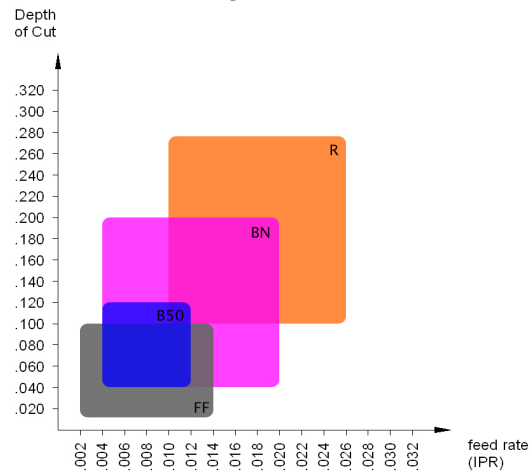


CNMG inserts for Steel

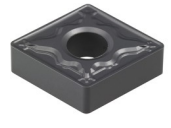
Chipbreakers



Grades

Steel	P	P05	P10	P15	P20	P25	P30	P35	P40	P45	P50	
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)				
		BC75										
					BC20N							
					BP93							
								BC30				
						BC20						

Available Inserts

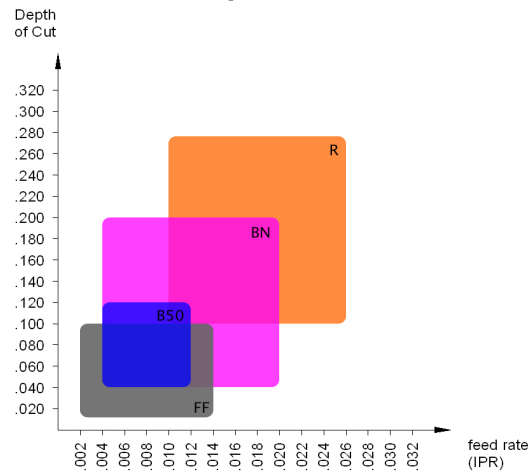
		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		CNMG-321-FF	CNMG-090304-FF	•			•	
		CNMG-322-FF	CNMG-090308-FF	•			•	
		CNMG-431-FF	CNMG-120404-FF	•			•	
		CNMG-432-FF	CNMG-120408-FF	•			•	
		CNMG-433-FF	CNMG-120412-FF				•	
Medium		CNMG-321-BN	CNMG-090304-BN				•	
		CNMG-322-BN	CNMG-090308-BN				•	
		CNMG-431-BN	CNMG-120404-BN			•	•	•
		CNMG-432-BN	CNMG-120408-BN			•	•	•
		CNMG-433-BN	CNMG-120412-BN			•	•	
		CNMG-541-BN	CNMG-160604-BN					
		CNMG-542-BN	CNMG-160608-BN			•	•	
		CNMG-543-BN	CNMG-160616-BN				•	
		CNMG-642-BN	CNMG-190608-BN					
		CNMG-643-BN	CNMG-190612-BN				•	

CNMG inserts for Steel (cont.)

		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Medium		CNMG-431-B50	CNMG-120404-B50	•	•	•	•	
		CNMG-432-B50	CNMG-120408-B50	•	•	•	•	•
		CNMG-433-B50	CNMG-120412-B50	•	•	•	•	
		CNMG-542-B50	CNMG-160608-B50	•		•		
		CNMG-543-B50	CNMG-160612-B50		•		•	
		CNMG-641-B50	CNMG-190604-B50	•	•	•	•	
		CNMG-642-B50	CNMG-190608-B50	•	•	•	•	
		CNMG-643-B50	CNMG-190612-B50	•	•	•		
		CNMG-644-B50	CNMG-190616-B50	•	•	•	•	
Roughing		CNMG-432-R	CNMG-120408-R	•	•	•	•	
		CNMG-433-R	CNMG-120412-R	•	•	•	•	
		CNMG-434-R	CNMG-120416-R					
		CNMG-542-R	CNMG-160608-R		•		•	
		CNMG-543-R	CNMG-160612-R	•	•	•	•	
		CNMG-544-R	CNMG-160616-R	•				
		CNMG-546-R	CNMG-160624-R					
		CNMG-642-R	CNMG-190608-R		•		•	
		CNMG-643-R	CNMG-190612-R		•		•	
		CNMG-644-R	CNMG-190616-R	•	•	•	•	
		CNMG-646-R	CNMG-190624-R					
		CNMG-866-R	CNMG-250924-R					

DNMG inserts for Steel

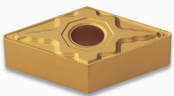
Chipbreakers



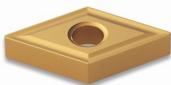
Grades

Steel	P	P05	P10	P15	P20	P25	P30	P35	P40	P45	P50		
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)					
		BC75											
					BC20N								
							BP93						
										BC30			
										BC20			

