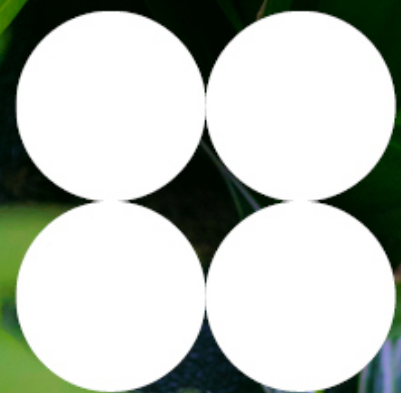




MOBILANE

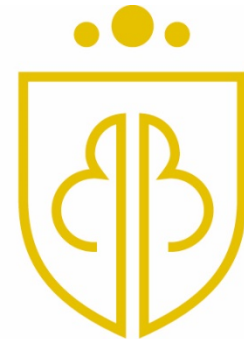
BUILDING GREEN

# DARTHUIZER GROEP

“The mission of Darthuizer Group is to provide custom made solutions to its customers for the design and development of green spaces.”

## FACTS

- Darthuizer boomkwekerijen was founded in 1926.
- Oaselease was founded in 1994.
- Mobilane was founded in 2001.
- Mobicare was founded in 2004.
- Boot & Dart Boomkwekerijen was founded in 2016.
- Darthuizer production BV was founded in 2016.



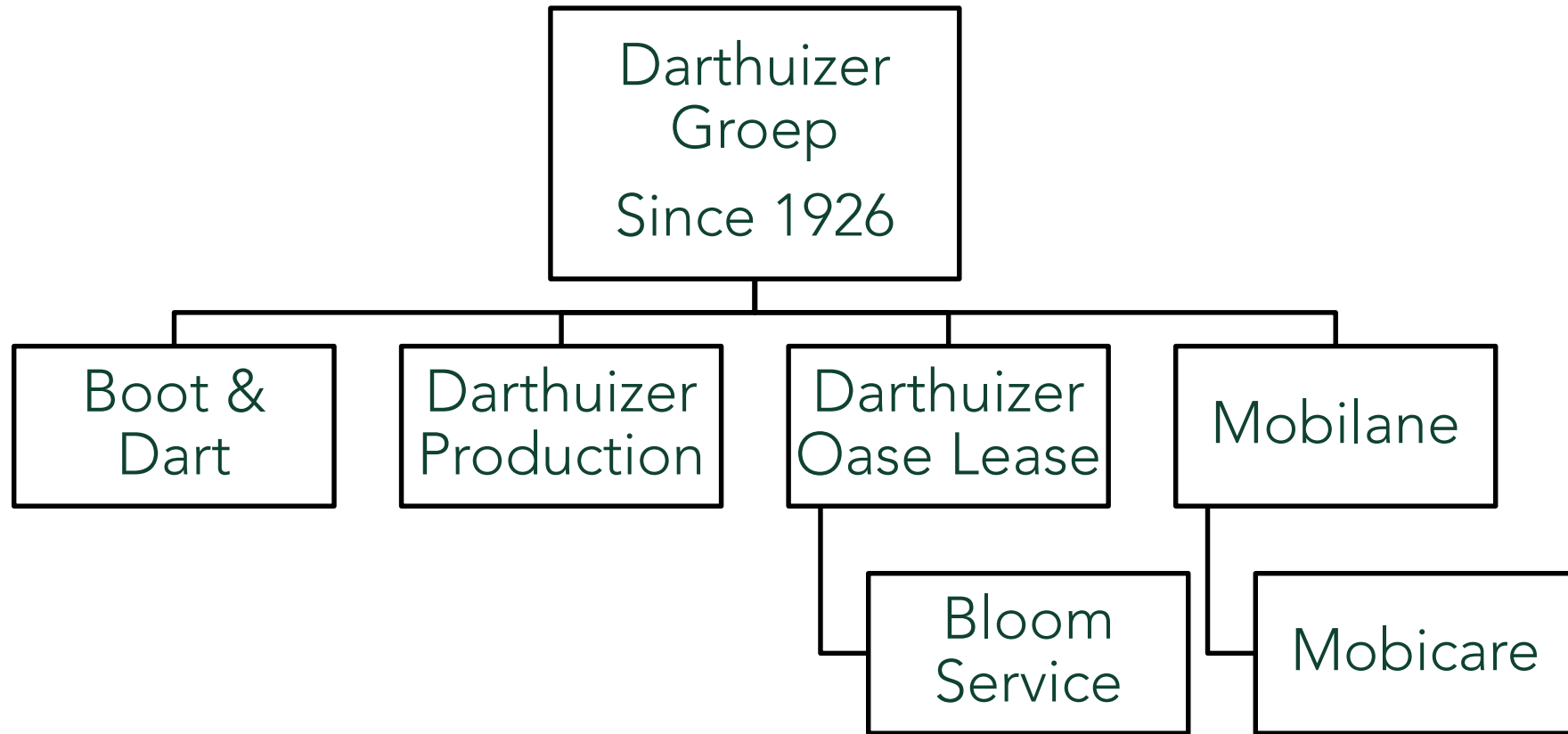
**DARTHUIZER GROEP**



# DARTPLANT

- Purchased in december 2015
- Social employment service
- Darthuizer Group







# MOBILANE

“The Mission of Mobilane is to build a greener and healthier environment.”

## FACTS

- Founded in 2001
- Offices in 9 countries around the world
- 18 agents in different countries around the world
- Private owned production locations
- Contract growers
- Manufacturer of 8 different product ranges



# MOBILANE TECHNICAL TRAINING

- LivePicture theory
- LivePanel theory
- Lunch
- Guided tour DartPlant
- Praktical training
- +/- 16:00 finish





# TECHNICAL QUESTIONS?

[technicalsupport@mobilane.nl](mailto:technicalsupport@mobilane.nl)



# LIVE PRODUCTS

LivePicture®



LivePanel® Outdoor



LivePanel® Indoor



# LIVE PRODUCTS

LivePicture® GO

LivePicture® 1

LivePicture® 2

LivePicture® 3

LivePicture® 4

LivePicture® XL

LiveDivider®

LivePanel®







**LIVEPICTURE GO**



LIVE PICTURE®  
**GO**  
FOR O<sub>2</sub>



reddot award 2018  
winner



 MOBILANE







**LIVEPICTURE**

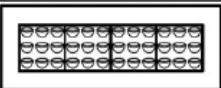
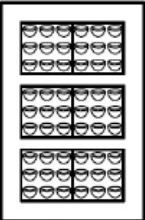
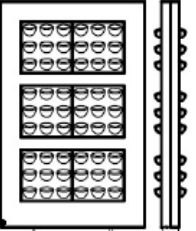


# LivePicture®



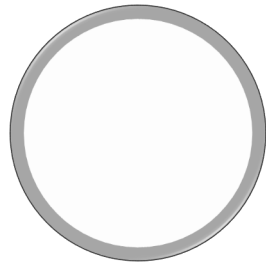


# LivePicture®

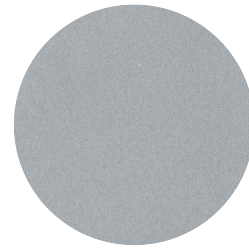
|                |     |                                                                                     | Sizes                                        | Weight  | Water (approx) |
|----------------|-----|-------------------------------------------------------------------------------------|----------------------------------------------|---------|----------------|
| LivePicture 1  | 41" |   | 72 cm x 72 cm x 7 cm                         | 12 kg   | 14 ltr         |
| LivePicture 2  | 53" |   | 112 cm x 72 cm x 7 cm                        | 16,6 kg | 19 ltr         |
| LivePicture 3  | 67" |   | 152 cm x 72 cm x 7 cm                        | 21,1 kg | 24 ltr         |
| LivePicture 4  | 81" |   | 192 cm x 72 cm x 7 cm                        | 25,5 kg | 29 ltr         |
| LivePicture XL |     |   | 112 cm x 170 cm x 7 cm                       | 35 kg   | 38 ltr         |
| LiveDivider    |     |  | 112 cm x 180 cm x 15 cm<br>Base plate = 30cm | 128 kg  | 77 ltr         |

# LivePicture®

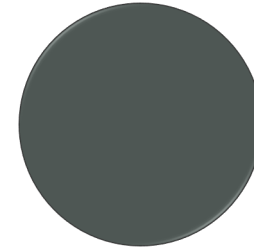
Standard colours:



White



Silver



Antracite



# LivePicture®

Alle RAL kleuren & Vinyl Wrapping op aanvraag.

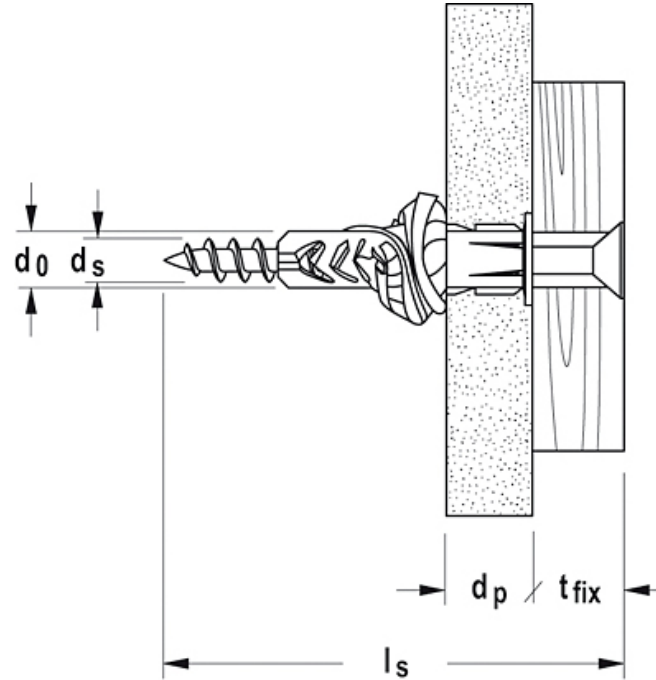


# LivePicture®

## Wall mounting

Walls type:

- Wood
- Plaster (12mm+)
- Holle
- Concrete
- Stone

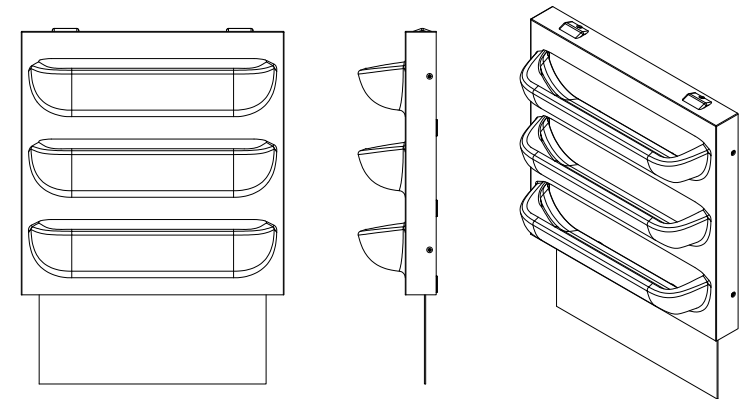




# LivePicture®



5cm 7cm



# LivePicture®

|                            |                       |                            |
|----------------------------|-----------------------|----------------------------|
| Epipremnum Aureum          | Asplenium nidus       | Epipremnum Aureum          |
| Dracanea Lemon<br>Surprise | Schefflera arboricola | Philodendron scandens      |
| Philodendron scandens      | Epipremnum Aureum     | Dracanea Lemon<br>Surprise |



