

A

Insert

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- D** Recommend Material Grades For Turning
- D** Recommended Cutting Condition
- E** Grade Comparison Chart
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- AM** Selection Base On Helix Angle Anvils
- AN** Machine Conditions
- AO** Recommend Of Infeed Modes On Threading Break Shapes
- AP** O.D Metric Threads · I.D Inch Diameter Threads
- AQ-AR** Threading Insert's Item name, Material and Specification



















Turning Insert

Identification System










C **N** **M** **G**
1 2 3 4

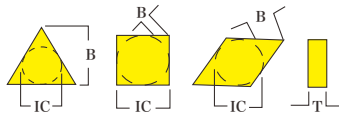
- 1 Insert shape
- 2 Relief angle
- 3 Tolerance
- 4 Insert type

1 Insert shape

Sign	Insert shape	Angle
C		80°
D		55°
E		75°
M		86°
V		35°
A		85°
B		82°
K		55°
H		120°
O		135°
P		108°
L		90°
R		—
S		90°
T		60°
W		80°















2 Relief angle

Sign	Relief angle	Sign	Relief angle
A	 3°	F	 25°
B	 5°	G	 30°
C	 7°	N	 0°
D	 15°	P	 11°
E	 20°		

3 Tolerance


Sign	IC		B		T	
	in	mm	in	mm	in	mm
C	±0.010	±0.025	±0.0005	±0.013	±0.001	±0.025
H	±0.005	±0.013	±0.0005	±0.013	±0.001	±0.025
E	±0.010	±0.025	±0.0010	±0.025	±0.001	±0.025
G	±0.010	±0.025	±0.0010	±0.025	±0.005	±0.13
M	±0.005	±0.13	±0.005	±0.13	±0.005	±0.13
U	±0.005	±0.13	±0.005	±0.13	±0.005	±0.13

4 Insert type

Sign	Insert type	Sign	Insert type	Sign	Insert type	Sign	Insert type
N		M		Q		C	
R		G		U		J	
F		W		B			
A		T		H			

12 04 08

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5 Size

6 Thickness

7 Corner radius

8 Hand of insert

9 Cutting edge condition & chip control

A
INSERT

5 Size

Cutting Edge Length, Diameter of IC

IC		Metric cutting edge length							Inch cutting edge length
in	mm								
5/32	3.97	—	04	03	03	06	—	—	1.2 (5)
3/16	4.76	04	05	04	04	08	08	—	1.5 (6)
7/23	5.56	05	06	05	05	09	09	03	1.8 (7)
0.236	6.00	—	—	06	—	—	—	—	—
1/4	6.35	06	07	06	06	11	11	04	2
5/16	7.94	08	09	07	07	13	13	05	2.5
0.315	8.00	—	—	08	—	—	—	—	—
3/8	9.52	09	11	09	09	16	16	06	3
0.394	10.00	—	—	10	—	—	—	—	—
1/16	11.11	11	13	11	11	19	19	07	3.5
0.472	12.00	—	—	12	—	—	—	—	—
1/2	12.70	12	15	12	12	22	22	08	4
9/16	14.29	14	17	14	14	24	24	09	4.5
5/8	15.88	16	19	15	15	27	27	10	5
0.630	16.00	—	—	16	—	—	—	—	—
11/16	17.46	17	21	17	17	30	30	11	5.5
3/4	19.05	19	23	19	19	33	33	13	6
0.787	20.00	—	—	20	—	—	—	—	—
7/8	22.22	22	27	22	22	38	38	15	7
0.984	25.00	—	—	25	—	—	—	—	—
1	25.40	25	31	25	25	44	44	17	8
1-1/4	31.75	32	38	31	31	54	54	21	10
1.260	32.00	—	—	32	—	—	—	—	—

Inch size : () Symbol for small size insert

6 Thickness

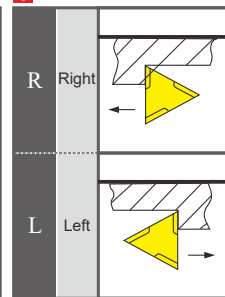
in	mm	Inch	Metric
1/32	0.79	0.5 (1)	—
1/16	1.59	1 (2)	01
5/64	1.98	1.2	T1
3/32	2.38	1.5 (3)	02
1/8	3.18	2	03
5/32	3.97	2.5	T3
3/16	4.76	3	04
7/32	5.56	3.5	05
1/4	6.35	4	06
5/16	7.94	5	07
3/8	9.52	6	09
7/16	11.11	7	11
1/2	12.70	8	12

Inch size : () Symbol for small size insert

7 Corner radius

Corner radius		symbol	
in	mm	Inch	Metric
.004	0.1	0	01
.008	0.2	0.5	02
1/64	0.4	1	04
1/32	0.8	2	08
3/64	1.2	3	12
1/16	1.6	4	16
5/64	2.0	5	20
3/32	2.4	6	24
7/64	2.8	7	28
1/8	3.2	8	32
round insert (inch)	—	—	00
round insert (metric)	—	—	M0


8 Hand of insert



9 10

Cutting edge condition & chip control

Recommend Material Grades For Turning

Cutting State	JIS Classification				
	Carbide with Altin Coating				
	Light				
	01	10	20	30	40
P Steel	ECP100	ECP200	ECP200 / ECP250		ECP300
				ECP300	ECP400
M Stainless steel		ECM050	ECM100	ECM200	
K Cast	ECK100		ECK200		ECP100

Recommended Cutting Condition

Workpiece		Feed.(f)	m/min(v) Cutting Speed
P Steel	Carbon Steel	ECK200	0.15~0.5
		ECP200	0.15~0.5
		ECP300	0.15~0.5
	Alloy Steel	ECK200	0.15~0.5
		ECP200	0.15~0.5
		ECP300	0.15~0.5
M Stainless steel	Stainless Steel	ECM100	0.1~0.45
K Cast	Cast Iron	ECK200	0.1~0.5

● (V=m/min) (Min. - Optimum - Max.)

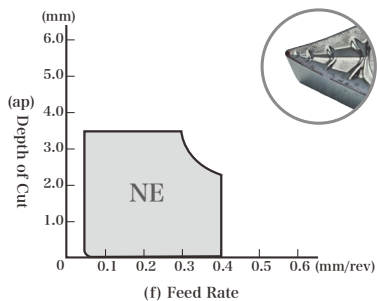
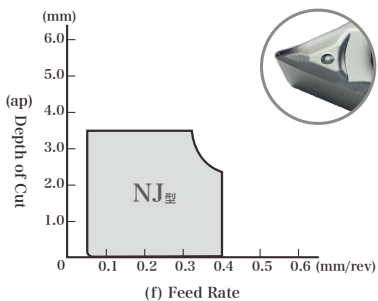
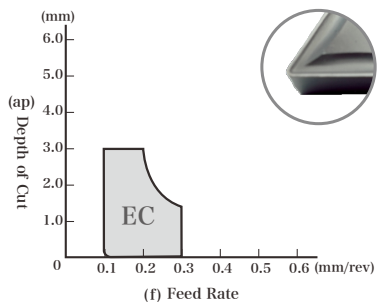
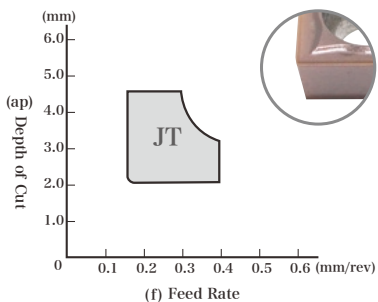
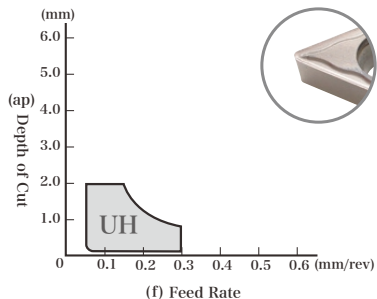
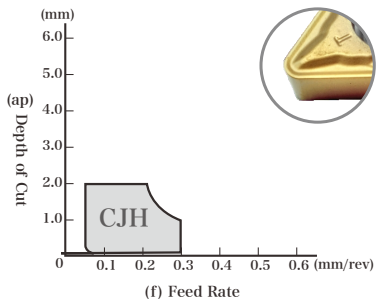
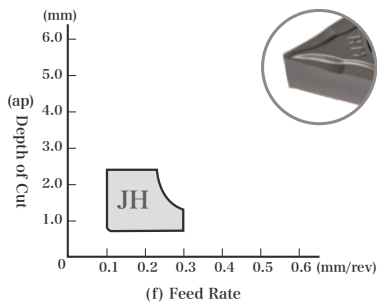
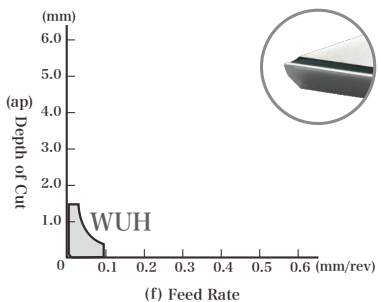
● (N)=[1000 x (V)] ÷ [3.14 x (D)]

