

Best Tool Selector — Drilling – P1

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value Range																
							Range																
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80
Solid Carbide / Modular Drills							CUTTING SPEED																
Through/MQL	3xD, 5xD	A53	B224-B225 K224-K225	KC7315	.118 - .787"	3,00 - 20,00 mm	755 230													656	833		
Flood	3xD, 5xD	A41	B221-B222	KC7315	.118 - .787"	3,00 - 20,00 mm	354 105				230	70	◇							459	140		
Dry Applications	3xD, 5xD	A42	B221-B222	KC7315	.118 - .787"	3,00 - 20,00 mm	279 85				197	60	◇		361	110							
Through	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	436 133								322	98	◇			551	168		
Through	15xD, 20xD, 30xD	A83	B271-B272-B274 (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	262 80				230	70	◇		295	90							
Through	3xD, 5xD	A107	B731-B732 (Step Drill)	KC7315	.315 - .630"	10,00 - 16,00 mm	722 220												424	727	240		
Through	5xD	B3	2X2D HPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	427 130								328	100	◇			525	160		
Through	3xD, 5xD, 8xD	B9	KTIP - HP(M)	KC7315	.314 - .826"	8,00 - 20,99 mm	410 125								262	90	◇			558	170		
Through	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM - HP(M)	KC7315	.492 - 1.575"	12,5 mm - 40,00 mm	295 90				230	70	◇		361	110							
Indexable Drills							CUTTING SPEED																
Through	2xD, 3xD, 4xD	E4	DFR	O- KC7815 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	985 300													788	1030	240	
Stable																							
Unstable				O- KC7140 MD I- KC7225 LD			636 194												621	667	203		
Interrupted				O- KC7140 MD I- KC7225 LD			409 125								394	120	◇			424			
Through	2.5xD, 4xD	E10	DFT	O- KC7815 GD I- KC7140 HP	.625 - 3.25"	24 - 82 mm	1066 325													853	1116	260	
Stable																							
Unstable				O- KC7140 MD I- KC7225 HP			673 205												689	722	210		
Interrupted				O- KC7140 MD I- KC7140 HP			443 135								427	130	◇		459	140			
Through	5xD, 8xD	E59	HTS-C	P- B504 CS3 O- KC7215 SPHLR-20 I- KC7215 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	656 200								350	107	◇			800	244		
Stable																							
Unstable				O- KC7140 SPHLR-20 I- KC7140 DFT-HP			459 140								244	74	◇		558				
Through	3xD - 10XD+	E72	HTS-DFR	P- B504 CS3 O- KC7820 MD I- KC7140 GD	1.57 - 2.17"	40,00 - 55,00 mm	623 190								260	79	◇			750	229		
Stable																							
Unstable				O- KC7820 MD I- KC7140 GD			427 130								231	71	◇		561				
Interrupted				O- KC7820 MD I- KC7140 GD			262 80								143	44	◇		348				
Through	3xD - 10XD+	E78	HTS-DFT	P- B510 AS3 O- KC7215 GD I- KC7935 MD	1.77 - 10.63"	45 - 270,00 mm	623 190								260	94	◇			750	309		
Stable																							
Unstable				O- KC7815 GD I- KC7935 MD			427 130								231	71	◇		561				
Interrupted				O- KC720 GD I- KC720 MD			262 80								143	44	◇		348				

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Low Carbon Steels, Long Chipping	• Content <.25%	• Tensile Strength RM (Mpa) <530	• Hardness (HB) <125
Cutting Groups	• 1.1		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.003 - .005	.003 - .006	.004 - .007	.005 - .011	.007 - .015	.007 - .017	.009 - .019	—	—	—	—	—	—	—
mm/r	0,07 - 0,13	0,08 - 0,16	0,10 - 0,19	0,13 - 0,29	0,17 - 0,37	0,19 - 0,44	0,22 - 0,49	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .006	.003 - .009	.003 - .011	.004 - .016	.009 - .020	.012 - .025	—	—	—	—	—	—	—
mm/r	0,08 - 0,15	0,07 - 0,16	0,08 - 0,23	0,08 - 0,28	0,11 - 0,40	0,24 - 0,52	0,31 - 0,64	—	—	—	—	—	—	—
ipr	.003 - .004	.003 - .005	.005 - .008	.006 - .011	.009 - .016	.013 - .019	.016 - .026	—	—	—	—	—	—	—
mm/r	0,07 - 0,11	0,07 - 0,13	0,12 - 0,20	0,16 - 0,27	0,24 - 0,40	0,32 - 0,48	0,40 - 0,66	—	—	—	—	—	—	—
ipr	.003 - .006	.005 - .008	.004 - .009	.005 - .011	.007 - .015	.007 - .017	.009 - .019	—	—	—	—	—	—	—
mm/r	0,07 - 0,16	0,12 - 0,20	0,10 - 0,23	0,13 - 0,29	0,17 - 0,37	0,19 - 0,44	0,22 - 0,49	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0,15 - 0,18	0,16 - 0,19	0,18 - 0,25	0,22 - 0,30	—	—	—	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .008	.004 - .009	.005 - .011	.007 - .015	.007 - .017	—	—	—	—	—	—	—	—
mm/r	0,07 - 0,16	0,09 - 0,20	0,10 - 0,23	0,13 - 0,29	0,17 - 0,37	0,19 - 0,44	—	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .007	.004 - .009	.005 - .011	—	—	—	—	—	—	—	—	—	—
mm/r	0,07 - 0,15	0,08 - 0,18	0,11 - 0,23	0,13 - 0,29	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.004 - .008	.006 - .012	.007 - .018	.010 - .019	—	—	—	—	—	—	—
mm/r	—	—	—	0,11 - 0,20	0,14 - 0,31	0,19 - 0,45	0,25 - 0,48	—	—	—	—	—	—	—
ipr	—	—	—	—	.007 - .014	.007 - .016	.010 - .021	.011 - .024	.013 - .027	—	—	—	—	—
mm/r	—	—	—	—	0,17 - 0,36	0,19 - 0,41	0,25 - 0,53	0,29 - 0,60	0,33 - 0,69	—	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .003	.003 - .005	.003 - .005	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,05 - 0,07	0,08 - 0,12	0,08 - 0,12	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.003 - .005	.004 - .006	.005 - .007
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,10	0,08 - 0,12	0,10 - 0,14	0,13 - 0,19
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.003 - .005	.004 - .006	.005 - .007
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,10	0,08 - 0,12	0,10 - 0,14	0,13 - 0,19
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.003 - .005	.004 - .006	.005 - .007
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,10	0,08 - 0,12	0,10 - 0,14	0,13 - 0,19

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - P1



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value														FEED RATE	
								sfm	Range													ipr	tooth feed inch
									45	91	152	242	303	364	455	606	758	909	1061	mm/r	mm		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers – Monoblock																							
CUTTING SPEED																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	115 35		82 25	148 45							.004-.008 0,10-0,20	— —				
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	230 70			164 50	295 90						.004-.008 0,10-0,20	— —				
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	180 55			131 40	230 70						.008-.024 0,20-0,60	— —				
						.282 – .378	7,16 – 9,59	180 55			131 40	230 70						.010-.026 0,25-0,65	— —				
						.378 – .551	9,6 – 14,0	180 55			131 40	230 70						.010-.035 0,25-0,90	— —				
Straight Flute Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	394 120			295 90	509 155						.008-.024 0,20-0,60	— —				
						.282 – .378	7,16 – 9,59	394 120			295 90	509 155						.010-.026 0,25-0,65	— —				
						.378 – .551	9,6 – 14,0	394 120			295 90	509 155						.010-.035 0,25-0,90	— —				
Helical Flute Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	180 55			131 40	230 70						.008-.024 0,20-0,60	— —				
						.282 – .378	7,16 – 9,59	180 55			131 40	230 70						.010-.026 0,25-0,65	— —				
						.378 – .551	9,6 – 14,0	180 55			131 40	230 70						.010-.035 0,25-0,90	— —				
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	394 120			295 90	509 155						.008-.024 0,20-0,60	— —				
						.282 – .378	7,16 – 9,59	394 120			295 90	509 155						.010-.026 0,25-0,65	— —				
						.378 – .551	9,6 – 14,0	394 120			295 90	509 155						.010-.035 0,25-0,90	— —				
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —				
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —				
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	394 120			295 90	509 155						— 0,05-0,20	.002-.008 —				
Straight Flute Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	394 120			295 90	509 155						— 0,05-0,20	.002-.008 —				
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	492 150			410 125	558 170						— 0,05-0,20	.002-.008 —				
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	492 150			410 125	558 170						— 0,05-0,20	.002-.008 —				
Reamers – Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —				
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	394 120			295 90	509 155						— 0,05-0,20	.002-.008 —				
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	492 150			410 125	558 170						— 0,05-0,20	.002-.008 —				
Reamers – Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6005	E13	236 – 13.77	6,00 – 350,00	197 60			98 30	328 100						.004-.012 0,10-0,30	— —				
Single Padded Reamer	1, 3				E30	236 – 13.77	6,00 – 350,00	197 60			98 30	328 100						.004-.016 0,10-0,40	— —				
Single Padded Reamer	2, 4				E06	236 – 13.77	6,00 – 350,00	197 60			98 30	328 100						.004-.008 0,10-0,20	— —				

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Low Carbon Steels, Long Chipping	• Content <.25%	• Tensile Strength RM (Mpa) <530	• Hardness (HB) <125
Cutting Groups	• 1.1		

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED															FEED RATE	
						Starting Value	Range														ipr	mm/r
							98	164	262	328	394	492	656	820	984	1148	1640	2460	3281			
						sfm	30	50	80	100	120	150	200	250	300	350	500	750	1000			
						m/min	30	50	80	100	120	150	200	250	300	350	500	750	1000			
Boring – Medium Finishing ▼▼																						
Dial Set	CPGM...	KC9110	G107	1.375" - 6.500"	34,93mm - 165,10mm	1312											591	1493		.010 - .016		
	CPGM...	KC9125		1.375" - 6.500"	34,93mm - 165,10mm	400											180	455		0,25 - 0,40		
	CPGM...SPGH...	KC9105		1.375" - 6.500"	34,93mm - 165,10mm	919						492					150	1181	360	.010 - .016		
	SPGH...SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	280														0,25 - 0,40		
	CPMG...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	1312											591	1476		.010 - .016		
	CPMG...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	400											180	450		0,25 - 0,40		
Modbore™	CNMG...MW CNMG...MN CNMG...RP	KC9105	G4	.384" - 25.787"	9,70mm - 655,00mm	1312											591	1476		.010 - .016		
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	400											180	450		0,25 - 0,40		
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	919						492					150	1181	360	.010 - .016		
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	280											492	1181		0,25 - 0,40		
		KT315		.384" - 25.787"	9,70mm - 655,00mm	1444											591	1641	500	.010 - .016		
						440											180	500		0,25 - 0,40		
Boring – Finishing ▼▼▼																						
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G10	.384" - 25.787"	9,70mm - 655,00mm	1312											591	1476		.002 - .010		
	CCMT...LF CNMG...UF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	400											180	450		0,06 - 0,25		
	CCMT...LF CNMG...UF CNMG...FN	KC9125		.384" - 25.787"	9,70mm - 655,00mm	919						492					150	1181	360	.002 - .010		
	CCGT...HP CCGT...LF CCGT...FW CCGT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	280											492	1181		0,06 - 0,25		
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	1444											591	1641	500	.002 - .006		
						440											180	500		0,04 - 0,16		
Boring – Fine Finishing ▼▼▼▼																						
Romicron***	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB CPMT...LF	KC5010	G46	.157" - 8.110"	4,00mm - 213,00mm	918											492	1148		.002 - .008		
		KC9110		.157" - 8.110"	4,00mm - 213,00mm	280											150	360		0,06 - 0,20		
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	1312											591	1476		.002 - .008		
						400											180	450		0,06 - 0,20		
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	918											492	1148		.002 - .008		
						280											150	360		0,06 - 0,20		
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	1443											591	1640		.002 - .010		
						440											180	500		0,06 - 0,25		
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	558											492	689		.001 - .003		
						170											150	210		0,02 - 0,08		
Tapping																						
Solid Carbide Taps – Through Holes	T320, T381	KC7542	D2	—	—	328											230	427		—		
						100											70	130		—		
Solid Carbide Taps – Blind Holes	T331, T391	KC7542	D2	—	—	246											230	328		—		
						75											70	100		—		

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

SOLID CARBIDE DRILLS
MODULAR DRILLS
COMBINATION TOOLS
HSS AND CARBIDE TAPS
INDEXABLE DRILLS
COUNTERBORING TOOLS
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INSERTS
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Best Tool Selector — Drilling – P2

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																		
							Range																		
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80	100	120
Solid Carbide / Modular Drills							CUTTING SPEED																		
Through Coolant/MQL	3xD, 5xD	A53	B224HP, B225HP / K224HP, K225HP	KC7315	.118 - .787"	3,00 - 20,00 mm	722 220																	591 180	853 260
Flood Coolant	3xD, 5xD	A41	B221HP, B222HP/	KC7315	.118 - .787"	3,00 - 20,00 mm	361 110			295 90	◇	492 150													
Dry Applications	3xD, 5xD, 7xD	A42	B221HP, B222HP	KC7315	.118 - .787"	3,00 - 20,00 mm	279 85			197 60	◇	361 110													
Through Coolant	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	505 154					413 126	◇	597 182											
With Coolant	15xD, 20xD, 30xD	A83	B271-B272-B274	KC7425 (Deep Hole)	.118 - .394"	3,00 - 10,00 mm	262 80		230 70	◇	295 90														
Through Coolant	3xD, 5xD	A107	B731-B732 (Step Drill)	KC7315	.118 - .630"	3,00 - 20,00 mm	689 210							591 180	◇	787 240									
Through Coolant	5xD	B3	2X2DHPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	427 130					328 100	◇	525 160											
Through Coolant	3xD, 5xD, 8xD	B9	KenTIP – HP(M)	KC7315	.314 - .826"	8,0 - 20,99 mm	459 140					345 105		591 180											
Through Coolant	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM – HP(M)	KC7315	0.492 - 1.575"	12,5 - 40,0 mm	328 100			262 80	◇	394 120													
Indexable Drills							CUTTING SPEED																		
Through	2xD, 3xD, 4xD	E4	DFR		.500 - 1.00"	12,5 - 24,00mm																			
Stable				O- KC7815 GD I- KC7225 LD			936 285							749 228	◇	979 298									
Unstable				O- KC7140 MD I- KC7225 LD			590 180							604 184	◇	634 193									
Interrupted				O- KC7140 MD I- KC7225 LD			389 118				374 114	◇	403 123												
Through	2.5xD, 4xD	E10	DFT		.625 - 3.250"	16,00 - 82,00 mm																			
Stable				O- KC7815 GD I- KC7140 LD			1013 309							387 247	◇	738 323									
Unstable				O- KC7140 MD I- KC7225 LD			639 195							655 200	◇	686 209									
Interrupted				O- KC7140 MD I- KC7225 LD			421 128					405 124	◇	436 133											
Through	5xD, 8xD	E59	HTS-C	P- B504 CS3 O- KC7215SPHX...R-20 I- KC7215 DFT-HP	.750 - 2.000"	20.00 - 45.00 mm								333 101	◇	760 232									
Stable				O- KC7215SPHX...R-20 I- KC7215 DFT-HP			558 170							226 69	◇	517 158									
Unstable				O- KC7215SPHX...R-20 I- KC7215 DFT-HP			390 119																		
Through	3xD - 10xD	E72	HTS DFR	P- B514 KC7030 O- KC7820 MD I- KC7140 GD	1.57 - 2.17"	40,00 - 55,00 mm								247 75	◇	712 217									
Stable				O- KC7820 MD I- KC7140 GD			591 180							231 71	◇	561 171									
Unstable				O- KC7820 MD I- KC7140 GD			394 120																		
Interrupted				O- KC7820 MD I- KC7140 GD			230 70				143 44	◇	348 106												
Through	3xD - 10xD+	E78	HTS DFT	P- B510, AS3 O- KC7215 GD I- KC7935 MD	1.77 - 10.63"	45,00 - 270,00 mm								309 94	◇	750 229									
Stable				O- KC7215 GD I- KC7935 MD			591 180							231 71	◇	561 171									
Unstable				O- KC7815 GD I- KC740 MD			394 120																		
Interrupted				O- KC720 GD I- KC720 MD			230 70				143 44	◇	348 106												

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Low Carbon Steels, Free Machining and Short Chipping	• Content C < .25%	• Tensile Strength RM (MPa): <650	• Hardness (HB) or HRC: <220
Cutting Groups	• 1.2		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.003 - .006	.003 - .006	.004 - .007	.005 - .011	.007 - .015	.007 - .017	.009 - .019	—	—	—	—	—	—	—
mm/r	0.07 - 0.13	0.08 - 0.16	0.10 - 0.19	0.13 - 0.29	0.17 - 0.37	0.19 - 0.44	0.22 - 0.49	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .006	.003 - .009	.005 - .011	.007 - .015	.009 - .019	.012 - .022	—	—	—	—	—	—	—
mm/r	0.08 - 0.14	0.07 - 0.16	0.08 - 0.23	0.13 - 0.28	0.18 - 0.38	0.24 - 0.48	0.31 - 0.57	—	—	—	—	—	—	—
ipr	.003 - .005	.003 - .005	.005 - .008	.006 - .011	.009 - .016	.013 - .019	.016 - .026	—	—	—	—	—	—	—
mm/r	0.07 - 0.12	0.07 - 0.13	0.12 - 0.20	0.16 - 0.27	0.24 - 0.40	0.32 - 0.48	0.40 - 0.66	—	—	—	—	—	—	—
ipr	.003 - .005	.004 - .006	.006 - .007	.005 - .009	.007 - .012	.007 - .014	.009 - .015	—	—	—	—	—	—	—
mm/r	0.07 - 0.13	0.10 - 0.16	0.16 - 0.19	0.13 - 0.23	0.17 - 0.30	0.19 - 0.35	0.22 - 0.39	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0.15 - 0.18	0.16 - 0.19	0.18 - 0.25	0.22 - 0.30	—	—	—	—	—	—	—	—	—	—
ipr	.003 - .005	.003 - .006	.004 - .007	.005 - .009	.006 - .010	.007 - .012	.007 - .014	—	—	—	—	—	—	—
mm/r	0.07 - 0.13	0.09 - 0.16	0.10 - 0.19	0.13 - 0.23	0.15 - 0.27	0.17 - 0.30	0.19 - 0.35	—	—	—	—	—	—	—
ipr	.003 - .005	.003 - .006	.004 - .007	.005 - .009	—	—	—	—	—	—	—	—	—	—
mm/r	0.07 - 0.13	0.08 - 0.15	0.11 - 0.19	0.13 - 0.23	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.004 - .009	.006 - .013	.007 - .018	.010 - .019	—	—	—	—	—	—	—
mm/r	—	—	—	0.11 - 0.24	0.14 - 0.33	0.19 - 0.45	0.25 - 0.48	—	—	—	—	—	—	—
ipr	—	—	—	—	.007 - .014	.007 - .016	.010 - .021	.014 - .024	.016 - .027	—	—	—	—	—
mm/r	—	—	—	—	0.17 - 0.36	0.19 - 0.41	0.25 - 0.53	0.36 - 0.60	0.41 - 0.69	—	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .005	.002 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.05 - 0.12	0.06 - 0.15	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.002 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.05 - 0.12	0.06 - 0.15	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.002 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.05 - 0.12	0.06 - 0.15	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—
mm/r	—	—	—	—	—	0.06 - 0.10	0.06 - 0.10	0.06 - 0.10	0.11 - 0.18	0.15 - 0.25	0.19 - 0.31	0.19 - 0.31	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—
mm/r	—	—	—	—	—	0.06 - 0.10	0.06 - 0.10	0.09 - 0.15	0.11 - 0.18	0.15 - 0.25	0.19 - 0.31	0.19 - 0.31	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—
mm/r	—	—	—	—	—	0.06 - 0.10	0.06 - 0.10	0.09 - 0.15	0.11 - 0.18	0.15 - 0.25	0.19 - 0.31	0.19 - 0.31	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .003	.003 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0.04 - 0.06	0.05 - 0.07	0.08 - 0.12	0.10 - 0.16	—	—	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .003	.003 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0.04 - 0.06	0.05 - 0.07	0.08 - 0.12	0.10 - 0.16	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	0.12 - 1.18	0.12 - 0.20
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	0.12 - 1.18	0.12 - 0.20
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.044 - .046	.044 - .081
mm/r	—	—	—	—	—	—	—	—	—	—	0.10 - 0.14	0.12 - 0.18	0.12 - 0.18	0.12 - 0.20

* 1 Mpa = 145 psi

Best Tool Selector — Hole Finishing / Tapping - P2



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value		Range											FEED RATE	
								sfm	m/min	45	91	152	242	303	364	455	606	758	909	1061	ipr	tooth feed inch
										15	30	50	80	100	120	150	200	250	300	350		
Reamers — Monoblock																						
CUTTING SPEED																						
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	115 35		82 25	148 45							.004-.008 0,10-0,20	— —			
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	230 70			164 50	295 90						.004-.008 0,10-0,20	— —			
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	180 55			131 40	230 70						.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	180 55			131 40	230 70						.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	180 55			131 40	230 70						.010-.035 0,25-0,90	— —			
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	394 120				295 90	509 155					.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	394 120				295 90	509 155					.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	394 120				295 90	509 155					.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	180 55			131 40	230 70						.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	180 55			131 40	230 70						.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	180 55			131 40	230 70						.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	394 120				295 90	509 155					.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	394 120				295 90	509 155					.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	394 120				295 90	509 155					.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	394 120				295 90	509 155					— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	394 120				295 90	509 155					— 0,05-0,20	.002-.008 —			
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	492 150					410 125	558 170				— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	492 150					410 125	558 170				— 0,05-0,20	.002-.008 —			
Reamers — Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	180 55			131 40	230 70						— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	394 120				295 90	509 155					— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	492 150					410 125	558 170				— 0,05-0,20	.002-.008 —			
Reamers — Insertable																						
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	164 50			66 20	295 90						.004-.012 0,10-0,30	— —			
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	164 50			66 20	295 90						.004-.016 0,10-0,40	— —			
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	164 50			66 20	295 90						.004-.008 0,10-0,20	— —			

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Low Carbon Steels, Free Machining and short chipping	• Content C < .25% • Tensile Strength RM (MPa): <650 • Hardness (HB): <220
Cutting Groups	• 1.2

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE
							CUTTING SPEED														
							sfm	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281	
m/min	30	50	80	100	120	150	200	250	300	350	500	750	1000	mm/r							
Boring – Medium Finishing ▼▼																					
Dial Set	CPMG... SPGH...	KC9105	G107	1.375"- 6.500"	34,93mm-165,10mm	656						492	656	820	984	1148	1312	.010 - .016			
	SPGH... SNGH...	KC850		1.375"- 6.500"	34,93mm-165,10mm	492						394	492	656	820	984	1148	.010 - .016			
	CPGM...	KC9110		1.375"- 6.500"	34,93mm-165,10mm	820						591	656	820	984	1148	1312	.010 - .016			
	CPGM...	KC9125		1.375"- 6.500"	34,93mm-165,10mm	656						492	656	820	984	1148	1312	.010 - .016			
	CPMG...	KC5010		1.375"- 6.500"	34,93mm-165,10mm	656						492	656	820	984	1148	1312	.010 - .016			
	CPMG...	KT315		1.375"- 6.500"	34,93mm-165,10mm	886						656	820	984	1148	1312	1640	.010 - .016			
Modbore	CNMG...MW CNMG...MN CNMG...RP	KC9105	G4	.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.010 - .016			
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	820						591	656	820	984	1148	1312	.010 - .016			
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.010 - .016			
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.010 - .016			
		KT315		.384" - 25.787"	9,70mm - 655,00mm	886						656	820	984	1148	1312	1640	.010 - .016			
Boring – Finishing ▼▼▼																					
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G10	.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.002 - .010			
	CCMT...LF CCMT...UF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	820						591	656	820	984	1148	1312	.002 - .010			
	CCMT...LF CCMT...UF CNMG...FN	KC9125		.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.002 - .010			
	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	656						492	656	820	984	1148	1312	.002 - .010			
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	886						656	820	984	1148	1312	1640	.002 - .010			
						270						200	250	300	350	500	750	.04 - .16			
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB...	KC5010	G46	.157"- 8.110"	4,00mm - 213,00mm	656						492	656	820	984	1148	1312	.002 - .008			
	CPMT...LF	KC9110		.157"- 8.110"	4,00mm - 213,00mm	820						591	656	820	984	1148	1312	.002 - .008			
	CPMT...LF	KC9125		.157"- 8.110"	4,00mm - 213,00mm	656						492	656	820	984	1148	1312	.002 - .008			
	CPMT...LF CPMT...FW CDHB...	KT315		.157"- 8.110"	4,00mm - 213,00mm	885						656	820	984	1148	1312	1640	.002 - .010			
Kendex Precision	BPGF...LGD	KC7235	G121	.299"- .996"	5,8mm - 25,3mm	558						492	656	820	984	1148	1312	.001 - .003			
						170						150	200	250	300	350	500	.02 - .08			
Tapping																					
Solid Carbide Taps – Through Holes	T320, T381	KC7542	D2	—	—	295						197	246	328				—			
						75						60	75	100				—			
Solid Carbide Taps – Blind Holes	T331, T391	KC7542	D2	—	—	246						164	200	250				—			
						75						50	60	75				—			

