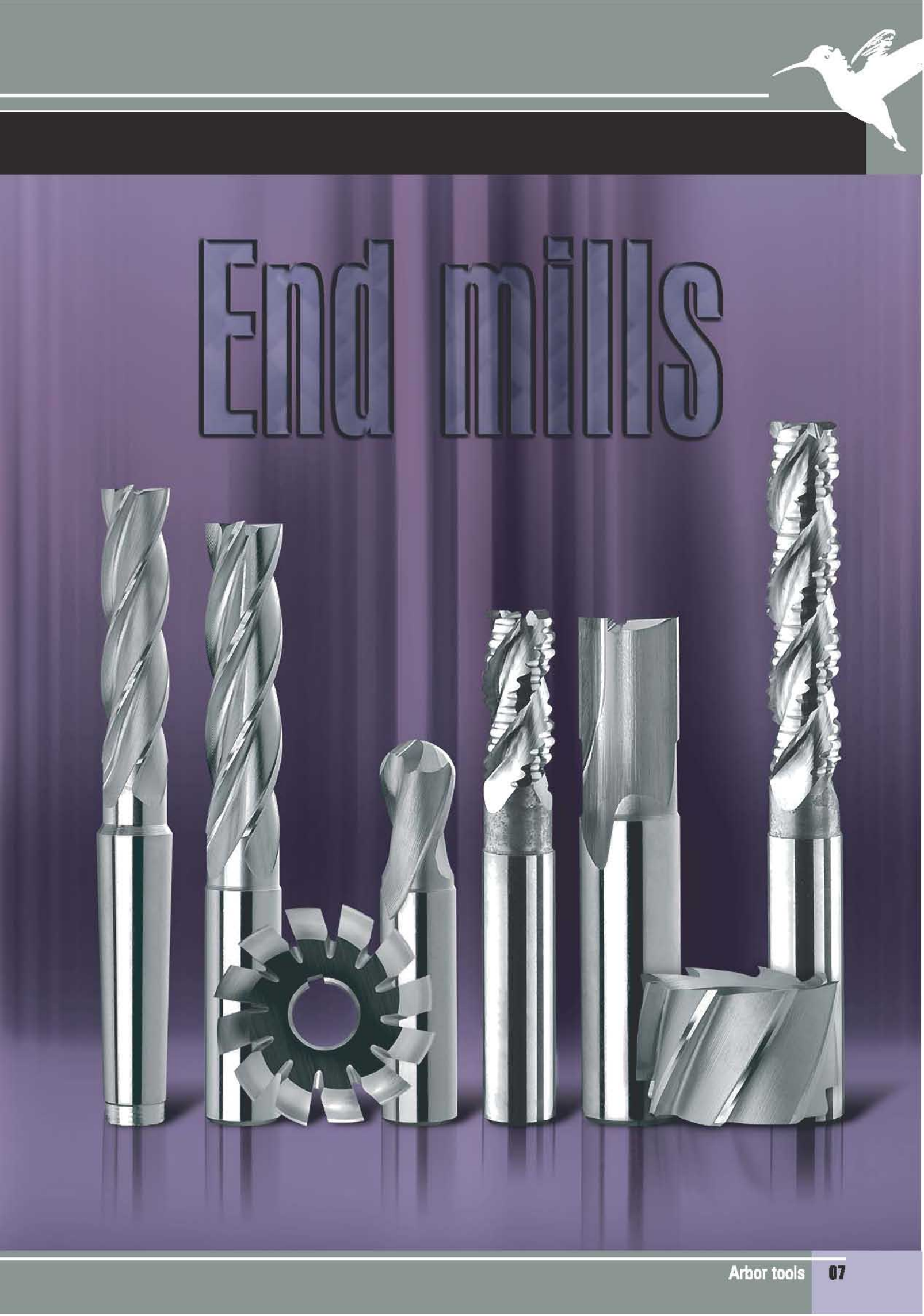
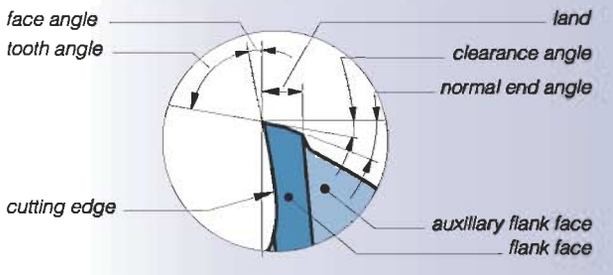
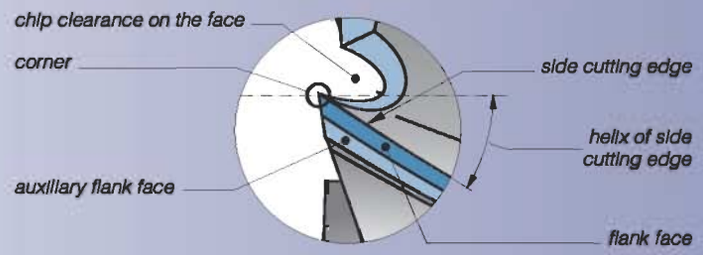
End mills



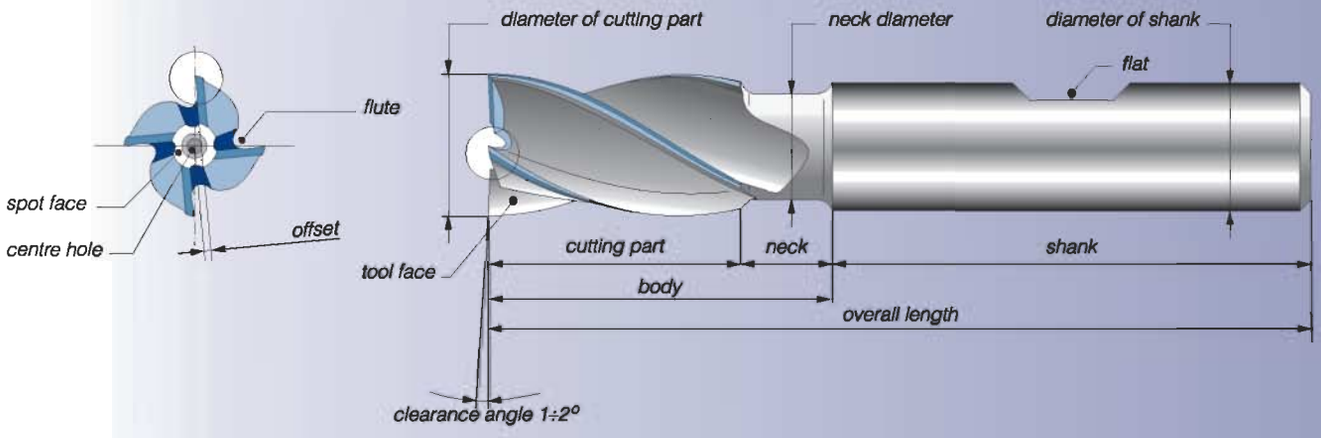
End mill with Weldon shank



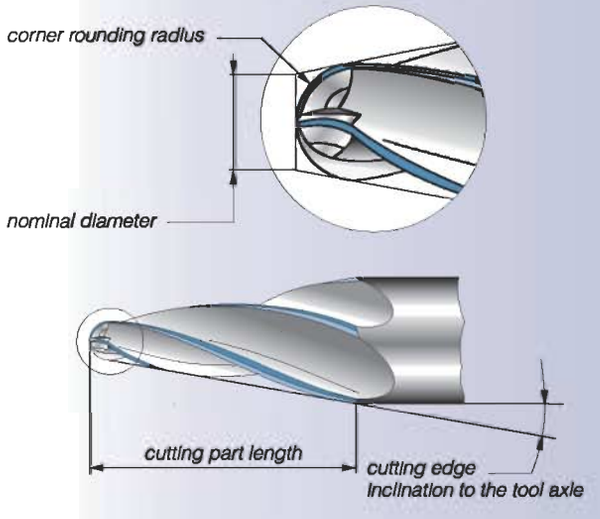
Geometry of circumferential teeth



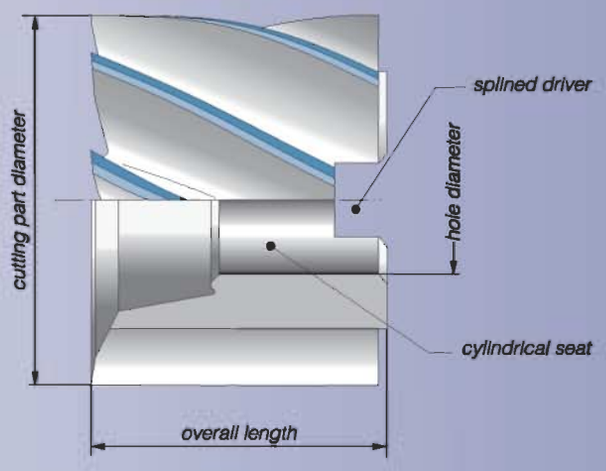
Geometry of face tool point



Ball nosed tapered end mill for die-sinking

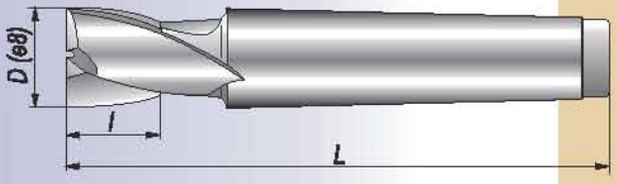


Shell end mill



Helical flute slot drills with Morse taper shank

DIN 326-D



D (e8)	l	L	No. of cone	HSS	HSS Golden	HSS-E	HSS-E Golden
10	13	83	1	●	○	○	○
12	16	86	1	●	○	○	○
14	16	101	2	●	○	○	○
16	19	104	2	●	○	○	○
18	19	104	2	●	○	○	○
20	22	107	2	●	○	○	○
22	22	107	2	●	○	○	○
24	26	128	3	●	○	○	○
25	26	128	3	●	○	○	○
28	26	128	3	●	○	○	○
30	26	128	3	●	○	○	○
32	32	157	4	●	○	○	○
36	32	157	4	●	○	○	○
38	38	163	4	●	○	○	○
40	38	163	4	●	○	○	○
45	38	163	4	●	○	○	○
50	45	203	5	●	○	○	○
56	45	203	5	○	○	○	○
63	53	211	5	○	○	○	○

