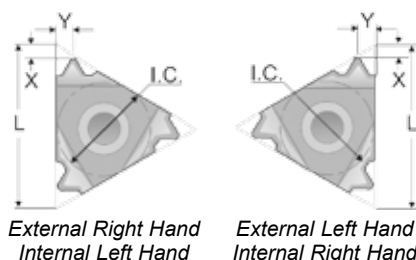


Threading & Anvil Sets



Threading sets are a versatile solution for those who cut a variety of thread types in limited quantity and do not want to sacrifice thread quality.

METRIC AND OTHER SIZES AVAILABLE UPON REQUEST



Anvil Set

Set Contents	
External UN Inserts	Internal UN Inserts
16ER A60 BMA	16IR A60 BMA
16ER G60 BMA	16IR G60 BMA
16ER AG60 BMA	16IR AG60 BMA
16ER 8UN BMA	16IR 8UN BMA
16ER 12UN BMA	16IR 12UN BMA
16ER 14UN BMA	16IR 14UN BMA
16ER 16UN BMA	16IR 16UN BMA
16ER 18UN BMA	16IR 18UN BMA
16ER 20UN BMA	16IR 20UN BMA
16ER 24UN BMA	16IR 24UN BMA
Tool Holder	
0.75 or 1.00" square	0.75 or 1.00" diameter

Sets

Conversion Sets & Anvil Set

Reference	Shank Size	External/Internal	Code
KEU	0.75" square	External	570001
KEU10	1.00" square	External	570002
KIU	0.75" diameter	Internal	570003
KIU10	1.00" diameter	Internal	570004

Reference	Description	Code
*KAE S16N	External Conversion Set	570220
*KAI S16N	Internal Conversion Set	570221
KA 16	Anvil Set	570222

*Sandvik Conversion Set: To convert your Sandvik tool holder to take Carmex inserts – 3/8 I.C.

Carbide Threading Insert Grades



Interchangeable with VARDEX, ISCAR, KENAMETAL, SECO,

★ SANDVIK and many other laydown style threading inserts



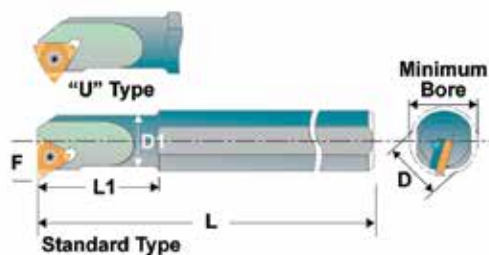
CARBIDE INSERT GRADES:

- MXC** **P10-P25** PVD TiN coated micrograin for free cutting untreated alloy steels (below 30 HRC), for stainless steels, cast iron and aluminum.
K10-K20
- BMA** **P20-P40** PVD TiAlN coated sub-micrograin grade for stainless steels and exotic materials at medium to high cutting speeds.
K20-K30
- P25C** **P15-P35** PVD TiN coated grade for treated and hard alloy steels (25 HRC and up) at medium to low cutting speeds.

