

Center drills

Center drills without flat

Catalogue no. **71616**



Standard drill for producing centre holes to DIN 332, sheet 1, form A (without protecting chamfer). Especially suitable for the drilling of high tensile steels, cast steel, grey cast iron, chilled cast iron, austenitic manganese steel, CrNi-steels, bronzes, light metals and nonferrous metals. Also suited for the machining of abrasive materials (AlSi-alloys), fiber-reinforced plastics and other Duroplastics likely to cause severe abrasion on cutting lips and lands.

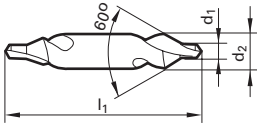
Center drills with Ø 0.5 and 0.8 mm are only single-sided.

Stock std.

Tool material	Solid carbide
Surface	bright
Form	A
Cutting direction	right-hand
Point grinding	Relieved cone
Point angle °	118
Web thinned $\geq \emptyset$	1.60
Tolerance	

tol. on body Ø: h7 (to DIN h9)
 tol. on pilot Ø (to new standard):
 Ø 0,50 – 2,50 = + 0,14 mm
 Ø 3,15 – 5,00 = + 0,18 mm
 Ø 6,30 – 10,0 = + 0,22 mm
 Ø 12,50 = + 0,27 mm
 Web thinning: to DIN 1412, form A

Center drills without flat



Catalogue no.	71616
Tool material	Solid carbide
Discount group	102
Cutting direction	right-hand
Surface	bright

[illegible]

One-Shot-Drill Application Range

Our One-Shot-Drills are a special development for applications in hardened steel with a hardness of 40 to 65 HRC at drilling depths of up to $3 \times D$.

This drill is also extremely well suited for producing bores in mining bore heads. Such bores are required to hold rockbits. Here the One-Shot-Drills convince by their outstanding accuracy:

- diameter tolerances of ± 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 μ m to class N6/N7 of DIN ISO 1302
- great position accuracy

The One-Shot-Drill achieves these results continuously, throughout its tool life, without reaming. The minimum target tool life is 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.

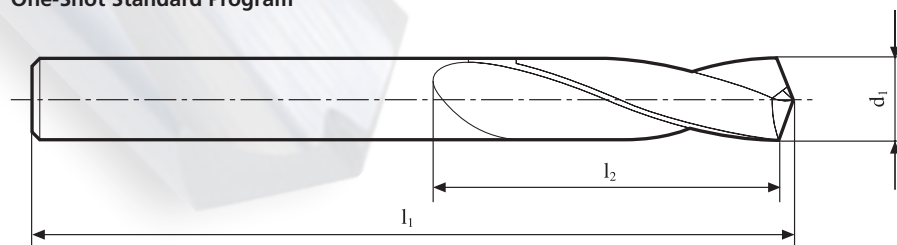
You can support the precision requirements by using hydraulic chucks.



Specifications

Point Geometry:	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 Program



Size-Ø 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