

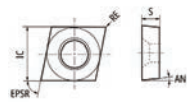
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7	
	CNGG120404FNUL	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●	●						
	CNGG120408FNUL	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●	●						
	CNGG120404FNZP	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●			●				
	CNGG120408FNZP	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●			●				
	CNMG120408T00525Z5	T00525	80	12.7	4.76	-	0.8	-		●		●							
	CNMG120408G	-	80	12.7	4.76	-	0.8	-									●		
	CNMG120412G	-	80	12.7	4.76	-	1.2	-									●		
	CNMG120416G	-	80	12.7	4.76	-	1.6	-									●		

Turning Insert

D

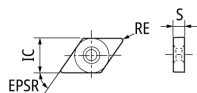
CP..



Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7	
	CPGH060202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-					●		●				
	CPGH080202FNAM5	Up-sharp edge	80	6.35	2.38	11	0.2	-					●		●				
	CPGM090302FNAM5	Up-sharp edge	80	9.525	3.18	11	0.2	-					●		●				
	CPGM090304FNAM5	Up-sharp edge	80	9.525	3.18	11	0.4	-					●		●				
	CPGM090308FNAM5	Up-sharp edge	80	9.525	3.18	11	0.8	-					●		●				
	CPGH040101FRF1	Up-sharp edge	80	4.76	1.59	11	0.1	-	●			●	●						
	CPGH040102FRF1	Up-sharp edge	80	4.76	1.59	11	0.2	-	●			●	●						
	CPGH040104FRF1	Up-sharp edge	80	4.76	1.59	11	0.4	-	●			●	●						
	CPGH060202FRF1	Up-sharp edge	80	6.35	2.38	11	0.2	-	●			●	●						
	CPGH060204FRF1	Up-sharp edge	80	6.35	2.38	11	0.4	-	●			●	●						
	CPGH040101LS	Up-sharp edge	80	4.76	1.59	11	0.1	-				●	●						
	CPGH040102LS	Up-sharp edge	80	4.76	1.59	11	0.2	-				●	●						
	CPGH040104LS	Up-sharp edge	80	4.76	1.59	11	0.4	-				●	●						
	CPGH060202LS	Up-sharp edge	80	6.35	2.38	11	0.2	-				●	●						
	CPGH060204LS	Up-sharp edge	80	6.35	2.38	11	0.4	-				●	●						
	CPGH060202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-					●		●				
	CPGH060204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-					●		●				
	CPGH080202FLA	Up-sharp edge	80	6.35	2.38	11	0.2	-					●		●				
	CPGH080204FLA	Up-sharp edge	80	6.35	2.38	11	0.4	-					●		●				
	CPGH040102FLA1	Up-sharp edge	80	4.76	1.59	11	0.2	-					●		●				
	CPGH040104FLA1	Up-sharp edge	80	4.76	1.59	11	0.4	-					●		●				
													●		●				

DN.G



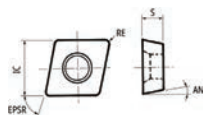
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7		
	DNMG150404FNZP	Up-sharp edge	55	12.7	4.76	-	0.4	-		●		●				●			
	DNMG150408FNZP	Up-sharp edge	55	12.7	4.76	-	0.8	-		●		●				●			
	DNMG150408T00525Z5	T00525	55	12.7	4.76	-	0.8	-		●		●							
	DNMG150404TNG	T01025	55	12.7	4.76	-	0.4	-				●							
	DNMG150404G	-	55	12.7	4.76	-	0.4	-									●		
	DNMG150408G	-	55	12.7	4.76	-	0.8	-									●		
	DNMG150412G	-	55	12.7	4.76	-	1.2	-									●		

Turning Insert

D

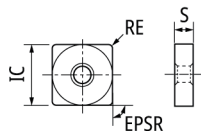
ERGH



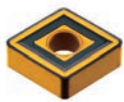
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material							○	○	●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide										Uncoated	
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1		
(ISO)	°	mm	mm	°	mm	mm														
	ERGHT30101FRF1	Up-sharp edge	75	3.97	1.59	9	0.1	-	●			●	●							
	ERGHT30102FRF1	Up-sharp edge	75	3.97	1.59	9	0.2	-	●			●	●							
	ERGHT30104FRF1	Up-sharp edge	75	3.97	1.59	9	0.4	-	●			●	●							
	ERGHT30102FRA2	Up-sharp edge	75	3.97	1.59	9	0.2	-					●			●				
	ERGHT30102FLA2	Up-sharp edge	75	3.97	1.59	9	0.2	-					●			●				
	ERGHT30104FRA2	Up-sharp edge	75	3.97	1.59	9	0.4	-					●							
	ERGHT30104FLA2	Up-sharp edge	75	3.97	1.59	9	0.4	-					●			●				

