

MONI

instruments & engineering

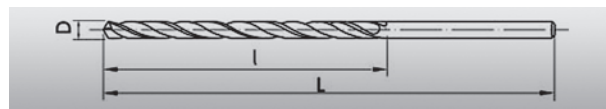
ТЪРГОВИЯ С
МЕТАЛОРЕЖЕЩИ,
ИЗМЕРВАТЕЛНИ И
РЪЧНИ ИНСТРУМЕНТИ.
ЕКИПИРОВКА ЗА МАШИНИ.
ПРОИЗВОДСТВО НА
НЕСТАНДАРТНИ ИНСТРУМЕНТИ.



МОНИ ЕООД, ГАБРОВО

2023

Свредели спирални	3
Свредели спирални дълги	4
Свредели спирални свръхдълги	5
Свредели спирални с конусна опашка	6
Стъпални свредели	8
Свредла със сменяеми твърдосплавни пластини	8
Центрови свредели	10
Зенкери	13
Зенкери със сменяеми твърдосплавни пластини	16
Фрези	17
Фрези със запоени твърдосплавни пластини	30
Фрези дискови отрезни и прорезни	32
Фрезови глави със сменяеми твърдосплавни пластини	34
Зъбонарезни инструменти	39
Ножове стругарски	44
Ножове стругарски със сменяеми твърдосплавни пластини	49
Твърдосплавни пластини	64
Метчици	70
Плашки	74
Патронници	79
Измервателни уреди	83
Екипировка за металорежещи машини	93
Дорници за CNC машини	102
Менгемета	114
Абразивни инструменти	121
Ръчни инструменти	126

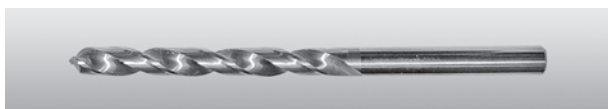


d mm	L mm	l mm
1	40	20
1.5	40	20
2	49	24
2.05	49	24
2.1	49	24
2.15	53	27
2.2	53	27
2.25	53	27
2.3	53	27
2.35	53	27
2.4	57	30
2.45	57	30
2.5	57	30
2.55	57	30
2.65	57	30
2.7	61	33
2.8	61	33
2.85	61	33
2.9	61	33
2.95	61	33
3	61	33
3.1	65	36
3.2	65	36
3.3	65	36
3.4	70	39
3.5	70	39
3.6	70	39
3.7	70	39
3.8	75	43
3.9	75	43
4	75	43
4.1	75	43
4.2	75	43
4.3	80	47
4.4	80	47
4.5	80	47
4.6	80	47
4.7	80	47
4.8	86	52

d mm	L mm	l mm
4.9	86	52
5	86	52
5.1	86	52
5.2	86	52
5.3	86	52
5.4	93	57
5.5	93	57
5.6	93	57
5.7	93	57
5.8	93	57
5.9	93	57
6	93	57
6.1	101	63
6.2	101	63
6.3	101	63
6.4	101	63
6.5	101	63
6.6	101	63
6.7	101	63
6.8	109	69
6.9	109	69
7	109	69
7.1	109	69
7.2	109	69
7.3	109	69
7.4	109	69
7.5	109	69
7.6	117	75
7.7	117	75
7.8	117	75
7.9	117	75
8	117	75
8.1	117	75
8.2	117	75
8.3	117	75
8.4	117	75
8.5	117	75
8.6	125	81
8.7	125	81
8.8	125	81
8.9	125	81

d mm	L mm	l mm
9	125	81
9.1	125	81
9.2	125	81
9.3	125	81
9.4	125	81
9.5	125	81
9.6	133	81
9.7	133	81
9.8	133	81
9.9	133	81
10	133	81
10.1	133	81
10.2	133	81
10.3	113	81
10.4	133	81
10.5	133	81
10.6	133	81
10.7	142	94
10.8	142	94
10.9	142	94
11	142	94
11.1	142	94
11.2	142	94
11.3	142	94
11.4	142	94
11.5	142	94
11.6	142	94
11.7	142	94
11.8	142	94
11.9	151	101
12	151	101
12.1	151	101
12.2	151	101
12.3	151	101
12.4	151	101
12.5	151	101
12.6	151	101
12.7	151	101
12.8	151	101
12.9	151	101

Свредели спирални дълги, DIN 340



d mm	L mm	l mm
2	85	56
3.1	106	69
3.2	106	69
2.1	85	56
3.3	106	69
3.4	112	73
2.2	90	69
3.5	112	73
3.6	112	73
2.3	90	59
3.7	112	73
3.8	119	78
2.4	95	62
3.9	119	78
4	119	78
2.5	95	62
2.6	95	62
2.7	100	66
2.8	100	66
2.9	100	66
3	100	66
4.1	119	78
4.2	119	78
4.3	126	82
4.4	126	82
4.5	126	82
4.6	126	82
4.7	126	82
4.8	132	87
4.9	132	87
5	132	87
5.1	132	87
5.2	132	87
5.3	132	87
5.4	139	91
5.5	139	91
5.6	139	91

d mm	L mm	l mm
5.7	139	91
5.8	139	91
5.9	139	91
6	139	91
6.1	148	97
6.2	148	97
6.3	148	97
6.4	148	97
6.5	148	97
6.6	148	97
6.7	148	97
6.8	156	102
6.9	156	102
7	156	102
7.1	156	102
7.2	156	102
7.3	156	102
7.4	156	102
7.5	156	102
7.6	165	109
7.7	165	109
7.8	165	109
7.9	165	109
8	165	109
8.1	165	109
8.2	165	109
8.3	165	109
8.4	165	109
8.5	165	109
8.6	175	115
8.7	175	115
8.8	175	115
8.9	175	115
9	175	115
9.1	175	115
9.2	175	115
9.3	175	115

d mm	L mm	l mm
9.4	175	115
9.5	175	115
9.6	184	121
9.7	184	121
9.8	184	121
9.9	184	121
10	184	121
10.1	184	121
10.2	184	121
10.3	184	121
10.4	184	121
10.5	184	121
10.6	184	121
10.7	195	128
10.8	195	128
10.9	195	128
11	195	128
11.1	195	128
11.2	195	128
11.3	195	128
11.4	195	128
11.5	195	128
11.6	195	128
11.7	195	128
11.8	195	128
11.9	205	134
12	205	134
12.1	205	134
12.2	205	134
12.6	205	134
12.4	205	134
12.5	205	134
12.6	205	134
12.7	205	134
12.8	205	134
12.9	205	134
13	205	134

Свредели спирални свръхдълги, DIN 1869



D h8 mm	Изпълнение					
	I		II		III	
	I mm	L mm	I mm	L mm	I mm	L mm
2	85	125				
2.1	85	125				
2.2	90	135				
2.3	90	135				
2.4	95	140				
2.5	95	140				
2.6	95	140				
2.7	95	140				
2.8	100	150	130	190		
2.9	100	150	130	190		
3	100	150	130	190		
3.1	105	155	135	200		
3.2	105	155	135	200		
3.3	105	155	135	200		
3.4	105	155	135	200		
3.5	115	165	140	210	180	265
3.6	115	165	140	210	180	265
3.7	115	165	140	210	180	265
3.8	120	175	150	220	190	280
3.9	120	175	150	220	190	280
4	120	175	150	220	190	280
4.1	120	175	150	220	190	280
4.2	120	175	150	220	190	280
4.3	125	185	160	230	200	295
4.4	125	185	160	230	200	295
4.5	125	185	160	230	200	295
4.6	125	185	160	230	200	295
4.7	125	185	160	230	200	295
4.8	135	195	170	245	210	315
4.9	135	195	170	245	210	315
5	135	195	170	245	210	315
5.1	135	195	170	245	210	315
5.2	135	195	170	245	210	315
5.3	135	195	170	245	210	315
5.4	140	205	180	260	225	330

D h8 mm	Изпълнение					
	I		II		III	
	I mm	L mm	I mm	L mm	I mm	L mm
5.5	140	205	180	260	225	330
5.6	140	205	180	260	225	330
5.7	140	205	180	260	225	330
5.8	140	205	180	260	225	330
5.9	140	205	180	260	225	330
6	140	205	180	260	225	330
6.1	150	215	190	275	235	350
6.2	150	215	190	275	235	350
6.3	150	215	190	275	235	350
6.4	150	215	190	275	235	350
6.5	150	215	190	275	235	350
6.6	150	215	190	275	235	350
6.7	150	215	190	275	235	350
6.8	155	225	200	290	250	370
6.9	155	225	200	290	250	370
7	155	225	200	290	250	370
7.1	155	225	200	290	250	370
7.2	155	225	200	290	250	370
7.3	155	225	200	290	250	370
7.4	155	225	200	290	250	370
7.5	155	225	200	290	250	370
7.6	165	240	210	305	265	390
7.7	165	240	210	305	265	390
7.8	165	240	210	305	265	390
7.9	165	240	210	305	265	390
8	165	240	210	305	265	390
8.1	165	240	210	305	265	390
8.2	165	240	210	305	265	390
8.3	165	240	210	305	265	390
8.4	165	240	210	305	265	390
8.5	165	240	210	305	265	390
8.6	175	250	220	320	280	410
8.7	175	250	220	320	280	410
8.8	175	250	220	320	280	410
8.9	175	250	220	320	280	410

Свредели спирални свръхдълги, DIN 1869

D h8 mm	Изпълнение					
	I		II		III	
	I mm	L mm	I mm	L mm	I mm	L mm
9	175	250	220	320	280	410
9.1	175	250	220	320	280	410
9.2	175	250	220	320	280	410
9.3	175	250	220	320	280	410
9.4	175	250	220	320	280	410
9.5	175	250	220	320	280	410
9.6	185	265	235	340	295	430
9.7	185	265	235	340	295	430
9.8	185	265	235	340	295	430

D h8 mm	Изпълнение					
	I		II		III	
	I mm	L mm	I mm	L mm	I mm	L mm
9.9	185	265	235	340	295	430
10	185	265	235	340	295	430
10.5	185	265	235	340	295	430
11	185	265	235	340	295	430
11.5	195	265	235	340	295	430
12	195	280	240	350	305	450
12.5	195	280	240	350	305	450
13	185	280	240	350	305	450

Свредели спирални с конусна опашка, DIN 340



D mm	L1 mm	L2 mm
7.5	150	69
7.8	156	75
8	156	75
8.2	156	75
8.5	156	75
8.8	162	81
9	162	81
9.2	162	81
9.5	162	81
9.8	168	87
10	168	87
10.2	168	87
10.5	168	87
10.8	175	94
11	175	94
11.2	175	94
11.5	175	94
11.8	175	94
12	182	101
12.2	182	101
12.5	182	101

D mm	L1 mm	L2 mm
12.8	182	101
13	182	101
13.2	182	101
13.5	189	108
13.8	189	108
14	189	108
14.25	212	114
14.5	212	114
14.75	212	114
15	212	114
15.25	218	120
15.5	218	120
15.75	218	120
16	218	120
16.25	223	125
16.5	223	125
16.75	223	125
17	223	125
17.25	228	130
17.5	228	130
17.75	228	130

D mm	L1 mm	L2 mm
18	228	130
18.25	233	135
18.5	233	135
18.75	233	135
19	233	135
19.25	238	140
19.5	238	140
19.75	238	140
20	238	140
20.25	243	145
20.5	243	145
20.75	243	145
21	243	145
21.2	248	150
21.5	253	155
23.25	253	155
23.5	253	155
23.75	281	160
24	281	160
24.25	281	160
24.5	281	160

Свредели спирални с конусна опашка, **DIN 340**

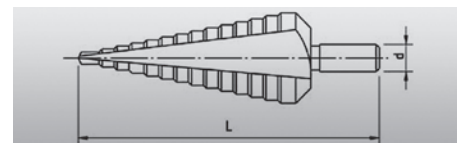
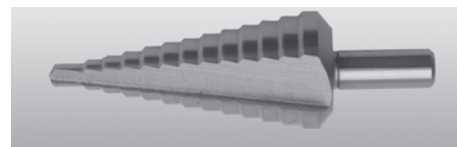
D mm	L1 mm	L2 mm
24.75	281	160
25	281	160
25.25	286	165
25.5	286	165
25.75	286	165
26	286	165
26.25	286	165
26.5	286	165
26.75	291	170
27	291	170
27.25	291	170
27.5	291	170
27.75	291	170
28	291	170
28.25	296	175
28.5	296	175
28.75	296	175
29	296	175
29.25	296	175
29.5	296	175
29.75	296	175
30	296	175
30.25	301	180
30.5	301	180
30.75	301	180
31	301	180
31.25	301	180
31.5	301	180
31.75	306	185
32	334	185
32.5	334	185
33	334	185
33.5	334	185
34	339	190
34.5	339	190
35	339	190
35.5	339	190
36	344	195
36.5	344	195
37	344	195
37.5	344	195
38	349	200
38.5	349	200
39	349	200
39.5	349	200
40	349	200
40.5	354	205
41	354	205
41.5	354	205
42	354	205

D mm	L1 mm	L2 mm
43.5	359	210
43.75	359	210
42.5	354	205
43	359	210
43.25	359	210
44.75	359	210
45	359	210
45.25	359	210
45.5	359	210
45.75	359	210
48	369	220
48.5	369	220
49	369	220
49.5	369	220
50	369	220
50.5	374	225
51	412	225
52	412	225
53	412	225
54	417	230
55	417	230
56	417	230
57	422	235
58	422	235
59	422	235
60	422	235
61	427	240
62	427	240
63	427	240
64	432	245
65	432	245
66	432	245
67	432	245
68	437	250
69	437	250
70	437	250
71	437	250
72	442	255
73	442	255
74	442	255
75	442	255
76	447	260
77	514	260
78	514	260
79	514	260
80	514	260
81	519	265
82	519	265
83	519	265
84	519	265

D mm	L1 mm	L2 mm
85	519	265
86	524	270
87	524	270
88	524	270
89	524	270
90	524	270
91	529	275
92	529	275
93	529	275
94	529	275
95	529	275
96	534	280
97	534	280
98	534	280
99	534	280
100	534	280

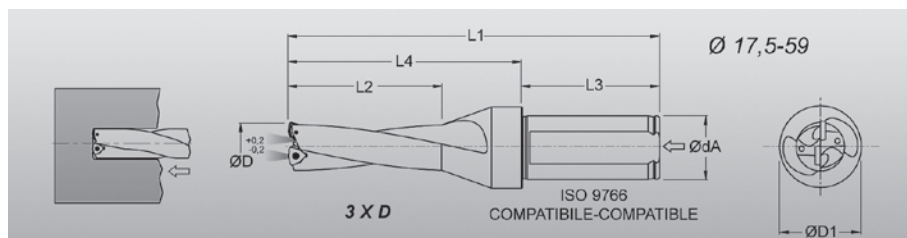
Стъпални свредели

Обхват mm	L mm	d mm	диаметър на стъпалата mm
4-12	65	6	4, 5, 6, 7, 8, 9, 10, 11, 12
4-20	76	8	4, 6, 8, 10, 12, 14, 16, 18, 20
4-22	77	8	4, 6, 8, 10, 12, 14, 16, 18, 20, 22
4-30	100	9	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30
4-39	107	10	4, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39
6 - 32	100	9	6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32
6 - 40.5	107	10	6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 40.5



СВРЕДЛА СЪС СМЕНЯЕМИ ТВЪРДОСПЛАВНИ ПЛАСТИНИ

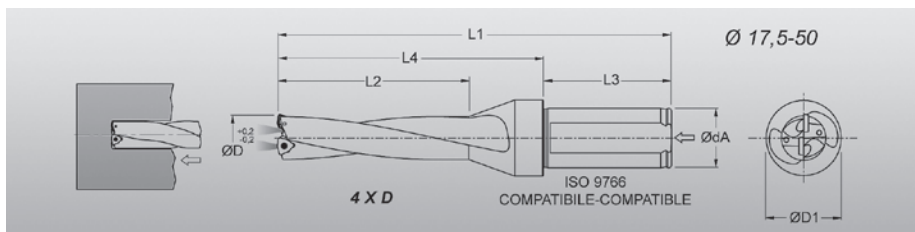
TDC .. R/L, 3 X D



Съвместими твърдосплавни пластини
WCMXS42
WCMXS62/O62
WCMTL62

Код	ØD ^{+/-0,2} mm	ØdA mm	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	⊙
TDC 17530 R/L	17.5	25	32	138.5	54.5	54	84.5	030208
TDC 18030 R/L	18	25	32	140	56	54	86	
TDC 18530 R/L	18.5	25	32	141.5	57.5	54	87.5	
TDC 19030 R/L	19	25	32	143	59	54	89	
TDC 19530 R/L	19.5	25	32	144.5	60.5	54	90.5	
TDC 20030 R/L	20	25	32	146	62	54	92	
TDC 20530 R/L	20.5	25	32	147.5	63.5	54	93.5	
TDC 21030 R/L	21	25	32	149	65	54	95	040208
TDC 21530 R/L	21.5	25	32	150.5	66.5	54	96.5	
TDC 22030 R/L	22	25	32	152	68	54	98	
TDC 22530 R/L	22.5	25	32	153.5	69.5	54	99.5	
TDC 23030 R/L	23	25	32	155	71	54	101	
TDC 23530 R/L	23.5	25	32	156.5	72.5	54	102.5	
TDC 24030 R/L	24	25	32	158	74	54	104	
TDC 24530 R/L	24.5	25	32	159.5	75.5	54	105.5	050308
TDC 25030 R/L	25	25	32	161	77	54	107	
TDC 25530 R/L	25.5	25	32	162.5	78.5	54	108.5	
TDC 26030 R/L	26	25	32	164	80	54	110	
TDC 26530 R/L	26.5	25	32	165.5	81.5	54	111.5	
TDC 27030 R/L	27	25	32	167	83	54	113	
TDC 27530 R/L	27.5	25	32	168.5	84.5	54	114.5	

Код	ØD ^{+/-0,2} mm	ØdA mm	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	
TDC 28030 R/L	28	25	32	170	86	54	116	050308
TDC 28530 R/L	28.5	25	32	171.5	87.5	54	117.5	
TDC 29030 R/L	29	25	32	173	89	54	119	
TDC 29530 R/L	29.5	25	32	174.5	90.5	54	120.5	
TDC 30030 R/L	30	32	49	180	92	58	122	050308
TDC 30530 R/L	30.5	32	49	181.5	93.5	58	123.5	
TDC 31030 R/L	31	32	49	183	95	58	125	06T308
TDC 31530 R/L	31.5	32	49	184.5	96.5	58	126.5	
TDC 32030 R/L	32	32	49	186	98	58	128	
TDC 32530 R/L	32.5	32	49	187.5	99.5	58	129.5	
TDC 33030 R/L	33	32	49	189	101	58	131	
TDC 33530 R/L	33.5	32	49	190.5	102.5	58	132.5	
TDC 34030 R/L	34	32	49	192	104	58	134	
TDC 34530 R/L	34.5	32	49	193.5	105.5	58	135.5	
TDC 35530 R/L	35	32	49	195	107	58	137	06T308
TDC 35530 R/L	35.5	32	49	196.5	108.5	58	138.5	
TDC 36030 R/L	36	32	49	198	110	58	140	
TDC 36530 R/L	36.5	32	49	199.5	111.5	58	141.5	
TDC 37030 R/L	37	32	49	201	113	58	143	
TDC 37530 R/L	37.5	32	49	202.5	114.5	58	144.5	
TDC 38030 R/L	38	32	49	204	116	58	146	
TDC 38530 R/L	38.5	32		205.5	117.5	58	147.5	
TDC 39030 R/L	39	32	49	207	119	58	149	
TDC 39530 R/L	39.5	32	49	208.5	120.5	58	150.5	
TDC 40030 R/L	40	32	49	210	122	58	152	
TDC 41030 R/L	41	32	49	213	125	58	155	
TDC 42030 R/L	42	32	49	216	128	58	158	080412
TDC 43030 R/L	43	32	49	219	131	58	161	
TDC 44030 R/L	44	32	49	222	134	58	164	
TDC 45030 R/L	45	40	59	240	137	68	172	080412
TDC 46030 R/L	46	40	59	243	140	68	175	
TDC 47030 R/L	47	40	59	246	143	68	178	
TDC 48030 R/L	48	40	59	249	146	68	181	
TDC 49030 R/L	49	40	59	252	149	68	184	
TDC 50030 R/L	50	40	59	255	152	68	187	
TDC 51030 R/L	51	40	59	258	155	68	190	
TDC 52030 R/L	52	40	59	261	158	68	193	
TDC 53030 R/L	53	40	59	264	161	68	196	
TDC 54030 R/L	54	40	59	267	164	68	199	
TDC 55030 R/L	55	40	59	270	167	68	202	
TDC 56030 R/L	56	40	59	273	170	68	205	
TDC 57030 R/L	57	40	59	276	173	68	208	
TDC 58030 R/L	58	40	59	279	176	68	211	
TDC 59030 R/L	59	40	59	282	179	68	214	



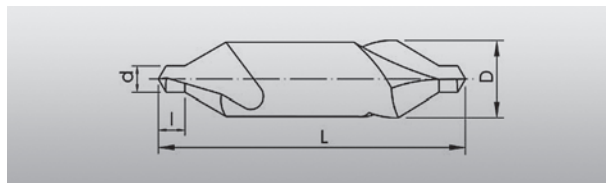
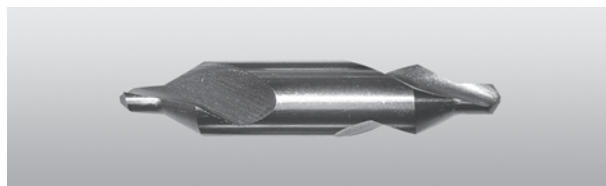
Съвместими твърдосплавни пластини
WCMXS42
WCMXS62/.062
WCMTL62

Код	ØD ^{+/-0,2} mm	ØdA mm	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	
TDC 17540 R/L	17.5	25	32	156	72	54	102	030208
TDC 18040 R/L	18	25	32	158	74	54	104	
TDC 18540 R/L	18.5	25	32	160	76	54	106	
TDC 19040 R/L	19	25	32	162	78	54	108	
TDC 19540 R/L	19.5	25	32	164	80	54	110	
TDC 20040 R/L	20	25	32	166	82	54	112	
TDC 20540 R/L	20.5	25	32	168	84	54	114	
TDC 21040 R/L	21	25	32	170	86	54	116	040208
TDC 21540 R/L	21.5	25	32	172	88	54	118	
TDC 22040 R/L	22	25	32	174	90	54	120	
TDC 22540 R/L	22.5	25	32	176	92	54	122	
TDC 23040 R/L	23	25	32	178	94	54	124	
TDC 23540 R/L	23.5	25	32	180	96	54	126	
TDC 24040 R/L	24	25	32	182	98	54	128	
TDC 24540 R/L	24.5	25	32	184	100	54	130	
TDC 25040 R/L	25	25	32	186	102	54	132	
TDC 25540 R/L	25.5	25	32	188	104	54	134	
TDC 26040 R/L	26	25	32	190	106	54	136	050308
TDC 26540 R/L	26.5	25	32	192	108	54	138	
TDC 27040 R/L	27	25	32	194	110	54	140	
TDC 28040 R/L	28	25	32	198	114	54	144	
TDC 29040 R/L	29	25	32	202	118	54	148	
TDC 30040 R/L	30	32	49	210	122	58	152	050308
TDC 31040 R/L	31	32	49	214	126	58	156	06T308
TDC 32040 R/L	32	32	49	218	130	58	160	
TDC 33040 R/L	33	32	49	222	134	58	164	
TDC 34040 R/L	34	32	49	226	138	58	168	
TDC 35040 R/L	35	32	49	230	142	58	172	
TDC 36040 R/L	36	32	49	234	146	58	176	
TDC 37040 R/L	37	32	49	238	150	58	180	
TDC 38040 R/L	38	32	49	242	154	58	184	
TDC 39040 R/L	39	32	49	246	158	58	188	
TDC 40040 R/L	40	32	49	250	162	58	192	
TDC 41040 R/L	41	32	49	254	166	58	196	080412
TDC 42040 R/L	42	32	49	258	170	58	200	
TDC 43040 R/L	43	32	49	262	174	58	204	
TDC 44040 R/L	44	32	49	266	178	58	208	
TDC 45040 R/L	45	40	59	285	182	68	217	
TDC 46040 R/L	46	40	59	289	186	68	221	
TDC 47040 R/L	47	40	59	293	190	68	225	
TDC 48040 R/L	48	40	59	297	194	68	229	
TDC 49040 R/L	49	40	59	301	198	68	233	
TDC 50040 R/L	50	40	59	305	202	68	237	

ЦЕНТРОВИ СВРЕДЕЛИ

Центрови свредла 60° с шлифовани канали, **DIN 333** Форма А

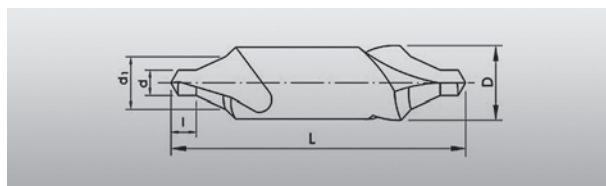
d k12 mm	l mm	D h9 mm	L mm
1	1.3	3.15	31.5
1.25	1.6	3.15	31.5
1.6	2	4	35.5
2	2.5	5	40
2.5	3.1	6.3	45
3.15	3.9	8	50
4	5	10	56
5	6.3	12.5	63
6.3*	8	16	71
8*	10.1	20	80
10*	12.8	25	100



*Изработват се с фрезеровани канали

Центрови свредла 60° с шлифовани канали, **DIN 333** Форма В

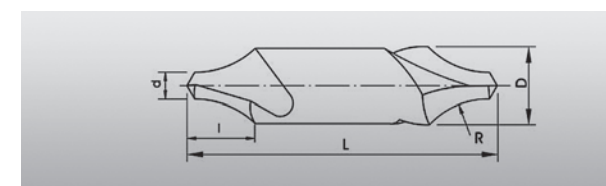
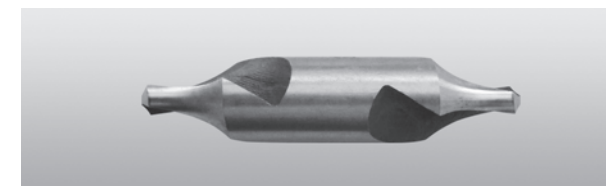
d k12 mm	l mm	D h9 mm	d ₁ mm	L mm
1	1.3	4	2.12	35.5
1.25	1.6	5	2.65	40
1.6	2	6.3	3.35	45
2	2.5	8	4.25	50
2.5	3.1	10	5.3	56
3.15	3.9	11.2	6.7	60
4*	5	14	8.5	67
5*	6.3	18	10.6	75
6.3*	8	20	13.2	80
8*	10.1	25	17	100
10*	12.8	31.2	21.2	125



*Изработват се с фрезеровани канали

Центрови свредла 60° с шлифовани канали, **DIN 333** Форма R

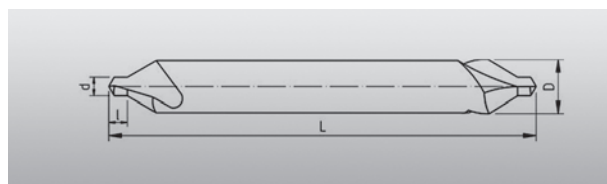
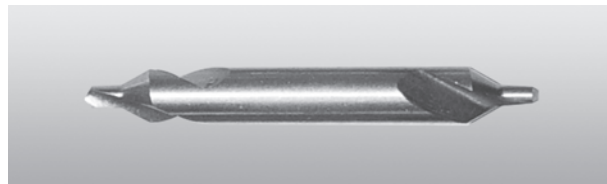
d k12 mm	l mm	D h9 mm	R mm		L mm
			max	min	
1	3	3.15	3.13	2.5	31.5
1.25	3.35	3.15	4	3.15	31.5
1.6	4.25	4	5	4	35.5
2	5.3	5	6.3	5	40
2.5	6.7	6.3	8	6.3	45
3.15	8.5	8	10	8	50
4	10.6	10	12.5	10	56
5	13.2	12.5	16	12.5	63
6.3*	17	16	20	16	71
8*	21.2	20	25	20	80
10*	26.5	25	31.5	20	100



*Изработват се с фрезеровани канали

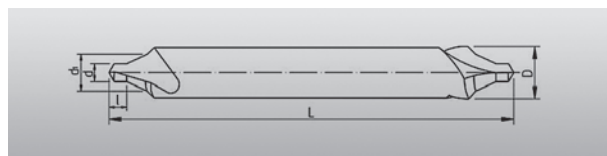
Центрови свредла 60°, Удължени, Форма А

d k12 mm	l mm	D h9 mm	L mm
1	1.3	3.15	60
1.25	1.6	3.15	60
1.6	2	4	60
1	1.3	3.15	80
1.25	1.6	3.15	80
1.6	2	4	80
2	2.5	5	80
2.5	3.1	6.3	80
3.15	3.9	8	80
1.6	2	4	100
2	2.5	5	100
2.5	3.1	6.3	100
3.15	3.9	8	100
4	5	10	100
5	6.3	12.5	100
1.6	2	4	120
2	2.5	5	120
2.5	3.1	6.3	120
3.15	3.9	8	120
4	5	10	120
5	6.3	12.5	120



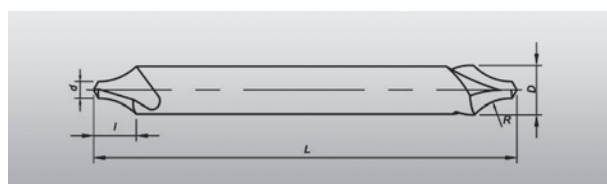
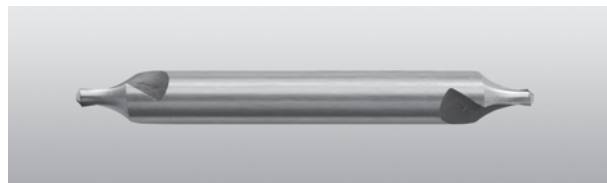
Центрови свредла 60°, Удължени, Форма В

d k12 mm	l mm	D h9 mm	d ₁ k12 mm	L mm
1	1.3	4	2.12	80
1.25	1.6	5	2.65	80
1.6	2	6.3	3.35	120
2	2.5	8	4.25	120
2.5	3.1	10	5.3	120
3.15	3.9	11.2	6.7	120



Центрови свредла 60°, Удължени, Форма R

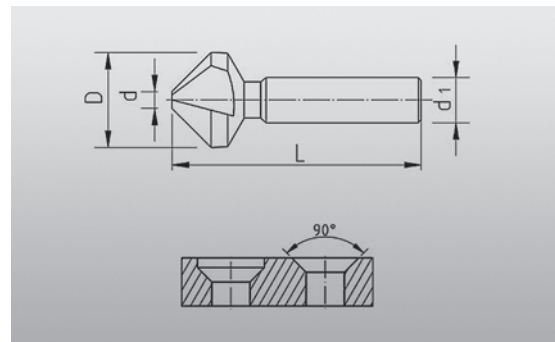
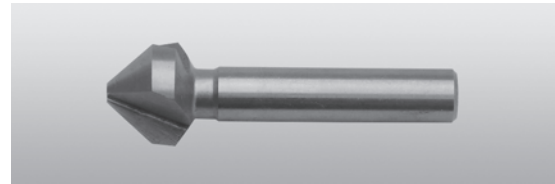
d k12 mm	l mm	D h9 mm	R mm		L mm
			max	min	
1	3	3.15	3.13	2.5	80
1.25	3.35	3.15	4	3.15	80
1.6	4.25	4	5	4	100
2	5.3	5	6.3	5	100
2.5	6.7	6.3	8	6.3	100
3.15	8.5	8	10	8	120
4	10.6	10	12.5	10	120
5	13.2	12.5	16	12.5	120



Конусни зенкери 90° с цилиндрична опашка с 3 режещи ръба,

DIN 335 "C"

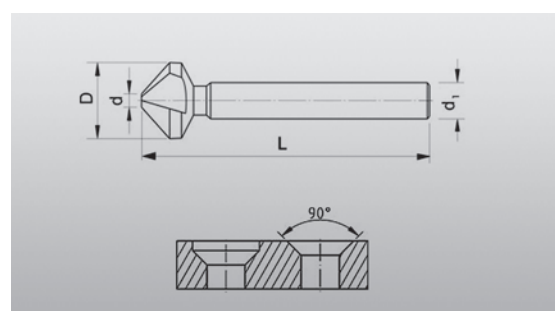
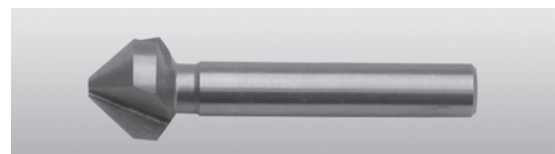
D mm	DIN74 Af	DIN74 Bf	DIN75 Af	DIN75 Bf	L mm	d mm	d ₁ mm
4.3	M2	M1.8	M2		40	1.3	4
5.0	M2.5	M2			40	1.5	4
5.3			M2.6	M2.6	40	1.5	4
5.8			M3		45	1.5	5
6.0	M3	M2.5			45	1.5	5
6.2					45	1.5	5
6.3		M3	M3.5	M3	45	1.5	6
7.0	M3.5	M3			50	1.8	6
7.3			M4	M3.5	50	1.8	6
8.0	M4	M3.5			50	2.0	6
8.3		M4		M4	50	2.0	6
8.4					50	2.0	6
9.4			M4		50	2.2	6
10.0	M5	M4			50	2.5	6
10.4		M5	M6	M5	50	2.5	6
11.5	M6	M5			56	2.8	8
12.4		M6		M6	56	2.8	8
13.4			M8		56	2.9	8
15.0	M8	M6			60	3.2	10
16.5		M8	M10	M8	60	3.2	10
19.0	M10	M8			63	3.5	10
20.5		M10		M10	63	3.5	10
23.0	M12	M10			67	3.8	10
25.0		M12		M12	67	3.8	10
26.0	M14				67	3.8	10
28.0		M14		M14	71	4.0	12
30.0		M16			71	4.2	12
31.0				M16	71	4.2	12



Конусни зенкери 90° с дълга цилиндрична опашка с 3 режещи ръба,

DIN 335 "C"

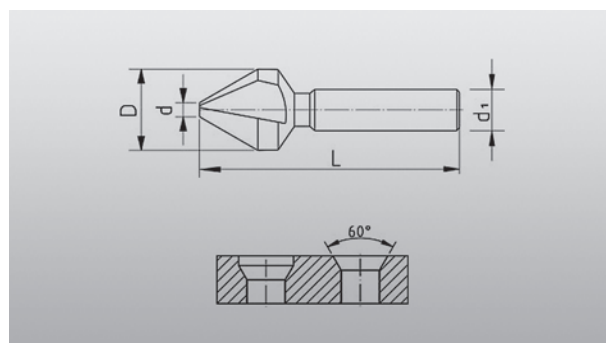
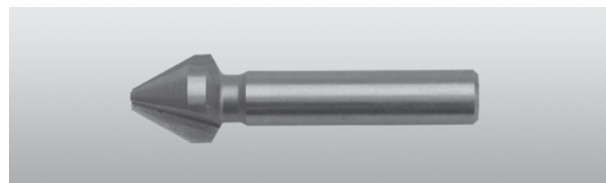
D mm	DIN74 Af	DIN74 Bf	DIN75 Af	DIN75 Bf	L mm	d mm	d ₁ mm
5.8			M3		130	1.5	5
6.3		M3	M3.5	M3	130	1.5	5
8.3		M4		M4	130	2.0	6
9.4			M4		130	2.2	6
10.4		M5	M6	M5	135	2.5	6
11.5	M6	M5			130	2.8	6
12.4		M6		M6	135	2.8	8
15.0	M8	M6			135	3.2	10
16.5		M8	M10	M8	140	3.2	10
20.5		M10		M10	140	3.5	10
25.0		M12		M12	140	3.8	10



Конусни зенкери 60° цилиндрична опашка с 3 режещи ръба,

DIN 334

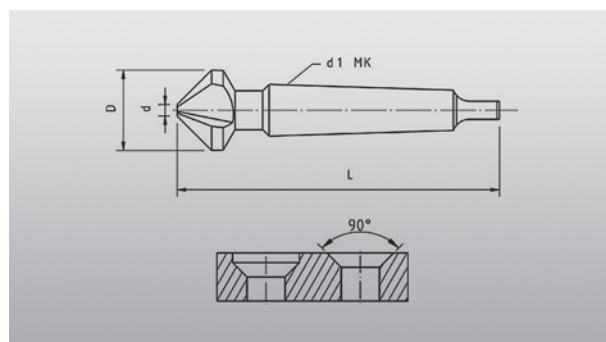
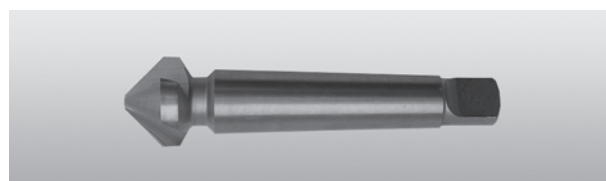
D mm	L mm	d mm	d ₁ mm
6.3	45	1.6	5
6.4	45	1.6	5
8.0	50	2.0	6
8.4	50	2.0	6
10.4	50	2.5	6
12.4	56	3.2	8
12.5	56	3.2	8
16.0	63	4.0	10
16.5	63	4.0	10
20.0	67	5.0	10
20.5	67	5.0	10
25.0	71	6.3	10
30.0	76	10.0	12
31.5	76	10.0	12
40.0	88	12.5	15



Конусни зенкери 90° с опашка морзов конус и 3 режещи ръба,

DIN 335 "D"

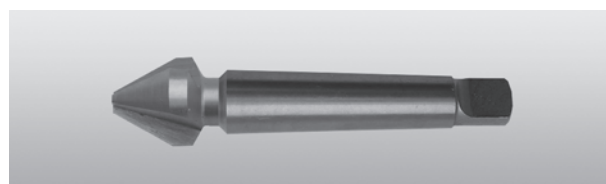
D mm	DIN74 Af	DIN74 Bf	DIN75 Af	DIN75 Bf	L mm	d mm	d ₁ mm
15.0	M8	M6			85	3.2	1
16.5		M8	M10	M8	85	3.2	1
19.0	M10	M8			100	3.5	2
20.5		M10		M10	100	3.5	2
23.0	M12	M10			106	3.8	2
25.0		M12		M12	106	3.8	2
26.0	M14				106	3.8	2
28.0		M14		M14	112	4.0	2
30.0	M16				112	4.2	2
31.0		M16		M16	112	4.2	2
34.0	M18	M18			118	4.5	2
37.0	M20	M20		M20	118	4.8	2
40.0				M24	140	10	3
50.0					150	14	3
63.0					180	16	4
80.0					190	22	4



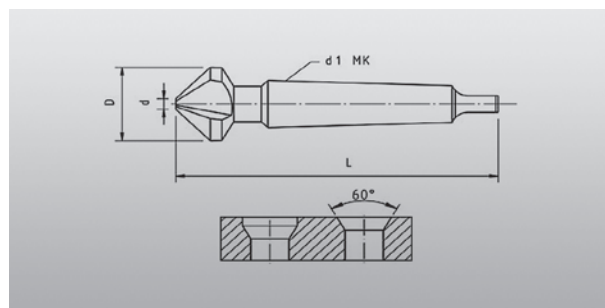
Конусни зенкери 60° с опашка морзов конус и 3 режещи ръба,

DIN 334 "D"

D mm	DIN74 Af	DIN74 Bf	DIN75 Af	DIN75 Bf	L mm	d mm	d ₁ mm
15.0	M8	M6			85	3.2	1
16.5		M8	M10	M8	85	3.2	1
19.0	M10	M8			100	3.5	2
20.5		M10		M10	100	3.5	2
23.0	M12	M10			106	3.8	2
25.0		M12		M12	106	3.8	2

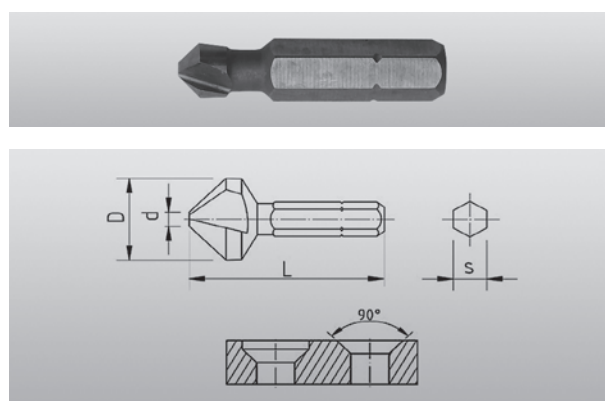


D mm	DIN74 Af	DIN74 Bf	DIN75 Af	DIN75 Bf	L mm	d mm	d ₁ mm
26.0	M14				106	3.8	2
28.0		M14		M14	112	4.0	2
30.0	M16				112	4.2	2
31.0		M16		M16	112	4.2	2
34.0	M18	M18			118	4.5	2
37.0	M20	M20		M20	118	4.8	2
40.0				M24	140	10	3
50.0					150	14	3
63.0					180	16	4
80.0					190	22	4



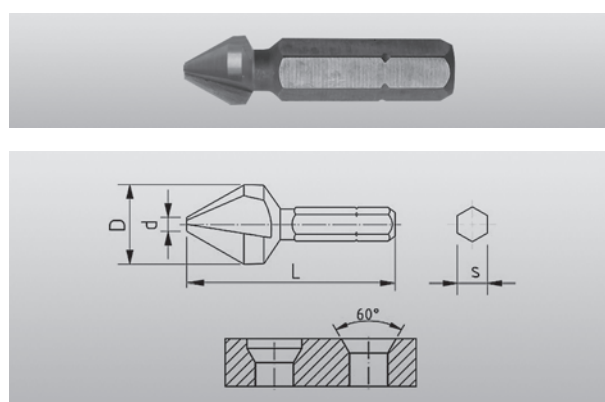
Конусни зенкери 90° с опашка шестостен с 3 режещи ръба

D mm	L mm	d mm	S mm
6.3	31	1.5	6.35
8.3	32	2.0	6.35
10.4	34	2.5	6.35
12.4	35	2.8	6.35
16.5	40	3.2	6.35
20.5	40	3.5	6.35



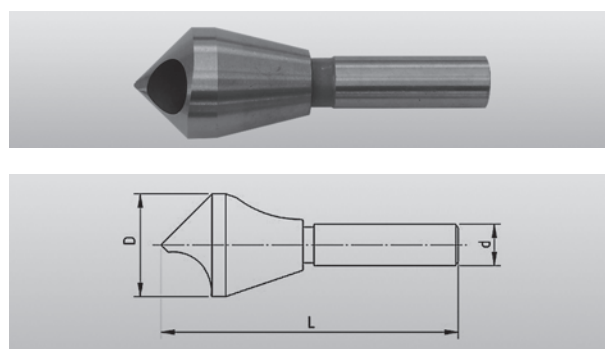
Конусни зенкери 60° с опашка шестостен с 3 режещи ръба

D mm	L mm	d mm	S mm
6.3	32	1.6	6.35
8.3	34	2.0	6.35
10.4	36	2.0	6.35
12.4	37	3.2	6.35
16.5	43	4.0	6.35
20.5	45	5.0	6.35



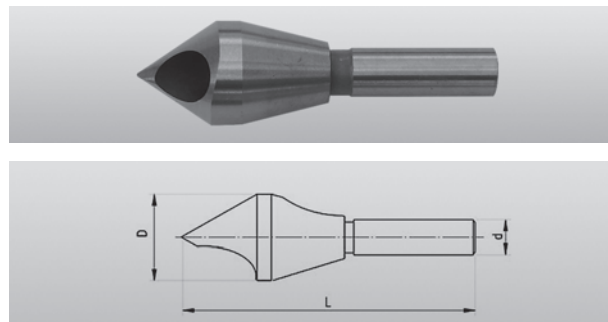
Конусни зенкери 90° с напречен отвор цилиндрична опашка

Обхват mm	D mm	L mm	d mm
2/5	10	45	6
5/10	14	48	8
10/15	21	65	10
15/20	28	84	12
20/25	35	102	12
20/25	35	102	15

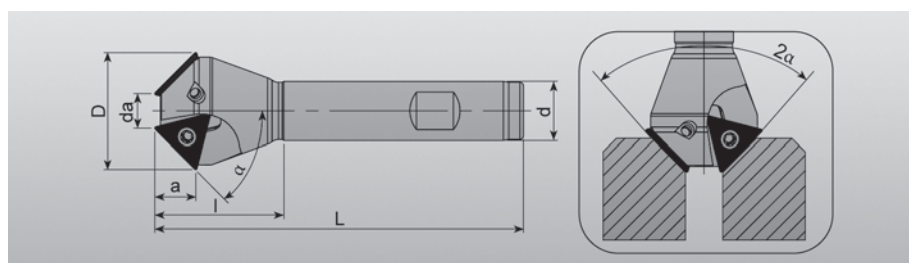


Конусни зенкери 60° с напречен отвор цилиндрична опашка

Обхват mm	D mm	L mm	d mm
2/5	10	50	6
5/10	14	58	8
10/15	21	80	10
15/20	28	102	12
20/25	35	125	12



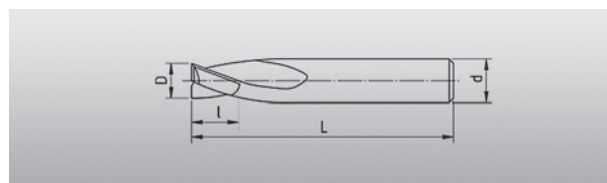
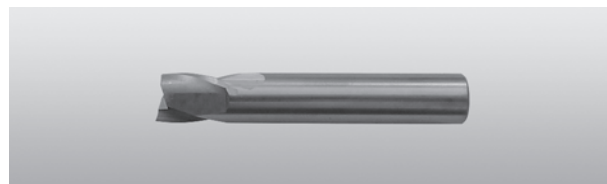
ЗЕНКЕРИ СЪС СМЕНЯЕМИ ТВЪРДОСПЛАВНИ ПЛАСТИНИ



Код	α	da	D	d	L	l	Z	a	
TC16-D17X20-W16-L90-Z01	10°	17	20	16	90	30	1	15.2	TC.T 16T304
TC16-D17X22-W16-L90-Z01	15°	17	22	16	90	30	1	14.9	
TC16-D17X24-W16-L90-Z01	17.5°	17	24	16	90	30	1	14.7	
TC16-D21.3X30-W20-L100-Z02	18.5°	21.3	30	20	100	30	2	13.5	
TC16-D12X20-W16-L100-Z01	20°	12	20	16	100	30	1	14.4	
TC16-D17X26-W16-L100-Z01	20°	17	26	16	100	30	1	14.4	
TC16-D17X28-W16-L100-Z01	22.5°	17	28	16	100	30	1	14.2	
TC16-D17X30-W16-L100-Z01	25°	17	30	16	100	30	1	13.9	
TC16-D6X20-W16-L100-Z01	30°	6	20	16	100	30	1	13.3	
TC16-D20X35-W16-L100-Z02	30°	20	35	16	100	35	2	13.3	
TC16-D30X45-W20-L100-Z02	30°	30	45	20	100	40	2	13.3	
TC09-D7X19-W16-L100-Z02	45°	7	19	16	100	25	2	5.9	TC.T 090204
TC11-D11X24-W16-L100-Z02	45°	11	24	16	100	25	2	6.9	TC.T 110204
TC16-D5X23-W16-L100-Z01	45°	5	23	16	100	30	1	10.8	TC.T 16T304
TC16-D10X30-W16-L100-Z02	45°	10	30	16	100	35	2	10.8	
TC16-D10X30-W20-L100-Z02	45°	10	30	20	100	35	2	10.8	
TC16-D18X37-W16-L100-Z02	45°	18	37	16	100	40	2	10.8	
TC16-D18X37-W20-L100-Z02	45°	18	37	20	100	40	2	10.8	
TC16-D20X40-W20-L100-Z02	45°	20	40	20	100	40	2	10.8	
TC16-D30X50-W20-L100-Z02	45°	30	50	20	100	40	2	10.8	
TC16-D16X40-W20-L100-Z03	55°	16	40	20	100	40	3	8.7	
TC16-D14X40-W20-L100-Z03	62°	14	40	20	100	40	3	7.1	
TC16-D14X42-W20-L100-Z03	72°	14	42	20	100	40	3	4.6	

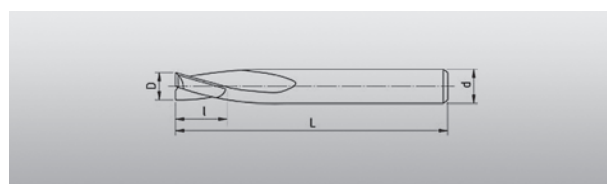
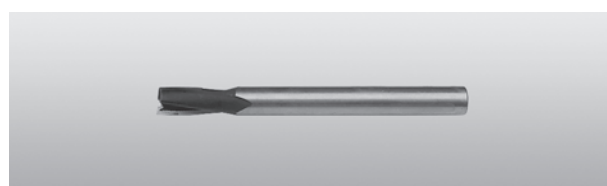
Фрези за шпонкови канали с цилиндрична опашка, DIN 327, Форма А - DIN 1835

