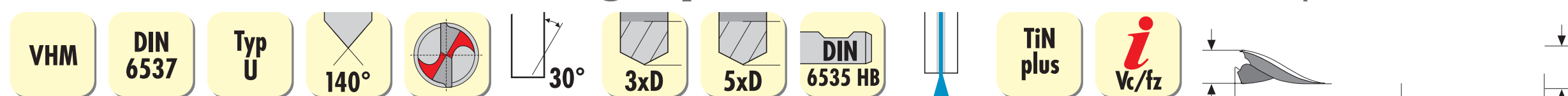


SARA® Solid carbide high-performance drill bit TiNplus HPC



Newly developed geometry with reinforced core and special point thinning
 Solid carbide ultra-fine grain cutting material TiNplus
 Modern multi-layer hard coating for maximum service life and optimum chip transport
 High centring accuracy
 For universal applications



3 x D without coolant bore

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
3	6	62	20	111503 0030	17.40
3.2	6	62	20	111503 0032	17.40
3.3	6	62	20	111503 0033	17.40
3.5	6	62	20	111503 0035	17.40
3.8	6	66	24	111503 0038	17.40
4	6	66	24	111503 0040	17.40
4.2	6	66	24	111503 0042	17.40
4.5	6	66	24	111503 0045	17.40
4.8	6	66	28	111503 0048	17.40
5	6	66	28	111503 0050	17.40
5.1	6	66	28	111503 0051	17.40
5.5	6	66	28	111503 0055	17.40
5.8	6	66	28	111503 0058	17.40
6	6	66	28	111503 0060	17.40
6.2	8	79	34	111503 0062	17.95
6.5	8	79	34	111503 0065	17.95

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
6.8	8	79	34	111503 0068	17.95
7	8	79	34	111503 0070	17.95
7.5	8	79	41	111503 0075	17.95
8	8	79	41	111503 0080	17.95
8.2	10	89	47	111503 0082	21.10
8.5	10	89	47	111503 0085	21.10
8.8	10	89	47	111503 0088	21.10
9	10	89	47	111503 0090	21.10
9.5	10	89	47	111503 0095	21.10
10	10	89	47	111503 0100	21.10
10.2	12	102	55	111503 0102	29.40
10.5	12	102	55	111503 0105	29.40
11	12	102	55	111503 0110	29.40
11.5	12	102	55	111503 0115	29.40
12	12	102	55	111503 0120	29.40
12.5	14	107	60	111503 0125	41.40

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
13	14	107	60	111503 0130	41.40
13.5	14	107	60	111503 0135	41.40
14	14	107	60	111503 0140	41.40
14.5	16	115	65	111503 0145	53.50
15	16	115	65	111503 0150	53.50
15.5	16	115	65	111503 0155	53.50
16	16	115	65	111503 0160	53.50
16.5	18	123	73	111503 0165	85.30
17	18	123	73	111503 0170	85.30
17.5	18	123	73	111503 0175	85.30
18	18	123	73	111503 0180	85.30
18.5	20	131	79	111503 0185	102.50
19	20	131	79	111503 0190	102.50
19.5	20	131	79	111503 0195	102.50
20	20	131	79	111503 0200	102.50

3 x D with coolant bore

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
3	6	62	20	111507 0030	23.60
3.2	6	62	20	111507 0032	23.60
3.3	6	62	20	111507 0033	23.60
3.5	6	62	20	111507 0035	23.60
3.8	6	66	24	111507 0038	23.60
4	6	66	24	111507 0040	23.60
4.2	6	66	24	111507 0042	23.60
4.5	6	66	24	111507 0045	23.60
4.8	6	66	28	111507 0048	23.60
5	6	66	28	111507 0050	23.60
5.1	6	66	28	111507 0051	23.60
5.5	6	66	28	111507 0055	23.60
5.8	6	66	28	111507 0058	23.60
6	6	66	28	111507 0060	23.60
6.2	8	79	34	111507 0062	30.40
6.5	8	79	34	111507 0065	30.40

