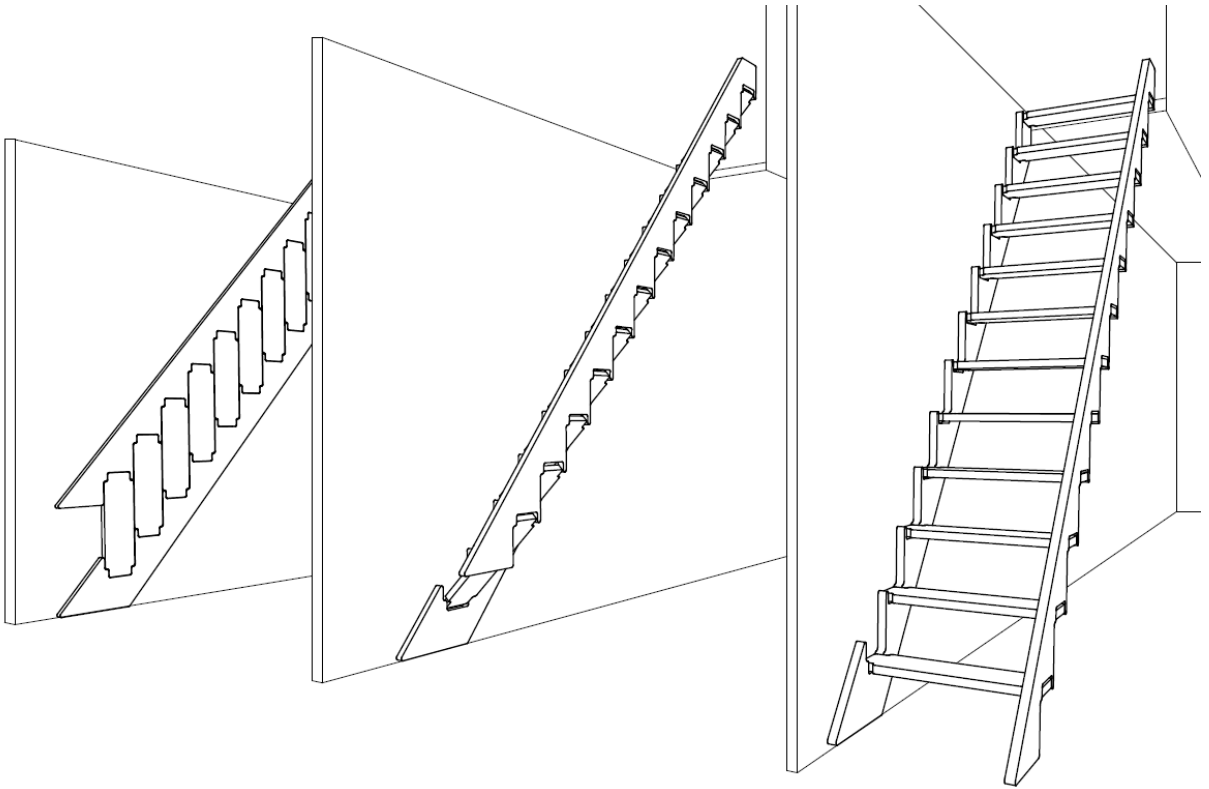


k/apster

Installation instructions

Klapster Comfort

k/apster



Installation instructions - Klapster Comfort

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In order to enable professional and unproblematic assembly, we ask you to familiarise yourself with the following pages before starting assembly, as they provide you with helpful information that must always be considered.



Pay particular attention to comments with a note symbol. This draws your attention to steps which, if carried out incorrectly, could lead to damage to the product or the mounting wall.

For support we also recommend the installation video
in the download section of our website!

<https://www.klapster.de/downloads>

1. Product Klapster

1.1 Product information

Klapster is a modular system in several versions. With the modular system, any desired floor height can be achieved by combining matching construction elements. From the floor height (floor coverage to floor coverage) reported to us results the number of steps and the slope of your folding stairs. The accurate data for your delivered staircase can be found in the enclosed final invoice.

