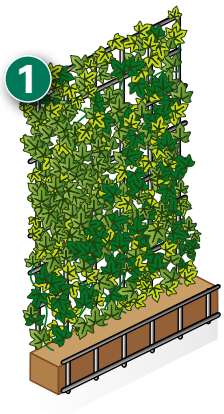
Ready-made green systems by Mobilane

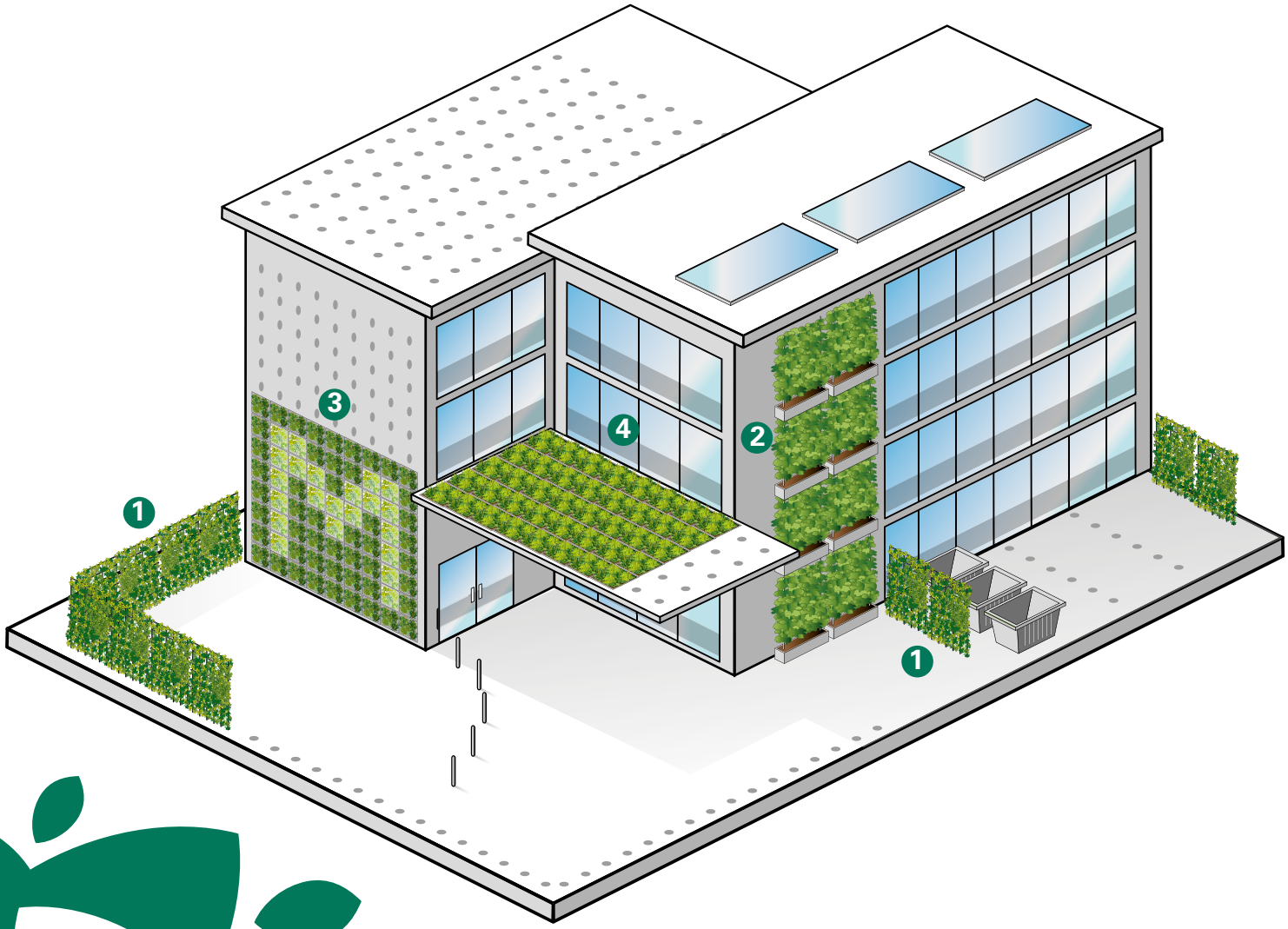


Mobilane® Green Screen

WallPlanter ®

LivePanel ®

MobiRoof®



mobilane
Building Green

Preface

The city is alive!

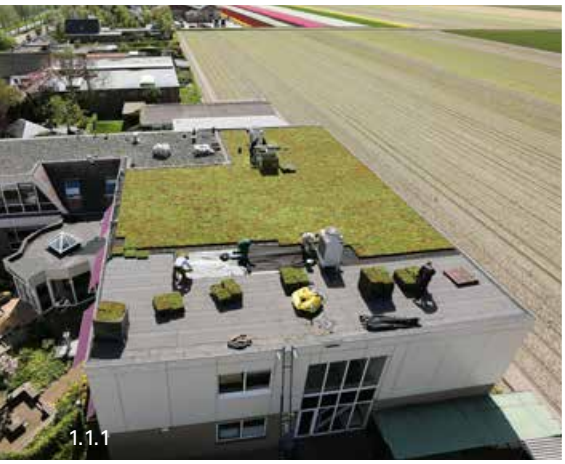
More and more people are drawn to the city, or neighbouring areas, to live, work, or for recreation. However, the individuality of the living space has to be preserved. This sustained urbanization has far reaching effects on urban development. Population growth causes a dense and compact built cityscape: construction and often monotonous facades set the scene and there is less and less space for green areas. Running parallel to this lies the growing desire for security and privacy. Both in public and in the private outdoor spaces, there is a need for the possibility to remove oneself from the noise and the chaos; in short, the need for privacy. Systems such as the Mobilane Green Screen can play a significant role in this. It provides an option to create privacy in terms of visibility, protection from the wind, or simply as attractive fencing in outdoor living spaces, gardens and landscapes.

In developing their concepts, developers take into account not only the population growth, but also the wellbeing of the residents. The impact of climate change and increased awareness of the importance of the environment has created a new demand for plants and planting products that has revolutionised the industry. For example, in construction projects, consideration is now given not only to the most economically viable products, but to those with the best ecological and sustainable credentials. In essence, green plays a central role and is an integral part of sustainable urban development. Housing associations, investors, construction companies, project managers, architects and landscape designers are investing in the green environment, improved microclimate, sound insulation, pollution reduction, energy saving and visually beautiful benefits improve the quality of life

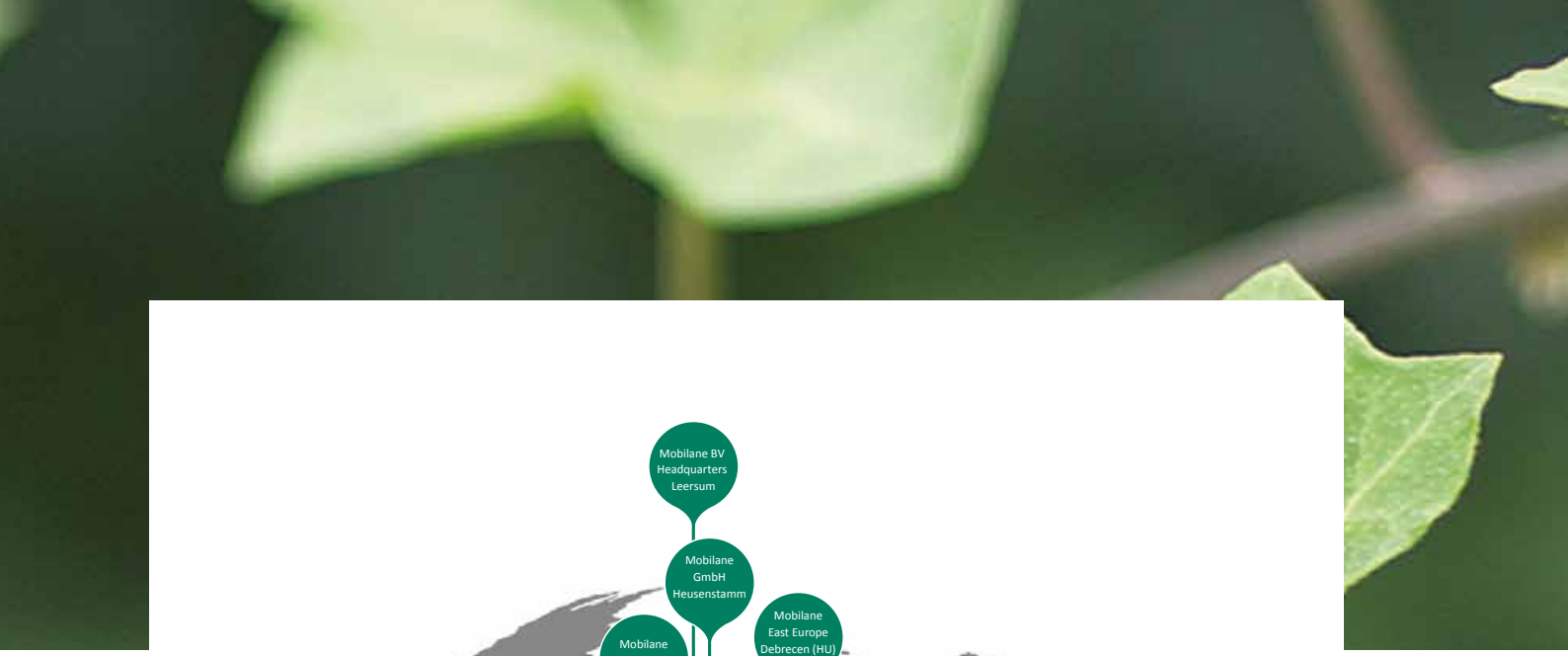
around us. Natural greening can be achieved quickly and easily with the Mobilane Green Screen. The Green Screen is now being used in 22 countries worldwide.

As well as Mobilane Green Screens, we offer the best, internationally-tested ready-made green systems for indoor and outdoor applications: MobiRoof, our green roof cassette system, living green wall systems known as WallPlanter and LivePanel; NoiStop for sound absorption. For indoor living spaces, we offer LivePicture, a living picture made up of plants and LiveDivider, the green room divider. These systems contribute to improving the quality of life through the greening of the environment.

#buildinggreen


1.1.1


1.1.2

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The Company

Mobilane International

As a leading developer of ready-made green and sustainable systems, Mobilane has grown into an international enterprise. Mobilane has subsidiaries in Great Britain, Belgium, Luxembourg, Germany, Asia and South Africa and 10 manufacturing locations around the world. Mobilane products are available in 22 countries in Europe and many more countries beyond.

Development of the company

Since 2001 **Mobilane – Mobilane Green Screen**

The Mobilane 'Green Screen' is a metal grid that is completely covered with plants. These plants are contained in potting soil in a coco planter, which is placed on the underside of the grid. The planter is made up of coconut fibres that are held together by natural latex. After installation of the 'Green Screen' the completely natural planter biodegrades within one or two years. Within weeks of installation the hedge is rooted in the ground.

Since 2004 **WallPlanter® - Facade Greening**

In 2002 Mobilane took its first steps into green facades. Developed since 2004 and installed in many projects as MobiCare, the system is now known as WallPlanter.

Since 2008 **Mobiroof®**

- Cultivated green roof cassettes

This internationally proven system for extensive green roofs consists of cassettes filled with substrate and fully cultivated with various species of Sedum. These cassettes are placed directly onto the roof, creating an instant, fully-grown look. Mobiroof has an instant, fully-grown look. Mobiroof has an insulating effect on buildings and retains water.

ESTABLISHED

2001

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MOBILANE OFFICES WORLDWIDE

- Netherlands
- Belgium
- Great Britain
- Germany
- Hungary
- South-Africa
- Asia
- United States

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Since 2008 **NoiStop® - Acoustic Wall system**

The NoiStop sound barriers have a core of specially moulded, waterproof and UV resistant mineral wool with a unique sound-absorbing and sound-isolating function. By applying NoiStop, ambient noise can be reduced up to 70%. NoiStop acoustic wall system can be shielded in greenery, instantly, if combined with the Mobilane Green Screen.

Since 2010 **WallPlanter® - Green façade system (previously Mobicare)**

WallPlanter is an instant green façade system and can be mounted on both new and existing wall faces. Its structure is that of an aluminium planter into which Mobilane Green Screens are placed. These planters are mounted on the facades of buildings such as multi-storey parking facilities, hotels or office buildings. Thanks to a superbly-designed irrigation irrigation and drainage system, the Mobilane Green Screens are provided with the correct amount of water and nutrients.

Since 2010 **LivePanel® - Living green wall system**

The first LivePanel system was introduced in 2010, followed in 2014 by a modular cassette system. These cassettes are easy to fit and are secured by a lightweight aluminium construction of gutters. Because of the extreme flexibility of the LivePanel system it is ideal for many applications in indoor and outdoor spaces. The supply of the plants with water and nutrients is made by an integrated irrigation system.

Since 2013 **LivePicture® - Living picture made up of plants**

LivePicture combines innovation, design and living green. The frame of the LivePicture includes an integrated watering system with a reservoir to ensure that the plants are provided with water for at least four to six weeks. This innovative patented construction functions without electricity or a mechanical pump. LivePicture is available in different sizes and frame colours.

Since 2014 **LiveDivider® - Green Room Divider**

LiveDivider is a room divider, set up with plants on both sides. Larger spaces are simply divided into smaller blocks by using LiveDivider. The frame of this dividing system includes an integrated watering system with a reservoir to ensure that the plants are provided with water and nutrients. This works without electricity or mechanical pump. With exchangeable plant cassettes, you can choose your own plant selection, change and update to suit. As well as a reduction of ambient noise pollution, the plants in the LiveDivider help maintain appropriate humidity humidity and can remove carbon dioxide and clean polluted air particles.


3.1.1


3.1.2


3.1.3

Mobilane Green Screen

This patented ready-made green system consists of individual screens completely covered with various species of climbing or hedging plants. Within one growing season it creates a dense, fully covered screen.

The plants are supported by an extremely strong metal frame and grown in potting soil in a biodegradable coconut planter. This planter is formed by coco fibres that are held together by natural latex. After installation of the Mobilane Green Screen the coconut planter will biodegrade completely in the soil within one or two years and the plants will root in the surrounding soil.

The benefits

- Instant privacy
- Minimal maintenance
- Installed all-year-round, except during periods of frost
- Durable and attractive way of dividing outdoor space
- Significant pollution reduction
- Uses wide range of plant species
- Improved acoustics
- Positive impact on biodiversity
- Maximum green impact in minimum space
- Extendable in both length and height

3.1.4

3.1.5

3.1.6

3.1.7

3.1.8

Plant Range

Mobilane Green Screen - Plant Species and Varieties

Hedera helix 'Woerner'

Very strong winter hard ivy, 4-6 cm large dark green leaves, variable leaf shapes. In winter, slightly changes colour to reddish-brown. Evergreen.

Hedera helix 'Glacier'

Hard Ivy species with grey-green, three-lobed leaves, white edges and silver-grey inside. Evergreen.

Hedera helix 'Goldchild'

Ivy with dense growth, grey-green leaves with a yellow edge. Evergreen.

Hedera helix 'Green Ripple'

Average growing ivy with dark green, 5-lobed leaves, 5-10 cm long. Stems are well branched. Evergreen.

Hedera helix 'White Ripple'

Average growing ivy grey-green, five-lobed leaves and a grey-white border. Evergreen.

Hedera hibernica

Winter hard ivy. 4-6 cm large shiny leaves with deeply lobed leaf edges. When planted in coastal environments completely winter hardy. For inland locations, choose Hedera helix 'Woerner'.

Carpinus betulus (Hornbeam)

Winter hardy hornbeam. Many veined leaves with a double serrated edge. In the summer the leaves are dark green on the upper side and lighter on the reverse side. In winter the dull brown leaves remain partly on the hedge.

