



PC Dripline

Pressure Compensating Inline Emitter Tubing





PC Dripline



Rain Bird PC Dripline is the latest in inline emitter tubing. It delivers unparalleled clog resistance for long-term reliability. Pressure compensation is achieved by varying the length of the large labyrinth – the greater the pressure, the longer the labyrinth. Moreover, it's supported and backed by the industry's most capable dealer network.

The Rain Bird PC Dripline emitter has the largest cross-sectional water passage area during pressure compensation which results in superior clog resistance. Grit tests conducted by the Center for Irrigation Technology (CIT) confirmed Rain Bird PC Dripline's superior clog resistance. Test results are available from CIT or Rain Bird.

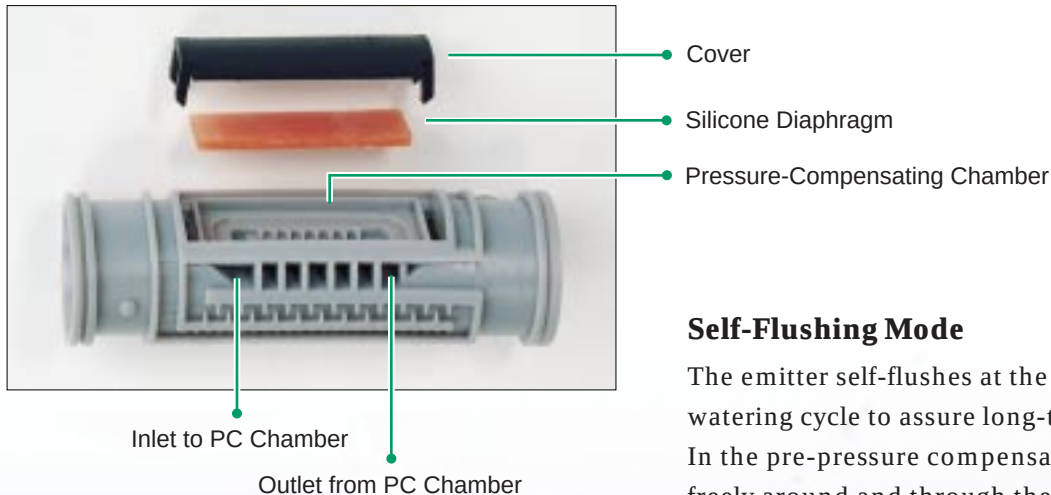
The high emission uniformity, which exceeds 96%, means more consistent emitter flow over the entire lateral length. Rain Bird PC Dripline has an average Manufacturing Coefficient of Variation ($C_v \leq 0.05$). C_v measures consistency of emitter output from one emitter to the next. The lower the C_v value, the more consistent the emitter output. The American Society of Agricultural Engineers considers any C_v below 0.05 to be excellent.

Rain Bird PC Dripline is widely used on:

- Tree Crops
- Row Crops
- Vineyards
- Nurseries



How PC Dripline Works



Self-Flushing Mode

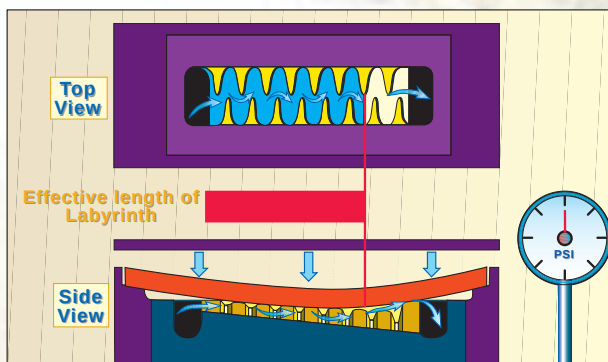
The emitter self-flushes at the beginning and end of each watering cycle to assure long-term reliable performance. In the pre-pressure compensating mode, the water flows freely around and through the labyrinth, flushing any contamination through the emitter outlets.

Pressure Compensation without Flow Path Reduction

Conventional emitters pressure compensate by using a restrictive metering groove that increases the likelihood of clogging. Using a new, patented technology, the PC Dripline emitter eliminates the metering groove. Pressure compensation is achieved by gradually lengthening the turbulent flow path which is significantly larger than conventional metering grooves.

