	D	a	Description	Code	Page
	12 - 25	3	MOULDMAKER PR06E01N	PR06E01N	116
	16 - 30	4	MOULDMAKER PR08E01N	PR08E01N	117
	20 - 42	5	MOULDMAKER PR10E01N	PR10E01N	118
	24 - 42	6	MOULDMAKER PR12E01N	PR12E01N	119
	32	8	MOULDMAKER PR16E01N	PR16E01N	120
	52 - 66	5	MOULDMAKER PR10D10N	PR10D10N	121
	52 - 80	6	MOULDMAKER PR12D10N	PR12D10N	122
	52 - 160	8	MOULDMAKER PR16D10N	PR16D10N	123
	16	4	MOULDMAKER PLUS PR08E01P	PR08E01P	124
	20 - 42	5	MOULDMAKER PLUS PR10E01P	PR10E01P	125
	24 - 42	6	MOULDMAKER PLUS PR12E01P	PR12E01P	126
	32 - 42	8	MOULDMAKER PLUS PR16E01P	PR16E01P	127
	52	5	MOULDMAKER PLUS Copy Face Mill PR10D10P	PR10D10P	128
	52 - 80	6	MOULDMAKER PLUS PR12D10P	PR12D10P	129

Subject to printing error or technical changes.

	D	a	Description	Code	Page
	52 - 160	8	MOULDMAKER PLUS PR16D10P	PR16D10P	130
	66 - 160	10	MOULDMAKER PLUS PR20D10P	PR20D10P	131
	20 - 35	2,5	BLADEMAKER+ PR10E01BM+	PR10E01BM+	132
	25 - 35	3	BLADEMAKER+ PR12E01BM+	PR12E01BM+	133
	40 - 63	2,5	BLADEMAKER+ PR10D10BM+	PR10D10BM+	134
	40 - 80	3	BLADEMAKER+ PR12D10BM+	PR12D10BM+	135
	24 - 42	6	MOULDMAKER PRO PR12E01CC	PR12E01CC	136
	32 - 42	8	MOULDMAKER PRO PR16E01CC	PR16E01CC	137
	50 - 80	6	MOULDMAKER PRO PR12D10CC	PR12D10CC	138
	50 - 160	8	MOULDMAKER PRO PR16D10CC	PR16D10CC	139
	16 - 42	1	MOULDMAKER V KC06E01	KC06E01	140
	25 - 42	2	MOULDMAKER V KC11E01	KC11E01	141
	52 - 100	2	MOULDMAKER V KC11D10	KC11D10	142
	16 - 42	5 - 8	PLUNGE MASTER BSE01C 90°	BSE01C	143

Subject to printing error or technical changes.

	D	a	Description	Code	Page
	16 - 42	5 - 8	PLUNGE MASTER BSE01B 93,2°	BSE01B	144
	20 - 42	3,8	ECO 6 BW04E01	BW04E01	145
	50 - 160	-	L-PRO BL13D10	BL13D10	146
	50 - 160	11,9	HIPOS QUAD PSP13D10	PSP13D10	147
	10,6 - 32,4	1	HFD MINI KP05E01	KP05E01	148
	30,4 - 56,4	1	HFD MINI KP05D10	KP05D10	149
	7,4 - 33,4	0,8	TRI FEED PW06E01	PW06E01	150
	23,4 - 43,4	0,8	TRI FEED PW06D10	PW06D10	151
	21,5 - 28,5	1,5	HIFEED DEKA KP08E01	KP08E01	152
	36,5 - 66,4	1,5	HIFEED DEKA KP08D10	KP08D10	153
	12,9 - 29,8	1,5	HIFEED QUAD PS09E02	PS09E02	154
	37,8 - 72,8	1,5	HIFEED QUAD PS09D10	PS09D10	155
	11 - 21	2	HIFEED QUAD PS13E02	PS13E02	156
	29 - 79	2	HIFEED QUAD PS13D10	PS13D10	158

Subject to printing error or technical changes.

	D	a	Description	Code	Page
	48,6 - 128,6	3	HIFEED QUAD PS19D10	PS19D10	160
	2 - 16	4 - 16	SOLID CARBIDE 2 Flute Ball Nose 30° Helix - Short Length		161
	2 - 10	3 - 8	SOLID CARBIDE 2 Flute Ball Nose 30° Helix - Long Length		162
	3 - 20	8 - 50	SOLID CARBIDE HPC rougher & finisher unequally spaced		163
	5 - 20	5 - 20	SOLID CARBIDE 4-7 Flute Roughers - 45° Helix - 1xD		164
	5 - 20	10 - 40	SOLID CARBIDE 4-7 Flute Roughers - 45° Helix - 2xD		165
	6 - 20	12 - 40	SOLID CARBIDE 4-7 Flute Roughers - 45° Helix - 3xD		166
	8 - 16	12 - 24	SOLID CARBIDE 4-5 Flute Roughers - 45° Helix - 4xD		167
	6 - 25	14 - 52	SOLID CARBIDE 4 Flute roughing and finishing - 45 Helix		168
	2 - 20	7 - 38	SOLID CARBIDE 3 Flute Slot Drill 45° Helix - DIN 6535HA		169
	6 - 20	16 - 38	SOLID CARBIDE 3 Flute Slot Drill 45° Helix - DIN 6535HB		170
	6 - 20	24 - 60	SOLID CARBIDE 4-6 Flute End Mill 45° Helix - Long Length		171
	10 - 20	60 - 80	SOLID CARBIDE 4-6 Flute End Mill 45° Helix - Extra Long Length		172
	6 - 20	16 - 38	SOLID CARBIDE 6 Flute End Mill - 45° Helix - Medium Length (finishing)		173

Subject to printing error or technical changes.

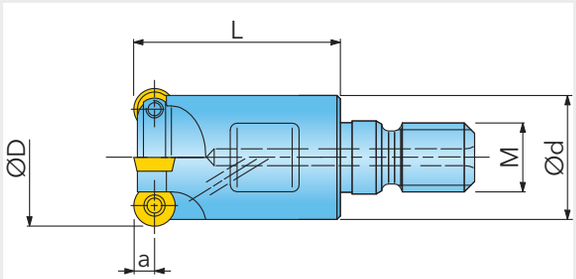
	D	a	Description	Code	Page
	6 - 25	26 - 92	**SOLID CARBIDE** 6 Flute End Mill - 45° Helix - Long Length (finishing)		174
	6 - 20	9 - 17	**SOLID CARBIDE** 3 Flute End Mill 45° Helix short length (roughing)		175
	6 - 20	9 - 22	**SOLID CARBIDE** 3 Flute End Mill 45° Helix long length (roughing)		176
	4 - 20	12 - 38	**SOLID CARBIDE** 2 Flute Aluminium Slot Drill - 45° Helix - Medium Length		177
	5 - 20	14 - 38	**SOLID CARBIDE** 3 Flute End Mill 45° Helix with corner radius		178
	3 - 12	30 - 75	**SOLID CARBIDE** 4 Flute End Mill - 30° Helix - Extra Long Length		179
	6 - 20	10 - 26	**ECOLINE** High speed Cutter Z=4 short version		180
	6 - 20	13 - 41	**ECOLINE** High speed Cutter Z=4 long version		181
	6 - 20	19 - 48	**ECOLINE** High speed Cutter Z=4 very long version		182
	0,3 - 2	0,25 - 1,7	**INROCKWELL** High-precision ball nose end mill		184
	2 - 12	2,5 - 18	**INBALLNOSE** Ball nose end mill Z=3		186
	4 - 10	6 - 15	**INBALLNOSE** Ball nose end mill Z=3		187
	4 - 16	5 - 18	**INRAPID** HSC ball nose end mill Z=4		188
	1 - 8	2 - 10	**INSLOT** Tapered, robust ball nose end mill Z=2		190

Subject to printing error or technical changes.

	D	a	Description	Code	Page
	2 - 12	2 - 6	INCOOLANT HSC end mill with corner radius Z=4		192
	2 - 12	2 - 6	INCOOLANT HSC end mill with corner radius Z=4		193
	4 - 12	6 - 18	INTURBO Hi feed endmill Z=4/2 (with reduced neck diameter)		194
	4 - 16	4 - 12	INCOOLANT High-speed end mill Z=3		195
	6 - 25	13 - 40	INNOVATIVE HPC end mill Z=4		196
	6 - 25	13 - 40	INNOVATIVE HPC end mill Z=5		197
	5 - 25	13 - 50	INNOTITAN HPC Titanium End Mill Z=4		198
	6 - 20	13 - 42	INNOTITAN HPC Titanium End Mill Z=5		200
	8 - 20	12 - 30	INNOVATIVEALU Serrated roughing end mill Z=3		201
	8 - 20	12 - 30	INNOVATIVEALU HPC end mill Z=3 (ALU)		202
	8 - 20	12 - 30	INNOVATIVEALU HPC end mill Z=4 (ALU)		203
	6 - 20	6 - 15	INCERAMIC HighSpeed Z=3		204

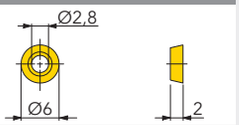
Subject to printing error or technical changes.

SCREW-IN TYPE ADAPTION



Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.012.001	12	11,8	28	3	M6	2	6	10	✓	0,02
PR.012.002	12	13	28	3	M8	2	6	10	✓	0,02
PR.016.001	16	13	23	3	M8	3	6	8	✓	0,02
PR.020.001	20	18	30	3	M10	4	6	8	✓	0,06
PR.025.001	25	21	35	3	M12	5	6	5	✓	0,10
Neutral design										

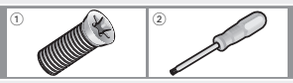
RHHW0602M0TN



Designation	fz(min/max)	Design	Grade	IN2004	IN2005	IN2006					
RHHW0602M0TN	0,20/0,30	neutral geometry, K-land									

● = P ● = M ● = K ● = N ● = S ○ = H

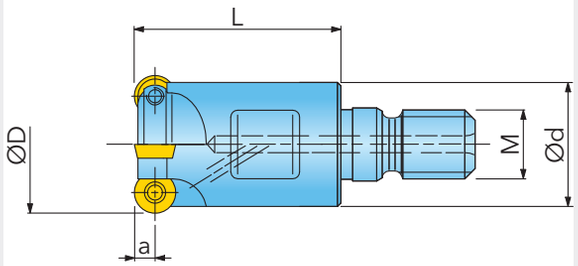
SPARE PARTS



SM25-049-00 (1,1Nm) DS-T08S

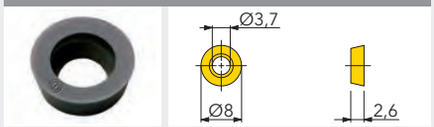
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

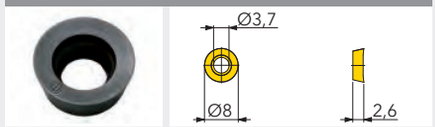


Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.016.002	16	13	23	4	M8	2	8	2	✓	0,02
PR.030.001	30	29	43	4	M16	5	8	7	✓	0,19
Neutral design										

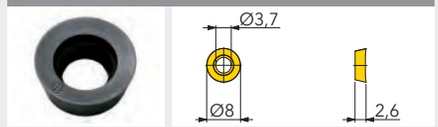
RHHW0802M0TN



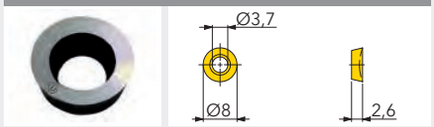
RHHT0802M0TN



RHHT0802M0TN-P



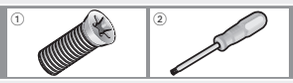
RHHT0802M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035			
RHHW0802M0TN	0,20/0,40	neutral geometry, K-land			●	●	●				
RHHT0802M0TN	0,10/0,20	positive geometry, K-land				●		●			
RHHT0802M0TN-P	0,10/0,30	titanium geometry, polished				●					
RHHT0802M0FN-P	0,10/0,30	non-ferrous geometry, polished		●							

● = P ● = M ● = K ● = N ● = S ○ = H

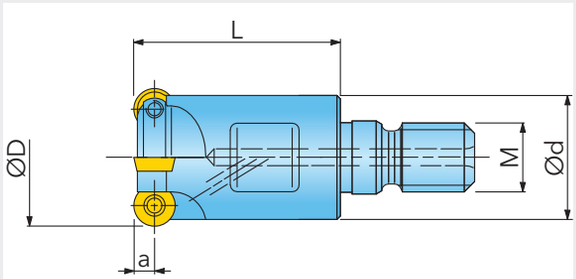
SPARE PARTS



SM30-053-00 (2,0Nm) DS-T09S

① = Insert screw ② = Screw driver

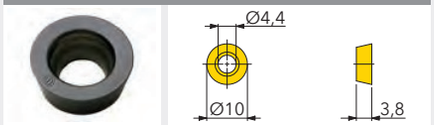
SCREW-IN TYPE ADAPTION



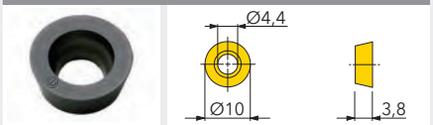
Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.020.002[1]	20	18	30	5	M10	2	10	3,5	✓	0,05
PR.025.002	25	21	35	5	M12	2	10	2	✓	0,09
PR.025.003[2]	25	21	35	5	M12	3	10	2	✓	0,09
PR.030.002[1]	30	29	43	5	M16	4	10	10	✓	0,19
PR.035.002	35	29	43	5	M16	4	10	7,5	✓	0,21
PR.042.002[1]	42	29	43	5	M16	5	10	5,5	✓	0,23
Neutral design										

[1] Insert screw SM40-070-00; [2] Only for finishing

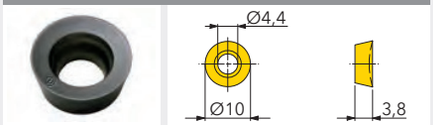
RHKW1003M0TN



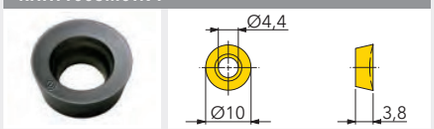
RHHW1003M0TN



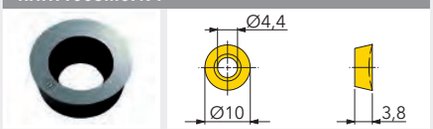
RHHT1003M0TN



RHHT1003M0TN-P



RHHT1003M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1003M0TN	0,25/0,60	neutral roughing geometry			●	●		●	●	●	
RHHW1003M0TN	0,25/0,50	neutral geometry, K-land			●	●	●			●	
RHHT1003M0TN	0,15/0,40	positive geometry, K-land			●	●		●			●
RHHT1003M0TN-P	0,10/0,20	titanium geometry, polished				●					
RHHT1003M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

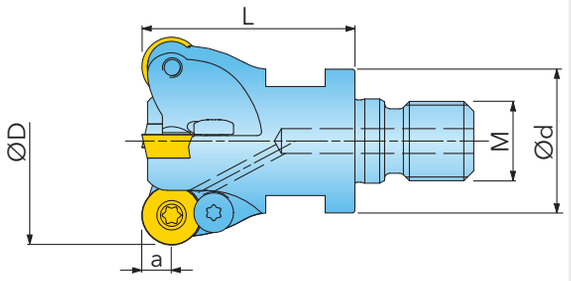
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM40-080-10 (4,5Nm) DS-T15S

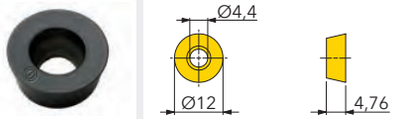
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

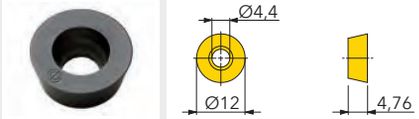


Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.024.001	24	21	35	6	M12	2	12	3,5	✓	0,08
PR.032.001	32	29	43	6	M16	3	12	2	✓	0,18
PR.035.001	35	29	43	6	M16	3	12	2	✓	0,19
PR.042.001	42	29	43	6	M16	4	12	2	✓	0,25
Neutral design										

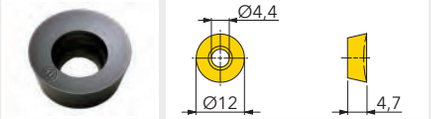
RHKW1204M0TN



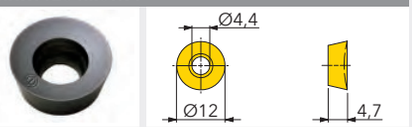
RHHW1204M0TN



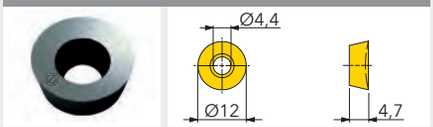
RHHT1204M0TN



RHHT1204M0TN-P



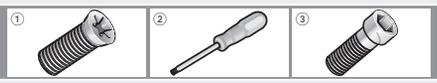
RHHT1204M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1204M0TN	0,25/0,80	neutral roughing geometry			●	●		●	●	●	
RHHW1204M0TN	0,25/0,60	neutral geometry, K-land			●	●	●			●	
RHHT1204M0TN	0,25/0,50	positive geometry, K-land			●	●		●			●
RHHT1204M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1204M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

● = P ● = M ● = K ● = N ● = S ○ = H

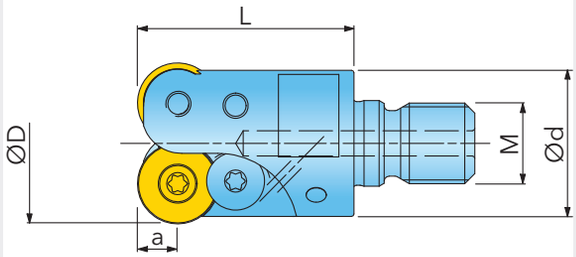
SPARE PARTS



SM40-080-10 (4,5Nm) DS-T15S SF035-01 (2,0Nm)

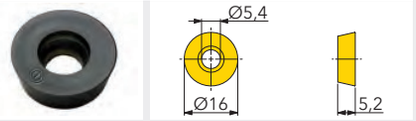
① = Insert screw ② = Screw driver ③ = Clamping screw

SCREW-IN TYPE ADAPTION

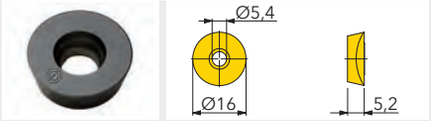


Designation	D	d1	L	a	M	Z	Insert Ø			IK	kg
PR.032.002	32	29	43	8	M16	2	16	2		✓	0,16
Neutral design											

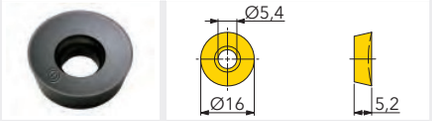
RHKW1605M0TN



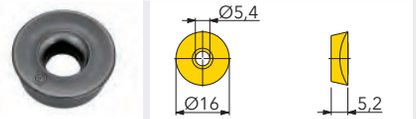
RHHW1605M0TN



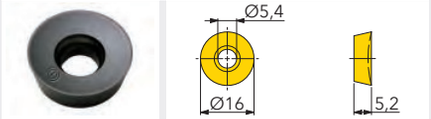
RHHT1605M0TN



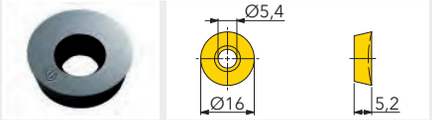
RHKT1605M0TN-PH2



RHHT1605M0TN-P



RHHT1605M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2035	IN2505	IN4015	IN4030	IN7035
RHKW1605M0TN	0,30/1,00	neutral roughing geometry			●	●	●	●	●	●	
RHHW1605M0TN	0,30/0,80	neutral geometry, K-land			●	●			●		
RHHT1605M0TN	0,25/0,50	positive geometry, K-land			●	●	●				●
RHKT1605M0TN-PH2	0,50/1,50	positive roughing geometry, neg. K-land				●			●	●	
RHHT1605M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1605M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

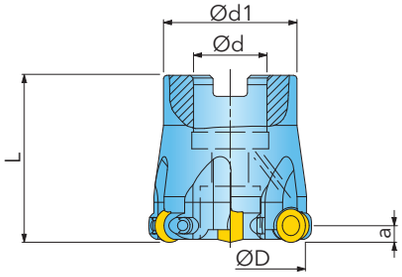
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM50-100-10 (6,0Nm)	DS-T20T	CL-5000

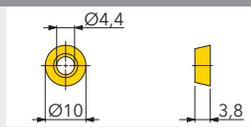
① = Insert screw ② = Screw driver ③ = Clamping disk

ADAPTION ACC. TO DIN 8030

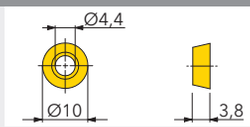


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.002	52	22	40	50	5	6	10	4	✓	0,36
PR.066.001	66	27	48	50	5	7	10	3	✓	0,60
Neutral design										

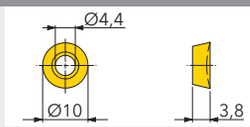
RHKW1003M0TN



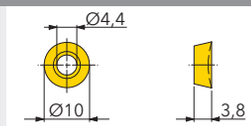
RHHW1003M0TN



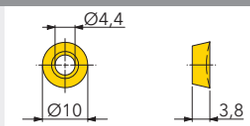
RHHT1003M0TN



RHHT1003M0TN-P



RHHT1003M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1003M0TN	0,25/0,60	neutral roughing geometry			●	●		●	●	●	
RHHW1003M0TN	0,25/0,50	neutral geometry, K-land			●	●	◐			●	
RHHT1003M0TN	0,15/0,40	positive geometry, K-land			●	●		●			●
RHHT1003M0TN-P	0,10/0,20	titanium geometry, polished				●					
RHHT1003M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

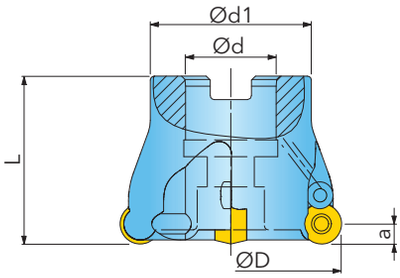
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM40-080-10 (4,5Nm) DS-T15S

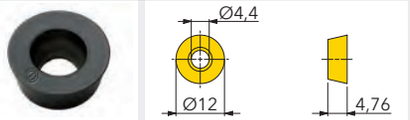
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

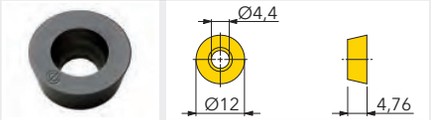


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.003	52	22	40	50	6	5	12	4	✓	0,32
PR.066.002	66	27	48	50	6	6	12	3	✓	0,56
PR.080.002	80	27	60	50	6	7	12	2	✓	0,98
Neutral design										

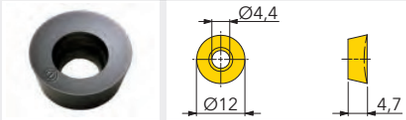
RHKW1204M0TN



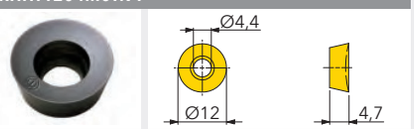
RHHW1204M0TN



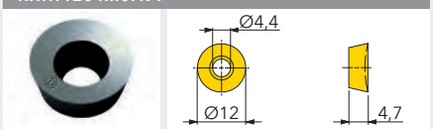
RHHT1204M0TN



RHHT1204M0TN-P



RHHT1204M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1204M0TN	0,25/0,80	neutral roughing geometry			●	●		●	●	●	
RHHW1204M0TN	0,25/0,60	neutral geometry, K-land			●	●	●			●	
RHHT1204M0TN	0,25/0,50	positive geometry, K-land			●	●		●			●
RHHT1204M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1204M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

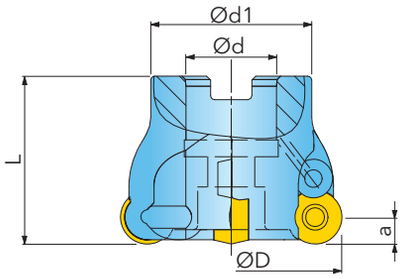
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM40-080-10 (4,5Nm) DS-T15S SF035-01 (2,0Nm)

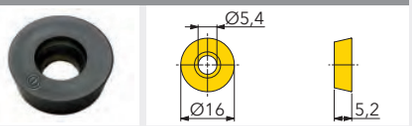
① = Insert screw ② = Screw driver ③ = Clamping screw

