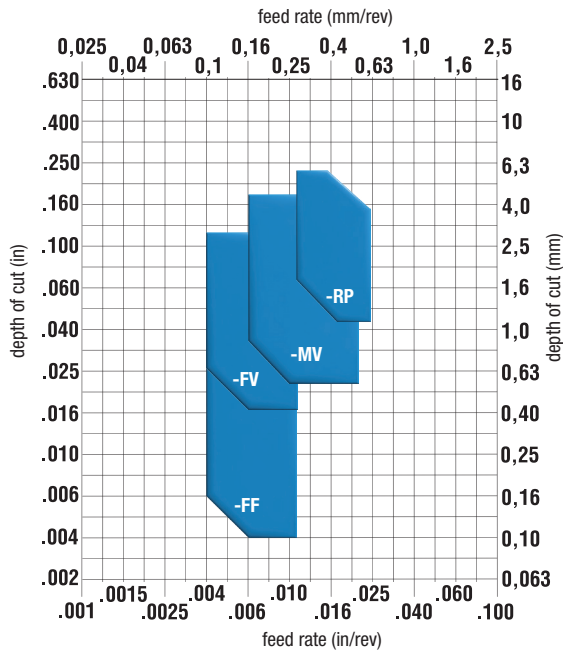


TOOL SELECTION GUIDE - STEELS

Step 1 - Select the insert geometry

Negative Inserts

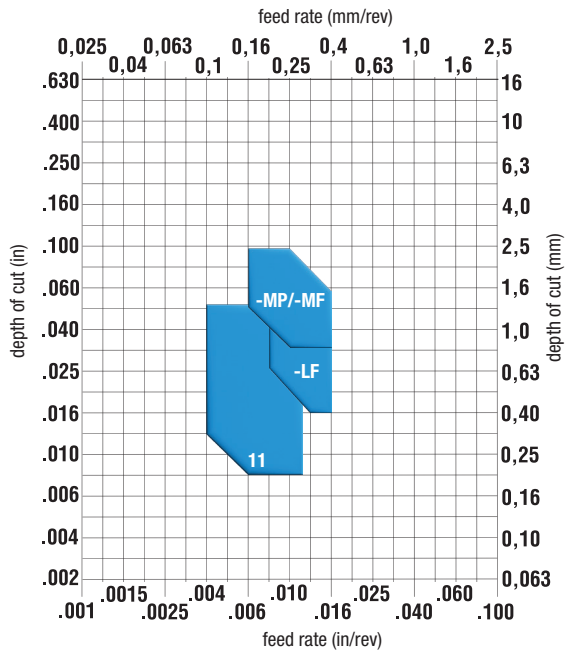
1/2" IC CNMG432



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FF	0,1	0.004	0,1	0.004	0,3	0.012	2,67	0.106
-FV	0,1	0.004	0,4	0.016	0,3	0.012	3	0.118
-FN	0,1	0.004	0,3	0.012	0,3	0.012	2,5	0.098
-MV	0,15	0.006	0,5	0.02	0,5	0.02	4,5	0.177
-MN	0,2	0.008	0,5	0.02	0,5	0.02	5,1	0.201
-MR	0,15	0.006	1	0.039	0,54	0.022	5,72	0.224
-RP	0,2	0.008	1,1	0.043	0,6	0.024	6,4	0.252
-RN	0,3	0.012	1,1	0.043	0,63	0.024	5,7	0.224

Positive Inserts

Size 3 CCMT3252/CCGT3252



Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-11	0,1	0.004	0,2	0.008	0,3	0.012	1,3	0.051
-UF	0,1	0.004	0,2	0.008	0,3	0.012	1,3	0.051
-HP	0,1	0.004	0,6	0.024	0,4	0.016	2,3	0.091
-LF	0,2	0.008	0,4	0.016	0,4	0.016	2,3	0.091
-FP	0,1	0.004	0,6	0.024	0,25	0.01	2	0.079
-MP / -MF	0,15	0.006	0,8	0.031	0,4	0.016	2,5	0.098

Step 2 - Select the grade

Negative Insert Geometry									
Cutting Condition	-CT	-FF	-FV	-FN	-MV	-MN	-MR	-RP	-RN
heavily interrupted cut	-	KCP10B/ KCP10	KCP25C	KCP25C	KCP40B	KCP30B/ KCP40B	KCP30B	KCP30B/ KCP40B	KCP30B/ KCP40B
lightly interrupted cut	-	KCP10B/ KCP10	KCP10B	KCP25C	KCP25C	KCP25C	KCP25C	KCP25C	KCP25C
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

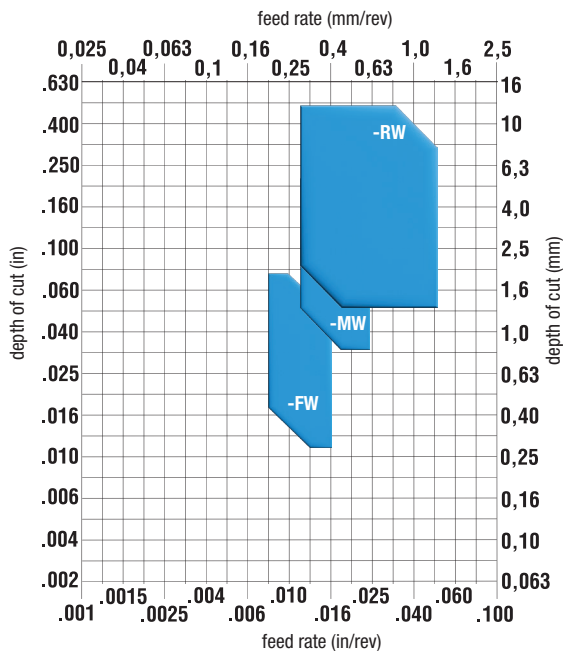
Positive Insert Geometry						
Cutting Condition	-11	-UF	-LF	-FP	-MF	-MP
heavily interrupted cut	-	KCP25C/ KCU10B	KCP25C/ KCP30B/ KCP40B	KCP25C	KCP25C/KCP30B	-
lightly interrupted cut	-	KCP25C/ KCU10B	KCP25C	KCP25C	KCP25C	KCP25C
varying depth of cut, casting, or forging skin	KTP10/ KT315	KCP10B	KCU10B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

NOTE: Bold is first choice when showing multiple grades.

Step 1 - Select the insert geometry

Negative Wiper Inserts

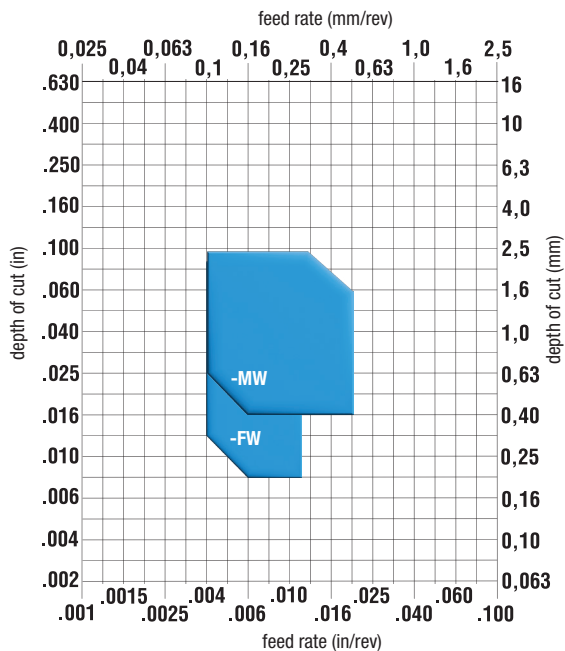
1/2" IC CNMG432



Negative Wiper Insert								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,2	0.008	0,3	0.012	0,4	0.016	2	0.079
-MW	0,3	0.012	0,8	0.031	0,6	0.024	5,1	0.201
..MM-RW	0,3	0.012	1,3	0.051	1,3	0.051	12,7	0.5

Positive Wiper Inserts

Size 3 CCMT3252/CCGT3252



Positive Wiper Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,1	0.004	0,2	0.008	0,3	0.012	2,3	0.091
-MW	0,1	0.004	0,4	0.016	0,5	0.02	2,5	0.098

Step 2 - Select the grade

WIPER	Negative Insert Geometry		
Cutting Condition	-FW	-MW	-RW
heavily interrupted cut	-	KCP25C	KCP25C
lightly interrupted cut	KCP10B/ KCP10	KCP25C	KCP25C
varying depth of cut, casting, or forging skin	KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10	KCP25C
smooth cut, pre-turned surface	KCP05B/ KCP05	KCP05B/ KCP05	-
smooth cut, high precision / tight tolerance	KCU10B/ KTP10/ KT315	-	-

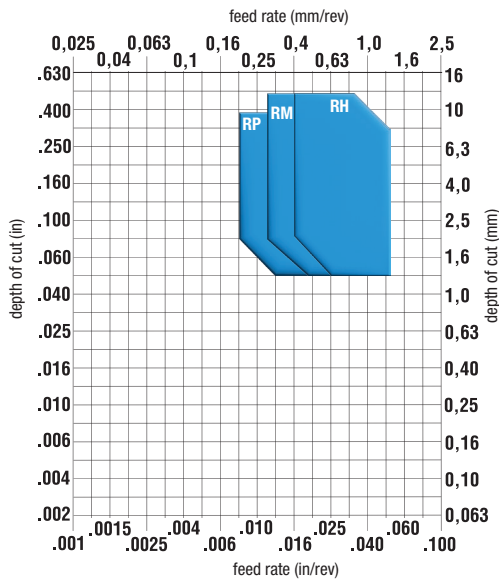
NOTE: **Bold** is first choice when showing multiple grades.

