2.7	3.8	2.7	4.2	4.0	4.9	5.2	6.4
	172	1.72	2.7	4.2	2.7	4.2	3.0	4.6	4.3	5.6	5.2	7.3
	207	2.07	3.0	4.5	3.0	4.5	3.0	5.1	4.6	6.2	5.8	8.1
	276	2.76	3.0	4.7	3.0	4.7	3.4	5.8	4.9	7.6	5.8	9.5
270	138	1.38	2.7	6.1	2.7	5.3	2.7	6.1	4.0	7.2	4.9	9.1
	172	1.72	3.0	6.6	3.0	6.0	3.0	6.6	4.6	8.1	4.9	10.7
	207	2.07	3.0	7.4	3.0	6.6	3.0	7.4	4.6	8.9	5.2	11.4
	276	2.76	3.4	7.8	3.0	7.8	3.4	7.8	4.9	10.2	5.5	13.2
360	138	1.38	2.7	8.7	2.7	8.7	2.7	9.1	4.0	10.6	4.9	11.0
	172	1.72	3.0	9.5	3.0	9.5	3.0	9.9	4.3	12.3	5.2	12.9
	207	2.07	3.0	10.0	3.0	10.0	3.4	10.5	4.6	13.6	5.2	14.4
	276	2.76	3.4	10.4	3.4	10.4	3.7	11.5	4.6	15.5	5.2	16.7

FIXED ARC & SPECIALITY NOZZLES-FOR SPRAY POP-UPS



8ft. metric					
Nozzle	Number	Pressure (kpa/Bar)		Radius (mtr)	Flow Rate (ltr/min)
	FN8Q	100	1.0	1.7	.68
		150	1.5	2.1	.79
		200	2.0	2.4	.91
		210	2.1	2.4	.98
	FN8H	100	1.0	1.7	1.4
		150	1.5	2.1	1.6
		200	2.0	2.4	1.8
		210	2.1	2.4	2.0
	FN8TQ	100	1.0	1.7	2.1
		150	1.5	2.1	2.4
		200	2.0	2.4	2.7
		210	2.1	2.4	3.0
	FN8F	100	1.0	1.7	2.8
		150	1.5	2.1	3.3
		200	2.0	2.4	3.6
		210	2.1	2.4	4.0

10ft. metric					
Nozzle	Number	Pressure (kpa/Bar)		Radius (mtr)	Flow Rate (ltr/min)
	FN10Q	100	1.0	2.1	1.1
		150	1.5	2.4	1.2
		200	2.0	3.0	1.4
		210	2.1	3.1	1.5
	FN10H	100	1.0	2.1	2.2
		150	1.5	2.4	2.5
		200	2.0	3.0	2.7
		210	2.1	3.1	3.0
	FN10TQ	100	1.0	2.1	3.3
		150	1.5	2.4	3.7
		200	2.0	3.0	4.1
		210	2.1	3.1	4.5
	FN10F	100	1.0	2.1	4.4
		150	1.5	2.4	4.9
		200	2.0	3.0	5.5
		210	2.1	3.1	6.0

K-Rain Fixed Arc Nozzles - 12'ft.				
Nozzle	Number	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)
	P12Q/ FN12Q	1.5	3.4	1.9
		2.0	3.7	2.6
		3.0	4.0	3.0
		3.5	4.3	3.4
	P12H/ FN12H	1.5	3.4	3.4
		2.0	3.7	4.2
		3.0	4.0	5.3
		3.5	4.3	5.7
	P12TQ/ FN12TQ	1.5	3.7	4.5
		2.0	3.7	5.3
		3.0	4.3	6.4
		3.5	4.6	7.6
	P12F/ FN12F	1.5	3.0	6.1
		2.0	3.7	6.8
		3.0	4.0	7.9
		3.5	4.3	9.1

K-Rain Fixed Arc Nozzles - 15'ft.				
Nozzle	Number	Pressure (kg/cm ²)	Radius (mtr)	Flow Rate (ltr/min)
	P15Q/ FN12Q	1.5	4.6	2.6
		2.0	4.9	3.4
		3.0	5.2	4.2
		3.5	5.5	4.5
	P15H/ FN12H	2.0	4.3	5.3
		3.0	4.6	6.4
		4.0	4.9	7.6
		5.0	5.0	8.3
	P15TQ/ FN12TQ	2.0	4.0	7.6
		3.0	4.6	9.5
		4.0	4.9	11.0
		5.0	4.9	12.1
	P15F/ FN12F	2.0	4.0	11.0
		3.0	4.6	13.6
		4.0	4.9	15.5
		5.0	5.2	17.4

SPECIAL PATTERNS				
PATTERN	NUMBER	PRESSURE (kg/cm ²)	RADIUS (mtr)	FLOW (ltr/min)
CENTER STRIP	15CS / FN15CS	1.5	1.2 X 7.3	3.0
		2.0	1.2 X 9.1	3.8
END STRIP	15ES / FN15ES	1.5	1.2 X 7.3	1.5
		2.0	1.2 X 4.6	1.9
SIDE STRIP	15SS / FN15SS	1.5	1.2 X 8.5	4.2
		2.0	1.5 X 9.8	4.9
HIGH LOW	15HL / FN15HL	1.5	4.3 X 1.2 X 8.0	9.5
		2.0	4.6 X 1.5 X 9.8	11.4

Data represents test results in zero wind. Adjust for local conditions. Radius may be reduced with nozzle retention screw.



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New



Features

- **Water savings-** up to 30% more efficient than conventional sprays.
 - **Low application rate-** reduces runoff on slopes and with clay soils.
 - **High uniformity-** outstanding coverage, eliminates brown spots.
 - **Matched precipitation-** across every arc, pattern and radius.
- Mix and match with traditional rotors.
- **Multiple stream technology-** beautiful to watch, wind-resistant.
 - **Color Coding-** Indicates one of six radius options, easy identification
 - **Adjustable Arc and Strip Patterns-** Infinite control for all circular patterns from 80° to 360° plus innovative solutions for narrow strips
 - **Viscous Control-** Only one moving part, patent-pending
 - **Flow Control-** Allows radius adjustment of up to 25%
 - **Outstanding Dirt Tolerance-** Secondary pop-up provides added protection
 - **Fits a Standard Spray Body-** Threads onto a standard pop-up spray body
 - **Optional pressure regulated body-** Pro-S pop-up spray body with 40 PSI pressure regulator and innovative rotary nozzle guard



Pro-S-40 Spray body option

Includes built-in 40 PSI pressure regulator for optimum nozzle performance. Standard check valve. Innovative rotary nozzle guard protects nozzle and controls vandalism.

ROTARY NOZZLE PERFORMANCE DATA



Metric-RN 100 ADJ (Green)

ARC	Pressure (kpa / bar)	Radius (m)	Flow (lm)	Precip mm/hr ▲	Precip mm/hr ■
90° Green	2,07	3,66	0,68	9	10
	2,76	3,96	0,72	10	12
	3,45	4,27	0,98	11	13
180° Green	2,07	3,66	1,32	10	12
	2,76	3,96	1,48	11	12
	3,45	4,27	1,97	12	14
360° Green	2,07	3,66	2,61	10	12
	2,76	3,96	2,91	11	12
	3,45	4,27	3,75	12	14

Metric-RN 200 ADJ (Blue)

ARC	Pressure (kpa / bar)	Radius (m)	Flow (lm)	Precip mm/hr ▲	Precip mm/hr ■
90° Blue	2,07	5,18	1,17	9	10
	2,76	5,79	1,51	10	12
	3,45	6,40	1,67	11	13
180° Blue	2,07	5,18	2,23	10	12
	2,76	5,79	2,84	11	12
	3,45	6,40	3,22	12	14
360° Blue	2,07	5,18	4,47	10	12
	2,76	5,79	5,64	11	12
	3,45	6,40	6,28	12	14

Metric-RN 300 ADJ (Red)

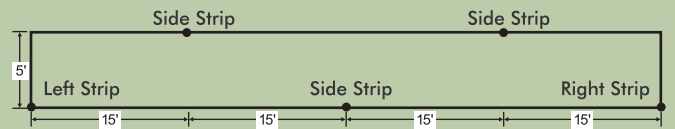
ARC	Pressure (kpa / bar)	Radius (m)	Flow (lm)	Precip mm/hr ▲	Precip mm/hr ■
90° Red	2,07	8,53	2,65	9	10
	2,76	8,56	3,03	10	12
	3,45	8,53	3,41	11	13
180° Red	2,07	8,23	5,68	10	12
	2,76	8,23	6,06	11	12
	3,45	8,23	6,81	12	14
360° Red	2,07	7,92	10,98	10	12
	2,76	8,23	12,11	11	12
	3,45	8,23	13,63	12	14

Six Nozzle Options for Every Application

RN-100 GREEN: Radius Adjustment 9' (2,7 to 4,3 m)
RN-200 BLUE: Radius Adjustment 13' (4,0 to 6,4 m)
RN-300 RED: Radius Adjustment 22' (6,7 to 8,5 m)

RN-LCS-515 (Left Strip) - IVORY
RN-SS-530 (Side Strip) - BROWN
RN-RCS-515 (Right Strip) - COPPER

Strip Pattern Nozzles



Water strip areas efficiently and effectively. Enjoy maximum control with a low application rate. Zone with other RN nozzles.

Performance Data - Standard

Nozzle Model	Pressure PSI	Width x Length	Flow GPM	Flow GPH	Pressure Bar	Radius m	Flow l/min
Left Strip IVORY RN-LCS-515	30	4' x 14'	0.19	11.4	2,0	1,2 x 4,3	0,72
	35	5' x 15'	0.21	12.6	2,5	1,4 x 4,5	0,79
	40	5' x 15'	0.22	13.2	2,8	1,5 x 4,6	0,84
	45	5' x 15'	0.23	13.8	3,0	1,6 x 4,7	0,87
	50	6' x 16'	0.25	15	3,5	1,7 x 4,8	0,94
Right Strip COPPER RN-RCS-515	30	4' x 14'	0.19	11.4	2,0	1,2 x 4,3	0,72
	35	5' x 15'	0.21	12.6	2,5	1,4 x 4,5	0,79
	40	5' x 15'	0.22	13.2	2,8	1,5 x 4,6	0,84
	45	5' x 15'	0.23	13.8	3,0	1,6 x 4,7	0,87
	50	6' x 16'	0.25	15	3,5	1,7 x 4,8	0,94
Side Strip BROWN RN-SS-530	30	4' x 28'	0.38	22.8	2,0	1,2 x 8,5	1,43
	35	5' x 30'	0.41	24.6	2,5	1,4 x 8,9	1,57
	40	5' x 30'	0.44	26.4	2,8	1,5 x 9,1	1,66
	45	5' x 30'	0.47	28.2	3,0	1,6 x 9,3	1,72
	50	6' x 32'	0.49	29.4	3,5	1,7 x 9,5	1,87
	55	6' x 32'	0.51	30.6	3,8	1,8 x 9,9	1,96



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900T SERIES POP-UP SPRINKLER



Innovative Telescopic Design



Dimensions

- Inlet 1/2" female pipe thread (F.P.T.)
- Male threaded piston accepts female nozzle

Model #	Body Height	Pop up Height	Exposed Surface Diameter
907T	6"	7"	2 1/8"
913T	9 1/2"	13"	2 1/8"

Standard Features

- Constructed of high impact plastic ABC material
- Flush plug to aid installation patent # 5,163,168
- Stainless steel retraction spring
- Ratchet for directional adjustment of spray pattern

Options Available

- Reclaimed purple cap
- Check valve (CKV): holds up to 8' feet of head'
- In stem pressure regulating device (PRD)

Features

- Double acting telescoping piston
- Two independent heavy duty stainless steel retraction springs
- Integrally molded "Leak-Stopper" gaskets prevent any body-cap leaks
- 7" pop-up has overall retracted body height same as 4" pop-up body 900 series
- 13" pop-up has overall retracted body height same as 6" pop-up body 900 series
- Designed for shallow trench and labor savings
- Patented Lateral flushing flush plug
- Operating range 20-70 PSI, 25-70 PSI with CKV option
- High impact virgin ABS plastic construction for body, pistons and cap
- CKV, Check valve device is optional
- PRD, Pressure Regulating Device is optional
- Spring-loaded ratchet on all models
- 1/2" female pipe thread on bottom inlet, plus side inlet on 13" pop-up
- RW, optional "Re-claimed water" purple cap
- Male threaded piston to accept fixed or adjustable arc nozzles with female threads
- 13" pop-up can be field retrofit into Hit 900 Series 6" body or rainbird™ 1806 body
- 7" pop-up can be field retrofit into Hit 900 Series 4" body or rainbird™ 1804 body

Specifications

- Operating pressure: 20-70 PSI
- Recommended working pressure: 30 PSI
- Recommended working pressure with PRD: 30-70 PSI

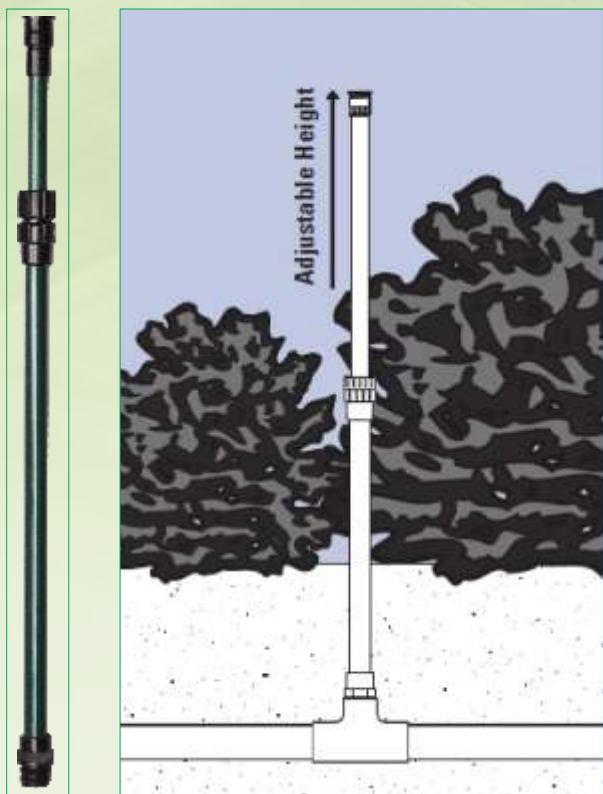
Performance Graph



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ALUMINUM ADJUSTABLE RISER16-30" WITH ADJUSTABLE NOZZLE



The height on this riser can be adjusted from 16 in. to 30 in. as plants and shrubs grow. The nozzle adjusts to spray in a part to full circle and includes a water-flow adjustment screw.

