



Mitra Makmur Jaya
Your Irrigation Solution

irritec®
don't wait for rain

DRIP IRRIGATION CATALOG



«We want to simplify the life of those caring for plants, for work and for passion. We work so that every drop is used wisely, reducing the ecological footprint and resource waste to a minimum.»



• Light dripline with continuous labyrinth	
Light dripline with continuous labyrinth with inlet double continuous filter - eXXtreme tape	7
Light dripline with continuous labyrinth - IrritecTape™	9
• Light dripline with flat dripper	11
Light dripline with flat dripper - P1®	12
Ala gocciolante leggera con gocciolatore piatto a labirinto lungo - P5™	14
• Classic dripline with flat dripper	16
Classic dripline with flat dripper - D5™ / M5™	17
Classic dripline with flat dripper and long labyrinth - D7™	19
• Classic dripline with cylindrical dripper	21
Classic dripline with cylindrical dripper - Tandem™	22
Classic dripline with cylindrical dripper - Junior™	24
• Pressure compensating classic dripline with cylindrical dripper	26
Pressure compensating classic dripline with cylindrical dripper - Multibar™ C	27
Pressure compensating classic dripline with cylindrical dripper - Multibar™ C a.s. - d.s.	29
• Pressure compensating classic dripline with flat dripper	31
Pressure compensating classic dripline with flat dripper - Multibar™ F	32
Pressure compensating classic dripline with flat dripper - Multibar™ F a.s.	34
Pressure compensating classic dripline with flat dripper - Multibar™ F a.s. - d.s.	36
• Classic dripline with cylindrical dripper	
Classic dripline with cylindrical dripper - Minidrip	38
• Classic pressure compensating dripline for sub-irrigation	
Classic, pressure compensating dripline for sub-irrigation - Rootguard™	40
• Drippers on line	
iDrop®	42
K-Drop System / Kit pre-assembled for iDrop® drippers	48
DSV and DHS	50
Capillar System™	51
Fittings and connection valves	53
Box - packaging specifications	59
Certifications	64



Green Fields®

The Green Fields project by Irritec successfully continues in Italy, having started in 2015 and is today operative in various parts of the world.

Green Fields allows farmers to dispose of drippers at the end of their life in a simple, fast and particularly convenient manner.

ADVANTAGES FOR THE FARMER

- ✓ Free disposal to standard
- ✓ Continuous Irritec support
- ✓ Bonus on next purchase of the Irritec dripline.
The bonus doubles if the disposed dripper is by Irritec.

After disposal, you will receive a certificate for correct recovery of your dripline!

HOW TO APPLY



compile the form online on the website greenfields.irritec.com

Or, ask for support at the email address greenfields@irritec.com

or the Italian freephone number **800 210 696** from Monday to Thursday, from: 9:00/13:00 - 14:00/18:00
and Friday from: 9:00/13:00 - 14:00/17:00



Subscribe to receive a gadget immediately!

To consult the complete regulations and all details of the project, visit the website greenfields.irritec.com



Table with examples of applications

PRODUCT	Tree and orchard crops	Open field crops	Sub-irrigation	Vineyards	Olive groves	Crops protected underground	Crops protected overground	Nurseries	Hedges, trees and flowerbeds
eXXtreme tape		.				.			
irritecTape		.				.			
P1	.					.			
P5	.					.			
D5 / M5
D7
Tandem
Junior
Minidrip								.	.
Multibar C
Multibar C a.s. - d.s.
Multibar F
Multibar F a.s.
Multibar F a.s. - d.s.
Rootguard			.						
iDrop Normal
iDrop PC					
iDrop PCDS					
iDrop light PC					
iDrop light PCDS					
DSV e DSH	.			.	.				
Capillar Systems						.	.		



LIGHT DRIPLINE WITH CONTINUOUS LABYRINTH

The light dripline with continuous labyrinth is ideal for very close plantation density and on sandy and highly draining ground, thanks to the presence of drip points with reduced spacing. It is the result of a unique extrusion process: i.e. avoid possible problems linked to welding. The double green marker identifies the side of the outlet holes for correct laying.

Characteristics and advantages:

- The outlet is manufactured with laser cutting to reduce solid particle intrusion
- Excellent resistance to pressure peaks, even on minimum thicknesses
- Excellent resistance to traction
- The particular design of the labyrinth allows very long lengths to be obtained with maximum uniformity
- Excellent performance in terms of irrigation, even during fertigation cycles.
- Reduced phytopathological problems as the foliage is kept dry
- Ideal for very close plantation density and on sandy and highly draining ground, thanks to the reduced spacing
- Excellent filtration capacity: this amplifies the range of fertilisers used, including water soluble ones

MANUFACTURED IN TWO VERSIONS:

PATENTED

EXTREME TAPE

**LIGHT DRIPLINE WITH CONTINUOUS LABYRINTH
WITH INLET CONTINUOUS DOUBLE FILTER**

Product types available

Product	Nominal internal Ø		Packaging type	Thickness
-	mm	inch	reel	mil
eXXtreme Tape	16	5/8	standard	5-6-7-8-10-12
			medium	5-6-7-8-10-12
			small	6-7-8-10-12
	22	7/8	standard	6-7-8-10-12



Field of application



Crops protected
underground

DIRTY WATER

irritec TAPE™

LIGHT DRIPLINE WITH CONTINUOUS LABYRINTH

Product types available

Product	Nominal internal Ø		Packaging type	Thickness
-	mm	inch	reel	mil
irritec Tape	16	5/8	standard	4-5-6-7-8-10-12-15
			medium	5-6-7-8-10-12
			small	6-7-8-10-12
	22	7/8	standard	6-7-8-10-12-15
	25	1	standard	10-12
	29	1 1/8	standard	10-12



Field of application



Crops protected
underground



EXXTREME TAPE PATENTED

LIGHT DRIPLINE WITH CONTINUOUS LABYRINTH WITH INLET CONTINUOUS DOUBLE FILTER

eXXtreme tape is the continuous labyrinth dripline which, other than maintaining all the characteristics of IrritecTape, guarantees excellent filtering performance even if used with "difficult" water thanks to the presence of an inlet double continuous filter designed with the exclusive Irritec patented system.

Characteristics and advantages

- The continuous double filter allows excellent uniformity of supply and wetting even in the event of water with a high quantity of solid particles.
- Ideal for very close plantation density and on sandy and highly draining ground, thanks to the possibility of drip points with reduced spacing.
- It is the result of a unique extrusion process, avoiding problems linked to welding.
- Excellent resistance to traction.
- The outlet is manufactured with laser cutting to reduce solid particle intrusion.
- Excellent resistance to pressure peaks, even on minimum thicknesses.
- The particular design of the labyrinth allows very long lengths to be obtained with maximum uniformity.
- Excellent filtration capacity: this amplifies the range of fertilisers used, including water soluble ones.
- The double green marker identifies the side of the outlet holes for correct laying.
- Reduced phytopathological problems as the foliage is kept dry.

Field of application (cf. page 3)



Open field
crops



Crops protected
underground



Excellent for
“difficult” water



DRIPLINE WITH THE
VASTEST FILTERING
SURFACE IN
THE WORLD!





EXTREME TAPE

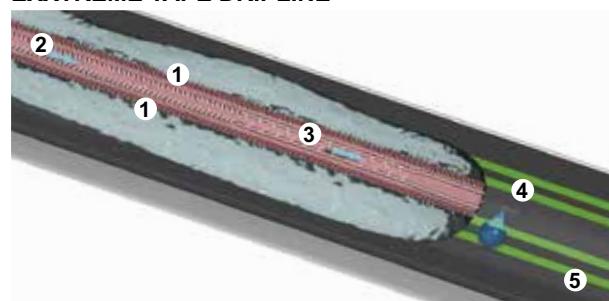


PATENTED

EXXTREME TAPE - Dripline technical data

Nominal internal Ø mm	Internal Ø inch	External Ø mm	Pricelist ref.	Thickness mm	Working pressure							
					bar			psi				
					min.	max.	rec.	min.	max.	rec.		
16	5/8	16,1	16,4	FND506	6	0,150	0,6	0,3	0,7	8,7	4,3	10,1
			16,5	FND508	8	0,200	0,7	0,3	1,0	10,1	4,3	14,5
			16,6	FND510	10	0,250	0,7	0,3	1,0	10,1	4,3	14,5
			16,7	FND512	12	0,300	0,7	0,3	1,0	10,1	4,3	14,5
22	7/8	22,3	22,7	FND708	8	0,200	0,6	0,3	0,7	8,7	4,3	10,1
			22,8	FND710	10	0,250	0,7	0,3	1,0	10,1	4,3	14,5
			22,9	FND712	12	0,300	0,7	0,3	1,0	10,1	4,3	14,5

EXXTREME TAPE DRIPLINE



- 1 - External continuous double filter
- 2 - Inlet filter
- 3 - Turbulent flow labyrinth with low pressure sensitivity
- 4 - Outlet hole
- 5 - Polyethylene tube

EXXTREME TAPE - Dripper characteristics

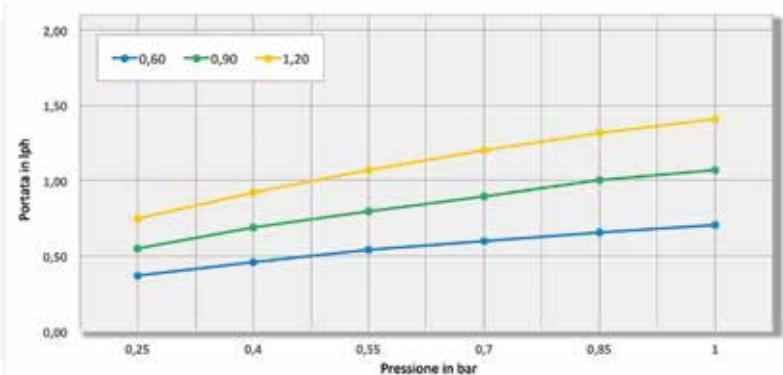
Actual flow rate lph		Recommended filtering		Flow Equation	
a 0,7 bar / 10 psi		Mesh		k	x
0,60		120		0,23	0,50
0,90		120		0,34	0,50
1,20		120		0,44	0,50

EXXTREME TAPE Characteristics of the incorporated filter

Spacing cm		Inlet filter		Continuous double filter, per metre of tube	
cm	inch	area mm ²	No. holes	area mm ²	No. holes
7,5	3	2,2	20	254	2.120
10	4	3,3	30	254	2.120
15	6	5,5	50	254	2.120
20	8	14,9	136	254	2.120
30	12	16,5	150	254	2.120

EXXTREME TAPE - Pressure - flow rate ratio

Actual flow rate lph		Pressure bar					
a 0,7 bar / 10 psi		0,25	0,40	0,55	0,70	0,85	1,00
0,60	0,60	0,37	0,46	0,54	0,60	0,66	0,71
0,90	0,90	0,55	0,69	0,80	0,90	1,00	1,07
1,20	1,20	0,75	0,92	1,07	1,20	1,32	1,41



EXXTREME TAPE - Lengths recommended in metres, based on E.U.

		irritecTape EXXTREME 16 mm					
Q lph	E.U. %	Spacing cm					
		7,5	10	15	20	30	40
0,60	90	-	-	-	177	230	277
	80	-	-	-	220	285	343
0,90	90	73	91	116	142	181	221
	85	90	113	143	176	224	274
1,20	90	61	75	101	117	153	185
	85	75	91	125	144	189	229

		irritecTape EXXTREME 22 mm					
Q lph	E.U. %	Spacing cm					
		7,5	10	15	20	30	40
0,60	90	-	-	-	312	404	484
	80	-	-	-	366	500	600
0,90	90	128	160	204	249	316	388
	85	158	199	253	309	391	480
1,20	90	107	131	177	208	268	324
	85	132	162	219	257	332	400

E.U.= emission uniformity

• Inbound pressure= 0,7 bar



IRRITECTAPE

LIGHT DRIPLINE WITH CONTINUOUS LABYRINTH

Irritec Tape is the light continuous labyrinth dripline ideal for low spacing between vegetable crops and flower cultivation in the open field. The reduced distance between the drip points and the low flow rate guarantees excellent performance even on very sandy soil.

Characteristics and advantages

- The outlet is manufactured with laser cutting to reduce solid particle intrusion.
- Excellent resistance to pressure peaks, even on minimum thicknesses.
- Excellent resistance to traction.
- The particular design of the labyrinth allows very long lengths to be obtained with maximum uniformity.
- Excellent performance in terms of irrigation, even during fertigation cycles.
- Compared to other products, it is the result of a unique extrusion process that avoids problems linked to welding.
- The double green marker identifies the side of the outlet holes for correct laying.
- Reduced phytopathological problems as the foliage is kept dry.

Field of application (cf. page 3)



Open field crops



Crops protected underground



irritecTAPE - Dripline technical data

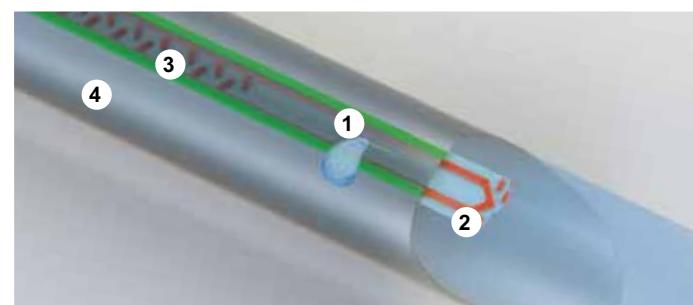
Nominal internal Ø mm	Internal Ø inch	External Ø mm	Pricelist ref.	Thickness		Working pressure						
				mil	mm	rec.	bar	min.	max.	rec.	min.	max.
16	5/8	16,1	16,30	FNI504	4	0,100	0,4	0,3	0,5	5,8	4,3	7,2
			16,35	FNI505	5	0,125	0,5	0,3	0,6	7,3	4,3	8,7
			16,40	FNI506	6	0,150	0,6	0,3	0,7	8,7	4,3	10,1
			16,45	FNI507	7	0,175	0,6	0,3	0,8	8,7	4,3	11,6
			16,50	FNI508	8	0,200	0,7	0,3	1,0	10,1	4,3	14,5
			16,60	FNI510	10	0,250	0,7	0,3	1,0	10,1	4,3	14,5
			16,70	FNI512	12	0,300	0,7	0,3	1,0	10,1	4,3	14,5
			16,90	FNI515	15	0,400	0,7	0,3	1,0	10,1	4,3	14,5
			22,60	FNI706	6	0,150	0,4	0,3	0,5	5,8	4,3	7,2
22	7/8	22,3	22,65	FNI707	7	0,177	0,6	0,3	0,6	8,7	4,3	8,7
			22,70	FNI708	8	0,200	0,6	0,3	0,7	8,7	4,3	10,1
			22,80	FNI710	10	0,250	0,7	0,3	1,0	10,1	4,3	14,5
			22,90	FNI712	12	0,300	0,7	0,3	1,0	10,1	4,3	14,5
			23,10	FNI715	15	0,400	0,7	0,3	1,0	10,1	4,3	14,5
			25,60	FNI810	10	0,250	0,7	0,3	0,8	10,1	4,3	11,6
25	1	25,1	25,70	FNI812	12	0,300	0,7	0,3	0,9	10,1	4,3	13,0
			29,10	FNI910	10	0,250	0,6	0,3	0,7	8,7	4,3	10,1
			29,20	FNI912	12	0,300	0,7	0,3	0,8	10,1	4,3	11,6



Excellent on poor draining soil



irritecTAPE dripline



1 - Outlet holes

2 - Inlet filter with vast filtering surface

3 - Turbulent flow labyrinth with low pressure sensitivity

4 - Polyethylene tube

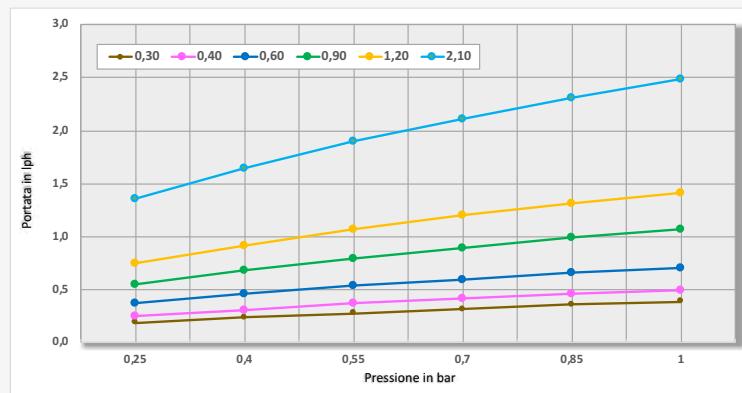


irritecTAPE - Dripper characteristics

Actual flow rate lph	Flow rate lph	Pressure/flow rate ratio in bar						Recommended filtering	Flow Equation		Spacing cm	Inlet filter Area mm²	No. holes
		0,55 bar / 8 psi	0,25	0,40	0,55	0,70	0,85	1,00	x	k			
a 0,7 bar / 10 psi													
0,30		0,28	0,19	0,24	0,28	0,32	0,36	0,39	200	0,49	0,12		
0,40		0,37	0,25	0,31	0,37	0,42	0,46	0,50	200	0,49	0,15		
0,60		0,54	0,37	0,46	0,54	0,60	0,66	0,71	155	0,49	0,23		
0,90		0,80	0,55	0,69	0,80	0,90	1,00	1,07	155	0,49	0,34		
1,20		1,07	0,75	0,92	1,07	1,20	1,32	1,41	155	0,49	0,44		
2,10		1,90	1,36	1,65	1,90	2,11	2,31	2,49	120	0,49	0,83		

irritecTAPE - Flow rate in lph/metre, according to spacing and working pressure

Flow rate lph	Pressure in bar	Spacing (cm)				
		10	15	20	30	40
0,30	0,55	-	-	1,30	-	0,65
	0,70	-	-	1,50	-	0,75
0,40	0,55	-	-	1,75	-	0,90
	0,70	-	-	2,00	-	1,00
0,60	0,55	5,40	3,60	2,70	1,80	1,40
	0,70	6,00	4,00	3,00	2,00	1,50
0,90	0,55	8,00	5,30	4,00	2,70	2,00
	0,70	9,00	6,00	4,50	3,00	2,30
1,20	0,55	10,70	7,10	5,30	3,50	2,70
	0,70	12,00	8,00	6,00	4,00	3,00
2,10	0,55	19,00	-	9,50	-	4,80
	0,70	21,00	-	10,50	-	5,30



irritecTAPE - Lengths recommended in metres, based on E.U.

irritecTape 16 mm						
Flow rate lph	S %	E.U.%	Spacing (cm)			
			10	15	20	30
0,30	0	90	-	-	268	-
		85	-	-	332	-
0,40	0	90	-	-	231	-
		85	-	-	287	-
0,60	0	90	114	147	178	230
		85	141	182	220	285
0,90	0	90	91	116	142	181
		85	113	143	176	224
1,20	0	90	75	101	117	153
		85	91	125	144	189
2,10	0	90	53	-	83	-
		85	66	-	102	-

irritecTape 22 mm						
Flow rate lph	S %	E.U.%	Spacing (cm)			
			10	15	20	30
0,30	0	90	-	-	470	-
		85	-	-	582	-
0,40	0	90	-	-	404	-
		85	-	-	502	-
0,60	0	90	200	258	312	404
		85	247	320	386	500
0,90	0	90	160	204	249	316
		85	199	253	309	391
1,20	0	90	131	177	208	268
		85	162	219	257	332
2,10	0	90	93	-	144	-
		85	114	-	178	-

irritecTape 25 mm						
Flow rate lph	S %	E.U.%	Spacing (cm)			
			10	15	20	30
0,30	0	90	-	-	580	-
		85	-	-	719	-
0,40	0	90	-	-	519	-
		85	-	-	643	-
0,60	0	90	245	317	395	512
		85	303	393	490	634
0,90	0	90	198	257	308	399
		85	246	318	382	494
1,20	0	90	167	216	260	336
		85	207	268	322	416
2,10	0	90	114	-	178	-
		85	141	-	220	-

irritecTape 29 mm						
Flow rate lph	S %	E.U.%	Spacing (cm)			
			10	15	20	30
0,30	0	90	-	-	722	-
		85	-	-	895	-
0,40	0	90	-	-	646	-
		85	-	-	800	-
0,60	0	90	307	397	492	637
		85	380	492	609	789
0,90	0	90	247	320	384	497
		85	306	396	475	615
1,20	0	90	208	269	323	418
		85	258	333	400	518
2,10	0	90	142	-	221	-
		85	176	-	274	-

S= slope - E.U.= emission uniformity • Inbound pressure= 0,7 bar

For fittings and connection valves see page 53



LIGHT DRIPLINE WITH FLAT DRIPPER

The light dripline with flat dripper, thanks to the vast range of thicknesses and flow rates available allow seasonal and multi-seasonal use. The flat dripper guarantees extremely low localised load loss, with the possibility of creating very long driplines for each of the multiple diameters available.

Characteristics and advantages:

- The vast range of thicknesses available allow its many years of use in the presence of insects on the land and good resistance to abrasion
- The particular design of the labyrinths reduce pressure sensitivity and increases the self-cleaning effect thanks to the level of turbulence developed.
- Very long driplines can be created for each of the multiple diameters available
- The excellent uniformity performance and the possible combination of low flow rates of the dripper with vast diameters (up to 29 mm) allows very long branches to be laid.
- The integrated filter avoids clogging phenomena occurring
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas
- The presence of the particular Flap system inserted inside allows its use in sub-irrigation
- The vast availability of the spacings allows application not only on vegetable crops in the open field, but also fruit crops, for emergency and grafting irrigation.



LIGHT DRIPLINE WITH FLAT DRIPPER

Product types available

Product	Nominal internal Ø	Packaging type	Thickness
-	mm	inch	mil
P1 SMALL	12	1/2	standard 6-8-12-15-24-35
P1	16	5/8	standard 5-6-7-8-10-12-15-18-24
			medium 6-7-8-10-12-15-18
			small 6-7-8-10-12-15-18
P1 ULTRA	22	7/8	standard 6-7-8-10-12-15-18-24
P1 MAXI	25	1	standard 10-12-15
P1 EXTRA	29	1 1/8	standard 10-12



THE LEGENDARY
IRRITEC DRIPLINE!

