

## <80 degree Rhombic Negative type>

Item Number	IC	T
CN_1204	12.7	4.76

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated							CVD Coated						
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●	●		
	CNGG 120404 FN UL	CNGG431FNUL	0.4			●		●		●							F9 F11 G40 K34
UL	120408 FN UL	432FNUL	0.8			●		●		●							
	CNMG 120408 G	CNMG432-G	0.8									●					
G	120412 G	433-G	1.2									●					
G	120416 G	434-G	1.6									●					
	CNMG 120408 TNB Z5	432-TNB-Z5	0.8				●						●				
Z5																	
	CNGG 120404 FN ZP	CNGG431-FN-ZP	0.4			●	●						●				
ZP	120408 FN ZP	432-FN-ZP	0.8			●	●						●				

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

## <55 degree Rhombic Negative type>

Item Number	IC	T
DN_1504	12.7	4.76

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:	
				PVD Coated							CVD Coated					
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1			
				Steel	P	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●		
	DNMG 150404 G	DNMG431-G	0.4										●			
G	150408 G	432-G	0.8										●			
G	150412 G	433-G	1.2										●			
	DNMG 150404 TN G	DNMG431-TN-G	0.4				●									
G																
	DNMG 150408 TNB Z5	DNMG432-TNB-Z5	0.8				●							●		
Z5																
	DNGG 150404 FN ZP	DNGG431-FN-ZP	0.4			●	●							●		
ZP	150408 FN ZP	432-FN-ZP	0.8			●	●							●		

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

Carbide

Negative type

Positive type

G

D

E

R

S

T

V

W

## <90 degree Square Negative type>

Item Number	IC	T
SN_1204	12.7	4.76

				<table border="1"> <tr><td>Steel</td><td>P</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Stainless Steel</td><td>M</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Cast Iron</td><td>K</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Non-Ferrous Material</td><td>N</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Heat Resistant Alloy</td><td>S</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Hardened Material</td><td>H</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> </table>	Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	<p>● : 1st Choice ● : 2nd choice</p>
Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																																																																																																										
Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																																																																																																										
Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																																																																																																										
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				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1																																																																																																																
	SNMG 120408 G	SNMG432-G	0.8								●				F17																																																																																																														
	SNMG 120412 G	SNMG433-G	1.2								●				F19																																																																																																														
	SNMG 120416 G	SNMG434-G	1.6								●				K36																																																																																																														
	SNMG 120408 TNB Z5	SNMG432-TNB-Z5	0.8		●					●																																																																																																																			

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

## <60 degree Triangle Negative type>

Item Number	IC	T
TN_1604	9.525	4.76

				<table border="1"> <tr><td>Steel</td><td>P</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Stainless Steel</td><td>M</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Cast Iron</td><td>K</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Non-Ferrous Material</td><td>N</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Heat Resistant Alloy</td><td>S</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Hardened Material</td><td>H</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> </table>	Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	<p>● : 1st Choice ● : 2nd choice</p>
Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●																																																																																																										
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				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1																																																																																																																
	TNMG 160408 G	TNMG332-G	0.8								●																																																																																																																		
	160412 G	333-G	1.2								●																																																																																																																		
	TNMG 160404 TNB Z5	331-TNB-Z5	0.4		●						●																																																																																																																		
	160408 TNB Z5	332-TNB-Z5	0.8		●						●																																																																																																																		
	TNGG 160402 FN ZP	TNGG33Y-FN-ZP	0.2		●	●	●	●	●	●	●																																																																																																																		
	160404 FN ZP	331-FN-ZP	0.4		●	●	●	●	●	●	●																																																																																																																		
	160408 FN ZP	332-FN-ZP	0.8		●	●	●	●	●	●	●																																																																																																																		
	TNGG 160402 F <sup>R</sup> / <sub>L</sub> C	TNGG33Y-F <sup>R</sup> / <sub>L</sub> -C	0.2		R										F23																																																																																																														
															F25																																																																																																														
	TNEG 160402 F <sup>R</sup> / <sub>L</sub> D1		0.2					●							G39																																																																																																														
	160404 F <sup>R</sup> / <sub>L</sub> D1		0.4					●																																																																																																																					
	160408 F <sup>R</sup> / <sub>L</sub> D1		0.8					●																																																																																																																					
	TNGG 160401 F <sup>R</sup> / <sub>L</sub> DA	TNGG331CF <sup>R</sup> / <sub>L</sub> -DA	0.1		R		R																																																																																																																						
	TNGG 160401 F <sup>R</sup> / <sub>L</sub> U2	TNGG331CF <sup>R</sup> / <sub>L</sub> -U2	0.1		R		R																																																																																																																						
	160402 F <sup>R</sup> / <sub>L</sub> U2	33Y-F <sup>R</sup> / <sub>L</sub> -U2	0.2		●						●																																																																																																																		
	160404 F <sup>R</sup> / <sub>L</sub> U2	331-F <sup>R</sup> / <sub>L</sub> -U2	0.4		●						●																																																																																																																		
	160408 F <sup>R</sup> / <sub>L</sub> U2	332-F <sup>R</sup> / <sub>L</sub> -U2	0.8		●						●																																																																																																																		
	TNGG 160401M FN UL	TNGG3304MFNUL	*0.08	●	●	●	●	●	●	●	●																																																																																																																		
	160402M FN UL	3308MFNUL	*0.18	●	●	●	●	●	●	●	●																																																																																																																		
	160404M FN UL	331MFNUL	*0.38	●	●	●	●	●	●	●	●																																																																																																																		
	160408M FN UL	332MFNUL	*0.78	●	●	●	●	●	●	●	●																																																																																																																		

