

SOLID CARBIDE
 INSERTS
 FACE MILLS
 90° MILLS
 SLOTTING
 DIE AND MOLD
 CERAMIC MILLS
 CLASSIC MILLS
 THREAD MILLS
 TECHNICAL DATA
 INDEX

CRHEC

				Reduce speed by 20% for slotting applications										
		Application			Vc KC635M			Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%. D1- Diameter (Inch)						
		Side Milling		Slotting										
Group	ap	ae	ap	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
P2	1XD	0.1XD	0.5XD	350~450	.0006	.001	.0015	.0020	.0025	.0030	.0035	.0040	.0045	
P3	1XD	0.1XD	0.5XD	250~350	.0005	.0007	.0010	.0015	.0020	.0024	.0028	.0030	.0035	
P4	1XD	0.1XD	0.5XD	175~325	.0004	.0005	.0010	.0011	.0015	.0020	.0025	.0027	.0030	
P5	1XD	0.1XD	0.5XD	250~450	.0004	.0006	.0010	.0015	.0020	.0024	.0026	.0030	.0035	
M1	1XD	0.1XD	0.5XD	275~500	.0006	.0008	.0012	.0015	.0020	.0025	.0030	.0035	.0040	
M2	1XD	0.1XD	0.5XD	200~450	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035	
M3	1XD	0.1XD	0.5XD	175~400	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035	
K1	1XD	0.1XD	0.5XD	425~725	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070	
K2	1XD	0.1XD	0.5XD	400~600	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070	
S1	1XD	0.1XD	0.5XD	65~125	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027	
S2	1XD	0.1XD	0.5XD	65~125	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027	
S3	1XD	0.1XD	0.5XD	65~125	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027	
S4	1XD	0.1XD	0.5XD	100~200	.0008	.0012	.0015	.0018	.0022	.0025	.0028	.0030	.0035	

These guidelines may require variations to achieve optimum results.

DHEC

				Reduce speed by 20% for slotting applications												
		Application			Vc K600	Vc KC610M	Vc KC635M	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%. D1- Diameter (Inch)								
		Side Milling		Slotting												
Group	ap	ae	ap	SFM	SFM	SFM	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
P2	1XD	0.1XD	0.5XD	200~300	300~400	350~450	.0004	.0006	.001	.0015	.0020	.0025	.0030	.0035	.0040	.0045
P3	1XD	0.1XD	0.5XD	175~300	175~300	250~350	.0003	.0005	.0007	.0010	.0015	.0020	.0024	.0028	.0030	.0035
P4	1XD	0.1XD	0.5XD	N/A	N/A	175~325	.0002	.0004	.0005	.0010	.0011	.0015	.0020	.0025	.0027	.0030
P5	1XD	0.1XD	0.5XD	N/A	200~350	250~450	.0002	.0004	.0006	.0010	.0015	.0020	.0024	.0026	.0030	.0035
M1	1XD	0.1XD	0.5XD	N/A	225~400	275~500	.0004	.0006	.0008	.0012	.0015	.0020	.0025	.0030	.0035	.0040
M2	1XD	0.1XD	0.5XD	N/A	N/A	200~450	.0002	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035
M3	1XD	0.1XD	0.5XD	N/A	N/A	175~400	.0002	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035
K1	1XD	0.1XD	0.5XD	300~450	N/A	425~725	.0005	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070
K2	1XD	0.1XD	0.5XD	200~300	N/A	400~600	.0005	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070

These guidelines may require variations to achieve optimum results.

