

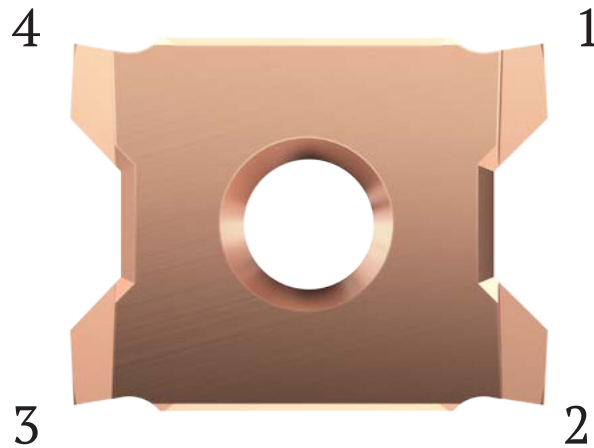
THREAD TURNING

CONTENTS



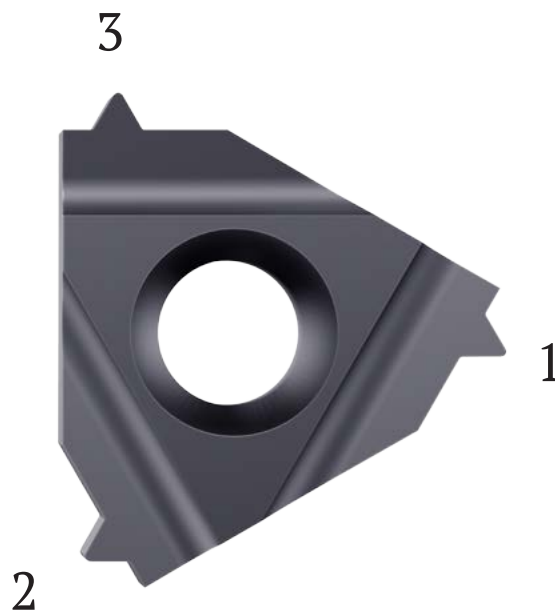
Technical Information	32	
FourCut Thread Turning Inserts	40	
External Toolholders	43	
Triangular Thread Turning Inserts	44	
External Toolholders	54	
Internal Toolholders	55	
U-type Thread Turning Inserts	56	
External Toolholders	58	
Internal Toolholders	59	
Micro Thread Turning Inserts	60	
Toolholders	61	

Cost-effective

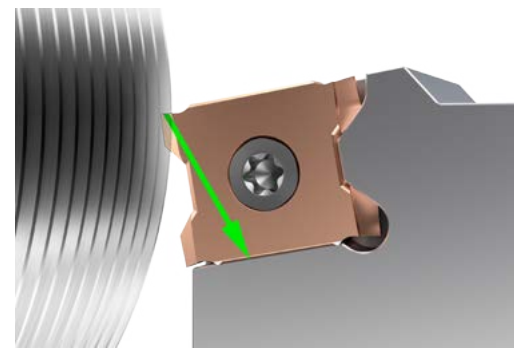
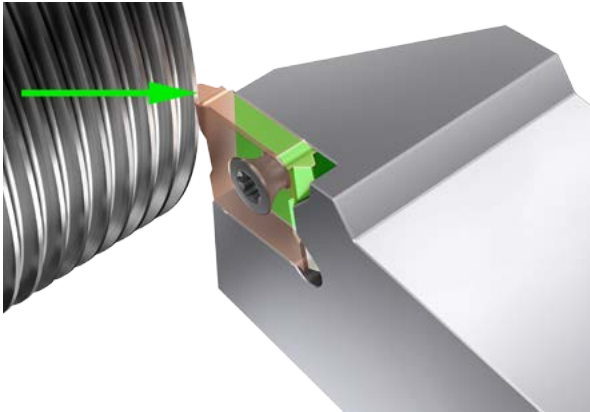


Four Cutting Edges - for the Price of Three

As the price for the inserts are the same, the FourCut threading insert is 25% cheaper as it has four cutting edges instead of three.



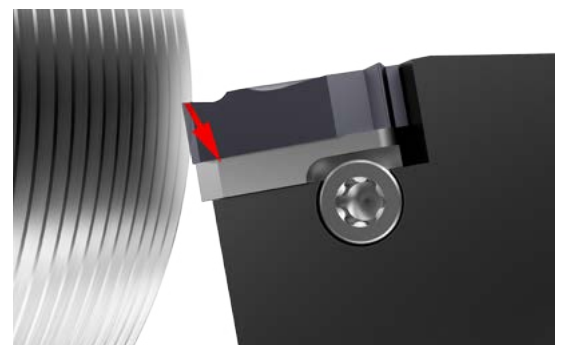
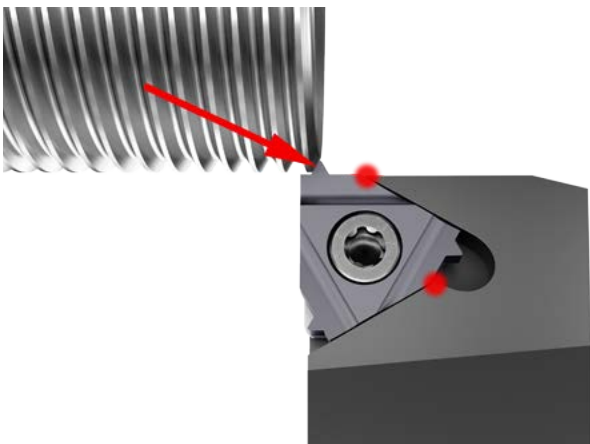
Strength



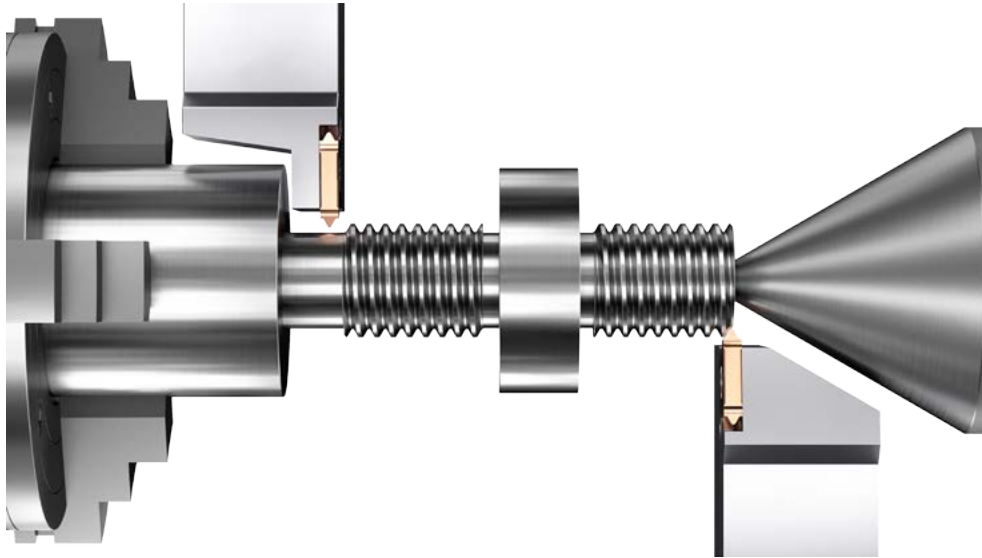
Strong and Stable Machining

FourCut is a vertical insert. This gives a very strong insert. The cutting forces go in to the insert and you don't need any anvil as the carbide insert take up the forces.

No problem with the side forces as the flat surface of the insert take up these forces. No weak point on the toolholder.



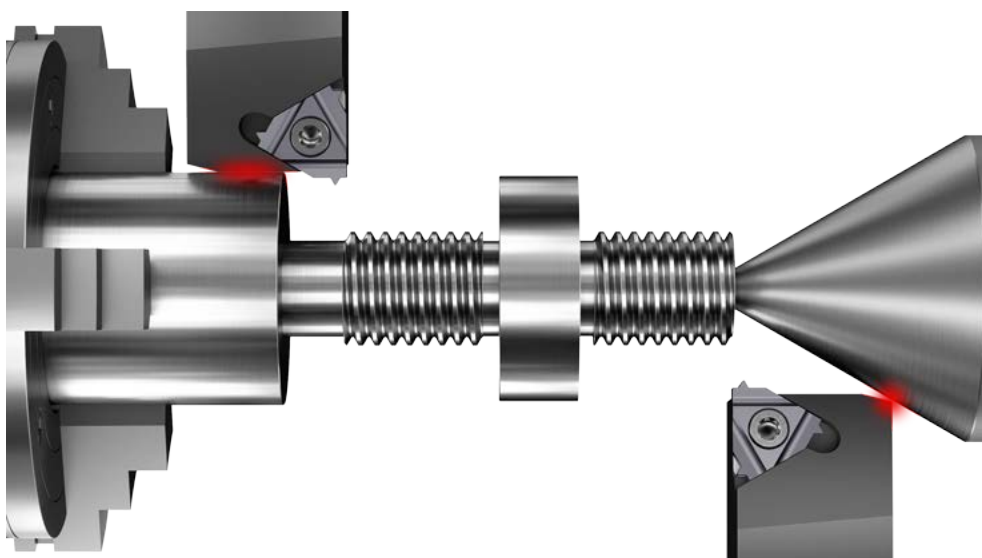
Accessibility



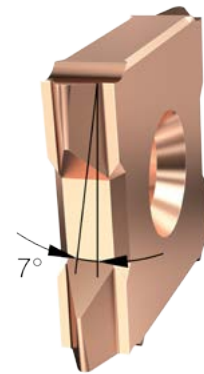
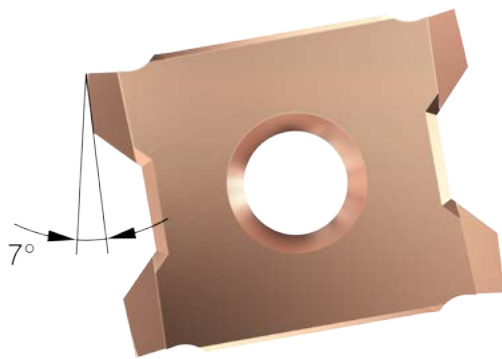
Minimum Waste of Material

With a vertical insert the accessibility gives you two main advantages.

- 1) Less waste of material as you don't need to turn away material to be able to make the thread.
- 2) As you have more space you can use a live center when you are turning small diameters. This will give you a stable machining and a better quality of the thread.



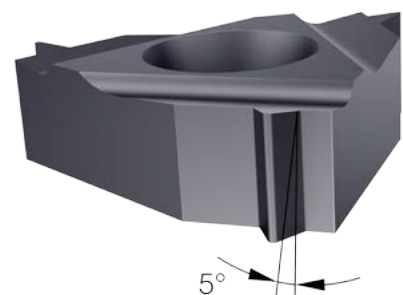
Optimal Clearance



Perfect Cutting Conditions

The inserts are ground on all sides with a complex grinding technology on 6-axis grinding machines to get a 7° clearance angle all around the thread profile which gives the following advantages:

- 1) Extra clearance on the flanks gives better cutting conditions.
- 2) Same toolholder for different helix angles as the extra clearance allow you to have bigger difference in helix angle.
- 3) Less clearance on the radius gives stronger cutting edge and longer tool life.