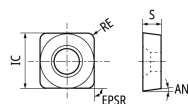
SNMG



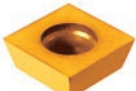
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

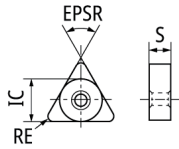
Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7	
	SNMG120408T00525Z5	T00525	90	12.7	4.76	-	0.8	-		●		●							
	SNMG120408G	-	90	12.7	4.76	-	0.8	-									●		
	SNMG120412G	-	90	12.7	4.76	-	1.2	-									●		
	SNMG120416G	-	90	12.7	4.76	-	1.6	-									●		

SDEW



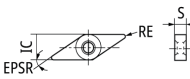
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material							○		○
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number (ISO)	CECC	EPSR °	IC mm	S mm	AN °	RE mm	BS mm	Carbide										Uncoated KM1
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	CP7	
	SDEW060202FN	Up-sharp edge	90	6.35	2.38	15	0.2	-								●			

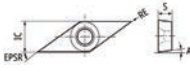


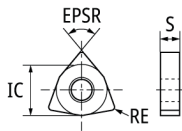
Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide											Uncoated
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
	(ISO)	°	mm	mm	°	mm	mm	ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1			
	TNGG160401MFNUL	Up-sharp edge	60	9.525	4.76	-	0.1	-	●	●		●	●							
	TNGG160402MFNUL	Up-sharp edge	60	9.525	4.76	-	0.2	-	●	●		●	●							
	TNGG160404MFNUL	Up-sharp edge	60	9.525	4.76	-	0.4	-	●	●		●	●							
	TNGG160408MFNUL	Up-sharp edge	60	9.525	4.76	-	0.8	-	●	●		●	●							
	TNGG160402FNZP	Up-sharp edge	60	9.525	4.76	-	0.2	-		●		●	●	●	●					
	TNGG160404FNZP	Up-sharp edge	60	9.525	4.76	-	0.4	-		●		●	●	●	●					
	TNGG160408FNZP	Up-sharp edge	60	9.525	4.76	-	0.8	-		●		●		●	●					
	TNMG160408G	-	60	9.525	4.76	-	0.8	-								●				
	TNMG160412G	-	60	9.525	4.76	-	1.2	-								●				
	TNMG160404T00525Z5	T00525	60	9.525	4.76	-	0.4	-		●		●								
	TNMG160408T00525Z5	T00525	60	9.525	4.76	-	0.8	-		●		●								
	TNEG160402FLD1	Up-sharp edge	60	9.525	4.76	-	0.2	-					●							
	TNEG160402FRD1	Up-sharp edge	60	9.525	4.76	-	0.2	-					●							
	TNEG160404FLD1	Up-sharp edge	60	9.525	4.76	-	0.4	-					●							
	TNEG160404FRD1	Up-sharp edge	60	9.525	4.76	-	0.4	-					●							
	TNEG160408FLD1	Up-sharp edge	60	9.525	4.76	-	0.8	-					●							
	TNEG160408FRD1	Up-sharp edge	60	9.525	4.76	-	0.8	-					●							
	TNGG160401FRU2	Up-sharp edge	60	9.525	4.76	-	0.1	-						●	●					
	TNGG160402FLU2	Up-sharp edge	60	9.525	4.76	-	0.2	-		●					●					
	TNGG160402FRU2	Up-sharp edge	60	9.525	4.76	-	0.2	-		●					●					
	TNGG160404FLU2	Up-sharp edge	60	9.525	4.76	-	0.4	-		●					●					
	TNGG160404FRU2	Up-sharp edge	60	9.525	4.76	-	0.4	-		●					●					
	TNGG160408FLU2	Up-sharp edge	60	9.525	4.76	-	0.8	-							●					
	TNGG160408FRU2	Up-sharp edge	60	9.525	4.76	-	0.8	-							●					
	TNGG160402FRC	Up-sharp edge	60	9.525	4.76	-	0.2	-							●					
	TNGG160401FRDA	Up-sharp edge	60	9.525	4.76	-	0.1	-						●	●					