# LivePicture®

[How do you plant a cassette?](#)





# LivePicture®

## COMPOSITION SOIL PLANT CASSETTE

- 30% kokosgruis
- 30% Zweeds veenmosveen fijn
- 30% Block-peat 1
- 10% perlite grof
- 0,15 kg micromax (per m3)
- 0,4 kg Pg-mix (per m3)
- 1,5 kg Dolokal (per m3)

DCM Ecoterra kwekerspotgrond

# LivePicture®

## UNIQUE FEATURES

- Easy to install
- Fully self-contained system
- Interchangeable cassettes and frame
- Interchangeable frame (Note: not LiveDivider)
- Water capacity for 4-6 weeks
- Does not take up any space (compared to pots, for example)



# LivePicture®



 MOBILANE





**LIVEPANEL**



LivePanel®





# LivePanel®





# LivePanel®





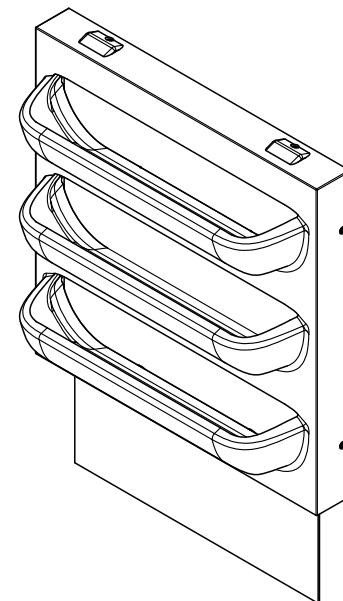
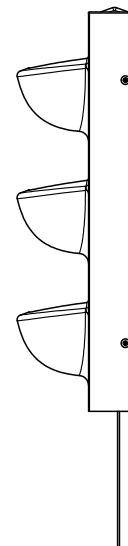
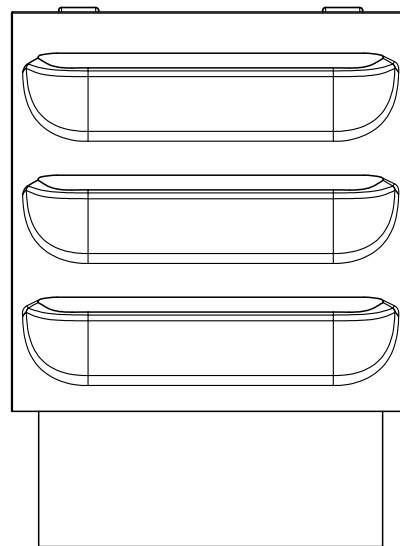
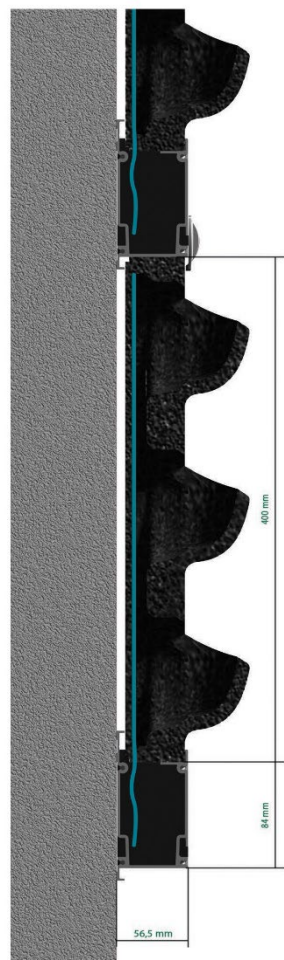
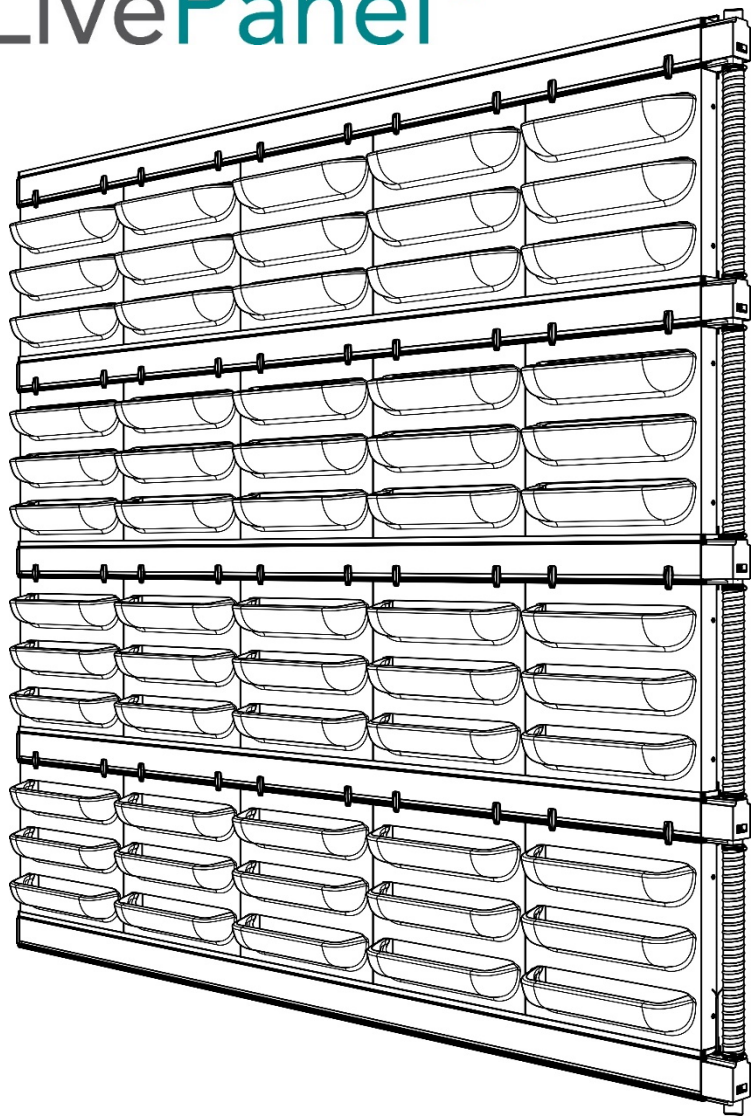
# LivePanel®