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – P3

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value	Range																		
							sfm	49	98	164	262	328	394	492	656	820	984	1148								
								m/min	15	30	50	80	100	120	150	200	250	300	350							
Solid Carbide / Modular Drills							CUTTING SPEED																			
Through/MQL	3xD, 5xD	A53	K224HP, K225HP	KC7315	.118 - .787"	3,00 - 20,00 mm																				
Flood Coolant	3xD, 5xD	A41	B221HP, B222HP	KC7315	.118 - .787"	3,00 - 20,00 mm	295 90		197 60	◇	377 115															
Dry Applications	3xD, 5xD	A42	B221-B222	KC7315	.118 - .787"	3,00 - 20,00 mm																				
Through Coolant	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	348 106			282 86	◇	413 126														
With Coolant	15xD, 20xD, 30xD	A83	B271, B272, B274 (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	246 75		197 60	◇	295 90															
Through Coolant	3xD, 5xD	A107	B731HP, B732HP (Step Drill)	KC7315	.118 - .630"	3,00 - 16,00 mm	492 150				394 120	◇	591 180													
Through Coolant	5xD	B3	2X2DHPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	394 120			262 80	◇	525 160														
Through Coolant	3xD, 5xD, 8xD	B9	KenTIP – HP(M)	KC7315	.314 - .826"	8,00 - 20,99 mm	246 75		164 50	◇	328 100															
Through Coolant	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM – HP(M)	KC7315	0.492 - 1.575"	12,00 - 40,0 mm	246 75		213 65	◇	262 80															
Indexable Drills							CUTTING SPEED																			
Through	2xD, 3xD, 4xD	E4	DFR		.500 - 1.00"	12,50 - 24,00mm																				
Stable				O- KC7815 GD I- KC7225 LD			887 270						709 216	◇	927 283											
Unstable				O- KC7140 MD I- KC7225 LD			559 170						572 174	◇	600 183											
Interrupted				O- KC7140 MD I- KC7225 LD			368 112						355 108	◇	382 116											
Through	2.5xD, 4xD	E10	DFT		.625 - 3.250"	16,00 - 82,00 mm																				
Stable				O- KC7815 GD I- KC7140 LD			960 293							387 234	◇	738 306										
Unstable				O- KC7140 MD I- KC7225 LD			605 185						620 189	◇	650 198											
Interrupted				O- KC7140 MD I- KC7225 LD			399 122						384 117	◇	413 126											
Through	5xD, 8xD	E59	HTS-C	P-B504 CS3 O- KC7215 SPHX-R-20 I- KC7215 DFT-HP	.750 - 2.000"	20,00 - 45,00 mm																				
Stable				O- KC7215 SPHX-R-20 I- KC7215 DFT-HP			492 150						316 96	◇	722 220											
Unstable				O- KC7140 SPHX-R-20 I- KC7140 DFT-HP			345 105		210 64	◇	479 146															
Through	3xD - 10XD+	E72	HTS DFR	P- B514 KC7030 O- KC7820 MD I- KC7140 GD	1.57 - 2.17"	40,00 - 55,00 mm																				
Stable				O- KC7820 MD I- KC7140 GD			459 140			197 75	◇	555 269														
Unstable				O- KC7820 MD I- KC7140 GD			328 100		231 50	◇	396 121															
Interrupted				O- KC7820 MD I- KC7140 GD			197 60		98 30	◇	238 72															
Through	3xD - 10XD+	E78	HTS DFT	P- B510 AS3 O- KC7215 GD I- KC7935 MD	1.77 - 10.63"	45,00 - 270,00 mm																				
Stable				O- KC7215 GD I- KC7935 MD			459 140			229 70	◇	555 169														
Unstable				O- KC7815 GD I- KC7140 MD			328 100		163 50	◇	396 121															
Interrupted				O- KC720 GD I- KC720 MD			197 60		98 30	◇	238 72															

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Medium to High Plain-Carbon Steels and Alloy Steels	• Content C > .25% • Tensile Strength RM (MPa)*: 600-850 • Hardness (HB) <330
Cutting Groups	• 2.1, 2.2, 3, 4, 6 • Hardness HRC: <35

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.004 - .006	.004 - .008	.005 - .009	.006 - .011	.008 - .015	.010 - .017	.011 - .019	—	—	—	—	—	—	—
mm/r	0,01 - 0,16	0,11 - 0,20	0,13 - 0,23	0,16 - 0,29	0,21 - 0,37	0,25 - 0,44	0,28 - 0,49	—	—	—	—	—	—	—
ipr	.004 - .006	.004 - .006	.006 - .010	.007 - .012	.007 - .013	.012 - .020	.014 - .025	—	—	—	—	—	—	—
mm/r	0,09 - 0,15	0,09 - 0,16	0,14 - 0,26	0,17 - 0,31	0,19 - 0,33	0,31 - 0,52	0,35 - 0,64	—	—	—	—	—	—	—
ipr	.002 - .003	.003 - .005	.004 - .007	.005 - .008	.008 - .012	.011 - .016	.013 - .020	—	—	—	—	—	—	—
mm/r	0,05 - 0,07	0,07 - 0,12	0,10 - 0,18	0,13 - 0,20	0,20 - 0,31	0,27 - 0,40	0,34 - 0,50	—	—	—	—	—	—	—
ipr	.004 - .006	.005 - .008	.005 - .009	.006 - .009	.008 - .015	.010 - .017	.011 - .018	—	—	—	—	—	—	—
mm/r	0,09 - 0,16	0,13 - 0,20	0,13 - 0,23	0,16 - 0,24	0,21 - 0,37	0,25 - 0,44	0,28 - 0,46	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0,15 - 0,18	0,16 - 0,19	0,18 - 0,25	0,22 - 0,30	—	—	—	—	—	—	—	—	—	—
ipr	.004 - .006	.004 - .008	.005 - .009	.006 - .011	.008 - .015	.010 - .017	—	—	—	—	—	—	—	—
mm/r	0,09 - 0,16	0,11 - 0,20	0,13 - 0,23	0,16 - 0,29	0,21 - 0,37	0,25 - 0,44	—	—	—	—	—	—	—	—
ipr	.003 - .006	.004 - .007	.005 - .008	.005 - .009	—	—	—	—	—	—	—	—	—	—
mm/r	0,08 - 0,15	0,10 - 0,18	0,12 - 0,21	0,13 - 0,23	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.004 - .011	.006 - .015	.009 - .018	.012 - .020	—	—	—	—	—	—	—
mm/r	—	—	—	0,11 - 0,28	0,16 - 0,37	0,23 - 0,46	0,30 - 0,51	—	—	—	—	—	—	—
ipr	—	—	—	—	.006 - .011	.007 - .012	.007 - .014	.010 - .018	.009 - .021	.013 - .024	—	—	—	—
mm/r	—	—	—	—	0,15 - 0,28	0,17 - 0,31	0,19 - 0,36	0,25 - 0,46	0,23 - 0,53	0,33 - 0,60	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .004	.002 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,05 - 0,10	0,06 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,05 - 0,10	0,06 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,05 - 0,10	0,06 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	—	.002 - .003	.002 - .004	.003 - .005	.004 - .007	—	—	—	—
mm/r	—	—	—	—	—	—	0,05 - 0,08	0,06 - 0,10	0,08 - 0,13	0,09 - 0,17	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	0,12 - 0,18	0,12 - 0,20	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	0,12 - 0,18	0,12 - 0,20	—

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - P3



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range												FEED RATE	
									sfm	45	91	152	242	303	364	455	606	758	909	1061	ipr	tooth feed inch
										m/min	15	30	50	80	100	120	150	200	250	300		
Reamers – Monoblock																						
CUTTING SPEED																						
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	328 100						246 75	427 130			.004-.008 0,10-0,20	— —			
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	213 65						148 45	262 80			.004-.008 0,10-0,20	— —			
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	164 50						115 35	197 60			.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	164 50						115 35	197 60			.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	164 50						115 35	197 60			.010-.035 0,25-0,90	— —			
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	328 100						246 75	427 130			.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	328 100						246 75	427 130			.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	328 100						246 75	427 130			.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	164 50						115 35	197 60			.008-.024 0,20-0,60	— —			
						.282 – .378	7,16 – 9,59	164 50						115 35	197 60			.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	164 50						115 35	197 60			.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	328 100						246 75	427 130			.010-.035 0,25-0,90	— —			
						.282 – .378	7,16 – 9,59	328 100						246 75	427 130			.010-.026 0,25-0,65	— —			
						.378 – .551	9,6 – 14,0	328 100						246 75	427 130			.010-.035 0,25-0,90	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	131 40						98 30	164 50			— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	131 40						98 30	164 50			— 0,05-0,20	.002-.008 —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	328 100						246 75	427 130			— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	328 100						246 75	427 130			— 0,05-0,20	.002-.008 —			
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	394 120						361 110	492 150			— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	394 120						361 110	492 150			— 0,05-0,20	.002-.008 —			
Reamers – Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	131 40						98 30	164 50			— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	394 120						295 90	509 155			— 0,05-0,20	.002-.008 —			
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	394 120						361 110	492 150			— 0,05-0,20	.002-.008 —			
Reamers – Insertable																						
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	131 40	66 20					262 80				.002-.010 0,05-0,25	— —			
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	131 40	66 20					262 80				.004-.012 0,10-0,30	— —			
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	131 40	66 20					262 80				.004-.008 0,10-0,20	— —			

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Medium to High Plain-Carbon Steels and Alloy Steels	• Content C > .25% • Tensile Strength RM (MPa)*: 600-850 • Hardness (HB): <330
Cutting Groups	• 2.1, 2.2, 3, 4, 6

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE ipr mm/r
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	
Boring – Medium Finishing ▼▼																					
Dial Set	CPMG... SPGH...	KC9105	G108	1.375" - 6.500"	34,93mm-165,10mm	623						455	820				.010 - .016 0.25 - 0.40				
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm-165,10mm	394		197				492					.010 - .016 0.25 - 0.40				
	CPGM...	KC9110		1.375" - 6.500"	34,93mm-165,10mm	623						492	682				.010 - .016 0.25 - 0.40				
	CPGM...	KC9125		1.375" - 6.500"	34,93mm-165,10mm	190						150	250				.010 - .016 0.25 - 0.40				
	CPMG...	KC5010		1.375" - 6.500"	34,93mm-165,10mm	509				443		135	738				.010 - .016 0.25 - 0.40				
	CPMG...	KT315		1.375" - 6.500"	34,93mm-165,10mm	155						443	738				.010 - .016 0.25 - 0.40				
	CPMG...	KT315		1.375" - 6.500"	34,93mm-165,10mm	689						591	902				.010 - .016 0.25 - 0.40				
	CPMG...	KT315		1.375" - 6.500"	34,93mm-165,10mm	210						180	275				.010 - .016 0.25 - 0.40				
Modbore	CNMG...MW CNMG...MN CNMG...RP	KC9105	G4	.384" - 25.787"	9,70mm - 655,00mm	623						492	820				.010 - .016 0.25 - 0.40				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	190						492	820				.010 - .016 0.25 - 0.40				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	623						492	820				.010 - .016 0.25 - 0.40				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	190						443	738				.010 - .016 0.25 - 0.40				
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	509						443	738				.010 - .016 0.25 - 0.40				
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	155						443	738				.010 - .016 0.25 - 0.40				
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	689						591	902				.010 - .016 0.25 - 0.40				
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	210						180	275				.010 - .016 0.25 - 0.40				
Boring – Finishing ▼▼▼																					
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G10	.384" - 25.787"	9,70mm - 655,00mm	623						492	820				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	190						492	820				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9125		.384" - 25.787"	9,70mm - 655,00mm	623						492	820				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9125		.384" - 25.787"	9,70mm - 655,00mm	190						492	820				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9125		.384" - 25.787"	9,70mm - 655,00mm	509						443	738				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	155						443	738				.002 - .010 0.06 - 0.25				
	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	509						443	738				.002 - .010 0.06 - 0.25				
	CCMT...11 CCMT...FW CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	155						443	738				.002 - .010 0.06 - 0.25				
	CCMT...11 CCMT...FW CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	689						591	902				.002 - .006 0.04 - 0.16				
	CCMT...11 CCMT...FW CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	210						180	275				.002 - .006 0.04 - 0.16				
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB...	KC5010	G46	.157" - 8.110"	4,00mm - 213,00mm	509						443	738				.002 - .008 0.06 - 0.20				
	CPMT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	155						135	225				.002 - .008 0.06 - 0.20				
	CPMT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	623						492	984				.002 - .008 0.06 - 0.20				
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	190						150	300				.002 - .008 0.06 - 0.20				
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	509						443	738				.002 - .008 0.06 - 0.20				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	155						135	225				.002 - .008 0.06 - 0.20				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	689						591	902				.002 - .010 0.06 - 0.25				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	210						180	275				.002 - .010 0.06 - 0.25				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	558						492	689				.001 - .003 0.02 - 0.08				
	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	170						150	210				.001 - .003 0.02 - 0.08				
Tapping																					
Solid Carbide Taps – Through Holes	T320, T381	KC7542	D2	—	—	262		164				361					—				
	T320, T381	KC7542	D2	—	—	80		50				110					—				
Solid Carbide Taps – Blind Holes	T331, T391	KC7542	D2	—	—	213		131				295					—				
	T331, T391	KC7542	D2	—	—	65		40				90					—				

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – P4

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																
							Range																
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80
Solid Carbide / Modular Drills							CUTTING SPEED																
Through/MQL	3xD, 5xD	A53	B224HP, B225HP, K224HP, K225HP	KC7315	.118 - .787"	3,00 - 20,00 mm	459 140											328 100	525 160				
Flood Coolant	3xD, 5xD	A41	B221HP, B222HP	KC7315	.118 - .787"	3,00 - 20,00 mm	262 80		164 50	377 115													
Through Coolant	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	322 98			230 70	413 126												
With Coolant	15xD, 20xD, 30xD	A83	B271HPG, B272HPG, B274HPG (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	230 70		197 60	262 80													
Through Coolant	3xD, 5xD	A107	B731HP, B732HP (Step Drill)	KC7315	.118 - .630"	3,00 - 16,00 mm	459 140											328 100	591 180				
Through Coolant	5xD	B3	2X2DHPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	328 100		197 60										459 140				
Through Coolant	3xD, 5xD, 8xD	B9	KenTIP – HP(M)	KC7315	.314 - .826"	8,0 - 20,99 mm	246 75		164 50	328 100													
Through Coolant	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM – HP(M)	KC7315	.492 - 1.575"	12,5 - 40,0 mm	213 65		164 50	246 75													
Indexable Drills							CUTTING SPEED																
Through	2xD, 3xD, 4xD	E5	DFR		.500 - 1.00"	12,5 - 24,00mm																	
Stable				O- KC7820 MD I- KC7140 MD			788 240														630 192	824 251	
Unstable				O- KC7820 MD I- KC7140 MD			497 151														509 155	534 163	
Interrupted				O- KC7820 MD I- KC7140 MD			327 100			315 96											339 103		
Through	2.5xD, 4xD	E10	DFT		.625 - 3.250"	16,00 - 82,00 mm																	
Stable				O- KC7820 MD I- KC7140 MD			853 260															387 208	738 272
Unstable				O- KC7820 MD I- KC7140 MD			538 164															551 168	577 176
Interrupted				O- KC7820 MD I- KC7140 MD			354 108			341 104											367 112		
Through	5xD, 8xD	E59	HTS-C		.750 - 2.000"	20,00 - 45,00 mm																	
Stable				P- B504 CS3 O- KC7215 SPHX..R-20 I- KC7215 DFT-HP			427 130			246 75												563 172	
Unstable				O- KC7140 SPHX..R-20 I- KC7140 DFT-HP			293 89			172 52												393 120	
Through	3xD - 10XD+	E73	HTS DFR		1.57 - 2.17"	40,00 - 55,00 mm																	
Stable				P- B514 KC7030 O- KC7020 GD I- KC7140 GD			394 120			260 79												750 229	
Unstable				O- KC7020 GD I- KC7140 GD			328 100			231 71												561 171	
Interrupted				O- KC7020 GD I- KC7140 GD			262 80			143 44												348 106	
Through	3xD - 10XD+	E79	HTS DFT		1.77 - 10.63"	45,00 - 270,00 mm																	
Stable				P- B510 AS3 O- KC7815 GD I- KC7215 GD			394 120															309 94	750 229
Unstable				O- KC720 GD I- KC720 GD			328 100			231 71												561 171	
Interrupted				O- KC720 GD I- KC720 GD			262 80			143 44												348 106	

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Alloy Steels and Tool Steels	• Content C > .25%	• Tensile Strength RM (MPa)*: 800-1100	• Hardness (HB) 350-450
Cutting Groups	• 5, 7, 8, 9		• Hardness HRC: 35-48

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

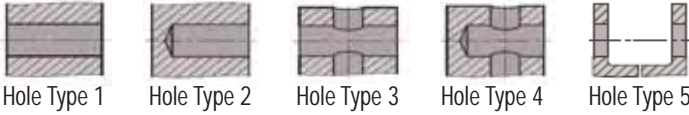
ipr	.003 - .006	.004 - .007	.004 - .007	.006 - .011	.007 - .014	.008 - .016	.009 - .018	—	—	—	—	—	—	—
mm/r	0,07 - 0,14	0,09 - 0,17	0,11 - 0,19	0,14 - 0,27	0,18 - 0,35	0,21 - 0,41	0,24 - 0,46	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .006	.005 - .010	.006 - .012	.008 - .017	.010 - .020	.012 - .023	—	—	—	—	—	—	—
mm/r	0,08 - 0,15	0,08 - 0,16	0,12 - 0,26	0,15 - 0,31	0,20 - 0,42	0,25 - 0,51	0,30 - 0,59	—	—	—	—	—	—	—
ipr	.003 - .006	.005 - .007	.004 - .009	.006 - .011	.007 - .014	.008 - .016	.009 - .018	—	—	—	—	—	—	—
mm/r	0,08 - 0,16	0,12 - 0,19	0,11 - 0,22	0,14 - 0,27	0,18 - 0,35	0,21 - 0,41	0,24 - 0,46	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0,15 - 0,18	0,16 - 0,19	0,18 - 0,25	0,22 - 0,30	—	—	—	—	—	—	—	—	—	—
ipr	.003 - .006	.004 - .007	.004 - .009	.006 - .011	.007 - .014	.008 - .016	—	—	—	—	—	—	—	—
mm/r	0,08 - 0,16	0,10 - 0,19	0,11 - 0,22	0,14 - 0,27	0,18 - 0,35	0,21 - 0,41	—	—	—	—	—	—	—	—
ipr	.003 - .006	.004 - .006	.005 - .009	.006 - .011	—	—	—	—	—	—	—	—	—	—
mm/r	0,08 - 0,14	0,09 - 0,16	0,12 - 0,23	0,14 - 0,29	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.004 - .011	.006 - .015	.007 - .018	.009 - .018	—	—	—	—	—	—	—
mm/r	—	—	—	0,11 - 0,28	0,16 - 0,37	0,18 - 0,46	0,23 - 0,46	—	—	—	—	—	—	—
ipr	—	—	—	—	.005 - .011	.006 - .012	.006 - .014	.008 - .018	.009 - .021	.012 - .024	—	—	—	—
mm/r	—	—	—	—	0,12 - 0,28	0,14 - 0,31	0,16 - 0,36	0,20 - 0,46	0,23 - 0,53	0,30 - 0,60	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,12	0,08 - 0,15	0,11 - 0,21	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .005	.003 - .005	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,07 - 0,12	0,08 - 0,13	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .008	—
mm/r	—	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	0,12 - 0,18	0,12 - 0,20
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	0,12 - 0,18	0,12 - 0,20
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .006	.005 - .007	.005 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	0,10 - 0,14	0,12 - 0,18	0,12 - 0,18	0,12 - 0,20

* 1 Mpa = 145 psi

Best Tool Selector — Hole Finishing / Tapping - P4



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value														FEED RATE	
								sfm	Range													ipr	tooth feed inch
									45	91	152	242	303	364	455	606	758	909	1061	mm/r	mm		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers — Monoblock																							
CUTTING SPEED																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	66 20	49 15	82 25											.004-.008 0,10-0,20	— —	
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	164 50		131 40	213 65											.004-.008 0,10-0,20	— —
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	115 35		82 25	148 45											.008-.024 0,20-0,60	— —
						.282 – .378	7,16 – 9,59	115 35		82 25	148 45											.010-.026 0,25-0,65	— —
						.378 – .551	9,6 – 14,0	115 35		82 25	148 45											.010-.035 0,25-0,90	— —
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	262 80		197 60	344 105											.008-.024 0,20-0,60	— —
						.282 – .378	7,16 – 9,59	262 80		197 60	344 105											.010-.026 0,25-0,65	— —
						.378 – .551	9,6 – 14,0	262 80		197 60	344 105											.010-.035 0,25-0,90	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	115 35		82 25	148 45											.008-.024 0,20-0,60	— —
						.282 – .378	7,16 – 9,59	115 35		82 25	148 45											.010-.026 0,25-0,65	— —
						.378 – .551	9,6 – 14,0	115 35		82 25	148 45											.010-.035 0,25-0,90	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	262 80		197 60	344 105											.008-.024 0,20-0,60	— —
						.282 – .378	7,16 – 9,59	262 80		197 60	344 105											.010-.026 0,25-0,65	— —
						.378 – .551	9,6 – 14,0	262 80		197 60	344 105											.010-.035 0,25-0,90	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	115 35		82 25	148 45											— 0,05-0,20	.002-.008
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	115 35		82 25	148 45											— 0,05-0,20	.002-.008
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	262 80		197 60	344 105											— 0,05-0,20	.002-.008
Straight Flute – Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	262 80		197 60	344 105											— 0,05-0,20	.002-.008
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	295 90		246 75	344 105											— 0,05-0,20	.002-.008
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	295 90		246 75	344 105											— 0,05-0,20	.002-.008
Reamers — Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	115 35		82 25	148 45											— 0,05-0,20	.002-.008
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	262 80		197 60	344 105											— 0,05-0,20	.002-.008
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	295 90		246 75	344 105											— 0,05-0,20	.002-.008
Reamers — Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6105	E13	.236 – 13.77	6,00 – 350,00	98 30	49 15	164 50											.002-.010 0,05-0,25	— —	
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	98 30	49 15	164 50											.004-.012 0,10-0,30	— —	
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	98 30	49 15	164 50											.002-.008 0,05-0,20	— —	

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Alloy Steels and Tool Steels	• Content C > .25% • Tensile Strength RM (MPa)*: 800-1100 • Hardness (HB) 350-450
Cutting Groups	• 5, 7, 8, 9 • Hardness HRC: 35-48

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE	
							CUTTING SPEED														ipr	mm/r
							sfm	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281		
m/min	30	50	80	100	120	150	200	250	300	350	500	750	1000									
Boring – Medium Finishing ▼▼																						
Dial Set	CPMG... SPGH...	KC9105	G108	1.375" - 6.500"	34,93mm - 165,10mm	492												.010 - .016				
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	328												.010 - .016				
	CPGM...	KC9110		1.375" - 6.500"	34,93mm - 165,10mm	492												.010 - .016				
	CPGM...	KC9125		1.375" - 6.500"	34,93mm - 165,10mm	361												.010 - .016				
	CPMG...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	361												.010 - .016				
	CPMG...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	1444												.010 - .016				
Modbore	CNMG...MW CNMG...MN CNMG...RP	KC9105	G5	.384" - 25.787"	9,70mm - 655,00mm	492												.010 - .016				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	492												.010 - .016				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	361												.010 - .016				
	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	361												.010 - .016				
		KT315		.384" - 25.787"	9,70mm - 655,00mm	1444												.010 - .016				
Boring – Finishing ▼▼▼																						
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G11	.384" - 25.787"	9,70mm - 655,00mm	492												.002 - .010				
	CCMT...LF CCMT...UF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	492												.002 - .010				
	CCMT...LF CCMT...UF CNMG...FN	KC9125		.384" - 25.787"	9,70mm - 655,00mm	361												.002 - .010				
	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	361												.002 - .010				
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	1444												.002 - .006				
						440												.04 - 0.16				
Boring – Fine Finishing ▼▼▼▼																						
Romicron**	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB...	KC5010	G47	.157" - 8.110"	4,00mm - 213,00mm	361												.002 - .008				
	CPMT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	427												.002 - .008				
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	361												.002 - .008				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	525												.002 - .010				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	558												.001 - .003				
						170												.02 - 0.08				

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

SOLID CARBIDE DRILLS
MODULAR DRILLS
COMBINATION TOOLS
HSS AND CARBIDE TAPS
INDEXABLE DRILLS
COUNTERBORING TOOLS
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Best Tool Selector — Drilling – P5

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																
							Range																
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80
Solid Carbide / Modular Drills							CUTTING SPEED																
Through	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM - HP(M)	KC7315	.492 - 1.575"	12,50 - 40,00 mm	164	148	148	213	213	213	213	213	213	213	213	213	213	213	213	213	213
Indexable Drills							CUTTING SPEED																
Through	2xD, 3xD, 4xD	E5	DFR	O- KC7820 MD I- KC7140 MD	.500 - 1.00"	12,50 - 24,00 mm	636	194	194	194	194	194	194	194	194	194	194	194	194	194	194	194	194
Unstable				O- KC7820 MD I- KC7140 MD			439	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134	134
Interrupted				O- KC7820 MD I- KC7140 MD			318	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97	97
Through	2.5xD, 4xD	E11	DFT	O- KC7140 MD I- KC7140 MD	.625 - 3.25"	16,00 - 82,00 mm	689	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210
Unstable				O- KC7820 MD I- KC7820 MD			476	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145	145
Interrupted				O- KC7140 MD I- KC7140 MD			279	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85	85
Through	5xD, 8xD	E59	HTS-C	P- B504 CS3 O- KC7215 SPHX.R-20 I- KC7215 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	328	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Unstable				O- KC7140 SPHX.R-20 I- KC7140 DFT-HP			197	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Interrupted				O- KC7140 MD I- KC7140 MD			131	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Through	3xD - 10XD+	E73	HTS-DFR	P- B514 KC7030 O- KC7140 MD I- KC7140 MD	1.57 - 2.17"	40,00 - 55,00 mm	328	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Unstable				O- KC7140 MD I- KC7140 MD			197	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Interrupted				O- KC7140 MD I- KC7140 MD			131	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Through	3xD - 10XD+	E79	HTS-DFT	P- B510 AS3 O- KC720 GD I- KC720 LD	1.77 - 10.63"	45,00 - 270,00 mm	328	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Unstable				O- KC720 GD I- KC720 LD			197	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Interrupted				O- KC720 GD I- KC720 LD			131	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