● (F)=[(f) x (Z) x (N)]

Grade Comparison Chart

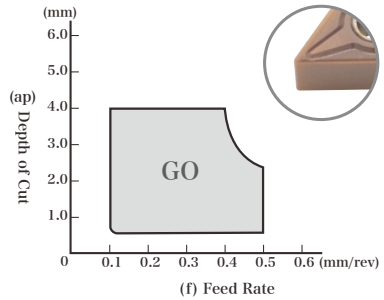
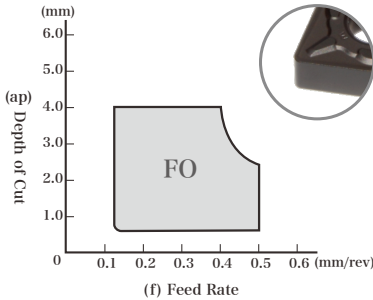
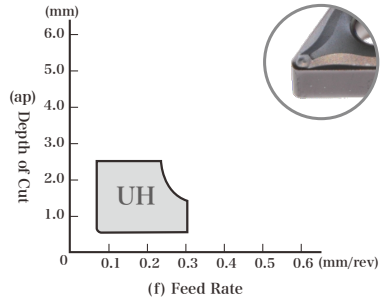
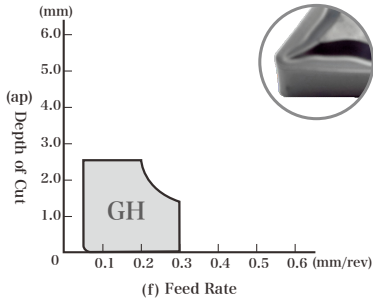
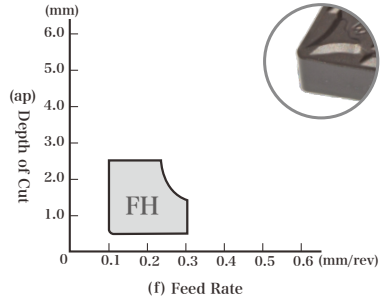
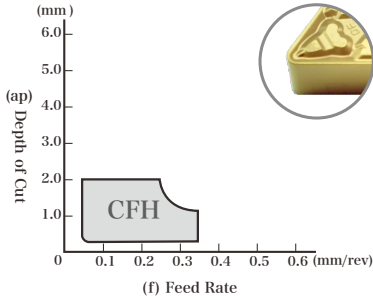
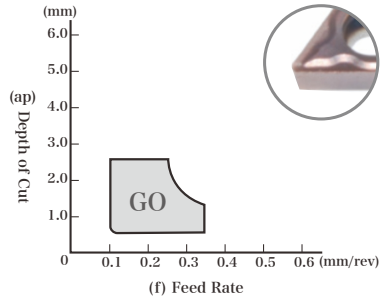
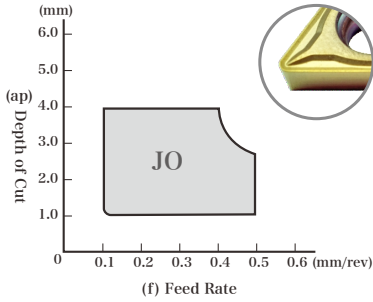
Application	Class	Grade	Echain	Sumitomo	Mitsubishi	Tungaloy	Kyocera
Turning	<div style="background-color: #00a0e3; color: white; padding: 5px; text-align: center; width: 30px; margin: 0 auto;">P</div> Steel	P05	ECP100	AC810P	UE6105	T9105	CA5505
		P10	ECP100 ECP200	AC810P AC820P	UE6110	T9115	CA5515
		P20	ECP200 ECP250	AC820P	UE6020	T9125	CA5525
		P30	ECP250 ECP300	AC830P	UE6035 VP15TF	T9135	CA5535
		P40	ECP400	AC830P	UE6035 UH6400	T9135	PR660
	<div style="background-color: #f1c40f; color: white; padding: 5px; text-align: center; width: 30px; margin: 0 auto;">M</div> Stainless steel	M10	ECM050	AC610M AC520U	US905 VP05RT VP10RT US7020	T9115 AH110 AH905	PR1305 CA6515 PR905
		M20	ECM100	AC610M AC520U	US7020 VP20MF UP20M	T6020 AH120 AH725	PR1310 CA6525 PR930 PR915
		M30	ECM200	AC630M AC830P AC530U	US735 VP15TF VP20MF	AH725 T6030 AH630	PR1325 CA6525 PR660 PR1125
	<div style="background-color: #e74c3c; color: white; padding: 5px; text-align: center; width: 30px; margin: 0 auto;">K</div> Cast	K05	ECK100	AC405K	UC5115	T5105 T5115	CA4505 CA4010
		K10	ECK200 ECP100	AC415K	UC5105 UC5115	T5115 T5125	CA4505 CA4015 CA4115
		K20		AC420K	UC5115 VP15TF UE6110	T5125 T9125	CA4515 CA4020 CA4115

Selection Of Chip Breaker



- C
- D
- R
- S
- T
- V
- W
- ECH
- SPMT
- WCMX
- CBN
- PCD
- ER / IR

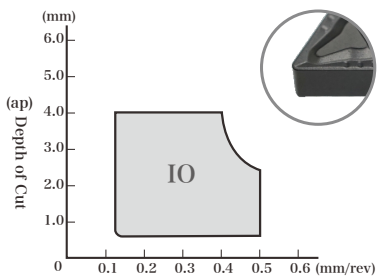
Selection Of Chip Breaker



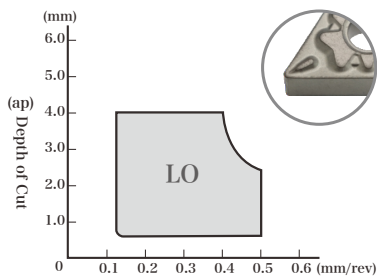
A
INSERT

- C 
- D 
- R 
- S 
- T 
- V 
- W 
- ECH 
- SPMT 
- WCMX 
- CBN 
- PCD 
- ER / IR 

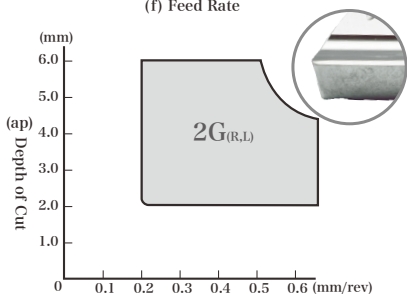
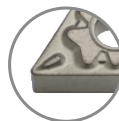
Sawtooth Cutting Inserts



