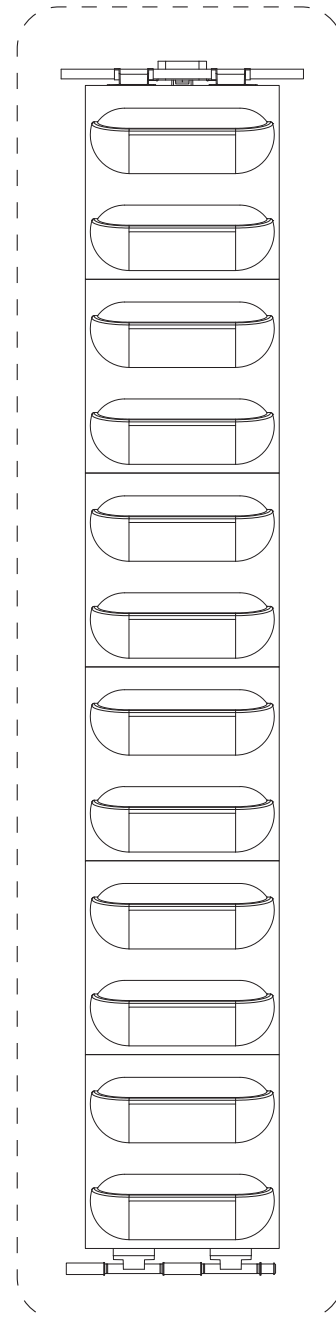


MobiPanel®

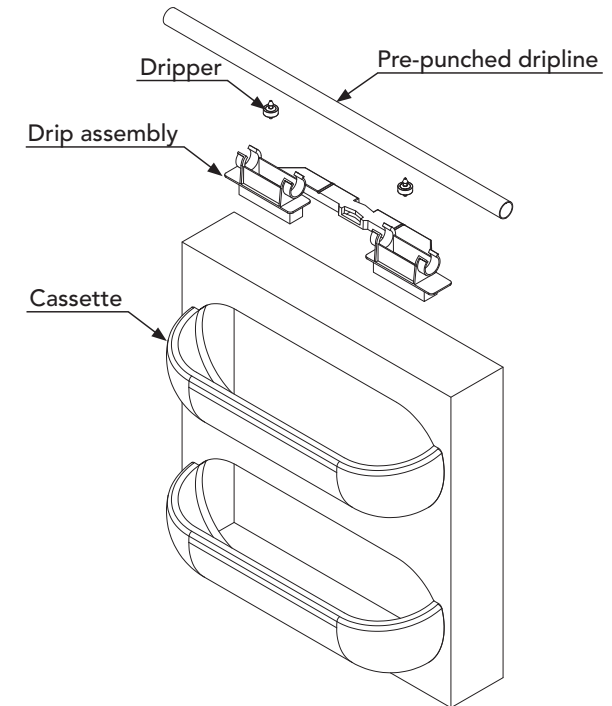
Calculation of appropriate drippers and resulting flowrate



1 cassette = 0.400×0.400
6 cassettes = $0.96\text{m}^2 \approx 1\text{m}^2$ of plants

1m^2 plants use $0.5 \text{ L/m}^2/\text{day}$ (1 - 10C°)*
 1m^2 plants use $2.0 \text{ L/m}^2/\text{day}$ (15 - 25C°)*
 1m^2 plants use $4,5 \text{ L/m}^2/\text{day}$ ($> 25\text{C}^\circ$)*

* Variable depending on environmental factors.



Example calculation

Given data

- Calculate with max water usage of green wall. In this case on warm days ($>25^{\circ}\text{C}$) the plants need $4.5\text{L}/\text{m}^2/\text{day}$
- 1 cassette = $0.400\text{m} \times 0.400\text{m} = 0.16\text{m}^2$
- $2 \times 2\text{L}/\text{h}$ drippers per cassette = $4\text{L}/\text{h}$ per column flow rate (different drippers can be installed to increase or decrease flowrate in column)
- $4\text{L}/\text{h} \times 16$ columns = $64\text{L}/\text{h}$ max flowrate which the pump should be rated to.

$0.16\text{m}^2 \times 10 = 1.60\text{m}^2$ of plants in 1 column

$1.60\text{m}^2 \times 4.5\text{L}/\text{m}^2/\text{day} = 7.2\text{L}/\text{day}$

$7.2\text{L}/\text{day} \div 4\text{L}/\text{h} = 1.8\text{h}/\text{day} = 108\text{min}/\text{day}$

$108\text{min}/\text{day} \div 6$ intervals = 18min per interval

Advice

- Use watering intervals of 15 - 30 minutes on and 30 minutes off until correct min/day is reached. This allows the water to gradually flow through the MobiPanel system.
- In case of high wind areas, use $3\text{L}/\text{h}$ drippers on outer column because of extra evaporation.

Resulting watering schedule

- $1 - 10^{\circ}\text{C}$:
Plants use $0.5\text{L}/\text{m}^2/\text{day}$.
(18min on, 30min off) \times 6 intervals \times 1 day a week
- $15 - 25^{\circ}\text{C}$
Plants use $2.0\text{L}/\text{m}^2/\text{day}$.
(18min on, 30min off) \times 6 intervals \times 3 days a week
- $>25^{\circ}\text{C}$
Plants use $4.5\text{L}/\text{m}^2/\text{day}$.
(18min on, 30min off) \times 6 intervals \times 6 days a week

Sample depending on local conditions

