TURNING TOOLS

GESAC

About GESAC

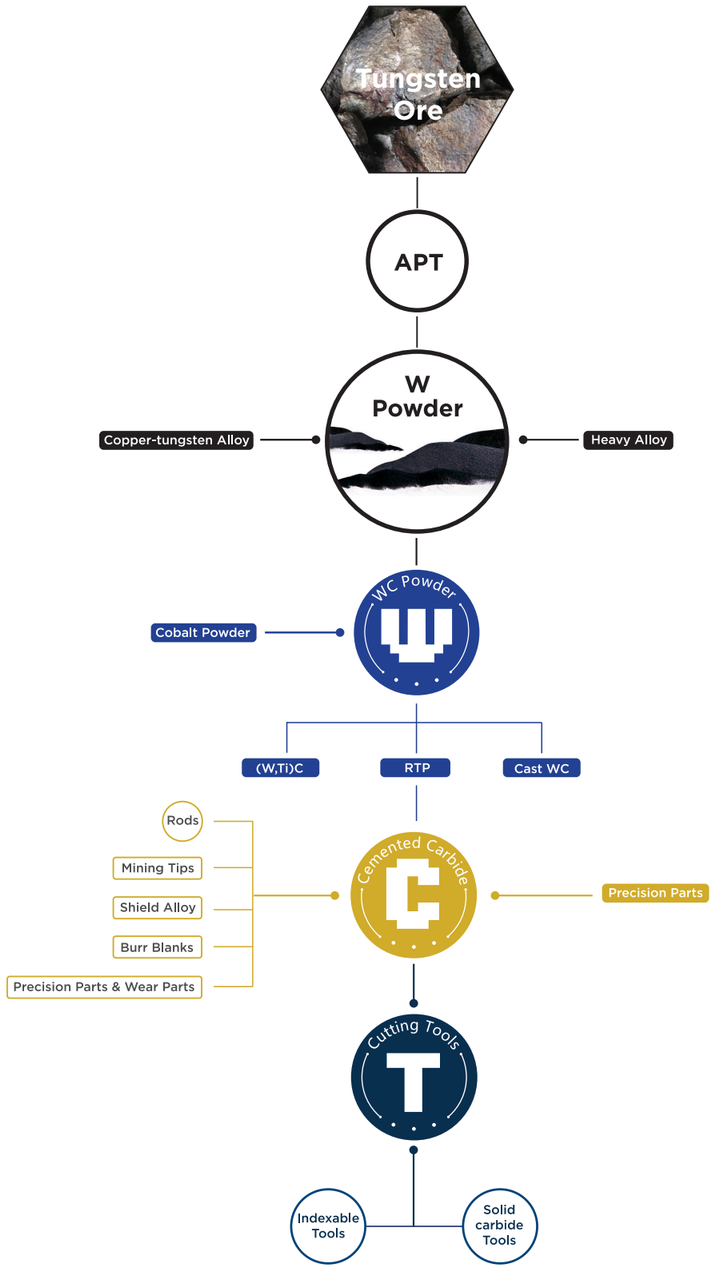
Xiamen Golden Egret Special Alloy Co., Ltd. (GESAC), founded in 1989, is a Sino-foreign joint venture with national high-tech, affiliated with XTC, which is one of six major rare earth groups in China. GESAC is committed to research & development, production and professional solutions providing of high-quality tungsten powder materials, cemented carbide, precision cutting tools and other tungsten products. Up to now, GESAC has become world-famous manufacturer and supplier of tungsten powder, cemented carbide and precision cutting tools products.

With the Integrated Product Development of complete tungsten industry chain, as well as a pragmatic and innovative management concept, GESAC has always maintained a strong momentum of development, providing the cost effective tungsten powder products and services for global users, offering the excellent products and perfect solutions for solving high hardness, high temperature resistance and wear resistance topics. Our brand "Golden Egret" has become one of the leading brand in the market, enjoying famous reputation in more than 40 countries and regions.

GESAC owns three production bases, three overseas sales branches and one R&D center. We undertook and completed several development programs independently, including the “National Science and Technology Support Programs”, the “National Torch Program Projects”, and the “National Key Projects” and so on. GESAC was awarded as "Key Enterprise for Strategic Emerging Industry ", “Innovative Enterprise" and "Enterprise with Advanced Technology ".

Product Chain

GESAC has a complete tungsten product chain from tungsten ore to tungsten powder, cemented carbide products and cutting tools.



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A

General Turning

ISO Turning Indexable Inserts Identification System

Symbol	Shape	Corner Angle	Shape
H	Hexagon	120°	
O	Octagon	135°	
P	Pentagon	108°	
S	Square	90°	
T	Triangle	60°	
C	Rhombic	80°	
D		55°	
E		75°	
F		50°	
M		86°	
V		35°	
W	Trigon	80°	
L	Rectangle	90°	
A	Parallelogram	85°	
B		82°	
K		55°	
R	Round	——	

①Shape Symbol

Symbol	Relief Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	其他

②Relief Angle Symbol

Symbol	Tolerance（mm）			Tolerance（inch）		
	Corner Height (m)	Thickness (s)	I.C.dia. (Ød)	Corner Height (m)	Thickness (s)	I.C.dia. (Ød)
A	±0.005	±0.025	±0.025	±0.0002	±0.001	±0.001
F	±0.005	±0.025	±0.013	±0.0002	±0.001	±0.0005
C	±0.013	±0.025	±0.025	±0.0005	±0.001	±0.001
H	±0.013	±0.025	±0.013	±0.0005	±0.001	±0.0005
E	±0.025	±0.025	±0.025	±0.001	±0.001	±0.001
G	±0.025	±0.13	±0.025	±0.001	±0.005	±0.001
J	±0.005	±0.025	±0.05~±0.13	±0.0002	±0.001	±0.002~±0.005
K	±0.013	±0.025	±0.05~±0.13	±0.0005	±0.001	±0.002~±0.005
L	±0.025	±0.025	±0.05~±0.13	±0.001	±0.001	±0.002~±0.005
M	±0.08~±0.18	±0.13	±0.05~±0.13	±0.003~±0.007	±0.005	±0.002~±0.005
N	±0.08~±0.18	±0.025	±0.05~±0.13	±0.003~±0.007	±0.001	±0.002~±0.005
U	±0.13~±0.38	±0.13	±0.08~±0.25	±0.005~±0.015	±0.005	±0.003~±0.01

③Tolerance Symbol

Insert Shape：H,O,P,S,T,C,E,M,W,R									
I. C. Size (mm)	Tolerance of I. C. Size(Ød) (mm)		Tolerance of Corner Height (mm)		I. C. Size (inch)	Tolerance of I. C. Size(Ød) (mm)		Tolerance of corner Height (mm)	
	J,K,L, M,N	U	M,N	U		Class J,K, L,M,N	Class U	Class J,K, L,M,N	Class U
6.35	±0.05	±0.08	±0.08	±0.13	0.250	±0.002	±0.003	±0.003	±0.005
9.525					0.375				
12.7	±0.08	±0.13	±0.13	±0.2	0.500	±0.003	±0.005	±0.005	±0.008
15.875	±0.1	±0.18	±0.15	±0.27	0.625	±0.004	±0.007	±0.006	±0.011
19.05					0.750				
25.4	±0.13	±0.25	±0.18	±0.38	1.000	±0.005	±0.010	±0.007	±0.015
31.75	±0.15	±0.25	±0.2	±0.38	1.250	±0.006	±0.010	±0.008	±0.015
32					1.260				

Insert Shape：D					
Inscribed Circle Size		Tolerance of I. C. Size		Tolerance of Corner Height	
mm	in	mm	in	mm	in
6.35	0.250	±0.05	±0.002	±0.11	±0.004
9.525	0.375	±0.05	±0.002	±0.11	±0.004
12.7	0.500	±0.08	±0.003	±0.15	±0.006
15.875	0.625	±0.10	±0.004	±0.18	±0.007
19.05	0.750	±0.10	±0.004	±0.18	±0.007

Insert Shape：V					
Inscribed Circle Size		Tolerance of I. C. Size		Tolerance of Corner Height	
mm	in	mm	in	mm	in
6.35	0.250	±0.05	±0.002	±0.15	±0.006
9.525	0.375	±0.05	±0.002	±0.15	±0.006
12.7	0.500	±0.08	±0.003	±0.20	±0.008
15.875	0.625	±0.10	±0.004	±0.27	±0.011
19.05	0.750	±0.10	±0.004	±0.27	±0.011

Symbol	Thickness (mm)
01	1.59
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

⑥Thickness Symble

①	②	③	④	⑤
T	N	M	G	22

⑥	⑦		⑧
04	08	-	HK

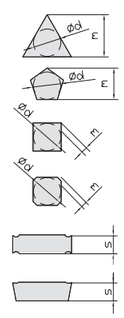
④Hole/Chipbreaker Symbol				
Symbol	Hole	Hole Shape	Chlpbreaker	Shape
N	With-out	—	Without	
R			Single-sided	
F			Double-sided	
A	With	With Hole	Without	
M			Single-sided	
G			Double-sided	
W		With Hole and One Countersink 40-60°	Without	
T			Single-sided	
Q		With Hole and Two Countersink 40-60°C	Without	
U			Double-sided	
B		With Hole and One Countersink 70-90°C	Without	
H			Double-sided	
C		With Hole and Two Countersink 70-90°C	Without	
J			Double-sided	
X	—	—	—	

⑤Edge Length Symbol（ISO）（mm）																	
R		S		C		W		T		D		V		K		I. C. Size (mm)
Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	Symbol	Length	
		03	3.97	03	4.0			06	6.9	4	4.8					3.97
		04	4.76	04	4.8			08	8.2	5	5.8					4.76
05	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
		05	5.56	05	5.6	03	3.8	09	9.6	6	6.8					5.56
06	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
		06	6.35	06	6.5	04	4.3	11	11	7	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	9	9.7					7.94
08	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10
12	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
16	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
25	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
31	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32

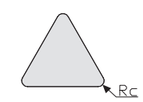
Inscribed Circle Size（mm）

Insert Thickness(S)

Corner Height(m)



⑦Corner Ro Symbol



Symbol	Corner-R（mm）
00	0.03
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
28	2.8
32	3.2

⑧Chipbreaker Symbol

Indicates the cutting properties and chipbreakers

Application Summary of Turning Grades

Workpiece	ISO	Coated								Uncoated		Cermet		Coating Cermet	CBN	Coating CBN	PCD
		CVD					PVD										
P Steel	01	GP1105										GP91TF		GP31TM NEW			
	10		GP1115										GP91TM				
	20			GP1120					GA4230								
	30				GP1225												
	40					GP1135											
	50																
M Stainless Steel	01											GP91TF		GP31TM NEW			
	10		GM1115										GP91TM				
	20			GM1125			GS3115										
	30							GM3215	GA4230								
	40							GS3125									
	50								GM3225								
K Cast Iron	01											GP91TF		GP31TM NEW	BKN115P		
	10	GK1115											GP91TM			BKC120P NEW	
	20			GK1120					GA4230								
	30				GK1125												
	40					GK1130											
N Non-ferrous metal	01																DNN105P
	10									GN9115							DNN120P NEW
	20										GN9120 NEW						
	30																DNN125P
	40										GN9130 NEW						
																	DNN130P
																	DNN135P
S HRSA	01																
	10						GS3115								BSN115P		
	20							GS3125		GS9125							
	30																
	40																
H Hardened Material	01															BHC115P NEW	
	10																
	20															BHC125P NEW	
	30																
	40															BHC135P NEW	

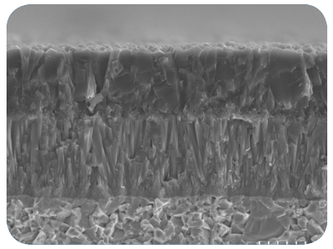
A General Turning

COATED CARBIDE(CVD)

• Fine grain Al2O3 coating improve wear-resistance and breakage failure resistance

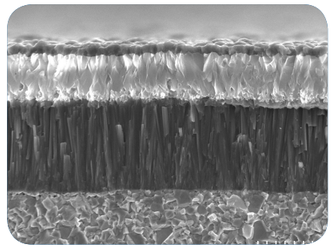
Workpiece		Cutting Mode	Recommended Grade	Recommended Cutting Speed (m/min)	ISO	Application Range
P	Steel	Continuous Cutting	GP1105	200-380	P01	GP1105
			GP1115	150-360	P10	GP1115
			GP1120	150-360	P20	GP1120
		Interrupted Cutting	GP1225	120-280	P30	GP1225
			GP1135	80-180	P40	GP1135
M	Stainless Steel	Continuous Cutting	GM1115	200-300	M01	GM1115
					M10	
					M20	GM1125
		Interrupted Cutting	GM1125	180-280	M30	
					M40	
K	Cast Iron	Continuous Cutting	GK1115	200-400	K01	GK1115
			GK1120		K10	
		Interrupted Cutting	GK1125	150-300	K20	GK1120
			GK1130		K30	GK1125
					K40	GK1130

Extremely wear-resistance Steel Turning CVD Grade-GP1105



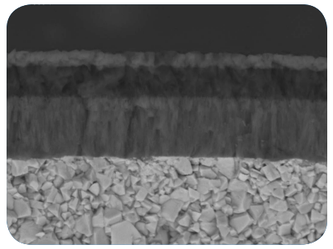
• Superfine Al2O3 and MT-TiCN coating on gradient carbide substrate provide excellent wear resistance.
• Suitable for finishing of steel & alloy steel under stable condition.

High versatility Steel Turning CVD Grade-GP1120



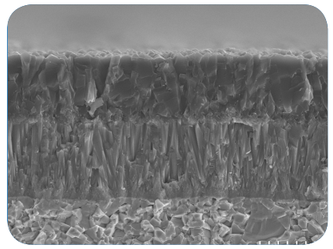
• Perfect combination with nano columnar MT-TiCN and Al2O3, TiN coating.
• Special edge treatment technology.
• Suitable for continuous to light interrupted cutting of steel & alloy steel.

High abrasive wear resistance Stainless Steel Turning CVD Grade-GM1115



• New thinner Al2O3 and Nano MT-TiCN coating, including bright yellow TiN coating, on good toughness gradient carbide substrate, with good wear resistance, superior adhesion resistance and longer tool life.
• Application: Suitable for machining of stainless finishing Conditions.

High versatility Cast Iron Turning CVD Grade-GK1120



• MT-TiCN and thick Al2O3 coated on micrograin carbide substrate. Special postprocessing with excellent edge strength and ensure the stability of cutting.
• Application: Suitable for continuous and light interrupted cutting action of nodular cast iron.

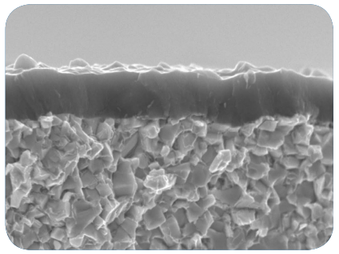
A General Turning

COATED CARBIDE(CVD)

• Exclusive PVD nano-coating improve comprehensive properties of cutting insert.

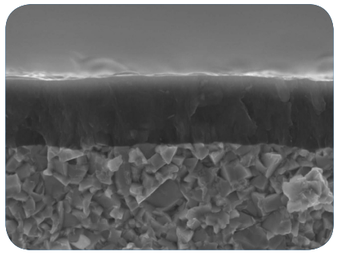
Workpiece		Cutting Mode	Recommended Grade	Recommended Cutting Speed (m/min)	ISO	Application Range
M	Stainless Steel	Continuous Cutting	GS3115	120-200	M01	GS3115
			GM3215	120-200	M10	GS3115, GM3215
		Interrupted Cutting	GS3125	80-180	M20	GM3215, GS3125
			GM3225	80-180	M30	GS3125, GM3225
S	Heat Resistance Alloy	Continuous Cutting	GS3115	40-70	S01	
					S10	GS3115
		Interrupted Cutting	GS3125	45-65	S20	GS3115, GS3125
					S30	GS3125

High abrasive wear resistance Stainless Steel Turning PVD Grade-GM3215



• New TiAlN coating on submicron substrate with strong adhesion, superior wear resistance and good heat resistance.
• Application: Suitable for finishing stainless steel and high-temperature alloy on stable conditions.

High versatility Stainless Steel Turning PVD Grade-GM3225



• Optimized combination of TiAlN coating and micro-grain carbide substrate with high Co cotent provide superior adhesion resistance and toughness.
• Application: Suitable for semi-finishing of stainless steels and threading of general materials.

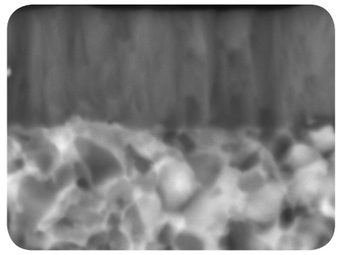
Cermet

• The specially optimized matrix largely improves wear resistance and anti-breakage property
• Great surface quality in high speed application.

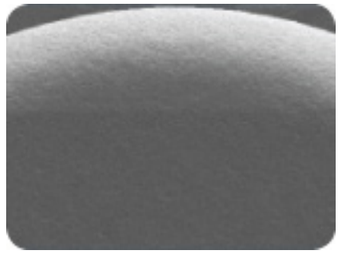
Workpiece		Cutting Mode	Recommended Grade	Recommended Cutting Speed (m/min)	ISO	Application Range
P	Steel	Continuous Cutting	GP91TF	180-380	P01	GP91TF, GP31TM (NEW)
			GP31TM	180-380	P10	GP91TF, GP91TM, GP31TM (NEW)
			GP91TM	150-350	P20	GP91TM, GP31TM (NEW)
					P30	GP91TM
M	Stainless Steel	Continuous Cutting	GP31TM	150-280	M01	GP91TM, GP31TM (NEW)
			GP91TM	130-250	M10	GP91TM, GP31TM (NEW)
					M20	GP31TM (NEW)
K	Cast Iron	Continuous Cutting	GP31TM	130-330	K01	GP91TM, GP31TM (NEW)
			GP91TM	100-300	K10	GP91TM, GP31TM (NEW)
					K20	GP31TM (NEW)

NEW

High wear-resistance coating cemet grade GP31TM



• Excellent PVD Coating
• High lubricant coating to promote its wear-resistance.



• Special Surface Leveling Technique
• Good control on chip breaker, realize good surface quality and extend tool life.

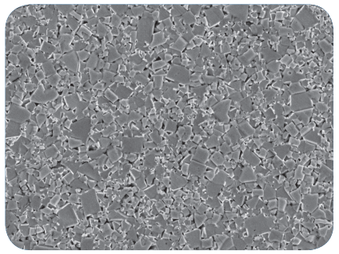
Cemented Carbide

• Cemented carbide substrate with special surface treatment suitable for cutting of copper, aluminum alloys and nonmetal materials

Workpiece		Cutting Mode	Recommended Grade	Recommended Cutting Speed (m/min)	ISO	Application Range
N	Nonferrous Materials	Continuous Cutting	GN9115	800-1600	N01	GN9115
			GN9120	700-1500	N10	GN9120
		Interrupted Cutting			N20	
			GN9130	650-1400	N30	GN9130

NEW

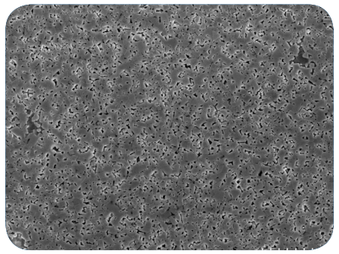
High versatility aluminum alloys Turning Grade-GN9120



• Fine grain cemented carbide substrate with special surface treatment have superior wear resistance and adhesion resistance.
• Application: Suitable for cutting of copper, aluminum alloys and non-ferrous materials in high speed conditions.

NEW

High toughness aluminum alloys Turning Grade-GN9130



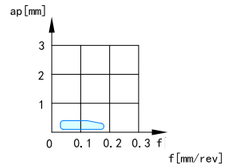
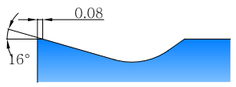
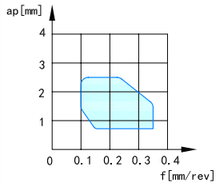
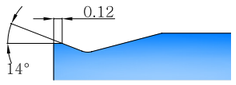
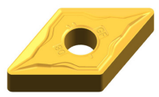
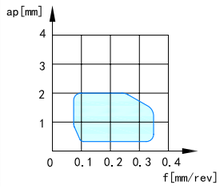
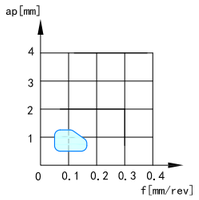
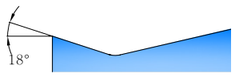
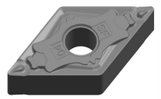
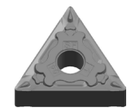
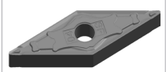
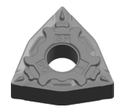
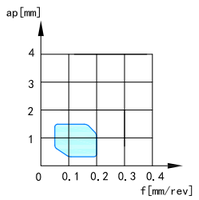
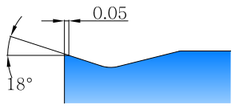
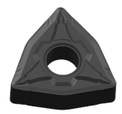
• Micro-fine grain cemented carbide substrate have balance between superior wear resistance and toughness.
• Application: Suitable for semi-finishing of copper, aluminum alloys And non-metallic material.

The Working Conditions of Turning Inserts

Workpiece	Geometry		Working Condition		
			●	◐	✥
			Continuous	Light Interrupted	Interruppted
P	Negative	PS	GP91TF		
		GF	GP1115/GP91TF	GP1115/GP1225	GP1225
		QF	GP1105/GP1115/GP91TF/GP91TM/GP31TM	GP1115/GP1120/GP1225/GP91TM	GP1120/GP1225
		GM	GP1115	GP1115/GP1225	GP1225
		QM	GP1105/GP1115/GP91TF/GP91TM/GP31TM	GP1115/GP1120/GP1225/GP91TM	GP1120/GP1225
		TS	GP91TM/GP31TM	GP91TM	
		TP	GP91TM/GP31TM	GP91TM	
		SV	GP1115/GP91TF/GP91TM/GP31TM	GP1115//GP1120/GP1225/GP91TM	GP1120/GP1225
		QR	GP1105/GP1115	GP1225	GP1135
		QH	GP/1105/GP1115	GP1225	GP1135
	Postive	PS	GP91TF		
		GS	GP91TF		
		MM	GP1105/GP91TF/GP91TM/GP31TM	GP1115/GP91TM	GP1225/GP3125
		GP	GP1115/GP91TF/GP91TM/GP31TM	GP1115/GP1120/GP1225/GP3125/GP91TM	GP1120/GP1225/GP3125
		TP	GP91TM/GP31TM	GP91TM	
		KM	GP1115	GP1115/GP1225	GP1225
M	Negative	PS	GS3115/GS3125		
		SF	GS3115		
		LF	GM3215	GM3225	GM3225
		SM	GM1115/GM3215/GP91TF/GP91TM	GM1125/GM3225/GP91TM	GM3225
		LM	GM1115/GM3215	GM1125/GS3125/GM3225	GM3225
		LV	GM3215	GM3225	GM3225
		LR	GM1115/GM3215	GM1125/GM3225	GM3225
	Postive	PS	GS3115/GS3125	GS3125	
		GS	GS3125		
		MM	GM1115/GM3215	GM1125/GM3225	GM3225
		GP	GM1115/GM3215	GM1125/GM3225	GM3225
K	Negative	UK	GK1115	GK1115/GK1120	GK1125/GK1130
		HK	GK1115	GK1115/GK1120	GK1125/GK1130
		平板/FLAT	GK1115	GK1115/GK1120	GK1125/GK1130
	Postive	GP	GK1115	GK1115/GK1125	GK1125
		KM	GK1115	GK1115/GK1125	GK1125
N	Postive	AL	GN9115	GN9120/GN9130	GN9120/GN9130

Features of Turning Inserts

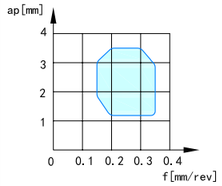
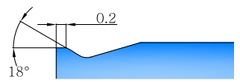
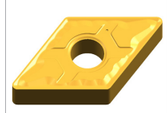
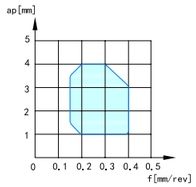
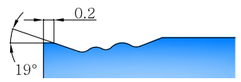
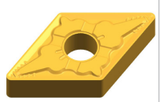
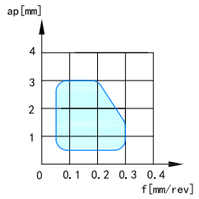
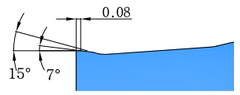
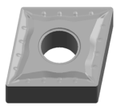
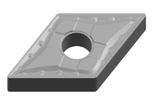
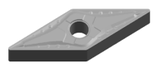
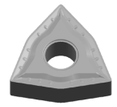
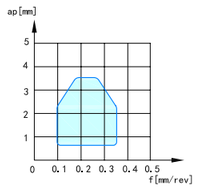
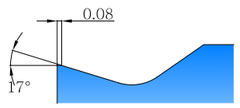
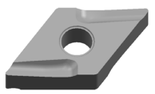
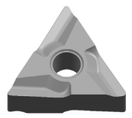
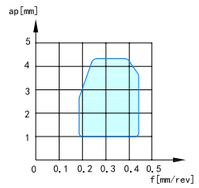
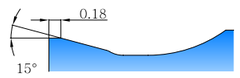
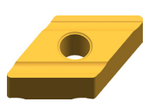
Turning Inserts（Negative）

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
PS	• PS for finishing of steel(mild steel) and stainless steel. • Sharp edge reduces cutting force, enables high quality surface. • Low feed,small cutting depth.									
								TNGG R/L-PS		
								P041		
GF	• GF for finishing of general steel and alloy steel. • Sharp tool nose and strong cutting edge. Good chip control under small cutting depth.									
					CNMG-GF	DNMG-GF	SNMG-GF	TNMG-GF	VNMG-GF	WNMG-GF
					P030	P034	P038	P042	P046	P048
QF	• QF for finishing of general steel and alloy steel. • Curved edge,sharp cutting edge,good chip control and fine surface finish due to curved edge.									
					CNMG-QF	DNMG-QF	SNMG-QF	TNMG-QF	VNMG-QF	WNMG-QF
					P030	P034	P038	P042	P046	P048
SF	• SF for stainless steel and Heat Resistance Super Alloy（HRSA） • Sharp edge due to results in low cutting forces particularly for thin wall structures and extended shafts.									
					CNMG-SF	DNMG-SF	SNMG-SF	TNMG-SF	VNMG-SF	WNMG-SF
					P030	P034	P038	P042	P046	P048
LF	• LF for Stainless Steel from finishing to semi-finishing. • Big cutting edge width and rake angle to promote its strength of nose. • Curve edge design to control chip removal direction well									
								TNMG-LF		WNMG-LF
								P042		P048

A General Turning

Features of Turning Inserts

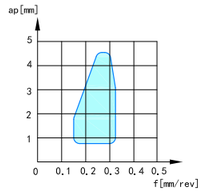
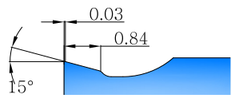
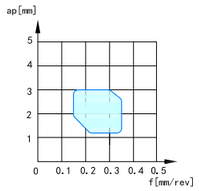
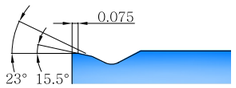
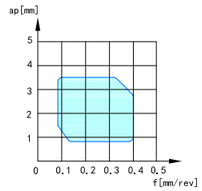
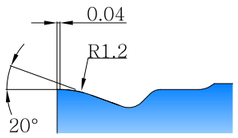
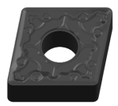
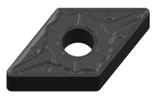
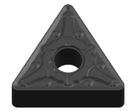
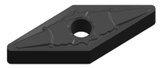
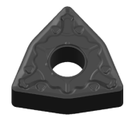
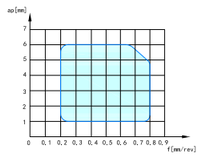
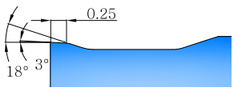
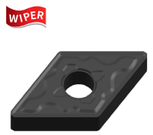
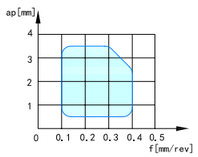
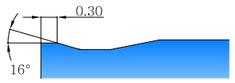
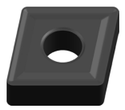
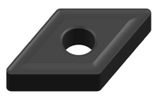
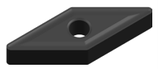
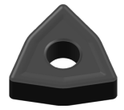
Turning Inserts（Negative）

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
GM	• GM for semi-finishing of general steel and alloy steel. • Strong flat cutting edge with good strength.									
					CNMG-GM P030	DNMG-GM P034	SNMG-GM P038	TNMG-GM P043	VNMG-GM P046	WNMG-GM P048
QM	• QM for semi-finishing of general steel and alloy steel. • Gradient and waved hump wide applicable geometry range.									
					CNMG-QM P031	DNMG-QM P035	SNMG-QM P039	TNMG-QM P043	VNMG-QM P046	WNMG-QM P048
TP	• TP for semi-finishing of general steel, alloy steel and cast iron • Dual rake angle and big cutting edge width design to promote its strength • Overall pattern design, table and reliable installation • Arrow chip breaker improves chip breaking performance during big cutting depth.									
					CNMG-TP P031	DNMG-TP P035	SNMG-TP P039	TNMG-TP P043	VNMG-TP P046	WNMG-TP P049
TS	• TS for semi-finishing of general steel and alloy steel. • Big rake angle lower cutting force • Variable groove depth design, with super chip removal.									
						DNMG R/L-TS P035		TNMG R/L-TS P043		
SV	• SV for semi-finishing of general steel and alloy steel. • Throughout groove and wide chip groove make cutting available in unstable working conditions. • Long chip groove allows high depth of cuts.									
					CNMG R/L-SV P031	DNMG R/L-SV P035	SNMG R/L-SV P039	TNMG R/L-SV P044		WNMG R/L-SV P049

A General Turning

Features of Turning Inserts

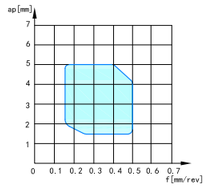
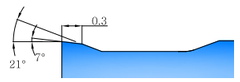
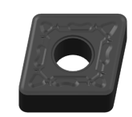
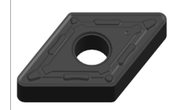
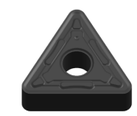
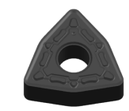
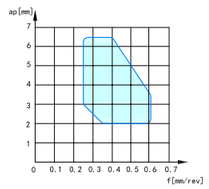
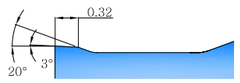
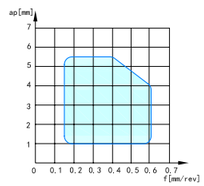
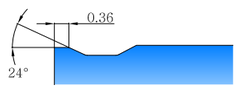
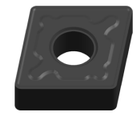
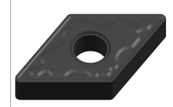
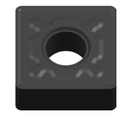
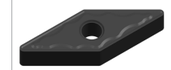
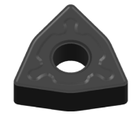
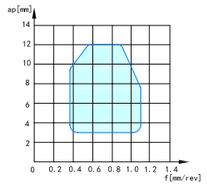
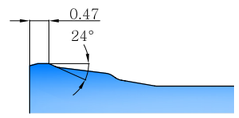
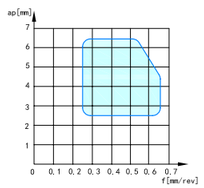
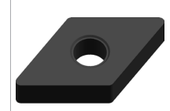
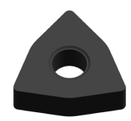
Turning Inserts（Negative）

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
LV	• LV for semi-finishing and roughing of stainless steel • No edge width and open chip breaker contribute to its sharp cutting edge and low cutting force. • Large chip breaker contribute to its big cutting depth and width.									
								TNMG R/L-LV		
								P044		
SM	• SM for medium cutting of stainless steel and mild steel. • Sharp cutting edge.									
					CNMG-SM	DNMG- SM	SNMG- SM	TNMG- SM	VNMG- SM	WNMG-SM
					P031	P036	P039	P044	P046	P049
LM	• LM for semi-finishing of stainless steel and high temperature alloy • Variable rake angle and cutting edge width to ensure its sharpness and strength • Heart-shaped chip breaker with good chip breaking.									
					CNMG-LM	DNMG- LM	SNMG- LM	TNMG- LM	VNMG- LM	WNMG-LM
					P032	P036	P040	P044	P047	P049
WMV	• WMV for general steel, alloy steel and cast iron • Large chip breaker with low chip removal resistance. • Excellent sharp cutting edge and strength • Good surface quality									
					CNMG-WMV	DNMX-WMV		TNMX-WMV		WNMG-WMV
					P032	P036		P044		P049
UK	• UK for machining cast iron. • Good Performance After Medium cutting for general conditions.									
					CNMG-UK	DNMG-UK	SNMG-UK	TNMG-UK	VNMG-UK	WNMG-UK
					P032	P036	P040	P044	P047	P050

A General Turning

Features of Turning Inserts

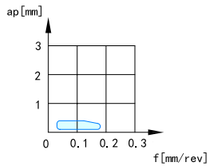
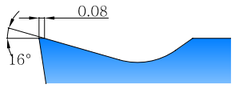
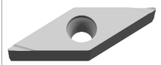
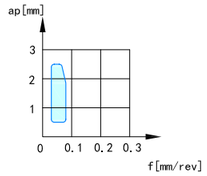
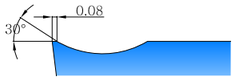
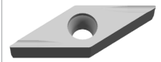
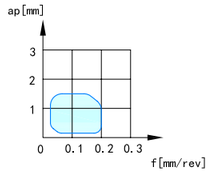
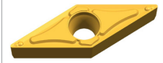
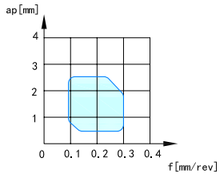
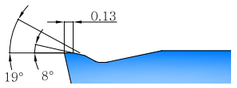
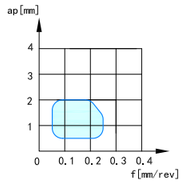
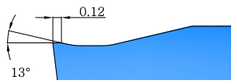
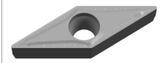
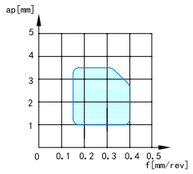
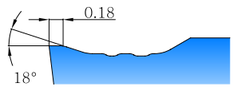
Turning Inserts（Negative）

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
LR	• LR for stainless steel of roughing • Small rake angle and big cutting edge width with strong corner. • Big chip breaker width and shallow • chip breaker depth to ensure good chip removal.									
					CNMG-LR	DNMG-LR	SNMG-LR	TNMG-LR		WNMG-LR
					P032	P037	P040	P045		P050
QR	• QR for rough cutting action of carbon steel,cast steel and alloy steel. • Variable rake angle and land provides enough edge sharpness and strength at different depth of cut.									
					CNMG-QR	DNMG-QR	SNMG-QR	TNMG-QR		WNMG-QR
					P033	P037	P040	P045		P050
HK	• HK for cast iron heavy cutting. • Strong cutting edge, big chip pocket, good at big cutting depth and width.									
					CNMG-HK	DNMG-HK	SNMG-HK	TNMG- HK	VNMG- HK	WNMG- HK
					P033	P037	P041	P045	P047	P050
QH	• QH for heavy cutting action of carbon steel, cast steel and alloy steel. • Variable land and progressive chip breaker space, generating lower cutting force. • Straight edge line with reinforcement balances strength and cutting action.									
					CNMM-QH		SNMM-QH			
					P033		P041			
Flat	• Flat-top for cast iron used. • Stable placement. • Strong edge design for intermittent cutting conditions.									
					CNMA	DNMA	SNMA	TNMA		WNMA
					P033	P037	P041	P045		P050

A General Turning

Features of Turning Inserts

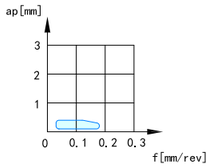
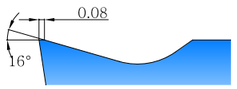
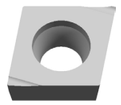
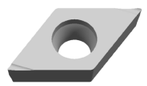
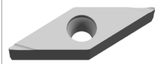
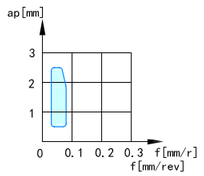
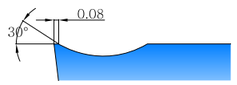
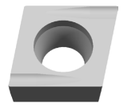
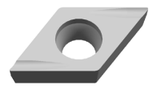
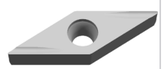
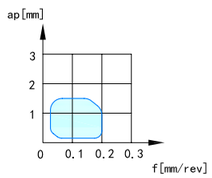
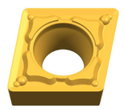
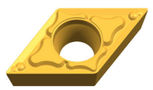
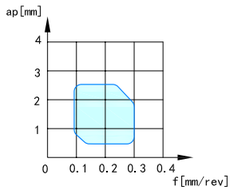
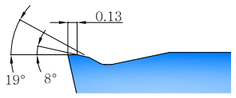
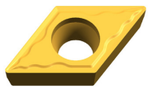
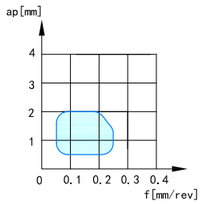
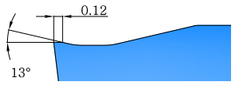
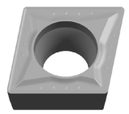
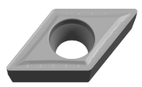
Turning Inserts（Positive）
5°Clearance Angle

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
PS	• PS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed, small cutting depth.									
									VBET R/L-PS	
									P064	
GS	• GS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed,large cutting depth									
									VBET R/L-GS	
									P064	
MM	• MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
									VBMT-MM	
									P064	
GP	• GP for light cutting of general steel, alloy steel,stainless steel and cast iron. • Strong tool nose due to flat cutting edge Sharp cutting edge due to double rake angle.									
									VBMT-GP	
									P064	
TP	• TP for light cutting of general steel, alloy steel and cast iron • Dual rake angle and big cutting edge width design to promote its strength • Overall pattern design, table and reliable installation • Arrow chip breaker improves chip breaking performance during big cutting depth.									
									VBMT-TP	
									P064	
KM	• KM for Semi-finishing and roughing of general steel, alloy steel and cast iron. • Variable land design, combine sharpness with fracture resistance.									
									VBMT-KM	
									P064	

A General Turning

Features of Turning Inserts

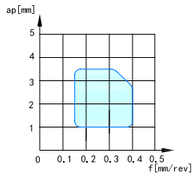
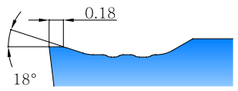
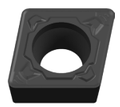
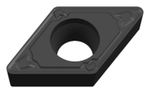
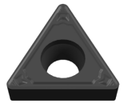
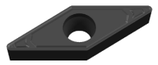
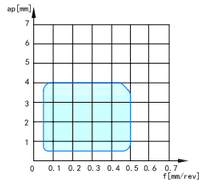
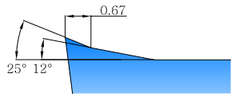
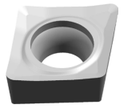
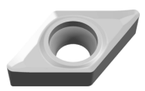
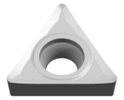
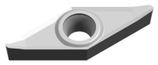
Turning Inserts（Positive）
7°Clearance Angle