- Great for growing shrubs and plants, and flower bed areas
- Adjusts from 16" to 30" as plants grow
- Adjusts to spray in a part to full circle
- Space 3m to 5m apart (Depending upon the Nozzle Selection)
- Works with or replaces shrub sprinklers 1/2" in. male threaded

BUBBLER

Adjustable Bubblers



New



Umbrella Pattern

Specifications

- Operating range : Flow: 0 to 5.5 GPM
(0 to 1.25 m³/h; 0 to 20 l/m)
- Spacing : 1 to 3 feet (0.3 to 0.9m)
- Pressure : 20 to 40 PSI (1.4 to 2.8 Bar)
- Inlet : 1/2" Female Thread

- Applications :**
- Point-Source Medium Flow Emitters for Watering Large Shrubs and Trees
 - Use as a bubbler on a 1/2" PVC Riser

Pressure Compensating Bubbler



New



Umbrella Pattern

Specifications

- Flow : 1.0 GPM (0.227 m³/h; 3.8 l/m)
- Spacing : 1 to 3 feet (0.3 to 0.9m)
- Pressure : 20 to 40 PSI (1.4 to 2.8 Bar)
- Inlet : 1/2" Female Thread

Features

- 1/2" FPT thread screws onto a variety of risers, spray heads and fittings, delivering point-source, pressure compensating flow.
- Uniform flow throughout a wide pressure range (20 to 40 psi : 1.4 to 2.8 bar).
- Robust Design - durable plastic construction is UV and impact resistant.

HT-9PGP - PLAY GROUND POP-UP

Large Radius GEAR DRIVE POP-UP

ITALY

www.sime-sprinklers.com

48 mtr
Radius



2" Female Threaded Connection

Specifications

- Maximum operating pressure range 3.0 - 8.0 kg/cm²
- Discharge range 314 - 1084 ltr/min
- Radius range 29.5 - 49.5 meters
- Precipitation rate range 6.8 - 8.8 mm per hour



Features

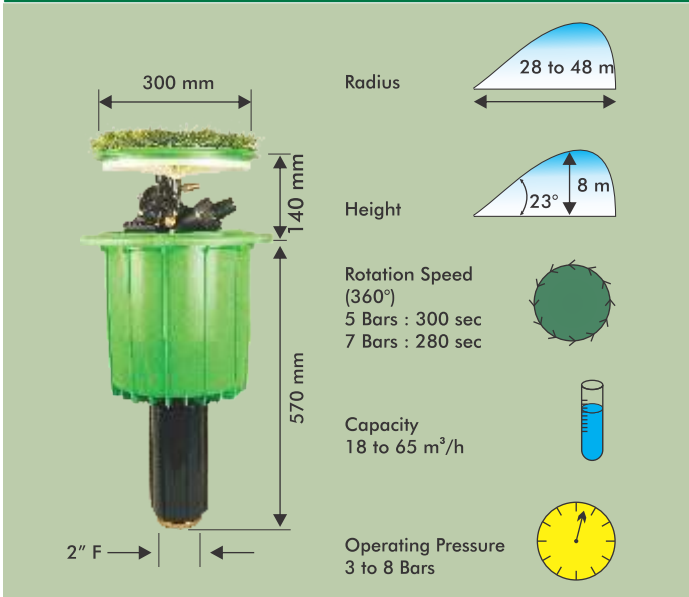
- Uniform water distribution
- Smooth gear drive operation
- Large radius reduces heads on playing surface
- Pop-Up sprinkler for large gardens and parks, manufactured with shock proof outer case and rubber cover
- Technically built as a turbine big irrigun, it gives a long radius, and it is particularly suitable for golf courses, (can be possible one-two only sprinkler each green), and football grounds
- The external spinner and the jet-breaker, grant the best water-distribution
- The Sprinkler arc works with low or high pressures and can mount nozzles from 16 to 24 mm diameter
- Best Suited for golf courses , Stadium and Big Parks
- Low operating pressure -> Low HP Pump Set -> Low Operating Cost
- Low Filtration Cost -> Low Initial Cost -> Low Maintenance
- Less Number of Sprinklers per unit area, there by lower system cost
- Precipitation Rate 6.8 - 8.8 mm per hour
- Jet Length 29.5 mtr - 48.5 mtr
- Rubber covered cap for player protection
- Optional synthetic turf top available

Large Radius GEAR DRIVE POP-UP

Applications : Football, Hockey, Cricket, Rugby, Synthetic Turf & Golf courses.



Technical Data



Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Precipitation (ltr/min)
16 6	3.0	29.5	314	6.8
	4.0	32.5	364	6.6
	5.0	35.0	406	6.3
	6.0	37.0	446	6.2
	7.0	39.0	482	6.0
18 6	3.0	31.0	350	6.9
	4.0	34.0	400	6.7
	5.0	37.0	452	6.3
	6.0	39.0	496	6.2
	7.0	40.5	535	6.2
20 6	4.0	35.0	545	8.5
	5.0	39.0	609	7.2
	6.0	43.0	668	6.9
	7.0	44.0	721	7.1
	8.0	45.0	773	7.3
22 6	4.0	36.0	649	9.5
	5.0	39.5	726	8.9
	6.0	44.0	795	7.8
	7.0	47.0	859	7.4
	8.0	48.0	920	7.1
24 6	4.0	37.0	765	10.6
	5.0	40.5	855	10.0
	6.0	45.0	937	8.8
	7.0	47.5	1012	8.6
	8.0	48.5	1084	8.8
26 6	4.0	38.0	891	11.7
	5.0	41.5	996	11.0
	6.0	46.0	1092	9.8
	7.0	48.5	1178	9.6
	8.0	50.0	1262	9.6

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
▲ Standard Nozzle Size

Installation Recommendations

- Use quality (min. 10 bar rating) 3 or 4 way articulated riser assembly connection between base of sprinkler and supply piping to provide player protection and avoid damage to sprinkler and pipeline
- Provide an adequate gravel "soak pit" area about each sprinkler base to allow for drainage of any excess water build up during operation
- Excess water build up may be avoided by multiple operation cycles (at proportionally reduced times)
- Installation of size 2" anti drain check valve at base of sprinkler head / riser assembly is recommended for all low lying areas

HT-40G

1 1/4" Water Gun PENGUIN



Features

- Available in 1 1/4" BSP/NPT Female Thread Connection
- Both Part Circle & Full Circle adjustments
- Adjustable Jet breaker to provide uniform distribution
- Equipped with 3 interchangeable nozzles of different sizes for various applications
- Trajectory Angle 30°

- Applications :**
- Sports Fields, Golf Courses
 - Dust Suppression, Green Pastures

Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (mtr ²)	Precipitation Rate (mm/h)
10x4	2.00	19.00	106	1134	5.6
	3.00	21.00	130	1384	5.6
	4.00	22.50	151	1590	5.7
	5.00	23.50	170	1734	5.9
±12x4	2.00	21.00	149	1384	6.4
	3.00	23.50	182	1734	6.3
	4.00	26.00	211	2123	5.9
	5.00	28.00	236	2461	5.8
14x4	2.00	22.50	197	1590	7.4
	3.00	24.00	241	1809	7.9
	4.00	27.00	278	2289	7.2
	5.00	29.00	311	2640	7.0

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
 ± Standard Nozzle Size

HT-42G

1 1/2" Water Gun PELICAN



Features

- Available in 1 1/2" BSP/NPT Female Thread Connection
- Both Part Circle & Full Circle adjustments
- Adjustable Jet breaker to provide uniform distribution
- Equipped with 3 interchangeable nozzles of different sizes for various applications
- Trajectory Angle 23°

- Applications :**
- Sports Fields, Golf Courses
 - Dust Suppression, Green Pastures

Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (mtr ²)	Precipitation Rate (mm/h)
12x5	2.00	20	152	1256	7.2
	3.00	24	182	1809	6.0
	4.00	27	211	2289	5.5
	5.00	30	236	2826	5.2
±14x5	2.00	21	195	1384	8.4
	3.00	25	239	1962	7.3
	4.00	29	277	2640	6.3
	5.00	31	309	3017	6.1
16x5	2.00	22	247	1519	9.7
	3.00	26	303	2123	8.6
	4.00	30	351	2826	7.5
	5.00	33	391	3419	6.9

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
 ± Standard Nozzle Size

Manufactured as per ISO-7749-1&2 specifications



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HT-43G

1 1/2" Water Gun SKIPPER



Features

- Available in 1 1/2" BSP/NPT Female Thread Connection
- Both Part Circle & Full Circle adjustments
- Adjustable Jet breaker to provide uniform distribution
- Equipped with interchangeable nozzles of different sizes for various applications
- Inner rotating system supported by stainless steel ball bearing to guarantee no strain and no oxidation due to humidity

- Applications :**
- Sports Fields, Golf Courses
 - Dust Suppression, Green Pastures

Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (mtr ²)	Precipitation Rate (mm/h)
12x6	2.0	22	159	1519	6.2
	3.0	25	194	1962	5.9
	4.0	28	224	2461	5.4
	5.0	31	252	3017	5.0
14x6	2.0	24	195	1808	8.5
	3.0	27	251	1289	6.5
	4.0	30	290	2826	6.2
	5.0	33	324	3419	5.7
≈ 16x6	2.0	26	2857	2123	7.2
	3.0	29	315	2640	7.1
	4.0	32	364	2217	6.8
	5.0	35	406	3846	6.3
18x6	2.0	28	318	2641	7.7
	3.0	31	404	3017	8.0
	4.0	34	471	3629	7.8
	5.0	37	521	4298	7.3
20x6	2.0	30	354	2826	7.5
	3.0	33	490	3419	8.6
	4.0	37	571	4298	8.0
	5.0	41	617	5278	7.0

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
 ≈ Standard Nozzle Size



Manufactured as per ISO-7749-1&2 specifications



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 Website: www.automatworld.com

Creating a Green World

HT-45G

2" Water Gun DUPLEX



Features

- Available in 2" BSP/NPT Female Thread Connection
- Both Part Circle & Full Circle adjustments
- Only full circle model also available
- Adjustable Jet breaker to provide uniform distribution
- Equipped with interchangeable nozzles of different sizes for various applications

- Applications :**
- Sports Fields, Golf Courses
 - Dust Suppression, Green Pastures

Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (mtr ²)	Precipitation Rate (mm/h)
12x8	1.5	20	159	1256	7.5
	2.0	23	184	1662	6.6
	3.0	27	224	2289	5.8
	4.0	30	259	2826	5.4
14x8	2.0	25	230	1960	7.0
	3.0	29	280	2640	6.3
	4.0	32	225	3217	6.0
	5.0	34	364	3629	6.0
≈ 16x8	2.0	27	282	2289	7.3
	3.0	31	344	3017	6.8
	4.0	34	399	3629	6.5
	5.0	37	446	4298	6.2
18x8	2.0	28	343	2461	8.3
	3.0	33	434	3419	7.6
	4.0	36	506	4069	7.4
	5.0	40	561	5024	6.7
20x6	2.0	29	411	2640	9.3
	3.0	34	520	3629	8.5
	4.0	38	606	4534	8.0
	5.0	43	657	5805	6.7

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
 ≈ Standard Nozzle Size



Manufactured as per ISO-7749-1&2 specifications



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Creating a Green World

HT-47G

2 1/2" Water Gun MARINER



Features

- Available in 2 1/2" BSP/NPT Female Thread Connection
- Both Part Circle & Full Circle adjustments
- Adjustable Jet breaker to provide uniform distribution
- Equipped with interchangeable nozzles of different sizes for various applications
- Inner rotating system supported by stainless steel ball bearing to guarantee no strain and no oxidation due to humidity

- Applications :**
- Sports Fields, Golf Courses
 - Dust Suppression, Green Pastures

Performance Data

Nozzle (mm)	Pressure (kg/cm ²)	Radius (mtr)	Discharge (ltr/min)	Irrigated Area (mtr ²)	Precipitation Rate (mm/h)
26	3.0	42	800	5538	7.0
	4.0	47	926	6939	6.9
	5.0	51	1036	8167	6.8
	6.0	54	1135	9156	6.8
28	3.0	45	917	6361	8.6
	4.0	49	1061	7539	8.4
	5.0	52	1186	8494	8.3
	6.0	55	1300	9498	8.2
≈ 30	4.0	50	1207	7853	9.2
	5.0	54	1350	9156	8.8
	6.0	57	1479	10200	8.7
	7.0	61	1594	11683	9.6
32	4.0	52	1361	8494	9.6
	5.0	56	1522	9847	9.3
	6.0	59	1668	10930	9.1
	7.0	62	1798	12070	8.9
34	5.0	57	1708	10200	10.0
	6.0	61	1872	11683	9.6
	7.0	64	2018	12860	9.4
	8.0	67	2162	14095	9.2