Examples of dripper



2,10 lph



Field of application



Open field crops



Crops protected underground



New

Product types available

Product	Nominal internal Ø	Packaging type	Thickness
-	mm	inch	mil
P5	16	5/8	standard 6-7-8-10-12-15-18-24
			medium 6-7-8-10-12-15-18
			small 6-7-8-10-12-15-18
P5 ULTRA	22	7/8	standard 6-7-8-10-12-15-18-24
P5 MAXI	25	1	standard 10-12-15
P5 EXTRA	29	1 1/8	standard 10-12



LABYRINTH WITH
LARGE PASSAGE

Examples of dripper



2,10 lph

Field of application



Open field crops



Crops protected underground



P1

LIGHT DRIPLINE WITH FLAT DRIPPER

P1 is the light dripline with flat dripper ideal for spacings over 20 cm. The flat dripper guarantees extremely reduced localised load loss, with resulting supply uniformity for the entire length of the dripline and, with the same uniformity, longer lengths.

Characteristics and advantages

- Of the light driplines, it is the ideal solution for spacings over 20 cm.
- The vast range of thicknesses and capacities available allow seasonal and multi-seasonal use, and also in the presence of stones and insects on the land.
- The particular design of the labyrinths reduce pressure sensitivity and increases the self-cleaning effect thanks to the level of turbulence.
- The flat dripper guarantees extremely low localised load losses, with resulting supply uniformity for the entire length of the line.
- The excellent uniformity performance and the possible combination of low flow rates of the dripper with vast diameters (up to 29 mm) allows very long branches to be laid.
- The integrated filter avoids clogging phenomena occurring.
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.
- The presence of the particular Flap system inserted inside allows its use in sub-irrigation.

Field of application (cf. page 3)



Open field crops



Crops protected underground



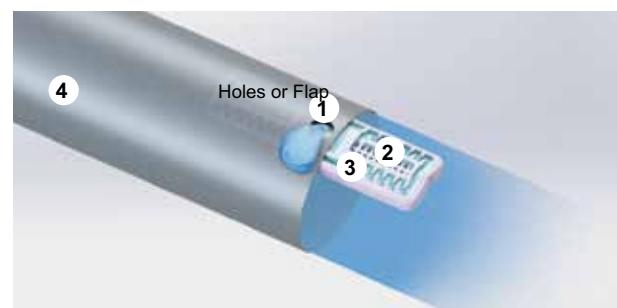
P1 - Dripline technical data

Nominal internal Ø mm	Internal diameter inch	External diameter mm	Pricelist ref.	Thickness mil	Thickness mm	Max working pressure bar	Max working pressure psi	kd
12 P1 SMALL	1/2	11,8	FNFB06	6	0,150	0,70	11,60	0,22
			FNFB08	8	0,200	0,90	16,00	
			FNFB12	12	0,300	1,30	24,70	
			FNFB15	15	0,400	1,60	29,00	
			FNFB24	24	0,600	2,50	36,00	
			FNFB35	35	0,900	3,00	43,50	
16 P1	5/8	16,1	FNFC05	5	0,125	0,50	7,30	0,10
			FNFY06	6	0,150	0,60	8,70	
			FNFW07	7	0,180	0,70	10,15	
			FNFJ08	8	0,200	0,80	11,60	
			FNFI10	10	0,250	1,00	14,50	
			FNFL12	12	0,300	1,20	17,40	
			FNFM15	15	0,400	1,50	21,75	
			FNFN18	18	0,450	1,70	24,70	
			FNFO24	24	0,600	2,00	29,00	
22 P1 ULTRA	7/8	22,3	FNZX06	6	0,150	0,50	7,30	0,09
			FNZE07	7	0,177	0,60	8,70	
			FNZK08	8	0,200	0,70	10,15	
			FNZQ10	10	0,250	0,90	13,00	
			FNZR12	12	0,300	1,00	14,50	
			FNZS15	15	0,400	1,20	17,40	
			FNZT18	18	0,450	1,50	21,75	
			FNZU24	24	0,600	1,70	24,70	
			FNFF10	10	0,250	0,80	11,60	
P1 MAXI	1	25,1	FNFF12	12	0,300	0,90	13,00	0,08
			FNFF15	15	0,380	1,10	16,00	
P1 EXTRA	1 1/8	28,6	FNVH10	10	0,250	0,70	10,15	0,07
			FNVH12	12	0,300	0,80	11,60	

*not certified product



P1 Dripline



1 - Round Outlet
2 - Inlet filter with vast filtering surface
3 - Turbulent flow labyrinth with low pressure sensitivity
4 - Polyethylene tube



P1 - Dripper characteristics

Actual flow rate lph a 1,0 bar / 14,5 psi	Colour	Flow rate lph		Dimensions of labyrinth in mm			Inlet filter		Recommended filtering	Flow Equation		CV
		a 0,7 bar / 10 psi	Height	Width	Height	Area mm ²	No. holes	Mesh		k	x	
0,60	BLUE	0,50	0,45	0,45	40	6,0	20	155	0,19	0,48	≤ 2,5	
0,80	PINK	0,66	0,45	0,50	40	6,3	20	155	0,26	0,48	≤ 2,5	
1,10	PINK	0,92	0,60	0,55	40	7,0	20	155	0,38	0,48	≤ 2,5	
1,50	YELLOW	1,20	0,65	0,65	40	7,0	20	155	0,51	0,48	≤ 2,5	
2,10	LIGHT BLUE	1,75	0,78	0,70	40	7,6	20	120	0,69	0,48	≤ 2,5	

Available flow rates

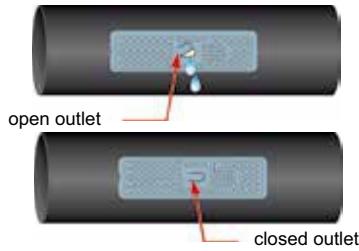
0,60 lph
BLUE

1,10 lph
PINK

2,10 lph
LIGHT BLUE

0,80 lph
GREEN

1,50 lph
YELLOW



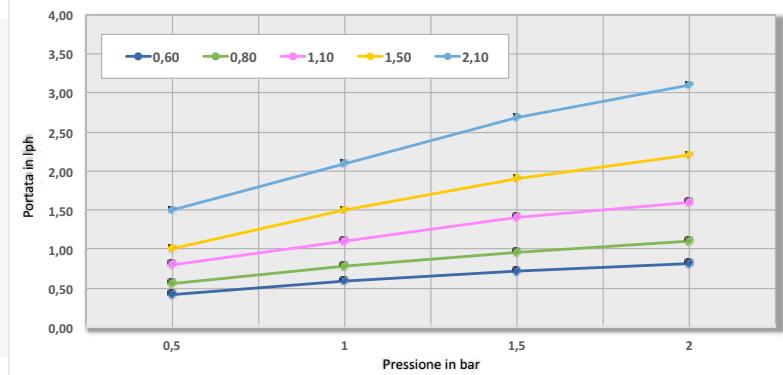
Protected flow

The protected flow system devised by the Irritec® research and development department allows the P1® to be buried in the soil without problems caused by aspiration of mud and detritus, and reduces the risk of root intrusion to a minimum. The system works through a "flap" obtained with a particularly worked emission hole. During the irrigation cycle, the door rises and guarantees a regular water output, at the end of the irrigation cycle, the door returns to the rest position, closing the emission hole and, as a result, blocking any sludge and dirt infiltrations.

Available on P1® 6-8 mil and P1® ULTRA 10-12 and 15 mil, in the flow rates 0.6-0.80-1.10-1.50-2.10

P1 - Pressure - flow rate ratio

Actual flow rate (lph) a 1,0 bar / 14,5 psi	Pressure (bar)					
	0,5	0,7	1,0	1,2	1,5	2,0
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



P1 - Lengths recommended in metres, based on E.U.

P1 12 mm SMALL						
Q lph	E.U. %	Spacing (cm)				
		20	30	40	50	60
0,60	90	121	157	189	218	245
	85	149	194	234	270	304
0,80	90	99	129	156	180	202
	85	123	160	193	223	250
1,10	90	80	105	126	146	164
	85	99	129	156	180	202
1,50	90	66	86	104	120	135
	85	82	107	128	148	167
2,10	90	55	71	86	99	111
	85	68	88	106	122	137

P1 16 mm						
Q lph	E.U. %	Spacing (cm)				
		20	30	40	50	60
0,60	90	210	272	326	376	423
	85	260	336	404	465	523
0,80	90	172	223	268	309	346
	85	214	276	332	383	430
1,10	90	140	181	218	251	282
	85	173	224	269	311	349
1,50	90	117	151	181	209	234
	85	144	186	224	258	290
2,10	90	96	124	149	172	193
	85	119	154	185	213	239

P1 22 mm ULTRA						
Q lph	E.U. %	Spacing (cm)				
		20	30	40	50	60
0,60	90	368	477	573	660	742
	85	456	590	709	817	918
0,80	90	302	391	470	542	608
	85	375	485	582	671	754
1,10	90	244	316	379	437	491
	85	302	391	469	541	608
1,50	90	203	263	315	363	408
	85	251	325	390	449	505
2,10	90	167	217	260	300	337
	85	207	268	322	371	416

P1 25 mm MAXI						
Q lph	E.U. %	Spacing (cm)				
		20	30	40	50	60
0,60	90	455	589	708	816	916
	85	563	729	875	1009	1133
0,80	90	373	483	580	669	751
	85	462	599	719	829	931
1,10	90	304	393	472	544	611
	85	376	486	584	673	756
1,50	90	252	327	392	452	508
	85	312	404	485	559	628
2,10	90	208	270	324	373	419
	85	257	333	400	461	518

P1 29 mm EXTRA						
Q lph	E.U. %	Spacing (cm)				
		20	30	40	50	60
0,60	90	566	733	880	1015	1140
	85	700	907	1089	1256	1410
0,80	90	465	601	722	833	935
	85	576	746	895	1032	1159
1,10	90	378	489	588	677	761
	85	467	605	727	838	941
1,50	90	314	407	488	563	632
	85	388	503	604	696	782
2,10	90	259	335	403	464	522
	85	320	415	498	574	645

E.U.= emission uniformity

• Inbound pressure= 1,0 bar

For fittings and connection valves see page 53

For specific boxing - packaging see page 59



P5

LIGHT DRIPLINE WITH FLAT DRIPPER AND LONG LABYRINTH

The P5 is the light dripline with flat dripper and long labyrinth.

Thanks to the larger labyrinth section, it is ideal in the event of difficult water. It also offers a vast range of spacings over 60 cm and is indicated for high flow rates and in the cases in which large volumes of water are necessary in a short time.

Characteristics and advantages

- Maintains all the excellent characteristics of the dripline P1.
- The long labyrinth guarantees high performance in terms of supply uniformity.
- The larger labyrinth section makes it ideal in the event of difficult water.
- It also offers a vast range of spacings over 60 cm and is indicated for high flow rates and in the cases in which large volumes of water are necessary in a short time.
- The vast availability of the spacings allows application not only on vegetable crops in the open field, but also fruit crops, for emergency and grafting irrigation.
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.
- The excellent uniformity performance and the possible combination of low flow rates of the dripper with vast diameters (up to 29 mm) allows very long branches to be laid.
- The particular design of the labyrinths reduce pressure sensitivity and increases the self-cleaning effect thanks to the level of turbulence developed.

Field of application (cf. page 3)



Open field crops



Crops protected underground



P5 - Dripline technical data

Nominal internal Ø	Internal diameter	External diameter	Pricelist ref.	Thickness	Max working pressure bar	kd
mm	inch	mm		mil mm	psi	-
16 P5	5/8	16,1	FNPC06	6 0,150	0,60	8,70
			FNPC07	7 0,180	0,70	10,15
			FNPC08	8 0,200	0,80	11,60
			FNPC10	10 0,250	1,00	14,50
			FNPC12	12 0,300	1,20	17,40
			FNPC15	15 0,400	1,50	21,75
			FNPC18	18 0,450	1,70	24,70
			FNPC24	24 0,600	2,00	29,00
			FNPE06	6 0,150	0,50	7,30
22 P5 ULTRA	7/8	22,3	FNPE07	7 0,177	0,60	8,70
			FNPE08	8 0,200	0,70	10,15
			FNPE10	10 0,250	0,90	13,00
			FNPE12	12 0,300	1,00	14,50
			FNPE15	15 0,400	1,20	17,40
			FNPE18	18 0,450	1,50	21,75
			FNPE24	24 0,600	1,70	24,70
			FNPF10	10 0,250	0,80	11,60
			FNPF12	12 0,300	0,90	13,00
25 P5 MAXI	1	25,1	FNPF15	15 0,380	1,10	16,00
			FNPV10	10 0,250	0,70	10,15
			FNPV12	12 0,300	0,80	11,60
29 P5 EXTRA	1 1/8	28,6				0,08



P5 dripline



LABYRINTH WITH LARGE PASSAGE

1 - Round Outlet Holes or Flap

2 - Inlet filter with vast filtering surface

3 - Turbulent flow labyrinth with low pressure sensitivity

4 - Polyethylene tube



P5 - Dripper characteristics

LABYRINTH WITH
LARGE PASSAGE

Actual flow rate a 1,0 bar/14,5 psi	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Recommended filtering		CV %
	Height	Width	Height	Area mm ²	No. holes	k	x	mesh		
1,10	0,60	0,55	78	5,8	8	0,37	0,48	155	≤ 2,5	
1,50	0,65	0,65	78	5,8	8	0,46	0,52	155	≤ 2,5	
2,10	0,78	0,70	78	7,5	8	0,68	0,52	120	≤ 2,5	
2,80	0,80	0,95	78	7,5	8	0,93	0,48	120	≤ 2,5	
3,80	1,05	0,95	78	8,1	8	1,26	0,48	120	≤ 2,5	

Available flow rates



1,10 lph - PINK



1,50 lph - YELLOW



2,10 lph - LIGHT BLUE



2,80 lph - BROWN



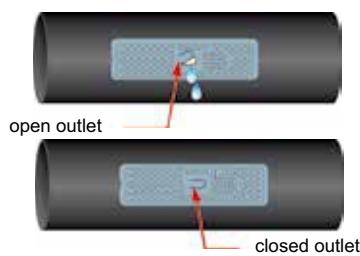
3,80 lph - BEIGE



Protected flow

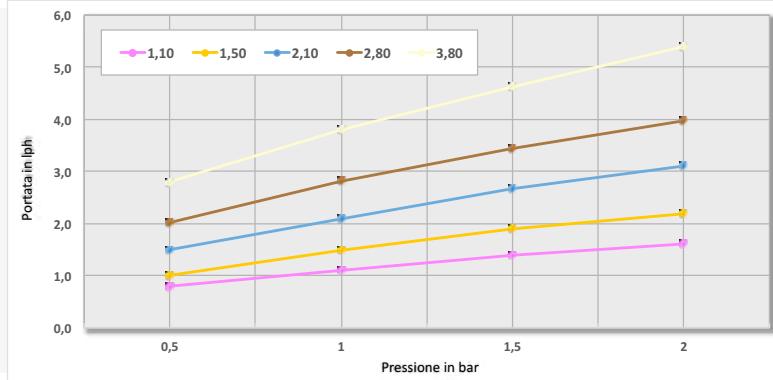
The protected flow system devised by the Irritec® research and development department allows the P5™ to be buried in the soil without problems caused by aspiration of mud and detritus, and reduces the risk of root intrusion to a minimum. The system works through a "flap" obtained with a particularly worked emission hole. During the irrigation cycle, the door rises and guarantees a regular water output, at the end of the irrigation cycle, the door returns to the rest position, closing the emission hole and, as a result, blocking any sludge and dirt infiltrations.

Available on P5™ 6-8 mil and P5™ ULTRA 1012 and 15 mil, in the flow rates 1.10-1.50-2.10-2.80-3.80



P5 - Pressure - flow rate ratio

Actual flow rate (lph) a 1,0 bar / 14,5 psi	Pressure (bar)					
	0,5	0,7	1,0	1,2	1,5	2,0
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
2,80	1,99	2,32	2,76	3,01	3,35	3,88
3,80	2,73	3,20	3,81	4,15	4,60	5,30



P5 - Lengths recommended in metres, based on E.U.

P5 16 mm							
Q lph	E.U. %	Spacing (cm)					
		20	30	40	50	60	75
1,10	90	143	185	222	256	287	331
	85	176	228	274	316	355	409
1,50	90	115	148	178	205	230	266
	85	142	184	221	254	286	329
2,10	90	93	121	145	167	188	217
	85	116	150	180	207	233	268
2,80	90	79	102	122	141	158	183
	85	97	126	151	174	196	226
3,80	90	65	85	102	117	131	151
	85	81	104	125	145	162	187

P5 22 mm ULTRA							
Q lph	E.U. %	Spacing (cm)					
		20	30	40	50	60	75
1,10	90	250	324	389	449	504	580
	85	309	401	481	555	623	718
1,50	90	201	260	312	360	404	466
	85	249	322	387	446	501	578
2,10	90	164	212	255	294	330	380
	85	203	263	316	364	409	471
2,80	90	137	177	213	246	276	318
	85	169	219	264	304	341	393
3,80	90	115	148	178	205	231	266
	85	142	183	220	254	285	328

P5 25 mm MAXI							
Q lph	E.U. %	Spacing (cm)					
		20	30	40	50	60	75
1,10	90	313	406	487	561	631	725
	85	387	501	602	694	779	899
1,50	90	248	321	386	445	499	575
	85	308	398	478	552	619	714
2,10	90	201	261	313	361	406	467
	85	249	323	388	447	502	579
2,80	90	170	221	265	306	343	395
	85	211	273	328	378	425	490
3,80	90	142	184	220	254	286	329
	85	175	227	272	314	353	406

P5 29 mm EXTRA							
Q lph	E.U. %	Spacing (cm)					
		20	30	40	50	60	75
1,10	90	385	499	599	699	785	905
	85	482	624	749	864	970	1118
1,50	90	309	400	480	554	622	716
	85	383	496	596	687	771	889
2,10	90	251	325	390	450	505	582
	85	311	402	483	557	626	721
2,80	90	212	275	330	381	427	493
	85	263	340	409	471	529	610
3,80	90	177	228	275	316	355	410
	85	218	282	339	391	439	506

E.U.= emission uniformity

* Inbound pressure= 1,0 bar

For fittings and connection valves see page 53

For specific boxing - packaging see page 59



Classic dripline
diameters!

CLASSIC DRIPLINE WITH FLAT DRIPPER

The classic dripline with flat dripper is ideal for orchards and perfect for perennial crops. Available with a compact dripper, with little load loss, benefiting uniformity and the maximum lengths, and with a large dripper with long labyrinth path which allows better pressure control.

Characteristics and advantages:

- Ideal for orchards and perfect for perennial crops
- The particular design of the flat dripper allows excellent uniformity
- The particular design of the labyrinths reduce pressure sensitivity and increases the self-cleaning effect thanks to the level of turbulence developed.
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.
- Reduced sensitivity of the flow rate as pressure varies



WITH FLAT DRIPPER

Product types available

Product	Nominal external Ø	Packaging type	Thickness
-	mm	roll	mil
D5	16	standard	24-35-40
	20	standard	35



Examples of dripper



2,10 lph



Product types available

Product	Nominal external Ø	Packaging type	Thickness
-	mm	reel	mil
M5	16	standard	24-35
	20	standard	35



Field of application



New
long dripper

CLASSIC DRIPLINE WITH FLAT DRIPPER AND LONG LABYRINTH

Product types available

Product	Nominal external Ø	Packaging type	Thickness
-	mm	roll	mil
D7	16	standard	30-35-40
	20	standard	35-40-44-47
	23	standard	47
	25	standard	47



Examples of dripper



2,10 lph

Field of application





D5 - M5

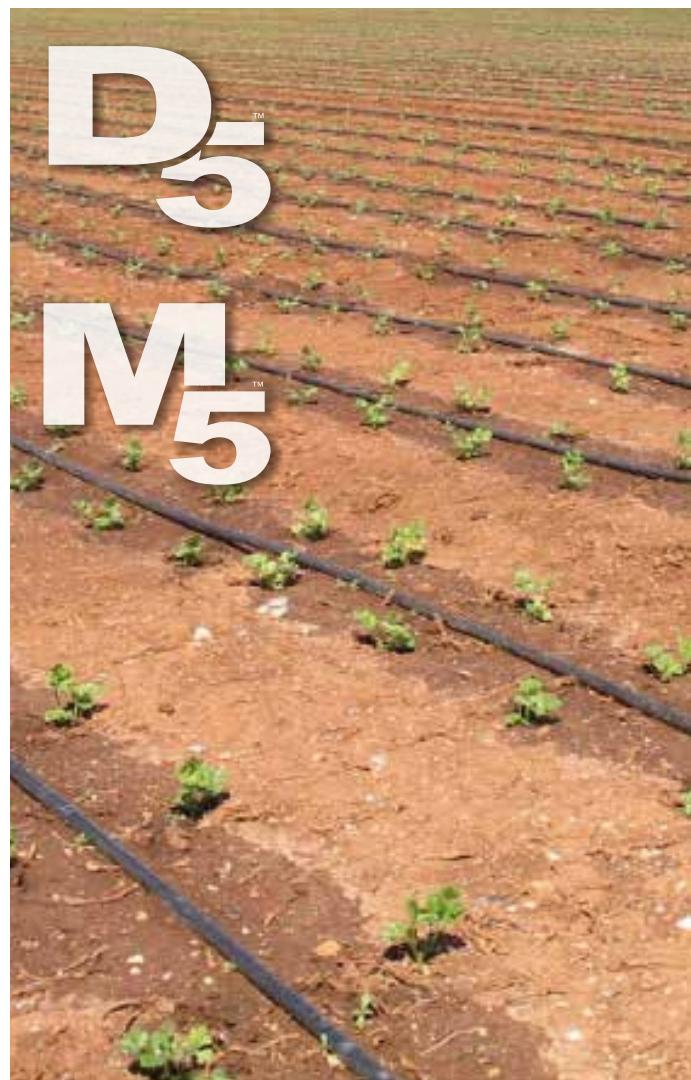
CLASSIC DRIPLINE WITH FLAT DRIPPER

The classic dripline with flat dripper D5 (version in rolls) - M5 (version on reels) is ideal for orchards and application of perennial crops. The particular design of the flat dripper allows excellent uniformity. Furthermore, the particular design of the labyrinth considerably reduces pressure and increases the self-cleaning effect thanks to the higher level of turbulence developed.

Characteristics and advantages

- Heavy dripline with very low localised load losses due to the particular design of the dripper.
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.
- The excellent uniformity performance and the possible combination of low flow rates of the dripper with vast diameters (up to 29 mm) allows very long branches to be laid.
- D5 is produced on rolls.
- M5 is produced on reels.

Product certified
according to
ISO 9261



Field of application (cf. page 3)



Ideal for
perennial crops!