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
PS	• PS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed,small cutting depth.									
					CCET R/L-PS	DCETR/L-PS		TCET R/L-PS	VCET R/L-PS	
					P051	P055		P059	P065	
GS	• GS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed,large cutting depth.									
					CCET R/L-GS	DCET R/L-GS		TCET R/L-GS	VCETR/L-GS	
					P051	P055		P059	P065	
MM	• MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
					CCMT-MM	DCMT-MM	SCMT-MM	TCMT-MM		
					P052	P056	P057	P060		
GP	• GP for light cutting of general steel, alloy steel, stainless steel and cast iron. • Strong tool nose due to flat cutting edge and • Sharp cutting edge due to double rake angle.									
					CCMT-GP	DCMT-GP	SCMT-GP	TCMT-GP	VCMT-GP	WCMT-GP
					P052	P056	P057	P060	P065	P067
TP	• TP for light cutting of general steel, alloy steel and cast iron • Dual rake angle and big cutting edge width design to promote its strength • Overall pattern design, table and reliable installation • Arrow chip breaker improves chip breaking performance during big cutting depth.									
					CCMT-TP	DCMT-TP	SCMT-TP	TCMT-TP		
					P052	P056	P057	P060		

A General Turning

Features of Turning Inserts

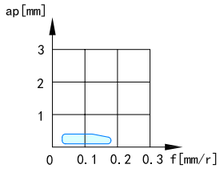
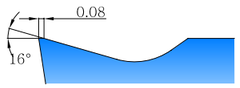
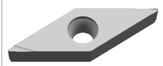
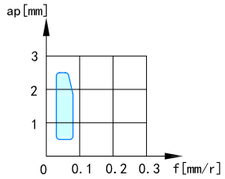
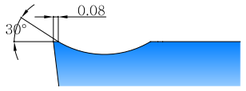
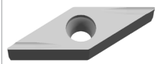
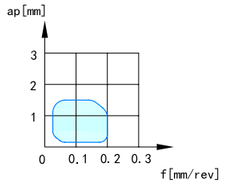
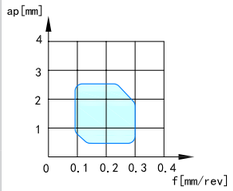
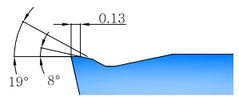
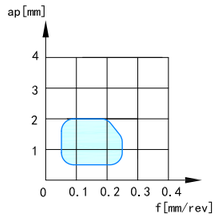
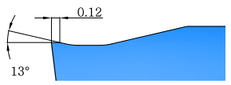
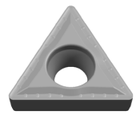
Turning Inserts（Positive）
7°Clearance Angle

Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
KM	• KM for Semi-finishing and roughing of general steel, alloy steel and cast iron. • Variable land design, combine sharpness with fracture resistance.									
					CCMT-KM	DCMT-KM	SCMT-KM	TCMT-KM	VCMT-KM	
					P053	P056	P057	P060	P065	
AL	• AL for aluminum alloy cutting. • Sharp tool nose due to large rake angle.									
					CCGX-AL	DCGX-AL	SCGX-AL	TCGX-AL	VCGX-AL	
					P053	P056	P057	P061	P066	

A General Turning

Features of Turning Inserts

Turning Inserts（Positive）
11°Clearance Angle

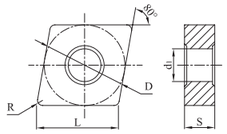
Geometry	Features	Application Range	Cross Section Geometry		80° Rhombic	55° Rhombic	90° Square	60° Regular Triangle	35° Rhombic	80° Trigon
PS	• PS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed,small cutting depth.									
								TPET R/L-PS TPEH R/L-PS	VPET R/L-PS	
								P062	P067	
GS	• GS for finishing of steels(mild steels) and stainless steel. • Sharp edge reduces cutting force,enables high quality surface. • Low feed,large cutting depth									
								TPET R/L-GS TPEH R/L-GS	VPET R/L-GS	
								P062	P067	
MM	• MM for light cutting of general steel, alloy steel and stainless steel. • Sharp cutting edge, enables high surface quality.									
								TPMT-MM		
								P063		
GP	• GP for light cutting of general steel, alloy steel,stainless steel and cast iron • Strong tool nosedue to flat cutting edge and sharp cutting edge due to double rake angle.									
					CPMT-GP CPGT-GP		SPMT-GP	TPMT-GP		
					P054		P058	P063		
TP	• TP for light cutting of general steel, alloy steel and cast iron • Dual rake angle and big cutting edge width design to promote its strength • Overall pattern design, table and reliable installation • Arrow chip breaker improves chip breaking performance during big cutting depth.									
								TPMT-TP		
								P063		

A General Turning

Turning Insert (Negative)

CN□□

Rhombic 80° with Hole



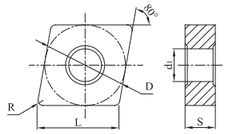
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CNMG090308-GF	9.7	9.525	3.18	3.81	0.8		○																			
	CNMG120404-GF	12.9	12.7	4.76	5.16	0.4		○																			
	CNMG120408-GF	12.9	12.7	4.76	5.16	0.8		○																			
	CNMG120412-GF	12.9	12.7	4.76	5.16	1.2																					
	CNMG090304-QF	9.7	9.525	3.18	3.81	0.4				○																	
	CNMG090308-QF	9.7	9.525	3.18	3.81	0.8				○																	
	CNMG120404-QF	12.9	12.7	4.76	5.16	0.4	○	●	○	○								○							○		○
	CNMG120408-QF	12.9	12.7	4.76	5.16	0.8	●	●	○	○								○							○		○
	CNMG120404-SF	12.9	12.7	4.76	5.16	0.4										●											
	CNMG120408-SF	12.9	12.7	4.76	5.16	0.8										●											
	CNMG090308-GM	9.7	9.525	3.18	3.81	0.8		○		○																	
	CNMG120404-GM	12.9	12.7	4.76	5.16	0.4		○		●																	
	CNMG120408-GM	12.9	12.7	4.76	5.16	0.8		●		●																	
	CNMG120412-GM	12.9	12.7	4.76	5.16	1.2		○		●																	
	CNMG120416-GM	12.9	12.7	4.76	5.16	1.6		○		○																	
	CNMG160608-GM	16.1	15.875	6.35	6.35	0.8		○																			
	CNMG160612-GM	16.1	15.875	6.35	6.35	1.2		○		○																	
	CNMG160616-GM	16.1	15.875	6.35	6.35	1.6		○		○																	
	CNMG190608-GM	19.3	19.05	6.35	7.94	0.8				○																	
	CNMG190612-GM	19.3	19.05	6.35	7.94	1.2		○		○																	
	CNMG190616-GM	19.3	19.05	6.35	7.94	1.6		○		●																	

● Stock ○ Available Upon Order

Turning Insert (Negative)

CN□□

Rhombic 80° with Hole



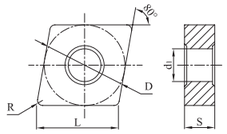
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CNMG090304-QM	9.7	9.525	3.18	3.81	0.4		○		○																	
	CNMG090308-QM	9.7	9.525	3.18	3.81	0.8		○		○																	
	CNMG120404-QM	12.9	12.7	4.76	5.16	0.4	●	●		●								○									○
	CNMG120408-QM	12.9	12.7	4.76	5.16	0.8	●	●	●	●								○									○
	CNMG120412-QM	12.9	12.7	4.76	5.16	1.2	●	●	●	●								○									
	CNMG120416-QM	12.9	12.7	4.76	5.16	1.6	○	○																			
	CNMG160608-QM	16.1	15.875	6.35	6.35	0.8		●		●																	
	CNMG160612-QM	16.1	15.875	6.35	6.35	1.2	○	●		○																	
	CNMG190608-QM	19.3	19.05	6.35	7.94	0.8		●		●																	
	CNMG190612-QM	19.3	19.05	6.35	7.94	1.2	○			○																	
	CNMG190616-QM	19.3	19.05	6.35	7.94	1.6		●		●																	
	CNMG120404-TP	12.9	12.7	4.76	5.16	0.4																			●		●
	CNMG120408-TP	12.9	12.7	4.76	5.16	0.8																			○		●
	CNMG120408R-SV	12.9	12.7	4.76	5.16	0.8			●																		○
	CNMG120408L-SV	12.9	12.7	4.76	5.16	0.8			●																		○
	CNMG090304-SM	9.7	9.525	3.18	3.81	0.4					○	○	○	○													
	CNMG09T304-SM	9.7	9.525	3.97	3.81	0.4					○	○	○	○													
	CNMG090308-SM	9.7	9.525	3.18	3.81	0.8					○	○	○	○													
	CNMG09T308-SM	9.7	9.525	3.97	3.81	0.8					○	○	○	○													
	CNMG120404-SM	12.9	12.7	4.76	5.16	0.4					○	●	○	●	○												○
	CNMG120408-SM	12.9	12.7	4.76	5.16	0.8					○	●	●	●	●												○
	CNMG120412-SM	12.9	12.7	4.76	5.16	1.2					○	●	○	●	○												
	CNMG120416-SM	12.9	12.7	4.76	5.16	1.6					○	○	○	○													
	CNMG160608-SM	16.1	15.875	6.35	6.35	0.8					○	○	○	○													
	CNMG160612-SM	16.1	15.875	6.35	6.35	1.2					○	○	○	●													
	CNMG160616-SM	16.1	15.875	6.35	6.35	1.6					○	○	○	●													
	CNMG190608-SM	19.3	19.05	6.35	7.94	0.8					○	○	○	●													
	CNMG190612-SM	19.3	19.05	6.35	7.94	1.2					○	○	○	●													
	CNMG190616-SM	19.3	19.05	6.35	7.94	1.6					○	○	○	●													

● Stock ○ Available Upon Order

Turning Insert (Negative)

CN□□

Rhombic 80° with Hole



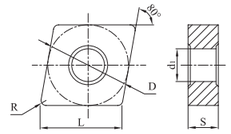
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CNMG120404-LM	12.9	12.7	4.76	5.16	0.4						○	●	○	●												
	CNMG120408-LM	12.9	12.7	4.76	5.16	0.8						○	●	○	●		●										
	CNMG120412-LM	12.9	12.7	4.76	5.16	1.2						○	○	●	●												
	CNMG120408-WMV	12.9	12.7	4.76	5.16	0.8	●			●								●	○	○							
	CNMG120412-WMV	12.9	12.7	4.76	5.16	1.2	●			●								●	○	○							
	CNMG120404-UK	12.9	12.7	4.76	5.16	0.4												●	●	●							
	CNMG120408-UK	12.9	12.7	4.76	5.16	0.8												●	●	●	○						
	CNMG120412-UK	12.9	12.7	4.76	5.16	1.2												●	○	●	○						
	CNMG120416-UK	12.9	12.7	4.76	5.16	1.6												●	○	○	○						
	CNMG160608-UK	16.1	15.875	6.35	6.35	0.8												●	○	○	○						
	CNMG160612-UK	16.1	15.875	6.35	6.35	1.2												●	○	○	○						
	CNMG160616-UK	16.1	15.875	6.35	6.35	1.6												○	○	○	○						
	CNMG190612-UK	19.3	19.05	6.35	7.94	1.2												○	○	○	○						
	CNMG190616-UK	19.3	19.05	6.35	7.94	1.6												●	○	○	○						
	CNMG120408-LR	12.9	12.7	4.76	5.16	0.8						●	●	○	●												
	CNMG120412-LR	12.9	12.7	4.76	5.16	1.2						○	○	○	○												
	CNMG160608-LR	16.1	15.875	6.35	6.35	0.8						○	○	○	●												
	CNMG160612-LR	16.1	15.875	6.35	6.35	1.2						○	○	●	●												
	CNMG190612-LR	19.3	19.05	6.35	7.94	1.2						○	○	●	●												
	CNMG190616-LR	19.3	19.05	6.35	7.94	1.6						○	○	○	●												

● Stock ○ Available Upon Order

Turning Insert (Negative)

CN□□

Rhombic 80° with Hole



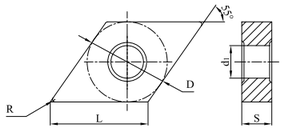
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CNMG120408-QR	12.9	12.7	4.76	5.16	0.8	○	●		●	●																
	CNMG120412-QR	12.9	12.7	4.76	5.16	1.2	●	●		●	○																
	CNMG120416-QR	12.9	12.7	4.76	5.16	1.6				●																	
	CNMG160608-QR	16.1	15.875	6.35	6.35	0.8				●																	
	CNMG160612-QR	16.1	15.875	6.35	6.35	1.2	●	●		●	○																
	CNMG160616-QR	16.1	15.875	6.35	6.35	1.6	○			○	○																
	CNMG190608-QR	19.3	19.3	6.35	7.94	0.8				○	○																
	CNMG190612-QR	19.3	19.3	6.35	7.94	1.2	○			●	●																
	CNMG190616-QR	19.3	19.3	6.35	7.94	1.6	○			○	○																
	CNMG190624-QR	19.3	19.3	6.35	7.94	2.4		○		○																	
	CNMG250924-QR	25.8	25.4	9.52	9.21	2.4				○																	
	CNMG120408-HK	12.9	12.7	4.76	5.16	0.8												●	●	●	○						
	CNMG120412-HK	12.9	12.7	4.76	5.16	1.2												●	●	●	○						
	CNMG120416-HK	12.9	12.7	4.76	5.16	1.6												●	●	●	○						
	CNMG160612-HK	16.1	15.875	6.35	6.35	1.2												●	○	○	○						
	CNMG160616-HK	16.1	15.875	6.35	6.35	1.6												●	○	●	○						
	CNMG190612-HK	19.3	19.05	6.35	7.94	1.2												●	○	○	○						
	CNMG190616-HK	19.3	19.05	6.35	7.94	1.6												○	○	○	○						
	CNMM190616-QH	19.3	19.05	6.35	7.94	1.6	○			○	○																
	CNMM190624-QH	19.3	19.05	6.35	7.94	2.4				○	○																
	CNMM250924-QH	25.8	25.4	9.52	9.12	2.4	○	●		●	○																
	CNMA120404	12.9	12.7	4.76	5.16	0.4												●		○							
	CNMA120408	12.9	12.7	4.76	5.16	0.8												●	●	●	○						
	CNMA120412	12.9	12.7	4.76	5.16	1.2												●	●	●	●						
	CNMA120416	12.9	12.7	4.76	5.16	1.6												●	●	○	○						
	CNMA160612	16.1	15.875	6.35	6.35	1.2												●	○	○	○						
	CNMA160616	16.1	15.875	6.35	6.35	1.6												●	○	○	○						
	CNMA160620	16.1	15.875	6.35	6.35	2.0												○	○	○	○						
	CNMA190612	19.3	19.05	6.35	7.94	1.2												●	○	○	○						
	CNMA190616	19.3	19.05	6.35	7.94	1.6												●	○	○	○						
	CNMA190624	19.3	19.05	6.35	7.94	2.4												○	○	○	○						

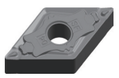
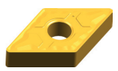
● Stock ○ Available Upon Order

Turning Insert (Negative)

DN□□

Rhombic 55° with Hole



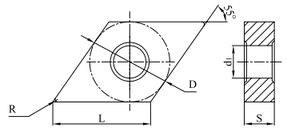
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	DNMG110404-GF	11.6	9.525	4.76	3.81	0.4		○																			
	DNMG110408-GF	11.6	9.525	4.76	3.81	0.8		○		○																	
	DNMG150404-GF	15.5	12.7	4.76	5.16	0.4		○																			
	DNMG150408-GF	15.5	12.7	4.76	5.16	0.8		●																			
	DNMG150604-GF	15.5	12.7	6.35	5.16	0.4		○																			
	DNMG150608-GF	15.5	12.7	6.35	5.16	0.8		○																			
	DNMG110404-QF	11.6	9.525	4.76	3.81	0.4		○		○																	
	DNMG110408-QF	11.6	9.525	4.76	3.81	0.8		○		○																	
	DNMG150404-QF	15.5	12.7	4.76	5.16	0.4	○	○		○															○		○
	DNMG150408-QF	15.5	12.7	4.76	5.16	0.8	○	●		○															○		○
	DNMG150604-QF	15.5	12.7	6.35	5.16	0.4		○		○																	○
	DNMG150608-QF	15.5	12.7	6.35	5.16	0.8	○	○		○																	○
	DNMG110404-SF	11.6	9.525	4.76	3.81	0.4										●											
	DNMG110408-SF	11.6	9.525	4.76	3.81	0.8										○											
	DNMG150404-SF	15.5	12.7	4.76	5.16	0.4										●											
	DNMG150408-SF	15.5	12.7	4.76	5.16	0.8										●											
	DNMG150604-SF	15.5	12.7	6.35	5.16	0.4										●											
	DNMG150608-SF	15.5	12.7	6.35	5.16	0.8										○											
	DNMG110404-GM	11.6	9.525	4.76	3.81	0.4				●																	
	DNMG110408-GM	11.6	9.525	4.76	3.81	0.8		●		●																	
	DNMG150404-GM	15.5	12.7	4.76	5.16	0.4		○		○																	
	DNMG150408-GM	15.5	12.7	4.76	5.16	0.8				●																	
	DNMG150412-GM	15.5	12.7	4.76	5.16	1.2		●		●																	
	DNMG150604-GM	15.5	12.7	6.35	5.16	0.4																					
	DNMG150608-GM	15.5	12.7	6.35	5.16	0.8		○		●																	
	DNMG150612-GM	15.5	12.7	6.35	5.16	1.2		○		○																	
	DNMG150616-GM	15.5	12.7	6.35	5.16	1.6																					

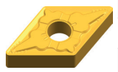
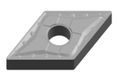
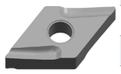
● Stock ○ Available Upon Order

Turning Insert (Negative)

DN□□

Rhombic 55° with Hole



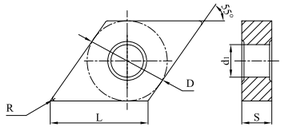
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	DNMG110404-QM	11.6	9.525	4.76	3.81	0.4		○		●																	
	DNMG110408-QM	11.6	9.525	4.76	3.81	0.8		●	○	●																	
	DNMG110412-QM	11.6	9.525	4.76	3.81	1.2		○																			
	DNMG150404-QM	15.5	12.7	4.76	5.16	0.4				●																	○
	DNMG150408-QM	15.5	12.7	4.76	5.16	0.8	●	●	○	●								●									○
	DNMG150412-QM	15.5	12.7	4.76	5.16	1.2		●	○	●																	
	DNMG150604-QM	15.5	12.7	6.35	5.16	0.4	●			●																	○
	DNMG150608-QM	15.5	12.7	6.35	5.16	0.8	●	●	●	●								○									○
	DNMG150612-QM	15.5	12.7	6.35	5.16	1.2	●			●								●									
	DNMG150404-TP	15.5	12.7	4.76	5.16	0.4																			●		●
	DNMG150408-TP	15.5	12.7	4.76	5.16	0.8																			○		○
	DNMG150604-TP	15.5	12.7	6.35	5.16	0.4																			○		○
	DNMG150608-TP	15.5	12.7	6.35	5.16	0.8																			○		○
	DNMG150404R -TS	15.5	12.7	6.35	5.16	0.4																			○		●
	DNMG150404L -TS	15.5	12.7	6.35	5.16	0.4																			○		○
	DNMG150408R -TS	15.5	12.7	6.35	5.16	0.8																			○		○
	DNMG150408L -TS	15.5	12.7	6.35	5.16	0.8																			○		○
	DNMG150604R-SV	15.5	12.7	6.35	5.16	0.4			●		○														○		○
	DNMG150604L-SV	15.5	12.7	6.35	5.16	0.4			○		○														○		○
	DNMG150608R-SV	15.5	12.7	6.35	5.16	0.8			●		○														○		○
	DNMG150608L-SV	15.5	12.7	6.35	5.16	0.8					○														○		○

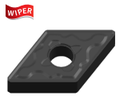
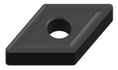
● Stock ○ Available Upon Order

Turning Insert (Negative)

DN□□

Rhombic 55° with Hole



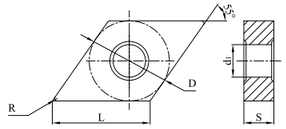
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	DNMG110404-SM	11.6	9.525	4.76	3.81	0.4						○	●	○	●											
	DNMG110408-SM	11.6	9.525	4.76	3.81	0.8						○	○	○	●											
	DNMG110412-SM	11.6	9.525	4.76	3.81	1.2						○	○	○	○											
	DNMG150404-SM	15.5	12.7	4.76	5.16	0.4						○	●	○	●											
	DNMG150408-SM	15.5	12.7	4.76	5.16	0.8						○	●	○	●											
	DNMG150412-SM	15.5	12.7	4.76	5.16	1.2						○	○	○	○											
	DNMG150604-SM	15.5	12.7	6.35	5.16	0.4						○	○	○	●											
	DNMG150608-SM	15.5	12.7	6.35	5.16	0.8						○	●	○	●											
	DNMG150612-SM	15.5	12.7	6.35	5.16	1.2						○	○	○	●											
	DNMG110404-LM	11.6	9.525	4.76	3.81	0.4						○	○	○	●											
	DNMG110408-LM	11.6	9.525	4.76	3.81	0.8						○	○	○	○											
	DNMG150404-LM	15.5	12.7	4.76	5.16	0.4						○	○	●	●											
	DNMG150408-LM	15.5	12.7	4.76	5.16	0.8						○	○	○	●											
	DNMG150412-LM	15.5	12.7	4.76	5.16	1.2						○	○	○	○											
	DNMG150604-LM	15.5	12.7	6.35	5.16	0.4						○	○	○	●											
	DNMG150608-LM	15.5	12.7	6.35	5.16	0.8						○	○	○	●											
	DNMG150612-LM	15.5	12.7	6.35	5.16	1.2						○	○	○	○											
WIPER 	DNMX150408-WMV	15.5	12.7	4.76	5.16	0.8	●			●							●	○	○							
	DNMX150412-WMV	15.5	12.7	4.76	5.16	1.2	●			●							●	○	○							
	DNMX150608-WMV	15.5	12.7	6.35	5.16	0.8	●			●							●	○	○							
	DNMX150612-WMV	15.5	12.7	6.35	5.16	1.2	●			●							●	○	○							
	DNMG150404-UK	15.5	12.7	4.76	5.16	0.4											●		○							
	DNMG150408-UK	15.5	12.7	4.76	5.16	0.8											●	○	○	○						
	DNMG150412-UK	15.5	12.7	4.76	5.16	1.2											●	○	○	○						
	DNMG150604-UK	15.5	12.7	6.35	5.16	0.4											●	○	○							
	DNMG150608-UK	15.5	12.7	6.35	5.16	0.8											●	●	●	○						
	DNMG150612-UK	15.5	12.7	6.35	5.16	1.2											●	○	○	○						
	DNMG150616-UK	15.5	12.7	6.35	5.16	1.6											○		○							

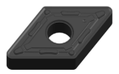
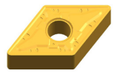
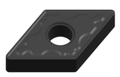
● Stock ○ Available Upon Order

Turning Insert (Negative)

DN□□

Rhombic 55° with Hole



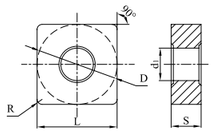
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	DNMG150408-LR	15.5	12.7	4.76	5.16	0.8						○	○	○	○											
	DNMG150412-LR	15.5	12.7	4.76	5.16	1.2						○	○	○	○											
	DNMG150608-LR	15.5	12.7	6.35	6.35	0.8						○	○	○	●											
	DNMG150612-LR	15.5	12.7	6.35	6.35	1.2						○	○	○	○											
	DNMG150408-QR	15.5	12.7	4.76	5.16	0.8				○																
	DNMG150412-QR	15.5	12.7	4.76	5.16	1.2				○																
	DNMG150608-QR	15.5	12.7	6.35	6.35	0.8		○		○	○															
	DNMG150612-QR	15.5	12.7	6.35	6.35	1.2		○	○	●	○															
	DNMG150616-QR	15.5	12.7	6.35	6.35	1.6				○	○															
	DNMG150408-HK	15.5	12.7	4.76	5.16	0.8												●	○	○	○						
	DNMG150412-HK	15.5	12.7	4.76	5.16	1.2												●	○	○	○						
	DNMG150608-HK	15.5	12.7	6.35	5.16	0.8												●	○	●	○						
	DNMG150612-HK	15.5	12.7	6.35	5.16	1.2												●	○	○	○						
	DNMA150404	15.5	12.7	4.76	5.16	0.4												●		○						
	DNMA150408	15.5	12.7	4.76	5.16	0.8												●	○	○	○						
	DNMA150412	15.5	12.7	4.76	5.16	1.2												○	○	○	○						
	DNMA150416	15.5	12.7	4.76	5.16	1.6												○	○	○	○						
	DNMA150604	15.5	12.7	6.35	5.16	0.4												○		○							
	DNMA150608	15.5	12.7	6.35	5.16	0.8												●	●	○	○						
	DNMA150612	15.5	12.7	6.35	5.16	1.2												●	○	○	○						

● Stock ○ Available Upon Order

Turning Insert (Negative)

SN□□

Square 90° with Hole



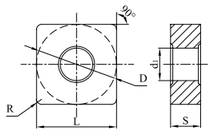
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	SNMG090304-GF	9.525	9.525	3.18	3.81	0.4		○																			
	SNMG090308-GF	9.525	9.525	3.18	3.81	0.8		○																			
	SNMG120404-GF	12.7	12.7	4.76	5.16	0.4		○																			
	SNMG120408-GF	12.7	12.7	4.76	5.16	0.8		○																			
	SNMG090304-QF	9.525	9.525	3.18	3.81	0.4		○	○																		
	SNMG090308-QF	9.525	9.525	3.18	3.81	0.8		○	○																		
	SNMG120404-QF	12.7	12.7	4.76	5.16	0.4		○	○																	○	
	SNMG120408-QF	12.7	12.7	4.76	5.16	0.8	○	●	○								○									○	
	SNMG120404-SF	12.7	12.7	4.76	5.16	0.4									○												
	SNMG120408-SF	12.7	12.7	4.76	5.16	0.8									●												
	SNMG090304-GM	9.525	9.525	3.18	3.81	0.4																					
	SNMG090308-GM	9.525	9.525	3.18	3.81	0.8			○																		
	SNMG120404-GM	12.7	12.7	4.76	5.16	0.4		○	○																		
	SNMG120408-GM	12.7	12.7	4.76	5.16	0.8			●																		
	SNMG120412-GM	12.7	12.7	4.76	5.16	1.2		○	○																		
	SNMG120416-GM	12.7	12.7	4.76	5.16	1.6			○																		
	SNMG150608-GM	15.875	15.875	6.35	6.35	0.8			○																		
	SNMG150612-GM	15.875	15.875	6.35	6.35	1.2			○																		
	SNMG150616-GM	15.875	15.875	6.35	6.35	1.6			○																		
	SNMG190612-GM	19.05	19.05	6.35	7.94	1.2			●																		
	SNMG190616-GM	19.05	19.05	6.35	7.94	1.6																					

● Stock ○ Available Upon Order

Turning Insert (Negative)

SN□□

Square 90° with Hole



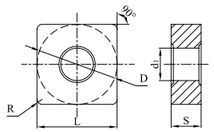
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	SNMG090304-QM	9.525	9.525	3.18	3.81	0.4		○		○																	
	SNMG090308-QM	9.525	9.525	3.18	3.81	0.8		○		○																	
	SNMG120404-QM	12.7	12.7	4.76	5.16	0.4		○	○	○																	○
	SNMG120408-QM	12.7	12.7	4.76	5.16	0.8	○	●	○	●								○									○
	SNMG120412-QM	12.7	12.7	4.76	5.16	1.2		○		●																	
	SNMG120416-QM	12.7	12.7	4.76	5.16	1.6				●																	
	SNMG150608-QM	15.875	15.875	6.35	6.35	0.8		○		○																	
	SNMG150612-QM	15.875	15.875	6.35	6.35	1.2		●																			
	SNMG190612-QM	19.05	19.05	6.35	7.94	1.2		○																			
	SNMG120404-TP	12.7	12.7	4.76	5.16	0.4																			○		○
	SNMG120408-TP	12.7	12.7	4.76	5.16	0.8																			○		○
	SNMG120404R-SV	12.7	12.7	4.76	5.16	0.4				●																	
	SNMG120408R-SV	12.7	12.7	4.76	5.16	0.8				●																	
	SNMG120408L-SV	12.7	12.7	4.76	5.16	0.8				●																	
	SNMG090304-SM	9.525	9.525	3.18	3.81	0.4					○	○	○	○													
	SNMG090308-SM	9.525	9.525	3.18	3.81	0.8					○	○	○	○													
	SNMG120404-SM	12.7	12.7	4.76	5.16	0.4					○	●	○	●													
	SNMG120408-SM	12.7	12.7	4.76	5.16	0.8					○	●	●	●	○												
	SNMG120412-SM	12.7	12.7	4.76	5.16	1.2					○	○	○	●													
	SNMG120416-SM	12.7	12.7	4.76	5.16	1.6					○	○	○	○													
	SNMG150608-SM	15.875	15.875	6.35	6.35	0.8					○	○	○	○													
	SNMG150612-SM	15.875	15.875	6.35	6.35	1.2					○	○	○	○	○												
	SNMG150616-SM	15.875	15.875	6.35	6.35	1.6					○	○	○	○													
	SNMG190612-SM	19.05	19.05	6.35	7.94	1.2					○	○	○	●													
	SNMG190616-SM	19.05	19.05	6.35	7.94	1.6					○	○	○	●	○												

● Stock ○ Available Upon Order

Turning Insert (Negative)

SN□□

Square 90° with Hole



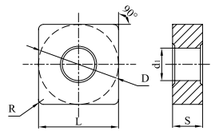
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
SNMG120404-LM	12.7	12.7	4.76	5.16	0.4						○	○	○	●												
SNMG120408-LM	12.7	12.7	4.76	5.16	0.8						○	○	○	●		○										
SNMG120412-LM	12.7	12.7	4.76	5.16	1.2						○	○	○	○		○										
SNMG120408-UK	12.7	12.7	4.76	5.16	0.8												●	○	○	○						
SNMG120412-UK	12.7	12.7	4.76	5.16	1.2												●	○	○	○						
SNMG150412-UK	15.875	15.875	4.76	6.35	1.2												○	○	○	○						
SNMG150612-UK	15.875	15.875	6.35	6.35	1.2												○	○	○	○						
SNMG150616-UK	15.875	15.875	6.35	6.35	1.6												○	○	○	○						
SNMG190612-UK	19.05	19.05	6.35	7.94	1.2												○	○	○	○						
SNMG190616-UK	19.05	19.05	6.35	7.94	1.6												○	○	○	○						
SNMG120408-LR	12.7	12.7	4.76	5.16	0.8						○	○	○	●		○										
SNMG120412-LR	12.7	12.7	4.76	5.16	1.2						○	○	○	●		○										
SNMG150608-LR	15.875	15.875	6.35	6.35	0.8						○	○	○	○												
SNMG150612-LR	15.875	15.875	6.35	6.35	1.2						○	○	○	○												
SNMG190612-LR	19.05	19.05	6.35	7.94	1.2						○	○	○	●												
SNMG190616-LR	19.05	19.05	6.35	7.94	1.6						○	○	○	○												
SNMG120408-QR	12.7	12.7	4.76	5.16	0.8				○	○																
SNMG120412-QR	12.7	12.7	4.76	5.16	1.2				○	○																
SNMG120416-QR	12.7	12.7	4.76	5.16	1.6				○																	
SNMG150608-QR	15.875	15.875	6.35	6.35	0.8				○																	
SNMG150612-QR	15.875	15.875	6.35	6.35	1.2				○	○																
SNMG150616-QR	15.875	15.875	6.35	6.35	1.6		○		○	○																
SNMG150624-QR	15.875	15.875	6.35	6.35	2.4				○																	
SNMG190608-QR	19.05	19.05	6.35	7.94	0.8				○																	
SNMG190612-QR	19.05	19.05	6.35	7.94	1.2				○	●																
SNMG190616-QR	19.05	19.05	6.35	7.94	1.6	●			○																	
SNMG190624-QR	19.05	19.05	6.35	7.94	2.4				○																	
SNMG250724-QR	25.4	25.4	7.94	9.21	2.4		○		○																	
SNMG250924-QR	25.4	25.4	9.52	9.21	2.4		○																			

● Stock ○ Available Upon Order

Turning Insert (Negative)

SN□□

Square 90° with Hole



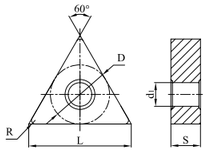
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
SNMG120408-HK	12.7	12.7	4.76	5.16	0.8												●	●	○	○						
SNMG120412-HK	12.7	12.7	4.76	5.16	1.2												●	●	○	○						
SNMG120416-HK	12.7	12.7	4.76	5.16	1.6												○	○	●	○						
SNMG150612-HK	15.875	15.875	6.35	6.35	1.2												○	○	○	○						
SNMG150616-HK	15.875	15.875	6.35	6.35	1.6												●	○	○	○						
SNMG190612-HK	19.05	19.05	6.35	7.94	1.2												○	○	○	○						
SNMG190616-HK	19.05	19.05	6.35	7.94	1.6												○	○	○	○						
SNMM150616-QH	15.875	19.05	6.35	7.94	1.6	○	○																			
SNMM190612-QH	19.05	19.05	6.35	7.94	1.2				○																	
SNMM190616-QH	19.05	19.05	6.35	7.94	1.6				○																	
SNMM190624-QH	19.05	19.05	6.35	7.94	2.4				○	○																
SNMM250724-QH	25.4	25.4	7.94	9.12	2.4	○	●		○	○																
SNMM250732-QH	25.4	25.4	7.94	9.12	3.2				○																	
SNMM250924-QH	25.4	25.4	9.52	9.12	2.4	○	○		●	○																
SNMM250932-QH	25.4	25.4	9.52	9.12	3.2				○	○																
SNMA090304	9.525	9.525	3.18	3.81	0.4												○		○							
SNMA090308	9.525	9.525	3.18	3.81	0.8												○		○							
SNMA090312	9.525	9.525	3.18	3.81	1.2												○		○							
SNMA120404	12.7	12.7	4.76	5.16	0.4												○		○							
SNMA120408	12.7	12.7	4.76	5.16	0.8												●	○	○	○						
SNMA120412	12.7	12.7	4.76	5.16	1.2												●	●	●	○						
SNMA120416	12.7	12.7	4.76	5.16	1.6												●	○	●	●						
SNMA190612	19.05	19.05	6.35	7.94	1.2												●	○	○	○						
SNMA190616	19.05	19.05	6.35	7.94	1.6												○	○	○	○						
SNMA190632	19.05	19.05	6.35	7.94	3.2												○	○	○	○						

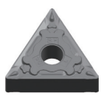
● Stock ○ Available Upon Order

Turning Insert (Negative)

TN□□

Triangle 60° with Hole



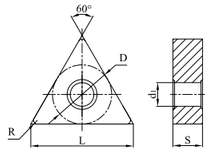
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TNGG160402R-PS	16.5	9.525	4.76	3.81	0.2										●	●									●	
	TNGG160402L-PS	16.5	9.525	4.76	3.81	0.2										○	○									○	
	TNGG160404R-PS	16.5	9.525	4.76	3.81	0.4										○	○									○	
	TNGG160404L-PS	16.5	9.525	4.76	3.81	0.4										○	○									○	
	TNGG160408R-PS	16.5	9.525	4.76	3.81	0.8										○	○									○	
	TNGG160408L-PS	16.5	9.525	4.76	3.81	0.8										○	○									○	
	TNMG110304-GF	11	6.35	3.18	2.26	0.4		○																			
	TNMG160304-GF	16.5	9.525	3.18	3.81	0.4		○																			
	TNMG160308-GF	16.5	9.525	3.18	3.81	0.8		○																			
	TNMG160404-GF	16.5	9.525	4.76	3.81	0.4		○		●																	
	TNMG160408-GF	16.5	9.525	4.76	3.81	0.8		○																			
	TNMG220404-GF	22	12.7	4.76	5.16	0.4		○																			
	TNMG220408-GF	22	12.7	4.76	5.16	0.8		○																			
	TNMG160404-QF	16.5	9.525	4.76	3.81	0.4	○	●	○	○								○						○		○
	TNMG160408-QF	16.5	9.525	4.76	3.81	0.8	○	○	○	●								○						○		○
	TNMG220404-QF	22	12.7	4.76	5.16	0.4		○		○																
	TNMG220408-QF	22	12.7	4.76	5.16	0.8		○		○																
	TNMG160404-SF	16.5	9.525	4.76	3.81	0.4							○	○	●											
	TNMG160408-SF	16.5	9.525	4.76	3.81	0.8									●											
	TNMG160404-LF	16.5	9.525	4.76	3.81	0.4							○	●												
	TNMG160408-LF	16.5	9.525	4.76	3.81	0.8							○	●												

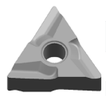
● Stock ○ Available Upon Order

Turning Insert (Negative)

TN□□

Triangle 60° with Hole



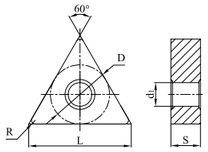
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TNMG160304-GM	16.5	9.525	3.18	3.81	0.4		○		○																	
	TNMG160308-GM	16.5	9.525	3.18	3.81	0.8				○																	
	TNMG160312-GM	16.5	9.525	3.18	3.81	1.2				○																	
	TNMG160404-GM	16.5	9.525	4.76	3.81	0.4		○		●																	
	TNMG160408-GM	16.5	9.525	4.76	3.81	0.8		○		●																	
	TNMG160412-GM	16.5	9.525	4.76	3.81	1.2		○		●																	
	TNMG220404-GM	22	12.7	4.76	5.16	0.4				○																	
	TNMG220408-GM	22	12.7	4.76	5.16	0.8		○		○																	
	TNMG220412-GM	22	12.7	4.76	5.16	1.2		○		○																	
	TNMG220416-GM	22	12.7	4.76	5.16	1.6				○																	
	TNMG270608-GM	27.5	15.875	6.35	6.35	0.8				○																	
	TNMG270612-GM	27.5	15.875	6.35	6.35	1.2				●																	
	TNMG330608-GM	33	19.05	6.35	7.94	0.8				○																	
	TNMG330612-GM	33	19.05	6.35	7.94	1.2				○																	
	TNMG110304-QM	11	6.35	3.18	2.26	0.4		○		○																	
	TNMG110308-QM	11	6.35	3.18	2.26	0.8		○		○																	
	TNMG160404-QM	16.5	9.525	4.76	3.81	0.4	●	●	○	●							○										○
	TNMG160408-QM	16.5	9.525	4.76	3.81	0.8	●	●	○	●							●										○
	TNMG160412-QM	16.5	9.525	4.76	3.81	1.2	●	●	○	●							○										
	TNMG220408-QM	22	12.7	4.76	5.16	0.8		○		●																	
	TNMG220412-QM	22	12.7	4.76	5.16	1.2		○		○																	
	TNMG220416-QM	22	12.7	4.76	5.16	1.6		○		○																	
	TNMG160404-TP	16.5	9.525	4.76	3.81	0.4																			●		●
	TNMG160408-TP	16.5	9.525	4.76	3.81	0.8																			●		●
	TNMG160404R-TS	16.5	9.525	4.76	3.81	0.4																			●		●
	TNMG160404L-TS	16.5	9.525	4.76	3.81	0.4																			○		●
	TNMG160408R-TS	16.5	9.525	4.76	3.81	0.8																			○		●
	TNMG160408L-TS	16.5	9.525	4.76	3.81	0.8																			○		○

