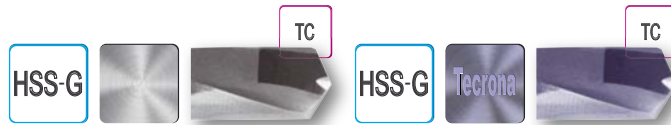


N Twist drill DIN 338 Type N, with brazed-on TC cutting inserts



High-performance HSS-G twist drill with brazed-on HM cutting inserts made from K20 fine grained material. It is suited for universal applications and for high-strength steel. Continuous cooling is required when drilling into high-strength steel. With stepped shank starting at 13,5 mm drill diameter (10,0 mm shank Ø, 30,0 mm shank length).

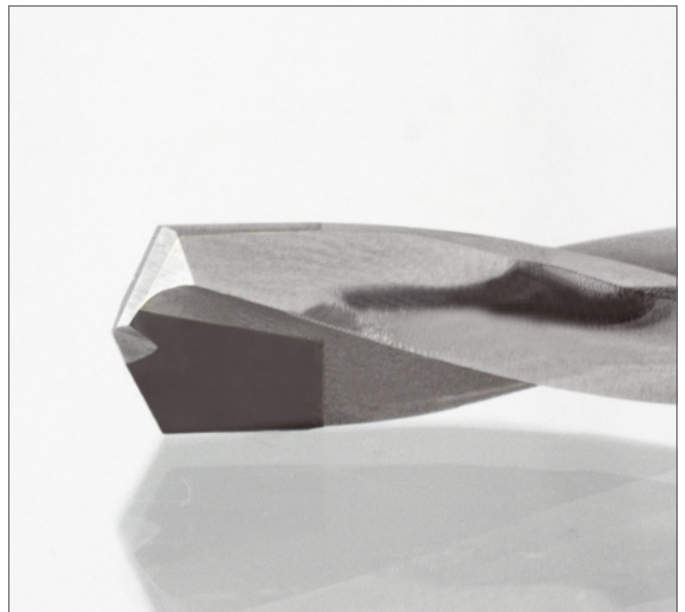
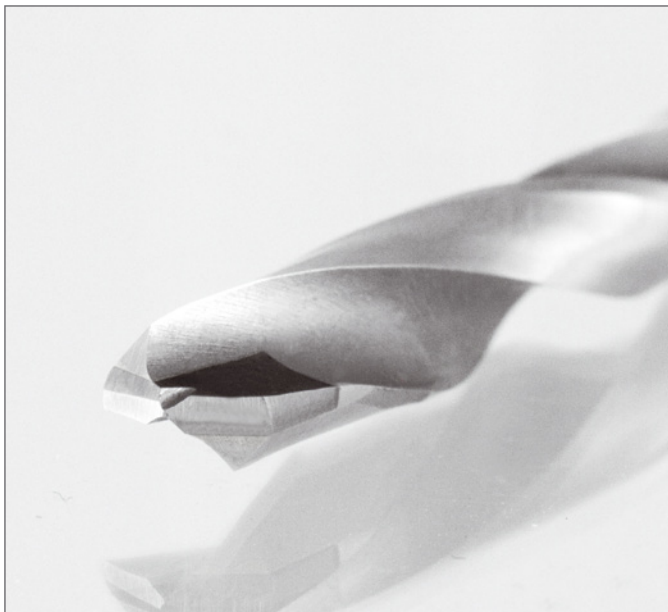
Packing unit: in plastic box



steel (N/mm ²)			stainless steel	aluminium	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	○	○	○	○	○	○	○	○

● Main application

○ Other application



Ø mm	L ₁ mm	L ₂ mm	N			
			Article no. HSS-G / TC	Cont. pcs.		
2,00	49,0	24,0	815 020	10	815 020 C	10
2,50	57,0	30,0	815 025	10	815 025 C	10
3,00	61,0	33,0	815 030	10	815 030 C	10
3,10	65,0	36,0	815 031	10	815 031 C	10
3,20	65,0	36,0	815 032	10	815 032 C	10
3,30	65,0	36,0	815 033	10	815 033 C	10
3,50	70,0	39,0	815 035	10	815 035 C	10
3,60	70,0	39,0	815 036	10	815 036 C	10
4,00	75,0	43,0	815 040	10	815 040 C	10
4,20	75,0	43,0	815 042	10	815 042 C	10
4,30	80,0	47,0	815 043	10	815 043 C	10
4,50	80,0	47,0	815 045	10	815 045 C	10
5,00	86,0	52,0	815 050	10	815 050 C	10
5,10	86,0	52,0	815 051	10	815 051 C	10
5,20	86,0	52,0	815 052	10	815 052 C	10
5,30	86,0	52,0	815 053	10	815 053 C	10
5,50	93,0	57,0	815 055	10	815 055 C	10
5,80	93,0	57,0	815 058	10	815 058 C	10
6,00	93,0	57,0	815 060	10	815 060 C	10
6,50	101,0	63,0	815 065	10	815 065 C	10
6,70	101,0	63,0	815 067	10	815 067 C	10
6,80	109,0	69,0	815 068	10	815 068 C	10
7,00	109,0	69,0	815 070	10	815 070 C	10
7,10	109,0	69,0	815 071	10	815 071 C	10
7,50	109,0	69,0	815 075	10	815 075 C	10
8,00	117,0	75,0	815 080	10	815 080 C	10
8,50	117,0	75,0	815 085	10	815 085 C	10
9,00	125,0	81,0	815 090	10	815 090 C	10
9,50	125,0	81,0	815 095	10	815 095 C	10
10,00	133,0	87,0	815 100	10	815 100 C	10
10,20	133,0	87,0	815 102	10	815 102 C	10
10,50	133,0	87,0	815 105	5	815 105 C	5
11,00	142,0	94,0	815 110	5	815 110 C	5
11,50	142,0	94,0	815 115	5	815 115 C	5
12,00	151,0	101,0	815 120	5	815 120 C	5
12,50	151,0	101,0	815 125	5	815 125 C	5
13,00	151,0	101,0	815 130	5	815 130 C	5
13,50	160,0	108,0	815 135	5	815 135 C	5
14,00	160,0	108,0	815 140	5	815 140 C	5
15,00	169,0	114,0	815 150	5	815 150 C	5
16,00	178,0	120,0	815 160	5	815 160 C	5



N Twist drill sets DIN 338 Type N,
with brazed-on TC cutting inserts

Description	N	
	Article no. HSS-G / TC	Article no. HSS-G / TC Tecrona
17-piece set of twist drills DIN 338 type N Ø 2,0 mm up to 10,0 mm in increments of 0,5 mm in steel case	815 214	815 214 C
23-piece set of twist drills DIN 338 type N Ø 2,0 mm up to 13,0 mm in increments of 0,5 mm in steel case	815 215	815 215 C
17-piece set of twist drills DIN 338 type N Ø 2,0 mm up to 10,0 mm in increments of 0,5 mm in plastic case	815 214 RO	815 214 CRO
23-piece set of twist drills DIN 338 type N Ø 2,0 mm up to 13,0 mm in increments of 0,5 mm in plastic case	815 215 RO	815 215 CRO



815 214 RO



Solid TC twist drills DIN 338 type N



High performance solid carbide K 20 twist drill, especially well suited for high strength steels at high cutting speeds.