Compensation Mode

As pressure increases, the diaphragm is further pushed against the labyrinth. This increases the effective length of the labyrinth.



Rain Bird PC Dripline Flow Path Lengthens as Pressure Increases

As pressure increases, the diaphragm begins to compress longitudinally against the emitter's sloped labyrinth. This compression lengthens the torturous path through which the water must pass without reducing the cross-sectional size of the flow path. The cross-sectional area of the Rain Bird PC Dripline emitter flow path at higher pressure is significantly larger than that of conventional pressure compensating inline emitters. The result is the most clog-resistant, pressure compensating inline emitter available.



Features and Benefits

Key Features of Rain Bird PC Dripline

- ✈ **Patented emitter design**
- ✈ **High emission uniformity**
- ✈ **Fully pressure compensating between 8-60 psi**
- ✈ **Excellent average manufacturing coefficient of variation ($C_v \leq 0.05$)**
- ✈ **Multiple inlet design**
- ✈ **Emitter flushes during start up, and shut down**
- ✈ **Filtered inlets are located 180 degrees apart**
- ✈ **Two outlet ports positioned 90 degrees apart**

Benefits to Growers

- Reduced system maintenance costs
- Greater yields
- Longer product life
- Uniform plant growth
- Greater yields
- Water savings
- Chemical savings
- Even distribution of water over the length of the run
- Longer runs
- Improved productivity on undulating terrain
- Total system cost savings
- Consistent flow among all the emitters
- Uniform plant growth
- Greater yields
- Longer product life
- Superior clog resistance
- Lower system maintenance costs
- Longer product life
- Better uniformity
- Improved clog-resistance
- Orientation of emitter does not affect performance
- Cleanest water enters emitter
- Less susceptible to clogging
- One port is always open to atmosphere
- Reduces chances of back-siphoning and clogging



PC Dripline - 16mm, .4 gph

Product Specifications

	PC Dripline 16mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.4
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.630
Inner Diameter (inches)	.540
Wall Thickness (inches)	.045

Custom emitter spacing available, please consult factory.

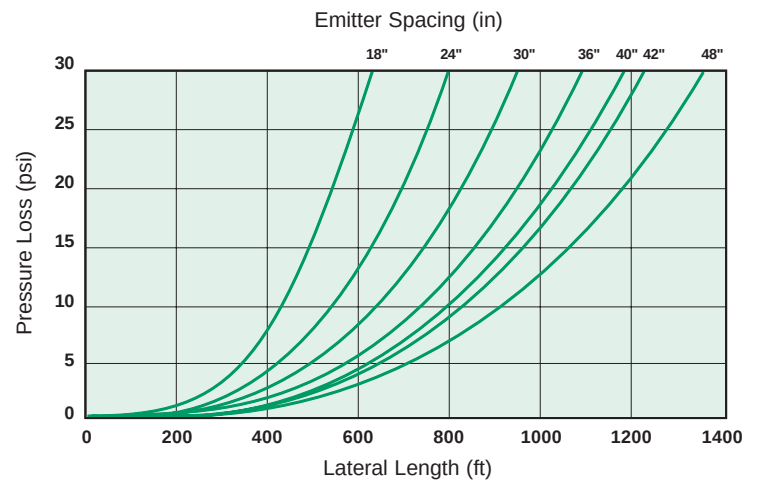
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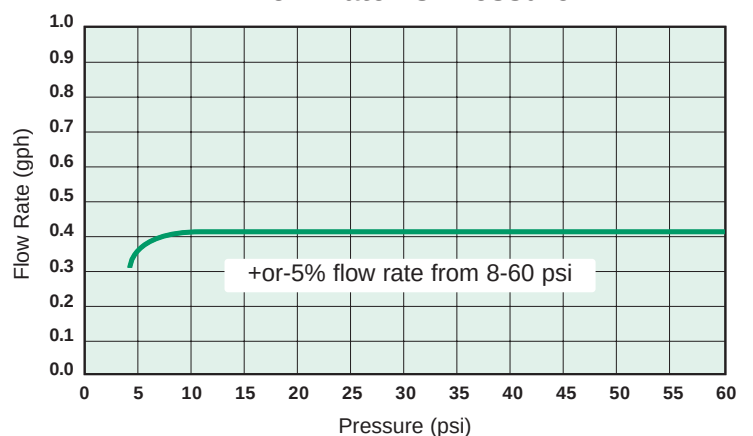
Maximum Lateral Lengths (ft) 0% slope .4 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	360	460	550	630	690	710	790
25 psi	500	630	760	880	950	990	1090
35 psi	600	750	900	1030	1120	1170	1290
45 psi	660	840	1000	1160	1260	1300	1440

