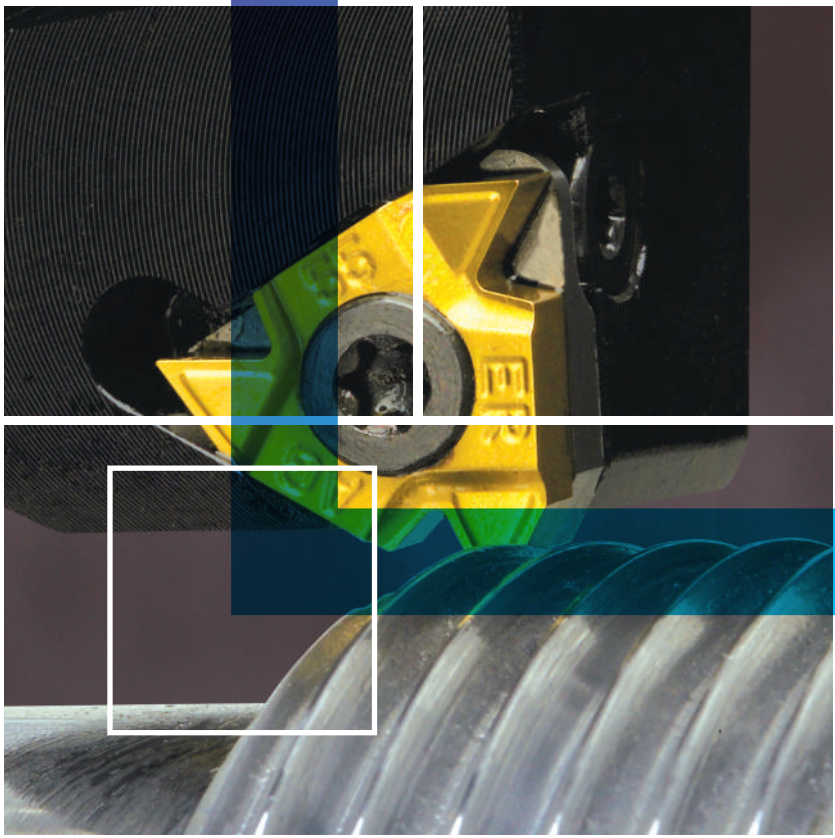
THREAD MAKING



THREAD MAKING

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ADVANC e CUTTING
TaeguTec

Guide to Icons



➤ T-THREAD Holder Page



➤ Cutting Condition Page



T-THREAD (Thread Turning)	
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External Toolholders	C13
Internal Toolholders	C16
Insert Designation System	C21
Inserts	C22
Recommended Cutting Conditions	C56
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Tool Selection Guide

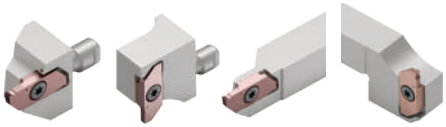
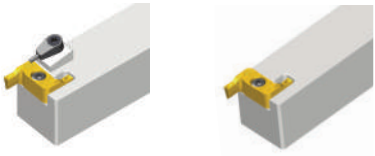
T-THREAD

External and Internal threading holders

Series			Pages	Holder Size	Insert Size
External	SER/L		C13	08x08, 10x10 12x12, 16x16 20x20, 25x25 32x32, 40x40	11 ER.. 16 ER/L... 22 ER/L... 22 UERL... 27 ER/L... 27 UERL...
	SER...D		C14	25x25	16 ER... 22 ER...
	TMS-SEL		C15	Ø16-Ø25.4	16 ER...
Internal	SIR/L		C16	Ø10-Ø60	06 IR/L... 08 IR/L... 08 UIRL... 11 IR/L... 16 IR/L... 22 IR/L... 22 UIRL... 27 IR/L... 27 UIRL...
	SIR/L...CB		C18	Ø6-Ø25	06 IR/L... 08 IR/L... 08 UIRL... 11 IR/L... 16 IR/L...
	QH-SIR/L		C19	Ø25-Ø40	16 IR/L... 22 IR/L...

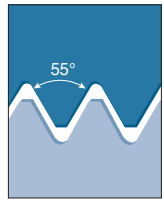
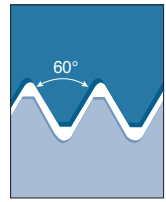
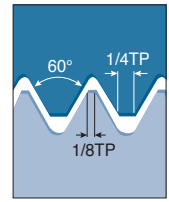
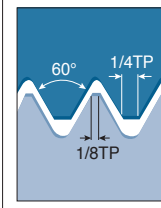
Tool Selection Guide

Others External and Internal threading (Refer to PARTING & GROOVING pages)

Series			Insert Page	Related Holder
External	TQS 20- MT TQS 27- MT WT ISO UN W	QUADRUSH	B159 B166-B168	
	TTR-MT	TOPCUT	B174	
	TDGX - MT	FACERUSH	B155	
Internal	TMIR/L - MT	WINIGROOVE	B174	
	MINI R 04/07 -ISO	TOPMICRO	B195	

Tool Selection Guide

Threading inserts

Thread		T-THREAD			
		55° thread	**60° thread**	**Metric ISO**	**American UN**
					
Pages		C22	C23	C24 - C28	C29 - C33
Pitch		thread / inch	mm (thread / inch)	mm	thread / inch
Application		General use for 55° thread forms for wide range of pitches	General use for 60° thread forms for wide range of pitches	General usage for all industries	General usage for all industries
 M - type	ER	●	●	●	●
	IR	●	●	●	●
 Regular type	ER/IR	●	●	●	●
	EL/IL	●	●	●	●
 B - type	ER	●	●	●	●
	IR	●	●	●	●
 U - type	IRL	●	●	●	●
	EIRL	●	●		
	ERL			●	
 Multi-tooth type	ER			●	●
	IR			●	●

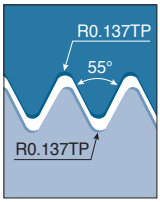
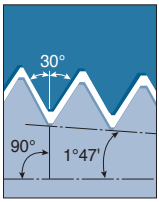
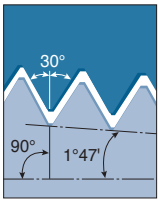
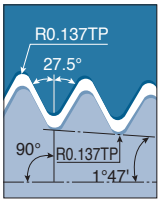
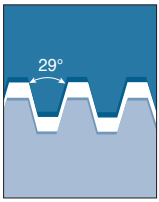
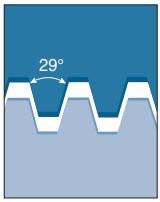
ER: External Right-hand **EL**: External Left-hand **IR**: Internal Right-hand **IL**: Internal Left-hand
ERL: External right / Left-hand **IRL**: Internal Right / Left-hand **EIRL**: External / internal right / Left-hand

ADVANCE CUTTING TaeguTec

Tool Selection Guide

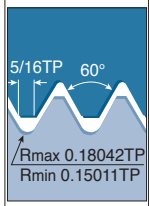
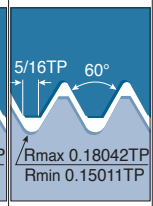
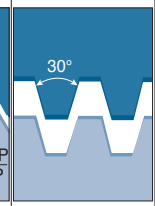
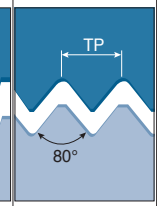
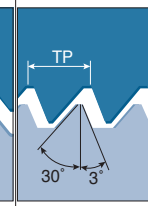
Threading inserts

T-THREAD

Whitworth	NPT	NPTF	BSPT	STUB ACME	ACME
					
C34 - C37	C38 - C39	C40	C41	C42	C43
thread / inch	thread / inch	thread / inch	thread / inch	thread / inch	thread / inch
General industries. Pipe fittings and couplings	Steam, gas and water pipes	Steam, gas and water pipes. Dry seal	55° form for steam, gas and water pipes	Shallow ACME profile for motion transmission	Motion transmission. Feed screws
●	●		●		
●	●		●		
●	●	●	●	●	●
●	●		●	●	●
●	●		●		
●	●		●		
					●
				●	
					●
●	●				
●	●				

Tool Selection Guide

Threading inserts

Thread		T-THREAD				
		UNJ	**MJ**	**Trapez DIN 103**	**PG**	**Sagengenwinde DIN 513**
						
Pages		C44 - C45	C46	C47	C48	C49
Pitch		thread / inch	mm	mm	mm	mm
Application		Aviation and aerospace industry	Aviation and aerospace industry	Motion transmission. Feed screws	Electrical connector	For high force in one direction
 M - type	ER					
	IR					
 Regular type	ER/IR	●	●	●	●	●
	EL/IL	●		●	●	●
 B - type	ER					
	IR	●				
 U - type	ER/IR					●
	EL/IL					●
	ERL/IRL			●		
 Multi-tooth type	ER					
	IR					

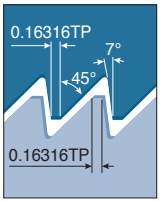
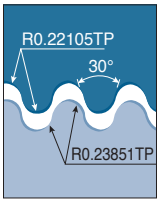
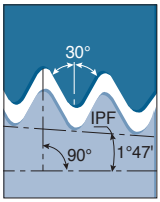
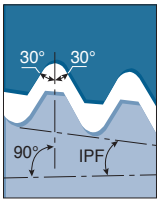
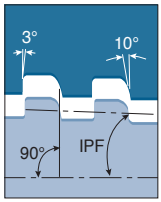
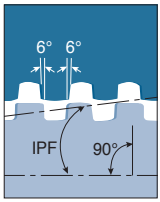
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ERL: External right / Left-hand **IRL**: Internal Right / Left-hand **EIRL**: External / internal right / Left-hand

ADVANCE CUTTING TaeguTec

Tool Selection Guide

Threading inserts

T-THREAD

American buttress	Round DIN 405	API round	API	Buttress casing	Extreme line casing
					
C50	C51	C52 - C53	C54	C55	C55
thread / inch	thread / inch	thread / inch	thread / inch	thread / inch	thread / inch
For high force in one direction	Pipe coupling in fire fighting, chemical and food industries	60° thread with large radius in the oil and gas industry	60° thread form for pipe connections in the oil and gas industry	Tube and casings in the oil and gas industry	Tube and casings in the oil and gas industry
	●				
	●				
●	●	●	●	●	●
●	●	●	●		
●					