\*Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.   ● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

### <35 degree Rhombic Negative type>

Item Number	IC	T
VN_1604	9.525	4.76

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated					CVD Coated								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
				Steel	P	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice	
				Stainless Steel	M	●	●	●	●	●	●	●	●	●			
				Cast Iron	K	●	●	●	●	●	●	●	●	●			
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●			
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●			
				Hardened Material	H	●	●	●	●	●	●	●	●	●			
AM1	VNMG 160404 TNB AM1	331-TNB-AM1	0.4			●											
	160408 TNB AM1	332-TNB-AM1	0.8			●											
G	VNMG 160404 G	VNMG331-G	0.4									●				F27	
	160408 G	332-G	0.8								●						
	160412 G	333-G	1.2								●						
ZP	VNMG 160402 FN ZP	VNMG331-FN-ZP	0.2			●											
	160404 FN ZP	331-FN-ZP	0.4			●											
	160408 FN ZP	332-FN-ZP	0.8			●											

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

### <80 degree Hexagon Negative type>

Item Number	IC	T
WN_0804	12.7	4.76

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:	
				PVD Coated					CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1			
				Steel	P	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice	
				Stainless Steel	M	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●		
G	WNMG 080408 G	WNMG432-G	0.8									●				
	080412 G	433-G	1.2								●					
Z5	WNMG 080408 TNB Z5	WNMG432-TNB-Z5	0.8			●										F29
	080412 TNB Z5	433-TNB-Z5	1.2			●										
ZP	WNGG 080404 FN ZP	WNGG431-FN-ZP	0.4			●	●					●				K37
	080408 FN ZP	432-FN-ZP	0.8			●	●					●				
UL	WNGG 080404 FN UL	WNGG431FNUL	0.4			●		●				●				
	080408 FN UL	432FNUL	0.8			●		●				●				

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

## <80 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
CC_0602	6.35	2.38	7°
CC_09T3	9.525	3.97	7°

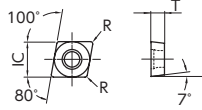
Shape	ISO Item Number	Inch Item Number	R	Carbide											Chip Control Range	For applicable holder, see pages:		
				PVD Coated							CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1					
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●		
 AM3	CCGT 060200 FN AM3		0.03					●	●									
	060202 FN AM3		0.2		●		●											
	060204 FN AM3		0.4		●													
	060201M FN AM3		*0.08	●		●		●	●									
	060202M FN AM3		*0.18	●		●		●	●									
	060204M FN AM3		*0.38	●		●		●	●									
	CCGT 09T300 FN AM3		0.03				●	●	●									
	09T302 FN AM3		0.2				●	●										
	09T304 FN AM3		0.4				●	●										
	09T301M FN AM3		*0.08	●	●	●	●	●	●									
	09T302M FN AM3		*0.18	●	●	●	●	●	●									
	09T304M FN AM3		*0.38	●	●	●	●	●	●									
 AZ7	CCMT 060202 FN AM3		0.2								●							
	060204 FN AM3		0.4								●							
	CCMT 09T302 FN AM3		0.2								●							
	09T304 FN AM3		0.4								●							
	09T308 FN AM3		0.8								●							
	CCGT 060200 AZ7		0.03			●												
060201M AZ7		*0.08			●													
060202M AZ7		*0.18			●													
 AZ8	CCGT 09T300 AZ7		0.03		●	●	●	●	●									
	09T301M AZ7		*0.08		●	●	●	●	●									
	09T302M AZ7		*0.18		●	●	●	●	●									
	09T304M AZ7		*0.38		●	●	●	●	●									
 AZ8	CCMT 060202 ENA AZ8		0.2								●							
	060204 ENB AZ8		0.4								●							
	060208 ENB AZ8		0.8								●							
	CCMT 09T302 ENA AZ8		0.2								●							
	09T304 ENB AZ8		0.4								●							
 F1 R-hand shown	CCGT 060201 F <sub>R/L</sub> F1		0.1	R		R		R										
	060202 F <sub>R/L</sub> F1		0.2	R		R		R										
	060204 F <sub>R/L</sub> F1		0.4	R		R		R										
	CCGT 09T302 F <sub>R/L</sub> F1		0.2	R		R		R										
	09T304 F <sub>R/L</sub> F1		0.4	R		R		R										
 KHG	CCET 0602005 F <sub>R/L</sub> KHG		0.05				●											
	0602008 F <sub>R/L</sub> KHG		0.08				●											
	0602018 F <sub>R/L</sub> KHG		0.18				●											
	060202 F <sub>R/L</sub> KHG		0.2				●											
	CCET 09T3005 F <sub>R/L</sub> KHG		0.05				●	R										
	09T3008 F <sub>R/L</sub> KHG		0.08				●	R										
	09T3018 F <sub>R/L</sub> KHG		0.18				●	R										
09T302 F <sub>R/L</sub> KHG		0.2				●	R											