Packing unit: in plastic box

steel (N/mm ²)			stainless steel	aluminium	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	○	○	○	○	○	●		○

● Main application ○ Other application

Ø mm	L ₁ mm	L ₂ mm	Article no.	Cont. pcs.
3,00	61,0	33,0	814 030	1
3,50	70,0	39,0	814 035	1
4,00	75,0	43,0	814 040	1
4,50	80,0	47,0	814 045	1
5,00	86,0	52,0	814 050	1
5,50	93,0	57,0	814 055	1
6,00	93,0	57,0	814 060	1
6,50	101,0	63,0	814 065	1
7,00	109,0	69,0	814 070	1
7,50	109,0	69,0	814 075	1
8,00	117,0	75,0	814 080	1
8,50	117,0	75,0	814 085	1
9,00	125,0	81,0	814 090	1
9,50	125,0	81,0	814 095	1
10,00	133,0	87,0	814 100	1
10,50	133,0	87,0	814 105	1
11,00	142,0	94,0	814 110	1
11,50	142,0	94,0	814 115	1
12,00	151,0	101,0	814 120	1
12,50	151,0	101,0	814 125	1
13,00	151,0	101,0	814 130	1



Fast Cut HSSE-Co 5 and tungsten-carbide



Extra stable special drill for hard requirements on hand drills. Good suited for clean and burr-free milling of welding spots and thin-walled work pieces without centering. Extreme high precision. Applicable for sheet steel, sheet brass, sheet aluminium, sheet zinc, sheet copper, plastic sheets.



steel (N/mm ²)			stainless steel	alu	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	○	○						

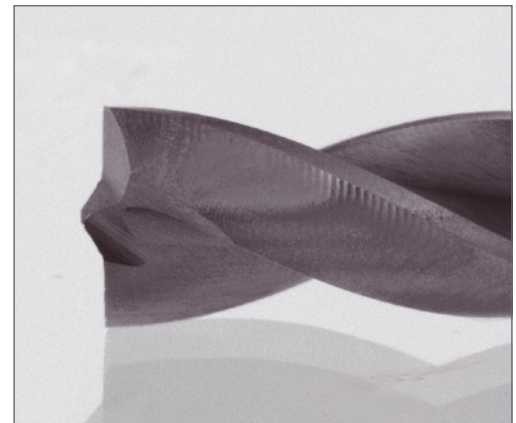


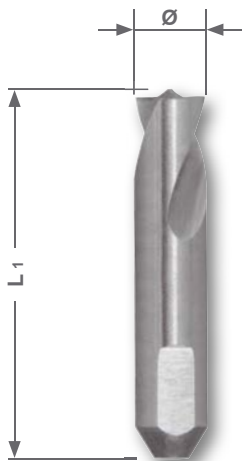
steel (N/mm ²)			stainless steel	alu	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	●	●						●

● Main application ○ Other application

Packing unit: in plastic boxes of 1

Ø mm	L1 mm	Article no.	Article no.	Article no.	Cont. pcs.
		HSSE-Co 5	HSSE-Co 5 TiCN	tungsten-carbide AITIN	
6,0	66,0	101 107	101 107 TC	101 107 HM	1
7,0	74,0	101 111	101 111 TC	—	1
8,0	80,0	101 108	101 108 TC	101 108 HM	1
10,0	88,0	101 114	101 114 TC	—	1





Spotle Drill HSSE-Co 5 and tungsten-carbide



Special shank for the application in pneumatic machines.
For clean and burr-free milling of welding spots and thin-walled work pieces without centering.
Extreme high precision. (v = vario)



steel (N/mm ²)			stainless steel	alu	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	○	○						

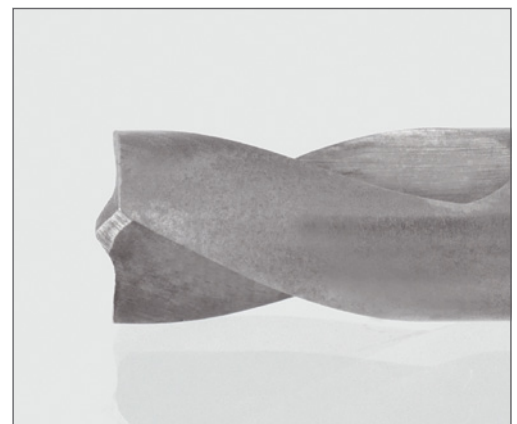


steel (N/mm ²)			stainless steel	alu	brass	bronze	plastics	cast iron	titanium alloyed
< 900	< 1100	< 1300							
●	●	●	●						●

● Main application ○ Other application

Packing unit: in plastic boxes of 1

Ø mm	L1 mm	Article no.	Article no.	Article no.	Cont. pcs.
		HSSE-Co 5	HSSE-Co 5 TiCN	tungsten-carbide AITIN	
6,5	40,0	101 065	—	—	1
6,5 (v)	44,0	—	—	—	1
8,0	40,0	101 080	101 080 TC	101 080 HM	1
8,0 (v)	44,0	101 081	101 081 TC	101 081 HM	1

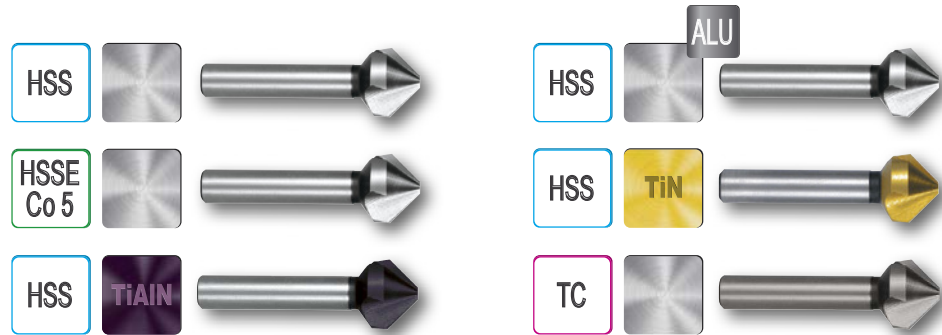




Taper and deburring countersinkers DIN 335 type C 90°



Because of the CBN deep-ground flutes the cutting edges are extremely sharp. Ideal for burr- and chatter-free deburring and countersinking. Best results at low cutting speeds.



