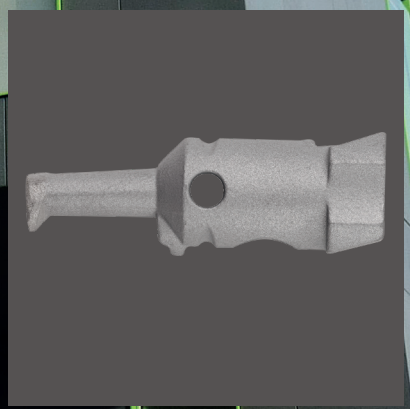
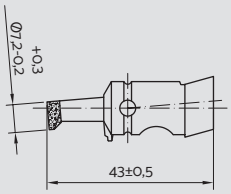
DRILLING TOOLS

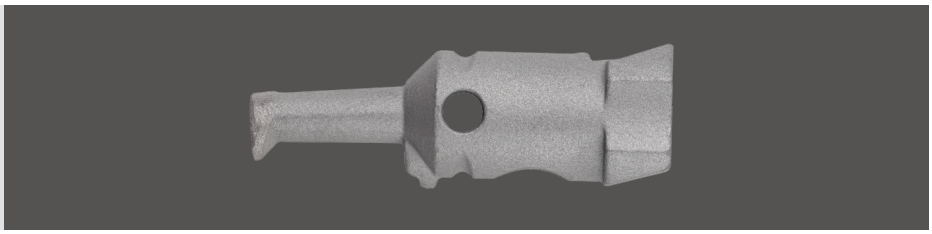
The feature setting KEIL undercut drilling tools apart is their exact hole geometry in combination with minimum drilling time and maximum tool life. The tools are part of the KEIL undercut system, which may only be used as a whole.



SSC - University of Cologne, Cologne, DE © KEIL

DIAMOND TIPPED FAÇADE DRILL BIT





Product information

- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.
- The KEIL façade drill bit is inserted into the KEIL chuck.

h_S = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	type	article no.
≤ 13	7	9	0.8	1	515 010 022
≤ 15	7	9	1.3	2	515 017 022

Application

- Diamond tipped
- Wet drilling
- For all "hard" materials, e.g.
  - Ceramics
  - Porcelaine stoneware
  - Natural stone
  - Glass
  - Artificial stone
- Central cooling through the façade drill bit.

Accessories

- Fastener set 1 (p. 53)
- Fastener set 2 (p. 53)
- Fastener set 3 (p. 53)
- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

Diamond tipped façade drill bit

Instructions for use

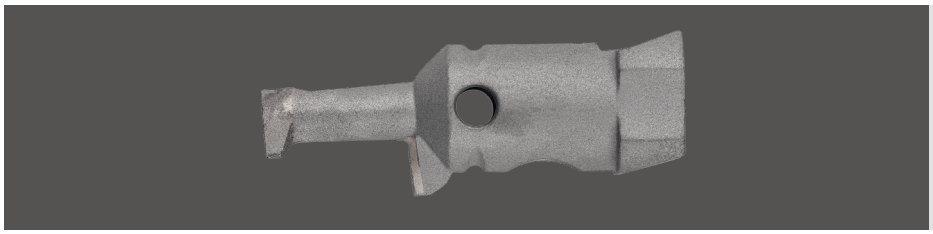
- Use according to approval and KEIL assembly instructions for anchors (p. 12). Please find documents with relevance to building regulations under www.keil-fixing.de/en/approvals.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- For KEIL chucks / undercut drilling machines.
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

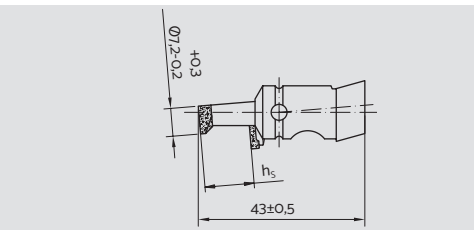
Packaging unit

- Packaging unit = 2 pieces.

Residential building, Frankfurt, DE © Rathscheck Schiefer

DIAMOND TIPPED FAÇADE DRILL BIT WITH COUNTERSINK





h_S = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	countersink Ø [mm]	article no.
10	7	9	1.3	15	515 012 000
15	7	9	1.3	15	515 017 000

Application

- Diamond tipped
- Wet drilling
- For all "hard" materials, e.g.
  - Ceramics
  - Porcelaine stoneware
  - Natural stone
  - Glass
  - Artificial stone
- Central cooling through the façade drill bit.