Tool Holders & Accessories

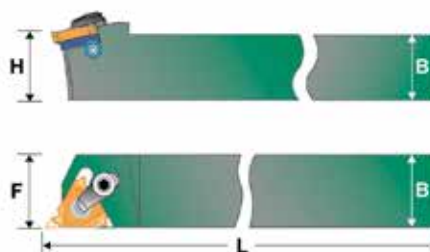


Internal Tool Holders



Style Right Hand	Insert I/C Reference Inch (mm)	D (Inch)	D1 (Inch)	L (Inch)	L1 (Inch)	Minimum Bore (Inch)	F (Inch)	Code
*SIR 0375 H11	0.250 (11)	0.38	0.38	4.0	-	0.47	0.28	570360
*SIR 0375 K11	0.250 (11)	0.62	0.38	5.0	1.00	0.47	0.28	570361
*SIR 0500 L11	0.250 (11)	0.62	0.50	5.5	1.25	0.58	0.34	570362
*SIR 0500 M16	0.375 (16)	0.62	0.50	6.0	1.25	0.64	0.39	570363
*SIR 0625 P16	0.375 (16)	0.75	0.62	7.0	1.57	0.75	0.45	570364
SIR 0750 P16	0.375 (16)	0.75	0.75	7.0	-	0.90	0.51	570365
SIR 1000 R16	0.375 (16)	1.00	1.00	8.0	-	1.16	0.65	570366
SIR 1250 S16	0.375 (16)	1.25	1.25	10.0	-	1.40	0.77	570367
SIR 1500 T16	0.375 (16)	1.50	1.50	12.0	-	1.65	0.90	570368
*SIR 0750 P22	0.500 (22)	0.75	0.75	7.0	-	0.90	0.59	570369
SIR 1000 R22	0.500 (22)	1.00	1.00	8.0	-	1.16	0.71	570370
SIR 1250 S22	0.500 (22)	1.25	1.25	10.0	-	1.50	0.85	570371
SIR 1500 T22	0.500 (22)	1.50	1.50	12.0	-	1.75	0.98	570372

External Tool Holders



Style Right Hand	Insert I/C Reference Inch (mm)	B=H (Inch)	L (Inch)	F (Inch)	Code
*SER 0310 H11	0.250 (11)	0.31	4.00	0.43	570373
*SER 0375 H11	0.250 (11)	0.38	4.00	0.43	570374
SER 0375 D16	0.375 (16)	0.38	2.50	0.63	570375
SER 0500 F16	0.375 (16)	0.50	3.25	0.63	570376
SER 0625 H16	0.375 (16)	0.63	4.00	0.63	570377
SER 0750 K16	0.375 (16)	0.75	5.00	0.75	570378
SER 1000 M16	0.375 (16)	1.00	6.00	1.00	570379
SER 1250 P16	0.375 (16)	1.25	7.00	1.25	570380
SER 1000 M22	0.500 (22)	1.00	6.00	1.00	570381
SER 1250 P22	0.500 (22)	1.25	7.00	1.25	570382
SER 1500 R22	0.500 (22)	1.50	8.00	1.50	570383

NOTE: *TOOL HOLDERS WITHOUT SHIMS. All tool holders are made with 1.5° Helix angle.
For other Helix angles, please inquire. Left hand tool holders also available.

Tool Holders & Accessories



Accessories

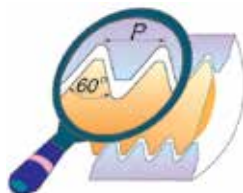
Type	External /Internal	Insert Size L I/C	Insert Screw		Torx® Key		Shim Screw	
								
			Style	Code	Style	Code	Style	Code
Threading	–	11 (0.250")	S11	570385	K11	549500	–	–
Threading	External Internal	16 (0.375")	S16	570386	K16	549501	A16	570388
Threading	External Internal	22 (0.500")	S22	570387	K22	570392	A22	570389
Grooving	External Internal	16 (0.375")	S16	570386	K16	549501	A16	570388

Type	External /Internal	Insert Size L I/C	Right Hand Shim		Left Hand Shim	
						
			Style	Code	Style	Code
Threading	External	16 (0.375")	AE16	570393	AI16	570394
Threading	Internal	16 (0.375")	AI16	570394	AE16	570393
Threading	External	22 (0.500")	AE22	570395	AI22	570396
Threading	Internal	22 (0.500")	AI22	570396	AE22	570395
Grooving	External	16 (0.375")	AE16-0	570397	AE16-0	570397

Threading Inserts



Carbide – Partial Profile 60°



External

Internal

L mm I.C. (Inch)	Pitch TPI	External RH	Grade	Code	L mm I.C. (Inch)	Pitch TPI	Internal RH	Grade	Code
11 (1/4)	48-16	11 ER A60	BMA	578000	11 (1/4)	48-16	11 IR A60	BMA	578030
16 (3/8)	48-16	16 ER A60	BMA	578006	16 (3/8)	48-16	16 IR A60	BMA	578038
16 (3/8)	14-8	16 ER G60	BMA	578012	16 (3/8)	14-8	16 IR G60	BMA	578044
16 (3/8)	48-8	16 ER AG60	BMA	578018	16 (3/8)	48-8	16 IR AG60	BMA	578050
22 (1/2)	7-5	22 ER N60	BMA	578024	22 (1/2)	7-5	22 IR N60	BMA	578056

