

Assembly Instructions – Construction Staircase Straight, Straight with Landing

1. Preparation for Installation

Before starting the installation, study the floor plan of the staircase thoroughly and check the ceiling opening as well as the dimensions against this plan. Pay close attention to the wall structure, ceiling structure, and the available space at the stair exit.

We also check the completeness of all staircase parts, unpack them, inspect them, and familiarize ourselves with their positioning in the stairwell. Do the same with the fittings and auxiliary materials required for installation.

Prepare the assembly tools and all necessary aids. Read the entire text carefully beforehand to gain a theoretical understanding of the complete sequence.

Recommendations and Screwing Note

- **Personnel:** We recommend carrying out the installation with at least two people, preferably three or four.
- **Screwing Recommendation:** Before driving a Spax screw into a pre-drilled hole, always apply a small amount of silicone (approx. 2 pea-sized drops) into the hole. The silicone facilitates driving the screw in and eliminates the risk of it breaking if overtightened.

2. Anchoring the Outer Stair String

The installation begins by anchoring the outer stair string to the wall. The anchoring holes are not pre-drilled; instead, they must be planned and drilled in a way that prevents them from colliding with electrical installations, niches, or holes in the wall.

Always try to place an anchor point as close as possible to the stair ascent — ideally approx. 6 cm below the centre of the housing of the first step. Then, place one as close as possible to the exit — usually below the last (or second to last) tread and at a height that does not touch the insulation layer in the ceiling. Position the next anchoring points approx. every two rises between the ascent and the exit — again, ideally approx. 6 cm below the centre of the housing of the step.

If the staircase features a landing, place two anchor points under the landing on each section.

If the walls of the staircase use a grid construction method — with reinforcements and studs behind the plasterboard or OSB panels — it is necessary to adjust the anchor points and place them exactly onto the centres of the reinforcements. Do not skimp on their number; you can easily place two one above the other.

3. Pre-assembling the Exit Components

The (second to) last tread is pre-assembled onto the outer stair string using 2 Spax screws driven from above through the string. Before doing so, apply PUR construction adhesive onto the string surface and into the holes for the dowels in the tread. Fit the tread onto the dowels, tap it firmly with a rubber mallet, and screw it tight with 6x80 Spax screws. Connect the inner stair string to this assembly in the exact same manner.

Next, attach the anchor plate (apron) to this structure. Use the adhesive here as well, place it onto the dowels, and drive the screws into the front faces of both strings while also screwing it to the rear edge of the tread.

Summary: The exit structure now consists of the anchor plate (which also serves as the final riser), the last tread, and both exit strings (inner + outer).

4. Aligning and Anchoring the Exit Assembly

Now take this pre-assembled structure and, with the outer stair string, press it against the wall, guide it to the exit edge, support it, and align it. The upper edge of the anchor plate (apron) should sit lower than the final floor height of the upper floor by the thickness of the future floor covering. Check that the (second to) last tread is perfectly level.

Attention: A common problem is the lack of flatness of floors at the stair exit, even with screed floors! If the final floor heights have not been determined, use suitable shimming plates to ensure that the stair strings sit at the correct height. Check the height of the step supports on the strings and correct them if necessary.

Subsequently, firmly anchor the outer stair string to the walls at all points and the anchor plate to the ceiling. Care must be taken to ensure that the stair string does not warp or copy the unevenness of the wall. Use suitable packing or shimming material.

Important Note: The delivered staircase is manufactured to be exactly rectangular in its floor plan. Therefore, in case of deviations from a right angle at the corners or at the exit, the stair strings (anchor plate) must be shimmed accordingly so that they stand exactly rectangular to each other after anchoring. Otherwise, the steps or the landing cannot be installed correctly.

5. Stabilizing and Anchoring the Inner String Base

To better check the mutual distance between the stair strings, we recommend provisionally mounting one tread in the first third of the stairs, another in the second third, and also tread No. 2 onto the dowels. Always verify that they are level.

Once everything is correct, firmly anchor the base (ascent) of the inner stair string to the floor below the first tread using a metal bracket, Spax screws for the strings, and a floor anchor. Take note of the possible presence of underfloor heating!

6. Installing Riser No. 1

Now screw riser No. 1 to the front faces of both stair strings, keeping in mind to apply the adhesive.

7. Progressive Installation of Treads and Risers

Next, the treads and risers are installed step by step from the ascent up to the exit:

1. Apply adhesive evenly to the rear edge of **tread No. 1** and attach the correctly aligned **riser No. 2**. Subsequently, screw it tight with three Spax screws (5×45).
2. Following this, apply adhesive into the half-groove at the front edge of the tread, into the holes for the dowels, and onto the corresponding support surfaces of the tread and riser on the inner and outer string.
3. Now place the entire component (**tread and riser**) onto the dowels and against the protruding edge of **riser No. 1**. Tap it firmly with a rubber mallet and screw it to the string using four 6×80 screws.

4. Then, tighten **riser No. 1** into the half-groove on the front edge of **tread No. 1** using 3 Spax screws (5x45).

Repeat this exact process for **tread No. 2 + riser No. 3**, and so on all the way to the exit.

Note on the Final Step: Since the last tread was already installed during **Step 3**, you cannot simply place this final section of the previous tread and riser onto the dowels together (as the front edge of the last tread is in the way). For this reason, it is necessary to first install only the riser, and then install the tread separately.

8. Curing Time and Completion

This completes the entire installation of the **Construction staircase**. The glued connections require approximately **24 hours** at normal room temperature to cure completely. Do not apply loads to the structure during this time.