

# CUTTING TOOLS



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## Recommended grades for turning inserts








































ISO	General turning		Threading	Parting and grooving		carbide
	Coating		Coating	Coating		
	CVD	PVD	PVD	CVD	PVD	
<b>P</b> Steel	01					
	10	BTC8151				
	20	BTC8251				
	30	BTC8252				
<b>M</b> Stainless steel	01					
	10	BTM8151				
	20	BTM8251				
	30	BTM8253				
<b>K</b> Cast iron	01					
	10	BT08152				
	20	BT08150				
	30	BT08152C				

### Chipbreaker instruction:

- PER: mainly recommended for roughing steel materials
- PEM: mainly recommended for semi-finishing steel materials
- PEF: mainly recommended for finishing steel materials
- MER: mainly recommended for roughing stainless steel materials
- MEM: mainly recommended for semi-finishing stainless steel materials
- MEF: mainly recommended for finishing stainless steel materials
- GIR: for roughing P&M kinds of materials, normally used on positive inserts
- GIM: for semi-finishing P&M kinds of materials, normally used on positive inserts
- GIF: for finishing P&M kinds of materials, normally used on positive inserts
- ANX: for aluminium inserts

## Inserts overview

### Turning Inserts

Insert					
Type	CNMG-PER	CNMG-PEM	CNMG-MEM	CNMG-PEF	CNMG-MEF
Edge length	12 16 19	9 12 16	12 16	9 12	9 12
Page	10	10	10	11	11
Insert					
Type	CNMM-PER	CNMG-MER	CNMA	CNMG	DNMG-PEF
Edge length	12 19 25	12 16 19 25	12 16 19	12 16 19	11 15
Page	11	11	12	12	13
Insert					
Type	DNMG-MEF	DNMG-PEM	DNMG-MEM	DNMG-PER	DNMM-PER
Edge length	11 15	11 15	11 15	15	15
Page	13	14	14	15	15
Insert					
Type	DNMG-MER	DNMG	DNMA	SNMG-PEF	SNMG-MEF
Edge length	15	15 19	11 15	9 12	9 12
Page	15	15	15	16	16
Insert					
Type	SNMG-PEM	SNMG-MEM	SNMG-PER	SNMM-PER	SNMG-MER
Edge length	9 12	12 15	12 15 19	12 15 19 25	12 15
Page	16	16	17	17	17
Insert					
Type	SNMM-MER	SNMG	SNMA	TNMG-PEF	TNMG-MEF
Edge length	25	9 12 15 25	9 12 15 19	16 22	11 16 22
Page	18	18	19	19	19
Insert					
Type	TNMG-PEM	TNMG-MEM	TNMG-PER	TNMM-PER	TNMG-MER
Edge length	11 16 22	16 22	16 22 27	16 22 27	16 22
Page	20	20	20	20	21
Insert					
Type	TNMG	TNMA	VNMG-PEF	VNMG-MEF	VNMG-PEM
Edge length	11 16 22 27 33	16 22 27	16	16	16
Page	21	21	22	22	22



## Inserts overview

Insert					
Type	VNMG-MEM	VNMG	VNMA	WNMG-PEF	WNMG-MEF
Edge length	16	16	16	6 8	6 8
Page	22	22	22	23	23
Insert					
Type	WNMG-PEM	WNMG-MEM	WNMG-PER	WNNMG	WNMA
Edge length	6 8	6 8	6 8	6 8	6 8
Page	23	24	24	24	24
Insert					
Type	RNMG	CCMT-GIF	CCMT-GIM	CCMT-GIR	CCMW
Edge length	12	6 9 12	6 9 12	6 9 12	6 9 12
Page	25	26	26	26	26
Insert					
Type	DCMT-GIF	DCMT-GIM	DCMT-GIR	DCMW	RCMT
Edge length	7 11	7 11	7 11	7 11	8 10 12 16
Page	27	27	27	27	28
Insert					
Type	RCMX	SCMT-GIF	SCMT-GIM	SCMT-GIR	SCMT
Edge length	8 10 12 16 20 25 32	9	9 12	9 12	9 12
Page	28	29	29	29	29
Insert					
Type	SCMW	TCMT-GIF	TCMT-GIM	TCMT-GIR	VCGT-GIF
Edge length	6 9 12	6 9 11 16	9 11 16	9 11 16 22	11
Page	29	30	30	30	31
Insert					
Type	VBMT-GIF	VBMT-GIM	VBMT-GIR	TBGH	TPGH
Edge length	11 16	11 16	16	6	6
Page	32	32	32	33	34
Insert					
Type	KNUX1604-R/L	175.32-191940	TNMX-2	TNMX-R/L	LNKN-B
Edge length	16	19	11 15	7	8
Page	35	36	37	38	39

## Inserts overview





























Insert				
Type	CCGX-ANX	DCGX-ANX	RCGX-ANX	SCGX-ANX
Edge length	6 9 12	7 11	8	9 12
Page	40	40	40	40
Insert				
Type	TCGX-ANX	VCGX-ANX	QT-MG	QR-MG
Edge length	9 11 16	11 16 22	2.5-6	2.5-6
Page	41	41	42	43

### Threading inserts

Insert				
Type	General pitch thread 55°	General pitch thread 60°	ISO metric	UN thread
Edge length	06 08 11 16 22 27	06 08 11 16 22 27	06 08 11 16 22 27	06 08 11 16 22 27
Page	45~46	47~48	49~53	54~58
Insert				
Type	Whitworth thread	ACME thread	ABUT thread	
Edge length	08 11 16 22 27	11 16 22 27	11 16 22	
Page	59~62	63~64	65	

## Inserts overview

### Milling inserts

Insert					
Type	APKT1003PDR	APKT11T308-GM	APKT160408-GM	APMT1135PDR	APMT160408PDER
Page	68	68	68	68	68
Insert					
Type	RDKX0702MO	RDKX0803MO	RDKX1003MO	RDKX10T3MO	RDKX12T3MO
Page	69	69	69	69	69
Insert					
Type	RDKX1204MO	RDKX1604MO	RDKX1605MO	RDKX1606MO	RDKX2006MO
Page	69	69	69	69	69
Insert					
Type	RPKT10T3MO	RPKT1204MO	RPKX1003MO	RPKX1204MO	SEKN1203AFN
Page	69	69	69	69	70
Insert					
Type	SEKN1203AFTN	SEKN1204AFN	SEKN1204AFTN	SEKN1504AFN	SEKN1504AFTN
Page	70	70	70	70	70
Insert					
Type	SNKN1204ENN	SNKN1504ENN	SPKN1203EDR	SPKN1203EDL	SPKN1203EDTR
Page	71	71	72	72	72
Insert					
Type	SPKN1203EDTL	SPKN1504EDR	SPKN1504EDL	SPKN1504EDTR	SPKN1504EDTL
Page	72	72	72	72	72
Insert					
Type	TPUN160304	TPUN160308	TPUN220404	TPUN220408	TPUN220412
Page	73	73	73	73	73

## Grades instruction for milling inserts

### CVD COATING FOR MILLING

GRADE	COATING INSTRUCTION	ISO application	Application
BTC8225	High toughness and high intensity substrate together with combination of TiCN, thin Al <sub>2</sub> O <sub>3</sub> , TiN coating	P15-35	Suitable for semi-finishing and roughing of P kinds of materials
BTC8235	High toughness and high intensity substrate together with combination of TiCN, thin Al <sub>2</sub> O <sub>3</sub> , TiN coating	P15-35 M10-30	Suitable for roughing and semi-finishing machining of P&M kinds of materials under hardness HRC45.
BTM8251	High toughness and high intensity substrate together with combination of TiCN, thin Al <sub>2</sub> O <sub>3</sub> , TiN coating	P15-40 M10-30	Suitable for semi-finishing and roughing of P&M kinds of materials
BTM8253	High toughness gradient carbide substrate together with combination of TiCN, superfine Al <sub>2</sub> O <sub>3</sub> coating	M10-30	Suitable for roughing of M kinds of materials
BTM8351	High toughness substrate together with combination of TiCN, thin Al <sub>2</sub> O <sub>3</sub> , TiN coating	P25-40 M20-35	Suitable for roughing of P&M kinds of materials
BTD8152	High wear resistance substrate together with nice combination of TiCN, thick Al <sub>2</sub> O <sub>3</sub> coating	K05-25	Suitable for roughing and semi-finishing of K kinds of materials
BTD8252	High wear resistance substrate together with nice combination of TiCN, thick Al <sub>2</sub> O <sub>3</sub> coating	K15-35	Suitable for roughing and semi-finishing of K kinds of materials

### PVD COATING FOR MILLING

GRADE	COATING INSTRUCTION	ISO application	Application
BTG8102	Fine grain substrate together with nano coating	K05-K20	Suitable for finishing and semi-finishing of K kinds of materials
BTG8202	Nice non-deformability substrate together with nano coating	P10-30 M10-30 S05-20	General PVD grade, widely used in semi-finishing of P, M, K all kinds of materials
BTG8205	Super fine grain substrate together with nano coating	M10-30	Suitable for finishing and semi-finishing of M kinds of materials
BTG8302	Good toughness and intensity together with nano coating	P25-40 M25-40	Suitable for rough machining of P&M kinds of materials



# Turning inserts code instruction

**1** Insert Shape/Code

A	B	C
D	E	H
K	L	M
O	P	R
S	T	T
V	W	others Z

Insert Shape

**4** Metric

Code	With/Without hole	With/Without chipbreaker	Cross-section of insert	Code	With/Without hole	With/Without chipbreaker	Cross-section of insert
<b>B</b>	With	Without		<b>N</b>	Without	Without	
<b>H</b>	With	Single-side		<b>R</b>	Without	Single-side	
<b>C</b>	With	Without		<b>F</b>	Without	Double-side	
<b>J</b>	With	Double-side		<b>A</b>	With	Without	
<b>W</b>	With	Without		<b>M</b>	With	Single-side	
<b>T</b>	With	Single-side		<b>G</b>	With	Double-side	
<b>Q</b>	With	Without		<b>X</b>	...	...	Special
<b>U</b>	With	Double-side					

Chipbreaker and clamping style

**5** Insert shape

Diameter of IC(mm)	Insert shape							
	C	D	R	S	T	V	W	K
3.97					06			
5			05					
5.56					09			
6			06					
6.35	06	07			11	11		
8			08					
9.525	09	11	09	09	16	16	06	16
10			10					
12			12					
12.7	12	15	12	12	22	22	08	
15.875	16		15	15	27			
16			19	16				
19.05	19		19	19	33			
20			20					
25	25	25	25					
25.4			25	25				
31.75			31					
32			32					

Length of cutting edge

**6** Thickness is defined as height from bottom of insert to the highest part of cutting edge

Code	Insert thickness(mm)
<b>00</b>	0.79
<b>T0</b>	0.99
<b>01</b>	1.59
<b>T1</b>	1.98
<b>02</b>	2.38
<b>T2</b>	2.58
<b>03</b>	3.18
<b>T3</b>	3.97
<b>04</b>	4.76
<b>T4</b>	4.96
<b>05</b>	5.56
<b>T5</b>	5.95
<b>06</b>	6.35
<b>T6</b>	6.75
<b>07</b>	7.94
<b>09</b>	9.52
<b>T9</b>	9.72
<b>11</b>	11.11
<b>12</b>	12.7

Insert thickness

**C** **N** **M** **G** **12** **04** **08** - **PEM**

**2** Clearance angle of Main cutting edge

Code	Clearance angle	Code	Clearance angle
<b>A</b>	3°	<b>B</b>	5°
<b>C</b>	7°	<b>D</b>	15°
<b>E</b>	20°	<b>F</b>	25°
<b>G</b>	30°	<b>N</b>	30°
<b>P</b>	11°	<b>O</b>	others

**3** Tolerance

Code	Nose height m Tolerance (mm)	Inscribed circle $\phi$ I.C Tolerance (mm)	Thickness S Tolerance (mm)	(Reference) Details of M-class tolerance (identified by shape and size of insert) ● Nose height tolerance (mm)						
				Inscribed circle	Triangle	Square	30° Rhombus	35° Rhombus	35° Rhombus	Round
				6.35	±0.08	±0.08	±0.08	±0.11	±0.16	...
				9.525	±0.08	±0.08	±0.08	±0.11	±0.16	...
<b>A</b>	±0.005	±0.025	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	...	...
<b>F</b>	±0.005	±0.013	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	...	...
<b>C</b>	±0.013	±0.025	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	...	...
<b>H</b>	±0.013	±0.013	±0.013	25.4	...	±0.18	...	...	...	...
<b>E</b>	±0.025	±0.025	±0.025		● Tolerance of inscribed circle (mm)					
<b>G</b>	±0.025	±0.025	±0.13		Inscribed circle	Triangle	Square	30° Rhombus	35° Rhombus	Round
<b>J</b>	±0.005	±0.05±0.13	±0.025	6.35	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
<b>K</b>	±0.013	±0.05±0.13	±0.025	9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.08
<b>L</b>	±0.025	±0.05±0.13	±0.025	12.7	±0.08	±0.08	±0.08	±0.08	...	±0.1
<b>M</b>	±0.08 - ±0.18	±0.05±0.13	±0.13	15.875	±0.1	±0.1	±0.1	±0.1	...	±0.1
<b>N</b>	±0.08 - ±0.18	±0.05±0.13	±0.025	19.05	±0.1	±0.1	±0.1	±0.1	...	±0.13
<b>U</b>	±0.13 - ±0.38	±0.08±0.25	±0.13	25.4	...	±0.13	...	...	...	...

**4** **3** **2**

(Inch)

Inscribed circle		Thickness		Nose radius	
Code	Diameter of IC (mm)	Code	Thickness (mm)	Code	Nose radius (mm)
<b>2</b>	6.35	<b>2</b>	3.18	<b>0</b>	0.2
<b>3</b>	9.525	<b>3</b>	4.76	<b>1</b>	0.4
<b>4</b>	12.7	<b>4</b>	6.35	<b>2</b>	0.8
<b>5</b>	15.875	<b>5</b>	7.94	<b>3</b>	1.2
<b>6</b>	19.05	<b>6</b>	9.52	<b>4</b>	1.6
<b>8</b>	25.4			<b>5</b>	2.0
				<b>6</b>	2.4

**7** Nose radius code

Code	Nose radius (mm)
<b>00</b>	No radius
<b>02</b>	0.2
<b>04</b>	0.4
<b>08</b>	0.8
<b>12</b>	1.2
<b>16</b>	1.6
<b>20</b>	2
<b>24</b>	2.4
<b>32</b>	3.2
<b>X</b>	Others

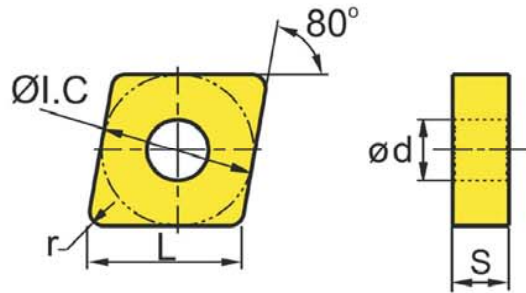
Diameter of Insert (Metric) Round insert

**8** Chipbreaker code

PEF	PEM	PER
MEF	MEM	MER
GIR	GIM	GIF
ANX		

### Turning inserts ( negative style )

CN□□

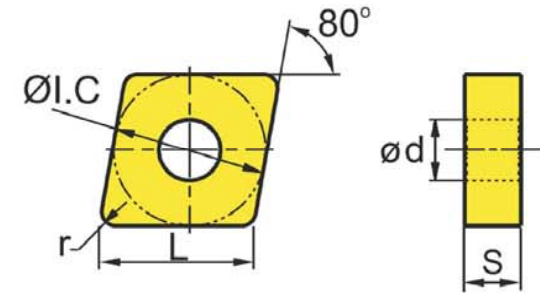


Inserts shape	Type	Size					P				M		K				
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BT08052	BT08152	BT08152C
Roughing	CNMG120408-PER	12.9	12.7	4.76	5.16	0.8	●	▲							○		
	CNMG120412-PER	12.9	12.7	4.76	5.16	1.2	●	▲							○		
	CNMG120416-PER	12.9	12.7	4.76	5.16	1.6	▲	●							○		
	CNMG160608-PER	16.1	15.875	6.35	6.35	0.8	▲	▲							○		
	CNMG160612-PER	16.1	15.875	6.35	6.35	1.2	▲	▲							○		
	CNMG160616-PER	16.1	15.875	6.35	6.35	1.6	▲	●							○		
	CNMG190608-PER	19.3	19.05	6.35	7.94	0.8	●	▲							○		
	CNMG190612-PER	19.3	19.05	6.35	7.94	1.2	●	▲							○		
	CNMG190616-PER	19.3	19.05	6.35	7.94	1.6	▲	●							○		
	CNMG190624-PER	19.3	19.05	6.35	7.94	2.4	▲	●							○		
Semi-finishing	CNMG090304-PEM	9.7	9.525	3.18	3.81	0.4	●	▲									
	CNMG090308-PEM	9.7	9.525	3.18	3.81	0.8	●	▲									
	CNMG120404-PEM	12.9	12.7	4.76	5.16	0.4	●	▲									
	CNMG120408-PEM	12.9	12.7	4.76	5.16	0.8	●	▲									
	CNMG120412-PEM	12.9	12.7	4.76	5.16	1.2	●	▲									
	CNMG120416-PEM	12.9	12.7	4.76	5.16	1.6	●	▲									
	CNMG160608-PEM	16.1	15.875	6.35	6.35	0.8	●	▲									
	CNMG160612-PEM	16.1	15.875	6.35	6.35	1.2	▲	▲									
	CNMG160616-PEM	16.1	15.875	6.35	6.35	1.6	▲	▲									
	CNMG190608-PEM	19.3	19.05	6.35	7.94	0.8	●	▲									
	CNMG190612-PEM	19.3	19.05	6.35	7.94	1.2	▲	▲									
	CNMG190616-PEM	19.3	19.05	6.35	7.94	1.6	▲	●									
	CNMG120404-MEM	12.9	12.7	4.76	5.16	0.4					○	▲	●				
	CNMG120408-MEM	12.9	12.7	4.76	5.16	0.8					○	▲	●				
	CNMG120412-MEM	12.9	12.7	4.76	5.16	1.2					○	▲	●				
	CNMG160608-MEM	16.1	15.875	6.35	6.35	0.8					○	▲	●				
CNMG160612-MEM	16.1	15.875	6.35	6.35	1.2					○	○	○					
CNMG160616-MEM	16.1	15.875	6.35	6.35	1.6					○	○	○					