Pyracantha 'Dart's Red'

Winter hardy Firethorn with red (non-poisonous) berries. Rich blooming with white umbrella-shaped flowers in spring. This strain is resistant to fire blight. Keeps leaves in winter. Suitable as a defensive plant.

Euonymus fortunei 'Dart's Blanket'

Hardy, yellowish green scarlet leaves with beautiful colours in the autumn and winter: the top of the sheet is deep bronze and the bottom purple. Tolerates extensive pruning.

Available Sizes*

Sizes in cm (WxH)	120 x 100	120 x 155	120 x 180	120 x 220	120 x 300
Hedera helix 'Woerner'	●		●	●	●
Hedera helix 'Glacier'			●		
Hedera helix 'Goldchild'			●		
Hedera helix 'White Ripple'			●		
Hedera helix 'Green Ripple'			●		
Hedera hibernica			●		
Carpinus betulus (Haagbeuk)	●	●			
Pyracantha 'Dart's Red'	●	●			
Euonymus fort. 'Dart's Blanket'			●		

** Other sizes are available on request*

Accessories

Steel posts, green powder coating

Available in:
Ø 4.8 x 175 cm
Ø 4.8 x 260 cm
Ø 4.8 x 310 cm

Hardwood post

Available in:
5.9 x 5.9 x 275 cm (LxWxH)
5.9 x 5.9 x 305 cm (LxWxH)

Bracket for hardwood post

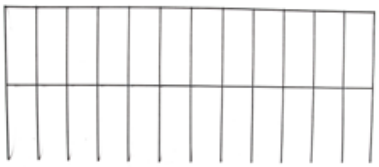
Bracket for wall mounting

Green coated middle bracket for steel post

Ø 4.8 cm

Green coated end bracket for steel post

Ø 4,8 cm
Ø 6,0 cm
Ø 7,6 cm



Grid extension

Available in (W X H):
120 x 25 cm
120 x 50 cm
120 x 75 cm
120 x 100 cm
120 x 150 cm
120 x 175 cm

Garden door including 2 posts Ø 7.6 cm + 1 cylinder lock

Dimensions: 175 x 100 cm (H x W)

(Excluding floor plate)

Garden door including 2 posts Ø 6.0 cm + 1 cylinder lock

Dimensions: 95 x 100 cm (H x W)

(Excluding floor plate)

Hardwood planter

144 x 41 x 38 cm (LxWxH)
146 x 61 x 52 cm (LxWxH)

European wood planter (Siberian larch)

146 x 61 x 52 cm (LxWxH)

(Hedge not included)

Set of wheels for planter

2 swivel wheels
2 fixed wheels


3.2.1

3.2.2


3.2.3

Installation Manual: Mobilane Green Screen

How many Mobilane Green Screens and posts do you need?

The Mobilane Green Screens have a standard width of 120 cm.
The posts required to stabilize the screen are supplied in several sizes to suit all requirements: steel posts diameter 4.8 cm and wooden posts: 5.9 x 5.9 cm. Leave about 3 cm between the posts and the screen to allow the plant stems to swell between the iron grid of the screen and the posts.

The measurements between the posts must adhere to a centre-to-centre distance of 130 to 132 cm.

Please note that for the total length of the installation there is always at least one more post needed than the number of screens used.

Brackets: Screens of 220 cm height require 6 brackets per screen, screens of 180 cm height require 4 brackets per screen, screens of 100 cm height require 4 brackets per screen.
When using wooden posts all the brackets are the same whether it is a middle, corner or end post.
For steel posts there are special end-brackets for use at the beginning and the end of an installation, and for use in the corners. For the posts in the middle of a installation there are special middle brackets.

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The right soil?

The Mobilane Green Screen needs a humus rich soil suitable for planting shrubs. The trench must be at least 40 cm deep. The soil has to be water permeable and the drainage of the surface has to be good. The soil must be free of debris, impermeable clay layers etc., to allow the plant roots to grow down deep into the ground. There should be no barriers (plastic sheets, concrete slabs for example) to prevent the establishment of a healthy root system. In cases where the soil is not rich in humus, a good quality compost should be added. A good foundation is essential for all plants. The soil must be carefully prepared.

Are there any obstacles in the soil?

Make sure that the area where the Mobilane Green Screens are to be installed does not contain any pipelines, construction or foundations that could be damaged during the installation process. Check with your local utilities and telecom companies in your area. Remove old foundations and other obstructions.


3.2.4


3.2.5

Installation: Mobilane Green Screen

- To achieve a level, straight fence, a wire is pulled from a starting point to the corner – or end point of the screen. A laser measurement instrument can also be used instead of a wire.

- Mark the location of the posts and place them at a distance of 130 - 132 cm apart (centre to centre posts). Depending on the subsoil and wind load, the posts are grounded in a concrete foundation. This foundation must be at least 30 x 30 x 60 cm. NOTE: The top of the foundation must, because of the placement of the root system, be between 25 - 30 cm below ground level.

- Place the posts so that the top side of the post is at the same height with the screen. NOTE: must be placed vertically aligned!

- Dig a trench 40 cm wide and 40 cm deep.

- Loosen the soil at the bottom of the trench, and water the trench before planting.

- Fill the trench with compost and / or fertilized garden soil so that it shows a depth of approx. 20 cm. Press this earth slightly so the screen can rest on it.

- Place the Mobilane Green Screen in the trench, and make sure that the top of the biodegradable cocopot is kept at ground level. There should not be any coconut fibers visible.

- Screw the brackets on the posts and place the screen into the cut-outs in the brackets. The screens of 180 cm should be 25 cm below the upper edge (on the second highest horizontal wire), and in the middle, attached to both sides with the brackets.

- Assemble the bracket so that the upper bracket is pushed from below the grid, and the lower bracket from the top part of grid. This way the screen is well secured in both directions. Make sure no shoots or stems from the screens plant are caught or restricted by frame or brackets.

- Fill the rest of the trench around the coco pot (root system) using the soil from the trench, mixed with compost and garden soil.

- Press the soil firmly around the coco pot with compost or potting soil so that the screen makes contact with the soil.

- Water regularly after installation.

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Things to consider

Normally, plants grow out just as wide beneath the surface as they do above the ground. Make sure the roots are not impeded by obstacles (e.g. pieces of concrete, rubble or other disruptive layers). Roots growing in a space that is too small and confined may cause damage to the plant, in particular during periods of heat and frost.

If the screens are placed in a paved environment (for example, in or around a patio) the fall of the ground should be properly checked to make sure the Mobilane Green Screen will get enough water.

The screen should not be planted too deep where it can drown. If the area is boggy and insufficiently drained problems may occur. The screen should not be placed at the highest point because then dehydration may be caused due to the fact that all the rainwater is drained.

Example: planting Mobilane Green Screen 120 x 180 cm with steel posts and brackets.

The steel posts provide stability. They are placed in a concrete foundation.