Packing unit: in plastic tubes of 1

Ø ₂ mm	Ø ₁ mm	L ₁ mm	Ø ₃ mm	Countersinkings as per DIN 74		Article no. HSS	Article no. HSS for alu	Article no. HSSE-Co 5	Article no. HSS-TiN	Article no. HSS-TiAlN	Article no. Carbide K 20	Cont. pcs.
				AF	BF							
4,3	1,3	40,0	4,0			102 101	—	102 101 E	102 101 T	102 101 F	—	1
4,8	1,5	40,0	4,0			102 102	—	—	102 102 T	102 102 F	—	1
5,0	1,5	40,0	4,0	M 2,5		102 103	—	102 103 E	102 103 T	102 103 F	—	1
5,3	1,5	40,0	4,0			102 104	—	102 104 E	102 104 T	102 104 F	—	1
5,8	1,5	45,0	5,0			102 105	—	—	102 105 T	102 105 F	—	1
6,0	1,5	45,0	5,0	M 3		102 106	—	102 106 E	102 106 T	102 106 F	—	1
6,3	1,5	45,0	5,0		M 3	102 107	102 107 A	102 107 E	102 107 T	102 107 F	102 261	1
7,0	1,8	50,0	6,0	M 3,5		102 108	—	—	102 108 T	102 108 F	—	1
7,3	1,8	50,0	6,0			102 109	—	—	102 109 T	102 109 F	—	1
8,0	2,0	50,0	6,0	M 4		102 110	—	102 110 E	102 110 T	102 110 F	—	1
8,3	2,0	50,0	6,0		M 4	102 111	102 111 A	102 111 E	102 111 T	102 111 F	102 262	1
9,4	2,2	50,0	6,0			102 112	—	—	102 112 T	102 112 F	—	1
10,0	2,5	50,0	6,0	M 5		102 113	—	102 113 E	102 113 T	102 113 F	—	1
10,4	2,5	50,0	6,0		M 5	102 114	102 114 A	102 114 E	102 114 T	102 114 F	102 263	1
11,5	2,8	56,0	8,0	M 6		102 115	—	102 115 E	102 115 T	102 115 F	—	1
12,4	2,8	56,0	8,0		M 6	102 116	102 116 A	102 116 E	102 116 T	102 116 F	102 264	1
13,4	2,9	56,0	8,0			102 117	—	—	102 117 T	102 117 F	—	1
15,0	3,2	60,0	10,0	M 8		102 118	—	102 118 E	102 118 T	102 118 F	—	1
16,5	3,2	60,0	8,0		M 8	102 119	102 119 A	102 119 E	102 119 T	102 119 F	—	1
16,5	3,2	60,0	10,0		M 8	102 119-1	102 119-1 A	102 119-1 E	102 119-1 T	102 119-1 F	102 265	1
19,0	3,5	63,0	10,0	M 10		102 120	—	102 120 E	102 120 T	102 120 F	—	1
20,5	3,5	63,0	10,0		M 10	102 121	102 121 A	102 121 E	102 121 T	102 121 F	102 266	1
23,0	3,8	67,0	10,0	M 12		102 122	—	102 122 E	102 122 T	102 122 F	—	1
25,0	3,8	67,0	10,0		M 12	102 123	102 123 A	102 123 E	102 123 T	102 123 F	102 267	1
26,0	3,9	71,0	12,0	M 14		102 171	—	—	102 171 T	102 171 F	—	1
28,0	4,0	71,0	12,0		M 14	102 124	—	102 124 E	102 124 T	102 124 F	—	1
30,0	4,1	71,0	12,0	M 16		102 172	—	—	102 172 T	102 172 F	—	1
31,0	4,2	71,0	12,0		M 16	102 125	102 125 A	102 125 E	102 125 T	102 125 F	102 268	1
37,0	4,8	90,0	12,0			102 173	—	—	102 173 T	102 173 F	—	1
40,0	10,0	80,0	15,0			102 174	—	—	102 174 T	102 174 F	—	1

Taper and deburring countersinker sets DIN 335 type C 90°
HSS, HSSE-Co 5 and tungsten carbide K 20 in steel case



102 152



102 152 T



102 154 F



102 154 T

Description	Article no.	Article no.	Article no.	Article no.	Article no.	Article no.
	HSS	HSS for alu	HSSE-Co 5	HSS-TiN	HSS-TiAlN	Carbide K 20
5-piece set of taper and deburring countersinkers DIN 335 type C 90° Ø 6,3 - 10,4 - 16,5 - 20,5 - 25,0 mm (Ø 16,5 mm = shank-Ø 10,0 mm)	102 154	102 154 A	102 154 E	102 154 T	102 154 F	—
6-piece set of taper and deburring countersinkers DIN 335 type C 90° Ø 6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm (Ø 16,5 mm = shank-Ø 10,0 mm)	102 152	102 152 A	102 152 E	102 152 T	102 152 F	102 152 HM

Taper and deburring countersinker sets DIN 335 type C 90°
HSS, HSSE-Co 5 and tungsten carbide K 20 in plastic case



102 152 RO



102 152 TRO



102 154 FRO



102 154 TRO

Description	Article no.	Article no.	Article no.	Article no.	Article no.
	HSS	HSSE-Co 5	HSS-TiN	HSS-TiAlN	Carbide K 20
5-piece set of taper and deburring countersinkers DIN 335 type C 90° Ø 6,3 - 10,4 - 16,5 - 20,5 - 25,0 mm (Ø 16,5 mm = shank-Ø 10,0 mm)	102 154 RO	102 154 ERO	102 154 TRO	102 154 FRO	—
6-piece set of taper and deburring countersinkers DIN 335 type C 90° Ø 6,3 - 8,3 - 10,4 - 12,4 - 16,5 - 20,5 mm (Ø 16,5 mm = shank-Ø 10,0 mm)	102 152 RO	102 152 ERO	102 152 TRO	102 152 FRO	102 152 HMRO



1.05



Core drills with tungsten-carbide cutting edges and weldon shank (3/4"), cutting depth 50,0 mm



Suitable for Hardox / Weldox 400 steel

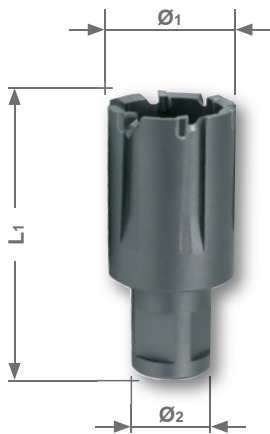
Machine no.: RS10 / RS20 / RS25e / RS30e / RS40e / RS120 / RS125e / RS130e / RS140e
 Ejector pin: Ø 12,0 mm up to Ø 17,0, Article no. 108 305 (Ø 6,35 x 102,0 mm)
 Ø 18,0 mm up to Ø 50,0, Article no. 108 701 (Ø 8,0 x 112,0 mm)



Packing unit: individual plastic pack

Ø ₁ mm	Ø ₂ mm	L ₁ mm	Cutting depth mm	Article no. TC	Article no. TC-Tecrona
12,0	19,0	84,0	50,0	108 712	108 712 C
13,0	19,0	84,0	50,0	108 713	108 713 C
14,0	19,0	84,0	50,0	108 714	108 714 C
15,0	19,0	84,0	50,0	108 715	108 715 C
16,0	19,0	84,0	50,0	108 716	108 716 C
17,0	19,0	84,0	50,0	108 717	108 717 C
18,0	19,0	84,0	50,0	108 718	108 718 C
19,0	19,0	84,0	50,0	108 719	108 719 C
20,0	19,0	84,0	50,0	108 720	108 720 C
21,0	19,0	84,0	50,0	108 721	108 721 C
22,0	19,0	84,0	50,0	108 722	108 722 C
23,0	19,0	84,0	50,0	108 723	108 723 C
24,0	19,0	84,0	50,0	108 724	108 724 C
25,0	19,0	84,0	50,0	108 725	108 725 C
26,0	19,0	84,0	50,0	108 726	108 726 C
27,0	19,0	84,0	50,0	108 727	108 727 C
28,0	19,0	84,0	50,0	108 728	108 728 C
29,0	19,0	84,0	50,0	108 729	108 729 C
30,0	19,0	84,0	50,0	108 730	108 730 C
31,0	19,0	84,0	50,0	108 731	108 731 C
32,0	19,0	84,0	50,0	108 732	108 732 C
33,0	19,0	84,0	50,0	108 733	108 733 C
34,0	19,0	84,0	50,0	108 734	108 734 C
35,0	19,0	84,0	50,0	108 735	108 735 C
36,0	19,0	84,0	50,0	108 736	108 736 C
37,0	19,0	84,0	50,0	108 737	108 737 C
38,0	19,0	84,0	50,0	108 738	108 738 C
39,0	19,0	84,0	50,0	108 739	108 739 C
40,0	19,0	84,0	50,0	108 740	108 740 C
41,0	19,0	84,0	50,0	108 741	108 741 C
42,0	19,0	84,0	50,0	108 742	108 742 C
43,0	19,0	84,0	50,0	108 743	108 743 C
44,0	19,0	84,0	50,0	108 744	108 744 C
45,0	19,0	84,0	50,0	108 745	108 745 C
46,0	19,0	84,0	50,0	108 746	108 746 C
47,0	19,0	84,0	50,0	108 747	108 747 C
48,0	19,0	84,0	50,0	108 748	108 748 C
49,0	19,0	84,0	50,0	108 749	108 749 C
50,0	19,0	84,0	50,0	108 750	108 750 C





Core drills with tungsten-carbide cutting edges and Weldon shank (3/4") for railway tracks, cutting depth 30,0 mm



Can be used on all track drilling machines. The cutting geometry has been specially optimized for heavy duty chip removal from railway tracks, thus makes efficient use possible.