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

CN□□



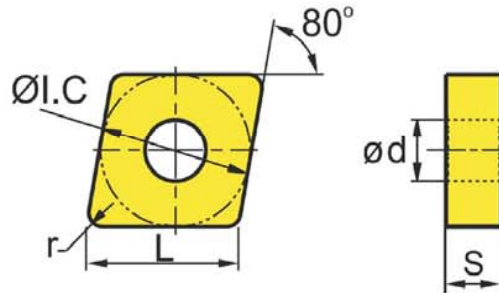
Inserts shape	Type	Size					P				M		K				
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BT08052	BT08152	BT08152C
Finishing	CNMG090304-PEF	9.7	9.525	3.18	3.81	0.4	●	▲									
	CNMG090308-PEF	9.7	9.525	3.18	3.81	0.8	●	▲	○								
	CNMG120404-PEF	12.9	12.7	4.76	5.16	0.4	●	▲									
	CNMG120408-PEF	12.9	12.7	4.76	5.16	0.8	●	▲	○								
	CNMG120412-PEF	12.9	12.7	4.76	5.16	1.2	○	●									
	CNMG090304-MEF	9.7	9.525	3.18	3.81	0.4				○		▲	●				
	CNMG090308-MEF	9.7	9.525	3.18	3.81	0.8				○		▲	●				
	CNMG120404-MEF	12.9	12.7	4.76	5.16	0.4				○		▲	●				
	CNMG120408-MEF	12.9	12.7	4.76	5.16	0.8				○		▲	●				
	CNMG120412-MEF	12.9	12.7	4.76	5.16	1.2						○	○				
Heavy cutting	CNMM120412-PER	12.9	12.7	4.76	5.16	1.2											
	CNMM160612-PER	16.1	15.875	6.35	6.35	1.2											
	CNMM160616-PER	16.1	15.875	6.35	6.35	1.6											
	CNMM190612-PER	19.3	19.05	6.35	7.94	1.2	▲	●									
	CNMM190616-PER	19.3	19.05	6.35	7.94	1.6	▲	●									
	CNMM190624-PER	19.3	19.05	6.35	7.94	2.4	▲	●									
	CNMM250924-PER	25.79	25.4	9.525	9.12	2.4	▲	●									
Roughing	CNMG120408-MER	12.9	12.7	4.76	5.16	0.8						○					
	CNMG120412-MER	12.9	12.7	4.76	5.16	1.2						○					
	CNMG160612-MER	16.1	15.875	6.35	6.35	1.2						○					
	CNMG160616-MER	16.1	15.875	6.35	6.35	1.6						○					
	CNMG190612-MER	19.3	19.05	6.35	7.94	1.2						○					
	CNMG190616-MER	19.3	19.05	6.35	7.94	1.6						○					
Heavy cutting	CNMM250724-MER	25.79	25.4	7.94	9.12	2.4						○					
	CNMM250732-MER	25.79	25.4	7.94	9.12	3.2						○					
	CNMM250924-MER	25.79	25.4	9.525	9.12	2.4						○					
	CNMM250932-MER	25.79	25.4	9.525	9.12	3.2						○					

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order



### Turning inserts ( negative style )

CN□□

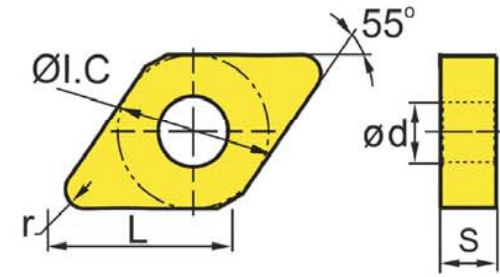


Inserts shape	Type	Size					P				M		K				
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BT08052	BT08152	BT08152C
Roughing	CNMA120404	12.9	12.7	4.76	5.16	0.4									▲	●	
	CNMA120408	12.9	12.7	4.76	5.16	0.8									▲	●	
	CNMA120412	12.9	12.7	4.76	5.16	1.2									▲	●	
	CNMA120416	12.9	12.7	4.76	5.16	1.6									▲	●	
	CNMA160608	16.1	15.875	6.35	6.35	0.8									▲	●	
	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									▲	●	
	CNMA160630	16.1	15.875	6.35	6.35	3.0									▲	●	
	CNMA190612	19.3	19.05	6.35	7.94	1.2									▲	●	
CNMA190616	19.3	19.05	6.35	7.94	1.6									▲	●		
Semi-finishing	CNMG120404	12.9	12.7	4.76	5.16	0.4			○						▲	●	
	CNMG120408	12.9	12.7	4.76	5.16	0.8			○						▲	●	
	CNMG120412	12.9	12.7	4.76	5.16	1.2			○						▲	●	
	CNMG160608	16.1	15.875	6.35	6.35	0.8			○						▲	●	
	CNMG160612	16.1	15.875	6.35	6.35	1.2			○						▲	●	
	CNMG160616	16.1	15.875	6.35	6.35	1.6			○						▲	●	
	CNMG190608	19.3	19.05	6.35	7.94	0.8			○						▲	●	
	CNMG190612	19.3	19.05	6.35	7.94	1.2			○						▲	●	
	CNMG190616	19.3	19.05	6.35	7.94	1.6			○						▲	●	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

DN□□

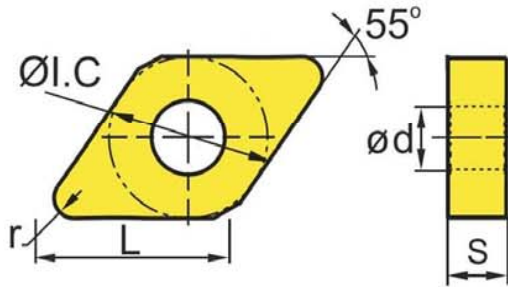




Inserts shape	Type	Size					P				M		K					
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BT08052	BT08152	BT08152C	
Roughing	DNMG110404-PEF	11.6	9.525	4.76	3.81	0.4	●	▲										
	DNMG110408-PEF	11.6	9.525	4.76	3.81	0.8	●	▲										
	DNMG110412-PEF	11.6	9.525	4.76	3.81	1.2	○	○	○									
	DNMG150404-PEF	15.5	12.7	4.76	5.16	0.4	●	▲										
	DNMG150408-PEF	15.5	12.7	4.76	5.16	0.8	○	▲										
	DNMG150412-PEF	15.5	12.7	4.76	5.16	1.2	●	▲	○									
	DNMG150604-PEF	15.5	12.7	6.35	5.16	0.4	●	▲										
	DNMG150608-PEF	15.5	12.7	6.35	5.16	0.8	●	▲										
	DNMG150612-PEF	15.5	12.7	6.35	5.16	1.2	●	▲	○									
	Finishing	DNMG110404-MEF	11.6	9.525	4.76	3.81	0.4									▲	●	
		DNMG110408-MEF	11.6	9.525	4.76	3.81	0.8									▲	●	
		DNMG110412-MEF	11.6	9.525	4.76	3.81	1.2									○	○	
DNMG150404-MEF		15.5	12.7	4.76	5.16	0.4									▲	●		
DNMG150408-MEF		15.5	12.7	4.76	5.16	0.8									▲	●		
DNMG150412-MEF		15.5	12.7	4.76	5.16	1.2									○	○		
DNMG150604-MEF		15.5	12.7	6.35	5.16	0.4									▲	●		
DNMG150608-MEF		15.5	12.7	6.35	5.16	0.8									▲	●		
DNMG150612-MEF	15.5	12.7	6.35	5.16	1.2									○	○			

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

**Turning inserts  
(negative style)**

**DN□□**

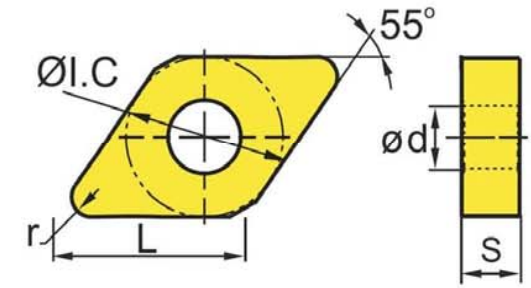







Inserts shape	Type	Size					P				M		K				
		L	ØI.C	S	ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C
	DNMG110404-PEM	11.6	9.525	4.76	3.81	0.4	●	●	▲								
	DNMG110408-PEM	11.6	9.525	4.76	3.81	0.8	●	▲									
	DNMG110412-PEM	11.6	9.525	4.76	3.81	1.2	●	▲									
	DNMG150404-PEM	15.5	12.7	4.76	5.16	0.4	●	●	▲								
	DNMG150408-PEM	15.5	12.7	4.76	5.16	0.8	●	▲									
	DNMG150412-PEM	15.5	12.7	4.76	5.16	1.2	●	▲									
	DNMG150416-PEM	15.5	12.7	4.76	5.16	1.6	●	▲									
	DNMG150604-PEM	15.5	12.7	6.35	5.16	0.4	●	▲									
	DNMG150608-PEM	15.5	12.7	6.35	5.16	0.8	●	▲									
	DNMG150612-PEM	15.5	12.7	6.35	5.16	1.2	●	▲									
	DNMG150616-PEM	15.5	12.7	6.35	5.16	1.6	●	▲									
		DNMG110404-MEM	11.6	9.525	4.76	3.81	0.4					▲	●				
DNMG110408-MEM		11.6	9.525	4.76	3.81	0.8					▲	●					
DNMG110412-MEM		11.6	9.525	4.76	3.81	1.2					○	○					
DNMG150404-MEM		15.5	12.7	4.76	5.16	0.4					▲	●					
DNMG150408-MEM		15.5	12.7	4.76	5.16	0.8					▲	●					
DNMG150604-MEM		15.5	12.7	6.35	5.16	0.4					▲	●					
DNMG150608-MEM		15.5	12.7	6.35	5.16	0.8					▲	●					
DNMG150612-MEM		15.5	12.7	6.35	5.16	1.2					○	○					

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order

**Turning inserts  
(negative style)**

**DN□□**



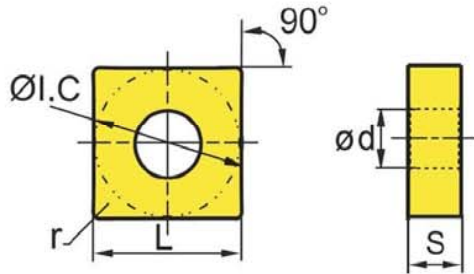
Inserts shape	Type	Size					P				M		K					
		L	ØI.C	S	ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C	
	DNMG150408-PER	15.5	12.7	4.76	5.16	0.8	●	▲									○	
	DNMG150412-PER	15.5	12.7	4.76	5.16	1.2	●	▲									○	
	DNMG150416-PER	15.5	12.7	4.76	5.16	1.6	●	▲									○	
	DNMG150608-PER	15.5	12.7	6.35	5.16	0.8	●	▲									○	
	DNMG150812-PER	15.5	12.7	6.35	5.16	1.2	●	▲									○	
	DNMG150616-PER	15.5	12.7	6.35	5.16	1.6	●	▲									○	
		DNMM150608-PER	15.5	12.7	6.35	5.16	0.8	○	○									
		DNMM150612-PER	15.5	12.7	6.35	5.16	1.2	○	○									
		DNMM150616-PER	15.5	12.7	6.35	5.16	1.6	○	○									
		DNMG150608-MER	15.5	12.7	6.35	5.16	0.8					○						
		DNMG150612-MER	15.5	12.7	6.35	5.16	1.2					○						
		DNMG150604	15.5	12.7	6.35	5.16	0.4											▲
DNMG150608		15.5	12.7	6.35	5.16	0.8											▲	
DNMG150612		15.5	12.7	6.35	5.16	1.2											▲	
DNMG150616		15.5	12.7	6.35	5.16	1.6											●	
DNMG190608		19.3	15.9	6.35	7.94	0.8											▲	
DNMG190612		19.3	15.9	6.35	7.94	1.2											●	
DNMG190616		19.3	15.9	6.35	7.94	1.6											▲	
DNMG190620		19.3	15.9	6.35	7.94	2.0											▲	
	DNMA110416	11.6	9.525	4.76	3.81	1.6											▲	
	DNMA110424	11.6	9.525	4.76	3.81	2.4											▲	
	DNMA150404	15.5	12.7	4.76	5.16	0.4											▲	
	DNMA150408	15.5	12.7	4.76	5.16	0.8											▲	
	DNMA150804	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											▲	
	DNMA150616	15.5	12.7	6.35	5.16	1.6											▲	

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order



### Turning inserts ( negative style )

SN□□

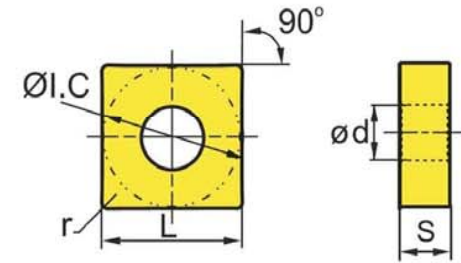


Inserts shape	Type	Size					P		M	K								
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTDR852	BTDR152	BTDR152C	
Finishing	SNMG090304-PEF	9.525	9.525	3.18	3.81	0.4	●	▲										
	SNMG090308-PEF	9.525	9.525	3.18	3.81	0.8	●	▲										
	SNMG120404-PEF	12.7	12.7	4.76	5.16	0.4	●	▲										
	SNMG120408-PEF	12.7	12.7	4.76	5.16	0.8	●	▲										
	SNMG120412-PEF	12.7	12.7	4.76	5.16	1.2												
	SNMG090304-MEF	9.525	9.525	3.18	3.81	0.4						▲	●					
	SNMG090308-MEF	9.525	9.525	3.18	3.81	0.8						▲	●					
	SNMG090312-MEF	9.525	9.525	3.18	3.81	1.2						●						
	SNMG120404-MEF	12.7	12.7	4.76	5.16	0.4						▲	●					
	SNMG120408-MEF	12.7	12.7	4.76	5.16	0.8						▲	●					
Semi-finishing	SNMG120412-MEF	12.7	12.7	4.76	5.16	1.2						●						
	SNMG150608-MEF	15.9	15.9	6.35	6.35	0.8						▲	●					
	SNMG150612-MEF	15.9	15.9	6.35	6.35	1.2						●						
	SNMG090304-PEM	9.525	9.525	3.18	3.81	0.4	●	▲										
	SNMG090308-PEM	9.525	9.525	3.18	3.81	0.8	●	▲										
	SNMG090312-PEM	9.525	9.525	3.18	3.81	1.2	●	▲										
	SNMG120404-PEM	12.7	12.7	4.76	5.16	0.4	●	▲										
	SNMG120408-PEM	12.7	12.7	4.76	5.16	0.8	●	▲										
	SNMG120412-PEM	12.7	12.7	4.76	5.16	1.2	●	▲										
	SNMG120416-PEM	12.7	12.7	4.76	5.16	1.6	●	▲										
Roughing	SNMG150608-PEM	15.9	15.9	6.35	6.35	0.8	●	▲										
	SNMG150612-PEM	15.9	15.9	6.35	6.35	1.2	●	▲										
	SNMG150616-PEM	15.9	15.9	6.35	6.35	1.6	●	▲										
	SNMG190612-PEM	19.1	19.1	6.35	7.94	1.2	●	▲										
	SNMG190616-PEM	19.1	19.1	6.35	7.94	1.6	●	▲										
	SNMG120404-MEM	12.7	12.7	4.76	5.16	0.4						▲	●					
	SNMG120408-MEM	12.7	12.7	4.76	5.16	0.8						▲	●					
	SNMG120412-MEM	12.7	12.7	4.76	5.16	1.2						○						
	SNMG120416-MEM	12.7	12.7	4.76	5.16	1.6						○						
	SNMG150612-MEM	15.9	15.9	6.35	6.35	1.2						○						
SNMG150616-MEM	15.9	15.9	6.35	6.35	1.6						○							

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

SN□□

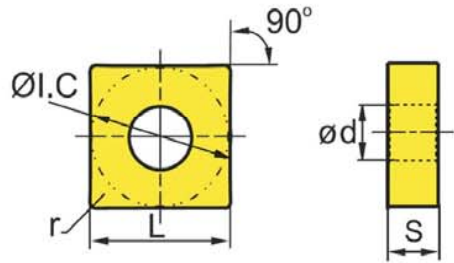


Inserts shape	Type	Size					P		M	K								
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTDR852	BTDR152	BTDR152C	
Finishing	SNMG120408-PER	12.7	12.7	4.76	5.16	0.8	●	▲										○
	SNMG120412-PER	12.7	12.7	4.76	5.16	1.2	▲	●										○
	SNMG120416-PER	12.7	12.7	4.76	5.16	1.6	▲	●										○
	SNMG150608-PER	15.9	15.9	6.35	6.35	0.8	●	▲										○
	SNMG150612-PER	15.9	15.9	6.35	6.35	1.2	▲	●										○
	SNMG150416-PER	15.9	15.9	6.35	6.35	1.6	▲	●										○
	SNMG150624-PER	15.9	15.9	6.35	6.35	2.4	▲	●										○
	SNMG190612-PER	19.1	19.1	6.35	7.94	1.2	▲	●										○
	SNMG190616-PER	19.1	19.1	6.35	7.94	1.6	▲	●										○
	SNMG190624-PER	19.1	19.1	6.35	7.94	2.4	▲	●										○
Roughing	SNMM120408-PER	12.7	12.7	4.76	5.16	0.8												
	SNMM120412-PER	12.7	12.7	4.76	5.16	1.2												
	SNMM120416-PER	12.7	12.7	4.76	5.16	1.6												
	SNMM150608-PER	15.9	15.9	6.35	6.35	0.8		▲										
	SNMM150612-PER	15.9	15.9	6.35	6.35	1.2		▲										
	SNMM150616-PER	15.9	15.9	6.35	6.35	1.6		▲										
	SNMM190608-PER	19.1	19.1	6.35	7.94	0.8		▲										
	SNMM190612-PER	19.1	19.1	6.35	7.94	1.2		▲										
	SNMM190616-PER	19.1	19.1	6.35	7.94	1.6		▲										
	SNMM190624-PER	19.1	19.1	6.35	7.94	2.4		▲										
Roughing	SNMM250724-PER	25.4	25.4	7.94	9.12	2.4		▲										
	SNMM250924-PER	25.4	25.4	9.525	9.12	2.4		▲										
	SNMG120408-MER	12.7	12.7	4.76	5.16	0.8											○	
	SNMG120412-MER	12.7	12.7	4.76	5.16	1.2											○	
	SNMG150608-MER	15.9	15.9	6.35	6.35	0.8											○	
	SNMG150612-MER	15.9	15.9	6.35	6.35	1.2											○	
Roughing	SNMG190612-MER	19.1	19.1	6.35	7.94	1.2											○	
	SNMG190616-MER	19.1	19.1	6.35	7.94	1.6											○	

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

SN□□

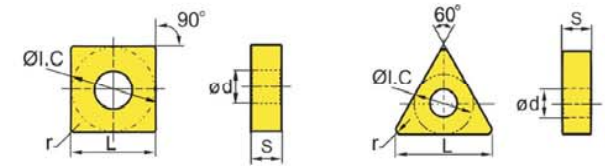


Inserts shape	Type	Size					P					M			K			
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTM8252	BTM8152	BTM8152C	
Roughing	SNMM250724-MER	25.4	25.4	7.94	9.12	2.4						○						
	SNMM250732-MER	25.4	25.4	7.94	9.12	3.2						○						
	SNMM250924-MER	25.4	25.4	9.525	9.12	2.4						○						
	SNMM250932-MER	25.4	25.4	9.525	9.12	3.2						○						
Semi-finishing	SNMG090304	9.525	9.525	3.18	3.81	0.4						○			▲	●		
	SNMG090308	9.525	9.525	3.18	3.81	0.8						○			▲	●		
	SNMG120404	12.7	12.7	4.76	5.16	0.4				○					▲	●		
	SNMG120408	12.7	12.7	4.76	5.16	0.8				○					▲	●		
	SNMG120412	12.7	12.7	4.76	5.16	1.2				○					▲	●		
	SNMG120416	12.7	12.7	4.76	5.16	1.6				○					▲	●		
	SNMG150608	15.9	15.9	6.35	6.35	0.8				○					▲	●		
	SNMG150612	15.9	15.9	6.35	6.35	1.2				○					▲	●		
	SNMG190612	19.1	19.1	6.35	7.94	1.2				○					▲	●		
	SNMG190616	19.1	19.1	6.35	7.94	1.6				○					▲	●		
	SNMG250724	25.4	25.4	7.94	9.12	2.4				○					▲	●		
	SNMG250924	25.4	25.4	9.525	9.12	2.4				○					▲	●		