Grades

Thread making grades

Grades	ISO	Characteristics & applications
TT7010 PVD coated	P05 – P25 K05 – K25	• General machining of steel and cast iron
TT8010 PVD coated	P30 – P50 M30 – M50 S30 – S50	• Toughest grade in threading product line • For a wide range of threading on low carbon steel & low carbon alloy steel • Medium to low speed threading of stainless steel and exotic materials
TT9030 PVD coated	P20 – P40 M20 – M40 S20 – S40	• General machining of steel • General machining of stainless steel • General machining of heat-resistant alloy
P30 Carbide	P25 – P35	• General machining of steel

TS-THREAD

Thread Turning



Holder Designation System

S	E	R	2020	K	16	□
1	2	3	4	5	6	7

1 Clamping system

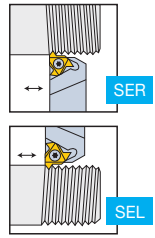
S - Screw clamping

2 Application

E - External
I - Internal

3 Hand of tool

R - Right-hand
L - Left-hand



4 Shank size

External toolholders
Shank: H×B

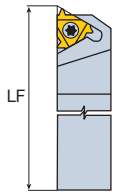
2020: 20×20 mm

Internal toolholders
Neck diameter

0025: Neck diameter 25 mm

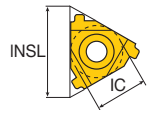
5 Tool length

		mm
D	-	60
F	-	80
H	-	100
K	-	125
L	-	140
M	-	150
P	-	170
R	-	200
S	-	250
T	-	300
U	-	350
V	-	400



6 Insert size

INSL (mm)	IC
06	3.97 mm = 5/32"
08	4.76 mm = 3/16"
08U	4.76 mm = 3/16"
11	6.35 mm = 1/4"
16	9.52 mm = 3/8"
22	12.70 mm = 1/2"
22U	12.70 mm = 1/2"
27	15.88 mm = 5/8"
27U	15.88 mm = 5/8"



7 Optional specifications

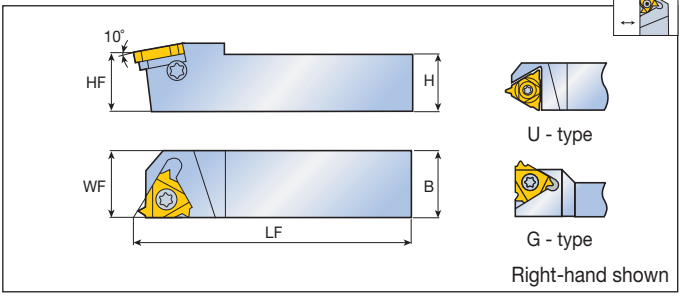
U - For U-type inserts
B - Bore for coolant
C - Carbide shank
D - Drop head
G - Gang tool
AD - Short type
SP - Special

SER/L

T-THREAD

External threading toolholders





Designation		Dimension (mm)					Insert [2]
		H	HF	B	LF	WF	
SER	**0808 H11** [1]	8	8	8	100	11	11 ER...
	1616 K16G	16	16	16	125	21.7	16 ER...
	4040 R27	40	40	40	200	40	27 ER...
SER/L	**1010 H11** [1]	10	10	10	100	11	11 ER/L...
	1212 F16	12	12	12	80	16	16 ER/L...
	1212 X16	12	12	12	120	12	16 ER/L...
	1616 H16	16	16	16	100	16	16 ER/L...
	2020-16-AD	20	20	20	67	25	16 ER/L...
	2020 K16	20	20	20	125	20	16 ER/L...
	2525 M16	25	25	25	150	25	16 ER/L...
	3232 P16	32	32	32	170	32	16 ER/L...
	2525 M22	25	25	25	150	25	22 ER/L...
	3232 P22	32	32	32	170	32	22 ER/L...
	4040 R22	40	40	40	200	40	22 ER/L...
	2525 M22U	25	25	25	150	28	22 UERL...
	3232 P22U	32	32	32	170	32	22 UERL...
	4040 R22U	40	40	40	200	40	22 UERL...
	2525 M27	25	25	25	150	25	27 ER/L...
	3232 P27	32	32	32	170	32	27 ER/L...
	2525 M27U	25	25	25	150	32	27 UERL...
	3232 P27U	32	32	32	170	32	27 UERL...
	4040 R27U	40	40	40	200	40	27 UERL...

- [1] Toolholders without anvil
- [2] Right-hand inserts (ER) for Right-hand tools (SER)
- All Toolholders are made with 1.5° helix angle
- For multi-tooth inserts use anvils AE16M, AE22M, AE27M

Spare parts

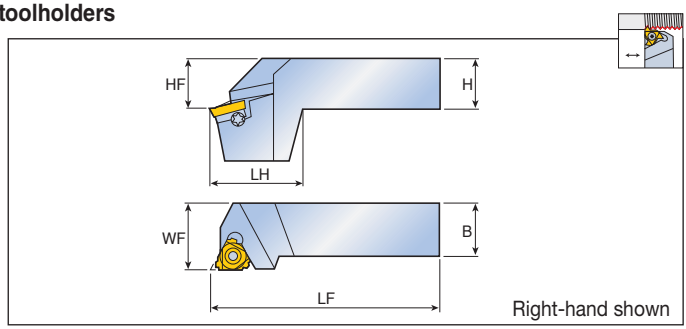
Designation	Insert screw	Anvil screw	Anvil ext. right	Anvil ext. left	Torx wrench	
						
SER/L...11	S11				T-8/5	
SER...16	S16	A16	AE16		T-10/5	
SEL...16	S16	A16		AI16	T-10/5	
SER...22(22U)	S22	A22	AE22(AE22U)		T-20/5	
SEL...22(22U)	S22	A22		AI22(AI22U)	T-20/5	
SER...27(27U)	TS40	A27	AE27(AE27U)		TK40	
SEL...27(27U)	TS40	A27		AI27(AI27U)	TK40	

TaeguTec

SER...D

External threading drophead toolholders





Designation		Dimension (mm)						Insert
		H	HF	B	LF	WF	LH	
SER	**2525 M16D**	25	25	25	150	32	38	16 ER...
	2525 M22D	25	25	25	150	32	38	22 ER...

- All Toolholders are made with 1.5° helix angle
- For multi-tooth inserts use anvils AE16M, AE22M, AE27M

Spare parts

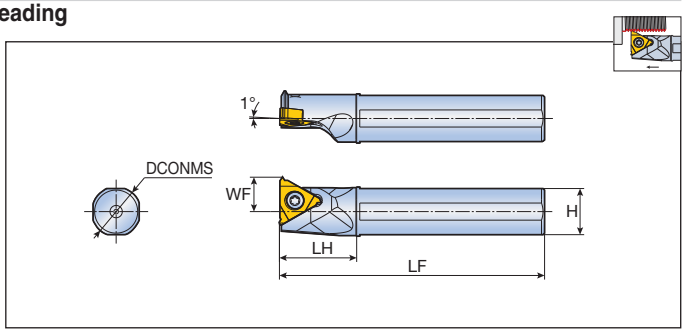
Designation	Insert screw	Anvil screw	Anvil ext. right	Anvil ext. left	Torx wrench	
						
SER...16	S16	A16	AE16		T-10/5	
SEL...16	S16	A16		AI16	T-10/5	
SER...22	S22	A22	AE22		T-20/5	
SEL...22	S22	A22		AI22	T-20/5	

TMS-SEL

T-THREAD

Sleeve holders for external threading





Designation	Dimension (mm)					Insert
	DCONMS	H	LF	LH	WF	
TMS- 16F SEL 16	16	15	85	25	11	16 ER...
19G SEL 16	19.05	18	90	30	12.5	
19X SEL 16	19.05	18	120	30	12.5	
20G SEL 16	20	19	90	30	13	
20X SEL 16	20	19	120	30	13	
22X SEL 16	22	20	120	30	14	
25H SEL 16	25	24	100	30	15.5	
254X SEL 16	25.4	24	120	30	15.7	

▸ Use Left-hand toolholders (L) with Right-hand insert (ER)