ADAPTION ACC. TO DIN 8030

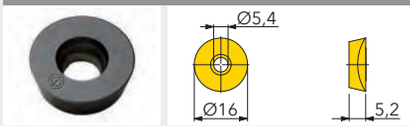


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.004	52	22	40	50	8	4	16	2,5	✓	0,30
PR.066.003	66	27	48	50	8	5	16	3,5	✓	0,50
PR.080.003	80	27	60	50	8	6	16	2,5	✓	0,86
PR.100.002	100	32	70	55	8	7	16	2	✓	1,38
PR.125.002	125	40	90	55	8	8	16	1,5		2,44
PR.160.001	160	40	120	55	8	9	16	1		4,84
Neutral design										

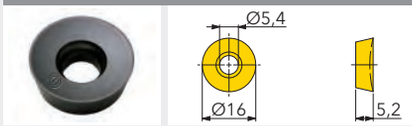
RHKW1605M0TN



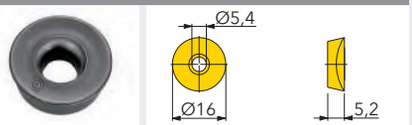
RHHW1605M0TN



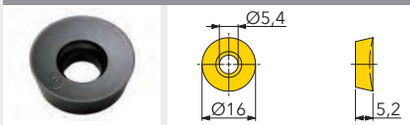
RHHT1605M0TN



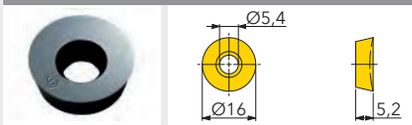
RHKT1605M0TN-PH2



RHHT1605M0TN-P



RHHT1605M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2035	IN2505	IN4015	IN4030	IN7035
RHKW1605M0TN	0,30/1,00	neutral roughing geometry			●	●	●	●	●	●	
RHHW1605M0TN	0,30/0,80	neutral geometry, K-land			●	●			●		
RHHT1605M0TN	0,25/0,50	positive geometry, K-land			●	●	●				●
RHKT1605M0TN-PH2	0,50/1,50	positive roughing geometry, neg. K-land				●			●	●	
RHHT1605M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1605M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

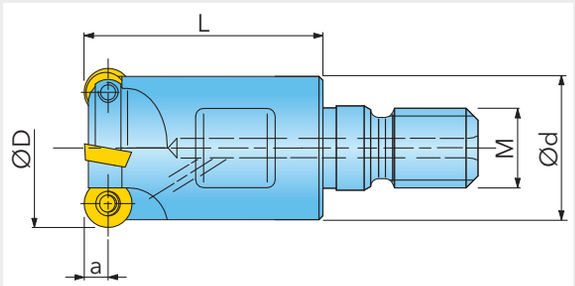
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM50-100-10 (6,0Nm)	DS-T20T	CL-5000

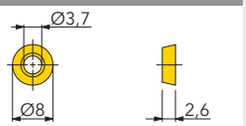
① = Insert screw ② = Screw driver ③ = Clamping disk

SCREW-IN TYPE ADAPTION

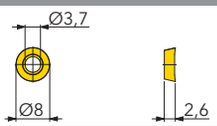


Designation	D	d1	L	a	M	Z	Insert Ø			IK	kg
PR.016.008	16	13	23	4	M8	2	8	2		✓	0,02
Positive design											

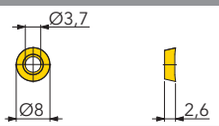
RHHW0802M0TN



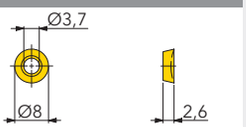
RHHT0802M0TN



RHHT0802M0TN-P



RHHT0802M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035
RHHW0802M0TN	0,20/0,40	neutral geometry, K-land			●	●	●	
RHHT0802M0TN	0,10/0,20	positive geometry, K-land				●		●
RHHT0802M0TN-P	0,10/0,30	titanium geometry, polished				●		
RHHT0802M0FN-P	0,10/0,30	non-ferrous geometry, polished		●				

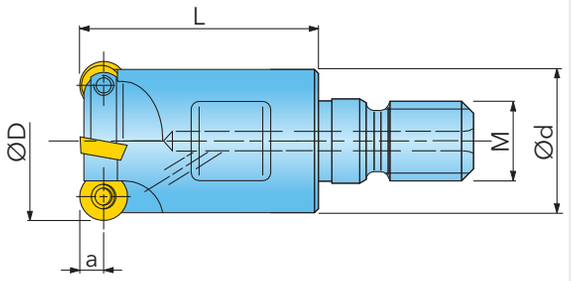
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM30-053-00 (2,0Nm) DS-T09S

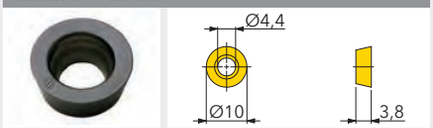
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

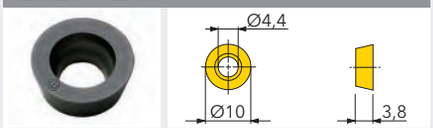


Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.020.008	20	18	30	5	M10	2	10	3,5	✓	0,05
PR.025.007	25	21	35	5	M12	3	10	2	✓	0,09
PR.030.003	30	29	43	5	M16	3	10	10	✓	0,19
PR.035.003	35	29	43	5	M16	4	10	7,5	✓	0,21
PR.042.003	42	29	43	5	M16	5	10	5,5	✓	0,23
Positive design										

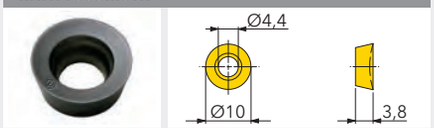
RHKW1003M0TN



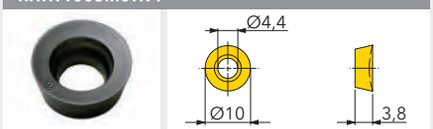
RHHW1003M0TN



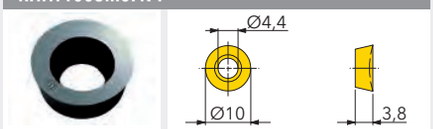
RHHT1003M0TN



RHHT1003M0TN-P



RHHT1003M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1003M0TN	0,25/0,60	neutral roughing geometry			●	●		●	●	●	
RHHW1003M0TN	0,25/0,50	neutral geometry, K-land			●	●	●			●	
RHHT1003M0TN	0,15/0,40	positive geometry, K-land			●	●		●			●
RHHT1003M0TN-P	0,10/0,20	titanium geometry, polished				●					
RHHT1003M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

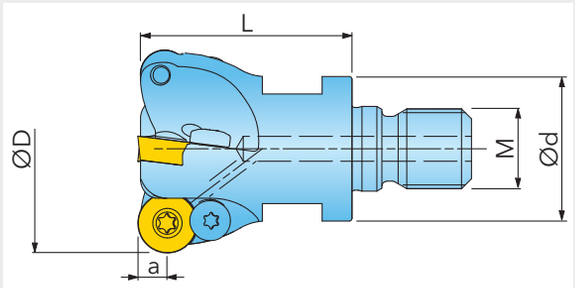
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

Diameter Range	
20	SM40-070-00 (4,5Nm) DS-T15S
25 - 42	SM40-080-10 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

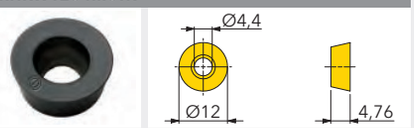
SCREW-IN TYPE ADAPTION



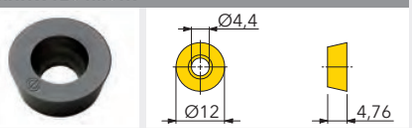
Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.024.002	24	21	35	6	M12	2	12	3,5	✓	0,08
PR.032.003	32	29	43	6	M16	3	12	2	✓	0,18
PR.035.004	35	29	43	6	M16	3	12	2	✓	0,19
PR.040.004	40	29	43	6	M16	4	12	2,5	✓	0,25
PR.042.004	42	29	43	6	M16	4	12	2	✓	0,25

Positive design

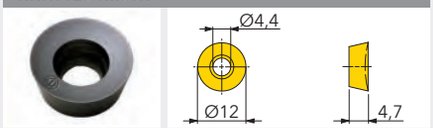
RHKW1204M0TN



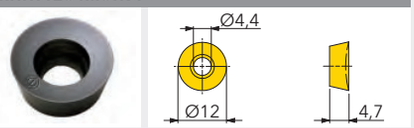
RHHW1204M0TN



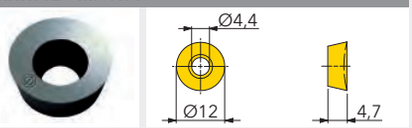
RHHT1204M0TN



RHHT1204M0TN-P



RHHT1204M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1204M0TN	0,25/0,80	neutral roughing geometry			●	●		●	●	●	
RHHW1204M0TN	0,25/0,60	neutral geometry, K-land			●	●	●			●	
RHHT1204M0TN	0,25/0,50	positive geometry, K-land			●	●		●			●
RHHT1204M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1204M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

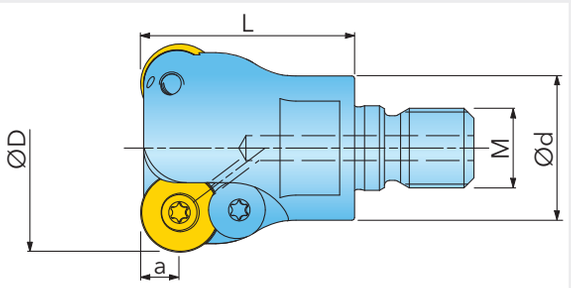
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM40-080-10 (4,5Nm) DS-T15S SF035-01 (2,0Nm)

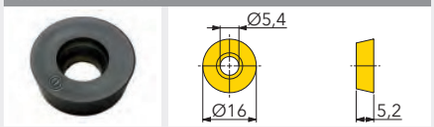
① = Insert screw ② = Screw driver ③ = Clamping screw

SCREW-IN TYPE ADAPTION

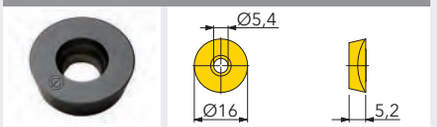


Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.032.004	32	29	43	8	M16	2	16	2	✓	0,16
PR.042.005	42	29	43	8	M16	3	16	2	✓	0,25
Positive design										

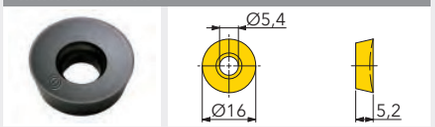
RHKW1605M0TN



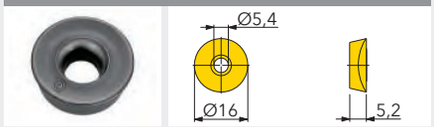
RHHW1605M0TN



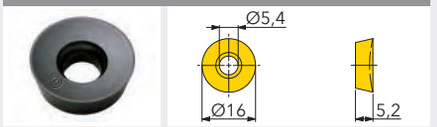
RHHT1605M0TN



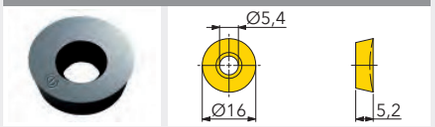
RHKT1605M0TN-PH2



RHHT1605M0TN-P



RHHT1605M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2035	IN2505	IN4015	IN4030	IN7035
RHKW1605M0TN	0,30/1,00	neutral roughing geometry			●	●	●	●	●	●	
RHHW1605M0TN	0,30/0,80	neutral geometry, K-land			●	●			●		
RHHT1605M0TN	0,25/0,50	positive geometry, K-land			●	●	●				●
RHKT1605M0TN-PH2	0,50/1,50	positive roughing geometry, neg. K-land				●			●	●	
RHHT1605M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1605M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

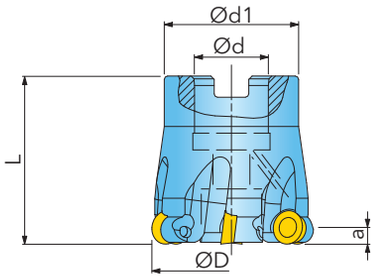
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM50-100-10 (6,0Nm)	DS-T20T	CL-5000

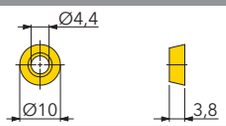
① = Insert screw ② = Screw driver ③ = Clamping disk

ADAPTION ACC. TO DIN 8030

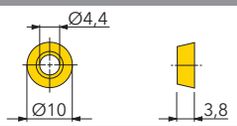


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.005	52	22	40	50	5	6	10	4	✓	0,36
Positive design										

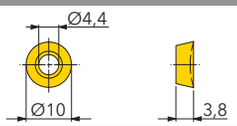
RHKW1003M0TN



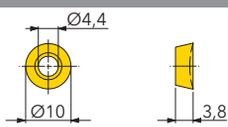
RHHW1003M0TN



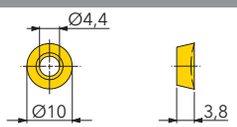
RHHT1003M0TN



RHHT1003M0TN-P



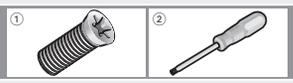
RHHT1003M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1003M0TN	0,25/0,60	neutral roughing geometry			●	●		●	●	●	
RHHW1003M0TN	0,25/0,50	neutral geometry, K-land			●	●	●			●	
RHHT1003M0TN	0,15/0,40	positive geometry, K-land			●	●		●			●
RHHT1003M0TN-P	0,10/0,20	titanium geometry, polished				●					
RHHT1003M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

● = P ● = M ● = K ● = N ● = S ○ = H

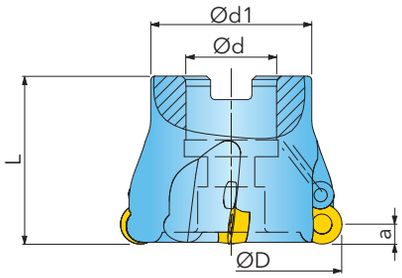
SPARE PARTS



SM40-080-10 (4,5Nm) DS-T15S

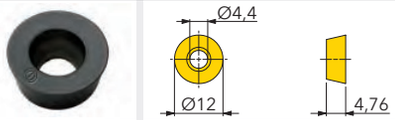
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

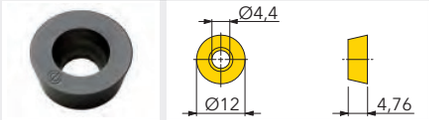


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.001	52	22	40	50	6	5	12	4	✓	0,33
PR.066.004	66	27	48	50	6	6	12	3	✓	0,56
PR.080.004	80	27	60	50	6	7	12	2	✓	1,00
Positive design										

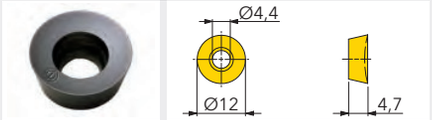
RHKW1204M0TN



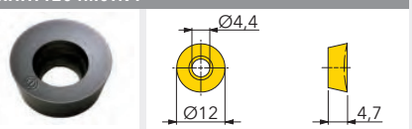
RHHW1204M0TN



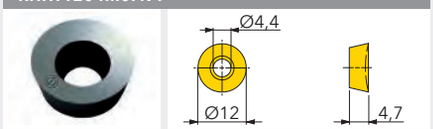
RHHT1204M0TN



RHHT1204M0TN-P



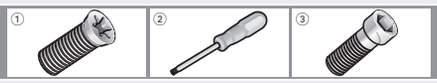
RHHT1204M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2006	IN2035	IN2505	IN4015	IN7035
RHKW1204M0TN	0,25/0,80	neutral roughing geometry			●	●		●	●	●	
RHHW1204M0TN	0,25/0,60	neutral geometry, K-land			●	●	●			●	
RHHT1204M0TN	0,25/0,50	positive geometry, K-land			●	●		●			●
RHHT1204M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1204M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

● = P ● = M ● = K ● = N ● = S ○ = H

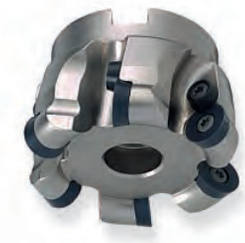
SPARE PARTS

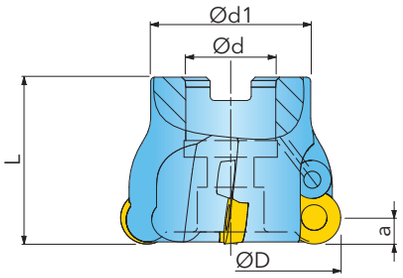


SM40-080-10 (4,5Nm) DS-T15S SF035-01 (2,0Nm)

① = Insert screw ② = Screw driver ③ = Clamping screw

ADAPTION ACC. TO DIN 8030

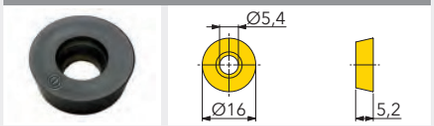




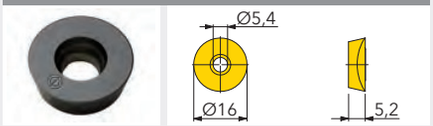
Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.052.006	52	22	40	50	8	4	16	2,5	✓	0,30
PR.066.005	66	27	48	50	8	5	16	3,5	✓	0,51
PR.080.005	80	27	60	50	8	6	16	2,5	✓	1,00
PR.100.003	100	32	70	55	8	7	16	2	✓	1,45
PR.125.003	125	40	90	55	8	8	16	1,5		2,45
PR.160.002	160	40	120	55	8	9	16	1		4,53

Positive design

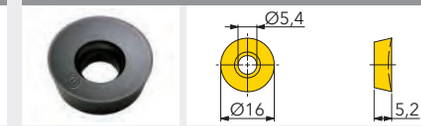
RHKW1605M0TN



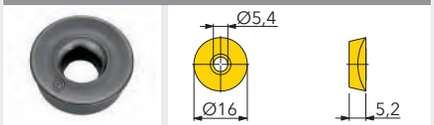
RHHW1605M0TN



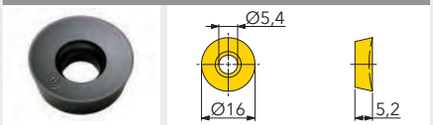
RHHT1605M0TN



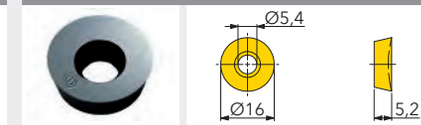
RHKT1605M0TN-PH2



RHHT1605M0TN-P



RHHT1605M0FN-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2004	IN2005	IN2035	IN2505	IN4015	IN4030	IN7035
RHKW1605M0TN	0,30/1,00	neutral roughing geometry			◐	◐	◐	◐	◐	◐	
RHHW1605M0TN	0,30/0,80	neutral geometry, K-land			◐	◐			◐		
RHHT1605M0TN	0,25/0,50	positive geometry, K-land			◐	◐	◐				◐
RHKT1605M0TN-PH2	0,50/1,50	positive roughing geometry, neg. K-land				◐			◐	◐	
RHHT1605M0TN-P	0,10/0,25	titanium geometry, polished				●					
RHHT1605M0FN-P	0,15/0,30	non-ferrous geometry, polished		●							

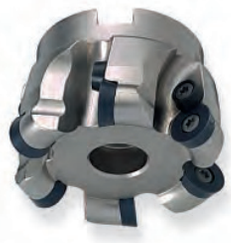
● = P ● = M ● = K ● = N ● = S ○ = H

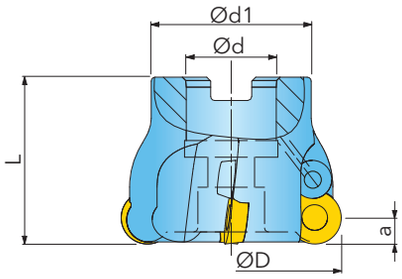
SPARE PARTS

SM50-100-10 (6,0Nm)	DS-T20T	CL-5000

① = Insert screw ② = Screw driver ③ = Clamping disk

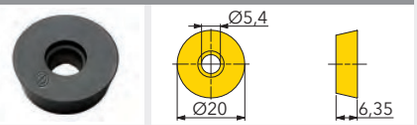
ADAPTION ACC. TO DIN 8030



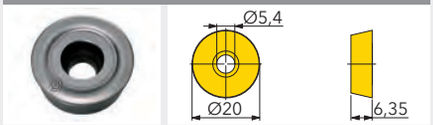


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.066.006	66	27	48	50	10	5	20	2,5	✓	0,51
PR.080.006	80	27	60	50	10	6	20	5	✓	1,00
PR.100.004	100	32	70	55	10	7	20	3,5	✓	1,24
PR.125.004	125	40	90	55	10	8	20	2,5		2,00
PR.160.003	160	40	120	55	10	9	20	2		4,80
Positive design										

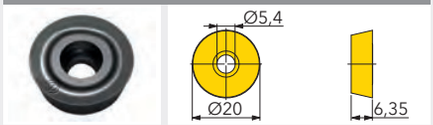
RHKW2006M0TN



RHKT2006M0TN-PH2



RHKT2006M0TN-PH



Designation	fz(min/max)	Design	Grade	IN2005	IN4015	IN4030	IN4040
RHKW2006M0TN	0,40/1,00	neutral roughing geometry			●	●	●
RHKT2006M0TN-PH2	0,50/1,50	positive roughing geometry, neg. K-land		●	●	●	●
RHKT2006M0TN-PH	0,25/0,50	positive roughing geometry, K-land		●	●	●	●

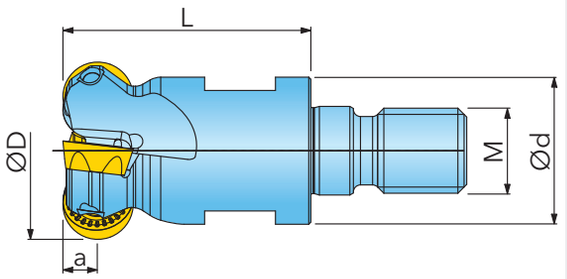
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM50-100-10 (6,0Nm)	DS-T20T	CL-5000

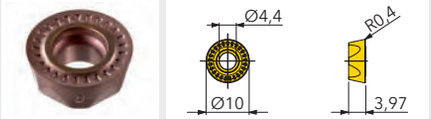
① = Insert screw ② = Screw driver ③ = Clamping disk

SCREW-IN TYPE ADAPTION

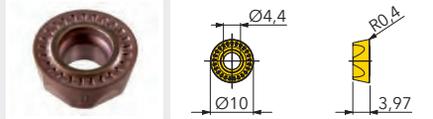


Designation	D	L	a	M	Z	Insert Ø		IK	kg
PR.020.010	20	30	2,5	10	2	10	6,0	✓	0,06
PR.025.012	25	35	2,5	12	3	10	4,4	✓	0,10
PR.030.006	30	43	2,5	16	4	10	4,0	✓	0,19
PR.032.010	32	43	2,5	16	4	10	2,2	✓	0,20
PR.035.010	35	43	2,5	16	5	10	2,0	✓	0,22

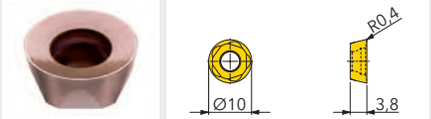
RPLX10T3M0N-HR



RPLX10T3M0TN-HR



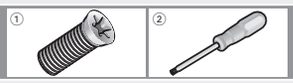
RPLX10T3M0TN-FL



Designation	fz(min/max)	Design	Grade	IN2505	IN2535	IN7035
RPLX10T3M0N-HR	0,10/0,60	positive geometry				
RPLX10T3M0TN-HR	0,10/0,60	positive geometry, neg. K-land				
RPLX10T3M0TN-FL	0,10/0,60	positive geometry, K-land				

● = P ● = M ● = K ● = N ● = S ○ = H

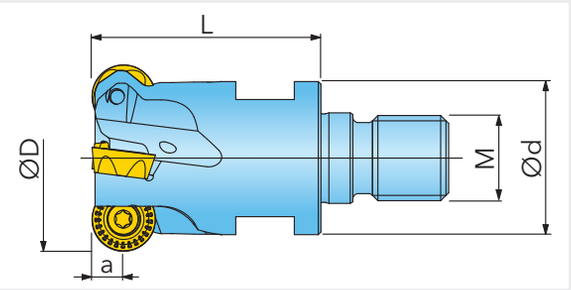
SPARE PARTS



SM35-076-10 (3,0Nm) DS-T15S

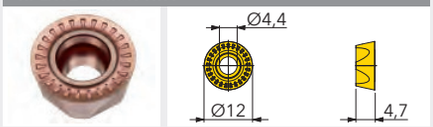
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