Type B

External and Internal Peripherally Ground with Sintered Chipbreaker

- These inserts combine sintered chipbreaker with precision ground profile. This combination ensures consistently high quality thread with precise shape and dimensions
- Two different unique styles of chipbreakers were designed. Both tailored to suit the different specific requirements of internal and external threading
- Type B inserts are made of grade BMA, a PVD TiAlN coated sub-micrograin carbide for alloy steels, stainless steels and exotic materials at medium to high cutting speeds

Advantages:

- High profile accuracy
- Unique chipbreaker that allows excellent performance
- Extends insert tool life

External Right Hand – Type B Inserts



Internal Right Hand – Type B Inserts



L mm I.C. (Inch)	Pitch TPI	Right Hand	Grade	Code	L mm I.C. (Inch)	Pitch TPI	Right Hand	Grade	Code
16 (3/8)	48 - 16	16 ER B A60	BMA	578062	16 (3/8)	48 - 16	16 IR B A60	BMA	578068
16 (3/8)	14 - 8	16 ER B G60	BMA	578064	16 (3/8)	14 - 8	16 IR B G60	BMA	578070
16 (3/8)	48 - 8	16 ER B AG60	BMA	578066	16 (3/8)	48 - 8	16 IR B AG60	BMA	578072

Threading Inserts

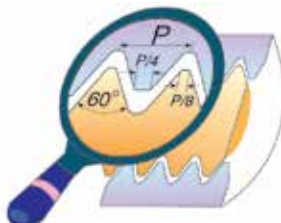


Carbide – Full Profile

UN, ISO Metric, NPT Pipe, Stub ACME & ACME

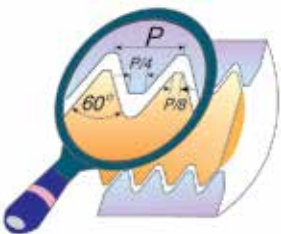
Other forms, multi tooth and left hand also available upon request

UN – Grade BMA



L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code	L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code
11 (1/4)	72	11ER/11IR	578074	578314	16 (3/8)	40	16ER/16IR	578194	578434
11 (1/4)	64	11ER/11IR	578080	578320	16 (3/8)	36	16ER/16IR	578200	578440
11 (1/4)	56	11ER/11IR	578086	578326	16 (3/8)	32	16ER/16IR	578206	578446
11 (1/4)	48	11ER/11IR	578092	578332	16 (3/8)	28	16ER/16IR	578212	578452
11 (1/4)	44	11ER/11IR	578098	578338	16 (3/8)	27	16ER/16IR	578218	578458
11 (1/4)	40	11ER/11IR	578104	578344	16 (3/8)	24	16ER/16IR	578224	578464
11 (1/4)	36	11ER/11IR	578110	578350	16 (3/8)	20	16ER/16IR	578230	578470
11 (1/4)	32	11ER/11IR	578116	578356	16 (3/8)	18	16ER/16IR	578236	578476
11 (1/4)	28	11ER/11IR	578122	578362	16 (3/8)	16	16ER/16IR	578242	578482
11 (1/4)	27	11ER/11IR	578128	578368	16 (3/8)	14	16ER/16IR	578248	578488
11 (1/4)	24	11ER/11IR	578134	578374	16 (3/8)	13	16ER/16IR	578254	578494
11 (1/4)	20	11ER/11IR	578140	578380	16 (3/8)	12	16ER/16IR	578260	578500
11 (1/4)	18	11ER/11IR	578146	578386	16 (3/8)	11.5	16ER/16IR	578266	578506
11 (1/4)	16	11ER/11IR	578152	578392	16 (3/8)	11	16ER/16IR	578272	578512
11 (1/4)	14	11ER/11IR	578158	578398	16 (3/8)	10	16ER/16IR	578278	578518
16 (3/8)	72	16ER/16IR	578164	578404	16 (3/8)	9	16ER/16IR	578284	578524
16 (3/8)	64	16ER/16IR	578170	578410	16 (3/8)	8	16ER/16IR	578290	578530
16 (3/8)	56	16ER/16IR	578176	578416	22 (1/2)	7	22ER/22IR	578296	578536
16 (3/8)	48	16ER/16IR	578182	578422	22 (1/2)	6	22ER/22IR	578302	578542
16 (3/8)	44	16ER/16IR	578188	578428	22 (1/2)	5	22ER/22IR	578308	578548

