

# Insert Nomenclature - ANSI

### Shape

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

### Clearance

N =
A =
B =
C =
P =
D =
E =
F =
G =

### I.C.

Number of 1/16's on inserts less than 1/4" I.C.

Number of 1/8's on inserts 1/4" I.C. and over

Rectangle and parallelogram inserts require two digits:  
-1st, Number of 1/8's in width  
-2nd, Number of 1/4's in length

2 = 1/4"
3 = 3/8"
4 = 1/2"
5 = 5/8"
6 = 3/4"
8 = 1"

### Corner

0 = Sharp Corner	4 = 1/16" radius
1 = 1/64" radius	6 = 3/32" radius
2 = 1/32" radius	8 = 1/8" radius
3 = 3/64" radius	12 = 3/16" radius

A = Square w/ 45° chamfer  
D = Square w/ 30° chamfer  
E = Square w/ 15° chamfer  
K = Square w/ 15° double chamfer  
N = Truncated triangle insert  
P = Flattened corner triangle

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

### Tolerance

	d	m	t
A =	+/- .0010	+/- .0002	+/- .001
F =	+/- .0005	+/- .0002	+/- .001
C =	+/- .0010	+/- .0005	+/- .001
H =	+/- .0005	+/- .0005	+/- .001
E =	+/- .0010	+/- .0010	+/- .001
G =	+/- .0010	+/- .0010	+/- .005
**J =	+/- .002 to +/- .006	+/- .0002	+/- .001
**K =	+/- .002 to +/- .006	+/- .0005	+/- .001
**L =	+/- .002 to +/- .006	+/- .0010	+/- .001
**M =	+/- .002 to +/- .006	+/- .003 to +/- .008	+/- .005
**N =	+/- .002 to +/- .006	+/- .003 to +/- .008	+/- .001
**U =	+/- .003 to +/- .010	+/- .005 to +/- .015	+/- .005

### Geometry

A =	*K =
B =	*L =
C =	M =
*D =	N =
*E =	Q =
F =	R =
G =	T =
H =	U =
J =	W =

X = Special Design

### Thickness

Number of 1/32's on inserts less than 1/4" IC

Number of 1/16's on inserts 1/4" IC and over

1 = 1/16"
2 = 1/8"
3 = 3/16"
4 = 1/4"
5 = 5/16"
6 = 3/8"

\* Smaller than 1/4" I.C.

\*\* Exact tolerance is determined by the size of the insert.

### Geometry:

B, C, H, J - countersink is between 70 - 90 degrees.

Q, T, U, W - countersink is between 40 - 60 degrees.

# Insert Nomenclature - ISO

### Shape

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

### Clearance

N =
A =
B =
C =
P =
D =
E =
F =
G =

### Length of Cutting Edge

If less than 10 use 0 in first place.  
Example: 9,525 = 09

### Corner

00 = Round Insert	12 = 1,2mm
00 = Sharp Corner	16 = 1,6mm
02 = 0,2mm	24 = 2,4mm
04 = 0,4mm	32 = 3,2mm
08 = 0,8mm	40 = 4,0mm

A = Square w/ 45° chamfer  
D = Square w/ 30° chamfer  
E = Square w/ 15° chamfer  
K = Square w/ 15° double chamfer  
N = Truncated triangle insert  
P = Flattened corner triangle

C N M G - 12 04 08

### Tolerance

	d	m	t
A =	+/- 0,025	+/- 0,005	+/- 0,025
F =	+/- 0,013	+/- 0,005	+/- 0,025
C =	+/- 0,025	+/- 0,013	+/- 0,025
H =	+/- 0,013	+/- 0,013	+/- 0,025
E =	+/- 0,025	+/- 0,025	+/- 0,025
G =	+/- 0,025	+/- 0,025	+/- 0,13
*J =	+/- 0,05 to +/- 0,15	+/- 0,005	+/- 0,025
*K =	+/- 0,05 to +/- 0,15	+/- 0,013	+/- 0,025
*L =	+/- 0,05 to +/- 0,15	+/- 0,025	+/- 0,025
*M =	+/- 0,05 to +/- 0,15	+/- 0,08 to +/- 0,20	+/- 0,13
*N =	+/- 0,05 to +/- 0,15	+/- 0,08 to +/- 0,20	+/- 0,025
*U =	+/- 0,08 to +/- 0,25	+/- 0,13 to +/- 0,38	+/- 0,13

### Geometry

A =	M =
B =	N =
C =	Q =
F =	R =
G =	T =
H =	U =
J =	W =

X = Special Design

### Thickness

If less than 10 use 0 in first place.  
Example: 3,18 = 03

\* Exact tolerance is determined by the size of the insert.

#### Geometry:

B, C, H, J - countersink is between 70 - 90 degrees.  
Q, T, U, W - countersink is between 40 - 60 degrees.