

# STEP 1 - SELECT INSERT GEOMETRY

## Negative Inserts **METRIC**

1/2" IC CNMG120408

	min feed	min DOC	max feed	max DOC
-FF	0.1	0.1	0.3	2.7
-FV	0.1	0.4	0.3	3.0
-FN	0.1	0.3	0.3	2.5
-MV	0.2	0.5	0.5	4.5
-MN	0.2	0.5	0.5	5.1
-MR	0.2	1.0	0.5	5.7
-RN	0.3	1.1	0.6	5.7
-RP	0.2	1.1	0.6	6.4

## Negative Inserts **INCH**

1/2" IC CNMG432

	min feed	min DOC	max feed	max DOC
-FF	0.004	0.004	0.012	0.105
-FV	0.004	0.016	0.012	0.118
-FN	0.004	0.012	0.012	0.098
-MV	0.006	0.020	0.020	0.177
-MN	0.008	0.020	0.020	0.201
-MR	0.006	0.039	0.021	0.225
-RN	0.012	0.043	0.025	0.224
-RP	0.008	0.043	0.024	0.252

## Positive Insert Geometry **METRIC**

Size 3 CCMT09T308/CCGT09T308

	min feed	min DOC	max feed	max DOC
-11	0.1	0.2	0.3	1.3
-UF	0.1	1.1	0.3	1.3
-HP	0.2	0.6	0.4	2.3
-LF	0.2	0.8	0.4	2.3
-FP	0.1	0.2	0.3	1.2
-MP	0.1	0.8	0.4	1.7
-MF	0.2	1.1	0.4	1.7
-RP	0.2	1.1	0.6	6.4

## Positive Insert Geometry **INCH**

Size 3 CCMT3252/CCGT3252

	min feed	min DOC	max feed	max DOC
-11	0.004	0.008	0.012	0.051
-UF	0.004	0.043	0.012	0.051
-HP	0.008	0.024	0.016	0.091
-LF	0.008	0.031	0.016	0.091
-FP	0.002	0.006	0.010	0.047
-MP	0.004	0.031	0.016	0.068
-MF	0.008	0.043	0.016	0.068

## STEP 2 - SELECT GRADE

Negative Insert Geometry									
Cutting Condition	-CT	-FF	-FV	-FN	-MV	-MN	-MR	-RP	-RN
heavily interrupted cut	-	KCP10B/ KCP10	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP40B	KCP30B/ KCP40B	KCP30B	KCP30B/ KCP40B	KCP30B/ KCP40B
lightly interrupted cut	-	KCP10B/ KCP10	KCP10B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B	KCP25C/ KCU25B
varying depth of cut, casting, or forging skin	KCP10B	KCP05B/ KCU10B/ KTP10/ KT315	KCP10B	KCP10B	KCP10B	KCP10B	KCP10B/ KCU10B	KCP10B/ KCU10B	KCP10B/ KCU10B
smooth cut, pre-turned surface	KCP05	KCP05B	KCP05B	KCP05B/ KCP05/ KCP10B	KCPK05	KCP05B/ KCP10B	KCP10B/ KCP10/ KCK15B	KCP05B/ KCPK05	KCP05B
smooth cut, high precision / tight tolerance	KCU10	KCU10B/ KTP10/ KT315	KTP10/ KT315	KCU10B/ KTP10/ KT315	-	-	KCU10B	KCU10B	KCU10B

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Positive insert Geometry						
Cutting Condition	-11	-UF	-LF	-FP	-MF	-MP
heavily interrupted cut	-	<b>KCP25C/</b> KCU25B/ KCU10B	<b>KCP25C/</b> KCU25B/ KCP30B/ KCP40B	<b>KCP25C/</b> KCU25B	<b>KCP25C/</b> KCU25B/ KCP30B	-
lightly interrupted cut	-	<b>KCP25C/</b> KCU25B/ KCU10B	<b>KCP25C/</b> KCU25B	<b>KCP25C/</b> KCU25B	<b>KCP25C/</b> KCU25B	<b>KCP25C/</b> KCU25B
varying depth of cut, casting, or forging skin	<b>KTP10/</b> KT315	KCP10B	KCU10B	<b>KCP10B/</b> KCU10B	KCP10B	<b>KCU10B/</b> KCP10
smooth cut, pre-turned surface	<b>KTP10/</b> KT315	KCP05B	KCP05B	<b>KCP05B/</b> KCP10B	KCP10B	-
smooth cut, high precision / tight tolerance	<b>KTP10/</b> KT315	-	KCU10B	<b>KCU10B/</b> KTP10/ KT315	-	KCU10B

NOTE: **Bold** is first choice when showing multiple grades.

## STEP 3 - SELECT CUTTING SPEED

Low-Carbon (<0,3% C) and Free-Machining Steel		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P0/P1	KTP10/KT315	180	475	590	1560
	KCU10B	165	395	540	1300
	KCU25B	135	360	443	1181
	KCP05B/KCP05/KCPK05	180	500	590	1640
	KCP10B/KCP10	180	440	590	1440
	KCP25C	150	430	490	1410
	KCP30B/KCP30/KCP40/KCP40B	115	235	380	770

Medium- and High-Carbon Steels (>0,3% C)		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P2	KTP10/KT315	190	395	620	1300
	KCU10B	155	250	510	820
	KCU25B	125	220	410	722
	KCP05B/KCP05/KCPK05	180	400	590	1310
	KCP10B/KCP10	180	350	590	1150
	KCP25C	150	385	490	1260
	KCP30B/KCP30/KCP40/KCP40B	115	240	380	790

Alloy Steels and Tool Steels; <330 HB; <35 HRC		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P3	KTP10/KT315	180	275	590	900
	KCU10B	150	250	490	820
	KCU25B	120	220	394	722
	KCP05B/KCP05/KCPK05	180	275	590	900
	KCP10B/KCP10	160	245	520	800
	KCP25C	150	275	490	900
	KCP30B/KCP30/KCP40/KCP40B	115	160	380	520

Alloy Steels and Tool Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P4	KTP10/KT315	90	215	300	710
	KCU10B	85	195	280	640
	KCU25B	35	95	115	312
	KCP05B/KCP05/KCPK05	90	215	300	710
	KCP10B/KCP10	90	195	300	640
	KCP25C	75	215	250	710
	KCP30B/KCP30/KCP40/KCP40B	50	135	160	440

Ferritic, Martensitic, and PH Stainless Steels; <330 HB; <35 HRC		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P5	KTP10/KT315	150	310	490	1020
	KCU10B	130	290	430	950
	KCU25B	60	145	197	476
	KCP05B/KCP05/KCPK05	150	270	490	890
	KCP10B/KCP10	150	300	490	980
	KCP25C	130	325	430	1070
	KCP30B/KCP30/KCP40/KCP40B	110	150	360	490

Ferritic, Martensitic, and PH Stainless Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
P6	KTP10/KT315	140	295	460	970
	KCU10B	115	250	380	820
	KCU25B	50	120	164	394
	KCP05B/KCP05/KCPK05	140	300	460	980
	KCP10B/KCP10	120	270	390	890
	KCP25C	115	265	380	870
	KCP30B/KCP30/KCP40/KCP40B	90	140	300	460