* Performance is based on ideal conditions of Temperature, Wind Velocity and Humidity.
 ≈ Standard Nozzle Size

Manufactured as per ISO-7749-1&2 specifications



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TRAVELER IRRIGATOR SYSTEM



Specifications

- For pipes diameter 40/50mm with lengths form 70 to 160 meter.
- Very versatile automatic irrigator in a small size
- The ideal partner for anyone waiting to use the great benefits of this irrigation system on small plots

- Applications :**
- **Sports Complex**
 - **Stadiums, medium & large parks**
 - **Golf Courses**

Features

- Hot galvanizing
- Rewinding by means of : parcialized water turbine with gear-box filled up of oil
- End rewinding stop by means of water shut off valve
- Automatic safety system for rewinding out of the shape
- Sector Sprinkler with, nozzles' series
- Automatic lifting of the sprinkler trolley
- Flexible connection hose 2mt. with coupling
- Draw bar to connect the tractor

Advantages

- Uniform distribution of water
- Cost effective
- Easy & quick installation
- Traveler system
- Durable
- Portable
- Low maintenance
- Automatic - only one person required
- Weather resistant

TRAVELER IRRIGATOR SYSTEM



Applications : Ideally suitable for

- **Medium & Large Parks**
- **Polo Grounds**
- **Race Courses**
- **Golf Courses**

Advantages

- Uniform distribution of water
- Cost effective
- Easy & quick installation
- Traveler system
- Durable
- Portable
- Low maintenance
- Automatic - only one person required
- Weather resistant

Specifications

- For pipes diameter 50/63/70/75/82mm with lengths form 180 to 300 meter. Very versatile automatic irrigator in a small size
- The automatic irrigator designed for the specific requirements of a medium & big farm. Compact in its dimensions and practical in its simplicity of use, it can easily be transported in any conditions

Features

- Hot galvanizing
- Turnable frame
- Water turbine rewinding
- Multispeeds gear-box filled up with oil
- P.T.O. on the gear box for emergency rewinding
- Accident protections
- Electronic countmeter
- Manometer filled up with glycerine
- Sprinkler with nozzles series
- Sprinkler trolley with adjustable track and height
- Flexible connection hose with coupling 4mt
- Handle for manual rewinding
- Automatic safety system for rewinding out of the shape
- Speed corrector on independent by-pass
- Automatic stop at the rewinding end
- Hydraulic speed adjustment
- Hose guide system with screw without end
- Automatic trolley lifting
- Adjustable height of the draw hook
- Rear establish legs with handle
- Front legs on the frame
- Chassis with adjustable wheel's track and height

Applications : For irrigation of shrubs Ground covers,
Trees and plants.

Aries™
(Non Pressure Compensating)



Specifications

- Recommended filtration: 130 micron/120 Mesh.
- Turbu next™ labyrinth with superior performance.
- Injected dripper, very low CV.
- Aries™ drippers meet ISO 9261 Standards with production by the Israel Standards Institute (SII).

Features

- Largest filter in each dripper. Wide Filtration area to ensure optimal performance even under harsh water conditions.
- Aries dripper having 37% to 41% higher
- filtration area as compare to Typhoon dripper depending upon flow rate.
- Turbu next™ labyrinth assures wide water passages large deep and wide , cross section improves clogging resistance. Widest water passages within the dripper.
- The water is drawn in to the dripper from the stream centre, preventing the entrance of sediments in to drippers.
- Injection moulded dripper construction, ensuring uniform drippers and very low CV.
- Aries dripper having 29% to 39% more cross sectional Area as compare to Typhoon dripper depending upon flow rate

Dripper's technical data

Standard flow rate* (LPH)	Water passages dimensions width-depth-length (mm)	Filtration Area (mm) ²	Constant K	Exponent X
1.00	0.60x0.75x65	49	0.331	0.48
2.00	0.76x1.03x65	54	0.663	0.48
3.00	0.90x1.20x65	54	0.995	0.48

*Flow rate at 1.0 bar pressure



Compact integral pressure- compensating, Continuously self- cleaning dripper

Specifications

- Pressure- compensating range: 0.4-2.5/3.0 bar (according to flow rate model).
- Recommended filtration: according to drippers flow rate
- Turbu Net™ labyrinth with large water passage.
- To be “welded” into thick-walled dripperlines (0.9, 1.0 and 1.2mm)
- Injected dripper, very low CV.
- Injected silicon diaphragm.
- UV resistant, Resistant to standard nutrients used in agricultural
- Drip Net PCTM drippers meet ISO 9261 Standards with production certified by the Israel standards Institute (SII)

- Applications :**
- For irrigation of shrubs, Ground covers, Trees and plants.
 - Also suitable for sloppy landscape or system working with variable pressure.

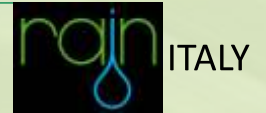
Features

- Pressure compensated : Precise and equal amounts of water are delivered over a broad pressure range. 100% uniformity of water and nutrient distribution along the laterals.
- Continuously self flushing : flushes debris as it is detected, through out operation, not just at the beginning or end of a cycle, ensuring uninterrupted dripper operation.
- Self-flushing system with wide filtration area improves resistance to clogging.
- Turbu next™ labyrinth assures wide water passages large deep and wide, cross section improves clogging resistance. Widest water passages within the dripper.
- The water is drawn in to the dripper from the stream centre, preventing the entrance of sediments in to drippers.
- Aries dripper having 29% to 39% more cross sectional Area as compare to Typhoon dripper depending upon flow rate.

Drippers technical data

flow rate* (LPH)	Working Pressure range (LPH)	Water passages dimensions width-depth-length (mm)	Filtration Area (mm) ²	Constant K	Exponent X	Recommended Filtration (Micron/Mesh)
0.6	0.4 - 2.5	0.52x0.60x22	39	0.6	0	130/120
1.0	0.4 - 2.5	0.61x0.60x8	39	1.0	0	130/120
1.6	0.4 - 2.5	0.76x0.73x8	39	1.6	0	200/80
2.0	0.4 - 3.0	0.76x0.85x8	39	2.0	0	200/80
3.0	0.4 - 3.0	1.02x0.88x8	39	3.0	0	200/80
3.8	0.4 - 3.0	1.02x0.88x8	39	3.8	0	200/80

TAP TIMER



AMICO⁺

New



AMICO 2⁺

Applications : Amico⁺™ Taptimer has been studied to be the most userfriendly and a high quality produca in the market. Programming has never been so easy, the large display 3" allows to see all the data in one look. The backlit display and the large characters allow to program the controller during the day and the night.

Applications : Amico 2⁺™ Tap timer has been studied to be the most user friendly and a high quality product in the market. Using the same programming of Amico⁺ , Amico 2⁺ allows to set 2 different valves completely independent. The backlit display allows to program the controller during the day and the night without problems.



Features

- 1 program
- Run time min/max: 1/240 minutes
- Watering frequency: from every 6 hours up to once 15 days
- Current time indication
- Start time indication
- Duration of watering indication
- Frequency indication
- Next irrigation indication
- Watering countdown
- Low battery function

Specifications

- 1 Zone (Amico⁺) & 2 Zone (Amico 2⁺)
- Inlet thread 3/4" -1"
- Outlet thread 3/4"
- Max working pressure 8 bars
- Max flow 40 l/m
- Diaphragm 9 VDC electric valve
- Removable control unit
- ABS Body
- Hard plastic cover for LCD display protection
- Wide backlit 3" LCD display
- Powered by 2 alkaline 1.5 volt (AA)

3 PROGRAM WITH 3 SIMPLE STEPS.

1. Start Time
2. Duration
3. Frequency

1. Removable Control Unit



2. Easy Readable Screen Position



7. Frequency



3.3" Backlit Lcd Display



4. Programming Buttons



5. Start Time



6. Duration



CODE	MODELS
200.40947co	AMICO ⁺
200.4044502	AMICO2 ⁺
000.da creare	AMICO ⁺ with sensor
200.409452	ELECTRIC VALVE AMICO ⁺



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AQUADRIP AUTOMATIC WATERING SYSTEM FOR POTTED PLANTS



Capillary Micro Stake

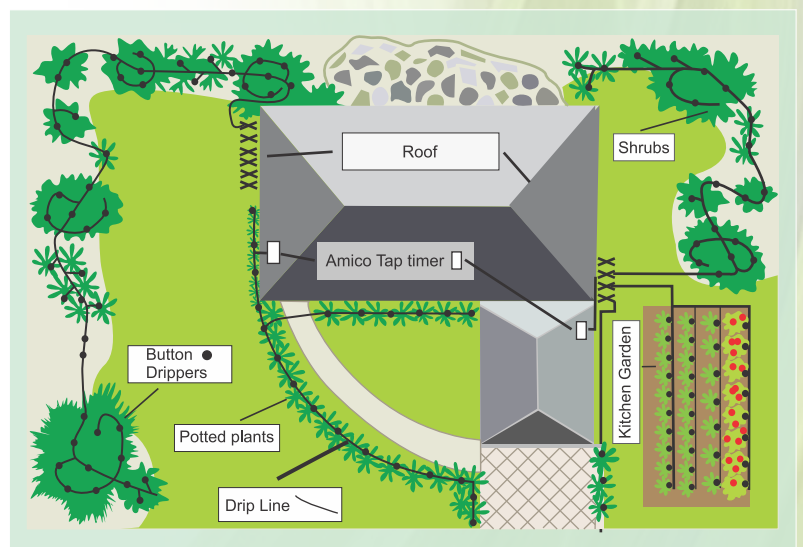
New

Features

- Pressure Compensating Dripper's gives constant flow of discharge in event of variation of pressure in supply line.
 - Various types of drippers are available for different requirements of plants (2 lph, 4 lph & 8 lph) respectively.
 - Capillary tube of 3.3x0.8mm available in standard length of 50, 85 & 100cm
- | | | | | |
|--------------------------------|-----|-----|-----|-----|
| Pressure (kg/cm ²) | 0.5 | 1.0 | 1.5 | 2.0 |
| Flow (lph) | 1.9 | 2.8 | 3.6 | 4.5 |
- Battery operated controller, hence no need to rely upon electricity supply.
 - Easy programming for start time, watering duration & irrigation frequency depending upon climatic conditions.

Benefits

- Saves water by 40-50%
- Keeps watering your plants at programmed time when you are away from home.
- Helps to conserve water by giving just the right amount of water.
- Since the water is applied directly at the root zone, it leads to increased water efficiency.
- Works from regular tap (gravity flow) and does not require additional pump.



- Applications :**
- Suitable for remote location.
 - System operating with gravity flow.
 - Cable - less irrigation

New

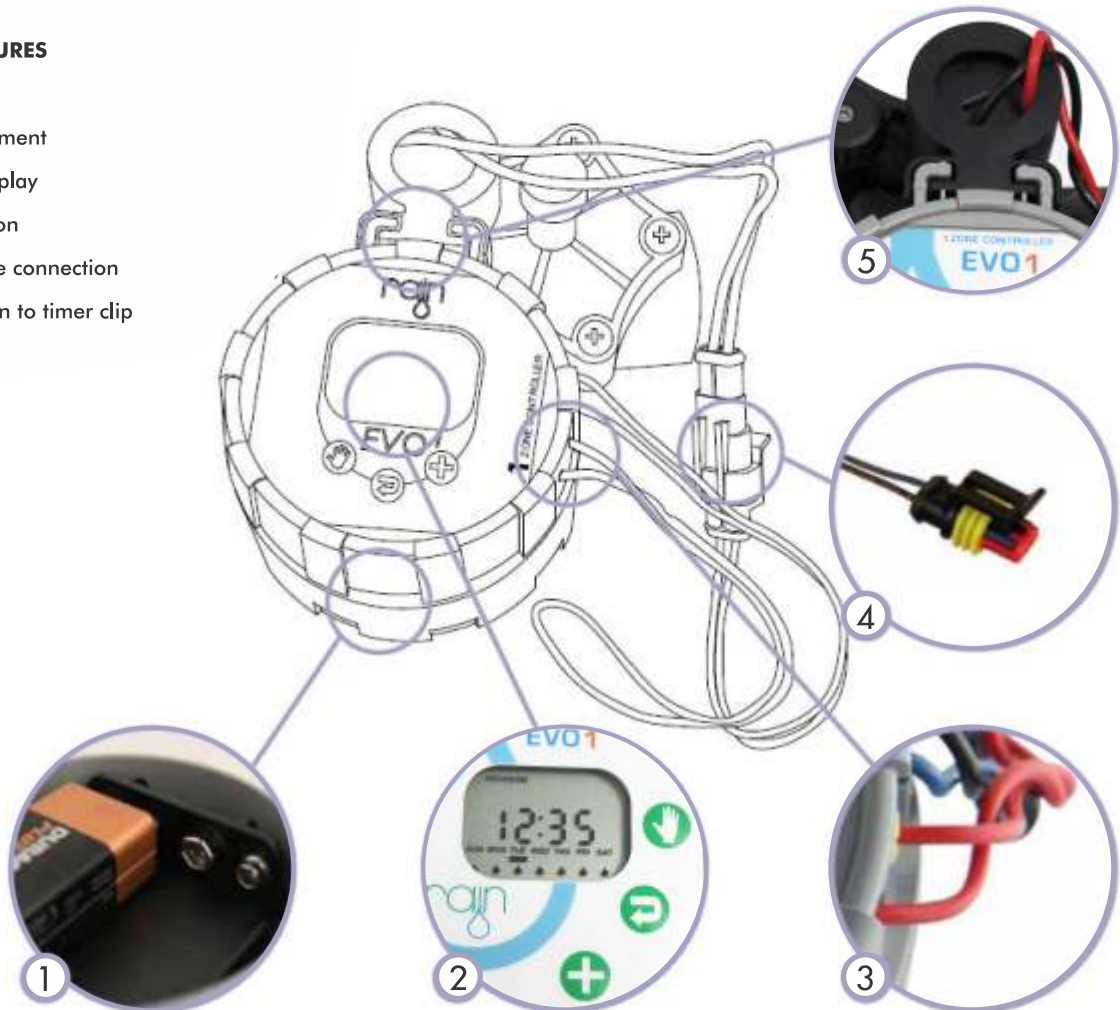


Features

- 1 Zone
- Battery powered
- 1 Program
- 2 daily start-time
- Weekly calendar
- Run time min/max: 1/360 minutes
- Watering count-down
- Freeze-program function
- Low-battery function
- Rubber cover
- Body in ABS
- Double OR seal
- Fully waterproof Ip68
- Sensor connection
- Compatible with mechanical sensor
- Sensor active indicator
- Waterproof valve connection
- 2x9 volt alkaline batteries [not included]
- Operating DC latching solenoids only
- Solenoid wire length up to 30 m