 MOBILANE

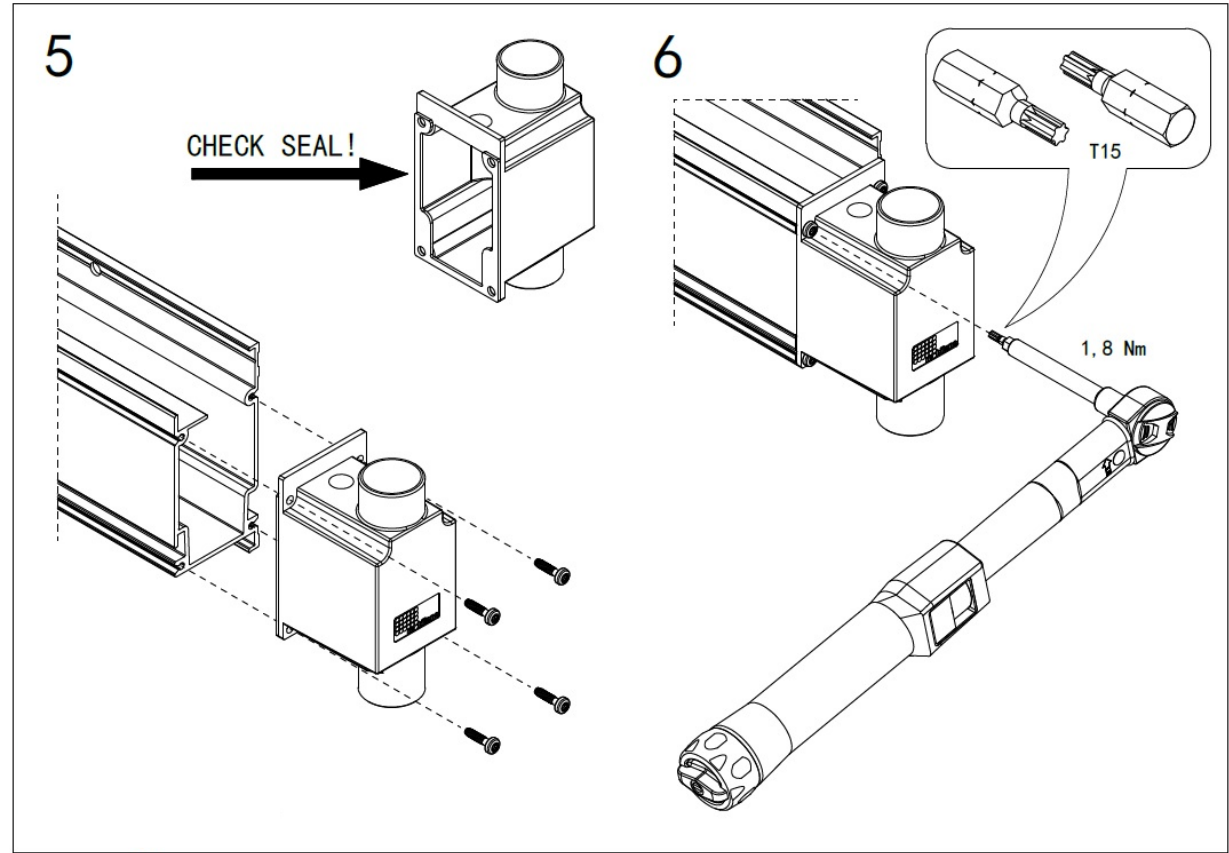


# LivePanel®



# LivePanel®

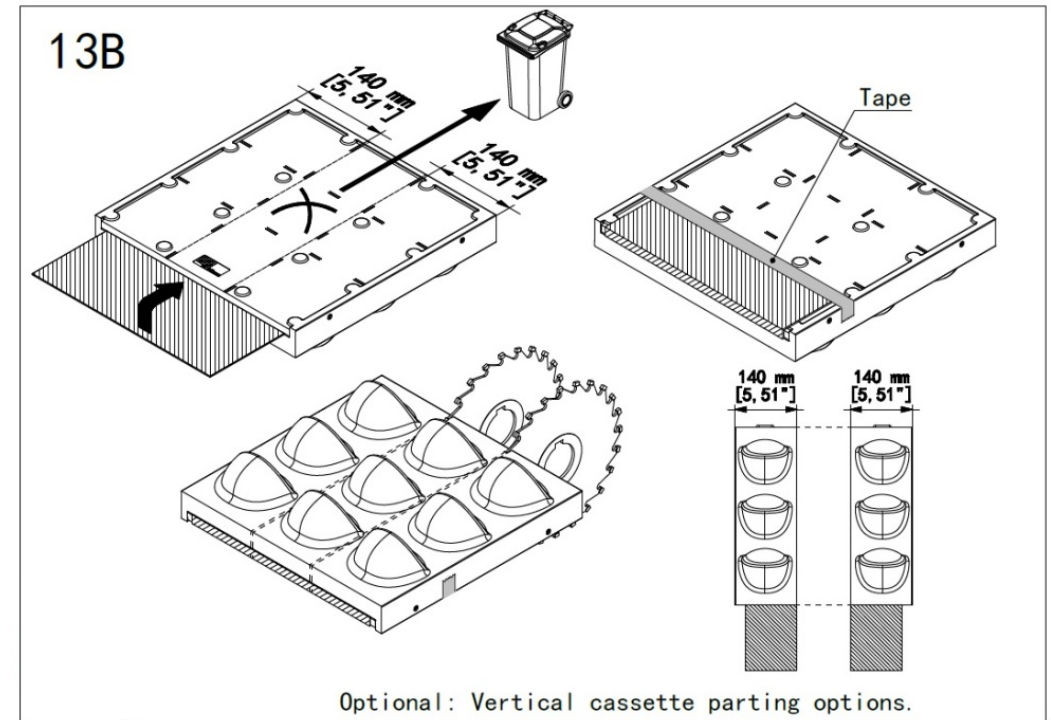
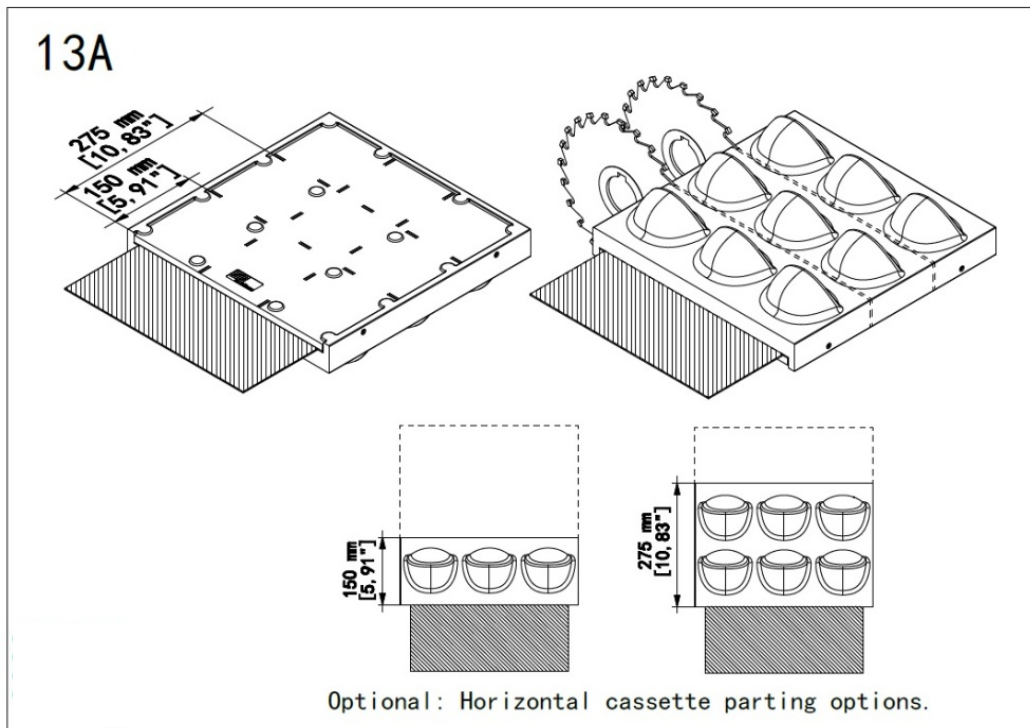
Important  
Use a torque wrench.





# LivePanel®

Cut a cassette:



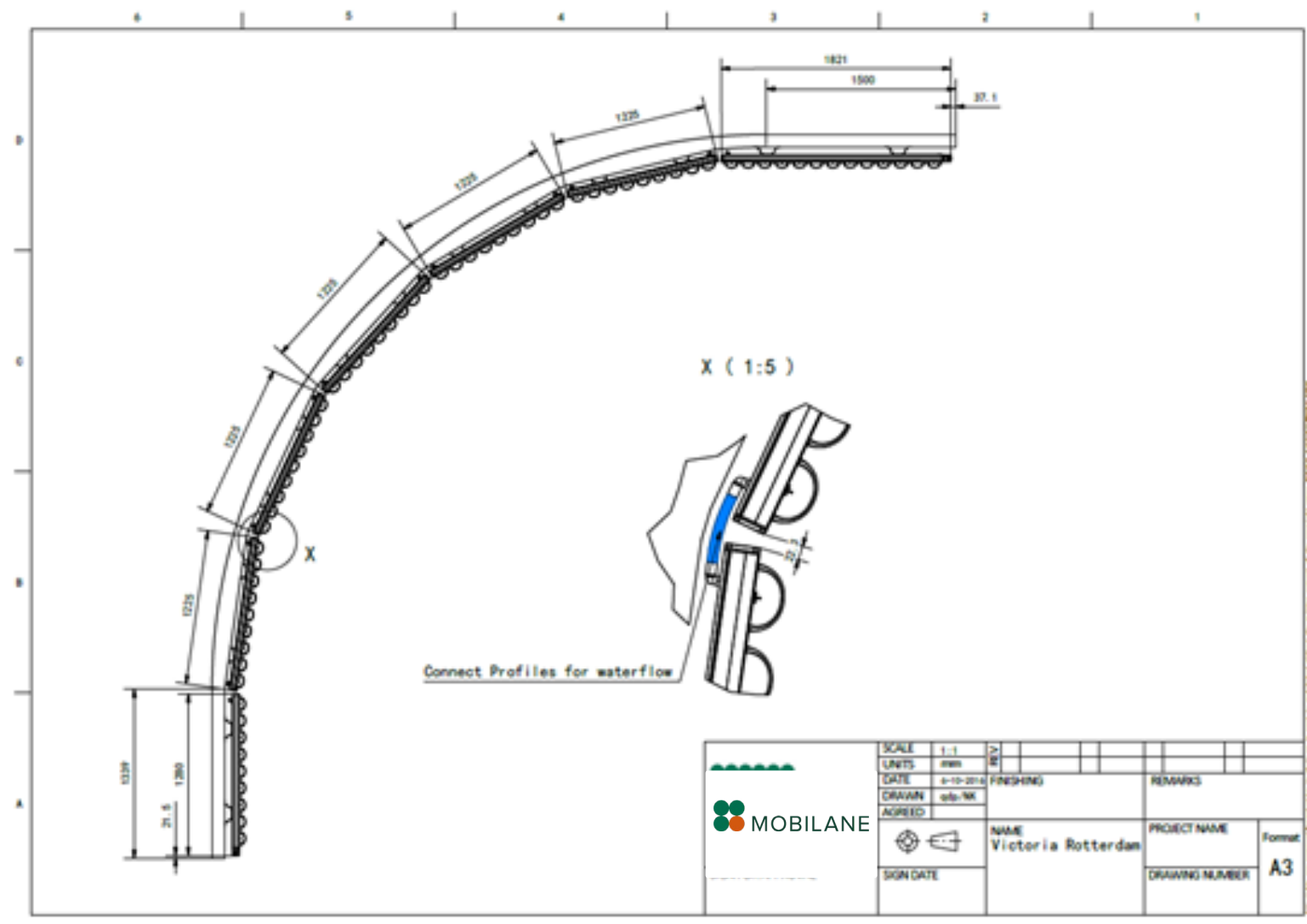
# LivePanel®

## REQUIREMENTS

- A suitable wall
- Light (follows)
- Good climate (next)
- Drain point under the wall
- Space for the irrigation cabinet (near the wall)
  - Water connection with minimum 2 bar pressure, maximum 4 bar
  - Good quality water (follows)
  - 230V/16A power connection



LivePanel®



# LivePanel®





# LivePanel®

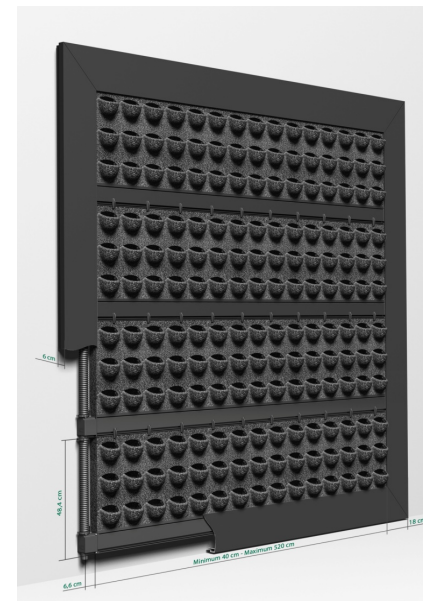
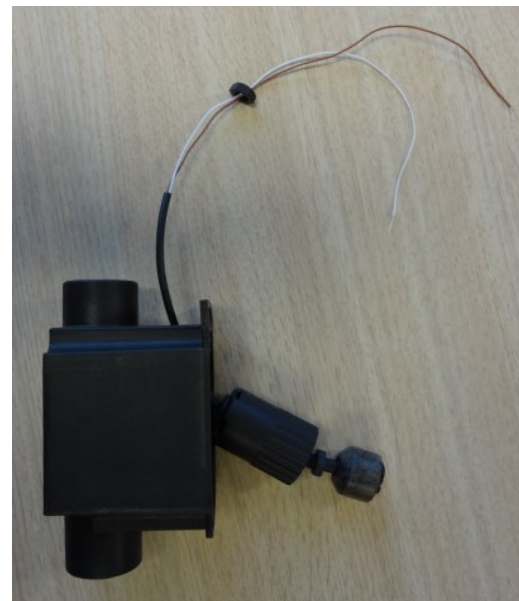
## ORDER OF INSTALLATION

1. Planting cassettes.
2. Installation of the sensors.
3. Installation of the LivePanel Hardware.
4. Connecting to the drain.
5. Installing the irrigation box.
6. Connecting the sensors.
7. Programming the controller and testing the irrigation.
8. Installing light (often this will be done by a 3rd party).



