

DRIP IRRIGATION CATALOGUE



DRIP SYSTEMS & WATER SAVING SOLUTIONS



LANDSCAPE



ABOUT US

Rii is a specialized irrigation solutions brand dedicated to delivering efficient, reliable, and sustainable water management systems for landscape and Agricultural applications. With a focus on innovation, quality, and performance,

Rii provides integrated irrigation solutions designed to maximize water efficiency while supporting healthy, thriving landscapes. From residential gardens to large-scale commercial and public developments, **Rii** offers a comprehensive range of irrigation products and technologies, including drip irrigation systems, sprinklers, valves, filtration, controllers, and smart irrigation solutions.

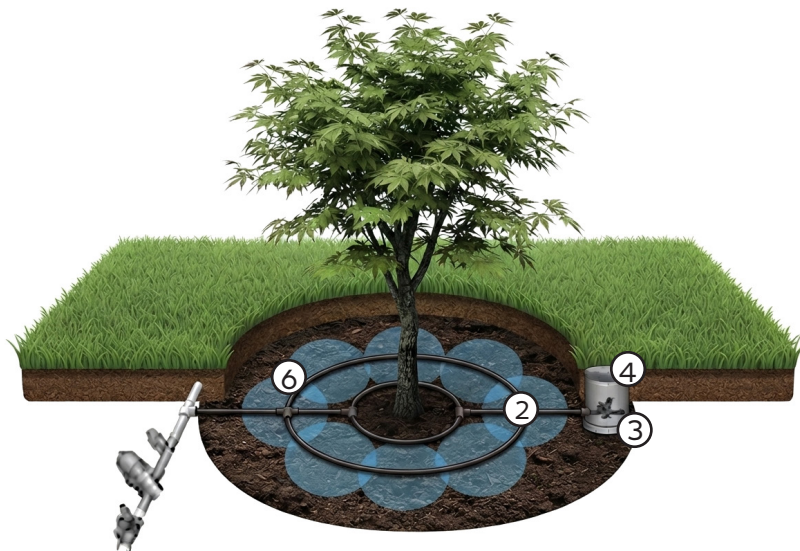
Every product is carefully developed to ensure optimal water distribution, resource conservation, and long-term system reliability. Driven by a commitment to sustainability and engineering excellence, **Rii** creates irrigation solutions that are efficient, durable, and adaptable to diverse project requirements, environmental conditions, and climates.