TECHNICAL FEATURES

- 1- Battery compartment
- 2- user friendly display
- 3- sensor connection
- 4- waterproof valve connection
- 5- Timer connection to timer clip



- Applications :**
- Suitable for remote location.
 - System operating with gravity flow.
 - Cable - less irrigation

New

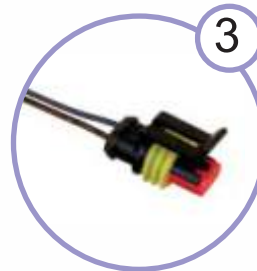


Features

- 1 Zone
- Battery powered
- 1 Program
- 4 daily start-times
- Independent irrigation duration
- Weekly calendar
- Run time min/max: 1/100 minutes
- Watering count-down
- Freeze-program function
- Low-battery function
- Budget function (50% - 150%)
- Body in ABS
- Double OR seal
- Fully waterproof Ip68
- Sensor connection
- Compatible with mechanical sensor
- Sensor active indicator
- Waterproof valve connection
- 4x1.5 volt alkaline batteries [not included]
- Operating DC latching solenoids only
- Solenoid wire length up to 30 m

TECHNICAL FEATURES

- 1. LATCHING SOLENOID-** IDEA works with 6-40 VDC latching solenoid cod. 101.3507000.
- 2. DISPLAY-** 2" display with "battery saver" feature for batteries longer life.
- 3. WATERPROOF VALVE CONNECTION**
- 4. BATTERY COMPARTMENT-** Double OR seal and 2 screws
- 5. PROGRAM-** User friendly programming with smart buttons sequence.



- Applications :**
- Suitable for remote location.
 - System operating with gravity flow.
 - Cable - less irrigation

New



Features

- | | |
|-----------------------------------|--|
| • 2 & 4 Zones | • Body in ABS |
| • Battery powered | • Double OR seal |
| • 1 Program | • Fully waterproof Ip68 |
| • 4 daily start-times | • Sensor connection |
| • independent irrigation duration | • Compatible with mechanical sensor |
| • Weekly calendar | • Sensor active indicator |
| • Run time min/max: 1/100 minutes | • Waterproof valve connection |
| • Watering count-down | • 4x1.5 volt alkaline batteries [not included] |
| • Freeze-program function | • Operating DC latching solenoids only |
| • Low-battery function | • Solenoid wire length up to 30 m |
| • Budget function (50% - 150%) | |

TECHNICAL FEATURES

- 1. LATCHING SOLENIID-** IDEA works with 6-40 VDC latching solenoid cod. 101.3507000.
- 2. DISPLAY-** 2" display with "battery saver" feature for batteries longer life.
- 3. WATERPROOF VALVE CONNECTION**
- 4. BATTERY COMPARTMENT-** Double OR seal and 2 screws.
- 5. PROGRAM-** User frandly programming with smart botttons sequence



C-DIAL 24 VAC Indoor Controller



Description

C-DIAL is a new and unique electronic controller 4-6 station indoor for residential application. The C-Dial family is available at the same price both 24VAC or 9 VDC solenoid.

It follows the Rain's controllers philosophy and it allows to easily set the programming in 3 steps: start time, duration, frequency.

Technical Characteristics

- 4-6 stations models.
- Indoor Models with External Transformer
- Electrical Power Supply: 220 VAC 50Hz
- Electrical Outputs: 24 Volts AC, 0.8 AMP
- 2 independent programs
- 2 independent start times (1 per each program)
- Next start time visualization
- Run Times: 1 min. to 240 min per station
- Watering cycles: {rom 4 per day up to 1 per week
- Watering Schedule: 7 day calendar with individual day selection
- Water Budgeting Mode from 10% to 200%
- Master Valve/Pump 24 VAC outlet can be enabled or disabled by station.
- Power Failure: 2 x 1.5 Volt AA alkaline battery permanently maintains programs. (not included)
- Rain Sensor Inlet
- Freeze-program function (OFF)
- Low-battery function
- Pump Start Relay
- Permanent Memory Saves programs during power outages



CODE	MODELS
200.4180410	C.DIAL 24 VOLT 4 ZONE INDOOR
200.4180610	C-DIAL 24 VOLT 6 ZONE INDOOR

3 Programs With 3 Simple Steps

1. Start Time
2. Duration
3. Frequency

1. New Programming Method



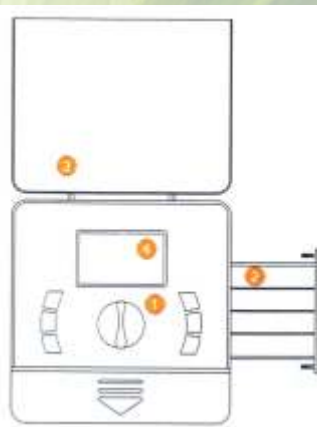
2. 3" LCD Screen





New

Applications : ELITE is a new and unique controller 4-6-8-10 stations based on independent zone setting software. Each station has independent of start times, durations and frequencies and FERTILIZER settings. If activated the FERTILIZER function generates an extra output for managing the fertilizing system. It works on a percentage (from 0% to 90%) of the duration set on each zone. Each station has 4 start times linked to an independent duration and an independent frequency.



Specifications

- 4-6-8-10 stations
- Indoor & Outdoor version
- 24 VAC version. Transformer included & 2 x 1.5V AA cells for back
- up memory (not included)
- 9 VDC Latching version. 4 x 1.5V AA cells (not included)
- Independent program for each station
- 4 start times per each station
- Run Time from 1 to 240 minutes
- Fertilizer Output from 0% to 90% with 10% steps
- Watering Cycles per each Station: from 4 per day, up to 1 every 15 days
- Next Start Time Visualization
- Water Budgetting Function. From 10% to 200%
- Rain Sensor Inlet, programmable per each station
- Pump Relay output programmable per each station (on 24 VAC version only)
- Freeze-Program Function (OFF)
- Low Battery Function
- Permanent Memory. It saves programs also when without power

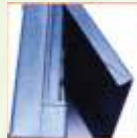
1. New Programing Metro



2. Battery Compartment



3. Cover



4. 3" Back light LCD Screen



CODE	MODELS
200.4580410	ELITE 4 ZONE 9 VDC
200.4580610	ELITE 6 ZONE 9 VDC
200.4580810	ELITE 8 ZONE 9 VDC
200.4581010	ELITE 10 ZONE 9 VDC
200.4581410	ELITE 4 ZONE 24 VDC
200.4581610	ELITE 6 ZONE 24 VDC
200.4581810	ELITE 8 ZONE 24 VDC
200.4581110	ELITE 10 ZONE 24 VDC



LOW RES > IMAGE



HT-AIC 10 AUTOMATIC IRRIGATION CONTROLLER

New



HT-AIC-10

FEATURES OF HT-AIC-10, AUTOMATIC IRRIGATION CONTROLLER (10 STATIONS)

- User`-s-Friendly:- Have very simple and minimum programming step as compared to existent controllers in market.
- Battery backup for programming in the event of no electricity at the farm.
- Suitable for erratic electricity availability conditions where the real time controllers could not perform.
- Capable to operate the same valve for the balance irrigation time in the event of electricity failure during irrigation. Normally, this feature does not exist in real time and other controllers.
- Has pause delay feature which shuts the pump for 30 seconds during change of stations (Valves) to maintain the hydraulic balance in the main line.
- Has inbuilt rain sensor feature and its sensibility to even pure rain (distilled water) is there.
- Rain sensor design and supplied with this controller will also act as rain gauge, which is very helpful for the users to decide about next irrigation after the rainfall.

ELECTRICAL SPECIFICATION OF HT-AIC-10, AUTOMATIC IRRIGATION CONTROLLER (10 STATIONS)

- Electrical Power Supply 230VAC, 50Hz.
- Electrical output –24VAC , 2Amps i.e. 1 amps per station (up to 2 valves/station can be operated simultaneously)

RPS 469 CONTROLLER

Application: Residential/Light Commercial



Models	
3604-220	4 station, 220 Volt internal transfer
3606-220	6 station, 220 Volt internal transfer
3609-220	9 station, 220 Volt internal transfer

RPS 469 MID-SIZE IRRIGATION CONTROLLER

Designed for residential & light commercial applications, the RPS 469 has six individual programs to allow for efficient watering on separated programs. This product features Rain Sensor Ready (RSR) technology which allows individual stations to be controlled by a rain sensor.



Features

- 4,6&9 station Models-Perfect for residential & Light commercial application.
- 6 fully independent programs-Allowing to 6 starts per program. Maximum 36 starts per day.
- Indoor/Outdoor
- Water Conservative-Allows for quick adjustment of watering duration in 10% increments, from 10% to 200.
- Rain Sensor Ready- Accept rain sensor and allows individual stations to be set and controlled by the sensor.
- Flexible Manual Operation-Automatic, semi-automatic and single station manual.
- System Test-Allows a full system check for valve operation.
- Permanent Memory-Saves programs during power outages.
- Weatherproof Enclosure-Ensures long product life.
- Two Year Limited Warranty.

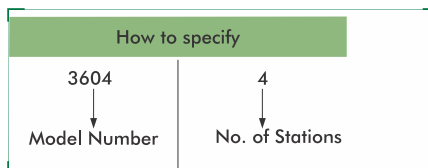
Specifications

Operation Specifications

- Dimensions: HEIGHT: 8.8"
WIDTH: 7.9"
DEPTH: 2.9"
- Station Run Times: 1 min, to 12 hours 59 min.
- Programs: 6
- Start Times: 6 per program
- Water Schedule:7 day calender with individual day selection, or 1 to 15 day interval watering, or 365 day calender for ODD/EVEN day watering.
- Rain Sensor Ready
- Inhibits automatic watering when wet conditions are detected by a suitable rain sensor.
- Master Valve/pump can be enabled or disabled by station or by program.
- Automatic, semi-automatic & single station manual operation.
- Capable of programing remotely using a standard 9 Volt alkaline battery. Permanent memory saves programs during power outages.

Electrical Specifications

- Electrical Power Supply: 110-120 VAC/60Hz/230 VAC 50Hz
- Electrical outputs: 24 Volts AC, 1.0 AMP
- To Solenoid Value: 24 VAC 50/60 Hz 0.75 AMPS max
Note: up to 3 valves per station on inbuilt model.
- Total output load must not be exceeded by the values and pump starts requirements.
- Overload Protection: Standard 20mm 1.0 AMP fuse
- Power failure:9 Volt standard alkaline battery permanently maintains programs.
- Power failure: The controller has permanent memory so the data is always backed up even during power outages.
- Wiring: The output circuits should be installed and protected in accordance with wiring rules.