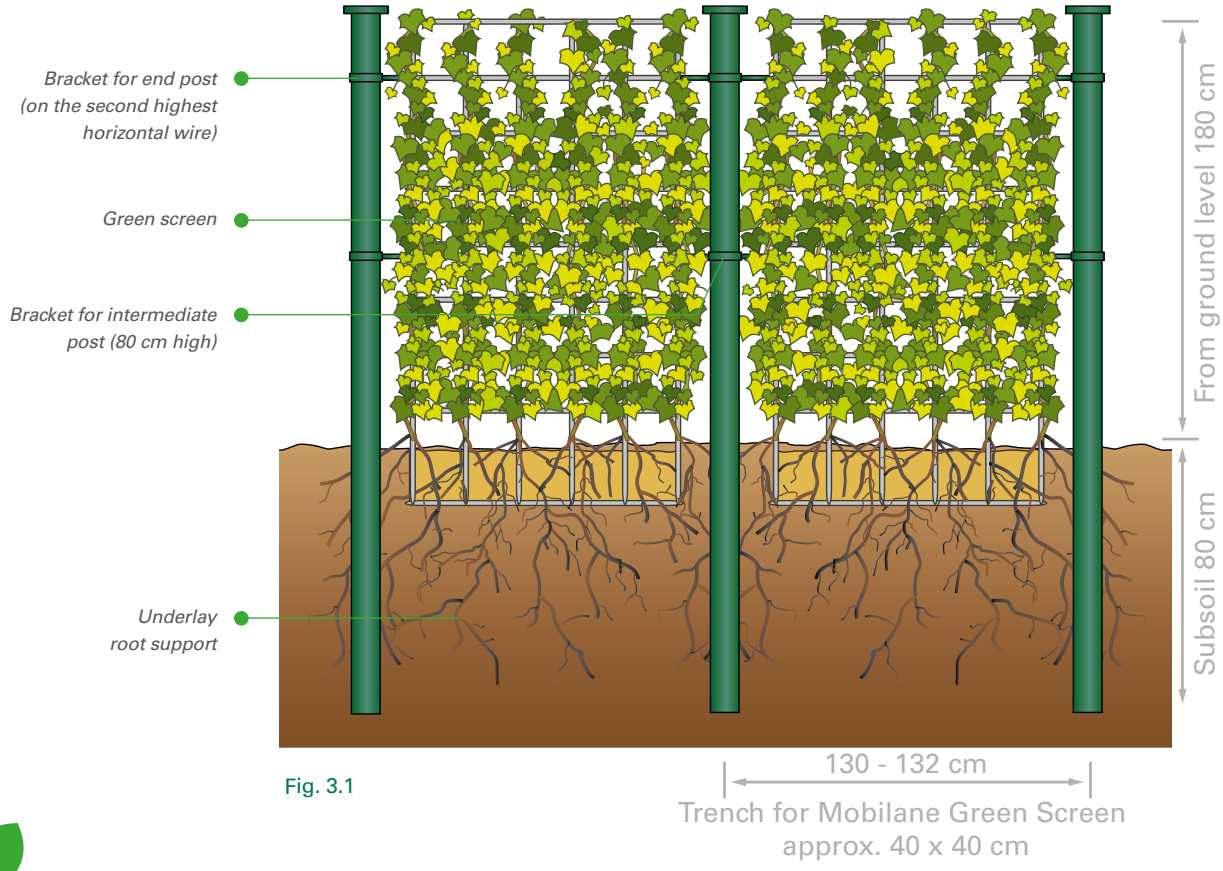

Fig. 3.1

Installation Guide

Placing steel posts with concrete foundation

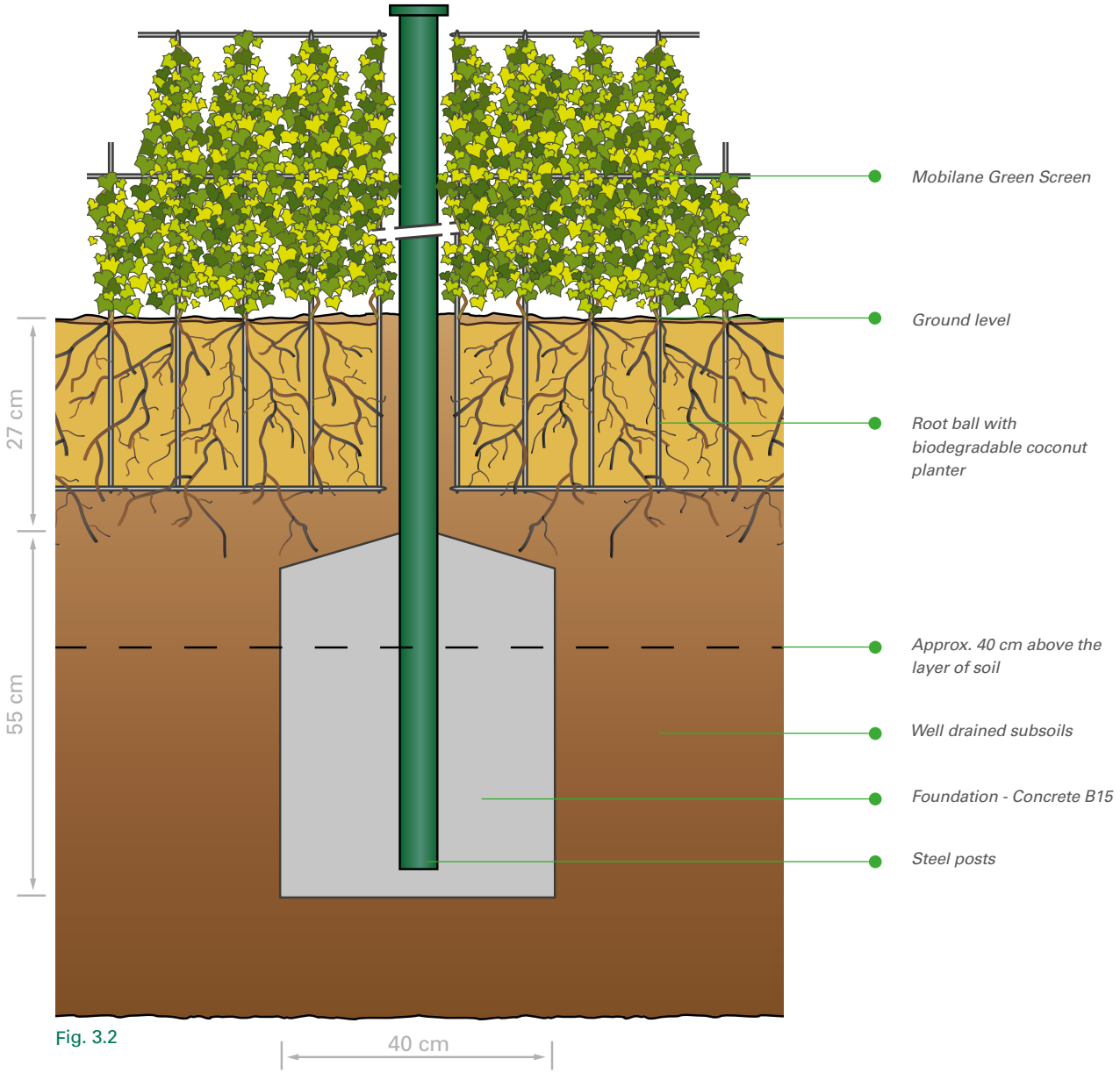

Fig. 3.2

Installation Guide

Placing wooden posts

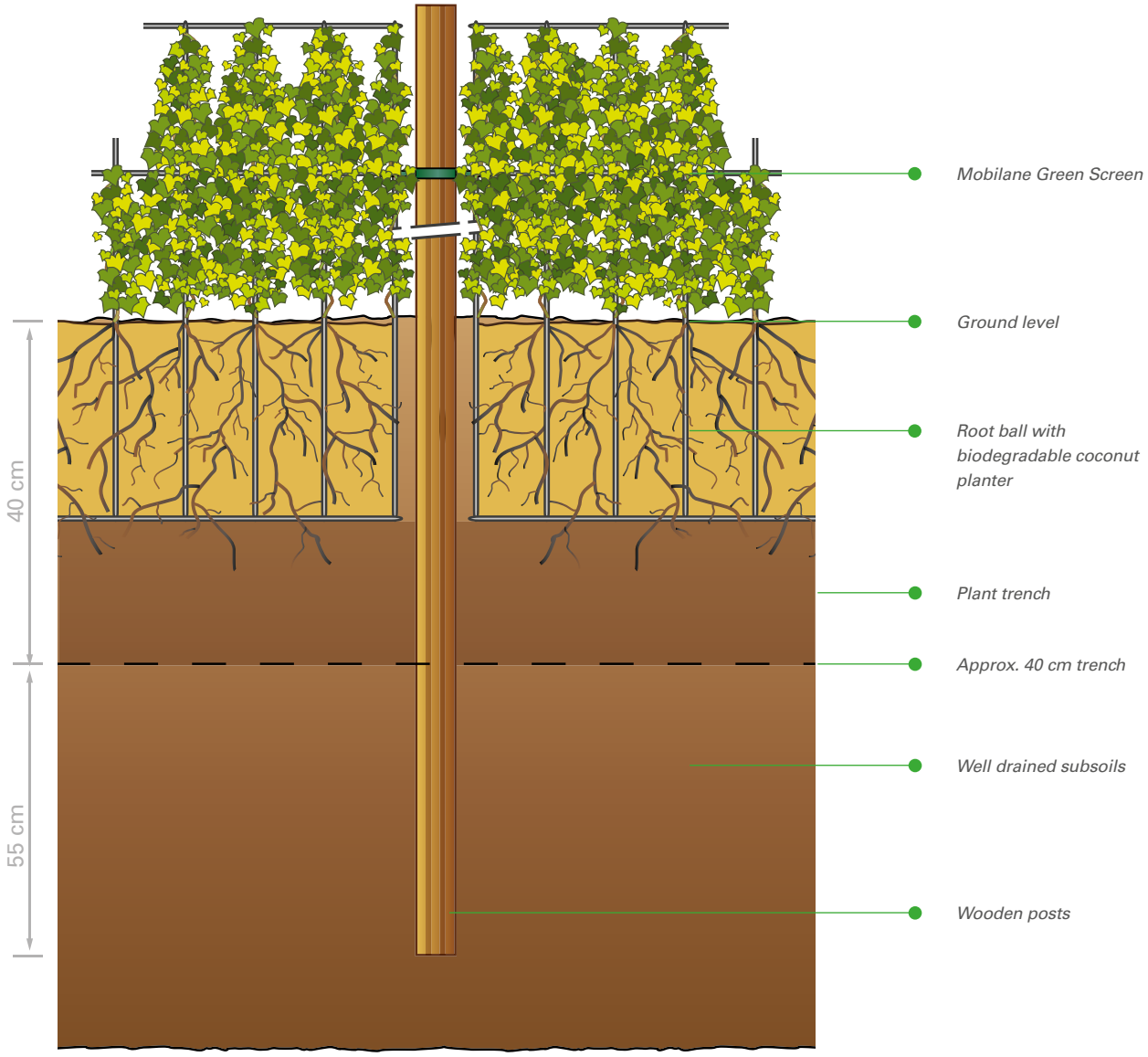

Fig 3.3

Installation Guide

Placing Iron posts

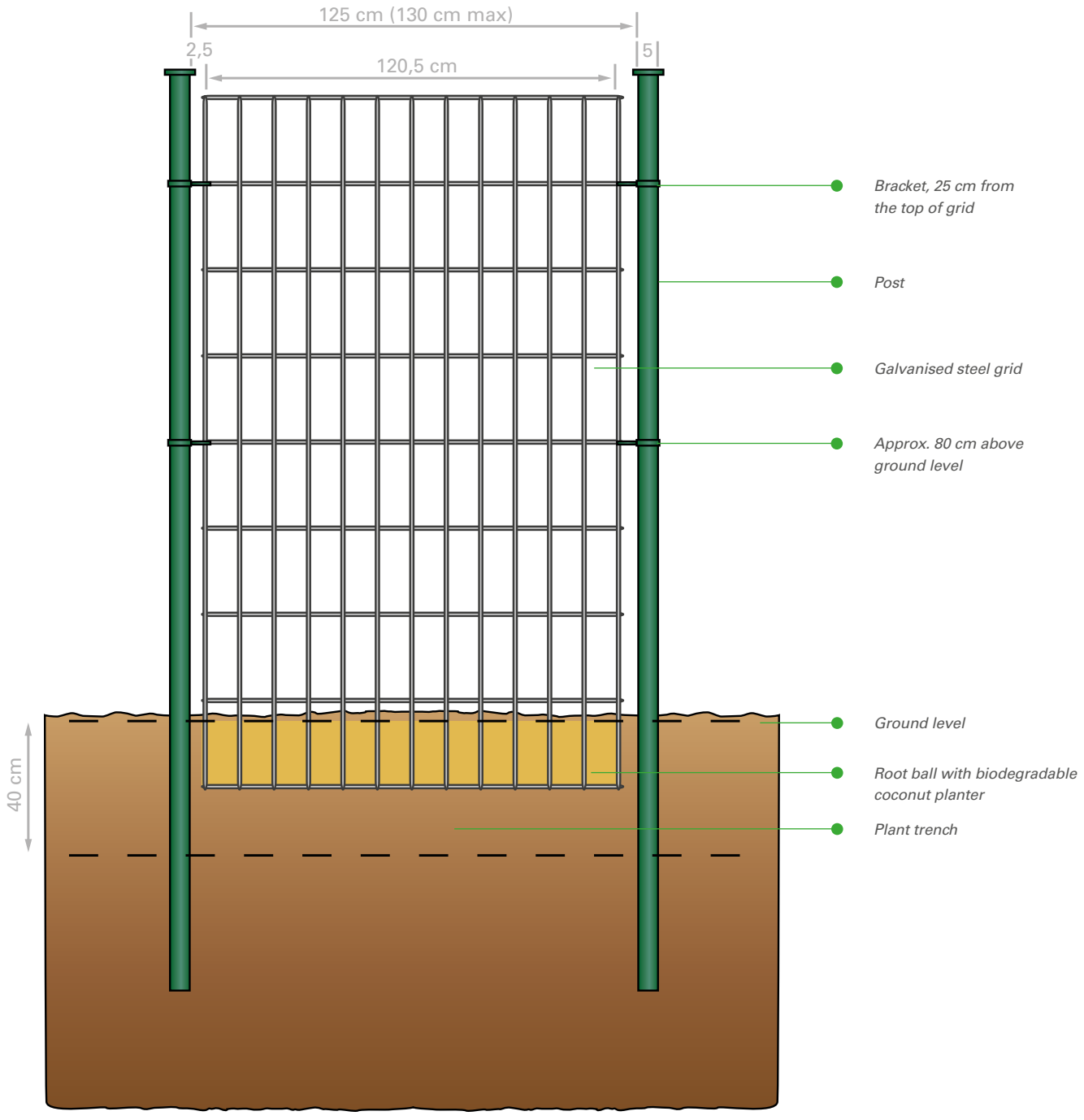

Fig. 3.4

Installation Guide

Installation paving

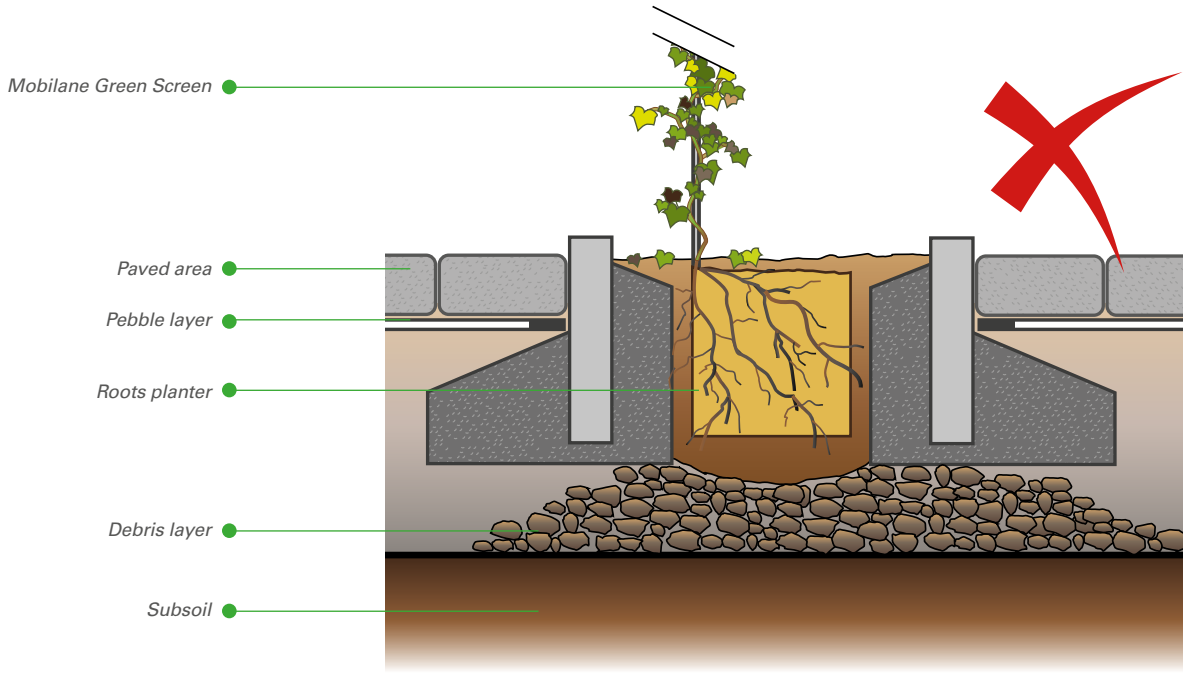

Fig 3.5 a

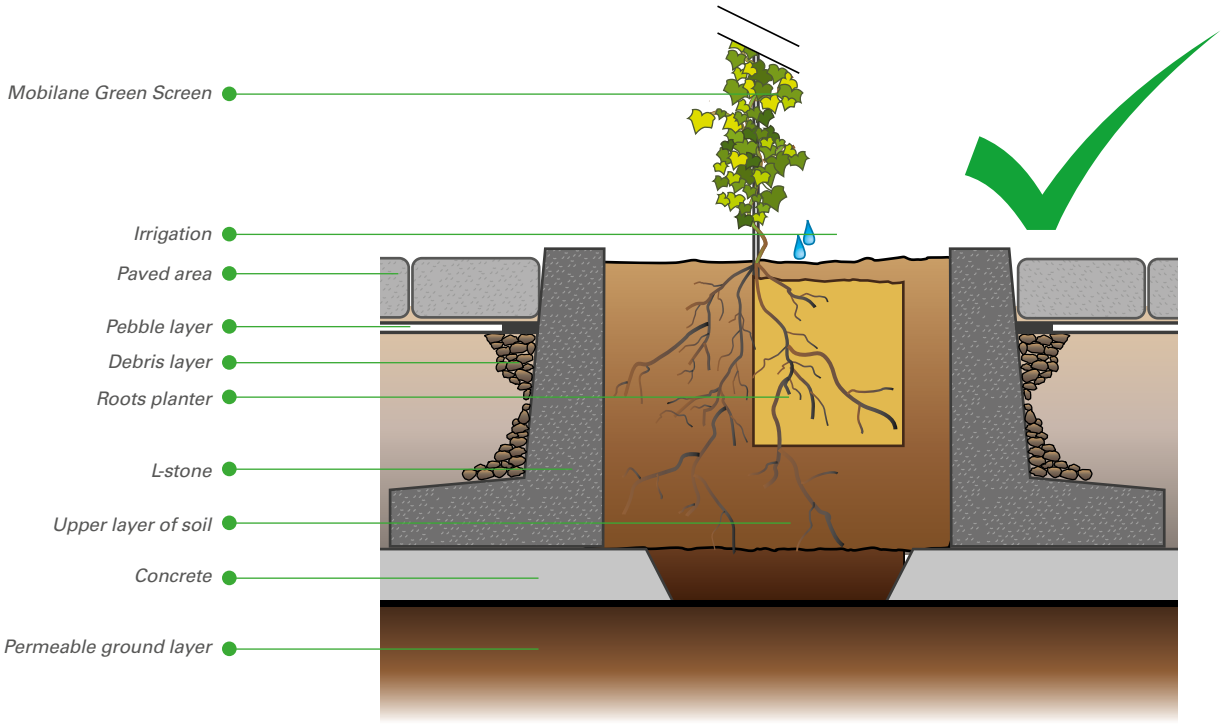

Fig 3.5 b


3.3.1


3.3.2


3.3.3

Maintenance: Mobilane Green Screens

Pruning

- Depending on how wide you want the hedge, you can prune the hedge once or twice a year. The best months for pruning are April/May and September/October. Thus, the new shoots can still grow and harden off for winter. You only need to prune the new shoots.
- To make the hedera grow more densely, first let vines grow and do not prune during the initial period. Then you must trail the new hedera shoots through the grid.

Root growth

- Plants develop both above and below the surface. The growth of roots is not to be hampered by, for example, disruptive layers or concrete elements.

Discolouring of the leaves

- During the winter, discolouration of the leaves makes for a reddish/copper appearance. Hedera species "Woerner" will typically display this leaf discolouration when the colder weather arrives. The lower temperatures cause the leaf cells to produce a defence mechanism against the cold, making the leaves turn a different colour. When temperatures rise, the substances used for leaf discolouration are again reduced and the leaf turns green.

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Planning for your Green Screen's first winter

- Plant the Mobilane Green Screen as long before the winter as possible, and make sure it is well watered to achieve a good root system before the winter.
- If a longer period of frost is predicted, make sure the Mobilane Green Screen is well watered. In frozen soil the plants cannot absorb water, but it will still lose moisture by evaporation through its leaves.
- During periods of light snow or frosty surface the screens can be watered as normally.
- Carpinus betulus must be watered intermittently in the winter.

If you want a beautiful, densely grown hedge in your garden, regular watering, fertilizer and pruning are required. Note the following treatment guidelines:

Irrigation

- The Mobilane Green Screen should be watered throughout the year. This is especially important during the first year and in hot / dry periods. The screens require regular sufficient water (about 30 litres per screen).
- However, the screens should not be over watered or remain too wet for too long, as the roots could rot away. Regular watering is required, but the soil must be dry in between watering.
- Your screen also needs water in the winter! When the sun shines in the winter, Hedera leaves lose water through evaporation. When the soil is dry in winter and frost-free, it is advisable to water regularly.
- If the Mobilane Green Screen is placed in a planter, do not let the soil get too wet. Make sure the planter has sufficient drainage. This can be done by drilling holes in the planter or a adding water platform with water measure.
- If you do not want to water the screens regularly with a watering can or garden hose, you can create a drip hose with an automatic irrigation controller. Regularly check if the hose for blockages or leaks.

Fertilizing

- It is necessary to regularly fertilize the Mobilane Green Screen to encourage good growth and leaf development. It is preferable to use slow-release fertilizers. Fertilize at least once a year, in the spring. If planting screens before August 15th, fertilize the screens one month after installation. If planted after August 15th, only fertilize the screens in the spring.

The type of fertilizer to use depends on the nutritional level of the soil. On poor or exhausted soils additional fertilizer is needed. If you are unsure as to the nutritional level of the soil or which fertilizer to use, a soil sample can be analyzed by a soil testing laboratory.

Privacy and tranquility


3.4.1


3.4.2


3.4.3

Privacy and tranquility


3.4.4


3.4.5


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Applications in construction projects

3.5.1

3.5.2

3.5.3

Applications in construction projects


3.5.4


3.5.5


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3.6.1

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Screening refuse bins

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3.7.3

Improved living environment

3.8.1

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3.8.3

Improved living environment


3.8.4


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3.8.9

Greening of noise barriers


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3.9.2


3.9.3

Prevention and concealment of graffiti

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3.10.3

Wide hedges: Adapting the Mobilane Green Screen

3.11.1

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3.11.3

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Mobilane technical specifications Green Screen STABU format *

*** Standard specification texts are also available in RAW system**
All specification texts are available to download from the Mobilane website mobilane.co.uk

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16 LANDSCAPING

16:30 GROUND IMPROVEMENT

16:30:10-a FERTILISING, FERTILISER

0. FERTILISING

Quantity: **check supplier fertilisation info**

Frequency: **1 time after installation and first time at the start next growing season**

1. FERTILISER

Composition: **long-acting fertiliser with an NPK ratio of 12-10-18 with micro-elements**

.01 UNPAVED TERRAIN

FERTILISATION FOR THE PURPOSE OF HEDGE PLANTING.