TYPICAL DESIGNS

TYPICAL DRIPLINE ON-SURFACE DESIGN



TYPICAL TREE “DRIPLINE RING” DESIGN

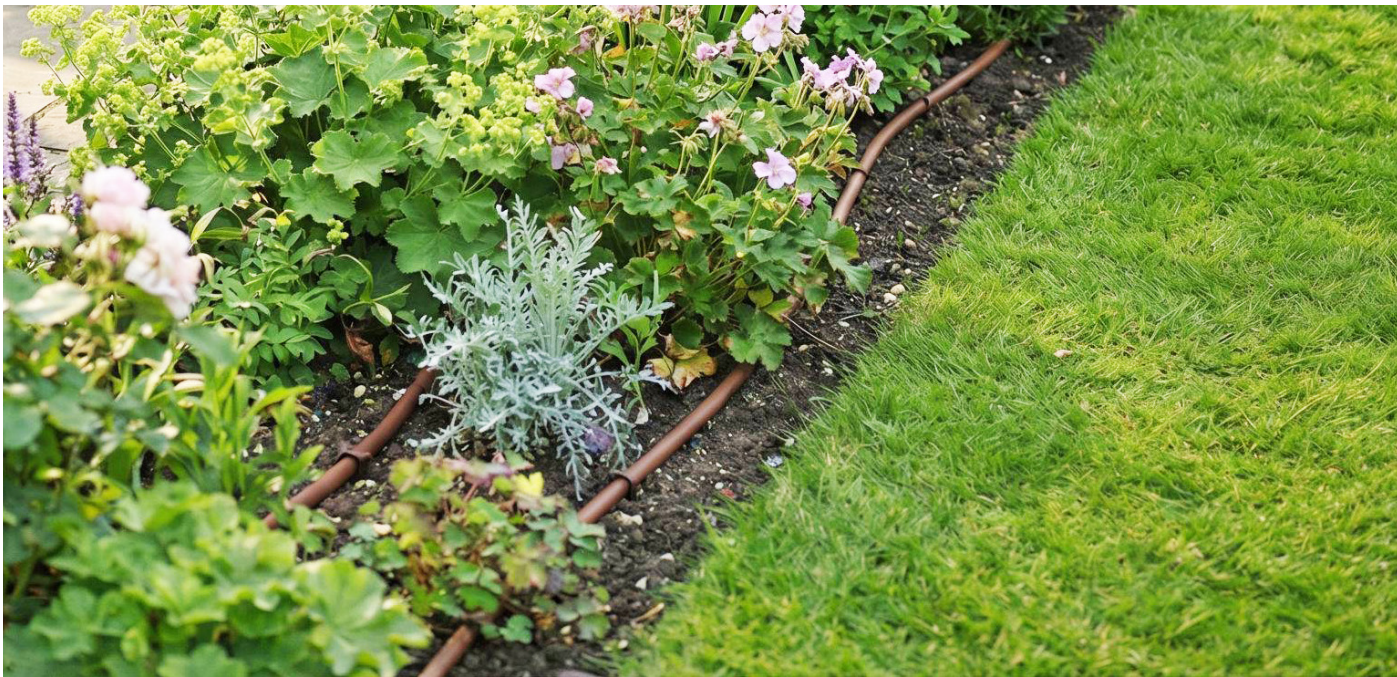


- 1- Rii Rectangular Valve Box & Control Zone
- 2- Rii Driplines
- 3- Rii Auto Flush Valve
- 4- Rii Circular Valve Box
- 5- Rii Dripline Stake
- 6- Rii Dripline Fittings Solutions

PRODUCT RANGE

PC DRIPLINE

The most flexible Dripline with integrated cylindrical PC emitter



AREA OF APPLICATION

The Rii PC Dripline Series represents the pinnacle of versatility and precision in modern irrigation. Engineered to meet universal industry standards, this premium solution is specifically optimized for Landscape and Turf applications where performance and adaptability are non-negotiable.

Key Features:

- **Maximum Flexibility:** Highly pliable 16mm or 20mm tubing that navigates tight curves and complex layouts without kinking.
- **Precision Delivery:** Integrated PC emitters ensure a uniform flow rate to every plant, regardless of pressure changes.
- **Extended Reach:** Engineered to maintain consistent performance across long lateral runs and sloped terrains. Precision Engineered for Superior Performance



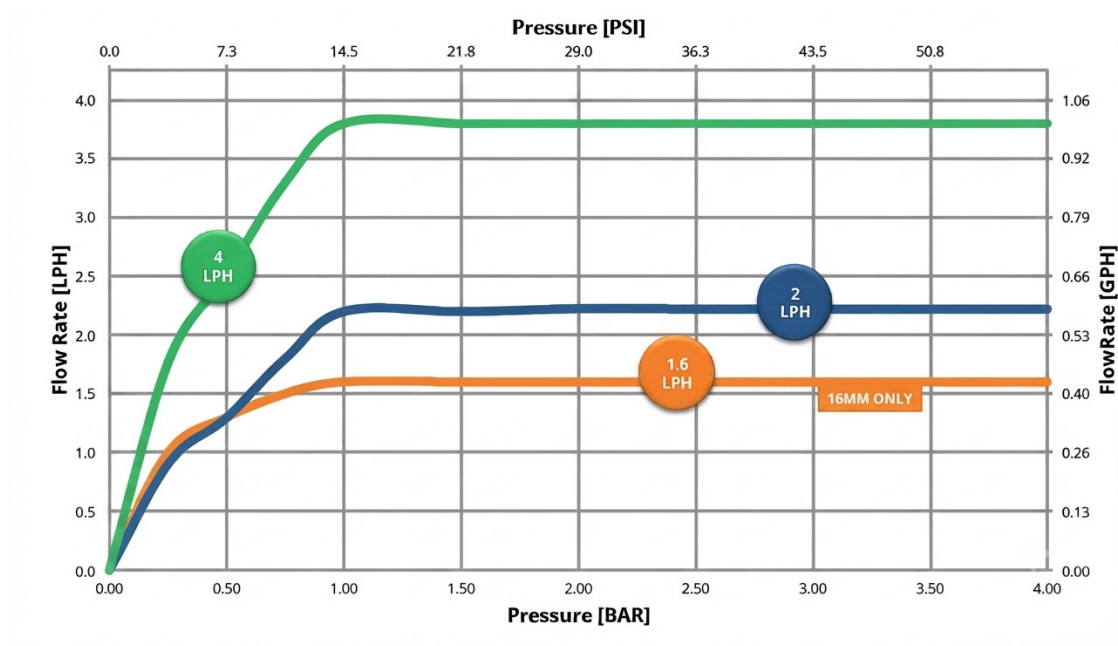
The Rii PC Dripline Series combines advanced fluid dynamics with rugged durability to deliver a high-efficiency irrigation solution. By integrating cutting-edge filtration and self-regulating technology, this dripline ensures consistent water delivery in the most demanding environments.