HEC

				Reduce speed by 20% for slotting applications												
		Application		Vc			Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.									
		Side Milling		K600	KC610M	KC635M	D1- Diameter (Inch)									
Group	ap	ae	ap	SFM	SFM	SFM	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
P2	1XD	0.1XD	0.5XD	200~300	300~400	350~450	.0004	.0006	.001	.0015	.0020	.0025	.0030	.0035	.0040	.0045
P3	1XD	0.1XD	0.5XD	175~300	175~300	250~350	.0003	.0005	.0007	.0010	.0015	.0020	.0024	.0028	.0030	.0035
P4	1XD	0.1XD	0.5XD	N/A	N/A	175~325	.0002	.0004	.0005	.0010	.0011	.0015	.0020	.0025	.0027	.0030
P5	1XD	0.1XD	0.5XD	N/A	200~350	250~450	.0002	.0004	.0006	.0010	.0015	.0020	.0024	.0026	.0030	.0035
M1	1XD	0.1XD	0.5XD	N/A	225~400	275~500	.0004	.0006	.0008	.0012	.0015	.0020	.0025	.0030	.0035	.0040
M2	1XD	0.1XD	0.5XD	N/A	N/A	200~450	.0002	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035
M3	1XD	0.1XD	0.5XD	N/A	N/A	175~400	.0002	.0003	.0004	.0007	.0010	.0015	.0017	.0025	.0030	.0035
K1	1XD	0.1XD	0.5XD	300~450	N/A	425~725	.0005	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070
K2	1XD	0.1XD	0.5XD	200~300	N/A	400~600	.0005	.0007	.0015	.0020	.0025	.0030	.0040	.0050	.0060	.0070
S1	1XD	0.1XD	0.5XD	N/A	N/A	65~125	.0002	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027
S2	1XD	0.1XD	0.5XD	N/A	N/A	65~125	.0002	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027
S3	1XD	0.1XD	0.5XD	N/A	N/A	65~125	.0002	.0004	.0006	.0009	.0012	.0015	.0018	.002	.0024	.0027
S4	1XD	0.1XD	0.5XD	N/A	N/A	100~200	.0004	.0008	.0012	.0015	.0018	.0022	.0025	.0028	.0030	.0035

These guidelines may require variations to achieve optimum results.

HHEC

				Reduce speed by 20% for slotting applications												
		Application		Vc			Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.									
		Side Milling		KC635M			D1- Diameter (Inch)									
Group	ap	ae		SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"			
M1	1XD	0.1XD		275~500	.0005	.0007	.0010	.0015	.0020	.0025	.0030	.0035	.0040			
M2	1XD	0.1XD		200~450	.0005	.0007	.0010	.0015	.0020	.0025	.0030	.0035	.0040			
S1	1XD	0.1XD		100~175	.0003	.0004	.0005	.0006	.0007	.0010	.0015	.0022	.0025			
S2	1XD	0.1XD		100~175	.0003	.0004	.0005	.0006	.0007	.0010	.0015	.0022	.0025			
S3	1XD	0.1XD		65~95	.0003	.0004	.0005	.0006	.0007	.0010	.0015	.0022	.0025			
S4	1XD	0.1XD		150~200	.0003	.0004	.0006	.0009	.0010	.0015	.0018	.0022	.0025			

These guidelines may require variations to achieve optimum results.

SOLID CARBIDE

INSERTS

FACE MILLS

90° MILLS

SLOTTING

DIE AND MOLD

CERAMIC MILLS

CLASSIC MILLS

THREAD MILLS

TECHNICAL DATA

INDEX

HPHV

				Reduce speed by 20% for slotting applications									
	Application			Vc K633	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.								
	Side Milling		Slotting		D1- Diameter (Inch)								
Group	ap	ae	ap	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
P2	1XD	0.5XD	1XD	500-600	.0012	.0014	.0016	.0021	.0026	.0031	.0034	.0036	.0040
P3	1XD	0.5XD	1XD	400-500	.0012	.0014	.0016	.0021	.0026	.0031	.0034	.0036	.0040
P4	1XD	0.5XD	1XD	300-400	.0008	.0010	.0012	.0016	.0021	.0026	.0031	.0034	.0036
P5	1XD	0.5XD	1XD	225-275	.0012	.0014	.0016	.0021	.0026	.0031	.0034	.0036	.0040
M1	1XD	0.5XD	1XD	275-375	.0008	.0010	.0012	.0016	.0021	.0026	.0031	.0034	.0036
M2	1XD	0.5XD	1XD	200-275	.0004	.0008	.0012	.0014	.0016	.0020	.0022	.0026	.0031
M3	1XD	0.5XD	1XD	125-200	.0004	.0008	.0012	.0014	.0016	.0020	.0022	.0026	.0031
K1	1XD	0.5XD	1XD	425-525	.0014	.0015	.0017	.0022	.0028	.0034	.0036	.0039	.0050
S1	1XD	0.2XD	0.3XD	65-90	.0004	.0008	.0010	.0012	.0014	.0016	.0018	.0020	.0022
S2	1XD	0.2XD	0.3XD	65-90	.0004	.0008	.0010	.0012	.0014	.0016	.0018	.0020	.0022
S3	1XD	0.2XD	0.3XD	65-90	.0004	.0008	.0010	.0012	.0014	.0016	.0018	.0020	.0022
S4	1XD	0.3XD	0.5XD	135-175	.0008	.0010	.0014	.0016	.0020	.0022	.0026	.0029	.0034

