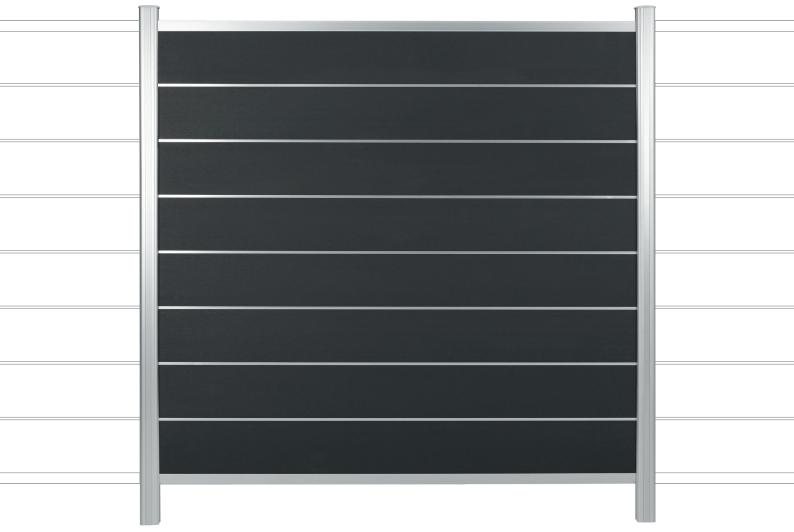
WPC Stack-Fence System

# **LIVORNO**



Original installation instructions



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| Mounting the profiles                       | 6 | and carefully. These instructions are part of this prod-<br>uct and contain important information on installation |
| Troubleshooting                             | 7 | and handling. Always observe all safety instructions.   |
| Care and cleaning                           | 7 | If you have any questions or are unsure about the   |
| Waste disposal and environmental protection | 7 | handling, please contact your dealer. Please keep<br>these instructions in a safe place and pass them on          |
| Warranty conditions                         | 7 | to third parties if necessary.  |

## **SAFETY INSTRUCTIONS**

- Please read these instructions carefully before installation and keep them for future reference.
- Check the packaging and make sure that you have received all the listed parts.
- Do not leave packaging material lying around carelessly. It could be dangerous if played with by children.
- Select a suitable mounting location for your product.
- While preparing the mounting holes, be careful not to drill or dig into any conduits or power cords below the surface.
- If you are unsure about the installation, ask a specialist for advice.

## **SYMBOLS AND PICTOGRAMS**



General warning symbol - Be alert and observe common hazards. This warning symbol is displayed in conjunction with other signs or symbols. Failure to observe this warning may result in injury or damage to the product.



Command sign (instead of an exclamation mark, the command may be explained) with information on how to prevent damage.



Indicator with information for better handling of the product.



Action symbol - Read this manual carefully and completely.

#### STORAGE AND PRINCIPLES OF ASSEMBLY

#### STORAGE BEFORE INSTALL ATION

Before installation, store all WPC elements in a dry place which is protected from sunlight and at the same temperatures as outside on the installation site. This serves to acclimatize the WPC elements to avoid unfavorable stresses. Please pay special attention to the regulations for fence storage.

- Do not store the fence in an inclined position; store in a horizontal or vertical position to avoid bending or breaking.
- Do not tie the fence too tightly during transport.
- The fence should be handled with special care as it is very heavy.

#### **GENERAL PRINCIPLES**

The materials and properties of WPC and wood differ. Process and use WPC-COEX only according to the instructions, otherwise possible product defects or injuries may occur. We are not liable for any consequences arising from the failure to observe this instruction.

All illustrations and instructions in this guide are for reference purposes only.

All construction work must be carried out in accordance with local laws and building regulations.

At each stage of construction, especially when cutting the profiles, please make sure that you are equipped with protective clothing and protective equipment such as safety goggles, gloves, mask, etc. We are always at your disposal in case of questions or problems.

## PREPARATION FOR MOUNTING

Tolerances may arise during production. Differences can be determined as follows. width - at the headbutts; Height - are very low at the head joint and are therefore hardly noticeable. WPC is made from recycled materials and features an irregular wood grain like lumber. Therefore, it is beneficial to lay all parts of the product upside down and check color and pattern before installation.

You should pre-drill any screw holes that are required (see further instructions) with the drill head diameter smaller than the screw diameter, otherwise cracking or damage to the WPC product may result.

#### HANDLING



**IMPORTANT!** This exclusive fence is designed to use slats in the horizontal direction. Because of the weight of the fence, you should use a supporting foundation. Compared to lumber, WPC-profiles have a higher specific weight and greater elasticty. Please pay attention to safety during transportation and consider the heavier weight of WPC coex profiles when handling. When storing the WPC profiles, ensure that they are placed horizontally on a level surface.