EMITTER ADVANTAGES & TECHNICAL BENEFITS

- **Precision Pressure Compensation:** Maintains a uniform flow rate across varying pressure ranges, ensuring every plant receives the exact same volume of water, regardless of elevation changes or lateral length.
- **High-Performance Hydraulics:** Boasts an emission exponent of <0.05 , allowing for significantly longer pipe runs without sacrificing flow consistency or system integrity.
- **Active Self-Cleaning Mechanism:** Features a premium silicone diaphragm and a wide-profile labyrinth that continuously flushes debris, preventing clogs and ensuring uninterrupted operation even with reclaimed water.
- **Advanced Dual-Filtration:** The elevated intake design draws from the high-velocity water at the center of the pipe. This "scouring" action keeps the filter face clear and prevents sediment from settling between cycles.
- **Ruggedized Construction:** Manufactured from 100% premium virgin polyethylene. Infused with UV stabilizers and chemical-resistant additives to withstand harsh sunlight and aggressive fertigation programs.

DESIGN & PERFORMANCE

The Rii PC Dripline Series simplifies complex system designs by removing the variables of uneven terrain. Whether navigating steep slopes or deep valleys, the system remains indifferent to field conditions, reducing the need for complex pressure-regulating hardware.



PRODUCT AND OPERATION SPECIFICATION

To ensure a tailored solution for every project, the Rii PC Dripline Series is available in two distinct diameters with multiple flow-rate configurations. This flexibility allows for precise water management across diverse soil types and plant requirements.

Pipe Diameter	Available Flow Rates (LPH)	Pipe Dimensions (mm)	Operating Range (Bar)	Filtration Requirements	Application Profile
16mm	1.6, 2.0, 4.0	13.8 Inner Diameter 1.1 Wall Thickness	from 1 to 4	Minimum 120 mesh is recommended	Ideal for standard landscape, turf, and intricate garden layouts.
20mm	2.0, 4.0	17.5 Inner Diameter 1.2 Wall Thickness	from 1 to 4	Minimum 120 mesh is recommended	Optimized for higher-volume requirements and extended lateral runs.

PRECISION ENGINEERING FOR EVERY ENVIRONMENT

Whether your project requires a low-volume precision of 1.6 LPH for heavy clay soils or the high-output efficiency of 4.0 LPH for sandy conditions, Rii provides the hydraulic consistency necessary for professional-grade irrigation.

Design Tip: Select the 20mm diameter for large-scale Landscape or commercial applications to maximize lateral length while maintaining the industry-leading emission uniformity of the Rii PC series.

ORDERING SPECIFICATIONS

Rii Dripline	Emitter Type	Item Size OD (XX)mm	Emitter Flo w (X) L/h	Emitter Spacing (XXX)cm	Coil Length (XXX)m	Pipe Color
RD	PC	16	1.6	30	400	B Brown for Landscape
			2	40		W White for Greenhouse
			4	50		P Purple for reclaimed water
		20	2	100	Custom	
			4	Custom		

Example:

RDPC16450400B

This code refers to Rii Dripline integrated with PC dripper, the dripper flow is 4l/h and the spacing between drippers is 50cm, coil length of 400 m with brown colored tubing with single strip line.

