



HOLE SAWS

FASCINATION FOR PRECISION®

Range and applications overview:



Surface	Cutting edges	Ø tolerance	Cutting depth	Material thickness	Shank	Ø mm	Article no.	Page
						12,0 - 80,0	128 035 - 128 080	233
						16,0 - 120,0	105 016 - 105 120	234 - 235
						15,0 - 100,0	113 015 - 113 100	236
						14,0 - 210,0	106 014 - 106 200	238 - 239
						14,0 - 210,0	126 014 - 126 200	238 - 239



Steel (N/mm ²) < 900	Steel (N/mm ²) < 1100	Steel (N/mm ²) < 1300	Stainless steel	Aluminium	Brass	Bronze	Plastics	Cast iron	Titanium alloyed



HSS-G hole saws

Packing unit: individual plastic pack

Steel (N/mm ²) < 900	■	Brass	■
Steel (N/mm ²) < 1100		Bronze	□
Steel (N/mm ²) < 1300		Plastics	■
Stainless steel		Cast iron	□
Aluminium	■	Titanium alloyed	

Ø1 mm	Ø inch	PG	Tube dimensions inch	Ø2 mm	HSS		
12,0	15/32			8,0	128 012		1
13,0				8,0	128 013		1
14,0	9/16			8,0	128 014		1
15,0				10,0	128 015		1
16,0	5/8	PG 9		10,0	128 016		1
17,0				10,0	128 017		1
18,0				10,0	128 018		1
19,0	3/4		3/8	10,0	128 019		1
20,0				10,0	128 020		1
21,0				10,0	128 021		1
22,0			1/2	10,0	128 022		1
23,0				10,0	128 023		1
24,0	15/16			10,0	128 024		1
25,0				10,0	128 025		1
26,0				10,0	128 026		1
27,0	1 1/16			10,0	128 027		1
28,0	1 3/32			10,0	128 028		1
29,0			3/4	10,0	128 029		1
30,0	1 3/16			10,0	128 030		1
31,0	1 7/32			10,0	128 031		1
32,0	1 1/4			10,0	128 032		1
33,0				10,0	128 033		1
34,0				10,0	128 034		1

Ø1 mm	Ø inch	PG	Tube dimensions inch	Ø2 mm	HSS		
35,0	1 3/8		1	10,0	128 035		1
36,0				10,0	128 036		1
37,0	1 7/16	PG 29		10,0	128 037		1
38,0	1 1/2			10,0	128 038		1
39,0				10,0	128 039		1
40,0	1 9/16			10,0	128 040		1
41,0	1 5/8			10,0	128 041		1
42,0				10,0	128 042		1
43,0	1 11/16			10,0	128 043		1
44,0	1 3/4		1 1/4	10,0	128 044		1
45,0				10,0	128 045		1
46,0				10,0	128 046		1
47,0	1 7/8	PG 36		10,0	128 047		1
48,0				10,0	128 048		1
49,0				10,0	128 049		1
50,0	1 31/32			10,0	128 050		1
55,0				12,0	128 055		1
60,0	2 3/8	PG 48		12,0	128 060		1
65,0				12,0	128 065		1
70,0	2 3/4			12,0	128 070		1
75,0				12,0	128 075		1
80,0				12,0	128 080		1

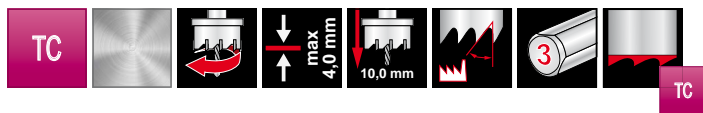


Accessories

Packing unit: individual plastic pack



	For hole saws Ø mm	Shank	Magnetic-stand drilling machine	HSS		
Arbor holder including pilot drill M 10 x 1,25 mm	12,0 - 14,0	Ø 8,0 mm	RS10	128 211		1
Arbor holder including pilot drill M 12 x 1,25 mm	15,0 - 34,0	Ø 10,0 mm	RS10	128 212		1
Arbor holder including pilot drill M 14 x 1,50 mm	35,0 - 50,0	Ø 10,0 mm	RS20 - RS40e	128 213		1
Arbor holder including pilot drill M 16 x 1,50 mm	51,0 - 100,0	Ø 12,0 mm	RS20 - RS40e	128 214		1
Pilot pin Ø 6,0 x 52,0 mm	12,0 - 100,0	-	-	128 215		1
Ejector spring	Ø > 20,0	-	-	128 216		1