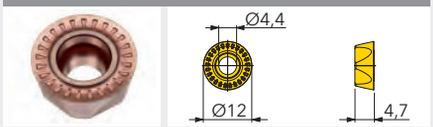


Designation	D	d1	L	a	M	Z	Insert Ø		IK	kg
PR.025.011	25	21	35	3	12	2	12	6	✓	0,10
PR.032.009	32	29	43	3	16	3	12	3,9	✓	0,20
PR.035.009	35	29	43	3	16	4	12	2,6	✓	0,21

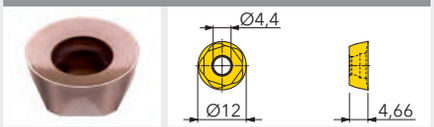
RPLX1204M0N-HR1



RPLX1204M0TN-HR



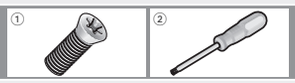
RPLX1204M0TN-FL



Designation	fz(min/max)	Design	Grade	IN2505	IN2535	IN7035
RPLX1204M0N-HR1	0,20/0,75	positive geometry				
RPLX1204M0TN-HR	0,20/0,75	positive geometry, neg. K-land				
RPLX1204M0TN-FL	0,20/0,75	positive geometry, K-land				

● = P ● = M ● = K ● = N ● = S ○ = H

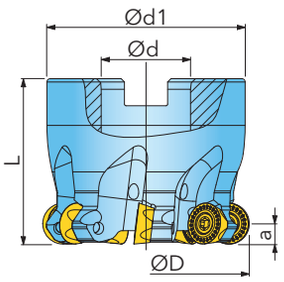
SPARE PARTS



	SO 35080I (3,0Nm)	DS-T15S

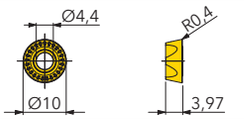
① = Clamp screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

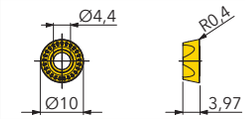


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.040.012	40	16	38	40	2,5	6	10	5,6	✓	0,25
PR.042.015	42	16	40	40	2,5	6	10	5,8	✓	0,28
PR.050.010	50	22	48	40	2,5	7	10	5,0	✓	0,38
PR.052.015	52	22	50	40	2,5	7	10	4,7	✓	0,40
PR.063.008	63	22	61	40	2,5	8	10	3,6	✓	0,70

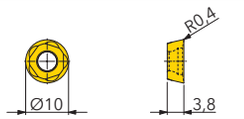
RPLX10T3M0N-HR



RPLX10T3M0TN-HR



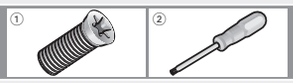
RPLX10T3M0TN-FL



Designation	fz(min/max)	Design	Grade	IN2505	IN2535	IN7035					
RPLX10T3M0N-HR	0,10/0,60	positive geometry									
RPLX10T3M0TN-HR	0,10/0,60	positive geometry, neg. K-land									
RPLX10T3M0TN-FL	0,10/0,60	positive geometry, K-land									

● = P ● = M ● = K ● = N ● = S ○ = H

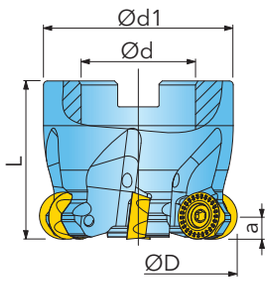
SPARE PARTS



SM35-076-10 (3,0Nm) DS-T15S

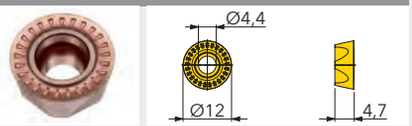
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

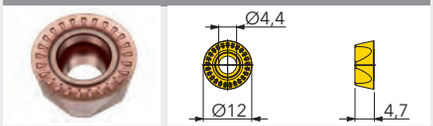


Designation	D	d	d1	L	a	Z	Insert Ø		IK	kg
PR.040.009	40	16	38	40	3	4	12	2,4	✓	0,27
PR.040.010	40	16	38	40	3	5	12	2,4	✓	0,24
PR.042.012	42	16	40	40	3	4	12	4	✓	0,29
PR.042.013	42	16	40	40	3	5	12	4	✓	0,27
PR.050.007	50	22	48	40	3	5	12	5,6	✓	0,39
PR.050.008	50	22	48	40	3	6	12	5,6	✓	0,37
PR.052.012	52	22	50	40	3	5	12	5,3	✓	0,42
PR.052.013	52	22	50	40	3	6	12	5,3	✓	0,40
PR.063.006	63	22	61	40	3	6	12	4	✓	0,70
PR.063.007	63	22	61	40	3	7	12	4	✓	0,64
PR.066.011	66	27	64	50	3	6	12	3,7	✓	0,95
PR.066.012	66	27	64	50	3	7	12	3,7	✓	0,90
PR.080.010	80	27	78	50	3	8	12	2,9	✓	1,50
PR.080.011	80	27	78	50	3	9	12	2,9	✓	1,44

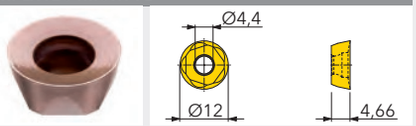
RPLX1204M0N-HR1



RPLX1204M0TN-HR



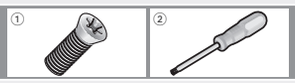
RPLX1204M0TN-FL



Designation	fz(min/max)	Design	Grade	IN2505	IN2535	IN7035
RPLX1204M0N-HR1	0,20/0,75	positive geometry		●	●	●
RPLX1204M0TN-HR	0,20/0,75	positive geometry, neg. K-land		●	●	●
RPLX1204M0TN-FL	0,20/0,75	positive geometry, K-land		●	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

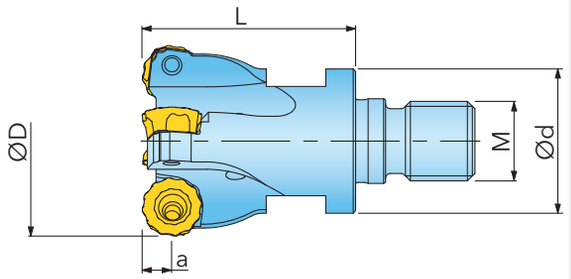
SPARE PARTS



	SO 35080I (3,0Nm)	DS-T15S

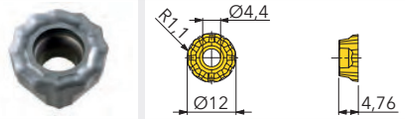
① = Clamp screw ② = Screw driver

SCREW-IN TYPE ADAPTION

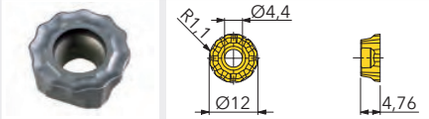


Designation	D	d1	L	a	M	Z		IK	kg
PR.024.003	24	21	35	6	M12	2	1	✓	0,08
PR.032.006	32	29	43	6	M16	3	1,7	✓	0,18
PR.035.005	35	29	43	6	M16	3	2,5	✓	0,19
PR.040.003	40	29	43	6	M16	4	5,7	✓	0,24
PR.042.007	42	29	43	6	M16	4	5,3	✓	0,25

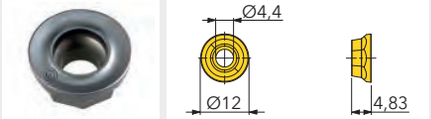
RCLT1204M0N-CC1



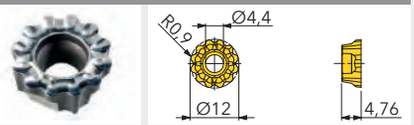
RCLT1204M0N-CC2



RCLT1204M0TN-PH2



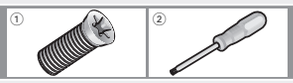
RCLT1204M0N-CP



Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2035	IN4015	IN4030	IN4040
RCLT1204M0N-CC1	0,10/0,25	positive geometry R1,2			●	●	●	●	
RCLT1204M0N-CC2	0,15/0,30	positive geometry R1,1 K-land			●	●	●	●	
RCLT1204M0TN-PH2	0,20/0,70	positive geometry, K-land			●		●	●	●
RCLT1204M0N-CP	0,10/0,25	non-ferrous geometry R0,9		●					

● = P ● = M ● = K ● = N ● = S ○ = H

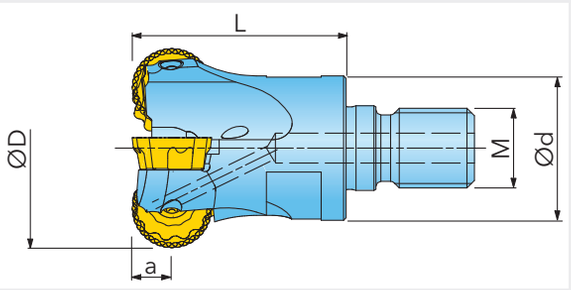
SPARE PARTS



SM40-090-00 (4,5Nm) DS-T15S

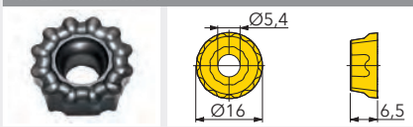
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

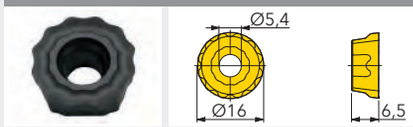


Designation	D	d1	L	a	M	Z		IK	kg
PR.032.005	32	29	43	8	M16	2	0,5	✓	0,16
PR.040.002	40	29	43	8	M16	3	1,7	✓	0,23
PR.042.006	42	29	43	8	M16	3	1,7	✓	0,25

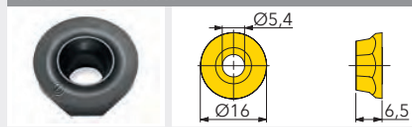
RCLT1606M0N-CC



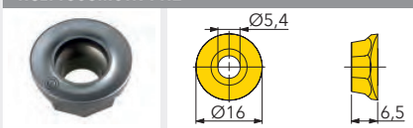
RCLT1606M0N-CC1



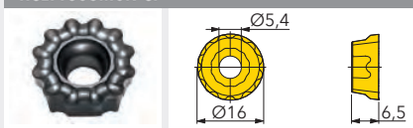
RCLT1606M0TN-PH



RCLT1606M0TN-PH2



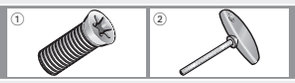
RCLT1606M0N-CP



Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN4015	IN4030	IN4040
RCLT1606M0N-CC	0,10/0,25	positive steel geometry R1,2			●	●	●	
RCLT1606M0N-CC1	0,10/0,30	positive steel geometry R1,6			●	●	●	
RCLT1606M0TN-PH	0,10/0,50	positive steel geometry			●	●		●
RCLT1606M0TN-PH2	0,20/0,80	positive geometry, neg. K-land			●	●		●
RCLT1606M0N-CP	0,10/0,25	positive non-ferrous geometry		●				

● = P ● = M ● = K ● = N ● = S ○ = H

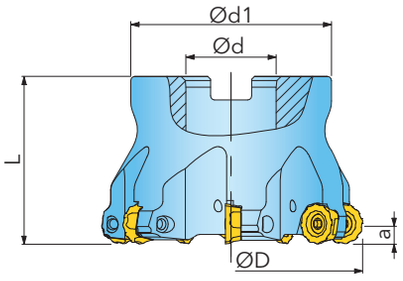
SPARE PARTS



SM50-105-10 (6,0Nm) DS-T20T

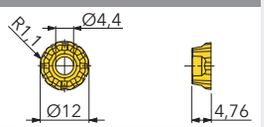
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

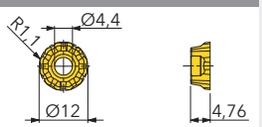


Designation	D	d	d1	L	a	Z		IK	kg
PR.050.003	50	22	40	50	6	5	4	✓	0,31
PR.052.008	52	22	40	50	6	5	4,6	✓	0,32
PR.063.003	63	27	48	50	6	6	3	✓	0,55
PR.066.008	66	27	48	50	6	6	2,6	✓	0,56
PR.080.008	80	27	60	50	6	7	2,1	✓	0,98

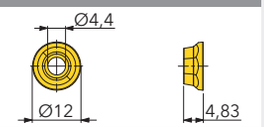
RCLT1204M0N-CC1



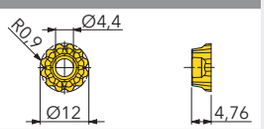
RCLT1204M0N-CC2



RCLT1204M0TN-PH2



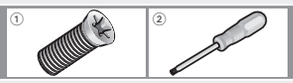
RCLT1204M0N-CP



Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2035	IN4015	IN4030	IN4040		
RCLT1204M0N-CC1	0,10/0,25	positive geometry R1,2			●	●	●	●			
RCLT1204M0N-CC2	0,15/0,30	positive geometry R1,1 K-land			●	●	●	●			
RCLT1204M0TN-PH2	0,20/0,70	positive geometry, K-land			●		●	●	●		
RCLT1204M0N-CP	0,10/0,25	non-ferrous geometry R0,9		●							

● = P ● = M ● = K ● = N ● = S ○ = H

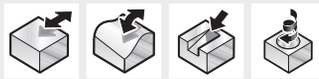
SPARE PARTS

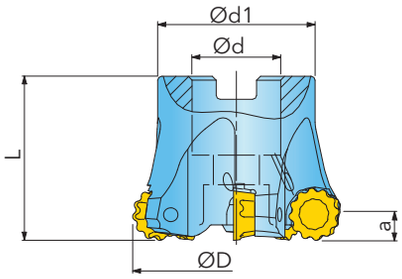


SM40-090-00 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

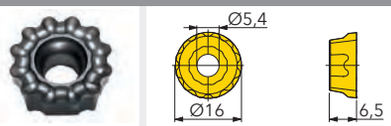
ADAPTION ACC. TO DIN 8030



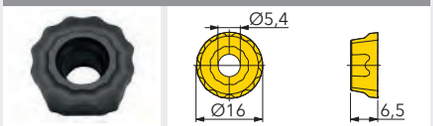


Designation	D	d	d1	L	a	Z		IK	kg
PR.050.002	50	22	40	50	8	4	7,6	✓	0,36
PR.052.007	52	22	40	50	8	4	7,8	✓	0,36
PR.063.002	63	27	48	50	8	5	6,1	✓	0,56
PR.066.007	66	27	48	50	8	5	5,8	✓	0,56
PR.080.007	80	27	60	50	8	6	4,2	✓	1,00
PR.100.005	100	32	70	55	8	7	3		1,38
PR.125.005	125	40	90	55	8	8	2,3		2,44
PR.160.004	160	40	120	55	8	9	2		4,67

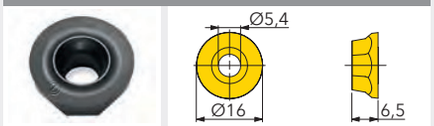
RCLT1606M0N-CC



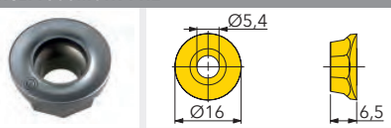
RCLT1606M0N-CC1



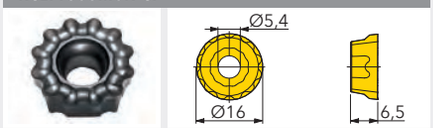
RCLT1606M0TN-PH



RCLT1606M0TN-PH2



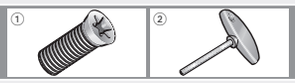
RCLT1606M0N-CP



Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN4015	IN4030	IN4040
RCLT1606M0N-CC	0,10/0,25	positive steel geometry R1,2			●	●	●	
RCLT1606M0N-CC1	0,10/0,30	positive steel geometry R1,6			●	●	●	
RCLT1606M0TN-PH	0,10/0,50	positive steel geometry			●	●		●
RCLT1606M0TN-PH2	0,20/0,80	positive geometry, neg. K-land			●	●		●
RCLT1606M0N-CP	0,10/0,25	positive non-ferrous geometry		●				

● = P ● = M ● = K ● = N ● = S ○ = H

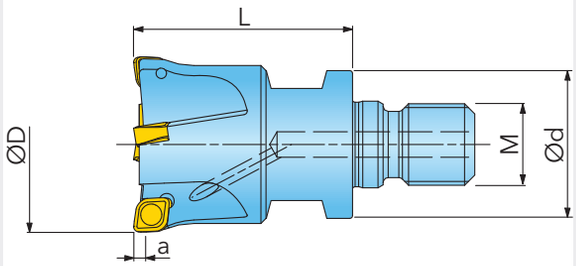
SPARE PARTS



SM50-120-10 (6,0Nm) DS-T20T

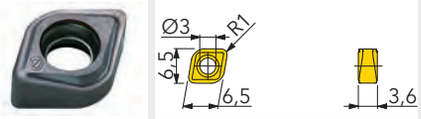
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

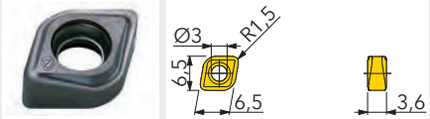


Designation	D	d1	L	a	M	Z		IK	kg
KC.016.001	16	13	23	1	M8	2	5	✓	0,02
KC.020.001	20	18	30	1	M10	3	4	✓	0,05
KC.025.001	25	21	35	1	M12	3	2	✓	0,10
KC.035.001	35	29	43	1	M16	4	1,5	✓	0,21
KC.042.001	42	29	43	1	M16	5	1	✓	0,23

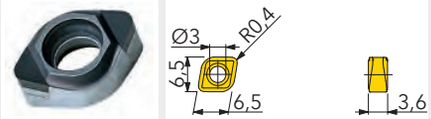
CNHU060310N



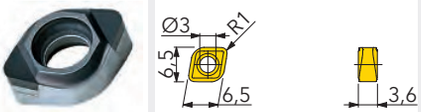
CNHU060315N



CNHU060304N-001



CNHU060310N-001

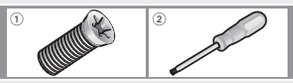


Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2006	IN2505	IN2530	IN80B
CNHU060310N [1]	0,10/0,30	positive geometry R1,0		●	◔	◑	◔	◔	
CNHU060315N	0,10/0,30	positive geometry R1,5			◔				
CNHU060304N-001	0,05/0,10	CBN insert R0,4							◑
CNHU060310N-001	0,05/0,12	CBN insert R1,0							◑

[1] on request in IN3005 (diamond coating)

● = P ○ = M ● = K ● = N ● = S ○ = H

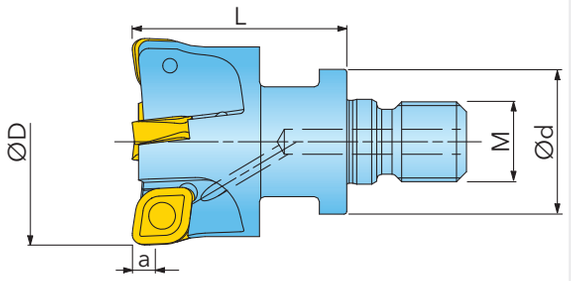
SPARE PARTS



SM25-075-20 (1,1Nm) DS-T08S

① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION



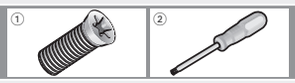
Designation	D	d1	L	a	M	Z		IK	kg
KC.025.002	25	21	35	2	M12	2	3	✓	0,10
KC.035.002	35	29	43	2	M16	3	2	✓	0,21
KC.042.002	42	29	43	2	M16	4	1,5	✓	0,23

CNHU110420N

Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2006	IN2505	IN2530
CNHU110420N	0,10/0,40	positive geometry R2,0		●	◔	◑	◔	◔

● = P ○ = M ● = K ● = N ● = S ○ = H

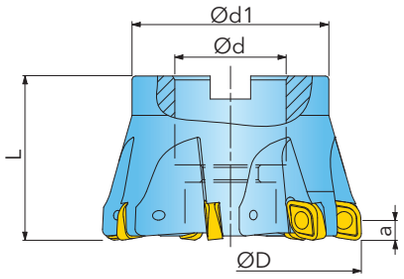
SPARE PARTS



SM35-088-10 (3,0Nm) DS-T10S

① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030



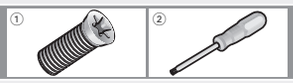
Designation	D	d	d1	L	a	Z		kg
KC.052.001	52	22	40	50	2	5	1	0,36
KC.066.001	66	27	48	50	2	6	0,8	0,60
KC.080.001	80	27	60	50	2	7	0,6	1,00
KC.085.001	85	27	60	50	2	7	0,6	1,20
KC.100.001	100	32	70	55	2	8	0,5	1,38

CNHU110420N

Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2006	IN2505	IN2530
CNHU110420N	0,10/0,40	positive geometry R2,0						

● = P ● = M ● = K ● = N ● = S ○ = H

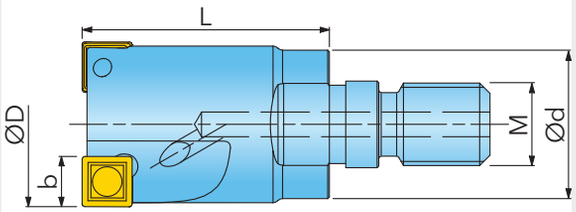
SPARE PARTS



SM35-088-10 (3,0Nm) DS-T10S

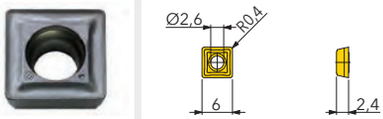
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

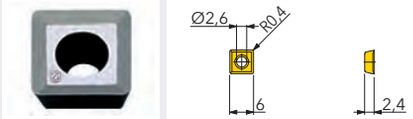


Designation	D	d1	L	b	M	Z	IK	kg	Related Insert
BS.016.013	16	13	23	5	M8	2	✓	0,02	ABC
BS.020.015	20	18	30	7	M10	2	✓	0,05	DEF
BS.025.017	25	21	35	8	M12	2	✓	0,11	GHI
BS.032.013	32	29	43	8	M16	3	✓	0,21	GHI
BS.042.011	42	29	43	8	M16	4	✓	0,23	GHI

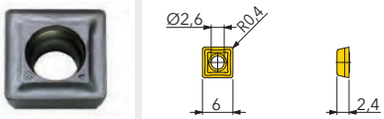
A SHLT060204N-PH



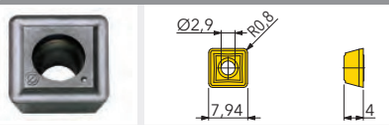
B SHGT060204-HP



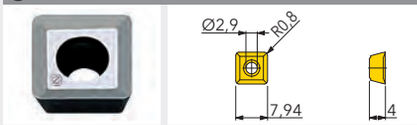
C SHLT060204N



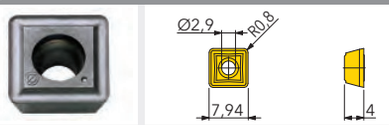
D SPLT07T308N-PH



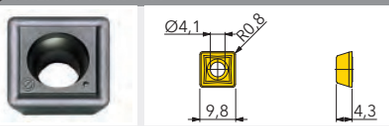
E SDGT07T308-HP



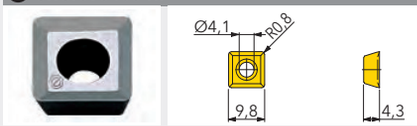
F SPLT07T308N



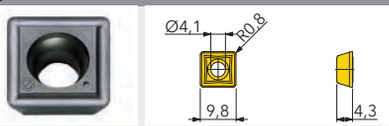
G SHLT090408N-PH1



H SHGT090408-HP



I SHLT090408N



Designation	fz(min/max)	Design	Grade IN10K	IN2005	IN2010	IN2530
SHLT060204N-PH	0,06/0,20	positive geometry R0,4		●		●
SHGT060204-HP	0,08/0,15	non-ferrous geometry, polished R0,4	●			
SHLT060204N	0,08/0,25	cast iron geometry R0,4			●	
SPLT07T308N-PH	0,06/0,20	positive geometry R0,8		●		●
SDGT07T308-HP	0,08/0,15	non-ferrous geometry, polished R0,8	●			
SPLT07T308N	0,10/0,25	cast iron geometry R0,8			●	
SHLT090408N-PH1	0,07/0,22	positive geometry R0,8		●		●
SHGT090408-HP	0,10/0,20	non-ferrous geometry, polished R0,8	●			
SHLT090408N	0,12/0,25	cast iron geometry R0,8			●	