D e8 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
2	6	48	4	2
2.5	6	49	5	2
3	6	49	5	2
4	6	51	7	2
5	6	52	8	2
6	6	52	8	2
7	10	60	10	2
8	10	61	11	2
10	10	63	13	2
12	12	73	16	2
14	12	73	16	2
16	16	79	19	2
18	16	79	19	2
20	20	88	22	2
22	20	88	22	2
24	25	102	26	2
25	25	102	26	2
28	25	102	26	2
32	32	112	32	2
36	32	112	32	2



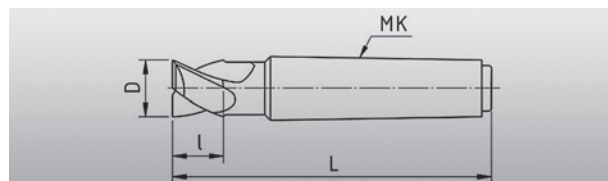
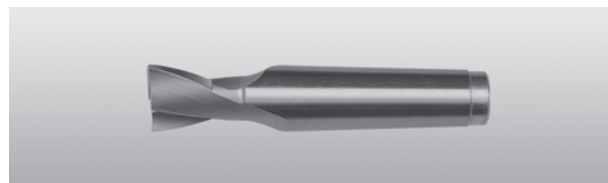
Фрези удължени за шпонкови канали с цилиндрична опашка, DIN 327, Форма А - DIN 1835

D e8 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
4	6	63	11	2
5	6	68	13	2
6	6	68	13	2
7	10	80	16	2
8	10	88	19	2
10	10	95	22	2
12	12	110	26	2
14	12	110	26	2
16	16	123	32	2
18	16	123	32	2
20	20	141	38	2
22	20	141	38	2
24	25	166	45	2
25	25	166	45	2
28	25	166	45	2
32	32	186	53	2
36	32	186	53	2



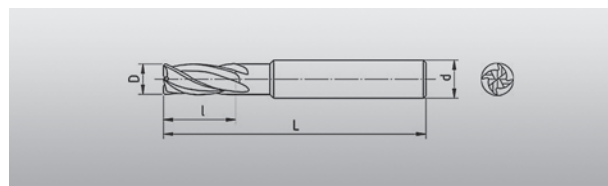
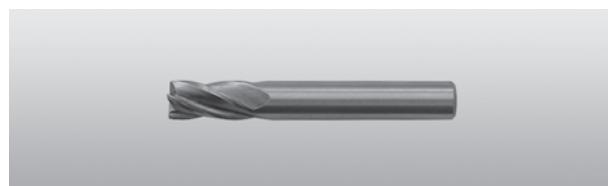
Фрези за шпонкови канали с конусна опашка,
DIN 326, Форма А - **DIN 228**

D е8 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	83	13	2	1
12	86	16	2	1
14	101	16	2	2
16	104	19	2	2
18	104	19	2	2
20	107	22	2	2
22	107	22	2	2
24	128	26	2	3
25	128	26	2	3
28	128	26	2	3
32	157	32	2	4
36	157	32	2	4
40	163	38	2	4



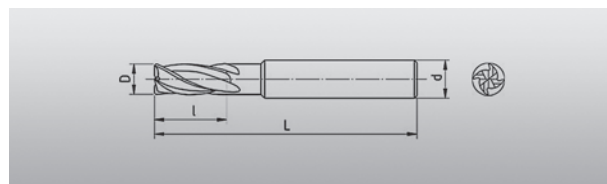
Фрези челно-цилиндрични форма А с цилиндрична опашка тип N,
DIN 844, Форма А - **DIN 1835**

D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
4	6	55	11	4
5	6	57	13	4
6	6	57	13	4
7	10	66	16	4
8	10	69	19	4
9	10	69	19	4
10	10	72	22	4
11	12	79	22	4
12	12	83	26	4
14	12	83	26	4
16	16	92	32	4
18	16	92	32	4
20	20	104	38	4
22	20	104	38	6
25	25	121	45	6
28	25	121	45	6



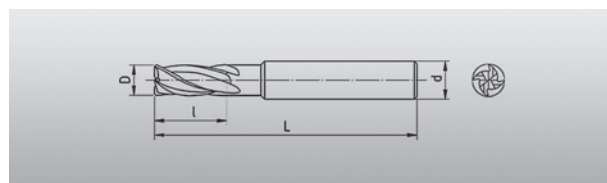
Фрези челно-цилиндрични високопроизводителни форма А с цилиндрична опашка тип NR, **DIN 844**, Форма А - **DIN 1835**

D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
8	10	69	19	4
9	10	69	19	4
10	10	72	22	4
11	12	79	22	4
12	12	83	26	4
14	12	83	26	4
16	16	92	32	4
18	16	92	32	5
20	20	104	38	5
22	20	104	38	5
25	25	121	45	5
28	25	121	45	6



Фрези челно-цилиндрични високопроизводителни форма А с цилиндрична опашка тип NF, **DIN 844**, Форма А - **DIN 1835**

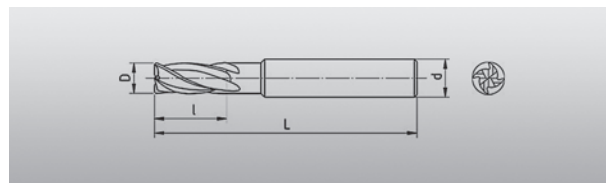
D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
8	10	69	19	4
9	10	69	19	4
10	10	72	22	4
11	12	79	22	4
12	12	83	26	4
14	12	83	26	4
16	16	92	32	4
18	16	92	32	5
20	20	104	38	5
22	20	104	38	5
25	25	121	45	5
28	25	121	45	6



Фрези удължени челно-цилиндрични високопроизводителни форма А с цилиндрична опашка тип NF, **DIN 844**, Форма А - **DIN 1835**

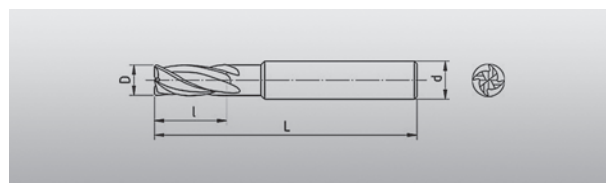
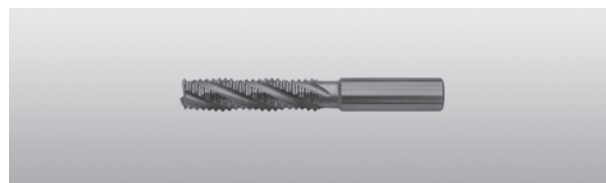
D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
4	6	63	19	4
5	6	68	24	4
6	6	68	24	4
7	10	80	30	4
8	10	88	38	4

D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
9	10	88	38	4
10	10	95	45	4
11	12	102	45	4
12	12	110	53	4
14	12	110	53	4
16	16	123	63	4
18	16	123	63	4
20	20	141	75	4
22	20	141	75	6
25	25	166	90	6
28	25	166	90	6



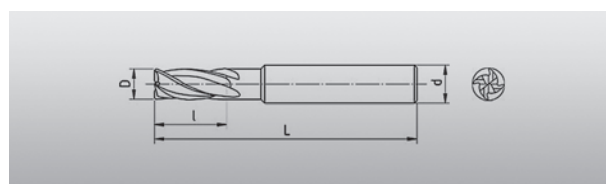
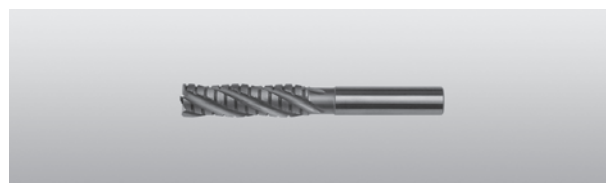
Фрези удължени челно-цилиндрични високопроизводителни форма А с цилиндрична опашка тип NR, **DIN 844**, Форма А - **DIN 1835**

D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
8	10	88	38	4
9	10	88	38	4
10	10	95	45	4
11	12	102	45	4
12	12	110	53	4
14	12	110	53	4
16	16	123	63	4
18	16	123	63	5
20	20	141	75	5
22	20	141	75	5
25	25	166	90	5
28	25	166	90	6



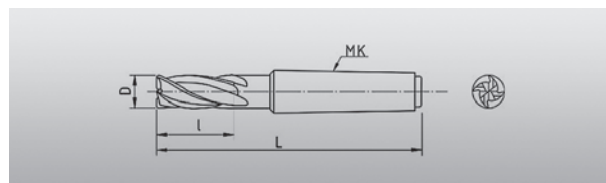
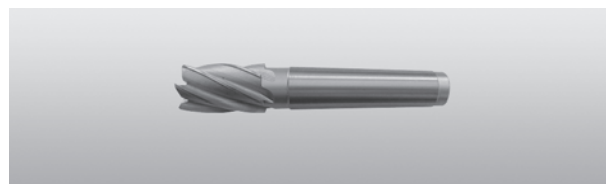
Фрези удължени челно-цилиндрични високопроизводителни форма А с цилиндрична опашка тип NF, **DIN 844**, Форма А - **DIN 1835**

D js14 mm	d h8 mm	L js17 mm	l mm	Брой на зъбите
8	10	88	38	4
9	10	88	38	4
10	10	95	45	4
11	12	102	45	4
12	12	110	53	4
14	12	110	53	4
16	16	123	63	4
18	16	123	63	5
20	20	141	75	5
22	20	141	75	5
25	25	166	90	5
28	25	166	90	6



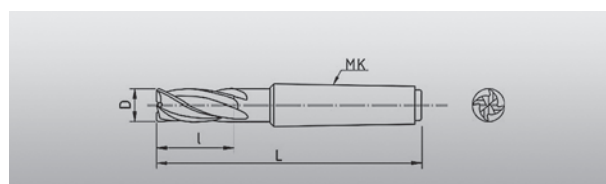
Фрези челно-цилиндрични с конусна опашка тип N, DIN 845

D js14 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	92	22	4	1
11	92	22	4	1
12	96	26	4	1
14	111	26	4	2
16	117	32	4	2
18	117	32	4	2
20	123	38	4	2
22	123	38	6	2
25	147	45	6	3
28	147	45	6	3
32	178	53	6	4
36	178	53	6	4
40	188	63	6	4
45	188	63	6	4
50	233	75	8	5
56	233	75	8	5
63	248	90	8	5



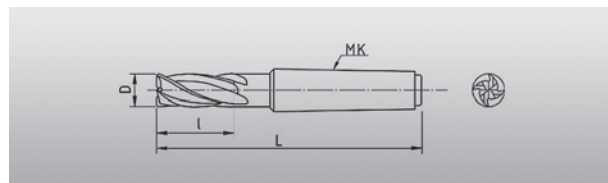
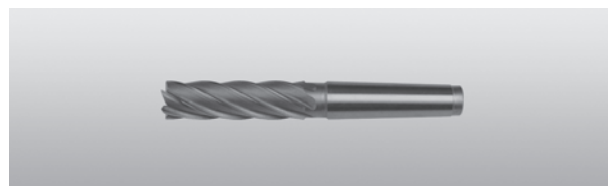
Фрези челно-цилиндрични високопроизводителни с конусна опашка тип NR, DIN 845

D js14 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	92	22	4	1
11	92	22	4	1
12	96	26	4	1
14	111	26	4	2
16	117	32	4	2
18	117	32	5	2
20	123	38	5	2
22	123	38	5	2
25	147	45	5	3
28	147	45	6	3
32	178	53	6	4
36	178	53	6	4
40	188	63	6	4
45	188	63	8	4
50	233	75	8	5
56	233	75	8	5
63	248	90	10	5



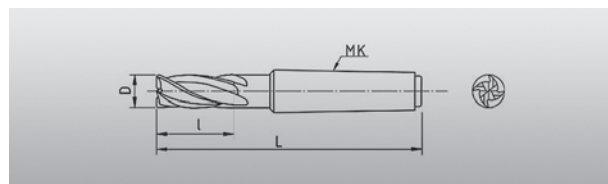
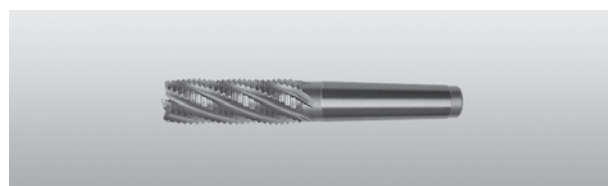
Фрези удължени челно-цилиндрични с конусна опашка тип N, **DIN 845**

D js14 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	115	45	4	1
11	115	45	4	1
12	123	53	4	1
14	123	53	4	2
16	148	63	4	2
18	148	63	4	2
20	160	75	4	2
22	160	75	6	2
25	192	90	6	3
28	192	90	6	3
32	231	106	6	4
36	231	106	6	4
40	250	125	6	4
45	250	125	6	4
50	308	150	8	5
56	308	150	8	5
63	308	180	8	5



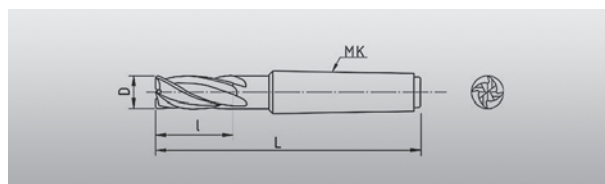
Фрези удължени челно-цилиндрични високопроизводителни с конусна опашка тип NR, **DIN 845**

D js14 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	115	45	4	1
11	115	45	4	1
12	123	53	4	1
14	123	53	4	2
16	148	63	4	2
18	148	63	5	2
20	160	75	5	2
22	160	75	5	2
25	192	90	5	3
28	192	90	6	3
32	231	106	6	4
36	231	106	6	4
40	250	125	6	4
45	250	125	8	4
50	308	150	8	5
56	308	150	8	5
63	308	180	10	5



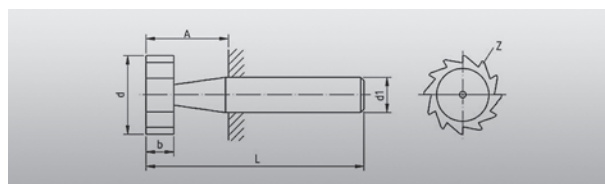
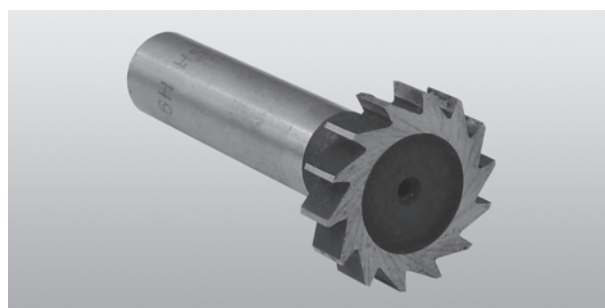
Фрези удължени челно-цилиндрични високопроизводителни с конусна опашка тип NF, **DIN 845**

D js14 mm	L js17 mm	l mm	Брой на зъбите	МК AT7
10	115	45	4	1
11	115	45	4	1
12	123	53	4	1
14	123	53	4	2
16	148	63	4	2
18	148	63	5	2
20	160	75	5	2
22	160	75	5	2
25	192	90	5	3
28	192	90	6	3
32	231	106	6	4
36	231	106	6	4
40	250	125	6	4
45	250	125	8	4
50	308	150	8	5
56	308	150	8	5
63	308	180	10	5



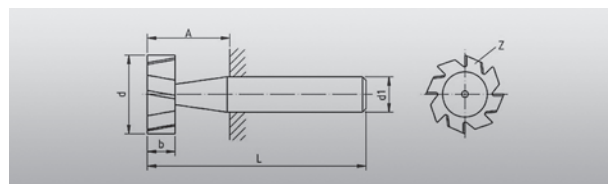
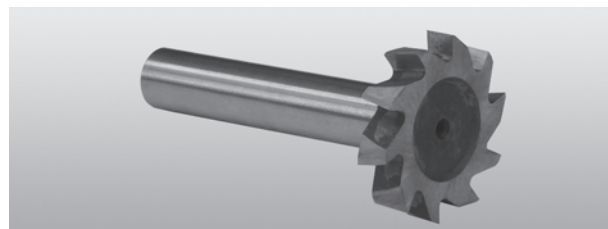
Фрези форма А с прави зъби за канали на сегментни шпонки с цилиндрична опашка тип Н, **DIN 850**, Форма А - **DIN 1835**

d mm	b mm	L mm	d ₁ mm	≈A mm	Z
16.5	3	56	10	16	12
16.5	4	56	10	16	12
16.5	5	56	10	16	12
19.5	4	63	10	23	12
19.5	5	63	10	23	12
19.5	6	63	10	23	12
22.5	5	63	10	23	12
22.5	6	63	10	23	12
22.5	8	63	10	23	12
25.5	6	63	10	23	14
28.5	6	63	10	23	16
28.5	8	63	10	23	16
28.5	10	71	12	26	16
32.5	8	71	12	26	18
32.5	10	71	12	26	18
45.5	10	71	12	26	20



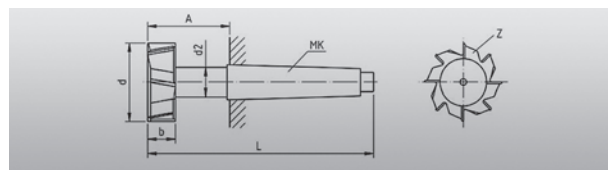
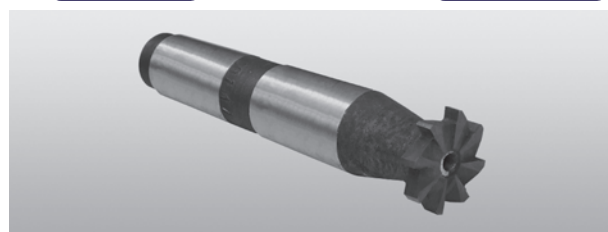
Фрези форма В с кръстосани зъби за канали на сегментни шпонки с цилиндрична опашка тип N, **DIN 850**, Форма А - **DIN 1835**

d mm	b mm	L mm	d ₁ mm	≈A mm	Z
22.5	5	63	10	23	12
22.5	6	63	10	23	12
22.5	8	63	10	23	12
25.5	6	63	10	23	14
28.5	6	63	10	23	16
28.5	8	63	10	23	16
28.5	10	71	12	26	16
32.5	8	71	12	26	18
32.5	10	71	12	26	18
45.5	10	71	12	26	20



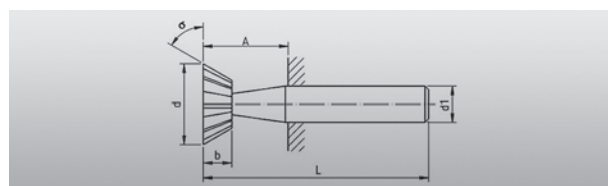
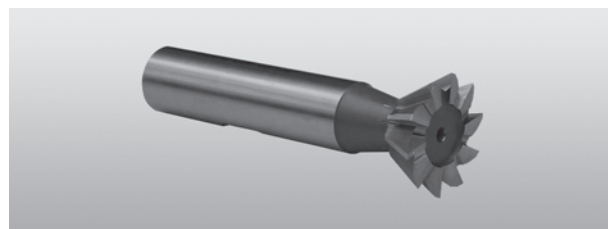
Фрези форма В с кръстосани зъби за Т-канали с конусна опашка тип N, **DIN 851**, Форма А - **DIN 1835**

d mm	b mm	L mm	MK	≈A mm	Z
18	8	82	1	28	6
21	9	102	2	38	6
25	11	104	2	40	8
32	14	111	2	47	8
40	18	140	3	59	8
50	22	187	4	84	10



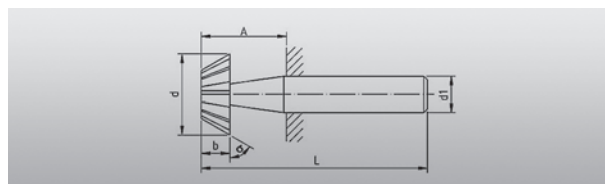
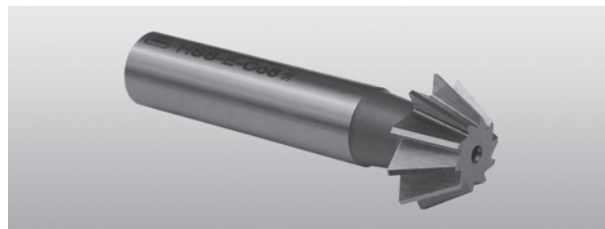
Фрези ъглови форма А с цилиндрична опашка, **DIN 1833**, Форма А - **DIN 1835**

σ	d mm	b mm	L mm	d ₁ mm	≈A mm	Z
45°	20	5	63	12	18	10
45°	25	6.3	67	12	22	10
45°	32	8	71	12	25	12
50°	20	6.3	63	12	18	10
50°	25	8	67	12	22	10
50°	32	10	71	12	25	12
55°	20	7.1	63	12	18	10
55°	25	9	67	12	22	10
55°	32	11.2	71	12	25	12
60°	20	8	63	12	18	10
60°	25	10	67	12	22	10
60°	32	12.5	71	12	25	12



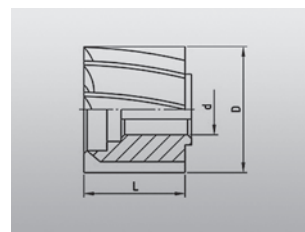
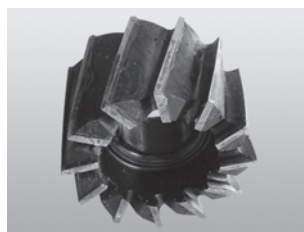
Фрези ъглови форма В с цилиндрична опашка,
DIN 1833, Форма А - **DIN 1835**

σ	d mm	b mm	L mm	d ₁ mm	≈A mm	Z
45°	20	5	63	12	18	10
45°	25	6.3	67	12	22	10
45°	32	8	71	12	25	12
60°	20	8	63	12	18	10
60°	25	10	67	12	22	10
60°	32	12.5	71	12	25	12



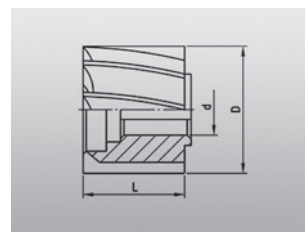
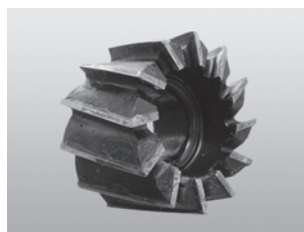
Фрези челно-цилиндрични с надлъжен шпонков канал,
DIN 1880, Тип N

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



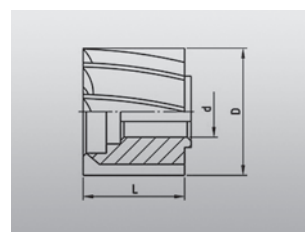
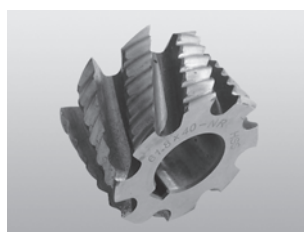
Фрези челно-цилиндрични с надлъжен шпонков канал,
DIN 1880, Тип H

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	12
50	22	36	12
63	27	40	14
80	27	45	16
100	32	50	18
125	40	56	22



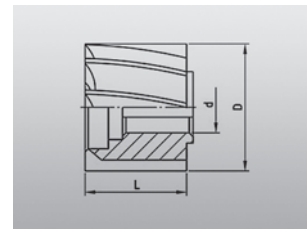
Фрези челно-цилиндрични високопроизводителни с
надлъжен шпонков канал, **DIN 1880**, Тип NR

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



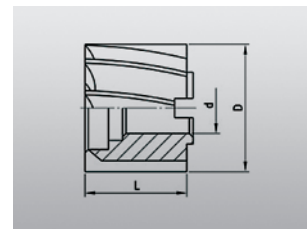
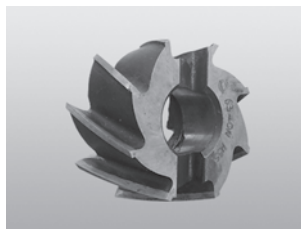
Фрези челно-цилиндрични високопроизводителни с надлъжен шпонков канал, **DIN 1880**, Тип NF

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



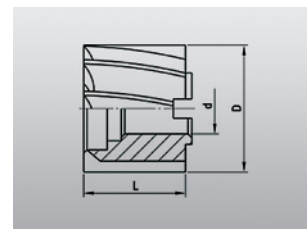
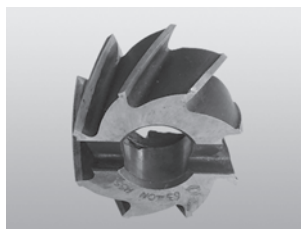
Фрези челно-цилиндрични с челен шпонков канал, **DIN 1880**, Тип N

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



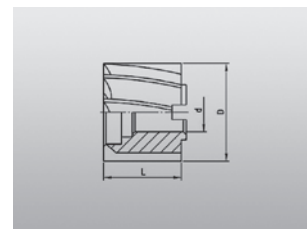
Фрези челно-цилиндрични с челен шпонков канал, **DIN 1880**, Тип H

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	12
50	22	36	12
63	27	40	14
80	27	45	16
100	32	50	18
125	40	56	22



Фрези челно-цилиндрични високопроизводителни с челен шпонков канал, **DIN 1880**, Тип NR

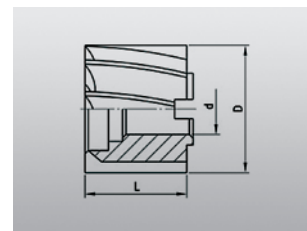
D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



ФРЕЗИ

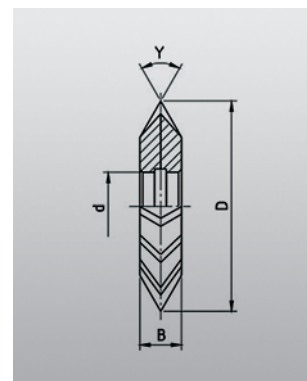
Фрези челно-цилиндрични високопроизводителни
с челен шпонков канал, **DIN 1880**, Тип NF

D js16 mm	d H7 mm	L js16 mm	Брой на зъбите
40	16	32	8
50	22	36	8
63	27	40	10
80	27	45	10
100	32	50	12
125	40	56	14



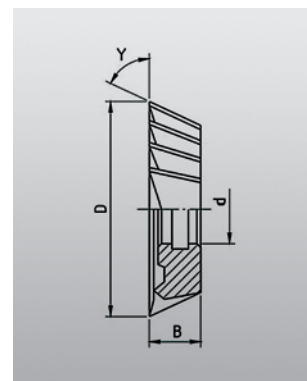
Фрези двуъглови симетрични, **DIN 847**

D js16 mm	d H7 mm	B js16 mm	Y°	Брой на зъбите
50	16	8	45	20
50	16	10	60	18
50	16	14	90	16
63	22	10	45	22
63	22	14	60	20
63	22	20	90	18
80	27	12	45	24
80	27	18	60	22
80	27	22	90	20
100	32	18	45	26
100	32	25	60	24
100	32	32	90	22



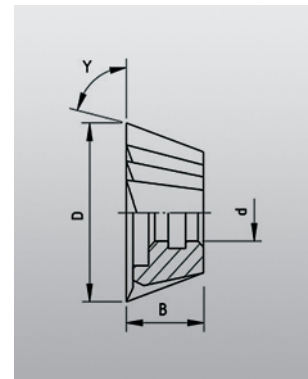
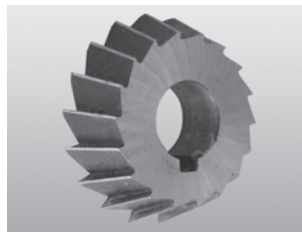
Фрези едноъглови форма А за прави канали, **DIN 1823**,
Изпълнение R /дяснорежещи/

D js16 mm	d H7 mm	B js16 mm	Y°	Брой на зъбите
50	16	12	60	16
50	16	12	65	16
50	16	12	75	16
63	22	18	60	18
63	22	18	70	18
63	22	18	75	16
63	22	18	80	16



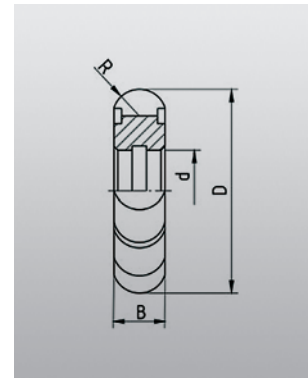
Фрези ъглови за направляващи тип Н, **DIN 842**, Изпълнение R /дяснорежещи/

D js16 mm	d H7 mm	B js16 mm	Y°	Брой на зъбите
40	10	10	45	14
40	10	13	50	14
40	10	13	55	14
40	10	13	60	14
50	13	13	45	16
50	13	16	50	16
50	13	16	55	16
50	13	16	60	16
63	16	18	45	18
63	16	20	50	18
63	16	20	55	18
63	16	20	60	18
80	22	22	45	20
80	22	25	50	20
80	22	25	55	20
80	22	25	60	20
100	27	28	45	22
100	27	32	50	22
100	27	32	55	22
100	27	32	60	22
125	32	36	45	24
125	32	40	50	24
125	32	40	55	24
125	32	40	60	24



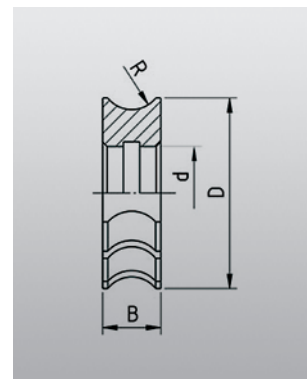
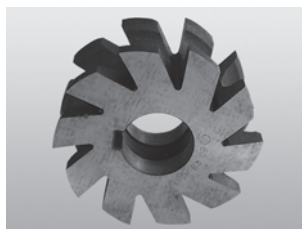
Фрези полукръгли изпъкнали, **DIN 856**, Тип N

R h11 mm	D js16 mm	d H7 mm	B mm	Брой на зъбите
1	50	16	2	16
1.25	50	16	2.5	16
1.6	50	16	3.2	16
2	50	16	4	14
2.5	63	22	5	14
3	63	22	6	14
3.15	63	22	6.3	14
4	63	22	8	14
5	63	22	10	12
6	80	27	12	14
6.3	80	27	12.6	12
8	80	27	16	12
10	100	32	20	12
12	100	32	24	10
12.5	100	32	25	10
16	125	32	32	12
20	125	32	40	10



Фрези полукръгли вдлъбнати, **DIN 855**, Тип N

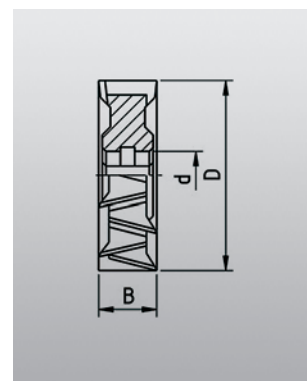
R h11 mm	D js16 mm	d H7 mm	B mm	Брой на зъбите
1	50	16	6	14
1.25	50	16	6	14
1.6	50	16	8	14
2	50	16	9	14
2.5	63	22	10	14
3	63	22	12	12
3.15	63	22	12	12
4	63	22	16	12
5	63	22	20	12
6	80	27	24	12
6.3	80	27	24	10
8	80	27	32	10
10	100	32	36	10
12	100	32	40	10
12.5	100	32	40	10
16	125	32	50	10
20	125	32	60	10



Фрези дискови тристранни форма А с кръстосани зъби, **DIN 885**, Тип N

D js16 mm	d H7 mm	B k11 mm	Брой на зъбите
50	16	5	10
50	16	6	10
50	16	8	10
50	16	10	10
63	22	5	10
63	22	6	10
63	22	8	10
63	22	10	10
63	22	12	10
63	22	14	10
63	22	16	10
80	27	6	12
80	27	8	12
80	27	10	12
80	27	12	12
80	27	14	12
80	27	16	12
80	27	18	12

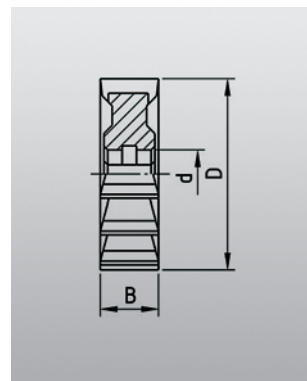
D js16 mm	d H7 mm	B k11 mm	Брой на зъбите
80	27	20	12
100	32	8	14
100	32	10	14
100	32	12	14
100	32	14	14
100	32	16	14
100	32	18	14
100	32	20	14
100	32	22	14
100	32	25	14
125	32	10	16
125	32	12	16
125	32	14	16
125	32	16	16
125	32	18	16
125	32	20	16
125	32	22	16
125	32	25	16



Фрези дискови тристранни форма В с прави зъби, **DIN 885**, Тип Н

D js16 mm	d H7 mm	B k11 mm	Брой на зъбите
50	16	5	10
50	16	6	10
50	16	8	10
50	16	10	10
63	22	5	10
63	22	6	10
63	22	8	10
63	22	10	10
63	22	12	10
63	22	14	10
63	22	16	10
80	27	6	12
80	27	8	12
80	27	10	12
80	27	12	12
80	27	14	12
80	27	16	12
80	27	18	12

D js16 mm	d H7 mm	B k11 mm	Брой на зъбите
80	27	20	12
100	32	8	14
100	32	10	14
100	32	12	14
100	32	14	14
100	32	16	14
100	32	18	14
100	32	20	14
100	32	22	14
100	32	25	14
125	32	10	16
125	32	12	16
125	32	14	16
125	32	16	16
125	32	18	16
125	32	20	16
125	32	22	16
125	32	25	16

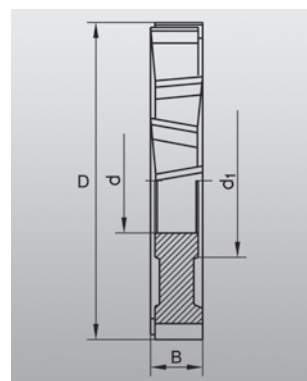
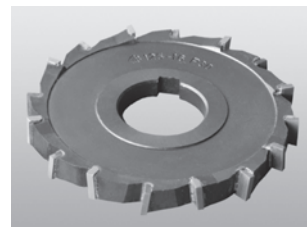


ФРЕЗИ СЪС ЗАПОЕНИ ТВЪРДОСПЛАВНИ ПЛАСТИНИ

Фрези дискови тристранни, **DIN 8047**

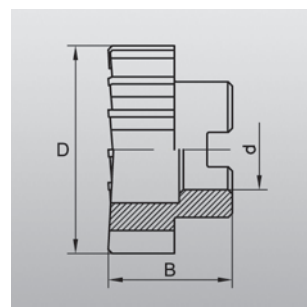
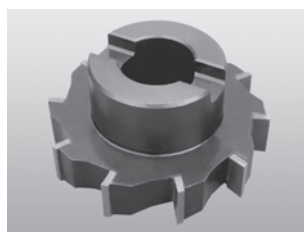
Код	D js16 mm	d H7 mm	B k11 mm	d1 mm
63x8	63	22	8	30
63x10	63	22	10	30
63x12	63	22	12	30
63x14	63	22	14	30
63x16	63	22	16	30
63x18	63	22	18	30
63x20	63	22	20	30
80x10	80	27	10	40
80x12	80	27	12	40
80x14	80	27	14	40
80x16	80	27	16	40
80x18	80	27	18	40
80x20	80	27	20	40
100x12	100	32	12	60
100x14	100	32	14	60

Код	D js16 mm	d H7 mm	B k11 mm	d1 mm
100x16	100	32	16	60
100x18	100	32	18	60
100x20	100	32	20	60
100x22	100	32	22	60
125x12	125	40	12	60
125x14	125	40	14	60
125x16	125	40	16	60
125x18	125	40	18	60
125x20	125	40	20	60
125x22	125	40	22	60
160x16	160	50	16	75
160x18	160	50	18	75
160x20	160	50	20	75
160x22	160	50	22	75
160x24	160	50	24	75



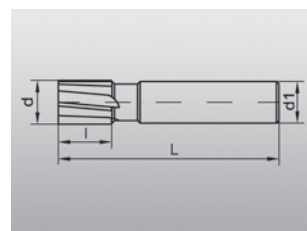
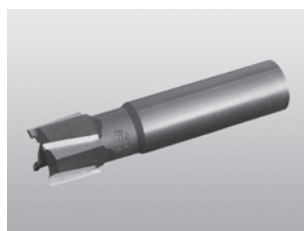
Фрези челноцилиндрични дорникови, DIN 8056

Код	D js16 mm	d H7 mm	B mm
40	40	16	32
50	50	22	36
63	63	27	40
80	80	27	45
100	100	32	50
125	125	40	60



Фрези челноцилиндрични с цилиндрична опашка, DIN 8044

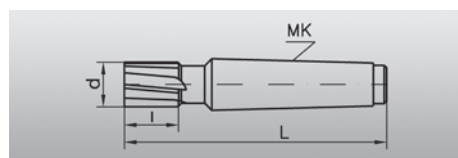
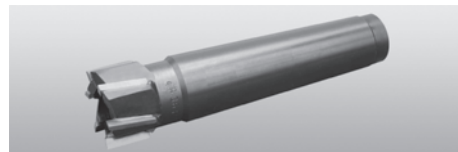
Код	D js16 mm	d1 mm	l mm	L mm
10	10	10	12	62
12	12	12	16	73
16	16	16	16	76
20	20	20	19	85



Фрези челноцилиндрични с конусна опашка, DIN 8045

Код	d js16 mm	l mm	L mm	MK MT
12МК1	12	16	86	1
16МК2	16	16	101	2
20МК2	20	19	104	2
20МК3	20	19	121	3

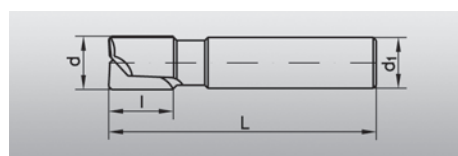
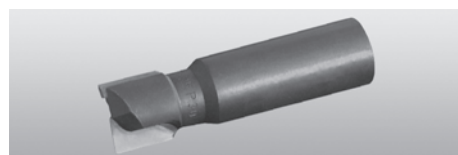
Код	d js16 mm	l mm	L mm	MK MT
25МК3	25	22	124	3
32МК3	32	22	124	3
32МК4	32	22	147	4
40МК4	40	25	150	4



Фрези за шпонкови канали с цилиндрична опашка, DIN 8027

Код	d e8 mm	d1 mm	l mm	L mm
10	10	10	12	62
12	12	12	16	73
14	14	12	16	73
16	16	16	16	76

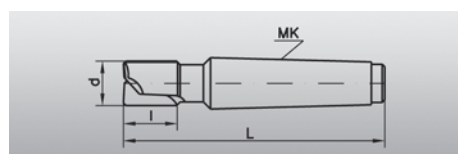
Код	d e8 mm	d1 mm	l mm	L mm
18	18	16	19	79
20	20	20	19	85
22	22	20	19	85
25	25	25	22	98



Фрези за шпонкови канали с конусна опашка, DIN 8026

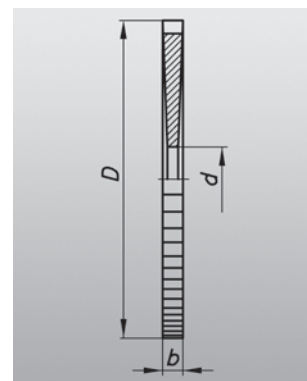
Код	d e8 mm	l mm	L mm	MK MT
12МК1	12	16	86	1
12МК2	12	16	101	2
14МК1	14	16	86	1
14МК2	14	16	101	2
16МК2	16	16	101	2
18МК2	18	19	104	2
20МК2	20	19	104	2
20МК3	20	19	121	3
22МК2	22	19	104	2

Код	d e8 mm	l mm	L mm	MK MT
22МК3	22	19	121	3
25МК3	25	22	124	3
28МК3	28	22	124	3
32МК3	32	22	124	3
32МК4	32	22	147	4
36МК3	36	25	127	3
36МК4	36	25	150	4
40МК4	40	25	150	4



ФРЕЗИ ДИСКОВИ ОТРЕЗНИ И ПРОРЕЗНИ

Фрези дискови отрезни и прорезни със ситни зъби, **DIN 1837** HSS



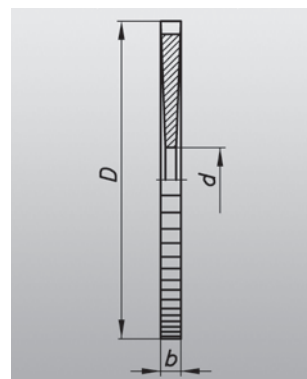
D js15 mm	d H7 mm	b js11 mm
40	10	0.6
40	10	0.8
40	10	1.0
40	10	1.2
40	10	1.6
40	10	2.0
40	10	2.5
40	10	3.0
40	10	4.0
50	13	0.6
50	13	0.8
50	13	1.0
50	13	1.2
50	13	1.6
50	13	2.0
50	13	2.5
50	13	3.0
50	13	4.0
50	13	5.0
63	16	0.5
63	16	0.6
63	16	0.8
63	16	1.0
63	16	1.2
63	16	1.6
63	16	2.0

D js15 mm	d H7 mm	b js11 mm
63	16	2.5
63	16	3.0
63	16	4.0
63	16	5.0
80	22	0.5
80	22	0.6
80	22	0.8
80	22	1.0
80	22	1.2
80	22	1.6
80	22	2.0
80	22	2.5
80	22	3.0
80	22	4.0
80	22	5.0
100	22	0.6
100	22	0.8
100	22	1.0
100	22	1.2
100	22	1.6
100	22	2.0
100	22	2.5
100	22	3.0
100	22	4.0
100	22	5.0
125	22	0.8

D js15 mm	d H7 mm	b js11 mm
125	22	1.0
125	22	1.2
125	22	1.6
125	22	2.0
125	22	2.5
125	22	3.0
125	22	4.0
125	22	5.0
125	22	6.0
160	32	1.2
160	32	1.6
160	32	2.0
160	32	2.5
160	32	3.0
160	32	4.0
160	32	5.0
160	32	6.0
200	32	1.2
200	32	1.6
200	32	2.0
200	32	2.5
200	32	3.0
200	32	4.0
200	32	5.0
200	32	6.0

Забележка: Допуска се изпълнение на фрезите с главинка и (или) шпонков канал.

Фрези дискови отрезни и прорезни с едри зъби, **DIN 1838** HSS



D js15 mm	d H7 mm	b js11 mm
50	13	0.6
50	13	0.8
50	13	1.0
50	13	1.2
50	13	1.6
50	13	2.0
50	13	2.5
50	13	3.0
50	13	4.0
50	13	5.0
63	16	0.5
63	16	0.6
63	16	0.8
63	16	1.0
63	16	1.2
63	16	1.6
63	16	2.0
63	16	2.5
63	16	3.0
63	16	4.0
63	16	5.0
80	22	0.5

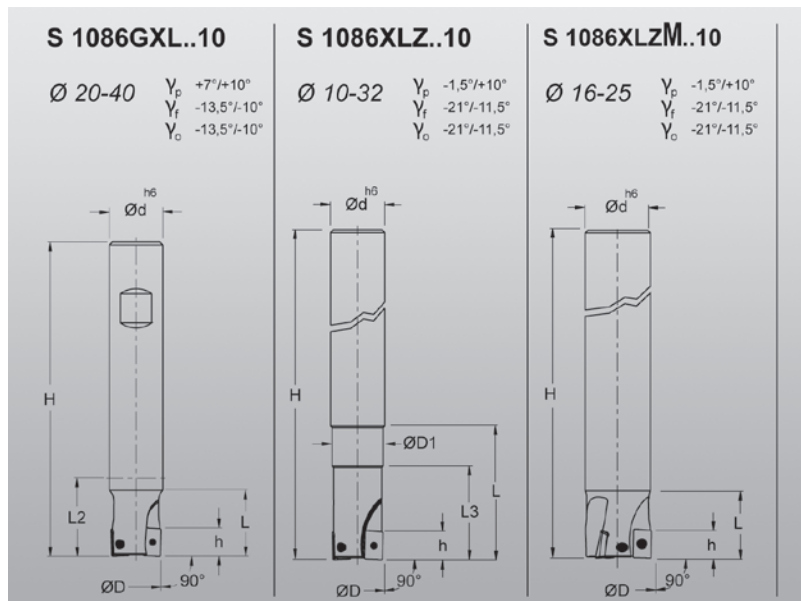
D js15 mm	d H7 mm	b js11 mm
80	22	0.6
80	22	1.0
80	22	1.2
80	22	1.6
80	22	2.0
80	22	2.5
80	22	3.0
80	22	4.0
80	22	5.0
100	22	0.8
100	22	1.0
100	22	1.2
100	22	1.6
100	22	2.0
100	22	2.5
100	22	3.0
100	22	4.0
100	22	5.0
125	22	1.0
125	22	1.2
125	22	1.6
125	22	2.0

D js15 mm	d H7 mm	b js11 mm
125	22	2.5
125	22	3.0
125	22	4.0
125	22	5.0
125	22	6.0
160	32	1.2
160	32	1.6
160	32	2.0
160	32	2.5
160	32	3.0
160	32	4.0
160	32	5.0
160	32	6.0
200	32	1.6
200	32	2.0
200	32	2.5
200	32	3.0
200	32	4.0
200	32	5.0
200	32	6.0

Забележка: Допуска се изпълнение на фрезите с главинка и (или) шпонков канал.