Tungsten carbide hole saws, shallow cut

Packing unit: individual carton



Steel (N/mm ²) < 900		Brass	
Steel (N/mm ²) < 1100		Bronze	
Steel (N/mm ²) < 1300		Plastics	
Stainless steel		Cast iron	
Aluminium		Titanium alloyed	

Ø1 mm	Ø inch	M + PG	Tube dimensions inch	Ø2 mm	TC		
16,0	5/8	~ PG 9		10,0	105 016		1
16,5		M 16		10,0	105 165		1
17,0				10,0	105 017		1
18,0				10,0	105 018		1
18,6		PG 11		10,0	105 186		1
19,0	3/4		3/8	10,0	105 019		1
20,0				10,0	105 020		1
20,4	13/16	M 20 / PG 13,5		10,0	105 204		1
21,0				10,0	105 021		1
22,0			1/2	10,0	105 022		1
22,5	7/8	PG 16		10,0	105 225		1
23,0				10,0	105 023		1
24,0	15/16			10,0	105 024		1
25,0				10,0	105 025		1
25,5	1	M 25		10,0	105 255		1
26,0				10,0	105 026		1
27,0	1 1/16			10,0	105 027		1
28,0	1 3/32			10,0	105 028		1
28,3	1 1/8	PG 21		10,0	105 283		1
29,0			3/4	10,0	105 029		1
30,0	1 3/16			10,0	105 030		1
32,0	1 1/4			10,0	105 032		1
32,5		M 32		10,0	105 325		1
34,0				10,0	105 034		1
35,0	1 3/8		1	10,0	105 035		1
36,0				10,0	105 036		1
37,0	1 7/16	PG 29		10,0	105 037		1
38,0	1 1/2			10,0	105 038		1

Ø1 mm	Ø inch	M + PG	Tube dimensions inch	Ø2 mm	TC		
40,0	1 9/16			10,0	105 040		1
40,5		M 40		10,0	105 405		1
41,0	1 5/8			10,0	105 041		1
42,0				10,0	105 042		1
43,0	1 11/16			10,0	105 043		1
44,0	1 3/4		1 1/4	10,0	105 044		1
45,0				10,0	105 045		1
48,0				10,0	105 048		1
50,0	1 31/32			10,0	105 050		1
50,5		M 50		10,0	105 505		1
51,0	2		1 1/2	13,0	105 051		1
52,0				13,0	105 052		1
54,0	2 1/8	PG 42		13,0	105 054		1
55,0				13,0	105 055		1
57,0	2 1/4			13,0	105 057		1
60,0	2 3/8	~ PG 48		13,0	105 060		1
63,5	2 1/2	M 63	2	13,0	105 635		1
65,0				13,0	105 065		1
68,0				13,0	105 068		1
70,0	2 3/4			13,0	105 070		1
75,0				13,0	105 075		1
80,0				13,0	105 080		1
85,0				13,0	105 085		1
90,0				13,0	105 090		1
95,0	3 3/4			13,0	105 095		1
100,0				13,0	105 100		1
110,0				13,0	105 110		1
120,0				13,0	105 120		1

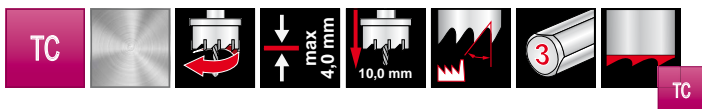


Accessories


Packing unit: individual plastic pack




Ø mm	Length mm	For hole saws Ø mm	For hole saws cutting depth	HSSE Co 5	TC	
6,0	52,0	16,0 - 70,0	10,0 mm	105 170	105 172	1
8,0	52,0	75,0 - 150,0	10,0 mm	105 171	105 173	1
Ejector spring				105 174		1

