

# Neptune PC AS and AL



## Range

Neptune PC is available in a wide and complete range of configurations:

### Diameter 16 mm:

- Wall thickness 0.9, 1.0, 1.1 mm

### Diameter 20 mm:

- Wall thickness 0.9, 1.0, 1.2 mm

### Dripper spacing:

- 25/30/40/45/50/60/70/75/80/90/100 cm  
(Other spacing available on request)

### Grouping spacing (optional).

### 4 different emitters with flow rates:

- 3,8 l/h between 0,5 and 3,5 bar;
- 2,4 l/h between 0,5 and 3,5 bar;
- 1,6 l/h between 0,5 and 3,5 bar;
- 1,0 l/h between 0,5 and 3,5 bar.

### 2 emitters' versions:

- ANTI-SIPHON (AS);
- NO-DRAIN (AL).

The Neptune PC dripline is available in two versions: ANTI-SIPHON (AS) and NO-DRAIN (AL) with integrated pressure-compensating emitter.

The pressure-compensating mechanism of the dripper guarantees:

- High resistance to clogging;
- High emission uniformity;
- Multiyear durability.

The great distribution uniformity optimizes the crop results; each plant receives the same amount of water, nutritional factors and fertilizers. Neptune PC can be installed on the surface, underground or hanged on a wire.



## Main features

The pressure compensating emitter makes Neptune PC the perfect choice for:

- Difficult topographical conditions, particularly on undulating terrain;
- Installations requiring long lateral lines;
- Variable or low water pressure.

**Neptune PC** has the following characteristics:

- Pressure compensating system guaranteeing a constant flow rate even when the pressure varies (between 0,5 and 3,5 bar), allowing precise water and nutrient distribution even in the toughest conditions;
- The anti-siphon (AS) system (both in the AS that in AL version) reduces suction effects, preventing suction of impurities;
- Excellent efficiency that allows long lateral lines with high emission uniformity;
- The wide range of emitters and the spacing give great flexibility in the system design;

- Blue stripe for easy identification;

- Outlet hole made using precision mechanical technology

- Product identification code printed on tube

The ANTI-SIPHON system prevents impurities entering from the outside and can therefore also be installed underground, perfectly maintaining its irrigation characteristics and its multiyear durability.

The NO-DRAIN system is the version specifically designed to be installed in all irrigation systems where short and frequent irrigation cycles are required. Thanks to its low-pressure closing system, the emitter allows:

- Preventing leaks thus ensuring perfect irrigation uniformity;

- Maintaining the system pressurized hence resulting in a further saving in time, water and energy.



## Applications

The Neptune PC dripline is ideal for irrigating permanent and seasonal crops such as:

- Vitaceae (wine and table grapes);
- Oleaceae (olive);
- Rosaceae (apples, pears, plums, damsons, peaches, apricots, cherries, cherry plums, almonds, medlars, quinces);
- Rutaceae (oranges, lemons, clementines, citrons, grapefruit, tangerines, limes, mapo, pomelo);
- Corylaceae (hazelnuts);
- Juglandaceae (walnuts, pecans);
- Actinidiaceae (kiwi);
- Anarcadiaceae (pistachio, mango, cashew);
- Punicaceae (pomegranate);
- Ebanaceae (persimmon);
- Musaceae (banana);
- Rubiaceae (coffee);
- Sterculiaceae (cocoa)
- Moraceae (figs);
- Aracaceae (coconut, dates);
- Lauraceae (avocado);
- Caricaceae (papaya);
- Small fruits (bilberry, blackberry).

In topographically difficult soils, especially on undulating land, it is essential to use a pressure compensating dripline able to guarantee constant distribution in relation to the differences in altitude.

In all these situations, Neptune PC is the best choice.

