

PCJ™ PRO on line dripper

On line compact pressure-compensated, continuously self-flushing dripper, for greenhouses, nurseries, other protected crops applications. For growers who seek uniform and precise irrigation in challenging water quality and intensive irrigation.



Compact size



Pressure-compensated



Anti-drain mechanism (optional)

/ Benefits & Features

- **Pressure-compensated** Precise and equal amounts of water delivered over a broad pressure range, ensuring 100% uniformity of water and nutrient distribution along the laterals.
- **Anti-drain mechanism (LCNL & HCNL)** Eliminates drainage and refill effect, and improves efficiency in pulse irrigation even in steep topography (optional).
- **Continuously self-flushing** Flushes debris throughout operation, while ensuring constant dripper operation even in challenging water qualities.
- **Wide water passages** TurboNet™ labyrinth ensures wide water passages, large deep and wide cross-section that improves clogging resistance. The water is drawn into the dripper from the stream center, preventing the entrance of sediment into the drippers.
- **Flexible location** Drippers can be positioned exactly where required. Number of drippers can be increased to increase the water quantities applied.
Allows the installation of "spider assembly", splitting the drip supply to a number of drip outlets.

/ Specifications

- Pressure-compensated range according to tables below.
- Recommended filtration: 130 micron / 120 mesh. Filtration method selected based on the kind and concentration of dirt particles contained in the water. Wherever sand exceeding 2 ppm exists in the water, a Hydrocyclone should be installed before the main filter. Where sand/silt/clay solids exceed 100 ppm, pre treatment it should be applied following Netafim™ expert instructions.
- TurboNet™ labyrinth with large water passage.
- Insertable into thick wall blank PE pipes (0.90, 1.00, 1.20 mm).
- Injected dripper, very low CV with injected silicon diaphragm.
- High UV resistant. Resistant to standard nutrients used in agriculture.
- Compliance ISO 9261 international standards.
- Different outlets: nipple (press fit), straight or angled barb to 3 mm ID micro-tube, straight barb to 4 mm ID micro-tube.

→ Drippers technical data

PCJ™ PRO drippers

Flow rate* (l/h)	Working pressure range (bar)	Water passages dimensions width-depth-length (mm)	Filtration area (mm ²)	Constant K	Exponent* X	Base code color	Cap color Code
1.2	0.5 – 4.0	0.70 x 0.84 x 39	2.8	1.2	0	Brown	Black
2.0		0.95 x 0.84 x 39	2.8	2.0	0	Red	Black
3.0		1.13 x 0.98 x 39	2.8	3.0	0	Blue	Black
4.0		1.31 x 0.98 x 39	2.8	4.0	0	Gray	Black

*Within working pressure range

→ Drippers technical data

PCJ™ PRO LCNL drippers

Flow rate* (l/h)	Working pressure range (bar)	Water passages dimensions width-depth-length (mm)	Filtration area (mm ²)	Constant K	Exponent* X	Shut off pressure (bar)	Base code color **	Cap color Code
1.2	0.7 – 4.0	0.70 x 0.84 x 39	2.8	1.2	0	0.15	Brown	Black
2.0		0.95 x 0.84 x 39	2.8	2.0	0	0.15	Red	Black
3.0		1.13 x 0.98 x 39	2.8	3.0	0	0.15	Blue	Black
4.0		1.31 x 0.98 x 39	2.8	4.0	0	0.15	Gray	Black

*Within working pressure range

**PCJ™ PRO LCNL is distinguished by the rings around the barb water inlet connector

→ Drippers technical data

PCJ™ PRO HCNL drippers

Flow rate* (l/h)	Working pressure range (bar)	Water passages dimensions width-depth-length (mm)	Filtration area (mm ²)	Constant K	Exponent* X	Shut off pressure (bar)	Base code color **	Cap color Code
1.2	1.5 – 4.0	0.70 x 0.84 x 39	2.8	1.2	0	0.25	Light brown	Black
2.0		0.95 x 0.84 x 39	2.8	2.0	0	0.25	Pink	Black
3.0		1.13 x 0.98 x 39	2.8	3.0	0	0.25	Light blue	Black
4.0		1.31 x 0.98 x 39	2.8	4.0	0	0.25	Light gray	Black

*Within working pressure range

PCJ™ PRO HCNL is distinguished by the base code color and by the rings around the barb water inlet connector

→ Kd (minor loss), insertion barb within distribution pipe

Pipe definition	Inside diameter (mm)	Kd
12/4	9.80	1.65
16/4	13.20	0.39
20/4	17.00	0.13
25/4	21.20	0.10
12010	10.60	1.61
16010 - 16012	14.20	0.37
20010 - 20012	17.50	0.12



→ Drippers package data

Model	Quantity p/box (units)	Box dimensions (cm x cm x cm)	Box weight (kg)	Boxes per pallet (units)	Pallet size (cm x cm x cm)	Pallet weight (kg)
PCJ™ PRO drippers (straight barb 3 and 4 mm and nipple outlet)	6500	36 x 36 x 25	8.8	32	114 x 114 x 112	281
PCJ™ PRO drippers (angled barb 3 mm outlet)	5000	36 x 36 x 25	6.8	32	114 x 114 x 112	218

/ Drippers flow rate vs working pressure

In order to calculate the right flow rate of each dripper, under different working pressures, we use the following formula:

$$Q = K * P^X$$

Where:

Q = Dripper flow rate (liters/hour)

K = Constant (each dripper has his singular constant and must be defined by the dripper producer)

P = Real working pressure (meter)

X = Exponent (each dripper has its singular exponent and must be declared and defined by the dripper producer)

*ISO 9261 require from the manufacturer to declare the constant K and dripper exponent

In all Netafim™ pressure-compensated drippers - including PCJ™ PRO drippers (shown in this document) – the dripper exponent X is equal to 0 [zero] (within the pressure range defined for each of the drippers), so the right flow rate of the dripper will be always equal (+/- 7% as defined by the international standard: ISO 9261).

Each dripper has a compensation range which includes minimum and maximum pressure; under the minimum pressure defined, the dripper will perform as non-pressure-compensated dripper and provide flow that increases with the pressure increase until reaching the minimum defined limit working pressure.

If the Netafim™ pressure-compensated drippers are exposed to a higher pressure than the defined maximum pressure, the drippers will continue to regulate the flow rate, but become more sensitive to clogging, usually the maximum working pressure of the drippers are determined by the driplines limitations (diameter and wall thickness) and most importantly the pipe and its associated connections.

/ Max. lateral length

Flow Variation (FV) expresses the flow variation between the dripper “sensing” the highest pressure and the one “sensing” the lowest pressure in an irrigation block (zone).

These drippers will not always be the first and last drippers on the dripline.

$$FV \% = (Q_{max} - Q_{min}) / Q_{max} * 100$$

*International standards define 10% flow variation to be considered as uniform irrigation.

In order to calculate the maximum run lengths that can be planned for specific dripline (considering all the hydraulic factors influencing the flow within the same dripline), we use a calculation software that was developed by Netafim™ based on Darcy-Waisbach formulas + years of design experience and cooperation with academic institutes.

All the tables presented in this document are for initial reference only; the exact run length of the driplines is obtained from design software that considers various hydraulic factors in the entire system.

There might be small variance between the different software's in the market due to the calculation method and assumptions each software is using. For an initial estimate of the dripline length, the data that is presented in this document (within the tables shown) is sufficiently accurate.

As we have already seen, pressure-compensated drippers of Netafim™ will provide equal flow irrespective of the working pressure, therefore, the factors that are affecting the dripline run lengths will be: the dripline inlet pressure, the minimum working pressure set for the dripper and the slope.

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 1.20 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	35	62	83	100	114	162	189	208	220	228	231
	1.5	46	81	110	136	158	238	291	332	360	384	399
	2.0	53	95	130	161	187	290	363	420	460	498	525
	2.5	58	106	145	180	211	332	420	488	545	594	630
	3.0	63	114	158	197	231	366	465	544	615	672	721
	3.5	67	122	169	211	248	396	507	596	670	738	798
	4.0	71	130	179	224	264	422	543	640	725	798	861
Flat terrain	1.0	37	68	95	119	141	234	309	376	440	492	546
	1.5	47	86	121	151	180	298	396	484	560	636	700
	2.0	54	99	139	174	207	346	459	556	650	732	812
	2.5	60	110	154	193	229	382	507	616	720	810	896
	3.0	64	118	166	209	248	414	549	668	780	876	973
	3.5	69	126	176	222	264	442	585	716	830	936	1036
	4.0	72	133	187	234	279	466	621	756	875	990	1099
Downhill 2%	1.0	39	74	107	138	169	312	447	576	705	828	938
	1.5	49	92	131	167	203	362	510	648	785	918	1036
	2.0	55	104	148	189	227	402	558	708	850	984	1113
	2.5	61	114	161	206	248	434	600	756	905	1044	1176
	3.0	66	122	173	221	265	462	636	796	950	1098	1232
	3.5	70	130	184	234	281	488	669	836	995	1146	1288
	4.0	73	136	193	246	295	510	699	872	1035	1194	1337

