botek®

DEEP HOLE DRILLING SYSTEMS
SOLID CARBIDE TOOLS

botek Product line

Express Production Line – Delivery within 24 h

(if all components are in stock
or by arrangement)

Single flute gundrills / Twin fluted drills

Solid drilling tools

Type 113
Solid carbide gundrill
kidney-shaped coolant channel

diameter range:
0.500 - 12.000 mm

Type 113-01
Solid carbide stepped drill
kidney-shaped coolant channel

diameter range:
1.500 - … mm

Type 113-HP
Solid carbide gundrill
High performance tool design alternative to carbide twist drills

diameter range:
0.700 - 12.000 mm

Type 113-HP-M
Solid carbide gundrill
High performance tool design for the usage with MQL

diameter range:
2.000 - 12.000 mm

Type 110
Single flute gundrill with brazed solid carbide tip

1 coolant hole kidney-shaped coolant channel
diameter range 1.850 - 7.059 mm

2 coolant holes
diameter range 7.060 - 51.200 mm

Type 113 / 110 / 112 also available with PCD cutting edge (from Ø 4.0 mm)

Type 01
Deep hole drilling tool
with indexable inserts and guide pads, setting of drill diameter by stop plate

drilling range: 9.90 - 43.99 mm

Type 07
Deep hole drilling tool
with indexable inserts and guide pads, diameter will be manufactured as per order

drilling range: 25.00 - 50.99 mm

Type 02
Deep hole drilling tool
with indexable inserts and guide pads, setting of drill diameter by stop plate, larger dia. on request

drilling range: 37.00 - 74.99 mm

Type 07A
Deep hole drilling tool
with indexable inserts and guide pads, diameter will be manufactured as per order

drilling range: 51.00 - 113.99 mm

Counterboring tools

Type 113-02
Single flute counterboring tool
solid carbide

diameter range: 0.500 - 10.000 mm

Type 115
Single flute counterboring tool
with solid carbide tip, chips forward (round tube)

diameter range: 2.000 - 51.200 mm

Type 115-01
Single flute stepped counterboring tool
with solid carbide tip

diameter range: 2.000 - 51.200 mm

Type 115-03
Single flute counterboring tool with guiding pilot
with solid carbide tip

diameter range: 4.000 - 12.000 mm

Trepanning tools

Type 114
Trepanning gundrill
carbide tip for producing annular drill holes

outer diameter range:
11.000 - 50.000 mm

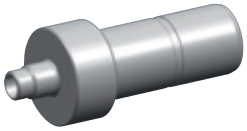
Accessories

Rotating coolant connector
for deep hole drilling tools with internal coolant supply

diameter range:
9.900 - 115.000 mm
2.500 - 25.000 mm

Clamping cone 170-02

Drill bush holder 170-03



Machining centres

Type 153-02
Solid carbide pilot drill
not coolant fed /
point angle 140°
3 x D (drill flute length)

diameter range: 0.800 - 26.000 mm

Type 153-03
Solid carbide pilot drill
coolant fed /
point angle140°
3 x D (drill flute length)
5 x D on request

diameter range: 2.000 - 26.000 mm

Type 158-07
Solid carbide pilot drill
not coolant fed /
point angle 145°
3 x D (drill flute length)

diameter range: 3.000 - 14.000 mm

Type 158-08
Solid carbide pilot drill
coolant fed /
point angle 145°
3 x D (drill flute length)
5 x D on request

diameter range: 3.000 - 14.000 mm

Single flute and Twin fluted gundrills are highly suitable for drilling on modern CNC machining centres.

Single flute gundrills / Twin fluted drills

Type 111

Single flute gundrill
drill head made of a steel body with inserted carbide cutting blade and bearing pads