D5 - Dripline technical data

Nominal external Ø	Internal diameter	External diameter	Pricelist ref.	Thickness	Max working pressure		Kd	
mm	mm	mm		mil	mm	bar	PSI	-
16	13,8	15,0	FAFA24	24	0,60	2,0	29	0,11
		15,6	FAFA35	35	0,90	3,0	43	
		15,8	FAFA40	40	1,00	3,5	51	
20	17,7	19,5	FAFB35	35	0,90	3,0	43	0,09

M5 - Dripline technical data

Nominal external Ø	Internal diameter	External diameter	Pricelist ref.	Thickness	Max working pressure		Kd	
mm	mm	mm		mil	mm	bar	PSI	-
16	13,8	15,0	FAEA24	24	0,60	2,0	29	0,11
20	17,7	19,5	FAEB35	35	0,90	3,0	43	0,09

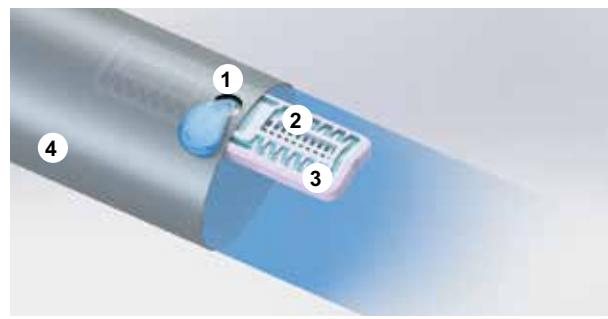




D5 / M5 - Dripper characteristics

Actual flow rate lph a 1,0 bar/14,5 psi	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Recommended filtering mesh	CV %
	Height	Width	Height	Area mm ²	No. holes	k	x		
1,10	0,60	0,55	78	7,0	8	0,38	0,48	155	≤ 2,5
1,50	0,65	0,65	78	7,0	8	0,51	0,48	155	≤ 2,5
2,10	0,78	0,70	78	7,6	8	0,69	0,48	120	≤ 2,5
2,80	0,80	0,95	78	7,5	8	0,93	0,48	120	≤ 2,5
3,80	1,05	0,95	78	8,1	8	1,26	0,48	100	≤ 2,5

D5 / M5 dripline



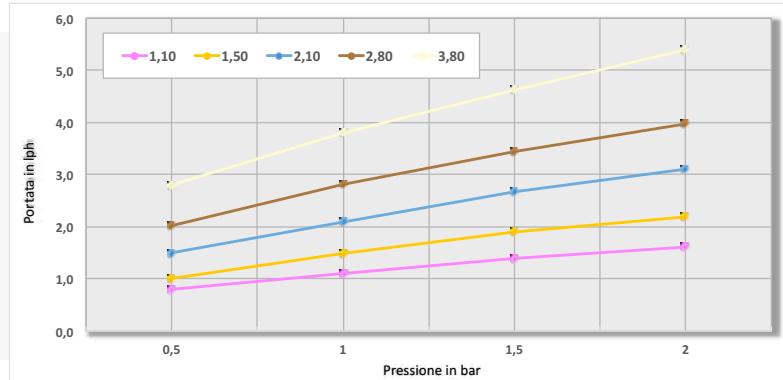
- 1 - Outlet holes
- 2 - Inlet filter with vast filtering surface
- 3 - Turbulent flow labyrinth with low pressure sensitivity
- 4 - Polyethylene tube

Available flow rates



D5 / M5 - Pressure - flow rate ratio

Actual flow rate lph a 1,0 bar / 14,5 psi	Pressure (bar)					
	0,5	0,7	1,0	1,2	1,5	2,0
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
2,80	2,01	2,38	2,82	3,06	3,45	3,98
3,80	2,80	3,20	3,81	4,15	4,62	5,40



D5 / M5 - Lengths recommended in metres, based on E.U.

Flow rate lph	S %	E.U.%	D5 16 mm							
			10	20	30	40	50	60	75	100
1,10	0	90	67	108	140	168	194	217	250	301
		85	83	133	173	207	239	269	310	372
1,50	0	90	55	87	112	135	155	174	201	241
		85	68	107	139	167	193	216	249	299
2,10	0	90	44	71	91	110	126	142	163	196
		85	54	87	113	136	156	175	202	243
2,80	0	90	37	60	77	93	107	120	138	166
		85	46	74	95	115	132	148	171	205
3,80	0	90	31	50	64	77	89	100	115	138
		85	38	61	79	95	110	123	142	171

S= slope - E.U.= emission uniformity

• Inbound pressure= 1,0 bar

Flow rate lph	S %	E.U.%	D5 20 mm							
			10	20	30	40	50	60	75	100
1,10	0	90	103	163	212	256	295	332	383	460
		85	127	201	262	316	365	410	473	569
1,50	0	90	84	133	173	209	241	271	313	376
		85	104	165	215	259	299	336	387	466
2,10	0	90	68	107	139	167	193	217	251	301
		85	84	132	172	207	239	269	310	373
2,80	0	90	57	91	118	142	164	184	212	255
		85	71	112	146	175	203	228	263	316
3,80	0	90	48	75	98	118	136	153	176	212
		85	59	93	121	146	168	189	218	262

For fittings and connection valves see page 53
For specific boxing - packaging see page 59



D7

CLASSIC DRIPLINE WITH FLAT DRIPPER AND LONG LABYRINTH

D7, the classic dripline with flat dripper and long labyrinth, thanks to the innovative, medium sized flat dripper, boasts an extended filtering surface, which combined with the turbulent labyrinth with large passage sections, making it usable with water very full of solid particles.

Characteristics and advantages

- Ideal for orchards. Perfect for perennial crops with very long branches.
- The innovative, medium sized flat dripper, boasts an extended filtering surface, which thanks to the turbulent labyrinth with large passage sections, makes it usable with water very full of solid particles. This guarantees a compact morphology and ensures maximum uniformity, even when very long branches have to be laid.
- The design of the dripper causes minor load losses, benefiting the uniformity and maximum lengths.
- The excellent uniformity performance and the possible combination of low flow rates of the dripper with vast diameters (up to 25 mm) allows very long branches to be laid.
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.
- The long path of the labyrinth allows better pressure control.
- Reduced sensitivity of the flow rate as pressure varies.

Field of application (cf. page 3)

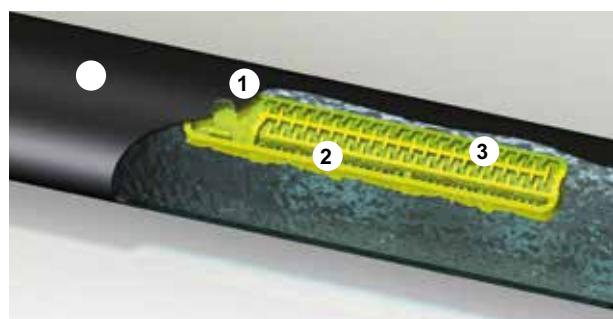


D7 - Dripline technical data

Nominal external Ø	Internal diameter	External diameter	Pricelist ref.	Thickness	Pressure max. di lavoro			Kd
mm	mm	mm		mil	mm	bar	psi	-
16	13,8	15,3	FAGA30	30	0,75	2,5	36	0,4
		15,6	FAGA35	35	0,90	3,0	43	
		15,8	FAGA40	40	1,00	4,0	58	
20	17,7	19,5	FAGB35	35	0,90	3,0	43	0,1
		19,7	FAGB40	40	1,00	3,5	51	
		19,9	FAGB44	44	1,10	3,5	51	
		20,1	FAGB47	47	1,20	4,0	58	
23	20,8	23,2	FAGH47	47	1,20	3,5	51	0,09
25	22,6	25,0	FAGF47	47	1,20	3,0	43	0,08



D7 dripline



1 - Outlet holes

2 - Inlet filter with vast filtering surface

3 - Turbulent flow labyrinth with low pressure sensitivity

4 - Polyethylene tube



D7 - Dripper characteristics

Actual flow rate lph a 1,0 bar / 14,5 psi	Colour	Dimensions of labyrinth in mm			Inlet filter		Recommended filtering		Flow Equation		CV %
		Height	Width	Height	area mm ²	No. holes	Mesh	k	x		
1,1	PINK	0,8	0,60	39	11,1	38	150	0,37	0,48	2,5	
1,5	YELLOW	0,9	0,70	39	12,8	38	120	0,50	0,48	2,5	
2,1	LIGHT BLUE	1,1	0,85	39	14,5	38	120	0,71	0,47	2,5	
3,8	GREEN	1,1	1,20	39	15,6	38	100	1,27	0,48	2,5	

Available flow rates



1,1 lph - PINK



1,5 lph - YELLOW



2,1 lph - LIGHT BLUE

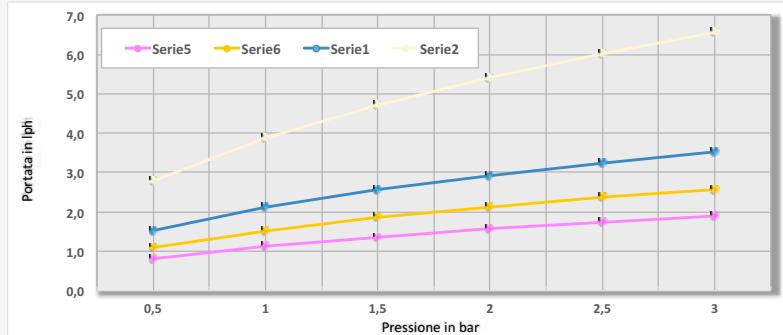


3,8 lph - GREEN



D7 - Pressure - flow rate ratio

Actual flow rate lph a 1,0 bar / 14,5 psi	Pressure bar					
	0,5	1,0	1,5	2,0	2,5	3
1,1	0,81	1,13	1,37	1,57	1,75	1,91
1,5	1,09	1,52	1,85	2,13	2,37	2,58
2,1	1,53	2,11	2,56	2,93	3,25	3,54
3,8	2,76	3,74	4,51	5,09	5,66	6,16



D7 - Lengths recommended in metres, based on E.U.

Flow rate lph	E.U.%	D7 16 mm					
		20	30	40	50	60	75
1,1	90	108	140	169	195	219	253
	85	133	173	209	241	271	312
1,5	90	89	116	139	161	181	209
	85	110	143	172	199	224	258
2,1	90	73	95	114	132	148	171
	85	90	117	141	163	183	221
3,8	90	49	64	77	89	100	115
	85	61	79	95	110	124	143

Flow rate lph	E.U.%	D7 20 mm					
		20	30	40	50	60	75
1,1	90	167	217	261	300	338	389
	85	206	268	322	371	417	481
1,5	90	138	179	215	248	279	322
	85	170	221	266	307	345	397
2,1	90	113	146	176	203	228	263
	85	139	180	217	250	281	324
3,8	90	76	98	118	137	154	177
	85	93	121	146	169	190	219

E.U.= emission uniformity

• Slope=0%



CLASSIC DRIPLINE WITH CYLINDRICAL DRIPPER

The classic dripline with cylindrical dripper is characterised by an outlet with four emission holes located in the opposite position which prevent intake of impurities and simplify laying. The inlet filter of the dripper substantially reduces the risk of clogging caused by the use of "difficult" to filter water. The flow points of the dripper allow quick and easy installation without the need to check the position of the flow points and ensure complete emptying of the hose at the end of the irrigation cycle.

Tandem™

With four emission holes!

CLASSIC DRIPLINE WITH CYLINDRICAL DRIPPER

Product types available

Product	Nominal external Ø mm	Packaging type roll	Thickness mil
Tandem	16	standard	35-44
	20	standard	35-47

Product certified
according to
ISO 9261



Examples of dripper



2,10 LPH

Field of application



Tree and
orchard
crops



Vineyards



Hedges, trees
and flowerbeds



Crops
protected
underground



Nurseries



Olive
groves

Junior™

Small dripper, minimum
load loss

CLASSIC DRIPLINE WITH COMPACT CYLINDRICAL DRIPPER

Product types available

Product	Nominal external Ø mm	Packaging type roll	Thickness mil
Junior	16	standard	35-44
	20	standard	35-47

Product certified
according to
ISO 9261



Examples of dripper



2,10 LPH

Field of application



Tree and
orchard
crops



Vineyards



Hedges, trees
and flowerbeds



Crops
protected
underground



Nurseries



Olive
groves



TANDEM®

CLASSIC DRIPLINE WITH CYLINDRICAL DRIPPER

Tandem is the classic dripline with cylindrical dripper by Irritec. The dripper with double perforation enables an increase in the irrigated surface. The four emission holes located in the opposite position prevent intake of impurities, for simple laying.

Characteristics and advantages

- The double perforation of the dripper guarantees an increase in irrigated surface with resulting reduced percolation
- Dripline with four emission holes in the opposite position (valid for all cylinders) which prevent intake of impurities, for simple laying.
- The self-cleaning turbulent flow dripper prevents the formation of sediments within the labyrinth;
- The inlet filter of the dripper substantially reduces the risk of clogging caused by the use of "difficult" water.
- The flow points of the dripper allow quick and easy installation without the need to check the position of the flow points and ensure complete emptying of the hose at the end of the irrigation cycle.

Product certified
according to
ISO 9261



Field of application (cf. page 3)



Thanks to the **double perforation**, the irrigated surface increases!



TANDEM dripline



1 - Outlet holes
2 - Inlet filter with vast filtering surface
3 - Turbulent flow labyrinth with low pressure sensitivity
4 - Polyethylene tube



Tandem - Dripline technical data

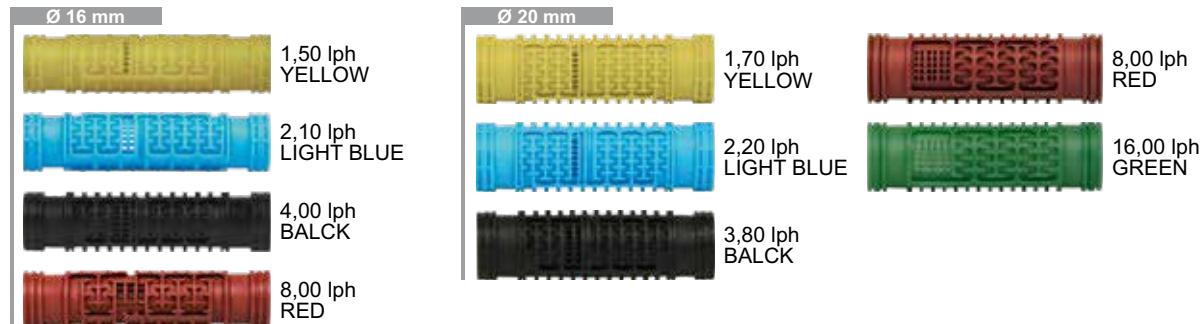
Nominal diameter mm	Internal diameter mm	External diameter mm	Pricelist ref. -	Thickness		Max working pressure		Kd -
				mil	mm	bar	psi	
16	13,8	15,6	FATA35	35	0,90	3,0	43	0,55
		16,0	FATA44	44	1,10	4,0	58	
20	17,7	19,5	FATB35	35	0,90	3,0	43	0,30
		20,1	FATB47	47	1,20	4,0	58	



Tandem - Dripper characteristics

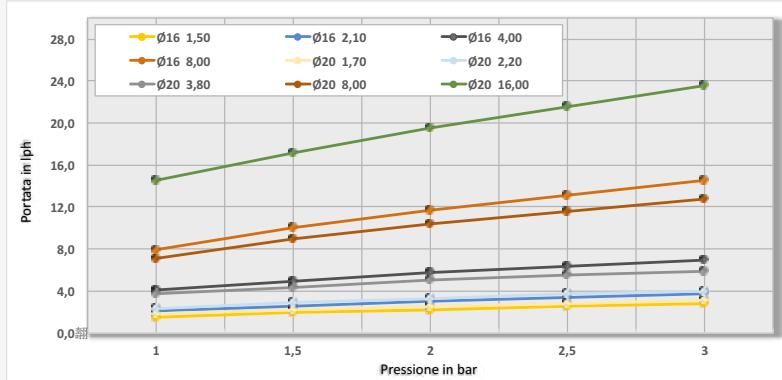
Nominal diameter mm	Nominal flow rate lph a 1,0 bar	Actual flow rate lph a 1,0 bar	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Recommended filtering mesh	CV %
			Height	Width	Height	Area mm²	No. holes	k	x		
16	1,50	1,60	240	1,25	0,85	5	7	0,43	0,55	150	≤ 3
	2,10	2,10	240	1,35	1,00	10	10	0,69	0,50	120	≤ 3
	4,00	4,00	200	1,30	1,30	10	10	1,32	0,49	100	≤ 3
	8,00	7,80	140	1,90	1,40	34	24	2,48	0,51	100	≤ 3
20	1,70	1,70	320	1,30	1,00	10	7	0,56	0,52	150	≤ 3
	2,20	2,30	320	1,20	1,20	10	7	0,80	0,49	120	≤ 3
	3,80	3,80	310	1,40	1,50	19	14	1,20	0,48	100	≤ 3
	8,00	7,00	75	1,40	1,50	30	30	2,35	0,49	100	≤ 3
	16,00	14,00	150	1,40	1,50	60	60	4,94	0,47	100	≤ 3

Available flow rates



Tandem - Pressure - flow rate ratio

Nominal diameter mm	Actual flow rate lph a 1 bar	Pressure (bar)				
		1	1,5	2	2,5	3
16	1,50	1,49	1,90	2,20	2,50	2,80
	2,10	2,10	2,60	3,00	3,40	3,70
	4,00	4,05	4,90	5,70	6,30	6,90
	8,00	7,93	10,00	11,70	13,10	14,50
20	1,70	1,78	2,20	2,50	2,80	3,10
	2,20	2,26	2,90	3,30	3,70	4,00
	3,80	3,73	4,30	5,00	5,50	5,90
	8,00	7,10	9,00	10,40	11,60	12,70
	16,00	14,50	17,10	19,50	21,60	23,60



Tandem - Lengths recommended in metres, based on E.U.

TANDEM 16 mm									
Flow rate lph	E.U.%	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,50	90	65	91	113	134	153	180	221	259
	85	81	113	141	167	191	224	275	321
2,10	90	54	75	94	111	127	149	183	216
	85	67	93	116	137	157	185	227	267
4,00	90	37	51	64	75	86	101	124	114
	85	45	63	79	93	107	125	154	179
8,00	90	24	33	41	48	55	65	80	93
	85	29	40	50	60	68	80	99	115

E.U.= emission uniformity

• Inbound pressure= 1,0 bar • Slope=0

TANDEM 20 mm									
Flow rate lph	E.U.%	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,70	95	52	71	89	104	119	140	171	199
	90	95	131	163	193	220	258	315	368
2,20	85	118	162	202	239	272	319	391	456
	95	44	61	76	89	102	119	145	172
3,80	90	81	111	139	164	187	219	268	316
	85	100	138	171	202	213	271	331	391
8,00	95	34	48	59	70	79	93	114	132
	90	63	87	108	128	146	171	209	243
16,00	95	22	31	38	48	51	60	73	85
	90	41	56	70	82	94	110	134	155

For fittings and connection valves see page 53
For specific boxing - packaging see page 59



JUNIOR™

CLASSIC DRIPLINE WITH COMPACT CYLINDRICAL DRIPPER

Junior is the normal integrated dripline with smaller dripper compared to the Tandem. This leads to minimum load loss, allowing considerable dripline lengths to be implemented. The dripper adjusts the supply flow, guaranteeing excellent irrigation uniformity.

Characteristics and advantages

- Reduced load loss due to compactness of the dripper
- Maintains all the technical characteristics of the tandem dripper
- Also available in a 35 mil version
- Dripline with two emission holes in the opposite position (valid for all cylinders) which prevent intake of impurities, for simple laying
- The flow points of the dripper allow quick and easy installation without the need to check the position of the flow points and ensure complete emptying of the hose at the end of the irrigation cycle.

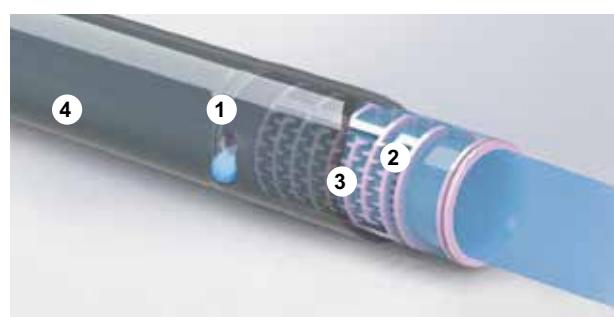
Product certified
according to ISO
9261



Field of application (cf. page 3)



JUNIOR dripline



1 - Outlet holes
2 - Inlet filter with vast filtering surface
3 - Turbulent flow labyrinth with low pressure sensitivity
4 - Polyethylene tube

Junior - Dripline technical data

Nominal diameter	Internal diameter	External diameter	Pricelist ref.	Thickness	Pressure max. di lavoro		Kd	
mm	mm	mm	-	mil	mm	bar	psi	-
16	13,8	15,6	FAJA35	35	0,90	3,0	43	0,25
		16,0	FAJA44	44	1,10	4,0	58	
20	17,7	19,5	FAJB35	35	0,90	3,0	43	0,15
		20,1	FAJB47	47	1,20	4,0	58	



Junior - Dripper characteristics

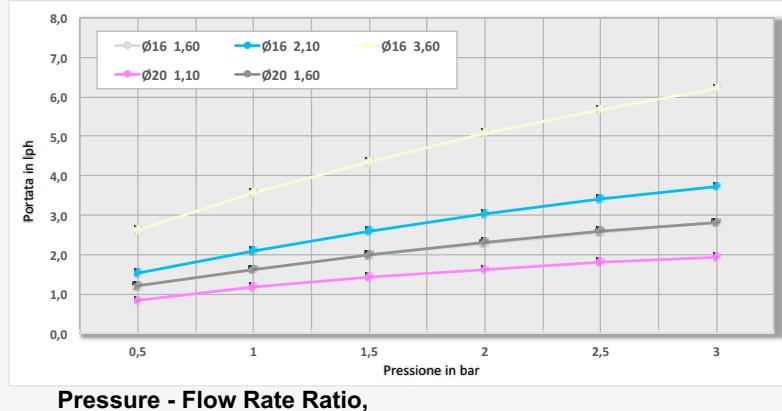
Nominal diameter	Actual flow rate	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Recommended filtering	CV
mm	Iph a 1,0 bar	Height	Width	Height	Area mm ²	No. holes	k	x	mesh	%
16	1,60	0,85	0,8	94	4,3	5	0,57	0,46	155	≤ 3
	2,10	0,90	0,9	70	12,0	20	0,66	0,50	120	≤ 3
	3,60	1,25	1,2	94	6,3	5	1,13	0,50	120	≤ 3
20	1,10	0,90	0,7	120	10,0	16	0,36	0,48	155	≤ 3
	1,60	0,90	0,8	110	6,0	7	0,57	0,46	155	≤ 3

Available flow rates



Junior - according to thickness of the tubing (mil)

Nominal diameter	Actual flow rate	Spes.	Pressure (bar)						
mm	Iph	mil	0,5	1	1,5	2	2,5	3	
16	1,60	35	1,21	1,61	1,98	2,29	2,57	2,81	
		44	1,15	1,52	1,92	2,22	2,50	2,72	
	2,10	35	1,53	2,08	2,58	3,03	3,41	3,73	
		44	1,42	1,98	2,47	2,95	3,30	3,63	
	3,60	35	2,61	3,57	4,35	5,06	5,66	6,22	
		44	2,55	3,51	4,27	4,92	5,50	6,05	
	20	1,10	35	0,84	1,19	1,43	1,63	1,82	1,94
		47	0,77	1,09	1,34	1,52	1,69	1,80	
		35	1,21	1,61	1,98	2,30	2,58	2,82	
		47	1,14	1,51	1,90	2,21	2,49	2,71	



Junior - Lengths recommended in metres, based on E.U.