\*Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

### <80 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
CC_0602	6.35	2.38	7°
CC_09T3	9.525	3.97	7°



Material	P	M	K	N	S	H
Steel	●	●	●	●	●	●
Stainless Steel	●	●	●	●	●	●
Cast Iron	●	●	●	●	●	●
Non-Ferrous Material	●	●	●	●	●	●
Heat Resistant Alloy	●	●	●	●	●	●
Hardened Material	●	●	●	●	●	●

● : 1st Choice  
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated						CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
	CCGT 060200	R/4 S	0.03	●	●	●	●	●	●	●	●						
	060201	R/4 S	0.1	●	●	●	●	●	●	●	●						
	060202	R/4 S	0.2	●	●	●	●	●	●	●	●						
	060201M	R/4 S	*0.08		R				R								
	060202M	R/4 S	*0.18		R				R								
	CCGT 09T300	R/4 S	0.03	R	●		R	R									
	09T301	R/4 S	0.1	●	R	●											
	09T302	R/4 S	0.2	R	R	●											
	09T304	R/4 S	0.4	R													
	09T301M	R/4 S	*0.08		R		R	R									
09T302M	R/4 S	*0.18		R		R	R										
09T304M	R/4 S	*0.38		R		R	R										
	CCGT 060200	R/4 U	0.03		R				R								
	060201	R/4 U	0.1	●				R									
	060202	R/4 U	0.2	●				R									
	CCGT 09T300	R/4 U1	0.03	●				R	R								
	09T301	R/4 U1	0.1	●				R	R								
	09T302	R/4 U1	0.2	●				R	R								
09T304	R/4 U1	0.4	●				R	R									
	CCGT 060201M	CL	*0.08	●	●	●	●	●	●	●	●					<b>G23</b> <b>K28</b>	
	060202M	CL	*0.18	●	●	●	●	●	●	●	●						
	09T300	CL	0.03					●	●								
	09T301M	CL	*0.08	●	●	●	●	●	●	●	●						
	09T302M	CL	*0.18	●	●	●	●	●	●	●	●						
09T304M	CL	*0.38	●	●	●	●	●	●	●	●							
	CCGT 09T300	YL	0.03					●	●								
	09T301M	YL	0.08	●	●	●	●	●	●	●							
	09T302M	YL	0.18	●	●	●	●	●	●	●							
	09T304M	YL	0.38	●	●	●	●	●	●	●							
	09T308M	YL	0.78	●	●	●	●	●	●	●							
	CCGW 060200	FN	0.03	●													
	060201	FN	0.1	●													
	060200	H (M)	0.03									●					
	060201	H (M)	0.1									●					
	060202	H (M)	0.2									●					
	CCGW 09T300	FN	0.03	●													
	09T301	FN	0.1	●													
	09T300	H (M)	0.03									●					
	09T301	H (M)	0.1									●					
	09T302	H (M)	0.2									●					
	09T302M	P (M)	*0.18							●							
	09T30	V (M)	0.0					●									
09T301	P (M)	0.1					●										
09T302	P (M)	0.2					●										

\* Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.  
 ● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)  
 ※2 The specifications of CL chipbreaker are slightly different from the above dimensions, but it has no problem for machining.

## <80 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
CP_0401	4.76	1.59	11°
CP_0602	6.35	2.38	11°

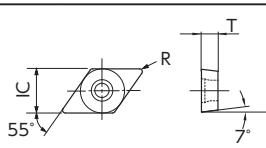
Item Number	IC	T	Relief angle
CP_0802	7.94	2.38	11°
CP_0903	9.525	3.18	11°

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated						CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●	●		
 AM5	CPGH 060202 FN AM5	CPGP83Y-FN--AM5	0.2	●			●										
	CPGH 080202 FN AM5	CPGP03Y-FN--AM5	0.2	●			●										
	CPGH 090302 FN AM5	CPGM32Y-FN--AM5	0.2	●			●										
	090304 FN AM5	321-FN--AM5	0.4	●			●										
	090308 FN AM5	322-FN--AM5	0.8	●			●										
 A · A1 L-hand shown	CPGH 040102 F <sub>R/L</sub> A1	CPGP62Y-F <sub>R/L</sub> --A1	0.2	L			L										
	040104 F <sub>R/L</sub> A1	621-F <sub>R/L</sub> --A1	0.4	L			L										
	CPGH 060202 F <sub>R/L</sub> A	CPGP83Y-F <sub>R/L</sub> --A	0.2	L			L										
	060204 F <sub>R/L</sub> A	831-F <sub>R/L</sub> --A	0.4	L			L										
	CPGH 080202 F <sub>R/L</sub> A	CPGP03Y-F <sub>R/L</sub> --A	0.2	L			L										
080204 F <sub>R/L</sub> A	031-F <sub>R/L</sub> --A	0.4	L			L											
 F1 R-hand shown	CPGH 040101 F <sub>R/L</sub> F1		0.1	R			R										
	040102 F <sub>R/L</sub> F1		0.2	R			R										
	040104 F <sub>R/L</sub> F1		0.4	R			R										
	CPGH 060202 F <sub>R/L</sub> F1		0.2	R			R										
	060204 F <sub>R/L</sub> F1		0.4	R			R										
 S L-hand shown	CPGH 040101 <sub>R/L</sub> S		0.1				L		L								
	040102 <sub>R/L</sub> S		0.2				L		L								
	040104 <sub>R/L</sub> S		0.4				L		L								
	CPGH 060202 <sub>R/L</sub> S		0.2				L		L								
	060204 <sub>R/L</sub> S		0.4				L		L								