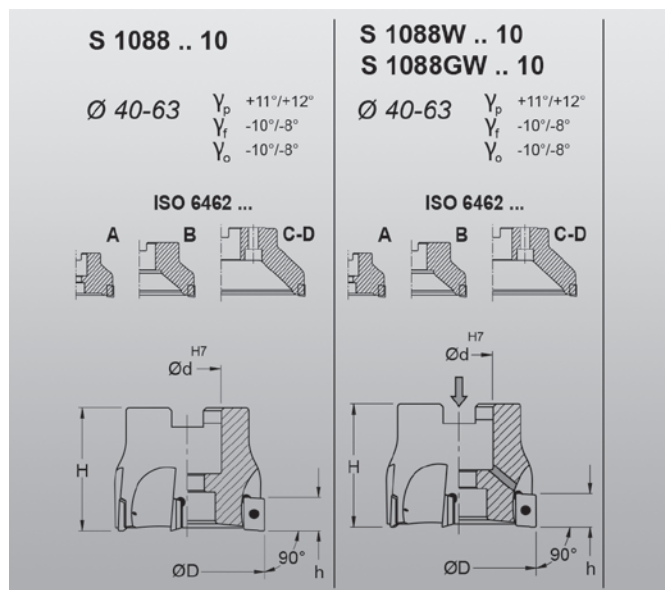
ФРЕЗОВИ ГЛАВИ СЪС СМЕНЯЕМИ ТВЪРДОСПЛАВНИ ПЛАСТИНИ

S1086, S1088



Съвместими твърдосплавни пластини
APKT 1003 .I52
APKT 1003 .L52
APKT 1003 .S52
APKX 1003 .S52
APHT 1003 .Z53
APKT 1003 .Z54
APHT 1003 .S57

Код	ØD mm	Ød/ CM mm	ØD1 mm	H mm	h mm	L mm	L2 mm	L3 mm	β	Z	X
S 1086GXL 20 - 10	20	20	–	130	10	40	80	–	1.5°	2	–
S 1086GXL 25 - 10	25	25	–	140	10	40	84	–	0.9°	3	–
S 1086GXL 32 - 10	32	32	–	160	10	50	100	–	0.6°	4	–
S 1086GXL 40 - 10	40	32	–	200	10	60	140	–	–	5	–
S 1086XLZ 10 - 10	10	20	11.5	200	10	50	–	18	11°	1	–
S 1086XLZ 11 - 10	11	20	13.5	200	10	50	–	19	11°	1	–
S 1086XLZ 12 - 10	12	20	13.5	200	10	50	–	21	9°	1	–
S 1086XLZ 13 - 10	13	20	15.0	200	10	50	–	22	8.5°	1	–
S 1086XLZ 14 - 10	14	20	15.5	200	10	50	–	21	8°	1	–
S 1086XLZ 15 - 10	15	20	16.0	200	10	50	–	23	4°	2	–
S 1086XLZ 16 - 10	16	20	17.0	200	10	50	–	35	3.5°	2	–
S 1086XLZ 17 - 10	17	20	18.0	200	10	50	–	35	3°	2	–
S 1086XLZ 18 - 10	18	20	19.0	200	10	50	–	35	2.5°	2	–
S 1086XLZ 19 - 10	19	20	19.0	200	10	50	–	35	2°	2	–
S 1086XLZ 20 - 10	20	20	–	200	10	50	–	50	1.5°	2	–
S 1086XLZ 22 - 10	22	25	–	220	10	50	–	50	1.5°	2	–
S 1086XLZ 24 - 10	24	25	–	220	10	50	–	50	1°	3	–
S 1086XLZ 25 - 10	25	25	–	220	10	50	–	50	0.9°	3	–
S 1086XLZ 28 - 10	28	32	–	250	10	50	–	50	0.9°	3	–
S 1086XLZ 29 - 10	29	32	–	250	10	50	–	50	0.8°	3	–
S 1086XLZ 30 - 10	30	32	–	250	10	50	–	50	0.8°	4	–
S 1086XLZ 32 - 10	32	32	–	250	10	50	–	50	0.6°	4	–
S 1086XLZM 16 - 10	16	15	–	150	10	25	–	–	1.5°	2	0.5
S 1086XLZM 20 - 10	20	19	–	160	10	25	–	–	1.5°	2	0.5
S 1086XLZM 25 - 10	25	24	–	200	10	25	–	–	0.9°	3	0.5



Съвместими твърдосплавни пластини
APKT 1003 .I52
APKT 1003 .L52
APKT 1003 .S52
APKX 1003 .S52
APHT 1003 .Z53
APKT 1003 .Z54
APHT 1003 .S57

Код	ØD mm	Ød mm	H mm	h mm	Z
S 1088 40 - 10	40	22	40	10	6
S 1088 50 - 10	50	22	40	10	7
S 1088 63 - 10	63	22	40	10	8
S 1088W 40 - 10	40	22	40	10	6
S 1088W 50 - 10	50	22	40	10	7
S 1088W 63 - 10	63	22	40	10	8
S 1088GW 40 - 10	40	22	40	10	5
S 1088GW 50 - 10	50	22	40	10	6
S 1088GW 63 - 10	63	22	40	10	7

Пластини за S1086, S1088

КОД	P			M			K			N			S			H			Cemented			Coated grades																
	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R				T516	T518M	T526	T528N	T530	T525	F1035	T533	T546	l	d	s	d1	r	a°		
APKT 1003 PDR .I52	●	●	○	○	○	○	○	○	○				○	○	○										■							10.5	6.7	3.5	2.8	0.5	11	
APKT 1003 PDER .L52	○	●	●	○	●	●	○	○	○				○	○	○								■									10.5	6.7	3.5	2.8	0.5	11	
APKT 1003 PDTR .S52																																10.5	6.7	3.5	2.8	0.5	11	
APKX 1003 PDR .S52	○	●	●	○	●	●	○	○	○		○		○														■					10.5	6.7	3.5	2.8	0.5	11	
APKT 1003 PDSR .Z54	○	●	●	○	●	○																		■								10.5	6.7	3.5	2.8	0.5	11	
APKT 1003 PDER .Z54		●	●																									■				10.5	6.7	3.5	2.8	0.5	11	
APHT 100312SR .Z53		○		○	●	●								○																■		10.5	6.7	3.5	2.8	1.2	11	
APHT 100320SR .Z53		○		○	●	●								○															■		10.5	6.7	3.5	2.8	2.0	11		
APHT 1003 PDFR .S57							●	●	●	●	●	●		○	○	○	■															10.5	6.7	3.5	2.8	0.5	11	

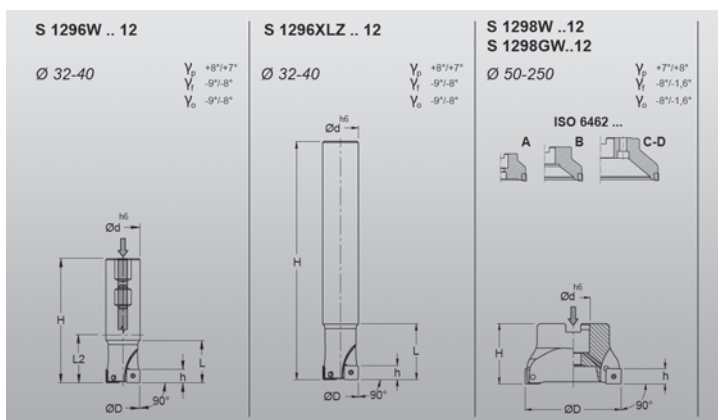
■ - В наличност
□ - По заявка
● - Препоръчително приложение
○ - Възможно приложение

F - FINISHING, LIGHT MACHINING
M - MEDIUM MACHINING, GENERIC
R - ROUGHING, HEAVY MACHINING

P - NOT ALLOY STEEL, ALLOY STEEL
M - STAINLESS STEEL/AUST
K - CAST IRON

N - ALUMINIUM, COPPER, PLASTICS
S - HIGH TEMP. ALLOY, TITANIUM
H - HARDENED STEEL

S1296, S1298



Съвместими
твърдосплавни
пластини

SDMT 1205 .Z51

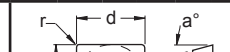
SDHT 1205 .Z57P

SDMT 1205 .Z62

SDHT 1205 .Z63

Код	ØD mm	Ød mm	H mm	h mm	L mm	L2 mm	Z
S 1296W 32 - 12	32	32	110	10.5	40	50	2
S 1296W 40 - 12	40	32	115	10.5	45	45	3
S 1296XLZ 32 - 12	32	32	250	10.5	40	—	2
S 1296XLZ 40 - 12	40	40	250	10.5	45	—	3
S 1298W 50 - 12	50	22	40	10.5	—	—	5
S 1298W 63 - 12	63	22	40	10.5	—	—	6
S 1298W 80 - 12	80	27	50	10.5	—	—	6
S 1298W 100 - 12	100	32	50	10.5	—	—	8
S 1298W 125 - 12	125	40	63	10.5	—	—	9
S 1298GW 50 - 12	50	22	40	10.5	—	—	3
S 1298GW 63 - 12	63	22	40	10.5	—	—	4
S 1298GW 80 - 12	80	27	50	10.5	—	—	5
S 1298GW 100 - 12	100	32	50	10.5	—	—	6
S 1298GW 125 - 12	125	40	63	10.5	—	—	7
S 1298GW 160 - 12	160	40	63	10.5	—	—	8
S 1298GW 200 - 12	200	60	63	10.5	—	—	10
S 1298GW 250 - 12	250	60	63	10.5	—	—	12

Пластини за S1296, S1298

КОД	P			M			K			N			S			H			Cement- ed	Coated grades																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R		T115			T3115	T526		T540	T546																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

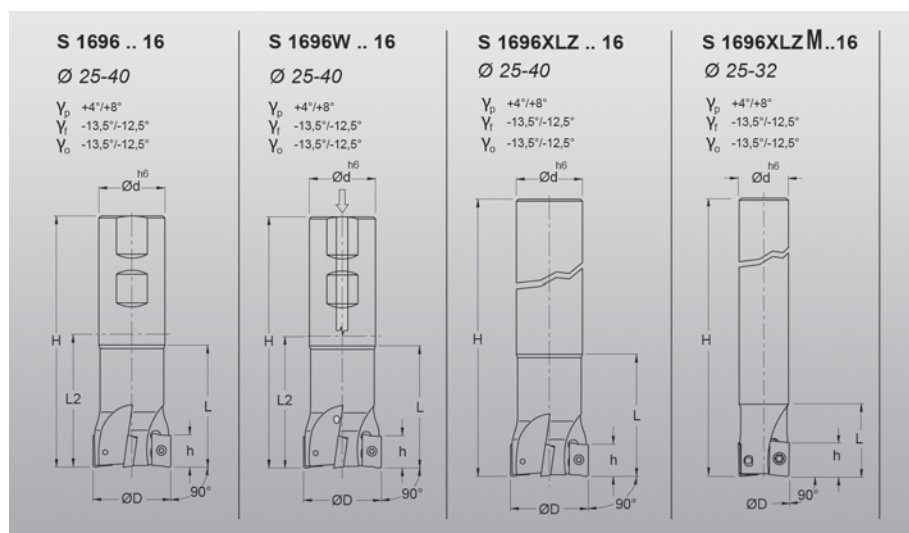
■ - В наличност
□ - По заявка
● - Препоръчително приложение
○ - Възможно приложение

F - FINISHING, LIGHT MACHINING
M - MEDIUM MACHINING, GENERIC
R - ROUGHING, HEAVY MACHINING

P - NOT ALLOY STEEL, ALLOY STEEL
M - STAINLESS STEEL AUST
K - CAST IRON

N - ALUMINIUM, COPPER, PLASTICS
S - HIGH TEMP. ALLOY, TITANIUM
H - HARDENED STEEL

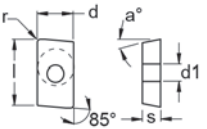
S1696, S1698



Съвместими твърдосплавни пластини
APKT 1604 .S51/.S54
APKT 1604 .K52
APKT 1604 .S52
APMT 1604 .I52
APKT 1604 .Z52
APFT 1604 .S52
APKX 1604 .S52
APFX 1604 .S52
APKT 1604 .F53
APKT 1604 .Z54
APKT 1604 .K57P

Код	$\varnothing D$ mm	$\varnothing d$ mm	H mm	h mm	L mm	L2 mm	β	Z	X
S 1696 25 - 16	25	25	100	16	44	44	3.5°	2	
S 1696 32 - 16	32	32	110	16	50	50	2.0°	3	
S 1696 40 - 16	40	32	115	16	55	55	1.5°	4	
S 1696W 25 - 16	25	25	100	16	44	44	3.5°	2	
S 1696W 32 - 16	32	32	110	16	50	50	2.0°	3	
S 1696W 40 - 16	40	32	115	16	55	55	1.5°	4	
S 1696XLZ 25 - 16	25	25	200	16	44	—	3.5°	2	—
S 1696XLZ 32 - 16	32	32	250	16	50	—	2.0°	3	—
S 1696XLZ 40 - 16	40	32	250	16	50	—	1.5°	4	—
S 1696XLZM 25 - 16	25	24	200	16	35	—	3.5°	2	0.5
S 1696XLZM 32 - 16	32	30	250	16	35	—	2.0°	3	1.0

Пластины за S1696, S1698

КОД	P			M			K			N			S			H			Cement- ed	Coated grades																
	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R	F	M	R		T110	T120	T1516	T526	T528N	T530	T525	T540	T2340	T544		F8015	l	d	s	d1	r
APKT 1604 PDR .S51				○	○	○	○	●	●	○	○	○	○	○	○							■									17.0	9.45	5.26	4.4	0.4	11
APKT 1604 PDSR .K52													○	●	●															■	17.0	9.45	5.26	4.4	0.4	11
APMT 1604 PDR .I52	○	●	●	○	○	○	○	○	○				○	○	○								■								17.0	9.45	5.26	4.4	0.8	11
APKT 1604 PDTR .S52	○	●	●	○	●	●	○	○	○		○		○	○	○										■						17.0	9.45	5.26	4.4	0.8	11
APKT 1604 PDSR .Z52		●	●		●	●																					■				17.0	9.45	5.26	4.4	0.8	11
APFT 1604 PDTR .S52	○	●	●	○	●	●		○					○			○										■					17.0	9.45	4.76	4.4	0.8	11
APKX 1604 PDR .S52	○	○	○	○	○	○	○	○	○		○		○			○						■				■					17.0	9.45	5.76	4.4	0.8	11
APFX 160416 R .S52	○	○	○	○	○	○	○	○					○			○										■					17.0	9.45	4.76	4.4	1.6	11
APFX 160424 R .S52	○	○	○	○	○	○	○						○			○										■					17.0	9.45	4.76	4.4	2.4	11
APFX 160430 R .S52	○	○	○	○	○	○	○						○			○										■					17.0	9.45	4.76	4.4	3.0	11
APFX 160440 R .S52	○	○	○	○	○	○	○						○			○										■					17.0	9.45	4.76	4.4	4.0	11
APFX 160448 R .S52	○	○	○	○	○	○	○						○			○										■					17.0	9.45	4.76	4.4	4.8	11
APFX 160460 R .S52	○	○	○	○	○	○	○			○			○															■			17.0	9.45	4.76	4.4	6.0	11
APKT 1604 PDSR .F53				○	●	○							○	○	○													■			17.0	9.45	5.26	4.4	0.8	11
APKT 1604 PDTR .S54	●	●	○	○	●	○							○													■					17.0	9.45	5.26	4.4	0.4	11
APKT 1604 PDSR .Z54		●	●																			■									17.0	9.45	5.26	4.4	0.8	11
APKT 1604 PDTR .K57P										●	●	●								■											16.4	9.53	4.76	4.4	0.2	11

■ - В наличност
□ - По заявка
● - Препоръчително приложение
○ - Възможно приложение

F - FINISHING, LIGHT MACHINING
M - MEDIUM MACHINING, GENERIC
R - ROUGHING, HEAVY MACHINING

P - NOT ALLOY STEEL, ALLOY STEEL
M - STAINLESS STEEL AUST
K - CAST IRON

N - ALUMINIUM, COPPER, PLASTICS
S - HIG. TEMP. ALLOY, TITANIUM
H - HARDENED STEEL

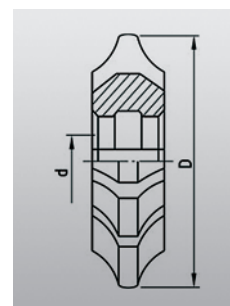
ЗЪБОНАРЕЗНИ ИНСТРУМЕНТИ

Фрези дискови зъбонарезни, HSS, Ъгъл на изходния контур - 20°

Модул m	D js16 mm	d h7 mm
1.75	55	22
2	63	22
2.25	63	22
2.5	70	22
2.75	70	22
3	80	27
3.25	80	27
3.5	80	27
3.75	80	27
4	90	27
4.25	90	27
4.5	90	27
5	100	27
5.5	100	27
6	110	32
6.5	110	32
7	110	32
8	125	32
9	125	32
10	140	40

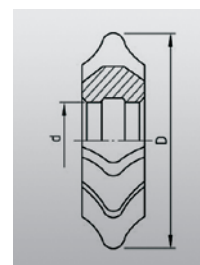
Дисковите зъбонарезни модулни фрези се изработват в комплект. До модул 8 вкл. комплектът се състои от 8 номера фрези. Модул 9 и 10 се състоят от 15 номера фрези. Фреза със съответния номер на комплекта нарязва зъбно колело с брой на зъбите съгласно следната таблица:

№ на фрезата от комплекта	Брой на зъбите на нарязваните зъбни колела	
	Комплект от 8 фрези	Комплект от 15 фрези
1	12-13	12
1 1/2	-	13
2	14-16	14
2 1/2	-	15-16
3	17-20	17-18
3 1/2	-	19-20
4	21-25	21-22
4 1/2	-	23-25
5	26-34	26-29
5 1/2	-	30-34
6	35-54	35-41
6 1/2	-	42-54
7	55-134	55-79
7 1/2	-	80-134
8	135 - ∞	



Фрези дискови за верижни зъбни колела, HSS, Профил по **DIN 8198**

Стъпка t вер.		ø на ролката в mm, dp	D js16 mm	d H7 mm
в цолове	mm			
1/4"	6.35	3.3	63	22
5/16"	8	5	63	22
3/8"	9.525	5	71	22
3/8"	9.525	5.08	71	22
3/8"	9.525	6	71	22
3/8"	9.525	6.35	71	22
1/2"	12.7	7.75	71	22
1/2"	12.7	7.94	71	22
1/2"	12.7	8.51	71	22
5/8"	15.875	10.16	90	27
3/4"	19.05	11.91	90	27
3/4"	19.05	12.07	90	27
1" *	25.4	8.51	100	27
1"	25.4	15.88	100	27
1 3/16"	30.00	15.88	100	27
1 1/4" *	31.75	10.16	110	32
1 1/4"	31.75	19.05	110	32



Дисковите зъбонарезни фрези за верижни зъбни колела се изработват в комплект от пет номера. Всеки номер фреза е предназначен за фрезование на верижно зъбно колело с определен брой зъби, съгласно следната таблица:

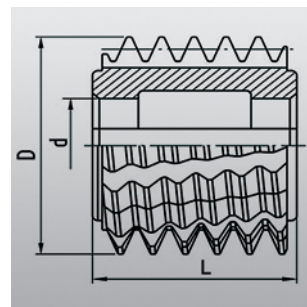
Фреза №	Брой на зъбите	
	За вериги с нормална стъпка	За вериги с дълга стъпка
1	от 6 до 8	от 6 до 8
2	от 9 до 11	от 9 до 15
3	от 12 до 16	над 15
4	от 17 до 29	
5	над 29	

* Изработват се №1, 2 и 3. №3 важи и за №4 и 5

Фрези червячни едноходови за окончателна обработка на цилиндрични зъбни колела, **DIN 8002** HSS, Изпълнение "B" с надлъжен шпонков канал, Изходен профил II **DIN 3972**

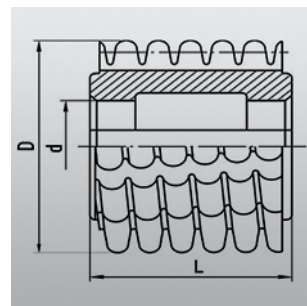
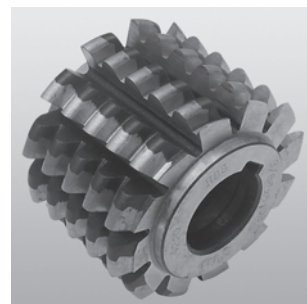
Модул mm	D js16 mm	L js16 mm	d mm
1	50	31	22
1.25	50	31	22
1.5	56	38	22
1.75	56	38	22
2	63	46	27
2.25	70	56	27
2.5	70	56	27
2.75	70	56	27
3	80	69	32
3.25	80	69	32
3.5	80	69	32
3.75	90	78	32
4	90	78	32
4.5	90	78	32
5	100	88	32
5.5	100	88	32
6	110	108	40
6.5	110	108	40
7	110	108	40
8	125	138	40
9	125	138	40

Фрезите се изработват с клас на точност А, В и С и шлифован профил на зъбите. DIN 3968



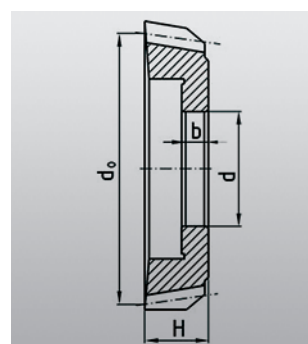
Фрези червячни едноходови за верижни зъбни колела, HSS, Изходен профил по **DIN 8197**

Стъпка t вер.		Ø на ролката в mm, dp	D js16 mm	L js16 mm	d H7 mm
в цолове	mm				
5/16"	8	5	63	40	27
3/8"	9.525	5	70	50	27
3/8"	9.525	5.08	70	50	27
3/8"	9.525	6	70	50	27
3/8"	9.525	6.35	70	50	27
1/2"	12.7	7.75	80	63	32
1/2"	12.7	8.51	80	63	32
5/8"	15.875	10.16	90	70	32
3/4"	19.05	11.91	100	90	32
3/4"	19.05	12.07	100	90	32
1"	25.4	15.88	112	100	40
1"	25.4	8.51	80	100	32
1 1/4"	31.75	19.05	125	140	40
1 1/4"	31.75	10.16	90	140	32
1 1/2"	38.1	22.23	140	160	40
1 1/2"	38.1	25.4	140	160	40
1 1/2"	38.1	11.91	100	160	32
1 1/2"	38.1	12.07	100	160	32
1 3/4"	44.45	25.4	160	180	50
1 3/4"	44.45	27.94	160	180	50
2"	50.08	15.88	112	200	40
2"	50.08	28.58	180	200	50
2"	50.08	29.21	180	200	50



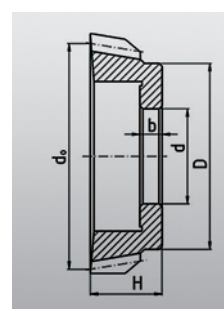
Колела зъбодълбачни дискови с прави зъби за окончателна обработка, **DIN 1825** HSS, Изходен профил II **DIN 3972** , Класове на точност A и B

Модул m	Брой на зъбите	d_o	H min	b min	d H4
С номинален делителен диаметър 75 mm					
1.75	43	75.25	18	8	31.745
2	38	76	20	9	31.745
2.25	34	76.50	20	9	31.745
2.5	30	75	20	9	31.745
2.75	28	77	22	9	31.745
3	25	75	22	9	31.745
3.5	22	77	22	9	31.745
4	19	76	24	10	31.745
4.5	17	76.5	24	10	31.745
С номинален делителен диаметър 100 mm					
1.75	58	101.5	20	9	44.450
2	50	100	20	9	44.450
2.25	45	101.25	20	9	44.450
2.5	40	100	20	9	44.450
2.75	36	99	24	10	44.450
4	25	100	24	10	44.450
4.5	22	99	24	10	44.450
5	20	100	24	10	44.450
5.5	18	99	24	11	44.450
6	17	102	24	11	44.450
С номинален делителен диаметър 125 mm					
5	26	130	26	11	44.450
5.5	24	132	26	12	44.450
6	22	132	26	12	44.450
7	18	126	26	12	44.450
8	16	128	31	12	44.450
9	15	135	31	12	44.450

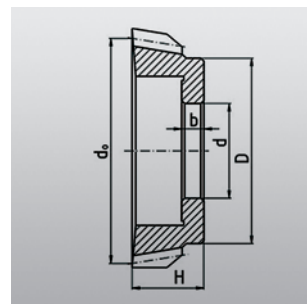


Колела зъбодълбачни чашковидни с прави зъби за окончателна обработка, **DIN 1826** HSS, Изходен профил II **DIN 3972** , Класове на точност A и B

Модул m	Брой на зъбите	d_o	H min	b min	d H4
С номинален делителен диаметър 75 mm					
1.75	43	75.25	41	9	31.745
2	38	76	41	9	31.745
2.25	34	76.50	41	9	31.745
2.5	32	80	41	9	31.745
2.75	28	77	41	9	31.745
3	25	75	43	10	31.745
3.5	22	77	43	10	31.745

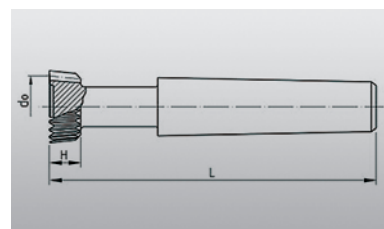
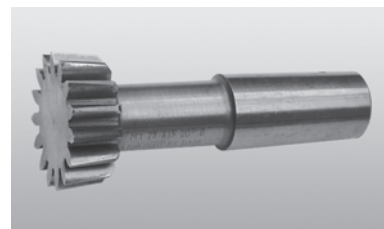


Модул m	Брой на зъбите	d_o	H min	b min	d H4
С номинален делителен диаметър 100 mm					
1.75	58	101.5	46	11	44.450
2	50	100	46	11	44.450
2.25	45	101.25	46	11	44.450
2.5	40	100	46	11	44.450
2.75	36	99	46	11	44.450
4	25	100	46	12	44.450
4.5	22	99	46	12	44.450
5	20	100	46	12	44.450
5.5	18	99	46	12	44.450
6	17	102	46	12	44.450
С номинален делителен диаметър 125 mm					
5	26	130	48	12	44.450
6	22	132	48	12	44.450
7	18	126	48	12	44.450



Колела зъбодълбачни с конусна опашка с прави зъби за окончателна обработка, **DIN 1825** HSS, Изходен профил II **DIN 3972**, Клас на точност B

Модул m	Брой на зъбите	d_o	H min	L min	МК /скъсен/
С номинален делителен диаметър 25 mm					
1	26	26	14	80	B18
1.25	20	25	14	80	B18
1.5	18	27	14	80	B18
1.75	14	24.5	16	80	B18
2	12	24	16	80	B18
2.25	12	27	16	80	B18
2.5	10	25	16	80	B18
2.75	10	27.5	18	80	B18
3	9	27	18	80	B18
С номинален делителен диаметър 38 mm					
1	38	38	14	100	B24
1.25	30	37.5	14	100	B24
1.5	25	37.5	14	100	B24
1.75	22	38.5	16	100	B24
2	19	38	16	100	B24
2.25	16	36	16	100	B24
2.5	15	37.5	16	100	B24
2.75	14	38.5	18	100	B24
3	12	36	18	100	B24
3.25	12	39	18	100	B24
3.5	11	38.5	18	100	B24
3.75	10	37.5	18	100	B24
4	10	40	18	100	B24

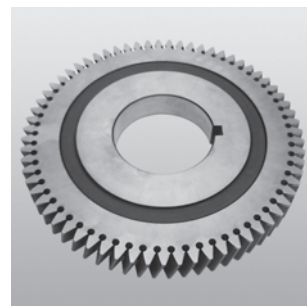


Шевери дискови, Класове на точност А, В и С, Ъгъл на винтовата линия на зъбите $\beta_0 = 10^\circ$ с ляв и десен наклон

Модул m	Брой на зъбите	d	B	β_0	
С номинален делителен диаметър 85 mm					
1.5	58	31.743	16		10°

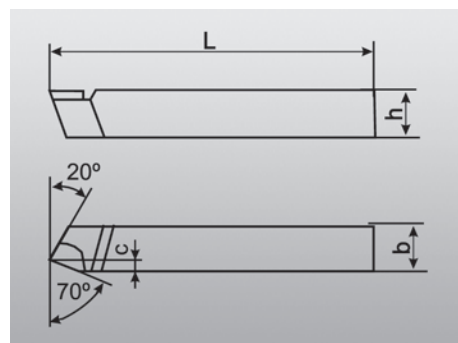
Шевери дискови, Класове на точност А, В и С, Ъгъл на винтовата линия на зъбите $\beta_0 = 5^\circ$ и 15° с ляв и десен наклон

Модул m	Брой на зъбите	d	B	β_0	
С номинален делителен диаметър 180 mm					
1.25	115	63.5	21	5°	15°
1.375	115	63.5	21	5°	15°
1.5	115	63.5	21	5°	15°
1.75	100	63.5	21	5°	15°
2	83	63.5	21	5°	15°
2.25	73	63.5	21	5°	15°
2.5	67	63.5	21	5°	15°
2.75	61	63.5	21	5°	15°
3	53	63.5	21	5°	15°
3.25	53	63.5	21	5°	15°
3.5	47	63.5	21	5°	15°
3.75	43	63.5	21	5°	15°
4	41	63.5	21	5°	15°
4.25	41	63.5	21	5°	15°
4.5	37	63.5	21	5°	15°
5	31	63.5	21	5°	15°
5.5	29	63.5	21	5°	15°
6	29	63.5	21	5°	15°
С номинален делителен диаметър 250 mm					
2	115	63.5	26	5°	15°
2.25	103	63.5	26	5°	15°
2.5	91	63.5	26	5°	15°
2.75	83	63.5	26	5°	15°
3	73	63.5	26	5°	15°
3.25	71	63.5	26	5°	15°
3.5	67	63.5	26	5°	15°
3.75	61	63.5	26	5°	15°
4	53	63.5	26	5°	15°
4.25	53	63.5	26	5°	15°
4.5	51	63.5	26	5°	15°
5	43	63.5	26	5°	15°
5.5	41	63.5	26	5°	15°
6	37	63.5	26	5°	15°
6.5	37		26	5°	15°
7	31		26	5°	15°
8	29		26	5°	15°



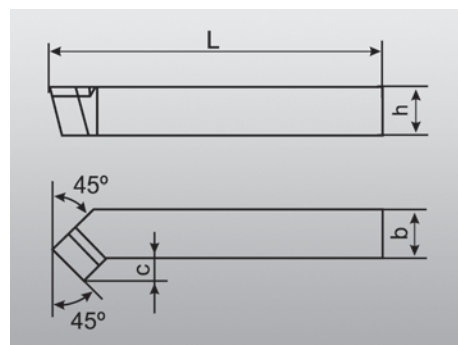
Проходен прав нож, ISO 243, DIN 4971

Код	h mm	b mm	L mm	c mm
1010R/L	10	10	90	4
1212R/L	12	12	100	5
1616R/L	16	16	110	6
2020R/L	20	20	125	8
2525R/L	25	25	140	10
3232R/L	32	32	170	12
4040R/L	40	40	200	16
5050R/L	50	50	240	20
1610R/L	16	10	110	4
2012R/L	20	12	125	5
2516R/L	25	16	140	6
3220R/L	32	20	170	8
4025R/L	40	25	200	10
5032R/L	50	32	240	12



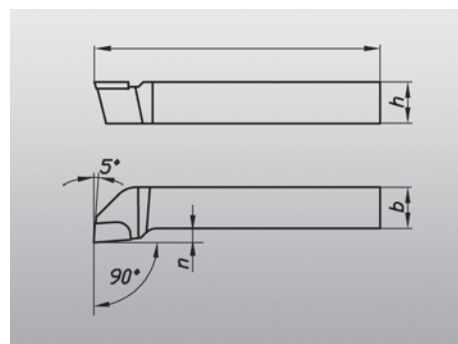
Проходен извит нож, ISO 243, DIN 4972

Код	h mm	b mm	L mm	c mm
1010R/L	10	10	90	6
1212R/L	12	12	100	7
1616R/L	16	16	110	8
2020R/L	20	20	125	10
2525R/L	25	25	140	12
3232R/L	32	32	170	14
4040R/L	40	40	200	18
5050R/L	50	50	240	22
1610R/L	16	10	110	6
2012R/L	20	12	125	7
2516R/L	25	16	140	10
3220R/L	32	20	170	13
4025R/L	40	25	200	16
5032R/L	50	32	240	18



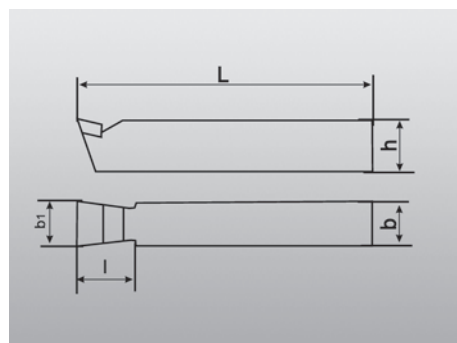
Подрезен нож, ISO 243, DIN 4978

Код	h mm	b mm	L mm	n mm
1010R/L	10	10	90	4
1212R/L	12	12	100	5
1616R/L	16	16	110	6
2020R/L	20	20	125	8
2525R/L	25	25	140	10
3232R/L	32	32	170	12
4040R/L	40	40	200	14
5050R/L	50	50	240	18
1610R/L	16	10	110	5
2012R/L	20	12	125	6
2516R/L	25	16	140	8
3220R/L	32	20	170	10
4025R/L	40	25	200	12
5032R/L	50	32	240	14



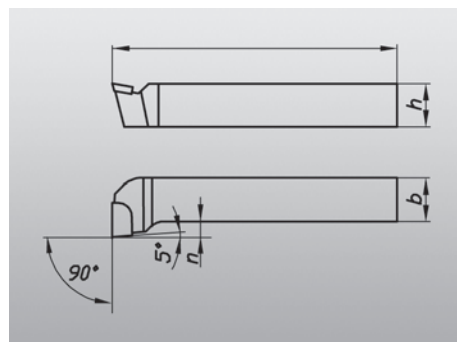
Чистови широк нож, ISO 243, DIN 4976

Код	h	b	L	b ₁	l
1010	10	10	90	10	10
1212	12	12	100	12	12
1616	16	16	110	16	16
2020	20	20	125	20	20
2525	25	25	140	25	25
3232	32	32	170	32	32
4040	40	40	200	40	40
1610	16	10	110	10	10
2012	20	12	125	12	12
2516	25	16	140	16	16
3220	32	20	170	20	20
4025	40	25	200	25	25
5032	50	32	240	32	32



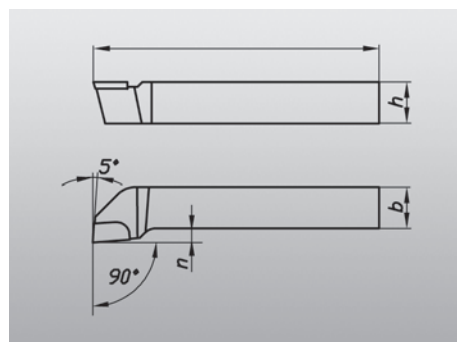
Челен нож, ISO 243, DIN 4977

Код	h mm	b mm	L mm	n mm
1010R/L	10	10	90	5
1212R/L	12	12	100	6
1616R/L	16	16	110	8
2020R/L	20	20	125	10
2525R/L	25	25	140	12
3232R/L	32	32	170	16
4040R/L	40	40	200	20
5050R/L	50	50	240	25



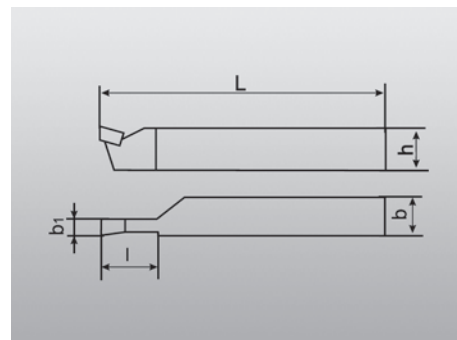
Проходен упорен нож, ISO 243, DIN 4980

Код	h mm	b mm	L mm	n mm
1010R/L	10	10	90	4
1212R/L	12	12	100	5
1616R/L	16	16	110	6
2020R/L	20	20	125	8
2525R/L	25	25	140	10
3232R/L	32	32	170	12
4040R/L	40	40	200	14
5050R/L	50	50	240	18
1610R/L	16	10	110	4
2012R/L	20	12	125	6
2516R/L	25	16	140	8
3220R/L	32	20	170	10
4025R/L	40	25	200	12
5032R/L	50	32	240	14



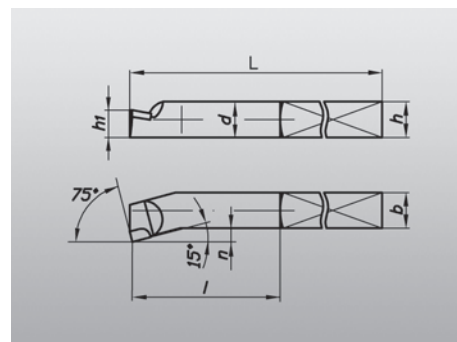
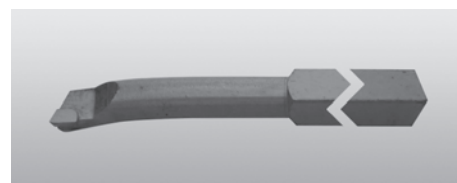
Прорезен нож, ISO 243, DIN 4981

Код	h mm	b mm	L mm	b1 mm	l mm
0808R/L	8	8	85	3	12
1010R/L	10	10	90	3	12
1212R/L	12	12	100	3	14
1616R/L	16	16	110	4	18
2020R/L	20	20	125	5	20
2525R/L	25	25	140	6	25
3232R/L	32	32	170	8	32
1208R/L	12	8	100	3	12
1610R/L	16	10	110	4	14
2012R/L	20	12	125	5	16
2516R/L	25	16	140	6	20
3220R/L	32	20	170	8	25
4025R/L	40	25	200	10	32
5032R/L	50	32	240	12	40



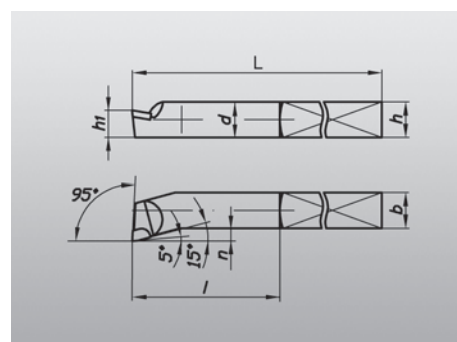
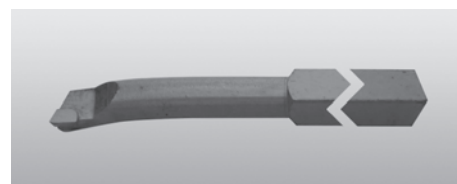
Нож за проходни отвори, ISO 514, DIN 4973

Код	h mm	b mm	L mm	d mm	n mm	l mm	h1 mm
0808	8	8	125	8	3	40	6.4
1010	10	10	150	10	4	50	8
1212	12	12	180	12	5	63	9.6
1616	16	16	210	16	6	80	12.8
2020	20	20	250	20	8	100	16
2525	25	25	300	25	10	125	20
3232	32	32	355	32	12	160	25.6
8			125	8	3	40	6.4
10			150	10	4	50	8
12			180	12	5	63	9.6
16			210	16	6	80	12.8
20			250	20	8	100	16
25			300	25	10	125	20
32			355	32	12	160	25.6



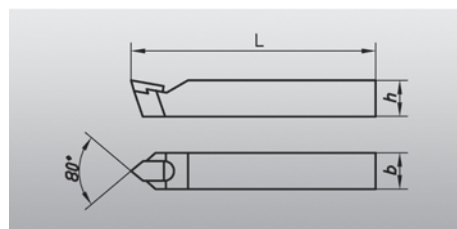
Нож за глухи отвори, ISO 514, DIN 4974

Код	h mm	b mm	L mm	d mm	n mm	l mm	h1 mm
0808	8	8	125	8	3	40	6.4
1010	10	10	150	10	4	50	8
1212	12	12	180	12	5	63	9.6
1616	16	16	210	16	6	80	12.8
2020	20	20	250	20	8	100	16
2525	25	25	300	25	10	125	20
3232	32	32	355	32	12	160	25.6
8			125	8	3	40	6.4
10			150	10	4	50	8
12			180	12	5	63	9.6
16			210	16	6	80	12.8
20			250	20	8	100	16
25			300	25	10	125	20
32			355	32	12	160	25.6



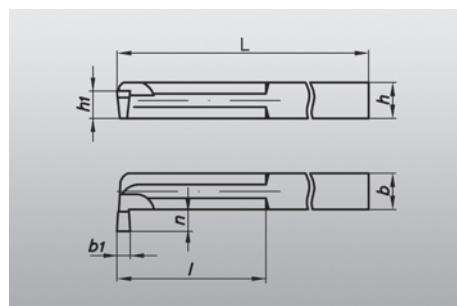
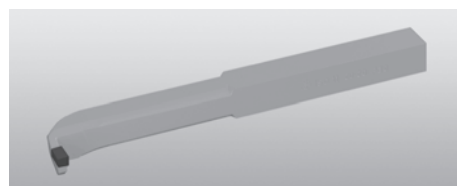
Шпиц, DIN 4975

Код	h mm	b mm	L mm
1010	10	10	90
1212	12	12	100
1616	16	16	110
2020	20	20	125
2525	25	25	140
3232	32	32	170
1208	12	8	100
1610	16	10	110
2012	20	12	125
2516	25	16	140
3220	32	20	170
4025	40	25	200



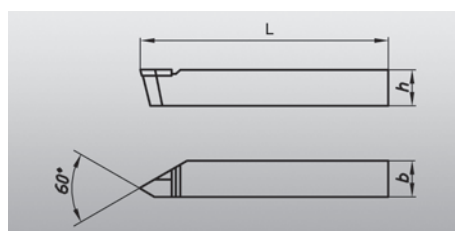
Нож за вътрешни канали

Код	h mm	b mm	L mm	n mm	b1 mm	l mm	h1 mm
1010	10	10	150	8	3	50	8
1212	12	12	180	10	4	63	9.6
1616	16	16	210	12	5	80	12.8
2020	20	20	250	16	6	100	16
2525	25	25	300	20	8	125	20
3232	32	32	355	25	10	160	25.6



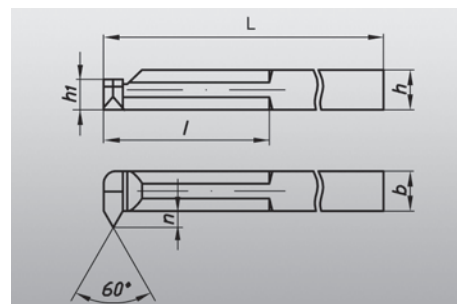
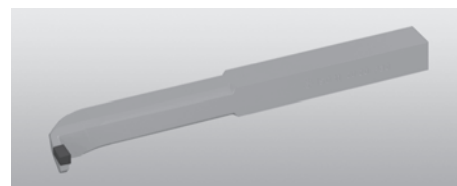
Нож за външна резба

Код	h mm	b mm	L mm
1010R/L	10	10	90
1212R/L	12	12	100
1616R/L	16	16	110
2020R/L	20	20	125
2525R/L	25	25	140
3232R/L	32	32	170
1208R/L	12	8	100
1610R/L	16	10	110
2012R/L	20	12	125
2516R/L	25	16	140
3220R/L	32	20	170



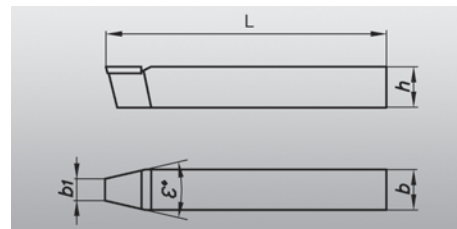
Нож за вътрешна резба

Код	h mm	b mm	L mm	n mm	l mm	h1 mm
1010R/L	10	10	150	5	50	8
1212R/L	12	12	180	6	63	9.6
1616R/L	16	16	210	8	80	12.8
2020R/L	20	20	250	10	100	16
2525R/L	25	25	300	12	125	20
3232R/L	32	32	355	14	160	25.6



Нож за трапецовидни канали

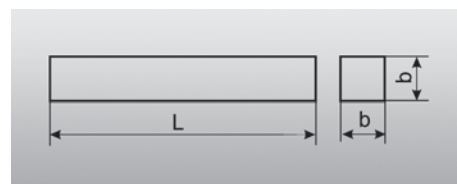
Код	h mm	b mm	L mm	ϵ°	b1 mm
2012	20	12	125	34°	4
2516	25	16	140	34°	5
3220	32	20	170	34°	6.5
4025	40	25	200	36°	8.5
5032	50	32	240	36°	13.5
1616	16	16	110	34°	5
2020	20	20	125	34°	6.5
2525	25	25	140	36°	8.5
3232	32	32	170	36°	13.5



Заготовки от бързорежеща стомана за ножове, DIN 4964

b h14	L ± 2	Маса kg
5	63	0.013
6	63	0.018
6	80	0.023
6	100	0.028
6	160	0.045
6	200	0.057
8	63	0.032
8	80	0.040
8	100	0.050
8	160	0.080
8	200	0.100
10	63	0.049
10	80	0.063
10	100	0.079

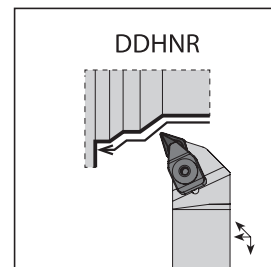
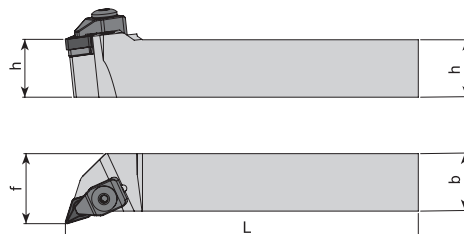
b h14	L ± 2	Маса kg
10	160	0.126
10	200	0.157
12	63	0.071
12	80	0.090
12	100	0.113
12	160	0.181
12	200	0.226
16	100	0.201
16	160	0.322
16	200	0.402
20	160	0.503
20	200	0.628
25	200	0.981
32	200	1.608



НОЖОВЕ СТРУГАРСКИ СЪС СМЕНЯЕМИ ТВЪРДОСПЛАВНИ ПЛАСТИНИ

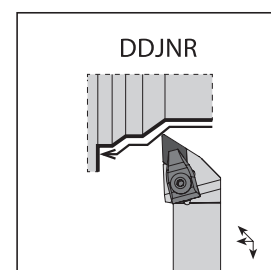
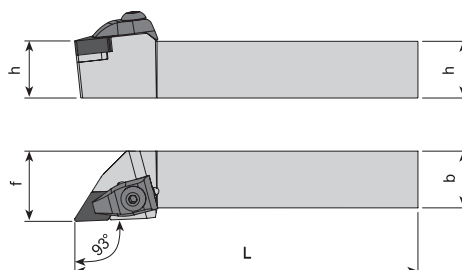
DDHNR/L, 107.5°

DDHNR/L	h	b	L	f
2020 K15	20	20	125	25
2525 M15	25	25	150	32
3232 P15	32	32	170	40



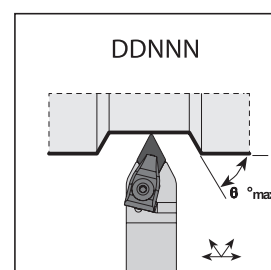
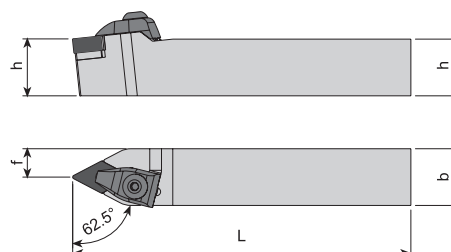
DDJNR/L, 93°

DDJNR/L	h	b	L	f
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2525 M11	25	25	150	32
2020 K15	20	20	125	25
2525 M15	25	25	150	32
3232 P15	32	32	170	40
4040 S15	40	40	250	50
2020 K1504	20	20	125	25
2525 M1504	25	25	150	32
3232 P1504	32	32	170	40
4040 S1504	40	40	250	50



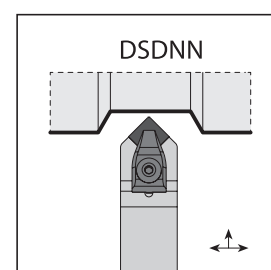
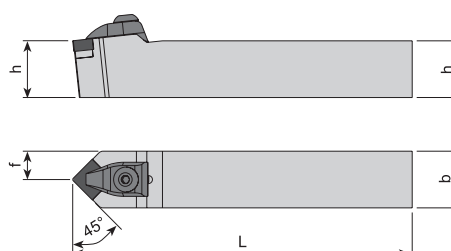
DDNNN, 62.5°

DDNNN	h	b	L	f
1616 H11	16	16	100	8
2020 K11	20	20	125	10
2525 M11	25	25	150	12.5
2020 K15	20	20	125	10
2525 M15	25	25	150	12.5
3232 P15	32	32	170	16



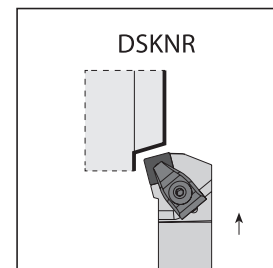
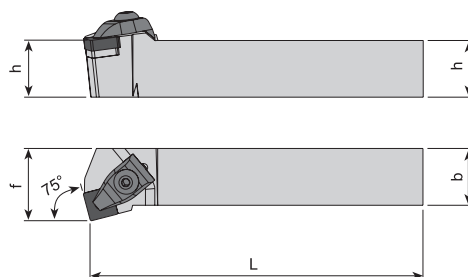
DSDNN, 45°

DSDNN	h	b	L	f
1616 H12	16	16	100	8
2020 K12	20	20	125	10
2525 M12	25	25	150	12.5
3232 P12	32	32	170	16



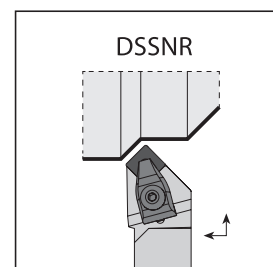
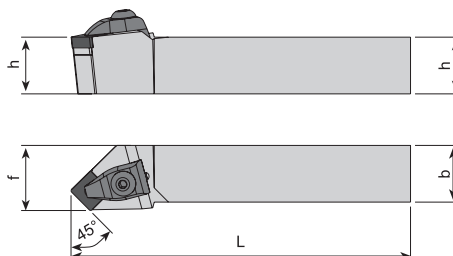
DSKNR/L, 75°

DSKNR/L	h	b	L	f
2020 K12	20	20	125	25
2525 M12	25	25	150	32
3232 P12	32	32	170	40
3232 P15	32	32	170	40



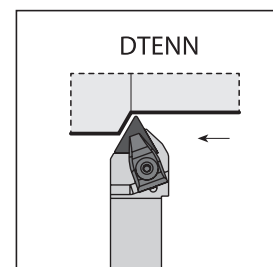
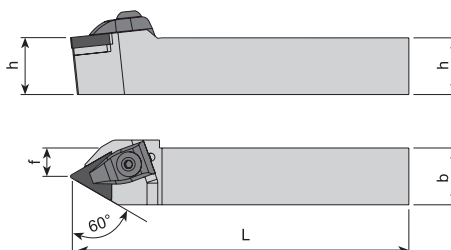
DSSNR/L, 45°

DSSNR/L	h	b	L	f
2020 K12	20	20	125	25
2525 M12	25	25	150	32
3232 P12	32	32	170	40
2525 M15	25	25	150	32
3232 P15	32	32	170	40