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	26	46	62	75	88	130	159	176	190	204	210
	1.5	33	59	82	101	118	184	231	268	295	318	343
	2.0	38	69	95	118	139	220	282	328	370	402	434
	2.5	42	76	106	132	156	250	321	376	425	468	504
	3.0	45	83	115	144	170	274	354	420	475	522	567
	3.5	48	88	123	154	182	294	381	456	515	570	623
	4.0	51	94	130	163	193	314	408	484	555	612	672
Flat terrain	1.0	27	49	68	86	102	168	225	272	315	360	399
	1.5	34	62	86	109	129	216	288	348	405	456	511
	2.0	39	71	100	126	149	248	330	404	470	528	588
	2.5	43	79	110	138	165	276	366	448	520	588	651
	3.0	46	85	119	150	178	298	396	484	560	636	707
	3.5	49	90	127	160	190	318	423	516	600	678	749
	4.0	52	95	134	169	201	336	447	544	635	714	791
Downhill 2%	1.0	28	52	74	96	116	210	294	380	460	540	616
	1.5	35	64	92	118	141	248	345	436	525	606	693
	2.0	39	74	104	133	160	278	384	480	575	666	749
	2.5	43	81	115	146	175	302	414	516	615	708	805
	3.0	47	87	123	156	187	324	441	552	655	750	847
	3.5	50	92	131	166	199	342	465	580	685	786	889
	4.0	52	97	137	174	209	358	489	604	715	822	924

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	20	36	49	60	70	108	132	152	170	180	189
	1.5	25	46	64	79	93	148	189	220	250	270	294
	2.0	29	53	74	92	109	176	225	268	305	336	364
	2.5	32	59	82	103	122	196	255	304	345	384	420
	3.0	35	64	89	112	132	216	279	336	380	426	462
	3.5	37	68	95	119	141	232	303	360	415	462	504
	4.0	39	72	101	126	150	246	321	384	440	492	539
Flat terrain	1.0	20	38	53	66	78	130	174	212	245	276	308
	1.5	26	48	67	84	100	166	222	272	315	354	392
	2.0	30	55	77	97	115	192	255	312	365	408	455
	2.5	33	60	85	106	127	212	282	344	400	456	504
	3.0	35	65	92	115	137	230	306	372	435	492	546
	3.5	38	69	97	123	146	246	327	400	465	522	581
	4.0	40	73	103	130	155	260	345	420	490	552	616
Downhill 2%	1.0	21	40	56	72	87	154	216	276	330	384	441
	1.5	26	49	70	89	107	186	255	320	385	444	504
	2.0	30	56	79	101	121	210	288	356	425	492	553
	2.5	33	62	87	110	133	228	312	388	460	528	595
	3.0	36	66	94	119	143	246	333	412	490	558	630
	3.5	38	70	100	126	151	260	351	436	515	588	665
	4.0	40	74	105	133	159	272	369	456	540	618	693

Minimum considered pressure 0.5 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	17	30	41	50	59	92	117	136	150	162	175
	1.5	21	38	53	66	78	126	162	192	215	240	259
	2.0	24	44	62	78	91	148	192	228	260	288	315
	2.5	27	49	68	86	102	166	216	260	295	330	357
	3.0	29	53	74	94	111	182	237	284	325	366	399
	3.5	31	57	79	100	118	194	255	308	350	396	434
	4.0	33	60	84	106	125	206	270	328	375	420	462
Flat terrain	1.0	17	31	44	55	65	108	144	176	205	234	259
	1.5	21	40	55	70	83	138	186	224	260	294	329
	2.0	25	45	64	80	96	160	213	260	305	342	378
	2.5	27	50	70	89	106	178	237	288	335	378	420
	3.0	29	54	76	96	114	192	255	312	365	408	455
	3.5	31	58	81	102	122	204	273	332	385	438	483
	4.0	33	61	85	108	128	216	288	352	410	462	511
Downhill 2%	1.0	17	32	46	59	71	126	174	220	265	306	350
	1.5	22	40	58	73	88	152	210	260	310	360	406
	2.0	25	46	65	83	100	172	234	292	345	396	448
	2.5	27	51	72	91	110	188	255	316	375	432	483
	3.0	29	55	77	98	118	202	273	340	400	456	511
	3.5	31	58	82	105	125	214	291	360	420	480	539
	4.0	33	61	87	110	132	226	303	376	440	504	567

Minimum considered pressure 0.5 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 1.20 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	69	108	135	155	170	210	228	236	240	246	245
	1.5	92	149	191	226	253	344	393	424	445	456	469
	2.0	107	177	230	274	311	440	519	572	610	636	658
	2.5	120	199	261	313	357	516	618	692	745	792	819
	3.0	130	218	287	345	395	580	705	796	865	924	966
	3.5	139	234	310	373	428	634	777	888	970	1038	1099
	4.0	147	249	329	398	458	684	843	968	1065	1146	1218
Flat terrain	1.0	77	132	178	218	255	406	531	640	740	834	924
	1.5	98	169	227	279	326	522	681	824	950	1074	1183
	2.0	113	195	263	322	377	602	789	952	1100	1242	1372
	2.5	125	216	291	357	417	668	873	1056	1220	1374	1519
	3.0	135	233	315	386	452	724	948	1144	1325	1488	1645
	3.5	144	248	336	413	483	774	1011	1220	1415	1590	1757
	4.0	152	262	355	436	510	818	1068	1292	1495	1680	1855
Downhill 2%	1.0	85	157	223	286	347	642	909	1144	1370	1590	1806
	1.5	105	189	264	335	402	718	1002	1252	1495	1728	1953
	2.0	119	212	295	372	445	778	1077	1344	1595	1842	2079
	2.5	130	232	321	403	480	830	1143	1420	1685	1938	2184
	3.0	140	248	343	430	511	876	1200	1488	1760	2028	2282
	3.5	149	263	362	454	538	918	1251	1552	1835	2106	2366
	4.0	156	276	380	474	563	956	1299	1608	1900	2178	2443

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	51	83	106	123	138	184	207	220	230	234	238
	1.5	67	111	145	173	197	280	333	368	395	414	427
	2.0	78	131	172	207	237	348	423	480	520	558	581
	2.5	87	146	194	234	269	402	495	568	625	672	707
	3.0	94	160	212	257	296	446	555	640	710	768	819
	3.5	101	171	228	277	319	486	606	704	785	852	910
	4.0	106	182	242	294	340	520	654	760	850	930	994
Flat terrain	1.0	55	95	128	158	184	294	384	464	535	606	665
	1.5	70	121	164	201	235	376	492	596	690	774	854
	2.0	81	140	189	232	272	436	570	688	795	894	987
	2.5	90	155	209	258	301	482	633	764	880	996	1099
	3.0	97	168	227	278	326	522	684	828	955	1074	1190
	3.5	103	179	242	298	348	558	732	884	1020	1152	1267
	4.0	109	189	255	314	367	590	771	932	1080	1218	1344
Downhill 2%	1.0	60	108	151	193	232	418	594	768	920	1062	1204
	1.5	74	132	183	230	275	478	666	848	1010	1164	1316
	2.0	84	149	206	258	307	526	726	916	1090	1248	1407
	2.5	92	163	225	281	333	566	777	972	1155	1320	1484
	3.0	99	176	241	301	356	602	819	1024	1210	1386	1554
	3.5	106	186	256	318	377	634	861	1072	1265	1446	1624
	4.0	111	196	268	334	395	662	897	1112	1310	1500	1680

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	40	66	85	101	114	160	186	204	215	222	231
	1.5	52	87	115	138	159	232	282	320	350	372	392
	2.0	61	102	136	164	189	284	351	404	445	480	511
	2.5	67	114	152	185	213	324	405	472	525	570	609
	3.0	73	124	166	202	234	358	450	524	590	642	693
	3.5	78	133	178	217	251	388	489	576	645	708	763
	4.0	82	141	189	230	267	414	525	616	695	768	826
Flat terrain	1.0	43	73	99	122	142	228	297	360	415	468	518
	1.5	54	94	126	155	181	290	381	460	530	600	665
	2.0	62	108	146	179	210	336	441	532	615	696	763
	2.5	69	119	161	198	232	372	489	588	680	768	847
	3.0	74	129	175	215	251	404	528	640	740	834	917
	3.5	79	138	186	229	268	430	564	684	790	888	980
	4.0	84	145	197	242	283	456	597	720	835	942	1036
Downhill 2%	1.0	45	81	113	142	171	300	423	540	660	774	875
	1.5	56	100	137	172	205	352	486	612	735	858	966
	2.0	64	113	156	194	231	390	534	668	800	924	1043
	2.5	70	124	170	213	251	422	573	716	850	984	1106
	3.0	76	134	183	228	269	450	609	756	895	1032	1162
	3.5	81	142	194	242	285	476	642	796	940	1080	1211
	4.0	85	149	205	254	300	498	669	828	980	1122	1253

