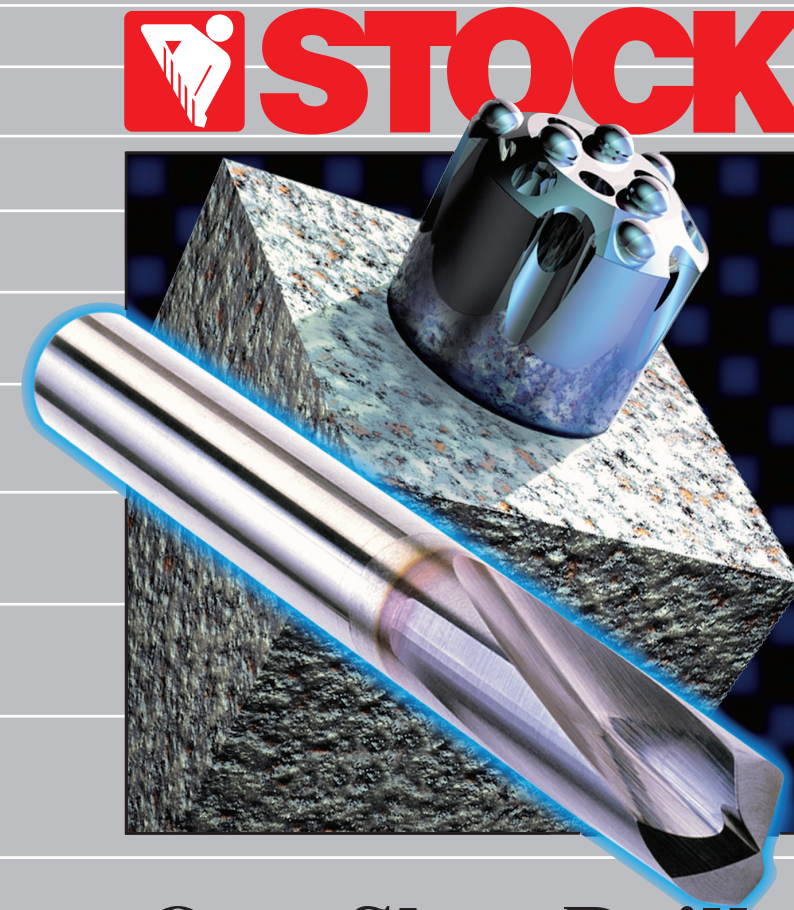


**Our Products:**

Twist Drills  
Taps  
Milling Cutters  
Reamers  
Countersinks & -bores  
Carbide Tools  
Coated Tools  
Special HSS and Carbide Tools  
(to your specifications, or our solutions)



## One-Shot-Drills

The Extreme Hardness Solution



R. STOCK AG  
Lengeder Straße 29-35  
D-13407 Berlin  
Germany  
Phone +49-(0)30 / 40 90 33 00  
Fax +49-(0)30 / 40 90 33 24  
eMail [sales@stock.de](mailto:sales@stock.de)  
Internet [www.stock.de](http://www.stock.de)

M&M-Design-BERLIN 114 948/0215-V-05

Chip - by Chip - to the Top

## Application Range

Our One-Shot-Drill is a special development for application in hardened steel with a hardness of 40 – 65 HRC at drilling depths of up to 3 x D.

This drill is also extremely well suited for producing bores in mining bore heads. Such bores are required to hold rockbits with a

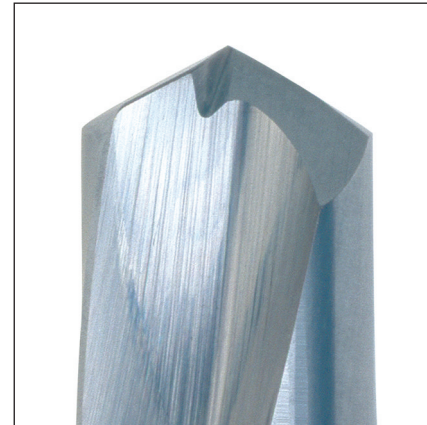
- diameter tolerance of  $\pm 0.005$  mm ( $\leq$  IT 7) and a process stability/accuracy of 0.002 – 0.003 mm from bore to bore.
- surface quality of the bore to ca.  $R_a$  1.0 – 0.2  $\mu$ m to class N6/N7 of DIN ISO 1302.
- great position accuracy.

The One-Shot-Drill achieves these results continuously throughout its tool life. This drill's minimum target tool life should be 3000 bores. This is a lot considering that this is achieved in steels of 47 HRC and more.

What's more, the One-Shot-Drill is a well proven drill in steels of 60 HRC and more as well.

Required for such performance are performance machines, accurately aligned tool holders and spindles as well as steady, defined feeds.

You can support the precision requirements by using hydraulic chucks.



## Specifications

Point Form: with secondary flank / relieve cone

Point Angle: 140°

Web Thinning: FL

Flute Form: FL

Shank: straight h6

Carbide: solid K40

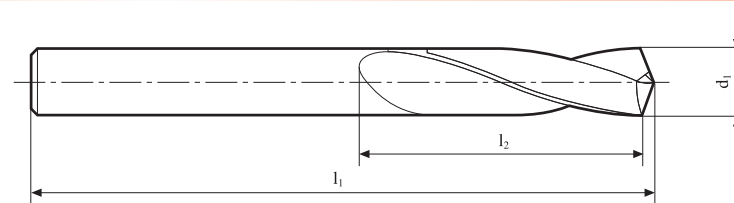
Coating: FIRE



## One-Shot Standard Programme

Most One-Shot-Drills are manufactured exactly according to our customers' requirement, thus dimensions and point angles are custom made. Nevertheless we aim at short delivery times and therefore we keep semi-finished tools in stock (see chart).

If not specified differently we will supply the One-Shot-Drill with a point geometry similar to that of our SuperV-drill type U (special geometry for centre accuracy). The point angles can be chosen from between 120° and 150°. The lengths shown to the right are meant for orientation.



Size $\varnothing$ mm $d_1$	Overall Length mm $l_1$	Flute Length mm $l_2$
4.0	55	22
4.3	55	22
5.0	62	26
5.1	62	26
6.0	66	28
6.9	74	34
7.0	74	34
8.0	79	37
8.6	84	40
9.0	84	40
10.0	89	43
10.3	89	43
11.0	95	47
12.0	102	51

## Application Recommendations for Bore Depths of 3x D

Material Hardness	40 – 50 HRC		> 50 – 60 HRC		> 60 HRC	
	Cutting-Speed $v_c$ m/min	Feed f mm/rev.	Cutting-Speed $v_c$ m/min	Feed f mm/rev.	Cutting-Speed $v_c$ m/min	Feed f mm/rev.
Size $\varnothing$ mm						
4.0	40 – 30	0.05	30 – 20	0.04	~ 15	0.04
6.0	40 – 30	0.06	30 – 20	0.05	~ 15	0.05
8.0	40 – 30	0.08	30 – 20	0.06	~ 15	0.06
10.0	40 – 30	0.08	30 – 20	0.06	~ 15	0.06
12.0	40 – 30	1.00	30 – 20	0.08	~ 15	0.08

Coolant: highly activated/surface active cutting oil, or soluble oil/emulsion (min. 12%)