KEIL undercut anchors attach façade panels securely and invisibly to the substructure. Our high-quality fixing elements are available in different designs and with matching spacer discs.
Product Information

The undercut anchor consists of an anchor sleeve with matching hex bolt with locking ratchets (screw).

*Drill hole, anchor sleeve and screw length must be matched to the desired insertion depth and the bracket of choice. Only the use of matching parts will make the assembly quick, simple and safe.*

*Insert the at the base compressed anchor sleeve, together with the required bracket, into the undercut hole.*

*Screw in the screw, exerting gentle pressure on the bracket (in order to fix the anchor). The locking ratchets of the screw will cut into the bracket, securing the screw.*

*The anchor sleeve is expanded to its original dimensions by inserting the screw to a controlled depth, making it sit snugly against the panel in the undercut area of the drill hole. After the assembly, the anchor will sit in the undercut hole free of expansion pressure (i.e. the bracket can still be rotated with a certain amount of physical effort).*

*KEIL undercut anchors are monitored externally.*

Further dimensions on request.

### Application

- Natural stone
- Artificial stone
- Manufactured stone
- Ceramics
- Laminate (HPL)
- Synthetic material
- Fibre cement
- Glass fibre reinforced concrete (GFRC)
- Glass ceramics
- Solid surface materials
- Ultra high performance concrete (UHPC)

### Design

Anchor sleeve incl. hex bolt with locking ratchets, stainless steel A4.

### Instructions for use

*Use according to approval and KEIL assembly instructions for anchors (p. 12). Please find documents with relevance to building regulations under [www.keil-fixing.de/en/approvals](http://www.keil-fixing.de/en/approvals).*

### Packaging unit - surcharges

*Packaging unit = 500.*

**For orders of less than 500 pieces the following surcharges will accrue:**

- 1–49 + 40 %
- 50–99 + 25 %
- 100–199 + 10 %
**Product information**

- **Thread length**
- **DS = bolt head Ø [mm]**
- **article no.**

<table>
<thead>
<tr>
<th>h&lt;sub&gt;p&lt;/sub&gt; = panel thickness [mm]</th>
<th>h&lt;sub&gt;i&lt;/sub&gt; = insertion depth [mm]</th>
<th>Xz = clamping thickness [mm]</th>
<th>thread length</th>
<th>DS = bolt head Ø [mm]</th>
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Further dimensions on request.

**Application**

For the invisible, back-mounted attachment of façade panels, especially of soft stones.

**Accessories**

- Depth control guide (p. 56)
- Torque wrench, 1–6 Nm (p. 60)

**Design**

Anchor sleeve incl. hex bolt with locking ratchets, stainless steel A4.

**Instructions for use**

Use according to KEIL assembly instructions for anchors (p. 12).

**Packaging unit - Surcharges**

- Packaging unit = 100.
  - For orders of less than 100 pieces the following surcharges will accrue:
    - 1–49 + 40 %
    - 50–99 + 25 %
Product information

Panel attachment for substructure independent of panel thickness.

Advantages of the KEIL fixing system for the attachment of façade panels with high tolerances in thickness:

- Balancing of tolerances in panel thickness up to 6 mm (4 mm for drill head).
- No reduction in pull-out load for thinner panels.
- For thicker panels, the countersink will be manufactured in one single step together with the drilling and undercutting of the panel.
- The front side of the panel is always the reference measure therefore there will be no more need for different spacers.
- The insertion of the anchor and the bracket can be carried out in one step.

<table>
<thead>
<tr>
<th>Ø [mm]</th>
<th>height up to hex [mm]</th>
<th>height incl. hex [mm]</th>
<th>SW₁ = spanner gap without [mm]</th>
<th>SW₂ = spanner gap within [mm]</th>
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<tr>
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<td>SW9</td>
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<td>6</td>
<td>7.5</td>
<td>SW9</td>
<td>SW12</td>
<td>555 432 201</td>
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</table>

Application

- Mount the spacer disc inside the calibrated undercut drill hole in order to balance tolerances in panel thickness.
- The spacer disc will offer a reference surface with a consistent distance to the front side of the panel for the assembly of the bracket.
- Natural stone
- Artificial stone
- Manufactured stone
- Glass fibre reinforced concrete (GFRC)

Accessories

- façade drill bit diamond tipped with countersink (p. 29)

Design

Disc with inner and outer hex from AlCuMgPb

Instructions for use

- Only for drilling machines which are designed to drill consistantly with the front side of the panel.
- Use according to approval and KEIL assembly instructions for anchors (p. 12).
- Please find documents with relevance to building regulations under www.keil-fixing.de/en/approvals.

Packaging unit - surcharges

- Packaging unit = 500.
- For orders of less than 500 pieces the following surcharges will accrue:
  - 1–49 + 40 %
  - 50–99 + 25 %
  - 100–499 + 10 %

Panel attachment to substructure independent of panel thickness and rear surface flatness.
The undercut anchor consists of an anchor sleeve, a threaded pin and a nut with locking ratchets. Drill hole, anchor sleeve and threaded pin length must be matched to the desired insertion depth and the bracket of choice. Only the use of matching parts will make the assembly quick, simple and safe. Insert the at the base compressed anchor sleeve into the undercut hole. The anchor sleeve is expanded to its original dimensions by inserting the threaded pin to a controlled depth, making it sit snugly against the panel in the undercut area of the drill hole. After the assembly, the anchor will sit in the undercut hole free of expansion pressure (i.e. the bracket can still be rotated with a certain amount of physical effort). Screw on the bracket with the nut. KEIL undercut anchors are monitored externally.

Further dimensions on request.
### Product information

- The KEIL plug-in-bolt in connection with the KEIL undercut anchor allows for the attachment of natural stone panels without any substructure.
- The retaining and load-bearing bolts are attached to the back side of the panel with the aid of the undercut anchor.
- The holes drilled into the substrate are filled with permissible mortar.
- The plug-in-bolts on the façade panel are inserted into the filled drill holes.
- The façade panel is adjusted and fixed. After the temperature-related setting time, the panel is anchored safely and without expansion pressure. With/without insulation.
- Single panels can be replaced subsequently.
- High degree in safety due to the optimal distribution of the weight load.
- The correct screw-in depth is warranted by the system.
- KEIL undercut anchors are monitored externally.

<table>
<thead>
<tr>
<th>h_s (insertion depth)</th>
<th>M (bolt Ø)</th>
<th>l4 (nominal length)</th>
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Further dimensions on request.

### Applications
- Natural stone
- Artificial stone
- Manufactured stone
- Ceramics
- Laminate (HPL)
- Synthetic material
- Fibre cement
- Glass ceramics

### Design
Anchor sleeve incl. reduced threaded bolt from stainless steel A4

### Instructions for use
- from l4 > 90 mm surface grooving onwards
- Use according to approval and KEIL assembly instructions for anchors (p. 12).
- Please find documents with relevance to building regulations under www.keil-fixing.de/en/approvals.

### Packaging - surcharges
- Packaging unit = 500.
  - For orders of less than 500 pieces the following surcharges will accrue:
    - 1-49 + 40 %
    - 50-99 + 25 %
    - 100-499 + 10 %

www.keil-fixing.de/en