

PRESSURE COMPENSATING COEXTRUDED DRIPLINE

Multibar®

ISO 9261-certified product



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IRRITEC research and innovation generated Multibar®, the pressure compensating dripline made of a polyethylene pipe provided with an incorporated dripper during the extrusion cycle for high pressure compensation. Thanks to its design, Multibar® is the suitable product to be installed in areas with big slopes and where longer run lengths are required with uniform flow-rate in each system point and precise delivery of water for vintage crops.

Characteristics and advantages

- Dripper's pressure compensated system is provided by the silicone membrane which guarantees a uniform flow-rate at varying working pressures.
- The turbulent flow labyrinth (self-cleaning) avoids sedimentations inside it.
- The dripper's inlet filter reduces clogging possibilities with poor water quality.
- The drip points of the dripper enable a quick and easy installation with no need to check the emission point position and guarantee pipe emptying at the end of the irrigation cycle.

For the abovementioned characteristics Multibar® allows:

- perfect dosage of fertilizer in any system point;
- maximum precision in water distribution in any topographical condition;
- run lengths over 800 meters;
- the use of working pressures from 0.5 to 4 bar.

Applications



Tree crops and orchards



Vineyards



Olive groves



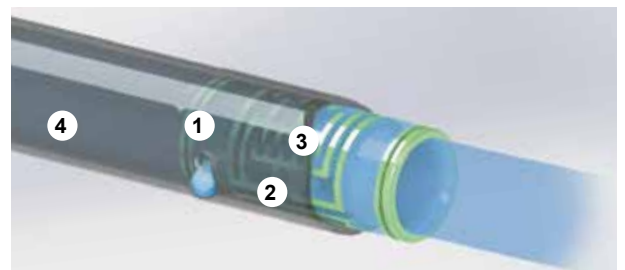
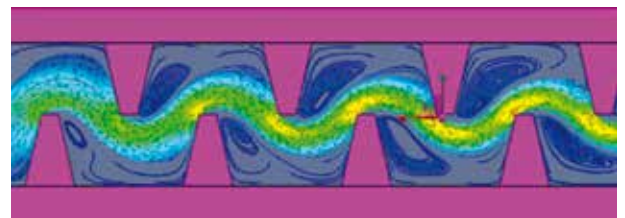
Nurseries

Recommended for sloping lands.

N.B.: brown color version for landscape irrigation available.



Turbulent flow labyrinth



1 - Exit holes

2 - Inlet filter with large filter surface

3 - Turbulent flow labyrinth with low sensitivity to pressure

4 - Polyethylene pipe

PE pipe characteristics

Nominal ø	Inside ø	Price list ref.	Outside ø	Wall thickness		Max. working pressure		Kd
mm	mm	-	mm	mil	mm	bar	psi	-
16	13,8	FAMA35	15,6	35	0,9	3,0	43	1
		FAMA44	16,0	44	1,10	4,0	58	
20	17,7	FAMB47	20,1	47	1,20	4,0	58	0,65

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Dripper characteristics

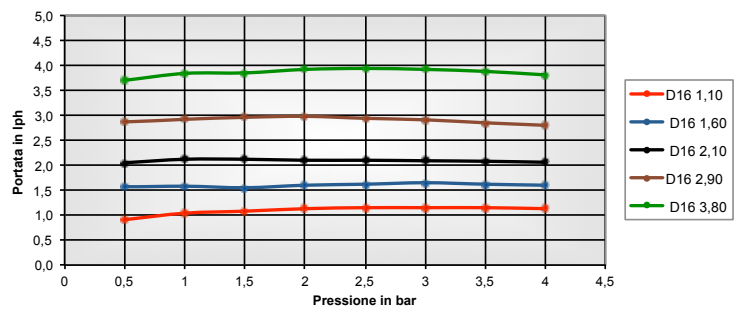
Nominal ϕ mm	Nominal flow-rate lph a 1,0 bar	Labyrinth dimension mm			Inlet filter		Flow equation		Compensating range		Recommended filtration	CV
		Depth	Width	Length	Area mm ²	No. of holes	k	x	bar	psi	mesh	%
16	1,10	0,7	0,7	35	3,6	12	0,86	0,035	0,5	7,3	155	≤ 4
	1,60	1	0,8	35	3,6	12	1,51	0,020	0,5	7,3	155	≤ 4
	2,10	1,1	0,8	35	3,6	12	2,06	0,020	0,5	7,3	155	≤ 4
	2,90	1,1	0,8	22	3,6	12	2,90	0,025	0,5	7,3	155	≤ 4
	3,80	1,3	1,1	35	3,6	12	3,65	0,020	0,5	7,3	155	≤ 4
20	1,60	1,1	0,8	42	3,6	12	1,53	0,020	0,5	7,3	155	≤ 4
	2,10	1,25	0,8	42	3,6	12	2,10	0,020	0,5	7,3	155	≤ 4
	2,90	1,25	0,8	32	3,6	12	2,75	0,027	0,5	7,3	155	≤ 4
	3,80	1,25	1,3	42	3,6	12	3,55	0,030	0,5	7,3	155	≤ 4

Available flow-rates



Pressure/flow-rate relation

Nominal ϕ mm	Nominal flow-rate lph	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



Recommended lengths in meters, according to pressure

Flow-rate lph	Pressure bar	MULTIBAR 16 mm Spacing (cm)								
		20	30	40	50	60	75	100	125	150
1,10	1,0	66	95	122	148	172	206	259	308	353
	2,0	99	142	182	220	256	308	386	459	526
	3,0	119	171	219	265	309	370	465	552	633
	4,0	134	193	248	300	349	418	525	624	716
1,60	1,0	51	73	93	113	131	157	197	236	270
	2,0	75	108	139	168	195	234	294	351	403
	3,0	90	130	167	202	235	282	354	423	485
	4,0	102	146	188	228	265	318	400	478	548
2,10	1,0	43	62	80	96	112	134	169	200	230
	2,0	64	92	119	144	167	200	252	299	343
	3,0	77	111	143	173	201	241	303	359	412
	4,0	87	125	161	195	227	272	342	406	466
2,90	1,0	35	50	64	77	90	107	135	160	183
	2,0	51	74	95	115	133	160	201	238	273
	3,0	62	89	114	138	160	192	241	287	329
	4,0	70	100	129	156	181	217	273	324	371
3,80	1,0	30	42	54	66	76	92	115	136	156
	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

Flow-rate lph	Pressure bar	MULTIBAR 20 mm Spaziatura (cm)								
		20	30	40	50	60	75	100	125	150
1,60	1,0	95	133	168	200	229	271	334	391	444
	2,0	141	198	250	297	342	404	498	583	662
	3,0	170	238	301	358	411	486	600	702	796
	4,0	193	271	341	406	467	552	680	792	900
2,10	1,0	79	110	139	165	190	224	277	325	369
	2,0	117	165	207	247	284	335	413	484	550
	3,0	141	198	250	297	342	404	498	583	663
	4,0	161	227	285	340	391	462	570	659	749
2,90	1,0	64	90	114	135	155	184	226	266	302
	2,0	96	134	169	201	232	274	337	396	450
	3,0	115	162	204	242	279	329	406	477	542
	4,0	131	184	232	276	317	375	462	539	612
3,80	1,0	55	77	97	115	132	156	193	224	254
	2,0	82	114	144	171	197	233	287	334	379
	3,0	98	138	173	206	237	280	346	401	456
	4,0	111	155	196	233	268	317	391	454	516

• Slope=0