Machine no.: RS5e / RS10 / RS20 / RS25e / RS30e / RS40e / RS120 / RS125e / RS130e / RS140e
 Ejector pin: Article no. 108 1510 (Ø 8,0 x 81,0 mm)



Packing unit: individual plastic pack

Ø ₁ mm	Ø ₂ mm	L ₁ mm	Cutting depth mm	Article no. TC	Article no. TC-Tecrona
19,0	19,0	63,0	30,0	108 1519	108 1519 C
20,0	19,0	63,0	30,0	108 1520	108 1520 C
21,0	19,0	63,0	30,0	108 1521	108 1521 C
22,0	19,0	63,0	30,0	108 1522	108 1522 C
23,0	19,0	63,0	30,0	108 1523	108 1523 C
24,0	19,0	63,0	30,0	108 1524	108 1524 C
25,0	19,0	63,0	30,0	108 1525	108 1525 C
26,0	19,0	63,0	30,0	108 1526	108 1526 C
26,5	19,0	63,0	30,0	108 15265	108 15265 C
27,0	19,0	63,0	30,0	108 1527	108 1527 C
27,5	19,0	63,0	30,0	108 15275	108 15275 C
28,0	19,0	63,0	30,0	108 1528	108 1528 C
29,0	19,0	63,0	30,0	108 1529	108 1529 C
30,0	19,0	63,0	30,0	108 1530	108 1530 C
31,0	19,0	63,0	30,0	108 1531	108 1531 C
32,0	19,0	63,0	30,0	108 1532	108 1532 C
33,0	19,0	63,0	30,0	108 1533	108 1533 C
34,0	19,0	63,0	30,0	108 1534	108 1534 C
36,0	19,0	63,0	30,0	108 1536	108 1536 C





Core drills with tungsten-carbide and Quick IN-shank, CBN ground, cutting depth 50,0 mm



Ø 12,0 mm up to Ø 32,0 mm with fixed shank.
Ø 33,0 mm up to Ø 80,0 mm including Quick IN-adapter
No. 108 111.

Machine no.: with Quick IN-adapter

Ejector pin: Ø 12,0 mm up to Ø 32,0 mm, article no. 108 306 (Ø 6,35 x 87,0 mm)
Ø 33,0 mm up to Ø 80,0 mm, article no. 108 110 (Ø 6,35 x 123,0 mm)



Packing unit: individual plastic pack

Ø ₁ mm	Ø ₂ mm	L ₁ mm	Cutting depth mm	N	
				Article no. TC	Article no. TC-Tecrona
12,0	18,0	83,0	50,0	108 1112	108 1112 C
13,0	18,0	83,0	50,0	108 1113	108 1113 C
14,0	18,0	83,0	50,0	108 1114	108 1114 C
15,0	18,0	83,0	50,0	108 1115	108 1115 C
16,0	18,0	83,0	50,0	108 1116	108 1116 C
17,0	18,0	83,0	50,0	108 1117	108 1117 C
18,0	18,0	83,0	50,0	108 1118	108 1118 C
19,0	18,0	83,0	50,0	108 1119	108 1119 C
20,0	18,0	83,0	50,0	108 1120	108 1120 C
21,0	18,0	83,0	50,0	108 1121	108 1121 C
22,0	18,0	83,0	50,0	108 1122	108 1122 C
23,0	18,0	83,0	50,0	108 1123	108 1123 C
24,0	18,0	83,0	50,0	108 1124	108 1124 C
25,0	18,0	83,0	50,0	108 1125	108 1125 C
26,0	18,0	83,0	50,0	108 1126	108 1126 C
27,0	18,0	83,0	50,0	108 1127	108 1127 C
28,0	18,0	83,0	50,0	108 1128	108 1128 C
29,0	18,0	83,0	50,0	108 1129	108 1129 C
30,0	18,0	83,0	50,0	108 1130	108 1130 C
31,0	18,0	83,0	50,0	108 1131	108 1131 C
32,0	18,0	83,0	50,0	108 1132	108 1132 C
33,0	18,0	112,0	50,0	108 1133	108 1133 C
34,0	18,0	112,0	50,0	108 1134	108 1134 C
35,0	18,0	112,0	50,0	108 1135	108 1135 C
36,0	18,0	112,0	50,0	108 1136	108 1136 C
37,0	18,0	112,0	50,0	108 1137	108 1137 C
38,0	18,0	112,0	50,0	108 1138	108 1138 C

Ø ₁ mm	Ø ₂ mm	L ₁ mm	Cutting depth mm	N	
				Article no. TC	Article no. TC-Tecrona
39,0	18,0	112,0	50,0	108 1139	108 1139 C
40,0	18,0	112,0	50,0	108 1140	108 1140 C
41,0	18,0	112,0	50,0	108 1141	108 1141 C
42,0	18,0	112,0	50,0	108 1142	108 1142 C
43,0	18,0	112,0	50,0	108 1143	108 1143 C
44,0	18,0	112,0	50,0	108 1144	108 1144 C
45,0	18,0	112,0	50,0	108 1145	108 1145 C
46,0	18,0	112,0	50,0	108 1146	108 1146 C
47,0	18,0	112,0	50,0	108 1147	108 1147 C
48,0	18,0	112,0	50,0	108 1148	108 1148 C
49,0	18,0	112,0	50,0	108 1149	108 1149 C
50,0	18,0	112,0	50,0	108 1150	108 1150 C
51,0	18,0	112,0	50,0	108 1151	108 1151 C
52,0	18,0	112,0	50,0	108 1152	108 1152 C
53,0	18,0	112,0	50,0	108 1153	108 1153 C
54,0	18,0	112,0	50,0	108 1154	108 1154 C
55,0	18,0	112,0	50,0	108 1155	108 1155 C
60,0	18,0	112,0	50,0	108 1160	108 1160 C
61,0	18,0	112,0	50,0	108 1161	108 1161 C
63,0	18,0	112,0	50,0	108 1163	108 1163 C
65,0	18,0	112,0	50,0	108 1165	108 1165 C
68,0	18,0	112,0	50,0	108 1168	108 1168 C
70,0	18,0	112,0	50,0	108 1170	108 1170 C
71,0	18,0	112,0	50,0	108 1171	108 1171 C
75,0	18,0	112,0	50,0	108 1175	108 1175 C
80,0	18,0	112,0	50,0	108 1180	108 1180 C

Set of core drills with tungsten-carbide cutting edges and Quick IN-shank, CBN ground in plastic case



Description	Article no.
10-piece set of core drills with tungsten-carbide cutting edges 8 core drills with tungsten-carbide cutting edges and Quick IN-shank Ø 12,0 mm - 14,0 mm - 16,0 mm - 18,0 mm 20,0 mm - 22,0 mm - 24,0 mm - 26,0 mm + 1 cutting spray 50 ml article no. 101 010 + 1 ejector pin Ø 6,35 x 87,0 mm for cutting depth 35,0 mm article no. 108 306	108 822