16:51 PLANTING

16:51:24-a PLANTS, CLIMBING SHRUB

0. PLANTS

Dimensions planting trench: a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench

Remove non-digestible material.

Replenishment trench: apply soil improvement depending on soil

Climatic conditions during the installation:

- minimum outdoor temperature: 0 °C

- year-round installation is possible, except periods of frost and snow.

1. CLIMBING PLANT MANUFACTURER: MOBILANE

Type: Green Screen

Planting:

- format: Ivy - Hedera helix ‚Woerner'

- number of plants per screen: 65 branches per 1205 mm Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1800 mm height

Biodegradable planter:

- material: coconut planter filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- material: planed hardwood post, durability class 1/2

- size: 59x59x2750 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: galvanised steel uni-brace 37-2 incl. wood bolt**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

1: HAGUE PLANTING; HEDGE HEDERA 180 CM WITH HARDWOOD POSTS.

Note: Also applies to the varieties of Hedera helix ‚White Ripple' Hedera helix ‚Glacier' Hedera helix ‚Gold Child', Hedera helix ‚Green Ripple' and Hedera ‚hibernica'.

16:51:24-b PLANTS, climbing shrub

0. PLANTING

Dimensions planting trench: a minimum of 400x400 mm, trench at the bottom of loss kernels, if necessary, wet the trench
Removing non-digestible material.
Complement trench: apply soil improvement depending on soil
Climatic conditions during the implementation:
- minimum outdoor temperature: 0 °C
- year-round installation is possible, except periods of frost and snow.

1. CLIMBING PLANT

Manufacturer: Mobilane UK
Type: Green Screen
Planting:
- type: Ivy - Hedera helix 'Woerner'
- number of plants per screen unit: 65 branches per 1205 mm
Steel Grid:
- wire thickness: 5 mm
- mesh size: 100x250 mm
- dimensions: width 1205 mm, 1800 mm height
Biodegradable planter:
- material: coconut planter filled with potting soil substrate
- planter width: 170 mm uprights, set in the ground:
- supplier: Betafence
- material: zinc plated post
- dimensions: Ø 48 mm, height 2600 mm
- finish: powder coated in RAL 6005, green
- The number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post
Accessories:
- brackets:
Material: zinc plated brackets, Ø 48 mm
*** finish: powder coated RAL 6005, green**
*** Number per post: 2 pieces end brackets, 2 pieces middle brackets**

.01 UNPAVED TERRAIN

2: HEDGE PLANTING; HEDGE HEDERA 180 CM WITH METAL POSTS.

Note: Also applies to the varieties Hedera helix 'White Ripple' Hedera helix 'Glacier' Hedera helix 'Gold Child', Hedera helix 'Green Ripple' and Hedera 'hibernica'.

16:51:24 c PLANTS, climbing shrub

0. PLANTING

Dimensions planting trench: min 300x300 mm, dig trench at bottom, if necessary moisten the trench

Removing non-digestible material.

Replenishment trench: apply soil improvement depending on soil

Climate conditions during the installation:

- minimum outdoor temperature: 0 °C

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- Format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 39 branches per 1205 mm

Steel Grid:

-wire thickness: 4 mm

-mesh width: 100x250 mm

-size width 1205 mm, 1000 mm height

Biodegradable planter:

material: coco planter filled with potting soil substrate

-mesh width: 170 mm

Posts, set in the ground:

-material: planed hardwood post, durability class 1/2

-size: 59x59x1525 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** Material: galvanized steel uni-brace 37-2 incl. wood bolt.**

*** Number of brackets per screen: 4 pieces**

01. UNPAVED TERRAIN

3: HEDGE PLANTING; HEDGE HEDERA 100 CM WITH HARDWOOD POSTS.

16:51:24-D PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 300x300 mm, dig trench at bottom, if necessary moisten the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the execution:

- minimum outdoor temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 39 branches per 1205 mm

Steel Grid:

- wire thickness: 4 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1000 mm height

Biodegradable planter:

-material: coconut planter filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: diameter 48 mm, length 1750 mm

- finish: powder coated in RAL 6005, green

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: electro-galvanized brackets, Ø 48 mm**

*** finish: powder coated RAL 6005, green**

*** number per post: 2 pieces end brackets, 2 pieces middle brackets**

.01 UNPAVED TERRAIN

4: HEDGE PLANTING; HEDGE HEDERA 100 CM WITH METAL POSTS.

16:51:24-E PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at bottom, if necessary moisten the trench**

Removing non-digestible material.

Replenishment trench: **apply depending on soil improvement**

Climatic conditions during the implementation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 65 branches per 1205mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 2200 mm height

Biodegradable planter:

- material: coconut planter filled with potting soil substrate

- mesh width 170 mm

Posts, set in the ground:

- material: planed hardwood post, durability class 1/2

- size: 59x59x3050 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** Material: galvanized steel uni-brace 37-2 including wood bolt.**

*** Number of hedge per unit: 6 pieces**

.01 UNPAVED TERRAIN

5: HEDGE PLANTING; HEDGE HEDERA 220 CM WITH HARDWOOD POSTS.

16:51:24-f PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climatic conditions during the implementation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Hedges:

- format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 65 branches per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 2200 mm height

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: Ø 48 mm, height 3100 mm

- finish: powder coated in RAL 6005, green

- number of each hedge element: 2 units, which will expire every time one piece at consecutive placement

Accessories:

- brackets:

*** material: electro-galvanized brackets, Ø 48mm**

*** finish: powder coated RAL 6005, green**

*** number per post: 3 pieces end brackets, 3 pieces middle brackets**

.01 UNPAVED TERRAIN

6: LANDSCAPING HEDGE; HEDGE HEDERA 220 CM WITH METAL POSTS.

16:51:24-g PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 300x300 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

Type:

*** Hornbeam - Carpinus betulus'**

*** Or Pyracantha - 'Pyracantha Dart's Red'**

- number of plants per screen: 8-9 pieces per 1205 mm

Steel Grid:

- wire thickness: 4 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1000mm height

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- material: planed hardwood post, durability class 1/2

- size: 59x59x1525 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** Green plastic coated wire tension, 2.5 3mm, at the top**

*** Per 5 hedge elements 1 green plastic coated thread tenser**

. 01 UNPAVED TERRAIN

7: HEDGE PLANTING; HEDGE CARPINUS/PYRACANTHA 100 CM WITH HARDWOOD POSTS.

16:51:24-h PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 300x300 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

Type:

*** Hornbeam - 'Carpinus betulus'**

*** Or Pyracantha - 'Pyracantha Dart's Red'**

- number of plants per screen: 8-9 pieces per 1205 mm

Steel Grid:

- wire thickness: 4 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1000 mm height

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: diameter 48 mm, length 1750mm

- finish: powder coated in RAL 6005, green

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** plasticised green tensioning wire, 2.5 - 3 mm, on the top side**

*** per 5 hedge elements 1 green plastic coated thread tensioner**

.01 UNPAVED TERRAIN

8: HEDGE PLANTING; HEDGE CARPINUS/PYRACANTHA 100 CM WITH METAL POSTS.

16:51:24 i PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

Type:

*** Hornbeam - 'Carpinus betulus'**

*** Or Pyracantha**

- 'Pyracantha Dart's Red'

- number of plants per screen: 7-8 pieces per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, height 1550 mm

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- material: planed hardwood post, durability class 1/2

- size: 59x59x2750 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: galvanised steel uni-bracket 37-2 including wood bolt.**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

9: HEDGE PLANTING; HEDGE CARPINUS/PYRACANTHA 155 CM WITH HARDWOOD POSTS.

16:51:24-j PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

- Manufacturer: Mobilane

- Type: Green Screen

Planting:

- Type:

*** Hornbeam - 'Carpinus betulus'**

*** Or Pyracantha - 'Pyracantha Dart's Red'**

- number of plants per screen: 7-8 pieces per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, height 1550 mm

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: Ø 48mm, height 2600 mm

- finish: powder coated in RAL 6005, green

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: electro-galvanized brackets, Ø 48 mm**

*** finish: powder coated RAL 6005, green**

*** number per post: 2 pieces end brackets, 2 pieces middle brackets**

.01 UNPAVED TERRAIN

10: HEDGE PLANTING; HEDGE CARPINUS/PYRACANTHA 155 CM WITH METAL POSTS.

16:51:24-k PLANTS, CLIMBING SHRUB

0. PLANTING

Climate conditions during the installation:

- minimum outdoor temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen in hardwood container

Planting:

- format: Ivy

- Hedera helix 'Woerner'

- number of plants per screen: 39 branches per 1205 mm

Steel Grid:

- wire thickness: 4 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1000 mm height

Hardwood bin:

- dimensions (LxWxH): 1440x406x375 mm

Posts:

- material: planed hardwood post, durability class 1/2

- dimensions: 59x59x1310 mm Accessories:

- brackets:

*** material: galvanised steel uni-bracket 37-2 including wood bolt.**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

11: HEDGE PLANTING; HEDGE HEDERA 140 CM WITH HARDWOOD CONTAINER.

16:51:24-I PLANTS, CLIMBING SHRUB

0. PLANTING

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen in hardwood container

Planting:

- **format: Ivy - Hedera helix 'Woerner'**
- **number of plants per screen: 65 branches per 1205 mm**

Steel Grid:

- **wire diameter: 5 mm**
- **mesh size: 100x250 mm**
- **dimensions: width 1205 mm, 1800 mm height**

Hardwood bin:

- **dimensions (LxWxH): 1450x606x522 mm**

Poles

- **material: planed hardwood post, durability class 1/2**
- **dimensions: 59x59x2230mm**

Accessories:

- **brackets:**
  - **material: galvanised steel uni-bracket 37-2 including wood bolt.**
  - **number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

12: HEDGE PLANTING; HEDGE HEDERA 230 CM WITH HARDWOOD CONTAINER.

NOTE: Also applies to the varieties of Hedera helix 'White Ripple' Hedera helix 'Glacier' Hedera helix 'Gold Child', Hedera helix 'Green Ripple', Hedera 'hibernica' and Euonymus fortunei 'Dart's Blanket'.

16:51:24-m PLANTS, CLIMBING SHRUB

0. PLANTING

Klimate conditions during the execution:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen in Siberian Larch wood container

Planting:

- format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 39 branches per 1205 mm

Steel Grid:

- wire thickness: 4 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1000mm height

Siberian Larch wood container:

- dimensions (LxWxH): 1460x606x522 mm

Posts:

- material: planed hardwood post, durability class 1/2

- dimensions: 59x59x1430 mm

Accessories:

- brackets:

*** material: galvanised steel uni-bracket 37-2 including wood bolt.**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

13: HEDGE PLANTING; HEDGE HEDERA 150 CM WITH SIBERIAN LARCH CONTAINER.

16:51:24 n PLANTS, CLIMBING SHRUB

0. PLANTING

Climate conditions during the installation:

- minimum outside temperature: **0 °C**

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen in Siberian Larch wood container

Planting:

- format: Ivy - Hedera helix 'Woerner'

- number of plants per screen: 65 branches per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1800 mm height

Siberian larch wood container:

- dimensions (LxWxH): 1460x606x522 mm

Posts:

- material: planed hardwood post, durability class 1/2

- dimensions: 59x59x2230mm

Accessories:

- brackets:

*** material: galvanized steel uni-bracket 37-2 including wood bolt.**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

14: HEDGE PLANTING; HEDGE HEDERA 230 CM WITH SIBERIAN LARCH CONTAINER.

Note: Also applies to the varieties of Hedera helix 'White Ripple' Hedera helix 'Glacier' Hedera helix 'Gold Child', Hedera helix 'Green Ripple', Hedera 'hibernica' and Euonymus fortunei 'Dart's Blanket'.

16:51:24-o PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the installation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- type: Euonymus fortunei ‚Dart's Blanket'

- number of plants per screen: 52 branches per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1800 mm height

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: Ø 48 mm, height 2600 mm

- finish: powder coated in RAL 6005, green

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: electro-galvanized brackets, Ø 48 mm**

*** finish: powder coated RAL 6005, green**

*** number per post: 2 pieces end brackets, 2 pieces middle brackets**

.01 UNPAVED TERRAIN

2: HEDGE PLANTING; HEDGE EUONYMUS 180 CM WITH METAL POSTS.

16:51:24-p PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 400x400 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: 0 °C

- year-round installation is possible, except periods of frost and snow

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- type: Euonymus fortunei ‚Dart's Blanket'

- number of plants per screen: 52 branches per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, 1800 mm height

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- material: planed hardwood post, durability class 1/2

- size: 59x59x2750 mm

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: galvanized steel uni-bracket 37-2 including wood bolt.**

*** number of brackets per screen: 4 pieces**

.01 UNPAVED TERRAIN

2: HEDGE PLANTING; HEDGE EUONYMUS 180 CM WITH HARDWOOD POSTS.

16:51:24-q PLANTS, CLIMBING SHRUB

0. PLANTING

Dimensions planting trench: **a minimum of 600x600 mm, dig trench at the bottom, if necessary water the trench**

Removing non-digestible material.

Replenishment trench: **apply soil improvement depending on soil**

Climate conditions during the implementation:

- minimum outdoor temperature: **0 °C**
- **year-round installation is possible, except periods of frost and snow**

1. CLIMBING PLANT

Manufacturer: Mobilane

Type: Green Screen

Planting:

- format: Ivy - Hedera helix ‚Woerner'

- number of plants per screen: 65 branches per 1205 mm

Steel Grid:

- wire diameter: 5 mm

- mesh size: 100x250 mm

- dimensions: width 1205 mm, height 3000 mm

Biodegradable planter:

- material: coco peat/coir filled with potting soil substrate

- planter width: 170 mm

Posts, set in the ground:

- supplier: Betafence

- material: zinc plated post

- dimensions: diameter 60 mm, length 3750 mm

- finish: powder coated in RAL 6005, green

- the number of posts for 1 screen is 2. The number of posts for more than 1 screen is equal to the number of screens plus 1 post

Accessories:

- brackets:

*** material: zinc plated brackets, Ø 60 mm**

*** finish: powder coated RAL 6005, green**

*** number per post: end brackets 8 pieces**

.01 UNPAVED TERRAIN

2: HEDGE PLANTING; HEDGE HEDERA 300 CM WITH METAL POSTS.

16.60 WATERING

16.60.10-A WATERING

0. WATERING

Quantity: **to be determined during the work**

Frequency: **depending on weather**

Water evenly distributed over the surface

.01 unpaved terrain

GIVE HEDGE PLANTING WATER.


4.1.1


4.1.2


4.1.3

MobiRoof

The simplicity of a green roof

MobiRoof is a ready-made, extensively green roofing system. It is especially suitable for roofs that are not treated. MobiRoof is a clip together cassette system that can be easily laid onto the surface of a roof. Almost instantly a closed fully grown area is created with insulation properties. MobiRoof creates instant green results.

A solid green-covered roof offers a number of advantages over a conventional roof. The planting improves air quality through CO_2 reduction and also captures fine particulate matter. UV-rays no longer reach the roof covering, which significantly extends the lifespan of the roofing material. The sedum cassette system protects the roof from harsh weather

MobiRoof can be installed on flat roofs and roofs with an inclination of up to 20% (10 degrees). Above 20%, additional measures should be taken to secure the cassettes. Because of the weight and dimensions of the cassettes, the system can also be very easily applied to garages, dormers, extensions and garden houses.

The cassettes are cultivated with multiple types of Sedum (including Album, Spurium, Acre and reflexum). The cassette is filled with a water retaining substrate.