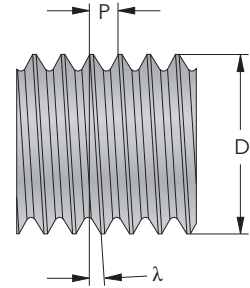


THREAD TURNING INSERTS

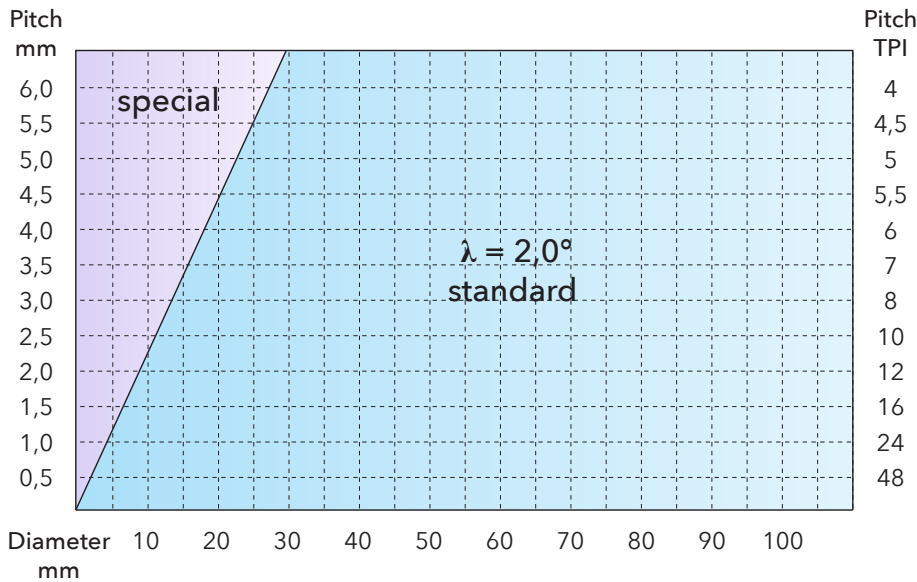
Helix Angle

To get good cutting conditions the threading insert has to be inclined into the toolholder at approximately the same angle as the helix angle of the thread.

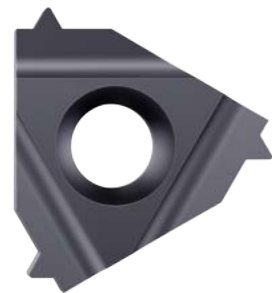
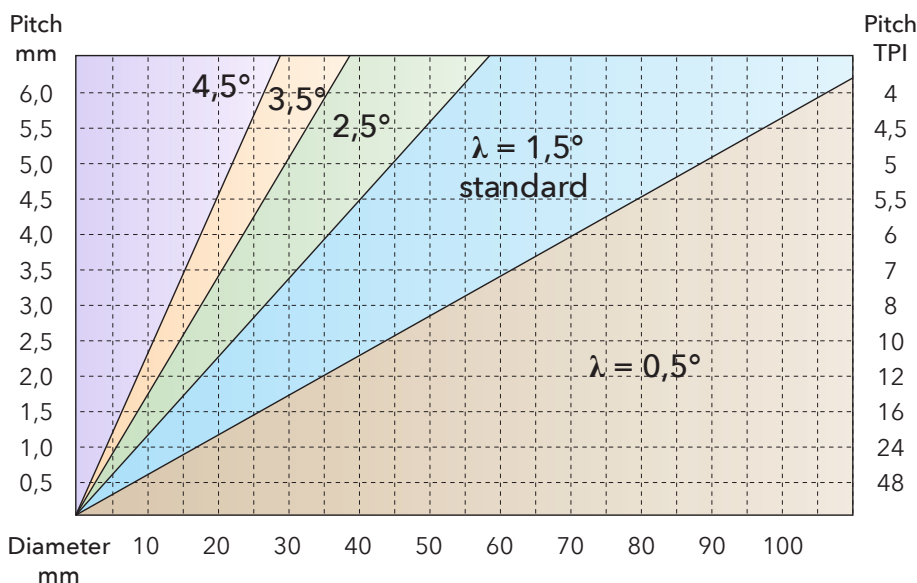
$$\tan \lambda = \frac{P}{\pi \times D}$$



The FourCut inserts has extra clearance on the flanks and therefore it is not so important to have correct helix angle. The standard toolholder has 2° helix angle and it is possible to make almost all threads with the same holder.

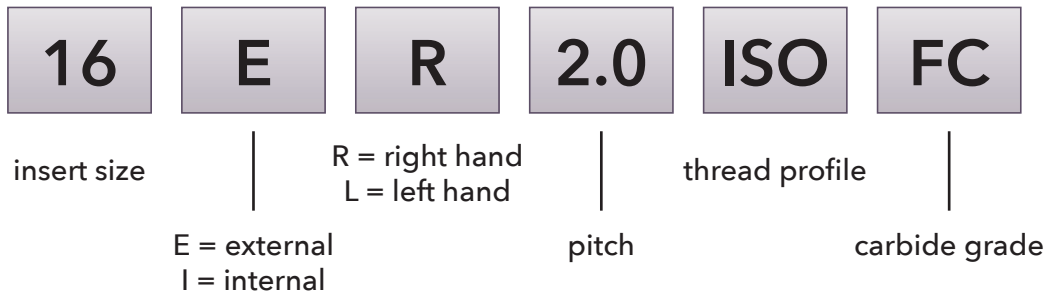


On the triangular inserts it is more important to have a similar helix angle on the toolholder as the thread. The standard toolholder has an anvil which gives 1,5° helix angle. If you need bigger or smaller, you just change the anvil.

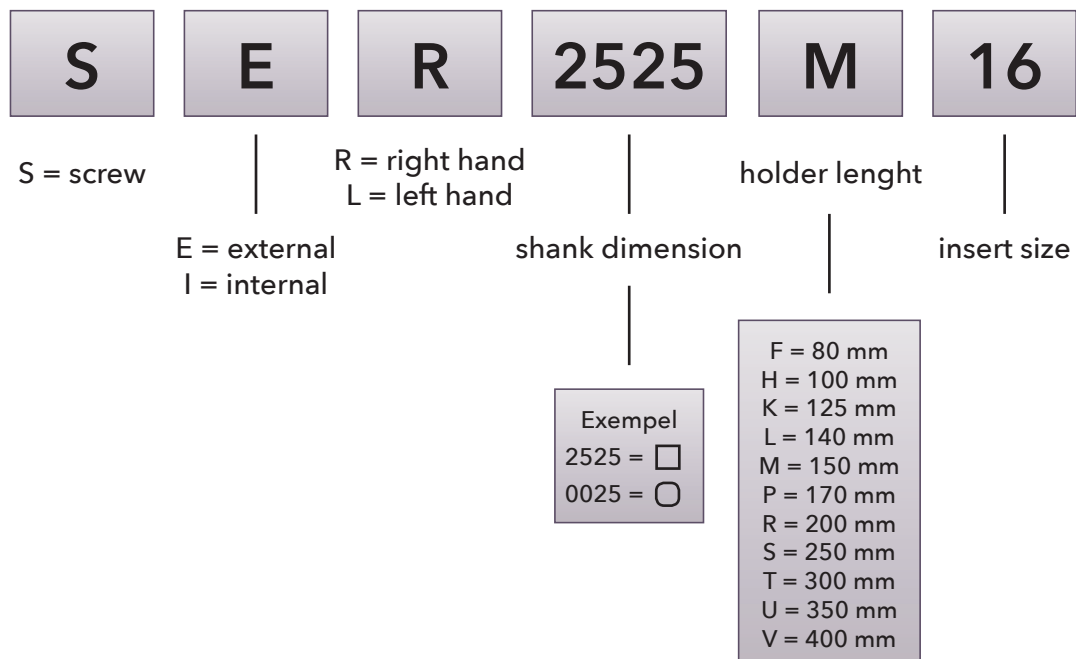


CODE KEY

Inserts










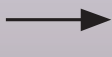
Toolholders











Cutting Speed (V_c) and Material Factor (F_m)

MATERIAL		Hardness HB	Tensile Strength N/mm ²	Cutting Speed (V_c) m/min	Material Factor (F_m)
Steel	Low carbon, C < 0,25%	< 120	< 400	150 - 200	1,2
	Medium carbon, C < 0,55%	< 200	< 700	120 - 170	1,1
	High carbon, C < 0,85%	< 250	< 850	110 - 150	1,0
	Low alloy	< 250	< 850	100 - 140	1,0
	High alloy	< 350	< 1200	70 - 110	0,9
	Hardened, HRC < 45			60 - 100	0,8
	Hardened, HRC < 55			30 - 60	0,7
	Hardened, HRC < 65			20 - 40	0,6
Cast iron	Lamellar graphite	< 150	< 500	130 - 180	1,2
	Lamellar graphite	< 300	< 1000	100 - 150	1,1
	Nodular graphite, malleable	< 200	< 700	100 - 150	1,0
	Nodular graphite, malleable	< 300	< 1000	80 - 120	0,9
Stainless steel	Free machining	< 250	< 850	130 - 180	1,0
	Austenitic	< 250	< 850	90 - 140	0,9
	Ferritic and austenitic	< 300	< 1000	80 - 120	0,8
Titanium	Unalloyed	< 200	< 700	60 - 80	0,8
	Alloyed	< 270	< 900	50 - 70	0,7
	Alloyed	< 350	< 1250	30 - 50	0,6
Nickel	Unalloyed	< 150	< 500	80 - 120	0,8
	Alloyed	< 270	< 900	60 - 80	0,7
	Alloyed	< 350	< 1250	50 - 70	0,6
Copper	Unalloyed	< 100	< 350	150 - 250	1,0
	Brass, bronze	< 200	< 700	130 - 180	1,0
	High strength bronze	< 470	< 1500	60 - 80	0,8
Aluminium	Unalloyed	< 100	< 350	500 - 900	1,4
	Alloyed, Si < 0.5%	< 150	< 500	400 - 800	1,3
	Alloyed, Si < 10%	< 120	< 400	300 - 500	1,2
	Alloyed, Si > 10%	< 120	< 400	200 - 400	1,1
Inconel	718	< 370		50 - 70	0,6
Graphite				300 - 500	1,0

Threading Methods

Tool	RIGHT HAND THREAD		
	Anvil	Rotation	Direction
SER	AE +		
SEL	AI -		
SIR	AI +		
SIL	AE -		

Tool	LEFT HAND THREAD		
	Anvil	Rotation	Direction
SEL	AI +		
SER	AE -		
SIL	AE +		
SIR	AI -		

Number of Passes

ISO	Pitch			Material Factor (F_m)									
	UN	W	NPT	0,6	0,7	0,8	0,9	1,0	1,1	1,2	1,3	1,4	
0,5				7	6	5	4	4	4	4	4	4	
0,75	32	28		8	6	6	5	4	4	4	4	4	
1,0	28-24	19		8	7	6	6	5	5	4	4	4	
1,25	20			9	8	7	6	6	5	5	4	4	
1,5	18-16	14		10	9	8	7	6	5	5	5	4	
1,75	14			12	10	9	8	7	6	6	5	5	
2,0	13-12		27	14	12	11	9	8	8	7	7	6	
2,5	11-10	11	18	16	14	13	11	10	9	8	8	7	
3,0	9-8		14	18	16	14	12	11	10	9	8	8	
3,5	7			20	17	15	13	12	11	10	9	9	
4,0	6		11,5	22	19	16	14	13	12	11	10	9	
4,5				23	20	17	15	14	12	11	10	10	
5,0	5			24	20	18	16	14	13	12	11	10	
5,5	4,5		8	25	21	19	17	15	14	13	12	11	
6,0	4			27	23	20	18	16	15	13	12	11	

Radial Infeed Each Pass

PASS	Percentage of the total infeed																
	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	33	28	25	22	20	19	18	16	14	12	11	11	11	11	10	10	9
2	27	24	20	18	17	16	15	14	13	11	10	10	10	10	10	9	9
3	22	19	17	16	15	14	13	12	11	10	9	9	9	9	9	8	8
4	18	16	15	14	13	12	11	10	9	9	8	8	8	9	8	8	8
5		13	13	12	11	10	9	8	8	8	8	8	8	8	8	7	7
6			10	10	10	9	8	8	8	8	8	7	7	7	7	6	6
7				8	8	8	7	8	8	7	7	7	7	6	6	6	6
8					6	7	7	7	7	7	7	7	6	6	6	6	6
9						5	7	7	7	7	7	6	6	5	6	5	5
10							5	6	6	6	6	6	5	5	5	5	5
11								4	5	6	6	5	5	5	5	5	5
12									4	5	5	5	5	4	4	5	5
13										4	4	4	4	4	4	4	4
14											3	4	4	4	3	4	4
15												3	3	3	3	4	3
16													2	2	2	3	3
17														2	2	2	2
18															2	1,5	2
19																1,5	1,5
20																	1,5