These guidelines may require variations to achieve optimum results.

HPRSHV

				Reduce speed by 20% for slotting applications				
	Application			Vc K633	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.			
	Side Milling		Slotting		D1- Diameter (Inch)			
Group	ap	ae	ap	SFM	1/2"	5/8"	3/4"	1"
P2	1XD	0.3XD	0.35XD	400-500	.0025	.0028	.0030	.0033
P3	1XD	0.3XD	0.35XD	400-500	.0025	.0028	.0030	.0033
P4	1XD	0.3XD	0.35XD	300-400	.0022	.0026	.0028	.0030
P5	1XD	0.3XD	0.35XD	225-275	.0025	.0028	.0030	.0033
M1	1XD	0.3XD	0.35XD	240-300	.0022	.0027	.0030	.0033
M2	1XD	0.3XD	0.35XD	200-250	.0017	.0024	.0027	.0029
M3	1XD	0.3XD	0.35XD	185-225	.0017	.0024	.0027	.0029
K1	1XD	0.3XD	0.35XD	425-525	.0028	.0030	.0035	.0040
S1	1XD	0.2XD	0.25XD	75-125	.0014	.0016	.0018	.0020
S2	1XD	0.2XD	0.25XD	75-125	.0014	.0016	.0018	.0020
S3	1XD	0.2XD	0.25XD	65-90	.0014	.0016	.0018	.0020
S4	1XD	0.3XD	0.35XD	125-175	.0018	.0022	.0024	.0026

These guidelines may require variations to achieve optimum results.

HPHVT

				Reduce speed by 20% for slotting applications				
	Application			Vc KC643M	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.			
	Side Milling		Slotting		D1- Diameter (Inch)			
Group	ap	ae	ap	SFM	1/2"	5/8"	3/4"	1"
S1	1XD	0.2XD	0.5XD	85-125	.0016	.0020	.0023	.0024
S2	1XD	0.2XD	0.5XD	85-125	.0016	.0020	.0023	.0024
S3	1XD	0.2XD	0.3XD	85-125	.0016	.0020	.0023	.0024
S4	1XD	0.3XD	1XD	150-190	.0024	.0028	.0030	.0036

These guidelines may require variations to achieve optimum results.

HPFSS—3-flute

		<p>Reduce speed by 20% for slotting applications</p>											
<p>Application</p>			<p>Vc KC635M</p>	<p>Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.</p>									
<p>Side Milling</p>		<p>Slotting</p>		<p>D1- Diameter (Inch)</p>									
Group	ap	ae	ap	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
P2	1XD	0.4XD	0.5XD	400~500	.0008	.0014	.0016	.0021	.0026	.0030	.0035	.0040	.0045
P3	1XD	0.4XD	0.5XD	350~475	.0008	.0014	.0016	.0021	.0026	.0030	.0035	.0040	.0045
P4	1XD	0.4XD	0.5XD	200~300	.0006	.0011	.0012	.0016	.0021	.0024	.0026	.0028	.0030
P5	1XD	0.1XD	0.5XD	300~400	.0008	.0012	.0016	.0021	.0026	.0028	.0030	.0032	.0034
M1	1XD	0.4XD	0.5XD	300~475	.0007	.0008	.0012	.0016	.0020	.0025	.0030	.0035	.0040
M2	1XD	0.4XD	0.5XD	225~275	.0006	.0010	.0012	.0016	.0020	.0022	.0024	.0026	.0028
M3	1XD	0.4XD	0.5XD	200~250	.0005	.0010	.0012	.0016	.0020	.0022	.0024	.0026	.0028
K1	1XD	0.4XD	0.5XD	425~525	.0007	.0008	.0010	.0015	.0020	.0025	.0030	.0040	.0048
S1	1XD	0.2XD	0.3XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025
S2	1XD	0.2XD	0.3XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025
S3	1XD	0.2XD	0.3XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025
S4	1XD	0.3XD	0.3XD	100~150	.0006	.0008	.0012	.0014	.0016	.0018	.0020	.0022	.0025

These guidelines may require variations to achieve optimum results.