Example of order: Slot drill DIN 326-D 20 HSS

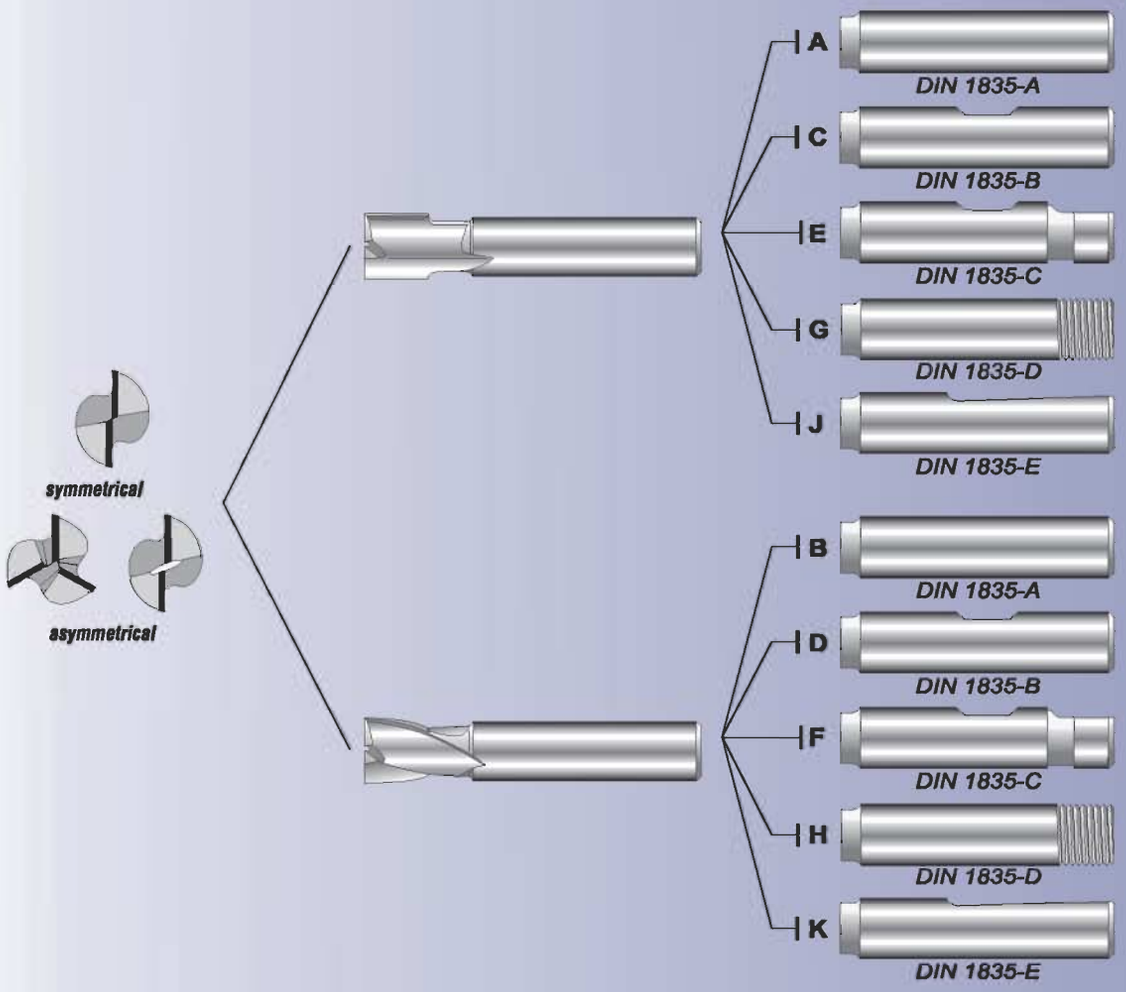
Designation meaning example: SLOT DRILL DIN 326 - D 10 f7 L - R5 - Z3 - HSS - Golden

- Name and standard number
- Type of product: C – straight flute, Morse taper shank
  D – helical flute, Morse taper shank
  E – straight flute, Morse taper shank with driver
  F – helical flute, Morse taper shank with driver
- Nominal diameter
- Cutting part tolerance (optionally; lack means symbol e8)
- Direction of cut (L–left-hand cut, lack means right-hand cut)
- Radius of corners rounding [R] (optionally; lack means flat nosed)
- Number of flutes (optionally; lack means Z2, „two flutes")
- Symbol of cutting part material: HSS or HSS-E and optionally type of coating

DIN 327

Terminology of designations

End face shape	Flute form	Type of product	Shank type



Designation meaning example: **SLOT DRILL DIN 327 - A 10 K** f7 L - mR5 - h6 - Z3 - **HSS** - Golden

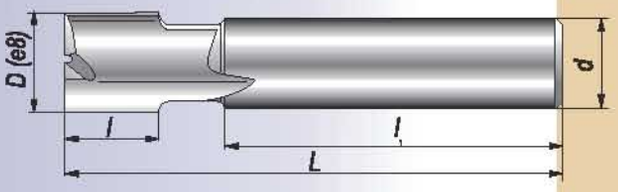
- Name and standard number
- Type of product: A, B, C, D, E, F, G, H, J or K
- Nominal diameter
- Usage of slot drill (K-for general use, KF-for the precise machining)
- Cutting part tolerance (optionally; lack means symbol e8)
- Direction of cut (L-left-hand cut, lack means right-hand cut)
- Radius of corners rounding [R] (optionally; lack means flat nosed)
- Tolerance of the nominal shank diameter (optionally)
- Number of flutes (optionally; lack means Z2, „two flutes"
- Symbol of working part material: HSS or HSS-E and optionally type of coating

Slot drills, straight flute with straight shank

DIN 327-(A i C) K

DIN 327-A K

DIN 327-C K



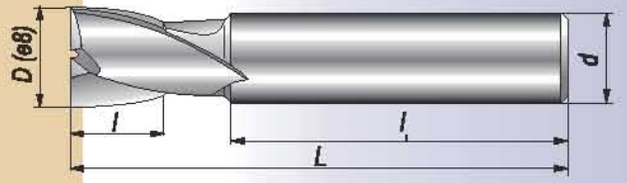
D (e8)	d (h8)	l	l_1	L	DIN 327-A K HSS	DIN 327-A K HSS Golden	DIN 327-A K HSS-E	DIN 327-A K HSS-E Golden
4	6	7	36	51	○	○	○	○
5	6	8	36	52	○	○	○	○
6	6	8	36	52	○	○	○	○
7	10	10	40	60	○	○	○	○
8	10	11	40	61	○	○	○	○
9	10	11	40	61	○	○	○	○
10	10	13	40	63	○	○	○	○
11	12	13	45	70	○	○	○	○
12	12	16	45	73	○	○	○	○
13	12	16	45	73	○	○	○	○
14	12	16	45	73	○	○	○	○
15	12	16	45	73	○	○	○	○
16	16	19	48	79	○	○	○	○
17	16	19	48	79	○	○	○	○
18	16	19	49	79	○	○	○	○
19	16	19	48	79	○	○	○	○
20	20	22	50	88	○	○	○	○
21	20	22	50	88	○	○	○	○
22	20	22	50	88	○	○	○	○
23	20	22	50	88	○	○	○	○
24	25	26	56	102	○	○	○	○
25	25	26	56	102	○	○	○	○
26	25	26	56	102	○	○	○	○
27	25	26	56	102	○	○	○	○
28	25	26	56	102	○	○	○	○
29	25	26	56	102	○	○	○	○
30	25	26	56	102	○	○	○	○
32	32	32	60	112	○	○	○	○
34	32	32	60	112	○	○	○	○
35	32	32	60	112	○	○	○	○
36	32	32	60	112	○	○	○	○

Example of order: **Slot drill DIN 327-A 10 K HSS**

Slot drills DIN 327-C K ○
Slot drills DIN 327-C K Golden ○

DIN 327-(B i D) K

Ball nosed slot drills, helical flute with straight shank



DIN 327-B K DIN 327-D K

D (e8)	d (h8)	l	l_1	L	DIN 327-B K HSS	HSS Golden	HSS-E	HSS-E Golden
3	6	5	36	49	●	○	●	○
3.5	6	6	36	50	●	○	○	○
4	6	7	36	51	●	○	●	○
4.5	6	7	36	51	●	○	○	○
5	6	8	36	52	●	○	●	○
6	6	8	36	52	●	○	●	○
6.5	10	10	40	60	●	○	○	○
7	10	10	40	60	●	○	●	○
8	10	11	40	61	●	○	●	○
8.5	10	11	40	61	●	○	○	○
9	10	11	40	61	●	○	●	○
10	10	13	40	63	●	○	●	○
11	12	13	45	70	●	○	●	○
12	12	16	45	73	●	○	●	○
13	12	16	45	73	●	○	●	○
14	12	16	45	73	●	○	●	○
15	12	16	45	73	●	○	●	○
16	16	19	48	79	●	○	●	○
17	16	19	48	79	●	○	○	○
18	16	19	49	79	●	○	●	○
19	16	19	48	79	●	○	○	○
20	20	22	50	88	●	○	●	○
21	20	22	50	88	●	○	○	○
22	20	22	50	88	●	○	●	○
23	20	22	50	88	●	○	○	○
24	25	26	56	102	●	○	○	○
25	25	26	56	102	●	○	○	○
26	25	26	56	102	●	○	○	○
28	25	26	56	102	●	○	○	○
30	25	26	56	102	●	○	○	○
32	32	32	60	112	●	○	○	○
35	32	32	60	112	○	○	○	○
36	32	32	60	112	○	○	○	○

Example of order: Slot drill DIN 327-B 10 K HSS

○ Slot drills DIN 327-D K
○ Slot drills DIN 327-D K Golden

NFPg (PN-83/M-57436)

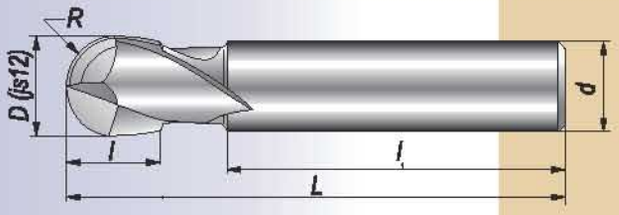
Slot drills, helical flute

D (e8)	d (h8)	l	l_1	L	HSS	HSS Golden	HSS-E	HSS-E Golden
3	4	5	28	37	●	○	○	○
4	4	7	28	39	●	○	○	○
5	5	8	28	42	●	○	○	○
6	6	10	36	46	○	○	○	○
7	8	10	36	46	○	○	○	○
8	8	11	36	51	●	○	○	○

