

## TECHNICAL DATA SHEET

P1

### Product Description

**Light dripline with flat dripper**

### Product picture



### Characteristics

- High performances in terms of emission uniformity even during fertigation cycles
- Possibility to reach considerable lengths;
- Technical characteristics reliable in the long run, in various applications and environmental conditions;
- Easy to install without checking the emission point position on the ground;
- The flat dripper which is 2 mm thick only and is welded on the inside wall of the pipe causes minimum pressure losses;
- Clogging is avoided by the dripper's filter which is integrated in the labyrinth inlet;
- The latest generation labyrinths reduce pressure sensitivity and increase the self-cleaning effect thanks to the higher turbulence level, eliminating the possibility of sedimentation even at low working pressures.

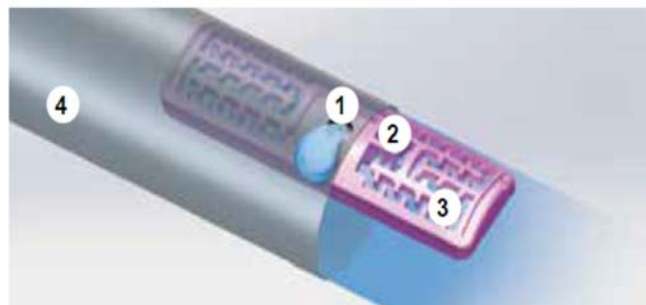
### Applications

Suitable for open field or greenhouse vegetable or flower gardens. Suitable for flat or slightly sloped land.

### Benefits, operation, materials

The use of this dripline allows very low investments that can be quickly amortized over the course of a single season. The protected output system allows the P1 to be buried, eliminating problems of suction of mud and debris and minimizing the possibility of root intrusion. The system acts through a "door" obtained with a particular processing of the emission hole. This product, thanks also to the materials used, has excellent resistance to thermal stress, UV rays and mechanical stress while maintaining the same performance even in the most complex conditions.

### Technical design



**1 - Exit holes**  
 round or flap

**2 - Inlet filter**  
 with large filter surface

**3 - Turbulent flow labyrinth**  
 with low sensitivity to pressure

**4 - Polyethylene pipe**

**Technical data**

Table 1. – Dripline technical data

Nominal diametre		Inside diametre	Outside diametre	Wall thickness		Max. working pressure		Kd
mm	inch	mm	mm	mil	mm	bar	psi	-
16	5/8	16.1	16.35	5	0.125	0.50	7.30	0.10
			16.40	6	0.150	0.60	8.70	
			16.45	7	0.180	0.70	10.15	
			16.50	8	0.200	0.80	11.60	
			16.60	10	0.250	1.00	14.50	
			16.70	12	0.300	1.20	17.40	
			16.90	15	0.400	1.50	21.75	
			17.00	18	0.450	1.70	24.70	
22 ULTRA	7/8	22.3	17.30	24	0.600	2.00	29.00	0.09
			22.60	6	0.150	0.50	7.30	
			22.65	7	0.177	0.60	8.70	
			22.70	8	0.200	0.70	10.15	
			22.80	10	0.250	0.90	13.00	
			22.90	12	0.300	1.00	14.50	
			23.10	15	0.400	1.20	17.40	
			23.20	18	0.450	1.50	21.75	
25 MAXI	1	25.1	23.50	24	0.600	1.70	24.70	0.08
			25.60	10	0.250	0.80	11.60	
			25.70	12	0.300	0.90	13.00	
29 EXTRA	1 1/8	28.6	25.85	15	0.380	1.10	16.00	0.07
			29.10	10	0.250	0.70	10.15	
			29.20	12	0.300	0.80	11.60	

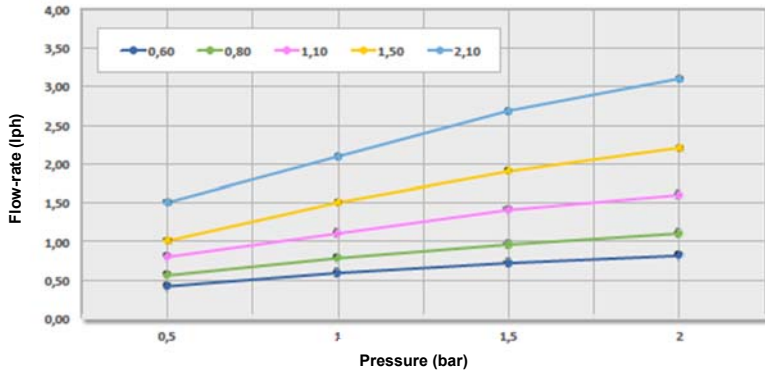
Table 2. – Dripper characteristics

Nominal flow-rate l/h (@1.0 bar/14.5 psi)	Colour	Flow-rate l/h (@0.7 bar / 10 psi)	Labyrinth size			Inlet filter		Recommend ed filtration Mesh	Flow equation		CV %
			Altezza (mm)	Larghezza (mm)	Lunghezza (mm)	Area (mm <sup>2</sup> )	Fori		k	x	
0.60	Blu	0.50	0.45	0.45	40	6.0	20	155	0.19	0.48	≤2.5
0.80	Verde	0.66	0.50	0.50	40	6.3	20	155	0.26	0.48	≤2.5
1.10	Rosa	0.92	0.60	0.55	40	7.0	20	155	0.38	0.48	≤2.5
1.50	Giallo	1.20	0.65	0.65	40	7.0	20	155	0.51	0.48	≤2.5
2.10	Celeste	1.75	0.78	0.70	40	7.6	20	120	0.69	0.48	≤2.5

