



**KOR5™ DA • 5 FLUTES • APPLICATION DATA**

													
Material Group	Side Milling (A) and Slotting (B)		K600		Recommended feed per tooth (fz = mm/th)								
	A		B		Cutting Speed – vc m/min		D1 – Diameter						
	ap	ae	ap	min	max	mm	10,0	12,0	16,0	20,0	25,0		
N	1	0,5 x D1	0,5 x D1	0,25 x D1	200	–	2000	fz	0,080	0,120	0,160	0,200	0,225
	2	0,5 x D1	0,5 x D1	0,25 x D1	200	–	1500	fz	0,070	0,110	0,140	0,180	0,213

NOTE: These guidelines may require variations to achieve optimum results. For better surface finish, reduce feed per tooth.  
 For cutting aluminium with high silicon, TiCN coating is recommended.  
 Ap for milling machine with ceramic bearings spindle, multiply by 0,5.  
 Above parameters are based on ideal conditions. For smaller taper machining centres, please adjust parameters accordingly on >12mm diameter.

**KOR5 DA • 5 FLUTES • ADJUSTMENT FACTOR TABLE FOR FEED CALCULATION**

To calculate application specific cutting data, please use coefficient table to the right for adaptation of feed.

$Fz_{new} = Fz \cdot \text{Feed Multiplier}$

**Calculation example:**



Application: D = 20mm; N1 material group; Ae 2mm  
 Cutting data recommendation: 200 m/min;  
 fz = 0,200mm  
 Adjustment coefficients: Ae = 2 mm equals 10.00 %;  
 Feed Multiplier = 1.7

**Final cutting data recommendation:**

$Fz_{new} = 0,2mm \cdot 1,7 = 0,34mm$

<b>Ae/D1</b>	100%	50%	40%	30%	20%	10%	5%	2%
<b>Max Ap</b>	.25 x D1	.5 x D1	1 x D1	2 x D1	Ap1 Max	Ap1 Max	Ap1 Max	Ap1 Max
<b>Feed Multiplier</b>	.90	1.00	1.02	1.09	1.25	1.70	2.30	3.60

**KOR5™ DS • 5 FLUTES • 3 X D • APPLICATION DATA**

Material Group													
	Side Milling (A)		KC643M			Recommended feed per tooth (fz = mm/th) for side milling (A).							
	A		Cutting Speed – vc m/min			D1 – Diameter							
	ap	ae	min	max	mm	8,0	10,0	12,0	16,0	20,0	25,0		
P	0	3 x D	0.1 x D	150	–	440	fz	0,072	0,086	0,099	0,121	0,137	0,149
	1	3 x D	0.1 x D	150	–	440	fz	0,072	0,086	0,099	0,121	0,137	0,149
	2	3 x D	0.1 x D	140	–	418	fz	0,072	0,086	0,099	0,121	0,137	0,149
	3	3 x D	0.1 x D	120	–	352	fz	0,060	0,073	0,084	0,105	0,121	0,137
	4	3 x D	0.1 x D	90	–	330	fz	0,054	0,065	0,075	0,092	0,106	0,117
	5	3 x D	0.1 x D	60	–	220	fz	0,048	0,058	0,067	0,084	0,097	0,109
M	6	3 x D	0.1 x D	50	–	165	fz	0,040	0,048	0,056	0,068	0,078	0,085
	1	3 x D	0.1 x D	90	–	253	fz	0,060	0,073	0,084	0,105	0,121	0,137
	2	3 x D	0.1 x D	60	–	176	fz	0,048	0,058	0,067	0,084	0,097	0,109
K	3	3 x D	0.1 x D	60	–	154	fz	0,040	0,048	0,056	0,068	0,078	0,085
	1	3 x D	0.1 x D	120	–	330	fz	0,072	0,086	0,099	0,121	0,137	0,149
	2	3 x D	0.1 x D	110	–	308	fz	0,060	0,073	0,084	0,105	0,121	0,137
S	3	3 x D	0.1 x D	110	–	286	fz	0,048	0,058	0,067	0,084	0,097	0,109
	1	3 x D	0.1 x D	50	–	198	fz	0,060	0,073	0,084	0,105	0,121	0,137
	2	3 x D	0.1 x D	25	–	88	fz	0,032	0,038	0,045	0,056	0,065	0,074
	3	3 x D	0.1 x D	25	–	88	fz	0,032	0,038	0,045	0,056	0,065	0,074
H	4	3 x D	0.1 x D	50	–	132	fz	0,044	0,053	0,062	0,077	0,089	0,100
	1	3 x D	0.1 x D	80	–	308	fz	0,054	0,065	0,075	0,092	0,106	0,117
	2	3 x D	0.1 x D	70	–	264	fz	0,040	0,048	0,056	0,068	0,078	0,085

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.  
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.  
 Side milling applications — for longest reach (L3) tools, reduce Ae by 30%.  
 For better surface finish, reduce feed per tooth.