WIPER	Positive Insert Geometry	
Cutting Condition	-FW	-MW
heavily interrupted cut	KCP25C	KCP25C
lightly interrupted cut	KCP25C	KCP25C
varying depth of cut, casting, or forging skin	KCP25C/ KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10
smooth cut, pre-turned surface	KCP10B/ KCP10	KCP10B/ KCP10
smooth cut, high precision / tight tolerance	KCU10B/ KTP10/ KT315	KCU10B/ KTP10/ KT315

Step 1 - Select the insert geometry

Negative Heavy Duty Inserts

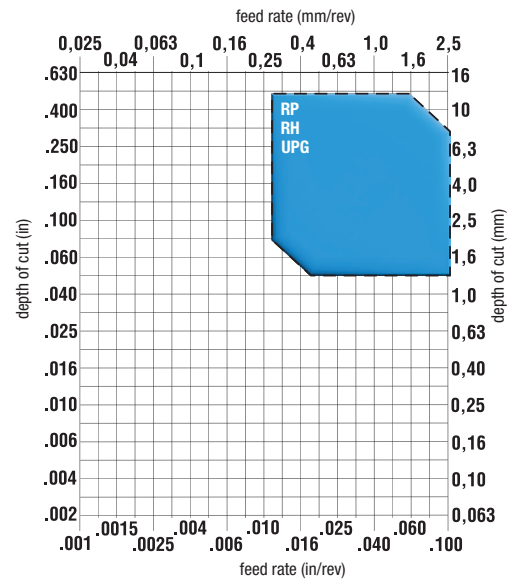
3/4" IC CNMM644



Negative Heavy Duty Inserts								
3/4" IC CNMM644								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-RP	0,2	0.008	1,28	0.05	1,3	0.051	10	0.394
-RM	0,3	0.012	1,28	0.05	1,3	0.051	12,7	0.5
-RH	0,4	0.016	1,28	0.05	1,3	0.051	12,7	0.5

Positive Heavy Duty Inserts

RCMX32



Positive Heavy Duty Inserts								
RCMX32								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-UPG	0,3	0.012	1,3	0.051	2,56	0.102	12,8	0.504
-RP	0,3	0.012	1,3	0.051	2,56	0.102	12,8	0.504
-RH	0,3	0.012	1,3	0.051	2,56	0.102	12,8	0.504

Step 2 - Select the grade

Heavy Duty	Negative Insert Geometry		
Cutting Condition	-RP	-RM	-RH
heavily interrupted cut	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40
lightly interrupted cut	KCP25C/ KCP30B/ KCP30	KCP25C/ KCP30B/ KCP30	KCP25C/ KCP30B/ KCP30
varying depth of cut, casting, or forging skin	KCP25C/ KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10
smooth cut, pre-turned surface	KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10

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

Heavy Duty	Positive Insert Geometry		
Cutting Condition	-UPG	-RP	-RH
heavily interrupted cut	KCP30B/ KCP30/ KCP40B/ KCP40	KCP30B/ KCP30/ KCP40B/ KCP40	-
lightly interrupted cut	KCP25C/ KCP30B/ KCP30	KCP25C/ KCP30B/ KCP30	KCP25C/ KCP30B/ KCP30
varying depth of cut, casting, or forging skin	KCP25C/ KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10	KCP25C/ KCP10B/ KCP10
smooth cut, pre-turned surface	KCPK05/ KCP10B/ KCP10	KCP10B/ KCP10	KCP10B/ KCP10

Step 3 - Select the cutting speed

Low-Carbon (<0,3% C) and Free-Machining Steel

material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P0/P1	KTP10/KT315	180	440	475	590	1440	1560
	KCU10B	165	310	395	540	1020	1300
	KCP05B/KCP05/KCPK05	180	435	500	590	1430	1640
	KCP10B/KCP10	180	395	440	590	1300	1440
	KCP25C	150	330	430	490	1080	1410
	KCP30B/KCP30/KCP40/KCP40B	115	210	235	380	690	770

Medium- and High-Carbon Steels (>0,3% C)

material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P2	KTP10/KT315	190	270	395	620	890	1300
	KCU10B	155	220	250	510	720	820
	KCP05B/KCP05/KCPK05	180	240	400	590	790	1310
	KCP10B/KCP10	180	265	350	590	870	1150
	KCP25C	150	235	385	490	770	1260
	KCP30B/KCP30/KCP40/KCP40B	115	150	240	380	490	790

Alloy Steels and Tool Steels; <330 HB; <35 HRC

material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P3	KTP10/KT315	180	210	275	590	690	900
	KCU10B	150	170	250	490	560	820
	KCP05B/KCP05/KCPK05	180	205	275	590	670	900
	KCP10B/KCP10	160	190	245	520	620	800
	KCP25C	150	185	275	490	610	900
	KCP30B/KCP30/KCP40/KCP40B	115	120	160	380	390	520

Alloy Steels and Tool Steels; 350–450 HB; 35–48 HRC

material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P4	KTP10/KT315	90	210	215	300	690	710
	KCU10B	85	120	195	280	390	640
	KCP05B/KCP05/KCPK05	90	155	215	300	510	710
	KCP10B/KCP10	90	145	195	300	480	640
	KCP25C	75	125	215	250	410	710
	KCP30B/KCP30/KCP40/KCP40B	50	95	135	160	310	440

Ferritic, Martensitic, and PH Stainless Steels; <330 HB; <35 HRC

material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P5	KTP10/KT315	150	250	310	490	820	1020
	KCU10B	130	220	290	430	720	950
	KCP05B/KCP05/KCPK05	150	230	270	490	750	890
	KCP10B/KCP10	150	215	300	490	710	980
	KCP25C	130	235	325	430	770	1070
	KCP30B/KCP30/KCP40/KCP40B	110	135	150	360	440	490

Ferritic, Martensitic, and PH Stainless Steels; 350–450 HB; 35–48 HRC

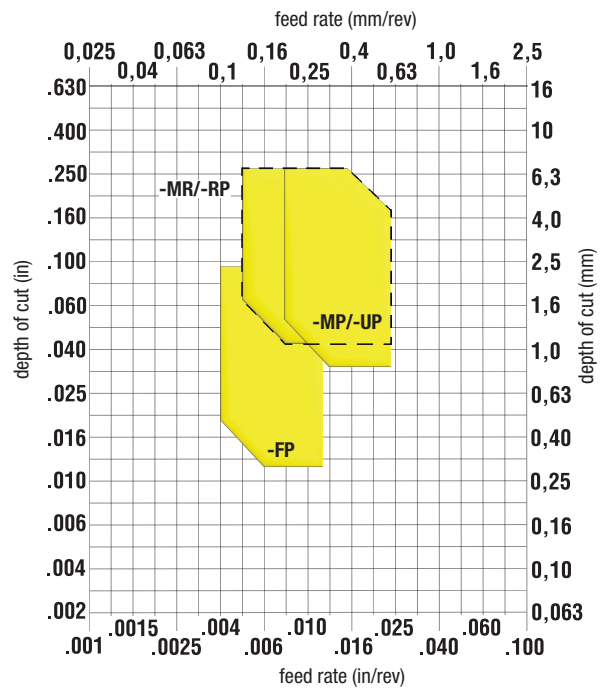
material group	grade	m/min			SFM		
		MIN	START	MAX	MIN	START	MAX
P6	KTP10/KT315	140	200	295	460	660	970
	KCU10B	115	165	250	380	540	820
	KCP05B/KCP05/KCPK05	140	200	300	460	660	980
	KCP10B/KCP10	120	180	270	390	590	890
	KCP25C	115	180	265	380	590	870
	KCP30B/KCP30/KCP40/KCP40B	90	105	140	300	340	460

