

Type-K

Sintered Threading Inserts

Type-K

A new line of Sintered Thread Turning Inserts with chip breaker for high performance in a wide range of materials.

Type-K inserts are offered in a wide range of popular thread standards.

- Partial profile 55° and 60°
- ISO – metric
- UN – Unified
- Whitworth – 55°
- BSPT
- NPT

Features:

- Effective chip control
- Optimal edge security
- High wear resistance
- Inserts to be used with standard thread turning toolholders

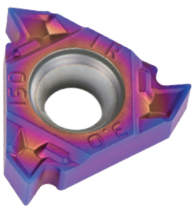
Carbide grade:



KMR

(P20-P30, M10-M30, N10-N30, S05-S30)

Versatile grade for wide range of materials as steels, stainless steel, super alloys and non-ferrous, best for medium to high cutting conditions. A multi-layer coated grade with high wear resistance.



KBL

(P20-P40, M05-M25, K05-K20, H05-H20)

Latest development of carbide grade with our innovative coating ensures a long and stable tool life machining steels, stainless steels, cast iron and hardened materials up to 45 HRC.

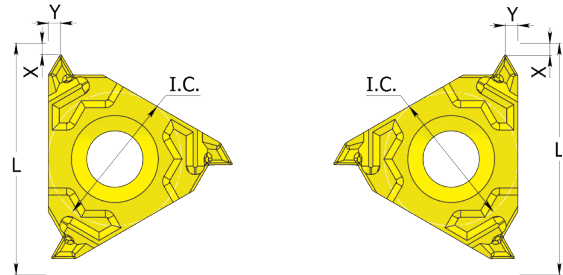
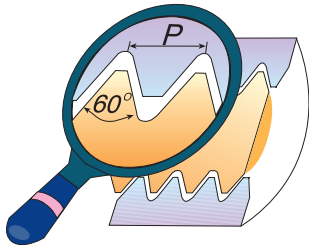
A combination of high toughness and high heat and wear resistance. For medium to high cutting conditions.

Grade	P	M	K	N	S	H
KMR	●	●	○	●	●	○
KBL	●	●	●	○	○	●

● First choice ○ Alternative

Type-K Threading Inserts

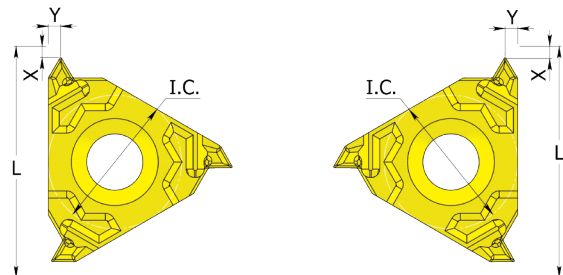
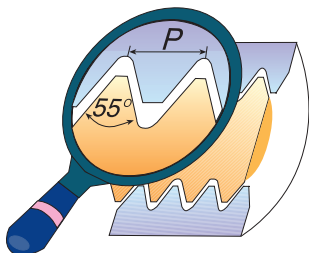
Partial Profile 60°



L	I.C. in	Pitch Range		EXTERNAL	INTERNAL	X	Y
		mm	TPI	Ordering Code Right Hand	Ordering Code Right Hand		
11	1/4	0.5 - 1.5	48 - 16		11 IR K A60	0.8	0.9
		0.5 - 1.5	48 - 16	16 ER K A60	16 IR K A60	0.8	0.9
16	3/8	1.75 - 3.0	14 - 8	16 ER K G60	16 IR K G60	1.2	1.7
		0.5 - 3.0	48 - 8	16 ER K AG60	16 IR K AG60	1.2	1.7

Order Example: 16 ER K A60 KMR

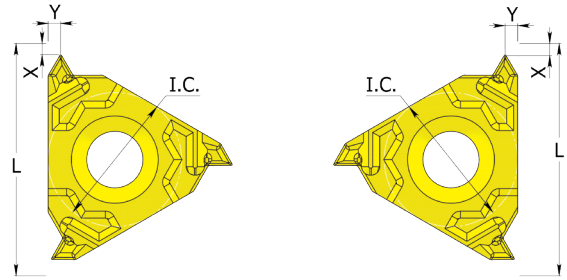
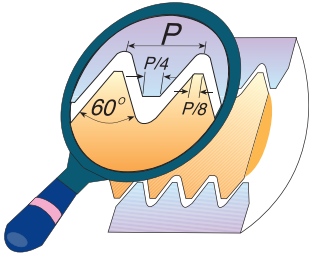
Partial Profile 55°