**KOR5 DS • 5 FLUTES • 3 X D • ADJUSTMENT FACTOR TABLE FOR FEED CALCULATION**

To calculate application specific cutting data, please use KV coefficient table to the right for adaptation of cutting speed and KFz for feed respectively.

Vc new = Vc \* Kv  
 Fz new = IPT \* KFz

**Calculation example:**



Application: D1 = 20mm;  
 M2 material group;  
 Ae = 2mm (Ae = 10% D)  
 Cutting data recommendation: Vc = 170 m/min;  
 fz = 0,097 mm/th  
 Adjustment coefficients: Ae = 1mm equals 5.00 %;  
 Kv = 1.07; KFz = 1.29

**Final cutting data recommendation:**

Vc new = 170 \* 1.07 = 182 m/min  
 FZ new = 0,097 \* 1.29 = 0,125 mm/min

	Ae/D1	0.50%	1.00%	1.50%	2.00%	4.00%	5.00%	8.00%	10.00%
<b>Speed factor</b>	Kv	2.15	2.11	2.07	1.48	1.11	1.07	1.04	1.00
<b>Feed factor</b>	KFz	1.65	1.53	1.47	1.41	1.35	1.29	1.18	1.00

**KOR5™ DS • 5 FLUTES • 5 X D • APPLICATION DATA**

Material Group													
	Side Milling (A)		KC643M			Recommended feed per tooth (fz = mm/th) for side milling (A).							
	A		Cutting Speed – vc m/min			D1 – Diameter							
	ap	ae	min	–	max	mm	8,0	10,0	12,0	16,0	20,0	25,0	
P	0	5 x D	0.05 x D	150	–	540	fz	0,097	0,117	0,134	0,163	0,185	0,200
	1	5 x D	0.05 x D	150	–	540	fz	0,097	0,117	0,134	0,163	0,185	0,200
	2	5 x D	0.05 x D	140	–	513	fz	0,097	0,117	0,134	0,163	0,185	0,200
	3	5 x D	0.05 x D	120	–	432	fz	0,081	0,098	0,114	0,141	0,164	0,184
	4	5 x D	0.05 x D	90	–	405	fz	0,073	0,087	0,101	0,124	0,143	0,158
	5	5 x D	0.05 x D	60	–	270	fz	0,065	0,078	0,091	0,113	0,131	0,147
M	6	5 x D	0.05 x D	50	–	202.5	fz	0,054	0,065	0,075	0,092	0,105	0,115
	1	5 x D	0.05 x D	90	–	310.5	fz	0,081	0,098	0,114	0,141	0,164	0,184
	2	5 x D	0.05 x D	60	–	216	fz	0,065	0,078	0,091	0,113	0,131	0,147
K	3	5 x D	0.05 x D	60	–	189	fz	0,054	0,065	0,075	0,092	0,105	0,115
	1	5 x D	0.05 x D	120	–	405	fz	0,097	0,117	0,134	0,163	0,185	0,200
	2	5 x D	0.05 x D	110	–	378	fz	0,081	0,098	0,114	0,141	0,164	0,184
S	3	5 x D	0.05 x D	110	–	351	fz	0,065	0,078	0,091	0,113	0,131	0,147
	1	5 x D	0.05 x D	50	–	243	fz	0,081	0,098	0,114	0,141	0,164	0,184
	2	5 x D	0.05 x D	25	–	108	fz	0,043	0,052	0,060	0,075	0,087	0,099
	3	5 x D	0.05 x D	25	–	108	fz	0,043	0,052	0,060	0,075	0,087	0,099
H	4	5 x D	0.05 x D	50	–	162	fz	0,060	0,072	0,084	0,104	0,120	0,135
	1	5 x D	0.05 x D	80	–	378	fz	0,073	0,087	0,101	0,124	0,143	0,158
	2	5 x D	0.05 x D	70	–	324	fz	0,054	0,065	0,075	0,092	0,105	0,115

NOTE: Lower value of cutting speed is used for high stock removal applications or for higher hardness (machinability) within group.  
 Higher value of cutting speed is used for finishing applications or for lower hardness (machinability) within group.  
 Side milling applications — for longest reach (L3) tools, reduce Ae by 30%.  
 For better surface finish, reduce feed per tooth.

**KOR5 DS • 5 FLUTES • 5 X D • ADJUSTMENT FACTOR TABLE FOR FEED CALCULATION**

To calculate application specific cutting data, please use KV coefficient table to the right for adaptation of cutting speed and KFz for feed respectively.

