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.
**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.

### Table

<table>
<thead>
<tr>
<th>h_s = insertion depth [mm]</th>
<th>drill hole Ø cylindrical [mm]</th>
<th>drill hole Ø undercut [mm]</th>
<th>height undercut [mm]</th>
<th>type</th>
<th>article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 13</td>
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<td>9</td>
<td>0.8</td>
<td>1</td>
<td>515 010 022</td>
</tr>
<tr>
<td>≤ 15</td>
<td>7</td>
<td>9</td>
<td>1.3</td>
<td>2</td>
<td>515 017 022</td>
</tr>
</tbody>
</table>

**Application**
- Diamond tipped
- Wet drilling
- For all “hard” materials, e.g.
  - Ceramics
  - Porcelain 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.
- Central cooling through the façade drill bit.
- 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.
**DIAMOND TIPPED FAÇADE DRILL BIT WITH COUNTERSINK**

<table>
<thead>
<tr>
<th>$h_s$</th>
<th>drill hole Ø cylindrical</th>
<th>drill hole Ø undercut</th>
<th>height undercut</th>
<th>countersink Ø</th>
<th>article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>7</td>
<td>9</td>
<td>1.3</td>
<td>15</td>
<td>515 012 000</td>
</tr>
<tr>
<td>15</td>
<td>7</td>
<td>9</td>
<td>1.3</td>
<td>15</td>
<td>515 017 000</td>
</tr>
</tbody>
</table>

**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.

**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](http://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 532 500 025 (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.
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.

<table>
<thead>
<tr>
<th>$h_s$ (insertion depth) [mm]</th>
<th>drill hole Ø cylindrical [mm]</th>
<th>drill hole Ø undercut [mm]</th>
<th>height undercut [mm]</th>
<th>article no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 15</td>
<td>7</td>
<td>9</td>
<td>1.3</td>
<td>515 020 001</td>
</tr>
</tbody>
</table>

Application

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

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.
DIAMOND TIPPED FAÇADE DRILL BIT CNC

**Application**
- Diamond tipped
- Wet drilling
- For all “hard” materials, e.g.
  - Ceramics
  - Porcelain 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.

<table>
<thead>
<tr>
<th>h_\text{cyl}</th>
<th>\text{drill hole } \varnothing_\text{cylindrical}</th>
<th>\text{drill hole } \varnothing_\text{undercut}</th>
<th>\text{height undercut}</th>
<th>\text{variant}</th>
<th>\text{article no.}</th>
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<td>9</td>
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<td>cyl. shaft</td>
<td>515 020 002</td>
</tr>
</tbody>
</table>

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

www.keil-fixing.de/en
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.

<table>
<thead>
<tr>
<th>h_s =</th>
<th>drill hole Ø</th>
<th>drill hole Ø</th>
<th>height</th>
<th>article no.</th>
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</thead>
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<td>12</td>
<td>1.5</td>
<td>515 019 001</td>
</tr>
</tbody>
</table>

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.
DIAMOND TIPPED FAÇADE DRILL BIT WITH COUNTERSINK 9/12

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

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 consistently 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.

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

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.

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

Packaging unit
- Packaging unit = 2 pieces.

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

Product information

<table>
<thead>
<tr>
<th>h_3</th>
<th>drill hole Ø cylindrical</th>
<th>drill hole Ø undercut</th>
<th>height undercut</th>
<th>countersink Ø</th>
<th>article no.</th>
</tr>
</thead>
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<td>9</td>
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<td>1.5</td>
<td>20</td>
<td>515 019 002</td>
</tr>
</tbody>
</table>

www.keil-fixing.de/en
# 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.

## Application

- For façade panels from e.g.: Fibre cement, Lamine (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.

---

### ETA

- **ηS =** insertion depth [mm]
- **d =** drill hole Ø cylindrical [mm]
- **drill hole Ø undercut [mm]**
- **height undercut [mm]**
- **variant**
- **article no.**

<table>
<thead>
<tr>
<th>hS</th>
<th>d</th>
<th>Ø undercut</th>
<th>height undercut</th>
<th>variant</th>
<th>article no.</th>
</tr>
</thead>
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<td>0.5</td>
<td>X flat</td>
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<td>9</td>
<td>0.8</td>
<td>flat</td>
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<td>0.8</td>
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</tr>
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<td>7</td>
<td>9</td>
<td>1.3</td>
<td>long</td>
<td>517 010 004</td>
</tr>
<tr>
<td>≤ 12</td>
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<td>10</td>
<td>0.5</td>
<td>square anchor</td>
<td>517 010 001</td>
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<td>≤ 12</td>
<td>8</td>
<td>10</td>
<td>0.5</td>
<td>square anchor, flat</td>
<td>517 010 006</td>
</tr>
</tbody>
</table>
FAÇADE DRILL BIT HM CNC

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.

Application
see above

Accessories
see above

Design
Full carbide undercut façade drill with cylindrical shaft

Instructions for use
see above