ISO Metric – Grade BMA



L mm I.C. (Inch)	Pitch mm	Right Hand	External Code	Internal Code	L mm I.C. (Inch)	Pitch mm	Right Hand	External Code	Internal Code
16 (3/8)	0.35	16ER/16IR	578558	578666	16 (3/8)	1.75	16ER/16IR	578618	578726
16 (3/8)	0.4	16ER/16IR	578564	578672	16 (3/8)	2.0	16ER/16IR	578624	578732
16 (3/8)	0.45	16ER/16IR	578570	578678	16 (3/8)	2.5	16ER/16IR	578630	578738
16 (3/8)	0.5	16ER/16IR	578576	578684	16 (3/8)	3.0	16ER/16IR	578636	578744
16 (3/8)	0.6	16ER/16IR	578582	578690	22 (1/2)	3.5	22ER/22IR	578642	578750
16 (3/8)	0.75	16ER/16IR	578588	578696	22 (1/2)	4.0	22ER/22IR	578648	578756
16 (3/8)	0.8	16ER/16IR	578594	578702	22 (1/2)	4.5	22ER/22IR	578654	578762
16 (3/8)	1.0	16ER/16IR	578600	578708	22 (1/2)	5.0	22ER/22IR	578660	578768
16 (3/8)	1.25	16ER/16IR	578606	578714					
16 (3/8)	1.5	16ER/16IR	578612	578720					

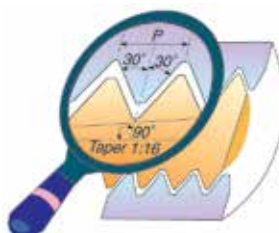
Threading Inserts

Carbide – Full Profile *(continued)*

UN, ISO Metric, NPT Pipe, Stub ACME & ACME

Other forms, multi tooth and left hand also available upon request

NPT Pipe – Grade BMA



L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code	L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code
16 (3/8)	27	16ER/16IR	578774	578804	16 (3/8)	14	16ER/16IR	578786	578816
16 (3/8)	18	16ER/16IR	578780	578810	16 (3/8)	11.5	16ER/16IR	578792	578822
					16 (3/8)	8	16ER/16IR	578798	578828