Spare parts

Designation	Screw	Wrench		
				
TMS-SEL	S16	T-10/5		

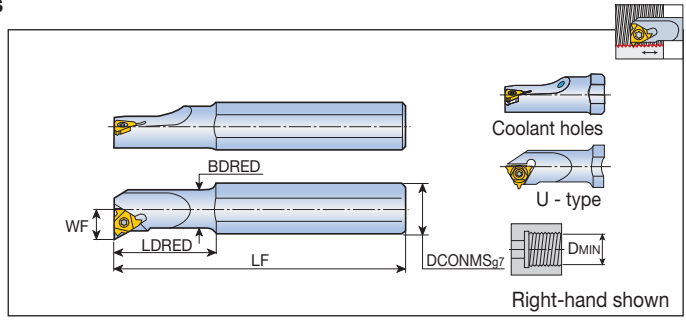
TaeguTec

SIR/L

T-THREAD

Internal threading toolholders



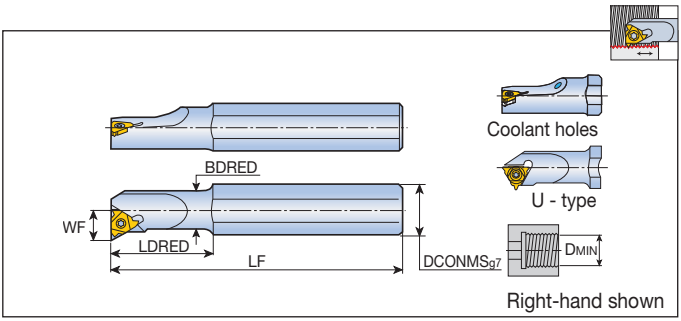


Designation	Dimension (mm)						Coolant hole	Insert [2]
	DCONMS	BDRED	LF	LDRED	DMIN	WF		
SIR/L 0005 H06 [1]	12	5.1	100	12	6.4	4.3	x	06 IR/L...
0007 K08 [1]	16	6.6	125	18	9.0	5.3	x	08 IR/L...
0008 K08U [1]	16	7.4	125	21	9.0	6.4	x	08 UIRL...
0010 H11 [1]	10	10	100	-	12	7.4	x	11 IR/L...
SIR 0010 H11B [1]	10	10	100	-	12	7.4	●	11 IR...
SIR/L 0010 K11 [1]	16	10	125	25	12	6.5	x	11 IR/L...
0010 K11B [1]	16	10	125	25	12	7.4	●	11 IR/L...
0013 L11 [1]	16	13	140	32	15	8.9	x	11 IR/L...
0013 M16 [1]	16	13	150	32	16	10.0	x	16 IR/L...
0013 M16B [1]	16	13	150	32	16	10.2	●	16 IR/L...
0016 P16 [1]	20	16	170	40	19	11.4	x	16 IR/L...
0016 P16B [1]	20	16	170	40	19	11.7	●	16 IR/L...
0020-16-AD	20	20	80	-	24	13.7	x	16 IR/L...
0020 P16	20	20	170	-	24	13.4	x	16 IR/L...
0020 P16B	20	20	170	-	24	13.7	●	16 IR/L...
0025-16-AD	25	25	120	-	29	16.3	x	16 IR/L...
0025 R16	25	25	200	-	29	16.3	x	16 IR/L...
0025 R16B	25	25	200	-	29	16.2	●	16 IR/L...
0032 S16	32	32	250	-	36	19.6	x	16 IR/L...
0040 T16	40	40	300	-	44	23.8	x	16 IR/L...
0050 U16	50	50	350	-	54	28.7	x	16 IR/L...
0020 P22 [1]	20	20	170	-	24	15.6	x	22 IR/L...
0025 R22	25	25	200	-	29	17.2	x	22 IR/L...
0025 R22B	25	25	200	-	29	18.1	●	22 IR/L...
0032 S22	32	32	250	-	38	21.5	x	22 IR/L...
0040 T22	40	40	300	-	46	25.8	x	22 IR/L...
0050 U22	50	50	350	-	56	30.6	x	22 IR/L...
0032 S22U	32	32	250	-	38	25.5	x	22 UIRL...
0040 T22U	40	40	300	-	46	29.5	x	22 UIRL...
0032 S27	32	32	250	-	40	22.4	x	27 IR/L...
0040 T27	40	40	300	-	48	26.4	x	27 IR/L...
0050 U27	50	50	350	-	58	31.4	x	27 IR/L...
0060 V27	60	60	400	-	68	36.4	x	27 IR/L...

▸ [1] Toolholders without anvil
▸ [2] Right-hand inserts (IR) for Right-hand tools (SIR)
▸ For multi-tooth inserts use anvils AI16M, AI22M, AI27M
▸ All Toolholders are made with 1.5° helix angle

Internal threading toolholders





Designation	Dimension (mm)						Coolant hole	Insert [2]
	DCONMS	BDRED	LF	LDRED	DMIN	WF		
SIR/L 0032 S27U	32	32	250	-	40	24.7	x	27 UIRL...
0040 T27U	40	40	300	-	48	29.4	x	27 UIRL...
0050 U27U	50	50	350	-	58	34.3	x	27 UIRL...
0060 V27U	60	60	400	-	68	39.3	x	27 UIRL...

- [2] Right-hand inserts (IR) for Right-hand tools (SIR)
- For multi-tooth inserts use anvils AI16M, AI22M, AI27M
- All Toolholders are made with 1.5° helix angle

Spare parts

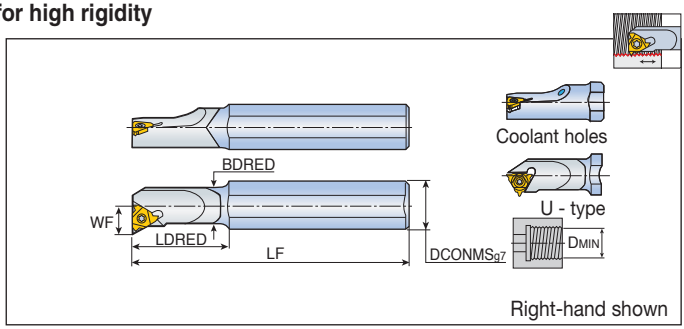
Designation	Insert screw	Anvil screw	Anvil int. left	Anvil int. right	Torx wrench	
						
SIR/L...06	TS 20038I				T-6/5	
SIR/L...08	TS 20054I				T-6/5	
SIR/L...11	S11				T-8/5	
SIR/L 0013...16	S16S				T-10/5	
SIR/L 0016...16	S16S				T-10/5	
SIR...16	S16	A16		AI16	T-10/5	
SIL...16	S16	A16	AE16		T-10/5	
SIR/L 0020...22	S22S				T-20/5	
SIR...22	S22	A22		AI22	T-20/5	
SIR...22U	S22	A22		AI22U	T-20/5	
SIL...22	S22	A22	AE22		T-20/5	
SIL...22U	S22	A22	AE22U		T-20/5	
SIR...27	TS40	A27		AI27	TK40	
SIR...27U	TS40	A27		AI27U	TK40	
SIL...27	TS40	A27	AE27		TK40	
SIL...27U	TS40	A27	AE27U		TK40	

SIR/L...CB

T-THREAD

Solid carbide threading bars for high rigidity





Designation		Dimension (mm)						Coolant hole	Insert [2]
		DCONMS	BDRED	LF	LDRED	DMIN	WF		
SIR/L	**0005 H06CB** [1]	6	5.1	100	25	6.4	4.3	●	06 IR/L...
	0007 K08CB [1]	8	6.6	125	30	9.0	5.3	●	08 IR/L...
	0008 K08UCB [1]	8	7.3	125	35	9.0	6.4	●	08 UIRL...
	0010 M11CB [1]	10	10	150	-	12	7.4	●	11 IR/L...
	0012 P11CB [1]	12	12	170	-	15	8.4	●	11 IR/L...
	0016 R16CB [1]	16	16	200	-	19	11.7	●	16 IR/L...
SIR	**0020 S16CB**	20	20	250	-	24	13.7	●	16 IR...
	0025 S16CB	25	25	250	-	28	16.2	●	16 IR...

▸ [1] Toolholders without anvil
▸ [2] Right-hand inserts (IR) for Right-hand tools (SIR)
▸ For multi-tooth inserts use anvils AI16M, AI22M, AI27M
▸ All carbide shank Toolholders are coolant through type
▸ All Toolholders are made with 1.5° helix angle

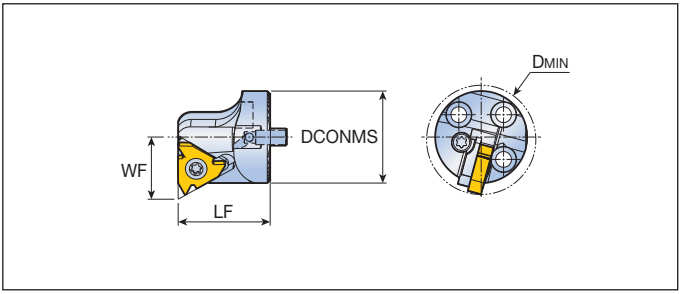
Spare parts

Designation	Insert screw	Anvil screw	Anvil int. left	Anvil int. right	Torx wrench	
						
SIR/L...06	TS 20038I				T-6/5	
SIR/L...08	TS 20054I				T-6/5	
SIR/L...11	S11				T-8/5	
SIR/L 0016...16	S16S				T-10/5	
SIR...16	S16	A16		AI16	T-10/5	
SIL...16	S16	A16	AE16		T-10/5	

QH-SIR/L

Screw type threading heads





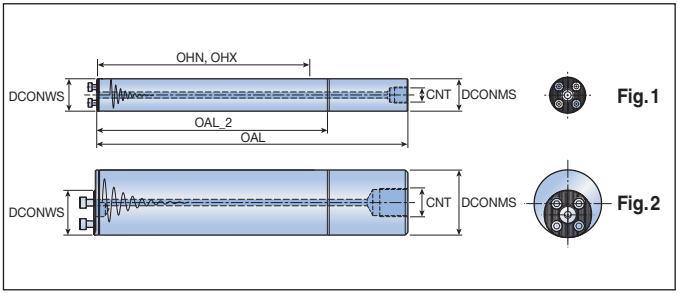
Designation	Dimension (mm)				Coolant hole	Insert
	DCONMS	LF	WF	DMIN		
QH25-SIR/L-16	25	26	16.2	29	•	16 IR/L...
QH32-SIR/L-16	32	27	19.7	36	•	
QH40-SIR/L-16	40	30	23.7	44	•	
QH32-SIR/L-22	32	32	21.6	38	•	22 IR/L...
QH40-SIR/L-22	40	38	25.6	46	•	

Spare parts

Designation	Insert screw	Anvil screw	Anvil int. left Anvil ext. right	Anvil int. right Anvil ext. left	Torx wrench	
						
QH SIR-16	S16	A16	-	AI16	T-10/5	
QH SIL-16	S16	A16	AE16	-	T-10/5	
QH SIR-22	S22	A22	-	AI22	T-20/5	
QH SIL-22	S22	A22	AE22	-	T-20/5	

Anti-vibration shanks for boring





Designation	Demension (mm)							Coolant hole	Fig.
	DCONMS	DCONWS	OAL	OAL_2	OHN	OHX	CNT		
QS16A-7D	16	16	156.3	100	55	92	G 1/8	●	1
QS16E-10D(1)	16	16	204.3	-	96	140	-	●	1
QS20A-7D	20	20	200.3	125	70	120	G 1/4	●	1
QS20E-10D(1)	20	20	260.3	-	120	180	-	●	1
QS25A-7D	25	25	257.5	155	88	155	G 1/4	●	1
QS25A-10D	25	25	332.5	255	155	230	G 1/4	●	1
QS25E-12D(1)	25	25	380.0	-	230	280	G 1/8	●	1
QS25E-14D(1)	25	25	430.0	-	280	330	G 1/8	●	1
QS32A-7D	32	32	323.0	190	120	192	G 3/8	●	1
QS32A-10D	32	32	419.0	320	192	288	G 3/8	●	1
QS32E-12D(1)	32	32	480.0	-	288	352	G 1/4	●	1
QS32E-14D(1)	32	32	544.0	-	352	416	G 1/4	●	1
QS40A-7D	40	40	411.0	240	128	251	G 1/2	●	1
QS40A-10D	40	40	531.0	410	248	368	G 1/2	●	1
QS40E-12D(1)	40	40	608.0	-	368	448	G 3/8	●	1
QS40E-14D(1)	40	40	688.0	-	448	528	G 3/8	●	1
QS50A-7D	50	40	523.0	305	168	318	G 1/2	●	2
QS50A-10D	50	40	673.0	520	318	468	G 1/2	●	2
QS50E-12D(1)	50	40	768.0	-	468	568	G 1/2	●	2
QS50E-14D(1)	50	40	868.0	-	568	668	G 1/2	●	2
QS60A-7D	60	40	633.0	380	208	388	G 3/4	●	2
QS60A-10D	60	40	813.0	630	388	568	G 3/4	●	2
QS60E-12D(1)	60	40	920.0	-	588	688	G 3/4	●	2
QS60E-14D(1)	60	40	1040.0	-	688	808	G 3/4	●	2