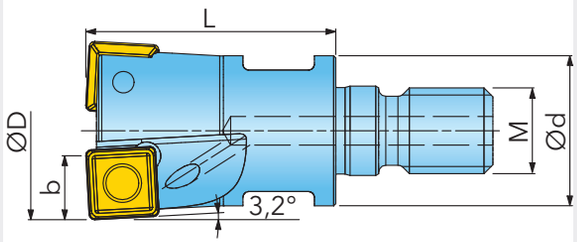
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

Diameter Range		
16	SM22-052-00 (0,8Nm)	DS-T07S
20	SM25-064-00 (1,1Nm)	DS-T08S
25 - 42	SM35-088-60 (3,0Nm)	DS-T10S

① = Insert screw ② = Screw driver

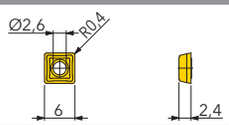
SCREW-IN TYPE ADAPTION



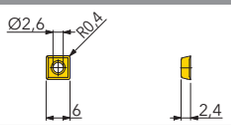
Designation	D	d1	L	b	M	Z	IK	kg	Related Insert
BS.016.012	16	13	23	5	M8	2	✓	0,02	ABC
BS.020.014	20	18	30	7	M10	2	✓	0,05	DEF
BS.025.016	25	21	35	8	M12	2	✓	0,11	GHI
BS.032.012	32	29	43	8	M16	3	✓	0,21	GHI
BS.042.010	42	29	43	8	M16	4	✓	0,23	GHI

Backdraft 3,2°

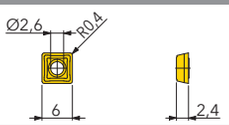
A SHLT060204N-PH



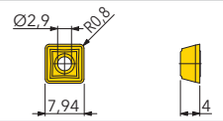
B SHGT060204-HP



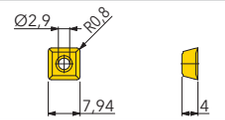
C SHLT060204N



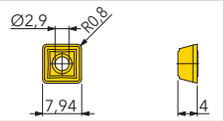
D SPLT07T308N-PH



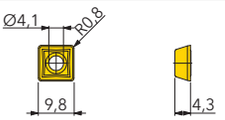
E SDGT07T308-HP



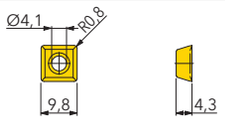
F SPLT07T308N



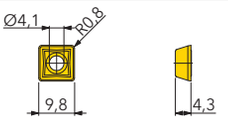
G SHLT090408N-PH1



H SHGT090408-HP



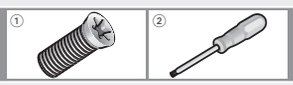
I SHLT090408N



Designation	fz(min/max)	Design	Grade IN10K	IN2005	IN2010	IN2530
SHLT060204N-PH	0,06/0,20	positive geometry R0,4		●		●
SHGT060204-HP	0,08/0,15	non-ferrous geometry, polished R0,4	●			
SHLT060204N	0,08/0,25	cast iron geometry R0,4			●	
SPLT07T308N-PH	0,06/0,20	positive geometry R0,8		●		●
SDGT07T308-HP	0,08/0,15	non-ferrous geometry, polished R0,8	●			
SPLT07T308N	0,10/0,25	cast iron geometry R0,8			●	
SHLT090408N-PH1	0,07/0,22	positive geometry R0,8		●		●
SHGT090408-HP	0,10/0,20	non-ferrous geometry, polished R0,8	●			
SHLT090408N	0,12/0,25	cast iron geometry R0,8			●	

● = P ● = M ● = K ● = N ● = S ○ = H

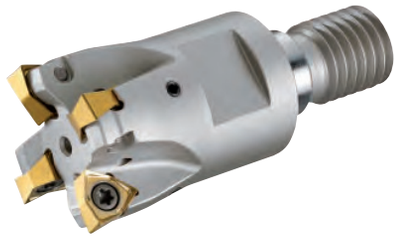
SPARE PARTS

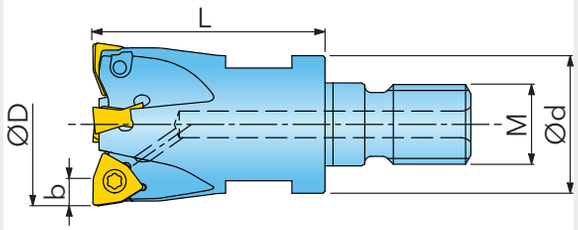


Diameter Range		
16	SM22-052-00 (0,8Nm)	DS-T07S
20	SM25-064-00 (1,1Nm)	DS-T08S
25 - 42	SM35-088-60 (3,0Nm)	DS-T10S

① = Insert screw ② = Screw driver

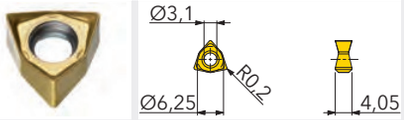
SCREW-IN TYPE ADAPTION



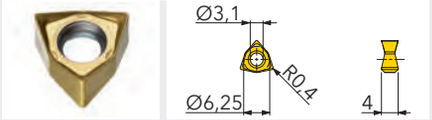


Designation	D	d1	L	b	M	Z		
BW.020.001	20	18	30	3,8	M10	3	✓	0,05
BW.025.001	25	21	35	3,8	M12	4	✓	0,10
BW.030.001	30	29	43	3,8	M16	5	✓	0,19
BW.032.001	32	29	43	3,8	M16	6	✓	0,20
BW.035.001	35	29	43	3,8	M16	6	✓	0,22
BW.040.001	40	29	43	3,8	M16	7	✓	0,25
BW.042.001	42	29	43	3,8	M16	7	✓	0,26

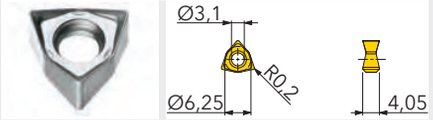
WNMU04T302N



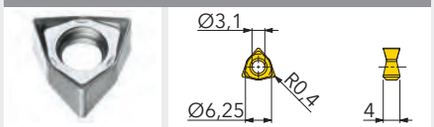
WNMU04T304N



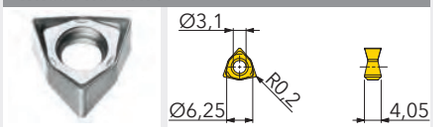
WNCU04T302FN-P



WNCU04T304FN-P



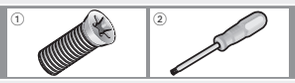
WNCU04T308FN-P



Designation	fz(min/max)	Design	Grade	IN10K	IN2035	IN2504	IN2505	IN2530	IN4030		
WNMU04T302N	0,07/0,18	positive geometry R0,2			◔		◔	◔			
WNMU04T304N	0,07/0,18	positive geometry R0,4			◔	◔	◔	◔	◑		
WNCU04T302FN-P	0,05/0,20	non-ferrous geometry R0,2		●							
WNCU04T304FN-P	0,05/0,20	non-ferrous geometry R0,4		●							
WNCU04T308FN-P	0,05/0,20	non-ferrous geometry R0,8		●							

● = P ○ = M ● = K ● = N ● = S ○ = H

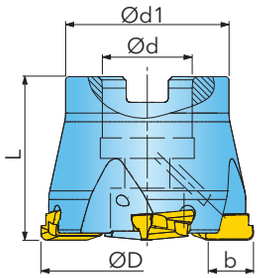
SPARE PARTS



SM25-064-00 (1,1Nm) DS-T08S

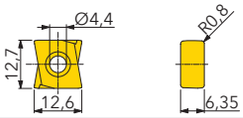
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

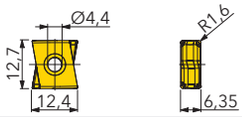


Designation	D	d	d1	LK	L	b	Z	IK	kg
BL.050.001	50	22	40	-	40	10	4	✓	0,30
BL.052.001	52	22	40	-	40	10	4	✓	0,30
BL.066.001	66	27	48	-	50	10	5	✓	0,60
BL.080.001	80	27	60	-	50	10	6	✓	1,00
BL.085.001	85	27	60	-	50	10	6	✓	1,15
BL.100.001	100	32	70	-	50	10	8	✓	1,50
BL.125.001	125	40	90	-	63	10	9		2,40
BL.160.001	160	40	120	66,7	63	10	12		4,60

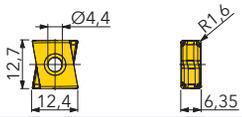
LNGQ 130608L



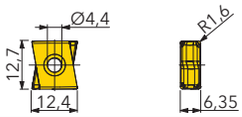
LNGQ130616L



LNGQ 130616LT



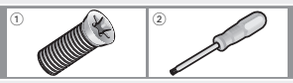
LNGQ130616FL-P



Designation	fz(min/max)	Design	Grade	IN05S	IN2005	IN2035	IN4030	IN4040
LNGQ 130608L	0,10/0,20	positive geometry R0,8			●	●		
LNGQ130616L	0,12/0,25	positive geometry R1,6			●	●	●	●
LNGQ 130616LT	0,15/0,25	positive geometry, K-land R1,6			●		●	
LNGQ130616FL-P	0,10/0,25	non-ferrous geometry, polished R1,6		●				

● = P ● = M ● = K ● = N ● = S ○ = H

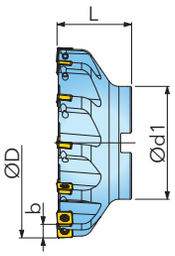
SPARE PARTS

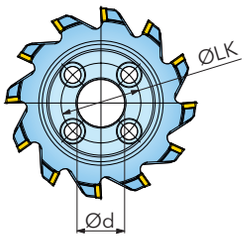


	SM40-120-20 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

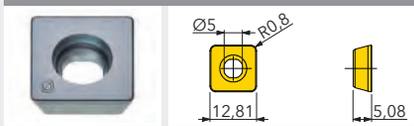
ADAPTION ACC. TO DIN 8030



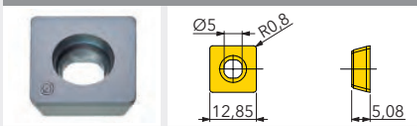


Designation	D	d	d1	LK	L	b	Z	IK	kg
BS.050.007	50	22	40	-	40	11,9	4	✓	0,40
BS.052.002	52	22	40	-	40	11,9	4	✓	0,45
BS.066.001	66	27	48	-	50	11,9	5	✓	0,70
BS.080.001	80	27	60	-	50	11,9	6	✓	1,10
BS.085.001	85	27	60	-	50	11,9	6	✓	1,25
BS.100.001	100	32	70	-	50	11,9	8	✓	1,80
BS.125.001	125	40	80	-	63	11,9	9		2,60
BS.160.001	160	40	95	66,7	63	11,9	12		4,00

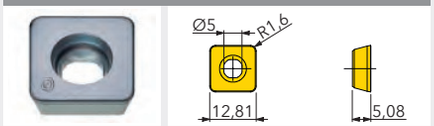
SDES130508N-PF



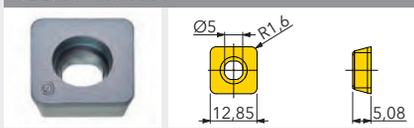
SDES130508N-PF1



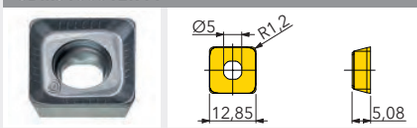
SDES130516N-PF



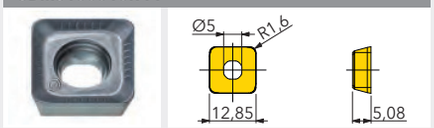
SDES130516N-PF1



SDMS130512R-PP



SDMS130516R-PP

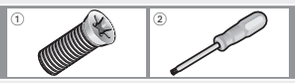


Designation	fz(min/max)	Design	Grade	IN2505	IN4005	IN4015	IN4030	IN4035
SDES130508N-PF	*/*	neutral geometry, K-land R0,8		●	●	●	●	●
SDES130508N-PF1	*/*	neutral titanium geometry R0,8					●	●
SDES130516N-PF	*/*	neutral geometry, K-land R1,6		●	●			
SDES130516N-PF1	*/*	neutral geometry, sharp R1,6					●	●
SDMS130512R-PP	*/*	positive geometry, sharp R1,2					●	
SDMS130516R-PP	*/*	positive geometry, sharp R1,6			●		●	●

*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

● = P ● = M ● = K ● = N ● = S ○ = H

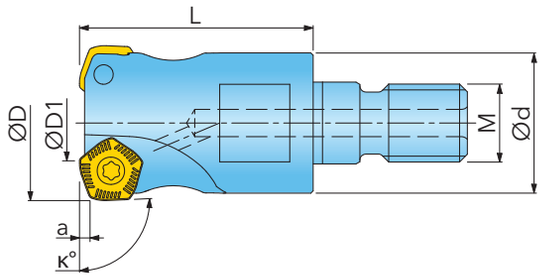
SPARE PARTS



SM40-100-R0 (4,5Nm) DS-A00T

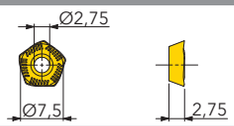
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION



Designation	D	D1	d1	L	κ	a	M	Z		IK	kg
KP.020.001	10,6	20	18	30	92	1	M10	2	9,6	✓	0,05
KP.025.001	15,4	25	21	35	92	1	M12	3	5,2	✓	0,09
KP.032.001	22,4	32	29	43	92	1	M16	5	3,4	✓	0,20
KP.035.002	25,4	35	29	43	92	1	M16	5	3,0	✓	0,21
KP.040.001	30,4	40	29	43	92	1	M16	5	2,5	✓	0,22
KP.042.002	32,4	42	29	43	92	1	M16	5	2,3	✓	0,24
Programming radius 2,5mm											

PEMT0502ZCTR-HR



Designation	fz(min/max)	Design	Grade	IN2035	IN2504	IN2505	IN2530				
PEMT0502ZCTR-HR	0,50/1,50	positive geometry									

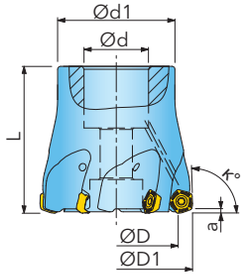
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM25-064-00 (1,1Nm) DS-T08S

① = Insert screw ② = Screw driver

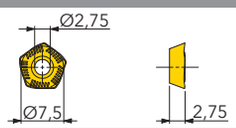
ADAPTION ACC. TO DIN 8030



Designation	D	D1	d	d1	L	κ	a	Z		IK	kg
KP.040.002	30,4	40	16	30	40	92	1	5	2,5	✓	0,16
KP.050.002	40,4	50	22	40	50	92	1	6	1,8	✓	0,37
KP.052.002	42,4	52	22	40	50	92	1	6	1,7	✓	0,38
KP.063.002	53,4	63	27	48	50	92	1	7	1,4	✓	0,58
KP.066.002	56,4	66	27	48	50	92	1	7	1,4	✓	0,61

Programming radius 2,5mm

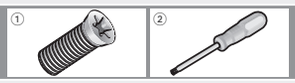
PEMT0502ZCTR-HR



Designation	fz(min/max)	Design	Grade	IN2035	IN2504	IN2505	IN2530				
PEMT0502ZCTR-HR	0,50/1,50	positive geometry									

● = P ● = M ● = K ● = N ● = S ○ = H

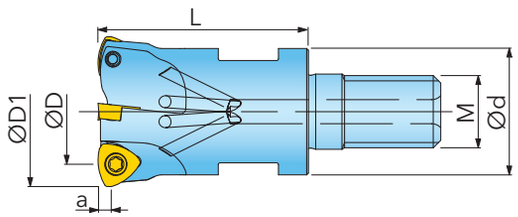
SPARE PARTS



SM25-064-00 (1,1Nm) DS-T08S

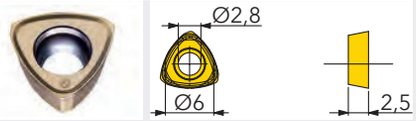
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

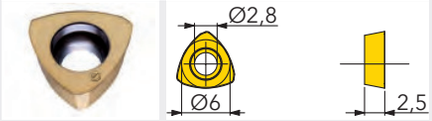


Designation	D	D1	d1	L	a	M	Z		IK	kg
PW.016.001	7,4	16	13	25	0,8	8	2	14,4	✓	0,02
PW.020.001	11,4	20	18	30	0,8	10	3	5,9	✓	0,05
PW.025.001	16,4	25	21	35	0,8	12	4	5,3	✓	0,09
PW.030.001	21,4	30	29	43	0,8	16	5	3,5	✓	0,20
PW.032.001	23,4	32	29	43	0,8	16	5	3,1	✓	0,22
PW.035.001	26,4	35	29	43	0,8	16	6	2,2	✓	0,23
PW.040.001	31,4	40	29	43	0,8	16	6	2,1	✓	0,27
PW.042.001	33,4	42	29	43	0,8	16	7	1,6	✓	0,28
Programming radius 2mm										

WCNT060205FR-FL



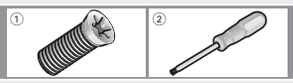
WCNW060205TR



Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530	IN4035
WCNT060205FR-FL	0,50/1,00	positive geometry			●	●	●
WCNW060205TR	0,60/1,10	neutral geometry		●	●	●	●

● = P ● = M ● = K ● = N ● = S ○ = H

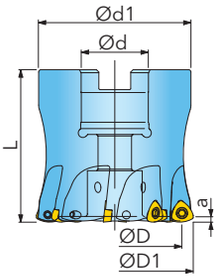
SPARE PARTS



SM25-054-00 (1,1Nm) DS-T08S

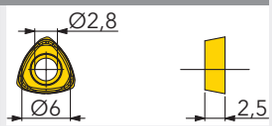
① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 8030

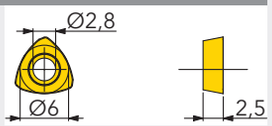


Designation	D	D1	d1	L	a	Z		IK	kg
PW.032.002	23,4	32	30	40	0,8	5	3,1	✓	0,15
PW.035.002	26,4	35	30	40	0,8	6	2,2	✓	0,17
PW.040.002	31,4	40	38	40	0,8	6	2,1	✓	0,23
PW.042.002	33,4	42	38	40	0,8	7	1,6	✓	0,24
PW.050.001	41,4	50	45	50	0,8	8	1,3	✓	0,52
PW.052.001	43,4	52	40	50	0,8	8	1,2	✓	0,56
Programming radius 2mm									

WCNT060205FR-FL



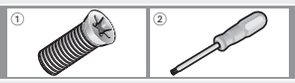
WCNW060205TR



Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530	IN4035
WCNT060205FR-FL	0,50/1,00	positive geometry					
WCNW060205TR	0,60/1,10	neutral geometry					

● = P ● = M ● = K ● = N ● = S ○ = H

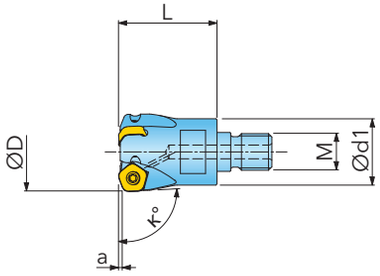
SPARE PARTS



SM25-054-00 (1,1Nm) DS-T08S

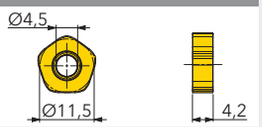
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

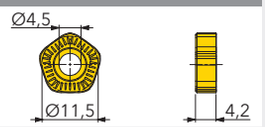


Designation	D	D1	d1	L	κ	a	M	Z		IK	kg
KP.035.001	21,5	35	29	43	92	1,5	M16	3	0,1	✓	0,21
KP.042.001	28,5	42	29	43	92	1,5	M16	4	0,2	✓	0,24
Programming radius 4,5mm											

PNCQ0804ZNTN



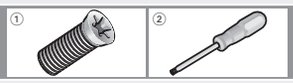
PNCT0804ZNN-HR



Designation	fz(min/max)	Design	Grade	IN2505	IN4005	IN4030					
PNCQ0804ZNTN	0,50/2,50	neutral geometry, K-land			●	●					
PNCT0804ZNN-HR	0,22/1,50	positive geometry		●		●					

● = P ● = M ● = K ● = N ● = S ○ = H

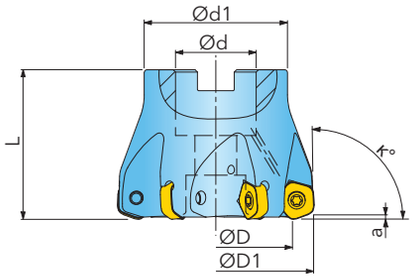
SPARE PARTS



SM40-093-20 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

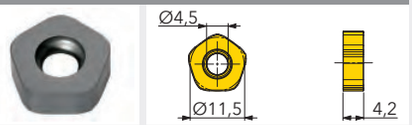
ADAPTION ACC. TO DIN 8030



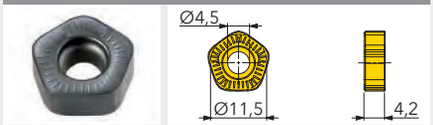
Designation	D	D1	d	d1	L	κ	a	Z		IK	kg
KP.050.001	36,5	50	22	40	50	92	1,5	5	0,2	✓	0,37
KP.052.001	38,5	52	22	40	50	92	1,5	5	0,6	✓	0,40
KP.063.001	49,4	63	27	48	50	92	1,5	6	0,7	✓	0,58
KP.066.001	52,4	66	27	48	50	92	1,5	6	0,7	✓	0,65
KP.080.001	66,4	80	27	60	50	92	1,5	7	0,7	✓	1,10

Programming radius 4,5mm

PNCQ0804ZNTN



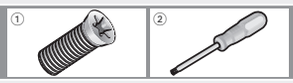
PNCT0804ZNN-HR



Designation	fz(min/max)	Design	Grade	IN2505	IN4005	IN4030					
PNCQ0804ZNTN	0,50/2,50	neutral geometry, K-land			●	●					
PNCT0804ZNN-HR	0,22/1,50	positive geometry		●		●					

● = P ● = M ● = K ● = N ● = S ○ = H

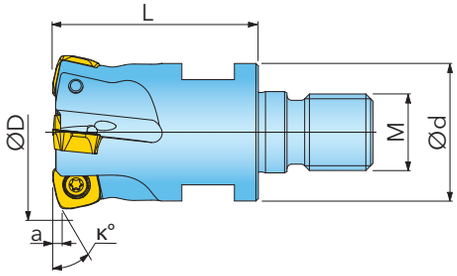
SPARE PARTS



SM40-093-20 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

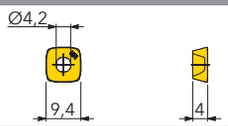
SCREW-IN TYPE ADAPTION



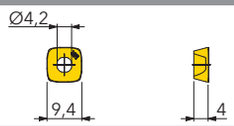
Designation	D	D1	d1	L	κ	a	M	Z		IK	kg
PS.025.004	12,9	25	21	35	12	1,5	M12	3	5,5	✓	0,09
PS.030.001	17,9	30	29	43	12	1,5	M16	3	3,5	✓	0,15
PS.032.005	19,9	32	29	43	12	1,5	M16	4	3,3	✓	0,20
PS.035.003	22,9	35	29	43	12	1,5	M16	4	2,6	✓	0,22
PS.040.004	27,8	40	29	43	12	1,5	M16	5	2,2	✓	0,24
PS.042.004	29,8	42	29	43	12	1,5	M16	5	2,0	✓	0,26

