

A vertical garden panel, likely a Mobipanel, is shown. It features a variety of plants, including green leafy plants on the left, a central cluster of small green and brownish plants, and a large, dark red plant at the bottom. The panel is made of grey, textured material. The text 'MOBIPANEL' is overlaid in large, white, bold, sans-serif capital letters across the center of the image.

# MOBIPANEL



# MOBIPANEL

## THE LATEST GENERATION IN VERTICAL GREEN

MobiPanel is an innovative and sustainable system for living walls on existing buildings and new developments. The latest generation in vertical green from Mobilane, specially developed to make future-proof and sustainable construction even more accessible. This unique modular system, with its interchangeable plant cassettes in two sizes, makes it possible to give a sustainable and vibrant appearance to both flat and curved walls.

## FLEXIBILITY IN DESIGN AND CHOICE OF PLANTS

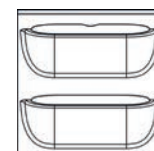
The system has been developed with circularity in mind. All its components can be disassembled, reassembled and recycled. The system is made up of corrosion-resistant profiles that can be installed both horizontally and vertically, depending on the format and layout of the backing wall. The profiles provide the bearing structure for the plant cassettes measuring 40 x 40 cm and the quarter-cassettes (pixels) of 20 x 20 cm. The plant cassettes are fitted with two spacious slots for plants of varying size. This flexibility allows great variation of design and choice of plants.

## GREEN APPEARANCE THROUGHOUT THE YEAR

Vertical greenery with a vibrant appearance is really easy to create with MobiPanel. The plant wall stimulates biodiversity, while purifying the air and regulating heat. The automatic irrigation system ensures that the plants receive the correct quantity of water and nutrition throughout the year. This means that the green wall remains a real eyecatcher in the urban environment, offices, parking garages, hospitality sector, etc.



## MATERIALS MOBIPANEL



**Cassettes, pixels and cover:** The cassettes, pixels and cover are made of fire-retardant EPP (B-s2, d0). This material is light, UV-resistant, breathable (for good root growth) and can be fully recycled.



**Profiles:** The omega profiles are made of high-quality and extremely corrosion-resistant Magnelis steel. The punched-hole pattern is suitable for both vertical and horizontal installation of the profile. This provides space for passing water pipes and electricity cables through with ease. In addition, this allows use on both flat and curved backing walls.



**Planting:** The plants used in the pre-cultivated cassettes in the MobiPanel system are grown at the Dartplant production site under "On the way to PlanetProof" certification. This independent certification proves that the plants for the MobiPanel facade have been produced more sustainably and are therefore a better choice for nature, climate and animals. The online Mobilane PlantGuide gives an overview of selected plant species that are recommended for planting on the MobiPanel facade.



# UNIQUE FEATURES

Suitable for flat and curved walls

Suitable for various wall types including certain types of sandwich panels

Interchangeable plant cassettes in two sizes (40 x 40 cm and 20 x 20 cm)

Economical water consumption

Complies with fire classification B-s2, d0

Reusable and fully recyclable

Equipped with automated irrigation and drainage system

Lightweight and space-saving

Modular system

Easy to install against new and existing facades and walls

# BENEFITS

Contributes to greening the living environment

Boosts air quality by absorbing fine dust particles and generating oxygen

Promotes biodiversity

Raises property values

Dampens noise and insulates

Captures rainwater

Provides an immediate green effect





# MOBIPANEL



For the outdoor green facade system MobiPanel automatic watering is carried out by means of an irrigation system. Water consumption varies from season to season and depends on the climate and type of planting. Account should be taken of a maximum water consumption of approx 4 litres per m<sup>2</sup> per day in hot periods. Mobilane can also optionally offer maintenance contract.

## BUILDING PLAN

In most cases, the installation can be directly fitted to any back wall by means of the supplied fasteners; as long as the Magnelis omega profiles hang level. The correct distance between them is shown on the supplied building plan specification for the project in question, this must be adhered to. The irrigation system is then connected and activated, after which the cassettes (with planting) can be placed on the profiles.

## DIMENSIONS

- The system is made up of cassettes measuring 40 x 40 cm and pixels of 20 x 20 cm.
- The omega profiles and covers have a standard size of 120 cm for efficient transport. They can be custom-made for large projects.

## WEIGHT

- Maximum system weight when fully planted: 40 kg/m<sup>2</sup>.

## WALL TYPES

Low weight and intelligent design make MobiPanel suitable for greening most types of existing and new facades and walls. For example, backing walls of concrete, stone, sandwich panels, timber frame, etc.