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

SN□□



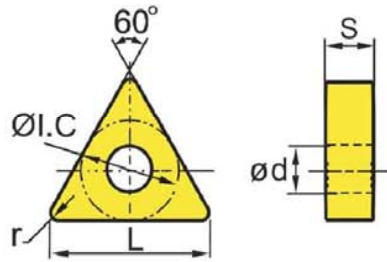
Inserts shape	Type	Size					P					M			K			
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTM8252	BTM8152	BTM8152C	
Roughing	SNMA090304	9.525	9.525	3.18	3.81	0.4												▲
	SNMA090308	9.525	9.525	3.18	3.81	0.8												▲
	SNMA120404	12.7	12.7	4.76	5.16	0.4												▲
	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												▲
	SNMA150608	15.9	15.9	6.35	6.35	0.8												▲
	SNMA150612	15.9	15.9	6.35	6.35	1.2												▲
	SNMA190612	19.1	19.1	6.35	7.94	1.2												▲
	SNMA190616	19.1	19.1	6.35	7.94	1.6												▲
Finishing	TNMG160404-PEF	16.5	9.525	4.76	3.81	0.4	●		▲									
	TNMG160408-PEF	16.5	9.525	4.76	3.81	0.8	●		▲									
	TNMG160412-PEF	16.5	9.525	4.76	3.81	1.2	●		▲									
	TNMG220408-PEF	22	12.7	4.76	5.16	0.8	●		▲									
Finishing	TNMG220412-PEF	22	12.7	4.76	5.16	1.2	●		▲									
	TNMG110304-MEF	11	6.35	3.18	2.26	0.4									▲	●		
	TNMG110308-MEF	11	6.35	3.18	2.26	0.8									▲	●		
	TNMG160404-MEF	16.5	9.525	4.76	3.81	0.4									▲	●		
	TNMG160408-MEF	16.5	9.525	4.76	3.81	0.8									▲	●		
	TNMG160412-MEF	16.5	9.525	4.76	3.81	1.2									▲	●		
Finishing	TNMG220404-MEF	22	12.7	4.76	5.16	0.4									▲	●		
	TNMG220408-MEF	22	12.7	4.76	5.16	0.8									▲	●		
	TNMG220412-MEF	22	12.7	4.76	5.16	1.2									▲	●		

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order



### Turning inserts ( negative style )

# TN□□

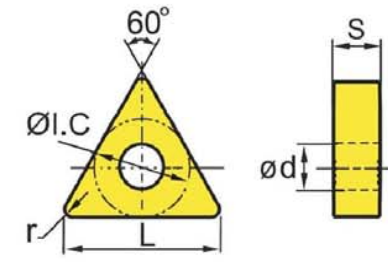


Inserts shape	Type	Size					P					M		K			
		L	ØI.C	S	Ød	r	BT08151	BT08251	BT08152	BT08252	BT08255	BT08251	BT08255	BT08053	BT08152	BT08153C	
Semi-finishing	TNMG110304-PEM	11	6.35	3.18	2.26	0.4	●	▲									
	TNMG110308-PEM	11	6.35	3.18	2.26	0.8	●	▲									
	TNMG160404-PEM	16.5	9.525	4.76	3.81	0.4	●	▲									
	TNMG160408-PEM	16.5	9.525	4.76	3.81	0.8	●	▲									
	TNMG160412-PEM	16.5	9.525	4.76	3.81	1.2	●	▲									
	TNMG220408-PEM	22	12.7	4.76	5.16	0.8	●	▲									
	TNMG220412-PEM	22	12.7	4.76	5.16	1.2	●	▲									
	TNMG220416-PEM	22	12.7	4.76	5.16	1.6	●	▲									
	TNMG160404-MEM	16.5	9.525	4.76	3.81	0.4					▲						
	TNMG160408-MEM	16.5	9.525	4.76	3.81	0.8					▲		○				
TNMG160412-MEM	16.5	9.525	4.76	3.81	1.2					▲		○					
TNMG220408-MEM	22	12.7	4.76	5.16	0.8					▲		○					
TNMG220412-MEM	22	12.7	4.76	5.16	1.2					▲		○					
TNMG220416-MEM	22	12.7	4.76	5.16	1.6					▲		○					
Roughing	TNMG160408-PER	16.5	9.525	4.76	3.81	0.8	●	▲									
	TNMG160412-PER	16.5	9.525	4.76	3.81	1.2	●	▲									
	TNMG220408-PER	22	12.7	4.76	5.16	0.8	●	▲									
	TNMG220412-PER	22	12.7	4.76	5.16	1.2	●	▲									
	TNMG220416-PER	22	12.7	4.76	5.16	1.6	●	▲									
	TNMG270608-PER	27.5	15.9	6.35	6.35	0.8											
	TNMG270612-PER	27.5	15.9	6.35	6.35	1.2											
	TNMG270616-PER	27.5	15.9	6.35	6.35	1.6											
	TNMM160408-PER	16.5	9.525	4.76	3.81	0.8	○									▲	●
	TNMM160412-PER	16.5	9.525	4.76	3.81	1.2	○									▲	●
	TNMM220408-PER	22	12.7	4.76	5.16	0.8	○									▲	●
	TNMM220412-PER	22	12.7	4.76	5.16	1.2	○									▲	●
	TNMM220416-PER	22	12.7	4.76	5.16	1.6	○									▲	●
	TNMM270612-PER	27.5	15.9	6.35	6.35	1.2	○									▲	●
TNMM270616-PER	27.5	15.9	6.35	6.35	1.6	○									▲	●	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

# TN□□

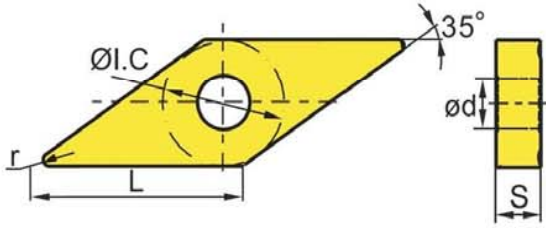


Inserts shape	Type	Size					P					M		K			
		L	ØI.C	S	Ød	r	BT08151	BT08251	BT08152	BT08252	BT08255	BT08251	BT08255	BT08053	BT08152	BT08153C	
Roughing	TNMG160408-MER	16.5	9.525	4.76	3.81	0.8					○						
	TNMG160412-MER	16.5	9.525	4.76	3.81	1.2					○						
	TNMG220408-MER	22	12.7	4.76	5.16	0.8					○						
	TNMG220412-MER	22	12.7	4.76	5.16	1.2					○						
	TNMM160408-MER	16.5	9.525	4.76	3.81	0.8					○						
	TNMM160412-MER	16.5	9.525	4.76	3.81	1.2					○						
	TNMM220408-MER	22	12.7	4.76	5.16	0.8					○						
	TNMM220412-MER	22	12.7	4.76	5.16	1.2					○						
	TNMM220416-MER	22	12.7	4.76	5.16	1.6					○						
	TNMG110308	11	6.35	3.18	2.26	0.8						○			▲	●	
TNMG160404	16.5	9.525	4.76	3.81	0.4						○			▲	●		
TNMG160408	16.5	9.525	4.76	3.81	0.8						○			▲	●		
TNMG160412	16.5	9.525	4.76	3.81	1.2						○			▲	●		
TNMG220404	22	12.7	4.76	5.16	0.4						○			▲	●		
TNMG220408	22	12.7	4.76	5.16	0.8						○			▲	●		
TNMG220412	22	12.7	4.76	5.16	1.2						○			▲	●		
TNMG220416	22	12.7	4.76	5.16	1.6						○			▲	●		
TNMG270612	27.5	15.9	6.35	6.35	1.2												
TNMG270616	27.5	15.9	6.35	6.35	1.6												
TNMG330916	33	19.1	9.525	7.94	1.6												
TNMG330924	33	19.1	9.525	7.94	2.4												
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										▲	●	
TNMA270616	27.5	15.9	6.35	6.35	1.6										▲	●	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts (negative style)

VN□□

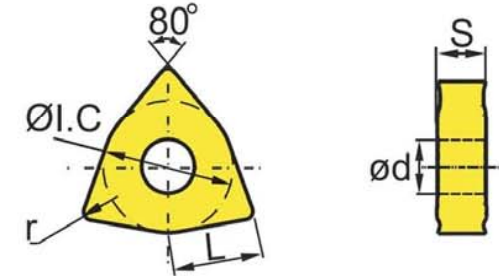


Inserts shape	Type	Size					P					M		K					
		L	ØI.C	S	ød	r	BTG151	BTG251	BTG152	BTG252	BTG205G	BTM253	BTG215	BTG205	BTG2052	BTG152	BTG152C		
Finishing		VNMG160404-PEF	16.6	9.525	4.76	3.81	0.4	●	▲	○									
		VNMG160408-PEF	16.6	9.525	4.76	3.81	0.8	●	▲	○									
		VNMG160404-MEF	16.6	9.525	4.76	3.81	0.4						▲	●					
		VNMG160408-MEF	16.6	9.525	4.76	3.81	0.8						▲	●					
		VNMG160412-MEF	16.6	9.525	4.76	3.81	1.2						▲	●					
Semi-finishing		VNMG160404-PEM	16.6	9.525	4.76	3.81	0.4	○	●	▲									
		VNMG160408-PEM	16.6	9.525	4.76	3.81	0.8	○	●	▲									
		VNMG160412-PEM	16.6	9.525	4.76	3.81	1.2		●	▲									
		VNMG160404-MEM	16.6	9.525	4.76	3.81	0.4						▲	●					
		VNMG160408-MEM	16.6	9.525	4.76	3.81	0.8						▲	●					
Semi-finishing		VNMG160404	16.6	9.525	4.76	3.81	0.4			○					▲	●			
		VNMG160408	16.6	9.525	4.76	3.81	0.8			○					▲	●			
Semi-finishing		VNMA160404	16.6	9.525	4.76	3.81	0.4									▲	●		

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order

### Turning inserts (negative style)

WN□□



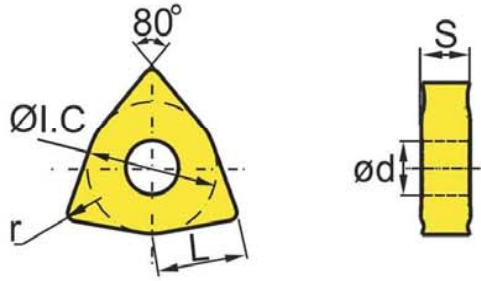
Inserts shape	Type	Size					P					M		K				
		L	ØI.C	S	ød	r	BTG151	BTG251	BTG152	BTG252	BTG205G	BTM253	BTG215	BTG205	BTG2052	BTG152	BTG152C	
Finishing		WNG06T304-PEF	6.5	9.525	3.97	3.81	0.4	●	▲									
		WNG06T308-PEF	6.5	9.525	3.97	3.81	0.8	●	▲									
		WNG06T312-PEF	6.5	9.525	3.97	3.81	1.2	●	▲									
		WNG080404-PEF	6.5	9.525	4.76	3.81	0.4	●	▲									
		WNG080408-PEF	6.5	9.525	4.76	3.81	0.8	●	▲									
		WNG080412-PEF	6.5	9.525	4.76	3.81	1.2	●	▲									
		WNG080404-PEF	8.7	12.7	4.76	5.16	0.4	●	▲									
		WNG080408-PEF	8.7	12.7	4.76	5.16	0.8	●	▲									
		WNG080412-PEF	8.7	12.7	4.76	5.16	1.2	●	▲									
		WNG06T304-MEF	6.5	9.525	3.97	3.81	0.4							▲	●			
		WNG06T308-MEF	6.5	9.525	3.97	3.81	0.8							▲	●			
		WNG06T312-MEF	6.5	9.525	3.97	3.81	1.2							▲	●			
		WNG080404-MEF	6.5	9.525	4.76	3.81	0.4							▲	●			
		WNG080408-MEF	6.5	9.525	4.76	3.81	0.8							▲	●			
		WNG080404-MEF	8.7	12.7	4.76	5.16	0.4							▲	●			
		WNG080408-MEF	8.7	12.7	4.76	5.16	0.8							▲	●			
		WNG080412-MEF	8.7	12.7	4.76	5.16	1.2							▲	●			
Semi-finishing		WNG06T304-PEM	6.5	9.525	3.97	3.81	0.4		●	▲								
		WNG06T308-PEM	6.5	9.525	3.97	3.81	0.8		●	▲								
		WNG06T312-PEM	6.5	9.525	3.97	3.81	1.2		●	▲								
		WNG080408-PEM	6.5	9.525	4.76	3.81	0.4		●	▲								
		WNG080412-PEM	6.5	9.525	4.76	3.81	0.8		●	▲								
		WNG080404-PEM	8.7	12.7	4.76	5.16	0.4		●	▲								
		WNG080408-PEM	8.7	12.7	4.76	5.16	0.8		●	▲								
		WNG080412-PEM	8.7	12.7	4.76	5.16	1.2		●	▲								
		WNG080416-PEM	8.7	12.7	4.76	5.16	1.6		●	▲								

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order



### Turning inserts ( negative style )

WN□□

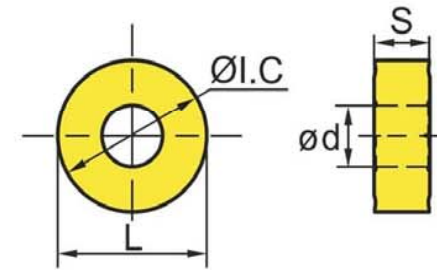


Inserts shape	Type	Size					P				M			K			
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BTM8052	BTM8152	BTM8152C
Semi-finishing	WNMG06T304-MEM	6.5	9.525	3.97	3.81	0.4						▲	●				
	WNMG08T308-MEM	6.5	9.525	3.97	3.81	0.8						▲	●				
	WNMG06T312-MEM	6.5	9.525	3.97	3.81	1.2						▲	●				
	WNMG080404-MEM	6.5	9.525	4.76	3.81	0.4						▲	●				
	WNMG080408-MEM	6.5	9.525	4.76	3.81	0.8						▲	●				
	WNMG080404-MEM	8.7	12.7	4.76	5.16	0.4						▲	●				
	WNMG080408-MEM	8.7	12.7	4.76	5.16	0.8						▲	●				
Roughing	WNMG080412-MEM	8.7	12.7	4.76	5.16	1.2						▲	●				
	WNMG080408-PER	6.5	9.525	4.76	3.81	0.8	●	▲								○	
	WNMG080412-PER	6.5	9.525	4.76	3.81	1.2	●	▲								○	
	WNMG080408-PER	8.7	12.7	4.76	5.16	0.8	●	▲								○	
Semi-finishing	WNMG080416-PER	8.7	12.7	4.76	5.16	1.6	●	▲								○	
	WNMG06T308	6.5	9.525	3.97	3.81	0.8				○				▲	●		
	WNMG060408	6.5	9.525	4.76	3.81	0.8				○				▲	●		
	WNMG080412	6.5	9.525	4.76	3.81	1.2				○				▲	●		
	WNMG060416	6.5	9.525	4.76	3.81	1.6				○				▲	●		
	WNMG080404	8.7	12.7	4.76	5.16	0.4				○				▲	●		
	WNMG080408	8.7	12.7	4.76	5.16	0.8				○				▲	●		
	WNMG080412	8.7	12.7	4.76	5.16	1.2				○				▲	●		
	WNMA06T308	6.5	9.525	3.97	3.81	0.8								▲	●		
	WNMA060404	6.5	9.525	4.76	3.81	0.4								▲	●		
	WNMA060408	6.5	9.525	4.76	3.81	0.8								▲	●		
	WNMA060412	6.5	9.525	4.76	3.81	1.2								▲	●		
	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** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

RN□□

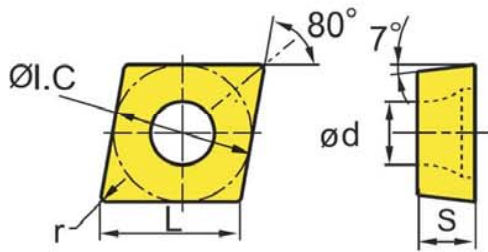


Inserts shape	Type	Size					P				M			K				
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BTM8052	BTM8152	BTM8152C	
Semi-finishing	RNMG120400	12.7	12.7	4.76	5.16							●	▲					

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( positive style )

CC□□

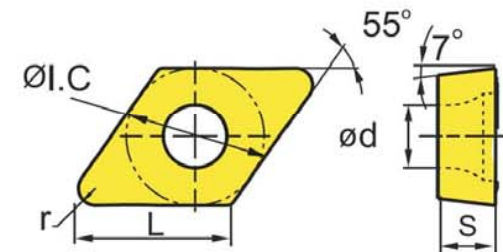


Inserts shape	Type	Size					P			M		K						
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTD8052	BTD8152	BTD8152C	
Finishing	CCMT060202-GIF	6.4	6.35	2.38	2.8	0.2	●	▲	●	▲	●	▲	●	▲				
	CCMT060204-GIF	6.4	6.35	2.38	2.8	0.4	●	▲	●	▲	●	▲	●	▲				
	CCMT09T302-GIF	9.7	9.525	3.97	4.4	0.2	●	▲	●	▲	●	▲	●	▲				
	CCMT09T304-GIF	9.7	9.525	3.97	4.4	0.4	●	▲	●	▲	●	▲	●	▲				
	CCMT09T308-GIF	9.7	9.525	3.97	4.4	0.8	●	▲	●	▲	●	▲	●	▲				
	CCMT120404-GIF	12.9	12.7	4.76	5.56	0.4	●	▲	●	▲	●	▲	●	▲				
Semi-finishing	CCMT120408-GIF	12.9	12.7	4.76	5.56	0.8	●	▲	●	▲	●	▲	●	▲				
	CCMT060204-GIM	6.4	6.35	2.38	2.8	0.4	●	▲	○									
	CCMT060208-GIM	6.4	6.35	2.38	2.8	0.8	●	▲	○									
	CCMT09T304-GIM	9.7	9.525	3.97	4.4	0.4	●	▲	○									
	CCMT09T308-GIM	9.7	9.525	3.97	4.4	0.8	●	▲	○									
	CCMT120404-GIM	12.9	12.7	4.76	5.56	0.4	●	▲	○									
Roughing	CCMT120408-GIM	12.9	12.7	4.76	5.56	0.8	●	▲	○									
	CCMT120412-GIM	12.9	12.7	4.76	5.56	1.2	●	▲	○									
	CCMT060204-GIR	6.4	6.35	2.38	2.8	0.4	●	▲					▲	○				
	CCMT060208-GIR	6.4	6.35	2.38	2.8	0.8	●	▲					▲	○				
	CCMT09T304-GIR	9.7	9.525	3.97	4.4	0.4	●	▲					▲	○				
	CCMT09T308-GIR	9.7	9.525	3.97	4.4	0.8	●	▲					▲	○				
Roughing	CCMT120408-GIR	12.9	12.7	4.76	5.56	0.8	●	▲					▲	○				
	CCMT120412-GIR	12.9	12.7	4.76	5.56	1.2	●	▲					▲	○				
	CCMW060204	6.4	6.35	2.38	2.8	0.4											○	
	CCMW09T304	9.7	9.525	3.97	4.4	0.4											○	
	CCMW120404	12.9	12.7	4.76	5.56	0.4											○	
CCMW120408	12.9	12.7	4.76	5.56	0.8											○		