Rain Bird PC Dripline .4 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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PN L203



PC Dripline - 16mm, .6 gph

Product Specifications

	PC Dripline 16mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.6
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.630
Inner Diameter (inches)	.540
Wall Thickness (inches)	.045

Custom emitter spacing available, please consult factory.

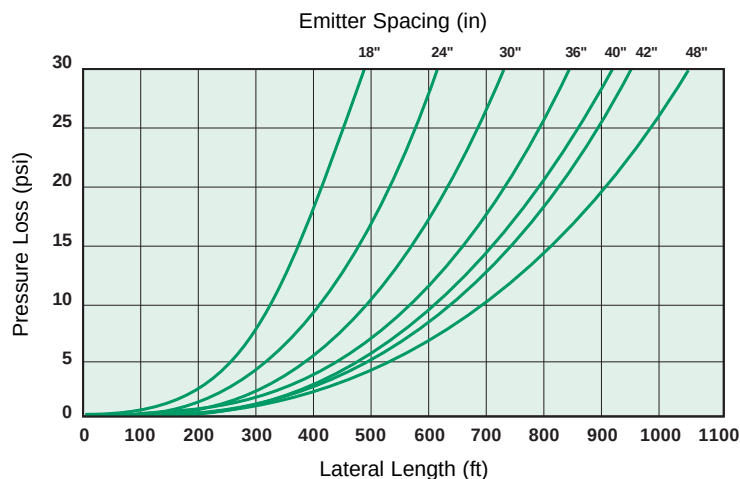
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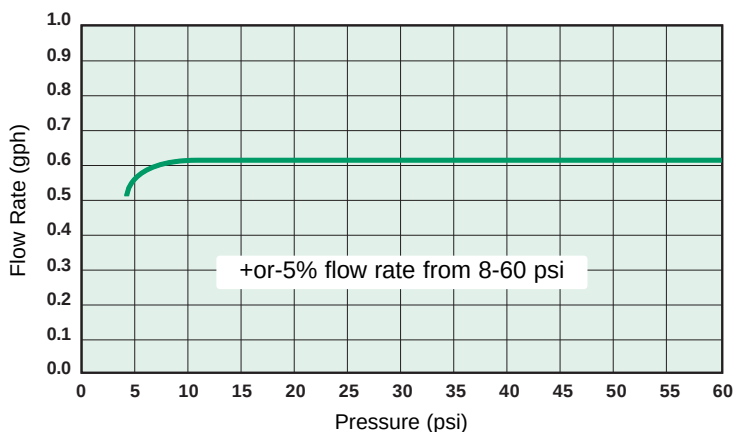
Maximum Lateral Lengths (ft) 0% slope .6 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	280	350	420	490	530	550	600
25 psi	390	490	580	680	730	760	840
35 psi	450	580	690	800	870	900	990
45 psi	510	640	780	890	970	1000	1110

Rain Bird PC Dripline .6 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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PC Dripline - 16mm, .9 gph

Product Specifications

	PC Dripline 16mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.9
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.630
Inner Diameter (inches)	.540
Wall Thickness (inches)	.045

Custom emitter spacing available, please consult factory.