Example of order: Slot drill NFPg 8 HSS

Ball nosed slot drills, helical flute with straight shank

DIN 327-(B i D) K-R



DIN 327-B K-R

DIN 327-D K-R

						DIN 327-B K-R			
D (js12)	R	d (h8)	l	l_1	L	HSS	HSS Golden	HSS-E	HSS-E Golden
4	2	6	7	36	51	●	○	○	○
5	2.5	6	8	36	52	●	○	○	○
6	3	6	8	36	52	●	○	○	○
7	3.5	10	10	40	60	○	○	○	○
8	4	10	11	40	61	●	○	○	○
9	4.5	10	11	40	61	○	○	○	○
10	5	10	13	40	63	●	○	○	○
11	5.5	12	13	45	70	○	○	○	○
12	6	12	16	45	73	●	○	○	○
13	6.5	12	16	45	73	○	○	○	○
14	7	12	16	45	73	●	○	○	○
15	7.5	12	16	45	73	○	○	○	○
16	8	16	19	48	79	●	○	○	○
17	8.5	16	19	48	79	○	○	○	○
18	9	16	19	48	79	○	○	○	○
19	9.5	16	19	48	79	○	○	○	○
20	10	20	22	50	88	○	○	○	○
22	11	20	22	50	88	○	○	○	○
23	11.5	20	22	50	88	○	○	○	○
24	12	25	26	56	102	○	○	○	○
25	12.5	25	26	56	102	○	○	○	○
26	13	25	26	56	102	○	○	○	○
28	14	25	26	56	102	○	○	○	○
30	15	25	26	56	102	○	○	○	○
32	16	32	32	60	112	○	○	○	○

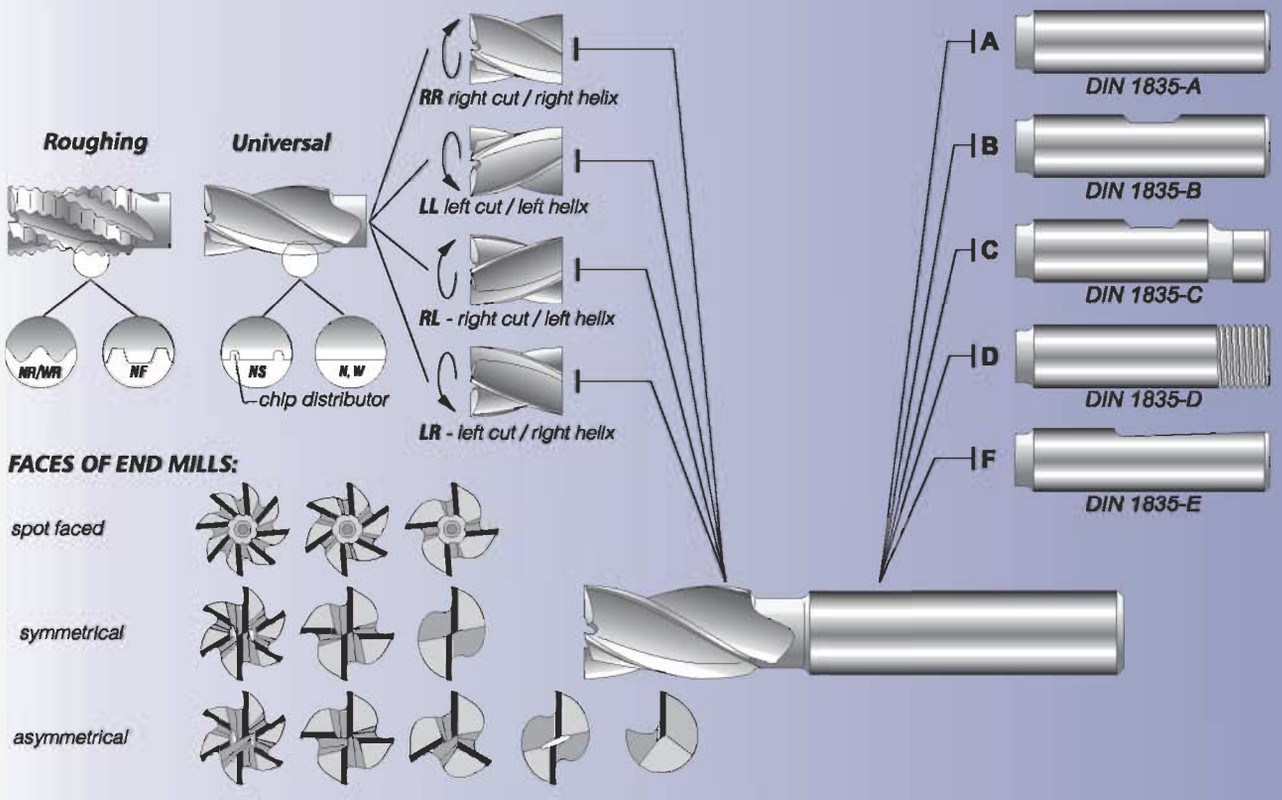
Example of order: Slot drill DIN 327-B 10 K-R5 HSS

Slot drills DIN 327-D K-R ○
Slot drills DIN 327-D K-R Golden ○

DIN 844

Terminology of designations

Application group | **Helix direction of cut** | **Type of product** | **Shank type**



Designation meaning example: **END MILL DIN 844 - A 20 L** - LL - M - **N** - R10 - h6 - Z6 - **HSS** - Golden

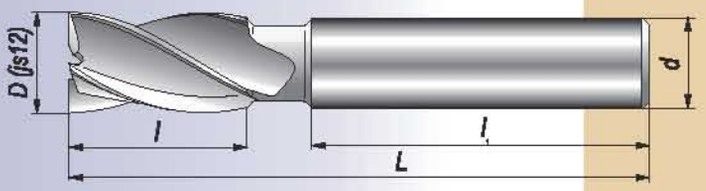
Name and standard number
Type of product: A, B, C, D or F
Nominal diameter
Length of cut variation (K-short, L-long)
Direction of helix and cut (optionally; lack means [RR] option)
Center-cutting face M (optionally; lack means face with spot face)
Characteristics of end mill destination group:

- N - universal for steels: constructional, for carbonishing, toughening of strength up to 1000 N/mm² as well as non-metals;
- NS - option with chip breakers on customer's request option with chip breakers on customer's request;
- W - destined for finishing machining of materials: soft, expanding, of long chip. Obtained surface does not require any additional machining (helix angle ~40°);
- WR - destined for roughing of soft materials;
- NR - rounded profile of tooth, destined for rough machining materials of standard strength. Appearing chip is short; the obtained surface does require always additional machining;
- NF - flat tooth profile destined for rough machining materials of standard strength. Appearing chip is short; the obtained surface does not required usually any additional machining.

Radius of corners rounding (optionally; lack means flat nosed)
Tolerance of shank diameter (optionally)
Number of flutes (given optionally when is other than declared in catalogue)
Symbol of working part material: HSS or HSS-E and optionally type of coating

End mills, short with straight shank

DIN 844-(A i B) K-N



DIN 844-A K-N

DIN 844-B K-N

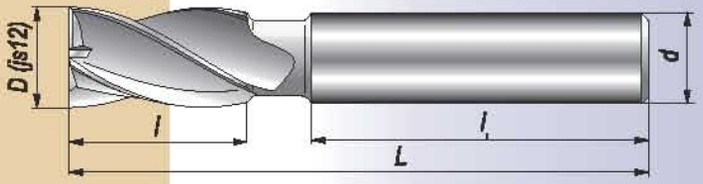
						DIN 844-A K-N			
D (js12)	d (h8)	l	l_1	L	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
3	6	8	36	52	4	●	○	●	○
3.5	6	10	36	54	4	●	○	○	○
4	6	11	36	55	4	●	○	●	○
4.5	6	11	36	55	4	●	○	○	○
5	6	13	36	57	4	●	○	●	○
5.5	6	13	36	57	4	●	○	○	○
6	6	13	36	57	4	●	○	●	○
6.5	10	16	40	66	4	●	○	●	○
7	10	16	40	66	4	●	○	●	○
7.5	10	16	40	66	4	●	○	○	○
8	10	19	40	69	4	●	○	●	○
8.5	10	19	40	69	4	●	○	○	○
9	10	19	40	69	4	●	○	●	○
9.5	10	19	40	69	4	●	○	○	○
10	10	22	40	72	4	●	○	●	○
10.5	12	22	45	79	4	●	○	○	○
11	12	22	45	79	4	●	○	●	○
11.5	12	22	45	79	4	○	○	○	○
12	12	26	45	83	4	●	○	●	○
12.5	12	26	45	83	4	●	○	○	○
13	12	26	45	83	4	●	○	○	○
14	12	26	45	83	4	●	○	●	○
15	12	26	45	83	4	●	○	●	○
16	16	32	48	92	4	●	○	●	○
17	16	32	48	92	4	●	○	○	○
18	16	32	48	92	4	●	○	●	○
19	16	32	48	92	4	●	○	○	○
20	20	38	50	104	4	●	○	●	○
21	20	38	50	104	6	●	○	○	○
22	20	38	50	104	6	●	○	○	○
23	20	38	50	104	6	●	○	○	○
24	25	45	56	121	6	●	○	○	○
25	25	45	56	121	6	●	○	○	○
26	25	45	56	121	6	●	○	○	○
28	25	45	56	121	6	●	○	○	○
30	25	45	56	121	6	●	○	○	○
32	32	53	60	133	6	●	○	○	○
34	32	53	60	133	6	○	○	○	○
35	32	53	60	133	6	○	○	○	○
36	32	53	60	133	6	○	○	○	○

Example of order: End mill DIN 844-A 10 K-N HSS

End mills DIN 844-B K-N ○
End mills DIN 844-B K-N Golden ○

DIN 844-(A i B) K-M-N

End mills, short, center-cutting with straight shank



DIN 844-A K-M-N DIN 844-B K-M-N

						DIN 844-A K-M-N			
D (js12)	d (h8)	l	l_1	L	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
4	6	11	36	55	4	●	○	○	○
5	6	13	36	57	4	●	○	○	○
6	6	13	36	57	4	●	○	○	○
7	10	16	40	66	4	●	○	○	○
8	10	19	40	69	4	●	○	○	○
9	10	19	40	69	4	●	○	○	○
10	10	22	40	72	4	●	○	○	○
11	12	22	45	79	4	●	○	○	○
12	12	26	45	83	4	●	○	○	○
13	12	26	45	83	4	●	○	○	○
14	12	26	45	83	4	●	○	○	○
15	12	26	45	83	4	●	○	○	○
16	16	32	48	92	4	●	○	○	○
17	16	32	48	92	4	●	○	○	○
18	16	32	48	92	4	●	○	○	○
19	16	32	48	92	4	○	○	○	○
20	20	38	50	104	4	●	○	○	○
21	20	38	50	104	6	○	○	○	○
22	20	38	50	104	6	●	○	○	○
23	20	38	50	104	6	○	○	○	○
24	25	45	56	121	6	○	○	○	○
25	25	45	56	121	6	●	○	○	○
26	25	45	56	121	6	○	○	○	○
28	25	45	56	121	6	○	○	○	○
30	25	45	56	121	6	○	○	○	○
32	32	53	60	133	6	○	○	○	○