L	I.C. in	Pitch Range		EXTERNAL	INTERNAL	X	Y
		mm	TPI	Ordering Code Right Hand	Ordering Code Right Hand		
11	1/4	0.5 - 1.5	48 - 16		11 IR K A55	0.8	0.9
		0.5 - 1.5	48 - 16	16 ER K A55	16 IR K A55	0.8	0.9
16	3/8	1.75 - 3.0	14 - 8	16 ER K G55	16 IR K G55	1.2	1.7
		0.5 - 3.0	48 - 8	16 ER K AG55	16 IR K AG55	1.2	1.7

Order Example: 16 IR K G55 KBL

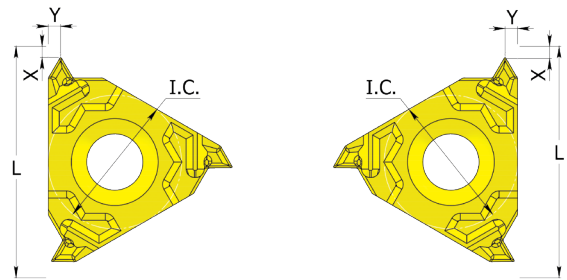
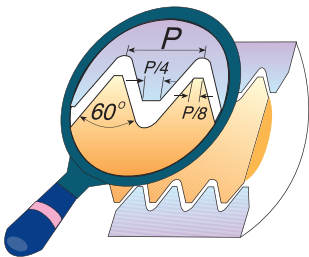
ISO - metric



Pitch mm	L	I.C. in	EXTERNAL			INTERNAL		
			Ordering Code Right Hand	X	Y	Ordering Code Right Hand	X	Y
1.0	11	1/4				11 IR K 1.0 ISO	0.6	0.7
1.25	11	1/4				11 IR K 1.25 ISO	0.8	0.9
1.5	11	1/4				11 IR K 1.5 ISO	0.8	1.0
1.0	16	3/8	16 ER K 1.0 ISO	0.7	0.7	16 IR K 1.0 ISO	0.6	0.7
1.25	16	3/8	16 ER K 1.25 ISO	0.8	0.9	16 IR K 1.25 ISO	0.8	0.9
1.5	16	3/8	16 ER K 1.5 ISO	0.8	1.0	16 IR K 1.5 ISO	0.8	1.0
1.75	16	3/8	16 ER K 1.75 ISO	0.9	1.2	16 IR K 1.75 ISO	0.9	1.2
2.0	16	3/8	16 ER K 2.0 ISO	1.0	1.3	16 IR K 2.0 ISO	1.0	1.3
2.5	16	3/8	16 ER K 2.5 ISO	1.1	1.5	16 IR K 2.5 ISO	1.1	1.5
3.0	16	3/8	16 ER K 3.0 ISO	1.2	1.6	16 IR K 3.0 ISO	1.1	1.5

Order Example: 16 ER K 1.75 ISO KMR

UN - Unified **UNC, UNF, UNEF, UNS**

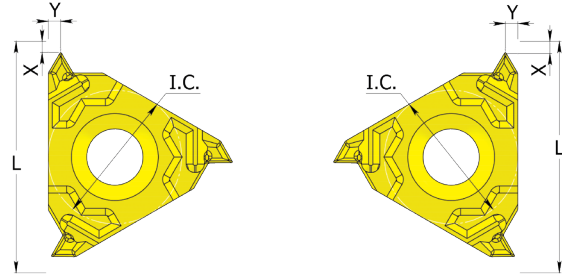
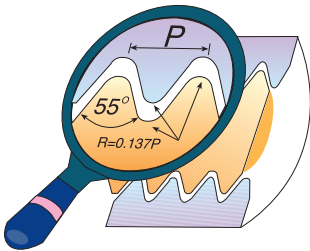


Pitch TPI	L	I.C. in	EXTERNAL			INTERNAL		
			Ordering Code Right Hand	X	Y	Ordering Code Right Hand	X	Y
24	16	3/8	16 ER K 24 UN	0.7	0.8			
20	16	3/8	16 ER K 20 UN	0.8	0.9	16 IR K 20 UN	0.8	0.9
18	16	3/8	16 ER K 18 UN	0.8	1.0	16 IR K 18 UN	0.8	1.0
16	16	3/8	16 ER K 16 UN	0.9	1.1	16 IR K 16 UN	0.9	1.1
14	16	3/8	16 ER K 14 UN	1.0	1.2	16 IR K 14 UN	0.9	1.2
12	16	3/8	16 ER K 12 UN	1.1	1.4	16 IR K 12 UN	1.1	1.4
8	16	3/8	16 ER K 8 UN	1.2	1.6			