Programming radius 2,5 mm

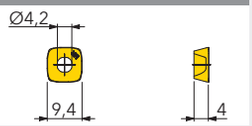
SDXS0904MPR-MR



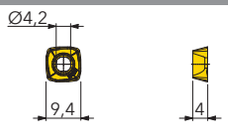
SDXS0904MPR-MRH



SDXS0904MPR-MR1



SDXS0904MPR-MM

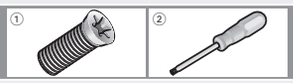


Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530	IN4005	IN4030	IN4035	IN7035
SDXS0904MPR-MR	0,50/1,50	neutral geometry convex, chamfered			●	●	●	●	●	
SDXS0904MPR-MRH	0,50/1,50	neutral geometry convex, chamfered		●						
SDXS0904MPR-MR1	0,50/1,50	neutral geometry convex, sharp							●	●
SDXS0904MPR-MM	0,50/1,50	positive geometry convex, chamfered			●		●	●	●	

*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

● = P ● = M ● = K ● = N ● = S ○ = H

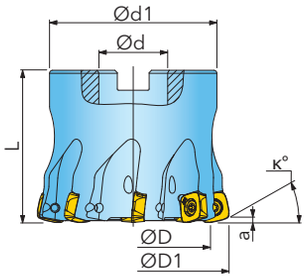
SPARE PARTS



SM30-075-R0 (2,0Nm) DS-T09S

① = Insert screw ② = Screw driver

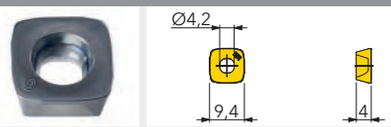
ADAPTION ACC. TO DIN 8030



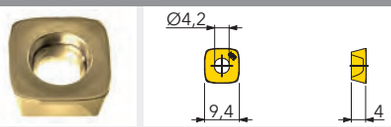
Designation	D	D1	d	d1	L	κ	a	Z		IK	kg
PS.050.007	37,8	50	22	45	50	12	1,5	6	1,5	✓	0,43
PS.050.008[1)]	37,8	50	22	45	50	12	1,5	7	1,5	✓	0,43
PS.052.004	39,8	52	22	40	50	12	1,5	6	1,3	✓	0,46
PS.052.005[1)]	39,8	52	22	40	50	12	1,5	7	1,3	✓	0,46
PS.063.008	50,8	63	22	55	50	12	1,5	7	1,1	✓	0,75
PS.063.009[1)]	50,8	63	22	55	50	12	1,5	8	1,1	✓	0,75
PS.066.004	53,8	66	27	50	50	12	1,5	7	1,0	✓	0,80
PS.066.005[1)]	53,8	66	27	50	50	12	1,5	8	1,0	✓	0,80
PS.080.013	67,8	80	27	70	50	12	1,5	7	0,6	✓	1,20
PS.080.014[1)]	67,8	80	27	70	50	12	1,5	9	0,6	✓	1,20
PS.085.001	72,8	85	27	70	50	12	1,5	8	0,4	✓	1,27
PS.085.002[1)]	72,8	85	27	70	50	12	1,5	10	0,4	✓	1,27
Programming radius 2,5 mm											

[1)] Narrow spacing

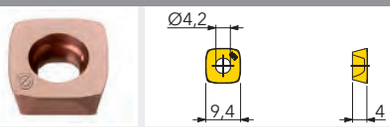
SDXS0904MPR-MR



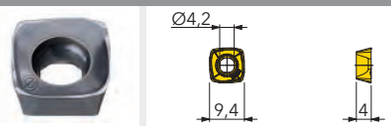
SDXS0904MPR-MRH



SDXS0904MPR-MR1



SDXS0904MPR-MM

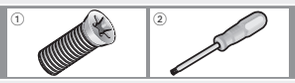


Designation	fz(min/max)	Design	Grade	IN2504	IN2505	IN2530	IN4005	IN4030	IN4035	IN7035
SDXS0904MPR-MR	0,50/1,50	neutral geometry convex, chamfered			●	●	●	●	●	
SDXS0904MPR-MRH	0,50/1,50	neutral geometry convex, chamfered		●						
SDXS0904MPR-MR1	0,50/1,50	neutral geometry convex, sharp							●	●
SDXS0904MPR-MM	0,50/1,50	positive geometry convex, chamfered			●		●	●	●	

*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

● = P ● = M ● = K ● = N ● = S ○ = H

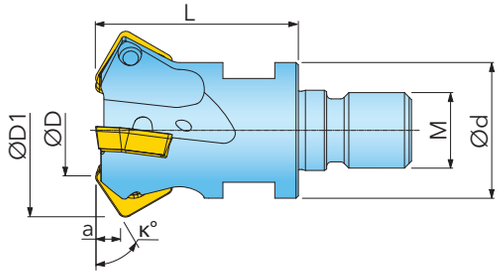
SPARE PARTS



SM30-075-R0 (2,0Nm) DS-T09S

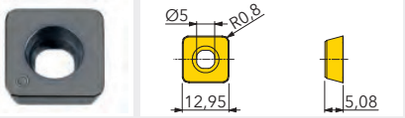
① = Insert screw ② = Screw driver

SCREW-IN TYPE ADAPTION

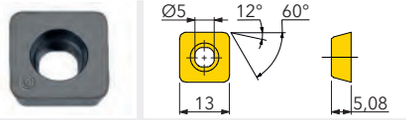


Designation	D	D1	d1	L	κ	a	M	Z		IK	kg
PS.032.003	11	32	29	43	12	2	M16	2	10	✓	0,17
PS.035.001	14	35	29	43	12	2	M16	2	8	✓	0,17
PS.040.002	19	40	29	43	12	2	M16	3	5	✓	0,19
PS.042.002	21	42	29	43	12	2	M16	3	5	✓	0,20
PS.032.004	11	32	29	43	12	2	M16	2	10	✓	0,17
PS.035.002	14	35	29	43	12	2	M16	2	8	✓	0,17
PS.042.001	21	42	29	43	12	2	M16	3	5	✓	0,20

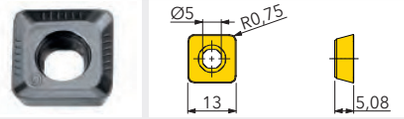
SDES1305MDR



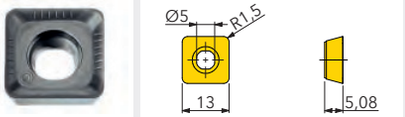
SDES1305MDR-001



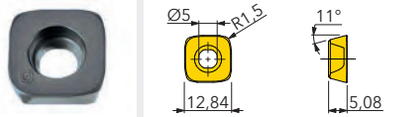
SDMS1305MDR-PH



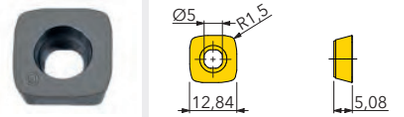
SDMS130515R-PH



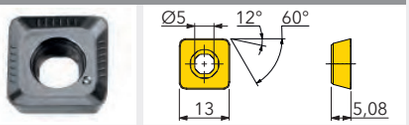
SDES1305MPR



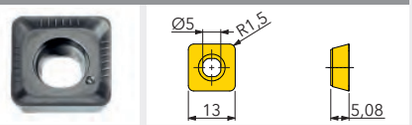
SDES1305MPR-001



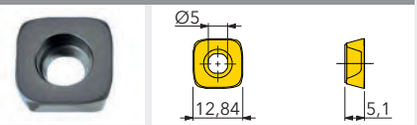
SDXS1305MDR-PH



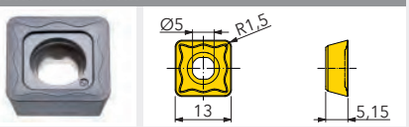
SDXS130515R-PH



SDXS1305MPR-MR



SDXS130515N-HR

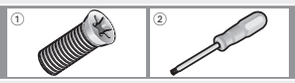


Designation	fz(min/max)	Design	Grade IN2035	IN2504	IN2505	IN4005	IN4030	IN4035		
SDES1305MDR	*/*	neutral geometry, chamfered			●					
SDES1305MDR-001	*/*	neutral geometry, sharp			●					
SDMS1305MDR-PH	*/*	positive geometry, chamfered			●	●	●	●		
SDMS130515R-PH	*/*	positive geometry, chamfered R1,5			●		●	●		
SDES1305MPR	*/*	neutral geometry convex, chamfered			●	●		●		
SDES1305MPR-001	*/*	neutral geometry convex, sharp			●	●	●	●		
SDXS1305MDR-PH	*/*	positive geometry, chamfered					●	●		
SDXS130515R-PH	*/*	positive geometry, chamfered R1,5					●	●		
SDXS1305MPR-MR	*/*	neutral geometry convex, chamfered		●		●	●			
SDXS130515N-HR	*/*	positive titanium geometry R1,5, K-land	●							

*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

● = P ● = M ● = K ● = N ● = S ○ = H

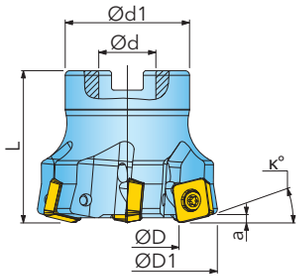
SPARE PARTS



SM40-100-R0 (4,5Nm) DS-T15S

① = Insert screw ② = Screw driver

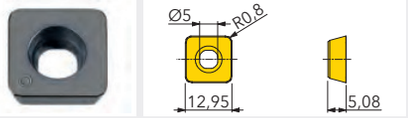
ADAPTION ACC. TO DIN 8030



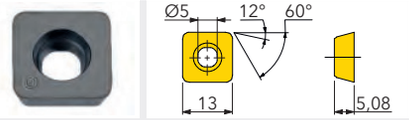
Designation	D	D1	d	d1	L	κ	a	Z		IK	kg
PS.050.005	29	50	22	45	50	12	2	4	3,5	✓	0,34
PS.050.004[1)]	29	50	22	45	50	12	2	5	3,5	✓	0,33
PS.052.002	31	52	22	40	50	12	2	4	3	✓	0,29
PS.052.001[1)]	31	52	22	40	50	12	2	5	3	✓	0,28
PS.063.005	42	63	22	55	50	12	2	5	2,5	✓	0,57
PS.063.004[1)]	42	63	22	55	50	12	2	6	2,5	✓	0,60
PS.066.002	45	66	27	48	50	12	2	5	2	✓	0,48
PS.066.001[1)]	45	66	27	48	50	12	2	6	2	✓	0,50
PS.080.005	59	80	27	70	50	12	2	6	1	✓	0,97
PS.080.004[1)]	59	80	27	70	50	12	2	8	1	✓	1,01
PS.100.005	79	100	32	85	55	12	2	7	0,5	✓	1,75
PS.100.004[1)]	79	100	32	85	55	12	2	9	0,5	✓	1,74
PS.052.003[1)2)]	31	52	22	40	50	12	2	5	3	✓	0,28
PS.066.003[1)2)]	45	66	27	48	50	12	2	6	2	✓	0,50
PS.080.009[1)2)]	59	80	27	70	50	12	2	8	1	✓	1,01
PS.100.008[1)2)]	79	100	32	85	55	12	2	9	0,5	✓	1,74

[1)] Narrow spacing; [2)] for * MPR-Insert geometry is effective diameter (D)

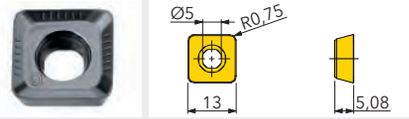
SDES1305MDR



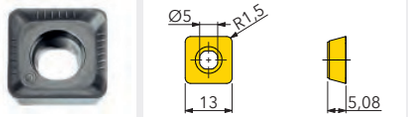
SDES1305MDR-001



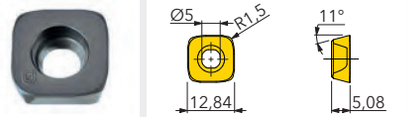
SDMS1305MDR-PH



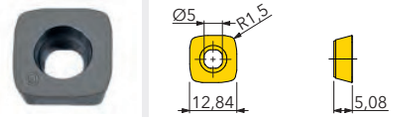
SDMS130515R-PH



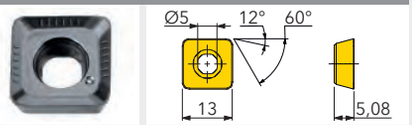
SDES1305MPR



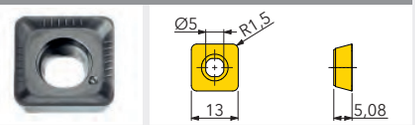
SDES1305MPR-001



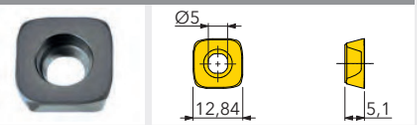
SDXS1305MDR-PH



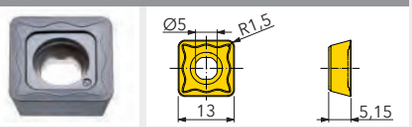
SDXS130515R-PH



SDXS1305MPR-MR



SDXS130515N-HR



Designation	fz(min/max)	Design	Grade IN2035	IN2504	IN2505	IN4005	IN4030	IN4035		
SDES1305MDR	*/*	neutral geometry, chamfered			●					
SDES1305MDR-001	*/*	neutral geometry, sharp			●					
SDMS1305MDR-PH	*/*	positive geometry, chamfered			●	●	●	●		
SDMS130515R-PH	*/*	positive geometry, chamfered R1,5			●		●	●		
SDES1305MPR	*/*	neutral geometry convex, chamfered			●	●		●		
SDES1305MPR-001	*/*	neutral geometry convex, sharp			●	●	●	●		
SDXS1305MDR-PH	*/*	positive geometry, chamfered					●	●		
SDXS130515R-PH	*/*	positive geometry, chamfered R1,5					●	●		
SDXS1305MPR-MR	*/*	neutral geometry convex, chamfered		●		●	●			
SDXS130515N-HR	*/*	positive titanium geometry R1,5, K-land	●							

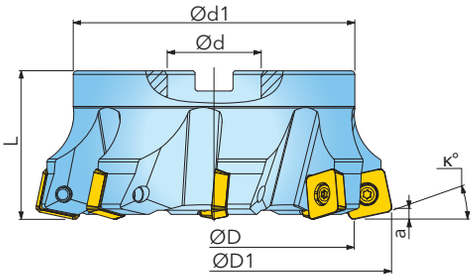
*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS	①	②
	SM40-100-R0 (4,5Nm)	DS-T15S

① = Insert screw ② = Screw driver

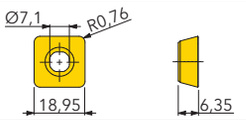
ADAPTION ACC. TO DIN 8030



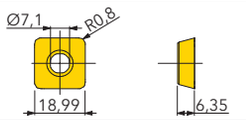
Designation	D	D1	d	d1	LK	L	κ	a	Z		IK	kg
PS.080.007	48,6	80	27	70	-	55	12	3	5	3,5	✓	1,01
PS.080.006[1)]	48,6	80	27	70	-	55	12	3	6	3,5	✓	1,02
PS.100.007	68,6	100	32	85	-	55	12	3	6	2,5	✓	1,63
PS.100.006[1)]	68,6	100	32	85	-	55	12	3	8	2,5	✓	1,62
PS.125.004	93,6	125	40	100	-	63	12	3	7	1,5	✓	2,84
PS.125.003[1)]	93,6	125	40	100	-	63	12	3	9	1,5	✓	2,87
PS.160.004	128,6	160	40	130	66,7	63	12	3	8	1	✓	4,80
PS.160.003[1)]	128,6	160	40	130	66,7	63	12	3	10	1	✓	4,82
PS.080.008[1)]	48,6	80	27	70	-	55	12	3	6	3,5	✓	1,02
PS.100.009[1)]	68,6	100	32	85	-	55	12	3	8	2,5	✓	1,62
PS.125.005[1)]	93,6	125	40	100	-	63	12	3	9	1,5	✓	2,87
PS.160.005[1)]	128,6	160	40	130	66,7	63	12	3	10	1,0	✓	4,82

[1)] Narrow spacing

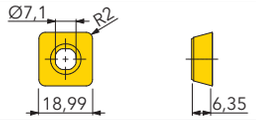
SDES1906MDR



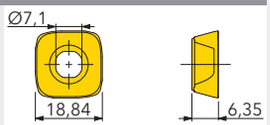
SDMS1906MDR-PH



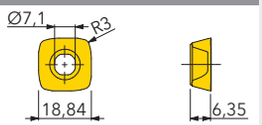
SDMS190620R-PH



SDXS1906MPR-MR



SDES1906MPR-001



Designation	fz(min/max)	Design	Grade	IN2505	IN4005	IN4030	IN4035
SDES1906MDR	*/*	neutral geometry, chamfered		●			
SDMS1906MDR-PH	*/*	positive geometry, chamfered		●	●	●	●
SDMS190620R-PH	*/*	positive geometry, chamfered R2		●	●	●	●
SDXS1906MPR-MR	*/*	neutral geometry convex, chamfered		●	●	●	●
SDES1906MPR-001	*/*	neutral geometry convex, sharp		●	●	●	●

*** fz-values see manual „Cutting Data for Milling & Boring Tools"**

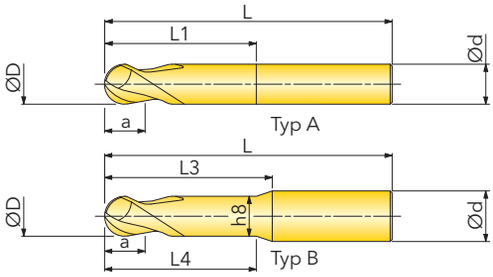
● = P ● = M ● = K ● = N ● = S ○ = H

SPARE PARTS

SM60-135-R0 (8,0Nm) DS-T25S

① = Insert screw ② = Screw driver

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	O

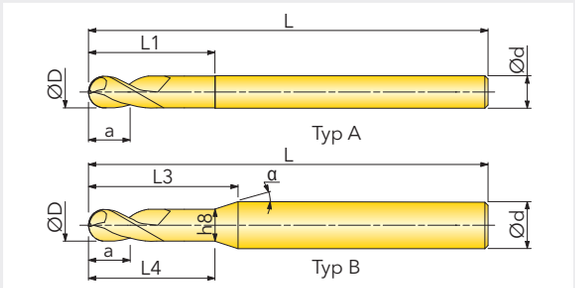
+ Preferred choice O Second choice

△	e8
□	h6

Designation	D	d	d8	L	L1	L3	L4	a	Typ	Z
45B02004T9RB380[1)]	2	3	-	38	-	10	6	4	B	2
45B02003T7RB570[1)]	2	6	1,8	57	-	20	8	3	B	2
45B03005T9RB380	3	3	-	38	-	-	-	5	A	2
45B03004T7RB570[1)]	3	6	2,8	57	-	20	10	3,5	B	2
45B04007U0RB500	4	4	-	50	-	-	-	7	A	2
45B04004T7RB570[1)]	4	6	3,8	57	-	20	12	4	B	2
45B04007T7RB570[1)]	4	6	-	57	-	13	10	7	B	2
45B05008U1RB500	5	5	-	50	-	-	-	8	A	2
45B05005T7RB570[1)]	5	6	4,7	57	-	20	14	5	B	2
45B05008T7RB570[1)]	5	6	-	57	-	12	10	8	B	2
45B06006T7RB570	6	6	5,6	57	20	-	-	6	A	2
45B06008T7RB570	6	6	-	57	-	-	-	8	A	2
45B08007T0RB630	8	8	7,6	63	25	-	-	7	A	2
45B08011T0RB630	8	8	-	63	-	-	-	11	A	2
45B10008T1RB720	10	10	9,6	72	30	-	-	8	A	2
45B10013T1RB720	10	10	-	72	-	-	-	13	A	2
45B12014T2RB830	12	12	-	83	-	-	-	14	A	2
45B16016T3RB930	16	16	-	93	-	-	-	16	A	2

[1)] Conical type

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	○

+ Preferred choice ○ Second choice

e8
h6

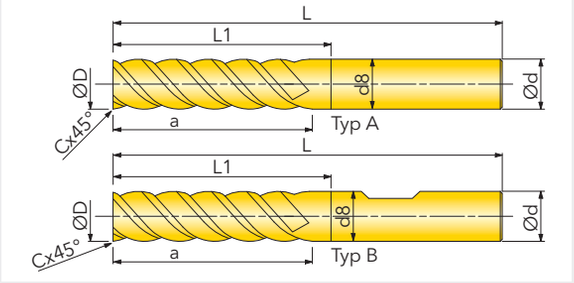
λ = 30°

44 HRC

Designation	D	d	d8	L	L1	L3	L4	α	a	Typ	Z
45B02003T7RB800[1)]	2	6	1,8	80	-	40	8	4	3	B	2
45B03004T7RB800[1)]	3	6	2,8	80	-	40	12	3,5	3,5	B	2
45B04004T7RB800[1)]	4	6	3,8	80	-	40	20	4	4	B	2
45B06006T7RB800	6	6	5,6	80	40	-	-	-	6	A	2
45B06006T0RB100[1)]	6	8	5,6	100	-	60	25	2	6	B	2
45B08007T0RB100	8	8	7,6	100	60	-	-	-	7	A	2
45B08007T1RB120[1)]	8	10	7,6	120	-	60	32	2,5	7	B	2
45B10008T1RB120	10	10	9,6	120	75	-	-	-	8	A	2

[1)] Conical type

ADAPTION ACC. TO DIN 6535 HA / 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	o

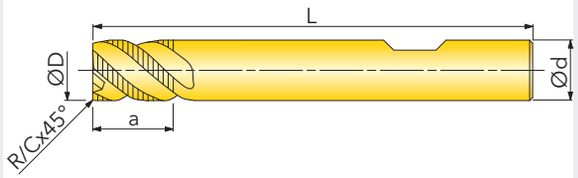
+ Preferred choice o Second choice

△	e8
□	h6

Designation	D	d	d8	L	L1	a	C	Typ	Z
47C03008T7RQ010[1]	3	6	2,8	57	11	8	0,1	A	4
47C04010T7RQ010[1]	4	6	3,8	57	14	10	0,15	A	4
47C05012T7RQ010[1]	5	6	4,8	57	17	12	0,18	A	4
47C06014T7RQ020[1]	6	6	5,8	57	20	14	0,25	A	4
47C06014WERQ020[2]	6	6	5,8	57	20	14	0,25	B	4
47C08018T0RQ030[1]	8	8	7,8	63	26	18	0,3	A	4
47C08018W0RQ030[2]	8	8	7,8	63	26	18	0,3	B	4
47C10022T1RQ040[1]	10	10	9,8	72	32	22	0,4	A	4
47C10022W1RQ040[2]	10	10	9,8	72	32	22	0,4	B	4
47C12026T2RQ050[1]	12	12	11,7	83	38	26	0,5	A	4
47C12026W2RQ050[2]	12	12	11,7	83	38	26	0,5	B	4
47C16034T3RQ060[1]	16	16	15,7	100	50	34	0,6	A	4
47C16034W3RQ060[2]	16	16	15,7	100	50	34	0,6	B	4
47C20042T4RQ060[1]	20	20	19,7	110	60	42	0,6	A	4
47C20042W4RQ060[2]	20	20	19,7	110	60	42	0,6	B	4
47C25052T5RQ060[1]	25	25	24,6	121	65	52	0,6	A	4
47C25052W5RQ060[2]	25	25	24,6	121	65	52	0,6	B	4
47C06015WERQ021[2]	6	6	-	57	-	15	0,2	B	5
47C08020T0RQ021[1]	8	8	-	63	-	20	0,25	A	5
47C08020W0RQ021[2]	8	8	-	63	-	20	0,25	B	5
47C10025T1RQ031[1]	10	10	-	72	-	25	0,3	A	5
47C10025W1RQ031[2]	10	10	-	72	-	25	0,3	B	5
47C12030T2RQ041[1]	12	12	-	83	-	30	0,4	A	5
47C12030W2RQ041[2]	12	12	-	83	-	30	0,4	B	5
47C16040T3RQ051[1]	16	16	-	100	-	40	0,5	A	5
47C16040W3RQ051[2]	16	16	-	100	-	40	0,5	B	5
47C20050T4RQ051[1]	20	20	-	125	-	50	0,5	A	5
47C20050W4RQ051[2]	20	20	-	125	-	50	0,5	B	5
HPC rougher & finisher unequally spaced									