# STEP 1 - SELECT INSERT GEOMETRY

## Negative Inserts **METRIC**

1/2" IC CNMG120408

	min feed	min DOC	max feed	max DOC
-FF	0.1	0.1	0.3	2.7
-FP	0.1	0.3	0.3	2.5
-MP/-UP	0.2	0.8	0.6	6.4
-RP	0.2	1.1	0.6	6.4
-MR	0.2	1.0	0.5	5.7
-FS	0.1	0.2	0.3	2.0

## Negative Inserts **INCH**

1/2" IC CNMG432

	min feed	min DOC	max feed	max DOC
-FF	0.004	0.004	0.012	0.105
-FP	0.004	0.012	0.012	0.098
-MP/-UP	0.008	0.031	0.024	0.252
-RP	0.008	0.043	0.024	0.252
-MR	0.006	0.039	0.021	0.225
-FS	0.003	0.008	0.010	0.079

## Positive Insert Geometry **METRIC**

CCMT09T308/CCGT09T308

	min feed	min DOC	max feed	max DOC
-11	0.1	0.2	0.3	1.3
-UF	0.1	1.1	0.3	1.3
..GT-LF	0.2	0.8	0.4	2.3
-LF	0.2	0.8	0.4	1.7
-FP	0.1	0.2	0.3	1.2
-MP/-MF	0.1	0.8	0.4	1.7
R.GT-MS	0.1	0.8	0.4	3.2

## Positive Insert Geometry **INCH**

Size 3 CCMT3252/CCGT3252

	min feed	min DOC	max feed	max DOC
-11	0.004	0.008	0.012	0.051
-UF	0.004	0.043	0.012	0.051
..GT-LF	0.008	0.031	0.016	0.091
-LF	0.008	0.031	0.016	0.068
-FP	0.002	0.006	0.010	0.047
-MP/-MF	0.004	0.031	0.016	0.068
R.GT-MS	0.005	0.030	0.014	0.126

## STEP 2 - SELECT GRADE

Negative Insert Geometry						
Cutting Condition	-FF	-FP	-MP/-UP	-RP	-MR	-FS/MS
heavily interrupted cut	KCU10B	KCM15B/ KCM15	KCM35B/ KCM35	KCM35B/ KCM35	KCM35B/ KCM35	-
lightly interrupted cut	KCU10B	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM25B/ KCM25/ KCS10B	KCM25B/ KCM25/ KCU25B	KCM25B/ KCM25	KCS10B/ KCU25B
varying depth of cut, casting, or forging skin	KTP10/ KT315	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM15B/ KCM15/ KCS10B/ KCU10B	KCM15B/ KCM15/ KCM25B/ KCM25/ KCU25B	KCM15B/ KCM15/ KCU10B	KCS10B/ KCU25B
smooth cut, pre-turned surface	KCU10B/ KTP10/ KT315	KCM15B/ KCM15	KCM15B/ KCM15	KCU10B/ KCU25B	KCM15B/ KCM15	KCS10B/ KCU25B
smooth cut, high precision / tight tolerance	KCU10B/ KTP10/ KT315	KCU10B/ KCS10B/ KTP10/ KT315	KCS10B/ KCU10B	KCU10B/ KCU25B	KCU10B	KCS10B/ KCU25B

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## STEP 2 - SELECT GRADE (CONTINUED)

Positive Insert Geometry							
Cutting Condition	-11	-UF	..GT-LF	-LF	-FP	-MP/-MF	R.GT-MS
heavily interrupted cut	-	-	KCU25B	<b>KCM35B/</b> KCM35	<b>KCM25B/</b> KCU25B/ KCM25	<b>KCM25B/</b> KCM25/ KCU25B	KCU25B
lightly interrupted cut	-	KCU10B	KCU25B	<b>KCM25B/</b> KCM25/ KCS10B	<b>KCM15B/</b> KCM15/ KCU10B	<b>KCM25B/</b> KCM25/ KCU25B	KCU25B
varying depth of cut, casting, or forging skin	<b>KTP10/</b> KT315	-	<b>KCU10B/</b> KCU25B	<b>KCM15B/</b> KCU10B/ KCS10B	KCU10B	<b>KCM15B/</b> KCM15/ KCU10B	KCS10B
smooth cut, pre-turned surface	<b>KTP10/</b> KT315	KCU10B	KCU10B	<b>KCM15B/</b> KCM15	<b>KCU10B/</b> KT315/ KTP10	<b>KCM15B/</b> KCM15	KCS10B
smooth cut, high precision / tight tolerance	<b>KTP10/</b> KT315	KCU10B	KCU10B	<b>KCU10B/</b> KCS10B/ KTP10/ KT315	<b>KCU10B/</b> KT315/ KTP10	KCU10B	KCS10B

NOTE: **Bold** is first choice when showing multiple grades.



## STEP 3 - SELECT CUTTING SPEED

Austenitic Stainless Steel		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
M1	KTP10/KT315	145	300	480	980
	KCU10B	150	275	490	900
	KCU25B	100	265	328	869
	KCS10B	135	250	440	820
	KCM15B/KCM15	100	240	330	790
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

High Strength Austenitic Stainless and Cast Stainless Steels		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
M2	KTP10/KT315	140	290	460	950
	KCU10B	125	275	410	900
	KCU25B	90	250	295	820
	KCS10B	115	250	380	820
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	225	300	740
	KCM35B/KCM35	80	130	260	430

Duplex Stainless Steel (Ferritic and Austenitic Mixture)		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
M3	KTP10/KT315	140	290	460	950
	KCU10B	140	250	460	820
	KCU25B	90	220	295	722
	KCS10B	125	225	410	740
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

Looking for speeds and feeds? Visit [kenametalnovo.com](http://kenametalnovo.com) to get cutting data specific to your application!

# STEP 1 - SELECT INSERT GEOMETRY

## Negative Inserts **METRIC**

1/2" IC CNMG120408

	min feed	min DOC	max feed	max DOC
<b>-FN</b>	0.1	0.3	0.3	2.5
<b>-MR</b>	0.2	1.0	0.5	5.7
<b>-UN/-RP</b>	0.2	0.8	0.6	6.4
<b>..MA</b>	0.1	0.1	0.3	2.5

## Negative Inserts **INCH**

1/2" IC CNMG432

	min feed	min DOC	max feed	max DOC
<b>-FN</b>	0.004	0.012	0.012	0.098
<b>-MR</b>	0.006	0.039	0.021	0.225
<b>-UN/-RP</b>	0.008	0.031	0.024	0.252
<b>..MA</b>	0.003	0.004	0.010	0.098

## Positive Insert Geometry **METRIC**

CCMT09T308/CCGT09T308

	min feed	min DOC	max feed	max DOC
<b>-11/-UF</b>	0.1	0.2	0.3	1.3
<b>-LF</b>	0.2	0.8	0.4	1.7
<b>-FP</b>	0.1	0.2	0.3	1.2
<b>-MF</b>	0.2	1.1	0.4	1.7
<b>-MP</b>	0.1	0.8	0.4	1.7

## Positive Insert Geometry **INCH**

Size 3 CCMT3252/CCGT3252

	min feed	min DOC	max feed	max DOC
<b>-11/-UF</b>	0.004	0.008	0.012	0.051
<b>-LF</b>	0.008	0.031	0.016	0.068
<b>-FP</b>	0.002	0.006	0.010	0.047
<b>-MF</b>	0.008	0.043	0.016	0.068
<b>-MP</b>	0.004	0.031	0.016	0.068

