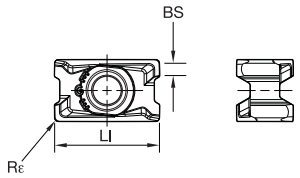
✦✦ first choice with coolant
✧✧ first choice without coolant
✦ alternate choice with coolant
✧ alternate choice without coolant

	KC422M	KC520M	KC522M	KC725M	KCK15	KCPK30	KCPM40	KCSM40
P1–P2			✧/✦	✦✦		✧✧		
P3–P4			✧/✦	✦✦		✧	✧✧	
P5–P6			✧/✦	✦✦		✧	✧✧	
M1–M2			✧/✦	✦			✦	✦✦
M3			✧/✦	✦				✦✦
K1–K2		✦✦			✧✧			
K3		✦✦				✧✧		
N1	✦✦							
N2	✦✦							
S1				✦				✦✦
S2				✦				✦✦
S3			✦	✦				✦✦
S4			✦	✦				✦✦



ISO catalog number	ANSI catalog number	LI mm	LI in	BS mm	BS in	Rε mm	Rε in	KC422M	KC520M	KC522M	KC725M	KCK15	KCPK30	KCPM40	KCSM40
Light Machining															
LNGU15T604ERGE	LNGU541ERGE	17,01	.670	2,20	.087	0,4	.016	–	–	–	5588513	–	–	5588515	–
LNGU15T608ERGE	LNGU542ERGE	17,01	.670	1,80	.072	0,8	.031	–	–	5588388	5588385	–	–	5588387	6165422
LNGU15T612ERGE	LNGU543ERGE	17,01	.670	1,40	.057	1,2	.047	–	–	–	5588517	–	–	5588519	6165423
LNGU15T616ERGE	LNGU544ERGE	17,01	.670	1,07	.042	1,6	.063	–	–	–	5627789	–	–	5627871	–
General Machining															
LNPU15T604SRGE	LNPU541SRGE	16,90	.665	2,20	.085	0,4	.016	–	–	–	5608036	–	–	–	–
LNGU15T604ERGEJ	LNGU541ERGEJ	17,00	.670	2,20	.087	0,4	.016	6001231	–	–	–	–	–	–	–
LNGU15T604SRGE	LNGU541SRGE	17,00	.669	2,20	.086	0,4	.016	–	–	–	5516075	–	–	–	–
LNPU15T608SRGE	LNPU542SRGE	16,90	.665	1,80	.070	0,8	.031	–	5547848	5547849	5548040	5548041	5548042	5684657	–
LNGU15T608ERGEJ	LNGU542ERGEJ	17,00	.670	1,80	.072	0,8	.031	6001232	–	–	–	–	–	–	–
LNGU15T608SRGE	LNGU542SRGE	17,01	.670	1,80	.071	0,8	.031	–	5515759	5515890	5515891	5515892	5515893	–	6165400
LNPU15T612SRGE	LNPU543SRGE	16,90	.665	1,50	.058	1,2	.047	–	–	–	5607998	–	–	5976169	–
LNGU15T612SRGE	LNGU543SRGE	17,01	.670	1,40	.056	1,2	.047	–	–	–	5515748	–	–	–	6165421
LNPU15T616SRGE	LNPU544SRGE	16,90	.666	1,10	.042	1,6	.063	–	–	–	6019503	–	6019505	6019506	–
LNGU15T616SRGE	LNGU544SRGE	17,01	.670	1,07	.042	1,6	.063	–	–	–	5627786	–	5627788	–	–
Heavy Machining															
LNGU15T608SRGEM	LNGU542SRGEM	17,01	.670	1,70	.067	0,8	.031	–	5575827	–	–	5575828	5575829	5976170	–
LNGU15T612SRGEM	LNGU543SRGEM	17,01	.670	1,30	.053	1,2	.047	–	–	–	–	–	–	5976671	–
LNGU15T616SRGEM	LNGU544SRGEM	17,01	.670	0,95	.037	1,6	.064	–	–	–	–	–	5630070	5976672	–

Recommended Starting Feeds [IPT]