● Stock ○ Available Upon Order

Turning Insert (Negative)

TN□□

Triangle 60° with Hole



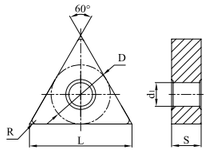
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TNMG160404R-SV	16.5	9.525	4.76	3.81	0.4	●	●	●			○													○		○
	TNMG160404L-SV	16.5	9.525	4.76	3.81	0.4		○	●			○													○		○
	TNMG160408R-SV	16.5	9.525	4.76	3.81	0.8		○	●			○													○		○
	TNMG160408L-SV	16.5	9.525	4.76	3.81	0.8		○	●			○													○		○
	TNMG160404L-LV	16.5	9.525	4.76	3.81	0.4							○	●													
	TNMG160404R-LV	16.5	9.525	4.76	3.81	0.4							○	●													
	TNMG160408L-LV	16.5	9.525	4.76	3.81	0.8							○	○													
	TNMG160408R-LV	16.5	9.525	4.76	3.81	0.8							○	●													
	TNMG160404-SM	16.5	9.525	4.76	3.81	0.4					○	●	●	●	○												○
	TNMG160408-SM	16.5	9.525	4.76	3.81	0.8					○	●	○	●	○												○
	TNMG160412-SM	16.5	9.525	4.76	3.81	1.2					○	○	○	●													
	TNMG220408-SM	22	12.7	4.76	5.16	0.8					○	○	○	●													
	TNMG220412-SM	22	12.7	4.76	5.16	1.2					○	○	○	○													
	TNMG220416-SM	22	12.7	4.76	5.16	1.6					○	○	○	○													
	TNMG160404-LM	16.5	9.525	4.76	3.81	0.4					○	●	●	●													
	TNMG160408-LM	16.5	9.525	4.76	3.81	0.8					○	○	●	●													
	TNMG160412-LM	16.5	9.525	4.76	3.81	1.2					○	○	○	●													
WIPER 	TNMX160408-WMV	16.5	9.525	4.76	3.81	0.8	●			●								●	○	○							
	TNMX160412-WMV	16.5	9.525	4.76	3.81	1.2	●			●								●	○	○							
	TNMG160404-UK	16.5	9.525	4.76	3.81	0.4												●		●							
	TNMG160408-UK	16.5	9.525	4.76	3.81	0.8												●	○	●							
	TNMG160412-UK	16.5	9.525	4.76	3.81	1.2												●	○	○							
	TNMG160416-UK	16.5	9.525	4.76	3.81	1.6												●	○	○							
	TNMG220408-UK	22	12.7	4.76	5.16	0.8												○	○	○	○						
	TNMG220412-UK	22	12.7	4.76	5.16	1.2												○	○	○	○						
	TNMG220416-UK	22	12.7	4.76	5.16	1.6												○	○	○	○						

● Stock ○ Available Upon Order

Turning Insert (Negative)

TN□□

Triangle 60° with Hole



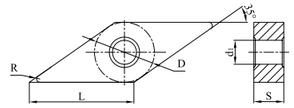
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TNMG160408-LR	16.5	9.525	4.76	3.81	0.8						○	○	○	○												
	TNMG160412-LR	16.5	9.525	4.76	3.81	1.2						○	○	○	●												
	TNMG220408-LR	22	12.7	4.76	5.16	0.8						○	○	○	○												
	TNMG160408-QR	16.5	9.525	4.76	3.81	0.8				○	○																
	TNMG160412-QR	16.5	9.525	4.76	3.81	1.2				○	○																
	TNMG220408-QR	22	12.7	4.76	5.16	0.8				○																	
	TNMG220412-QR	22	12.7	4.76	5.16	1.2				○	○																
	TNMG220416-QR	22	12.7	4.76	5.16	1.6				○																	
	TNMG270608-QR	27.5	15.875	6.35	6.35	0.8				○																	
	TNMG270612-QR	27.5	15.875	6.35	6.35	1.2					○																
	TNMG270616-QR	27.5	15.875	6.35	6.35	1.6																					
	TNMG330716-QR	33	19.05	7.94	7.94	1.6				○																	
	TNMG330924-QR	33	19.05	9.52	7.94	2.4				○																	
	TNMG160408-HK	16.5	9.525	4.76	3.81	0.8											●	●	●								
	TNMG160412-HK	16.5	9.525	4.76	3.81	1.2											●	●	○								
	TNMG220408-HK	22	12.7	4.76	5.16	0.8											○	○	○								
	TNMG220412-HK	22	12.7	4.76	5.16	1.2											●	●	○	○							
	TNMG220416-HK	22	12.7	4.76	5.16	1.6											●	●	○	○							
	TNMG270612-HK	27.5	15.875	6.35	6.35	1.2											○		○								
	TNMG270616-HK	27.5	15.875	6.35	6.35	1.6											○		○								
	TNMA110304	11	6.35	3.18	2.26	0.4											○		○								
	TNMA110308	11	6.35	3.18	2.26	0.8											○		○								
	TNMA160308	16.5	9.525	3.18	3.81	0.8											○		○								
	TNMA160404	16.5	9.525	4.76	3.81	0.4											●		○								
	TNMA160408	16.5	9.525	4.76	3.81	0.8											●	○	○	○							
	TNMA160412	16.5	9.525	4.76	3.81	1.2											●	○	○	○							
	TNMA160416	16.5	9.525	4.76	3.81	1.6											●	○	○	○							
	TNMA220404	22	12.7	4.76	5.16	0.4											○		○								
	TNMA220408	22	12.7	4.76	5.16	0.8											●	○	○	○							
	TNMA220412	22	12.7	4.76	5.16	1.2											●	○	○	○							
	TNMA220416	22	12.7	4.76	5.16	1.6											●	○	○	○							

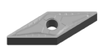
● Stock ○ Available Upon Order

Turning Insert (Negative)

VN□□

Rhombic 35° with Hole



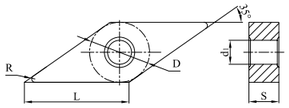
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	VNMG160404-GF	16.6	9.525	4.76	3.81	0.4		○		○																	
	VNMG160408-GF	16.6	9.525	4.76	3.81	0.8		○																			
	VNMG220404-GF	22.1	12.7	4.76	5.16	0.4		○																			
	VNMG220408-GF	22.1	12.7	4.76	5.16	0.8		○																			
	VNMG160402-QF	16.6	9.525	4.76	3.81	0.2				●																	
	VNMG160404-QF	16.6	9.525	4.76	3.81	0.4	●	●	○	●									○						○		○
	VNMG160408-QF	16.6	9.525	4.76	3.81	0.8	●	●	○	○									○						○		○
	VNMG220404-QF	22.1	12.7	4.76	5.16	0.4		○		○																	
	VNMG220408-QF	22.1	12.7	4.76	5.16	0.8		○		○																	
	VNMG160404-SF	16.6	9.525	4.76	3.81	0.4									○	●											
	VNMG160408-SF	16.6	9.525	4.76	3.81	0.8										●											
	VNMG160404-GM	16.6	9.525	4.76	3.81	0.4		○		○																	
	VNMG160408-GM	16.6	9.525	4.76	3.81	0.8		○		●																	
	VNMG160412-GM	16.6	9.525	4.76	3.81	1.2		●		●																	
	VNMG220408-GM	22.1	12.7	4.76	5.16	0.8				○																	
	VNMG160404-QM	16.6	9.525	4.76	3.81	0.4		●	●	●									○								○
	VNMG160408-QM	16.6	9.525	4.76	3.81	0.8	●	●	●	●									○								○
	VNMG160412-QM	16.6	9.525	4.76	3.81	1.2		○		●									○								
	VNMG160404-TP	16.6	9.525	4.76	3.81	0.4																			●		●
	VNMG160408-TP	16.6	9.525	4.76	3.81	0.8																			○		○
	VNMG160404-SM	16.6	9.525	4.76	3.81	0.4						○	●	●	●												○
	VNMG160408-SM	16.6	9.525	4.76	3.81	0.8						○	●	●	●												○

● Stock ○ Available Upon Order

Turning Insert (Negative)

VN□□

Rhombic 35° with Hole



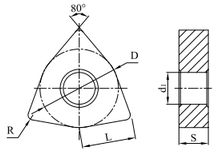
	Ordering Code	Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	VNMG160404-LM	16.6	9.525	4.76	3.81	0.4						○	○	●	●												
	VNMG160408-LM	16.6	9.525	4.76	3.81	0.8						○	○	●	●												
	VNMG160404-UK	16.6	9.525	4.76	3.81	0.4												●	○	●							
	VNMG160408-UK	16.6	9.525	4.76	3.81	0.8												●	○	●	●						
	VNMG160412-UK	16.6	9.525	4.76	3.81	1.2												●	○	○	○						
	VNMG160408-HK	16.6	9.525	4.76	3.81	0.8												●	●	○	○						
	VNMG160412-HK	16.6	9.525	4.76	3.81	1.2												●	●	○	○						

● Stock ○ Available Upon Order

Turning Insert (Negative)

WN□□

Trigon 60° with Hole



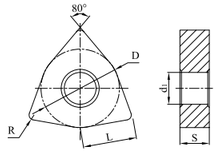
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	WNMG06T304-GF	6.5	9.525	3.97	3.81	0.4		○																			
	WNMG06T308-GF	6.5	9.525	3.97	3.81	0.8		○																			
	WNMG060404-GF	6.5	9.525	4.76	3.81	0.4		○																			
	WNMG060408-GF	6.5	9.525	4.76	3.81	0.8		○																			
	WNMG080404-GF	8.7	12.7	4.76	5.16	0.4		●																			
	WNMG080408-GF	8.7	12.7	4.76	5.16	0.8		○		●																	
	WNMG060404-QF	6.5	9.525	4.76	3.81	0.4		○		●																	
	WNMG060408-QF	6.5	9.525	4.76	3.81	0.8		○		●																	
	WNMG080404-QF	8.7	12.7	4.76	5.16	0.4	●	●	○	○								○							○		○
	WNMG080408-QF	8.7	12.7	4.76	5.16	0.8	●	●	○	●								○							○		○
	WNMG060404-SF	6.5	9.525	4.76	3.81	0.4									●												
	WNMG060408-SF	6.5	9.525	4.76	3.81	0.8									●												
	WNMG080404-SF	8.7	12.7	4.76	5.16	0.4							○	○	●												
	WNMG080408-SF	8.7	12.7	4.76	5.16	0.8									●												
	WNMG080404-LF	6.5	9.525	4.76	3.81	0.4							○	●													
	WNMG080408-LF	6.5	9.525	4.76	3.81	0.8							●	●													
	WNMG06T304-GM	6.5	9.525	3.97	3.81	0.4		○		○																	
	WNMG06T308-GM	6.5	9.525	3.97	3.81	0.8		○		○																	
	WNMG06T312-GM	6.5	9.525	3.97	3.81	1.2		○		○																	
	WNMG060404-GM	6.5	9.525	4.76	3.81	0.4		○		○																	
	WNMG060408-GM	6.5	9.525	4.76	3.81	0.8		○		●																	
	WNMG080404-GM	8.7	12.7	4.76	5.16	0.4				●																	
	WNMG080408-GM	8.7	12.7	4.76	5.16	0.8		●		●																	
	WNMG080412-GM	8.7	12.7	4.76	5.16	1.2		●		●																	
	WNMG080416-GM	8.7	12.7	4.76	5.16	1.6		○		●																	
	WNMG060404-QM	6.5	9.525	4.76	3.81	0.4		○		○								○									
	WNMG060408-QM	6.5	9.525	4.76	3.81	0.8		●	○	○																	
	WNMG060412-QM	6.5	9.525	4.76	3.81	1.2		●		○																	
	WNMG080404-QM	8.7	12.7	4.76	5.16	0.4	●	●	●	●								○									○
	WNMG080408-QM	8.7	12.7	4.76	5.16	0.8	●	●	●	●								●									○
	WNMG080412-QM	8.7	12.7	4.76	5.16	1.2	●	●	●	●								○									
	WNMG080416-QM	8.7	12.7	4.76	5.16	1.6	●			○																	

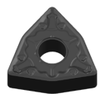
● Stock ○ Available Upon Order

Turning Insert (Negative)

WN□□

Trigon 60° with Hole



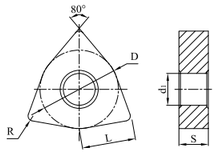
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	WNMG080404-TP	8.7	12.7	4.76	5.16	0.4																			●		●
	WNMG080408-TP	8.7	12.7	4.76	5.16	0.8																			○		○
	WNMG080408R-SV	8.7	12.7	4.76	5.16	0.8	●			●																	
	WNMG080408L-SV	8.7	12.7	4.76	5.16	0.8	●			●																	
	WNMG06T304-SM	6.5	9.525	3.97	3.81	0.4						○	○	○	○												
	WNMG06T308-SM	6.5	9.525	3.97	3.81	0.8						○	○	○	●												
	WNMG06T312-SM	6.5	9.525	3.97	3.81	1.2						○	○	○	○												
	WNMG060404-SM	6.5	9.525	4.76	3.81	0.4						○	○	○	●												
	WNMG060408-SM	6.5	9.525	4.76	3.81	0.8						○	●	○	○												
	WNMG060412-SM	6.5	9.525	4.76	3.81	1.2						●	○	○	○	○											
	WNMG080404-SM	8.7	12.7	4.76	5.16	0.4						○	●	○	●												○
	WNMG080408-SM	8.7	12.7	4.76	5.16	0.8						○	●	●	●	○											○
	WNMG080412-SM	8.7	12.7	4.76	5.16	1.2						○	●	○	●												
	WNMG06T304-LM	6.5	9.525	3.97	3.81	0.4						○	○	○	○												
	WNMG06T308-LM	6.5	9.525	3.97	3.81	0.8						○	○	○	○												
	WNMG06T312-LM	6.5	9.525	3.97	3.81	1.2						○	○	○	○												
	WNMG060404-LM	6.5	9.525	4.76	3.81	0.4						○	○	○	●												
	WNMG060408-LM	6.5	9.525	4.76	3.81	0.8						○	○	○	●												
	WNMG060412-LM	6.5	9.525	4.76	3.81	1.2						○	○	○	○												
	WNMG080404-LM	8.7	12.7	4.76	5.16	0.4						○	●	○	●												
	WNMG080408-LM	8.7	12.7	4.76	5.16	0.8						○	●	●	●												
	WNMG080412-LM	8.7	12.7	4.76	5.16	1.2						○	○	○	●												
	WNMG080408-WMV	8.7	12.7	4.76	5.16	0.8	●			●								●	○	○							
	WNMG080412-WMV	8.7	12.7	4.76	5.16	1.2	●			●								●	○	○							

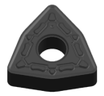
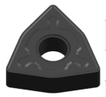
● Stock ○ Available Upon Order

Turning Insert (Negative)

WN□□

Trigon 60° with Hole



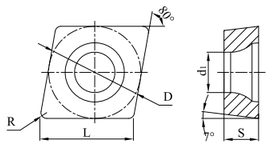
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	WNMG080404-UK	8.7	12.7	4.76	5.16	0.4												●	○	●							
	WNMG080408-UK	8.7	12.7	4.76	5.16	0.8												●	●	●	○						
	WNMG080412-UK	8.7	12.7	4.76	5.16	1.2												●	●	●	●						
	WNMG080408-LR	8.7	12.7	4.76	5.16	0.8						○	○	●	●												
	WNMG080412-LR	8.7	12.7	4.76	5.16	1.2						○	○	○	●												
	WNMG080408-QR	8.7	12.7	4.76	5.16	0.8	○	○		●	●																
	WNMG080412-QR	8.7	12.7	4.76	5.16	1.2	○			●	○																
	WNMG080416-QR	8.7	12.7	4.76	5.16	1.6		○		○																	
	WNMG06T308-HK	6.5	9.525	3.97	3.81	0.8												○	●	●							
	WNMG060408-HK	6.5	9.525	4.76	3.81	0.8												●	○	●							
	WNMG080408-HK	8.7	12.7	4.76	5.16	0.8												●	●	●	●						
	WNMG080412-HK	8.7	12.7	4.76	5.16	1.2												●	●	●	○						
	WNMA06T304	6.5	9.525	3.97	3.81	0.4												○									
	WNMA060404	6.5	9.525	4.76	3.81	0.4												○		○							
	WNMA060408	6.5	9.525	4.76	3.81	0.8												○		○							
	WNMA080404	8.7	12.7	4.76	5.16	0.4												●		●							
	WNMA080408	8.7	12.7	4.76	5.16	0.8												●	○	●	○						
	WNMA080412	8.7	12.7	4.76	5.16	1.2												●	●	●	●						
	WNMA080416	8.7	12.7	4.76	5.16	1.6												●	●	○	○						

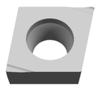
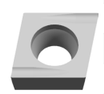
● Stock ○ Available Upon Order

Turning Insert (Postive)

CC□□

Rhombic 80° with Hole



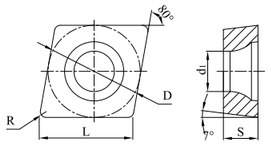
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CCET0602005R-PS	6.5	6.35	2.38	2.8	<0.05											○									○	
	CCET0602005L-PS	6.5	6.35	2.38	2.8	<0.05											○									○	
	CCET060201R-PS	6.5	6.35	2.38	2.8	0.1											○									○	
	CCET060201L-PS	6.5	6.35	2.38	2.8	0.1											○									○	
	CCET060202R-PS	6.5	6.35	2.38	2.8	0.2											○									○	
	CCET060202L-PS	6.5	6.35	2.38	2.8	0.2											○									○	
	CCET060204R-PS	6.5	6.35	2.38	2.8	0.4											○									○	
	CCET060204L-PS	6.5	6.35	2.38	2.8	0.4											○									○	
	CCET09T3005R-PS	9.7	9.525	3.97	4.4	<0.05											○									○	
	CCET09T3005L-PS	9.7	9.525	3.97	4.4	<0.05											○									○	
	CCET09T301R-PS	9.7	9.525	3.97	4.4	0.1											○									○	
	CCET09T301L-PS	9.7	9.525	3.97	4.4	0.1											○									○	
	CCET09T302R-PS	9.7	9.525	3.97	4.4	0.2											○									○	
	CCET09T302L-PS	9.7	9.525	3.97	4.4	0.2											○									○	
	CCET09T304R-PS	9.7	9.525	3.97	4.4	0.4											○									○	
	CCET09T304L-PS	9.7	9.525	3.97	4.4	0.4											○									○	
	CCET0602005R-GS	6.5	6.35	2.38	2.8	<0.05											○									○	
	CCET0602005L-GS	6.5	6.35	2.38	2.8	<0.05											○									○	
	CCET060201R-GS	6.5	6.35	2.38	2.8	0.1											○									○	
	CCET060201L-GS	6.5	6.35	2.38	2.8	0.1											○									○	
	CCET060202R-GS	6.5	6.35	2.38	2.8	0.2											○									○	
	CCET060202L-GS	6.5	6.35	2.38	2.8	0.2											○									○	
	CCET060204R-GS	6.5	6.35	2.38	2.8	0.4											○									○	
	CCET060204L-GS	6.5	6.35	2.38	2.8	0.4											○									○	
	CCET09T3005R-GS	9.7	9.525	3.97	4.4	<0.05											○									○	
	CCET09T3005L-GS	9.7	9.525	3.97	4.4	<0.05											○									○	
	CCET09T301R-GS	9.7	9.525	3.97	4.4	0.1											○									○	
	CCET09T301L-GS	9.7	9.525	3.97	4.4	0.1											○									○	
	CCET09T302R-GS	9.7	9.525	3.97	4.4	0.2											○									○	
	CCET09T302L-GS	9.7	9.525	3.97	4.4	0.2											○									○	
	CCET09T304R-GS	9.7	9.525	3.97	4.4	0.4											○									○	
	CCET09T304L-GS	9.7	9.525	3.97	4.4	0.4											○									○	

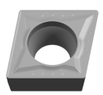
● Stock ○ Available Upon Order

Turning Insert (Postive)

CC□□

Rhombic 80° with Hole



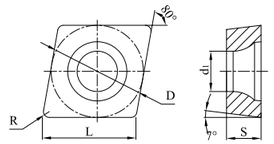
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CCMT060202-MM	6.5	6.35	2.38	2.8	0.2		○		○		○	○	●	●	●									○		○
	CCMT060204-MM	6.5	6.35	2.38	2.8	0.4	○	○		○		○	●	●	●	●		○	○	○	○				●		●
	CCMT060208-MM	6.5	6.35	2.38	2.8	0.8						○	○	○	●	○		○	○	○	○						
	CCMT09T302-MM	9.7	9.525	3.97	4.4	0.2		○		○		○	○	○	●	●	○								○		○
	CCMT09T304-MM	9.7	9.525	3.97	4.4	0.4	○	●		●		○	●	●	●	●	●	○	○	○	○				●		●
	CCMT09T308-MM	9.7	9.525	3.97	4.4	0.8		●		○		○	●	○	●	●		○	○	○	○				○		○
	CCMT060202-GP	6.5	6.35	2.38	2.8	0.2		○				○	●					●	○						○		○
	CCMT060204-GP	6.5	6.35	2.38	2.8	0.4		●	●	●		○	●	○	●			●	○	○	○				○		●
	CCMT060208-GP	6.5	6.35	2.38	2.8	0.8		○		●		○	●	○	●			●	○	○	○				○		○
	CCMT09T302-GP	9.7	9.525	3.97	4.4	0.2		●		○		○	○					○	○						○		○
	CCMT09T304-GP	9.7	9.525	3.97	4.4	0.4		●	●	●		○	●	○	●	○		●	○	○	○				●		●
	CCMT09T308-GP	9.7	9.525	3.97	4.4	0.8		●	○	●		○	●	○	●			●	○	●	○				○		○
	CCMT120404-GP	12.9	12.7	4.76	5.56	0.4		●		●		○	●					●	○	○	○				○		○
	CCMT120408-GP	12.9	12.7	4.76	5.56	0.8		●		●		○	●					●	○	○	○				○		○
	CCMT120412-GP	12.9	12.7	4.76	5.56	1.2		○				○	○					●	○	○	○						
	CCGT060202-GP	6.5	6.35	2.38	2.8	0.2								○	○												
	CCGT060204-GP	6.5	6.35	2.38	2.8	0.4								○	●												
	CCGT060208-GP	6.5	6.35	2.38	2.8	0.8								○	○												
	CCGT09T302-GP	9.7	9.525	3.97	4.4	0.2								○	○	○											
	CCGT09T304-GP	9.7	9.525	3.97	4.4	0.4								○	●												
	CCGT09T308-GP	9.7	9.525	3.97	4.4	0.8								○	○	○											
	CCGT120404-GP	12.9	12.7	4.76	5.56	0.4								○	○												
	CCGT120408-GP	12.9	12.7	4.76	5.56	0.8								○	○												
	CCMT060202-TP	6.5	6.35	2.38	2.8	0.2																			○		○
	CCMT060204-TP	6.5	6.35	2.38	2.8	0.4																			●		●
	CCMT060208-TP	6.5	6.35	2.38	2.8	0.8																			○		○
	CCMT09T302-TP	9.7	9.525	3.97	4.4	0.2																			○		○
	CCMT09T304-TP	9.7	9.525	3.97	4.4	0.4																			●		●
	CCMT09T308-TP	9.7	9.525	3.97	4.4	0.8																			○		○
	CCMT120404-TP	12.9	12.7	4.76	5.56	0.4																			○		○
	CCMT120408-TP	12.9	12.7	4.76	5.56	0.8																			○		○

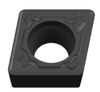
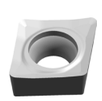
● Stock ○ Available Upon Order

Turning Insert (Postive)

CC□□

Rhombic 80° with Hole



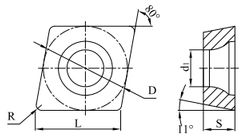
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	CCMT060204-KM	6.5	6.35	2.38	2.8	0.4												○	○	○	○						
	CCMT09T304-KM	9.7	9.525	3.97	4.4	0.4				○								○	○	○	○						
	CCMT09T308-KM	9.7	9.525	3.97	4.4	0.8				●								●	●	○	○						
	CCMT120404-KM	12.9	12.7	4.76	5.56	0.4												●									
	CCMT120408-KM	12.9	12.7	4.76	5.56	0.8				●								●	○	○	○						
	CCMT120412-KM	12.9	12.7	4.76	5.56	1.2				○								●	○	○	○						
	CCGX060202-AL	6.5	6.35	2.38	2.8	0.2																	○				
	CCGX060204-AL	6.5	6.35	2.38	2.8	0.4																○	○	○			
	CCGX060208-AL	6.5	6.35	2.38	2.8	0.8																○	○	○			
	CCGX09T302-AL	9.7	9.525	3.97	4.4	0.2																○	○	○			
	CCGX09T304-AL	9.7	9.525	3.97	4.4	0.4																○	○	○			
	CCGX09T308-AL	9.7	9.525	3.97	4.4	0.8																○	○	○			
	CCGX120402-AL	12.9	12.7	4.76	5.5	0.2																●	○				
	CCGX120404-AL	12.9	12.7	4.76	5.5	0.4																○	○	○			
	CCGX120408-AL	12.9	12.7	4.76	5.5	0.8																○	○	○			

● Stock ○ Available Upon Order

Turning Insert (Postive)

CP□□

Rhombic 80° with Hole



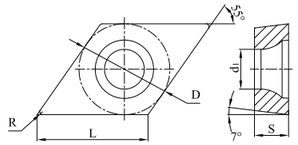
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
CPMT120412-GP	12.9	12.7	4.76	5.56	1.2				○		○	○	○	○			○									
CPGT060204-GP	6.5	6.35	2.38	2.8	0.4								○	○												
CPGT060208-GP	6.5	6.35	2.38	2.8	0.8								○	○												
CPGT09T302-GP	9.7	9.525	3.97	4.4	0.2								○	○												
CPGT09T304-GP	9.7	9.525	3.97	4.4	0.4								○	○												
CPGT09T308-GP	9.7	9.525	3.97	4.4	0.8								○	○												
CPGT120404-GP	12.9	12.7	4.76	5.56	0.4								○	○												
CPGT120408-GP	12.9	12.7	4.76	5.56	0.8								○	○												

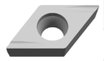
● Stock ○ Available Upon Order

Turning Insert (Postive)

DC□□

Rhombic 55° with Hole





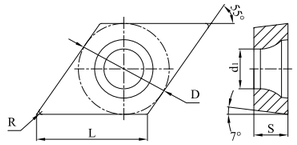
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
DCET0702005R-PS	7.8	6.35	2.38	2.8	<0.05											○									○	
DCET0702005L-PS	7.8	6.35	2.38	2.8	<0.05											○									○	
DCET070201R-PS	7.8	6.35	2.38	2.8	0.1											○									○	
DCET070201L-PS	7.8	6.35	2.38	2.8	0.1											○									○	
DCET070202R-PS	7.8	6.35	2.38	2.8	0.2											○									○	
DCET070202L-PS	7.8	6.35	2.38	2.8	0.2											○									○	
DCET070204R-PS	7.8	6.35	2.38	2.8	0.4											○									○	
DCET070204L-PS	7.8	6.35	2.38	2.8	0.4											○									○	
DCET11T3005R-PS	11.6	9.525	3.97	4.4	<0.05											○									○	
DCET11T3005L-PS	11.6	9.525	3.97	4.4	<0.05											○									○	
DCET11T301R-PS	11.6	9.525	3.97	4.4	0.1											○									○	
DCET11T301L-PS	11.6	9.525	3.97	4.4	0.1											○									○	
DCET11T302R-PS	11.6	9.525	3.97	4.4	0.2											○									○	
DCET11T302L-PS	11.6	9.525	3.97	4.4	0.2											○									○	
DCET11T304R-PS	11.6	9.525	3.97	4.4	0.4											○									○	
DCET11T304L-PS	11.6	9.525	3.97	4.4	0.4											○									○	
DCET0702005R-GS	7.8	6.35	2.38	2.8	<0.05											○									○	
DCET0702005L-GS	7.8	6.35	2.38	2.8	<0.05											○									○	
DCET070201R-GS	7.8	6.35	2.38	2.8	0.1											○									○	
DCET070201L-GS	7.8	6.35	2.38	2.8	0.1											○									○	
DCET070202R-GS	7.8	6.35	2.38	2.8	0.2											○									○	
DCET070202L-GS	7.8	6.35	2.38	2.8	0.2											○									○	
DCET070204R-GS	7.8	6.35	2.38	2.8	0.4											○									○	
DCET070204L-GS	7.8	6.35	2.38	2.8	0.4											○									○	
DCET11T3005R-GS	11.6	9.525	3.97	4.4	<0.05											○									○	
DCET11T3005L-GS	11.6	9.525	3.97	4.4	<0.05											○									○	
DCET11T301R-GS	11.6	9.525	3.97	4.4	0.1											○									○	
DCET11T301L-GS	11.6	9.525	3.97	4.4	0.1											○									○	
DCET11T302R-GS	11.6	9.525	3.97	4.4	0.2											○									○	
DCET11T302L-GS	11.6	9.525	3.97	4.4	0.2											○									○	
DCET11T304R-GS	11.6	9.525	3.97	4.4	0.4											○									○	
DCET11T304L-GS	11.6	9.525	3.97	4.4	0.4											○									○	

● Stock ○ Available Upon Order

Turning Insert (Postive)

DC□□

Rhombic 55° with Hole



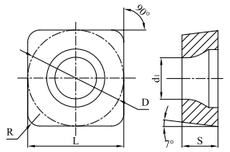
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
DCMT070202-MM	7.8	6.35	2.38	2.8	0.2		○		○		○	○	○	●	●									○		○
DCMT070204-MM	7.8	6.35	2.38	2.8	0.4		●		○		○	●	●	●	●									●		●
DCMT070208-MM	7.8	6.35	2.38	2.8	0.8								○	○	○											
DCMT11T302-MM	11.6	9.525	3.97	4.4	0.2		○		○		○	●	○	○	●									○		○
DCMT11T304-MM	11.6	9.525	3.97	4.4	0.4	●	●		○		○	●	●	●	●		○		○					●		●
DCMT11T308-MM	11.6	9.525	3.97	4.4	0.8	●	●		●		○	●	●	●	●				○	○				○		○
DCMT070202-GP	7.8	6.35	2.38	2.8	0.2		○				○	○					○							○		○
DCMT070204-GP	7.8	6.35	2.38	2.8	0.4		●		●		○	●	○	●			●		○					○		○
DCMT070208-GP	7.8	6.35	2.38	2.8	0.8				●		○	●					○		○					○		○
DCMT11T302-GP	11.6	9.525	3.97	4.4	0.2						○	○					○							○		○
DCMT11T304-GP	11.6	9.525	3.97	4.4	0.4	●	●	●			○	●	●	●			●		○					○		○
DCMT11T308-GP	11.6	9.525	3.97	4.4	0.8	●	○	●			○	●	○	●			●		○					○		○
DCMT11T312-GP	11.6	9.525	3.97	4.4	1.2								○	○	○											
DCMT150404-GP	15.5	12.7	4.76	5.56	0.4						○	○					○		○							
DCMT150408-GP	15.5	12.7	4.76	5.56	0.8				○		○	○			○		○		○							
DCMT150412-GP	15.5	12.7	4.76	5.56	1.2						○	○					○		○							
DCGT070202-GP	7.8	6.35	2.38	2.8	0.2								○	●												
DCGT070204-GP	7.8	6.35	2.38	2.8	0.4								○	●												
DCGT070208-GP	7.8	6.35	2.38	2.8	0.8								○	○												
DCGT11T302-GP	11.6	9.525	3.97	4.4	0.2								○	○												
DCGT11T304-GP	11.6	9.525	3.97	4.4	0.4								○	○												
DCGT11T308-GP	11.6	9.525	3.97	4.4	0.8								○	●												
DCMT070202-TP	7.8	6.35	2.38	2.8	0.2																			○		○
DCMT070204-TP	7.8	6.35	2.38	2.8	0.4																			○		●
DCMT070208-TP	7.8	6.35	2.38	2.8	0.8																			○		○
DCMT11T302-TP	11.6	9.525	3.97	4.4	0.2																			○		○
DCMT11T304-TP	11.6	9.525	3.97	4.4	0.4																			○		●
DCMT11T308-TP	11.6	9.525	3.97	4.4	0.8																			○		○
DCMT11T304-KM	11.6	9.525	3.97	4.4	0.4				○								●		○							
DCMT11T308-KM	11.6	9.525	3.97	4.4	0.8				○								●		○							
DCGX070202-AL	7.8	6.35	2.38	2.8	0.2																					
DCGX070204-AL	7.8	6.35	2.38	2.8	0.4																	○				
DCGX070208-AL	7.8	6.35	2.38	2.8	0.8																○	○	○			
DCGX11T302-AL	11.6	9.525	3.97	4.4	0.2																○	○	○			
DCGX11T304-AL	11.6	9.525	3.97	4.4	0.4																○	●	○			
DCGX11T308-AL	11.6	9.525	3.97	4.4	0.8																●	○	○			

● Stock ○ Available Upon Order

Turning Insert (Postive)

SC□□

Square 90° with Hole



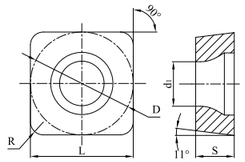
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
SCMT09T304-MM	9.525	9.525	3.97	4.4	0.8						○	○	○	○	○		○	○	○	○						
SCMT09T308-MM	9.525	9.525	3.97	4.4	0.8		○		○		○	○	●	○	○		○	○	○	○						
											○															
											○															
SCMT09T304-GP	9.525	9.525	3.97	4.4	0.4				●		○	●	○	●			●	○	○	○						
SCMT09T308-GP	9.525	9.525	3.97	4.4	0.8		●		●		○	○					●	○	○	○						
SCMT120404-GP	12.7	12.7	4.76	5.56	0.4		○		●		○	○					●	○	○	○						○
SCMT120408-GP	12.7	12.7	4.76	5.56	0.8				●		○	●					●	○	○	○						○
SCMT09T304-TP	9.525	9.525	3.97	4.4	0.4																			○		○
SCMT09T308-TP	9.525	9.525	3.97	4.4	0.8																			○		○
SCMT120404-TP	12.7	12.7	4.76	5.56	0.4																			○		○
SCMT120408-TP	12.7	12.7	4.76	5.56	0.8																			○		○
SCMT09T308-KM	9.525	9.525	3.97	4.4	0.8			○									○	○	○	○						
SCMT120408-KM	12.7	12.7	4.76	5.56	0.8			○									○	○	○	○						
SCMT120412-KM	12.7	12.7	4.76	5.56	1.2												○	○	○	○						
SCGX09T304-AL	9.525	9.525	3.97	4.4	0.4																○	○	○			
SCGX09T308-AL	9.525	9.525	3.97	4.4	0.8																○	○	○			
SCGX120404-AL	12.7	12.7	4.76	5.5	0.4																○	○	○			
SCGX120408-AL	12.7	12.7	4.76	5.5	0.8																○	○	○			

● Stock ○ Available Upon Order

Turning Insert (Postive)

SP□□

Square 90° with Hole



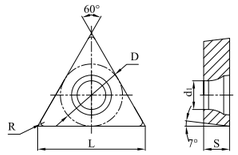
Ordering Code		Dimension					Coated															Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	SPMT090304-GP	9.525	9.525	3.18	4.4	0.4																					○

● Stock ○ Available Upon Order

Turning Insert (Postive)

TC□□

Triangle 60° with Hole



Ordering Code		Dimension					Coated															Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TCET080201R-PS	8.2	4.76	2.38	2.3	0.1											○									○	
	TCET080201L-PS	8.2	4.76	2.38	2.3	0.1											○									○	
	TCET080202R-PS	8.2	4.76	2.38	2.3	0.2											○									○	
	TCET080202L-PS	8.2	4.76	2.38	2.3	0.2											○									○	
	TCET080204R-PS	8.2	4.76	2.38	2.3	0.4											○									○	
	TCET080204L-PS	8.2	4.76	2.38	2.3	0.4											○									○	
	TCET110201R-PS	11	6.35	2.38	2.8	0.1											○									○	
	TCET110201L-PS	11	6.35	2.38	2.8	0.1											○									○	
	TCET110202R-PS	11	6.35	2.38	2.8	0.2											○									○	
	TCET110202L-PS	11	6.35	2.38	2.8	0.2											○									○	
	TCET110204R-PS	11	6.35	2.38	2.8	0.4											○									○	
	TCET110204L-PS	11	6.35	2.38	2.8	0.4											●									●	
	TCET080201R-GS	8.2	4.76	2.38	2.3	0.1											○									○	
	TCET080201L-GS	8.2	4.76	2.38	2.3	0.1											○									○	
	TCET080202R-GS	8.2	4.76	2.38	2.3	0.2											○									○	
	TCET080202L-GS	8.2	4.76	2.38	2.3	0.2											○									○	
	TCET080204R-GS	8.2	4.76	2.38	2.3	0.4											○									○	
	TCET080204L-GS	8.2	4.76	2.38	2.3	0.4											○									○	
	TCET110201R-GS	11	6.35	2.38	2.8	0.1											○									○	
	TCET110201L-GS	11	6.35	2.38	2.8	0.1											○									○	
	TCET110202R-GS	11	6.35	2.38	2.8	0.2											○									○	
	TCET110202L-GS	11	6.35	2.38	2.8	0.2											○									○	
	TCET110204R-GS	11	6.35	2.38	2.8	0.4											○									○	
	TCET110204L-GS	11	6.35	2.38	2.8	0.4											○									○	

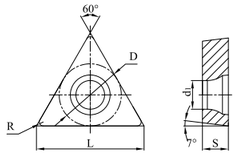
● Stock ○ Available Upon Order

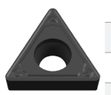
A General Turning

Turning Insert (Postive)