Core drills with tungsten-carbide cutting edges and threaded retainer, cutting depth 50,0 mm



Machine no.: RS10 / RS20 / RS25e / RS30e / RS40e / RS120 / RS125e / RS130e / RS140e
 Ejector pin: article no. 108 110 (Ø 6,35 x 123,0 mm)
 Adapter: thread M18 x 6 P1,5



Packing unit: individual plastic pack

Ø1 mm	Ø2 mm	L1 mm	Cutting depth mm	N	
				Article no. TC	Article no. TC-Tecrona
12,0	MK 2 / 3	84,0	50,0	108 012	108 012 C
13,0	MK 2 / 3	84,0	50,0	108 013	108 013 C
14,0	MK 2 / 3	84,0	50,0	108 014	108 014 C
15,0	MK 2 / 3	84,0	50,0	108 015	108 015 C
16,0	MK 2 / 3	84,0	50,0	108 016	108 016 C
17,0	MK 2 / 3	84,0	50,0	108 017	108 017 C
18,0	MK 2 / 3	84,0	50,0	108 018	108 018 C
19,0	MK 2 / 3	84,0	50,0	108 019	108 019 C
20,0	MK 2 / 3	84,0	50,0	108 020	108 020 C
21,0	MK 2 / 3	84,0	50,0	108 021	108 021 C
22,0	MK 2 / 3	84,0	50,0	108 022	108 022 C
23,0	MK 2 / 3	84,0	50,0	108 023	108 023 C
24,0	MK 2 / 3	84,0	50,0	108 024	108 024 C
25,0	MK 2 / 3	84,0	50,0	108 025	108 025 C
26,0	MK 2 / 3	84,0	50,0	108 026	108 026 C
27,0	MK 2 / 3	84,0	50,0	108 027	108 027 C
28,0	MK 2 / 3	84,0	50,0	108 028	108 028 C
29,0	MK 2 / 3	84,0	50,0	108 029	108 029 C
30,0	MK 2 / 3	84,0	50,0	108 030	108 030 C
31,0	MK 2 / 3	84,0	50,0	108 031	108 031 C
32,0	MK 2 / 3	84,0	50,0	108 032	108 032 C
33,0	MK 2 / 3	84,0	50,0	108 033	108 033 C
34,0	MK 2 / 3	84,0	50,0	108 034	108 034 C
35,0	MK 2 / 3	84,0	50,0	108 035	108 035 C
36,0	MK 2 / 3	84,0	50,0	108 036	108 036 C
37,0	MK 2 / 3	84,0	50,0	108 037	108 037 C
38,0	MK 2 / 3	84,0	50,0	108 038	108 038 C

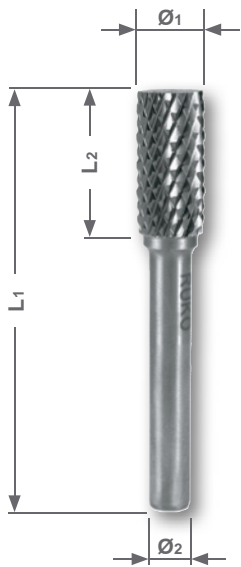
Ø1 mm	Ø2 mm	L1 mm	Cutting depth mm	N	
				Article no. TC	Article no. TC-Tecrona
39,0	MK 2 / 3	84,0	50,0	108 039	108 039 C
40,0	MK 2 / 3	84,0	50,0	108 040	108 040 C
41,0	MK 2 / 3	84,0	50,0	108 041	108 041 C
42,0	MK 2 / 3	84,0	50,0	108 042	108 042 C
43,0	MK 2 / 3	84,0	50,0	108 043	108 043 C
44,0	MK 2 / 3	84,0	50,0	108 044	108 044 C
45,0	MK 2 / 3	84,0	50,0	108 045	108 045 C
46,0	MK 2 / 3	84,0	50,0	108 046	108 046 C
47,0	MK 2 / 3	84,0	50,0	108 047	108 047 C
48,0	MK 2 / 3	84,0	50,0	108 048	108 048 C
49,0	MK 2 / 3	84,0	50,0	108 049	108 049 C
50,0	MK 2 / 3	84,0	50,0	108 050	108 050 C
51,0	MK 2 / 3	84,0	50,0	108 051	108 051 C
52,0	MK 2 / 3	84,0	50,0	108 052	108 052 C
53,0	MK 2 / 3	84,0	50,0	108 053	108 053 C
54,0	MK 2 / 3	84,0	50,0	108 054	108 054 C
55,0	MK 2 / 3	84,0	50,0	108 055	108 055 C
60,0	MK 2 / 3	84,0	50,0	108 060	108 060 C
61,0	MK 2 / 3	84,0	50,0	108 061	108 061 C
63,0	MK 2 / 3	84,0	50,0	108 063	108 063 C
65,0	MK 2 / 3	84,0	50,0	108 065	108 065 C
68,0	MK 2 / 3	84,0	50,0	108 068	108 068 C
70,0	MK 2 / 3	84,0	50,0	108 070	108 070 C
71,0	MK 2 / 3	84,0	50,0	108 071	108 071 C
75,0	MK 2 / 3	84,0	50,0	108 075	108 075 C
80,0	MK 2 / 3	84,0	50,0	108 080	108 080 C

Set of core drills with tungsten-carbide cutting edges and threaded retainer in plastic case



Description	Article no.
8-piece set of core drills with tungsten-carbide cutting edges 8 core drills with tungsten-carbide and threaded retainer Ø 12,0 mm - 14,0 mm - 16,0 mm - 18,0 mm 20,0 mm - 22,0 mm - 24,0 mm - 26,0 mm	108 823





Tungsten carbide rotary burrs shape A cylinder (ZYA) without end tothing

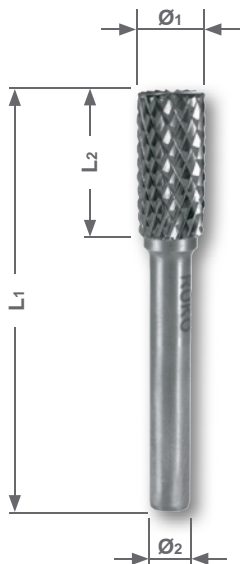


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	14,0	38,0	3,0	—	116 046	—
6,0	18,0	58,0	6,0	—	116 010	116 010 TC
8,0	18,0	60,0	6,0	—	116 011	116 011 TC
10,0	20,0	60,0	6,0	—	116 012	116 012 TC
12,0	25,0	65,0	6,0	—	116 013	116 013 TC
16,0	25,0	65,0	6,0	—	116 014	116 014 TC



Tungsten carbide rotary burrs shape A cylinder (ZYA) with end tothing

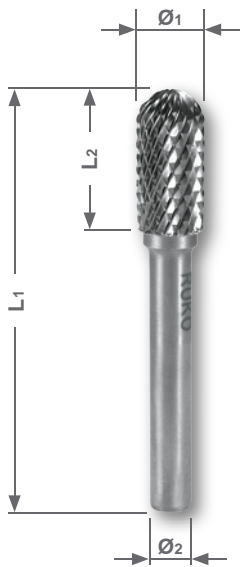


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	14,0	38,0	3,0	—	116 047	—
6,0	18,0	58,0	6,0	116 015 A	116 015	116 015 TC
8,0	18,0	60,0	6,0	—	116 016	116 016 TC
10,0	20,0	60,0	6,0	—	116 017	116 017 TC
12,0	25,0	65,0	6,0	116 018 A	116 018	116 018 TC
16,0	25,0	65,0	6,0	—	116 019	—