# LivePanel®

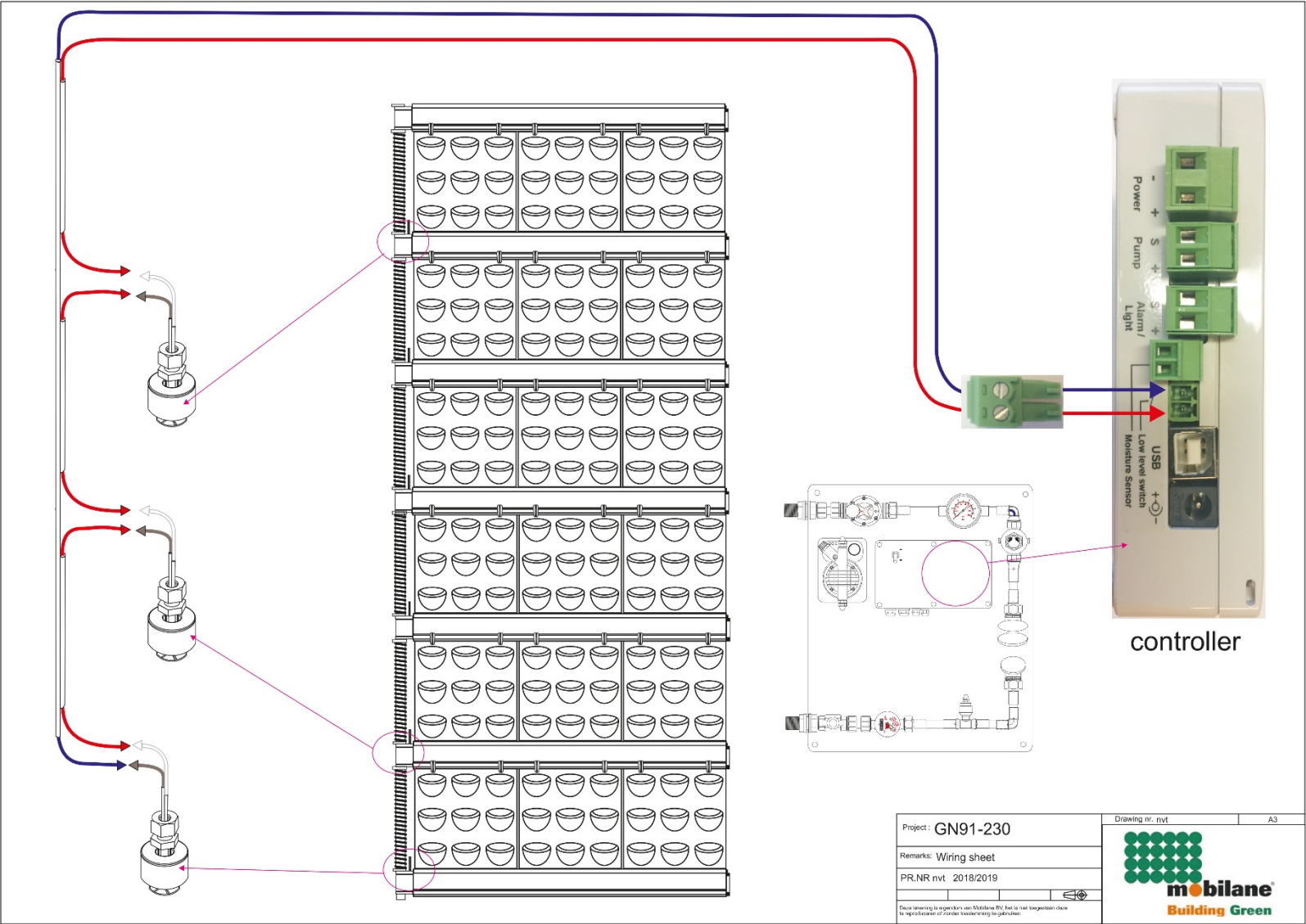
## INSTALLATION OF SENSORS





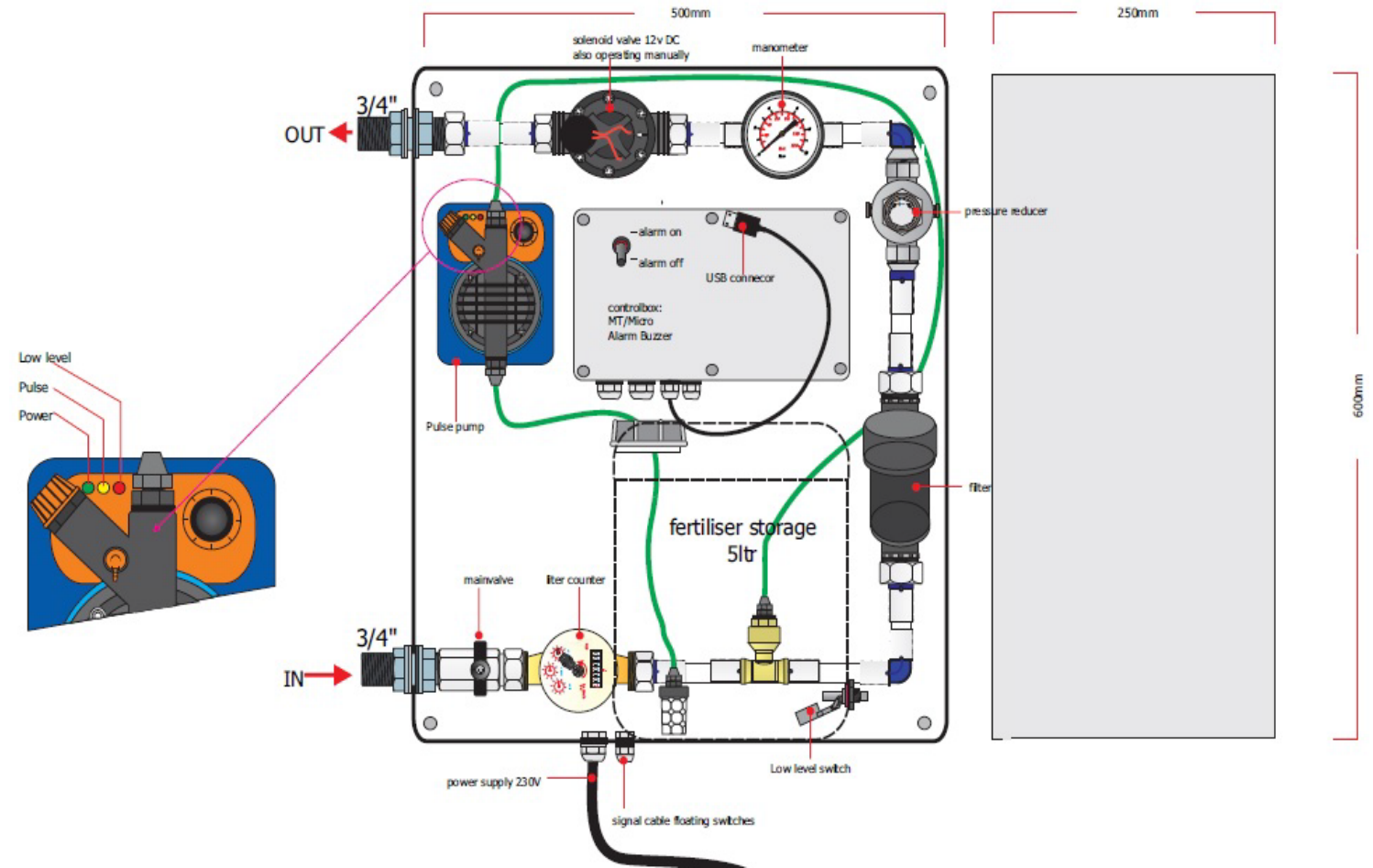
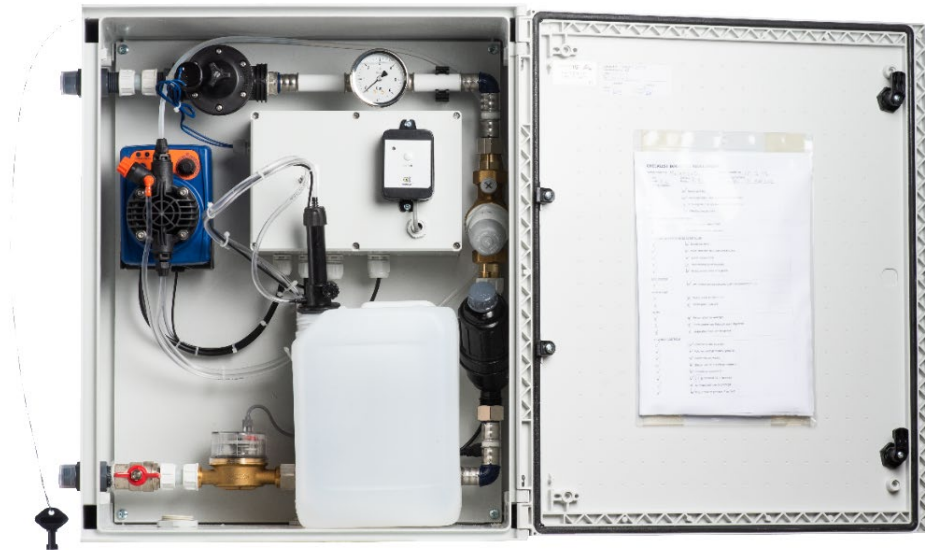
# LivePanel®