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	34	56	73	87	99	142	168	188	200	210	217
	1.5	44	74	97	118	135	202	249	284	315	336	357
	2.0	50	86	114	138	160	244	306	352	395	426	455
	2.5	56	96	128	155	180	276	348	408	460	498	539
	3.0	61	104	139	170	197	304	387	452	510	564	609
	3.5	65	111	149	182	211	328	417	492	555	612	665
	4.0	68	118	158	193	225	350	447	528	600	660	714
Flat terrain	1.0	35	61	82	101	118	190	249	300	345	390	434
	1.5	45	78	105	129	151	242	318	384	445	498	553
	2.0	52	90	121	149	174	280	366	444	515	576	637
	2.5	57	99	134	165	193	310	408	492	570	642	707
	3.0	62	107	145	178	209	336	441	532	615	696	770
	3.5	66	114	155	190	223	358	471	568	660	738	819
	4.0	69	120	163	202	236	380	498	600	695	780	868
Downhill 2%	1.0	37	66	92	115	138	240	336	428	515	606	693
	1.5	46	82	113	141	167	284	390	488	585	678	770
	2.0	53	93	128	159	189	318	432	536	640	738	833
	2.5	58	102	140	174	207	346	465	580	685	786	889
	3.0	63	110	151	188	222	368	495	616	725	834	938
	3.5	67	117	160	199	235	390	522	644	760	870	980
	4.0	70	124	169	210	247	408	549	676	795	912	1022

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 1.20 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	108	154	181	198	210	236	243	248	250	252	252
	1.5	149	225	276	314	342	422	453	472	480	486	490
	2.0	177	273	342	395	438	568	633	668	690	708	714
	2.5	199	312	394	459	513	688	786	844	885	912	931
	3.0	218	344	437	513	577	792	918	1000	1055	1098	1127
	3.5	234	372	475	560	632	882	1035	1140	1215	1266	1309
	4.0	248	396	509	602	681	962	1140	1268	1355	1428	1477
Flat terrain	1.0	132	217	287	348	404	636	828	996	1150	1296	1428
	1.5	168	278	367	446	518	816	1062	1280	1475	1662	1834
	2.0	194	321	425	516	599	946	1230	1480	1710	1920	2121
	2.5	215	356	471	573	665	1048	1365	1644	1895	2130	2352
	3.0	233	385	510	620	720	1136	1479	1780	2055	2310	2555
	3.5	248	411	545	662	769	1214	1578	1900	2195	2472	2723
	4.0	262	434	575	700	813	1282	1668	2012	2320	2610	2884
Downhill 2%	1.0	157	284	404	522	636	1136	1575	1996	2400	2802	3192
	1.5	189	333	465	590	712	1244	1713	2156	2585	3000	3409
	2.0	212	370	512	645	773	1332	1824	2288	2735	3168	3591
	2.5	232	401	551	691	825	1410	1923	2404	2865	3312	3752
	3.0	248	428	586	732	871	1478	2010	2508	2985	3444	3892
	3.5	263	452	616	768	912	1540	2088	2600	3090	3564	4018
	4.0	276	473	644	801	950	1596	2160	2688	3185	3672	4137

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	82	123	149	168	183	220	234	240	245	246	252
	1.5	111	172	217	251	279	368	414	440	455	468	476
	2.0	131	206	263	308	346	476	552	600	635	660	679
	2.5	146	233	299	354	399	562	666	736	790	828	854
	3.0	159	256	330	391	444	636	762	852	920	972	1015
	3.5	171	276	356	424	483	700	846	956	1040	1104	1162
	4.0	181	293	380	454	517	756	921	1048	1145	1224	1288
Flat terrain	1.0	95	156	207	251	291	460	597	720	830	936	1036
	1.5	121	200	265	322	374	590	768	924	1070	1200	1323
	2.0	140	231	307	373	432	682	888	1068	1235	1392	1533
	2.5	155	256	340	413	480	758	984	1188	1370	1542	1701
	3.0	167	278	368	447	520	820	1068	1288	1485	1668	1848
	3.5	178	296	392	478	555	876	1140	1372	1585	1782	1967
	4.0	188	313	415	505	586	926	1206	1452	1675	1884	2086
Downhill 2%	1.0	108	192	268	342	414	760	1053	1324	1585	1836	2086
	1.5	132	229	316	397	475	842	1155	1444	1720	1992	2254
	2.0	149	257	352	439	523	908	1239	1544	1835	2118	2387
	2.5	163	280	381	474	563	966	1311	1628	1935	2226	2506
	3.0	175	300	407	506	598	1016	1377	1708	2020	2322	2618
	3.5	186	317	430	533	629	1062	1434	1776	2100	2412	2709
	4.0	196	333	451	558	657	1104	1488	1840	2170	2490	2800

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	66	100	125	143	158	200	219	232	235	240	245
	1.5	87	138	175	206	231	318	369	400	425	438	455
	2.0	102	163	210	249	282	400	477	532	570	600	630
	2.5	114	184	238	283	322	466	564	636	695	738	777
	3.0	124	201	261	311	356	522	639	728	800	858	903
	3.5	133	216	281	337	385	570	702	804	890	960	1015
	4.0	141	229	299	358	411	612	759	876	970	1050	1120
Flat terrain	1.0	73	120	160	194	225	356	462	556	645	726	798
	1.5	93	154	205	249	289	456	594	716	825	930	1022
	2.0	108	178	236	287	334	528	687	828	955	1074	1183
	2.5	119	198	262	318	370	584	762	916	1060	1194	1316
	3.0	129	214	284	345	401	634	825	992	1150	1290	1428
	3.5	137	228	303	369	428	676	882	1060	1225	1380	1519
	4.0	145	241	320	390	453	716	930	1124	1295	1458	1610
Downhill 2%	1.0	81	142	196	248	298	536	765	964	1150	1332	1505
	1.5	99	172	235	294	349	606	846	1060	1260	1452	1638
	2.0	113	194	263	327	388	662	915	1140	1350	1548	1743
	2.5	124	212	287	355	420	710	972	1208	1425	1638	1841
	3.0	133	227	307	379	448	750	1023	1268	1495	1710	1925
	3.5	142	241	325	401	472	788	1068	1320	1555	1782	2002
	4.0	149	253	341	421	495	822	1113	1372	1615	1848	2072

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	56	86	109	126	140	184	207	220	230	234	238
	1.5	73	117	150	177	200	282	333	368	395	414	427
	2.0	86	138	178	212	242	350	423	480	520	552	581
	2.5	95	155	201	240	275	404	495	568	625	672	707
	3.0	104	169	220	264	302	450	555	640	710	768	812
	3.5	111	181	237	284	326	490	609	704	785	852	910
	4.0	117	192	252	302	348	524	654	760	850	924	994
Flat terrain	1.0	61	100	133	162	187	296	384	464	535	606	665
	1.5	77	128	170	207	240	380	495	596	690	774	854
	2.0	89	148	197	239	278	440	573	688	795	894	987
	2.5	99	164	218	265	308	486	633	764	880	990	1099
	3.0	107	178	236	287	334	528	687	828	955	1074	1190
	3.5	114	190	252	306	356	564	735	884	1020	1146	1267
	4.0	120	200	266	324	377	596	777	936	1080	1212	1344
Downhill 2%	1.0	66	115	158	199	238	422	597	768	920	1062	1197
	1.5	82	140	191	238	282	484	672	852	1015	1164	1309
	2.0	93	159	215	266	315	532	729	920	1090	1248	1400
	2.5	102	174	235	290	342	572	780	976	1155	1320	1484
	3.0	110	187	252	311	366	608	825	1028	1210	1386	1554
	3.5	117	198	267	329	387	640	864	1072	1265	1446	1617
	4.0	123	209	281	346	406	670	900	1116	1315	1500	1680

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 1.20 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	143	190	212	225	232	244	249	252	250	252	252
	1.5	205	296	350	386	410	464	483	488	495	498	497
	2.0	247	369	449	506	548	656	696	716	730	732	742
	2.5	280	427	527	602	660	822	894	928	950	966	973
	3.0	308	475	593	683	755	970	1071	1128	1165	1182	1197
	3.5	333	517	650	754	838	1102	1236	1312	1365	1398	1421
	4.0	354	555	701	817	912	1220	1386	1488	1550	1596	1631
Flat terrain	1.0	193	317	419	509	590	930	1209	1456	1680	1890	2086
	1.5	246	406	538	653	758	1194	1554	1872	2160	2430	2681
	2.0	284	470	622	755	877	1382	1797	2164	2500	2808	3101
	2.5	315	520	689	838	972	1534	1995	2404	2775	3120	3444
	3.0	341	564	746	907	1053	1662	2163	2604	3005	3378	3731
	3.5	363	602	797	969	1125	1774	2310	2780	3210	3612	3983
	4.0	384	636	842	1024	1189	1876	2442	2940	3395	3816	4214
Downhill 2%	1.0	246	461	668	864	1035	1828	2565	3276	3970	4650	5320
	1.5	290	525	746	952	1136	1978	2757	3500	4220	4926	5621
	2.0	323	576	808	1024	1218	2104	2913	3684	4430	5160	5873
	2.5	350	618	861	1086	1290	2212	3051	3848	4615	5364	6097
	3.0	374	655	908	1142	1353	2308	3174	3992	4780	5544	6293
	3.5	394	688	950	1191	1411	2396	3285	4120	4925	5706	6475
	4.0	413	718	989	1237	1464	2476	3387	4244	5065	5862	6636