MAXIMUM RUNNING LENGTH FOR RII PC DRIPLINE

Maximum Running Length in meters for Rii PC Dripline 16mm 2 l/h

Inlet Pressure (Bar)	Dripper Spacing in (cm)								
	15	20	30	40	50	60	75	90	100
1.0	44.8	54.4	76.5	87.6	97.5	103.8	126.8	159.3	162.0
1.5	57.1	69.4	97.2	111.2	124.9	132.6	161.3	191.7	206.0
2.0	65.8	79.8	112.2	128.4	143.0	152.4	186.0	220.5	238.0
2.5	72.7	88.2	123.9	141.6	158.0	168.6	205.5	243.9	263.0
3.0	78.6	95.4	133.8	153.2	170.5	182.4	222.0	263.7	284.0

Maximum Running Length in meters for Rii PC Dripline 16mm 4 l/h

Inlet Pressure (Bar)	Dripper Spacing in (cm)								
	15	20	30	40	50	60	75	90	100
1.0	23.4	28.4	37.2	45.6	55.0	66.0	78.0	93.6	101.0
1.5	36.3	44.0	57.9	70.8	85.5	102.0	121.5	145.8	157.0
2.0	43.8	53.2	70.2	85.6	103.5	123.6	147.0	175.5	189.0
2.5	49.5	60.0	79.2	96.8	117.0	139.8	165.8	198.9	214.0
3.0	54.1	65.8	86.7	106.0	128.0	153.0	181.5	217.8	234.0

Maximum Running Length in meters for Rii PC Dripline 20mm 2 l/h

Inlet Pressure (Bar)	Dripper Spacing in (cm)								
	15	20	30	40	50	60	75	90	100
1.0	67.5	81.8	114.9	131.2	146.5	156.0	190.5	225.9	243.0
1.5	85.8	104.0	146.1	167.2	186.0	198.6	242.3	288.0	310.0
2.0	98.9	119.8	168.3	192.4	214.5	229.2	279.0	331.2	357.0
2.5	109.2	132.4	185.7	212.8	237.0	253.2	308.3	366.3	394.0
3.0	117.9	143.0	200.7	229.6	256.0	273.6	333.0	396.9	426.0

Maximum Running Length in meters for Rii PC Dripline 20mm 4 l/h

Inlet Pressure (Bar)	Dripper Spacing in (cm)								
	15	20	30	40	50	60	75	90	100
1.0	46.3	56.2	74.1	99.8	109.5	130.8	155.3	186.3	200.0
1.5	59.1	71.8	94.5	115.6	139.5	166.8	198.0	237.6	255.0
2.0	68.1	82.6	108.9	133.2	161.0	192.9	228.0	273.6	294.0
2.5	75.3	91.4	120.6	147.2	178.0	212.4	252.8	302.4	325.0
3.0	81.5	98.8	130.2	159.2	192.5	229.8	273.0	326.7	352.0

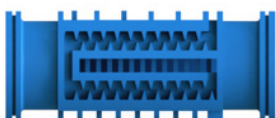
NON-PC DRIPLINE

Excellent Clogging Resistance and high-performance dripline



Area of application

The Rii NON-PC Dripline is a high-performance irrigation solution engineered specifically for the rigors of large-scale agricultural projects. Designed to deliver consistent water distribution in challenging environments, it represents the gold standard in durability and hydraulic efficiency.

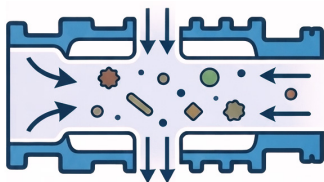


Key Features

- **Maximum Durability:** Engineered with UV-stabilized, high-grade resins to withstand harsh environmental stress and chemical exposure for long-term field use.
- **Precision Uniformity:** Delivers consistent water and nutrient distribution across every lateral, ensuring uniform crop growth and optimized yields.
- **Operational Reliability:** Combines a high-turbulence flow path with advanced filtration to prevent clogging and minimize maintenance in demanding water conditions.