Carbide Grades

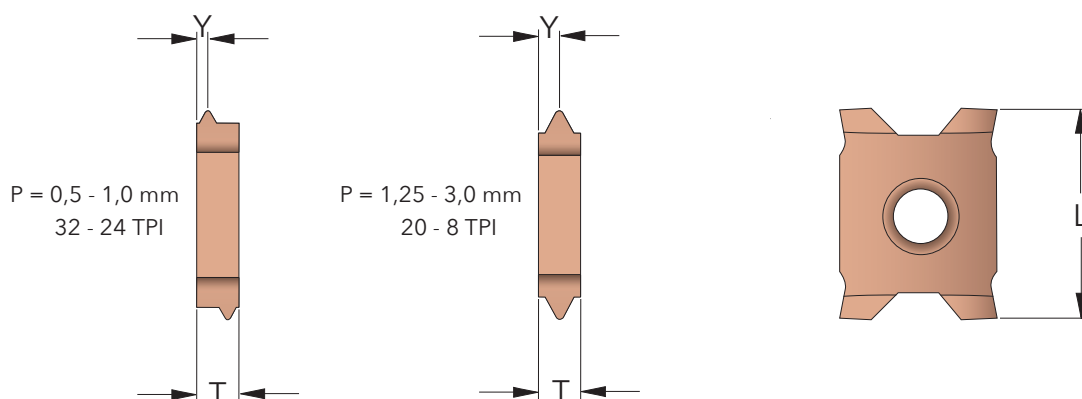
FC Micrograin Carbide with TiAlN coating. Allround Grade with high heat resistance. Use cutting data according to the tables.

BC Micrograin Carbide with TiN coating. Suitable for internal thread turning of small dimensions. Cutting speed 40% less than FC.

HC Micrograin Carbide with AlTiSiN coating. Allround Grade with high hardness and heat resistance. Use cutting data according to the tables.

THREAD TURNING INSERTS

FourCut



M

METRIC

Pitch mm	Part Number	L mm	T mm	Y mm
0,5	12E_0.5ISO_HC	12	2,4	0,4
0,6	12E_0.6ISO_HC	12	2,4	0,6
0,7	12E_0.7ISO_HC	12	2,4	0,6
0,75	12E_0.75ISO_HC	12	2,4	0,6
0,8	12E_0.8ISO_HC	12	2,4	0,6
1,0	12E_1.0ISO_HC	12	2,4	0,6
1,25	12E_1.25ISO_HC	12	2,4	1,2
1,5	12E_1.5ISO_HC	12	2,4	1,2
1,75	12E_1.75ISO_HC	12	2,4	1,2
2,0	12E_2.0ISO_HC	12	2,4	1,2
2,5	12E_2.5ISO_HC	12	3,6	1,8
3,0	12E_3.0ISO_HC	12	3,6	1,8

UN

UNIFIED

Pitch TPI	Part Number	L mm	T mm	Y mm
32	12E_32UN_HC	12	2,4	0,6
28	12E_28UN_HC	12	2,4	0,6
24	12E_24UN_HC	12	2,4	0,6
20	12E_20UN_HC	12	2,4	1,2
18	12E_18UN_HC	12	2,4	1,2
16	12E_16UN_HC	12	2,4	1,2
14	12E_14UN_HC	12	2,4	1,2
13	12E_13UN_HC	12	2,4	1,2
12	12E_12UN_HC	12	2,4	1,2
11	12E_11UN_HC	12	3,6	1,8
10	12E_10UN_HC	12	3,6	1,8
9	12E_9UN_HC	12	3,6	1,8
8	12E_8UN_HC	12	3,6	1,8

G/Rp

WHITWORTH PIPE THREAD

Pitch TPI	Part Number	L mm	T mm	Y mm
28	12E_28W_HC	12	2,4	0,6
19	12E_19W_HC	12	2,4	1,2
14	12E_14W_HC	12	2,4	1,2
11	12E_11W_HC	12	3,6	1,8

FourCut inserts are also available in FC grade.

THREAD TURNING INSERTS

NPT

NPT PIPE THREAD

Pitch TPI	Part Number	L mm	T mm	Y mm
27	12E_27NPT_HC	12	2,4	0,6
18	12E_18NPT_HC	12	2,4	1,2
14	12E_14NPT_HC	12	2,4	1,2
11,5	12E_11.5NPT_HC	12	3,6	1,8

60°

PARTIAL PROFILE 60°

Pitch mm	TPI	Part Number	L mm	T mm	Y mm
0,35 - 1,0	72-24	12E_AA60_HC	12	2,4	0,6
0,5 - 2,0	48-12	12E_A60_HC	12	2,4	1,2
0,5 - 3,0	48-8	12E_AG60_HC	12	2,4	1,2
1,75 - 3,0	14-8	12E_G60_HC	12	3,6	1,8

55°

PARTIAL PROFILE 55°

Pitch mm	TPI	Part Number	L mm	T mm	Y mm
0,35 - 1,0	72-24	12E_AA55_HC	12	2,4	0,6
0,5 - 2,0	48-12	12E_A55_HC	12	2,4	1,2
0,5 - 3,0	48-8	12E_AG55_HC	12	3,6	1,8
1,75 - 3,0	14-8	12E_G55_HC	12	3,6	1,8

PG

STEEL CONDUIT THREAD DIN 40430

Pitch TPI	Part Number	L mm	T mm	Y mm
20	12E_20PG_HC	12	2,4	1,2
18	12E_18PG_HC	12	2,4	1,2
16	12E_16PG_HC	12	2,4	1,2

TR

TRAPEZ DIN 103

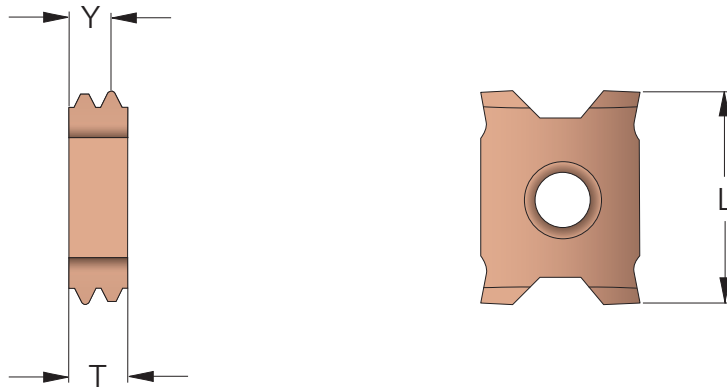
Pitch mm	Part Number	L mm	T mm	Y mm
1,5	12E_1.5TR_HC	12	2,4	1,2
2,0	12E_2.0TR_HC	12	2,4	1,2
3,0	12E_3.0TR_HC	12	3,6	1,8

■ All inserts have ground profile and chipbreaker.



THREAD TURNING INSERTS

FourCut Multitooth



M

METRIC

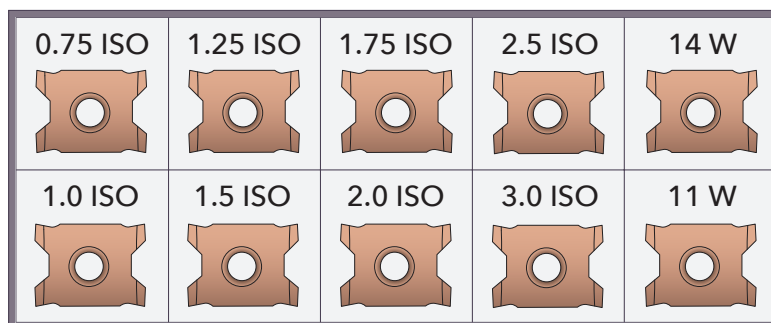
Pitch mm	Part Number	L mm	T mm	Y mm	Radial infeed per pass		
					1	2	3
1,0	12ER_1.0ISO2M_HC	12	2,4	1,7	0,24	0,21	0,18
1,5	12ER_1.5ISO2M_HC	12	3,6	2,55	0,43	0,30	0,21

G/Rp

WHITWORTH PIPE THREAD

Pitch TPI	Part Number	L mm	T mm	Y mm	Radial infeed per pass		
					1	2	3
14	12ER_14W2M_HC	12	3,6	2,7	0,55	0,38	0,25

Kit with Different Inserts

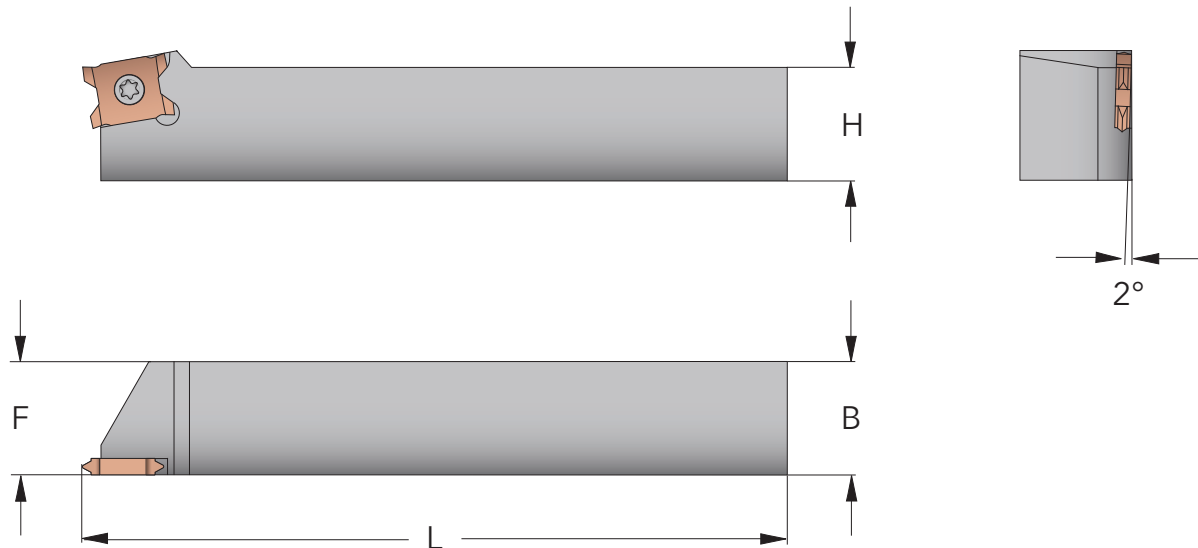


Part Number 10X12E_HC					
1 st. 12E_0.75ISO_HC	M4,5	MF6-12	1 st. 12E_2.0ISO_HC	M14-16	MF18-100
1 st. 12E_1.0ISO_HC	M6-7	MF8-30	1 st. 12E_2.5ISO_HC	M18-22	
1 st. 12E_1.25ISO_HC	M8-9	MF10-12	1 st. 12E_3.0ISO_HC	M24-27	MF30-100
1 st. 12E_1.5ISO_HC	M10-11	MF12-60	1 st. 12E_14W_HC	G 1/2-7/8	
1 st. 12E_1.75ISO_HC	M12		1 st. 12E_11W_HC	G ≥ 1	

Part Number 5X12E_HC		
1 st. 12E_1.0ISO_HC	M6-7	MF8-30
1 st. 12E_1.5ISO_HC	M10-11	MF12-60
1 st. 12E_2.0ISO_HC	M14-16	MF18-100
1 st. 12E_2.5ISO_HC	M18-22	
1 st. 12E_3.0ISO_HC	M24-27	MF30-100

THREAD TURNING TOOLHOLDERS

FourCut External



Insert mm	Part Number	B/H mm	L mm	F mm
12	SER1212H12	12	100	12
12	SER1616H12	16	100	16
12	SER2020K12	20	125	20
12	SER2525M12	25	150	25

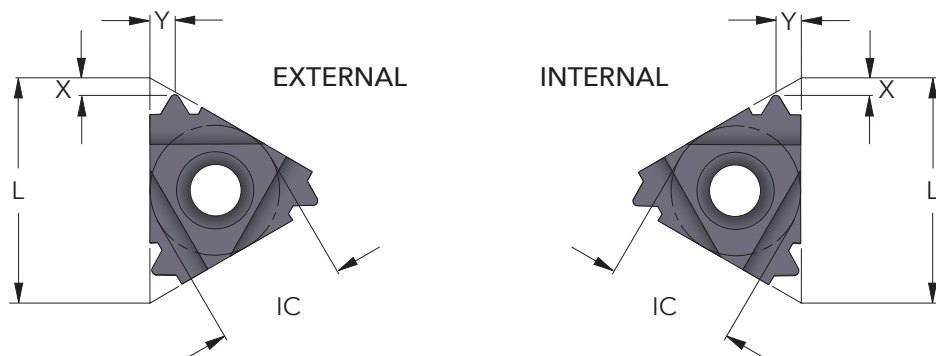
Spare Parts

Insert mm	Screw to insert	Torx key
12	T9XM3	TORX T9

■ The Part Numbers are for Right Hand Toolholders. For Left Hand specify L instead of R. The Price is 10% higher for L.