## STEP 2 - SELECT GRADE

Negative Insert Geometry				
Cutting Condition	-FN	-MR	-UN/-RP	..MA
heavily interrupted cut	<b>KCK15B/</b> KCK15	<b>KCP10B/</b> KCP10/ KCP25C/	<b>KCK20B/</b> KCK20/ KCPK05/ KCU25B	<b>KCK20B/</b> KCK20/ KYK25/ KY3500/ KBK45/ KB1340
lightly interrupted cut	<b>KCK15B/</b> KCK15	<b>KCP10B/</b> KCP10/ KCP25C/ KCU25B	<b>KCK20B/</b> KCK20/ KCPK05/ KCU25B	<b>KCK20B/</b> KCK20/ KYK25/ KY3500/ KBK45/ KB1340
varying depth of cut, casting, or forging skin	<b>KCK05B/</b> KCK05/ KTP10/ KT315	<b>KCK15B/</b> KCK15	<b>KCK15B/</b> KCK15	<b>KCK15B/</b> KCK15/ KYK25/ KY3500/ KB5630/ KB1345
smooth cut, pre-turned surface	<b>KCK05B/</b> KCK05	<b>KCK15B/</b> KCK15	<b>KCK05B/</b> KCK05	<b>KCK05B/</b> KCK05/ KYK25/ KY3500/ KYHK15B/ KB5630/ KB1345
smooth cut, high precision / tight tolerance	<b>KTP10/</b> KT315	KCU10B		<b>KYHK15B/</b> KB5630/ KB1345

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Looking for speeds and feeds? Visit [kennametalnovo.com](http://kennametalnovo.com) to get cutting data specific to your application!



## STEP 2 - SELECT GRADE (CONTINUED)

Positive Insert Geometry						
Cutting Condition	-11	-LF	-FP	-MP	-MF	..GN & ..GW
heavily interrupted cut	-	<b>KCK20B/</b> KCK20/ KCU25B	<b>KCK20B/</b> KCK20/ KCU25B	<b>KCK20B/</b> KCK20	<b>KCK20B/</b> KCK20	<b>KY3500/</b> KB5630/ KB1345
lightly interrupted cut	KCU10B	<b>KCK20B/</b> KCK20/ KCU25B	<b>KCK20B/</b> KCK20/ KCU25B	<b>KCK20B/</b> KCK20	<b>KCK20B/</b> KCK20	<b>KY3500/</b> KB5630/ KB1345
varying depth of cut, casting, or forging skin	KCU10B	<b>KCK15B/</b> KCK15/ KCU25B	<b>KCK20B/</b> KCK20/ KCU25B	<b>KCK20B/</b> KCK20	<b>KCK15B/</b> KCK15	<b>KY3500/</b> KB5630/ KB1345
smooth cut, pre-turned surface	<b>KCU10B/</b> KTP10/ KT315	KCU10B	<b>KCK20B/</b> KCK20/	<b>KCK20B/</b> KCK20	<b>KCK15B/</b> KCK15	<b>KY3500/</b> KYHK15B/ KB5630/ KB1345
smooth cut, high precision / tight tolerance	<b>KCU10B/</b> KTP10/ KT315	KCU10B	-	KCU10B	-	<b>KYHK15B/</b> KB5630/ KB1345

NOTE: **Bold** is first choice when showing multiple grades.

NOTE: Machining Ductile Iron requires a sharper edge / chip breaker ("-MR", "-11")

## STEP 3 - SELECT CUTTING SPEED

Gray Cast Iron		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
K1	KTP10/KT315	150	440	490	1440
	KCU10B	150	440	490	1440
	KCU25B	135	400	443	1312
	KCK05B/KCK05	240	615	790	2020
	KCK15B/KCK15	200	550	660	1800
	KCK20B/KCK20	200	550	660	1800
	KYHK15B	450	950	1480	3120
	KY3500/KYK25/KYK10	350	1040	1150	3410
	KBK45/ KB1340	600	1200	1970	3940
KB5630/KB1345	550	1200	1800	3940	

Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI);  
<600 MPa Tensile Strength

Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI); <600 MPa Tensile Strength		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
K2	KTP10/KT315	150	440	490	1440
	KCU10B	125	410	410	1350
	KCU25B	115	375	377	1230
	KCK05B/KCK05	240	500	790	1640
	KCK15B/KCK15	150	450	490	1480
	KCK20B/KCK20/KCPK05	150	420	490	1380
	KYHK15B	360	760	1180	2490

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## STEP 3 - SELECT CUTTING SPEED (CONTINUED)

High-Strength Ductile and Austempered Ductile Iron (ADI) Malleable Cast Irons; >600 MPa Tensile Strength		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
K3	KTP10/KT315	150	440	490	1440
	KCU10B	110	375	360	1230
	KCU25B	115	375	377	1230
	KCK05B/KCK05	155	445	510	1460
	KCK15B/KCK15	140	380	460	1250
	KCK20B/KCK20/KCPK05	140	350	460	1150

# STEP 1 - SELECT INSERT GEOMETRY

## Negative Inserts **METRIC**

1/2" IC CNMG120408

	min feed	min DOC	max feed	max DOC
...GP	0.1	0.2	0.3	1.6
-P	0.2	0.8	0.5	5.0
-K	0.1	0.2	0.4	2.5
..MS	0.1	0.2	0.3	2.5
..MG	0.1	0.2	0.3	2.5
-FST	0.1	0.1	0.3	2.0
-E	0.1	0.1	0.3	0.4

## Negative Inserts **INCH**

1/2" IC CNMG432

	min feed	min DOC	max feed	max DOC
...GP	0.003	0.008	0.010	0.063
-P	0.006	0.030	0.020	0.197
-K	0.004	0.008	0.016	0.098
..MS	0.003	0.008	0.010	0.100
..MG	0.003	0.008	0.010	0.100
-FST	0.002	0.004	0.010	0.079
-E	0.002	0.002	0.010	0.014

## Positive Insert Geometry **METRIC**

CCMT09T308/CCGT09T308

	min feed	min DOC	max feed	max DOC
-LF	0.2	0.8	0.4	2.3
-HP	0.2	0.6	0.4	2.3
..MT	0.1	0.8	0.4	1.7
-FST	0.1	0.1	0.3	2.0
-ST	0.1	0.1	0.3	2.0

## Positive Insert Geometry **INCH**

Size 3 CCMT3252/CCGT3252

	min feed	min DOC	max feed	max DOC
-LF	0.008	0.031	0.016	0.091
-HP	0.008	0.024	0.016	0.091
..MT	0.004	0.031	0.016	0.068
-FST	0.002	0.004	0.010	0.079
-ST	0.002	0.004	0.012	0.079

## STEP 2 - SELECT GRADE

Negative Insert Geometry							
Cutting Condition	..GP	-P	-K	..MS	MG	-FST	-E
heavily interrupted cut	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	-	-
lightly interrupted cut	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405
varying depth of cut, casting, or forging skin	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405
smooth cut, pre-turned surface	KC5410/ KCU10B/ K313	K313	K313	KC5410/ KCU10B/ K313	K68	KD1400/ KD1425	KD1405

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Positive Insert Geometry					
Cutting Condition	-LF	-HP	..MT	-FST	-ST
heavily interrupted cut	<b>KCU10B/</b> KCU25B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KCU10B/</b> K313	<b>KD1400/</b> KD1425	<b>KD1400/</b> KD1425
lightly interrupted cut	<b>KC5410/</b> KCU10B/ KCU25B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KD1400/</b> KD1425	<b>KD1400/</b> KD1425
varying depth of cut, casting, or forging skin	<b>KC5410/</b> KCU10B/ KCU25B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KD1425/</b> KD1400	<b>KD1425/</b> KD1400
smooth cut, pre-turned surface	<b>KC5410/</b> KCU10B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KC5410/</b> KCU10B/ K313	<b>KD1425/</b> KD1400	<b>KD1425/</b> KD1400

NOTE: **Bold** is first choice when showing multiple grades.