Table 3. – Pressure-flow rate ratio

Nominal flow-rate l/h (@1.0 bar/14.5 psi)	Flow-rate					
	l/h (@0.5 bar)	l/h (@0.7 bar/10 psi)	l/h (@1.0 bar/14.5 psi)	l/h (@1.2 bar)	l/h (@1.5 bar)	l/h (@2.0 bar)
0.60	0.42	0.50	0.60	0.65	0.72	0.82
0.80	0.56	0.66	0.79	0.87	0.96	1.10
1.10	0.80	0.92	1.11	1.22	1.40	1.60
1.50	1.00	1.20	1.50	1.69	1.90	2.20
2.10	1.50	1.75	2.09	2.34	2.68	3.10

Diagram 1. – Pressure / flow-rate ratio



Applicable standards			
Code	Title	Edition	Certificate
ISO 9261	Agricultural irrigation equipment - Emitters and emitting pipe - Specification and test methods	2004	<input checked="" type="checkbox"/>
Use and/or assembly instructions			
<ul style="list-style-type: none"> <li>- P1 dripline can be easily installed both manually and mechanically. In the latter case, it is important to make sure that the equipment to be does not damage the dripline when touching it;</li> <li>- Avoid stretching, cutting, knotting or scratching P1 dripline during installation;</li> <li>- If P1 dripline is placed on the surface it must be ensured that it remains in position with the holes facing upwards and does not rotate in the wind;</li> <li>- The buried P1 dripline must be pressurized within 24 hours to avoid that any compaction of the ground impedes the passage of water;</li> <li>- Do not rigidly block the ends of P1 dripline, leaving it free to react to temperature variations;</li> <li>- The system must be filled slowly to avoid air stagnation in the pipes and damage due to water hammers. In case of use under transparent mulch, in order to avoid lens effect and possible ignition of the exposed part it is necessary to bury P1 dripline for at least 1 cm;</li> <li>- During installation and operation, avoid passing over the P1 dripline with heavy equipment in order to avoid damages.</li> <li>- The working pressure recommended to guarantee the nominal flow rate is 1 bar for all types of P1 dripline.</li> </ul>			
Packaging			

Table 1. Standard reels

Diametre	Wall thickness	Reel lenght (m)			Reels per pallet	Reel size	Pallet size	Pallet per container
		Spaziatura <19 cm	Spaziatura 20<>29 cm	Spaziatura >30 cm				
mm	mil				-	-	cm	1AAA 40' HIGH CUBE
16	5	3500	3700	4000	16	Ø 57 x 25 cm Housing hole Ø 40 mm	114 x 114 x 114	40
	6	2900	3200	3500				
	7	2700	2900	3100				
	8	2300	2600	2800				
	10	1900	2100	2300				
	12	1300	1500	1700				
	15	1100	1300	1400				
	18	800	1000	1100				
22 ULTRA	6	2200	2200	2500	16	Ø 57 x 25 cm Housing hole Ø 40 mm	114 x 114 x 114	40
	7	2000	2000	2400				
	8	1500	1800	2200				
	10	1300	1500	1800				
	12	1200	1300	1500				
	15	900	900	1000				

	18	800	800	900				
	24	600	600	600				
25 MAXI	10	1200	12000	1400	16	Ø 57 x 25 cm Housing hole Ø 40 mm	114 x 114 x 114	40
	12	1100	1100	1200				
	15	800	800	900				
29 EXTRA	10	1100	1100	1300	16	Ø 57 x 25 cm Housing hole Ø 40 mm	114 x 114 x 114	40
	12	1000	1000	1100				

Table 2. Medium-size reels

Diametre	Wall thickness	Reel lenght (m)			Reels per pallet	Reel size	Pallet size	pallet per container
		Spacing <19 cm	Spacing 20<>29 cm	Spacing >30 cm				
mm	mil				-	-	cm	1AAA 40' HIGH CUBE
16	6	1500	1500	1500	72	Ø 39 x 25 cm Housing hole Ø 40 mm	114 x 114 x 114	
	7	1300	1300	1300				
	8	1200	1200	1200				
	10	1000	1000	1000				
	12	700	700	700				
	15	500	500	500				
	18	300	300	300				

Tabella 3. Small reels

Diametre	Wall thickness	Reel lenght (m)			Reels per pallet	Reel size	Pallet size	pallet per container
		Spacing <19 cm	Spacing 20<>29 cm	Spacing >30 cm				
mm	mil				-	-	cm	1AAA 40' HIGH CUBE
16	6	300	300	300	99	Ø 39 x 9.5 cm Housing hole Ø 40 mm	114 x 114 x 114	
	7	250	250	250				
	8	250	250	250				
	10	220	220	220				
	12	190	190	190				
	15	140	140	140				
	18	115	115	115				

**Notes and Annexes**