## PLACING AND WATERING

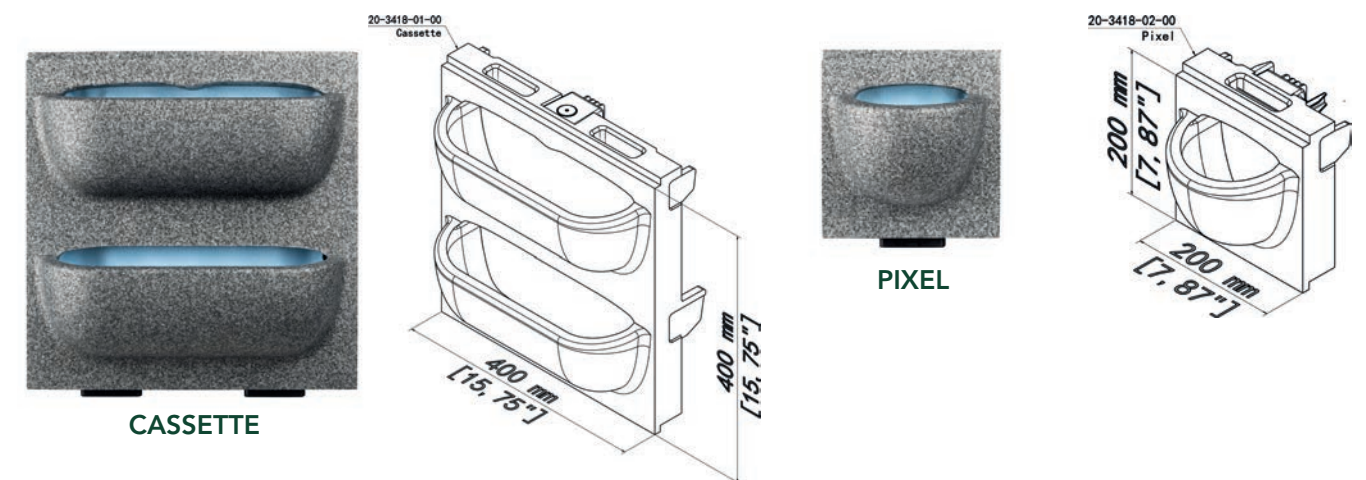
	MobiPanel
Indoor	●
Outdoor	●
<b>Watergift</b>	
Manual	
Tank	
Irrigation system	●

## CAPILLARY ACTION

An automated irrigation system provides water and nutrients to the MobiPanel green wall. An irrigation pipe along the top of the wall supplies water to the cassettes and pixels. Each cassette and pixel is fitted with microfibre textile with capillary action to ensure even distribution of water in the cassette. All the plants receive the correct quantity of water and nutrients in this way. Extremely efficient and low water consumption is the result.

## CASSETTE

Each plant cassette has two slots providing space for 6 to 8 plants per cassette, depending on the size of the plant pots. The spacious slots provide a great deal of flexibility and plant choice. They also offer the plants more space for the roots to ensure healthy growth. Plenty of space for roots contributes to plant quality; the plants remain healthy even with large variations in temperature.



Air chambers behind the capillary matting ensure a good supply of air to the roots. This contributes to optimal plant growth and quality. By using pixels, systems can be tailor-made to fit precisely and can be used in all designs, including those with unusual dimensions.

## WIND LOAD AND VENTILATION

A static load calculation is available for the MobiPanel system, both for attaching the cassettes to the profiles and for attaching the profiles to the backing wall. A separate calculation is available for carrier sandwich panels. Proper ventilation of the living wall is ensured by the gap of 38 mm between the rear of the cassettes and the wall.

## THERMAL INSULATION

Living walls contribute to the thermal insulation of a building. They heat up less in the summer and lose less heat in the winter. In addition, living walls contribute to cooling the urban climate as a result of evapotranspiration from the greenery.