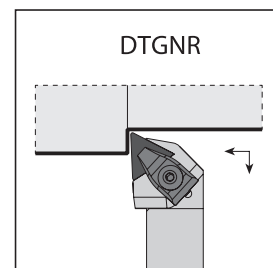
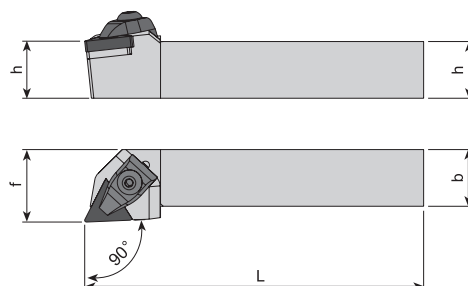
DTENN, 60°

DTENN	h	b	L	f
2020 K16	20	20	125	10
2525 M16	25	25	150	12.5
3232 P16	32	32	170	16
2525 M22	25	25	150	12.5
3232 P22	32	32	170	16



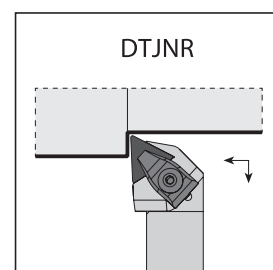
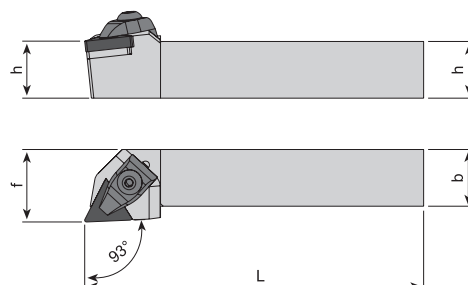
DTGNR/L, 90°

DTGNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
2525 M22	25	25	150	32
3232 P22	32	32	170	40



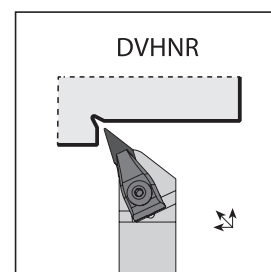
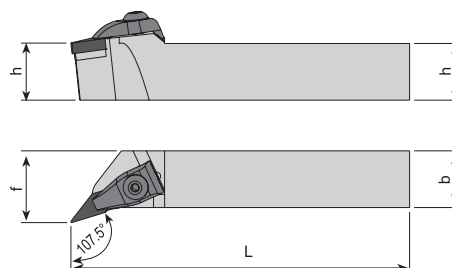
DTJNR/L, 93°

DTJNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
2525 M22	25	25	150	32
3232 P22	32	32	170	40



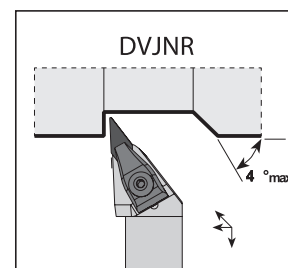
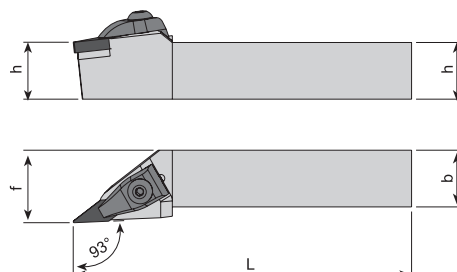
DVHNR/L, 107.5°

DVHNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32



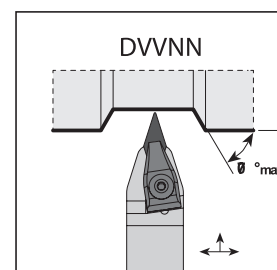
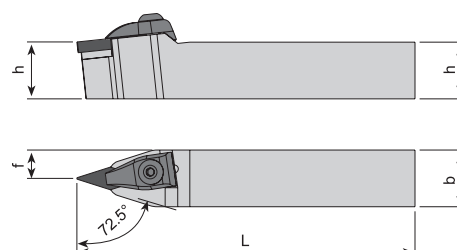
DVJNR/L, 93°

DVJNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



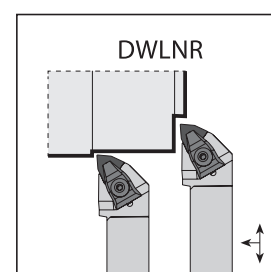
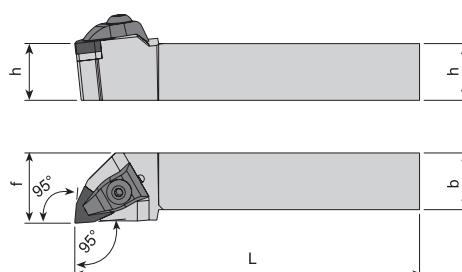
DVVNN, 72.5°

DVVNN	h	b	L	f
2020 K16	20	20	125	10
2525 M16	25	25	150	12.5
3232 P16	32	32	170	16



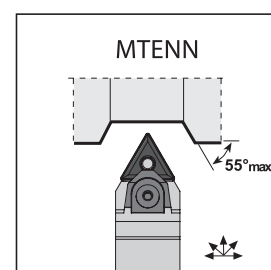
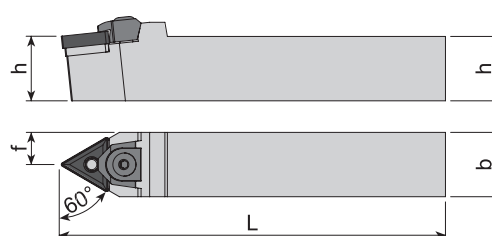
DWLNR/L, 95°

DWLNR/L	h	b	L	f
1616 H06	16	16	100	20
2020 K06	20	20	125	25
2525 M06	25	25	150	32
2020 K08	20	20	125	25
2525 M08	25	25	150	32
3232 P08	32	32	170	40



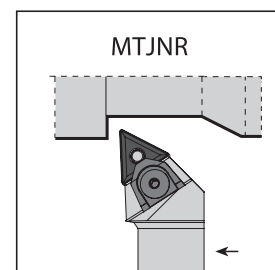
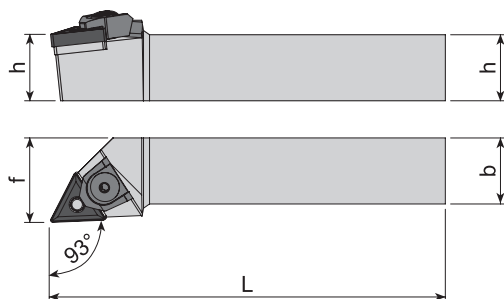
MTENN, 60°

MTENN	h	b	L	f
2020 K16	20	20	125	10
2525 M16	25	25	150	12.5
3232 P16	32	32	170	16
2525 M22	25	25	150	12.5
3232 P22	32	32	170	16



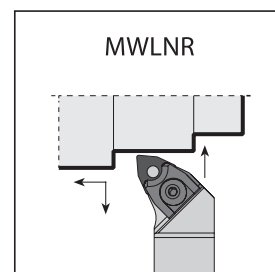
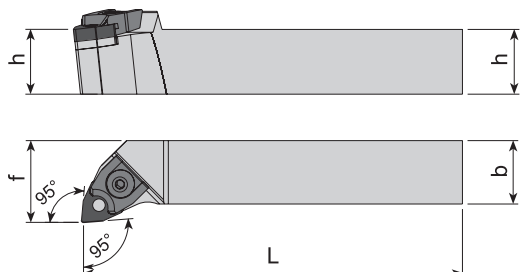
MTJNR/L, 93°

MTJNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
2525 M22	25	25	150	32
3232 P22	32	32	170	40
4040 S22	40	40	250	50



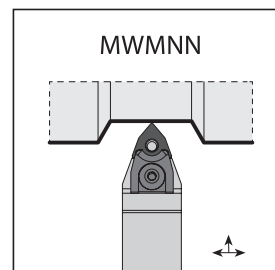
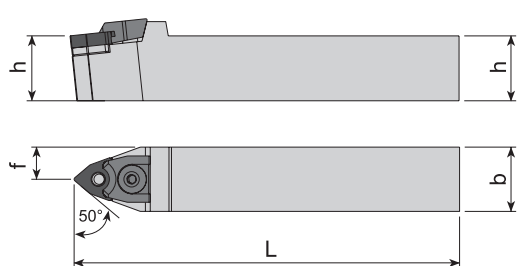
MWLNR/L, 95°

MWLNR/L	h	b	L	f
1616 H06	16	16	100	20
2020 K06	20	20	125	25
2525 M06	25	25	150	32
2020 K08	20	20	125	25
2525 M08	25	25	150	32
3232 P08	32	32	170	40



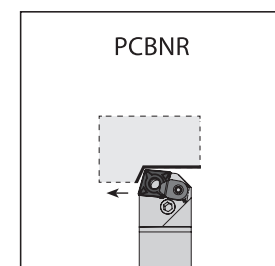
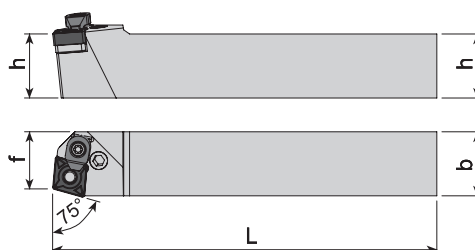
MWMNN, 50°

MWLNR/L	h	b	L	f
1616 H06	16	16	100	20
2020 K06	20	20	125	25
2525 M06	25	25	150	32
2020 K08	20	20	125	25
2525 M08	25	25	150	32
3232 P08	32	32	170	40



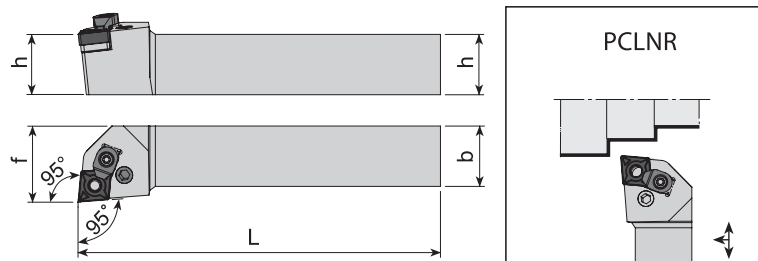
PCBNR/L, 75°

PCBNR/L	h	b	L	f
2020 K12C	20	20	125	17.5
2525 M12C	25	25	150	22.5
3232 P12C	32	32	170	27.5
2525 M16C	25	25	150	22
3232 P16C	32	32	170	27
3232 P19C	32	32	170	27
4040 S19C	40	40	250	37
4040 S25C	40	40	250	37



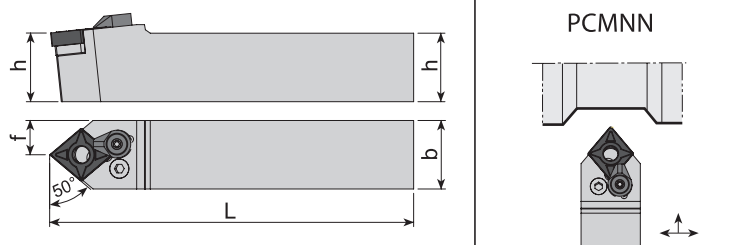
PCLNR/L, 95°

PCLNR/L	h	b	L	f
1616 H09	16	16	100	20
2020 K09	20	20	125	25
2525 M09	25	25	150	32
1616 H12C	16	16	100	20
2020 K12C	20	20	125	25
2525 M12C	25	25	150	32
3232 P12C	32	32	170	40
2525 M16C	25	25	150	32
3232 P16C	32	32	170	40
2525 M19C	25	25	150	32
3232 P19C	32	32	170	40
4040 S19C	40	40	250	50
4040 S25C	40	40	250	50
5050 S25C	50	50	250	60



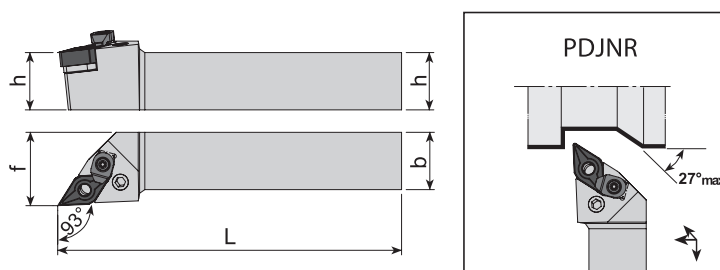
PCMNN, 50°

PCMNN	h	b	L	f
2020 K12C	20	20	125	10
2525 M12C	25	25	150	12.5
3232 P19C	32	32	170	16
4040 S25C	40	40	250	20



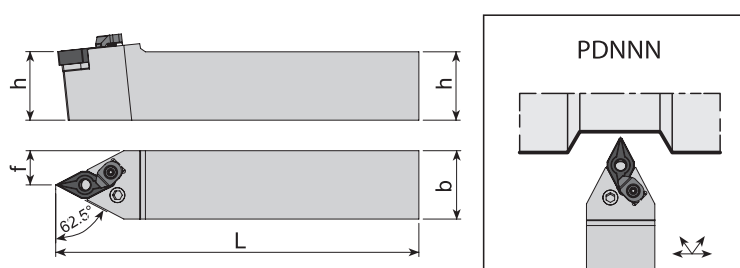
PDJNR/L, 93°

PDJNR/L	h	b	L	f
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2525 M11	25	25	150	32
2020 K15C	20	20	125	25
2525 M15C	25	25	150	32
3232 P15C	32	32	170	40
4040 S15C	40	40	250	50



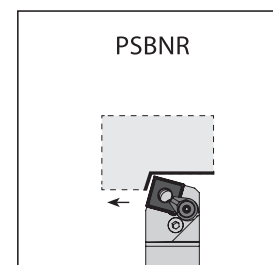
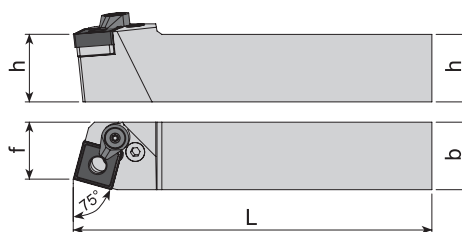
PDNNN, 62.5°

PDNNN	h	b	L	f
1616 H11	16	16	100	8
2020 K11	20	20	125	10
2525 M11	25	25	150	12.5
2020 K15	20	20	125	10
2525 M15C	25	25	150	12.5
3232 P15C	32	32	170	16



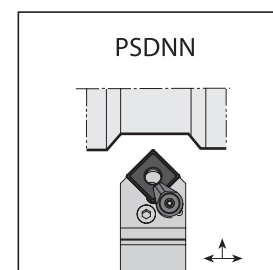
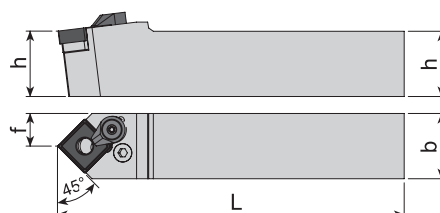
PSBNR/L, 75°

PSBNR/L	h	b	L	f
1616 H09	16	16	100	13
2020 K12	20	20	125	17
2525 M12C	25	25	150	22
3232 P12C	32	32	170	27
2525 M15C	25	25	150	22
3232 P15C	32	32	170	27
3232 P19C	32	32	170	27
4040 S19C	40	40	250	35
4040 S25C	40	40	250	35



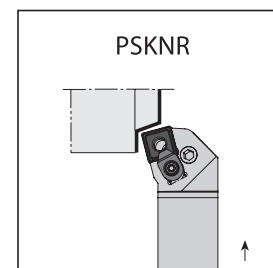
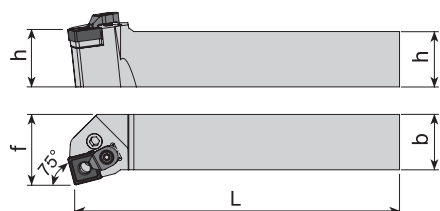
PSDNN, 45°

PSDNN	h	b	L	f
1616 H09	16	16	100	8
2020 K12C	20	20	125	10
2525 M12C	25	25	150	12.5
3232 P12C	32	32	170	16
2525 M15C	25	25	150	12.5
3232 P19C	32	32	170	16
4040 S25C	40	40	250	20



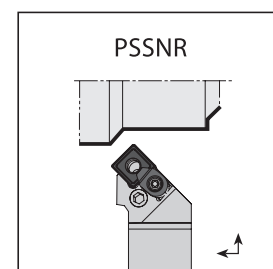
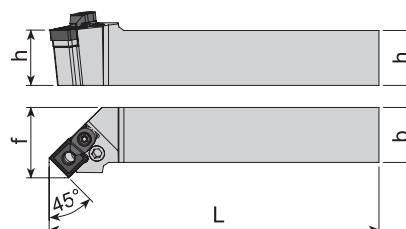
PSKNR/L, 75°

PSKNR/L	h	b	L	f
2020 K09	20	20	125	25
2020 K12C	20	20	125	25
2525 M12C	25	25	150	32
3232 P12C	32	32	170	40
2525 M15C	25	25	150	32
3232 P15C	32	32	170	40
3232 P19C	32	32	170	40
4040 S19C	40	40	250	50
4040 S25C	40	40	250	50
5050 S25C	50	50	250	60



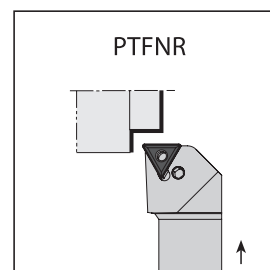
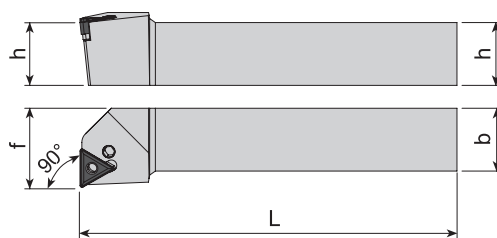
PSSNR/L, 45°

PSSNR/L	h	b	L	f
1616 H09	16	16	100	20
2020 K09	20	20	125	25
2020 K12C	20	20	125	25
2525 M12C	25	25	150	32
3232 P12C	32	32	170	40
3232 P19C	32	32	170	40
4040 S19C	40	40	250	50
4040 S25C	40	40	250	50



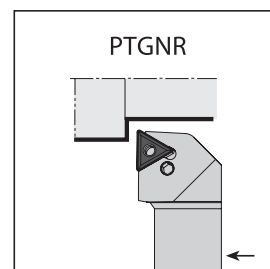
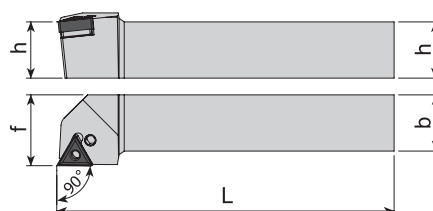
PTFNR/L, 90°

PTFNR/L	h	b	L	f
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
2525 M22C	25	25	150	32
3232 P22C	32	32	170	40



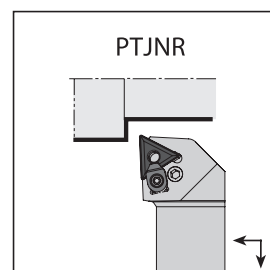
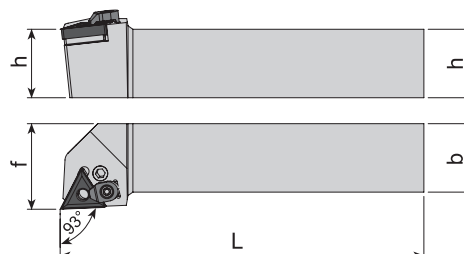
PTGNR/L, 90°

PTGNR/L	h	b	L	f
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
2525 M22C	25	25	150	32
3232 P22C	32	32	170	40



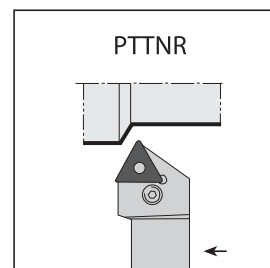
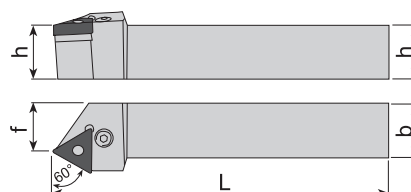
PTJNR/L, 93°

PTJNR/L	h	b	L	f
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
2525 M22C	25	25	150	32
3232 P22C	32	32	170	40



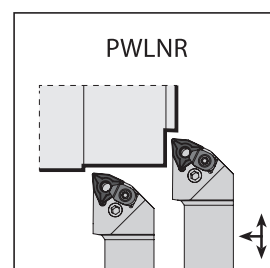
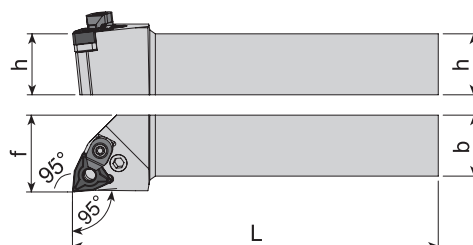
PTTNR/L, 60°

PTTNR/L	h	b	L	f
1616 H16	16	16	100	13
2020 K16	20	20	125	17
2525 M16	25	25	150	21.5
3232 P16	32	32	170	31
2525 M22C	25	25	150	20.5
3232 P22C	32	32	170	29



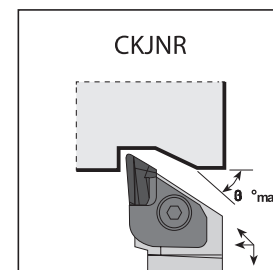
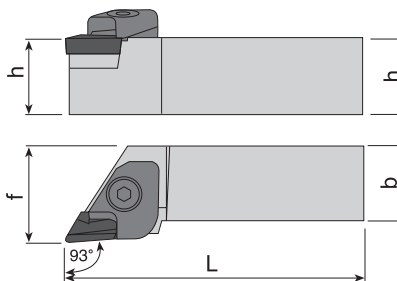
PWLNR/L, 95°

PWLNR/L	h	b	L	f
1616 H06	16	16	100	20
2020 K06	20	20	125	25
2525 M06	25	25	150	32
1616 H08	16	16	100	20
2020 K08C	20	20	125	25
2525 M08C	25	25	150	32
3232 P08C	32	32	170	40



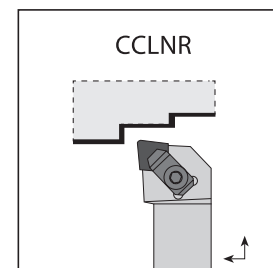
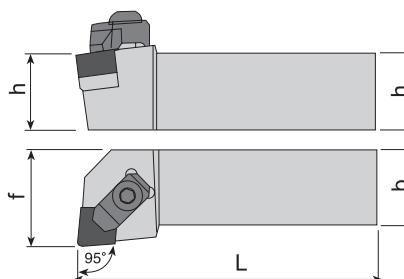
CKJNR/L, 93°

CKJNR/L	h	b	L	f
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40
4040 S16	40	40	250	50



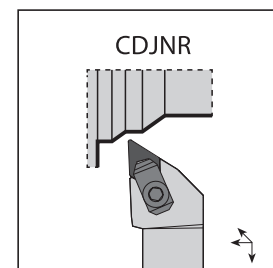
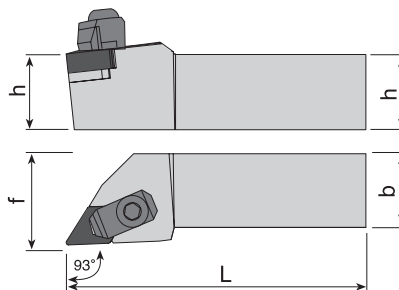
CCLNR/L, 95°

CCLNR/L	h	b	L	f
2525 M1207C	25	25	150	32
3232 P1207C	32	32	170	40
2525 M1607C	25	25	150	32



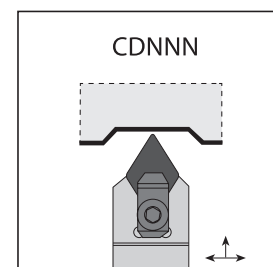
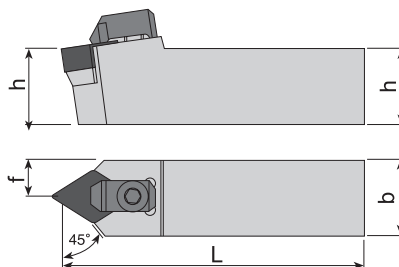
CDJNR/L, 93°

CDJNR/L	h	b	L	f
2525 M1107C	25	25	150	32
2525 M1507C	25	25	150	32
3232 P1507C	32	32	170	40



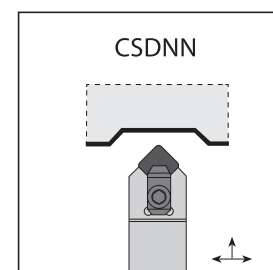
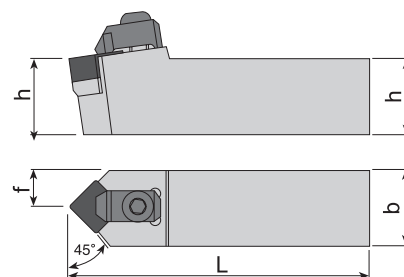
CDNNN, 62.5°

CDNNN	h	b	L	f
2525 M1107C	25	25	150	12.5



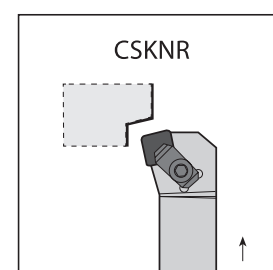
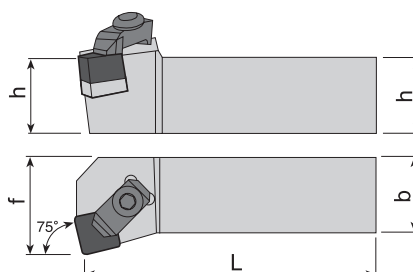
CSDNN, 45°

CSDNN	h	b	L	f
2525 M1207C	25	25	150	12.5
3232 P1207C	32	32	170	16



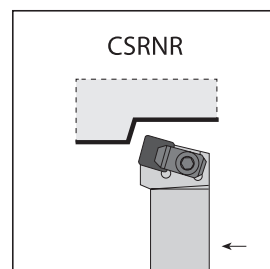
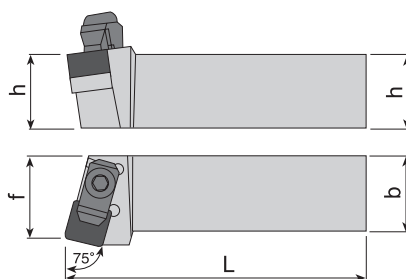
CSKNR/L, 75°

CSKNR/L	h	b	L	f
2525 M1207C	25	25	150	32
3232 P1207C	32	32	170	40



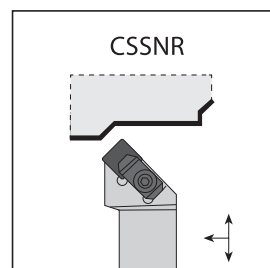
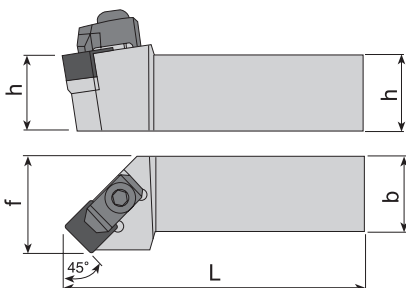
CSNR/L, 75°

CSNR/L	h	b	L	f
2525 M1207C	25	25	150	32
3232 P1207C	32	32	170	40



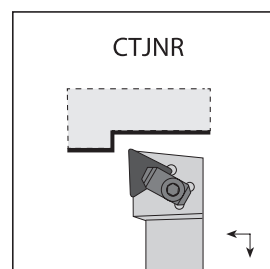
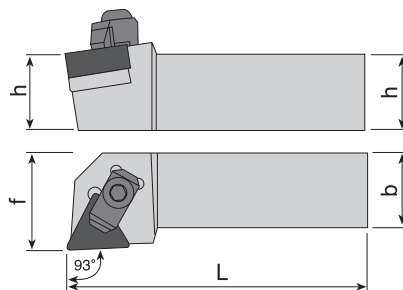
CSSNR/L, 45°

CSSNR/L	h	b	L	f
2525 M1207C	25	25	150	32
3232 P1207C	32	32	170	40



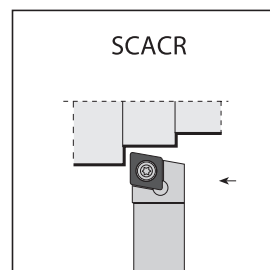
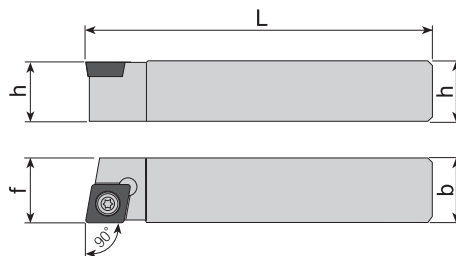
CTJNR/L, 93°

CTJNR/L	h	b	L	f
2525 M1607C	25	25	150	32
3232 P1607C	32	32	170	40



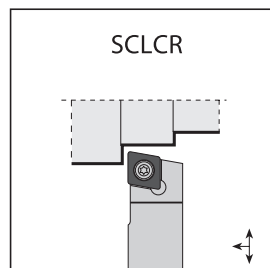
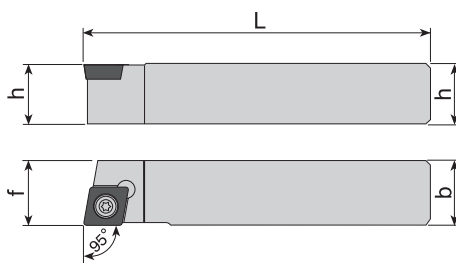
SCACR/L, 90°

SCACR/L	h	b	L	f
0808 E06	08	08	70	10
1010 E06	10	10	70	12
1212 F09	12	12	80	16
1616 H09	16	16	100	20
2020 K09	20	20	125	25
2020 K12	20	20	125	25
2525 M12	25	25	150	32



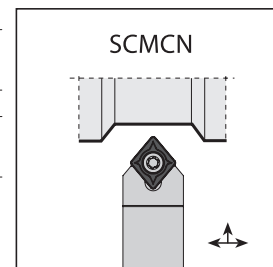
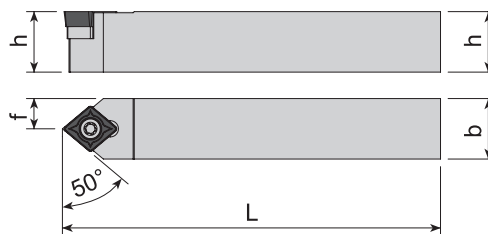
SCLCR/L, 95°

SCLCR/L	h	b	L	f
0808 E06	08	08	70	10
1010 E06	10	10	70	12
1212 F09	12	12	80	16
1616 H09	16	16	100	20
2020 K09	20	20	125	25
2525 M09	25	25	150	32
2020 K12	20	20	125	25
2525 M12	25	25	150	32



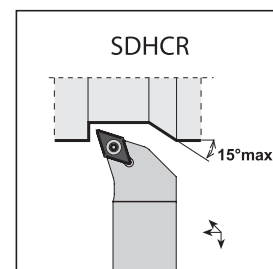
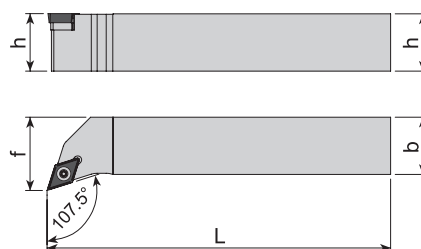
SCMCN, 50°

SCMCN	h	b	L	f
0808 E06	08	08	70	04
1010 E06	10	10	70	05
1212 F06	12	12	80	06
1212 F09	12	12	80	06
1616 H09	16	16	100	08
2020 K12	20	20	125	10
2525 M12	25	25	150	12.5



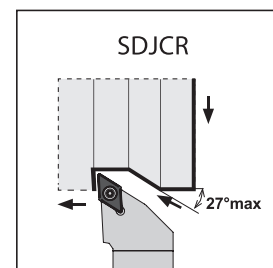
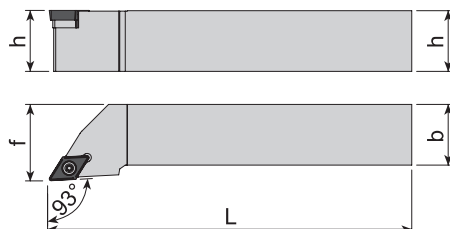
SDHCR/L, 107,5°

SDHCR/L	h	b	L	f
0808 E07	08	08	70	10
1010 E07	10	10	70	12
1212 F07	12	12	80	16
1616 H07	16	16	100	20
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2525 M11	25	25	150	32
3232 P11	32	32	170	40



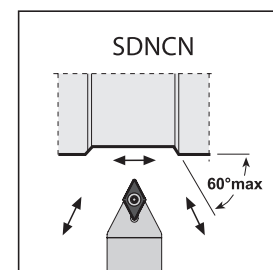
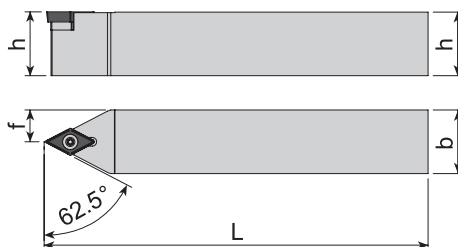
SDJCR/L, 93°

SDJCR/L	h	b	L	f
0808 E07	08	08	70	10
1010 E07	10	10	70	12
1212 F07	12	12	80	16
1616 H07	16	16	100	20
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2525 M11	25	25	150	32
3232 P11	32	32	170	40



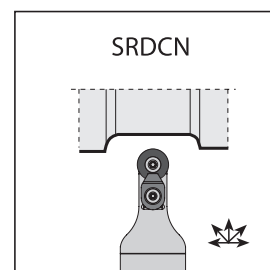
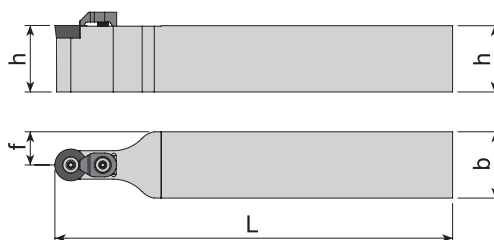
SDNCN, 62.5°

SDNCN	h	b	L	f
0808 E07	08	08	70	4
1010 E07	10	10	70	5
1212 F07	12	12	80	6
1616 H07	16	16	100	8
1616 H11	16	16	100	8
2020 K11	20	20	125	10
2525 M11	25	25	150	12.5
3232 P11	32	32	170	16



SRDCN

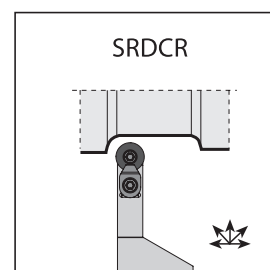
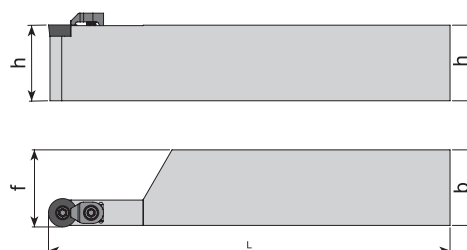
SRDCN	h	b	L	f
1616 H06	16	16	100	8
2020 K06	20	20	125	10
2525 M06	25	25	150	12.5
1616 H08C	16	16	100	8
2020 K08C	20	20	125	10
2525 M08C	25	25	150	12.5
1616 H10C	16	16	100	8
2020 K10C	20	20	125	10
2525 M10C	25	25	150	12.5
3232 P10C	32	32	170	16
2020 K12C	20	20	125	10
2525 M12C	25	25	150	12.5
3232 P12C	32	32	170	16



SRDCN	h	b	L	f
2525 M16C	25	25	150	12.5
3232 P16C	32	32	170	16
2525 M20C	25	25	150	12.5
3232 P20C	32	32	170	16
3232 P25C	32	32	170	16
3232 P32C	32	32	170	16

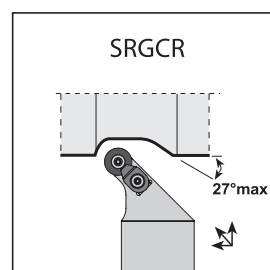
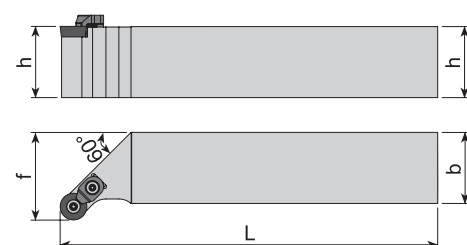
SRDCR/L

SRDCR/L	h	b	L	f
3232 P12C	32	32	170	32.6



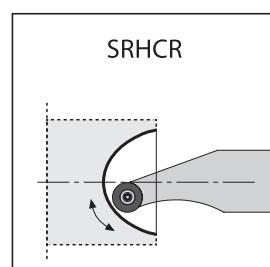
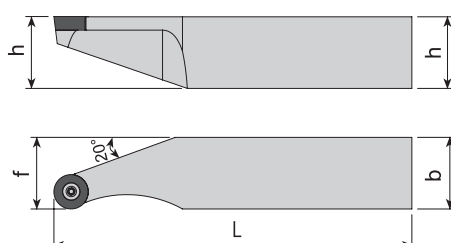
SRGCR/L

SRGCR/L	h	b	L	f
1616 H06	16	16	100	20
2020 K06	20	20	125	25
1616 H08C	16	16	100	20
2020 K08C	20	20	125	25
2525 M08C	25	25	150	32
1616 H10C	16	16	100	20
2020 K10C	20	20	125	25
2525 M10C	25	25	150	32
3232 P10C	32	32	170	40
2020 K12C	20	20	125	25



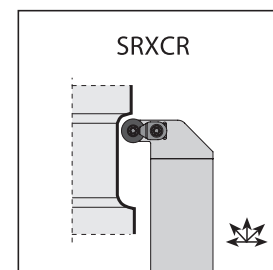
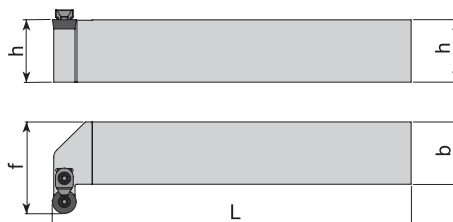
SRHCR/L, 20°

SRHCR/L	h	b	L	f	min R
2525 K08	25	25	125	25	32.5
2525 K10	25	25	125	25	36
2525 K12	25	25	125	25	40
2525 K16	25	25	125	25	47.5



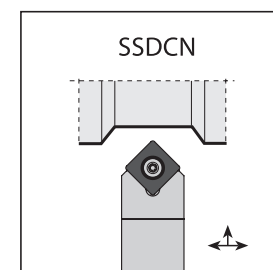
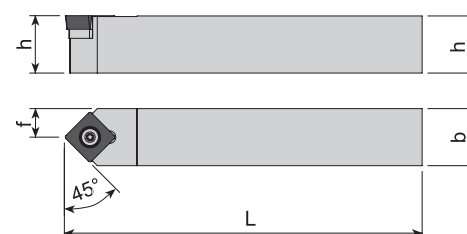
SRXCR/L

SRXCR/L	h	b	L	f
3232 X08C	32	32	220	47
3232 X10C	32	32	220	47
3232 X12C	32	32	220	47



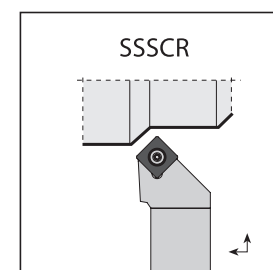
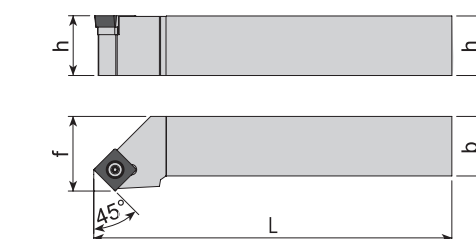
SSDCN, 45°

SSDCN	h	b	L	f
1212 F09	12	12	80	6
1616 H09	16	16	100	8
2020 K09	20	20	125	10
1616 H12	16	16	100	8
2020 K12	20	20	125	10
2525 M12	25	25	150	12.5



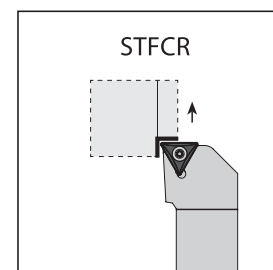
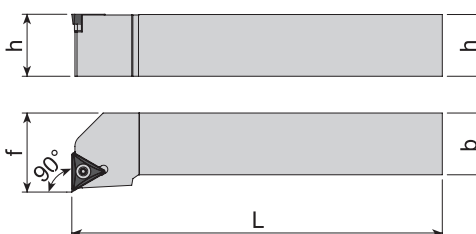
SSSCR/L, 45°

SSSCR/L	h	b	L	f
1212 F09	12	12	80	16
1616 H09	16	16	100	20
2020 K09	20	20	125	25
1616 H12	16	16	100	20
2020 K12	20	20	125	25
2525 M12	25	25	150	32



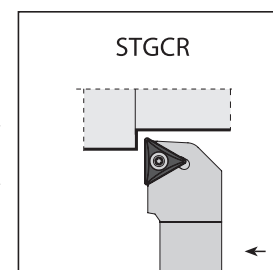
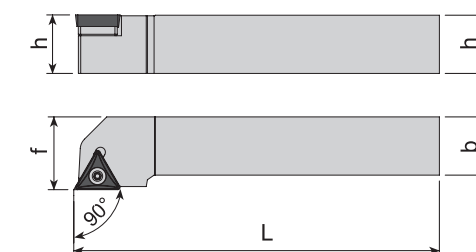
STFCR/L, 90°

STFCR/L	h	b	L	f
0808 E09	08	08	70	10
1010 E09	10	10	70	12
1212 F11	12	12	80	16
1616 H11	16	16	100	20
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



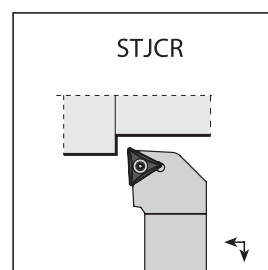
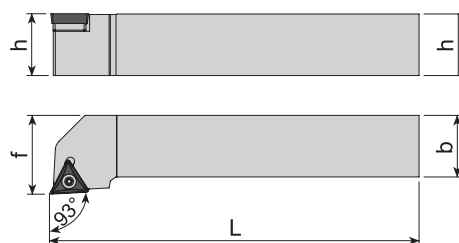
STGCR/L, 90°

STGCR/L	h	b	L	f
0808 E09	08	08	70	10
1010 E09	10	10	70	12
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



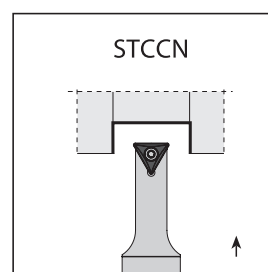
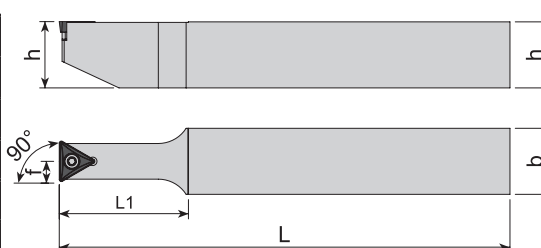
STJCR/L, 93°

STJCR/L	h	b	L	f
0808 E09	08	08	70	10
1010 E09	10	10	70	12
1212 F11	12	12	80	16
1616 H11	16	16	100	20
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



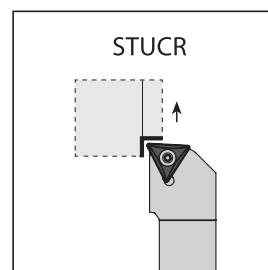
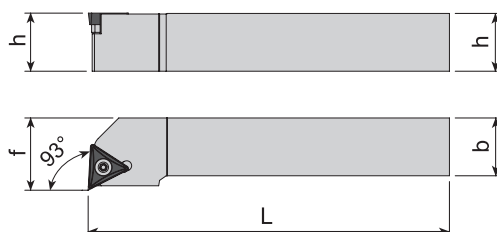
STCCN, 90°

STCCN	h	b	L	f	L ₁
2020 L11	20	20	140	10	50
1616 K16	16	16	125	8	24
2020 M16	20	20	150	10	30
2525 P16	25	25	170	12.5	37.5
3232 R16	32	32	200	16	48
2525 P22	25	25	170	12.5	37.5



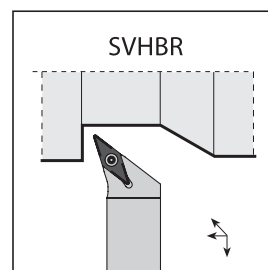
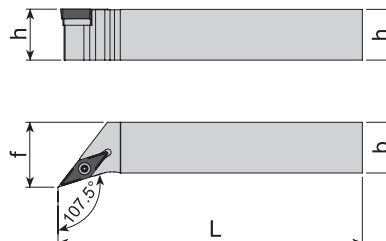
STUCR/L, 93°

STUCR/L	h	b	L	f
0808 E09	08	08	70	10
1010 E09	10	10	70	12
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



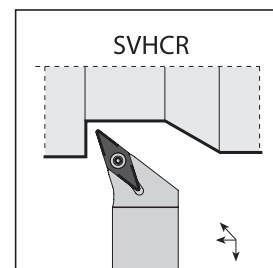
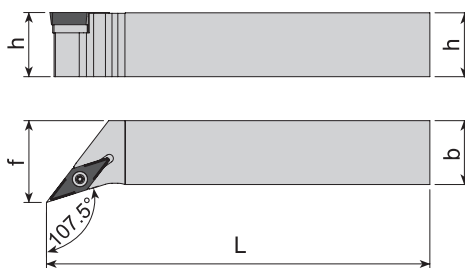
SVHBR/L, 107.5°

SVHBR/L	h	b	L	f
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



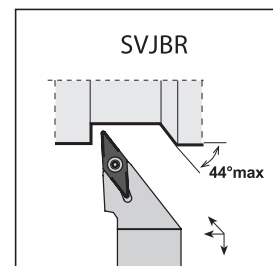
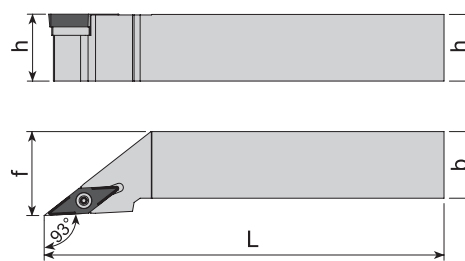
SVHCR/L, 107.5°

SVHCR/L	h	b	L	f
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K11	20	20	125	25
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



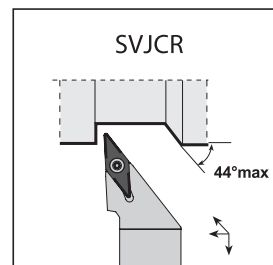
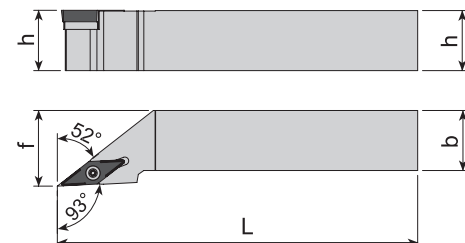
SVJBR/L, 93°

SVJBR/L	h	b	L	f
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K11	20	20	125	25
1616 H16	16	16	100	20
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



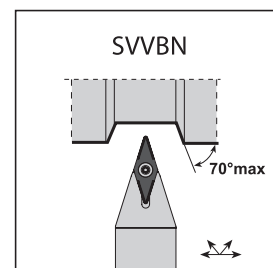
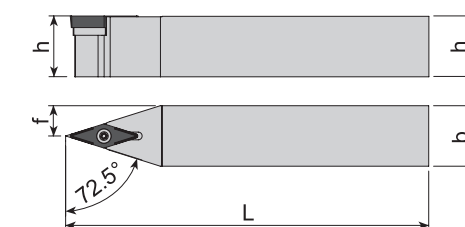
SVJCR/L, 93°

SVJCR/L	h	b	L	f
1212 F11	12	12	80	16
1616 H11	16	16	100	20
2020 K11	20	20	125	25
1212 F16	12	12	80	16
2020 K16	20	20	125	25
2525 M16	25	25	150	32
3232 P16	32	32	170	40



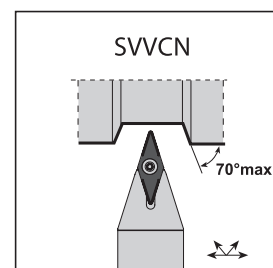
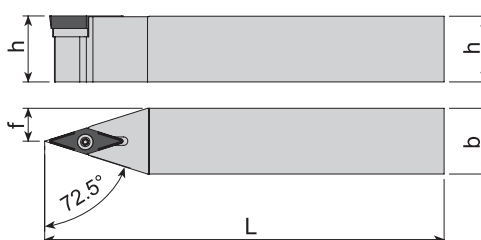
SVVBN, 72.5°