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PRO EX MODULAR CONTROLLER

PRO EX MODULAR IRRIGATION CONTROLLER



Models

3200	Base 4 station Controller, 240 VAC internal transformer
3204	4 Station Expansion Module

Specifications

Dimensions

- HEIGHT: 7.875" DEPTH: 5.25"

Operating Specification

- Station Run Times: 1 second to 6 hours for all stations
- Number of Programs: 3
- Number of Automatic Start Times: 4 per program
- Program Watering Schedules: Custom (day of the week), Interval (1-31 days), odd (odd calendar days), Even (even calendar days)

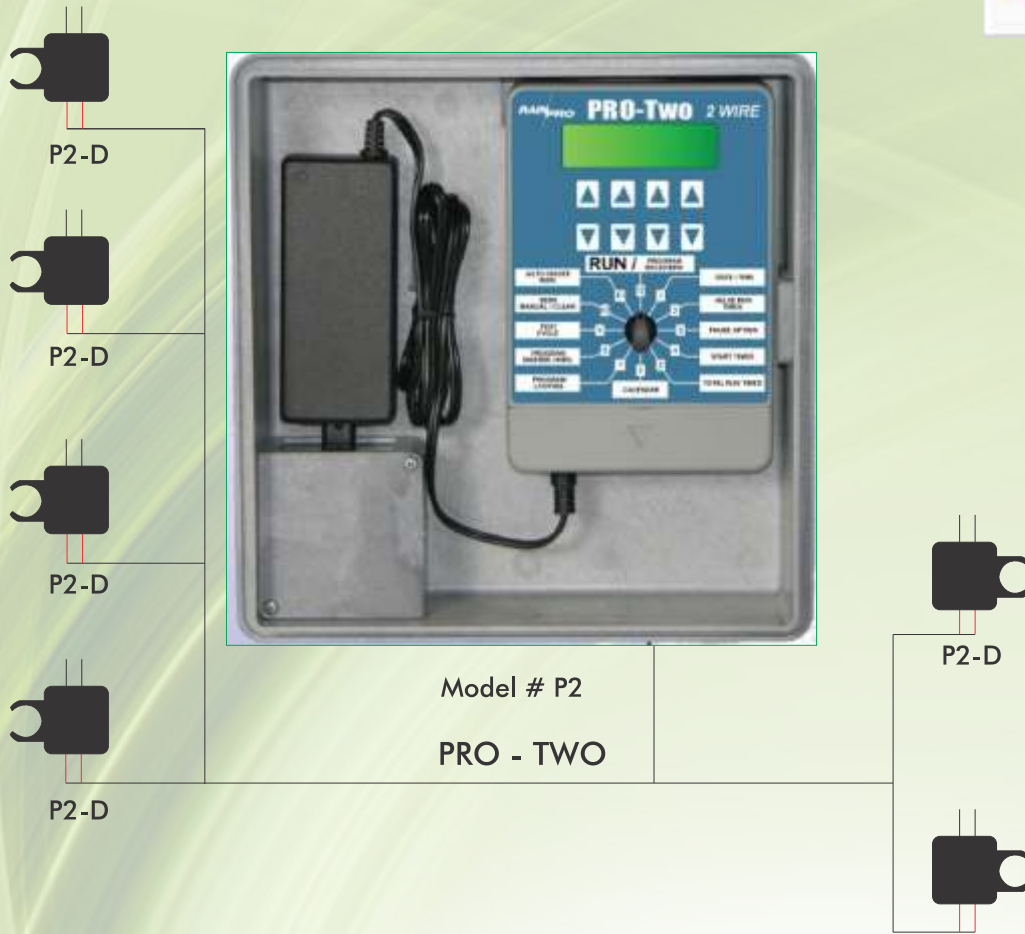
Electrical Specifications

- Power Input
120VAC \pm 10% 60Hz, 230 VAC \pm 10% 50Hz
- Power Output:
24VAC 1.25Amp
- Power Backup:
Lithium coin-cell battery maintains time and date during primary power outages while the 9V battery allows remote programming and LCD viewing
- Multi-Valve operation:
Up to three 24VAC, 7VA solenoid valves

Features

- Hot-swappable 4 Station Modules- Allows simple controller upgrades from 4 to 16 stations while controller is in operation
- 3 Fully Independent Programs- With up to 4 separate start times per program
- Dual Voltage Transformer- Enables either 120VAC installations
- Large backlit LCD Screen- Permits maximum viewing for all installations
- AM/PM or 24 Hour Clock setting- Allows user to choose the time format that is most desirable
- Program Display- Full program screen display of watering days, number of start times, number of stations and special programming
- Flexible Manual Operation- Automatic, semi-automatic and single station
- System Test- Allows a full system check for valve operation
- Manual start- Allows manual program operation at the push of a button
- Wire Management System- is made easy with vertical station terminal strips allowing full use of the cabinet
- Permanent Memory- Non-volatile memory saves program during power outages
- Remote Programming- Allows programming remotely by installing a standard 9V battery
- Wireless Module Connector- Allows for optional installation of wireless communication
- Diagnostic Circuit Breaker- Identifies and isolates with valve or wiring problems while allowing remaining program to continue
- Advanced Diagnostic- Visual and/or audible alerts when programming errors or other conditions have been detected and are preventing operation
- locate Feature- Aids in locating buried valves in field
- Station Delay/Overlap- Permits additional time between station or dual operation for everyday hydraulic issues like well recovery, slow closing valves and water hammer
- Rain sensor Ready- Allows programming of individual station(S) operation to be controlled by sensor
- Sensor Bypass Switch- Global override of active sensor for all stations
- Master Valve/Pump Start Ready- Permits programming for individual station(S) operation as needed
- Valve Test Terminal(VT)- Quick and easy matching of field wires with station during installation
- Dedicated Sensor Terminals- Enables direct sensor installation for maximum watering control
- Default Programming- Allows program to be saved and recalled without having to reprogram the controller
- Permanent Day Off- Set any day of the week, regardless of programming, as a non-watering day
- Seasonal Adjust- Conserves water by allowing quick and easy global adjustment of watering times from 10-200%

PRO-TWO 2 WIRE DECODER BASED CONTROLLER



Specifications

PRO-Two Controller system

- Use minimum 1.5 sq. mm Wire with a maximum of 2000' wire run
- System wiring shall allow for unlimited tees and crosses in field two wire path

Controller

- Controller to have up to 16 Stations
- A maximum of 2 Decoders can operate simultaneously of same or different numbers plus a Master Valve or Pump Start Relay
- Controller to have 6 independent programs
- Water Budget feature operates from 5%-250% increments by Program
- Maximum of 6 start times per program
- Will operate each valve number either, Automatically, semi-Automatic or Manually
- Programmed Rain Delay
- Outdoor model has lock and keys in weather Resistant box

Decoders

- Decoders is programmable at controller to any station number from 1-16 and MV/PS
- Decoder has two red wires to connect to system two wire field path and two black wires to connect to any standard 24VAC solenoid
- Decoder to be shipped with two approved waterproof wire connectors to be used for connections to two wire path
- Decoders to be shipped 16 per container with identification tags #1-#16 and MV/PS
- Decoders are purchased separate from Controller



LOGIC PLUS 2-WIRE DECODER BASED TECHNOLOGY CONTROLLER



LOGIC PLUS 2-WIRE TECHNOLOGY CONTROLLER

- Available in 2 Models : Logic Plus 42S
Logic Plus 128S
- 42 station capability / 128 station capability
- 8 programs / 16 programs
- 8 start times per program / 16 start times per program
- Looping feature on program 6 and remote sensor relay to activate program 6
- 1 minute to 10 hr 59 minutes run time per station (all programs except 5 and 6 which are 1 second to 59 minutes 59 seconds)
- Water budget 0-250% (5% increments) increasing run times per station to over 24 hours
- Semi automatic and programmable manual operations
- Programmable pause between stations per program 0-59 seconds
- Programmable rain delay up to 31 days
- Programmable master valve
- Fertigation control relays with fertigation programming
- Date/leap year sensitive scheduling options weekly, 1-28 day interval
- Odd /even calendar day capabilities
- Programmable test cycle
- "Bounce back" technology allows programs to immediately continue on schedule after power outage

- Radio remote ready
- Program start input
- Clear function for each independent programmer entire controller
- Displays real time operation
- Up to 8 valves may operate simultaneously, same or different valve numbers
- 4 field wire outputs, wire run lengths up to 3.6 km each in four different directions
- Field wires may be installed with tee, crosses and star wire configurations
- Each valve has dedicated unique programmable receiver
- Receivers can be programmed at controller or by way of portable programming unit, Model #LP-HHRP
- Compatible with any standard 24 VAC industry solenoid
- Equipped with modular, replaceable surge protection package
- Short wire and short valve sensing capabilities
- Easy wire trouble shooting procedures
- Locking stainless steel enclosure, wall mount or pedestal options
- Capable to operate 3 Master Valves or Pumps simultaneously

PRO SERIES 150 VALVES

Material of Construction: PVC



Models	
7115	1 1/2" Female Thread, NPT
7115-BSP	1 1/2" Female Thread, BSP
7102	2" Female Thread, NPT
7102-BSP	2" Female Thread, BSP



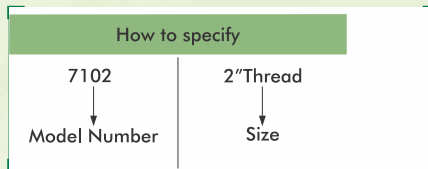
SYSTEM FLEXIBILITY

Removable inlet cap allows for easy conversion from globe to angle-style valve.



PROSERIES 150 VALVES

The 1.5" and 2" models feature a removable inlet cap to easily modify the configuration from globe to angle style. They also have a removable metering pin and external bleed screw promoting easy maintenance and manual operation.



FEATURES Pro series 150 - 1 1/2" & 2" valves

- Heavy Duty, corrosion and UV Resistant PVC construction increases the life of the valve.
- External Bleed Screw with Removable Metering Pin-Allows for easy cleaning of the metering pin without disassembling the valve.
- Manual External Bleed Screw-Provides for manual operation in system start up.
- Manual Internal Bleed through Solenoid-Provides for manual operation without discharging water outside the valve.
- Removable Inlet Cap-Allows for easy conversion from globe to angle-style valve.
- Flow Control-Allows for precise flow adjustment and manual shut off.
- Captured Plunger-Allows for the solenoid to be removed without losing the internal plunger.
- Heavy Duty Santoprene® Diaphragm-Unique design improves durability of diaphragm.
- Five Year Limited Warranty.

Specifications

Operation Specifications

- Pressure range: 20-150 psi
- Flow Range: 5-120 GPM

Electrical Specifications

- Standard Solenoid: 24 VAC 60 Cycle
- Inrush current: .4 amp
- Holding current: .2 amp

Proseries 150 1 1/2" VALVE 7115

Dimensions: HEIGHT: 8" WIDTH: 4 1/4" LENGTH: 5 1/2"

Proseries 150 2" VALVE-7102

Dimensions: HEIGHT: 8 7/8" WIDTH: 4 7/8" LENGTH: 6 1/3"

Operating Specifications

Proseries 150 1 1/2" VALVE

Flow Rate-GPM	20	30	40	50	60	80	
PSI Loss	Globe	3.0	2.6	2.3	2.9	4.1	5.5
	Angle	2.7	2.2	1.9	2.2	3.0	4.4

Proseries 150 2" VALVE

Flow Rate-GPM	20	30	40	50	60	80	100	120	
PSI Loss	Globe	2.0	1.9	1.7	1.5	1.6	2.9	4.8	6.2
	Angle	1.9	1.9	1.7	1.5	1.5	2.1	3.2	4.6

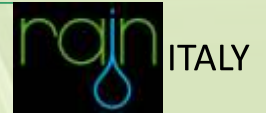
Pressure range: 10-150 psi



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RN160 PLUS & RN180 VALVES



Features

- . Material of Construction: Nylon Glass Filled 30%
- . Self cleaning stainless- steel metering pin
- . Stainless-steel diaphragm differential spring for smooth closing
- . Solenoid certificate CE.IP 689
- . PN 12 tested piece by piece at 14 bar
- . Bleed handle for manual opening with internal bleed
- . Energy efficient solenoid 0.2 amp.4.8 VA
- . Flow control
- . Pressure: Min 1.0 bar - Max 12.0 bar
- . Temperature: +4°C/70°C
- . Standard solenoid 24 VAC



Rain RN160 PLUS



Friction Loss (kg/cm² or bar)

Flow rate	1"	1 1/4"	1 1/2"	2"
75 l/min	0.20	0.20		
100 l/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
375 l/min		0.69	0.39	0.32
300 l/min			0.45	0.38
325 l/min				0.41

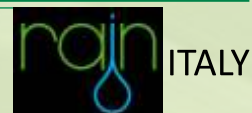
Rain RN180



Friction Loss (kg/cm² or bar)

Flow rate	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
1100 l/min	0.47	0.35

ADJUSTABLE PRESSURE REGULATOR



New



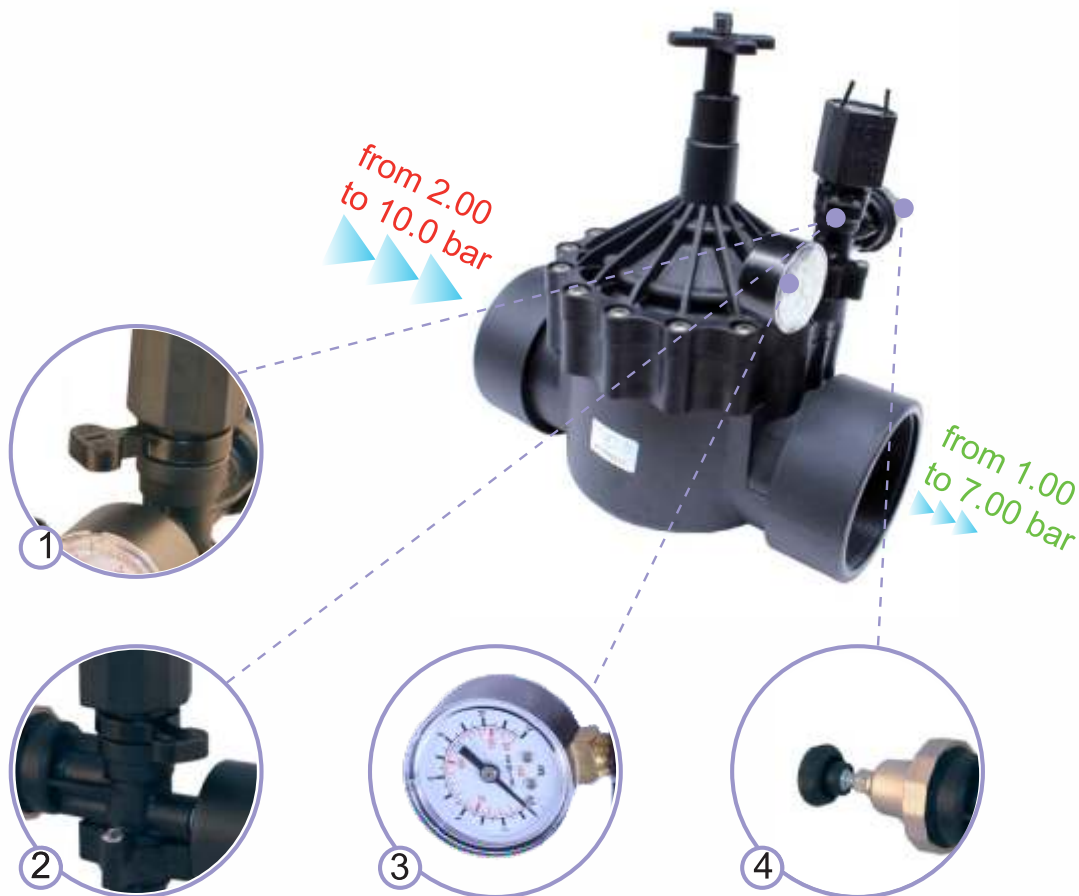
Adjustable pressure regulator grants complete adjustment flexibility. It is not preset for specific performances but operating on the screw it provides the specific setting required by the operator. Its pressure gauge offers always a clear indication of the outlet pressure. Rain pressure regulator can be used on all Rain electric valves.