Emitter Advantages & Technical Benefits

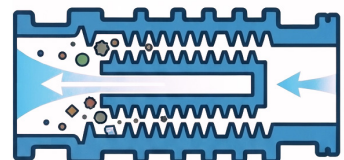
- **Exceptionally Uniform Flow:** Dropper CV of <5% ensures flow uniformity between drip outlets.
- **Compact:** An efficient dripper design allows a long flowpath while maintaining an economical overall size.
- **High Performance:** supports extended pipe runs by maintaining an emission exponent of less than 0.5 and a balanced pressure-to-flow loss ratio of 2:1.
- **Built-in Quality and Durability:** Constructed with 100% premium virgin polyethylene and additives for resistance to UV degradation and damage caused from commonly used chemicals and fertilizers.
- **Unrivaled Clogging Resilience:** Ensure uninterrupted irrigation with the **RII NON-PC** Dripline's **triple-action** clogging defense.



EXTRA-LARGE
FLOWPATH



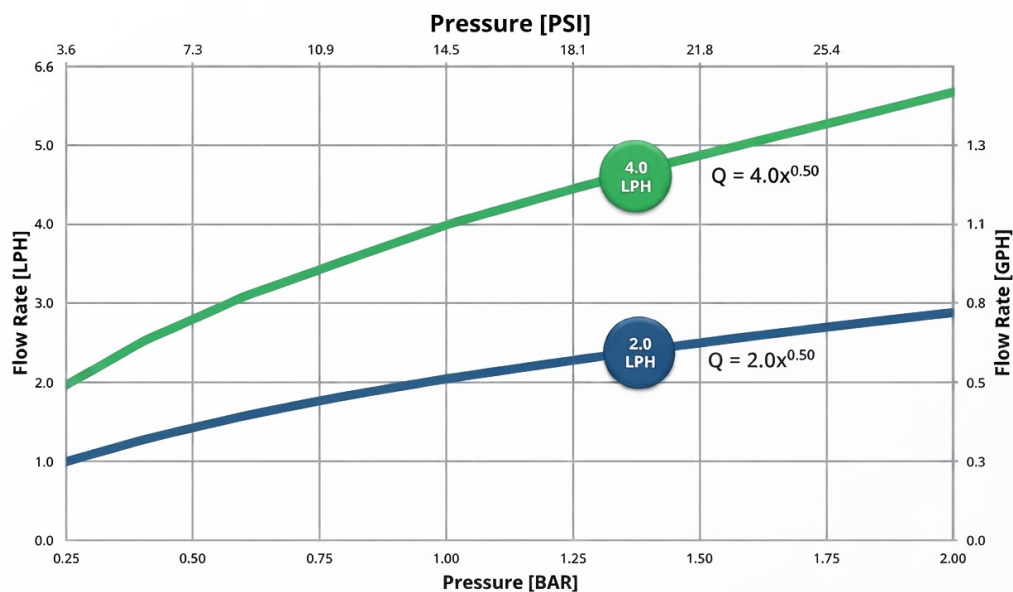
EXTENDED
LABYRINTH



ELEVATED
FILTRATION

By combining an extra-large flow path, a high-turbulence labyrinth, and an elevated intake filter, this system provides unrivaled resilience against debris—maintaining consistent performance and minimizing maintenance even with challenging agricultural water sources.

DESIGN & PERFORMANCE



PRODUCT AND OPERATION SPECIFICATION

Pipe Diameter	Available Flow Rates (LPH)	Pipe Dimensions (mm)	Operating Range (Bar)	Filtration Requirements	Application Profile
16mm	2, 4, & 8	13.8 Inner Diameter 1.1 Wall Thickness	from 0.5 to 2	Minimum 120 mesh is recommended	High-value row crops and orchards.
20mm	2 & 4	17.5 Inner Diameter 1.2 Wall Thickness			Large-scale commercial farming operations.

Ordering Specifications

Rii Dripline	Emit- ter Type	Item Size OD (XX)mm	Emitter Flo w (X)L/h	Emitter Spacing (XXX)cm	Coil Length (XXX)m	Pipe Color	
RD	NPC	16	2	30	400	S Standard Black with strip line P Purple for reclaimed water	
			4	40			
			8	50	100		
			2	100	Custom		
		20	4	Custom			

Example: RDNPC16430400S

This code refers to Rii Dripline integrated with NON-PC dripper, the dripper flow is 4l/h, and the spacing between drippers is 30cm, coil length of 400 m with standard black colored tubing with a single strip line.