Light Machining	General Purpose	Heavy Machining

Insert Geometry	Recommended Starting Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)															Insert Geometry
	5%			10%			20%			30%			40%-100%			
.E..GEJ	.005	**.019**	.034	.003	**.014**	.024	.003	**.010**	.018	.002	**.009**	.016	.002	**.008**	.014	.E..GEJ
.E..GE	.009	**.020**	.035	.007	**.015**	.025	.005	**.011**	.019	.004	**.009**	.016	.004	**.009**	.015	.E..GE
.S..GE	.009	**.023**	.037	.007	**.017**	.027	.005	**.013**	.020	.004	**.011**	.017	.004	**.010**	.016	.S..GE
.S..GEM	.009	**.023**	.037	.007	**.017**	.027	.005	**.013**	.020	.004	**.011**	.017	.004	**.010**	.016	.S..GEM

Recommended Starting Feeds [mm]

Insert Geometry	Recommended Starting Feed per Tooth (Fz) in Relation to % of Radial Engagement (ae)															Insert Geometry
	5%			10%			20%			30%			40–100%			
.E..GEJ	0,12	**0,47**	0,84	0,08	**0,34**	0,60	0,06	**0,26**	0,45	0,06	**0,22**	0,39	0,05	**0,20**	0,36	.E..GEJ
.E..GE	0,23	**0,54**	0,93	0,17	**0,39**	0,67	0,13	**0,29**	0,50	0,11	**0,25**	0,44	0,10	**0,23**	0,40	.E..GE
.S..GE	0,23	**0,59**	0,95	0,17	**0,43**	0,68	0,13	**0,32**	0,51	0,11	**0,28**	0,44	0,10	**0,25**	0,41	.S..GE
.S..GEM	0,23	**0,59**	0,95	0,17	**0,43**	0,68	0,13	**0,32**	0,51	0,11	**0,28**	0,44	0,10	**0,25**	0,41	.S..GEM

LNG...: Ground inserts; high versatility for all finishing applications and difficult-to-machine stainless steels and high-temp alloys.
LNP...: Pressed; lower cost per edge for most roughing to semi-finishing operations.

.E..LEJ: For aluminum and other non-ferrous alloys.
.E..GE: First choice for stainless steel and high-temp alloys. For highest finishing requirements in light machining.
.S..GE: Universal geometry. First choice for steel.
.S..GEM: First choice for cast iron machining and all heavy applications.

Material Group		KC422M*			KC520M			KC522M			KC725M		
P	1	–	–	–	–	–	–	1085	**935**	885	855	**755**	705
	2	–	–	–	–	–	–	900	**785**	655	720	**625**	525
	3	–	–	–	–	–	–	835	**705**	575	655	**560**	460
	4	–	–	–	–	–	–	740	**605**	490	590	**490**	395
	5	–	–	–	–	–	–	605	**560**	490	490	**445**	395
	6	–	–	–	–	–	–	540	**410**	330	425	**330**	260
M	1	–	–	–	–	–	–	675	**590**	540	560	**490**	445
	2	–	–	–	–	–	–	605	**525**	425	510	**425**	360
	3	–	–	–	–	–	–	460	**395**	310	375	**330**	260
K	1	–	–	–	885	**805**	705	755	**675**	605	–	–	–
	2	–	–	–	690	**625**	575	590	**525**	490	–	–	–
	3	–	–	–	575	**525**	475	490	**445**	395	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–	–	–	–
H	1	–	–	–	–	–	–	395	**295**	230	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

Material Group		KCK15			KCPK30			KCPM40			KCSM40		
P	1	–	–	–	1495	**1295**	1215	970	**855**	805	–	–	–
	2	–	–	–	920	**835**	755	820	**705**	590	–	–	–
	3	–	–	–	835	**755**	675	755	**640**	525	–	–	–
	4	–	–	–	625	**575**	525	675	**560**	445	–	–	–
	5	–	–	–	855	**755**	690	560	**510**	445	560	**475**	395
	6	–	–	–	525	**445**	405	490	**375**	295	490	**360**	260
M	1	–	–	–	675	**605**	510	640	**560**	510	690	**560**	460
	2	–	–	–	605	**525**	460	575	**490**	410	590	**475**	395
	3	–	–	–	475	**425**	375	425	**375**	295	475	**360**	280
K	1	1380	**1265**	1115	970	**870**	785	–	–	–	–	–	–
	2	1100	**970**	900	770	**690**	625	–	–	–	–	–	–
	3	920	**820**	755	640	**575**	525	–	–	–	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–	–	–	–
H	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