HPFSS—5-Flute

		<p>Reduce speed by 20% for slotting applications</p>											
<p>Application</p>			<p>Vc KC635M</p>	<p>Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.</p>									
<p>Side Milling</p>				<p>D1- Diameter (Inch)</p>									
Group	ap	ae	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
P2	1XD	0.4XD	400~500	.0008	.0014	.0016	.0021	.0026	.0030	.0035	.0040	.0045	
P3	1XD	0.4XD	350~475	.0008	.0014	.0016	.0021	.0026	.0030	.0035	.0040	.0045	
P4	1XD	0.4XD	200~300	.0006	.0011	.0012	.0016	.0021	.0024	.0026	.0028	.0030	
P5	1XD	0.1XD	300~400	.0008	.0012	.0016	.0021	.0026	.0028	.0030	.0032	.0034	
M1	1XD	0.4XD	300~475	.0007	.0008	.0012	.0016	.0020	.0025	.0030	.0035	.0040	
M2	1XD	0.4XD	225~275	.0006	.0010	.0012	.0016	.0020	.0022	.0024	.0026	.0028	
M3	1XD	0.4XD	200~250	.0005	.0010	.0012	.0016	.0020	.0022	.0024	.0026	.0028	
K1	1XD	0.4XD	425~525	.0007	.0008	.0010	.0015	.0020	.0025	.0030	.0040	.0048	
S1	1XD	0.2XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025	
S2	1XD	0.2XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025	
S3	1XD	0.2XD	50~85	.0004	.0006	.0010	.0012	.0014	.0016	.0018	.0020	.0025	
S4	1XD	0.3XD	100~150	.0006	.0008	.0012	.0014	.0016	.0018	.0020	.0022	.0025	

These guidelines may require variations to achieve optimum results.

SOLID CARBIDE

INSERTS

FACE MILLS

90° MILLS

SLOTTING

DIE AND MOLD

CERAMIC MILLS

CLASSIC MILLS

THREAD MILLS

TECHNICAL DATA

INDEX

HPFT—6-flute

		<p>Reduce speed by 20% for slotting applications</p>								
<p>Application</p>		<p>Vc KC635M</p>	<p>Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.</p>							
<p>Side Milling</p>			<p>D1- Diameter (Inch)</p>							
Group	ap	ae	SFM	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
P2	1XD	0.1XD	400-500	.0016	.0021	.0026	.0031	.0034	.0040	.0045
P3	1XD	0.1XD	350-450	.0016	.0021	.0026	.0031	.0034	.0040	.0045
P4	1XD	0.1XD	200-300	.0011	.0014	.0018	.0022	.0024	.0027	.0030
P5	1XD	0.1XD	300-400	.0016	.0021	.0026	.0031	.0034	.0040	.0045
M1	1XD	0.1XD	300-400	.0014	.0018	.0021	.0026	.0031	.0034	.0040
M2	1XD	0.1XD	225-275	.0011	.0014	.0018	.0022	.0024	.0027	.0030
M3	1XD	0.1XD	200-250	.0011	.0014	.0018	.0022	.0024	.0027	.0030
S1	1XD	0.1XD	50-85	.0010	.0012	.0015	.0018	.0022	.0024	.0027
S2	1XD	0.1XD	50-85	.0010	.0012	.0015	.0018	.0022	.0024	.0027
S3	1XD	0.1XD	50-85	.0010	.0012	.0015	.0018	.0022	.0024	.0027
S4	1XD	0.1XD	100-150	.0014	.0018	.0020	.0025	.0028	.0030	.0035
H1	1XD	0.1XD	150-275	.0012	.0014	.0018	.0020	.0022	.0025	.0028

These guidelines may require variations to achieve optimum results.

