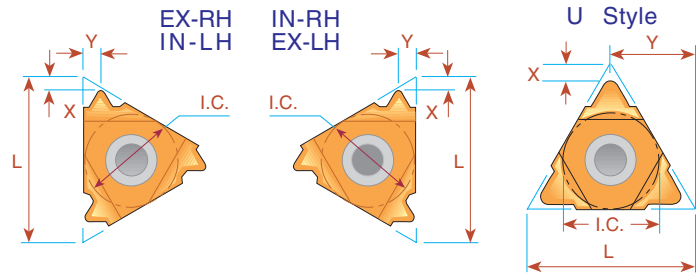
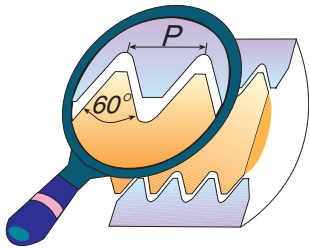


Partial Profile 60°

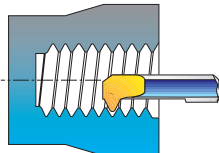


L	I.C. in	Pitch Range mm TPI	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
6	5/32	0.5 -1.25 48-20	ULTRA MINIATURE →		*06 IR A60	*06 IL A60	0.6	0.6
8	3/16	0.5 -1.5 48-16	MINIATURE →		*08 IR A60	*08 IL A60	0.6	0.7
8U	3/16U	1.75-2.0 14-11	"U" MINIATURE →		*08 IR/L U60		0.8	4.0
11	1/4	0.5 -1.5 48-16	11 ER A60	11 EL A60	11 IR A60	11 IL A60	0.8	0.9
16	3/8	0.5 -1.5 48-16	16 ER A60	16 EL A60	16 IR A60	16 IL A60	0.8	0.9
16	3/8	1.75-3.0 14- 8	16 ER G60	16 EL G60	16 IR G60	16 IL G60	1.2	1.7
16	3/8	0.5 -3.0 48- 8	16 ER AG60	16 EL AG60	16 IR AG60	16 IL AG60	1.2	1.7
22	1/2	3.5 -5.0 7- 5	22 ER N60	22 EL N60	22 IR N60	22 IL N60	1.7	2.5
22U	1/2U	5.5 -8.0 4.5- 3.25	22U E/I/R/L U60				0.6	11.0
27	5/8	5.5 -6.0 4.5- 4	27 ER Q60	27 EL Q60	27 IR Q60	27 IL Q60	2.1	3.1
27U	5/8U	6.5 -9.0 4- 2.75	27U E/I/R/L U60				1.0	13.7

Order example: 16 ER G60 MXC

For small bore threading see page 146

* Available only in BXC grade



Type B

Ground Profile with Sintered Chip-breaker



L	I.C. in	Pitch Range mm TPI	EXTERNAL Ordering Code		INTERNAL Ordering Code		X	Y
			Right Hand	Left Hand	Right Hand	Left Hand		
16	3/8	0.5 -1.5 48-16	16 ER B A60		16 IR B A60		0.8	0.9
16	3/8	1.75-3.0 14- 8	16 ER B G60		16 IR B G60		1.2	1.7
16	3/8	0.5 -3.0 48- 8	16 ER B AG60		16 IR B AG60		1.2	1.7

Order example: 16 ER B G60 BMA

For Carbide Grade and Cutting Speed see page 44

Carbide Grade Selection

Choose the C.P.T. grade specifically formulated for your application from the following list:

Uncoated Grades

P30*
(P20-P30) Carbide grade for carbon and cast steels, works well at medium to low cutting speeds.

K20*
(K10-K30) Carbide grade for non ferrous metals, aluminum and cast iron.

Coated Grades

P25C
(P15-P35) PVD TiN coated grade for treated and hard alloy steels (25 HRC & up) at medium to low cutting speeds.

MXC
(K10-K20)
(P10-P25) PVD TiN coated micrograin for free cutting untreated alloy steels (below 30 HRC), for stainless steels and cast iron.

BMA
(P20-P40)
(K20-K30) PVD TiAlN coated sub-micrograin grade for stainless steels and exotic materials at medium to high cutting speeds.

BXC**
(P30-P50)
(K25-K40) PVD TiN coated grade for low cutting speed. Works well with wide range of stainless steels.