- (1) Carbide shank
- OHN: Minimum overhang
- OHX: Maximum overhang
- OAL_2: Minimum length after shortening(only steel bar can be shortened)

Spare parts

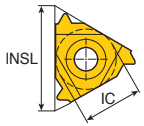
Designation	Screw	Wrench		
				
QS16	SH M3x0.5x10	L-W 2.5		
QS20	SH M3.5x0.6x10	L-W 2.5		
QS25	SH M4x0.7x12	L-W 3		
QS32	SH M5x0.8x12	L-W 4		
QS40/50/60	SH M6x1x16	L-W 5		

Insert Designation System

16	E	R	M	1.50	ISO	2M	TT9030
1	2	3	4	5	6	7	8

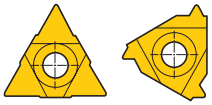
1 Insert size

INSL (mm)	IC
06	3.97 mm = 5/32"
08	4.76 mm = 3/16"
11	6.35 mm = 1/4"
16	9.52 mm = 3/8"
22	12.70 mm = 1/2"
27	15.88 mm = 5/8"



2 Application

- **E** - External
- **I** - Internal
- **UE** - U-type, external
- **UI** - U-type, Internal
- **UEI** - U-type, external and internal



U-type Regular type

3 Hand of tool

- **R** - Right-hand
- **L** - Left-hand
- **RL** - Right and left-hand

4 Type

- **M** - With a chip breaker
- **B** - Peripherally ground & chip breaker
- ☐ - No indication regular type

5 Pitch

Full profile

Value by number

0.35 - 9.0 mm (Thread pitch)

72 - 2 **TPI** (Threads per inch)

Partial profile

Range by letter

	mm (Thread pitch)	TPI (Threads per inch)
A	0.5 - 1.5 mm	48 - 16
AG	0.5 - 3.0 mm	48 - 8
G	1.75 - 3.0 mm	14 - 8
N	3.5 - 5.0 mm	7 - 5
Q	5.5 - 6.0 mm	4.5 - 4
U	5.5 - 9.0 mm	4.5 - 2.75

6 Thread standard

- **60** - Partial profile 60°
- **55** - Partial profile 55°
- **ISO** - ISO metric
- **UN** - American UN
- **W** - Whitworth
- **BSPT** - British BSPT
- **RND** - Round DIN 405
- **TR** - Trapeze DIN 103
- **ACME** - ACME
- **STACME** - Stub ACME
- **ABUT** - American buttress
- **UNJ** - UNJ
- **MJ** - MJ ISO 5855
- **NPT** - NPT
- **API RD** - API round
- **BUT** - API buttress casing
- **API** - API
- **EL** - Extreme line casing
- **SAGE** - Sagengewinde DIN 513

7 No. of teeth (Optional)

- **2M** - 2 teeth
- **3M** - 3 teeth

8 Grades

Coated

TT7010

TT8010

TT9030

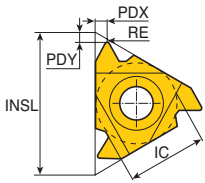
Uncoated

P30

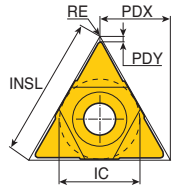
Partial Profile 55°

T-THREAD

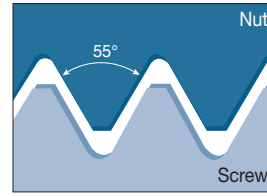
External & internal



External Right-hand shown
(Internal Left-hand)



U-type



• Application: General industry

Insert	Designation	Pitch		Dimension (mm)					Coated			Uncoated
		TP (mm)	TPI	IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**11ER/L A 55**	0.5-1.5	48-16	6.35	11	0.05	0.8	0.9	●	●		
	**16ER/L A 55**	0.5-1.5	48-16	9.52	16	0.06	0.8	0.9		●		●
Regular	**16ER/L AG 55**	0.5-3.0	48-8	9.52	16	0.07	1.2	1.7	●	●	●	
	16ERB AG 55	0.5-3.0	48-8	9.52	16	0.07	1.2	1.7		●		
	16ERM AG 55	0.5-3.0	48-8	9.52	16	0.07	1.2	1.7	●	●		●
	**16ER/L G 55**	1.75-3.0	14-8	9.52	16	0.23	1.2	1.7	●	●		
B/M	**16ERB G 55**	1.75-3.0	14-8	9.52	16	0.23	1.2	1.7		●		
	16ERM G 55	1.75-3.0	14-8	9.52	16	0.23	1.2	1.7	●	●		
	22ER/L N 55	3.5-5.0	7-5	12.70	22	0.48	1.7	2.5	●	●		
	27ER Q 55	5.5-6.0	4.5-4	15.88	27	0.60	2.0	2.9		●		
Internal	**06IR/L A 55**	0.5-1.25	48-20	3.97	6	0.08	0.55	0.6			●	
	**08IR/L A 55**	0.5-1.5	48-16	4.76	8	0.08	0.6	0.7		●	●	
Regular	**11IR/L A 55**	0.5-1.5	48-16	6.35	11	0.05	0.8	0.9	●	●	●	
	16IR A 55	0.5-1.5	48-16	9.52	16	0.05	0.8	0.9		●		
	16IR/L AG 55	0.5-3.0	48-8	9.52	16	0.07	1.2	1.7	●	●		
	**16IRB AG 55**	0.5-3.0	48-8	9.52	16	0.07	1.2	1.7		●		
B/M	**16IRM AG 55**	0.5-3.0	48-8	9.52	16	0.05	1.2	1.7	●	●		
	16IR/L G 55	1.75-3.0	14-8	9.52	16	0.23	1.2	1.7	●	●		
	16IRB G 55	1.75-3.0	14-8	9.52	16	0.23	1.2	1.7		●		
	16IRM G 55	1.75-3.0	14-8	9.52	16	0.20	1.2	1.7	●	●		
	22IR/L N 55	3.5-5.0	7-5	12.70	22	0.42	1.7	2.5	●	●		●
	27IR/L Q 55	5.5-6.0	4.5-4	15.88	27	0.60	2.0	2.9		●		
	**08UIRL U 55**	1.75-2.0	14-11	4.76	8	0.10	0.9	4.33			●	
U	**22UEIRL U 55**	5.5-8.0	4.5-3.25	12.70	22	0.60	0.9	11.0	●			


C13-C20



C56-C64

▸ ERB / ERM / IRB / IRM with pressed chip breaker

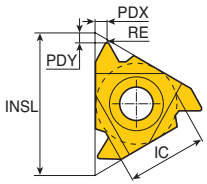
●: Standard items

ADVANCE CUTTING
TaeguTec

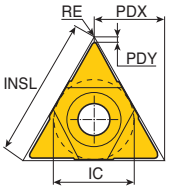
Partial Profile 60°

T-THREAD

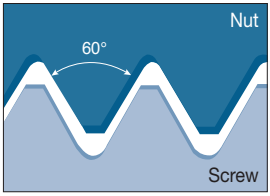
External & internal



External Right-hand shown
(Internal Left-hand)



U-type



• Application: General industry

Insert	Designation	Pitch		Dimension (mm)					Coated			Uncoated
		TP (mm)	TPI	IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**11ER/L A 60**	0.5-1.5	48-16	6.35	11	0.06	0.8	0.9		●		
	16ER/L A 60	0.5-1.5	48-16	9.52	16	0.08	1.0	0.9	●	●	●	
	16ERB A 60	0.5-1.5	48-16	9.52	16	0.08	1.0	0.8		●		
	16ERM A 60	0.5-1.5	48-16	9.52	16	0.07	0.8	0.9	●	●		●
Regular	**16ER/L AG 60**	0.5-3.0	48-8	9.52	16	0.08	1.2	1.7	●	●	●	●
	16ERB AG 60	0.5-3.0	48-8	9.52	16	0.06	1.2	1.7		●		
	16ERM AG 60	0.5-3.0	48-8	9.52	16	0.08	1.2	1.7	●	●		●
	16ER/L G 60	1.75-3.0	14-8	9.52	16	0.22	1.2	1.7	●	●	●	
	16ERB G 60	1.75-3.0	14-8	9.52	16	0.22	1.2	1.7		●		
B/M	**16ERM G 60**	1.75-3.0	14-8	9.52	16	0.25	1.0	1.5	●	●		
	22ER/L N 60	3.5-5.0	7-5	12.70	22	0.42	1.7	2.5	●	●	●	
	22ERM N 60	3.5-5.0	7-5	12.70	22	0.32	1.7	2.5	●	●		●
	27ER/L Q 60	5.5-6.0	4.5-4	15.88	27	0.63	2.0	3.0	●	●		●
Internal	**06IR/L A 60**	0.5-1.25	48-20	3.97	6	0.05	0.5	0.6			●	
	06IRM A 60	0.5-1.25	48-20	3.97	6	0.05	0.5	0.6			●	
	08IR/L A 60	0.5-1.5	48-16	4.76	8	0.05	0.6	0.7			●	
	08IRM A 60	0.5-1.5	48-16	4.76	8	0.05	0.6	0.7		●	●	
Regular	**11IR/L A 60**	0.5-1.5	48-16	6.35	11	0.05	0.8	0.9	●	●	●	
	11IRM A 60	0.5-1.5	48-16	6.35	11	0.05	0.7	0.9	●	●		
	16IR/L A 60	0.5-1.5	48-16	9.52	16	0.05	0.7	0.8	●	●	●	●
	16IRB A 60	0.5-1.5	48-16	9.52	16	0.04	0.8	0.8		●		
	16IRM A 60	0.5-1.5	48-16	9.52	16	0.05	0.8	0.9	●	●		
	16IR/L AG 60	0.5-3.0	48-8	9.52	16	0.05	1.2	1.7	●	●	●	●
	16IRB AG 60	0.5-3.0	48-8	9.52	16	0.05	1.2	1.7		●		
B/M	**16IRM AG 60**	0.5-3.0	48-8	9.52	16	0.05	1.2	1.7	●	●		●
	16IR/L G 60	1.75-3.0	14-8	9.52	16	0.13	1.2	1.7		●	●	
	16IRB G 60	1.75-3.0	14-8	9.52	16	0.13	1.2	1.7		●		
	16IRM G 60	1.75-3.0	14-8	9.52	16	0.10	1.2	1.7	●	●		●
	22IR/L N 60	3.5-5.0	7-5	12.70	22	0.22	1.7	2.5	●	●		
	22IRM N 60	3.5-5.0	7-5	12.70	22	0.19	1.7	2.5	●	●		●
	27IR/L Q 60	5.5- 6.0	4.5-4	15.88	27	0.40	1.9	2.4	●	●		●
U	**08UIRL U 60**	1.25-2.0	18-12	4.76	8	0.10	0.8	4.33			●	
	22UEIRL U 60	3.0-8.0	8-4	12.70	22	0.28	0.6	11.0	●	●		
	27UEIRL U 60	5.5-8.0	4.5-4	15.88	27	0.50	1.03	13.75	●			