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

Item Number	IC	T	Relief angle
DC_0702	6.35	2.38	7°
DC_11T3	9.525	3.97	7°

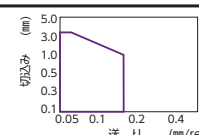
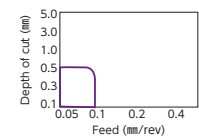
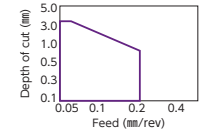
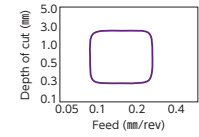
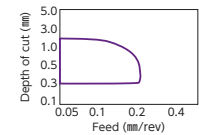
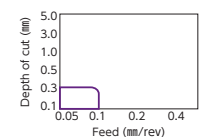
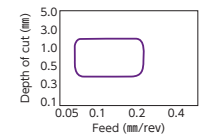
### <55 degree Rhombic Positive type>



Material	P	M	K	N	S	H
Steel	●	●	●	●	●	●
Stainless Steel	●	●	●	●	●	●
Cast Iron	●	●	●	●	●	●
Non-Ferrous Material	●	●	●	●	●	●
Heat Resistant Alloy	●	●	●	●	●	●
Hardened Material	●	●	●	●	●	●

● : 1st Choice  
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:	
				PVD Coated						CVD Coated						
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1			
	DCGT 070200 FN AM3		0.03	●	●	●	●	●	●	●	●	●	●	●		
	070201 FN AM3		0.1	●	●	●	●	●	●	●	●	●	●	●	●	
	070202 FN AM3		0.2	●	●	●	●	●	●	●	●	●	●	●	●	
	070204 FN AM3		0.4	●	●	●	●	●	●	●	●	●	●	●	●	
	070201M FN AM3		*0.08	●	●	●	●	●	●	●	●	●	●	●	●	
	070202M FN AM3		*0.18	●	●	●	●	●	●	●	●	●	●	●	●	
	070204M FN AM3		*0.38	●	●	●	●	●	●	●	●	●	●	●	●	
	DCGT 11T300 FN AM3		0.03	●	●	●	●	●	●	●	●	●	●	●	●	
	11T302 FN AM3		0.2	●	●	●	●	●	●	●	●	●	●	●	●	
	11T304 FN AM3		0.4	●	●	●	●	●	●	●	●	●	●	●	●	
	11T301M FN AM3		*0.08	●	●	●	●	●	●	●	●	●	●	●	●	
	11T302M FN AM3		*0.18	●	●	●	●	●	●	●	●	●	●	●	●	
11T304M FN AM3		*0.38	●	●	●	●	●	●	●	●	●	●	●	●		
DCMT 070202 FN AM3		0.2									●					
070204 FN AM3		0.4									●					
DCMT 11T302 FN AM3		0.2									●					
11T304 FN AM3		0.4									●					
11T308 FN AM3		0.8									●					
	DCGT 070201M AMX		*0.08				●	●	●	●						
	070202M AMX		*0.18				●	●	●	●						
	070204M AMX		*0.38				●	●	●	●						
	DCGT 11T301M AMX		*0.08				●	●	●	●						
	11T302M AMX		*0.18				●	●	●	●						
	11T304M AMX		*0.38				●	●	●	●						
	DCGT 070200 AZ7		0.03			●										
	070201M AZ7		*0.08			●										
	070202M AZ7		*0.18			●										
	DCGT 11T300 AZ7		0.03		●	●		●	●							
	11T301M AZ7		*0.08		●	●		●	●							
	11T302M AZ7		*0.18		●	●		●	●							
11T304M AZ7		*0.38		●	●		●	●								
11T308 AZ7		0.8		●	●		●	●								
	DCMT 070202 ENA AZ8		0.2									●				
	070204 ENB AZ8		0.4									●				
	070208 ENB AZ8		0.8									●				
	DCMT 11T302 ENA AZ8		0.2									●				
	11T304 ENB AZ8		0.4									●				
	11T308 ENB AZ8		0.8									●				
	DCET 11T301M R/4 AT		*0.08						R							
	11T302M R/4 AT		*0.18						R							
	DCET 0702005 R/4 KHG		0.05				●									
	0702008 R/4 KHG		0.08				●									
	0702018 R/4 KHG		0.18				●									
	070202 R/4 KHG		0.2				●									
	DCET 11T3005 R/4 KHG		0.05				●		R							
	11T3008 R/4 KHG		0.08				●		R							
11T3018 R/4 KHG		0.18				●		R								
11T302 R/4 KHG		0.2				●		R								
	DCET 0702008 R/4 UHG		0.08						R							
	DCET 11T3008 R/4 UHG		0.08						R							



G25  
G27

\*Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively. ● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