Available Inserts

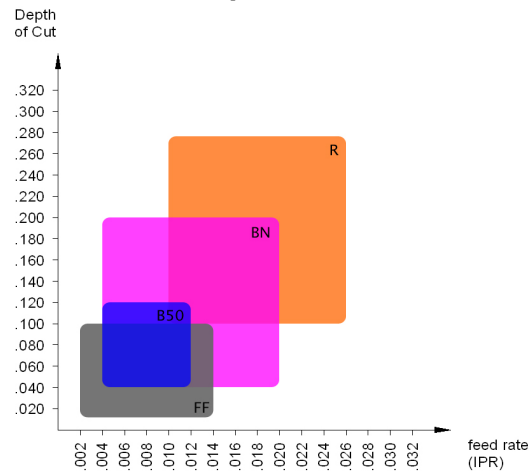
		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		DNMG-330.5-FF	DNMG-110402-FF		•			
		DNMG-331-FF	DNMG-110404-FF		•			
		DNMG-332-FF	DNMG-110408-FF		•			
		DNMG-431-FF	DNMG-150404-FF		•			
		DNMG-432-FF	DNMG-150408-FF		•			
		DNMG-433-FF	DNMG-150412-FF					
		DNMG-441-FF	DNMG-150604-FF	•	•			
		DNMG-442-FF	DNMG-150608-FF	•	•			
		DNMG-443-FF	DNMG-150612-FF		•			
Medium		DNMG-331-BN	DNMG-110404-BN				•	
		DNMG-332-BN	DNMG-110408-BN				•	
		DNMG-333-BN	DNMG-110412-BN				•	
		DNMG-431-BN	DNMG-150404-BN				•	
		DNMG-432-BN	DNMG-150408-BN			•	•	
		DNMG-433-BN	DNMG-150412-BN				•	
		DNMG-441-BN	DNMG-150604-BN			•	•	•
		DNMG-442-BN	DNMG-150608-BN			•	•	•
		DNMG-443-BN	DNMG-150612-BN			•	•	

DNMG inserts for Steel (cont.)

		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Medium		DNMG-430.5-B50	DNMG-150402-B50					
		DNMG-431-B50	DNMG-150404-B50			•		
		DNMG-432-B50	DNMG-150408-B50		•	•	•	
		DNMG-433-B50	DNMG-150412-B50					
		DNMG-440.5-B50	DNMG-150602-B50					
		DNMG-441-B50	DNMG-150604-B50	•	•	•	•	
		DNMG-442-B50	DNMG-150608-B50	•	•	•	•	•
		DNMG-443-B50	DNMG-150612-B50					
Roughing		DNMG-432-R	DNMG-150408-R					
		DNMG-433-R	DNMG-150412-R					
		DNMG-434-R	DNMG-150416-R					
		DNMG-442-R	DNMG-150608-R	•	•	•	•	
		DNMG-443-R	DNMG-150612-R	•	•		•	
		DNMG-444-R	DNMG-150616-R		•		•	

SNMG inserts for Steel

Chipbreakers



Grades

Steel	P	P05	P10	P15	P20	P25	P30	P35	P40	P45	P50	
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)				
		BC75										
					BC20N							
					BP93							
							BC30					
					BC20							

Available Inserts

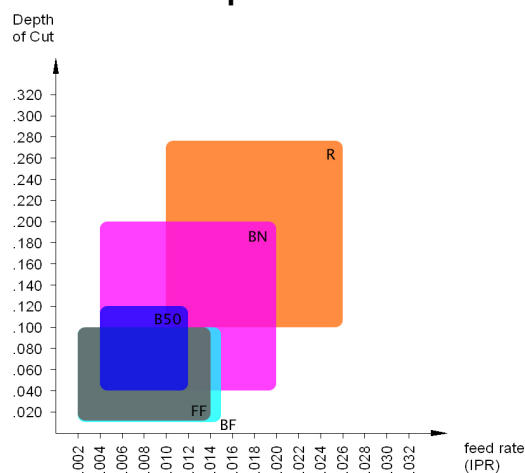
		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		SNMG-321-FF	SNMG-090304-FF		•			
		SNMG-322-FF	SNMG-090308-FF					
		SNMG-431-FF	SNMG-120404-FF		•			
		SNMG-432-FF	SNMG-120408-FF	•	•			
Medium		SNMG-321-BN	SNMG-090304-BN				•	
		SNMG-322-BN	SNMG-090308-BN				•	
		SNMG-431-BN	SNMG-120404-BN			•	•	•
		SNMG-432-BN	SNMG-120408-BN			•	•	•
		SNMG-433-BN	SNMG-120412-BN			•	•	•
		SNMG-643-BN	SNMG-190612-BN					

SNMG inserts for Steel (cont.)