C13-C20 Cutting Condition C56-C64

▸ ERB / ERM / IRB / IRM with pressed chip breaker

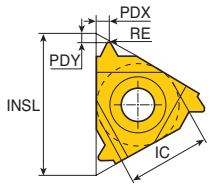
●: Standard items

TaeguTec

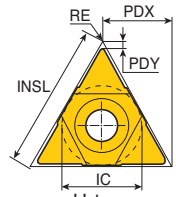
External ISO Metric

T-THREAD

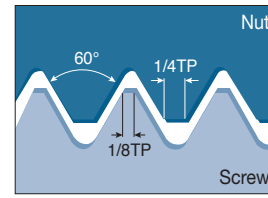
Full profile (DIN13 12-1986 class: 6G)



External Right-hand shown
(Internal Left-hand)



U-type



• Application: General industry

Insert	Designation	TP (mm)	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**11ER/L 0.35 ISO**	0.35	6.35	11	0.04	0.6	0.4		●		
 Regular	**11ER 0.40 ISO**	0.40	6.35	11	0.04	0.7	0.4		●		
	11ER 0.45 ISO	0.45	6.35	11	0.05	0.7	0.4			●	
	11ER/L 0.50 ISO	0.50	6.35	11	0.07	0.57	0.6	●	●		
	11ER 0.60 ISO	0.60	6.35	11	0.07	0.6	0.6		●		
 B/M	**11ER 0.70 ISO**	0.70	6.35	11	0.11	0.6	0.6		●		
	11ER/L 0.75 ISO	0.75	6.35	11	0.11	0.6	0.6		●		
	11ER 0.80 ISO	0.80	6.35	11	0.12	0.6	0.6		●		
	11ER/L 1.00 ISO	1.00	6.35	11	0.15	0.7	0.65		●		
	11ER 1.25 ISO	1.25	6.35	11	0.16	0.8	0.9		●		
	11ER/L 1.50 ISO	1.50	6.35	11	0.19	0.8	1.0	●	●		
	11ER 1.75 ISO	1.75	6.35	11	0.22	0.8	1.1	●			
	16ER/L 0.35 ISO	0.35	9.52	16	0.04	0.6	0.4		●		
	16ER/L 0.40 ISO	0.40	9.52	16	0.05	0.7	0.4		●		
	16ER 0.45 ISO	0.45	9.52	16	0.05	0.6	0.4		●		
	16ER/L 0.50 ISO	0.50	9.52	16	0.07	0.6	0.45	●	●		
	16ERM 0.50 ISO	0.50	9.52	16	0.06	0.6	0.6		●		
	16ER 0.60 ISO	0.60	9.52	16	0.10	0.6	0.6		●		
	16ER/L 0.70 ISO	0.70	9.52	16	0.11	0.6	0.6	●	●		
	16ER/L 0.75 ISO	0.75	9.52	16	0.11	0.6	0.6	●	●		
	16ERM 0.75 ISO	0.75	9.52	16	0.08	0.6	0.6		●		
	16ER/L 0.80 ISO	0.80	9.52	16	0.12	1.0	0.6	●	●		
	16ERB 0.80 ISO	0.80	9.52	16	0.12	0.7	0.7		●		
	16ER/L 1.00 ISO	1.00	9.52	16	0.15	1.0	0.75	●	●	●	●
	16ERB 1.00 ISO	1.00	9.52	16	0.15	0.7	0.7		●		
	16ERM 1.00 ISO	1.00	9.52	16	0.11	0.7	0.7	●	●		●
	16ER/L 1.25 ISO	1.25	9.52	16	0.16	0.8	0.9	●	●		
	16ERB 1.25 ISO	1.25	9.52	16	0.16	0.8	0.9		●		
	16ERM 1.25 ISO	1.25	9.52	16	0.14	0.8	0.9	●	●		
	16ER/L 1.50 ISO	1.50	9.52	16	0.22	1.0	1.15	●	●	●	●
	16ERB 1.50 ISO	1.50	9.52	16	0.19	0.8	1.0		●		
	16ERM 1.50 ISO	1.50	9.52	16	0.22	0.8	1.0	●	●		●
	16ER/L 1.75 ISO	1.75	9.52	16	0.26	1.0	1.2	●	●	●	
	16ERB 1.75 ISO	1.75	9.52	16	0.26	1.0	1.15		●		
	16ERM 1.75 ISO	1.75	9.52	16	0.25	0.9	1.2	●	●		

C13-C20 Cutting Condition C56-C64

▸ ERB / ERM with pressed chip breaker

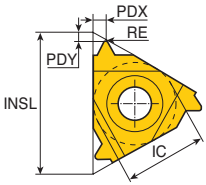
●: Standard items

ADVANCE CUTTING TaeguTec

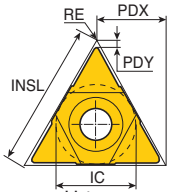
External ISO Metric

T-THREAD

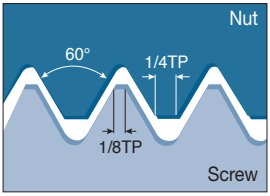
Full profile (DIN13 12-1986 class: 6G)



External Right-hand shown
(Internal Left-hand)



U-type



- Application: General industry

Insert	Designation	TP (mm)	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**16ER/L 2.00 ISO**	2.00	9.52	16	0.26	1.0	1.25	●	●	●	●
	16ERB 2.00 ISO	2.00	9.52	16	0.25	0.9	1.2		●		
	16ERM 2.00 ISO	2.00	9.52	16	0.28	1.0	1.3	●	●		
	16ER/L 2.50 ISO	2.50	9.52	16	0.36	1.1	1.45	●	●		●
	16ERB 2.50 ISO	2.50	9.52	16	0.32	1.1	1.45		●		
	16ERM 2.50 ISO	2.50	9.52	16	0.30	1.1	1.5	●	●		
	16ER/L 3.00 ISO	3.00	9.52	16	0.44	1.2	1.6	●	●	●	
	16ERB 3.00 ISO	3.00	9.52	16	0.44	1.2	1.6		●		
	16ERM 3.00 ISO	3.00	9.52	16	0.38	1.2	1.6	●	●		●
	22ER/L 3.50 ISO	3.50	12.70	22	0.46	1.6	2.3	●	●		
	22ERM 3.50 ISO	3.50	12.70	22	0.48	1.6	2.3		●		
	22ER/L 4.00 ISO	4.00	12.70	22	0.52	1.6	2.3	●	●		●
	22ERM 4.00 ISO	4.00	12.70	22	0.52	1.6	2.3		●		
	22ER/L 4.50 ISO	4.50	12.70	22	0.58	1.6	2.3	●	●		
	22ER/L 5.00 ISO	5.00	12.70	22	0.66	1.7	2.5	●	●		
	22ER/L 6.00 ISO	6.00	12.70	22	0.87	1.8	2.7	●			
	27ER 5.50 ISO	5.50	15.88	27	0.71	2.0	2.9		●		
	27ER/L 6.00 ISO	6.00	15.88	27	0.87	2.0	2.9	●	●	●	
U	**22UERL 5.50 ISO**	5.50	12.70	22	0.80	1.9	11.0	●			
	22UERL 6.00 ISO	6.00	12.70	22	0.78	2.6	11.0	●		●	
	27UERL 8.00 ISO	8.00	15.88	27	1.08	2.4	13.7		●		

Regular

B/M

U

C13-C20 Cutting Condition C56-C64

▸ ERB / ERM with pressed chip breaker

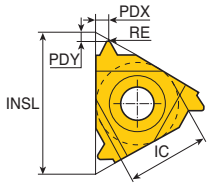
●: Standard items

TaeguTec

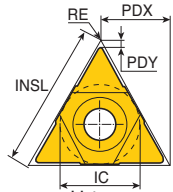
Internal ISO Metric

T-THREAD

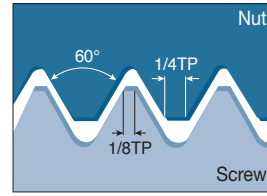
Full profile (DIN13 12-1986 class: 6H)



External Right-hand shown
(Internal Left-hand)