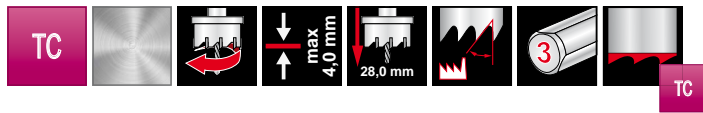


Sets of tungsten carbide hole saws, shallow cut in plastic case

	TC 
7-piece set of tungsten carbide hole saws with 5 tungsten carbide hole saws, shallow cut Ø 20,0 mm - 22,0 mm - 25,0 mm - 32,0 mm - 35,0 mm 1 cutting paste 50 g, article no. 101 021 1 extra pilot drill 6,0 mm HSSE-Co 5 article no. 105 170	105 300
6-piece set of tungsten carbide hole saws with 4 tungsten carbide hole saws, shallow cut Ø 16,5 mm ≈ M 16, Ø 20,4 mm ≈ M 20 / PG 13,5, Ø 25,5 mm ≈ M 25, Ø 32,5 mm ≈ M 32 1 cutting paste 50 g, article no. 101 021 1 extra pilot drill 6,0 mm HSSE-Co 5 article no. 105 170	105 302



 If possible, do not use automatic feed motion, since otherwise the risk of fracture increases.



Tungsten carbide multigrade hole saws MHS

- Ø 15,0 up to 30,0 mm hole saw MHS and shank in one piece. Complete with pilot pin and wrench.
- Ø 31,0 up to 100,0 mm hole saws MHS without arbor.
- Ø 65,0 up to 100,0 mm on we recommend to use our morse taper holder article no. 113 203, 108 102 - 108 105.



Adapter: thread M 18 x 6 P1,5

Packing unit: individual carton

Cutting depth in steel and VA steel max. up to 20.0 mm.

In soft and non-ferrous metals max. up to 28.0 mm.

Steel (N/mm ²) < 900	■
Steel (N/mm ²) < 1100	■
Steel (N/mm ²) < 1300	■
Stainless steel	■
Aluminium	■

Brass	■
Bronze	□
Plastics	■
Cast iron	■
Titanium alloyed	■

Ø1 mm	Ø inch	Tube dimensions inch	Ø2 mm	TC		
15,0			13,0 mm	113 015	1	
16,0	5/8		13,0 mm	113 016	1	
17,0			13,0 mm	113 017	1	
18,0			13,0 mm	113 018	1	
19,0	3/4	3/8	13,0 mm	113 019	1	
20,0			13,0 mm	113 020	1	
21,0			13,0 mm	113 021	1	
22,0	7/8	1/2	13,0 mm	113 022	1	
23,0			13,0 mm	113 023	1	
24,0	15/16		13,0 mm	113 024	1	
25,0	1		13,0 mm	113 025	1	
26,0			13,0 mm	113 026	1	
27,0	1 1/16		13,0 mm	113 027	1	
28,0	1 3/32		13,0 mm	113 028	1	
29,0	1 1/8	3/4	13,0 mm	113 029	1	
30,0	1 3/16		13,0 mm	113 030	1	
32,0	1 1/4		13,0 mm / MT 2/3	113 032	1	

Ø1 mm	Ø inch	Tube dimensions inch	Ø2 mm	TC		
34,0			13,0 mm / MT 2/3	113 034	1	
35,0	1 3/8	1	13,0 mm / MT 2/3	113 035	1	
36,0			13,0 mm / MT 2/3	113 036	1	
38,0	1 1/2		13,0 mm / MT 2/3	113 038	1	
40,0			13,0 mm / MT 2/3	113 040	1	
42,0			13,0 mm / MT 2/3	113 042	1	
44,0	1 3/4	1 1/4	13,0 mm / MT 2/3	113 044	1	
45,0			13,0 mm / MT 2/3	113 045	1	
50,0			13,0 mm / MT 2/3	113 050	1	
55,0			13,0 mm / MT 2/3	113 055	1	
60,0	2 3/8		13,0 mm / MT 2/3	113 060	1	
65,0			13,0 mm / MT 2/3	113 065	1	
68,0			13,0 mm / MT 2/3	113 068	1	
70,0	2 3/4		13,0 mm / MT 2/3	113 070	1	
75,0			13,0 mm / MT 2/3	113 075	1	
80,0			13,0 mm / MT 2/3	113 080	1	
100,0			13,0 mm / MT 2/3	113 100	1	



