

CapiNet™ on-line dripper

On-line non-pressure-compensated dripper designed for precise irrigation in pots and container crops. Enables accurate water delivery directly to the required place while simplifying installation and system layout.



Benefits & Features

Hydraulic performance adaptability

Flow rate varies with pressure, following pressure-dependent flow characteristics that enable flexible system design under specific field conditions.

A low exponent (X) allows improved irrigation uniformity and enables longer dripline lengths under similar operating conditions.

Long-lasting, high clogging resistance

Ensures reliable performance through a self-cleaning labyrinth that continuously flushes debris during operation.

The filtration area prevents suspended particles from entering the dripper.

The TurboNet™ labyrinth features wide, deep flow passages with large cross-sections that enhance clogging resistance.

Precise water delivery

The integrated drop-leading design directs water accurately to the required place, improving irrigation efficiency and reducing water losses.

Designed stake for stable positioning

The specially designed stake enables secure positioning in pots, beds and containers conditions.

It can be installed vertically or at a 45° angle, ensuring stable placement without the need for additional accessories.

Simplified installation

No connectors are required to connect the dripper to the distribution line, enabling fast and efficient installation.

Applications



Open field



Orchards



Protected crops

- Suitable for on-surface installation.
- For irrigation in greenhouses, nurseries, pots and container applications.
- Designed for precise water delivery in protected crop environments.



Specifications

- Maximum operating pressure: 2.0 bar.
- Filtration requirements: A filtration grade of 130 micron / 120 mesh is recommended to ensure long-term operational reliability. When sand content exceeds 2 ppm, a Hydrocyclone must be installed upstream of the main filter. For sand/silt/clay solids above 100 ppm, apply pre-treatment in line with Netafim™ expert guidelines.
- TurboNet™ labyrinth with enhanced clogging resistance and stable hydraulic performance.
- Insertable into thick-wall PE pipes: 1.00 and 1.20 mm.
- Injection-molded dripper with low coefficient of variation (CV) for reliable uniformity.
- High UV resistance and compatible with standard agricultural nutrients and fertilizers.

Drippers technical data

Flow rate* (l/h)	Water passages dimensions width-depth-length (mm x mm x mm)	Filtration area (mm²)	Constant K	Exponent X	Recommended filtration (micron)/(mesh)
1.95	0.76 x 0.70 x 21	5.0	0.630	0.49	130/120
2.75	0.76 x 0.70 x 11	5.0	0.890	0.49	130/120

* Nominal flow rate at 1.0 bar.

Both the K constant and the X exponent are fundamental hydraulic parameters used to calculate the actual flow rate of each dripper at a given operating pressure as detailed in the following pages.



Drippers package data (on carton box)

Model	Quantity p/box (units)	Box dimensions (cm x cm x cm)	Average* box weight (kg)	Boxes p/pallet (units)	Pallet dimensions (cm x cm x cm)	Average* pallet weight (kg)
20 cm length	3000	27 x 56 x 25	13.8	32	114 x 114 x 112	453
40 cm length		27 x 56 x 25	27.4	32		885
60 cm length		27 x 62 x 27	40.9	32		1318
80 cm length		27 x 113 x 28	54.4	16		880
100 cm length		27 x 113 x 28	67.9	16		1096

*Values shown are average weights and may vary due to injection tolerances. Refer to the official Netafim™ disclaimers for details.



Catalog numbers

The final catalog number must be confirmed with your local Netafim™ representative after completing the product definition.

Complete the product specification using the options provided in the following flow chart.

How to use: Select one option from each category in the chart to define the most appropriate product configuration for your application.

Product name	Flow rate (l/h)	CapiNet™ length (cm)	Emitters per package
CapiNet™ CAPINET	1.95 1.95L/H 2.75 2.75L/H	20 20CM 40 40CM 60 60CM 80 80CM 100 100CM	3000 3000/CA
CAPINET 1.95L/H 60CM 3000/CA			

Catalog description example

Drippers flow rate vs working pressure

To determine the actual flow rate of a dripper under different operating pressures, the following equation is applied:

$$Q = K \times P^X$$

Where:

Q = Dripper flow rate (liters per hour)

K = Dripper-specific flow constant (manufacturer-defined)

P = Actual working pressure (meters of water column)

X = Dripper-specific exponent (manufacturer-defined)

In accordance with ISO 9261, manufacturers must declare both the K constant and the X exponent for each dripper model.

Non-pressure-compensated drippers deliver a flow rate that varies with operating pressure, following the relationship defined by the formula presented above.