## <55 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
DC_0702	6.35	2.38	7°
DC_11T3	9.525	3.97	7°

Shape	ISO Item Number	Inch Item Number	R	Carbide											Chip Control Range	For applicable holder, see pages:		
				PVD Coated						CVD Coated								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1					
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●	
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	
				Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●	
 S R-hand shown	DCGT 070200	R/4 S	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	070201	R/4 S	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	070202	R/4 S	0.2	●	●	●	●	●	●	●	●	●	●	●	●			
	070204	R/4 S	0.4	●	●	●	●	●	●	●	●	●	●	●	●			
	070201M	R/4 S	*0.08	●	●	●	●	●	●	●	●	●	●	●	●			
	070202M	R/4 S	*0.18	●	●	●	●	●	●	●	●	●	●	●	●			
	DCGT 11T300	R/4 S	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	11T301	R/4 S	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	11T302	R/4 S	0.2	●	●	●	●	●	●	●	●	●	●	●	●			
	11T304	R/4 S	0.4	●	●	●	●	●	●	●	●	●	●	●	●			
 U · U1 R-hand shown	DCGT 070200	R/4 U	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	070201	R/4 U	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	070202	R/4 U	0.2	●	●	●	●	●	●	●	●	●	●	●	●			
	DCGT 11T300	R/4 U1	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	11T301	R/4 U1	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	11T304	R/4 U1	0.4	●	●	●	●	●	●	●	●	●	●	●	●			
 without chipbreaker	DCGW 070200	FN	0.03	●	●	●	●	●	●	●	●	●	●	●	●	G25 G27		
	070201	FN	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	070200	H (M)	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	070201	H (M)	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	070202	H (M)	0.2	●	●	●	●	●	●	●	●	●	●	●	●			
	07020	V (M)	0.0	●	●	●	●	●	●	●	●	●	●	●	●			
	DCGW 11T300	FN	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	11T301	FN	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
	11T300	H (M)	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	11T301	H (M)	0.1	●	●	●	●	●	●	●	●	●	●	●	●			
 CL * 2	DCGT 070201M	CL	*0.08	●	●	●	●	●	●	●	●	●	●	●	●			
	070202M	CL	*0.18	●	●	●	●	●	●	●	●	●	●	●	●			
	070204M	CL	*0.38	●	●	●	●	●	●	●	●	●	●	●	●			
	DCGT 11T301M	CL	*0.08	●	●	●	●	●	●	●	●	●	●	●	●			
	11T302M	CL	*0.18	●	●	●	●	●	●	●	●	●	●	●	●			
	11T304M	CL	*0.38	●	●	●	●	●	●	●	●	●	●	●	●			
 YL	DCGT 070201M	YL	0.08	●	●	●	●	●	●	●	●	●	●	●	●			
	070202M	YL	0.18	●	●	●	●	●	●	●	●	●	●	●	●			
	070204M	YL	0.38	●	●	●	●	●	●	●	●	●	●	●	●			
	DCGT 11T300	YL	0.03	●	●	●	●	●	●	●	●	●	●	●	●			
	11T301M	YL	0.08	●	●	●	●	●	●	●	●	●	●	●	●			
	11T302M	YL	0.18	●	●	●	●	●	●	●	●	●	●	●	●			
	11T304M	YL	0.38	●	●	●	●	●	●	●	●	●	●	●	●			
	11T308M	YL	0.78	●	●	●	●	●	●	●	●	●	●	●	●			

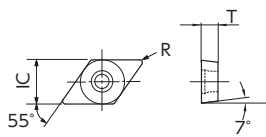
\* Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.  
 \* 2 The specifications of CL chipbreaker are slightly different from the above dimensions, but it has no problem for machining.

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)




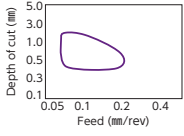
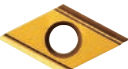
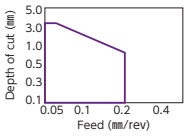
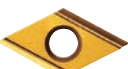
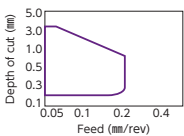

Item Number	IC	T	Relief angle
<b>TFD_07</b>	6.35	2.38	7°
<b>TFD_11</b>	9.525	3.97	7°

### <TFD with Wiper edge>

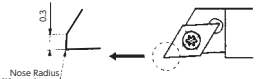


Steel	P	●	●	●	●	●	●	●	●	●	●	●
Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●
Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●
Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●
Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●
Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●

● : 1st Choice  
● : 2nd choice

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated							CVD Coated						
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
 AM3	<b>TFD 11 FR 05 AM3</b>	DCGT32.502AM3-WP	0.05			R											
	<b>11 FR 15 AM3</b>	32.506AM3-WP	0.15			R											
 S ※ R-hand shown	<b>TFD 07 FR 05</b>	DCGT21.502 <sup>R/L</sup> S-WP	0.05	●		R	R										
	<b>07 FR 15</b>	21.506 <sup>R/L</sup> S-WP	0.15	●		R											
	<b>TFD 11 FR 05</b>	DCGT32.502RS-WP	0.05		R	R	R										
	<b>11 FR 15</b>	32.506RS-WP	0.15		R	R											
 U · U1 ※ R-hand shown	<b>TFD 07 FR 05 U</b>	DCGT21.502RU-WP	0.05			R	R	R									<b>G25</b> <b>G27</b>
	<b>07 FR 15 U</b>	21.506RU-WP	0.15			R	R										
	<b>TFD 11 FR 05 U1</b>	DCGT32.502RU1-WP	0.05		R	R	R										
	<b>11 FR 15 U1</b>	32.506RU1-WP	0.15		R	R											
 without chipbreaker	<b>TFD 07 FR 05 H</b> <sup>M</sup>	DCGW21.502RH-WP	0.05											R			
	<b>TFD 11 FR 05 H</b> <sup>M</sup>	DCGW32.502RH-WP	0.05											R			