The benefits

- Easy and fast installation through universal cassette system
- Problem-free installation
- Suited to many surfaces
- Can be customised
- Advanced system: Supplied with substrate for plants and pumice and volcanic rock for drainage and water retention
- Insulating properties in summer and winter
- Low maintenance
- Easy removal and replacement during repairs to the roof
- Extends the lifespan of the roofing material
- Contributes to CO_2 reduction
- Sound insulation
- Increases biodiversity

Mobilane ENG1_2018

Available Range

4.1.4

4.1.5

4.1.6

4.1.7

4.1.8

MobiRoof cassette

Dimensions: 54x54x9 cm

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Technical specifications


4.2.1


4.2.2

Cassette material: The cassette is made of regenerated non-toxic polypropylene.

Dimensions: Outside dimensions of the cassettes are 54x54x9 cm (= 0.29 m^2). Conversion rate: 3.44 cassettes in 1 m^2.

Water Retention: The cassette is partially filled with a substrate for drainage and retention of water. The minimum water capacity is approximately 20 litres/m 2. The water buffering capacity can be increased by installation of various types of water buffering layer under the cassette.

Planting: The vegetation layer is a mixture of various types of cultivated sedum (including Album, Spurium, Acre and reflexum).

Weight: The weight is about 38 kg/m^2 dry and approximately 58 kg/m^2 when fully saturated with water.

Finishing: Gravel should be applied on the outer edges of the roof and around skylights and discharge pipes in order to promote the microclimate and limit the influence of the wind below the cassettes.

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4.2.3

4.2.4

Roof pitch: No additional fixings are required when installing a Mobiroof system on flat roofs and roofs with a gentle slope (up to 20% or 10 degrees). Application to roofs with a greater inclination angle is possible, but then an extra fixing has to be applied, such as, for example, an L - profile.

Roof protection: If root-proof roofing has not been applied to the roof, then a root-resistant permeable foil should be installed before laying the MobiRoof cassettes.

Irrigation: Irrigation in the North-East European climate zone is usually unnecessary. In extreme cases of drought (more than 4 weeks) irrigation is required.

Maintenance: Should be carried out once or twice a year including:

- General check
- Removal and disposal of unwanted plants (weeds)
- Fertilise in spring with sedum fertiliser
- Prune overgrown plants, mostly from mid-September. Fine cuttings can be left on the roof and large pieces must be removed.

Delivery: The MobiRoof cassettes are stacked and delivered on pallets which should be offloaded or processed immediately after delivery.

STABU Specifications text *

33 ROOF COVERINGS

33.36 ROOF GREENING

33.36.29-a CONSTRUCTION, LANDSCAPING AND MAINTENANCE

0. **CONSTRUCTION Green Roof**
   Preparation:
   - depending on roofing root resistance
   - applying vapour permeable root protection foil Climate Conditions during the application:
   - Minimum outside temperature: 0 °C
1. **LANDSCAPING**
   Supplier:
   Type: MobiRoof, Ready-made green roof
   Planting: 4-6 Sedum species mixed per cassette
   Cassette: regenerated Polypropylene,
   dim. 540x540x90 mm with click system
   Quantity: 3.44 cassettes per m²
   Weight, water saturated: 58 kg/m²
   Structure: substrate, Sedum Planting for farmed
2. **MAINTENANCE**
   Fertilisation:
   - the application of a long-acting fertilisation
   - Frequency: one time in spring
   - Quantity: at the direction suppliers fertilisation
   Pruning:
   - Pruning/flipping faded inflorescence
   - Frequency: 1 once a year in mid-September

.01 FLAT ROOF

1: ROOF GREENING OF FLAT ROOFS AND ROOFS THAT SLOPE UP TO 20 PERCENT.

*** Standard specification texts are also available in RAW system. All technical specifications can be downloaded from our website mobilane.co.uk.**

mobilane
Building Green

Contact your Mobilane office: Find out more at www.mobilane.co.uk

Mobilane ENG1_2018

5.1.1

5.1.2

WallPlanter

The Green Facade

In 2002 Mobilane developed the WallPlanter living wall system incorporating the innovative Mobilane Green Screen fencing. WallPlanter is now a tried and tested product providing an instant fully planted finish which has proven to be highly successful over a number of years on both new and existing facades.

WallPlanter consists of large specifically designed customized aluminium planters in which fully grown hedge elements (Mobilane Green Screen) can be placed. These planters are placed on the facade of the project. These buildings include: car parks, hotels, office buildings.

Using a fully automated irrigation and drainage system, hedges receive water and nutrients, allowing the hedge to develop, keeping the green facade looking spectacular year after year. A green facade adds to the attraction of the area for residents, visitors and potential buyers.

The benefits

- Efficient use of vertical surfaces
- Improves air quality in urban areas
- Promotes biodiversity
- Improves the surrounding area for residents and visitors
- Signifcantly reduces sub micron particle pollution
- Reduces noise
- Graffiti prevention

Technical specifications

Dimensions: The standard planter has the following dimensions: 50x50x390 cm. Other lengths (260 cm, 130 cm, and customised sizes) are possible.

Height of each element: The Mobilane Green Screens in the planters are up to 220 cm high. The total height of an element (including Planter and support points) is 285 cm.

Weight: The total weight of a standard container of 390 cm length and 220 cm high Mobilane Green Screen is 1450 kg (maximum saturated state). This is equivalent to the weight of approximately 140 kg per m2 green wall surface.

Supporting structure: Due to the weight of the WallPlanter elements, a robust support structure is necessary. This supporting structure, depending on the strength of the wall and the foundation, is attached to the wall or resting on the base.

Apply to support construction: The planters will be installed on the support structure using a crane.

Irrigation: Each planter is supplied with water and nutrients through an irrigation system. In order to avoid too much water remaining in the plant (for example, in heavy rain), each plant container is also provided with drainage. This also ensures the supply of oxygen to the plant roots.

Technical area: For the supply of water and nutrients a technical area of at least 4 m^2 is required. Ideally, this technical is situated as close to the living wall as possible.

Containers: The containers are made of high quality aluminium and all sides include an insulation layer with a drainage layer at the bottom. If desired, the containers can be supplied in any RAL colour.

Other technical details are presented in the following pictures.

References and examples of applications

5.2.1

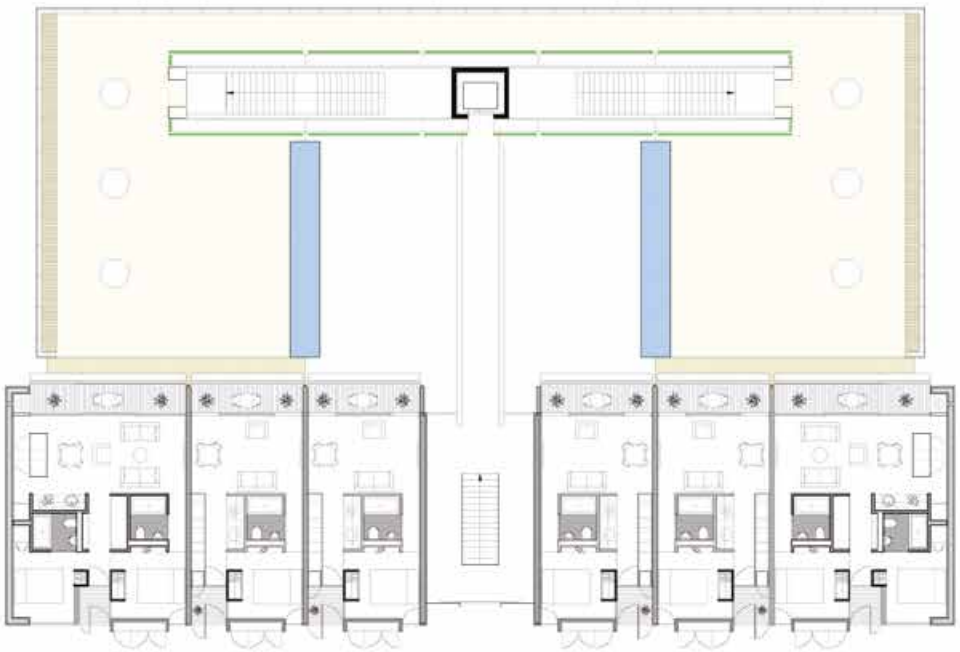
5.2.2

5.2.3

5.2.4

References and examples of applications

5.3.1



5.3.2

References and examples of applications

5.3.3

5.3.4

5.3.5

mobilane
Building Green

References and examples of applications


5.4.1


5.4.2


5.4.3


5.4.4

References and examples of applications

5.4.5

5.4.6

Planter 3900 mm


5.5.1


5.5.2


5.5.3

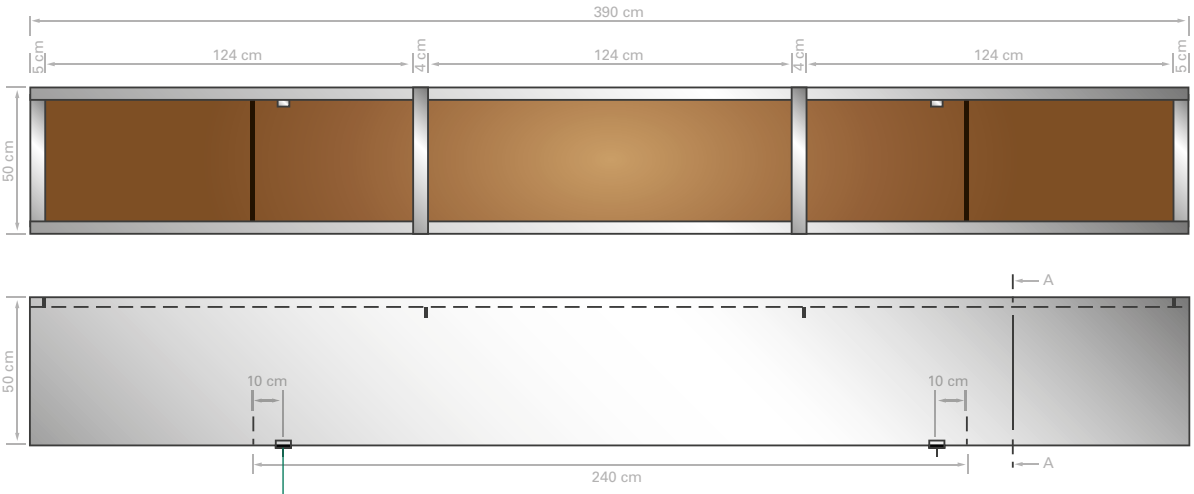


Fig 5.1

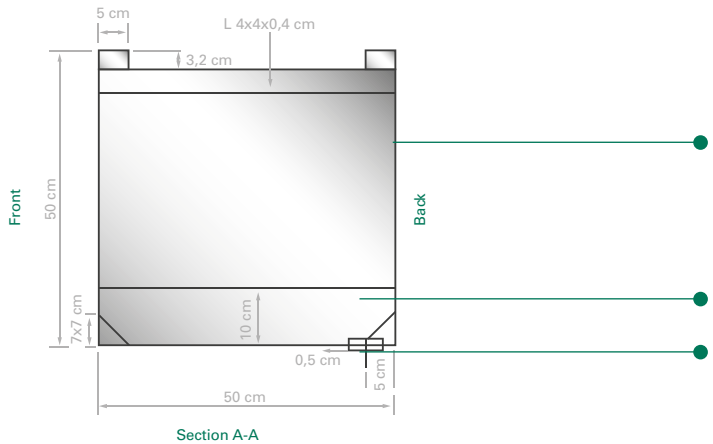


Fig 5.1 b

Also available in 260 cm, 130 cm and special sizes.