Accessories

Packing unit: individual plastic pack



Ø mm	Length mm	For hole saws MHS Ø mm	HSSE Co 5	TC	
6,0	80,0	15,0 - 100,0	113 216	-	1
6,0	72,0	15,0 - 100,0	-	113 217	1
Ejector spring			113 218		1

Arbor holders for tungsten carbide multigrade hole saws MHS with threaded retainer M18 x 6 P1,5

Packing unit: individual plastic pack

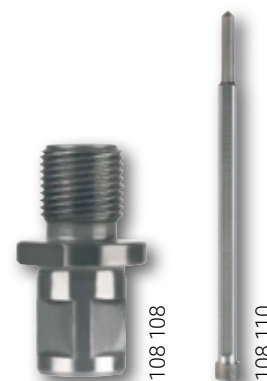


	For hole saws MHS Ø mm	Shank	Magnetic-stand drilling machine	Article no.	
Arbor holder including pilot drill article no. 113 216	31,0 - 100,0	Ø 13,0 mm	RS10	113 201	1
Arbor holder including pilot drill article no. 113 216	31,0 - 100,0	MT 2	RS20 / RS25e	113 203	1

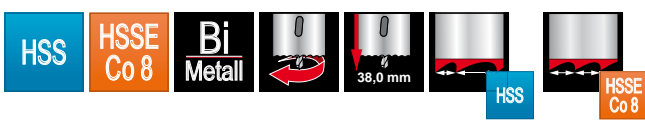
	For hole saws MHS Ø mm	Shank morse taper	Magnetic-stand drilling machine	Article no.	
Arbor holder including adapter article no. 108 108, pilot pin article no. 108 110 and cooling bottle article no. 108 101	31,0 - 100,0	MT 2	RS20 / RS25e	108 102	1
Arbor holder with interior cooling including adapter article no. 108 108 and pilot pin article no. 108 110	31,0 - 100,0	MT 2	RS20 / RS25e	108 104	1
Arbor holder including adapter article no. 108 108, pilot pin article no. 108 110 and cooling bottle article no. 108 101	31,0 - 100,0	MT 3	RS30e / RS40e	108 103	1
Arbor holder with interior cooling including adapter article no. 108 108 and pilot pin article no. 108 110	31,0 - 100,0	MT 3	RS30e / RS40e	108 105	1

Adapter for tungsten carbide multigrade hole saws MHS with threaded retainer M18 x 6 P1,5

Packing unit: individual plastic pack



	For hole saws MHS Ø mm	Article no.	
Adapter with Weldon shank 3/4"	31,0 - 100,0	108 108	1
Ejector pin Ø 6,35 x 118,0 mm	31,0 - 100,0	108 110	1



Jacket: special steel

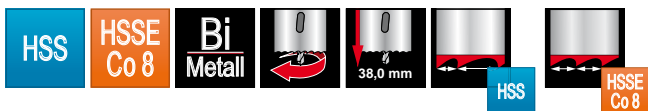
Bi-metal hole saws HSS with variable pitch tothing / HSSE-Co 8 with regular fine pitch tothing

Packing unit: individual carton



Steel (N/mm2) < 900		
Steel (N/mm2) < 1100		
Steel (N/mm2) < 1300		
Stainless steel		
Aluminium		
Brass		
Bronze		
Plastics		
Cast iron		
Titanium alloyed		