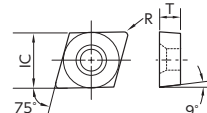
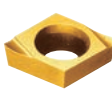
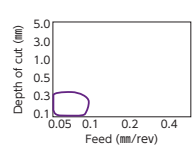
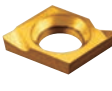
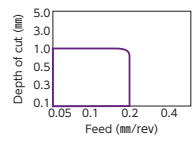
● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)



\*Note: NTK WP style inserts have a wiper facet design. The insert has a 0.3mm flat on the cutting edge when the insert is set into the toolholder. The flat on the cutting edge ensures a superior surface when feed rates are increased. WP style inserts can be used in toolholders: SDJC, Y-SDJC, CH-SDUCL and DS-SDUL.

## <75 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
<b>ER_T301</b>	3.97	1.59	9°

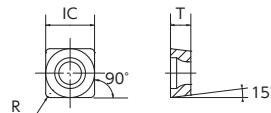

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:																																																																																				
				PVD Coated							CVD Coated																																																																																								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1																																																																																						
 <table border="1"> <tr><td>Steel</td><td>P</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Stainless Steel</td><td>M</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Cast Iron</td><td>K</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Non-Ferrous Material</td><td>N</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Heat Resistant Alloy</td><td>S</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> <tr><td>Hardened Material</td><td>H</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td><td>●</td></tr> </table>				Steel	P	●	●	●	●	●	●	●	●	●	●	●	●	Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●	Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●	Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●	Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●	Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●	<p>● : 1st Choice ● : 2nd choice</p>											
Steel	P	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
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Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
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Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
 A2 R-hand shown	<b>ERGH T30102 F<sub>R</sub>/L A2</b>	<b>ERGP52Y-F<sub>R</sub>/L--A2</b>	0.2	●			■	●										K27																																																																																	
	<b>T30104 F<sub>R</sub>/L A2</b>	<b>521-F<sub>R</sub>/L--A2</b>	0.4	L				●																																																																																											
 F1 ※ R-hand shown	<b>ERGH T30101 F<sub>R</sub>/L F1</b>	—	0.1	R		R		R										K27																																																																																	
	<b>T30102 F<sub>R</sub>/L F1</b>	—	0.2	R		R		R																																																																																											
	<b>T30104 F<sub>R</sub>/L F1</b>	—	0.4	R		R		R																																																																																											

※For F05, F1 and FG chipbreaker, right-hand inserts fit to right-hand toolholder.

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

## <90 degree Square Positive type>

Item Number	IC	T	Relief angle
<b>SD_0602</b>	6.35	2.38	15°

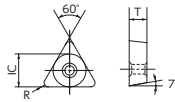
Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:																																																																																				
				PVD Coated							CVD Coated																																																																																								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1																																																																																						
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Steel	P	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Stainless Steel	M	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Cast Iron	K	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
Hardened Material	H	●	●	●	●	●	●	●	●	●	●	●	●																																																																																						
 without chipbreaker	<b>SDEW 060202 FN</b>		0.2	●																																																																																															

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

### <60 degree Triangle Positive type>


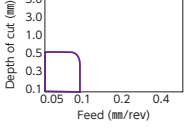

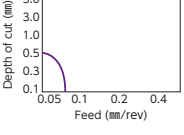

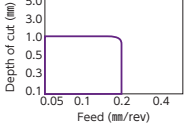
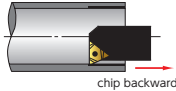

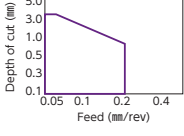

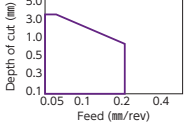

Item Number	IC	T	Relief angle
TC_0601	3.97	1.59	7°
TC_06T1	3.97	1.98	7°

Item Number	IC	T	Relief angle
TC_0902	5.56	2.38	7°
TC_1102	6.35	2.38	7°



Material	P	M	K	N	S	H
Steel	●	●	●	●	●	●
Stainless Steel	●	●	●	●	●	●
Cast Iron	●	●	●	●	●	●
Non-Ferrous Material	●	●	●	●	●	●
Heat Resistant Alloy	●	●	●	●	●	●
Hardened Material	●	●	●	●	●	●

● : 1st Choice  
● : 2nd choice

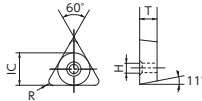

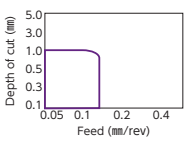
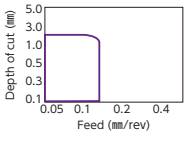