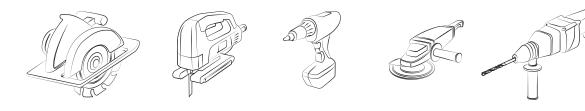
## LEGAL INFORMATION



**IMPORTANT!** Ensure that the fence is installed in accordance with local laws and relevant regulations.

## **ASSEMBLY TOOLS**

Standard tools for woodworking: Hand or table saw, cordless drill, angle grinder, drill



Other assembly tools:

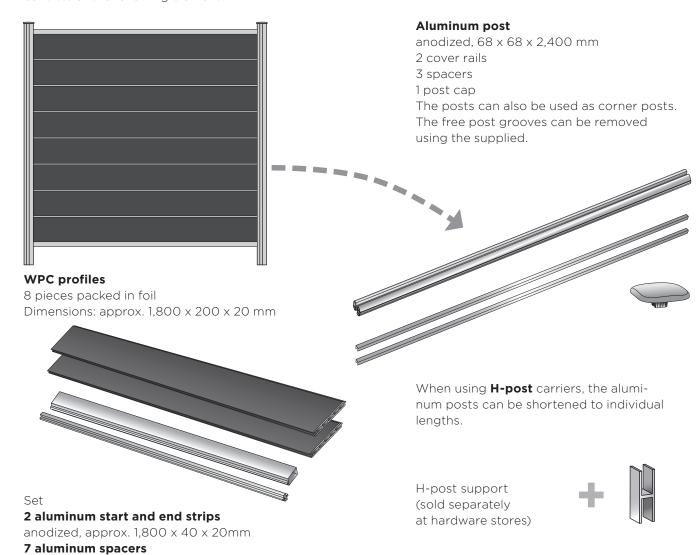
Spirit level, measuring tape, plumb bob, screwdriver, pencil for marking, calculator



## THE LIVORNO FENCE SYSTEM

consists of the following elements:

anodized, approx. 1,800 x 10 x 20mm

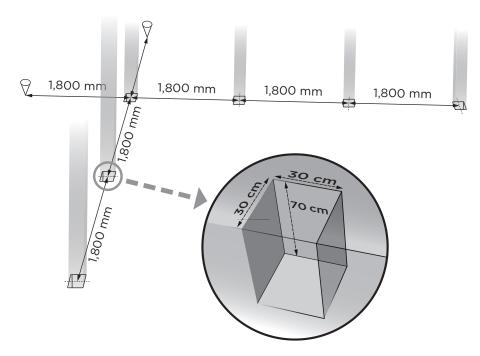


#### INSTALLATION OF THE POSTS

### SET THE COURSE



- Plan and mark the position of the fences to be erected, particularly the position of the posts. The distance from the center of the post to the center of the post must be 1,800 mm.
- The width of the self-assembly sets available in the standard dimensions 180 x 180 cm (WxH) can be adjusted by shortening the individual components.
- The course of the fence can be deflected by 90° at the post.
- However, in order to ensure linear expansion due to temperature fluctuations, the WPC profiles must be kept 0.7 cm shorter than the aluminum start and end bars. The slight expansion of the WPC profiles is then compensated by the grooves in the posts.



#### LAY THE FOUNDATION

Install the aluminum posts first. If the ground is loose, such as in the case of a lawn, use an aluminum post for concreting in. To do this, dig appropriate holes (depth depending on the desired post height, but at least 70 cm; diameter 30 cm) and insert the aluminum posts. Then fill the holes with concrete. As the concrete hardens, ensure that the posts are straight and that the distance between the two posts – where the fence element will be placed – is correct and even (see page 5 "General rules for alignment"). The concrete must be allowed to harden completely before the fence element is attached. Please observe the processing instructions on the concrete packaging. In the case of a solid substrate such as a stone terrace, use an aluminum post for screwing to the H-beam post (available separately) which is firmly connected to the substrate using appropriate plugs and screws or set in concrete according to the specifications.



**ATTENTION!** Use a spirit level to align the posts precisely. Ensure the correct distance between the aluminum posts in order to install the fence elements with precision. See section **SET THE COURSE.** 

#### GENERAL RULES FOR ALIGNMENT



**IMPORTANT!** We expressly point out that the fence should be mounted so that it is at least 2 cm from the ground.

### INSTALLATION

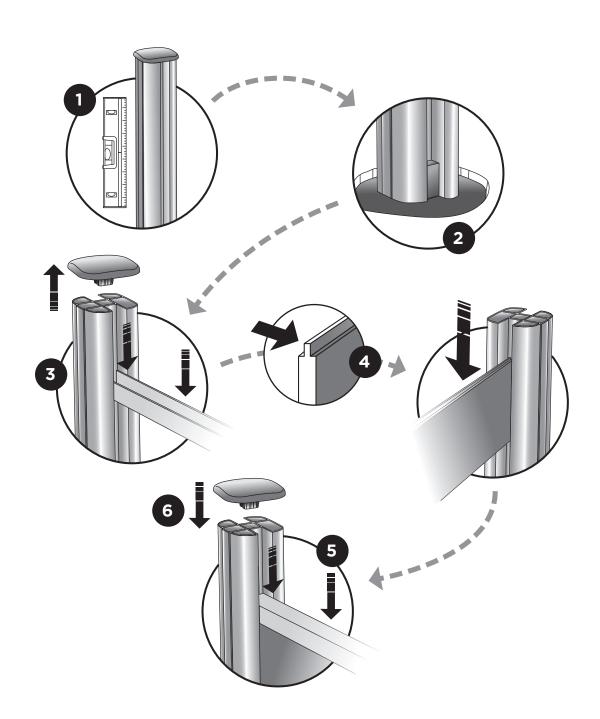
1 First set the posts exactly vertical, at the right height and at the right distance.