1.2. Installation check

The installation of Klapster must be checked against the following factors:

- **Mounting surface:** The mounting surface on your wall must be sufficiently long. How long exactly depends on your floor height, the slope of the stairs and the Klapster model. The narrowest Klapster model (Ultralight) can be installed, for example, with a floor height of 265cm starting at 112cm mounting surface (run length).
- **Ceiling opening:** When folded up, the steps and outer stringers of the staircase rest against the wall on a flat surface. Therefore, the folding stairs need sufficient space upwards. We recommend extending the ceiling opening up to the wall so that Klapster can be mounted directly on the wall. If it is not possible to extend the ceiling opening and a distance between wall and ceiling opening has to be bridged, the stairs cannot be screwed directly to the wall. For distances of up to 9cm we can offer you spacers. For larger distances, an assisting stringer made out of wood, brick or plasterboard, for example, must be installed. For assistance with installation, please consult your local carpenter.
- **Counter bearing / bearing surface of the outer stringer:** The exiting tread of the folding staircase (movable stringboard on top) always requires a counter bearing on which the outer stringer can rest. Usually this is the ceiling, the front side of a mezzanine or the beams construction of a loft bed. The bearing surface (e.g. ceiling thickness) must be at least 10cm.
- **Wall structure:** Klapster can be mounted on a wide variety of walls (brick, concrete walls, drywall, etc.). Primarily the weight of the stairs is transferred via the stringboard structure. Intermediate or dry walls are therefore also suitable for installation. For drywall walls, it is essential to use wooden supports and not metal profiles. It is essential that you mark the position of the supporting structure so that you can later screw the staircase to the underlying structure.
- **Sloping ceilings:** All Klapster models require 100cm of space upwards from the last step when folding. If you have sloping roofs that begin shortly after the ceiling, check whether the Klapster can be folded up as follows: Floor height (floor to floor) minus 1x slope of the stairs + 100cm. If you want to install handrail modules for the outer stringer for Klapster Comfort, the height of the stringer is increased by the height of the handrail (42cm). Details can be found in the data sheet "Handrail" in the download area.
- **Ceiling thickness:** In case of thin ceilings and/or non-load-bearing masonry, we additionally recommend the installation of a ceiling angle at the height of the inner stair stringer in order to ensure stability and the necessary load transfer via the stair stringer. For the Ultralight/Slim models, an angle may be necessary for ceiling thicknesses less than 30cm and for the Comfort less than 25cm. We offer our multiplex ceiling angles with Ahron veneer or white HPL coating.

2. Safety instructions

2.1 Appropriate usage

The folding stair is designed for the usage as an assistant stair. It does not comply with the building law requirements of necessary or non-necessary stairs, according to DIN 18065. Klapster does not apply to the scope of the European guideline ETAG 008. According to the country-specific building regulations, the building owner must check whether the use of a folding staircase is permitted for his installation situation.

⚠ Only original components must be used for installation and maintenance. The combination with parts from other manufacturers and with accessories other than those mentioned in these assembly instructions may impair safety and is not permitted. The use of the Klapster system for transporting loads is not intended and is not permitted (load capacity of the staircase = 180 kg). The material of the folding stairs is only suitable for indoor use. When folding in or out, always ensure that you grip the stairs by the outer string.



Incorrect gripping at the step elements could pose a danger of crushing the fingers.

2.2 Product safety

The folding staircase may only be used in a technically perfect condition and in accordance with the intended use, safety and risk awareness, observing the installation instructions. Faults that could impair safety (e.g. deviations from the conditions for permissible, intended use) should be rectified immediately.

2.3 Installation

- Check delivery for completion. Check all parts for damage, if necessary sort out damaged parts.
- **⚠** Before starting installation, also check that the slope on the enclosed invoice is correct. In case of deviations in dimension, please do not start the installation, but notify raumvonwert.
- **⚠** Only use dowels or fasteners that match your masonry and are designed for sufficient load capacity. Observe the manufacturer's instructions for use (dowels, screws).
- If installation aids (e.g. ladders) are used, the respective operating and user instructions must be observed.
- The installation requires at least two people (three people are recommended)

3. Maintenance tips

⚠ In general, impurities on all surface coatings should only be cleaned with suitable substances that are gentle on the material. Do not use any acids or alkalis that could attack the surfaces. Individual care instructions for the different surface coatings are given in the following table:

<ul style="list-style-type: none"> • Natural, untreated 	<p>The natural wood version is very sensitive to dirt, so treatment with oil, varnish or similar is recommended. Impurities can only be removed with fine-grained sandpaper (e.g. grit 180).</p> <p>⚠ The layer thickness of the veneer is 0.8mm - this can be removed if you overgrind!</p>
<ul style="list-style-type: none"> • Oiled 	<p>Dirt can be removed with a dry towel.</p> <p>⚠ Please note that over time, oils are more strongly absorbed into the wood pore and evaporate. It is therefore recommended to reapply some oil in regular intervals. We recommend the following oil: Hesse Lignal NATURAL-OIL OE 83-2 farblos matt.</p>
<ul style="list-style-type: none"> • HPL-Surface coating 	<p>Thanks to the closed surface, HPL coatings are relatively easy to clean. Usually, moderate soiling can be removed with a clean, soft sponge and warm water with the addition of household, non-abrasive cleaning agents.</p>

4. Disposal

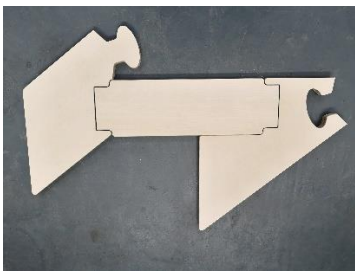
Disassembly takes place in reverse order to the assembly. The product must be disposed of properly in accordance with its materials and regional regulations.

5. Tools to be provided on site

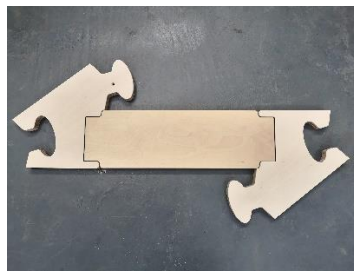


- Cordless screwdriver
- Drilling machine, wood drill 5 mm;
- Rubber mallet: not staining, at least 80mm diameter head, 500g weight (Attention, a diameter that is too small can damage the surface!).
- Folding ruler
- Pencil and marker
- Allen key/ Allen attachment for cordless screwdriver
- Screws for wall mounting, e.g. 6 x 120mm
- Spirit level/ straight edge
- For stone or concrete walls: masonry drill and matching dowels

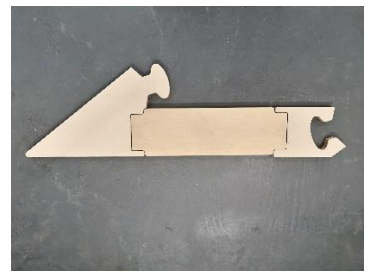
6. Delivery content Klapster



1x starting tread



X • middle tread (depending on ceiling height)



1x exiting tread



- 4 x spacers, 6mm
- 8 x fixing screws, 3x16mm
- 1 x tap fitting
- 1 x cap screw
- 4 x grub screws per building component M6x70
- 4 x spacers, adhesive
- 2 x Mounting screw for the tap fitting 5x25

7. Installation instructions

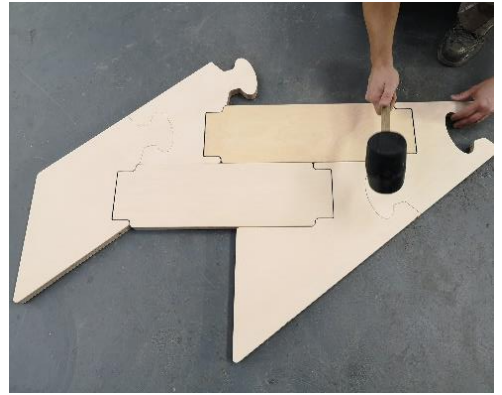
7.1 Assembly Klapster



7.1.1

Take all components from the package and spread them out on a clean surface (if necessary, place a blanket or cardboard underneath). Lay out the components in puzzle direction and make sure that the **marked "W"** (**meaning wall side**) in the puzzle pieces are all arranged on the same side.

⚠ If your components are not labeled with "W", please inform us immediately before the assembly!



7.1.2

⚠ Puzzle the starting tread (largest component) with a first middle tread and make sure that the components are joined together evenly on both sides and do not jam, otherwise the veneer could be damaged. Then gently knock on the connectors with a rubber mallet until the components are flush.



7.1.3

Puzzle all middle treads together and finally mount the exiting tread.