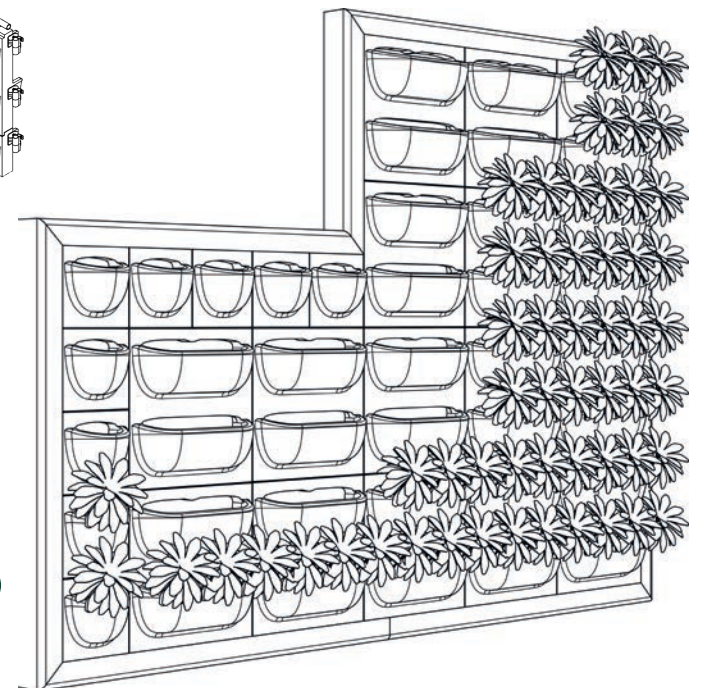
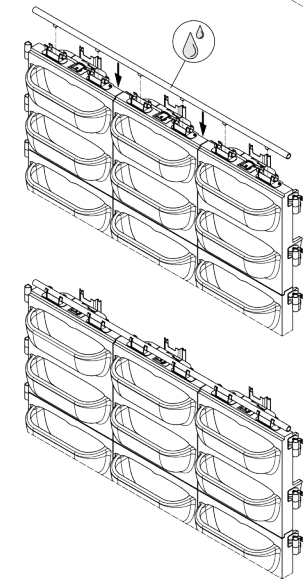
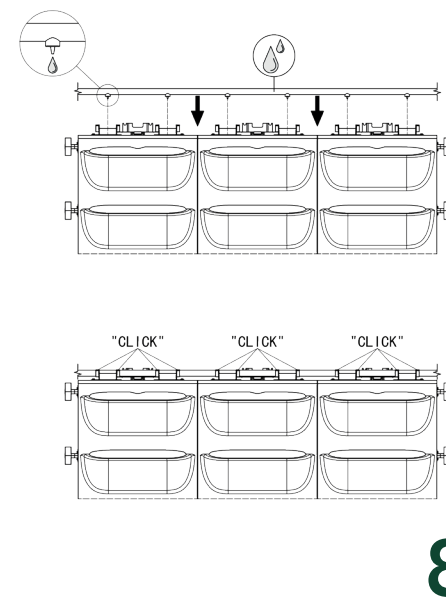
