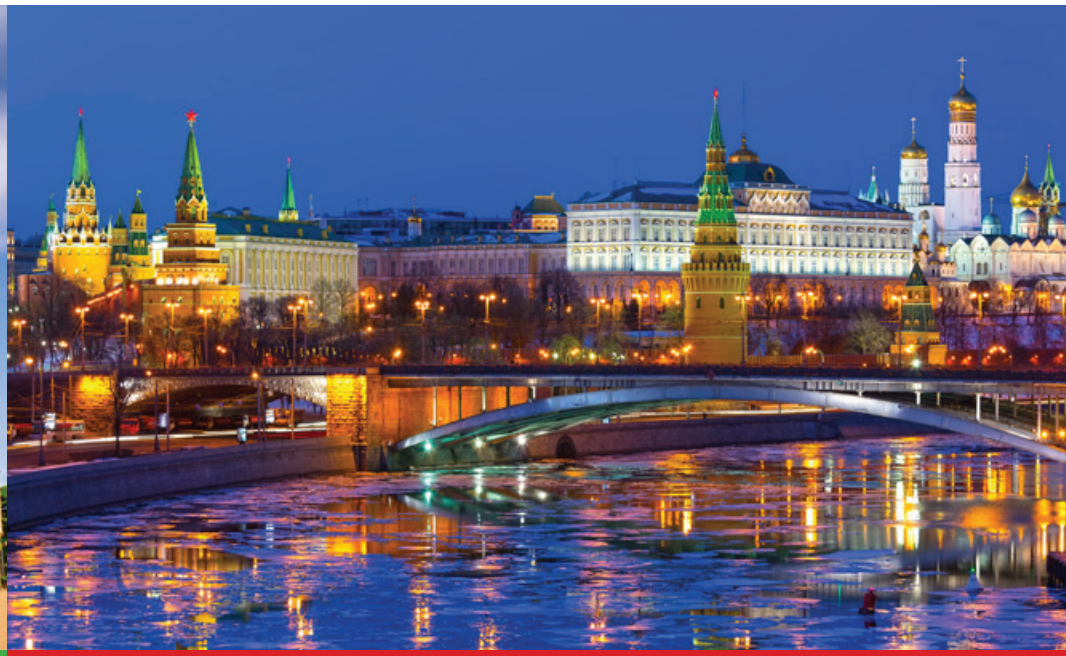
ADD engineering

HSS DRILLS & CUTTERS

Germany | India | Russia

Germany | India | Russia



CONTENTS

ADD engineering

CONTENTS

ADD engineering



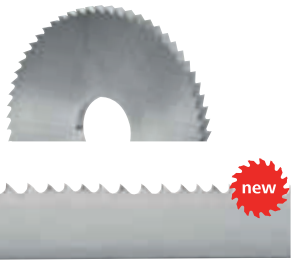






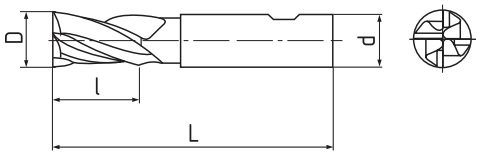



CONTENTS



CONTENTS

1204 | DIN 1835B | DIN 844 | typ N | λ=30° γ=12° | HSSE PM | AlTiN



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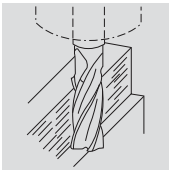

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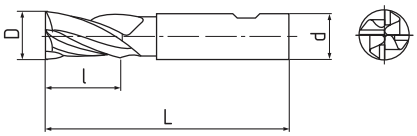
3	8	52	6	3	120417.030
4	11	55	6	3	120417.040
5	13	57	6	3	120417.050
6	13	57	6	3	120417.060
7	16	66	10	3	120417.070
8	19	69	10	3	120417.080
10	22	72	10	3	120417.100
12	26	83	12	3	120417.120
16	32	92	16	3	120417.160
18	32	92	16	3	120417.180
20	38	104	20	3	120417.200

END MILLS, 1 TOOTH CUT OVER CENTRE

1205 · 1215 | DIN 1835B | DIN 844 | typ N | λ=30° γ=12° | HSSE PM | AlTiN



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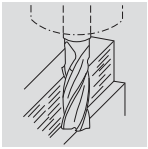

D k 10	l	L	d h 6	Z	CODE
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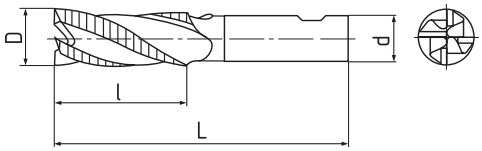
3	8	52	6	4	120517.030
4	11	55	6	4	120517.040
5	13	57	6	4	120517.050
6	13	57	6	4	120517.060
8	19	69	10	4	120517.080
10	22	72	10	4	120517.100
12	26	83	12	4	120517.120
14	26	83	12	4	120517.140
16	32	92	16	4	120517.160
18	32	92	16	4	120517.180
20	38	104	20	4	120517.200
25	45	121	25	5	120517.250
30	45	121	25	5	120517.300

D k 10	l	L	d h 6	Z	CODE
6	24	68	6	4	121517.060
8	38	88	10	4	121517.080
10	45	95	10	4	121517.100
12	53	110	12	4	121517.120
14	53	110	12	4	121517.140
16	63	123	16	4	121517.160
18	63	123	16	4	121517.180
20	75	141	20	4	121517.200

1245 · 1255

DIN 1835B | DIN 844 | typ NR | λ=30° γ=12° | HSSE PM | AlTiN



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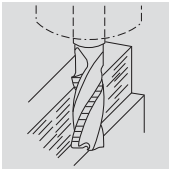

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10	22	72	10	4	124517.100
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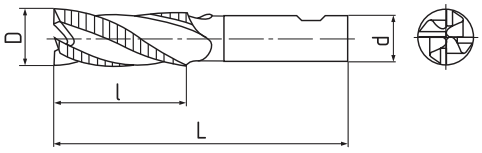
14	26	83	12	4	124517.140
16	32	92	16	4	124517.160
18	32	92	16	4	124517.180
20	38	104	20	4	124517.200
22	38	104	20	5	124517.220
25	45	121	25	5	124517.250
28	45	121	25	5	124517.280
30	45	121	25	5	124517.300
32	53	133	32	6	124517.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	125517.060
8	38	88	10	4	125517.080
10	45	95	10	4	125517.100
12	53	110	12	4	125517.120
14	53	110	12	4	125517.140
16	63	123	16	4	125517.160
18	63	123	16	4	125517.180
20	75	141	20	4	125517.200
25	90	166	25	5	125517.250
32	106	186	32	6	125517.320

1285 · 1295



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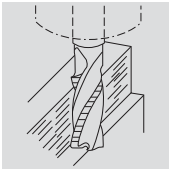

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10	22	72	10	4	128517.100
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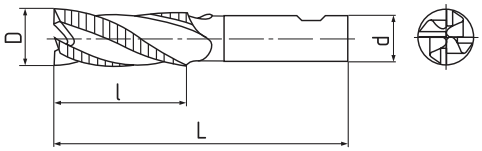
14	26	83	12	4	128517.140
16	32	92	16	4	128517.160
18	32	92	16	4	128517.180
20	38	104	20	4	128517.200
22	38	104	20	5	128517.220
25	45	121	25	5	128517.250
30	45	121	25	5	128517.300

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	129517.060
8	38	88	10	4	129517.080
10	45	95	10	4	129517.100
12	53	110	12	4	129517.120
14	53	110	12	4	129517.140
16	63	123	16	4	129517.160
18	63	123	16	4	129517.180
20	75	141	20	4	129517.200

1285X | DIN 1835B | DIN 844 | typ HR | λ=30° γ=10° | HSSE PM | AlTiN | Z=5



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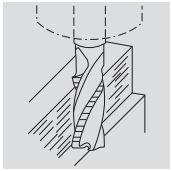

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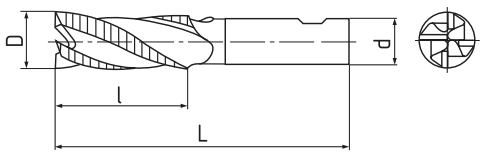
9	19	69	10	5	128517X.090
10	22	72	10	5	128517X.100
11	22	79	12	5	128517X.110
12	26	83	12	5	128517X.120
13	26	83	12	5	128517X.130
14	26	83	12	5	128517X.140
15	26	83	12	5	128517X.150
16	32	92	16	5	128517X.160
18	32	92	16	5	128517X.180
20	38	104	20	5	128517X.200

END MILLS – SHORT, HR P, 1 TOOTH CUT OVER CENTRE

ADD engineering

1285P | DIN 1835B | DIN 844 | typ HR P | λ=30° γ=10° | HSSE PM | AlTiN



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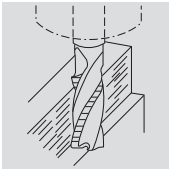
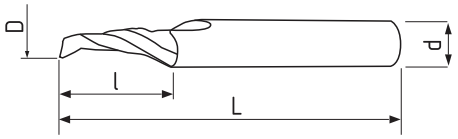


D k 12	l	L	d h 6	Z	CODE
6	13	57	6	4	128517P.060
8	19	69	10	4	128517P.080
10	22	72	10	4	128517P.100
12	26	83	12	4	128517P.120
14	26	83	12	4	128517P.140
16	32	92	16	4	128517P.160
18	32	92	16	4	128517P.180
20	38	104	20	4	128517P.200
22	38	104	20	5	128517P.220
25	45	121	25	5	128517P.250
28	45	121	25	5	128517P.280
30	45	121	25	5	128517P.300
32	53	133	32	6	128517P.320

1004 · 1014 | DIN 1835A | ZPS-FN Norm | typ W | λ=30° γ=20° | HSS Co5 | z=1



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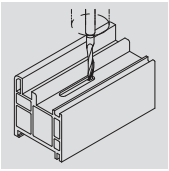
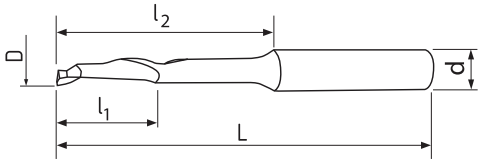


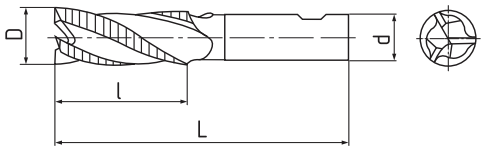
D js 16	L	l	d h 6	CODE
3	60	12	8	100405.030
4	60	12	8	100405.040
5	60	14	8	100405.050
6	60	14	8	100405.060
7	60	14	8	100405.070
8	80	14	8	100405.080
10	80	14	8	100405.100



D js 16	L	l_1	l_2	d h 6	CODE
4	80	16	45	8	101405.040
5	80	16	45	8	101405.050
5	120	16	84	8	101405.050120
6	90	16	45	8	101405.060
8	100	30	70	8	101405.080
8	120	16	84	8	101405.080120

END MILLS, NR P, 1 TOOTH CUT OVER CENTRE

1044P ·1054P | DIN 1835B | DIN 844 | typ NR P | λ=35° γ=12° | HSS Co8



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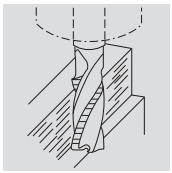

D k 12	l	L	d h 6	Z	CODE
6	13	57	6	3	104418P.060
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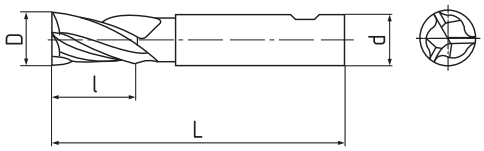
10	22	72	10	3	104418P.100
12	26	83	12	3	104418P.120
14	26	83	12	3	104418P.140
16	32	92	16	3	104418P.160
18	32	92	16	3	104418P.180
20	38	104	20	3	104418P.200
22	38	104	20	3	104418P.220
24	45	121	25	3	104418P.240
25	45	121	25	3	104418P.250
26	45	121	25	3	104418P.260
28	45	121	25	3	104418P.280
30	45	121	25	3	104418P.300
32	53	133	32	3	104418P.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	3	105418P.060
8	38	88	10	3	105418P.080
10	45	95	10	3	105418P.100
12	53	110	12	3	105418P.120
14	53	110	12	3	105418P.140
16	63	123	16	3	105418P.160
18	63	123	16	3	105418P.180
20	75	141	20	3	105418P.200
22	75	141	20	3	105418P.220
24	90	166	25	3	105418P.240
25	90	166	25	3	105418P.250
26	90	166	25	3	105418P.260
28	90	166	25	3	105418P.280
30	90	166	25	3	105418P.300
32	106	186	32	3	105418P.320

1104 · 1114 | DIN 1835B | DIN 844 | typ W | λ=40° γ=25° | HSS Co8



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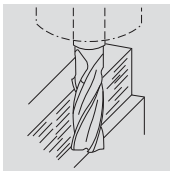

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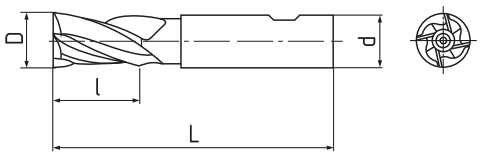
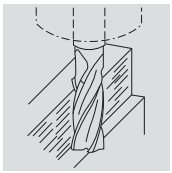
2	7	51	6	3	110418.020
3	8	52	6	3	110418.030
4	11	55	6	3	110418.040
4,5	11	55	6	3	110418.045
5	13	57	6	3	110418.050
6	13	57	6	3	110418.060
7	16	66	10	3	110418.070
8	19	69	10	3	110418.080
9	19	69	10	3	110418.090
10	22	72	10	3	110418.100
12	26	83	12	3	110418.120
14	26	83	12	3	110418.140
16	32	92	16	3	110418.160
18	32	92	16	3	110418.180
20	38	104	20	3	110418.200

D k 10	l	L	d h 6	Z	CODE
6	24	68	6	3	111418.060
7	30	80	10	3	111418.070
8	38	88	10	3	111418.080
9	38	88	10	3	111418.090
10	45	95	10	3	111418.100
12	53	110	12	3	111418.120
14	53	110	12	3	111418.140
16	63	123	16	3	111418.160
18	63	123	16	3	111418.180
20	75	141	20	3	111418.200

1202K | DIN 1835B | ZPS-FN Norm | typ N | λ=30° γ=12° | HSS Co5



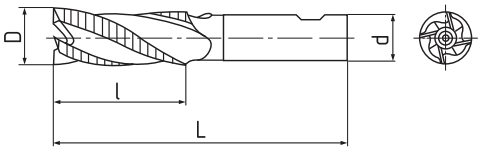
Usage



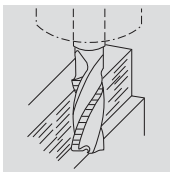
D k 12	l	L	d h 6	Z	CODE
30	30	90	20	6	120218K.300030
35	30	90	20	6	120218K.350030
40	32	95	25	8	120218K.400032

END MILLS – EXTRA SHORT , NR

1242K | DIN 1835B | ZPS-FN Norm | typ NR | λ=30° γ=12° | HSS Co8



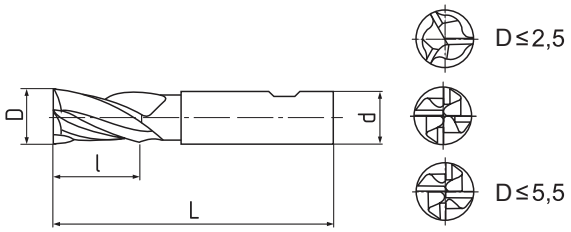
Usage



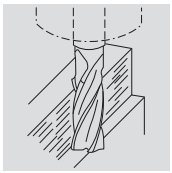
D k 12	l	L	d h 6	Z	CODE
30	30	90	20	6	124218K.300030
35	30	90	20	6	124218K.350030
40	32	95	25	8	124218K.400032

END MILLS – SHORT, 1 TOOTH CUT OVER CENTRE

1205 | DIN 1835A | DIN 1835B | DIN 844 | typ N | λ=30° γ=8° | HSS Co5



Usage



D k 10	l	L	d h 6	Z	DIN 1835A CODE	DIN 1835B CODE
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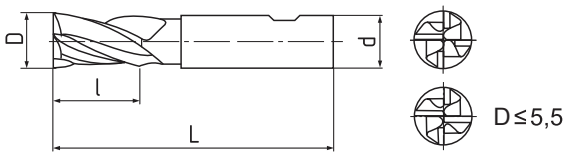
2,5	8	52	6	3	120508.025	120518.025
3	8	52	6	4	120508.030	120518.030
3,5	10	54	6	4	–	120518.035
4	11	55	6	4	120508.040	120518.040
4,5	11	55	6	4	–	120518.045
5	13	57	6	4	120508.050	120518.050
5,5	13	57	6	4	–	120518.055
6	13	57	6	4	120508.060	120518.060
6,5	16	66	10	4	–	120518.065
7	16	66	10	4	120508.070	120518.070
7,5	16	66	10	4	–	120518.075
8	19	69	10	4	120508.080	120518.080
8,5	19	69	10	4	–	120518.085
9	19	69	10	4	120508.090	120518.090
9,5	19	69	10	4	–	120518.095
10	22	72	10	4	120508.100	120518.100
11	22	79	12	4	–	120518.110
12	26	83	12	4	120508.120	120518.120
13	26	83	12	4	120508.130	120518.130
14	26	83	12	4	120508.140	120518.140
15	26	83	12	4	120508.150	120518.150
16	32	92	16	4	120508.160	120518.160
17	32	92	16	4	120508.170	120518.170
18	32	92	16	4	120508.180	120518.180
20	38	104	20	4	120508.200	120518.200
22	38	104	20	5	120508.220	120518.220
24	45	121	25	5	–	120518.240
25	45	121	25	5	120508.250	120518.250
26	45	121	25	5	–	120518.260
28	45	121	25	5	120508.280	120518.280
30	45	121	25	5	120508.300	120518.300
32	53	133	32	6	120508.320	120518.320
35	53	133	32	6	–	120518.350
36	53	133	32	6	–	120518.360
40	63	143	32	6	–	120518.40032

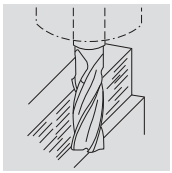
END MILLS – LONG, 1 TOOTH CUT OVER CENTRE

ADD engineering

1215 | DIN 1835B | DIN 844 | typ N | λ=30° γ=8° | HSS Co5



Usage

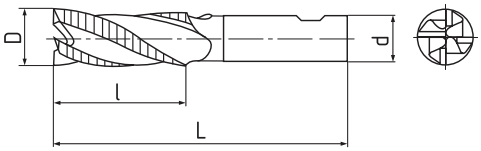


D k 12	l	L	d h 6	Z	CODE
2	10	54	6	3	121518.020
3	12	56	6	4	121518.030
3,5	15	59	6	4	121518.035
4	19	63	6	4	121518.040
4,5	19	63	6	4	121518.045
5	24	68	6	4	121518.050
5,5	24	68	6	4	121518.055
6	24	68	6	4	121518.060
7	30	80	10	4	121518.070
8	38	88	10	4	121518.080
9	38	88	10	4	121518.090
10	45	95	10	4	121518.100
11	45	102	12	4	121518.110
12	53	110	12	4	121518.120
14	53	110	12	4	121518.140
16	63	123	16	4	121518.160
18	63	123	16	4	121518.180
20	75	141	20	4	121518.200
22	75	141	20	5	121518.220
24	90	166	25	5	121518.240
25	90	166	25	5	121518.250
26	90	166	25	5	121518.260
28	90	166	25	5	121518.280
30	90	166	25	5	121518.300
32	106	186	32	6	121518.320
36	106	186	32	6	121518.360
40	125	205*	32*	6	121518.40032

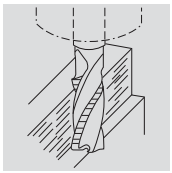
*/ ≠ DIN 844

END MILLS, NR, 1 TOOTH CUT OVER CENTRE

1245 · 1255 | DIN 1835B | DIN 844 | typ NR | λ=30° γ=12° | HSS Co5



Usage



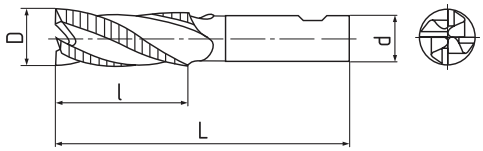
D k 12	l	L	d h 6	Z	CODE
6	13	57	6	4	124518.060
7	16	66	10	4	124518.070
8	19	69	10	4	124518.080
9	19	69	10	4	124518.090
10	22	72	10	4	124518.100
11	22	79	12	4	124518.110
12	26	83	12	4	124518.120
13	26	83	12	4	124518.130
14	26	83	12	4	124518.140
15	26	83	12	4	124518.150
16	32	92	16	4	124518.160
17	32	92	16	4	124518.170
18	32	92	16	4	124518.180
20	38	104	20	4	124518.200
21	38	104	20	4	124518.210
22	38	104	20	5	124518.220
24	45	121	25	5	124518.240
25	45	121	25	5	124518.250
26	45	121	25	5	124518.260
28	45	121	25	5	124518.280
30	45	121	25	5	124518.300
32	53	133	32	6	124518.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	125518.060
8	38	88	10	4	125518.080
10	45	95	10	4	125518.100
12	53	110	12	4	125518.120
14	53	110	12	4	125518.140
16	63	123	16	4	125518.160
18	63	123	16	4	125518.180
20	75	141	20	4	125518.200
22	75	141	20	5	125518.220
24	90	166	25	5	125518.240
25	90	166	25	5	125518.250
26	90	166	25	5	125518.260
28	90	166	25	5	125518.280
30	90	166	25	5	125518.300
32	106	186	32	6	125518.320

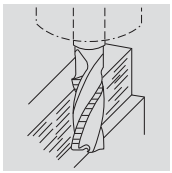
END MILLS, NR P, 1 TOOTH CUT OVER CENTRE

ADD engineering

1245P · 1255P | DIN 1835B | DIN 844 | typ NR P | λ=30° γ=12° | HSS Co8



Usage



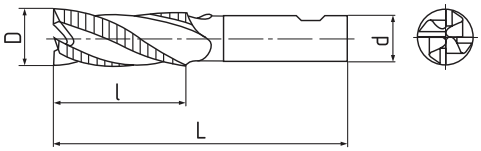
D k 12	l	L	d h 6	Z	CODE
6	13	57	6	4	124518P.060
7	16	66	10	4	124518P.070
8	19	69	10	4	124518P.080
9	19	69	10	4	124518P.090
10	22	72	10	4	124518P.100
11	22	79	12	4	124518P.110
12	26	83	12	4	124518P.120
13	26	83	12	4	124518P.130
14	26	83	12	4	124518P.140
15	26	83	12	4	124518P.150
16	32	92	16	4	124518P.160
17	32	92	16	4	124518P.170
18	32	92	16	4	124518P.180
20	38	104	20	4	124518P.200
22	38	104	20	5	124518P.220
24	45	121	25	5	124518P.240
25	45	121	25	5	124518P.250
26	45	121	25	5	124518P.260
28	45	121	25	5	124518P.280
30	45	121	25	5	124518P.300
32	53	133	32	6	124518P.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	125518P.060
8	38	88	10	4	125518P.080
10	45	95	10	4	125518P.100
12	53	110	12	4	125518P.120
14	53	110	12	4	125518P.140
16	63	123	16	4	125518P.160
18	63	123	16	4	125518P.180
20	75	141	20	4	125518P.200
22	75	141	20	5	125518P.220
24	90	166	25	5	125518P.240
25	90	166	25	5	125518P.250
26	90	166	25	5	125518P.260
28	90	166	25	5	125518P.280
30	90	166	25	5	125518P.300
32	106	186	32	6	125518P.320

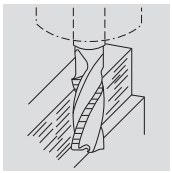
END MILLS, HR, 1 TOOTH CUT OVER CENTRE

ADD engineering

1285S | DIN 1835B | ZPS-FN Norm | typ HR | λ=30° γ=10° | HSS Co8



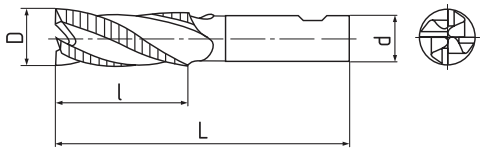
Usage



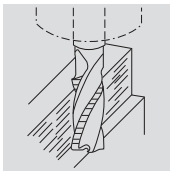
D k 12	l	L	d h 6	Z	CODE
6	8	52	6	4	128518S.060
8	11	61	10	4	128518S.080
10	13	63	10	4	128518S.100
12	16	73	12	4	128518S.120
14	16	73	12	4	128518S.140
16	19	79	16	4	128518S.160
18	19	79	16	4	128518S.180
20	22	88	20	4	128518S.200
25	26	102	25	5	128518S.250
30	26	102	25	5	128518S.300

END MILLS, HR, 1 TOOTH CUT OVER CENTRE

1285 · 1295 | DIN 1835B | DIN 844 | typ HR | λ=30° γ=10° | HSS Co8



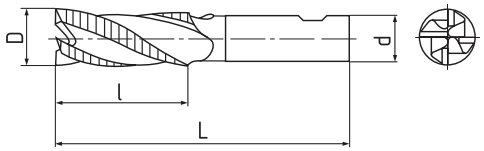
Usage



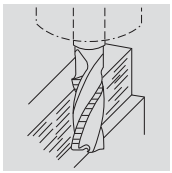
D k 12	l	L	d h 6	Z	CODE
6	13	57	6	4	128518.060
7	16	66	10	4	128518.070
8	19	69	10	4	128518.080
9	19	69	10	4	128518.090
10	22	72	10	4	128518.100
11	22	79	12	4	128518.110
12	26	83	12	4	128518.120
13	26	83	12	4	128518.130
14	26	83	12	4	128518.140
15	26	83	12	4	128518.150
16	32	92	16	4	128518.160
17	32	92	16	4	128518.170
18	32	92	16	4	128518.180
20	38	104	20	4	128518.200
22	38	104	20	5	128518.220
24	45	121	25	5	128518.240
25	45	121	25	5	128518.250
26	45	121	25	5	128518.260
28	45	121	25	5	128518.280
30	45	121	25	5	128518.300
32	53	133	32	6	128518.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	129518.060
8	38	88	10	4	129518.080
10	45	95	10	4	129518.100
12	53	110	12	4	129518.120
14	53	110	12	4	129518.140
16	63	123	16	4	129518.160
18	63	123	16	4	129518.180
20	75	141	20	4	129518.200
22	75	141	20	5	129518.220
24	90	166	25	5	129518.240
25	90	166	25	5	129518.250
26	90	166	25	5	129518.260
28	90	166	25	5	129518.280
30	90	166	25	5	129518.300
32	106	186	32	6	129518.320

1285P ·1295P | DIN 1835B | DIN 844 | typ NR P | λ=30° γ=10° | HSS Co8



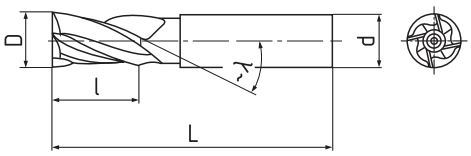
Usage



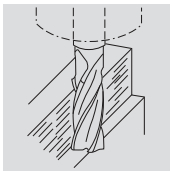
D k 12	l	L	d h 6	Z	CODE
6	13	57	6	4	128518P.060
7	16	66	10	4	128518P.070
8	19	69	10	4	128518P.080
9	19	69	10	4	128518P.090
10	22	72	10	4	128518P.100
11	22	79	12	4	128518P.110
12	26	83	12	4	128518P.120
13	26	83	12	4	128518P.130
14	26	83	12	4	128518P.140
15	26	83	12	4	128518P.150
16	32	92	16	4	128518P.160
17	32	92	16	4	128518P.170
18	32	92	16	4	128518P.180
20	38	104	20	4	128518P.200
22	38	104	20	5	128518P.220
24	45	121	25	5	128518P.240
25	45	121	25	5	128518P.250
26	45	121	25	5	128518P.260
28	45	121	25	5	128518P.280
30	45	121	25	5	128518P.300
32	53	133	32	6	128518P.320

D k 12	l	L	d h 6	Z	CODE
6	24	68	6	4	129518P.060
8	38	88	10	4	129518P.080
10	45	95	10	4	129518P.100
12	53	110	12	4	129518P.120
14	53	110	12	4	129518P.140
16	63	123	16	4	129518P.160
18	63	123	16	4	129518P.180
20	75	141	20	4	129518P.200
22	75	141	20	5	129518P.220
24	90	166	25	5	129518P.240
25	90	166	25	5	129518P.250
26	90	166	25	5	129518P.260
28	90	166	25	5	129518P.280
30	90	166	25	5	129518P.300
32	106	186	32	6	129518P.320

1402 | DIN 1835A | DIN 1835B | DIN 844 | typ N | γ=12° | HSS Co5 | HSS Co8



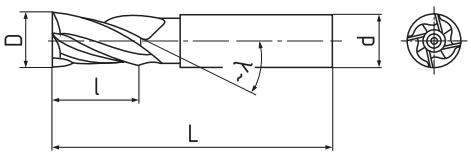
Usage



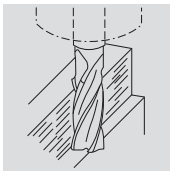
						DIN 1835A HSS Co5 DIN 1835B		DIN 1835A HSS Co8 DIN 1835B	
D k 12	l	L	d h 6	Z	~ λ	CODE	CODE	CODE	CODE
6	13	57	6	4	40°	–	–	140208.060	140218.060
7	16	66	10	4	40°	140205.070	140215.070	140208.070	140218.070
8	19	69	10	4	40°	140205.080	140215.080	140208.080	140218.080
9	19	69	10	4	40°	140205.090	140215.090	140208.090	140218.090
10	22	72	10	4	40°	140205.100	140215.100	140208.100	140218.100
11	22	79	12	4	40°	140205.110	140215.110	140208.110	140218.110
12	26	83	12	4	40°	140205.120	140215.120	140208.120	140218.120
13	26	83	12	4	40°	140205.130	140215.130	140208.130	140218.130
14	26	83	12	4	40°	140205.140	140215.140	140208.140	140218.140
15	26	83	12	4	40°	140205.150	140215.150	140208.150	140218.150
16	32	92	16	4	40°	140205.160	140215.160	140208.160	140218.160
17	32	92	16	4	40°	–	–	–	140218.170
18	32	92	16	4	40°	140205.180	140215.180	140208.180	140218.180
19	32	92	16	4	40°	–	–	–	140218.190
20	38	104	20	4	40°	140205.200	140215.200	140208.200	140218.200
22	38	104	20	5	35°	–	–	–	140218.220
24	45	121	25	5	35°	–	–	–	140218.240
25	45	121	25	5	35°	–	–	–	140218.250
28	45	121	25	5	35°	–	–	–	140218.280
30	45	121	25	6	35°	–	–	–	140218.300
32	53	133	32	6	35°	–	–	–	140218.320
36	53	133	32	6	35°	–	–	–	140218.360
40	63	143*	32*	6	35°	–	–	–	140218.40032