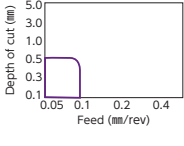

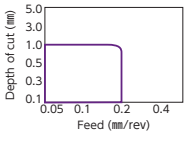
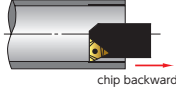

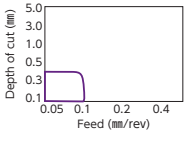
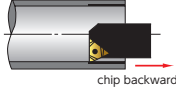
Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:			
				PVD Coated						CVD Coated								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1					
 K L-hand shown	TCGH 060102 F <sub>R/L</sub> K		0.2															
	060104 F <sub>R/L</sub> K		0.4															
 B1 L-hand shown	TCGH 060102 F <sub>R/L</sub> B1	TCGP52Y-F <sub>R/L</sub> -B1	0.2		L				L								K30 K31 K32	
	060104 F <sub>R/L</sub> B1	521-F <sub>R/L</sub> -B1	0.4		L				L									
 F05 ※ R-hand shown	TCGH 060101 F <sub>R/L</sub> F05	TCGP521CF <sub>R/L</sub> -F05	0.1	R		R			R							 		
	060102 F <sub>R/L</sub> F05	52Y-F <sub>R/L</sub> -F05	0.2	R	●	R	■	●										
	060104 F <sub>R/L</sub> F05	521-F <sub>R/L</sub> -F05	0.4	R	R	R	■	R										
 S R-hand shown	TCGT 090201 R <sub>L</sub> S		0.1		R		●											
	090202 R <sub>L</sub> S		0.2		R													
	TCGT 110201 R <sub>L</sub> S		0.1		R		●											
 U R-hand shown	TCGT 090201 R <sub>L</sub> U		0.1		R												G36	
	090202 R <sub>L</sub> U		0.2		R													
 without chipbreaker	TCGW 06T108 FN		0.8		●											—		
	TCGW 090200 FN		0.03		●													
	090201 FN		0.1		●													
	TCGW 110200 FN		0.03		●													
	110201 FN		0.1		●													

※For F05 chipbreaker, right-hand inserts fit to right-hand toolholder.

● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)

## <60 degree Triangle Positive type>

Item Number	IC	T	Relief angle
TP_0802	4.76	2.38	11°
TP_0902	5.56	2.38	11°
TP_1103	6.35	3.18	11°

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:		
				PVD Coated						CVD Coated							
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1				
				Steel	P	●	●	●	●	●	●	●	●	●	●	●	● : 1st Choice ● : 2nd choice
				Stainless Steel	M	●	●	●	●	●	●	●	●	●	●		
				Cast Iron	K	●	●	●	●	●	●	●	●	●	●		
				Non-Ferrous Material	N	●	●	●	●	●	●	●	●	●	●		
				Heat Resistant Alloy	S	●	●	●	●	●	●	●	●	●	●		
				Hardened Material	H	●	●	●	●	●	●	●	●	●	●		
 B2 · B3 L-hand shown	TPGH 090202 F <sub>R/L</sub> B2	TPGP73Y-F <sub>R/L</sub> --B2	0.2		L				L								
	090204 F <sub>R/L</sub> B2	731-F <sub>R/L</sub> --B2	0.4		L				L								
	090208 F <sub>R/L</sub> B2	732-F <sub>R/L</sub> --B2	0.8		L				L								
	TPGH 080202 F <sub>R/L</sub> B3	TPGP63Y-F <sub>R/L</sub> --B3	0.2		L				L								
	080204 F <sub>R/L</sub> B3	631-F <sub>R/L</sub> --B3	0.4		L				L								
 K L-hand shown	TPGH 090202 F <sub>R/L</sub> K		0.2						L								
	090204 F <sub>R/L</sub> K		0.4						L								
	090208 F <sub>R/L</sub> K		0.8						L								
 F1 ※ R-hand shown	TPGH 080202 F <sub>R/L</sub> F1	TPGP63Y-F <sub>R/L</sub> --F1	0.2		R			R	R						 		
	080204 F <sub>R/L</sub> F1	631-F <sub>R/L</sub> --F1	0.4		R			R	R								
	TPGH 090201 F <sub>R/L</sub> F1	TPGP731CF <sub>R/L</sub> --F1	0.1	R		R			R								
	090202 F <sub>R/L</sub> F1	73Y-F <sub>R/L</sub> --F1	0.2	R	R	R			R	R							
	090204 F <sub>R/L</sub> F1	731-F <sub>R/L</sub> --F1	0.4	R	R	R			R	R							
	090208 F <sub>R/L</sub> F1	732-F <sub>R/L</sub> --F1	0.8	R	R	R			R								
	TPGH 110302 F <sub>R/L</sub> F1	TPGH22Y-F <sub>R/L</sub> --F1	0.2	R	R	R			R	R							
110304 F <sub>R/L</sub> F1	221-F <sub>R/L</sub> --F1	0.4	R	R	R			R	R								
 FG ※ R-hand shown	TPGH 090202 <sub>R/L</sub> FG		0.2	R				R						 			
	090204 <sub>R/L</sub> FG		0.4	R				R									
	TPGH 110302 <sub>R/L</sub> FG		0.2	R				R									
	110304 <sub>R/L</sub> FG		0.4	R				R									