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Ferritic, Martensitic, and PH Stainless Steels	• Content C = 0-.4%	• Tensile Strength RM (MPa)*: 600-850	• Hardness (HB) <330
	Cutting Groups	• 12, 13.1, 13.2	• Hardness HRC: <35

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
i/pr	—	—	—	—	.004 - .006	.004 - .007	.005 - .008	.006 - .010	.007 - .011	.008 - .013	—	—	—	—
mm/r	—	—	—	—	0,09 - 0,15	0,11 - 0,18	0,12 - 0,21	0,15 - 0,25	0,17 - 0,29	0,20 - 0,33	—	—	—	—

FEED RATE by diameter														
i/pr	—	—	—	—	.001 - .003	.002 - .004	.002 - .005	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,07	0,04 - 0,09	0,05 - 0,13	—	—	—	—	—	—	—
i/pr	—	—	—	—	.001 - .003	.002 - .004	.002 - .005	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,07	0,04 - 0,09	0,05 - 0,13	—	—	—	—	—	—	—
i/pr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.004 - .006	.004 - .007	.005 - .009	.005 - .009	—	—
mm/r	—	—	—	—	—	0,05 - 0,10	0,05 - 0,10	0,07 - 0,13	0,09 - 0,15	0,11 - 0,18	0,12 - 0,23	0,12 - 0,23	—	—
i/pr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.004 - .006	.004 - .007	.005 - .009	.005 - .009	—	—
mm/r	—	—	—	—	—	0,05 - 0,10	0,05 - 0,10	0,07 - 0,13	0,09 - 0,15	0,11 - 0,18	0,12 - 0,23	0,12 - 0,23	—	—
i/pr	—	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.002 - .004	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,07	0,06 - 0,10	0,06 - 0,11	—	—	—	—
i/pr	—	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.002 - .004	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,07	0,06 - 0,10	0,06 - 0,11	—	—	—	—
i/pr	—	—	—	—	—	—	—	—	—	.002 - .004	.003 - .006	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,11	0,07 - 0,14	—	—	—
i/pr	—	—	—	—	—	—	—	—	—	.002 - .004	.003 - .006	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,11	0,07 - 0,14	—	—	—
i/pr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,05 - 0,07	0,06 - 0,08	0,06 - 0,10	0,08 - 0,12
i/pr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,05 - 0,07	0,06 - 0,08	0,06 - 0,10	0,08 - 0,12
i/pr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,05 - 0,07	0,06 - 0,08	0,06 - 0,10	0,08 - 0,12

* 1 Mpa = 145 psi

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED														FEED RATE	
								Starting Value	Range													ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers – Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	49	33	66											.004-.008	—	
								15	10	20											0,10-0,20	—	
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	98		66	115											.004-.008	—
								30		20	35											0,10-0,20	—
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	66	40	62											.004 - .018	—	
								20	15	25											0,10 - 0,45	—	
						.282 – .378	7,16 – 9,59	66	40	62											.006 - .020	—	
								20	15	25											0,15 - 0,50	—	
						.378 – .551	9,6 – 14,0	66	40	62											.006 - .020	—	
								20	15	25											0,15 - 0,50	—	
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	148	98	180											.004 - .018	—	
								45	30	55											0,10 - 0,45	—	
						.282 – .378	7,16 – 9,59	148	98	180											.006 - .020	—	
								45	30	55											0,15 - 0,50	—	
						.378 – .551	9,6 – 14,0	148	98	180											.006 - .020	—	
								45	30	55											0,15 - 0,50	—	
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	66	49	82											.004 - .018	—	
								20	15	25											0,10 - 0,45	—	
						.282 – .378	7,16 – 9,59	66	15	82											.006 - .020	—	
								20	25	25											0,15 - 0,50	—	
						.378 – .551	9,6 – 14,0	66	15	82											.006 - .020	—	
								20	25	25											0,15 - 0,50	—	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	148	98	180											.004 - .018	—	
								45	30	55											0,10 - 0,45	—	
						.282 – .378	7,16 – 9,59	148	98	180											.006 - .020	—	
								45	30	55											0,15 - 0,50	—	
						.378 – .551	9,6 – 14,0	148	98	180											.006 - .020	—	
								45	30	55											0,15 - 0,50	—	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	66	33	98											—	.002 - .008	
								20	10	30											0,05 - 0,20	—	
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	66	33	98											—	.002 - .008	
								20	10	30											0,05 - 0,20	—	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	148	98	180											—	.002 - .008	
								45	30	55											0,05 - 0,20	—	
Straight Flute – Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	148	98	180											—	.002 - .008	
								45	30	55											0,05 - 0,20	—	
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	180	115	246											—	.002 - .008	
								55	35	75											0,05 - 0,20	—	
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	180	115	246											—	.002 - .008	
								55	35	75											0,05 - 0,20	—	
Reamers – Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	66	33	98											—	.002 - .008	
								20	10	30											0,05 - 0,20	—	
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	148	98	180											—	.002 - .008	
								45	30	55											0,05 - 0,20	—	
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	180	115	246											—	.002 - .008	
								55	35	75											0,05 - 0,20	—	
Reamers – Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6105	E13	.236 – 13.77	6,00 – 350,00	82	33	131											.002 - .008	—	
								25	10	40											0,05 - 0,20	—	
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	197	98	328											.002 - .008	—	
								60	30	100											0,05 - 0,20	—	

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Ferritic, Martensitic, and PH Stainless Steels	• Content C = 0-.4%	• Tensile Strength RM (MPa)*: 600-850	• Hardness (HB) <330
	Cutting Groups	• 12, 13.1, 13.2	• Hardness HRC: <35

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE ipr mm/r
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	
Boring – Medium Finishing ▼▼																					
Dial Set	CPMG... SPGH...	KC9105	G109	1.375" - 6.500"	34,93mm - 165,10mm	820 250						492 150	1181 360			.010 - .016 0,25 - 0,40					
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	459 140	197 60				492 150					.010 - .016 0,25 - 0,40					
	CPMG...	KC9110		1.375" - 6.500"	34,93mm - 165,10mm	722 220					492 150	984 300				.010 - .016 0,25 - 0,40					
	CPMG...	KC9125		1.375" - 6.500"	34,93mm - 165,10mm	656 200				394 120	902 275					.010 - .016 0,25 - 0,40					
	CPMG...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	656 200				394 120	902 275					.010 - .016 0,25 - 0,40					
	CPMG...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	1444 440					591 180	1641 500				.010 - .016 0,25 - 0,40					
Modbore	CNMG...MW CNMG...MN CNMG...RP	KC9105	G5	.384" - 25.787"	9,70mm - 655,00mm	820 250					492 150	1181 360				.010 - .016 0,25 - 0,40					
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	722 220					492 150	984 300				.010 - .016 0,25 - 0,40					
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	656 200				394 120	902 275					.010 - .016 0,25 - 0,40					
	CCMT...MW CNGP... CNMG...MW CNMG...MP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	656 200				394 120	902 275					.010 - .016 0,25 - 0,40					
	CCMT...11 CCMT...FW CCMT...LF	KT315		.384" - 25.787"	9,70mm - 655,00mm	1444 440					591 180	1641 500				.010 - .016 0,25 - 0,40					
Boring – Finishing ▼▼▼																					
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G11	.384" - 25.787"	9,70mm - 655,00mm	820 250					492 150	1181 360				.002 - .010 0,06 - 0,25					
	CCMT...LF CCMT...UF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	722 220					492 150	984 300				.002 - .010 0,06 - 0,25					
	CCMT...LF CCMT...UF CNMG...FN	KC9125		.384" - 25.787"	9,70mm - 655,00mm	656 200				394 120	902 275					.002 - .010 0,06 - 0,25					
	CCGT...HP CCGT...LF CCGT...FW CCGT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	656 200				394 120	902 275					.002 - .010 0,06 - 0,25					
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	1444 440					591 180	1641 500				.002 - .006 0,04 - 0,16					
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW CPGT...HP CDHB....	KC5010	G47	.157" - 8.110"	4,00mm - 213,00mm	656 200					394 120	902 275				.002 - .008 0,06 - 0,20					
	CPMT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	656 200					492 150	984 300				.002 - .008 0,06 - 0,20					
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	656 200				394 120	902 275					.002 - .008 0,06 - 0,20					
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	820 250					492 150	984 300				.002 - .010 0,06 - 0,25					
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	558 170					492 150	689 210				.001 - .003 0,02 - 0,08					

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

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Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																		
							Range																		
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80	100	120
Solid Carbide / Modular Drills							CUTTING SPEED																		
Through/MQL	3xD, 5xD	A53	B224HP, B225HP / K224HP, K225HP	KC7315	.118 - .787"	3,00 - 20,00 mm	459 140											328 100	591 180						
Flood	3xD, 5xD	A41	B221HP, B222HP	KC7315	.118 - .787"	3,00 - 20,00 mm	262 80			164 50	377 115														
Dry Applications	3xD, 5xD	A42	B221HP, B222HP	KC7315	.118 - .787"	3,00 - 20,00 mm	247 75			197 60	296 90														
Through	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	322 98					230 70	413 126												
Through	3xD, 5xD	A107	B731HP, B732HP (Deep Hole)	KC7315	.118 - .630"	3,00 - 16,00 mm	459 140											328 100	591 180						
Through	1xD, 3xD, 5xD, 7xD, 10xD	B32	KSEM-HP(M) (Step Drill)	KC7315	.492 - 1.575"	12,50 - 40,00 mm	164 50			148 45	213 65														
Indexable Drills							CUTTING SPEED																		
Through	2xD, 3xD, 4xD	E5	DFR	O- KC7140 MD I- KC7820 MD	.500 - 1.00"	12,5 - 24,00 mm	604 184															547 167	634 193		
Stable																									
Unstable							417 138															374 124	461 152		
Interrupted							302 81															259 76	346 86		
Through	2.5xD, 4xD	E12	DFT	O- KC7820 MD I- KC7140 MD	.625 - 3.25"	16,00 - 82,00 mm	655 200																387 152	738 209	
Stable																									
Unstable							452 138																405 124	499 152	
Interrupted							265 81																249 76	281 86	
Through	5xD, 8xD	E59	HTS-C	P- B504 CS3 O- KC7215 SPHX-R-20 I- KC7215 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	312 95																246 75	563 172	
Stable																									
Unstable							246 75																172 52	393 120	
Through	3xD - 10XD+	E73	HTS-DFR	P- B514 KC7030 O- KC7140 MD I- KC7140 MD	1.57 - 2.17"	40,00 - 55,00 mm	312 95																	195 59	591 180
Stable																									
Unstable							187 57																	146 45	355 108
Interrupted							125 38																	98 30	238 72
Through	3xD - 10XD+	E79	HTS-DFT	P- B510 AS3 O- KC720 GD I- KC720 LD	1.77 - 10.63"	45 - 270,00 mm	312 95																	244 74	591 180
Stable																									
Unstable							187 57																	146 45	355 108
Interrupted							125 38																	98 30	238 72

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

High-Strength Ferritic, Martensitic, and PH Stainless Steels	• Content C = .1-.6%	• Tensile Strength RM (MPa)* 900-1350	• Hardness (HB) 350-450
	Cutting Groups		• Hardness HRC: 25-48
	• 10, 11		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
ipr	.003 - .005	.003 - .006	.004 - .006	.005 - .009	.006 - .010	.007 - .014	.008 - .015	—	—	—	—	—	—	—
mm/r	0,07 - 0,12	0,10 - 0,14	0,10 - 0,16	0,12 - 0,23	0,16 - 0,26	0,18 - 0,35	0,21 - 0,39	—	—	—	—	—	—	—
ipr	.002 - .004	.003 - .005	.004 - .006	.005 - .009	.007 - .011	.009 - .015	.011 - .019	—	—	—	—	—	—	—
mm/r	0,06 - 0,10	0,07 - 0,12	0,09 - 0,16	0,12 - 0,23	0,17 - 0,29	0,22 - 0,38	0,27 - 0,47	—	—	—	—	—	—	—
ipr	.002 - .003	.003 - .005	.004 - .007	.005 - .008	.008 - .012	.011 - .016	.013 - .020	—	—	—	—	—	—	—
mm/r	0,05 - 0,07	0,07 - 0,12	0,10 - 0,18	0,13 - 0,20	0,20 - 0,31	0,27 - 0,40	0,34 - 0,50	—	—	—	—	—	—	—
ipr	.003 - .005	.004 - .006	.004 - .006	.005 - .008	.006 - .010	.007 - .012	.008 - .013	—	—	—	—	—	—	—
mm/r	0,07 - 0,12	0,10 - 0,14	0,10 - 0,16	0,12 - 0,20	0,16 - 0,26	0,18 - 0,31	0,21 - 0,34	—	—	—	—	—	—	—
ipr	.003 - .005	.003 - .006	.004 - .006	.005 - .008	.006 - .010	.007 - .012	—	—	—	—	—	—	—	—
mm/r	0,07 - 0,12	0,09 - 0,14	0,10 - 0,16	0,12 - 0,20	0,16 - 0,26	0,18 - 0,31	—	—	—	—	—	—	—	—
ipr	—	—	—	—	.005 - .009	.006 - .010	.006 - .011	.008 - .015	.009 - .017	.010 - .021	—	—	—	—
mm/r	—	—	—	—	0,12 - 0,23	0,14 - 0,26	0,16 - 0,29	0,20 - 0,38	0,23 - 0,43	0,26 - 0,54	—	—	—	—

FEED RATE by diameter														
ipr	—	—	—	—	.001 - .003	.002 - .004	.002 - .005	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,07	0,04 - 0,09	0,05 - 0,13	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .003	.002 - .004	.002 - .005	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,07	0,04 - 0,09	0,05 - 0,13	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .003	.002 - .004	.002 - .005	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,07	0,04 - 0,09	0,05 - 0,13	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	.002 - .004	.004 - .006	.004 - .007	.006 - .010	.007 - .012	.007 - .012	—	—	—
mm/r	—	—	—	—	—	0,06 - 0,10	0,09 - 0,15	0,11 - 0,18	0,15 - 0,25	0,19 - 0,31	0,19 - 0,31	—	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.003 - .004	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,05 - 0,07	0,06 - 0,10	0,07 - 0,11	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.003 - .005	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,08 - 0,13	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.003 - .005	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,08 - 0,13	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,06 - 0,10	0,08 - 0,12
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,06 - 0,10	0,08 - 0,12
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.002 - .004	.003 - .005
mm/r	—	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,06 - 0,10	0,08 - 0,12

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - P6



Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED											FEED RATE				
								Starting Value		Range										ipr	tooth feed inch		
								sfm	m/min	45	91	152	242	303	364	455	606	758	909			1061	mm/r
Reamers — Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	49	33	10	66											.004 - .008	—
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	98	66	20	115											.004 - .008	—
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	66	49	15	82											.004 - .018	—
						.282 – .378	7,16 – 9,59	66	49	15	82											.010 - 0,20	—
						.378 – .551	9,6 – 14,0	66	49	15	82											.006 - .020	—
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	148	98	30	180											.004 - .018	—
						.282 – .378	7,16 – 9,59	148	98	30	180											.010 - 0,20	—
						.378 – .551	9,6 – 14,0	148	98	30	180											.006 - .020	—
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	66	49	15	82											.004 - .018	—
						.282 – .378	7,16 – 9,59	66	49	15	82											.010 - 0,20	—
						.378 – .551	9,6 – 14,0	66	49	15	82											.006 - .020	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	148	98	30	180											.004 - .018	—
						.282 – .378	7,16 – 9,59	148	98	30	180											.010 - 0,20	—
						.378 – .551	9,6 – 14,0	148	98	30	180											.006 - .020	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	66	33	10	98											.002 - .008	—
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	66	33	10	98											.005 - 0,20	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	148	98	30	180											.002 - .008	—
Straight Flute – Internal Coolant - Axial	2, 4	G147	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	148	98	30	180											.005 - 0,20	—
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	180	115	35	246											.002 - .008	—
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	180	115	35	246											.005 - 0,20	—
Reamers — Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	66	33	10	98											.002 - .008	—
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	148	98	30	180											.005 - 0,20	—
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	180	115	35	246											.002 - .008	—
Reamers — Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6105	E13	.236 – 13.77	6,00 – 350,00	82	33	10	131											.002 - .008	—
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	82	33	10	131											.005 - 0,20	—

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

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High-Strength Ferritic, Martensitic, and PH Stainless Steels	• Content C = .1-.6% • Tensile Strength RM (MPa)* 900-1350 • Hardness (HB) 350-450
Cutting Groups	• 10, 11 • Hardness HRC: 25-48

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED															FEED RATE	
						Starting Value	Range														ipr	mm/r
							98	164	262	328	394	492	656	820	984	1148	1640	2460	3281			
sfm	30	50	80	100	120	150	200	250	300	350	500	750	1000									
Boring — Medium Finishing ▼▼																						
Dial Set	CPMG... SPGH...	KC9105	G109	1.375" - 6.500"	34,93mm - 165,10mm	591					410	125	902	275			.008 - .024	0,20 - 0,60				
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	361	164				410	125					.008 - .024	0,20 - 0,60				
	CPGM...	KC9110		1.375" - 6.500"	34,93mm - 165,10mm	591					410	125	902	275			.008 - .024	0,20 - 0,60				
	CPGM...	KC9125		1.375" - 6.500"	34,93mm - 165,10mm	492				345	105	738	225				.008 - .024	0,20 - 0,60				
	CPMG...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	492				345	105	738	225				.008 - .024	0,20 - 0,60				
	CPMG...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	820					492	150	984	300			.008 - .024	0,20 - 0,60				
Modbore	CNMG...MW CNMG...MN CNMG...RP	KC9105	G5	.384" - 25.787"	9,70mm - 655,00mm	591					410	125	902	275			.010 - .016	0,25 - 0,40				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9110		.384" - 25.787"	9,70mm - 655,00mm	591					410	125	902	275			.010 - .016	0,25 - 0,40				
	CNMG...MW CNMG...MN CNMG...RP CNMG...RM	KC9125		.384" - 25.787"	9,70mm - 655,00mm	492				345	105	738	225				.010 - .016	0,25 - 0,40				
	CCMT...MW CNGP... CNMG...MW CNMG...MP CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	492				345	105	738	225				.010 - .016	0,25 - 0,40				
	CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	820					492	150	984	300			.010 - .016	0,25 - 0,40				
Boring — Finishing ▼▼▼																						
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9105	G11	.384" - 25.787"	9,70mm - 655,00mm	591					410	125	902	275			.002 - .010	0,06 - 0,25				
	CCMT...LF CCMT...UF CNMG...FF CNMG...FN CNMG...FW	KC9110		.384" - 25.787"	9,70mm - 655,00mm	591					410	125	902	275			.002 - .010	0,06 - 0,25				
	CCMT...LF CCMT...UF CNMG...FN	KC9125		.384" - 25.787"	9,70mm - 655,00mm	492				345	105	738	225				.002 - .010	0,06 - 0,25				
	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010		.384" - 25.787"	9,70mm - 655,00mm	492				345	105	738	225				.002 - .010	0,06 - 0,25				
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	820					492	150	984	300			.002 - .006	0,04 - 0,16				
Boring — Fine Finishing ▼▼▼▼																						
Romicron**	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB...	KC5010	G47	.157" - 8.110"	4,00mm - 213,00mm	492					345	105	738	225			.002 - .008	0,06 - 0,20				
	CPMT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	705					427	130	886	270			.002 - .008	0,06 - 0,20				
	CPMT...LF	KC9125		.157" - 8.110"	4,00mm - 213,00mm	492				345	105	738	225				.002 - .008	0,06 - 0,20				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	656					424	140	879	290			.002 - .010	0,06 - 0,25				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	558					492	150	689	210			.001 - .003	0,02 - 0,08				

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – M1

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/ Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																
							Range																
							sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50	80
Solid Carbide / Modular Drills							CUTTING SPEED																
Through	3xD, 5xD, 7xD	A26	B210, B211, B212/ K210, K211, K212	KC7515	.118 - .787"	3,00 - 20,00 mm	246 75							197 60	295 90								
Through	3xD, 5xD, 7xD	B10	KTIP - HPL(M)	KC7320	.314 - .826"	8,00 - 20,99 mm	182 60							164 50	295 90								
Through	3xD, 5xD, 7xD, 10xD	B34	KSEM - HPL(M)	KC7320	.492 - 1.575"	12,5 mm - 40,00 mm	197 60							98 30	295 90								
Indexable Drills							CUTTING SPEED																
Through	2xD, 3xD, 4xD	E6	DFR	O- KC7140 MD I- KC7140 MD	.500 - 1.00"	12,5 - 24,00 mm	623 190									325 99						738 225	
Unstable				O- KC7140 MD I- KC7140 MD			427 130								263 80							502 153	
Interrupted				O- KC7140 MD I- KC7140 MD			262 80								163 50							311 95	
Through	2.5xD, 4xD	E11	DFT	O- KC7140 MD I- KC7140 MD	.625 - 3.25"	16,00 - 82,00 mm	686 209									357 109						812 247	
Unstable				O- KC7140 MD I- KC7140 MD			469 143								290 88							552 152	
Interrupted				O- KC7140 MD I- KC7140 MD			289 88								180 55							311 104	
Through	5xD, 8xD	E60	HTS-C	P- B504 CS3 O- KC7140 SPGX-31 I- KC7140 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	367 112								180 55							450 137	
Unstable				O- KC7140 SPGX-31 I- KC7140 DFT-HP			276 84								135 41							337 103	
Through	3xD - 10XD+	E74	HTS-DFR	P- B513 AS3 O- KC7140 MD I- KC7140 MD	1.57 - 2.17"	40,00 - 55,00 mm	361 110								130 40							439 134	
Unstable				O- KC7140 MD I- KC7140 MD			230 70								101 31							281 86	
Interrupted				O- KC7140 MD I- KC7140 MD			164 50								72 22							199 61	
Through	3xD - 10XD+	E80	HTS-DFT	P- B510 AS3 O- KC7935 MD I- KC720 LD	1.77 - 10.63"	45,00 - 270,00 mm	361 110								159 48							439 134	
Unstable				O- KC7215 GD I- KC720 LD			230 70								101 31							281 86	
Interrupted				O- KC720 MD I- KC720 GD			164 50								72 22							199 61	

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

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Austenitic Stainless Steels	• Content C= .05-.15%	• Tensile Strength RM (MPa)*: <650	• Hardness (HB) 130-200
Cutting Groups	• 14.1		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
ipr	.001 - .003	.002 - .005	.003 - .007	.004 - .008	.005 - .009	.006 - .010	.007 - .011	—	—	—	—	—	—	—
mm/r	0,03 - 0,08	0,06 - 0,13	0,08 - 0,18	0,10 - 0,20	0,13 - 0,23	0,15 - 0,25	0,18 - 0,28	—	—	—	—	—	—	—
ipr	—	—	—	.002 - .004	.004 - .006	.004 - .007	.005 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	0,06 - 0,11	0,09 - 0,14	0,11 - 0,17	0,13 - 0,20	—	—	—	—	—	—	—
ipr	—	—	—	—	.004 - .006	.004 - .007	.005 - .008	.006 - .010	.007 - .011	.008 - .012	—	—	—	—
mm/r	—	—	—	—	0,09 - 0,14	0,11 - 0,17	0,13 - 0,20	0,16 - 0,25	0,18 - 0,28	0,21 - 0,31	—	—	—	—

FEED RATE by diameter														
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .003	.002 - .003	—	—	—	—
mm/r	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,05 - 0,07	0,05 - 0,07	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22

* 1 Mpa = 145 psi

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range													FEED RATE	
									CUTTING SPEED													ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers — Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	26 8	20 6	33 10												.004-.008 0,10-0,20	—
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	49 15	30 9	59 18												.004-.008 0,10-0,20	—
Straight Flute Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15												.004 – .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	—
Straight Flute Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28												.004 – .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15												.004 – .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28												.004 – .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	33 10	66 20												— 0,05 - 0,20	.002 - .008
Straight Flute Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	33 10	66 20												— 0,05 - 0,20	.002 - .008
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35	82 25	148 45												— 0,05 - 0,20	.002 - .008
Straight Flute Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35	82 25	148 45												— 0,05 - 0,20	.002 - .008
Reamers — Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	49 15	33 10	66 20												— 0,05 - 0,20	.002 - .008
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	115 35	82 25	148 45												— 0,05 - 0,20	.002 - .008
Reamers — Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.002 - .008 0,05 - 0,20	—
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.004 - .010 0,10 - 0,25	—
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.002 - .008 0,05 - 0,20	—

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Austenitic Stainless Steels	• Content C=.05-.15%	• Tensile Strength RM (MPa)*: <650	• Hardness (HB) 130-200
Cutting Groups	• 14.1		