Passage for bolts


5.5.4


5.5.5

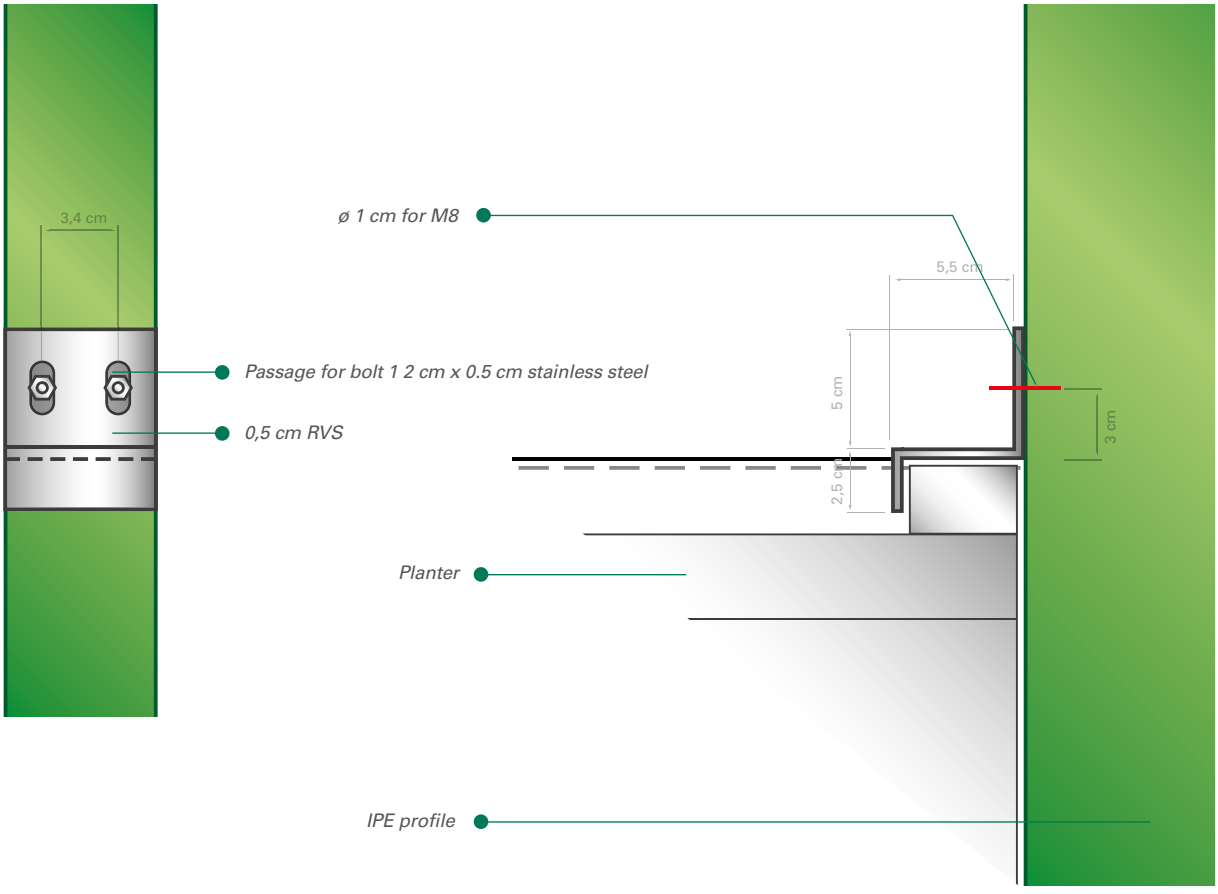


Fig 5.2

Grid Mounting Bracket


5.6.1


5.6.2


5.6.3


5.6.4

Steel construction

5.6.5

5.6.6

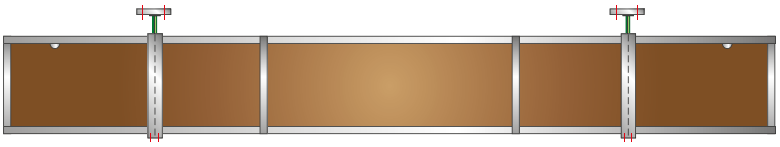
5.6.7

5.6.8

5.6.9

5.6.10

Example construction drawing



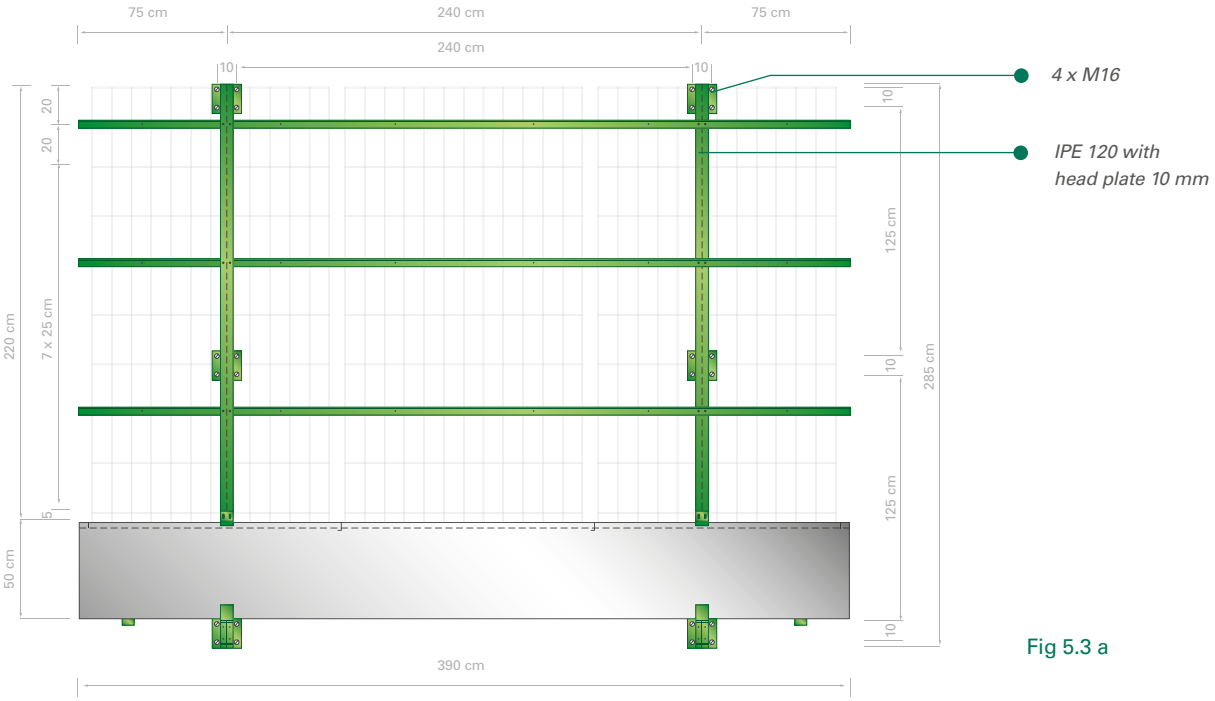


Fig 5.3 a

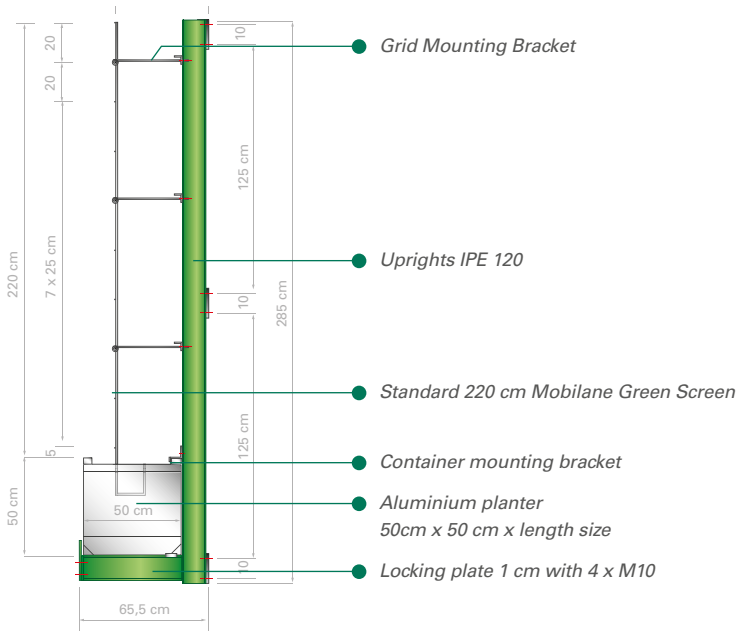


Fig 5.3 b

AUTOCAD drawings are available at our Mobilane website: Mobilane.eu

Placing the planted containers

5.7.1

5.7.2

5.7.3

5.7.4

5.7.5

STABU Specifications text *

31.31.39 c- CONSTRUCTION WALL vegetation, LANDSCAPING AND MAINTENANCE

0. **WALL CONSTRUCTION vegetation**
   - Climate conditions during execution:
   - Minimum outside temperature: **0 °C**

1. **LANDSCAPING**
   Supplier: Mobilane UK
   Type: Mobilane Wallplanter
   Size (hxl): 2850x3900 mm
   Planting:
   - type: Green Screen
   - format: Ivy - Hedera helix ‚Woerner'
   - dimensions: 1205x2200 mm and 1205 x 1800mm
   Container:
   - material: aluminium
   - size: 3900x500x500 mm, 3mm thick
   - a container provided with insulation, drainage and drainage socks
   Colour: RAL-colour optional
   Fixing: in consultation with the supplier
   Weight: 1250-1450 kg
   Substrate: substrate supplier
   Irrigation: computerised irrigation system
   Accessories:
   - fastening

2. MAINTENANCE
   Fertilisation:
   - the application of fertiliser with an NPK ratio according to instructions from vendor
   - Frequency: dissolved in irrigation water
   - Quantity: according to instructions supplier
   Pruning:
   - pruning/flipping of hedge elements
   - Frequency: 2 times a year

.01 OUTER WALL
3: WALL VEGETATION.

Other sizes available height 2300 mm & 1500 mm, height 2600 mm and 1300 mm, other sizes in consultation with the supplier.
Alternative planting possible.

*** Standard specification texts are also available in RAW system.**
All technical specifications can be downloaded from our website mobilane.co.uk

mobilane
Building Green

Contact your Mobilane office: Find out more at www.mobilane.co.uk

Mobilane ENG1_2018

6.1.1

6.1.2

LivePanel

Create living walls

The patented Mobilane system LivePanel is an innovative application for vertical greenery. With 90 years experience in green solutions Mobilane have developed a unique system for green facades and walls. LivePanel is a sustainable 'living wall' system for existing and new buildings. As well as being beneficial to the environment (including its ability to capture find dust particulates), a green wall provides a stunning view and backdrop.

With LivePanel, you can bring the outdoors inside and add a natural element to your internal walls. The system easily transforms your wall into an attractive surface, full of natural plants. LivePanel is a modular living wall system with exchangeable plant cassettes. The cassettes consist of cups in which plants are inserted. Each row of cassettes is placed in a gutter profile that also serves as a water reservoir. The plants absorb water from the gutter through a capillary system. For larger walls it is advisable to install an automatic irrigation unit.

Because of its flexibility, LivePanel modules can be used for numerous applications of vertical greenery. LivePanel can be easily installed on new or existing walls. Both in- and outside. For installation, Mobilane works with selected partners who have the appropriate product knowledge, experience and licenses.

The benefits

- Flexible system for indoor and outdoor applications
- Creative freedom in design and plant selection
- Exchangable plant cassettes
- Contributes to a healthy indoor climate through oxygen production and fine-dust capture
- Easy installation and quick assembly
- Slim and solid construction
- Temperature and sound insulation proporties
- Low water use
- Low maintenance
- Low odour levels
- Recyclable

Mobilane ENG1_2018

Technical specifications

Dimensions: The maximum profile length is 520 cm excluding the end caps. Larger walls are therefore made up of a series of profiles, placed next to each other. There are two types of end caps (blind and flow caps), which are installed mirrored to one another on the wall. For each 520 cm wall length a water passage is needed. Modular system based on plant cassettes of 40 x 40 cm.

Weight: Weight including plants 35kg-40kg/m^2

Profiles: Both the profiles and the (optional) frame are easy for the installer to customize in the required size. The cassettes are flexible and can be cut horizontally and vertically by using the indicated sawing lines at the back side of the cassettes.
Frame Colour: The standard frame is available in blank anodized aluminium. On request also other RAL colours are available.

Recommendations

- If LivePanel is applied to the inside of outer walls (façade) which are not sufficiently isolated (Rc = 4.5 m^2K/W), an XPS insulation with a thickness of at least 20 mm has to be fitted at the inner wall. Both these plates as well as the intermediate seams need to be completely air-tight and vapour-inhibiting. This ensures a thermal shield of the outer wall thereby reducing the risk of fungal attack and condensation.
- An overflow / drainage should always be provided for internal applications.
- For larger walls it is advisable to install an automatic irrigation unit. Take into account an average water consumption of 5 L/m^2 of green surface per week. This depends on local circumstances such as type of planting, ambient temperature, air-conditioning and the amount of light.
- In the calculations it is necessary to take into account tolerances in the aluminium profiles.

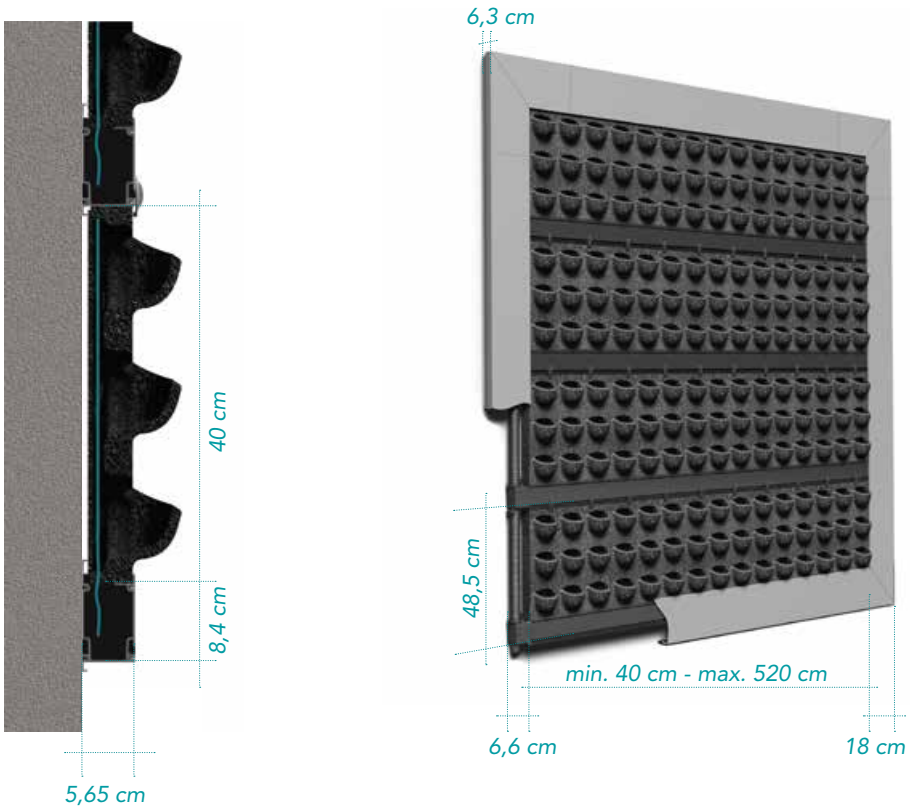
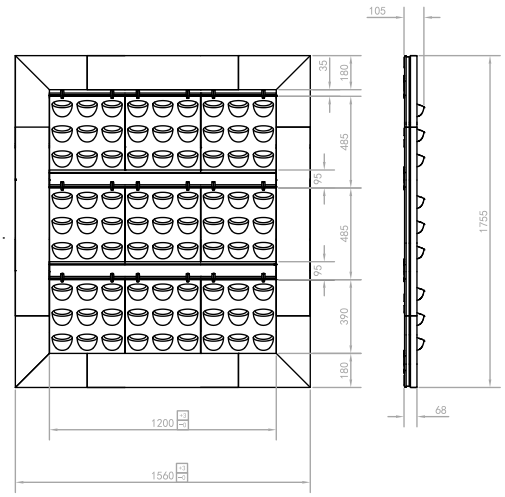


Fig 6.1

LivePanel with frame



LivePanel without frame

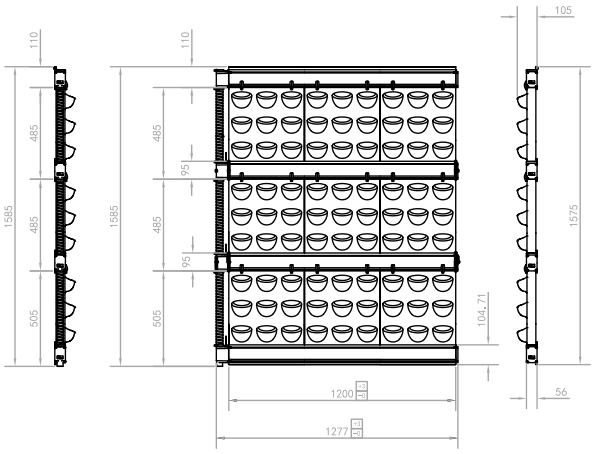
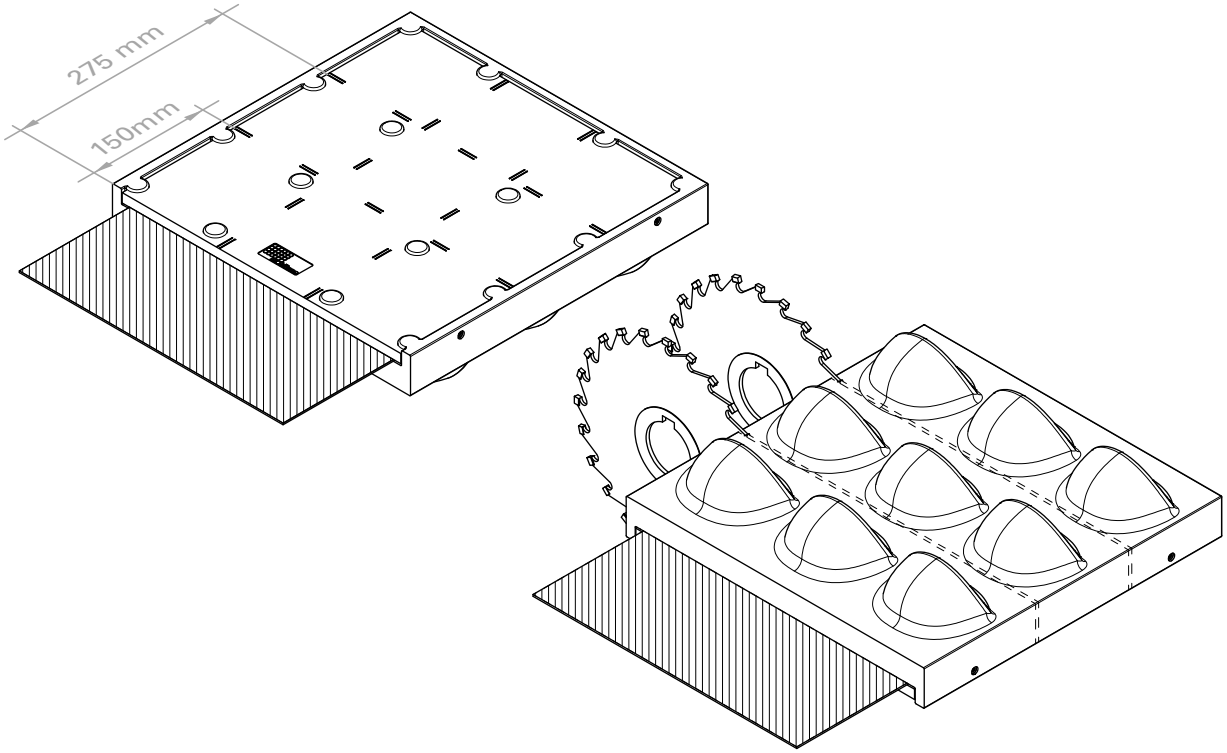
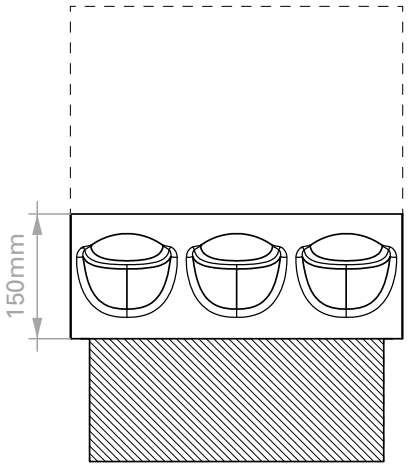


