

GÜHRING



**STABLE
RELIABLE
POWERFUL
DRILLING**

Short flute drills for wear-resistant plates and Hardox

GÜHRING – YOUR WORLDWIDE PARTNER



STABLE RELIABLE POWERFUL DRILLING

ESSENTIAL WHEN MACHINING HARDOX AND WEAR-RESISTANT PLATES

Special point geometry in combination with high-alloy M42 steel and innovative Raptor coatings make Gühring's short flute drill an indispensable all-rounder when machining Hardox and wear-resistant plates. The drill impresses with excellent performance data and is suitable for hand drills, radial arm and pillar drills and CNC machines.



135° POINTED EDGE
for excellent centering

GUIDE CHAMFERS
reduced friction thanks to narrower guide chamfers

SOLID & STABLE
very short flute with specially reinforced core
for stable drilling process with moderate forces

raptor® COATING

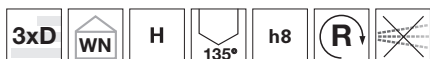
It prevents built-up edges and stops material from sticking to the cutting edge, while also improving the removal of chips through a lower chemical reaction with the material being machined – the Raptor® coating from Gühring. Due to its mechanical resistance, the tool is optimally protected with a low friction coefficient at the same time.

TOOL MATERIAL
M42 steel with 8 % cobalt for high-temperature hardness enables working at high temperatures with wear-resistant plates and Hardox

TOOL LENGTH ACCORDING TO DIN 338
thanks to its length, the drill is also universally applicable in recessed areas or interfering contours

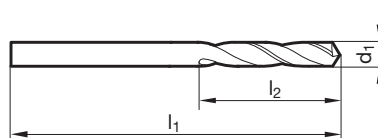


Short flute drills

Tool material **M42**Surface **R**

Shank form cyl.

P	•	optimised split point • 8% cobalt-alloyed HSCo high speed steel
M	○	• especially high wear resistance
K	•	
N	○	wear-resistant sheet metals • Hardox
S	•	
H	○	

Article no. **693**

d1	l1	l2
mm	mm	mm
1.000	34.000	6.000
1.500	40.000	9.000
2.000	49.000	12.000
2.500	57.000	14.000
3.000	61.000	16.000
3.200	65.000	18.000
3.300	65.000	18.000
3.500	70.000	20.000
4.000	75.000	22.000
4.200	75.000	22.000
4.500	80.000	24.000
5.000	86.000	26.000
5.500	93.000	28.000
6.000	93.000	28.000
6.500	101.000	31.000
6.800	109.000	34.000
7.000	109.000	34.000
7.500	109.000	34.000
8.000	117.000	37.000
8.500	117.000	37.000
9.000	125.000	40.000
9.500	125.000	40.000
10.000	133.000	43.000
10.200	133.000	43.000
10.500	133.000	43.000
11.000	142.000	47.000
11.500	142.000	47.000
12.000	151.000	51.000
12.500	151.000	51.000
13.000	151.000	51.000

Cutting rate recommendations	Hardox HiTuf	Hardox 400	Hardox 450	Hardox 500
v_c (m/min)	~11	~8	~6	~4
vrc	~3	~2	~1	
Drill Ø	Feed rate f (mm/rev.) and revolutions (rpm)			
2.5	0.035/1400	0.025/1000	0.015/770	0.005/500
3	0.04/1200	0.03/850	0.02/640	0.01/430
4	0.05/900	0.04/650	0.03/480	0.02/320
5	0.06/700	0.05/510	0.04/400	0.03/255
6	0.07/590	0.06/430	0.05/320	0.04/220
7	0.08/500	0.07/370	0.06/280	0.05/190
8	0.09/440	0.08/320	0.07/240	0.06/160
10	0.11/350	0.10/260	0.09/200	0.08/130
13	0.14/270	0.13/200	0.12/150	0.1/100



Short flute drill sets




P	•	optimised split point • 8% cobalt-alloyed HSCO high speed steel • especially high wear resistance • consisting of art. no. 693
M	○	
K	•	
N	○	wear-resistant sheet metals • Hardox
S	•	
H	○	

Tool material	M42
Surface	R
Shank form	cyl.

Article no. **6030**

d1	increasing by	Core hole Ø	Pieces/set	Code no.
mm	mm	mm		
1.0-10.5	0.5	3.3/4.2/6.8/10.2	24	0.018



SpyroTec

Twisted HSS and HSCO countersink

Also well suited for machining Hardox and wear-resistant plates.

For further information please contact us.

GUHRING

P.O. Box 100247 • 72423 Albstadt
Herderstrasse 50-54 • 72458 Albstadt
Germany

T +49 74 31 17-0
F +49 74 31 17-21 279

info@guehring.de
www.guehring.com

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