Accessories

- Fastener set 1 (p. 53)
- Fastener set 2 (p. 53)
- Fastener set 3 (p. 53)
- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

Diamond tipped façade drill bit with countersink

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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- Only for drilling machines, which are designed to drill consistant with the front side of the panel
- For KEIL chucks / undercut drilling machines.
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

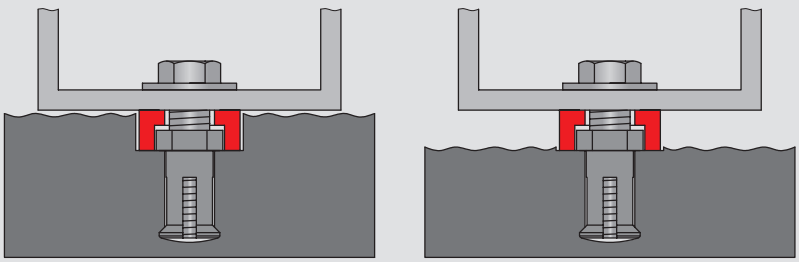
Packaging unit

- Packaging unit = 2 pieces.

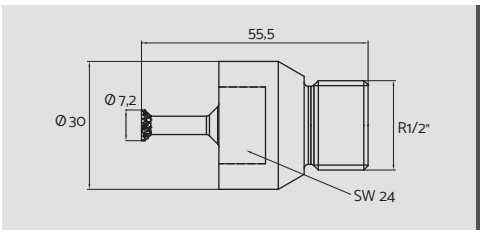
Product information

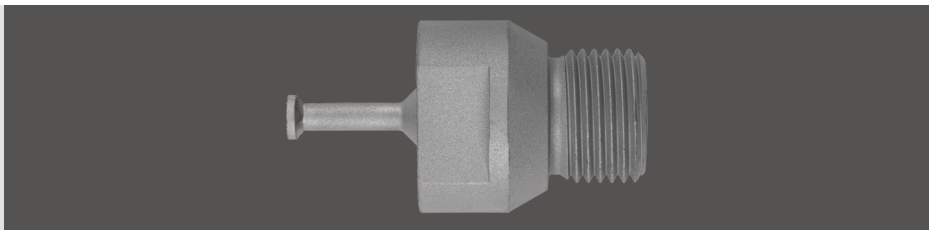
- Especially for the drilling of undercut holes in façade panels with unequal panel thicknesses.
- In order to balance tolerances in panel thicknesses, the countersink will be carried out in one step together with the drilling and undercutting.
- The front side of the panel is always the reference measure.
- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.
- The KEIL façade drill bit is inserted into the KEIL chuck.

Panel attachment to substructure independent of panel thickness and rear surface flatness.



DIAMOND TIPPED FAÇADE DRILL BIT R 1/2“





Product information

- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.

h_S = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	article no.
≤ 15	7	9	1.3	515 020 001

Application

- Diamond tipped
- Wet drilling
- For all ”hard” materials, e.g.
  - Ceramics
  - Porcelaine stoneware
  - Natural stone
  - Glass
  - Artificial stone
- Central cooling through the façade drill bit.

Accessories

- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

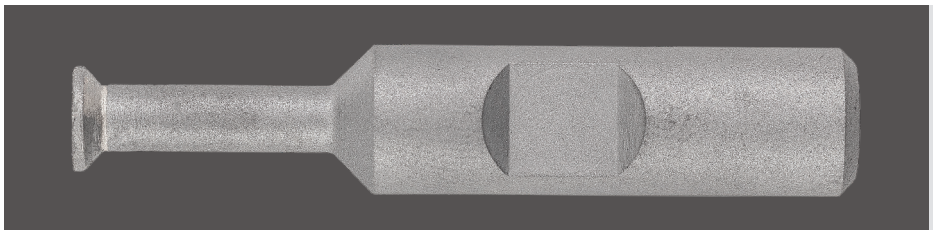
Diamond tipped undercut façade drill bit

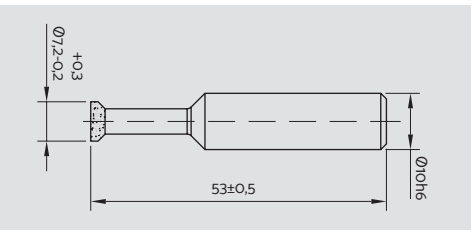
Instructions for use

- 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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- CNC machines with R 1/2“ tool holder.
- CNC controlled undercutting
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