TC□□

Trigon 60° with Hole



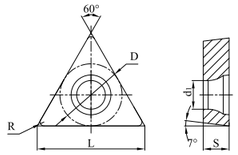
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TCMT110202-MM	11	6.35	2.38	2.8	0.2		○		○		○	○	○	●	○									○		○
	TCMT110204-MM	11	6.35	2.38	2.8	0.4		○		○		○	○	○	●	●		○							●		●
	TCMT16T304-MM	16.5	9.525	3.97	4.4	0.4						○	○	○	○												
	TCMT16T308-MM	16.5	9.525	3.97	4.4	0.8						○	○	○	●												
	TCMT090204-GP	9.6	5.56	2.38	2.5	0.4		○		●		○	●					●		○					○		○
	TCMT110202-GP	11	6.35	2.38	2.8	0.2				○		○	○					○							○		○
	TCMT110204-GP	11	6.35	2.38	2.8	0.4		●		●		○	●	○	●			●							○		○
	TCMT110208-GP	11	6.35	2.38	2.8	0.8		○		●		○	●					●		●					○		○
	TCMT16T304-GP	16.5	9.525	3.97	4.4	0.4		●		●		○	●	●	●			●		○					○		○
	TCMT16T308-GP	16.5	9.525	3.97	4.4	0.8		○		●		○	●	○	●			●		●					○		○
	TCMT16T312-GP	16.5	9.525	3.97	4.4	1.2						○	○					○		○							
	TCMT220408-GP	22	12.7	4.76	5.56	0.8		●		●		○	○					●		○							
	TCGT090204-GP	9.6	5.56	2.38	2.5	0.4								○	●												
	TCGT110202-GP	11	6.35	2.38	2.8	0.2								○	○												
	TCGT110204-GP	11	6.35	2.38	2.8	0.4								○	○												
	TCGT110208-GP	11	6.35	2.38	2.8	0.8								○	●												
	TCGT16T304-GP	16.5	9.525	3.97	4.4	0.4								○	○												
	TCGT16T308-GP	16.5	9.525	3.97	4.4	0.8								○	○												
	TCGT220408-GP	22	12.7	4.76	5.16	0.8						○	○	○	○												
	TCMT090202-TP	9.6	5.56	2.38	2.5	0.4																			○		○
	TCMT090204-TP	9.6	5.56	2.38	2.5	0.4																			●		●
	TCMT090208-TP	9.6	5.56	2.38	2.5	0.8																			○		○
	TCMT110204-TP	11	6.35	2.38	2.8	0.4																			○		●
	TCMT110208-TP	11	6.35	2.38	2.8	0.8																			○		○
	TCMT16T304-TP	16.5	9.525	3.97	4.4	0.4																			○		○
	TCMT16T308-TP	16.5	9.525	3.97	4.4	0.8																			○		○
	TCMT110204-KM	11	6.35	2.38	2.8	0.4			○									○									
	TCMT16T304-KM	16.5	9.525	3.97	4.4	0.4			○									○									
	TCMT16T308-KM	16.5	9.525	3.97	4.4	0.8			○									●									

● Stock ○ Available Upon Order

Turning Insert (Postive)

TC□□

Trigon 60° with Hole



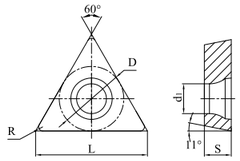
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TCGX090204-AL	9.6	5.56	2.38	2.5	0.4																○	○	○			
	TCGX110202-AL	11	6.35	2.38	2.8	0.2																○	○				
	TCGX110204-AL	11	6.35	2.38	2.8	0.4																○	○	○			
	TCGX110208-AL	11	6.35	2.38	2.8	0.8																○	○	○			
	TCGX16T302-AL	16.5	9.525	3.97	4.4	0.2																○	○				
	TCGX16T304-AL	16.5	9.525	3.97	4.4	0.4																○	○	○			
	TCGX16T308-AL	16.5	9.525	3.97	4.4	0.8																○	○	○			

● Stock ○ Available Upon Order

Turning Insert (Postive)

TP□□

Rhombic 35° with Hole



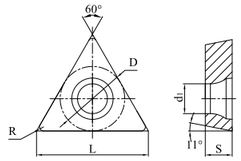
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TPET080201R-PS	8.2	4.76	2.38	2.3	0r.1										○									○		
	TPET080201L-PS	8.2	4.76	2.38	2.3	0.1										○									○		
	TPET080202R-PS	8.2	4.76	2.38	2.3	0.2										○									○		
	TPET080202L-PS	8.2	4.76	2.38	2.3	0.2										○									○		
	TPET080204R-PS	8.2	4.76	2.38	2.3	0.4										○									○		
	TPET080204L-PS	8.2	4.76	2.38	2.3	0.4										●									●		
	TPET080201R-GS	8.2	4.76	2.38	2.3	0.1										○									○		
	TPET080201L-GS	8.2	4.76	2.38	2.3	0.1										○									○		
	TPET080202R-GS	8.2	4.76	2.38	2.3	0.2										○									○		
	TPET080202L-GS	8.2	4.76	2.38	2.3	0.2										○									○		
	TPET080204R-GS	8.2	4.76	2.38	2.3	0.4										○									○		
	TPET080204L-GS	8.2	4.76	2.38	2.3	0.4										○									○		
	TPEH090201R-PS	9.6	5.56	2.38	3.0	0.1										○									○		
	TPEH090201L-PS	9.6	5.56	2.38	3.0	0.1										○									○		
	TPEH090202R-PS	9.6	5.56	2.38	3.0	0.2										○									○		
	TPEH090202L-PS	9.6	5.56	2.38	3.0	0.2										○									○		
	TPEH090204R-PS	9.6	5.56	2.38	3.0	0.4										○									○		
	TPEH090204L-PS	9.6	5.56	2.38	3.0	0.4										●									●		
	TPEH110301R-PS	11	6.35	3.18	3.4	0.1										○									○		
	TPEH110301L-PS	11	6.35	3.18	3.4	0.1										○									○		
	TPEH110302R-PS	11	6.35	3.18	3.4	0.2										○									○		
	TPEH110302L-PS	11	6.35	3.18	3.4	0.2										○									○		
	TPEH110304R-PS	11	6.35	3.18	3.4	0.4										○									○		
	TPEH110304L-PS	11	6.35	3.18	3.4	0.4										●									●		
	TPEH090202R-GS	9.6	5.56	2.38	3.0	0.2										○									○		
	TPEH090202L-GS	9.6	5.56	2.38	3.0	0.2										○									○		
	TPEH090204R-GS	9.6	5.56	2.38	3.0	0.4										○									○		
	TPEH090204L-GS	9.6	5.56	2.38	3.0	0.4										○									○		
	TPEH110302R-GS	11	6.35	3.18	3.4	0.2										○									○		
	TPEH110302L-GS	11	6.35	3.18	3.4	0.2										○									○		
	TPEH110304R-GS	11	6.35	3.18	3.4	0.4										○									○		
	TPEH110304L-GS	11	6.35	3.18	3.4	0.4										○									○		

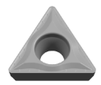
● Stock ○ Available Upon Order

Turning Insert (Postive)

TP□□

Rhombic 35° with Hole



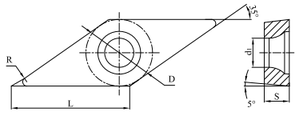
Ordering Code		Dimension					Coated														Uncoated			Cermet		
		L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
	TPMT110202-MM	11	6.35	2.38	2.8	0.2		○		○		○	○	○	○	○											
	TPMT110204-MM	11	6.35	2.38	2.8	0.4		○		○		○	●	○	○	○											
	TPMT110304-MM	11	6.35	3.18	3.4	0.4						○	○												○		○
	TPGT110204-GP	11	6.35	2.38	2.8	0.4								○	○												
	TPGT110208-GP	11	6.35	2.38	2.8	0.8								○	○												
	TPGT16T304-GP	16.5	9.525	3.97	4.4	0.4								○	○												
	TPGT16T308-GP	16.5	9.525	3.97	4.4	0.8								○	○												
	TPMT090202-TP	9.6	5.56	2.38	2.5	0.2																			○		○
	TPMT090204-TP	9.6	5.56	2.38	2.5	0.4																			○		●
	TPMT090208-TP	9.6	5.56	2.38	2.5	0.8																			○		○
	TPMT110302-TP	11	6.35	3.18	3.4	0.2																			○		○
	TPMT110304-TP	11	6.35	3.18	3.4	0.4																			○		●
	TPMT110308-TP	11	6.35	3.18	3.4	0.8																			○		○
	TPMT160302-TP	16.5	9.525	3.18	4.4	0.2																			○		○
	TPMT160304-TP	16.5	9.525	3.18	4.4	0.4																			○		○
	TPMT160308-TP	16.5	9.525	3.18	4.4	0.8																			○		○

● Stock ○ Available Upon Order

Turning Insert (Postive)

VB□□

Rhombic 35° with Hole



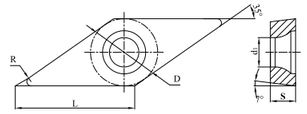
Ordering Code	Dimension					Coated													Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
VBET1103005R-PS	11.2	6.35	3.18	2.8	<0.05											○									○	
VBET1103005L-PS	11.2	6.35	3.18	2.8	<0.05											○									○	
VBET110301R-PS	11.2	6.35	3.18	2.8	0.1											○									○	
VBET110301L-PS	11.2	6.35	3.18	2.8	0.1											○									○	
VBET110302R-PS	11.2	6.35	3.18	2.8	0.2											○									○	
VBET110302L-PS	11.2	6.35	3.18	2.8	0.2											○									○	
VBET110304R-PS	11.2	6.35	3.18	2.8	0.4											○									○	
VBET110304L-PS	11.2	6.35	3.18	2.8	0.4											○									○	
VBET1103005R-GS	11.2	6.35	3.18	2.8	<0.05											○									○	
VBET1103005L-GS	11.2	6.35	3.18	2.8	<0.05											○									○	
VBET110301R-GS	11.2	6.35	3.18	2.8	0.1											○									○	
VBET110301L-GS	11.2	6.35	3.18	2.8	0.1											○									○	
VBET110302R-GS	11.2	6.35	3.18	2.8	0.2											●									○	
VBET110302L-GS	11.2	6.35	3.18	2.8	0.2											○									○	
VBET110304R-GS	11.2	6.35	3.18	2.8	0.4											○									○	
VBET110304L-GS	11.2	6.35	3.18	2.8	0.4											○									○	
VBMT110304-MM	11.2	6.35	3.18	2.8	0.4		●		○		○	●	●	●	●		○							○		○
VBMT110308-MM	11.2	6.35	3.18	2.8	0.8								○	○												
VBMT160402-MM	16.6	9.525	4.76	4.4	0.2						○	○	○	●	○									○		○
VBMT160404-MM	16.6	9.525	4.76	4.4	0.4	●	●		○		○	●	●	●	●									●		●
VBMT160408-MM	16.6	9.525	4.76	4.4	0.8	●	●		○		○	●	○	●	●									○		○
VBMT160404-GP	16.6	9.525	4.76	4.4	0.4		●		●		○	●	○	●			●		○					○		○
VBMT160408-GP	16.6	9.525	4.76	4.4	0.8		○		●		○	●	○	●			●		○					○		○
VBMT160412-GP	16.6	9.525	4.76	4.4	1.2		○		○		○	○					○									
VBMT110304-TP	11.2	6.35	3.18	2.8	0.4																			●		●
VBMT110308-TP	11.2	6.35	3.18	2.8	0.8																			○		○
VBMT160402-TP	16.6	9.525	4.76	4.4	0.2																			○		○
VBMT160404-TP	16.6	9.525	4.76	4.4	0.4																			●		●
VBMT160408-TP	16.6	9.525	4.76	4.4	0.8																			○		○
VBMT160408-KM	16.6	9.525	4.76	4.4	0.8				○								●	●								

● Stock ○ Available Upon Order

Turning Insert (Postive)

VC□□

Rhombic 35° with Hole



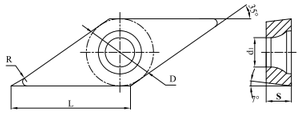
Ordering Code	Dimension					Coated													Uncoated			Cermet		
	L	D	S	d1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
VCET1103005R-PS	11.2	6.35	3.18	2.8	<0.05										○										○	
VCET1103005L-PS	11.2	6.35	3.18	2.8	<0.05										○										○	
VCET110301R-PS	11.2	6.35	3.18	2.8	0.1										○										○	
VCET110301L-PS	11.2	6.35	3.18	2.8	0.1										○										○	
VCET110302R-PS	11.2	6.35	3.18	2.8	0.2										○										○	
VCET110302L-PS	11.2	6.35	3.18	2.8	0.2										○										○	
VCET110304R-PS	11.2	6.35	3.18	2.8	0.4										○										○	
VCET110304L-PS	11.2	6.35	3.18	2.8	0.4										○										○	
VCET1103005R-GS	11.2	6.35	3.18	2.8	<0.05										○										○	
VCET1103005L-GS	11.2	6.35	3.18	2.8	<0.05										○										○	
VCET110301R-GS	11.2	6.35	3.18	2.8	0.1										○										○	
VCET110301L-GS	11.2	6.35	3.18	2.8	0.1										○										○	
VCET110302R-GS	11.2	6.35	3.18	2.8	0.2										○										○	
VCET110302L-GS	11.2	6.35	3.18	2.8	0.2										○										○	
VCET110304R-GS	11.2	6.35	3.18	2.8	0.4										○										○	
VCET110304L-GS	11.2	6.35	3.18	2.8	0.4										○										○	
VCMT110304-GP	11.2	6.35	3.18	2.8	0.4			●		○	●					○							○			○
VCMT110308-GP	11.2	6.35	3.18	2.8	0.8					○	○					○							○			○
VCMT160404-GP	16.6	9.525	4.76	4.4	0.4	●		●		○	●					●							○			○
VCMT160408-GP	16.6	9.525	4.76	4.4	0.8	●		●		○	●					●							○			○
VCGT110302-GP	11.2	6.35	3.18	2.8	0.2								○	○												
VCGT110304-GP	11.2	6.35	3.18	2.8	0.4								○	●												
VCGT160404-GP	16.6	9.525	4.76	4.4	0.4								○	●												
VCGT160408-GP	16.6	9.525	4.76	4.4	0.8								○	○												
VCMT160404-KM	16.6	9.525	4.76	4.4	0.4			○								○										
VCMT160408-KM	16.6	9.525	4.76	4.4	0.8			○								○										

● Stock ○ Available Upon Order

Turning Insert (Postive)

VC□□

Rhombic 35° with Hole



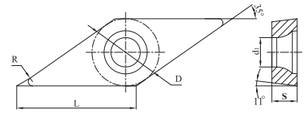
Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
VCGX110302-AL	11.2	6.35	3.18	2.8	0.2																	○				
VCGX110304-AL	11.2	6.35	3.18	2.8	0.4																○	○	○			
VCGX110308-AL	11.2	6.35	3.18	2.8	0.8																○	○	○			
VCGX160402-AL	16.6	9.525	4.76	4.4	0.2																○	○				
VCGX160404-AL	16.6	9.525	4.76	4.4	0.4																○	●	○			
VCGX160408-AL	16.6	9.525	4.76	4.4	0.8																○	○	○			
VCGX160412-AL	16.6	9.525	4.76	4.4	1.2																○	●	○			
VCGX220512-AL	22.1	12.7	5.56	5.6	1.2																○	○	○			
VCGX220516-AL	22.1	12.7	5.56	5.6	1.6																○	○	○			
VCGX220530-AL	22.1	12.7	5.56	5.6	3																○	○	○			

● Stock ○ Available Upon Order

Turning Insert (Postive)

VP□□

Rhombic 35° with Hole

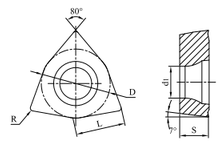


Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
VPET1103005R-PS	11.2	6.35	3.18	2.8	<0.05											○								○		
VPET1103005L-PS	11.2	6.35	3.18	2.8	<0.05											○								○		
VPET110301R-PS	11.2	6.35	3.18	2.8	0.1											○								○		
VPET110301L-PS	11.2	6.35	3.18	2.8	0.1											○								○		
VPET110302R-PS	11.2	6.35	3.18	2.8	0.2											○								○		
VPET110302L-PS	11.2	6.35	3.18	2.8	0.2											○								○		
VPET1103005R-GS	11.2	6.35	3.18	2.8	<0.05											○								○		
VPET1103005L-GS	11.2	6.35	3.18	2.8	<0.05											○								○		
VPET110301R-GS	11.2	6.35	3.18	2.8	0.1											○								○		
VPET110301L-GS	11.2	6.35	3.18	2.8	0.1											○								○		
VPET110302R-GS	11.2	6.35	3.18	2.8	0.2											○								○		
VPET110302L-GS	11.2	6.35	3.18	2.8	0.2											○								○		

● Stock ○ Available Upon Order

WC□□

Trigon 60° with Hole



Ordering Code	Dimension					Coated														Uncoated			Cermet		
	L	D	S	d_1	R	GP1105	GP1115	GP1120	GP1225	GP1135	GM1115	GM1125	GM3215	GM3225	GS3115	GS3125	GK1115	GK1120	GK1125	GK1130	GN9115	GN9120	GN9130	GP31TM	GP91TF	GP91TM
WCMT06T304-GP	6.5	9.525	3.97	4.4	0.4		○		○		○	○					○							○		○
WCMT06T308-GP	6.5	9.525	3.97	4.4	0.8		○		○		○	○					○							○		○

● Stock ○ Available Upon Order

Recommended Cutting Data

Negative

ISO	Workpiece materials	Hardness	Cutting Range	Application	Geometries	Grade	Min-Optimum-Max		
							Cutting Speed Vc(m/min)	Depth of Cut ap(mm)	Feed rate f(mm)
P	Low Carbon Steel	≤HB180	superfinishing &Finishing	Continuous	PS	GP91TF	220-300-380	0.08-0.15-0.30	0.03-0.08-0.15
			Finishing	Continuous	QF	GP31TM	220-300-380	0.40-0.80-1.50	0.04-0.12-0.22
						GP91TM	200-280-350	0.40-1.00-2.00	0.08-0.20-0.30
						GP1105	220-280-380	0.40-0.80-2.00	0.08-0.15-0.35
						GP1115	200-260-360	0.40-0.80-2.00	0.08-0.15-0.35
						GP1120	200-260-360	0.40-0.80-2.00	0.08-0.15-0.35
				Interrtuption		GP1225	180-240-320	0.40-0.80-2.00	0.08-0.15-0.35
			Semi-finishing	Continuous	QM	GP91TM	200-260-330	0.50-1.50-3.00	0.15-0.22-0.35
						GP1105	200-260-360	0.80-2.00-4.00	0.15-0.20-0.40
						GP1115	180-230-320	0.80-2.00-4.00	0.15-0.20-0.40
						GP1120	180-230-320	0.80-2.00-4.00	0.15-0.20-0.40
				Interrtuption		GP1225	160-210-300	0.80-2.00-4.00	0.15-0.20-0.40
				Continuous	TP	GP31TM	220-300-380	0.30-1.00-3.00	0.05-0.12-0.28
						GP91TM	200-280-350	0.30-1.20-3.00	0.05-0.15-0.28
				Continuous	TS	GP31TM	200-280-350	0.50-1.00-3.00	0.10-0.15-0.35
						GP91TM	200-260-330	0.50-1.20-3.00	0.10-0.20-0.35
				Continuous	SV	GP31TM	180-240-330	1.00-1.50-3.50	0.18-0.20-0.35
						GP91TM	180-230-320	1.00-1.50-3.50	0.18-0.25-0.40
						GP1120	180-220-320	1.00-2.50-4.50	0.18-0.25-0.45
				Interrtuption		GP1225	160-200-300	1.00-2.50-4.50	0.18-0.25-0.45
			Roughing	Continuous	QR	GP1105	130-190-270	1.50-3.50-6.00	0.20-0.30-0.60
						GP1225	120-170-250	1.50-3.50-6.00	0.20-0.30-0.60
				Interrtuption		GP1135	110-150-230	1.50-3.50-6.00	0.20-0.30-0.60
			Heavy Cutting	Continuous	QH	GP1105	100-150-240	3.00-6.00-12.0	0.35-0.60-1.10
						GP1225	90-140-210	3.00-6.00-12.0	0.35-0.60-1.10
				Interrtuption		GP1135	80-130-190	3.00-6.00-12.0	0.35-0.60-1.10
	Carbon Steel & Alloy Steel	HB180-280	superfinishing &Finishing	Continuous	PS	GP91TF	200-270-350	0.08-0.15-0.30	0.03-0.08-0.15
			Finishing	Continuous	QF	GP31TM	200-270-350	0.40-0.80-1.50	0.04-0.12-0.22
						GP91TM	180-250-330	0.40-1.00-2.00	0.08-0.20-0.30
						GP1105	200-250-340	0.40-0.80-2.00	0.08-0.15-0.35
						GP1115	180-230-320	0.40-0.80-2.00	0.08-0.15-0.35
						GP1120	180-230-320	0.40-0.80-2.00	0.08-0.15-0.35
				Interrtuption		GP1225	160-200-300	0.40-0.80-2.00	0.08-0.15-0.35
			Semi-finishing	Continuous	QM	GP91TM	180-230-310	0.50-1.50-3.00	0.15-0.20-0.35
						GP1105	160-230-320	0.80-2.00-4.00	0.15-0.22-0.40
						GP1115	140-210-300	0.80-2.00-4.00	0.15-0.20-0.40
						GP1120	140-210-300	0.80-2.00-4.00	0.15-0.20-0.40
				Interrtuption		GP1225	120-190-280	0.80-2.00-4.00	0.15-0.20-0.40
				Continuous	TP	GP31TM	200-270-350	0.30-1.00-2.50	0.05-0.12-0.28
						GP91TM	180-250-330	0.30-1.20-2.50	0.05-0.15-0.28
				Continuous	TS	GP31TM	180-250-330	0.50-1.00-3.00	0.10-0.15-0.35
						GP91TM	180-230-310	0.50-1.20-3.00	0.10-0.20-0.35

Recommended Cutting Data

Negative

ISO	Workpiece materials	Hardness	Cutting Range	Application	Geometries	Grade	Min-Optimum-Max		
							Cutting Speed Vc(m/min)	Depth of Cut ap(mm)	Feed rate f(mm)
P	Carbon Steel & Alloy Steel	HB180-280	Semi-finishing	Continuous	SV	GP31TM	160-220-310	1.00-1.50-3.50	0.18-0.20-0.35
						GP91TM	160-210-300	1.00-1.50-3.50	0.18-0.25-0.40
						GP1120	140-200-300	1.00-2.50-4.50	0.18-0.25-0.45
				Interrtuption		GP1225	120-180-280	1.00-2.50-4.50	0.18-0.25-0.45
			Finishing	Continuous	QR	GP1105	120-180-260	1.50-3.50-6.00	0.20-0.30-0.60
						GP1225	110-160-240	1.50-3.50-6.00	0.20-0.30-0.60
				Interrtuption		GP1135	100-140-220	1.50-3.50-6.00	0.20-0.30-0.60
			Heavy Cutting	Continuous	QH	GP1105	90-140-230	3.00-6.00-12.0	0.35-0.60-1.10
						GP1225	80-130-200	3.00-6.00-12.0	0.35-0.60-1.10
				Interrtuption		GP1135	70-120-180	3.00-6.00-12.0	0.35-0.60-1.10
		HB280-350	Finishing	Continuous	QF	GP31TM	180-250-320	0.40-0.80-1.50	0.04-0.12-0.22
						GP91TM	170-230-300	0.40-1.00-2.00	0.08-0.20-0.30
						GP1105	160-200-270	0.40-0.80-2.00	0.08-0.15-0.35
						GP1115	150-180-250	0.40-0.80-2.00	0.08-0.15-0.35
						GP1120	150-180-250	0.40-0.80-2.00	0.08-0.15-0.35
				Interrtuption		GP1225	130-150-230	0.40-0.80-2.00	0.08-0.15-0.35
			Semi-finishing	Continuous	QM	GP91TM	160-210-300	0.50-1.50-3.00	0.15-0.22-0.35
						GP1105	120-180-250	0.80-2.00-4.00	0.15-0.20-0.40
						GP1115	110-170-240	0.80-2.00-4.00	0.15-0.20-0.40
						GP1120	110-170-240	0.80-2.00-4.00	0.15-0.20-0.40
				Interrtuption		GP1225	100-150-220	0.80-2.00-4.00	0.15-0.20-0.40
				Continuous	TP	GP31TM	180-250-320	0.30-1.00-2.50	0.05-0.12-0.28
						GP91TM	170-230-300	0.30-1.20-2.50	0.05-0.15-0.28
				Continuous	TS	GP31TM	170-230-300	0.50-1.00-3.00	0.10-0.15-0.35
						GP91TM	150-210-280	0.50-1.20-3.00	0.10-0.20-0.35
				Continuous	SV	GP31TM	140-190-270	1.00-1.50-3.50	0.18-0.20-0.35
						GP91TM	140-180-260	1.00-1.50-3.50	0.18-0.25-0.40
						GP1120	110-160-240	1.00-2.50-4.50	0.18-0.25-0.45
				Interrtuption		GP1225	100-140-220	1.00-2.50-4.50	0.18-0.25-0.45
			Roughing	Continuous	QR	GP1105	100-150-210	2.00-3.50-6.50	0.20-0.30-0.60
						GP1225	90-140-200	2.00-3.50-6.50	0.20-0.30-0.60
				Interrtuption		GP1135	80-120-180	2.00-3.50-6.50	0.20-0.30-0.60
			Heavy Cutting	Continuous	QH	GP1105	80-110-190	3.00-6.00-12.0	0.35-0.60-1.10
						GP1225	70-100-170	3.00-6.00-12.0	0.35-0.60-1.10
				Interrtuption		GP1135	60-90-150	3.00-6.00-12.0	0.35-0.60-1.10

Recommended Cutting Data

Negative

ISO	Workpiece materials	Hardness	Cutting Range	Application	Geometries	Grade	Min-Optimum-Max		
							Cutting Speed Vc(m/min)	Depth of Cut ap(mm)	Feed rate f(mm)
M	stainless steel 303,304 and 316, etc.	≤HB300	superfinishing &Finishing	Continuous	PS	GS3115	120-190-250	0.08-0.15-0.30	0.03-0.08-0.15
						GS3125	100-170-230	0.08-0.15-0.30	0.03-0.08-0.15
			Finishing	Continuous	SF	GS3115	120-190-250	0.10-0.80-1.50	0.08-0.10-0.30
				Continuous	LF	GM3215	120-160-200	0.40-0.90-1.50	0.05-0.24-0.20
				Interrtuption		GM3225	80-130-180	0.40-0.90-1.50	0.05-0.12-0.20
			Semi-finishing	Continuous	SM	GM1115	200-250-300	1.00-2.00-3.00	0.15-0.20-0.35
						GM3215	120-160-200	1.00-2.00-3.00	0.15-0.20-0.35
				Interrtuption		GM1125	180-230-280	1.00-2.00-3.00	0.15-0.20-0.35
						GM3225	80-130-180	1.00-2.00-3.00	0.15-0.20-0.35
				Continuous	LV	GM3215	120-160-200	0.80-2.20-4.50	0.15-0.24-0.32
				Interrtuption		GM3225	80-130-180	0.80-2.20-4.50	0.15-0.24-0.32
				Continuous	LM	GM1115	200-250-300	0.80-1.80-3.50	0.08-0.18-0.40
						GM3215	120-160-200	0.80-1.80-3.50	0.08-0.18-0.40
				Interrtuption		GM1125	180-230-280	0.80-1.80-3.50	0.08-0.18-0.40
						GM3225	80-130-180	0.80-1.80-3.50	0.08-0.18-0.40
			Roughing	Continuous	LR	GM1115	200-250-300	1.50-3.00-5.00	0.15-0.30-0.50
						GM3215	120-160-200	1.50-3.00-5.00	0.15-0.30-0.50
				Interrtuption		GM1125	180-230-280	1.50-3.00-5.00	0.15-0.30-0.50
						GM3225	80-130-180	1.50-3.00-5.00	0.15-0.30-0.50
K	Gray cast iron FC200，FC250，FC300 etc.	≤HB300	Finishing &Semi-finishing	Continuous	UK	GK1115	230-350-500	0.50-1.50-3.00	0.10-0.20-0.40
				Interrtuption		GK1125	220-320-480	0.50-1.50-3.00	0.10-0.20-0.40
			Roughing	Continuous	HK	GK1115	220-320-480	0.50-2.00-4.00	0.10-0.25-0.50
				Interrtuption		GK1125	210-300-450	0.50-2.00-4.00	0.10-0.25-0.50
			Heavy Cutting	Continuous	Flat	GK1115	210-300-450	1.00-2.50-6.00	0.20-0.30-0.60
				Interrtuption		GK1125	200-280-430	1.00-2.50-6.00	0.20-0.30-0.60
	Ductile cast iron FCD450,FCD600 etc.	≤HB300	Finishing &Semi-finishing	Continuous	UK	GK1120	180-260-380	0.50-1.50-3.00	0.10-0.20-0.40
				Interrtuption		GK1130	160-230-350	0.50-1.50-3.00	0.10-0.20-0.40
			Roughing	Continuous	HK	GK1120	180-240-360	0.50-2.00-4.00	0.10-0.25-0.50
				Interrtuption		GK1130	160-210-340	0.50-2.00-4.00	0.10-0.25-0.50
			Heavy Cutting	Continuous	Flat	GK1120	180-220-350	1.00-2.50-6.00	0.20-0.30-0.60
				Interrtuption		GK1130	160-200-330	1.00-2.50-6.00	0.20-0.30-0.60

Recommended Cutting Data

Positive

ISO	Workpiece materials	Hardness	Cutting Range	Application	Geometries	Grade	Min-Optimum-Max		
							Cutting Speed Vc(m/min)	Depth of Cut ap(mm)	Feed rate f(mm)
P	Low Carbon Steel	≤HB180	superfinishing &Finishing	Continuous	PS	GP91TF	220-300-380	0.08-0.15-0.30	0.03-0.08-0.15
				Continuous	GS	GP91TF	220-300-380	0.20-0.30-1.50	0.02-0.05-0.08
			Finishing	Continuous	MM	GP31TM	220-280-340	0.10-0.50-1.00	0.03-0.10-0.20
						GP91TM	200-250-310	0.10-0.60-1.50	0.03-0.12-0.20
						GP1105	190-240-320	0.10-0.60-1.50	0.05-0.10-0.20
						GP1115	180-220-300	0.10-0.60-1.50	0.05-0.10-0.20
				Interrtuption		GP1225	170-200-280	0.10-0.60-1.50	0.05-0.10-0.20
			Finishing &Semi-finishing	Continuous	GP	GP31TM	200-250-300	0.30-0.80-1.50	0.05-0.12-0.22
						GP91TM	180-230-300	0.30-1.00-1.80	0.05-0.15-0.22
						GP1115	170-200-280	0.40-1.00-2.50	0.07-0.12-0.30
						GP1120	170-200-280	0.40-1.00-2.50	0.07-0.12-0.30
				Interrtuption		GP1225	150-180-260	0.40-1.00-2.50	0.07-0.12-0.30
			Finishing &Semi-finishing	Continuous	TP	GP31TM	200-250-300	0.30-1.00-3.00	0.05-0.12-0.25
						GP91TM	180-230-300	0.30-1.20-3.00	0.05-0.15-0.25
			Roughing	Continuous	KM	GP1225	140-160-240	1.00-2.00-3.50	0.13-0.20-0.40
				Interrtuption		GP1225	130-150-230	1.00-2.00-3.50	0.13-0.20-0.40
	Carbon Steel & Alloy Steel	HB180-280	superfinishing &Finishing	Continuous	PS	GP91TF	200-250-330	0.08-0.15-0.30	0.03-0.08-0.15
				Continuous	GS	GP91TF	200-250-330	0.20-0.30-1.50	0.02-0.05-0.08
			Finishing	Continuous	MM	GS3115	120-160-200	0.50-0.70-1.50	0.05-0.10-0.20
						GM3215	120-160-200	0.50-0.70-1.50	0.05-0.10-0.20
						GM1115	200-250-300	0.50-0.70-1.50	0.05-0.10-0.20
				Interrtuption		GM1125	180-230-280	0.50-0.70-1.50	0.05-0.10-0.20
						GM3225	80-130-180	0.50-0.70-1.50	0.05-0.10-0.20
			Finishing &Semi-finishing	Continuous	GP	GM1115	200-250-300	0.40-1.00-2.50	0.07-0.12-0.30
						GM3215	120-160-200	0.40-1.00-2.50	0.07-0.12-0.30
				Interrtuption		GM1125	180-230-280	0.40-1.00-2.50	0.07-0.12-0.30
						GM3225	80-130-180	0.40-1.00-2.50	0.07-0.12-0.30
			Finishing &Semi-finishing	Continuous	TP	GP31TM	180-210-280	0.30-1.00-3.00	0.05-0.12-0.25
						GP91TM	160-190-270	0.30-1.20-3.00	0.05-0.15-0.25
			Roughing Cutting	Continuous	KM	GP1225	110-130-200	1.00-2.00-3.50	0.13-0.20-0.40
				Interrtuption		GP1225	100-120-190	1.00-2.00-3.50	0.13-0.20-0.40

Recommended Cutting Data

Positive

ISO	Workpiece materials	Hardness	Cutting Range	Application	Geometries	Grade	Min-Optimum-Max		
							Cutting Speed Vc(m/min)	Depth of Cut ap(mm)	Feed rate f(mm)
P	Carbon Steel & Alloy Steel	HB280-350	Finishing	Continuous	MM	GP31TM	160-220-300	0.10-0.50-1.00	0.03-0.10-0.20
						GP91TM	140-200-280	0.10-0.60-1.50	0.03-0.12-0.20
						GP1105	140-180-240	0.10-0.60-1.50	0.05-0.10-0.20
						GP1115	130-160-230	0.10-0.60-1.50	0.05-0.10-0.20
				Interrtuption		GP1225	120-140-210	0.10-0.60-1.50	0.05-0.10-0.20
			Finishing &Semi-finishing	Continuous	GP	GP31TM	160-200-270	0.30-0.80-1.50	0.05-0.12-0.22
						GP91TM	130-160-250	0.30-1.00-1.80	0.05-0.15-0.22
						GP1115	120-160-210	0.40-1.00-2.50	0.07-0.12-0.30
						GP1120	120-160-210	0.40-1.00-2.50	0.07-0.12-0.30
				Interrtuption		GP1225	100-140-220	0.40-1.00-2.50	0.07-0.12-0.30
			Finishing &Semi-finishing	Continuous	TP	GP31TM	160-200-270	0.30-1.00-3.00	0.05-0.12-0.25
						GP91TM	130-160-250	0.30-1.20-3.00	0.05-0.15-0.25
			Roughing	Continuous	KM	GP1225	90-110-180	1.00-2.00-3.50	0.13-0.20-0.40
				Interrtuption		GP1225	80-100-170	1.00-2.00-3.50	0.13-0.20-0.40
M	stainless steel 303, 304 and 316, etc.	≤HB300	superfinishing &Finishing	Continuous	PS	GS3125	100-170-230	0.08-0.15-0.30	0.03-0.08-0.15
				Continuous	GS	GS3125	100-170-230	0.20-0.30-1.50	0.02-0.05-0.08
			Finishing	Continuous	MM	GS3115	120-160-200	0.50-0.70-1.50	0.05-0.10-0.20
						GM3215	120-160-200	0.50-0.70-1.50	0.05-0.10-0.20
						GM1115	200-250-300	0.50-0.70-1.50	0.05-0.10-0.20
						GM1125	180-230-280	0.50-0.70-1.50	0.05-0.10-0.20
						GM3225	80-130-180	0.50-0.70-1.50	0.05-0.10-0.20
			Semi-finishing	Continuous	GP	GM1115	200-250-300	0.40-1.00-2.50	0.07-0.12-0.30
						GM3215	120-160-200	0.40-1.00-2.50	0.07-0.12-0.30
				Interrtuption		GM1125	180-230-280	0.40-1.00-2.50	0.07-0.12-0.30
						GM3225	80-130-180	0.40-1.00-2.50	0.07-0.12-0.30
K	Gray cast iron FC200, FC250, FC300 etc.	≤HB250	Finishing &Semi-finishing	Continuous	GP	GK1115	180-280-380	0.30-0.80-2.00	0.05-0.12-0.25
				Interrtuption		GK1125	160-250-350	0.30-0.80-2.00	0.05-0.12-0.25
			Roughing	Continuous	KM	GK1115	180-260-360	1.00-2.00-4.00	0.13-0.20-0.40
				Interrtuption		GK1125	160-230-340	1.00-2.00-4.00	0.13-0.20-0.40
	Ductile cast iron FCD450, FCD600 etc.	≤HB270	Finishing &Semi-finishing	Continuous	GP	GK1115	160-250-350	0.30-0.80-2.00	0.05-0.12-0.25
				Interrtuption		GK1125	140-230-330	0.30-0.80-2.00	0.05-0.12-0.25
			Roughing	Continuous	KM	GK1115	160-230-330	1.00-2.00-4.00	0.13-0.20-0.40
				Interrtuption		GK1125	140-200-310	1.00-2.00-4.00	0.13-0.20-0.40
N	Titanium Alloy	HB90-100	Finishing &Semi-finishing	Continuous	AL	GN9115	250-700-970	0.50-1.20-3.00	0.05-0.10-0.30
				Interrtuption	AL	GN9120	250-680-960	0.50-1.20-3.50	0.05-0.10-0.30
					AL	GN9130	250-650-950	0.50-1.20-4.00	0.05-0.10-0.30
		HB60-90		Continuous	AL	GN9115	1000-1400-2100	0.50-1.20-3.00	0.05-0.10-0.30
				Interrtuption	AL	GN9120	950-1300-2000	0.50-1.20-3.50	0.05-0.10-0.30
					AL	GN9130	950-1200-1950	0.50-1.20-4.00	0.05-0.10-0.30

B

PCBN/PCD TURNING

PCBN/PCD Turning Indexable Inserts Identification System

Symbol	Shape	Corner Angle	Figure
H	Hexagon	120°	
O	Octagon	135°	
P	Pentagon	108°	
S	Square	90°	
T	Triangle	60°	
C	Rhombic	80°	
D		55°	
V		35°	
W	Trigon	80°	
L	Rectangle	90°	
A	Rectangle	85°	
R	Round	--	

①Shape Symbol

Symbol	Corner Angle
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	Others

②Relief Angle Symbol

Symbol	Tolerance(mm)			Tolerance(inch)		
	Corner Height(m)	Thickness (S)	I.G.dia. (Ød)	Corner Height(m)	Thickness (S)	I.G.dia. (Ød)
A	±0.005	±0.025	±0.025	±0.0002	±0.001	±0.001
F	±0.005	±0.025	±0.013	±0.0002	±0.001	±0.0005
C	±0.013	±0.025	±0.025	±0.0005	±0.001	±0.001
H	±0.013	±0.025	±0.013	±0.0005	±0.001	±0.0005
E	±0.025	±0.025	±0.025	±0.001	±0.001	±0.001
G	±0.025	±0.13	±0.025	±0.001	±0.005	±0.001
J	±0.005	±0.025	±0.05~0.13	±0.0002	±0.001	±0.002~0.005
K	±0.013	±0.025	±0.05~0.13	±0.0005	±0.001	±0.002~0.005
L	±0.025	±0.025	±0.05~0.13	±0.001	±0.001	±0.002~0.005
M	±0.08~0.18	±0.13	±0.05~0.13	±0.003~0.007	±0.005	±0.002~0.005
N	±0.08~0.18	±0.025	±0.05~0.13	±0.003~0.007	±0.001	±0.002~0.005
U	±0.13~0.38	±0.13	±0.08~0.25	±0.005~0.015	±0.005	±0.003~0.01