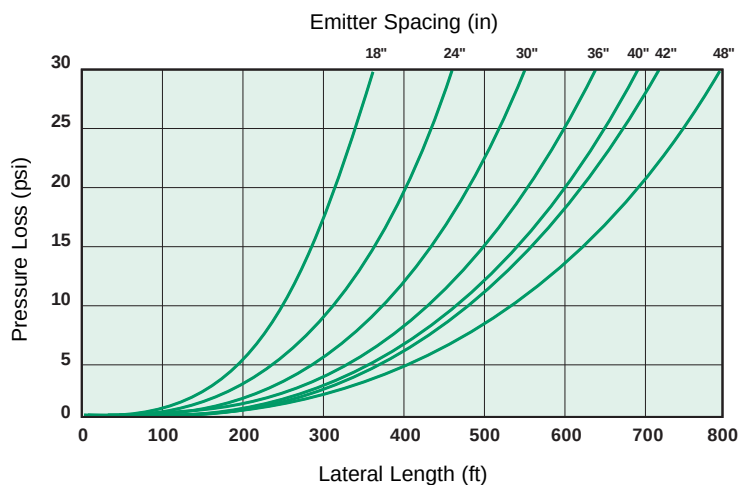
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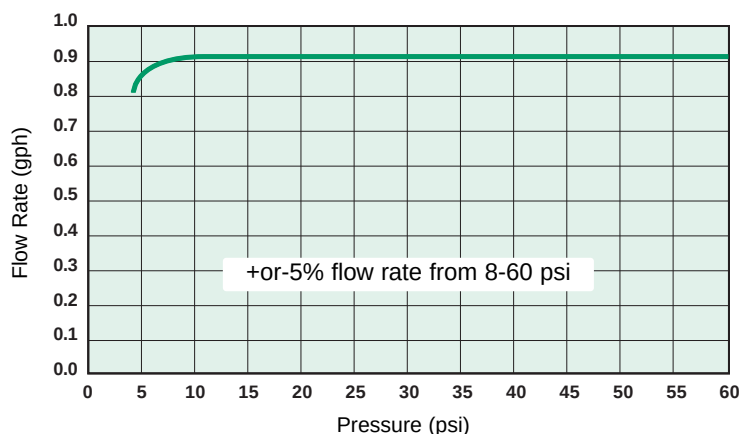
Maximum Lateral Lengths (ft) 0% slope .9 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	220	270	320	370	410	420	470
25 psi	300	380	540	520	560	590	650
35 psi	350	440	530	610	670	690	770
45 psi	390	500	590	680	740	780	860

Rain Bird PC Dripline .9 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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PC Dripline - 20mm, .4 gph

Product Specifications

	PC Dripline 20mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.4
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.807
Inner Diameter (inches)	.709
Wall Thickness (inches)	.049

Custom emitter spacing available, please consult factory.

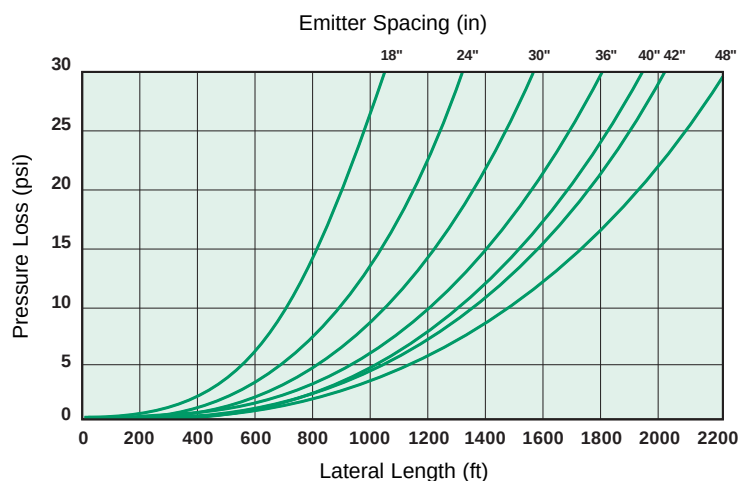
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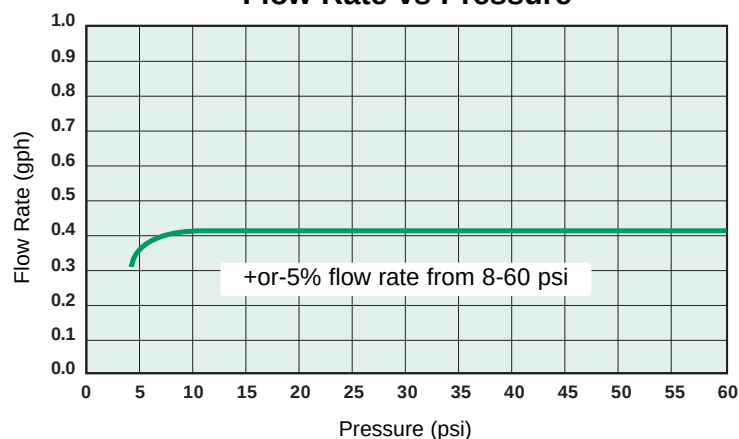
Maximum Lateral Lengths (ft) 0% slope .4 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	610	780	900	1030	1120	1160	1290
25 psi	850	1060	1280	1450	1550	1620	1780
35 psi	990	1260	1490	1710	1840	1910	2110
45 psi	1110	1400	1670	1910	2160	2140	2360