*/ ≠ DIN 844

1402 | DIN 1835A | DIN 1835B | DIN 844 | typ N | γ=12° | HSS Co5 | HSS Co8



Usage



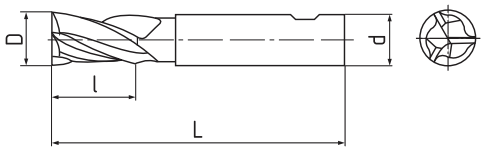
D k 12	l	L	d h 6	Z	~λ	DIN 1835A HSS Co5	DIN 1835B HSS Co5	DIN 1835A HSS Co8	DIN 1835B HSS Co8
						CODE	CODE	CODE	CODE
3	12	56	6	4	30°	–	–	141208.030	141218.030
4	19	63	6	4	40°	–	–	141208.040	141218.040
5	24	68	6	4	40°	–	–	141208.050	141218.050
6	24	68	6	4	40°	–	–	141208.060	141218.060
7	30	80	10	4	40°	141205.070	141215.070	141208.070	141218.070
8	38	88	10	4	40°	141205.080	141215.080	141208.080	141218.080
9	38	88	10	4	40°	141205.090	141215.090	141208.090	141218.090
10	45	95	10	4	40°	141205.100	141215.100	141208.100	141218.100
11	45	102	12	4	40°	141205.110	141215.110	141208.110	141218.110
12	53	110	12	4	40°	141205.120	141215.120	141208.120	141218.120
14	53	110	12	4	40°	141205.140	141215.140	141208.140	141218.140
15	53	110	12	4	40°	141205.150	141215.150	141208.150	141218.150
16	63	123	16	4	40°	141205.160	141215.160	141208.160	141218.160
18	63	123	16	4	40°	141205.180	141215.180	141208.180	141218.180
20	75	141	20	4	40°	141205.200	141215.200	141208.200	141218.200
22	75	141	20	5	35°	–	–	–	141218.220
25	90	166	25	5	35°	–	–	–	141218.250
28	90	166	25	5	35°	–	–	–	141218.280
30	90	166	25	6	35°	–	–	–	141218.300
32	106	186	32	6	35°	–	–	–	141218.320
36	106	186	32	6	35°	–	–	–	141218.360
40	125	205	32*	6	35°	–	–	–	141218.40032

*/ ≠ DIN 844

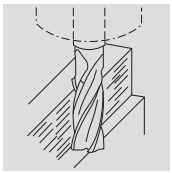
END MILLS – SHORT, 1 TOOTH CUT OVER CENTRE

ADD engineering

1404 | DIN 1835B | DIN 844 | typ N | λ=40° γ=12° | HSS Co8

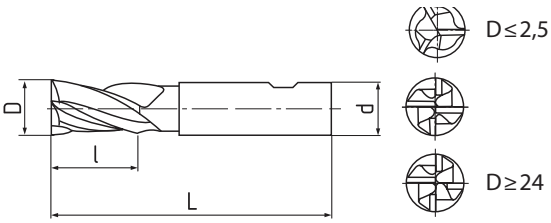


Usage

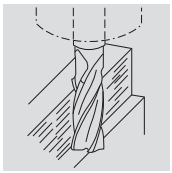


D k 10	l	L	d h 6	Z	CODE
2	7	51	6	3	140418.020
2,5	8	52	6	3	140418.025
3	8	52	6	3	140418.030
3,5	10	54	6	3	140418.035
4	11	55	6	3	140418.040
4,5	11	55	6	3	140418.045
5	13	57	6	3	140418.050
6	13	57	6	3	140418.060
7	16	66	10	3	140418.070
8	19	69	10	3	140418.080
9	19	69	10	3	140418.090
10	22	72	10	3	140418.100
11	22	79	12	3	140418.110
12	26	83	12	3	140418.120
13	26	83	12	3	140418.130
14	26	83	12	3	140418.140
15	26	83	12	3	140418.150
16	32	92	16	3	140418.160
17	32	92	16	3	140418.170
18	32	92	16	3	140418.180
19	32	92	16	3	140418.190
20	38	104	20	3	140418.200
22	38	104	20	3	140418.220
25	45	121	25	3	140418.250
28	45	121	25	3	140418.280
32	53	133	32	3	140418.320

1406 | DIN 1835A | DIN 1835B | DIN 844 | typ N | λ=30° γ=12° | λ=40° γ=12° | λ=35° γ=12° | HSS Co8



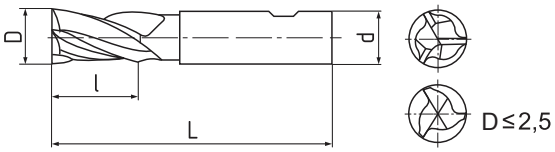
Usage



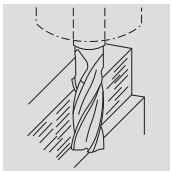
D k 10	l	L	d h 6	Z	CODE DIN 1835A	CODE DIN 1835B
2	7	51	6	3	140608.020	140618.020
2,5	8	52	6	3	140608.025	140618.025
3	8	52	6	4	140608.030	140618.030
3,5	10	54	6	4	140608.035	140618.035
4	11	55	6	4	140608.040	140618.040
4,5	11	55	6	4	140608.045	140618.045
5	13	57	6	4	140608.050	140618.050
5,5	13	57	6	4	–	140618.055
6	13	57	6	4	–	140618.060
6,5	16	66	10	4	–	140618.065
7	16	66	10	4	–	140618.070
7,5	16	66	10	4	–	140618.075
8	19	69	10	4	–	140618.080
8,5	19	69	10	4	–	140618.085
9	19	69	10	4	–	140618.090
9,5	19	69	10	4	–	140618.095
10	22	72	10	4	–	140618.100
11	22	79	12	4	–	140618.110
12	26	83	12	4	–	140618.120
13	26	83	12	4	–	140618.130
14	26	83	12	4	–	140618.140
15	26	83	12	4	–	140618.150
16	32	92	16	4	–	140618.160
17	32	92	16	4	–	140618.170
18	32	92	16	4	–	140618.180
19	32	92	16	4	–	140618.190
20	38	104	20	4	–	140618.200
22	38	104	20	4	–	140618.220
24	45	121	25	5	–	140618.240
25	45	121	25	5	–	140618.250

1604 · 1614

DIN 1835B | typ N | λ=30° γ=12° | HSS Co8



Usage



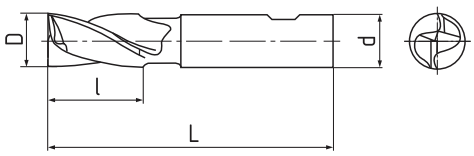
D e 8	l	L	d h 6	Z	CODE
1,5	3	34	6	3	160418.015
2	4	35	6	3	160418.020
2,5	5	36	6	3	160418.025
3	5	36	6	3	160418.030
3,5	6	37	6	3	160418.035
4	7	38	6	3	160418.040
4,5	7	38	6	3	160418.045
5	8	39	6	3	160418.050
5,5	8	39	6	3	160418.055
6	8	39	6	3	160418.060
6,5	10	42	8	3	160418.065
7	10	42	8	3	160418.070
7,5	10	42	8	3	160418.075
8	11	43	8	3	160418.080
8,5	11	48	10	3	160418.085
9	11	48	10	3	160418.090
9,5	11	48	10	3	160418.095
10	13	50	10	3	160418.100

D e 8	l	L	d h 6	Z	CODE
1,5	5	36	6	3	161418.015
2	7	38	6	3	161418.020
2,5	8	39	6	3	161418.025
3	8	39	6	3	161418.030
3,5	10	41	6	3	161418.035
4	11	42	6	3	161418.040
4,5	11	42	6	3	161418.045
5	13	44	6	3	161418.050
5,5	13	44	6	3	161418.055
6	13	44	6	3	161418.060
6,5	16	48	8	3	161418.065
7	16	48	8	3	161418.070
7,5	16	48	8	3	161418.075
8	19	51	8	3	161418.080
8,5	19	56	10	3	161418.085
9	19	56	10	3	161418.090
9,5	19	56	10	3	161418.095
10	22	59	10	3	161418.100

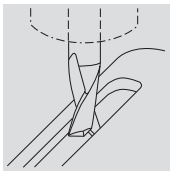
SLOT DRILLS – SHORT, CENTRE CUTTING, 2 – FLUTED

ADD engineering

2204 | DIN 1835B | DIN 327 | typ N | λ=25° χ=12° | HSSE PM | AlTiN | z=2



Usage

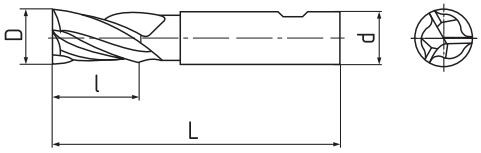


D e 8	l	L	d h 6	CODE
2	4	48	6	220417.020
3	5	49	6	220417.030
4	7	51	6	220417.040
5	8	52	6	220417.050
6	8	52	6	220417.060
7	10	60	10	220417.070
8	11	61	10	220417.080
9	11	61	10	220417.090
10	13	63	10	220417.100
12	16	73	12	220417.120
14	16	73	12	220417.140
16	19	79	16	220417.160
18	19	79	16	220417.180
20	22	88	20	220417.200
22	22	88	20	220417.220
25	26	102	25	220417.250
28	26	102	25	220417.280

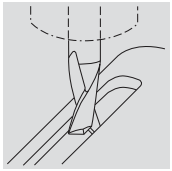
SLOT DRILLS – SHORT, 3 – FLUTED CENTRE CUTTING

ADD engineering

2304 | DIN 1835B | DIN 327 | typ N | λ=30° γ=12° | HSSE PM | AlTiN | Z=3

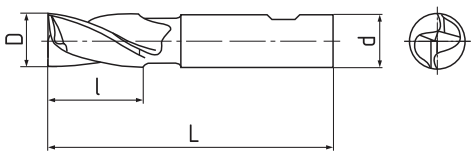


Usage

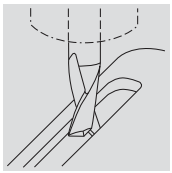


D e 8	l	L	d h 6	CODE
6	8	52	6	230417.060
8	11	61	10	230417.080
10	13	63	10	230417.100
12	16	73	12	230417.120
14	16	73	12	230417.140
16	19	79	16	230417.160
18	19	79	16	230417.180
20	22	88	20	230417.200

2204 | DIN 1835A | DIN 1835B | DIN 327 | typ N | λ=25° γ=12° | HSS Co8 | Z=2



Usage



D e 8	l	L	d h 6	CODE DIN 1835A	CODE DIN 1835B
1	2,5	47	6	–	220418.010
1,5	3	47	6	220408.015	220418.015
2	4	48	6	220408.020	220418.020
2,5	5	49	6	220408.025	220418.025
3	5	49	6	220408.030	220418.030
3,5	6	50	6	220408.035	220418.035
4	7	51	6	220408.040	220418.040
4,5	7	51	6	220408.045	220418.045
4,8	8	52	6	–	220418.048
5	8	52	6	220408.050	220418.050
5,5	8	52	6	220408.055	220418.055
5,75	8	52	6	–	220418.0575
6	8	52	6	220408.060	220418.060
6,5	10	60	10	220408.065	220418.065
7	10	60	10	220408.070	220418.070
7,5	10	60	10	220408.075	220418.075
7,75	11	61	10	–	220418.0775
8	11	61	10	220408.080	220418.080
8,5	11	61	10	220408.085	220418.085
9	11	61	10	220408.090	220418.090
9,5	11	61	10	220408.095	220418.095
9,7	13	63	10	–	220418.097
10	13	63	10	220408.100	220418.100
10,5	13	70	12	220408.105	220418.105
11	13	70	12	220408.110	220418.110
11,5	13	70	12	220408.115	220418.115
11,7	13	70	12	–	220418.117

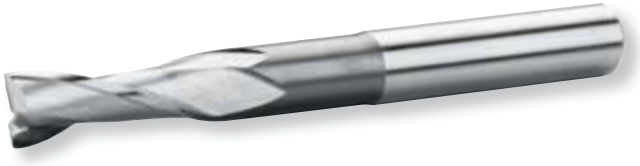
D e 8	l	L	d h 6	CODE DIN 1835A	CODE DIN 1835B
12	16	73	12	220408.120	220418.120
13	16	73	12	220408.130	220418.130
14	16	73	12	220408.140	220418.140
15	16	73	12	220408.150	220418.150
16	19	79	16	220408.160	220418.160
17	19	79	16	220408.170	220418.170
18	19	79	16	220408.180	220418.180
19	19	79	16	220408.190	220418.190
20	22	88	20	220408.200	220418.200
22	22	88	20	220408.220	220418.220
24	26	102	25	–	220418.240
25	26	102	25	220408.250	220418.250
25	26	96*	20*	220408.25020	220418.2502 0
26	26	102	25	–	220418.260
28	26	102	25	220408.280	220418.280
28	26	96*	20*	220408.28020	220418.28020
30	26	102	25	220408.300	220418.300
32	32	112	32	–	220418.320
36	32	112	32	–	220418.360
40	38	118*	32*	–	220418.40032

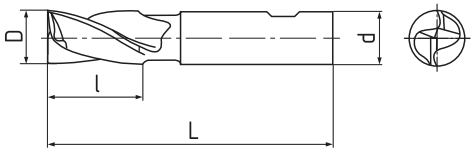
*/ ≠ DIN 327

SLOT DRILLS – LONG, CENTRE CUTTING, 2 – FLUTED

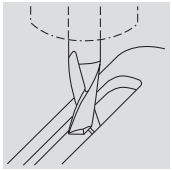
ADD engineering

2214 | DIN 1835A | DIN 1835B | ISO 1641 | typ N | λ=25° γ=12° | HSS Co8 | Z=2





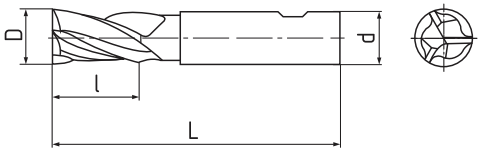
Usage



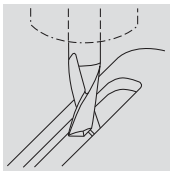
D e 8	l	L	d h 6	CODE DIN 1835A	CODE DIN 1835B
2	7	54	6	–	221418.020
3	8	56	6	–	221418.030
3,5	10	59	6	–	221418.035
4	11	63	6	221408.040	221418.040
4,5	11	63	6	–	221418.045
5	13	68	6	221408.050	221418.050
5,5	13	68	6	–	221418.055
6	13	68	6	221408.060	221418.060
6,5	16	80	10	–	221418.065
7	16	80	10	221408.070	221418.070
8	19	88	10	221408.080	221418.080
8,5	19	88	10	–	221418.085
9	19	88	10	221408.090	221418.090
10	22	95	10	221408.100	221418.100
11	22	102	12	221408.110	221418.110
12	26	110	12	221408.120	221418.120
13	26	110	12	221408.130	221418.130
14	26	110	12	221408.140	221418.140
15	26	110	12	221408.150	221418.150
16	32	123	16	221408.160	221418.160
18	32	123	16	221408.180	221418.180
20	38	141	20	221408.200	221418.200
22	38	141	20	221408.220	221418.220
24	45	166	25	–	221418.240
25	45	166	25	–	221418.250
26	45	166	25	–	221418.260
28	45	166	25	–	221418.280
30	45	166	25	–	221418.300
32	53	186	32	–	221418.320
36	53	186	32	–	221418.360
40	63	196*	32*	–	221418.40032

*/ ≠ DIN 327

2304 · 2314 | DIN 1835B | DIN 327 | typ N | λ=30° γ=12° | HSS Co8 | Z=3



Usage



DIN 327

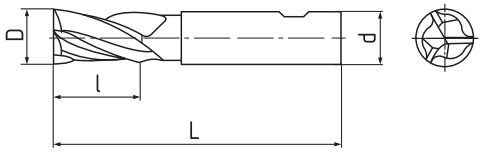
D e 8	l	L	d h 6	CODE
2	4	48	6	230418.020
3	5	49	6	230418.030
3,5	6	50	6	230418.035
4	7	51	6	230418.040
4,5	7	51	6	230418.045
5	8	52	6	230418.050
5,5	8	52	6	230418.055
6	8	52	6	230418.060
6,5	10	60	10	230418.065
7	10	60	10	230418.070
7,5	10	60	10	230418.075
8	11	61	10	230418.080
9	11	91	10	230418.090
9,5	11	61	10	230418.095
10	13	63	10	230418.100
11	13	70	12	230418.110
12	16	73	12	230418.120
13	16	73	12	230418.130
14	16	73	12	230418.140
15	16	73	12	230418.150
16	19	79	16	230418.160
18	19	79	16	230418.180
20	22	88	20	230418.200
22	22	88	20	230418.220
25	26	102	25	230418.250
28	26	102	25	230418.280
30	26	102	25	230418.300
32	32	112	32	230418.320

D e 8	l	L	d h 6	CODE
3	8	52	6	231418.030
4	11	55	6	231418.040
5	13	57	6	231418.050
6	13	57	6	231418.060
7	16	66	10	231418.070
8	19	69	10	231418.080
9	19	69	10	231418.090
10	22	72	10	231418.100
11	22	79	12	231418.110
12	26	83	12	231418.120
13	26	83	12	231418.130
14	26	83	12	231418.140
15	26	83	12	231418.150
16	32	92	16	231418.160
18	32	92	16	231418.180
20	38	104	20	231418.200
22	38	104	20	231418.220
24	45	121	25	231418.240
25	45	121	25	231418.250

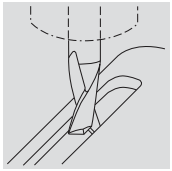
SLOT DRILLS, EXTRA LONG, 3 – FLUTED CENTRE CUTTING

ADD engineering

2334 | DIN 1835B | ZPS-FN Norm | typ N | λ=30° γ=12° | HSS Co5 | Z=3

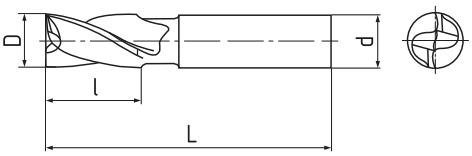


Usage

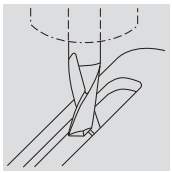


D e 8	l	L	d h 6	CODE
2	10	54	6	233418.020
3	12	56	6	233418.030
4	19	63	6	233418.040
5	24	68	6	233418.050
6	24	68	6	233418.060
8	38	88	10	233418.080
10	45	95	10	233418.100
12	53	110	12	233418.120
14	53	110	12	233418.140
16	63	123	16	233418.160
18	63	123	16	233418.180
20	75	141	20	233418.200

2403 | DIN 1835A | ZPS-FN Norm | typ N | λ=25° γ=12° | HSS Co8 | z=2



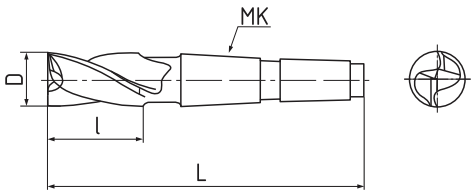
Usage



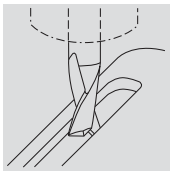
D e 8	l	L	d h 6	CODE
2,8	5	49	6	240308.028
3,8	7	51	6	240308.038
4,8	8	52	6	240308.048
5,75	8	52	6	240308.0575
6,75	10	60	10	240308.0675
7,75	11	61	10	240308.0775
9,7	13	63	10	240308.097
11,7	16	73	12	240308.117
13,7	16	73	12	240308.137
15,7	19	79	16	240308.157
17,7	19	79	16	240308.177
19,7	22	88	20	240308.197
21,7	22	88	20	240308.217
24,7	26	96	20	240308.247
27,7	26	96	20	240308.277

SLOT DRILLS – SHORT, CENTRE CUTTING, 2 – FLUTED

2605 | DIN 228A | DIN ~326 | typ N | λ=25° γ=12° | HSS Co5 | Z=2

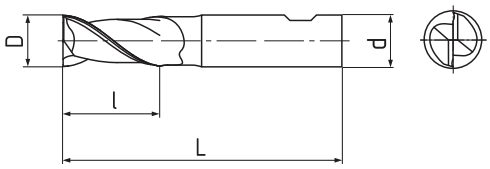


Usage

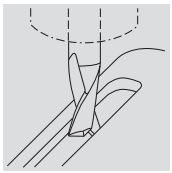


D e 8	l	L	MK	CODE
12	14	85	1	260545.120
14	16	100	2	260545.140
16	18	105	2	260545.160
18	20	110	2	260545.180
20	20	115	2	260545.200
22	22	120	2	260545.220
24	25	140	3	260545.240
25	25	140	3	260545.250
28	28	145	3	260545.280
30	30	150	3	260545.300
32	32	175	4	260545.320
36	34	175	4	260545.360
40	38	180	4	260545.400
45	42	185	4	260545.450
50	45	220	5	260545.500

2706 · 2736 | DIN 1835B | typ W | λ=40° γ=20° | HSS Co8 | Z=2



Usage



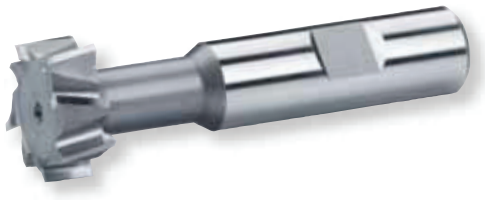
D e 8	l	L	d h 6	CODE
2	7	51	6	270618.020
2,5	8	52	6	270618.025
3	8	52	6	270618.030
3,5	10	54	6	270618.035
4	11	55	6	270618.040
4,5	11	55	6	270618.045
5	13	57	6	270618.050
5,5	13	57	6	270618.055
6	13	57	6	270618.060
6,5	16	66	10	270618.065
7	16	66	10	270618.070
7,5	16	66	10	270618.075
8	19	69	10	270618.080
8,5	19	69	10	270618.085
9	19	69	10	270618.090
9,5	19	69	10	270618.095
10	22	72	10	270618.100
11	22	79	12	270618.110
12	26	83	12	270618.120
13	26	83	12	270618.130
14	26	83	12	270618.140
15	26	83	12	270618.150
16	32	92	16	270618.160
17	32	92	16	270618.170
18	32	92	16	270618.180
19	32	92	16	270618.190
20	38	104	20	270618.200

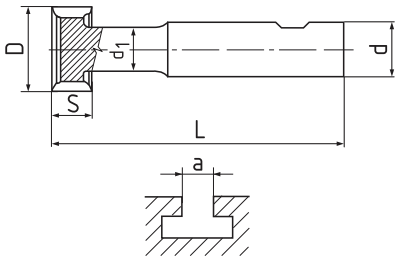
D e 8	l	L	d h 6	CODE
21	38	104	20	270618.210
22	38	104	20	270618.220
23	38	104	20	270618.230
24	45	121	25	270618.240
25	45	121	25	270618.250
26	45	121	25	270618.260
28	45	121	25	270618.280
30	45	121	25	270618.300
32	53	133	32	270618.320

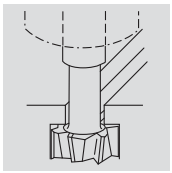
new

D e 8	l	L	d h 6	CODE
3	12	56	6	273618.030
4	19	63	6	273618.040
5	24	68	6	273618.050
6	24	68	6	273618.060
8	38	88	10	273618.080
10	45	95	10	273618.100
12	53	110	12	273618.120
14	53	110	12	273618.140
16	63	123	16	273618.160
18	63	123	16	273618.180
20	75	141	20	273618.200

3102 | DIN 1835A | DIN 1835B | DIN 851 | typ N | λ=10° γ=10° | HSS Co5



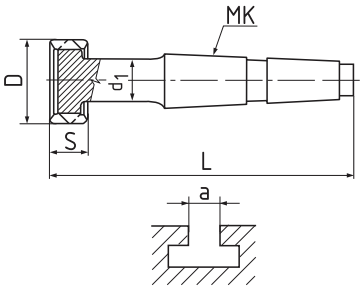


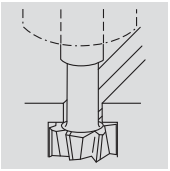


D d 11	S d 11	L	d1 h 12	d h 6	Z	a*	CODE DIN 1835A	CODE DIN 1835B
11	4	53,5	4	10	6	5	310205.110	310215.110
12,5	6	57	5	10	6	6	310205.125	310215.125
16	8	62	7	10	6	8	310205.160	310215.160
18	8	70	8	12	6	10	310205.180	310215.180
19**	9	71	8	12	6	> 8	310205.190	310215.190
21	9	74	10	12	6	12	310205.210	310215.210
22**	10	75	10	12	6	> 10	310205.220	310215.220
25	11	82	12	16	8	14	310205.250	310215.250
28**	12	85	13	16	8	> 13	310205.280	310215.280
32	14	90	15	16	8	18	310205.320	310215.320
36**	16	103	17	25	8	> 17	310205.360	310215.360
40	18	108	19	25	10	22	310205.400	310215.400
45**	20	113	21	25	10	> 21	310205.450	310215.450
50	22	124	25	32	10	28	310205.500	310215.500
60	28	139	30	32	10	36	310205.600	310215.600

*/ ≠ DIN 650
**/ ≠ DIN 851

3103 | DIN 228A | DIN 851 | typ N | λ=10° γ=10° | HSS



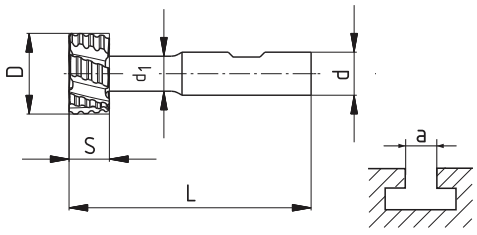


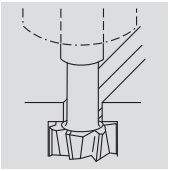
D h 12	S h 12	L	d1	MK	Z	a*	CODE
18	8	82	8	1	8	10	310340.180
21	9	102	10	2	8	12	310340.210
25	11	104	12	2	8	14	310340.250
32	14	111	16	2	8	18	310340.320
40	18	138	20	3	8	22	310340.400
50	22	173	25	4	8	28	310340.500
60	28	188	31	4	10	36	310340.600
72	35	229	36	5	10	42	310340.720

*/ ≠ DIN 650

T -SLOT CUTTERS, NR P

3142P | DIN 1835B | DIN 851 | typ NRP | λ=20° γ=10° | HSS Co8

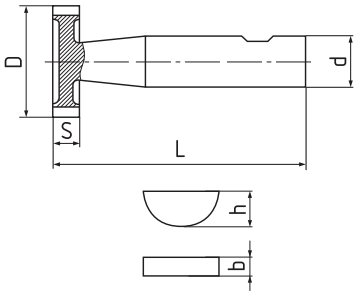


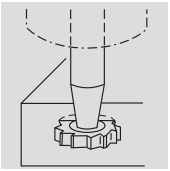


D d 11	S d 11	L	d1 h 12	d h 6	Z	a*	CODE
21	9	74	10	12	6	12	314215P.210
25	11	82	12	16	6	14	314215P.250
32	14	90	15	16	6	18	314215P.320
40	18	108	19	25	8	22	314215P.400

*/ ≠ DIN 650

3200 | DIN 1835A | DIN 1835B | DIN 850 | λ=10° γ=10° | HSS Co5

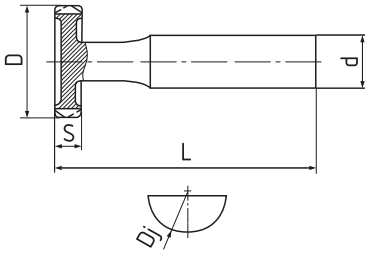


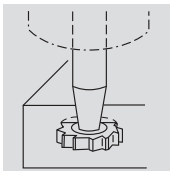


D h 12	S e 8	L	d h 6	Z	bxh DIN 6888	CODE DIN 1835A	CODE DIN 1835B
4,5	1	50	6	6	1x1,4	320005.045010	320015.045010
7,5	1,5	50	6	6	1,5x2,6	320005.075015	320015.075015
7,5	2	50	6	6	2x2,6	320005.075020	320015.075020
10,5	2	50	6	6	2x3,7	320005.105020	320015.105020
10,5	2,5	50	6	6	2,5x3,7	320005.105025	320015.105025
10,5	3	50	6	6	3x3,7	320005.105030	320015.105030
13,5*	2	56	10	6	–	320005.135020	320015.135020
13,5	3	56	10	6	3x5	320005.135030	320015.135030
13,5	4	56	10	6	4x5	320005.135040	320015.135040
16,5	3	56	10	6	3x6,5	320005.165030	320015.165030
16,5	4	56	10	6	4x6,5	320005.165040	320015.165040
16,5	5	56	10	6	5x6,5	320005.165050	320015.165050
19,5*	3	63	10	8	–	320005.195030	320015.195030
19,5	4	63	10	8	4x7,5	320005.195040	320015.195040
19,5	5	63	10	8	5x7,5	320005.195050	320015.195050
19,5	6	63	10	8	6x7,5	320005.195060	320015.195060
22,5*	4	63	10	8	–	320005.225040	320015.225040
22,5	5	63	10	8	5x9	320005.225050	320015.225050
22,5	6	63	10	8	6x9	320005.225060	320015.225060
22,5	8	63	10	8	8x9	320005.225080	320015.225080
25,5*	5	63	10	10	–	320005.255050	320015.255050
25,5	6	63	10	10	6x10	320005.255060	320015.255060
28,5	6	63	10	10	6x11	320005.285060	320015.285060
28,5	8	63	10	10	8x11	320005.285080	320015.285080
28,5	10	71	12	10	10x11	320005.285100	320015.285100
32,5*	6	71	12	10	–	320005.325060	320015.325060
32,5*	7	71	12	10	–	–	320015.325070
32,5	8	71	12	10	8x13	320005.325080	320015.325080
32,5	10	71	12	10	10x13	320005.325100	320015.325100
38,5*	8	71	12	10	–	320005.385080	320015.385080
45,5*	8	71	12	12	–	320005.455080	320015.455080
45,5	10	71	12	12	10x16	320005.455100	320015.455100

*/ ≠ DIN 850

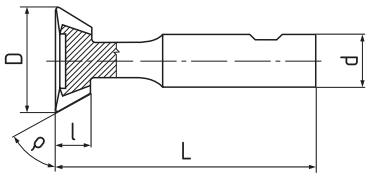
3201 | DIN 1835A | ČSN 222185 | λ=10° γ=10° | HSS