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	112	159	186	202	214	238	243	248	250	252	252
	1.5	155	234	286	324	353	430	459	476	485	486	490
	2.0	185	285	356	410	453	582	645	680	700	714	721
	2.5	208	326	411	478	533	710	804	860	895	918	938
	3.0	228	360	457	535	601	818	942	1020	1075	1110	1141
	3.5	245	389	497	585	659	914	1068	1168	1240	1290	1330
	4.0	260	416	533	630	711	998	1179	1300	1390	1458	1505
Flat terrain	1.0	139	229	302	367	426	672	873	1052	1215	1368	1512
	1.5	177	293	388	471	547	862	1122	1352	1560	1752	1939
	2.0	204	338	448	545	632	998	1299	1564	1805	2028	2240
	2.5	226	375	497	604	701	1108	1440	1736	2005	2250	2485
	3.0	245	406	538	654	760	1200	1560	1880	2170	2442	2695
	3.5	261	433	574	698	811	1282	1668	2008	2320	2610	2877
	4.0	276	458	607	738	858	1354	1764	2124	2450	2760	3045
Downhill 2%	1.0	166	304	433	560	684	1214	1689	2140	2580	3006	3430
	1.5	200	354	496	631	763	1328	1833	2308	2770	3222	3661
	2.0	224	393	545	688	826	1422	1950	2448	2930	3396	3850
	2.5	244	426	586	736	880	1502	2052	2572	3065	3546	4018
	3.0	262	453	622	778	928	1574	2145	2676	3190	3684	4165
	3.5	277	478	654	817	971	1638	2226	2776	3300	3810	4305
	4.0	291	501	683	851	1010	1698	2304	2868	3405	3924	4424

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	91	134	161	180	194	226	237	244	245	246	252
	1.5	123	190	238	274	303	388	429	452	465	474	483
	2.0	146	229	290	339	379	512	585	628	660	678	693
	2.5	164	260	332	390	440	610	711	780	825	864	889
	3.0	178	285	367	434	490	692	822	912	975	1026	1064
	3.5	191	308	397	471	535	766	918	1024	1105	1170	1218
	4.0	203	328	424	504	574	830	1002	1128	1225	1302	1365
Flat terrain	1.0	107	176	233	283	329	518	675	812	940	1056	1169
	1.5	136	226	299	363	422	666	867	1044	1205	1356	1498
	2.0	157	261	346	420	488	770	1002	1208	1395	1572	1736
	2.5	174	289	383	466	541	854	1113	1340	1550	1740	1925
	3.0	188	313	415	505	586	926	1206	1452	1680	1884	2086
	3.5	201	334	443	539	626	990	1287	1552	1790	2016	2226
	4.0	212	353	468	570	662	1046	1362	1640	1895	2130	2352
Downhill 2%	1.0	123	221	311	399	484	886	1221	1540	1850	2148	2443
	1.5	150	262	364	459	551	976	1335	1676	2000	2316	2625
	2.0	169	293	403	506	603	1050	1431	1788	2130	2460	2779
	2.5	185	319	436	545	648	1114	1512	1884	2235	2580	2912
	3.0	198	341	465	578	686	1170	1584	1968	2335	2688	3031
	3.5	210	360	490	609	721	1222	1650	2044	2425	2784	3136
	4.0	221	378	513	637	753	1268	1710	2116	2505	2874	3234

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.0	78	117	143	162	177	216	231	240	245	246	245
	1.5	104	163	206	239	267	356	402	432	450	462	469
	2.0	123	195	249	293	330	458	534	584	620	648	665
	2.5	137	220	283	335	380	538	642	712	765	804	840
	3.0	150	241	311	370	421	608	732	824	890	948	987
	3.5	160	260	337	401	457	666	810	920	1005	1074	1127
	4.0	170	276	359	429	490	720	882	1004	1105	1182	1253
Flat terrain	1.0	89	147	194	236	274	432	561	676	785	882	973
	1.5	113	188	249	302	351	554	723	868	1005	1128	1246
	2.0	131	217	287	350	406	642	834	1008	1160	1308	1442
	2.5	145	240	319	388	450	712	927	1116	1290	1452	1603
	3.0	156	260	345	420	488	772	1005	1208	1395	1572	1736
	3.5	167	278	368	448	521	824	1071	1292	1490	1680	1855
	4.0	176	293	389	474	551	870	1134	1364	1575	1776	1960
Downhill 2%	1.0	100	178	248	316	382	698	975	1228	1465	1698	1932
	1.5	122	213	293	369	441	776	1074	1340	1595	1848	2086
	2.0	139	239	327	409	486	842	1152	1436	1705	1962	2219
	2.5	152	261	355	442	524	896	1221	1516	1795	2064	2331
	3.0	163	280	380	471	557	944	1281	1588	1880	2160	2429
	3.5	173	296	401	497	587	988	1338	1656	1955	2244	2520
	4.0	182	311	421	520	613	1028	1389	1716	2025	2316	2604

Minimum considered pressure 0.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 1.2 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	35	62	83	100	114	162	189	208	220	228	231
	2.0	46	81	110	136	158	238	291	332	360	384	399
	2.5	53	95	130	161	187	290	363	420	460	498	525
	3.0	58	106	145	180	211	332	420	488	545	594	630
	3.5	63	114	158	197	231	366	465	544	615	672	721
	4.0	67	122	169	211	248	396	507	596	670	738	798
Flat terrain	1.5	37	68	95	119	141	234	309	376	440	492	546
	2.0	47	86	121	151	180	298	396	484	560	636	700
	2.5	54	99	139	174	207	346	459	556	650	732	812
	3.0	60	110	154	193	229	382	507	616	720	810	896
	3.5	64	118	166	209	248	414	549	668	780	876	973
	4.0	69	126	176	222	264	442	585	716	830	936	1036
Downhill 2%	1.5	39	74	107	138	169	312	447	576	705	828	938
	2.0	49	92	131	167	203	362	510	648	785	918	1036
	2.5	55	104	148	189	227	402	558	708	850	984	1113
	3.0	61	114	161	206	248	434	600	756	905	1044	1176
	3.5	66	122	173	221	265	462	636	796	950	1098	1232
	4.0	70	130	184	234	281	488	669	836	995	1146	1288

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	26	46	62	75	88	130	159	176	190	204	210
	2.0	33	59	82	101	118	184	231	268	295	318	343
	2.5	38	69	95	118	139	220	282	328	370	402	434
	3.0	42	76	106	132	156	250	321	376	425	468	504
	3.5	45	83	115	144	170	274	354	420	475	522	567
	4.0	48	88	123	154	182	294	381	456	515	570	623
Flat terrain	1.5	27	49	68	86	102	168	225	272	315	360	399
	2.0	34	62	86	109	129	216	288	348	405	456	511
	2.5	39	71	100	126	149	248	330	404	470	528	588
	3.0	43	79	110	138	165	276	366	448	520	588	651
	3.5	46	85	119	150	178	298	396	484	560	636	707
	4.0	49	90	127	160	190	318	423	516	600	678	749
Downhill 2%	1.5	28	52	74	96	116	210	294	380	460	540	616
	2.0	35	64	92	118	141	248	345	436	525	606	693
	2.5	39	74	104	133	160	278	384	480	575	666	749
	3.0	43	81	115	146	175	302	414	516	615	708	805
	3.5	47	87	123	156	187	324	441	552	655	750	847
	4.0	50	92	131	166	199	342	465	580	685	786	889

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 3.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	20	36	49	60	70	108	132	152	170	180	189
	2.0	25	46	64	79	93	148	189	220	250	270	294
	2.5	29	53	74	92	109	176	225	268	305	336	364
	3.0	32	59	82	103	122	196	255	304	345	384	420
	3.5	35	64	89	112	132	216	279	336	380	426	462
	4.0	37	68	95	119	141	232	303	360	415	462	504
Flat terrain	1.5	20	38	53	66	78	130	174	212	245	276	308
	2.0	26	48	67	84	100	166	222	272	315	354	392
	2.5	30	55	77	97	115	192	255	312	365	408	455
	3.0	33	60	85	106	127	212	282	344	400	456	504
	3.5	35	65	92	115	137	230	306	372	435	492	546
	4.0	38	69	97	123	146	246	327	400	465	522	581
Downhill 2%	1.5	21	40	56	72	87	154	216	276	330	384	441
	2.0	26	49	70	89	107	186	255	320	385	444	504
	2.5	30	56	79	101	121	210	288	356	425	492	553
	3.0	33	62	87	110	133	228	312	388	460	528	595
	3.5	36	66	94	119	143	246	333	412	490	558	630
	4.0	38	70	100	126	151	260	351	436	515	588	665

