

INSERT IDENTIFICATION SYSTEM

A GRADES
B INSERTS
C CN & PCD
E TURNING
F BORING
G GROOVING
H CUT-OFF
J THREADING
L SOLID END MILLS
M MILLING
P SPARE PARTS
R TECHNICAL
T INDEX

Symbol	Insert
T	Triangle
C	80° Rhombic
D	55° Rhombic
J	70° Rhombic
V	35° Rhombic
W	80° Trigon

Shown angle stands for acute angle for rhombic and parallelogram inserts.

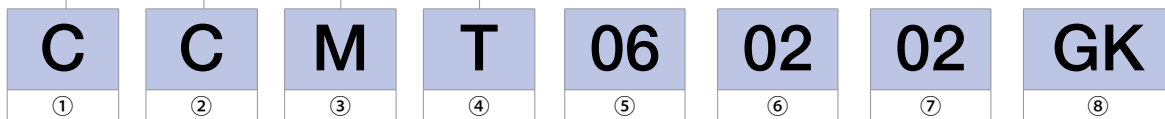
Symbol	Relief Angle
B	5°
C	7°
N	0°
P	11°

Symbol (Class)	Tolerance					
	Corner Height		Thickness		I.C. Size	
	ANSI (±inch)	ISO (±mm)	ANSI (±inch)	ISO (±mm)	ANSI (±inch)	ISO (±mm)
E	0.0010	0.025	0.0010	0.025	0.0010	0.025
G			0.0005	0.130		
K※	0.0005	0.013	0.0010	0.025	0.002-0.006	0.05-0.15
M※	0.003-0.007	0.080-0.180	0.0005	0.130		

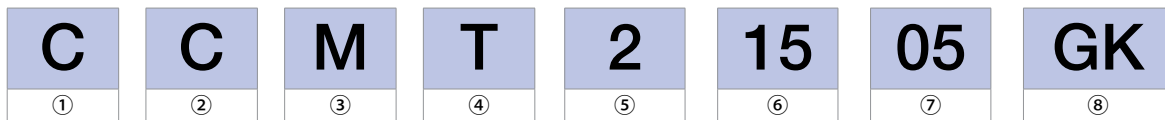
※ Insert's periphery is as fired.
Tolerance difference depends on size and shape of insert

Symbol	Hole	Hole Shape	Chipbreaker	Insert
A		With Hole	No	
M			One Side	
G			Two Sides	
W	Yes	With Hole and One Countersink 40°-60° One Side	No	
T			One Side	
U		With Hole and One Countersink 70°-90° Two Sides	Two Sides	
B			No	
H			One Side	

ISO (metric)



ANSI (inch)



⑤ Edge Length Symbol (ISO)					I.C. Size (mm)	I.C. Size (ANSI)	
						I.C. Size (inch)	Symbol
03	04	06			3.97	5/32	12
04	05	08	08		4.76	3/16	15
05	06	09		03	5.56	7/32	18
06	07	11	11	04	6.35	1/4	2
08	09	13		05	7.94	5/16	25
09	11	16	16	06	9.525	3/8	3
12	15	22	22	08	12.7	1/2	4

- Expressed as edge length for ISO.
- ANSI expresses the inscribed circle diameter in inches.

⑥ Thickness Symbol			
ISO		ANSI	
Thickness (mm)	Symbol	Thickness (inch)	Symbol
1.59	01	1/16	1
1.98	T1	5/64	1.2
2.38	02	3/32	1.5
2.78	T2	-	-
3.18	03	1/8	2
3.97	T3	5/32	2.5
4.76	04	3/16	3

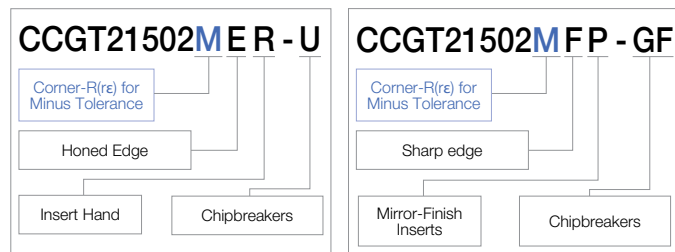
Thickness displayed as the distance between bottom surface and highest point on cutting edge.

⑦ Corner-R(re) Symbol			
ISO		ANSI	
Corner-R(re) (mm)	Symbol	Corner-R(re) (inch)	Symbol
Sharp Corner	00	0.000	00
0.03	003	0.001	0.1
0.05	005	0.002	0.13
0.1	01	0.004	0.2
0.2	02	0.008	0.5
0.4	04	1/64	1
0.8	08	1/32	2
1.2	12	3/64	3

⑧ Manufacturer's Option

Hand Symbol, Chipbreaker, Symbol, Etc

Positive Insert Identification System (e.g. of (8) Manufacturer's Option)



When a minus tolerance is specified for the corner-R(re)

- If a minus tolerance is specified for the corner-R(re) as shown in the Fig.1, using an insert with corner-R(re) = 0.008" may result in larger radius than specified.
- Use an insert the corner of which R(re) has a minus tolerance.

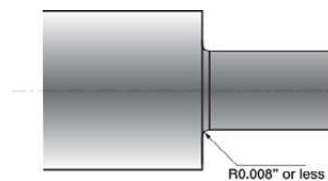


Fig.1 Example of a specified corner-R in the drawing