Example of order: End mill DIN 844-A 10 K-M-N HSS

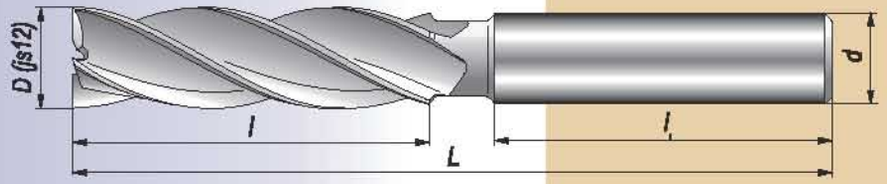
○ End mills DIN 844-B K-M-N
○ End mills DIN 844-B K-M-N Golden

End mills, long, universal with straight shank

DIN 844-(A i B) L-N

DIN 844-L | js12 | N | HSS | HSS-E | A

DIN 1835-A | DIN 1835-B | λ=30°



DIN 844-A L-N

DIN 844-B L-N

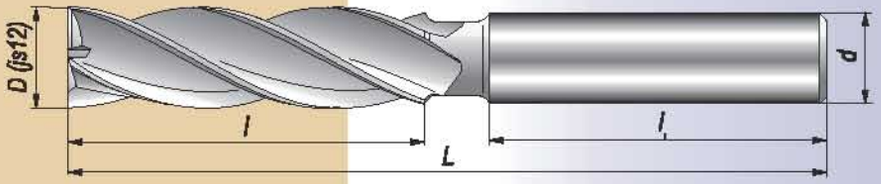
						DIN 844-A L-N			
D (js12)	d (h8)	l	l_1	L	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
3	6	12	36	56	4	●	○	○	○
3.5	6	15	36	59	4	●	○	○	○
4	6	19	36	63	4	●	○	○	○
4.5	6	19	36	63	4	●	○	○	○
5	6	24	36	68	4	●	○	○	○
5.5	6	24	36	68	4	○	○	○	○
6	6	24	36	68	4	●	○	○	○
6.5	10	30	40	80	4	●	○	○	○
7	10	30	40	80	4	●	○	○	○
7.5	10	30	40	80	4	●	○	○	○
8	10	38	40	88	4	●	○	○	○
8.5	10	38	40	88	4	●	○	○	○
9	10	38	40	88	4	●	○	○	○
9.5	10	38	40	88	4	●	○	○	○
10	10	45	40	95	4	●	○	○	○
11	12	45	45	102	4	●	○	○	○
12	12	53	45	110	4	●	○	○	○
13	12	53	45	110	4	●	○	○	○
14	12	53	45	110	4	●	○	○	○
15	12	53	45	110	4	●	○	○	○
16	16	63	48	123	4	●	○	○	○
17	16	63	48	123	4	●	○	○	○
18	16	63	48	123	4	●	○	○	○
19	16	63	48	123	4	○	○	○	○
20	20	75	50	141	4	●	○	○	○
21	20	75	50	141	6	○	○	○	○
22	20	75	50	141	6	●	○	○	○
23	20	75	50	141	6	○	○	○	○
24	25	90	56	166	6	●	○	○	○
25	25	90	56	166	6	●	○	○	○
26	25	90	56	166	6	○	○	○	○
28	25	90	56	166	6	●	○	○	○
30	25	90	56	166	6	○	○	○	○
32	32	106	60	186	6	○	○	○	○
34	32	106	60	186	6	○	○	○	○
35	32	106	60	186	6	○	○	○	○
36	32	106	60	186	6	○	○	○	○

Example of order: End mill DIN 844-A 10 L-N HSS

End mills DIN 844-B L-N ○
End mills DIN 844-B L-N Golden ○

DIN 844-(A i B) L-M-N

End mills, long, center-cutting with straight shank



DIN 844-A L-M-N DIN 844-B L-M-N

						DIN 844-A L-M-N			
D (js12)	d (h8)	l	l_1	L	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
4	6	19	36	63	4	●	○	○	○
5	6	24	36	68	4	●	○	○	○
6	6	24	36	68	4	●	○	○	○
7	10	30	40	80	4	●	○	○	○
8	10	38	40	88	4	●	○	○	○
9	10	38	40	88	4	○	○	○	○
10	10	45	40	95	4	●	○	○	○
11	12	45	45	102	4	●	○	○	○
12	12	53	45	110	4	●	○	○	○
13	12	53	45	110	4	●	○	○	○
14	12	53	45	110	4	●	○	○	○
15	12	53	45	110	4	○	○	○	○
16	16	63	48	123	4	●	○	○	○
17	16	63	48	123	4	○	○	○	○
18	16	63	48	123	4	●	○	○	○
19	16	63	48	123	4	○	○	○	○
20	20	75	50	141	4	●	○	○	○
21	20	75	50	141	6	○	○	○	○
22	20	75	50	141	6	●	○	○	○
23	20	75	50	141	6	○	○	○	○
24	25	90	56	166	6	○	○	○	○
25	25	90	56	166	6	○	○	○	○
26	25	90	56	166	6	○	○	○	○
28	25	90	56	166	6	○	○	○	○
30	25	90	56	166	6	○	○	○	○
32	32	106	60	186	6	○	○	○	○

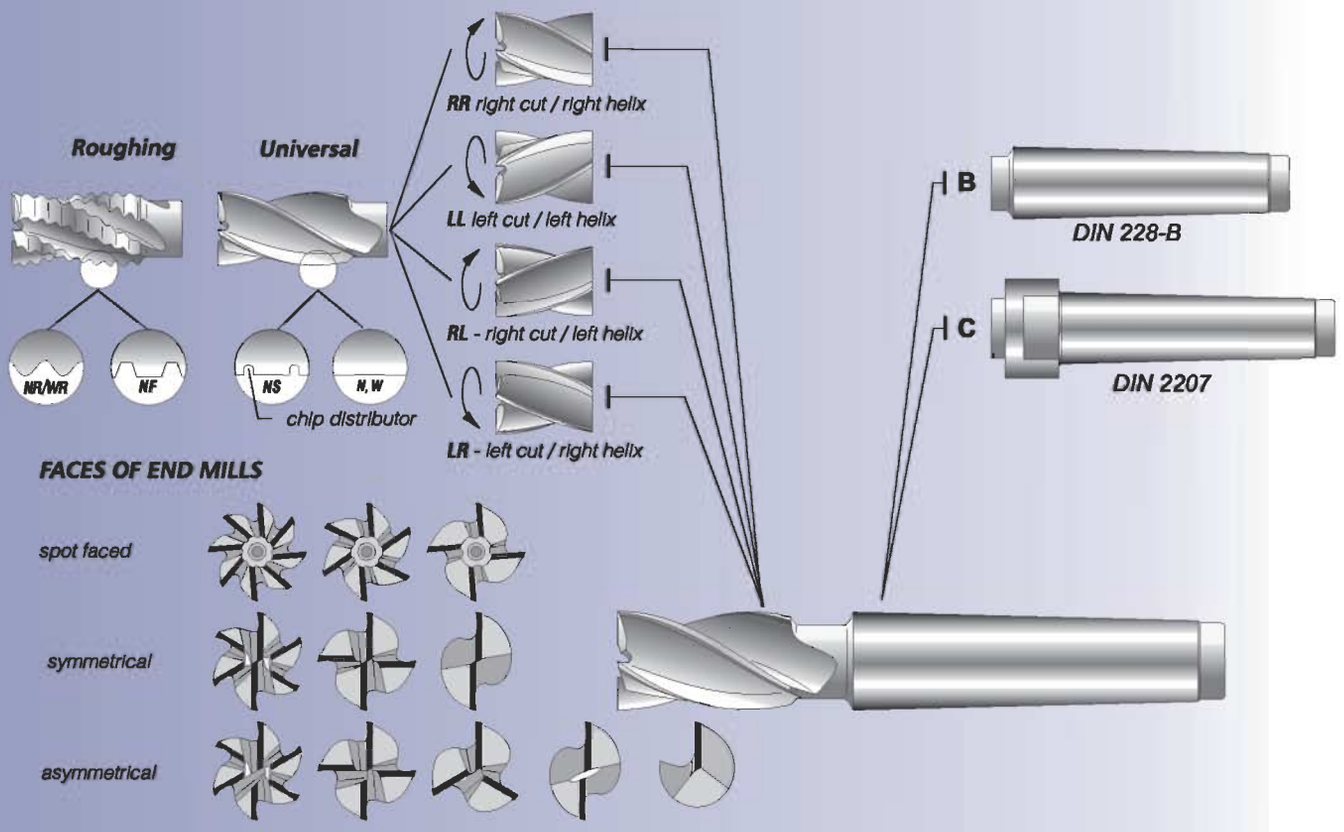
Example of order: End mill DIN 844-A 10 L-M-N HSS

○ End mills DIN 844-B L-M-N
○ End mills DIN 844-B L-M-N Golden

Terminology of designations

DIN 845

Application group — Helix direction of cut — Type of product — Shank type



FACES OF END MILLS

Designation meaning example: **End mill DIN 845 - B 20 L** - LL - M - **N** - R10 - Z6 - **HSS** - Golden

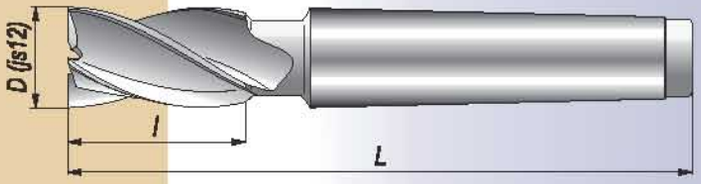
Name and standard number
Type of product: A, B, C, D or F
Nominal diameter
Length of cut variation (K-short, L-long)
Direction of helix and cut (optionally; lack means [RR] option)
Center-cutting face M (optionally; lack means face with spot face)
Characteristics of end mill destination group:

- N - universal for steels: constructional, for carbonishing, toughening of strength up to 1000 N/mm² as well as non-metals;
- NS - option with chip breakers on customer's request option with chip breakers on customer's request;
- W - destined for finishing machining of materials: soft, expanding, of long chip. Obtained surface does not require any additional machining (helix angle ~40°);
- WR - destined for roughing of soft materials;
- NR - rounded profile of tooth, destined for rough machining materials of standard strength. Appearing chip is short; the obtained surface does require always additional machining;
- NF - flat tooth profile destined for rough machining materials of standard strength. Appearing chip is short; the obtained surface does not required usually any additional machining.