TOOL SELECTION GUIDE - STAINLESS STEELS

Step 1 - Select the insert geometry

Negative Inserts

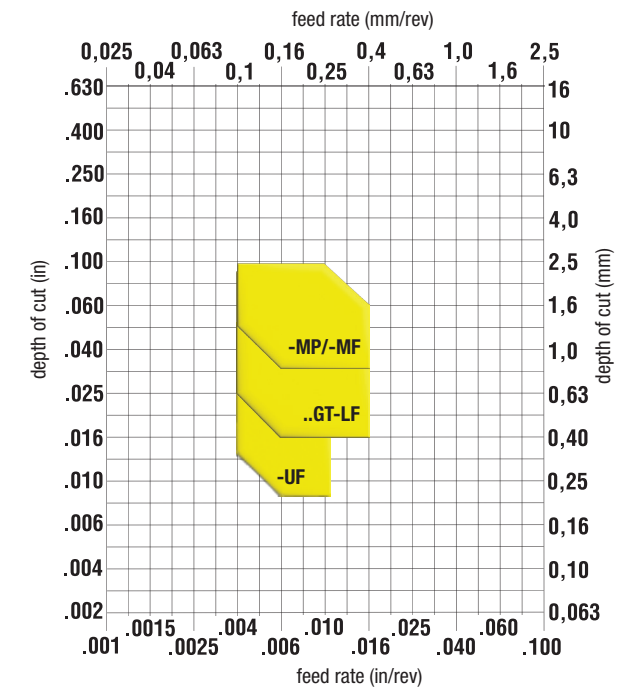
1/2" IC CNMG432



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FF	0,1	0.004	0,1	0.004	0,3	0.012	2,7	0.106
-FP	0,1	0.004	0,3	0.012	0,3	0.012	2,5	0.098
-MP/-UP	0,2	0.008	0,8	0.031	0,6	0.024	6,4	0.252
-MR/-RP	0,15	0.006	1,1	0.043	0,6	0.024	6,4	0.252
-FS	0,07	0.003	0,2	0.008	0,25	0.01	2	0.079

Positive Inserts

Size 3 CCMT3252/CCGT3252



Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-11	0,1	0.004	0,2	0.008	0,3	0.012	1,3	0.051
-UF	0,1	0.004	0,2	0.008	0,3	0.012	1,3	0.051
..GT-LF	0,1	0.004	0,4	0.016	0,4	0.016	2,3	0.091
-LF	0,2	0.008	0,6	0.024	0,4	0.016	2,3	0.091
-FP	0,1	0.004	0,6	0.024	0,25	0.01	2	0.079
-MP/-MF	0,1	0.004	0,8	0.031	0,4	0.016	2,5	0.098
R.GT-MS	0,12	0.005	0,76	0.03	0,35	0.014	3,2	0.126

Step 2 - Select the grade

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

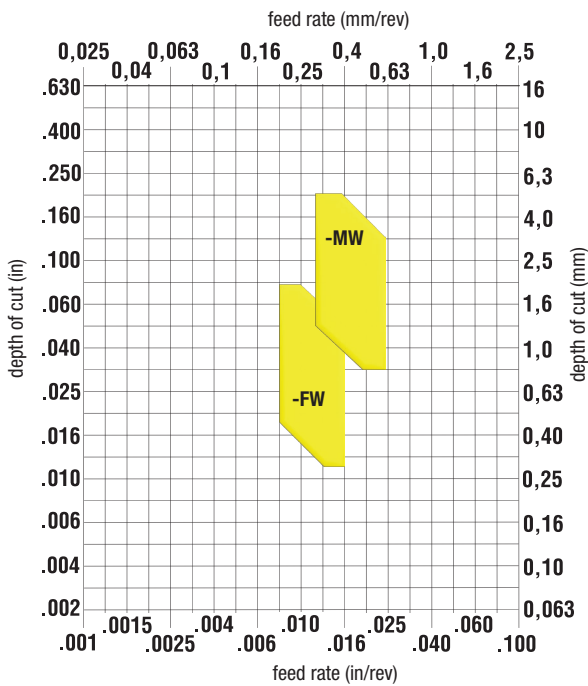
Positive Insert Geometry							
Cutting Condition	-11	-UF	..GT-LF	-LF	-FP	-MP/-MF	R.GT-MS
heavily interrupted cut	-	KCU25	KCU25	KCM35B/ KCM35	KCM25B/KCU25/ KCM25	KCM25B/ KCM25	-
lightly interrupted cut	-	KCU10B	KCU25	KCM25B/KCM25/ KCS10B	KCM15B/KCM15/ KCU10B	KCM25B/ KCM25	-
varying depth of cut, casting, or forging skin	KTP10/ KT315	-	KCU10B	KCM15B/KCU10B/ KCS10B	KCU10B	KCM15B/KCM15/ KCU10B	KCS10B
smooth cut, pre-turned surface	KTP10/ KT315	KCU10B	KCU10B	KCM15B/ KCM15	KCU10B/ KT315/ KTP10	KCM15B/ KCM15	KCS10B
smooth cut, high precision / tight tolerance	KTP10/ KT315	KCU10B	KCU10B	KCU10B/KCS10B/ KTP10/KT315	KCU10B/KT315/ KTP10	KCU10B	KCS10B

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

Step 1 - Select the insert geometry

Negative Wiper Inserts

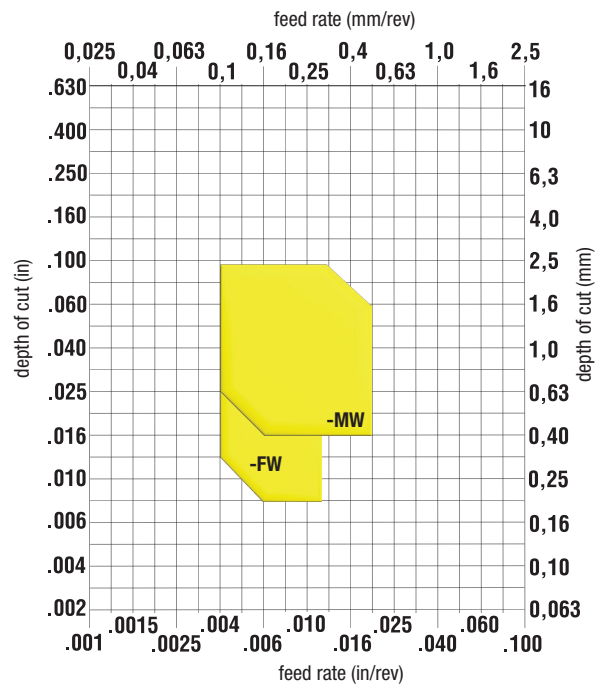
1/2" IC CNMG432



Negative Wiper Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,2	0.008	0,3	0.012	0,4	0.016	2	0.079
-MW	0,3	0.012	0,8	0.031	0,6	0.024	5,1	0.201

Positive Wiper Inserts

Size 3 CCMT3252/CCGT3252



Positive Wiper Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,1	0.004	0,2	0.008	0,3	0.012	2,3	0.091
-MW	0,1	0.004	0,4	0.016	0,5	0.02	2,5	0.098

Step 2 - Select the grade

WIPER	Negative Insert Geometry	
Cutting Condition	-FW	-MW
heavily interrupted cut	KCP25C	KCP25C
lightly interrupted cut	KCP25C	KCP25C
varying depth of cut, casting, or forging skin	KCM15B/KCM15/KCP25C	KCM15B/KCM15/KCP25C
smooth cut, pre-turned surface	KCU10B/KTP10/KT315	KCM15B/KCM15/KCP05B
smooth cut, high precision / tight tolerance	KCU10B/KTP10/KT315	KCU10B

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

WIPER	Positive Insert Geometry	
Cutting Condition	-FW	-MW
heavily interrupted cut	KCP25C	KCP25C
lightly interrupted cut	KCP25C	KCP25C
varying depth of cut, casting, or forging skin	KCM15B/KCM15/KCP25C	KCM15B/KCM15/KCP25C
smooth cut, pre-turned surface	KCM15B/KCM15	KCM15B/KCM15
smooth cut, high precision / tight tolerance	KCU10B/KTP10/KT315	KCU10B/KTP10/KT315

Step 3 - Select the cutting speed

Austenitic Stainless Steel		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
M1	KTP10/KT315	145	230	300	480	750	980
	KCU10B	150	235	275	490	770	900
	KCU25	100	180	240	330	590	790
	KCS10B	135	215	250	440	710	820
	KCM15B/KCM15	100	180	240	330	590	790
	KCM25B/KCM25	90	150	180	300	490	590
	KCM35B/KCM35	80	120	135	260	390	440

High Strength Austenitic Stainless and Cast Stainless Steels		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
M2	KTP10/KT315	140	215	290	460	710	950
	KCU10B	125	220	275	410	720	900
	KCU25	90	165	225	300	540	740
	KCS10B	115	200	250	380	660	820
	KCM15B/KCM15	110	165	250	360	540	820
	KCM25B/KCM25	90	140	225	300	460	740
	KCM35B/KCM35	80	105	130	260	340	430