MAXIMUM RUNNING LENGTH FOR RII NON-PC DRIPLINE

Maximum Running Length in meters for Rii NON-PC 16mm @1 Bar

Dripper Spacing in (cm)	15	20	30	40	50	60	75	90	100
Nominal Discharge: 2 lph									
10 % discharge variation, Slope 0%	36.9	45.0	62.0	75.5	92.0	103.4	123.0	138.7	150.0
Nominal Discharge: 4 lph									
	27.9	34.0	45.0	54.8	64.0	72.6	86.3	99.0	107.0
Nominal Discharge: 8 lph									
	17.6	21.4	28.6	34.8	40.5	46.2	53.3	61.2	66.0

Maximum Running Length in meters for Rii NON-PC 20mm @1 Bar

Dripper Spacing in (cm)	15	20	30	40	50	60	75	90	100
Nominal Discharge: 2 lph									
10 % discharge variation, Slope 0%	64.5	77.6	104.4	128.4	148.0	173.4	200.3	227.7	246.0
Nominal Discharge: 4 lph									
	43.5	52.4	69.6	81.4	97.5	112.2	129.8	146.7	159.0

BARBED FITTINGS

Made from durable material, these fittings securely hold vinyl and PE tubing, offering an ideal, cost-effective solution for installing RII dripline.

Key Benefits

- Durable material Construction: Ensures a tight, reliable connection.
- Dual-Barb Design: Provides a secure grip without the need for clamps.

Product Specifications

- Compatible with RII Dripline or any standard 16 & 20mm dripline.
- For installations using grommets, use an 11/16" spade drill bit to cut into the PVC pipe.
- Available in both sizes 16mm and 20mm

Operating Specifications

- Operating Pressure: Up to 7 bar

RII Joiner

	CODE	SIZE	PACKAGING
		16	100
		20	100

RII Male Adaptor

	CODE	SIZE	PACKAGING
		16 / 1/2"	100
		16 / 3/4"	100

RII Tee

	CODE	SIZE	PACKAGING
		16	100
		20	100

RII Elbow

	CODE	SIZE	PACKAGING
		16	100
		20	100

RII Take off

	CODE	SIZE	PACKAGING
		16/13	100
		20/16	100

RII Female Elbow

	CODE	SIZE	PACKAGING
		16 / 1/2"	100
		16 / 3/4"	100

RII Cross

	CODE	SIZE	PACKAGING
		16	100

RII Female Tee

	CODE	SIZE	PACKAGING
		16 / 1/2"	100
		16 / 3/4"	100

RII Eye Plug

	CODE	SIZE	PACKAGING
		16	100
		20	100

ONLINE PC & PCND DRIPPER

Engineered for precision irrigation in agricultural and landscape applications, RII Online Dripers delivers reliable, high-performance water distribution across varying terrain, including sloped landscapes, while meeting diverse flow requirements with exceptional accuracy and efficiency.