JUNIOR 16 mm									
Flow rate lph	E.U.%	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,60	90	82	108	131	152	171	198	239	276
	85	102	134	162	187	211	244	294	340
2,10	90	69	91	110	128	144	166	200	231
	85	86	112	136	158	178	206	248	286
3,60	90	49	64	78	90	101	117	141	163
	85	60	79	96	111	125	145	175	202

JUNIOR 20 mm									
Flow rate lph	E.U.%	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,10	90	163	214	258	298	336	388	467	540
	85	201	264	319	369	415	480	578	667
1,60	90	130	170	205	237	267	308	371	425
	85	160	209	253	292	329	380	458	524

E.U.= emission uniformity
• Inbound pressure= 1,0 bar

• Slope=0



CLASSIC DRIPLINE WITH PRESSURE COMPENSATING CYLINDRICAL DRIPPER

The classic dripline with pressure compensating, cylindrical dripper is the ideal solution to irrigate multi-seasonal crops and is suitable for sloped land and irregular topographies. The particular design of the dripper enables efficient compensation of the pressure inside a very ample range.

Ideal for areas
with unlevel land

Characteristics and advantages:

- The dripper pressure compensating system is guaranteed by a silicone membrane which maintains the flow rate constant on varying the working pressure.
- Suitable for sloped ground and irregular topographies.
- The particular design of the dripper enables efficient compensation of the pressure inside a very ample range.
- Perfect dosage of fertilisers in any section of the system.
- Creation of line lengths over 800 metres.
- The Drop Stop version is distinguished by the particular design of the dripper which interrupts the flow at the end of the irrigation cycle, making it particularly suitable for crops requiring short irrigation cycles.
- The version with Anti-Siphon System avoids intake of impurities.

Multibar™ C

CLASSIC DRIPLINE WITH PRESSURE COMPENSATING CYLINDRICAL DRIPPER

Product types available

Product	Nominal external Ø	Packaging type	Thickness
-	mm	roll	mil
Multibar C	16	standard	35-44
	20	standard	35-47

Product certified
according to
ISO 9261



Examples of dripper



2,10 LPH

Field of application



Tree and
orchard
crops



Olive
groves



Vineyards



Nurseries

Multibar™ C a.s. - d.s.

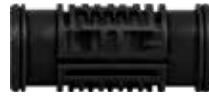
CLASSIC DRIPLINE WITH CYLINDRICAL PRESSURE COMPENSATING AND ANTI-SIPHON AND DROP STOP DRIPPER

Product types available

Product	Nominal external Ø	Packaging type	Thickness
-	mm	roll	mil
Multibar C a.s.-d.s.	16	standard	35-44



Examples of dripper



2,10 LPH

Field of application



Tree and
orchard
crops



Olive
groves



Sub-irrigation



Vineyards



Nurseries



MULTIBAR® C

Product certified
according to
ISO 9261



CLASSIC DRIPLINE WITH PRESSURE COMPENSATING CYLINDRICAL DRIPPER

Multibar C is the classic, pressure compensating dripline ideal for installation in areas with considerably uneven ground, where very long lines are required. Constant flow rates in every section of the system and high supply precision.

Characteristics and advantages

- Ideal for irrigation of multi-seasonal crops.
- The dripper pressure compensating system is guaranteed by a silicone membrane which maintains the flow rate constant on varying the working pressure.
- Suitable for sloped ground and irregular topographies.
- The particular design of the dripper enables efficient compensation of the pressure inside a very ample range.
- Perfect dosage of fertilisers in any section of the system.
- Dripline with two emission holes in the opposite position (valid for all cylinders) which prevent intake of impurities, for simple laying.
- Creation of line lengths over 800 metres.



Field of application (cf. page 3)



Tree and
orchard crops



Vineyards



Olive groves

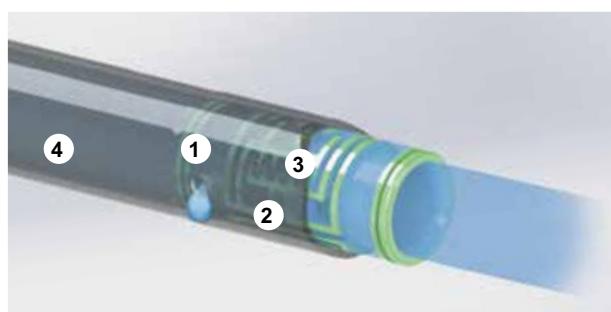


Nurseries

Ideal for areas
with unlevel land



iMULTIBAR C dripline



1 - Outlet holes

2 - Inlet filter with vast filtering surface

3 - Turbulent flow labyrinth with low pressure sensitivity

4 - Polyethylene tube

MULTIBAR C - Dripline technical data

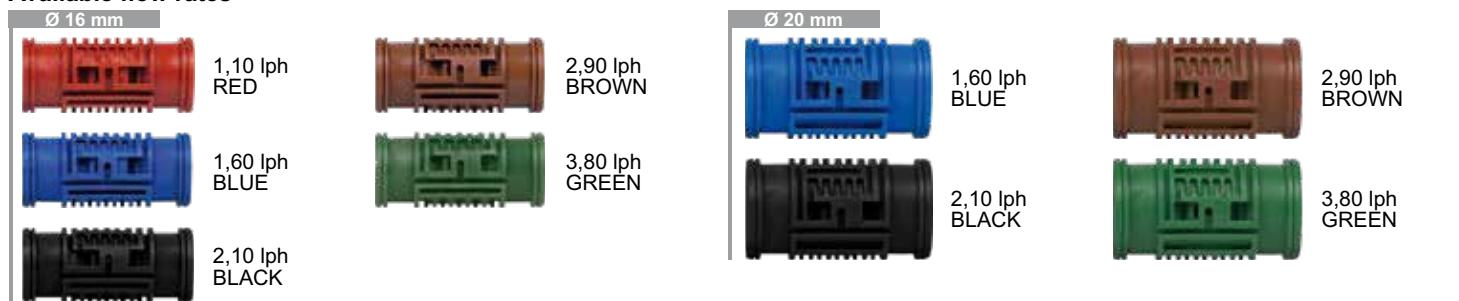
Nominal diameter	Internal diameter	External diameter	Pricelist ref.	Thickness	Max working pressure	Kd		
mm	mm	mm	-	mil	mm	bar	psi	-
16	13,8	15,6	FAMA35	35	0,90	3,0	43	1,00
		16,0	FAMA44	44	1,10	4,0	58	
20	17,7	19,5	FAMB35	35	0,90	3,0	43	0,65
		20,1	FAMB47	47	1,20	4,0	58	



Multibar C - Dripper characteristics

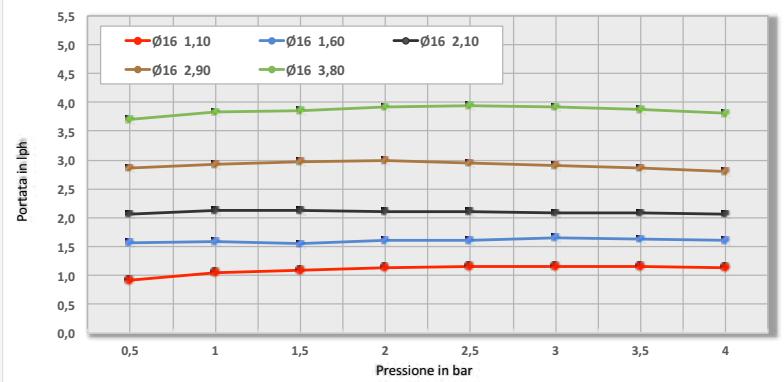
Nominal diameter	Flow rate 44 / 47 mil		Flow rate 35 mil		Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Minimum working pressure	Recommended filtering	CV
mm	Iph a 2,0 bar	Iph a 2,0 bar	Height	Width	Height	Area mm²	No. holes	k	x	bar	psi	mesh	%	
16	1,10	1,30	0,70	0,7	35	3,6	12	0,86	0,035	0,5	7,3	155	≤ 4	
	1,60	1,80	1,00	0,8	35	3,6	12	1,51	0,020	0,5	7,3	155	≤ 4	
	2,10	2,30	1,10	0,8	35	3,6	12	2,06	0,020	0,5	7,3	155	≤ 4	
	2,90	3,20	1,10	0,8	22	3,6	12	2,90	0,025	0,5	7,3	155	≤ 4	
	3,80	4,20	1,30	1,1	35	3,6	12	3,65	0,020	0,5	7,3	155	≤ 4	
20	1,60	1,80	1,10	0,8	42	3,6	12	1,53	0,020	0,5	7,3	155	≤ 4	
	2,10	2,30	1,25	0,8	42	3,6	12	2,10	0,020	0,5	7,3	155	≤ 4	
	2,90	3,20	1,25	0,8	32	3,6	12	2,75	0,027	0,5	7,3	155	≤ 4	
	3,80	4,20	1,25	1,3	42	3,6	12	3,55	0,030	0,5	7,3	155	≤ 4	

Available flow rates



Multibar C - Pressure - flow rate ratio

Nominal diameter	Actual flow rate	Pressure (bar)							
		0,5	1	1,5	2	2,5	3	3,5	4
16	1,10	0,91	1,04	1,08	1,13	1,15	1,15	1,15	1,13
	1,60	1,56	1,58	1,55	1,60	1,62	1,65	1,62	1,60
	2,10	2,05	2,12	2,12	2,10	2,10	2,09	2,08	2,06
	2,90	2,86	2,92	2,96	2,98	2,94	2,91	2,85	2,80
	3,80	3,70	3,84	3,85	3,92	3,94	3,92	3,88	3,81
20	1,60	1,54	1,57	1,61	1,66	1,66	1,64	1,60	1,54
	2,10	2,05	2,10	2,16	2,20	2,16	2,11	2,06	2,02
	2,90	2,78	2,95	3,04	3,03	3,03	3,01	2,96	2,92
	3,80	3,65	3,92	3,85	3,92	3,96	3,97	3,96	3,90



Multibar C - Recommended length in metres, according to the pressure

MULTIBAR C 16 mm									
Flow rate lph	Pres. bar	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,10	1,0	66	95	122	148	172	206	259	308
	2,0	99	142	182	220	256	308	386	459
	3,0	119	171	219	265	309	370	465	552
	4,0	134	193	248	300	349	418	525	624
1,60	1,0	51	73	93	113	131	157	197	236
	2,0	75	108	139	168	195	234	294	351
	3,0	90	130	167	202	235	282	354	423
	4,0	102	146	188	228	265	318	400	478
2,10	1,0	43	62	80	96	112	134	169	200
	2,0	64	92	119	144	167	200	252	299
	3,0	77	111	143	173	201	241	303	359
	4,0	87	125	161	195	227	272	342	406
2,90	1,0	35	50	64	77	90	107	135	160
	2,0	51	74	95	115	133	160	201	238
	3,0	62	89	114	138	160	192	241	287
	4,0	70	100	129	156	181	217	273	324
3,80	1,0	30	42	54	66	76	92	115	136
	2,0	44	63	81	98	114	136	171	203
	3,0	53	76	97	118	137	164	206	244
	4,0	59	85	110	133	154	185	233	276

MULTIBAR C 20 mm									
Flow rate lph	Pres. bar	Spacing (cm)							
		20	30	40	50	60	75	100	125
1,60	1,0	95	133	168	200	229	271	334	391
	2,0	141	198	250	297	342	404	498	583
	3,0	170	238	301	358	411	486	600	702
	4,0	193	271	341	406	467	552	680	792
2,10	1,0	79	110	139	165	190	224	277	325
	2,0	117	165	207	247	284	335	413	484
	3,0	141	198	250	297	342	404	498	583
	4,0	161	227	285	340	391	462	570	659
2,90	1,0	64	90	114	135	155	184	226	266
	2,0	96	134	169	201	232	274	337	396
	3,0	115	162	204	242	279	329	406	477
	4,0	131	184	232	276	317	375	462	539
3,80	1,0	55	77	97	115	132	156	193	224
	2,0	82	114	144	171	197	233	287	334
	3,0	98	138	173	206	237	280	346	401
	4,0	111	155	196	233	268	317	391	454

• Slope=0

For fittings and connection valves see page 53

For specific boxing - packaging see page 59



MULTIBAR® C a.s. - d.s.

Product certified
according to
ISO 9261



CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING AND ANTI-SIPHON AND DROP STOP DRIPPER

Multibar F AS and DS is the classic dripline with PC flat, anti-siphon and Drop Stop dripper which keeps the flow rate constant as pressure varies thanks to the characteristics of the dripper and the silicone membrane inside. It enables a high level of emission uniformity, of water and nutrients, with utmost precision in supply distribution, in any topographical situation, thanks to the working range.

The anti-siphon system prevents intake of impurities and soil particles inside the dripper.

The Drop Stop system avoids emptying the line at the end of each cycle by aligning the times and quantities of the supply on each plant. Synchronised opening and closure of each irrigation cycle improves homogeneous plant growth for a better harvest.

Characteristics and advantages

- Particularly suitable for sub-irrigation and sloped land, avoiding stressing roots with water.
- Flat dripper with turbulent flow labyrinth has passage self-cleaning during normal operation. Comply with the recommended filtrations.
- The position of the integrated filter turned towards the centre of the tube, far from stagnation areas, allows clean water intake into the labyrinth,
- Low manufacturing variation coefficients.
- Excellent supply uniformity.
- Multi-seasonal use.



Field of application (cf. page 3)



Tree and orchard crops



Sub-irrigation



Vineyards



Olive groves

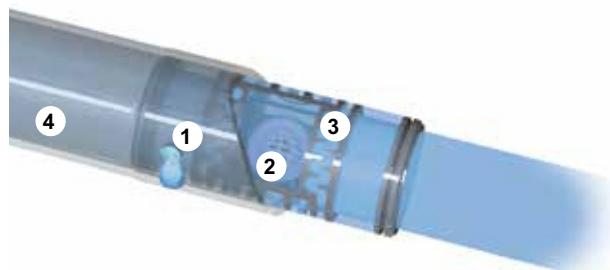


Nurseries

Particularly suitable for very sloped land and with daily fertigation cycles!



MULTIBAR C a.s. - d.s. dripline



- 1 - Outlet holes
- 2 - Inlet filter with vast filtering surface
- 3 - Turbulent flow labyrinth with low pressure sensitivity
- 4 - Polyethylene tube

Multibar C a.s. e d.s. - Dripline technical data



Nominal diameter mm	Internal diameter mm	External diameter mm	Pricelist ref. -	Thickness		Max working pressure		Kd -
				mil	mm	bar	PSI	
16	13,8	15,6	FADA35	35	0,90	3,0	43	1
		16,0	FADA44	44	1,10	4,0	58	



Multibar C a.s. e d.s. - Dripper characteristics

Nominal diameter mm	Actual flow rate lph a 2,0 bar	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Minimum working pressure bar	Recommended filtering mesh	CV %	Drop Stop System in bar open closed
		Height	Width	Height	Area mm ²	No. holes	k	x				
16	2,10	0,85	0,85	35	4,5	10	1,97	0,035	0,7	10	155	≤ 4 0,2 0,15
	3,80	1,30	1,10	35	4,5	10	3,51	0,035	0,7	10	155	≤ 4 0,2 0,15

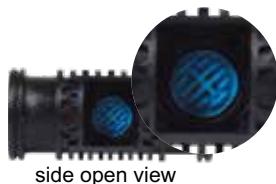
Available flow rates



2,10 lph
BALCK



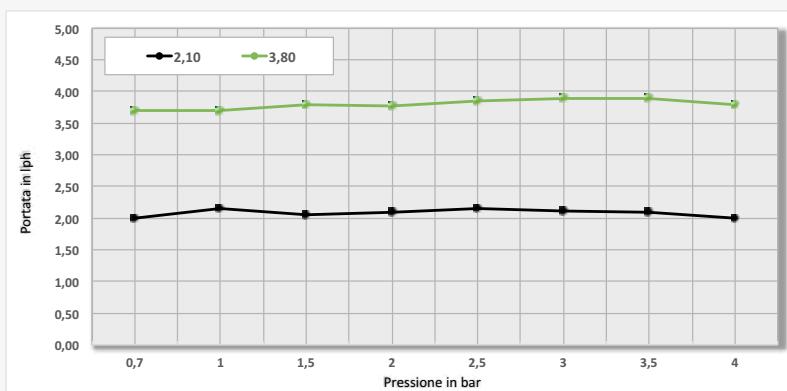
3,80 lph
GREEN



side open view

Multibar C a.s. e d.s. - Pressure - flow rate ratio

Actual flow rate	Pressure (bar)							
	0,7	1	1,5	2	2,5	3	3,5	4
2,10	2,0	2,15	2,05	2,10	2,15	2,12	2,10	2,00
3,80	3,7	3,80	3,78	3,85	3,90	3,90	3,85	3,80



Multibar C a.s. e d.s. - Length recommended in metres, based on working pressure

MULTIBAR C a.s. - d.s. 16 mm									
Flow rate lph	Pres. bar	Spacing (cm)							
		20	30	40	50	60	75	100	125
2,10	1,0	33	47	60	73	85	102	128	151
	2,0	59	84	108	131	152	182	229	272
	3,0	72	104	134	162	188	225	283	336
	4,0	83	119	153	185	215	258	323	384
3,80	1,0	24	35	45	54	63	75	94	112
	2,0	41	59	75	91	106	127	160	190
	3,0	50	72	93	112	131	157	197	234
	4,0	57	82	106	128	149	179	224	266

• Slope=0



CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING DRIPPER

The classic dripline with flat, pressure compensating dripper, thanks to the design of the dripper, guarantees constant performance even as thermal conditions change during use in the field. The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas.

With flat dripper

Characteristics and advantages:

- The particular design of the dripper guarantees constant performance also in extreme temperature conditions (as the thermal conditions vary during use in the field)
- The particular positioning of the filter turned to the centre of the tube allows water into the labyrinth far from stagnation areas
- The Drop Stop version is distinguished by the particular design of the dripper which interrupts the flow at the end of the irrigation cycle, making it particularly suitable for crops requiring short irrigation cycles
- The version with Anti-Siphon System avoids intake of impurities
- The vast opening and closure range further powers the drop stop effect, thereby increasing the possibility of applications also with bigger slopes
- Maximum distribution precision of the water in any topographic situation

Multibar™ F

CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING DRIPPER

Product types available

Product	Nominal external Ø mm	Packaging type roll	Thickness mil
Multibar F	16	standard	24-35-40
	20	standard	35-40
	23	standard	47
	25	standard	47



Examples of dripper



2,10 LPH

Field of application



Tree and orchard crops



Vineyards



Olive groves



Nurseries

Multibar™ F a.s.

CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING AND ANTI-SIPHON DRIPPER

Product types available

Product	Nominal external Ø mm	Packaging type roll	Thickness mil
Multibar F	16	standard	24-35-40
	20	standard	35-40
	23	standard	47
	25	standard	47



Examples of dripper



2,10 LPH

Field of application



Tree and orchard crops



Vineyards



Sub-irrigation



Olive groves



Nurseries

Multibar™ F a.s.-d.s.

CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING AND ANTI-SIPHON AND DROP STOP DRIPPER

Product types available

Product	Nominal external Ø mm	Packaging type roll	Thickness mil
Multibar F a.s.-d.s.	16	standard	35-40
	20	standard	35-40
	23	standard	40
	25	standard	47



Examples of dripper



2,10 LPH

Field of application



Tree and orchard crops



Vineyards



Sub-irrigation



Olive groves



Nurseries



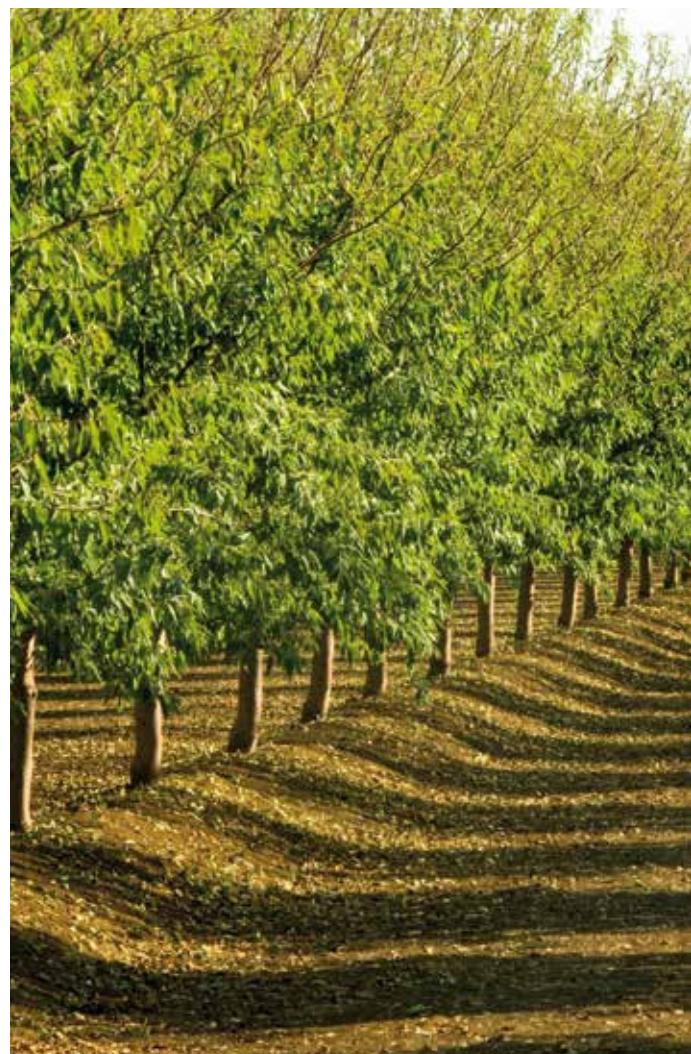
MULTIBAR® F

CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING DRIPPER

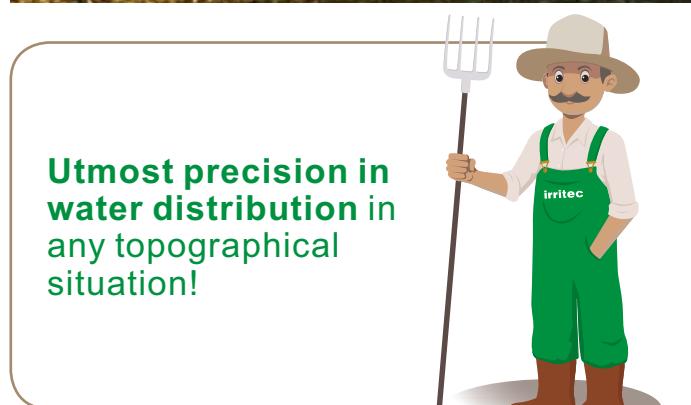
Multibar F is the classic dripline with PC (pressure compensated) flat dripper which keeps the flow rate constant as pressure varies thanks to the characteristics of the dripper and the silicone membrane inside. It guarantees a high level of emission uniformity, of water and nutrients, combining all of this with utmost precision in supply distribution, in any topographical situation.