## INSTALLATION OF SENSORS



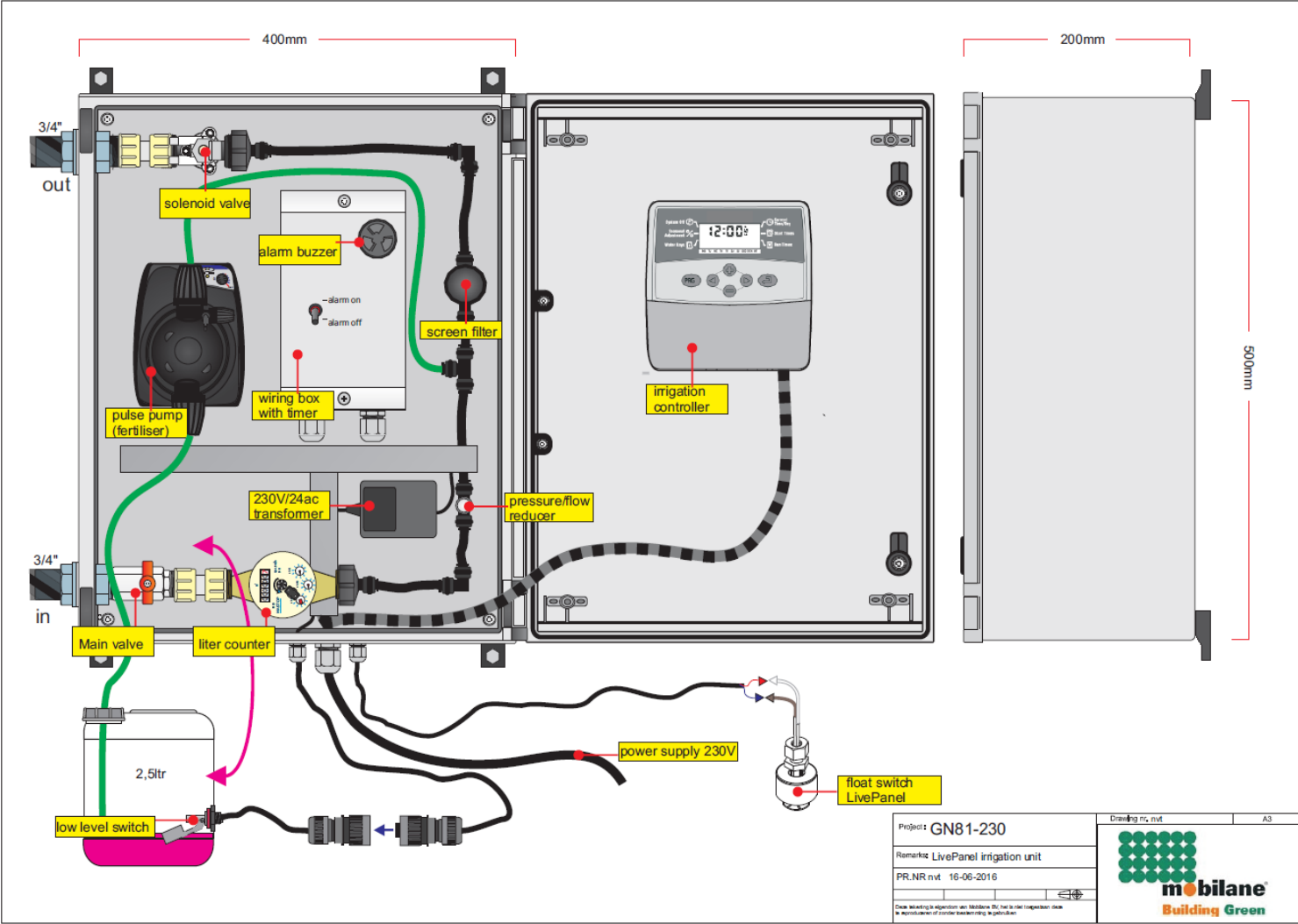
# LivePanel®

## IRRIGATION CABINET 91 CONNECTION



# LivePanel®

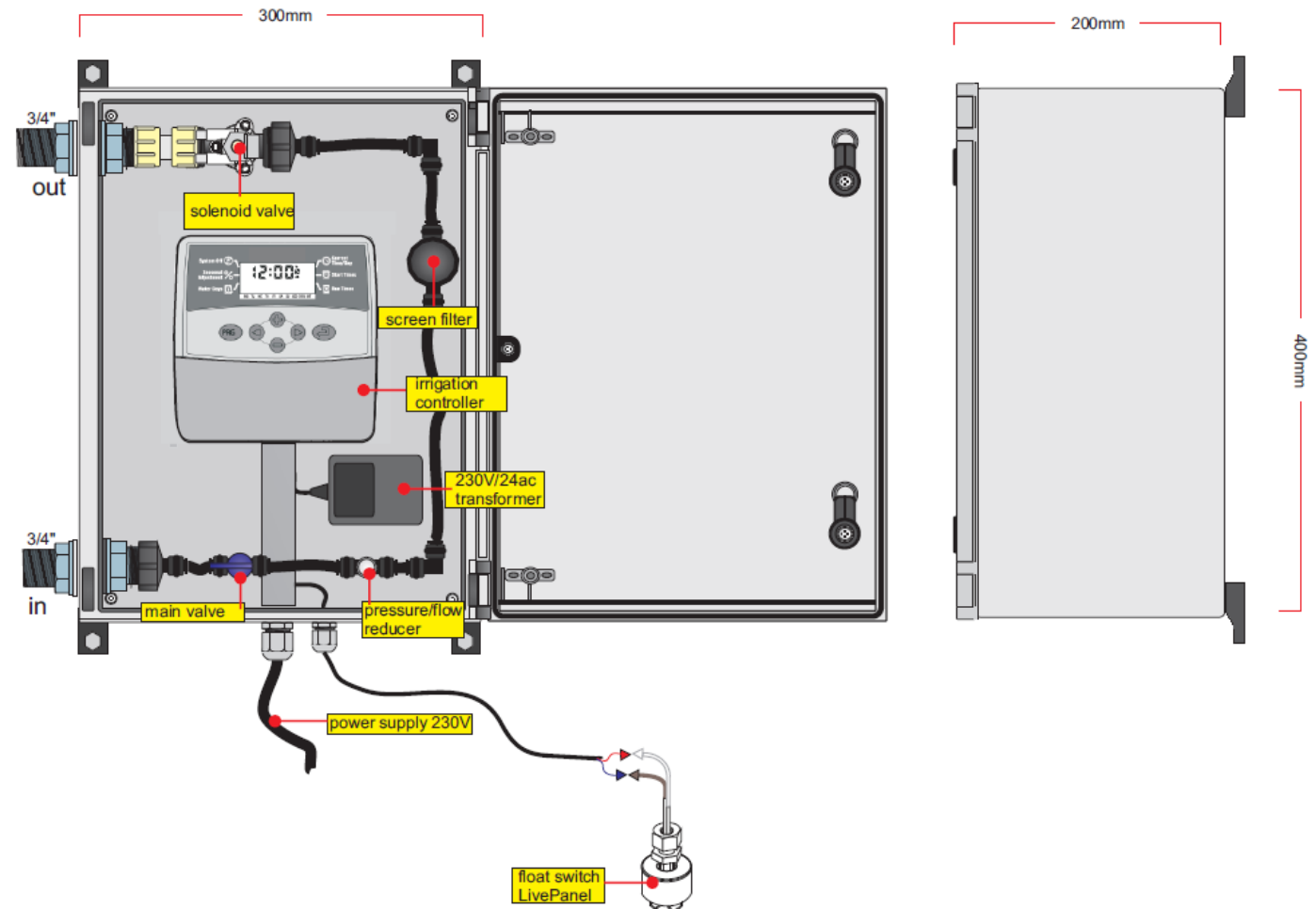
## IRRIGATION CABINET 81 CONNECTION



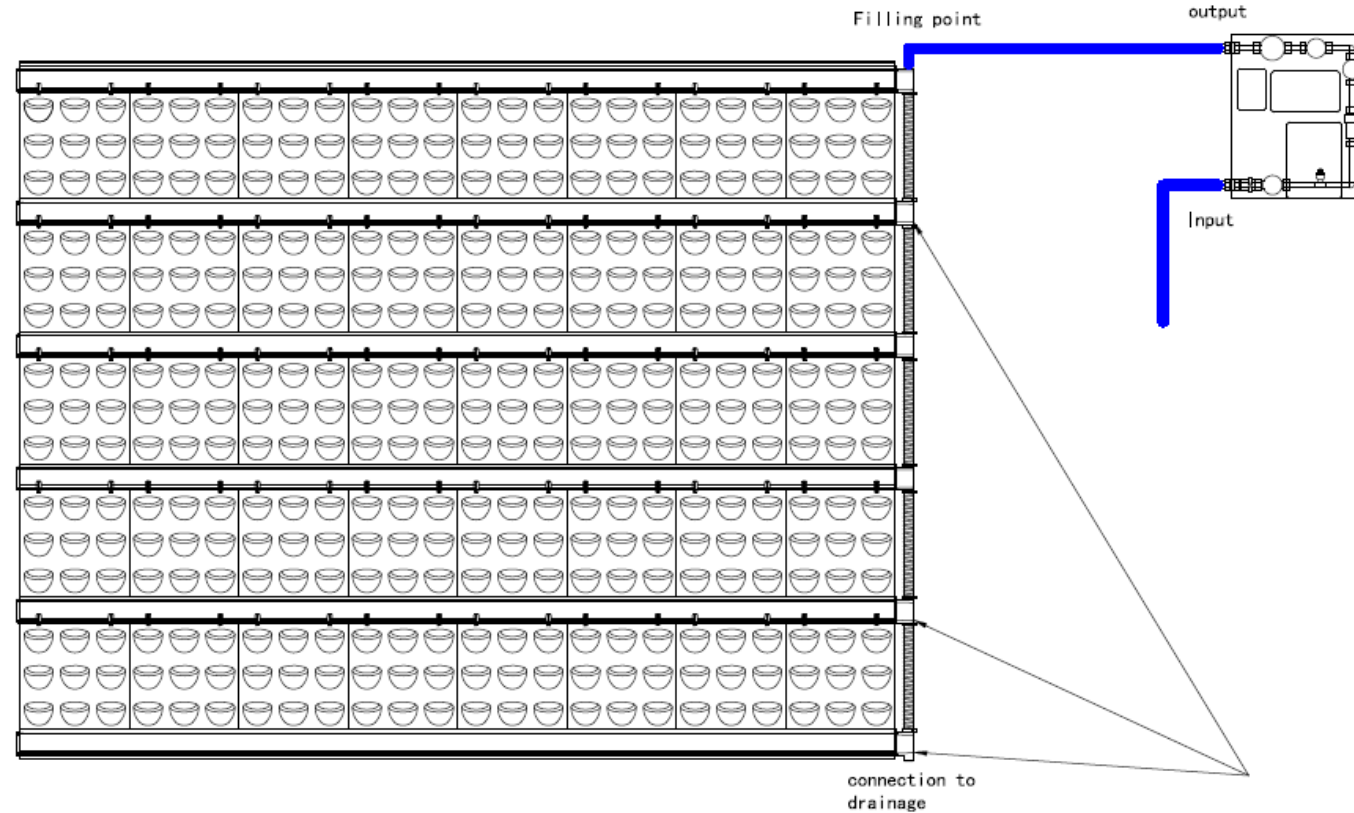


# LivePanel®

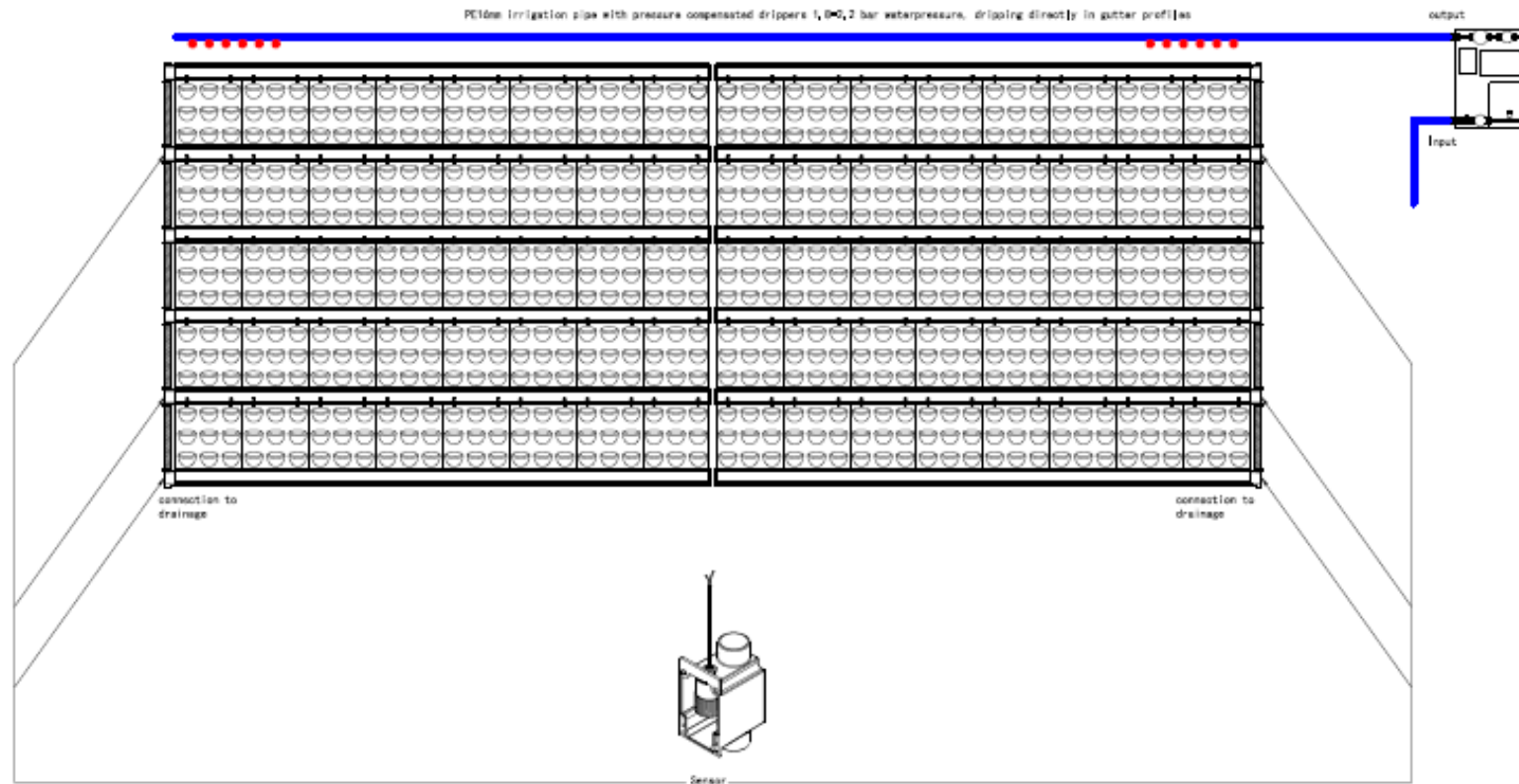
## IRRIGATION CABINET 71 CONNECTION



# LivePanel®

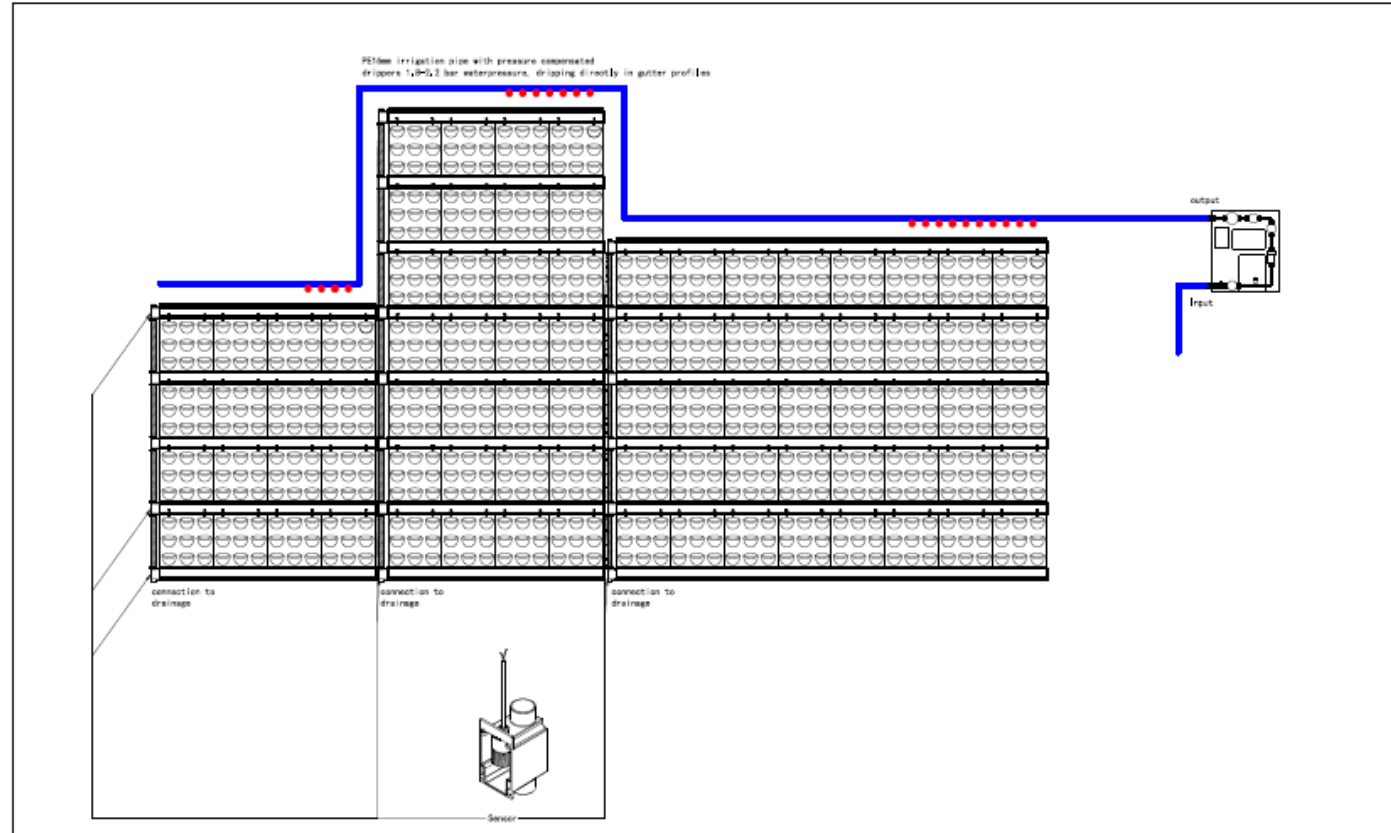


# LivePanel®





# LivePanel®



# LivePanel®



# LivePanel®

## BACKFLOW PROTECTION



Category 4



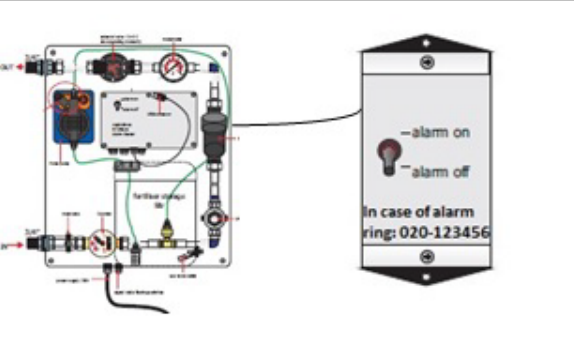
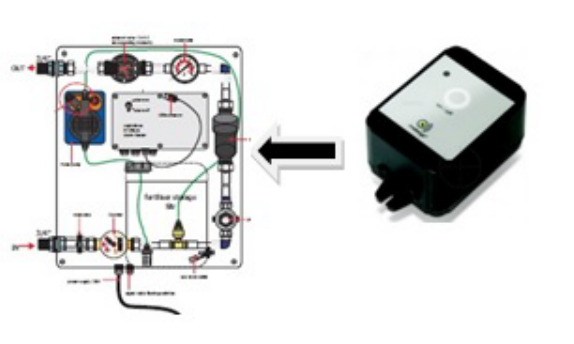
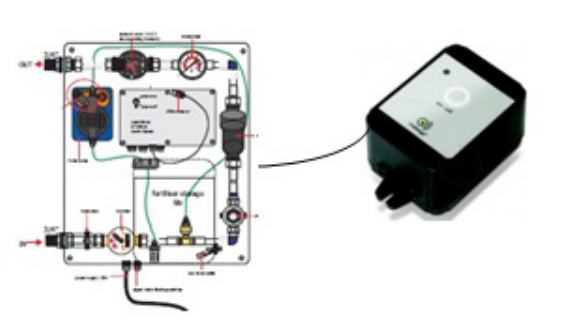
Category 5



## TYPES OF IRRIGATION SYSTEMS

- Standard GN91-230V, GN81, GN71.
- Breaking tank unit + pump to bridge greater heights or distances.
- Multi-valve unit for irrigating walls with multiple filling points.
- Web based unit, the wall can be managed remotely.
- Frost protection set.
- Various alarm options.

LivePanel®

|                                                                                                                                      |                                                                                                                                                                                  |                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Extern alarm</p>  <p>Code: ext. alarm</p>       | <p>Alarm wordt geactiveerd wanneer:</p> <ol style="list-style-type: none"> <li>1. Er geen water in de goten staat.