Stock ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order

### Turning inserts ( positive style )

DC□□



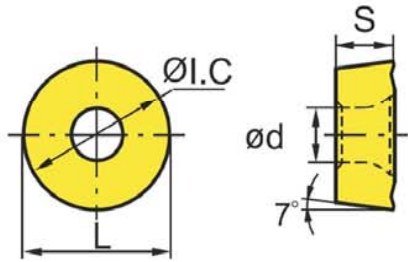
Inserts shape	Type	Size					P			M		K						
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTD8052	BTD8152	BTD8152C	
Finishing	DCMT070202-GIF	7.8	6.35	2.38	2.8	0.2	●	▲	●	▲	●	▲	●	▲				
	DCMT070204-GIF	7.8	6.35	2.38	2.8	0.4	●	▲	●	▲	●	▲	●	▲				
	DCMT070208-GIF	7.8	6.35	2.38	2.8	0.8	●	▲	●	▲	●	▲	●	▲				
	DCMT11T302-GIF	11.6	9.525	3.97	4.4	0.2	●	▲	●	▲	●	▲	●	▲				
	DCMT11T304-GIF	11.6	9.525	3.97	4.4	0.4	●	▲	●	▲	●	▲	●	▲				
	DCMT11T308-GIF	11.6	9.525	3.97	4.4	0.8	●	▲	●	▲	●	▲	●	▲				
Semi-finishing	DCMT070204-GIM	7.8	6.35	2.38	2.8	0.4	●	▲	○									
	DCMT070208-GIM	7.8	6.35	2.38	2.8	0.8	●	▲	○									
	DCMT11T304-GIM	11.6	9.525	3.97	4.4	0.4	●	▲	○									
	DCMT11T308-GIM	11.6	9.525	3.97	4.4	0.8	●	▲	○									
	DCMT11T312-GIM	11.6	9.525	3.97	4.4	1.2	●	▲	○									
	DCMT070208-GIR	7.8	6.35	2.38	2.8	0.8	●	▲									▲	
Roughing	DCMT11T304-GIR	11.6	9.525	3.97	4.4	0.4	●	▲									▲	
	DCMT11T308-GIR	11.6	9.525	3.97	4.4	0.8	●	▲									▲	
	DCMT11T312-GIR	11.6	9.525	3.97	4.4	1.2	●	▲									▲	
Roughing	DCMW070204	7.8	6.35	2.38	2.8	0.4											○	
	DCMW11T304	11.6	9.525	3.97	4.4	0.4											○	
	DCMW11T308	11.6	9.525	3.97	4.4	0.8											○	

Stock ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order



### Turning inserts ( positive style )

RC□□

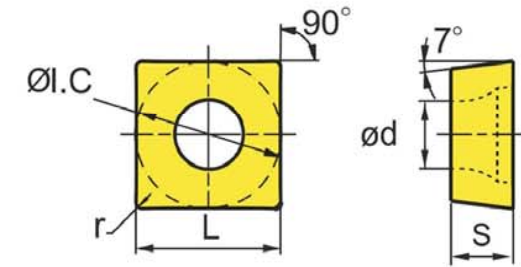


Inserts shape	Type	Size					P		M	K							
		L	ØI.C	S	ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G		BTM8253	BTG8215	BTG8205	BTG8052	BTG8152
Finishing	RCMT0803MO	8.0	8.0	3.18	3.36		●	▲									▲
	RCMT1003MO	10	10	3.97	4.4		●	▲									▲
	RCMT1204MO	12	12	4.76	4.4		●	▲									▲
	RCMT1606MO	16	16	6.35	5.5		●	▲									▲
Semi-finishing - Roughing	RCMX0803MO	8.0	8.0	3.2	3.36		●	▲									▲
	RCMX1003MO	10	10	3.18	3.6		●	▲									▲
	RCMX1204MO	12	12	4.76	4.4		●	▲									▲
	RCMX1606MO	16	16	6.35	5.5		●	▲									▲
	RCMX2006MO	20	20	6.35	6.5		●	▲									▲
	RCMX2507MO	25	25	7.94	7.2		▲	●									▲
	RCMX3209MO	32	32	9.52	9.5		▲	●									▲

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order

### Turning inserts ( positive style )

SC□□

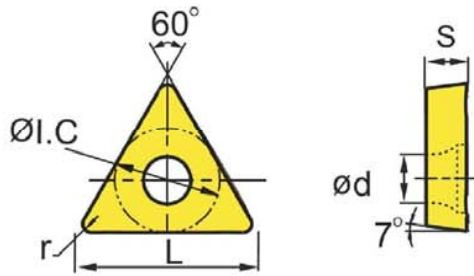


Inserts shape	Type	Size					P		M	K								
		L	ØI.C	S	ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G		BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C
Finishing	SCMT09T302-GIF	9.525	9.525	3.97	4.4	0.2	●	▲										
	SCMT09T304-GIF	9.525	9.525	3.97	4.4	0.4	●	▲										
	SCMT09T308-GIF	9.525	9.525	3.97	4.4	0.8	●	▲										
Semi-finishing	SCMT09T304-GIM	9.525	9.525	3.97	4.4	0.4	●	▲										
	SCMT09T308-GIM	9.525	9.525	3.97	4.4	0.8	●	▲										
	SCMT120404-GIM	12.7	12.7	4.76	5.56	0.4	●	▲										
	SCMT120408-GIM	12.7	12.7	4.76	5.56	0.8	●	▲										
	SCMT120412-GIM	12.7	12.7	4.76	5.56	1.2	●	▲										
	SCMT09T304-GIR	9.525	9.525	3.97	4.4	0.4		●	▲									▲
Roughing	SCMT09T308-GIR	9.525	9.525	3.97	4.4	0.8		●	▲									▲
	SCMT09T312-GIR	9.525	9.525	3.97	4.4	1.2		●	▲									▲
	SCMT120404-GIR	12.7	12.7	4.76	5.56	0.4		●	▲									▲
	SCMT120408-GIR	12.7	12.7	4.76	5.56	0.8		●	▲									▲
	SCMT120412-GIR	12.7	12.7	4.76	5.56	1.2		●	▲									▲
	SCMT09T304	9.525	9.525	3.97	4.4	0.4												○ ▲
	SCMT120404	12.7	12.7	4.76	5.56	0.4												○ ▲
	SCMT120408	12.7	12.7	4.76	5.56	0.8												○ ▲
	SCMW060204	6.35	6.35	2.38	2.8	0.4												○
	SCMW09T304	9.525	9.525	3.97	4.4	0.4												○
	SCMW09T308	9.525	9.525	3.97	4.4	0.8												○
	SCMW120408	12.7	12.7	4.76	5.56	0.8												○

**Stock** ▲ main grade and stock available ● choice grade and stock available ○ produce according to the order

### Turning inserts ( positive style )

TC□□

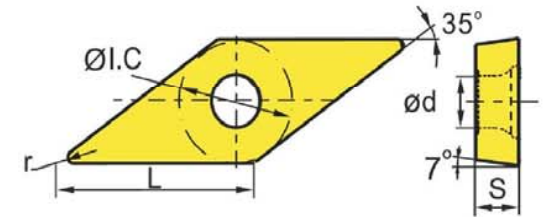


Inserts shape	Type	Size					P		M		K						
		L	ØI.C	S	Ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTM8253	BTG8215	BTG8205	BTM082	BTM8152	BTM8152C	
Finishing	TCMT06T104-GIF	6.4	3.97	1.98	2.2	0.4	●	▲	●	▲							
	TCMT06T108-GIF	6.4	3.97	1.98	2.2	0.8	●	▲	●	▲							
	TCMT090202-GIF	9.6	5.56	2.38	2.5	0.2	●	▲	●	▲							
	TCMT090204-GIF	9.6	5.56	2.38	2.5	0.4	●	▲	●	▲							
	TCMT090208-GIF	9.6	5.56	2.38	2.5	0.8	●	▲	●	▲							
	TCMT110202-GIF	11	6.35	2.38	2.8	0.2	●	▲	●	▲							
	TCMT110204-GIF	11	6.35	2.38	2.8	0.4	●	▲	●	▲							
	TCMT110208-GIF	11	6.35	2.38	2.8	0.8	●	▲	●	▲							
	TCMT16T302-GIF	16.5	9.525	3.97	4.4	0.2	●	▲	●	▲							
	TCMT16T304-GIF	16.5	9.525	3.97	4.4	0.4	●	▲	●	▲							
Semi-finishing	TCMT16T308-GIF	16.5	9.525	3.97	4.4	0.8	●	▲	●	▲							
	TCMT090204-GIM	9.6	5.56	2.38	2.5	0.4	●	▲	○	▲							
	TCMT090208-GIM	9.6	5.56	2.38	2.5	0.8	●	▲	○	▲							
	TCMT110204-GIM	11	6.35	2.38	2.8	0.4	●	▲	○	▲							
	TCMT110208-GIM	11	6.35	2.38	2.8	0.8	●	▲	○	▲							
	TCMT16T304-GIM	16.5	9.525	3.97	4.4	0.4	●	▲	○	▲							
	TCMT16T308-GIM	16.5	9.525	3.97	4.4	0.8	●	▲	○	▲							
Finishing	TCMT16T312-GIM	16.5	9.525	3.97	4.4	1.2	●	▲	○	▲							
	TCMT090204-GIR	9.6	5.56	2.38	2.5	0.4	●	▲						▲			
	TCMT090208-GIR	9.6	5.56	2.38	2.5	0.8	●	▲					▲				
	TCMT110204-GIR	11	6.35	2.38	2.8	0.4	●	▲					▲				
	TCMT110208-GIR	11	6.35	2.38	2.8	0.8	●	▲					▲				
	TCMT16T304-GIR	16.5	9.525	3.97	4.4	0.4	●	▲					▲				
	TCMT16T308-GIR	16.5	9.525	3.97	4.4	0.8	●	▲					▲				
	TCMT16T312-GIR	16.5	9.525	3.97	4.4	1.2	●	▲					▲				
TCMT220408-GIR	22	12.7	4.76	5.5	0.8			▲						▲			

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( positive style )

VC□□



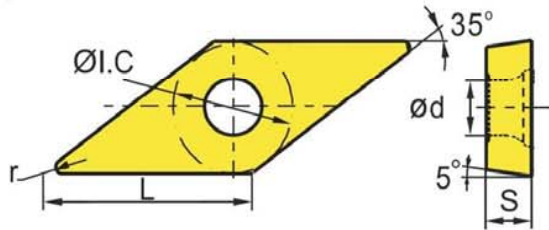
Inserts shape	Type	Size					P		M		K						
		L	ØI.C	S	Ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTM8253	BTG8215	BTG8205	BTM082	BTM8152	BTM8152C	
Finishing	VCGT110302-GIF	11	6.35	3.18	2.8	0.2	●	▲	●	▲							
	VCGT110304-GIF	11	6.35	3.18	2.8	0.4	●	▲	●	▲							

Stock ▲main grade and stock available ●choice grade and stock available ○produce according to the order



### Turning inserts ( positive style )

# VB□□

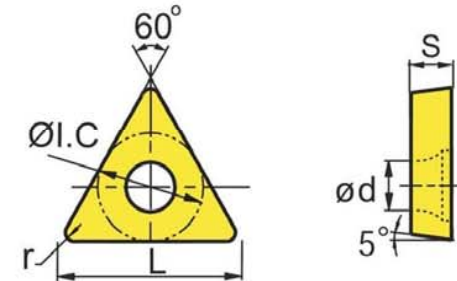


Inserts shape	Type	Size					P				M	K						
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BTG8852	BTG8152	BTG8152C	
Finishing	VBMT110302-GIF	11	6.35	3.18	2.8	0.2	●	▲	●	▲	▲							
	VBMT110304-GIF	11	6.35	3.18	2.8	0.4	●	▲	●	▲	▲							
	VBMT110308-GIF	11	6.35	3.18	2.8	0.8	●	▲	●	▲	▲							
	VBMT160404-GIF	16.5	9.525	4.76	4.4	0.4	●	▲	●	▲	▲							
	VBMT160408-GIF	16.5	9.525	4.76	4.4	0.8	●	▲	●	▲	▲							
Semi-finishing	VBMT110304-GIM	11	6.35	3.18	2.8	0.4	●	▲	●	▲	▲							
	VBMT110308-GIM	11	6.35	3.18	2.8	0.8	●	▲	●	▲	▲							
	VBMT160404-GIM	16.5	9.525	4.76	4.4	0.4	●	▲	●	▲	▲							
	VBMT160408-GIM	16.5	9.525	4.76	4.4	0.8	●	▲	●	▲	▲							
	VBMT160412-GIM	16.5	9.525	4.76	4.4	1.2	●	▲	●	▲	▲							
Roughing	VBMT160404-GIR	16.5	9.525	4.76	4.4	0.4	●	▲	●	▲	▲			▲				
	VBMT160408-GIR	16.5	9.525	4.76	4.4	0.8	●	▲	●	▲	▲			▲				
	VBMT160412-GIR	16.5	9.525	4.76	4.4	1.2	●	▲	●	▲	▲			▲				
	VBGT160408-GIR	16.5	9.525	4.76	4.4	0.8	●	▲	●	▲	▲			▲				

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( positive style )

# TB□□

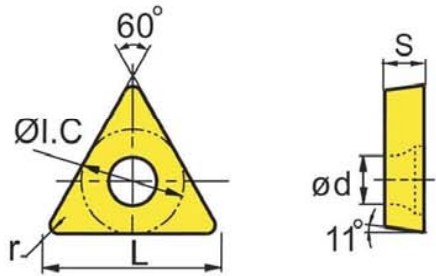


Inserts shape	Type	Size					P				M	K						
		L	ØI.C	S	ød	r	BTC8151	BTC8251	BTC8152	BTC8252	BTC8205G	BTM8253	BTG8215	BTG8205	BTG8852	BTG8152	BTG8152C	
Finishing	TBGH060102L	6.4	3.97	1.59	2.2	0.2					▲							
	TBGH060104L	6.4	3.97	1.59	2.2	0.4					▲							
	TBGH060202L	6.4	3.97	2.38	2.2	0.2					▲							
	TBGH060202R	6.4	3.97	2.38	2.2	0.2					▲							

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( positive style )

TP□□

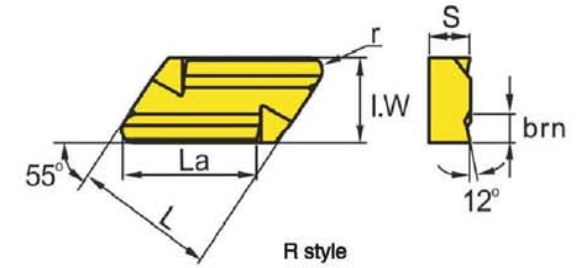


Inserts shape	Type	Size					P			M		K						
		L	ØI.C	s	Ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C	
	TPGH090202L	9.8	5.56	2.38	2.8	0.2					▲							
	TPGH090204L	9.8	5.56	2.38	2.8	0.4					▲							
	TPGH110302L	11	6.35	3.18	3.18	0.2					▲							
	TPGH110304L	11	6.35	3.18	3.18	0.4					▲							

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

KN□□



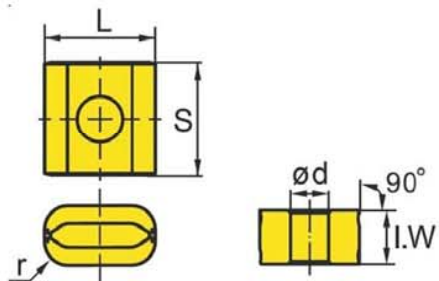
Inserts shape	Type	Size						P			M		K						
		La	L	l.W	s	brn	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C	
	KNUX160405L11	16	16.2	9.525	4.76	2.2	0.5		●	▲									
	KNUX160410L11	16	16.2	9.525	4.76	2.2	1.0		●	▲									
	KNUX160405L12	16	16.2	9.525	4.76	2.2	0.5		●	▲									
	KNUX160410L12	16	16.2	9.525	4.76	2.2	1.0		○	○									
	KNUX160415L12	16	16.2	9.525	4.76	2.2	1.5												
	KNUX160404R11	16	16.2	9.525	4.76	2.2	0.5		●	▲									
	KNUX160410R11	16	16.2	9.525	4.76	2.2	1.0		●	▲									
	KNUX160405R12	16	16.2	9.525	4.76	2.2	0.5		●	▲									
	KNUX160410R12	16	16.2	9.525	4.76	2.2	1.0		○	○									
KNUX160415R12	16	16.2	9.525	4.76	2.2	1.5													


**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order



### Wheel turning inserts ( negative style )

175.32-191940-□

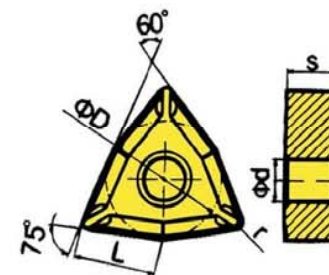



Inserts shape	Type	Size						P			M	K						
		La	L	l.W	S	brn	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C
	175.32-191940-22		19.1	10	19.1	6.35	4.0	●	▲									
	175.32-191940-24		19.1	10	19.1	7.2	4.0	●	▲									
	175.32-191940-28		19.1	10	19.1	6.35	4.0	●	▲									

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

TN□□

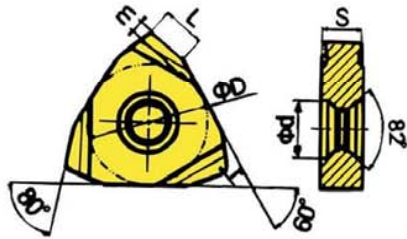


Inserts shape	Type	Size					P			M	K						
		L	øD	s	ød	r	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C
	TNMX1106-2	11.3	15.875	6.35	6.35	1.6	○										
	TNMX1509-2	15.9	22.225	9.52	7.94	1.6	○										

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

TN□□

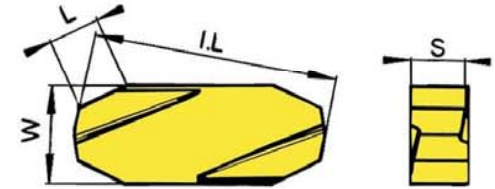


Inserts shape	Type	Size					P			M	K								
		L	eD	s	eD	m	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C		
	TNMX 1508-R	7.5	22.05	7.7	6.8	2.0	○												
	TNMX 1508-L	7.5	22.05	7.7	6.8	2.0	○												

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

### Turning inserts ( negative style )

LN□□



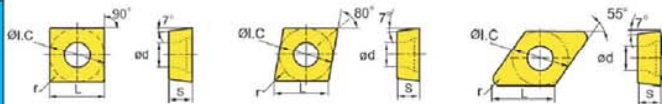
Inserts shape	Type	Size				P			M	K										
		I.L	L	W	s	BTG8151	BTG8251	BTG8152	BTG8252	BTG8205G	BTM8253	BTG8215	BTG8205	BTG8052	BTG8152	BTG8152C				
	LNKN 301207-B	30.5	8.5	12	7.05		○													
							○													

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order



## Inserts for Al alloys

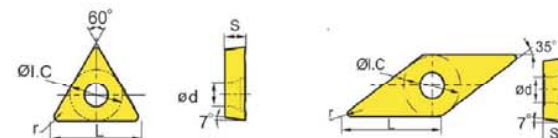
CC □ □  
DC □ □  
SC □ □



Inserts shape	Type	Size					Grade	
		L	φ I.C	S	φ d	r		
Finishing		CCGX080202-ANX	6.4	6.35	2.38	2.8	0.2	BTN8101
		CCGX080204-ANX	6.4	6.35	2.38	2.8	0.4	
		CCGX09T302-ANX	9.7	9.525	3.97	4.4	0.2	
		CCGX09T304-ANX	9.7	9.525	3.97	4.4	0.4	
		CCGX09T308-ANX	9.7	9.525	3.97	4.4	0.8	
		CCGX120404-ANX	12.9	12.7	4.76	5.56	0.4	
		CCGX120408-ANX	12.9	12.7	4.76	5.56	0.8	
Finishing		DCGX070202-ANX	7.8	6.35	2.38	2.8	0.2	BTN8101
		DCGX070204-ANX	7.8	6.35	2.38	2.8	0.4	
		DCGX11T304-ANX	11.6	9.525	3.97	4.4	0.4	
		DCGX11T308-ANX	11.6	9.525	3.97	4.4	0.8	
Finishing		RCGX0803MO-ANX	8.0	8.0	3.18	3.36		BTN8101
Finishing		SCGX09T302-ANX	9.525	9.525	3.97	4.4	0.2	BTN8101
		SCGX09T304-ANX	9.525	9.525	3.97	4.4	0.4	
		SCGX09T308-ANX	9.525	9.525	3.97	4.4	0.8	
		SCGX120404-ANX	12.7	12.7	4.76	5.56	0.4	
		SCGX120408-ANX	12.7	12.7	4.76	5.56	0.8	