Product Advantages

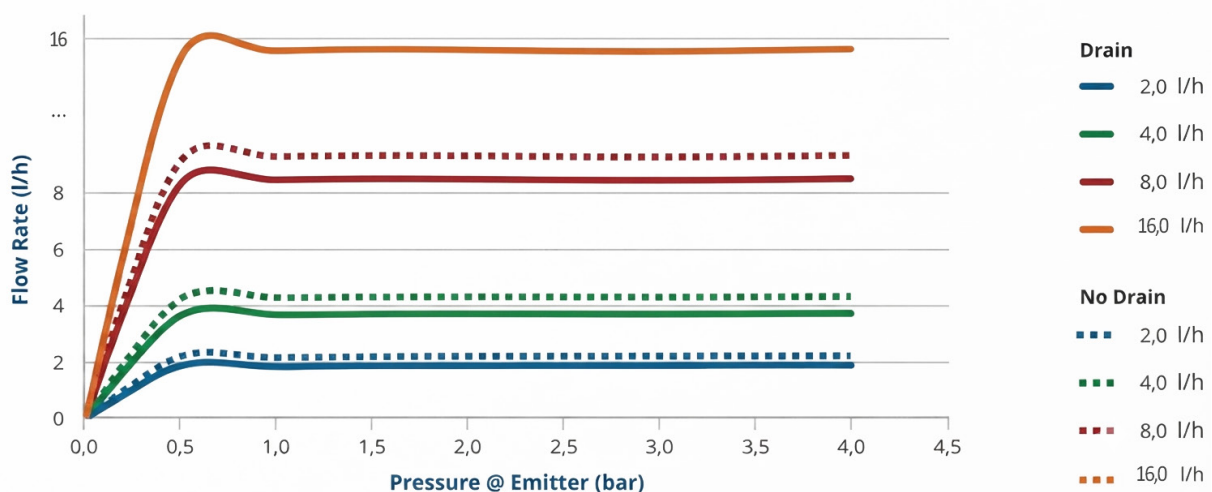
- Flow Rates: in 2L, 4L 8L and 16L /h
- Pipe Diameter: 12 to 32 mm
- Pressure Range: 0.5 to 4.0 bar
- Wall Thicknesses: 0.9 to 1.2 mm
- Coefficient of Variation (CV): Less than 4%
- Emission Uniformity (EU): More than 97%
- Coefficient of Uniformity (CU): More than 98%



Key Benefits & Features

- **Pressure Compensating:** Self-regulation ensures the same flow rate over a range of pressures, making it the ideal choice for sloped conditions or extra-long laterals in agricultural applications.
- **High Performance:** Longer pipe runs with <0.05 emitting exponent giving a constant flow over a large pressure range
- **Ease of Use:** Not sensitive to varied field conditions, such as slopes and valleys simplifying system design.
- **Self-Cleaning and Clog-Resistant:** A self-cleaning silicone diaphragm and large cross-section labyrinth ensure compensation is not interrupted by suspended solids in the water.
- **Optional Check Valve:** For landscape, sloped applications or overhead greenhouse applications. RII Online Drippers is available with a **non-drain (ND)** option. Compensation begins at 0.7 bar (10 psi) and closing pressure is 0.2 bar (3 psi)
- **Built-in Quality and Durability:** Constructed with premium virgin polyethylene and additives for resistance to UV degradation and damage caused from commonly used chemicals and fertilizers.

Emitter Flow Curves



LOW PRESSURE PE IRRIGATION PIPES & MICRO TUBES

Manufactured to International Standard ISO 8779 For Maximum Compliance, Performance Safety, And Quality Assurance.



High-Performance Polyethylene Pipes, and Micro-Tubes

Engineered for modern agricultural and commercial water management, our premium polyethylene pipes are the ideal choice for agricultural irrigation systems, landscape installations, dripline applications, water delivery networks, sprinkler and micro-sprinkler stands, assembled dripper sets, and automation systems.

Key Benefits & Features

- **UV & Weather Proof:** Built with advanced UV and oxidation protection to withstand intense sunlight and harsh weather for years without degrading.
- **Algae & Fungi Resistant:** Immune to internal and external attacks from microorganisms, algae, and fungi to keep your water lines cleaner.
- **Chemical & Saline Resistant:** Highly resistant to salty water, acids, alkalis, and standard agricultural or landscaping chemicals and fertilizers.
- **Crack & Kink Resistant:** Made from premium low or medium-density polyethylene resins formulated to prevent kinking, resist splitting, and ensure long-term field reliability.
- **Precision Fit:** Uniform wall thickness and inner diameters ensure perfectly secure fitting connections and predictable flow rates.
- **Flexible Packing Options:** Available in standard coils or large reels to easily match your specific layout needs.

