

FIXING WALL PANELS WITH SCREW CONNECTIONS

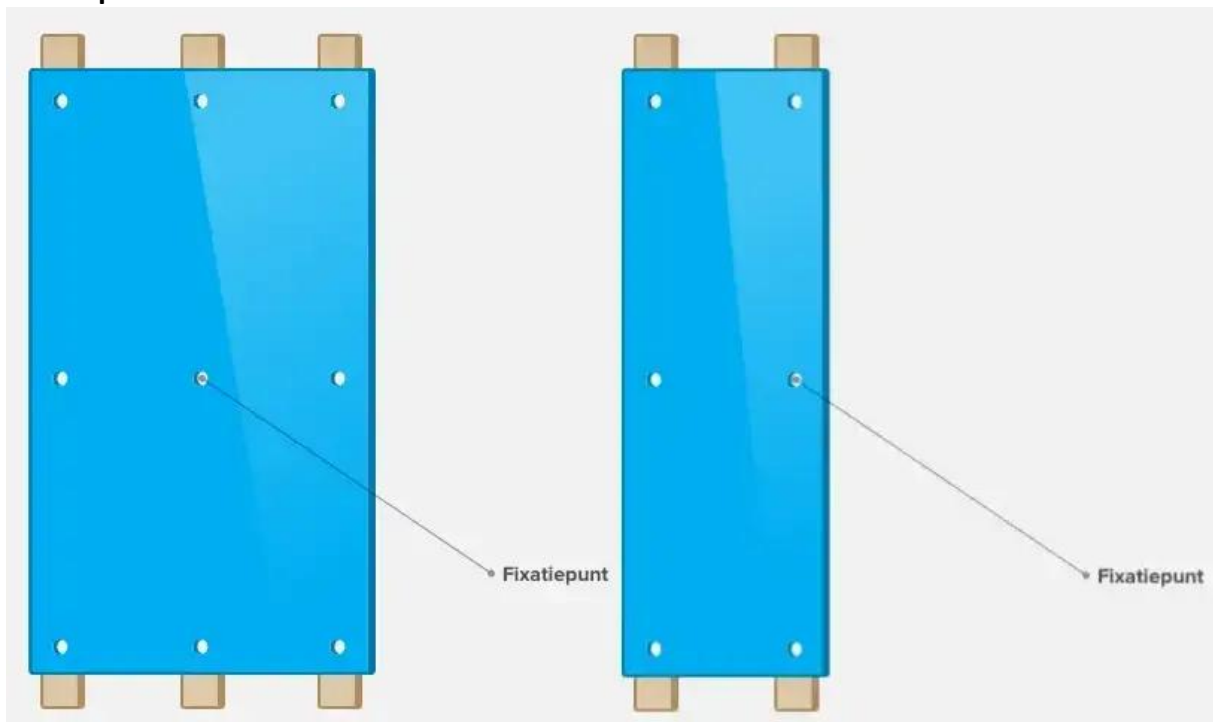
Expansion and Fixation Points Explained

Fixing wall panels with screw connections may seem straightforward, yet installation errors are still common in practice. Correct installation is essential to ensure both the durability and appearance of the façade system.

A screw-fixed façade system requires precision, attention to detail, and an understanding of material expansion.

Standard screw dimensions for façade panel installation are **4.8 x 38 mm** or **4.8 x 25 mm**.

The Importance of the Fixation Point



When installing façade cladding panels, one screw hole must serve as the **fixation point**:

- For panels with an **odd number of screw lines**, this point should be positioned in the centre of the panel.
- For panels with an **even number of screw lines**, the fixation point should be located halfway along the panel's greatest length.

This fixing point must have a hole diameter of **5 mm**.

It determines the horizontal and vertical positioning of the panel and controls the direction in which the panel can expand.

Expansion Points: Allow the Panel to Move

All remaining screw holes must function as **expansion points** and therefore require a diameter of **8 mm**.

The screw must always be positioned:

- Perpendicularly to the panel surface
- Exactly in the center of the pre-drilled hole

This creates sufficient clearance around the screw, allowing the panel to expand and contract naturally under temperature changes without causing stress or deformation.

To avoid restricting movement:

- Do not overtighten the screws
- Hand-tight fastening is sufficient

Correct Edge Distances

Proper drilling distances are equally important:

- Screw holes should be drilled at least **20 mm from the panel edge**
- The maximum edge distance should not exceed **10 times the panel thickness**

For example:

- A panel thickness of **6 mm** results in a maximum edge distance of **60 mm**

Technical Reliability with Aesthetic Advantages

Correctly executed screw fixing prevents unnecessary tension in the façade panels and contributes to a long-lasting, reliable installation.

At the same time, modern façade systems increasingly demonstrate that mechanical fixing can perfectly coexist with clean aesthetics and technical performance. When executed properly, screw-fixed cladding remains a practical, durable, and highly efficient façade solution.

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