## STEP 3 - SELECT CUTTING SPEED

Wrought Aluminum Alloys		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
N1	KC5410	200	1200	660	3940
	K313	198	617	650	2020
	KCU10B	200	900	660	2950
	KCU25B	200	900	660	2950

Low-Silicon Aluminum Alloys and Magnesium Alloys; Si12.2%		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
N2	KC5410	125	1000	410	3280
	K313	100	600	330	1970
	KCU10B	125	900	410	2950
	KCU25B	125	900	410	2950
	KD1400	250	2625	820	8610

High-Silicon Aluminum and Magnesium Alloys; Si>12.2%		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
N3	KD1405	250	1125	820	3690
	KD1425	250	1000	820	3280

Copper, Brass, Zinc-Based on a Machinability Index Range of 70-100		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
N4	KC5410	125	750	410	2460
	K68	125	360	410	1180
	K313	107	366	350	1200
	KCU10B	125	700	410	2300
	KD1400/KD1405	250	1000	820	3280
	KD1425	125	750	410	2460

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Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
N5	KC5410	125	400	410	1310
	KCU10B	100	350	330	1150
	KD1400/KD1405	125	750	410	2460
	KD1425	125	500	410	1640

# STEP 1 - SELECT INSERT GEOMETRY

## Negative Inserts **METRIC**

1/2" IC CNMG120408

	min feed	min DOC	max feed	max DOC
-FS	0.1	0.2	0.3	2.0
-FP	0.1	0.3	0.3	2.5
-P	0.2	0.8	0.5	5.0
-MS	0.1	0.8	0.4	5.0
-UP	0.2	1.0	0.6	6.4
-MP	0.2	0.8	0.5	5.1
-RP	0.2	1.1	0.6	6.4
CNGA	0.1	0.2	0.3	2.5

## Negative Inserts **INCH**

1/2" IC CNMG432

	min feed	min DOC	max feed	max DOC
-FS	0.003	0.008	0.010	0.079
-FP	0.004	0.012	0.012	0.098
-P	0.006	0.030	0.020	0.197
-MS	0.005	0.030	0.014	0.197
-UP	0.008	0.039	0.024	0.252
-MP	0.008	0.031	0.020	0.201
-RP	0.008	0.043	0.024	0.252
CNGA	0.004	0.008	0.010	0.100

## Positive Insert Geometry **METRIC**

CCMT09T308/CCGT09T308

	min feed	min DOC	max feed	max DOC
-FS	0.1	0.2	0.3	2.0
-HP	0.2	0.6	0.4	2.3
-LF	0.2	0.8	0.4	2.3
-FP	0.1	0.2	0.3	1.6
-MS	0.1	0.8	0.4	5.0
-MP	0.2	0.8	0.5	5.1

## Positive Insert Geometry **INCH**

Size 3 CCMT3252/CCGT3252

	min feed	min DOC	max feed	max DOC
-FS	0.003	0.008	0.010	0.079
-HP	0.008	0.024	0.016	0.091
-LF	0.008	0.031	0.016	0.091
-FP	0.002	0.006	0.010	0.063
-MS	0.005	0.030	0.014	0.197
-MP	0.008	0.031	0.020	0.201

## STEP 2 - SELECT GRADE

Negative Insert Geometry							
Cutting Condition	-FS	-FP	-MS	-UP	-MP	-RP	CNGA
heavily interrupted cut	KCU25B	-	KCU25B	KCM35B	KCU25B	KCM35B/ KCM25	-
lightly interrupted cut	KCU10B	KCU10B	KCU25B	KCM25B	KCU25B	KCM15B/ KCU25B	KYS30
varying depth of cut, casting, or forging skin	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KCM15B	KCS10B	KCS10B/ KCU10B/ KCU25B	KYS30/ KYS25/ KY4300/ KB1630
smooth cut, pre-turned surface	KCU10B/ K313	KCS10B/ KCU10B	KCS10B/ KCU10B	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	KYS25/ KY4300/ KB1630
smooth cut, high precision / tight tolerance	KCU10B/ K313	KCS10B/ KCU10B	KCS10B/ KCU10B	KCU10B	KCS10B/ KCU10B	KCS10B/ KCU10B	-

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## STEP 2 - SELECT GRADE (CONTINUED)

Cutting Condition	Positive Insert Geometry					-MP
	-FS	-HP	-LF	-FP	-MS	
heavily interrupted cut	-	-	-	KCU25B	-	-
lightly interrupted cut	KCU10B	KCU25B	KCU25B	<b>KCU25B/</b> KCU10B	KCU25B	-
varying depth of cut, casting, or forging skin	KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	KCS10B
smooth cut, pre-turned surface	<b>KCU10B/</b> K313	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	KCS10B
smooth cut, high precision / tight tolerance	KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	<b>KCS10B/</b> KCU10B	KCS10B	KCS10B

NOTE: **Bold** is first choice when showing multiple grades.

## STEP 3 - SELECT CUTTING SPEED

Iron-Based, Heat-Resistant Alloys; 160-260 HB; 25-48 HRC; 500-1200 Mpa Tensile Strength

material group	grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S1	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	65	33	213
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	80	195	260	640
	KYS30	80	195	260	640
	KB1630	80	210	260	690

Cobalt-Based, Heat-Resistant Alloys; 250-450 HB; 25-48 HRC; 1000-1450 Tensile Strength

material group	grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S2	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	85	33	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYHK15B	70	120	230	390
	KYS25/KY4300	85	215	280	710
	KYS30	85	215	280	710
KB1630	85	225	280	740	

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## STEP 3 - SELECT CUTTING SPEED (CONTINUED)

Nickel-Based, Heat-Resistant Alloys 160-450HB; <48 HRC; 600-1700 Tensile Strength		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
S3	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	15	85	49	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	100	250	330	820
	KYS30	100	250	330	820
KB1630	100	270	330	890	

Titanium and Titanium Alloys 300-400 HB; 33-48 HRC; 900-1600 Tensile Strength		m/min		SFM	
material group	grade	MIN	MAX	MIN	MAX
S4	K313	10	75	30	250
	KCU10B	15	185	50	610
	KCS10B	15	170	50	560
	KCU25B	10	115	33	377
	KD1405	150	350	490	1150