Characteristics and advantages

- The flat dripper with turbulent flow labyrinth is self-cleaning during normal operation. Comply with the recommended filtrations.
- The position of the integrated filter turned towards the centre of the tube, far from stagnation areas, allows clean water intake into the labyrinth
- Low manufacturing variation coefficients
- Excellent supply uniformity.
- Multi-seasonal use.



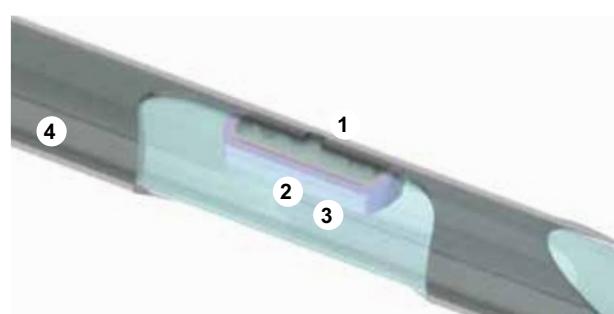
Field of application (cf. page 3)



Multibar F - Dripline technical data

Nominal diameter mm	Internal diameter mm	External diameter mm	Pricelist ref. -	Thickness		Max working pressure		Kd -
				mil	mm	bar	PSI	
16	13,8	15,0	FAIA24	24	0,6	2,0	29	1,00
		15,6	FAIA35	35	0,9	3,0	43,5	
		15,8	FAPA40	40	1,0	3,5	51,0	
20	17,7	19,5	FAPB35	35	0,9	3,0	43,5	0,30
		19,7	FAPB40	40	1,0	3,5	51,0	
23	20,4	22,8	FAPH47	47	1,2	3,5	51,0	0,20
25	22,6	25,0	FAPF47	47	1,2	3,5	51,0	0,15

MULTIBAR F dripline



1 - Outlet holes
2 - Inlet filter with vast filtering surface
3 - Turbulent flow labyrinth with low pressure sensitivity
4 - Polyethylene tube



Multibar F - Dripper characteristics

Actual flow rate		Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Minimum working pressure		Recommended filtering		CV
lph a 2,0 bar		Height	Width	Height	Area mm ²	No. holes	k	x	bar	psi	mesh	%	
1,10	0,7	0,70	50		2,4	3	1,09	0,035	0,5	7	155	4	
1,60	0,6	0,70	30		3	9	1,48	0,030	0,5	7	155	4	
2,10	0,9	0,70	30		3	9	1,98	0,025	0,5	7	155	4	
3,80	0,9	1,05	30		3	9	3,62	0,025	0,5	7	155	4	

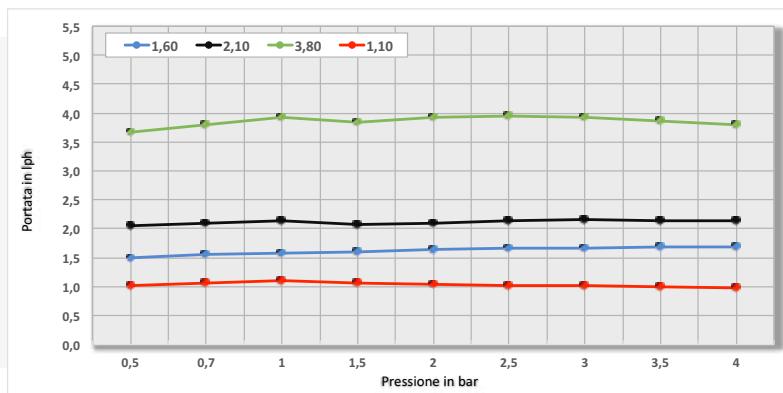
Compensation range: from 0,5 to 4,0 bar

Available flow rates



Multibar F - Pressure - flow rate ratio

Actual flow rate	Pressure (bar)								
	0,5	0,7	1	1,5	2	2,5	3	3,5	4
1,10	1,03	1,07	1,10	1,06	1,05	1,03	1,02	1,00	0,98
1,60	1,50	1,55	1,59	1,61	1,64	1,66	1,67	1,68	1,63
2,10	2,05	2,09	2,15	2,08	2,10	2,14	2,16	2,15	2,15
3,80	3,67	3,79	3,93	3,83	3,92	3,95	3,93	3,87	3,79



Multibar F - Recommended length in metres, according to the pressure

MULTIBAR F 16 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	69	98	125	151	175	197	259	306
	2	102	146	186	224	259	293	385	455
	3	123	176	224	269	312	352	463	547
	3,5	132	188	240	288	333	377	495	585
1,60	1	56	80	102	122	142	178	211	249
	2	83	118	151	181	210	263	312	369
	3	100	142	181	218	253	317	376	444
	3,5	106	152	194	233	270	338	401	474
2,10	1	47	67	86	103	119	149	177	209
	2	70	99	127	152	176	221	262	310
	3	84	119	152	183	212	266	315	372
	3,5	90	128	163	196	227	285	338	399
3,80	1	32	46	59	70	81	102	121	143
	2	48	68	87	104	121	151	179	212
	3	57	82	104	125	145	182	216	255
	3,5	61	87	111	134	155	194	230	272

MULTIBAR F 20 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	121	169	212	252	289	324	419	490
	2	180	251	315	374	429	481	622	728
	3	217	302	380	450	517	579	749	875
	3,5	232	323	406	481	552	619	799	935
1,60	1	100	139	174	207	237	293	344	402
	2	147	206	258	307	352	435	510	597
	3	177	247	311	369	423	523	614	718
	3,5	189	264	332	394	452	558	655	766
2,10	1	84	117	147	174	200	247	290	339
	2	124	173	217	258	296	366	429	503
	3	149	208	262	310	356	440	516	604
	3,5	159	222	279	332	380	470	552	646
3,80	1	57	80	100	119	136	168	197	231
	2	85	118	148	176	202	249	293	342
	3	102	142	178	212	243	300	352	412
	3,5	109	152	190	226	259	320	376	440

MULTIBAR F 23 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	173	239	297	350	400	446	573	667
	2	257	354	441	520	593	662	849	989
	3	310	426	530	625	714	796	1022	1191
	3,5	340	468	582	687	750	961	1123	1310
1,60	1	141	194	241	285	325	398	465	542
	2	209	287	358	422	482	591	690	804
	3	251	346	430	507	579	711	829	967
	3,5	268	369	459	542	618	758	885	1032
2,10	1	119	163	203	240	273	335	392	457
	2	176	242	301	355	405	497	581	677
	3	211	291	362	427	488	598	699	911
	3,5	224	308	384	452	516	634	740	862
3,80	1	81	111	138	163	186	229	267	311
	2	120	165	205	242	276	339	396	522
	3	144	198	247	291	332	408	476	555
	3,5	154	213	265	312	356	437	511	674

MULTIBAR F 25 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	200	275	343	404	461	515	661	769
	2	297	409	508	600	684	763	980	1142
	3	357	492	612	722	750	918	1179	1374
	3,5	382	526	654	750	750	981	1200	1469
1,60	1	166	227	282	332	378	463	540	629
	2	246	337	418	492	561	687	801	932
	3	295	405	503	592	675	825	963	1130
	3,5	318	436	541	637	726	809	1037	1207
2,10	1	140	191	237	279	318	390	455	530
	2	207	284	352	414	472	578	675	887
	3	249	341	423	498	568	696	811	944
	3,5	266	364	452	532	607	677	866	1008
3,80	1	95	130	162	190	217	266	310	361
	2	141	193	240	282	322	394	460	535
	3	169	232	288	340	387	474	553	644
	3,5	181	248	308	363	413	461	591	688

• Q= flow rate lph • P=pressure in bar • Slope=0



MULTIBAR® F a.s.

CLASSIC DRIPLINE WITH FLAT PRESSURE COMPENSATING AND ANTI-SIPHON DRIPPER

Multibar F AS is the classic dripline with PC (pressure compensated) flat and anti-siphon dripper which keeps the flow rate constant as pressure varies thanks to the characteristics of the dripper and the silicone membrane inside. It guarantees a high level of emission uniformity, of water and nutrients, combining all of this with utmost precision in supply distribution, in any topographical situation. The anti-siphon system prevents intake of impurities and soil particles inside the dripper.

Characteristics and advantages

- Particularly suitable for sub-irrigation and sloped land: it thereby avoids water stressing the roots
- The flat dripper with turbulent flow labyrinth is self-cleaning during normal operation. Comply with the recommended filtrations.
- The position of the integrated filter turned towards the centre of the tube, far from stagnation areas, allows clean water intake into the labyrinth,
- Low manufacturing variation coefficients
- Excellent supply uniformity
- Multi-seasonal use.



Field of application (cf. page 3)



Tree and orchard crops



Sub-irrigation



Vineyards



Olive groves

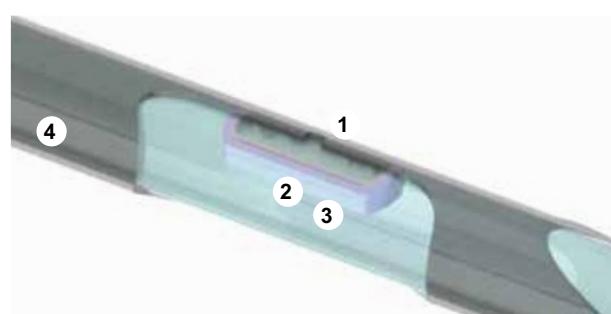


Nurseries

Utmost precision in water distribution in any topographical situation!



MULTIBAR F a.s. dripline



1 - Outlet holes
2 - Inlet filter with vast filtering surface
3 - Turbulent flow labyrinth with low pressure sensitivity
4 - Polyethylene tube

Multibar F a.s. - Dripline technical data

Nominal diameter mm	Internal diameter mm	External diameter mm	Pricelist ref. -	Thickness		Max working pressure		Kd -
				mil	mm	bar	PSI	
16	13,8	15,0	FASA24	24	0,6	2,0	29	1,00
		15,6	FASA35	35	0,9	3,0	43,5	
		15,8	FASA40	40	1,0	3,5	51,0	
20	17,7	19,5	FASB35	35	0,9	3,0	43,5	0,30
		19,7	FASB40	40	1,0	3,5	51,0	
23	20,4	22,8	FASH47	47	1,2	3,5	51,0	0,20
25	22,6	25,0	FASF47	47	1,2	3,5	51,0	0,15



Multibar F a.s. - Dripper characteristics

Actual flow rate		Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Minimum working pressure		Recommended filtering		CV
Iph a 2,0 bar		Height	Width	Height	Area mm ²	No. holes	k	x	bar	psi	mesh	%	
1,10		0,7	0,70	50	2,4	3	1,09	0,035	0,5	7	155	4	
1,60		0,6	0,70	30	3	9	1,48	0,030	0,5	7	155	4	
2,10		0,9	0,70	30	3	9	1,98	0,025	0,5	7	155	4	
3,80		0,9	1,05	30	3	9	3,62	0,025	0,5	7	155	4	

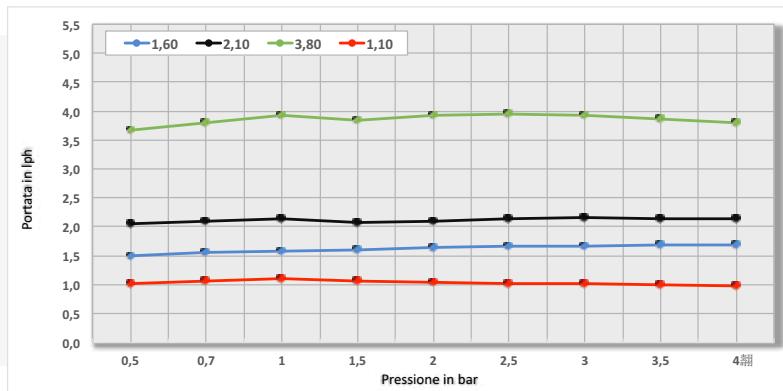
Compensation range: from 0,5 to 4,0 bar

Available flow rates



Multibar F a.s. - Pressure - flow rate ratio

Actual flow rate	Pressure (bar)									
	0,5	0,7	1	1,5	2	2,5	3	3,5	4	
1,10	0,5	1,03	1,07	1,10	1,06	1,05	1,03	1,02	1,00	0,98
1,60	1,50	1,55	1,59	1,61	1,64	1,66	1,67	1,68	1,63	
2,10	2,05	2,09	2,15	2,08	2,10	2,14	2,16	2,15	2,15	
3,80	3,67	3,79	3,93	3,83	3,92	3,95	3,93	3,87	3,79	



Multibar F a.s. - Recommended length in metres, according to the pressure

MULTIBAR F 16 mm										
Q lph	P bar	Spacing (cm)								
		20	30	40	50	60	80	100	125	150
1,10	1	69	98	125	151	175	197	259	306	350
	2	102	146	186	224	259	293	385	455	519
	3	123	176	224	269	312	352	463	547	625
	3,5	132	188	240	288	333	377	495	585	668
1,60	1	56	80	102	122	142	178	211	249	284
	2	83	118	151	181	210	263	312	369	422
	3	100	142	181	218	253	317	376	444	507
	3,5	106	152	194	233	270	338	401	474	542
2,10	1	47	67	86	103	119	149	177	209	239
	2	70	99	127	152	176	221	262	310	354
	3	84	119	152	183	212	266	315	372	426
	3,5	90	128	163	196	227	285	338	399	456
3,80	1	32	46	59	70	81	102	121	143	163
	2	48	68	87	104	121	151	179	212	242
	3	57	82	104	125	145	182	216	255	291
	3,5	61	87	111	134	155	194	230	272	311

MULTIBAR F 20 mm										
Q lph	P bar	Spacing (cm)								
		20	30	40	50	60	80	100	125	150
1,10	1	121	169	212	252	289	324	419	490	557
	2	180	251	315	374	429	481	622	728	825
	3	217	302	380	450	517	579	749	875	993
	3,5	232	323	406	481	552	619	799	935	1061
1,60	1	100	139	174	207	237	293	344	402	457
	2	147	206	258	307	352	435	510	597	678
	3	177	247	311	369	423	523	614	718	814
	3,5	189	264	332	394	452	558	655	766	870
2,10	1	84	117	147	174	200	247	290	339	384
	2	124	173	217	258	296	366	429	503	570
	3	149	208	262	310	356	440	516	604	686
	3,5	159	222	279	332	380	470	552	646	733
3,80	1	57	80	100	119	136	168	197	231	262
	2	85	118	148	176	202	249	293	342	389
	3	102	142	178	212	243	300	352	412	467
	3,5	109	152	190	226	259	320	376	440	499

MULTIBAR F 23 mm										
Q lph	P bar	Spacing (cm)								
		20	30	40	50	60	80	100	125	150
1,10	1	173	239	297	350	400	446	573	667	754
	2	257	354	441	520	593	662	849	989	1120
	3	310	426	530	625	714	796	1022	1191	1348
	3,5	340	468	582	687	750	961	1123	1310	1482
1,60	1	141	194	241	285	325	398	465	542	614
	2	209	287	358	422	482	591	690	804	910
	3	251	346	430	507	579	711	829	967	1094
	3,5	268	369	459	542	618	758	885	1032	1168
2,10	1	119	163	203	240	273	335	392	457	517
	2	176	242	301	355	405	497	581	677	765
	3	211	291	362	427	488	598	699	911	971
	3,5	224	308	384	452	516	634	740	862	976
3,80	1	81	111	138	163	186	229	267	311	352
	2	120	165	205	242	276	339	396	461	522
	3	144	198	247	291	332	408	476	555	628
	3,5	154	213	265	312	356	437	511	595	674

MULTIBAR F 25 mm										
Q lph	P bar	Spacing (cm)								
		20	30	40	50	60	80	100	125	150
1,10	1	200	275	343	404	461	515	661	769	870
	2	297	409	508	600	684	763	980	1142	1292
	3	357	492	612	722	750	918	1179	1374	1555
	3,5	382	526	654	750	750	981	1200	1469	1662
1,60	1	166	227	282	332	378	463	540	629	711
	2	246	337	418	492	561	687	801	932	1054
	3	295	405	503	592	675	825	963	1130	1278
	3,5	318	436	541	637	726	809	1037	1207	1366
2,10	1	140	191	237	279	318	390	455	530	599
	2	207	284	352	414	472	578	675	785	887
	3	249								



MULTIBAR® F a.s. - d.s.

CLASSIC DRILINE WITH FLAT PRESSURE COMPENSATING AND ANTI-SIPHON AND DROP STOP DRIPPER

Multibar F AS and DS is the classic dripline with PC flat, anti-siphon and Drop Stop dripper which keeps the flow rate constant as pressure varies thanks to the characteristics of the dripper and the silicone membrane inside. It enables a high level of emission uniformity, of water and nutrients, with utmost precision in supply distribution, in any topographical situation, thanks to the working range.

The anti-siphon system prevents intake of impurities and soil particles inside the dripper.

The Drop Stop system avoids emptying the line at the end of each cycle by aligning the times and quantities of the supply on each plant. Synchronised opening and closure of each irrigation cycle improves homogeneous plant growth for a better harvest.

Characteristics and advantages

- Particularly suitable for sub-irrigation and sloped land, avoiding stressing roots with water.
- Flat dripper with turbulent flow labyrinth has passage self-cleaning during normal operation. Comply with the recommended filtrations.
- The position of the integrated filter turned towards the centre of the tube, far from stagnation areas, allows clean water intake into the labyrinth,
- Low manufacturing variation coefficients.
- Excellent supply uniformity.
- Multi-seasonal use.



Field of application (cf. page 3)



Tree and
orchard crops



Sub-irrigation



Vineyards



Olive groves

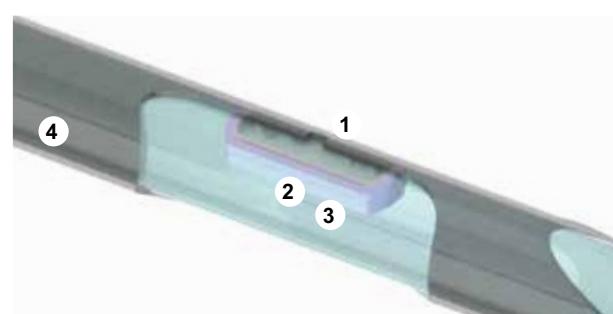


Nurseries

**Flat dripper with drop-stop system;
ideal for frequent fertigation cycles!**



MULTIBAR F a.s. - d.s. dripline



1 - Outlet holes

2 - Inlet filter with vast filtering surface

3 - Turbulent flow labyrinth with low pressure sensitivity

4 - Polyethylene tube

Multibar F a.s. e d.s.

Dripline technical data



Nominal diameter mm	Internal diameter mm	External diameter mm	Pricelist ref.	Thickness -	Max working pressure		Kd -
					mil	mm	
16	13,8	15,6	FAQA35	35	0,9	3,0	43,5
		15,8	FAQA40	40	1,0	3,5	51,0
20	17,7	19,5	FAQB35	35	0,9	3,0	43,5
		19,7	FAQB40	40	1,0	3,5	51,0
23	20,8	22,8	FAQH40	40	1,0	3,0	43,5
25	22,6	25,0	FAQF47	47	1,2	3,5	51,0
							0,20
							0,15



Multibar F a.s. e d.s. - Dripper characteristics

Actual flow rate	Dimensions of labyrinth in mm			Inlet filter		Flow Equation		Minimum working pressure bar	Recommended filtering mesh	DS System bar - psi		HDS System bar - psi		CV
	Iph a 2,0 bar	Height	Width	Height	Area mm ²	No. holes	k	x		psi	opening	closure	opening	
1,10	0,7	0,70	50		2,4	3	1,09	0,035	0,7	155	0,30 - 4	0,15 - 3	0,40 - 5,80,25 - 3,6	4
1,60	0,6	0,70	30		3	9	1,48	0,030	0,7	155	0,30 - 4	0,15 - 3	0,40 - 5,80,25 - 3,6	4
2,10	0,9	0,70	30		3	9	1,98	0,025	0,7	155	0,30 - 4	0,15 - 3	0,40 - 5,80,25 - 3,6	4
3,80	0,9	1,05	30		3	9	3,62	0,025	0,7	155	0,30 - 4	0,15 - 3	0,40 - 5,80,25 - 3,6	4

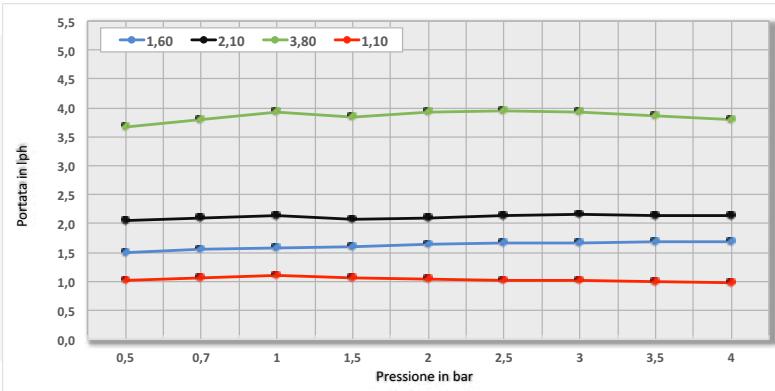
Compensation range: DS version from 0.7 to 4.0 bar - HDS version from 1.0 to 4.0 bar.