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE ipr mm/r
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	
Boring – Medium Finishing ▼▼																					
Dial Set	CPGM...	KC9225	G110	1.375" - 6.500"	34,93mm-165,10mm	607						410 125	820 250				.002 - .016 0,05 - 0,40				
	CPGM...SNGH...	KC9240NEW		1.375" - 6.500"	34,93mm-165,10mm	492				328 100		656 200					.002 - .016 0,05 - 0,40				
	CPGM...	KC5010		1.375" - 6.500"	34,93mm-165,10mm	705					443 135	755 230					.002 - .016 0,05 - 0,40				
	CPGM...	KC5025		1.375" - 6.500"	34,93mm-165,10mm	591				328 100		656 200					.002 - .016 0,05 - 0,40				
	CPGM...	KT315		1.375" - 6.500"	34,93mm-165,10mm	755						541 165	919 280				.002 - .016 0,05 - 0,40				
	SPGH...SNGH...	KC850		1.375" - 6.500"	34,93mm-165,10mm	558					410 125	853 260					.002 - .016 0,05 - 0,40				
Modbore	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP	KC5010	G6	.384" - 25.787"	9,70mm - 655,00mm	705					410 125	820 250					.002 - .016 0,05 - 0,40				
	CCGT...HP CCGT...LF CNMG...MP CNMG...RP	KC9225		.384" - 25.787"	9,70mm - 655,00mm	607				328 100		820 250					.006 - .016 0,16 - 0,40				
	CNMG...MW CNMG...MP CNMG...RP	KC9240NEW		.384" - 25.787"	9,70mm - 655,00mm	492				295 90		591 180					.006 - .016 0,16 - 0,40				
	CCMT...MW CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	755						492 150	984 300				.010 - .016 0,25 - 0,40				
Boring – Finishing ▼▼▼																					
ModBore	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010	G12	.384" - 25.787"	9,70mm - 655,00mm	705					410 125	820 250					.004 - .010 0,10 - 0,25				
	CCGT...HP CCGT...LF	KC5025		.384" - 25.787"	9,70mm - 655,00mm	591					410 125	656 200					.002 - .012 0,05 - 0,30				
	CCMT...FW CCMT...LF CCMT...UF	KC9225		.384" - 25.787"	9,70mm - 655,00mm	607				328 100		820 250					.003 - .010 0,08 - 0,25				
	CCMT...LF CNMG...FN CNMG...FW	KC9240NEW		.384" - 25.787"	9,70mm - 655,00mm	492				295 90		591 180					.003 - .010 0,08 - 0,25				
Boring – Fine Finishing ▼▼▼▼																					
Romicron **	CPMT...LF CPMT...FW	KC9225	G48	.157" - 8.110"	4,00mm - 213,00mm	607					328 100	820 250					.002 - .008 0,05 - 0,20				
	CPMT...LF CPGT...HP CPGT...LF	KC5025		.157" - 8.110"	4,00mm - 213,00mm	591					328 100	656 200					.002 - .008 0,05 - 0,20				
	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB...	KC5010		.157" - 8.110"	4,00mm - 213,00mm	705					410 125	820 250					.002 - .008 0,05 - 0,20				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	755						492 150	984 300				.002 - .008 0,05 - 0,20				
	CPMT...LF	KC9240NEW		.157" - 8.110"	4,00mm - 213,00mm	492				295 90		591 180					.002 - .008 0,05 - 0,20				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	607					410 125	820 250					.001 - .003 0,02 - 0,08				

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – M2

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value Range												
							sfm	49	98	164	262	328	394	492	656	820	984	1148	
							m/min	15	30	50	80	100	120	150	200	250	300	350	
Solid Carbide / Modular Drills							CUTTING SPEED												
Through	3xD, 5xD, 7xD	A26	B210, B211, B212/ K210, K211, K212	KC7515	.118 - .787"	3,00 - 20,00 mm	197 60		164 50	262 80									
Through	3xD, 5xD, 8xD	B10	KTIP - HPL(M)	KC7320	.314 - .826"	8,00 - 20,99 mm	152 50	98 30	295 90										
Through	1xD, 3xD, 5xD, 7xD, 10xD	B34	KSEM - HPL(M)	KC7320	.492 - 1.575"	12,5 mm - 40,00 mm	164 50	98 30	295 90										
Indexable Drills							CUTTING SPEED												
Through	2xD, 3xD, 4xD	E6	DFR	O- KC7140 MD I- KC7140 MD	.500 - 1.00"	12,5 - 24,00 mm	561 171		293 89	664 202									
Unstable				O- KC7140 MD I- KC7140 MD			384 130		237 80	452 153									
Interrupted				O- KC7140 MD I- KC7140 MD			262 80		147 50	311 95									
Through	2.5xD, 4xD	E11	DFT	O- KC7140 MD I- KC7140 MD	.625 - 3.25"	16,00 - 82,00 mm	623 190		387 99	738 225									
Unstable				O- KC7140 MD I- KC7140 MD			427 130		263 80	502 153									
Interrupted				O- KC7140 MD I- KC7140 MD			262 80		163 50	311 95									
Through	5xD, 8xD	E60	HTS-C	P- B504 CS3 O- KC7140 SPGX...31 I- KC7140 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	331 101		180 55	380 116									
Unstable				O- KC7140 SPGX...31 I- KC7140 DFT-HP			248 76		135 41	284 87									
Through	3xD - 10XD+	E74	HTS-DFR	P- B513 AS3 O- KC7140 MD I- KC7140 MD	1.57 - 2.17"	40,00 - 55,00 mm	325 99		124 38	417 127									
Unstable				O- KC7140 MD I- KC7140 MD			207 63		101 31	281 86									
Interrupted				O- KC7140 MD I- KC7140 MD			148 45		72 22	199 61									
Through	3xD - 10XD+	E80	HTS-DFT	P- B510 AS3 O- KC7935 MD I- KC720 LD	1.77 - 10.63"	45,00 - 270,00 mm	325 99		159 48	439 134									
Unstable				O- KC7215 GD I- KC720 LD			207 63		101 31	281 86									
Interrupted				O- KC720 MD I- KC720 GD			148 45		72 22	199 61									

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

SOLID CARBIDE DRILLS
MODULAR DRILLS
COMBINATION TOOLS
HSS AND CARBIDE TAPS
INDEXABLE DRILLS
COUNTERBORING TOOLS
PRECISION HOLE FINISHING
INSERTS
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INDEX

High-Strength Austenitic Stainless and Cast Stainless Steels	• Content C =.05-.15%	• Tensile Strength RM (Mpa)*: 500-700	• Hardness (HB): 150-230
Cutting Groups	• 14.3		• Hardness HRC: <25

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥150,0

FEED RATE by diameter

ipr	.001 - .003	.002 - .005	.003 - .007	.004 - .008	.005 - .009	.006 - .010	.007 - .011	—	—	—	—	—	—	—
mm/r	0,03 - 0,08	0,06 - 0,13	0,08 - 0,18	0,10 - 0,20	0,13 - 0,23	0,15 - 0,25	0,18 - 0,28	—	—	—	—	—	—	—
ipr	—	—	—	.002 - .004	.004 - .006	.004 - .007	.005 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	0,06 - 0,11	0,09 - 0,14	0,11 - 0,17	0,13 - 0,20	—	—	—	—	—	—	—
ipr	—	—	—	—	.004 - .006	.004 - .007	.005 - .008	.006 - .010	.007 - .011	.008 - .012	—	—	—	—
mm/r	—	—	—	—	0,09 - 0,14	0,11 - 0,17	0,13 - 0,20	0,16 - 0,25	0,18 - 0,28	0,21 - 0,31	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .003	.002 - .003	—	—	—	—
mm/r	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,05 - 0,07	0,05 - 0,07	—	—	—	—
ipr	—	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .003	.002 - .003	—	—	—
mm/r	—	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,05 - 0,07	0,05 - 0,07	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - M2



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range													FEED RATE	
									CUTTING SPEED													ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers – Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	49 15	20 6	33 10												.004-.008 0,10-0,20	— —
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	49 15	30 9	59 18												.004-.008 0,10-0,20	— —
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15												.004 – .018 0,10 - 0,45	— —
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	— —
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	— —
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28												.004 – .018 0,10 - 0,45	— —
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	— —
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	— —
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15												.004 – .018 0,10 - 0,45	— —
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	— —
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15												.006 - .020 0,15 - 0,50	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28												.004 – .018 0,10 - 0,45	— —
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	— —
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28												.006 - .020 0,15 - 0,50	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	33 10	66 20												— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	33 10	66 20												— —	.002 - .008 0,05 - 0,20
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35	82 25	148 45												— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35	82 25	148 45												— —	.002 - .008 0,05 - 0,20
Reamers – Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	49 15	33 10	66 20												— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	115 35	82 25	148 45												— —	.002 - .008 0,05 - 0,20
Reamers – Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.002 - .008 0,05 - 0,20	— —
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.004 - .010 0,10 - 0,25	— —
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40												.002 - .008 0,05 - 0,20	— —

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

High-Strength Austenitic Stainless and Cast Stainless Steels	• Content C =.05-.15%	• Tensile Strength RM (Mpa)*: 500-700	• Hardness (HB): 150-230
Cutting Groups	• 14.3		• Hardness HRC: <25

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE ipr mm/r
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	
Boring – Medium Finishing ▼▼																					
Dial Set	CPGM...	KC9225	G110	1.375" - 6.500"	34,93mm - 165,10mm	558 170						410 125	738 225				.010 - .016 0,25 - 0,40				
	CPGM... SNGH...	KC9240 NEW		1.375" - 6.500"	34,93mm - 165,10mm	459 140			295 90			591 180					.010 - .016 0,25 - 0,40				
	CPGM...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	656 200					410 125	738 225	820 250				.010 - .016 0,25 - 0,40				
	CPGM...	KC5025		1.375" - 6.500"	34,93mm - 165,10mm	541 165					410 125	738 225					.010 - .016 0,25 - 0,40				
	CPGM...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	705 215						492 150	738 225	984 300			.010 - .016 0,25 - 0,40				
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	492 150			295 90			591 180					.010 - .016 0,25 - 0,40				
Modbore	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP	KC5010	G6	.384" - 25.787"	9,70mm - 655,00mm	656 200					410 125	738 225	820 250				.002 - .016 0,05 - 0,40				
	CCGT...HP CCGT...LF CNMG...MP CNMG...RP	KC9225		.384" - 25.787"	9,70mm - 655,00mm	541 165				328 100		738 225					.006 - .016 0,16 - 0,40				
	CNMG...MW CNMG...MP CNMG...RP	KC9240 NEW		.384" - 25.787"	9,70mm - 655,00mm	459 140			295 90			591 180					.006 - .016 0,16 - 0,40				
	CCMT...MW CNMG...RP	KC5010		.384" - 25.787"	9,70mm - 655,00mm	705 215						492 150	738 225	984 300			.010 - .016 0,25 - 0,40				
Boring – Finishing ▼▼▼																					
ModBore	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNMG...LF CNMG...FP CNMG...FW	KC5010	G12	.384" - 25.787"	9,70mm - 655,00mm	656 200					410 125	738 225	820 250				.002 - .010 0,06 - 0,25				
	CCGT...HP CCGT...LF	KC5025		.384" - 25.787"	9,70mm - 655,00mm	541 165				328 100		656 200					.002 - .010 0,06 - 0,25				
	CCMT...LF CCMT...UF CCMT...UF	KC9225		.384" - 25.787"	9,70mm - 655,00mm	541 165				328 100		738 225					.002 - .010 0,06 - 0,25				
	CCMT...LF CNMG...FN CNMG...FW	KC9240 NEW		.384" - 25.787"	9,70mm - 655,00mm	459 140			295 90			591 180					.002 - .010 0,06 - 0,25				
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW	KC5010	G48	.157" - 8.110"	4,00mm - 213,00mm	541 165					328 100	738 225					.002 - .008 0,05 - 0,20				
	CPMT...LF CPGT...HP CPGT...LF	KC9110		.157" - 8.110"	4,00mm - 213,00mm	541 165					328 100	656 200					.002 - .008 0,05 - 0,20				
	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB....	KC9125		.157" - 8.110"	4,00mm - 213,00mm	656 200					410 125	738 225	820 250				.002 - .008 0,05 - 0,20				
	CPMT...LF CPMT...FW CDHB....	KT315		.157" - 8.110"	4,00mm - 213,00mm	705 215						492 150	738 225	984 300			.002 - .008 0,05 - 0,25				
	CPMT...LF	KC9240 NEW		.157" - 8.110"	4,00mm - 213,00mm	459 140			295 90			591 180					.002 - .008 0,05 - 0,25				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - 25,3mm	607 185						410 125	738 225	820 250			.001 - .003 0,02 - 0,08				

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – M3

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	CUTTING SPEED														
							Starting Value	Range													
							sfm	49	98	164	262	328	394	492	656	820	984	1148			
							m/min	15	30	50	80	100	120	150	200	250	300	350			
Solid Carbide / Modular Drills							CUTTING SPEED														
Through	3xD, 5xD, 7xD	A26	B210, B211, B212/ K210, K211, K212	KC7515	.118 - .787"	3,00 - 20,00 mm	180 55			131 40	230 70										
Through	3xD, 5xD, 8xD	B10	KTIP - HPL(M)	KC7320	.314 - .826"	8,00 - 20,99 mm	121 40	66 20		197 60											
Through	1xD, 3xD, 5xD, 7xD, 10xD	B34	KSEM - HPL(M)	KC7320	.492 - 1.575"	12,5 mm - 40,00 mm	131 40	66 20		197 60											
Indexable Drills							CUTTING SPEED														
Through	2xD, 3xD, 4xD	E6	DFR	O- KC7140 MD I- KC7140 MD	.500 - 1.00"	12,5 - 24,00 mm	505 171				263 106		598 202								
Stable				O- KC7140 MD I- KC7140 MD			345 117			213 72		407 138									
Unstable				O- KC7140 MD I- KC7140 MD			213 72			132 45	252 85										
Interrupted				O- KC7140 MD I- KC7140 MD			236 72			147 45	280 85										
Through	2.5xD, 4xD	E12	DFT	O- KC7140 MD I- KC7140 MD	.625 - 3.25"	16,00 - 82,00 mm	561 171				292 89		664 202								
Stable				O- KC7140 MD I- KC7140 MD			384 117			237 72		452 138									
Unstable				O- KC7140 MD I- KC7140 MD			236 72			147 45	280 85										
Interrupted				O- KC7140 MD I- KC7140 MD			294 90			180 55	350 107										
Through	5xD, 8xD	E60	HTS-C	P- B504 CS3 O- KC7140 SPGX...31 I- KC7140 DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	220 67			135 41	262 80										
Stable				O- KC7140 SPGX...31 I- KC7140 DFT-HP			289 88			104 32	351 107										
Unstable				O- KC7140 MD I- KC7140 MD			184 56			101 31	281 86										
Interrupted				O- KC7140 MD I- KC7140 MD			131 40	72 22		199 61											
Through	3xD - 10XD+	E74	HTS-DFR	P- B513 AS3 O- KC7140 MD I- KC7140 MD	1.57 - 2.17"	40,00 - 55,00 mm	289 88			104 32	351 107										
Stable				O- KC7140 MD I- KC7140 MD			184 56			101 31	281 86										
Unstable				O- KC7140 MD I- KC7140 MD			131 40	72 22		199 61											
Interrupted				O- KC7140 MD I- KC7140 MD			289 88			159 48	439 134										
Through	3xD - 10XD+	E80	HTS-DFT	P- B510 AS3 O- KC7935 MD I- KC720 LD	1.77 - 10.63"	45 - 270,00 mm	184 56			101 31	281 86										
Stable				O- KC7935 MD I- KC720 LD			131 40	72 22		199 61											
Unstable				O- KC7215 GD I- KC720 LD			289 88			159 48	439 134										
Interrupted				O- KC720 MD I- KC720 GD			131 40	72 22		199 61											

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

SOLID CARBIDE
DRILLS

MODULAR DRILLS

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HSS AND
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Duplex Steels	• Content C=.05-.2%	• Tensile Strength RM (Mpa)*: <900	• Hardness (HB) 135-275
Cutting Groups	• 14.2		• Hardness HRC: <30

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥150,0

FEED RATE by diameter

ipr	.001 - .003	.002 - .005	.003 - .007	.004 - .008	.005 - .009	.006 - .010	.007 - .011	—	—	—	—	—	—	—
mm/r	0,03 - 0,08	0,06 - 0,13	0,08 - 0,18	0,10 - 0,20	0,13 - 0,23	0,15 - 0,25	0,18 - 0,28	—	—	—	—	—	—	—
ipr	—	—	—	.002 - .004	.004 - .006	.004 - .007	.005 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	0,06 - 0,11	0,09 - 0,14	0,11 - 0,17	0,13 - 0,20	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.004 - .007	.005 - .008	.006 - .010	.007 - .011	.008 - .012	—	—	—	—
mm/r	—	—	—	—	—	0,11 - 0,17	0,13 - 0,20	0,16 - 0,25	0,18 - 0,28	0,21 - 0,31	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.002 - .004	.003 - .006	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,04 - 0,09	0,05 - 0,10	0,08 - 0,16	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	.002 - .004	.002 - .004	.003 - .005	.003 - .006	.004 - .007	.004 - .008	.004 - .008	—	—
mm/r	—	—	—	—	—	0,05 - 0,09	0,05 - 0,09	0,07 - 0,13	0,08 - 0,16	0,10 - 0,18	0,11 - 0,21	0,11 - 0,21	—	—
ipr	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .003	.002 - .003	—	—	—	—
mm/r	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,05 - 0,07	0,05 - 0,07	—	—	—	—
ipr	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .003	.002 - .003	—	—	—	—
mm/r	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,05 - 0,07	0,05 - 0,07	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22
ipr	—	—	—	—	—	—	—	—	—	—	.003 - .004	.005 - .007	.006 - .008	.006 - .009
mm/r	—	—	—	—	—	—	—	—	—	—	0,07 - 0,11	0,12 - 0,18	0,14 - 0,20	0,16 - 0,22

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - M3



Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED												FEED RATE		
								Starting Value	Range										ipr	tooth feed inch		
									sfm m/min	45 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250			909 300	1061 350
Reamers – Monoblock																						
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	26 8	20 6	33 10											.004 - .008 0,10 - 0,20	—
Straight Flute – External Coolant	1, 3, 5	G132	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	49 15	30 9	59 18											.004 - .008 0,10 - 0,20	—
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15											.006 - .020 0,15 - 0,50	—
Straight Flute – Internal Coolant - Axial	2, 4	G136	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	39 12	26 8	49 15											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	39 12	26 8	49 15											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	39 12	26 8	49 15											.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G140	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	33 10	16 5	49 15											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	33 10	16 5	49 15											— —	.002 - .008 0,05 - 0,20
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	82 25	33 10	131 40											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	115 35											— —	.002 - .008 0,05 - 0,20
Reamers – Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	33 10	16 5	49 15											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G159	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	82 25	49 15	115 35											— —	.002 - .008 0,05 - 0,20
Reamers – Insertable																						
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.004 - .012 0,10 - 0,30	—
Single Padded Reamer	1, 3		RIR/RIQ†	KC6305	E30	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.004 - .016 0,10 - 0,40	—
Single Padded Reamer	2, 4		RIR/RIQ†	KC6305	E06	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.004 - .008 0,10 - 0,20	—

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

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Best Tool Selector – Hole Finishing/Tapping – Stainless Steel – M3

Duplex Steels	• Content C=.05-.2%	• Tensile Strength RM (Mpa)*: <900	• Hardness (HB) 135-275
Cutting Groups	• 14.2		• Hardness HRC: <30

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range													FEED RATE	
						sfm m/min	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281	ipr mm/r	
							30	50	80	100	120	150	200	250	300	350	500	750	1000		
Boring — Medium Finishing ▼▼						CUTTING SPEED															
Dial Set	CPGM...	KC9225	G111	1.375" - 6.500"	34,93mm - 165,10mm	492 150					410 125	◇			820 250		.002 - .016 0,05 - 0,40				
	CPGM... SNGH...	KC9240NEW		1.375" - 6.500"	34,93mm - 165,10mm	394 120		295 90			◇		591 180				.002 - .016 0,05 - 0,40				
	CPGM...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	607 185					410 125	◇			820 250		.002 - .016 0,05 - 0,40				
	CPGM...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	492 150			328 100			◇		656 200			.002 - .016 0,05 - 0,40				
	CPGM...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	656 200						541 165	◇		984 300		.002 - .016 0,05 - 0,40				
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	459 140			328 100			◇		656 200			.002 - .016 0,05 - 0,40				
Modbore	CCMT...MW CNMG... CNMG...MW CNMG...MP CNMG...RP	KC5010	G6	.384" - 25.787"	9,70mm - 655,00mm	607 185					410 125	◇			820 250		.002 - .016 0,05 - 0,40				
	CCGT...HP CCGT...LF CNMG...MP CNMG...RP	KC9225		.384" - 25.787"	9,70mm - 655,00mm	492 150			328 100			◇		820 250			.006 - .016 0,16 - 0,40				
	CNMG...MW CNMG...MP CNMG...RP	KC9240NEW		.384" - 25.787"	9,70mm - 655,00mm	394 120		295 90			◇		591 180				.006 - .016 0,16 - 0,40				
	CCMT...MW CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	656 200							492 150	◇	984 300		.010 - .016 0,25 - 0,40				
Boring — Finishing ▼▼▼																					
ModBore	CCGT...HP CCGT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010	G12	.384" - 25.787"	9,70mm - 655,00mm	607 185					410 125	◇			820 250		.004 - .010 0,10 - 0,25				
	CCGT...HP CCGT...LF	KC5025		.384" - 25.787"	9,70mm - 655,00mm	607 185			328 100			◇		820 250			.002 - .012 0,05 - 0,30				
	CCMT...FW CCMT...LF CCMT...UF	KC9225		.384" - 25.787"	9,70mm - 655,00mm	492 150			328 100			◇		820 250			.003 - .010 0,08 - 0,25				
	CCMT...LF CNMG...FN CNMG...FW	KC9240NEW		.384" - 25.787"	9,70mm - 655,00mm	394 150		295 90			◇		591 180				.003 - .010 0,08 - 0,25				
Boring — Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW	KC9225	G48	.157" - 8.110"	4,00mm - 213,00mm	492 150					328 100	◇			820 250		.002 - .008 0,05 - 0,20				
	CPMT...LF CPGT...HP CPGT...LF CPMT...LF CPMT...FW	KC5025		.157" - 8.110"	4,00mm - 213,00mm	492 150					328 100	◇		656 200			.002 - .008 0,05 - 0,20				
	CPGT...FW CPGT...LF CPGT...HP CDHB... CDHB...	KC5010		.157" - 8.110"	4,00mm - 213,00mm	607 185					410 125	◇			820 250		.002 - .008 0,05 - 0,20				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	656 200							492 150	◇	984 300		.002 - .008 0,05 - 0,20				
	CPMT...LF	KC9240 NEW		.157" - 8.110"	4,00mm - 213,00mm	394 120		295 90			◇		591 180				.002 - .008 0,05 - 0,20				
Kendex Precision	BPGF...LGD	KC7235	G121	.299" - .996"	5,8mm - -25,3mm	607 185					410 125	◇			820 250		.001 - .003 0,02 - 0,08				

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

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Best Tool Selector — Drilling – K1

SOLID CARBIDE DRILLS	MODULAR DRILLS	Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value															
									Range															
									sfm	49	98	164	262	328	394	492	656	820	984	1148	m/min	15	30	50
Solid Carbide / Modular Drills									CUTTING SPEED															
Through	3xD, 5xD, 7xD	A65	B254-B255-B256 / K254-K255-K256	KC7315	.118 - .787"	3,00 - 20,00 mm	492 150											394 120	↕	656 200				
Flood	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	459 140			262 80									↕	528 161				
Dry Applications	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	361 110			197 60									↕	492 150				
Through	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	279 85			230 70									↕	322 98				
Through	15xD, 20xD, 30xD	A83	B271-B272-B274 (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	262 80			197 60									↕	328 100				
Through	3xD, 5xD	A107	B731-B732 (Step Drill)	KC7315	.118 - .630"	3,00 - 16,00 mm	525 160													↕	459 140	591 180		
Through	5xD	B3	2X2D HPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	443 135													↕	558 170			
Through	3xD, 5xD, 8xD	B10	KTIP - HPC(M)	KC7410	.314 - .826"	8,00 - 20,00 mm	574 175													↕	656 200			
Through	1xD, 3xD, 5xD, 7xD, 10xD	B34	KSEM - HPC(M)	KC7410	.492 - 1.575"	12,5 mm - 40,00 mm	574 175													↕	656 200			
Indexable Drills									CUTTING SPEED															
Through	2xD, 3xD, 4xD	E7	DFR	O- KC7815 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	727 222																	
Stable																								
Unstable																								
Interrupted																								
Through	2.5xD, 4xD	E12	DFT	O- KC7815 GD I- KC7225 MD	.625 - 3.25"	16,0 - 82,00 mm	787 240																	
Stable																								
Unstable																								
Interrupted																								
Through	5xD, 8xD	E60	HTS-C	P- B504 CS3 O- KC7215 SPHX.R21 I- KC7215 DFT-GD	.750 - 2.00"	20,00 - 45,00 mm	623 190																	
Stable																								
Unstable																								
Through	3xD - 10XD+	E75	HTS-DFR	P- B514 KC7030 O- KC7815 GD I- KC7020 GD	1.57 - 2.17"	40,00 - 55,00 mm	561 171																	
Stable																								
Unstable																								
Interrupted																								
Through	3xD - 10XD+	E81	HTS-DFT	P- B510 AS3 O- KC7815 GD I- KC7225 LD	1.77 - 10.63"	45,00 - 270,00 mm	561 171																	
Stable																								
Unstable																								
Interrupted																								

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Gray Cast Irons and Low-Strength Ductile Irons	• Content	• Tensile Strength RM (MPa)*: 150-400	• Hardness (HB) 120-290
	Cutting Groups	• 15, 16, 17	• Hardness HRC: <32