1 coolant hole
diameter range 5.800 - 40.009 mm

2 coolant holes
diameter range 40.010 - 60.009 mm

Type 112

Single flute stepped gundrill
with solid carbide tip (to produce precise stepped holes in one operation)
Kidney-shaped coolant channel or 2 coolant holes depending on tool diameter

diameter range: 2.000 - 51.200 mm

Type 120

Twin fluted drills
with solid carbide head,
larger dia. on request

diameter range: 6.000 - 43.009 mm

Type 122

Twin fluted stepped solid drilling tool
with solid carbide head

diameter range: 4.510 - 26.500 mm

Type 123

Solid carbide
2-fluted drill
coolant fed double margin

diameter range: 2.800 - 32.000 mm

Type 123-01

Solid carbide
2-fluted drill
for taps, coolant fed,
step angle 90°

diameter range: 2.800 - 32.000 mm

Type 123-02

Solid carbide
2-fluted step drill
for taps, coolant fed,
step angle 180°

diameter range: 2.800 - 32.000 mm

Type 120 / 123 also available cutting edge with PCD

Type 115-04

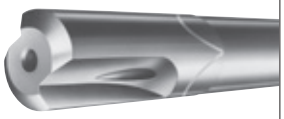
Single flute counterboring tool with guiding pilot
steel body with inserted carbide cutting blade and bearing pads

diameter range: 12.001 - 60.006 mm

Type 125

Twin fluted counterboring tool
with solid carbide head

diameter range: 4.000 - 40.000 mm



Type 125-03

Twin fluted counterboring tool with guiding pilot
with solid carbide tip and steel shank

diameter range: 6.000 - 40.000 mm

Type 08

Trepanning tool
drilling range: 25.00 - 100.00 mm

Type 09

Core Cutter
drilling range: 37.00 - 70.00 mm

Drill bushings 170-04

according to DIN 179 A
extended, made of steel,
hardened throughout.
Special design on request.

Whipguide bushings

with and without hole or
formed type

Sealing disc 170-07

PCD tipped Single flute / Twin flute gundrills and form boring tools are also available.

Solid carbide drill / Milling / Reaming

Solid carbide drill

Type B200
Solid carbide drill
DIN 1897, 3-fluted
30˚ helix, 140˚ drill point

diameter range: 3.000 - 20.000 mm

Type B300
Tap size end mill
solid carbide, DIN 8378, 3-fluted
30˚ helix, 90˚ countersink

diameter range: 2.500 - 10.200 mm

Type B301
Tap size end mill
solid carbide, DIN 8378, 3-fluted
30˚ helix, 180˚ countersink

diameter range: 0.700 - 32.000 mm

Type 158-00
Solid carbide twist drill
(high performance twist drill) 4 margins / coolant fed
Point angle 140°

diameter range: 3.000 - 14.000 mm

Type 158-01
Solid carbide twist drill
2 margins / coolant fed (available on request)
Point angle 140°

diameter range: 3.000 - 14.000 mm

Milling

Type P300
Insert pocket and end mill
solid carbide, 3-fluted

diameter range: 0.800 - 32.000 mm

Type F244...F251
Ball nose end mill
solid carbide, DIN 6527
+ botek standard, 2-fluted

diameter range: 1.500 - 32.000 mm

Type F341...F347
Ball nose end mill
solid carbide, DIN 6527
+ botek standard, 3-fluted
30˚ helix

diameter range: 1.500 - 32.000 mm

Type F440...F445
Ball nose end mill
solid carbide, DIN 6527
+ botek standard
4-fluted

diameter range:
1.500 - 32.000 mm

Type F20
Solid carbide cutter
DIN 6527 +
botek standard
2-fluted

diameter range:
1.500 - 32.000 mm

Type F30
Solid carbide cutter
DIN 6527 +
botek standard
3-fluted

diameter range:
1.500 - 32.000 mm

Type F40
Solid carbide cutter
DIN 6527 +
botek standard
4-fluted

diameter range:
1.500 - 32.000 mm

Type F005-01
Insert pocket and end mill
solid carbide, 3-fluted

diameter range:
1.800 - 25.000 mm

Non standards also available.
Please contact your botek representative.
Technical hotline: Single flute gundrills / Twin fluted drills P: +49 7123 3808-300

Reaming

Type 140
4 cutting edges counterboring tool
with solid carbide tip

diameter range:
6.000 - 40.000 mm

Type 160
6 cutting edges counterboring tool
with solid carbide tip

diameter range:
6.000 - 40.000 mm

Special tools on request.