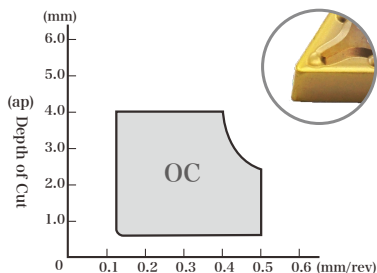
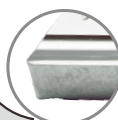
(f) Feed Rate



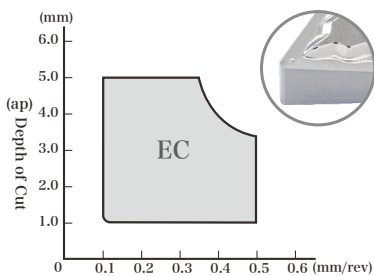
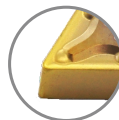
(f) Feed Rate



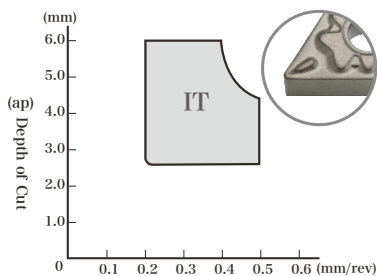
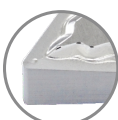
(f) Feed Rate



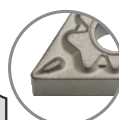
(f) Feed Rate



(f) Feed Rate



(f) Feed Rate



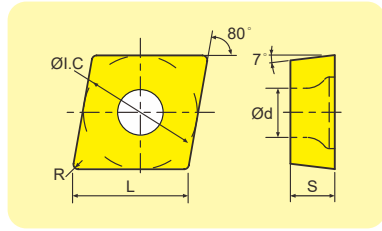
ICC




CC Insert For Turning


Dimension (mm)	
L : 6.4	S : 2.38
IC : 6.35	Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
JO Medium 	CCMT060204-JO	0.4	●	●		●	●		●			
	CCMT060208-JO	0.8		●	●		●		●	●		

Dimension (mm)	
L : 9.7	S : 3.97
IC : 9.525	Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
JO Medium 	CCMT09T304-JO	0.4	●	●	●	●	●		●			
	CCMT09T308-JO	0.8		●	●		●		●	●		

Dimension (mm)	
L : 12.9	S : 4.76
IC : 12.7	Ød : 5.56

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
	CCMT120404-JO	0.4	●	●		●	●					
	CCMT120408-JO	0.8		●		●						

A
INSERT

CC
◆

D
▭

R
○

S
□

T
△

V
◇

W
▽

ECH
▭

SPMT
⊗

WCMX
⊗

CBN

PCD

ER / IR
▽

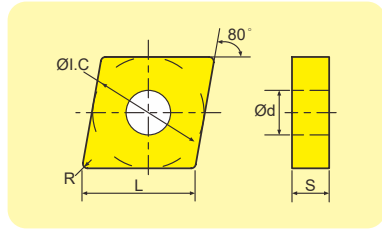
CC Insert For Turning

ICN





CN Insert For Turning

Dimension (mm)

 L : 12.9 S : 4.76
 IC : 12.7 Ød : 5.16





● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H

Shape	Model No	R	Carbide Coated											
			P			P M		K			H			
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD		
	CNMA120408	0.8								●				
	CNMA120412	1.2								●				
	CNMG120404	0.4								●	●			

Dimension (mm)

 L : 12.9 S : 4.76
 IC : 12.7 Ød : 5.16

Shape	Model No	R	Carbide Coated											
			P			P M		K			H			
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD		
	CNMG120408	0.8			●	●	●			●	●			
	CNMG120404-IO	0.4		●	●					●				
	CNMG120408-IO	0.8	●	●	●		●			●	●			
	CNMG120412-IO	1.2	●	●	●					●				
	CNMG120404-OC	0.4					●							
	CNMG120408-OC	0.8					●							

 A
INSERT

 CN


 D


 R


 S


 T


 V


 W


 ECH


 SPMT


 WCMX


 CBN


 PCD


 ER / IR


CN Insert For Turning

CP



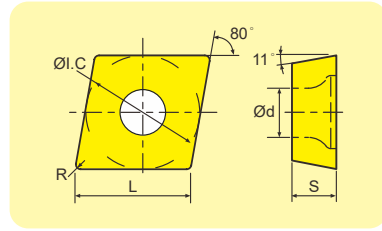
CP Insert For Turning

Dimension (mm)

L : 9.7 S : 3.18
 IC : 9.525 Ød : 4.4

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	CPMT090304-HI	0.4		●	●							
	CPMT090308-HI	0.8		●	●	●						
	CPMT090308-HS	0.8				●	●					

A
INSERT

CP

D



R



S



T



V



W



ECH



SPMT



WCMX



CBN

PCD

ER / IR



CP Insert For Turning

A
 INSERT

DC

R

S

T

V

W

ECH

SPMT

WCMX

CBN

PCD

ER / IR

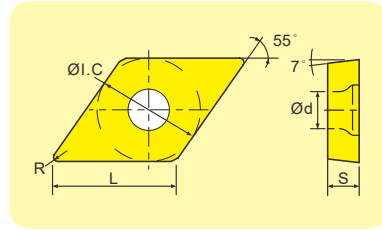

DC Insert For Turning

IDC  DC Insert For Turning

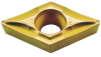
Dimension (mm)

 L : 7.8 S : 2.38
 IC : 6.35 Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



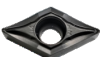
Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	DCMT070204-JO	0.4		●	●	●	●		●			
	DCMT070208-JO	0.4		●	●				●			

Dimension (mm)

 L : 11.6 S : 3.97
 IC : 9.525 Ød : 4.4

Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	DCMT11T304-JO	0.4	●	●	●	●	●		●			
	DCMT11T308-JO	0.8		●	●	●	●		●			

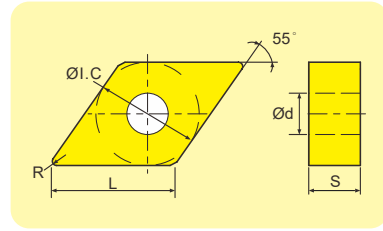
DN

DN Insert For Turning

Dimension (mm)

L : 15.5 S : 6.35
 IC : 12.7 Ød : 5.16

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



A
INSERT



DN

R



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ECH



SPMT



WCMX



CBN

PCD

ER / IR



DN

Insert

For

Turning

Tools

DN

Insert

For

Turning

Tools

DN



Insert

For

Turning

Tools


Carbide Coated

Shape	Model No	R	P			P		M			K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD			
	DNMG150604	0.4		●								●			
	DNMG150612-IO	1.2							●						
	DNMG150608-IO	0.8	●	●	●	●	●								

Dimension (mm)

L : 11.6 S : 4.76
 IC : 9.525 Ød : 3.81


Carbide Coated

Shape	Model No	R	P			P		M			K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD			
	DNMG110404-IO	0.4		●											
	DNMG110408-IO	0.8											●		

Dimension (mm)