SVVBN	h	b	L	f
1212 F11	12	12	80	06
1616 H11	16	16	100	08
2020 K11	20	20	125	10
2020 K16	20	20	125	10
2525 M16	25	25	150	12.5
3232 P16	32	32	170	16



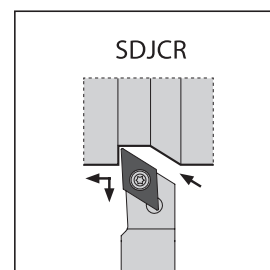
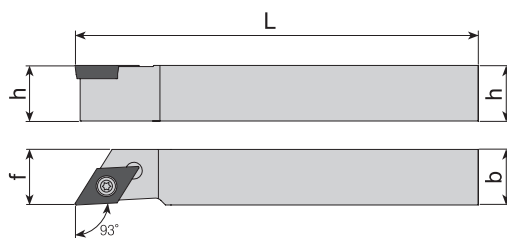
SVVCN, 72.5°

SVVCN	h	b	L	f
1212 F11	12	12	80	06
1616 H11	16	16	100	08
2020 K11	20	20	125	10
2020 K16	20	20	125	10
2525 M16	25	25	150	12.5
3232 P16	32	32	170	16



SDJCR/L, 93°

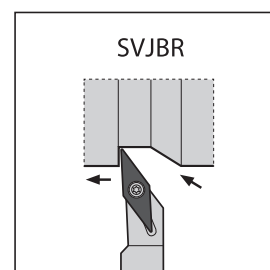
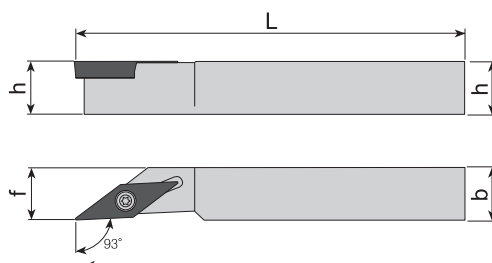
SDJCR/L	h	b	L	f
0808 X07-S	08	08	115	08
1010 X07-S	10	10	115	10
1212 G07-S	12	12	90	12
1212 X07-S	12	12	130	12
1616 F07-S	16	16	75	16
1616 X07-S	16	16	130	16
2020 X07-S	20	20	120	20
1212 G11-S	12	12	90	12
1212 X11-S	12	12	130	12
1212 K11-S	12	12	125	12
1616 F11-S	16	16	75	16



SDJCR/L	h	b	L	f
1616 X11-S	16	16	130	16
1616 K11-S	16	16	125	16
2020 X11-S	20	20	120	20

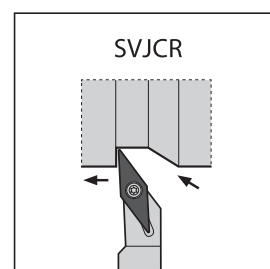
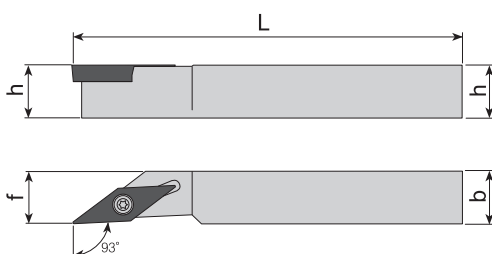
SVJBR/L, 93°

SVJBR/L	h	b	L	f
1616 K11-S	16	16	125	16



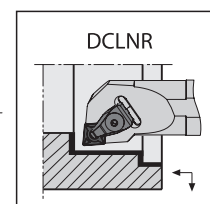
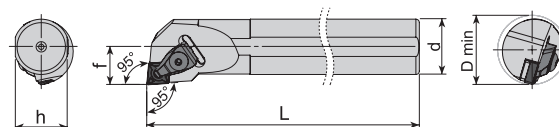
SVJCR/L, 93°

SVJCR/L	h	b	L	f
0808 X11-S	08	08	115	08
1212 K11-S	12	12	125	12



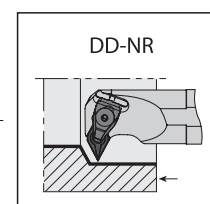
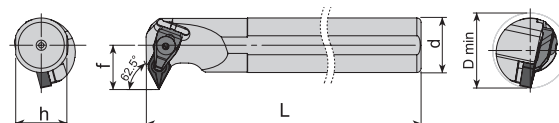
DCLNR/L, 95°

DCLNR/L	d	h	L	f	D min
S25S DCLNR/L 09	25	23	250	17	≥32
S25S DCLNR/L 12	25	23	250	17	≥32
S32T DCLNR/L 12	32	30	300	22	≥40
S40U DCLNR/L 12	40	37.5	350	27	≥50
S50V DCLNR/L 12	50	47	400	35	≥63
S32T DCLNR/L 16	32	30	300	22	≥40
S40U DCLNR/L 16	40	37.5	350	27	≥50
S50V DCLNR/L 16	50	47	400	35	≥63

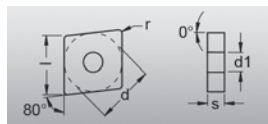


DD-NR/L, 62.5°

DD-NR/L	d	h	L	f	D min
S32T DD-NR/L 15	32	30	300	26	≥44
S40U DD-NR/L 15	40	37.5	350	29	≥52
S50V DD-NR/L 15	50	47	400	35	≥67



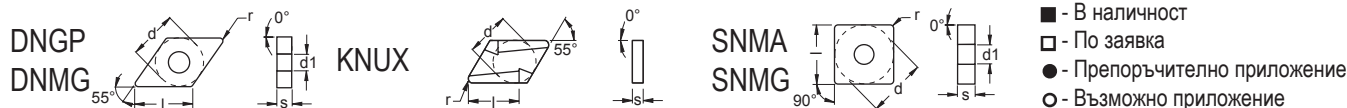
CNGP
CNMA
CNMG
CNMM



- - В наличност
- - По заявка
- - Препоръчително приложение
- - Възможно приложение

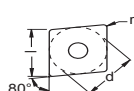
Материал							Cermet				Cemented				Coated grades										
Steel							○									○			●	●	○		●		
Stainless steel							●									●	●		○				○	○	
Cast iron							○									○			○	○	●				
Aluminium alloys																○									
Heat resistant alloys																○			●						●
	код	l	d	s	d1	r	C4010									F2120	F2425		F8410	T1415	T1425	T3220		T1435	F8315
	CNGP 120402 .G23	12.9	12.7	4.76	5.16	0.2										□									
	CNGP 120404 .G23	12.9	12.7	4.76	5.16	0.4										□									
	CNGP 120408 .G23	12.9	12.7	4.76	5.16	0.8										□									
	CNMA 120408 .G61	12.9	12.7	4.76	5.16	0.8																■			
	CNMA 120412 .G61	12.9	12.7	4.76	5.16	1.2																■			
	CNMA 120416 .G61	12.9	12.7	4.76	5.16	1.6																■			
	CNMG 120404 .G39	12.9	12.7	4.76	5.16	0.4	■																		
	CNMG 120408 .G39	12.9	12.7	4.76	5.16	0.8	■																		
	CNMG 120404 .G52	12.9	12.7	4.76	5.16	0.4													■	■					
	CNMG 120408 .G52	12.9	12.7	4.76	5.16	0.8													■	■	■		■		
	CNMG 120412 .G52	12.9	12.7	4.76	5.16	1.2													■	■	■		■		
	CNMG 120404 .G53	12.9	12.7	4.76	5.16	0.4											■								
	CNMG 120408 .G53	12.9	12.7	4.76	5.16	0.8											■								
	CNMG 120404 .G55	12.9	12.7	4.76	5.16	0.4													■						■
	CNMG 120408 .G55	12.9	12.7	4.76	5.16	0.8													■						■
	CNMG 120408 .G56	12.9	12.7	4.76	5.16	0.8														■	■				
	CNMG 120412 .G56	12.9	12.7	4.76	5.16	1.2														■	■				
	CNMG 120408 .G62	12.9	12.7	4.76	5.16	0.8														■	■	■			
	CNMG 120412 .G62	12.9	12.7	4.76	5.16	1.2														■	■	■			
	CNMG 160608 .G62	16.1	15.87	6.35	6.35	0.8																■		■	
	CNMG 160612 .G62	16.1	15.87	6.35	6.35	1.2														■	■	■		■	
	CNMG 160616 .G62	16.1	15.87	6.35	6.35	1.6															■	■			
	CNMG 190612 .G62	19.3	19.05	6.35	7.94	1.2															■	■		■	
	CNMG 190616 .G62	19.3	19.05	6.35	7.94	1.6															■			■	
	CNMG 120408 .G63	12.9	12.7	4.76	5.16	0.8											■								
	CNMG 120412 .G63	12.9	12.7	4.76	5.16	1.2											■								
	CNMM 190612 .G72	19.3	19.05	6.35	7.94	1.2															■				
	CNMM 190616 .G72	19.3	19.05	6.35	7.94	1.6															■				
	CNMM 250724 .G72	25.8	25.40	9.52	9.12	2.4															□				
	CNMM 250924 .G72	25.8	25.40	9.52	9.12	2.4															□				
	CNMM 190616 .G82	19.3	19.05	6.35	7.94	1.6															■				
	CNMM 190624 .G82	19.3	19.05	6.35	7.94	2.4															■				
	CNMM 250924 .G82	25.8	25.4	9.52	9.12	2.4															□				
	CNMM 250932 .G82	25.8	25.4	9.52	9.12	3.2															□				

ТВЪРДОСПЛАВНИ ПЛАСТИНИ

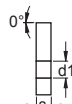
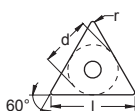


						Cermet		Cemented		Coated grades							
						○					○			●	●	○	●
						●					●	●	○		○		○
						○					○			○	○	●	
											○						
											○		●				●
код	l	d	s	d1	r	C4010					F2120	F2425	F8410	T1415	T1425	T3220	T1435
DNGP 110404 .G23	11.6	9.52	4.76	3.81	0.4						□						
DNGP 150602 .G23	15.5	12.7	6.35	5.16	0.2						□						
DNGP 150604 .G23	15.5	12.7	6.35	5.16	0.4						□						
DNGP 150608 .G23	15.5	12.7	6.35	5.16	0.8						□						
DNMG 150604 .G39	15.5	12.7	6.35	5.16	0.4	□											
DNMG 110404 .G52	11.6	9.52	4.76	3.81	0.4										■		
DNMG 110408 .G52	11.6	9.52	4.76	3.81	0.8										■		
DNMG 150604 .G52	15.5	12.7	6.35	5.16	0.4									■	■		
DNMG 150608 .G52	15.5	12.7	6.35	5.16	0.8									■	■	■	■
DNMG 150612 .G52	15.5	12.7	6.35	5.16	1.2									■	■	■	■
DNMG 110404 .G53	11.6	9.52	4.76	3.81	0.4						□						
DNMG 110408 .G53	11.6	9.52	4.76	3.81	0.8						□						
DNMG 150604 .G53	15.5	12.7	6.35	5.16	0.4						■						
DNMG 150608 .G53	15.5	12.7	6.35	5.16	0.8						■						
DNMG 150608 .G55	15.5	12.7	6.35	5.16	0.8								■				■
DNMG 150608 .G62	15.5	12.7	6.35	5.16	0.8											■	
DNMG 150608 .G63	15.5	12.7	6.35	5.16	0.8						■						
DNMG 150612 .G63	15.5	12.7	6.35	5.16	1.2						■						
KNUX 160405EL .G69	16.0	9.52	4.76	-	0.5										■		
KNUX 160405ER .G69	16.0	9.52	4.76	-	0.5										■		
SNMA 120408 .G61	12.7	12.7	4.76	5.16	0.8											■	
SNMG 120408 .G52	12.7	12.7	4.76	5.16	0.8									■	■		■
SNMG 120412 .G52	12.7	12.7	4.76	5.16	1.2									■	■		■
SNMG 120408 .G53	12.7	12.7	4.76	5.16	0.8						■						
SNMG 120408 .G55	12.7	12.7	4.76	5.16	0.8								■				■
SNMG 120408 .G56	12.7	12.7	4.76	5.16	0.8										■		
SNMG 120412 .G56	12.7	12.7	4.76	5.16	1.2										■		
SNMG 120408 .G62	12.7	12.7	4.76	5.16	0.8											■	
SNMG 150612 .G62	15.87	15.87	6.35	6.35	1.2										■		■
SNMG 190612 .G62	19.05	19.05	6.35	7.94	1.2										□		■

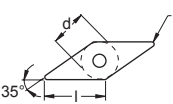
SNMM



TNMA
TNMG



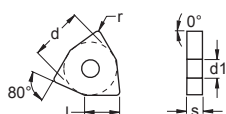
VNGP
VNMG



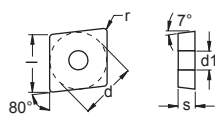
- - В наличност
- - По заявка
- - Препоръчително приложение
- - Възможно приложение

Материал							Cermet				Cemented				Coated grades									
Steel							○								○			●	●	○		●		
Stainless steel							●							●	●		○		○			○	○	
Cast iron							○							○				○	○	●				
Aluminium alloys														○										
Heat resistant alloys														○			●						●	
	код	l	d	s	d1	r	C4010								F2120	F2425		F8410	T1415	T1425	T3220		T1435	F8315
	SNMM 190616 .G54	19.05	19.05	6.35	7.94	1.6													□					
	SNMM 250924 .G54	25.40	25.40	9.52	9.12	2.4													□					
	SNMM 190612 .G72	19.05	19.05	6.35	7.94	1.2													□					
	SNMM 190616 .G72	19.05	19.05	6.35	7.94	1.6													□					
	SNMM 250724 .G72	25.40	25.40	9.52	9.12	2.4													□					
	SNMM 250924 .G72	25.40	25.40	9.52	9.12	2.4													□					
	SNMM 190616 .G82	19.05	19.05	6.35	7.94	1.6														□				
	SNMM 190624 .G82	19.05	19.05	6.35	7.94	2.4														□				
	SNMM 250924 .G82	25.40	25.40	9.52	9.12	2.4														□				
	SNMM 250932 .G82	25.40	25.40	9.52	9.12	3.2														□				
	TNMA 160408 .G61	16.5	9.52	4.76	3.81	0.8															■			
	TNMG 160404 .G52	16.5	9.52	4.76	3.81	0.4													■	■				
	TNMG 160408 .G52	16.5	9.52	4.76	3.81	0.8													■	■	■		■	
	TNMG 160412 .G52	16.5	9.52	4.76	3.81	1.2													■	■	■			
	TNMG 220404 .G52	22.0	12.70	4.76	5.16	0.4														■				
	TNMG 220408 .G52	22.0	12.70	4.76	5.16	0.8														■	■			
	TNMG 160404 .G53	16.5	9.52	4.76	3.81	0.4									■									
	TNMG 160408 .G53	16.5	9.52	4.76	3.81	0.8									■									
	TNMG 160408 .G55	16.5	9.52	4.76	3.81	0.8											■							■
	TNMG 160408 .G56	16.5	9.52	4.76	3.81	0.8													■	■				
	TNMG 160412 .G56	16.5	9.52	4.76	3.81	1.2													■	■				
	TNMG 160408 .G62	16.5	9.52	4.76	3.81	0.8															■			
	TNMG 160408 .G63	16.5	9.52	4.76	3.81	0.8									■									
	TNMG 160412 .G63	16.5	9.52	4.76	3.81	1.2									■									
	VNGP 160402 .G23	16.6	9.52	4.76	3.81									□										
	VNGP 160404 .G23	16.6	9.52	4.76	3.81									□										
	VNMG 160404 .G52	16.6	9.52	4.76	3.81														■	■				
	VNMG 160408 .G52	16.6	9.52	4.76	3.81														■	■				
	VNMG 160408 .G53	16.6	9.52	4.76	3.81										■									
	VNMG 160408 .G55	16.6	9.52	4.76	3.81												■							■

WNGP
WNMA
WNMG

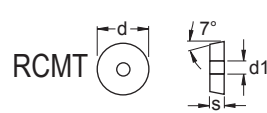
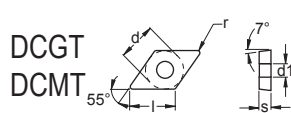
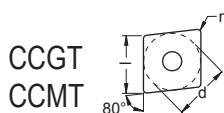


CCGT
CCMT



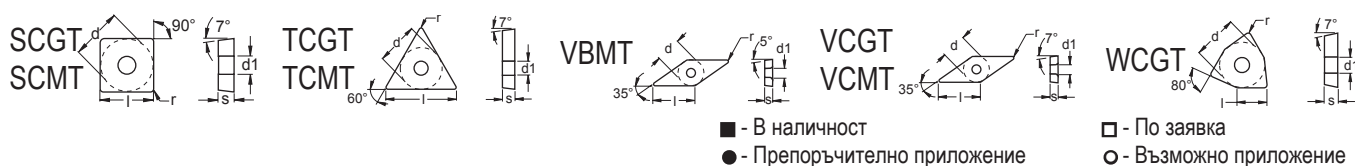
- - В наличност
- - По заявка
- - Препоръчително приложение
- - Възможно приложение

Материал							Cermet			Cemented			Coated grades									
Steel							○							○	○		●	●	○		●	
Stainless steel							●						●	●	●	○		○			○	○
Cast iron							○			○			○				○	○	●			
Aluminium alloys										●			○									
Heat resistant alloys										○			○			●						●
	код	l	d	s	d1	r	C4010			T115			F2120	F2425	F2435	F8410	T1415	T1425	T3220		T1435	F8315
	WNGP 080404 .G23	8.7	12.7	4.76	5.16	0.4							□									
	WNGP 080408 .G23	8.7	12.7	4.76	5.16	0.8							□									
	WNMA 080408 .G61	8.7	12.7	4.76	5.16	0.8													■			
	WNMG 060404 .G52	6.5	9.52	4.76	3.81	0.4											■	■				
	WNMG 060408 .G52	6.5	9.52	4.76	3.81	0.8											■	■				
	WNMG 080404 .G52	8.7	12.7	4.76	5.16	0.4											■	■				
	WNMG 080408 .G52	8.7	12.7	4.76	5.16	0.8											■	■	■		■	
	WNMG 080412 .G52	8.7	12.7	4.76	5.16	1.2											■	■	■		■	
	WNMG 060404 .G53	6.5	9.52	4.76	3.81	0.4								■								
	WNMG 060408 .G53	6.5	9.52	4.76	3.81	0.8								■								
	WNMG 080404 .G53	8.7	12.7	4.76	5.16	0.4								■								
	WNMG 080408 .G53	8.7	12.7	4.76	5.16	0.8								■								
	WNMG 080408 .G55	8.7	12.7	4.76	5.16	0.8										■						■
	WNMG 080408 .G56	8.7	12.7	4.76	5.16	0.8											■	■				
	WNMG 080412 .G56	8.7	12.7	4.76	5.16	1.2											■	■				
	WNMG 080408 .G62	8.7	12.7	4.76	5.16	0.8											■	■	■			
	WNMG 080412 .G62	8.7	12.7	4.76	5.16	1.2											■	■	■			
	WNMG 080408 .G63	8.7	12.7	4.76	5.16	0.8								■								
	WNMG 080412 .G63	8.7	12.7	4.76	5.16	1.2								■								
	CCGT 060200 .G13	6.5	6.35	2.38	2.8	0.0							■									
	CCGT 060201 .G13	6.5	6.35	2.38	2.8	0.1							■									
	CCGT 09T300 .G13	9.7	9.52	3.97	4.4	0.0							□									
	CCGT 09T301 .G13	9.7	9.52	3.97	4.4	0.1							□									
	CCGT 060201 .G57P	6.5	6.35	2.38	2.8	0.1				■												
	CCGT 060202 .G57P	6.5	6.35	2.38	2.8	0.2				■												
	CCGT 060204 .G57P	6.5	6.35	2.38	2.8	0.4				■												
	CCGT 09T302 .G57P	9.7	9.52	3.97	4.4	0.2				■												
	CCGT 09T304 .G57P	9.7	9.52	3.97	4.4	0.4				■												
	CCGT 09T308 .G57P	9.7	9.52	3.97	4.4	0.8				■												
	CCGT 120404 .G57P	12.9	12.7	4.76	5.5	0.4				■												
	CCGT 120408 .G57P	12.9	12.7	4.76	5.5	0.8				■												
	CCMT 060204 .G39	6.5	6.35	2.38	2.8	0.4	■															
	CCMT 09T304 .G39	9.7	9.52	3.97	4.4	0.4	■															



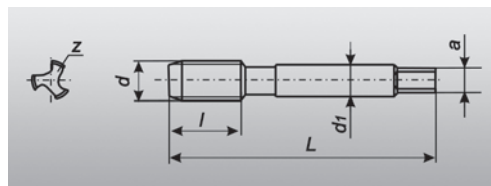
- - В наличност
- - По заявка
- - Препоръчително приложение
- - Възможно приложение

Материал							Cermet				Cemented				Coated grades									
Steel							○								○	○		●	●	○		●		
Stainless steel							●							●	●	●	○		○			○	○	
Cast iron							○				○				○			○	○	●				
Aluminium alloys											●			○										
Heat resistant alloys											○				○		●						●	
	код	l	d	s	d1	r	C4010				T115				F2120	F2425	F2435	F8410	T1415	T1425	T3220		T1435	F8315
	CCMT 060202 .G42	6.5	6.35	2.38	2.8	0.2										■				■				
	CCMT 060204 .G42	6.5	6.35	2.38	2.8	0.4										■				■				
	CCMT 09T302 .G42	9.7	9.52	3.97	4.4	0.2										■				■				
	CCMT 09T304 .G42	9.7	9.52	3.97	4.4	0.4										■				■				
	CCMT 09T308 .G42	9.7	9.52	3.97	4.4	0.8										■				■				
	CCMT 060204 .G52	6.5	6.35	2.38	2.8	0.4										■			■	■	■		■	
	CCMT 060208 .G52	6.5	6.35	2.38	2.8	0.8										■				■			■	
	CCMT 09T304 .G52	9.7	9.52	3.97	4.4	0.4										■	■		■	■	■		■	
	CCMT 09T308 .G52	9.7	9.52	3.97	4.4	0.8										■	■		■	■	■		■	
	CCMT 120404 .G52	12.9	12.7	4.76	5.5	0.4										■				■				
	CCMT 120408 .G52	12.9	12.7	4.76	5.5	0.8										■				■	■			
	CCMT 120412 .G52	12.9	12.7	4.76	5.5	1.2										■				■				
	DCGT 070200 .G13	7.8	6.35	2.38	2.8	0.0									■									
	DCGT 070201 .G13	7.8	6.35	2.38	2.8	0.1									■									
	DCGT 11T300 .G13	11.6	9.52	3.97	4.4	0.0									□									
	DCGT 11T301 .G13	11.6	9.52	3.97	4.4	0.1									□									
	DCGT 070201 .G57P	7.8	6.35	2.38	2.8	0.1					■													
	DCGT 070202 .G57P	7.8	6.35	2.38	2.8	0.2					■													
	DCGT 070204 .G57P	7.8	6.35	2.38	2.8	0.4					■													
	DCGT 070208 .G57P	7.8	6.35	2.38	2.8	0.8					■													
	DCGT 11T302 .G57P	11.6	9.52	3.97	4.4	0.2					■													
	DCGT 11T304 .G57P	11.6	9.52	3.97	4.4	0.4					■													
	DCGT 11T308 .G57P	11.6	9.52	3.97	4.4	0.8					■													
	DCMT 070204 .G39	7.8	6.35	2.38	2.8	0.4	■																	
	DCMT 11T304 .G39	11.6	9.52	3.97	4.4	0.4	■																	
	DCMT 070202 .G42	7.8	6.35	2.38	2.8	0.2										■				■				
	DCMT 070204 .G42	7.8	6.35	2.38	2.8	0.4										■				■				
	DCMT 11T302 .G42	11.6	9.52	3.97	4.4	0.2										■				■				
	DCMT 11T304 .G42	11.6	9.52	3.97	4.4	0.4										■				■				
	DCMT 11T308 .G42	11.6	9.52	3.97	4.4	0.8										■				■				
	DCMT 070204 .G52	7.8	6.35	2.38	2.8	0.4										■				■	■		■	
	DCMT 070208 .G52	7.8	6.35	2.38	2.8	0.8										■				■			■	
	DCMT 11T304 .G52	11.6	9.52	3.97	4.4	0.4										■	■		■	■	■		■	
	DCMT 11T308 .G52	11.6	9.52	3.97	4.4	0.8										■	■		■	■	■		■	
	RCMT 0803MO .G52	-	8	3.18	3.4	-																	■	
	RCMT 1003MO .G52	-	10	3.18	4.0	-																	■	



Материал							Cermet				Cemented				Coated grades								
Steel							○								○	○		●	●	○		●	
Stainless steel							●								●	●	●	○		○		○	○
Cast iron							○				○				○				○	○	●		
Aluminium alloys											●				○								
Heat resistant alloys											○				○		●						●
	код	l	d	s	d1	r	C4010				T115			F2120	F2425	F2435	F8410	T1415	T1425	T3220	T1435	F8315	
	SCGT 09T304 .G57P	9.52	9.52	3.97	4.4	0.4					□												
	SCMT 09T304 .G52	9.52	9.52	3.97	4.4	0.4									■				■				
	SCMT 09T308 .G52	9.52	9.52	3.97	4.4	0.8									■				■	■			
	SCMT 120404 .G52	12.7	12.7	4.76	5.3	0.4									■				■				
	SCMT 120408 .G52	12.7	12.7	4.76	5.3	0.8									■				■	■		■	
	SCMT 120412 .G52	12.7	12.7	4.76	5.3	1.2									■				■			■	
	TCGT 110202 .G39	11.0	6.35	2.38	2.8	0.2	■																
	TCMT 110204 .G39	11.0	6.35	2.38	2.8	0.4	■																
	TCMT 090204 .G52	9.6	5.56	2.38	2.5	0.4									■				■	□			
	TCMT 110204 .G52	11.0	6.35	2.38	2.8	0.4									■	■			■	□		■	
	TCMT 110208 .G52	11.0	6.35	2.38	2.8	0.8									■	■			■	□		■	
	TCMT 16T304 .G52	16.5	9.52	3.97	4.4	0.4									■				■	■		■	
	TCMT 16T308 .G52	16.5	9.52	3.97	4.4	0.8									■				■	■		■	
	TCMT 16T312 .G52	16.5	9.52	3.97	4.4	1.2									■				■				
	VBMT 160404 .G58	16.5	9.52	4.76	4.4	0.4													■				
	VBMT 160408 .G58	16.5	9.52	4.76	4.4	0.8													■				
	VCGT 110300 .G13	11.1	6.35	3.18	2.9	0.0								■									
	VCGT 110301 .G13	11.1	6.35	3.18	2.9	0.1								■									
	VCGT 160400 .G13	16.5	9.52	4.76	4.4	0.0								■									
	VCGT 160401 .G13	16.5	9.52	4.76	4.4	0.1								■									
	VCGT 110302 .G57P	11.1	6.35	3.18	2.9	0.2					■												
	VCGT 110304 .G57P	11.1	6.35	3.18	2.9	0.4					■												
	VCGT 160404 .G57P	16.5	9.52	4.76	4.4	0.4					■												
	VCGT 160408 .G57P	16.5	9.52	4.76	4.4	0.8					■												
	VCGT 160412 .G57P	16.5	9.52	4.76	4.4	1.2					■												
	VCMT 110302 .G42	11.1	6.35	3.18	2.9	0.2									■				■				
	VCMT 110304 .G42	11.1	6.35	3.18	2.9	0.4									■				■				
	VCMT 160404 .G42	16.5	9.52	4.76	4.4	0.4									■				■				
	VCMT 110304 .G52	11.1	6.35	3.18	2.9	0.4									■	■			■			■	
	VCMT 110308 .G52	11.1	6.35	3.18	2.9	0.8									■	■			■			■	
	VCMT 160404 .G52	16.5	9.52	4.76	4.4	0.4									■				■			■	
	VCMT 160408 .G52	16.5	9.52	4.76	4.4	0.8									■				■			■	
	WCGT 020102 .G39	2.62	3.97	1.59	2.3	0.2	■																

Метчици ръчни комплект от 2 броя за метрична ISO резба със ситна стъпка по **DIN 13**, Клас на точност 6H шлифован профил, **DIN 2181** - Mf

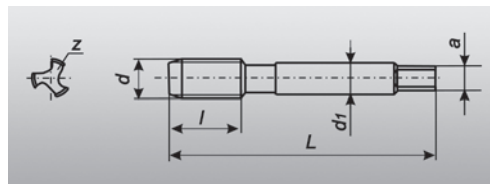
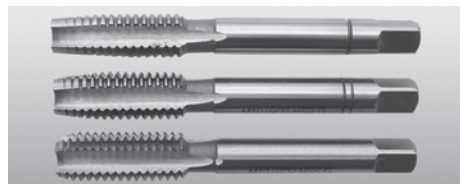


d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M3	0.35	40	9	3.5	2.7	3
M3,5	0.35	45	10	4	3.0	3
M4	0.35	45	10	4.5	3.4	3
M4	0.5	45	10	4.5	3.4	3
M4,5	0.5	50	12	6	4.9	3
M5	0.5	50	12	6	4.9	3
M5,5	0.5	50	12	6	4.9	3
M6	0.5	50	14	6	4.9	3
M6	0.75	50	14	6	4.9	3
M7	0.75	50	14	6	4.9	3
M8	0.75	50	19	6	4.9	4
M8	1.0	56	22	6	4.9	4
M9	0.75	56	19	7	5.5	4
M9	1.0	63	20	7	5.5	4
M10	0.75	63	20	7	5.5	4
M10	1.0	63	20	7	5.5	4
M10	1.25	70	24	7	5.5	4
M11	0.75	63	20	8	6.2	4
M11	1.0	63	20	8	6.2	4
M11	1.25	63	22	8	6.2	4
M12	1.0	70	22	9	7.0	4
M12	1.25	70	22	9	7.0	4
M12	1.5	70	22	9	7.0	4
M13	1.0	70	22	11	9.0	4
M13	1.5	70	22	11	9.0	4
M14	1.0	70	22	11	9.0	4
M14	1.25	70	22	11	9.0	4
M14	1.5	70	22	11	9.0	4
M15	1.0	70	22	12	9	4
M15	1.5	70	22	12	9	4
M16	1.0	70	22	12	9	4
M16	1.5	70	22	12	9	4
M17	1.0	70	22	12	9	4
M17	1.5	70	22	12	9	4
M18	1.0	80	22	14	11	4
M18	1.25	80	22	14	11	4
M18	1.5	80	22	14	11	4
M18	2.0	80	22	14	11	4
M20	1.0	80	22	16	12	4
M20	1.5	80	22	16	12	4
M20	2.0	80	22	16	12	4
M22	1.0	80	22	18	1.45	4
M22	1.5	80	22	18	1.45	4
M22	2.0	80	22	18	1.45	4
M23	1.5	80	22	18	1.45	4
M24	1.0	90	22	18	1.45	4
M24	1.5	90	22	18	1.45	4

d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M24	2.0	90	22	18	1.45	4
M26	1.0	90	22	18	1.45	4
M26	1.5	90	22	18	1.45	4
M27	1.0	90	22	20	16	4
M27	1.5	90	22	20	16	4
M27	2.0	90	22	20	16	4
M28	1.0	90	22	20	16	4
M28	1.5	90	22	20	16	4
M28	2.0	90	22	20	16	4
M30	1.0	90	22	22	18	4
M30	1.5	90	22	22	18	4
M30	2.0	90	22	22	18	4
M30	3.0	125	22	22	18	4
M32	1.5	90	22	22	18	4
M32	2.0	90	22	22	18	4
M32	3.0	125	56	22	18	4
M33	1.5	100	25	25	20	4
M33	2.0	100	25	25	20	4
M33	3.0	125	56	25	20	4
M35	1.5	100	25	28	22	4
M36	1.5	100	25	28	22	4
M36	2.0	125	40	28	22	4
M36	3.0	125	40	28	22	4
M38	1.5	100	25	28	22	4
M39	1.5	110	25	32	24	4
M39	2.0	125	40	32	24	4
M40	1.5	110	25	32	24	4
M42	1.5	110	25	32	24	4
M42	2.0	125	40	32	24	4
M42	3.0	125	40	32	24	4
M42	4.0	150	63	32	24	4
M45	1.5	110	25	36	29	6
M45	2.0	125	40	36	29	6
M45	3.0	125	40	36	29	6
M45	4.0	150	63	36	29	6
M48	1.5	140	40	36	29	4
M48	2.0	140	40	36	29	4
M48	3.0	140	40	36	29	6
M48	4.0	180	75	36	29	6
M50	1.5	140	40	36	29	6
M50	2.0	140	40	36	29	6
M50	3.0	140	40	36	29	6
M52	1.5	140	40	40	32	6
M52	2.0	140	40	40	32	6
M52	3.0	140	40	40	32	6
M52	4.0	180	75	40	32	6

МЕТЧИЦИ

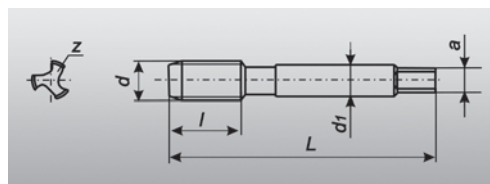
Метчици ръчни комплект от 3 броя за метрична ISO резба с нормална стъпка по **DIN 13** Клас на точност 6H шлифован профил, **DIN 352** - M



d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M2	0.4	36	8	2.8	2.1	3
M2.2	0.45	36	9	2.8	2.1	3
M2.5	0.45	40	9	2.8	2.1	3
M2.6	0.45	40	9	2.8	2.1	3
M3	0.5	40	11	3.5	2.3	3
M3.5	0.6	45	13	4.0	3.0	3
M4	0.7	45	13	4.5	4.0	3
M4.5	0.75	50	16	6.0	4.9	3
M5	0.8	50	16	6.0	4.9	3
M6	1	50	19	6.0	4.9	3
M7	1	50	19	6.0	4.9	3
M8	1.25	56	22	6.0	4.9	4
M9	1.25	63	22	7.0	5.5	4
M10	1.5	70	24	7.0	5.5	4
M11	1.5	70	24	8.0	6.2	4
M12	1.75	75	29	9.0	7.0	4

d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M14	2	80	30	11.0	9.0	4
M16	2	80	32	12.0	9.0	4
M18	2.5	95	40	14.0	11.0	4
M20	2.5	95	40	16.0	12.0	4
M22	2.5	100	40	18.0	14.5	4
M24	3	110	50	18.0	14.5	4
M27	3	110	50	20.0	16.0	4
M30	3.5	125	56	22.0	18.0	4
M33	3.5	125	56	25.0	20.0	4
M36	4	150	63	28.0	22.0	4
M39	4	150	63	32.0	24.0	4
M42	4.5	150	63	32.0	24.0	4
M45	4.5	160	70	36.0	29.0	6
M48	5	180	75	36.0	29.0	6
M52	5	180	75	40.0	32.0	6

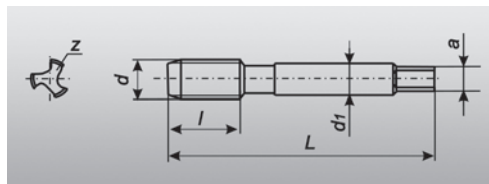
Метчици ръчни комплект от 2 броя, за тръбна цилиндрична резба по DIN ISO 228 шлифован профил, **DIN 5157** G



d	брой нав. в 1"	L mm	l mm	d ₁ mm	a mm	Z
G1/8"	28	63	20	7	5.5	3
G1/4"	19	70	22	11	9.0	4
G3/8"	19	70	22	12	9.0	4
G1/2"	14	80	22	16	12.0	4
G5/8"	14	80	22	18	14.5	4
G3/4"	14	90	22	20	16.0	4
G7/8"	14	90	22	22	18.0	4
G1"	11	100	25	25	20.0	4

d	брой нав. в 1"	L mm	l mm	d ₁ mm	a mm	Z
G1 1/8"	11	125	40	28	22.0	4
G1 1/4"	11	125	40	32	24.0	4
G1 3/8"	11	140	40	36	29.0	4
G1 1/2"	11	140	40	36	29.0	6
G1 5/8"	11	140	40	40	32.0	6
G1 3/4"	11	140	40	40	32.0	6
G2"	11	160	40	45	35.0	8

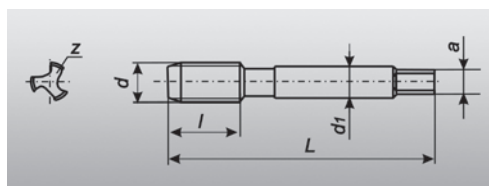
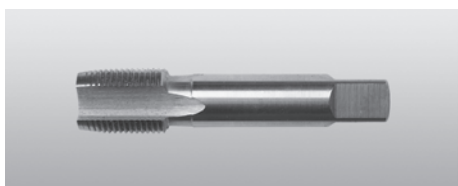
Метчици ръчни за метрична резба с нормална стъпка по DIN 13, Клас на точност: 2 /6H/ шлифован профил, Форма А 6-8 навивки захв. конус, Форма D 4-5 навивки захв. конус, Форма С 1-2 навивки захв. конус, **DIN 529** - M



d	p mm	L mm	l ₁ mm	l ₂ mm	d ₁ mm	a mm	Z
M2	0.4	41	8	5	2.5	2.0	3
M2.2	0.45	44.5	9.5	6	2.8	2.24	3
M2.5	0.45	44.5	9.5	6	2.8	2.24	3
M2.6	0.45	44.5	9.5	6	2.8	2.24	3
M3	0.5	48	11	7	3.15	2.5	3
M3,5	0.6	50	13	7	3.55	2.8	3
M4	0.7	53	13	8	4.0	3.15	3
M4.5	0.75	53	13	8	4.5	3.55	3
M5	0.8	58	16	9	5.0	4.0	3
M6	1	66	19	11	6.3	5.0	3
M7	1	66	19	11	7.1	5.6	4
M8	1.25	72	22	13	8.0	6.3	4
M9	1.25	72	22	14	9.0	7.1	4
M10	1.5	72	24	15	10.0	7.5	4
M11	1.5	80	25		8.0	6.3	4
M12	1.75	85	29		9.0	7.1	4

d	p mm	L mm	l ₁ mm	l ₂ mm	d ₁ mm	a mm	Z
M14	2	95	30		11.2	9.0	4
M16	2	102	32		12.5	10.0	4
M18	2.5	112	37		14.0	11.2	4
M20	2.5	112	37		14.0	11.2	4
M22	2.5	118	38		16.0	12.5	4
M24	3	130	45		18.0	14.0	4
M27	3	135	45		20.0	16.0	4
M30	3.5	138	48		20.0	16.0	4
M33	3.5	151	51		22.4	18.0	4
M36	4.0	162	57		25.0	20.0	4
M39	4.0	170	60		28.0	24.4	6
M42	4.5	170	60		28.0	22.4	6
M45	4.5	187	67		31.5	25.0	6
M48	5.0	187	67		31.5	25.0	6
M52	5.0	200	70		35.5	28.0	6

Метчици машинни за тръбна цилиндрична резба по DIN ISO 228 шлифован профил, Форма А 6-8 навивки захв. конус, Форма D 4-5 навивки захв. конус, Форма С 1-2 навивки захв. конус, **DIN 2284** -G (BSPF)



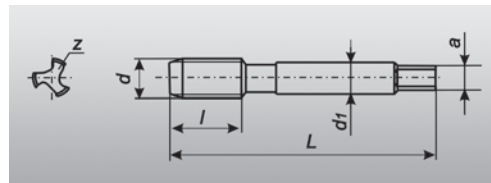
d	брой нав. в 1"	L mm	l mm	d ₁ mm	a mm	Z
G1/8"	28	59	15	8.0	6.3	4
G1/4"	19	67	19	10.0	8.0	4
G3/8"	19	75	21	12.5	10.0	4
G1/2"	14	87	26	16.0	12.5	4
G5/8"	14	91	26	18.0	14.0	4
G3/4"	14	96	28	20.0	16.0	4
G7/8"	14	102	29	22.4	18.0	4

d	брой нав. в 1"	L mm	l mm	d ₁ mm	a mm	Z
G1"	11	109	33	25.0	20.0	6
G1 1/4"	11	119	36	31.5	25.0	6
G1 1/2"	11	125	37	35.5	28.0	6
G1 3/4"	11	132	39	35.5	28.0	6
G2"	11	140	41	40.0	31.5	6

МЕТЧИЦИ

Метчици машинни за метрична резба със ситна стъпка по DIN 13, Клас на точност: 2 /6H/ шлифован профил, Форма А 6-8 навивки захв. конус, Форма D 4-5 навивки захв. конус, Форма С 1-2 навивки захв. конус,

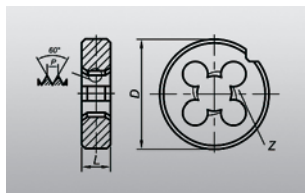
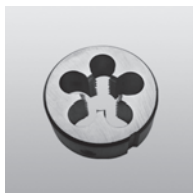
DIN 529 - Mf



d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M3	0.35	40	9	3.5	2.7	3
M3,5	0.35	45	10	4	3.0	3
M4	0.35	45	10	4.5	3.4	3
M4	0.5	45	10	4.5	3.4	3
M4,5	0.5	50	12	6	4.9	3
M5	0.5	50	12	6	4.9	3
M5,5	0.5	50	12	6	4.9	3
M6	0.5	50	14	6	4.9	3
M6	0.75	50	14	6	4.9	3
M7	0.75	50	14	6	4.9	3
M8	0.75	50	19	6	4.9	4
M8	1.0	56	22	6	4.9	4
M9	0.75	56	19	7	5.5	4
M9	1.0	63	20	7	5.5	4
M10	0.75	63	20	7	5.5	4
M10	1.0	63	20	7	5.5	4
M10	1.25	70	24	7	5.5	4
M11	0.75	63	20	8	6.2	4
M11	1.0	63	20	8	6.2	4
M11	1.25	63	22	8	6.2	4
M12	1.0	70	22	9	7.0	4
M12	1.25	70	22	9	7.0	4
M12	1.5	70	22	9	7.0	4
M13	1.0	70	22	11	9.0	4
M13	1.5	70	22	11	9.0	4
M14	1.0	70	22	11	9.0	4
M14	1.25	70	22	11	9.0	4
M14	1.5	70	22	11	9.0	4
M15	1.0	70	22	12	9	4
M15	1.5	70	22	12	9	4
M16	1.0	70	22	12	9	4
M16	1.5	70	22	12	9	4
M17	1.0	70	22	12	9	4
M17	1.5	70	22	12	9	4
M18	1.0	80	22	14	11	4
M18	1.25	80	22	14	11	4
M18	1.5	80	22	14	11	4
M18	2.0	80	22	14	11	4
M20	1.0	80	22	16	12	4
M20	1.5	80	22	16	12	4
M20	2.0	80	22	16	12	4
M22	1.0	80	22	18	1.45	4
M22	1.5	80	22	18	1.45	4
M22	2.0	80	22	18	1.45	4
M23	1.5	80	22	18	1.45	4
M24	1.0	90	22	18	1.45	4
M24	1.5	90	22	18	1.45	4

d	p mm	L mm	l mm	d ₁ mm	a mm	Z
M24	2.0	90	22	18	1.45	4
M26	1.0	90	22	18	1.45	4
M26	1.5	90	22	18	1.45	4
M27	1.0	90	22	20	16	4
M27	1.5	90	22	20	16	4
M27	2.0	90	22	20	16	4
M28	1.0	90	22	20	16	4
M28	1.5	90	22	20	16	4
M28	2.0	90	22	20	16	4
M30	1.0	90	22	22	18	4
M30	1.5	90	22	22	18	4
M30	2.0	90	22	22	18	4
M30	3.0	125	22	22	18	4
M32	1.5	90	22	22	18	4
M32	2.0	90	22	22	18	4
M32	3.0	125	56	22	18	4
M33	1.5	100	25	25	20	4
M33	2.0	100	25	25	20	4
M33	3.0	125	56	25	20	4
M35	1.5	100	25	28	22	4
M36	1.5	100	25	28	22	4
M36	2.0	125	40	28	22	4
M36	3.0	125	40	28	22	4
M38	1.5	100	25	28	22	4
M39	1.5	110	25	32	24	4
M39	2.0	125	40	32	24	4
M40	1.5	110	25	32	24	4
M42	1.5	110	25	32	24	4
M42	2.0	125	40	32	24	4
M42	3.0	125	40	32	24	4
M42	4.0	150	63	32	24	4
M45	1.5	110	25	36	29	6
M45	2.0	125	40	36	29	6
M45	3.0	125	40	36	29	6
M45	4.0	150	63	36	29	6
M48	1.5	140	40	36	29	4
M48	2.0	140	40	36	29	4
M48	3.0	140	40	36	29	6
M48	4.0	180	75	36	29	6
M50	1.5	140	40	36	29	6
M50	2.0	140	40	36	29	6
M50	3.0	140	40	36	29	6
M52	1.5	140	40	40	32	6
M52	2.0	140	40	40	32	6
M52	3.0	140	40	40	32	6
M52	4.0	180	75	40	32	6

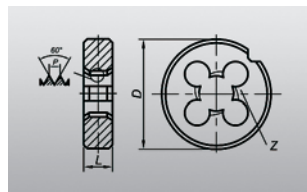
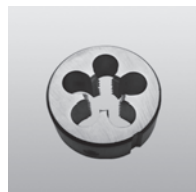
Плашки кръгли за метрична ISO резба с нормална стъпка по DIN 13, Клас на точност - 6g, Форма В, **DIN EN 22 568** (DIN 223), M



d	P mm	D mm	L mm	Z
M2	0.4	16	5	3
M2.2	0.45	16	5	3
M2.5	0.45	16	5	3
M3	0.5	20	5	3
M3.5	0.6	20	5	3
M4	0.7	50	5	3
M4.5	0.75	20	7	3
M5	0.8	20	7	4
M5.5	0.9	20	7	4
M6	1	20	7	4
M7	1	25	9	4
M8	1.25	25	9	4
M9	1.25	25	9	4
M10	1.5	30	11	4
M11	1.5	30	11	5
M12	1.75	38	14	4

d	P mm	D mm	L mm	Z
M14	2	38	14	5
M16	2	45	18	5
M18	2.5	45	18	5
M20	2.5	45	18	6
M22	2.5	55	22	5
M24	3	55	22	5
M27	3	65	25	6
M30	3.5	65	25	6
M33	3.5	65	25	7
M36	4	65	25	7
M39	4	75	30	7
M42	4.5	75	30	7
M45	4.5	90	36	7
M48	5	90	36	7
M52	5	90	36	8
M56	5.5	105	36	7

Плашки кръгли за метрична ISO резба със ситна стъпка по DIN 13, Клас на точност - 6g, Форма В, **DIN EN 22 568** (DIN 223), Mf

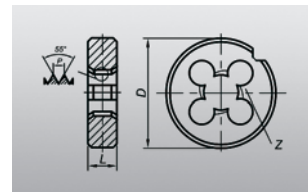
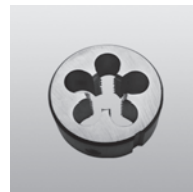


d	P mm	D mm	L mm	Z
M4x0.35	0.35	20	5	3
M4x0.5	0.5	20	5	3
M5x0.5	0.5	20	5	4
M5x0.75	0.75	20	7	4
M6x0.5	0.5	20	5	4
M6x0.75	0.75	20	7	4
M7x0.75	0.75	25	9	4
M8x0.5	0.5	25	9	4
M8x0.75	0.75	25	9	4
M8x1	1	25	9	4
M9x0.75	0.75	25	9	4
M9x1	1	25	9	4
M10x0.75	0.75	30	11	4
M10x1	1	30	11	4
M10x1.25	1.25	30	11	4
M11x1	1	30	11	5
M11x1.25	1.25	30	11	5
M12x0.75	0.75	38	10	4
M12x1	1	38	10	4
M12x1.25	1.25	38	10	4
M12x1.5	1.5	38	10	4
M13x1	1	38	10	5
M13x1.5	1.5	38	10	5
M14x0.75	0.75	38	10	5
M14x1	1	38	10	5
M14x1.25	1.25	38	10	5
M14x1.5	1.5	38	10	5
M15x1	1	38	10	5
M15x1.5	1.5	38	10	5
M16x1	1	45	14	5
M16x1.25	1.25	45	14	5
M16x1.5	1.5	45	14	5
M18x1	1	45	14	5
M18x1.25	1.25	45	14	5
M18x1.5	1.5	45	14	5
M18x2	2	45	14	5
M20x1	1	45	14	6
M20x1.25	1.25	45	14	6
M20x1.5	1.5	45	14	6
M20x2	2	45	14	6
M21x1.5	1.5	45	14	6
M22x1	1	55	16	5
M22x1.25	1.25	55	16	5
M22x1.5	1.5	55	16	5
M22x2	2	55	16	5
M24x1	1	55	16	5
M24x1.25	1.25	55	16	5
M24x1.5	1.5	55	16	5
M24x2	2	55	16	5
M25x1	1	55	16	5

d	P mm	D mm	L mm	Z
M25x1.5	1.5	55	16	5
M26x1	1	55	16	6
M26x1.5	1.5	55	16	6
M26x2	2	55	16	6
M27x1	1	65	18	6
M27x1.5	1.5	65	18	6
M27x2	2	65	18	6
M28x1	1	65	18	6
M28x1.5	1.5	65	18	6
M28x2	2	65	18	6
M29x1.5	1.5	65	18	6
M30x1	1	65	18	6
M30x1.5	1.5	65	18	6
M30x2	2	65	18	6
M30x2.5	2.5	65	18	6
M30x3	3	65	25	6
M32x1.5	1.5	65	18	7
M32x2	2	65	18	7
M32x3	3	65	25	7
M33x1.5	1.5	65	18	7
M33x2	2	65	18	7
M33x3	3	65	25	7
M34x1.5	1.5	65	18	7
M34x2	2	65	18	7
M35x1.5	1.5	65	18	7
M36x1.5	1.5	65	18	7
M36x2	2	65	18	7
M36x3	3	65	25	7
M38x1.5	1.5	75	20	7
M39x1.5	1.5	75	20	7
M39x2	2	75	20	7
M39x3	3	75	30	7
M40x1.5	1.5	75	20	7
M40x2	2	75	20	7
M40x3	3	75	30	7
M42x1.5	1.5	75	20	7
M42x2	2	75	20	7
M42x3	3	75	30	7
M45x1.5	1.5	90	22	7
M45x2	2	90	22	7
M45x3	3	90	36	7
M48x1.5	1.5	90	22	7
M48x2	2	90	22	7
M48x3	3	90	36	7
M50x1.5	1.5	90	22	8
M50x2	2	90	22	8
M50x3	3	90	36	8
M52x1.5	1.5	90	22	8
M52x2	2	90	22	8
M52x3	3	90	36	8