THREAD TURNING INSERTS

Triangular



M

METRIC

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
0,5	6	5/32				06IR_0.5ISO_BC	0,9	0,5
0,5	16	3/8	16ER_0.5ISO_FC	0,6	0,6			
0,7	16	3/8	16ER_0.7ISO_FC	0,6	0,6			
0,75	6	5/32				06IR_0.75ISO_BC	0,8	0,5
0,75	8	3/16				08IR_0.75ISO_BC	0,6	0,5
0,75	16	3/8	16ER_0.75ISO_FC	0,6	0,6			
0,8	16	3/8	16ER_0.8ISO_FC	0,6	0,6			
1,0	6	5/32				06IR_1.0ISO_BC	0,7	0,6
1,0	8	3/16				08IR_1.0ISO_BC	0,6	0,6
1,0	11	1/4				11IR_1.0ISO_FC	0,6	0,7
1,0	16	3/8	16ER_1.0ISO_FC	0,7	0,7	16IR_1.0ISO_FC	0,6	0,7
1,25	6	5/32				06IR_1.25ISO_BC	0,6	0,6
1,25	8	3/16				08IR_1.25ISO_BC	0,6	0,7
1,25	11	1/4				11IR_1.25ISO_FC	0,8	0,8
1,25	16	3/8	16ER_1.25ISO_FC	0,8	0,9	16IR_1.25ISO_FC	0,8	0,9
1,5	8	3/16				08IR_1.5ISO_BC	0,6	0,7
1,5	11	1/4				11IR_1.5ISO_FC	0,8	1,0
1,5	16	3/8	16ER_1.5ISO_FC	0,8	1,0	16IR_1.5ISO_FC	0,8	1,0
1,75	8	3/16				08IR_1.75ISO_BC	1,0	0,8
1,75	16	3/8	16ER_1.75ISO_FC	0,9	1,2			
2,0	11	1/4				11IR_2.0ISO_FC	0,8	0,9
2,0	16	3/8	16ER_2.0ISO_FC	1,0	1,3	16IR_2.0ISO_FC	1,0	1,3
2,5	16	3/8	16ER_2.5ISO_FC	1,1	1,5	16IR_2.5ISO_FC	1,1	1,5
3,0	16	3/8	16ER_3.0ISO_FC	1,2	1,6	16IR_3.0ISO_FC	1,1	1,5
3,5	16	3/8	16ER_3.5ISO_FC	1,2	1,7	16IR_3.5ISO_FC	1,2	1,7
3,5	22	1/2	22ER_3.5ISO_FC	1,6	2,3	22IR_3.5ISO_FC	1,6	2,3
4,0	22	1/2	22ER_4.0ISO_FC	1,6	2,3	22IR_4.0ISO_FC	1,6	2,3
4,5	22	1/2	22ER_4.5ISO_FC	1,7	2,4	22IR_4.5ISO_FC	1,6	2,4
5,0	22	1/2	22ER_5.0ISO_FC	1,7	2,5	22IR_5.0ISO_FC	1,6	2,3
5,5	22	1/2	22ER_5.5ISO_FC	1,7	2,6	22IR_5.5ISO_FC	1,6	2,3
5,5	27	5/8	27ER_5.5ISO_FC	1,9	2,7	27IR_5.5ISO_FC	1,6	2,3
6,0	22	1/2	22ER_6.0ISO_FC	1,9	2,7	22IR_6.0ISO_FC	1,6	2,4
6,0	27	5/8	27ER_6.0ISO_FC	2,0	2,9	27IR_6.0ISO_FC	1,8	2,5
WITH SINTERED CHIPBREAKER								
1,0	16	3/8	16ER_1.0ISO CB_FC	0,7	0,7	16IR_1.0ISO CB_FC	0,6	0,7
1,25	16	3/8	16ER_1.25ISO CB_FC	0,8	0,9			
1,5	16	3/8	16ER_1.5ISO CB_FC	0,8	1,0	16IR_1.5ISO CB_FC	0,8	1,0
1,75	16	3/8	16ER_1.75ISO CB_FC	0,9	1,2			
2,0	16	3/8	16ER_2.0ISO CB_FC	1,0	1,3	16IR_2.0ISO CB_FC	1,0	1,3
2,5	16	3/8	16ER_2.5ISO CB_FC	1,1	1,5	16IR_2.5ISO CB_FC	1,1	1,5
3,0	16	3/8	16ER_3.0ISO CB_FC	1,2	1,6	16IR_3.0ISO CB_FC	1,1	1,5

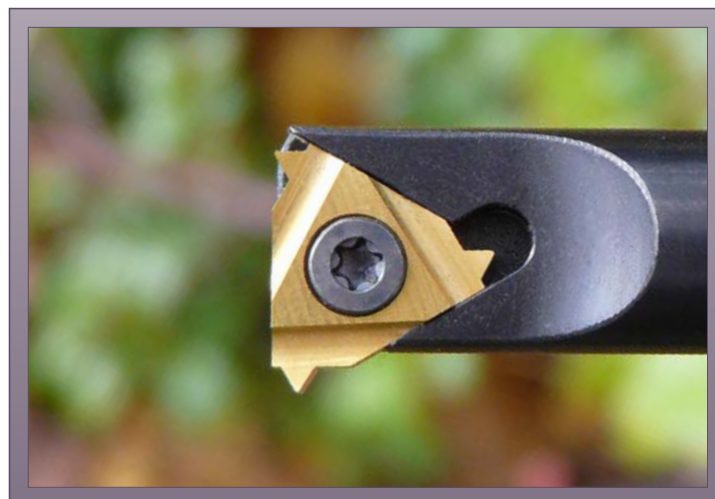
THREAD TURNING INSERTS

UN

UNIFIED

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
32	6	5/32				06IR_32UN_BC	0,8	0,5
32	8	3/16				08IR_32UN_BC	0,6	0,5
32	11	1/4				11IR_32UN_FC	0,6	0,6
32	16	3/8	16ER_32UN_FC	0,6	0,6	16IR_32UN_FC	0,6	0,6
28	6	5/32				06IR_28UN_BC	0,8	0,6
28	8	3/16				08IR_28UN_BC	0,6	0,6
28	11	1/4				11IR_28UN_FC	0,6	0,7
28	16	3/8	16ER_28UN_FC	0,6	0,7	16IR_28UN_FC	0,6	0,7
24	6	5/32				06IR_24UN_BC	0,7	0,6
24	8	3/16				08IR_24UN_BC	0,6	0,6
24	11	1/4				11IR_24UN_FC	0,7	0,8
24	16	3/8	16ER_24UN_FC	0,7	0,8			
20	6	5/32				06IR_20UN_BC	0,6	0,6
20	8	3/16				08IR_20UN_BC	0,6	0,7
20	11	1/4				11IR_20UN_FC	0,8	0,9
20	16	3/8	16ER_20UN_FC	0,8	0,9	16IR_20UN_FC	0,8	0,9
18	6	5/32				06IR_18UN_BC	0,6	0,7
18	11	1/4				11IR_18UN_FC	0,8	1,0
18	16	3/8	16ER_18UN_FC	0,8	1,0			
16	8	3/16				08IR_16UN_BC	0,6	0,7
16	11	1/4				11IR_16UN_FC	0,9	1,1
16	16	3/8	16ER_16UN_FC	0,9	1,1	16IR_16UN_FC	0,9	1,1
14	8	3/16				08IR_14UN_BC	0,6	0,8
14	16	3/8	16ER_14UN_FC	1,0	1,2	16IR_14UN_FC	0,9	1,2
13	16	3/8	16ER_13UN_FC	1,0	1,3			
12	11	1/4				11IR_12UN_FC	0,9	1,1
12	16	3/8	16ER_12UN_FC	1,1	1,4	16IR_12UN_FC	1,1	1,4
11	11	1/4				11IR_11UN_FC	0,8	1,1
11	16	3/8	16ER_11UN_FC	1,1	1,5			
10	16	3/8	16ER_10UN_FC	1,1	1,5	16IR_10UN_FC	1,1	1,5
9	16	3/8	16ER_9UN_FC	1,2	1,7	16IR_9UN_FC	1,2	1,7
8	16	3/8	16ER_8UN_FC	1,2	1,6	16IR_8UN_FC	1,1	1,5
7	22	1/2	22ER_7UN_FC	1,6	2,3	22IR_7UN_FC	1,6	2,3
6	22	1/2	22ER_6UN_FC	1,6	2,3	22IR_6UN_FC	1,6	2,3
5	22	1/2	22ER_5UN_FC	1,7	2,5	22IR_5UN_FC	1,6	2,3
4,5	27	5/8	27ER_4.5UN_FC	1,9	2,7	27IR_4.5UN_FC	1,7	2,4
4	27	5/8	27ER_4UN_FC	2,1	3,0	27IR_4UN_FC	1,8	2,7

- The Part Numbers are for Right Hand Inserts. For Left Hand specify L instead of R. The Price is 10% higher for L.
- All inserts have ground profile and chipbreaker if nothing else is indicated.