U-type



• Application: General industry

Insert	Designation	TP (mm)	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal  Regular  B/M	**06IR/L 0.50 ISO**	0.50	3.97	6	0.04	0.6	0.4			●	
	06IR/L 0.75 ISO	0.75	3.97	6	0.06	0.6	0.5			●	
	06IR/L 1.00 ISO	1.00	3.97	6	0.05	0.6	0.6			●	
	06IR/L 1.25 ISO	1.25	3.97	6	0.07	0.6	0.6			●	
	08IR/L 0.50 ISO	0.50	4.76	8	0.04	0.6	0.4			●	
	08IR 0.75 ISO	0.75	4.76	8	0.06	0.6	0.45			●	
	08IR/L 1.00 ISO	1.00	4.76	8	0.07	0.6	0.6		●	●	
	08IR/L 1.25 ISO	1.25	4.76	8	0.09	0.6	0.7		●	●	
	08IR/L 1.50 ISO	1.50	4.76	8	0.12	0.6	0.7		●	●	
	08IR/L 1.75 ISO	1.75	4.76	8	0.15	0.6	0.9			●	
	11IR/L 0.35 ISO	0.35	6.35	11	0.03	0.6	0.3		●		
	11IR 0.40 ISO	0.40	6.35	11	0.03	0.8	0.4		●		
	11IR/L 0.50 ISO	0.50	6.35	11	0.04	0.8	0.6	●	●		
	11IRB 0.50 ISO	0.50	6.35	11	0.04	0.8	0.6		●		
	11IRM 0.50 ISO	0.50	6.35	11	0.04	0.3	0.4		●		
	11IR 0.70 ISO	0.70	6.35	11	0.05	0.6	0.6		●		
	11IR/L 0.75 ISO	0.75	6.35	11	0.05	0.6	0.6		●		
	11IRB 0.75 ISO	0.75	6.35	11	0.05	0.6	0.6		●		
	11IRM 0.75 ISO	0.75	6.35	11	0.05	0.3	0.5		●		
	11IR 0.80 ISO	0.80	6.35	11	0.04	0.6	0.6		●		
	11IR/L 1.00 ISO	1.00	6.35	11	0.07	0.6	0.65	●	●	●	●
	11IRB 1.00 ISO	1.00	6.35	11	0.07	0.6	0.6		●		
	11IRM 1.00 ISO	1.00	6.35	11	0.05	0.6	0.7		●		
	11IR/L 1.25 ISO	1.25	6.35	11	0.09	0.8	0.8		●		
	11IR/L 1.50 ISO	1.50	6.35	11	0.12	0.8	0.95	●	●	●	●
	11IRM 1.50 ISO	1.50	6.35	11	0.08	0.8	1.0	●	●		
	11IR/L 1.75 ISO	1.75	6.35	11	0.12	0.8	1.0		●		
	11IRB 1.75 ISO	1.75	6.35	11	0.12	0.8	1.0		●		
	11IRM 1.75 ISO	1.75	6.35	11	0.15	0.6	0.9		●		
	11IR/L 2.00 ISO	2.00	6.35	11	0.15	0.8	1.0	●	●	●	
	11IRM 2.00 ISO	2.00	6.35	11	0.16	0.6	1.0		●		
	16IR 0.35 ISO	0.35	9.52	16	0.02	0.6	0.3		●		
	16IR/L 0.40 ISO	0.40	9.52	16	0.03	0.6	0.4		●		
	16IR/L 0.50 ISO	0.50	9.52	16	0.04	0.6	0.6	●	●		
	16IR 0.60 ISO	0.60	9.52	16	0.04	0.6	0.6		●		


C13-C20


Cutting Condition
C56-C64

▸ IRB / IRM with pressed chip breaker

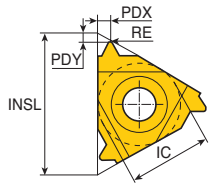
●: Standard items

ADVANCE CUTTING
TaeguTec

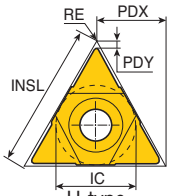
Internal ISO Metric

T-THREAD

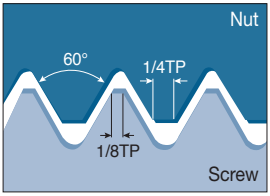
Full profile (DIN13 12-1986 class: 6H)



External Right-hand shown
(Internal Left-hand)



U-type



- Application: General industry

Insert	Designation	TP (mm)	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal  Regular	**16IR/L 0.70 ISO**	0.70	9.52	16	0.05	0.6	0.6	●	●		
	16IR/L 0.75 ISO	0.75	9.52	16	0.06	1.0	0.6	●	●		
	16IR/L 0.80 ISO	0.80	9.52	16	0.05	0.6	0.6	●			
	16IR/L 1.00 ISO	1.00	9.52	16	0.07	0.7	0.8	●	●		●
	16IRB 1.00 ISO	1.00	9.52	16	0.07	0.7	0.8		●		
	16IRM 1.00 ISO	1.00	9.52	16	0.05	0.6	0.7	●	●		●
 B/M	**16IR/L 1.25 ISO**	1.25	9.52	16	0.09	0.8	0.9	●	●		
	16IRB 1.25 ISO	1.25	9.52	16	0.09	0.7	0.8		●		
	16IRM 1.25 ISO	1.25	9.52	16	0.06	0.8	0.9	●	●		
	16IR/L 1.50 ISO	1.50	9.52	16	0.12	0.9	1.0	●	●	●	●
	16IRB 1.50 ISO	1.50	9.52	16	0.12	0.1	1.15		●		
	16IRM 1.50 ISO	1.50	9.52	16	0.08	0.8	1.0	●	●		●
	16IR/L 1.75 ISO	1.75	9.52	16	0.12	0.9	1.2	●	●		
	16IRB 1.75 ISO	1.75	9.52	16	0.12	0.9	1.2		●		
	16IRM 1.75 ISO	1.75	9.52	16	0.10	0.9	1.2	●	●		
	16IR/L 2.00 ISO	2.00	9.52	16	0.16	0.9	1.2	●	●	●	
	16IRB 2.00 ISO	2.00	9.52	16	0.16	1.0	1.15		●		
	16IRM 2.00 ISO	2.00	9.52	16	0.11	1.0	1.3	●	●		
	16IR/L 2.50 ISO	2.50	9.52	16	0.19	1.15	1.4	●	●	●	
	16IRB 2.50 ISO	2.50	9.52	16	0.19	1.15	1.4		●		
	16IRM 2.50 ISO	2.50	9.52	16	0.14	1.1	1.5	●	●		
	16IR/L 3.00 ISO	3.00	9.52	16	0.21	1.1	1.5	●	●	●	
	16IRB 3.00 ISO	3.00	9.52	16	0.21	1.1	1.5		●		
	16IRM 3.00 ISO	3.00	9.52	16	0.22	1.1	1.5	●	●		
	16IR 3.50 ISO	3.50	9.52	16	0.26	1.5	1.6		●		
	22IL 3.00 ISO	3.00	12.70	22	0.17	1.1	1.5			●	
	22IR/L 3.50 ISO	3.50	12.70	22	0.23	1.6	2.3	●	●		
	22IR/L 4.00 ISO	4.00	12.70	22	0.27	1.6	2.3	●	●		●
	22IR/L 4.50 ISO	4.50	12.70	22	0.31	1.6	2.3	●	●		
	22IR/L 5.00 ISO	5.00	12.70	22	0.32	1.7	2.5	●	●		
	27IR/L 5.50 ISO	5.50	15.88	27	0.36	1.8	2.5	●	●		
	27IR/L 6.00 ISO	6.00	15.88	27	0.45	1.85	2.4	●	●		
 U	**08UIRL 2.00 ISO**	2.00	4.76	8	0.14	0.8	4.33				
	22UIRL 5.50 ISO	5.50	12.70	22	0.36	2.3	11.0	●			
	22UIRL 6.00 ISO	6.00	12.70	22	0.40	2.1	11.0	●			
	27UIRL 8.00 ISO	8.00	15.88	27	0.50	2.5	13.8		●		





▸ IRB / IRM with pressed chip breaker

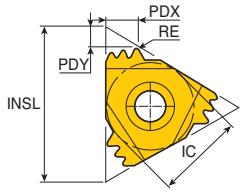
●: Standard items

TaeguTec

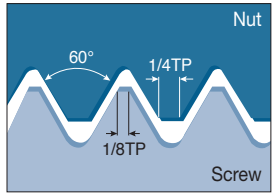
External & Internal ISO Metric

T-THREAD

Full profile, multi-tooth



External Right-hand shown
(Internal Left-hand)



• Application: General industry

Insert	Designation	TP (mm)	Dimension (mm)					CICT(1)	Coated			Uncoated
			IC	INSL	RE	PDY	PDX		TT7010	TT9030	TT8010	P30
Internal / External 	**16ER 0.75 ISO 3M**	0.75	9.52	16	0.07	1.4	1.9	3		●		
	16ER/IR 1.00 ISO 3M	1.0	9.52	16	0.07	1.7	2.5	3		●		
	16ER/IR 1.50 ISO 2M	1.5	9.52	16	0.18	1.5	2.3	2		●		
	16ER/IR 2.00 ISO 2M	2.00	9.52	16	0.14	1.6	2.7	2		●		
	22ER/IR 1.50 ISO 3M	1.5	12.70	22	0.07	2.3	3.7	3		●		
	22ER/IR 2.00 ISO 2M	2.0	12.70	22	0.25	2.0	3.0	2		●		
	22ER/IR 2.00 ISO 3M	2.0	12.70	22	0.25	3.1	5.0	3		●		
	27ER/IR 3.00 ISO 2M	3.0	15.88	27	0.21	3.1	4.6	2		●		

Cutting Condition
C13-C20 C56-C64

▸(1) Number of teeth per corner

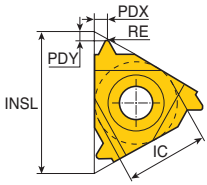
●: Standard items

ADVANCE CUTTING TaeguTec

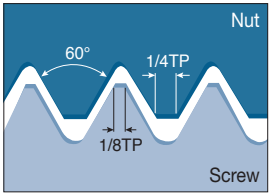
External American UN

T-THREAD

Full profile, UN, UNC, UNF, UNEF



External Right-hand shown
(Internal Left-hand)



- Application: General industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**11ER 32 UN**	32	6.35	11	0.12	0.6	0.6		●		
	11ER 28 UN	28	6.35	11	0.10	0.6	0.7		●		
	**16ER 72 UN**	72	9.52	16	0.50	0.7	0.4		●		
Regular	**16ER 56 UN**	56	9.52	16	0.70	0.65	0.4		●		
	16ER 48 UN	48	9.52	16	0.05	0.6	0.6		●		
	16ER/L 40 UN	40	9.52	16	0.10	0.6	0.5		●		
	**16ER/L 36 UN**	36	9.52	16	0.07	0.6	0.6		●		●
B/M	**16ER/L 32 UN**	32	9.52	16	0.10	0.6	0.6		●		
	16ER/L 28 UN	28	9.52	16	0.11	0.6	0.7	●	●		
	16ER/L 24 UN	24	9.52	16	0.12	0.7	0.8		●		
	16ERB 24 UN	24	9.52	16	0.13	0.7	0.8		●		
	16ERM 24 UN	24	9.52	16	0.11	0.7	0.8	●	●		
	16ER/L 20 UN	20	9.52	16	0.16	0.8	0.9		●		
	16ERB 20 UN	20	9.52	16	0.16	0.8	0.9		●		
	16ERM 20 UN	20	9.52	16	0.14	0.8	0.9	●	●		
	16ER/L 18 UN	18	9.52	16	0.17	0.7	0.8		●		
	16ERB 18 UN	18	9.52	16	0.18	0.7	0.8		●		
	16ERM 18 UN	18	9.52	16	0.15	0.8	1.0		●		
	16ER/L 16 UN	16	9.52	16	0.23	1.1	1.15		●		
	16ERB 16 UN	16	9.52	16	0.23	1.15	1.1		●		
	16ERM 16 UN	16	9.52	16	0.23	1.1	1.1	●	●		
	16ER/L 14 UN	14	9.52	16	0.23	1.0	1.2		●		
	16ERB 14 UN	14	9.52	16	0.23	1.0	1.2		●		
	16ERM 14 UN	14	9.52	16	0.22	1.0	1.2	●	●		
	16ER/L 13 UN	13	9.52	16	0.24	1.0	1.2		●		
	16ERB 13 UN	13	9.52	16	0.25	0.9	1.2		●		
	16ERM 13 UN	13	9.52	16	0.24	1.0	1.3	●	●		