Плашки кръгли за витвортова резба по BS 84, Форма В, DIN EN 22 568 (DIN 223), BSW

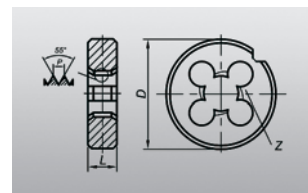
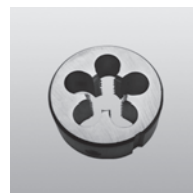
d	P (")	D mm	L mm	Z
BSW1/8	40	20	5	3
BSW5/32	32	20	5	3
BSW3/16	24	20	7	3
BSW7/32	24	20	7	4
BSW1/4	20	20	7	4
BSW5/16	18	25	9	4
BSW3/8	16	30	11	4
BSW7/16	14	30	11	4
BSW1/2	12	38	14	4
BSW9/16	12	38	14	4
BSW5/8	11	45	18	4
BSW3/4	10	45	18	5
BSW7/8	9	55	22	5
BSW1	8	55	22	5



d	P (")	D mm	L mm	Z
BSW1 1/8	7	65	25	6
BSW1 1/4	7	65	25	7
BSW1 3/8	6	65	25	7
BSW1 1/2	6	65	25	7
BSW1 1/2	6	75	30	7
BSW1 5/8	5	75	30	7
BSW1 3/4	5	90	36	7
BSW1 7/8	4 1/2	90	36	7
BSW2x4 1/2	4 1/2	90	36	8

Плашки кръгли за витвортова резба по BS 84, Форма В, DIN EN 22 568 (DIN 223), BSF

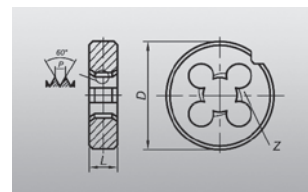
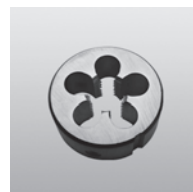
d	P (")	D mm	L mm	Z
BSF3/16	32	20	7	3
BSF1/4	26	20	7	4
BSF5/16	22	25	9	4
BSF3/8	20	30	11	4
BSF7/16	18	30	11	4
BSF1/2	16	38	10	5
BSF9/16	16	38	10	5
BSF5/8	14	45	14	5



d	P (")	D mm	L mm	Z
BSF3/4	12	45	14	5
BSF7/8	11	55	22	5
BSF1	10	55	22	9

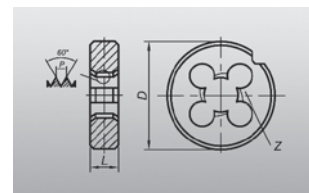
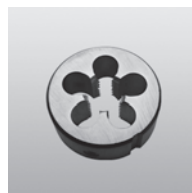
Плашки кръгли за унифицирана резба по ANSI B1.1, Форма В, DIN EN 22 568 (DIN 223), UNC

d	P (")	D mm	L mm	Z
UNC Nr.4	40	20	5	3
UNC Nr.5	40	20	5	3
UNC Nr.6	32	20	7	3
UNC Nr.8	32	20	7	3
UNC Nr.10	24	20	7	3
UNC Nr.12	24	20	7	4
UNC1/4	20	20	7	4
UNC5/16	18	25	9	4
UNC 3/8	16	30	11	4
UNC7/16	14	30	11	4
UNC1/2	13	38	14	4
UNC9/16	12	38	14	4
UNC5/8	11	45	18	4
UNC3/4	10	45	18	5
UNC7/8	9	55	22	5



d	P (")	D mm	L mm	Z
UNC1	8	55	22	5
UNC1 1/8	7	65	25	6
UNC1 1/4	7	65	25	6
UNC1 3/8	6	65	25	7
UNC1 1/2	6	65	25	7
UNC1 1/2	6	75	30	7
UNC1 5/8	5	75	30	7
UNC1 3/4	5	90	36	7
UNC1 7/8	4 1/2	90	36	7
UNC2	4 1/2	90	36	7

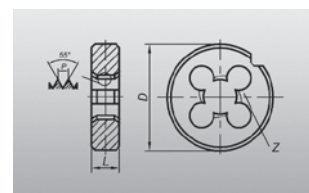
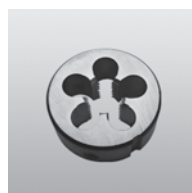
Плашки кръгли за унифицирана резба по ANSI B1.1, Форма В,
DIN EN 22 568 (DIN 223), UNF



d	P (")	D mm	L mm	Z
UNF Nr.4	48	20	5	3
UNF Nr.5	44	20	5	3
UNF Nr.6	40	20	5	3
UNF Nr.8	36	20	7	3
UNF Nr.10	32	20	7	3
UNF Nr.12	28	20	7	4
UNF1/4	28	20	7	4
UNF5/16	24	25	9	4
UNF3/8	24	30	11	4
UNF7/16	20	30	11	4
UNF1/2	20	38	10	5

d	P (")	D mm	L mm	Z
UNF9/16	18	38	10	5
UNF5/8	18	45	14	5
UNF3/4	16	45	14	5
UNF7/8	14	55	16	6
UNF1	12	55	16	6
UNF1	14	55	16	6
UNF1 1/8	12	65	18	6
UNF1 1/4	12	65	18	6
UNF1 3/8	12	65	18	7
UNF1 1/2	12	65	18	8
UNF1 1/2	12	75	20	8

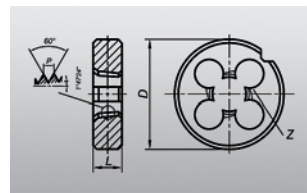
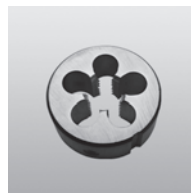
Плашки кръгли за тръбна цилиндрична резба по DIN ISO 228, Форма В,
DIN EN 24 231 (DIN 5158), G



d	P (")	D mm	L mm	Z
G1/8	28	30	11	4
G1/4	19	38	10	4
G3/8	19	45	14	5
G1/2	14	45	14	5
G5/8	14	55	16	5
G3/4	14	55	16	6
G7/8	14	65	18	6
G1	11	65	18	6
G1 1/8	11	75	20	7
G1 1/4	11	75	20	7
G1 3/8	11	90	22	7

d	P (")	D mm	L mm	Z
G1 1/2	11	90	22	7
G1 5/8	11	90	22	7
G1 3/4	11	105	22	7
G2	11	90	22	10
G2	11	105	22	9
G2 1/4	11	120	22	10
G2 1/2	11	120	22	10
G2 3/4	11	120	22	12
G3	11	130	25	10
G3 1/2	11	150	25	12
G4	11	160	25	13

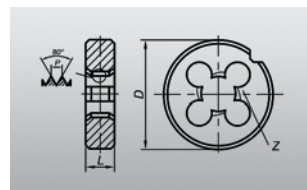
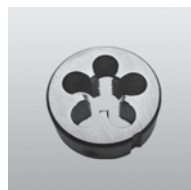
Плашки кръгли за тръбна конусна резба с конус 1:16 по ANSI B1.20.1, Форма В, **DIN EN 22 568** (DIN 223), NPT



d	P (")	D mm	L mm	Z
NPT1/16	27	25	9	4
NPT1/8	27	30	11	5
NPT1/4	18	38	14	5
NPT3/8	18	45	14	5
NPT1/2	14	45	18	6

d	P (")	D mm	L mm	Z
NPT3/4	14	55	22	6
NPT1	11.5	65	25	7
NPT1 1/4	11.5	75	26	8
NPT1 1/2	11.5	90	27	8
NPT2	11.5	105	28	9

Плашки кръгли за електроарматурна резба по **DIN 40 430**, Форма В, **DIN 40 434**, PG



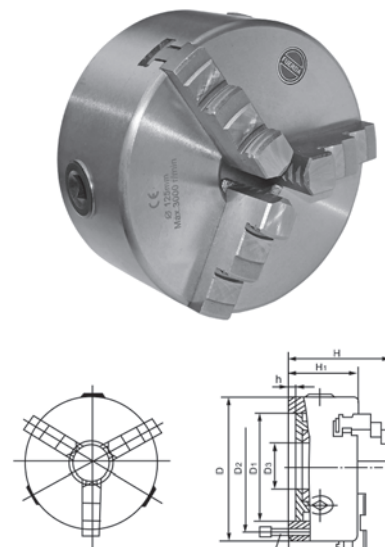
d	P (")	D mm	L mm	Z
PG7	20	38	10	4
PG9	18	45	14	5
PG11	18	45	14	5
PG13.5	18	45	14	5
PG16	18	55	16	5

d	P (")	D mm	L mm	Z
PG21	16	65	18	5
PG29	16	65	18	7
PG36	16	90	22	7
PG42	16	105	22	8
PG48	16	105	22	8

ПАТРОННИЦИ

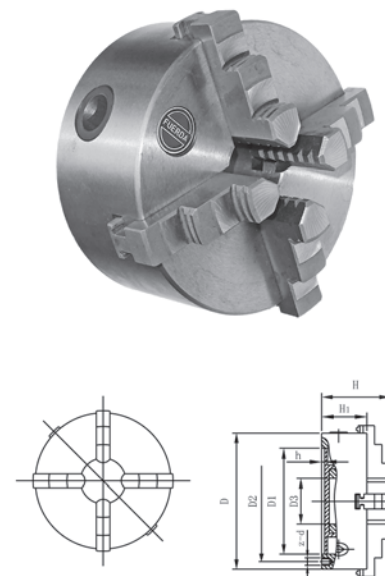
Универсални патронници за металорежещи машини по **DIN 6350** с гарантирана точност. Серия K11 - 3-челюстни самоцентриращи патронници с прави и обратни челюсти

Размер	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	h mm	z-d	Макс. скорост
80	55	66	16	66.5	50	4	3-M6	4000
100	72	84	22	74.5	55	3	3-M8	3500
125	95	108	30	84.5	58	4	3-M8	3000
160	130	142	45	94	65	5	3-M8	2500
200	165	180	65	109	75	5	3-M10	2000
250	206	226	80	120	80	5	3-M12	1600
315	260	285	100	147.5	90	6	3-M16	1200
400	340	368	130	173.5	100	6	3-M16	1000
500	440	465	210	202	115	6	6-M16	800
630	560	595	260	194	130	7	6-M16	800



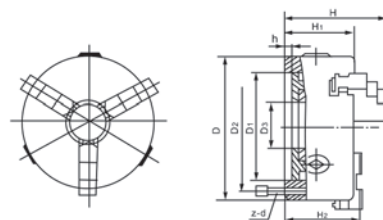
Универсални патронници за металорежещи машини по **DIN 6350** с гарантирана точност. Серия K12 - 4-челюстни самоцентриращи патронници с прави и обратни челюсти

Размер	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	h mm	z-d	KGS
80	55	66	16	66.5	50	4	3-M6	2
100	72	84	22	74.5	53.5	3	3-M8	3
125	95	108	30	84.5	58	4	3-M8	5
160	130	142	45	94	65	5	3-M8	8.8
200	165	180	65	109	75	5	3-M10	15.5
250	206	226	80	120	80	5	3-M12	26
315	260	285	100	147.5	90	6	3-M16	50
400	340	368	130	173.5	100	6	3-M16	85
500	440	465	210	202	115	6	6-M16	119
630	560	595	260	220.5	135	6	6-M16	200



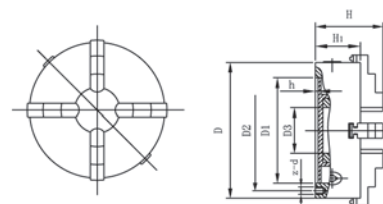
Универсални патронници за металорежещи машини по **DIN6350** с гарантирана точност. Серия K11 - 3-челюстни самоцентриращи патронници с прави и обратни челюсти

Размер D, mm	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	H ₂ mm	h mm	z-d	KGS
125	95	108	30	95	58	63	4	3-M8	4.8
130	100	115	40	97	60	65	5	3-M8	4.3
160	130	142	45	109	65	71	5	3-M8	8.3
190	155	172	55	122	75	80	5	3-M10	9.5
200	165	180	65	122	75	80	5	3-M10	13.0
230	190	210	70	136	80	86	6	3-M12	14.5
240	195	215	70	136	80	86	8	3-M12	22.5
250	206	226	80	136	80	86	5	3-M12	23.0
315	260	285	100	156.5	90	99.5	6	3-M16	41
320	270	290	100	156.5	90	99.5	6	3-M16	42
325	272	296	100	156.5	90	99.5	6	3-M16	41
380	325	350	130	173.5	100	112.5	6	3-M16	46
400	340	368	130	173.5	100	112.5	6	3-M16	62
500	440	465	210	202	115	126	6	6-M16	71
630	560	595	260	220.2	135	144.5	7	6-M16	200



Универсални патронници за металорежещи машини по **DIN6350** с гарантирана точност. Серия K12 - 4-челюстни самоцентриращи патронници с прави и обратни челюсти

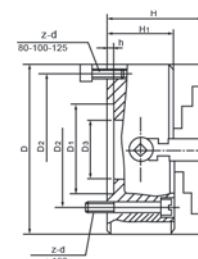
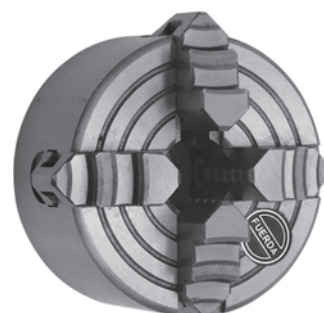
Размер D, mm	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	h mm	z-d	KGS
125	95	108	30	95	58	4	3-M8	5
130	100	115	30	97	60	5	3-M8	5.6
160	130	142	45	109	65	5	3-M8	8.8
165	130	145	45	109	65	5	3-M8	9.8
190	155	172	55	122	75	5	3-M10	13.8
200	165	180	65	122	75	5	3-M10	15.5
240	195	215	70	136	80	8	3-M12	25
250	206	226	80	136	80	5	3-M12	26
315	260	285	100	156.5	90	6	3-M16	50
320	270	290	100	156.5	90	6	3-M16	53
325	272	296	100	156.5	90	6	3-M16	66
380	325	350	130	173.5	100	6	3-M16	66
400	340	368	130	173.5	100	6	3-M16	85
500	440	465	210	202	115	6	6-M16	119
630	560	595	260	220.5	135	6	6-M16	125



ПАТРОННИЦИ

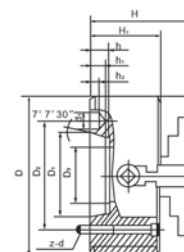
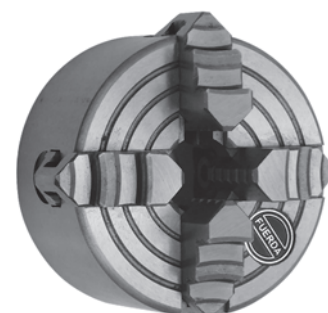
Универсални патронници за металорежещи машини по **DIN6350** с гарантирана точност. Серия K72 - 4-челюстни патронници с независимо преместване на челюстите

Размер	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	h mm	z-d
80	55	66	22	58	42	3.5	4-M6
100	72	84	25	77	54	4	4-M8
125	95	108	30	78	56	4.5	4-M8
160	65	95	45	96.5	65	5	4-M10
160A	53	71	45	96.5	65	5	4-M10
160T	130	145	40	96.5	65	5	4-M10
200	125	104.8	50	110	75	6	4-M10
200A	75	95	56	110	75	6	4-M10
250	100	120	65	117.5	82	6	4-M12
250A	110	130	75	117.5	80	6	4-M12
300	152	130	75	128.5	85	6	4-M12
315	140	165	95	134	90	6	4-M16
320	140	165	95	134	90	6	4-M16
350	130	168	80	145	95	8	4-M16
400	160	185	125	143	95	8	4-M16
450	180	205	140	147	100	8	4-M16
500	200	236	160	161	106	8	4-M20
630	220	258	180	180	115	10	4-M20



Универсални патронници за металорежещи машини по **DIN6350** с гарантирана точност. Серия K72 - директен монтаж, 4-челюстни патронници с независимо преместване на челюстите

Размер	Палец номер	D ₁ mm	D ₂ mm	D ₃ mm	H mm	H ₁ mm	h mm	h ₁ mm	h ₂ mm	d ₁ mm	z-d
250	6	106.375	133.4	75	115.5	80	16	13	6.5	19.5	4-M12
400	6	106.375	133.4	95	143	95	16	13	6.5	19.5	4-M12
250	8	139.719	171.4	75	115.5	80	18	14	8.0	24.2	4-M16
320	8	139.719	171.4	95	134	90	18	14	8.0	24.2	4-M16
400	8	139.719	171.4	125	143	95	18	14	8.0	24.2	4-M16
450	8	139.719	171.4	125	147	100	18	14	8.0	24.2	4-M16
500	8	139.719	171.4	130	161	106	18	14	8.0	24.2	4-M16
630	8	139.719	171.4	130	180	115	18	14	8.0	24.2	4-M16
800	8	139.719	171.4	130	210	135	18	14	8.0	24.2	4-M16



Универсални патроници с МК опашки

Опашка	D ₁ mm	D mm
ø80	17.780	125
ø100	23.825	130
ø125	31.267	160
ø160	44.399	200



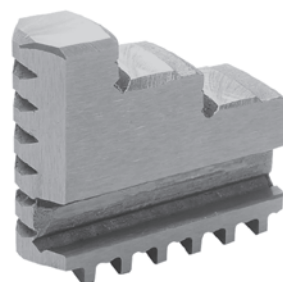
Външни твърди челюсти комплект за патронник K11 и K12

Размер K11
80
100
125
160
200

Размер K11
250
315
400
500
630

Размер K12
80
100
125
160
200

Размер K12
250
315
400
500
630



Вътрешни твърди челюсти комплект за патронник K11 и K12

Размер K11
80
100
125
160
200

Размер K11
250
315
400
500
630

Размер K12
80
100
125
160
200

Размер K12
250
315
400
500
630



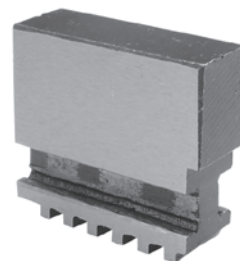
Меки челюсти комплект за патронник K11 и K12

Размер K11
80
100
125
160
200

Размер K11
250
315
400
500
630

Размер K12
80
100
125
160
200

Размер K12
250
315
400
500
630



Фланец за универсален патронник тип С

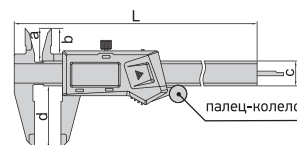
Размер	Taper №
125	3
125	4
160	3
160	4
160	5
200	4
200	5
200	6
250	5
250	6
250	8

Размер	Taper №
315	6
315	8
315	11
400	6
400	8
400	11
500	8
500	11
500	15
630	8
630	11
630	15



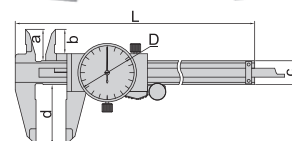
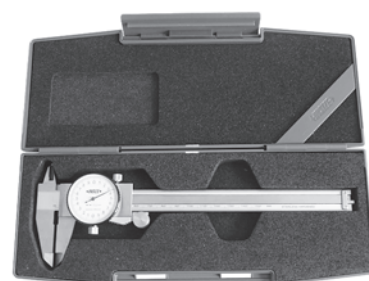
Електронен шублер

Обхват mm	Точност mm	L	a	b	c	d
0-150	±0.03	236	21	16	16	40
0-200	±0.03	286	24	19	16	50
0-300	±0.03	400	25	20.5	17	60
0-500	±0.03	530	32	0	18	75



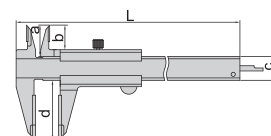
Индикаторен шублер

Обхват mm	Точност mm	L	a	b	c	d	D
градуиране 0,02mm							
0-150	±0.03	233	21	16.5	16	40	39
0-200	±0.03	288	24	19	16	50	44
0-300	±0.03	390	30	25	20	64	44
градуиране 0,01mm							
0-150	±0.03	233	21	16.5	16	40	39
0-200	±0.03	288	24	19	16	50	39
0-300	±0.03	390	24	19.5	17	64	39



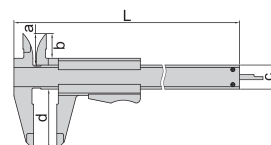
Шублер

Обхват mm	Точност mm	L	a	b	c	d
градуиране 0,02mm						
0-150	±0.03	235	20.5	15.5	16	40
0-200	±0.03	290	23.6	19	16	50
0-300	±0.03	414	27.5	22	20	64
градуиране 0,05mm						
0-150	±0.05	235	20.5	15.5	16	40
0-200	±0.05	290	23.6	19	16	50
0-300	±0.05	414	27.5	22	20	64



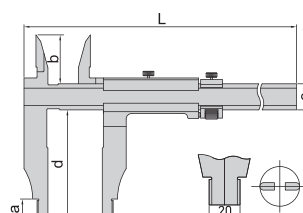
Шублер с палец

Обхват mm	Точност mm	L	a	b	c	d
градуиране 0,05mm						
0-150	±0.05	230	20.5	16.5	16	40
0-200	±0.05	295	23.5	19	16	50



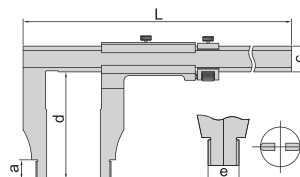
Шублер с голям обхват и обратни челюсти

Обхват mm	Точност mm	L	a	b	c	d
градуиране 0,02mm						
0-500	±0.05	670	18	45	24	100
0-1000	±0.08	1230	24	60	31	150
градуиране 0,05mm / 1/128"						
0-600 / 0-24"	±0.08	770	18	45	24	100
0-1000 / 0-40"	±0.12	1230	24	60	31	150



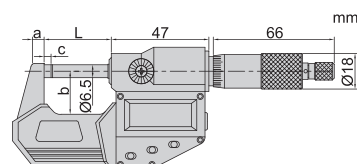
Шублер с голям обхват

Обхват mm	Точност mm	L	a	c	d	e
градуиране 0,02mm						
0-500	±0.06	670	18	24	150	20
0-1000	±0.08	1230	24	31	150	20
градуиране 0,05mm / 1/128"						
0-300 / 0-12"	±0.07	410	12	20	90	10
0-500 / 0-20"	±0.08	670	18	24	75	20
0-500 / 0-20"	±0.08	670	18	24	100	20
0-500 / 0-20"	±0.08	670	18	24	150	20
0-800 / 0-32"	±0.09	1030	24	31	150	20
0-1000 / 0-40"	±0.12	1230	24	31	150	20
0-1000 / 0-40"	±0.12	1230	24	31	200	20



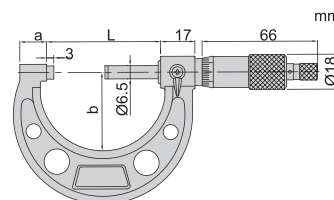
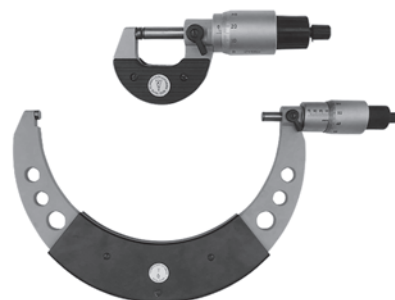
Електронен микрометър

Обхват mm	Точност μm	L	a	b	c
резолюция 0,001mm					
0-25	±2	32.5	6	24	3
25-50	±2	57.5	8	32	3
50-75	±3	82.5	8	44.5	3
75-100	±3	107.5	8	57	3

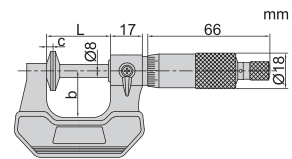


Микрометър

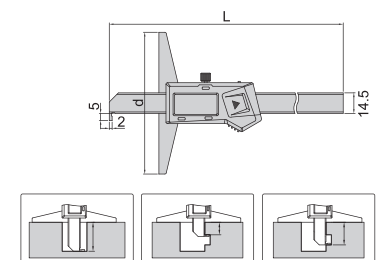
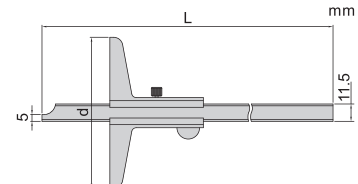
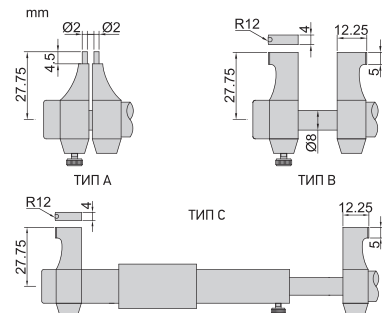
Обхват mm	Точност μm	L	a	b
градуиране 0,01mm				
0-25	4	32	9	28
25-50	5	57	14	38
50-75	5	82	15	49
75-100	9	107	15	60
100-125	6	133	16.5	73
125-150	6	158	16.5	85
150-175	7	183	19.4	104
175-200	7	209	19.4	117
200-225	8	234	19.4	130
250-275	8	260	19.4	142
250-275	9	285	19.4	155
275-300	9	310	19.4	168
300-400	9			
400-500	4			
500-600				
600-700				
700-800				
800-900				
900-1000				



Микрометър резбомер

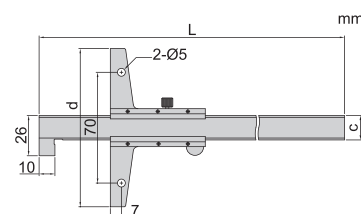
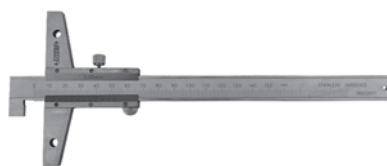


Микрометър резбомер



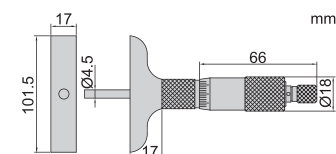
Шублер дълбокомер с кука

Обхват mm	Точност mm	L	c	d
градуиране 0,05mm				
0-150	±0.05	240	16	100
0-200	±0.05	290	16	100
0-300	±0.08	390	16	100
0-600	±0.10	704	18	150
0-1000	±0.15	1124	18	200



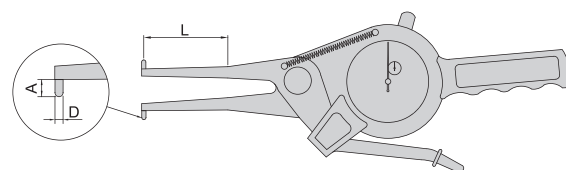
Микрометър дълбокомер

Обхват mm	Пръчки брой
градуиране 0,01mm	
0-25	1
0-50	2
0-100	4
0-150	6



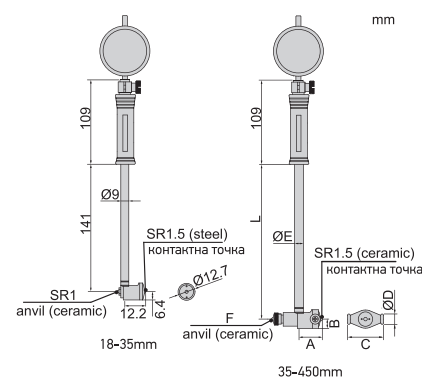
Индикатор за измерване на вътрешни канали

Обхват mm	Точност mm	L	A	D
градуиране 0,01mm				
15-35	±0.04	50	3	Ø3
15-35	±0.04	200	3	Ø3
35-55	±0.04	80	6	Ø3
35-55	±0.04	250	8	Ø3
55-75	±0.04	90	8	Ø3
55-75	±0.04	250	8	Ø3
75-95	±0.04	100	8	Ø3
95-115	±0.04	120	10	Ø3.2
115-135	±0.04	120	10	Ø3.2



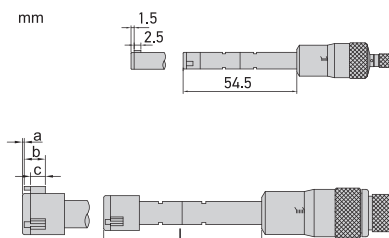
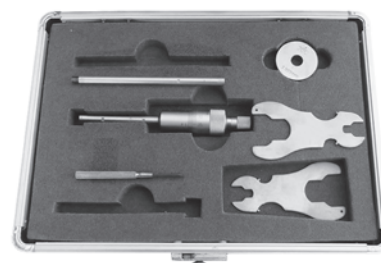
Индикатор вътромер

Обхват mm	Точност mm	Повто- ряемост mm	A	B	C	ØD	ØE	F	L
градуиране 0,01mm									
18-35	±0.015	0.003							
35-60	±0.018	0.003	12.2	6.4	27	13	12.8	SR2	130
50-100	±0.018	0.003	26	9	27	13	12.8	SR2	130
50-160	±0.018	0.003	26	9	35	13	12.8	SR2	130
100-160	±0.018	0.003	26	9	35	13	12.8	SR2	130
160-250	±0.018	0.003	56.5	13	74.4	15	12.8	SR2	230
250-450	±0.018	0.003	86.5	15	101.5	15	14.5	SR2.5	230



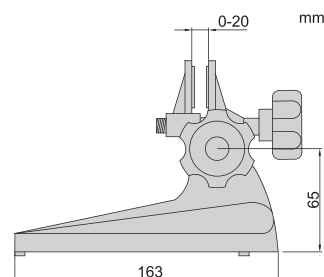
Триточков микрометър

Обхват mm	Точност μm	Настройващ пръстен mm	удължаващ прът mm	L	a	b	c
градуиране 0,001mm							
6-8	4	$\varnothing 6$	100				
8-10	4	$\varnothing 8$	100				
10-12	4	$\varnothing 10$	100				
градуиране 0,005mm							
12-16	4	$\varnothing 16$	150	80	0.5	6	4.5
16-20	4	$\varnothing 16$	150	80	0.5	6	4.5
20-25	4	$\varnothing 25$	150	90	0.5	8	6
25-30	4	$\varnothing 25$	150	90	0.5	8	6
30-40	4	$\varnothing 40$	150	97	0.5	14	12
40-50	5	$\varnothing 40$	150	97	0.5	14	12
50-60	5	$\varnothing 60$	150				
60-70	5	$\varnothing 60$	150				
70-80	5	$\varnothing 80$	150				
80-90	5	$\varnothing 80$	150				
90-100	5	$\varnothing 90$	150				



Стойка за микрометър и пасиметър

*Подходяща за микрометри до 100mm



Двухрамна магнитна стойка

Магнитна сила kg	Отвор на дръжката mm
80	$\varnothing 8, \varnothing 4$
80	$\varnothing 8, \varnothing 4$
80	$\varnothing 8, \varnothing 4$
130	$\varnothing 8, \varnothing 4$



Трирамна магнитна стойка

Магнитна сила kg	Отвор на дръжката mm
80	$\varnothing 8$



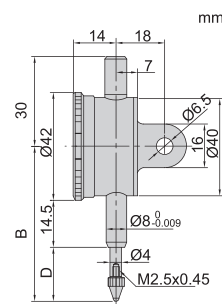
Еластична магнитна стойка

Магнитна сила kg	Отвор на дръжката mm
80	ø8, ø4



Индикаторен часовник

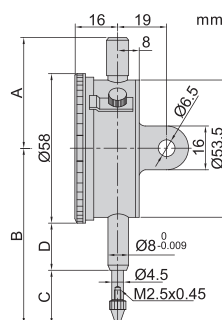
Обхват mm	Точност (f_{ges}) μm	Хистерезис (f_u) mm	Показания
градуиране 0,01mm			
5	3	0.5	0-5
10	3	0.5	0-10
30	3	0.5	0-30
50	3	0.5	0-50



Индикаторен часовник

Кръгла скала: ø58mm

Обхват mm	Точност (f_{ges}) μm	Хистерезис (f_u) mm	Показания
градуиране 0,01mm			
5	3	0.5	0-5
10	3	0.5	0-10
30	3	0.5	0-30
50	3	0.5	0-50

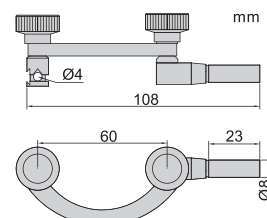


Електронен индикаторен часовник

Обхват mm	Точност μm	Показания
10	5	0-10



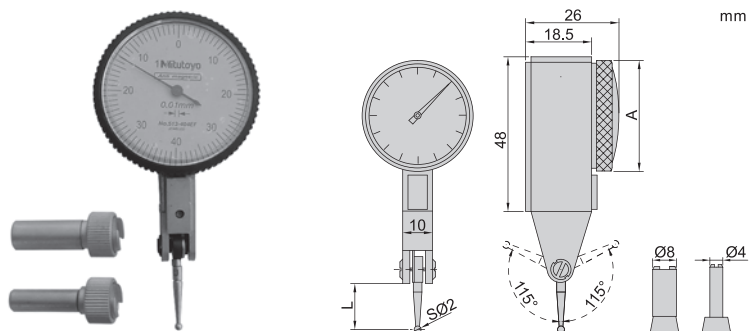
Държач за индикатор с чупещо краче



ИЗМЕРВАТЕЛНИ УРЕДИ

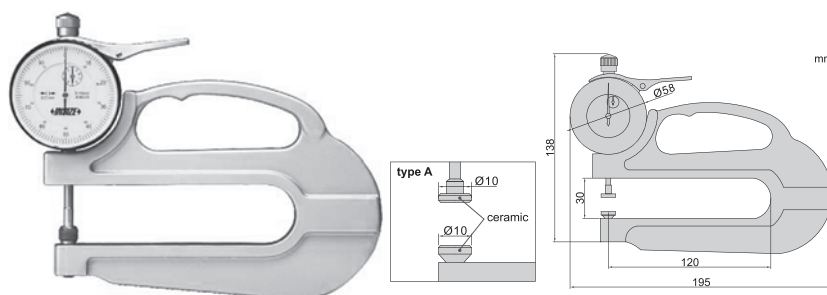
Индикаторен чуперцо кроче

Обхват mm	Точност (f_{ges}) μm	Хистерезис (f_u) μm	A	L
градуиране 0,01mm				
0.8	13	3	ø30	16.5
0.8	13	3	ø37.5	16.5



Индикатор за измерване на дебелина

Обхват mm	Точност μm	Показания
10	10	0-10



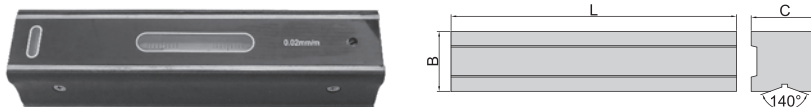
Метрични плоскопаралелни пластини

ISO3650 степен 2, 76 броя



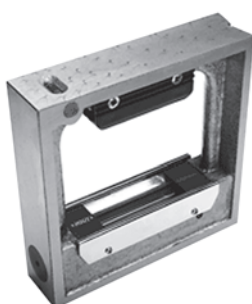
Нивелир машинен

L mm	чувствителност mm/m	B	C
градуиране 0,01mm			
150	0.02	40	45
200	0.02	42	47
300	0.02	45	50



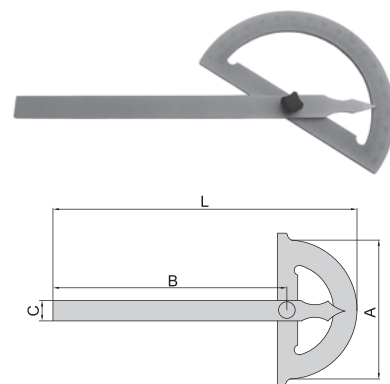
Нивелир

Обхват	Градуиран
200x200mm	0.02mm/m



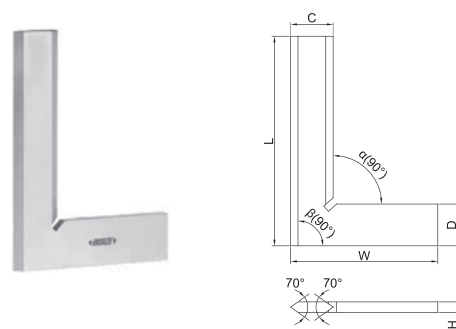
Ъгломер транспортир

Размер (AxB) mm	Обхват	Градуиране	Точност	L	C
80x120	0-180°	1°	±0,3°	168	11
120x150	0-180°	1°	±0,3°	220	14
150x200	0-180°	1°	±0,3°	285	16
200x300	0-180°	1°	±0,3°	413	20
300x500	0-180°	1°	±0,3°	675	30



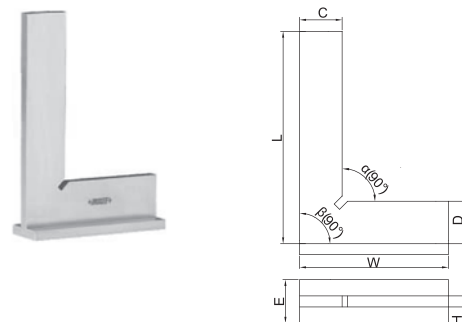
Ъгъл 90°, хромово покритие, клас 00

L mm	W mm	C mm	D mm	H mm
100	70	20	20	5
200	130	34	34	7



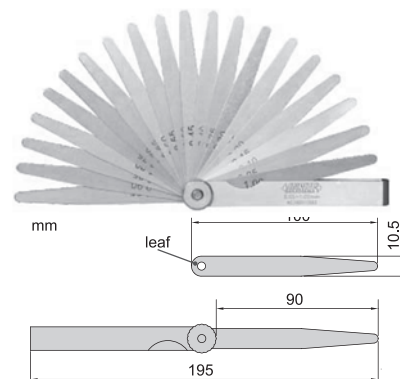
Ъгъл 90°, с основа, клас 00

L mm	W mm	C mm	D mm	H mm	E mm
100	70	20	20	5	20
200	130	30	30	7	30
300	200	40	40	8	40



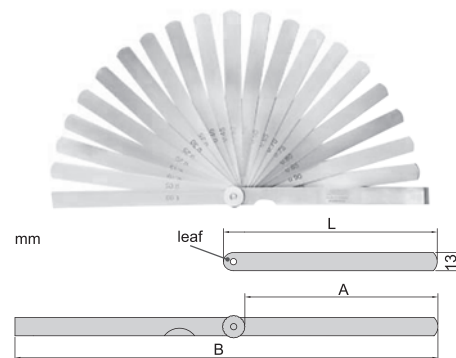
Метрични луфтомерни пластини

Обхват mm	Включени размери mm	брой пластини
0.05-1.00	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, 0.80, 0.85, 0.90, 0.95, 1.00	20



Метрични луфтомерни пластини

Обхват mm	Включени размери mm	брой пластини	L mm	A mm	B mm
0.05-1.00	0.05, 0.10, 0.15, 0.20, 0.25, 0.30, 0.40, 0.50, 0.60, 0.70, 0.80, 0.90, 1.00	13	150	135	295



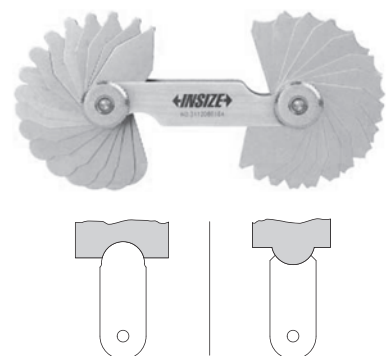
Резбомер цолово-метричен

Обхват	Включени размери	брой пластини
4-62"	4, 4 1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 48, 60, 62 TPI	52
0.25-6mm	0.25, 0.3, 0.35, 0.4, 0.45, 0.5, 0.6, 0.7, 0.75, 0.8, 0.9, 1.0, 1.25, 1.5, 1.75, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5, 6.0mm	



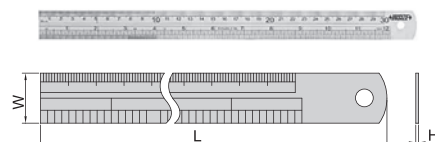
Пластини за измерване на радиус

Обхват mm	Включени размери mm	брой пластини вътрешни/външни	Точност mm
1-7	1, 1.25, 1.5, 1.75, 2, 2.25, 2.5, 2.75, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7	17+17	±0.03
7.5-15	7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5, 12, 12.5, 13, 13.5, 14, 14.5, 15	16+16	±0.035



Линия

Обхват	Точност mm	L mm	W mm	H mm
150mm/6"	±0.08	170	18	1



Комплект от 2 броя мерителни инструменти

Инструмент	Обхват mm	Резолуция mm
Шублер	0-150	0.05
Микрометър	0-25	0.01



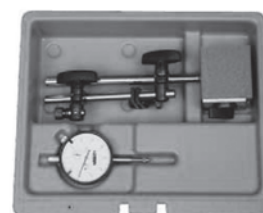
Комплект от 2 броя мерителни инструменти

Инструмент	Обхват mm	Резолуция mm
Шублер	0-150	0.01
Микрометър	0-25	0.001



Комплект от 2 броя мерителни инструменти

Инструмент	Обхват mm	Резолуция mm
Индикатор	0-10	0.01
Магнитна стойка		



Електронен търсач на нулева точка

Опашка mm	Контактна точка mm	Точност mm
ø20	ø10	0.005



Търсач на нулева точка

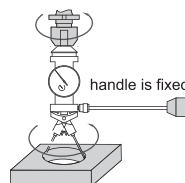
Опашка mm	Контактна точка mm
ø10	4mm/10mm



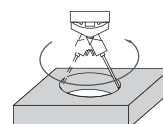
Индикаторен центротърсач

Точност 0,01mm

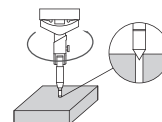
P1	ø0-60mm
P2	ø0-160mm
P3	ø0-250mm
P4	ø3.2-80mm
P5	ø3.2-180mm
P6	ø3.2-280mm
P7	ø0-2.8mm



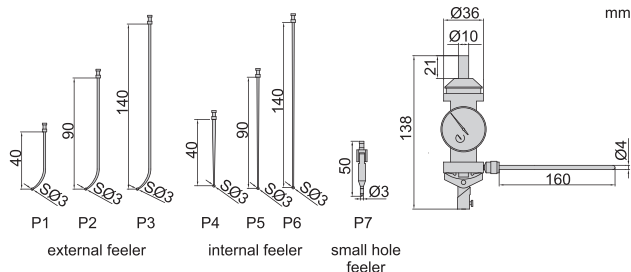
external feeler



internal feeler



small hole feeler



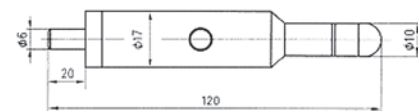
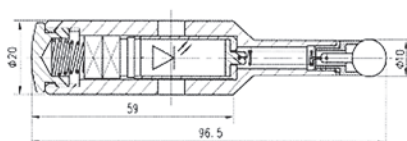
3D търсач на нулева точка

Опашка Ø12 mm, контактна точка на накрайника Ø3 mm

Обхват mm	Резолуция mm	Точност mm
1.5	0.01	0.01



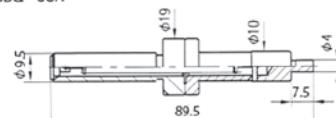
Центротърсач електронен 3D



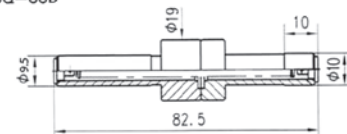
Центротърсач



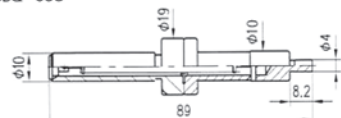
CBQ-00A



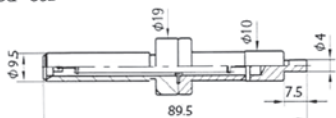
CBQ-00B



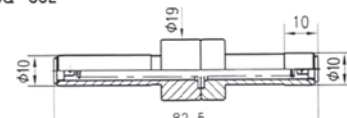
CBQ-00C



CBQ-00D



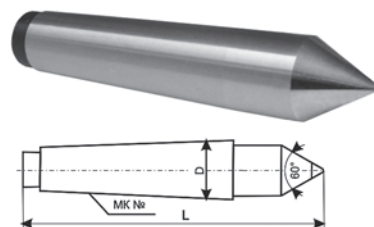
CBQ-00E



ЕКИПИРОВКА ЗА МЕТАЛОРЕЖЕЩИ МАШИНИ

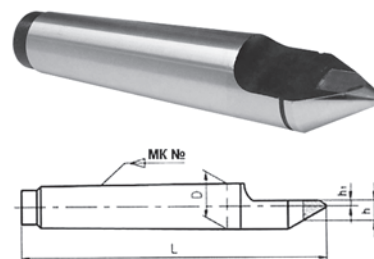
Център упорен прав

МК №	D mm	L mm
МК1	12.065	80
МК2	17.780	100
МК3	23.825	125
МК4	31.267	160
МК5	44.399	200
МК6	63.348	270



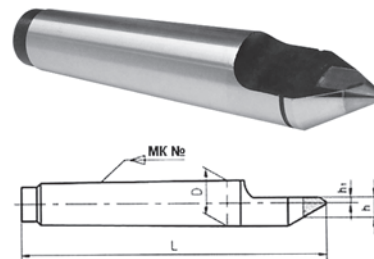
Център упорен скосен

МК №	D mm	h mm	L mm
МК1	12.065	7.6	80
МК2	17.780	11	100
МК3	23.825	15.05	125
МК4	31.267	20.8	160
МК5	44.399	29.35	200
МК6	63.348	41.9	270



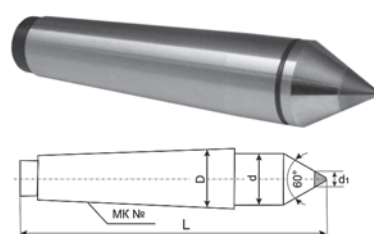
Център упорен скосен със запоен HW-връх

МК №	h ₁ mm	h mm	D mm	L mm	Точност mm
МК1	1.5	5.5	12.065	80	0.010
МК2	2	6	17.780	100	
МК3	3	9	23.825	125	
МК4	5	12.5	31.267	160	
МК5	7	16	44.399	200	
МК6	10	22	63.348	270	
МК7	12	24	83.061	360	



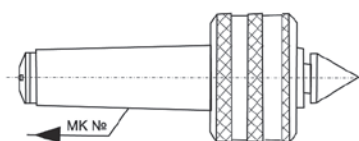
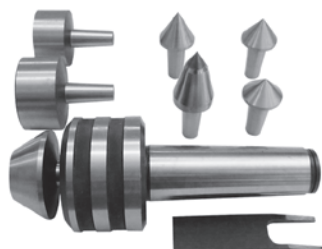
Център упорен прав със запоен HW-връх

МК №	D mm	L mm	d mm	d ₁ mm	Точност mm
МК1	12.065	80	12.2	8	0.010
МК2	17.780	100	18	8	
МК3	23.825	125	24.1	12	
МК4	31.267	160	31.6	15	
МК5	44.399	200	44.7	18	
МК6	63.348	270	63.8	24	
МК7	83.061	360	83.555	24	