Minimum considered pressure 1.0 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 4.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	17	30	41	50	59	92	117	136	150	162	175
	2.0	21	38	53	66	78	126	162	192	215	240	259
	2.5	24	44	62	78	91	148	192	228	260	288	315
	3.0	27	49	68	86	102	166	216	260	295	330	357
	3.5	29	53	74	94	111	182	237	284	325	366	399
	4.0	31	57	79	100	118	194	255	308	350	396	434
Flat terrain	1.5	17	31	44	55	65	108	144	176	205	234	259
	2.0	21	40	55	70	83	138	186	224	260	294	329
	2.5	25	45	64	80	96	160	213	260	305	342	378
	3.0	27	50	70	89	106	178	237	288	335	378	420
	3.5	29	54	76	96	114	192	255	312	365	408	455
	4.0	31	58	81	102	122	204	273	332	385	438	483
Downhill 2%	1.5	17	32	46	59	71	126	174	220	265	306	350
	2.0	22	40	58	73	88	152	210	260	310	360	406
	2.5	25	46	65	83	100	172	234	292	345	396	448
	3.0	27	51	72	91	110	188	255	316	375	432	483
	3.5	29	55	77	98	118	202	273	340	400	456	511
	4.0	31	58	82	105	125	214	291	360	420	480	539

Minimum considered pressure 1.0 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 1.2 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	69	108	135	155	170	210	228	236	240	246	245
	2.0	92	149	191	226	253	344	393	424	445	456	469
	2.5	107	177	230	274	311	440	519	572	610	636	658
	3.0	120	199	261	313	357	516	618	692	745	792	819
	3.5	130	218	287	345	395	580	705	796	865	924	966
	4.0	139	234	310	373	428	634	777	888	970	1038	1099
Flat terrain	1.5	77	132	178	218	255	406	531	640	740	834	924
	2.0	98	169	227	279	326	522	681	824	950	1074	1183
	2.5	113	195	263	322	377	602	789	952	1100	1242	1372
	3.0	125	216	291	357	417	668	873	1056	1220	1374	1519
	3.5	135	233	315	386	452	724	948	1144	1325	1488	1645
	4.0	144	248	336	413	483	774	1011	1220	1415	1590	1757
Downhill 2%	1.5	85	157	223	286	347	642	909	1144	1370	1590	1806
	2.0	105	189	264	335	402	718	1002	1252	1495	1728	1953
	2.5	119	212	295	372	445	778	1077	1344	1595	1842	2079
	3.0	130	232	321	403	480	830	1143	1420	1685	1938	2184
	3.5	140	248	343	430	511	876	1200	1488	1760	2028	2282
	4.0	149	263	362	454	538	918	1251	1552	1835	2106	2366

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	51	83	106	123	138	184	207	220	230	234	238
	2.0	67	111	145	173	197	280	333	368	395	414	427
	2.5	78	131	172	207	237	348	423	480	520	558	581
	3.0	87	146	194	234	269	402	495	568	625	672	707
	3.5	94	160	212	257	296	446	555	640	710	768	819
	4.0	101	171	228	277	319	486	606	704	785	852	910
Flat terrain	1.5	55	95	128	158	184	294	384	464	535	606	665
	2.0	70	121	164	201	235	376	492	596	690	774	854
	2.5	81	140	189	232	272	436	570	688	795	894	987
	3.0	90	155	209	258	301	482	633	764	880	996	1099
	3.5	97	168	227	278	326	522	684	828	955	1074	1190
	4.0	103	179	242	298	348	558	732	884	1020	1152	1267
Downhill 2%	1.5	60	108	151	193	232	418	594	768	920	1062	1204
	2.0	74	132	183	230	275	478	666	848	1010	1164	1316
	2.5	84	149	206	258	307	526	726	916	1090	1248	1407
	3.0	92	163	225	281	333	566	777	972	1155	1320	1484
	3.5	99	176	241	301	356	602	819	1024	1210	1386	1554
	4.0	106	186	256	318	377	634	861	1072	1265	1446	1624

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	40	66	85	101	114	160	186	204	215	222	231
	2.0	52	87	115	138	159	232	282	320	350	372	392
	2.5	61	102	136	164	189	284	351	404	445	480	511
	3.0	67	114	152	185	213	324	405	472	525	570	609
	3.5	73	124	166	202	234	358	450	524	590	642	693
	4.0	78	133	178	217	251	388	489	576	645	708	763
Flat terrain	1.5	43	73	99	122	142	228	297	360	415	468	518
	2.0	54	94	126	155	181	290	381	460	530	600	665
	2.5	62	108	146	179	210	336	441	532	615	696	763
	3.0	69	119	161	198	232	372	489	588	680	768	847
	3.5	74	129	175	215	251	404	528	640	740	834	917
	4.0	79	138	186	229	268	430	564	684	790	888	980
Downhill 2%	1.5	45	81	113	142	171	300	423	540	660	774	875
	2.0	56	100	137	172	205	352	486	612	735	858	966
	2.5	64	113	156	194	231	390	534	668	800	924	1043
	3.0	70	124	170	213	251	422	573	716	850	984	1106
	3.5	76	134	183	228	269	450	609	756	895	1032	1162
	4.0	81	142	194	242	285	476	642	796	940	1080	1211

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	34	56	73	87	99	142	168	188	200	210	217
	2.0	44	74	97	118	135	202	249	284	315	336	357
	2.5	50	86	114	138	160	244	306	352	395	426	455
	3.0	56	96	128	155	180	276	348	408	460	498	539
	3.5	61	104	139	170	197	304	387	452	510	564	609
	4.0	65	111	149	182	211	328	417	492	555	612	665
Flat terrain	1.5	35	61	82	101	118	190	249	300	345	390	434
	2.0	45	78	105	129	151	242	318	384	445	498	553
	2.5	52	90	121	149	174	280	366	444	515	576	637
	3.0	57	99	134	165	193	310	408	492	570	642	707
	3.5	62	107	145	178	209	336	441	532	615	696	770
	4.0	66	114	155	190	223	358	471	568	660	738	819
Downhill 2%	1.5	37	66	92	115	138	240	336	428	515	606	693
	2.0	46	82	113	141	167	284	390	488	585	678	770
	2.5	53	93	128	159	189	318	432	536	640	738	833
	3.0	58	102	140	174	207	346	465	580	685	786	889
	3.5	63	110	151	188	222	368	495	616	725	834	938
	4.0	67	117	160	199	235	390	522	644	760	870	980

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 1.2 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	108	154	181	198	210	236	243	248	250	252	252
	2.0	149	225	276	314	342	422	453	472	480	486	490
	2.5	177	273	342	395	438	568	633	668	690	708	714
	3.0	199	312	394	459	513	688	786	844	885	912	931
	3.5	218	344	437	513	577	792	918	1000	1055	1098	1127
	4.0	234	372	475	560	632	882	1035	1140	1215	1266	1309
Flat terrain	1.5	132	217	287	348	404	636	828	996	1150	1296	1428
	2.0	168	278	367	446	518	816	1062	1280	1475	1662	1834
	2.5	194	321	425	516	599	946	1230	1480	1710	1920	2121
	3.0	215	356	471	573	665	1048	1365	1644	1895	2130	2352
	3.5	233	385	510	620	720	1136	1479	1780	2055	2310	2555
	4.0	248	411	545	662	769	1214	1578	1900	2195	2472	2723
Downhill 2%	1.5	157	284	404	522	636	1136	1575	1996	2400	2802	3192
	2.0	189	333	465	590	712	1244	1713	2156	2585	3000	3409
	2.5	212	370	512	645	773	1332	1824	2288	2735	3168	3591
	3.0	232	401	551	691	825	1410	1923	2404	2865	3312	3752
	3.5	248	428	586	732	871	1478	2010	2508	2985	3444	3892
	4.0	263	452	616	768	912	1540	2088	2600	3090	3564	4018

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	82	123	149	168	183	220	234	240	245	246	252
	2.0	111	172	217	251	279	368	414	440	455	468	476
	2.5	131	206	263	308	346	476	552	600	635	660	679
	3.0	146	233	299	354	399	562	666	736	790	828	854
	3.5	159	256	330	391	444	636	762	852	920	972	1015
	4.0	171	276	356	424	483	700	846	956	1040	1104	1162
Flat terrain	1.5	95	156	207	251	291	460	597	720	830	936	1036
	2.0	121	200	265	322	374	590	768	924	1070	1200	1323
	2.5	140	231	307	373	432	682	888	1068	1235	1392	1533
	3.0	155	256	340	413	480	758	984	1188	1370	1542	1701
	3.5	167	278	368	447	520	820	1068	1288	1485	1668	1848
	4.0	178	296	392	478	555	876	1140	1372	1585	1782	1967
Downhill 2%	1.5	108	192	268	342	414	760	1053	1324	1585	1836	2086
	2.0	132	229	316	397	475	842	1155	1444	1720	1992	2254
	2.5	149	257	352	439	523	908	1239	1544	1835	2118	2387
	3.0	163	280	381	474	563	966	1311	1628	1935	2226	2506
	3.5	175	300	407	506	598	1016	1377	1708	2020	2322	2618
	4.0	186	317	430	533	629	1062	1434	1776	2100	2412	2709