C13-C20
Cutting Condition C56-C64

- ERB / ERM with pressed chip breaker
- Tolerance: Class 2A

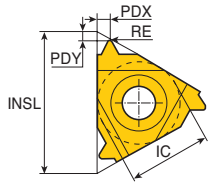
●: Standard items

TaeguTec

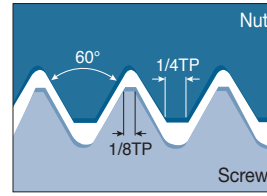
External American UN

T-THREAD

Full profile, UN, UNC, UNF, UNEF



External Right-hand shown
(Internal Left-hand)



• Application: General industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**16ER/L 12 UN**	12	9.52	16	0.27	1.1	1.4	●	●		
 Regular	**16ERB 12 UN**	12	9.52	16	0.27	0.9	1.2		●		
	16ERM 12 UN	12	9.52	16	0.25	1.1	1.4	●	●		●
	16ER 11.5 UN	11.5	9.52	16	0.27	1.2	1.5		●		
	16ER/L 11 UN	11	9.52	16	0.29	1.1	1.5	●	●		
 B/M	**16ERB 11 UN**	11	9.52	16	0.29	1.1	1.5		●		
	16ER/L 10 UN	10	9.52	16	0.37	1.1	1.5	●	●		
	16ERB 10 UN	10	9.52	16	0.37	1.1	1.5		●		
	16ERM 10 UN	10	9.52	16	0.32	1.1	1.5		●		
	16ER/L 9 UN	9	9.52	16	0.35	1.3	1.6		●		
	16ERB 9 UN	9	9.52	16	0.35	1.3	1.6		●		
	16ER/L 8 UN	8	9.52	16	0.40	1.2	1.6	●	●		
	16ERB 8 UN	8	9.52	16	0.43	1.2	1.6		●		
	16ERM 8 UN	8	9.52	16	0.41	1.2	1.6	●	●		
	22ER 7 UN	7	12.70	22	0.47	1.6	2.3		●		
	22ER/L 6 UN	6	12.70	22	0.67	1.6	2.3		●		
	22ER 5 UN	5	12.70	22	0.67	1.7	2.5	●	●		
	27ER 4.5 UN	4.5	15.88	27	0.75	1.9	2.7		●		
	27ER/L 4 UN	4	15.88	27	0.85	2.0	2.9	●	●		

C13-C20 Cutting Condition C56-C64

▸ ERB / ERM with pressed chip breaker
▸ Tolerance: Class 2A

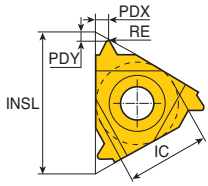
●: Standard items

ADVANCE CUTTING TaeguTec

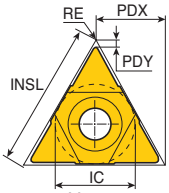
Internal American UN

T-THREAD

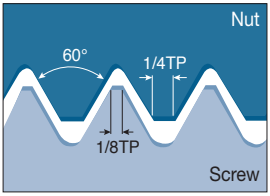
Full profile, UN, UNC, UNF, UNEF



External Right-hand shown
(Internal Left-hand)



U-type



- Application: General industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal	**06IR 32 UN**	32	3.97	6	0.05	0.8	0.5			●	
 Regular	**06IR/L 24 UN**	24	3.97	6	0.08	0.6	0.6			●	
	06IR/L 20 UN	20	3.97	6	0.09	0.6	0.6			●	
	06IR 18 UN	18	3.97	6	0.10	0.6	0.7			●	
	08IR 32 UN	32	4.76	8	0.06	0.5	0.5			●	
	08IR 28 UN	28	4.76	8	0.07	0.5	0.6			●	
	08IR 24 UN	24	4.76	8	0.08	0.6	0.6			●	
	08IR/L 20 UN	20	4.76	8	0.09	0.65	0.65			●	
	08IR 18 UN	18	4.76	8	0.12	0.55	0.7			●	
	08IR 16 UN	16	4.76	8	0.12	0.6	0.7			●	
	08IR 14 UN	14	4.76	8	0.13	0.54	0.72		●	●	
	11IR 32 UN	32	6.35	11	0.05	0.6	0.6		●		
	11IR 28 UN	28	6.35	11	0.05	0.6	0.7		●		
	11IR 24 UN	24	6.35	11	0.07	0.8	0.8		●		
	11IR 20 UN	20	6.35	11	0.09	0.8	0.9		●		
	11IR/L 18 UN	18	6.35	11	0.10	0.9	1.0		●		
	11IR/L 16 UN	16	6.35	11	0.09	0.9	1.1		●		
	11IR/L 14 UN	14	6.35	11	0.13	0.9	1.0		●		
	11IR 12 UN	12	6.35	11	0.15	0.75	1.0	●			
	11IR 11 UN	11	6.35	11	0.14	0.8	1.1	●	●		
	16IR 32 UN	32	9.52	16	0.04	0.6	0.6	●	●		
	16IR/L 28 UN	28	9.52	16	0.05	0.6	0.6		●		
	16IR 24 UN	24	9.52	16	0.08	0.7	0.8		●		
	16IRB 24 UN	24	9.52	16	0.05	0.6	0.6		●		
	16IR/L 20 UN	20	9.52	16	0.06	0.8	0.9		●		
	16IRB 20 UN	20	9.52	16	0.09	0.8	0.9		●		
	16IRM 20 UN	20	9.52	16	0.06	0.8	0.9		●		
	16IR/L 18 UN	18	9.52	16	0.10	0.8	1.0		●		
	16IRB 18 UN	18	9.52	16	0.12	0.7	0.8		●		
	16IRM 18 UN	18	9.52	16	0.08	0.8	1.0	●	●		

C13-C20

Cutting Condition C56-C64

- IRB / IRM with pressed chip breaker
- Tolerance: Class 2B, ANSI B1, 3M-1986

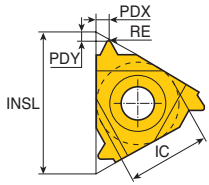
●: Standard items

TaeguTec

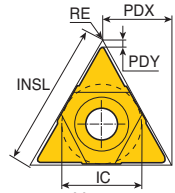
Internal American UN

T-THREAD

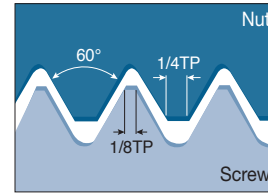
Full profile, UN, UNC, UNF, UNEF



External Right-hand shown
(Internal Left-hand)



U-type



- Application: General industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal Regular	**16IR/L 16 UN**	16	9.52	16	0.11	0.9	1.2		●		
	16IRB 16 UN	16	9.52	16	0.11	0.9	1.2		●		
	16IRM 16 UN	16	9.52	16	0.09	0.9	1.1	●	●		
	16IR/L 14 UN	14	9.52	16	0.13	0.9	1.2		●		
	16IRB 14 UN	14	9.52	16	0.13	0.9	1.2		●		
	16IRM 14 UN	14	9.52	16	0.11	0.9	1.2	●	●		
	16IR/L 12 UN	12	9.52	16	0.15	1.0	1.1	●	●	●	
	16IRB 12 UN	12	9.52	16	0.13	1.0	1.2		●		
	16IRM 12 UN	12	9.52	16	0.12	1.1	1.4		●		
	16IR 11.5 UN	11.5	9.52	16	0.14	1.0	1.1		●		
	16IR 11 UN	11	9.52	16	0.18	1.0	1.0		●		
	16IR 10 UN	10	9.52	16	0.15	1.1	1.5	●	●		
	16IRB 10 UN	10	9.52	16	0.15	1.1	1.5		●		
	16IR 9 UN	9	9.52	16	0.17	1.2	1.7		●		
	16IR 8 UN	8	9.52	16	0.23	1.1	1.5		●		
	16IRB 8 UN	8	9.52	16	0.23	1.1	1.5		●		
	16IRM 8 UN	8	9.52	16	0.20	1.1	1.5	●	●		
	22IR 7 UN	7	12.70	22	0.22	1.6	2.3		●		
	22IR 6 UN	6	12.70	22	0.27	1.57	2.3		●		
	22IR 5 UN	5	12.70	22	0.38	1.7	2.3		●		
	27IR 4 UN	4	15.88	27	0.47	1.9	2.5		●		
Internal U	**08UIRL 13 UN**	13	4.76	8	0.14	0.75	4.33		●		







C13-C20 C56-C64

Cutting Condition

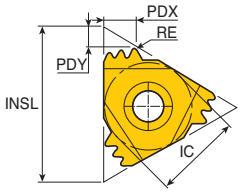
- IRB / IRM with pressed chip breaker
- Tolerance: Class 2B, ANSI B1, 3M-1986

●: Standard items

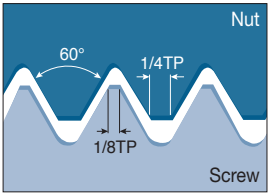
External & Internal American UN

T-THREAD

Full profile, multi-tooth, UN, UNC, UNF, UNEF



External Right-hand shown
(Internal Left-hand)