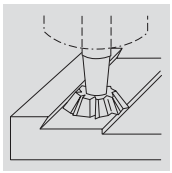




Dj*	D h 11	S e 8	L	d h 8	Z	CODE	CODE
7	7,5	1,5	48	6	8	–	320100.070015
7	7,5	2	48	6	8	–	320100.070020
10	10,8	1	45	8	8	–	320100.100010
10	10,8	1,6	45	8	8	–	320100.100016
10	10,8	2,5	45	8	8	–	320100.100025
10	10,8	3	45	8	8	–	320100.100030
13	14	3	45	8	8	–	320100.130030
13	14	4	50	10	8	320100.130040	–
16	17,2	1,6	50	10	8	–	320100.160016
16	17,2	2	50	10	8	–	320100.160020
16	17,2	3	50	10	8	–	320100.160030
16	17,2	4	50	10	8	320100.160040	–
16	17,2	5	60	12	8	320100.160050	–
19	20,5	4	50	10	8	320100.190040	–
19	20,5	5	60	12	8	320100.190050	–
22	23,7	5	60	12	8	320100.220050	–
22	23,7	6	60	12	8	320100.220060	–
25	27	2	60	12	10	–	320100.250020
25	27	3	60	12	10	–	320100.250030
25	27	6	60	12	10	320100.250060	–
28	30,2	6	60	12	10	320100.280060	–
28	30,2	8	70	16	10	320100.280080	–
32	34,5	6	70	16	10	320100.320060	–
32	34,5	8	70	16	10	320100.320080	–
38	41	8	70	16	10	320100.380080	–
45	48,6	8	70	16	10	320100.450080	–
45	48,6	10	70	16	10	320100.450100	–

3302 | DIN 1835A | DIN 1835B | DIN 1833A | DIN 1833C | λ=0° γ=0° | HSS Co5

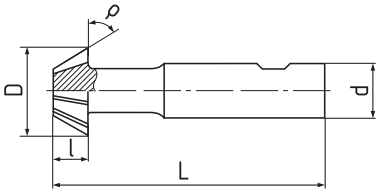


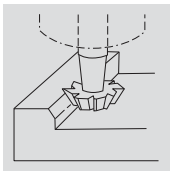


ρ ± 30	D js 16	l js 14	L	d h 6	Z	CODE DIN 1835A	CODE DIN 1835B
45°	16	4	60	12	10	330205.045160	330215.045160
45°	20	5	63	12	10	330205.045200	330215.045200
45°	25	6,3	67	12	10	330205.045250	330215.045250
45°	32	8	71	16	12	–	330215.045320
45°	40	10	80	16	12	–	330215.045400
50°	16	5	60	12	10	330205.050160	330215.050160
50°	20	6,3	63	12	10	330205.050200	330215.050200
50°	25	8	67	12	10	330205.050250	330215.050250
55°	16	5,6	60	12	10	330205.055160	330215.055160
55°	20	7,1	63	12	10	330205.055200	330215.055200
55°	25	9	67	12	10	330205.055250	330215.055250
60°	16	6,3	60	12	10	330205.060160	330215.060160
60°	20	8	63	12	10	330205.060200	330215.060200
60°	25	10	67	12	10	330205.060250	330215.060250
60°	32	12,5	71	16	12	330205.060320	330215.060320
60°	40	16	80	16	12	330205.060400	330215.060400
*65°	16	6,3	60	12	10	–	330215.065160
*65°	25	10	67	12	12	–	330215.065250
*70°	16	7	60	12	10	330205.070160	330215.070160
*70°	20	9	63	12	10	330205.070200	330215.070200
*70°	25	11	67	16	10	330205.070250	330215.070250
*75°	16	8	60	12	10	–	330215.075160
*75°	25	10	67	12	12	–	330215.075250
*80°	16	8	60	12	10	–	330215.080160
*80°	25	10	67	12	12	–	330215.080250
*85°	16	8	60	12	10	–	330215.085160
*85°	25	10	67	12	12	–	330215.085250

*/ ≠ DIN 1833

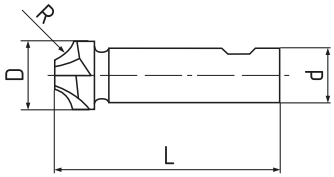
3500 | DIN 1835A | DIN 1835B | DIN 1833D | DIN 1833C | λ=0° γ=0° | HSS Co5

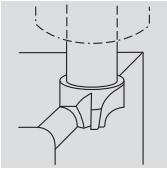




ρ ± 30	D js 16	l js 14	L	d h 6	Z	DIN 1835A CODE	DIN 1835B CODE
45°	16	4	60	12	10	350005.045160	350015.045160
45°	20	5	63	12	10	350005.045200	350015.045200
45°	25	6,3	67	12	10	350005.045250	350015.045250
45°	32	8	71	16	12	–	350015.045320
50°	16	5	60	12	12	–	350015.050160
50°	20	6,3	63	12	12	–	350015.050200
50°	25	8	67	12	12	–	350015.050250
55°	16	5,6	60	12	10	–	350015.055160
55°	20	7,1	63	12	10	–	350015.055200
55°	25	9	67	12	12	–	350015.055250
60°	16	6,3	60	12	10	350005.060160	350015.060160
60°	20	8	63	12	10	350005.060200	350015.060200
60°	25	10	67	12	10	350005.060250	350015.060250
60°	32	12,5	71	16	12	–	350015.060320
*65°	16	6,3	60	12	10	–	350015.065160
*65°	25	10	67	12	12	–	350015.065250
*70°	16	7	60	12	10	350005.070160	350015.070160
*70°	20	9	63	12	10	350005.070200	350015.070200
*70°	25	11	67	16	10	350005.070250	350015.070250
*75°	16	8	60	12	10	–	350015.075160
*75°	25	10	67	12	12	–	350015.075250

3600 | DIN 1835B | DIN 6518 | λ=0° γ=9° | HSS Co8



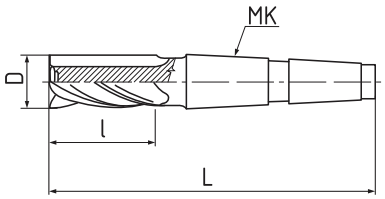


R H 11	D	L	d h 6	Z	CODE
1	8	60	10	4	360018.010
1,5	9	60	10	4	360018.015
1,6	9,2	60	10	4	360018.016
2	10	60	10	4	360018.020
2,5	11	60	10	4	360018.025
3	12	60	12	4	360018.030
3,5	13	60	12	4	360018.035
4	14	60	12	4	360018.040
4,5	15	60	12	4	360018.045
5	16	60	12	4	360018.050
5,5	19	67	16	4	360018.055
6	20	67	16	4	360018.060
6,5	21	71	16	4	360018.065
7	22	71	16	4	360018.070
7,5	23	71	16	4	360018.075
8	24	71	16	4	360018.080
8,5	25	85	25	4	360018.085
9	26	85	25	4	360018.090
9,5	27	85	25	4	360018.095
10	28	85	25	4	360018.100
10,5	31	90	25	4	360018.105
11	32	90	25	4	360018.110
12	34	90	25	4	360018.120
12,5	41	100	25	6	360018.125
13	42	100	25	6	360018.130
14	44	100	25	6	360018.140
15	46	100	25	6	360018.150
16	48	100	25	6	360018.160
18	52	112	32	6	360018.180
20	56	112	32	6	360018.200

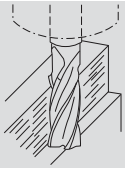
TAPER SHANK END MILLS – SHORT, COARSE TEETH

ADD engineering

4102 · 4109 | DIN 228A | DIN 845 | typ W | λ=45° γ=20° | HSS | λ=45° γ=22° | HSS Co5



Usage

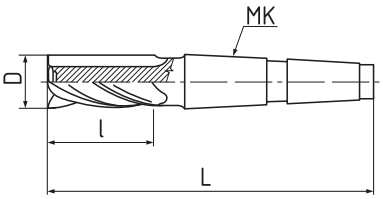


D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
10	22	92	1	3	–	410245.100
12	26	111	2	3	–	410245.120
16	32	117	2	3	–	410245.160
20	38	123	2	3	–	410245.200
22	38	123	2	3	–	410245.220
24	45	147	3	4	–	410245.240
25	45	147	3	4	–	410245.250
25*	50	154	3	4	410940.250	–
26	45	147	3	4	–	410245.260
28	45	147	3	4	–	410245.280
28*	50	154	3	4	410940.280	–
30	45	147	3	4	–	410245.300
30	50	154	3	4	410940.300	–
32	53	178	4	4	410940.320	410245.320
36	53	178	4	4	410940.360	410245.360
40	63	188	4	4	410940.400	410245.400
45	63	188	4	4	410940.450	410245.450
50*	70	228	5	5	410940.500	–
50	75	233	5	5	–	410245.500
63*	80	241	5	6	410940.630	–
63	90	248	5	6	–	410245.630

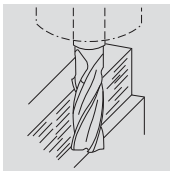
*/ ≠ DIN 845
**/ 410940 – js 14

TAPER SHANK END MILLS – LONG, COARSE TEETH

4112 · 4119 | DIN 228A | DIN 845 | typ W | λ=45° γ=20° | HSS | λ=45° γ=22° | HSS Co5



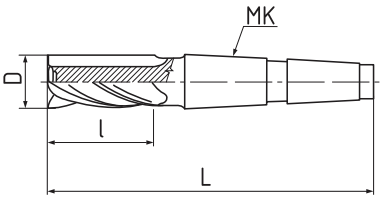
Usage



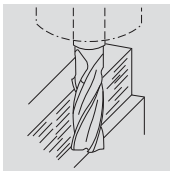
D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
25*	80	184	3	4	411940.250	–
25	90	192	3	4	–	411245.250
32*	100	229	4	4	411940.320	–
32	106	231	4	4	–	411245.320
40	125	250	4	4	411940.400	411245.400
50	150	308	5	5	411940.500	411245.500
63	180	338	5	6	411940.630	411245.630

*/ ≠ DIN 845
**/ 411940 – js 14

4202 · 4209 | DIN 228A | DIN 845 | typ N | λ=35° γ=12° | HSS | HSS Co5



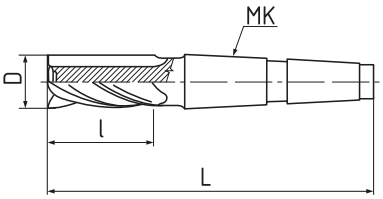
Usage



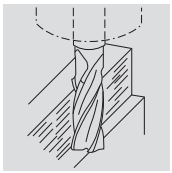
D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
10	22	92	1	4	–	420245.100
12	26	111	2	4	–	420245.120
14	26	111	2	4	–	420245.140
16	32	117	2	4	–	420245.160
18	32	117	2	4	–	420245.180
20	38	123	2	4	420940.200	420245.200
22	38	123	2	5	420940.220	420245.220
24	45	147	3	5	–	420245.240
25	45	147	3	5	–	420245.250
25*	50	154	3	5	420940.250	–
26	45	147	3	5	–	420245.260
28	45	147	3	5	–	420245.280
28*	50	154	3	5	420940.280	–
30	45	147	3	6	–	420245.300
30*	50	154	3	6	420940.300	–
32	53	178	4	6	420940.320	420245.320
36	53	178	4	6	420940.360	420245.360
40	63	188	4	6	420940.400	420245.400
45	63	188	4	6	420940.450	420245.450
50*	70	228	5	6	420940.500	–
50	75	233	5	6	–	420245.500
56	75	233	5	8	–	420245.560
63*	80	241	5	8	420940.630	–
63	90	248	5	8	–	420245.630

*/ ≠ DIN 845
**/ 420940 – js 14

4212 · 4219 | DIN 228A | DIN 845 | typ N | λ=35° γ=12° | HSS | HSS Co5



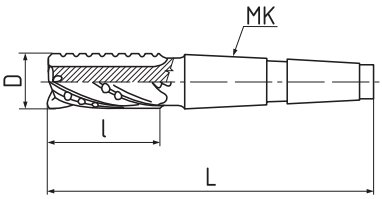
Usage



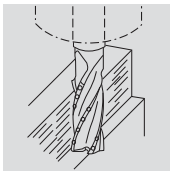
D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
10	45	115	1	4	–	421245.100
12	53	138	2	4	–	421245.120
14	53	138	2	4	–	421245.140
16	63	148	2	4	–	421245.160
18	63	148	2	4	–	421245.180
20	75	160	2	4	–	421245.200
22	75	160	2	5	421940.220	421245.220
24	90	192	3	5	–	421245.240
25*	80	184	3	5	421940.250	–
25	90	192	3	5	–	421245.250
26	90	192	3	5	–	421245.260
28	90	192	3	5	–	421245.280
30	90	192	3	6	–	421245.300
32*	100	229	4	6	421940.320	–
32	106	231	4	6	–	421245.320
36	106	231	4	6	–	421245.360
40	125	250	4	6	421940.400	421245.400
45	125	250	4	6	–	421245.450
50*	110	268	5	6	421940.500110	–
50	150	308	5	6	421940.500	421245.500
56	150	308	5	8	–	421245.560
63	180	338	5	8	421940.630	421245.630

*/ ≠ DIN 845
**/ 421940 – js 14

4222 · 4229 | DIN 228A | DIN 845 | typ N | CB | λ=35° γ=12° | HSS | HSS Co5



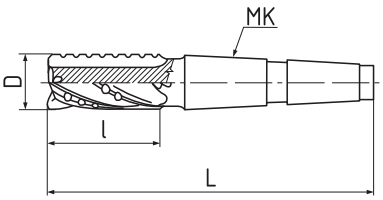
Usage



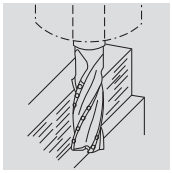
D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
10	22	92	1	4	–	422245.100
12	26	111	2	4	–	422245.120
14	26	111	2	4	–	422245.140
16	32	117	2	4	–	422245.160
18	32	117	2	4	–	422245.180
20	38	123	2	4	422940.200	422245.200
22	38	123	2	5	422940.220	422245.220
25	45	147	3	5	–	422245.250
25	50	154	3	5	422940.250	–
28	45	147	3	5	–	422245.280
28	50	154	3	5	422940.280	–
30	45	147	3	6	–	422245.300
30	50	154	3	6	422940.300	–
32	53	178	4	6	422940.320	422245.320
36	53	178	4	6	422940.360	422245.360
40	63	188	4	6	422940.400	422245.400
45	63	188	4	6	422940.450	422245.450
50	70	228	5	6	422940.500	–
50	75	233	5	6	–	422245.500
56	75	233	5	8	–	422245.560
63	80	241	5	8	422940.630	–
63	90	248	5	8	–	422245.630

*/ ≠ DIN 845
**/ 422940 – js 14

4232 · 4239 | DIN 228A | DIN 845 | typ N | CB | | | λ=35° γ=12° | HSS | HSS Co5



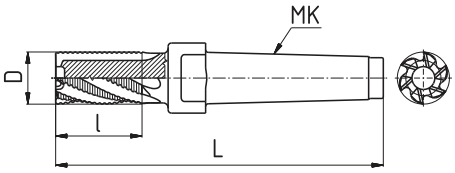
Usage



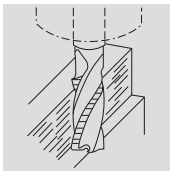
D k 10**	l	L	MK	Z	HSS CODE	HSS Co5 CODE
10	45	115	1	4	–	423245.100
12	53	138	2	4	–	423245.120
14	53	138	2	4	–	423245.140
16	63	148	2	4	–	423245.160
18	63	148	2	4	–	423245.180
20	75	160	2	4	–	423245.200
22	75	160	2	5	423940.220	423245.220
25*	80	184	3	5	423940.250	–
25	90	192	3	5	–	423245.250
28	90	192	3	5	–	423245.280
30	90	192	3	6	–	423245.300
32*	100	229	4	6	423940.320	–
32	106	231	4	6	–	423245.320
36	106	231	4	6	–	423245.360
40	125	250	4	6	423940.400	423245.400
45	125	250	4	6	–	423245.450
50*	110	268	5	6	423940.500110	–
50	150	308	5	6	423940.500	423245.500
56	150	308	5	8	–	423245.560
63	180	338	5	8	423940.630	423245.630

*/ ≠ DIN 845
**/ 421940 – js 14

4242 · 4252 | DIN 228A | DIN 2207 | DIN 845B | DIN 845C | typ NR | λ=30° γ=12° | HSS Co8



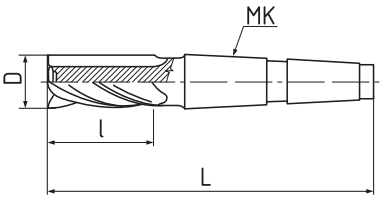
Usage



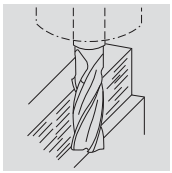
D k 12	l	L	MK	Z	CODE DIN 228A	CODE DIN 2207
10	22	92	1	4	424248.100	–
12	26	96	1	4	424248.120	–
14	26	111	2	4	424248.140	–
16	32	117	2	4	424248.160	–
18	32	117	2	4	424248.180	–
20	38	123	2	4	424248.200	–
22	38	123	2	5	424248.220	–
24	45	147	3	5	424248.240	–
25	45	147	3	5	424248.250	–
26	45	147	3	5	424248.260	–
28	45	147	3	5	424248.280	–
30	45	147	3	5	424248.300	–
32	53	201	4	6	–	424248.320
35	53	201	4	6	–	424248.350
36	53	201	4	6	–	424248.360
40	63	211	4	6	–	424248.400
45	63	211	4	6	–	424248.450
50	75	261	5	8	–	424248.500

D k 12	l	L	MK	Z	CODE DIN 228A	CODE DIN 2207
20	75	160	2	4	425248.200	–
22	75	160	2	5	425248.220	–
25	90	192	3	5	425248.250	–
28	90	192	3	5	425248.280	–
30	90	192	3	5	425248.300	–
32	106	254	4	6	–	425248.320
36	106	254	4	6	–	425248.360
40	125	273	4	6	–	425248.400
45	125	273	4	6	–	425248.450
50	150	336	5	8	–	425248.500

4309 · 4319 | DIN 228A | ČSN 222185 | typ H | λ=25° γ=12° | HSS



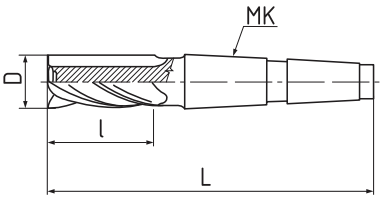
Usage



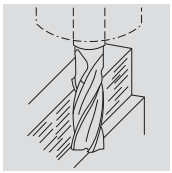
D js 14	l	L	MK	Z	CODE
10	22	92	1	5	430940.100
12	26	111	2	5	430940.120
14	26	111	2	5	430940.140
16	32	117	2	6	430940.160
18	36	120	2	6	430940.180
20	38	123	2	6	430940.200
22	38	123	2	6	430940.220
25	50	154	3	6	430940.250
28	50	154	3	7	430940.280
30	50	154	3	7	430940.300
32	53	178	4	7	430940.320
36	53	178	4	8	430940.360
40	63	188	4	8	430940.400
45	63	188	4	8	430940.450
50	70	228	5	10	430940.500
63	80	241	5	12	430940.630

D js 14	l	L	MK	Z	CODE
25	80	184	3	6	431940.250
32	100	229	4	7	431940.320
40	125	250	4	8	431940.400
50	110	268	5	10	431940.500110
50	150	308	5	10	431940.500
63	180	338	5	12	431940.630

4402 · 4412 | DIN 228A | DIN 845B | typ H | λ=35° γ=6° | HSS Co8



Usage



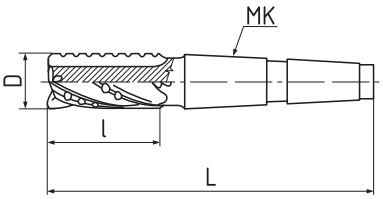
D k 10	l	L	MK	Z	CODE
10	22	92	1	4	440248.100
12	26	96	1	4	440248.120
14	26	111	2	4	440248.140
16	32	117	2	4	440248.160
18	32	117	2	4	440248.180
20	38	123	2	4	440248.200
22	38	123	2	5	440248.220
25	45	147	3	5	440248.250
28	45	147	3	5	440248.280
30	45	147	3	6	440248.300
32	53	178	4	6	440248.320
36	53	178	4	6	440248.360
40	63	188	4	6	440248.400
45	63	188	4	6	440248.450
50	75	233	5	6	440248.500

D k 10	l	L	MK	Z	CODE
10	45	115	1	4	441248.100
12	53	123	1	4	441248.120
14	53	138	2	4	441248.140
16	63	148	2	4	441248.160
18	63	148	2	4	441248.180
20	75	160	2	4	441248.200
22	75	160	2	5	441248.220
25	90	192	3	5	441248.250
28	90	192	3	5	441248.280
30	90	192	3	6	441248.300
32	106	231	4	6	441248.320
36	106	231	4	6	441248.360
40	125	250	4	6	441248.400
45	125	250	4	6	441248.450
50	150	308	5	6	441248.500

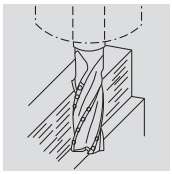
TAPER SHANK END MILLS, FOR TITANIUM MACHINING

ADD engineering

4422 · 4432 | DIN 228A | DIN 845B | typ H | CB | λ=35° γ=6° | HSS Co8



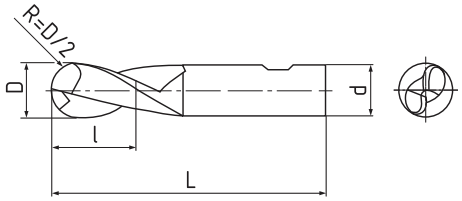
Usage



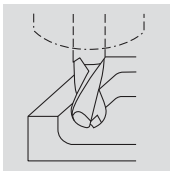
D k 10	l	L	MK	Z	CODE
10	22	92	1	4	442248.100
12	26	96	1	4	442248.120
14	26	111	2	4	442248.140
16	32	117	2	4	442248.160
18	32	117	2	4	442248.180
20	38	123	2	4	442248.200
22	38	123	2	5	442248.220
25	45	147	3	5	442248.250
28	45	147	3	5	442248.280
30	45	147	3	6	442248.300
32	53	178	4	6	442248.320
36	53	178	4	6	442248.360
40	63	188	4	6	442248.400
45	63	188	4	6	442248.450
50	75	233	5	6	442248.500

D k 10	l	L	MK	Z	CODE
10	45	115	1	4	443248.100
12	53	123	1	4	443248.120
14	53	138	2	4	443248.140
16	63	148	2	4	443248.160
18	63	148	2	4	443248.180
20	75	160	2	4	443248.200
22	75	160	2	5	443248.220
25	90	192	3	5	443248.250
28	90	192	3	5	443248.280
30	90	192	3	6	443248.300
32	106	231	4	6	443248.320
36	106	231	4	6	443248.360
40	125	250	4	6	443248.400
45	125	250	4	6	443248.450
50	150	308	5	6	443248.500

5104 · 5104 | DIN 1835B | DIN ~1889 | Z=2 | λ=25° γ=10° | HSSE PM | AlTiN | HSS Co8



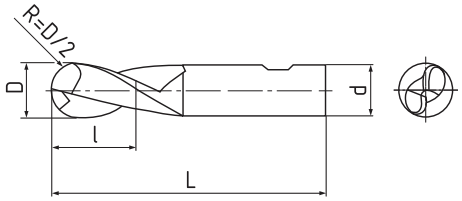
Usage



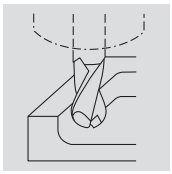
D h 10	l	L	d h 6	HSSE PM AlTiN CODE	HSS Co8 CODE
4	7	51	6	510417.040	510418.040
4,5	7	51	6	–	510418.045
5	8	52	6	510417.050	510418.050
6	8	52	6	510417.060	510418.060
7	10	60	10	510417.070	510418.070
8	11	61	10	510417.080	510418.080
9	11	61	10	510417.090	510418.090
10	13	63	10	510417.100	510418.100
11	13	70	12	–	510418.110
12	16	73	12	510417.120	510418.120
13	16	73	12	–	510418.130
14	16	73	12	510417.140	510418.140
15	16	73	12	–	510418.150
16	19	79	16	510417.160	510418.160
18	19	79	16	510417.180	510418.180
20	22	88	20	510417.200	510418.200
22	22	88	20	–	510418.220
24	26	102	25	–	510418.240
25	26	102	25	–	510418.250
28	26	102	25	–	510418.280
30	26	102	25	–	510418.300
32	32	112	32	–	510418.320

BALL NOSE END MILLS – LONG, 2 – FLUTED

5114 | DIN 1835B | λ=25° γ=10° | HSS Co8 | Z=2



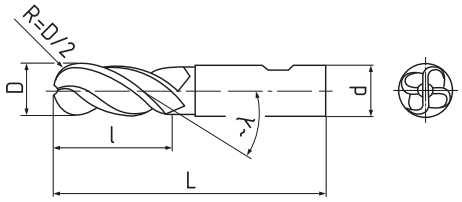
Usage



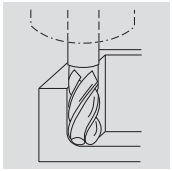
D h 10	l	L	d h 6	CODE
4	11	63	6	511418.040
5	13	68	6	511418.050
6	13	68	6	511418.060
7	16	80	10	511418.070
8	19	88	10	511418.080
9	19	88	10	511418.090
10	22	95	10	511418.100
11	22	102	12	511418.110
12	26	110	12	511418.120
13	26	110	12	511418.130
14	26	110	12	511418.140
15	26	110	12	511418.150
16	32	123	16	511418.160
18	32	123	16	511418.180
20	38	141	20	511418.200
22	38	141	20	511418.220
24	45	166	25	511418.240
25	45	166	25	511418.250
28	45	166	25	511418.280
30	45	166	25	511418.300
32	53	186	32	511418.320

5307 · 5317

DIN 1835B | DIN ~1889 | γ=12° | HSS Co8



Usage

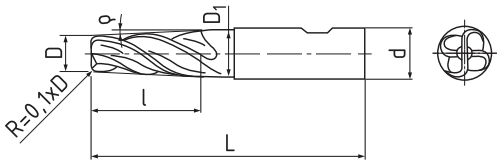


D k 12	l	L	d h 6	Z	~λ	CODE
4	11	55	6	4	15°	530718.040
5	13	57	6	4	15°	530718.050
6	13	57	6	4	25°	530718.060
8	19	69	10	4	25°	530718.080
10	22	72	10	4	35°	530718.100
12	26	83	12	4	35°	530718.120
16	32	92	16	4	35°	530718.160
20	38	104	20	4	35°	530718.200

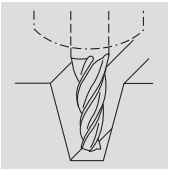
D k 12	l	L	d h 6	Z	~λ	CODE
4	19	63	6	4	15°	531718.040
5	24	68	6	4	15°	531718.050
6	24	68	6	4	25°	531718.060
8	38	88	10	4	25°	531718.080
10	45	95	10	4	35°	531718.100
12	53	110	12	4	35°	531718.120
16	63	123	16	4	35°	531718.160
20	75	141	20	4	35°	531718.200

DIE SINKING CUTTERS – TAPERED, 4 – FLUTED

5807 | DIN 1835B | ČSN 222185 | λ=25° γ=12° | HSS Co8 | Z=4

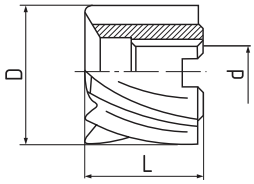


Usage

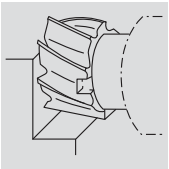


ρ	D js 14	D_1 ~	l	L	d h 6	CODE
1°	5	5,7	20	73	10	580718.0105
1°	8	9,1	32	95	12	580718.0108
1°	12	13,7	50	118	16	580718.0112
1°	20	22,8	80	155	20	580718.0120
2°	5	6,4	20	74	10	580718.0205
2°	8	10,2	32	95	12	580718.0208
2°	12	15,5	50	118	16	580718.0212
2°	20	25,6	80	160	25	580718.0220
3°	5	7,1	20	74	10	580718.0305
3°	8	11,4	32	95	12	580718.0308
3°	12	17,2	50	120	20	580718.0312
3°	20	28,4	80	160	25	580718.0320
5°	5	8,5	20	74	10	580718.0505
5°	8	13,6	32	98	16	580718.0508
5°	12	20,7	50	120	20	580718.0512
5°	20	34	80	165	32	580718.0520
7°	5	9,9	20	80	12	580718.0705
7°	8	15,9	32	98	16	580718.0708
7°	12	24,3	50	130	25	580718.0712
7°	20	39,6	80	165	32	580718.0720
10°	5	12,1	20	80	12	580718.1005
10°	8	19,3	32	100	20	580718.1008
10°	12	29,6	50	130	25	580718.1012
10°	20	48,2	80	165	32	580718.1020

6102V | DIN 138 | DIN 1880 | typ W | λ=40° γ=22° | HSS Co5



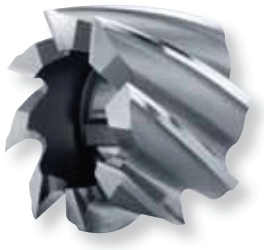
Usage

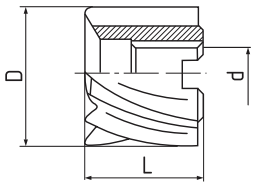


D js 16	L	d H 7	Z	CODE
40	32	16	4	610275V.040
50	36	22	4	610275V.050
63	40	27	5	610275V.063
80	45	27	6	610275V.080
100	50	32	7	610275V.100

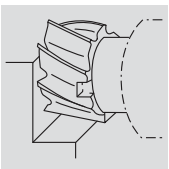
SHELL END MILLS

6202 | DIN 138 | DIN 1880 | typ N | λ=30° γ=12° | HSS Co5



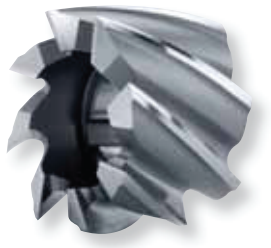


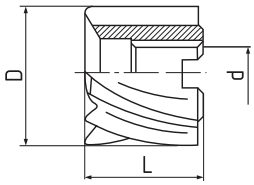
Usage



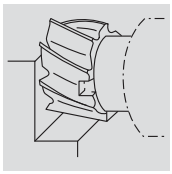
D js 16	L	d H 7	Z	CODE
40	32	16	6	620275.040
50	36	22	8	620275.050
63	40	27	8	620275.063
80	45	27	10	620275.080
100	50	32	10	620275.100
125	56	40	14	620275.125

