Technical information for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system.

Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads.

The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and shims are used.

Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:

Tools can be adjusted in diameter by using guide pad shims and exchanging the stop plate.

The maximum adjusting range in 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm. D1 should be always bigger as D2.

Example:

The drill head 64-1121-000 with D1 = 45.00 should be adjusted to D1 = 45.22 mm. Engraved in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm.

For adjusting the drill head to the new diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Stop plate system

When using identical tools with exactly the same drill head diameter, the thickness of the stop plate (dimension “S”) can vary due to manufacturing tolerances of the milled drill head body.

The needed thickness “S” for the ordered drill head diameter is therefore engraved in the drill head body.

Stop plates are available in increments of 0.01mm.

Thickness “S” is engraved in the stop plates as well. When re-ordering, please state order number as well as the dimension “S” of the requested stop plate.
botek advantages Spare parts type 12/type 64

1. High-performance tool due to high stability of the drill head body.
2. Spare parts needed due to reduced number of inserts and standardised guide pads.
3. Trouble-free adjusting of intermediate diameters possible by changing the stop plates (available in steps of 0.2 mm) and applying stops for the guide pads.
4. Easy exchange of indexable inserts and guide pads.
5. High-performance tool due to high stability of the drill head body.

Thread: M6 x 17.5

Drilling range

<table>
<thead>
<tr>
<th>Ø (mm)</th>
<th>Drill head</th>
<th>Peripheral insert</th>
<th>Guide pads</th>
<th>Step plate</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.00 - 31.99</td>
<td>02-1500-315</td>
<td>22-1200-545</td>
<td>64-13**-000</td>
<td>100-2500</td>
</tr>
<tr>
<td>28.50 - 29.99</td>
<td>02-1450-315</td>
<td>22-1100-545</td>
<td>64-12**-000</td>
<td>100-2400</td>
</tr>
<tr>
<td>27.00 - 28.49</td>
<td>02-1400-315</td>
<td>22-1000-545</td>
<td>64-11**-000</td>
<td>100-2300</td>
</tr>
<tr>
<td>25.50 - 27.00</td>
<td>02-1350-315</td>
<td>22-0900-545</td>
<td>64-10**-000</td>
<td>100-2200</td>
</tr>
<tr>
<td>24.00 - 25.50</td>
<td>02-1300-315</td>
<td>22-0800-545</td>
<td>64-09**-000</td>
<td>100-2100</td>
</tr>
<tr>
<td>22.50 - 24.00</td>
<td>02-1250-315</td>
<td>22-0700-545</td>
<td>64-08**-000</td>
<td>100-2000</td>
</tr>
<tr>
<td>21.00 - 22.50</td>
<td>02-1200-315</td>
<td>22-0600-545</td>
<td>64-07**-000</td>
<td>100-1900</td>
</tr>
<tr>
<td>20.00 - 21.00</td>
<td>02-1150-315</td>
<td>22-0500-545</td>
<td>64-06**-000</td>
<td>100-1800</td>
</tr>
<tr>
<td>19.00 - 20.00</td>
<td>02-1100-315</td>
<td>22-0400-545</td>
<td>64-05**-000</td>
<td>100-1700</td>
</tr>
<tr>
<td>18.00 - 19.00</td>
<td>02-1050-315</td>
<td>22-0300-545</td>
<td>64-04**-000</td>
<td>100-1600</td>
</tr>
<tr>
<td>17.00 - 18.00</td>
<td>02-1000-315</td>
<td>22-0200-545</td>
<td>64-03**-000</td>
<td>100-1500</td>
</tr>
</tbody>
</table>

Drill head body

Peripheral insert

Guide pads

Step plate

Available carbide grades and chip breakers

<table>
<thead>
<tr>
<th>Carbide grade</th>
<th>Peripheral insert</th>
<th>Centre insert</th>
<th>Guide pads</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP1</td>
<td>P20 (P1*10)</td>
<td>P1*10</td>
<td>P1*10</td>
</tr>
<tr>
<td>SP2</td>
<td>P20 (P1*10)</td>
<td>P1*10</td>
<td>P1*10</td>
</tr>
<tr>
<td>SP3</td>
<td>P20 (P1*10)</td>
<td>P1*10</td>
<td>P1*10</td>
</tr>
<tr>
<td>SP4</td>
<td>P20 (P1*10)</td>
<td>P1*10</td>
<td>P1*10</td>
</tr>
</tbody>
</table>

Order example:
Solid drill head type 64

Diameter (Ø) mm: 44 - 122 mm: D44 - D325 mm: D44 - D325
Please give carbide grades and chip breakers separately.

*When ordering complete heads the peripheral insert will be with a corner radius (version -315).
Peripheral inserts without this radius
(version 00 - 315) are on request.