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
6.8	8	79	34	111507 0068	30.40
7	8	79	34	111507 0070	30.40
7.5	8	79	41	111507 0075	30.40
8	8	79	41	111507 0080	30.40
8.2	10	89	47	111507 0082	36.00
8.5	10	89	47	111507 0085	36.00
8.8	10	89	47	111507 0088	36.00
9	10	89	47	111507 0090	36.00
9.5	10	89	47	111507 0095	36.00
10	10	89	47	111507 0100	36.00
10.2	12	102	55	111507 0102	53.00
10.5	12	102	55	111507 0105	53.00
11	12	102	55	111507 0110	53.00
11.5	12	102	55	111507 0115	53.00
12	12	102	55	111507 0120	53.00
12.5	14	107	60	111507 0125	70.00

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
13	14	107	60	111507 0130	70.00
13.5	14	107	60	111507 0135	70.00
14	14	107	60	111507 0140	70.00
14.5	16	115	65	111507 0145	86.70
15	16	115	65	111507 0150	86.70
15.5	16	115	65	111507 0155	86.70
16	16	115	65	111507 0160	86.70
16.5	18	123	73	111507 0165	119.00
17	18	123	73	111507 0170	119.00
17.5	18	123	73	111507 0175	119.00
18	18	123	73	111507 0180	119.00
18.5	20	131	79	111507 0185	147.50
19	20	131	79	111507 0190	147.50
19.5	20	131	79	111507 0195	147.50
20	20	131	79	111507 0200	147.50

5 x D with coolant bore

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
3	6	66	28	111512 0030	30.10
3.2	6	66	28	111512 0032	30.10
3.3	6	66	28	111512 0033	30.10
3.5	6	66	28	111512 0035	30.10
3.8	6	74	36	111512 0038	30.10
4	6	74	36	111512 0040	30.10
4.2	6	74	36	111512 0042	30.10
4.5	6	74	36	111512 0045	30.10
4.8	6	82	44	111512 0048	30.10
5	6	82	44	111512 0050	30.10
5.1	6	82	44	111512 0051	30.10
5.5	6	82	44	111512 0055	30.10
5.8	6	82	44	111512 0058	30.10
6	6	82	44	111512 0060	30.10
6.2	8	91	53	111512 0062	34.60
6.5	8	91	53	111512 0065	34.60

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
6.8	8	91	53	111512 0068	34.60
7	8	91	53	111512 0070	34.60
7.5	8	91	53	111512 0075	34.60
8	8	91	53	111512 0080	34.60
8.2	10	103	61	111512 0082	39.00
8.5	10	103	61	111512 0085	39.00
8.8	10	103	61	111512 0088	39.00
9	10	103	61	111512 0090	39.00
9.5	10	103	61	111512 0095	39.00
10	10	103	61	111512 0100	39.00
10.2	12	118	71	111512 0102	54.80
10.5	12	118	71	111512 0105	54.80
11	12	118	71	111512 0110	54.80
11.5	12	118	71	111512 0115	54.80
12	12	118	71	111512 0120	54.80
12.5	14	124	77	111512 0125	74.80

D m7 mm	D1 h6 mm	L mm	L1 mm	Art.no.	€
13	14	124	77	111512 0130	74.80
13.5	14	124	77	111512 0135	74.80
14	14	124	77	111512 0140	74.80
14.5	16	133	83	111512 0145	96.20
15	16	133	83	111512 0150	96.20
15.5	16	133	83	111512 0155	96.20
16	16	133	83	111512 0160	96.20
16.5	18	143	93	111512 0165	150.00
17	18	143	93	111512 0170	150.00
17.5	18	143	93	111512 0175	150.00
18	18	143	93	111512 0180	150.00
18.5	20	153	101	111512 0185	163.50
19	20	153	101	111512 0190	163.50
19.5	20	153	101	111512 0195	163.50
20	20	153	101	111512 0200	163.50

Material	● very well suited	Steel			Stainless steel			Cast iron		Titanium alloys	Super alloys Fe/NiCo-based		Aluminium		Copper	Graphite	Hardened steel		
	○ well suited	< 700 N/mm²	700-1000 N/mm²	> 1000 N/mm²	ferrit./martens.	austenitic	duplex	GG/GTS	GGG		< 30 HRc	≥ 30 HRc	< 8% Si	≥ 8% Si	Cu-alloy	GRP/CFP/thermo.	< 55 HRc	< 60 HRc	≥ 60 HRc
Without coolant bore	●	●	●	●	●	○	○	●	○	○	○	○	○	○	○		○	○	
With coolant bore	●	●	●	●	●	●	○	●	●	●	●	○	●	●	●		●	○	

Cutting speed Vc m/min. Please adjust these guidelines according to clamping operation and machine set-up!