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.003 - .004	.006 - .008	.008 - .011	.010 - .014	.013 - .017	.014 - .020	.016 - .021	—	—	—	—	—	—	—
mm/r	0.08 - 0.11	0.14 - 0.20	0.20 - 0.28	0.25 - 0.35	0.32 - 0.43	0.36 - 0.50	0.40 - 0.55	—	—	—	—	—	—	—
ipr	.005 - .008	.006 - .009	.007 - .012	.008 - .015	.011 - .020	.013 - .024	.014 - .028	—	—	—	—	—	—	—
mm/r	0.13 - 0.20	0.14 - 0.24	0.17 - 0.31	0.20 - 0.39	0.29 - 0.51	0.33 - 0.62	0.36 - 0.70	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .007	.004 - .009	.006 - .012	.012 - .019	.015 - .023	.020 - .028	—	—	—	—	—	—	—
mm/r	0.10 - 0.20	0.13 - 0.24	0.16 - 0.31	0.20 - 0.39	0.27 - 0.51	0.33 - 0.62	0.36 - 0.70	—	—	—	—	—	—	—
ipr	.004 - .007	.005 - .008	.005 - .010	.006 - .012	.008 - .015	.009 - .018	.010 - .020	—	—	—	—	—	—	—
mm/r	0.09 - 0.17	0.13 - 0.21	0.12 - 0.25	0.15 - 0.31	0.20 - 0.39	0.23 - 0.46	0.26 - 0.52	—	—	—	—	—	—	—
ipr	.007 - .008	.007 - .008	.008 - .011	.010 - .013	—	—	—	—	—	—	—	—	—	—
mm/r	0.17 - 0.20	0.18 - 0.21	0.21 - 0.27	0.25 - 0.33	—	—	—	—	—	—	—	—	—	—
ipr	.004 - .007	.004 - .008	.005 - .010	.006 - .012	.008 - .015	.009 - .018	—	—	—	—	—	—	—	—
mm/r	0.09 - 0.17	0.11 - 0.21	0.12 - 0.25	0.15 - 0.31	0.20 - 0.39	0.23 - 0.46	—	—	—	—	—	—	—	—
ipr	.004 - .006	.004 - .008	.005 - .011	.006 - 0.013	—	—	—	—	—	—	—	—	—	—
mm/r	0.09 - 0.15	0.10 - 0.20	0.13 - 0.27	0.15 - 0.34	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.006 - .013	.007 - .017	.010 - .022	.012 - .024	—	—	—	—	—	—	—
mm/r	—	—	—	0.14 - 0.32	0.19 - 0.43	0.26 - 0.55	0.30 - 0.61	—	—	—	—	—	—	—
ipr	—	—	—	—	.007 - .014	.008 - .017	.010 - .019	.012 - .023	.015 - .028	.017 - .032	—	—	—	—
mm/r	—	—	—	—	0.17 - 0.35	0.21 - 0.42	0.25 - 0.48	0.31 - 0.59	0.37 - 0.70	0.43 - 0.81	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.06 - 0.13	0.07 - 0.16	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.06 - 0.13	0.07 - 0.16	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .005	.003 - .006	.004 - .008	—	—	—	—	—	—	—
mm/r	—	—	—	—	0.06 - 0.13	0.07 - 0.16	0.10 - 0.21	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.003 - .005	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—
mm/r	—	—	—	—	—	0.07 - 0.13	0.07 - 0.13	0.10 - 0.18	0.14 - 0.26	0.18 - 0.33	0.21 - 0.39	0.21 - 0.39	—	—
ipr	—	—	—	—	—	.003 - .005	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—
mm/r	—	—	—	—	—	0.07 - 0.13	0.07 - 0.13	0.10 - 0.18	0.14 - 0.26	0.18 - 0.33	0.21 - 0.39	0.21 - 0.39	—	—
ipr	—	—	—	—	—	—	.003 - .005	.004 - .006	.004 - .006	.005 - .008	—	—	—	—
mm/r	—	—	—	—	—	—	0.08 - 0.13	0.09 - 0.15	0.10 - 0.16	0.12 - 0.20	—	—	—	—
ipr	—	—	—	—	—	—	—	.003 - .005	.004 - .006	.005 - .008	—	—	—	—
mm/r	—	—	—	—	—	—	—	0.08 - 0.13	0.09 - 0.15	0.10 - 0.16	0.12 - 0.20	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.11 - 0.20	0.13 - 0.27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .004	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.11 - 0.20	0.13 - 0.27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.11 - 0.20	0.13 - 0.27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0.11 - 0.20	0.13 - 0.27	0.15 - 0.31	0.17 - 0.33
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0.11 - 0.20	0.13 - 0.27	0.15 - 0.31	0.17 - 0.33

Best Tool Selector — Hole Finishing / Tapping - K1



SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

INSERTS

TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range													FEED RATE	
									CUTTING SPEED													ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers — Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	98 30	66 20	115 35												.004-.007 0,09-0,17	— —
Straight Flute – External Coolant	1, 3, 5	G133	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	213 65			148 45	197 60										.004-.007 0,09-0,17	— —
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	164 50			115 35	197 60										.012-.031 0,30-0,80	— —
					—	.282 – .378	7,16 – 9,59	164 50			115 35	197 60										.012-.039 0,30-1,00	— —
					—	.378 – .551	9,6 – 14,0	164 50			115 35	197 60										.012-.047 0,30-1,20	— —
Straight Flute – Internal Coolant - Axial	2, 4	G137	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	328 100			246 75	427 130										.012-.031 0,30-0,80	— —
					—	.282 – .378	7,16 – 9,59	328 100			246 75	427 130										.012-.039 0,30-1,00	— —
					—	.378 – .551	9,6 – 14,0	328 100			246 75	427 130										.012-.047 0,30-1,20	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	164 50			115 35	197 60										.012-.031 0,30-0,80	— —
					—	.282 – .378	7,16 – 9,59	164 50			115 35	197 60										.012-.039 0,30-1,00	— —
					—	.378 – .551	9,6 – 14,0	164 50			115 35	197 60										.012-.047 0,30-1,20	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G141	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	328 100			246 75	427 130										.012-.031 0,30-0,80	— —
					—	.282 – .378	7,16 – 9,59	328 100			246 75	427 130										.012-.039 0,30-1,00	— —
					—	.378 – .551	9,6 – 14,0	328 100			246 75	427 130										.012-.047 0,30-1,20	— —
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	148 45			98 30	197 60										— —	.002-.008 0,05-0,20
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	148 45			98 30	197 60										— —	.002-.008 0,05-0,20
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G153	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	394 120			262 80	427 130										— —	.002-.008 0,05-0,20
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	344 105			262 80	427 130										— —	.002-.008 0,05-0,20
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	410 125			328 100	492 150										— —	.002-.008 0,05-0,20
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	410 125			328 100	492 150										— —	.002-.008 0,05-0,20
Reamers — Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	148 45			98 30	197 60										— —	.002-.008 0,05-0,20
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G160	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	344 105			262 80	427 130										— —	.002-.008 0,05-0,20
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	410 125			328 100	492 150										— —	.002-.008 0,05-0,20
Reamers — Insertable																							
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.004-.007 0,09-0,17	— —
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.004-.007 0,11-0,19	— —
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.005-.008 0,12-0,21	— —
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.006-.012 0,15-0,31	— —
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.007-.014 0,18-0,35	— —
Single Padded Reamer	1, 3, 5				EGU	.236 – 13.77	6,00 – 350,00	230 70	66 20			328 100										.008-.015 0,20-0,39	— —

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Gray Cast Irons and Low-Strength Ductile Irons	• Content	• Tensile Strength RM (MPa)*: 150-400	• Hardness (HB) 120-290
	Cutting Groups	• 15, 16, 17	• Hardness HRC: <32

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range																FEED RATE ipr mm/r
							CUTTING SPEED																
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000			
Boring – Medium Finishing ▼▼																							
Dial Set	CPGM...	KC9315	G111	1.375" - 6.500"	34,93mm-165,10mm	902 275										492 150	1476 450	.005 - .016 0,12 - 0,40					
	CPGM...	KC9320		1.375" - 6.500"	34,93mm-165,10mm	951 290										574 175	1641 500	.010 - .016 0,25 - 0,40					
	CPGM...	KT315		1.375" - 6.500"	34,93mm-165,10mm	902 275										574 175	1476 450	.010 - .016 0,25 - 0,40					
Modbore	CCMT...MW CNMG...MW CNMG...UN CNMG...RP	KC9315	G7	.384" - 25.787"	9,70mm - 655,00mm	902 275				328 100						1476 450	.005 - .016 0,12 - 0,40						
	CNMG...UN CNMG...RP	KC9320		.384" - 25.787"	9,70mm - 655,00mm	920 275				328 100						1476 450	.010 - .016 0,25 - 0,40						
	CNMG...MW CNMG...UN CNMG...RP	KC9325		.384" - 25.787"	9,70mm - 655,00mm	902 275				328 100						1476 450	.010 - .016 0,25 - 0,40						
	CCMT...MW CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	902 275										492 150	1476 450	.010 - .016 0,25 - 0,40					
Boring – Finishing ▼▼▼																							
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9315	G13	.384" - 25.787"	9,70mm - 655,00mm	902 275										492 150	1444 440	.003 - .012 0,08 - 0,30					
	CCMT...FW CCMT...LF	KC9110		.384" - 25.787"	9,70mm - 655,00mm	951 290				328 100						1476 450	.005 - .020 0,12 - 0,50						
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	902 275										525 160	1476 450	.002 - .006 0,04 - 0,16					
Boring – Fine Finishing ▼▼▼▼																							
Romicron**	CPMT...LF CPMT...FW	KC9315	G49	.157" - 8.110"	4,00mm - 213,00mm	902 275										492 150	1444 440	.002 - .010 0,06 - 0,25					
	CPMT...LF CPMT...FW	KC9320		.157" - 8.110"	4,00mm - 213,00mm	951 290				328 100						1476 450	.002 - .010 0,06 - 0,25						
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	902 275										525 160	1476 450	.002 - .010 0,06 - 0,25					
Kendex Precision	BPGF... LGD	KC7210	G121	.299" - .996"	5,8mm - 25,3mm	820 250										492 150	1148 350	.001 - .003 0,02 - 0,08					
Tapping																							
Solid Carbide Taps – Through Holes	T340	KC7542	D2	—	—	345 105										262 80	427 130	—					
Solid Carbide Taps – Blind Holes	T351	KC7542	D2	—	—	246 75										164 50	328 100	—					

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – K2

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	CUTTING SPEED												
							Starting Value	Range											
							sfm	49	98	164	262	328	394	492	656	820	984	1148	
							m/min	15	30	50	80	100	120	150	200	250	300	350	
Solid Carbide / Modular Drills																			
Through	3xD, 5xD, 7xD	A65	B254-B255-B256 / K254-K255-K256	KC7315	.118 - .787"	3,00 - 20,00 mm	394 120					263 80	◇	525 160					
Flood	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	394 120					262 80	◇	394 120					
Dry Applications	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	308 94				197 60	◇	328 100						
Through	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	371 113					322 98	◇	413 126					
Through	15xD, 20xD, 30xD	A83	B271HPG, B272HPG, B274HPG (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	230 70				197 60	◇	262 80						
Through	3xD, 5xD	A107	B731HP, B732HP (Step Drill)	KC7315	0.118 - 0.630"	3,00 - 16,00 mm	492 150					328 100	◇	656 200					
Through	5xD	B3	2X2DHGPM	KC7915	.118 - .315"	3,00 - 8,00 mm	394 120					262 80	◇	525 160					
Through	3xD, 5xD, 8xD	B10	KTIP - HPC(M)	KC7410	.314 - .826"	8,00 - 20,99 mm	525 160					328 100	◇	591 180					
Through	1xD, 3xD, 5xD, 7xD, 10xD	B34	KSEM - HPC(M)	KC7410	.492 - 1.575"	12,5 mm - 40,00 mm	525 160					328 100	◇	591 180					
Indexable Drills																			
Through	2xD, 3xD, 4xD	E7	DFR		.500 - 1.00"	12,5 - 24,00 mm													
Stable				O- KC7225 LD I- KC7225 LD			566 173							425 129	◇	614 187			
Unstable				O- KC7225 LD I- KC7225 LD			378 144							413 126	◇	532 162			
Interrupted				O- KC7020 GD I- KC7020 LD			236 90					266 81	◇	325 99					
Through	2.5xD, 4xD	E12	DFT		.625 - 3.25"	16,00 - 82,00 mm													
Stable				O- KC7225 LD I- KC7225 LD			748 228								387 171	◇	738 247		
Unstable				O- KC7225 LD I- KC7225 LD			499 152							263 133	◇	502 171			
Interrupted				O- KC7020 GD I- KC7020 LD			312 95					163 85	◇	311 104					
Through	5xD, 8xD	E60	HTS-C		.750 - 2.00"	20,00 - 45,00 mm													
Stable				P- B504 CS3 O- KC7215 SPHX.R21 I- KC7215 DFT-GD			561 171							348 106	◇	754 230			
Unstable				O- KC7215 SPHX.R21 I- KC7815 DFT-GD			384 117					243 74	◇	527 160					
Through	3xD - 10xD+	E75	HTS-DFR		1.57 - 2.17"	40,00 - 55,00 mm													
Stable				P- B514 KC7030 O- KC7815 GD I- KC7020 GD			533 162							247 75	◇	712 217			
Unstable				O- KC7815 GD I- KC7020 GD			365 111					211 64	◇	510 156					
Interrupted				O- KC7815 GD I- KC020 GD			224 68					131 40	◇	316 96					
Through	3xD - 10xD+	E81	HTS-DFT		1.77 - 10.63"	45,00 - 270,00 mm													
Stable				P- B510 AS3 O- KC7815 GD I- KC720 GD			533 162							309 94	◇	750 229			
Unstable				O- KC7815 GD I- KC720 GD			365 111					211 64	◇	510 156					
Interrupted				O- KC7815 GD I- KC720 GD			224 68					131 40	◇	316 96					

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Low- and Medium-Strength CGI and Ductile Irons
Cutting Groups

- Tensile Strength RM (MPa)*: 400-600
- Hardness (HB) 130-260
- Hardness HRC: <28
- 17

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥150,0

FEED RATE by diameter

ipr	.003 - .004	.005 - .007	.007 - .010	.009 - .012	.012 - .016	.013 - .018	.015 - .020	—	—	—	—	—	—	—
mm/r	0,08 - 0,11	0,13 - 0,17	0,19 - 0,26	0,23 - 0,30	0,30 - 0,40	0,34 - 0,46	0,37 - 0,50	—	—	—	—	—	—	—
ipr	.005 - .008	.006 - .009	.007 - .011	.009 - .013	.011 - .017	.013 - .020	.014 - .021	—	—	—	—	—	—	—
mm/r	0,13 - 0,20	0,15 - 0,23	0,19 - 0,28	0,23 - 0,34	0,29 - 0,43	0,34 - 0,50	0,36 - 0,54	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .007	.004 - .009	.006 - .012	.012 - .019	.015 - .023	.020 - .028	—	—	—	—	—	—	—
mm/r	0,13 - 0,20	0,16 - 0,23	0,20 - 0,28	0,23 - 0,34	0,29 - 0,43	0,34 - 0,50	0,36 - 0,54	—	—	—	—	—	—	—
ipr	.004 - .006	.005 - .007	.005 - .008	.006 - .010	.008 - .013	.009 - .015	.010 - .017	—	—	—	—	—	—	—
mm/r	0,09 - 0,15	0,12 - 0,18	0,12 - 0,21	0,15 - 0,26	0,20 - 0,33	0,23 - 0,39	0,26 - 0,44	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0,15 - 0,18	0,16 - 0,19	0,18 - 0,25	0,22 - 0,30	—	—	—	—	—	—	—	—	—	—
ipr	.004 - .006	.004 - .007	.005 - .008	.006 - .010	.008 - .013	.009 - .015	—	—	—	—	—	—	—	—
mm/r	0,09 - 0,15	0,11 - 0,18	0,12 - 0,21	0,15 - 0,26	0,20 - 0,33	0,23 - 0,39	—	—	—	—	—	—	—	—
ipr	.004 - .006	.004 - .007	.005 - .009	.006 - .010	—	—	—	—	—	—	—	—	—	—
mm/r	0,09 - 0,15	0,10 - 0,17	0,13 - 0,22	0,15 - 0,26	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.006 - .013	.007 - .017	.010 - .022	.012 - .024	—	—	—	—	—	—	—
mm/r	—	—	—	0,14 - 0,32	0,19 - 0,43	0,26 - 0,55	0,30 - 0,61	—	—	—	—	—	—	—
ipr	—	—	—	—	.007 - .014	.008 - .017	.010 - .019	.012 - .023	.015 - .028	.017 - .032	—	—	—	—
mm/r	—	—	—	—	0,17 - 0,35	0,21 - 0,42	0,25 - 0,48	0,31 - 0,59	0,37 - 0,70	0,43 - 0,81	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—	—
mm/r	—	—	—	—	—	0,07 - 0,13	0,10 - 0,18	0,14 - 0,26	0,18 - 0,33	0,21 - 0,39	0,21 - 0,39	—	—	—
ipr	—	—	—	—	—	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—	—
mm/r	—	—	—	—	—	0,07 - 0,13	0,10 - 0,18	0,14 - 0,26	0,18 - 0,33	0,21 - 0,39	0,21 - 0,39	—	—	—
ipr	—	—	—	—	—	—	.003 - .005	.004 - .006	.004 - .006	.005 - .008	—	—	—	—
mm/r	—	—	—	—	—	—	0,08 - 0,13	0,09 - 0,15	0,10 - 0,16	0,12 - 0,20	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	0,15 - 0,31	0,17 - 0,33
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	0,15 - 0,31	0,17 - 0,33

* 1 Mpa = 145 psi

SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

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Best Tool Selector – Hole Finishing / Tapping - K2



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TECHNICAL DATA

INDEX

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value		Range											FEED RATE								
								sfm	m/min	45	91	152	242	303	364	455	606	758	909	1061	ipr	tooth feed inch							
										15	30	50	80	100	120	150	200	250	300	350			mm/r	mm					
Reamers – Monoblock																	CUTTING SPEED												
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	82	49	98												.004 - .006	—						
								25	15	30												0,09 - 0,15	—						
Straight Flute – External Coolant	1, 3, 5	G133	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	180			131	230										.004 - .006	—						
								55			40	70										0,09 - 0,15	—						
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	148	82	164												.012 - .031	—						
								45	25	50												0,30 - 0,80	—						
						.282 – .378	7,16 – 9,59	148	82	164												.012 - .039	—						
								45	25	50												0,30 - 1,00	—						
						.378 – .551	9,6 – 14,0	148	82	164												.012 - .047	—						
								45	25	50												0,30 - 1,20	—						
Straight Flute – Internal Coolant - Axial	2, 4	G137	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	295			197	361										.012 - .031	—						
								90			60	110										0,30 - 0,80	—						
						.282 – .378	7,16 – 9,59	295			197	361										.012 - .039	—						
								90			60	110										0,30 - 1,00	—						
						.378 – .551	9,6 – 14,0	295			197	361										.012 - .047	—						
								90			60	110										0,30 - 1,20	—						
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	148	82	164												.012 - .031	—						
								45	25	50												0,30 - 0,80	—						
						.282 – .378	7,16 – 9,59	148	82	164												.012 - .039	—						
								45	25	50												0,30 - 1,00	—						
						.378 – .551	9,6 – 14,0	148	82	164												.012 - .047	—						
								45	25	50												0,30 - 1,20	—						
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G141	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	295			197	361										.012 - .031	—						
								90			60	110										0,30 - 0,80	—						
						.282 – .378	7,16 – 9,59	295			197	361										.012 - .039	—						
								90			60	110										0,30 - 1,00	—						
						.378 – .551	9,6 – 14,0	295			197	361										.012 - .047	—						
								90			60	110										0,30 - 1,20	—						
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G150	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	115	82	148												—	.002 - .008						
								35	25	45												—	0,05 - 0,20						
Straight Flute – Internal Coolant - Axial	2, 4	G145	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	115	82	148												—	.002 - .008						
								35	25	45												—	0,05 - 0,20						
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5		RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	279			213	361										—	.002 - .008						
								85			65	110										—	0,05 - 0,20						
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	279			213	361										—	.002 - .008						
								85			65	110										—	0,05 - 0,20						
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	328			262	394										—	.002 - .020						
								100			80	120										—	0,05 - 0,20						
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	328			262	394										—	.002 - .008						
								100			80	120										—	0,05 - 0,20						
Reamers – Expandable																													
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G157	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	115	82	148												—	.002 - .008						
								35	25	45												—	0,05 - 0,20						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G160	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	279			213	361										—	.002 - .008						
								85			65	110										—	0,05 - 0,20						
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	328			262	394										—	.002 - .008						
								100			80	120										—	0,05 - 0,20						
Reamers – Insertable																													
Single Padded Reamer	1, 3	G171	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	197	66	328												.004 - .007	—						
								60	20	100												0,09 - 0,17	—						
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	197	66	328												.004 - .007	—						
								60	20	100												0,11 - 0,19	—						
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	197	66	328												.005 - .008	—						
								60	20	100												0,12 - 0,21	—						
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	197	66	328												.006 - .012	—						
								60	20	100												0,15 - 0,31	—						
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	197	66	328												.007 - .014	—						
								60	20	100												0,18 - 0,35	—						
Single Padded Reamer	1, 3, 5				EGU	.236 – 13.77	6,00 – 350,00	197	66	328												.008 - .015	—						
								60	20	100												0,20 - 0,39	—						

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Low- and Medium-Strength CGI and Ductile Irons Cutting Groups	• Tensile Strength RM (MPa)*: 400-600	• Hardness (HB) 130-260	• Hardness HRC: <28
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Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE ipr mm/r
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	
Boring – Medium Finishing ▼▼																					
Dial Set	CPGM...	KC9315	G111	1.375" - 6.500"	34,93mm-165,10mm	902 275															.010 - .016 0,25 - 0,40
	CPGM...	KC9320		1.375" - 6.500"	34,93mm-165,10mm	869 265															.010 - .016 0,25 - 0,40
	CPGM...	KT315		1.375" - 6.500"	34,93mm-165,10mm	902 275															.010 - .016 0,25 - 0,40
Modbore	CCMT...MW CNMG...MW CNMG...UN CNMG...RP	KC9315	G7	.384" - 25.787"	9,70mm - 655,00mm	853 260															.010 - .016 0,25 - 0,40
	CNMG...UN CNMG...RP	KC9320		.384" - 25.787"	9,70mm - 655,00mm	853 260															.010 - .016 0,25 - 0,40
	CNMG...MW CNMG...UN CNMG...RP	KC9325		.384" - 25.787"	9,70mm - 655,00mm	902 275															.010 - .016 0,25 - 0,40
	CCMT...MW CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	902 275															.010 - .016 0,25 - 0,40
Boring – Finishing ▼▼▼																					
ModBore	CCMT...LF CNMG...FF CNMG...FN CNMG...FW	KC9315	G13	.384" - 25.787"	9,70mm - 655,00mm	853 260															.003 - .012 0,08 - 0,30
	CCMT...FW CCMT...LF	KC9320		.384" - 25.787"	9,70mm - 655,00mm	869 265															.005 - .020 0,12 - 0,50
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KC9125		.384" - 25.787"	9,70mm - 655,00mm	902 275															.002 - .006 0,04 - 0,16
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW	KC9315	G49	.157" - 8.110"	4,00mm - 213,00mm	853 260															.002 - .010 0,06 - 0,25
	CPMT...LF CPMT...FW	KC9320		.157" - 8.110"	4,00mm - 213,00mm	869 265															.002 - .010 0,06 - 0,25
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	902 275															.002 - .010 0,06 - 0,25
Kendex Precision	BPGF...LGD	KC7210	G121	.299" - .996"	5,8mm - 25,3mm	820 250															.001 - .003 0,02 - 0,08
Tapping																					
Solid Carbide Taps – Through Holes	T340	KC7542	D2	—	—	345 105															—
Solid Carbide Taps – Blind Holes	T351	KC7542	D2	—	—	246 75															—