## Neptune PC - AS and AL - Slope 0%

Code	Individual emitter flow rate between 0,5 bar and 3,5 bar	Emitter Spacing	Flow rate per meter (l/h/m) between 0,5 bar and 3,5 bar	Required Filtration mesh
<b>Emitter PC (3,8 l/h)</b>				150
PPxyzz2538	3,8 l/h	25 cm	15,2	
PPxyzz3038	3,8 l/h	30 cm	2,7	
PPxyzz4038	3,8 l/h	40 cm	9,5	
PPxyzz4538	3,8 l/h	45 cm	8,4	
PPxyzz5038	3,8 l/h	50 cm	7,6	
PPxyzz6038	3,8 l/h	60 cm	6,3	
PPxyzz7038	3,8 l/h	70 cm	5,4	
PPxyzz7538	3,8 l/h	75 cm	5,1	
PPxyzz8038	3,8 l/h	80 cm	4,8	
PPxyzz9038	3,8 l/h	90 cm	4,2	
PPxyzz10038	3,8 l/h	100 cm	3,8	
<b>Emitter PC (2,4 l/h)</b>				150
PPxyzz2524	2,4 l/h	25 cm	9,6	
PPxyzz3024	2,4 l/h	30 cm	8,0	
PPxyzz4024	2,4 l/h	40 cm	6,0	
PPxyzz4524	2,4 l/h	45 cm	5,3	
PPxyzz5024	2,4 l/h	50 cm	4,8	
PPxyzz6024	2,4 l/h	60 cm	4,0	
PPxyzz7024	2,4 l/h	70 cm	3,4	
PPxyzz7524	2,4 l/h	75 cm	3,2	
PPxyzz8024	2,4 l/h	80 cm	3,0	
PPxyzz9024	2,4 l/h	90 cm	2,7	
PPxyzz10024	2,4 l/h	100 cm	2,4	
<b>Emitter PC (1,6 l/h)</b>				150
PPxyzz2516	1,6 l/h	25 cm	6,4	
PPxyzz3016	1,6 l/h	30 cm	5,3	
PPxyzz4016	1,6 l/h	40 cm	4,0	
PPxyzz4516	1,6 l/h	45 cm	3,6	
PPxyzz5016	1,6 l/h	50 cm	3,2	
PPxyzz6016	1,6 l/h	60 cm	2,7	
PPxyzz7016	1,6 l/h	70 cm	2,3	
PPxyzz7516	1,6 l/h	75 cm	2,1	
PPxyzz8016	1,6 l/h	80 cm	2,0	
PPxyzz9016	1,6 l/h	90 cm	1,8	
PPxyzz10016	1,6 l/h	100 cm	1,6	
<b>Emitter PC (1,0 l/h)</b>				150
PPxyzz2510	1,0 l/h	25 cm	4,0	
PPxyzz3010	1,0 l/h	30 cm	3,3	
PPxyzz4010	1,0 l/h	40 cm	2,5	
PPxyzz4510	1,0 l/h	45 cm	2,2	
PPxyzz5010	1,0 l/h	50 cm	2,0	
PPxyzz6010	1,0 l/h	60 cm	1,7	
PPxyzz7010	1,0 l/h	70 cm	1,4	
PPxyzz7510	1,0 l/h	75 cm	1,3	
PPxyzz8010	1,0 l/h	80 cm	1,3	
PPxyzz9010	1,0 l/h	90 cm	1,1	
PPxyzz10010	1,0 l/h	100 cm	1,0	

## Codification

If PC ANTI-SIPHON

**PPC**

**PPL**

If NO-DRAIN

**16 11 40 16**

Nominal diameter in mm

Wall thickness in mm  
(without decimal point)

Emitter spacing  
in cm

Individual emitter flow rate in l/h  
(without decimal point)

## Neptune PC - AS and AL

Flow rate in l/h between 0,5 and 3,5 bar	1,0	1,6	2,4	3,8
Emitter code	10	16	24	38



## Performance

The following tables indicate the maximum length of the lines in relation to inlet water pressure.

### Note:

In determining the maximum length, the maximum inlet pressure as indicated in the "Technical Data" table must be respected.