Available flow rates



Multibar F a.s. e d.s. - Pressure - flow rate ratio

Actual flow rate	Pressure (bar)									
	Iph	0,5	0,7	1	1,5	2	2,5	3	3,5	4
1,10	1,03	1,07	1,10	1,06	1,05	1,03	1,02	1,00	0,98	
1,60	1,50	1,55	1,59	1,61	1,64	1,66	1,67	1,68	1,63	
2,10	2,05	2,09	2,15	2,08	2,10	2,14	2,16	2,15	2,15	
3,80	3,67	3,79	3,93	3,83	3,92	3,95	3,93	3,87	3,79	



Multibar F a.s. e d.s. - Recommended length in metres, according to the pressure

MULTIBAR F a.s. - d.s. 16 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	59	84	106	128	148	167	220	260
	2	99	140	179	215	249	281	370	437
	3	121	173	220	264	306	346	455	537
	3,5	130	185	236	284	329	371	489	577
1,60	1	47	67	86	103	119	135	177	209
	2	79	113	144	173	200	226	297	351
	3	97	138	176	212	246	278	365	431
	3,5	104	148	189	228	264	298	392	463
2,10	1	40	56	72	86	100	113	148	175
	2	66	94	120	144	167	189	249	294
	3	81	116	148	177	205	232	305	361
	3,5	87	124	158	190	221	249	328	387
3,80	1	28	40	51	61	71	89	106	125
	2	46	65	83	100	116	145	172	203
	3	56	80	102	122	142	178	211	249
	3,5	60	86	109	131	152	191	226	267

MULTIBAR F a.s. - d.s. 20 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	103	144	180	214	245	275	356	416
	2	173	242	303	360	413	463	599	700
	3	213	297	373	442	507	569	736	860
	3,5	229	319	400	475	545	611	789	923
1,60	1	83	115	145	172	197	221	286	335
	2	139	194	244	289	332	372	481	563
	3	171	238	299	355	407	457	591	691
	3,5	183	256	321	381	437	490	634	742
2,10	1	69	97	121	144	165	185	239	280
	2	116	162	204	242	277	311	402	471
	3	143	199	250	297	341	382	494	578
	3,5	153	214	269	319	366	410	530	621
3,80	1	47	66	83	98	113	126	163	191
	2	79	111	139	165	189	212	274	321
	3	97	136	171	202	232	260	337	394
	3,5	105	146	183	217	249	279	361	423

MULTIBAR F a.s. - d.s. 23 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	147	203	252	297	339	379	486	566
	2	247	341	424	500	571	637	817	952
	3	304	419	521	614	701	782	1004	1170
	3,5	118	163	203	239	273	304	391	455
1,60	1	199	274	341	402	458	512	657	765
	2	294	336	418	493	563	629	806	940
	3	244	336	418	493	563	629	806	940
	3,5	99	136	169	200	228	255	327	381
2,10	1	166	229	285	336	383	428	550	640
	2	204	281	350	413	471	526	675	786
	3	139	192	238	281	321	358	460	536
	3,5	68	93	116	136	155	174	223	294
3,80	1	113	156	194	229	261	292	374	436
	2	139	192	238	281	321	358	460	536
	3	139	192	238	281	321	358	460	536
	3,5	176	241	299	352	401	448	573	667

• Q= flow rate lph • P=pressure in bar • Slope=0

Minimum working pressure 0,7 bar.

For fittings and connection valves see page 53

For specific boxing - packaging see page 59

MULTIBAR F a.s. - d.s. 25 mm									
Q lph	P bar	Spacing (cm)							
		20	30	40	50	60	80	100	125
1,10	1	170	234	291	343	391	437	561	654
	2	286	393	489	577	659	735	943	1099
	3	350	482	600	708	750	901	1157	1348
	3,5	377	519	645	750	750	969	1200	1450
1,60	1	139	191	237	279	318	354	454	528
	2	234	321	398	469	534	596	762	887
	3	287	394	489	575	656	732	936	1090
	3,5	308	423	525	618	704	785	1005	1171
2,10	1	116	160	198	233	266	296	379	442
	2	196	268	333	392	447	498	638	743



MINIDRIP™

SMALL DIAMETER LIGHT DRIPLINE

The minidrip light dripline is ideal for irrigating gardens, flowerbeds and small vegetable gardens, thanks to its contained costs, the aesthetic impact and the excellent irrigation characteristics of the dripper with turbulent flow labyrinth and double inlet filter that reduces accumulation of sedimentation and risk of clogging.

Characteristics and advantages

- Small sized dripper (7 mm diameter).
- Dripper with turbulent flow labyrinth and double inlet filter that guarantees less accumulation of sedimentation by decreasing the risk of clogging.
- Ideal dripline for the garden.

Product available in:

- reels:
 - 1,200 m for 15 cm spacings
 - 1,300 m for 20 cm spacings
 - 1,500 m for 30 cm spacings
- boxes containing 4 x 15 m reels



Field of application (cf. page 3)



Hedges, trees
and flowerbeds

**Recommended
for gardens!**



MINIDRIP dripline



Minidrip - Dripline technical data

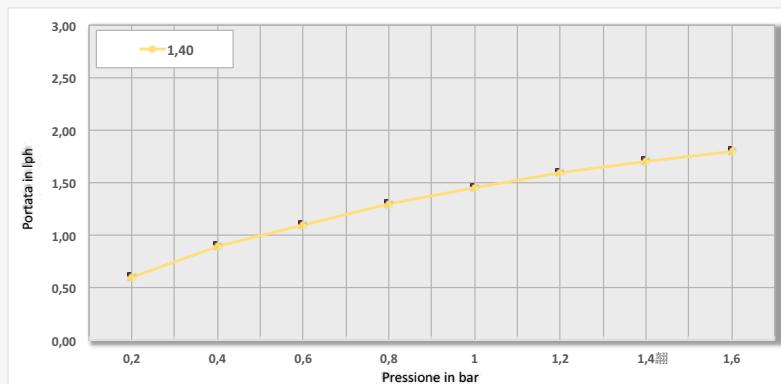
External diameter	Internal diameter	Pricelist ref.	Thickness	Recommended filtering	Pressure max.
mm	mm	-	mm	mesh	bar
6,6	5	FALC30	0,8	120	2,5

- 1 - Outlet holes
 2 - Inlet filter with vast filtering surface
 3 - Turbulent flow labyrinth with low pressure sensitivity
 4 - Polyethylene tube



Minidrip -

Nominal diameter mm	Actual flow rate lph	Pressure in bar							
		1,0	0,2	0,4	0,6	0,8	1	1,2	1,4
6,6	1,5 lph	0,6	0,9	1,1	1,3	1,4	1,6	1,7	1,8



Minidrip - Recommended length in metres, according to the pressure d'ingresso e della E.U., slope=0

Pi bar	Qi lph	E.U. %	Spacing cm		
			20	30	40
0,2	0,6	95	14	18	23
		85	17	22	27
0,5	1	95	15	19	23
		85	18	24	29
1	1,5	95	15	20	24
		85	18	24	30
1,5	1,7	95	15	20	24
		85	19	25	30
2	2	95	15	20	24
		85	19	25	30



ROOTGUARD®

Product certified
according to
ISO 9261



SUB-IRRIGATION SYSTEMS

What is sub-irrigation?

Traditional "drip" irrigation systems using driplines are found above the ground. Now, with ROOTGUARD® technology, the lines can be buried below the ground surface for a long, trouble-free life, without drippers being clogged by the root area.

Sub-irrigation allows the precise application of water, nutrients, chemicals and other agrochemicals directly to the root area of the plants, thus reducing the volumes of products used, resulting in reduced costs and environmental impact. This allows users to optimise the crop growing environmental conditions and leads to higher quality and quantity of yields.

A system created using ROOTGUARD® technology conveys water by capillary action down to a depth of 10 to 75 cm beneath the surface, forming a continuous wet area along the plant rows.

Frequent irrigation cycles maximise the capillary action and minimise water surfacing.

The depth and placement of the driplines depend on the soil composition and the crop needs. Focusing on product quality, reliability and ease of use, Irritec with ROOTGUARD® provides the most advanced sub-irrigation technology available on the market today, guaranteeing the best results.

Field of application (cf. page 3)



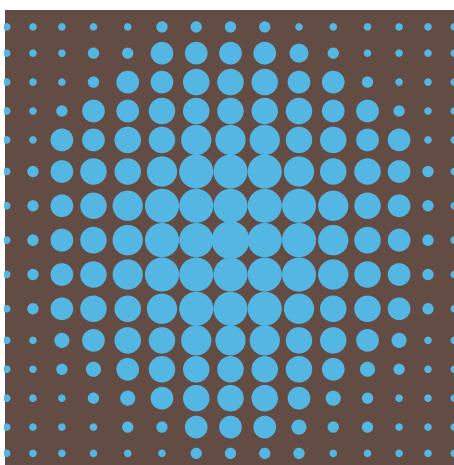
Sub-irrigation

Particularly beneficial for loose soil with little gravel on flat or sloped surfaces.

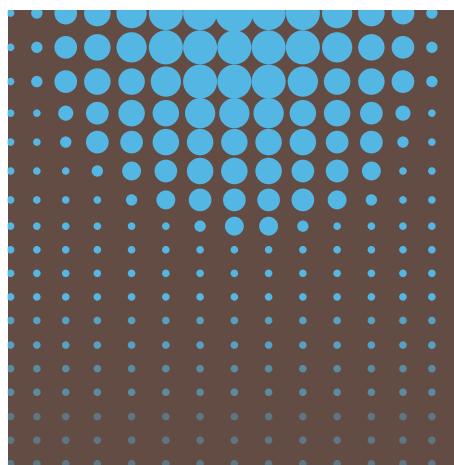
N.B.: the product contains synthetic chemicals for weeds control



Sub-irrigation



Surface irrigation



Distribution of water after 10 hours with 1 hour of irrigation

Conveying the same amount of water, drip sub-irrigation covers a 46% larger wet volume of soil than a surface irrigation system. This decreases the saturation point of the soil, not only leaving room for more air, but also improves the capillary movement of the water and decreases water loss by percolation.



Why sub-irrigation

- Higher yield. The water and nutrients distributed directly near the root zone favour healthy plant growth and reduce stress.
- Better quality harvest. Both soil and foliage are kept dry, reducing fungal diseases caused by surface irrigation and eliminates fruit and vegetable spotting commonly caused by overhead irrigation.
- Safe and efficient delivery of fertilisers and insecticides. Chemical products are directly applied to the root system, reducing the quantities needed and limiting chemical environmental pollution to the minimum.
- Fewer weeds. A dry soil surface reduces weed growth.
- Better soil aeration. Fine soil particles are not washed down, thus decreasing soil compaction and improving root growth.
- Dry soil surface. With a dry soil surface, cultivation and harvest operations can take place while irrigation is operating. Lawns can be used also during irrigation.
- Longer irrigation system life. The turbulent flow drippers and tubing are made with high quality raw materials. When placed underground, the system is protected from damage caused by ultraviolet rays, temperature fluctuations and cultivation operations.
- Considerable water savings. Elimination of leaks due to evaporation, deep percolation, superficial flowing and displacement of damp due to wind.
- Less vandalism or mechanical damage. No sprinkler heads, tubes or driplines on the surface which can cause damage or which are subject to damage by vandals, animals or harvesting of the plot.
- Less salt. • Less water also means fewer salts in the soil or the aquifer.
- Lower maintenance costs. • The system is installed permanently below the crops and does not require further handling.
- Less chemicals. Fungicides and insecticides are not washed off by irrigation water and the direct delivery through the system reduces waste.
- Labour savings. Easier fertiliser application, less weeds, disease control and less maintenance mean less labour.
- No obstacles during mechanised harvesting (vintage, use of shakers, olive cultivation).
- Nicer orchard design because tubes are not visible.

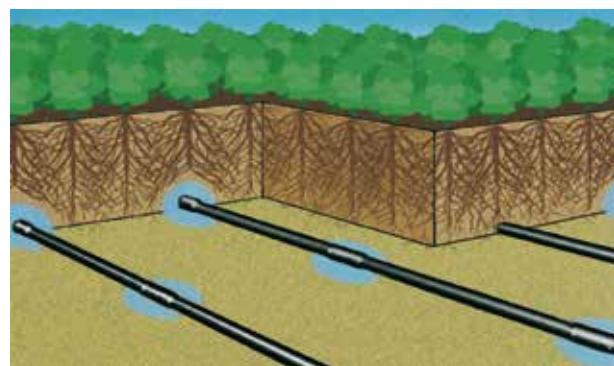
Installation

ROOTGUARD® sub-irrigation system uses the same components of a surface drip system, including filtration and treatment of water, fertiliser and chemical injection, air release valves, discharge valves and manual or automatic control.

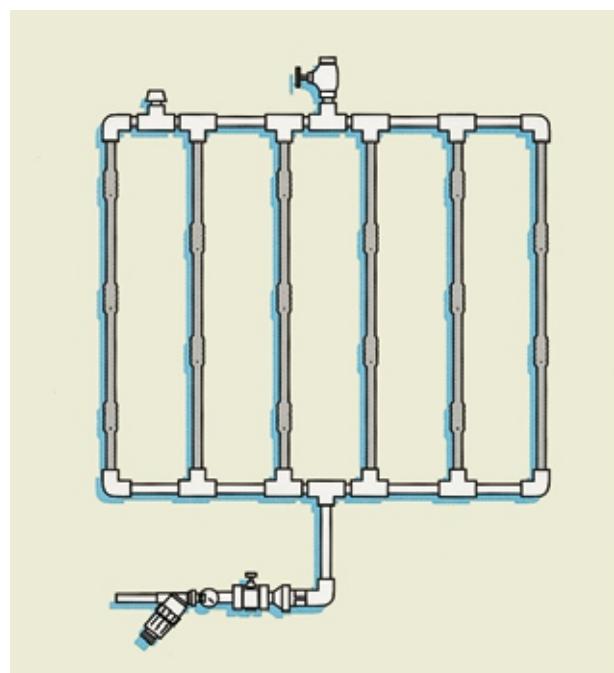
The only and most important difference is the dripline manufactured with ROOTGUARD® technology.

Today Irritec supplies ROOTGUARD® technology together with its popular MULTIBAR® driplines.

For the hydraulic characteristics of each dripline please refer to the respective technical catalogues.



Typical outline of a sub-irrigation system



The installation and use manual is available on request of the ROOTGUARD® sub-irrigation systems, which can also be downloaded free of charge from the website www.subirrigazione.it. Furthermore, our technical office can provide the technical support necessary to design and install the ROOTGUARD® system.



IDROP® - normal

TURBULENT FLOW DRIPPER

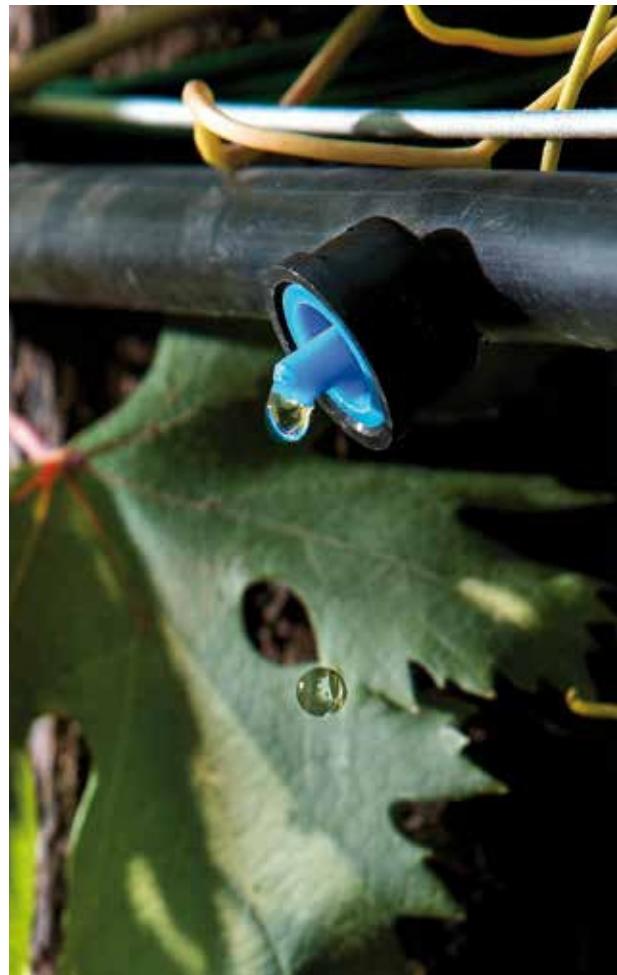
iDrop Normal is the dripper on line with turbulent flow suitable for orchards, vineyards and greenhouses and in all cases where precise flow rate is necessary.

The turbulent flow of the labyrinth makes it ideal to prevent clogging. In fact, thanks to the minimum possibility of clogging, very little maintenance is required.

Characteristics and advantages

- Flow rate is identified by the colour of the outlet base.
- Outlet suitable for connection of the multi-outlets manifold.
- Made of state-of-the-art technopolymers which guarantee a long life and increased resistance to all commonly used chemicals and fertilisers.
- It can be used on flat land or with continuous slopes.

iDROP®



Field of application (cf. page 3)



Tree and
orchard crops



Crops protected
underground



Crops protected
overground



Nurseries



Hedges, trees
and flowerbeds

**It needs little
maintenance!**





iDrop Normal - Dripper characteristics

Actual flow rate lph	Colour	Inlet filter	Flow Equation		Recommended filtering mesh	CV	Insertion hole mm
	-	Area mm ²	x	k		%	
2,1	Blue	2	0,46	0,76	120	≤ 3	2,5-3,0
4,0	Green	2	0,46	1,44	120	≤ 3	2,5-3,0
8,2	Red	2	0,46	2,90	120	≤ 3	2,5-3,0

Available flow rates iDrop Normal



2,10 lph
LIGHT BLUE



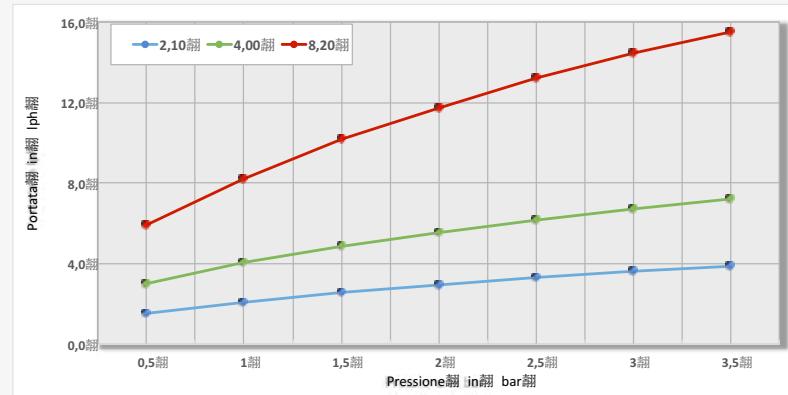
4,00 lph
GREEN



8,20 lph
RED

iDrop Normal - Pressure - flow rate ratio

Flow rate lph	Pressure (bar)						
	0,5	1	1,5	2	2,5	3	3,5
2,1	1,53	2,09	2,58	2,95	3,30	3,60	3,89
4,0	3,00	4,03	4,85	5,56	6,17	6,74	7,22
8,2	5,90	8,20	10,19	11,76	13,20	14,47	15,52



iDrop Normal - Lengths of lines recommended in metres based on Emission Uniformity (E.U.%) with working precision of 1 bar

Tube D.E. 16 D.I. 14 mm								
Flow rate lph	S %	E.U.%	Spacing (m)					
			0,2	0,3	0,4	0,5	0,6	0,75
2,1	0	95	41	53	63	73	82	94
		90	75	97	116	134	150	173
		85	92	119	143	165	185	213
4,0	0	95	27	35	42	49	55	63
		90	50	64	77	89	100	115
		85	61	79	95	109	123	142
8,2	0	95	18	23	27	31	35	41
		90	32	41	50	57	64	74
		85	39	51	61	70	79	91

Flow rate lph	S %	E.U.%	Spacing (m)					
			0,2	0,3	0,4	0,5	0,6	0,75
2,1	0	95	61	78	94	108	122	140
		90	111	143	172	198	223	257
		85	137	177	212	245	275	317
4,0	0	95	40	52	63	72	81	93
		90	74	95	114	132	148	170
		85	91	117	141	162	182	210
8,2	0	95	26	34	40	46	52	60
		90	47	61	74	85	95	110
		85	58	75	91	104	117	135

• S= slope



IDROP® - pc

TURBULENT FLOW PRESSURE COMPENSATING DRIPPER

iDrop in its PC version is particularly suitable for very sloped land and for crops with frequent fertigation cycles. In fact, it is ideal for systems created with long lines and on very sloped land.

There are two types of outlet: multi-functional and with Drop Stop system.

Characteristics and advantages

- Turbulent flow that reduces clogging and sedimentation
- Suitable for vineyards, greenhouses, nurseries and for installations where precise flow rate is required
- Available in two outlets:
 - **MULTI-FUNCTION** - Allows assembly of all types of Irritec manifolds and micro-tubing with a diameter of 6x4 thanks to the innovative multi-functional outlet
 - **DROP STOP** - Non-drop system
- Flow rate is identified by the colour of the outlet base
- The silicone membrane guarantees it is long lasting and resistant to chemical products

iDROP®



Field of application (cf. page 3)



Crops protected underground



Crops protected overground



Nurseries



Hedges, trees and flowerbeds

The multi-functional outlet makes it **ideal for assembly with all types of Irritec manifolds and micro-tubes!**



iDrop® PC Multi-functional outlet

The new multi-functional iDrop allows assembly of all types of Irritec manifolds and also micro-tubing Ø 6x4mm or Ø 5x3mm thanks to the innovative, multi-functional outlet.





iDrop PC - Dripper characteristics

Actual flow rate lph	Colour	Inlet filter	Flow Equation		Recommended filtering mesh	CV %	Minimum working pressure in bar PC PCDS	Drop Stop System DS in bar		Drop Stop System HDS in bar		Insertion hole mm
			x	k				opening	closure	opening	closure	
2,2		2	0,02	2,08	155	≤ 3	0,5	0,7	0,4	0,3	0,6	0,4
3,2		2	0,02	3,15	155	≤ 3	0,5	0,7	0,4	0,3	0,6	0,4
4,0		2	0,02	3,71	155	≤ 3	0,5	0,7	0,4	0,3	0,6	0,4
6,0		2	0,02	6,05	155	≤ 3	0,5	0,7	0,4	0,3	0,6	0,4
7,8		2	0,02	7,94	155	≤ 3	0,5	0,7	0,4	0,3	0,6	0,4

Working range: DS version from 0.7 to 4.0 bar - HDS version from 1.0 to 4.0 bar.

