

Milling Inserts Identification System

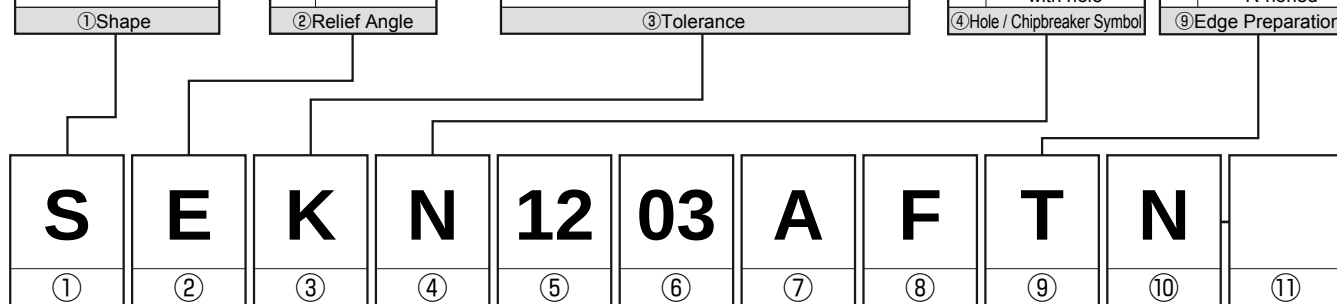
Symbol	Shape
H	Hexagon
O	Octagon
P	Pentagon
S	Square
T	Triangle
C	80° Diamond
D	55° Diamond
E	75° Diamond
F	50° Diamond
M	86° Diamond
V	35° Diamond
W	80° Trigon
L	Rectangle
A	85° Parallelogram
B	82° Parallelogram
K	55° Parallelogram
R	Round
Shown angle stands for acute angle for diamond and parallelogram inserts.	

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

Symbol	Tolerance (mm)		
	Corner Height	Thickness	IC Size
A	±0.005	±0.025	±0.025
F			±0.013
C	±0.013		±0.025
H			±0.013
E	±0.025	±0.13	±0.025
G			
J	±0.005	±0.025	±0.05~±0.15
K*	±0.013		
L*	±0.025		
M*	±0.08~±0.18	±0.13	±0.08~±0.25
N*		±0.025	
U*	±0.13~±0.38	±0.13	±0.08~±0.25
Insert's periphery is as fired. *Tolerance difference is depending on insert size.			
③Tolerance			

Symbol	Shape
W	No chipbreaker, with hole
T	1 edge chipbreaker, with hole
F	2 edge chipbreakers, without hole
N	No Chipbreaker, Without Hole
R	1 edge chipbreaker, without hole
M	1 edge chipbreaker, with hole
A	No chipbreaker, with hole

Symbol	Shape
F	Sharp Edge
E	R-honed
T	Chamfer
S	Chamfer + R-honed

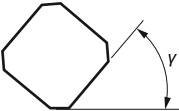


⑤ Edge Length
S
T
R
A, N
O

⑥Thickness	
Symbol	Thickness
02	2.38
03	3.18
T3	3.97
04	4.76
05	5.56
06	6.35



⑦ Approach Angle	
A	45°
D	60°
E	75°
F	85°
H	87°
P	90°
X	65°



A diagram showing a regular hexagon. One of its sides is horizontal and lies on a horizontal line. From the top-right vertex of the hexagon, a line segment extends upwards and to the right. An arc indicates the angle between this line segment and the horizontal line, labeled with the letter Y.

⑧ Relief Angle	
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
R	10°
S	14°
T	22°
U	23°



The diagram illustrates the relief angle β in a cutting process. It shows a horizontal line representing the workpiece surface, a vertical line representing the cutting direction, and a diagonal line representing the tool's cutting edge. The angle between the cutting edge and the horizontal surface is labeled β .

⑩ Tool Hand	
Symbol	Hand
R	Right
L	Left
N	Without Hand

⑪ Manufacturer's Option
• Chipbreaker, etc.

In case of indicating corner-R(r_c) at ⑦ and ⑧

⑦⑧ Corner-R(r _ε)	
04	0.4 Corner-R(r _ε)
08	0.8 //
12	1.2 //
16	1.6 //
20	2.0 //



The diagram shows a square corner with a fillet radius r_ϵ . A dimension line with arrows at both ends indicates the radius of the fillet, labeled r_ϵ .

M



Milling