## Inserts for Al alloys

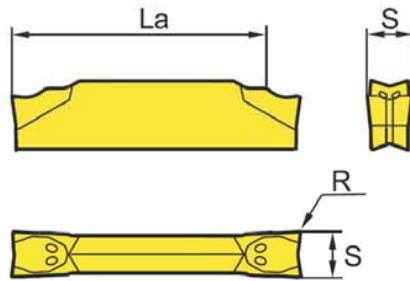
TC □ □  
VC □ □



Inserts shape	Type	Size					Grade	
		L	φ I.C	S	φ d	r		
Finishing		TCGX090202-ANX	9.6	5.56	2.38	2.5	0.2	BTN8101
		TCGX090204-ANX	9.6	5.56	2.38	2.5	0.4	
		TCGX110202-ANX	11	6.35	2.38	2.8	0.2	
		TCGX110204-ANX	11	6.35	2.38	2.8	0.4	
		TCGX110208-ANX	11	6.35	2.38	2.8	0.8	
		TCGX16T304-ANX	16.5	9.525	3.97	4.4	0.4	
		TCGX16T308-ANX	16.5	9.525	3.97	4.4	0.8	
		Finishing		VCGX110202-ANX	11	6.35	2.38	
VCGX110204-ANX	11			6.35	2.38	2.8	0.4	
VCGX110302-ANX	11			6.35	3.18	2.8	0.2	
VCGX110304-ANX	11			6.35	3.18	2.8	0.4	
VCGX110308-ANX	11			6.35	3.18	2.8	0.8	
VCGX160402-ANX	16.6			9.525	4.76	4.4	0.2	
VCGX160404-ANX	16.6			9.525	4.76	4.4	0.4	
VCGX160408-ANX	16.6			9.525	4.76	4.4	0.8	
Finishing		VCGX160412-ANX	16.6	9.525	4.76	4.4	1.2	BTN8101
		VCGX220530-ANX	22	12.7	5.56	5.5	3	

## Parting & grooving inserts

# QT □ □



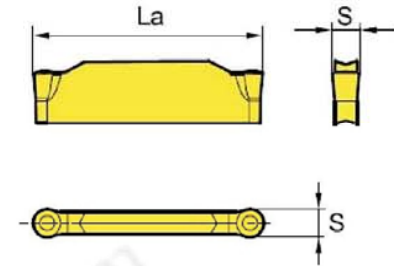
Inserts shape	Type	Size			P		M		K			
		S <sub>0</sub> <sup>+0.1</sup>	R ± 0.1	L <sub>B</sub> MAX	BTG8302	BTG8202	BTG8205	BTG8302	BTG8215	BTG8205	BTG8302	BTG8205
	QTED02502-MG	2.5	0.2	17	▲	●				○		
	QTFD0303-MG	3	0.3	17	▲	●				○		
	QTGD0404-MG	4	0.4	22	▲	●				○		
	QTHD0504-MG	5	0.4	22	▲	●				○		
	QTKD0604-MG	6	0.4	22	▲	●				○		

Customization available

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Profile turning inserts

# QR □ □



Inserts shape	Type	Size			P		M		K				
		S <sub>0</sub> <sup>+0.1</sup>	R ± 0.1	L <sub>B</sub> MAX	BTG8302	BTG8202	BTG8205	BTG8302	BTG8215	BTG8205	BTG8302	BTG8205	
	QRED025-MG	2.5		17.5	▲	●				○			
	QRFD03-MG	3		17	▲	●				○			
	QRGD04-MG	4		21	▲	●				○			
	QRHD05-MG	5		20	▲	●				○			
	QRKD06-MG		6		19	○	○				○		

Customization available

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order




**16 E R 1.5 ISO**

① ② ③ ④ ⑤

**① 16 E R - 1.5 ISO**

**Insert Size**

L11: d=6.35mm  
 L16: d=9.525mm  
 L22: d=12.7mm  
 L27: d=15.875mm



**② 16 E R - 1.5 ISO**

**Type**

E: External Thread  
 N: Internal Thread

**④ 16 E R - 1.5 ISO**

**Pitch**

Full profile		Partial profile	
mm	TPI	mm	TPI
0.35-6.0	72-3	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
		Q 5.5-8.0	4.5-4

**③ 16 E R - 1.5 ISO**

**Hand of Insert**

R: Right-hand  
 L: Left-hand

**⑤ 16 E R - 1.5 ISO**

**Thread Standard**

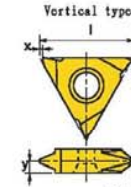
60° — 60° General pitch thread  
 55° — 55° General pitch thread  
 ISO — ISO Metric  
 UN — 60° American UN  
 UNJ — 60° Aviation thread  
 W — 55° whitworth for BSW BSP  
 NPT — 60° NPT  
 NPTF — 60° NPTF  
 BSPT — 55° British Standard PipeThread  
 ACME — 29° American ACME  
 STACME 29° American short tooth ACME  
 TR — 30° Trapezoid DIN 103  
 ABUT — American Buttress  
 TD — Round DIN 405  
 APIRD — API API Round thread

## Threading inserts

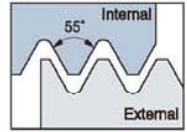
General pitch thread 55°



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER A55		0.5-1.5 48-16	11	0.8	0.9	✓	✓	✓	✓
16ER A55		0.5-1.5 48-16	16	0.8	0.9	✓	✓	✓	○
16ER AG55		0.5-3 48-8	16	1.2	1.7	✓	✓	✓	✓
16ER G55		1.75-3 14-8	16	1.2	1.7	✓	✓	✓	○
22ER N55		3.5-5 7-5	22	1.7	2.5	✓	✓	✓	✓
27ER Q55		5.5-6 4.5-5	27	2	2.9	○	○	○	○
	11EL A55	0.5-1.5 48-16	11	0.8	0.9	✓	✓	✓	○
	16EL A55	0.5-1.5 48-16	16	0.8	0.9				
	16EL AG55	0.5-3 48-8	16	1.2	1.7	✓	✓	✓	○
	16EL G55	1.75-3 14-8	16	1.2	1.7				
	22EL N55	3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
	27EL Q55	5.5-6 4.5-5	27	2	2.9				

## External Vertical

Order no		Pitch (mm/TPI)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
16V ER A55		0.5-1.5 48-16	16	1	0.9				
16V ER AG55		0.5-3 48-8	16	1	1.8	✓	✓	✓	
16V ER G55		1.75-3 14-8	16	1	1.8				
22V ER G55		1.75-3 14-8	22	1.2	1.7	✓	✓	✓	

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

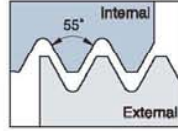
General pitch thread 55°



Internal



Right Hand Shown



External

Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
06NR A55		0.5-1.25 48-20	6	0.6	0.6	○	○	○	○
08NR A55		0.5-1.5 48-16	8	0.6	0.7	✓	✓	✓	○
11NR A55		0.5-1.5 48-16	11	0.8	0.9	✓	✓	✓	✓
16NR A55		0.5-1.5 48-16	16	0.8	0.9	✓	✓	✓	○
16NR AG55		0.5-3 48-8	16	1.2	1.7	✓	✓	✓	✓
16NR G55		1.75-3 14-8	16	1.2	1.7	✓	✓	✓	○
22NR N55		3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
27NR Q55		5.5-8 4.5-4	27	2	2.9	○	○	○	○
	06NL A55	0.5-1.25 48-20	6	0.6	0.6				
	08NL A55	0.5-1.5 48-16	8	0.6	0.7	○	✓	✓	○
	11NL A55	0.5-1.5 48-16	11	0.8	0.9	✓	✓	✓	○
	16NL A55	0.5-1.5 48-16	16	0.8	0.9				
	16NL AG55	0.5-3 48-8	16	1.2	1.7	✓	✓	✓	○
	16NL G55	1.75-3 14-8	16	1.2	1.7				
	22NL N55	3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
	27NL Q55	5.5-8 4.5-4	27	2	2.9				

BTG8201 BTG8202 BTS8202 BTN8101

	BTG8201	BTG8202	BTS8202	BTN8101
P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

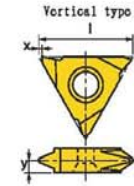
General pitch thread 60°



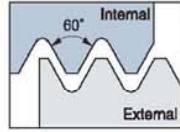
External



Right Hand Shown



Vertical type



60° Internal

External

Order no		Pitch (mm/TPI)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER A80		0.5-1.5 48-16	11	0.8	0.9	○	○	○	○
16ER A60		0.5-1.5 48-16	16	0.8	0.9	✓	✓	✓	✓
16ER AG60		0.5-3 48-8	16	1.2	1.7	✓	✓	✓	✓
16ER G60		1.75-3 14-8	16	1.2	1.7	✓	✓	✓	○
22ER N60		3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
27ER Q60		5.5-6 4.5-4	27	2.1	3.1	✓	✓	✓	○
	11EL A80	0.5-1.5 48-16	11	0.8	0.9				
	16EL A60	0.5-1.5 48-16	16	0.8	0.9	○	○	○	○
	16EL AG60	0.5-3 48-8	16	1.2	1.7	✓	✓	✓	○
	16EL G60	1.75-3 14-8	16	1.2	1.7				
	22EL N60	3.5-5 7-5	22	1.7	2.5	○	○	○	○
	27EL Q60	5.5-6 4.5-4	27	2.1	3.1				

## External Vertical

Order no		Pitch (mm/TPI)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
16V ER A60		0.5-1.5 48-16	16	1	0.9	✓	✓	○	○
16V ER AG60		0.5-3 48-8	16	1	1.8	✓	✓	○	○
16V ER G60		1.75-3 14-8	16	1	1.8	✓	✓	○	○
22V ER G60		1.75-3 14-8	22	1.2	1.7	✓	✓	○	○
22V ER N60		3.5-5 7-5	22	1.2	2.5	✓	✓	○	○

BTG8201 BTG8202 BTS8202 BTN8101

	BTG8201	BTG8202	BTS8202	BTN8101
P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice



## Threading inserts

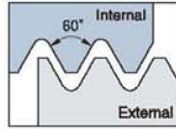
General pitch thread 60°



External



Right Hand Shown



External

Order no		Pitch (mm/TPI)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
06NR A60		0.5-1.25 48-20	6	0.6	0.6	○	○	○	○
08NR A60		0.5-1.5 48-16	8	0.6	0.7	○	✓	✓	○
11NR A60		0.5-1.5 48-16	11	0.8	0.9	✓	✓	✓	✓
16NR A60		0.5-1.5 48-16	16	0.8	0.9	✓	✓	✓	○
16NR AG60		0.5-3 48-8	16	1.2	1.7	✓	✓	✓	✓
16NR G60		1.75-3 14-8	16	1.2	1.7	✓	✓	✓	
22NR N60		3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
27NR Q60		5.5-6 4.5-4	27	2.1	3.1	✓	✓	✓	
	06NL A60	0.5-1.25 48-20	6	0.6	0.6				
	08NL A60	0.5-1.5 48-16	8	0.6	0.7				
	11NL A60	0.5-1.5 48-16	11	0.8	0.9	○	○	○	○
	16NL A60	0.5-1.5 48-16	16	0.8	0.9				
	16NL AG60	0.5-3 48-8	16	1.2	1.7	○	○	○	○
	16NL G60	1.75-3 14-6	16	1.2	1.7				
	22NL N60	3.5-5 7-5	22	1.7	2.5	✓	✓	✓	○
	27NL Q60	5.5-6 4.5-4	27	2.1	3.1				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

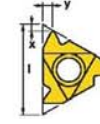
✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😞 Second choice

## Threading inserts

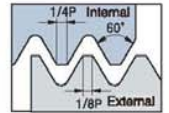
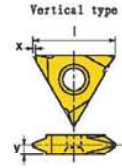
ISO metric



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER 0.35ISO		0.35	11	0.8	0.3	○	○	○	○
11ER 0.4ISO		0.4	11	0.8	0.4	○	○	○	○
11ER 0.45ISO		0.45	11	0.8	0.4	○	○	○	○
11ER 0.5ISO		0.5	11	0.6	0.4	○	○	○	○
11ER 0.6ISO		0.6	11	0.6	0.6	○	○	○	○
11ER 0.7ISO		0.7	11	0.6	0.6	○	○	○	○
11ER 0.75ISO		0.75	11	0.6	0.6	○	○	○	○
11ER 0.8ISO		0.8	11	0.6	0.6	○	○	○	○
11ER 1.0ISO		1	11	0.6	0.7	○	○	○	○
11ER 1.25ISO		1.25	11	0.8	0.9	○	○	○	○
11ER 1.5ISO		1.5	11	0.8	1	○	○	○	○
11ER 1.75ISO		1.75	11	0.9	1.1	○	○	○	○
16ER 0.35ISO		0.35	16	0.8	0.3	○	○	○	○
16ER 0.4ISO		0.4	16	0.8	0.4	○	○	○	○
16ER 0.45ISO		0.45	16	0.8	0.4	○	○	○	○
16ER 0.5ISO		0.5	16	0.6	0.4	✓	✓	✓	✓
16ER 0.6ISO		0.6	16	0.6	0.6	○	○	○	○
16ER 0.7ISO		0.7	16	0.6	0.6	○	○	○	○
16ER 0.75ISO		0.75	16	0.6	0.6	✓	✓	✓	✓
16ER 0.8ISO		0.8	16	0.6	0.6	○	○	○	○
16ER 1.0ISO		1	16	0.6	0.7	✓	✓	✓	✓
16ER 1.25ISO		1.25	16	0.8	0.9	✓	✓	✓	✓
16ER 1.5ISO		1.5	16	0.8	1	✓	✓	✓	✓
16ER 1.75ISO		1.75	16	0.9	1.2	✓	✓	✓	✓
16ER 2.0ISO		2	16	1	1.3	✓	✓	✓	✓
16ER 2.5ISO		2.5	16	1.1	1.5	✓	✓	✓	✓
16ER 3.0ISO		3	16	1.2	1.6	✓	✓	✓	✓
22ER 3.5ISO		3.5	22	1.6	2.3	✓	✓	✓	○
22ER 4.0ISO		4	22	1.6	2.3	✓	✓	✓	○
22ER 4.5ISO		4.5	22	1.6	2.4	✓	✓	✓	○
22ER 5.0ISO		5	22	1.6	2.3	✓	✓	✓	○
27ER 5.5ISO		5.5	27	1.6	2.3	✓	✓	✓	○
27ER 6.0ISO		6	27	1.8	2.5	✓	✓	✓	○
	11EL 0.35ISO	0.35	11	0.8	0.3				
	11EL 0.4ISO	0.4	11	0.8	0.4				
	11EL 0.45ISO	0.45	11	0.8	0.4				
	11EL 0.5ISO	0.5	11	0.6	0.4				
	11EL 0.6ISO	0.6	11	0.6	0.6				
	11EL 0.7ISO	0.7	11	0.6	0.6				
	11EL 0.75ISO	0.75	11	0.6	0.6				
	11EL 0.8ISO	0.8	11	0.6	0.6				
	11EL 1.0ISO	1	11	0.6	0.7				
	11EL 1.25ISO	1.25	11	0.8	0.9				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😞 Second choice

## Threading inserts

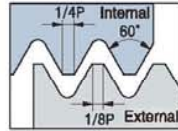
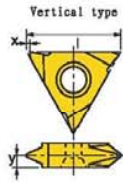
ISO metric



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	11EL 1.5ISO	1.5	11	0.8	1	○	○	○	○
	11EL 1.75ISO	1.75	11	0.9	1.1	○	○	○	○
	16EL 0.35ISO	0.35	16	0.8	0.3				
	16EL 0.4ISO	0.4	16	0.8	0.4				
	16EL 0.45ISO	0.45	16	0.8	0.4				
	16EL 0.5ISO	0.5	16	0.6	0.4	○	○	○	○
	16EL 0.6ISO	0.6	16	0.6	0.6				
	16EL 0.7ISO	0.7	16	0.6	0.6				
	16EL 0.75ISO	0.75	16	0.6	0.6	○	○	○	○
	16EL 0.8ISO	0.8	16	0.6	0.6				
	16EL 1.0ISO	1	16	0.6	0.7	○	○	○	○
	16EL 1.25ISO	1.25	16	0.8	0.9	○	○	○	○
	16EL 1.5ISO	1.5	16	0.8	1	○	○	○	○
	16EL 1.75ISO	1.75	16	0.9	1.2	○	○	○	○
	16EL 2.0ISO	2	16	1	1.3	○	○	○	○
	16EL 2.5ISO	2.5	16	1.1	1.5	○	○	○	○
	16EL 3.0ISO	3	16	1.2	1.6	○	○	○	○
	22EL 3.5ISO	3.5	22	1.6	2.3	○	○	○	○
	22EL 4.0ISO	4	22	1.6	2.3	○	○	○	○
	22EL 4.5ISO	4.5	22	1.6	2.4	○	○	○	○
	22EL 5.0ISO	5	22	1.6	2.3	○	○	○	○
	27EL 5.5ISO	5.5	27	1.6	2.3	○	○	○	○
	27EL 6.0ISO	6	27	1.8	2.5	○	○	○	○

### External Vertical

Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	16V ER 1.0ISO	1	16	1	0.7	✓	✓	✓	
	16V ER 1.25ISO	1.25	16	1	0.9	✓	✓	✓	
	16V ER 1.5ISO	1.5	16	1	0.9	✓	✓	✓	
	16V ER 1.75ISO	1.75	16	1	1.2	✓	✓	✓	
	16V ER 2.0ISO	2	16	1	1.3	✓	✓	✓	
	16V ER 2.5ISO	2.5	16	1	1.5	✓	✓	✓	

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

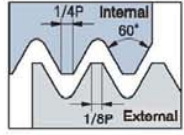
ISO metric



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	06NR 0.5ISO	0.5	6	0.9	0.5	○	○	○	○
	06NR 0.75ISO	0.75	6	0.8	0.5	○	○	○	○
	06NR 1.0ISO	1	6	0.7	0.6				
	06NR 1.25ISO	1.25	6	0.6	0.6				
	08NR 0.5ISO	0.5	8	0.6	0.5	○	○	○	○
	08NR 0.75ISO	0.75	8	0.6	0.5	○	○	○	○
	08NR 1.0ISO	1	8	0.6	0.6	○	○	○	○
	08NR 1.25ISO	1.25	8	0.6	0.7	○	○	○	○
	08NR 1.5ISO	1.5	8	0.6	0.7	○	○	○	○
	08NR 1.75ISO	1.75	8	0.6	0.8				
	11NR 0.35ISO	0.35	11	0.8	0.3	○	○	○	○
	11NR 0.4ISO	0.4	11	0.6	0.4	○	○	○	○
	11NR 0.45ISO	0.45	11	0.8	0.4	○	○	○	○
	11NR 0.5ISO	0.5	11	0.6	0.4	✓	✓	✓	✓
	11NR 0.6ISO	0.6	11	0.6	0.6	○	○	○	○
	11NR 0.7ISO	0.7	11	0.6	0.6	○	○	○	○
	11NR 0.75ISO	0.75	11	0.6	0.6	✓	✓	✓	✓
	11NR 0.8ISO	0.8	11	0.6	0.6	○	○	○	○
	11NR 1.0ISO	1	11	0.6	0.7	✓	✓	✓	✓
	11NR 1.25ISO	1.25	11	0.8	0.9	✓	✓	✓	✓
	11NR 1.5ISO	1.5	11	0.8	1	✓	✓	✓	✓
	11NR 1.75ISO	1.75	11	0.9	1.1	✓	✓	✓	✓
	11NR 2.0ISO	2	11	0.9	1.1	✓	✓	✓	✓
	11NR 2.5ISO	2.5	11	0.8	1.1				
	16NR 0.35ISO	0.35	16	0.8	0.3	○	○	○	○
	16NR 0.4ISO	0.4	16	0.8	0.4	○	○	○	○
	16NR 0.45ISO	0.45	16	0.8	0.4	○	○	○	○
	16NR 0.5ISO	0.5	16	0.6	0.4	✓	✓	✓	✓
	16NR 0.6ISO	0.6	16	0.6	0.6	○	○	○	○
	16NR 0.7ISO	0.7	16	0.6	0.6	○	○	○	○
	16NR 0.75ISO	0.75	16	0.6	0.6	✓	✓	✓	✓
	16NR 0.8ISO	0.8	16	0.6	0.6	○	○	○	○
	16NR 1.0ISO	1	16	0.6	0.7	✓	✓	✓	✓
	16NR 1.25ISO	1.25	16	0.8	0.9	✓	✓	✓	✓
	16NR 1.5ISO	1.5	16	0.8	1	✓	✓	✓	✓
	16NR 1.75ISO	1.75	16	0.9	1.2	✓	✓	✓	✓
	16NR 2.0ISO	2	16	1	1.3	✓	✓	✓	✓
	16NR 2.5ISO	2.5	16	1.1	1.5	✓	✓	✓	✓
	16NR 3.0ISO	3	16	1.2	1.6	✓	✓	✓	✓
	22NR 3.5ISO	3.5	22	1.6	2.3	✓	✓	✓	○
	22NR 4.0ISO	4	22	1.6	2.3	✓	✓	✓	○
	22NR 4.5ISO	4.5	22	1.6	2.4	✓	✓	✓	○
	22NR 5.0ISO	5	22	1.6	2.3	✓	✓	✓	○