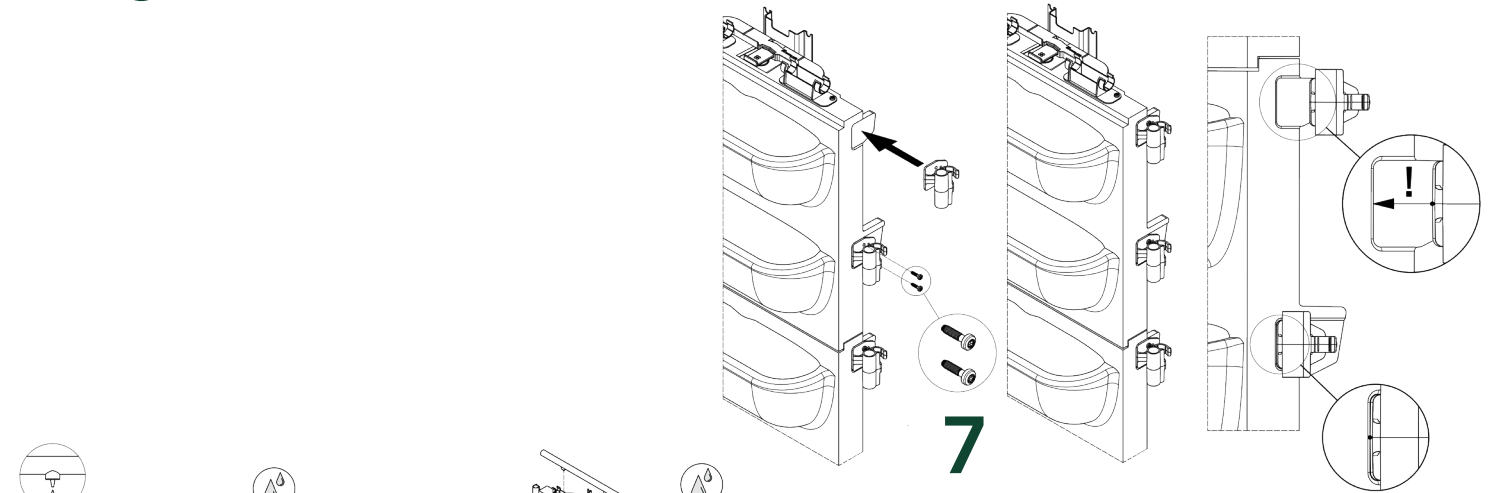
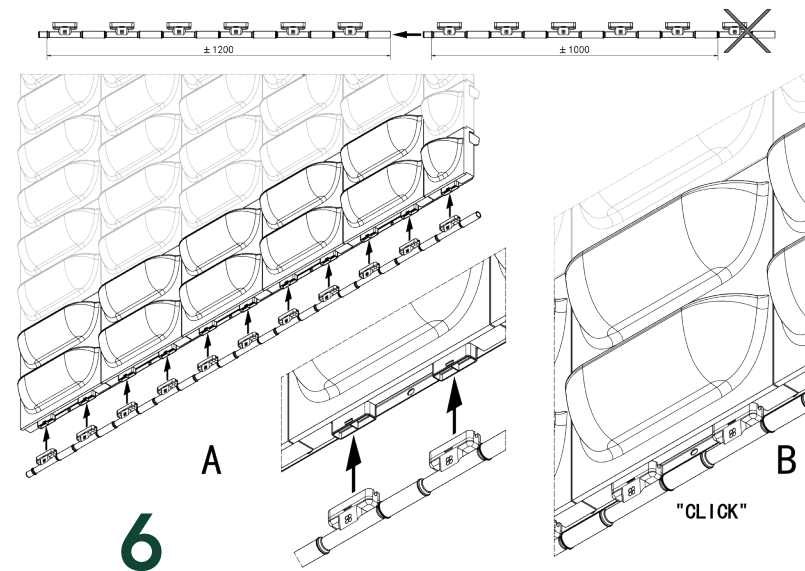
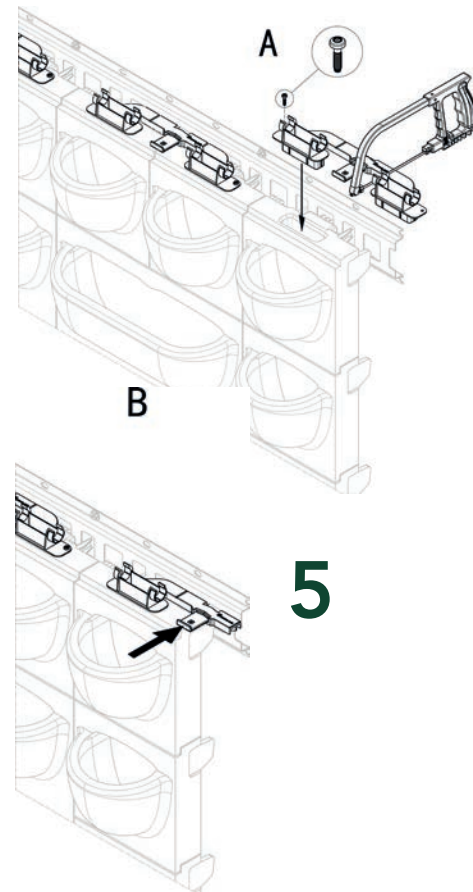
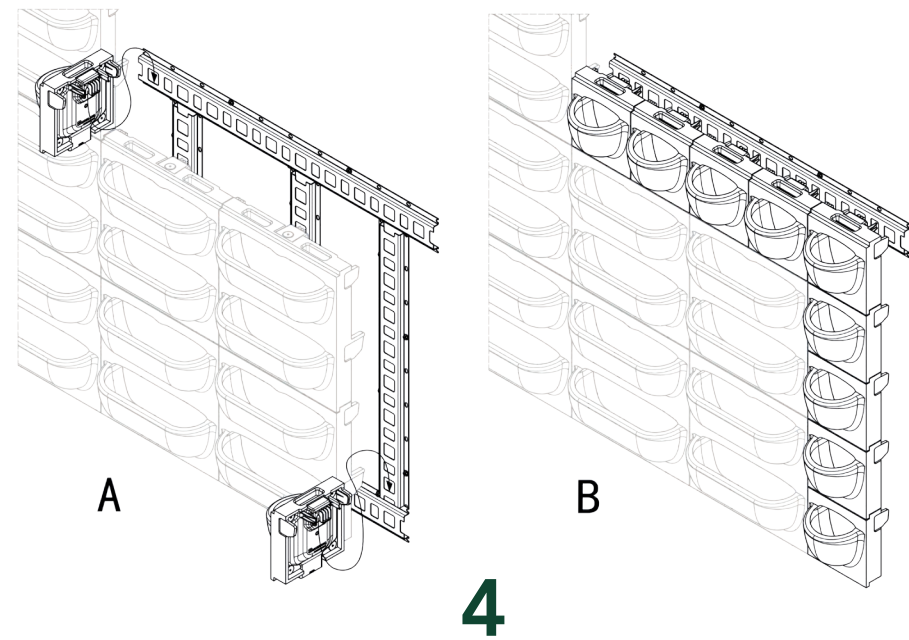