Tungsten carbide rotary burrs shape C oval (WRC)

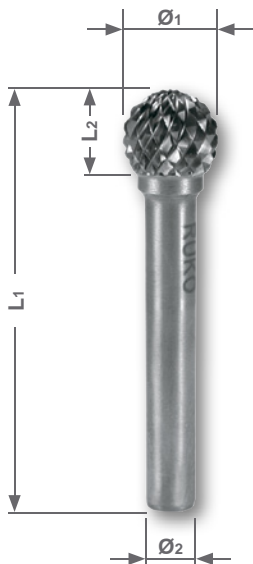


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	14,0	38,0	3,0	—	116 048	—
6,0	18,0	56,0	6,0	116 020 A	116 020	116 020 TC
8,0	18,0	60,0	6,0	—	116 021	116 021 TC
10,0	20,0	60,0	6,0	—	116 022	116 022 TC
12,0	25,0	65,0	6,0	116 023 A	116 023	116 023 TC
16,0	25,0	65,0	6,0	—	116 024	—



Tungsten carbide rotary burrs shape D ball type (KUD)

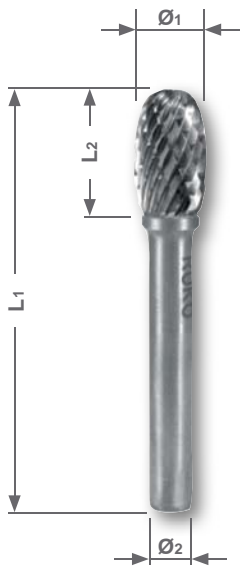


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	2,7	38,0	3,0	—	116 052	—
6,0	5,0	56,0	6,0	116 041 A	116 041	—
8,0	7,0	47,0	6,0	—	116 042	—
10,0	9,0	49,0	6,0	—	116 043	116 043 TC
12,0	11,0	51,0	6,0	116 044 A	116 044	—
16,0	15,0	54,0	6,0	—	116 045	—



Tungsten carbide rotary burrs shape E tear drop (TRE)

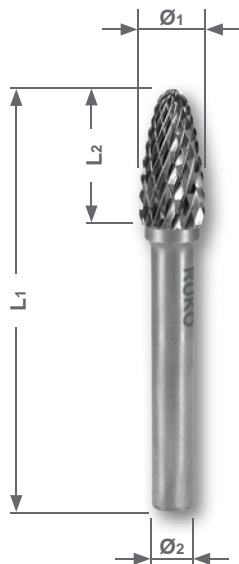


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	6,0	38,0	3,0	—	116 210	—
6,0	10,0	50,0	6,0	—	116 211	—
8,0	15,0	60,0	6,0	—	116 212	—
10,0	16,0	60,0	6,0	—	116 213	—
12,0	22,0	67,0	6,0	—	116 214	—
16,0	25,0	70,0	6,0	—	116 215	—



Tungsten carbide rotary burrs shape F ball nose tree (RBF)

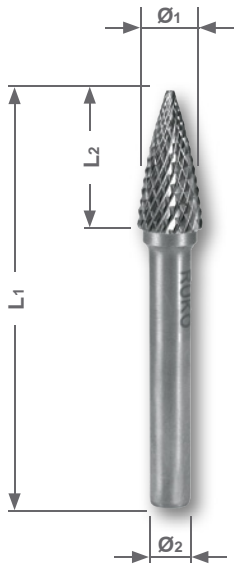


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	13,0	38,0	3,0	—	116 050	—
6,0	18,0	58,0	6,0	116 030 A	116 030	116 030 TC
8,0	18,0	60,0	6,0	—	116 031	116 031 TC
10,0	20,0	60,0	6,0	—	116 032	116 032 TC
12,0	25,0	65,0	6,0	116 033 A	116 033	116 033 TC
16,0	25,0	70,0	6,0	—	116 034	116 034 TC



Tungsten carbide rotary burrs shape G tree (SPG)

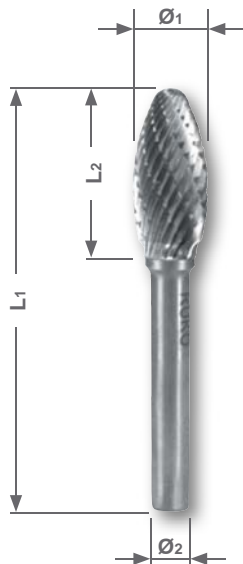


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	13,0	38,0	3,0	—	116 049	—
6,0	18,0	58,0	6,0	116 025 A	116 025	116 025 TC
8,0	18,0	60,0	6,0	—	116 026	116 026 TC
10,0	20,0	60,0	6,0	—	116 027	116 027 TC
12,0	25,0	65,0	6,0	116 028 A	116 028	116 028 TC
16,0	25,0	70,0	6,0	—	116 029	116 029 TC



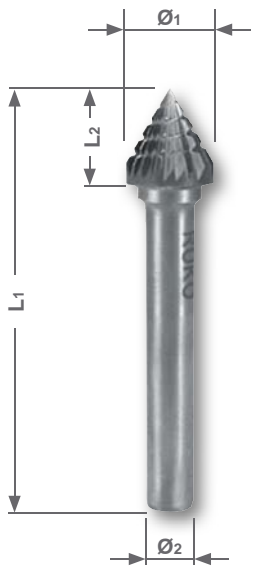
Tungsten carbide rotary burrs shape H flame (FLH)



Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25

Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	6,0	38,0	3,0	—	116 216	—
6,0	14,0	50,0	6,0	—	116 217	—
8,0	20,0	65,0	6,0	—	116 218	—
10,0	20,0	65,0	6,0	—	116 219	—
12,0	32,0	77,0	6,0	—	116 220	—
16,0	36,0	82,0	6,0	—	116 221	—



Tungsten carbide rotary burrs shape J cone 60° (KSJ)

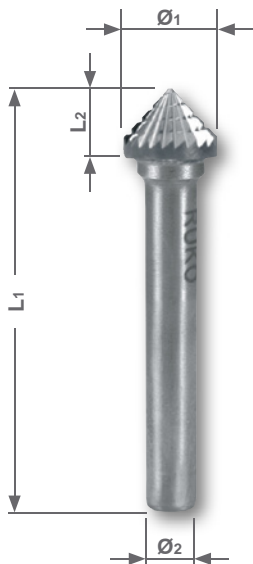


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	3,0	38,0	3,0	—	116 222	—
6,0	6,0	50,0	6,0	—	116 223	—
10,0	8,0	56,0	6,0	—	116 224	—
12,0	11,0	60,0	6,0	—	116 225	—
16,0	14,5	62,0	6,0	—	116 226	—



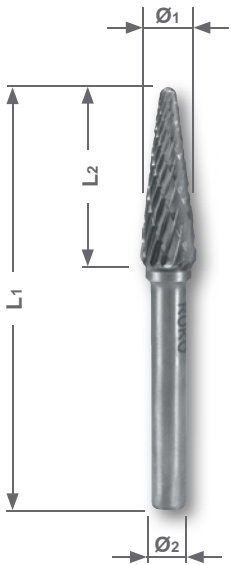
Tungsten carbide rotary burrs shape K cone 90° (KSK)



Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25

Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	3,0	38,0	3,0	—	116 227	—
6,0	3,0	50,0	6,0	—	116 228	—
10,0	5,0	53,0	6,0	—	116 229	—
12,0	7,0	55,0	6,0	—	116 230	—
16,0	8,0	57,0	6,0	—	116 231	—



Tungsten carbide rotary burrs shape L round cone (KEL)

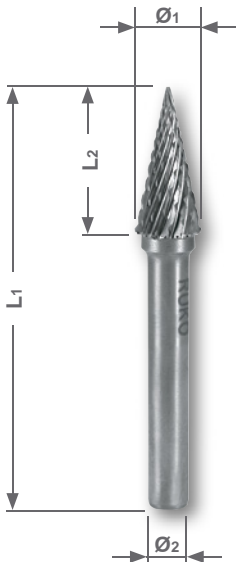


Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	14,0	38,0	3,0	—	116 232	—
6,0	18,0	50,0	6,0	116 233 A	116 233	—
8,0	25,0	70,0	6,0	—	116 234	—
10,0	20,0	65,0	6,0	116 235 A	116 235	—
12,0	32,0	77,0	6,0	116 236 A	116 236	—
16,0	33,0	78,0	6,0	—	116 237	—



Tungsten carbide rotary burrs shape M cone (SKM)



Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	11,0	38,0	3,0	—	116 051	—
6,0	18,0	58,0	6,0	—	116 035	116 035 TC
8,0	18,0	60,0	6,0	—	116 036	116 036 TC
10,0	20,0	60,0	6,0	—	116 037	116 037 TC
12,0	25,0	65,0	6,0	—	116 038	116 038 TC
16,0	25,0	70,0	6,0	—	116 039	116 039 TC



Tungsten carbide rotary burrs
shape N angle (WKN)



Packing unit: each in plastic packaging

N Also available as a set of 25 units per carton
Article no.: 116 ... -25



Ø1 mm	L2 mm	Total length L1 mm	Ø2 mm	Article no. Alu	Article no. TC	Article no. TiCN
3,0	5,0	38,0	3,0	—	116 238	—
6,0	8,0	50,0	6,0	—	116 239	—
10,0	10,0	55,0	6,0	—	116 240	—
12,0	13,0	58,0	6,0	—	116 241	—
16,0	19,0	64,0	6,0	—	116 242	—



Sets of tungsten carbide rotary burrs in steel case

Description	Article no.
10-piece set of tungsten carbide rotary burrs TC 2 x shape A, cylinder (ZYA) without end tothing Ø D1 10,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 10,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 10,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 10,0 / 12,0 mm 1 x shape M, cone (SKM) Ø D1 12,0 mm 1 x shape D, ball type (KUD) Ø D1 12,0 mm	116 003
10-piece set of tungsten carbide rotary burrs TiCN 2 x shape A, cylinder (ZYA) without end tothing Ø D1 10,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 10,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 10,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 10,0 / 12,0 mm 1 x shape M, cone (SKM) Ø D1 12,0 mm 1 x shape D, ball type (KUD) Ø D1 12,0 mm	116 003 TC
10-piece set of tungsten carbide rotary burrs ALU 2 x shape A, cylinder (ZYA) with end tothing Ø D1 6,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 6,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 6,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 6,0 / 12,0 mm 2 x shape D, ball type (KUD) Ø D1 6,0 / 12,0 mm	116 103 A



116 003



116 003 TC

Sets of tungsten carbide rotary burrs in plastic case

Description	Article no.
10-piece set of tungsten carbide rotary burrs TC 2 x shape A, cylinder (ZYA) without end tothing Ø D1 10,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 10,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 10,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 10,0 / 12,0 mm 1 x shape M, cone (SKM) Ø D1 12,0 mm 1 x shape D, ball type (KUD) Ø D1 12,0 mm	116 003 RO
10-piece set of tungsten carbide rotary burrs TiCN 2 x shape A, cylinder (ZYA) without end tothing Ø D1 10,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 10,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 10,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 10,0 / 12,0 mm 1 x shape M, cone (SKM) Ø D1 12,0 mm 1 x shape D, ball type (KUD) Ø D1 12,0 mm	116 003 TCRO
10-piece set of tungsten carbide rotary burrs ALU 2 x shape A, cylinder (ZYA) with end tothing Ø D1 6,0 / 12,0 mm 2 x shape C, oval (WRC) Ø D1 6,0 / 12,0 mm 2 x shape G, tree (SPG) Ø D1 6,0 / 12,0 mm 2 x shape F, ball nose tree (RBF) Ø D1 6,0 / 12,0 mm 2 x shape D, ball type (KUD) Ø D1 6,0 / 12,0 mm	116 103 ARO



116 003 RO



116 003 TCRO

Sets of tungsten carbide rotary burrs in a convenient table display

Description	Article no.
35-piece set of tungsten carbide rotary burrs TC in a convenient table display each 1 x Ø D1 6,0 mm + 8,0 mm + 10,0 mm + 12,0 mm + 16,0 mm 5 TC rotary burrs shape A, cylinder (ZYA) with end tothing 5 TC rotary burrs shape A, cylinder (ZYA) without end tothing 5 TC rotary burrs shape C, oval (WRC) 5 TC rotary burrs shape G, tree (SPG) 5 TC rotary burrs shape F, ball nose tree (RBF) 5 TC rotary burrs shape M, cone (SKM) 5 TC rotary burrs shape D, ball type (KUD)	116 008
35-piece set of tungsten carbide rotary burrs TiCN in a convenient table display each 1 x Ø D1 6,0 mm + 8,0 mm + 10,0 mm + 12,0 mm + 16,0 mm 5 TC rotary burrs shape A, cylinder (ZYA) with end tothing 5 TC rotary burrs shape A, cylinder (ZYA) without end tothing 5 TC rotary burrs shape C, oval (WRC) 5 TC rotary burrs shape G, tree (SPG) 5 TC rotary burrs shape F, ball nose tree (RBF) 5 TC rotary burrs shape M, cone (SKM) 5 TC rotary burrs shape D, ball type (KUD)	116 008 TC



116 008

Set of tungsten carbide rotary burrs in mini-box

Description	Article no.
3-piece set of tungsten carbide rotary burrs in mini-box each 1 x Ø D1 10,0 mm 1 TC rotary burr shape A, cylinder (ZYA) with end tothing 1 TC rotary burr shape G, pionted arch (SPG) 1 TC rotary burr shape D, cone (KUD)	116 001
10-piece set of tungsten carbide rotary burrs in mini-box each 1 x Ø D1 6,0 mm + Ø D1 12,0 mm 2 TC rotary burrs shape A, cylinder (ZYA) with end tothing 2 TC rotary burrs shape C, oval (WRC) 2 TC rotary burrs shape G, tree (SPG) 2 TC rotary burrs shape F, ball nose tree (RBF) 2 TC rotary burrs shape D, ball type (KUD)	116 002
5-piece set of tungsten carbide rotary burrs in mini-box each 1 x Ø D1 10,0 mm 1 TC rotary burr shape A, cylinder (ZYA) with end tothing 1 TC rotary burr shape C, oval (WRC) 1 TC rotary burr shape G, tree (SPG) 1 TC rotary burr shape F, ball nose tree (RBF) 1 TC rotary burr shape D, ball type (KUD)	116 004



