

TECHNICAL DATA SHEET

DRIPLINE MULTIBAR C ROOTGUARD

Product description

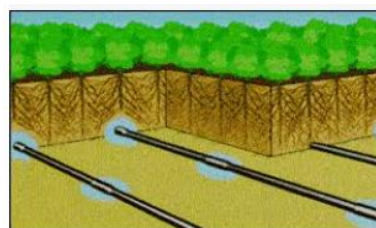
Classic dripline with pressure compensating dripper ideal for sub-surface irrigation.

Multibar is one of the most advanced technologies for sub-surface irrigation. The characteristics of the self-compensating dripper make Multibar C Rootguard an ideal product for installations in areas with large differences in ground level, where very long lines and constant flow rates are required in each point in the system and high delivery precision for the crops. Ideal solution to irrigate multi-seasonal crops and suitable for sloping lands and irregular topographies.

The Rootguard anti-radical system allows the dripline to be buried, resisting over time without suffering radical intrusion problems.

The particular design of the dripper allows effective pressure compensation within a very wide range..

Product picture



Characteristics

- Distribution of water and nutrients near the root system to promote healthy growth of plants for greater yield.
- Suitable for sloping lands and irregular topographies.
- Dripline with two emission holes, which simplifies the spreading operation on the ground.
- The particular design of the dripper allows effective pressure compensation within a very wide range.
- The self-compensation system is guaranteed by a silicone membrane which regulates and maintains the flow constant as the working pressure varies.
- Realization of line lengths greater than 800 meters.
- The turbulent flow labyrinth (self-cleaning) avoids sedimentation inside.
- Dripper inlet filter reduces the possibility of clogging due to poor quality water.

Applications

Trees and orchards crops, vineyards, olive, nurseries, and sub-surfaces

Benefits, operation, materials

- Greater yield as the water is supplied directly close to the root system.
- Both the soil and the foliage are kept dry by reducing fungal diseases.
- The product is efficient in the distribution of fertilizers that will reach the root system directly.
- Absence of obstacles in mechanized harvesting operations.
- Longer life of the system, the turbulent flow drippers and the pipes are produced with high quality raw materials that guarantee a long life.
- The product contains synthetic chemicals for the control of weeds.
- Lower maintenance cost. The irrigation system is permanently buried under the crops and does not require further manipulations.
- Labor savings due to easier distribution of fertilizers, fewer weeds, disease control and less maintenance.
- Sub-surface irrigation increases the volume of humidified soil by 46% compared to the surface irrigation system, with the same amount of water supplied.

Technical data

Table 1. Main physical characteristics

Raw material properties		
Raw material	Carbon black content (%)	Density (gr/cm ³)
PEBD	2 – 2.5	0.930

Table. Characteristic data of the pipe

Table: Characteristic data of the pipe										
Ø Nominal		Ø Internal	Ø External	Thickness		Working pressure				Kd
						Min		Max		
mm	inch	mm	mm	mil	mm	Bar	psi	Bar	psi	-
16	5/8	13,6	15.4	35	0.9	0.5	7.3	3.0	43	1.00
			15.8	44	1.10	0.5	7.3	4.0	58	
20	7/8	17,5	19.3	35	0.9	0.5	7.3	3.0	43	0.65
			19.9	47	1.20	0.5	7.3	4.0	58	

Table 3. Characteristic data of the dripper

Ø Nominal	Nominal Flow rate	Colour	Relation pressure (bar) /flowrate (lph)							
			0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
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

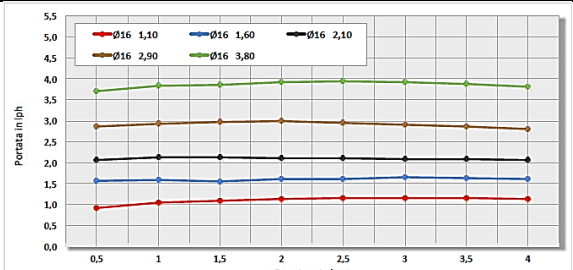


Table 3.1 Characteristic data of the dripper

Ø Nominal	Flow rate 44/47 mil	Flow rate 35 mil	Labyrinth dimension in mm			Inlet filter		Flow equation		Min. working pressure		Recommended filtering	CV
			Depth	Width	Length	Area mm²	N° 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	25	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

Table 4. Recommended lengths in meters according to the working pressure.

Ø 16 mm											Ø 20 mm										
Flow rate lph	E.U. %	Spacing (cm)									Flow rate lph	E.U. %	Spacing (cm)								
		20	30	40	50	60	75	100	125	150			20	30	40	50	60	75	100	125	150
1.10	1.0	66	95	122	148	172	206	259	308	353	1.60	1.0	95	133	168	200	229	271	334	391	444
	2.0	99	142	183	220	256	308	386	459	526		2.0	141	198	250	297	342	404	498	583	662
	3.0	119	171	219	265	309	370	465	552	633		3.0	170	238	301	358	411	486	600	702	796
	4.0	134	193	248	300	349	418	525	624	716		4.0	193	271	341	406	467	552	680	792	900
1.60	1.0	51	73	93	113	131	157	197	236	270	2.10	1.0	79	110	139	165	190	224	277	325	369
	2.0	75	108	139	168	195	234	294	351	403		2.0	117	165	207	247	284	335	413	484	550
	3.0	90	130	167	202	235	282	354	423	485		3.0	141	198	250	297	342	404	498	583	663
	4.0	102	146	188	228	265	318	400	478	548		4.0	161	227	285	340	391	462	570	659	749
2.10	1.0	43	62	80	96	112	134	169	200	230	2.90	1.0	64	90	114	135	155	184	226	266	302
	2.0	64	92	119	144	167	200	252	299	343		2.0	96	134	169	201	232	274	337	396	450
	3.0	77	111	143	173	201	241	303	359	412		3.0	115	162	204	242	279	329	406	477	542
	4.0	87	125	161	195	227	272	342	406	466		4.0	131	184	232	276	317	375	462	539	612
2.90	1.0	35	50	64	77	90	107	135	160	183	3.80	1.0	55	77	97	115	132	156	193	224	254
	2.0	51	74	95	115	133	160	201	238	273		2.0	82	114	144	171	197	233	287	334	379
	3.0	62	89	114	138	160	192	241	287	329		3.0	98	138	173	206	237	280	346	401	456
	4.0	70	100	129	156	181	217	273	324	371		4.0	111	155	196	233	268	317	391	454	516
3.80	1.0	30	42	54	66	76	92	115	136	156	Slope 0 inlet pressure 1,0bar										
	2.0	44	63	81	98	114	136	171	203	233											
	3.0	53	76	97	118	137	164	206	244	280											
	4.0	59	85	110	133	154	185	233	276	317											

Applicable standards						
Code		Title			Edition	Certificate
ISO 9261		Agricultural irrigation equipment -- Emitters and emitting pipe -- Specification and test methods.			2004	☑
Packaging						
Table 5. Standard reel packaging						
Ø Nominal (mm)	Reel Length (m)	Ø Reel external (mm)	Ø Reel Internal (mm)	Reel Height (mm)	Reel packaging ø 16 mm length 400 m	Reel packaging ø 16 mm with length from 25m to 200m
16	25	500	380	100		
	50	570	405	115		
	100	610	400	165		
	200	650	400	300		
	400	800	400	300		
20	300	900	500	300	Reel Packaging ø 20 mm length 300 m	
						
Notes e annexes						
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