	ANSI	ISO	CVD				PVD
			BC75	BC20N	BC30	BC20	BP93
Medium 	SNMG-322-B50	SNMG-090308-B50		•	•	•	
	SNMG-431-B50	SNMG-120404-B50	•	•	•	•	
	SNMG-432-B50	SNMG-120408-B50	•	•	•	•	•
	SNMG-433-B50	SNMG-120412-B50		•	•	•	
	SNMG-434-B50	SNMG-120416-B50			•		
	SNMG-542-B50	SNMG-150608-B50			•		
	SNMG-543-B50	SNMG-150612-B50		•		•	
	SNMG-544-B50	SNMG-150616-B50		•		•	
	SNMG-642-B50	SNMG-190608-B50	•	•	•	•	
	SNMG-643-B50	SNMG-190612-B50	•	•	•	•	
	SNMG-644-B50	SNMG-190616-B50	•	•	•	•	
	SNMG-854-B50	SNMG-250716-B50	•				
	SNMG-856-B50	SNMG-250724-B50					
Roughing 	SNMG-432-R	SNMG-120408-R					
	SNMG-433-R	SNMG-120412-R	•	•			
	SNMG-434-R	SNMG-120416-R					
	SNMG-542-R	SNMG-150608-R	•	•	•	•	
	SNMG-543-R	SNMG-150612-R		•	•	•	
	SNMG-544-R	SNMG-150616-R					
	SNMG-546-R	SNMG-150624-R					
	SNMG-642-R	SNMG-190608-R	•			•	
	SNMG-643-R	SNMG-190612-R	•	•		•	
	SNMG-644-R	SNMG-190616-R	•	•	•	•	
	SNMG-646-R	SNMG-190624-R					
	SNMG-856-R	SNMG-250724-R					
	SNMG-866-R	SNMG-250924-R		•	•	•	

TNMG inserts for Steel

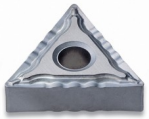
Chipbreakers



Grades

Steel	P	Grades									
		P05	P10	P15	P20	P25	P30	P35	P40	P45	P50
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)			
		BC75									
					BC20N						
				BP93			BC30		BC20		

Available Inserts

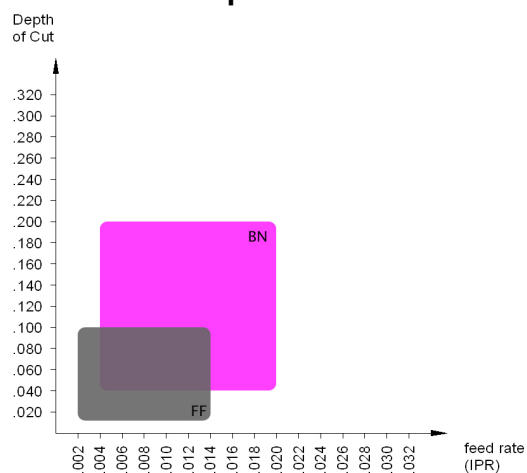
		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		TNMG-221-FF	TNMG-110304-FF		•			
		TNMG-331-FF	TNMG-160404-FF		•			
		TNMG-332-FF	TNMG-160408-FF	•	•			
		TNMG-333-FF	TNMG-160412-FF		•			
		TNMG-431-FF	TNMG-220404-FF		•			
		TNMG-432-FF	TNMG-220408-FF		•			
Finishing		TNMG-221-BF	TNMG-110304-BF					
		TNMG-331-BF	TNMG-160404-BF					
		TNMG-332-BF	TNMG-160408-BF					
		TNMG-333-BF	TNMG-160412-BF					
		TNMG-431-BF	TNMG-220404-BF					
		TNMG-432-BF	TNMG-220408-BF					
Medium		TNMG-222-BN	TNMG-110308-BN				•	
		TNMG-331-BN	TNMG-160404-BN			•	•	
		TNMG-332-BN	TNMG-160408-BN			•	•	•
		TNMG-333-BN	TNMG-160412-BN				•	•
		TNMG-431-BN	TNMG-220404-BN			•	•	
		TNMG-432-BN	TNMG-220408-BN			•	•	
		TNMG-433-BN	TNMG-220412-BN			•	•	

TNMG inserts for Steel (cont.)