※For F1 and FG chipbreaker, right-hand inserts fit to right-hand toolholder. ● : Standard stock ● : New standard stock ■ : Scheduled to be produced by order ★ : Standard stock (Specified)



## <35 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
<b>VB_1604</b>	9.525	4.76	5°

Item Number	IC	T	Relief angle
<b>VC_1103</b>	6.35	3.18	7°
<b>VC_1303</b>	7.94	3.18	7°

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:			
				PVD Coated						CVD Coated								
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1					
				<b>Steel</b> P <b>Stainless Steel</b> M <b>Cast Iron</b> K <b>Non-Ferrous Material</b> N <b>Heat Resistant Alloy</b> S <b>Hardened Material</b> H											● : 1st Choice ● : 2nd choice			
	<b>VBGT 160402 FN YL</b>		0.2	●						●								—
	<b>160404 FN YL</b>		0.4	●						●								
	<b>160408 FN YL</b>		0.8	●						●								
	<b>VCET 1103008 R/2 UHG</b>		0.08				R											
	<b>VCGT 110300 AZ7</b>		0.03		●	●												<b>G29</b> <b>G31</b> <b>G56</b>
	<b>110301M AZ7</b>		*0.08		●	●												
	<b>110302M AZ7</b>		*0.18		●	●												
	<b>110304M AZ7</b>		*0.38		●	●												
	<b>VCGT 110300 FN AM3</b>		0.03					●	●									
	<b>110301 FN AM3</b>		0.1		●	●												
	<b>110302 FN AM3</b>		0.2		●	●												
	<b>110301M FN AM3</b>		*0.08	●	●	●	●											
	<b>110302M FN AM3</b>		*0.18	●	●	●	●											
	<b>110304M FN AM3</b>		*0.38	●	●	●	●											
	<b>VCMT 110302 FN AM3</b>		0.2								●							
	<b>110304 FN AM3</b>		0.4								●							
	<b>VCGT 130300 F R/2 2M</b>		0.03									●						<b>G29</b> <b>G62</b>
	<b>130301 F R/2 2M</b>		0.1									●						
	<b>VCGT 110300 R/2 U</b>		0.03		R		R											
	<b>110301 R/2 U</b>		0.1		R		R											
	<b>110302 R/2 U</b>		0.2		R		R											
	<b>110301M R/2 U</b>		*0.08							R								
	<b>110302M R/2 U</b>		*0.18							R								
	<b>VCGW 110300 H M</b>		0.03												●			<b>G29</b> <b>G31</b> <b>G56</b>
	<b>110301 H M</b>		0.1												●			
	<b>110302 H M</b>		0.2												●			

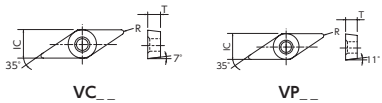






\*Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)

### <35 degree Rhombic Positive type>

Item Number	IC	T	Relief angle
VC_1102	6.35	2.38	7°
VC_1103	6.35	3.18	7°

Item Number	IC	T	Relief angle
VP_0802	4.76	2.38	11°
VP_1103	6.35	3.18	11°

Shape	ISO Item Number	Inch Item Number	R	Carbide										Chip Control Range	For applicable holder, see pages:	
				PVD Coated						CVD Coated						
				ST4	ZM3	QM3	VM1	TM4	DT4	DM4	CP1	CP7	KM1			
 VC_1102 VC_1103																
	 VC_1102M CL			*0.18			●		●	●	●					
	 VC_110301M CL			*0.08	●		●		●	●	●					
	110302M CL			*0.18	●		●		●	●	●					
 YL	VC_110301M YL			0.08	●		●		●	●	●					
	110302M YL			0.18	●		●		●	●	●					
	110304M YL			0.38	●		●		●	●	●					
 KHG R-hand shown	VPET 0802005 $\frac{R}{L}$ KHG			0.05			●		R							
	0802008 $\frac{R}{L}$ KHG			0.08			●		R	R						
	0802018 $\frac{R}{L}$ KHG			0.18			●		R							
	080202 $\frac{R}{L}$ KHG			0.2			●		R							
	VPET 1103005 $\frac{R}{L}$ KHG			0.05			●		R							
	1103008 $\frac{R}{L}$ KHG			0.08			●		R							
	1103018 $\frac{R}{L}$ KHG			0.18			●		R							
110302 $\frac{R}{L}$ KHG			0.2			●		R								
 UHG R-hand shown	VPET 0802008 $\frac{R}{L}$ UHG			0.08						●						
 AM3	VP_110300 FN AM3			0.03					●	●						
	110301M FN AM3			*0.08	●		●		●	●						
	110302M FN AM3			*0.18	●		●		●	●						

\* Inserts having 01M, 02M or 04M as the R code can be used for machining when the component drawing specifies that the radius is less than R=0.1, R=0.2 or R=0.4 respectively.  
 \*\*2 The specifications of CL chipbreaker are slightly different from the above dimensions, but it has no problem for machining.

● : Standard stock   ● : New standard stock   ■ : Scheduled to be produced by order   ★ : Standard stock (Specified)