### Neptune PC - AS and AL - Diameter 16 mm - Slope 0%

Code	Individual Emitter flow rate between 0,5 bar 3,5 bar	Emitter spacing	Maximum Lateral Lengths in meters					
			@ 1,0 bar	@ 1,5 bar	@ 2,0 bar	@ 2,5 bar	@ 3,0 bar	@ 3,5 bar
PPx16xx2538	3,8 l/h	25 cm	45	58	67	74	80	85
PPx16xx3038		30 cm	52	67	77	85	92	98
PPx16xx4038		40 cm	66	84	97	107	115	123
PPx16xx4538		45 cm	72	92	106	117	126	135
PPx16xx5038		50 cm	78	99	114	127	137	146
PPx16xx6038		60 cm	89	113	131	145	157	167
PPx16xx7038		70 cm	99	127	146	162	175	187
PPx16xx7538		75 cm	104	133	154	170	184	196
PPx16xx8038		80 cm	109	140	161	178	193	206
PPx16xx9038		90 cm	118	152	175	194	210	224
PPx16xx10038		100 cm	127	163	189	209	226	241
PPx16xx2524		2,4 l/h	25 cm	61	78	90	99	107
PPx16xx3024	30 cm		71	90	104	115	124	132
PPx16xx4024	40 cm		88	113	130	144	155	166
PPx16xx4524	45 cm		96	123	142	157	170	181
PPx16xx5024	50 cm		104	133	154	170	184	196
PPx16xx6024	60 cm		119	152	176	195	211	224
PPx16xx7024	70 cm		133	170	197	218	235	251
PPx16xx7524	75 cm		140	179	207	229	247	264
PPx16xx8024	80 cm		146	187	216	239	259	276
PPx16xx9024	90 cm		159	204	235	260	282	300
PPx16xx10024	100 cm		171	219	253	280	303	323
PPx16xx2516	1,6 l/h		25 cm	80	102	117	130	140
PPx16xx3016		30 cm	92	118	136	150	162	173
PPx16xx4016		40 cm	115	147	169	187	203	216
PPx16xx4516		45 cm	125	160	185	205	222	236
PPx16xx5016		50 cm	135	173	200	222	240	256
PPx16xx6016		60 cm	155	198	229	253	274	292
PPx16xx7016		70 cm	173	221	256	283	307	327
PPx16xx7516		75 cm	181	232	268	297	322	344
PPx16xx8016		80 cm	190	243	281	311	337	360
PPx16xx9016		90 cm	206	264	305	338	366	391
PPx16xx10016		100 cm	222	284	329	364	396	421
PPx16xx2510		1,0 l/h	25 cm	109	138	159	176	190
PPx16xx3010	30 cm		125	160	183	203	220	234
PPx16xx4010	40 cm		156	199	229	254	274	292
PPx16xx4510	45 cm		170	217	251	277	300	319
PPx16xx5010	50 cm		184	235	271	300	324	345
PPx16xx6010	60 cm		210	268	310	343	370	395
PPx16xx7010	70 cm		234	300	346	383	414	441
PPx16xx7510	75 cm		246	315	363	402	435	464
PPx16xx8010	80 cm		257	329	380	421	455	485
PPx16xx9010	90 cm		279	357	413	457	495	527
PPx16xx10010	100 cm		300	385	444	493	532	568

Irrloc software allows you to quickly design your irrigation system even on hilly or undulating terrains.

Through Irrloc, you can also design the mainlines and you can display the emission uniformity on both the later lines and irrigation blocks.

Free Download: [www.toro-ag.it](http://www.toro-ag.it).