Rain Bird PC Dripline .4 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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PC Dripline - 20mm, .6 gph

Product Specifications

	PC Dripline 20mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.6
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.807
Inner Diameter (inches)	.709
Wall Thickness (inches)	.049

Custom emitter spacing available, please consult factory.

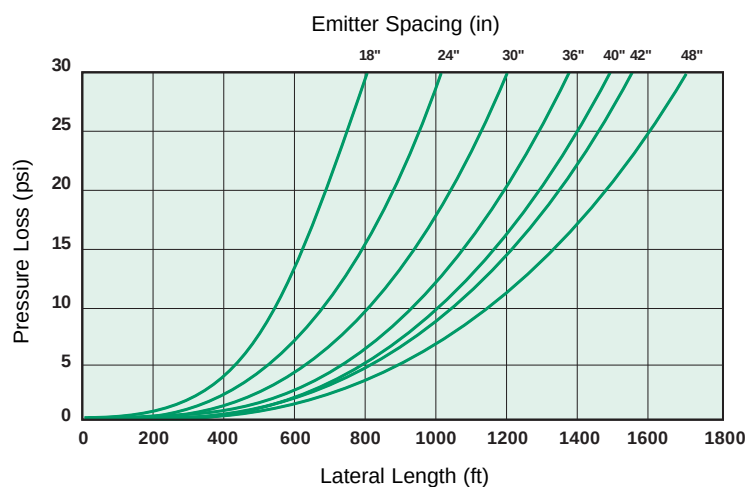
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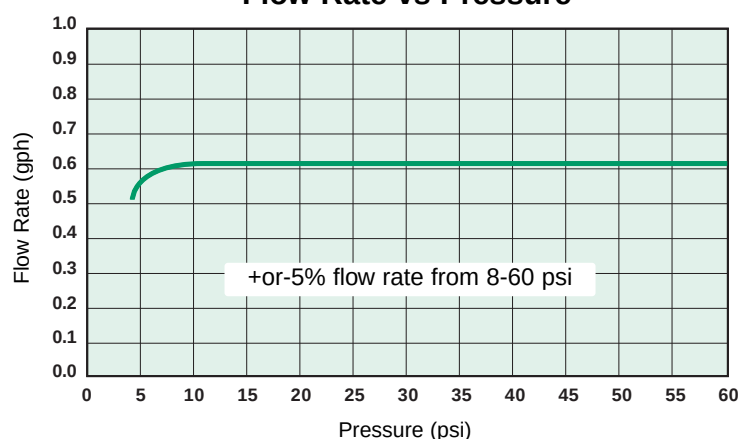
Maximum Lateral Lengths (ft) 0% slope .6 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	470	590	700	800	860	900	1000
25 psi	640	810	960	1110	1200	1240	1380
35 psi	760	960	1140	1310	1450	1480	1630
45 psi	850	1080	1280	1470	1590	1650	1820

Rain Bird PC Dripline .6 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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PC Dripline - 20mm, .9 gph

Product Specifications

	PC Dripline 20mm
Minimum Operating Pressure (psi)	8.5
Maximum Operating Pressure (psi)	60
Maximum Air Temperature	140°F
Maximum Water Temperature	110°F
Emitter Flow Rate (gph)	.9
Coil Length (feet)	1000
Filtration (mesh)	120
Outer Diameter (inches)	.807
Inner Diameter (inches)	.709
Wall Thickness (inches)	.049

Custom emitter spacing available, please consult factory.