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meters) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	66	100	125	143	158	200	219	232	235	240	245
	2.0	87	138	175	206	231	318	369	400	425	438	455
	2.5	102	163	210	249	282	400	477	532	570	600	630
	3.0	114	184	238	283	322	466	564	636	695	738	777
	3.5	124	201	261	311	356	522	639	728	800	858	903
	4.0	133	216	281	337	385	570	702	804	890	960	1015
Flat terrain	1.5	73	120	160	194	225	356	462	556	645	726	798
	2.0	93	154	205	249	289	456	594	716	825	930	1022
	2.5	108	178	236	287	334	528	687	828	955	1074	1183
	3.0	119	198	262	318	370	584	762	916	1060	1194	1316
	3.5	129	214	284	345	401	634	825	992	1150	1290	1428
	4.0	137	228	303	369	428	676	882	1060	1225	1380	1519
Downhill 2%	1.5	81	142	196	248	298	536	765	964	1150	1332	1505
	2.0	99	172	235	294	349	606	846	1060	1260	1452	1638
	2.5	113	194	263	327	388	662	915	1140	1350	1548	1743
	3.0	124	212	287	355	420	710	972	1208	1425	1638	1841
	3.5	133	227	307	379	448	750	1023	1268	1495	1710	1925
	4.0	142	241	325	401	472	788	1068	1320	1555	1782	2002

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	56	86	109	126	140	184	207	220	230	234	238
	2.0	73	117	150	177	200	282	333	368	395	414	427
	2.5	86	138	178	212	242	350	423	480	520	552	581
	3.0	95	155	201	240	275	404	495	568	625	672	707
	3.5	104	169	220	264	302	450	555	640	710	768	812
	4.0	111	181	237	284	326	490	609	704	785	852	910
Flat terrain	1.5	61	100	133	162	187	296	384	464	535	606	665
	2.0	77	128	170	207	240	380	495	596	690	774	854
	2.5	89	148	197	239	278	440	573	688	795	894	987
	3.0	99	164	218	265	308	486	633	764	880	990	1099
	3.5	107	178	236	287	334	528	687	828	955	1074	1190
	4.0	114	190	252	306	356	564	735	884	1020	1146	1267
Downhill 2%	1.5	66	115	158	199	238	422	597	768	920	1062	1197
	2.0	82	140	191	238	282	484	672	852	1015	1164	1309
	2.5	93	159	215	266	315	532	729	920	1090	1248	1400
	3.0	102	174	235	290	342	572	780	976	1155	1320	1484
	3.5	110	187	252	311	366	608	825	1028	1210	1386	1554
	4.0	117	198	267	329	387	640	864	1072	1265	1446	1617

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 1.2 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	143	190	212	225	232	244	249	252	250	252	252
	2.0	205	296	350	386	410	464	483	488	495	498	497
	2.5	247	369	449	506	548	656	696	716	730	732	742
	3.0	280	427	527	602	660	822	894	928	950	966	973
	3.5	308	475	593	683	755	970	1071	1128	1165	1182	1197
	4.0	333	517	650	754	838	1102	1236	1312	1365	1398	1421
Flat terrain	1.5	193	317	419	509	590	930	1209	1456	1680	1890	2086
	2.0	246	406	538	653	758	1194	1554	1872	2160	2430	2681
	2.5	284	470	622	755	877	1382	1797	2164	2500	2808	3101
	3.0	315	520	689	838	972	1534	1995	2404	2775	3120	3444
	3.5	341	564	746	907	1053	1662	2163	2604	3005	3378	3731
	4.0	363	602	797	969	1125	1774	2310	2780	3210	3612	3983
Downhill 2%	1.5	246	461	668	864	1035	1828	2565	3276	3970	4650	5320
	2.0	290	525	746	952	1136	1978	2757	3500	4220	4926	5621
	2.5	323	576	808	1024	1218	2104	2913	3684	4430	5160	5873
	3.0	350	618	861	1086	1290	2212	3051	3848	4615	5364	6097
	3.5	374	655	908	1142	1353	2308	3174	3992	4780	5544	6293
	4.0	394	688	950	1191	1411	2396	3285	4120	4925	5706	6475

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 2.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	112	159	186	202	214	238	243	248	250	252	252
	2.0	155	234	286	324	353	430	459	476	485	486	490
	2.5	185	285	356	410	453	582	645	680	700	714	721
	3.0	208	326	411	478	533	710	804	860	895	918	938
	3.5	228	360	457	535	601	818	942	1020	1075	1110	1141
	4.0	245	389	497	585	659	914	1068	1168	1240	1290	1330
Flat terrain	1.5	139	229	302	367	426	672	873	1052	1215	1368	1512
	2.0	177	293	388	471	547	862	1122	1352	1560	1752	1939
	2.5	204	338	448	545	632	998	1299	1564	1805	2028	2240
	3.0	226	375	497	604	701	1108	1440	1736	2005	2250	2485
	3.5	245	406	538	654	760	1200	1560	1880	2170	2442	2695
	4.0	261	433	574	698	811	1282	1668	2008	2320	2610	2877
Downhill 2%	1.5	166	304	433	560	684	1214	1689	2140	2580	3006	3430
	2.0	200	354	496	631	763	1328	1833	2308	2770	3222	3661
	2.5	224	393	545	688	826	1422	1950	2448	2930	3396	3850
	3.0	244	426	586	736	880	1502	2052	2572	3065	3546	4018
	3.5	262	453	622	778	928	1574	2145	2676	3190	3684	4165
	4.0	277	478	654	817	971	1638	2226	2776	3300	3810	4305

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meters) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	91	134	161	180	194	226	237	244	245	246	252
	2.0	123	190	238	274	303	388	429	452	465	474	483
	2.5	146	229	290	339	379	512	585	628	660	678	693
	3.0	164	260	332	390	440	610	711	780	825	864	889
	3.5	178	285	367	434	490	692	822	912	975	1026	1064
	4.0	191	308	397	471	535	766	918	1024	1105	1170	1218
Flat terrain	1.5	107	176	233	283	329	518	675	812	940	1056	1169
	2.0	136	226	299	363	422	666	867	1044	1205	1356	1498
	2.5	157	261	346	420	488	770	1002	1208	1395	1572	1736
	3.0	174	289	383	466	541	854	1113	1340	1550	1740	1925
	3.5	188	313	415	505	586	926	1206	1452	1680	1884	2086
	4.0	201	334	443	539	626	990	1287	1552	1790	2016	2226
Downhill 2%	1.5	123	221	311	399	484	886	1221	1540	1850	2148	2443
	2.0	150	262	364	459	551	976	1335	1676	2000	2316	2625
	2.5	169	293	403	506	603	1050	1431	1788	2130	2460	2779
	3.0	185	319	436	545	648	1114	1512	1884	2235	2580	2912
	3.5	198	341	465	578	686	1170	1584	1968	2335	2688	3031
	4.0	210	360	490	609	721	1222	1650	2044	2425	2784	3136

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meters) at different inlet pressure and different slopes

PCJ™ PRO LCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	1.5	78	117	143	162	177	216	231	240	245	246	245
	2.0	104	163	206	239	267	356	402	432	450	462	469
	2.5	123	195	249	293	330	458	534	584	620	648	665
	3.0	137	220	283	335	380	538	642	712	765	804	840
	3.5	150	241	311	370	421	608	732	824	890	948	987
	4.0	160	260	337	401	457	666	810	920	1005	1074	1127
Flat terrain	1.5	89	147	194	236	274	432	561	676	785	882	973
	2.0	113	188	249	302	351	554	723	868	1005	1128	1246
	2.5	131	217	287	350	406	642	834	1008	1160	1308	1442
	3.0	145	240	319	388	450	712	927	1116	1290	1452	1603
	3.5	156	260	345	420	488	772	1005	1208	1395	1572	1736
	4.0	167	278	368	448	521	824	1071	1292	1490	1680	1855
Downhill 2%	1.5	100	178	248	316	382	698	975	1228	1465	1698	1932
	2.0	122	213	293	369	441	776	1074	1340	1595	1848	2086
	2.5	139	239	327	409	486	842	1152	1436	1705	1962	2219
	3.0	152	261	355	442	524	896	1221	1516	1795	2064	2331
	3.5	163	280	380	471	557	944	1281	1588	1880	2160	2429
	4.0	173	296	401	497	587	988	1338	1656	1955	2244	2520