③Tolerance Symbol

①	②	③	④	⑤
T	N	G	A	22
T	N	M	G	22
①	②	③	④	⑤

④Hole/Chipbreaker Symbol

Symbol	Hole	Hole Shape	Chipbreaker	Shape
N	Without	—	Without	
R			Single-sided	
F			Double-sided	
A	With	With Hole	Without	
M			Single-sided	
G			Double-sided	
W		With Hobe and One Countersink 40°~60°	Without	
T			Single-sided	
Q		With Hobe and Two Countersinks 40°~60°	Without	
U			Double-sided	
B		With Hobe and One Countersink 70°~90°	Without	
H			Single-sided	
C		With Hobe and Two Countersinks 70°~90°	Without	
J			Double-sided	
X	—	—	—	

⑤Edge Length Symbol（ISO）(mm)

R Symbol	R Length	S Symbol	S Length	C Symbol	C Length	W Symbol	W Length	T Symbol	T Length	D Symbol	D Length	V Symbol	V Length	K Symbol	K Length	I.C.Size (mm)
		03	3.97	03	4.0			06	6.9	4	4.8					3.97
		04	4.76	04	4.8			08	8.2	5	5.8					4.76
05	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5
		05	5.56	05	5.6	03	3.8	09	9.6	6	6.8					5.56
06	6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6
		06	6.35	06	6.5	04	4.3	11	11	7	7.8	11	11.2			6.35
		07	7.94	08	8.1	05	5.4	13	13.8	9	9.7					7.94
08	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8
09	9.525	09	9.525	09	9.7	06	6.5	16	16.5	11	11.6	16	16.6	16	19.7	9.525
10	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10
12	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	12
12	12.7	12	12.7	12	12.9	08	8.7	22	22	15	15.5	22	22.1			12.7
15	15.875	15	15.875	16	16.1	10	10.9	27	27.5	19	19.4					15.875
16	16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	16
19	19.05	19	19.05	19	19.3	13	13	33	33	23	23.3					19.05
20	20	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20
		22	22.225	22	22.6			38	38.5	27	27.1					22.225
25	25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25
25	25.4	25	25.4	25	25.8			44	44	31	31					25.4
31	31.75	31	31.75	32	32.2			55	55	38	38.8					31.75
31	32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	32

PCBN/PCD Turning Indexable Inserts Identification System

Symbol	Corner-R (mm)
GN	0°
GB	5°
GC	7°
GT	10°

⑩PCD Rake Angle

⑥	⑦	⑧	⑨	⑩
04	08	M	- 3	GN
⑥	⑦	⑧	⑨	⑩

⑥Thickness

Symbol	Thickness
01	1.59
02	2.38
T2	2.78
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35
07	7.94
09	9.52

⑦Corner Rc Symbol

Symbol	Corner-R(mm)
00	0.03
02	0.2
04	0.4
08	0.8
12	1.2
16	1.6
20	2.0
24	2.4
28	2.8
32	3.2

⑧Tips

Symbol	Application
LF	Continuous sharp
LE	Continues passivation
LT	Continues Chamfer
L	Continues Standard
M	Continues Gerenal
H	Interrupted Strength
LS	Continues Others
MS	Interrupted Sharp
HS	Heavy Interrupted sharp
(空)	None

⑨Number of transpositions

Item	Number of transpositions
1	1
2	2
3	3
4	4
6	6
8	8

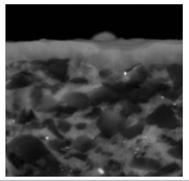
⑩Geometry

B PCBN/PCD TURNING

PCBN Grade Application

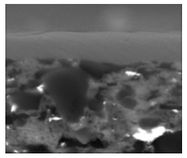
Workpiece Material		Turning Insert		Recomm-ended Grade	Recomme-nded Cutting Speed (m/min)	ISO	Application Range
K	Gray cast iron	Continuous Cutting		BKN115P	400-1500	K01, K10, K20	BKN115P; BKC120P (NEW)
		Interrupted Cutting		BKC120P	200-500	K30, K40	
S	Powder Metallurgy	Continuous Cutting		BSN115P	50-300	S01, S10, S20	BSN115P
		Interrupted Cutting				S30, S40	
H	Hardened Material	Continuous Cutting		BHC 115P	100-220	H01, H10	BHC115P (NEW); BHC125P (NEW); BHC135P (NEW)
		Medium Interrupted Cutting		BHC 125P	100-200	H20	
		Heavy Interrupted Cutting		BHC 135P	50-130	H30, H40	

Continuous Cutting for hardened material Coated PCBN Grade-BHC115P NEW



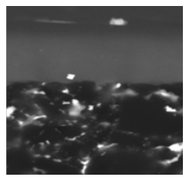
AlTIN Coating AlTIN Coating	The latest AlTIN+coating Excellent heat resistance and oxidation resistance
	Ultra –fine CBN substrate Excellent wear resistance and red hardness

Continuous Cutting for hardened material Coated PCBN Grade-BHC125P NEW



AlTIN Coating AlTIN Coating	The latest AlTIN+coating Excellent heat resistance and oxidation resistance
	Mixed Crystal CBN Substrate Both wear resistance and impact resistance

Heavy Interrupted Cutting for hardened material Coated PCBN Grade-BHC135P NEW



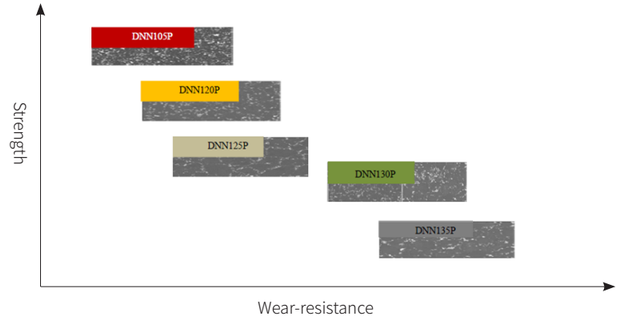
AlTIN Coating AlTIN Coating	The latest AlTIN+coating Excellent heat resistance and oxidation resistance
	High ratio CBN substrate Excellent impact resistance and chemical stability

PCBN Grade Application

Workpiece Material		Turning Insert		Recomm-ended Grade	Recomme-nded Cutting Speed (m/min)	ISO	Application Range
N	Non-ferrous metal	Continuous Cutting		DNN105P	300~3000	N01	DNN105P
				DNN120P			DNN120P (NEW)
				DNN125P		N10	DNN125P
				DNN130P	200~1500		DNN130P
				DNN135P		N20	DNN135P
		Interrupted Cutting		DNN105P	200~1500		
				DNN120P		N30	
				DNN125P			
	Non-metallic material	Continuous Cutting		DNN130P	~3000	N01	
				DNN135P		N10	DNN30P; DNN35P
		Interrupted Cutting		DNN130P		N20	
				DNN135P		N30	
	Composite material	Continuous Cutting		DNN130P	300~1000	N01	
				DNN135P		N10	DNN30P; DNN135P
		Interrupted Cutting		DNN130P		N20	
				DNN135P		N30	

Features&Usage of PCD Grade

Grade	Advantages	Purpose
DNN105P	High density sintered ultra-fine diamond material congribute to the highest wear resistance and collapse resistance, with superior sharpness.	Mainly used in the processing of medium and low silicon aluminium alloy, copper and copper alloy, cemented carbide and ceramic pre-sintered billet and other materials.
NEW DNN120P	Fine-grained diamond material with good machinability and wear resistance	Mainly used in the processing of aluminium alloy, copper and copper alloy, pressed film products, hard rubber, carbon and ceramic pre-sintered blanks and other materials.
DNN125P	Medium-sized diamond material, with good wear resistance and discharge performance, good impact resistance, strong versatility	Mainly used in the processing of aluminium alloy, copper and copper alloy, pressed film products, hard rubber, carbon and ceramic pre-sintered blanks and other materials.
DNN130P	High content, mixed size diamond material, with excellent wear resistance, high impact strength, good surface quality	It is mainly used for milling of high aluminium alloy, processing of carbon fibers and glass fibers.
DNN135P	Large size diamond material, long tool life, high wear resistance, general surface finish	Mainly used for rough turning and intermittent processing of aluminum alloy, MMC, cemented carbide and other wear-resistant materials with silicon content greater than 14%.



Range of PCBN Turning InsertsPCBN

PCBN (Negative)

Type	Advantages	Rhombic 80°	Rhombic 55°	Triangle 60°	Rhombic 35°	Trigon 80°
Brazed	•High precision and longer tool life •Wide range of insert types •High cost performance					
		CNGA	DNGA	TNGA	VNGA	WNGA
		P079	P079	P080	P080	P081

PCBN (Negative)

Type	Advantages	Rhombic 80°	Rhombic 55°	Triangle 60°	Rhombic 35°	Trigon 80°
Brazed	•High precision and longer tool life •Wide range of insert types •High cost performance					
		CCGW	DCGW	TCGW/TPGW	VBGW/VCGW	
		P082	P082	P083	P084	

PCD (Negative)

Type	Advantages	Rhombic 80°	Rhombic 55°	Triangle 60°	Rhombic 35°
Brazed	•High precision and longer tool life •Wide range of insert types •High cost performance				
		CNGA	DNGA	TNGA	VNGA
		P085	P085	P086	P086

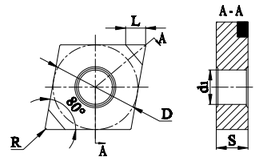
PCD (Postive)

Type	Advantages	Rhombic 80°	Rhombic 55°	Triangle 60°	Rhombic 35°	Trigon 360°
Brazed	•High precision and longer tool life •Wide range of insert types •High cost performance					
		CC□W/CP□W	DC□W	TC□W/TP□W	VC□W	RDEW
		P087	P089	P091	P092	P092

PCBN (Negative)

CNGA

Rhombic 80° with Hole

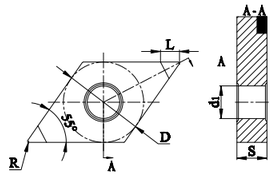


Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	CNGA120404L-2	2	2.2	12.7	4.76	5.16	0.4	○	○	●	○	○	○
	CNGA120404M-2	2	2.2	12.7	4.76	5.16	0.4	○	○	●	●	○	○
	CNGA120408L-2	2	2.2	12.7	4.76	5.16	0.8	○	○	○	○	○	○
	CNGA120408M-2	2	2.2	12.7	4.76	5.16	0.8	○	○	●	●	●	●
	CNGA120408H-2	2	2.2	12.7	4.76	5.16	0.8	○	○	○	●	○	○
	CNGA120412M-2	2	2.2	12.7	4.76	5.16	1.2	○	○	●	●	●	○

●Stock ○Available upon Order

DNGA

Rhombic 55° with Hole



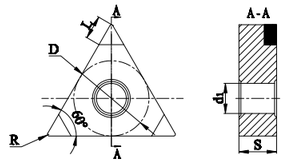
Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	DNGA150404L-2	2	2.2	12.7	4.76	5.16	0.4	●	○	●	○	○	○
	DNGA150404M-2	2	2.2	12.7	4.76	5.16	0.4	○	○	○	●	○	○
	DNGA150408L-2	2	2.2	12.7	4.76	5.16	0.8	○	○	●	○	○	○
	DNGA150408M-2	2	2.2	12.7	4.76	5.16	0.8	●	○	○	●	○	●
	DNGA150412M-2	2	2.2	12.7	4.76	5.16	1.2	○	○	○	○	○	○
	DNGA150604M-2	2	2.2	12.7	6.35	5.16	0.4	○	○	○	○	○	○
	DNGA150608M-2	2	2.2	12.7	6.35	5.16	0.8	○	○	○	○	○	○
	DNGA150612M-2	2	2.2	12.7	6.35	5.16	1.2	○	○	○	○	○	○

●Stock ○Available upon Order

PCBN (Negative)

TNGA

Triangle 60° with Hole

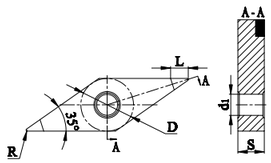


Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	TNGA160404L-3	3	2.2	9.525	4.76	3.81	0.4	○	○	●	○	○	○
	TNGA160404M-3	3	2.2	9.525	4.76	3.81	0.4	○	○	●	●	○	○
	TNGA160408L-3	3	2.2	9.525	4.76	3.81	0.8	○	○	●	●	○	○
	TNGA160408M-3	3	2.2	9.525	4.76	3.81	0.8	○	○	●	●	●	○
	TNGA160408H-3	3	2.2	9.525	4.76	3.81	0.8	○	○	○	●	○	○
	TNGA160412M-3	3	2.2	9.525	4.76	3.81	1.2	○	○	○	○	○	○
	TNGA160416H-3	3	2.2	9.525	4.76	3.81	1.6	○	○	○	○	●	○

●Stock ○Available upon Order

VNGA

Rhombic 35° with Hole



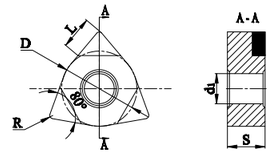
Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	VNGA160404L-2	2	2.2	9.525	4.76	3.81	0.4	○	○	○	○	○	○
	VNGA160404M-2	2	2.2	9.525	4.76	3.81	0.4	○	○	○	●	●	○
	VNGA160408L-2	2	2.2	9.525	4.76	3.81	0.8	○	○	●	○	○	○
	VNGA160408M-2	2	2.2	9.525	4.76	3.81	0.8	○	○	○	●	●	○
	VNGA160412M-2	2	2.2	9.525	4.76	3.81	1.2	○	○	●	○	○	○

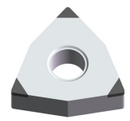
●Stock ○Available upon Order

PCBN (Negative)

WNGA

Trigon 60° with Hole



Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	WNGA080404L-3	3	2.2	12.7	4.76	3.81	0.4	○	○	○	○	○	○
	WNGA080404M-3	3	2.2	12.7	4.76	3.81	0.4	○	○	○	●	○	○
	WNGA080408L-3	3	2.2	12.7	4.76	3.81	0.8	○	○	○	○	○	○
	WNGA080408M-3	3	2.2	12.7	4.76	3.81	0.8	●	○	○	○	●	○
	WNGA080408H-3	3	2.2	12.7	4.76	3.81	0.8	○	○	○	●	○	○
	WNGA080412M-3	3	2.2	12.7	4.76	3.81	1.2	○	○	○	○	○	○

●Stock ○Available upon Order

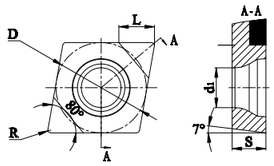
●Stock ○Available upon Order

●Stock ○Available upon Order

PCBN (Negative)

CCGW

Rhombic 80° with Hole

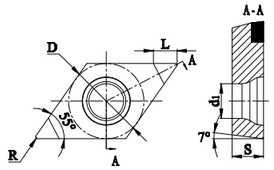


Ordering code	Flute	Dimensions (mm)					PCBN Grade					
		L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
CCGW060202L-2	2	2	6.35	2.38	2.8	0.2	○	○	○	○	○	○
CCGW060204L-2	2	2	6.35	2.38	2.8	0.4	○	○	●	●	○	○
CCGW060204M-2	2	2	6.35	2.38	2.8	0.4	○	○	○	○	○	○
CCGW060208L-2	2	2	6.35	2.38	2.8	0.8	○	○	○	○	○	○
CCGW060208M-2	2	2	6.35	2.38	2.8	0.8	○	○	●	○	○	○
CCGW09T302L-2	2	2	9.525	3.97	4.4	0.2	○	○	○	○	○	○
CCGW09T304L-2	2	2	9.525	3.97	4.4	0.4	●	○	●	○	○	○
CCGW09T304M-2	2	2	9.525	3.97	4.4	0.4	○	○	○	●	●	○
CCGW09T308L-2	2	2	9.525	3.97	4.4	0.8	○	○	○	○	○	○
CCGW09T308M-2	2	2	9.525	3.97	4.4	0.8	●	○	●	●	●	○
CCGW09T308H-2	2	2	9.525	3.97	4.4	0.8	○	○	○	●	○	○

●Stock ○Available upon Order

DCGW

Rhombic 55° with Hole



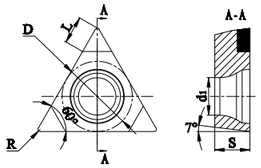
Ordering code	Flute	Dimensions (mm)					PCBN Grade					
		L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
DCGW070202L-2	2	2	6.35	2.38	2.8	0.2	○	○	○	●	○	○
DCGW070204L-2	2	2	6.35	2.38	2.8	0.4	○	○	●	●	○	○
DCGW070204M-2	2	2	6.35	2.38	2.8	0.4	○	○	○	○	○	○
DCGW070208L-2	2	2	6.35	2.38	2.8	0.8	○	○	○	○	○	○
DCGW070208M-2	2	2	6.35	2.38	2.8	0.8	○	○	○	○	○	○
DCGW11T302L-2	2	2	9.525	3.97	4.4	0.2	○	○	○	○	○	○
DCGW11T304L-2	2	2	9.525	3.97	4.4	0.4	●	○	○	○	○	○
DCGW11T304M-2	2	2	9.525	3.97	4.4	0.4	○	○	●	●	●	○
DCGW11T308L-2	2	2	9.525	3.97	4.4	0.8	○	○	○	○	○	○
DCGW11T308M-2	2	2	9.525	3.97	4.4	0.8	○	○	●	●	●	●

●Stock ○Available upon Order

PCBN (Negative)

TCGW

Triangle 60° with Hole

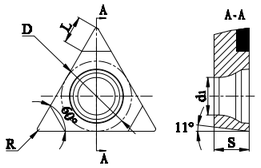


Ordering code	Flute	Dimensions (mm)					PCBN Grade					
		L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
TCGW110302L-3	3	2	6.35	3.18	3.4	0.2	○	○	○	○	○	○
TCGW110304L-3	3	2	6.35	3.18	3.4	0.4	●	○	○	○	○	○
TCGW110304M-3	3	2	6.35	3.18	3.4	0.4	○	○	○	●	○	○
TCGW110308L-3	3	2	6.35	3.18	3.4	0.8	○	○	○	○	○	○
TCGW110308M-3	3	2	6.35	3.18	3.4	0.8	○	○	○	○	○	○

●Stock ○Available upon Order

TPGW

Triangle 60° with Hole



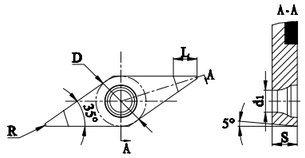
Ordering code	Flute	Dimensions (mm)					PCBN Grade					
		L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
TPGW080202L-1	1	2	4.76	2.38	2.3	0.2	○	○	○	○	○	○
TPGW080204L-1	1	2	4.76	2.38	2.3	0.4	○	○	○	○	○	○
TPGW080208L-1	1	2	4.76	2.38	2.3	0.8	○	○	○	○	○	○
TPGW090202L-3	3	2	5.56	2.38	2.8	0.2	○	○	○	○	○	○
TPGW090204L-3	3	2	5.56	2.38	2.8	0.4	●	○	○	●	○	○
TPGW090208L-3	3	2	5.56	2.38	2.8	0.8	●	○	○	○	○	○
TPGW110202L-3	3	2	6.35	2.38	2.8	0.2	○	○	○	○	○	○
TPGW110204L-3	3	2	6.35	2.38	2.8	0.4	○	○	○	○	○	○
TPGW110208M-3	3	2	6.35	2.38	2.8	0.8	○	○	○	○	○	○
TPGW110302L-3	3	2	6.35	3.18	3.4	0.2	○	○	○	○	○	○
TPGW110304L-3	3	2	6.35	3.18	3.4	0.4	○	○	○	○	○	●
TPGW110304M-3	3	2	6.35	3.18	3.4	0.4	○	○	○	○	○	○
TPGW110308L-3	3	2	6.35	3.18	3.4	0.8	○	○	●	●	○	○
TPGW110308M-3	3	2	6.35	3.18	3.4	0.8	○	○	○	○	○	○

●Stock ○Available upon Order

PCBN (Negative)

VBGW

Rhombic 35° with Hole

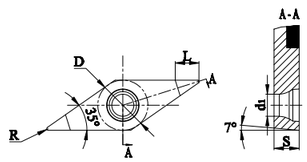


Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BHN115P	BHC115P	BHC125P	BHC135P	BHC135P
	VBGW110302L-2	2	2	6.35	3.18	2.8	0.2	○	○	○	○	○	○
	VBGW110304L-2	2	2	6.35	3.18	2.8	0.4	○	○	○	●	○	○
	VBGW110308L-2	2	2	6.35	3.18	2.8	0.8	○	○	○	●	○	○
	VBGW110308M-2	2	2	6.35	3.18	2.8	0.8	○	○	○	○	○	○
	VBGW160402L-2	2	2	9.525	4.76	4.4	0.2	○	○	○	○	○	○
	VBGW160404L-2	2	2	9.525	4.76	4.4	0.4	●	○	○	○	○	○
	VBGW160408L-2	2	2	9.525	4.76	4.4	0.8	●	○	○	○	○	○
	VBGW160408M-2	2	2	9.525	4.76	4.4	0.8	○	○	●	●	○	○

●Stock ○Available upon Order

VCGW

Rhombic 35° with Hole



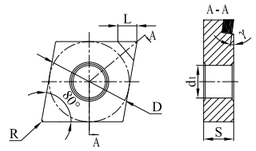
Ordering code		Flute	Dimensions (mm)					PCBN Grade					
			L	D	S	d1	R	BKN115P	BKC120P	BHC115P	BHC125P	BHC135P	BSN115P
	VCGW110302L-2	2	2	6.35	3.18	2.8	0.2	○	○	○	○	○	○
	VCGW110304L-2	2	2	6.35	3.18	2.8	0.4	●	○	○	○	○	○
	VCGW110308L-2	2	2	6.35	3.18	2.8	0.8	○	○	○	○	○	○
	VCGW110308M-2	2	2	6.35	3.18	2.8	0.8	●	○	○	○	○	○
	VCGW160402L-2	2	2	9.525	4.76	4.4	0.2	○	○	○	○	○	○
	VCGW160404L-2	2	2	9.525	4.76	4.4	0.4	○	○	○	○	○	○
	VCGW160408L-2	2	2	9.525	4.76	4.4	0.8	○	○	○	○	○	○
	VCGW160408M-2	2	2	9.525	4.76	4.4	0.8	○	○	○	●	○	○

●Stock ○Available upon Order

PCD (Negative)

CNGA

Rhombic 80° with Hole

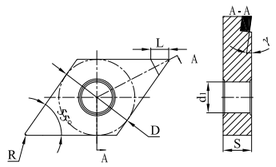


Ordering code		Flute	Dimensions (mm)					PCD Grade				
			L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
	CNGA120404	1	3	12.7	4.76	5.16	0.4	○	○	○	○	○
	CNGA120408	1	3	12.7	4.76	5.16	0.8	○	○	○	○	○

●Stock ○Available upon Order

DNGA

Rhombic 55° with Hole



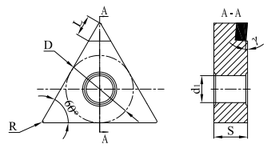
Ordering code		Flute	Dimensions (mm)					PCD Grade				
			L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
	DNGA150404	1	5	12.7	4.76	5.16	0.4	○	○	○	○	○
	DNGA150408	1	5	12.7	4.76	5.16	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD insert(Negative)

TNGA

Triangle 60° with Hole

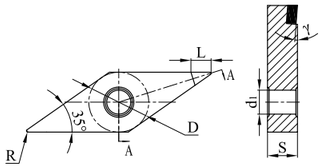


Ordering code		Flute	Dimensions (mm)					PCD Grade				
			L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
	TNGA160404	1	3	9.525	4.76	3.81	0.4	○	○	○	○	○
	TNGA160408	1	3	9.525	4.76	3.81	0.8	○	○	○	○	○

●Stock ○Available upon Order

VNGA

Rhombic 35° with Hole



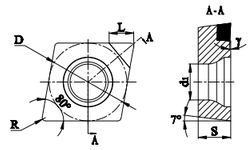
Ordering code		Flute	Dimensions (mm)					PCD Grade				
			L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
	VNGA160404	1	3	9.525	4.76	3.81	0.4	○	○	○	○	○
	VNGA160408	1	3	9.525	4.76	3.81	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Postive)

CC□W

Rhombic 80° with Hole



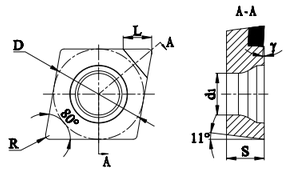
Ordering code		Flute	Dimensions (mm)					PCD Grade				
			L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
	CCGW060202	1	2.5	6.35	2.38	2.8	0.2	○	○	○	○	○
	CCGW060204	1	2.5	6.35	2.38	2.8	0.4	○	○	○	○	○
	CCGW060208	1	2.5	6.35	2.38	2.8	0.8	○	○	○	○	○
	CCMW060202M	1	2.5	6.35	2.38	2.8	0.2	○	○	○	○	○
	CCMW060204M	1	2.5	6.35	2.38	2.8	0.4	○	○	●	○	○
	CCMW060208M	1	2.5	6.35	2.38	2.8	0.8	○	○	○	○	○
	CCGW09T302	1	3.0	9.525	3.97	4.4	0.2	○	○	○	○	○
	CCGW09T304	1	3.0	9.525	3.97	4.4	0.4	●	○	●	○	○
	CCGW09T308	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○
	CCMW09T302M	1	3.0	9.525	3.97	4.4	0.2	○	○	●	○	○
	CCMW09T304M	1	3.0	9.525	3.97	4.4	0.4	○	○	●	○	○
	CCMW09T308M	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○
	CCGW120402	1	3.0	12.7	4.76	5.5	0.2	○	○	○	○	○
	CCGW120404	1	3.0	12.7	4.76	5.5	0.4	○	○	○	○	○
	CCGW120408	1	3.0	12.7	4.76	5.5	0.8	○	○	○	○	○
	CCMW120402M	1	3.0	12.7	4.76	5.5	0.2	○	○	○	○	○
	CCMW120404M	1	3.0	12.7	4.76	5.5	0.4	○	○	●	○	○
	CCMW120408M	1	3.0	12.7	4.76	5.5	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Negative)

CP□W

Rhombic 80° with Hole



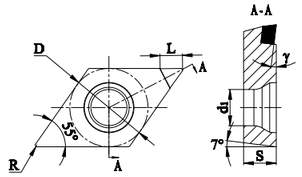
Ordering code	Flute	Dimensions (mm)					PCD Grade				
		L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
CPGW060202	1	2.5	6.35	2.38	2.8	0.2	○	○	○	○	○
CPGW060204	1	2.5	6.35	2.38	2.8	0.4	○	○	○	○	○
CPGW060208	1	2.5	6.35	2.38	2.8	0.8	○	○	○	○	○
CPMW060202M	1	2.5	6.35	2.38	2.8	0.2	○	○	○	○	○
CPMW060204M	1	2.5	6.35	2.38	2.8	0.4	○	○	○	○	○
CPMW060208M	1	2.5	6.35	2.38	2.8	0.8	○	○	○	○	○
CPGW09T302	1	3.0	9.525	3.97	4.4	0.2	○	○	○	○	○
CPGW09T304	1	3.0	9.525	3.97	4.4	0.4	●	○	●	○	○
CPGW09T308	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○
CPMW09T302M	1	3.0	9.525	3.97	4.4	0.2	○	○	●	○	○
CPMW09T304M	1	3.0	9.525	3.97	4.4	0.4	○	○	●	○	○
CPMW09T308M	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○
CPGW120402	1	3.0	12.7	4.76	5.5	0.2	○	○	○	○	○
CPGW120404	1	3.0	12.7	4.76	5.5	0.4	○	○	○	○	○
CPGW120408	1	3.0	12.7	4.76	5.5	0.8	○	○	○	○	○
CPMW120402M	1	3.0	12.7	4.76	5.5	0.2	○	○	○	○	○
CPMW120404M	1	3.0	12.7	4.76	5.5	0.4	○	○	●	○	○
CPMW120408M	1	3.0	12.7	4.76	5.5	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Negative)

DC□W

Rhombic 55° with Hole



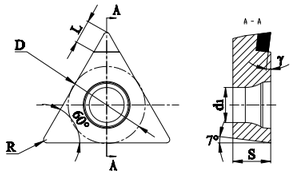
Ordering code	Flute	Dimensions (mm)					PCD Grade				
		L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
DCGW070204	1	2.5	6.35	2.38	2.8	0.4	○	○	○	○	○
DCMW070204M	1	2.5	6.35	2.38	2.8	0.4	○	○	●	○	○
DCGW11T302	1	3.0	9.525	3.97	4.4	0.2	○	○	○	○	○
DCGW11T304	1	3.0	9.525	3.97	4.4	0.4	●	○	●	○	○
DCGW11T308	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○
DCMW11T302M	1	3.0	9.525	3.97	4.4	0.2	○	○	●	○	○
DCMW11T304M	1	3.0	9.525	3.97	4.4	0.4	○	○	●	○	○
DCMW11T308M	1	3.0	9.525	3.97	4.4	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Negative)

TC□W

Triangle 60° with Hole



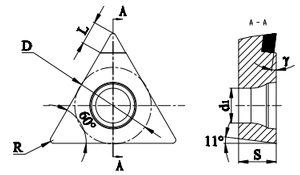
Ordering code	Flute	Dimensions (mm)					PCD Grade				
		L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
TCGW080202	1	2.5	4.76	2.38	2.5	0.2	○	○	○	○	○
TCGW080204	1	2.5	4.76	2.38	2.5	0.4	●	○	○	○	○
TCMW080202M	1	2.5	4.76	2.38	2.5	0.2	○	○	●	○	○
TCMW080204M	1	2.5	4.76	2.38	2.5	0.4	○	○	●	○	○
TCGW090202	1	2.5	5.56	2.38	2.5	0.2	○	○	○	○	○
TCGW090204	1	2.5	5.56	2.38	2.5	0.4	○	○	○	○	○
TCMW090202M	1	2.5	5.56	2.38	2.5	0.2	○	○	●	○	○
TCMW090204M	1	2.5	5.56	2.38	2.5	0.4	○	○	●	○	○
TCGW110302	1	3.0	6.35	3.18	2.8	0.2	○	○	○	○	○
TCGW110304	1	3.0	6.35	3.18	2.8	0.4	●	○	○	○	○
TCGW110308	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
TCMW110302M	1	3.0	6.35	3.18	2.8	0.2	○	○	●	○	○
TCMW110304M	1	3.0	6.35	3.18	2.8	0.4	○	○	●	○	○
TCMW110308M	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
TCGW160402	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
TCGW160404	1	3.0	9.525	4.76	4.4	0.4	○	○	○	○	○
TCGW160408	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○
TCMW160402M	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
TCMW160404M	1	3.0	9.525	4.76	4.4	0.4	○	○	○	○	○
TCMW160408M	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Negative)

TP□W

Triangle 60° with Hole



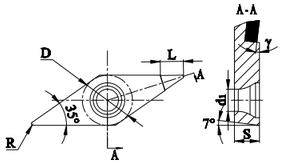
Ordering code	Flute	Dimensions (mm)					PCD Grade				
		L	D	S	d1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
TPGW080202	1	2.5	4.76	2.38	2.5	0.2	○	○	○	○	○
TPGW080204	1	2.5	4.76	2.38	2.5	0.4	○	○	○	○	○
TPMW080202M	1	2.5	4.76	2.38	2.5	0.2	○	○	○	○	○
TPMW080204M	1	2.5	4.76	2.38	2.5	0.4	○	○	●	○	○
TPGW090202	1	2.5	5.56	2.38	2.5	0.2	○	○	○	○	○
TPGW090204	1	2.5	5.56	2.38	2.5	0.4	○	○	●	○	○
TPMW090202M	1	2.5	5.56	2.38	2.5	0.2	○	○	○	○	○
TPMW090204M	1	2.5	5.56	2.38	2.5	0.4	○	○	●	○	○
TPGW110302	1	3.0	6.35	3.18	2.8	0.2	○	○	○	○	○
TPGW110304	1	3.0	6.35	3.18	2.8	0.4	○	○	○	○	○
TPGW110308	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
TPMW110302M	1	3.0	6.35	3.18	2.8	0.2	○	○	○	○	○
TPMW110304M	1	3.0	6.35	3.18	2.8	0.4	○	○	●	○	○
TPMW110308M	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
TPGW160402	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
TPGW160404	1	3.0	9.525	4.76	4.4	0.4	○	○	○	○	○
TPGW160408	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○
TPMW160402M	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
TPMW160404M	1	3.0	9.525	4.76	4.4	0.4	○	○	○	○	○
TPMW160408M	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○

●Stock ○Available upon Order

PCD (Negative)

VC□W

Rhombic 35° with Hole

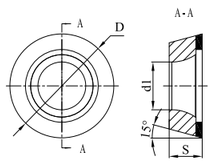


Ordering code	Flute	Dimensions (mm)					PCD Grade				
		L	D	S	d_1	R	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
VCGW110302	1	3.0	6.35	3.18	2.8	0.2	○	○	○	○	○
VCGW110304	1	3.0	6.35	3.18	2.8	0.4	○	○	●	○	○
VCGW110308	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
VCMW110302M	1	3.0	6.35	3.18	2.8	0.2	○	○	●	○	○
VCMW110304M	1	3.0	6.35	3.18	2.8	0.4	○	○	○	○	○
VCMW110308M	1	3.0	6.35	3.18	2.8	0.8	○	○	○	○	○
VCGW160402	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
VCGW160404	1	3.0	9.525	4.76	4.4	0.4	○	○	●	○	○
VCGW160408	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○
VCGW160412	1	3.0	9.525	4.76	4.4	1.2	○	○	○	○	○
VCMW160402M	1	3.0	9.525	4.76	4.4	0.2	○	○	○	○	○
VCMW160404M	1	3.0	9.525	4.76	4.4	0.4	○	○	●	○	○
VCMW160408M	1	3.0	9.525	4.76	4.4	0.8	○	○	○	○	○
VCMW160412M	1	3.0	9.525	4.76	4.4	1.2	○	○	○	○	○

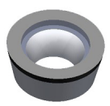
●Stock ○Available upon Order

RDEW

R 80° with Hole



Ordering code	Flute	Dimensions (mm)			PCD Grade				
		D	S	d_1	DNN105P	DNN120P	DNN125P	DNN130P	DNN135P
RDEW0803	1	8	3.18	2.94	○	○	○	○	○
RDEW1003	1	10	3.18	4.4	○	○	○	○	○
RDEW1204	1	12	4.76	4.4	○	○	○	○	○



●Stock ○Available upon Order

Recommended Cutting Data

PCBN Tool

ISO	Workpiece Material	Hardness	Cutting Range	Purpose	Geometry	Grade	Min-Optimum-Max		
							Vc(m/min)	ap(mm)	f(mm/rev)
K	Gray cast iron	HB200~230	Finishing	General	/	BKN115P	400-600-1500	0.05-0.20-0.50	0.05-0.20-0.40
	Alloy cast iron	⩾HB200	Finishing	General	/	BKN115P	200-400-800	0.05-0.20-0.50	0.05-0.20-0.40
	Powder Metallurgy	QT450~QT700	Finishing	General	/	BKC120P	150-300-500	0.10-0.20-0.50	0.05-0.12-0.3
S	Hardened Material	HRB50~90	Finishing	Continious	/	BSN115P	50-150-300	0.05-0.20-0.5	0.05-0.12-0.30
H	Hardened Material	⩾HRC50	Finishing	Continious	/	BHC115P	120-150-220	0.05-0.10-0.20	0.05-0.10-0.20
	Hardened Material	⩾HRC50	Roughing-Finishing	General	/	BHC125P	100-130-180	0.05-0.10-0.50	0.05-0.10-0.20
	Hardened Material	⩾HRC50	Finishing-Semi-finishing	Interrupted	/	BHC135P	80-100-150	0.05-0.10-0.40	0.05-0.10-0.20

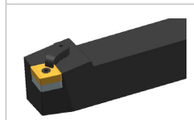
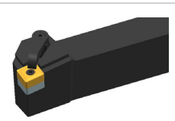
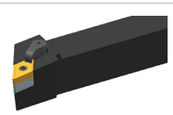
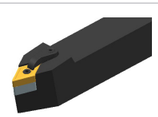
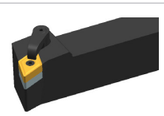
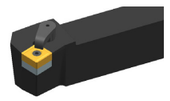
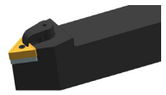
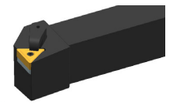
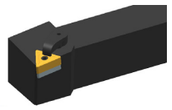
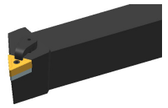
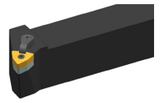
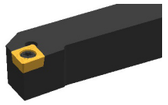
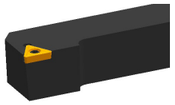
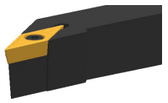
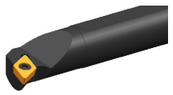
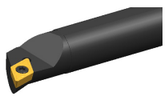
PCD Tool

ISO	Workpiece Material	Vc（m/min）	f(mm/rev)	ap(mm)
N	Aluminum Alloy	~3000	~0.2	~3
	Copper Alloy	~1000	~0.2	~3
	Reinforced plastics	~1000	~0.4	~3
	Wood and inorganic board	~4000	~0.4	-
	Cemented Alloy	10~30	~0.2	~0.5
	Graphite	100~600	~1	~3

C

Standard Turning Toolholders

Overview of Turning Toolholders

MCBNR	MCLNR	MDJNR	MDPNN	MDQNR
P098	P098	P099	P099	P100
				
MSBNR	MSKNR	MSSNR	MTENN	MTFNR
P100	P101	P101	P102	P102
				
MTGNR	MTJNR	MVJNR	MVQNR	MWLNR
P103	P103	P104	P104	P105
				
SCLCR	SDJCR	SSDCN	STGCR	SVJCR
P106	P106	P107	P107	P108
				
SWLCR	SCLCR	SCKCR	SCLCR-A16	SDUCR
P109	P112	P112	P113	P113
				
SDQCR	SDXCR	STUCR	STWCR	STFCR
P114	P114	P115	P115	P116
				
SVUCR	SSKCR	SWLCR	SCLPR	STFPR
P116	P117	P117	P118	P118
				

External Turning Toolholders Identification System

M	C	L	N	R	25	25	M	12
①	②	③	④	⑤	⑥	⑥	⑦	⑧

①Mothod of Holding	
D	Double Clamp Type
M	Wedge Lock Type Heavy Cutting Double Clamp Type
P	Lever Lock Type
S	Screw-on Type

②Insert Shape	
C	80°Rhombic
D	55°Rhombic
R	Round
S	Square
T	Triangle
V	35°Rhombic
W	Trigon
X	Special Shape

③Cutting Edge Angle	
A	90°Without
B	75°
D	45°Neutral
E	60°
F	91°
G	90°Bias
J	93°
K	75°
L	95°
N	63°
P	62.5°
Q	107.5°
S	45°
T	60°
V	72.5°
Z	Special

④Inaert Clearance	
B	5°
C	7°
N	0°
E	20°

⑤Hand of Tool	
R	Right Hand
L	Left Hand
N	General

⑥Tool Saction	
8	8
10	10
12	12
16	16
20	20
25	25
32	32

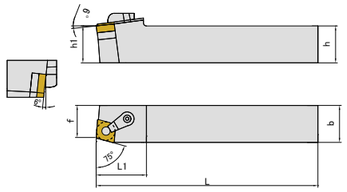
⑦Tool Length	
D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