[1] DIN 6535 HA; [2] DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	o

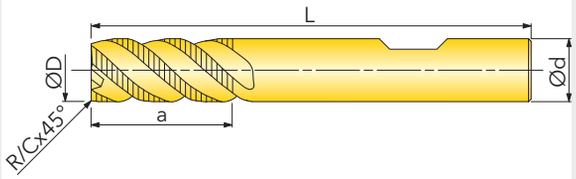
+ Preferred choice ○ Second choice

e9
h6

Designation	D	d	L	a	C	Z
47C05005WERN020	5	6	57	5	0,2	4
47C06006WERN030	6	6	57	6	0,25	4
47C08008W0RN030	8	8	63	8	0,3	4
47C10010W1RN030	10	10	72	10	0,35	4
47C12012W2RN030	12	12	83	12	0,35	4
47C16016W3RN030[1)]	16	16	92	16	0,35	5
48C20020W4RN030[1)]	20	20	104	20	0,35	7

[1)] 5 or 7 flutes no center milling

ADAPTION ACC. TO DIN 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	O

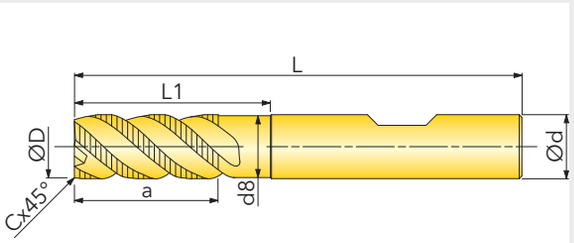
+ Preferred choice O Second choice

	e9
	h6

Designation	D	d	L	a	R	C	Z
47C05010WERN020	5	6	57	10	-	0,2	4
47C06012WERN020	6	6	57	12	-	0,25	4
47C08016W0RN030	8	8	63	16	-	0,3	4
47C10020W1RN030	10	10	72	20	-	0,35	4
47C12024W2RN030	12	12	83	24	-	0,35	4
47D12024W2RN120	12	12	83	24	1,2	-	4
47C16032W3RN030[1)]	16	16	92	32	-	0,35	5
48C20040W4RN030[1)]	20	20	104	40	-	0,35	7

[1)] 5 or 7 flutes no center milling

ADAPTION ACC. TO DIN 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	o

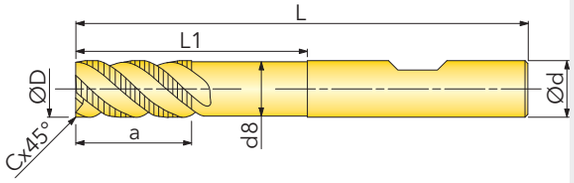
+ Preferred choice ○ Second choice

e9
h6

Designation	D	d	d8	L	L1	a	C	Z
47C06012WERN021	6	6	5,9	57	18	12	0,25	4
47C08016W0RN031	8	8	7,8	63	24	16	0,3	4
47C10020W1RN031	10	10	9,8	72	30	20	0,35	4
47C12024W2RN031	12	12	11,7	83	36	24	0,35	4
47C16032W3RN031[1)]	16	16	15,7	100	48	32	0,35	5
48C20040W4RN031[1)]	20	20	19,7	110	60	40	0,35	7

[1)] 5 or 7 flutes no center milling

ADAPTION ACC. TO DIN 6535 HB



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	+	+		+	○

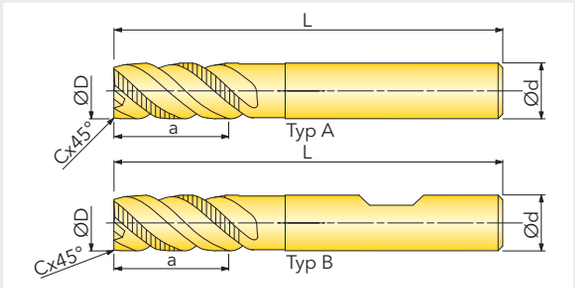
+ Preferred choice ○ Second choice

e9
h6

Designation	D	d	d8	L	L1	a	C	Z
47C08012W0RN030	8	8	7,8	68	32	12	0,3	4
47C10015W1RN030	10	10	9,8	80	40	15	0,35	4
47C12018W2RN030	12	12	11,7	100	48	18	0,35	4
47C16024W3RN030[1)]	16	16	15,7	115	64	24	0,35	5

[1)] 5 flutes no center cutting

ADAPTION ACC. TO DIN 6535 HA / 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	o

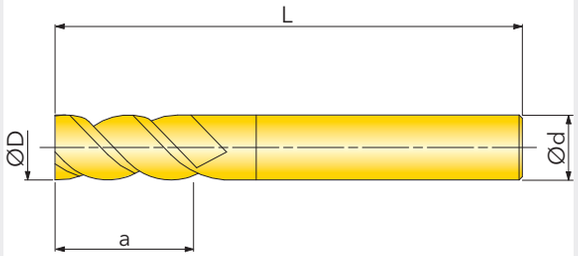
+ Preferred choice ○ Second choice

e9
h6

Designation	D	d	L	a	C	Typ	Z	Zs
47J06014T7RU570[1)]	6	6	57	14	0,25	A	4	2
47J06014WERU570[2)]	6	6	57	14	0,25	B	4	2
47J08018T0RU630[1)]	8	8	63	18	0,3	A	4	2
47J08018W0RU630[2)]	8	8	63	18	0,3	B	4	2
47J10022T1RU720[1)]	10	10	72	22	0,3	A	4	2
47J10022W1RU720[2)]	10	10	72	22	0,3	B	4	2
47J12026T2RU830[1)]	12	12	83	26	0,4	A	4	2
47J12026W2RU830[2)]	12	12	83	26	0,4	B	4	2
47J14030U8RU830[1)]	14	14	83	30	0,4	A	4	2
47J14030WFRU830[2)]	14	14	83	30	0,4	B	4	2
47J16034T3RU920[1)]	16	16	92	34	0,6	A	4	2
47J16034W3RU920[2)]	16	16	92	34	0,6	B	4	2
47J20042T4RU040[1)]	20	20	104	42	0,6	A	4	2
47J20042W4RU040[2)]	20	20	104	42	0,6	B	4	2
47J25052T5RU210[1)]	25	25	121	52	0,6	A	4	2
47J25052W5RU210[2)]	25	25	121	52	0,6	B	4	2

[1)] DIN 6535 HA; [2)] DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HA



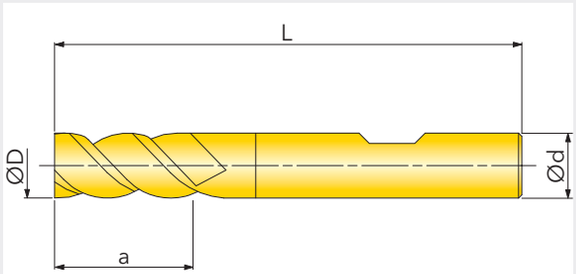
Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	+	+		+	o

+ Preferred choice o Second choice

e8
h6

Designation	D	d	L	a	Z
46J02007T9RD380	2	3	38	7	3
46J02007T7RD500	2	6	57	7	3
46J03010T9RD380	3	3	38	10	3
46J03010T7RD500	3	6	57	10	3
46J04012U0RD500	4	4	50	12	3
46J04012T7RD500	4	6	57	12	3
46J05014U1RD500	5	5	50	14	3
46J05014T7RD500	5	6	57	14	3
46J06016T7RD500	6	6	57	16	3
46J07016UARD600	7	7	60	16	3
46J08020T0RD630	8	8	63	20	3
46J09020U9RD670	9	9	67	20	3
46J10022T1RD720	10	10	72	22	3
46J12025T2RD730	12	12	83	25	3
46J14025U8RD750	14	14	83	25	3
46J16032T3RD820	16	16	92	32	3
46J20038T4RD920	20	20	104	38	3

ADAPTION ACC. TO DIN 6535 HB



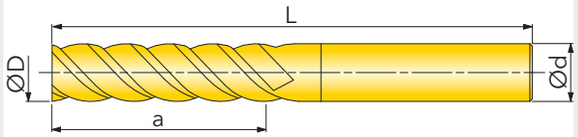
Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	o

+ Preferred choice ○ Second choice

e8
h6

Designation	D	d	L	a	Z
46J06016WERD500	6	6	57	16	3
46J08020W0RD630	8	8	63	20	3
46J10022W1RD720	10	10	72	22	3
46J12025W2RD830	12	12	83	25	3
46J16032W3RD920	16	16	92	32	3
46J20038W4RD100	20	20	104	38	3

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	○

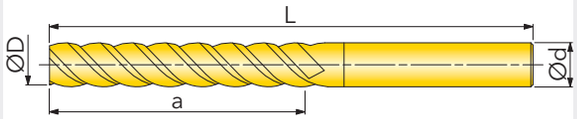
+ Preferred choice ○ Second choice

e8
h6

Designation	D	d	L	a	Z
47J06024T7RD650	6	6	65	24	4
47J08032T0RD800	8	8	80	32	4
47J10040T1RD100	10	10	100	40	4
47J12048T2RD100	12	12	100	48	4
47J14050U8RD100	14	14	100	50	4
48J16056T3RD120[1)]	16	16	115	56	6
48J20060T4RD130[1)]	20	20	125	60	6

[1)] 6 flutes no center cutting

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	+	+		+	○

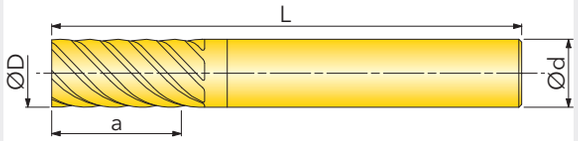
+ Preferred choice ○ Second choice

e8
h6

Designation	D	d	L	a	Z
47J10060T1RD110	10	10	110	60	4
47J12072T2RD150	12	12	150	72	4
48J16080T3RD150[1)]	16	16	150	80	6
48J20080T4RD150[1)]	20	20	150	80	6

[1)] 6 flutes no center cutting

ADAPTION ACC. TO DIN 6535 HA



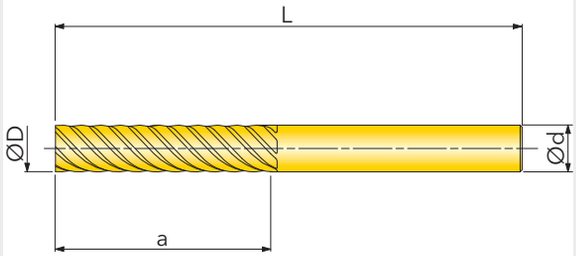
Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	+	+		+	O

+ Preferred choice ○ Second choice

e8
h6

Designation	D	d	L	a	Z
48J06016T7RD570	6	6	57	16	6
48J08020T0RD630	8	8	63	20	6
48J10022T1RD720	10	10	72	22	6
48J12025T2RD830	12	12	83	25	6
48J16032T3RD920	16	16	92	32	6
48J20038T4RD100	20	20	104	38	6

ADAPTION ACC. TO DIN 6535 HA



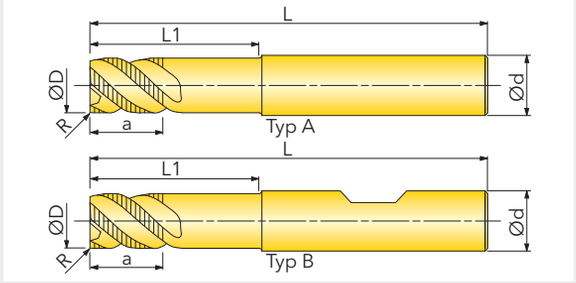
Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2006	+	+	+		+	+

+ Preferred choice ○ Second choice

e8
h6

Designation	D	d	L	a	Z
48J06026T7RD700	6	6	70	26	6
48J08036T0RD900	8	8	90	36	6
48J10046T1RD100	10	10	100	46	6
48J12056T2RD110	12	12	110	56	6
48J16066T3RD130	16	16	130	66	6
48J20076T4RD140	20	20	140	76	6
48J25092T5RD180	25	25	180	92	6

ADAPTION ACC. TO DIN 6535 HA / 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN05S				+		

+ Preferred choice ○ Second choice

h6
h6

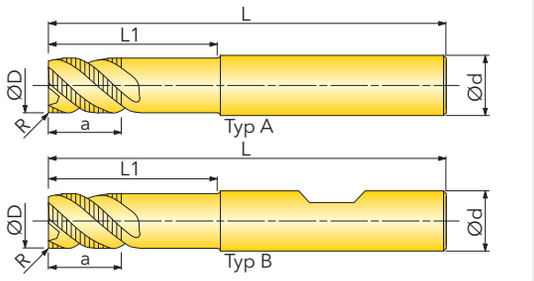
45° ALU

Designation	D	d	L	L1	a	R	Typ	Z
46D06009T7RN020[1)]	6	6	57	21	9	0,2	A	3
46D06009WERN020[2)]	6	6	57	21	9	0,2	B	3
46D08012T0RN020[1)]	8	8	63	27	12	0,2	A	3
46D08012W0RN020[2)]	8	8	63	27	12	0,2	B	3
46D10012T1RN020[1)]	10	10	72	31	12	0,2	A	3
46D10012W1RN020[2)]	10	10	72	31	12	0,2	B	3
46D12012T2RN020[1)]	12	12	83	37	12	0,2	A	3
46D12012W2RN020[2)]	12	12	83	37	12	0,2	B	3
46D16014T3RN020[1)]	16	16	92	43	14	0,2	A	3
46D16014W3RN020[2)]	16	16	92	43	14	0,2	B	3
46D20017T4RN020[1)]	20	20	104	53	17	0,2	A	3
on request with diamond coating								

[1)] DIN 6535HA; [2)] DIN 6535 HB

SOLID CARBIDE 3 FLUTE END MILL 45° HELIX SHORT LENGTH (ROUGHING)

ADAPTION ACC. TO DIN 6535 HA / 6535 HB



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN05S				+		

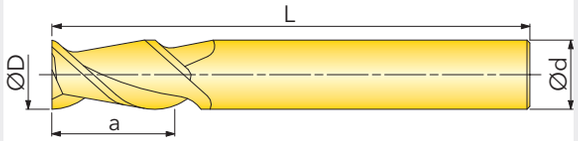
+ Preferred choice ○ Second choice

h6
h6

Designation	D	d	L	L1	a	R	Typ	Z
46D06009T7RN021[1)]	6	6	65	30	9	0,2	A	3
46D06009WERN021[2)]	6	6	65	30	9	0,2	B	3
46D08012T0RN021[1)]	8	8	78	40	12	0,2	A	3
46D08012W0RN021[2)]	8	8	78	40	12	0,2	B	3
46D10012T1RN021[1)]	10	10	100	50	12	0,2	A	3
46D10012W1RN021[2)]	10	10	100	50	12	0,2	B	3
46D12014T2RN021	12	12	100	55	14	0,2	A	3
46D12014W2RN021	12	12	100	55	14	0,2	B	3
46D16018T3RN021	16	16	150	80	18	0,2	A	3
46D16018W3RN021	16	16	150	80	18	0,2	B	3
46D20022T4RN021	20	20	150	80	22	0,2	A	3
46D20022W4RN021	20	20	150	80	22	0,2	B	3
on request with diamond coating								

[1)] DIN 6535HA; [2)] DIN 6535HB

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN05S				+		

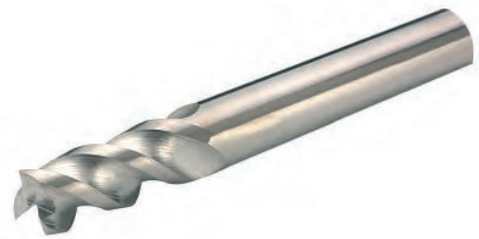
+ Preferred choice ○ Second choice

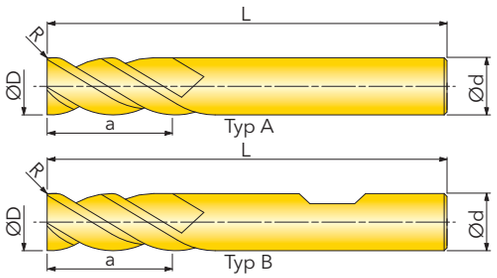
h6
h6

45° ALU

Designation	D	d	L	a	Z
45J04012T7RD570	4	6	57	12	2
45J05014T7RD570	5	6	57	14	2
45J06016T7RD570	6	6	57	16	2
45J08020T0RD630	8	8	63	20	2
45J10022T1RD720	10	10	72	22	2
45J12025T2RD830	12	12	83	25	2
45J16032T3RD920	16	16	92	32	2
45J20038T4RD100	20	20	104	38	2
on request with diamond coating					

ADAPTION ACC. TO DIN 6535 HA / 6535 HB





Grade	P	M	K	N (K)	S (M)	H (P/K)
IN05S				+		

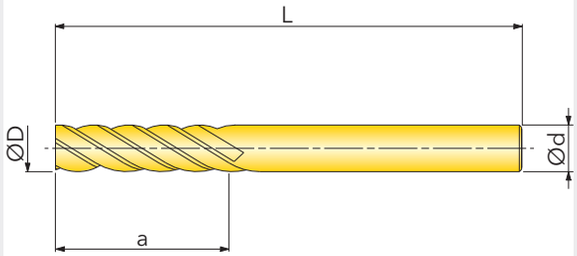
+ Preferred choice ○ Second choice

△	h6
□	h6

Designation	D	d	L	a	R	Typ	Z
46D05014T7RD020[1)]	5	6	57	14	0,2	A	3
46D05014WERD020[2)]	5	6	57	14	0,2	B	3
46D06016T7RD020[1)]	6	6	57	16	0,2	A	3
46D06016WERD020[2)]	6	6	57	16	0,2	B	3
46D08020T0RD020[1)]	8	8	63	20	0,2	A	3
46D08020W0RD020[2)]	8	8	63	20	0,2	B	3
46D10022T1RD020[1)]	10	10	72	22	0,2	A	3
46D10022W1RD020[2)]	10	10	72	22	0,2	B	3
46D12025T2RD020[1)]	12	12	83	25	0,2	A	3
46D12025W2RD020[2)]	12	12	83	25	0,2	B	3
46D14030U8RD020[1)]	14	14	83	30	0,2	A	3
46D14030WFRD020[2)]	14	14	83	30	0,2	B	3
46D16032T3RD020[1)]	16	16	92	32	0,2	A	3
46D16032W3RD020[2)]	16	16	92	32	0,2	B	3
46D20038T4RD020[1)]	20	20	104	38	0,2	A	3
46D20038W4RD020[2)]	20	20	104	38	0,2	B	3
on request with diamond coating							

[1)] DIN 6535 HA; [2)] DIN 6535 HB

ADAPTION ACC. TO DIN 6535 HA



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN05S				+		

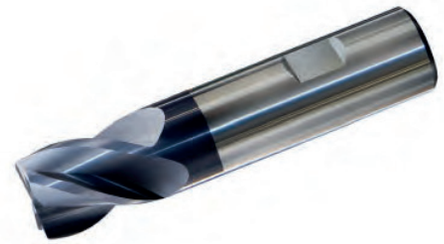
+ Preferred choice ○ Second choice

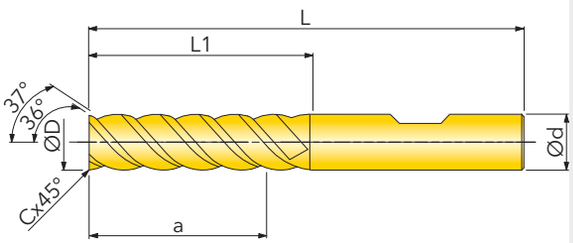
h10
h6

Designation	D	d	L	a	Z
47J03030T9RB750	3	3	75	30	4
47J04030U0RB750	4	4	75	30	4
47J05040U1RB100	5	5	100	40	4
47J06050T7RB150	6	6	150	50	4
47J08050T0RB150	8	8	150	50	4
47J10060T1RB150	10	10	150	60	4
47J12075T2RB150	12	12	150	75	4

on request with diamond coating

ADAPTION ACC. TO DIN 6535 HB





Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	o	+	o		

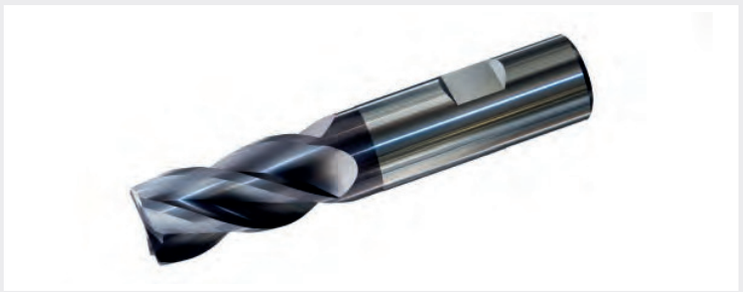
▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

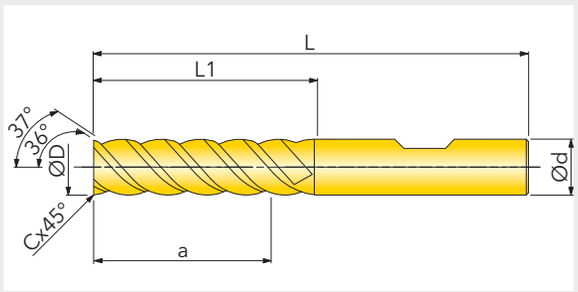
D h10
d h6

+ Preferred choice ○ Second choice

Designation	D	d	L	L1	a	C	Z
47C06010WERQ012	6	6	54	20	10	0,12	4
47C08012W0RQ016	8	8	58	21	12	0,16	4
47C10014W1RQ020	10	10	66	24	14	0,20	4
47C12016W2RQ024	12	12	73	26	16	0,24	4
47C16022W3RQ032	16	16	82	32	22	0,32	4
47C20026W4RQ040	20	20	92	42	26	0,40	4

ADAPTION ACC. TO DIN 6535 HB



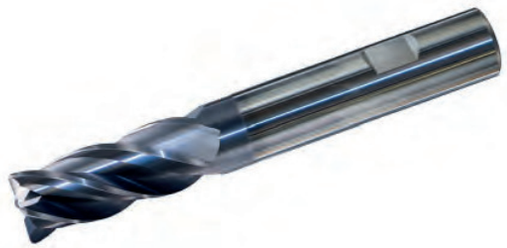


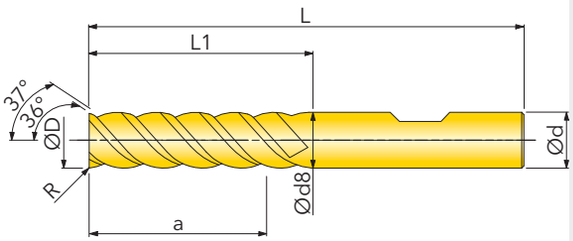
Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$	▼	D	h10
IN2005	+	o	+	o			▼▼▼	d	h6

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	L	L1	a	C	Z
47C06013WERQ012	6	6	57	23	13	0,12	4
47C08021W0RQ016	8	8	63	30	21	0,16	4
47C10022W1RQ020	10	10	72	32	22	0,20	4
47C12026W2RQ024	12	12	83	36	26	0,24	4
47C16036W3RQ040	16	16	92	47	36	0,32	4
47C20041W4RQ040	20	20	104	56	41	0,40	4

ADAPTION ACC. TO DIN 6535 HB





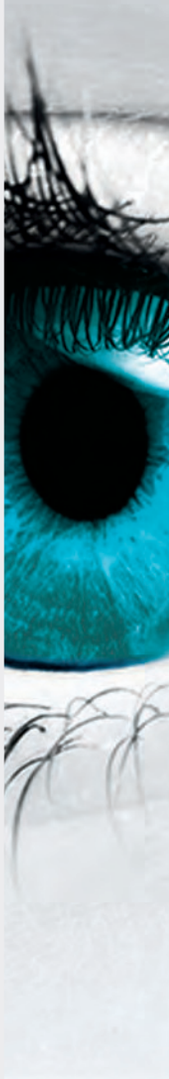
Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	o	+	o		

▼ Roughing
▼▼▼ Finishing

D h10
d h6

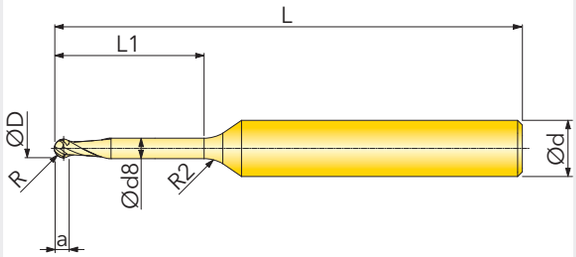
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	L	L1	a	R	Z
47D06019WERT020	6	6	63	29	19	0,2	4
47D08023W0RT050	8	8	76	33	23	0,5	4
47D10033W1RT050	10	10	81	43	33	0,5	4
47D12037W2RT050	12	12	94	47	37	0,5	4
47D16040W3RT100	16	16	109	56	40	1	4
47D20048W4RT100	20	20	120	64	48	1	4