Radius of corners rounding (optionally; lack means flat nosed)
Tolerance of shank diameter (optionally)
Number of flutes (given optionally when is other than declared in catalogue)
Symbol of working part material: HSS or HSS-E and optionally type of coating

DIN 845-B K-N

End mills, universal with Morse taper shank

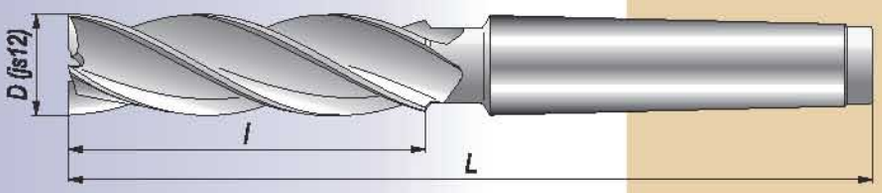


D (js12)	l	L	No. of cone	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
10	22	92	1	4	●	○	○	○
11	22	92	1	4	○	○	○	○
12	26	96	1	4	●	○	○	○
13	26	96	1	4	●	○	○	○
14	26	111	2	4	●	○	○	○
15	26	111	2	4	●	○	○	○
16	32	117	2	4	●	◐	○	○
17	32	117	2	4	●	○	○	○
18	32	117	2	4	●	○	○	○
19	32	117	2	4	●	○	○	○
20	38	123	2	4	●	◐	○	○
21	38	123	2	6	●	○	○	○
22	38	123	2	6	●	◐	○	○
23	38	123	2	6	●	○	○	○
24	45	147	3	6	●	○	○	○
25	45	147	3	6	●	◐	○	○
26	45	147	3	6	●	○	○	○
27	45	147	3	6	●	○	○	○
28	45	147	3	6	●	◐	○	○
29	45	147	3	6	○	○	○	○
30	45	147	3	6	●	◐	○	○
32	53	178	4	6	●	○	○	○
34	53	178	4	6	●	○	○	○
35	53	178	4	6	●	○	○	○
36	53	178	4	6	●	○	○	○
38	63	188	4	6	●	○	○	○
40	63	188	4	6	●	◐	○	○
45	63	188	4	8	●	○	○	○
50	75	233	5	8	●	○	○	○
56	75	233	5	8	○	○	○	○
63	90	248	5	8	●	○	○	○

Example of order: **End mill DIN 845-B 10 K-N HSS**

End mills, long, universal with Morse taper shank

DIN 845-B L-N

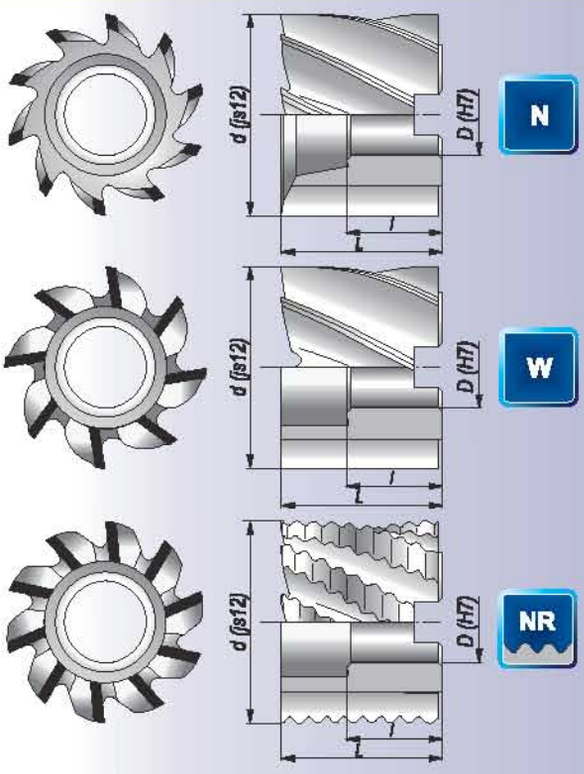


D (js12)	l	L	No. of cone	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
10	45	115	1	4	●	○	○	○
11	45	115	1	4	○	○	○	○
12	53	123	1	4	●	○	○	○
13	53	123	1	4	○	○	○	○
14	53	138	2	4	●	○	○	○
15	53	138	2	4	●	○	○	○
16	63	148	2	4	●	○	○	○
17	63	148	2	4	●	○	○	○
18	63	148	2	4	●	○	○	○
19	63	148	2	4	○	○	○	○
20	75	160	2	4	●	○	○	○
21	75	160	2	6	●	○	○	○
22	75	160	2	6	●	○	○	○
23	75	160	2	6	●	○	○	○
24	90	192	3	6	●	○	○	○
25	90	192	3	6	●	○	○	○
26	90	192	3	6	●	○	○	○
27	90	192	3	6	○	○	○	○
28	90	192	3	6	●	○	○	○
29	90	192	3	6	○	○	○	○
30	90	192	3	6	●	○	○	○
32	106	231	4	6	●	○	○	○
34	106	231	4	6	●	○	○	○
35	106	231	4	6	●	○	○	○
36	106	231	4	6	●	○	○	○
38	125	250	4	6	●	○	○	○
40	125	250	4	6	●	○	○	○
45	125	250	4	8	●	○	○	○
50	150	308	5	8	●	○	○	○
56	150	308	5	8	○	○	○	○
63	180	338	5	8	●	○	○	○

Example of order: End mill DIN 845-B 10 L-N HSS

DIN 1880-N i W

Shell end mills with splined driver



DIN 1880 | js12 | HSS | HSS-E | DIN138 | λ≈30°

DIN 1880 | js12 | HSS-E | DIN138 | λ≈30°

DIN 1880-NR

					DIN 1880-N		DIN 1880-W		
d (js12)	D (H7)	l	L	Z	HSS	HSS-E	Z	HSS	HSS-E
40	16	19	32	6	●	○	6	○	○
50	22	21	36	8	●	○	6	○	○
63	27	23	40	8	●	○	6	○	○
80	27	23	45	10	●	○	6	○	○
100	32	26	50	12	●	○	6	○	○
125	40	29	56	14	○	○	8	○	○

Example of order: Shell end mill DIN 1880-40 N HSS

○ Shell end mills DIN 1880-NR

Designation meaning example: **Shell end mill DIN 1880 - 63 - LL - N - Z10 - HSS**

Name and standard number

Nominal diameter

Direction of cut and helix (L-left-hand cut, lack means right-hand cut)

Characteristics of shell end mill destination group:

- **N** – universal for steels: constructional, for carbonishing, toughening of strength up to 1000 N/mm² as well as non-metals;
- **W** – destined for finishing machining of materials: soft, expanding, of long chip. Obtained surface does not require any additional machining (helix angle ~40°);
- **NR** – destined for rough machining materials of standard strength;
- **H** – increased number of teeth on perimeter, destined for finishing machining of difficult machining materials of strength 1200 N/mm², as well as titanium alloys, ductile cast iron etc.

Number of flutes (given optionally when is other than declared in catalogue)

Symbol of working part material: HSS or HSS-E

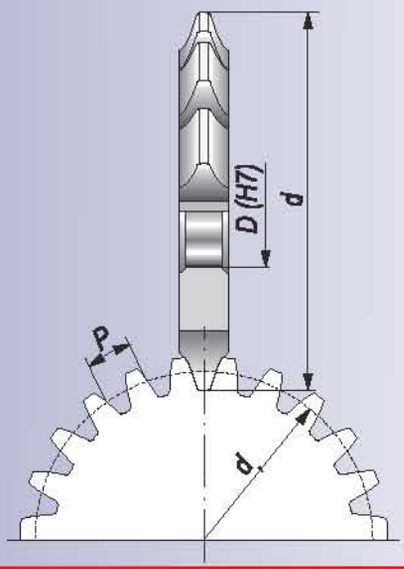
Involute gear cutters (m = 0,5÷7; 8 pcs in set) — NFMa (PN-87/M-57550)

NFMa | HSS | P.A. 20°

$d_p = zm$

$m = P/\pi$

where
d_p - pitch diameter
P - nominal pitch (measure along arc)
z - range of teeth cut
m - nominal module
P.A. - pressure angle 20°

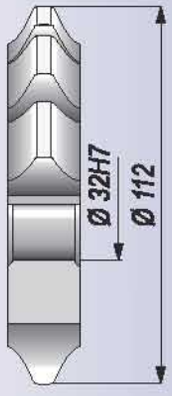


Module m	d	D (H7)	Number of cutter in set / Range of teeth cut								
			#1	#2	#3	#4	#5	#6	#7	#8	Set
			12÷13	14÷16	17÷20	21÷25	26÷34	35÷54	55÷134	135÷∞	12÷∞
0.5	40	16	○	○	○	○	○	○	○	○	○
0.6	40	16	○	○	○	○	○	○	○	○	○
0.7	40	16	○	○	○	○	○	○	○	○	○
0.75	40	16	○	○	○	○	○	○	○	○	○
0.8	40	16	○	○	○	○	○	○	○	○	○
0.9	40	16	○	○	○	○	○	○	○	○	○
1	50	16	●	●	●	●	●	●	●	●	●
1.25	50	16	●	●	●	●	●	●	●	●	●
1.5	56	22	●	●	●	●	●	●	●	●	●
1.75	56	22	●	●	●	●	●	●	●	●	●
2	63	22	●	●	●	●	●	●	●	●	●
2.25	63	22	○	○	○	○	○	○	○	○	○
2.5	63	22	●	●	●	●	●	●	●	●	●
2.75	71	27	●	●	●	●	●	●	●	●	●
3	71	27	●	●	●	●	●	●	●	●	●
3.25	71	27	○	○	○	○	○	○	○	○	○
3.5	80	27	○	○	○	○	○	○	○	○	○
3.75	80	27	○	○	○	○	○	○	○	○	○
4	80	27	●	●	●	●	●	●	●	●	●
4.25	80	27	○	○	○	○	○	○	○	○	○
4.5	90	32	○	○	○	○	○	○	○	○	○
4.75	90	32	○	○	○	○	○	○	○	○	○
5	90	32	○	○	○	○	○	○	○	○	○
5.5	90	32	○	○	○	○	○	○	○	○	○
6	100	32	○	○	○	○	○	○	○	○	○
6.5	100	32	○	○	○	○	○	○	○	○	○
7	100	32	○	○	○	○	○	○	○	○	○

Example of order: Involute gear cutter NFMa m=1.5#1

For the special order we make cutters of other dimensions than contained in table.

NFMb (PN-87/M-57550) — Involute gear cutters (m = 8 pcs)



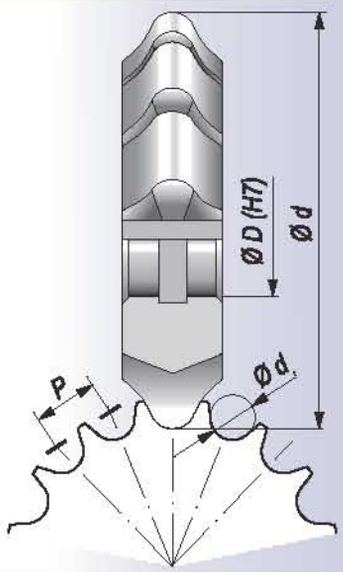
NFMb | HSS | P.A. 20°

Module	Number of cutter in set / range of teeth cut															
	#1	#1.5	#2	#2.5	#3	#3.5	#4	#4.5	#5	#5.5	#6	#6.5	#7	#7.5	#8	Set
	12	13	14	15÷16	17÷18	19÷20	21÷22	23÷25	26÷29	30÷34	35÷41	42÷54	55÷80	81÷134	135÷∞	12÷∞
8	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Example of order: Involute gear cutter NFMb m=8#1

For the special order we make cutters of other dimensions than contained in table.