# STEP 1 - SELECT INSERT GEOMETRY

## Top Notch Profiling **METRIC**

Size 15 DCGR150408FP

	min feed	min DOC	max feed	max DOC
- FP	0.063	0.1	0.25	1.2
- R/L 08	0.080	0.2	0.25	1.6
- R/L 15	0.140	0.8	0.40	2.8
- R/L 20	0.200	1.0	0.50	3.0
- R/L 25	0.300	1.1	0.60	3.6

## Top Notch Profiling **INCH**

1/2" IC DPGR432FP

	min feed	min DOC	max feed	max DOC
- FP	0.002	0.004	0.010	0.047
- R/L 08	0.003	0.008	0.010	0.063
- R/L 15	0.006	0.031	0.016	0.110
- R/L 20	0.008	0.039	0.020	0.118
- R/L 25	0.012	0.043	0.024	0.142

## Fix Perfect **METRIC**

Size 15 C8FIX15

	min feed	min DOC	max feed	max DOC
D2FIX - HP	0.160	0.515	0.70	5.15
D4FIX - MN	0.160	0.515	0.63	5.15
C2FIX - MN	0.160	0.515	0.63	5.15
C8FIX - MP	0.160	0.515	0.63	5.15
C8FIX - RN	0.280	1.150	0.85	10.0
C8FIX - RP	0.280	0.630	0.85	8.2

## Fix Perfect **INCH**

Size 15 C8FIX15

	min feed	min DOC	max feed	max DOC
D2FIX - HP	0.006	0.020	0.028	0.203
D4FIX - MN	0.006	0.020	0.025	0.203
C2FIX - MN	0.006	0.020	0.025	0.203
C8FIX - MP	0.006	0.020	0.025	0.203
C8FIX - RN	0.011	0.045	0.033	0.394
C8FIX - RP	0.011	0.025	0.033	0.321

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ALL MATERIALS 

# STEP 1 - SELECT INSERT GEOMETRY (CONTINUED)

## K-Lock **METRIC**

Size 09 RCGK09

	min feed	min DOC	max feed	max DOC
<b>RCMK</b>	0.10	0.40	0.80	3.81
<b>RCGK - FS</b>	0.07	0.50	0.30	3.81
<b>RCGK - HP</b>	0.20	0.60	0.60	3.45
<b>RCMK - MP</b>	0.10	0.40	0.80	3.81

## K-Lock **INCH**

Size 3 RCGK3

	min feed	min DOC	max feed	max DOC
<b>RCMK</b>	0.004	0.016	0.031	0.150
<b>RCGK - FS</b>	0.003	0.020	0.012	0.150
<b>RCGK - HP</b>	0.008	0.024	0.024	0.136
<b>RCMK - MP</b>	0.004	0.016	0.031	0.150

# STEP 2 - SELECT GRADE

Top Notch Profiling					
Cutting Condition	- FP	- R/L 08	- R/L 15	- R/L 20	- R/L 25
heavily interrupted cut	KCU25B KCU25 KCP25C KCP25 KCM25	KCU25B KCU25 KCP25C	KCU25B KCU25 KCP25C KCP25B	KCU25B KCU25 KCP25C KCP25B	KCP25B KCU25
lightly interrupted cut	KCU25B KCU25 KCP25C KCP25 KCM25	KCU25B KCU25 KCP25C	KCU25B KCU25 KCP25C KCP25B	KCU25B KCU25 KCP25C KCP25B	KCP25B KCU25 KCU10B KCU10
varying depth of cut, casting, or forging skin	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B KT315	KCU10B KCU10 KC5410 KT315	KCU10B KCU10 KCU25	KCU10B KCU10 KCU25
smooth cut, pre-turned surface	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B K68 KT315	KCU10B KCU10 KC5410 K68 K313 KT315	KCU10B KCU10 K68	KCU10B KCU10 K68
smooth cut, high precision / tight tolerance	KCU10B KCS10B KCU10 KCP10 KCK05	KCU10B KCU10 KCM15B K68 KT315	KCU10B KCU10 KC5410 K68 K313 KT315	KCU10B KCU10 K68	KCU10B KCU10 K68

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**STEP 2 - SELECT GRADE** (CONTINUED)

Fix Perfect						
Cutting Condition	D2FIX - HP	D4FIX - MN	C2FIX - MN	C8FIX - MP	C8FIX - RN	C8FIX - RP
heavily interrupted cut	*	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25	KCP40 KCP25 KCU25B KCU25
lightly interrupted cut	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25
varying depth of cut, casting, or forging skin	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25	KCU25B KCU25 KCP25
smooth cut, pre-turned surface	KCU10B KCU10 KCU25 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B	KCU10B KCU10 KCP10 KCU25B
smooth cut, high precision / tight tolerance	KCU10B KCU10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10	KCU10B KCU10 KCP10

<b>K - Lock</b>				
<b>Cutting Condition</b>	<b>RCMK</b>	<b>RCGK - FS</b>	<b>RCGK - HP</b>	<b>RCMK - MP</b>
heavily interrupted cut	*	*	*	*
lightly interrupted cut	<b>KCU10B</b> KCU10 KCP25B K313	<b>KCS10B</b> KCU25B KCU10B KCU10	<b>KCU10B</b> KCU10 KC5410 K313	<b>KCS10</b>
varying depth of cut, casting, or forging skin	<b>KCU10B</b> KCU10 KCP25B K313	<b>KCS10B</b> KCU25B KCU10B KCU10	<b>KCU10B</b> KCU10 KC5410 K313	<b>KCS10</b>
smooth cut, pre-turned surface	<b>KCU10B</b> KCP25B KCU10 K313	<b>KCS10B</b> KCU10B KCU10	<b>KCU10B</b> KCU10 KC5410 K313	<b>KCS10</b>
smooth cut, high precision / tight tolerance	<b>KCU10B</b> KCU10 K313	<b>KCS10B</b> KCU10B KCU10	<b>KCU10B</b> KCU10 KC5410 K313	<b>KCS10</b>

NOTE: **Bold** is first choice when showing multiple grades.

## STEP 3 - SELECT CUTTING SPEED

Low-Carbon (<0,3% C) and Free-Machining Steel		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P0/P1	KTP10/KT315	180	475	590	1560
	KCU10B	165	395	540	1300
	KCU25B	135	360	443	1181
	KCP05B/KCP05/KCPK05	180	500	590	1640
	KCP10B/KCP10	180	440	590	1440
	KCP25C	150	430	490	1410
	KCP30B/KCP30/KCP40/KCP40B	115	235	380	770

Medium- and High-Carbon Steels (>0,3% C)		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P2	KTP10/KT315	190	395	620	1300
	KCU10B	155	250	510	820
	KCU25B	125	220	410	722
	KCP05B/KCP05/KCPK05	180	400	590	1310
	KCP10B/KCP10	180	350	590	1150
	KCP25C	150	385	490	1260
	KCP30B/KCP30/KCP40/KCP40B	115	240	380	790

Alloy Steels and Tool Steels; <330 HB; <35 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P3	KTP10/KT315	180	275	590	900
	KCU10B	150	250	490	820
	KCU25B	120	220	394	722
	KCP05B/KCP05/KCPK05	180	275	590	900
	KCP10B/KCP10	160	245	520	800
	KCP25C	150	275	490	900
	KCP30B/KCP30/KCP40/KCP40B	115	160	380	520