ADAPTION ACC. TO DIN 6535 HA

Relief-ground tool geometry and special flank relief guarantee highest precision.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	O					+

▼ ▼▼ ▼▼▼

D	0/-0.015
R	± 0.005
d	h5

λ = 30° | ≤ 70 HRC

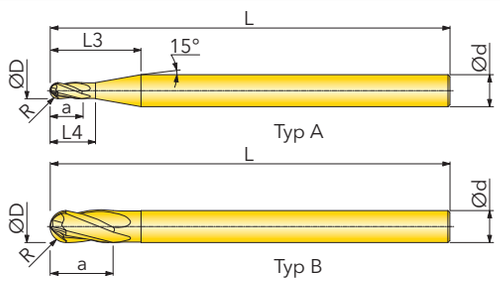
\+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	R2	Z
INROC003.015.004Z2	0,3	4	0,27	45	0,45	0,25	0,15	2	2
INROC003.015.009Z2	0,3	4	0,27	45	0,9	0,25	0,15	2	2
INROC003.015.015Z2	0,3	4	0,27	45	1,5	0,25	0,15	2	2
INROC003.015.020Z2	0,3	4	0,27	45	2	0,25	0,15	2	2
INROC003.015.030Z2	0,3	4	0,27	45	3	0,25	0,15	2	2
INROC004.020.006Z2	0,4	4	0,37	45	0,6	0,3	0,2	2	2
INROC004.020.012Z2	0,4	4	0,37	45	1,2	0,3	0,2	2	2
INROC004.020.020Z2	0,4	4	0,37	45	2	0,3	0,2	2	2
INROC004.020.030Z2	0,4	4	0,37	45	3	0,3	0,2	2	2
INROC004.020.035Z2	0,4	4	0,37	45	3,5	0,3	0,2	2	2
INROC004.020.040Z2	0,4	4	0,37	45	4	0,3	0,2	2	2
INROC005.025.007Z2	0,5	4	0,47	45	0,75	0,35	0,25	2	2
INROC005.025.015Z2	0,5	4	0,47	45	1,5	0,35	0,25	2	2
INROC005.025.030Z2	0,5	4	0,47	45	3	0,35	0,25	2	2
INROC005.025.050Z2	0,5	4	0,47	45	5	0,35	0,25	2	2
INROC006.030.009Z2	0,6	4	0,57	45	0,9	0,4	0,3	4	2
INROC006.030.018Z2	0,6	4	0,57	45	1,8	0,4	0,3	4	2
INROC006.030.030Z2	0,6	4	0,57	45	3	0,4	0,3	4	2
INROC006.030.050Z2	0,6	4	0,57	45	5	0,4	0,3	4	2
INROC006.030.060Z2	0,6	4	0,57	45	6	0,4	0,3	4	2
INROC008.040.012Z2	0,8	4	0,77	45	1,2	0,5	0,4	4	2
INROC008.040.024Z2	0,8	4	0,77	45	2,4	0,5	0,4	4	2
INROC010.050.015Z2	1	6	0,96	45	1,5	0,8	0,5	4	2
INROC010.050.030Z2	1	6	0,96	45	3	0,8	0,5	4	2
INROC010.050.060Z2	1	6	0,96	45	6	0,8	0,5	4	2
INROC010.050.080Z2	1	6	0,96	50	8	0,8	0,5	4	2
INROC010.050.100Z2	1	6	0,96	50	10	0,8	0,5	4	2
INROC012.060.018Z2	1,2	6	1,15	45	1,8	1,1	0,6	4	2
INROC012.060.036Z2	1,2	6	1,15	45	3,6	1,1	0,6	4	2
INROC015.075.022Z2	1,5	6	1,44	45	2,25	1,35	0,75	4	2
INROC015.075.045Z2	1,5	6	1,44	45	4,5	1,35	0,75	4	2
INROC015.075.080Z2	1,5	6	1,44	45	8	1,35	0,75	4	2
INROC015.075.120Z2	1,5	6	1,44	50	12	1,35	0,75	4	2
INROC020.100.030Z2	2	6	1,92	45	3	1,7	1	4	2
INROC020.100.060Z2	2	6	1,92	45	6	1,7	1	4	2
INROC020.100.080Z2	2	6	1,92	45	8	1,7	1	4	2

Designation	D	d	d8	L	L1	a	R	R2	Z
INROC020.100.120Z2	2	6	1,92	50	12	1,7	1	4	2
INROC020.100.160Z2	2	6	1,92	55	16	1,7	1	4	2
INROC020.100.200Z2	2	6	1,92	60	20	1,7	1	4	2

ADAPTION ACC. TO DIN 6535 HA

3 flutes provide a high stock removal rate with the precision of a 2-flute tool. Pitch of the individual flutes ensures smooth, vibration-free machining.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+					+

▼ ▼▼ ▼▼▼

D	0/-0.02
R	± 0.01
d	h6

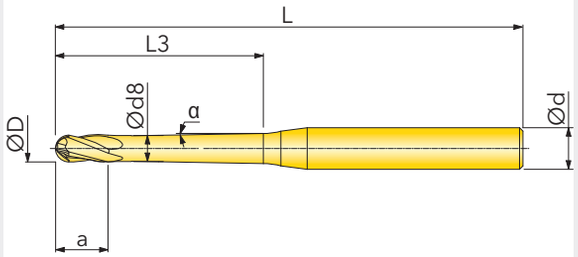
≤40° | ≤58 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	L	L3	L4	α	a	R	Typ	Z
INBAL020.100.003Z3	2	3	38	7	3	7,1	2,5	1	A	3
INBAL020.100.004Z3	2	6	50	15,3	4	10	3	1	A	3
INBAL030.150.004Z3	3	6	57	15	4	7,7	3,5	1,5	A	3
INBAL030.150.005Z3	3	6	70	14	5,5	10	4,5	1,5	A	3
INBAL040.200.006Z3	4	6	57	15	6	6,3	5	2	A	3
INBAL040.200.007Z3	4	6	70	12,7	7	10	6	2	A	3
INBAL050.250.007Z3	5	6	57	15	7	3,5	6	2,5	A	3
INBAL050.250.008Z3	5	6	80	11,3	8,5	10	7,5	2,5	A	3
INBAL060.300.008Z3	6	6	57	-	-	-	8	3	B	3
INBAL060.300.009Z3	6	6	90	-	-	-	9	3	B	3
INBAL080.400.015Z3	8	8	55	-	-	-	15	4	B	3
INBAL080.400.010Z3	8	8	63	-	-	-	10	4	B	3
INBAL080.400.012Z3	8	8	100	-	-	-	12	4	B	3
INBAL100.500.014Z3	10	10	72	-	-	-	14	5	B	3
INBAL100.500.015Z3	10	10	100	-	-	-	15	5	B	3
INBAL120.600.016Z3	12	12	83	-	-	-	16	6	B	3
INBAL120.600.018Z3	12	12	110	-	-	-	18	6	B	3

ADAPTION ACC. TO DIN 6535 HA

3 flutes provide a high stock removal rate with the precision of a 2-flute tool. Variable pitch of the individual flutes ensures smooth, vibration-free machining.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+					+

▼ ▼▼ ▼▼▼

D 0/-0.02
R ± 0.01
d h6

λ=40°

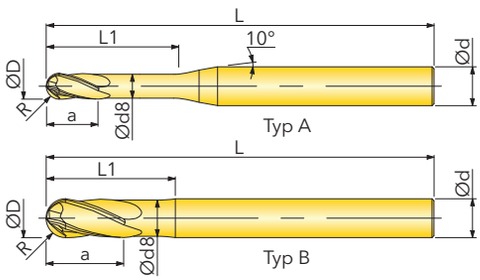
≤58 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L3	α	a	R	Z
INBAL040.200.030Z3K1	4	6	3,9	80	30	1	6	2	3
INBAL040.200.040Z3K1	4	6	3,9	90	40	1	6	2	3
INBAL040.200.050Z3K1	4	6	3,9	100	50	1	6	2	3
INBAL040.200.060Z3K1	4	6	3,9	100	60	1	6	2	3
INBAL050.250.040Z3K1	5	8	4,9	90	40	1	7,5	2,5	3
INBAL050.250.060Z3K1	5	8	4,9	110	60	1	7,5	2,5	3
INBAL060.300.050Z3K1	6	8	5,9	100	50	1	9	3	3
INBAL060.300.060Z3K1	6	8	5,9	110	60	1	9	3	3
INBAL060.300.070Z3K1	6	10	5,9	120	70	1	9	3	3
INBAL060.300.080Z3K1	6	10	5,9	130	80	1	9	3	3
INBAL080.400.060Z3K1	8	10	7,9	120	60	1	12	4	3
INBAL080.400.070Z3K1	8	10	7,9	130	70	1	12	4	3
INBAL080.400.080Z3K1	8	12	7,9	140	80	1	12	4	3
INBAL100.500.060Z3K1	10	12	9,9	130	60	1	15	5	3
INBAL100.500.075Z3K1	10	12	9,9	140	75	1	15	5	3

ADAPTION ACC. TO DIN 6535 HA

4 flutes for a high stock removal rate (general roughing operations up to 58 HRC). Short tool lengths make these ideal for HSC finishing operations too.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+	o	+		o	+

▼ ▼▼▼

D	0/-0.02
R	± 0.01
d	h6

λ = 30°

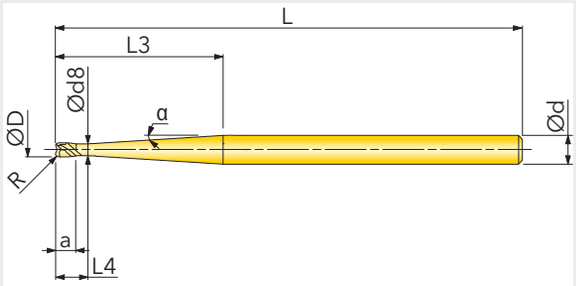
≤ 58 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Typ	Z
INRAP040.200.012Z4	4	6	3,7	60	12	5	2	A	4
INRAP040.200.020Z4	4	6	3,7	60	20	5	2	A	4
INRAP060.300.020Z4	6	6	5,6	60	20	10	3	B	4
INRAP060.300.030Z4	6	6	5,6	80	30	10	3	B	4
INRAP080.400.026Z4	8	8	7,4	75	26	12	4	B	4
INRAP080.400.040Z4	8	8	7,4	100	40	12	4	B	4
INRAP100.500.028Z4	10	10	9,2	75	28	16	5	B	4
INRAP100.500.040Z4	10	10	9,2	100	40	16	5	B	4
INRAP120.600.030Z4	12	12	11	100	30	16	6	B	4
INRAP160.800.032Z4	16	16	15	100	32	18	8	B	4

ADAPTION ACC. TO DIN 6535 HA

Ideal for milling ribs in die casting molds (general machining of steel up to 58 HRC). Long tool lengths for machining in high-tensile materials.



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN2005	+	○	+		○	+

▼ ▼▼ ▼▼▼

D	0/-0.02
R	± 0.01
d	h6

λ = 30° | ≤ 58 HRC

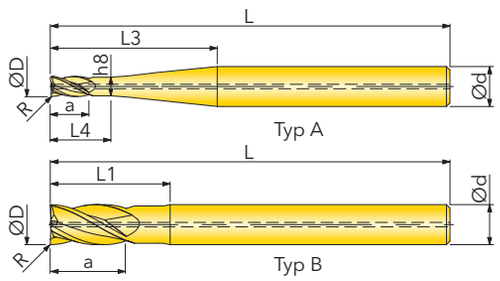
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L3	L4	α	a	R	Z
INSLO010.050.030Z2K15	1	6	0,95	75	30	6	1,5	2	0,5	2
INSLO010.050.039Z2K37	1	6	0,95	75	39	6	3,7	2	0,5	2
INSLO013.065.018Z2K15	1,3	6	1,2	57	18	6	1,5	2	0,65	2
INSLO013.065.026Z2K15	1,3	6	1,2	75	26	6	1,5	2	0,65	2
INSLO015.075.015Z2K04	1,5	6	1,4	60	15	8	0,4	2	0,75	2
INSLO015.075.015Z2K09	1,5	6	1,4	60	15	8	0,9	2	0,75	2
INSLO015.075.020Z2K04	1,5	6	1,4	60	20	8	0,4	2	0,75	2
INSLO015.075.020Z2K09	1,5	6	1,4	60	20	8	0,9	2	0,75	2
INSLO015.075.030Z2K15	1,5	6	1,4	70	30	8	1,5	2	0,75	2
INSLO015.075.050Z2K30	1,5	8	1,4	100	50	9	3	3	0,75	2
INSLO020.100.020Z2K04	2	6	1,9	60	20	8	0,4	2	1	2
INSLO020.100.020Z2K09	2	6	1,9	60	20	6	0,9	2	1	2
INSLO020.100.025Z2K04	2	6	1,9	70	25	8	0,4	2	1	2
INSLO020.100.025Z2K09	2	6	1,9	70	25	8	0,9	2	1	2
INSLO020.100.025Z2K15	2	6	1,9	75	25	6	1,5	2	1	2
INSLO020.100.032Z2K15	2	6	1,9	75	32	6	1,5	2	1	2
INSLO020.100.045Z2K09	2	6	1,95	85	45	9	0,9	3	1	2
INSLO020.100.045Z2K14	2	6	1,95	85	45	9	1,4	3	1	2
INSLO020.100.060Z2K09	2	6	1,95	100	60	9	0,9	3	1	2
INSLO020.100.060Z2K14	2	6	1,95	100	60	9	1,4	3	1	2
INSLO025.125.035Z2K15	2,5	6	2,4	75	35	12	1,5	4	1,25	2
INSLO025.125.040Z2K15	2,5	6	2,4	75	40	12	1,5	4	1,25	2
INSLO030.150.030Z2K15	3	6	2,9	75	30	6	1,5	2	1,5	2
INSLO030.150.040Z2K10	3	6	2,9	80	40	6	1	2	1,5	2
INSLO030.150.040Z2K15	3	6	2,9	85	40	6	1,5	2	1,5	2
INSLO030.150.040Z2K22	3	6	2,9	75	40	10	2,2	4	1,5	2
INSLO030.150.050Z2K10	3	8	2,9	100	50	6	1	2	1,5	2
INSLO030.150.050Z2K15	3	8	2,9	100	50	6	1,5	2	1,5	2
INSLO030.150.063Z2K14	3	6	2,9	100	63	10	1,4	4	1,5	2
INSLO030.150.065Z2K09	3	6	2,9	100	65	10	0,9	4	1,5	2
INSLO040.200.030Z2K10	4	6	3,9	70	30	22	1	7	2	2
INSLO040.200.030Z2K15	4	6	3,9	70	30	22	1,5	7	2	2
INSLO040.200.040Z2K10	4	6	3,9	85	40	12	1	6	2	2
INSLO040.200.040Z2K14	4	6	3,9	100	40	21	1,4	6	2	2
INSLO040.200.040Z2K15	4	6	3,9	85	40	12	1,5	6	2	2
INSLO040.200.045Z2K25	4	8	3,9	100	45	21	2,5	6	2	2

Designation	D	d	d8	L	L3	L4	α	a	R	Z
INSLO040.200.060Z2K15	4	8	3,9	125	60	22	1,5	7	2	2
INSLO040.200.065Z2K09	4	6	3,9	100	65	12	0,9	6	2	2
INSLO050.250.040Z2K08	5	6	4,8	75	40	18	0,8	8	2,5	2
INSLO060.300.040Z2K15	6	8	5,8	85	40	21	1,5	6	3	2
INSLO060.300.064Z2K09	6	8	5,8	100	64	18	0,9	8	3	2
INSLO060.300.065Z2K10	6	10	5,8	125	65	33	1	8	3	2
INSLO060.300.065Z2K15	6	10	5,8	125	65	33	1,5	8	3	2
INSLO080.400.060Z2K09	8	10	7,8	120	60	30	0,9	10	4	2

ADAPTION ACC. TO DIN 6535 HA

High stock removal rate with z = 4 and variable pitch (general machining of steel up to 54 HRC). Solid carbide end mill with through-the-tool coolant.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+		o			+

▼ ▼▼ ▼▼▼

D	0/ -0.02
R	± 0.01
d	h6

≤ 36°

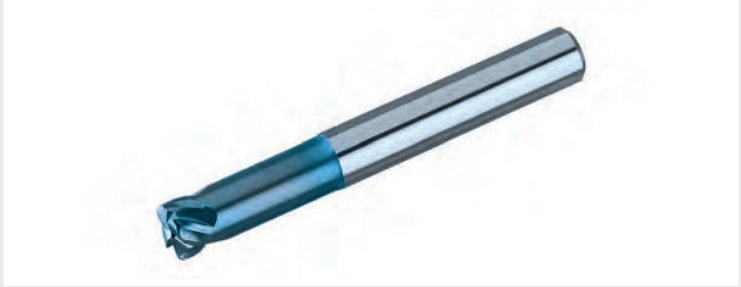
≤ 54 HRC

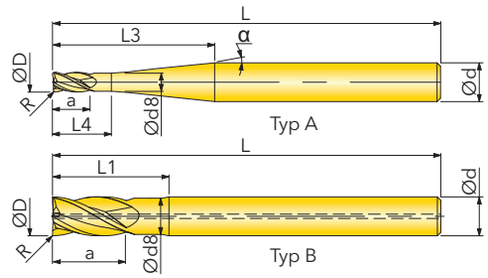
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	L3	L4	α	a	R	Typ	Z	IK
INCOO020.050.006Z4K57	2	6	1,9	60	-	20	6	5,7	2	0,5	A	4	
INCOO030.080.009Z4K43	3	6	2,8	60	-	20	9	4,3	2	0,8	A	4	
INCOO040.100.012Z4	4	6	3,6	60	12	-	-	-	2	1	B	4	✓
INCOO060.100.018Z4	6	6	5,6	60	18	-	-	-	3	1	B	4	✓
INCOO060.150.018Z4	6	6	5,6	60	18	-	-	-	3	1,5	B	4	✓
INCOO080.200.024Z4	8	8	7,6	65	24	-	-	-	4	2	B	4	✓
INCOO100.100.030Z4	10	10	9,6	85	30	-	-	-	5	1	B	4	✓
INCOO100.200.030Z4	10	10	9,6	85	30	-	-	-	5	2	B	4	✓
INCOO120.200.040Z4	12	12	11,6	100	40	-	-	-	6	2	B	4	✓
INCOO120.300.040Z4	12	12	11,6	100	40	-	-	-	6	3	B	4	✓

ADAPTION ACC. TO DIN 6535 HA

High stock removal rate with z = 4 and variable pitch (general machining of steel up to 58 HRC). Solid carbide end mill with through-the-tool coolant for finish machining.





Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+		○			+

▼▼ ▼▼▼

D 0/ -0.015
R ± 0.01
d h6

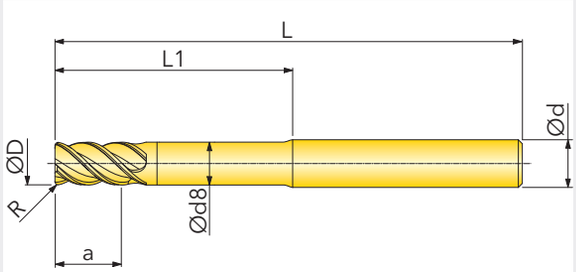
≤30° | ≤58 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	L3	L4	α	a	R	Typ	Z	IK
INCO0020.050.006Z4HQ	2	6	1,9	60	-	20	6	5,7	2	0,5	A	4	
INCO0030.080.009Z4HQ	3	6	2,8	60	-	20	9	4,3	2	0,8	A	4	
INCO0040.100.012Z4HQ	4	6	3,6	60	12	-	-	-	2	1	B	4	✓
INCO0060.100.018Z4HQ	6	6	5,6	60	18	-	-	-	3	1	B	4	✓
INCO0060.150.018Z4HQ	6	6	5,6	60	18	-	-	-	3	1,5	B	4	✓
INCO0080.100.024Z4HQ	8	8	7,6	65	24	-	-	-	4	1	B	4	✓
INCO0080.200.024Z4HQ	8	8	7,6	65	24	-	-	-	4	2	B	4	✓
INCO0100.100.030Z4HQ	10	10	9,6	75	30	-	-	-	5	1	B	4	✓
INCO0100.200.030Z4HQ	10	10	9,6	75	30	-	-	-	5	2	B	4	✓
INCO0120.100.035Z4HQ	12	12	11,6	84	35	-	-	-	6	1	B	4	✓
INCO0120.150.040Z4HQ	12	12	11,6	84	40	-	-	-	6	1,5	B	4	✓
INCO0120.300.040Z4HQ	12	12	11,6	100	40	-	-	-	6	3	B	4	✓
Stable version, small chip space.													