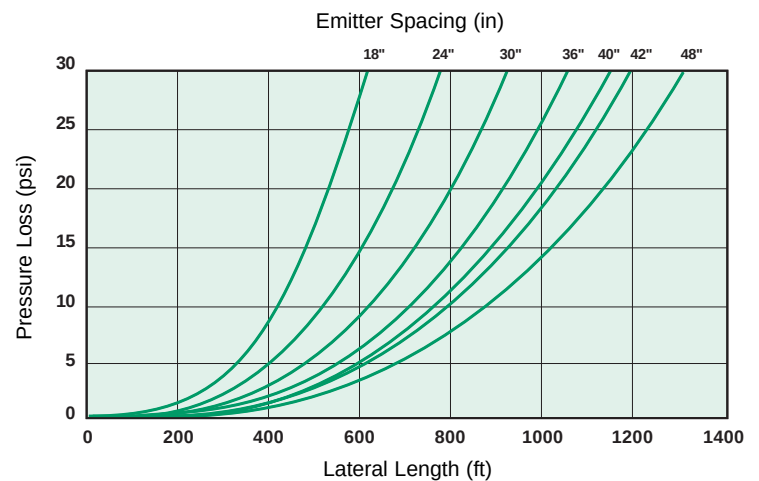
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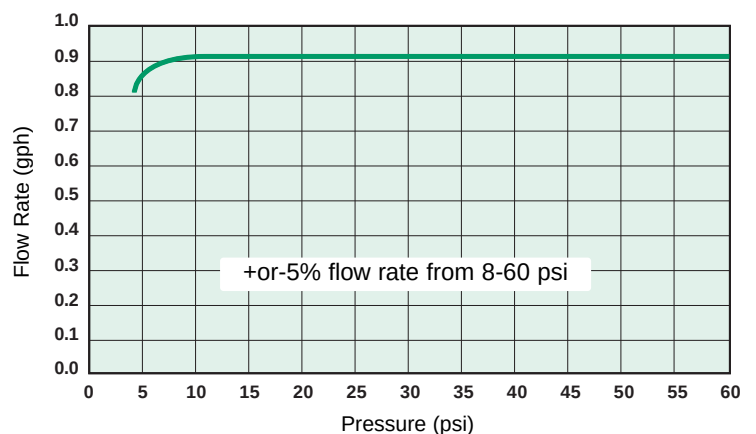
Maximum Lateral Lengths (ft) 0% slope .9 gph emitter

Inlet Pressure	18 inch	24 inch	30 inch	36 inch	40 inch	42 inch	48 inch
15 psi	360	450	540	610	670	690	760
25 psi	490	620	750	860	930	960	1060
35 psi	580	740	880	1010	1100	1140	1260
45 psi	640	830	980	1130	1230	1270	1400