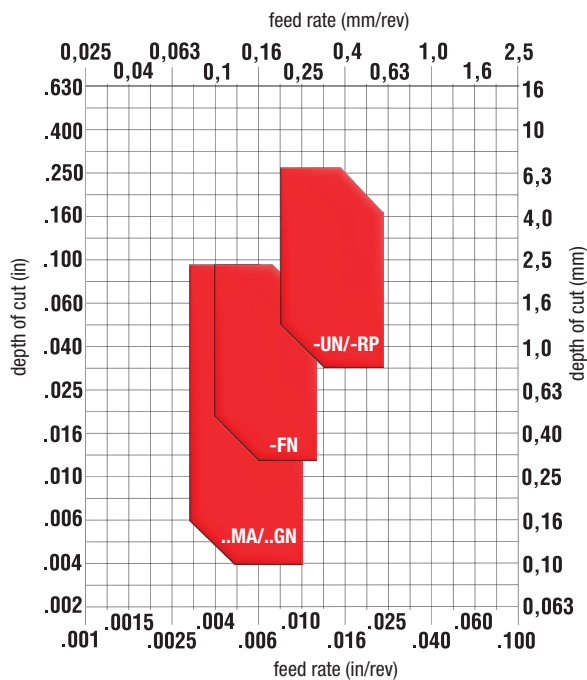
Duplex Stainless Steel (Ferritic and Austenitic Mixture)		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
M3	KTP10/KT315	140	200	290	460	660	950
	KCU10B	140	205	250	460	670	820
	KCU25	90	150	200	300	490	660
	KCS10B	125	185	225	410	610	740
	KCM15B/KCM15	110	150	250	360	490	820
	KCM25B/KCM25	90	120	180	300	390	590
	KCM35B/KCM35	80	90	135	260	300	440

TOOL SELECTION GUIDE - CAST IRONS

Step 1 - Select the insert geometry

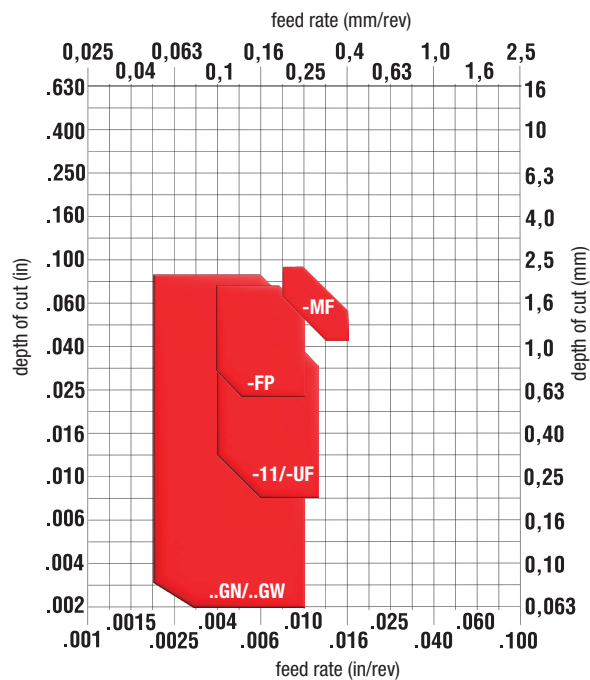
Negative Inserts

1/2" IC CNMG432



Positive Inserts

Size 3 CCMT3252/CCGT3252



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FN	0,1	0.004	0,3	0.012	0,3	0.012	2,5	0.098
-MR	0,15	0.006	1	0.039	0,54	0.021	5,7	0.224
-UN/-RP	0,2	0.008	0,8	0.031	0,6	0.024	6,4	0.252
..MA/..GN	0,08	0.003	0,1	0.004	0,25	0.01	2,5	0.098

Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-11/-UF	0,1	0.004	0,2	0.008	0,3	0.012	1,3	0.051
-LF	0,2	0.008	0,4	0.016	0,4	0.016	2,3	0.091
-FP	0,1	0.004	0,6	0.024	0,25	0.01	2	0.079
-MP	0,1	0.004	0,8	0.031	0,4	0.016	2,5	0.098
-MF	0,2	0.008	1,1	0.043	0,4	0.016	2,5	0.098
..GN/..GW	0,05	0.002	0,03	0.001	0,25	0.01	2	0.079

Step 2 - Select the grade

Negative Insert Geometry				
Cutting Condition	-FN	-MR	-UN/-RP	..MA
heavily interrupted cut	KCK15B/ KCK15	KCP10B/KCP10/ KCP25B/KCP25/	KCK20B/KCK20/ KCPK05	KCK20B/KCK20/KYK25/ KY3500/KBK45/KB1340
lightly interrupted cut	KCK15B/ KCK15	KCP10B/KCP10/ KCP25B/KCP25/	KCK20B/KCK20/ KCPK05	KCK20B/KCK20/KYK25/ KY3500/KBK45/KB1340
varying depth of cut, casting, or forging skin	KCK05B/KCK05/ KTP10/KT315	KCK15B/ KCK15	KCK15B/ KCK15	KCK15B/KCK15/KYK25/ KY3500/KB5630/KB1345
smooth cut, pre-turned surface	KCK05B/ KCK05	KCK15B/ KCK15	KCK05B/ KCK05	KCK05B/KCK05/KYK25/ KY3500/KYHK15B/ KB5630/KB1345
smooth cut, high precision / tight tolerance	KTP10/ KT315	KCU10B	-	KYHK15B/KB5630/ KB1345

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

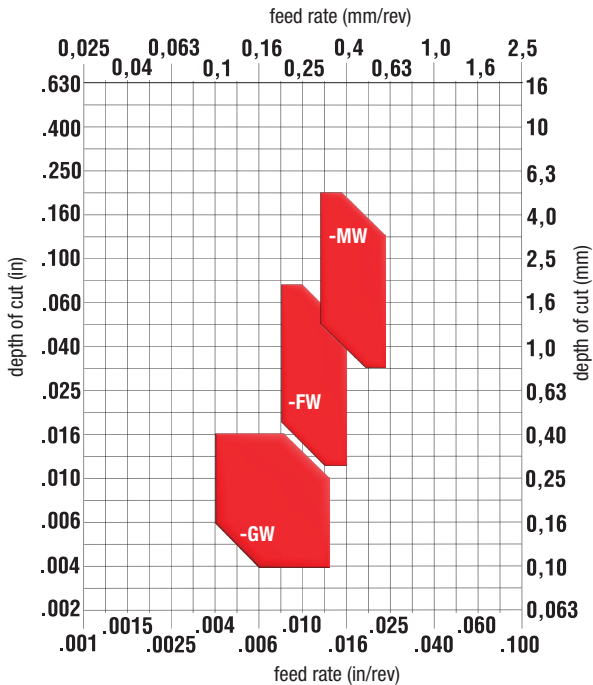
NOTE: **Bold** is first choice when showing multiple grades.

** Machining Ductile Iron requires a sharper edge / chip breaker (“-MR”, “-11”)

Step 1 - Select the insert geometry

Negative Wiper Inserts

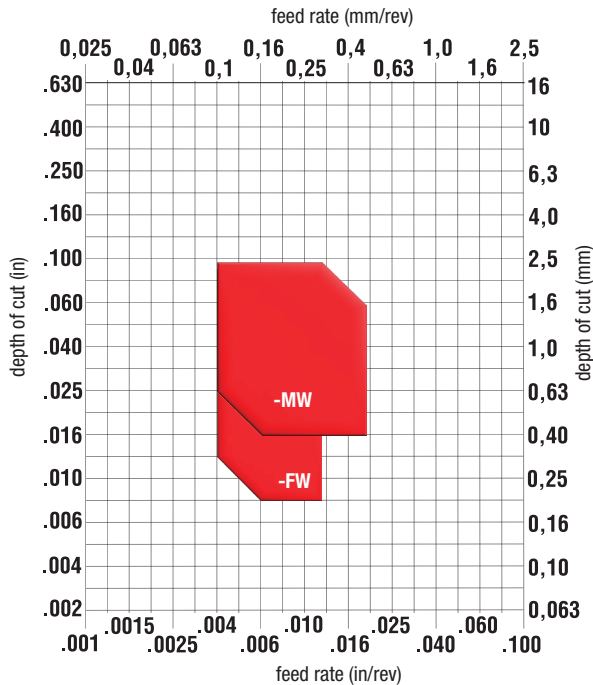
1/2" IC CNMG432



Negative Wiper Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,2	0.008	0,3	0.012	0,4	0.016	2	0.079
-MW	0.3	0.012	0,8	0.031	0,6	0.024	5,1	0.201
-GW	0,1	0.004	0,1	0.004	0,35	0.014	0,4	0.016

Positive Wiper Inserts

Size 3 CCMT3252/CCGT3252



Positive Wiper Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FW	0,1	0.004	0,2	0.008	0,3	0.012	2,3	0.091
-MW	0,1	0.004	0,4	0.016	0,5	0.02	2,5	0.098

Step 2 - Select the grade

WIPER	Negative Insert Geometry		
Cutting Condition	-FW	-MW	-GW
heavily interrupted cut	KYK25 /KY3500	KCP10B /KCP10/ KCP25C	-
lightly interrupted cut	KCK15B /KCK15/ KYK25/KY3500	KCP10B /KCP10/ KCK15B/KCK15	KYHK15B
varying depth of cut, casting, or forging skin	KCK15B /KCK15/ KYK25/KY3500	KCK15B /KCK15/ KCP05B/KCP05	KYHK15B
smooth cut, pre-turned surface	KYK25/KY3500/ KCK15B/KCK15/ KCP05B	KCK15B /KCK15/ KCP05B/KCP05	KYHK15B
smooth cut, high precision / tight tolerance	KCU10B /KTP10/ KT315	KCU10B	KYHK15B

WIPER	Positive Insert Geometry	
Cutting Condition	-FW	-MW
heavily interrupted cut	KCP10B /KCP10/ KCP25C	KCP10B /KCP10/ KCP25C
lightly interrupted cut	KCP10B /KCP10/ KCK15B/KCK15	KCP10B /KCP10/ KCK15B/KCK15
varying depth of cut, casting, or forging skin	KCK20B /KCK20/ KCP10B/KCP10	KCK20B /KCK20/ KCP10B/KCP10
smooth cut, pre-turned surface	KCK20B /KCK20/ KCP10B/KCP10	KCK20B /KCK20/ KCP10B/KCP10
smooth cut, high precision / tight tolerance	KCU10B /KTP10/ KT315	KCU10B /KTP10/ KT315

NOTE: Bold is first choice when showing multiple grades.