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊	😊
M	😊	😊	😊	😊
K	😊	😊	😊	😊
N	😊	😊	😊	😊
S	😊	😊	😊	😊
H	😊	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice



## Threading inserts

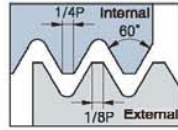
ISO metric



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
22NR 5.5ISO		5.5	22	1.6	2.3	✓	✓	✓	○
22NR 6.0ISO		6	22	1.8	2.5				
	06NL 0.5ISO	0.5	6	0.9	0.5				
	06NL 0.75ISO	0.75	6	0.8	0.5				
	06NL 1.0ISO	1	6	0.7	0.6				
	06NL 1.25ISO	1.25	6	0.6	0.6				
	08NL 0.5ISO	0.5	8	0.6	0.5				
	08NL 0.75ISO	0.75	8	0.6	0.5				
	08NL 1.0ISO	1	8	0.6	0.6				
	08NL 1.25ISO	1.25	8	0.6	0.7				
	08NL 1.5ISO	1.5	8	0.6	0.7				
	08NL 1.75ISO	1.75	8	0.6	0.8				
	11NL 0.35ISO	0.35	11	0.8	0.3				
	11NL 0.4ISO	0.4	11	0.8	0.4				
	11NL 0.45ISO	0.45	11	0.8	0.4				
	11NL 0.5ISO	0.5	11	0.6	0.4				
	11NL 0.6ISO	0.6	11	0.6	0.6				
	11NL 0.7ISO	0.7	11	0.6	0.6				
	11NL 0.75ISO	0.75	11	0.6	0.6				
	11NL 0.8ISO	0.8	11	0.6	0.6				
	11NL 1.0ISO	1	11	0.6	0.7				
	11NL 1.25ISO	1.25	11	0.8	0.9				
	11NL 1.5ISO	1.5	11	0.8	1				
	11NL 1.75ISO	1.75	11	0.9	1.1				
	11NL 2.0ISO	2	11	0.9	1.1				
	11NL 2.5ISO	2.5	11	0.8	1.1				
	16NL 0.35ISO	0.35	16	0.8	0.3				
	16NL 0.4ISO	0.4	16	0.8	0.4				
	16NL 0.45ISO	0.45	16	0.8	0.4				
	16NL 0.5ISO	0.5	16	0.6	0.4	○	○	○	○
	16NL 0.6ISO	0.6	16	0.6	0.6				
	16NL 0.7ISO	0.7	16	0.6	0.6				
	16NL 0.75ISO	0.75	16	0.6	0.6	○	○	○	○
	16NL 0.8ISO	0.8	16	0.6	0.6				
	16NL 1.0ISO	1	16	0.6	0.7	○	○	○	○
	16NL 1.25ISO	1.25	16	0.8	0.9	✓	✓	✓	○
	16NL 1.5ISO	1.5	16	0.8	1	✓	✓	✓	○
	16NL 1.75ISO	1.75	16	0.9	1.2	✓	✓	✓	○
	16NL 2.0ISO	2	16	1	1.3	✓	✓	✓	○
	16NL 2.5ISO	2.5	16	1.1	1.5	✓	✓	✓	○
	16NL 3.0ISO	3	16	1.2	1.6	✓	✓	✓	○
	22NL 3.5ISO	3.5	22	1.6	2.3	○	○	○	○
	22NL 4.0ISO	4	22	1.6	2.3	○	○	○	○

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

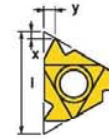
✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

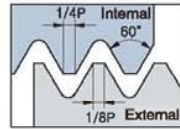
ISO metric



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	22NL 4.5ISO	4.5	22	1.6	2.4	○	○	○	○
	22NL 5.0ISO	5	22	1.6	2.3	○	○	○	○
	22NL 5.5ISO	5.5	22	1.6	2.3	○	○	○	○
	22NL 6.0ISO	6	22	1.8	2.5	○	○	○	○

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

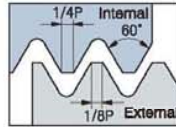
UN / UNC UNF UNEF UNS



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER 72UN		72	11	0.8	0.3				
11ER 64UN		64	11	0.8	0.4				
11ER 56UN		56	11	0.8	0.4				
11ER 48UN		48	11	0.6	0.4				
11ER 44UN		44	11	0.6	0.6				
11ER 40UN		40	11	0.6	0.6	○	○	○	○
11ER 36UN		36	11	0.6	0.6	○	○	○	○
11ER 32UN		32	11	0.6	0.6	○	○	○	○
11ER 28UN		28	11	0.6	0.7	○	○	○	○
11ER 27UN		27	11	0.8	0.9	○	○	○	○
11ER 24UN		24	11	0.8	1	✓	✓	✓	○
11ER 20UN		20	11	0.9	1.1	✓	✓	✓	○
11ER 18UN		28	11	0.8	0.3	✓	✓	✓	○
11ER 16UN		16	11	0.8	0.4	✓	✓	✓	○
11ER 14UN		14	11	0.8	0.4	✓	✓	✓	○
16ER 72UN		72	16	0.6	0.4				
16ER 64UN		64	16	0.6	0.6				
16ER 56UN		56	16	0.6	0.6				
16ER 48UN		48	16	0.6	0.6				
16ER 44UN		44	16	0.6	0.6				
16ER 40UN		40	16	0.6	0.7				
16ER 36UN		36	16	0.8	0.9				
16ER 32UN		32	16	0.8	1	○	○	○	○
16ER 28UN		28	16	0.9	1.2	✓	✓	✓	○
16ER 27UN		27	16	1	1.3	✓	✓	✓	○
16ER 24UN		24	16	1.1	1.5	✓	✓	✓	○
16ER 20UN		20	16	1.2	1.6	✓	✓	✓	○
16ER 18UN		28	16	1.6	2.3	✓	✓	✓	○
16ER 16UN		16	16	1.6	2.3	✓	✓	✓	○
16ER 14UN		14	16	1.6	2.4	✓	✓	✓	○
16ER 13UN		13	16	1.6	2.3	○	○	○	○
16ER 12UN		12	16	1.6	2.3	✓	✓	✓	○
16ER 11.5UN		11.5	16	1.8	2.5	○	○	○	○
16ER 11UN		11	16	0.8	0.3	✓	✓	✓	○
16ER 10UN		10	16	0.8	0.4	✓	✓	✓	✓
16ER 9UN		9	16	0.8	0.4	✓	✓	✓	○
16ER 8UN		8	16	0.6	0.4	✓	✓	✓	✓
22ER 7UN		7	22	0.6	0.6	✓	✓	✓	○
22ER 6UN		6	22	0.6	0.6	✓	✓	✓	○
22ER 5UN		5	22	0.6	0.6	✓	✓	✓	○
27ER 4.5UN		4.5	27	0.6	0.6	✓	✓	✓	○
27ER 4UN		4	27	0.6	0.7	✓	✓	✓	○
	11EL 72UN	72	11	0.8	0.9				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

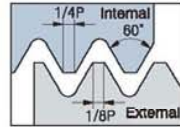
UN / UNC UNF UNEF UNS



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	11EL 64UN	64	11						
	11EL 56UN	56	11	0.8	0.3				
	11EL 48UN	48	11	0.8	0.4				
	11EL 44UN	44	11	0.8	0.4				
	11EL 40UN	40	11	0.6	0.4				
	11EL 38UN	38	11	0.6	0.6				
	11EL 32UN	32	11	0.6	0.6				
	11EL 28UN	28	11	0.6	0.6				
	11EL 27UN	27	11	0.6	0.6				
	11EL 24UN	24	11	0.6	0.7				
	11EL 20UN	20	11	0.8	0.9				
	11EL 18UN	28	11	0.8	1				
	11EL 16UN	16	11	0.9	1.2				
	11EL 14UN	14	11	1	1.3				
	16EL 72UN	72	16	1.1	1.5				
	16EL 64UN	64	16	1.2	1.6				
	16EL 56UN	56	16	1.6	2.3				
	16EL 48UN	48	16	1.6	2.3				
	16EL 44UN	44	16	1.6	2.4				
	16EL 40UN	40	16	1.6	2.3				
	16EL 36UN	36	16	1.6	2.3				
	16EL 32UN	32	16	1.8	2.5				
	16EL 28UN	28	16	0.9	1.2				
	16EL 27UN	27	16	1	1.3				
	16EL 24UN	24	16	1.1	1.5	○	○	○	
	16EL 20UN	20	16	1.2	1.6	○	○	○	
	16EL 18UN	28	16	1.6	2.3	○	○	○	
	16EL 16UN	16	16	1.6	2.3	○	○	○	
	16EL 14UN	14	16	1.6	2.4	○	○	○	
	16EL 13UN	13	16	1.6	2.3	○	○	○	
	16EL 12UN	12	16	1.6	2.3	○	○	○	
	16EL 11.5UN	11.5	16	1.8	2.5	○	○	○	
	16EL 11UN	11	16	0.8	0.3	○	○	○	
	16EL 10UN	10	16	0.8	0.4	○	○	○	
	16EL 9UN	9	16	0.8	0.4	○	○	○	
	16EL 8UN	8	16	0.6	0.4	○	○	○	
	22EL 7UN	7	22	0.6	0.6	○	○	○	
	22EL 6UN	6	22	0.6	0.6	○	○	○	
	22EL 5UN	5	22	0.6	0.6	○	○	○	
	27EL 4.5UN	4.5	27	0.6	0.6	○	○	○	
	27EL 4UN	4	27	0.6	0.7	○	○	○	

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

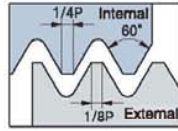
UN / UNC UNF UNEF UNS



Internal



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
06NR 32UN		32	6	0.9	0.5				
06NR 28UN		28	6	0.8	0.5				
06NR 24UN		24	6	0.7	0.6				
06NR 20UN		20	6	0.6	0.6				
06NR 18UN		18	8	0.6	0.5				
08NR 32UN		32	8	0.8	0.5	○	✓	✓	○
08NR 28UN		28	8	0.6	0.6	○	✓	✓	○
08NR 24UN		24	8	0.6	0.7	○	✓	✓	○
08NR 20UN		20	8	0.6	0.7	○	✓	✓	○
08NR 18UN		18	8	0.6	0.8	○	✓	✓	○
08NR 16UN		16	11	0.8	0.3	○	✓	✓	○
08NR 14UN		14	11	0.8	0.4	○	✓	✓	○
11NR 72UN		72	11	0.8	0.4	○	○	○	○
11NR 64UN		64	11	0.6	0.4	○	○	○	○
11NR 56UN		56	11	0.6	0.6	○	○	○	○
11NR 48UN		48	11	0.6	0.6	○	○	○	○
11NR 44UN		44	11	0.6	0.6	○	○	○	○
11NR 40UN		40	11	0.6	0.6	○	○	○	○
11NR 36UN		36	11	0.6	0.7	✓	✓	✓	✓
11NR 32UN		32	11	0.8	0.9	✓	✓	✓	✓
11NR 28UN		28	11	0.8	1	✓	✓	✓	✓
11NR 27UN		27	11	0.9	1.1	○	○	○	○
11NR 24UN		24	11	0.9	1.1	✓	✓	✓	✓
11NR 20UN		20	11	0.8	1.1	✓	✓	✓	✓
11NR 18UN		18	16	0.8	0.3	✓	✓	✓	✓
11NR 16UN		16	16	0.8	0.4	✓	✓	✓	✓
11NR 14UN		14	16	0.8	0.4	✓	✓	✓	✓
11NR 12UN		12	11	0.8	1.1	✓	✓	✓	✓
11NR 11UN		11	11	0.8	1.1	○	○	○	○
16NR 72UN		72	16	0.8	0.4				
16NR 64UN		64	16	0.7	0.4				
16NR 56UN		56	16	0.6	0.6				
16NR 48UN		48	16	0.6	0.6				
16NR 44UN		44	16	0.6	0.6				
16NR 40UN		40	16	0.6	0.6	○	○	○	○
16NR 36UN		36	16	0.6	0.6	○	○	○	○
16NR 32UN		32	16	0.6	0.6	✓	✓	✓	✓
16NR 28UN		28	16	0.6	0.7	✓	✓	✓	✓
16NR 27UN		27	16	0.7	0.8	○	○	○	○
16NR 24UN		24	16	0.7	0.8	✓	✓	✓	✓
16NR 20UN		20	16	0.8	0.9	✓	✓	✓	✓
16NR 18UN		18	16	0.8	1	✓	✓	✓	✓
16NR 16UN		16	16	0.9	1.1	✓	✓	✓	✓

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

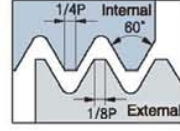
UN / UNC UNF UNEF UNS



Internal



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
16NR 14UN		14	16	1	1.2	✓	✓	✓	✓
16NR 13UN		13	16	1	1.3	✓	✓	✓	✓
16NR 12UN		12	16	1.1	1.4	✓	✓	✓	✓
16NR 11.5UN		11.5	16	1.1	1.5	✓	✓	✓	✓
16NR 11UN		11	16	1.1	1.5	✓	✓	✓	✓
16NR 10UN		10	16	1.1	1.5	✓	✓	✓	✓
16NR 9UN		9	16	1.2	1.7	✓	✓	✓	✓
16NR 8UN		8	16	1.2	1.5	✓	✓	✓	✓
22NR 7UN		7	22	1.6	2.3	✓	✓	✓	✓
22NR 6UN		6	22	1.6	2.3	✓	✓	✓	✓
22NR 5UN		5	22	1.6	2.3	✓	✓	✓	✓
27NR 4.5UN		4.5	27	1.9	2.4	✓	✓	✓	✓
27NR 4UN		4	27	2.1	2.7	✓	✓	✓	✓
	06NL 32UN	32	6	0.9	0.5	✓	✓	✓	✓
	06NL 28UN	28	6	0.8	0.5	✓	✓	✓	✓
	06NL 24UN	24	6	0.7	0.6	✓	✓	✓	✓
	06NL 20UN	20	6	0.6	0.6	✓	✓	✓	✓
	06NL 18UN	18	8	0.6	0.5	✓	✓	✓	✓
	06NL 32UN	32	8	0.6	0.5	✓	✓	✓	✓
	06NL 28UN	28	8	0.6	0.6	✓	✓	✓	✓
	06NL 24UN	24	8	0.6	0.7	✓	✓	✓	✓
	06NL 20UN	20	8	0.6	0.7	✓	✓	✓	✓
	06NL 18UN	18	8	0.6	0.8	✓	✓	✓	✓
	06NL 16UN	16	11	0.8	0.3	✓	✓	✓	✓
	06NL 14UN	14	11	0.8	0.4	✓	✓	✓	✓
	11NL 72UN	72	11	0.8	0.4	✓	✓	✓	✓
	11NL 64UN	64	11	0.6	0.4	✓	✓	✓	✓
	11NL 56UN	56	11	0.6	0.6	✓	✓	✓	✓
	11NL 48UN	48	11	0.6	0.6	✓	✓	✓	✓
	11NL 44UN	44	11	0.6	0.6	✓	✓	✓	✓
	11NL 40UN	40	11	0.6	0.6	✓	✓	✓	✓
	11NL 36UN	36	11	0.6	0.7	✓	✓	✓	✓
	11NL 32UN	32	11	0.8	0.9	✓	✓	✓	✓
	11NL 28UN	28	11	0.8	1	✓	✓	✓	✓
	11NL 27UN	27	11	0.9	1.1	✓	✓	✓	✓
	11NL 24UN	24	11	0.9	1.1	✓	✓	✓	✓
	11NL 20UN	20	11	0.8	1.1	✓	✓	✓	✓
	11NL 18UN	18	16	0.8	0.3	✓	✓	✓	✓
	11NL 16UN	16	16	0.8	0.4	✓	✓	✓	✓
	11NL 14UN	14	16	0.8	0.4	✓	✓	✓	✓
	11NL 12UN	12	11	0.8	1.1	✓	✓	✓	✓
	11NL 11UN	11	11	0.8	1.1	✓	✓	✓	✓
	16NL 72UN	72	16	0.8	0.4	✓	✓	✓	✓

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

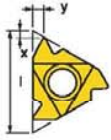


## Threading inserts

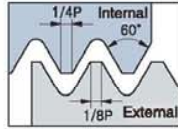
UN / UNC UNF UNEF UNS



Internal



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	16NL 64UN	64	16	0.7	0.4	✓	✓	✓	✓
	16NL 56UN	56	16	0.6	0.6	✓	✓	✓	✓
	16NL 48UN	48	16	0.6	0.6	✓	✓	✓	✓
	16NL 44UN	44	16	0.6	0.6	✓	✓	✓	✓
	16NL 40UN	40	16	0.6	0.6	✓	✓	✓	✓
	16NL 36UN	36	16	0.6	0.6	✓	✓	✓	✓
	16NL 32UN	32	16	0.6	0.6	✓	✓	✓	✓
	16NL 28UN	28	16	0.6	0.7	✓	✓	✓	✓
	16NL 27UN	27	16	0.7	0.8	✓	✓	✓	✓
	16NL 24UN	24	16	0.7	0.8	✓	✓	✓	✓
	16NL 20UN	20	16	0.8	0.9	✓	✓	✓	✓
	16NL 18UN	18	16	0.8	1	✓	✓	✓	✓
	16NL 16UN	16	16	0.9	1.1	✓	✓	✓	✓
	16NL 14UN	14	16	1	1.2	✓	✓	✓	✓
	16NL 13UN	13	16	1	1.3	✓	✓	✓	✓
	16NL 12UN	12	16	1.1	1.4	✓	✓	✓	✓
	16NL 11.5UN	11.5	16	1.1	1.5	✓	✓	✓	✓
	16NL 11UN	11	16	1.1	1.5	✓	✓	✓	✓
	16NL 10UN	10	16	1.1	1.5	✓	✓	✓	✓
	16NL 9UN	9	16	1.2	1.7	✓	✓	✓	✓
	16NL 8UN	8	16	1.2	1.5	✓	✓	✓	✓
	22NL 7UN	7	22	1.6	2.3	✓	✓	✓	✓
	22NL 6UN	6	22	1.6	2.3	✓	✓	✓	✓
	22NL 5UN	5	22	1.6	2.3	✓	✓	✓	✓
	27NL 4.5UN	4.5	27	1.9	2.4	✓	✓	✓	✓
	27NL 4UN	4	27	2.1	2.7	✓	✓	✓	✓