HPRSA

			Reduce speed by 20% for slotting applications							
Application			Vc KC625M		Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%. D1- Diameter (Inch)					
Side Milling		Slotting	SFM		1/4"	3/8"	1/2"	5/8"	3/4"	1"
Group	ap	ae	ap	SFM	1/4"	3/8"	1/2"	5/8"	3/4"	1"
N1	1XD	0.5XD	1XD	600~4000	.0020	.0040	.0060	.0070	.0080	.0090
N2	1XD	0.5XD	1XD	300~2000	.0020	.0030	.0040	.0050	.0060	.0070

These guidelines may require variations to achieve optimum results.

HPF45A

			Reduce speed by 20% for slotting applications											
Application			Vc K600	Vc KC651M	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%. D1- Diameter (Inch)									
Side Milling		Slotting	SFM	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
Group	ap	ae	ap	SFM	SFM	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
N1	1XD	0.5XD	1XD	600~4000	750~6000	.0014	.0016	.0020	.0025	.0040	.0050	.0060	.0070	.0080
N2	1XD	0.5XD	1XD	300~2000	N/A	.0014	.0016	.0020	.0025	.0040	.0050	.0060	.0070	.0080

These guidelines may require variations to achieve optimum results.

HPF37A

			Reduce speed by 20% for slotting applications									
Application			Vc K600	Vc KC651M	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%. D1- Diameter (Inch)							
Side Milling		Slotting	SFM	SFM	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
Group	ap	ae	ap	SFM	SFM	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
N1	1XD	0.5XD	1XD	600~4000	750~7000	.0020	.0025	.0035	.0055	.0065	.0070	.0080
N2	1XD	0.5XD	1XD	300~2000	N/A	.0020	.0025	.0035	.0055	.0065	.0070	.0080

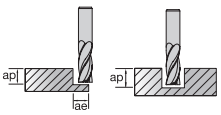

These guidelines may require variations to achieve optimum results.

SOLID CARBIDE

INSERTS

FACE MILLS

HEC and CRHEC with Diamond Coating

			Reduce speed by 20% for slotting applications										
	Application			Vc KDF300	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.								
	Side Milling				D1- Diameter (Inch)								
Group	ap	ae	SFM	1/64"	1/32"	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	
N1 - Aluminum alloys	1XD	0.1XD	300~900	.0004	.0006	.0007	.0008	.0009	.0014	.0016	.0018	.0025	
N1 - Graphite	1XD	0.1XD	100~3000	.0003	.0005	.0010	.0012	.0015	.0017	.0019	.0022	.0025	
N1 - Thermoset plastics	1XD	0.1XD	50~1300	.0003	.0005	.0010	.0012	.0015	.0017	.0021	.0023	.0030	
N1 - Fiber-filled plastics	1XD	0.1XD	150~750			.0010	.0012	.0015	.0017	.0021	.0023	.0030	

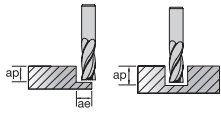

These guidelines may require variations to achieve optimum results.

90° MILLS

SLOTTING

DIE AND MOLD

HPFDM

			Reduce speed by 20% for slotting applications								
	Application			Vc KC633M	Recommended fz- Feed Per Tooth (Inch/th) for side cutting operations. For slotting operations, reduce fz by 20%.						
	Side Milling				D1- Diameter (Inch)						
Group	ap	ae	SFM	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"	
P4	1XD	0.4XD	475~550	.0014	.0020	.0024	.0030	.0040	.0046	.0060	
P6	1XD	0.4XD	475~550	.0014	.0020	.0024	.0030	.0040	.0046	.0060	
H1	1XD	0.4XD	475~550	.0014	.0020	.0024	.0030	.0040	.0046	.0060	
H2	1XD	0.3XD	250~400	.0008	.0012	.0016	.0018	.0024	.0030	.0035	
H3	1XD	0.2XD	150~175	.0006	.0008	.0010	.0015	.0018	.0022	.0025	
H4	1XD	0.1XD	95~125	.0006	.0008	.0010	.0015	.0018	.0022	.0025	

These guidelines may require variations to achieve optimum results.

CERAMIC MILLS

CLASSIC MILLS

THREAD MILLS

TECHNICAL DATA

INDEX