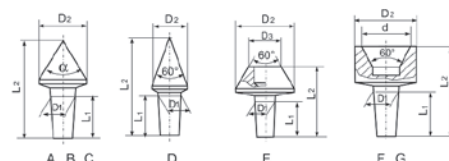


Комплект упорен въртящ център

МК №	D ₁	L ₁	A		B		C		D		E			F			G		
			D ₂	L ₂	D ₂	L ₂	D ₂	L ₂	D ₂	L ₂	D ₂	D ₃	L ₂	D ₂	L ₂	d	D ₂	L ₂	d
MK3	12	24	20	48	20	43.5	20	40.5	18	56	35	15	50	22	42	18	35	48	30
MK4	15	30	28	61.5	28	55.5	28	51.5	26	73	55	30	61.5	40	55	35	55	60	48
MK5	20	40	36	80	36	72.45	36	66.8	36	101	70	41	78	60	81	50	70	85	61



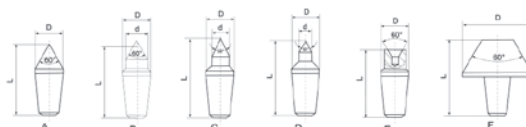
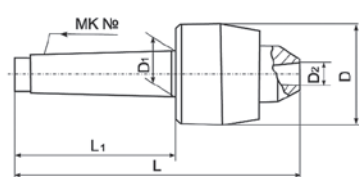
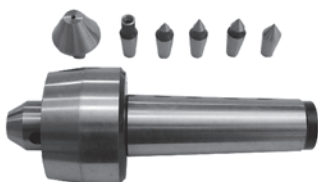
A: $\alpha = 60^\circ$
B: $\alpha = 75^\circ$



Бързоскоростен комплект упорен въртящ център

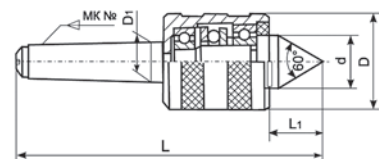
МК №	D	D ₁	L	L ₁
5	83	44.399	136	217

МК №	A		B			C			D			E			F	
	L	D	L	D	d	L	D	d	L	D	d	L	D	d	L	D
MK5	39	15.7	44	15.7	12	45	15.7	10	42	15.7	8	43	15.7	12	48	40



Въртящ център

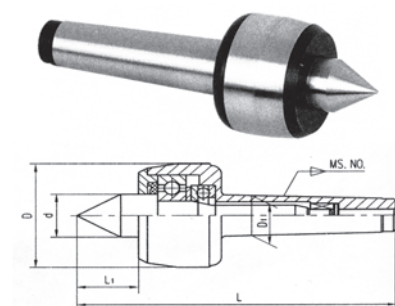
МК №	L mm	L ₁ mm	D mm	D ₁ mm	d mm	Мах радиално натоварване N	Мах скорост rpm	Точност mm
MK1	115	20	34	12.065	18	900	5000	0.01
MK2	145	26	45	17.780	25	1500	5000	0.01
MK3	170	30	52	23.825	28	2000	4200	0.01
MK4	205.7	34.7	60	31.267	32	3200	3200	0.01
MK5	254	45	77	44.399	45	6300	2400	0.015
MK6	362	68.5	125	63.348	75	10000	1600	0.015
MK1	125	30	34	12.065	18	900	5000	0.01
MK2	155	36	45	17.780	25	1500	5000	0.01
MK3	183	43	52	23.825	28	2000	4200	0.01
MK4	222	51	60	31.267	32	3200	3200	0.01
MK5	272	63	77	44.399	45	6300	2400	0.015
MK6	382	88.5	125	63.348	75	10000	1600	0.015



ЕКИПИРОВКА ЗА МЕТАЛОРЕЖЕЩИ МАШИНИ

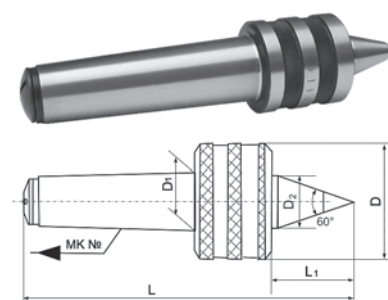
Прецизен въртящ център

МК №	L mm	D mm	L ₁ mm	d mm	D ₁ mm
МК1	114	36	17	15	12.065
МК2	129	45	24	20	17.780
МК3	151.5	50	27.5	22	23.825
МК3	160.5	60	31	25	23.825
МК4	205	70	41	32	31.267
МК5	258.5	90	50.5	40	44.399
МК6	334	105	57.5	50	63.348
МК6	378	140	67	60	63.348



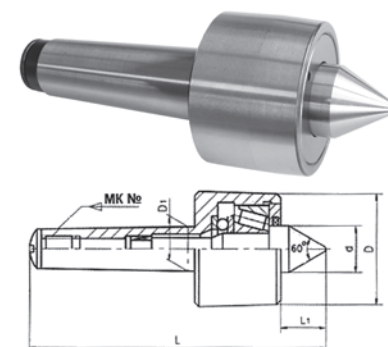
Въртящ център удължен

МК №	L ₁ mm	D mm	D ₁ mm	D ₂ mm	L mm
МК2	28.5	40	17.780	18	141
МК3	36.5	45	23.825	22	168
МК4	36.5	45	31.267	22	190
МК5	62	78	44.399	40	267.5
МК6	75	102	63.348	50	346.5



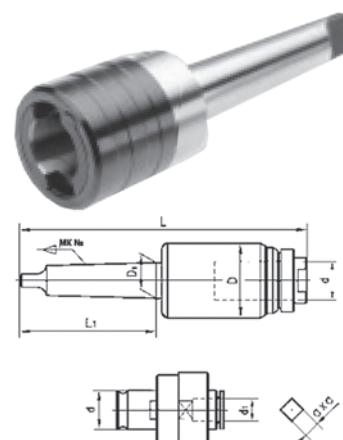
Въртящ упорен център тежък тип

МК №	L mm	L ₁ mm	D mm	D ₁ mm	d mm	Max радиално натоварване N	Max скорост rpm	Точност mm
МК4	192.5	31.5	68	31.267	28	8000	3000	0.01
МК5	245	45	90	44.399	41	10000	2500	0.012



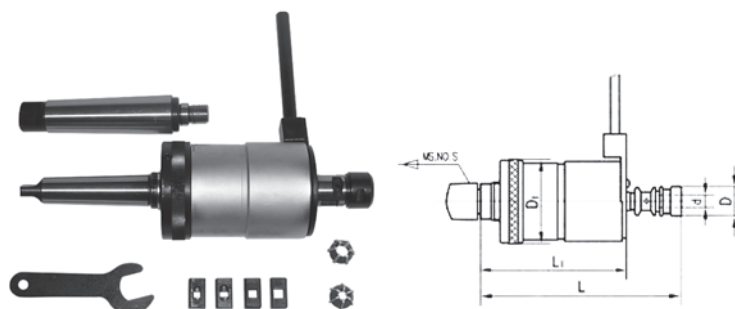
Резбонарезен патронник за адаптори

МК №	D mm	D1 mm	d mm	L ₁ mm	L mm	Обхват	Натоварване Nm
МК2	46	23.825	19	94	191	M3-M12	25
МК3	46	23.825	19	94	191	M3-M16	46.3



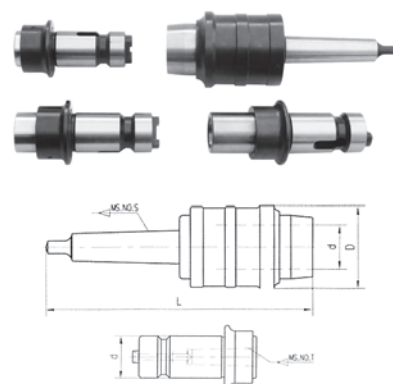
Резбонарезен реверсивен патронник

Обхват	d mm	D mm	D1 mm	L mm	L ₁ mm	MS.NO.S
M2-M7	2.5-6.5	23	55	135	95	MS1-JT33 MS3-J33
M5-M12	3.5-10	28	75	164	114.5	MS3-M16 MS4-M16
M8-M20	6.3-14	38	90.5	205	135	MS3-M20 MS4-M20



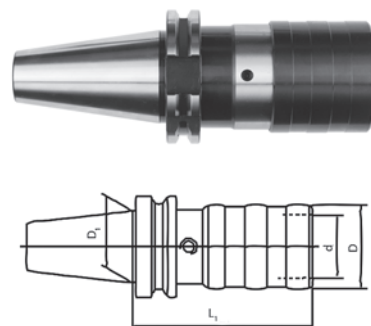
Бързосменен патронник за свредла с конусни опашки

MS.NO.S	D mm	d mm	L mm	MS.NO.T
MS2	52	24	170	MS1 MS2
MS3	66	32	197	MS1 MS2 MS3
MS4	78	42	246.5	MS1 MS2 MS3 MS4



Дорник резбонарезен за адаптори

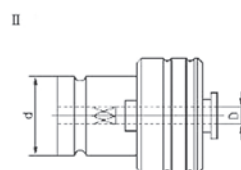
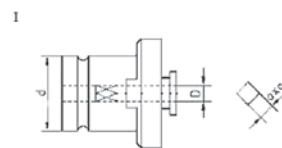
Опашка	Обхват	D mm	D ₁ mm	d mm	L ₁ mm
DIN69871.40	M3-M12	36	44.45	19	59
DIN69871.50			69.85		62
BT40			44.45		64
BT50			69.85		75
DIN69871.40	M7-M20	53	44.45	31	91
DIN69871.50			69.85		
BT40			44.45		
BT50			69.85		
DIN69871.40	M14-M36	78	44.45	48	149
DIN69871.50			69.85		
BT40			44.45		
BT50			69.85		



ЕКИПИРОВКА ЗА МЕТАЛОРЕЖЕЩИ МАШИНИ

Адаптори за метчици

Модел D x a	d mm		DIN371	DIN374	DIN376
3.5 x 2.7	19		M3	M5	M5
4 x 3			M3.5		
4.5 x 3.4			M4	M6	
6 x 4.9			M5		
6 x 4.9			M6		
6 x 4.9				M8	M8
7 x 5.5	31			M10	M10
8 x 6.2			M8		
9 x 7				M12	M12
10 x 8			M10		
11 x 9	48			M14	M14
12 x 9				M16	M16
14 x 11				M18	M18
16 x 12				M20	M20
18 x 14.5				M22	M22
18 x 14.5				M24	M24
20 x 16				M27	M27
22 x 18				M30	M30
25 x 20				M33	M33
28 x 22				M36	M36



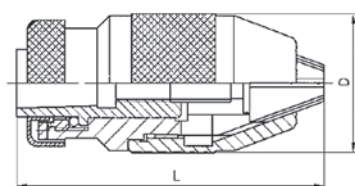
Патронник зъбчат с ключ

Вместимост mm	Гнездо	D mm	L mm
1-10	B12	42.5	70
1-13	B16	53	86
1.5-13	B16	44	78
3-16	B16	53	86
3-16	B18	53	86
1-16	B16	57	93
5-20	B22	65	110



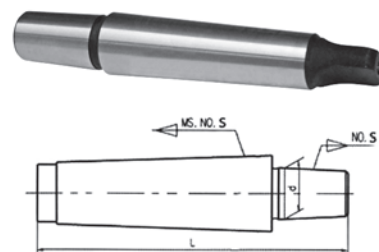
Патронник автоматичен самозатягащ

Вместимост mm	Гнездо	D mm	L mm
0.5-6	B10	34	72
0.5-8	B12	42	82
1-10	B12	42	82
1-13	B16	44	97
1-13	B16	49	100
3-16	B16	54	110
1-16	B16	54	110
3-16	B18	54	110
5-20	B22	60	125



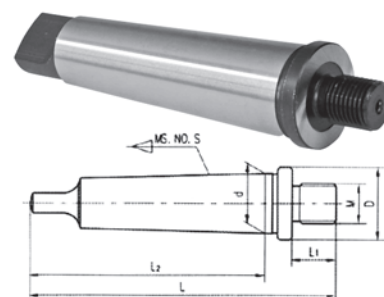
Дорник за патронник

MS.NO.S-NO.S	d mm	L mm
MS1-B10	10.094	86
MS1-B12	12.065	90
MS1-B16	15.733	97
MS2-B10	10.094	101
MS2-B12	12.065	105
MS2-B16	15.733	112
MS2-B18	17.780	120
MS2-B22	21.793	128
MS3-B10	10.094	120
MS3-B12	12.065	124
MS3-B16	15.733	131
MS3-B18	17.780	139
MS3-B22	21.793	147
MS4-B12	12.065	149
MS4-B16	15.733	156
MS4-B18	17.780	164
MS4-B22	21.793	172
MS5-B16	15.733	188
MS5-B18	17.780	196
MS5-B22	21.793	204



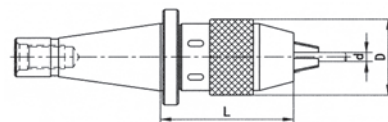
Дорник за патронник с резба

MS.NO.S.	L mm	L ₁ mm	L ₂ mm	D mm	d mm	M
MS1	85	15.5	62	27	12.065	1/2"-20UNF
MS2	100	15.5	75	27	17.780	1/2"-20UNF
MS3	119	15.5	94	27	23.825	1/2"-20UNF



Дорник с патронник автоматичен самозатягащ, **DIN2080**

Код	L mm	D mm	d mm
30-APU08	70	36	0.5-8
30-APU13	80.5	50	1-13
40-APU08	70	36	0.5-8
40-APU13	85	50	1-13
40-APU16	105	57	3-16
50-APU13	95	50	1-13
50-APU16	100	57	3-16
R8-APU13	100	50	1-13



ЕКИПИРОВКА ЗА МЕТАЛОРЕЖЕЩИ МАШИНИ

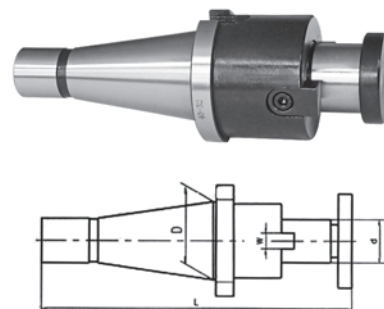
Дорник **DIN2080** WELDON

d mm	ISO40	ISO50
16	FDISO40160M	
20	FDISO40200M	
25	FDISO40250M	FDISO50250M
32	FDISO40320M	FDISO50320M
40	FDISO40400M	FDISO50400M



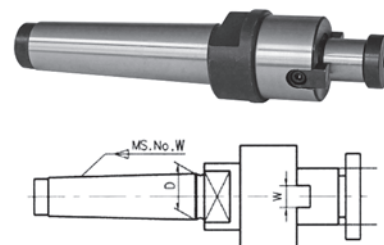
Дорник **DIN2080** за фрези челно цилиндрични с челен съединител

Тип	D mm	d mm	W mm	L mm
SD/ISO40 x d	44.45	16	8	153
		22	10	156
		27	12	159
		32	14	178
		40	16	182
SD/ISO50 x d	69.85	16	8	205
		22	10	208
		27	12	211
		32	14	215
		40	16	219



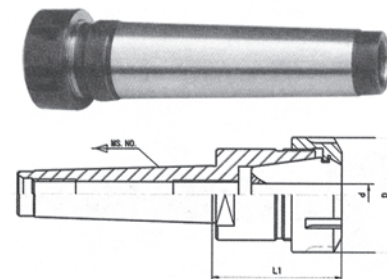
Дорник с морзов конус с челен съединител

Тип	D mm	d mm	W mm
SD/MS3W-16	23.825	16	8
SD/MS3W-22		22	10
SD/MS3W-27		27	12
SD/MS3W-32		32	14
SD/MS4W-16	31.267	16	8
SD/MS4W-22		22	10
SD/MS4W-27		27	12
SD/MS4W-32		32	14



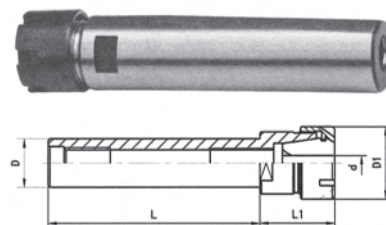
Патронник за цанги с конусна опашка

Код	MS.NO.	d mm	D mm	L1 mm
MS2XER11	MS2	1-7	19	35.3
MS2XER16	MS2	1-10	28	44.3
MS2XER20	MS2	1-13	34	53.3
MS2XER25	MS2	1-16	42	57.7
MS3XER16	MS3	1-10	28	49.3
MS3XER20	MS3	1-13	34	56.2
MS3XER25	MS3	1-16	42	55.7
MS3XER32	MS3	2-20	50	65.7
MS3XER40	MS3	3-26	63	71.7
MS4XER16	MS4	1-10	28	46.5
MS4XER20	MS4	1-13	34	51.7
MS4XER25	MS4	1-16	42	46.7
MS4XER32	MS4	2-20	50	74.2
MS4XER40	MS4	3-26	63	69.7
MS5XER40	MS5	3-26	63	69.2
MS5XER50	MS5	6-34	78	85



Цангов удължител

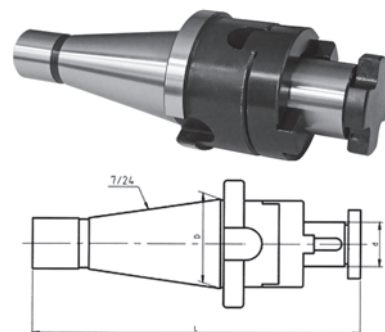
Код	d mm	D mm	D1 mm	L mm	L1 mm
ER8M-10X95-17	1-5	10	12	95	17
ER8M-10X120-17	1-5	10	12	120	17
ER8M-16X100-17	1-5	16	12	100	17
ER11M-12X95-28	1-7	12	16	95	28
ER11M-12X150-30	1-7	12	16	150	30
ER11M-16X100-19	1-7	16	16	100	19
ER11M-16X150-19	1-7	16	16	150	19
ER16M-12X50-36	1-10	12	22	50	36
ER16M-12X100-40	1-10	12	22	100	40
ER16M-16X80-37	1-10	16	22	80	37
ER16M-16X150-40	1-10	16	22	150	40
ER16M-20X50-35	1-10	20	22	50	35
ER16M-20X100-25	1-10	20	22	100	25
ER16M-20X150-25	1-10	20	22	150	25
ER20M-16X60-40	1-13	16	28	60	40
ER20M-16X100-40	1-13	16	28	100	40
ER20M-16X150-40	1-13	16	28	150	40
ER20M-20X80-40	1-13	20	28	80	40
ER20M-20X100-40	1-13	20	28	100	40
ER20M-20X120-40	1-13	20	28	120	40
ER20M-20X150-40	1-13	20	28	150	40
ER25M-20X150-50	1-16	20	35	150	50
ER25M-25X145-45	1-16	25	35	145	45



ЕКИПИРОВКА ЗА МЕТАЛОРЕЖЕЩИ МАШИНИ

Дорник **DIN2080** за фрези челноцилиндрични с челен и надлъжен шпонков канал

d mm	Опашка	L mm
16	ISO40	168
22		171
27		174
32		178
40		182
16	ISO50	205
22		208
27		211
32		215
40		219



челен съединител	ключ	кръстата гайка
SK-00206-2	SK-00208-2	SK-00210-2
SK-00206-3	SK-00208-3	SK-00210-3
SK-00206-4	SK-00208-4	SK-00210-4
SK-00206-5	SK-00208-5	SK-00210-5
SK-00206-6	SK-00208-6	SK-00210-6

Дорник за фрези дорникови, DIN69871

Тип DIN69871.Axd-L1	D mm	цена лв.
DIN69871.A40 x 16-60	32	
DIN69871.A40 x 22-60	40	
DIN69871.A40 x 27-60	48	
DIN69871.A40 x 27-75	48	
DIN69871.A40 x 32-60	58	
DIN69871.A40 x 40-60	70	

Тип DIN69871.A50-L1	D mm	цена лв.
DIN69871.A50 x 16-60	32	
DIN69871.A50 x 22-60	40	
DIN69871.A50 x 27-60	48	
DIN69871.A50 x 32-60	58	
DIN69871.A50 x 40-60	70	



Дорници за патронник, DIN69871

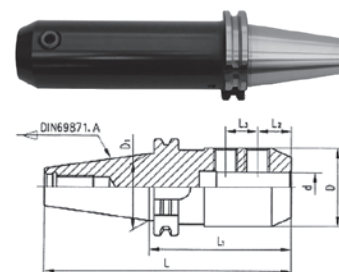
Тип DIN69871.A-NO.S-L1	цена лв.
DIN69871.A40-B12-32	
DIN69871.A40-B12-80	
DIN69871.A40-B16-26	
DIN69871.A40-B16-32	
DIN69871.A40-B16-45	
DIN69871.A40-B18-32	

Тип DIN69871.A-NO.S-L1	цена лв.
DIN69871.A40-B18-45	
DIN69871.A40-B22-32	
DIN69871.A50-B16-45	
DIN69871.A50-B18-45	
DIN69871.A50-B22-60	



Дорници WELDON, DIN69871

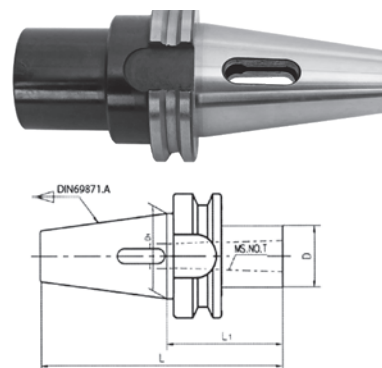
Тип DIN69871.A x d-L ₁	L mm	D mm	D ₁ mm	L ₂ mm	L ₃ mm	цена лв.
DIN69871.A40 x 6-50	118.4	25	44.45	18		
DIN69871.A40 x 8-50	118.4	28		18		
DIN69871.A40 x 10-50	118.4	35		20		
DIN69871.A40 x 12-50	118.4	42		22.5		
DIN69871.A40 x 14-50	118.4	44		22.5		
DIN69871.A40 x 16-63	131.4	48		24		
DIN69871.A40 x 18-63	131.4	50		24		
DIN69871.A40 x 20-63	131.4	52		25		
DIN69871.A40 x 25-100	168.4	65		24	25	
DIN69871.A40 x 32-100	168.4	72		24	28	
DIN69871.A40 x 40-120	188.4	90		30	32	
DIN69871.A50 x 6-63	164.75	25	69.85	18		
DIN69871.A50 x 8-63	164.75	28		18		
DIN69871.A50 x 10-63	164.75	35		20		
DIN69871.A50 x 12-63	164.75	42		22.5		
DIN69871.A50 x 14-63	164.75	44		22.5		
DIN69871.A50 x 16-63	164.75	48		24		
DIN69871.A50 x 18-63	164.75	50		24		
DIN69871.A50 x 20-63	164.75	52		25		
DIN69871.A50 x 25-80	181.75	65		24	25	
DIN69871.A50 x 32-100	201.75	72		24	28	
DIN69871.A50 x 40-120	221.75	90		30	32	



ДОРНИЦИ ЗА CNC МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

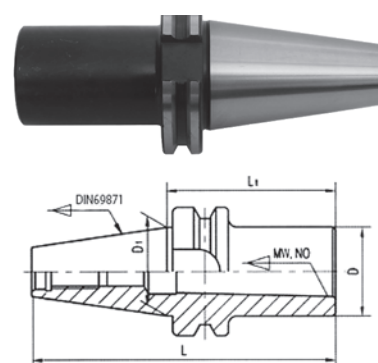
Дорник с вътрешен МК с лапка, DIN69871

Тип DIN69871 x MS.NO.T-L ₁	L mm	D mm	D ₁ mm	цена лв.
DIN69871.A40 x MS1-45	113.4	25	44.45	
DIN69871.A40 x MS1-50	118.4	25	44.45	
DIN69871.A40 x MS2-50	118.4	32	44.45	
DIN69871.A40 x MS2-60	128.4	32	44.45	
DIN69871.A40 x MS3-75	143.4	40	44.45	
DIN69871.A40 x MS4-95	163.4	48	44.45	
DIN69871.A50 x MS1-45	146.75	25	69.85	
DIN69871.A50 x MS2-60	161.75	32	69.85	
DIN69871.A50 x MS3-65	166.75	40	69.85	
DIN69871.A50 x MS4-95	196.75	48	69.85	
DIN69871.A50 x MS5-100	201.75	61	69.85	
DIN69871.A50 x MS5-105	206.75	61	69.85	

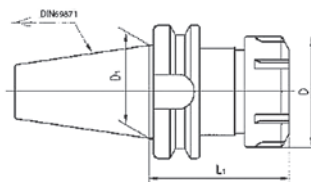
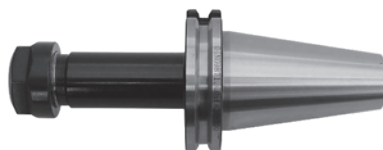


Дорник с вътрешен МК с резба, DIN69871

Тип DIN69871.A x MW.NO.T-L ₁	L mm	D mm	D ₁ mm	цена лв.
DIN69871.A40 x MW1-45	113.4	25	44.45	
DIN69871.A40 x MW2-60	128.4	32		
DIN69871.A40 x MW3-70	138.4	40		
DIN69871.A40 x MW3-80	148.4	40		
DIN69871.A40 x MW3-100	168.4	40		
DIN69871.A40 x MW4-90	158.4	48		
DIN69871.A40 x MW4-100	168.4	48	69.85	
DIN69871.A50 x MW1-45	146.8	25		
DIN69871.A50 x MW2-45	146.8	32		
DIN69871.A50 x MW3-60	161.8	40		
DIN69871.A50 x MW3-80	181.8	40		
DIN69871.A50 x MW4-80	181.8	48		
DIN69871.A50 x MW4-90	191.8	48		
DIN69871.A50 x MW4-120	221.8	48		
DIN69871.A50 x MW5-100	201.8	61		
DIN69871.A50 x MW5-120	221.8	61		



Дорници цангови, DIN69871

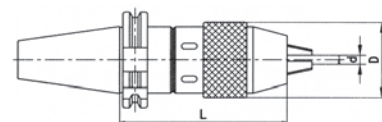


Тип DIN69871.A x ER-L1	D mm	D ₁ mm	цена лв.
DIN69871.A40 x ER11-80	19	44.45	
DIN69871.A40 x ER16-63	28	44.45	
DIN69871.A40 x ER16-70	28	44.45	
DIN69871.A40 x ER16-100	28	44.45	
DIN69871.A40 x ER16-120	28	44.45	
DIN69871.A40 x ER20-70	34	44.45	
DIN69871.A40 x ER20-100	34	44.45	
DIN69871.A40 x ER20-160	34	44.45	
DIN69871.A40 x ER25-60	42	44.45	
DIN69871.A40 x ER25-70	42	44.45	
DIN69871.A40 x ER25-100	42	44.45	
DIN69871.A40 x ER25-150	42	44.45	
DIN69871.A40 x ER32-70	50	44.45	
DIN69871.A40 x ER32-80	50	44.45	
DIN69871.A40 x ER32-100	50	44.45	
DIN69871.A40 x ER32-120	50	44.45	
DIN69871.A40 x ER32-150	50	44.45	
DIN69871.A40 x ER40-80	63	44.45	
DIN69871.A40 x ER40-100	63	44.45	
DIN69871.A40 x ER40-120	63	44.45	
DIN69871.A40 x ER40-150	63	44.45	

Тип DIN69871.A x ER-L1	D mm	D ₁ mm	цена лв.
DIN69871.A50 x ER16-70	28	69.85	
DIN69871.A50 x ER16-100	28	69.85	
DIN69871.A50 x ER16-160	28	69.85	
DIN69871.A50 x ER20-70	34	69.85	
DIN69871.A50 x ER20-100	34	69.85	
DIN69871.A50 x ER20-135	34	69.85	
DIN69871.A50 x ER20-160	34	69.85	
DIN69871.A50 x ER25-70	42	69.85	
DIN69871.A50 x ER25-100	42	69.85	
DIN69871.A50 x ER25-150	42	69.85	
DIN69871.A50 x ER32-80	42	69.85	
DIN69871.A50 x ER32-100	50	69.85	
DIN69871.A50 x ER32-120	50	69.85	
DIN69871.A50 x ER32-160	50	69.85	
DIN69871.A50 x ER40-80	50	69.85	
DIN69871.A50 x ER40-120	63	69.85	
DIN69871.A50 x ER40-160	63	69.85	
DIN69871.A50 x ER50-90	63	69.85	
DIN69871.A50 x ER50-120	78	69.85	
DIN69871.A50 x ER50-160	78	69.85	
DIN69871.A50 x ER50-200	78	69.85	

Дорник с патронник автоматичен самозатягащ, DIN69871

Код	L mm	D mm	d mm	цена лв.
SK40-APU08-70	70	36	0.5-8	
SK40-APU13-82	82	50	1-13	
SK40-APU16-105	105	57	3-16	
SK50-APU13-85	85	50	1-13	
SK50-APU16-90	90	57	3-16	

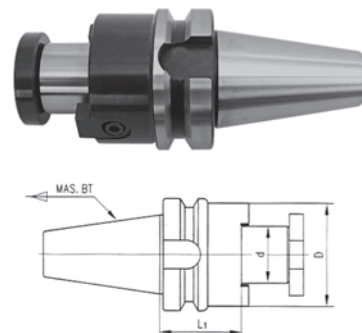


ДОРНИЦИ ЗА СНС МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

Дорник за фрези дорникови, ВТ

Тип BTxd-L1	D mm	цена лв.
BT40 x 16-45	32	
BT40 x 16-60	32	
BT40 x 16-120	32	
BT40 x 22-45	40	
BT40 x 22-60	40	
BT40 x 22-100	40	
BT40 x 22-120	40	
BT40 x 27-45	48	
BT40 x 27-60	48	
BT40 x 27-75	48	
BT40 x 27-105	48	
BT40 x 27-120	48	
BT40 x 32-45	58	
BT40 x 32-60	58	
BT40 x 32-75	58	
BT40 x 32-120	58	
BT40 x 40-60	70	
BT40 x 40-75	70	
BT40 x 50-70	90	
BT50 x 16-60	32	

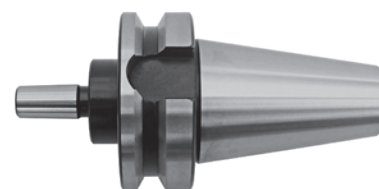
Тип BTxd-L1	D mm	цена лв.
BT50 x 16-75	32	
BT50 x 16-120	32	
BT50 x 22-60	40	
BT50 x 22-75	40	
BT50 x 22-100	40	
BT50 x 22-120	40	
BT50 x 27-60	48	
BT50 x 27-105	48	
BT50 x 32-60	58	
BT50 x 32-75	58	
BT50 x 32-105	58	
BT50 x 40-60	70	
BT50 x 40-75	70	
BT50 x 40-90	70	
BT50 x 40-100	70	
BT50 x 40-105	70	
BT50 x 50-60	90	
BT50 x 50-70	90	
BT50 x 50-120	90	



Дорници за патронник, ВТ

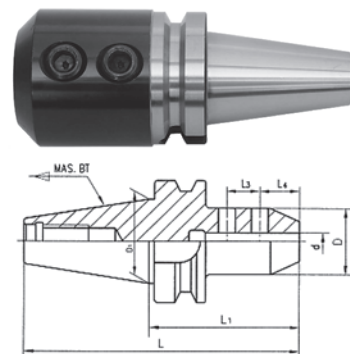
Тип BT-NO.S-L1	цена лв.
BT40-B12-45	
BT40-B16-32	
BT40-B16-45	
BT40-B16-75	
BT40-B16-90	
BT40-B18-45	

Тип BT-NO.S-L1	цена лв.
BT40-B22-75	
BT50-B16-45	
BT50-B16-60	
BT50-B16-75	
BT50-B16-90	
BT50-B22-45	



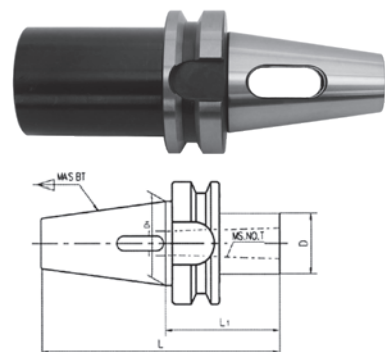
Дорници WELDON, BT

Тип BT x d-L1	L mm	D mm	D ₁ mm	L ₂ mm	L ₃ mm	цена лв.
BT40 x 6-50	115.4	25	44.45	18		
BT40 x 6-60	125.4	25	44.45	18		
BT40 x 8-50	115.4	28	44.45	18		
BT40 x 10-63	128.4	35	44.45	20		
BT40 x 12-63	128.4	42	44.45	22.5		
BT40 x 14-63	128.4	44	44.45	22.5		
BT40 x 16-63	128.4	48	44.45	24		
BT40 x 16-70	135.4	48	44.45	24		
BT40 x 18-63	128.4	50	44.45	24		
BT40 x 20-63	128.4	52	44.45	25		
BT40 x 20-70	135.4	52	44.45	25		
BT40 x 25-90	155.4	65	44.45	24	25	
BT40 x 25-100	165.4	65	44.45	24	25	
BT40 x 32-100	165.4	72	44.45	24	28	
BT40 x 32-110	175.4	72	44.45	24	28	
BT40 x 40-120	185.4	90	44.45	30	32	
BT40 x 40-140	205.4	90	44.45	30	32	
BT50 x 6-63	164.8	25	69.85	18		
BT50 x 8-63	164.8	28	69.85	18		
BT50 x 10-63	164.8	35	69.85	20		
BT50 x 12-80	181.8	42	69.85	22.5		
BT50 x 16-80	181.8	48	69.85	24		
BT50 x 20-80	181.8	52	69.85	25		
BT50 x 25-100	201.8	65	69.85	24	25	
BT50 x 25-105	206.8	65	69.85	24	25	
BT50 x 25-150	251.8	65	69.85	24	25	
BT50 x 25-200	301.8	65	69.85	24	25	
BT50 x 32-100	201.8	72	69.85	24	28	
BT50 x 32-105	206.8	72	69.85	24	28	
BT50 x 40-115	216.8	90	69.85	30	32	
BT50 x 40-120	221.8	90	69.85	30	32	
BT50 x 50-150	251.8	100	69.85	35	35	



Дорник с вътрешен МК с лапка, BT

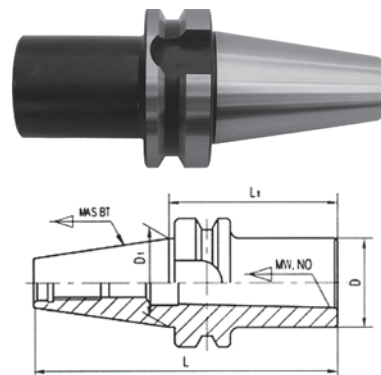
Тип BT x MS.NO.T-L ₁	L mm	D mm	D ₁ mm	цена лв.
BT40 x MS1-45	110.4	25	44.45	
BT40 x MS2-50	115.4	32	44.45	
BT40 x MS2-60	125.4	32	44.45	
BT40 x MS3-70	135.4	40	44.45	
BT40 x MS3-75	140.4	40	44.45	
BT40 x MS4-90	155.4	48	44.45	
BT40 x MS4-95	160.4	48	44.45	
BT40 x MS4-95	200.4	48	44.45	
BT50-MS1-45	146.8	25	69.85	
BT50-MS2-50	151.8	32	69.85	
BT50-MS2-60	161.8	32	69.85	
BT50-MS2-120	221.8	32	69.85	
BT50-MS3-65	166.8	40	69.85	
BT50-MS3-75	176.8	40	69.85	
BT50-MS3-120	221.8	40	69.85	
BT50-MS3-150	251.8	40	69.85	
BT50-MS4-95	196.8	48	69.85	
BT50-MS5-105	206.8	63	69.85	



ДОРНИЦИ ЗА СНС МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

Дорник с вътрешен МК с резба, ВТ

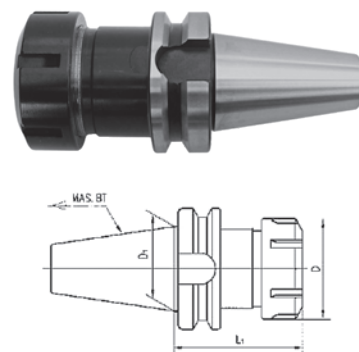
Тип BT x MW.NO.T-L ₁	L mm	D mm	D ₁ mm	цена лв.
BT40 x MW1-45	110.4	25	44.45	
BT40 x MW2-60	125.4	32		
BT40 x MW3-75	140.4	40		
BT40 x MW3-90	155.4	40		
BT40 x MW4-95	160.4	48		
BT40 x MW4-100	165.4	48		
BT50 x MW1-45	146.8	25	69.85	
BT50 x MW2-45	146.8	32		
BT50 x MW2-60	161.8	32		
BT50 x MW3-60	161.8	40		
BT50 x MW3-75	176.8	40		
BT50 x MW4-80	181.8	48		
BT50 x MW4-100	201.8	48		
BT50 x MW5-100	201.8	63		
BT50 x MW5-120	221.8	63		



Дорници цангови, ВТ

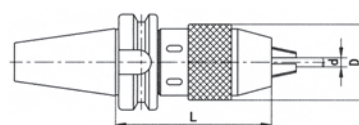
Тип BT x ER-L1	D mm	D ₁ mm	цена лв.
BT40 x ER16-70	28	44.45	
BT40 x ER20-70	34	44.45	
BT40 x ER20-100	34	44.45	
BT40 x ER20-150	34	44.45	
BT40 x ER25-60	42	44.45	
BT40 x ER25-70	42	44.45	
BT40 x ER25-90	42	44.45	
BT40 x ER25-100	42	44.45	
BT40 x ER25-150	42	44.45	
BT40 x ER32-70	50	44.45	
BT40 x ER32-100	50	44.45	
BT40 x ER32-150	50	44.45	
BT40 x ER40-70	63	44.45	
BT40 x ER40-80	63	44.45	
BT40 x ER40-120	63	44.45	
BT40 x ER40-150	63	44.45	
BT50 x ER16-70	28	69.85	
BT50 x ER16-90	28	69.85	
BT50 x ER16-135	28	69.85	

Тип BT x ER-L1	D mm	D ₁ mm	цена лв.
BT50 x ER20-70	34	69.85	
BT50 x ER20-90	34	69.85	
BT50 x ER20-135	34	69.85	
BT50 x ER20-150	34	69.85	
BT50 x ER20-165	34	69.85	
BT50 x ER25-70	42	69.85	
BT50 x ER25-135	42	69.85	
BT50 x ER25-165	42	69.85	
BT50 x ER32-70	50	69.85	
BT50 x ER32-80	50	69.85	
BT50 x ER32-100	50	69.85	
BT50 x ER32-120	50	69.85	
BT50 x ER40-80	63	69.85	
BT50 x ER40-100	63	69.85	
BT50 x ER40-120	63	69.85	
BT50 x ER40-135	63	69.85	
BT50 x ER50-90	78	69.85	
BT50 x ER50-120	78	69.85	



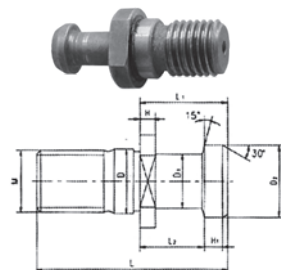
Дорник с патронник автоматичен самозатягащ, ВТ

Код	L mm	D mm	d mm	цена лв.
BT30-APU08-80	80	36	0.5-8	
BT30-APU13-100	100	50	1-13	
BT30-APU16-110	110	57	3-16	
BT40-APU08-85	85	36	0.5-8	
BT40-APU13-100	100	50	1-13	
BT40-APU16-105	105	57	3-16	
BT50-APU13-100	100	50	1-13	
BT50-APU16-110	110	57	3-16	

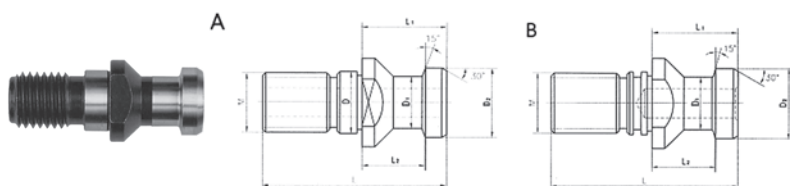


Опъвачи за дорници

№	D mm	D ₁ mm	D ₂ mm	M	L mm	L ₁ mm	L ₂ mm	H mm	H ₁ mm	цена лв.
1	13	8	12	M12	44	24	19	4	3	
2	17	14	19	M16	54	26	20	4	4	
3	21	17	23	M20	65	30	23	5	5	
4	25	21	28	M24	74	34	25	6	7	



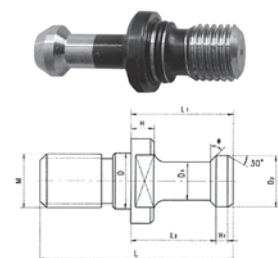
Опъвачи за дорници



№	D mm	D ₁ mm	D ₂ mm	M	L mm	L ₁ mm	L ₂ mm	цена лв.
1	13	8	13	M12	44	24	19	
2	17	14	19	M16	54	26	20	
3	21	17	23	M20	65	30	23	
4	25	21	28	M24	74	34	25	

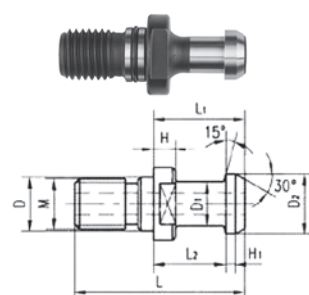
Опъвачи за дорници

№	D mm	D ₁ mm	D ₂ mm	M	L mm	L ₁ mm	L ₂ mm	H mm	H ₁ mm	θ	цена лв.
1	12.5	7	11	M12	43	23	18	5	2.5	30° 45°	
2	17	10	15	M16	60	35	28	6	3		
3	21	14	19	M20	70	40	31	8	4		
4	25	17	23	M24	85	45	35	10	5		



Опъвачи за дорници

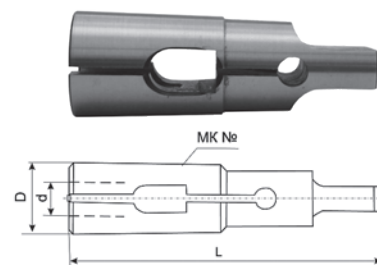
№	D mm	D ₁ mm	D ₂ mm	M	L mm	L ₁ mm	L ₂ mm	H mm	H ₁ mm	цена лв.
1	12.5	8	12	M12	43	23.4	18.4	5	3	
2	12.5	11	15	M12	44	24	19	5	3	
3	17	14	19	M16	54	29	23	7	3	
4	21	17	23	M20	60	30	23	7	4	
5	25	21	28	M24	74	34	25	7	5	
6	31	27	36	M30	98	48	36	11	7	



ДОРНИЦИ ЗА СНС МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

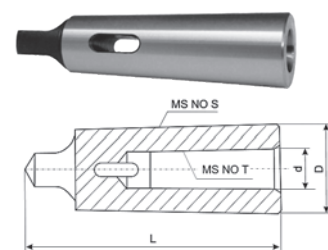
Втулка преходна от МК към цилиндричен захват

МК №	d mm	D mm	L mm	цена лв.
МК1	2.24-8.0	12.31	67	
МК2	4.75-12	18.06	80	
МК3	11.5-18	24.15	80	
МК4	16-25	31.66	90	
МК5	19-30	44.7	160.5	



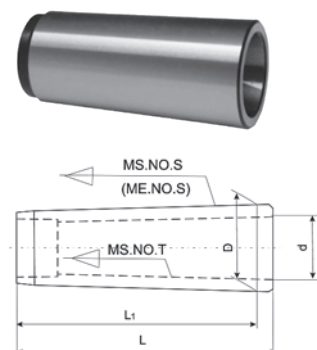
Втулка преходна с лапка

MS.NO.S ME.NO.S	MS.NO.T	L mm	L ₁ mm	D mm	d mm	цена лв.
MS2	1	60	56	17.780	12.065	
MS3	2	70	66	23.825	17.780	
MS4	3		63.5	31.267	23.825	
MS5	2	77	70.5	44.399	17.780	
	3				23.825	
	4				31.267	
MS6	3	110	103.5	63.348	23.825	
	4				31.267	
	5				44.399	



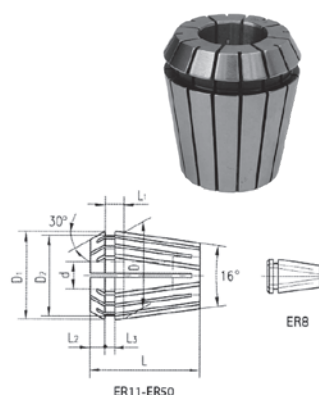
Втулка преходна

MS.NO.S ME.NO.S	MS.NO.T	L mm	L ₁ mm	D mm	d mm	цена лв.
MS2	1	60	56	17.780	12.065	
MS3	2	70	66	23.825	17.780	
MS4	3		63.5	31.267	23.825	
MS5	2	77	70.5	44.399	17.780	
	3				23.825	
	4				31.267	
MS6	3	110	103.5	63.348	23.825	
	4				31.267	
	5				44.399	



Цанги серия "ER"

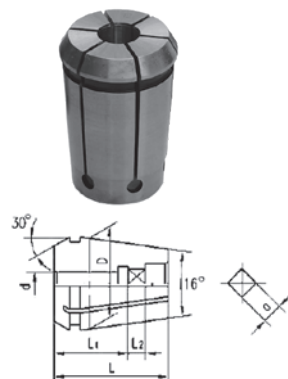
Тип	d H7	D	D ₁	D ₂	L	L ₁	L ₂	L ₃	цена лв.
ER8	≥ 1.0 ~ 5.0	8	8.45	6.5	13.5	2.98	1.5	1.2	
ER11	≥ 1.0 ~ 7.0	11	11.5	9.5	18.0	3.8	2.5	2.0	
ER16	≥ 1.0 ~ 2.5	16	17	13.8	27.5	6.26	4.0	2.7	
	> 2.5 ~ 10.0	16	17	13.8	27.5	6.26	4.0	2.7	
ER20	≥ 1.0 ~ 2.5	20	21	17.4	31.5	6.36	4.8	2.8	
	> 2.5 ~ 13.0	20	21	17.4	31.5	6.36	4.8	2.8	
ER25	≥ 1.0 ~ 2.5	25	26	22.0	34.0	6.66	5.0	3.1	
	> 2.5 ~ 16.0	25	26	22.0	34.0	6.66	5.0	3.1	
ER32	≥ 2.0 ~ 2.5	32	33	29.2	40.0	7.16	5.5	3.6	
	> 2.5 ~ 20.0	32	33	29.2	40.0	7.16	5.5	3.6	
ER40	≥ 3.0 ~ 26.0	40	41	36.2	46.0	7.66	7.0	4.1	
ER50	≥ 6.0 ~ 10.0	50	52	46.0	60.0	12.6	8.5	5.5	
	> 10.0 ~ 34.0	50	52	46.0	60.0	12.6	8.5	5.5	



Цанги серия "ERG" за метчици

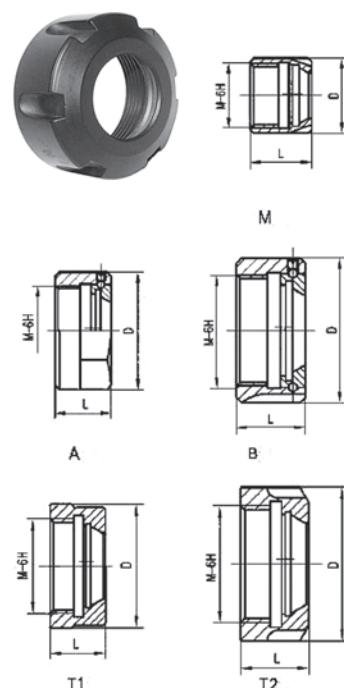
Тип	ER16G-d	ER20G-d	ER25G-d	ER32G-d	ER40-d	цена лв.
D	16	20	25	32	40	
L	27.5	31.5	34	40	46	
d	3.5 ~ 8	3.5 ~ 16	3.5 ~ 16	3.5 ~ 20	3.5 ~ 25	

dxa	3.5X2.7	4.0X3.0	4.5X3.4	5.5X4.3	6.0X4.9	7.0X5.5
	8.0X6.2	9.0X7.0	10X8.0	11X9.0	12X9.0	14X11
	16X12	18X14.5	20X16	22X18	25X20	



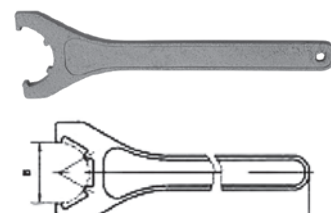
Капачка за цангови дорници

Тип	D mm	L mm	M	цена лв.
A	19	11.3	M14 x 0.75	
A	28	17.5	M22 x 1.5	
A	34	19	M25 x 1.5	
B	42	20	M32 x 1.5	
B	50	22.5	M40 x 1.5	
B	63	25.5	M50 x 1.5	
M	12	12	M10 x 0.75	
M	16	12	M13 x 0.75	
M	22	18	M19 x 1	
M	28	19	M24 x 1	
M	35	20	M30 x 1	
T1	19	11.3	M14 x 0.75	
T1	28	17.5	M22 x 1.5	
T1	34	19	M25 x 1.5	
T2	42	20	M32 x 1.5	
T2	50	22.5	M40 x 1.5	
T2	63	25.5	M50 x 1.5	



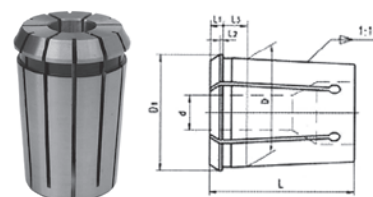
Ключ

B mm	L mm	Затягаща гайка	цена лв.
37	210	ER25-B ER25-T2	
45	250	ER32-B ER32-T2	
58	290	ER40-B ER40-T2	



Цанги серия "EOC"

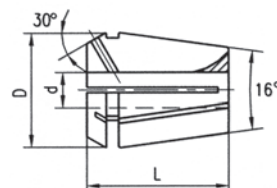
Тип	D ₁ mm	D mm	d mm	L mm	L ₁ mm	L ₂ mm	L ₃ mm	цена лв.
EOC16B	25.5	22.65	2 ~ 16	40	5.5	1.2	9.5	
EOC20B	29.8	27.4	2 ~ 20	45	6	1.35	10	
EOC25B	35.05	32.9	2 ~ 25	52	6	1.4	10	
EOC32B	43.7	41.3	4 ~ 32	60	6	1.45	11	
EOC40B	52.2	49.7	6 ~ 40	68	6	1.45	12	
EOC50B	63.8	61.1	8 ~ 50	80	7	1.55	13	



ДОРНИЦИ ЗА CNC МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

Цанги за инструменти с вътрешно охлаждане "ERC"

Тип	D mm	L mm	d mm	цена лв.
ER11C-d	11.5	18	2 ~ 7	
ER16C-d	16.74	27.5	2 ~ 10	
ER20C-d	20.74	31.5	2 ~ 13	
ER25C-d	25.74	34	2 ~ 16	
ER32C-d	32.74	40	2 ~ 20	
ER40C-d	40.74	48	3 ~ 26	



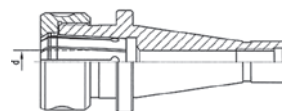
Комплект цанги "ER" с дорник

Тип mm	Размер на отвора mm	Брой	Опашка	цена лв.
ER16-8	2 3 4 5 6 7 8 10	8	MS2, MS3, MS4, MS5, ISO30, ISO40, ISO50	
ER25-10	3 4 5 6 8 10 12 14 15 16	10		
ER32-12	3 4 5 6 8 10 12 14 15 16 18 20	12		
ER140-15	3 4 5 6 8 10 12 14 15 16 18 20 22 24 26	15		



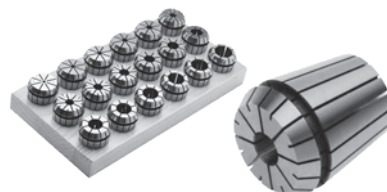
Комплект цанги "J7325" с дорник

Тип	Брой	d mm	Опашка	цена лв.
40-J7325/15mm	15	3 4 5 6 8 10 12 14 15 16 18 20 22	ISO40	
50-J7325/15mm		24 25	ISO50	



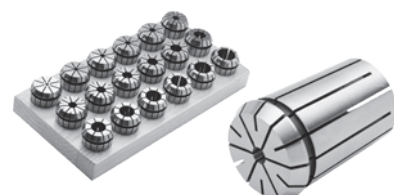
Комплект цанги

Код	Размери	цена лв.
415E - S	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16	
462E - S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-25	
467E - S	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
4008E - S	1-1.5-2-2.5-3-3.5-4-4.5-5-5.5-6-6.5-7	
426E - S	1-2-3-4-5-6-7-8-9-10	
428E - S	2-3-4-5-6-7-8-9-10-11-12-13	
430E - S	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16	
470E - S	3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20	
472E - S	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21- 22-23-24-25-26	



Комплект цанги

Код	Размери	цена лв.
415EP - S	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16	
462EP - S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-25	
467EP - S	5-6-7-8-10-12-14-16-18-20-22-24-25-28-30-32	
4008EP - S	1-1.5-2-2.5-3-3.5-4-4.5-5-5.5-6-6.5-7	
426EP - S	1-2-3-4-5-6-7-8-9-10	
428EP - S	2-3-4-5-6-7-8-9-10-11-12-13	
430EP - S	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16	
470EP - S	3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20	
472EP - S	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26	



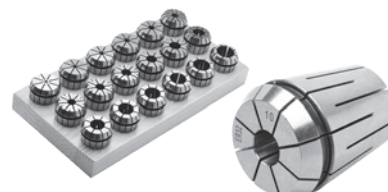
Комплект цанги за инструменти с вътрешно охлаждане

Код	Размери	цена лв.
426EA-S	3-4-5-6-7-8-9-10	
428EA-S	3-4-5-6-7-8-9-10-11-12-13	
430EA-S	3-4-5-6-7-8-9-10-11-12-13-14-15-16	
470EA-S	3-4-5-6-7-8-9-10-11-12-14-15-16-18-20	
472EA-S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-26	



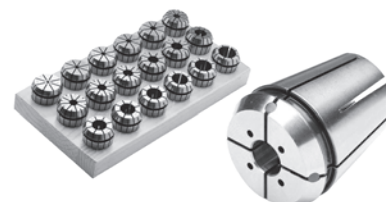
Комплект цанги

Код	Размери	цена лв.
426EH-S	3-4-5-6-7-8-9-10	
428EH-S	3-4-5-6-7-8-9-10-11-12-13	
430EH-S	3-4-5-6-7-8-9-10-11-12-13-14-15-16	
470EH-S	3-4-5-6-7-8-9-10-11-12-14-15-16-18-20	
472EH-S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-26	



Комплект цанги с охлаждане

Код	Размери	цена лв.
426EC-S	3-4-5-6-7	
428EC-S	4-5-6-7-8-9	
430EC-S	3-4-5-6-7-8-9-10-11-12-13-14	
470EC-S	3-4-5-6-7-8-9-10-11-12-14-15-16-18-20	
472EC-S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-26	



Комплект цанги

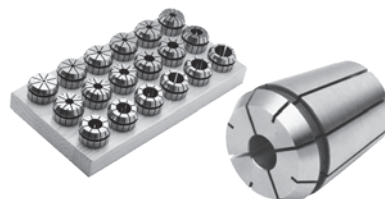
Код	Размери	цена лв.
426ECC-S	3-4-5-6-7	
428ECC-S	4-5-6-7-8-9	
430ECC-S	3-4-5-6-7-8-9-10-11-12-13-14	
470ECC-S	3-4-5-6-7-8-9-10-11-12-14-15-16-18-20	
472ECC-S	4-5-6-7-8-9-10-11-12-14-16-18-20-22-24-26	



ДОРНИЦИ ЗА CNC МАШИНИ, БАЛАНСИРАНИ 6.5 G, 15000 ОБ./МИН.

