

Hydro PCND

No-drain flow-regulated integral dripline



JOHN DEERE
WATER



Hydro PCND is a dripline containing flow-regulating cylindrical drippers. Hydro PCND has a sensitive floating diaphragm which regulates and maintains a constant flow rate at variable inlet pressures. In addition to the flow regulation, Hydro PCND also has a no-drain feature. The water stops flowing through the emitters when the pressure drops to 1.0 m. The no-drain feature protects driplines from sucking in small soil particles at system shut down. And with two outlets per dripper, Hydro PCND will continue to deliver the right amount water, throughout the entire field.

The Hydro PCND is the ideal choice for subsurface drip irrigation systems. Like the standard Hydro PC, it has a high clogging resistance due to the design and size of the emitter channel. And with the self-cleaning mechanism, the dripper continuously flushes the inlet filter in the dripline.

The Hydro PCND is constructed with premium resins resistant to UV degradation and damage caused from commonly used chemicals and fertilizers.

Specifications

Constant Inside Diameter (I.D.) regardless of dripline wall thickness.

- 12mm - I.D. 10.4 mm; Wall thickness: 35, 40 mil (0.9, 1.0 mm)
Flow rate: 1.05 lph
Sealing pressure: 0.12 bar

- 16mm - I.D. 13.8mm; Wall thickness: 35, 40, 45 mil

Flow rates: 1.35, 1.75, 2.35, 3.75 lph

- 17mm - I.D. 15.3 mm; Wall thickness: 40, 45, 47 mil

Flow rates: 1.35, 1.60, 2.35, 3.75 lph

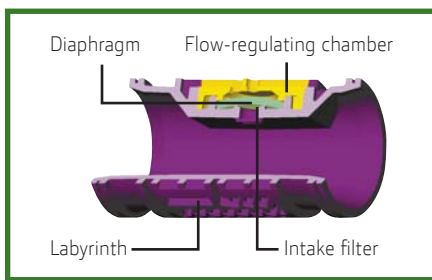
- 20mm - I.D. 17.6 mm ; Wall thickness: 45, 47 mil

Flow rates: 1.35, 1.75, 2.35, 3.60 lph

Sealing pressure: 0.1 bar

Operating pressure range: 0.8-3.5 bar (Max. recommended operation pressure according to wall thickness: 35 mil - 3.0 bar; 45-47 mil - 3.5 bar)

Applications: Subsurface drip systems, short interval irrigation in greenhouses



Hydro PCND 16, 17, 20 mm Maximum Recommended Dripline Length (m) on Flat Terrain

Flow Rate (lph)	Emitter Spacing (m)	Pipe Diameter 16 mm			Pipe Diameter 17 mm			Pipe Diameter 20 mm		
		Dripline Inlet Pressure (bar)			Dripline Inlet Pressure (bar)			Dripline Inlet Pressure (bar)		
		1.0	2.0	3.0	1.0	2.0	3.0	1.0	2.0	3.0
1.35										
0.2	61	93	112	75	116	139	84	147	180	
0.3	86	132	159	105	163	197	117	206	253	
0.4	108	168	202	133	206	248	147	259	318	
0.5	130	201	243	158	246	297	175	308	379	
0.6	149	232	281	181	283	341	200	354	436	
0.8	186	290	350	224	350	424	246	438	539	
1.0	219	342	414	264	412	499	289	514	634	
1.75*										
0.2	43	76	92	58	101	123	71	124	152	
0.3	62	107	131	81	142	174	99	174	213	
0.4	78	136	167	102	179	220	124	219	269	
0.5	93	163	201	121	214	263	148	261	321	
0.6	107	188	232	139	245	302	169	299	368	
0.8	133	235	290	172	305	375	209	370	457	
1.0	157	278	342	202	359	442	245	435	537	
2.35										
0.2	36	62	76	41	76	94	54	101	124	
0.3	51	89	108	58	108	133	76	141	175	
0.4	64	112	138	72	136	168	95	178	220	
0.5	77	135	166	87	163	201	113	212	263	
0.6	88	156	191	99	187	232	129	244	302	
0.8	110	194	239	122	232	287	159	302	374	
1.0	130	230	283	144	273	339	187	355	440	
3.75**										
0.2	26	46	56	30	56	69	44	77	95	
0.3	37	65	80	43	79	98	62	109	133	
0.4	47	83	102	54	100	124	78	137	168	
0.5	57	100	122	64	120	149	93	163	201	
0.6	65	115	142	73	138	171	106	188	231	
0.8	82	144	177	90	171	213	131	233	286	
1.0	96	170	209	107	202	251	154	274	337	

* Flow rate for 17 mm: 1.60 lph

** Flow rate for 20 mm: 3.60 lph

Hydro PCND 12 mm - 1.05 lph Maximum Recommended Dripline Length (m) on Flat Terrain

Pressure (bar)	Emitter Spacing							
	0.15	0.20	0.30	0.40	0.50	0.60	0.75	1.00
1.0	28	36	52	65	78	90	107	132
2.0	49	63	90	114	137	158	189	234
2.5	55	70	101	129	154	178	212	264

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