*Recommended for wet machining only.
NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Dry

Wet

Material Group		KC422M			KC520M			KC522M			KC725M		
P	1	–	–	–	–	–	–	870	**750**	710	685	**605**	565
	2	–	–	–	–	–	–	720	**630**	525	575	**500**	420
	3	–	–	–	–	–	–	670	**565**	460	525	**450**	370
	4	–	–	–	–	–	–	590	**485**	390	470	**390**	315
	5	–	–	–	–	–	–	485	**450**	390	390	**355**	315
	6	–	–	–	–	–	–	430	**330**	265	340	**265**	210
M	1	–	–	–	–	–	–	540	**470**	430	450	**390**	355
	2	–	–	–	–	–	–	485	**420**	340	410	**340**	290
	3	–	–	–	–	–	–	370	**315**	250	300	**265**	210
K	1	–	–	–	710	**645**	565	605	**540**	485	–	–	–
	2	–	–	–	550	**500**	460	470	**420**	390	–	–	–
	3	–	–	–	460	**420**	380	390	**355**	315	–	–	–
N	1	2820	**2480**	2295	–	–	–	–	–	–	–	–	–
	2	2480	**2295**	1995	–	–	–	–	–	–	–	–	–
	3	2480	**2295**	1995	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	105	**90**	65	90	**80**	65
	2	–	–	–	–	–	–	105	**90**	65	90	**80**	65
	3	–	–	–	–	–	–	130	**105**	65	120	**90**	65
	4	–	–	–	–	–	–	185	**130**	90	145	**120**	80
H	1	–	–	–	–	–	–	315	**235**	185	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

Material Group		KCK15			KCPK30			KCPM40			KCSM40		
P	1	–	–	–	1195	**1035**	970	775	**685**	645	–	–	–
	2	–	–	–	735	**670**	605	655	**565**	470	–	–	–
	3	–	–	–	670	**605**	540	605	**510**	420	–	–	–
	4	–	–	–	500	**460**	420	540	**450**	355	–	–	–
	5	–	–	–	685	**605**	550	450	**410**	355	450	**380**	315
	6	–	–	–	420	**355**	320	390	**300**	235	390	**290**	210
M	1	–	–	–	540	**485**	410	510	**450**	410	550	**450**	370
	2	–	–	–	485	**420**	370	460	**390**	330	470	**380**	315
	3	–	–	–	380	**340**	300	340	**300**	235	380	**290**	225
K	1	1105	**1010**	890	775	**695**	630	–	–	–	–	–	–
	2	880	**775**	720	615	**550**	500	–	–	–	–	–	–
	3	735	**655**	605	510	**460**	420	–	–	–	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	105	**90**	80	105	**90**	65
	2	–	–	–	–	–	–	105	**90**	80	105	**90**	65
	3	–	–	–	–	–	–	130	**105**	80	130	**105**	65
	4	–	–	–	170	**130**	90	170	**130**	90	155	**130**	80
H	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Dry

Wet

Material Group		KC422M*			KC520M			KC522M			KC725M		
P	1	–	–	–	–	–	–	330	**285**	270	260	**230**	215
	2	–	–	–	–	–	–	275	**240**	200	220	**190**	160
	3	–	–	–	–	–	–	255	**215**	175	200	**170**	140
	4	–	–	–	–	–	–	225	**185**	150	180	**150**	120
	5	–	–	–	–	–	–	185	**170**	150	150	**135**	120
	6	–	–	–	–	–	–	165	**125**	100	130	**100**	80
M	1	–	–	–	–	–	–	205	**180**	165	170	**150**	135
	2	–	–	–	–	–	–	185	**160**	130	155	**130**	110
	3	–	–	–	–	–	–	140	**120**	95	115	**100**	80
K	1	–	–	–	270	**245**	215	230	**205**	185	–	–	–
	2	–	–	–	210	**190**	175	180	**160**	150	–	–	–
	3	–	–	–	175	**160**	145	150	**135**	120	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–	–	–	–
H	1	–	–	–	–	–	–	120	**90**	70	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