Minimum considered pressure 1.0 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 1.2 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	35	62	83	100	114	162	189	208	220	228	231
	2.5	46	81	110	136	158	238	291	332	360	384	399
	3.0	53	95	130	161	187	290	363	420	460	498	525
	3.5	58	106	145	180	211	332	420	488	545	594	630
	4.0	63	114	158	197	231	366	465	544	615	672	721
Flat terrain	2.0	37	68	95	119	141	234	309	376	440	492	546
	2.5	47	86	121	151	180	298	396	484	560	636	700
	3.0	54	99	139	174	207	346	459	556	650	732	812
	3.5	60	110	154	193	229	382	507	616	720	810	896
	4.0	64	118	166	209	248	414	549	668	780	876	973
Downhill 2%	2.0	39	74	107	138	169	312	447	576	705	828	938
	2.5	49	92	131	167	203	362	510	648	785	918	1036
	3.0	55	104	148	189	227	402	558	708	850	984	1113
	3.5	61	114	161	206	248	434	600	756	905	1044	1176
	4.0	66	122	173	221	265	462	636	796	950	1098	1232

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 2.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	26	46	62	75	88	130	159	176	190	204	210
	2.5	33	59	82	101	118	184	231	268	295	318	343
	3.0	38	69	95	118	139	220	282	328	370	402	434
	3.5	42	76	106	132	156	250	321	376	425	468	504
	4.0	45	83	115	144	170	274	354	420	475	522	567
Flat terrain	2.0	27	49	68	86	102	168	225	272	315	360	399
	2.5	34	62	86	109	129	216	288	348	405	456	511
	3.0	39	71	100	126	149	248	330	404	470	528	588
	3.5	43	79	110	138	165	276	366	448	520	588	651
	4.0	46	85	119	150	178	298	396	484	560	636	707
Downhill 2%	2.0	28	52	74	96	116	210	294	380	460	540	616
	2.5	35	64	92	118	141	248	345	436	525	606	693
	3.0	39	74	104	133	160	278	384	480	575	666	749
	3.5	43	81	115	146	175	302	414	516	615	708	805
	4.0	47	87	123	156	187	324	441	552	655	750	847

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 3.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	20	36	49	60	70	108	132	152	170	180	189
	2.5	25	46	64	79	93	148	189	220	250	270	294
	3.0	29	53	74	92	109	176	225	268	305	336	364
	3.5	32	59	82	103	122	196	255	304	345	384	420
	4.0	35	64	89	112	132	216	279	336	380	426	462
Flat terrain	2.0	20	38	53	66	78	130	174	212	245	276	308
	2.5	26	48	67	84	100	166	222	272	315	354	392
	3.0	30	55	77	97	115	192	255	312	365	408	455
	3.5	33	60	85	106	127	212	282	344	400	456	504
	4.0	35	65	92	115	137	230	306	372	435	492	546
Downhill 2%	2.0	21	40	56	72	87	154	216	276	330	384	441
	2.5	26	49	70	89	107	186	255	320	385	444	504
	3.0	30	56	79	101	121	210	288	356	425	492	553
	3.5	33	62	87	110	133	228	312	388	460	528	595
	4.0	36	66	94	119	143	246	333	412	490	558	630

Minimum considered pressure 1.5 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 4.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	17	30	41	50	59	92	117	136	150	162	175
	2.5	21	38	53	66	78	126	162	192	215	240	259
	3.0	24	44	62	78	91	148	192	228	260	288	315
	3.5	27	49	68	86	102	166	216	260	295	330	357
	4.0	29	53	74	94	111	182	237	284	325	366	399
Flat terrain	2.0	17	31	44	55	65	108	144	176	205	234	259
	2.5	21	40	55	70	83	138	186	224	260	294	329
	3.0	25	45	64	80	96	160	213	260	305	342	378
	3.5	27	50	70	89	106	178	237	288	335	378	420
	4.0	29	54	76	96	114	192	255	312	365	408	455
Downhill 2%	2.0	17	32	46	59	71	126	174	220	265	306	350
	2.5	22	40	58	73	88	152	210	260	310	360	406
	3.0	25	46	65	83	100	172	234	292	345	396	448
	3.5	27	51	72	91	110	188	255	316	375	432	483
	4.0	29	55	77	98	118	202	273	340	400	456	511

Minimum considered pressure 1.5 bar

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 1.2 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	69	108	135	155	170	210	228	236	240	246	245
	2.5	92	149	191	226	253	344	393	424	445	456	469
	3.0	107	177	230	274	311	440	519	572	610	636	658
	3.5	120	199	261	313	357	516	618	692	745	792	819
	4.0	130	218	287	345	395	580	705	796	865	924	966
Flat terrain	2.0	77	132	178	218	255	406	531	640	740	834	924
	2.5	98	169	227	279	326	522	681	824	950	1074	1183
	3.0	113	195	263	322	377	602	789	952	1100	1242	1372
	3.5	125	216	291	357	417	668	873	1056	1220	1374	1519
	4.0	135	233	315	386	452	724	948	1144	1325	1488	1645
Downhill 2%	2.0	85	157	223	286	347	642	909	1144	1370	1590	1806
	2.5	105	189	264	335	402	718	1002	1252	1495	1728	1953
	3.0	119	212	295	372	445	778	1077	1344	1595	1842	2079
	3.5	130	232	321	403	480	830	1143	1420	1685	1938	2184
	4.0	140	248	343	430	511	876	1200	1488	1760	2028	2282

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 2.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	51	83	106	123	138	184	207	220	230	234	238
	2.5	67	111	145	173	197	280	333	368	395	414	427
	3.0	78	131	172	207	237	348	423	480	520	558	581
	3.5	87	146	194	234	269	402	495	568	625	672	707
	4.0	94	160	212	257	296	446	555	640	710	768	819
Flat terrain	2.0	55	95	128	158	184	294	384	464	535	606	665
	2.5	70	121	164	201	235	376	492	596	690	774	854
	3.0	81	140	189	232	272	436	570	688	795	894	987
	3.5	90	155	209	258	301	482	633	764	880	996	1099
	4.0	97	168	227	278	326	522	684	828	955	1074	1190
Downhill 2%	2.0	60	108	151	193	232	418	594	768	920	1062	1204
	2.5	74	132	183	230	275	478	666	848	1010	1164	1316
	3.0	84	149	206	258	307	526	726	916	1090	1248	1407
	3.5	92	163	225	281	333	566	777	972	1155	1320	1484
	4.0	99	176	241	301	356	602	819	1024	1210	1386	1554

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	40	66	85	101	114	160	186	204	215	222	231
	2.5	52	87	115	138	159	232	282	320	350	372	392
	3.0	61	102	136	164	189	284	351	404	445	480	511
	3.5	67	114	152	185	213	324	405	472	525	570	609
	4.0	73	124	166	202	234	358	450	524	590	642	693
Flat terrain	2.0	43	73	99	122	142	228	297	360	415	468	518
	2.5	54	94	126	155	181	290	381	460	530	600	665
	3.0	62	108	146	179	210	336	441	532	615	696	763
	3.5	69	119	161	198	232	372	489	588	680	768	847
	4.0	74	129	175	215	251	404	528	640	740	834	917
Downhill 2%	2.0	45	81	113	142	171	300	423	540	660	774	875
	2.5	56	100	137	172	205	352	486	612	735	858	966
	3.0	64	113	156	194	231	390	534	668	800	924	1043
	3.5	70	124	170	213	251	422	573	716	850	984	1106
	4.0	76	134	183	228	269	450	609	756	895	1032	1162

Minimum considered pressure 1.5 bar
 Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	34	56	73	87	99	142	168	188	200	210	217
	2.5	44	74	97	118	135	202	249	284	315	336	357
	3.0	50	86	114	138	160	244	306	352	395	426	455
	3.5	56	96	128	155	180	276	348	408	460	498	539
	4.0	61	104	139	170	197	304	387	452	510	564	609
Flat terrain	2.0	35	61	82	101	118	190	249	300	345	390	434
	2.5	45	78	105	129	151	242	318	384	445	498	553
	3.0	52	90	121	149	174	280	366	444	515	576	637
	3.5	57	99	134	165	193	310	408	492	570	642	707
	4.0	62	107	145	178	209	336	441	532	615	696	770
Downhill 2%	2.0	37	66	92	115	138	240	336	428	515	606	693
	2.5	46	82	113	141	167	284	390	488	585	678	770
	3.0	53	93	128	159	189	318	432	536	640	738	833
	3.5	58	102	140	174	207	346	465	580	685	786	889
	4.0	63	110	151	188	222	368	495	616	725	834	938

Minimum considered pressure 1.5 bar
 Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 1.2 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	108	154	181	198	210	236	243	248	250	252	252
	2.5	149	225	276	314	342	422	453	472	480	486	490
	3.0	177	273	342	395	438	568	633	668	690	708	714
	3.5	199	312	394	459	513	688	786	844	885	912	931
	4.0	218	344	437	513	577	792	918	1000	1055	1098	1127
Flat terrain	2.0	132	217	287	348	404	636	828	996	1150	1296	1428
	2.5	168	278	367	446	518	816	1062	1280	1475	1662	1834
	3.0	194	321	425	516	599	946	1230	1480	1710	1920	2121
	3.5	215	356	471	573	665	1048	1365	1644	1895	2130	2352
	4.0	233	385	510	620	720	1136	1479	1780	2055	2310	2555
Downhill 2%	2.0	157	284	404	522	636	1136	1575	1996	2400	2802	3192
	2.5	189	333	465	590	712	1244	1713	2156	2585	3000	3409
	3.0	212	370	512	645	773	1332	1824	2288	2735	3168	3591
	3.5	232	401	551	691	825	1410	1923	2404	2865	3312	3752
	4.0	248	428	586	732	871	1478	2010	2508	2985	3444	3892