NFMt (PN-73/M-84161) — Roller chain sprocket milling cutters



NFMt | HSS

Number of milling cutter	Range of teeth cut
#1	9 ÷ 13
#2	14 ÷ 22
#3	23 ÷ 150

Pitch P		Roller d_1	d	D (H7)	Number of cutter in set			
inch	mm	mm	mm	mm	#1	#2	#3	Set
5/16	7.94	4.76	63	22	○	○	○	○
3/8	9.525	6.35	70	27	●	●	●	●
1/2	12.7	8.51	75	27	●	●	●	●
5/8	15.875	10.16	85	32	●	●	●	●
3/4*	19.05	12.07	90	32	●	●	●	●
1"	25.4	15.88	100	32	●	●	●	●

Example of order: Milling cutter NFMt P=3/8#1

* - can be used for cutting of teeth for P=3/4", d1=11.91 mm, as well as P=20 mm and d1=12 mm
For the special order we make cutters of other dimensions than contained in table.

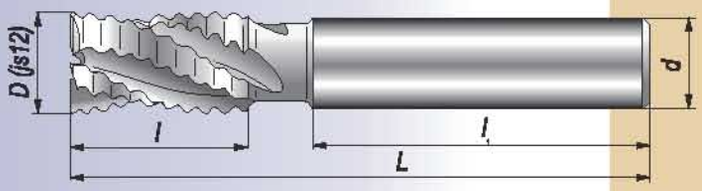
Roughing end mills, short with straight shank

DIN 844-(A i B) K-NR

DIN 844-K | js12 | NR | HSS-E | A

DIN 1835-A | DIN 1835-B | λ≈30°

DIN 844-A K-M i A K DIN 844-B K-M i B K



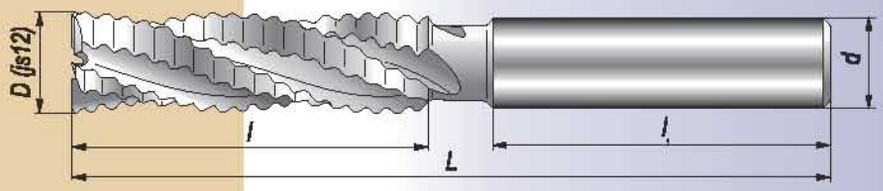
						DIN 844-A K-M-NR		DIN 844-A K-NR	
D (js12)	d (h8)	l	l_1	L	Z	HSS-E	HSS-E Golden	HSS-E	HSS-E Golden
10	10	22	40	72	4	○	○	●	○
11	12	22	45	79	4	○	○	○	○
12	12	26	45	83	4	○	○	●	○
13	12	26	45	83	4	○	○	○	○
14	12	26	45	83	4	○	○	●	○
15	12	26	45	83	4	○	○	○	○
16	16	32	48	92	4	○	○	●	○
17	16	32	48	92	4	○	○	○	○
18	16	32	48	92	4	○	○	●	○
19	16	32	48	92	4	○	○	○	○
20	20	38	50	104	4	○	○	●	○
21	20	38	50	104	6	○	○	○	○
22	20	38	50	104	6	○	○	●	○
23	20	38	50	104	6	○	○	○	○
24	25	45	56	121	6	○	○	○	○
25	25	45	56	121	6	○	○	●	○
26	25	45	56	121	6	○	○	○	○
28	25	45	56	121	6	○	○	○	○
30	25	45	56	121	6	○	○	○	○
32	32	53	60	133	6	○	○	○	○

Example of order: **End mill DIN 844-A 10 K-M-NR HSS-E**

End mills DIN 844-B L-N ○
End mills DIN 844-B L-N Golden ○

DIN 844-(A i B) L-HR

Roughing end mills, long with straight shank



DIN 844-A L-M i A L — DIN 844-B L-M i B L

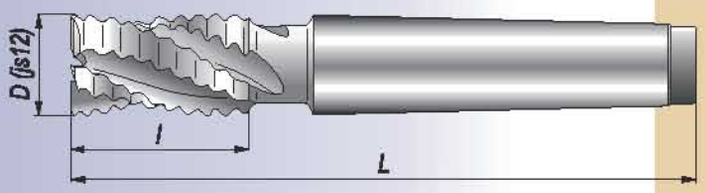
						DIN 844-A L-M-NR		DIN 844-A L-NR	
D (js12)	d (h8)	l	l_1	L	Z	HSS-E	HSS-E Golden	HSS-E	HSS-E Golden
10	10	45	40	95	4	○	○	●	○
11	12	45	45	102	4	○	○	○	○
12	12	53	45	110	4	○	○	●	○
13	12	53	45	110	4	○	○	○	○
14	12	53	45	110	4	○	○	○	○
15	12	53	45	110	4	○	○	○	○
16	16	63	48	123	4	○	○	●	○
17	16	63	48	123	4	○	○	○	○
18	16	63	48	123	4	○	○	○	○
19	16	63	48	123	4	○	○	○	○
20	20	75	50	141	4	○	○	●	○
21	20	75	50	141	6	○	○	○	○
22	20	75	50	141	6	○	○	○	○
23	20	75	50	141	6	○	○	○	○
24	25	90	56	166	6	○	○	○	○
25	25	90	56	166	6	○	○	●	○
26	25	90	56	166	6	○	○	○	○
28	25	90	56	166	6	○	○	○	○
30	25	90	56	166	6	○	○	○	○
32	32	106	60	186	6	○	○	○	○

Example of order: **End mill DIN 844-A 16 L-M-NR HSS-E**

○ End mills DIN 844-B L-NR i B L-M-NR
○ End mills 844-B L-NR i B L-M-NR Golden

Roughing end mills, short with Morse taper shank

DIN 845-B K-NR

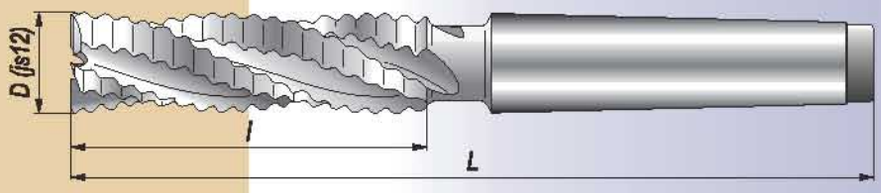


D (js12)	l	L	No. of cone	Z	DIN 844-B K-M-NR HSS-E	DIN 844-B K-M-NR HSS-E Golden	DIN 844-B K-NR HSS-E	DIN 844-B K-NR HSS-E Golden
10	22	92	1	4	○	○	○	○
11	22	92	1	4	○	○	○	○
12	26	96	1	4	○	○	○	○
13	26	96	1	4	○	○	○	○
14	26	111	2	4	○	○	○	○
15	26	111	2	4	○	○	○	○
16	32	117	2	4	○	○	●	○
17	32	117	2	4	○	○	○	○
18	32	117	2	4	○	○	●	○
19	32	117	2	4	○	○	○	○
20	38	123	2	4	○	○	○	○
21	38	123	2	6	○	○	○	○
22	38	123	2	6	○	○	●	○
23	38	123	2	6	○	○	○	○
24	45	147	3	6	○	○	●	○
25	45	147	3	6	○	○	●	○
26	45	147	3	6	○	○	○	○
28	45	147	3	6	○	○	●	○
30	45	147	3	6	○	○	●	○

Example of order: **End mill DIN 845-B 10 K-M-NR HSS-E**

DIN 845-B L-NR

Roughing end mills, long with Morse taper shank



					DIN 845-B L-M-NR		DIN 845-B L-NR	
D(js12)	l	L	Z	No. of cone	HSS-E	HSS-E Golden	HSS-E	HSS-E Golden
10	45	115	4	1	○	○	○	○
11	45	115	4	1	○	○	○	○
12	53	123	4	1	○	○	○	○
13	53	123	4	1	○	○	○	○
14	53	138	4	2	○	○	○	○
15	53	138	4	2	○	○	○	○
16	63	148	4	2	○	○	○	○
17	63	148	4	2	○	○	○	○
18	63	148	4	2	○	○	●	○
19	63	148	4	2	○	○	○	○
20	75	160	4	2	○	○	●	○
21	75	160	6	2	○	○	○	○
22	75	160	6	2	○	○	○	○
23	75	160	6	2	○	○	○	○
24	90	192	6	3	○	○	●	○
25	90	192	6	3	○	○	●	○
26	90	192	6	3	○	○	●	○
28	90	192	6	3	○	○	○	○
30	90	192	6	3	○	○	○	○

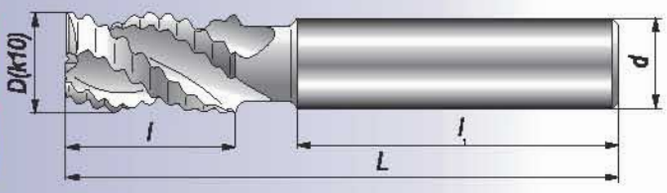
Example of order: **End mill DIN 845-B 10 L-M-NR HSS-E**

Roughing end mills for light metals, short with straight shank

DIN 844-(A i B) K-M-WR

DIN 844-K | k10 | WR | HSS-E | A

DIN 1835-A | DIN 1835-B | λs=40°



D (k10)	d (h8)	l	l_1	L	Z	DIN 844-A K-M-WR HSS-E	DIN 844-A K-M-WR HSS-E Golden	DIN 844-B K-M-WR HSS-E	DIN 844-B K-M-WR HSS-E Golden
10	10	22	40	72	3	○	○	○	○
11	12	22	45	79	3	○	○	○	○
12	12	26	45	83	3	○	○	○	○
13	12	26	45	83	3	○	○	○	○
14	12	26	45	83	3	○	○	○	○
15	12	26	45	83	3	○	○	○	○
16	16	32	48	92	3	○	○	○	○
17	16	32	48	92	3	○	○	○	○
18	16	32	48	92	3	○	○	○	○
20	20	38	50	104	4	○	○	○	○
22	20	38	50	104	4	○	○	○	○
24	25	45	56	121	4	○	○	○	○
25	25	45	56	121	4	○	○	○	○
26	25	45	56	121	4	○	○	○	○
28	25	45	56	121	4	○	○	○	○
30	25	45	56	121	4	○	○	○	○
32	32	53	60	133	4	○	○	○	○