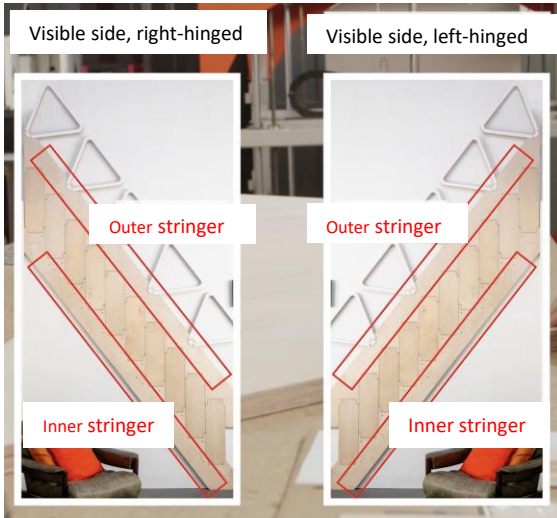
⚠ It is essential to ensure that the puzzle pieces are knocked together so they are flush, otherwise the grub screws (step 7.1.4) cannot be installed.



7.1.4

Installation of the grub screws:

Insert the grub screws into the pre-drilled holes on the side of the string pieces and screw them in with an allen key or cordless screwdriver with allen attachment until they are flush with the surface.

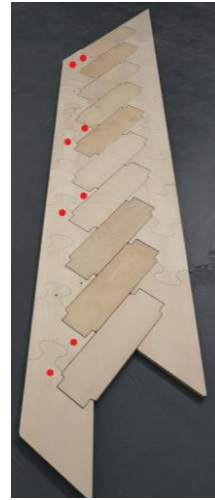


7.1.5

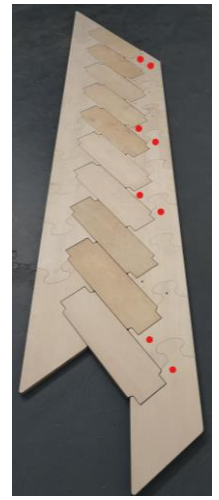
Prepare the fixing points for wall mounting:

The holes are drilled in the **inner stringer** from the later visible side. The visible side is the side on which no small drill holes in the steps are visible in the components.

⚠ If necessary, turn the staircase (at least with two people, more easily with three) by 180°. Make sure that the staircase does not open when you do this.



Visible side of a right-hinged staircase



Visible side of a left-hinged staircase

7.1.6

To mark the drilling positions, use the supplied templates (spacers). The drill holes are to be placed on the inner stringboard, at as equal distances as possible, but at least four positions (at least 5x for 12 steps or more) and depending on the masonry (e.g. in drywall construction the wooden supports must be hit) along the folding staircase (see red markings) For marking, take one of the spacers as a template and place it underneath a step (see 7.1.7).

The holes have to be drilled on the inner stringer elements:

Picture on the right: for stairs that are mounted on the left side of the wall when viewed from the front;

Picture on the left; for stairs that are mounted on the right side of the wall when viewed from the front.



7.1.7

The spacers must be aligned so that they are 0.5 cm below a step...



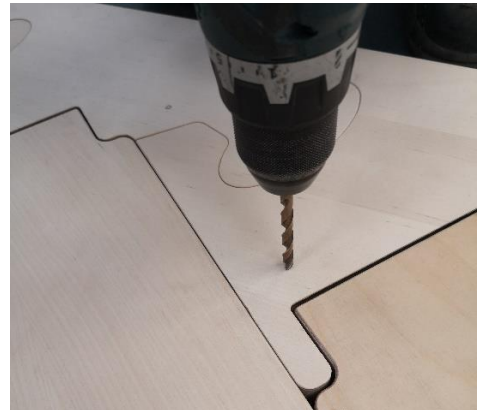
7.1.8

...and 1.5 cm parallel to the adjacent step.



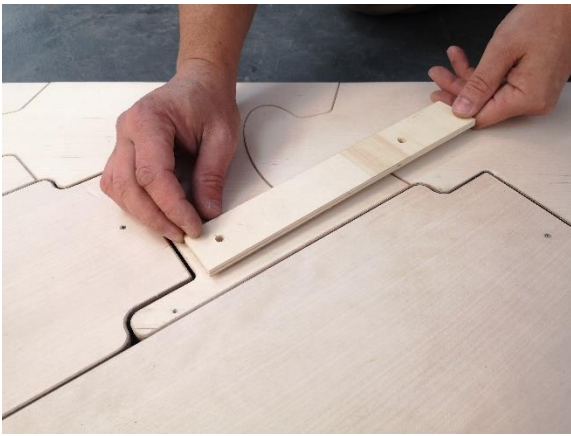
7.1.9

Now mark the drill holes through the holes in the spacer with a pencil...