116 002

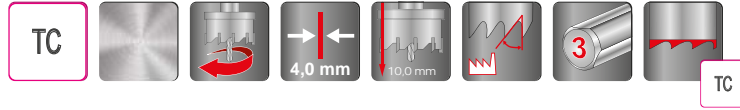


116 004





Tungsten carbide hole saws, shallow cut



Packing unit: individual carton



Ø ₁ mm	Ø inch	Through dimensions M + PG	Tube dimensions inch	Ø ₂ mm	Article no.
16,0	5/8	~ PG 9		10,0	105 016
16,5		M 16		10,0	105 165
17,0				10,0	105 017
18,0				10,0	105 018
18,6		PG 11		10,0	105 186
19,0	3/4		3/8	10,0	105 019
20,0				10,0	105 020
20,4	13/16	M 20 / PG 13,5		10,0	105 204
21,0				10,0	105 021
22,0			1/2	10,0	105 022
22,5	7/8	PG 16		10,0	105 225
23,0				10,0	105 023
24,0	15/16			10,0	105 024
25,0				10,0	105 025
25,5	1	M 25		10,0	105 255
26,0				10,0	105 026
27,0	1 1/16			10,0	105 027
28,0	1 3/32			10,0	105 028
28,3	1 1/8	PG 21		10,0	105 283
29,0			3/4	10,0	105 029
30,0	1 3/16			10,0	105 030
32,0	1 1/4			10,0	105 032
32,5		M 32		10,0	105 325
34,0				10,0	105 034
35,0	1 3/8		1	10,0	105 035
36,0				10,0	105 036
37,0	1 7/16	PG 29		10,0	105 037
38,0	1 1/2			10,0	105 038

Ø ₁ mm	Ø inch	Through dimensions M + PG	Tube dimensions inch	Ø ₂ mm	Article no.
40,0	1 9/16			10,0	105 040
40,5		M 40		10,0	105 405
41,0	1 5/8			10,0	105 041
42,0				10,0	105 042
43,0	1 11/16			10,0	105 043
44,0	1 3/4		1 1/4	10,0	105 044
45,0				10,0	105 045
48,0				10,0	105 048
50,0	1 31/32			10,0	105 050
50,5		M 50		10,0	105 505
51,0	2		1 1/2	13,0	105 051
52,0				13,0	105 052
54,0	2 1/8	PG 42		13,0	105 054
55,0				13,0	105 055
57,0	2 1/4			13,0	105 057
60,0	2 3/8	~ PG 48		13,0	105 060
63,5	2 1/2	M 63	2	13,0	105 635
65,0				13,0	105 065
68,0				13,0	105 068
70,0	2 3/4			13,0	105 070
75,0				13,0	105 075
80,0				13,0	105 080
85,0				13,0	105 085
90,0				13,0	105 090
95,0	3 3/4			13,0	105 095
100,0				13,0	105 100
110,0				13,0	105 110
120,0				13,0	105 120

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



105 300



105 302



1.11

Description	Article no.
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 spray 50 ml article no. 101 010 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 spray 50 ml article no. 101 010 1 extra pilot drill 6,0 mm HSSE-Co 5 article no. 105 170	105 302

Pilot drills for tungsten carbide hole saws, shallow cut

Version:

- HSSE-Co 5 ground blade split point in accordance with DIN 1412 C
- tungsten carbide blade

right hand cutting

Packing unit: individual plastic pack

Ø mm	Length mm	For hole saws Ø mm	For hole saws cutting depth	Article no. HSSE-Co 5	Article no. tungsten carbide
6,0	52,0	16,0 - 70,0	shallow	105 170	105 172
8,0	52,0	75,0 - 150,0	shallow	105 171	105 173
Ejector spring				105 174	



105 171



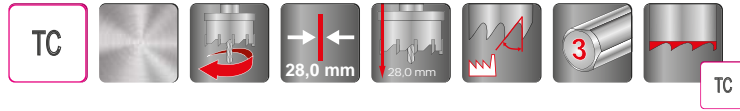
105 173



105 174



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

Ø ₁ mm	Ø inch	Tube dimen- sions inch	Ø ₂ mm	Article no.	Cont. pcs.
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

Ø ₁ mm	Ø inch	Tube dimen- sions inch	Ø ₂ mm	Article no.	Cont. pcs.
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

Pilot drills for tungsten carbide multigrade hole saws MHS

Version:

- HSSE-Co 5 ground blade split point in accordance with DIN 1412 C
- tungsten carbide blade

right hand cutting

Packing unit: individual plastic pack

Ø mm	Length mm	For hole saws MHS Ø mm	Article no. HSSE-Co 5	Article no. tungsten carbide	Cont. pcs.
6,0	80,0	15,0 - 100,0	113 216	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

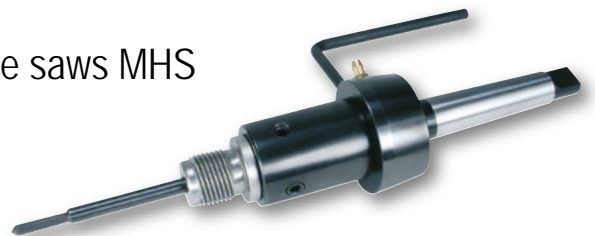


113 203

Description	For hole saws MHS Ø mm	Shank	Magnetic-stand drilling machine	Article no.	Cont. pcs.
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

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

Packing unit: individual carton



108 103

Description	For hole saws MHS Ø mm	Shank morse taper	Magnetic-stand drilling machine	Article no.	Cont. pcs.
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

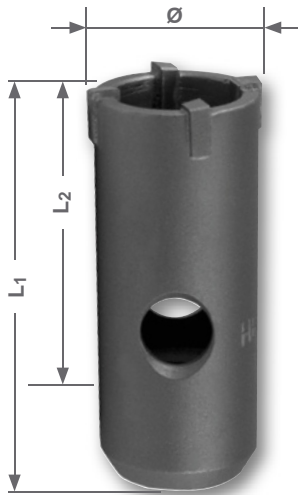


108 108

Description	For hole saws MHS Ø mm	Article no.	Cont. pcs.
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



108 110



Hammer percussion drill bits with carbide cutting edges



High efficiency is guaranteed by the very stable and thin-walled drill bit body.
 Applications: for drilling in concrete, stone, masonry and bricks. Suitable for hammer drills up to 4,0 kg maximum with SDS-plus adaptor. In impact drilling machines with hexagon shank.
 Necessary machine-efficiency: up to Ø 50,0 mm at least 600 Watt and up to Ø 65,0 mm at least 800 Watt.
 Delivery without center drill and adaptor.

Cutting edges: strong special tungsten carbide plates with special alloying
 Soldering: high-performance special soldering
 Adaptor: thread M16

Packaging: in plastic bags of 1 each

Examples for applications	Ø mm	L ₁ mm	L ₂ mm	Quantity of teeth TC	Article no.
Sanitation and heating tubes	30,0	107,0	72,0	4	226 0301
Sanitation and heating tubes	35,0	107,0	72,0	4	226 0351
Waste, water and heating tubes	40,0	107,0	72,0	4	226 0401
Waste, water and heating tubes	50,0	107,0	72,0	6	226 0501
Switch boxes	68,0	107,0	72,0	6	226 0651
Branch and distribution boxes	82,0	107,0	72,0	6	226 0801
Branch, distribution and ventilating tubes	90,0	107,0	72,0	6	226 0901
Ventilating tubes	100,0	107,0	72,0	6	226 1001



226 200

Accessoires for percussion drill bits

Packaging: in plastic bags of 1 each



226 201



226 203

Description	Article no.
Center drill with carbide cutting edge Ø 8,0 mm total length 120,0 mm	226 200
Adaptor with hexagon shank span of jaw 12,0 mm total length 95,0 mm	226 201
Adaptor SDS-plus total length 110,0 mm	226 203