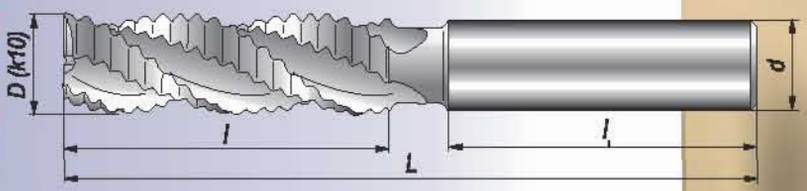
Example of order: **End milll DIN 844-A 10 K-M-WR HSS-E**

Roughing end mills for light metals, long with straight shank

DIN 844-(A i B) L-M-WR

DIN 844-L | k10 | WR | HSS-E | A

DIN 1835-A | DIN 1835-B | λs=40°

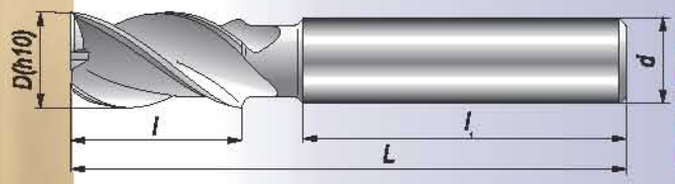


D (k10)	d (h8)	l	l_1	L	Z	DIN 844-A L-M-WR HSS-E	DIN 844-A L-M-WR HSS-E Golden	DIN 844-B L-M-WR HSS-E	DIN 844-B L-M-WR HSS-E Golden
10	10	45	40	95	3	○	○	○	○
11	12	45	45	102	3	○	○	○	○
12	12	53	45	110	3	○	○	○	○
13	12	53	45	110	3	○	○	○	○
14	12	53	45	110	3	○	○	○	○
15	12	53	45	110	3	○	○	○	○
16	16	63	48	123	3	○	○	○	○
17	16	63	48	123	3	○	○	○	○
18	16	63	48	123	3	○	○	○	○
20	20	75	50	141	4	○	○	○	○
22	20	75	50	141	4	○	○	○	○
24	25	90	56	166	4	○	○	○	○
25	25	90	56	166	4	○	○	○	○
26	25	90	56	166	4	○	○	○	○
28	25	90	56	166	4	○	○	○	○
30	25	90	56	166	4	○	○	○	○
32	32	106	60	186	4	○	○	○	○

Example of order: **End mill DIN 844-A 10 L-M-WR HSS-E**

DIN 844-(A i B) K-M-W

End mills for light metals, short with straight shank



DIN 844 | h10 | W | HSS | HSS-E | A

DIN 1835-A | DIN 1835-B | λ=40°

DIN 844-A K-M-W

DIN 844-B K-M-W

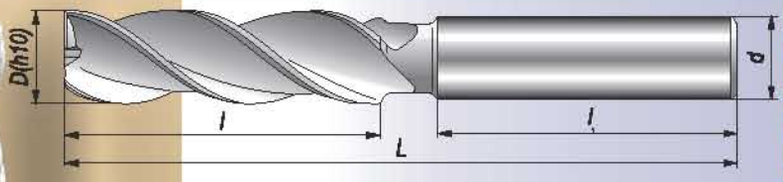
D(h10)	d(h8)	l	l_1	L	Z	DIN 844-A K-M-W HSS	HSS Golden	HSS-E	HSS-E Golden
6	6	13	36	57	3	●	○	○	○
8	10	19	40	69	3	●	○	○	○
10	10	22	40	72	3	●	○	○	○
12	12	26	45	83	3	●	○	○	○
14	12	26	45	83	3	●	○	○	○
16	16	32	48	92	3	●	○	○	○
20	20	38	50	104	4	●	○	○	○
22	20	38	50	104	4	○	○	○	○
25	25	45	56	121	4	○	○	○	○
28	25	45	56	121	4	○	○	○	○
30	25	45	56	121	4	○	○	○	○
32	32	53	60	133	4	○	○	○	○

Example of order: End milll DIN 844-A 10 K-M-W HSS

○ End mills DIN 844-B K-M-W
○ End mills DIN 844-B K-M-W Golden

DIN 844-(A i B) L-M-W

End mills for light metals, long with straight shank



DIN 844-L | h10 | W | HSS | HSS-E | A

DIN 1835-A | DIN 1835-B | λ=40°

DIN 844-A L-M-W

DIN 844-B L-M-W

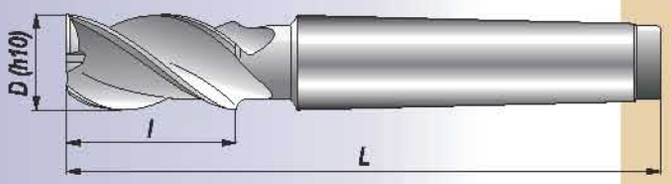
D(h10)	d(h8)	l	l_1	L	Z	DIN 844-A L-M-W HSS	HSS Golden	HSS-E	HSS-E Golden
6	6	24	36	68	3	●	○	○	○
8	10	38	40	88	3	●	○	○	○
10	10	45	40	95	3	●	○	○	○
12	12	53	45	110	3	●	○	○	○
14	12	53	45	110	3	●	○	○	○
16	16	63	48	123	3	●	○	○	○
20	20	75	50	141	4	○	○	○	○
22	20	75	50	141	4	○	○	○	○
25	25	90	56	166	4	○	○	○	○
28	25	90	56	166	4	○	○	○	○
30	25	90	56	166	4	○	○	○	○
32	32	106	60	186	4	○	○	○	○

Example of order: End mill DIN 844-A 10 L-M-W HSS

○ End mills DIN 844-B L-M-W
○ End mills DIN 844-B L-M-W Golden

End mills for light metals, short with Morse taper shank

DIN 845-B K-M-W

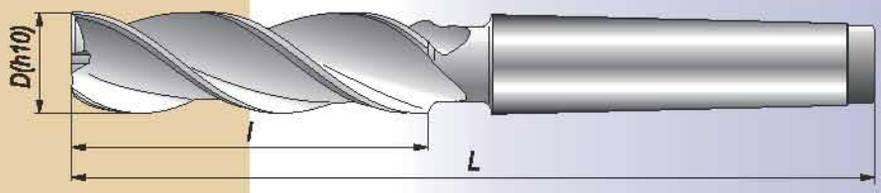


D (h10)	l	L	No. of cone	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
10	22	92	1	3	○	○	○	○
11	22	92	1	3	○	○	○	○
12	26	96	1	3	○	○	○	○
13	26	96	1	3	○	○	○	○
14	26	111	2	3	○	○	○	○
15	26	111	2	3	○	○	○	○
16	32	117	2	3	○	○	○	○
17	32	117	2	3	○	○	○	○
18	32	117	2	3	○	○	○	○
19	32	117	2	3	○	○	○	○
20	38	123	2	4	○	○	○	○
21	38	123	2	4	○	○	○	○
22	38	123	2	4	○	○	○	○
23	38	123	2	4	○	○	○	○
24	45	147	3	4	○	○	○	○
25	45	147	3	4	○	○	○	○
26	45	147	3	4	○	○	○	○
27	45	147	3	4	○	○	○	○
28	45	147	3	4	○	○	○	○
29	45	147	3	4	○	○	○	○
30	45	147	3	4	○	○	○	○
32	53	178	4	4	○	○	○	○

Example of order: **End mill DIN 845-B 10 K-M-W HSS**

DIN 845-B L-M-W

End mills for light metals, long with Morse taper shank

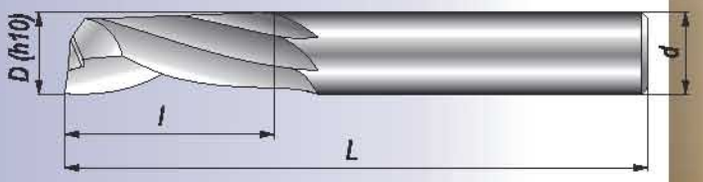


D (h10)	l	L	No. of cone	Z	HSS	HSS Golden	HSS-E	HSS-E Golden
10	45	115	1	3	○	○	○	○
11	45	115	1	3	○	○	○	○
12	53	123	1	3	○	○	○	○
13	53	123	1	3	○	○	○	○
14	53	138	2	3	○	○	○	○
15	53	138	2	3	○	○	○	○
16	63	148	2	3	○	○	○	○
17	63	148	2	3	○	○	○	○
18	63	148	2	3	○	○	○	○
19	63	148	2	3	○	○	○	○
20	75	160	2	4	○	○	○	○
21	75	160	2	4	○	○	○	○
22	75	160	2	4	○	○	○	○
23	75	160	2	4	○	○	○	○
24	90	192	3	4	○	○	○	○
25	90	192	3	4	○	○	○	○
26	90	192	3	4	○	○	○	○
27	90	192	3	4	○	○	○	○
28	90	192	3	4	○	○	○	○
29	90	192	3	4	○	○	○	○
30	90	192	3	4	○	○	○	○
32	106	231	4	4	○	○	○	○

Example of order: **End mill DIN 845-B 10 L-M-W HSS**

Fly cutters for light metals and plastics

NFPj

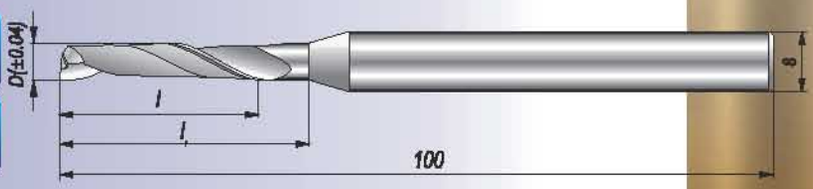


D (h10)	d (h6)	l	L	HSS-E	HSS-E Golden
6	6	20	57	●	○
8	8	22	63	●	○
10	10	25	72	●	○
12	12	30	83	○	○

Example of order: **Fly cutter NFPj 10 HSS-E**

Fly cutters for dehydrating holes in the PVC work

NFPo

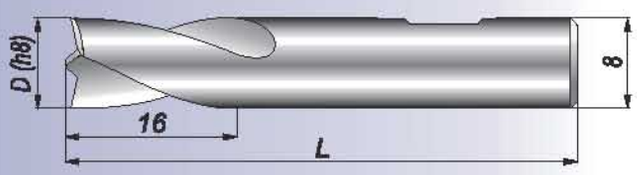


D (±0.04)	l	L	HSS	HSS Golden	HSS-E	HSS-E Golden
5	30	35	●	○	●	○
5	35	40	●	○	●	○

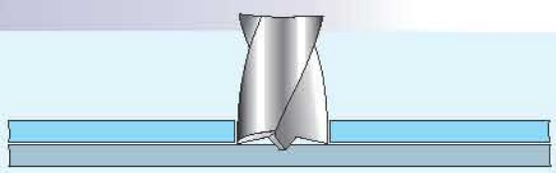
Example of order: **Fly cutter NFPo 5x30 HSS-E**