6202V | DIN 138 | DIN 1880 | typ N | λ=30° γ=12° | HSS Co8





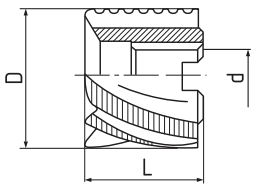
Usage



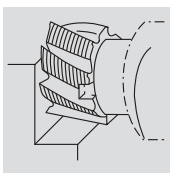
D js 16	L	d H 7	Z	CODE
40	32	16	8	620278V.040
50	36	22	8	620278V.050
63	40	27	8	620278V.063
80	45	27	10	620278V.080
100	50	32	12	620278V.100
125	56	40	14	620278V.125
160	63	50	16	620278V.160

SHELL END MILLS, FINE TEETH

6242 | DIN 138 | DIN 1880 | typ NR | λ=30° γ=12° | HSS Co5

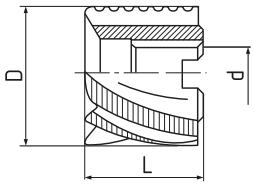


Usage

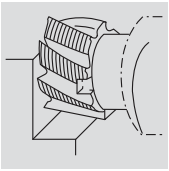


D js 16	L	d H 7	Z	CODE
40	32	16	6	624275.040
50	36	22	6	624275.050
63	40	27	8	624275.063
80	45	27	8	624275.080
100	50	32	10	624275.100

6242V | DIN 138 | DIN 1880 | typ N | λ=30° γ=12° | HSS Co8



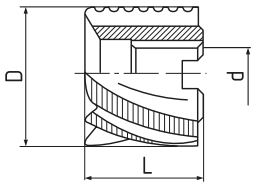
Usage



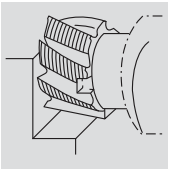
D js 16	L	d H 7	Z	CODE
40	32	16	6	624278V.040
50	36	22	6	624278V.050
63	40	27	8	624278V.063
80	45	27	8	624278V.080
100	50	32	10	624278V.100
125	56	40	12	624278V.125
160	63	50	14	624278V.160

SHELL END MILLS, NR P

6242PV | DIN 138 | DIN 1880 | typ NR P | λ=30° γ=12° | HSS Co8

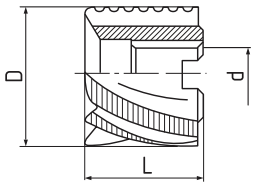


Usage

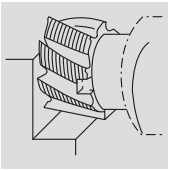


D js 16	L	d H 7	Z	CODE
40	32	16	6	624278PV.040
50	36	22	6	624278PV.050
63	40	27	8	624278PV.063
80	45	27	8	624278PV.080
100	50	32	10	624278PV.100
125	56	40	12	624278PV.125
160	63	50	14	624278PV.160

6282 | DIN 138 | DIN 1880 | typ HR | λ=30° γ=10° | HSS Co5



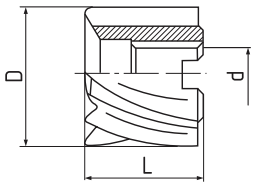
Usage



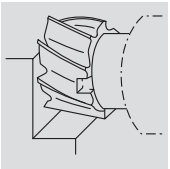
D js 16	L	d H 7	Z	CODE
40	32	16	8	628275.040
50	36	22	8	628275.050
63	40	27	10	628275.063
80	45	27	10	628275.080
100	50	32	12	628275.100

SHELL END MILLS, FINE TEETH

6302V | DIN 138 | DIN 1880 | typ H | λ=20° γ=8° | HSS Co5

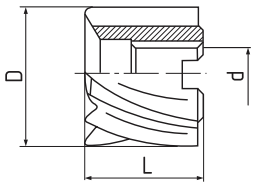


Usage

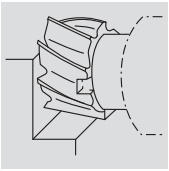


D js 16	L	d H 7	Z	CODE
40	32	16	10	630275V.040
50	36	22	12	630275V.050
63	40	27	12	630275V.063
80	45	27	14	630275V.080
100	50	32	16	630275V.100
125	56	40	18	630275V.125

6802V | DIN 138 | DIN 841 | typ N | λ=30° γ=12° | HSS Co5



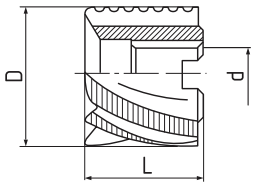
Usage



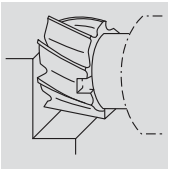
D js 16	L	d H 7	Z	CODE
30	30	13	6	680275V.030030
35	35	16	6	680275V.035035
40	20	16	8	680275V.040020
40	40	16	8	680275V.040040
50	25	22	8	680275V.050025
50	50	22	8	680275V.050050
60	30	27	8	680275V.060030
60	60	27	8	680275V.060060
75	35	27	10	680275V.075035
75	75	27	10	680275V.075075
80	35	27	10	680275V.080035
110	35	32	12	680275V.110035

SHELL END MILLS, NR

6842V | DIN 138 | DIN 841 | typ NR | λ=30° γ=12° | HSS Co5

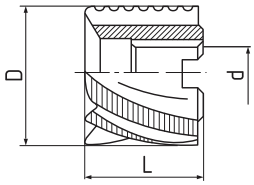


Usage

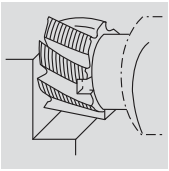


D js 16	L	d H 7	Z	CODE
40	40	16	6	684275V.040040
50	50	22	6	684275V.050050
60	30	27	8	684275V.060030
60	60	27	8	684275V.060060
75	35	27	8	684275V.075035
75	75	27	8	684275V.075075

6242PV | DIN 138 | DIN 841 | typ NR P | λ=30° γ=12° | HSS Co5



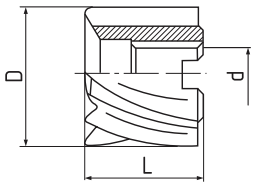
Usage



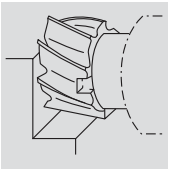
D js 16	L	d H 7	Z	CODE
40	40	16	6	684275PV.040040
50	50	22	6	684275PV.050050
60	60	27	8	684275PV.060060
75	35	27	8	684275PV.075035
75	75	27	8	684275PV.075075

SHELL END MILLS

6902V | DIN 138 | DIN 841 | typ H | λ=20° γ=8° | HSS Co5

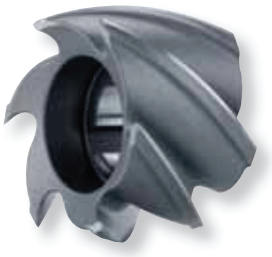


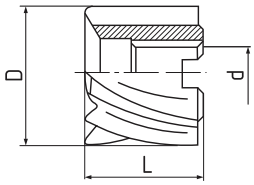
Usage



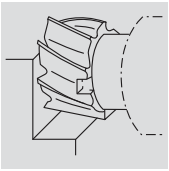
D js 16	L	d H 7	Z	CODE
30	30	13	8	690275V.030030
35	35	16	10	690275V.035035
40	40	16	10	690275V.040040
50	50	22	12	690275V.050050
60	60	27	12	690275V.060060
75	75	27	14	690275V.075075

6109 | DIN 138 | CSN 222050 | typ H | λ=25° γ=20° | HSSE





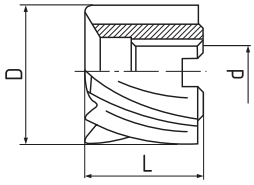
Usage



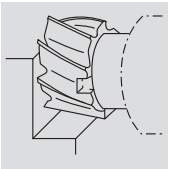
D js 16	L	d H 7	Z	CODE
40	32	16	4	610973.040
50	36	22	6	610973.050
63	40	27	6	610973.063
80	45	27	6	610973.080
100	50	32	8	610973.100
125	56	40	8	610973.125
160	63	50	10	610973.160

SHELL END MILLS

6209 | DIN 138 | ČSN 222052 | typ N | λ=35° γ=12° | HSSE = litá HSS • cast HSS HHS fondu • литая HSS

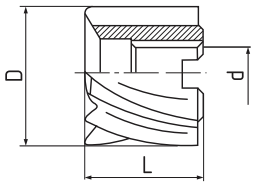


Usage

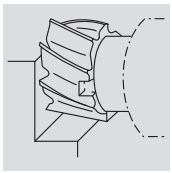


D js 16	L	d H 7	Z	CODE
40	32	16	6	620973.040
50	36	22	8	620973.050
63	40	27	8	620973.063
80	45	27	10	620973.080
100	50	32	10	620973.100
125	56	40	12	620973.125
160	63	50	14	620973.160

6309 | DIN 138 | ČSN 222054 | typ H | λ=25° γ=12° | HSSE

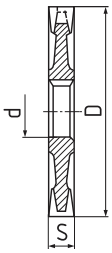


Usage

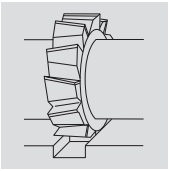


D js 16	L	d H 7	Z	CODE
40	32	16	8	630973.040
50	36	22	10	630973.050
63	40	27	12	630973.063
80	45	27	14	630973.080
100	50	32	16	630973.100
125	56	40	18	630973.125
160	63	50	20	630973.160

7202 | DIN 138 | DIN 885A | typ N | λ=30° γ=12° | HSS Co5

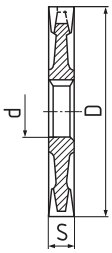


Usage

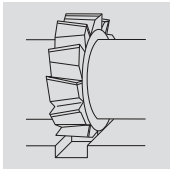


D js 16	S k 11	d H 7	Z	CODE
50	3	16	12	720275.05003
50	4	16	12	720275.05004
50	5	16	12	720275.05005
50	6	16	12	720275.05006
50	8	16	12	720275.05008
50	10	16	12	720275.05010
63	3	22	12	720275.06303
63	4	22	12	720275.06304
63	5	22	12	720275.06305
63	6	22	12	720275.06306
63	8	22	12	720275.06308
63	10	22	12	720275.06310
63	12	22	12	720275.06312
63	14	22	12	720275.06314
63	16	22	12	720275.06316
63	18	22	12	720275.06318
80	3	27	14	720275.08003
80	4	27	14	720275.08004
80	5	27	14	720275.08005
80	6	27	14	720275.08006
80	8	27	14	720275.08008
80	10	27	14	720275.08010
80	12	27	14	720275.08012
80	14	27	14	720275.08014
80	16	27	14	720275.08016
80	18	27	14	720275.08018
80	20	27	14	720275.08020
100	3	32	14	720275.10003
100	4	32	14	720275.10004
100	5	32	14	720275.10005
100	6	32	14	720275.10006
100	8	32	14	720275.10008
100	10	32	14	720275.10010
100	12	32	14	720275.10012
100	14	32	14	720275.10014
100	16	32	14	720275.10016
100	18	32	14	720275.10018
100	20	32	14	720275.10020
100	25	32	14	720275.10025
125	4	32	16	720275.12504
125	5	32	16	720275.12505
125	6	32	16	720275.12506
125	8	32	16	720275.12508
125	10	32	16	720275.12510
125	12	32	16	720275.12512
125	14	32	16	720275.12514
125	16	32	16	720275.12516
125	18	32	16	720275.12518
125	20	32	16	720275.12520
125	25	32	16	720275.12525
125	28	32	16	720275.12528
160	6	40	18	720275.16006
160	8	40	18	720275.16008
160	10	40	18	720275.16010
160	12	40	18	720275.16012
160	14	40	18	720275.16014
160	16	40	18	720275.16016
160	18	40	18	720275.16018
160	20	40	18	720275.16020
160	25	40	18	720275.16025
160	32	40	18	720275.16032
200	8	40	24	720275.20008
200	10	40	24	720275.20010
200	12	40	24	720275.20012
200	14	40	24	720275.20014
200	16	40	24	720275.20016
200	18	40	24	720275.20018
200	20	40	24	720275.20020
200	25	40	24	720275.20025
200	32	40	24	720275.20032

7262 | DIN 138 | typ N | λ=10° γ=12° | HSS Co5

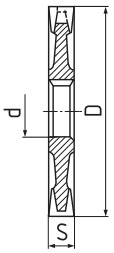


Usage

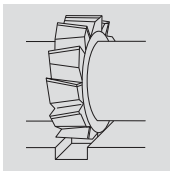


D js 16	S k 11	d H 7	Z	CODE
63	1,6	22	16	726275.063016
63	2	22	16	726275.063020
63	2,5	22	16	726275.063025
63	3	22	16	726275.063030
63	4	22	16	726275.063040
63	5	22	16	726275.063050
63	6	22	16	726275.063060
80	1,6	27	20	726275.080016
80	2	27	20	726275.080020
80	2,5	27	20	726275.080025
80	3	27	20	726275.080030
80	4	27	20	726275.080040
80	5	27	20	726275.080050
80	6	27	20	726275.080060
100	1,6	32	24	726275.100016
100	2	32	24	726275.100020
100	2,5	32	24	726275.100025
100	3	32	24	726275.100030
100	4	32	24	726275.100040
100	5	32	24	726275.100050
100	6	32	24	726275.100060
100	8	32	24	726275.100080
125	1,6	32	26	726275.125016
125	2	32	26	726275.125020
125	2,5	32	26	726275.125025
125	3	32	26	726275.125030
125	4	32	26	726275.125040
125	5	32	26	726275.125050
125	6	32	26	726275.125060
125	8	32	26	726275.125080
125	10	32	26	726275.125100
160	2	40	30	726275.160020
160	2,5	40	30	726275.160025
160	3	40	30	726275.160030
160	4	40	30	726275.160040
160	5	40	30	726275.160050
160	6	40	30	726275.160060
160	8	40	30	726275.160080
160	10	40	30	726275.160100
160	12	40	30	726275.160120

7302 | DIN 138 | DIN 885A | typ H | λ=10° γ=8° | HSS Co5



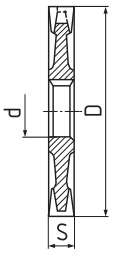
Usage



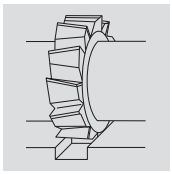
D js 16	S k 11	d H 7	Z	CODE
50	4	16	16	730275.05004
50	5	16	16	730275.05005
50	6	16	16	730275.05006
50	8	16	16	730275.05008
50	10	16	16	730275.05010
63	4	22	18	730275.06304
63	5	22	18	730275.06305
63	6	22	18	730275.06306
63	8	22	18	730275.06308
63	10	22	18	730275.06310
63	12	22	18	730275.06312
63	14	22	18	730275.06314
63	16	22	18	730275.06316
80	4	27	20	730275.08004
80	5	27	20	730275.08005
80	6	27	20	730275.08006
80	8	27	20	730275.08008
80	10	27	18	730275.08010
80	12	27	18	730275.08012
80	14	27	18	730275.08014
80	16	27	18	730275.08016
80	18	27	18	730275.08018
80	20	27	18	730275.08020
100	4	32	20	730275.10004
100	5	32	20	730275.10005
100	6	32	20	730275.10006
100	8	32	20	730275.10008
100	10	32	20	730275.10010
100	12	32	20	730275.10012
100	14	32	20	730275.10014
100	16	32	20	730275.10016
100	18	32	20	730275.10018

D js 16	S k 11	d H 7	Z	CODE
100	20	32	20	730275.10020
100	25	32	20	730275.10025
125	5	32	24	730275.12505
125	6	32	24	730275.12506
125	8	32	24	730275.12508
125	10	32	22	730275.12510
125	12	32	22	730275.12512
125	14	32	22	730275.12514
125	16	32	22	730275.12516
125	18	32	22	730275.12518
125	20	32	22	730275.12520
125	25	32	22	730275.12525
125	28	32	22	730275.12528
160	6	40	26	730275.16006
160	8	40	26	730275.16008
160	10	40	26	730275.16010
160	12	40	26	730275.16012
160	14	40	26	730275.16014
160	16	40	26	730275.16016
160	18	40	26	730275.16018
160	20	40	26	730275.16020
160	25	40	26	730275.16025
160	32	40	26	730275.16032
200	8	40	32	730275.20008
200	10	40	32	730275.20010
200	12	40	32	730275.20012
200	14	40	32	730275.20014
200	16	40	32	730275.20016
200	18	40	32	730275.20018
200	20	40	32	730275.20020
200	25	40	32	730275.20025
200	32	40	32	730275.20032

7302 | DIN 138 | DIN 885A | typ H | λ=10° γ=8° | HSS

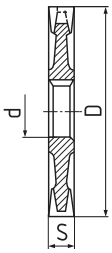


Usage

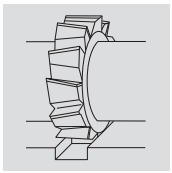


D js 16	S k 11	d H 7	Z	CODE
250	8	40	38	730270.25008
250	10	40	38	730270.25010
250	12	40	38	730270.25012

7302 | DIN 138 | DIN 885A | typ H | λ=10° γ=10° | HSS Co8



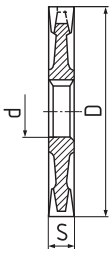
Usage



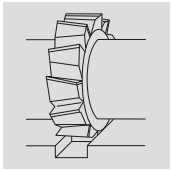
D js 16	S k 11	d H 7	Z	CODE
50	4	16	14	730278.05004
50	5	16	14	730278.05005
50	6	16	14	730278.05006
50	8	16	14	730278.05008
50	10	16	14	730278.05010
63	4	22	16	730278.06304
63	5	22	16	730278.06305
63	6	22	16	730278.06306
63	8	22	16	730278.06308
63	10	22	16	730278.06310
63	12	22	16	730278.06312
63	14	22	16	730278.06314
63	16	22	16	730278.06316
80	4	27	18	730278.08004
80	5	27	18	730278.08005
80	6	27	18	730278.08006
80	8	27	18	730278.08008
80	10	27	18	730278.08010
80	12	27	18	730278.08012
80	14	27	18	730278.08014
80	16	27	18	730278.08016
80	18	27	16	730278.08018
80	20	27	16	730278.08020
100	4	32	20	730278.10004
100	5	32	20	730278.10005
100	6	32	20	730278.10006
100	8	32	20	730278.10008
100	10	32	20	730278.10010
100	12	32	20	730278.10012
100	14	32	20	730278.10014
100	16	32	20	730278.10016

D js 16	S k 11	d H 7	Z	CODE
100	18	32	20	730278.10018
100	20	32	20	730278.10020
100	22	32	18	730278.10022
100	25	32	18	730278.10025
125	5	32	22	730278.12505
125	6	32	22	730278.12506
125	8	32	22	730278.12508
125	10	32	22	730278.12510
125	12	32	22	730278.12512
125	14	32	22	730278.12514
125	16	32	22	730278.12516
125	18	32	22	730278.12518
125	20	32	22	730278.12520
125	22	32	20	730278.12522
125	25	32	20	730278.12525
160	6	40	24	730278.16006
160	8	40	24	730278.16008
160	10	40	24	730278.16010
160	12	40	24	730278.16012
160	14	40	24	730278.16014
160	16	40	24	730278.16016
160	18	40	24	730278.16018
160	20	40	24	730278.16020
160	22	40	22	730278.16022
160	25	40	22	730278.16025
200	8	40	30	730278.20008
200	10	40	30	730278.20010
200	12	40	30	730278.20012
200	14	40	30	730278.20014
200	16	40	30	730278.20016
200	18	40	30	730278.20018
200	20	40	30	730278.20020
200	22	40	28	730278.20022
200	25	40	28	730278.20025

7362 | DIN 138 | DIN 1834A | λ=30° γ=12° | HSS Co5



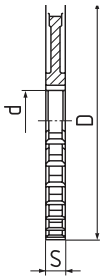
Usage



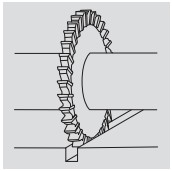
D js 16	S k 11	d H 7	Z	CODE
50	1,6	16	24	736275.050016
50	2	16	24	736275.050020
50	2,5	16	24	736275.050025
50	3	16	24	736275.050030
50	3,5	16	24	736275.050035
50	4	16	24	736275.050040
50	5	16	22	736275.050050
63	1,6	22	28	736275.063016
63	2	22	28	736275.063020
63	2,5	22	28	736275.063025
63	3	22	28	736275.063030
63	3,5	22	28	736275.063035
63	4	22	28	736275.063040
63	5	22	28	736275.063050
63	6	22	28	736275.063060
80	1,6	27	32	736275.080016
80	2	27	32	736275.080020
80	2,5	27	32	736275.080025
80	3	27	32	736275.080030
80	3,5	27	32	736275.080035
80	4	27	32	736275.080040
80	5	27	32	736275.080050
80	6	27	32	736275.080060
100	1,6	32	36	736275.100016
100	2	32	36	736275.100020
100	2,5	32	36	736275.100025
100	3	32	36	736275.100030
100	3,5	32	36	736275.100035
100	4	32	36	736275.100040
100	5	32	36	736275.100050
100	6	32	36	736275.100060

D js 16	S k 11	d H 7	Z	CODE
100	8	32	28	736275.100080
125	1,6	32	40	736275.125016
125	2	32	40	736275.125020
125	2,5	32	40	736275.125025
125	3	32	40	736275.125030
125	3,5	32	40	736275.125035
125	4	32	40	736275.125040
125	5	32	40	736275.125050
125	6	32	40	736275.125060
125	8	32	32	736275.125080
125	10	32	32	736275.125100
160	2	40	48	736275.160020
160	2,5	40	48	736275.160025
160	3	40	48	736275.160030
160	3,5	40	48	736275.160035
160	4	40	48	736275.160040
160	5	40	48	736275.160050
160	6	40	48	736275.160060
160	8	40	36	736275.160080
160	10	40	36	736275.160100
160	12	40	36	736275.160120
200	2	40	52	736275.200020
200	2,5	40	52	736275.200025
200	3	40	52	736275.200030
200	4	40	52	736275.200040
200	5	40	52	736275.200050
200	6	40	52	736275.200060
200	8	40	40	736275.200080
200	10	40	40	736275.200100
200	12	40	40	736275.200120

7372 | DIN 138 | DIN 1834B | λ=30° γ=12° | HSS Co5

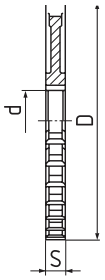


Usage

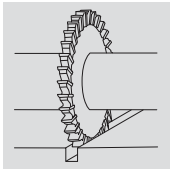


D js 16	S k 11	d H 7	Z	CODE
63	1,6	22	32	737275.063016
63	2	22	32	737275.063020
63	2,5	22	32	737275.063025
63	3	22	32	737275.063030
63	4	22	32	737275.063040
63	5	22	32	737275.063050
80	1,6	27	36	737275.080016
80	2	27	36	737275.080020
80	2,5	27	36	737275.080025
80	3	27	36	737275.080030
80	4	27	36	737275.080040
100	1,6	32	40	737275.100016
100	2	32	40	737275.100020
100	2,5	32	40	737275.100025
100	3	32	40	737275.100030
100	4	32	40	737275.100040
100	5	32	40	737275.100050
125	1,6	32	44	737275.125016
125	2	32	44	737275.125020
125	2,5	32	44	737275.125025
125	3	32	44	737275.125030
125	4	32	44	737275.125040
125	5	32	44	737275.125050
125	6	32	44	737275.125060
160	2	40	52	737275.160020
160	2,5	40	52	737275.160025
160	3	40	52	737275.160030
160	4	40	52	737275.160040
160	5	40	52	737275.160050
160	6	40	52	737275.160060
160	8	40	40	737275.160080

7392 | DIN 138 | DIN 885B | typ H | λ=0° γ=8° | HSS Co5



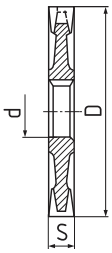
Usage



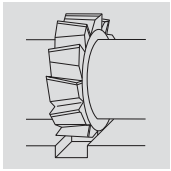
D js 16	S k 11	d H 7	Z	CODE
50	4	16	16	739275.05004
50	5	16	16	739275.05005
50	6	16	16	739275.05006
50	8	16	16	739275.05008
50	10	16	16	739275.05010
63	4	22	18	739275.06304
63	5	22	18	739275.06305
63	6	22	18	739275.06306
63	8	22	18	739275.06308
63	10	22	18	739275.06310
63	12	22	18	739275.06312
63	14	22	18	739275.06314
63	16	22	18	739275.06316
63	18	22	18	739275.06318
80	4	27	20	739275.08004
80	5	27	20	739275.08005
80	6	27	20	739275.08006
80	8	27	20	739275.08008
80	10	27	20	739275.08010
80	12	27	20	739275.08012
80	14	27	20	739275.08014
80	16	27	20	739275.08016
80	18	27	20	739275.08018
80	20	27	20	739275.08020
100	6	32	24	739275.10006
100	8	32	24	739275.10008
100	10	32	24	739275.10010
100	12	32	24	739275.10012
100	14	32	24	739275.10014
100	16	32	24	739275.10016

D js 16	S k 11	d H 7	Z	CODE
100	18	32	24	739275.10018
100	20	32	24	739275.10020
100	22	32	24	739275.10022
100	25	32	24	739275.10025
125	6	32	24	739275.12506
125	8	32	24	739275.12508
125	10	32	24	739275.12510
125	12	32	24	739275.12512
125	14	32	24	739275.12514
125	16	32	24	739275.12516
125	18	32	24	739275.12518
125	20	32	24	739275.12520
125	25	32	24	739275.12525
160	10	40	24	739275.16010
160	12	40	24	739275.16012
160	14	40	24	739275.16014
160	16	40	24	739275.16016
160	18	40	24	739275.16018
160	20	40	24	739275.16020
200	10	40	32	739275.20010
200	12	40	32	739275.20012
200	14	40	32	739275.20014
200	16	40	32	739275.20016
200	18	40	32	739275.20018
200	20	40	32	739275.20020

7203 | DIN 138 | ČSN 222161 | typ N | λ=10° γ=10° | HSSE

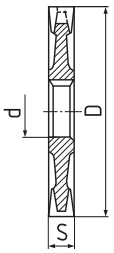


Usage

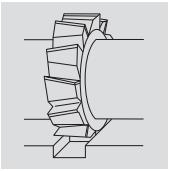


D js 16	S s 10	d H 7	Z	CODE
63	8	22	12	720373.06308
63	10	22	12	720373.06310
63	12	22	12	720373.06312
80	8	27	14	720373.08008
80	10	22	14	720373.0801022
80	10	27	14	720373.08010
80	12	27	14	720373.08012
100	10	27	14	720373.1001027
100	12	22	14	720373.1001222
100	12	27	14	720373.1001227
100	12	32	14	720373.10012
100	14	27	14	720373.1001427
100	14	32	14	720373.10014
100	16	32	14	720373.10016
125	12	32	16	720373.12512
125	14	27	16	720373.1251427
125	14	32	16	720373.12514
125	14	40	16	720373.1251440
125	16	32	16	720373.12516
125	16	40	16	720373.1251640
125	18	40	16	720373.1251840
160	14	40	18	720373.16014
160	18	40	18	720373.16018
160	20	40	18	720373.16020

7303 | DIN 138 | ČSN 222165 | typ H | λ = 10° γ = 10° | HSSE

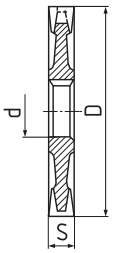


Usage

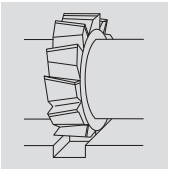


D js 16	S s 10	d H 7	Z	CODE
50	4	16	18	730373.05004
50	5	16	18	730373.05005
50	6	16	18	730373.05006
63	4	22	20	730373.06304
63	5	22	20	730373.06305
63	6	22	20	730373.06306
63	8	22	20	730373.06308
63	10	22	20	730373.06310
63	12	22	20	730373.06312
80	6	22	22	730373.08006
80	8	22	22	730373.08008
80	10	22	22	730373.08010
80	12	22	22	730373.08012
100	8	22	24	730373.10008
100	10	22	24	730373.10010
100	14	22	24	730373.10014
100	16	27	24	730373.10016
125	8	32	28	730373.12508
125	12	27	26	730373.12512
125	16	27	26	730373.12516
125	18	32	26	730373.12518
125	20	32	26	730373.12520
160	18	32	28	730373.16018
160	22	40	28	730373.16022

7323 | DIN 138 | ČSN 222161 | typ H | λ=10° γ=10° | HSSE

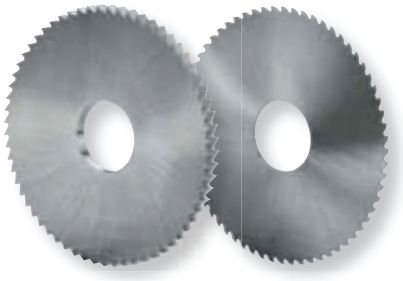


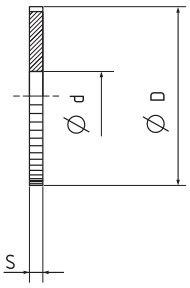
Usage



D js 16	S e 8	d H 7	Z	CODE
50	4	16	18	732373.05004
63	5	22	20	732373.06305
63	6	22	20	732373.06306
63	8	22	20	732373.06308
80	10	27	22	732373.08010
80	12	27	22	732373.08012
80	14	27	22	732373.08014
100	16	32	24	732373.10016
100	18	32	24	732373.10018
125	22	40	26	732373.12522
125	25	40	26	732373.12525

