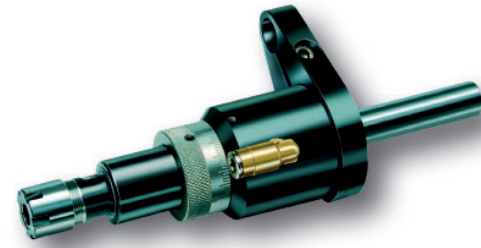


New dimensions
of deep hole drilling



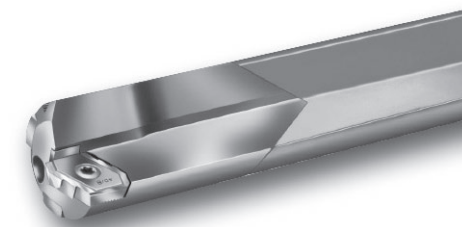
Axial Pulsator
 - process reliable chip breaking by pulsating drilling
 - higher penetration rates
 - **Very efficient for drilling long chipping materials as copper and aluminium alloys**



Type 70 - BTA solid drill head
 - high performance roughing tool
 - simple handling through fixed insert pockets
 - very few spare parts
 - hole tolerance up to IT 10
NEW: Modified chip breaker for optimal feed rates



Type 158 - carbide twist drill, extra long, coolant fed
 - highest product quality
 - short delivery times for new drills or regrinds
NEW: Solid carbide twist drills from the deep hole drilling specialist



Deep hole drilling tool - Type 01
 - higher performance drilling tool with a modern user-friendly design
 - very high cutting capacity
 - no regrinding needed
 - hole tolerance up to IT 8
NEW: Available from 12,00 mm dia



Deep hole drilling tool - Type 07A
 - modular concept
 - high cutting performance
 - no regrinding required
NEW: Solid drilling up to Ø 110 mm

New dimensions
of deep hole drilling

botek
 DEEP HOLE DRILLING SYSTEMS
 SOLID CARBIDE TOOLS

**Solid carbide tool
 Typ 113-HP**

- maximum cutting performance
 - up to 800 % higher feed rates
 - very efficient for drilling long chipping steels
 - fast and cost effective regrinding
- NEW: High performance (HP) tool design**



Innovations 2009/2010
botek

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 DEEP HOLE DRILLING SYSTEMS
 SOLID CARBIDE TOOL

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Single flute gundrills

Typ 01 stock program, metric – with extended guide pads

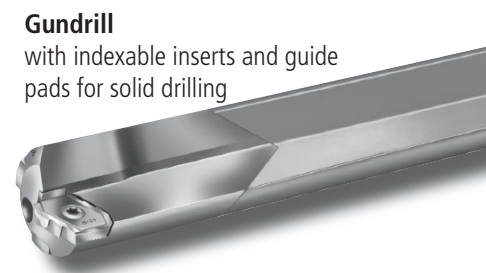
Worldwide first stock program of gundrills with indexable inserts.

max. 2 pieces per dimension and order

Version A. tool type 01-010, option as per list, flute length to driver – **delivery time within 5 working days**

Version B. tool type 01-010, option as per list, – **delivery time within 5 working days**

Tool specification: with extended guide pads (type 01-010)
Insert: Ø 15.00 mm - Ø 17.00 mm: K30B, type 320
from Ø 18.00 mm: P25B-1, type 310
Guide pads: P20



Gundrill
with indexable inserts and guide pads for solid drilling

Tool-diameter D1	Overall length L1 (mm) for option A (ZH25-02)					
	500	800	1200	1600	2000	2500
15.00	01-1511-010	01-1512-010	01-1513-010			01-1516-010
16.00	01-1611-010	01-1612-010	01-1613-010	01-1614-010	01-1615-010	
17.00	01-1711-010	01-1712-010				
18.00	01-1811-010	01-1812-010	01-1813-010	01-1814-010	01-1815-010	01-1816-010
19.00	01-1911-010	01-1912-010	01-1913-010	01-1914-010		01-1916-010
19.50	01-1921-010	01-1922-010				
Flute length	420	720	1120	1520	1920	2420

Tool-diameter D1	Overall length L1 (mm) for option A (ZH25-01)					
	500	800	1200	1600	2000	2500
20.00	01-2011-010	01-2012-010	01-2013-010	01-2014-010	01-2015-010	01-2016-010
20.50	01-2021-010	01-2022-010				
22.00	01-2211-010	01-2212-010	01-2213-010	01-2214-010		01-2216-010
25.00	01-2511-010	01-2512-010	01-2513-010	01-2514-010	01-2515-010	
30.00	01-3011-010	01-3012-010	01-3013-010	01-3014-010	01-3015-010	
Flute length	390	690	1090	1490	1890	2390

