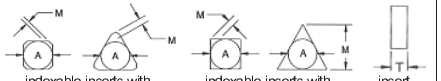
Milling Insert Identification System

NOTE: tolerances apply prior to edge prep and coating

inch
metric (mm)

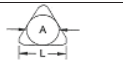


A	TOLERANCES ON "A"		TOLERANCES ON "M"	
	CLASSES J, K, L, M, N	CLASS U	CLASSES M, N	CLASS U
.1875 through .3937 *4,76 through 10,00*	.002 *0,051*	.003 *0,076*	.003 *0,076*	.005 *0,127*
.4375 through .5625 *11,11 through 14,29*	.003 *0,076*	.005 *0,127*	.005 *0,127*	.008 *0,203*
.5906 through .8125 *15,00 through 20,64*	.004 *0,102*	.007 *0,178*	.006 *0,152*	.011 *0,279*
.8661 through 1.188 *22,00 through 31,16*	.005 *0,127*	.010 *0,254*	.007 *0,178*	.015 *0,381*
1.250 through 1.378 *31,75 through 35,00*	.006 *0,152*	.010 *0,254*	.008 *0,203*	.015 *0,381*

	A	M	T		A	M	T
A	.001 *0,025*	.0002 *0,005*	.001 *0,025*	H	.0005 *0,013*	.0005 *0,013*	.001 *0,025*
B	.001 *0,025*	.0002 *0,005*	.005 *0,130*	J	*.002 - .005 **0,05 – 0,13*	.0002 *0,005*	.001 *0,025*
C	.001 *0,025*	.0005 *0,013*	.001 *0,025*	K	*.002 - .005 **0,05 – 0,13*	.0005 *0,013*	.001 *0,025*
D	.001 *0,025*	.0005 *0,013*	.005 *0,130*	L	*.002 - .005 **0,05 – 0,13*	.001 *0,025*	.001 *0,025*
E	.001 *0,025*	.001 *0,025*	.001 *0,025*	M	*.002 - .004 **0,05 – 0,10*	*.002 - .010 **0,05 - 0,25*	.005 *0,130*
F	.0005 *0,013*	.0002 *0,005*	.001 *0,025*	N	*.002 - .004 **0,05 – 0,10*	*.002 - .010 **0,05 - 0,25*	.001 *0,025*
G	.001 *0,025*	.001 *0,025*	.005 *0,130*	U	*.003 - .010 **0,08 – 0,25*	*.005 - .012 **0,13 - 0,30*	.005 *0,130*

* See table above for tolerances according to insert size and class

3 - TOLERANCE



inscribed circle "A", cutting edge length "L"

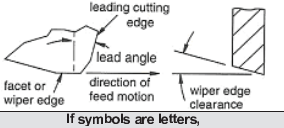
For shapes A, L, and N use length of leading cutting edge (for inch, use increments of ¼")

SYMBOL	INCH A	METRIC A	L (for insert shape indicated) S	T	R	O	C	H	E
-	-	6,00	-	-	06	-	-	-	-
2	1/4	6,35	06	11	06	02	06	03	06
-	-	8,00	-	-	08	-	-	-	-
3	3/8	9,52	09	16	09	04	09	05	09
-	-	10,00	-	-	10	-	-	-	-
-	-	12,00	-	-	12	-	-	-	-
4	1/2	12,70	12	22	12	05	12	07	13
5	5/8	15,88	15	27	15	06	16	09	16
-	-	16,00	-	-	16	-	-	-	-
6	3/4	19,05	19	33	19	07	19	11	19
-	-	20,00	-	-	20	-	-	-	-
-	-	25,00	-	-	25	-	-	-	-
8	1	25,40	25	44	25	10	25	14	26

5 - SIZE

SYMBOL	HOLE	SHAPE OF HOLE	CHIPBREAKER
N	without		without
R			single-sided
F			double-sided
A	with	cylindrical hole	without
M			single-sided
G			double-sided
W		partly cylindrical hole, 40-60° countersink	without
T			single-sided
B		partly cylindrical hole, 70-90° countersink	without
H			single-sided
C		partly cylindrical hole, 70-90° double countersink	without
J			double-sided

4 - INSERT TYPE



If symbols are letters, lead angle and wiper edge clearance					If symbols are numbers, corner radius			
LEAD ANGLE			WIPER EDGE CLEARANCE		INCH		METRIC	
SYMBOL	INCH	METRIC	SYMBOL	INCH/METRIC	SYMBOL	inch	SYMBOL	mm
A	45°	45°	A	3°	-	-	M0	round insert
D	Handed 30°	60°	B	5°	0	.004	01	0,1
K	Neutral 30°	-	C	7°	,5	.008	02	0,2
E	Handed 15°	75°	D	15°	1	1/64	04	0,4
L	Handed 15°	-	E	20°	-	-	05	0,5
P	0°	90°	F	25°	2	1/32	08	0,8
			G	30°	-	-	10	1,0
			N	0°	3	3/64	12	1,2
			P	11°	-	-	15	1,5
					4	1/16	16	1,6
					5	5/64	20	2,0
					6	3/32	24	2,4
					7	7/64	28	2,8
					8	1/8	32	3,2

7 – CORNER CONFIGURATION

INCH SYMBOL (1/16")	INCH inch	METRIC SYMBOL	METRIC mm
1.5	3/32	02	2,38
2	1/8	03	3,18
2.5	5/32	T3	3,97
3	3/16	04	4,76
-	-	M5	5,00
3.5	7/32	05	5,56
4	1/4	06	6,35
5	5/16	07	7,94

6 – THICKNESS

SYMBOL	inch
2	.0312
3	.0469
4	.0625
6	.0938

Facet width is number of 1/64" increments (1/32" for old styles)

10 – FACET WIDTH

EXAMPLE

inch	S	E	K	N		
metric	S	E	K	N		
position	1	2	3	4		

	4	2	AF	T	N	6
	12	03	AF	T	N	-
	5	6	7	8	9	10

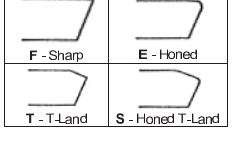
1 – SHAPE

SYMBOL SHAPE	SHAPE	NOSE ANGLE (DEGREES)
A	parallelogram	85
C	diamond	80
E	diamond	75
H	hexagon	120
L	rectangle	90
M	diamond	86
N	diamond	87
O	octagon	135
R	round	-
S	square	90
T	triangle	60

2 – RELIEF ANGLE

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

8 – CUTTING EDGE



9 – HAND OF INSERT