</li> </ol> <p>De klant moet het onderhoudsbedrijf bellen.</p> | <p>Een <u>buzzer</u> gaat af en er gaat een lampje branden op het moment dat het alarm geactiveerd wordt. De <u>buzzer</u> kan uitgeschakeld middels de schakelaar.</p> <p>Let op! Je krijgt geen alarm als de stroom af is.</p>                         |
| <p>Ingebouwd sms alarm</p>  <p>Code: int. GSM</p> | <p>Alarm wordt geactiveerd wanneer:</p> <ol style="list-style-type: none"> <li>1. Er geen stroom is.</li> <li>2. Er geen water in de goten staat.</li> </ol>                     | <p>Je ontvangt een alarmmelding per sms</p> <p><b>Let op! Een SIM kaart (prepaid of abonnement is benodigd.</b></p>                                                                                                                                      |
| <p>Extern SMS alarm</p>  <p>Code: ext. GSM</p>   | <p>Alarm wordt geactiveerd wanneer:</p> <ol style="list-style-type: none"> <li>1. Er geen stroom is.</li> <li>2. Er geen water in de goten staat.</li> </ol>                     | <p>Je ontvangt een alarmmelding per sms</p> <p>Een extern alarm wordt geleverd met 10m kabel en kan gebruikt worden bij projecten met slecht ontvangst in de irrigatieruimte.</p> <p><b>Let op! Een SIM kaart (prepaid of abonnement is benodigd</b></p> |

# LivePanel®

## AVERAGE WATER CONSUMPTION

- 5 litres per m<sup>2</sup> per week (inside walls).
- Average water supply in the gutters = 1 week.