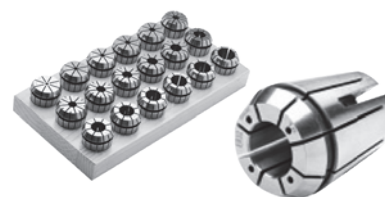
Комплект цанги за метчици с квадрат

Код	Размери	цена лв.
426G-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2	
428G-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8	
430G-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9	
470G-S	4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9 - 14×11 - 16×12	
472G-S	6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9 - 14×11 - 16×12 - 18×14.5 - 20×16	



Комплект цанги с охлаждане

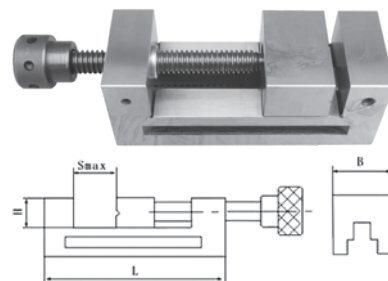
Код	Размери	цена лв.
426GC-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2	
428GC-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8	
430GC-S	3.5×2.7 - 4×3 - 4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9	
470GC-S	4.5×3.4 - 6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9 - 14×11 - 16×12	
472GC-S	6×4.9 - 7×5.5 - 8×6.2 - 9×7 - 10×8 - 11×9 - 12×9 - 14×11 - 16×12 - 18×14.5 - 20×16	



Прецизно менгеме стоманено, QGG

- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм 0.005mm/100mm

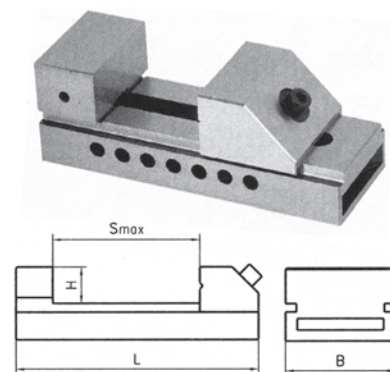
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
QGG50	50	25	65	155	
QGG60	60	25	55	110	
QGG63	63	32	85	190	
QGG73	73	35	100	210	
QGG80	80	40	100	220	
QGG88	88	40	125	250	
QGG100	100	45	125	260	
QGG125	125	50	160	300	
QGG125A	125	50	210	350	
QGG150	150	50	175	315	



Прецизно менгеме стоманено, QKG

- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм 0.005mm/100mm

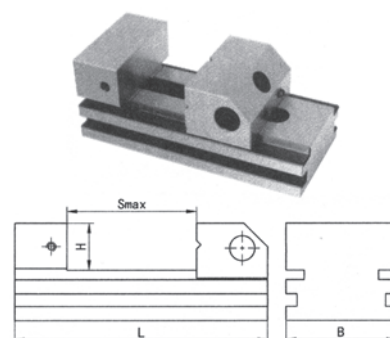
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
QKG25	26	9.15	22	65.4	
QKG36	36	20	40	100	
QKG38	38	20	44	105	
QKG50	50	25	65	140	
QKG63	63	32	85	175	
QKG73	73	35	100	190	
QKG80	80	40	100	200	
QKG88	88	40	125	235	
QKG100	100	45	125	245	
QKG125	125	50	160	285	
QKG150	150	50	200	330	
QKG150A	150	50	250	380	
QKG150B	150	50	300	430	



Прецизно менгеме стоманено, 28600

- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм ≤ 0.002 mm

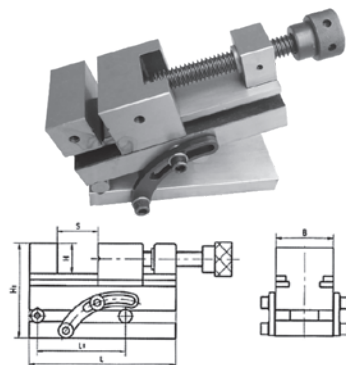
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
28600 110	34	15	25	75	
28600 120	45	20	50	110	
28600 130	70	30	80	160	
28600 140	90	40	120	210	
28600 150	120	40	150	280	



Прецизно накланящо менгеме, ZXQGG

- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм 0.005mm/100mm

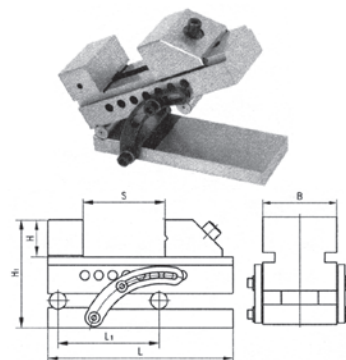
Кат. №	B mm	H mm	H ₁ mm	Smax mm	L mm	L ₁ mm	Регулируем ъгълен обхват	цена лв.
ZXQGG50	50	25	86.6	60	140	100	0 ~ 45°	
ZXQGG63	63	32	94.6	85	175	100		
ZXQGG73	73	35	111	90	190	100		
ZXQGG80	80	40	121	95	200	100		
ZXQGG88	88	40	125	120	235	100		
ZX- QGG100	100	45	139.2	125	245	100		
ZX- QGG125	125	50	154.2	160	285	200		
ZX- QGG150	150	50	160.9	190	330	200		



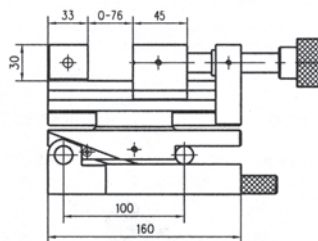
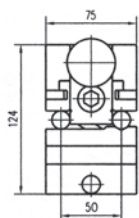
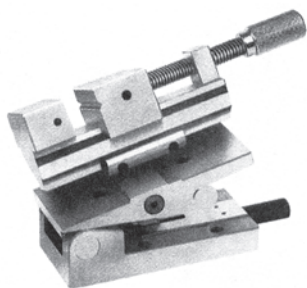
Прецизно накланящо менгеме, ZXQKG

- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм 0.005mm/100mm

Кат. №	B mm	H mm	H ₁ mm	Smax mm	L mm	L ₁ mm	Регулируем ъгълен обхват	цена лв.
ZXQKG50	50	25	79.36	65	140	100	0 ~ 45°	
ZXQKG63	63	32	92.36	85	175	100		
ZXQKG73	73	35	104	100	190	100		
ZXQKG80	80	40	117	100	200	100		
ZXQKG88	88	40	122	125	235	100		
ZXQKG100	100	45	134.08	125	245	100		
ZXQKG125	125	50	144.08	160	285	200		
ZXQKG150	150	50	150.9	200	330	200		

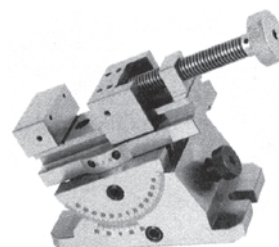


Прецизно двойно-накланящо менгеме, SZXQGG75



Прецизно универсално менгеме, CHM

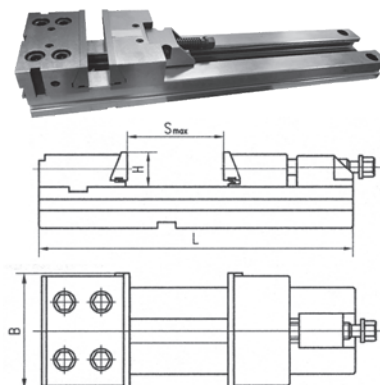
Кат. №	B mm	H mm	Smax mm	цена лв.
CHM80	70	30	80	
CHM120	120	40	155	



Прецизно менгеме модулно

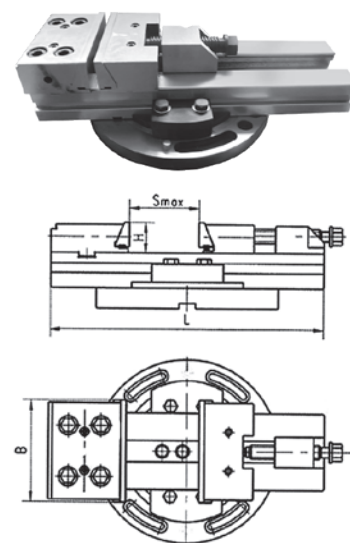
- твърдостта на работната повърхност достига HRC58 ~ 62
- паралелизъм 0.005mm/100mm

Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
GT100- I	100	30	100	270	
GT125- I	125	40	150	345	
GT150A- I	150	50	200	420	
GT150B- I	150	50	300	520	
GT150C- I	150	50	400	620	
GT175A- I	175	60	200	455	
GT175B- I	175	60	300	555	
GT175C- I	175	60	400	655	
GT175D- I	175	60	500	755	
GT175E- I	175	60	600	855	
GT200A- I	200	65	200	495	
GT200B- I	200	65	300	595	
GT200C- I	200	65	400	695	
GT200D- I	200	65	500	795	
GT200E- I	200	65	600	895	
GT300A- I	300	80	200	535	
GT300B- I	300	80	300	635	
GT300C- I	300	80	400	735	
GT300D- I	300	80	500	835	
GT300E- I	300	80	600	935	
GT300F- I	300	80	700	1035	
GT300G- I	300	80	800	1135	



Прецизно менгеме модулно с въртяща маса

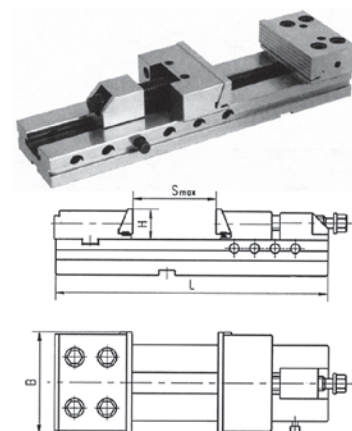
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
GT100- II	100	30	100	270	
GT125- II	125	40	150	345	
GT150A- II	150	50	200	420	
GT150B- II	150	50	300	520	
GT150C- II	150	50	400	620	
GT175A- II	175	60	200	455	
GT175B- II	175	60	300	555	
GT175C- II	175	60	400	655	
GT175D- II	175	60	500	755	
GT175E- II	175	60	600	855	
GT200A- II	200	65	200	495	
GT200B- II	200	65	300	595	
GT200C- II	200	65	400	695	
GT200D- II	200	65	500	795	
GT200E- II	200	65	600	895	
GT300A- II	300	80	200	535	
GT300B- II	300	80	300	635	
GT300C- II	300	80	400	735	
GT300D- II	300	80	500	835	
GT300E- II	300	80	600	935	
GT300F- II	300	80	700	1035	
GT300G- II	300	80	800	1135	



Бързозатягащо прецизно менгеме модулно

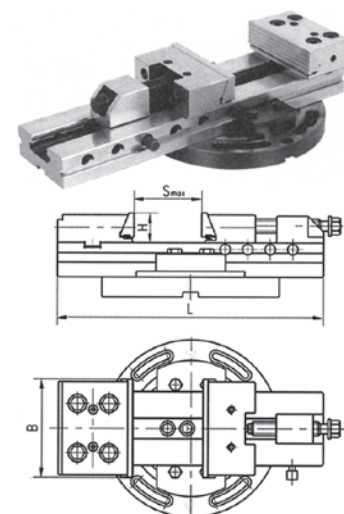
- паралелизъм 0.005mm/100mm

Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
GT125- III	125	40	150	345	
GT150A- III	150	50	200	420	
GT150B- III	150	50	300	520	
GT175C- III	175	60	400	655	



Бързозатягащо прецизно менгеме модулно с въртяща маса

Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
GT125- IV	125	40	150	345	
GT150A- IV	150	50	200	420	
GT150B- IV	150	50	300	520	
GT175C- IV	175	60	400	655	

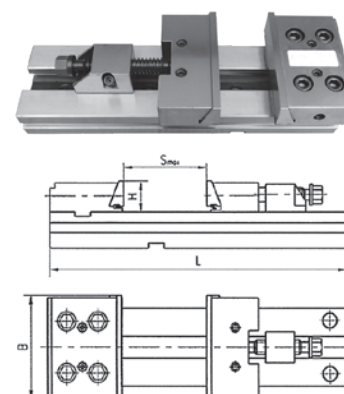


Прецизно хоризонтално-вертикално менгеме, ZQ80

- паралелизъм 0.005mm/100mm

- перпендикулярност 0.005mm

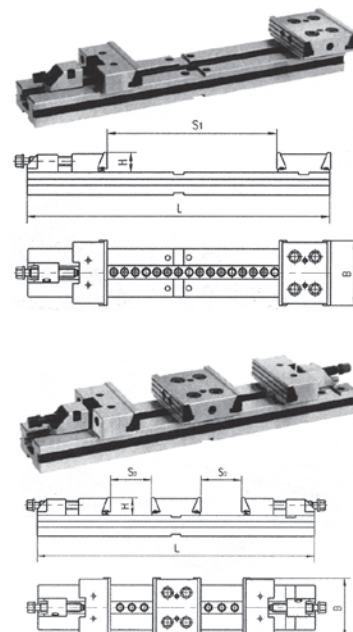
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
ZQ80100	100	30	100	270	
ZQ80125	125	40	150	345	
ZQ80150	150	50	200	420	
ZQ80150A	150	50	300	520	
ZQ80175	175	60	200	455	
ZQ80175A	175	60	300	555	
ZQ80175B	175	60	400	655	
ZQ80175C	175	60	500	755	
ZQ80200	200	65	200	495	
ZQ80200A	200	65	300	595	
ZQ80200B	200	65	400	695	
ZQ80200C	200	65	500	795	
ZQ80200D	200	65	600	895	



Единично-дълго и двойно отварящо менгеме, ZQ83

- твърдостта на работната повърхност достига HRC58 - 62
- паралелизъм 0.005mm/100mm

Кат. №	S1 mm	Кат. №	S2 mm	B mm	H mm	L mm	цена лв.
ZQ83100	290	ZQ83100 (I)	2x90	100	30	460	
ZQ83125	320	ZQ83125 (I)	2x100	125	40	520	
ZQ83150	360	ZQ83150 (I)	2x110	150	50	580	
ZQ83150A	460	ZQ83150A (I)	2x160	150	50	680	
ZQ83175	400	ZQ83175 (I)	2x120	175	60	666	
ZQ83175A	500	ZQ83175A (I)	2x170	175	60	766	
ZQ83175B	600	ZQ83175B (I)	2x220	175	60	866	
ZQ83175C	700	ZQ83175C (I)	2x270	175	60	966	
ZQ83200	500	ZQ83200 (I)	2x150	200	65	805	
ZQ83200A	600	ZQ83200A (I)	2x200	200	65	905	
ZQ83200B	700	ZQ83200B (I)	2x250	200	65	1005	
ZQ83200C	800	ZQ83200C (I)	2x300	200	65	1105	
ZQ83200D	900	ZQ83200D (I)	2x350	200	65	1205	

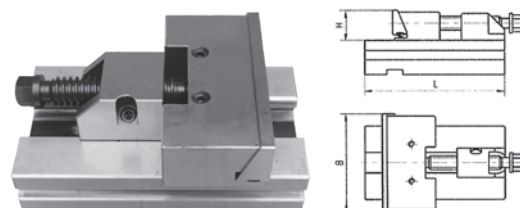


Модули

- твърдостта на работната повърхност достига HRC58 - 62
- паралелизъм 0.005mm/100mm
- перпендикулярност 0.005mm

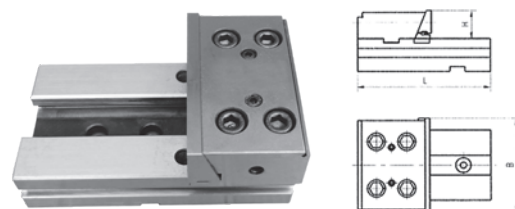
Подвижна челюст

Кат. №	L mm	B mm	H mm	цена лв.
ZQ84100- I	140	100	30	
ZQ84125- I	160	125	40	
ZQ84150- I	230	150	50	
ZQ84175- I	240	175	60	
ZQ84200- I	300	200	65	



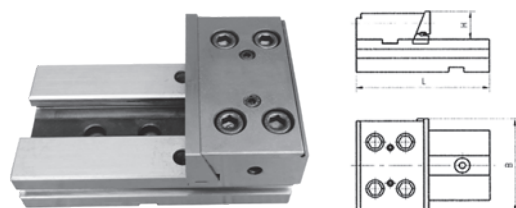
Фиксирана челюст

Кат. №	L mm	B mm	H mm	цена лв.
ZQ84100- II	140	100	30	
ZQ84125- II	160	125	40	
ZQ84150- II	230	150	50	
ZQ84175- II	240	175	60	
ZQ84200- II	300	200	65	



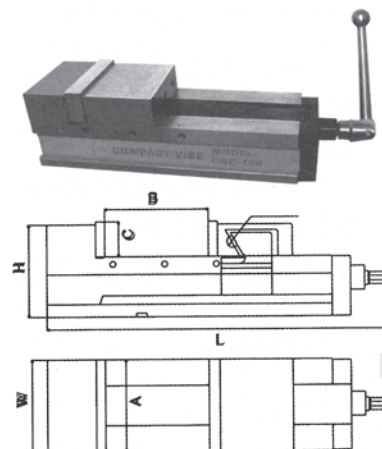
Двойно фиксирана челюст

Кат. №	L mm	B mm	H mm	цена лв.
ZQ84100- III	140	100	30	
ZQ84125- III	160	125	40	
ZQ84150- III	230	150	50	
ZQ84175- III	240	175	60	
ZQ84200- III	300	200	65	



Менгеме, серия за CNC машини

Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
CNC 100	100	48	125	430	
CNC 130	130	55	240	495	
CNC 160	160	58	240	585	
CNC 200	200	63	280	670	



Универсално силово менгеме, ZQ53

- направено от легирана стомана
- твърдостта на работната повърхност достига HRC58 - 62
- паралелизъм 0.005mm/100mm
- перпендикулярност 0.005mm
- широко използвана на машинни центри и други прецизни машинни инструменти

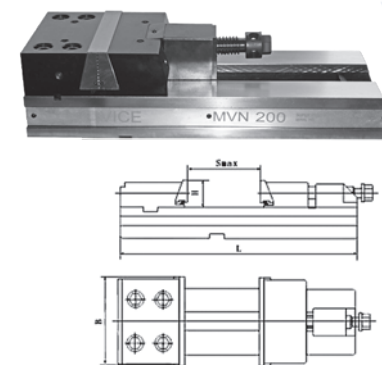
Кат. №	Ширина на челюст mm	Дълбочина на челюст mm	Макс. отваряне mm	Дължина mm	Външен размер mm	цена лв.
ZQ53100	100	48.5	125	532	2500	
ZQ53130	130	53	180	580	3500	
ZQ53160	160	63	240	680	5500	
ZQ53200	200	63	280	732	5500	



Прецизно менгеме, MVN

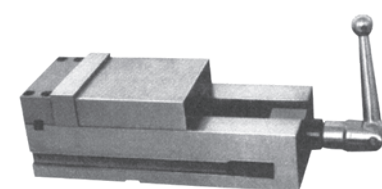
- направено от легирана стомана
- твърдостта на работната повърхност достига HRC58 - 62
- паралелизъм $\leq 0.015\text{mm}/100\text{mm}$
- перпендикулярност $\leq 0.003\text{mm}$

Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
MVN125	124	40	140	323	
MVN150	149	52	210	423	
MVN175	174	58	240	470	
MVN200	199	66	270	520	
MVN250	249	74	340	600	



Менгеме, QM16N

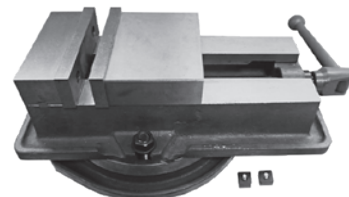
Кат. №	B mm	H mm	Smax mm	L mm	цена лв.
QM1680N	80	24	75	256	
QM16100N	100	32	100	305	
QM16160N	160	45	140	438	
QM16200N	200	50	190	517	
QM16250N	250	70	250	656	



Менгеме с въртяща маса, с чугунен корпус, QM

- паралелизъм 0.025mm/100mm
- перпендикулярност 0.025mm

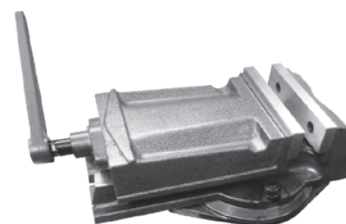
Кат. №	Ширина на челюст mm	Височина на челюст mm	Макс. отваряне mm	цена лв.
QM161100	100	32	100	
QM161125	125	40	125	
QM161160	160	45	140	
QM161200	200	50	190	



Менгеме чугунено, QH (Q12)

- паралелизъм 0.025mm/100mm
- перпендикулярност 0.025mm

Кат. №	Ширина на челюст mm	Височина на челюст mm	Макс. отваряне mm	цена лв.
QH80	80	32	63	
QH100	100	35	80	
QH125	125	40	100	
QH160	160	52	125	
QH200	200	63	160	



Менгеме синусово с чугунен корпус, QHK (Q41)

- паралелизъм 0.025mm/100mm
- перпендикулярност 0.025mm

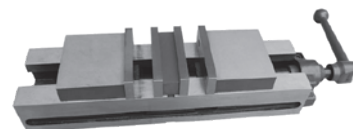
Кат. №	Ширина на челюст mm	Височина на челюст mm	Макс. отваряне mm	цена лв.
QHK100	100	41	80	
QHK125	125	46	100	
QHK125L	125	46	140	
QHK160	160	50	125	



Двойно затягащо менгеме за 2 детайла, Q93

- твърдостта на работната повърхност достига HRC50 - 60
- паралелизъм 0.025mm/100mm
- перпендикулярност 0.025mm

Кат. №	Ширина на челюст mm	Височина на челюст mm	Макс. отваряне mm	цена лв.
Q93100	100	35	76	
Q93160	160	50	100	



Менгеме шлосерско

Маса kg	цена лв.
16	
26	
36	



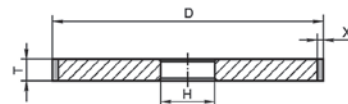
АБРАЗИВНИ ИНСТРУМЕНТИ

Диамантени и CBN инструменти на органична свързка - Форма 1A1

Използване: диамантени и елборни шайби за кръгло, плоско и безцентрово шлифование.

D mm	T mm	H mm	X mm	цена лв.
25	10	8	3	
40	6	20	3	
40	10	13	3	
40	10	16	3	
40	10	20	3	
50	6	20	3	
50	10	16	3	
50	10	20	3	
75	6	20	3	
80	4	10	3	
80	6	20	3	
80	6	32	3	
80	8	20	3	
80	10	20	3	
100	5	20	3	
100	5	20	10	
100	5	32	3	
100	6	20	3	
100	6	20	5	
100	6	20	10	
100	6	31.75	5	
100	6	32	3	
100	8	20	3	
100	8	20	10	
100	8	32	3	
100	10	20	3	
100	10	20	5	
100	10	32	3	
100	12	20	3	
100	12	20	5	
100	15	20	3	
100	16	20	3	
100	20	20	3	
100	60	32	3	
110	13	31.75	5	
115	5	32	6	
125	3	32	3	
125	5	20	2	
125	5	20	5	
125	5	32	3	
125	6	31.75	5	
125	6	32	3	
125	6	32	5	
125	6.5	31.75	5	
125	8	32	5	
125	10	19.05	5	
125	10	20	3	
125	10	20	5	

D mm	T mm	H mm	X mm	цена лв.
125	10	32	3	
125	10	32	5	
125	12	20	5	
125	12	20	10	
125	15	20	5	
125	15	32	5	
125	20	32	3	
130	13	31.75	5	
150	5	31.75	6	
150	5	32	3	
150	6	20	3	
150	6	31.75	3	
150	6	32	3	
150	6	32	5	
150	10	12.7	3	
150	10	20	3	
150	10	31.75	3	
150	10	31.75	5	
150	10	32	3	
150	10	32	5	
150	12	31.75	5	
150	13	31.75	5	
150	20	32	3	
150	20	32	5	
175	6	31.75	5	
175	8	31.75	5	
175	10	31.75	5	
175	13	31.75	5	
175	13	32	5	
175	50	76	5	
180	10	31.75	5	
180	13	31.75	5	
180	15	31.75	5	
200	5	76	3	
200	6	31.75	5	
200	6	76	5	
200	10	31.75	5	
200	10	32	3	
200	10	32	5	
200	10	51	3	
200	10	51	5	
200	10	60	5	
200	10	76	3	
200	10	76	5	
200	10	76	5	
200	15	51	5	
200	20	32	3	
200	20	32	5	



D mm	T mm	H mm	X mm	цена лв.
200	20	76	3	
200	20	76	5	
200	25	32	5	
200	40	76	5	
250	10	51	3	
250	10	76	3	
250	10	76	5	
250	10	127	3	
250	16	51	5	
250	16	76	5	
250	16	127	5	
250	20	76	5	
250	25	76	5	
250	40	76	5	
300	10	76	5	
300	15	76	3	
300	15	76	5	
300	16	127	5	
300	20	76	5	
300	20	127	5	
300	30	127	5	
300	40	76	5	
300	40	127	5	
350	10	127	5	
350	16	76	5	
350	16	127	5	
350	20	127	5	
350	25	127	5	
350	30	127	5	
350	30	150	5	
350	40	127	5	
350	40	150	5	
400	10	127	5	
400	15	127	5	
400	15	203	5	
400	20	127	5	
400	20	127	5	
400	25	127	5	
400	25	203	5	
400	30	203	5	
400	40	127	5	
400	40	203	5	

Диамантени и CBN инструменти на органична свързка - Форма 1A1R

Използване: рязане на твърдосплавни и неметални заготовки, профилно шлайфане.

D mm	T mm	H mm	X mm	цена лв.
50	1.5	12	5	
75	0.8	20	5	
100	0.8	20	5	
100	1	20	5	
125	0.8	32	5	
125	1	25	5	
125	1	32	5	
125	1.2	20	5	
125	1.2	32	5	
150	0.8	32	5	
150	1	20	5	

D mm	T mm	H mm	X mm	цена лв.
150	1	32	5	
150	1.2	20	5	
150	1.2	32	5	
150	1.5	32	5	
175	1.5	32	5	
200	1	32	5	
200	1	50	4	
200	1	50	5	
200	1.2	32	5	
200	1.2	32	5	
200	1.5	32	5	



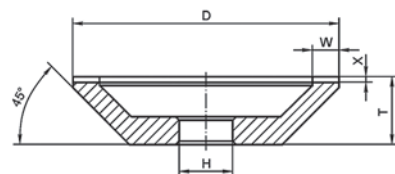
D mm	T mm	H mm	X mm	цена лв.
200	2	32	5	
250	1.2	32	5	
300	1.5	32	5	
300	2.2	32	5	
350	1.5	127	5	
350	1.9	127	5	

Диамантени и CBN инструменти на органична свързка - Форма 12A2-45°

Използване: диамантени и елборни шайби за заточване на режещи твърдосплавни инструменти.

D mm	T mm	H mm	W mm	X mm	цена лв.
50	20	16	3	3	
50	21	16	3	2	
50	23	16	3	6	
75	25	20	3	3	
75	25	20	5	3	
75	28	20	3	6	
75	28	20	6	3	
80	25	20	3	3	
80	25	20	5	3	
100	32	20	3	3	
100	32	20	5	3	
100	32	20	10	3	
100	32	25	10	3	
100	32	32	5	3	
100	35	20	5	6	
125	32	20	3	3	
125	32	20	5	3	
125	32	20	10	3	
125	32	32	3	3	
125	32	32	5	3	
125	32	32	10	3	
125	32	32	10	6	
125	35	20	5	6	

D mm	T mm	H mm	W mm	X mm	цена лв.
125	35	20	10	6	
125	35	32	3	6	
125	35	32	5	6	
125	35	32	10	6	
125	40	32	5	3	
125	40	32	10	3	
125	42	32	5	5	
125	42	32	10	5	
150	26	32	6	3	
150	32	32	5	3	
150	32	32	6	3	
150	32	32	10	3	
150	32	32	20	3	
150	32	51	20	3	
150	35	32	3	6	
150	35	32	5	6	
150	35	32	10	6	
150	40	32	5	3	
150	40	32	10	3	
150	40	32	20	3	
150	42	32	5	5	
150	42	32	10	5	



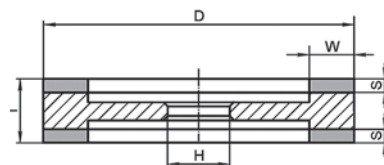
D mm	T mm	H mm	W mm	X mm	цена лв.
150	42	32	20	5	
200	26	51	20	3	
200	40	32	10	3	
200	40	32	20	3	
200	40	51	10	3	
200	40	51	20	3	
200	43	32	10	6	
200	43	51	10	6	
200	43	51	20	6	
200	50	32	10	3	
200	50	32	20	3	
200	50	51	10	3	
200	50	51	20	3	
200	52	32	10	5	
200	52	32	20	5	
200	52	51	10	5	
200	52	51	20	5	
200	52	75	10	5	

АБРАЗИВНИ ИНСТРУМЕНТИ

Диамантени и CBN инструменти на органична свързка - Форма 9A3

Използване: диамантени и елборни шайби за заточване на режещи твърдосплавни инструменти, шлифование на чела на заготовки.

D mm	T mm	H mm	W mm	S mm	цена лв.
100	20	20	5	2	
150	20	32	10	3	
200	20	32	10	3	
200	20	32	20	3	
200	20	76	10	3	

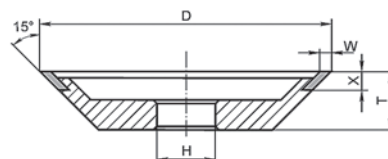


Диамантени и CBN инструменти на органична свързка - Форма 12V9-45°

Използване: диамантени и елборни шайби за заточване на режещи твърдосплавни инструменти, профилно шлифование.

D mm	T mm	H mm	X mm	W mm	цена лв.
75	20	20	10	2	
75	20	20	10	2	
100	20	20	10	2	
100	20	20	10	2	
100	20	20	10	3	

D mm	T mm	H mm	X mm	W mm	цена лв.
125	25	20	10	2	
125	25	20	10	2	
125	25	20	10	3	
150	25	32	10	2	

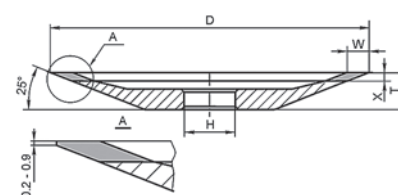


Диамантени и CBN инструменти на органична свързка - Форма 12R4

Използване: диамантени и елборни шайби за заточване на режещи твърдосплавни инструменти, заточване по преден ъгъл на циркуляри с твърдосплавни зъби.

D mm	T mm	H mm	W mm	X mm	цена лв.
50	6	16	2	1.5	
75	10	20	2	3	
75	10	25	2	3	
80	10	20	2	3	
80	10	20	2	3	
100	10	20	2	3	
100	10	20	3	3	
100	10	25	3	3	
100	10	25	3	3	
100	10	32	2	3	
100	10	32	3	3	

D mm	T mm	H mm	W mm	X mm	цена лв.
125	12	32	2	3	
125	12	32	3	2	
125	12	32	4	3	
125	13	32	2	3	
125	13	32	3	2	
125	13	32	4	3	
150	16	20	5	3	
150	16	32	3	5	
150	16	32	5	3	
150	16	32	5	5	

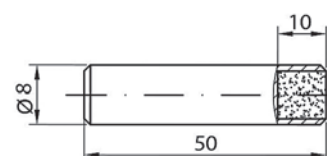


Диамантени многозърнести изравнители - Диамантен молив тип "Н"

Равномерно разпределен диамант в обема на изравнителя

Модел	Зърненост на диаманта	цена лв.
H1-0	45/38M	
H1-1	53/45M	
H1	63/50M	
H2	100/80M	
H3	160/125M	

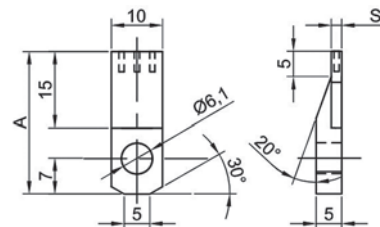
Модел	Зърненост на диаманта	цена лв.
H4	250/200M	
H5	400/315M	
H6	630/500M	
H7	700/600M	
H8	800/700M	



Размери на изравнителя:
Ø8x40
Ø10x60

Диамантени многозърнести изравнители - Диамантени плочки

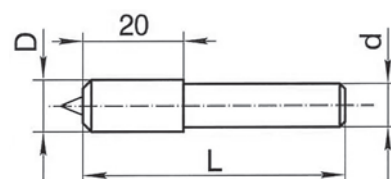
В ширина на плочката mm	Е mm	Т дебелина на диамант. слой mm	Л дължина на плочката mm	цена лв.
10	10/15	0.75	28/33	
15	10	0.90	28	
20	10	1.11	33	



Диамантени еднозърнести изравнители - Тип II

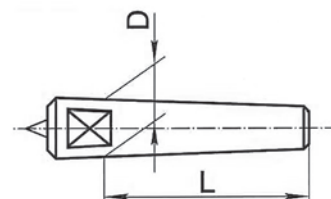
D mm	d mm	L mm	цена лв.
12	8	50	
12	8	60	
12	10	50	
12	10	60	

D mm	d mm	L mm	цена лв.
14	10	50	
14	10	60	



Диамантени еднозърнести изравнители - Тип III

конус	D mm	L mm	A x B	цена лв.
МК0	9.045	31.5	12 x 16	
МК1	12.065	49	14 x 20	

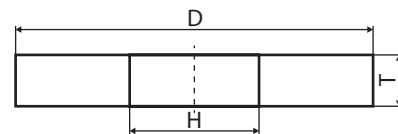


АБРАЗИВНИ ИНСТРУМЕНТИ

Абразивни дискове с керамична свързка

D mm	T mm	H mm	цена лв.
125	10	20	
125	13	20	
125	16	20	
125	20	20	
125	25	20	
125	10	32	
125	13	32	
125	16	32	
125	20	32	
125	25	32	
150	10	20	
150	13	20	
150	16	20	
150	20	20	
150	25	20	
150	10	32	
150	13	32	
150	16	32	
150	20	32	
150	25	32	
200	20	20	
200	25	20	
200	32	20	
200	40	20	
200	20	32	
200	25	32	
200	32	32	
200	40	32	
250	20	32	
250	25	32	
250	32	32	
250	40	32	

D mm	T mm	H mm	цена лв.
250	20	76	
250	25	76	
250	32	76	
250	40	76	
300	25	32	
300	32	32	
300	40	32	
300	50	32	
300	25	76	
300	32	76	
300	40	76	
300	50	76	
300	25	127	
300	32	127	
300	40	127	
300	50	127	
350	32	76	
350	40	76	
350	50	76	
350	63	76	
350	100	76	
350	32	127	
350	40	127	
350	50	127	
350	63	127	
350	100	127	
400	40	127	
400	50	127	
400	63	127	
400	80	127	
400	100	127	
400	40	203	



D mm	T mm	H mm	цена лв.
400	50	203	
400	63	203	
400	80	203	
400	100	203	
450	40	127	
450	50	127	
450	63	127	
450	80	127	
450	100	127	
450	40	203	
450	50	203	
450	63	203	
450	80	203	
450	100	203	
500	63	203	
500	80	203	
500	100	203	
500	150	203	
500	250	203	
600	63	305	
600	80	305	
600	100	305	
600	150	305	
600	250	305	
750	80	305	
750	100	305	

Ключ гаечен

Размер	L mm	цена лв.
5x6	123	
5x7	123	
5.5x7	123	
6x8	123	
6x7	123	
7x8	123	
8x9	141	
8x10	141	
9x11	157	
10x11	157	
10x12	157	
10x13	172	
11x13	172	
11x12	172	
12x13	172	
12x14	180	
13x14	180	
13x17	195	
14x15	190	

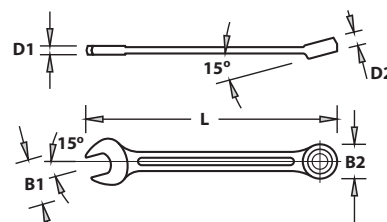
Размер	L mm	цена лв.
14x17	195	
15x16	190	
16x17	205	
16x18	205	
17x19	220	
17x21	220	
18x19	220	
19x21	236	
19x22	236	
19x24	246	
20x22	236	
21x23	246	
21x26	255	
22x24	246	
23x26	255	
24x26	255	
24x27	259	
24x30	286	
25x28	279	



Размер	L mm	цена лв.
26x29	286	
26x32	286	
27x29	286	
27x30	286	
27x32	286	
30x32	297	
30x34	350	
32x36	350	
34x36	350	
36x41	380	
38x42	380	
41x46	415	
46x50	465	
50x55	480	

Ключ звездогаечен

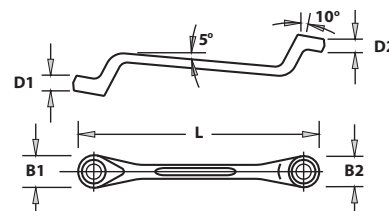
Размер	B ₁ mm	B ₂ mm	D ₁ mm	D ₂ mm	L mm	цена лв.
6	18.5	12	3.6	5.5	102.5	
7	20	13	3.6	5.5	112.2	
8	21	15	4.1	5.9	122.3	
9	23	16	4.3	6.5	132.5	
10	25	18	4.7	7	142.6	
11	27.2	19	5.1	7.5	153	
12	29.3	20	5.3	8	163	
13	31.4	22	5.9	8.5	173.3	
14	33.4	24	5.9	9	183.5	
15	35.5	25	6.2	9.3	193.6	
16	37.5	26.2	6.2	9.7	204	
17	39.5	28.2	6.5	10.4	214	
18	41.5	29.2	6.8	10.9	224	
19	43.5	31.5	7	11.4	234.5	
21	47.7	33.5	7.4	12.4	255	
22	50	35.5	8	13.3	265	
23	51.8	36.5	8.2	13.5	275	



Размер	B ₁ mm	B ₂ mm	D ₁ mm	D ₂ mm	L mm	цена лв.
24	54.8	38.5	8.4	14	285	
27	62	43.5	9	15.3	323.7	
30	66.5	46.3	9.8	16.8	346.1	
32	69	48.5	10.2	17.8	358.8	
36	74	55.4	12.2	20.9	388	
41	82.3	60	14.1	21.1	433	
46	95.2	71.6	16.5	25.2	540	

Ключ лула

Размер	B ₁ mm	B ₂ mm	D ₁ mm	D ₂ mm	L mm	цена лв.
6x7	14	12.6	7	6.4	179.8	
8x9	13.9	14.9	6.5	6.7	191.8	
10x11	16.7	18.4	8.3	8.6	197.1	
12x13	18.9	20.1	8.3	9.2	214.4	
14x15	21.9	23.1	9.1	9.9	227.9	
16x17	25.2	26.3	9.4	9.7	244.8	
18x19	27	27.5	11.1	11.4	261.9	
20x22	30.5	34.5	11.8	13.1	289.7	
21x23	31	35	13.4	13.9	313	
24x27	36.9	39.8	13.7	14.5	335	
25x28	36.5	39.6	13.2	14	355	
30x32	44.3	47.6	13.7	15.7	374	



Размер	B ₁ mm	B ₂ mm	D ₁ mm	D ₂ mm	L mm	цена лв.
36x41	54.9	61.9	20.7	21.1	450	
41x46	63.5	71.1	20.8	22.1	501	

“Гедоре” FORCE

Брой елементи в комплект	цена лв.
180	



Шестограми Г-образни

Брой елементи	цена лв.
9	



Шестограми Г-образни за работа под ъгъл

Брой елементи	цена лв.
9	



Шестограми Г-образни “TORX”

Брой елементи	цена лв.
15	



Пила плоска

L mm	цена, лв.		
	I-ва насечка	II-ра насечка	III-та насечка
100			
150			
200			
250			
300			



Пила обла

L mm	цена, лв.		
	I-ва насечка	II-ра насечка	III-та насечка
100			
150			
200			
250			
300			



Пила полуобла

L mm	цена, лв.		
	I-ва насечка	II-ра насечка	III-та насечка
100			
150			
200			
250			
300			



Пила триъгълна

L mm	цена, лв.		
	I-ва насечка	II-ра насечка	III-та насечка
100			
150			
200			
250			
300			



Отвертка плоска

Тип	l mm	L mm	цена лв.
5.5	125	230	
6.5	150	265	
8	150	275	
10	200	325	
12	200	325	



Отвертка кръстата

Тип	l mm	L mm	цена лв.
PZ.1	80	185	
PZ.2	100	215	
PZ.3	150	275	
PH.1	80	185	
PH.2	100	215	
PH.3	150	275	



Клещи комбинирани

L mm	цена лв.
160	
180	
200	



Клещи резачки

L mm	цена лв.
160	
200	



Клещи за зегерки - външни

Обхват mm	цена лв.	Обхват mm	цена лв.
8-25		40-100	
19-60		85-165	



Клещи за зегерки - вътрешни

Обхват mm	цена лв.	Обхват mm	цена лв.
8-25		40-100	
19-60		85-165	



Клещи за зегерки, извити - външни

Обхват mm	цена лв.	Обхват mm	цена лв.
8-25		40-100	
19-60		85-165	



Клещи за зегерки, извити - вътрешни

Обхват mm	цена лв.	Обхват mm	цена лв.
8-25		40-100	
19-60		85-165	



Тръбен ключ

L mm	Размер на захвата	цена лв.
330	1"	
420	1.1/2"	
530	2"	



Чук с ергономична дръжка

Тегло g	L mm	цена лв.
100	275	
200	280	
300	300	
400	310	
500	320	

Тегло g	L mm	цена лв.
600	330	
800	350	
1000	360	
1500	380	
2000	400	



Чук гумен

Тегло g	L mm	цена лв.
350	262	
520	280	

Тегло g	L mm	цена лв.
690	300	
940	320	





МОНИ ЕООД

5300 Габрово, ул. Тотю Бенов 7

Моб.: 0894 451 390

e-mail: i_mony@mail.bg

www.instrumenti-moni.com