Use the length of the start and finish rails to determine the correct spacing between the posts.

The distance is 180 cm from the middle of the post to the middle of the post.



- 2 When inserting the posts in concrete, the concrete must be filled to the bottom of the spacers to provide adequate support after the concrete has hardened. Wait for the concrete to set before proceeding to step 2.
- 3 After you have first temporarily removed the post cap (please don't lose it!), you can start installing the individual components. To do this, first place the aluminum end strip with the tongue facing up on the spacers in the grooves of the posts. The spacers must be fixed horizontally on both sides (left and right) and at the same height to ensure that the profiles are attached horizontally.
- 4 Now slide in the first WPC-COEX profile (tongue up, groove down). Repeat this process until the desired fence height is achieved..
- 5 Finish at the top with an aluminum starter bar with the guide facing down.
- 6 You can then put the post caps back on.
- 7 After assembly, the fence should be cleaned with a suitable WPC cleaner in order to remove dirt and production residues (see also "Care and cleaning" on the following page).





## **TROUBLESHOOTING**

| PROBLEM             | CAUSE   | SOLUTION   |
|---------------------|---|--|
| Pulling to one side | <ul> <li>Fence connector is attached in the wrong direction.</li> <li>The screws are not located centrally in the slotted hole on the bracket.</li> </ul> | <ul> <li>Reattach the fence connector.</li> <li>Install the screws in the correct position.</li> <li>Realign and reinforce the posts.</li> </ul> |

### **CARE AND CLEANING**

All building materials for outdoor applications must be cleaned. In general, household cleaners (soap or detergent) and water are sufficient for cleaning WPC products.

| PROBLEM        | SOLUTION  |
|----------------|---|
| Dirt           | To remove dirt from the surface, use warm soapy water and a soft brush.   |
| Ice and snow   | Use a soft brush to remove snow from the fence element.   |
| Oil and grease | Briefly rinse the affected area with water. Then clean with warm soapy water and a soft brush.  |
| Mildew         | If deposits on the fence are not removed quickly enough, residues such as pollen can turn into mildew. Your fence should therefore be cleaned at regular intervals. If mildew is already present, remove it with warm soapy water and a soft brush. |

### WASTE DISPOSAL AND ENVIRONMENTAL PROTECTION

Dispose of the product at the end of its service life in accordance with the applicable legal regulations.

## WARRANTY CONDITIONS

This product is covered by statutory warranty.

Claims must be filed as soon as they are established. The right to warranty claims expires in case of interventions by the buyer or third parties. Damage due to incorrect handling or use, incorrect placement or storage, improper connection or installation, as well as due to force majeure or external influences is not covered by the warranty. We recommend that you read these operating instructions carefully as they contain important information.

Our products consist of approx. 60% wood fibre/wood flour. Wood is a natural material and for this reason there may be slight colour deviations despite the consistent processing and addition of colour agents. This does not constitute grounds for complaint.

#### NOTES:

- 1. If the product does not work, check that it is being used in line with the intended use.
- 2. Please enclose the following documents if you are returning a faulty product:
  - Detailed description of the problem.



## PRIVACY FENCES MADE OF WPC

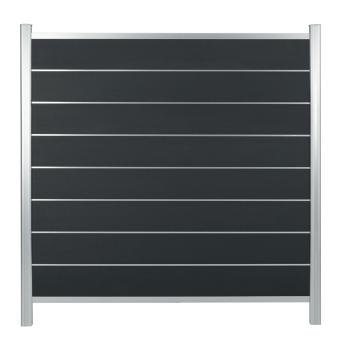
BEAUTIFUL AS WOOD, EASY TO CLEAN AS PLASTIC

WPC (Wood-Plastic-Composite) combines the advantages of wood and plastic in the most impressive way. In a special process, wood fibers are refined with recycled plastic. The main component, at almost 60%, is wood fibers.

This means the look and feel of wood is kept, combined with the longevity and ease of care of plastic.

The material is weather resistant, keeps its shape, is environmentally friendly and can be recycled. It does not splinter or crack and is ideal for outdoors. The weather resistance of WPC, thanks to the low water absorption and high UV resistance, is seven to ten times greater than for a pure timber product.

Our product range includes privacy protection elements in the ROMA, MADRID, IBIZA and PALMA series as well as the TURINO, MILANO and LIVORNO stack-fence systems in various design





For more inspiration from WPC, visit www.dws-gmbh.de



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