## Neptune PC - AS and AL - Diameter 20 mm - Slope 0%

Code	Individual Emitter flow rate between 0,5 bar 3,5 bar	Emitter spacing	Maximum Lateral Lengths in meters					
			@ 1,0 bar	@ 1,5 bar	@ 2,0 bar	@ 2,5 bar	@ 3,0 bar	@ 3,5 bar
PPx20xx2538	3,8 l/h	25 cm	66	84	97	107	116	123
PPx20xx3038		30 cm	77	98	113	124	134	143
PPx20xx4038		40 cm	97	123	142	157	170	181
PPx20xx4538		45 cm	106	135	156	172	186	198
PPx20xx5038		50 cm	115	147	169	187	202	215
PPx20xx6038		60 cm	132	168	194	215	232	247
PPx20xx7038		70 cm	148	189	218	241	260	278
PPx20xx7538		75 cm	155	199	229	253	274	292
PPx20xx8038		80 cm	163	208	240	266	287	306
PPx20xx9038		90 cm	177	227	262	290	313	334
PPx20xx10038		100 cm	191	244	282	312	338	360
PPx20xx2524		2,4 l/h	25 cm	89	114	131	144	156
PPx20xx3024	30 cm		104	132	152	168	181	193
PPx20xx4024	40 cm		130	166	191	211	228	243
PPx20xx4524	45 cm		143	182	210	232	250	267
PPx20xx5024	50 cm		155	197	227	251	272	289
PPx20xx6024	60 cm		177	226	261	289	312	332
PPx20xx7024	70 cm		198	254	293	324	350	373
PPx20xx7524	75 cm		209	267	308	341	368	393
PPx20xx8024	80 cm		219	280	323	357	386	412
PPx20xx9024	90 cm		238	304	351	389	421	448
PPx20xx10024	100 cm		256	328	379	419	454	484
PPx20xx2516	1,6 l/h		25 cm	116	148	171	189	204
PPx20xx3016		30 cm	135	172	198	219	237	252
PPx20xx4016		40 cm	169	216	249	275	298	317
PPx20xx4516		45 cm	185	237	272	301	326	348
PPx20xx5016		50 cm	201	256	296	327	354	377
PPx20xx6016		60 cm	230	294	339	376	407	433
PPx20xx7016		70 cm	258	330	380	421	456	486
PPx20xx7516		75 cm	271	347	400	443	480	511
PPx20xx8016		80 cm	284	365	419	464	503	536
PPx20xx9016		90 cm	309	395	456	505	547	584
PPx20xx10016		100 cm	332	426	492	545	591	630
PPx20xx2510		1,0 l/h	25 cm	159	202	232	256	276
PPx20xx3010	30 cm		184	234	269	297	321	342
PPx20xx4010	40 cm		230	293	339	373	403	430
PPx20xx4510	45 cm		252	321	370	409	442	471
PPx20xx5010	50 cm		273	348	401	443	479	510
PPx20xx6010	60 cm		312	399	460	508	550	586
PPx20xx7010	70 cm		349	446	515	570	616	657
PPx20xx7510	75 cm		367	469	542	599	648	691
PPx20xx8010	80 cm		385	492	567	628	679	724
PPx20xx9010	90 cm		418	535	617	683	739	788
PPx20xx10010	100 cm		450	576	665	736	797	849