Alloy Steels and Tool Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P4	KTP10/KT315	90	215	300	710
	KCU10B	85	195	280	640
	KCU25B	35	95	115	312
	KCP05B/KCP05/KCPK05	90	215	300	710
	KCP10B/KCP10	90	195	300	640
	KCP25C	75	215	250	710
	KCP30B/KCP30/KCP40/KCP40B	50	135	160	440

Ferritic, Martensitic, and PH Stainless Steels; <330 HB; <35 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P5	KTP10/KT315	150	310	490	1020
	KCU10B	130	290	430	950
	KCU25B	60	145	197	476
	KCP05B/KCP05/KCPK05	150	270	490	890
	KCP10B/KCP10	150	300	490	980
	KCP25C	130	325	430	1070
	KCP30B/KCP30/KCP40/KCP40B	110	150	360	490

Ferritic, Martensitic, and PH Stainless Steels; 350–450 HB; 35–48 HRC		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
P6	KTP10/KT315	140	295	460	970
	KCU10B	115	250	380	820
	KCU25B	50	120	164	394
	KCP05B/KCP05/KCPK05	140	300	460	980
	KCP10B/KCP10	120	270	390	890
	KCP25C	115	265	380	870
	KCP30B/KCP30/KCP40/KCP40B	90	140	300	460

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# STAINLESS STEEL

Austenitic Stainless Steel		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M1	KTP10/KT315	145	300	480	980
	KCU10B	150	275	490	900
	KCU25B	100	265	328	869
	KCS10B	135	250	440	820
	KCM15B/KCM15	100	240	330	790
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440

High Strength Austenitic Stainless and Cast Stainless Steels		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M2	KTP10/KT315	140	290	460	950
	KCU10B	125	275	410	900
	KCU25B	90	250	295	820
	KCS10B	115	250	380	820
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	225	300	740
	KCM35B/KCM35	80	130	260	430

Duplex Stainless Steel (Ferritic and Austenitic Mixture)		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
M3	KTP10/KT315	140	290	460	950
	KCU10B	140	250	460	820
	KCU25B	90	220	295	722
	KCS10B	125	225	410	740
	KCM15B/KCM15	110	250	360	820
	KCM25B/KCM25	90	180	300	590
	KCM35B/KCM35	80	135	260	440



Gray Cast Iron		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K1	KTP10/KT315	150	440	490	1440
	KCU10B	150	440	490	1440
	KCU25B	135	400	443	1312
	KCK05B/KCK05	240	615	790	2020
	KCK15B/KCK15	200	550	660	1800
	KCK20B/KCK20	200	550	660	1800
	KYHK15B	450	950	1480	3120
	KY3500/KYK25/KYK10	350	1040	1150	3410
	KBK45/ KB1340	600	1200	1970	3940
KB5630/KB1345	550	1200	1800	3940	

Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI);  
<600 MPa Tensile Strength

Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI); <600 MPa Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K2	KTP10/KT315	150	440	490	1440
	KCU10B	125	410	410	1350
	KCU25B	115	375	377	1230
	KCK05B/KCK05	240	500	790	1640
	KCK15B/KCK15	150	450	490	1480
	KCK20B/KCK20/KCPK05	150	420	490	1380
	KYHK15B	360	760	1180	2490

High-Strength Ductile and Austempered Ductile Iron (ADI) Malleable Cast Irons; >600 MPa Tensile Strength		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
K3	KTP10/KT315	150	440	490	1440
	KCU10B	110	375	360	1230
	KCU25B	115	375	377	1230
	KCK05B/KCK05	155	445	510	1460
	KCK15B/KCK15	140	380	460	1250
	KCK20B/KCK20/KCPK05	140	350	460	1150

## Wrought Aluminum Alloys

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
N1	KC5410	200	1200	660	3940
	K313	198	617	650	2020
	KCU10B	200	900	660	2950
	KCU25B	200	900	660	2950

## Low-Silicon Aluminum Alloys and Magnesium Alloys; Si&lt;12.2%

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
N2	KC5410	125	1000	410	3280
	K313	100	600	330	1970
	KCU10B	125	900	410	2950
	KCU25B	125	900	410	2950
	KD1400	250	2625	820	8610

## High-Silicon Aluminum and Magnesium Alloys; Si&gt;12.2%

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
N3	KD1405	250	1125	820	3690
	KD1425	250	1000	820	3280

## Copper, Brass, Zinc-Based on a Machinability Index Range of 70-100

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
N4	KC5410	125	750	410	2460
	K68	125	360	410	1180
	K313	107	366	350	1200
	KCU10B	125	700	410	2300
	KD1400/KD1405	250	1000	820	3280
	KD1425	125	750	410	2460

Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass		m/min		SFM	
Material Group	Grade	MIN	MAX	MIN	MAX
N5	KC5410	125	400	410	1310
	KCU10B	100	350	330	1150
	KD1400/KD1405	125	750	410	2460
	KD1425	125	500	410	1640

## Iron-Based, Heat-Resistant Alloys; 160-260 HB; 25-48 HRC; 500-1200 Mpa Tensile Strength

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S1	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	65	33	213
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	80	195	260	640
	KYS30	80	195	260	640
KB1630	80	210	260	690	

## Cobalt-Based, Heat-Resistant Alloys; 250-450 HB; 25-48 HRC; 1000-1450 Tensile Strength

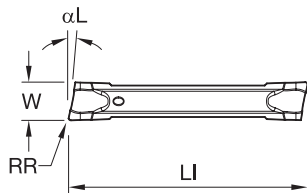
Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S2	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	10	85	33	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYHK15B	70	120	230	390
	KYS25/KY4300	85	215	280	710
	KYS30	85	215	280	710
KB1630	85	225	280	740	

## Nickel-Based, Heat-Resistant Alloys 160-450HB; &lt;48 HRC; 600-1700 Tensile Strength

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S3	K313	10	75	30	250
	KCU10B	15	155	50	510
	KCS10B	15	140	50	460
	KCU25B	15	85	49	279
	KCM15B/KCM15	30	120	100	390
	KCM25B/KCM25/KCM35B/KCM35	10	60	30	200
	KYS25/KY4300	100	250	330	820
	KYS30	100	250	330	820
KB1630	100	270	330	890	

## Titanium and Titanium Alloys 300-400 HB; 33-48 HRC; 900-1600 Tensile Strength

Material Group	Grade	m/min		SFM	
		MIN	MAX	MIN	MAX
S4	K313	10	75	30	250
	KCU10B	15	185	50	610
	KCS10B	15	170	50	560
	KCU25B	10	115	33	377
	KD1405	150	350	490	1150



# A4

Cut-Off Inserts • CF • Precision Molded • Left Hand **METRIC**

P	Blue	●
M	Yellow	●
K	Red	●
N	Green	○
S	Orange	●
H	Grey	●

- Primary
- Secondary

**KCU25B**

Catalog Number	Seat Size	W		RR		LI		αL	
		mm	in	mm	in	mm	in		
A4C0155L06CF01	1	1.50	0.059	0.15	0.006	15.50	0.610	6	●
A4C0205L06CF02	2	2.00	0.079	0.20	0.008	20.03	0.788	6	●
A4C0205L10CF02	2	1.99	0.078	0.20	0.008	20.03	0.788	10	●
A4C0305L06CF02	3	3.11	0.123	0.20	0.008	20.10	0.791	6	●
A4C0305L10CF02	3	3.11	0.122	0.20	0.008	20.10	0.791	10	●
A4C0405L06CF02	4	4.11	0.162	0.20	0.008	20.10	0.791	6	●
A4C0405L10CF02	4	4.10	0.161	0.20	0.008	20.10	0.791	10	●