7229 | DIN 1837 typ H | DIN 1838 typ W | HSSE

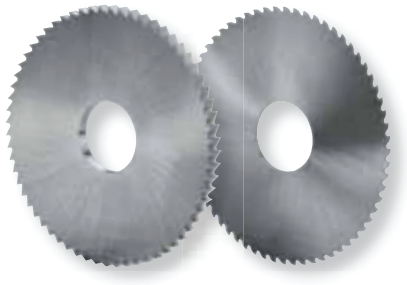


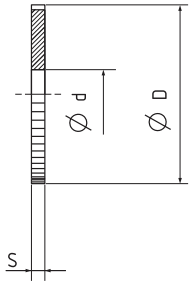


D x S	Hole d	DIN 1837 CODE 722910	DIN 1838 CODE 722913	D x S	Hole d	DIN 1837 CODE 722910	DIN 1838 CODE 722913	D x S	Hole d	DIN 1837 CODE 722910	DIN 1838 CODE 722913	D x S	Hole d	DIN 1837 CODE 722910	DIN 1838 CODE 722913	D x S	Hole d	DIN 1837 CODE 722910	DIN 1838 CODE 722913
20x0,15	5	0200015	–	32x1,6	8	0320160	–	63x1	16	0630100	0630100	125x0,6	22	1250060	1250060	200x3	32	2000300	2000300
20x0,20	5	0200020	–	32x2	8	0320200	–	63x1,2	16	0630120	0630120	125x0,7	22	1250070	1250070	200x3,5	32	2000350	2000350
20x0,25	5	0200025	–	32x2,5	8	0320250	–	63x1,5	16	0630150	0630150	125x0,8	22	1250080	1250080	200x4	32	2000400	2000400
20x0,30	5	0200030	–	32x3	8	0320300	–	63x1,6	16	0630160	0630160	125x0,9	22	1250090	1250090	200x4,5	32	2000450	2000450
20x0,40	5	0200040	–	32x4	8	0320400	–	63x2	16	0630200	0630200	125x1	22	1250100	1250100	200x5	32	2000500	2000500
20x0,50	5	0200050	–	40x0,2	10	0400020	–	63x2,5	16	0630250	0630250	125x1,2	22	1250120	1250120	200x5,5	32	2000550	2000550
20x0,60	5	0200060	–	40x0,25	10	0400025	–	63x3	16	0630300	0630300	125x1,5	22	1250150	1250150	200x6	32	2000600	2000600
20x0,70	5	0200070	–	40x0,3	10	0400030	–	63x3,5	16	0630350	0630350	125x1,6	22	1250160	1250160	*225x1,5	32	2250150	2250150
20x0,80	5	0200080	–	40x0,4	10	0400040	–	63x4	16	0630400	0630400	125x2	22	1250200	1250200	*225x1,6	32	2250160	2250160
20x0,90	5	0200090	–	40x0,5	10	0400050	–	63x5	16	0630500	0630500	125x2,5	22	1250250	1250250	*225x1,8	32	2250180	2250180
20x1,00	5	0200100	–	40x0,6	10	0400060	–	63x6	16	0630600	0630600	125x3	22	1250300	1250300	*225x2,00	32	2250200	2250200
20x1,20	5	0200120	–	40x0,7	10	0400070	–	80x0,3	22	0800030	0800030	125x3,2	22	1250320	1250320	*225x2,50	32	2250250	2250250
20x1,50	5	0200150	–	40x0,8	10	0400080	–	80x0,4	22	0800040	0800040	125x3,5	22	1250350	1250350	*225x3,00	32	2250300	2250300
20x1,60	5	0200160	–	40x0,9	10	0400090	–	80x0,5	22	0800050	0800050	125x4	22	1250400	1250400	*225x3,50	32	2250350	2250350
20x2,00	5	0200200	–	40x1	10	0400100	–	80x0,6	22	0800060	0800060	125x5	22	1250500	1250500	*225x4,00	32	2250400	2250400
20x2,50	5	0200250	–	40x1,2	10	0400120	–	80x0,7	22	0800070	0800070	125x6	22	1250600	1250600	250x1,50	32	2500150	2500150
20x3,00	5	0200300	–	40x1,5	10	0400150	–	80x0,8	22	0800080	0800080	*150x1	22	1500100	1500100	250x1,60	32	2500160	2500160
25x0,15	8	0250015	–	40x1,6	10	0400160	–	80x0,9	22	0800090	0800090	*150x1,2	22	1500120	1500120	250x2,00	32	2500200	2500200
25x0,20	8	0250020	–	40x2	10	0400200	–	80x1	22	0800100	0800100	*150x1,5	22	1500150	1500150	250x2,50	32	2500250	2500250
25x0,25	8	0250025	–	40x2,5	10	0400250	–	80x1,2	22	0800120	0800120	*150x1,6	22	1500160	1500160	250x3,00	32	2500300	2500300
25x0,30	8	0250030	–	40x3	10	0400300	–	80x1,5	22	0800150	0800150	*150x2	22	1500200	1500200	250x3,50	32	2500350	2500350
25x0,40	8	0250040	–	50x0,2	13	0500020	0500020	80x1,6	22	0800160	0800160	*150x2,5	22	1500250	1500250	250x4,00	32	2500400	2500400
25x0,50	8	0250050	–	50x0,25	13	0500025	0500025	80x2	22	0800200	0800200	*150x3	22	1500300	1500300	250x4,50	32	2500450	2500450
25x0,60	8	0250060	–	50x0,3	13	0500030	0500030	80x2,5	22	0800250	0800250	*150x3,5	22	1500350	1500350	250x5,00	32	2500500	2500500
25x0,70	8	0250070	–	50x0,4	13	0500040	0500040	80x3	22	0800300	0800300	*150x4	22	1500400	1500400	250x5,50	32	2500550	2500550
25x0,80	8	0250080	–	50x0,5	13	0500050	0500050	80x3,5	22	0800350	0800350	*150x4,5	22	1500450	1500450	250x6,00	32	2500600	2500600
25x0,90	8	0250090	–	50x0,6	13	0500060	0500060	80x4	22	0800400	0800400	*150x5	22	1500500	1500500	*275x1,75	32	2750175	2750175
25x1,00	8	0250100	–	50x0,7	13	0500070	0500070	80x5	22	0800500	0800500	*150x6	22	1500600	1500600	*275x2,00	32	2750200	2750200
25x1,20	8	0250120	–	50x0,8	13	0500080	0500080	80x6	22	0800600	0800600	160x1	32	1600100	1600100	*275x2,50	32	2750250	2750250
25x1,50	8	0250150	–	50x0,9	13	0500090	0500090	100x0,4	22	1000040	1000040	160x1,2	32	1600120	1600120	*275x3,00	32	2750300	2750300
25x1,60	8	0250160	–	50x1	13	0500100	0500100	100x0,5	22	1000050	1000050	160x1,5	32	1600150	1600150	*275x3,50	32	2750350	2750350
25x2,00	8	0250200	–	50x1,2	13	0500120	0500120	100x0,6	22	1000060	1000060	160x1,6	32	1600160	1600160	*285x2,00	32	2850200	2850200
25x2,50	8	0250250	–	50x1,5	13	0500150	0500150	100x0,7	22	1000070	1000070	160x2	32	1600200	1600200	*300x2,00	32	3000200	3000200
25x3	8	0250300	–	50x1,6	13	0500160	0500160	100x0,8	22	1000080	1000080	160x2,5	32	1600250	1600250	*300x2,50	32	3000250	3000250
32x0,15	8	0320015	–	50x2	13	0500200	0500200	100x0,9	22	1000090	1000090	160x3	32	1600300	1600300	*300x3,00	32	3000300	3000300
32x0,2	8	0320020	–	50x2,5	13	0500250	0500250	100x1	22	1000100	1000100	160x3,5	32	1600350	1600350	*300x3,50	40	3000350	3000350
32x0,25	8	0320025	–	50x3	13	0500300	0500300	100x1,2	22	1000120	1000120	160x4	32	1600400	1600400	315x2,00	40	3150200	3150200
32x0,3	8	0320030	–	50x4	13	0500400	0500400	100x1,5	22	1000150	1000150	160x4,5	32	1600450	1600450	315x2,50	40	3150250	3150250
32x0,4	8	0320040	–	50x5	13	0500500	0500500	100x1,6	22	1000160	1000160	160x5	32	1600500	1600500	315x3,00	40	3150300	3150300
32x0,5	8	0320050	–	63x0,25	16	0630025	0630025	100x2	22	1000200	1000200	160x6	32	1600600	1600600	315x4,00	40	3150400	3150400
32x0,6	8	0320060	–	63x0,3	16	0630030	0630030	100x2,5	22	1000250	1000250	200x1	32	2000100	2000100	315x4,50	40	3150450	3150450
32x0,7	8	0320070	–	63x0,4	16	0630040	0630040	100x3	22	1000300	1000300	200x1,2	32	2000120	2000120	315x5,00	40	3150500	3150500
32x0,8	8	0320080	–	63x0,5	16	0630050	0630050	100x3,5	22	1000350	1000350	200x1,5	32	2000150	2000150	315x6,00	40	3150600	3150600
32x0,9	8	0320090	–	63x0,6	16	0630060	0630060	100x4	22	1000400	1000400	200x1,6	32	2000160	2000160				
32x1	8	0320100	–	63x0,7	16	0630070	0630070	100x5	22	1000500	1000500	200x1,8	32	2000180	2000180				
32x1,2	8	0320120	–	63x0,8	16	0630080	0630080	100x6	22	1000600	1000600	200x2	32	2000200	2000200				
32x1,5	8	0320150	–	63x0,9	16	0630090	0630090	125x0,5	22	1250050	1250050	200x2,5	32	2000250	2000250				

*/ ≠ DIN 1837, DIN 1838

7229 | DIN 1837 typ H | DIN 1838 typ W | HSSE





Bi-metal band saw blades, HSS-M42

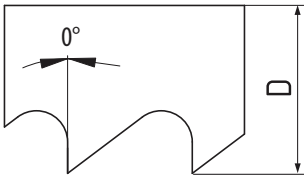
Number of teeth

CODE 722910 ≈ DIN 1837													
D (mm)	20	25	32	40	50	63	80	100	125	160	200	250	315
dH7 (mm)	5	8	8	10	13	16	22	22	22	32	32	32	40
B (mm)													
0,20 mm	80	80	100	128	128								
0,25 mm	64	80	100	100	128	160							
0,30 mm	64	80	80	100	128	128	160						
0,40 mm	64	64	80	100	100	128	160						
0,50 mm	48	64	80	80	100	128	128	160					
0,60 mm	48	64	64	80	100	100	128	160	160				
0,80 mm	48	48	64	80	80	100	128	128	160				
1,00 mm	40	48	64	64	80	100	100	128	160	160	200		
1,20 mm	40	48	48	64	80	80	100	128	128	160	200		
1,60 mm	40	40	48	64	64	80	100	100	128	160	200	200	
2,00 mm	32	40	48	48	64	80	80	100	128	128	160	200	
2,50 mm	32	40	40	48	64	64	80	100	100	128	160	160	200
3,00 mm	32	32	40	48	48	64	80	80	100	128	128	160	200
4,00 mm	24	32	40	40	48	64	64	80	100	100	128	160	160
5,00 mm	24	32	32	40	48	48	64	80	80	100	128	128	160
6,00 mm	24	24	32	40	40	48	64	64	80	100	100	128	160

CODE 722913 ≈ DIN 1838													
D (mm)	50	63	80	100	125	160	200	250	315				
dH7 (mm)	13	16	22	22	22	32	32	32	40				
B (mm)													
0,50 mm	48	64	64	80									
0,60 mm	48	48	64	80	80								
0,80 mm	40	48	64	64	80								
1,00 mm	40	48	48	64	80	80							
1,20 mm	40	40	48	64	64	80	100						
1,60 mm	32	40	48	48	64	80	80	100					
2,00 mm	32	40	40	48	64	64	80	100					
2,50 mm	32	32	40	48	64	64	80	80	100				
3,00 mm	24	32	40	40	48	64	64	80	100				
4,00 mm	24	32	32	40	48	48	64	80	80				
5,00 mm	24	24	32	40	40	48	64	64	80				
6,00 mm	20	24	32	32	40	48	48	64	80				

7224

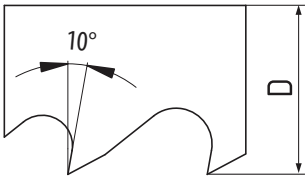
Basic



Usage 1 2 3 4 5 6 7 8 9 10 11 12 13

D x S mm	D x S inch	Teeth per inch 5/8	6/10	8/12	10/14	CODE + XXX
13 x 0,65	1/2 x 0,025	V-0	V-0	V-0	V-0	722430.130065
20 x 0,90	3/4 x 0,035	V-0	V-0	V-0	V-0	722430.200090
27 x 0,90	1-1/16 x 0,035	V-0	V-0	V-0	V-0	722430.270090
34 x 1,10	1-3/8 x 0,042	V-0	V-0	V-0	V-0	722430.340110
41 x1,30	1-5/8 x 0,050	V-0	V-0			722430.410130

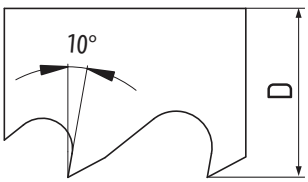
Solid



Usage 1 2 3 4 5 6 7 8 9 10 11 12 13

D x S mm	D x S inch	Teeth per inch 1,4/2	2/3	3/4	4/6	CODE + XXX
20 x 0,90	3/4 x 0,035				V-POS	722431.200090
27 x 0,90	1-1/16 x 0,035		V-POS	V-POS	V-POS	722431.270090
34 x 1,10	1-3/8 x 0,042	V-POS	V-POS	V-POS	V-POS	722431.340110
41 x 1,30	1-5/8 x 0,050	V-POS	V-POS	V-POS	V-POS	722431.410130
54 x 1,30	2-1/8 x 0,050	V-POS	V-POS	V-POS	V-POS	722431.540130
54 x 1,60	2-1/8 x 0,063	V-POS	V-POS	V-POS	V-POS	722431.540160

Alu

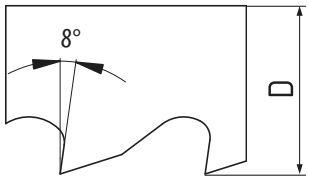


Usage 1 2 3 4 5 6 7 8 9 10 11 12 13

D x S mm	D x S inch	Teeth per inch 2H	3H	2/3	3/4	CODE + XXX
20 x 0,90	1-1/16 x 0,035	V-POS	V-POS	V-POS	V-POS	722436.200090
34 x 1,10	1-3/8 x 0,042	V-POS	V-POS	V-POS	V-POS	722436.340110
41 x 1,30	1-5/8 x 0,050	V-POS	V-POS	V-POS	V-POS	722436.410110

7224

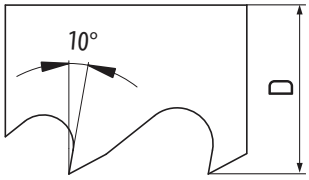
Profile



Usage 1 2 3 4 5 6 7 8 9 10 11 12 13

D x S mm	D x S inch	Teeth per inch 2/3	3/4	4/6	5/7	8/11	CODE + XXX
20 x 0,90	3/4 x 0,035				V-POS	V-POS	722461.200090
27 x 0,90	1-1/16 x 0,035		V-POS	V-POS	V-POS	V-POS	722461.270090
34 x 1,10	1-3/8 x 0,042	V-POS	V-POS	V-POS	V-POS	V-POS	722461.340110
41 x 1,30	1-5/8 x 0,050	V-POS	V-POS	V-POS	V-POS	V-POS	722461.410130
54 x 1,30	2-1/8 x 0,050	V-POS	V-POS				722461.540130
54 x 1,60	2-1/8 x 0,063	V-POS	V-POS				722461.540160

Solid ultra



Usage 1 2 3 4 5 6 7 8 9 10 11 12 13

D x S mm	D x S inch	Teeth per inch 1,4/2	2/3	3/4	4/6	CODE + XXX
27 x 0,90	1-1/16 x 0,035	V-POS	V-POS	V-POS	V-POS	722531.270090
34 x 1,10	1-3/8 x 0,042	V-POS	V-POS	V-POS	V-POS	722531.340110
41 x 1,30	1-5/8 x 0,050	V-POS	V-POS	V-POS	V-POS	722531.410130
54 x 1,60	1-5/8 x 0,050	V-POS	V-POS	V-POS		722531.540160

V-0 Variable teeth with 0° rake angle

V-POS Variable teeth with positive rake angle

XXX teeth/inch

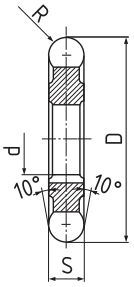
Package

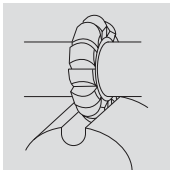
coil
100 m (D=13 mm; 20 mm; 27 mm; 34 mm), 80 m (D=41 mm), 75 m (D=54 mm)

order

Welded according to customer specification

8100 · 8100V | DIN 138 | DIN ~ 856 | λ=30° γ=12° | HSSE | HSS Co5

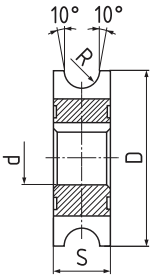


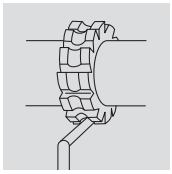


R k 11	D js 16	S s 10	d H 7	Z/Z HSS/HSSCo5	HSS CODE	HSS Co5 CODE
1	50	2	16	14/16	810070.010	810075V.010
1,25	50	2,5	16	14/16	810070.0125	810075V.0125
1,5*	50	3	16	14/16	810070.015	810075V.015
1,6	50	3,2	16	14	810070.016	–
2	50	4	16	14/16	810070.020	810075V.020
2,5	63	5	22	12	810070.025	810075V.025
3	63	6	22	12	810070.030	810075V.030
3,15*	63	6,3	22	12	810070.0315	–
3,5**	63	7	22	12	810070.035	810075V.035
4	63	8	22	12	810070.040	810075V.040
4,5**	63	9	22	12	810070.045	810075V.045
5	63	10	22	12	810070.050	810075V.050
5,5**	80	11	27	12	810070.055	810075V.055
6	80	12	27	12	810070.060	810075V.060
6,3*	80	12,6	27	12	810070.063	–
6,5**	80	13	27	12	810070.065	–
7**	80	14	27	12	810070.070	–
7,5**	80	15	27	12	810070.075	–
8	80	16	27	12	810070.080	810075V.080
8,5**	100	17	32	12	810070.085	–
9**	100	18	32	12	810070.090	–
9,5**	100	19	32	12	810070.095	–
10	100	20	32	12	810070.100	810075V.100
11**	100	22	32	12	810070.110	–
12	100	24	32	12	810070.120	810075V.120
12,5*	100	25	32	12	810070.125	–
14*/**	125	28	40**	12	810070.140	–
15**	125	30	32	12	810070.150	–
16	125	32	32	12	810070.160	–
18*	125	36	40	12	810070.180	–
20	125	40	32	12	810070.200	–
25*/**	160	50	40	12	810070.250	–

*/ = ČSN
**/ ≠ DIN 856 Available on request

8200 · 8200V | DIN 138 | DIN ~855A | λ=0° γ=10° | HSS | HSS Co5



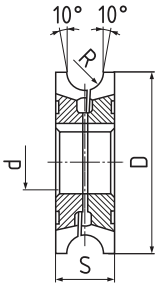


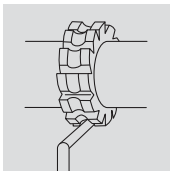
R H 11	D js 16	S/S HSS/HSSCo5	d H 7	Z/Z HSS/HSSCo5	HSS CODE	HSS Co5 CODE
1	50	6	16	14	820070.010	820075V.010
1,25	50	6	16	14	820070.0125	820075V.0125
1,5*	50	8	16	14	–	820075V.015
1,6	50	8	16	14	820070.016	–
2	50	9	16	14	820070.020	820075V.020
2,5	63	10	22	12/14	820070.025	820075V.025
3	63	12	22	12	820070.030	820075V.030
3,15	63	12	22	12	820070.0315	–
3,5*	63	16	22	12	820070.035	–
4	63	16	22	12	820070.040	820075V.040
4,5*	63	18	22	12	820070.045	–
5	63	20	22	12/10	820070.050	820075V.050
6	80	24	27	12/10	820070.060	820075V.060
6,3	80	24	27	12	820070.063	–
7*	80	24	27	12	820070.070	–
8	80	32	27	12/10	820070.080	820075V.080
9*	100	32	32	12	820070.090	–
10	100	36	32	12/10	820070.100	820075V.100
12**	100	40	32	12/10	820070.120	820075V.120
12,5**	100	40	32	12	820070.125	–
16**	125	50	32	10	820070.160	–
20**	125	60	32	10	820070.200	820075V.200

*/ ≠ DIN 855
**/ Available on request

8241

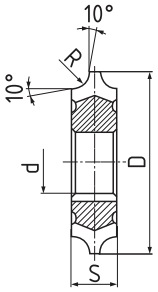
CSN 222231 | λ=0° γ=10° | HSSE

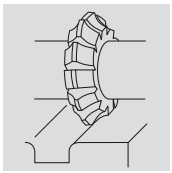




R	tol.	D js 16	S js 16	d H 7	Z	CODE
11	± 0,12	100	36	32	10	824173.110
12		100	38	32	10	824173.120
12,5		100	40	32	10	824173.125
14		125	44	40	10	824173.140
16		125	48	40	10	824173.160
18		125	52	40	10	824173.180
20		125	58	40	10	824173.200
22,5	± 0,2	160	63	40	12	824173.225
25		160	68	40	12	824173.250

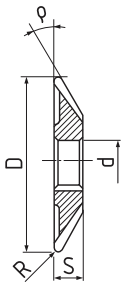
8301 | DIN 138 | DIN ~6513 | λ=0° γ=10° | HSS

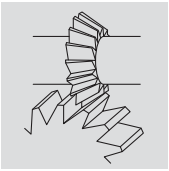




R	tol.	D js 16	S js 16	d H 7	Z	CODE
1	± 0,05	63	4	22	20	830170.010
1,6		63	5	22	18	830170.016
2		63	6	22	16	830170.020
2,5		63	8	22	14	830170.025
3	± 0,08	63	10	22	12	830170.030
4		63	12	22	12	830170.040
5		80	14	27	12	830170.050
6		80	16	27	12	830170.060
8	± 0,12	80	22	27	12	830170.080
10		100	26	32	12	830170.100
12		100	32	32	10	830170.120
14		125	36	40	10	830170.140
16		125	40	40	10	830170.160
18		125	45	40	10	830170.180
20		125	50	40	10	830170.200
25	± 0,2	160	60	40	12	830170.250

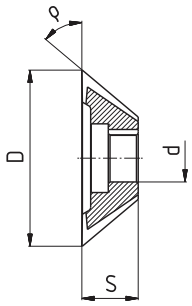
8525 | DIN 138 | DIN 1824A | ČSN 222242 | λ=0° γ=0° | HSS

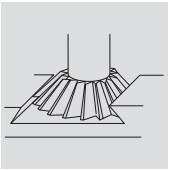




ρ ± 30'	R	D js 16	S js 16	d H 7	Z	CODE
20°	1	63	6	16	14	852570.020063
20°	1,5	100	10	27	18	852570.020100
25°	1	63	6	22	14	852570.025063
25°	1	80	10	22	16	852570.025080
25°	1,5	100	14	27	18	852570.025100
25°	2	125	18	27	20	852570.025125
25°	2,5	160	22	32	22	852570.025160
30°	1	63	8	22	14	852570.030063
30°	1,5	100	14	27	18	852570.030100

8532 ·8532V | DIN 138 | DIN 842 | λ=0° γ=2° | HSS | HSS Co5

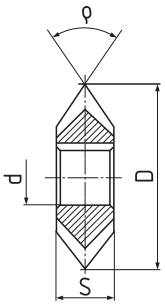


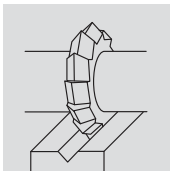


ρ ± 20′	D js 16	S/S HSS/HSSCo5	d H 7	Z/Z HSS/HSSCo5	HSS CODE	HSS Co5 CODE
45°	40	10/12*	10	14	853270.045040	853275V.045040
45°	50	13/15*	13	16	853270.045050	853275V.045050
45°	63	18	16	18/16	853270.045063	853275V.045063
45°	80	22/23*	22	20/18	853270.045080	853275V.045080
45°	100	28/30*	27	22/20	853270.045100	853275V.045100
45°	125	36	32	24	853270.045125	–
45°	160	45	40	28	853270.045160	–
50°	40	13	10	14	853270.050040	853275V.050040
50°	50	16	13	16	853270.050050	853275V.050050
50°	63	20	16	18/16	853270.050063	853275V.050063
50°	80	25	22	20/18	853270.050080	853275V.050080
50°	100	32	27	22/20	853270.050100	853275V.050100
50°	125	40	32	24	853270.050125	–
50°	160	50	40	28	853270.050160	–
55°	40	13	10	14	853270.055040	–
55°	50	16	13	16	853270.055050	–
55°	63	20	16	18	853270.055063	–
55°	80	25	22	20	853270.055080	–
55°	100	32	27	22	853270.055100	–
55°	125	40	32	24	853270.055125	–
60°	40	13	10	14	853270.060040	853275V.060040
60°	50	16	13	16	853270.060050	853275V.060050
60°	63	20	16	18/16	853270.060063	853275V.060063
60°	80	25	22	20/18	853270.060080	853275V.060080
60°	100	32	27	22/20	853270.060100	853275V.060100
60°	125	40	32	26	853270.060125	–
60°	160	50	40	28	853270.060160	–

*/ ≠ DIN 842

8570 · 8570V | DIN 138 | DIN 847 | λ=0° γ=0° | HSS | HSS Co5

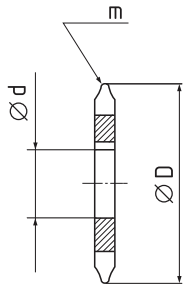


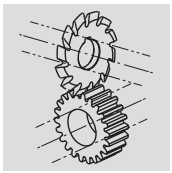


ρ ± 30′	D js 16	S js 16	d H 7	Z/Z HSS/HSSCo5	HSS CODE	HSS Co5 CODE
45°	50	8	16	22/16	857070.045050	857075V.045050
45°	63	10	22	24/16	857070.045063	857075V.045063
45°	80	12	27	26/20	857070.045080	857075V.045080
45°	100	18	32	28/20	857070.045100	857075V.045100
60°	50	10	16	18/16	857070.060050	857075V.060050
60°	63	14	22	20/16	857070.060063	857075V.060063
60°	80	18	27	22/18	857070.060080	857075V.060080
60°	100	25	32	24/20	857070.060100	857075V.060100
90°	50	14	16	16	857070.090050	857075V.090050
90°	63	20	22	18/16	857070.090063	857075V.090063
90°	80	22	27	20/18	857070.090080	857075V.090080
90°	100	32	32	24/20	857070.090100	857075V.090100
*120°	50	14	16	16	857070.120050	–
*120°	63	20	22	16	857070.120063	–
*120°	80	25	27	20	857070.120080	–
*120°	100	36	32	24	857070.120100	–

*/ ≠ DIN 847

8900 | DIN 138 | DIN 3972 | λ=0° γ=0° | HSS Co5





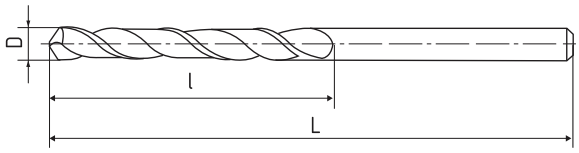
m	D js 16	d H 7	CODE
0.5	40	16	890075.050(1-8)
0.75	40	16	890075.075(1-8)
1	50	16	890075.100(1-8)
1.25	50	16	890075.125(1-8)
1.5	63	22	890075.150(1-8)
1.75	63	22	890075.175(1-8)
2	63	22	890075.200(1-8)
2.25	63	22	890075.225(1-8)
2.5	63	22	890075.250(1-8)
2.75	70	27	890075.275(1-8)
3	70	27	890075.300(1-8)
3.25	70	27	890075.325(1-8)
3.5	80	27	890075.350(1-8)
3.75	80	27	890075.375(1-8)
4	80	27	890075.400(1-8)
4.25	80	27	890075.425(1-8)
4.5	90	27	890075.450(1-8)
4.75	90	27	890075.475(1-8)
5	90	32	890075.500(1-8)
5.5	90	32	890075.550(1-8)
6	100	32	890075.600(1-8)

Number of teeth (on the spur wheel)								
	1	2	3	4	5	6	7	8
Z_{oz}	12-13	14-16	17-20	21-25	26-34	35-54	55-134	135-00

ADD engineering

VN30010 · VN3045 DIN 1897

Usage



typ N | C | 118° | λ=25° – 30° | RH | HSS

typ GT100 | C | 128° | λ=39° | RH | HSS Co5

new


VN30010


VN30045

ØD	L	l	CODE	CODE
0,7	23	4,5	VN30010.0070	
0,75	23	4,5	VN30010.0075	
0,8	24	5	VN30010.0080	
0,9	25	5,5	VN30010.0090	
1	26	6	VN30010.0100	
1,1	28	7	VN30010.0110	
1,2	30	8	VN30010.0120	
1,25	30	8	VN30010.0125	
1,3	30	8	VN30010.0130	
1,4	32	9	VN30010.0140	
1,5	32	9	VN30010.0150	
1,6	34	10	VN30010.0160	
1,7	34	10	VN30010.0170	
1,75	36	11	VN30010.0175	
1,8	36	11	VN30010.0180	
1,9	36	11	VN30010.0190	
2	38	12	VN30010.0200	VN30045.0200
2,1	38	12	VN30010.0210	VN30045.0210
2,2	40	13	VN30010.0220	VN30045.0220
2,25	40	13	VN30010.0225	VN30045.0225
2,3	40	13	VN30010.0230	VN30045.0230
2,4	43	14	VN30010.0240	VN30045.0240
2,5	43	14	VN30010.0250	VN30045.0250
2,6	43	14	VN30010.0260	VN30045.0260
2,7	46	16	VN30010.0270	VN30045.0270
2,75	46	16	VN30010.0275	VN30045.0275
2,8	46	16	VN30010.0280	VN30045.0280
2,9	46	16	VN30010.0290	VN30045.0290
3	46	16	VN30010.0300	VN30045.0300
3,1	49	18	VN30010.0310	VN30045.0310
3,2	49	18	VN30010.0320	VN30045.0320
3,25	49	18	VN30010.0325	VN30045.0325

ØD	L	l	CODE	CODE
3,3	49	18	VN30010.0330	VN30045.0330
3,4	52	20	VN30010.0340	VN30045.0340
3,5	52	20	VN30010.0350	VN30045.0350
3,6	52	20	VN30010.0360	VN30045.0360
3,7	52	20	VN30010.0370	VN30045.0370
3,75	52	20	VN30010.0375	VN30045.0375
3,8	55	22	VN30010.0380	VN30045.0380
3,9	55	22	VN30010.0390	VN30045.0390
4	55	22	VN30010.0400	VN30045.0400
4,1	55	22	VN30010.0410	VN30045.0410
4,2	55	22	VN30010.0420	VN30045.0420
4,25	55	22	VN30010.0425	VN30045.0425
4,3	58	24	VN30010.0430	VN30045.0430
4,4	58	24	VN30010.0440	VN30045.0440
4,5	58	24	VN30010.0450	VN30045.0450
4,6	58	24	VN30010.0460	VN30045.0460
4,7	58	24	VN30010.0470	VN30045.0470
4,75	58	24	VN30010.0475	VN30045.0475
4,8	62	26	VN30010.0480	VN30045.0480
4,9	62	26	VN30010.0490	VN30045.0490
5	62	26	VN30010.0500	VN30045.0500
5,1	62	26	VN30010.0510	VN30045.0510
5,2	62	26	VN30010.0520	VN30045.0520
5,25	62	26	VN30010.0525	VN30045.0525
5,3	62	26	VN30010.0530	VN30045.0530
5,4	66	28	VN30010.0540	VN30045.0540
5,5	66	28	VN30010.0550	VN30045.0550
5,6	66	28	VN30010.0560	VN30045.0560
5,7	66	28	VN30010.0570	VN30045.0570
5,75	66	28	VN30010.0575	VN30045.0575
5,8	66	28	VN30010.0580	VN30045.0580
5,9	66	28	VN30010.0590	VN30045.0590