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – K3

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value												
							Range												
							sfm	49	98	164	262	328	394	492	656	820	984	1148	
m/min	15	30	50	80	100	120	150	200	250	300	350								
Solid Carbide / Modular Drills							CUTTING SPEED												
Through	3xD, 5xD, 7xD	A65	B254-B255-B256 / K254-K255-K256	KC7315	.118 - .787"	3,00 - 20,00 mm	263 80		197 60	◇	394 120								
Flood	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	276 84		197 60	◇	427 130								
Dry Applications	5xD	A7	B105 / K105	KC7210	.118 - .787"	3,00 - 20,00 mm	276 84		164 50	◇	361 110								
Through	3xD	A96	B707FBG (Flat Bottom)	KC7315	.118 - .787"	3,00 - 20,00 mm	345 105		230 70	◇	459 140								
Through	15xD, 20xD, 30xD	A83	B271HPG, B272HPG, B274HPG (Deep Hole)	KC7425	.118 - .394"	3,00 - 10,00 mm	230 70	131 40	◇	328 100									
Through	3xD, 5xD	A107	B731HP, B732HP (Step Drill)	KC7315	0.118 - 0.630"	3,00 - 16,00 mm	459 140				328 100	◇	591 180						
Through	5xD	B3	2X2DHPGM	KC7915	.118 - .315"	3,00 - 8,00 mm	361 110				262 80	◇	459 140						
Through	3xD, 5xD, 8xD	B10	KTIP - HPC(M)	KC7410	.314 - .826"	8,00 - 20,99 mm	279 85				230 70	◇	328 100						
Through	1xD, 3xD, 5xD, 7xD, 10xD	B34	KSEM - HPC(M)	KC7410	.492 - 1.575"	12,5 mm - 40,00 mm	297 85				230 70	◇	328 100						
Indexable Drills							CUTTING SPEED												
Through	2xD, 3xD, 4xD	E7	DFR	O- KC7225 LD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	691 211						518 158	◇	749 228				
Unstable				O- KC7225 LD I- KC7225 LD			461 140						403 123	◇	556 169				
Interrupted				O- KC7020 GD I- KC7020 LD			288 88						259 79	◇	518 158				
Through	2.5xD, 4xD	E12	DFT	O- KC7225 LD I- KC7225 LD	.625 - 3.25"	16,0 - 82,00 mm	709 216						532 162	◇	768 234				
Unstable				O- KC7225 LD I- KC7225 LD			472 144						413 126	◇	532 162				
Interrupted				O- KC7020 GD I- KC7020 LD			295 90						266 81	◇	325 99				
Through	5xD, 8xD	E60	HTS-C	P- B504 CS3 O- KC7215 SPHX.R21 I- KC7215 DFT-GD	.750 - 2.00"	20,00 - 45,00 mm	499 152						331 101	◇	716 218				
Unstable				O- KC7215 SPHX.R21 I- KC7815 DFT-GD			341 104						220 67	◇	476 145				
Through	3xD - 10XD+	E75	HTS-DFR	P- B514 KC7030 O- KC7815 GD I- KC7020 GD	1.57 - 2.17"	40,00 - 55,00 mm	480 146						222 68	◇	641 195				
Unstable				O- KC7815 GD I- KC7020 GD			328 100						195 59	◇	473 144				
Interrupted				O- KC7815 GD I- KC7020 GD			202 62						113 35	◇	274 84				
Through	3xD - 10XD+	E81	HTS-DFT	P- B510 AS3 O- KC7815 GD I- KC720 GD	1.77 - 10.63"	45,00 - 270,00 mm	480 146						294 90	◇	712 217				
Unstable				O- KC7815 GD I- KC720 GD			328 100						195 59	◇	473 144				
Interrupted				O- KC7815 GD I- KC720 GD			202 62						113 35	◇	274 84				

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

High-Strength Ductile and Austempered Ductile Irons

• Tensile Strength RM (MPa)*: 600-900

• Hardness (HB) 180-350

Cutting Groups

• 18, 19, 20

• Hardness HRC: <38

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.003 - .004	.004 - .006	.006 - .008	.007 - .010	.009 - .013	.011 - .015	.012 - .016	—	—	—	—	—	—	—
mm/r	0,07 - 0,10	0,10 - 0,14	0,15 - 0,21	0,19 - 0,26	0,24 - 0,33	0,28 - 0,38	0,30 - 0,41	—	—	—	—	—	—	—
ipr	.004 - .008	.005 - .009	.006 - .010	.008 - .015	.010 - .016	.012 - .019	.013 - .020	—	—	—	—	—	—	—
mm/r	0,11 - 0,20	0,13 - 0,24	0,17 - 0,26	0,21 - 0,38	0,27 - 0,41	0,32 - 0,48	0,34 - 0,52	—	—	—	—	—	—	—
ipr	.003 - .006	.003 - .007	.004 - .009	.006 - .012	.012 - .019	.015 - .023	.020 - .028	—	—	—	—	—	—	—
mm/r	0,10 - 0,19	0,13 - 0,20	0,16 - 0,31	0,20 - 0,37	0,26 - 0,48	0,31 - 0,58	0,33 - 0,64	—	—	—	—	—	—	—
ipr	.003 - .005	.004 - .006	.004 - .007	.005 - .009	.007 - .012	.008 - .014	.009 - .015	—	—	—	—	—	—	—
mm/r	0,07 - 0,13	0,10 - 0,16	0,11 - 0,19	0,13 - 0,23	0,17 - 0,30	0,20 - 0,35	0,22 - 0,37	—	—	—	—	—	—	—
ipr	.006 - .007	.006 - .007	.007 - .010	.009 - .012	—	—	—	—	—	—	—	—	—	—
mm/r	0,15 - 0,18	0,16 - 0,19	0,18 - 0,25	0,22 - 0,30	—	—	—	—	—	—	—	—	—	—
ipr	.003 - .005	.004 - .006	.004 - .007	.005 - .009	.007 - .012	.008 - .014	—	—	—	—	—	—	—	—
mm/r	0,07 - 0,13	0,09 - 0,16	0,11 - 0,19	0,13 - 0,23	0,17 - 0,30	0,20 - 0,35	—	—	—	—	—	—	—	—
ipr	.003 - .006	.004 - .007	.004 - .008	.005 - .008	—	—	—	—	—	—	—	—	—	—
mm/r	0,08 - 0,14	0,09 - 0,17	0,10 - 0,20	0,12 - 0,22	—	—	—	—	—	—	—	—	—	—
ipr	—	—	—	.005 - .010	.007 - .014	.008 - .017	.011 - .020	—	—	—	—	—	—	—
mm/r	—	—	—	0,13 - 0,26	0,17 - 0,35	0,21 - 0,44	0,28 - 0,51	—	—	—	—	—	—	—
ipr	—	—	—	—	.006 - .014	.008 - .016	.008 - .017	.009 - .019	.010 - .021	.011 - .022	—	—	—	—
mm/r	—	—	—	—	0,16 - 0,36	0,20 - 0,41	0,21 - 0,44	0,23 - 0,48	0,25 - 0,53	0,27 - 0,57	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.002 - .004	.003 - .005	.004 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,06 - 0,10	0,07 - 0,13	0,10 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—	—
mm/r	—	—	—	—	—	0,07 - 0,13	0,10 - 0,18	0,14 - 0,26	0,18 - 0,33	0,21 - 0,39	0,21 - 0,39	—	—	—
ipr	—	—	—	—	—	.003 - .005	.004 - .007	.006 - .010	.007 - .013	.008 - .015	.008 - .015	—	—	—
mm/r	—	—	—	—	—	0,07 - 0,13	0,10 - 0,18	0,14 - 0,26	0,18 - 0,33	0,21 - 0,39	0,21 - 0,39	—	—	—
ipr	—	—	—	—	—	—	.002 - .005	.003 - .006	.004 - .006	.004 - .008	—	—	—	—
mm/r	—	—	—	—	—	—	0,06 - 0,13	0,08 - 0,15	0,10 - 0,16	0,11 - 0,2	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	0,15 - 0,31	0,15 - 0,31
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	0,15 - 0,31	0,15 - 0,31
ipr	—	—	—	—	—	—	—	—	—	—	.004 - .008	.005 - .011	.006 - .012	.007 - .013
mm/r	—	—	—	—	—	—	—	—	—	—	0,11 - 0,20	0,13 - 0,27	0,15 - 0,31	0,15 - 0,31

* 1 Mpa = 145 psi

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Best Tool Selector – Hole Finishing / Tapping - K3



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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED														FEED RATE	
								Starting Value	Range													ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r		
m/min	15	30	50	80	100	120	150	200	250	300	350												
Reamers – Monoblock																							
Straight Flute – External Coolant	1, 3, 5	G130	RMS	K605*	—	.055 – .163	1,40 – 4,15	66 20	49 15	82 25							.003-.005 0,07-0,13	— —					
Straight Flute – External Coolant	1, 3, 5	G133	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	164 50		131 40	213 65						.003-.005 0,07-0,13	— —					
Straight Flute – Internal Coolant - Axial	2, 4	G134	RMS	K605*	—	.164 – .281	4,16 – 7,15	115 35		66 20	148 45						.012-.031 0,30-0,80	— —					
						.282 – .378	7,16 – 9,59	115 35		66 20	148 45						.012-.039 0,30-1,00	— —					
						.378 – .551	9,6 – 14,0	115 35		66 20	148 45						.012-.047 0,30-1,20	— —					
Straight Flute – Internal Coolant - Axial	2, 4	G137	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	262 80		197 60	344 105						.012-.031 0,30-0,80	— —					
						.282 – .378	7,16 – 9,59	262 80		197 60	344 105						.012-.039 0,30-1,00	— —					
						.378 – .551	9,6 – 14,0	262 80		197 60	344 105						.012-.047 0,30-1,20	— —					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G138	RMS	K605*	—	.164 – .281	4,16 – 7,15	115 35	66 20	148 45							.012-.031 0,30-0,80	— —					
						.282 – .378	7,16 – 9,59	115 35	66 20	148 45							.012-.039 0,30-1,00	— —					
						.378 – .551	9,6 – 14,0	115 35	66 20	148 45							.012-.047 0,30-1,20	— —					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G141	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	262 80		197 60	344 105						.012-.031 0,30-0,80	— —					
						.282 – .378	7,16 – 9,59	262 80		197 60	344 105						.012-.039 0,30-1,00	— —					
						.378 – .551	9,6 – 14,0	262 80		197 60	344 105						.012-.047 0,30-1,20	— —					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	98 30	66 20	131 40							— —	.002-.008 0,05-0,20					
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	98 30	66 20	131 40							— —	.002-.008 0,05-0,20					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G152	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	230 70		164 50	295 90						— —	.002-.008 0,05-0,20					
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	230 70		164 50	295 90						— —	.002-.008 0,05-0,20					
Helical Flute – LH Helix Internal Coolant - Radial	1	G154	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	279 85		197 60	361 110						— —	.002-.008 0,05-0,20					
Straight Flute – Internal Coolant - Axial	2	G149	RMB	KT6215***	—	.551 – 1.260	14,00 – 32,00	279 85		197 60	361 110						— —	.002-.008 0,05-0,20					
Reamers – Expandable																							
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	98 30	66 20	131 40							— —	.002-.008 0,05-0,20					
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G160	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	230 70		164 50	295 90						— —	.002-.008 0,05-0,20					
Straight Flute – Internal Coolant	1, 2, 5	G161	RMA	KT6215***	—	.220 – 1.795	5,60 – 45,59	279 85		197 60	361 110						— —	.002-.008 0,05-0,20					
Reamers – Insertable																							
Single Padded Reamer	1, 3	G172	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.003-.005 0,07-0,13	— —					
Single Padded Reamer	1, 3				E30	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.004-.006 0,09-0,16	— —					
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.004-.007 0,11-0,19	— —					
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.005-.009 0,13-0,23	— —					
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.006-.010 0,15-0,27	— —					
Single Padded Reamer	1, 3, 5				EGU	.236 – 13.77	6,00 – 350,00	197 60		66 20	328 100						.007-.012 0,17-0,30	— —					

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

High-Strength Ductile and Austempered Ductile Irons	• Tensile Strength RM (MPa)*: 600-900	• Hardness (HB) 180-350
	Cutting Groups	• 18, 19, 20

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range																FEED RATE ipr mm/r
							CUTTING SPEED																
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000			
Boring – Medium Finishing ▼▼																							
Dial Set	CPGM...	KC9325	G111	1.375" - 6.500"	34,93mm-165,10mm	492 150											328 100	902 275	.005 - .016 0,12 - 0,40				
	CPGM...	KC9320		1.375" - 6.500"	34,93mm-165,10mm	705 215											443 135	902 275	.016 - 0.025 0,25 - 0,40				
	CPGM...	KC9325		1.375" - 6.500"	34,93mm-165,10mm	755 230											591 180	984 300	.010 - .016 0,25 - 0,40				
ModBore	CCMT...MW CNMG...MW CNMG...UN CNMG...RP	KC9315	G7	.384" - 25.787"	9,70mm - 655,00mm	705 215											492 150	902 275	.005 - .016 0,12 - 0,40				
	CNMG...UN CNMG...RP	KC9320		.384" - 25.787"	9,70mm - 655,00mm	705 215											492 150	902 275	.010 - .016 0,25 - 0,40				
	CNMG...MW CNMG...UN CNMG...RP	KC9325		.384" - 25.787"	9,70mm - 655,00mm	705 215											443 135	902 275	.010 - .016 0,25 - 0,40				
	CCMT...MW CNMG...RP	KT315		.384" - 25.787"	9,70mm - 655,00mm	755 230											591 180	1050 275	.010 - .016 0,25 - 0,40				
Boring – Finishing ▼▼▼																							
ModBore	CCMT...FW CCMT...LF CNMG...FN CNMG...FW	KC9315	G13	.384" - 25.787"	9,70mm - 655,00mm	705 215											427 130	1148 350	.003 - .012 0,08 - 0,30				
	CCMT...FW CCMT...LF	KC9320		.384" - 25.787"	9,70mm - 655,00mm	722 220											262 80	1312 400	.005 - .020 0,12 - 0,50				
	CCMT...11 CCMT...FW CCMT...LF CNMG...FF CNMG...FP CNMG...FN CNMG...FW	KT315		.384" - 25.787"	9,70mm - 655,00mm	755 230											591 180	1148 350	.002 - .006 0,04 - 0,16				
Boring – Fine Finishing ▼▼▼▼																							
Romicron**	CPMT...LF CPMT...FW	KC9315	G49	.157" - 8.110"	4,00mm - 213,00mm	705 215											427 130	902 275	.002 - .010 0,06 - 0,25				
	CPMT...LF CPMT...FW	KC9320		.157" - 8.110"	4,00mm - 213,00mm	722 220											591 180	984 300	.002 - .010 0,06 - 0,25				
	CPMT...LF CPMT...FW CDHB...	KT315		.157" - 8.110"	4,00mm - 213,00mm	755 230											591 180	738 225	.002 - .010 0,06 - 0,25				
Kendex Precision	BPGF...LGD	KC7210	G121	.299" - .996"	5,8mm - 25,3mm	820 250											492 150	1148 350	.001 - .003 0,02 - 0,08				
Tapping																							
Solid Carbide Taps – Through Holes	T340	KC7542	D2	—	—	345 105											262 80	427 130	—				
Solid Carbide Taps – Blind Holes	T351	KC7542	D2	—	—	246 75											164 50	328 100	—				

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – N1

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	CUTTING SPEED													
							Starting Value	Range												
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281		
							m/min	80	100	120	150	200	250	300	350	500	750	1000		
Solid Carbide / Modular Drills																				
Flood Coolant	5xD	A7	B105/K105	K10	.118 - .787"	3,0 - 20,0 mm	689 210	328 100									1345 410			
Through Coolant	5xD	A20	B411 / K411	KF1	.118 - 1"	3,0 - 25,4 mm	820 250	328 100										1476 450		
Indexable Drills																				
Through																				
Stable	2xD, 3xD, 4xD	E8	DFR	O- KC7025 LD I- KC7025 LD	.500 - 1.00"	12,5 - 24,00 mm	2362 720										1300 396	2760 841		
Unstable				O- KC7025 LD I- KC7025 LD			1575 480									1040 317	1840 561			
Interrupted				O- KC7020 GD I- KC7025 LD			984 300			645 197							1141 348			
Through																				
Stable	2.5xD, 4xD	E13	DFT	O- KC7025 LD I- KC7025 LD	.625 - 3.25"	16,00 - 82,00 mm	2362 720										1560 475	2760 841		
Unstable				O- KC7025 LD I- KC7025 LD			1575 480									1040 317	1840 561			
Interrupted				O- KC7020 GD I- KC7025 LD			984 300			645 197							1141 348			
Through																				
Stable	5xD, 8xD	E61	HTS-C	P- B503 AS3 O- KM1 SPHX...R-22 I- KMF DFT-HP	.750 - 2.00"	20,00 - 45,00 mm	965 294										600 183	1500 457		
Unstable				O- KM1 SPHX...R-20 I- KMF DFT-HP			643 196			398 121							996 304			
Through																				
Stable	3xD - 10XD+	E76	HTS-DFR	P- B514 G13 O- KC7025 LD I- KC7025 LD	1.57 - 2.17"	40,00 - 55,00 mm	787 240										420 128	1176 358		
Unstable				O- KC7025 LD I- KC7025 LD			525 160			336 102							784 239			
Interrupted				O- KC7025 LD I- KC7025 LD			341 104			218 67							510 155			
Through																				
Stable	3xD - 10XD+	E82	HTS-DFT	P- B510 AS3 O- KC7935 HP I- KC720 HP	1.77 - 10.63"	45,00 - 270,00 mm	787 240										504 154	1176 358		
Unstable				O- KC7935 HP I- KC720 HP			525 160			336 102							784 239			
Interrupted				O- KC7935 HP I- KC720 HP			341 104			218 67							510 155			

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Wrought Aluminum Alloys	<ul style="list-style-type: none"> Tensile Strength RM (MPa)*: <520 Hardness (HB) 60-90
Cutting Groups	<ul style="list-style-type: none"> 21, 22

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	.003 - .007	.004 - .008	.007 - .013	.008 - .015	.013 - .020	.017 - .023	.025 - .031	—	—	—	—	—	—	—
mm/r	0,09 - 0,15	0,10 - 0,20	0,18 - 0,33	0,20 - 0,38	0,33 - 0,51	0,43 - 0,58	0,64 - 0,79	—	—	—	—	—	—	—
ipr	.006 - .010	.007 - .011	.009 - .014	.011 - .017	.014 - .022	.017 - .027	.020 - .032	.024 - .038	—	—	—	—	—	—
mm/r	0,16 - 0,25	0,19 - 0,29	0,23 - 0,35	0,27 - 0,42	0,36 - 0,57	0,44 - 0,69	0,52 - 0,82	0,62 - 0,96	—	—	—	—	—	—

FEED RATE by diameter

ipr	—	—	—	—	.001 - .002	.001 - 0.003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,06 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.050 - .002	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,06 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.002 - .002	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,06 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25	—

* 1 Mpa = 145 psi

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range											FEED RATE						
								sfm m/min	45	91	152	242	303	364	455	606	758	909	1061	ipr mm/r	tooth feed inch mm					
									15	30	50	80	100	120	150	200	250	300	350							
Reamers — Monoblock								CUTTING SPEED																		
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	295 90															.004-.012 0,10-0,30	— —		
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	492 150																.012 - .031 0,30 - 0,80	— —	
						.282 – .378	7,16 – 9,59	492 150																.012 - .039 0,30 - 1,00	— —	
						.378 – .551	9,6 – 14,0	492 150																.012 - .047 0,30 - 1,20	— —	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150																.012 - .031 0,30 - 0,80	— —	
						.282 – .378	7,16 – 9,59	492 150																.012 - .039 0,30 - 1,00	— —	
						.378 – .551	9,6 – 14,0	492 150																.012 - .047 0,30 - 1,20	— —	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150																— 0,05 - 0,20	.002 - .008	
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150																— 0,25 - 0,20	.002 - .008	
Reamers — Expandable																										
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	492 150																— 0,05 - 0,20	.002 - .008	
Reamers — Insertable																										
Single Padded Reamer	1, 3	G172	RIR/RIQ†	K605	E13	.236 – 13.77	6,00 – 350,00	328 100																.004 - .016 0,10 - 0,40	— —	
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	328 100																.004 - .010 0,10 - 0,25	— —	
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	328 100																.002 - .010 0,05 - 0,25	— —	
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	328 100																.002 - .008 0,05 - 0,20	— —	

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Best Tool Selector – Hole Finishing/Tapping – Non-Ferrous Metals – N1

Wrought Aluminum Alloys	<ul style="list-style-type: none"> • Tensile Strength RM (MPa)*: <520 • Hardness (HB) 60-90
Cutting Groups	<ul style="list-style-type: none"> • 21, 22

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE
							CUTTING SPEED														
							sfm	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281	
m/min	30	50	80	100	120	150	200	250	300	350	500	750	1000	mm/r							
Boring – Medium Finishing ▼▼																					
Dial Set	CPGM... SPGH...	KC5410	G112	1.375" - 6.500"	34,93mm - 165,10mm	1805										328	100	3281	.006 - .016		
	CPGM...	K313		1.375" - 6.500"	34,93mm - 165,10mm	550										328	100	1969	0,16 - 0,40		
						260										100		600	0,16 - 0,40		
Modbore	CNGP....	KC5410	G8	.384" - 25.787"	9,70mm - 655,00mm	1805										328	100	3281	.006 - .016		
						550										100		1000	0,16 - 0,40		
	CNGP....	K313		.384" - 25.787"	9,70mm - 655,00mm	853										328	100	1969	.006 - .016		
						260										100		600	0,16 - 0,40		
Boring – Finishing ▼▼▼																					
ModBore	CCGT...HP CCGT...LF	KC5410	G14	.384" - 25.787"	9,70mm - 655,00mm	1805										328	100	3281	.004 - .016		
						550										100		1000	0,10 - 0,40		
	CCGT...HP CCGT...LF	K313		.384" - 25.787"	9,70mm - 655,00mm	853										328	100	1969	.004 - .016		
						260										100		600	0,10 - 0,40		
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW	K313	G50	.157" - 8.110"	4,00mm - 213,00mm	853										328	100	1969	.004 - .008		
	CPGT...LF CDHB...					260										100		600	0,10 - 0,40		
	CPGT...HP CPGT...LF	KC5410		.157" - 8.110"	4,00mm - 213,00mm	1805										328	100	3281	.002 - .002		
						550										100		1000	0,04 - 0,06		
Kendex Precision	BPGX...LHP	K313	G122	.299" - .996"	5,80mm - 25,30mm	525													.001 - .003		
						160													0,16 - 0,40		
Tapping																					
Solid Carbide Taps – Through Holes	T461, T481	KC7512	D2	—	—	476										328	100	623	—		
						145										100		190	—		
Solid Carbide Taps – Blind Holes	T471, T491	KC7512	D2	—	—	328										230	70	427	—		
						110										110		130	—		

* 1 MPa = 145 psi
 For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

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Best Tool Selector — Drilling – N2

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value												
							Range												
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281	
m/min	80	100	120	150	200	250	300	350	500	750	1000								
Solid Carbide / Modular Drills							CUTTING SPEED												
Through Coolant	5xD	A20	B411 / K411	KF1	.118 - 1.00"	3,0 - 25,4 mm	656 200	328 100					984 300						
Flood Coolant	5xD	A7	B105/K105	KC7210	.118 - .787"	3,0 - 20,0 mm	978 298	328 100					984 300						
Indexable Drills							CUTTING SPEED												
Through	2xD, 3xD, 4xD	E8	DFR		.500 - 1.00"	12,5 - 24,00 mm													
Stable				O- KC7025 LD I- KC7025 LD			2197 670						1209 369			2567 782			
Unstable				O- KC7025 LD I- KC7025 LD			1465 446						1040 317			1840 561			
Interrupted				O- KC7020 GD I- KC7025 LD			915 279			645 197			1141 348						
Through	2.5xD, 4xD	E13	DFT		.625 - 3.25"	16,00 - 82,00 mm													
Stable				O- KC7025 LD I- KC7025 LD			2197 670						1560 475			2760 841			
Unstable				O- KC7025 LD I- KC7025 LD			1465 446						1040 317			1840 561			
Interrupted				O- KC7020 GD I- KC7025 LD			915 279			645 197			1141 348						
Through	5xD, 8xD	E61	HTS-C		.750 - 2.00"	20,00 - 45,00 mm													
Stable				P- B503 AS3 O- KM1 SPHX...R-22 I- KMF DFT-HP			868 265					600 183			1500 457				
Unstable				O- KM1 SPHX...R-20 I- KMF DFT-HP			579 176			398 121			996 304						
Through	3xD - 10XD+	E76	HTS-DFR		1.57 - 2.17"	40,00 - 55,00 mm													
Stable				P- B514 G13 O- KC7025 LD I- KC7025 LD			732 223					391 119			1094 333				
Unstable				O- KC7025 LD I- KC7025 LD			488 149			336 102			784 239						
Interrupted				O- KC7025 LD I- KC7025 LD			317 97			218 67			510 155						
Through	3xD - 10XD+	E82	HTS-DFT		1.77 - 10.63"	45,00 - 270,00 mm													
Stable				P- B510 AS3 O- KC7215 HP I- KC7215 HP			735 223						504 154			1176 358			
Unstable				O- KC7215 HP I- KC7215 HP			488 149			336 102			784 239						
Interrupted				O- KC7215 HP I- KC7215 HP			317 97			218 67			510 155						

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

SOLID CARBIDE DRILLS

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Cast Aluminums	• Content: Si<12.2%	• Tensile Strength RM (MPa)*: <350	• Hardness (HB): 70-100
Cutting Groups	• 23, 24		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
i pr	.006 - .009	.007 - .011	.008 - .013	.010 - .015	.013 - .021	.017 - .026	.020 - .032	.024 - .038	—	—	—	—	—	—
mm/r	0,15 - 0,23	0,17 - 0,28	0,21 - 0,34	0,25 - 0,39	0,34 - 0,54	0,42 - 0,67	0,52 - 0,82	0,61 - 0,96	—	—	—	—	—	—
i pr	.003 - .007	.004 - .008	.007 - .013	.008 - .015	.013 - .020	.017 - .023	.025 - .031	—	—	—	—	—	—	—
mm/r	0,10 - 0,19	0,12 - 0,21	0,18 - 0,33	0,25 - 0,42	0,35 - 0,58	0,44 - 0,74	0,52 - 0,88	—	—	—	—	—	—	—

FEED RATE by diameter														
i pr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
i pr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
i pr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
i pr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
i pr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
i pr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
i pr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
i pr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
i pr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
i pr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20
i pr	—	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008
mm/r	—	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20