THREAD TURNING INSERTS

60°

PARTIAL PROFILE 60°

Pitch mm	TPI	L mm	IC inch	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm
0,5-1,25	48-20	6	5/32		06IR_A60_BC	0,6	0,6
0,5-1,5	48-16	8	3/16		08IR_A60_BC	0,6	0,7
0,5-1,5	48-16	11	1/4		11IR_A60_FC	0,8	0,9
0,5-1,5	48-16	16	3/8	16ER_A60_FC	16IR_A60_FC	0,8	0,9
1,75-3,0	14-8	16	3/8	16ER_G60_FC	16IR_G60_FC	1,2	1,7
0,5-3,0	48-8	16	3/8	16ER_AG60_FC	16IR_AG60_FC	1,2	1,7
3,5-5,0	7-5	22	1/2	22ER_N60_FC	22IR_N60_FC	1,7	2,5
5,5-6,0	4,5-4	27	5/8	27ER_Q60_FC	27IR_Q60_FC	2,1	3,1

55°

PARTIAL PROFILE 55°

Pitch mm	TPI	L mm	IC inch	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm
0,5-1,25	48-20	6	5/32		06IR_A55_BC	0,5	0,6
0,5-1,5	48-16	8	3/16		08IR_A55_BC	0,6	0,7
0,5-1,5	48-16	11	1/4		11IR_A55_FC	0,8	0,9
0,5-1,5	48-16	16	3/8	16ER_A55_FC	16IR_A55_FC	0,8	0,9
1,75-3,0	14-8	16	3/8	16ER_G55_FC	16IR_G55_FC	1,2	1,7
0,5-3,0	48-8	16	3/8	16ER_AG55_FC	16IR_AG55_FC	1,2	1,7
3,5-5,0	7-5	22	1/2	22ER_N55_FC	22IR_N55_FC	1,7	2,5
5,5-6,0	4,5-4	27	5/8	27ER_Q55_FC	27IR_Q55_FC	2,0	2,9

MJ

METRIC

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
1,0	11	1/4				11IR_1.0MJ_FC	0,6	0,7
1,0	16	3/8	16ER_1.0MJ_FC	0,7	0,7	16IR_1.0MJ_FC	0,6	0,7
1,25	11	1/4				11IR_1.25MJ_FC	0,8	0,8
1,25	16	3/8	16ER_1.25MJ_FC	0,8	0,9	16IR_1.25MJ_FC	0,8	0,9
1,5	11	1/4				11IR_1.5MJ_FC	0,8	1,0
1,5	16	3/8	16ER_1.5MJ_FC	0,8	1,0	16IR_1.5MJ_FC	0,8	1,0
2,0	11	1/4				11IR_2.0MJ_FC	0,8	0,9
2,0	16	3/8	16ER_2.0MJ_FC	1,0	1,3	16IR_2.0MJ_FC	1,0	1,3

UNJ

UNIFIED

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
32	11	1/4				11IR_32UNJ_FC	0,6	0,6
32	16	3/8	16ER_32UNJ_FC	0,6	0,6	16IR_32UNJ_FC	0,6	0,6
28	11	1/4				11IR_28UNJ_FC	0,6	0,7
28	16	3/8	16ER_28UNJ_FC	0,6	0,7	16IR_28UNJ_FC	0,6	0,7
24	11	1/4				11IR_24UNJ_FC	0,7	0,8
24	16	3/8	16ER_24UNJ_FC	0,7	0,8			
20	11	1/4				11IR_20UNJ_FC	0,8	0,9
20	16	3/8	16ER_20UNJ_FC	0,8	0,9	16IR_20UNJ_FC	0,8	0,9
18	11	1/4				11IR_18UNJ_FC	0,8	1,0
18	16	3/8	16ER_18UNJ_FC	0,8	1,0			
16	11	1/4				11IR_16UNJ_FC	0,9	1,1
16	16	3/8	16ER_16UNJ_FC	0,9	1,1	16IR_16UNJ_FC	0,9	1,1
14	16	3/8	16ER_14UNJ_FC	1,0	1,2	16IR_14UNJ_FC	0,9	1,2
13	16	3/8	16ER_13UNJ_FC	1,0	1,3			
12	16	3/8	16ER_12UNJ_FC	1,1	1,4	16IR_12UNJ_FC	1,1	1,4
11	16	3/8	16ER_11UNJ_FC	1,1	1,5			
10	16	3/8	16ER_10UNJ_FC	1,1	1,5	16IR_10UNJ_FC	1,1	1,5
9	16	3/8	16ER_9UNJ_FC	1,2	1,7	16IR_9UNJ_FC	1,2	1,7
8	16	3/8	16ER_8UNJ_FC	1,2	1,6	16IR_8UNJ_FC	1,1	1,5

THREAD TURNING INSERTS



BS/G/Rp

WHITWORTH

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
32	16	3/8	16ER_32W_FC	0,6	0,6			
28	6	5/32				06IR_28W_BC	0,6	0,6
28	8	3/16				08IR_28W_BC	0,6	0,6
28	16	3/8	16ER_28W_FC	0,6	0,7			
26	6	5/32				06IR_26W_BC	0,7	0,6
26	16	3/8	16ER_26W_FC	0,7	0,7			
24	16	3/8	16ER_24W_FC	0,7	0,8			
22	06	5/32				06IR_22W_BC	0,6	0,6
22	16	3/8	16ER_22W_FC	0,8	0,9			
20	08	3/16				08IR_20W_BC	0,6	0,7
20	16	3/8	16ER_20W_FC	0,8	0,9	16IR_20W_FC	0,8	0,9
19	8	3/16				08IR_19W_BC	0,6	0,7
19	11	1/4				11IR_19W_FC	0,8	1,0
19	16	3/8	16ER_19W_FC	0,8	1,0	16IR_19W_FC	0,8	1,0
18	08	3/16				08IR_18W_BC	0,6	0,7
18	16	3/8	16ER_18W_FC	0,8	1,0	16IR_18W_FC	0,8	1,0
16	08	3/16				08IR_16W_BC	0,6	0,7
16	16	3/8	16ER_16W_FC	0,9	1,1	16IR_16W_FC	0,9	1,1
14	11	1/4				11IR_14W_FC	0,9	1,1
14	16	3/8	16ER_14W_FC	1,0	1,2	16IR_14W_FC	1,0	1,2
12	11	1/4				11IR_12W_FC	0,1	1,1
12	16	3/8	16ER_12W_FC	1,1	1,4	16IR_12W_FC	1,1	1,4
11	16	3/8	16ER_11W_FC	1,1	1,5	16IR_11W_FC	1,1	1,5
10	16	3/8	16ER_10W_FC	1,1	1,5	16IR_10W_FC	1,1	1,5
9	16	3/8	16ER_9W_FC	1,2	1,7	16IR_9W_FC	1,2	1,7
8	16	3/8	16ER_8W_FC	1,2	1,5	16IR_8W_FC	1,2	1,5
7	22	1/2	22ER_7W_FC	1,6	2,3	22IR_7W_FC	1,6	2,3
6	22	1/2	22ER_6W_FC	1,6	2,3	22IR_6W_FC	1,6	2,3
5	22	1/2	22ER_5W_FC	1,7	2,4	22IR_5W_FC	1,7	2,4
4,5	27	5/8	27ER_4.5W_FC	1,8	2,6	27IR_4.5W_FC	1,8	2,6
4	27	5/8	27ER_4W_FC	2,0	2,9	27IR_4W_FC	2,0	2,9
WITH SINTERED CHIPBREAKER								
19	16	3/8	16ER_19WCB_FC	0,8	1,0			
14	16	3/8	16ER_14WCB_FC	1,0	1,2	16IR_14WCB_FC	1,0	1,2
11	16	3/8	16ER_11WCB_FC	1,1	1,5	16IR_11WCB_FC	1,1	1,5

R/Rc

BSPT PIPE THREAD

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
28	6	5/32				06IR_28BSPT_BC	0,7	0,6
28	16	3/8	16ER_28BSPT_FC	0,6	0,6			
19	8	3/16				08IR_19BSPT_BC	0,6	0,6
19	16	3/8	16ER_19BSPT_FC	0,8	0,9			
14	16	3/8	16ER_14BSPT_FC	1,0	1,2	16IR_14BSPT_FC	1,0	1,2
11	16	3/8	16ER_11BSPT_FC	1,1	1,5	16IR_11BSPT_FC	1,1	1,5

- The Part Numbers are for Right Hand Inserts. For Left Hand specify L instead of R. The Price is 10% higher for L.
- All inserts have ground profile and chipbreaker if nothing else is indicated.

THREAD TURNING INSERTS

NPT

NPT PIPE THREAD

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
27	6	5/32				06IR_27NPT_BC	0,6	0,6
27	8	3/16				08IR_27NPT_BC	0,6	0,6
27	16	3/8	16ER_27NPT_FC	0,7	0,8			
18	8	3/16				08IR_18NPT_BC	0,6	0,6
18	11	1/4				11IR_18NPT_FC	0,8	1,0
18	16	3/8	16ER_18NPT_FC	0,8	1,0			
14	16	3/8	16ER_14NPT_FC	0,9	1,2	16IR_14NPT_FC	0,9	1,2
11,5	16	3/8	16ER_11.5NPT_FC	1,1	1,5	16IR_11.5NPT_FC	1,1	1,5
8	16	3/8	16ER_8NPT_FC	1,3	1,8	16IR_8NPT_FC	1,3	1,8

NPTF

NPTF DRYSEAL PIPE THREAD

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
27	6	5/32				06IR_27NPTF_BC	0,7	0,6
27	8	3/16				08IR_27NPTF_BC	0,6	0,6
27	16	3/8	16ER_27NPTF_FC	0,7	0,7			
18	8	3/16				08IR_18NPTF_BC	0,6	0,6
18	11	1/4				11IR_18NPTF_FC	0,8	1,0
18	16	3/8	16ER_18NPTF_FC	0,8	1,0			
14	16	3/8	16ER_14NPTF_FC	0,9	1,2	16IR_14NPTF_FC	0,9	1,2
11,5	16	3/8	16ER_11.5NPTF_FC	1,1	1,5	16IR_11.5NPTF_FC	1,1	1,5
8	16	3/8	16ER_8NPTF_FC	1,3	1,8	16IR_8NPTF_FC	1,3	1,8

ABUT

AMERICAN BUTTRESS

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
20	11	1/4				11IR_20ABUT_FC	1,0	1,3
16	11	1/4				11IR_16ABUT_FC	1,0	1,5
20	16	3/8	16ER_20ABUT_FC	1,0	1,3	16IR_20ABUT_FC	1,0	1,3
16	16	3/8	16ER_16ABUT_FC	1,0	1,5	16IR_16ABUT_FC	1,0	1,5
12	16	3/8	16ER_12ABUT_FC	1,4	2,0	16IR_12ABUT_FC	1,4	2,0
10	16	3/8	16ER_10ABUT_FC	1,5	2,3	16IR_10ABUT_FC	1,5	2,3
8	22	1/2	22ER_8ABUT_FC	2,1	3,3	22IR_8ABUT_FC	2,1	3,3
6	22	1/2	22ER_6ABUT_FC	2,1	3,4	22IR_6ABUT_FC	2,1	3,4

SG

BUTTRESS (SÄGENGEWINDE) DIN 513/514

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
2,0	16	3/8	16ER_2.0SG_FC	1,1	1,6	16IR_2.0SG_FC	1,2	1,7
3,0	22	3/8	22ER_3.0SG_FC	1,5	2,4	22IR_3.0SG_FC	1,9	2,9
4,0	22	1/2	22ER_4.0SG_FC	1,9	3,1	22IR_4.0SG_FC	2,3	3,5

PG

STEEL CONDUIT THREAD DIN 40430

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
20	8	3/16				08IR_20PG_BC	0,6	0,7
18	11	1/4				11IR_18PG_FC	0,8	0,9
20	16	3/8	16ER_20PG_FC	0,7	0,8			
18	16	3/8	16ER_18PG_FC	0,8	0,9	16IR_18PG_FC	0,8	0,9
16	16	3/8	16ER_16PG_FC	0,8	1,0	16IR_16PG_FC	0,8	1,0

THREAD TURNING INSERTS



TR

TRAPEZ DIN 103

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
1,5	16	3/8	16ER_1.5TR_FC	1,0	1,1			
2,0	16	3/8	16ER_2.0TR_FC	1,0	1,3	16IR_2.0TR_FC	1,0	1,3
3,0	16	3/8	16ER_3.0TR_FC	1,3	1,5	16IR_3.0TR_FC	1,3	1,5
4,0	22	1/2	22ER_4.0TR_FC	1,8	1,9	22IR_4.0TR_FC	1,8	1,9
5,0	22	1/2	22ER_5.0TR_FC	2,0	2,4	22IR_5.0TR_FC	2,0	2,4
6,0	22	1/2	22ER_6.0TR_FC	2,0	2,4	22IR_6.0TR_FC	2,0	2,4
6,0	27	5/8	27ER_6.0TR_FC	2,3	2,7	27IR_6.0TR_FC	2,3	2,7
7,0	27	5/8	27ER_7.0TR_FC	2,2	2,6	27IR_7.0TR_FC	2,2	2,6