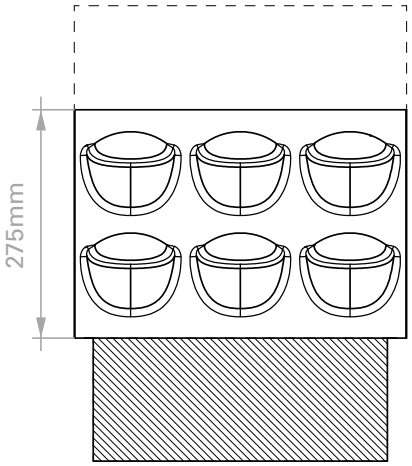
Fig 6.2

CAD drawings of LivePanel are available on our website

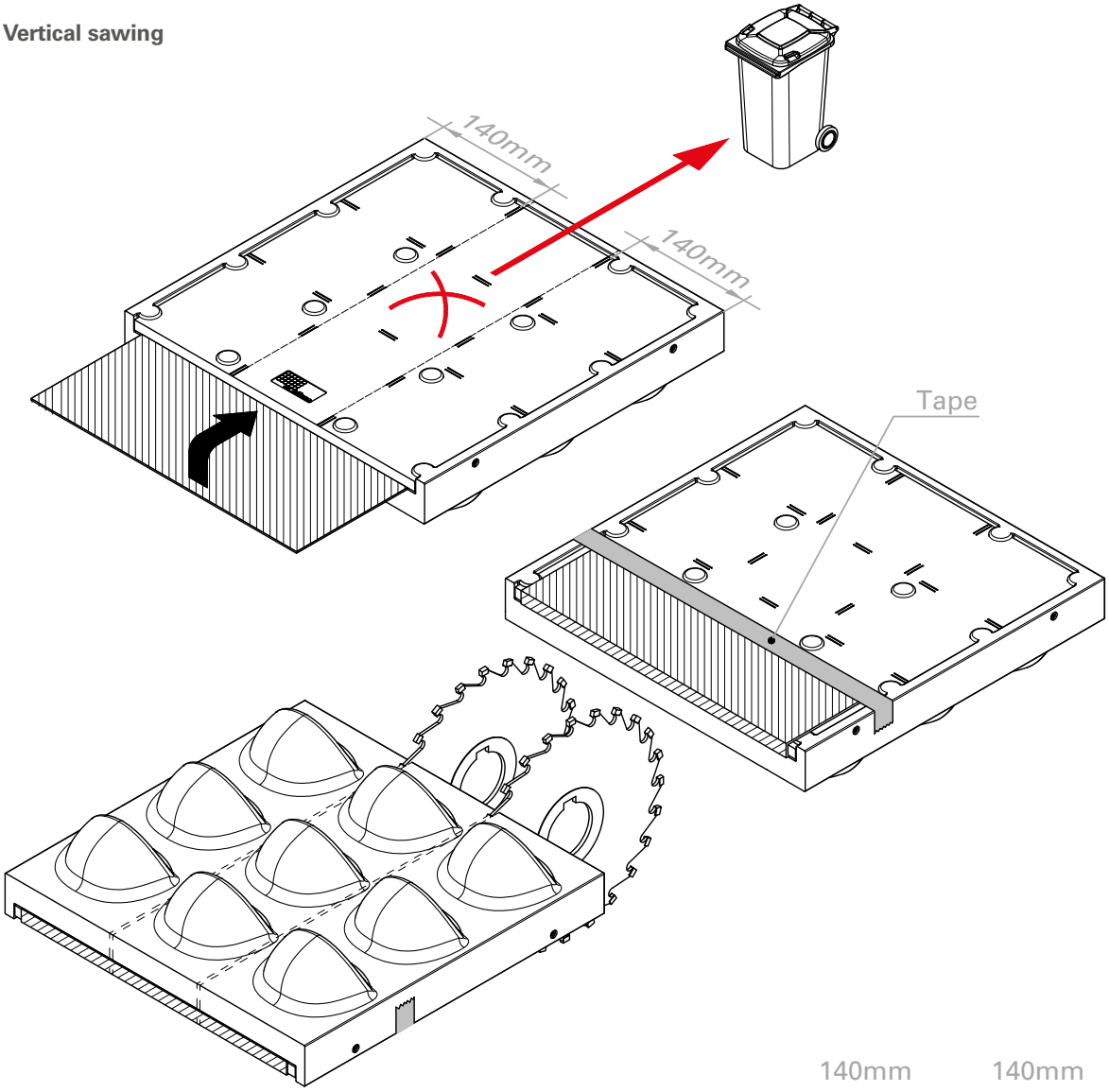
Horizontal sawing

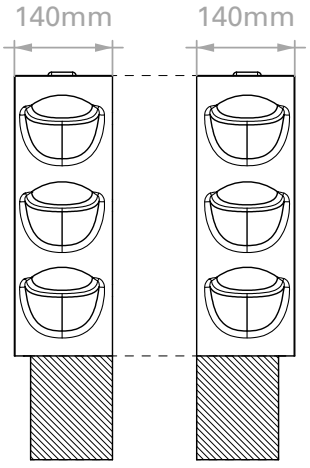






Vertical sawing





References and examples of applications

6.2.1

6.2.2

5.2.3

6.3.1

6.3.2

6.3.3

SPECIFICATION MOBILANE LIVEPANEL

LANDSCAPING SYSTEM, INTERIOR/EXTERIOR

Manufacturer: **Mobilane**

Type: **LivePanel**

Construction:

- Gutter profiles: **Aluminium profiles, AL6063 T5, matt black anodised. End and flow caps made of glass fibre reinforced nylon, fixed with self-tapping screw thread on the profiles;**

- Fixation: **Aluminium profiles are directly fixed to the wall by using Fischer plugs Fischer UX8x50R and Fischer screws 5.0x60 CK stainless steel A2, the gutter profiles are pre-drilled with grid size 40 cm;**

- Waterflow: **Flow caps have a hose adapter and are connected with plastic tubing, fixed with a stainless steel hose clamp;**

- Mobilane Plant Cassette:
- **Front plate with 9 cups made of EPP, 50kg/m3;**
- **Capillary cloth made of microfibre fabric 80% PES/20% PA;**
- **Back plate with reinforcing ribs, and clamping projections made of PP;**
- **6 self-locking countersunk screws made of stainless steel A2;**

- Planting: **Plant Selection in consultation with the supplier.**

- Utilities Irrigation:
- **Water supply capacity 2.0 bar 0.6 m3/h**
- **Double power point 16 amp 230V;**
- **Water drainage under the wall for connection 32mm;**
- **Internet access with one opened port (optional);**
- **Space available for installing the irrigation unit (standard unit 60 x 50 x 25 cm = H x W x D);**

- Irrigation unit: **Mobilane irrigation unit with manual main valve, filter, control unit, compost injection pump, flow meter and fertiliser tank.**

- Accessories:
- **Frame made of aluminium, AL6063 T5, blank anodised.**
- **Frame is fixed with list clips list which are securely fixed with Fischer UX8 plugs and Fischer 5,0x60 CK A2 stainless steel screws. (RAL colour table is optional available)**


7.1.1


7.1.2


7.1.3

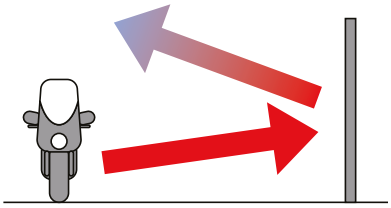
NoiStop®

Noice reducing acoustic wall

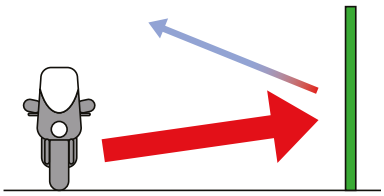
Sound pollution is one of the biggest problems in the residential environment. Noise can originate from a number of sources including busy roads, railway tracks and from activities in neighbouring areas - just think of gardens that are adjacent to a schoolyard or a workshop.

The NoiStop system, produced by the Danish company RockDelta (part of the Rockwool Group) offers a solution for sound pollution. Unlike many other acoustic barriers that only shield against noise, NoiStop also absorbs the sound waves.This reduces the ambient sound significantly.

Fig 7.1



Normal acoustic shield: only shielding



Noistop acoustic wall: Shielding and absorption

The benefits

- Immediate tranquility, privacy and security
- Easy to install without the use of lifting equipment
- Maintenance free
- Efficient wind barrier
- Provided fully grown in combination with Mobilane Green Screen.

Product range


7.1.4 NoiStop Green


7.1.5 NoiStop Green door


7.1.6 NoiStop cover


7.1.7 NoiStop Wood

NoiStop acoustic wall consists of a core of specially pressed stone wool which is water-repellent and UV resistant. This material is designed for maximum sound absorption and sound insulation. There are two types: NoiStop Green and NoiStop Wood..

NoiStop Green

NoiStop Green acoustic wall consists of specialized stone wool held in place by a galvanized steel frame and highly durable polyethylene mesh. The galvanised steel frame is designed for use with climbing plants. The vegetation does not affect the sound absorbing and sound isolating properties of the acoustic wall.

NoiStop Green product range (L * H * D)

Panel	200/45/11 cm	**Door**	94/180/11 cm
	200/90/11 cm		94/200/11 cm
	200/100/11 cm		94/225/11 cm
	100/45/11 cm		
	100/90/11 cm		
	100/100/11 cm		
	300/60/11 cm		

Insulation tape NoiStop

Size (L * B * H): 1000 / 0 .5 / 10 cm

Application: Insulation tape to be applied between two stacked panels.

NoiStop Cover

Size (L * B * H): 200 / 3.2 / 11.4 cm

Application: Cover plate to be applied as a finishing edge on the top panel to protect the core of the NoiStop panels

NoiStop Wood

With NoiStop Wood the mineral wool core is wrapped with a black mesh. The mineral wool is sandwiched between aluminium strips with impregnated wooden slats attached. The screens are easy to customise to a fixed size.

NoiStop Wood product range (L * H * D)

Panel	200/45/17 cm	**Door**	94/180/17 cm
	200/90/17 cm		94/200/17 cm
	200/100/17 cm		94/225/17 cm)
	100/45/17 cm		
	100/90/17 cm		
	100/100/17 cm	**Cover**	200/17,5/2 cm

Note: Isolation tape is not needed when using NoiStop Wood.

Technical Specifications

Insulation and absorption values

NoiStop Green

- NoiStop Green sound insulation: DLR: 21 dB (A) Euro class B2
- Green NoiStop sound absorption: DLα: 9 dB (A) Euro Class A3
- Noise reduction: between 9 and 12 dB (A), which is equivalent to a reduction of 50 - 70% of the perceived noise volume.

NoiStop Wood

- NoiStop Wood sound insulation: DLR: 21 dB (A) Euro class B2
- NoiStop Wood sound absorption: DLα: 11 dB (A) Euro Class A3

This result depends on the height, length and siting of the NoiStop acoustic wall in relation to the sound source and the receiver.

Weight

The weight of the NoiStop is approximately 25 kg/m^2.

7.2.1

7.2.2

7.2.3

Warranty and lifespan

The expected lifespan of the NoiStop acoustic wall is more than 20 years. The warranty period is five years.

Fire classification

Fire Class A1 (EN 13501 -1)

Wind load

NoiStop Green and NoiStop Wood 200x90 tested with a maximum wind load of 1.02 kN/m2 (Storm 24 m/s = 0.81 kN/m^2) in accordance with EN 1794-1: 2003