L : 15.5 S : 4.76
 IC : 12.7 Ød : 5.16

Carbide Coated

Shape	Model No	R	P			P		M			K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD			
	DNMG150404-IO	0.4	●	●								●			
	DNMG150408-IO	0.8	●	●	●							●			
	DNMG150404-OC	0.4							●						
	DNMG150408-OC	0.8						●							

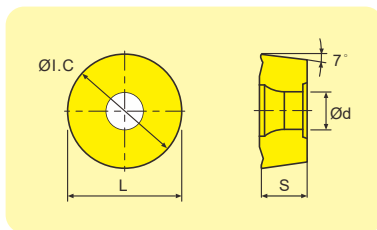
A
 INSERT


 RC
 Insert
 For
 Turning

IRC ○ RC Insert For Turning


Dimension (mm)	
L : 8	S : 3.18
IC : 8	Ød : 3.36

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No
	RCMT0803MO


Dimension (mm)	
L : 10	S : 3.97
IC : 10	Ød : 4.4

Shape	Model No
	RCMT10T3MO

Dimension (mm)	
L : 12	S : 4.76
IC : 12	Ød : 4.4

Shape	Model No
	RCMT1204MO

Dimension (mm)	
L : 16	S : 6.35
IC : 16	Ød : 5.5

Shape	Model No
	RCMT1606MO

Carbide Coated

P			P/M		K			H	
ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
			●	●					

Carbide Coated

P			P/M		K			H	
ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
			●	●					

Carbide Coated

P			P/M		K			H	
ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
			●	●					

Carbide Coated

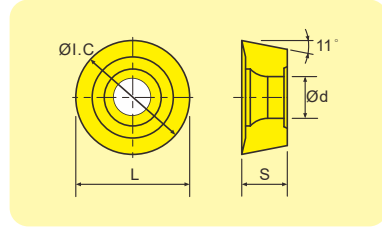
P			P/M		K			H	
ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
			●	●					


IRP RP Insert For Turning

Dimension (mm)

L : 10 S : 3.97
 IC : 10 Ød : 4.1


- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-I
- ◆ Chipbreaker Ref. Page-F-H



Shape		Model No		Carbide Coated								
				P			P/M		K			H
		ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD	
	RPXT10T3MO				●	●						
	RPMT10T3MOE				●	●						


Dimension (mm)

L : 12 S : 4.76
 IC : 12 Ød : 4.36

Shape		Model No		Carbide Coated								
				P			P/M		K			H
		ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD	
	RPXT1204MO				●	●						
	RPMT1204MOE				●	●						

Dimension (mm)

L : 16 S : 6.35
 IC : 16 Ød : 4.9

Shape		Model No		Carbide Coated								
				P			P/M		K			H
		ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD	
	RPMT1606MOE				●	●						

A
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SPMT


WCMX


CBN


PCD


ER / IR


ER / IR


ER / IR


ER / IR


ER / IR


ER / IR


ER / IR


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ER / IR


ER / IR


ER / IR


A
INSERT



SC
INSERT



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ISC



SC Insert For Turning

Dimension (mm)

L : 9.525

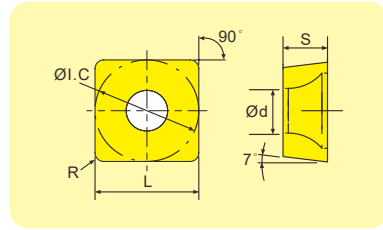
S : 3.97

IC : 9.525

Ød : 4.4

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	SCMT09T304-JO	0.4			●		●		●			
	SCMT09T308-JO	0.8			●		●		●			
	SCMT09T304-HH	0.4		●		●	●					

SN



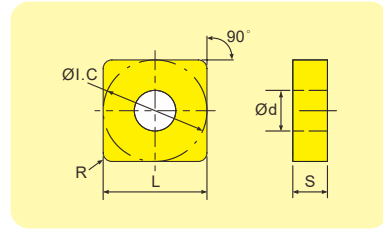
SN Insert For Turning

Dimension (mm)

L : 12.7 S : 4.76
 IC : 12.7 Ød : 5.16

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	SNMA120408	0.8										
	SNMG120412	1.2										
	SNMG120408-IO	0.8		●	●							
	SNMG120412-IO	1.2		●								

A
INSERT



SN



CBN

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ER / IR



SN
Insert For Turning

A
INSERT



ISP



SP Insert For Turning

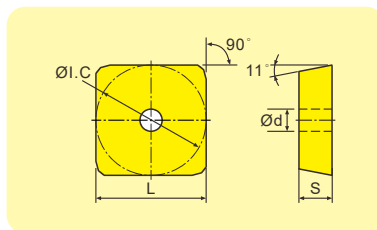
Dimension (mm)

L : 15.875 S : 4.76


IC : 15.875 Ød : 3.2

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

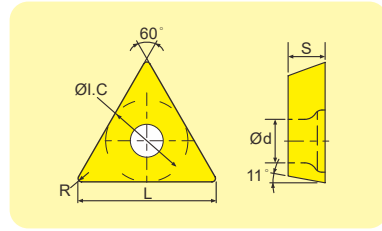
Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	SPKN1504EDTR-F3	0.4				●	●					

SP Insert For Turning



Dimension (mm)	
L : 9.6	S : 2.38
IC : 5.56	Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
	TCMT090204-JO	0.4		●	●		●		●			
	TCMT090208-JO	0.8			●		●					

Dimension (mm)	
L : 11	S : 2.38
IC : 6.35	Ød : 2.8

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
	TCMT110204-JO	0.4		●	●		●		●			
	TCMT110208-JO	0.8		●	●		●			●		

Dimension (mm)	
L : 16.5	S : 3.97
IC : 9.525	Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100				ECK200
	TCMT16T304-JO	0.4		●	●	●	●					
	TCMT16T308-JO	0.8		●	●	●	●			●		



ITN

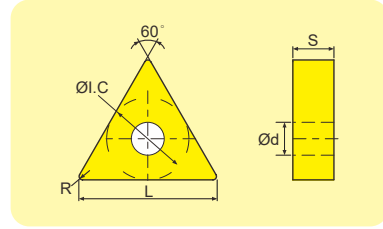

TN Insert For Turning

Dimension (mm)

 L : 16.5 S : 4.76
 IC : 9.525 Ød : 3.81

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TNMA160404	0.4							●			
	TNMA160408	0.8							●			
	TNMG160408	0.8					●		●			
	TNMG160404L-IE	0.4		●	●							
	TNMG160404R-IE	0.4		●	●							
	TNMG160408L-IE	0.8		●	●	●	●		●			
	TNMG160408R-IE	0.4		●	●		●					
	TNMG160404-IO	0.8		●	●		●		●			
	TNMG160408-IO	0.8	●	●	●				●			
	TNMG160408-OC	0.8				●	●					

Dimension (mm)

 L : 16.5 S : 3.97
 IC : 9.525 Ød : 4.4

Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TNMG220408	0.8		●								

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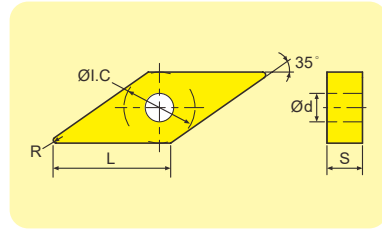
VB Insert For Turning

Dimension (mm)


L : 16.5 S : 4.76
 IC : 9.525 Ød : 4.4

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	VBMT160404	0.4	●	●		●			●			
	VBMT160408	0.8		●		●			●			

A
INSERT



CBN

PCD

ER / IR



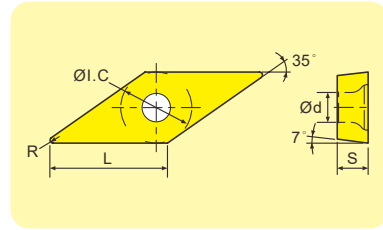
VB
Insert
For
Turning

IVC VC Insert For Turning


Dimension (mm)