Step 3 - Select the cutting speed

Gray Cast Iron		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
K1	KTP10/KT315	150	275	440	490	900	1440
	KCU10B	150	275	440	490	900	1440
	KCK05B/KCK05	240	450	615	790	1480	2020
	KCK15B/KCK15	200	360	550	660	1180	1800
	KCK20B/KCK20	200	300	550	660	980	1800
	KYHK15B	450	700	950	1480	2300	3120
	KY3500/KYK25/KYK10	350	760	1040	1150	2490	3410
	KBK45/ KB1340	600	760	1200	1970	2490	3940
	KB5630/KB1345	550	760	1200	1800	2490	3940

Low- and Medium-Strength Ductile Irons (Nodular Irons) and Compacted Graphite Irons (CGI); <600 MPa Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
K2	KTP10/KT315	150	275	440	490	900	1440
	KCU10B	125	250	410	410	820	1350
	KCK05B/KCK05	240	360	500	790	1180	1640
	KCK15B/KCK15	150	270	450	490	890	1480
	KCK20B/KCK20/KCPK05	150	240	420	490	790	1380
	KYHK15B	360	560	760	1180	1840	2490

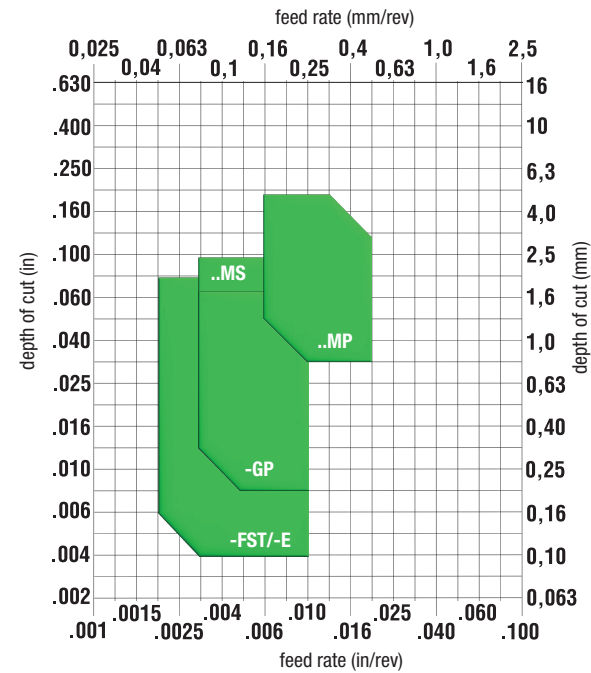
High-Strength Ductile and Austempered Ductile Iron (ADI) Malleable Cast Irons; >600 MPa Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
K3	KTP10/KT315	150	230	440	490	750	1440
	KCU10B	110	225	375	360	740	1230
	KCK05B/KCK05	155	240	445	510	790	1460
	KCK15B/KCK15	140	215	380	460	710	1250
	KCK20B/KCK20/KCPK05	140	210	350	460	690	1150
	KCP30B/KCP30/KCP40/KCP40B	115	120	160	380	390	520

TOOL SELECTION GUIDE - NON-FERROUS

Step 1 - Select the insert geometry

Negative Inserts

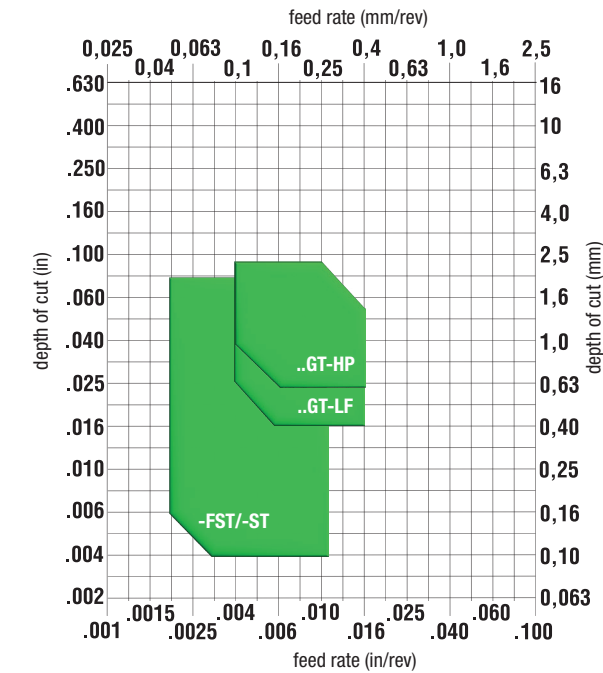
1/2" IC CNMG432



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
...GP	0,08	0.003	0,2	0.008	0,25	0.01	1,6	0.063
..MP	0,15	0.006	0,75	0.03	0,5	0.02	5	0.197
-K	0,1	0.004	0,2	0.008	0,4	0.016	2,5	0.098
..MS	0,08	0.003	0,2	0.008	0,25	0.01	2,5	0.098
-FST/-E	0,063	0.002	0,1	0.004	0,25	0.01	2	0.079

Positive Inserts

Size 3 CCMT3252/CCGT3252



Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
..GT-LF	0,1	0.004	0,4	0.016	0,4	0.016	2,3	0.091
..GT-HP	0,1	0.004	0,6	0.024	0,4	0.016	2,3	0.091
..MT	0,2	0.008	0,8	0.031	0,4	0.016	2,3	0.091
-FST/-ST	0,063	0.002	0,1	0.004	0,3	0.012	2	0.079

Step 2 - Select the grade

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

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

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

Step 3 - Select the cutting speed

Wrought Aluminum Alloys		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
N1	KC5410	200	700	1200	660	2300	3940
	K313	198	488	617	650	1600	2020
	KCU10B	200	600	900	660	1970	2950

Low-Silicon Aluminum Alloys and Magnesium Alloys; Si12.2%		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
N2	KC5410	125	550	1000	410	1800	3280
	K313	100	450	600	330	1480	1970
	KCU10B	125	500	900	410	1640	2950
	KD1400	250	765	2625	820	2510	8610

High-Silicon Aluminum and Magnesium Alloys; Si>12.2%		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
N3	KD1405	250	580	1125	820	1900	3690
	KD1425	250	520	1000	820	1710	3280

Copper, Brass, Zinc-Based on a Machinability Index Range of 70-100		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
N4	KC5410	125	275	750	410	900	2460
	K68	125	260	360	410	850	1180
	K313	107	260	366	350	850	1200
	KCU10B	125	270	700	410	890	2300
	KD1400/KD1405	250	520	1000	820	1710	3280
	KD1425	125	500	750	410	1640	2460

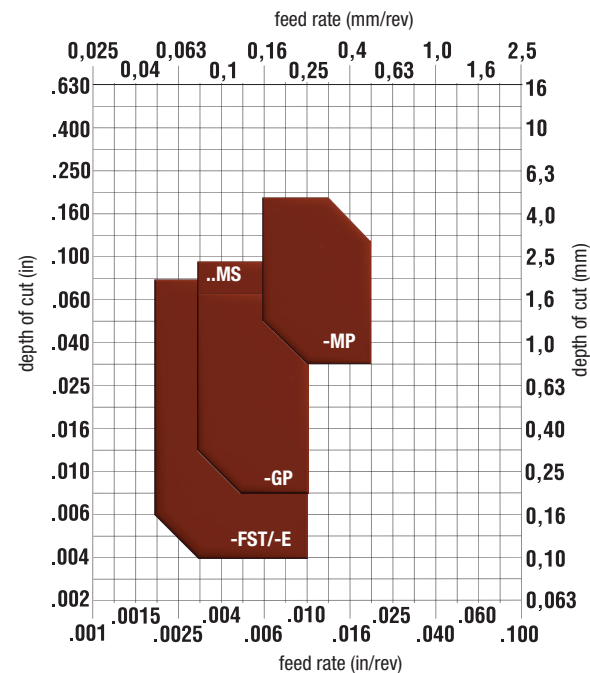
Nylon, Plastics, Rubbers, Phenolics, Resins, Fiberglass		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
N5	KC5410	125	170	400	410	560	1310
	KCU10B	100	150	350	330	490	1150
	KD1400/KD1405	125	400	750	410	1310	2460
	KD1425	125	365	500	410	1200	1640