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botek advantages

1. High performance tool due to high stability of the drill head body.
2. Less spare parts needed due to reduced number of inserts and standardized guide pads.
3. Trouble free adjusting of intermediate diameters possible by changing the stop plate (available in increments of 0.01mm) and using shims for the guide pads.
4. Easy exchange of replaceable inserts and guide pads.
5. No need to adjust spinning within ± 0.25mm diameter.
6. Peripheral inserts with 2 cutting edges, centre inserts with 6 cutting edges.
7. Easy assembly onto the drill tube with an open-end wrench and spindles for the guide pads.
8. Various combinations of carbide grades and coatings for inserts and guide pads.
9. Drilling tolerance ±1.8 is possible under favourable conditions.
10. New cutter design SPG for general use and high feed rates.

Spare parts type 12/type 64

Drill range (from - up to)

|--------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|

Drill head body

- Peripheral insert
- Centre insert
- Guide pad
- Guide pads
- Screen/key
- Screen/key
- Guide pads
- Screen/key
- Step plate
- Screen/key

Order example:
Solid drill head type 64
(Diameter Ø:5.5mm) 64-1200-0145-00.
Please give outside grades and chip breakers separately.

Available carbide grades and chip breakers

- Carbide grade
- Centre insert
- Guide pads
- Chip breakers

- P40
- P30
- P25
- P15
- K10
- K15
- K20
- K30
- K40
- K50
- W20
- W30
- W40
- W50
- W60
- W70
- W80
- W90
- W100

Open-end smooth SW

- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31

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1. High performance tool due to high stability of the drill head body.
2. Less spare parts needed due to reduced number of inserts and standardised guide pads.
3. Trouble free adjusting of intermediate diameters possible by changing the stop.
4. Easy exchange of indexable inserts and guide pads.
5. No need to adjust setting within ±0.01mm.
7. Various standard shank sizes by drilling a wide range of materials.
8. Various combinations of carbide grades and coatings for inserts and guide pads.
9. Drilling tolerance up to IT 8 is possible under favourable conditions.
10. New chuck design SP5 for general use and high feed rates.

**Drill tube type 25**

**Drill tube type 45**

**Spare parts type 12**

**Spare parts type 64**

**Available carbide grades and chip breakers**

**Order example:**
Solid drill tool head type 64

Diameter (D): 0.8 - 0.9 mm - 0.122 - 0.124 mm.
Please give carbide grade and chip breakers separately.
Technical information for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep-hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling systems.

Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads.

The tools 64 have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and shim are used.

Tools with adjusting range (..,20 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness "S" is engraved into the drill head body (see below).

Procedure:
Tools are adjusted in diameter by using guide pad shims and exchanging the stop plate.
The maximum adjusting range is 0.25mm diameter.
The thickness of all guide pad shims must be exactly the same.
The exact drill head diameter D1 is adjusted by exchanging the stop plate.
The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm.
D1 should always bigger as D2.

Example:
The drill head 64-1121-000 with D1 = 45.00 should be adjusted to D1 = 45.22mm.
Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm.
For adjusting the drill head to the new diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Stop plate system

When using identical tools with exactly the same drill head diameter, the thickness of the stop plate dimension "S" can vary due to manufacturing tolerances of the milled drill head body.
The needed thickness "S" for the ordered drill head diameter is therefore engraved in the drill head body.
Stop plates are available in increments of 0.01mm.
Thickness "S" is engraved in the stop plate as well. When re-ordering, please state order number as well as the dimension "S" of the requested stop plate.
Technical information
for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system. Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads. The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and a shim are used. Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:
Tools will be adjusted by using guide pad shims and exchanging the stop plate. The maximum adjusting range is 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm.

D1 should always be bigger as D2.

Example:
The drill head 64-1121-00 with D1 = 45.00 should be adjusted to D1 = 45.22 mm.

Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm. For adjusting the drill head to the non-diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Technical information
for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system. Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads. The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and a shim are used. Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:
Tools will be adjusted by using guide pad shims and exchanging the stop plate. The maximum adjusting range is 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm.

D1 should always be bigger as D2.

Example:
The drill head 64-1121-00 with D1 = 45.00 should be adjusted to D1 = 45.22 mm.

Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm. For adjusting the drill head to the non-diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Technical information
for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system. Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads. The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and a shim are used. Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:
Tools will be adjusted by using guide pad shims and exchanging the stop plate. The maximum adjusting range is 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm.

D1 should always be bigger as D2.

Example:
The drill head 64-1121-00 with D1 = 45.00 should be adjusted to D1 = 45.22 mm.

Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm. For adjusting the drill head to the non-diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Technical information
for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system. Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads. The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and a shim are used. Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:
Tools will be adjusted by using guide pad shims and exchanging the stop plate. The maximum adjusting range is 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

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D1 should always be bigger as D2.

