

## **NEGATIVE BASIC SHAPE TURNING INSERTS IN "P" GRADE STEELS**

TYPE	OPERATION	INSERT ANSI #	CHIP BREAKER	GRADE	RADIUS	Feed Rate - Inches/rev	RADIAL DEPTH OF CUT		
CNMG	LIGHT CUTS/FINISH	CNMG431	FP5	WPP10S/WPP20S	0.016	.002008	.004059		
	LIGHT CUTS/FINISH	CNMG432	FP5	WPP10S/WPP20S	0.031	.003010	.008079		
	MEDIUM/LIGHT ROUGH	CNMG432	MP3	WPP10S/WPP20S	0.031	.005013	.024126		
	MEDIUM to ROUGHING	CNMG431	MP5	WPP10S/WPP20S	0.016	.006010	.020157		
	MEDIUM to ROUGHING	CNMG432	MP5	WPP10S/WPP20S	0.031	.007016	.024197		
4-1-1-1	MEDIUM to ROUGHING	CNMG433	MP5	WPP10S/WPP20S	0.047	.008018	.039197		
	ROUGH	CNMG432	RP5	WPP10S/WPP20S	0.031	.008016	.031236		
	ROUGH	CNMG433	RP5	WPP10S/WPP20S	0.047	.010022	.039236		
DNMG	LIGHT CUTS/FINISH	DNMG431	FP5	WPP10S/WPP20S	0.016	.002008	.004059		
	LIGHT CUTS/FINISH	DNMG432	FP5	WPP10S/WPP20S	0.031	.002 .000	.008079		
	LIGHT CUTS/FINISH	DNMG441	FP5	WPP10S/WPP20S	0.016	.002008	.004059		
	LIGHT CUTS/FINISH	DNMG442	FP5	WPP10S/WPP20S	0.031	.003010	.008079		
	MEDIUM/LIGHT ROUGH	DNMG432	MP3	WPP10S/WPP20S	0.031	.005013	.024126		
	MEDIUM/LIGHT ROUGH	DNMG442	MP3	WPP103/WPP203 WPP10S/WPP20S	0.031	.005013	.024126		
	MEDIUM to ROUGHING	DNMG431	MP5	WPP10S/WPP20S	0.016	.005013	.020157		
	MEDIUM to ROUGHING	DNMG431 DNMG432	MP5	WPP10S/WPP20S WPP10S/WPP20S	0.016	.006010	.024197		
	MEDIUM to ROUGHING	DNMG432 DNMG433	MP5	WPP10S/WPP20S WPP10S/WPP20S	0.031	.007014	.024197		
	MEDIUM to ROUGHING	DNMG433 DNMG441	MP5	WPP10S/WPP20S WPP10S/WPP20S	0.047	.008016	.039197		
	MEDIUM to ROUGHING	DNMG441 DNMG442	MP5	WPP10S/WPP20S WPP10S/WPP20S	0.016	.006010	.024197		
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	MEDIUM to ROUGHING ROUGH	DNMG443 DNMG432	MP5 RP5	WPP10S/WPP20S WPP10S/WPP20S	0.047 0.031	.008016 .006014	.039197		
				·			.031197		
	ROUGH	DNMG433	RP5	WPP10S/WPP20S	0.047	.008016	.039197		
	ROUGH ROUGH	DNMG442 DNMG443	RP5 RP5	WPP10S/WPP20S WPP10S/WPP20S	0.031	.006014 .008016	.031197 .039197		
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WNMG	LIGHT CUTS/FINISH	WNMG431	FP5	WPP10S/WPP20S	0.016	.002008	.004059		
	LIGHT CUTS/FINISH	WNMG432	FP5	WPP10S/WPP20S	0.031	.003010	.008079		
	MEDIUM/LIGHT ROUGH	WNMG432	MP3	WPP10S/WPP20S	0.031	.005013	.024126		
	MEDIUM to ROUGHING	WNMG431	MP5	WPP10S/WPP20S	0.016	.006010	.020157		
	MEDIUM to ROUGHING	WNMG432	MP5	WPP10S/WPP20S	0.031	.007016	.024197		
	MEDIUM to ROUGHING	WNMG433	MP5	WPP10S/WPP20S	0.047	.008018	.039197		
	ROUGH	WNMG432	RP5	WPP10S/WPP20S	0.031	.008016	.031236		
	ROUGH	WNMG433	RP5	WPP10S/WPP20S	0.047	.010022	.039236		
TNMG	MEDIUM/LIGHT ROUGH	TNMG432	MP3	WPP10S/WPP20S	0.031	.005013	.024118		
V									
	RECOMMEN	<b>DED SURFAC</b>	E FOOTAGE	BY MATERIAL	AND C	RADE			
MATERIAL	MACHINING GROUP	GRADE	SURFACE FEET I			COMMENTS			
1018/1045	P1/P2	WPP10S	P1=1550-2040	P2=1250-1740			2 FIGURED AT BRINELL 190		
4140/4140 HT	P7/P9	WPP10S	P7=1120-1510	P9=600-830			P9 FIGURED AT BRINELL 380		
400 SST	P14	WPP10S	P14=990-1250			P14 FIGURED AT BRINELL 200			
17-4 PH SST	P15	WPP10S	P15=660-920		P15 FIGURED AT BRINELL 330				
15-5 PH SST	P15	WPP10S	P15=660-920		P15 FIGURED AT BRINELL 330				
1018/1045	P1/P2	WPP20S	P1=1250-1710	P2=1020-1450	P1 FIGURED AT BRINELL 125				
4140/4140 HT	P7/P9	WPP20S	P7=920-1250	P9=500-690	P7 FIGURED AT BRINELL 125 P7 FIGURED AT BRINELL 380				
400 SST	P14	WPP20S WPP20S	P14=830-1020	1 3-300 030		P14 FIGURED AT BRINELL 200			
17-4 PH SST	P15	WPP20S WPP20S	P15=500-730		P15 FIGURED AT BRINELL 330				
15-5 PH SST	P15	WPP20S WPP20S	P15=500-730		P15 FIGURED AT BRINELL 330				
13 3 111 331	1 13	VVI F 203	1 13-300 /30		IL TO LIGORE	D AT DIMINELL JJU			