TOOL SELECTION GUIDE - CARBONS & GRAPHITES

Step 1 - Select the insert geometry

Negative Inserts

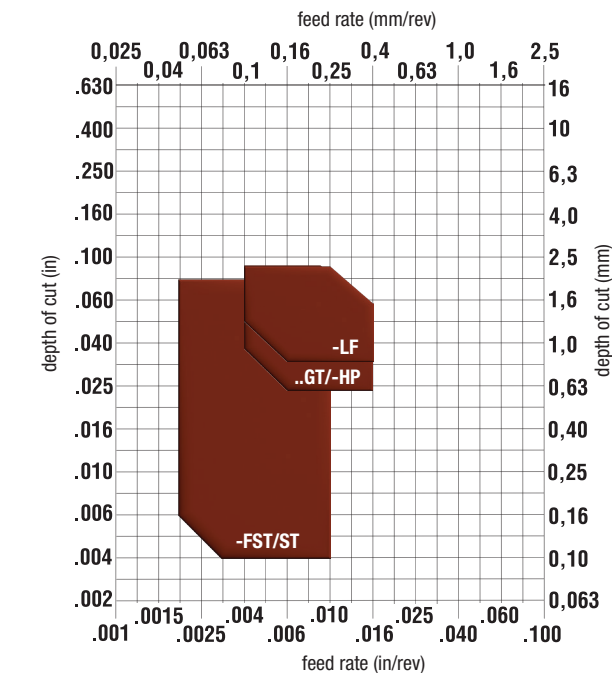
1/2" IC CNMG432



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
...GP	0,08	0.003	0,2	0.008	0,25	0.01	1,6	0.063
..MP	0,15	0.006	0,75	0.03	0,5	0.02	5	0.197
-K	0,1	0.004	0,2	0.008	0,4	0.016	2,5	0.098
..MS	0,08	0.003	0,2	0.008	0,25	0.01	2,5	0.098
-FST/-E	0,063	0.002	0,1	0.004	0,25	0.01	2	0.079

Positive Inserts

Size 3 CCMT3252/CCGT3252



Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
..GT-LF	0,1	0.004	0,8	0.031	0,4	0.016	2,3	0.091
..GT-HP	0,1	0.004	0,6	0.024	0,4	0.016	2,3	0.091
..MT	0,1	0.004	0,8	0.031	0,4	0.016	1,725	0.068
-FST/-ST	0,063	0.002	0,1	0.004	0,25	0.01	2	0.079

Step 2 - Select the grade

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

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

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

Step 3 - Select the cutting speed

CFRP, Carbon and Graphite Composites: Brush Alloys, Kevlar, and Graphite; 280-400 HB; 30-43 HRC		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
C1	KC5410	125	200	500	410	660	1640
	KCU10B	100	175	450	330	570	1480
	KD1400/KD1405	500	760	1125	1640	2490	3690

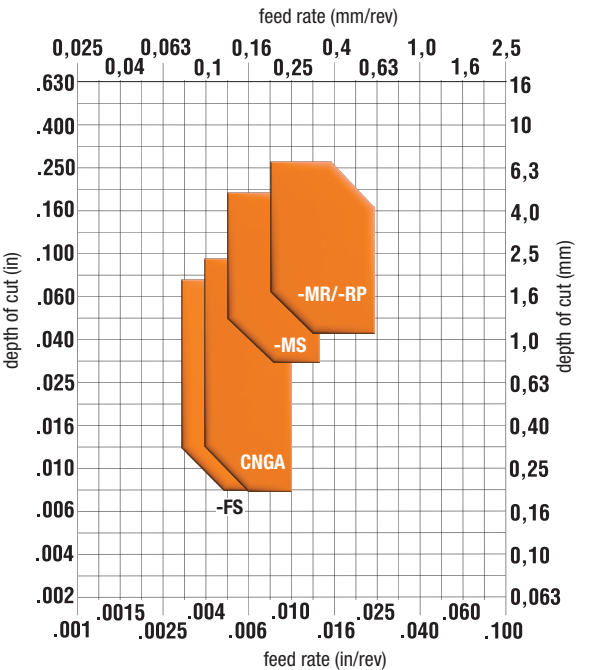
Metal Matrix Composites (MMC)		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
C2	K313	100	180	360	330	590	1180
	KD1400	250	365	750	820	1200	2460

TOOL SELECTION GUIDE - HEAT RESISTANT ALLOYS & TITANIUM ALLOYS

Step 1 - Select the insert geometry

Negative Inserts

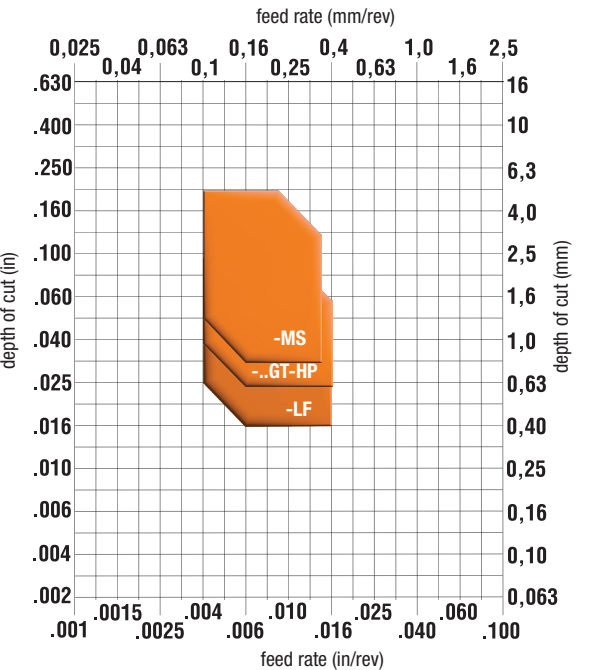
1/2" IC CNMG432



Negative Inserts								
1/2" IC CNMG432								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FS	0,07	0.003	0,2	0.008	0,25	0.01	2	0.079
-FP	0,1	0.004	0,3	0.012	0,3	0.012	2,5	0.098
-MS	0,12	0.005	0,76	0.03	0,35	0.014	5	0.197
-UP	0,2	0.008	1	0.039	0,6	0.024	6,4	0.252
-MP	0,2	0.008	0,8	0.031	0,5	0.02	5,1	0.201
-MR/-RP	0,2	0.008	1,1	0.043	0,6	0.024	6,4	0.252
CNGA	0,1	0.004	0,2	0.008	0,25	0.01	2,5	0.098

Positive Inserts

Size 3 CCMT3252/CCGT3252



Positive Inserts								
Size 3 CCMT3252/CCGT3252								
	min feed		min DOC		max feed		max DOC	
	mm	in	mm	in	mm	in	mm	in
-FS	0,07	0.003	0,2	0.008	0,25	0.01	2	0.079
..GT-HP	0,1	0.004	0,6	0.024	0,4	0.016	2,3	0.091
..GT-LF	0,1	0.004	0,4	0.016	0,4	0.016	2,3	0.091
..GT-FP	0,1	0.004	0,6	0.024	0,25	0.01	2	0.079
-MS	0,1	0.004	0,8	0.031	0,35	0.014	5	0.197
-MP	0,2	0.008	0,8	0.031	0,5	0.02	5,1	0.201

Step 2 - Select the grade

	Negative Insert Geometry						
Cutting Condition	-FS	-FP	-MS	-UP	-MP	-RP	CNGA
heavily interrupted cut	KCU25	-	KCU25	KCM35B	KCU25	KCM35B /KCM25	-
lightly interrupted cut	KCU10B	KCU10B	KCU25	KCM25B	KCU25	KCM15B	KYS30
varying depth of cut, casting, or forging skin	KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCM15B	KCS10B	KCS10B /KCU10B	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	-

	Positive Insert Geometry					
Cutting Condition	-FS	-HP	-LF	-FP	-MS	-MP
heavily interrupted cut	-	-	-	KCU25	-	-
lightly interrupted cut	KCU10B	KCU25	KCU25	KCU25 /KCU10B	KCU25	-
varying depth of cut, casting, or forging skin	KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B
smooth cut, pre-turned surface	KCU10B /K313	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B
smooth cut, high precision / tight tolerance	KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B /KCU10B	KCS10B	KCS10B

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

Step 3 - Select the cutting speed

Iron-Based, Heat-Resistant Alloys; 160-260 HB; 25-48 HRC; 500-1200 Mpa Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
S1	K313	10	30	75	30	100	250
	KCU10B	15	60	155	50	200	510
	KCS10B	15	55	140	50	180	460
	KCU25	10	40	60	30	130	200
	KCM15B/KCM15	30	55	120	100	180	390
	KCM25B/KCM25/KCM35B/KCM35	10	40	60	30	130	200
	KYS25/KY4300	80	140	195	260	460	640
	KYS30	80	140	195	260	460	640
	KB1630	80	160	210	260	520	690