Example:
The drill head 64-1121-00 with D1 = 45.00 should be adjusted to D1 = 45.22 mm.

Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm. For adjusting the drill head to the non-diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.

Technical information
for solid drill heads type 12 and 64

Type 12 and 64 are high-precision deep hole drilling tools with indexable inserts and guide pads for use on deep hole drilling machines with BTA (STS) drilling system. Adjusting of tool diameter in increments of 0.01mm by changing inserts and putting a shim underneath the guide pads. The tools do have an adjusting range within 0.25mm (..,00 - ..,24mm) (..,25 - ..,49mm) (..,50 - ..,74mm) (..,75 - ..,99mm). For the smallest diameter of each drilling range no guide pad and a shim are used. Tools with adjusting range (..,00 - ..,24mm) are available in a few working days.

Adjustment of tools

Drill heads will be adjusted to the ordered drill diameter in house. Stop plate thickness “S” is engraved into the drill head body (see below).

Procedure:
Tools will be adjusted by using guide pad shims and exchanging the stop plate. The maximum adjusting range is 0.25mm diameter.

The thickness of all guide pad shims must be exactly the same.

The exact drill head diameter D1 is adjusted by exchanging the stop plate.

The difference between D1 and D2 must be at least 0.02mm and at most 0.06mm.

D1 should always be bigger as D2.

Example:
The drill head 64-1121-00 with D1 = 45.00 should be adjusted to D1 = 45.22 mm.

Engaged in the head is a stop plate thickness S = 1.51 mm for a drill head diameter 45.00 mm. For adjusting the drill head to the non-diameter guide pad shims # 10-0800-4919/0.1mm thickness and a stop plate # 01-2050-610-S1.63 are used.
### Type 12
**Drill tube type 25**
1-station connection thread

### Type 64
**Drill tube type 45**
4-station connection thread

---

**botex advantages**

1. High-performance tool due to high stability of the drill head body.
2. Less spare parts needed due to reduced number of inserts and standardised guide pad.
3. Trouble-free adjusting of intermediate diameters possible by changing the stop plate (available in increments of 0.01 mm) and using shims for the guide pads.
4. Easy exchange of replaceable inserts and guide pads.
5. No need to adjust spindles within ± 15 degrees.
6. Peripheral inserts with 2 cutting edges, centre inserts with 4 cutting edges.
7. Easy assembly into the drill tube with an open-end wrench.
8. Various standardised types for a wide range of materials.
10. Drilling tolerance ± 1 is possible under favourable conditions.
11. New chipbreaker design SP1 for general use and high feed rates.

---

### Available carbide grades and chip breakers

**Spare parts type 12/64**

**Drilling range**

<table>
<thead>
<tr>
<th>Ø (mm)</th>
<th>Drill head body</th>
<th>Drill head body</th>
<th>Drill tube size</th>
<th>Drill tube size (Dia.)</th>
<th>Overall length (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.08 - 8.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>08</td>
<td>24</td>
<td>60.9</td>
</tr>
<tr>
<td>9.00 - 9.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>08</td>
<td>24</td>
<td>60.9</td>
</tr>
<tr>
<td>10.00 - 10.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>08</td>
<td>24</td>
<td>60.9</td>
</tr>
<tr>
<td>11.00 - 11.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>08</td>
<td>24</td>
<td>60.9</td>
</tr>
<tr>
<td>12.00 - 12.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>11</td>
<td>39</td>
<td>61.2</td>
</tr>
<tr>
<td>13.00 - 13.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>11</td>
<td>39</td>
<td>61.2</td>
</tr>
<tr>
<td>14.00 - 14.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>11</td>
<td>39</td>
<td>61.2</td>
</tr>
<tr>
<td>15.00 - 15.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>11</td>
<td>39</td>
<td>61.2</td>
</tr>
<tr>
<td>16.00 - 16.99</td>
<td>12-12**-000</td>
<td>12-12**-150</td>
<td>11</td>
<td>39</td>
<td>61.2</td>
</tr>
</tbody>
</table>

**Screw**

**Guide pad**

**Peripheral tip**

**Shank**

**Order example:**

- Solid drill head type 64 (Diameter Ø: 34 mm - 84 mm)
- Please give outside grades and chip breakers separately.

---

**Type 12**

**Drill tube type 25**

**Screw**

**Peripheral insert**

**Shank**

**Guide pad**

**Centre insert**

**Stop plate**

**Order example:**

- Solid drill head type 64 (Diameter Ø: 34 mm - 84 mm)
- Please give outside grades and chip breakers separately.

---

**Type 64**

**Drill tube type 45**

**Screw**

**Peripheral insert**

**Shank**

**Guide pad**

**Centre insert**

**Stop plate**

**Order example:**

- Solid drill head type 64 (Diameter Ø: 34 mm - 84 mm)
- Please give outside grades and chip breakers separately.

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