Ø mm	Ø inch	PG	Tube dimensions inch	For arbor holders			
14,0	9/16			A1 / A4 / A5	106 014	126 014	1
16,0	5/8	~ PG 9		A1 / A4 / A5	106 016	126 016	1
17,0				A1 / A4 / A5	106 017	126 017	1
19,0	3/4	~ PG 11	3/8	A1 / A4 / A5	106 019	126 019	1
20,0				A1 / A4 / A5	106 020	126 020	1
21,0		~ PG 13,5		A1 / A4 / A5	106 021	126 021	1
22,0	7/8		1/2	A1 / A4 / A5	106 022	126 022	1
24,0	15/16	~ PG 16		A1 / A4 / A5	106 024	126 024	1
25,0	1			A1 / A4 / A5	106 025	126 025	1
27,0	1 1/16			A1 / A4 / A5	106 027	126 027	1
28,0	1 3/32			A1 / A4 / A5	106 028	126 028	1
29,0	1 1/8	~ PG 21	3/4	A1 / A4 / A5	106 029	126 029	1
30,0	1 3/16			A1 / A4 / A5	106 030	126 030	1
32,0	1 1/4			A2 / A6 / A7	106 032	126 032	1
33,0				A2 / A6 / A7	106 033	126 033	1
35,0	1 3/8		1	A2 / A6 / A7	106 035	126 035	1
36,0				A2 / A6 / A7	106 036	126 036	1
37,0		PG 29		A2 / A6 / A7	106 037	126 037	1
38,0	1 1/2			A2 / A6 / A7	106 038	126 038	1
40,0				A2 / A6 / A7	106 040	126 040	1
41,0	1 5/8			A2 / A6 / A7	106 041	126 041	1
43,0	1 11/16			A2 / A6 / A7	106 043	126 043	1
44,0	1 3/4		1 1/4	A2 / A6 / A7	106 044	126 044	1
46,0	1 13/16			A2 / A6 / A7	106 046	126 046	1
48,0	1 7/8	~ PG 36		A2 / A6 / A7	106 048	126 048	1
50,0				A2 / A6 / A7	106 050	126 050	1
51,0	2		1 1/2	A2 / A6 / A7	106 051	126 051	1
52,0				A2 / A6 / A7	106 052	126 052	1
54,0	2 1/8	PG 42		A2 / A6 / A7	106 054	126 054	1
55,0				A2 / A6 / A7	106 055	126 055	1
57,0	2 1/4			A2 / A6 / A7	106 057	126 057	1
59,0				A2 / A6 / A7	106 059	126 059	1
60,0	2 3/8	~ PG 48		A2 / A6 / A7	106 060	126 060	1
63,0				A2 / A6 / A7	106 063	126 063	1
64,0	2 1/2		2	A2 / A6 / A7	106 064	126 064	1
65,0				A2 / A6 / A7	106 065	126 065	1
67,0	2 5/8			A2 / A6 / A7	106 067	126 067	1
68,0				A2 / A6 / A7	106 068	126 068	1
70,0	2 3/4			A2 / A6 / A7	106 070	126 070	1
73,0	2 7/8			A2 / A6 / A7	106 073	126 073	1
76,0	3		2 1/2	A2 / A6 / A7	106 076	126 076	1
79,0	3 1/8			A2 / A6 / A7	106 079	126 079	1
83,0	3 1/4			A2 / A6 / A7	106 083	126 083	1
86,0	3 3/8			A2 / A6 / A7	106 086	126 086	1
89,0	3 1/2			A2 / A6 / A7	106 089	126 089	1
92,0	3 5/8		3	A2 / A6 / A7	106 092	126 092	1
95,0	3 3/4			A2 / A6 / A7	106 095	126 095	1
98,0	3 7/8			A2 / A6 / A7	106 098	126 098	1
102,0	4			A2 / A6 / A7	106 102	126 102	1
105,0			3 1/2	A2 / A6 / A7	106 105	126 105	1
108,0	4 1/4			A2 / A6 / A7	106 108	126 108	1
111,0	4 3/8			A2 / A6 / A7	106 111	126 111	1
114,0	4 1/2		4	A2 / A6 / A7	106 114	126 114	1
121,0	4 3/4			A2 / A6 / A7	106 121	126 121	1
127,0	5			A2 / A6 / A7	106 127	126 127	1
133,0				A2 / A6 / A7	106 133	126 133	1
140,0	5 1/2			A2 / A6 / A7	106 140	126 140	1
152,0	6			A2 / A6 / A7	106 152	126 152	1
160,0	6 5/16			A2 / A6 / A7	106 160	126 160	1
168,0	6 5/8			A2 / A6 / A7	106 168	126 168	1
177,0				A2 / A6 / A7	106 177	126 177	1
210,0	8 1/4			A2 / A6 / A7	106 200	126 200	1