* 1 Mpa = 145 psi

Best Tool Selector – Hole Finishing / Tapping - N2



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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range												FEED RATE	
									CUTTING SPEED												ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061		
m/min	15	30	50	80	100	120	150	200	250	300	350											
Reamers – Monoblock																						
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	295 90											.004 - .012 0,10-0,30	— —		
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150					361 110	640 195					.012 - .031 0,30 - 0,80	— —		
						.282 – .378	7,16 – 9,59	492 150					361 110	640 195					.012 - .039 0,30 - 1,00	— —		
						.378 – .551	9,6 – 14,0	492 150					361 110	640 195					.012 - .047 0,30 - 1,20	— —		
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150					361 110	640 195					.012 - .031 0,30 - 0,80	— —		
						.282 – .378	7,16 – 9,59	492 150					361 110	640 195					.012 - .039 0,30 - 1,00	— —		
						.378 – .551	9,6 – 14,0	492 150					361 110	640 195					.012 - .047 0,30 - 1,20	— —		
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150					394 120	591 180					— —	.002 - .008 0,05 - 0,20		
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150					394 120	591 180					— —	.002 - .008 0,05 - 0,20		
Reamers – Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	492 150					394 120	591 180					— —	.002 - .008 0,05 - 0,20		
Reamers – Insertable																						
Single Padded Reamer	1, 3	G172	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .016 0,10 - 0,40	— —		
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .010 0,10 - 0,25	— —		
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.006 - .010 0,15 - 0,25	— —		
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.002 - .008 0,05 - 0,20	— —		

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Cast Aluminums	<ul style="list-style-type: none"> • Content: Si<12.2% • Tensile Strength RM (MPa)*: <350 • Hardness (HB): 70-100
Cutting Groups	<ul style="list-style-type: none"> • 23, 24

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range																FEED RATE ipr mm/r
							CUTTING SPEED																
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000			
Boring – Medium Finishing ▼▼																							
Dial Set	CPGM... SPGH...	KC5410	G112	1.375" - 6.500"	34,93mm-165,10mm	1805 550											3281 1000	.006 - .016 0,16 - 0,40					
	CPGM...	K313		1.375" - 6.500"	34,93mm-165,10mm	853 260											1969 600	.006 - .016 0,25 - 0,40					
Modbore	CNGP....	KC5410	G8	.384" - 25.787"	9,70mm - 655,00mm	1805 550											3281 1000	.006 - .016 0,16 - 0,40					
Boring – Finishing ▼▼▼																							
ModBore	CCGT...HP CCGT...LF	KC5410	G14	.384" - 25.787"	9,70mm - 655,00mm	1805 550											3281 1000	.004 - .016 0,10 - 0,40					
Boring – Fine Finishing ▼▼▼▼																							
Romicron**	CPGT...HP CPGT...LF	KC5410	G50	.157" - 8.110"	4,00mm - 213,00mm	1805 550											3281 1000	.002 - .008 0,06 - 0,20					
Kendex Precision	BPGX...LHP	K313	G122	.299" - .996"	5,8mm - 25,3mm	525 160											591 180	.002 - .004 0,06 - 0,10					
Tapping																							
Solid Carbide Taps – Through Holes	T461, T481	KC7512	D2	—	—	394 120											262 80	623 190	—				
Solid Carbide Taps – Blind Holes	T471, T491	KC7512	D2	—	—	279 85											197 60	427 110	—				

* 1 MPa = 145 psi
For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling – N3

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade / Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value	Range																
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281						
							m/min	80	100	120	150	200	250	300	350	500	750	1000						
Indexable Drills							CUTTING SPEED																	
Through	2xD, 3xD, 4xD	E8	DFR		.500 - 1.00"	12,5 - 24,00 mm																		
Stable				O- KC7025 LD I- KC7025 LD			2032 619														1118 341	2374 723		
Unstable				O- KC7025 LD I- KC7025 LD			1354 413														1040 317	1840 561		
Interrupted				O- KC7020 GD I- KC7025 LD			845 258						645 197								1141 348			
Through	2.5xD, 4xD	E13	DFT		.625 - 3.25"	16,00 - 82,00 mm																		
Stable				O- KC7025 LD I- KC7025 LD			2032 619															1560 475	2760 841	
Unstable				O- KC7025 LD I- KC7025 LD			1354 413															1040 317	1840 561	
Interrupted				O- KC7020 GD I- KC7025 LD			846 258						645 197									1141 348		
Through	5xD, 8xD	E61	HTS-C		.750 - 2.00"	20,00 - 45,00 mm																		
Stable				P- B503 AS3 O- KM1 SPHX...R-22 I- KMF DFT-HP			772 235							372 113									930 283	
Unstable				O- KM1 SPHX...R-20 I- KMF DFT-HP			514 157							259 79									648 198	
Through	3xD - 10XD+	E76	HTS-DFR		1.57 - 2.17"	40,00 - 55,00 mm																		
Stable				P- B514 G13 O- KC7025 LD I- KC7025 LD			677 206																361 110	1011 308
Unstable				O- KC7025 LD I- KC7025 LD			451 138																336 102	784 239
Interrupted				O- KC7025 LD I- KC7025 LD			293 89							218 67									510 155	
Through	3xD - 10XD+	E82	HTS-DFT		1.77 - 10.63"	45,00 - 270,00 mm																		
Stable				P- B510 AS3 O- KC7215 HP I- KC7215 HP			677 206																504 154	1176 358
Unstable				O- KC7215 HP I- KC7215 HP			451 138																336 102	784 239
Interrupted				O- KC7215 HP I- KC7215 HP			293 89							218 67									510 155	

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

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Cast Aluminums	• Content: Si>12.2%	• Tensile Strength RM (MPa)*: 200-320	• Hardness (HB): 60-120
Cutting Groups	25,1		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥150,0

FEED RATE by diameter

ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,09 - 0,12	0,10 - 0,14	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25

* 1 Mpa = 145 psi

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range												FEED RATE	
									CUTTING SPEED												ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061		
m/min	15	30	50	80	100	120	150	200	250	300	350											
Reamers — Monoblock																						
Straight Flute — External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	295 90											.004-.012 0,10-0,30	— —		
Straight Flute — Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150					361 110	640 195					.012 - .031 0,30 - 0,80	— —		
						.282 – .378	7,16 – 9,59	492 150					361 110	640 195					.012 - .039 0,30 - 1,00	— —		
						.378 – .551	9,6 – 14,0	492 150					361 110	640 195					.012 - .047 0,30 - 1,20	— —		
Helical Flute — LH Helix Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150					361 110	640 195					.012 - .031 0,30 - 0,80	— —		
						.282 – .378	7,16 – 9,59	492 150					361 110	640 195					.012 - .039 0,30 - 1,00	— —		
						.378 – .551	9,6 – 14,0	492 150					361 110	640 195					.012 - .047 0,30 - 1,20	— —		
Helical Flute — LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150					394 120	591 180					— —	.002 - .008 0,05 - 0,20		
Straight Flute — Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150					394 120	591 180					— —	.002 - .008 0,25 - 0,20		
Reamers — Expandable																						
Straight Flute — Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	492 150					394 120	591 180					— —	.002 - .008 0,05 - 0,20		
Reamers — Insertable																						
Single Padded Reamer	1, 3	G172	RIR/RIQT	K605	E13	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .016 0,10 - 0,40	— —		
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .010 0,10 - 0,25	— —		
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.006 - .010 0,15 - 0,25	— —		
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.002 - .008 0,05 - 0,20	— —		

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Cast Aluminums	<ul style="list-style-type: none"> • Content: Si>12.2% • Tensile Strength RM (MPa)*: 200-320 • Hardness (HB): 60-120
Cutting Groups	25,1

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range																FEED RATE	
							CUTTING SPEED																	
							sfm	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281	ipr			
m/min	30	50	80	100	120	150	200	250	300	350	500	750	1000	mm/r										
Boring – Medium Finishing ▼▼																								
Dial Set	CPGM... SPGH...	KC5410	G112	1.375" - 6.500"	34,93mm-165,10mm	1805												328	100	3281	1000	.006 - .016	0,16 - 0,40	
	CPGM...	K313		1.375" - 6.500"	34,93mm-165,10mm	853												328	100	1969	600	.006 - .016	0,16 - 0,40	
Modbore	CNGP....	KC5410	G8	.384" - 25.787"	9,70mm - 655,00mm	1805												328	100		3281	1000	.006 - .016	0,16 - 0,40
Boring – Finishing ▼▼▼																								
ModBore	CCGT...HP CCGT...LF	KC5410	G14	.384" - 25.787"	9,70mm - 655,00mm	1805												328	100		3281	1000	.004 - .016	0,10 - 0,40
Boring – Fine Finishing ▼▼▼▼																								
Romicron**	CPGT...HP CPGT...LF	KC5410	G50	.157" - 8.110"	4,00mm - 213,00mm	1805												328	100		3281	1000	.002 - .002	0,04 - 0,06
Kendex Precision	BPGX...LHP	K313	G122	.299" - .996"	5,80mm - 25,30mm	525												160		492	656		.002 - .004	0,06 - 0,10
Tapping																								
Solid Carbide Taps – Through Holes	T461	KC7512	D2	—	—	328												197	70	427	130	—	—	
Solid Carbide Taps – Blind Holes	T471	KC7512	D2	—	—	279												85	197	60	361	110	—	—

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

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Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value Range												
							Range												
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281	
m/min	80	100	120	150	200	250	300	350	500	750	1000								
Indexable Drills							CUTTING SPEED												
Through	2xD, 3xD, 4xD	E8	DFR		.500 - 1.00"	12,50 - 24,00 mm													
Stable				O- KC7025 LD I- KC7025 LD			2362									1560 475	2760 841		
Unstable				O- KC7025 LD I- KC7025 LD			1575									1040 317	1840 561		
Interrupted				O- KC7020 GD I- KC7025 LD			984 300									645 197	1141 348		
Through	2.5xD, 4xD	E13	DFT		.625 - 3.25"	16,00 - 76,00 mm													
Stable				O- KC7025 LD I- KC7025 LD			2197										1560 475	2760 841	
Unstable				O- KC7025 LD I- KC7025 LD			1465										967 295	1711 522	
Interrupted				O- KC7020 GD I- KC7025 LD			915										600 183	1061 323	
Through	3xD - 10XD+	E77	HTS-DFR		1.57 - 2.17"	40,00 - 55,00 mm													
Stable				P- B514 G13 O- KC7025 LD I- KC7025 LD			732										391 119	1094 333	
Unstable				O- KC7025 LD I- KC7025 LD			488										336 102	784 239	
Interrupted				O- KC7025 LD I- KC7025 LD			317										218 67	510 155	
Through	3xD - 10XD+	E83	HTS-DFT		1.77 - 10.63"	45,00 - 270,00 mm													
Stable				P- B510 AS3 O- KC7225 LD I- KC7225 LD			732											504 154	1176 358
Unstable				O- KC7225 LD I- KC7225 LD			488											336 102	784 239
Interrupted				O- KC7225 LD I- KC7225 LD			317											218 67	510 155

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

MMCs (Aluminum-Based Metal Matrix Composites)	• Tensile Strength RM (MPa)*: <700	• Hardness (HB): 210
	Cutting Groups	
	• 25.2	

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	.003 - .004	.004 - .005	.005 - .007	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,07 - 0,09	0,09 - 0,12	0,12 - 0,18	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0,05 - 0,07	0,05 - 0,07	0,07 - 0,09	0,10 - 0,14	0,12 - 0,16	0,14 - 0,18	0,14 - 0,18	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0,06 - 0,09	0,11 - 0,19	0,12 - 0,20	0,14 - 0,25

* 1 Mpa = 145 psi

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MMCs (Aluminum-Based Metal Matrix Composites)

• Tensile Strength RM (MPa)*: <700

• Hardness (HB): 210

Cutting Groups

• 25.2



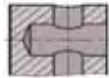
Hole Type 1



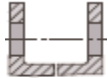
Hole Type 2



Hole Type 3



Hole Type 4



Hole Type 5

Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range												FEED RATE	
									CUTTING SPEED												ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061		
m/min	15	30	50	80	100	120	150	200	250	300	350											
Reamers – Monoblock																						
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	295 90											.004 - .012 0,10 - 0,30	— —		
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150											.012 - .031 0,30 - 0,80	— —		
						.282 – .378	7,16 – 9,59	492 150														.012 - .039 0,30 - 1,00
Helical Flute – LH Internal Coolant - Axial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	492 150											.012 - .047 0,30 - 1,20	— —		
						.282 – .378	7,16 – 9,59	492 150														.012 - .039 0,30 - 1,00
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	492 150											— —	.002 - .008 0,05 - 0,20		
						.551 – 1.260	14,00 – 32,00	492 150														— —
Reamers – Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	492 150											— —	.002 - .008 0,05 - 0,20		
Reamers – Insertable																						
Single Padded Reamer	1, 3	G172	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	328 100											Upon —	request —		
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	328 100											Upon —	request —		
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	328 100											Upon —	request —		
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	328 100											Upon —	request —		

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

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A large grid area for taking notes, consisting of a fine grid of small squares covering the majority of the page.

Best Tool Selector — Drilling – N5

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/ Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value												
							Range												
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281	
m/min	80	100	120	150	200	250	300	350	500	750	1000								
Solid Carbide / Modular Drills							CUTTING SPEED												
Through Coolant	5xD	A20	B411 / K411	KF1	.118 - 1.00"	3,0 - 25,4 mm	568 173	328 100					820 250						
Flood Coolant	5xD	A7	B105/K105	KC7210	.118 - .787"	3,0 - 20,0 mm	738 225	197 60								984 300			
Indexable Drills							CUTTING SPEED												
Through	2.5xD, 4xD	E14	DFT		.625 - 3.250"	16,00 - 82,00 mm													
Stable				O- KC7025 LD I- KC7025 LD			1636 540									1454 480	1818 600		
Unstable				O- KC7025 LD I- KC7025 LD			1091 360									970 320	1212 400		
Interrupted				O- KC7020 GD I- KC7025 LD			682 225									606 200	758 250		
Through	5xD, 8xD	E61	HTS-C	P- B503 AS3 O- KM1 SPHX...R-20 I- KMF DFT-HP	.750 - 2.000"	20,00 - 45,00 mm													
Stable							2362 720										1560 475	2760 841	
Unstable				O- KM1 SPHX...R-20 I- KMF DFT-HP			1575 480									1040 317	1840 561		
Through	3xD - 10XD+	E77	HTS DFR	P- B514 G13 O- KC7025 LD I- KC7025 LD	1.57 - 2.17"	40,00 - 55,00 mm													
Stable							722 220										302 92	858 262	
Unstable				O- KC7025 LD I- KC7025 LD			459 140										235 72	549 167	
Interrupted				O- KC7025 LD I- KC7025 LD			295 90										151 46	351 107	
Through	3xD - 10XD+	E83	HTS-DFT	P- B510 AS3 O- KC7215 GD I- KC7215 GD	1.77 - 10.63"	45,00 - 270,00 mm													
Stable							722 220										368 112	858 262	
Unstable				O- KC7215 GD I- KC7215 GD			459 140										235 72	549 167	
Interrupted				O- KC7215 GD I- KC7215 GD			295 90										151 46	351 107	

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

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Copper and Copper Alloys	• Tensile Strength RM (MPa)*: 200-650	• Hardness (HB): 60-200
Cutting Groups	• 26, 27, 28	

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
ipr	.006 - .011	.006 - .013	.007 - .014	.009 - .016	.011 - .019	.013 - .022	.014 - .025	.017 - .028	—	—	—	—	—	—
mm/r	0.16 - 0.28	0.15 - 0.32	0.19 - 0.36	0.23 - 0.40	0.28 - 0.48	0.32 - 0.56	0.35 - 0.63	0.42 - 0.72	—	—	—	—	—	—
ipr	.003 - .006	.005 - .007	.007 - .013	.008 - .014	.013 - .018	.015 - .019	.023 - .030	—	—	—	—	—	—	—
mm/r	0.08 - 0.15	0.13 - 0.18	0.18 - 0.33	0.20 - 0.36	0.33 - 0.46	0.38 - 0.48	0.58 - 0.76	—	—	—	—	—	—	—

FEED RATE by diameter														
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0.05 - 0.07	0.05 - 0.07	0.07 - 0.09	0.10 - 0.14	0.12 - 0.16	0.14 - 0.18	0.14 - 0.18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0.05 - 0.07	0.05 - 0.07	0.07 - 0.09	0.10 - 0.14	0.12 - 0.16	0.14 - 0.18	0.14 - 0.18	—	—
ipr	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.004 - .006	.005 - .006	.006 - .007	.006 - .007	—	—
mm/r	—	—	—	—	—	0.05 - 0.07	0.05 - 0.07	0.07 - 0.09	0.10 - 0.14	0.12 - 0.16	0.14 - 0.18	0.14 - 0.18	—	—
ipr	—	—	—	—	—	—	.002 - .002	.002 - .002	.004 - .005	.004 - .006	—	—	—	—
mm/r	—	—	—	—	—	—	0.04 - 0.06	0.04 - 0.06	0.09 - 0.12	0.10 - 0.14	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.06 - 0.09	0.11 - 0.19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	—	—	—
mm/r	—	—	—	—	—	—	—	—	—	0.06 - 0.09	0.11 - 0.19	—	—	—
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0.06 - 0.09	0.11 - 0.19	0.12 - 0.20	0.14 - 0.25
ipr	—	—	—	—	—	—	—	—	—	—	.002 - .004	.004 - .007	.005 - .008	.006 - .010
mm/r	—	—	—	—	—	—	—	—	—	—	0.06 - 0.09	0.11 - 0.19	0.12 - 0.20	0.14 - 0.25

* 1 Mpa = 145 psi

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE	
									CUTTING SPEED														ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r	mm		
m/min	15	30	50	80	100	120	150	200	250	300	350													
Reamers — Monoblock																								
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	295 90											.004-.012 0,10-0,30	— —				
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	459 140					344 105	361 110	591				.012 - .031 0,30 - 0,80	— —				
						.282 – .378	7,16 – 9,59	459 140					344 105	591	180				.012 - .039 0,30 - 1,00	— —				
						.378 – .551	9,6 – 14,0	459 140					344 105	591 180					.012 - .047 0,30 - 1,20	— —				
Helical Flute – LH Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	459 140					344 105	591 180					.012 - .031 0,30 - 0,80	— —				
						.282 – .378	7,16 – 9,59	459 140					344 105	591 180					.012 - .039 0,30 - 1,00	— —				
						.378 – .551	9,6 – 14,0	459 140					344 105	591 180					.012 - .047 0,30 - 1,20	— —				
Helical Flute – LH Internal Coolant Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	459 140					361 110	525 160					— —	.002 - .008 0,05 - 0,20				
Straight Flute – Internal Coolant Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	459 140					361 110	525 160					— —	.002 - .008 0,05 - 0,20				
Reamers — Expandable																								
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMB	K605**	—	.220 – 1.795	5,60 – 45,59	459 140					361 110	525 160					— —	.002 - .008 0,05 - 0,20				
Reamers — Insertable																								
Single Padded Reamer	1, 3,	G172	RIR/RIQ†	KC6005	E13	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .016 0,10 - 0,40	— —				
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .008 0,10 - 0,20	— —				
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.004 - .008 0,10 - 0,20	— —				
Single Padded Reamer	1, 3, 5				EGS	.236 – 13.77	6,00 – 350,00	328 100					164 50	820 250					.002 - .008 0,05 - 0,15	— —				

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Copper and Copper Alloys	<ul style="list-style-type: none"> • Tensile Strength RM (MPa)*: 200-650 • Hardness (HB): 60-200
Cutting Groups	<ul style="list-style-type: none"> • 26, 27, 28

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range																FEED RATE ipr mm/r
							CUTTING SPEED																
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000			
Boring – Medium Finishing ▼▼																							
Dial Set	CPGM... SPGH...	KC5410	G112	1.375" - 6.500"	34,93mm-165,10mm	1805 550											3281 1000	.006 - .016 0,16 - 0,40					
	CPGM...	K313		1.375" - 6.500"	34,93mm-165,10mm	853 260											1969 600	.006 - .016 0,16 - 0,40					
Modbore	CNGP....	KC5410	G8	.384" - 25.787"	9,70mm - 655,00mm	1805 550											3281 1000	.006 - .016 0,16 - 0,40					
Boring – Finishing ▼▼▼																							
ModBore	CCGT...HP CCGT...LF	KC5410	G14	.384" - 25.787"	9,70mm - 655,00mm	1805 550											3281 1000	.004 - .016 0,10 - 0,40					
Boring – Fine Finishing ▼▼▼▼																							
Romicron**	CPMT...LF CPMT...FW CPGT...LF CDHB...	K313	G50	.157" - 8.110"	4,00mm - 213,00mm	853 260											1969 600	.004 - .016 0,10 - 0,40					
Kendex Precision	BPGX...LHP	K313	G122	.299" - .996"	5,80mm - 25,30mm	525 160											492 150	.002 - .004 0,06 - 0,10					
Tapping																							
Solid Carbide Taps – Through Holes	T461, T481	KC7512	D2	—	—	312 95				197 60							427 130	—					
Solid Carbide Taps – Blind Holes	T471, T491	KC7512	D2	—	—	230 70				164 50							295 90	—					

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

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Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value																
							Range																
							sfm	262	328	394	492	656	820	984	1148	1640	2460	3281					
m/min	80	100	120	150	200	250	300	350	500	750	1000												
Solid Carbide / Modular Drills							CUTTING SPEED																
Dry	3xD, 5xD	A101	B531, B532 / K531, K532	KDF400	.118 - .472"	3,0 - 12,0 mm	394	295		492													

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

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Carbon and Graphite Composites	• Tensile Strength RM (MPa)*: 600-1500
Cutting Groups	

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
ipr	.001 - .008	.001 - .008	.001 - .008	.001 - .008	.001 - .008	—	—	—	—	—	—	—	—	—
mm/r	0,03 - 0,20	0,03 - 0,20	0,03 - 0,20	0,03 - 0,20	0,03 - 0,20	—	—	—	—	—	—	—	—	—

* 1 Mpa = 145 psi

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Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value															
							Range															
							sfm	0	49	98	164	262	328	394	492	656	820	984				
m/min	0	15	30	50	80	100	120	150	200	250	300											
Solid Carbide / Modular Drills							CUTTING SPEED															
Through	3xD, 5xD	A90	B283-B284 / K283-K284	K715	.118 - .787"	3,00 - 20,00 mm	82	66	98													
Indexable Drills							CUTTING SPEED															
Through	2xD, 3xD, 4xD	E9	DFR	O- KC7020 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	164	75	200													
Stable							50	23	61													
Unstable				O- KC7020 LD I- KC7225 LD			98	60	133													
Interrupted				O- KC7020 GD I- KC7225 LD			30	18	41													
Through	2.5xD, 4xD	E14	DFT	O- KC7020 GD I- KC7225 LD	.625 - 3.25"	16,00 - 82,00 mm	164	75	200													
Stable							50	23	61													
Unstable				O- KC7020 GD I- KC7225 LD			98	60	133													
Interrupted				O- KC020 GD I- KC7225 LD			30	18	41													
Through	5xD, 8xD	E61	HTS-C	P- B504 CS3 O- KC7215 SPHX...31 I- KC7215 DFT-GD	.750 - 2.00"	20,00 - 45,00 mm	131	70	160													
Stable							40	21	49													
Unstable				O- KC7215 SPHX...31 I- KC720 DFT-GD			98	60	120													
Interrupted							30	18	33													
Through	3xD - 10XD+	E84	HTS-DFT	P- B510 AS3 O- KC720 GD I- KC720 GD	1.77 - 2.17"	45,00 - 270,00 mm	131	80	160													
Stable							40	24	49													
Unstable				O- KC720 GD I- KC720 GD			98	60	120													
Interrupted				O- KC720 GD I- KC720 GD			30	18	37													
Through				O- KC720 GD I- KC720 GD			82	50	100													
							25	15	30													

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

Iron-Based, Heat-Resistant Alloys	• Content	• Tensile Strength RM (MPa)*: 500-1200	• Hardness (HB) 160-260
Cutting Groups	• 31, 32		

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
	.001 - .002	.002 - .002	.002 - .004	.003 - .005	.004 - .006	.006 - .007	.006 - .009	—	—	—	—	—	—	—
i pr	.001 - .002	.002 - .002	.002 - .004	.003 - .005	.004 - .006	.006 - .007	.006 - .009	—	—	—	—	—	—	—
mm/r	0.03 - 0.05	0.04 - 0.06	0.06 - 0.09	0.08 - 0.12	0.11 - 0.16	0.14 - 0.19	0.16 - 0.23	—	—	—	—	—	—	—

FEED RATE by diameter														
	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—	—	—	—	—
i pr	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—	—	—	—	—
mm/r	0.03 - 0.05	0.04 - 0.06	0.05 - 0.08	—	—	—	—	—	—	—	—	—	—	—
i pr	.001 - .004	.002 - .002	.002 - .003	—	—	—	—	—	—	—	—	—	—	—
mm/r	0.07 - 0.05	0.04 - 0.06	0.05 - 0.08	—	—	—	—	—	—	—	—	—	—	—
i pr	.001 - .002	.002 - .002	.002 - .003	—	—	—	—	—	—	—	—	—	—	—
mm/r	0.03 - 0.05	0.04 - 0.06	0.05 - 0.08	—	—	—	—	—	—	—	—	—	—	—
i pr	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.003 - .005	.003 - .005	—	—
mm/r	—	—	—	—	0.03 - 0.05	0.03 - 0.05	0.04 - 0.06	0.05 - 0.14	0.06 - 0.10	0.08 - 0.13	0.08 - 0.13	0.08 - 0.13	—	—
i pr	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .003	.002 - .004	.003 - .005	.003 - .005	—	—	—
mm/r	—	—	—	—	0.03 - 0.05	0.03 - 0.05	0.04 - 0.06	0.05 - 0.08	0.06 - 0.10	0.08 - 0.13	0.08 - 0.13	—	—	—
i pr	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .003	.002 - .004	.003 - .005	.003 - .005	—	—	—
mm/r	—	—	—	—	0.03 - 0.05	0.03 - 0.05	0.04 - 0.06	0.05 - 0.08	0.06 - 0.10	0.08 - 0.13	0.08 - 0.13	—	—	—
i pr	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .002	—	—	—	—	—
mm/r	—	—	—	—	—	0.03 - 0.05	0.03 - 0.05	0.04 - 0.06	0.04 - 0.06	—	—	—	—	—
i pr	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .002	—	—	—	—	—
mm/r	—	—	—	—	—	0.03 - 0.05	0.03 - 0.05	0.04 - 0.06	0.04 - 0.06	—	—	—	—	—
i pr	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.003 - .004	.003 - .004	.003 - .004
mm/r	—	—	—	—	—	—	—	—	0.04 - 0.07	0.05 - 0.08	0.07 - 0.10	0.07 - 0.10	0.07 - 0.10	0.07 - 0.10
i pr	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.003 - .004	.003 - .004	.003 - .004
mm/r	—	—	—	—	—	—	—	—	0.04 - 0.07	0.05 - 0.08	0.07 - 0.10	0.07 - 0.10	0.07 - 0.10	0.07 - 0.10