Research and Collection Centre, Hall, AT © Rieder Group

DIAMOND TIPPED FAÇADE DRILL BIT CNC





h_s = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	variant	article no.
≤ 15	7	9	1.3	cyl. shaft	515 020 002

Application

- Diamond tipped
- Wet drilling
- For all "hard" materials, e.g.
  - Ceramics
  - Porcelaine stoneware
  - Natural stone
  - Glass
  - Artificial stone
- Central cooling through the façade drill bit.

Accessories

- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

Diamond tipped façade drill bit with cylindrical shaft

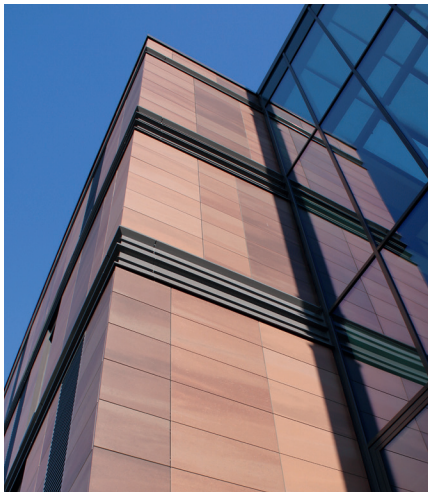
Instructions for use

- 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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- CNC machines
- CNC controlled undercutting
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

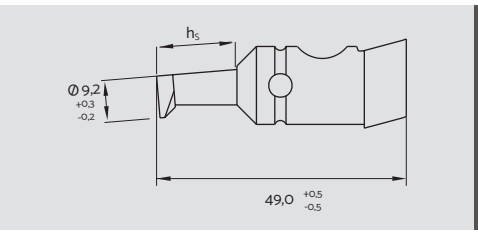
Product information

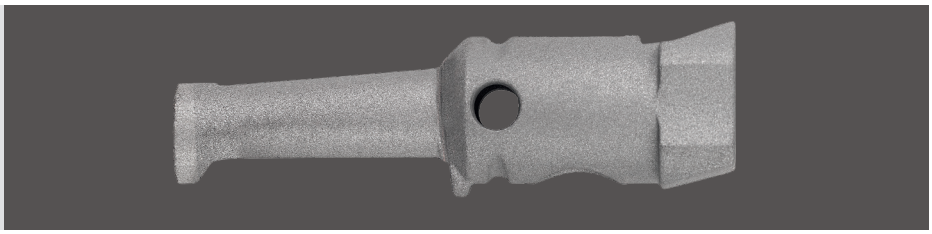
- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.

Frankfurt School of Finance & Management, Frankfurt, DE © KEIL



DIAMOND TIPPED FAÇADE DRILL BIT 9/12





Product information

- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.
- The KEIL façade drill bit is inserted into the KEIL chuck.

h_S = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	article no.
≤ 20	9	12	1.5	515 019 001

Application

- Diamond tipped
- Wet drilling
- For all "soft" stones with low strength.
- Central cooling through the façade drill bit.

Accessories

- Fastener set 1 (p. 53)
- Fastener set 2 (p. 53)
- Fastener set 3 (p. 53)
- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

Diamond tipped undercut façade drill bit

Instructions for use

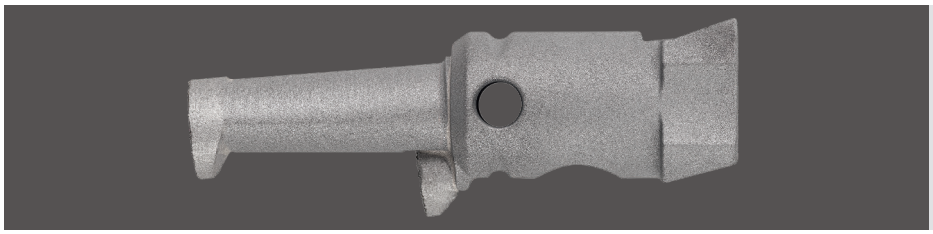
- Use according to approval and KEIL assembly instructions for anchors (p. 12). Please find documents with relevance to building regulations under www.keil-fixing.de/en/approvals.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- For KEIL chucks / undercut drilling machines.
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

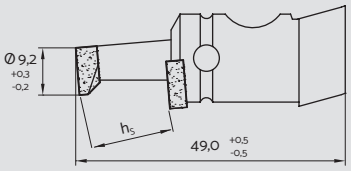
Packaging unit

- Packaging unit = 2 pieces.