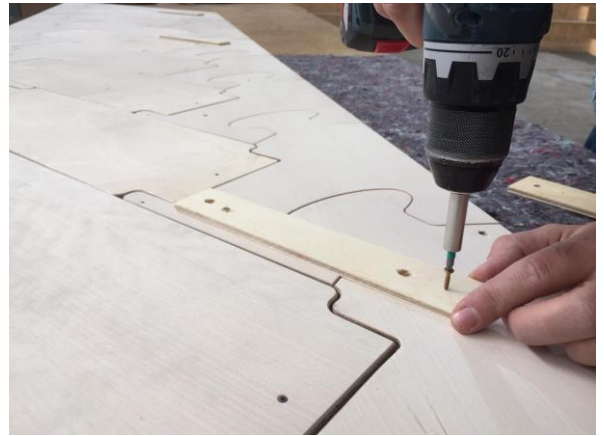
7.1.10

... and then drill and sink the drill holes at the marked spots.
(The size of the hole depends on the fixing screws used)



7.1.11

Now turn the stairs over once more (**the small holes on the stringers and steps must now be visible again**) and place the spacers over the holes so that the holes match.



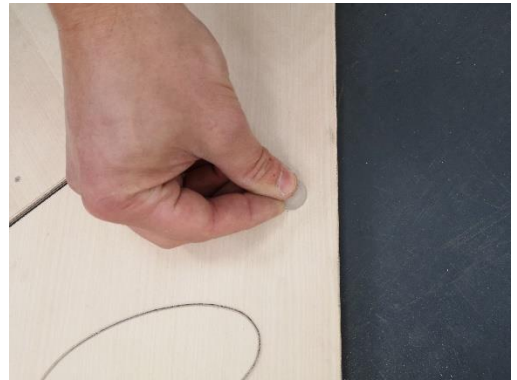
7.1.12

Screw the spacers to the stringer element using the supplied screws (3x16).



7.1.13

For the next step the spacers must be glued on.



7.1.14

To do this, place the provided self-adhesive spacers at equal intervals on the outer stringers (opposite to the screwed spacers).

▲ Note: Your delivered staircase can be folded both to the right and left. Depending on the folding direction you specified, the staircase is pre-installed in production as a left or right hinged staircase. The built-in pring supported rotation axis keeps the staircase against the wall when folded and facilitates folding in and out. The springs are therefore tensioned during the folding out movement.

7. Installation instructions

7.2 Installation Klapster Comfort



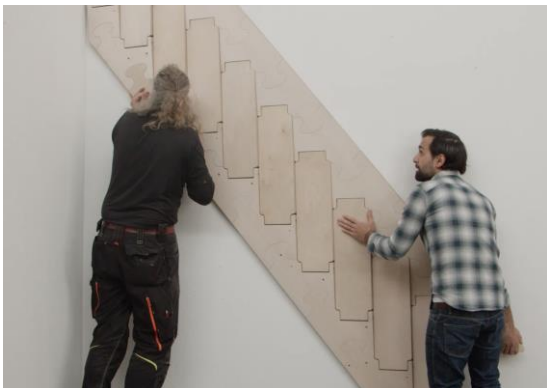
7.2.1

To prepare for installation, the wall on which the staircase is to be mounted must be checked for unevenness. Ideally, you should use a straight edge or use a long spirit level.



7.2.2

If the wall has any surface imperfections, these must be compensated for with additional spacers (individual size). These can be glued with double-sided adhesive tape to the spacers (6mm) glued on in step 7.1.12.



7.2.3

The next step is to align the stairs with the wall with at least two people.

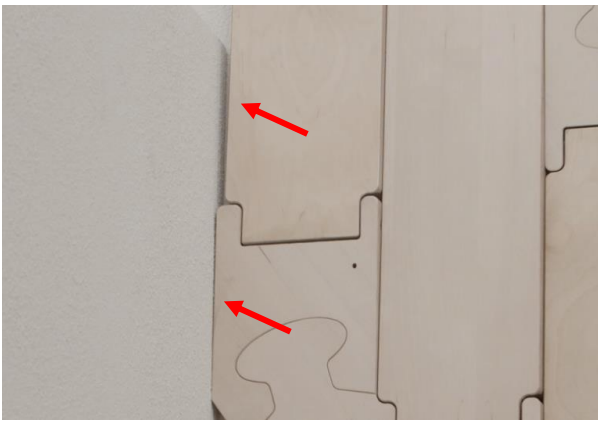
⚠ To prevent the stairs from folding out, they must be transported vertically and with caution. When aligning the staircase with the wall, it is essential to ensure that it is in its final position: The entrance and exit must be flush with the floor and ceiling. (see step 7.2.4)



11

7.2.4

⚠ Make sure that the stepping tip is flush with the floor over its entire length and that no gaps are visible between the stepping tips and the floor. You can also level the stairs with a spirit level.