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Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE	
									CUTTING SPEED														ipr	tooth feed inch
									sfm	45	91	152	242	303	364	455	606	758	909	1061	mm/r	mm		
m/min	15	30	50	80	100	120	150	200	250	300	350													
Reamers – Monoblock																								
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	26 8	20 6	33 10								.004-.008 0,10-0,20	— —					
Straight Flute – External Coolant	1, 3, 5	G133	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	66 20	49 15	82 28								.004-.008 0,10-0,20	— —					
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	33 10	26 8	49 15								.004 - .018 0,10 - 0,45	— —					
						.282 – .378	7,16 – 9,59	33 10	26 8	49 15								.006 - .020 0,15 - 0,50	— —					
						.378 – .551	9,6 – 14,0	33 10	26 8	49 15								.006 - .020 0,15 - 0,50	— —					
Straight Flute – Internal Coolant - Axial	2, 4	G137	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28								.004 - .018 0,10 - 0,45	— —					
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28								.006 - .020 0,15 - 0,50	— —					
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28								.006 - .020 0,15 - 0,50	— —					
Helical Flute – LH Helix Internal Coolant - Axial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	33 10	26 8	49 15								.004 - .018 0,10 - 0,45	— —					
						.282 – .378	7,16 – 9,59	33 10	26 8	49 15								.006 - .020 0,15 - 0,50	— —					
						.378 – .551	9,6 – 14,0	33 10	26 8	49 15								.006 - .020 0,15 - 0,50	— —					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G141	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28								.004 - .018 0,10 - 0,45	— —					
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28								.006 - .020 0,15 - 0,50	— —					
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28								.006 - .020 0,15 - 0,50	— —					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	26 8	82 25								— —	.002 - .008 0,05 - 0,20					
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	26 8	82 25								— —	.002 - .008 0,05 - 0,20					
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G152	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35		66 20	148 45							— —	.002 - .008 0,05 - 0,20					
Straight Flute – Internal Coolant - Axial	2, 4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	115 35		66 20	148 45							— —	.002 - .008 0,05 - 0,20					
Reamers – Expandable																								
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	49 15	26 8	82 25								— —	.002 - .008 0,05 - 0,20					
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G160	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	115 35	66 20		148 45							— —	.002 - .008 0,05 - 0,20					
Reamers – Insertable																								
Single Padded Reamer	1, 3	G172	RIR/RIQT	KC6305	E13	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40								.004 - .016 0,10 - 0,40	— —					
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40								.004 - .008 0,10 - 0,20	— —					
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40								.006 - .010 0,15 - 0,25	— —					

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQT starts at .630"/16,00mm

Iron-Based, Heat-Resistant Alloys	<ul style="list-style-type: none"> • Content • Tensile Strength RM (MPa)*: 500-1200 • Hardness (HB) 160-260
Cutting Groups	<ul style="list-style-type: none"> • 31, 32

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range														FEED RATE
							CUTTING SPEED														
							sfm m/min	98 30	164 50	262 80	328 100	394 120	492 150	656 200	820 250	984 300	1148 350	1640 500	2460 750	3281 1000	ipr mm/r
Boring – Medium Finishing ▼▼																					
Dial Set	SNHG...	KC9240 NEW	G112	1.375" - 6.500"	34,93mm - 165,10mm	115 35	33 10	197 60								.005 - .016 0,12 - 0,40					
	CPGM...	KC5010		1.375" - 6.500"	34,93mm - 165,10mm	197 60	98 30		410 125							.005 - .016 0,12 - 0,40					
	CPGM...	KC5025		1.375" - 6.500"	34,93mm - 165,10mm	98 30	66 20	197 60								.005 - .016 0,12 - 0,40					
	SPGH...SNHG...	KC850		1.375" - 6.500"	34,93mm - 165,10mm	230 70		148 45		591 180						.005 - .016 0,12 - 0,40					
	CPMG...	K313		1.375" - 6.500"	34,93mm - 165,10mm	180 55	66 20		295 90							.005 - .016 0,12 - 0,40					
	CPMG...	KT315		1.375" - 6.500"	34,93mm - 165,10mm	148 45	66 20		246 75							.005 - .016 0,12 - 0,40					
Modbore	CCMT...MW CNGP... CNMG...MW CNMG...MP CNMG...RP CNGP....	KC5010	G9	.384" - 25.787"	9,70mm - 655,00mm	180 55	98 30		394 120							.005 - .016 0,12 - 0,40					
		K313		.384" - 25.787"	9,70mm - 655,00mm	98 30	33 10	164 50								.004 - .010 0,10 - 0,25					
		KC5510		.384" - 25.787"	9,70mm - 655,00mm	197 60	98 30		410 125							.008 - .016 0,20 - 0,40					
		KC5525		.384" - 25.787"	9,70mm - 655,00mm	180 55	98 30		394 120							.008 - .025 0,20 - 0,63					
Boring – Finishing ▼▼▼																					
ModBore	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010	G14	.384" - 25.787"	9,70mm - 655,00mm	180 55	98 30		394 120							.002 - .010 0,06 - 0,25					
	CCGT...HP CCGT...LF	KC5025		.384" - 25.787"	9,70mm - 655,00mm	131 40	98 30	197 60								.025 - .010 0,63 - 0,25					
	CCGT...HP CCGT...LF CCMT...LF CNGG...LF	K313		.384" - 25.787"	9,70mm - 655,00mm	98 30	33 10	164 50								.004 - .010 0,10 - 0,25					
Boring – Fine Finishing ▼▼▼▼																					
Romicron**	CPMT...LF CPMT...FW CPGT...FW CPGT...LF CPGT...HP CDHB....	KC5010	G50	.157" - 8.110"	4,00mm - 213,00mm	197 60	98 30		410 125							.002 - .012 0,04 - 0,30					
	CPMT...LF CPGT...HP CPGT...LF	KC5025		.157" - 8.110"	4,00mm - 213,00mm	98 30	66 20	197 60								.002 - .012 0,04 - 0,30					
	CPMT...LF CPMT...FW CPGT...LF CDHB...	KT313		.157" - 8.110"	4,00mm - 213,00mm	115 35	33 10		213 65							.002 - .012 0,04 - 0,30					
Kendex Precision	BPGF...	KC7210	G122	.299" - .996"	5,8mm - 25,3mm	197 60	98 30		410 125							.001 - .003 0,02 - 0,08					

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

**Diameter Range for Romicron represents standard product offering shown within current catalog. Romicron custom solutions can be manufactured for an unlimited hole diameter size. For more information, contact your local KMT representative.

Best Tool Selector — Drilling - S2

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value		Range													
							sfm	m/min	0	49	98	164	262	328	394	492	656	820	984			
Solid Carbide / Modular Drills							CUTTING SPEED															
Through	3xD, 5xD	A90	B284-B285 / K284-K285	KC715	.118 - .787"	3,00 - 20,00 mm	49	15	33	10	66	20										
Indexable Drills							CUTTING SPEED															
Through	2xD, 3xD, 4xD	E9	DFR	O- KC7020 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	148	45	68	23	180	55										
Stable																						
Unstable				O- KC7020 GD I- KC7225 LD			82	25	60	18	106	32										
Interrupted				O- KC7020 GD I- KC7225 LD			66	20	45	14	80	24										
Through	2.5xD, 4xD	E14	DFT	O- KC7020 GD I- KC7225 LD	.625 - 3.25"	16,00 - 82,00 mm	148	45	75	23	160	49										
Stable																						
Unstable				O- KC7020 GD I- KC7225 LD			82	25	60	18	106	32										
Interrupted				O- KC020 GD I- KC7225 LD			66	20	45	14	100	30										
Through	5xD, 8xD	E61	HTS-C	P- B504 CS3 O- KC7215 SPHX...31 I- KC7215 DFT-GD	.750 - 2.00"	20,00 - 45,00 mm	115	35	61	19	139	42										
Stable																						
Unstable				O- KC7215 SPHX...31 I- KC720 DFT-GD			82	25	58	18	112	34										
Through	3xD - 10XD+	E84	HTS-DFT	P- B510 AS3 O- KC720 GD I- KC720 GD	1.57 - 2.17"	40,00 - 55,00 mm	115	35	82	25	158	48										
Stable																						
Unstable				O- KC720 GD I- KC720 GD			82	25	58	18	112	34										
Interrupted				O- KC720 GD I- KC720 GD			66	20	46	14	90	27										

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

SOLID CARBIDE DRILLS
MODULAR DRILLS
COMBINATION TOOLS
HSS AND CARBIDE TAPS
INDEXABLE DRILLS
COUNTERBORING TOOLS
PRECISION HOLE FINISHING
INSERTS
TECHNICAL DATA
INDEX

Nickel-Based or Cobalt-Based, Heat-Resistant Alloys	• Content	• Tensile Strength RM (MPa)*: 1000-1450	• Hardness (HB) 250-450
	Cutting Groups	• 33, 34, 35	• Hardness HRC: 25-48

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥150,0

FEED RATE by diameter														
	.001 - .001	.002 - .002	.002 - .003	.003 - .004	.004 - .005	.005 - .006	.006 - .007	—	—	—	—	—	—	—
ipr	.001 - .001	.002 - .002	.002 - .003	.003 - .004	.004 - .005	.005 - .006	.006 - .007	—	—	—	—	—	—	—
mm/r	0,03 - 0,04	0,04 - 0,05	0,06 - 0,08	0,08 - 0,10	0,11 - 0,13	0,12 - 0,16	0,14 - 0,18	—	—	—	—	—	—	—

FEED RATE by diameter														
	.001 - .001	.002 - .002	.002 - .003	.003 - .004	.004 - .005	.005 - .006	.006 - .007	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .003	.002 - .004	.003 - .005	.003 - .005	—	—
mm/r	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,08 - 0,13	0,08 - 0,13	—	—
ipr	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .003	.002 - .004	.003 - .005	.003 - .005	—	—
mm/r	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,08 - 0,13	0,08 - 0,13	—	—
ipr	—	—	—	—	—	—	.001 - .002	.001 - .002	.002 - .002	.002 - .002	—	—	—	—
mm/r	—	—	—	—	—	—	0,03 - 0,05	0,03 - 0,05	0,04 - 0,06	0,04 - 0,06	—	—	—	—
ipr	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.003 - .004	.003 - .004
mm/r	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,07 - 0,10	0,07 - 0,10	0,07 - 0,10
ipr	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.003 - .004	.003 - .004
mm/r	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,07 - 0,10	0,07 - 0,10	0,07 - 0,10
ipr	—	—	—	—	—	—	—	—	—	.002 - .003	.002 - .003	.003 - .004	.003 - .004	.003 - .004
mm/r	—	—	—	—	—	—	—	—	—	0,04 - 0,07	0,05 - 0,08	0,07 - 0,10	0,07 - 0,10	0,07 - 0,10

* 1 Mpa = 145 psi

Best Tool Selector — Hole Finishing / Tapping - S2



Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED													FEED RATE	
								Starting Value	Range										ipr	tooth feed inch		
									sfm m/min	45 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250			909 300	1061 350
Reamers — Monoblock																						
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	26 8	20 6	33 10											.004 - .008 0,10-0,20	—
Straight Flute – External Coolant	1, 3, 5	G133	RMS	KC6305*	—	.055 – .163	1,40 – 4,15	66 20	49 15	92 28											.004-.008 0,10-0,20	—
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	33 10	26 8	49 15											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	33 10	26 8	49 15											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	33 10	26 8	49 15											0,15 - 0,50 0,25 - 0,65	—
Straight Flute – Internal Coolant - Axial	2, 4	G137	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28											.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	33 10	26 8	49 15											.004 - .018 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	33 10	26 8	49 15											.006 - .020 0,15 - 0,50	—
						.378 – .551	9,6 – 14,0	33 10	26 8	49 15											.006 - .020 0,15 - 0,50	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G141	RMS	KC6305*	—	.164 – .281	4,16 – 7,15	66 20	49 15	92 28											.004 - .014 0,10 - 0,45	—
						.282 – .378	7,16 – 9,59	66 20	49 15	92 28											.006 - .018 0,15 - 0,45	—
						.378 – .551	9,6 – 14,0	66 20	49 15	92 28											.006 - .018 0,15 - 0,45	—
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	26 8	82 25											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2,4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	49 15	26 8	82 25											— —	.002 - .008 0,05 - 0,20
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G152	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	131 40											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant - Axial	2,4	G148	RMB	KC6305**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	131 40											— —	.002 - .008 0,05 - 0,20
Reamers — Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	49 15	26 8	82 25											— —	.002 - .008 0,05 - 0,20
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G160	RMA	KC6305**	—	.220 – 1.795	5,60 – 45,59	82 25	49 15	131 40											— —	.002 - .008 0,05 - 0,20
Reamers — Insertable																						
Single Padded Reamer	1, 3	G172	RIR/RIQ†	KC6305	E13	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.004 - .016 0,10 - 0,40	—
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.004 - .008 0,10 - 0,20	—
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	82 25	33 10	131 40											.006 - .010 0,15 - 0,25	—

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Best Tool Selector — Drilling – S3

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value Range													
							sfm	0	49	98	164	262	328	394	492	656	820	984		
							m/min	0	15	30	50	80	100	120	150	200	250	300		
Indexable Drills																				
Through	2xD, 3xD, 4xD	E9	DFR		.500 - 1.00"	12,50 - 24,00 mm														
Stable				O- KC7020 GD I- KC7225 LD			230			125									315	
Unstable				O- KC7020 GD I- KC7225 LD			70			38									96	
Interrupted				O- KC7020 GD I- KC7225 LD			131			100			180							
							40			30			55							
							98			75			135							
							30			23			41							
Through	2.5xD, 4xD	E15	DFT		.625 - 3.25"	16,00 - 82,00 mm														
Stable				O- KC7020 GD I- KC7225 LD			230			125									315	
Unstable				O- KC7020 GD I- KC7225 LD			70			38									96	
Interrupted				O- KC020 GD I- KC7225 LD			131			100			180							
							40			30			55							
							98			75			135							
							30			23			41							

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

- SOLID CARBIDE DRILLS
- MODULAR DRILLS
- COMBINATION TOOLS
- HSS AND CARBIDE TAPS
- INDEXABLE DRILLS
- COUNTERBORING TOOLS
- PRECISION HOLE FINISHING
- INSERTS
- TECHNICAL DATA
- INDEX

Titanium	<ul style="list-style-type: none"> • Tensile Strength RM (Mpa)*: 900-1600 • Hardness (HB) 300-400
Cutting Groups	<ul style="list-style-type: none"> • 36 • Hardness HRC: 33-43

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter

ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .002	.002 - .004	.002 - .003	.002 - .004	.004 - .006	.004 - .006	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.004 - .006	.004 - .006	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.004 - .006	.004 - .006	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—

* 1 Mpa = 145 psi

SOLID CARBIDE DRILLS

MODULAR DRILLS

COMBINATION TOOLS

HSS AND CARBIDE TAPS

INDEXABLE DRILLS

COUNTERBORING TOOLS

PRECISION HOLE FINISHING

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TECHNICAL DATA

INDEX

Best Tool Selector — Hole Finishing / Tapping - S3

Titanium	• Tensile Strength RM (Mpa)*: 900-1600	• Hardness (HB) 300-400
Cutting Groups	• 36	• Hardness HRC: 33-43



Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range											FEED RATE				
									sfm	45	91	152	242	303	364	455	606	758	909	1061	ipr	tooth feed		
								m/min	15	30	50	80	100	120	150	200	250	300	350	mm/r	inch	mm		
Reamers — Monoblock													CUTTING SPEED											
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	61 20	45 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .008 0,10 - 0,20	— —			
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .018 0,10 - 0,45	— —			
						.282 – .378	7,16 – 9,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —			
						.378 – .551	9,6 – 14,0	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .018 0,10 - 0,45	— —			
						.282 – .378	7,16 – 9,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —			
						.378 – .551	9,6 – 14,0	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —			
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20			
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20			
Reamers — Expandable																								
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20			
Reamers — Insertable																								
Single Padded Reamer	1, 3	G172	RIR/RIQ†	K605	E13	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.008 - .010 0,20 - 0,25	— —			
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.008 - .008 0,20 - 0,20	— —			
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .008 0,10 - 0,20	— —			

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm



Best Tool Selector — Drilling – S4

Coolant Method / Application	Drilling Depth	Ref. Pg. No.	Catalog Series	* Grade/Geometry	Diameter Range Inch	Diameter Range Metric	Starting Value		Range										
							sfm	m/min	0	49	98	164	262	328	394	492	656	820	984
Solid Carbide / Modular Drills							CUTTING SPEED												
Through	3xD, 5xD	A90	B284-B285 / K284-285	KC715	.118 - .787"	3,00 - 20,00 mm	115 35	66 20	164 50										
Indexable Drills							CUTTING SPEED												
Through	2xD, 3xD, 4xD	E9	DFR	O- KC7020 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	148 45	88 27	226 69										
Unstable				O- KC7020 GD I- KC7225 LD			115 35	75 23	150 46										
Interrupted				O- KC7020 GD I- KC7225 LD			98 30	62 19	125 38										
Through	2xD, 3xD, 4xD	E15	DFR	O- KC7020 GD I- KC7225 LD	.500 - 1.00"	12,5 - 24,00 mm	148 45	89 27	226 69										
Unstable				O- KC7020 GD I- KC7225 LD			115 35	75 23	150 46										
Interrupted				O- KC7020 GD I- KC7225 LD			98 30	62 19	125 38										

* Indexable Drill Grade/Geometry: O = Outboard, I = Inboard, P = Pilot Drill

SOLID CARBIDE DRILLS
MODULAR DRILLS
COMBINATION TOOLS
HSS AND CARBIDE TAPS
INDEXABLE DRILLS
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Titanium Alloys	• Tensile Strength RM (Mpa)* 900-1600	• Hardness (HB) 300-400
Cutting Groups	• 37	• Hardness HRC: 33-43

HOLE diameter														
inch	.118	.157	.236	.315	.472	.630	.787	1.00	1.260	1.575	1.968	2.992	3.937	≥ 5.905
mm	3,0	4,0	6,0	8,0	12,0	16,0	20,0	25,4	32,0	40,0	50,0	76,0	100,0	≥ 150,0

FEED RATE by diameter														
ipr	.001 - .001	.002 - .002	.002 - .003	.003 - .004	.005 - .006	.005 - .007	.006 - .008	—	—	—	—	—	—	—
mm/r	0,03 - 0,04	0,04 - 0,05	0,06 - 0,08	0,08 - 0,10	0,13 - 0,15	0,14 - 0,18	0,16 - 0,21	—	—	—	—	—	—	—

FEED RATE by diameter														
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	.001 - .002	.001 - .003	.002 - .003	—	—	—	—	—	—	—
mm/r	—	—	—	—	0,03 - 0,05	0,04 - 0,06	0,05 - 0,08	—	—	—	—	—	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.004 - .006	.004 - .006	—	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.004 - .006	.004 - .006	—	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—	—
ipr	—	—	—	—	—	.002 - .002	.002 - .003	.002 - .004	.002 - .004	.004 - .006	.004 - .006	—	—	—
mm/r	—	—	—	—	—	0,04 - 0,06	0,05 - 0,08	0,06 - 0,10	0,06 - 0,10	0,09 - 0,15	0,09 - 0,15	—	—	—

* 1 Mpa = 145 psi

Best Tool Selector — Hole Finishing / Tapping - S4



Type	Hole Type	Ref. Pg. No.	Catalog Series	Grade	Lead Type	Diameter Range Inch	Diameter Range Metric (mm)	CUTTING SPEED													FEED RATE	
								Starting Value	Range										ipr	tooth feed		
									sfm m/min	45 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250			909 300	1061 350
Reamers — Monoblock																						
Straight Flute – External Coolant	1, 3, 5	G131	RMS	K605*	—	.055 – .163	1,40 – 4,15	61 20	45 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .008 0,10 - 0,20	— —	
Straight Flute – Internal Coolant - Axial	2, 4	G135	RMS	K605*	—	.164 – .281	4,16 – 7,15	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .018 0,10 - 0,45	— —	
						.282 – .378	7,16 – 9,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —	
						.378 – .551	9,6 – 14,0	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G139	RMS	K605*	—	.164 – .281	4,16 – 7,15	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .018 0,10 - 0,45	— —	
						.282 – .378	7,16 – 9,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —	
						.378 – .551	9,6 – 14,0	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.006 - .020 0,15 - 0,50	— —	
Helical Flute – LH Helix Internal Coolant - Radial	1, 3, 5	G151	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20	
Straight Flute – Internal Coolant - Axial	2, 4	G146	RMB	K605**	—	.551 – 1.260	14,00 – 32,00	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20	
Reamers — Expandable																						
Straight Flute – Internal Coolant	1, 2, 3, 4, 5	G158	RMA	K605**	—	.220 – 1.795	5,60 – 45,59	82 25	49 15	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	— —	.002 - .008 0,05 - 0,20	
Reamers — Insertable																						
Single Padded Reamer	1, 3	G172	RIR/RIQ†	KC605	E13	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.008 - .010 0,20 - 0,25	— —	
Single Padded Reamer	2, 4				E06	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.008 - .008 0,20 - 0,20	— —	
Single Padded Reamer	1, 3, 5				EDS	.236 – 13.77	6,00 – 350,00	66 20	66 20	91 30	152 50	242 80	303 100	364 120	455 150	606 200	758 250	909 300	1061 350	.004 - .008 0,10 - 0,20	— —	

*RMS = Solid Carbide, **K605, KC6305 = Carbide Tipped, ***KT6215 = Cermet Tipped, †RIQ starts at .630"/16,00mm

Best Tool Selector – Hole Finishing/Tapping – High-Temp Alloys – S4

Titanium Alloys	• Tensile Strength RM (Mpa)* 900-1600	• Hardness (HB) 300-400
Cutting Groups	• 37	• Hardness HRC: 33-43

Type	Geometry	Grade	Ref. Pg. No.	Diameter Range Inch	Diameter Range Metric (mm)	Starting Value	Range													FEE RATE	
						sfm m/min	98	164	262	328	394	492	656	820	984	1148	1640	2460	3281	ipr mm/r	
							30	50	80	100	120	150	200	250	300	350	500	750	1000		
Boring — Medium Finishing ▼▼▼						CUTTING SPEED															
Dial Set	SNGH...	KC9240NEW	G113	1.375" - 6.500"	34,93mm-165,10mm	180	66	148	246	295	90								.005 - .016 0,12 - 0,40		
	CPGM...	KC5010		1.375" - 6.500"	34,93mm-165,10mm	55	20	45	75										.005 - .016 0,12 - 0,40		
	CPGM...	KC5025		1.375" - 6.500"	34,93mm-165,10mm	148	66	148	246	295	90								.005 - .016 0,12 - 0,40		
	SPGH... SNGH...	KC850		1.375" - 6.500"	34,93mm-165,10mm	230	70	148	246	295	90								.005 - .016 0,12 - 0,40		
	CPGM...	K313		1.375" - 6.500"	34,93mm-165,10mm	70	20	45	75										.005 - .016 0,12 - 0,40		
	CPGM...	K68		1.375" - 6.500"	34,93mm-165,10mm	180	66	148	246	295	90								.005 - .016 0,12 - 0,40		
Modbore	CCMT...MW CNGP... CNMG...MW CNMG...MP CNMG...RP CNGP...	KC5010	G9	.384" - 25.787"	9,70mm - 655,00mm	230	70	148	246	295	90								.005 - .016 0,12 - 0,40		
		K313		.384" - 25.787"	9,70mm - 655,00mm	148	66	148	246	295	90								.004 - .010 0,10 - 0,25		
	CNMG...RP	KC5510		.384" - 25.787"	9,70mm - 655,00mm	230	70	148	246	295	90								.008 - .016 0,20 - 0,40		
	CNGP...	KC5525		.384" - 25.787"	9,70mm - 655,00mm	180	66	148	246	295	90								.008 - .025 0,20 - 0,63		
Boring — Finishing ▼▼▼▼																					
ModBore	CCGT...HP CCGT...LF CCMT...FW CCMT...LF CNGG...LF CNMG...FF CNMG...FP CNMG...FW	KC5010	G14	.384" - 25.787"	9,70mm - 655,00mm	230	70	148	246	295	90								.002 - .010 0,06 - 0,25		
	CCGT...HP CCGT...LF	KC5025		.384" - 25.787"	9,70mm - 655,00mm	180	66	148	246	295	90								.025 - .010 0,63 - 0,25		
	CCGT...HP CCGT...LF CCMT...LF CNGG...LF	K313		.384" - 25.787"	9,70mm - 655,00mm	148	66	148	246	295	90								.004 - .010 0,10 - 0,25		
Boring — Fine Finishing ▼▼▼▼▼																					
Kendex Precision	BPGF...	KC7210	G122	.299" - .996"	5,8mm - 25,3mm	148	66	148	246	295	90								.001 - .003 0,02 - 0,08		

* 1 MPa = 145 psi

For more information on insert selection see KMT Lathe Tooling Catalog.

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