			Steel																			○	●	●	●	●	●	●	●	●				
			Stainless Steel																			●	○	○	○	●	○	●			●			
			Cast Iron																													●		
			Non-Ferrous Material																								○		○					●
			Heat Resistant Alloy																				●		○	○								
			Hardened Material																				○		○	○								
			Others (non-metallic)																															
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide												Uncoated													
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD														
	(ISO)								°	mm	mm	°	mm	mm	ST4	DM4	DT4	QM3	TM4	VM1		ZM3	CP1	CP7	KM1									
	VNMG160402FNZP	Up-sharp edge	35	9.525	4.76	-	0.2	-		●		●																						
	VNMG160404FNZP	Up-sharp edge	35	9.525	4.76	-	0.4	-		●		●																						
	VNMG160408FNZP	Up-sharp edge	35	9.525	4.76	-	0.8	-		●		●																						
	VNMG160404G	-	35	9.525	4.76	-	0.4	-										●																
	VNMG160408G	-	35	9.525	4.76	-	0.8	-										●																
	VNMG160412G	-	35	9.525	4.76	-	1.2	-										●																
	VNMG160404T00525AM1	T00525	35	9.525	4.76	-	0.4	-		●		●																						
	VNMG160408T00525AM1	T00525	35	9.525	4.76	-	0.8	-		●		●																						

VP.T

			Steel																		
			Stainless Steel																		
			Cast Iron																		
			Non-Ferrous Material																		
			Heat Resistant Alloy																		
			Hardened Material																		
			Others (non-metallic)																		
Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide											Uncoated	
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD		PVD
	(ISO)	°	mm	mm	°	mm	mm	ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1				
	VPET0802005LKHG	Up-sharp edge	35	4.76	2.38	11	0.05	-							●						
	VPET0802008RKHG	Up-sharp edge	35	4.76	2.38	11	0.08	-			●		●	●							
	VPET0802008LKHG	Up-sharp edge	35	4.76	2.38	11	0.08	-						●							
	VPET0802018RKHG	Up-sharp edge	35	4.76	2.38	11	0.18	-					●	●							
	VPET0802018LKHG	Up-sharp edge	35	4.76	2.38	11	0.18	-						●							
	VPET080202RKHG	Up-sharp edge	35	4.76	2.38	11	0.2	-					●	●							
	VPET080202LKHG	Up-sharp edge	35	4.76	2.38	11	0.2	-						●							
	VPET1103005RKHG	Up-sharp edge	35	6.35	3.18	11	0.05	-					●	●							
	VPET1103005LKHG	Up-sharp edge	35	6.35	3.18	11	0.05	-						●							
	VPET1103008RKHG	Up-sharp edge	35	6.35	3.18	11	0.08	-					●	●							
	VPET1103008LKHG	Up-sharp edge	35	6.35	3.18	11	0.08	-						●							
	VPET1103018RKHG	Up-sharp edge	35	6.35	3.18	11	0.18	-					●	●							
	VPET1103018LKHG	Up-sharp edge	35	6.35	3.18	11	0.18	-						●							
	VPET110302RKHG	Up-sharp edge	35	6.35	3.18	11	0.2	-					●	●							
	VPET110302LKHG	Up-sharp edge	35	6.35	3.18	11	0.2	-						●							
	VPET0802008LUHG	Up-sharp edge	35	4.76	2.38	11	0.08	-			●										
	VPET0802008RUHG	Up-sharp edge	35	4.76	2.38	11	0.08	-			●										
	VPGT110300FNAM3	Up-sharp edge	35	6.35	3.18	11	0.03	-			●		●								
	VPGT110301MFNAM3	Up-sharp edge	35	6.35	3.18	11	0.08	-	●		●	●	●	●							
	VPGT110302MFNAM3	Up-sharp edge	35	6.35	3.18	11	0.18	-	●		●	●	●	●							



Steel	○	●	●	●	●	●	●	●	●
Stainless Steel	●	○	○	○	●	○	●	●	●
Cast Iron								●	
Non-Ferrous Material					○		○		●
Heat Resistant Alloy		●	○	○					
Hardened Material		○	○	○					
Others (non-metallic)									●

Shape	Item Number	CECC	EPSR	IC	S	AN	RE	BS	Carbide											Uncoated
									PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	PVD	
									ST4	DM4	DT4	QM3	TM4	VM1	ZM3	CP1	CP7	KM1		
(ISO)	°	mm	mm	°	mm	mm														
	WNGG080404FNUL	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●	●							
	WNGG080408FNUL	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●	●							
	WNGG080404FNZP	Up-sharp edge	80	12.7	4.76	-	0.4	-		●		●				●				
	WNGG080408FNZP	Up-sharp edge	80	12.7	4.76	-	0.8	-		●		●				●				
	WNMG080408T00525Z5	T00525	80	12.7	4.76	-	0.8	-		●		●								
	WNMG080412T00525Z5	T00525	80	12.7	4.76	-	1.2	-		●		●								
	WNMG080408G	-	80	12.7	4.76	-	0.8	-										●		
	WNMG080412G	-	80	12.7	4.76	-	1.2	-										●		