RD

RUND DIN 405

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
10	16	3/8	16ER_10RD_FC	1,1	1,2	16IR_10RD_FC	1,1	1,2
8	16	3/8	16ER_8RD_FC	1,4	1,3	16IR_8RD_FC	1,4	1,4
6	16	3/8	16ER_6RD_FC	1,5	1,7	16IR_6RD_FC	1,4	1,5
6	22	1/2	22ER_6RD_FC	1,5	1,7	22IR_6RD_FC	1,5	1,7
4	22	1/2	22ER_4RD_FC	2,2	2,3	22IR_4RD_FC	2,2	2,3
4	27	5/8	27ER_4RD_FC	2,2	2,3	27IR_4RD_FC	2,2	2,3

ACME

ACME

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
16	11	1/4				11IR_16ACME_FC	0,9	1,0
16	16	3/8	16ER_16ACME_FC	0,9	1,0	16IR_16ACME_FC	0,9	1,0
14	16	3/8	16ER_14ACME_FC	1,0	1,2	16IR_14ACME_FC	1,0	1,2
12	16	3/8	16ER_12ACME_FC	1,1	1,2	16IR_12ACME_FC	1,1	1,2
10	16	3/8	16ER_10ACME_FC	1,3	1,3	16IR_10ACME_FC	1,3	1,3
8	16	3/8	16ER_8ACME_FC	1,5	1,5	16IR_8ACME_FC	1,5	1,5
6	16	3/8	16ER_6ACME_FC	1,7	1,8	16IR_6ACME_FC	1,7	1,8
6	22	1/2	22ER_6ACME_FC	1,8	2,1	22IR_6ACME_FC	1,8	2,1
5	22	1/2	22ER_5ACME_FC	2,0	2,3	22IR_5ACME_FC	2,0	2,3
4	27	5/8	27ER_4ACME_FC	2,3	2,7	27IR_4ACME_FC	2,3	2,7

STACME

STUB ACME

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
16	16	3/8	16ER_16STACME_FC	1,0	1,0	16IR_16STACME_FC	1,0	1,0
14	16	3/8	16ER_14STACME_FC	1,1	1,1	16IR_14STACME_FC	1,1	1,1
12	16	3/8	16ER_12STACME_FC	1,2	1,2	16IR_12STACME_FC	1,2	1,2
10	16	3/8	16ER_10STACME_FC	1,3	1,3	16IR_10STACME_FC	1,3	1,3
8	16	3/8	16ER_8STACME_FC	1,5	1,5	16IR_8STACME_FC	1,5	1,5
6	16	1/2	16ER_6STACME_FC	1,8	1,8	16IR_6STACME_FC	1,8	1,8
5	22	1/2	22ER_5STACME_FC	2,0	2,3	22IR_5STACME_FC	2,0	2,3
4	27	5/8	27ER_4STACME_FC	2,3	2,4	27IR_4STACME_FC	2,3	2,4
3	27	5/8	27ER_3STACME_FC	2,8	2,9	27IR_3STACME_FC	2,8	2,9

- The Part Numbers are for Right Hand Inserts. For Left Hand specify L instead of R. The Price is 10% higher for L.
- All inserts have ground profile and chipbreaker if nothing else is indicated.

THREAD TURNING INSERTS

API RD

API ROUND OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm
10	16	3/8	0,75	16ER_10APIRD_FC	16IR_10APIRD_FC	1,5	1,4
8	16	3/8	0,75	16ER_8APIRD_FC	16IR_8APIRD_FC	1,3	1,6

V-0.040

V-0.040 OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm	Connection or Size
5	22	1/2	3	22ER_5API403_FC	22IR_5API403_FC	1,8	2,5	2 3/8 - 4 1/2 REG

V-0.038R

V-0.038R OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm	Connection or Size
4	27	5/8	2	27ER_4API382_FC	27IR_4API382_FC	2,1	2,8	NC23-NC50
4	27	5/8	3	27ER_4API383_FC	27IR_4API383_FC	2,1	2,8	NC56-NC77

V-0.050

V-0.050 OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm	Connection or Size
4	27	5/8	2	27ER_4API502_FC	27IR_4API502_FC	2,0	3,0	6 5/8 REG
4	27	5/8	3	27ER_4API503_FC	27IR_4API503_FC	2,0	3,0	5 1/2, 7 5/8, 8 5/8 REG

EL

EXTREME - LINE CASING OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm	Connection or Size
6	22	1/2	1,50	22ER_6EL1.5_FC	22IR_6EL1.5_FC	1,9	1,9	5 - 7 5/8
5	22	1/2	1,25	22ER_5EL1.25_FC	22IR_5EL1.25_FC	2,4	2,3	8 5/8 - 10 3/4

BUT

BUTTRESS CASING OIL THREAD

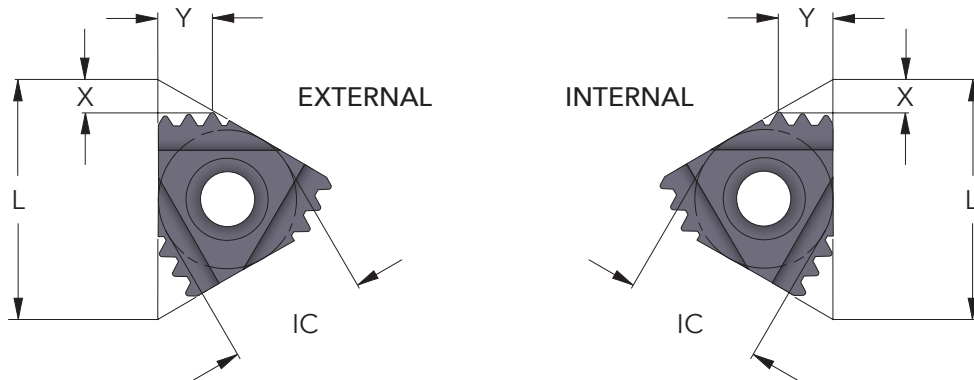
Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm	Connection or Size
5	22	1/2	0,75	22ER_5BUT0.75_FC	22IR_5BUT0.75_FC	2,2	2,4	4 1/2 - 13 3/8
5	22	1/2	1,00	22ER_5BUT1.0_FC	22IR_5BUT1.0_FC	2,3	2,4	16 - 20

■ The Part Numbers are for Right Hand Inserts. For Left Hand specify L instead of R. The Price is 10% higher for L.

■ All inserts have ground profile and chipbreaker if nothing else is indicated.

THREAD TURNING INSERTS

Triangular Multitooth



M

METRIC

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
1,0	16	3/8	16ER_1.0ISO3M_FC	1,7	2,5	16IR_1.0ISO3M_FC	1,7	2,5
1,5	16	3/8	16ER_1.5ISO2M_FC	1,5	2,3	16IR_1.5ISO2M_FC	1,5	2,3
1,5	22	1/2	22ER_1.5ISO3M_FC	2,3	3,7	22IR_1.5ISO3M_FC	2,3	3,7
2,0	22	1/2	22ER_2.0ISO2M_FC	2,0	3,0	22IR_2.0ISO2M_FC	2,0	3,0
2,0	22	1/2	22ER_2.0ISO3M_FC	3,1	5,0	22IR_2.0ISO3M_FC	3,1	5,0
3,0	27	5/8	27ER_3.0ISO2M_FC	2,9	4,5	27IR_3.0ISO2M_FC	2,9	4,5

UN

UNIFIED

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
16	16	3/8	16ER_16UN2M_FC	1,5	2,3	16IR_16UN2M_FC	1,5	2,3
16	16	3/8	22ER_16UN3M_FC	2,5	4,0	22IR_16UN3M_FC	2,5	4,0
12	22	1/2	22ER_12UN2M_FC	2,2	3,4	22IR_12UN2M_FC	2,2	3,4
12	22	1/2	22ER_12UN3M_FC	3,3	5,3	22IR_12UN3M_FC	3,3	5,3
8	27	5/8	27ER_8UN2M_FC	3,1	4,9	27IR_8UN2M_FC	3,1	4,9

G/Rp

WHITWORTH PIPE THREAD

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
14	16	3/8	16ER_14W2M_FC	1,7	2,7	16IR_14W2M_FC	1,7	2,7
14	22	1/2	22ER_14W3M_FC	2,8	4,5	22IR_14W3M_FC	2,8	4,5
11	22	1/2	22ER_11W2M_FC	2,3	3,4	22IR_11W2M_FC	2,3	3,4

NPT

NPT PIPE THREAD

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
11,5	22	1/2	22ER_11.5NPT2M_FC	2,3	3,5	22IR_11.5NPT2M_FC	2,3	3,5
11,5	27	5/8	27ER_11.5NPT3M_FC	3,3	5,5	27IR_11.5NPT3M_FC	3,3	5,5
8	27	5/8	27ER_8NPT2M_FC	3,1	5,0	27IR_8NPT2M_FC	3,1	5,0

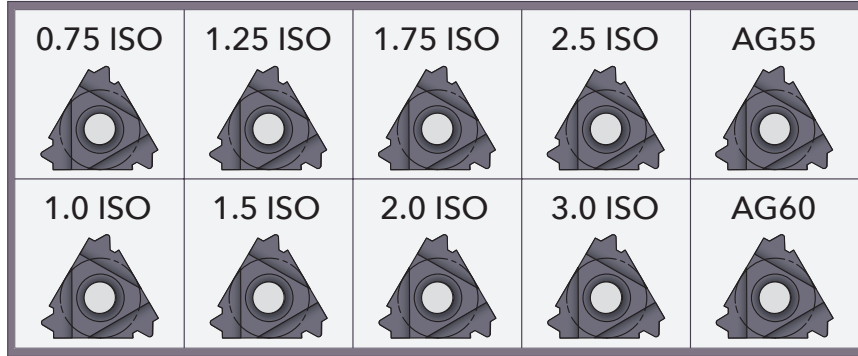
API RD

API ROUND OIL THREAD

Pitch TPI	L mm	IC inch	Taper IPF	EXTERNAL Part Number	INTERNAL Part Number	X mm	Y mm
10	22	1/2	0,75	22ER_10APIRD2M_FC	22IR_10APIRD2M_FC	2,4	3,7
10	27	5/8	0,75	27ER_10APIRD3M_FC	27IR_10APIRD3M_FC	3,8	6,2
8	27	5/8	0,75	27ER_8APIRD2M_FC	27IR_8APIRD2M_FC	3,0	4,5

THREAD TURNING INSERTS

Kit with Different Inserts



External Thread Turning Inserts

Part Number 10X16ER_FC		
1 pc. 16ER_0.75ISO_FC	M4,5 MF6-12	1 pc. 16ER_2.0ISO_FC
1 pc. 16ER_1.0ISO_FC	M6-7 MF8-30	1 pc. 16ER_2.5ISO_FC
1 pc. 16ER_1.25ISO_FC	M8-9 MF10-12	1 pc. 16ER_3.0ISO_FC
1 pc. 16ER_1.5ISO_FC	M10-11 MF12-60	1 pc. 16ER_AG55_FC
1 pc. 16ER_1.75ISO_FC	M12	1 pc. 16ER_AG60_FC

Part Number 10X22ER_FC		
2 pcs. 22ER_3.5ISO_FC	M30-33	
2 pcs. 22ER_4.0ISO_FC	M36-39 MF42-100	
2 pcs. 22ER_4.5ISO_FC	M42-45	
2 pcs. 22ER_5.0ISO_FC	M48-52	
2 pcs. 22ER_N60_FC	P3,5-5,0	

Internal Thread Turning Inserts

Part Number 10X06IR_Ø5_BC		
2 pcs. 06IR_0.5ISO_BC	MF8	
2 pcs. 06IR_0.75ISO_BC	MF7-12	
2 pcs. 06IR_1.0ISO_BC	M7 MF8-30	
2 pcs. 06IR_1.25ISO_BC	M8-9 MF10-12	
2 pcs. 06IR_A60_BC	P0,5-1,25	