# KCU25B APPLICATION DATA

Material Group	Grooving & Cut-Off • Application Data • Recommended Starting Speeds (m/min)																					
	K313		KCU10B		KCU25B		KCM35B		KCP10B		KCP25B		KCK20B		KCS10B		KY3500		KYS30		KB1630	
	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
P	0-1	-	-	145	350	135	360	90	213	185	450	145	365	200	490	-	-	-	-	-	-	-
	2	-	-	145	255	125	220	90	155	185	350	145	305	200	380	-	-	-	-	-	-	-
	3	-	-	145	255	120	220	90	155	170	260	140	245	600	280	-	-	-	-	-	-	-
	4	-	-	80	180	35	95	50	110	90	200	75	180	100	220	-	-	-	-	-	-	-
	5	-	-	125	275	60	145	80	165	150	305	120	270	165	330	-	-	-	-	-	-	-
	6	-	-	115	240	50	120	70	145	120	275	110	230	130	300	-	-	-	-	-	-	-
M	1	60	120	145	275	100	265	75	135	-	-	-	-	-	135	250	-	-	-	-	-	-
	2	45	110	125	255	90	250	75	135	-	-	-	-	-	115	250	-	-	-	-	-	-
	3	35	100	125	255	90	220	75	135	-	-	-	-	-	125	225	-	-	-	-	-	-
K	1	30	120	125	255	135	400	-	-	170	440	140	360	210	550	-	-	350	1040	-	-	-
	2	25	110	95	220	115	375	-	-	120	340	100	280	150	430	-	-	-	-	-	-	-
	3	20	90	65	160	100	340	-	-	120	270	100	220	150	335	-	-	-	-	-	-	-
N	1-2	150	610	160	1025	115	820	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	4	120	430	125	640	115	635	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	45	150	95	255	90	320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	40	150	125	320	90	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S	1	8	75	15	140	10	65	8	60	-	-	-	-	-	35	105	-	-	80	195	110	275
	2	8	75	15	140	10	85	8	60	-	-	-	-	-	40	110	-	-	85	215	120	235
	3	8	75	15	140	15	85	15	60	-	-	-	-	-	45	115	-	-	100	250	100	250
	4	8	75	15	180	10	115	15	90	-	-	-	-	-	45	130	-	-	-	-	-	-
H	1	-	-	30	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	45	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**NOTE:**

As the average chip thickness increases, the speed should be decreased.



# KCU25B APPLICATION DATA

Material Group		Grooving & Cut-Off • Application Data • Recommended Starting Speeds (SFM)																					
		K313		KCU10B		KCU25B		KCM35B		KCP10B		KCP25B		KCK20B		KCS10B		KY3500		KYS30		KB1630	
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX
P	0-1	-	-	480	1150	443	1181	290	700	600	1475	475	1200	660	1620	-	-	-	-	-	-	-	-
	2	-	-	480	840	410	722	290	510	600	1150	475	1000	660	1260	-	-	-	-	-	-	-	-
	3	-	-	480	840	394	722	290	510	550	850	450	800	600	920	-	-	-	-	-	-	-	-
	4	-	-	260	590	115	312	160	350	300	650	250	600	330	710	-	-	-	-	-	-	-	-
	5	-	-	410	900	197	476	260	540	500	1000	400	875	550	1100	-	-	-	-	-	-	-	-
	6	-	-	380	790	164	394	220	480	400	900	350	750	440	990	-	-	-	-	-	-	-	-
M	1	200	400	480	900	328	869	250	450	-	-	-	-	-	440	820	-	-	-	-	-	-	
	2	150	350	410	840	295	820	250	450	-	-	-	-	-	380	820	-	-	-	-	-	-	
	3	120	320	410	840	295	722	250	450	-	-	-	-	-	410	740	-	-	-	-	-	-	
K	1	100	400	410	840	443	1312	-	-	560	1440	455	1170	700	1800	-	-	1150	3410	-	-	-	
	2	75	350	310	720	377	1230	-	-	400	1120	325	910	500	1400	-	-	-	-	-	-	-	
	3	65	300	210	520	328	1115	-	-	400	880	325	715	500	1100	-	-	-	-	-	-	-	
N	1-2	500	2000	520	3360	377	2690	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	4	400	1400	410	2100	377	2083	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5	150	500	310	840	295	1050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	6	120	500	410	1050	295	1345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	1	25	250	50	460	33	213	25	200	-	-	-	-	-	110	340	-	-	260	640	360	900	
	2	25	250	50	460	33	279	25	200	-	-	-	-	-	130	360	-	-	280	710	390	770	
	3	25	250	50	460	49	279	50	200	-	-	-	-	-	150	380	-	-	330	820	330	820	
	4	25	250	50	590	33	377	50	300	-	-	-	-	-	150	430	-	-	-	-	-	-	
H	1	-	-	100	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	-	-	150	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

**NOTE:**

As the average chip thickness increases, the speed should be decreased.