Oxford Brookes University, Oxford, GB, Rasmus Norlander © Rieder Group

DIAMOND TIPPED FAÇADE DRILL BIT WITH COUNTERSINK 9/12





h_s = insertion depth [mm]	drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	countersink Ø [mm]	article no.
20	9	12	1.5	20	515 019 002

Application

- Diamond tipped
- Wet drilling
- For all "soft" stones with low strength.
- Central cooling through the façade drill bit.

Accessories

- Fastener set 1 (p. 53)
- Fastener set 2 (p. 53)
- Fastener set 3 (p. 53)
- Depth control guide (p. 56)
- Whetstones (p. 51)

Design

Diamond tipped façade drill bit with countersink

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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- Only for drilling machines designed to drill consistant with the front side of the panel.
- For KEIL chucks / undercut drilling machines.
- Recommended rotational speed > 7,000 rpm.
- Water pressure > 4 bar
- Usage of the cooling lubricant 532 500 035 (p. 49) will prolong the life time of the diamond tipped façade drill bit significantly and protect the parts covered in cooling water from corrosion.

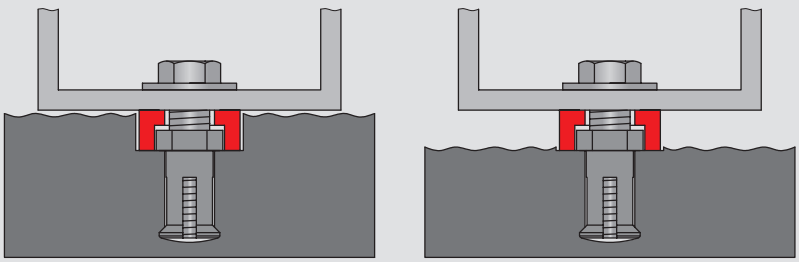
Packaging unit

- Packaging unit = 2 pieces.

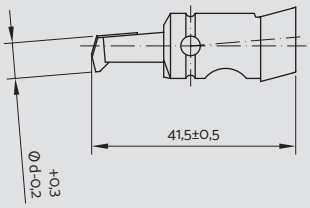
Product information

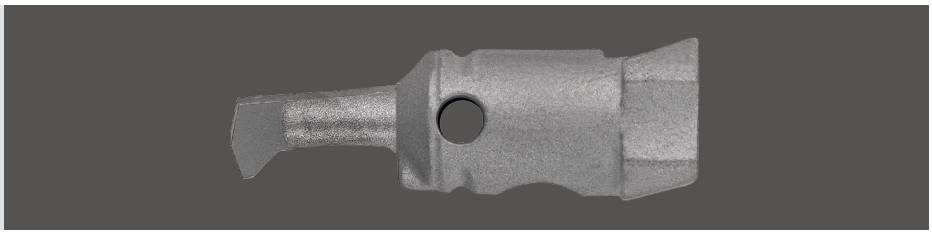
- Especially for the drilling of undercut holes in façade panels with unequal panel thicknesses.
- In order to balance tolerances in panel thicknesses, the countersink will be carried out in one step together with the drilling and undercutting.
- The front side of the panel is always the reference measure.
- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.
- The KEIL façade drill bit is inserted into the KEIL chucks.

Panel attachment to substructure independent of panel thickness and rear surface flatness.



CARBIDE TIPPED FAÇADE DRILL BIT HM





Product information

- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.
- The KEIL façade drill bit is inserted into the KEIL chuck.

h_s = insertion depth [mm]	d = drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	variant	article no.
4	7	9	0.5	X flat	517 010 007
≤ 12	7	9	0.8	flat	517 010 003
≤ 12	7	9	0.8	standard	517 010 002
≤ 15	7	9	1.3	long	517 010 004
≤ 12	8	10	0.5	square anchor	517 010 001
≤ 12	8	10	0.5	square anchor, flat	517 010 006

Application

- For façade panels from e.g.
  - Fibre cement
  - Laminate (HPL)
  - Synthetic materials
  - Specified artificial and natural stones
  - Solid surface materials

Accessories

- Fastener set 1 (p. 53)
- Fastener set 2 (p. 53)
- Fastener set 3 (p. 53)
- Depth control guide (p. 56)

Design

Carbide tipped undercut façade drill bit

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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- For KEIL chucks / undercut drilling machines.