<sup>\*\*</sup>THESE ARE MODERATE RECOMMENDATIONS AND IN SOME CASES MAY NEED TO BE INCREASED OR DECREASED DEPENDING ON THE CONDITIONS OF THE APPLICATION\*\*



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## **NEGATIVE BASIC SHAPE TURNING INSERTS IN "K" CAST IRONS**

TYPE	OPERATION	INSERT ANSI #	CHIP BREAKER	GRADE	RADIUS	Feed rate - Inches/rev.	RADIAL DEPTH OF CUT	
CNMG/CNMA	MEDIUM	CNMG432	MK5	WKK10S/WKK20S	0.031	.010020	.031197	
	MEDIUM	CNMG433	MK5	WKK10S/WKK20S	0.047	.012020	.047197	
	ROUGH	CNMA432	RK5	WKK10S/WKK20S	0.031	.010020	.031197	
	ROUGH	CNMA433	RK5	WKK10S/WKK20S	0.047	.012020	.047197	
A second control of the control of t								
DNMG	MEDIUM	DNMG432	MK5	WKK10S/WKK20S	0.031	.010018	.024157	
and the same of th	MEDIUM	DNMG433	MK5	WKK10S/WKK20S	0.047	.012018	.039157	
	MEDIUM	DNMG442	MK5	WKK10S/WKK20S	0.031	.010018	.031197	
	MEDIUM	DNMG443	MK5	WKK10S/WKK20S	0.047	.012018	.047197	
10								
SNMG/SNMA	MEDIUM	SNMG433	MK5	WKK10S/WKK20S	0.047	.012024	.047197	
	ROUGH	SNMA433	RK5	WKK10S/WKK20S	0.047	.012024	.047197	
WNMG/WNMA	MEDIUM	WNMG432	MK5	WKK10S/WKK20S	0.031	.008018	.047197	
	MEDIUM	WNMG433	MK5	WKK10S/WKK20S	0.047	.009020	.059197	
	ROUGH	WNMA432	RK5	WKK10S/WKK20S	0.031	.008018	.047197	
	ROUGH	WNMA433	RK5	WKK10S/WKK20S	0.047	.009020	.059197	
TNMG	MEDIUM	TNMG332	MK5	WKK10S/WKK20S	0.031	.010018	.031197	
Treasure.	MEDIUM	TNMG333	MK5	WKK10S/WKK20S	0.047	.012018	.047197	
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	RECOMMEND	ED CLIDEAC	E EOOTAGE I	DV MATEDIAI	AND	DADE		
	RECUIVIIVIEND	SURFACE	EFOUTAGE	DI WAIEKIAL	. AND	JNADE		
MATERIAL	MACHINING GROUP	GRADE	SURFACE FEET P	PER MINUTE		COMMENTS		
MALLEABLE CAST IRON	K1/K2	WKK10S	K1=720-1100	K2=590-960	K1 FIGURED AT BRINELL 200 K		(2 FIGURED AT BRINELL 260	
GREY CAST IRON	K3/K4	WKK10S	K3=1160-1800	K4=720-1140	K3 FIGURED AT BRINELL 180 K4 FIGURED		(4 FIGURED AT BRINELL 245	
DUCTILE IRON	K5/K6	WKK10S	K5=870-1230	K6=670-900	K5 FIGURED AT BRINELL 155		(6 FIGURED AT BRINELL 265	
COMPACTED GRAPHITE (CGI)	K7	WKK10S	K7=650-1050		K7 FIGURED AT BRINELL 200 NO		NO FEED >.015 IPR	
MALLEABLE CAST IRON	K1/K2	WKK20S	K1=570-880	K2=440-750	K1 FIGURED AT BRINELL 200 K2		(2 FIGURED AT BRINELL 260	
GREY CAST IRON	K3/K4	WKK20S	K3=900-1550	K4=570-880	K3 FIGURED AT BRINELL 180 K4 FIGURED AT		(4 FIGURED AT BRINELL 245	
DUCTILE IRON	K5/K6	WKK20S	K5=660-950	K6=510-700	K5 FIGURED AT BRINELL 155 K6 FIGURED AT B		(6 FIGURED AT BRINELL 265	
COMPACTED GRAPHITE (CGI)	K7	WKK20S	K7=NOT RECOMMEN	T RECOMMENDED		K7 FIGURED AT BRINELL 200		

<sup>\*\*</sup>THESE ARE MODERATE RECOMMENDATIONS AND IN SOME CASES MAY NEED TO BE INCREASED OR DECREASED DEPENDING ON THE CONDITIONS OF THE APPLICATION\*\*



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