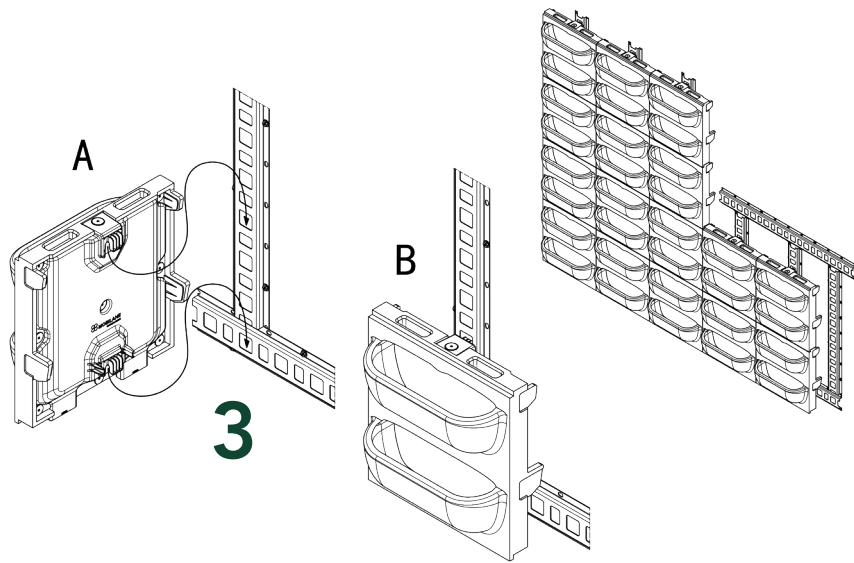
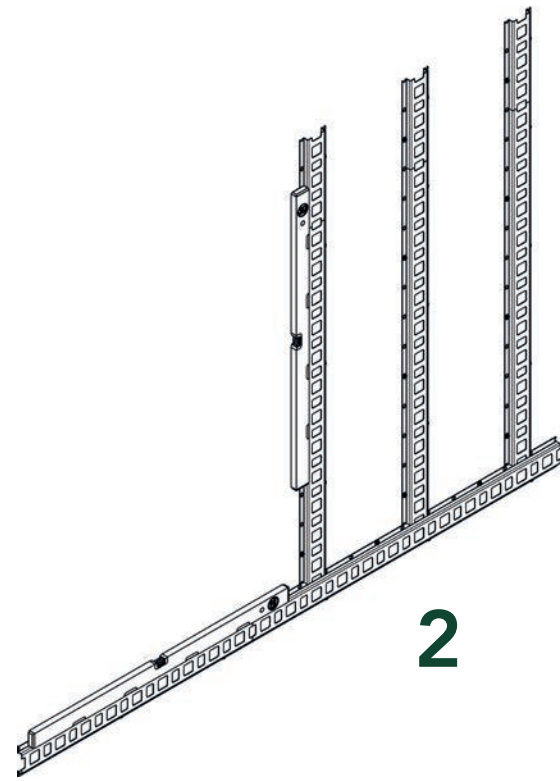
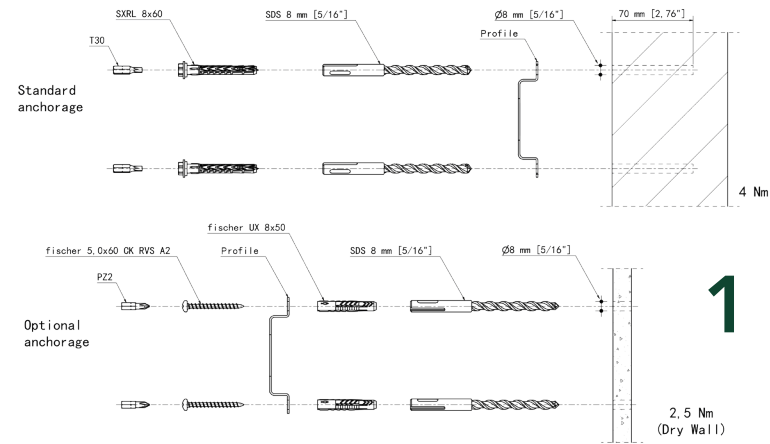
## RECOMMENDATION