RII Low pressure PE irrigation pipes

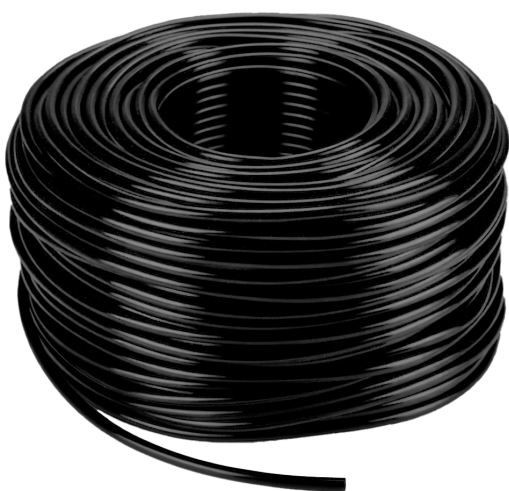
Standard Coil length is 100 Meters in Black color

Pipe OD (mm)	PN (class)	Max. Working Pressure (bar)	Min. Wall Thickness* (mm)	I.D (mm)
16	4	4	1	14.0
20	4	4	1.2	17.6
25	4	4	1.3	22.4
32	4	4	1.5	29.0

RII Low Pressure PE irrigation Micro Tubes

Standard Coil length is 100 Meters in Black color

Model	Pipe OD (mm)	Pipe ID (mm)	Max. Working Pressure (bar)
3 x 5	5	3.3	4
4 x 6.5	6.5	4	4



MICRO TUBE BARBED FITTINGS

Rll heavy-duty micro-fittings provide secure, leak-free connections for low-volume irrigation networks. Their high-retention barbed design ensures superior blowout resistance under pressure without the need for clamps or glue.



Key Features

- **Maximum Grip:** Sharp, precision-engineered barbs prevent tube slippage and blowouts.
- **UV Protection:** High-grade material resists solar degradation and chemical fertilizers.
- **Low Profile:** Compact design blends seamlessly into soil and landscape aesthetics.
- **Smooth Flow:** Optimized internal bores minimize friction loss and resist clogging.
- **Available sizes:** available for both 5 & 6.5 mm OD irrigation microtube.



LABYRINTH STAKE

Ensures highly uniform water distribution when paired with drippers and multi-outlet connectors in pot or grow-bag setups.



Applications

Ideal for pot irrigation, commercial nurseries, greenhouses, vegetables, and home gardens.

Operating Specifications

Filtration Requirement: 120 mesh

Multi-Outlet System Requirements:

- Minimum Working Pressure: 1.0 bar
- Elevation Limit: Maximum 5 cm level difference between pots/bags.
- Minimum Flow per Outlet (Flat Terrain): 0.5 l/h
- Minimum Flow per Outlet (Sloped/Uneven Terrain): 1.0 l/h

Technical Performance when used independently,

Recommended extension tube: 3 mm ID (5mm OD) vinyl tube.

Pressure Bar	0.5	1	1.5	2
Discharge in l/h	1.5	2	2.5	3

DRIPLINE FIX-STAKE



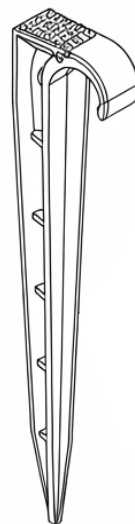
Key Features and Specifications

- **Displacement & Blowout Resistance:** Sharp, engineered component barbs prevent tube blowouts under pressure, while heavy-duty stake ribs anchor firmly into soil to stop shifting from wind or animal activity.
- **High-Grade Durability:** Manufactured from premium, UV-stabilized engineering polymers to resist solar degradation, thermal expansion, and agricultural chemical corrosion.

RII Dripline fix-stake



CODE	SIZE	PACKAGING
	13	100
	16	100
	20	50



AUTOMATIC FLUSH VALVE



Key Features & Benefits

- **Automatic Self-Cleaning:** flushes the dripline at the start of every cycle and reopens before the next.
- **Available Sizes:** RII Automatic Flush Valve is available in both sizes 16mm & 20mm.
- **Trouble-Free Assembly:** Features a simple design for effortless, straightforward installation.
- **Spring-Free Reliability:** No moving parts or springs, drastically reducing maintenance and failures.
- **Heavy-Duty Build:** Engineered with a chemical- and UV-resistant body for maximum field durability.
- **Labor-Saving Automation:** Low sensitivity to water quality ensures fully automated, cost-effective operation.

RII Auto Flush Valve



CODE	SIZE	PACKAGING
	16	1
	20	1



Saudi Made
صناعة سعودية



High Quality
جودة عالية



Innovative Landscape Solutions
حلول مبتكرة لأنظمة تنسيق الحدائق

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