Specifications

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

TECHNICAL FEATURES

1. Manual opening
2. Installation
3. Pressure Gauge
4. Regulation screw



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RAIN SENSOR

Rain Sensor

Rain STOP is an electronic rain sensor.

All its components are high quality electronics from Japan.

Its working principle is studied to start to work immediately in case of rain.

Rain stop stops irrigation as soon as 4 mm of precipitation are reached, preventing the irrigation system from working while it is raining.

Two different models of Rain stop are available:

- Rain stop 3 wires and Rain stop 4 wires.
- Rain stop 3 (three) wires allows to connect a rain sensor to all 24 vac controllers as it is not needed for its installation to have a sensor dedicated port, on the controller.
- Rain stop 4 (four) wires is the professional rain sensor for the 24 vac controllers equipped with sensor control feature.



R 200 (Gutter & Surface Mount Rain Sensor)

- During rainfall, hygroscopic discs absorb the water and after a set amount of rain has fallen, the sensor engages a switch that will prevent the controller from watering. Once the rain sensor has dried sufficiently, the sensor allows normal sprinkler operation.
- For use with all types of 24Volt.
- Available in 2 mounting options:
 - Rain Gutter
 - Flat Surface



Figure 1: Mounting Rain Sensor

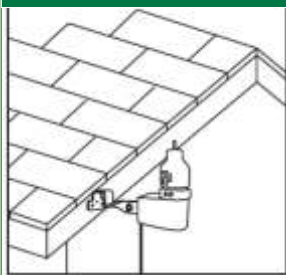


Figure 2: Wiring

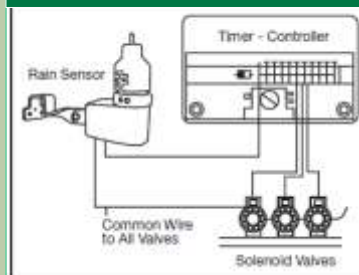


Figure 3: Wiring

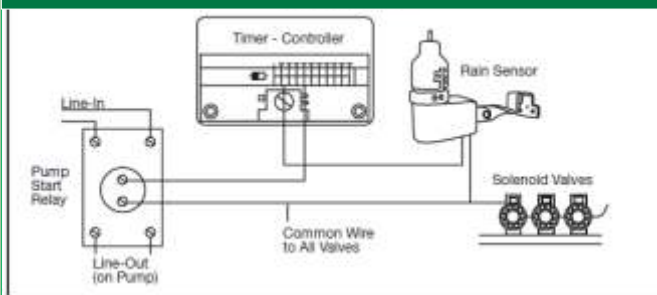
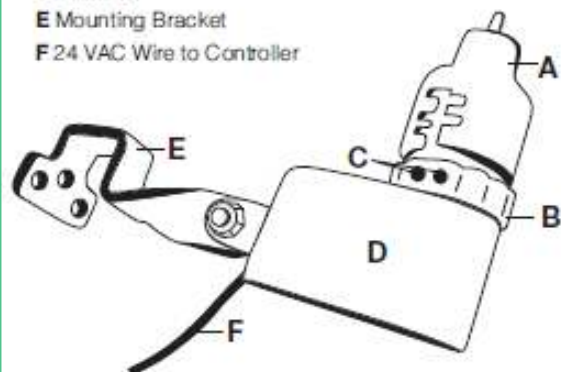


Figure 4: Parts Diagram

- A Cap
- B Vent Ring
- C Ventilation Holes
- D Housing
- E Mounting Bracket
- F 24 VAC Wire to Controller



WATER LEVEL CONTROLLER

Water level Controller



This prevents the dry run of pump in event of the low water level in storage tank.

Pump Start Relay



TYPE MPC
ENCLOSED VERSION PLUG-IN-CONNECTION

Specifications

Contact Material	Silver Alloy
Initial Contact Resistance	0.050 ohms(max.)
Ambient Temp	-25°C to +55°C
Dielectric Strength	2KV between contacts or coil to ground
Insulation Resistance	100 Meg-ohms min. at 500 VDC at 27°C & 65% R.H.
Operate Time	0.020 sec. max. at voltage
Release Time	0.010 sec. max. at voltage
Life Expectancy	106 operations at rated load
Max. Weight	MCO 60gms. MCC 80gms. MPC 90gms.
Impulse	5 KV

Coil - data (All values at 27°C ± 2°C ambient)

Nominal Voltage	Resistance in ohms + 10%		Must operate voltage
	DC Relays	AC Relays	
6	30	7	5
12	200	30	10
18	390	—	15
24	500	110	20
48	2250	440	40
110	10,000	2400	90
220	30,000	—	180
240	—	9500	180

Brass QCVs



Features

- One piece solid brass construction for durability
- Stainless Steel Spring
- Brass Valve
- Drain hole in body to minimize debris collection
- Specially designed grommet
- Auto close lid when not in use
- Cover made of Thermo Plastic Elastomere

Plastic QCVs



Features

- Click Lock on lid
- Stainless Steel Spring
- Specially designed grommet
- UV Stabilized
- Rugged two piece valve body design
- "Push & Lock" Key
- Specially designed for application in public area
- Plasson Compatible

Aluminium QCVs



Features

- Auto close lid made of rubber when QCV is not in use
- Single piece construction for 76A & double piece construction for 77A
- Stainless Steel Spring
- Brass valve
- Steel key with Handle

Model No.	Product Name
HT-70B	3/4" Brass QCV
HT-70BK	Opener for HT-70B
HT-70SE	3/4" X 3/4" Swivel Elbow
HT-71B	1" Brass QCV
HT-71BK	Opener for HT-71B
HT-71SE	1" X 1" Swivel Elbow
HT-72B	1 1/2" Bronze QCV
HT-72BK	Opener for HT-72B
HT-72SE	1 1/2" X 1" Swivel Elbow

Model No.	Product Name
HT-70PM	3/4" Plastic QCV
HT-70PMK	Opener for HT-70PM
HT-70SEP	3/4" X 3/4" Swivel Elbow
HT-71PM	1" Plastic QCV
HT-71PMK	Opener for HT-71PM

Model No.	Product Name
HT-76A	1" Aluminium QCV
HT-76AK	Opener for HT-76A
HT-77A	1 1/2" Aluminium QCV
HT-77AK	Opener for HT-77A

Swing Joints



Features

- Full 3 way adjustability including height
- Durable polyethylene construction used for 1/2" & 3/4"
- Hi-Impact PVC material used for construction for 1"
- High quality EPDM O-ring threads used for seals
- Full 360° adjustment
- Heat resistant - operates at 50° C also

Model No.	Product Name
HT-2ASJ	1/2" X 1/2" Swing Joint
HT-2BSJ	3/4" X 3/4" Swing Joint
HT-2CSJ	1" X 1" Swing Joint

Brass Hydraulic Control Valve



Features

- Simple and robust design, only 4 parts involved.
- Light in weight for easy installation and maintenance.
- Brass Body and cover plate for durability and corrosion resistant.
- Metal reinforced rubber valve lid designed for smooth operation without deformation at high pressure with drop tight shutoff.
- Very less down time.
- Min. Head loss due to its inside design.
- Arrow for correct installation of Hydraulic valve.
- Compatible with most irrigation controller available in market.
- Sizes available: 1 1/2", 2"

Plastic Air Release Cum Vacuum Relief Valve

3/4" , 1" , 2" & 3"



Specifications

- Durable, Weather Resistant and Non-corrosive Made of reinforced Polypropylene & Polyamide (Nylon)
- Maximum working pressure : HT-88P - 100 psi
HT-90P & 91P - 150 psi
- Seals at 5 Psi
- Available in :
 - 3/4" BSPT Male Thread Connection : HT-87 P
 - 1" BSPT Male Thread Connection : HT-88 P
 - 2" BSPT Male Thread Connection : HT-90 P
 - 3" BSP/NPH Female Thread Connection : HT-91 P

Continuous Acting Air Release Cum Vacuum Relief Valve

2"



Specifications

- Available in :
 - 2" BSPT Thread Connection : HT-90 CP
- Manufactured Out of Durable, Weather Resistant and Non-corrosive reinforced Polyamide (Nylon)
- Minimum sealing Pressure : 5 psi
- Working Pressure : HT-90CP: 5-224 psi
- Threaded Elbow Outlet

IRRIGATION ACCESSORIES



Metal Air Release Cum Vacuum Relief Valve

3/4", 1", 1 1/2" , 2", 3" & 4"



Specifications

- Simple Design Ensures Trouble-free Performance
- Cast Aluminium Body Combines the Dual advantage of being Lightweight as well as Provides Corrosion resistance
- Synthetic Rubber Seal Assures Positive Rubber Seal Even with Low Head Applications
- Available in :
 - 1/2" BSPT Thread Connection : HT-86
 - 3/4" BSPT Thread Connection : HT-87
 - 1" BSPT Thread Connection : HT-88
 - 1 1/2" BSPT Thread Connection : HT-89
 - 2" BSPT Male Thread Connection : HT-90
 - 3" BSP/NPH Thread Connection : HT-91
 - 4" BSP/NPH Thread Connection : HT-92

Pressure Relief Valve

2"



HT-102CLM (Male Threaded) HT-102CLF (Female Threaded)

Features

- Available in :
 - 2" BSP Male threaded connection : HT-102CLM
 - 2" BSP Female threaded connection : HT-102CLF
- Aluminum Cover with 1 1/2" BSP/NPT Female threaded drain port
- Orange color powder coated cover for easy visibility on unit and longer life.

Technical Specifications

- Pressure Relief Setting: 1.5 kg/cm² to 5.5 kg/cm² (20psi to 80psi)
- Specify Pressure Setting: Factory set & sealed under actual hydraulic conditions.
- Pressure Relief Valve comes with preset pressure from factory at 4 kg/cm² (60 psi) which can be changed in field as per requirement by using a Pressure Gauge.



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QUICK PRESSURE RELIEF

Control valve



New

Features

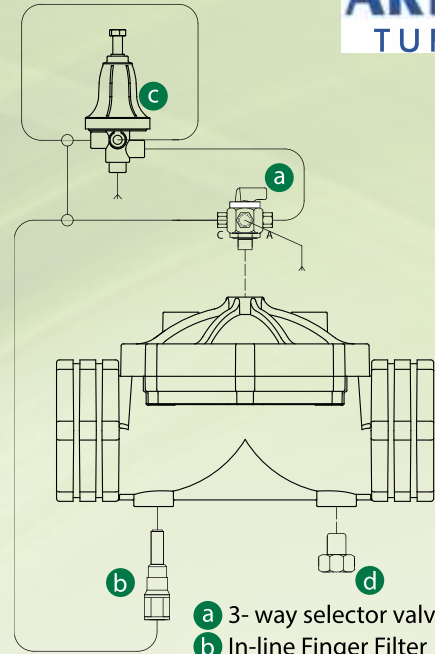
- Description : Armaş "QR" model quick pressure relief valve is the safety control valve designed to protect system by releasing pressure surges in water network elevation lines to atmosphere quickly, which are caused by sudden changes in water speed due to pumps put into/out of service. When network pressure exceeds set point, valve opens by itself quickly and protects system by releasing over pressure. When line pressure decreases to normal level, it is closed slowly and automatically as fully tight without causing surge.
- Applications : Use 55QR for avoiding an unwelcome high pressure.
- Standards : 55QR – 3-way plastic pilot, polyethylene plastic tubing system and nylon fittings
- Options : Pressure Gauge

Specifications

Pressure Range	Standard	0,7 - 10 bar (10 - 160 psi)
Connection	Threaded	BSPT-NPT
Hydraulic Connections	Standard	Reinforced Nylon (Air Brake) Hydraulic Pipe-SAE J 844
Actuator Type	Standard	Diaphragm Closing Type with Single Control Chamber and Diaphragm Actuator model

Sizes Available

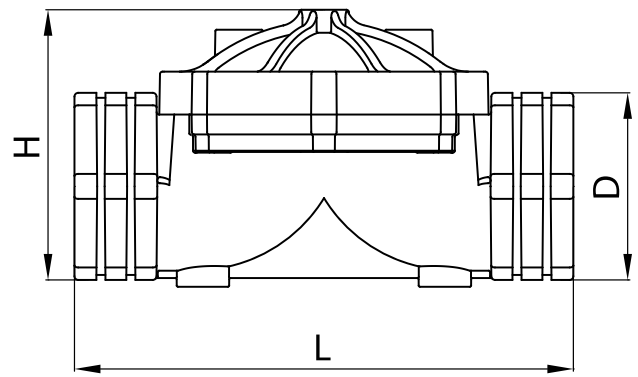
DN		D		L		H	
inch	mm	inch	mm	inch	mm	inch	mm
1 1/2"	40	2 1/2"	62	7 7/8"	200	4 3/8"	110
1"	50	3"	75	7 7/8"	200	4 3/8"	110
2 1/2"	65	3 3/4"	95	9 7/8"	250	5 3/8"	138
3"	80	4 1/4"	109	9 7/8"	250	5 3/8"	145



- a** 3- way selector valve
- b** In-line Finger Filter
- c** Plastic Pilot
- d** Plug

Available Models

Connection	Threaded	
Material	Glass Reinforced Polyamide	
Body	Globe	
Maximum Working Pressure	10 bar 160 psi	
Available Sizes	inch	mm
	1 1/2	40
	2	50
	2 1/2	65
	3	80



model 55



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Creating a Green World

Rain Round Valve Boxes

Rain family of round valve boxes is studied to face all the needs of the professional irrigation.