⑧Gutting Edge Length(mm)						
Insert IC(mm)	Insert Shape					
	Square	Triangle	Round	80° Rhombic	55° Rhombic	35° Rhombic
6	-	-	06	-	-	-
6.35		11		06	07	11
7.94	-	13	-	-	-	-
8			08			
9.525	09	16	-	09	11	16
10	-	-	10	-	-	-
12	-	-	12	-	-	-
12.7	-	22	-	12	15	-
15.875	15	27	-	16	-	-
16	-	-	16	-	-	-
19.05	19	-	19	-	-	-
20	-	-	20	-	-	-
25	-	-	25	-	-	-
25.4	25	-	-	-	-	-
32	-	-	32	-	-	-

C Standard Turning Toolholders

External Turning Tool holder(Negative)

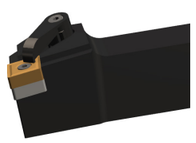
MCBNR

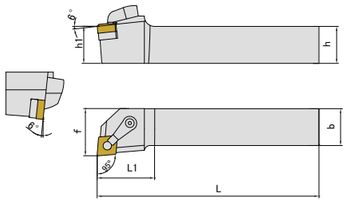


Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MCBNR/L2020K12	●	○	20	20	125	32	20	17	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L
MCBNR/L2525M12	●	○	25	25	150	32	25	22	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L
MCBNR/L3232P12	●	○	32	32	170	32	32	27	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L
MCBNR/L2525M16	●	○	25	25	150	32	25	33	CN**1606**	DCN1604M	SPM080220F	CAM03	SDM060250	TH30L
MCBNR/L3232P19	○	○	32	32	170	40	32	29	CN**1906**	DCN1904M	SPM100240F	CAM05	SDM080350F	TH40L

●Stock ○Available upon Order

MCLNR



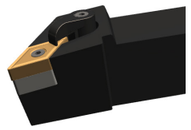


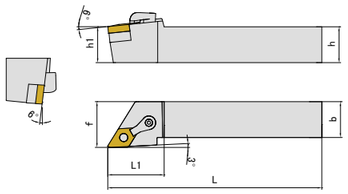
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MCLNR/L2020K12	●	●	20	20	125	25	20	32	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L
MCLNR/L2525M12	●	●	25	25	150	32	25	32	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L
MCLNR/L3232P12	●	○	32	32	170	40	32	32	CN**1204**	DCN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L
MCLNR/L2525M16	●	○	25	25	150	32	25	33	CN**1606**	DCN1604M	SPM080220F	CAM03	SDM060250	TH30L
MCLNR/L3232P19	○	○	32	32	170	38	32	40	CN**1906**	DCN1904M	SPM100240F	CAM05	SDM080350F	TH40L

●Stock ○Available upon Order

External Turning Tool holder(Negative)

MDJNR

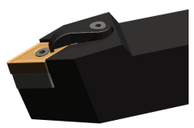


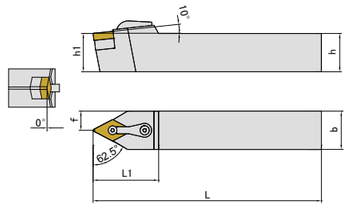


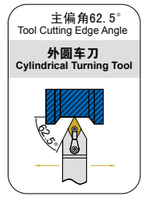
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MDJNR/L2020K11	●	○	20	20	125	34	20	25	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L
MDJNR/L2020K1504	●	○	20	20	125	38	20	25	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L
MDJNR/L2525M1504	●	○	25	25	150	38	25	32	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L
MDJNR/L3232P1506	○	○	32	32	170	38	32	40	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L

●Stock ○Available upon Order

MDPNN





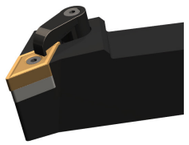


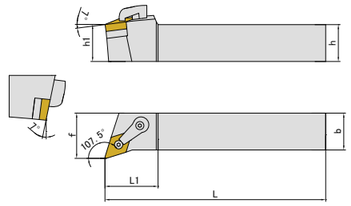
Ordering Code	Stock	Dimension						Insert	Spare Parts				
		h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MDPNN2020K11	●	20	20	125	36	20	10	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L
MDPNN2020K1504	●	20	20	125	42	20	10	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L
MDPNN2525M1504	●	25	25	150	42	25	12.5	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L
MDPNN3232P1506	○	32	32	170	42	32	16	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L

●Stock ○Available upon Order

External Turning Tool holder(Negative)

MDQNR

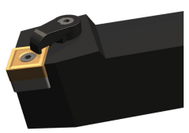


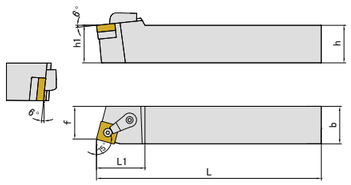


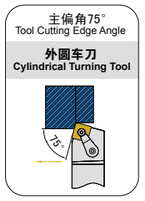
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MDQNR/L2020K11	●	○	20	20	125	32	20	25	DN**1104**	DDN1103M	SPM050130	CAM02	SDM060200	TH20L TH30L
MDQNR/L2020K1504	●	○	20	20	125	36	20	25	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060200	TH25L TH30L
MDQNR/L2525M1504	●	○	25	25	150	36	25	32	DN**1504**	DDN1504M	SPM060170	CAM03	SDM060250	TH25L TH30L
MDQNR/L3232P1506	○	○	32	32	170	36	32	40	DN**1506**	DDN1504M	SPM060190	CAM03	SDM060280	TH25L TH30L

●Stock ○Available upon Order

MSBNR





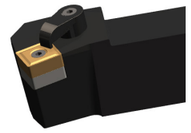


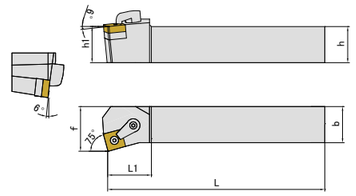
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MSBNR/L2020K12	●	○	20	20	125	32.5	20	17	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L
MSBNR/L2525M12	●	○	25	25	150	32.5	25	22	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L
MSBNR/L3232P12	●	○	32	32	170	32.5	32	27	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L
MSBNR/L2525M15	○	○	25	25	150	38	25	22	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L
MSBNR/L3232P19	○	○	32	32	170	42	32	27	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L

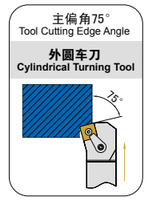
●Stock ○Available upon Order

External Turning Tool holder(Negative)

MSKNR



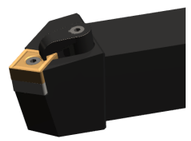


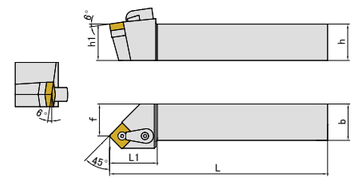


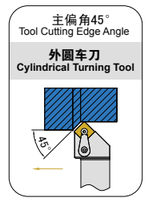
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MSKNR/L2020K12	●	○	20	20	125	29	20	25	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L
MSKNR/L2525M12	●	○	25	25	150	29	25	32	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L
MSKNR/L3232P12	○	○	32	32	170	29	32	40	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L
MSKNR/L2525M15	○	○	25	25	150	34	25	32	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L
MSKNR/L3232P19	○	○	32	32	170	35	32	40	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L

●Stock ○Available upon Order

MSSNR





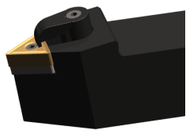


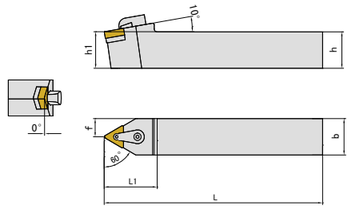
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MSSNR/L2020K12	●	○	20	20	125	32	20	17	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060200	TH25L TH30L
MSSNR/L2525M12	●	○	25	25	150	32	25	22	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060250	TH25L TH30L
MSSNR/L3232P12	●	○	32	32	170	32	32	27	SN**1204**	DSN1204M	SPM060170	CAM02	SDM060280	TH25L TH30L
MSSNR/L2525M15	●	○	25	25	150	40	25	32	SN**1506**	DSN1504M	SPM080220F	CAM03	SDM060250	TH30L
MSSNR/L3232P19	○	○	32	32	170	43	32	40	SN**1906**	DSN1904M	SPM100240F	CAM05	SDM080350F	TH40L

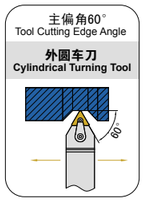
●Stock ○Available upon Order

External Turning Tool holder(Negative)

MTENN



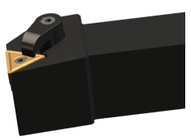


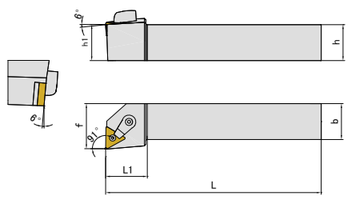


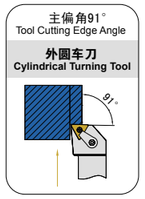
Ordering Code	Stock	Dimension						Insert	Spare Parts				
		h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MTENN2020K16	●	20	20	125	35	20	10	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060200	TH20L TH30L
MTENN2525M16	●	25	25	150	35	25	12.5	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTENN3232P16	○	32	32	170	35	32	16	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L
MTENN3232P22	○	32	32	170	38	32	16	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L

●Stock ○Available upon Order

MTFNR





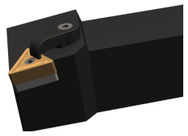


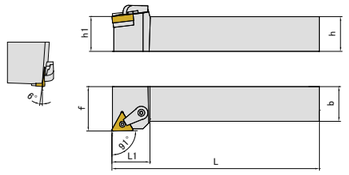
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MTFNR/L2020K16	●	○	20	20	125	28	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTFNR/L2525M16	●	○	25	25	150	28	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTFNR/L3232P16	○	○	32	32	170	28	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L
MTFNR/L3232P22	○	○	32	32	170	32	32	32	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L

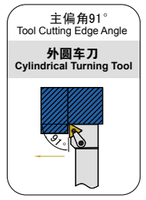
●Stock ○Available upon Order

External Turning Tool holder(Negative)

MTGNR



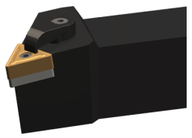


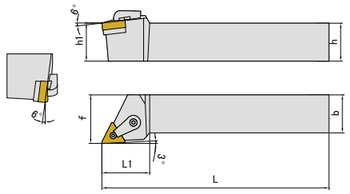


Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MTGNR/L2020K16	●	○	20	20	125	28	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTGNR/L2525M16	●	○	25	25	150	28	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTGNR/L3232P16	○	○	32	32	170	34	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L
MTGNR/L3232P22	○	○	32	32	170	32	32	40	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L

●Stock ○Available upon Order

MTJNR





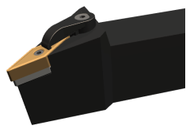
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MTJNR/L2020K16	●	●	20	20	125	32	20	25	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTJNR/L2525M16	●	●	25	25	150	32	25	32	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MTJNR/L3232P16	○	○	32	32	170	32	32	40	TN**1604**	DTN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L
MTJNR/L3232P22	○	○	32	32	170	38	32	16	TN**2204**	DTN2204M	SPM060170	CAM02	SDM060280	TH25L TH30L

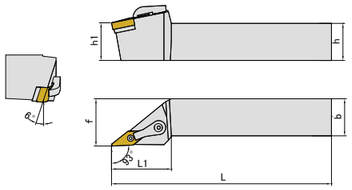
●Stock ○Available upon Order

C Standard Turning Toolholders

External Turning Tool holder(Negative)

MVJNR

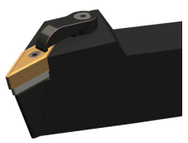


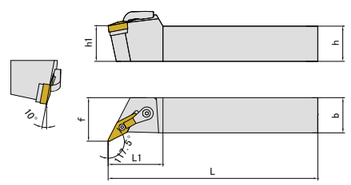


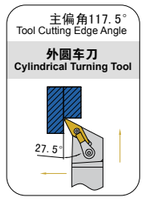
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MVJNR/L2020K16	●	○	20	20	125	42	20	20	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060250	TH20L TH30L
MVJNR/L2525M16	●	○	25	25	150	42	25	25	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060250	TH20L TH30L
MVJNR/L3232P16	○	○	32	32	170	42	32	32	VN**1604**	DVN1603M	SPM050130	CAM04	SDM060280	TH20L TH30L

●Stock ○Available upon Order

MVQNR





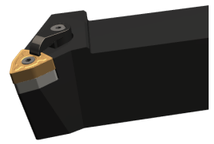


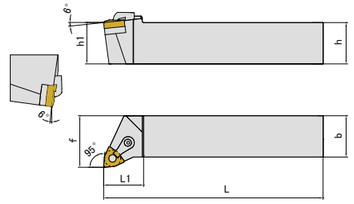
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MVQNR/L2020K16	●	○	20	20	125	40	20	25	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MVQNR/L2525M16	●	○	25	25	150	40	25	32	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060250	TH20L TH30L
MVQNR/L3232P16	○	○	32	32	170	40	32	40	VN**1604**	DVN1603M	SPM050130	CAM02	SDM060280	TH20L TH30L

●Stock ○Available upon Order

External Turning Tool holder(Negative)

MWLNR





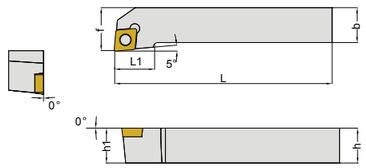
Ordering Code	Stock		Dimension						Insert	Spare Parts				
	R	L	h	b	L	L1	h1	f		Shim	Pin	Clamp	Screw	Wrench
MWLNR/L2020K0604	●	○	20	20	125	25	20	32	WN**0604**	DWN0603M	SPM050130	CAM01	SDM050200	TH20L TH30L
MWLNR/L2020K08	●	○	20	20	125	25	20	32	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060200	TH25L TH30L
MWLNR/L2525M08	●	●	25	25	150	32	25	32	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060250	TH25L TH30L
MWLNR/L3232P08	●	○	32	32	170	40	32	32	WN**0804**	DWN0804M	SPM060170	CAM02	SDM060280	TH25L TH30L

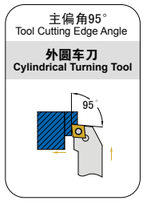
●Stock ○Available upon Order

C Standard Turning Toolholders

External Turning Tool holder(Positive)

SCLCR

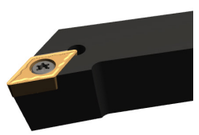


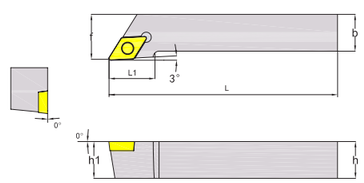


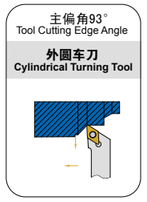
Ordering Code	Stock		Dimension						Insert	Spare Parts	
	R	L	h	b	L	L1	h1	f		Screw	Wrench
SCLCR/L1010F06	○	○	10	10	80	12	10	10	CC**0602**	SI60M025060-03510	TT08P
SCLCR/L1212H09	○	○	12	12	100	16	12	16	CC**09T3**	SI60M040100-05812	TT15P
SCLCR/L1616H09	●	○	16	16	100	20	16	20			
SCLCR/L2020K09	●	○	20	20	125	25	20	25			
SCLCR/L2525M12	●	○	25	25	150	32	25	32	CC**1204**	SI60M050120-07012	TT20P

●Stock ○Available upon Order

SDJCR





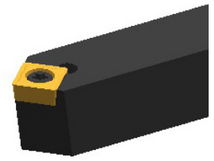


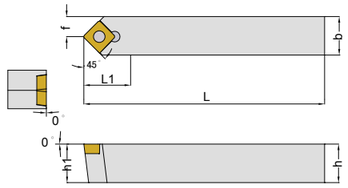
Ordering Code	Stock		Dimension						Insert	Spare Parts	
	R	L	h	b	L	L1	h1	f		Screw	Wrench
SDJCR/L1010F07	○	○	10	10	80	12	10	15	DC**0702**	SI60M025060-03510	TT08P
SDJCR/L1212H07	○	○	12	12	100	16	12	15			
SDJCR/L1616H11	●	○	16	16	100	20	16	24	DC**11T3**	SI60M040100-05812	TT15P
SDJCR/L2020K11	●	○	20	20	125	20	20	24			
SDJCR/L2525M11	●	○	25	25	150	23	25	29			

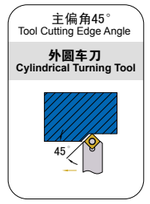
●Stock ○Available upon Order

External Turning Tool holder(Positive)

SSDCN



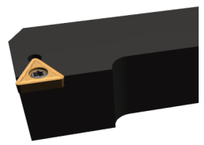


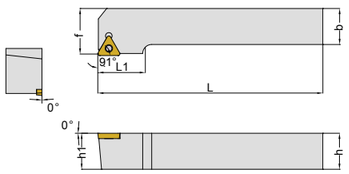


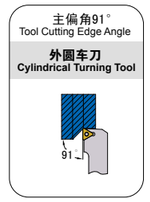
Ordering Code	Stock	Dimension						Insert	Spare Parts	
		h	b	L	L1	h1	f		Screw	Wrench
SSDCN1212H09	○	12	12	80	16	12	6	SC**09T3**	SI60M040100-05812	TT15P
SSDCN1616H09	●	16	16	100	16	16	8			
SSDCN2020K09	●	20	20	125	16	20	10			
SSDCN2525M12	○	25	25	150	22	25	12.5	SC**1204**	SI60M050120-07012	TT20P

●Stock ○Available upon Order

STGCR







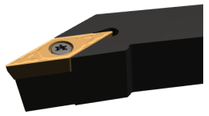
Ordering Code	Stock		Dimension						Insert	Spare Parts	
	R	L	h	b	L	L1	h1	f		Screw	Wrench
STGCR/L1010F09	○	○	10	10	80	12	10	11	TC**0902**	SI60M022060-03008	TT06P
STGCR/L1212H11	○	○	12	12	100	16	12	16	TC**1102**	SI60M025060-03510	TT08P
STGCR/L1616H11	●	○	16	16	100	20	16	20			
STGCR/L2020K16	●	○	20	20	125	25	20	25	TC**16T3**	SI60M040100-05812	TT15P
STGCR/L2525M16	●	○	25	25	150	27	25	32			

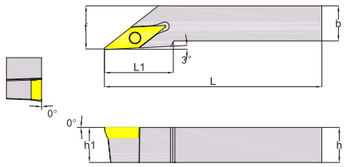
●Stock ○Available upon Order

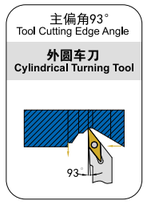
C Standard Turning Toolholders

External Turning Tool holder(Positive)

SVJCR





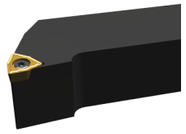


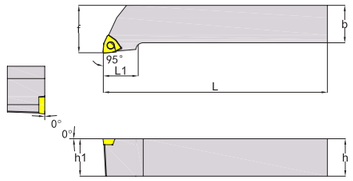
Ordering Code	Stock		Dimension						Insert	Spare Parts	
	R	L	h	b	L	L1	h1	f		Screw	Wrench
SVJCR/L1212H11	○	○	12	12	100	24	12	16	VC**1103**	SI60M025060-03510	TT08P
SVJCR/L1616H11	●	○	16	16	100	26	16	20			
SVJCR/L2020K16	●	○	20	20	125	32	20	25	VC**1604**	SI60M040100-05812	TT15P
SVJCR/L2525M16	●	○	25	25	150	32	25	32			

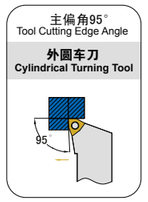
●Stock ○Available upon Order

External Turning Tool holder(Positive)

SWLCR







Ordering Code	Stock		Dimension						Insert	Spare Parts	
	R	L	h	b	L	L1	h1	f		Screw	Wrench
SWLCR/L1212H06	●	○	12	12	100	14	12	16	WC**06T3**	SI60M040100-05812	TT15P
SWLCR/L1616H06	●	○	16	16	100	14	16	20			
SWLCR/L2020K06	●	○	20	20	125	15	20	25			
SWLCR/L2525M06	●	○	25	25	150	17	25	32			

●Stock ○Available upon Order

Standard Turning Toolholders

Internal Turning Toolholders Identification System

S	16	M	S	C
①	②	③	④	⑤

① Tool Material	
A	Steel with coolant hole
C	Carbide shank
E	Carbide Bar with Coolant Hole
S	Steel Shank

②Tool Diameter	
08	8
10	10
12	12
16	16
20	20
25	25
32	32
40	40

③Tool Length	
F	80
H	100
K	125
M	150
N	160
Q	180
R	200
S	250
T	300
U	350
V	400

④Mathod of Holding	
M	Double Clamp Type
C	Top Clamp Type
P	Laver Lock Type
S	Screw-on Type

⑤Insert Shape	
C	80°Rhombic
D	55°Rhombic
R	Round
S	Square
T	Triangle
V	35°Rhombic
W	Trigon

L	C	R	09
⑥	⑦	⑧	⑨

⑥Gutting Edge Angle	
K	75°
L	95°
F	91°
Q	107.5°
U	93°
W	60°
X	120°

⑦Inaert Clearanoe Angle	
C	7°
B	5°
N	0°
P	11°

⑧Hand of Tool	
R	Right Hand
L	Left Hand

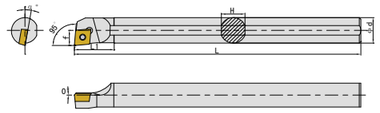
⑨Cutting Edge Length(mm)

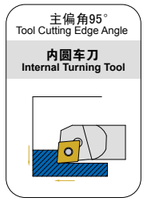
Insert IC(mm)	Insert Shape					
	Square	Triangle	Round	80° Rhombic	55° Rhombic	35° Rhombic
6	-	-	06	-	-	-
6.35		11		06	07	11
7.94	-	13	-	-	-	-
8			08			
9.525	09	16	-	09	11	16
10	-	-	10	-	-	-
12	-	-	12	-	-	-
12.7	-	22	-	12	15	-
15.875	15	27	-	16	-	-
16	-	-	16	-	-	-
19.05	19	-	19	-	-	-
20	-	-	20	-	-	-
25	-	-	25	-	-	-
25.4	25	-	-	-	-	-
32	-	-	32	-	-	-

C Standard Turning Toolholders

Internal Turning Toolholder

SCLCR

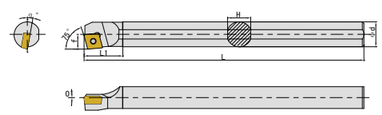


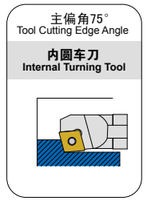


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-SCLCR/L06	●	○	10	8	5.5	125	12	7	13	CC**0602**	SI60M025060-03510	TT08P
S10K-SCLCR/L06	●	○	12	10	6	125	15	9	12			
S12M-SCLCR/L06	●	●	14	12	7	150	16	11	10			
S12M-SCLCR/L09	●	●	15	12	8	150	20	11	12	CC**09T3**	SI60M040100-05812	TT15P
S16Q-SCLCR/L09	●	○	18	16	9.5	180	25	14.8	10			
S20R-SCLCR/L09	●	●	22	20	11.5	200	28	18.4	8			
S25S-SCLCR/L09	●	○	27	25	14	250	30	23.4	6			
S25S-SCLCR/L12	○	○	28	25	14.5	250	35	23.4	8	CC**1204**	SI60M050120-07012	TT20P

●Stock ○Available upon Order

SCKCR



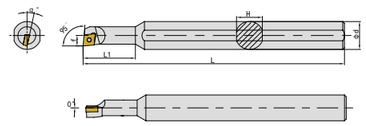


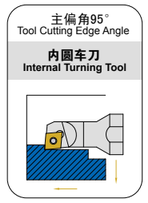
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-SCKCR/L06	●	○	10	8	5.5	125	13	7	13	CC**0602**	SI60M025060-03510	TT08P
S10K-SCKCR/L06	●	○	12	10	6	125	14	9	12			
S12M-SCKCR/L06	●	○	14	12	7	150	16	11	10			
S12M-SCKCR/L09	●	○	15	12	8	150	23	11	12	CC**09T3**	SI60M040100-05812	TT15P
S16Q-SCKCR/L09	●	○	18	16	9.5	180	25	14.8	10			
S20R-SCKCR/L09	○	○	22	20	11.5	200	28	18.4	8			
S25S-SCKCR/L09	○	○	27	25	14	250	30	23.4	6			

●Stock ○Available upon Order

Internal Turning Toolholder

SCLCR-A16

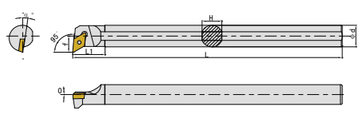


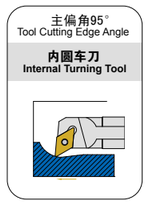


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S07M-SCLCR/L06-A16	●	○	9	7	4.9	150	25	14.8	15	CC**0602**	SI60M025060-03510	TT08P
S08M-SCLCR/L06-A16	●	○	10	8	5.5	150	28	14.8	13			
S10M-SCLCR/L06-A16	●	○	12	10	6	150	30	14.8	12			
S12M-SCLCR/L06-A16	●	○	14	12	7	150	33	14.8	10			

●Stock ○Available upon Order

SDUCR





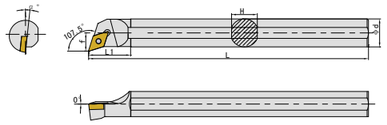
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S10K-SDUCR/L07	●	○	14	10	8	125	16	9	10	DC**0702**	SI60M025060-03510	TT08P
S12M-SDUCR/L07	●	●	16	12	9	150	18	11	8			
S16Q-SDUCR/L07	●	●	20	16	11	180	20	14.8	6			
S16Q-SDUCR/L11	●	●	20	16	11	180	18	14.8	6	DC**11T3**	SI60M040100-05812	TT15P
S20R-SDUCR/L11	●	○	24	20	13	200	28	18.4	6			
S25S-SDUCR/L11	○	○	29	25	16	250	28	23.4	4			

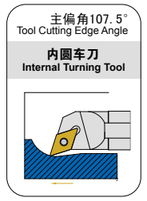
●Stock ○Available upon Order

C Standard Turning Toolholders

Internal Turning Toolholder

SDQCR

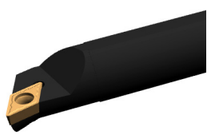


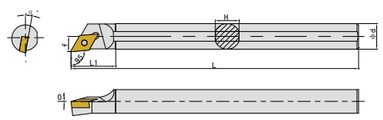


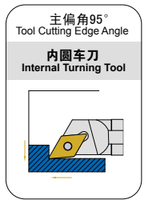
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S10K-SDQCR/L07	●	○	13	10	7	125	18	9	10	DC**0702**	SI60M025060-03510	TT08P
S12M-SDQCR/L07	●	○	16	12	9	150	18	11	8			
S16Q-SDQCR/L07	●	○	20	16	11	180	24	14.8	6			
S16Q-SDQCR/L11	●	○	20	16	10.5	180	26	14.8	6	DC**11T3**	SI60M040100-05812	TT15P
S20R-SDQCR/L11	●	○	24	20	13	200	30	18.4	6			
S25S-SDQCR/L11	○	○	29	25	16	250	35	23.4	4			

●Stock ○Available upon Order

SDXCR





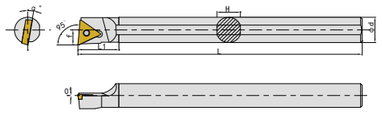


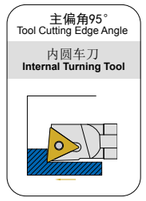
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-SDXCR/L07	●	○	10	8	5.5	125	18	7	12	DC**0702**	SI60M025060-03510	TT08P
S10K-SDXCR/L07	●	○	12	10	6	125	18	9	10			
S12M-SDXCR/L07	●	○	14	12	7	150	21	11	8			
S16Q-SDXCR/L07	●	○	18	16	9	180	22	14.8	6			
S20R-SDXCR/L11	○	○	22	20	11.5	200	30	18.4	6	DC**11T3**	SI60M040100-05812	TT15P
S25S-SDXCR/L11	○	○	27	25	14	250	35	23.4	4			

●Stock ○Available upon Order

Internal Turning Toolholder

STUCR

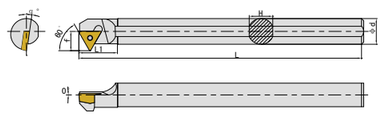


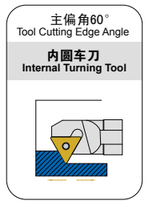


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-STUCR/L09	●	○	10	8	5.5	125	14	7	15	TC**0902**	SI60M022060-03008	TT06P
S10K-STUCR/L09	●	○	12	10	6	125	15	9	13			
S10K-STUCR/L11	●	○	12	10	6	125	17	9	12	TC**1102**	SI60M025060-03510	TT08P
S12M-STUCR/L11	●	○	14	12	7	150	20	11	10			
S16Q-STUCR/L11	●	○	18	16	9	180	20	14.8	8			
S20R-STUCR/L11	○	○	22	20	11	200	22	18.4	6			
S20R-STUCR/L16	○	○	22	20	11.5	200	25	18.4	4	TC**16T3**	SI60M040100-05812	TT15P
S25S-STUCR/L16	○	○	28	25	14	250	30	23.4	6			

●Stock ○Available upon Order

STWCR





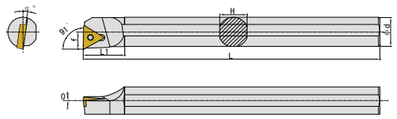
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-STWCR/L09	●	○	11	8	6	125	15	7	15	TC**0902**	SI60M022060-03008	TT06P
S10K-STWCR/L11	●	○	14	10	8	125	18	9	10	TC**1102**	SI60M025060-03510	TT08P
S12M-STWCR/L11	●	○	16	12	9	150	18	11	8			
S16Q-STWCR/L11	○	○	20	16	11	180	27	14.8	6			
S20R-STWCR/L11	○	○	24	20	13	200	26	18.4	4			
S20R-STWCR/L16	○	○	25	20	14.5	200	32	18.4	8	TC**16T3**	SI60M040100-05812	TT15P
S25S-STWCR/L16	○	○	30	25	17	250	30	23.4	6			

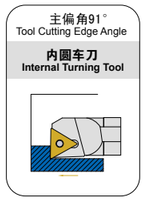
●Stock ○Available upon Order

C Standard Turning Toolholders

Internal Turning Toolholder

STFCR

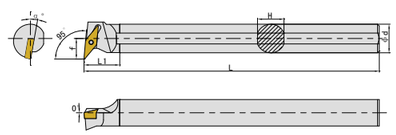


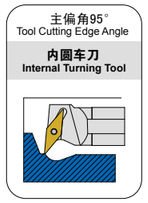


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-STFCR/L09	●	○	10	8	5.5	125	14	7	15	TC**0902**	SI60M022060-03008	TT06P
S10K-STFCR/L09	●	○	12	10	6	125	15	9	13			
S12M-STFCR/L09	●	○	14	12	7	150	17	11	10			
S12M-STFCR/L11	●	○	14	12	7	150	20	11	10	TC**1102**	SI60M025060-03510	TT08P
S16Q-STFCR/L11	●	○	18	16	9	180	20	14.8	8			
S20R-STFCR/L11	○	○	22	20	11	200	22	18.4	6			
S20R-STFCR/L16	○	○	22	20	11.5	200	25	18.4	4	TC**16T3**	SI60M040100-05812	TT15P
S25S-STFCR/L16	○	○	27	25	14	250	30	23.4	6			

●Stock ○Available upon Order

SVUCR



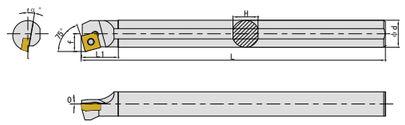


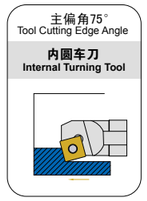
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S16Q-SVUCR/L11	○	○	20	16	11.5	180	20	14.8	10	VC**1103**	SI60M025060-03510	TT08P
S20R-SVUCR/L11	○	○	25	20	14	200	25	18.4	8			
S25S-SVUCR/L16	○	○	33	25	20	250	25	23.4	8	VC**1604**	SI60M040100-05812	TT15P

●Stock ○Available upon Order

Internal Turning Toolholder

SSKCR

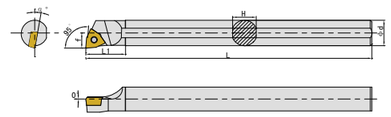


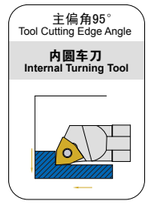


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S12M-SSKCR/L09	●	○	15	12	8.5	150	11	11	10	SC**09T3**	SI60M025060-03510	TT08P
S16Q-SSKCR/L09	●	○	19	16	10.5	180	22	14.8	10			
S20R-SSKCR/L09	○	○	23	20	12.5	200	25	18.4	8			
S25S-SSKCR/L12	○	○	28	25	15	250	40	23.4	6	SC**1204**	SI60M040100-05812	TT15P

●Stock ○Available upon Order

SWLCR



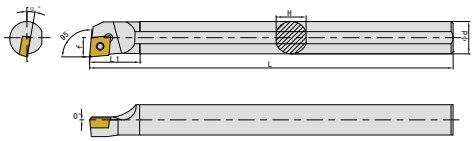


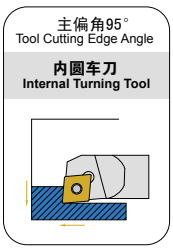
Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S12M-SWLCR/L06	○	○	14	12	7.5	150	20	11	12	WC**06T3**	SI60M040100-05812	TT15P
S16Q-SWLCR/L06	○	○	18	16	9.5	180	25	14.8	10			
S20R-SWLCR/L06	○	○	22	20	11.5	200	28	18.4	8			
S25S-SWLCR/L06	○	○	27	25	14	250	30	23.4	6			

●Stock ○Available upon Order

Internal Turning Toolholder

SCLPR

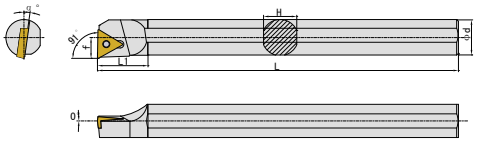


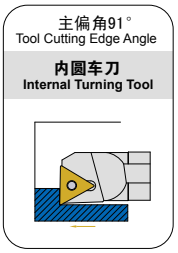


Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S08K-SCLPR/L06	○	○	10	8	5.5	125	12	7	13	CP**0602**	SI60M025060-03510	TT08P
S10K-SCLPR/L06	○	○	12	10	6	125	15	9	12			
S12M-SCLPR/L06	○	○	14	12	7	150	16	11	10			
S12M-SCLPR/L09	○	○	15	12	8	150	20	11	12	CP**09T3**	SI60M040100-05812	TT15P
S16Q-SCLPR/L09	○	○	18	16	9.5	180	25	14.8	10			
S20R-SCLPR/L09	○	○	22	20	11.5	200	28	18.4	8			
S25S-SCLPR/L09	○	○	27	25	14	250	30	23.4	6			

●Stock ○Available upon Order

STFPR





Ordering Code	Stock		Dimension（mm）							Insert	Spare Parts	
	R	L	ΦDmin	Φd	f	L	L1	H	α°		Screw	Wrench
S10K-STFPR/L1102	○	○	12	10	6	125	17	9	12	TP**1102**	SI60M025060-03510	TT08P
S12M-STFPR/L1102	○	○	14	12	7	150	20	11	10			
S16Q-STFPR/L1102	○	○	18	16	9	180	20	14.8	8			
S20R-STFPR/L1102	○	○	22	20	11	200	22	18.4	6			
S20R-STFPR/L16T3	○	○	22	20	11.5	200	25	18.4	4	TP**16T3**	SI60M040100-05812	TT15P
S25S-STFPR/L16T3	○	○	27	25	14	250	30	23.4	6			

●Stock ○Available upon Order

D

Parting and Grooving Tools

Parting and Grooving Series Insert Identification System

GZ D 40 02 R 15 - FG

① ② ③ ④ ⑤ ⑥ ⑦

①Series
GK
GZ

②Number of Cutting Edge
S=Single
D=Double

③Insert Width
30=3mm
40=4mm

④Corner Radius
02=0.2mm
04=0.4mm
20=2mm

⑤Hand of Insert
R=Right Hand
L=Left Hand
□=Neutral

⑥Lead Angle
15=15°

⑦Geometry	
First Character	SecondCharacter Geometry
F=Low Feed	C=Cutting off
M=Medium feed	T=Turning
R=High Feed	G=Grooving
O=Optimize for Special Range	R=Profiling

Parting and Grooving Series Tool Holder Identification System

GZ E □ R 2525 - 4 T25 - □

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①Series
GZ
GK

②Processing Type
E=External Processing
I=Internal Processing
F=Face Processing

③Tool Holder Shape
U=Undercutting
P=Perpendicular
□=Horizontal

④Hand of Insert
R=Right Hand
L=Left Hand
N=Neutral

⑤Shank Size
External Holer: Height*Width
Internal Bar: Min processing Diameter*Bar Diameter

⑥Insert Width
4=4mm

⑦Biggest Overhanging
25=25mm

⑧Additional Information
D65/120: The min/max Diameter of the first face cutting S=Stiffening Rib

GB Series Insert Identification System

GB (R) 4 125 R - 020

① ② ③ ④ ⑤ ⑥

①Series
GB

②Hand of Insert
R= Full Radius
□= Squaring

③Insert Size	
3	IC=9.525mm
4	IC=12.7mm

④Insert Width
125=1.25mm

⑤Hand of Insert
R=Right Hand
L=Left Hand

⑥Corner Radius
0.2=0.2mm

GB Series Tool Holder Identification System

GB E R 2525 M 4-□

① ② ③ ④ ⑤ ⑥ ⑦

①Series
GB

②Processing Type
E=External Processing
I=Internal Processing

③Hand of Insert
R=Right Hand
L=Left Hand

④Shank Size
External Holder: Height*Width
Internal Bar: Min processing Diameter*Bar Diameter

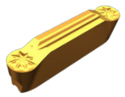
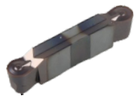
⑤Tool Holder Length	
Symbol	Length
K	125mm
M	150mm
Q	180mm
R	200mm

⑥Insert Size	
3	IC=9.525mm
4	IC=12.7mm

⑦Groove Size	
15	1.0≤W<2.5
25	2.5≤W<3.3
35	3.3≤W（GB4）
Only for external holders with GB4 inserts	

D Parting and Grooving Tools

Overview of Parting and GroovingInserts

Shape	Geometry	Application	Width	Page
	MT	Medium Turning	2.0-8.0 (mm)	P126
	MR	Medium Profiling	2.0-8.0 (mm)	P126
	FG	Precision Grooving	3.0-6.0 (mm)	P127
	OR	Precision Profiling	3.0-6.0 (mm)	P127
	GB	Precision Grooving	0.5-4.3 (mm)	P128