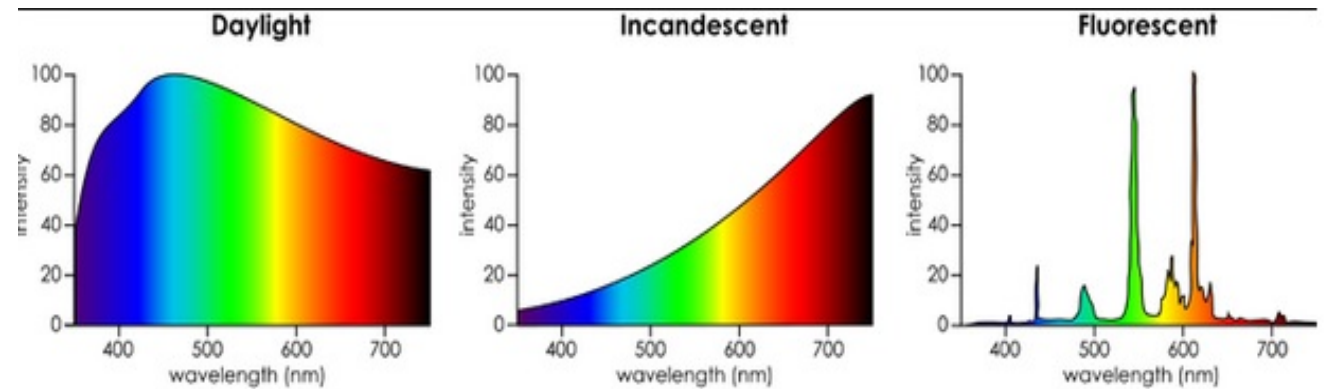




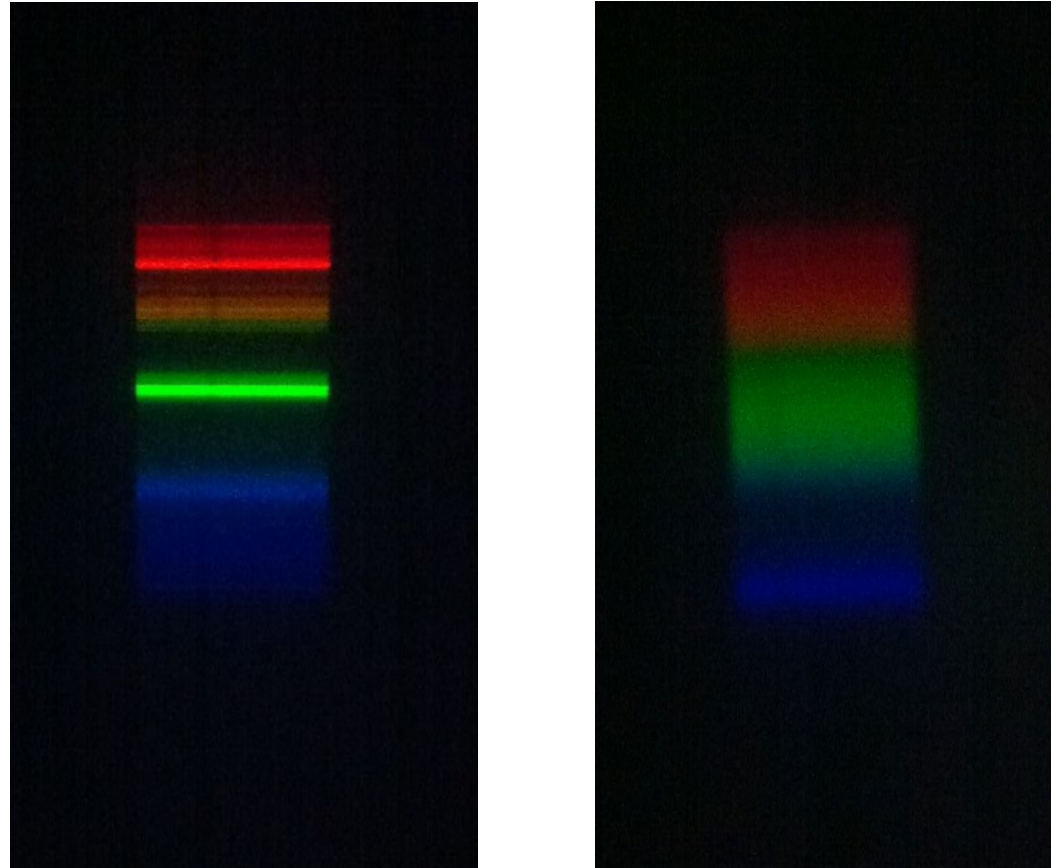
# LivePanel®

## LIGHTNING

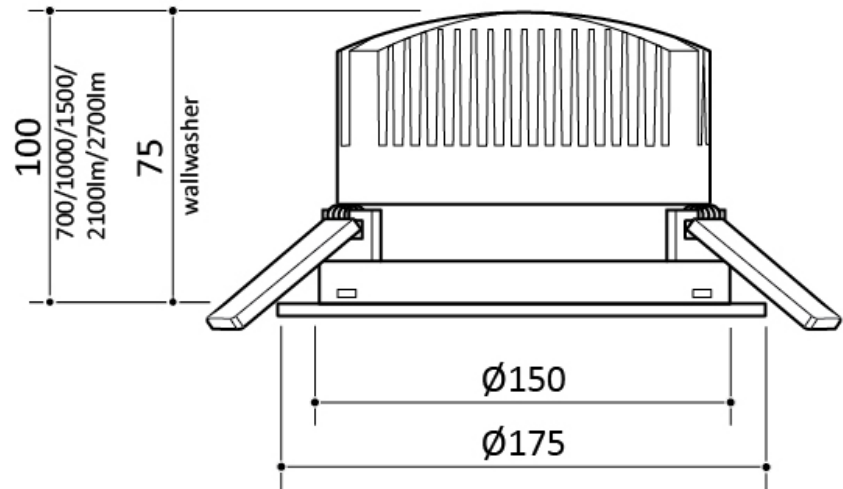
- Plants need full-spectrum light.
- 1000 - 2000 lux.
- 10 hours per day (daytime).
- Make a light calculation for complicated walls.



LivePanel®



# LivePanel®





# LivePanel®

PARUS



LivePanel®

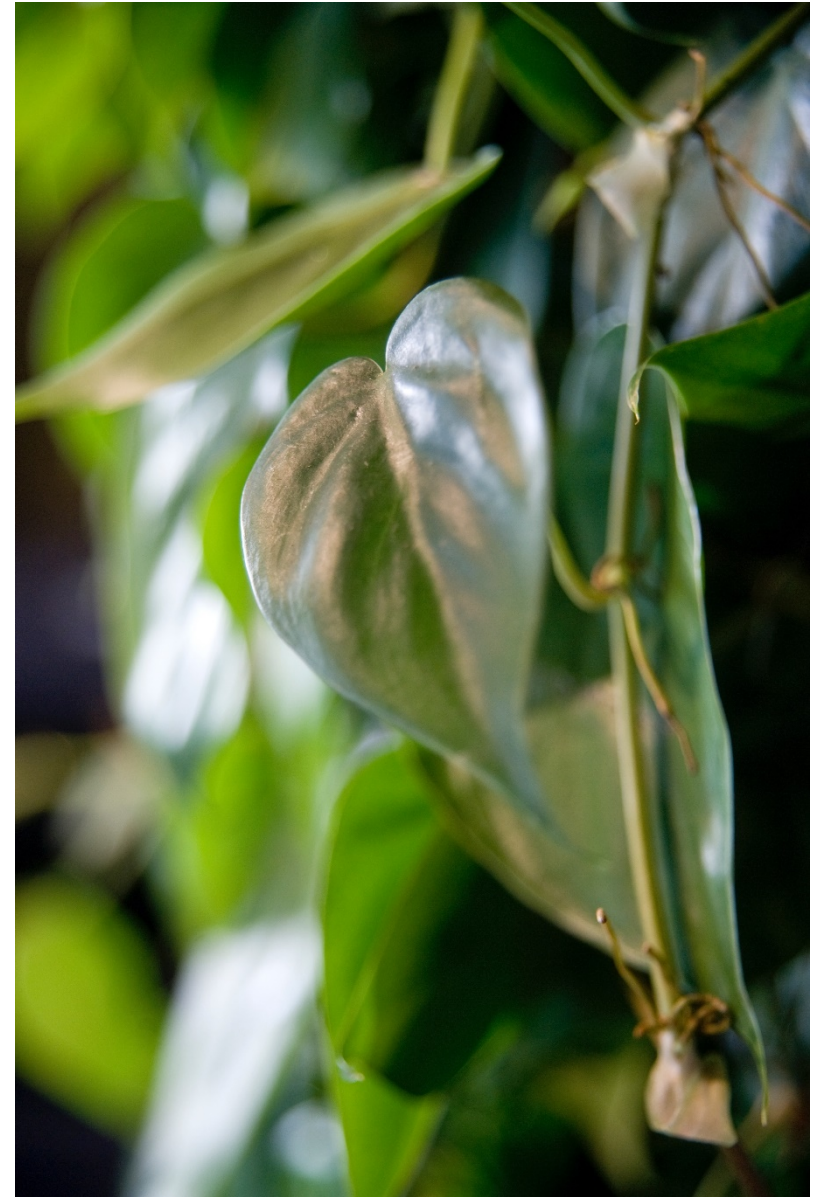
How big is the wall going to be?