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 2.0 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	82	123	149	168	183	220	234	240	245	246	252
	2.5	111	172	217	251	279	368	414	440	455	468	476
	3.0	131	206	263	308	346	476	552	600	635	660	679
	3.5	146	233	299	354	399	562	666	736	790	828	854
	4.0	159	256	330	391	444	636	762	852	920	972	1015
Flat terrain	2.0	95	156	207	251	291	460	597	720	830	936	1036
	2.5	121	200	265	322	374	590	768	924	1070	1200	1323
	3.0	140	231	307	373	432	682	888	1068	1235	1392	1533
	3.5	155	256	340	413	480	758	984	1188	1370	1542	1701
	4.0	167	278	368	447	520	820	1068	1288	1485	1668	1848
Downhill 2%	2.0	108	192	268	342	414	760	1053	1324	1585	1836	2086
	2.5	132	229	316	397	475	842	1155	1444	1720	1992	2254
	3.0	149	257	352	439	523	908	1239	1544	1835	2118	2387
	3.5	163	280	381	474	563	966	1311	1628	1935	2226	2506
	4.0	175	300	407	506	598	1016	1377	1708	2020	2322	2618

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	66	100	125	143	158	200	219	232	235	240	245
	2.5	87	138	175	206	231	318	369	400	425	438	455
	3.0	102	163	210	249	282	400	477	532	570	600	630
	3.5	114	184	238	283	322	466	564	636	695	738	777
	4.0	124	201	261	311	356	522	639	728	800	858	903
Flat terrain	2.0	73	120	160	194	225	356	462	556	645	726	798
	2.5	93	154	205	249	289	456	594	716	825	930	1022
	3.0	108	178	236	287	334	528	687	828	955	1074	1183
	3.5	119	198	262	318	370	584	762	916	1060	1194	1316
	4.0	129	214	284	345	401	634	825	992	1150	1290	1428
Downhill 2%	2.0	81	142	196	248	298	536	765	964	1150	1332	1505
	2.5	99	172	235	294	349	606	846	1060	1260	1452	1638
	3.0	113	194	263	327	388	662	915	1140	1350	1548	1743
	3.5	124	212	287	355	420	710	972	1208	1425	1638	1841
	4.0	133	227	307	379	448	750	1023	1268	1495	1710	1925

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	56	86	109	126	140	184	207	220	230	234	238
	2.5	73	117	150	177	200	282	333	368	395	414	427
	3.0	86	138	178	212	242	350	423	480	520	552	581
	3.5	95	155	201	240	275	404	495	568	625	672	707
	4.0	104	169	220	264	302	450	555	640	710	768	812
Flat terrain	2.0	61	100	133	162	187	296	384	464	535	606	665
	2.5	77	128	170	207	240	380	495	596	690	774	854
	3.0	89	148	197	239	278	440	573	688	795	894	987
	3.5	99	164	218	265	308	486	633	764	880	990	1099
	4.0	107	178	236	287	334	528	687	828	955	1074	1190
Downhill 2%	2.0	66	115	158	199	238	422	597	768	920	1062	1197
	2.5	82	140	191	238	282	484	672	852	1015	1164	1309
	3.0	93	159	215	266	315	532	729	920	1090	1248	1400
	3.5	102	174	235	290	342	572	780	976	1155	1320	1484
	4.0	110	187	252	311	366	608	825	1028	1210	1386	1554

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 1.2 l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	143	190	212	225	232	244	249	252	250	252	252
	2.5	205	296	350	386	410	464	483	488	495	498	497
	3.0	247	369	449	506	548	656	696	716	730	732	742
	3.5	280	427	527	602	660	822	894	928	950	966	973
	4.0	308	475	593	683	755	970	1071	1128	1165	1182	1197
Flat terrain	2.0	193	317	419	509	590	930	1209	1456	1680	1890	2086
	2.5	246	406	538	653	758	1194	1554	1872	2160	2430	2681
	3.0	284	470	622	755	877	1382	1797	2164	2500	2808	3101
	3.5	315	520	689	838	972	1534	1995	2404	2775	3120	3444
	4.0	341	564	746	907	1053	1662	2163	2604	3005	3378	3731
Downhill 2%	2.0	246	461	668	864	1035	1828	2565	3276	3970	4650	5320
	2.5	290	525	746	952	1136	1978	2757	3500	4220	4926	5621
	3.0	323	576	808	1024	1218	2104	2913	3684	4430	5160	5873
	3.5	350	618	861	1086	1290	2212	3051	3848	4615	5364	6097
	4.0	374	655	908	1142	1353	2308	3174	3992	4780	5544	6293

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 2.0l/h

	Distance between drippers (meter)											
	Inlet pressure (bar)	0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	112	159	186	202	214	238	243	248	250	252	252
	2.5	155	234	286	324	353	430	459	476	485	486	490
	3.0	185	285	356	410	453	582	645	680	700	714	721
	3.5	208	326	411	478	533	710	804	860	895	918	938
	4.0	228	360	457	535	601	818	942	1020	1075	1110	1141
Flat terrain	2.0	139	229	302	367	426	672	873	1052	1215	1368	1512
	2.5	177	293	388	471	547	862	1122	1352	1560	1752	1939
	3.0	204	338	448	545	632	998	1299	1564	1805	2028	2240
	3.5	226	375	497	604	701	1108	1440	1736	2005	2250	2485
	4.0	245	406	538	654	760	1200	1560	1880	2170	2442	2695
Downhill 2%	2.0	166	304	433	560	684	1214	1689	2140	2580	3006	3430
	2.5	200	354	496	631	763	1328	1833	2308	2770	3222	3661
	3.0	224	393	545	688	826	1422	1950	2448	2930	3396	3850
	3.5	244	426	586	736	880	1502	2052	2572	3065	3546	4018
	4.0	262	453	622	778	928	1574	2145	2676	3190	3684	4165

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 3.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	91	134	161	180	194	226	237	244	245	246	252
	2.5	123	190	238	274	303	388	429	452	465	474	483
	3.0	146	229	290	339	379	512	585	628	660	678	693
	3.5	164	260	332	390	440	610	711	780	825	864	889
	4.0	178	285	367	434	490	692	822	912	975	1026	1064
Flat terrain	2.0	107	176	233	283	329	518	675	812	940	1056	1169
	2.5	136	226	299	363	422	666	867	1044	1205	1356	1498
	3.0	157	261	346	420	488	770	1002	1208	1395	1572	1736
	3.5	174	289	383	466	541	854	1113	1340	1550	1740	1925
	4.0	188	313	415	505	586	926	1206	1452	1680	1884	2086
Downhill 2%	2.0	123	221	311	399	484	886	1221	1540	1850	2148	2443
	2.5	150	262	364	459	551	976	1335	1676	2000	2316	2625
	3.0	169	293	403	506	603	1050	1431	1788	2130	2460	2779
	3.5	185	319	436	545	648	1114	1512	1884	2235	2580	2912
	4.0	198	341	465	578	686	1170	1584	1968	2335	2688	3031

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length

Max. lateral length (meter) at different inlet pressure and different slopes

PCJ™ PRO HCNL drippers • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 4.0 l/h

	Inlet pressure (bar)	Distance between drippers (meter)										
		0.2	0.4	0.6	0.8	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Uphill 2%	2.0	78	117	143	162	177	216	231	240	245	246	245
	2.5	104	163	206	239	267	356	402	432	450	462	469
	3.0	123	195	249	293	330	458	534	584	620	648	665
	3.5	137	220	283	335	380	538	642	712	765	804	840
	4.0	150	241	311	370	421	608	732	824	890	948	987
Flat terrain	2.0	89	147	194	236	274	432	561	676	785	882	973
	2.5	113	188	249	302	351	554	723	868	1005	1128	1246
	3.0	131	217	287	350	406	642	834	1008	1160	1308	1442
	3.5	145	240	319	388	450	712	927	1116	1290	1452	1603
	4.0	156	260	345	420	488	772	1005	1208	1395	1572	1736
Downhill 2%	2.0	100	178	248	316	382	698	975	1228	1465	1698	1932
	2.5	122	213	293	369	441	776	1074	1340	1595	1848	2086
	3.0	139	239	327	409	486	842	1152	1436	1705	1962	2219
	3.5	152	261	355	442	524	896	1221	1516	1795	2064	2331
	4.0	163	280	380	471	557	944	1281	1588	1880	2160	2429

Minimum considered pressure 1.5 bar

Due to lateral filling time and flushing effectiveness it is not recommended to exceed 800 meters lateral length