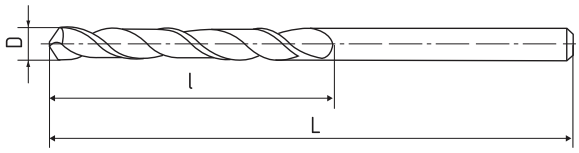
VN30010 · VN3045 DIN 1897

Ø D	L	l	CODE	CODE
6	66	28	VN30010.0600	VN30045.0600
6,1	70	31	VN30010.0610	VN30045.0610
6,2	70	31	VN30010.0620	VN30045.0620
6,3	70	31	VN30010.0630	VN30045.0630
6,4	70	31	VN30010.0640	VN30045.0640
6,5	70	31	VN30010.0650	VN30045.0650
6,6	70	31	VN30010.0660	VN30045.0660
6,7	70	31	VN30010.0670	VN30045.0670
6,8	74	34	VN30010.0680	VN30045.0680
6,9	74	34	VN30010.0690	VN30045.0690
7	74	34	VN30010.0700	VN30045.0700
7,1	74	34	VN30010.0710	VN30045.0710
7,2	74	34	VN30010.0720	VN30045.0720
7,3	74	34	VN30010.0730	VN30045.0730
7,4	74	34	VN30010.0740	VN30045.0740
7,5	74	34	VN30010.0750	VN30045.0750
7,6	79	37	VN30010.0760	VN30045.0760
7,7	79	37	VN30010.0770	VN30045.0770
7,8	79	37	VN30010.0780	VN30045.0780
7,9	79	37	VN30010.0790	VN30045.0790
8	79	37	VN30010.0800	VN30045.0800
8,1	79	37	VN30010.0810	VN30045.0810
8,2	79	37	VN30010.0820	VN30045.0820
8,3	79	37	VN30010.0830	VN30045.0830
8,4	79	37	VN30010.0840	VN30045.0840
8,5	79	37	VN30010.0850	VN30045.0850
8,6	84	40	VN30010.0860	VN30045.0860
8,7	84	40	VN30010.0870	VN30045.0870
8,8	84	40	VN30010.0880	VN30045.0880
8,9	84	40	VN30010.0890	VN30045.0890
9	84	40	VN30010.0900	VN30045.0900
9,1	84	40	VN30010.0910	VN30045.0910
9,2	84	40	VN30010.0920	VN30045.0920
9,3	84	40	VN30010.0930	VN30045.0930
9,4	84	40	VN30010.0940	VN30045.0940
9,5	84	40	VN30010.0950	VN30045.0950
9,6	89	43	VN30010.0960	VN30045.0960
9,7	89	43	VN30010.0970	VN30045.0970
9,8	89	43	VN30010.0980	VN30045.0980
9,9	89	43	VN30010.0990	VN30045.0990
10	89	43	VN30010.1000	VN30045.1000
10,2	89	43	VN30010.1020	VN30045.1020
10,5	89	43	VN30010.1050	VN30045.1050
10,8	95	47	VN30010.1080	VN30045.1080
11	95	47	VN30010.1100	VN30045.1100
11,2	95	47	VN30010.1120	VN30045.1120
11,5	95	47	VN30010.1150	VN30045.1150
11,8	95	47	VN30010.1180	VN30045.1180

Ø D	L	l	CODE	CODE
12	102	51	VN30010.1200	VN30045.1200
12,2	102	51	VN30010.1220	VN30045.1220
12,5	102	51	VN30010.1250	VN30045.1250
12,8	102	51	VN30010.1280	VN30045.1280
13	102	51	VN30010.1300	VN30045.1300
13,2	102	51	VN30010.1320	VN30045.1320
13,5	107	54	VN30010.1350	VN30045.1350
13,8	107	54	VN30010.1380	VN30045.1380
14	107	54	VN30010.1400	VN30045.1400

VN10010 · VN10015 DIN 338

Usage



typ N | N | 118° | λ=25° – 30° | RH | HSS

typ N | C | 128° | λ=25° – 30° | RH | HSS Co5

VN10010

VN10015

ØD	L	l	CODE	CODE
0,3	19	4	VN10010.0030	
0,32	19	4	VN10010.0032	
0,35	19	4	VN10010.0035	
0,38	19	4	VN10010.0038	
0,4	20	5	VN10010.0040	
0,42	20	5	VN10010.0042	
0,45	20	5	VN10010.0045	
0,48	20	5	VN10010.0048	
0,5	22	6	VN10010.0050	
0,52	22	6	VN10010.0052	
0,55	24	7	VN10010.0055	
0,58	24	7	VN10010.0058	
0,6	24	7	VN10010.0060	
0,62	26	8	VN10010.0062	
0,65	26	8	VN10010.0065	
0,68	28	9	VN10010.0068	
0,7	28	9	VN10010.0070	
0,72	28	9	VN10010.0072	
0,75	28	9	VN10010.0075	
0,78	30	10	VN10010.0078	
0,8	30	10	VN10010.0080	
0,82	30	10	VN10010.0082	
0,85	30	10	VN10010.0085	
0,88	32	11	VN10010.0088	
0,9	32	11	VN10010.0090	
0,92	32	11	VN10010.0092	
0,95	32	11	VN10010.0095	
0,98	34	12	VN10010.0098	
1	34	12	VN10010.0100	VN10015.0100
1,05	34	12	VN10010.0105	
1,1	36	14	VN10010.0110	VN10015.0110
1,15	36	14	VN10010.0115	

ØD	L	l	CODE	CODE
1,2	38	16	VN10010.0120	VN10015.0120
1,25	38	16	VN10010.0125	
1,3	38	16	VN10010.0130	VN10015.0130
1,35	40	18	VN10010.0135	
1,4	40	18	VN10010.0140	VN10015.0140
1,45	40	18	VN10010.0145	
1,5	40	18	VN10010.0150	VN10015.0150
1,55	43	20	VN10010.0155	
1,6	43	20	VN10010.0160	VN10015.0160
1,65	43	20	VN10010.0165	
1,7	43	20	VN10010.0170	VN10015.0170
1,75	46	22	VN10010.0175	
1,8	46	22	VN10010.0180	VN10015.0180
1,85	46	22	VN10010.0185	
1,9	46	22	VN10010.0190	VN10015.0190
1,95	49	24	VN10010.0195	
2	49	24	VN10010.0200	VN10015.0200
2,05	49	24	VN10010.0205	
2,1	49	24	VN10010.0210	VN10015.0210
2,15	53	27	VN10010.0215	
2,2	53	27	VN10010.0220	VN10015.0220
2,25	53	27	VN10010.0225	
2,3	53	27	VN10010.0230	VN10015.0230
2,35	53	27	VN10010.0235	
2,4	57	30	VN10010.0240	VN10015.0240
2,45	57	30	VN10010.0245	
2,5	57	30	VN10010.0250	VN10015.0250
2,55	57	30	VN10010.0255	
2,6	57	30	VN10010.0260	VN10015.0260
2,65	57	30	VN10010.0265	
2,7	61	33	VN10010.0270	VN10015.0270
2,75	61	33	VN10010.0275	

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Ø D	L	l	CODE	CODE
2,8	61	33	VN10010.0280	VN10015.0280
2,85	61	33	VN10010.0285	
2,9	61	33	VN10010.0290	VN10015.0290
2,95	61	33	VN10010.0295	
3	61	33	VN10010.0300	VN10015.0300
3,1	65	36	VN10010.0310	VN10015.0310
3,2	65	36	VN10010.0320	VN10015.0320
3,3	65	36	VN10010.0330	VN10015.0330
3,4	70	39	VN10010.0340	VN10015.0340
3,5	70	39	VN10010.0350	VN10015.0350
3,6	70	39	VN10010.0360	VN10015.0360
3,7	70	39	VN10010.0370	VN10015.0370
3,8	75	43	VN10010.0380	VN10015.0380
3,9	75	43	VN10010.0390	VN10015.0390
4	75	43	VN10010.0400	VN10015.0400
4,1	75	43	VN10010.0410	VN10015.0410
4,2	75	43	VN10010.0420	VN10015.0420
4,3	80	47	VN10010.0430	VN10015.0430
4,4	80	47	VN10010.0440	VN10015.0440
4,5	80	47	VN10010.0450	VN10015.0450
4,6	80	47	VN10010.0460	VN10015.0460
4,7	80	47	VN10010.0470	VN10015.0470
4,8	86	52	VN10010.0480	VN10015.0480
4,9	86	52	VN10010.0490	VN10015.0490
5	86	52	VN10010.0500	VN10015.0500
5,1	86	52	VN10010.0510	VN10015.0510
5,2	86	52	VN10010.0520	VN10015.0520
5,3	86	52	VN10010.0530	VN10015.0530
5,4	93	57	VN10010.0540	VN10015.0540
5,5	93	57	VN10010.0550	VN10015.0550
5,6	93	57	VN10010.0560	VN10015.0560
5,7	93	57	VN10010.0570	VN10015.0570
5,8	93	57	VN10010.0580	VN10015.0580
5,9	93	57	VN10010.0590	VN10015.0590
6	93	57	VN10010.0600	VN10015.0600
6,1	101	63	VN10010.0610	VN10015.0610
6,2	101	63	VN10010.0620	VN10015.0620
6,3	101	63	VN10010.0630	VN10015.0630
6,4	101	63	VN10010.0640	VN10015.0640
6,5	101	63	VN10010.0650	VN10015.0650
6,6	101	63	VN10010.0660	VN10015.0660
6,7	101	63	VN10010.0670	VN10015.0670
6,8	109	69	VN10010.0680	VN10015.0680
6,9	109	69	VN10010.0690	VN10015.0690
7	109	69	VN10010.0700	VN10015.0700
7,1	109	69	VN10010.0710	VN10015.0710
7,2	109	69	VN10010.0720	VN10015.0720
7,3	109	69	VN10010.0730	VN10015.0730

Ø D	L	l	CODE	CODE
7,4	109	69	VN10010.0740	VN10015.0740
7,5	109	69	VN10010.0750	VN10015.0750
7,6	117	75	VN10010.0760	VN10015.0760
7,7	117	75	VN10010.0770	VN10015.0770
7,8	117	75	VN10010.0780	VN10015.0780
7,9	117	75	VN10010.0790	VN10015.0790
8	117	75	VN10010.0800	VN10015.0800
8,1	117	75	VN10010.0810	VN10015.0810
8,2	117	75	VN10010.0820	VN10015.0820
8,3	117	75	VN10010.0830	VN10015.0830
8,4	117	75	VN10010.0840	VN10015.0840
8,5	117	75	VN10010.0850	VN10015.0850
8,6	125	81	VN10010.0860	VN10015.0860
8,7	125	81	VN10010.0870	VN10015.0870
8,8	125	81	VN10010.0880	VN10015.0880
8,9	125	81	VN10010.0890	VN10015.0890
9	125	81	VN10010.0900	VN10015.0900
9,1	125	81	VN10010.0910	VN10015.0910
9,2	125	81	VN10010.0920	VN10015.0920
9,3	125	81	VN10010.0930	VN10015.0930
9,4	125	81	VN10010.0940	VN10015.0940
9,5	125	81	VN10010.0950	VN10015.0950
9,6	133	87	VN10010.0960	VN10015.0960
9,7	133	87	VN10010.0970	VN10015.0970
9,8	133	87	VN10010.0980	VN10015.0980
9,9	133	87	VN10010.0990	VN10015.0990
10	133	87	VN10010.1000	VN10015.1000
10,1	133	87	VN10010.1010	
10,2	133	87	VN10010.1020	VN10015.1020
10,3	133	87	VN10010.1030	
10,4	133	87	VN10010.1040	
10,5	133	87	VN10010.1050	VN10015.1050
10,6	133	87	VN10010.1060	
10,7	142	94	VN10010.1070	
10,8	142	94	VN10010.1080	VN10015.1080
10,9	142	94	VN10010.1090	
11	142	94	VN10010.1100	VN10015.1100
11,1	142	94	VN10010.1110	
11,2	142	94	VN10010.1120	VN10015.1120
11,3	142	94	VN10010.1130	
11,4	142	94	VN10010.1140	
11,5	142	94	VN10010.1150	VN10015.1150
11,6	142	94	VN10010.1160	
11,7	142	94	VN10010.1170	
11,8	142	94	VN10010.1180	VN10015.1180
11,9	151	101	VN10010.1190	
12	151	101	VN10010.1200	VN10015.1200
12,1	151	101	VN10010.1210	

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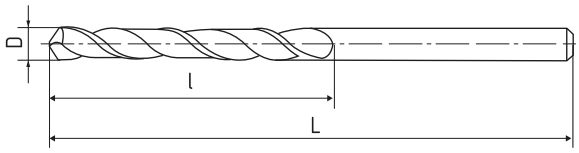
Ø D	L	l	CODE	CODE
12,2	151	101	VN10010.1220	VN10015.1220
12,3	151	101	VN10010.1230	
12,4	151	101	VN10010.1240	
12,5	151	101	VN10010.1250	VN10015.1250
12,6	151	101	VN10010.1260	
12,7	151	101	VN10010.1270	
12,8	151	101	VN10010.1280	VN10015.1280
12,9	151	101	VN10010.1290	
13	151	101	VN10010.1300	VN10015.1300
13,1	151	101	VN10010.1310	
13,2	151	101	VN10010.1320	VN10015.1320
13,3	160	108	VN10010.1330	
13,4	160	108	VN10010.1340	
13,5	160	108	VN10010.1350	VN10015.1350
13,6	160	108	VN10010.1360	
13,7	160	108	VN10010.1370	
13,8	160	108	VN10010.1380	VN10015.1380
13,9	160	108	VN10010.1390	
14	160	108	VN10010.1400	VN10015.1400
14,1	169	114	VN10010.1410	
14,2	169	114	VN10010.1420	
14,25	169	114	VN10010.1425	
14,3	169	114	VN10010.1430	
14,4	169	114	VN10010.1440	
14,5	169	114	VN10010.1450	VN10015.1450
14,6	169	114	VN10010.1460	
14,7	169	114	VN10010.1470	
14,75	169	114	VN10010.1475	
14,8	169	114	VN10010.1480	
14,9	169	114	VN10010.1490	
15	169	114	VN10010.1500	VN10015.1500
15,25	178	120	VN10010.1525	
15,5	178	120	VN10010.1550	VN10015.1550
15,75	178	120	VN10010.1575	
16	178	120	VN10010.1600	VN10015.1600
16,25	184	125	VN10010.1625	
16,5	184	125	VN10010.1650	VN10015.1650
16,75	184	125	VN10010.1675	
17	184	125	VN10010.1700	VN10015.1700
17,25	191	130	VN10010.1725	
17,5	191	130	VN10010.1750	VN10015.1750
17,75	191	130	VN10010.1775	
18	191	130	VN10010.1800	VN10015.1800
18,25	198	135	VN10010.1825	
18,5	198	135	VN10010.1850	VN10015.1850
18,75	198	135	VN10010.1875	
19	198	135	VN10010.1900	VN10015.1900
19,25	205	140	VN10010.1925	
19,5	205	140	VN10010.1950	VN10015.1950
19,75	205	140	VN10010.1975	
20	205	140	VN10010.2000	VN10015.2000

VN10085 · VN10018

DIN 338

Usage



typ Ti | C | 128° | λ=36° | RH | HSS Co5

typ H | C | 128° | λ=25° – 30° | RH | HSS Co8

new

VN10085

VN10018

ØD	L	l	CODE	CODE
1	34	12	VN10085.0100	
1,1	36	14	VN10085.0110	
1,2	38	16	VN10085.0120	
1,3	38	16	VN10085.0130	
1,4	40	18	VN10085.0140	
1,5	40	18	VN10085.0150	
1,6	43	20	VN10085.0160	
1,7	43	20	VN10085.0170	
1,8	46	22	VN10085.0180	
1,9	46	22	VN10085.0190	
2	49	24	VN10085.0200	
2,1	49	24	VN10085.0210	
2,2	53	27	VN10085.0220	
2,3	53	27	VN10085.0230	
2,4	57	30	VN10085.0240	
2,5	57	30	VN10085.0250	
2,6	57	30	VN10085.0260	
2,7	61	33	VN10085.0270	
2,8	61	33	VN10085.0280	
2,9	61	33	VN10085.0290	
3	61	33	VN10085.0300	VN10018.0300
3,1	65	36	VN10085.0310	
3,2	65	36	VN10085.0320	VN10018.0320
3,3	65	36	VN10085.0330	VN10018.0330
3,4	70	39	VN10085.0340	
3,5	70	39	VN10085.0350	VN10018.0350
3,6	70	39	VN10085.0360	
3,7	70	39	VN10085.0370	
3,8	75	43	VN10085.0380	
3,9	75	43	VN10085.0390	
4	75	43	VN10085.0400	VN10018.0400
4,1	75	43	VN10085.0410	

ØD	L	l	CODE	CODE
4,2	75	43	VN10085.0420	VN10018.0420
4,3	80	47	VN10085.0430	
4,4	80	47	VN10085.0440	
4,5	80	47	VN10085.0450	VN10018.0450
4,6	80	47	VN10085.0460	
4,7	80	47	VN10085.0470	
4,8	86	52	VN10085.0480	
4,9	86	52	VN10085.0490	
5	86	52	VN10085.0500	VN10018.0500
5,1	86	52	VN10085.0510	VN10018.0510
5,2	86	52	VN10085.0520	VN10018.0520
5,3	86	52	VN10085.0530	
5,4	93	57	VN10085.0540	
5,5	93	57	VN10085.0550	VN10018.0550
5,6	93	57	VN10085.0560	
5,7	93	57	VN10085.0570	
5,8	93	57	VN10085.0580	
5,9	93	57	VN10085.0590	
6	93	57	VN10085.0600	VN10018.0600
6,1	101	63	VN10085.0610	
6,2	101	63	VN10085.0620	
6,3	101	63	VN10085.0630	
6,4	101	63	VN10085.0640	
6,5	101	63	VN10085.0650	VN10018.0650
6,6	101	63	VN10085.0660	
6,7	101	63	VN10085.0670	
6,8	109	69	VN10085.0680	VN10018.0680
6,9	109	69	VN10085.0690	
7	109	69	VN10085.0700	VN10018.0700
7,1	109	69	VN10085.0710	
7,2	109	69	VN10085.0720	
7,3	109	69	VN10085.0730	

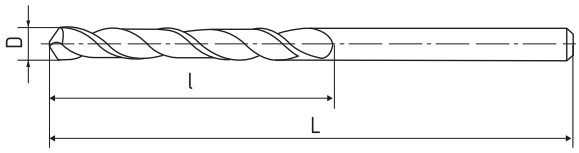
VN10085 · VN10018 DIN 338

Ø D	L	l	CODE	CODE
7,4	109	69	VN10085.0740	
7,5	109	69	VN10085.0750	VN10018.0750
7,6	117	75	VN10085.0760	
7,7	117	75	VN10085.0770	
7,8	117	75	VN10085.0780	
7,9	117	75	VN10085.0790	
8	117	75	VN10085.0800	VN10018.0800
8,1	117	75	VN10085.0810	
8,2	117	75	VN10085.0820	
8,3	117	75	VN10085.0830	
8,4	117	75	VN10085.0840	
8,5	117	75	VN10085.0850	VN10018.0850
8,6	125	81	VN10085.0860	
8,7	125	81	VN10085.0870	
8,8	125	81	VN10085.0880	
8,9	125	81	VN10085.0890	
9	125	81	VN10085.0900	VN10018.0900
9,1	125	81	VN10085.0910	
9,2	125	81	VN10085.0920	
9,3	125	81	VN10085.0930	
9,4	125	81	VN10085.0940	
9,5	125	81	VN10085.0950	VN10018.0950
9,6	133	87	VN10085.0960	
9,7	133	87	VN10085.0970	
9,8	133	87	VN10085.0980	
9,9	133	87	VN10085.0990	
10	133	87	VN10085.1000	VN10018.1000
10,2	133	87	VN10085.1020	
10,5	133	87	VN10085.1050	VN10018.1050
10,8	142	94	VN10085.1080	
11	142	94	VN10085.1100	VN10018.1100
11,2	142	94	VN10085.1120	
11,5	142	94	VN10085.1150	VN10018.1150
11,8	142	94	VN10085.1180	
12	151	101	VN10085.1200	VN10018.1200
12,2	151	101	VN10085.1220	
12,5	151	101	VN10085.1250	VN10018.1250
12,8	151	101	VN10085.1280	
13	151	101	VN10085.1300	VN10018.1300
13,2	151	101	VN10085.1320	
13,5	160	108	VN10085.1350	VN10018.1350
13,8	160	108	VN10085.1380	
14	160	108	VN10085.1400	VN10018.1400
14,5	169	114	VN10085.1450	VN10018.1450
15	169	114	VN10085.1500	VN10018.1500
15,5	178	120	VN10085.1550	VN10018.1550
16	178	120	VN10085.1600	VN10018.1600
16,5	184	125	VN10085.1650	VN10018.1650

Ø D	L	l	CODE	CODE
17	184	125	VN10085.1700	VN10018.1700
17,5	191	130	VN10085.1750	VN10018.1750
18	191	130	VN10085.1800	VN10018.1800
18,5	198	135	VN10085.1850	VN10018.1850
19	198	135	VN10085.1900	VN10018.1900
19,5	205	140	VN10085.1950	VN10018.1950
20	205	140	VN10085.2000	VN10018.2000

VN20010 · VN10015 DIN 340

Usage



typ N | N | 118° | λ=25° – 30° | RH | HSS

typ N | C | 128° | λ=25° – 30° | RH | HSS Co5

new

VN20010

VN20015

ØD	L	l	CODE	CODE
0,9	52	30	VN20010.0090	VN20015.0090
1	56	33	VN20010.0100	VN20015.0100
1,1	60	37	VN20010.0110	VN20015.0110
1,2	65	41	VN20010.0120	VN20015.0120
1,3	65	41	VN20010.0130	VN20015.0130
1,4	70	45	VN20010.0140	VN20015.0140
1,5	70	45	VN20010.0150	VN20015.0150
1,6	76	50	VN20010.0160	VN20015.0160
1,7	76	50	VN20010.0170	VN20015.0170
1,8	80	53	VN20010.0180	VN20015.0180
1,9	80	53	VN20010.0190	VN20015.0190
2	85	56	VN20010.0200	VN20015.0200
2,1	85	56	VN20010.0210	VN20015.0210
2,2	90	59	VN20010.0220	VN20015.0220
2,3	90	59	VN20010.0230	VN20015.0230
2,4	95	62	VN20010.0240	VN20015.0240
2,5	95	62	VN20010.0250	VN20015.0250
2,6	95	62	VN20010.0260	VN20015.0260
2,7	100	66	VN20010.0270	VN20015.0270
2,8	100	66	VN20010.0280	VN20015.0280
2,9	100	66	VN20010.0290	VN20015.0290
3	100	66	VN20010.0300	VN20015.0300
3,1	106	69	VN20010.0310	VN20015.0310
3,2	106	69	VN20010.0320	VN20015.0320
3,3	106	69	VN20010.0330	VN20015.0330
3,4	112	73	VN20010.0340	VN20015.0340
3,5	112	73	VN20010.0350	VN20015.0350
3,6	112	73	VN20010.0360	VN20015.0360
3,7	112	73	VN20010.0370	VN20015.0370
3,8	119	78	VN20010.0380	VN20015.0380
3,9	119	78	VN20010.0390	VN20015.0390
4	119	78	VN20010.0400	VN20015.0400

ØD	L	l	CODE	CODE
4,1	119	78	VN20010.0410	VN20015.0410
4,2	119	78	VN20010.0420	VN20015.0420
4,3	126	82	VN20010.0430	VN20015.0430
4,4	126	82	VN20010.0440	VN20015.0440
4,5	126	82	VN20010.0450	VN20015.0450
4,6	126	82	VN20010.0460	VN20015.0460
4,7	126	82	VN20010.0470	VN20015.0470
4,8	132	87	VN20010.0480	VN20015.0480
4,9	132	87	VN20010.0490	VN20015.0490
5	132	87	VN20010.0500	VN20015.0500
5,1	132	87	VN20010.0510	VN20015.0510
5,2	132	87	VN20010.0520	VN20015.0520
5,3	132	87	VN20010.0530	VN20015.0530
5,4	139	91	VN20010.0540	VN20015.0540
5,5	139	91	VN20010.0550	VN20015.0550
5,6	139	91	VN20010.0560	VN20015.0560
5,7	139	91	VN20010.0570	VN20015.0570
5,8	139	91	VN20010.0580	VN20015.0580
5,9	139	91	VN20010.0590	VN20015.0590
6	139	91	VN20010.0600	VN20015.0600
6,1	148	97	VN20010.0610	VN20015.0610
6,2	148	97	VN20010.0620	VN20015.0620
6,3	148	97	VN20010.0630	VN20015.0630
6,4	148	97	VN20010.0640	VN20015.0640
6,5	148	97	VN20010.0650	VN20015.0650
6,6	148	97	VN20010.0660	VN20015.0660
6,7	148	97	VN20010.0670	VN20015.0670
6,8	156	102	VN20010.0680	VN20015.0680
6,9	156	102	VN20010.0690	VN20015.0690
7	156	102	VN20010.0700	VN20015.0700
7,1	156	102	VN20010.0710	VN20015.0710
7,2	156	102	VN20010.0720	VN20015.0720

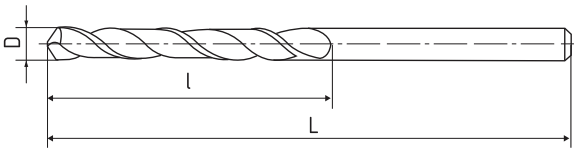
VN20010 · VN10015 DIN 340

Ø D	L	l	CODE	CODE
7,3	156	102	VN20010.0730	VN20015.0730
7,4	156	102	VN20010.0740	VN20015.0740
7,5	156	102	VN20010.0750	VN20015.0750
7,6	165	109	VN20010.0760	VN20015.0760
7,7	165	109	VN20010.0770	VN20015.0770
7,8	165	109	VN20010.0780	VN20015.0780
7,9	165	109	VN20010.0790	VN20015.0790
8	165	109	VN20010.0800	VN20015.0800
8,1	165	109	VN20010.0810	VN20015.0810
8,2	165	109	VN20010.0820	VN20015.0820
8,3	165	109	VN20010.0830	VN20015.0830
8,4	165	109	VN20010.0840	VN20015.0840
8,5	165	109	VN20010.0850	VN20015.0850
8,6	175	115	VN20010.0860	VN20015.0860
8,7	175	115	VN20010.0870	VN20015.0870
8,8	175	115	VN20010.0880	VN20015.0880
8,9	175	115	VN20010.0890	VN20015.0890
9	175	115	VN20010.0900	VN20015.0900
9,1	175	115	VN20010.0910	VN20015.0910
9,2	175	115	VN20010.0920	VN20015.0920
9,3	175	115	VN20010.0930	VN20015.0930
9,4	175	115	VN20010.0940	VN20015.0940
9,5	175	115	VN20010.0950	VN20015.0950
9,6	184	121	VN20010.0960	VN20015.0960
9,7	184	121	VN20010.0970	VN20015.0970
9,8	184	121	VN20010.0980	VN20015.0980
9,9	184	121	VN20010.0990	VN20015.0990
10	184	121	VN20010.1000	VN20015.1000
10,1	184	121	VN20010.1010	VN20015.1010
10,2	184	121	VN20010.1020	VN20015.1020
10,3	184	121	VN20010.1030	VN20015.1030
10,4	184	121	VN20010.1040	VN20015.1040
10,5	184	121	VN20010.1050	VN20015.1050
10,6	184	121	VN20010.1060	VN20015.1060
10,7	195	128	VN20010.1070	VN20015.1070
10,8	195	128	VN20010.1080	VN20015.1080
10,9	195	128	VN20010.1090	VN20015.1090
11	195	128	VN20010.1100	VN20015.1100
11,1	195	128	VN20010.1110	VN20015.1110
11,2	195	128	VN20010.1120	VN20015.1120
11,3	195	128	VN20010.1130	VN20015.1130
11,4	195	128	VN20010.1140	VN20015.1140
11,5	195	128	VN20010.1150	VN20015.1150
11,6	195	128	VN20010.1160	VN20015.1160
11,7	195	128	VN20010.1170	VN20015.1170
11,8	195	128	VN20010.1180	VN20015.1180
11,9	205	134	VN20010.1190	VN20015.1190
12	205	134	VN20010.1200	VN20015.1200

Ø D	L	l	CODE	CODE
12,1	205	134	VN20010.1210	VN20015.1210
12,2	205	134	VN20010.1220	VN20015.1220
12,3	205	134	VN20010.1230	VN20015.1230
12,4	205	134	VN20010.1240	VN20015.1240
12,5	205	134	VN20010.1250	VN20015.1250
12,6	205	134	VN20010.1260	VN20015.1260
12,7	205	134	VN20010.1270	VN20015.1270
12,8	205	134	VN20010.1280	VN20015.1280
12,9	205	134	VN20010.1290	VN20015.1290
13	205	134	VN20010.1300	VN20015.1300
13,1	205	134	VN20010.1310	VN20015.1310
13,2	205	134	VN20010.1320	VN20015.1320
13,3	214	140	VN20010.1330	VN20015.1330
13,4	214	140	VN20010.1340	VN20015.1340
13,5	214	140	VN20010.1350	VN20015.1350
13,6	214	140	VN20010.1360	VN20015.1360
13,7	214	140	VN20010.1370	VN20015.1370
13,8	214	140	VN20010.1380	VN20015.1380
13,9	214	140	VN20010.1390	VN20015.1390
14	214	140	VN20010.1400	VN20015.1400
14,25	220	144	VN20010.1425	
14,5	220	144	VN20010.1450	
14,75	220	144	VN20010.1475	
15	220	144	VN20010.1500	
15,25	227	149	VN20010.1525	
15,5	227	149	VN20010.1550	
15,75	227	149	VN20010.1575	
16	227	149	VN20010.1600	
16,25	235	154	VN20010.1625	
16,5	235	154	VN20010.1650	
16,75	235	154	VN20010.1675	
17	235	154	VN20010.1700	
17,25	241	158	VN20010.1725	
17,5	241	158	VN20010.1750	
17,75	241	158	VN20010.1775	
18	241	158	VN20010.1800	
18,25	247	162	VN20010.1825	
18,5	247	162	VN20010.1850	
18,75	247	162	VN20010.1875	
19	247	162	VN20010.1900	
19,25	254	166	VN20010.1925	
19,5	254	166	VN20010.1950	
19,75	254	166	VN20010.1975	
20	254	166	VN20010.2000	