Recommended holder: SIR_0005_H06

Part Number 10X08IR_Ø7_BC		
2 pcs. 08IR_1.0ISO_BC	MF10-30	
2 pcs. 08IR_1.5ISO_BC	M10-11 MF12-60	
2 pcs. 08IR_1.75ISO_BC	M12	
2 pcs. 08IR_28W_BC	G1/8	
2 pcs. 08IR_A60_BC	P0,5-1,5	

Recommended holder: SIR_0007_K08

Part Number 10X11IR_Ø10_FC		
2 pcs. 11IR_1.0ISO_FC	MF14-30	
2 pcs. 11IR_1.5ISO_FC	MF14-60	
2 pcs. 11IR_2.0ISO_FC	M14-16 MF18-100	
2 pcs. 11IR_19W_FC	G1/4-3/8	
2 pcs. 11IR_A60_FC	P0,5-1,5	

Recommended holder: SIR_0010_K11

Part Number 10X16IR_Ø13_FC		
2 pcs. 16IR_1.5ISO_FC	MF18-60	
2 pcs. 16IR_2.0ISO_FC	MF18-100	
2 pcs. 16IR_2.5ISO_FC	M18-22	
2 pcs. 16IR_3.0ISO_FC	M24-27 MF30-100	
2 pcs. 16IR_14W_FC	G1/2-7/8	

Recommended holder: SIR_0013_M16

Part Number 10X16IR_Ø20_FC		
2 pcs. 16IR_1.5ISO_FC	MF27-60	
2 pcs. 16IR_2.0ISO_FC	MF27-100	
2 pcs. 16IR_3.0ISO_FC	M27 MF30-100	
2 pcs. 16IR_11W_FC	G1-6	
2 pcs. 16IR_AG60_FC	P0,5-3,0	

Recommended holder: SIR_0020_P16

Part Number 10X22IR_Ø25_FC		
2 pcs. 22IR_3.5ISO_FC	M30-33	
2 pcs. 22IR_4.0ISO_FC	M36-39 MF42-100	
2 pcs. 22IR_4.5ISO_FC	M42-45	
2 pcs. 22IR_5.0ISO_FC	M48-52	
2 pcs. 22IR_N60_FC	P3,5-5,0	

Recommended holder: SIR_0025_R22

THREAD TURNING INSERTS



I have my eyes on SmiCut so that you can trust you get a reliable tool.

THREAD TURNING TOOLHOLDERS

External

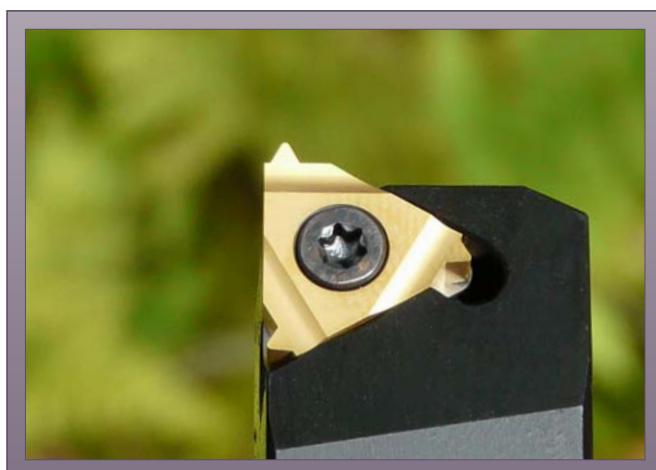


Insert mm	Part Number	B/H mm	L mm	F mm
16	SER_1212_F16	12	80	16
16	SER_1616_H16	16	100	16
16	SER_2020_K16	20	125	20
16	SER_2525_M16	25	150	25
16	SER_3232_P16	32	170	32
22	SER_2525_M22	25	150	25
22	SER_3232_P22	32	170	32
22	SER_4040_R22	40	200	40
27	SER_2525_M27	25	150	32
27	SER_3232_P27	32	170	32
27	SER_4040_R27	40	200	40

Spare Parts

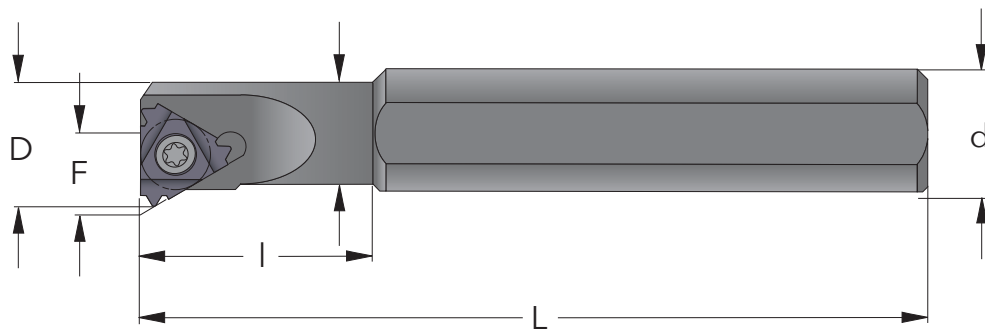
Insert mm	Screw to insert	Torx key	Screw to anvil	Anvil
16	S16	K16	A16	AE16...
22	S22	K22	A22	AE22...
27	S27	K27	A27	AE27...

- The Part Numbers are for Right Hand Toolholders. For Left Hand specify L instead of R. The Price is 10% higher for L.
- Give Helix Angle for Anvil, ex. AE16+0.5



THREAD TURNING TOOLHOLDERS

Internal



Insert mm	D mm	Part Number	d mm	d1 mm	l mm	L mm	F mm
6	6,3	SIR_0005_H06*	12	5,1	12	100	4,3
8	8	SIR_0007_K08*	16	6,6	18	125	5,3
11	12	SIR_0010_H11*	10	10		100	7,4
11	12	SIR_0010_K11*	16	10	25	125	7,4
11	15	SIR_0013_L11*	16	13	32	140	8,9
16	16	SIR_0013_M16*	16	13	32	150	10,2
16	19	SIR_0016_P16*	20	16	40	170	11,7
16	23	SIR_0020_P16	20	20		170	13,7
16	28	SIR_0025_R16	25	25		200	16,2
16	35	SIR_0032_S16	32	32		250	19,7
16	43	SIR_0040_T16	40	40		300	23,7
22	24	SIR_0020_P22*	20	20		170	15,6
22	29	SIR_0025_R22	25	25		200	18,1
22	36	SIR_0032_S22	32	32		250	21,6
22	44	SIR_0040_T22	40	40		300	25,6
27	39	SIR_0032_S27	32	32		250	22,6
27	45	SIR_0040_T27	40	40		300	26,6
27	55	SIR_0050_U27	50	50		350	31,6
27	65	SIR_0060_V27	60	60		400	36,6

with Carbide Shank and Internal Coolant

Insert mm	D mm	Part Number	d mm	d1 mm	l mm	L mm	F mm
6	6,3	SIR_0005_H06CB*	6	5,1	26	100	4,3
8	8	SIR_0007_K08CB*	8	6,6	31	125	5,3
11	12	SIR_0010_M11CB*	10	10		150	7,4
11	14	SIR_0012_P11CB*	12	12		170	8,4
16	19	SIR_0016_R16CB*	16	16		200	11,7
16	23	SIR_0020_S16CB	20	20		250	13,7
16	28	SIR_0025_S16CB	25	25		250	16,2
22	24	SIR_0020_S22CB*	20	20		250	15,6

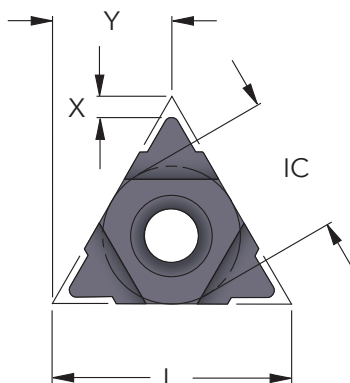
Spare Parts

Insert mm	Screw to insert	Torx key	Screw to anvil	Anvil
06	S6	K6		
08	S8	K8		
11	S11	K11		
16	S16	K16	A16	AI16...
22	S22	K22	A22	AI22...
27	S27	K27	A27	AI27...

* Toolholder without anvil

THREAD TURNING INSERTS

U-type



M

METRIC

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
2,0	8	3/16				08UI_2.0ISO_BC	0,9	4,0
5,5	22	1/2	22UE_5.5ISO_FC	2,3	11,0	22UI_5.5ISO_FC	2,4	11,0
6,0	22	1/2	22UE_6.0ISO_FC	2,6	11,0	22UI_6.0ISO_FC	2,1	11,0
8,0	27	5/8	27UE_8.0ISO_FC	2,4	13,7	27UI_8.0ISO_FC	2,4	13,7
12,0	33	3/4	33UE_12.0ISO_FC	2,5	16,5	33UI_12.0ISO_FC	3,5	16,9

UN

UNIFIED

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
13	8	3/16				08UI_13UN_BC	1,0	4,0
12	8	3/16				08UI_12UN_BC	0,9	4,0
11	8	3/16				08UI_11UN_BC	0,9	4,0
4,5	22	1/2	22UE_4.5UN_FC	2,0	11,0	22UI_4.5UN_FC	2,4	11,0
4	22	1/2	22UE_4UN_FC	2,0	11,0	22UI_4UN_FC	2,4	11,0
3	27	5/8	27UE_3UN_FC	2,5	13,7	27UI_3UN_FC	2,7	13,7
2	33	3/4	33UE_2UN_FC	2,8	16,5	33UI_2UN_FC	3,6	16,9

TR

TRAPEZ DIN 103

Pitch mm	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
2,0	8					08UI_2.0TR_BC	0,9	4,0
6,0	22	1/2	22UE_6.0TR_FC	2,0	11,0	22UI_6.0TR_FC	2,0	11,0
7,0	22	1/2	22UE_7.0TR_FC	2,3	11,0	22UI_7.0TR_FC	2,3	11,0
8,0	22	1/2	22UE_8.0TR_FC	2,5	11,0	22UI_8.0TR_FC	2,5	11,0
8,0	27	5/8	27UE_8.0TR_FC	2,5	13,7	27UI_8.0TR_FC	2,5	13,7
9,0	27	5/8	27UE_9.0TR_FC	3,0	13,7	27UI_9.0TR_FC	3,0	13,7
10,0	27	5/8	27UE_10.0TR_FC*	3,2	13,7	27UI_10.0TR_FC*	3,2	13,7
12,0	33	3/4	33UE_12.0TR_FC	3,9	16,9	33UI_12.0TR_FC	3,9	16,9

■ All inserts have ground profile and chipbreaker.