Grades for Parting and Grooving

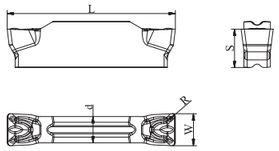
Workpiece Material		P Steel						M Stainless Steel					K Cast Iron					S HRSA、Titanium Alloy			
ISO		01	10	20	30	40	50	01	10	20	30	40	01	10	20	30	40	10	20	30	40
Coated	CVD	GP1105												GK1115							
				GP1225																	
	PVD							GS3115										GS3115			
																			GS3125		
		GA4230							GA4230				GA4230								
Uncoated										GS3125									GS9125		

D Parting and Grooving Tools

Parting and Grooving Inserts

MT

Medium Turning Inserts



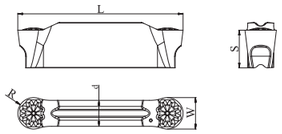
Ordering Code	Dimension					Stock		
	W	R	L	d	S	GP1225	GA4230	GK1115
GKD2002-MT	2.0	0.2	16.0	1.2	3.5	●	●	●
GKD2502-MT	2.5	0.2	18.5	2.0	3.85	●	●	●
GKD3004-MT	3.0	0.4	21.2	2.35	4.8	●	●	●
GKD4004-MT	4.0	0.4	21.0	3.3	4.8	●	●	●
GKD5004-MT	5.0	0.4	26.0	4.1	5.8	●	●	●
GKD5008-MT	5.0	0.8	26.0	4.1	5.8	●	●	●
GKD6004-MT	6.0	0.4	26.0	5.0	5.8	●	●	●
GKD6008-MT	6.0	0.8	26.0	5.0	5.8	●	●	●
GKD8008-MT	8.0	0.8	31.0	6.0	6.5	●	○	●

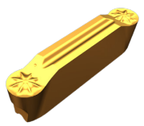
◎For tools,see page130and page134

●Stock ○Available upon order

MR

Medium Profiling Inserts





Ordering Code	Dimension					Stock			
	W	R	L	d	S	GP1105	GP1225	GA4230	GK1115
GKD2010-MR	2.0	1.0	16.0	1.2	3.5	●	○	●	●
GKD3015-MR	3.0	1.5	21.2	2.35	4.8	●	○	●	●
GKD4020-MR	4.0	2.0	21.0	3.3	4.8	●	○	●	●
GKD5025-MR	5.0	2.5	26.0	4.1	5.8	●	○	●	●
GKD6030-MR	6.0	3.0	26.0	5.0	5.8	●	○	●	●
GKD8040-MR	8.0	4.0	31.0	6.0	6.5	●	○	●	●

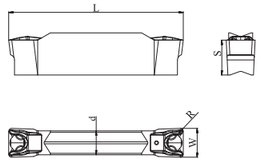
◎For tools,see page130and page134

●Stock ○Available upon order

Parting and Grooving Inserts

FG

Precision Grooving Inserts



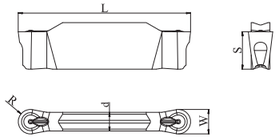
Ordering Code	Dimension					Stock	
	W	R	L	d	S	GS3125	GS9125
GZD3002-FG	3.0	0.2	20.4	2.3	4.6	●	●
GZD3004-FG	3.0	0.4	20.4	2.3	4.6	●	●
GZD4002-FG	4.0	0.2	24.0	3.3	4.8	●	●
GZD4004-FG	4.0	0.4	24.0	3.3	4.8	●	●
GZD5002-FG	5.0	0.2	24.0	3.3	4.8	●	●
GZD5004-FG	5.0	0.4	24.0	3.3	4.8	●	●
GZD6002-FG	6.0	0.2	26.0	4.2	4.8	●	●
GZD6004-FG	6.0	0.4	26.0	4.2	4.8	●	●

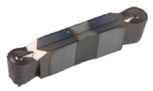
◎For tools,see page135

●Stock ○Available upon order

OR

Precision Profiling Inserts





Ordering Code	Dimension					Stock
	W	R	L	d	S	GS3115
GZD3015-OR	3.0	1.5	21.0	2.3	4.6	●
GZD4020-OR	4.0	2.0	24.0	3.3	4.8	●
GZD5025-OR	5.0	2.5	24.0	3.3	4.8	●
GZD6030-OR	6.0	3.0	21.0	4.2	4.8	●

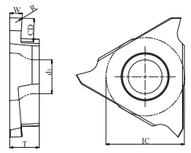
●Stock ○Available upon order

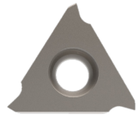
◎For tools,see page135

Parting and Grooving Inserts

GB

Precision Profiling Inserts





Ordering Code	Dimension						Stock	
							GA4230	
	W	CD	R	IC	T	d1	R	L
GB3050R/L-005	0.50	1.0	0.05	9.525	3.18	4.4	●	○
GB3075R/L-010	0.75	2.0	0.1	9.525	3.18	4.4	●	○
GB3080R/L -005	0.80	2.0	0.05	9.525	3.18	4.4	●	○
GB3095R/L -010	0.95	2.0	0.1	9.525	3.18	4.4	●	○
GB3100R-/L 005	1.00	2.0	0.05	9.525	3.18	4.4	●	○
GB3100R/L -010	1.00	2.0	0.1	9.525	3.18	4.4	●	○
GB3120R/L -010	1.20	2.0	0.1	9.525	3.18	4.4	●	○
GB3120R/L -020	1.20	2.0	0.2	9.525	3.18	4.4	●	○
GB3125R/L -010	1.25	2.0	0.1	9.525	3.18	4.4	●	○
GB3140R/L -010	1.40	2.0	0.1	9.525	3.18	4.4	●	○
GB3140R/L -020	1.40	2.0	0.2	9.525	3.18	4.4	●	●
GB3145R/L -010	1.45	2.0	0.1	9.525	3.18	4.4	●	○
GB3150R/L -010	1.50	2.0	0.1	9.525	3.18	4.4	●	○
GB3150R/L -020	1.50	2.0	0.2	9.525	3.18	4.4	●	●
GB3175R/L -010	1.75	2.0	0.1	9.525	3.18	4.4	●	○
GB3200R/L -010	2.00	2.5	0.1	9.525	3.18	4.4	●	○
GB3200R/L -020	2.00	2.5	0.2	9.525	3.18	4.4	●	●
GB3250R/L -010	2.50	2.5	0.1	9.525	3.18	4.4	●	○
GB3250R/L -020	2.50	2.5	0.2	9.525	3.18	4.4	●	●
GB3300R/L -020	3.00	2.5	0.2	9.525	3.18	4.4	●	●

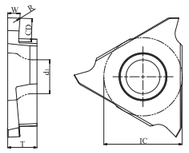
◎For tools,see page 136 and page 137

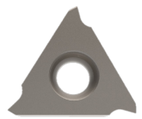
●Stock ○Available upon order

Parting and Grooving Inserts

GB

Precision Grooving Inserts





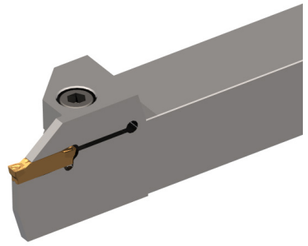
Ordering Code	Dimension						Stock	
							GA4230	
	W	CD	R	IC	T	d1	R	L
GB4125R/L -020	1.25	2.0	0.2	12.7	4.76	5.5	●	●
GB4150R/L -010	1.50	3.5	0.1	12.7	4.76	5.5	●	○
GB4150R/L -020	1.50	3.5	0.2	12.7	4.76	5.5	●	●
GB4175R/L -020	1.75	3.5	0.2	12.7	4.76	5.5	●	○
GB4185R/L -020	1.85	3.5	0.2	12.7	4.76	5.5	●	●
GB4200R/L -005	2.00	3.5	0.05	12.7	4.76	5.5	●	○
GB4200R/L -010	2.00	3.5	0.1	12.7	4.76	5.5	●	○
GB4200R/L -020	2.00	3.5	0.2	12.7	4.76	5.5	●	●
GB4200R/L -030	2.00	3.5	0.3	12.7	4.76	5.5	●	○
GB4200R/L -050	2.00	3.5	0.5	12.7	4.76	5.5	●	○
GB4210R/L -050	2.10	4.0	0.5	12.7	4.76	5.5	●	○
GB4220R/L -030	2.20	4.0	0.3	12.7	4.76	5.5	●	○
GB4235R/L -050	2.35	4.0	0.5	12.7	4.76	5.5	●	○
GB4240R/L -050	2.40	4.0	0.5	12.7	4.76	5.5	●	○
GB4250R/L -030	2.50	4.0	0.3	12.7	4.76	5.5	●	●
GB4265R/L -030	2.65	4.0	0.3	12.7	4.76	5.5	●	○
GB4280R/L -030	2.80	5.0	0.3	12.7	4.76	5.5	●	○
GB4300R/L -030	3.00	4.0	0.3	12.7	4.76	5.5	●	●
GB4330R/L -030	3.30	5.0	0.3	12.7	4.76	5.5	●	○
GB4350R/L -030	3.50	5.0	0.3	12.7	4.76	5.5	●	●
GB4400R/L -040	4.00	5.0	0.4	12.7	4.76	5.5	●	●
GB4430R/L -040	4.30	5.0	0.4	12.7	4.76	5.5	●	○
GBR4100R/L -050	1.00	2.0	0.5	12.7	4.76	5.5	●	●
GBR4150R/L -075	1.50	3.5	0.75	12.7	4.76	5.5	●	●
GBR4200R/L -100	2.00	3.5	1.0	12.7	4.76	5.5	●	●
GBR4250R/L -125	2.50	4.0	1.25	12.7	4.76	5.5	●	●
GBR4300R/L -150	3.00	4.0	1.5	12.7	4.76	5.5	●	●
GBR4400R/L -200	4.00	5.0	2.0	12.7	4.76	5.5	●	●

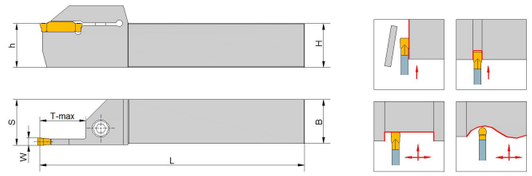
◎For tools,see page 136 and page 137

●Stock ○Available upon order

GK Series

External Holders for Parting, Grooving, Turning and Profiling





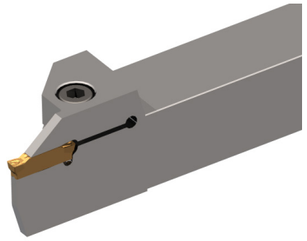
The Picture is Right Hand Holder

Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GKER/L1616-2T14	●	●	GKD20···	2.0	14	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-2T14	●	●	GKD20···	2.0	14	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-2T14	●	●	GKD20···	2.0	14	25	25	150	26	SCAM060200H	TH50LH
GKER/L1616-2.5T16	●	●	GKD25···	2.5	16	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-2.5T16	●	●	GKD25···	2.5	16	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-2.5T16	●	●	GKD25···	2.5	16	25	25	150	26	SCAM060200H	TH50LH
GKER/L1616-3T18	●	●	GKD30···	3.0	18	16	16	100	17	SCAM050120H	TH40LH
GKER/L2020-3T18	●	●	GKD30···	3.0	18	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-3T10	○	○	GKD30···	3.0	10	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-3T18	●	●	GKD30···	3.0	18	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-3T10	○	○	GKD30···	3.0	10	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-3T18	●	●	GKD30···	3.0	18	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-3T18	●	●	GKD30···	3.0	18	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-3T10	○	○	GKD30···	3.0	10	32	32	170	33	SCAM060200H	TH50LH
GKER/L2020-4T18	●	●	GKD40···	4.0	18	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-4T10	○	○	GKD40···	4.0	10	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-4T18	●	●	GKD40···	4.0	18	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-4T10	○	○	GKD40···	4.0	10	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-4T18	●	●	GKD40···	4.0	18	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-4T18	●	●	GKD40···	4.0	18	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-4T10	○	○	GKD40···	4.0	10	32	32	170	33	SCAM060200H	TH50LH

◎For tools,see page 126

GK Series

External Holders for Parting, Grooving, Turning and Profiling



The Picture is Right Hand Holder

续前

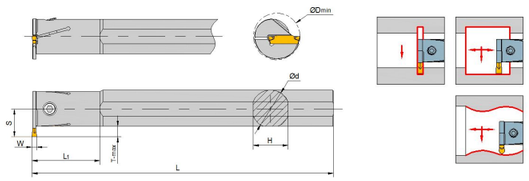
Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GKER/L2020-5T23	●	●	GKD50···	5.0	23	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-5T15	○	○	GKD50···	5.0	15	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-5T23	●	●	GKD50···	5.0	23	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-5T15	○	○	GKD50···	5.0	15	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-5T23	●	●	GKD50···	5.0	23	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-5T23	●	●	GKD50···	5.0	23	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-5T15	○	○	GKD50···	5.0	15	32	32	170	33	SCAM060200H	TH50LH
GKER/L2020-6T23	●	●	GKD60···	6.0	23	20	20	125	21	SCAM050200H	TH40LH
GKER/L2020-6T15	○	○	GKD60···	6.0	15	20	20	125	21	SCAM050200H	TH40LH
GKER/L2525-6T23	●	●	GKD60···	6.0	23	25	25	150	26	SCAM060200H	TH50LH
GKER/L2525-6T15	○	○	GKD60···	6.0	15	25	25	150	26	SCAM060200H	TH50LH
GKER/L3225-6T23	●	●	GKD60···	6.0	23	32	25	170	26	SCAM060200H	TH50LH
GKER/L3232-6T23	●	●	GKD60···	6.0	23	32	32	170	33	SCAM060200H	TH50LH
GKER/L3232-6T15	○	○	GKD60···	6.0	15	32	32	170	33	SCAM060200H	TH50LH
GKER/L2525-8T28	●	●	GKD80···	8.0	28	25	25	150	26.5	SCAM060200H	TH50LH
GKER/L2525-8T15	○	○	GKD80···	8.0	15	25	25	150	26.5	SCAM060200H	TH50LH
GKER/L3232-8T28	●	●	GKD80···	8.0	28	32	32	170	33.5	SCAM060200H	TH50LH
GKER/L3232-8T15	○	○	GKD80···	8.0	15	32	32	170	33.5	SCAM060200H	TH50LH

●Stock ○Available upon order

◎For tools,see page 126

GK Series

Internal Bars for Grooving, Turning and Profiling



The Picture is Right Hand Holder

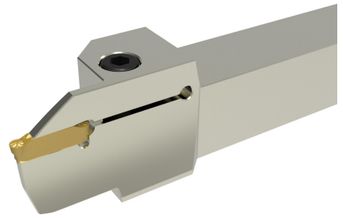
Ordering Code	Stock		Inserts	Dimension(mm)								Screw	Wrench
	R	L		W	T-max	ΦDmin	Φd	S	L	L1	H		
GKIR/L2016-2T04	●	●	GKD20···	2.0	4	20	16	12	125	35	15	SCAM040100H	TH30LH
GKIR/L2520-2T05	●	●	GKD20···	2.0	5	25	20	14.5	150	45	18	SCAM040120H	TH30LH
GKIR/L2925-2T05	●	●	GKD20···	2.0	5	29	25	17	200	45	23	SCAM050120H	TH40LH
GKIR/L2520-2.5T05	●	●	GKD25···	2.5	5	25	20	14.5	150	45	18	SCAM040120H	TH30LH
GKIR/L2925-2.5T05	●	●	GKD25···	2.5	5	29	25	17	200	45	23	SCAM050120H	TH40LH
GKIR/L2520-3T06	●	●	GKD30···	3.0	6	25	20	15.5	150	45	18	SCAM040120H	TH30LH
GKIR/L3125-3T06	●	●	GKD30···	3.0	6	31	25	18.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-3T06	●	●	GKD30···	3.0	6	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L2520-4T06	●	●	GKD40···	4.0	6	25	20	15.5	150	45	18	SCAM040120H	TH30LH
GKIR/L3125-4T06	●	●	GKD40···	4.0	6	31	25	18.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-4T06	●	●	GKD40···	4.0	6	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3125-5T08	●	●	GKD50···	5.0	8	31	25	19.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-5T08	●	●	GKD50···	5.0	8	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3125-6T08	●	●	GKD60···	6.0	8	31	25	19.5	200	45	23	SCAM050120H	TH40LH
GKIR/L3732-6T08	●	●	GKD60···	6.0	8	37	32	21.5	250	65	30	SCAM050200H	TH40LH
GKIR/L3732-8T10	●	●	GKD80···	8.0	10	37	32	23.4	250	65	30	SCAM050200H	TH40LH
GKIR/L4540-8T10	●	●	GKD80···	8.0	10	45	40	27.2	300	70	37	SCAM050200H	TH40LH

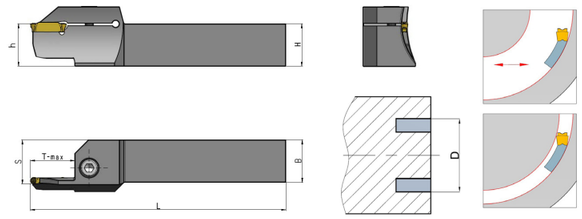
●Stock ○Available upon order

◎For tools,see page 126

GK Series

Face Grooving Holders-Horizontal





The Picture is Right Hand Holder

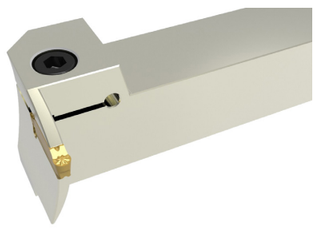
Ordering Code	Stock		Inserts	Dimension(mm)							Screw	Wrench
	R	L		H=h	B	L	S	T-max	Dmin	Dmax		
GKFR/L2525-2T12D75	○	○	GKD20···	25	25	150	26	15	75	100	SCAM060200H	TH50LH
GKFR/L2525-2T12D90	○	○	GKD20···	25	25	150	26	15	90	150	SCAM060200H	TH50LH
GKFR/L2525-3T15D68	○	○	GKD30···	25	25	150	26	15	68	100	SCAM060200H	TH50LH
GKFR/L2525-3T15D90	○	○	GKD30···	25	25	150	26	15	90	160	SCAM060200H	TH50LH
GKFR/L2525-4T15D62	●	●	GKD40···	25	25	150	26	15	62	120	SCAM060200H	TH50LH
GKFR/L2525-4T15D112	●	●	GKD40···	25	25	150	26	15	112	200	SCAM060200H	TH50LH
GKFR/L2525-5T25D68	○	○	GKD50···	25	25	150	26	25	68	95	SCAM060200H	TH50LH
GKFR/L2525-5T25D85	○	○	GKD50···	25	25	150	26	25	85	130	SCAM060200H	TH50LH
GKFR/L2525-6T25D68	○	○	GKD60···	25	25	150	26	25	68	100	SCAM060200H	TH50LH
GKFR/L2525-6T25D88	○	○	GKD60···	25	25	150	26	25	88	180	SCAM060200H	TH50LH
GKFR/L2525-8T25D45	○	○	GKD80···	25	25	150	26	25	45	80	SCAM060200H	TH50LH
GKFR/L2525-8T25D75	○	○	GKD80···	25	25	150	26	25	75	150	SCAM060200H	TH50LH

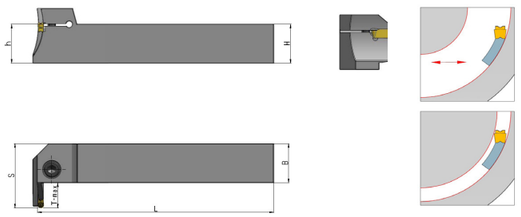
●Stock ○Available upon order

◎For tools,see page 126

GK Series

Face Grooving Holders-Perpendicular





The Picture is Right Hand Holder

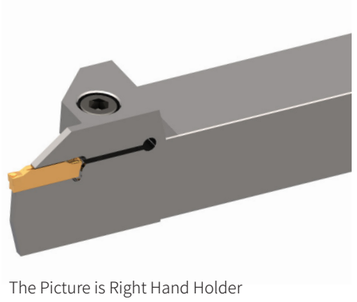
Ordering Code	Stock		Inserts	Dimension(mm)							Screw	Wrench
	R	L		H=h	B	L	S	T-max	Dmin	Dmax		
GKFPR/L2525-4T15D60	●	●	GKD40···	25	25	150	26	15	60	120	SCAM060200H	TH50LH
GKFPR/L2525-4T15D112	●	●	GKD40···	25	25	150	26	15	112	200	SCAM060200H	TH50LH

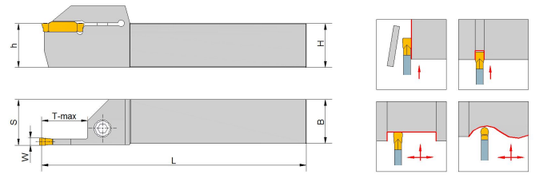
●Stock ○Available upon order

◎For tools,see page 127

GZ Series

External Holders for Parting, Grooving, Turning and Profiling





The Picture is Right Hand Holder

Ordering Code	Stock		适用刀片	Dimension(mm)						Screw	Wrench
	R	L		W	T-max	H=h	B	L	S		
GZER/L2020-3T20	●	●	GZD30···	3.0	20	20	20	125	21	SCAM050200H	TH40LH
GZER/L2525-3T20	●	●	GZD30···	3.0	20	25	25	150	26	SCAM060200H	TH50LH
GZER/L3225-3T20	●	●	GZD30···	3.0	20	32	25	170	26	SCAM060200H	TH50LH
GZER/L2020-4T25	●	●	GZD40···	4.0	25	20	20	125	21	SCAM050200H	TH40LH
			GZD50···	5.0	25	20	20	125	21.5		
GZER/L2525-4T25	●	●	GZD40···	4.0	25	25	25	150	26	SCAM060200H	TH50LH
			GZD50···	5.0	25	25	25	150	26.5		
GZER/L3225-4T25	●	●	GZD40···	4.0	25	32	25	170	26	SCAM060200H	TH50LH
			GZD50···	50	25	32	25	170	26.5		
GZER/L2525-6T32	●	●	GZD60···	6.0	32	25	25	150	26	SCAM060300H	TH50LH
GZER/L3225-6T32	●	●	GZD60···	6.0	32	32	25	170	26	SCAM060300H	TH50LH

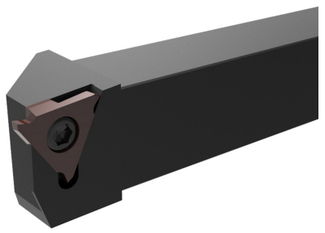
●Stock ○Available upon order

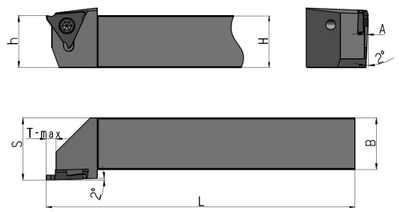
◎For tools,see page 127

D Parting and Grooving Tools

GB Series

External Holders for Grooving





The Picture is Right Hand Holder

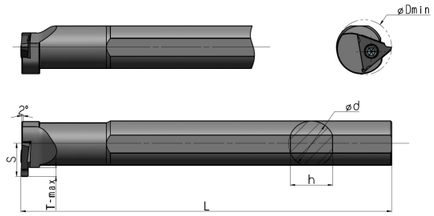
Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		H=h	B	L	S	A	T-max		
GBER/L2020K3	●	○	3···	20	20	125	25	—	2.5	SI60M 035120···	TT15P···
GBER/L2525M3	●	○	3···	25	25	150	30	—	2.5	SI60M 035120···	TT15P···
GBER/L2020K4-15	●	○	4··· (1.0≤W<2.5)	20	20	125	25	1.0	4.0	SI60M 050120···	TT20P···
GBER/L2525M4-15	●	○	4··· (1.0≤W<2.5)	25	25	150	30	1.0	4.0	SI60M 050120···	TT20P···
GBER/L2020K4-25	●	○	4··· (2.5≤W<3.3)	20	20	125	25	2.0	4.5	SI60M 050120···	TT20P···
GBER/L2525M4-25	●	○	4··· (2.5≤W<3.3)	25	25	150	30	2.0	4.5	SI60M 050120···	TT20P···
GBER/L2020K4-35	●	○	4··· (3.3≤W<4.8)	20	20	125	25	3.0	5.5	SI60M 050120···	TT20P···
GBER/L2525M4-35	●	○	4··· (3.3≤W<4.8)	25	25	150	30	3.0	5.5	SI60M 050120···	TT20P···

Remark: SI60M 035120···is meaning of M3.5x9
◎For tools,see page 128 and page 129

●Stock ○Available upon order

GB Series

Internal Bars for Grooving



The Picture is Right Hand Holder

Ordering Code	Stock		Inserts	Dimension(mm)						Screw	Wrench
	R	L		Dmin	ϕd	h	L	A	T-max		
GBIR/L2620Q3	●	●	3···	26	20	18	180	13	3	SI60M 035120···	TT15P···
GBIR/L3525R4	●	●	4···	35	25	23	200	17.5	4.5	SI60M 050120···	TT20P···

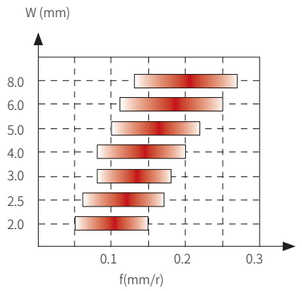
Remark: SI60M 035120···is meaning of M3.5x9
◎For tools,see page 128 and page 129

●Stock ○Available upon order

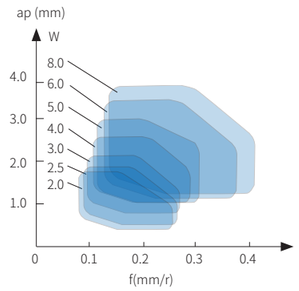
Recommended Feed

MT

⊙ Radial Feed

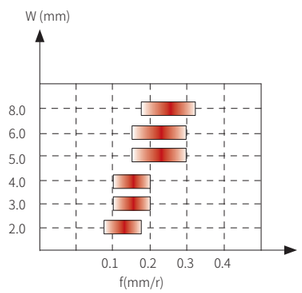


⊙ Axial Feed

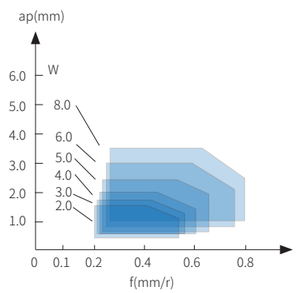


MR

⊙ Radial Feed

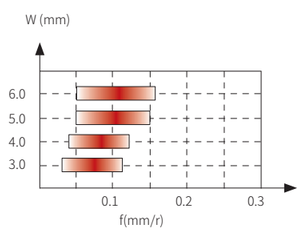


⊙ Axial Feed

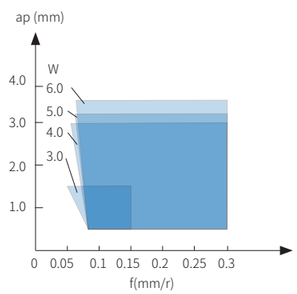


FG

⊙ Radial Feed

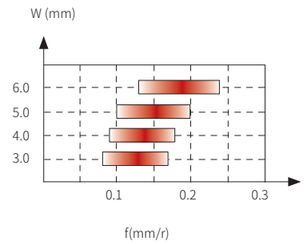


⊙ Axial Feed

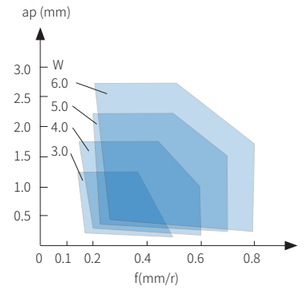


OR

⊙Radial Feed



⊙ Axial Feed



GB

Workpiece Material		feed（mm/r） width（mm）				
		0.5-1.0	1.0-2.0	2.5-3.0	3.3-4.0	4.0-4.3
P	Carbon Steel	①.0.03~0.08	①.0.04~0.09 ②.0.04~0.09	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1
	Alloy Steel	①.0.03~0.07	①.0.04~0.08 ②.0.04~0.08	①.0.05~0.9 ②.0.05~0.9	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.1 ②.0.05~0.1
M	Stainless Steel	①.0.03~0.07	①.0.04~0.08 ②.0.04~0.08	①.0.05~0.9 ②.0.05~0.9	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.1 ②.0.05~0.1
K	Cast Iron	①.0.03~0.08	①.0.04~0.09 ②.0.04~0.09	①.0.05~0.1 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1	①.0.05~0.12 ②.0.05~0.1

①Radial Fe ②Axial Feed

Recommended Cutting Speed

WorkpieceMaterial		Hardness (HB)	Cutting Speed Vc (m/min)						
			GA4230	GP1225	GP1105	GK1115	GS3115	GS3125	GS9125
P	Low Carbon Steel	80 – 170	110 (70-180)	120 (80-220)	120 (80-220)		70 (50-100)	70 (50-100)	
	High Carbon Steel	170 –250	110 (70-150)	120 (80-220)	120 (80-220)				
	Low-alloy Steel	140– 260	110 (40-150)	110 (60-180)	110 (60-180)		70 (50-100)	70 (50-100)	
	High-alloy Steel	180– 300	110 (40-150)	110 (60-180)	110 (60-180)				
	Cast Steel	180– 300	110 (40-150)	110 (60-180)	110 (60-180)				
M	Ferritic/ Martensitic	150– 270	110 (40-180)				90 (50-150)	90 (30-180)	
	Austenitic	150– 270	110 (40-180)				90 (50-150)	90 (30-180)	
K	Malleable Cast Iron	150– 230	110 (50-180)			130 (50-200)			
	Gray Cast Iron	150– 230	110 (50-180)			130 (50-200)			
	Nodular Cast Iron	160– 260	100 (50-150)			100 (50-150)			
S	Heat-resistant Alloy	130– 400					35 (15-60)	35 (15-70)	
	Titanium Alloys	130– 400					35 (15-60)	35 (15-70)	35 (15-60)

E

Threading Tools

Threading Insert Identification System

16	E	R	1.50	ISO	-	TC
①	②	③	④	⑤		⑥

①Insert Size	
Size	IC(mm)
08	5
11	6.35
16	9.525
22	12.7
27	15.875

③Hand of Insert
R=Right
L= Left
□=R&L

⑤Thread Standard
60=Partial Profile 60°
55=Partial Profile 55°
ISO=ISO Metric
UN=American UN
W=Whitworth
NPT=National Pipe Thread
BSPT=British BSPT
ACME=American ACME
STACME=American Stub ACME
ABUT=
API=API Thread
UNJ=American Aerospace Thread

⑥Additional Information
Geometry or Teeth

②Thread Style
E=External
I=Internal
□=E&I

④Pitch		
Full Profile		
mm	TPI	
0.35-5.0	72-5	
Partial Profile		
Size	mm	TPI
A	0.5-1.5	48-16
AG	0.5-3.0	48-8
G	1.75-3.0	14-8
N	3.5-5.0	7-5

Threading Holder Identification System

S	E	R	2525	M	16	A
①	②	③	④	⑤	⑥	⑦

①Clamping System
S=Screw
C=Clamp

②Process Type
E=External
I=Internal

③Cutting Direction
R=Right hand
L=Left hand
N=None

④Shank Size	
External Holder	
Shank Size	hxb
2525	25x25mm
Internal Bar	
Shank Size	Diameter
0025	Diameter 25mm

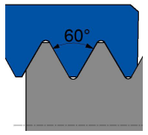
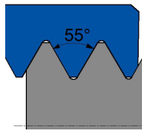
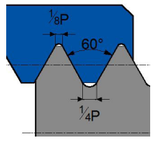
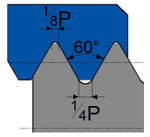
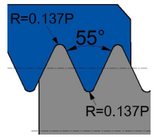
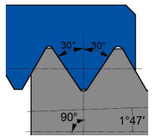
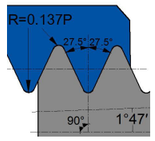
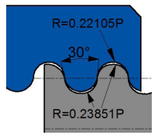
⑤Thread	
Type	Length
H	100
K	125
M	150
P	170
Q	180
R	200
S	250
T	300
U	350
V	400

⑥Insert Size	
Type	IC(mm)
08	5
11	6.35
16	9.525
22	12.7
27	15.875

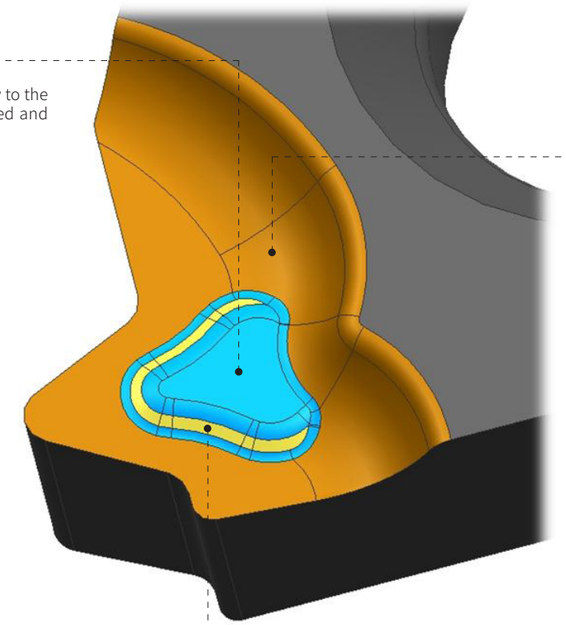
⑦Additional
A=Steel holder with inner coolant
C=Carbide holder
E=Carbide holder with inner coolant
□=steel holder without inner coolant

E Threading Tools

Overview of Threading Tools

Application	Thread Type	Thread Sketch	ThreadCode	Pitch	Page
For general industry	Partial Profile 60° Thread		60°	0.5-5.0 (mm)	P146
	Partial Profile 55° Thread		55°	48-5 (TPI)	P147
	ISO Metric Thread		ISO	1.0-5.0 (mm)	P148
	UN Thread		UN	24-8 (TPI)	P150
Thread for pipe fittings and couplings for gas, water and sewage.	Whitworth Thread		W	19-11 (TPI)	P151
	NPT Thread		NPT	27-8 (TPI)	P152
Thread for pipe fittings and couplings for gas, steam and water lines.	BSPT Thread		BSPT	28-11 (TPI)	P153
Thread for pipe couplings in food and fire fighting industry.	Round Thread(DIN 405)		RD	10-4 (TPI)	P154

TC — Special Geometry



Raised platform

Good chip control, apply to the radial infeed, flank infeed and incremental infeed

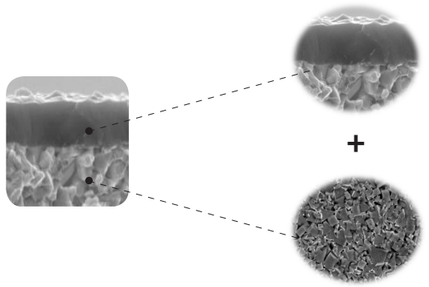
Wide chip room

Smooth chip discharge due to wide chip room

Curved surface

Increase the cooling area to avoid the carter wear

GM3225 — General grade for thread turning



New TiAlN nano-structure coating

New TiAlN nano-structure coating with excellent heat resistance and bonding resistance.

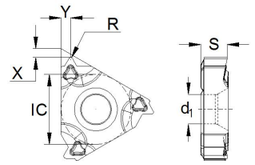
+

Micro-grain carbide substrate

Micro-grain carbide substrate with high wear resistance and good roughness, suitable for thread turning of general material.