Order Example: 16 IR K 14 UN KBL

Type-K Threading Inserts

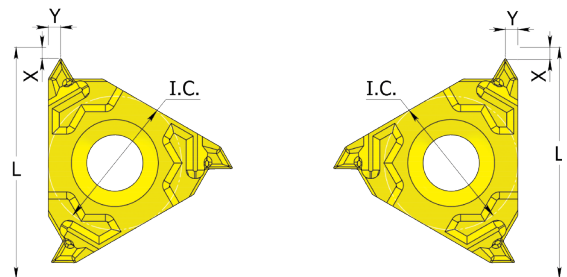
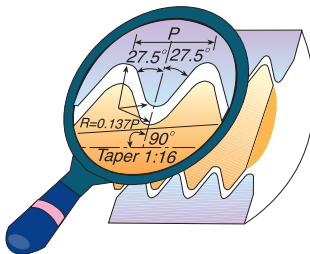
Whitworth - 55° BSW, BSF, BSP, BSB



Pitch TPI	L	I.C. in	EXTERNAL			INTERNAL		
			Ordering Code Right Hand	X	Y	Ordering Code Right Hand	X	Y
19	16	3/8	16 ER K 19 W	0.8	1.0	16 IR K 19 W	0.8	1.0
14	16	3/8	16 ER K 14 W	1.0	1.2	16 IR K 14 W	1.0	1.2
11	16	3/8	16 ER K 11 W	1.1	1.5	16 IR K 11 W	1.1	1.5

Order Example: 16 ER K 11 W KMR

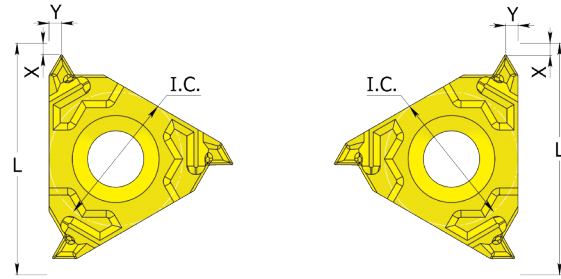
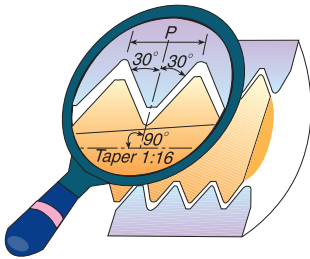
BSPT



Pitch TPI	L	I.C. in	EXTERNAL			INTERNAL		
			Ordering Code Right Hand	X	Y	Ordering Code Right Hand	X	Y
19	16	3/8	16 ER K 19 BSPT	0.8	0.9	16 IR K 19 BSPT	0.8	0.9
14	16	3/8	16 ER K 14 BSPT	1.0	1.2	16 IR K 14 BSPT	1.0	1.2
11	16	3/8	16 ER K 11 BSPT	1.1	1.5	16 IR K 11 BSPT	1.1	1.5

Order Example: 16 ER K 11 BSPT KBL

NPT



Pitch TPI	L	I.C. in	EXTERNAL		INTERNAL			
			Ordering Code Right Hand	X	Y	Ordering Code Right Hand	X	Y
18	16	3/8	16 ER K 18 NPT	0.8	1.0			
14	16	3/8	16 ER K 14 NPT	0.9	1.2	16 IR K 14 NPT	0.9	1.2
11.5	16	3/8	16 ER K 11.5 NPT	1.1	1.5	16 IR K 11.5 NPT	1.1	1.5
8	16	3/8				16 IR K 8 NPT	1.3	1.8

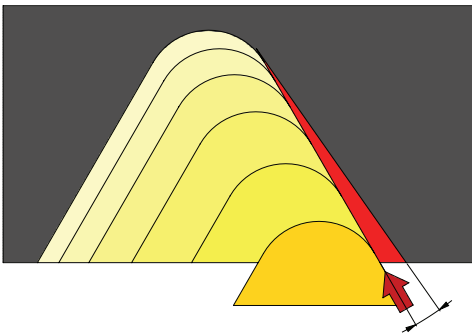
Order Example: 16 ER K 11.5 NPT KBL

Technical Section

Recommended cutting speed

ISO Standard	Cutting speed (m/min)	
	KMR	KBL
P	70-180	70-180
M	110-160	110-160
K	90-140	110-150
N	190-350	190-350
S	30-70	30-60
H	20-50	30-70

In order to achieve the best chip control during the thread turning operation, a modified flank infeed should be used.



Modified flank infeed has many advantages:

- Fewer passes can be used compared to radial infeed.
- Chip is easier to control during process.
- Chip is thicker but created along one side of the insert making it easier to cut.
- Heat created during the cutting operation mostly transferred to the workpiece not to insert.

Recommended for all operations and insert types.
For CNC programming use CPT tool wizard.



© Copyright CPT GmbH 2022

Type-K Sintered Threading Inserts 06/2022

CPT GmbH
Danziger Straße 1, 71691 Freiberg am Neckar
Tel: +49 (0) 7141 / 14239-00, Fax: +49 (0) 7141 / 14239-20
E-Mail: info@cpt-werkzeuge.de | www.cpt-werkzeuge.de