Cobalt-Based, Heat-Resistant Alloys; 250-450 HB; 25-48 HRC; 1000-1450 Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
S2	K313	10	35	75	30	110	250
	KCU10B	15	65	155	50	210	510
	KCS10B	15	60	140	50	200	460
	KCU25	10	30	75	30	100	250
	KCM15B/KCM15	30	60	120	100	200	390
	KCM25B/KCM25/KCM35B/KCM35	10	30	60	30	100	200
	KYHK15B	70	90	120	230	300	390
	KYS25/KY4300	85	155	215	280	510	710
	KYS30	85	155	215	280	510	710
	KB1630	85	165	225	280	540	740

Nickel-Based, Heat-Resistant Alloys 160-450HB; <48 HRC; 600-1700 Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
S3	K313	10	40	75	30	130	250
	KCU10B	15	75	155	50	250	510
	KCS10B	15	70	140	50	230	460
	KCU25	15	40	75	50	130	250
	KCM15B/KCM15	30	70	120	100	230	390
	KCM25B/KCM25/KCM35B/KCM35	10	40	60	30	130	200
	KYS25/KY4300	100	180	250	330	590	820
	KYS30	100	180	250	330	590	820
	KB1630	100	200	270	330	660	890

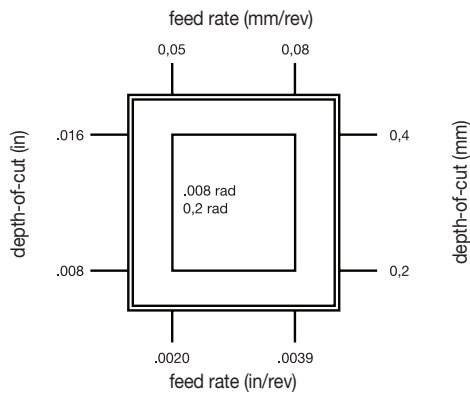
Titanium and Titanium Alloys 300-400 HB; 33-48 HRC; 900-1600 Tensile Strength		m/min			SFM		
material group	grade	MIN	START	MAX	MIN	START	MAX
S4	K313	10	45	75	30	150	250
	KCU10B	15	75	185	50	250	610
	KCS10B	15	70	170	50	230	560
	KCU25	10	55	105	30	180	340
	KD1405	150	280	350	490	920	1150

GROOVING & CUT-OFF • APPLICATION DATA • PLUNGE FEED RATES

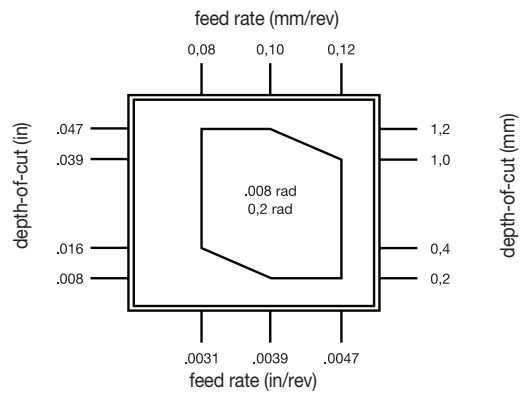
Geometry	Seat Size (SSC)	Corner Radius		fn (mm/rev)			fn (in/rev)		
		mm	in	MIN	START	MAX	MIN	START	MAX
GUP / GMP GMN/GUN	1F	0,2	0.008	0,05	0,06	0,08	0.002	0.002	0.003
	02	0,2	0.008	0,05	0,08	0,14	0.002	0.003	0.006
	03	0,2	0.008	0,05	0,09	0,16	0.002	0.004	0.006
		0,4	0.016	0,08	0,11	0,18	0.003	0.004	0.007
	04	0,4	0.016	0,08	0,12	0,22	0.003	0.005	0.009
		0,8	0.031	0,1	0,15	0,24	0.004	0.006	0.009
	05	0,4	0.016	0,1	0,15	0,23	0.004	0.006	0.009
		0,8	0.031	0,1	0,16	0,25	0.004	0.006	0.010
	06	0,4	0.016	0,1	0,16	0,22	0.004	0.006	0.009
		0,8	0.031	0,12	0,18	0,26	0.005	0.007	0.010
		1,2	0.047	0,14	0,2	0,3	0.006	0.008	0.012
CL	08	0,8	0.031	0,12	0,2	0,3	0.005	0.008	0.012
		1,2	0.047	0,14	0,22	0,32	0.006	0.009	0.013
	10	1,2	0.047	0,15	0,24	0,35	0.006	0.009	0.014
	1B	0,15	0.006	0,05	0,06	0,09	0.002	0.002	0.004
CF	02	0,2	0.008	0,05	0,07	0,11	0.002	0.003	0.004
	03	0,2	0.008	0,05	0,085	0,14	0.002	0.003	0.006
	04	0,2	0.008	0,05	0,09	0,18	0.002	0.004	0.007
	1B	0	0.000	0,04	0,05	0,08	0.002	0.002	0.003
CM	02	0	0.000	0,04	0,06	0,08	0.002	0.002	0.003
		0,2	0.008	0,05	0,07	0,13	0.002	0.003	0.005
	03	0	0.000	0,04	0,08	0,12	0.002	0.003	0.005
		0,2	0.008	0,05	0,09	0,18	0.002	0.004	0.007
	04	0	0.000	0,04	0,08	0,12	0.002	0.003	0.005
		0,2	0.008	0,05	0,11	0,2	0.002	0.004	0.008
	05	0	0.000	0,04	0,09	0,14	0.002	0.004	0.006
		0,3	0.012	0,05	0,13	0,23	0.002	0.005	0.009
	1B	0,15	0.006	0,05	0,06	0,09	0.002	0.002	0.004
	02	0,2	0.008	0,05	0,07	0,13	0.002	0.003	0.005
CR	03	0,2	0.008	0,05	0,09	0,18	0.002	0.004	0.007
	04	0,2	0.008	0,05	0,11	0,2	0.002	0.004	0.008
	05	0,3	0.012	0,05	0,14	0,2	0.002	0.006	0.008
	06	0,3	0.012	0,05	0,16	0,2	0.002	0.006	0.008
		0,4	0.016	0,05	0,16	0,25	0.002	0.006	0.010
	08	0,4	0.016	0,05	0,14	0,3	0.002	0.006	0.012
CR	02	0,2	0.008	0,08	0,1	0,13	0.003	0.004	0.005
	03	0,2	0.008	0,08	0,14	0,23	0.003	0.006	0.009
	04	0,2	0.008	0,08	0,16	0,3	0.003	0.006	0.012
	05	0,3	0.012	0,1	0,19	0,35	0.004	0.007	0.014
	06	0,3	0.012	0,1	0,21	0,4	0.004	0.008	0.016
		0,4	0.016	0,1	0,21	0,4	0.004	0.008	0.016
	08	0,4	0.016	0,1	0,23	0,43	0.004	0.009	0.017