Examples of NoiStop


7.3.1


7.3.2


7.3.3


7.3.4


7.3.5

Examples of NoiStop

7.3.6

7.3.7

7.3.8

Technical drawing NoiStop Green

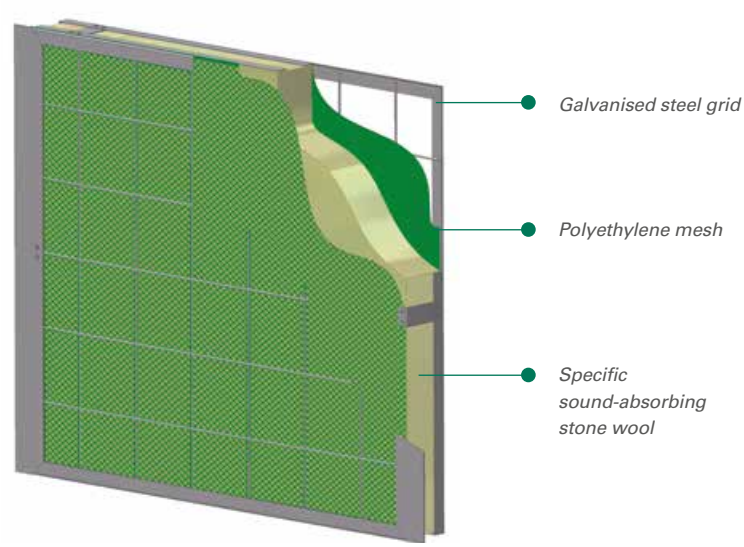


Fig 7.2

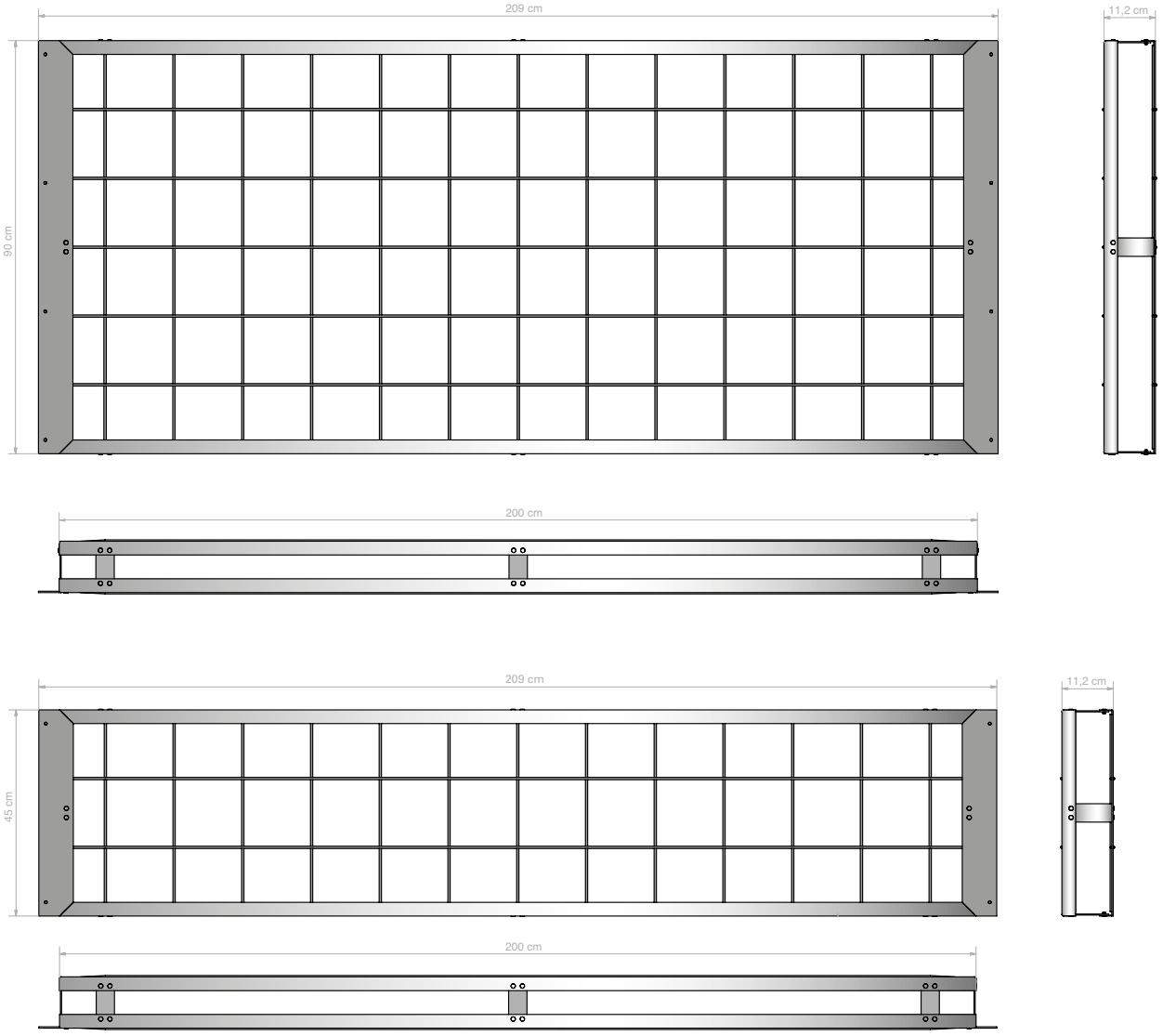


Fig 7.3

Technical drawing NoiStop Wood

Fig 7.4

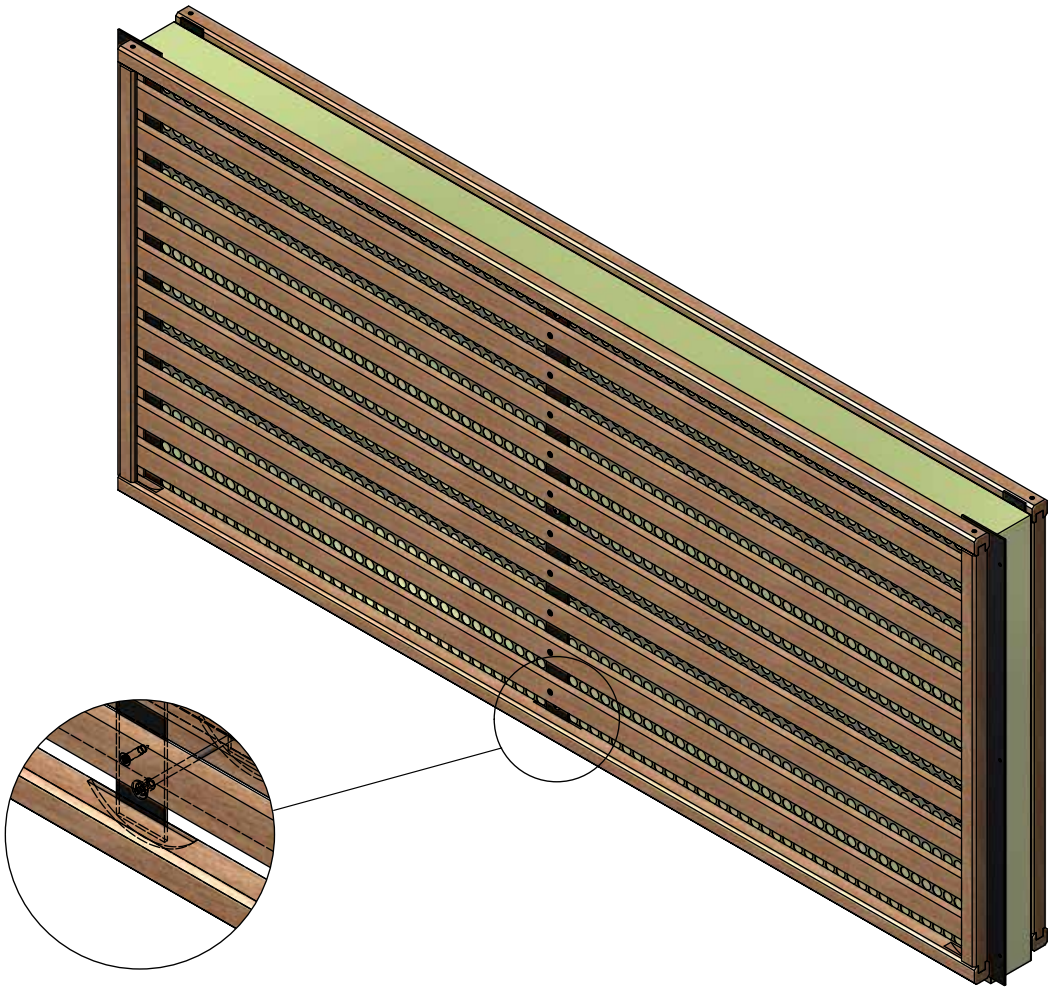


Fig 7.5

Estimating sound attenuation

The effect on sound attenuation of installing a NoiStop acoustic wall depends on various factors. Where an exact calculation is required, an acoustic consultancy should be contacted. An estimate can be generated based in the information below.

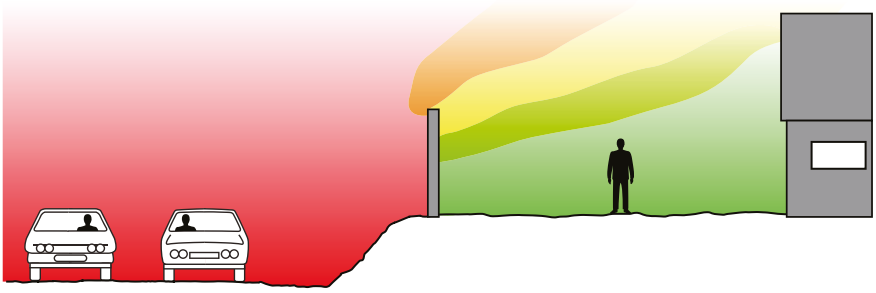


Fig 7.5

The noise depends on several factors:

- The distance from the screen NoiStop from the sound source.
- The distance from the NoiStop screen to the receiver.
- The height of the noise barrier NoiStop relative to source and receiver.
- The length of the NoiStop screen.
- The shape of the NoiStop screen.
- Reflection of sound against buildings.

The graphs below illustrates how effective sound insulation can be:
For high locations of sound source compared to wall and receiver.
For low locations of sound source compared to wall and receiver.

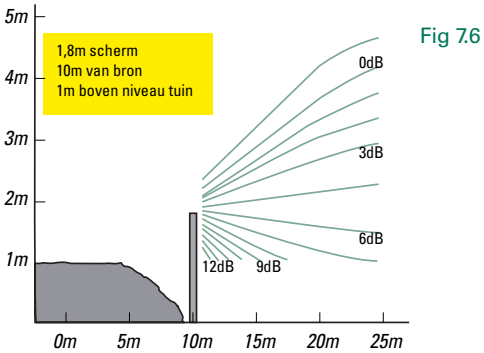


Fig 7.6

For high locations of the sound source with respect to screen and receiver

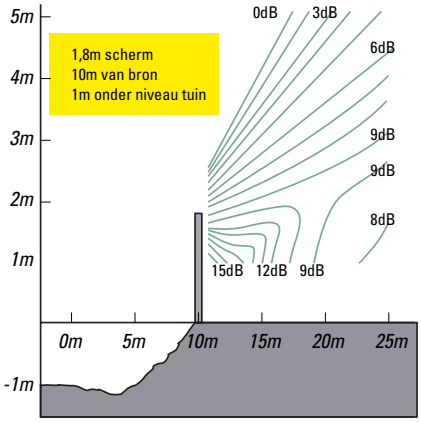


Fig 7.7

For low locations of the sound source with respect to screen and receiver

For maximum isolation from sound pollution the receiver should be isolated from the noise. This might mean that the NoiStop acoustic wall should not just be installed between the sound source and receiver, but also at the sides, thereby creating a U-shaped wall.

Mobilane ENG1_2018

Calculation model NoiStop

NoiStop acoustic wall height determination

A: distance from the road to the NoiStop acoustic wall
B: distance from the NoiStop acoustic wall to the house
D: level difference between the road and the garden
H: recommended height of NoiStop acoustic wall

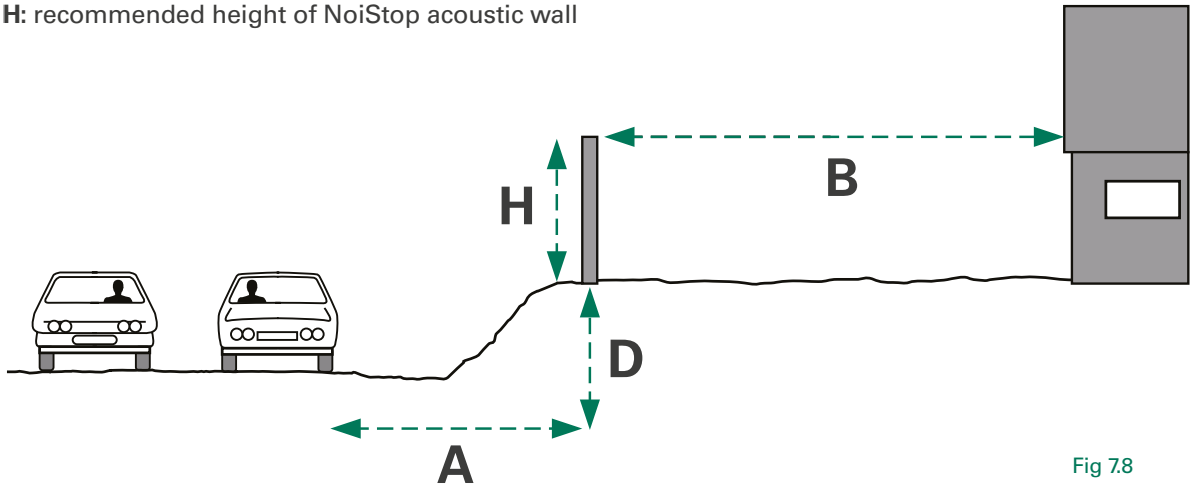


Fig 7.8

	A *Distance - NoiStop*							
	5	10	15	20	25	30	40	50
B *Distance NoiStop - house* 10	180 cm	225 cm	225 cm	270 cm	270 cm	270 cm	315 cm	360 cm
15	180 cm	225 cm	225 cm	270 cm	270 cm	315 cm	315 cm	360 cm
20	225 cm	225 cm	270 cm	270 cm	315 cm	315 cm	360 cm	360 cm
25	225 cm	270 cm	270 cm	315 cm	315 cm	360 cm	360 cm	360 cm
30	225 cm	270 cm	270 cm	315 cm	360 cm	360 cm	360 cm	405 cm
40	270 cm	270 cm	315 cm	360 cm	360 cm	360 cm	405 cm	405 cm
50	270 cm	270 cm	315 cm	360 cm	360 cm	405 cm	405 cm	405 cm

Calculation example:
The road is 20 m long by a 10 m plot boundary and the garden, the NoiStop screen is 225 cm high.

- If the garden/plot boundary is higher than the sound source then the height of the noise screen can be reduced by half of this difference.
  Example: A = 20 m and B = 15 m, the screen should be 270 cm tall. If the garden/yard line is 90 cm higher, then half (45 cm) of the height of the noise barrier can be removed.The noise screen is then 225 cm (270 cm - 45 cm) high.
- Is the property boundary lower than the sound source, then the difference has to be added to the recommended height of the noise screen.

Note:
These are guidelines based on our experience with NoiStop acoustic wall. However, every situation is different and we can not guarantee that acoustics generate the same effect in every situation.
If an exact calculation is required, consultation with an acoustics expert is recommended.

Installation Guide NoiStop

- To install NoiStop, wooden posts of 9 x 9 cm can be selected. For a corner post the minimum dimension is 11.7 cm. Sometimes a galvanised steel tube or galvanised steel H-section is used (requires the flange to be ground down), but the use of wooden posts is most common.

- The posts are dependent on the type of soil and the wind load on the appropriate depth and/or in concrete foundation levelled with 100, 200 or 300 cm spacing between the poles.

- The lower panels are preferably placed on a concrete plinth or skirting.

- The NoiStop panel is then positioned in between the posts in such a way that the fitting are at the outer side. The fittings are then fixed to the posts using screws and the holes provided.

- NOTE After installation of the bottom panels of NoiStop Green, NoiStop isolating tape is fixed to the top of the panel along the whole length. This is fitted in one piece from post to post.

- If the property boundary is situated below the sound source, then the difference should be added to the recommended height of the noise screen.

- The next element is placed on the lower element, and screwed in place.

- Installation of NoiStop acoustic walls up a height of 2.70 cm is possible without using lifting equipment.


7.4.1


7.4.2


7.4.3

17 STABU Specifications text *

17 STRUCTURING OF TERRAINS

17:41 FENCING, PRE-MANUFACTURED

17:41:39-A WOODEN FENCE POST, FILLING, GROUNDWORK

0. WOODEN FENCE POST

Type: posts
Wood: hardwood or metal box profile
Length (mm): depending on screen height and soil type Dimensions (mm): 90x90 mm.

1. FILLING

Supplier: Mobilane UK
Type: NoiStop Green
Size: 2000x900x115 mm
Structure:
- Water-repellent and UV-resistant stone wool core sandwiched in between galvanised steel grid including UV resistant polyethylene mesh

Planting
- Type: Green Screen
- Format: Ivy - Hedera helix ‚Woerner'
- Dimension: height depending on screen

Sound Absorption: DL alpha: 9 dB (A) = class B2
Sound insulation, DLR: 21 dB (A) = class A 3 Fire class: A1 (EN 13501-1),
Accessories:
- Tape: When using multiple layers, place NoiStop insulation tape between each layer, 100x5 mm
- Fixing material

2. BEEN WORKING IN THE GROUND

Places anchoring posts in undisturbed ground

3. MAINTENANCE

Watering:
- Required watering frequency depending on weather conditions
- Quantity: to be determined during the work

Fertilisation:
- The application of long-acting fertilisation with an NPK ratio of 12-10-18 with micro-elements
- Frequency: first time after installation and first time at the start of the next growing season
- quantity below: based on supplier instructions fertilisation

.01 ACOUSTIC SCREEN

1: ACOUSTIC SCREEN.

Other sizes possible 3000x600x115 mm, 2000x1000x115 mm, 2000x450x115 mm, 1000x1000x115 mm, and 1000x900x115 mm 1000x450x115 mm

**** Standard specification texts are also available in RAW system. All technical specifications can be downloaded from our website mobilane.co.uk***

17:41:39 b WOODEN FENCE POST, FILLING, GROUNDWORK

0. WOODEN FENCE POSTS

Type: posts

Wood type: hardwood

Length (mm): depending on screen height and soil type

Dimensions (mm): 90x90 mm.

1. FILLING

Supplier: Mobilane UK

Type: NoiStop Wood

Size: 2000x900x170 mm

Structure:

- UV-resistant and water-repellent stone wool core sandwiched in between aluminium finished with impregnated wooden slats

Sound Absorption: DL alpha: 11 dB (A) = class B2

oundproofing, DLR: 21 dB (A) = class A3

Accessories:

- Fixing material

2 GROUNDWORK

Places anchoring posts in undisturbed ground

. 01 ACOUSTIC SCREEN

2: ACOUSTIC SCREEN.

Other sizes possible 1000x1000x170 mm, 1000x900x170 mm, 1000x450x170 mm, 2000x1000x170 mm and 2000x450x170 mm.