Note: Due to our unique and specialized production techniques, C.P.T. coated inserts provide superior cutting performance and exceptionally long tool life.

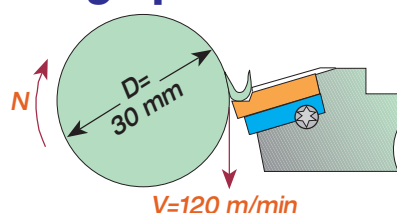
Recommended cutting speed (m/min) for thread turning inserts

ISO Standard	Materials	Coated				Uncoated	
		P25C*	MXC	BMA	BXC**	P30*	K20*
P	Steel: Low & Medium Carbon Steels	80-160	90-160	100-180	20-100	70-120	
	High Carbon Steels	80-120	80-150	90-160	30-80	60-100	
	Alloy Steels, Treated Steels	50-100	80-120	90-120	40-90	50-80	
	Cast Steel	80-140	100-140	120-160	30-80	50-100	
M	Stainless steel: Cast steels Stainless austenitic and austenitic ferritic steel and cast steel		70-120	90-130	30-90	70-100	80-100
K	Cast iron: Grey cast iron, cast iron with spherical graphite, malleable cast iron		80-130	80-150	30-90		60-100
N	Nonferrous Metal: Aluminium and other nonferrous metals, copper alloys non metallic		300-600		20-200		120-200
S	Super-alloys and Titanium: Heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys		40-80	50-100	15-30		
H	Hard Materials: Hardened steel, hardened cast iron materials, chilled cast iron		20-40	30-50	15-30		

- Upon request
- For miniature and ultra miniature insert

Conversion of Cutting Speed to Rotational Speed

Conversion of a selected cutting speed to rotational speed is calculated by the following formula:

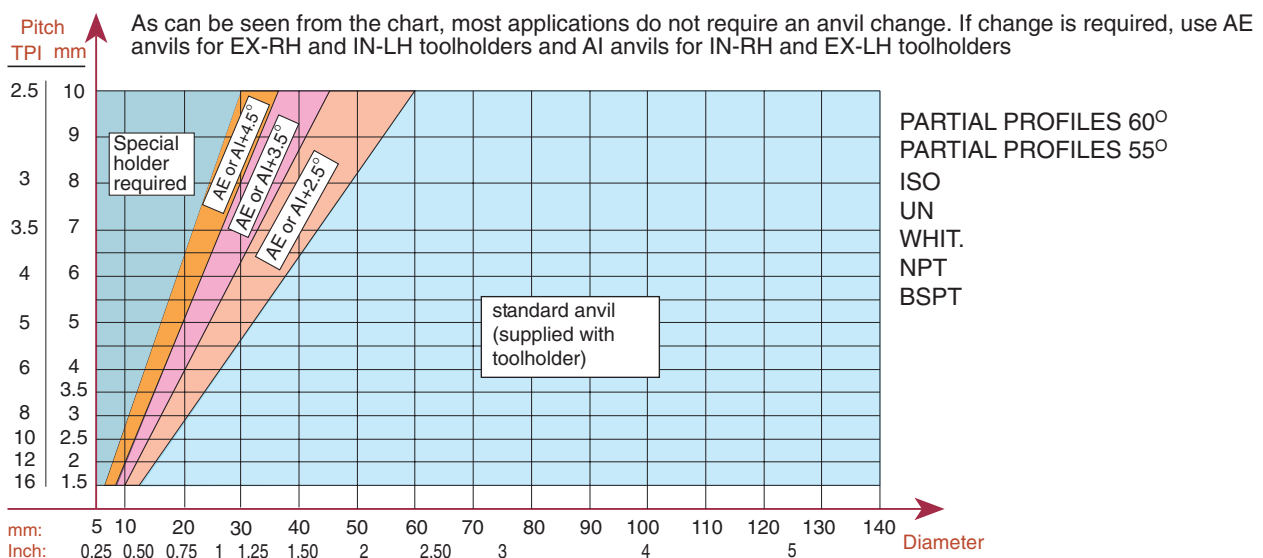
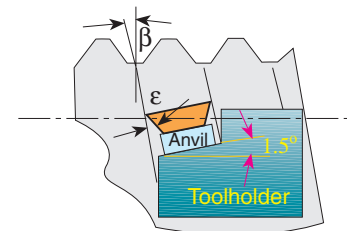
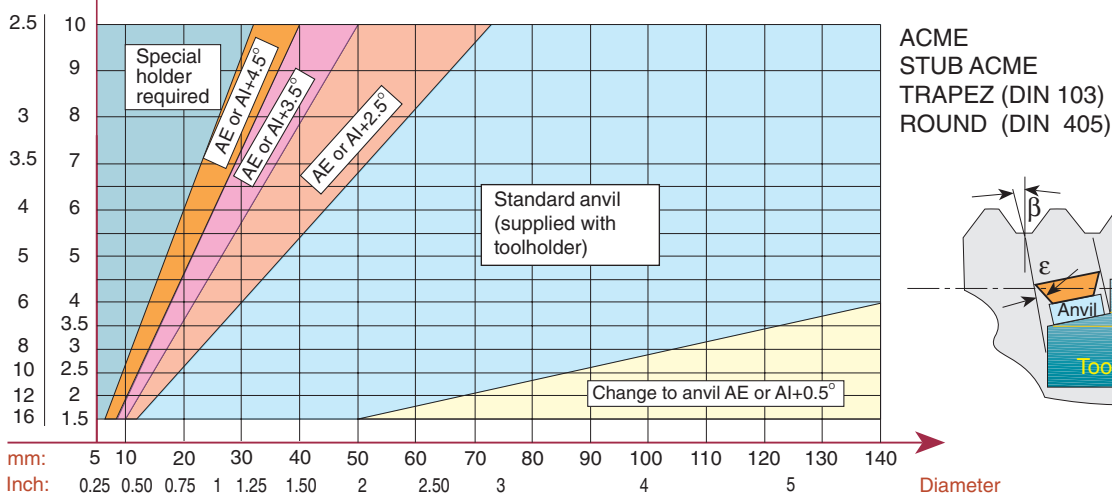