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

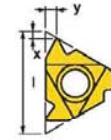
✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

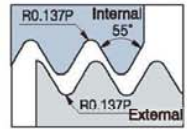
Whitworth 55° / BSW BSF BSP BSB



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER 72W		72	11	0.7	0.4				
11ER 60W		60	11	0.7	0.4				
11ER 56W		56	11	0.7	0.4				
11ER 48W		48	11	0.6	0.6				
11ER 40W		40	11	0.6	0.6	○	○	○	○
11ER 36W		36	11	0.6	0.6	○	○	○	○
11ER 32W		32	11	0.6	0.6	○	○	○	○
11ER 28W		28	11	0.6	0.7	○	○	○	○
11ER 26W		26	11	0.7	0.7	○	○	○	○
11ER 24W		24	11	0.7	0.8	○	○	○	○
11ER 22W		22	11	0.8	0.9	○	○	○	○
11ER 20W		20	11	0.8	0.9	○	○	○	○
11ER 19W		19	11	0.8	1	○	○	○	○
11ER 18W		18	11	0.8	1	○	○	○	○
11ER 16W		16	11	0.9	1.1	○	○	○	○
11ER 14W		14	11	0.9	1.1	○	○	○	○
16ER 72W		72	16	0.7	0.4				
16ER 60W		60	16	0.7	0.4				
16ER 56W		56	16	0.7	0.4				
16ER 48W		48	16	0.6	0.6				
16ER 40W		40	16	0.6	0.6				
16ER 36W		36	16	0.6	0.6				
16ER 32W		32	16	0.6	0.6	○	○	○	○
16ER 28W		28	16	0.6	0.7	○	○	○	○
16ER 26W		26	16	0.7	0.7	○	○	○	○
16ER 24W		24	16	0.8	0.9	○	○	○	○
16ER 22W		22	16	0.8	0.9	○	○	○	○
16ER 20W		20	16	0.8	1	○	○	○	○
16ER 19W		19	16	0.8	1	✓	✓	✓	✓
16ER 18W		18	16	0.9	1.1	✓	✓	✓	✓
16ER 16W		16	16	1	1.2	✓	✓	✓	✓
16ER 14W		14	16	1.1	1.4	✓	✓	✓	✓
16ER 12W		12	16	1.1	1.5	✓	✓	✓	✓
16ER 11W		11	16	1.1	1.5	✓	✓	✓	✓
16ER 10W		10	16	1.2	1.7	✓	✓	✓	✓
16ER 9W		9	16	1.2	1.7	✓	✓	✓	✓
16ER 8W		8	16	1.2	1.5	✓	✓	✓	✓
22ER 7W		7	22	1.6	2.3	✓	✓	✓	✓
22ER 6W		6	22	1.6	2.3	✓	✓	✓	✓
22ER 5W		5	22	1.7	2.4	✓	✓	✓	✓
27ER 4.5W		4.5	27	1.8	2.6	○	○	○	○
27ER 4W		4	27	2	2.9	○	○	○	○
	11EL 72W	72	11	0.7	0.4	○	○	○	○

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

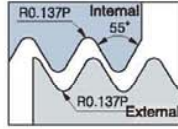
Whitworth 55° / BSW BSF BSP BSB



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	11EL 60W	60	11	0.7	0.4	○	○	○	○
	11EL 58W	58	11	0.7	0.4	○	○	○	○
	11EL 48W	48	11	0.6	0.6	○	○	○	○
	11EL 40W	40	11	0.6	0.6	○	○	○	○
	11EL 36W	36	11	0.6	0.6	○	○	○	○
	11EL 32W	32	11	0.6	0.6	○	○	○	○
	11EL 28W	28	11	0.6	0.7	○	○	○	○
	11EL 28W	26	11	0.7	0.7	○	○	○	○
	11EL 24W	24	11	0.7	0.8	○	○	○	○
	11EL 22W	22	11	0.8	0.9	○	○	○	○
	11EL 20W	20	11	0.8	0.9	○	○	○	○
	11EL 19W	19	11	0.8	1	○	○	○	○
	11EL 18W	18	11	0.8	1	○	○	○	○
	11EL 16W	16	11	0.9	1.1	○	○	○	○
	11EL 14W	14	11	0.9	1.1	○	○	○	○
	16EL 72W	72	16	0.7	0.4				
	16EL 60W	60	16	0.7	0.4				
	16EL 58W	58	16	0.7	0.4				
	16EL 48W	48	16	0.6	0.6				
	16EL 40W	40	16	0.6	0.6				
	16EL 36W	36	16	0.6	0.6				
	16EL 32W	32	16	0.6	0.6				
	16EL 28W	28	16	0.6	0.7				
	16EL 26W	26	16	0.7	0.7				
	16EL 24W	24	16	0.8	0.9				
	16EL 22W	22	16	0.8	0.9				
	16EL 20W	20	16	0.8	1				
	16EL 19W	19	16	0.8	1	○	○	○	○
	16EL 18W	18	16	0.9	1.1	○	○	○	○
	16EL 16W	16	16	1	1.2	○	○	○	○
	16EL 14W	14	16	1.1	1.4	○	○	○	○
	16EL 12W	12	16	1.1	1.5	○	○	○	○
	16EL 11W	11	16	1.1	1.5	○	○	○	○
	16EL 10W	10	16	1.2	1.7	○	○	○	○
	16EL 9W	9	16	1.2	1.7	○	○	○	○
	16EL 8W	8	16	1.2	1.5	○	○	○	○
	22EL 7W	7	22	1.6	2.3	○	○	○	○
	22EL 6W	6	22	1.6	2.3	○	○	○	○
	22EL 5W	5	22	1.7	2.4	○	○	○	○
	27EL 4.5W	4.5	27	1.8	2.6				
	27EL 4W	4	27	2	2.9				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

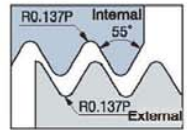
Whitworth 55° / BSW BSF BSP BSB



Internal



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	08NR 16W	16	8	0.8	0.9	○	○	○	○
	11NR 72W	72	11	0.7	0.4				
	11NR 60W	60	11	0.7	0.4				
	11NR 56W	56	11	0.7	0.4				
	11NR 48W	48	11	0.6	0.6				
	11NR 40W	40	11	0.6	0.6	✓	✓	✓	○
	11NR 36W	36	11	0.6	0.6	✓	✓	✓	○
	11NR 32W	32	11	0.6	0.6	✓	✓	✓	○
	11NR 28W	28	11	0.6	0.7	✓	✓	✓	○
	11NR 26W	26	11	0.7	0.7	✓	✓	✓	○
	11NR 24W	24	11	0.7	0.8	✓	✓	✓	○
	11NR 22W	22	11	0.8	0.9	✓	✓	✓	○
	11NR 20W	20	11	0.8	0.9	✓	✓	✓	○
	11NR 19W	19	11	0.8	1	✓	✓	✓	✓
	11NR 18W	18	11	0.8	1	✓	✓	✓	✓
	11NR 16W	16	11	0.9	1.1	✓	✓	✓	✓
	11NR 14W	14	11	0.9	1.1	✓	✓	✓	✓
	16NR 72W	72	16	0.7	0.4				
	16NR 60W	60	16	0.7	0.4				
	16NR 56W	56	16	0.7	0.4				
	16NR 48W	48	16	0.6	0.6				
	16NR 40W	40	16	0.6	0.6	○	○	○	○
	16NR 36W	36	16	0.6	0.6	○	○	○	○
	16NR 32W	32	16	0.6	0.6	○	○	○	○
	16NR 28W	28	16	0.6	0.7	✓	✓	✓	✓
	16NR 26W	26	16	0.7	0.7	✓	✓	✓	✓
	16NR 24W	24	16	0.8	0.9	✓	✓	✓	✓
	16NR 22W	22	16	0.8	0.9	○	○	○	○
	16NR 20W	20	16	0.8	1	✓	✓	✓	✓
	16NR 19W	19	16	0.8	1	✓	✓	✓	✓
	16NR 18W	18	16	0.9	1.1	○	○	○	○
	16NR 16W	16	16	1	1.2	✓	✓	✓	✓
	16NR 14W	14	16	1.1	1.4	✓	✓	✓	✓
	16NR 12W	12	16	1.1	1.5	✓	✓	✓	✓
		08NL 16W	16	8	0.8	0.9			
		11NL 72W	72	11	0.7	0.4			
		11NL 60W	60	11	0.7	0.4			
		11NL 56W	56	11	0.7	0.4			
		11NL 48W	48	11	0.6	0.6			
		11NL 40W	40	11	0.6	0.6			
		11NL 36W	36	11	0.6	0.6			
		11NL 32W	32	11	0.6	0.6			
		11NL 28W	28	11	0.6	0.7			

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

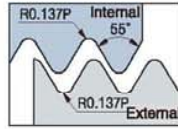
Whitworth 55° / BSW BSF BSP BSB



Internal



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
	11NL 26W	26	11	0.7	0.7				
	11NL 24W	24	11	0.7	0.8				
	11NL 22W	22	11	0.8	0.9				
	11NL 20W	20	11	0.8	0.9				
	11NL 19W	19	11	0.8	1	○	○	○	○
	11NL 18W	18	11	0.8	1	○	○	○	○
	11NL 16W	16	11	0.9	1.1	○	○	○	○
	11NL 14W	14	11	0.9	1.1	○	○	○	○
	16NL 72W	72	16	0.7	0.4				
	16NL 60W	60	16	0.7	0.4				
	16NL 56W	56	16	0.7	0.4				
	16NL 48W	48	16	0.6	0.6				
	16NL 40W	40	16	0.6	0.6				
	16NL 36W	36	16	0.6	0.6				
	16NL 32W	32	16	0.6	0.6				
	16NL 28W	28	16	0.6	0.7	○	○	○	○
	16NL 26W	26	16	0.7	0.7	○	○	○	○
	16NL 24W	24	16	0.8	0.9	○	○	○	○
	16NL 22W	22	16	0.8	0.9				
	16NL 20W	20	16	0.8	1				
	16NL 19W	19	16	0.8	1	○	○	○	○
	16NL 18W	18	16	0.9	1.1				
	16NL 16W	16	16	1	1.2	○	○	○	○
	16NL 14W	14	16	1.1	1.4	○	○	○	○
	16NL 12W	12	16	1.1	1.5				
	16NL 11W	11	16	1.1	1.5	○	○	○	○
	16NL 10W	10	16	1.2	1.7				
	16NL 9W	9	16	1.2	1.7	○	○	○	○
	16NL 8W	8	16	1.2	1.5	○	○	○	○
	22NL 7W	7	22	1.6	2.3				
	22NL 6W	6	22	1.6	2.3				
	22NL 5W	5	22	1.7	2.4				
	27NL 4.5W	4.5	27	1.8	2.6				
	27NL 4W	4	27	2	2.9				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

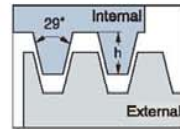
ACME



External



Right Hand Shown



Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER 16ACME		16	11	0.9	1	✓	✓	✓	○
16ER 16ACME		16	16	0.9	1	✓	✓	✓	○
16ER 14ACME		14	16	1	1.2	✓	✓	✓	○
16ER 12ACME		12	16	1.1	1.2	✓	✓	✓	○
16ER 10ACME		10	16	1.3	1.3	✓	✓	✓	○
16ER 8ACME		8	16	1.5	1.5	✓	✓	✓	○
16ER 6ACME		6	16	1.7	1.8	✓	✓	✓	○
22ER 6ACME		6	22	1.8	2.1	✓	✓	✓	○
22ER 5ACME		5	22	2	2.3	✓	✓	✓	○
27ER 4ACME		4	27	2.3	2.7	✓	✓	✓	○
	11EL 16ACME	16	11	0.9	1				
	16EL 16ACME	16	16	0.9	1				
	16EL 14ACME	14	16	1	1.2				
	16EL 12ACME	12	16	1.1	1.2				
	16EL 10ACME	10	16	1.3	1.3	○	○	○	○
	16EL 8ACME	8	16	1.5	1.5	○	○	○	○
	16EL 6ACME	6	16	1.7	1.8	○	○	○	○
	22EL 6ACME	6	22	1.8	2.1	○	○	○	○
	22EL 5ACME	5	22	2	2.3	○	○	○	○
	27EL 4ACME	4	27	2.3	2.7	○	○	○	○

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

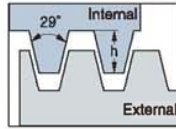


## Threading inserts

### ACME



Internal



Right Hand Shown

Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11NR 16ACME		16	11	0.9	1	✓	✓	✓	○
16NR 16ACME		16	16	0.9	1	✓	✓	✓	○
16NR 14ACME		14	16	1	1.2	✓	✓	✓	○
16NR 12ACME		12	16	1.1	1.2	✓	✓	✓	○
16NR 10ACME		10	16	1.3	1.3	✓	✓	✓	○
16NR 8ACME		8	16	1.5	1.5	✓	✓	✓	○
16NR 6ACME		6	16	1.7	1.8	✓	✓	✓	○
22NR 6ACME		6	22	1.8	2.1	✓	✓	✓	○
22NR 5ACME		5	22	2	2.3	✓	✓	✓	○
27NR 4ACME		4	27	2.3	2.7	✓	✓	✓	○
	11NL 16ACME	16	11	0.9	1				
	16NL 16ACME	16	16	0.9	1				
	16NL 14ACME	14	16	1	1.2				
	16NL 12ACME	12	16	1.1	1.2				
	16NL 10ACME	10	16	1.3	1.3	○	○	○	○
	16NL 8ACME	8	16	1.5	1.5	○	○	○	○
	16NL 6ACME	6	16	1.7	1.8	○	○	○	○
	22NL 6ACME	6	22	1.8	2.1	○	○	○	○
	22NL 5ACME	5	22	2	2.3	○	○	○	○
	27NL 4ACME	4	27	2.3	2.7				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

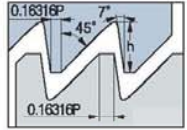
✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

## Threading inserts

### ABUT



External

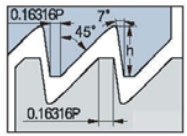


Right Hand Shown

Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11ER 20ABUT		20	11	1	1.3				
11ER 16ABUT		16	11	1	1.5				
16ER 20ABUT		20	11	1	1.3	✓	✓	✓	
16ER 16ABUT		16	11	1	1.5	✓	✓	✓	
16ER 12ABUT		12	11	1.4	2	✓	✓	✓	
16ER 10ABUT		10	11	1.5	2.3	✓	✓	✓	
22ER 8ABUT		8	11	2.1	3.3	✓	✓	✓	
22ER 6ABUT		6	11	2.1	3.1	✓	✓	✓	
	11EL 20ABUT	20	16	1	1.3				
	11EL 16ABUT	16	16	1	1.5				
	16EL 20ABUT	20	16	1	1.3				
	16EL 16ABUT	16	16	1	1.5				
	16EL 12ABUT	12	16	1.4	2				
	16EL 10ABUT	10	16	1.5	2.3				
	22EL 8ABUT	8	16	2.1	3.3				
	22EL 6ABUT	6	16	2.1	3.1				



Internal



Right Hand Shown

Order no		Pitch (mm)	Dimension (mm)			BTG8201	BTG8202	BTS8202	BTN8101
Right	Left		l	x	y				
11NR 20ABUT		20	11	1	1.3				
11NR 16ABUT		16	11	1	1.5				
16NR 20ABUT		20	11	1	1.3	✓	✓	✓	
16NR 16ABUT		16	11	1	1.5	✓	✓	✓	
16NR 12ABUT		12	11	1.4	2	✓	✓	✓	
16NR 10ABUT		10	11	1.5	2.3	✓	✓	✓	
22NR 8ABUT		8	11	2.1	3.3	✓	✓	✓	
22NR 6ABUT		6	11	2.1	3.1	✓	✓	✓	
	11NL 20ABUT	20	16	1	1.3				
	11NL 16ABUT	16	16	1	1.5				
	16NL 20ABUT	20	16	1	1.3				
	16NL 16ABUT	16	16	1	1.5				
	16NL 12ABUT	12	16	1.4	2				
	16NL 10ABUT	10	16	1.5	2.3				
	22NL 8ABUT	8	16	2.1	3.3				
	22NL 6ABUT	6	16	2.1	3.1				

BTG8201 BTG8202 BTS8202 BTN8101

P	😊	😊	😊
M	😊	😊	😊
K	😊	😊	😊
N	😊	😊	😊
S	😊	😊	😊
H	😊	😊	😊

✓ In stock ○ 3 weeks delivery Others according to order 😊 First choice 😊 Second choice

# Milling inserts code instruction

**1 Insert Shape / Code**

	Others	

Insert shape

**4 Metric**

Code	With/Without hole	With/Without chipbreaker	Section plane of Insert	Code	With/Without hole	With/Without chipbreaker	Section plane of Insert
B	With	Without		N	Without	Without	
H	With	Single-side		R	Without	Single-side	
C	With	Without		F	Without	Double-side	
J	With	Double-side		A	With	Without	
W	With	Without		M	With	Single-side	
T	With	Single-side		G	With	Double-side	
Q	With	Without		X	---	---	Special
U	With	Double-side					

Chipbreaker and clamping system

**5**

Diameter of IC	Insert shape						
	C	D	R	S	T	V	W
3.97					06		
5.0			05				
5.56					09		
6.0			06				
6.35	06	07			11	11	
8.0			08				
9.525	09	11	09	09	16	16	06
10.0			10				
12.0			12				
12.7	12	15	12	12	22	22	08
15.875	16		15	15	27		
16.0		19	16				
19.05	19		19	19	33		
20.0			20				
25.0	25	25	25				
25.4			26	26			
31.75			31				
32			32				

Length of cutting edge

**6**

Thickness is defined as height from bottom of insert to the highest part of cutting edge

Code	Insert thickness(mm)
00	0.79
T0	0.99
01	1.59
T1	1.98
02	2.38
T2	2.58
03	3.18
T3	3.97
04	4.76
T4	4.96
05	5.96
T5	5.95
06	6.35
T6	6.75
07	7.94
09	9.52
T9	9.72
11	11.11
12	12.70

Insert thickness

**S** **P** **K** **N** **12** **03** **ED** **R**

**2 Clearance angle of main cutting edge**

Code	Clearance angle	Code	Clearance angle
A		B	
C		D	
E		F	
G		N	
P		O	Other clearance angle

**3 Tolerance**

(Reference) details of M-class tolerance (identified by shape and size)

Code	Nose height M Tolerance(mm)	Inscribed circle ØD1 Tolerance(mm)	Thickness S Tolerance(mm)	Nose height tolerance(mm)						
				Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
A	±0.005	±0.025	±0.025	6.35	±0.08	±0.08	±0.08	±0.11	±0.16	---
F	±0.005	±0.013	±0.025	9.525	±0.08	±0.08	±0.08	±0.11	±0.16	---
C	±0.013	±0.025	±0.025	12.7	±0.13	±0.13	±0.13	±0.15	---	---
H	±0.013	±0.013	±0.025	15.875	±0.15	±0.15	±0.15	±0.18	---	---
E	±0.025	±0.025	±0.025	19.05	±0.15	±0.15	±0.15	±0.18	---	---
G	±0.025	±0.025	±0.13	25.4	---	±0.18	---	---	---	---
J	±0.005	±0.05-±0.13	±0.025	Tolerance of Inscribed Circle ØD1(mm)						
K	±0.013	±0.05-±0.13	±0.025	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
				6.35	±0.05	±0.05	±0.05	±0.05	±0.05	---
L	±0.025	±0.05-±0.13	±0.025	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
				9.525	±0.05	±0.05	±0.05	±0.05	±0.05	±0.05
M	±0.08-±0.18	±0.05-±0.13	±0.13	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
				12.7	±0.08	±0.08	±0.08	±0.08	---	±0.08
N	±0.08-±0.18	±0.05-±0.13	±0.025	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
				15.875	±0.10	±0.10	±0.10	±0.10	---	±0.10
U	±0.13-±0.38	±0.08-±0.25	±0.13	Inscribed circle	Regular triangle	Square	Diamond with 80°	Diamond with 55°	Diamond with 35°	Round
				19.05	±0.10	±0.10	±0.10	±0.10	---	±0.10
				25.4	---	±0.13	---	---	---	±0.13

