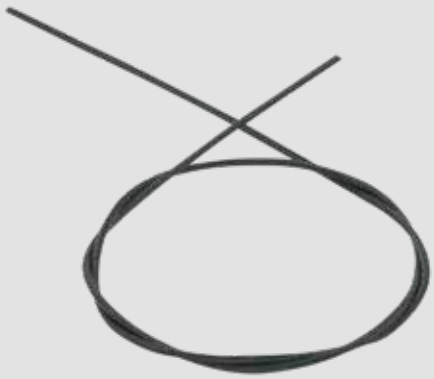
Capillary



The capillary dripper is one of the first types of dripper. The flow rate of the capillary dripper is determined by the working pressure, length and inside diameter of the capillary. This allows a wide variety of flow rates.
The flow in the capillary is not turbulent. The flow rate per dripper can differ significantly (higher CV value), particularly when the dripper gets older and likely more contaminated. The vulnerability to clogging is higher than that of its successors, such as the Cobra, Woodpecker and Kameleon.

From 2016, Netafim Netherlands employs a new method of encoding the capillary dripper. The inside diameter is indicated by a letter code. A letter (A, B, C, D, E) is printed on the microtube corresponding to the code and flow rate table shown below. Capillary drippers supplied before 2015 are marked with a number (1,2,3,4). This indicates the flow rate at 0.5 bar.

APPLICATION

Various crops with relatively short bed spacings

CHARACTERISTICS

- Basic dripper with pressure-sensitive function.
- 5 codes (A, B, C, D, E)
- The lowest uniformity compared with more modern drippers
- Microtube cut off at right-angles instead of at an angle (from 1 January 2015) for a more rigid connection to the screw plug

TECHNICAL DATA

Material	: PE (available only in black)
Rec. working pressure	: 0.5 bar (0.25 – 1 bar)
Filtration	: 80 - 100 micron (main filtration)
	: 130 micron (irrigation set)
Capillary length	: standard: 60, 85 and 100 cm
	: on request: 40 - 100 cm (with different flow rates, see table)
Main line colour	: white/black and black
Main line diameter	: 16 / 20 / 25 / 32 mm
Spacing	: 5 – 300 cm
Punch diameter	: 2.5 mm
Tolerance	: +/- 15%

Microtube codes

Type A - yellow = 3,2 x 0,6 (1 l/h @ 85 cm at 0,5 bar)
Type B - white = 3,2 x 0,7 (1,5 l/h @ 85 cm at 0,5 bar)
Type C - red = 3,2 x 0,8 (2 l/h @ 85 cm at 0,5 bar)
Type D - blue = 3,2 x 0,9 (3 l/h @ 85 cm at 0,5 bar)
Type E - green = 3,2 x 1,0 (4 l/h @ 85 cm at 0,5 bar)

Possible stakes

1. Aqua stake-black	: 15 cm
2. Aqua stake-blue	: 15 cm
3. Cap-S – black	: 15 cm
4. Cap-S – blue	: 15 cm
5 . Straight stake	: approx. 10 cm
6. Straight - black	: 15 cm
7. Straight - blue	: 15 cm

Overview of capillary dripper flow rate (l/h)*

(type) length (cm)	Size (mm)	0,25 bar	0,5 bar	0,75 bar	1 bar	Commercial designation and length (0,5 bar)
Type A						
(A) 100	3,2 x 0,6	0,4	0,8	1,1	1,3	1 l/h @ 100 cm
(A) 85	3,2 x 0,6	0,5	0,9	1,3	1,6	1 l/h @ 85 cm
(A) 70	3,2 x 0,6	0,6	1,0	1,4	1,8	
(A) 60	3,2 x 0,6	0,6	1,2	1,6	2,0	1 l/h @ 60 cm
(A) 50	3,2 x 0,6	0,8	1,3	1,8	2,2	
(A) 40	3,2 x 0,6	1,0	1,5	2,0	2,5	
Type B						
(B) 100	3,2 x 0,7	0,6	1,2	1,7	2,1	
(B) 85	3,2 x 0,7	0,7	1,4	2,0	2,5	
(B) 70	3,2 x 0,7	0,9	1,7	2,3	2,8	
(B) 60	3,2 x 0,7	1,0	2,0	2,7	3,2	2 l/h @ 60 cm
(B) 50	3,2 x 0,7	1,2	2,2	3,0	3,6	
(B) 40	3,2 x 0,7	1,5	2,5	3,4	4,0	
Type C						
(C) 100	3,2 x 0,8	0,8	1,7	2,3	2,8	2 l/h @ 100 cm
(C) 85	3,2 x 0,8	1,1	2,0	2,7	3,4	2 l/h @ 85 cm
(C) 70	3,2 x 0,8	1,3	2,2	3,1	3,8	
(C) 60	3,2 x 0,8	1,4	2,5	3,5	4,4	3 l/h @ 60 cm
(C) 50	3,2 x 0,8	1,7	2,9	4,0	4,9	
(C) 40	3,2 x 0,8	1,9	3,3	4,5	5,5	
Type D						
(D) 100	3,2 x 0,9	1,5	2,5	3,5	4,5	3 l/h @ 100 cm
(D) 85	3,2 x 0,9	1,8	3,0	4,1	5,0	3 l/h @ 85 cm
(D) 70	3,2 x 0,9	2,1	3,5	4,5	5,6	
(D) 60	3,2 x 0,9	2,3	3,8	5,1	6,1	4 l/h @ 60 cm
(D) 50	3,2 x 0,9	2,6	4,3	5,8	6,9	
(D) 40	3,2 x 0,9	2,9	4,9	6,6	7,9	
Type E						
(E) 100	3,2 x 1,0	2,0	3,7	4,9	6,0	4 l/h @ 100 cm
(E) 85	3,2 x 1,0	2,4	4,0	5,6	6,8	4 l/h @ 85 cm
(E) 70	3,2 x 1,0	2,7	4,6	6,2	7,6	
(E) 60	3,2 x 1,0	3,1	5,2	6,9	8,4	5 l/h @ 60 cm
(E) 50	3,2 x 1,0	3,5	5,7	7,6	9,4	
(E) 40	3,2 x 1,0	3,8	6,5	8,7	10,6	

* Flow rate is measured horizontally (at the same height)

INSTALLATION & MAINTENANCE

- Read the 'General operating instructions for dripper systems' for storage, installation and use.
- The capillary drippers can be cleaned using acid, peroxide, chlorine-based agents and/or suction (see 'Cleaning and important points for dripper systems').
- For your information: in factory assembly, the capillary drippers are cut straight, while loose capillaries are cut at an angle.