Vc new = Vc \* Kv  
 Fz new = IPT \* KFz

**Calculation example:**



Application: D1 = 20mm;  
 M2 material group;  
 Ae = 1mm (Ae = 5% D)  
 Cutting data recommendation: Vc = 200 m/min;  
 fz = 0,131 mm/th  
 Adjustment coefficients: Ae = 0,4mm equals 2.00 %;  
 Kv = 1.38; KFz = 1.09

**Final cutting data recommendation:**

Vc new = 200 \* 1.38 = 276 m/min  
 FZ new = 0,131 \* 1.09 = 0,143 mm/min

	Ae/D1	0.50%	1.00%	1.50%	2.00%	4.00%	5.00%
<b>Speed factor</b>	Kv	2.00	1.97	1.93	1.38	1.03	1.00
<b>Feed factor</b>	KFz	1.27	1.18	1.14	1.09	1.05	1.00

**KOR6™ DT • 6 FLUTES • 3 X D • APPLICATION DATA**

Material Group													
	Side Milling (A)		KCSM15			Recommended feed per tooth (fz = mm/th) for side milling (A).							
	A		Cutting Speed – vc m/min			mm	D1 – Diameter						
	ap	ae	min	–	max		8,0	10,0	12,0	16,0	20,0	25,0	
P	0	3 x D	0.1 x D	150	–	440	fz	0,072	0,086	0,099	0,121	0,137	0,149
	1	3 x D	0.1 x D	150	–	440	fz	0,072	0,086	0,099	0,121	0,137	0,149
	2	3 x D	0.1 x D	140	–	418	fz	0,072	0,086	0,099	0,121	0,137	0,149
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	4	3 x D	0.1 x D	90	–	330	fz	0,054	0,065	0,075	0,092	0,106	0,117
	5	3 x D	0.1 x D	60	–	220	fz	0,048	0,058	0,067	0,084	0,097	0,109
M	6	3 x D	0.1 x D	50	–	165	fz	0,040	0,048	0,056	0,068	0,078	0,085
	1	3 x D	0.1 x D	90	–	253	fz	0,060	0,073	0,084	0,105	0,121	0,137
	2	3 x D	0.1 x D	60	–	176	fz	0,048	0,058	0,067	0,084	0,097	0,109
K	3	3 x D	0.1 x D	60	–	154	fz	0,040	0,048	0,056	0,068	0,078	0,085
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 Side milling applications – for longest reach (L3) tools, reduce Ae by 30%.  
 For better surface finish, reduce feed per tooth.

**KOR6™ DT • 6 FLUTES • 3 X D • ADJUSTMENT FACTOR TABLE FOR FEED CALCULATION**

To calculate application specific cutting data, please use above Kv coefficient for adaptation of cutting speed and KFz for feed respectively.



Vc new = Vc \* Kv  
 Fz new = IPT \* KFz

**Calculation example:**  
 Application: D1 = 20mm; M2 material group;  
 Ae = 2mm (Ae = 10% D)  
 Cutting data recommendation: Vc = 170 m/min;  
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**Final cutting data recommendation:**  
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<b>Speed factor</b>	Kv	2.15	2.11	2.07	1.48	1.11	1.07	1.04	1.00
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	2	5 x D	0.05 x D	25	–	108	fz	0,043	0,052	0,060	0,075	0,087	0,099
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	1	5 x D	0.05 x D	80	–	378	fz	0,073	0,087	0,101	0,124	0,143	0,158
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 For better surface finish, reduce feed per tooth.

**KOR6™ DT • 6 FLUTES • 5 X D • ADJUSTMENT FACTOR TABLE FOR FEED CALCULATION**

To calculate application specific cutting data, please use above KV coefficient for adaptation of cutting speed and KFz for feed respectively.

Vc new = Vc \* Kv  
 Fz new = IPT \* KFz

**Calculation example:**

Application: D1 = 20mm; M2 material group;  
 Ae = 1mm (Ae = 5% D)  
 Cutting data recommendation: Vc = 200 m/min;  
 fz = 0,131 mm/th  
 Adjustment coefficients: Ae = 0,4mm equals 2.00 %;  
 Kv = 1.38; KFz = 1.09

**Final cutting data recommendation:**

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 FZ new = 0,131 \* 1.09 = 0,143 mm/min

	Ae/D1	0.50%	1.00%	1.50%	2.00%	4.00%	5.00%
<b>Speed factor</b>	Kv	2.00	1.97	1.93	1.38	1.03	1.00
<b>Feed factor</b>	KFz	1.27	1.18	1.14	1.09	1.05	1.00