VN60010 · VN70010 · VN80010 DIN 1869

Usage



new

typ N | C | 118° | λ=25° – 30° | RH | HSS

VN60010

VN70010

VN80010

Ø D	L	l	CODE
2	125	85	VN60010.0200
2,1	125	85	VN60010.0210
2,2	135	90	VN60010.0220
2,25	135	90	VN60010.0225
2,3	135	90	VN60010.0230
2,4	140	95	VN60010.0240
2,5	140	95	VN60010.0250
2,6	140	95	VN60010.0260
2,7	150	100	VN60010.0270
2,75	150	100	VN60010.0275
2,8	150	100	VN60010.0280
2,9	150	100	VN60010.0290
3	150	100	VN60010.0300
3,1	155	105	VN60010.0310
3,2	155	105	VN60010.0320
3,25	155	105	VN60010.0325
3,3	155	105	VN60010.0330
3,4	165	115	VN60010.0340
3,5	165	115	VN60010.0350
3,6	165	115	VN60010.0360
3,7	165	115	VN60010.0370
3,75	165	115	VN60010.0375
3,8	175	120	VN60010.0380
3,9	175	120	VN60010.0390
4	175	120	VN60010.0400
4,1	175	120	VN60010.0410
4,2	175	120	VN60010.0420
4,25	175	120	VN60010.0425
4,3	185	125	VN60010.0430
4,4	185	125	VN60010.0440
4,5	185	125	VN60010.0450
4,6	185	125	VN60010.0460

Ø D	L	l	CODE
2,7	190	130	VN70010.0270
2,75	190	130	VN70010.0275
2,8	190	130	VN70010.0280
2,9	190	130	VN70010.0290
3	190	130	VN70010.0300
3,1	200	135	VN70010.0310
3,2	200	135	VN70010.0320
3,25	200	135	VN70010.0325
3,3	200	135	VN70010.0330
3,4	210	145	VN70010.0340
3,5	210	145	VN70010.0350
3,6	210	145	VN70010.0360
3,7	210	145	VN70010.0370
3,75	210	145	VN70010.0375
3,8	220	150	VN70010.0380
3,9	220	150	VN70010.0390
4	220	150	VN70010.0400
4,1	220	150	VN70010.0410
4,2	220	150	VN70010.0420
4,25	220	150	VN70010.0425
4,3	235	160	VN70010.0430
4,4	235	160	VN70010.0440
4,5	235	160	VN70010.0450
4,6	235	160	VN70010.0460
4,7	235	160	VN70010.0470
4,75	235	160	VN70010.0475
4,8	245	170	VN70010.0480
4,9	245	170	VN70010.0490
5	245	170	VN70010.0500
5,1	245	170	VN70010.0510
5,2	245	170	VN70010.0520
5,25	245	170	VN70010.0525

Ø D	L	l	CODE
3,5	265	180	VN80010.0350
3,6	265	180	VN80010.0360
3,7	265	180	VN80010.0370
3,75	265	180	VN80010.0375
3,8	280	190	VN80010.0380
3,9	280	190	VN80010.0390
4	280	190	VN80010.0400
4,1	280	190	VN80010.0410
4,2	280	190	VN80010.0420
4,25	280	190	VN80010.0425
4,3	295	200	VN80010.0430
4,4	295	200	VN80010.0440
4,5	295	200	VN80010.0450
4,6	295	200	VN80010.0460
4,7	295	200	VN80010.0470
4,75	295	200	VN80010.0475
4,8	315	210	VN80010.0480
4,9	315	210	VN80010.0490
5	315	210	VN80010.0500
5,1	315	210	VN80010.0510
5,2	315	210	VN80010.0520
5,25	315	210	VN80010.0525
5,3	315	210	VN80010.0530
5,4	330	225	VN80010.0540
5,5	330	225	VN80010.0550
5,6	330	225	VN80010.0560
5,7	330	225	VN80010.0570
5,75	330	225	VN80010.0575
5,8	330	225	VN80010.0580
5,9	330	225	VN80010.0590
6	330	225	VN80010.0600
6,1	350	235	VN80010.0610

VN60010 · VN70010 · VN80010 DIN 1869

ØD	L	l	CODE
4,7	185	125	VN60010.0470
4,75	185	125	VN60010.0475
4,8	195	135	VN60010.0480
4,9	195	135	VN60010.0490
5	195	135	VN60010.0500
5,1	195	135	VN60010.0510
5,2	195	135	VN60010.0520
5,25	195	135	VN60010.0525
5,3	195	135	VN60010.0530
5,4	205	140	VN60010.0540
5,5	205	140	VN60010.0550
5,6	205	140	VN60010.0560
5,7	205	140	VN60010.0570
5,75	205	140	VN60010.0575
5,8	205	140	VN60010.0580
5,9	205	140	VN60010.0590
6	205	140	VN60010.0600
6,1	215	150	VN60010.0610
6,2	215	150	VN60010.0620
6,25	215	150	VN60010.0625
6,3	215	150	VN60010.0630
6,4	215	150	VN60010.0640
6,5	215	150	VN60010.0650
6,6	215	150	VN60010.0660
6,7	215	150	VN60010.0670
6,75	215	150	VN60010.0675
6,8	225	155	VN60010.0680
6,9	225	155	VN60010.0690
7	225	155	VN60010.0700
7,1	225	155	VN60010.0710
7,2	225	155	VN60010.0720
7,25	225	155	VN60010.0725
7,3	225	155	VN60010.0730
7,4	225	155	VN60010.0740
7,5	225	155	VN60010.0750
7,6	240	165	VN60010.0760
7,7	240	165	VN60010.0770
7,75	240	165	VN60010.0775
7,8	240	165	VN60010.0780
7,9	240	165	VN60010.0790
8	240	165	VN60010.0800
8,1	240	165	VN60010.0810
8,2	240	165	VN60010.0820
8,25	240	165	VN60010.0825
8,3	240	165	VN60010.0830
8,4	240	165	VN60010.0840
8,5	240	165	VN60010.0850
8,6	250	175	VN60010.0860
8,7	250	175	VN60010.0870
8,75	250	175	VN60010.0875
8,8	250	175	VN60010.0880

ØD	L	l	CODE
5,3	245	170	VN70010.0530
5,4	260	180	VN70010.0540
5,5	260	180	VN70010.0550
5,6	260	180	VN70010.0560
5,7	260	180	VN70010.0570
5,75	260	180	VN70010.0575
5,8	260	180	VN70010.0580
5,9	260	180	VN70010.0590
6	260	180	VN70010.0600
6,1	275	190	VN70010.0610
6,2	275	190	VN70010.0620
6,25	275	190	VN70010.0625
6,3	275	190	VN70010.0630
6,4	275	190	VN70010.0640
6,5	275	190	VN70010.0650
6,6	275	190	VN70010.0660
6,7	275	190	VN70010.0670
6,75	275	190	VN70010.0675
6,8	290	200	VN70010.0680
6,9	290	200	VN70010.0690
7	290	200	VN70010.0700
7,1	290	200	VN70010.0710
7,2	290	200	VN70010.0720
7,25	290	200	VN70010.0725
7,3	290	200	VN70010.0730
7,4	290	200	VN70010.0740
7,5	290	200	VN70010.0750
7,6	305	210	VN70010.0760
7,7	305	210	VN70010.0770
7,75	305	210	VN70010.0775
7,8	305	210	VN70010.0780
7,9	305	210	VN70010.0790
8	305	210	VN70010.0800
8,1	305	210	VN70010.0810
8,2	305	210	VN70010.0820
8,25	305	210	VN70010.0825
8,3	305	210	VN70010.0830
8,4	305	210	VN70010.0840
8,5	305	210	VN70010.0850
8,6	320	220	VN70010.0860
8,7	320	220	VN70010.0870
8,75	320	220	VN70010.0875
8,8	320	220	VN70010.0880
8,9	320	220	VN70010.0890
9	320	220	VN70010.0900
9,1	320	220	VN70010.0910
9,2	320	220	VN70010.0920
9,25	320	220	VN70010.0925

ØD	L	l	CODE
6,2	350	235	VN80010.0620
6,25	350	235	VN80010.0625
6,3	350	235	VN80010.0630
6,4	350	235	VN80010.0640
6,5	350	235	VN80010.0650
6,6	350	235	VN80010.0660
6,7	350	235	VN80010.0670
6,75	350	235	VN80010.0675
6,8	370	250	VN80010.0680
6,9	370	250	VN80010.0690
7	370	250	VN80010.0700
7,1	370	250	VN80010.0710
7,2	370	250	VN80010.0720
7,25	370	250	VN80010.0725
7,3	370	250	VN80010.0730
7,4	370	250	VN80010.0740
7,5	370	250	VN80010.0750
7,6	390	265	VN80010.0760
7,7	390	265	VN80010.0770
7,75	390	265	VN80010.0775
7,8	390	265	VN80010.0780
7,9	390	265	VN80010.0790
8	390	265	VN80010.0800
8,1	390	265	VN80010.0810
8,2	390	265	VN80010.0820
8,25	390	265	VN80010.0825
8,3	390	265	VN80010.0830
8,4	390	265	VN80010.0840
8,5	390	265	VN80010.0850
8,6	410	280	VN80010.0860
8,7	410	280	VN80010.0870
8,75	410	280	VN80010.0875
8,8	410	280	VN80010.0880
8,9	410	280	VN80010.0890
9	410	280	VN80010.0900
9,1	410	280	VN80010.0910
9,2	410	280	VN80010.0920
9,25	410	280	VN80010.0925
9,3	410	280	VN80010.0930
9,4	410	280	VN80010.0940
9,5	410	280	VN80010.0950
9,6	430	295	VN80010.0960
9,7	430	295	VN80010.0970
9,75	430	295	VN80010.0975
9,8	430	295	VN80010.0980
9,9	430	295	VN80010.0990
10	430	295	VN80010.1000
10,1	430	295	VN80010.1010

VN60010 · VN70010 · VN80010

DIN 1869

Ø D	L	l	CODE
8,9	250	175	VN60010.0890
9	250	175	VN60010.0900
9,1	250	175	VN60010.0910
9,2	250	175	VN60010.0920
9,25	250	175	VN60010.0925
9,3	250	175	VN60010.0930
9,4	250	175	VN60010.0940
9,5	250	175	VN60010.0950
9,6	265	185	VN60010.0960
9,7	265	185	VN60010.0970
9,75	265	185	VN60010.0975
9,8	265	185	VN60010.0980
9,9	265	185	VN60010.0990
10	265	185	VN60010.1000
10,1	265	185	VN60010.1010
10,2	265	185	VN60010.1020
10,25	265	185	VN60010.1025
10,3	265	185	VN60010.1030
10,4	265	185	VN60010.1040
10,5	265	185	VN60010.1050
10,6	265	185	VN60010.1060
10,7	280	195	VN60010.1070
10,75	280	195	VN60010.1075
10,8	280	195	VN60010.1080
10,9	280	195	VN60010.1090
11	280	195	VN60010.1100
11,1	280	195	VN60010.1110
11,2	280	195	VN60010.1120
11,25	280	195	VN60010.1125
11,3	280	195	VN60010.1130
11,4	280	195	VN60010.1140
11,5	280	195	VN60010.1150
11,6	280	195	VN60010.1160
11,7	280	195	VN60010.1170
11,75	280	195	VN60010.1175
11,8	280	195	VN60010.1180
11,9	295	205	VN60010.1190
12	295	205	VN60010.1200
12,1	295	205	VN60010.1210
12,2	295	205	VN60010.1220
12,25	295	205	VN60010.1225
12,3	295	205	VN60010.1230
12,4	295	205	VN60010.1240
12,5	295	205	VN60010.1250
12,6	295	205	VN60010.1260
12,7	295	205	VN60010.1270
12,75	295	205	VN60010.1275
12,8	295	205	VN60010.1280
12,9	295	205	VN60010.1290
13	295	205	VN60010.1300

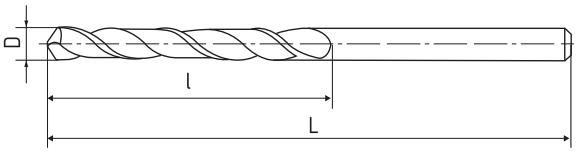
Ø D	L	l	CODE
9,3	320	220	VN70010.0930
9,4	320	220	VN70010.0940
9,5	320	220	VN70010.0950
9,6	340	235	VN70010.0960
9,7	340	235	VN70010.0970
9,75	340	235	VN70010.0975
9,8	340	235	VN70010.0980
9,9	340	235	VN70010.0990
10	340	235	VN70010.1000
10,1	340	235	VN70010.1010
10,2	340	235	VN70010.1020
10,25	340	235	VN70010.1025
10,3	340	235	VN70010.1030
10,4	340	235	VN70010.1040
10,5	340	235	VN70010.1050
10,6	340	235	VN70010.1060
10,7	365	250	VN70010.1070
10,75	365	250	VN70010.1075
10,8	365	250	VN70010.1080
10,9	365	250	VN70010.1090
11	365	250	VN70010.1100
11,1	365	250	VN70010.1110
11,2	365	250	VN70010.1120
11,25	365	250	VN70010.1125
11,3	365	250	VN70010.1130
11,4	365	250	VN70010.1140
11,5	365	250	VN70010.1150
11,6	365	250	VN70010.1160
11,7	365	250	VN70010.1170
11,75	365	250	VN70010.1175
11,8	365	250	VN70010.1180
11,9	375	260	VN70010.1190
12	375	260	VN70010.1200
12,1	375	260	VN70010.1210
12,2	375	260	VN70010.1220
12,25	375	260	VN70010.1225
12,3	375	260	VN70010.1230
12,4	375	260	VN70010.1240
12,5	375	260	VN70010.1250
12,6	375	260	VN70010.1260
12,7	375	260	VN70010.1270
12,75	375	260	VN70010.1275
12,8	375	260	VN70010.1280
12,9	375	260	VN70010.1290
13	375	260	VN70010.1300

Ø D	L	l	CODE
10,2	430	295	VN80010.1020
10,25	430	295	VN80010.1025
10,3	430	295	VN80010.1030
10,4	430	295	VN80010.1040
10,5	430	295	VN80010.1050
10,6	430	295	VN80010.1060
10,7	455	310	VN80010.1070
10,75	455	310	VN80010.1075
10,8	455	310	VN80010.1080
10,9	455	310	VN80010.1090
11	455	310	VN80010.1100
11,1	455	310	VN80010.1110
11,2	455	310	VN80010.1120
11,25	455	310	VN80010.1125
11,3	455	310	VN80010.1130
11,4	455	310	VN80010.1140
11,5	455	310	VN80010.1150
11,6	455	310	VN80010.1160
11,7	455	310	VN80010.1170
11,75	455	310	VN80010.1175
11,8	455	310	VN80010.1180
11,9	480	330	VN80010.1190
12	480	330	VN80010.1200
12,1	480	330	VN80010.1210
12,2	480	330	VN80010.1220
12,25	480	330	VN80010.1225
12,3	480	330	VN80010.1230
12,4	480	330	VN80010.1240
12,5	480	330	VN80010.1250
12,6	480	330	VN80010.1260
12,7	480	330	VN80010.1270
12,75	480	330	VN80010.1275
12,8	480	330	VN80010.1280
12,9	480	330	VN80010.1290
13	480	330	VN80010.1300

VN60045 · VN70045 · VN80045

DIN 1869

Usage



new

typ GT100 | C | 128° | λ=39° | RH | HSS Co5

VN60045

VN70045

VN80045

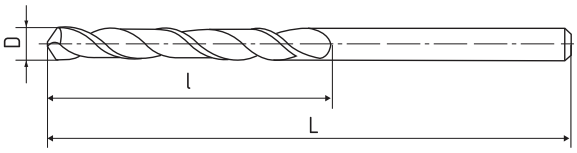
Ø D	L	l	CODE
2	125	85	VN60045.0200
2,2	135	90	VN60045.0220
2,5	140	95	VN60045.0250
2,8	150	100	VN60045.0280
3	150	100	VN60045.0300
3,2	155	105	VN60045.0320
3,5	165	115	VN60045.0350
3,8	175	120	VN60045.0380
4	175	120	VN60045.0400
4,2	175	120	VN60045.0420
4,5	185	125	VN60045.0450
4,8	195	135	VN60045.0480
5	195	135	VN60045.0500
5,2	195	135	VN60045.0520
5,5	205	140	VN60045.0550
5,8	205	140	VN60045.0580
6	205	140	VN60045.0600
6,5	215	150	VN60045.0650
7	225	155	VN60045.0700
7,5	225	155	VN60045.0750
8	240	165	VN60045.0800
8,5	240	165	VN60045.0850
9	250	175	VN60045.0900
9,5	250	175	VN60045.0950
10	265	185	VN60045.1000
10,5	265	185	VN60045.1050
11	280	195	VN60045.1100
11,5	280	195	VN60045.1150
12	295	205	VN60045.1200
12,5	295	205	VN60045.1250
13	295	205	VN60045.1300

Ø D	L	l	CODE
2,8	190	130	VN70045.0280
3	190	130	VN70045.0300
3,2	200	135	VN70045.0320
3,5	210	145	VN70045.0350
3,8	220	150	VN70045.0380
4	220	150	VN70045.0400
4,2	220	150	VN70045.0420
4,5	235	160	VN70045.0450
4,8	245	170	VN70045.0480
5	245	170	VN70045.0500
5,2	245	170	VN70045.0520
5,5	260	180	VN70045.0550
5,8	260	180	VN70045.0580
6	260	180	VN70045.0600
6,5	275	190	VN70045.0650
7	290	200	VN70045.0700
7,5	290	200	VN70045.0750
8	305	210	VN70045.0800
8,5	305	210	VN70045.0850
9	320	220	VN70045.0900
9,5	320	220	VN70045.0950
10	340	235	VN70045.1000
10,5	340	235	VN70045.1050
11	365	250	VN70045.1100
11,5	365	250	VN70045.1150
12	375	260	VN70045.1200
12,5	375	260	VN70045.1250
13	375	260	VN70045.1300

Ø D	L	l	CODE
3,5	265	180	VN80045.0350
3,8	280	190	VN80045.0380
4	280	190	VN80045.0400
4,2	280	190	VN80045.0420
4,5	295	200	VN80045.0450
4,8	315	210	VN80045.0480
5	315	210	VN80045.0500
5,2	315	210	VN80045.0520
5,5	330	225	VN80045.0550
5,8	330	225	VN80045.0580
6	330	225	VN80045.0600
6,5	350	235	VN80045.0650
7	370	250	VN80045.0700
7,5	370	250	VN80045.0750
8	390	265	VN80045.0800
8,5	390	265	VN80045.0850
9	410	280	VN80045.0900
9,5	410	280	VN80045.0950
10	430	295	VN80045.1000
10,5	430	295	VN80045.1050
11	455	310	VN80045.1100
11,5	455	310	VN80045.1150
12	480	330	VN80045.1200
12,5	480	330	VN80045.1250
13	480	330	VN80045.1300

VN50115 · VN50105

Usage



new

VN50115

VN50105

Ø D	L	l	CODE	CODE
3	46	12	VN50115.0300	VN50105.0300
4	55	12	VN50115.0400	VN50105.0400
5	62	14	VN50115.0500	VN50105.0500
6	66	16	VN50115.0600	VN50105.0600
8	79	21	VN50115.0800	VN50105.0800
10	89	25	VN50115.1000	VN50105.1000
12	102	30	VN50115.1200	VN50105.1200
14	107	34	VN50115.1400	VN50105.1400
16	115	38	VN50115.1600	VN50105.1600
20	131	45	VN50115.2000	VN50105.2000
25	151	53	VN50115.2500	VN50105.2500

SETS OF TWIST DRILLS

10010.04
10085.04

19 ks – 19 pcs – 19 Szt

ø 1,0 – 10,0 à 0,5 mm

10010.05
10085.05

25 ks – 25 pcs – 25 Szt

ø 1,0 – 13,0 à 0,5 mm

10010.06
10085.06

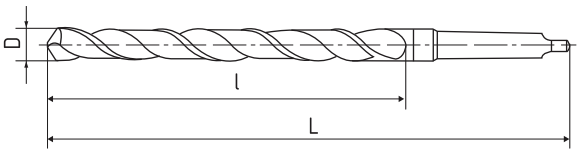
81 ks – 81 pcs – 81 Szt

ø 2,0 – 10,0 à 0,1 mm

VK10010 · VK10015

DIN 345

Usage



typ N | N | A | 118° | λ=25° – 30° | RH | HSS | PAS

D≤14 D>14

typ N | N | 128° | λ=25° – 30° | RH | HSS Co5

new

VK10010

VK10015

ØD	L	l	CODE	CODE
2	108	24	VK10010.0200	
2,2	108	27	VK10010.0220	
2,5	111	30	VK10010.0250	
2,8	114	33	VK10010.0280	
3	114	33	VK10010.0300	
3,2	117	36	VK10010.0320	
3,5	120	39	VK10010.0350	
3,8	124	43	VK10010.0380	
4	124	43	VK10010.0400	
4,2	124	43	VK10010.0420	
4,5	128	47	VK10010.0450	
4,8	133	52	VK10010.0480	
5	133	52	VK10010.0500	VK10015.0500
5,1	133	52	VK10010.0510	
5,2	133	52	VK10010.0520	
5,25	133	52	VK10010.0525	
5,3	133	52	VK10010.0530	
5,4	138	57	VK10010.0540	
5,5	138	57	VK10010.0550	VK10015.0550
5,6	138	57	VK10010.0560	
5,7	138	57	VK10010.0570	
5,75	138	57	VK10010.0575	
5,8	138	57	VK10010.0580	
5,9	138	57	VK10010.0590	
6	138	57	VK10010.0600	VK10015.0600
6,1	144	63	VK10010.0610	
6,2	144	63	VK10010.0620	
6,25	144	63	VK10010.0625	
6,3	144	63	VK10010.0630	
6,4	144	63	VK10010.0640	
6,5	144	63	VK10010.0650	VK10015.0650
6,6	144	63	VK10010.0660	
6,7	144	63	VK10010.0670	
6,75	150	69	VK10010.0675	

ØD	L	l	CODE	CODE
6,8	150	69	VK10010.0680	
6,9	150	69	VK10010.0690	
7	150	69	VK10010.0700	VK10015.0700
7,1	150	69	VK10010.0710	
7,2	150	69	VK10010.0720	
7,25	150	69	VK10010.0725	
7,3	150	69	VK10010.0730	
7,4	150	69	VK10010.0740	
7,5	150	69	VK10010.0750	VK10015.0750
7,6	156	75	VK10010.0760	
7,7	156	75	VK10010.0770	
7,75	156	75	VK10010.0775	
7,8	156	75	VK10010.0780	
7,9	156	75	VK10010.0790	
8	156	75	VK10010.0800	VK10015.0800
8,1	156	75	VK10010.0810	
8,2	156	75	VK10010.0820	
8,25	156	75	VK10010.0825	
8,3	156	75	VK10010.0830	
8,4	156	75	VK10010.0840	
8,5	156	75	VK10010.0850	VK10015.0850
8,6	162	81	VK10010.0860	
8,7	162	81	VK10010.0870	
8,75	162	81	VK10010.0875	
8,8	162	81	VK10010.0880	
8,9	162	81	VK10010.0890	
9	162	81	VK10010.0900	VK10015.0900
9,1	162	81	VK10010.0910	
9,2	162	81	VK10010.0920	
9,25	162	81	VK10010.0925	
9,3	162	81	VK10010.0930	
9,4	162	81	VK10010.0940	
9,5	162	81	VK10010.0950	VK10015.0950
9,6	168	87	VK10010.0960	

VK10010 · VK10015 DIN 345

Ø D	L	l	CODE	CODE
9,7	168	87	VK10010.0970	
9,75	168	87	VK10010.0975	
9,8	168	87	VK10010.0980	
9,9	168	87	VK10010.0990	
10	168	87	VK10010.1000	VK10015.1000
10,1	168	87	VK10010.1010	
10,2	168	87	VK10010.1020	
10,25	168	87	VK10010.1025	
10,3	168	87	VK10010.1030	
10,4	168	87	VK10010.1040	
10,5	168	87	VK10010.1050	VK10015.1050
10,6	168	87	VK10010.1060	
10,7	175	94	VK10010.1070	
10,75	175	94	VK10010.1075	
10,8	175	94	VK10010.1080	
10,9	175	94	VK10010.1090	
11	175	94	VK10010.1100	VK10015.1100
11,1	175	94	VK10010.1110	
11,2	175	94	VK10010.1120	
11,25	175	94	VK10010.1125	
11,3	175	94	VK10010.1130	
11,4	175	94	VK10010.1140	
11,5	175	94	VK10010.1150	VK10015.1150
11,6	175	94	VK10010.1160	
11,7	175	94	VK10010.1170	
11,75	175	94	VK10010.1175	
11,8	175	94	VK10010.1180	
11,9	182	101	VK10010.1190	
12	182	101	VK10010.1200	VK10015.1200
12,1	182	101	VK10010.1210	
12,2	182	101	VK10010.1220	
12,25	182	101	VK10010.1225	
12,3	182	101	VK10010.1230	
12,4	182	101	VK10010.1240	
12,5	182	101	VK10010.1250	VK10015.1250
12,6	182	101	VK10010.1260	
12,7	182	101	VK10010.1270	
12,75	182	101	VK10010.1275	
12,8	182	101	VK10010.1280	
12,9	182	101	VK10010.1290	
13	182	101	VK10010.1300	VK10015.1300
13,1	182	101	VK10010.1310	
13,2	182	101	VK10010.1320	
13,25	189	108	VK10010.1325	
13,3	189	108	VK10010.1330	
13,4	189	108	VK10010.1340	
13,5	189	108	VK10010.1350	VK10015.1350
13,6	189	108	VK10010.1360	
13,7	189	108	VK10010.1370	
13,75	189	108	VK10010.1375	
13,8	189	108	VK10010.1380	

Ø D	L	l	CODE	CODE
13,9	189	108	VK10010.1390	
14	189	108	VK10010.1400	VK10015.1400
14,25	212	114	VK10010.1425	
14,5	212	114	VK10010.1450	VK10015.1450
14,75	212	114	VK10010.1475	
15	212	114	VK10010.1500	VK10015.1500
15,25	218	120	VK10010.1525	
15,5	218	120	VK10010.1550	VK10015.1550
15,75	218	120	VK10010.1575	
16	218	120	VK10010.1600	VK10015.1600
16,25	223	125	VK10010.1625	
16,5	223	125	VK10010.1650	VK10015.1650
16,75	223	125	VK10010.1675	
17	223	125	VK10010.1700	VK10015.1700
17,25	228	130	VK10010.1725	
17,5	228	130	VK10010.1750	VK10015.1750
17,75	228	130	VK10010.1775	
18	228	130	VK10010.1800	VK10015.1800
18,25	233	135	VK10010.1825	
18,5	233	135	VK10010.1850	VK10015.1850
18,75	233	135	VK10010.1875	
19	233	135	VK10010.1900	VK10015.1900
19,25	238	140	VK10010.1925	
19,5	238	140	VK10010.1950	VK10015.1950
19,75	238	140	VK10010.1975	
20	238	140	VK10010.2000	VK10015.2000
20,25	243	145	VK10010.2025	
20,5	243	145	VK10010.2050	VK10015.2050
20,75	243	145	VK10010.2075	
21	243	145	VK10010.2100	VK10015.2100
21,25	248	150	VK10010.2125	
21,5	248	150	VK10010.2150	VK10015.2150
21,75	248	150	VK10010.2175	
22	248	150	VK10010.2200	VK10015.2200
22,25	248	150	VK10010.2225	
22,5	253	155	VK10010.2250	VK10015.2250
22,75	253	155	VK10010.2275	
23	253	155	VK10010.2300	VK10015.2300
23,25	276	155	VK10010.2325	
23,5	276	155	VK10010.2350	VK10015.2350
23,75	281	160	VK10010.2375	
24	281	160	VK10010.2400	VK10015.2400
24,25	281	160	VK10010.2425	
24,5	281	160	VK10010.2450	VK10015.2450
24,75	281	160	VK10010.2475	
25	281	160	VK10010.2500	VK10015.2500
25,25	286	165	VK10010.2525	
25,5	286	165	VK10010.2550	VK10015.2550
25,75	286	165	VK10010.2575	
26	286	165	VK10010.2600	VK10015.2600
26,25	286	165	VK10010.2625	

VK10010 · VK10015 DIN 345

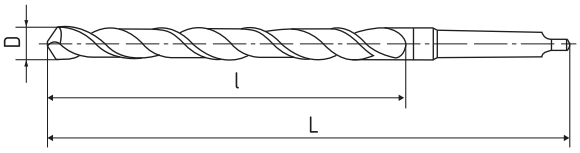
Ø D	L	l	CODE	CODE
26,5	286	165	VK10010.2650	VK10015.2650
26,75	291	170	VK10010.2675	
27	291	170	VK10010.2700	VK10015.2700
27,25	291	170	VK10010.2725	
27,5	291	170	VK10010.2750	VK10015.2750
27,75	291	170	VK10010.2775	
28	291	170	VK10010.2800	VK10015.2800
28,25	296	175	VK10010.2825	
28,5	296	175	VK10010.2850	VK10015.2850
28,75	296	175	VK10010.2875	
29	296	175	VK10010.2900	VK10015.2900
29,25	296	175	VK10010.2925	
29,5	296	175	VK10010.2950	VK10015.2950
29,75	296	175	VK10010.2975	
30	296	175	VK10010.3000	VK10015.3000
30,25	301	180	VK10010.3025	
30,5	301	180	VK10010.3050	VK10015.3050
30,75	301	180	VK10010.3075	
31	301	180	VK10010.3100	VK10015.3100
31,25	301	180	VK10010.3125	
31,5	301	180	VK10010.3150	VK10015.3150
31,75	306	185	VK10010.3175	
32	334	185	VK10010.3200	VK10015.3200
32,5	334	185	VK10010.3250	VK10015.3250
33	334	185	VK10010.3300	VK10015.3300
33,5	334	185	VK10010.3350	VK10015.3350
34	339	190	VK10010.3400	VK10015.3400
34,5	339	190	VK10010.3450	VK10015.3450
35	339	190	VK10010.3500	VK10015.3500
35,5	339	190	VK10010.3550	VK10015.3550
36	344	195	VK10010.3600	VK10015.3600
36,5	344	195	VK10010.3650	VK10015.3650
37	344	195	VK10010.3700	VK10015.3700
37,5	344	195	VK10010.3750	VK10015.3750
38	349	200	VK10010.3800	VK10015.3800
38,5	349	200	VK10010.3850	VK10015.3850
39	349	200	VK10010.3900	VK10015.3900
39,5	349	200	VK10010.3950	VK10015.3950
40	349	200	VK10010.4000	VK10015.4000
40,5	354	205	VK10010.4050	VK10015.4050
41	354	205	VK10010.4100	VK10015.4100
41,5	354	205	VK10010.4150	VK10015.4150
42	354	205	VK10010.4200	VK10015.4200
42,5	354	205	VK10010.4250	VK10015.4250
43	359	210	VK10010.4300	VK10015.4300
43,5	359	210	VK10010.4350	VK10015.4350
44	359	210	VK10010.4400	VK10015.4400
44,5	359	210	VK10010.4450	VK10015.4450
45	359	210	VK10010.4500	VK10015.4500
45,5	364	215	VK10010.4550	VK10015.4550
46	364	215	VK10010.4600	VK10015.4600