The following standard drivers can be used with option A and B:

Option	Dimension (mm)	Standard driver designation	botek driver designation	Tool-diameter (mm)
A	Ø 25 x 70		ZH25-02	up 19.50
			ZH25-01	from 20.00
B	Ø 25 x 56	DIN 1835 B Weldon	ZH25-22	up 19.50
			ZH25-31	from 20.00
	Ø 32 x 60	DIN 1835 B Weldon	ZH32-10	up 25.00
			ZH32-11	from 30.00

Please note:

Tools held on stock are assembled with insert and guide pads but **without driver**. Flute length as listed above. Overall length and flute length are calculated for standard drivers as per list.

When using option B it is possible to mount the driver directly to the flute end or to partially use the cylindrical end of the tube.

When using other drivers, the overall length can be different from the lengths listed above.

Type 110 on stock extended size range

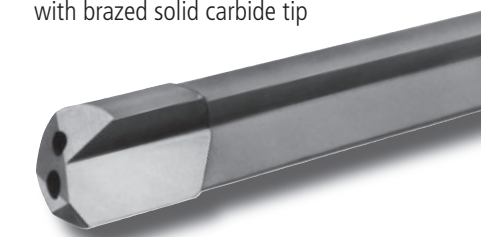
max. order quantity: 3 pcs. per size

Version A. Gundrill type 110, complete, with brazed-on driver (version A), flute length up to driver – **ex stock**

Version B. Gundrill type 110, driver as per customers request (see list below) – **delivery time within 5 working days**

Carbide grade: K15
Guide form: G
Standard nose grind # 001 (40°/30°) for drill Ø 3.0 mm and Ø 4.0 mm
Standard nose grind # 002 (30°/20°) for drill Ø 5.0 mm up to Ø 20.0 mm
Standard nose grind # 003 (20°/15°) for drill Ø 25.0 mm

Single fluted gundrill
with brazed solid carbide tip



Driver-Ø	Drill-Ø	Overall length (mm)									
10.00	3.00	200	300								
	4.00	200	300	400	500						
	5.00		300	400	500	600	800	1000			
	6.00		300	400	500	600	800	1000			
	7.00		300	400	500	600	800	1000			
	8.00			400	500	600	800	1000	1200		
	9.00			400	500	600					
	10.00			400	500	600	800	1000	1200	1300	
	11.00			400	500	600	800	1000		1300	
	12.00			400	500	600	800	1000		1300	
25.00	13.00		400	500	600		1000		1300		
	14.00		400		600	800	1000		1300		
	15.00		400		600	800	1000		1300	1500	
	16.00		400		600	800	1000		1300	1500	
	18.00				600		1000			1500	
	19.00				600		1000			1500	
	20.00*				600*		1000*			1500*	
	22.00*				600*		1000*				
	25.00*				600*		1000*			1500*	
	Flute length for tool A with driver		158/120	220	320	420	520/490*	720	920/890*	1120	1220
Flute length for tool B without driver		155	240	340	440	540/510*	740	940/910*	1140	1240	1440/1410*

For the version A. and B. the following standard drivers are available:

Version	Dimension (mm)	DIN	botek-driver
A	Ø 10 x 40		ZH10-00
	Ø 25 x 70/78		ZH25-00
B	Ø 10 x 40	DIN 6535 HA, cylindrical	ZH10-40
	Ø 25 x 56		ZH25-11
	Ø 10 x 40	DIN 1835 B, Weldon	ZH10-11
	Ø 25 x 56		ZH25-22
	Ø 10 x 40	DIN 1835 E, Whistle Notch	ZH10-20
	Ø 25 x 56		ZH25-36

Please note:

If using other drivers than the ones mentioned, the total length of the tool could be different.

It is possible to mount a different driver directly behind the end of the flute, or simply leave the cylindrical end of the shaft as it is.

* For the marked items the flute length changes due to the use of a driver with brazing pin.

Express Production Line



EXPRESS PRODUCTION LINE

We have established an Express production line which specializes in manufacturing certain tools quickly. Tools which are not included in our stock program can be produced in a very short time.

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E-Mail Lehmann@botek.de

You can order by fax or e-Mail straightforward and quickly. We are pleased to send you our order form.

We are glad to offer this service.