

KEIL - GENERAL INSTALLATION INSTRUCTIONS

A. Drilling and undercutting

The undercut holes on the back of the Corian® Solid Surface panels must be made using Keil System tools under workshop conditions.

The Keil System tools comprise the Keil facade drill bit, the Keil drill head and the undercutting and drilling machine (e.g. Keil portable drill, Keil bench drill or automatic drilling machine with Keil drill head).

The undercut hole is produced in one step (cylindrical drilling [Figure A-1] and undercutting [Figure A-2]).

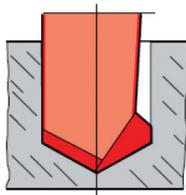


Figure A-1

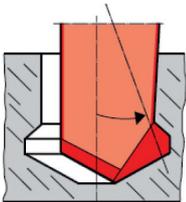


Figure A-2

Correct installation of the undercut anchor is possible only if a precise undercut hole exists [Figure A-3]. The hole geometry is regularly monitored with the Keil gauge matching the insertion depth of the anchor. The hole depth is set by means of this gauge, and all major hole dimensions can be checked efficiently with it.

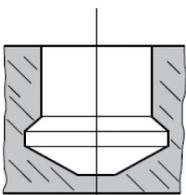


Figure A-3

B. Checking of the undercut hole

1. Insert the Control gauge base part in the undercut hole.



2. Push the gauge down to the round metal stop.



3. Place the metal shim between panel and control gauge base part. The hole is in order if you cannot push the gauge down to the round metal stop.

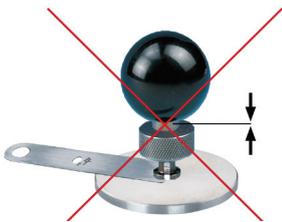


C. Control gauge views for incorrectly drilled holes

1. You cannot push the gauge to the round metal stop without the metal shim in place. Fault: Drilling hole too deep. No undercut.



2. You can push the gauge down to the round metal stop with the metal shim in place. Fault: Drilling hole not deep enough. Drill bit worn out.



D. Assembly

The undercut anchor consists of an anchor sleeve and its hex screw. Hole, anchor sleeve and screw length have to be matched to the hole depth required, and to the panel bracket chosen. Only the use of matching components results in quick, simple and safe installation.

The anchor sleeve, which is compressed in the lower end, is placed in the hole with the specified panel bracket [Figure D-1].

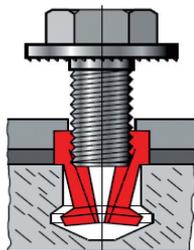


Figure D-1

The screw is screwed in while exerting slight pressure on the panel bracket (to fix the anchor) [Figure D-2].

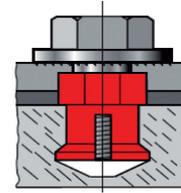


Figure D-2

The locking teeth of the screw head cuts into the panel bracket to secure it.

The panel bracket forms a rigid unit with the Keil facade anchor for this type of installation.

The anchor sleeve is expanded to its original dimension by inserting the screw to a controlled depth, so that the sleeve sits snugly against the undercut section of the hole in the facade panel. After installation, the anchor sits stress-free in the undercut hole (i.e. the bracket can still be rotated with a certain amount of effort).

E. Safety information

Correct functioning is only guaranteed if all components of the Keil undercut facade system are used. Expansion of the anchor sleeve controlled by insertion depth requires precise matching of the screw length to the anchor and panel bracket by Keil. Production of the undercut holes and installation should be carried out under workshop conditions.

Workshop conditions in this sense can also be created on site.

The dimensions of the undercut hole are to be monitored in accordance with the regulations in force. The standards, guidelines and relevant regulations applicable to design and use must be observed.

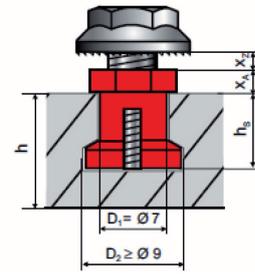
F. Notes on anchor installation

Anchor sleeves and locking screws for specified clamping thicknesses:

If the appropriate screw is used for a defined clamping thickness, the insertion depth is always correct! Installation is quick, easy and safe in this case. Similarly, the system ensures that the precise insertion depth is guaranteed for Keil plug-in anchors. The screwed-in part must be flush with the anchor sleeve at the bottom.

CAUTION: Before final installation, it must be checked whether the screwed-in part is flush with the anchor sleeve at the bottom and whether the correct installation tool is being used, by means of a test assembly.

G. Hole geometry



- D_1 = hole diameter (dia. 7 mm)
- D_2 = undercut diameter (\geq dia. 9 mm)
- h = panel thickness (from 6 mm)
- h_s = insertion depth of undercut anchor (t_p)
- x_A = anchor hex head (3 mm)
- x_Z = thickness of panel bracket (clamping thickness)

Figure G-1. View of drilled hole geometry

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