* Only one cutting edge

THREAD TURNING INSERTS



ACME

ACME

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
14	8	3/16				08UI_14ACME_BC	0,8	4,0
12	8	3/16				08UI_12ACME_BC	0,8	4,0
10	8	3/16				08UI_10ACME_BC	0,8	4,0
4	22	1/2	22UE_4ACME_FC	2,3	11,0	22UI_4ACME_FC	2,3	11,0
3	27	5/8	27UE_3ACME_FC	2,8	13,7	27UI_3ACME_FC	2,8	13,7
2	33	3/4	33UE_2ACME_FC	4,3	16,9	33UI_2ACME_FC	4,3	16,9

STACME

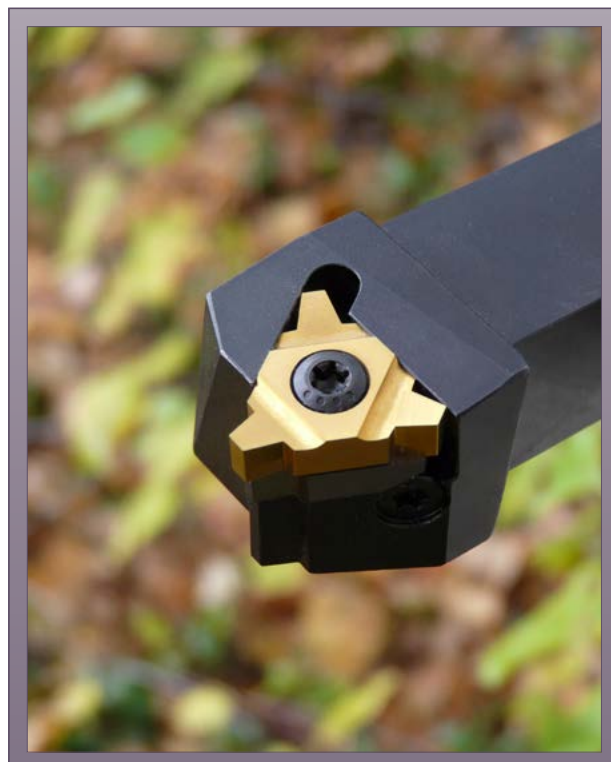
STUB ACME

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
14	8	3/16				08UI_14STACME_BC	0,8	4,0
12	8	3/16				08UI_12STACME_BC	0,9	4,0
10	8	3/16				08UI_10STACME_BC	1,0	4,0
4	22	1/2	22UE_4STACME_FC	2,5	11,0	22UI_4STACME_FC	2,5	11,0
3	22	1/2	22UE_3STACME_FC	3,3	11,0	22UI_3STACME_FC	3,3	11,0
2	33	3/4	33UE_2STACME_FC	5,0	16,9	33UI_2STACME_FC	5,0	16,9

BS/G/Rp

WHITWORTH

Pitch TPI	L mm	IC inch	EXTERNAL Part Number	X mm	Y mm	INTERNAL Part Number	X mm	Y mm
12	8	3/16				08UI_12W_BC	0,9	4,0
4,5	22	1/2	22U_4.5W_FC	2,3	11,0	22U_4.5W_FC	2,3	11,0
4	22	1/2	22U_4W_FC	2,8	11,0	22U_4W_FC	2,8	11,0
3,5	27	5/8	27U_3.5W_FC	2,1	13,7	27U_3.5W_FC	2,1	13,7
3,25	27	5/8	27U_3.25W_FC	2,0	13,7	27U_3.25W_FC	2,0	13,7
3	27	5/8	27U_3W_FC	2,3	13,7	27U_3W_FC	2,3	13,7
2,75	27	5/8	27U_2.75W_FC	2,4	13,7	27U_2.75W_FC	2,4	13,7



THREAD TURNING TOOLHOLDERS

U-type External



Insert mm	Part Number	B/H mm	L mm	F mm
22	SER_2525_M22U	25	150	28
22	SER_3232_P22U	32	170	32
22	SER_4040_R22U	40	200	40
27	SER_2525_M27U	25	150	32
27	SER_3232_P27U	32	170	32
27	SER_4040_R27U	40	200	40
33	SER_2525_M33U*	25	150	32
33	SER_3232_P33U*	32	170	32

Spare Parts

Insert mm	Screw to insert	Torx key	Screw to anvil	Anvil
22	S22	K22	A22	AE22U...
27	S27	K27	A27	AE27U...
33	S33	K33		

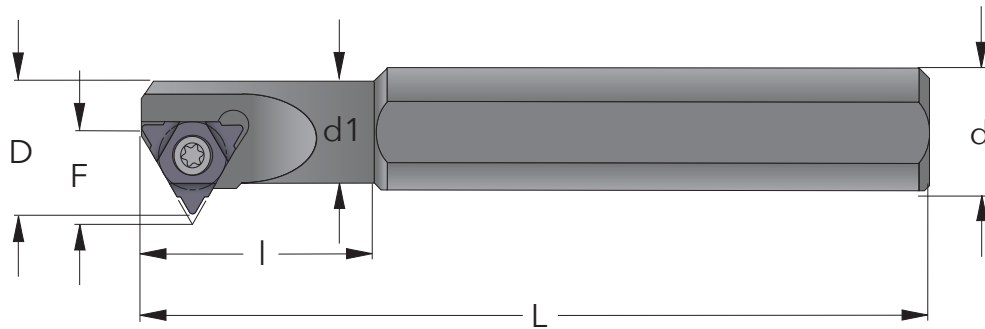
■ The Part Numbers are for Right Hand Toolholders. For Left Hand specify L instead of R. The Price is 10% higher for L.

■ Give Helix Angle for Anvil, ex. AE22U+0.5

* Toolholder without anvil

THREAD TURNING TOOLHOLDERS

U-type Internal



Insert mm	D mm	Part Number	d mm	d1 mm	l mm	L mm	F mm
8	9,5	SIR_0008_K08U*	16	7,3	21	125	6,6
22	39	SIR_0032_S22U	32	32	-	250	24,4
22	46	SIR_0040_T22U	40	40	-	300	28,1
27	40	SIR_0032_S27U	32	32	-	250	25,8
27	47	SIR_0040_T27U	40	40	-	300	29,4
27	57	SIR_0050_U27U	50	50	-	350	34,3
27	68	SIR_0060_V27U	60	60	-	400	39,7
33	59	SIR_0050_U33U*	50	50	-	350	37,5

with Carbide Shank and Internal Coolant

Insert mm	D mm	Part Number	d mm	d1 mm	l mm	L mm	F mm
8	9,5	SIR_0008_K08UCB*	8	7,3	35	125	6,6

Spare Parts

Insert mm	Screw to insert	Torx key	Screw to anvil	Anvil
08	S8	K8		
22	S22	K22	A22	AI22U...
27	S27	K27	A27	AI27U...
33	S33	K33		

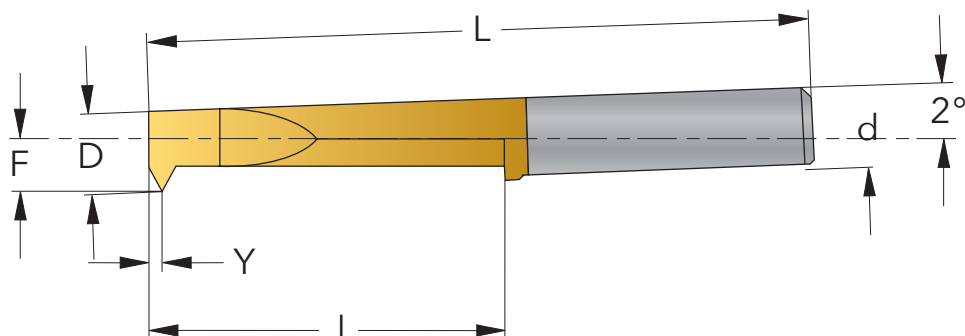
■ The Part Numbers are for Right Hand Toolholders. For Left Hand specify L instead of R. The Price is 10% higher for L.

■ Give Helix Angle for Anvil, ex. AI22U+0.5

* Toolholder without anvil

THREAD TURNING INSERTS

Micro



60°

PARTIAL PROFILE 60°

Pitch mm	TPI	D mm	INTERNAL Part Number	d mm	l mm	L mm	F mm	Y mm
0,2-0,4	80 - 64	0,8	WR308_P60_BC	3	4	24	0,5	0,2
0,2-0,6	80 - 44	1,6	WR316_P60_BC	3	7	24	0,75	0,3
0,2-0,8	80 - 32	2,2	WR322_P60_BC	3	10	24	1,25	0,4
0,2-1,0	80 - 28	3,0	WR330_P60_BC	3	12	24	1,5	0,5
0,25-1,25	80 - 20	4,0	WR440_P60_BC	4	16,5	32	2	0,6
0,25-1,5	80 - 18	5,0	WR550_P60_BC	5	21	40	2,5	0,7
0,25-1,75	80 - 14	6,0	WR660_P60_BC	6	27	48	3	0,8
0,35-2,5	72 - 10	8,0	WR880_P60_BC	8	45	72	4	1,2

55°

PARTIAL PROFILE 55°

Pitch mm	TPI	D mm	INTERNAL Part Number	d mm	l mm	L mm	F mm	Y mm
0,25-1,25	80 - 20	4,0	WR440_P55_BC	4	16,5	32	2	0,6
0,25-1,75	80 - 18	6,0	WR660_P55_BC	6	27	48	3	0,8

■ Also available for Grooving and Turning

Minimum Bore Diameter

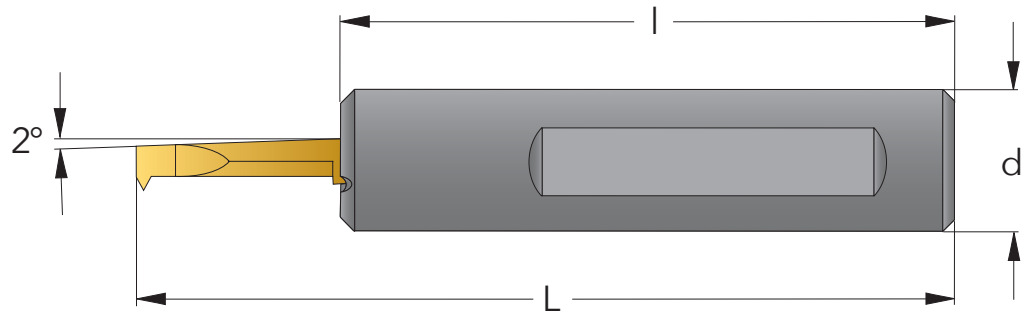
To obtain highest possible stability the threading inserts are ground in an angle of 2°. Therefore the minimum bore diameter is dependent on the thread length according to the table below.

D mm	Thread Length (mm)															
	2	4	6	8	10	12	14	16	18	21	24	27	30	35	40	45
0,8	0,87	0,94														
1,6	1,67	1,74	1,81													
2,2	2,27	2,34	2,41	2,48	2,55											
3,0	3,07	3,14	3,21	3,28	3,35	3,42										
4,0	4,07	4,14	4,21	4,28	4,35	4,42	4,49	4,56								
5,0	5,07	5,14	5,21	5,28	5,35	5,42	5,49	5,56	5,63	5,74						
6,0	6,07	6,14	6,21	6,28	6,35	6,42	6,49	6,56	6,63	6,74	6,84	6,95				
8,0	8,07	8,14	8,21	8,28	8,35	8,42	8,49	8,56	8,63	8,74	8,84	8,95	9,05	9,23	9,40	9,58

■ Minimum Bore Diameter = D + (thread length x 0,035)

THREAD TURNING TOOLHOLDERS

Micro



Insert mm	Part Number	d mm	l mm	L mm
3,0	WRC3N_0012E-2	12	70	82
3,0	WRC3N_0016F-2	16	80	92
3,0	WRC3N_0020H-2	20	100	112
3,0	WRC3N_0022J-2	22	110	122
3,0	WRC3N_0025J-2	25	110	122
4,0	WRC4N_0012E-2	12	75	91,5
4,0	WRC4N_0016F-2	16	85	101,5
4,0	WRC4N_0020H-2	20	105	121,5
4,0	WRC4N_0022J-2	22	115	131,5
4,0	WRC4N_0025J-2	25	115	131,5
5,0	WRC5N_0016G-2	16	90	111
5,0	WRC5N_0020J-2	20	110	131
5,0	WRC5N_0022J-2	22	120	141
5,0	WRC5N_0025J-2	25	120	141
6,0	WRC6N_0016G-2	16	95	121
6,0	WRC6N_0020J-2	20	115	141
6,0	WRC6N_0022K-2	22	125	151
6,0	WRC6N_0025K-2	25	125	151
8,0	WRC8N_0020J-2	20	120	165
8,0	WRC8N_0022K-2	22	130	175
8,0	WRC8N_0025K-2	25	130	175

■ Also available in 3/4" and 1" (for Citizen).