Jacket: special steel

Sets of bi-metal hole saws HSS / HSSE-Co 8 in plastic cases

		HSS	HSSE Co 8
PK 1	8- piece set of bi-metal hole saws for plumbers 6 bi-metal hole saws Ø 19,0 - 22,0 - 29,0 - 38,0 - 44,0 - 57,0 mm + 2 arbor holders A2 and A4	106 301	126 301
PK 2	11- piece set of bi-metal hole saws for plumbers 9 bi-metal hole saws Ø 19,0 - 22,0 - 29,0 - 35,0 - 38,0 - 44,0 - 51,0 - 57,0 - 64,0 mm + 2 arbor holders A2 and A4	106 306	126 306
EK 1	8- piece set of bi-metal hole saws for electricians 6 bi-metal hole saws Ø 22,0 - 29,0 - 35,0 - 44,0 - 51,0 - 64,0 mm + 2 arbor holders A2 and A4	106 305	126 305
EK 2	8- piece set of bi-metal hole saws for electricians 6 bi-metal hole saws Ø 22,0 - 29,0 - 35,0 - 44,0 - 51,0 - 68,0 mm + 2 arbor holders A2 and A4	106 302	126 302
Universal	12- piece set of bi-metal hole saws Ø 19,0 - 22,0 - 25,0 - 29,0 - 35,0 - 38,0 - 44,0 - 51,0 - 57,0 - 64,0 mm + 2 arbor holders A2 and A4	106 303	126 303
Super	12- piece set of bi-metal hole saws Ø 22,0 - 25,0 - 32,0 - 35,0 - 41,0 - 44,0 - 51,0 - 54,0 - 60,0 - 68,0 mm + 2 arbor holders A2 and A4	106 304	126 304
Premium	19- piece set of bi-metal hole saws Ø 16,0 - 19,0 - 21,0 - 24,0 - 25,0 - 29,0 - 32,0 - 37,0 - 40,0 - 48,0 - 51,0 - 54,0 - 60,0 - 73,0 - 83,0 mm + 2 arbor holders A1 and A2 + 1 Pilot drill HSS Ø 6,35 mm x 82,0 mm + 1 Extension 300,0 mm, arbors for A1 and A2	106 318	126 318



Arbor holders including pilot drill for bi-metal hole saws HSS and HSSE-Co 8

Packing unit: individual carton



Hole saws Ø mm	Arbor holders Type	Shank Ø mm	Shank shape	Thread	HSS	HSSE Co 5	
14,0 - 30,0	A1	11,0	⊕	1/2" x 20	106 201	126 201	1
32,0 - 210,0	A2	11,0	⊕	5/8" x 18	106 202	126 202	1
14,0 - 30,0	A4	6,0	○	1/2" x 20	106 204	126 204	1
14,0 - 30,0	A5	9,5	⊕	1/2" x 20	106 210	126 210	1
32,0 - 210,0	A6	9,5	⊕	5/8" x 18	106 209	126 209	1
32,0 - 210,0	A7	10,0	SDS-Plus	5/8" x 18	106 211	126 211	1

Accessories for bi-metal hole saws HSS and HSSE-Co 8

Packing unit: individual plastic pack



	Arbor holders type	HSS	HSSE Co 5	
Adapter to support HSS and HSSE-Co 8 bi-metal hole saws from Ø 32,0 to Ø 210,0 mm	A1 / A4 / A5	106 212	—	1
Pilot drill HSS / HSSE-Co 5, ground, Ø 6,35 x 102,0 mm and split point in accordance with DIN 1412 C	A4	106 207	126 207	1
Pilot drill HSS / HSSE-Co 5, ground, Ø 6,35 x 82,0 mm and split point in accordance with DIN 1412 C	A1 / A2 / A5 / A6 / A7	106 206	126 206	1
Extension 300,0 mm, shank shape ⊕ 11,0 mm	A1 / A2	106 205	—	1
Ejector spring	—	106 208	—	1