7.2.5

⚠ The exiting tread must be parallel with the front of the ceiling.



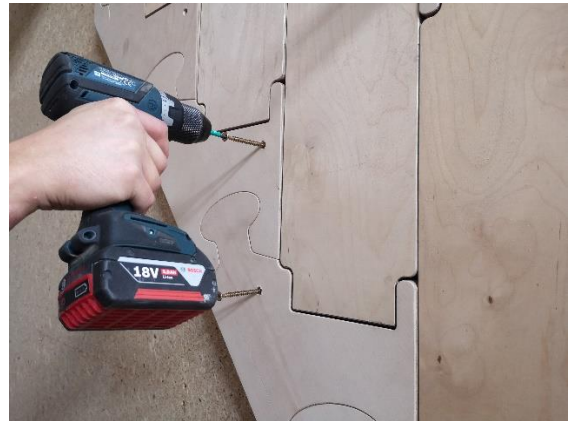
7.2.6

When the staircase is perfectly aligned with the floor and ceiling, it can be screwed to the wall. If it is a **stone or concrete wall**, please refer to step 7.2.7. In the case of **dry construction, wooden stud construction or wooden walls**, you can skip to step 7.2.8.



7.2.7

For stone or concrete walls, holes should be drilled in the masonry beforehand with a masonry drill. To do this, mark the drill holes on the wall (see photo) and then insert dowels (matching the masonry) in the drill holes. Afterwards, align the staircase with the wall in its final position and proceed to the next step.



7.2.8

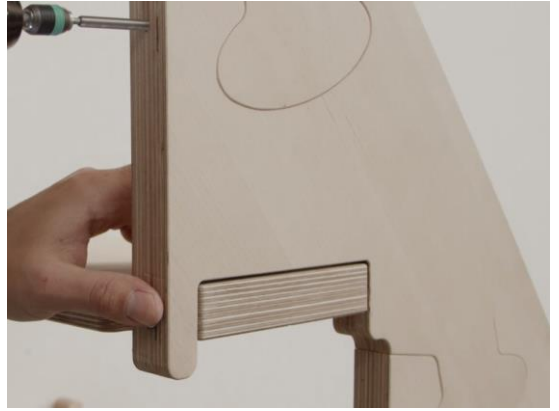
Now the stairs can be screwed to the wall. First screw in all screws halfway so that the components can still move. Then tighten all screws. Screws are to be selected depending on the masonry.

⚠ If you notice that the staircase lies unevenly against the wall afterwards, this indicates that the unevenness of the wall must be compensated for by additional spacers (see step 7.2.2).



7.2.9

In the next step the last screws can be screwed in. To do this, fold out the staircase and screw one grub screw per component into the pre-drilled holes in the inner stringer...



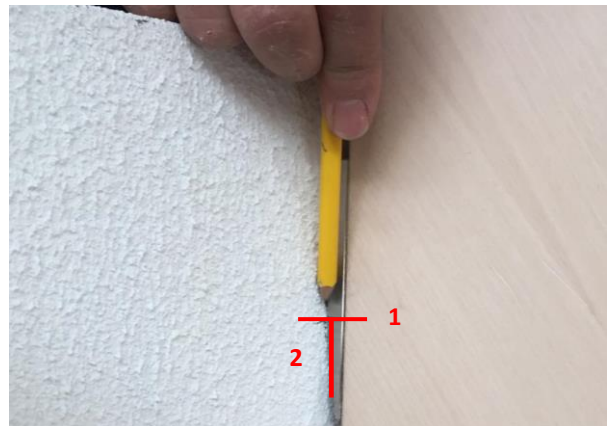
7.2.10

... and the outer stringer.



7.2.11

The next step is to **mount the tap fitting**. To do this, place yourself either on the upper level or on a ladder. Fold out the staircase and push the tap fitting between the exiting tip of the outer stringer and the ceiling (see photo).