It is recommendable to involve Mobilane as early as possible in the design and construction process to ensure optimal design for the technical requirements, such as the irrigation system and the piping and cabling.





# INSTALLATION





# MAINTENANCE



The maintenance of a green facade consists of pruning, replacing bad plants, identifying and controlling any diseases and pests. The frequency of maintenance depends on the types of plants, season, and the associated growth of the planting. Maintenance of a green facade is very important for ensuring optimum appearance and a healthy green facade.

## 1. PRUNING

For the protection of the green facade, it is essential that the wall is well maintained and the planting is pruned. The wall should be pruned about twice a year, depending on plant type. This should be avoided in colder seasons and nesting periods. The planting in the green facade must be pruned in order to keep its optimal design, giving the planting light and space to grow and bloom again. The green facade is pruned by means of an (electric) hedge trimmer or pruning shears.

## 2. CONTROL OF DISEASES AND PESTS

During inspection visits, the presence of diseases and pests is also carefully considered, and treated if necessary. This happens biologically as much as possible. For example, nematodes are used in the control of vine weevil larvae.

## 3. ANNUAL IRRIGATION SYSTEM CHECK

The irrigation system should be checked regularly. Mobilane offers a suitable irrigation system with integrated nutrient supply for every green facade. Every green facade is different and requires appropriate adjustment. For example, it is important that a wall on the north does not get as much water as a wall on the south, because a wall on the south will consume more water in summer than a northern wall. Many variables are under monitoring to ensure that the green facade has a healthy appearance all year round.

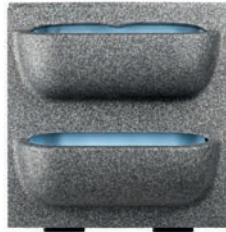
## 4. NUTRITION

Non-ground-based systems such as Mobilane's MobiPanel, having no connection to the ground, require a permanent and a responsive needs-adapted water and power supply. The MobiPanel facade vegetation system used an irrigation system in which continuous nutrition is added to the water to give the green facade the perfect appearance and keep plants healthy.





# PARTS



CASSETTE



OMEGA PROFILE



DRIP ASSEMBLY



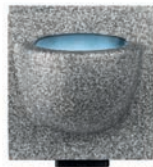
PLASSON END CAP  
20 MM



PLASSON ELBOW  
20MM



PLASSON T-PIECE  
20MM



PIXEL



HOSE BRACKET



DRIP LINE



DRIPPER



COVER



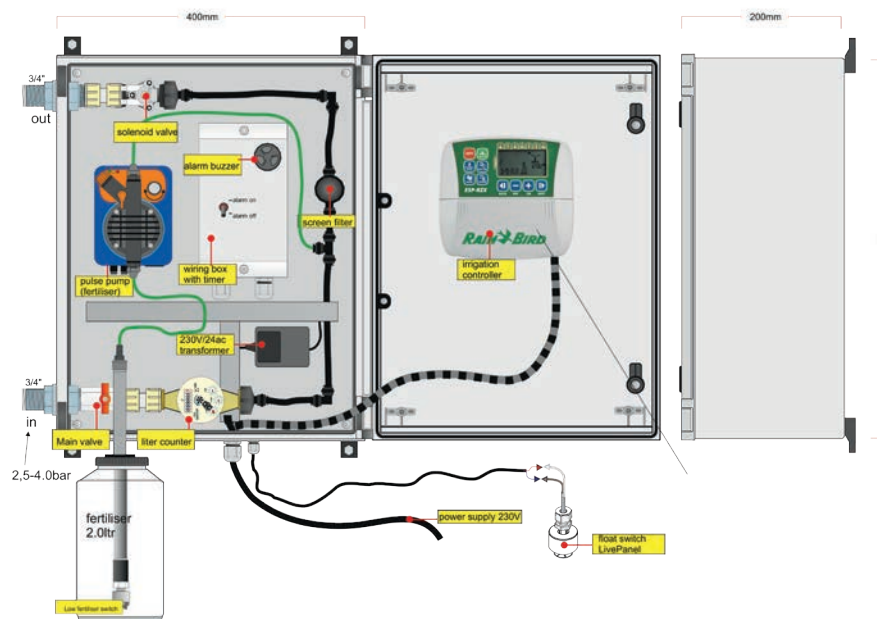
INTERMEDIATE COVER



DRAIN HOSE



# IRRIGATION UNIT



## SPECIFICATIONS GN81

- Automatic injector pump
- Rainbird controller controlled
- 1 output 3/4" outer wire
- Fertilization tank
- Unit size: 400 x 200 x 500 mm

## ALARM OPTIONS\*

1. SMS alarm integrated
2. SMS alarm external

## OPTIONEEL

- Break tank + pump
- Frost protection
- WiFi module

\* The irrigation unit is equipped with a buzzer as standard.