End mills with straight shank for spot welds removing

NFPz



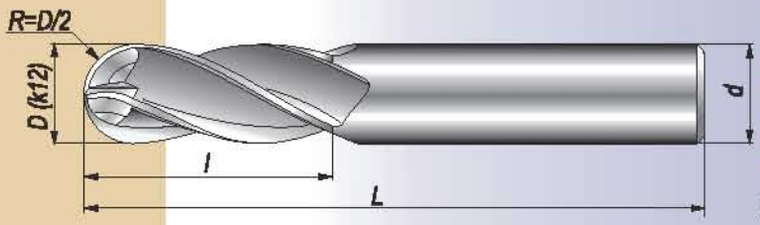
D (h8)	L	HSS-E	HSS-E Golden
8	36	●	○
8	45	●	○



Example of order: **End mill NFPz 8x36 HSS-E**

DIN 1889-(BA i BB)

Ball nosed cylindrical end mills for die-sinking with straight shank



DIN 1889-BA K-H DIN 1889-BB K-H

K - short type

D (k12)	d (h8)	l	L	Z	DIN 1889-BA K-H HSS	HSS Golden	HSS-E	HSS-E Golden
5	6	13	57	4	○	○	○	○
6	6	13	57	4	●	○	○	○
8	10	19	69	4	●	○	○	○
10	10	22	72	4	●	○	○	○
12	12	26	83	4	●	○	○	○
16	16	32	92	4	○	○	○	○
20	20	38	104	4	○	○	○	○
25	25	45	121	6	○	○	○	○
32	32	53	133	6	○	○	○	○

Example of order: **End mill DIN 1889-BA 8 K-H HSS**

○ End mills DIN 1889-BB K-H
○ End mills DIN 1889-BB K-H Golden

DIN 1889-BA L-H DIN 1889-BB L-H

L - long type

D (k12)	d (h8)	l	L	Z	DIN 1889-BA L-H HSS	HSS Golden	HSS-E	HSS-E Golden
6	6	24	68	4	○	○	○	○
8	10	38	88	4	○	○	○	○
10	10	45	95	4	○	○	○	○
12	12	53	110	4	○	○	○	○
16	16	63	123	4	○	○	○	○
20	20	75	141	4	○	○	○	○
25	25	90	166	6	○	○	○	○
32	32	106	186	6	○	○	○	○

Example of order: **End mill DIN 1889-BA 8 L-H HSS**

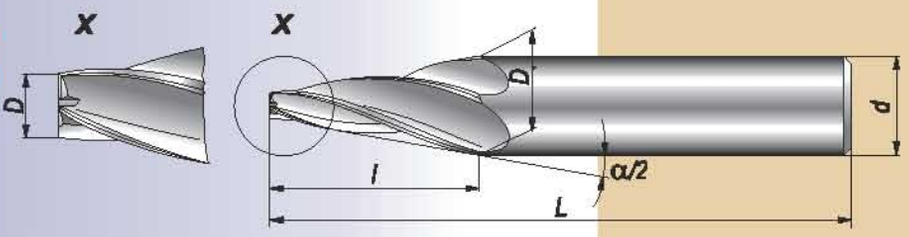
○ End mills DIN 1889-BB L-H
○ End mills DIN 1889-BB L-H Golden

Flat nosed tapered end mills for die-sinking with straight shank

DIN 1889-EA i EB

DIN 844-K | H | 1:6 1:10 1:20 | HSS | HSS-E | A

DIN 1835-A | DIN 1835-B | λ≈25° | 4



DIN 1889-EA K-H

DIN 1889-EB K-H

K - short type

Inclination	D	D_1	$d_{(h8)}$	l	L	α/2	Z	DIN 1889-EA K-H HSS	HSS Golden	HSS-E	HSS-E Golden
1:6	4	16	16	36	93	9°28'	4	○	○	○	○
1:6	6	20	20	42	106	9°28'	4	○	○	○	○
1:6	8	25	25	50	120	9°28'	4	○	○	○	○
1:6	12	33	32	63	135	9°28'	4	○	○	○	○
1:10	4	12	10	40	90	5°43'	4	○	○	○	○
1:10	6	14	12	40	95	5°43'	4	○	○	○	○
1:10	8	17	16	45	103	5°43'	4	○	○	○	○
1:10	12	21	20	45	106	5°43'	4	○	○	○	○
1:10	16	26	25	50	120	5°43'	4	○	○	○	○
1:20	4	8	8	40	90	2°52'	4	○	○	○	○
1:20	6	10	10	40	95	2°52'	4	○	○	○	○
1:20	8	12.5	12	45	105	2°52'	4	○	○	○	○
1:20	12	17	16	50	109	2°52'	4	○	○	○	○
1:20	16	21.6	20	56	120	2°52'	4	○	○	○	○
1:20	20	26.3	25	63	135	2°52'	4	○	○	○	○

Example of order: End mill DIN 1889-EA 1:20 8 K-H HSS

End mills DIN 1889-EB K-H ○
End mills DIN 1889-EB K-H Golden ○

DIN 1889-EA M-H

DIN 1889-EB M-H

M - medium long

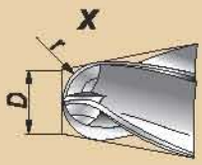
Inclination	D	D_1	$d_{(h8)}$	l	L	α/2	Z	DIN 1889-EA M-H HSS	HSS Golden	HSS-E	HSS-E Golden
1:6	4	22.7	20	56	120	9°28'	4	○	○	○	○
1:6	6	27	25	63	135	9°28'	4	○	○	○	○
1:6	8	31.7	32	71	145	9°28'	4	○	○	○	○
1:10	4	16.6	16	63	125	5°43'	4	○	○	○	○
1:10	6	18.6	16	63	125	5°43'	4	○	○	○	○
1:10	8	22.2	20	71	135	5°43'	4	○	○	○	○
1:10	12	26.2	25	71	140	5°43'	4	○	○	○	○
1:20	4	10.3	10	63	115	2°52'	4	○	○	○	○
1:20	6	12.3	10	63	115	2°52'	4	○	○	○	○
1:20	8	16	16	80	138	2°52'	4	○	○	○	○
1:20	12	20	20	80	140	2°52'	4	○	○	○	○
1:20	16	25	25	90	160	2°52'	4	○	○	○	○
1:20	20	30	25	100	170	2°52'	4	○	○	○	○

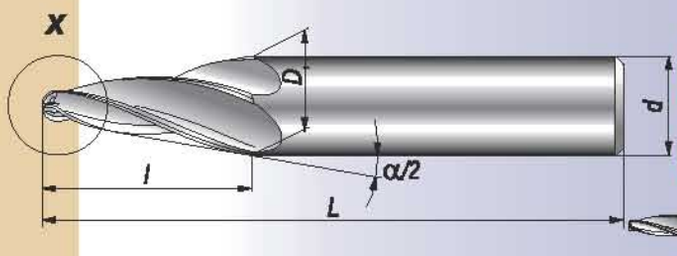
Example of order: End mill DIN 1889-EA 1:20 8 M-H HSS

End mills DIN 1889-EB M-H ○
End mills DIN 1889-EB M-H Golden ○

DIN 1889-FA i FB

Ball nosed tapered end mills for die-sinking with straight shank





DIN 1889-FA K-H

DIN 1889-FB K-H

K - short type

Inclination	D	D_1	$d_{(h8)}$	l	L	r	α/2	Z	DIN 1889-FA K-H HSS	HSS Golden	HSS-E	HSS-E Golden
1:6	4	16	16	36	93	2.36	9°28'	4	○	○	○	○
1:6	6	20	20	42	106	3.54	9°28'	4	○	○	○	○
1:6	8	25	25	50	120	4.72	9°28'	4	○	○	○	○
1:6	12	33	32	63	135	7.08	9°28'	4	○	○	○	○
1:10	4	12	10	40	90	2.21	5°43'	4	○	○	○	○
1:10	6	14	12	40	95	3.31	5°43'	4	○	○	○	○
1:10	8	17	16	45	103	4.42	5°43'	4	○	○	○	○
1:10	12	21	20	45	106	6.63	5°43'	4	○	○	○	○
1:10	16	26	25	50	120	8.84	5°43'	4	○	○	○	○
1:20	4	8	8	40	90	2.10	2°52'	4	○	○	○	○
1:20	6	10	10	40	95	3.15	2°52'	4	○	○	○	○
1:20	8	12.5	12	45	105	4.20	2°52'	4	○	○	○	○
1:20	12	17	16	50	109	6.31	2°52'	4	○	○	○	○
1:20	16	21.6	20	56	120	8.41	2°52'	4	○	○	○	○
1:20	20	26.3	25	63	135	10.51	2°52'	4	○	○	○	○

Example of order: End mill DIN 1889-FA 1:6 8 K-H HSS-E

○ End mills DIN 1889-FB K-H
○ End mills DIN 1889-FB K-H Golden

DIN 1889-FA M-H

DIN 1889-FB M-H

M - medium long

Inclination	D	D_1	$d_{(h8)}$	l	L	r	α/2	Z	DIN 1889-FA M-H HSS	HSS Golden	HSS-E	HSS-E Golden
1:6	4	22.7	20	56	120	2.36	9°28'	4	○	○	○	○
1:6	6	27	25	63	135	3.54	9°28'	4	○	○	○	○
1:6	8	31.7	32	71	145	4.72	9°28'	4	○	○	○	○
1:10	4	16.6	16	63	125	2.21	5°43'	4	○	○	○	○
1:10	6	18.6	16	63	125	3.31	5°43'	4	○	○	○	○
1:10	8	22.2	20	71	135	4.42	5°43'	4	○	○	○	○
1:10	12	26.2	25	71	140	6.63	5°43'	4	○	○	○	○
1:20	4	10.3	10	63	115	2.10	2°52'	4	○	○	○	○
1:20	6	12.3	10	63	115	3.15	2°52'	4	○	○	○	○
1:20	8	16	16	80	138	4.20	2°52'	4	○	○	○	○
1:20	12	20	20	80	140	6.31	2°52'	4	○	○	○	○
1:20	16	25	25	90	160	8.41	2°52'	4	○	○	○	○
1:20	20	30	25	100	170	10.51	2°52'	4	○	○	○	○

Example of order: End mill DIN 1889-FA 1:6 8 M-H HSS-E

○ End mills DIN 1889-FB M-H
○ End mills DIN 1889-FB M-H Golden