7.2.12

A marking is applied to the tap fitting. Use a pencil to transfer the marking (1) to **both the outer stringer and the front of the ceiling** so that the marking spots are at the same level. Also transfer the lateral position (2) of the tap fitting to the wall.



7.2.13

Measure at the height of your marked position, horizontally 15mm in the direction of the stairs. Mark this position on the wall.



7.2.14

Installation of the cap screw:

Depending on the properties of the ceiling, pre-drill the mounting hole at the marked position. **For stone and concrete ceilings**, a masonry drill must first be used to pre-drill at this point and a dowel has to be inserted...

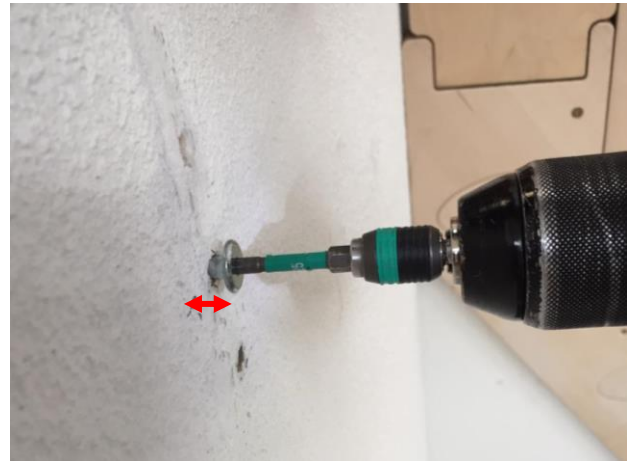
⚠ The drilling or installation of the cap screw must be carried out exactly at the marked point, otherwise the tap fitting cannot mount to the screw later.

⚠ The tap fitting will fit tightly against your wall. To protect the front of your ceiling from abrasion, we recommend that you attach a protection in the form of felt, cork, foil or similar underneath the tap fitting screw.



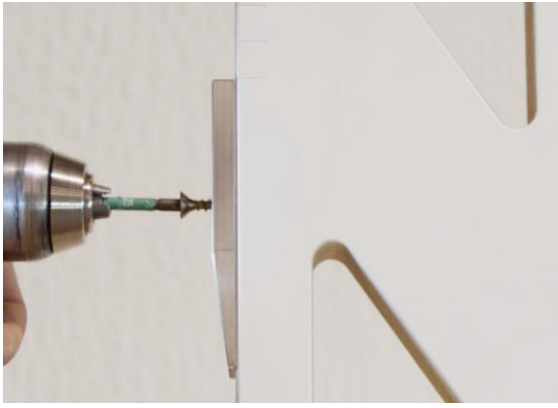
7.2.15

The cap screw can then be attached.



7.2.16

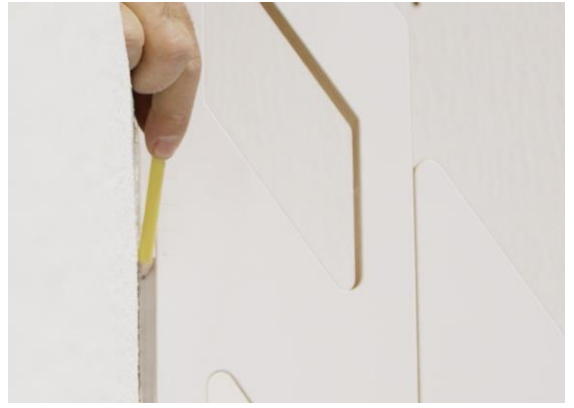
The head of the screw must "stick out" between 3-4mm from the surface so that the tap fitting can later grip the screw.



7.2.17

In the next step the tap fitting can be mounted on the outer stringer. Place the fitting on the stringer part according to the marking set in step 7.2.12. Then mark the drill holes and pre-drill them (e.g. 3mm drill bit). Now tighten the fitting with the screws provided (Spax 5x25).

⚠ Make sure that the countersinking of the drill holes in the tap fitting is directed outwards.



7.2.18

Now unfold the staircase and check that the cylinder screw is positioned exactly in the fitting leg. This is the case if the staircase can be unfolded completely and no gap is visible between the fitting and the ceiling. The play in the fitting can be adjusted by screwing the cylinder head screw in or out.

⚠ The outer stringer must not tap too tightly into the cylinder head screw.

Wood is a natural product: variations in colour and structure are natural.



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