L : 16.5 S : 4.76
 IC : 9.525 Ød : 4.4

- Standard Stocks
- * Sall in China only
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	Carbide Coated						H			
			P			M		K			CBN	PCD
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	VCMT160404	0.4		●		●	●		●			
	VCMT160404-EC	0.4		●								

A
INSERT



VC Insert For Turning

VN

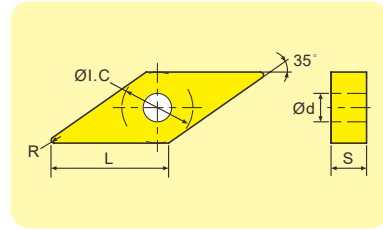


VN Insert For Turning


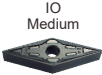
Dimension (mm)

L : 16.6 S : 4.76
 IC : 9.525 Ød : 3.81

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	VNMG160404	0.4		●			●		●			
	VNMG160404-IO	0.4		●	●	●	●		●			
	VNMG160408-IO	0.8		●	●		●		●			

A
INSERT



CBN

PCD

ER / IR



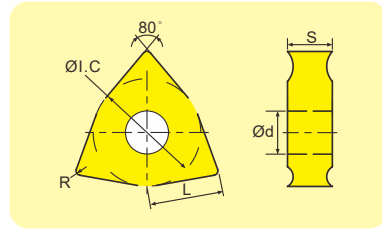
VN
Insert For Turning

WN  WN Insert For Turning




Dimension (mm)

 L : 8.7 S : 4.76
 IC : 12.7 Ød : 5.16

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	WNMA080404	0.4							●			
	WNMA080408	0.8							●			
	WNMG080408	0.8	●	●	●		●		●	●		
	IO Medium											
	WNMG080404-IO	0.4	●	●	●				●			
	WNMG080408-IO	0.8	●	●	●				●			

Dimension (mm)

 L : 8.7 S : 4.76
 IC : 12.7 Ød : 5.16

Carbide Coated

Shape	Model No	R	P			M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	WNMG080408-OC	0.8		●	●	●	●					

A
 INSERT

C

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SPMT

WCMX

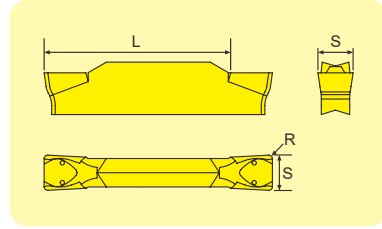
CBN
PCD
ER / IR


 WN
 Insert
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ECH Cutting Off Insert

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	L	S	P			M		K			H	
					ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
Grooving insert 	ECH200	0.2	17	2		●		●						
	ECH300	0.3	17	3		●		●	●					
	ECH400	0.4	22	4		●		●						
	ECH500	0.5	22	5		●		●						

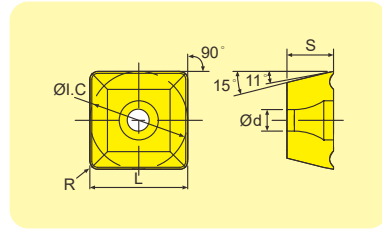
A
INSERT




SPMT 90° Insert For Drilling

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



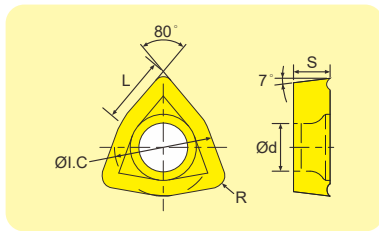
							Carbide Coated								
							P		P		M	K			
							ECP100	ECP200	ECP300	ECM100	ECM200	BE4875	ECK100	ECK200	ECK300
Shape	Model No	R	L	I.C	S	d									
 RO Medium	SPMT050204-GO	0.4	5	5	2.38	2.2				●	●				
	SPMT060204-GO	0.4	6	6	2.38	2.6				●	●				
	SPMT07T308-GO	0.8	7.94	7.94	3.97	2.8				●	●				
	SPMT090408-GO	0.8	9.8	9.8	4.3	4.2				●	●				
	SPMT110408-GO	0.8	11.5	11.5	4.76	4.4				●	●				
	SPMT140512-GO	1.2	14.3	14.3	5.2	5.75				●	●				




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WCMX Insert For Drilling

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	L	I.C	S	d	Carbide Coated								
							P			M			K		
							ECP100	ECP200	ECP300	ECM100	ECM200	BEJ 750	ECK100	ECK200	ECK300
	WCMX030208R	0.8	3.8	5.56	2.38	2.8						●			
	WCMX040208R-53	0.8	4.3	6.35	2.38	3.1						●			
	WCMX050308R	0.8	5.4	7.94	3.18	3.2						●			
	WCMX06T308R	0.8	6.5	9.525	3.97	3.7				●					
	WCMX080412R-53	1.2	8.7	12.7	4.76	4.3				●	●				

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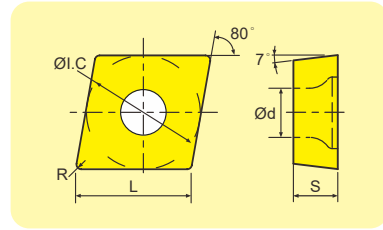
 CBN
 Insert

I CBN CBN Inset

Dimension (mm)

 L : 2.5 S : 2.38
 IC : 6.35 Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	M	K	H						
	CCGT060202-2C	0.2	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	●	
	CCGT060204-2C	0.4									●	


Dimension (mm)

 L : 2.5 S : 3.97
 IC : 9.525 Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	M	K	H						
	CCGT09T302-2C	0.2	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	●	
	CCGT09T304-2C	0.4									●	

Dimension (mm)

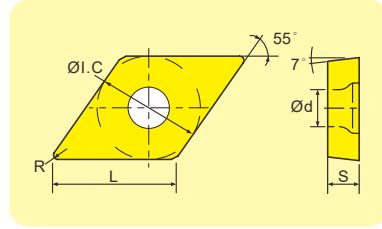
 L : 2.4 S : 4.76
 IC : 12.7 Ød : 5.16

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	M	K	H						
	CNGA120404-2C	0.4	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	●	
	CNGA120408-2C	0.8									●	
	CNGA120412-2C	1.2									●	

CBN CBN Inset

Dimension (mm)	
L : 2.7	S : 2.38
IC : 6.35	Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	DCGW070202-2C	0.2									●	

Dimension (mm)	
L : 2.7	S : 2.38
IC : 6.35	Ød : 2.8

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	DCGW070204-2C	0.4									●	

Dimension (mm)	
L : 2.5	S : 3.97
IC : 9.525	Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	DCGW11T304-2C	0.4									●	

Dimension (mm)	
L : 2.1	S : 3.97
IC : 9.525	Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	DCGW11T308-2C	0.8									●	

A
INSERT



CBN

PCD

ER / IR



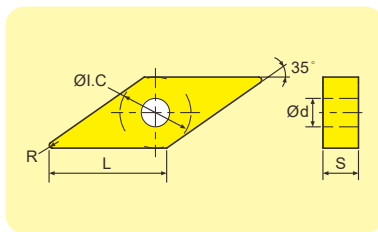
CHAIN
Echantool cutting tools


A
 INSERT

CBN
PCD
ER / IR
CBN Inset
ICBN CBN Inset


Dimension (mm)	
L : 3.3	S : 4.76
IC : 9.525	Ød : 4.4

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No	R
	VCGW160404-2C	0.4


Dimension (mm)	
L : 2.8	S : 4.76
IC : 9.525	Ød : 4.4

Shape	Model No	R
	VCGW160408-2C	0.8

Dimension (mm)	
L : 3.3	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R
	VNGA160404-2C	0.4