Stub ACME – Grade BMA



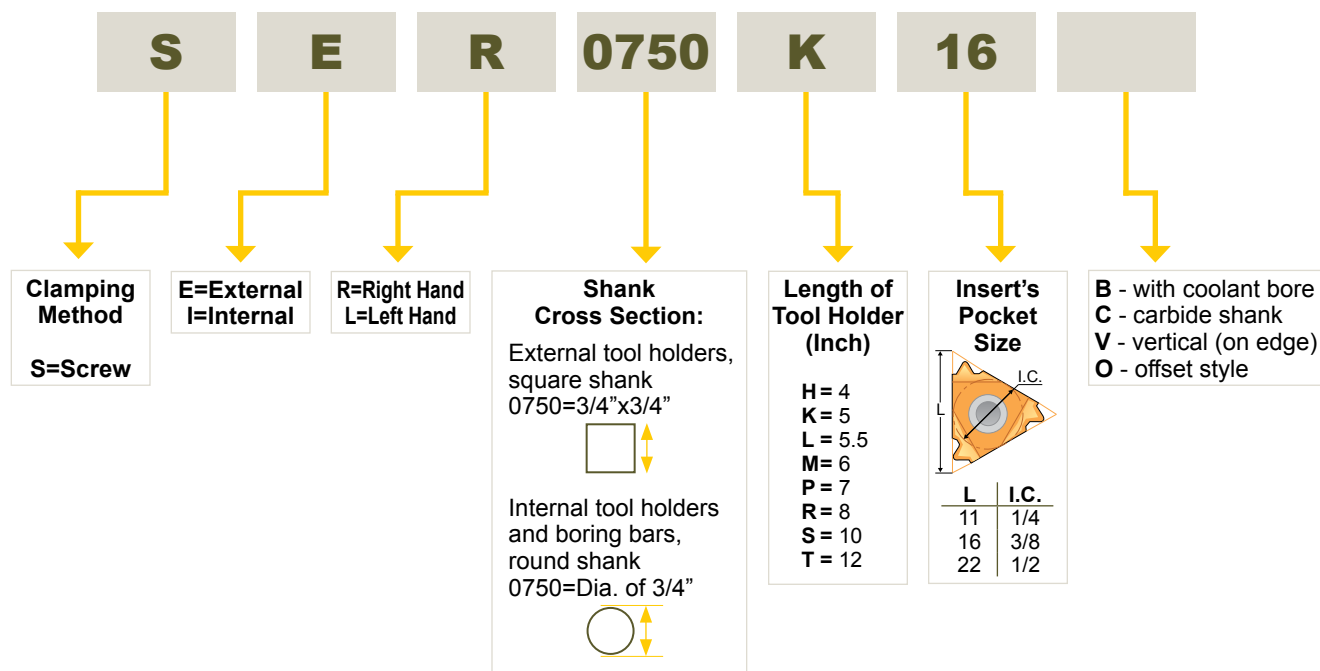
L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code	L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code
11 (1/4)	16	11ER/11IR	578919	—	16 (3/8)	10	16ER/16IR	578936	578976
16 (3/8)	16	16ER/16IR	578918	—	16 (3/8)	8	16ER/16IR	578942	578982
16 (3/8)	14	16ER/16IR	578924	578964	16 (3/8)	6	16ER/16IR	578948	578988
16 (3/8)	12	16ER/16IR	578930	578970	22 (1/2)	5	22ER/22IR	578954	578994

ACME – Grade BMA



L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code	L mm I.C. (Inch)	Pitch TPI	Right Hand	External Code	Internal Code
16 (3/8)	16	16ER/16IR	578834	578876	16 (3/8)	8	16ER/16IR	578858	578900
16 (3/8)	14	16ER/16IR	578840	578882	22 (1/2)	6	22ER/22IR	578864	578906
16 (3/8)	12	16ER/16IR	578846	578888	22 (1/2)	5	22ER/22IR	578870	578912
16 (3/8)	10	16ER/16IR	578852	578894					

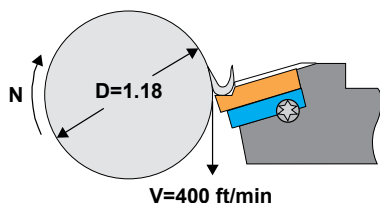
Tool Holder Identification Guide



Recommended Cutting Speeds

Thread Turning Inserts				
ISO	Materials	Cutting Speed ft/min		
		MXC	BMA	P25C
P	Steel: low and medium carbon steels	330-590	295-520	260-520
	High carbon steels	260-520	260-490	260-390
	Alloy steels, treated steels	260-390	260-390	160-330
	Cast steel	390-520	330-460	260-460
M	Stainless steel: cast steels stainless austenitic and austenitic ferritic steel and cast steel	295-390	230-430	
K	Cast iron: grey cast iron, cast iron with spherical graphite, malleable cast iron	260-490	260-430	
N	Non-ferrous metal: aluminum and other non-ferrous metals, copper alloys non-metallic	980-1970	980-2620	
H	Hard materials: hardened steel, hardened cast iron materials, chilled cast iron	65-130	65-160	
S	Super-alloys and titanium: heat resistant special alloys based on iron, nickel and cobalt, titanium and titanium alloys	130-260	130-330	

Conversion of Cutting Speed to Rotational Speed



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

$$N = \frac{V \times 12}{\pi \times D} = \frac{400 \times 12}{3.14 \times 1.18} = 1,294 \text{ RPM}$$