# LivePanel®

## FORMULA FOR DIMENSIONS

- Width in mm: (cassette x 401) + 77
- Height in mm: (cassette x 485) + 130





Calculation model **LivePanel®**

2019

|              |           | Sqm   |      |       |       |       |       |       |       |       |       |       |       |                 |        |       |       |       |       |       |       |       |       |       |       |       |         |
|--------------|-----------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
|              |           | SPACE |      |       |       |       |       |       |       |       |       |       |       | BETWEEN GUTTERS |        |       |       |       |       |       |       |       |       |       |       |       |         |
| height in CM | 20        | 983,0 | 4,7  | 8,7   | 12,6  | 16,6  | 20,6  | 24,5  | 28,4  | 32,3  | 36,3  | 40,2  | 44,2  | 48,1            | 52,1   | 56,8  | 60,8  | 64,7  | 68,7  | 72,6  | 76,6  | 80,5  | 84,4  | 88,4  | 92,3  | 96,3  | 100,2   |
|              | 19        | 934,5 | 4,5  | 8,3   | 12,0  | 15,8  | 19,6  | 23,3  | 27,0  | 30,7  | 34,5  | 38,2  | 42,0  | 45,7            | 49,5   | 54,0  | 57,8  | 61,5  | 65,3  | 69,0  | 72,8  | 76,5  | 80,3  | 84,0  | 87,8  | 91,5  | 95,3    |
|              | 18        | 886,0 | 4,3  | 7,8   | 11,4  | 14,9  | 18,6  | 22,0  | 25,6  | 29,2  | 32,7  | 36,3  | 39,8  | 43,4            | 46,9   | 51,2  | 54,8  | 58,3  | 61,9  | 65,5  | 69,0  | 72,6  | 76,1  | 79,7  | 83,2  | 86,8  | 90,3    |
|              | 17        | 837,5 | 4,1  | 7,4   | 10,8  | 14,1  | 17,6  | 20,8  | 24,2  | 27,6  | 30,9  | 34,3  | 37,6  | 41,0            | 44,4   | 48,4  | 51,8  | 55,2  | 58,5  | 61,9  | 65,2  | 68,6  | 71,9  | 75,3  | 78,7  | 82,0  | 85,4    |
|              | 16        | 789,0 | 3,8  | 7,0   | 10,1  | 13,3  | 16,6  | 19,6  | 22,8  | 26,0  | 29,1  | 32,3  | 35,5  | 38,6            | 41,8   | 45,6  | 48,8  | 52,0  | 55,1  | 58,3  | 61,5  | 64,6  | 67,8  | 70,9  | 74,1  | 77,3  | 80,4    |
|              | 15        | 740,5 | 3,6  | 6,6   | 9,5   | 12,5  | 15,5  | 18,4  | 21,4  | 24,4  | 27,3  | 30,3  | 33,3  | 36,3            | 39,2   | 42,8  | 45,8  | 48,8  | 51,7  | 54,7  | 57,7  | 60,7  | 63,6  | 66,6  | 69,6  | 72,5  | 75,5    |
|              | 14        | 692,0 | 3,4  | 6,1   | 8,9   | 11,7  | 14,5  | 17,2  | 20,0  | 22,8  | 25,6  | 28,3  | 31,1  | 33,9            | 36,7   | 40,0  | 42,8  | 45,6  | 48,4  | 51,1  | 53,9  | 56,7  | 59,5  | 62,2  | 65,0  | 67,8  | 70,6    |
|              | 13        | 643,5 | 3,1  | 5,7   | 8,3   | 10,9  | 13,5  | 16,0  | 18,6  | 21,2  | 23,8  | 26,3  | 28,9  | 31,5            | 34,1   | 37,2  | 39,8  | 42,4  | 45,0  | 47,6  | 50,1  | 52,7  | 55,3  | 57,9  | 60,5  | 63,0  | 65,6    |
|              | 12        | 595,0 | 2,9  | 5,3   | 7,7   | 10,1  | 12,5  | 14,8  | 17,2  | 19,6  | 22,0  | 24,4  | 26,8  | 29,1            | 31,5   | 34,4  | 36,8  | 39,2  | 41,6  | 44,0  | 46,4  | 48,7  | 51,1  | 53,5  | 55,9  | 58,3  | 60,7    |
|              | 11        | 546,5 | 2,7  | 4,9   | 7,0   | 9,2   | 11,5  | 13,6  | 15,8  | 18,0  | 20,2  | 22,4  | 24,6  | 26,8            | 29,0   | 31,6  | 33,8  | 36,0  | 38,2  | 40,4  | 42,6  | 44,8  | 47,0  | 49,2  | 51,3  | 53,5  | 55,7    |
|              | 10        | 498,0 | 2,4  | 4,4   | 6,4   | 8,4   | 10,5  | 12,4  | 14,4  | 16,4  | 18,4  | 20,4  | 22,4  | 24,4            | 26,4   | 28,8  | 30,8  | 32,8  | 34,8  | 36,8  | 38,8  | 40,8  | 42,8  | 44,8  | 46,8  | 48,8  | 50,8    |
|              | 9         | 449,5 | 2,2  | 4,0   | 5,8   | 7,6   | 9,5   | 11,2  | 13,0  | 14,8  | 16,6  | 18,4  | 20,2  | 22,0            | 23,8   | 26,0  | 27,8  | 29,6  | 31,4  | 33,2  | 35,0  | 36,8  | 38,6  | 40,4  | 42,2  | 44,0  | 45,8    |
| 8            | 401,0     | 2,0   | 3,6  | 5,2   | 6,8   | 8,4   | 10,0  | 11,6  | 13,2  | 14,8  | 16,4  | 18,0  | 19,7  | 21,3            | 23,2   | 24,8  | 26,4  | 28,0  | 29,7  | 31,3  | 32,9  | 34,5  | 36,1  | 37,7  | 39,3  | 40,9  |         |
| 7            | 352,5     | 1,7   | 3,1  | 4,6   | 6,0   | 7,4   | 8,8   | 10,2  | 11,6  | 13,0  | 14,5  | 15,9  | 17,3  | 18,7            | 20,4   | 21,8  | 23,2  | 24,7  | 26,1  | 27,5  | 28,9  | 30,3  | 31,7  | 33,1  | 34,6  | 36,0  |         |
| 6            | 304,0     | 1,5   | 2,7  | 3,9   | 5,2   | 6,4   | 7,6   | 8,8   | 10,0  | 11,3  | 12,5  | 13,7  | 14,9  | 16,1            | 17,6   | 18,8  | 20,1  | 21,3  | 22,5  | 23,7  | 24,9  | 26,1  | 27,4  | 28,6  | 29,8  | 31,0  |         |
| 5            | 255,5     | 1,3   | 2,3  | 3,3   | 4,3   | 5,4   | 6,4   | 7,4   | 8,4   | 9,5   | 10,5  | 11,5  | 12,5  | 13,6            | 14,8   | 15,8  | 16,9  | 17,9  | 18,9  | 19,9  | 21,0  | 22,0  | 23,0  | 24,0  | 25,1  | 26,1  |         |
| 4            | 207,0     | 1,0   | 1,9  | 2,7   | 3,5   | 4,4   | 5,2   | 6,0   | 6,8   | 7,7   | 8,5   | 9,3   | 10,2  | 11,0            | 12,0   | 12,8  | 13,7  | 14,5  | 15,3  | 16,2  | 17,0  | 17,8  | 18,7  | 19,5  | 20,3  | 21,1  |         |
| 3            | 158,5     | 0,8   | 1,4  | 2,1   | 2,7   | 3,4   | 4,0   | 4,6   | 5,3   | 5,9   | 6,5   | 7,2   | 7,8   | 8,4             | 9,2    | 9,8   | 10,5  | 11,1  | 11,8  | 12,4  | 13,0  | 13,7  | 14,3  | 14,9  | 15,6  | 16,2  |         |
| 2            | 110,0     | 0,6   | 1,0  | 1,5   | 1,9   | 2,4   | 2,8   | 3,2   | 3,7   | 4,1   | 4,5   | 5,0   | 5,4   | 5,9             | 6,4    | 6,8   | 7,3   | 7,7   | 8,2   | 8,6   | 9,1   | 9,5   | 9,9   | 10,4  | 10,8  | 11,3  |         |
| 1            | 61,5      | 0,3   | 0,6  | 0,8   | 1,1   | 1,3   | 1,6   | 1,8   | 2,1   | 2,3   | 2,6   | 2,8   | 3,1   | 3,3             | 3,6    | 3,9   | 4,1   | 4,3   | 4,6   | 4,8   | 5,1   | 5,3   | 5,6   | 5,8   | 6,1   | 6,3   |         |
| CASSETTES    | CM        | 47,8  | 87,9 | 128,0 | 168,1 | 209,2 | 248,3 | 288,4 | 328,5 | 368,6 | 408,7 | 448,8 | 488,9 | 529,0           | * 1 cm | 577,8 | 617,9 | 658,0 | 698,1 | 738,2 | 778,3 | 818,4 | 858,5 | 898,6 | 938,7 | 978,8 | 1.018,9 |
|              | CASSETTES | 1     | 2    | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13              | 14     | 15    | 16    | 17    | 18    | 19    | 20    | 21    | 22    | 23    | 24    | 25    |         |
| Width in CM  |           |       |      |       |       |       |       |       |       |       |       |       |       |                 |        |       |       |       |       |       |       |       |       |       |       |       |         |

|                             |    |                    |                               |
|-----------------------------|----|--------------------|-------------------------------|
| Plants per cassette:        | 9  | Water use approx.: | 5L / m <sup>2</sup> / week    |
| Plants per m <sup>2</sup> : | 45 | Weight:            | 40 kg / m <sup>2</sup> all-in |

|                                      |                            |
|--------------------------------------|----------------------------|
| <b>Installation time indication:</b> |                            |
| Installation "hardware":             | 0,5 - 1 h / m <sup>2</sup> |
| Planting Cassettes:                  | 1 h / m <sup>2</sup>       |
| Installation "irrigation unit":      | 2-3 h / unit               |



**NOTE :** All dimensions are indications. The actual dimensions are defined when the technical drawing is supplied.



# LivePanel®

## HOW LONG DOES IT TAKE TO INSTALL?

- Install hardware= 0.25 - 0.5 hours p/m2
- Planting cassettes = 1 hour p/m2
- Installing the frame/frame = 15 min p/m1
- Connecting irrigation box = 2 hours
- Plants = 45 plants p/m2 x €?

THESE ARE INDICATIONS!



## END CUSTOMER RESPONSIBILITY

- Realizing the drain.
- A 230V-16A socket at the irrigation box.
- Good climate (indoor).
- Water connection with the right pressure and water quality 2-4 bar.
- Backflow protection.



# LivePanel®

## INDOOR CLIMATE

Always check the climate in the room where the wall will hang.

- Sunshine
- Temperature
- Air conditioning units
- Humidity
- Trip



## WHAT IS GOOD QUALITY WATER?

Note water softening systems

|                                |                 |
|--------------------------------|-----------------|
| pH                             | 6,5 – 7,5       |
| EC-waarde mS/cm                | < 0,5           |
| HCO <sub>3</sub> - bicarbonaat | < 1 mmol/l      |
| Cl - chloor                    | < 0,2 mmol/l    |
| Na - natrium                   | < 0,2 mmol/l    |
| S - zwavel                     | < 0,5 mmol/l    |
| Ca - calcium                   | < 2,0 mmol/l    |
| Mg - magnesium                 | < 1,0 mmol/l    |
| Zn - zink                      | < 2 micromol/l  |
| Mn - mangaan                   | < 3 micromol/l  |
| B - boor                       | < 10 micromol/l |
| Cu - koper                     | < 5 micromol/l  |
| Fe - ijzer                     | < 10 micromol/l |

# LivePanel®

## AVAILABLE DOCUMENTS

- DWG / CAD - drawings
- PDF - drawings
- Static calculation
- Installation manual LivePanel
- Installation Guide LivePicture
- Mobeye SMS alarm programming
- Various other documents



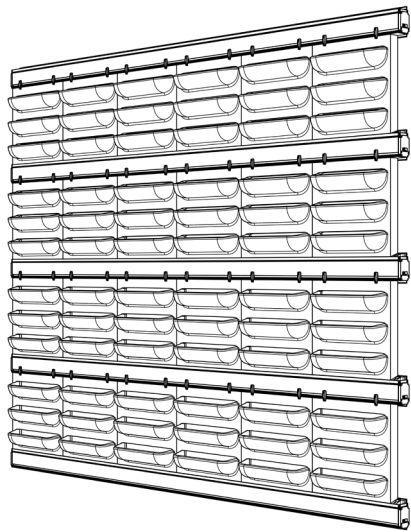




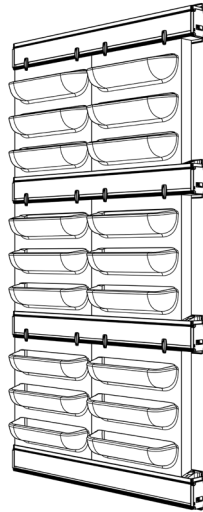
# LIVE PANEL PACK



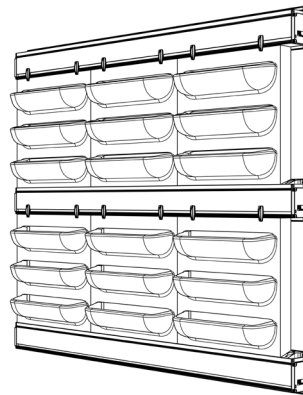
# LIVEPANEL<sup>®</sup> PACK



6 x 4



2 x 3



3 x 2

**6 x 4** : 2,48 x 2,06 m (b x h)

**2 x 3** : 0,87 x 1,57 m (b x h)

**3 x 2** : 1,27 x 1,09 m (b x h)







**QUESTIONS?**