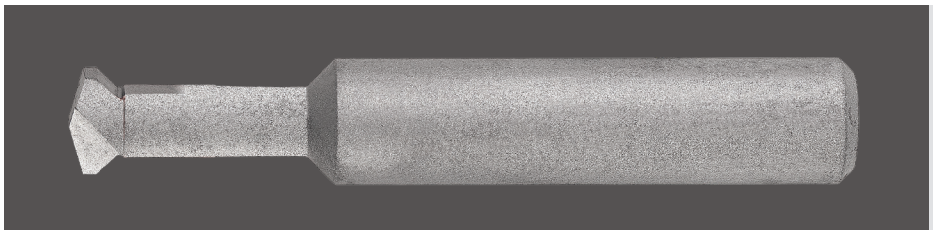
Packaging unit

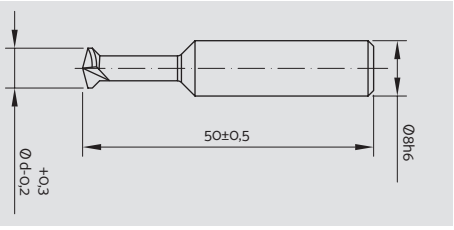
- Packaging unit = 2 pieces.

Silex 1, Lyon, FR © KEIL

Silex 1, Lyon, FR © Kevin Dolmaire, AIA Architectes / Corian® Facade

FAÇADE DRILL BIT HM CNC





h_s = insertion depth [mm]	d = drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	drill shaft Ø [mm]	variant	article no.
≤ 13	7	9	0.8	8	2 cutters for CNC	517 020 005

Application

- For façade panels from e.g.
  - Fibre cement
  - Laminate (HPL)
  - Synthetic materials
  - Specified artificial and natural stones
  - Solid surface materials

Accessories

- Depth control guide (p. 56)

Design

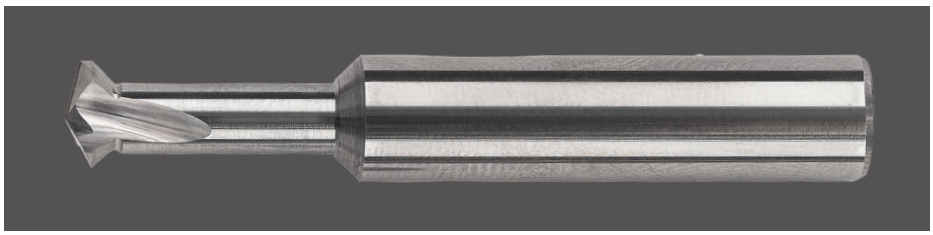
Undercut façade drill bit with soldered in carbide blade and cylindrical shaft

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.
- Adjust the insertion depth and monitor the life time of the façade drill bit with the aid of the depth control guide.
- For CNC machines.

Product information

- The KEIL façade drill bit is available in various designs matching the KEIL undercut anchor.
- We offer diamond or carbide tipped façade drill bits, which are used depending on the panel material to be drilled.
- Optimized, small diameters with large undercutting cause minimization of the drilling time and maximization of the tool life.
- The KEIL drilling technique warrants optimally short drilling times, long tool life and precise drill hole geometry.



h_s = Insertion depth [mm]	d = drill hole Ø cylindrical [mm]	drill hole Ø undercut [mm]	height undercut [mm]	drill-shaft Ø [mm]	variant	article no.
≤ 13	7	9	0.8	8	2 cutters	517 020 002
≤ 13	7	9	0.8	8	3 cutters	517 020 001
≤ 13	8	10	0.8	8	2 cutters square anchor	517 020 003

Application

see above

Accessories

see above

Design

Full carbide undercut façade drill with cylindrical shaft

Instructions for use

see above

Silex 1, Lyon, FR © Kevin Dolmaire, AIA Architectes / Corian® Facade

Railway Station, Schwäbisch Gmünd, DE © Uwe Röder, Material: HI-MACS® - Design: preiswerk marek architekten - Engineering: 5D Engineering