Dimension (mm)	
L : 2.8	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R
	VNGA160408-2C	0.8

Carbide Coated

			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
Shape	Model No	R									●	

Carbide Coated

			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
Shape	Model No	R									●	

Carbide Coated

			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
Shape	Model No	R									●	

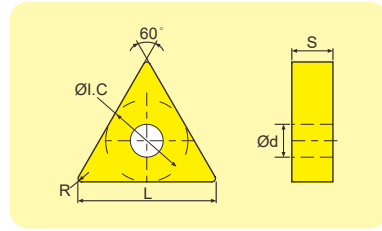
Carbide Coated

			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
Shape	Model No	R									●	

CBN CBN Inset

Dimension (mm)	
L : 6.3	S : 1.59
IC : 3.97	Ød : 2.2

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	TBGT060104-3C	0.4									●	

Dimension (mm)	
L : 2.3	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	TNGA160404-3C	0.4									●	

Dimension (mm)	
L : 2	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	TNGA160408-3C	0.8									●	

Dimension (mm)	
L : 2.5	S : 2.38
IC : 4.76	Ød : 2.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P		P M		K				H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	TPGW080204-3C	0.8									●	

A
INSERT



CBN

PCD

ER / IR



CHAIN
Echaintool cutting tools

A
 INSERT

 CBN
 Insert

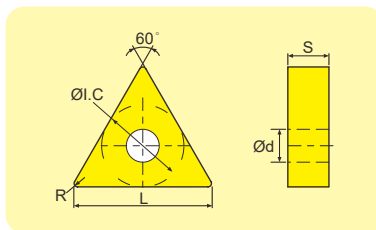
I CBN CBN Inset


Dimension (mm)

L : 2.6 S : 3.18

IC : 6.35 Ød : 3.4

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No	R	Carbide Coated									
			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TPGW110302-3C	0.2									●	

Dimension (mm)

L : 2.5 S : 3.81


IC : 6.35 Ød : 3.4

Shape	Model No	R	Carbide Coated									
			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TPGW110304-3C	0.4									●	

Dimension (mm)

L : 2.2 S : 3.81

IC : 6.35 Ød : 3.4

Shape	Model No	R	Carbide Coated									
			P			P M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TPGW11T308-3C	0.8									●	

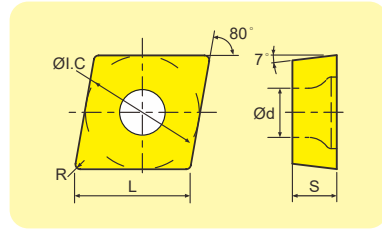
PCD

PCD Inset

Dimension (mm)

L : 2.5 S : 2.38
 IC : 6.35 Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Carbide Coated

Shape	Model No	R	P			P/M		K			CBN	PCD
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	CCMT060202-1P	0.2										●
	CCMT060204-1P	0.4										●

Dimension (mm)

L : 2.5 S : 3.97
 IC : 9.525 Ød : 4.4

Carbide Coated

Shape	Model No	R	P			P/M		K			CBN	PCD
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	CCMT09T302-1P	0.2										●
	CCMT09T304-1P	0.4										●

Dimension (mm)

L : 2.5 S : 4.76
 IC : 12.7 Ød : 5.16

Carbide Coated

Shape	Model No	R	P			P/M		K			CBN	PCD
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	CNMA120402-1P	0.2										●
	CNMA120404-1P	0.4										●

A
INSERT



PCD

ER / IR



PCD Inset

A
 INSERT

 PCD
 Insert

I PCD

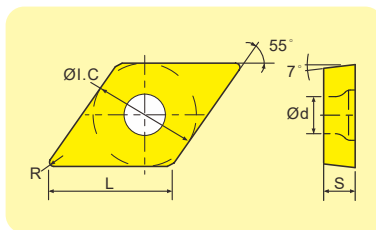
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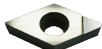
Dimension (mm)

L : 2.7 S : 2.38

IC : 6.35 Ød : 2.8

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
	DCMT070202-1P	0.2	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		●

Dimension (mm)

L : 2.5 S : 2.38


IC : 6.35 Ød : 2.8

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
	DCMT070204-1P	0.4	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		●

Dimension (mm)

L : 2.7 S : 3.97


IC : 9.525 Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
	DCMT11T302-1P	0.2	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		●

Dimension (mm)

L : 2.5 S : 3.97

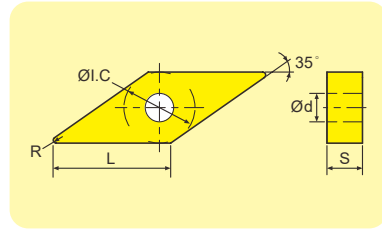
IC : 9.525 Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
	DCMT11T304-1P	0.4	ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		●

PCD PCD Inset

Dimension (mm)	
L : 3.3	S : 4.76
IC : 9.525	Ød : 4.4

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	VCMT160402-1P	0.2										●

Dimension (mm)	
L : 2.8	S : 4.76
IC : 9.525	Ød : 4.4

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	VCMT160404-1P	0.4										●

Dimension (mm)	
L : 3.3	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	VNMT160402-1P	0.2										●

Dimension (mm)	
L : 2.8	S : 4.76
IC : 9.525	Ød : 3.81

Shape	Model No	R	Carbide Coated						CBN	PCD		
			P	P	M	K	H					
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300		
	VNMT160404-1P	0.4										●

A
INSERT



A
 INSERT

 PCD
 Insert

I PCD PCD Inset

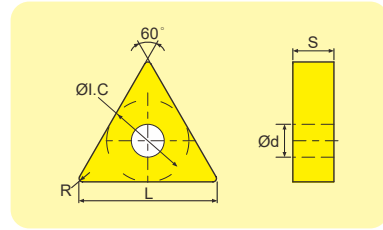
Dimension (mm)


L : 2.5 S : 2.38

IC : 6.35 Ød : 2.8

● Standard Stocks

- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H




Shape	Model No	R	Carbide Coated									
			P			P/M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TCMT110202-1P	0.2										●
	TCMT110204-1P	0.4										●

Dimension (mm)

L : 2.4 S : 4.76


IC : 9.525 Ød : 3.81

Shape	Model No	R	Carbide Coated									
			P			P/M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TNMA160402-1P	0.2										●

Dimension (mm)

L : 2.3 S : 4.76

IC : 9.525 Ød : 3.81

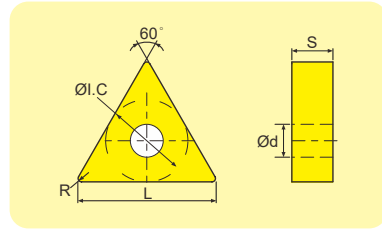
Shape	Model No	R	Carbide Coated									
			P			P/M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TNMA160404-1P	0.2										●

PCD

PCD Inset

Dimension (mm)	
L : 2.6	S : 3.18
IC : 6.35	Ød : 3.4

- Standard Stocks
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-I
- ◆ Chipbreaker Ref. Page-F-H



Shape	Model No	R	Carbide Coated									
			P			P/M		K			H	
			ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TPMT110302-1P	0.2										●

Dimension (mm)		R	Carbide Coated									
L : 2.5	S : 3.18		P			P/M		K			H	
IC : 6.35	Ød : 3.4		ECP100	ECP200	ECP300	ECM100	ECM200	ECK100	ECK200	ECK300	CBN	PCD
	TPMT110304-1P	0.4										●