Partial Profile 60°

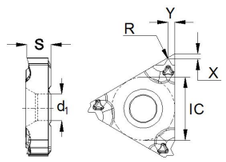
▶ External

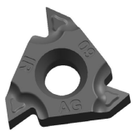


Ordering Code		Pitch (mm)	Dimensions (mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ERA60-TC	0.5-1.5	0.8	0.9	0.08	9.525	3.47	4	●
	16 ERAG60-TC	0.5-3.0	1.1	1.5	0.08	9.525	3.47	4	●
	16 ERG60-TC	1.75-3.0	1.2	1.7	0.25	9.525	3.47	4	●
	22 ERN60-TC	3.5-5.0	1.7	2.5	0.51	12.7	4.71	5	●

●Stock ○Available Up Order

▶ Internal

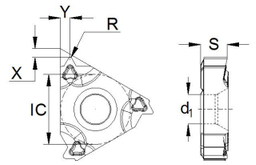


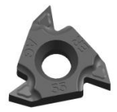
Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	08 IRA60-TC	0.5-1.5	0.6	0.7	0.08	5.00	2.25	2.68	●
	11 IRA60-TC	0.5-1.5	0.8	0.9	0.08	6.35	3.00	3.2	●
	16 IRA60-TC	0.5-1.5	0.8	0.9	0.08	9.525	3.47	4	●
	16 IRAG60-TC	0.5-3.0	1.1	1.5	0.08	9.525	3.47	4	●
	16 IRG60-TC	1.75-3.0	1.2	1.7	0.13	9.525	3.47	4	●
	22 IRN60-TC	3.5-5.0	1.7	2.5	0.25	12.7	4.71	5	●

●Stock ○Available Up Order

Partial Profile 55°

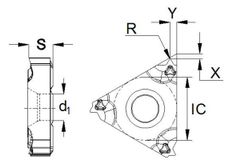
▶ External

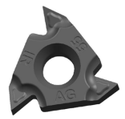


Ordering Code		Pitch (TPI)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ERA55-TC	48-16	0.8	0.9	0.08	9.525	3.47	4	●
	16 ERAG55-TC	48-8	1.1	1.5	0.08	9.525	3.47	4	●
	16 ERG55-TC	14-8	1.2	1.7	0.21	9.525	3.47	4	●
	22 ERN55-TC	7-5	1.7	2.5	0.44	12.7	4.71	5	●

●Stock ○Available Up Order

▶ Internal

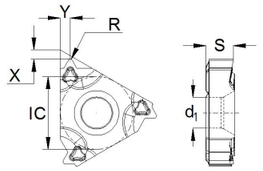


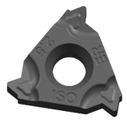
Ordering Code		Pitch (TPI)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	11 IRA55-TC	48-16	0.8	0.9	0.08	6.35	3	3.2	●
	16 IRA55-TC	48-16	0.8	0.9	0.08	9.525	3.47	4	●
	16 IRAG55-TC	48-8	1.1	1.5	0.08	9.525	3.47	4	●
	16 IRG55-TC	14-8	1.2	1.7	0.21	9.525	3.47	4	●
	22 IRN55-TC	7-5	1.7	2.5	0.44	12.7	4.71	5	●

●Stock ○Available Up Order

Metric 60°

▶ External

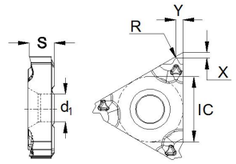


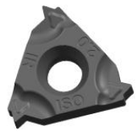


Ordering Code	Pitch (mm)	Dimensions(mm)						Availability
		X	Y	R	IC	S	d1	GM3225
16 ER1.00ISO-TC	1.00	0.8	0.7	0.14	9.525	3.47	4	●
16 ER1.25ISO-TC	1.25	0.8	0.9	0.18	9.525	3.47	4	●
16 ER1.50ISO-TC	1.50	0.8	1.0	0.22	9.525	3.47	4	●
16 ER1.75ISO-TC	1.75	1.2	1.2	0.25	9.525	3.47	4	●
16 ER2.00ISO-TC	2.00	1.2	1.3	0.29	9.525	3.47	4	●
16 ER2.50ISO-TC	2.50	1.2	1.5	0.36	9.525	3.47	4	●
16 ER3.00ISO-TC	3.00	1.2	1.5	0.43	9.525	3.47	4	●
22 ER3.50ISO-TC	3.50	1.6	2.3	0.45	12.7	4.71	5	●
22 ER4.00ISO-TC	4.00	1.6	2.3	0.52	12.7	4.71	5	●
22 ER4.50ISO-TC	4.50	1.7	2.4	0.58	12.7	4.71	5	●
22 ER5.00ISO-TC	5.00	1.7	2.5	0.63	12.7	4.71	5	●
22 ER5.50ISO-TC	5.50	1.9	2.7	0.72	12.7	4.71	5	●
22 ER6.00ISO-TC	6.00	1.9	2.7	0.78	12.7	4.71	5	●

●Stock ○Available Up Order

▶ Internal



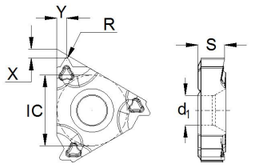


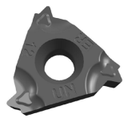
Ordering Code	Pitch (mm)	Dimensions(mm)						Availability
		X	Y	R	IC	S	d1	GM3225
11 IR1.00ISO-TC	1.00	0.8	0.7	0.07	6.35	3.00	3.2	●
11 IR1.25ISO-TC	1.25	0.8	0.9	0.09	6.35	3.00	3.2	●
11 IR1.50ISO-TC	1.50	0.8	1.0	0.11	6.35	3.00	3.2	●
11 IR1.75ISO-TC	1.75	0.9	1.1	0.13	6.35	3.00	3.2	●
11 IR2.00ISO-TC	2.00	0.9	1.1	0.15	6.35	3.00	3.2	●
16 IR1.00ISO-TC	1.00	0.8	0.7	0.07	9.525	3.47	4	●
16 IR1.25ISO-TC	1.25	0.8	0.9	0.09	9.525	3.47	4	●
16 IR1.50ISO-TC	1.50	0.8	1.0	0.11	9.525	3.47	4	●
16 IR1.75ISO-TC	1.75	1.2	1.2	0.13	9.525	3.47	4	●
16 IR2.00ISO-TC	2.00	1.2	1.3	0.15	9.525	3.47	4	●
16 IR2.50ISO-TC	2.50	1.2	1.5	0.18	9.525	3.47	4	●
16 IR3.00ISO-TC	3.00	1.2	1.5	0.22	9.525	3.47	4	●
22 IR3.50ISO-TC	3.50	1.6	2.3	0.22	12.7	4.71	5	●
22 IR4.00ISO-TC	4.00	1.6	2.3	0.25	12.7	4.71	5	●
22 IR4.50ISO-TC	4.50	1.6	2.4	0.28	12.7	4.71	5	●
22 IR5.00ISO-TC	5.00	1.6	2.3	0.32	12.7	4.71	5	●
22 IR5.50ISO-TC	5.50	1.6	2.3	0.36	12.7	4.71	5	●
22 IR6.00ISO-TC	6.00	1.6	2.4	0.39	12.7	4.71	5	●

●Stock ○Available Up Order

UN 60°

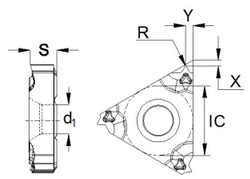
▶ External

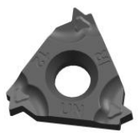


Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ER24UN-TC	24	0.8	0.8	0.15	9.525	3.47	4	●
	16 ER20UN-TC	20	0.8	0.9	0.18	9.525	3.47	4	●
	16 ER18UN-TC	18	0.8	1.0	0.20	9.525	3.47	4	●
	16 ER16UN-TC	16	0.9	1.1	0.23	9.525	3.47	4	●
	16 ER14UN-TC	14	1.2	1.5	0.26	9.525	3.47	4	●
	16 ER12UN-TC	12	1.2	1.5	0.31	9.525	3.47	4	●
	16 ER10UN-TC	10	1.2	1.5	0.37	9.525	3.47	4	○
	16 ER8UN-TC	8	1.3	1.7	0.46	9.525	3.47	4	●

●Stock ○Available Up Order

▶ Internal

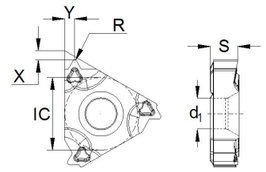


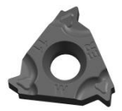
Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	11 IR20UN-TC	20	0.8	0.9	0.09	6.35	3.00	3.2	●
	11 IR18UN-TC	18	0.8	1.0	0.10	6.35	3.00	3.2	●
	16 IR24UN-TC	24	0.8	0.8	0.08	9.525	3.47	4	●
	16 IR20UN-TC	20	0.8	0.9	0.09	9.525	3.47	4	●
	16 IR18UN-TC	18	0.8	1.0	0.10	9.525	3.47	4	●
	16 IR16UN-TC	16	0.9	1.1	0.12	9.525	3.47	4	●
	16 IR14UN-TC	14	1.2	1.5	0.13	9.525	3.47	4	●
	16 IR12UN-TC	12	1.2	1.5	0.16	9.525	3.47	4	●
	16 IR10UN-TC	10	1.2	1.5	0.19	9.525	3.47	4	○
	16 IR8UN-TC	8	1.3	1.7	0.23	9.525	3.47	4	●

●Stock ○Available Up Order

Whitworth 55°

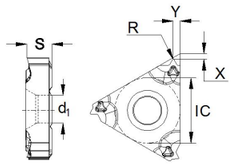
▶ External

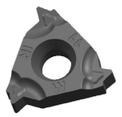


Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ER19W-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 ER18W-TC	18	0.8	1.0	0.18	9.525	3.47	4	●
	16 ER16W-TC	16	0.9	1.1	0.20	9.525	3.47	4	●
	16 ER14W-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 ER12W-TC	12	1.2	1.5	0.28	9.525	3.47	4	●
	16 ER11W-TC	11	1.2	1.5	0.30	9.525	3.47	4	●
	16 ER10W-TC	10	1.1	1.5	0.34	9.525	3.47	4	●

●Stock ○Available Up Order

▶ Internal

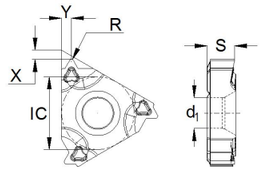


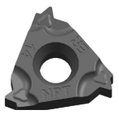
Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	11 IR19W-TC	19	0.9	1.1	0.19	6.35	3.00	3.2	●
	11 IR14W-TC	14	0.9	1.1	0.27	6.35	3.00	3.2	●
	16 IR19W-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 IR18W-TC	18	0.8	1.0	0.18	9.525	3.47	4	●
	16 IR16W-TC	16	0.9	1.1	0.2	9.525	3.47	4	●
	16 IR14W-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 IR12W-TC	12	1.2	1.5	0.28	9.525	3.47	4	●
	16 IR11W-TC	11	1.2	1.5	0.30	9.525	3.47	4	●
	16 IR8W-TC	8	1.2	1.5	0.41	9.525	3.47	4	●

●Stock ○Available Up Order

NPT 60°

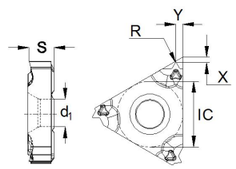
▶ External

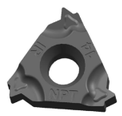


Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ER27NPT-TC	27	0.7	0.8	0.13	9.525	3.47	4	●
	16 ER18NPT-TC	18	0.8	1.0	0.20	9.525	3.47	4	●
	16 ER14NPT-TC	14	1.2	1.5	0.22	9.525	3.47	4	●
	16 ER11.5NPT-TC	11.5	1.2	1.5	0.25	9.525	3.47	4	●
	16 ER8NPT-TC	8	1.3	1.8	0.30	9.525	3.47	4	●

●Stock ○Available Up Order

▶ Internal

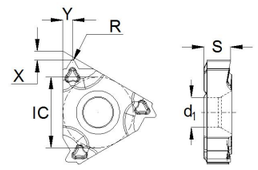


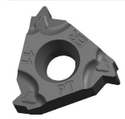
Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	11 IR18NPT-TC	18	0.8	1.0	0.20	6.35	3.00	3.2	●
	16 IR27NPT-TC	27	0.7	0.8	0.13	9.525	3.47	4	●
	16 IR18NPT-TC	18	0.8	1.0	0.20	9.525	3.47	4	●
	16 IR14NPT-TC	14	1.2	1.5	0.22	9.525	3.47	4	●
	16 IR11.5NPT-TC	11.5	1.2	1.5	0.25	9.525	3.47	4	●
	16 IR8NPT-TC	8	1.3	1.8	0.30	9.525	3.47	4	●

●Stock ○Available Up Order

BSPT 55°

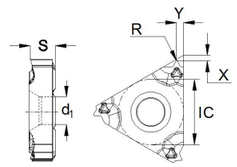
▶ External

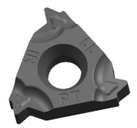


Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ER28BSPT-TC	28	0.7	0.8	0.11	9.525	3.47	4	●
	16 ER19BSPT-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 ER14BSPT-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 ER11BSPT-TC	11	1.2	1.5	0.30	9.525	3.47	4	●

●Stock ○Available Up Order

▶ Internal

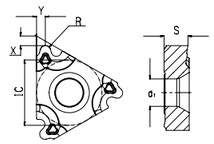


Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	11 IR19BSPT-TC	19	0.8	1.0	0.18	6.35	3.00	3.2	●
	11 IR14BSPT-TC	14	0.9	1.1	0.24	6.35	3.00	3.2	●
	16 IR28BSPT-TC	28	0.7	0.8	0.11	9.525	3.47	4	●
	16 IR19BSPT-TC	19	0.8	1.0	0.17	9.525	3.47	4	●
	16 IR14BSPT-TC	14	1.2	1.5	0.24	9.525	3.47	4	●
	16 IR11BSPT-TC	11	1.2	1.5	0.30	9.525	3.47	4	●

●Stock ○Available Up Order

Round 30°

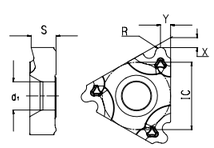
▶ External



Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 ER10RD-TC	10	1.1	1.2	0.60	9.525	3.47	4	○
	16 ER8RD-TC	8	1.4	1.3	0.75	9.525	3.47	4	●
	16 ER6RD-TC	6	1.4	1.5	1.00	9.525	3.47	4	●
	22 ER4RD-TC	4	2.2	2.3	1.51	12.7	4.71	5	○

●Stock ○Available Up Order

▶ Internal



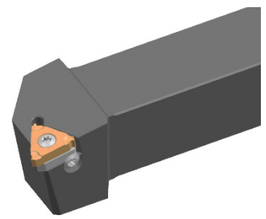
Ordering Code		Pitch (mm)	Dimensions(mm)						Availability
			X	Y	R	IC	S	d1	GM3225
	16 IR10RD-TC	10	1.1	1.2	0.55	9.525	3.47	4	○
	16 IR8RD-TC	8	1.4	1.3	0.70	9.525	3.47	4	●
	16 IR6RD-TC	6	1.4	1.5	0.936	9.525	3.47	4	●
	22 IR4RD-TC	4	2.2	2.3	1.40	12.7	4.71	5	○

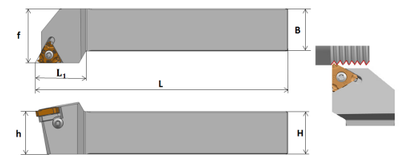
●Stock ○Available Up Order

Thread Turning Toolholders

SER/L Series

External Toolholders





Ordering Code	Stocks		Insert	Dimensions(mm)						Shim	Insert Screw	ShimScrew	Wrench
	R	L		H	B	L	f	h	L1				
													
SER/L1212F11	○	○	11ER/L···	12	12	80	16	12	20.5	-	SI60M 025080···	-	TT08PH
SER/L1212F16	●	○		12	12	80	16	12	22	-	SI60M 035090···	-	TT15PH
SER/L1616H16	●	○	16ER/L···	16	16	100	20	16	20.5	DEN16..	SI60M 035120···	SSBM 030060H	TT15PH
SER/L2020K16	●	●		20	20	125	25	20	30				
SER/L2525M16	●	●		25	25	150	32	25	30				
SER/L3232P16	●	○		32	32	170	40	32	30				
SER/L2525M22	●	○	22ER/L···	25	25	150	32	25	36	DEN22..	SI60M 040160···	SSBM 040060H	TT15PH
SER/L3232P22	●	○		32	32	170	40	32	36				
SER/L4040R22	●	○		40	40	200	50	40	36				
SER/L3232P27	●	○	27ER/L···	32	32	170	40	32	40	DEN27..	SI60M 050200···	SSBM 040060H	TT20PH
SER/L4040R27	●	○		40	40	200	50	40	40				

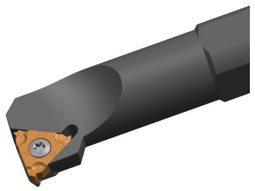
※SI60M035090···is meaning of M3.5×9

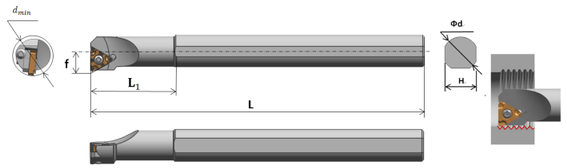
●Stock ○Available Up Order

Thread Turning Toolholders

SIR/L Series

External Toolholders





Ordering Code	Pitch R	Pitch L	Insert	Dimensions (mm) dmin	Φd	H	L	f	L1	Shim	Insert Screw	ShimScrew	Wrench
SIR/L0008K08	●	○	08IR/L···	9.9	08	7	125	5.5	20	-	SI60M 022050···	-	TT06PH
SIR/L0010K11	●	○	11IR/L···	13	10	9	125	7.3	25	-	SI60M 025080···	-	TT08PH
SIR/L0010K11-A16	●	○		13	16	15	125	7.3	30				
SIR/L0012K11	●	○		15	12	11	125	8.4	28				
SIR/L0012K11-A16	●	○		15	16	15	125	8.4	36				
SIR/L0013M16	●	○	16IR/L···	17	16	15	150	10.3	32	-	SI60M 035090···	-	TT15PH
SIR/L0016Q16	●	○		20	16	15	180	11.5	40				
SIR/L0020Q16	●	○		24	20	18	180	13.4	40	DIN16..	SI60M 035120···	SSBM 030060H	TT15PH
SIR/L0025R16	●	○		29	25	23	200	16.3	45				
SIR/L0032S16	●	○		36	32	30	250	19.6	50				
SIR/L0040T16	●	○		44	40	38	300	23.8	55				
SIR/L0050U16	○	○		56	50	48	350	28.7	60				
SIR/L0020Q22	○	○	22IR/L···	27	20	18	180	14.9	40	-	SI60M 040120···	-	TT15PH
SIR/L0025R22	●	○		32	25	23	200	18.1	45	DIN22..	SI60M 040160···	SSBM 040060H	TT15PH
SIR/L0032S22	●	○		39	32	30	250	21.5	50				
SIR/L0040T22	●	○		47	40	38	300	25.8	55				
SIR/L0050U22	○	○		57	50	48	350	29.8	70				
SIR/L0032S27	○	○	27IR/L···	40	32	30	250	22.4	60	DIN27..	SI60M 050200···	SSBM 040060H	TT20PH
SIR/L0040T27	○	○		48	50	36	300	26.4	60				
SIR/L0050U27	○	○		58	60	45	350	31.4	75				

※SI60M035090···is meaning of M3.5×9

●Stock ○Available Up Order

Cutting Speed Recommendation Table

Workpiece Material				Material Hardness	Cutting Speed Vc (m/min) Grade GM3225
P	Carbon Steel	Low-carbon (C=0.1-0.25%)		HB125	160 (120-230)
		Medium-carbon (C=0.25-0.55%)		HB150	150 (100-195)
		High-carbon (C=0.55-0.80%)		HB170	140 (90-180)
	Low-alloy Steel	Non-hardened		HB180	130 (100-180)
		Hardened and tempered		HB275	100 (75-140)
		Hardened and tempered		HB350	80 (60-130)
	High-alloy Steel	Annealed		HB200	110 (80-140)
		Hardened and tempered		HB325	90 (70-115)
	Steel Castings	Unalloyed		HB180	200 (180-220)
		Low-alloy		HB200	110 (70-150)
		High-alloy		HB225	100 (60-120)
		Manganese steel (12-14% Mn)		HB250	40 (40-50)
M	Stainless Steel	Austenitic		HB180	120 (90-140)
		Ferritic/Martensitic		HB200	140 (70-170)
		Duplex stainless steel		HB230	90 (60-120)
K	Malleable Cast Iron	Ferritic		HB130	130 (110-170)
		Pearlitic		HB230	100 (85-145)
	Gray Cast Iron	Low tensile strength		HB180	120 (100-160)
		High tensile strength		HB260	100 (80-140)
	Nodular Cast Iron	Ferritic		HB160	125 (110-160)
		Pearlitic		HB250	100 (80-120)
N	Wrought Aluminum Alloys	Non aging		HB60	500 (350-700)
		Aged		HB100	400 (300-500)
	Cast Aluminum Alloys	Non aging		HB75	450 (300-500)
		Aged		HB90	290 (200-400)
		Containing silicon (13-22% Si)		HB130	200 (100-300)
	Copper and Copper Alloys	Brass		HB90	220 (100-300)
		Bronze and non-leaded copper		HB100	180 (80-255)
S	Heat-resistant Alloys	Iron base	Annealed	HB200	45 (35-60)
			Aged	HB280	35 (25-50)
		Nickel base and cobalt base	Annealed	HB250	25 (15-30)
			Aged	HB350	15 (10-25)
			Cast	HB320	13 (10-20)
	Titanium Alloys	Commercial pure (99.5% Ti)		400Rm	150 (140-170)
		α+β alloys		1050Rm	60 (50-70)
H	High Hardness Materials	Hardened steel		HRC55	45 (40-50)
		Chilled cast iron		HB400	40 (30-50)

Cutting Passes and Radial Infeed Recommendation Table

▶ ISO Metric / External

Pitch (mm)	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
Total infeed (mm)	0.65	0.79	0.95	1.11	1.26	1.56	1.88	2.18	2.49	2.79	3.10	3.39	3.70
Total passes	5	6	6	8	8	10	12	12	13	14	14	16	16
No. of infeed	Radial infeed per pass (mm)												
1	0.16	0.17	0.20	0.17	0.20	0.20	0.20	0.24	0.24	0.27	0.29	0.27	0.30
2	0.15	0.15	0.19	0.17	0.19	0.19	0.19	0.23	0.22	0.25	0.28	0.26	0.29
3	0.14	0.14	0.18	0.16	0.18	0.18	0.19	0.22	0.22	0.24	0.27	0.26	0.29
4	0.12	0.13	0.16	0.15	0.17	0.17	0.18	0.21	0.21	0.23	0.26	0.25	0.28
5	0.08	0.12	0.14	0.14	0.16	0.17	0.17	0.21	0.21	0.23	0.25	0.25	0.27
6		0.08	0.08	0.13	0.15	0.16	0.17	0.20	0.20	0.22	0.25	0.24	0.26
7				0.11	0.13	0.15	0.16	0.18	0.19	0.21	0.24	0.23	0.26
8				0.08	0.08	0.14	0.15	0.17	0.18	0.20	0.23	0.23	0.25
9						0.12	0.14	0.16	0.17	0.19	0.22	0.22	0.24
10						0.08	0.13	0.15	0.16	0.18	0.20	0.21	0.23
11							0.12	0.13	0.15	0.17	0.19	0.20	0.22
12							0.08	0.08	0.14	0.16	0.17	0.19	0.20
13									0.12	0.14	0.15	0.18	0.19
14									0.18	0.10	0.10	0.16	0.17
15												0.14	0.15
16												0.10	0.10

▶ ISO Metric/ Internal

Pitch (mm)	1.00	1.25	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
Total infeed (mm)	0.63	0.77	0.92	1.05	1.20	1.48	1.78	2.03	2.31	2.61	2.88	3.19	3.44
Total passes	5	6	6	8	8	10	12	12	13	14	14	16	16
No. of infeed	Radial infeed per pass (mm)												
1	0.15	0.16	0.20	0.16	0.19	0.19	0.19	0.22	0.21	0.23	0.26	0.25	0.28
2	0.14	0.15	0.18	0.15	0.18	0.18	0.18	0.21	0.21	0.23	0.26	0.25	0.27
3	0.13	0.14	0.17	0.15	0.17	0.17	0.18	0.20	0.20	0.22	0.25	0.24	0.26
4	0.12	0.13	0.15	0.14	0.16	0.17	0.17	0.20	0.19	0.22	0.24	0.24	0.26
5	0.08	0.11	0.13	0.13	0.15	0.16	0.16	0.19	0.19	0.21	0.24	0.23	0.26
6		0.08	0.08	0.12	0.14	0.15	0.16	0.18	0.18	0.20	0.23	0.22	0.24
7				0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.22	0.22	0.24
8				0.08	0.08	0.13	0.14	0.16	0.17	0.19	0.21	0.22	0.23
9						0.12	0.14	0.15	0.16	0.18	0.20	0.20	0.22
10						0.08	0.12	0.14	0.15	0.17	0.19	0.20	0.21
11							0.11	0.12	0.14	0.16	0.18	0.19	0.20
12							0.08	0.08	0.13	0.15	0.16	0.18	0.19
13									0.12	0.14	0.15	0.17	0.18
14									0.08	0.10	0.10	0.16	0.16
15												0.14	0.15
16												0.10	0.10

▶ UN / External

Pitch (mm)	24	20	18	16	14	12	10	8
Total infeed (mm)	0.70	0.84	0.92	1.04	1.17	1.35	1.62	2.02
Total passes	5	6	6	7	8	8	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.18	0.18	0.20	0.19	0.18	0.22	0.21	0.22
2	0.16	0.17	0.18	0.18	0.18	0.21	0.20	0.21
3	0.15	0.15	0.17	0.17	0.17	0.20	0.19	0.20
4	0.13	0.14	0.15	0.16	0.16	0.19	0.18	0.20
5	0.08	0.12	0.13	0.14	0.15	0.17	0.17	0.19
6		0.08	0.08	0.12	0.14	0.15	0.16	0.18
7				0.08	0.12	0.13	0.15	0.17
8					0.08	0.08	0.14	0.16
9							0.12	0.15
10							0.08	0.14
11								0.12
12								0.08

▶ UN / Internal

Pitch (mm)	24	20	18	16	14	12	10	8
Total infeed (mm)	0.66	0.78	0.86	0.96	1.07	1.25	1.48	2.03
Total passes	5	6	6	7	8	8	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.16	0.16	0.18	0.17	0.16	0.20	0.19	0.22
2	0.15	0.16	0.17	0.16	0.16	0.19	0.18	0.21
3	0.14	0.14	0.16	0.15	0.15	0.18	0.17	0.20
4	0.12	0.13	0.14	0.14	0.14	0.17	0.17	0.20
5	0.08	0.12	0.13	0.13	0.14	0.16	0.16	0.19
6		0.08	0.08	0.12	0.13	0.14	0.15	0.18
7				0.08	0.11	0.13	0.14	0.17
8					0.08	0.08	0.13	0.16
9							0.12	0.15
10							0.08	0.14
11								0.12
12								0.08

▶ Whitworth / External& Internal

Pitch (mm)	19	18	16	14	12	11	10	8
Total infeed (mm)	0.90	0.97	1.08	1.20	1.42	1.51	1.70	2.10
Total passes	6	7	8	8	8	9	10	12
No. of infeed	Radial infeed per pass (mm)							
1	0.19	0.17	0.17	0.19	0.23	0.22	0.22	0.23
2	0.18	0.16	0.16	0.18	0.22	0.21	0.21	0.22
3	0.17	0.16	0.15	0.17	0.21	0.20	0.20	0.21
4	0.15	0.15	0.15	0.16	0.19	0.19	0.19	0.21
5	0.13	0.13	0.14	0.15	0.18	0.18	0.18	0.20
6	0.08	0.12	0.13	0.14	0.16	0.16	0.17	0.19
7		0.08	0.11	0.12	0.14	0.15	0.16	0.18
8			0.08	0.08	0.08	0.13	0.15	0.17
9						0.08	0.13	0.16
10							0.08	0.14
11								0.12
12								0.08

▶ BSPT / External& Internal

Pitch (mm)	28	19	14	11
Total infeed (mm)	0.62	0.90	1.20	1.51
Total passes	5	6	8	9
No. of infeed	Radial infeed per pass (mm)			
1	0.15	0.19	0.19	0.22
2	0.14	0.18	0.18	0.21
3	0.13	0.17	0.17	0.20
4	0.12	0.15	0.16	0.19
5	0.08	0.13	0.15	0.18
6		0.08	0.14	0.16
7			0.12	0.15
8			0.08	0.13
9				0.08

▶ NPT / External& Internal

Pitch (mm)	27	18	14	11.5	8
Total infeed (mm)	0.76	1.11	1.42	1.73	2.48
Total passes	6	8	10	12	15
No. of infeed	Radial infeed per pass (mm)				
1	0.15	0.17	0.18	0.18	0.21
2	0.15	0.17	0.17	0.17	0.21
3	0.14	0.16	0.16	0.17	0.20
4	0.13	0.15	0.16	0.16	0.20
5	0.11	0.14	0.15	0.16	0.19
6	0.08	0.13	0.14	0.15	0.18
7		0.11	0.14	0.15	0.18
8		0.08	0.13	0.14	0.17
9			0.11	0.13	0.17
10			0.08	0.12	0.16
11				0.11	0.15
12				0.08	0.14
13					0.13
14					0.11
15					0.08

▶ Round / External

Pitch (mm)	10	8	6	4
Total infeed (mm)	1.30	1.63	2.17	2.95
Total passes	8	10	12	14
No. of infeed	Radial infeed per pass (mm)			
1	0.21	0.21	0.24	0.30
2	0.20	0.20	0.23	0.29
3	0.19	0.19	0.22	0.28
4	0.18	0.19	0.21	0.27
5	0.16	0.18	0.20	0.26
6	0.15	0.17	0.19	0.25
7	0.13	0.15	0.18	0.24
8	0.08	0.14	0.17	0.23
9		0.12	0.16	0.22
10		0.08	0.15	0.21
11			0.13	0.19
12			0.08	0.18
13				0.15
14				0.10

▶ Round / Internal

Pitch (mm)	10	8	6	4
Total infeed (mm)	1.34	1.64	2.18	2.98
Total passes	8	10	12	14
No. of infeed	Radial infeed per pass (mm)			
1	0.22	0.21	0.24	0.30
2	0.21	0.20	0.23	0.29
3	0.20	0.20	0.22	0.29
4	0.18	0.19	0.21	0.28
5	0.17	0.18	0.21	0.27
6	0.15	0.17	0.20	0.26
7	0.13	0.16	0.19	0.25
8	0.08	0.14	0.17	0.24
9		0.12	0.16	0.23
10		0.08	0.15	0.21
11			0.13	0.20
12			0.08	0.18
13				0.16
14				0.10

Attention:Infeeds of less than 0.05mm should be avoided, for austenitic stainless steels not less than 0.08mm.

F

G-NotchSeries Tools

G-Notch Series Grooving Inserts Identification System

G	N	G	P	3	M150	R
①	②	③	④	⑤	⑥	⑦

①Company Mark
G=GESAC

②Type of Insert
N=Notch

③Insert style
G=Grooving
R=Full Radius

④Additional Information
P=Positive
□=Fla

⑤Insert Size

	mm	inch
2	3.81	.150
3	4.95	.195

⑥Groove Size
Metric:
M150 = 1.5mm
Inch:
125 = 0.125inch

⑦Hand of Insert
R=Right Hand
L=Left Hand

G-Notch Series Threading Inserts Identification System

G	N	T	P	3	R
①	②	③	④	⑤	⑥

①Company Mark
G=GESAC

②Type of Insert
N=Notch

③Insert style
T=60°Thread

④Additional Information
P=Positive

⑤Insert Size

	mm	inch
2	3.81	.150
3	4.95	.195

⑥Hand of Insert
R=Right Hand
L=Left Hand

F G-Notch Series Tools

G-Notch External Holder Identification System

G N S R 2525 M 3

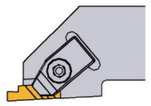
① ② ③ ④ ⑤ ⑥ ⑦

①Company Mark

G=GESAC

③Insert Mounting Location

S=Side



⑤Shank Size

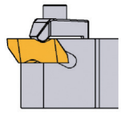
Width	Height
12	12
16	16
20	20
25	25
32	32

⑥Shank length

D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

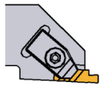
②Clamping System

N=Notch



④Hand of Tool

L=Left Hand



R=Right Hand

⑦Insert Size

	mm	inch
2	3.81	.150
3	4.95	.195

G-Notch Internal Bar Identification System

G N A R 25 M 3

① ② ③ ④ ⑤ ⑥ ⑦

①Company Mark

G=GESAC

③Holder Type

A=Steel With Coolant
S=Steel without Coolant

⑤Bar Diamiter

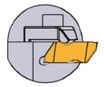
12 = 12 mm
16 = 16 mm
20 = 20 mm
25 = 25 mm
32 = 32 mm

⑦Shank length

	mm	inch
2	3.81	.150
3	4.95	.195

②Clamping System

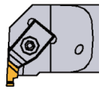
N=Notch



④Hand of Tool

L=Hand of Tool

R=Right Hand



⑥Shank length

D	60
E	70
F	80
H	100
K	125
M	150
P	170
Q	180
R	200

Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts.

F G-Notch Series Tools

Overview of G-Notch Series Inserts

Application	Style	Shape	Width/Pitch	Page
Precision Grooving	GNGP		1.00-3.50 (mm)	P169
PrecisionProfiling	GNR		2.00-3.18 (mm)	P171
Threading	GNTP		0.70-5.00(mm) 36-5(TPI)	P171

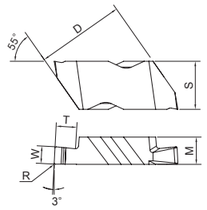
Grades for G-Notch Series Inserts

Workpiece Material		P Steel						M Stainless Steel					K Cast Iron				
ISO		01	10	20	30	40	50	01	10	20	30	40	01	10	20	30	40
Coated	PVD		GM3225						GM3225					GM3225			

Precision Grooving Inserts

GNGP

Grooving Positive Rake Insert



Ordering Code	Dimensions(mm)						Insert Size	Stock
	W	R	T	S	M	D		GM3225
GNGP2M100L	1.00	0.09	1.27	5.56	3.81	8.74	2	○
GNGP2M100R	1.00	0.09	1.27	5.56	3.81	8.74	2	○
GNGP2047L	1.19	0.09	1.27	5.56	3.81	8.74	2	●
GNGP2047R	1.19	0.09	1.27	5.56	3.81	8.74	2	●
GNGP2M150L	1.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M150R	1.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2062L	1.57	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2062R	1.57	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2M170L	1.70	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M170R	1.70	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2070L	1.78	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2078L	1.98	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2078R	1.98	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M200L	2.00	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M200R	2.00	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M220L	2.20	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M220R	2.20	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2094L	2.38	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2094R	2.38	0.19	2.79	5.56	3.81	8.74	2	●
GNGP2M250L	2.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2M250R	2.50	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2125L	3.18	0.19	2.79	5.56	3.81	8.74	2	○
GNGP2125R	3.18	0.19	2.79	5.56	3.81	8.74	2	●
GNGP3031L	0.79	0.09	1.27	8.74	4.95	16.1	3	○
GNGP3031R	0.79	0.09	1.27	8.74	4.95	16.1	3	○
GNGP3M100L	1.00	0.19	1.91	8.74	4.95	16.1	3	○
GNGP3M100R	1.00	0.19	1.91	8.74	4.95	16.1	3	○
GNGP3047L	1.19	0.19	1.91	8.74	4.95	16.1	3	●
GNGP3047R	1.19	0.19	1.91	8.74	4.95	16.1	3	●

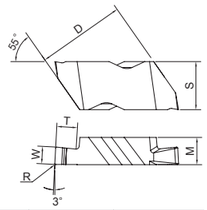
continued on next page>>

●Stock ○Available upon Order

Precision Grooving Inserts

GNGP

Grooving Positive Rake Inserts



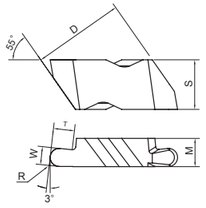
Ordering Code	Dimensions(mm)						Insert Size	Stock
	W	R	T	S	M	D		GM3225
GNGP3M150L	1.50	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3M150R	1.50	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3062L	1.58	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3062R	1.58	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3070L	1.78	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3078L	1.98	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3078R	1.98	0.19	2.39	8.74	4.95	16.1	3	○
GNGP3M200L	2.00	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3M200R	2.00	0.19	2.39	8.74	4.95	16.1	3	●
GNGP3094L	2.39	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3094R	2.39	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M250L	2.50	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M250R	2.50	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M300L	3.00	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M300R	3.00	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3125L	3.18	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3125R	3.18	0.19	3.81	8.74	4.95	16.1	3	●
GNGP3M350L	3.50	0.19	3.81	8.74	4.95	16.1	3	○
GNGP3M350R	3.50	0.19	3.81	8.74	4.95	16.1	3	○

●Stock ○Available upon Order

Precision Grooving Inserts

GNR

Full Radius Inserts



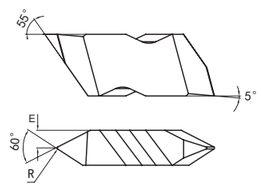
Ordering Code	Dimensions(mm)						Insert Size	Stock
	W	R	T	S	M	D		GM3225
GNR3M100L	2.00	1.00	2.39	8.74	4.95	16.10	3	○
GNR3M100R	2.00	1.00	2.39	8.74	4.95	16.10	3	○
GNR3M150L	3.00	1.50	3.81	8.74	4.95	16.10	3	○
GNR3M150R	3.00	1.50	3.81	8.74	4.95	16.10	3	○
GNR3047L	2.39	1.19	3.81	8.74	4.95	16.1	3	●
GNR3047R	2.39	1.19	3.81	8.74	4.95	16.1	3	●
GNR3062L	3.18	1.59	3.81	8.74	4.95	16.10	3	○
GNR3062R	3.18	1.59	3.81	8.74	4.95	16.10	3	○

●Stock ○Available upon Order

Threading Inserts

GNTP

60°Partial Profile Threading Inserts With Positive Top Rake



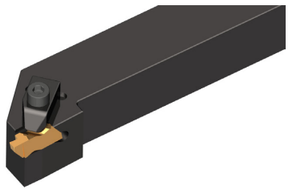
Ordering Code	Dimensions						Insert Size	Stock
	R	E	Pitch					GM3225
			External	Internal	External	Internal		
GNTP2L	0.10	1.91	0.70-3.00	1.25-3.50	8-36	7-20	2	●
GNTP2R	0.10	1.91	0.70-3.00	1.25-3.50	8-36	7-20	2	●
GNTP3L	0.17	2.49	1.25-4.00	2.00-5.00	4-20	5-12	3	●
GNTP3R	0.17	2.49	1.25-4.00	2.00-5.00	4-20	5-12	3	●
GNTP3004L	0.10	2.49	1.25-4.00	2.00-5.00	5-36	5-12	3	○
GNTP3004R	0.10	2.49	1.25-4.00	2.00-5.00	5-36	5-12	3	○

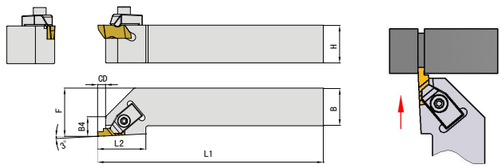
●Stock ○Available upon Order

External Holders

G-Notch Series

GNSR/L





The Picture is Right Hand Holder

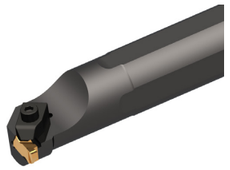
Ordering Code	Dimensions(mm)							Insert	Spare Parts			Stock
	H	B	F	L1	L2	B4	CD		Clamp	Screw	Wrench	
GNSR1616H2	16	16	20	100	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2020K2	20	20	25	125	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2525M2	25	25	32	150	19	9	3.5	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNSR2020K3	20	20	25	125	32	13	5.3	GN.3R	CAN03RH	SCAM050200H	TH40LH	●
GNSR2525M3	25	25	32	150	32	13	5.3	GN.3R	CAN03RH	SCAM050200H	TH40LH	●
GNSL1616H2	16	16	20	100	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2020K2	20	20	25	125	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2525M2	25	25	32	150	19	9	3.5	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNSL2020K3	25	20	25	125	32	13	5.3	GN.3L	CAN03LH	SCAM050200H	TH40LH	●
GNSL2525M3	25	25	32	150	32	13	5.3	GN.3L	CAN03LH	SCAM050200H	TH40LH	●

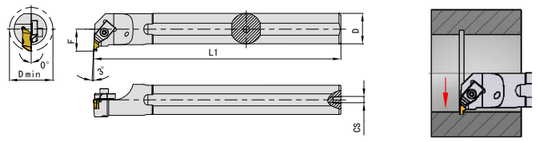
●Stock ○Available upon Order

Internal Bars

G-Notch Series

GNAR/L





The Picture is Right Hand Holder

Ordering Code	Dimensions(mm)					Insert	Spare Parts			Stock
	D	D min	L1	F	CS		Clamp	Screw	Wrench	
GNAR20Q2	20	26	180	13	1/8-27 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNAR25R2	25	34	200	17	1/4-18 NPT	GN.2L	CAN02LH	SCAM040120H	TH30LH	●
GNAR25R3	25	34	200	17	1/4-18 NPT	GN.3L	CAN03LH	SCAM050200H	TH40LH	●
GNAL20Q2	20	26	180	13	1/8-27 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNAL25R2	25	34	200	17	1/4-18 NPT	GN.2R	CAN02RH	SCAM040120H	TH30LH	●
GNAL25R3	25	34	200	17	1/4-18 NPT	GN.3R	CAN03RH	SCAM050200H	TH40LH	●

Note: Left hand bars use right hand inserts, Right hand bars use left hand inserts.

●Stock ○Available upon Order

Recommended Feed

Width(mm)	Feed(mm/r)
0.79-1.50	0.08 (0.03-0.12)
1.50-2.50	0.10 (0.04-0.16)
2.50-3.50	0.12 (0.05-0.20)
3.50-4.50	0.14 (0.05-0.25)

Recommended Cutting Speed

Workpiece Material		Hardness（HB）	Cutting Speed Vc（m/min）		
			GM3125	GA4230	GS3115
P	Low Carbon Steel	80 – 170	105 (60-170)	110 (70-180)	
	High Carbon Steel	170 –250	105 (60-160)	110 (70-160)	
	Low-alloy Steel	140– 260	105 (50-160)	110 (60-160)	
	High-alloy Steel	180– 300	105 (50-160)	110 (60-160)	
M	Ferritic/Martensitic	150– 270	90 (40-140)	100 (40-180)	90 (50-150)
	Austenitic	150– 270	90 (40-140)	100 (40-180)	90 (50-150)
K	Malleable Cast Iron	150– 230	160 (60-300)	180 (70-300)	
	Gray Cast Iron	150– 230	160 (60-300)	180 (70-300)	
	Nodular Cast Iron	160– 260	140 (50-250)	160 (60-300)	
S	Heat-resistant Alloy	130– 400			35 (15-60)
	Titanium Alloys	130– 400			35 (15-60)

MEMO

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