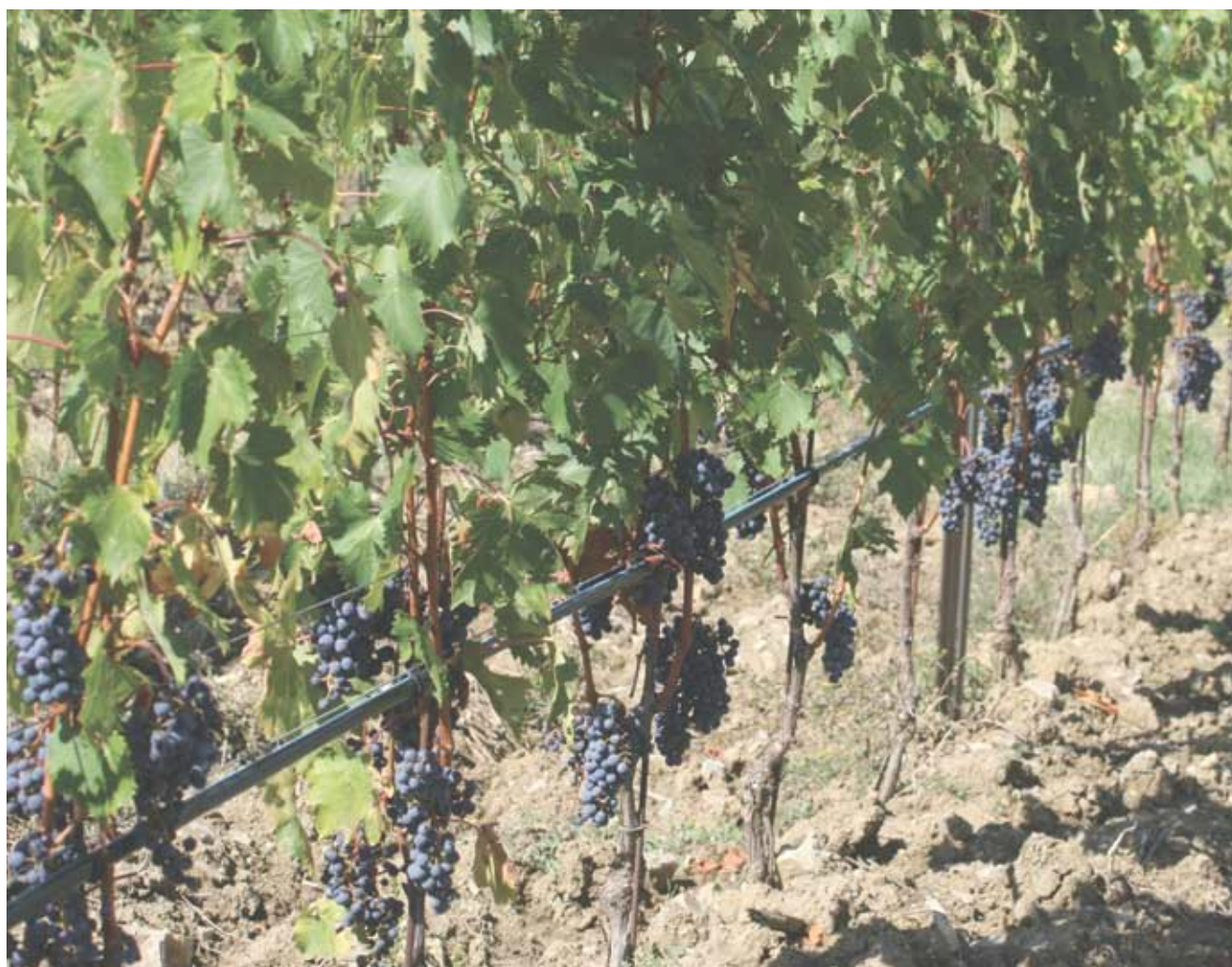
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## Technical and logistical data

Nominal Diameter	Internal Diameter	Wall thickness	External Diameter	Max Pressure	Coil Length
16 mm	13,8 mm	0,9 mm	15,6 mm	3,5 bar	500 m
		1,0 mm	15,8 mm	3,5 bar	500 m
		1,1 mm	16,0 mm	3,5 bar	500 m
20 mm	17,6 mm	0,9 mm	19,4 mm	3,0 bar	370 m
		1,0 mm	19,6 mm	3,3 bar	350 m
		1,2 mm	20,0 mm	3,5 bar	340 m

	Container 20'	Container 40'	Container 40' HC	Truck 13,6 m
<b>Quantity of coils</b>	160	320	360	400