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

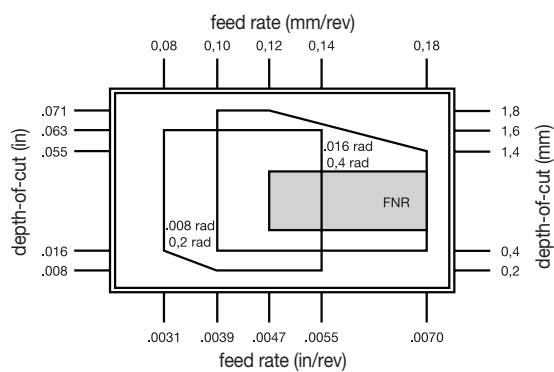
Seat Size 1F



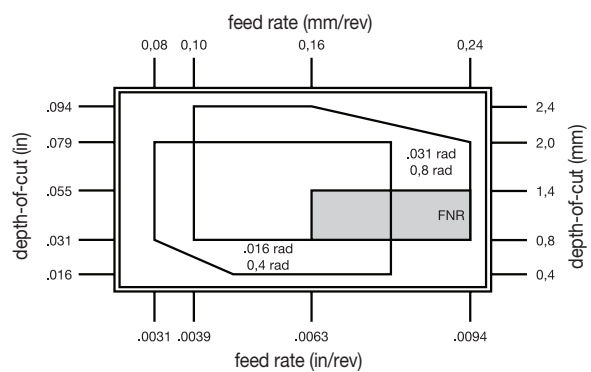
Seat Size 2



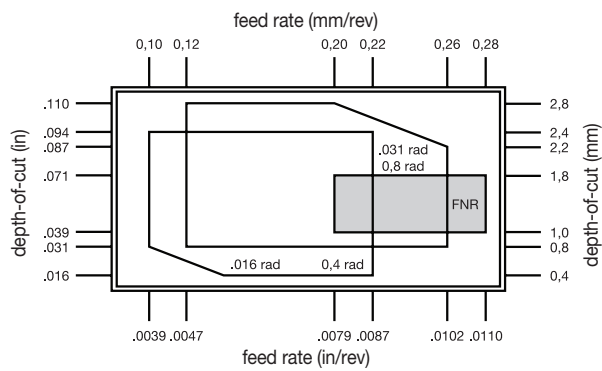
Seat Size 3



Seat Size 4

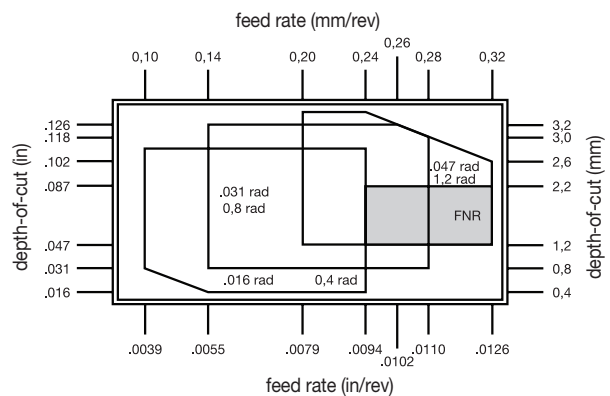


Seat Size 5

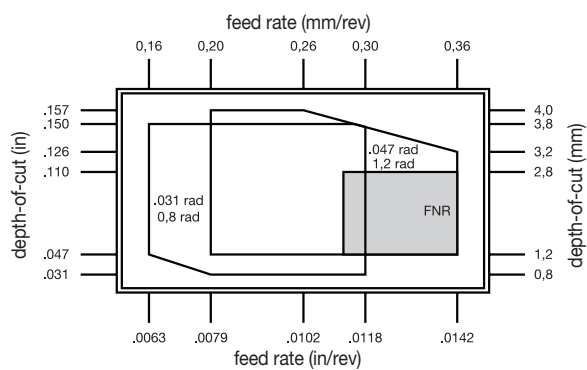


* FNR = Full Nose Radius

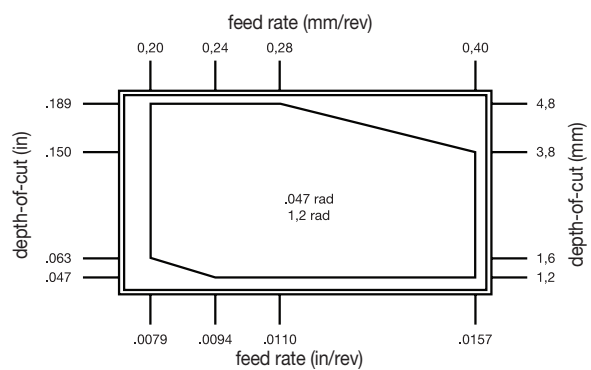
Seat Size 6



Seat Size 8



Seat Size 10



GROOVING & CUT-OFF • APPLICATION DATA • RECOMMENDED STARTING SPEEDS (M/MIN)

Material Group		K313			KCU10B			KCU25			KCM35B			KCP10B			KCP25B			KCK20B			KCS10B			KY3500			KYS30			KB1630		
P	0-1	-	-	-	145	295	350	110	225	270	90	180	213	185	400	450	145	290	365	200	440	490	-	-	-	-	-	-	-	-	-	-		
	2	-	-	-	145	210	255	110	160	260	90	130	155	185	270	350	145	200	305	200	300	380	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	145	165	255	110	125	235	90	100	155	170	190	260	140	155	245	600	200	280	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	80	115	180	60	90	160	50	70	110	90	145	200	75	110	180	100	160	220	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	125	210	275	100	160	210	80	130	165	150	220	305	120	200	270	165	240	330	-	-	-	-	-	-	-	-	-	-		
	6	-	-	-	115	160	240	85	120	185	70	100	145	120	180	275	110	150	230	130	190	300	-	-	-	-	-	-	-	-	-	-	-	
M	1	60	90	120	145	220	275	90	170	245	75	120	135	-	-	-	-	-	-	-	-	-	135	215	250	-	-	-	-	-	-	-		
	2	45	75	110	125	210	255	90	150	245	75	110	135	-	-	-	-	-	-	-	-	-	115	200	250	-	-	-	-	-	-	-		
	3	35	65	100	125	190	255	90	140	210	75	90	135	-	-	-	-	-	-	-	-	-	125	185	225	-	-	-	-	-	-	-		
K	1	30	75	120	125	220	255	100	145	225	-	-	-	170	245	440	140	200	360	210	305	550	-	-	-	350	760	1040	-	-	-	-	-	
	2	25	70	110	95	190	220	70	120	170	-	-	-	120	195	340	100	160	280	150	245	430	-	-	-	-	-	-	-	-	-	-		
	3	20	60	90	65	135	160	50	85	120	-	-	-	120	170	270	100	140	220	150	210	335	-	-	-	-	-	-	-	-	-	-		
N	1-2	150	370	610	160	695	1025	120	440	780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4	120	275	430	125	460	640	100	290	490	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5	45	90	150	95	215	255	70	135	195	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	6	40	75	150	125	265	320	100	170	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	7	40	75	150	125	265	320	100	170	245	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
S	1	8	30	75	15	60	140	8	40	60	8	35	60	-	-	-	-	-	-	-	-	-	35	75	105	-	-	-	80	140	195	110	190	275
	2	8	35	75	15	65	140	8	30	75	8	30	60	-	-	-	-	-	-	-	-	-	40	75	110	-	-	-	85	155	215	120	190	235
	3	8	40	75	15	75	140	15	40	75	15	35	60	-	-	-	-	-	-	-	-	-	45	80	115	-	-	-	100	180	250	100	180	250
	4	8	45	75	15	75	180	8	50	110	15	45	90	-	-	-	-	-	-	-	-	-	45	90	130	-	-	-	-	-	-	-	-	
H	1	-	-	-	30	50	70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2	-	-	-	45	65	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

NOTE: FIRST choice starting speeds are in bold type.

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

GROOVING & CUT-OFF • APPLICATION DATA • RECOMMENDED STARTING SPEEDS (SFM)

Material Group		K313			KCU10B			KCU25			KCM35B			KCP10B			KCP25B			KCK20B			KCS10B			KY3500			KYS30			KB1630		
P	0-1	-	-	-	480	970	1150	360	740	880	290	590	700	600	1320	1475	475	925	1200	660	1450	1620	-	-	-	-	-	-	-	-	-	-		
	2	-	-	-	480	690	840	360	520	880	290	420	510	600	880	1150	475	650	1000	660	970	1260	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	480	540	840	360	410	800	290	330	510	550	630	850	450	510	800	600	700	920	-	-	-	-	-	-	-	-	-	-		
	4	-	-	-	260	380	590	200	290	540	160	230	350	300	480	650	250	360	600	330	530	710	-	-	-	-	-	-	-	-	-	-		
	5	-	-	-	410	690	900	320	530	680	260	420	540	500	720	1000	400	650	875	550	800	1100	-	-	-	-	-	-	-	-	-	-		
	6	-	-	-	380	520	790	280	400	600	220	320	480	400	600	900	350	500	750	440	660	990	-	-	-	-	-	-	-	-	-	-	-	
M	1	200	300	400	480	720	900	300	550	800	250	400	450	-	-	-	-	-	-	-	-	440	710	820	-	-	-	-	-	-	-	-		
	2	150	250	350	410	690	840	300	500	800	250	350	450	-	-	-	-	-	-	-	-	380	660	820	-	-	-	-	-	-	-	-		
	3	120	220	320	410	620	840	300	450	700	250	300	450	-	-	-	-	-	-	-	-	410	610	740	-	-	-	-	-	-	-	-		
K	1	100	250	400	410	720	840	320	480	760	-	-	-	560	800	1440	455	650	1170	700	1000	1800	-	-	-	1150	2490	3410	-	-	-	-	-	
	2	75	225	350	310	620	720	240	400	560	-	-	-	400	640	1120	325	520	910	500	800	1400	-	-	-	-	-	-	-	-	-	-		
	3	65	190	300	210	440	520	160	280	400	-	-	-	400	560	880	325	455	715	500	700	1100	-	-	-	-	-	-	-	-	-	-		
N	1-2	500	1200	2000	520	2280	3360	400	1440	2560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	4	400	900	1400	410	1510	2100	320	960	1600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	5	150	300	500	310	710	840	240	440	640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	6	120	250	500	410	870	1050	320	560	800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	7	100	200	400	310	600	720	240	400	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
S	1	25	100	250	50	200	460	25	125	200	25	125	200	-	-	-	-	-	-	-	-	110	250	340	-	-	-	260	460	640	360	620	900	
	2	25	110	250	50	210	460	25	100	250	25	100	200	-	-	-	-	-	-	-	-	130	250	360	-	-	-	280	510	710	390	620	770	
	3	25	125	250	50	250	460	50	125	250	50	125	200	-	-	-	-	-	-	-	-	150	260	380	-	-	-	330	590	820	330	590	820	
	4	25	150	250	50	250	590	25	175	350	50	150	300	-	-	-	-	-	-	-	-	150	300	430	-	-	-	-	-	-	-	-		
H	1	-	-	-	100	160	230	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2	-	-	-	150	210	260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		

NOTE: FIRST choice starting speeds are in bold type.

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