Solid drilling tools

Discontinued model

Type 17
Solid drill head
regrindable, brazed carbide blade and guide pads, head to be brazed onto drill tube

drilling range:
7.76 - 15.50 mm

Discontinued model

Type 18
Solid drill head
regrindable, brazed carbide blade and guide pads, 1-start connection thread external

drilling range:
12.21 - 15.50 mm

Type 20
Solid drill head
regrindable, brazed carbide blade and guide pads

drilling range:
14.51 - 36.99 mm

Type 11
Solid drill head
setting of drill diameter by stop plate

drilling range:
14.55 - 36.99 mm

Type 70B
Solid drill head
diameter will be manufactured as per order

drilling range:
25.00 - 65.00 mm

Type 12
Solid drill head
setting of drill diameter by stop plate

drilling range:
28.50 - 74.99 mm

1-start connection thread internal

Type 14
Solid drill head
brazed type, disposable

drilling range:
15.60 - 65.00 mm

Type 61
Solid drill head
setting of drill diameter by stop plate

drilling range:
15.65 - 36.20 mm

Type 70A
Solid drill head
diameter will be manufactured as per order

drilling range:
25.00 - 65.00 mm

Type 64
Solid drill head
setting of drill diameter by stop plate

drilling range:
28.71 - 74.99 mm

Type 43A/B/F
Solid drill head
1-start or 4-start connection thread or flange mounting
setting of drill diameter by stop plate

drilling range:
60.00 - 368.99 mm

4-start connection thread external

Counterboring tools

Type 13A/B
Counterboring head
1-start or 4-start connection thread, for boring depth up to 30 x dia.

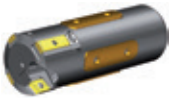
drilling range:
28.50 - 74.99 mm

Type 34 / Type 54
Counterboring head
1-start or 4-start connection thread or flange mounting

drilling range:
44.00 - 353.99 mm

Type 35A/B/F
Counterboring head
1-start or 4-start connection thread or flange mounting, large adjustment range

drilling range:
61.00 - 498.99 mm



Type 36/Type 56
Counterboring head multi-cutter
1-start or 4-start connection thread or flange mounting

drilling range:
60.00 - 250.00 mm

Type 33A/B/F
Counterboring head multi-cutter
1-start or 4-start connection thread or flange mounting, large adjustment range
drilling range:
159.00 - 498.99 mm

Type 38 / Type 58
Pull boring head
1-start or 4-start connection thread

drilling range:
20.00 - 222.99 mm

with add. fibre guide pads for boring depth up to 100 x dia.

Trepanning tools

Type 28 / Type 48
Trepanning head
1-start or 4-start connection thread or flange mounting

drilling range:
55.00 - 412.99 mm

Type 29 / Type 49
Core cutter for cores up to max. Ø 60.00 mm
1-start or 4-start connection thread

Accessories

Type 25
Drill tube
with 1-start connection thread external

Type 45
Drill tube
with 4-start connection thread internal

Drill tube drivers
(split style)

Drill tube drivers
(collet style)

Vibration dampers

Machining centres

Pressure heads (BOZA)
for rotating and non-rotating workpieces with clamping cones or face sealing

Drill tube adaptor

- **Drill bushings**
- **Wear pieces for drill tubes**
- **Guide pieces**
- **Drill head setting gauges**
- **Grinding arbors**

Tools for Drilling System BTA are **not** recommended for the use on machining centres.

System Ejector

Solid drilling tools

Type 15
Solid drill head
brazed type, disposable

drilling range: 18.40 - 65.00 mm

Type 60
Solid drill head
setting of drill diameter by stop plate

drilling range: 18.40 - 36.20 mm

Type 70E
Solid drill head
diameter will be manufactured as per order

drilling range: 25.00 - 65.00 mm

4-start connection thread external

Type 62
Solid drill head
setting of drill diameter by stop plate

drilling range: 28.71 - 74.99 mm

Type 43E
Solid drill head
setting of drill diameter by stop plate

drilling range: 60.00 - 188.99 mm

4-start connection thread external

Counterboring tools

Type 13E
Counterboring head
setting of drill diameter by stop plate

drilling range: 28.71 - 74.99 mm

Type 35E
Counterboring head
large adjustment range

drilling range: 61.00 - 198.99 mm

4-start connection thread external

Accessories

Type 55
Drill tube (outer tube)
with 4-start connection thread internal

Type 55
Inner tube
for all types of coolant connectors

Machining centres

Rotating connector

Non-rotating connector

- **Drill bushings**
- **Guide pieces**
- **Vibration dampers**
- **Drill head setting gauges**
- **Grinding arbors**

Tools for Drilling System Ejector are highly suitable for drilling on modern CNC machining centres.