Rain Bird PC Dripline .9 gph emitter



Rain Bird PC Dripline Flow Rate vs Pressure



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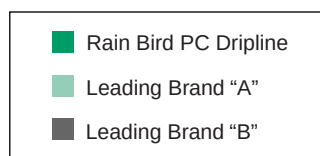
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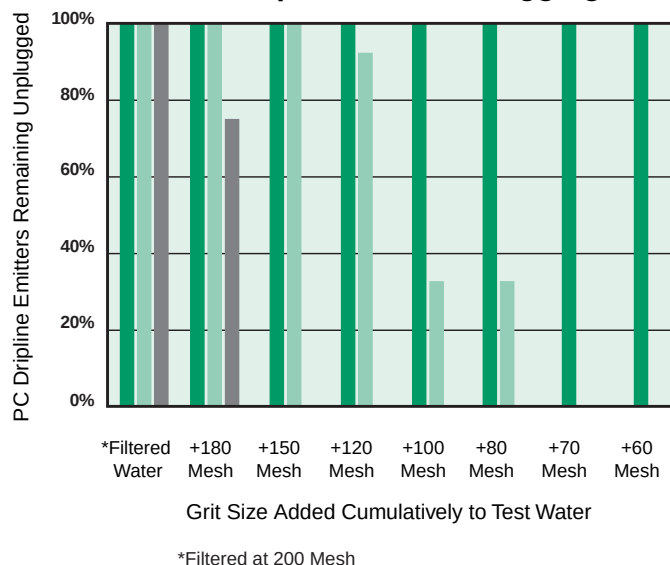


PC Dripline - Tech Spec

The Center of Irrigation Technology (CIT) test results demonstrate that Rain Bird PC Dripline is the most clog resistant dripline available.



CIT Test Results PC Dripline Emitter Plugging



Tech Spec

The flexible polyethylene tubing shall have factory installed, pressure compensating, inline emitters installed every ____ inches. The flow rate from each installed inline emitter shall be a consistent ____ gallons per hour when inlet pressure is between 8.5 and 60 psi.

Pressure compensation shall be accomplished through the effective lengthening of the emitter flow path. This method of pressure compensation shall in no way reduce the size of the emitter flow path. As a result, superior clog-resistance shall be achieved.

The inline emitter's cylindrical shape shall permit the welding of the emitter to the inner circumference of the polyethylene tubing. This shall create a physical barrier that keeps the cover of the inline emitter securely in place. This will make the emitter cover and the silicone diaphragm beneath the cover impossible to dislodge when the polyethylene tubing is kinked. This, in turn,

shall ensure consistent flow from each inline emitter throughout the line.

The inline emitter's cylindrical shape shall provide surface area for filtration throughout the 360 degrees of its outer circumference. This increased filtration surface area shall assure that the water that enters the inline emitter can always come from the upper half, or cleanest part of the flow path in the polyethylene tubing regardless of how the inline tubing lays on the ground.

The inline emitter shall also have dual outlet ports, ensuring that only one port ever has direct contact with the ground when the polyethylene tubing is installed on the surface. This shall virtually eliminate the chance of back-siphoning debris into the tubing. The PC Dripline inline tubing shall be supplied by Rain Bird Sprinkler Mfg. Corp., Glendora, California.

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Specifications / Ordering

U.S. Units

PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	16 mm	.4 gph	12"	DP1604-12
			18"	DP1604-18
			24"	DP1604-24
			30"	DP1604-30
			36"	DP1604-36
			42"	DP1604-42
			48"	DP1604-48
DP	16 mm	.6 gph	60"	DP1604-60
			12"	DP1606-12
			18"	DP1606-18
			24"	DP1606-24
			30"	DP1606-30
			36"	DP1606-36
			42"	DP1606-42
DP	16 mm	.9 gph	48"	DP1606-48
			60"	DP1606-60
			12"	DP1609-12
			18"	DP1609-18
			24"	DP1609-24
			30"	DP1609-30
			36"	DP1609-36
DP	16 mm	.9 gph	42"	DP1609-42
			48"	DP1609-48
			60"	DP1609-60

Metric Units

PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	16 mm	1.6 lph	30 cm	DP1616-030
			50 cm	DP1616-050
			60 cm	DP1616-060
			75 cm	DP1616-075
			100 cm	DP1616-100
			120 cm	DP1616-120
			150 cm	DP1616-150
DP	16 mm	2.2 lph	30 cm	DP1622-030
			50 cm	DP1622-050
			60 cm	DP1622-060
			75 cm	DP1622-075
			100 cm	DP1622-100
			120 cm	DP1622-120
			150 cm	DP1622-150
DP	16 mm	3.4 lph	30 cm	DP1634-030
			50 cm	DP1634-050
			60 cm	DP1634-060
			75 cm	DP1634-075
			100 cm	DP1634-100
			120 cm	DP1634-120
			150 cm	DP1634-150

PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	18 mm	0.5 gph	18"	DP180518
			24"	DP180524
			30"	DP180530
			36"	DP180536
			40"	DP180540
			42"	DP180542
			48"	DP180548
DP	18 mm	0.9 gph	18"	DP180918
			24"	DP180924
			30"	DP180930
			36"	DP180936
			40"	DP180940
			42"	DP180942
			48"	DP180948

PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	18 mm	2.0 lph	30 cm	DP1820030
			50 cm	DP1820050
			60 cm	DP1820060
			75 cm	DP1820075
			90 cm	DP1820090
			100 cm	DP1820100
DP	18 mm	3.4 lph	30 cm	DP1834030
			50 cm	DP1834050
			60 cm	DP1834060
			75 cm	DP1834075
			90 cm	DP1834090
			100 cm	DP1834100

Custom emitter spacing available, please consult factory.



Specifications / Ordering

U.S. Units

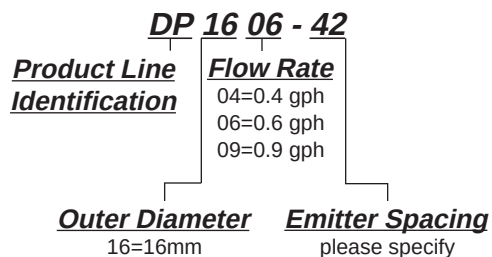
PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	20 mm	0.4 gph	18"	DP200418
			24"	DP200424
			30"	DP200430
			36"	DP200436
			40"	DP200440
			42"	DP200442
			48"	DP200448
DP	20 mm	0.6 gph	18"	DP200618
			24"	DP200624
			30"	DP200630
			36"	DP200636
			40"	DP200640
			42"	DP200642
			48"	DP200648
DP	20 mm	0.9 gph	18"	DP200918
			24"	DP200924
			30"	DP200930
			36"	DP200936
			40"	DP200940
			42"	DP200942
			48"	DP200948

Metric Units

PC Emitter	Tubing O.D.	Emitter Flow Rate	Emitter Spacing	Part Number
DP	20 mm	1.6 lph	30 cm	DP2016030
			50 cm	DP2016050
			60 cm	DP2016060
			75 cm	DP2016075
			90 cm	DP2016090
			100 cm	DP2016100
DP	20 mm	2.2 lph	30 cm	DP2022030
			50 cm	DP2022050
			60 cm	DP2022060
			75 cm	DP2022075
			90 cm	DP2022090
			100 cm	DP2022100
DP	20 mm	3.4 lph	30 cm	DP2034030
			50 cm	DP2034050
			60 cm	DP2034060
			75 cm	DP2034075
			90 cm	DP2034090
			100 cm	DP2034100

PC Drip for Windows is a design software tool for designers and growers to evaluate Rain Bird PC Dripline performance under varying conditions including emitter flow rate and spacing, lateral length and spacing, and slope. It provides answers for optimum lateral lengths, problem slope conditions, and flow per acre. Each design scenario can be viewed graphically by lateral pressure and lateral length. This feature helps growers see where minimum pressures and flows occur in a lateral given certain design and field conditions. Please order part number L195.

How to Order:



www.rainbird.com/ag

The Rain Bird Legend



An ancient Indian legend tells of a terrible drought that befell the land hundreds of years ago. Crops withered and the watering holes dried up. For a generation there was no relief. Everyone but the children gave up hope.

Then, one day, a great bird overheard the children's simple, urgent prayers. The bird flew to the heavens and returned with the long-awaited, life-giving rain.

The bird-like appearance of the efficient impact sprinklers, which company founders Clement and Mary LaFetra introduced to the world in 1933 prompted them to name their new company after the great rain bird of the Indian legend. And so the modern Rain Bird legend was born.

Be sure to ask about Rain Bird's complete line of AG irrigation accessories.



- Pressure gauges
- Air vents
- Regulators
- Maintenance tools
- *Genuine* Rain Bird replacement parts



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