To provide a general understanding of how flow rate responds to changes in operating pressure, tables are provided showing the dripper flow rate at different working pressures for each model in this document.

CapiNet™ drippers flow (l/h) vs pressure (bar)

Dripper	Flow rate* (l/h)	Working pressure (bar)									
		0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00
CapiNet™ drippers	1.95	0.88	1.24	1.52	1.75	1.95	2.13	2.30	2.45	2.60	2.73
	2.75	1.25	1.76	2.14	2.47	2.75	3.01	3.24	3.46	3.67	3.86

* Nominal flow rate at 1.0 bar.

Maximum driplines length

To determine the maximum feasible run length for a given dripline, considering all hydraulic factors that influence flow within the dripline, Netafim™ uses proprietary design software based on the Darcy–Weisbach equations, supported by decades of engineering expertise and long-standing collaboration with leading academic institutions.

The precise maximum run length for any installation must be calculated using this dedicated design software, which evaluates all relevant hydraulic parameters across the system.

Minor differences may occur between design tools available on the market, due to variations in calculation methodologies and underlying design assumptions.

To calculate the maximum feasible dripline length, taking into account the required variables, such as flow rate and emitter spacing, pipe inner diameter, field slope, inlet pressure and other parameters, Netafim™ HydroCalc design software can be used.



Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 1.95 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	11	20	28	35	41	47	52	56	60	64
	1%	11	21	29	37	44	50	56	62	67	72
Flat terrain	0	11	21	30	38	46	53	61	67	74	80
Downhill	-1%	11	22	31	40	49	57	65	73	80	87
	-2%	11	22	32	42	51	60	69	78	86	94

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 1.95 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	23	39	51	61	69	76	83	87	92	96
	1%	24	41	56	68	78	88	97	104	112	118
Flat terrain	0	24	43	60	74	88	100	112	123	133	144
Downhill	-1%	25	46	64	81	97	112	127	141	154	167
	-2%	26	48	68	87	106	123	141	158	175	191

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 1.95 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	39	61	76	87	96	103	108	113	116	120
	1%	41	67	87	104	118	130	140	150	158	166
Flat terrain	0	44	74	100	122	143	161	179	196	212	228
Downhill	-1%	46	81	111	140	167	192	216	241	265	288
	-2%	48	87	122	157	190	223	255	287	319	351

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 1.95 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	54	81	97	108	116	121	125	128	131	133
	1%	59	94	120	140	157	170	181	192	201	208
Flat terrain	0	64	109	146	179	209	236	262	286	311	333
Downhill	-1%	68	122	170	216	259	301	342	382	423	463
	-2%	73	135	195	253	311	369	428	488	548	607

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 12/4 • ID 9.8 mm • Kd 1.65 • Flow rate 2.75 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	9	16	23	28	34	38	43	47	50	54
	1%	9	16	23	30	36	41	46	50	55	59
Flat terrain	0	9	17	24	31	37	43	48	54	59	64
Downhill	-1%	9	17	25	32	39	45	51	58	63	69
	-2%	9	17	25	33	40	47	54	60	67	73

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 16/4 • ID 13.2 mm • Kd 0.39 • Flow rate 2.75 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	18	32	42	51	59	65	70	75	80	84
	1%	19	33	45	55	64	73	80	86	93	99
Flat terrain	0	19	35	48	60	71	80	90	98	107	115
Downhill	-1%	20	36	51	64	77	88	99	110	121	131
	-2%	20	38	53	68	82	95	108	121	133	146

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 20/4 • ID 17.0 mm • Kd 0.13 • Flow rate 2.75 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	32	51	64	75	84	90	96	101	105	109
	1%	33	55	72	86	98	109	118	127	135	142
Flat terrain	0	35	59	80	98	115	130	144	158	170	183
Downhill	-1%	36	64	88	109	130	149	168	186	204	221
	-2%	38	67	95	120	145	169	192	215	239	261

Max. dripline length (meters) at different slopes - 10% flow variation

CapiNet™ dripper • On PE pipe 25/4 • ID 21.2 mm • Kd 0.10 • Flow rate 2.75 l/h • Inlet pressure 1.5 Bar

	Distance between drippers (meter)										
	Slope	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
Uphill	2%	44	69	85	96	105	111	116	120	123	126
	1%	48	77	100	118	133	146	157	167	176	184
Flat terrain	0	51	87	117	143	167	190	210	230	248	267
Downhill	-1%	54	96	133	167	200	231	262	291	321	350
	-2%	57	104	148	190	232	274	315	356	398	439