Example

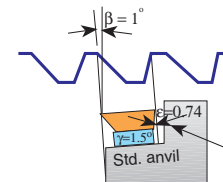
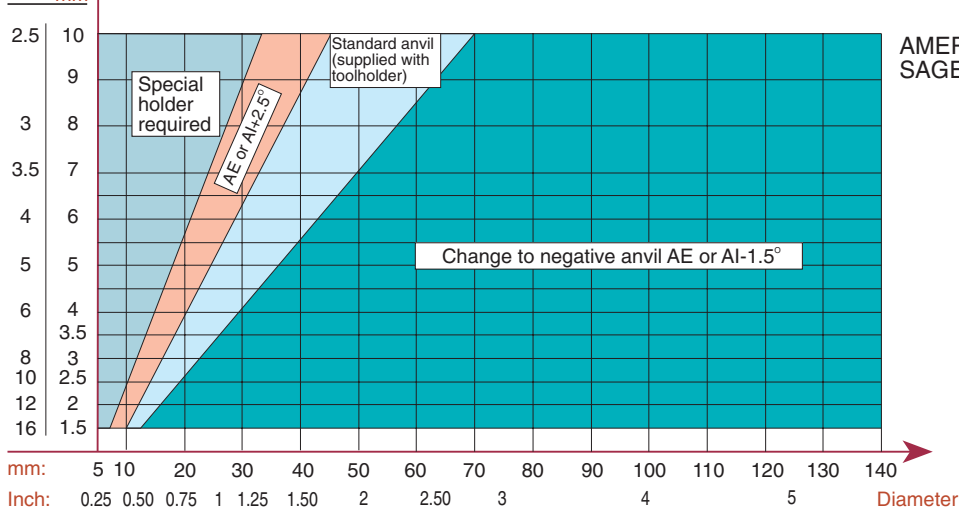
$$N = \frac{V \times 1000}{\pi \times D} = \frac{120 \times 1000}{3.14 \times 30} = 1274 \text{ RPM}$$

Anvil Change Recommendation

As can be seen from the chart, some Pitch to Diameter combinations require an anvil change. If change is required, use AE anvils for EX-RH and IN-LH toolholders and AI anvils for IN-RH and EX-LH toolholders.

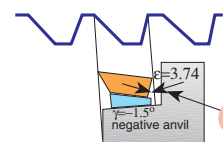


As can be seen from the chart, most applications require an anvil change. In most cases a negative anvil is required. use AE anvils for EX-RH



Before Anvil change

Replacing the standard anvil with an anvil with negative angle, will eliminate side rubbing



After Anvil Change