A
INSERT



Threading Insert Identification System

16 E R - 1.5 ISO

1

2

2

3

4

1 Insert size

2 Type of Insert

2 Hand of Insert

3 Pitch

4 Thread Standard

1 Insert size

Sign	IC
11	6.35
16	9.525
22	12.7
27	15.875

2 Type of Insert · Hand of Insert

External		Internal	
Sign	Hand of insert	Sign	Hand of insert
ER	Right Hand Insert	IR	Right Hand Insert
IR	Left Hand Insert	ER	Left Hand Insert

3 Pitch

Full Profile	
mm	TPI
0.35~6.0	72.4

Partial Profile		
Code	mm	TPI
A	0.5~1.5	48~16
AG	0.5~3.0	48~8
G	1.75~3.0	14~8
N	3.5~5.0	7~5
Q	5.5~6.0	48~4

4 Thread Standard

Sign	Full Profile	Sign	Full Profile
60°	Partial profile 60°	UN	American UN
55°	Partial profile 55°	W	Whitworth for BSW, BSP
ISO	ISO Metric	NPT	NPT



Threading Carbided Grades

A
INSERT



T 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

EC400

An advanced PVD TiAlN coated grade over a tough wear-resistant submicron substrate for general purpose machining of steel · stainless steel · super alloys.

Grade		P				M				K			N				S			H			
		P10	P20	P30	P40	M10	M20	M30	M40	K10	K20	K30	K40	N10	N20	N30	N40	S10	S20	S30	S40	H10	H20
Coated	EC400	█				█				█			█				█			█			

Selection Base On Helix Angle Anvils

L	Holder Type	Thread Helix Angle								
		4.5	3.5	2.5	1.5	0.5	0	-0.5	-1.5	
16	ER / IL	ES16+4.5	ES16+3.5	ES16+2.5	ES16+1.5	ES16+0.5	ES16-0	ES16-0.5	ES16-1.5	
	IR / EL	IS16+4.5	IS16+3.5	IS16+2.5	IS16+1.5	IS16+0.5	IS16-0	IS16-0.5	IS16-1.5	
22	ER / IL	ES22+4.5	ES22+3.5	ES22+2.5	ES22+1.5	ES22+0.5	ES22-0	ES22-0.5	ES22-1.5	
	IR / EL	IS22+4.5	IS22+3.5	IS22+2.5	IS22+1.5	IS22+0.5	IS22-0	IS22-0.5	IS22-1.5	
27	ER / IL	ES27+4.5	ES27+3.5	ES27+2.5	ES27+1.5	ES27+0.5	ES27-0	ES27-0.5	ES27-1.5	
	IR / EL	IS27+4.5	IS27+3.5	IS27+2.5	IS27+1.5	IS27+0.5	IS27-0	IS27-0.5	IS27-1.5	

A
 INSERT

Machine Conditions

ISO	Material	Hardness	Coated : EC400
			Cutting speed DM/Min
P	Non-alloy steel free cutting steel	130	80-120
	Low carbon alloy steel	200	80-120
	High carbon alloy steel	240	60-90
	Heat treated steel	400	60-90
M	300 stainless steel	200	70-100
	400 stainless steel	240	50-80
	17-4 PH, 15PH, 18-8MO PH	400	40-60
K	Tool steel cast steel	270	80-120
	SC490	270	80-120
	FC300	270	80-120
	FC400	270	80-120
N	Wrought aluminum (2024, 6061, 7075..)	80	150-200
	Cast aluminum	90	120-160
	Copper alloys: brass, bronze, copper silicon	100	100-150
	Non metallic. Rubber, polypropylene, thermoplastics (PVC) fiberglass, polyamides		200-300
S	Alpha-beta alloys: Ti6Al4V / $\alpha - \beta$	350	30-60
	Inconel, hastelloy, waspalloy, kovar	300	30-60
	High temperature alloys: iron based: incoloy	270	30-60
H	Hardened steel	HRC56	20-45
	Hardened cast iron	HRC50	20-45



Machine conditions

Recommend Of Infeed Modes On Threading Break Shapes

A
INSERT

C

D

R

S

T

V

W

ECH

SPMT

WCMX

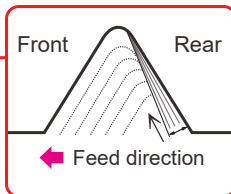
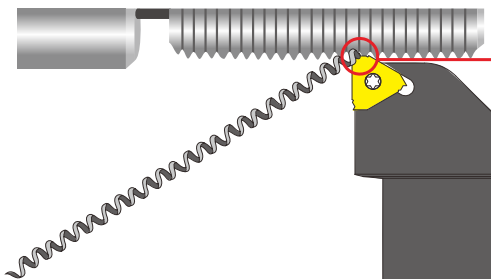
CBN

PCD

ER / IR

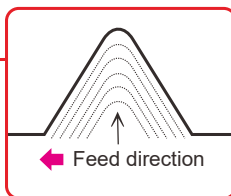
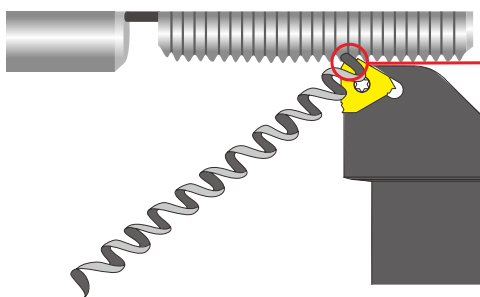
Recommend Of Infeed Modes On Threading Break Shapes

Lateral Feeding Processing



Small curl diameter, ideal chip remove.

Radial Feeding Processing



Lage curl diameter, not ideal chip remove.

Cutting Conditions

Material		V _c (m/min)	Material		V _c (m/min)
P	Steel	70~120	K	Cast	80~140
	Steel	60~110		Nodular cast iron	60~110
M	Stainless steel	50~90	S	Titanium alloy	20~70

A
 INSERT

O.D Metric Threads

Cutting depth/time(mm)

Pitch (mm)	Depth (mm)	Processing number of times															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
0.75	0.48	0.24	0.12	0.07	0.05												
1.00	0.64	0.25	0.15	0.11	0.08	0.05											
1.25	0.80	0.25	0.15	0.12	0.09	0.08	0.06	0.05									
1.50	0.92	0.28	0.15	0.12	0.10	0.09	0.07	0.06	0.05								
1.75	1.10	0.28	0.15	0.12	0.10	0.10	0.09	0.08	0.07	0.06	0.05						
2.00	1.26	0.30	0.16	0.13	0.10	0.09	0.09	0.08	0.07	0.07	0.06	0.06	0.05				
2.50	1.57	0.38	0.19	0.15	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05		
3.00	1.87	0.40	0.22	0.15	0.13	0.12	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05



I.D Inch Diameter Threads

Cutting depth/time(mm)

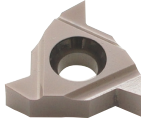
Pitch (mm)	Depth (mm)	Processing number of times															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
8	2.00	0.40	0.25	0.19	0.16	0.14	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05
9	1.78	0.38	0.20	0.13	0.12	0.11	0.10	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.05	0.05
10	1.60	0.38	0.20	0.15	0.12	0.10	0.09	0.09	0.08	0.08	0.07	0.07	0.06	0.06	0.05		
11	1.46	0.30	0.18	0.13	0.12	0.11	0.10	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05		
12	1.34	0.30	0.18	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05			
13	1.23	0.30	0.18	0.13	0.10	0.08	0.08	0.07	0.07	0.06	0.06	0.05	0.05				
14	1.15	0.28	0.15	0.12	0.10	0.10	0.09	0.08	0.07	0.06	0.05	0.05					
16	1.00	0.28	0.15	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05						
18	0.89	0.26	0.15	0.12	0.10	0.08	0.07	0.06	0.05								
20	0.80	0.26	0.15	0.10	0.09	0.08	0.07	0.05									
24	0.67	0.25	0.19	0.12	0.06	0.05											
28	0.57	0.25	0.17	0.10	0.05												
32	0.50	0.24	0.14	0.07	0.05												