ADAPTION ACC. TO DIN 6535 HA

High material removal rates even at worse conditions (for example in corner areas and long overhang). This is being realized with oval cutting edge geometry.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2006	+		+			○

▼ ▼▼ ▼▼▼

D	0/-0.02
R	± 0.015
d	h6

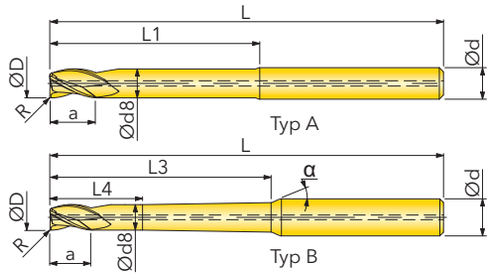
≤ 45° | ≤ 54 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Z
INTUR040.100.020Z4	4	4	3,8	70	20	6	1	4
INTUR040.100.028Z4	4	4	3,8	70	28	6	1	4
INTUR060.050.035Z4	6	6	5,7	70	35	9	0,5	4
INTUR060.150.030Z4	6	6	5,7	75	30	9	1,5	4
INTUR060.150.042Z4	6	6	5,7	90	42	9	1,5	4
INTUR060.150.054Z4	6	6	5,7	100	54	9	1,5	4
INTUR080.200.040Z4	8	8	7,6	85	40	12	2	4
INTUR080.200.056Z4	8	8	7,6	100	56	12	2	4
INTUR080.200.072Z4	8	8	7,6	120	72	12	2	4
INTUR100.200.050Z4	10	10	9,5	100	50	15	2	4
INTUR100.200.070Z4	10	10	9,5	120	70	15	2	4
INTUR100.200.090Z4	10	10	9,5	140	90	15	2	4
INTUR120.200.060Z4	12	12	11,5	110	60	18	2	4
INTUR120.200.084Z4	12	12	11,5	135	84	18	2	4
INTUR120.200.108Z4	12	12	11,5	160	108	18	2	4

ADAPTION ACC. TO DIN 6535 HA

High stock removal rate on soft and tough materials such as titanium and nickel alloys. Solid carbide end mill with through-the-tool coolant.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	o	o		o	+

▼

D	0/-0.02
d	h6

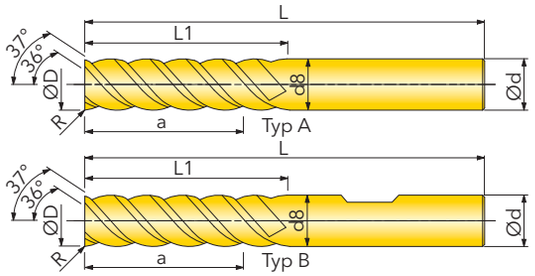
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	L3	L4	α	a	R	Typ	Z	IK
INCO0040.028.010Z3	4	6	3,6	60	10	-	-	-	4	0,28	A	3	✓
INCO0040.028.020Z3	4	6	3,6	60	20	-	-	-	4	0,28	A	3	✓
INCO0040.028.040Z3K17	4	6	3,6	80	-	40	12	1,7	4	0,28	B	3	✓
INCO0040.028.012Z3K14	4	6	3,6	100	-	64	12	1,4	4	0,28	B	3	✓
INCO0050.035.025Z3	5	6	4,5	60	25	-	-	-	6	0,35	A	3	✓
INCO0050.035.040Z3	5	6	4,5	75	40	-	-	-	6	0,35	A	3	✓
INCO0060.042.025Z3	6	6	5,5	60	25	-	-	-	6	0,42	A	3	✓
INCO0060.042.040Z3	6	6	5,5	75	40	-	-	-	6	0,42	A	3	✓
INCO0060.042.060Z3	6	6	5,5	100	60	-	-	-	6	0,42	A	3	✓
INCO0060.042.020Z3K24	6	8	5,6	85	-	40	20	2,4	6	0,42	B	3	✓
INCO0060.042.020Z3K16	6	8	5,5	100	-	65	20	1,6	6	0,42	B	3	✓
INCO0060.042.015Z3K24	6	10	5,8	120	-	65	15	1,5	6	0,42	B	3	✓
INCO0080.056.030Z3	8	8	7,5	65	30	-	-	-	8	0,56	A	3	✓
INCO0080.056.060Z3	8	8	7,5	100	60	-	-	-	8	0,56	A	3	✓
INCO0080.056.020Z3K20	8	10	7,6	100	-	45	20	2,0	8	0,56	B	3	✓
INCO0080.056.020Z3K16	8	10	7,6	120	-	65	20	1,6	8	0,56	B	3	✓
INCO0100.070.040Z3	10	10	9,6	75	40	-	-	-	8	0,7	A	3	✓
INCO0100.070.040Z3L	10	10	9,6	100	40	-	-	-	8	0,7	A	3	✓
INCO0100.110.040Z3	10	10	9,6	75	40	-	-	-	8	1,1	A	3	✓
INCO0120.080.050Z3	12	12	11,6	125	50	-	-	-	8	0,8	A	3	✓
INCO0120.110.040Z3	12	12	11,6	80	40	-	-	-	8	1,1	A	3	✓
INCO0140.170.040Z3	14	14	13,5	89	40	-	-	-	10	1,7	A	3	✓
INCO0160.190.045Z3	16	16	15,4	100	45	-	-	-	12	1,9	A	3	✓

R (Programming radius)

ADAPTION ACC. TO DIN 6535 HA / 6535 HB

Ideal for roughing and finishing in a wide variety of materials. Variable pitch and variable helix angle.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	○	+		○	○

▼ ▼▼▼

D	h10
R	± 0.05
d	h6

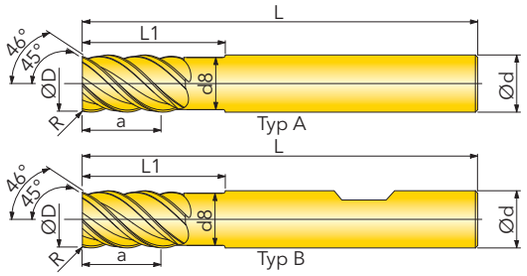
54 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Typ	Z
INNOV060.010.019Z4C	6	6	5,6	55	19	13	0,1	A	4
INNOV060.010.025Z4C	6	6	5,6	61	25	10	0,1	A	4
INNOV060.010.019Z4W	6	6	5,6	55	19	13	0,1	B	4
INNOV060.010.025Z4W	6	6	5,6	61	25	10	0,1	B	4
INNOV080.010.025Z4C	8	8	7,5	61	25	17	0,1	A	4
INNOV080.010.033Z4C	8	8	7,5	69	33	13	0,1	A	4
INNOV080.010.025Z4W	8	8	7,5	61	25	17	0,1	B	4
INNOV080.010.033Z4W	8	8	7,5	69	33	13	0,1	B	4
INNOV100.010.032Z4C	10	10	9,5	72	32	22	0,1	A	4
INNOV100.010.042Z4C	10	10	9,5	82	42	17	0,1	A	4
INNOV100.010.032Z4W	10	10	9,5	72	32	22	0,1	B	4
INNOV100.010.042Z4W	10	10	9,5	82	42	17	0,1	B	4
INNOV120.020.038Z4C	12	12	11,5	83	38	26	0,2	A	4
INNOV120.020.050Z4C	12	12	11,5	95	50	20	0,2	A	4
INNOV120.020.038Z4W	12	12	11,5	83	38	26	0,2	B	4
INNOV120.020.050Z4W	12	12	11,5	95	50	20	0,2	B	4
INNOV160.020.050Z4C	16	16	15,5	98	50	34	0,2	A	4
INNOV160.020.066Z4C	16	16	15,5	114	66	26	0,2	A	4
INNOV160.020.050Z4W	16	16	15,5	98	50	34	0,2	B	4
INNOV160.020.066Z4W	16	16	15,5	114	66	26	0,2	B	4
INNOV200.020.062Z4C	20	20	19,5	112	62	42	0,2	A	4
INNOV200.020.082Z4C	20	20	19,5	132	82	32	0,2	A	4
INNOV200.020.062Z4W	20	20	19,5	112	62	42	0,2	B	4
INNOV200.020.082Z4W	20	20	19,5	132	82	32	0,2	B	4
INNOV250.040.070Z4C	25	25	24,5	121	70	50	0,4	A	4
INNOV250.040.095Z4C	25	25	24,5	150	95	40	0,4	A	4
INNOV250.040.070Z4W	25	25	24,5	121	70	50	0,4	B	4
INNOV250.040.095Z4W	25	25	24,5	150	95	40	0,4	B	4

ADAPTION ACC. TO DIN 6535 HA / 6535 HB

Ideal for roughing and finishing in a wide variety of materials. Variable pitch and variable helix angle.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	+	o	+		o	o

▼ ▼▼▼

D h10
R ± 0.05
d h6

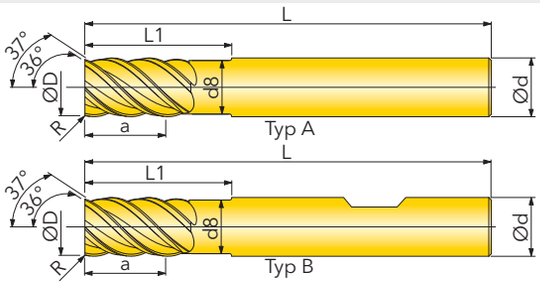
54 HRC

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Typ	Z
INNOV060.010.019Z5C	6	6	5,6	55	19	13	0,1	A	5
INNOV060.010.025Z5C	6	6	5,6	61	25	10	0,1	A	5
INNOV060.010.019Z5W	6	6	5,6	55	19	13	0,1	B	5
INNOV060.010.025Z5W	6	6	5,6	61	25	10	0,1	B	5
INNOV080.010.025Z5C	8	8	7,5	61	25	17	0,1	A	5
INNOV080.010.033Z5C	8	8	7,5	69	33	13	0,1	A	5
INNOV080.010.025Z5W	8	8	7,5	61	25	17	0,1	B	5
INNOV080.010.033Z5W	8	8	7,5	69	33	13	0,1	B	5
INNOV100.010.032Z5C	10	10	9,5	72	32	22	0,1	A	5
INNOV100.010.042Z5C	10	10	9,5	82	42	17	0,1	A	5
INNOV100.010.032Z5W	10	10	9,5	72	32	22	0,1	B	5
INNOV100.010.042Z5W	10	10	9,5	82	42	17	0,1	B	5
INNOV120.020.038Z5C	12	12	11,5	83	38	26	0,2	A	5
INNOV120.020.050Z5C	12	12	11,5	95	50	20	0,2	A	5
INNOV120.020.038Z5W	12	12	11,5	83	38	26	0,2	B	5
INNOV120.020.050Z5W	12	12	11,5	95	50	20	0,2	B	5
INNOV160.020.050Z5C	16	16	15,5	98	50	34	0,2	A	5
INNOV160.020.066Z5C	16	16	15,5	114	66	26	0,2	A	5
INNOV160.020.050Z5W	16	16	15,5	98	50	34	0,2	B	5
INNOV160.020.066Z5W	16	16	15,5	114	66	26	0,2	B	5
INNOV200.020.062Z5C	20	20	19,5	112	62	42	0,2	A	5
INNOV200.020.082Z5C	20	20	19,5	132	82	32	0,2	A	5
INNOV200.020.062Z5W	20	20	19,5	112	62	42	0,2	B	5
INNOV200.020.082Z5W	20	20	19,5	132	82	32	0,2	B	5
INNOV250.040.070Z5C	25	25	24,5	121	70	50	0,4	A	5
INNOV250.040.095Z5C	25	25	24,5	150	95	40	0,4	A	5
INNOV250.040.070Z5W	25	25	24,5	121	70	50	0,4	B	5
INNOV250.040.095Z5W	25	25	24,5	150	95	40	0,4	B	5

ADAPTION ACC. TO DIN 6535 HA / 6535 HB

Special developed HPC-geometry for rough and finish milling of stainless steel and titanium. Irregular division / unequal helix angle



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	○	+	○		+	

▼ ▼▼ ▼▼▼

D	h10
R	± 0.02
d	h6

54 HRC

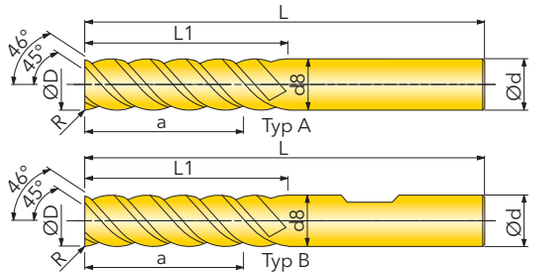
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Typ	Z
INNOT050.020.020Z4C	5	6	4,9	57	20	13	0,2	A	4
INNOT050.050.020Z4C	5	6	4,9	57	20	13	0,5	A	4
INNOT060.020.025Z4C	6	6	5,9	57	25	14	0,2	A	4
INNOT060.050.025Z4C	6	6	5,9	57	25	14	0,5	A	4
INNOT060.100.025Z4C	6	6	5,9	57	25	14	1	A	4
INNOT060.200.025Z4C	6	6	5,9	57	25	14	2	A	4
INNOT080.030.032Z4W	8	8	7,8	68	32	18	0,3	B	4
INNOT080.080.032Z4C	8	8	7,8	68	32	18	0,8	A	4
INNOT080.100.032Z4C	8	8	7,8	68	32	18	1	A	4
INNOT080.200.032Z4C	8	8	7,8	68	32	18	2	A	4
INNOT080.300.032Z4C	8	8	7,8	68	32	18	3	A	4
INNOT100.020.032Z4C	10	10	9,8	72	32	22	0,2	A	4
INNOT100.080.032Z4C	10	10	9,8	72	32	22	0,8	A	4
INNOT100.100.032Z4C	10	10	9,8	72	32	22	1	A	4
INNOT100.200.032Z4C	10	10	9,8	72	32	22	2	A	4
INNOT100.300.032Z4C	10	10	9,8	72	32	22	3	A	4
INNOT100.400.034Z4C	10	10	9,8	72	34	22	4	A	4
INNOT120.020.038Z4C	12	12	11,7	83	38	26	0,2	A	4
INNOT120.080.038Z4C	12	12	11,7	83	38	26	0,8	A	4
INNOT120.100.038Z4C	12	12	11,7	83	38	26	1	A	4
INNOT120.200.038Z4C	12	12	11,7	83	38	26	2	A	4
INNOT120.250.038Z4C	12	12	11,7	83	38	26	2,5	A	4
INNOT120.300.038Z4C	12	12	11,7	83	38	26	3	A	4
INNOT120.400.038Z4C	12	12	11,7	83	38	26	4	A	4
INNOT120.400.038Z4W	12	12	11,7	83	38	26	4	B	4
INNOT140.020.038Z4C	14	14	13,7	83	38	30	0,2	A	4
INNOT140.080.038Z4C	14	14	13,7	83	38	30	0,8	A	4
INNOT140.300.038Z4C	14	14	13,7	83	38	30	3	A	4
INNOT160.020.050Z4W	16	16	15,7	100	50	34	0,2	B	4
INNOT160.100.050Z4W	16	16	15,7	100	50	34	1	B	4
INNOT160.200.050Z4C	16	16	15,7	100	50	34	2	A	4
INNOT160.250.050Z4C	16	16	15,7	100	50	34	2,5	A	4
INNOT160.300.050Z4C	16	16	15,7	100	50	34	3	A	4
INNOT160.400.050Z4C	16	16	15,7	100	50	34	4	A	4
INNOT160.400.050Z4W	16	16	15,7	100	50	34	4	B	4
INNOT160.500.050Z4C	16	16	15,7	100	50	34	5	A	4

Designation	D	d	d8	L	L1	a	R	Typ	Z	
INNOT200.020.062Z4W	20	20	19,7	112	62	42	0,2	B	4	
INNOT200.100.062Z4W	20	20	19,7	112	62	42	1	B	4	
INNOT200.200.062Z4C	20	20	19,7	112	62	42	2	A	4	
INNOT200.200.062Z4W	20	20	19,7	112	62	42	2	B	4	2
INNOT200.250.062Z4C	20	20	19,7	112	62	42	2,5	A	4	2
INNOT200.300.062Z4C	20	20	19,7	112	62	42	3	A	4	2
INNOT200.400.062Z4C	20	20	19,7	112	62	42	4	A	4	2
INNOT200.400.062Z4W	20	20	19,7	112	62	42	4	B	4	2
INNOT200.500.062Z4C	20	20	19,7	112	62	42	5	A	4	
INNOT250.020.069Z4C	25	25	24,7	125	69	50	0,2	A	4	
INNOT250.100.069Z4C	25	25	24,7	125	69	50	1	A	4	
INNOT250.200.069Z4C	25	25	24,7	125	69	50	2	A	4	
INNOT250.300.069Z4C	25	25	24,7	125	69	50	3	A	4	
INNOT250.400.069Z4C	25	25	24,7	125	69	50	4	A	4	
INNOT250.400.069Z4W	25	25	24,7	125	69	50	4	B	4	
INNOT250.500.069Z4C	25	25	24,7	125	69	50	5	A	4	
Shaft version in DIN6535HA/HB, different corner radii and tool lengths on request!										

ADAPTION ACC. TO DIN 6535 HA / 6535 HB

Special developed HPC-geometry for rough and finish milling of stainless steel and titanium. Irregular division / unequal helix angle.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN2005	○	+	○		+	

▼ ▼▼ ▼▼▼

D	h10
R	± 0.02
d	h6

54 HRC

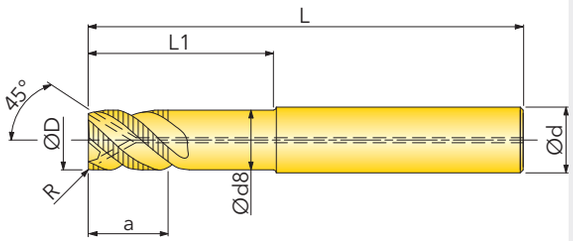
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Typ	Z
INNOT060.010.019Z5C	6	6	5,6	55	19	13	0,1	A	5
INNOT060.100.019Z5C	6	6	5,6	55	19	13	1	A	5
INNOT080.010.025Z5C	8	8	7,5	61	25	17	0,1	A	5
INNOT080.100.025Z5C	8	8	7,5	61	25	17	1	A	5
INNOT100.010.033Z5C	10	10	9,5	72	33	22	0,1	A	5
INNOT100.100.033Z5C	10	10	9,5	72	33	22	1	A	5
INNOT100.200.033Z5C	10	10	9,5	72	33	22	2	A	5
INNOT120.020.038Z5C	12	12	11,5	83	38	26	0,2	A	5
INNOT120.100.038Z5C	12	12	11,5	83	38	26	1	A	5
INNOT120.200.038Z5C	12	12	11,5	83	38	26	2	A	5
INNOT120.250.038Z5C	12	12	11,5	83	38	26	2,5	A	5
INNOT120.400.038Z5C	12	12	11,5	83	38	26	4	A	5
INNOT160.020.050Z5C	16	16	15,5	98	50	34	0,2	A	5
INNOT160.020.050Z5W	16	16	15,5	98	50	34	0,2	B	5
INNOT160.100.050Z5W	16	16	15,5	98	50	34	1	B	5
INNOT160.200.050Z5W	16	16	15,5	98	50	34	2	B	5
INNOT160.250.050Z5C	16	16	15,5	98	50	34	2,5	A	5
INNOT160.400.050Z5W	16	16	15,5	98	50	34	4	B	5
INNOT200.020.062Z5C	20	20	19,5	112	62	42	0,2	A	5
INNOT200.020.062Z5W	20	20	19,5	112	62	42	0,2	B	5
INNOT200.100.062Z5W	20	20	19,5	112	62	42	1	B	5
INNOT200.200.062Z5W	20	20	19,5	112	62	42	2	B	5
INNOT200.250.062Z5C	20	20	19,5	112	62	42	2,5	A	5
INNOT200.400.062Z5W	20	20	19,5	112	62	42	4	B	5

Shaft version in DIN6535HA/HB , different corner radii and tool lengths on request!

ADAPTION ACC. TO DIN 6535 HA

Special roughing end mill in serrated geometry for aluminum machining with internal coolant.



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN1205				+		

D	e8
R	± 0.05
d	h6

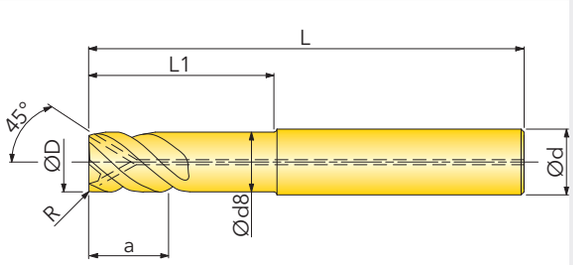
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Z	IK
INNOV080.020.041Z3CCB	8	8	7,5	83	41	12	0,2	3	✓
INNOV080.200.041Z3CCB	8	8	7,5	83	41	12	2	3	✓
INNOV100.020.041Z3CCB	10	10	9,1	83	41	12	0,2	3	✓
INNOV100.200.041Z3CCB	10	10	9,1	83	41	12	2	3	✓
INNOV120.020.041Z3CCB	12	12	11	87	41	12	0,2	3	✓
INNOV120.200.041Z3CCB	12	12	11	87	41	12	2	3	✓
INNOV120.400.041Z3CCB	12	12	11	87	41	12	4	3	✓
INNOV160.200.047Z3CCB	16	16	15	97	47	14	2	3	✓
INNOV160.020.060Z3CCB	16	16	15	109	60	14	0,2	3	✓
INNOV160.200.060Z3CCB	16	16	15	109	60	14	2	3	✓
INNOV160.400.060Z3CCB	16	16	15	109	60	14	4	3	✓
INNOV200.020.060Z3CCB	20	20	18,8	111	60	17	0,2	3	✓
INNOV200.200.060Z3CCB	20	20	18,8	111	60	17	2	3	✓
INNOV200.400.060Z3CCB	20	20	18,8	111	60	17	4	3	✓
INNOV200.400.100Z3CCB	20	20	18,8	150	100	30	4	3	✓

Shaft version in DIN6535 B , different corner radii and tool lengths on request!.

ADAPTION ACC. TO DIN 6535 HA

Special developed HPC-geometry for rough and finish milling of aluminum. Irregular division with internal coolant, reduced shaft diameter behind the effective cutting edge.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN05S				+		

▼ ▼▼ ▼▼▼

D	h6
R	± 0.05
d	h6

λ ≤ 45°

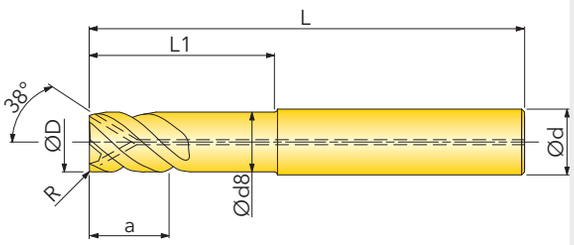
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Z	IK
INNOV080.020.040Z3C	8	8	7,5	79	40	12	0,2	3	✓
INNOV080.200.041Z3C	8	8	7,5	79	41	12	2	3	✓
INNOV100.020.041Z3C	10	10	9,1	83	41	15	0,2	3	✓
INNOV100.200.041Z3C	10	10	9,1	83	41	15	2	3	✓
INNOV120.020.041Z3C	12	12	11,0	88	41	18	0,2	3	✓
INNOV120.200.041Z3C	12	12	11,0	88	41	18	2	3	✓
INNOV120.400.041Z3C	12	12	11,0	88	41	18	4	3	✓
INNOV160.050.060Z3C	16	16	15,0	109	60	40	0,5	3	✓
INNOV160.200.060Z3C	16	16	15,0	109	60	40	2	3	✓
INNOV160.400.060Z3C	16	16	15,0	109	60	40	4	3	✓
INNOV160.200.065Z3C	16	16	15,0	114	65	24	2	3	✓
INNOV160.200.080Z3C	16	16	15,0	128	80	24	2	3	✓
INNOV200.020.065Z3C	20	20	18,8	115	65	30	0,2	3	✓
INNOV200.200.060Z3C	20	20	18,8	110	60	30	2	3	✓
INNOV200.400.060Z3C	20	20	18,8	110	60	30	4	3	✓
INNOV200.020.100Z3C	20	20	18,8	150	100	30	0,2	3	✓
INNOV200.200.100Z3C	20	20	18,8	150	100	30	2	3	✓
INNOV200.400.100Z3C	20	20	18,8	150	100	30	4	3	✓

Shaft version in DIN6535 B, different corner radii and tool lengths on request!

ADAPTION ACC. TO DIN 6535 HA

Special developed HPC-geometry for rough and finish milling aluminum. Irregular division with internal coolant, reduced shaft diameter behind the effective cutting edge.



Grade	P	M	K	N (K)	S (M)	H (P/K)
IN05S				+		

▼ ▼▼ ▼▼▼

D e8
R ± 0.05
d h6

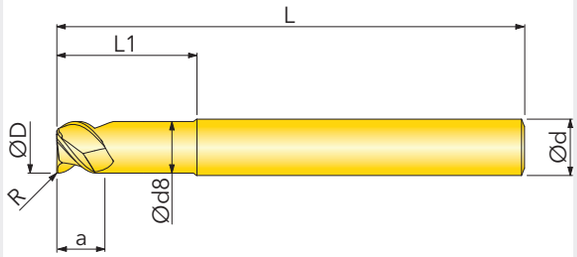
+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Z	IK
INNOV080.020.041Z4C	8	8	7,5	79	41	12	0,2	4	✓
INNOV080.200.040Z4C	8	8	7,5	79	40	12	2	4	✓
INNOV100.020.041Z4C	10	10	9,4	83	41	15	0,2	4	✓
INNOV100.200.041Z4C	10	10	9,4	83	41	15	2	4	✓
INNOV120.020.041Z4C	12	12	11,3	88	41	18	0,2	4	✓
INNOV120.200.041Z4C	12	12	11,3	88	41	18	2	4	✓
INNOV120.400.041Z4C	12	12	11,3	88	41	18	4	4	✓
INNOV160.050.040Z4C	16	16	15,2	109	60	40	0,5	4	✓
INNOV160.200.060Z4C	16	16	15,2	109	60	40	2	4	✓
INNOV160.400.060Z4C	16	16	15,2	109	60	40	4	4	✓
INNOV160.200.065Z4C	16	16	15,2	114	65	24	2	4	✓
INNOV160.200.080Z4C	16	16	15,2	128	80	24	2	4	✓
INNOV200.020.065Z4C	20	20	19,0	115	65	30	0,2	4	✓
INNOV200.200.060Z4C	20	20	19,0	110	60	30	2	4	✓
INNOV200.400.060Z4C	20	20	19,0	110	60	30	4	4	✓
INNOV200.020.100Z4C	20	20	19,0	150	100	30	0,2	4	✓
INNOV200.200.100Z4C	20	20	19,0	150	100	30	2	4	✓
INNOV200.400.100Z4C	20	20	19,0	150	100	30	4	4	✓

Shaft version in DIN6535 B , different corner radii and tool lengths on request!

ADAPTION ACC. TO DIN 6535 HA

High material removal for machining nickel-based alloys like Inconel.



Grade	P	M	K	$N_{(K)}$	$S_{(M)}$	$H_{(P/K)}$
IN75N			+		+	

D 0/-0,02
d h6

+ Preferred choice ○ Second choice ▼ Roughing ▼▼ Pre-finishing ▼▼▼ Finishing

Designation	D	d	d8	L	L1	a	R	Z
INCER060.042.015Z3	6	6	5,5	50	15	6	0,42	3
INCER080.056.020Z3	8	8	7,5	57	20	8	0,56	3
INCER100.070.025Z3	10	10	9,5	65	25	8	0,70	3
INCER120.110.030Z3	12	12	11,5	72	30	10	1,10	3
INCER160.190.035Z3	16	16	15,5	83	35	12	1,90	3
INCER200.250.040Z3	20	20	19,5	93	40	15	2,50	3
R (Programming radius)