Turnkey-Projects / Regrinding (Single flute gundrills)
Axial-Pulsator / Coolant pressure gauging-kit / Drill Head Setting Gauge
Step and form boring tools

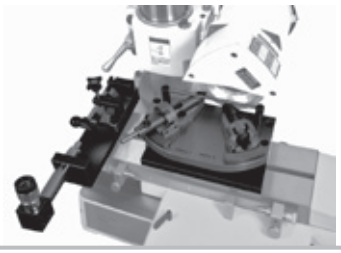
Step and form boring tools with indexable inserts.

Whether individual bores or the complete machining of an entire component – we show you innovative machining concepts and design the appropriate process including tools in close coordination with you.

Type PS

Sharpening fixture
single flute gundrills can be reground on any good tool grinding machine.

diameter range: Ø 0.500 - 6.000 mm



Type ZS

Sharpening fixture
single flute gundrills can be reground on any good tool grinding machine.

diameter range: Ø 2.000 - 50.000 mm

MS 01

Bench top grinding machine
suitable for our sharpening fixtures.

MS 12-2

Multi-station grinding machine
for highly efficient grinding of large batches of tools with the same point geometry. The machine is suitable for tool diameters from 1.850 mm to 12.000 mm and tool lengths up to approx. 1000 mm.

MS 12-3

Multi-station grinding machine
for highly efficient grinding of large batches of tools with the same point geometry. The machine is suitable for tool diameters from 1.850 mm to 12.000 mm and tool lengths up to approx. 1000 mm.

Additional accessories (grinding wheels, tool holders etc.) are also available.

Axial-Pulsator

The botek Axial-Pulsator has been developed to maximize the feed rate of straight fluted deep hole drilling tools when drilling steel and long chipping materials. botek's Axial-Pulsator achieves equal hole making quality (straightness, run out, concentricity and surface finish) as standard deep hole drilling tools with economic performance.

Coolant pressure gauging-kit

Coolant pressure gauging-kit for machining centres and deep hole drilling machines.

Drill Head Setting Gauge

Process reliable diameter setting of drill heads.

Express production line / Stock program / Service

Express production line / Stock program

Express production line: The product range contains the following tools:

- Single flute gundrills: Type 110 / 112 / 113 / 115 / 01 / 07
- Twin fluted drills: Type 120 / 122 / 123 / 123-01
- Twist drills: Type 158-00 / 158-01
- Special tools: Type B200 / B300 / B301 / P300 / F24 / F34 / F44 / F20 / F30 / F40
- Pilot drills: Type 153-02 / 153-03 / 158-07 / 158-08 / 154-02 / 154-03

Contact: Stephan Falk (e-Mail: Eilfertigung@botek.de, T: +49 7123 3808-121)

Stock program:

- Single flute gundrills: Type 110 / 113 / 113-HP / 01
- BTA / Ejector: Type 70A / 70E
- Twist drills: Type 158
- Pilot drills: Type 153-02 / 153-03 / 158-08

For more information regarding our stock and express program please refer to our online-shop on www.botek.de

Service

Customer trials in our research and development department:

- tool development specifically tailored to suit your application
- supportive when introducing the latest technology
- solving processing problems

Process layout: You submit us your drilling application and we will develop the whole process from engineering to finding the perfect tooling solution.

Process optimization: Our team of Application Engineers analyse and improve your process in your facility and coordinate all technical details.

Reduced manufacturing costs by:

- optimised cutting values
- improved tool life
- shortenend auxiliary process time
- maximized process capacity

The botek trial department assists you in all stages of the process with:

- Feasibility tests
- Optimization
- Instruction and training for your technicians

Regrinding: botek offers prompt and cost effective in house regrinding service.

Coating: botek offers prompt and cost effective in house coating service.

Technical hotline: Drill heads with exchangeable inserts, **P: +49 7123 3808-200**
Single flute gundrills / Twin fluted drills, Carbide twist drills, Solid carbide drills, Milling tools, Reamers, **P: +49 7123 3808-300**

You can download our catalogues on our website www.botek.de

- Please see our application notes, www.botek.de
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DEEP HOLE DRILLING SYSTEMS
SOLID CARBIDE TOOLS

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