	ANSI	ISO	CVD				PVD
			BC75	BC20N	BC30	BC20	BP93
Medium 	TNMG-222-B50	TNMG-110308-B50					
	TNMG-321-B50	TNMG-160304-B50					
	TNMG-322-B50	TNMG-160308-B50			•		
	TNMG-323-B50	TNMG-160312-B50					
	TNMG-324-B50	TNMG-160316-B50					
	TNMG-331-B50	TNMG-160404-B50	•	•	•	•	
	TNMG-332-B50	TNMG-160408-B50	•	•	•	•	•
	TNMG-333-B50	TNMG-160412-B50			•		
	TNMG-334-B50	TNMG-160416-B50					
	TNMG-431-B50	TNMG-220404-B50	•	•	•	•	
	TNMG-432-B50	TNMG-220408-B50	•	•	•	•	
	TNMG-433-B50	TNMG-220412-B50			•		
	TNMG-434-B50	TNMG-220416-B50		•	•	•	
	TNMG-436-B50	TNMG-220424-B50					
	TNMG-542-B50	TNMG-270608-B50		•	•	•	
	TNMG-543-B50	TNMG-270612-B50	•	•	•	•	
	TNMG-544-B50	TNMG-270616-B50	•				
	TNMG-654-B50	TNMG-330716-B50	•	•		•	
	TNMG-666-B50	TNMG-330924-B50					
Roughing 	TNMG-332-R	TNMG-160408-R	•	•			
	TNMG-333-R	TNMG-160412-R		•		•	
	TNMG-432-R	TNMG-220408-R	•	•		•	
	TNMG-433-R	TNMG-220412-R	•				
	TNMG-434-R	TNMG-220416-R		•		•	
	TNMG-542-R	TNMG-270608-R					
	TNMG-543-R	TNMG-270612-R				•	
	TNMG-548-R	TNMG-270632-R					
	TNMG-654-R	TNMG-330716-R					
	TNMG-666-R	TNMG-330924-R					

VNMG inserts for Steel

Chipbreakers



Grades

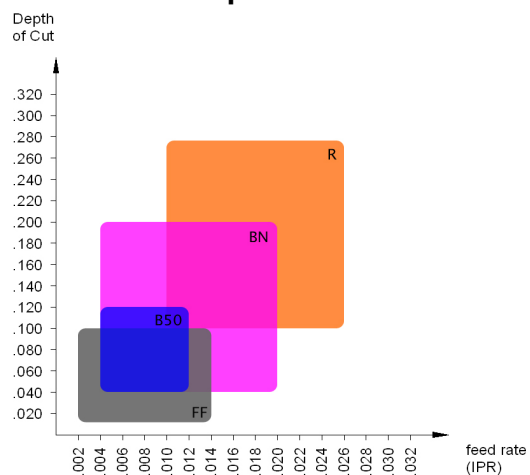
Steel	P	Grades									
		P05	P10	P15	P20	P25	P30	P35	P40	P45	P50
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)			
		BC75									
						BC20N					
				BP93							
							BC30				
							BC20				

Available Inserts

		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		VNMG-330.5-FF	VNMG-160402-FF		•			
		VNMG-331-FF	VNMG-160404-FF	•	•			
		VNMG-332-FF	VNMG-160408-FF		•			
Medium		VNMG-331-BN	VNMG-160404-BN			•	•	•
		VNMG-332-BN	VNMG-160408-BN			•	•	•
		VNMG-333-BN	VNMG-160412-BN				•	
		VNMG-431-BN	VNMG-220404-BN					
		VNMG-432-BN	VNMG-220408-BN					

WNMG inserts for Steel

Chipbreakers



Grades

Steel	P	P05	P10	P15	P20	P25	P30	P35	P40	P45	P50	
		C8	C7 (Light Finishing)			C6 (Semi-Finishing)		C5 (General)				
		BC75										
					BC20N							
						BP93						
							BC30					
							BC20					

Available Inserts

		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Finishing		WNMG-331-FF	WNMG-060404-FF	•	•			
		WNMG-332-FF	WNMG-060408-FF	•	•			
		WNMG-431-FF	WNMG-080404-FF	•	•			
		WNMG-432-FF	WNMG-080408-FF		•			
Medium		WNMG-331-BN	WNMG-060404-BN				•	
		WNMG-332-BN	WNMG-060408-BN			•	•	
		WNMG-333-BN	WNMG-060412-BN				•	
		WNMG-431-BN	WNMG-080404-BN			•	•	
		WNMG-432-BN	WNMG-080408-BN			•	•	•
		WNMG-433-BN	WNMG-080412-BN			•	•	

WNMG inserts for Steel (cont.)

		Available Inserts						
		ANSI	ISO	CVD				PVD
				BC75	BC20N	BC30	BC20	BP93
Medium		WNMG-431-B50	WNMG-080404-B50					
		WNMG-432-B50	WNMG-080408-B50	●	●	●	●	
		WNMG-433-B50	WNMG-080412-B50					
Roughing		WNMG-332-R	WNMG-060408-R					
		WNMG-333-R	WNMG-060412-R					
		WNMG-432-R	WNMG-080408-R	●	●	●	●	
		WNMG-433-R	WNMG-080412-R	●	●	●	●	
		WNMG-434-R	WNMG-080416-R					