Available flow rates iDrop PC



2,20 lph - LIGHT BLUE



3,20 lph - BROWN



4,00 lph - GREEN



6,00 lph - GREY



7,80 lph - RED

Available multi-functional outlet iDrop PC flow rates



2,20 lph - LIGHT BLUE



3,20 lph - BROWN



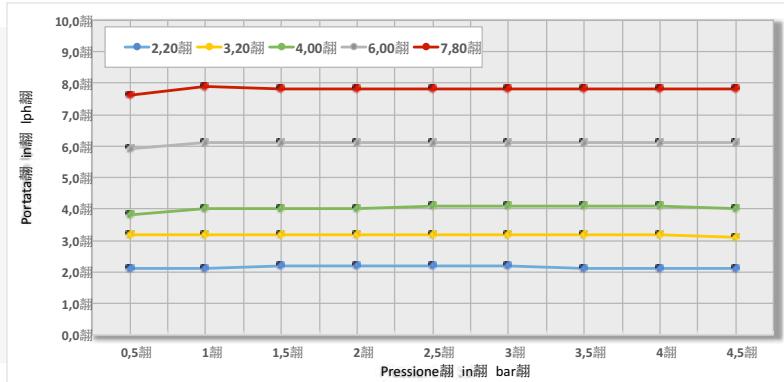
4,00 lph - GREEN



7,80 lph - RED

iDrop PC -

Flow rate lph	Pressure (bar)								
	0,5	1	1,5	2	2,5	3	3,5	4	4,5
2,2	2,1	2,1	2,2	2,2	2,2	2,1	2,1	2,1	2,1
3,2	3,2	3,2	3,2	3,2	3,2	3,2	3,2	3,2	3,1
4,0	3,8	4,0	4,0	4,0	4,1	4,1	4,1	4,1	4,0
6,0	5,9	6,1	6,1	6,1	6,1	6,1	6,1	6,1	6,1
7,8	7,6	7,9	7,8	7,8	7,8	7,9	7,8	7,8	7,8



iDrop PC - Lengths recommended of the lines in metres, based on working pressure

Tube D.E. 16 D.I. 14 mm Kd=0,4									
Flow rate lph	P bar	Spacing (m)							
		0,2	0,3	0,4	0,5	0,6	0,75	1,0	1,5
2,2	1	66	86	103	118	133	153	184	238
	2	104	135	162	186	209	241	289	374
	3	127	164	197	227	254	293	352	455
	4	144	186	223	257	289	333	399	517
3,2	1	53	69	82	95	106	123	147	190
	2	83	108	129	149	168	193	232	300
	3	101	131	157	181	204	235	282	365
	4	115	149	179	206	231	266	320	414
4,0	1	45	59	70	81	91	105	126	163
	2	71	92	110	127	142	164	197	254
	3	86	111	134	154	173	199	239	309
	4	98	127	152	175	196	226	271	351
6,0	1	35	45	54	62	69	80	96	124
	2	54	70	84	97	109	126	151	195
	3	66	86	103	118	133	153	184	238
	4	75	97	116	134	151	174	208	270
7,8	1	29	38	45	52	58	67	81	104
	2	46	59	71	82	92	106	127	164
	3	56	72	86	99	112	129	154	200
	4	63	82	98	113	127	146	175	227

Flow rate lph	P bar	Spacing (m)							
		0,2	0,3	0,4	0,5	0,6	0,75	1,0	1,5
2,2	1	98	127	152	176	197	227	273	353
	2	154	200	240	276	310	358	429	556
	3	188	243	292	336	377	435	522	676
	4	213	276	331	381	428	494	593	750
3,2	1	79	102	122	141	158	182	218	282
	2	124	160	192	221	249	286	344	445
	3	150	194	234	269	302	348	418	541
	4	170	221	265	305	343	395	475	614
4,0	1	67	87	104	120	135	155	186	241
	2	105	136	163	188	211	243	291	377
	3	128	165	198	228	256	295	355	459
	4	145	188	225	259	291	335	403	521
6,0	1	51	66	80	92	103	119	142	184
	2	81	104	125	144	162	187	224	290
	3	98	127	152	175	197	227	273	353
	4	111	144	173	199	223	258	309	400
7,8	1	43	56	67	77	87	100	120	155
	2	68	88	105	121	136	157	188	244
	3	82	107	128	148	166	191	229	296
	4	94	121	145	167	188	217	260	336

• P= Working pressure in bar

• Slope=0



IDROP® - light/pc

TURBULENT FLOW PRESSURE COMPENSATING DRIPPER

iDrop in the LIGHT – PC version is the Irritec online dripper with pressure compensating turbulent flow offering all its technology in truly reduced dimensions. It has a double inlet filter, a resistant silicone membrane and a turbulent labyrinth that contributes to increasing its excellent hydraulic characteristics. Working quality, assembly functionality of the numerous possible combinations and contained costs are the main characteristics. iDrop light was specifically designed for overground and it is the economical and versatile answer by Irritec to farmers' needs.

Characteristics and advantages

- Available with Drop Stop system (ANTI-DRIP)
- Ideal for greenhouses and nurseries and for all situations where utmost precision is necessary when supplying water
- Turbulent flow prevents sedimentation and clogging
- Multiple inlet filter: the dripper avails of a double inlet system, one axial and the other branched, which improve the water flow to the device
- Flow rate is identified by the colour of the outlet base
- Multi-functional outlet suitable for connection of the micro-tubes and manifold.



Field of application (cf. page 3)



Crops protected underground



Crops protected overground



Nurseries



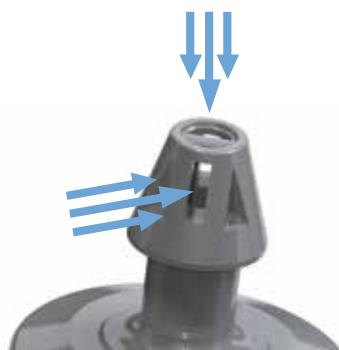
Hedges, trees and flowerbeds

iDrop® light - PC Multi-functional outlet

The new iDrop light - PC with multi-functional outlet allows assembly of all types of Irritec manifolds and also micro-tubing Ø 6x4mm or Ø 5x3mm thanks to the innovative, multi-functional outlet.



The multiple inlet filter improves water flow!



Water multiple inlet



iDrop light / PC - Dripper characteristics

Actual flow rate lph	Colour	Inlet filter		Flow Equation		Recommended filtering mesh	CV %	Minimum working pressure in bar				Drop Stop System DS in bar		Drop Stop System HDS in bar		Insertion hole mm
		Area mm ²	No. holes	x	k			PC	PCDS	PC HDS	opening	closure	opening	closure		
1,10	-	2,9	4	0,03	1,01	150	5,00	0,5	0,7	1	0,25	0,15	0,60	0,30	2,5-3,0	
2,10		2,9	4	0,03	1,92	120	3,00	0,5	0,7	1	0,25	0,15	0,60	0,30	2,5-3,0	
3,80		2,9	4	0,03	3,55	120	3,00	0,5	0,7	1	0,25	0,15	0,60	0,30	2,5-3,0	
7,80		2,9	4	0,03	7,30	100	3,00	0,5	0,7	1	0,25	0,15	0,60	0,30	2,5-3,0	

Working range: DS version from 0.7 to 4.0 bar - HDS version from 1.0 to 4.0 bar.

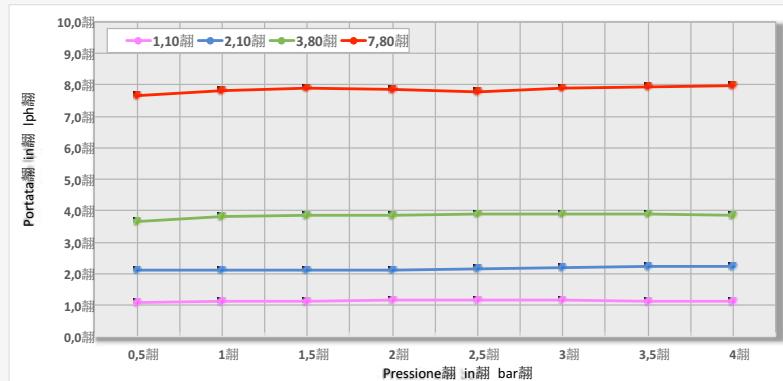
Available flow rates iDrop light/pc



1,10 lph - PINK 2,10 lph - LIGHT BLUE 3,80 lph - GREEN 7,80 lph - RED

iDrop light / PC - Pressure - flow rate ratio

Flow rate lph	Pressure (bar)							
	0,5	1	1,5	2	2,5	3	3,5	4
1,10	1,08	1,14	1,12	1,18	1,16	1,15	1,14	1,13
2,10	2,11	2,12	2,13	2,11	2,17	2,20	2,22	2,21
3,80	3,65	3,80	3,85	3,87	3,88	3,90	3,91	3,87
7,80	7,65	7,82	7,91	7,84	7,79	7,88	7,93	7,98



iDrop light / PC - Lengths recommended of the lines in metres, based on working pressure

Tube D.E. 16 D.I. 14 mm Kd=0,4									
Flow rate lph	P bar	Spacing (m)							
		0,2	0,3	0,4	0,5	0,6	0,75	1,0	1,5
1,1	1	94	122	147	169	190	228	263	341
	2	158	205	247	284	320	384	443	573
	3	194	252	303	349	392	472	544	704
	4	221	287	345	398	447	537	620	801
2,1	1	63	81	98	113	127	152	176	227
	2	105	137	164	190	213	256	295	382
	3	129	168	202	233	262	314	362	469
	4	147	191	230	265	298	358	413	535
3,8	1	43	55	67	77	86	95	120	155
	2	71	93	112	129	145	160	201	261
	3	87	114	137	158	178	197	247	320
	4	100	130	156	180	203	224	281	365
7,8	1	27	35	42	49	55	63	76	98
	2	45	59	71	82	92	106	127	165
	3	55	72	87	100	113	130	156	203
	4	63	82	99	114	128	148	178	231

Tube D.E.20 D.I. 17,6 mm Kd=0,2									
Flow rate lph	P bar	Spacing (m)							
		0,2	0,3	0,4	0,5	0,6	0,75	1,0	1,5
1,1	1	139	181	218	251	282	339	391	506
	2	234	304	366	422	474	570	657	850
	3	288	374	449	518	583	700	806	1045
	4	328	426	512	591	664	797	919	1190
2,1	1	93	121	145	167	188	226	260	337
	2	156	203	244	281	316	380	438	567
	3	192	249	299	345	388	467	538	697
	4	218	284	341	394	442	532	613	793
3,8	1	63	82	99	114	128	141	178	230
	2	106	138	166	191	215	238	299	387
	3	130	169	204	235	264	292	367	475
	4	148	192	232	268	301	332	418	541
7,8	1	40	52	63	72	81	94	112	146
	2	67	87	105	121	136	157	189	245
	3	82	107	129	149	167	193	232	301
	4	93	122	147	169	190	220	264	342

• P= Working pressure in bar • Slope=0
Minimum working pressure=0,7 bar



K-DROP SYSTEM

GREENHOUSE SYSTEMS

K-Drop System is a pre-assembled kit that includes iDrop line drippers, stake drippers and micro-tubes, available in various diameters. Practical and functional, it is sold pre-assembled with standard measurements or self-assembled (choosing the manifold and stake) if different dimensions are required to those proposed in the pricelist. It is ideal for irrigation of crops in greenhouses or in pots: the answer to soilless irrigation needs.

Ideal for soilless crops!



K-Drop System

EXAMPLE OF KIT



A

COMPONENTS NECESSARY



DESCRIPTION

- 1 - iDrop o multifunction iDrop
- 2 - IMMC22000A032
- 3 - IMMC42000V032
- 4 - IMAST2000A000
- 5 - IMAST2000N000
- 6 - IMAST2000R000 capillary ø 3,2 mm ext.



B



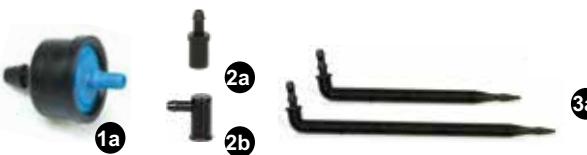
C



- 1 - IM7156000N050
- 2a - iDrop multifunzione
- 2b - iDrop light
- 3 - IMASG2000N000 microtube PE ø 6x4 mm.



D



- 1a - iDrop
- 2a - IMMO12000N030
- 2b - IMML12000N030
- 3a - IMAIP2015N030 microtube PE o PVC200 ø 6x4 mm.

- 1b - multifunction iDrop
- 2b - iDrop light
- 3b - IMAIP2015N030 microtube PE o PVC200 ø 6x4 mm.



Combinations recommended with manifold MC2-MC4

Flow rate per drop point	Capillary Ø 3,2 mm X Ø int. L= 40 cm L= 60 cm L= 60 cm L= 100 cm 0,81,01,21,50,81,01,21,50,81,01,21,50,81,01,21,5				Manifold mod.	Idrop l/h
		x	x	x		
0,5 l/h		x		x	MC4	2,2
1,0 l/h	x	x	x	x	MC2	2,2
1,0 l/h		x	x	x	MC4	4,0
1,0 l/h	x	x	x	x	MC2	2,2
1,0 l/h		x	x	x	MC4	4,0
2,0 l/h	x	x	x	x	MC2	4,0
2,0 l/h		x	x	x	MC4	7,8
3,0 l/h	x	x	x	x	MC2	6,0
4,0 l/h		x	x	x	MC2	7,8

Combinations recommended with manifold MO2-MO4

Flow rate per drop point	No. drop points	Manifold mod.	Microtube length mm	Stake type	Idrop l/h
0,5 l/h	4	MO4	50 - 80	ASD - AID	2,2
0,7 l/h	4	MO4	50 - 80	ASD - AID	3,2
1,0 l/h	4	MO4	50 - 80	ASD - AID	4,0
1,0 l/h	2	MO2	50 - 80	ASD - AID	2,2
1,5 l/h	4	MO4	50 - 80	ASD - AID	6,0
1,5 l/h	2	MO2	50 - 80	ASD - AID	3,2
1,7 l/h	4	MO4	50 - 80	ASD - AID	7,8
2,0 l/h	2	MO2	50 - 80	ASD - AID	4,0

Height difference between drop points, not recommended over 10 cm

Combinations

Insertion hole Ø 2.5 max. 3 mm



Tubes and accessories



Polyethylene tube Ø 16 and 20 mm



Microtube in PE
Ø 5x3 e 6x4 mm



Microtube in PVC200
Ø 5,5x3 e 6x4 mm



Puncher



DSV E DHS

TURBULENT FLOW INSPECTIONABLE STAKE DRIPPER

Field of application (cf. page 3)



Tree and
orchard crops



Vineyards



Olive groves



DSV

Ref.	Description	lph
IMDSV2000N004	turbulent flow stake with adjustable dripper, inspectionable with filter and vertical outlet	4
IMDSV2000N008		8
IMDSV2000N016		16

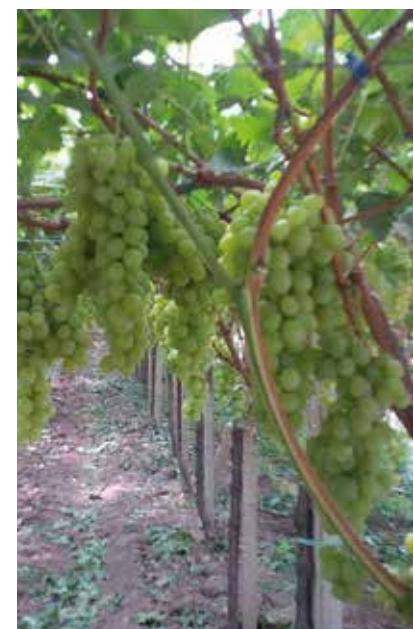
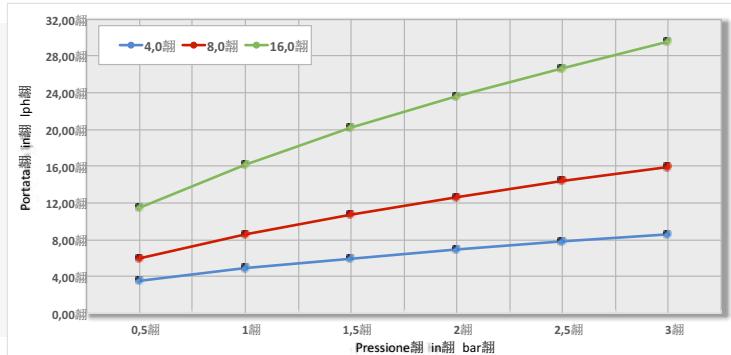


DSH

Ref.	Description	lph
IMDSH2000N004	turbulent flow stake with adjustable dripper, inspectionable with filter and rear outlet.	4
IMDSH2000N008		8
IMDSH2000N016		16

DSV e DSH - Pressure - flow rate ratio

Actual flow rate lph	Pressure (bar)						CV %	Flow Equation	
	0,5	1	1,5	2	2,5	3		x	k
4	3,5	4,9	6,0	6,9	7,8	8,6	≤ 5	0,53	1,5
8	6,0	8,6	10,7	12,7	14,4	15,9	≤ 5	0,54	2,5
16	11,5	16,2	20,2	23,7	26,7	29,6	≤ 5	0,53	4,8





CAPILLAR SYSTEM™

CAPILLAR IRRIGATION SYSTEMS

The CAPILLAR SYSTEM is a localised irrigation system by Irritec for the nursery, flower-growing and greenhouse sector. The main feature of the system is the capillary, a microtube with internal diameter from 0.6 to 1.5 mm, manufactured by a process of coextrusion. Quality control using laser technology to monitor dimensions, results in precision to one hundredth of a millimetre.

What is it?

The system consists of a polyethylene tube and capillaries:

- The tube, diameter 16, 20 or 25 mm, is pierced at the desired intervals;
- The capillary tube, with diameter 3.2 mm, is inserted in the tube and a fine stake is inserted into the end of the capillary, and placed in the soil near the plant.

How does it work?

The laminar flow generated by the extremely fine diameter of the capillary gives a constant flow rate depending on the length of the capillary and the working pressure used.

What are the advantages?

The CAPILLAR SYSTEM is a reliable and economic irrigation system:

- installation is carried out by laying the tube, supplied with the capillary already inserted, on the ground or bench and then, using the stake, the capillary is fastened to the ground near the stem of the plant;
- for maintenance, if the capillary is damaged, simply remove the capillary from the tube and insert a new capillary;
- the flexibility of the system allows variation of the emission points by modifying the length of the capillary.

The products

Irritec provides:

- complete assembled irrigation system, composed of the tube with capillary and stake (provided separately);
- the tube can be perforated manually with the specific puncher or be requested already perforated at the desired spacing and for the diameter of the capillary to insert;
- stakes in three versions, to apply to the end of the capillary according to the type of use.

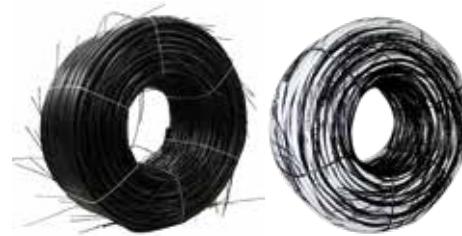
Field of application (cf. page 3)



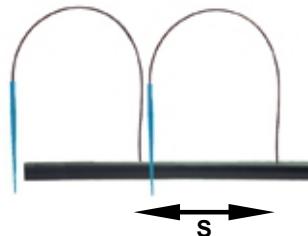
Crops protected
overground



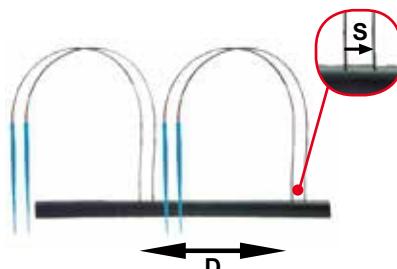
Nurseries



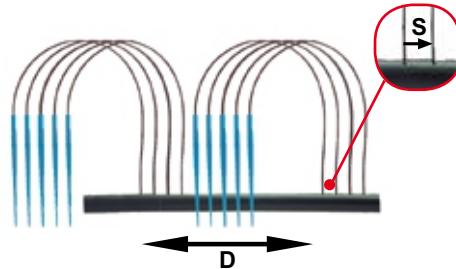
Insertion spacing



Single insertion capillary
the distance between the two capillars (**S**) is a minimum of 7 cm and a maximum of 999 cm



Double insertion capillary
the distance between the two capillars for each pair (**S**) is equal to 2.5 cm, while the distance between the pairs is a minimum of 9 cm and a maximum of 999 cm



Group insertion capillary
the distance between each capillary (**S**) is a minimum of 7 cm and a maximum of 999 cm, while the distance between the groups (**D**) is a minimum of 7 cm and a maximum of 999 cm

Capillary system - Flow rate tables of the capillaries based on the internal Ø, the length and the working pressure

5 m c.a.				
Internal Ø mm	40	60	80	94
0,6	1,6	1,1	0,9	0,8
0,8	3,2	2,4	2,0	1,8
1,0	5,8	4,7	4,0	3,4
1,2	10,1	8,3	7,1	6,2
1,5	19,0	15,0	13,0	12,5

10 m c.a.				
Internal Ø mm	40	60	80	94
0,6	2,4	2,0	1,6	1,4
0,8	5,4	4,3	3,5	3,1
1,0	9,0	7,6	6,6	5,9
1,2	14,5	12,4	11,0	9,8
1,5	26,5	22,0	19,0	18,0

external Ø	internal Ø	reels	pre-cut
3,2 mm	0,6 mm	500 mt	500 pz.
	0,8 mm	500 mt	500 pz.
	1,0 mm	500 mt	500 pz.
	1,2 mm	500 mt	500 pz.
	1,5 mm	500 mt	500 pz.

* length as required



Capillar system

Recommended lengths of the lines in metres with a flow rate variation of 10%, with working pressure of 10 m w.c.