TAPE AND DRIPLINE

Nominal Diameter	Wall thickness	Emitter spacing	Coil weight	Coil dimensions (Ø x h)
16 mm	0,9 mm	25 cm	22,2 kg	80 cm x 30 cm
		30 cm	21,9 kg	80 cm x 30 cm
		40 cm	21,5 kg	80 cm x 30 cm
		45 cm	21,4 kg	80 cm x 30 cm
		50 cm	21,3 kg	80 cm x 30 cm
		60 cm	21,2 kg	80 cm x 30 cm
		70 cm	21,1 kg	80 cm x 30 cm
		75 cm	21,1 kg	80 cm x 30 cm
		80 cm	21,0 kg	80 cm x 30 cm
		90 cm	21,0 kg	80 cm x 30 cm
	100 cm	20,9 kg	80 cm x 30 cm	
	1,0 mm	25 cm	24,5 kg	80 cm x 30 cm
		30 cm	24,2 kg	80 cm x 30 cm
		40 cm	23,8 kg	80 cm x 30 cm
		45 cm	23,7 kg	80 cm x 30 cm
		50 cm	23,6 kg	80 cm x 30 cm
		60 cm	23,5 kg	80 cm x 30 cm
		70 cm	23,4 kg	80 cm x 30 cm
		75 cm	23,4 kg	80 cm x 30 cm
		80 cm	23,3 kg	80 cm x 30 cm
		90 cm	23,3 kg	80 cm x 30 cm
	100 cm	23,2 kg	80 cm x 30 cm	
	1,1 mm	25 cm	26,8 kg	80 cm x 30 cm
		30 cm	26,5 kg	80 cm x 30 cm
		40 cm	26,1 kg	80 cm x 30 cm
		45 cm	26,0 kg	80 cm x 30 cm
		50 cm	25,9 kg	80 cm x 30 cm
		60 cm	25,8 kg	80 cm x 30 cm
		70 cm	25,7 kg	80 cm x 30 cm
		75 cm	25,7 kg	80 cm x 30 cm
80 cm		25,6 kg	80 cm x 30 cm	
90 cm		25,6 kg	80 cm x 30 cm	
100 cm	25,5 kg	80 cm x 30 cm		
20 mm	0,9 mm	25 cm	19,0 kg	80 cm x 30 cm
		30 cm	18,8 kg	80 cm x 30 cm
		40 cm	18,6 kg	80 cm x 30 cm
		45 cm	18,5 kg	80 cm x 30 cm
		50 cm	18,4 kg	80 cm x 30 cm
		60 cm	18,3 kg	80 cm x 30 cm
		70 cm	18,2 kg	80 cm x 30 cm
		75 cm	18,2 kg	80 cm x 30 cm
		80 cm	18,2 kg	80 cm x 30 cm
		90 cm	18,1 kg	80 cm x 30 cm
	100 cm	18,1 kg	80 cm x 30 cm	
	1,0 mm	25 cm	19,9 kg	80 cm x 30 cm
		30 cm	19,7 kg	80 cm x 30 cm
		40 cm	19,4 kg	80 cm x 30 cm
		45 cm	19,4 kg	80 cm x 30 cm
		50 cm	19,3 kg	80 cm x 30 cm
		60 cm	19,2 kg	80 cm x 30 cm
		70 cm	19,1 kg	80 cm x 30 cm
		75 cm	19,1 kg	80 cm x 30 cm
		80 cm	19,1 kg	80 cm x 30 cm
		90 cm	19,0 kg	80 cm x 30 cm
	100 cm	19,0 kg	80 cm x 30 cm	
	1,2 mm	25 cm	22,9 kg	80 cm x 30 cm
		30 cm	22,7 kg	80 cm x 30 cm
		40 cm	22,5 kg	80 cm x 30 cm
		45 cm	22,4 kg	80 cm x 30 cm
		50 cm	22,4 kg	80 cm x 30 cm
		60 cm	22,3 kg	80 cm x 30 cm
		70 cm	22,2 kg	80 cm x 30 cm
		75 cm	22,2 kg	80 cm x 30 cm
80 cm		22,2 kg	80 cm x 30 cm	
90 cm		22,1 kg	80 cm x 30 cm	
100 cm	22,1 kg	80 cm x 30 cm		



TAPE AND DRIPLINE