Ø D	L	l	CODE	CODE
46,5	364	215	VK10010.4650	VK10015.4650
47	364	215	VK10010.4700	VK10015.4700
47,5	364	215	VK10010.4750	VK10015.4750
48	369	220	VK10010.4800	VK10015.4800
48,5	369	220	VK10010.4850	VK10015.4850
49	369	220	VK10010.4900	VK10015.4900
49,5	369	220	VK10010.4950	VK10015.4950
50	369	220	VK10010.5000	VK10015.5000
50,5	374	225	VK10010.5050	
51	412	225	VK10010.5100	
52	412	225	VK10010.5200	
53	412	225	VK10010.5300	
54	417	230	VK10010.5400	
55	417	230	VK10010.5500	
56	417	230	VK10010.5600	
57	422	235	VK10010.5700	
58	422	235	VK10010.5800	
59	422	235	VK10010.5900	
60	422	235	VK10010.6000	
61	427	240	VK10010.6100	
62	427	240	VK10010.6200	
63	427	240	VK10010.6300	
64	432	245	VK10010.6400	
65	432	245	VK10010.6500	
66	432	245	VK10010.6600	
67	432	245	VK10010.6700	
68	437	250	VK10010.6800	
69	437	250	VK10010.6900	
70	437	250	VK10010.7000	
71	437	250	VK10010.7100	
72	442	255	VK10010.7200	
73	442	255	VK10010.7300	
74	442	255	VK10010.7400	
75	442	255	VK10010.7500	
76	447	260	VK10010.7600	
77	514	260	VK10010.7700	
78	514	260	VK10010.7800	
79	514	260	VK10010.7900	
80	514	260	VK10010.8000	
81	519	265	VK10010.8100	
82	519	265	VK10010.8200	
83	519	265	VK10010.8300	
84	519	265	VK10010.8400	
85	519	265	VK10010.8500	
86	524	270	VK10010.8600	
87	524	270	VK10010.8700	
88	524	270	VK10010.8800	
89	524	270	VK10010.8900	
90	524	270	VK10010.9000	

VK60010 · VK70010 · VK80010

DIN 341 DIN 1870

Usage



new

C A 118° λ=25° – 30° RH HSS

D≤14 D>14

VK60010

VK70010

VK80010

ØD	L	l	CODE
8	181	100	VK60010.0800
8,5	181	100	VK60010.0850
9	188	107	VK60010.0900
9,5	188	107	VK60010.0950
10	197	116	VK60010.1000
10,5	197	116	VK60010.1050
11	206	125	VK60010.1100
11,5	206	125	VK60010.1150
12	215	134	VK60010.1200
12,5	215	134	VK60010.1250
13	215	134	VK60010.1300
13,5	223	142	VK60010.1350
14	223	142	VK60010.1400
14,5	245	147	VK60010.1450
15	245	147	VK60010.1500
15,5	251	153	VK60010.1550
16	251	153	VK60010.1600
16,5	257	159	VK60010.1650
17	257	159	VK60010.1700
17,5	263	165	VK60010.1750
18	263	165	VK60010.1800
18,5	269	171	VK60010.1850
19	269	171	VK60010.1900
19,5	275	177	VK60010.1950
20	275	177	VK60010.2000
20,5	282	184	VK60010.2050
21	282	184	VK60010.2100
21,5	289	191	VK60010.2150
22	289	191	VK60010.2200
22,5	296	198	VK60010.2250
23	296	198	VK60010.2300
23,5	319	198	VK60010.2350

ØD	L	l	CODE
8	265	165	VK70010.0800
8,5	265	165	VK70010.0850
9	275	175	VK70010.0900
9,5	275	175	VK70010.0950
10	285	185	VK70010.1000
10,5	285	185	VK70010.1050
11	300	195	VK70010.1100
11,5	300	195	VK70010.1150
12	310	205	VK70010.1200
12,5	310	205	VK70010.1250
13	310	205	VK70010.1300
13,5	325	220	VK70010.1350
14	325	220	VK70010.1400
14,5	340	220	VK70010.1450
15	340	220	VK70010.1500
15,5	355	230	VK70010.1550
16	355	230	VK70010.1600
16,5	355	230	VK70010.1650
17	355	230	VK70010.1700
17,5	370	245	VK70010.1750
18	370	245	VK70010.1800
18,5	370	245	VK70010.1850
19	370	245	VK70010.1900
19,5	385	260	VK70010.1950
20	385	260	VK70010.2000
20,5	385	260	VK70010.2050
21	385	260	VK70010.2100
21,5	405	270	VK70010.2150
22	405	270	VK70010.2200
22,5	405	270	VK70010.2250
23	405	270	VK70010.2300
23,5	425	270	VK70010.2350

ØD	L	l	CODE
10	360	235	VK80010.1000
10,5	360	235	VK80010.1050
11	375	250	VK80010.1100
11,5	375	250	VK80010.1150
12	395	260	VK80010.1200
12,5	395	260	VK80010.1250
13	395	260	VK80010.1300
13,5	410	275	VK80010.1350
14	410	275	VK80010.1400
14,5	425	275	VK80010.1450
15	425	275	VK80010.1500
15,5	445	295	VK80010.1550
16	445	295	VK80010.1600
16,5	445	295	VK80010.1650
17	445	295	VK80010.1700
17,5	465	310	VK80010.1750
18	465	310	VK80010.1800
18,5	465	310	VK80010.1850
19	465	310	VK80010.1900
19,5	490	325	VK80010.1950
20	490	325	VK80010.2000
20,5	490	325	VK80010.2050
21	490	325	VK80010.2100
21,5	515	345	VK80010.2150
22	515	345	VK80010.2200
22,5	515	345	VK80010.2250
23	515	345	VK80010.2300
23,5	535	345	VK80010.2350
24	555	365	VK80010.2400
24,5	555	365	VK80010.2450
25	555	365	VK80010.2500
25,5	555	365	VK80010.2550

VK60010 · VK70010 · VK80010

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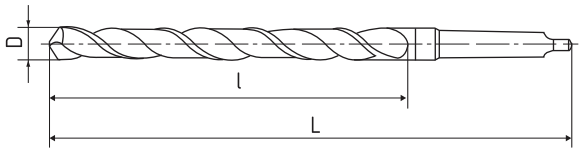
ØD	L	l	CODE
24	327	206	VK60010.2400
24,5	327	206	VK60010.2450
25	327	206	VK60010.2500
25,5	335	214	VK60010.2550
26	335	214	VK60010.2600
26,5	335	214	VK60010.2650
27	343	222	VK60010.2700
27,5	343	222	VK60010.2750
28	343	222	VK60010.2800
28,5	351	230	VK60010.2850
29	351	230	VK60010.2900
29,5	351	230	VK60010.2950
30	351	230	VK60010.3000
31	360	239	VK60010.3100
32	397	248	VK60010.3200
33	397	248	VK60010.3300
34	406	257	VK60010.3400
35	406	257	VK60010.3500
36	416	267	VK60010.3600
37	416	267	VK60010.3700
38	426	277	VK60010.3800
39	426	277	VK60010.3900
40	426	277	VK60010.4000
41	436	287	VK60010.4100
42	436	287	VK60010.4200
43	447	298	VK60010.4300
44	447	298	VK60010.4400
45	447	298	VK60010.4500
46	459	310	VK60010.4600
47	459	310	VK60010.4700
48	470	321	VK60010.4800
49	470	321	VK60010.4900
50	470	321	VK60010.5000

ØD	L	l	CODE
24	440	290	VK70010.2400
24,5	440	290	VK70010.2450
25	440	290	VK70010.2500
25,5	440	290	VK70010.2550
26	440	290	VK70010.2600
26,5	440	290	VK70010.2650
27	460	305	VK70010.2700
27,5	460	305	VK70010.2750
28	460	305	VK70010.2800
28,5	460	305	VK70010.2850
29	460	305	VK70010.2900
29,5	460	305	VK70010.2950
30	460	305	VK70010.3000
31	480	320	VK70010.3100
32	505	320	VK70010.3200
33	505	320	VK70010.3300
34	530	340	VK70010.3400
35	530	340	VK70010.3500
36	530	340	VK70010.3600
37	530	340	VK70010.3700
38	555	360	VK70010.3800
39	555	360	VK70010.3900
40	555	360	VK70010.4000
41	555	360	VK70010.4100
42	555	360	VK70010.4200
43	585	385	VK70010.4300
44	585	385	VK70010.4400
45	585	385	VK70010.4500
46	585	385	VK70010.4600
47	585	385	VK70010.4700
48	605	405	VK70010.4800
49	605	405	VK70010.4900
50	605	405	VK70010.5000

ØD	L	l	CODE
26	555	365	VK80010.2600
26,5	555	365	VK80010.2650
27	580	385	VK80010.2700
27,5	580	385	VK80010.2750
28	580	385	VK80010.2800
28,5	580	385	VK80010.2850
29	580	385	VK80010.2900
29,5	580	385	VK80010.2950
30	580	385	VK80010.3000
31	610	410	VK80010.3100
32	635	410	VK80010.3200
33	635	410	VK80010.3300
34	665	430	VK80010.3400
35	665	430	VK80010.3500
36	665	430	VK80010.3600
37	665	430	VK80010.3700
38	695	460	VK80010.3800
39	695	460	VK80010.3900
40	695	460	VK80010.4000
41	695	460	VK80010.4100
42	695	460	VK80010.4200
43	735	490	VK80010.4300
44	735	490	VK80010.4400
45	735	490	VK80010.4500
46	735	490	VK80010.4600
47	735	490	VK80010.4700
48	765	510	VK80010.4800
49	765	510	VK80010.4900
50	765	510	VK80010.5000

VK60045 · VK70045 · VK80045 DIN 341 DIN 1870

Usage



new

typ GT100 | C | 128° | λ=39° | RH | HSS Co5

VK60045

VK70045

VK80045

ØD	L	l	CODE
8	181	100	VK60045.0800
8,5	181	100	VK60045.0850
9	188	107	VK60045.0900
9,5	188	107	VK60045.0950
10	197	116	VK60045.1000
10,5	197	116	VK60045.1050
11	206	125	VK60045.1100
11,5	206	125	VK60045.1150
12	215	134	VK60045.1200
12,5	215	134	VK60045.1250
13	215	134	VK60045.1300
13,5	223	142	VK60045.1350
14	223	142	VK60045.1400
14,5	245	147	VK60045.1450
15	245	147	VK60045.1500
15,5	251	153	VK60045.1550
16	251	153	VK60045.1600
16,5	257	159	VK60045.1650
17	257	159	VK60045.1700
17,5	263	165	VK60045.1750
18	263	165	VK60045.1800
18,5	269	171	VK60045.1850
19	269	171	VK60045.1900
19,5	275	177	VK60045.1950
20	275	177	VK60045.2000

ØD	L	l	CODE
8	265	165	VK70045.0800
8,5	265	165	VK70045.0850
9	275	175	VK70045.0900
9,5	275	175	VK70045.0950
10	285	185	VK70045.1000
10,5	285	185	VK70045.1050
11	300	195	VK70045.1100
11,5	300	195	VK70045.1150
12	310	205	VK70045.1200
12,5	310	205	VK70045.1250
13	310	205	VK70045.1300
13,5	325	220	VK70045.1350
14	325	220	VK70045.1400
14,5	340	220	VK70045.1450
15	340	220	VK70045.1500
15,5	355	230	VK70045.1550
16	355	230	VK70045.1600
16,5	355	230	VK70045.1650
17	355	230	VK70045.1700
17,5	370	245	VK70045.1750
18	370	245	VK70045.1800
18,5	370	245	VK70045.1850
19	370	245	VK70045.1900
19,5	385	260	VK70045.1950
20	385	260	VK70045.2000

ØD	L	l	CODE
14	410	275	VK80045.1400
14,5	425	275	VK80045.1450
15	425	275	VK80045.1500
15,5	445	295	VK80045.1550
16	445	295	VK80045.1600
16,5	445	295	VK80045.1650
17	445	295	VK80045.1700
17,5	465	310	VK80045.1750
18	465	310	VK80045.1800
18,5	465	310	VK80045.1850
19	465	310	VK80045.1900
19,5	490	325	VK80045.1950
20	490	325	VK80045.2000

CLAMPING FEATURE

Plain straight shank acc. to DIN 1835 A

Straight shank with clamping flat (Weldon) acc. to DIN 1835 B

Morse taper shank acc. to DIN 228 A

Straight bore with standard keyway

Straight bore with standard keyway and driving slot

CUTTING EDGES OF TOOL

Cutting edges on the face and perimeter of the side and face cutter

Cutting edges on the perime-ter of the side and face cutter

Cutting edges on the face and perimeter of the angle cutter

Cutting edges on the perimeter of the angle cutter

Cutting edges on the perime-ter of the double angle cutter

CUTTING GEOMETRY

λ = Helix angle
γ = Rake angle

TYPE

Type N More information on page 116

FEED DIRECTION

Feed direction posibillity

MATERIAL OF TOOL

HSS Co8 More information on page 118

MAKE OF FACE CUTTING EDGES

acc. to CSN standard

acc. to DIN standard

MAKE OF PERIMETER CUTTING EDGES

Straight teeth

Staggered teeth

COATING

	Uncoated
	TiAlN coating More information on page 119, or www.liss.cz

POINT SHAPES

	For machining of soft materials, for example aluminium and non-ferrous metals
	Universal usage. Suitable for materials up to strength 900 MPa.
	Designed for milling (finishing) of materials of medium and higher strength (upto 1200 MPa). Surface roughness Ra 3,2; exceptionally even 1,6.
	For roughing operation and materials of lower and medium strength (upto 700 MPa), surface roughness Ra 12,5 an more.
	For roughing operation and materials of medium and higher strength (up to 1200 MPa), surface roughness Ra 6,3 and more.
	For machining of materials of lower and medium strength (upto 700 MPa), surface roughness Ra 3,2 and more, in common application can be applied as roughing and finishing tool at the same time
	For machining of materials of medium and higher strength (up to 1200 MPa), surface roughness Ra 3,2 and in common application can be applied as roughing and finishing tool at the same time
	Chip breaker - universal application for roughing

Mark	Standard				Chemical composition (%)						Hardness
	ČSN	DIN	EN	AISI	C	Cr	Mo	V	W	Co	
HSS	19 830	1.3343	ENHS 6–5–2	M 2	0,90	4,1	5,0	1,8	6,4		62–65HRc
HSSE	PN 422993		ENHS 6–5–3		1,15	4,1	3,1	3,1	6,5		63–67HRc
HSS Co5	19 852	1.3243	ENHS 6–5–2–5	M 35	0,92	4,1	5,0	1,9	6,4	4,8	63–67HRc
HSS Co8		1.3247	ENHS 2–10–1–8	M 42	1,10	3,9	9,2	1,2	1,4	7,8	63–68HRc
HSSE–PM			ENHS 6–5–3–8		1,28	4,2	5,0	3,1	6,4	8,5	64–67HRc

HSS	High speed steel of average performance, it is applicable especially for cutters of smaller diameters and for milling of materials up to the strength of 900 MPa
HSSE	Cast steel with very high performance and good toughness, applicable especially for tools of bigger diameters and side and face milling cutters.
HSS Co5	Very high performance high speed steel with good toughness for milling cutters and for milling of materials up to the strength of 1200 MPa.
HSS Co8	Extra high performance high speed steel with good toughness and great temperature resistance. it is applicable especially for milling of materials with high strength, austenitic steels, steels for warm working, etc.
HSSE PM	Extra high performance high speed steel produced by powder metallurgy. It has a homegenous structure resulting in higher dimension stability and longer tool life. It is applicable for machining of materials with very high strength and materials hard to machine, such as Titanium and its alloys. The milling cutters made from this material are delivered with AlTiN coating as a standard.
TiN	Standard, universal hard layer. In comparision with uncoated tools it provides 300-400% increase in tool life. We recommend cooling.
TiCN	Provides high hardness and at the same time good toughness. Its advantage is in low friction ratio. It is applicable for milling steels with high strength. It has a lower temperature stability - the cooling is necessary (for example with emulsion).
TiAlN	Its advantage is in high hardness in higher temperatures, good oxidation resistance and low temperature conductivity. Universal usage with emphasis on high-speed milling without cooling. Suitable for milling of hard materials.
AlTiN	Offers similar qualities as TiAlN, but even higher hardness. Substantial temperature stability. Designed for the most demanding applications. It provides excellent result mainly when combined with HSSE-PM steels (ASP 2030). The milling cutters manufactured from this steel are coated with AlTiN as standard.

In the table there are mentioned only the standard types of coatings that we offer.
End mills with TiAN coating are available on stock.
By your request and after a following consultation we are able to offer and supply complete coating solution for special use.
Such as : CrN, TiAN monolayer, nanocomposite layers μAlTiN, nACRo, nACo etc

Coating	Color	Nanohardness up to [GPa]	Thickness [μm]	Friction (fretting) coefficient*	Max. usage temperature [°C]
TiN	gold	24	1–7	0,55	600
TiCN	red–copper	32	1–4	0,2	400
TiAlN	violet–black	30	1–4	0,6	700
AlTiN	black	38	1–4	0,7	900

* coating–steel

TiN TiCN TiAlN AlTiN

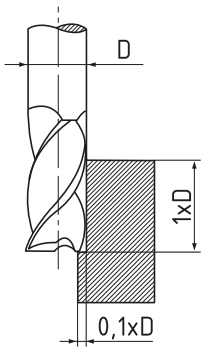
RECOMMENDED CUTTING SPEED

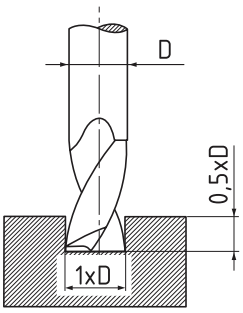
Group	Material	Strength	Example	v (m/min)			
				HSS	HSSE HSS Co5	HSS Co8	HSSE–PM +AlTiN
1	Free–cutting steels, general constr. steel	≤ 600 MPa	DIN 1.0037 DIN 1.0050 11 109 11 500	30	37,5	45	76
2	General construction steels, steel castings	≤ 850 MPa	DIN 1.0503 DIN 1.0070 12 050 422650	26	32,5	39	66
3	Tool steels low alloyed	**≤ 1100 MPa**	DIN 1.2711 19 662 422865		18	24	41
4	Heat treatable steels	≤ 900 MPa	DIN 1.5710 DIN 1.8159 16 240	20	25	30	51
5	Tool steels high alloyed	**≤ 1100 MPa**	DIN 1.3243 19 436		18	24	41
6	Tool and treated steels	**> 1100 MPa**	DIN 1.2343 15 241 15 260 19 552		16	20	34
7	Cast iron	≤ 240 HB	GG – 15 GG – 20 422415 422420	25	30	35	59
8	Cast iron	> 240 HB	GG – 30 422430	17	22	25	44
9	Corrosion– and acid–proof steels	≤ 850 MPa	DIN 1.4013 17 041		10	15	25
10	Chrome–nickel alloys	≤ 850 MPa	DIN 1.4301 DIN 2.4360 Nimonic Hasteloy B 17 242		8	12	21
11	Copper–zinc alloys, copper–tin alloys	≤ 800 MPa	DIN 2.0402 DIN 2.1080 423035 423018	50–90	60–100	80–120	120–200
12	Aluminium, Aluminium cast alloys Si	≤ 500 MPa	DIN 3.3211 424254 424203	140–240	160–250	160–300	240–450
13	Titanium, Titanium alloys Titan	**≤ 1200 MPa**	DIN 3.7124 DIN 3.7165 DIN 3.7185		9	12	20

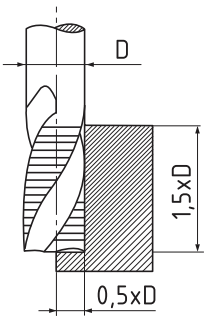
In case of using coatings it is possible to increase the cutting speed:

TiN	v x 1,3
TiCN	v x 1,4
TiAlN, AlTiN	v x 1,5

FOR END MILLS AND SLOT DRILLS – SHORT





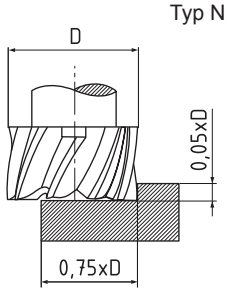
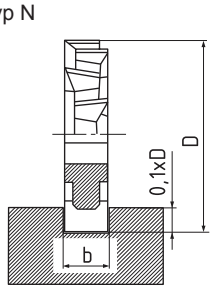
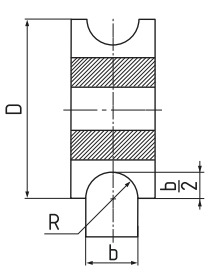
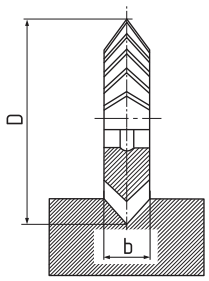


Diameter [mm]	Uncoated	Coated	Uncoated	Coated	Uncoated	Coated
2	0,003	0,003	0,006	0,007		
3	0,006	0,007	0,009	0,010		
4	0,008	0,009	0,013	0,014		
5	0,011	0,012	0,016	0,018		
6	0,015	0,017	0,022	0,024	0,020	0,022
8	0,021	0,023	0,029	0,032	0,025	0,028
10	0,028	0,031	0,036	0,040	0,035	0,039
12	0,034	0,037	0,044	0,048	0,040	0,044
14	0,040	0,044	0,051	0,056	0,060	0,066
16	0,044	0,048	0,058	0,064	0,070	0,077
18	0,051	0,056	0,065	0,072	0,080	0,088
20	0,057	0,063	0,073	0,080	0,090	0,100
22	0,063	0,069	0,080	0,088	0,095	0,105
25	0,071	0,078	0,091	0,100	0,100	0,110
28	0,080	0,088	0,102	0,112	0,110	0,121
32	0,091	0,100	0,116	0,128	0,120	0,132
36	0,100	0,110	0,130	0,140		
40	0,110	0,120	0,130	0,140		
45	0,120	0,130	0,130	0,140		
50	0,130	0,140	0,130	0,140		
63	0,140	0,150				

For the following groups of materials we recommend usage of ratio:

Group of materials	
	6, 10, 13 – **f_z x 0,7** 12 – **f_z x 1,3**

FOR SHELL END MILLS, SIDE AND FACE MILLING CUTTERS, HALF CIRCLE MILLING CUTTERS AND ANGULAR CUTTERS

	Typ N 		Typ N 				
Diameter [mm]	Uncoated	Coated	Uncoated	Coated	Uncoated (Nitrided)	Uncoated	Coated
40	0,080	0,088					
50	0,085	0,094	0,050	0,055	0,080	0,030	0,033
63	0,100	0,110	0,060	0,066	0,100	0,035	0,039
80	0,110	0,121	0,070	0,077	0,120	0,040	0,044
100	0,110	0,121	0,080	0,088	0,140	0,045	0,050
125	0,115	0,127	0,090	0,100	0,140		
160	0,120	0,132	0,090	0,100	0,140		
200			0,090	0,100			

For the following groups of materials we recommend usage of ratio:

Group of materials

*/ ≈ b = 10

6, 10, 13 – **f_z x 0,7**
12 – **f_z x 1,3**

FOR SHELL END MILLS, SIDE AND FACE MILLING CUTTERS, HALF CIRCLE MILLING CUTTERS AND ANGULAR CUTTERS

Cutting speed

$$v = \frac{D \cdot \pi \cdot n}{1000} \quad [m/min]$$

Revolutions

$$n = \frac{v \cdot 1000}{D \cdot \pi} \quad [1/min]$$

Rate of feed

$$s = f_z \cdot n \cdot z \quad [mm/min]$$

D… [mm]
diameter of milling cutters

f_z… [mm]
feed per tooth

z...

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
120517	HSSE PM	•	•	•	•	•	•	•		•	•		•	•
121517	HSSE PM	•	•	•	•	•	•	•		•	•		•	•
124517	HSSE PM	•	•		•			•		•				
125517	HSSE PM	•	•		•			•		•				
128517	HSSE PM			•		•	•		•		•			•
129517	HSSE PM			•		•	•		•		•			•
128517P	HSSE PM			•		•	•		•		•			•
100405	HSS Co5												•	
101405	HSS Co5												•	
104418P	HSS Co8	•	•	•	•	•		•				•		
110418	HSS Co8	•											•	
111418	HSS Co8	•											•	
120218K	HSS Co8	•	•	•	•					•		•		
124218K	HSS Co8	•	•		•							•		
120508 **120518**	HSS Co8	•	•	•	•		•	•		•	•		•	
121518	HSS Co8	•	•	•	•		•	•		•	•		•	
124518	HSS Co8	•	•		•			•		•				
125518	HSS Co8	•	•		•			•		•				
124518P	HSS Co8	•	•		•	•		•		•		•		
125518P	HSS Co8	•	•		•	•		•		•		•		
128518	HSS Co8			•		•			•		•			
129518	HSS Co8			•		•			•		•			
128518P	HSS Co8			•		•	•		•		•			
129518P	HSS Co8			•		•	•		•		•			
140205 **140215**	HSS Co5	•	•	•	•									
140208 **140218**	HSS Co8	•	•	•	•	•								
141205 **141215**	HSS Co5	•	•	•	•									
141208 **141218**	HSS Co8	•	•	•	•	•								
140418	HSS Co8	•	•	•	•	•		•			•	•		
140608 **140618**	HSS Co8	•	•	•	•	•		•			•	•		
160418	HSS Co8	•	•	•	•	•	•	•	•	•			•	
161418	HSS Co8	•	•	•	•	•	•	•	•	•			•	

SLOT DRILLS

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
220417	HSSE–PM	•	•	•	•	•	•	•	•	•		•	•	
230417	HSSE–PM	•	•	•	•	•	•	•	•	•		•	•	
220408 **220418**	HSS Co8	•	•	•	•	•		•	•	•		•	•	
221408 **221418**	HSS Co8	•	•	•	•	•		•	•	•		•	•	
230418	HSS Co8	•	•	•	•		•	•	•	•		•	•	•
231418	HSS Co8	•	•	•	•		•	•	•	•		•	•	•
240308	HSS Co8	•	•	•	•	•		•				•	•	
260545	HSS Co5	•	•	•	•			•				•	•	
270618	HSS Co8	•											•	

END MILLS WITH TAPER SHANK

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
410245	HSS Co5	•	•		•			•				•	•	
410940	HSS	•	•					•				•	•	
411245	HSS Co5	•	•		•			•				•	•	
411940	HSS	•	•					•				•	•	
420245	HSS Co5	•	•	•	•	•	•		•	•	•			
420940	HSS	•	•		•			•						
421245	HSS Co5	•	•	•	•	•	•		•	•	•			
421940	HSS	•	•		•			•						
422245	HSS Co5		•	•	•	•	•		•	•	•			
422940	HSS	•	•		•			•						
423245	HSS Co5		•	•	•	•	•		•	•	•			
423940	HSS	•	•		•			•						
424248	HSS Co8	•	•		•			•		•				
425248	HSS Co8	•	•		•			•		•				
430940	HSS		•	•	•	•			•	•	•			
431940	HSS		•	•	•	•			•	•	•			
440248	HSS Co8						•				•			•
441248	HSS Co8						•				•			•
442248	HSS Co8						•				•			•
443248	HSS Co8						•				•			•

DIE SINKING CUTTERS

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
510417	HSSE–PM	•	•	•	•	•	•	•	•	•	•	•		
510418	HSS Co8	•	•		•			•	•			•		
511418	HSS Co8	•	•		•			•	•			•		
530718	HSS Co8	•	•	•	•	•	•	•	•	•	•	•		
531718	HSS Co8	•	•	•	•	•	•	•	•	•	•	•		
580718	HSS Co8	•	•	•	•	•	•	•	•			•		

SHELL END MILLS

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
610275V	HSS Co5	•						•				•	•	
620275	HSS Co5	•	•	•	•	•			•	•				
620278V	HSS Co8	•	•	•	•	•			•	•				
624275	HSS Co5	•	•		•				•	•				
624278V	HSS Co8	•	•		•				•	•				
624278PV	HSS Co8	•	•		•				•	•				
628275	HSS Co5		•	•	•	•	•		•	•	•			
630275V	HSS Co5			•	•	•	•		•	•	•			
680275V	HSS Co5	•	•	•	•	•			•	•				
684275V	HSS Co5	•	•						•	•				
684275PV	HSS Co5	•	•		•				•	•				
690275V	HSS Co5			•	•	•	•		•	•	•			
610973	HSSE	•						•				•	•	
620973	HSSE	•	•	•	•	•			•	•				
630973	HSSE		•	•	•	•			•	•				

SIDE AND FACE CUTTERS

CODE	Material of tool	Group												
		1	2	3	4	5	6	7	8	9	10	11	12	13
		≤ 600 MPa	≤ 850 MPa	**≤ 1100 MPa**	≤ 900 MPa	**≤ 1100 MPa**	**>1100 MPa**	≤ 240 HB	>240 HB	≤ 850 MPa	≤ 850 MPa	≤ 800 MPa	≤ 500 MPa	**≤ 1200 MPa**
720275	HSS Co5	•	•					•				•	•	
726275	HSS Co5	•	•		•	•		•	•			•		
730270	HSS	•	•					•				•		
730275	HSS Co5	•	•		•	•		•	•	•		•		
730278	HSS Co8	•	•	•	•	•	•	•	•	•	•	•		•
736275	HSS Co5	•	•		•	•	•	•	•			•	•	
737275	HSS Co5	•	•		•	•	•	•	•	•		•		
739275	HSS Co5	•	•		•	•		•	•			•		
720373	HSSE	•	•					•				•	•	
730373	HSSE		•	•	•	•	•		•	•				
732373	HSSE		•	•	•	•	•		•	•				

ADD engineering