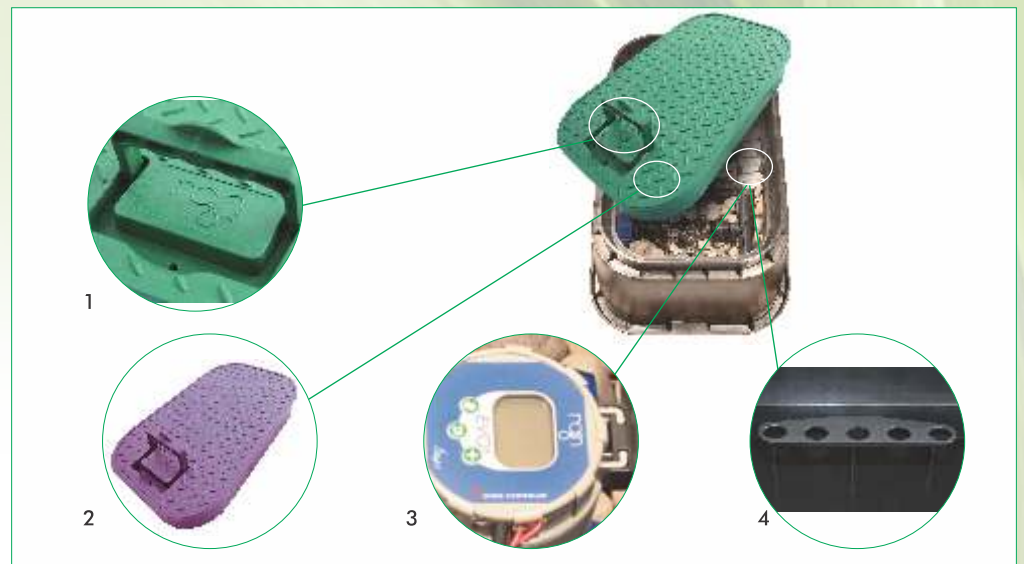
They are easy to install, strong and durable and they are engineered to maintain their integrity (horizontal and vertical) under load even with the cover removed.

- PZC RN 15 D. 148/240x H 230mm
- PZC RN 25 D. 243/330x H 260mm
- Material: 100% polypropilene



Technical Features

- 1- EzOPEN Handle & Antivandalism Screw
- 2- Reclaimed Water Lid Version (RVV)
- 3- Bracket for Rain Evo
- 4- Rack for Wires Connectors



Rain Rectangular Valve Boxes "EzOPEN"

Rain is proud to introduce a new line of Valve Boxes with "EzOpen" handle. The new valve box is 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 to fit Rain Evo battery controller.

This is an unique, patented product in the irrigation market,

Valve boxes available in standard rectangular 12 In. And Jumbo 20 In.

- PZRM 113 12 IN: 520X400X330 mm
- PZRM 115 20 IN: 670X490X330mm
- Material: 100% polypropylene
- UNIEN 124 A class A 15 (Peak load >15Kn)



*Product certified and tested by International Laboratory CEMAGRAF, France & CIT, California

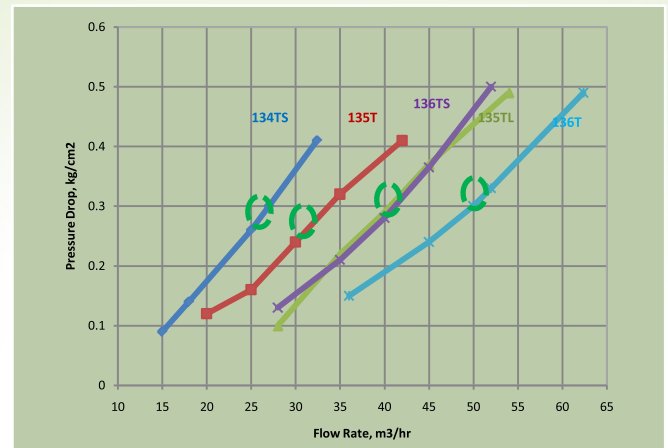


Disc Size Available
100 Microns, 130 Microns

SPECIFICATIONS

Model	HT-134TS	HT-135T	HT-135TL	HT-136TS	HT-136T
Max. Working Pressure	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²
Max. Recommended Flow	417 ltr/min (25 m ³ /h)	500 ltr/min (30 m ³ /h)	667 ltr/min (40 m ³ /h)	667 ltr/min (40 m ³ /h)	833 ltr/min (50 m ³ /h)
Range of Flow Rate	18-27 m ³ /h	25-35 m ³ /h	35-45 m ³ /h	35-45 m ³ /h	45-52 m ³ /h
Filtration Surface Area	878 cm ²	878 cm ²	1193 cm ²	1193 cm ²	1690 cm ²
Inlet/Outlet Connection	2" BSP/NPT male thread	2 1/2" BSP/NPT male thread	2 1/2" BSP/NPT male thread	3" BSP/NPT male thread	3" BSP/NPT male thread

Head Loss Graph



Features

- DuPont Nylon Hybrid Clamp with SS Lock for high pressure operations.
- PPGF Slip-on flange for easy installation (Optional).
- Bigger drain Port with 3/4" ball valve for quick drainage.
- Disc Filters are made with special Helix system which gives better performance & results.



Vacuum Breaker



Drain Port



Hybrid Clamp



Slip-on Flange

SCREEN FILTERS



Control valve



HT-87 VB

Specially designed Vacuum Breaker

IS : 12785:1994



CML : 3006128



New

Size Available
100, 130, 200 microns

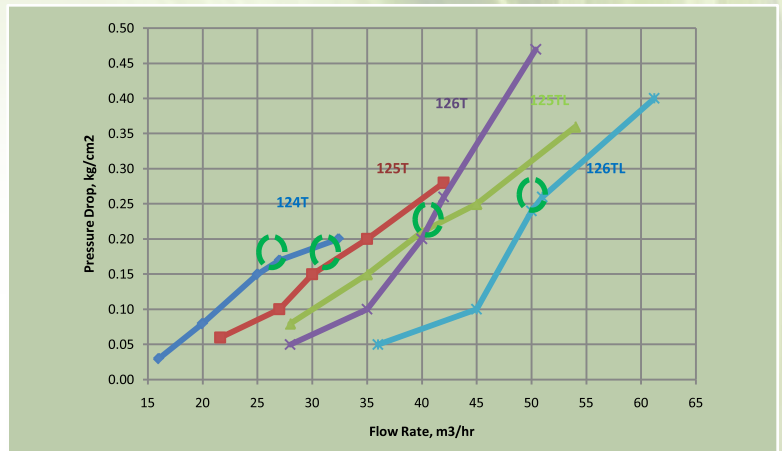
Specially designed cartridge skeleton for giving extra ordinary strength to screen element.

*Product certified and tested by International Laboratory CEMAGRAF, France & CIT, California

SPECIFICATIONS

Model	HT-124T	HT-125T	HT-125TL	HT-126T	HT-126TL
Max. Working Pressure	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²	8 kg/cm ²
Max. Recommended Flow	417 ltr/min (25 m ³ /h)	500 ltr/min (30 m ³ /h)	667 ltr/min (40 m ³ /h)	667 ltr/min (40 m ³ /h)	833 ltr/min (50 m ³ /h)
Range of Flow Rate	20-27 m ³ /h	27-35 m ³ /h	35-45 m ³ /h	35-45 m ³ /h	45-51 m ³ /h
Filtration Surface Area	492 cm ²	492 cm ²	831 cm ²	831 cm ²	1108 cm ²
Inlet/Outlet Connection	2" BSP/NPT male thread	2 1/2" BSP/NPT male thread	2 1/2" BSP/NPT male thread	3" BSP/NPT male thread	3" BSP/NPT male thread

Head Loss Graph



Features

- Outside - Inside filtration.
- For upside up installation.
- Bigger port for water drainage.
- Special SS - 316 single mesh for strength and corrosion resistance.
- Provided with specially designed vacuum breaker valve for quick drain and to avoid vacuum/air trapping.
- The filters are made from special chemically bonded polymer which are weather resistant.
- Clamp made out of re-inforced polypropylene with plated steel for durability.
- Specially designed long handle for easy clamp opening & closing.



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Creating a Green World

HYDROCYCLONE FILTER

2", 2½" & 3"



IS : 14743:1999



CML : 3285158



HT-144M



HT-146M

*Product certified and tested by International Laboratory CEMAGRAF, France & CIT, California

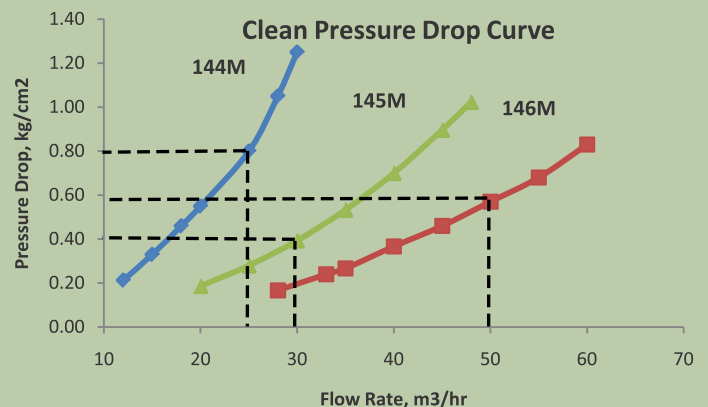
Features

- ☞ Body made of reinforced engineering plastic for durability.
- ☞ Hydro dynamically designed to create maximum centrifugal action.
- ☞ Dirt can be easily flushed out through drain port.
- ☞ Collector chamber can be easily cleaned by opening collector cover.
- ☞ Hybrid PP Clamp with SS lock used to open/close collector cover from collector chamber.
- ☞ Easy to Install and low maintenance.
- ☞ **New Stand for Height increase.**

Specifications

- Available in :
2" : HT-144M
2½" : HT-145M
3" : HT-146M
- Material of Construction: Reinforced Polypropylene/Nylon
- Available Connections: BSPT Male Threaded / Flange / Victaulic
- Maximum Operating Pressure: 6 Kg/cm²

Performance Graph



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Creating a Green World

Applications : AutoFlush® is the ideal solution for agricultural and municipal filtration due to its large filtration area, reliable operation mechanism and simple structure. AutoFlush® works on differential pressure and cleans itself automatically without any external intervention. AutoFlush® has electronically activated models besides hydraulically controlled models. Due to suction nozzles, cleaning is achieved with little water consumption. Besides the standart 130 micron filter size, different screen sizes are available for different dirt levels.