S = single emission points

*S = single emission points
D = double emission points*



Fittings for light dripline

Ø16 internal

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
P1	16,10	0,12 - 0,60	5 - 24	0,50 - 1,70
P5	16,10	0,20 - 0,60	8 - 24	0,70 - 1,70

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
IRRITECTAPE	16,10	0,10 - 0,30	4 - 12	0,50 - 1,00
EXXTREME TAPE	16,10	0,15 - 0,30	5 - 24	0,70 - 1,00

Products available for ø16 - P1 / P5 / IRRITECTAPE / EXXTREME TAPE

	manifold		elbow		single tightening layflat bypass layflat foro 14 mm		tape dcu rubber washer bypass PE/PVC foro 17 mm
	passage manifold PE ø16 ext, PE ø20 ext		tee with rubber washer PE/PVC 15 mm		male threaded tee 3/4"		tape hose PE ø16 ext
	male fitting 1/2", 3/4"		elbow with rubber washer PE/PVC 15 mm		reduced manifold tape 22 mm		tape dru rubber washer bypass PE/PVC foro 16 mm
	bypass with rubber washer PE foro 12 mm		fitting with idle threaded ring nut 1/2", 3/4"		single tightening layflat bypass layflat foro 14 mm		tape
	bypass without rubber washer PE foro 12 mm		passage elbow PE 16 ext, PE 20 ext		tape rubber washer bypass PE foro 12 mm		tape female mini ball valve 3/4"
	double tightening layflat bypass layflat foro 14 mm		bypass with dcu rubber washer PE/PVC foro 17 mm		tape male thread 1/2", 3/4"		
	tee		bypass with dru rubber washer PE/PVC foro 16 mm		tape layflat bypass layflat foro 14 mm		

Products available for ø16 - P1 / P5

	manifold		bypass with rubber washer PE foro 12 mm		easyblock rubber washer bypass PE foro 12 mm		easyblock female mini ball valve 3/4"
	cap		single tightening layflat bypass layflat foro 14 mm		easyblock layflat bypass 18-24 mill layflat foro 14 mm		

Products available for ø16 - P1 / P5

	manifold		tape passage manifold/poly tube		90° elbow		easyblock rubber washer bypass PE foro 12 mm
	cap		90° tee with male threaded bypass		elbow with male threaded bypass		easyblock layflat bypass 6-18 mill layflat foro 14 mm
	fitting with male thread		single tightening layflat bypass layflat foro 14 mm		90° elbow with tape pass / poly tube		
	bypass with rubber washer PE foro 12 mm		90° tee				



Fittings for light dripline

Ø22 internal

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
P1	22,30	0,12 - 0,60	5 - 24	0,50 - 1,70
P5	22,30	0,20 - 0,60	8 - 24	0,70 - 1,70

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
IRRITECTAPE	22,30	0,15 - 0,30	6 - 12	0,50 - 1,00
EXXTREME TAPE	22,30	0,20 - 0,30	8 - 12	0,70 - 1,00

Products available for ø22 - P1 / P5 / IRRITECTAPE / EXXTREME TAPE

850	manifold	862	passage elbow PE 20 ext	VDT	tape rubber washer bypass PE foro 18 mm	VTT	tape
851	passage manifold PE ø16 ext, PE ø20 ext	863	bypass with dcu rubber washer PE/PVC foro 17 mm	VMT	tape male thread 3/4"	SFT	tape female mini ball valve 3/4", 1"
852	male fitting 1/2", 3/4"	866	single tightening layflat bypass layflat foro 14 mm, foro 20 mm	VLT	tape layflat bypass layflat foro 14 mm	SLT	tape layflat mini ball valve layflat foro 20 mm
853	bypass with rubber washer PE foro 12 mm	868	reduced manifold tape 16 mm	VGT	tape dcu rubber washer bypass PE/PVC foro 17 mm		
861	fitting with idle threaded ring nut 3/4"	869	single tightening layflat bypass layflat foro 14 mm	VRT	tape dru rubber washer bypass PE/PVC foro 16 mm		

Products available for ø22 - P1 / P5

880	manifold	883	bypass with rubber washer PE foro 12 mm	VDY	easyblock rubber washer bypass PE foro 12 mm	SFY	easyblock female mini ball valve 3/4"
881	cap	886	single tightening layflat bypass layflat foro 14 mm, foro 20 mm	VLY	easyblock layflat bypass 18-24 mill layflat foro 14 mm		

Products available for ø22 - P1 / P5

890	manifold	894	tape passage manifold/ poly tube	898	90° elbow	VDS	easyblock rubber washer bypass PE foro 12 mm
891	cap	895	90° tee with male threaded bypass	899	elbow with male threaded bypass	VLS	easyblock layflat bypass 6-18 mill layflat foro 14 mm
892	fitting with male thread	896	single tightening layflat bypass layflat foro 14 mm, foro 20 mm	889	90° elbow with tape pass / poly tube		
893	bypass with rubber washer PE foro 12 mm	897	90° tee				



Fittings for light dripline

Ø25 internal

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)	Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
P1	25,10	0,12 - 0,60	5 - 24	0,50 - 1,70	IRRITECTAPE	25,10	0,25 - 0,30	10 - 12	0,80 - 0,90

Products available for ø25 - P1 / IRRITECTAPE



850 manifold



852 male fitting 3/4"



bypass with dcu rubber washer
PE/PVC foro 17 mm

Ø29 internal

Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)	Dripline type	Internal Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
P1	28,60	0,12 - 0,60	5 - 24	0,50 - 1,70	IRRITECTAPE	28,60	0,25 - 0,30	10 - 12	0,70 - 0,80

Products available for ø29 - P1 / IRRITECTAPE



850 manifold



852 male fitting 3/4"



single tightening layflat bypass
layflat foro 20 mm



SLT tape layflat mini ball valve
layflat foro 20 mm



851 passage manifold
PE ø20 ext



863 bypass with dcu rubber washer
PE/PVC foro 17 mm



SFT tape female mini ball valve
1"



Fittings for integrated dripline

Ø16 nominal
external

Dripline type	External Ø (mm)	Thickness (mm) (mil)		Pressure max. (bar)
		(mm)	(mil)	
D7	16,00	0,75	30	2,50
D7, D5-M5, JUNIOR, TANDEM, MULTIBAR C, MULTIBAR C d.s - a.s., MULTIBAR F, MULTIBAR F d.s - a.s.	16,00	0,90	35	3,00
D7, MULTIBAR F, MULTIBAR F d.s - a.s.	16,00	1,00	40	3,50
D7, JUNIOR, TANDEM, MULTIBAR C, MULTIBAR C d.s - a.s.	16,00	1,10	44	4,00
D7	16,00	1,20	47	4,00

Products available for ø16 - D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

830	manifold	834	tee 3/4"	838	bypass with dru rubber washer PE/PVC foro 16 mm	849	6 outlets female threaded bypass 1"
832	male fitting 1/2", 3/4"	835	elbow	847	3 outlets female threaded bypass 1"		
833	bypass with rubber washer PE foro 12 mm	837	bypass with dcu rubber washer PE/PVC foro 17 mm	848	4 outlets female threaded bypass 1"		

Products available for ø16 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

841	manifold with safety ring	845	manifold with floating ring nut PE foro 12 mm	829	tee with safety ring		
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Products available for ø16 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

840	manifold with floating ring nut	844	tee	VGA	bypass with rubber washer PE/PVC foro 16 mm	VMA	male threaded 1/2", 3/4"
842	male fitting 1/2", 3/4"	846	male threaded tee 1/2", 3/4"	VRA	bypass with dcu rubber washer PE/PVC foro 17 mm		
843	bypass with rubber washer PE foro 12 mm	839	elbow ø20	VDA	bypass with rubber washer PE foro 12 mm		

Products available for ø16 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

802	female fitting with rotating ring nut 3/4"	812	reduced manifold ø20	816	male threaded tee 1/2", 3/4"	VDE	bypass with rubber washer PE foro 12 mm'
810	manifold	813	cap	823	elbow 90°	VEE	joint bypass
811	male fitting 1/2", 3/4"	814	tee 90°	824	elbow 90° male threaded 1/2", 3/4"	VME	male threaded 1/2", 3/4"



Fittings for integrated dripline

Ø20 nominal
external

Dripline type	External Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
D7, D5, JUNIOR, TANDEM, MULTIBAR F, MULTIBAR F d.s - a.s.	20,00	0,90	35	3,00
D7, MULTIBAR F, MULTIBAR F d.s - a.s.	20,00	1,00	40	3,50
D7	20,00	1,10	44	4,00
D7, JUNIOR, TANDEM, MULTIBAR C, MULTIBAR C d.s - a.s.	20,00	1,20	47	4,00

Products available for ø20 - D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

830 manifold	835 elbow	848 4 outlets female threaded bypass 1"	
834 tee	847 3 outlets female threaded bypass 1"	849 6 outlets female threaded bypass 1"	

Products available for ø20 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

841 manifold with safety ring	845 manifold with floating ring nut	829 tee with safety ring	
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Products available for ø20 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

840 manifold with floating ring nut	844 tee	VGA bypass with rubber washer PE/PVC foro 16 mm	VMA male threaded 1/2", 3/4"
842 male fitting 1/2", 3/4"	846 male threaded tee 1/2", 3/4"	VRA bypass with dcu rubber washer PE/PVC foro 17 mm	
843 bypass with rubber washer PE foro 12 mm	839 elbow ø16	VDA bypass with rubber washer PE foro 12 mm	

Products available for ø20 - D5-M5 / D7 / JUNIOR / TANDEM / MULTIBAR C / MULTIBAR C AS-DS / MULTIBAR F / MULTIBAR F AS-DS

801 female fitting 3/8", 1/2", 3/4"	812 reduced manifold ø16	816 male threaded tee 1/2", 3/4", 1"	VDE bypass with rubber washer PE foro 12 mm'
810 manifold	813 cap	823 elbow 90°	VEE joint bypass
811 male fitting 3/8", 1/2", 3/4", 1"	814 tee 90°	824 elbow 90° male threaded 1/2", 3/4"	VME male threaded 1/2", 3/4"



Fittings for integrated dripline

Ø23 nominal
external

Dripline type	External Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
MULTIBAR F, MULTIBAR F d.s - a.s.	23,00	1,00	40	4,00

Products available for ø23 - MULTIBAR F / MULTIBAR F AS-DS



HC800 **manifold**
ø23



H8TH75 **male fitting**
3/4"

Ø25 nominal
external

Dripline type	External Ø (mm)	Thickness (mm)	(mil)	Pressure max. (bar)
MULTIBAR F, MULTIBAR F d.s - a.s.	25,00	1,20	47	4,00

Products available for ø25 - MULTIBAR F / MULTIBAR F AS-DS



801 **female fitting**
1/2", 3/4"



812 **reduced manifold**
ø20



816 **male threaded tee**
1/2", 3/4", 1"



810 **manifold**



813 **cap**



823 **elbow 90°**



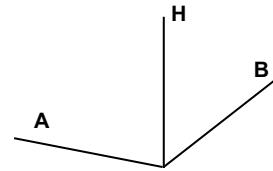
811 **male fitting**
1/2", 3/4", 1"



814 **tee 90°**



824 **elbow 90° male threaded**
3/4"



Model	Tipo	A x B mm	H mm	Q.tà x pallet	N. bobine x piano	N. piano x pallet
Tape / P1	Large	1140 x 1140	1150	20	4	5
	Large	1140 x 1140	1150	16	4	4
	Media	1140 x 1140	2170	72	9	8
	Piccola	1140 x 1140	1180	99	9	11
Ala	Ø 12 - 400 m	1140 x 1140	2170	72	9	8
	Ø 16 - 25 m	1160 x 1160	2340	110	5	22
	Ø 16 - 50 m	1160 x 1160	2440	80	4	20
	Ø 16 - 100 m	1140 x 1140	2480	56	4	14
	Ø 16 - 200 m	1140 x 1140	2260	28	4	7
	Ø 16 - 400 m	1400 x 1400	2260	28	4	7
	Ø 16 - 500 m	1140 x 1140	1120	16	4	4
	Ø 20 - 100 m	1400 x 1400	2270	44	4	11
	Ø 20 - 300 m	1800 x 1800	2260	28	4	7



EXXTREME Tape

Nominal internal Ø mm	Thickness mil	L m	no. reels per pallet	Reel dimensions	Pallet dimensions cm	no. pallets container 1AAA-40' HIGH CUBE					
16	5	3962	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40					
	6	3050		ø 57 x 20 cm hole compartment ø 40 mm							
	7	2700	20								
	8	2300									
	10	1830									
	12	1555									
22	6	2250	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40					
	7	2100									
	8	1830									
	10	1340									
	12	1219									

EXXTREME Tape - medium reels

Nominal internal Ø mm	Thickness mil	L m	no. reels per pallet	Reel dimensions	Pallet dimensions cm
16	5	1350	72	ø 39 x 25 cm hole compartment ø 40 mm	114 x 114 x 114
	6	1250			
	7	1100			
	8	1000			
	10	800			
	12	700			

irritecTape

Nominal internal Ø mm	Thickness mil	L m	no. reels per pallet	Reel dimensions	Pallet dimensions cm	no. pallets container 1AAA-40' HIGH CUBE			
16	4	4572	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40			
	5	3962							
	6	3050	20						
	7	2700							
	8	2300							
	10	1830							
22	12	1555							
	15	-							
	6	2250	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40			
	7	2100							
	8	1830							
	10	1340							
	12	1219							
25	10	1400	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40			
	12	1200							
29	10	1300	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40			
	12	1100							

irritecTape - medium reels

Nominal internal Ø mm	Thickness mil	L m	no. reels per pallet	Reel dimensions	Pallet dimensions cm
16	5	1350	72	ø 39 x 25 cm hole compartment ø 40 mm	114 x 114 x 114
	6	1250			
	7	1100			
	8	1000			
	10	800			
	12	700			

irritecTape - small reels

Nominal internal Ø mm	Thickness mil	L m	no. reels per pallet	Reel dimensions	Pallet dimensions cm
16	6	300	99	ø 39 x 9,5 cm hole compartment ø 40 mm	114 x 114 x 114
	7	250			
	8	250			
	10	220			
	12	190			



P1

Pipe nominal diametre	Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container	
mm	mil	<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE	
12 P1 SMALL	Data temporarily unavailable. The article will be produced by the end of this year.								
16 P1	5	3500	3700	4000	16	ø 57 x 25 cm hole compartment 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					
	24	600	700	800					
22 P1 ULTRA	6	2200	2200	2500	16	ø 57 x 25 cm hole compartment 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 P1 MAXI	10	1200	1200	1400	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40
	29 P1 EXTRA	12	1100	1100	1200				
	10	800	800	900					
	12	1100	1100	1300	16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40	
	12	1000	1000	1100					

P1 - medium reels

Pipe nominal diametre	Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container
mm	mil	<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE
16 P1	6	1500	1500	1500	72	ø 39 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	20
	7	1300	1300	1300				
	8	1200	1200	1200				
	10	1000	1000	1000				
	12	700	700	700				
	15	500	500	500				
	18	300	300	300				

P1 - small reels

Pipe nominal diametre	Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container
mm	mil	<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE
16 P1	6	300	300	300	99	ø 39 x 9,5 cm hole compartment ø 40 mm	114 x 114 x 114	40
	7	250	250	250				
	8	250	250	250				
	10	220	220	220				
	12	190	190	190				
	15	140	140	140				
	18	115	115	115				



P5

Pipe nominal diametre		Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container
mm	mil		<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE
16 P5	6	2500	2800	3000		16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40
	7	2300	2500	2700					
	8	2000	2200	2500					
	10	1700	1800	2000					
	12	1300	1500	1700					
	15	1100	1300	1400					
	18	800	1000	1100					
	24	600	700	800					
22 P5 ULTRA	6	2200	2200	2500		16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40
	7	2000	2000	2400					
	8	1500	1500	1800					
	10	1300	1300	1600					
	12	1200	1200	1300					
	15	900	900	1000					
	18	800	800	900					
	24	600	600	600					
25 P5 MAXI	10	1200	1200	1400		16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40
	12	1100	1100	1200					
	15	800	800	900					
29 P5 EXTRA	10	1100	1100	1300		16	ø 57 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	40
	12	1000	1000	1100					

P5 - medium reels

Pipe nominal diametre		Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container
mm	mil		<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE
16 P5	6	1000	1000	1000		72	ø 39 x 25 cm hole compartment ø 40 mm	114 x 114 x 114	20
	7	800	800	800					
	8	800	800	800					
	10	600	600	600					
	12	600	600	600					
	15	400	400	400					
	18	300	300	300					

P5 - small reels

Pipe nominal diametre		Thickness	L (m)			no. reels per pallet	Reel dimensions	Pallet dimensions	no. pallets container
mm	mil		<19 cm	20->29 cm	>30 cm	-	-	cm	1AAA 40' HIGH CUBE
16 P5	6	300	300	300		99	ø 39 x 9,5 cm hole compartment ø 40 mm	114 x 114 x 114	40
	7	250	250	250					
	8	250	250	250					
	10	220	220	220					
	12	190	190	190					
	15	140	140	140					
	18	115	115	115					

D5-M5

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
12	24	400	72		39 x 25	114 x 114 x 114	720	1440	1440
	35	400	16		57 x 20	114 x 114 x 114	1440	640	640
16	24	500	16		57 x 25	114 x 114 x 114	320	640	720
	35	500	bulk		80 x 28	-	170	400	460
20	40	500	bulk		80 x 30	-	170	400	460
	35	300	bulk		90 x 30	-	170	400	460

D7

Data temporarily unavailable. The article will be produced by the end of this year.



Tandem / Junior

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
16	35 - 44	400	bulk		80 x 30	-	150	350	400
20	35 - 47	300	bulk		90 x 30	-			

Multibar C / Multibar C d.s. - a.s.

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
16	35 - 44	400	bulk		80 x 30	-	150	350	400
20	35 - 47	300	bulk		90 x 30	-			

Multibar F / Multibar F d.s. - a.s.

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
16	24 - 35	500	16		ø 57 x 20 cm hole compartment ø 40 mm	114 x 114 x 114	170	400	460
	40	500	bulk		80 x 28	-			
20	35 - 40	300	bulk		90 x 30	-			
23	47	300	bulk		60 x 30	-			
25	47	200	bulk		60 x 30	-			

Tandem / Junior / Multibar C / Multibar C d.s. - a.s. / Multibar F / Multibar F d.s. - a.s. - bobine ridotte

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
16	35 - 44	25	110		50 x 10	116 x 116 x 110	-	1100	2200
	35 - 44	50	80		57 x 11,5	116 x 116 x 110	-	-	1600
	35 - 44	100	56		62 x 16,5	114 x 114 x 114	-	-	1120

Minidrip

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mil	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
6,6	30	15	256		22,5 x 15,5 x 6	116 x 116 x 110	5.120	10.240	-

iDrop / iDrop light PC

Model	Pack Quantity	Box Quantity	Boxes per pallet	Box dimensions	Pallet dimensions	Boxes per container		
-	pz	m	n°	cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
iDrop Normal	500	3.000	56	38,5 x 28 x 28	80 x 120 x 220	742	1.540	1.760
iDrop PC	500	3.000	56	38,5 x 28 x 28	80 x 120 x 220	742	1.540	1.760
iDrop PC ND	500	3.000	56	38,5 x 28 x 28	80 x 120 x 220	742	1.540	1.760
iDrop light PC	500	3.500	112	38,5 x 28 x 12,5	80 x 120 x 220	1.484	3.080	3.520

DSV / DSH

Model	Pack Quantity	Box Quantity	Boxes per pallet	Box dimensions	Pallet dimensions	Boxes per container		
mm	pz	m	n°	cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
DSV	-	1.200	28	60 x 40 x 30	80 x 120 x 220	371	770	880
DSH	-	1.200	28	60 x 40 x 30	80 x 120 x 220	371	770	880

Capillar system

Pipe nominal diametre		Thickness	L. reel	no. reels per pallet	Reel dimensions	Pallet dimensions	Reels per container		
mm	mm	m	n°		cm	cm	1CC 20' STANDARD	1AA 40' STANDARD	1AAA 40' HIGH CUBE
16	1,4	500	bulk		100 x 25 (approx.)	-	-	-	-
20	1,4	300	bulk		100 x 25 (approx.)	-	-	-	-
25	1,5	200	bulk		100 x 25 (approx.)	-	-	-	-



	Marchio	Norma / Regolamento	Descrizione	Ente	N° certificato
Sistema	IIP	UNI EN ISO 9001:2015	Sistema Qualità	IIP / CISQ	964
		UNI EN ISO 14001:2015	Sistema Ambientale	IIP / CISQ	174
		UE 952/2013	Operatore Economico Autorizzato	Agenzia delle dogane e dei Monopoli	IT AEOF 16 1155

	Paese	Marchio	Norma	Descrizione	Ente	N° certificato	
Product	ITALIA		UNI 9561:2006	Connecto™ +Ultra	IIP	1430	
			ISO 9261:2004	Ala gocciolante Mono™ - Rootguard Mono™ - Tandem™ - Rootguard Tandem™	IIP	1441 - 1442	
				Ala gocciolante Multibar™ C- Rootguard Multibar™ C	IIP	1441 - 1442	
				Ala gocciolante D5™	IIP	1442	
				Ala gocciolante Junior™	IIP	1441 - 1442	
				Ala gocciolante P1®	IIP	1442	
				Ala gocciolante Mono™ 2,1lph	DLG	5509	
	GERMANIA		DLG SIGNUM TEST	Ala gocciolante Multibar™ 1,6lph	DLG	5508	
				Ala gocciolante P1® 1,1lph	DLG	5506	
				Ala gocciolante Tape 0,9lph	DLG	5507	
				Connecto™ +Ultra	DVGW	DW-8616BT0102	
	SUDAFRICA		SANS 14236:2003	Connecto™ +Ultra	SABS	8357/13262	
	SVIZZERA		TPW 157		JASWIC	1624/1	
	AUSTRALIA		AS/NZS 4129:2008	Connecto™ +Ultra	SAI GLOBAL	WMKA21524	
	INGHILTERRA		BS 6920-2.1:2000	Connecto™ +Ultra	WRAS	1712054	
	ISRAELE		IS 5283	Connecto™	SII	36526	
	RUSSIA		-	Certificato igienico	GOST	3258336	
			Varie	Connecto™ - Connecto™ Plus - Raccordi filettati	GOST	1119040	
				Accessori in plastica	GOST	1260161	
				Ala gocciolante Multibar™ - P1® - P1® Rootguard - Rootguard - i-Tape	GOST	0998860	
	POLONIA		Varie	Connecto™ PN10 - Connecto™ +Ultra PN16 - Staffe	ITB	AT-15-7862/2016	
			-	Certificato igienico	-	HK.W.0091.01.2015	
	UNGHERIA		Varie	Connecto™ PN10 - Connecto™ +Ultra PN16 - Staffe	EMI	A 705/2009	
	UCRAINA	-	-	Certificato igienico	-	58960	
		-	Varie	Tutti	-	UA1.170.0087539-12	

NOTE :



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