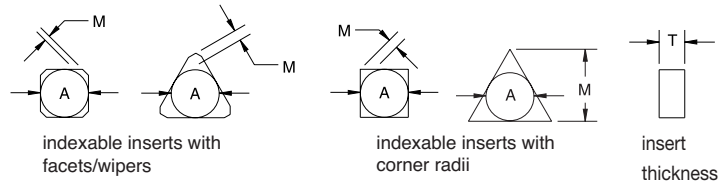


ANSI Inserts (inch)

NOTE:

Kennametal's milling insert identification system is provided as a general reference. The dimensional tables associated with each insert should be used for specific values. This system is based on the latest ANSI and ISO insert identification guidelines.

Dimensions shown in this catalog are prior to supplemental coating and edge modifications.



symbol shape	insert	shape	nose angle (degree)
A		parallelogram	85
C		rhomboid	80
E		rhomboid	75
H		hexagon	120
L		rectangle	90
O		octagon	135
R		round	—
S		square	90
T		triangle	60
X		standard Kennametal form	—

A	tolerances on "A"		tolerances on "M"	
	classes J, K, L, M, N	class U	classes M & N	class U
.1875 through .3937	.002	.003	.003	.005
.4375 through .5625	.003	.005	.005	.008
.5906 through .8125	.004	.007	.006	.011
.8661 through 1.188	.005	.010	.007	.015
1.250 through 1.378	.006	.010	.008	.015

	A	M	T		A	M	T
A	.001	.0002	.001	J	*.002-.005	.0002	.001
B	.001	.0002	.005	K	*.002-.005	.0005	.001
C	.001	.0005	.001	L	*.002-.005	.001	.001
D	.001	.0005	.005	M	*.002-.005	*.003-.008	.005
E	.001	.001	.001	N	*.002-.005	*.003-.008	.001
F	.0005	.0002	.001	P**	.0015	.0015	.0015
G	.001	.001	.005	U	*.003-.010	*.005-.015	.005
H	.0005	.0005	.001				

*See table above for tolerances according to insert size and class.
**Kennametal standard only.

Insert Shape



Tolerance Class (+/-)



Clearance Angle

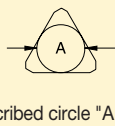
A	3°	D	15°	G	30°
B	5°	E	20°	N	0°
C	7°	F	25°	P	11°

Geometry and Clamping Type

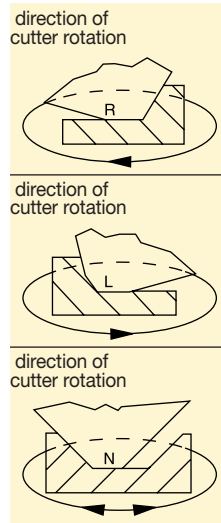
symbol	hole	shape of hole	chipbreaker	shape of insert's section
N	without		without	
R			single sided	
F			double sided	
A		cylindrical hole	without	
M			single sided	
G			double sided	
W		partly cylindrical hole, 40-60° countersink	without	
T			single sided	
Q			double sided	
U		partly cylindrical hole, 40-60° double countersink	without	
B			single sided	
H			double sided	
C		partly cylindrical hole, 70-90° countersink	without	
J			single sided	
X			double sided	
X			special design	

(a) For shapes A, L and X, see position #1; use length of leading cutting edge in increments of 1/4".

A	symbol
1.000	8
.750	6
.625	5
.500	4
.375	3
.250	2



F	sharp	
E	honed	
T	T-land	
S	honed T-land	



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

nominal or average angle of rake on insert face at leading cutting edge before edge prep and before installation

J	"polished" rake face
P	partial t-land
W	wiper/radiused facet

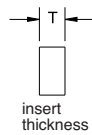
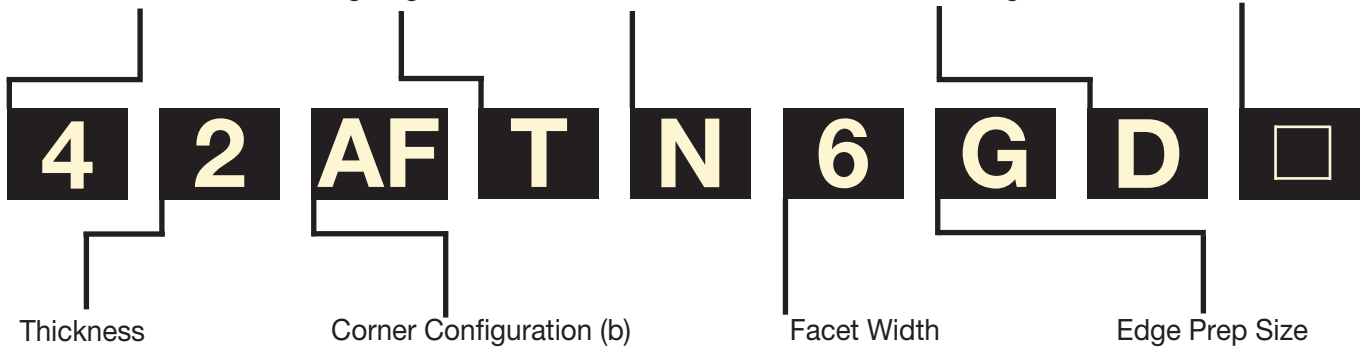
Size (a)

Cutting Edge Form

Insert Hand

Rake Face Angle

Added Info



T in 1/16"

.0938	1.5
.125	2
.1562	2.5
.1875	3
.2188	3.5
.2500	4
.3125	5

radius	radius	lead angle K		wiper edge clearance P	
0	.004	A	45°	A	3°
0.5	.008	D	handed 30°	B	5°
1	1/64	K	neutral 30°	C	7°
2	1/32	E	handed 15°	D	15°
3	3/64	L	neutral 15°	E	20°
4	1/16	P	0°	F	25°
5	5/64			G	30°
6	3/32			N	0°
7	7/64			P	11°
8	1/8				

(b) If letter is replaced by number(s), refer to table for radius "r".

leading or major cutting edge

facet or wiper edge

assumed direction of feed motion

section A-A

wiper edge clearance P

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

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

L	Light — sharp or lightly honed and/or T-landed
G	General — medium hone and/or T-land
H	Heavy — large hone and/or T-land