Recommended cutting speeds for bi-metal hole saws HSS and HSSE-Co 8

Material:		High carbon struc. steel	Alloyed steel	Cast iron	CuZn alloy	Aluminium alloy	Thermo-plastics	Duro-plastics	Wood
		up to 700 N/mm ²	up to 1000 N/mm ²	over 250 N/mm ²		up to 11% Si			
Vc = m/min		30	20	10	35	30	20	15	40
Coolant:		Cutting spray	Cutting spray	Compressed air	Compressed air	Cutting spray	Water	Compressed air	Compressed air
Ø mm	Ø inch	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.
14,0	9/16	682	455	227	796	682	455	341	910
16,0	5/8	597	398	199	697	597	398	299	796
17,0		562	375	187	656	562	375	281	749
19,0	3/4	503	335	168	587	503	335	251	670
21,0		455	303	152	531	455	303	227	607
22,0	7/8	434	290	145	507	434	290	217	579
24,0	15/16	398	265	133	464	398	265	199	531
25,0	1	382	255	127	446	382	255	191	510
27,0	1 1/16	354	236	118	413	354	236	177	472
28,0	1 3/32	341	227	114	398	341	227	171	455
29,0	1 1/8	329	220	110	384	329	220	165	439
30,0	1 3/16	318	212	106	372	318	212	159	425
32,0	1 1/4	299	199	100	348	299	199	149	398
33,0		290	193	97	338	290	193	145	386
35,0	1 3/8	273	182	91	318	273	182	136	364
36,0		265	177	88	310	265	177	133	354
37,0		258	172	86	301	258	172	129	344
38,0	1 1/2	251	168	84	293	251	168	126	335
40,0		239	159	80	279	239	159	119	318
41,0	1 5/8	233	155	78	272	233	155	117	311
43,0	1 11/16	222	148	74	259	222	148	111	296
44,0	1 3/4	217	145	72	253	217	145	109	290
46,0	1 3/4	208	138	69	242	208	138	104	277
48,0	1 7/8	199	133	66	232	199	133	100	265
50,0	1 31/32	190	128	64	225	194	129	97	257
51,0	2	187	125	62	219	187	125	94	250
52,0		184	122	61	214	184	122	92	245
54,0	2 1/8	177	118	59	206	177	118	88	236
57,0	2 1/4	168	112	56	196	168	112	84	223
59,0		162	108	54	189	162	108	81	216
60,0	2 3/8	159	106	53	186	159	106	80	212
63,0		152	101	51	177	152	101	76	202
64,0	2 1/2	149	100	50	174	149	100	75	199
65,0		147	98	49	171	147	98	73	196
67,0	2 5/8	143	95	48	166	143	95	71	190
68,0		141	94	47	164	141	94	70	187
70,0	2 3/4	136	91	45	159	136	91	68	182
73,0	2 7/8	131	87	44	153	131	87	65	175
76,0	3	126	84	42	147	126	84	63	168
79,0	3 1/8	121	81	40	141	121	81	60	161
83,0	3 1/4	115	77	38	134	115	77	58	153
86,0	3 3/8	111	74	37	130	111	74	56	148
89,0	3 1/2	107	72	36	125	107	72	54	143
92,0	3 5/8	104	69	35	121	104	69	52	138
95,0	3 3/4	101	67	34	117	101	67	50	134
98,0	3 7/8	97	65	32	114	97	65	49	130
102,0	4	94	62	31	109	94	62	47	125
105,0		91	61	30	106	91	61	45	121
108,0	4 1/4	88	59	29	103	88	59	44	118
111,0	4 3/8	86	57	29	100	86	57	43	115
114,0	4 1/2	84	56	28	98	84	56	42	112
121,0	4 3/4	79	53	26	92	79	53	39	105
127,0	5	75	50	25	88	75	50	38	100
140,0	5 1/2	68	45	23	80	68	45	34	91
152,0	6	63	42	21	73	63	42	31	84
160,0	6 5/16	60	40	20	70	60	40	30	80
168,0	6 5/8	57	38	19	66	57	38	28	76
177,0		54	36	18	63	54	36	27	72
210,0	8 9/32	45	30	15	53	45	30	23	61