Electric Activated Automatic Screen Filter



VE Series



HE Series

Hydraulic Controlled Automatic Screen Filter

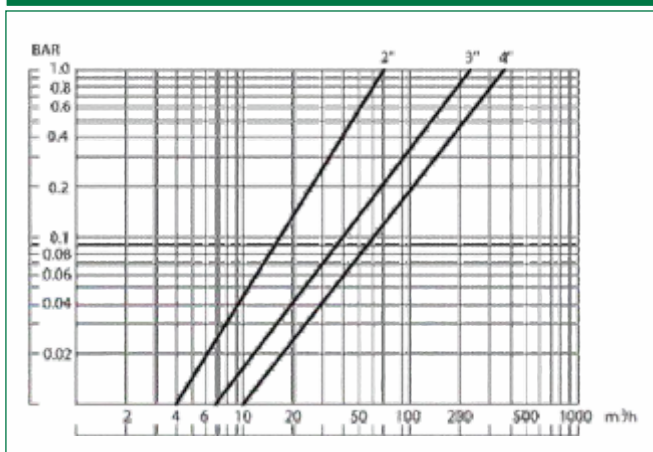


VH Series

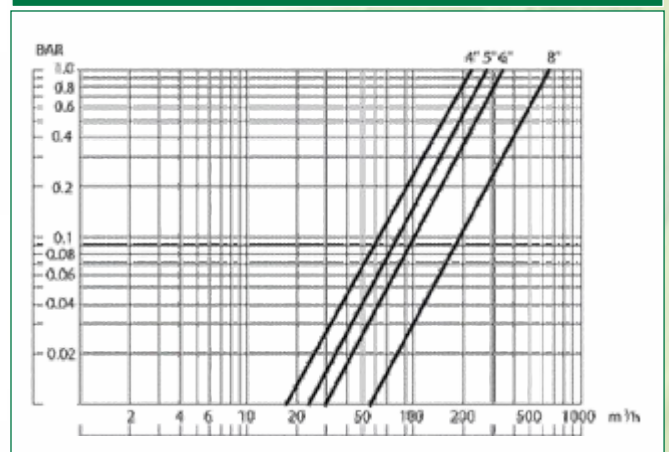


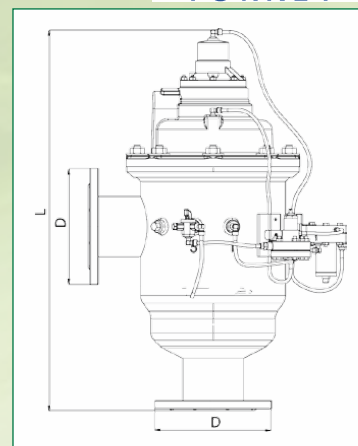
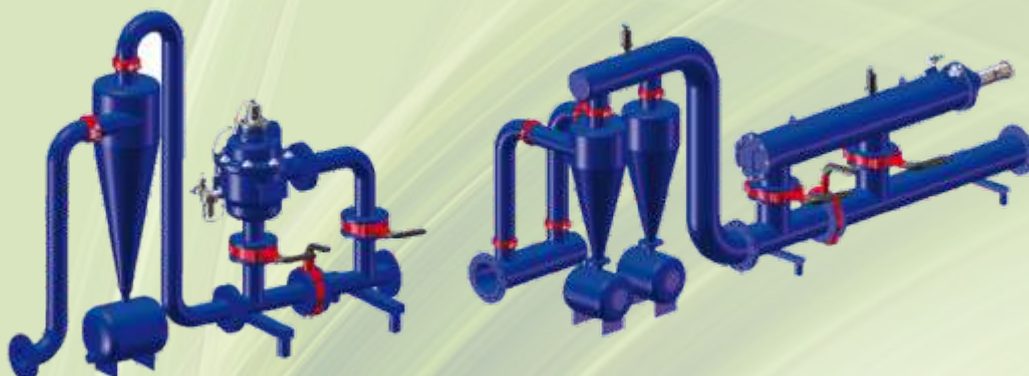
HH Series

Head Loss Chart (Vertical)



Head Loss Chart (Horizontal)

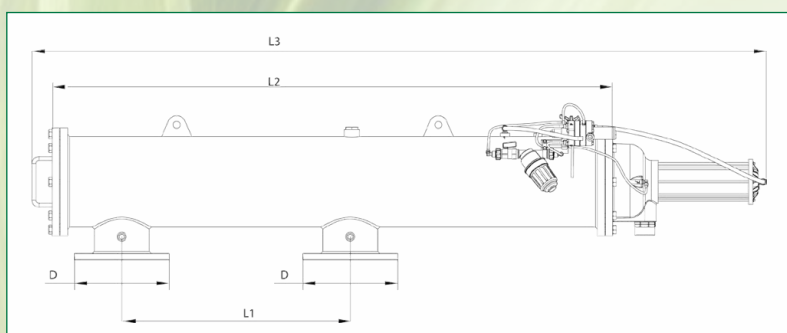




Model	Connection Size	Connection Type	Control Unit	Screen Degree
VH-80	4"	Flanged (F)	Hydraulic	130 micron
HE-120	6"	Flanged (F)	Electric	130 micron

Sizes Available

MODEL	D	L	L1	L2	L3
	inch	mm	mm	mm	mm
VH-25	2"	630	-	-	-
VH-40	3"	623	-	-	-
VH-60	3"	727	-	-	-
VH-80	4"	720	-	-	-
VH-100	4"	-	900	1894	2400
VH-120	5"	-	900	1894	2400
VH-160	6"	-	900	1894	2400
VH-180	8"	-	900	1894	2400



Available Models

Filter Model Code	VH-25	VH-40	VH-60	VH-80	HH-100	HH-120	HH-160	HH-180
	VE-25	VE-40	VE-60	VE-80	HE-100	HE-120	HE-160	HE-180
Max. Flow Rate	25 m ³ /h	40 m ³ /h	60 m ³ /h	80 m ³ /h	100 m ³ /h	120 m ³ /h	160 m ³ /h	180 m ³ /h
Inlet/Outlet Dimension	2"	3"	3"	4"	4"	5"	6"	8"
Standard Filtration Degree	130 micron	130 micron	130 micron	130 micron	130 micron	130 micron	130 micron	130 micron
Min. Operation Pressure	2,5 bar	2,5 bar	2,5 bar	2,5 bar	2,5 bar	2,5 bar	2,5 bar	2,5 bar
Max. Operation Pressure	8 bar	8 bar	8 bar	8 bar	8 bar	8 bar	8 bar	8 bar
Max. Operation Temperature	60°C	60°C	60°C	60°C	60°C	60°C	60°C	60°C
Cleaning Cycle Time	10-16 sn	10-16 sn	10-16 sn	10-16 sn	15-22 sn	15-22 sn	15-22 sn	15-22 sn
Cleaning Criteria	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar	Differential Pressure (DP) 0.5 bar
Filtration Area	500 cm ²	500 cm ²	1000 cm ²	1000 cm ²	4500 cm ²	4500 cm ²	4500 cm ²	4500 cm ²

Back flushing control valves adjusting filtration and back flushing positions of AutoFlush® automatic disc filters connected parallel to the manifold collector system are programmed by differential pressure sensor (DP) for pressure and by control device for time-dependent parameters.

Mesh No	Micron	Effective Filtering Surface (%)	Disc Color
80	200	%39	Blue
120	130	%39	Red
150	100	%40	Yellow



Specifications

- Back-flushing pressure is 1 bar.
- Back flushing process is completed in automated manner.
- Water supply is not interrupted during back flushing process.
- As it can be cleaned within short time, very low amount of water is used in back flushing process.
- Due to discs with varying dimensions, desired filtration degree is ensured.
- Maintenance during operation is very easy.
- As it is used in modular filter systems, filtration at desired rates can be performed.
- Due to body and framework reinforced against corrosion, it has long operation life.
- Controller, connection equipments, air valves and pressure gauges are included in the system.
- Fertilizer kit and fertilize tank are not included in the system.
- Package: Wooden crate

Applications:

- Filtration of well water
- Filtration of river, lake and reserve water
- Filtration of applications such as process water and cooling water
- Upwards the ultra-filtration systems
- Agricultural drip and micro-irrigation systems
- For recreational irrigation system practices

**BACK-FLUSHING
PRESSURE**

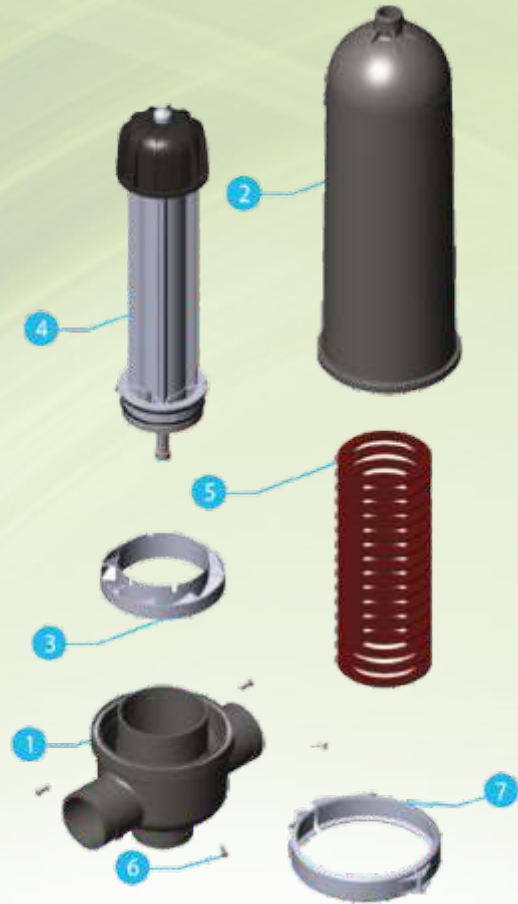
1BAR

AutoFlush® automatic disc filter system

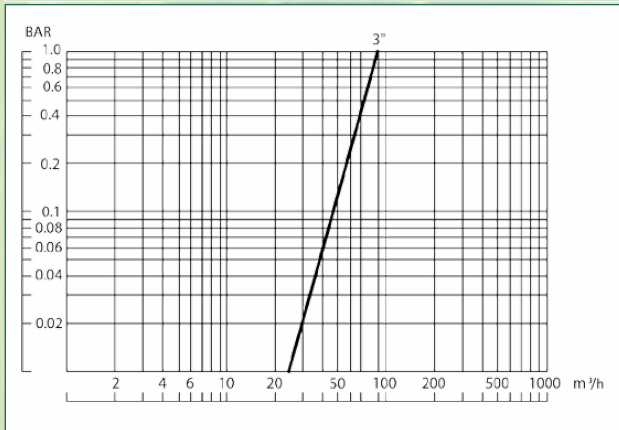
Code	Collector Size (inch)	Disc Filter Quantity	Connection Type	Recommended Flow Rate (m³/h)
ADF-02	4	2	Grooved End or Flanged	50
ADF-03	4	3	Grooved End or Flanged	75
ADF-04	5	4	Grooved End or Flanged	100
ADF-05	6	5	Grooved End or Flanged	125
ADF-06	6	6	Grooved End or Flanged	150
ADF-07	8	7	Grooved End or Flanged	175
ADF-08	8	8	Flanged	200

Material List

Part no	Part name	Material
1	Body	Polyamide (PA6.6 %30 GFR)
2	Lid	Polyamide (PA6.6 %30 GFR)
3	Hydrocyclone Wing	PET – P
4	Manual Filter Frame	PET – P
5	Disc	Nylon Reinforced PP
6	Bolt	8.8Js-500 Steel
7	Collar	SST



Head Loss Chart



Available Models and Recommended Flow Rates

Modules pcs	Recommended Flow (m³/h)	Min. Back-Flushing Flow Rate (m³/h)	Max. Operating Pressure (bar)	Min. Back-Flushing Pressure (1 bar)	Filtering Area (cm²)	Connection
2 module	60 m³/h	18 m³/h	8 bar	1 bar	3040 cm²	Grooved End
3 module	90 m³/h	27 m³/h	8 bar	1 bar	4560 cm²	Grooved End
4 module	120 m³/h	36 m³/h	8 bar	1 bar	6080 cm²	Grooved End
5 module	150 m³/h	45 m³/h	8 bar	1 bar	7600 cm²	Grooved End
6 module	180 m³/h	54 m³/h	8 bar	1 bar	9120 cm²	Grooved End

Technical Specifications

Max. Operating Pressure	Min. Back-Flushing Pressure	Min. Back-Flushing Flow Rate	Temperature	Connection
8 (bar) 120 (psi)	1 (bar) 14 (psi)	9 – 11 m³/h	0 °C – 60 °C (32 °F – 132 °F)	3" (80 mm) Grooved End



HT-320
2.1/2" Glycerine Filled

Features

- Thread size : 1/4" BSP Male
- Rugged Construction
- Glycerine Filled
- Standard followed in General EN 837-1
- Warranty : 12 months

Specifications

Glycerine filled version	
Accuracy	: ±1.6% of F.S. (For NS 63mm)
Ambient Temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Window	: Window
Dampening Liquids	: Glycerine 99.7%
Standard Version	: 63mm
Operating Pressure Range	: 75% of Scale Value
Over Pressure Limit	:
≤ 100 bar	: 125% of Max. Scale Value
> 100 to ≤ 600 Bar	: 115% of Max. Scale Value
> 600 to ≤ 1600 Bar	: 110% of Max. Scale Value
Case & Bezel	: AISI 304 SS (Rolling Type) & Bayonet Type for NS 80 mm
Socket	: Copper Alloy
Bourdon	: Copper Alloy
Movement	: Copper Alloy
Joints	: Alloy Brazing / Soldering
Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Black coloured, Fixed
Window	: Plexi Glass
Filling Plug	: Neoprene
Gasket	: Neoprene / Silicon Rubber
Nominal Size Range	: 0-7 kg/cm ²

COMPRESSION DRIP FITTINGS

New



Compression Coupler

New



Compression Tee

New



Compression x MPT Adaptor

New



Compression Elbow

Technical Specification

- Made of ABS.
- Pressure Rating- PN6.
- Sizes available: 0.62" or 16mm and 0.70" or 18mm OD drip tubing.

Product	Model No.	Size	Model No.	Size
Coupler	HT-416CC	0.62" x 0.62"	HT-418CC	0.7" x 0.7"
Tee	HT-416CT	0.62" x 0.62" x 0.62"	HT-418CT	0.7" x 0.7" x 0.7"
Elbow	HT-416CE	0.62" x 0.62"	HT-418CE	0.7" x 0.7"
Adopter	HT-416CMPT	0.62" x 1/2" MPT	HT-418CMPT	0.7" x 1/2" MPT

Features

- Color Coded gripper for easy identification.
- Faster and easier to install, simply push drip tubing into fittings for tight connection and get unobstructed flow.
- Very tight fit with no tools, gluing or clamps required.
- Superb gripping of PE tubing, no slipping at high pressure and no leakage at low pressure.
- Ultra sonic welded grippers for no leakage and longer life.
- Impact, UV and Chemical Resistant.



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