# PLANTGUIDE

## OUTDOOR PLANTING



### ALCHEMILLA MOLLIS

The Alchemilla mollis, also known as Lady's Mantle, has round, hairy and serrated leaves. The Mollis flowers from May/June to July/August and can be planted in both sunny and shady spots.



### ASPENIUM SCOLOPENDRIUM

The Asplenium scolopendrium, also called Tongue Fern, is an evergreen fern with large, elongated, glossy leaves. The plant grows best in a shady spot.



### BERGENIA 'BRESSINGHAM WHITE'

Beautiful white flowers in April/May. prefers a sunny to semi-shaded location.



### DRYOPTERIS ERYTHROSORA

The Dryopteris erythrosora, also called Red Veil Fern, is an evergreen fern. Its leaf colour is variegated green/orangey-brown. It grows best in a shady spot.



### GERANIUM CANTABRIGIENSE 'CAMBRIDGE'

Geranium cantabrigiense 'Cambridge' or Pelican's Beak blooms with lilac-coloured small flowers in June-July and has small leaves.



### GERANIUM 'ROZANNE'

A pelargonium, with small blue-lilac-coloured flowers. Smaller leaves than most geraniums.



### BERGENIA OUVERTURE 'EROICA'

Evergreen glossy green leaves turning red and copper from autumn. Beautiful magenta pink flowers in the spring.



### CAMPANULA POSCHARSKYANA

Beautiful leaf colour with white to yellow-white middles and green leaf margins. Flowers with light brown spikes in May/June.



### CAREX OSHIMENSIS 'EVERGREEN'

The Carex oshimensis 'Evergreen' is a hardy ornamental grass and perfect as ground cover. In May and June the plant flowers with fine spikes of a beautiful bronze colour.



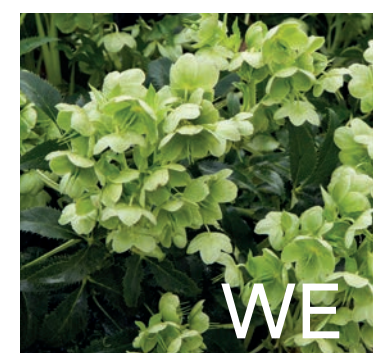
### GERANIUM MACRORRHIZUM

Also known as Cranesbill. Semi-evergreen with bright pink-red flowers from May-July.



### HEUCHERA 'FROSTED VIOLET'

Beautifully marbled dark leaves with light pink to pink flowers between June-August.



### HELLEBORUS FOETIDUS

The Helleborus foetidus is an evergreen plant with deeply incised leaves resembling palm leaves. The plant blooms from December/January into spring and produces green/yellow flowers.





# PLANTGUIDE

## OUTDOOR PLANTING



### HEUCHERA 'LIME RICKEY'

Softly ruffled and ruffled lime green leaves that retain their bright colour. Small bell-shaped white flowers appear in late spring on slender stems.



### HEUCHERA 'MARMALADE'

Also known as the Purple Bell. Striking leaf color and the leaves are curled and show beautiful cream-white flower clusters between June and September.



### HEUCHERA 'OBSIDIAN'

Striking dark purple-red leaf colour and the leaves are curled at the leaf edge and show beautiful white flower clusters between June and September.



### TIARELLA 'BRAVEHEART'

Clump-forming, semi-evergreen perennial with rosettes from heart-shaped to broad oval, deeply lobed, bright to yellow-green leaves with maroon-marked veins. Dense, upright racemes of fluffy, pale pink flowers appearing from late spring to summer.



### TIARELLA CORDIFOLIA

Also known as foam flower or Persian cap. Ground cover perennial with a pale pink plume-shaped flower. Reaches 20cm height and flowers between April and May.



### VINCA MINOR

The Vinca minor is a strong evergreen ground cover plant. Blooming very early in the spring with blue flowers, Vinca suits both sunny and shady spots. The Vinca will produce more flowers in the sun than in the shade.