Recommended cutting speeds for tungsten carbide hole saws

Material:		High carbon struc. steel	Alloyed steel	Cast iron	CuZn alloy	Aluminium alloy	Thermo-plastics	Duro-plastics	Wood
		up to 700 N/mm ²	up to 1000 N/mm ²	over 250 N/mm ²		up to 11% Si			
Vc = m/min		30	20	10	60	35	30	20	15
Coolant:		Cutting spray	Cutting spray	Compressed air	Compressed air	Cutting spray	Water	Compressed air	Compressed air
Ø mm	Ø inch	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.	r.p.m.
16,0	5/8	995	697	796	1194	1194	896	796	995
16,5		965	676	772	1158	1158	869	772	965
17,0		937	656	749	1124	1124	843	749	937
18,0		885	619	708	1062	1062	796	708	885
18,6		856	599	685	1027	1027	770	685	856
19,0	3/4	838	587	670	1006	1006	754	670	838
20,0		796	557	637	955	955	717	637	796
20,4	13/16	781	546	624	937	937	703	624	781
21,0		758	531	607	910	910	682	607	758
22,0		724	507	579	869	869	651	579	724
22,5	7/8	708	495	566	849	849	637	566	708
23,0		692	485	554	831	831	623	554	692
24,0	15/16	663	464	531	796	796	597	531	663
25,0		637	446	510	764	764	573	510	637
25,5	1	624	437	500	749	749	562	500	624
26,0		612	429	490	735	735	551	490	612
27,0	1 1/16	590	413	472	708	708	531	472	590
28,0	1 3/32	569	398	455	682	682	512	455	569
28,3	1 1/8	563	394	450	675	675	506	450	563
29,0		549	384	439	659	659	494	439	549
30,0	1 3/16	531	372	425	637	637	478	425	531
31,0	1 7/32	514	360	411	616	616	462	411	514
32,0	1 1/4	498	348	398	597	597	448	398	498
32,5		490	343	392	588	588	441	392	490
33,0		483	338	386	579	579	434	386	483
34,0		468	328	375	562	562	422	375	468
35,0	1 3/8	455	318	364	546	546	409	364	455
36,0		442	310	354	531	531	398	354	442
37,0	1 7/16	430	301	344	516	516	387	344	430
38,0	1 1/2	419	293	335	503	503	377	335	419
39,0		408	286	327	490	490	367	327	408
40,0	1 9/16	398	279	318	478	478	358	318	398
40,5		393	275	315	472	472	354	315	393
41,0	1 5/8	388	272	311	466	466	350	311	388
42,0		379	265	303	455	455	341	303	379
43,0	1 11/16	370	259	296	444	444	333	296	370
44,0	1 3/4	362	253	290	434	434	326	290	362
45,0		354	248	283	425	425	318	283	354
46,0		346	242	277	415	415	312	277	346
47,0	1 7/8	339	237	271	407	407	305	271	339
48,0		332	232	265	398	398	299	265	332
49,0		325	227	260	390	390	292	260	325
50,0	1 31/32	318	223	255	382	382	287	255	318
50,5		315	221	252	378	378	284	252	315
51,0	2	312	219	250	375	375	281	250	312
52,0		306	214	245	367	367	276	245	306
53,0		300	210	240	361	361	270	240	300
54,0	2 1/8	295	206	236	354	354	265	236	295
55,0		290	203	232	347	347	261	232	290
56,0		284	199	227	341	341	256	227	284
57,0	2 1/4	279	196	223	335	335	251	223	279
58,0		275	192	220	329	329	247	220	275
59,0		270	189	216	324	324	243	216	270
60,0	2 3/8	265	186	212	318	318	239	212	265
63,5	2 1/2	251	176	201	301	301	226	201	251
65,0		245	171	196	294	294	220	196	245
70,0	2 3/4	227	159	182	273	273	205	182	227
75,0		212	149	170	255	255	191	170	212
80,0		199	139	159	239	239	179	159	199
85,0		187	131	150	225	225	169	150	187
90,0		177	124	142	212	212	159	142	177
95,0	3 3/4	168	117	134	201	201	151	134	168
100,0		159	111	127	191	191	143	127	159
110,0		145	101	116	174	174	130	116	145
120,0		133	93	106	159	159	119	106	133
130,0	5 1/8	122	86	98	147	147	110	98	122
140,0	5 1/2	114	80	91	136	136	102	91	114
150,0		106	74	85	127	127	96	85	106