Material Group		KCK15			KCPK30			KCPM40			KCSM40		
P	1	–	–	–	455	**395**	370	295	**260**	245	260	**230**	215
	2	–	–	–	280	**255**	230	250	**215**	180	220	**190**	160
	3	–	–	–	255	**230**	205	230	**195**	160	200	**170**	140
	4	–	–	–	190	**175**	160	205	**170**	135	180	**150**	120
	5	–	–	–	260	**230**	210	170	**155**	135	150	**135**	120
	6	–	–	–	160	**135**	125	150	**115**	90	130	**100**	80
M	1	–	–	–	205	**185**	155	195	**170**	155	170	**150**	135
	2	–	–	–	185	**160**	140	175	**150**	125	155	**130**	110
	3	–	–	–	145	**130**	115	130	**115**	90	115	**100**	80
K	1	420	**385**	340	295	**265**	240	–	–	–	–	–	–
	2	335	**295**	275	235	**210**	190	–	–	–	–	–	–
	3	280	**250**	230	195	**175**	160	–	–	–	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
	4	–	–	–	–	–	–	–	–	–	–	–	–
H	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

*Recommended for wet machining only.

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Dry

Wet

Material Group		KC422M			KC520M			KC522M			KC725M		
P	1	–	–	–	–	–	–	265	**230**	215	210	**185**	170
	2	–	–	–	–	–	–	220	**190**	160	175	**150**	130
	3	–	–	–	–	–	–	205	**170**	140	160	**135**	110
	4	–	–	–	–	–	–	180	**150**	120	145	**120**	95
	5	–	–	–	–	–	–	150	**135**	120	120	**110**	95
	6	–	–	–	–	–	–	130	**100**	80	105	**80**	65
M	1	–	–	–	–	–	–	165	**145**	130	135	**120**	110
	2	–	–	–	–	–	–	150	**130**	105	125	**105**	90
	3	–	–	–	–	–	–	110	**95**	75	90	**80**	65
K	1	–	–	–	215	**195**	170	185	**165**	150	–	–	–
	2	–	–	–	170	**150**	140	145	**130**	120	–	–	–
	3	–	–	–	140	**130**	115	120	**110**	95	–	–	–
N	1	860	**755**	700	–	–	–	–	–	–	–	–	–
	2	755	**700**	610	–	–	–	–	–	–	–	–	–
	3	755	**700**	610	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	30	**30**	20	30	**25**	20
	2	–	–	–	–	–	–	30	**30**	20	30	**25**	20
	3	–	–	–	–	–	–	40	**30**	20	35	**30**	20
	4	–	–	–	–	–	–	55	**40**	30	45	**35**	25
H	1	–	–	–	–	–	–	95	**70**	55	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

Material Group		KCK15			KCPK30			KCPM40			KCSM40		
P	1	–	–	–	365	**315**	295	285	**250**	235	–	–	–
	2	–	–	–	225	**205**	185	240	**210**	170	–	–	–
	3	–	–	–	205	**185**	165	220	**190**	150	–	–	–
	4	–	–	–	150	**140**	130	195	**165**	130	–	–	–
	5	–	–	–	210	**185**	170	165	**150**	130	135	**115**	95
	6	–	–	–	130	**110**	100	145	**110**	90	120	**90**	65
M	1	–	–	–	165	**150**	125	190	**165**	150	170	**135**	110
	2	–	–	–	150	**130**	110	170	**145**	120	145	**115**	95
	3	–	–	–	115	**105**	90	125	**110**	90	115	**90**	70
K	1	335	**310**	270	235	**210**	190	–	–	–	–	–	–
	2	270	**235**	220	190	**170**	150	–	–	–	–	–	–
	3	225	**200**	185	155	**140**	130	–	–	–	–	–	–
N	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–
S	1	–	–	–	–	–	–	40	**30**	30	30	**30**	20
	2	–	–	–	–	–	–	40	**30**	30	30	**30**	20
	3	–	–	–	–	–	–	50	**40**	30	40	**30**	20
	4	–	–	–	55	**40**	25	65	**50**	30	50	**40**	25
H	1	–	–	–	–	–	–	–	–	–	–	–	–
	2	–	–	–	–	–	–	–	–	–	–	–	–
	3	–	–	–	–	–	–	–	–	–	–	–	–

NOTE: FIRST choice starting speeds are in **bold** type.
As the average chip thickness increases, the speed should be decreased.

Dry

Wet