### HEUCHERA 'PARIS'

Decorative leaves with dark leaf veins. The lobed leaves are mint green, covered with silver markings. The stems of the deep pink flowers grow longer in late spring.



### LONICERA NITIDA 'MAIGRUN'

The Lonicera nitida 'Maigrun' is a hardy evergreen shrub. The leaves are small and shiny. It is an easy plant that can be planted in any aspect.



### POLYPODIUM VULGARE

Also known as the Common Oak Fern. Evergreen with leathery leaves and orange traces on the bottom. Reasonably drought tolerant, likes partial shade and grows up to 30 cm high. Does not tolerate lime in the soil.





# PLANTGUIDE

The Mobilane Plant Guide provides a plant-by-plant overview of selected species used in the different Mobilane products. Although there are thousands of plant types in the world, not all are suitable in all situations or applications. Each plant has its own characteristics, ideal conditions and preferred planting location. Factors that should be taken into account when choosing a plant for green walls and façades include temperature, climate zone, sun exposure, shade, soil type, moisture requirement and surface orientation. Contact Mobilane Technical Support for advice or further information.

Mobilane has developed some standard indoor and outdoor mixes with plants that combine well with each other. These mixes are grown in the nursery so that they are fully grown when delivered.

## STANDARD OUTDOOR MIX

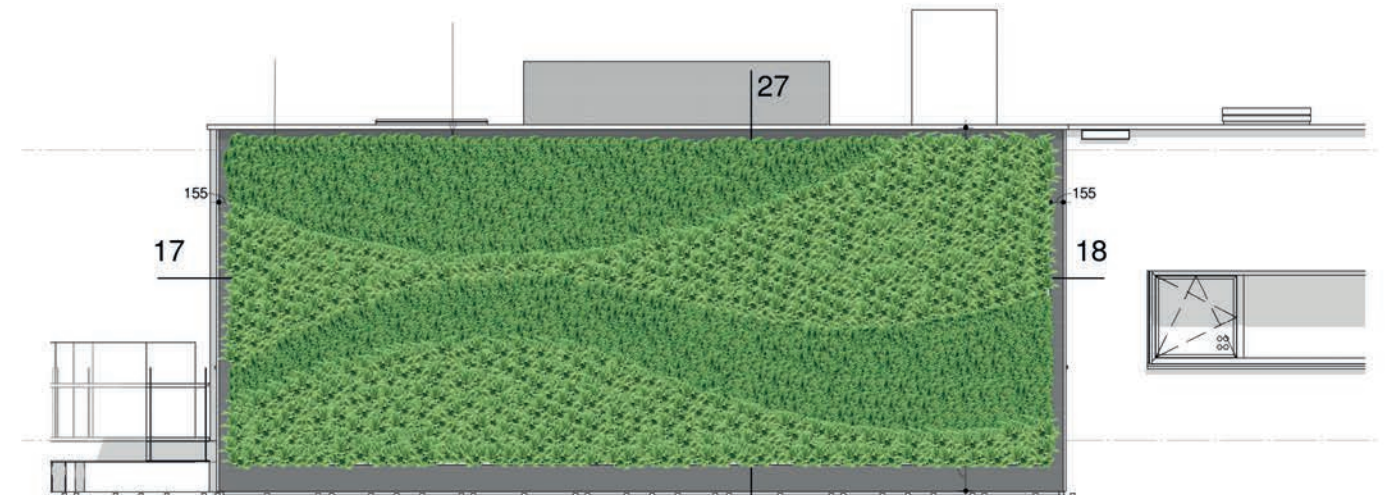


**ROZANNE**

1. Campanula poscharskyana 'Stella'
2. Fragaria vesca
3. Carex oshimensis 'J.S. Greenwell'
4. Bergenia 'Bressingham White'
5. Geranium 'Rozanne'
6. Carex oshimensis 'Evergold'
7. Heuchera 'Frosted Violet'

## PLANTING PATTERN

A green façade can be cultivated according to a pattern. The pattern can be designed according to your wishes, thus giving the façade a unique appearance.





# CAD AND BIM MODELS

CAD is the process of drawing a building design in 2D and 3D using specific CAD software. CAD is used for design ideas, visualizations, construction drawings and simulations. BIM is a process in wich digital representations of the physical and functional characteristics of a building are generated and managed. A building is designed by placing intelligent objects in a 3D environment. All CAD and BIM models can be downloaded via the Mobilane website [www.mobilane.com](http://www.mobilane.com) or scan the QR code directly.

SCAN FOR CAD AND  
BIM MODELS