Metric, Inch Diameter Threads

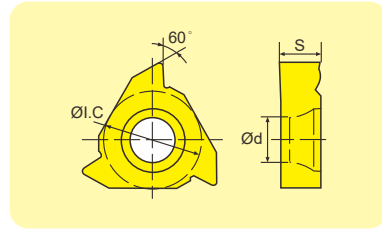
ER / IR

Insert For Threading

- Standard Stocks
- We could provide inserts for other specifications, please contact us!
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape



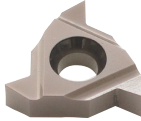
				Carbide Coated					Carbide Coated
				P					P
				EC400					EC400
Model No	Pitch	I.C	Ød		Model No	Pitch	I.C	Ød	
06IR-0.5-ISO	0.5	4.0	2.32	●	11ER/IR-18-UN	18	6.35	2.8	●
06IR-0.75-ISO	0.75	4.0	2.32	●	11ER/IR-14W	14	6.35	2.8	●
06IR-1.0-ISO	1	4.0	2.32	●	11ER/IR-19W	19	6.35	2.8	●
06IR-27-NPT	27	4.0	2.32	●	11ER-28W	28	6.35	2.8	●
06IR-19W	19	4.0	2.32	●	11ER/IR-A55	0.5-1.5	6.35	2.8	●
06IR-28W	28	4.0	2.32	●	11ER/IR-A60	0.5-1.5	6.35	2.8	●
06IR-A55	0.5-1.5	4.0	2.32	●	16ER/IR-0.35-ISO	0.35	9.525	4.4	●
06IR-A60	0.5-1.5	4.0	2.32	●	16ER/IR-0.4-ISO	0.4	9.525	4.4	●
08IR-0.5-ISO	0.5	5.0	2.57	●	16IR-0.45-ISO	0.45	9.525	4.4	●
08IR-1.0-ISO	1	5.0	2.57	●	16ER/IR-0.5-ISO	0.5	9.525	4.4	●
08IR-0.75-ISO	0.75	5.0	2.57	●	16ER-0.6-ISO	0.6	9.525	4.4	●
08IR-A60	0.5-1.5	5.0	2.57	●	16ER/IR-0.7-ISO	0.7	9.525	4.4	●
11ER/IR-0.5-ISO	0.5	6.35	2.8	●	16ER/IR-0.75-ISO	0.75	9.525	4.4	●
11ER/IR-0.75-ISO	0.75	6.35	2.8	●	16ER/IR-0.8-ISO	0.8	9.525	4.4	●
11ER/IR-1.0-ISO	1	6.35	2.8	●	16ER/IR-1.0-ISO	1	9.525	4.4	●
11ER/IR-1.25-ISO	1.25	6.35	2.8	●	16ER/IR-1.25-ISO	1.25	9.525	4.4	●
11ER/IR-1.5-ISO	1.5	6.35	2.8	●	16ER/IR-1.5-ISO	1.5	9.525	4.4	●
11IR-1.75-ISO	1.75	6.35	2.8	●	16ER/IR-1.75-ISO	1.75	9.525	4.4	●
11IR-2.0-ISO	2	6.35	2.8	●	16ER/IR-2.0-ISO	2.0	9.525	4.4	●
11IR-14-BSPT	14	6.35	2.8	●	16ER/IR-2.5-ISO	2.5	9.525	4.4	●
11IR-14-NPT	14	6.35	2.8	●	16ER/IR-3.0-ISO	3	9.525	4.4	●
11IR-14-UN	14	6.35	2.8	●	16IR-8-ACME	8	9.525	4.4	●
11IR-16-UN	16	6.35	2.8	●	16ER-12-ACME	12	9.525	4.4	●

※ Continued on next page.

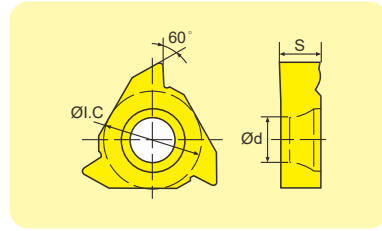
16ER / IR

Insert For Threading

- Standard Stocks
- We could provide inserts for other specifications, please contact us!
- ◆ Grade Ref. Page-D
- ◆ Cutting condition Ref. Page-D
- ◆ Chipbreaker Ref. Page-F-H



Shape



				Carbide Coated					Carbide Coated
				P					P
				EC400					EC400
Model No	Pitch	I.C	Ød		Model No	Pitch	I.C	Ød	
16ER/IR-11-BSPT	11	9.525	4.4	●	16ER/IR-8W	8	9.525	4.4	●
16ER/IR-14-BSPT	14	9.525	4.4	●	16ER-10W	10	9.525	4.4	●
16ER/IR-19-BSPT	19	9.525	4.4	●	16ER/IR-11W	11	9.525	4.4	●
16ER-28-BSPT	28	9.525	4.4	●	16ER/IR-12W	12	9.525	4.4	●
16IR-8-NPT	8	9.525	4.4	●	16ER/IR-14W	14	9.525	4.4	●
16ER/IR-11.5-NPT	11.5	9.525	4.4	●	16ER/IR-16W	16	9.525	4.4	●
16ER/IR-14-NPT	14	9.525	4.4	●	16ER/IR-18W	18	9.525	4.4	●
16ER/IR-14-NPT(0.2R)	14	9.525	4.4	●	16ER/IR-19W	19	9.525	4.4	●
16ER/IR-18-NPT	18	9.525	4.4	●	16ER/IR-A60	0.5-1.5	9.525	4.4	●
16ER/IR-8-UN	8	9.525	4.4	●	16ER/IR-A55	0.5-1.5	9.525	4.4	●
16ER-10-UN	10	9.525	4.4	●	16ER/IR-AG55	0.5-3.0	9.525	4.4	●
16IR-11-UN	11	9.525	4.4	●	16ER/IR-AG60	0.5-3.0	9.525	4.4	●
16ER/IR-14-UN	14	9.525	4.4	●	16ER/IR-G55	1.75-3.0	9.525	4.4	●
16ER/IR-16-UN	16	9.525	4.4	●	16ER/IR-G60	1.75-3.0	9.525	4.4	●
16ER/IR-18-UN	18	9.525	4.4	●	22ER-3.5-ISO	3.5	12.7	5.5	●
16ER/IR-20-UN	20	9.525	4.4	●	22ER/IR-4.0-TR	4.0	12.7	5.5	●
16ER/IR-24-UN	24	9.525	4.4	●	22ER-4.5-ISO	4.5	12.7	5.5	●
16ER-28-UN	28	9.525	4.4	●	22IR-5.0-ISO	5.0	12.7	5.5	●
16ER/IR-12-UN	12	9.525	4.4	●	22IR-7-UN	7	12.7	5.5	●
16ER/IR-14-UN	14	9.525	4.4	●	22ER/IR-N55	3.5-5.0	12.7	5.5	●
16ER/IR-16-UN	16	9.525	4.4	●	22ER/IR-N60	3.5-5.0	12.7	5.5	●

 A
 INSERT

- C
- D
- R
- S
- T
- V
- W
- ECH
- SPMT
- WCMX
- CBN
- PCD
- ER / IR

Insert For Threading