# KCU25B APPLICATION DATA

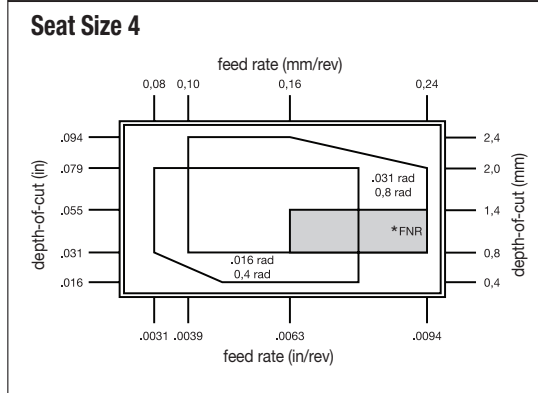
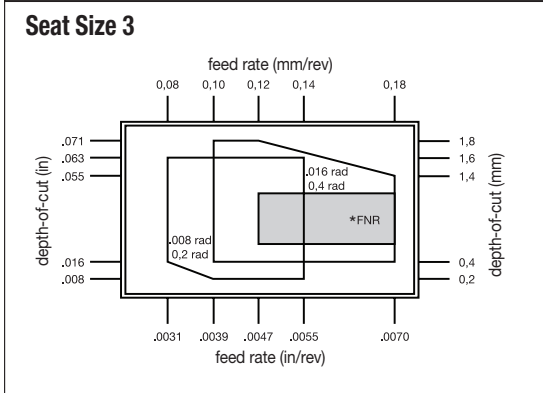
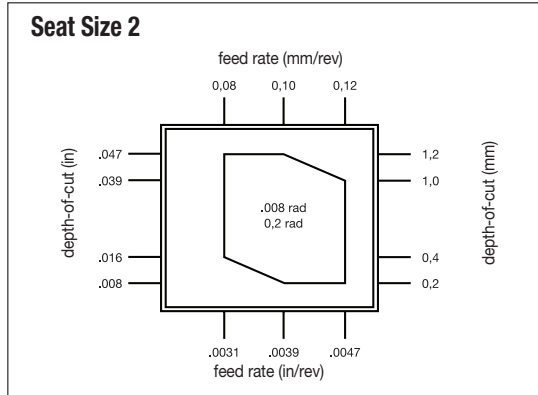
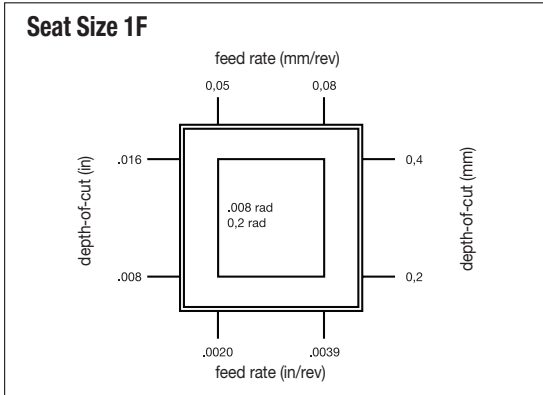
Grooving & Cut-Off • Application Data • Plunge Feed Rates							
Geometry	Seat Size	RR		fn (mm/rev)		fn (in/rev)	
		mm	in	MIN	MAX	MIN	MAX
GUP / GMP GMN / GUN	1F	0.20	0.008	0.05	0.08	0.002	0.003
		0.20	0.008	0.05	0.14	0.002	0.006
	3	0.20	0.008	0.05	0.16	0.002	0.006
		0.40	0.016	0.08	0.18	0.003	0.007
	4	0.40	0.016	0.08	0.22	0.003	0.009
		0.80	0.031	0.10	0.24	0.004	0.009
	5	0.40	0.016	0.10	0.23	0.004	0.009
		0.80	0.031	0.10	0.25	0.004	0.010
	6	0.40	0.016	0.10	0.22	0.004	0.009
		0.80	0.031	0.12	0.26	0.005	0.010
	8	1.20	0.047	0.14	0.30	0.006	0.012
		0.80	0.031	0.12	0.30	0.005	0.012
	10	1.20	0.047	0.14	0.32	0.006	0.013
		1.20	0.047	0.15	0.35	0.006	0.014
CL	1B	0.15	0.006	0.05	0.09	0.002	0.004
	2	0.20	0.008	0.05	0.11	0.002	0.004
	3	0.20	0.008	0.05	0.14	0.002	0.006
	4	0.20	0.008	0.05	0.18	0.002	0.007
CF	1B	0.00	0.000	0.04	0.08	0.002	0.003
		0.10	0.004	0.05	0.10	0.002	0.004
	2	0.00	0.000	0.04	0.08	0.002	0.003
		0.20	0.008	0.05	0.13	0.002	0.005
	3	0.00	0.000	0.04	0.12	0.002	0.005
		0.20	0.008	0.05	0.18	0.002	0.007
	4	0.00	0.000	0.04	0.12	0.002	0.005
		0.20	0.008	0.05	0.20	0.002	0.008
	5	0.00	0.000	0.04	0.14	0.002	0.006
		0.30	0.012	0.05	0.23	0.002	0.009

Continued On Next Page

Grooving & Cut-Off • Application Data • Plunge Feed Rates

Geometry	Seat Size	RR		fn (mm/rev)		fn (in/rev)	
		mm	in	MIN	MAX	MIN	MAX
CM	1B	0.15	0.006	0.05	0.09	0.002	0.004
	2	0.20	0.008	0.05	0.13	0.002	0.005
	3	0.20	0.008	0.05	0.18	0.002	0.007
	4	0.20	0.008	0.05	0.20	0.002	0.008
	5	0.30	0.012	0.05	0.20	0.002	0.008
	6	0.30	0.012	0.05	0.20	0.002	0.008
		0.40	0.016	0.05	0.25	0.002	0.010
	8	0.40	0.016	0.05	0.30	0.002	0.012
CR	2	0.20	0.008	0.08	0.13	0.003	0.005
	3	0.20	0.008	0.08	0.23	0.003	0.009
	4	0.20	0.008	0.08	0.30	0.003	0.012
	5	0.30	0.012	0.10	0.35	0.004	0.014
	6	0.30	0.012	0.10	0.40	0.004	0.016
		0.40	0.016	0.10	0.40	0.004	0.016
	8	0.40	0.016	0.10	0.43	0.004	0.017

# GROOVING & CUT-OFF APPLICATION DATA - TURN AND PROFILE FEED RATES



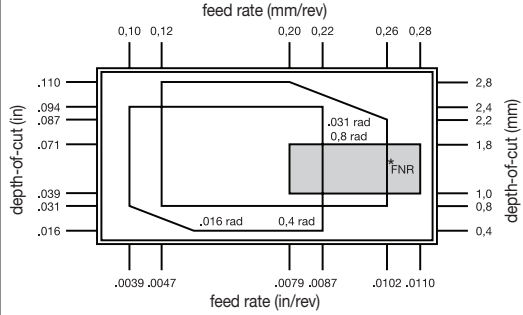
\*FNR= Full Nose Radius

Continued On Next Page

Looking for speeds and feeds? Visit [kenametalnovo.com](http://kenametalnovo.com) to get cutting data specific to your application!

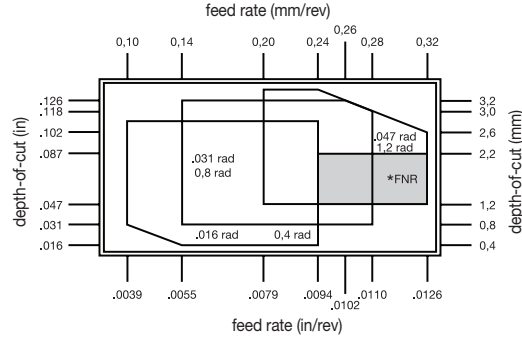


### Seat Size 5

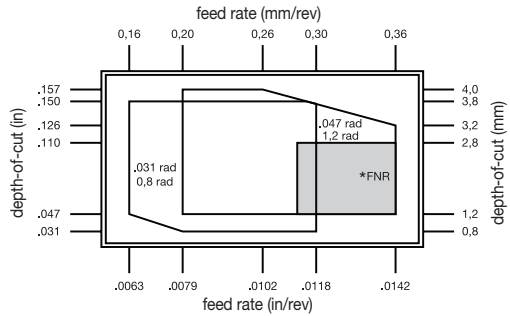


\* FNR = Full Nose Radius

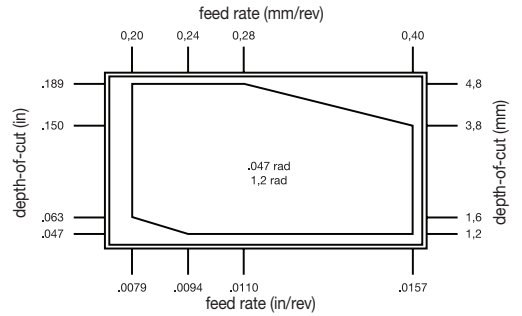
### Seat Size 6



### Seat Size 8



### Seat Size 10



\*FNR= Full Nose Radius