**7 Wiper**

Code	Wiper angle	Code	Wiper angle
A	45°	A	3°
D	60°	B	5°
E	75°	C	7°
F	85°	D	15°
P	90°	E	20°
Z	Others	F	25°
		G	30°
		N	0°
		P	11°
		Z	Others

**8 Cutting direction**

R	Right hand
L	Left hand
N	Neutral

## Milling inserts

# AP□□

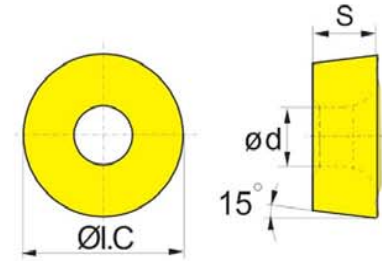


Inserts shape	Type	Basic dimensions(mm)					CVD Coating				PVD Coating			Cemented carbide						
		L	I.W	S	d	r	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BTM8152	BTM8252	BTG8102	BTG8202	BTG8205	BTC8005	BTN8101	BTN8201	
	APKT1003PDR	10.95	6.7	3.55	2.8	0.5	○							▲						
	APKT111308-GM	12.24	6.5	3.5	2.8	0.8	○							▲						
	APKT160408-GM	17.877	9.33	5.76	4.4	0.8	○							▲						
	APMT1135PDR	11.25	6.2	3.5	2.8	0.8		○					○	●	▲					
	APMT160408PDER	17.25	9.25	4.76	4.4	0.8								●	▲					

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Milling inserts

# RD□□ RP□□



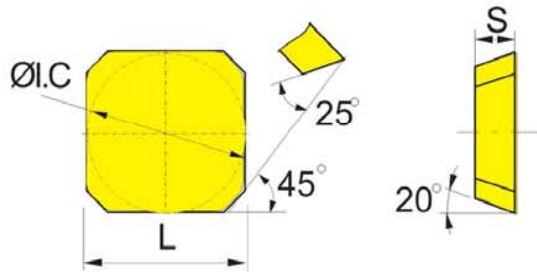
Inserts shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating			Cemented carbide						
		L	Ø I.C	S	d	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BTM8152	BTM8252	BTG8102	BTG8202	BTG8205	BTC8005	BTN8101	BTN8201	
	RDKX0702MO	3.5	7	2.38	2.8									▲					
	RDKX0803MO	4	8	3.18	3.4	○								▲	○				
	RDKX1003MO	5	10	3.18	4.4	○								▲	○				
	RDKX1073MO	5	10	3.97	4.4	○								▲	○				
	RDKX1273MO	6	12	3.97	4.4	○	○							▲	○				
	RDKX1204MO	6	12	4.76	4.4	○	○							▲	○				
	RDKX1604MO	8	16	4.76	5.5	○								▲	○				
	RDKX1605MO	8	16	5.56	5.5	○								▲	○				
	RDKX1606MO	8	16	6.35	5.5	○								▲	○				
RDKX2006MO	10	20	6.35	6.5	○									○					
	RPKT10T3MO	5	10	3.97	4.4	○								▲					
	RPKT1204MO	6	12	4.76	4.4	○	○							▲					
	RPKX1003MO	5	10	3.18	4.4	○								▲					
	RPKX1204MO	6	12	4.76	4.4	○	○							▲					

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order



## Milling inserts

# SE□□

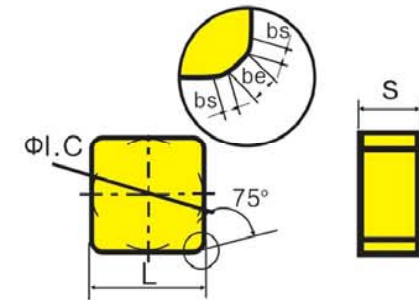


Inserts shape	Type	Basic dimensions(mm)			CVD Coating						PVD Coating			Cemented carbide			
		L	Ø I.C.	S	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BD8152	BD8252	BTG8102	BTG8202	BTG8205	BTC8005	BTN8101	BTN8201
	SEKN1203AFN	12.7	12.7	3.18	●							○			●		●
	SEKN1203AFTN	12.7	12.7	3.18	●		●		●			▲			●		
	SEKN1204AFN	12.7	12.7	4.76	●							○			●		●
	SEKN1204AFTN	12.7	12.7	4.76	●		●	●				▲			●		
	SEKN1504AFN	15.875	15.875	4.76	●		●								●		●
	SEKN1504AFTN	15.875	15.875	4.76	○		●								●		

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Milling inserts

# SN□□

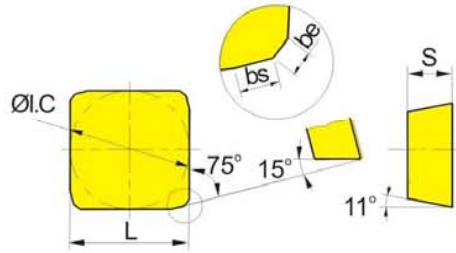


Inserts shape	Type	Basic dimensions(mm)					CVD Coating						PVD Coating			Cemented carbide					
		L	Ø I.C.	S	be	bs	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BD8152	BD8252	BTG8102	BTG8202	BTG8205	BTC8005	BTN8101	BTN8201		
	SNKN1204ENN	12.7	12.7	4.76	0.9	1.5	●		○	▲								●		●	
	SNKN1504ENN	15.875	15.875	4.76	0.9	1.5	●	○	○	▲								○		○	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Milling inserts

# SP□□

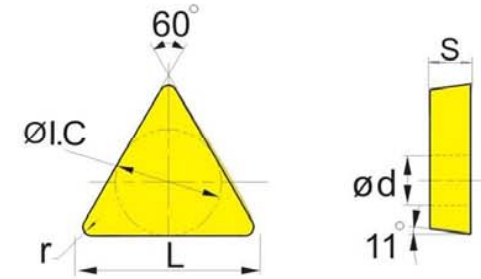


Inserts shape	Type	Basic dimensions(mm)					CVD Coating					PVD Coating			Cemented carbide						
		L	Ø I.C	s	bs	bs	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BTM8152	BTM8252	BTG8102	BTG8202	BTG8205			BTC8005	BTN8101	BTN8201
	SPKN1203EDR	12.7	12.7	3.18	1	1.4	○							○					▲	▲	
	SPKN1203EDL	12.7	12.7	3.18	1	1.4	○							○					▲	▲	
	SPKN1203EDTR	12.7	12.7	3.18	1	1.4	○							○					▲	▲	
	SPKN1203EDTL	12.7	12.7	3.18	1	1.4	○							○					▲	▲	
	SPKN1504EDR	15.875	15.875	4.76	1	1.4	○							○					▲	▲	
	SPKN1504EDL	15.875	15.875	4.76	1	1.4	○							○					▲	▲	
	SPKN1504EDTR	15.875	15.875	4.76	1	1.4	○							○					▲	▲	
	SPKN1504EDTL	15.875	15.875	4.76	1	1.4	○							○					▲	▲	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Milling inserts

# TP□□



Inserts shape	Type	Basic dimensions(mm)				CVD Coating					PVD Coating			Cemented carbide						
		L	Ø I.C	s	r	BTC8225	BTC8235	BTM8251	BTM8253	BTM8351	BTM8152	BTM8252	BTG8102	BTG8202	BTG8205			BTC8005	BTN8101	BTN8201
	TPUN160304	16.5	9.525	3.18	0.4			○										○	○	
	TPUN160308	16.5	9.525	3.18	0.8			○	○									●	●	
	TPUN220404	22	12.7	4.76	0.4														○	
	TPUN220408	22	12.7	4.76	0.8	●		○										●	○	
	TPUN220412	22	12.7	4.76	1.2					○									●	

**Stock** ▲main grade and stock available ●choice grade and stock available ○produce according to the order

## Grades comparison table

Use	ISO code	ZZBT	ZCC.CT	Taegu Tec	KENNAMETAL	HITACHI	SANDVIK	TUNGALO	KYOCERA	KORIOY	SUMITOMO	mitsubishi
CVD turning	P01				KCP05 KC9105	HC5000 HG8010	GC4005 GC4205	T9005 T9105	CA5505		AC700G AC810P	UE6105
	P10	BTC8151 BTC251	YBC151 YBC251	TT8115	KCP10 KCP25 KCP9110	HG8010 HG8020 GM8015 GM25	GC4015 GC4215	T9005 T9105 T9115	CA5505 CA5515	NC3010 NC3015	AC810P AC820P	UE6105 UE8110 MY5015
	P20	BTC8251 BTC8252	YBC251 YBC252	TT5100 TT8125	KCP25 KC9125 KC9225	HG8025 GM8020 GM25	GC4015 GC4025 GC4225 GC2015	T9115 T9015 T9025 T9125	CA5515 CA5525 CA5025 CA9025	NC3020 NC3120	AC820P	UE6110 MC8025 UE8110 UE6020 MY5015
	P30	BTC8252 BTC8351	YBC252 YBC351	TT8125 T5100	KCP30 KCP40 KC8050	GM8035 GM25	GC4025 GC4225 GC4035 GC2025 GC4235	T9025 T9035 T9135 T9125	CA5525 CA5535 CA9025	NC3030	AC630M AC830P	MC8025 UE6020 UE6035 UH6400 US735
	P40	BTC8351 BTC8352	YBC351 YBC352	TT8135 TT7100	KC9140 KC9040 KC9240 KX9245 TN7035 TPC35	GM8035 GM30	GC4035 GC235 GC4235	T9035 T9135	CA5535	NC500H	AC630M AC830P	UE6035 UH6400 US735
	M10	BTM8151 BTM8153	YBM151 YBM153	TT9215	KCM15	GM10	GC2015	T9115 T9015 T9025 T9125	CA6515 CA6015		AC610M	US7020 MC7015
	M20	BTM8251 BTM8253	YBM251 YBM253	TT9225	KCM15 KC9225	GM25 GM8020	GC2015	T6020 T6130 T9025	CA6515 CA6525	NC9020 NC9025	AC610M AC630M	US7020 MC7015 MC7025
	M30	BTM8351	YBM351	TT9235	KCM25 KC9230 KC8050 TN8025	HG8035 HG8025 GX30	GC2135 GC2025	T6030	CA6525	NC3030 NC5530	AC630M AC830P	MC7025 US735
	M40		YB235	TT5100	KCM35 KC9240 KC9245	GX30	GC2025			NC3030	AC630M AC830P	US735
	K01	BTD8052	YBD052	TT7005	KCK05	HX3505 HG3305 GM3005	GC3205 GC3210	T5105 T5010	CA4010 CA4505	NC8015	AC405K AC410K	US5105
	K10	BTD8102 BTD8152 BTD8152 C	YBD102 YBD152 YBD152C	TT1300	KCK15 KCK20 KC9315	HX3515 HG3315 HG8010 GM8015	GC3205 GC3210 GC3215	T5010 T1115 T5115	CA4515 CA4010 CA4115	N305K NC8010 NC6110	AC415K	MY5015 UC5115
	K20	BTD8152	YBD152	TT7105 TT7310 TT1500	KCK20 KC9110 KC9320	HG8025 GM8020	GC3215	T5115 T5125 T5020	CA4515 CA4115 CA4120	N315K NC5330 PC5300 NC6010	AC420K AC700G	MY5015 UE8110 UC5115
	K30	BTD8252	YBD252		KC9125 KC9325			T5125 T9125			AC820P	UE6110

## Grades comparison table

Use	ISO code	ZZBT	ZCC.CT	Taegu Tec	KENNAMETAL	HITACHI	SANDVIK	TUNGALO	KYOCERA	KORIOY	SUMITOMO	mitsubishi
CVD milling	P10			TT7080							AC100	
	P20		YBC201			GX2030 GX2140	GC4220	T3130		NCM325 PC3500	ACP100	F7030 FH7020
	P30	BTC8301 BTC8302	YBC301 YBC302 YBM251 YBM253		KC930M	GX2030 GX2140 GX2160	GC4230	T3130		NCM325 NCM335 PC5300 NC5330		F7030
	P40	BTM8351 BTC8401	YBM351 YBC401	TT7800	KC935M	GX2030 GX30 GF30 GX2160	GC4240			NCM335		
	M10											
	M20	BTM8251 BTM8253	YBM251 YBM253		KC925M			T3130		NCM325 PC5300 NC5330	ACP100	F7030
	M30	BTM8351	YBM351		KC930M	GX2160 GF30 GX30	GC2040	T3130		NCM325 NCN335 PC5300		F7030
	M40				KC930M KC935M	GX2160 GF30 GX30				NCM335		
	K10	BTD8151 BTD8152	YBD151 YBD152	TT6800				T1115 T1015		NCM310K	ACK200	MC5020 F5010
	K20	BTD8115			KC915M		GC3220 K20W	T1115 T1015		NCM320K		MC5020 F5020
	K30	BTD8252	YBD252		KC920M KC925M KC930M KC935M	GX2030 GX30	GC3040					



### Grades comparison table

Use	ISO code	ZBT	ZCC CT	Taegu Tec	KENAMETAL	HITACHI	SANDVIK	TUNGALO	KYOCERA	KORIOY	SUMITOMO	mitsubishi
PVD turning	P10	BTG8102	YBG102	TT6080	KC5010 KC5510 KU10T		GC1025 GC1525	AH710	PR915 PR1005 PR930 PR1025 PR1115 PR1225			VP10MF
	P20	BTG8202 BTG8205	YBG202 YBG205		KC5025 KC5525 KC7215 KC7315 KU25T	IP2000	GC1020 GC1025 GC1525 GC1125	AH710 AH330 AH725 AH120 SH730 GH730 GH130	PR930 PR1025 PR1115 PR1225	PC230		VP10RT VP20RT VP15TF VP20MF
	P30	BTG8202 BTG8302	YBG202 YBG302		KC7015 KC7020 KC7035 KU25T	IP3000	GC1025 GC4125 GC1125	AH710 AH725 AH120 SH730 GH730 GH130	PR930 PR1025 PR1115 PR1225	PC3535 PC3545	AC530U	VP10RT VP20RT VP15TF VP20MF
	P40			TT8020	KC7030 KC7040 KC7140		GC1020 GC2145	AH740	PR630 PR660	PC240		VP15TF VP20MF
	M10	BTG8102	YBG102	TT5030	KC5010 KC5510 KC8005 KC8015	IP050S	GC1005 GC1025 GC1105 GC1125	AH710	PR915 PR1025 PR1215 PR1225		AC510U	VP10MF
	M20	BTG8202	YBG202	TT9080	KC5025 KC730 KC5525 KC7020 KC7025	IP100S	GC1020 GC1025 GC1125 GC4125	AH710 AH725 AH120 SH730 GH730 GH130 GH330 AH630	PR915 PR930 PR1025 PR1125 PR1215 PR1225	PC9030	AC520U	VP10RT VP20RT VP15TF VP20MF
	M30	BTG8202 BTG8205 BTG8302	YBG202 YBG205 YBG302		KC7030 KC7225		GC1020 GC1125 GC2035	AH120 GH330 AH645 SH730 GH730	PR1125	PC9030	AC520U AC530U	VP10RT VP20RT VP15TF VP20MF
	M40			TT8020			GC2035 GC2145				AC530U	MP7035
	K10	BTG8102	YBG102		KC5010 KC7210			AH710 GH110 AH110	PR905	PC205K	AC510U	
	K20	BTG8202	YBG202		KC7015 KC7020 KC7215 KC7315		GC1020	AH110 AH710 AH725 AH120 GH110 GH730 GH130	PR905 PR1215	PC215K		VP10RT VP20RT VP15TF
	K30				KC7225		GC4125	GH730 GH130 AH725 AH120				VP10RT VP20RT VP15TF

### Grades comparison table

Use	ISO code	ZBT	ZCC CT	Taegu Tec	KENAMETAL	HITACHI	SANDVIK	TUNGALO	KYOCERA	KORIOY	SUMITOMO	mitsubishi
PVD milling	P10	BTG8202		TT7030 TT7080	KC715M	ATH80D CY9020 PCA12M TB6005 JX1020 PC20M	GC1010 GC1025		PR730 PR830 PR1025 PR1225	PC3525	ACP100 ACP200	
	P20	BTG8202 BTG8212	YBG202	TT9030 TT9080	KC522M KC525M	TB6020 CY150 JX1015 CY15	GC1010 GC1025 GC2030	AH725 AH120 GH330 AH330	PR730 PR830 PR1025 PR1225 PR1230	PC230 PC3525 PC3535	ACP200	VP15TF
	P30	BTG8302	YBG302	TT9080	KC725M KC530M	JS4060 JS4045 TB6045 CY250 CY25 HCB44 JX1045 PTH30E	GC1030 GC1010 GC2030	AH730 GH130 AH725 AH130 GH330 AH330 AH120	PR660 PR1230	PC3535 PC130	ACZ300 ACZ350 ACZ200	VP15TF VP30RT
	P40	BTG8402	YBG402	TT8020 TT8080	KC735M	JS4060 JX1060 GF30 GX30 PTH30E TB6060	GC1030	AH140 AH130 AH120 AH730	PR660 PR1230	PC230 PC3545	ACZ350 ACP300	VP30RT
	M10				KC715M	CY9020 JX1020	GC1025 GC1030		PR630 PR730 PR830 PR1025		ACP200	
	M20	BTG8202 BTG8205	YBG202 YBG205	TT8020 TT9030 TT9080	KC730 KC522M KC525M	TB6020 CY150 CY15 JX1015	GC1025 GC1030 GC1040 GC2030	AH330 GH110 AH120 GH330 AH725	PR630 PR730 PR830 PR660 PR1025 PR1225		ACZ310 AC520U ACP300	VP15TF VP20RT VP20MF
	M30	BTG8302	YBG302	TT8020 TT8080 TT8030	KC725M KC735M	TB6045 CY250 HCB44 JM4060 JX1045	GC1040 GC2030	AH120 AH130 AH140 AH725 GH130 AH730 GH340	PR630 PR660 PR730 PR830	PC9530	ACZ330 AC520U ACZ350	VP15TF VP20RT VP30RT MP7035
	M40			TT8020 TT8080		TB6060 PTH40H GF30 GX30 JX1060		AH140	PR660		ACZ350 ACP300	VP30RT
	K10	BTG8102	YBG102		KC510M	JX1005 JX1020 ASC05E CY9020 TB6005 CY100H	GC1010	AH110 GH110 AH330	PR510 PR905 PR1210	PC205K PC215K	ACZ310 ACK200	
	K20	BTG8202 BTG8152	YBG202 YBG152	TT6030 TT6080	KC520M KC525M	TB6020 CY150 JX1015 PTH13S	GC1010 GC1020	AH725 AH120 GH110 AH330 AH120	PR905 PR1210	PC215K	ACZ310 ACK200	VP15TF VP20RT
	K30	BTG8205	YBG205		KC725M KC735M	TB6045 GX2030 CY250 JX1045 PTH30E PTH40H	GC1020	GH130			ACZ330 ACK300	VP15TF VP20RT