- Application: General industry

Insert	Designation	TPI	Dimension (mm)					CICT(1)	Coated			Uncoated
			IC	INSL	RE	PDY	PDX		TT7010	TT9030	TT8010	P30
Internal / External 	**16ER/IR 16 UN 2M**	16	9.52	16	0.09	1.5	2.3	2		●		
	16ER 12 UN 2M	12	9.52	16	0.27	2.2	3.4	2		●		
	22ER 12 UN 2M	12	12.70	22	0.27	2.2	3.4	2		●		
	22ER/IR 12 UN 3M	12	12.70	22	0.30	3.2	5.2	3		●		●

C13-C20 Cutting Condition C56-C64

▸ (1) Number of teeth per corner

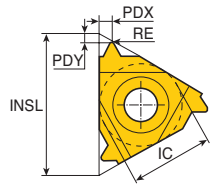
●: Standard items

TaeguTec Member IMC Group

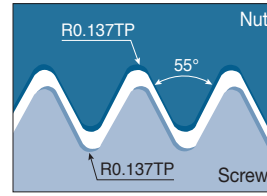
External Whitworth

T-THREAD

Full profile, BSW, BSF, BSP (B.S. 84-1956 DIN 259)



External Right-hand shown
(Internal Left-hand)



- Application: General industry, fittings and pipe coupings

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**11ER/L 19 W**	19	6.35	11	0.15	0.8	1.0		●		
	**11ER 14 W**	14	6.35	11	0.23	0.7	1.1		●		
	16EL 32 W	32	9.52	16	0.09	0.6	0.6				●
Regular	**16ER 28 W**	28	9.52	16	0.09	0.6	0.7	●	●		
	16ER 26 W	26	9.52	16	0.12	0.7	0.7		●		
	**16ER 24 W**	24	9.52	16	0.14	0.7	0.7		●		
	16ER 22 W	22	9.52	16	0.13	0.8	0.9		●		
B/M	**16ER 20 W**	20	9.52	16	0.16	0.7	0.8		●		
	16ER/L 19 W	19	9.52	16	0.17	0.7	0.8		●	●	
	16ERB 19 W	19	9.52	16	0.17	0.7	0.8		●		
	16ERM 19 W	19	9.52	16	0.16	0.8	1.0	●	●		
	16ER 18 W	18	9.52	16	0.19	1.1	1.15		●		●
	16ER 16 W	16	9.52	16	0.20	0.9	1.2		●		
	16ERB 16 W	16	9.52	16	0.20	0.9	1.2		●		
	16ERM 16 W	16	9.52	16	0.20	0.9	1.1	●	●		
	16ER/L 14 W	14	9.52	16	0.21	1.0	1.2		●	●	
	16ERB 14 W	14	9.52	16	0.23	1.0	1.2		●		
	16ERM 14 W	14	9.52	16	0.24	1.0	1.2	●	●		●
	16ER/L 12 W	12	9.52	16	0.27	1.2	1.4		●		
	16ER/L 11 W	11	9.52	16	0.29	1.1	1.5	●	●		●
	16ERB 11 W	11	9.52	16	0.29	1.1	1.5		●		
	16ERM 11 W	11	9.52	16	0.29	1.1	1.5	●	●		
	16ER 10 W	10	9.52	16	0.32	1.1	1.45	●	●		
	16ERB 10 W	10	9.52	16	0.32	1.1	1.45		●		
	16ER 9 W	9	9.52	16	0.34	1.2	1.7	●			
	16ER 8 W	8	9.52	16	0.41	1.2	1.6		●		
	22ER 7 W	7	12.70	22	0.45	1.6	2.3		●		
	22ER 6 W	6	12.70	22	0.52	1.6	2.3		●		
	22ER 5 W	5	12.70	22	0.65	1.7	2.4	●			



- ERB / ERM with pressed chip breaker
- Tolerance: Medium class

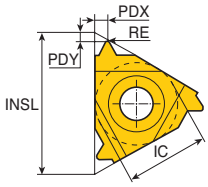
●: Standard items

ADVANCE CUTTING
TaeguTec

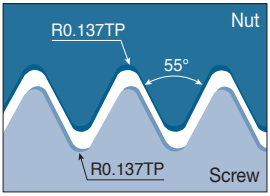
Internal Whitworth

T-THREAD

Full profile, BSW, BSF, BSP (B.S. 84-1956 DIN 259)



External Right-hand shown
(Internal Left-hand)



- Application: General industry, fittings and pipe coupings

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal Regular B/M	**06IR 26 W**	26	3.97	6	0.10	0.7	0.6			●	
	08IR 28 W	28	4.76	8	0.12	0.5	0.6			●	
	08IR 19 W	19	4.76	8	0.16	0.6	0.7		●	●	
	08IR 18 W	18	4.76	8	0.16	0.6	0.7			●	
	08IR 16 W	16	4.76	8	0.18	0.6	0.7			●	
	11IR 28 W	28	6.35	11	0.13	0.6	0.6	●			
	11IR 26 W	26	6.35	11	0.12	0.6	0.6			●	
	11IR 24 W	24	6.35	11	0.15	0.8	0.8		●		
	11IR 20 W	20	6.35	11	0.14	0.8	0.9	●	●		
	11IR 19 W	19	6.35	11	0.18	0.8	0.9	●	●		
	11IR/L 18 W	18	6.35	11	0.18	0.8	1.0		●		
	11IR 16 W	16	6.35	11	0.18	0.9	1.1		●		
	11IR/L 14 W	14	6.35	11	0.23	0.9	1.1	●	●	●	
	16IR 32 W	32	9.52	16	0.09	0.6	0.6				●
	16IR 28 W	28	9.52	16	0.09	0.6	0.7	●			
	16IR 26 W	26	9.52	16	0.12	0.8	0.8		●		
	16IR 24 W	24	9.52	16	0.11	0.7	0.8		●		
	16IR/L 20 W	20	9.52	16	0.14	0.8	0.9		●		
	16IRM 20 W	20	9.52	16	0.14	0.8	0.9		●		
	16IR/L 19 W	19	9.52	16	0.17	0.7	0.8	●	●		
	16IRB 19 W	19	9.52	16	0.17	0.7	0.8		●		
	16IRM 19 W	19	9.52	16	0.15	0.8	1.0	●			
	16IR 18 W	18	9.52	16	0.18	0.8	0.8		●		
	16IR 16 W	16	9.52	16	0.20	1.0	1.0		●		
	16IRB 16 W	16	9.52	16	0.20	1.0	1.2		●		
	16IRM 16 W	16	9.52	16	0.18	0.9	1.1		●		
	16IR/L 14 W	14	9.52	16	0.23	1.0	1.2	●	●	●	
	16IRB 14 W	14	9.52	16	0.23	1.0	1.2		●		
	16IRM 14 W	14	9.52	16	0.21	1.0	1.2	●	●		
	16IR/L 12 W	12	9.52	16	0.27	1.2	1.5		●		
	16IR/L 11 W	11	9.52	16	0.29	1.1	1.5	●	●	●	
	16IRB 11 W	11	9.52	16	0.28	1.1	1.5		●		
	16IRM 11 W	11	9.52	16	0.27	1.1	1.5	●	●		
	16IR 10 W	10	9.52	16	0.32	1.1	1.1		●		
	16IRB 10 W	10	9.52	16	0.31	1.1	1.5		●		
	16IR/L 9 W	9	9.52	16	0.34	1.2	1.7	●			
	16IR/L 8 W	8	9.52	16	0.41	1.1	1.1		●		

C13-C20
Cutting Condition
C56-C64

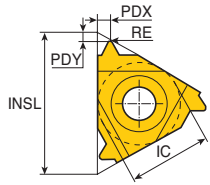
▸ Tolerance: Medium class

●: Standard items

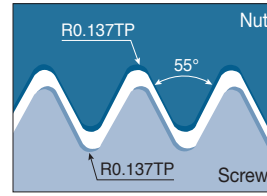
Internal Whitworth

T-THREAD

Full profile, BSW, BSF, BSP (B.S. 84-1956 DIN 259)

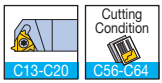


External Right-hand shown
(Internal Left-hand)



- Application: General industry, fittings and pipe coupings

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal	**22IR 7 W**	7	12.70	22	0.45	1.6	2.3		●		
 Regular	**22IR 6 W**	6	12.70	22	0.52	1.6	2.3	●			
	22IR 5 W	5	12.70	22	0.65	1.7	2.4	●			
 B/M	**27IR 4 W**	4	15.88	27	0.82	2.0	2.9		●		



- IRB / IRM with pressed chip breaker
- Tolerance: Medium class

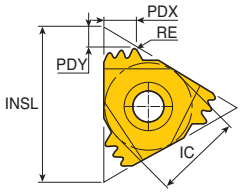
●: Standard items

ADVANCE CUTTING TaeguTec

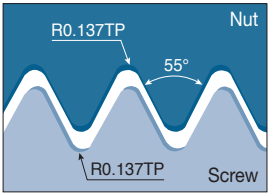
External & Internal Whitworth

T-THREAD

Full profile, multi-tooth, BSW, BSF, BSP



External Right-hand shown
(Internal Left-hand)



- Application: General industry, fittings and pipe coupings

Insert	Designation	TPI	Dimension (mm)					CICT(1)	Coated			Uncoated
			IC	INSL	RE	PDY	PDX		TT7010	TT9030	TT8010	P30
Internal / External 	**16ER/IR 14 W 2M**	14	9.52	16	0.23	1.7	2.7	2		●		
	22IR 11 W 2M	11	12.70	22	0.27	2.3	3.4	2		●		

C13-C20 Cutting Condition C56-C64

▸ (1) Number of teeth per corner

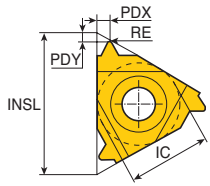
●: Standard items

TaeguTec Member IMC Group

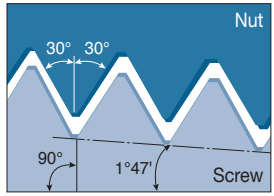
External & Internal NPT

T-THREAD

Full profile, national pipe threads (ANSI/ASME B1.20.1-1983)



External Right-hand shown
(Internal Left-hand)



• Application: Steam, gas and water pipes

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External Regular	**16ER 27 NPT**	27	9.52	16	0.04	0.7	0.8		●		
	16ER/L 18 NPT	18	9.52	16	0.06	0.9	1.1	●	●		
	16ERB 18 NPT	18	9.52	16	0.06	0.9	1.1		●		
	16ERM 18 NPT	18	9.52	16	0.05	0.8	1.0		●		
	16ER/L 14 NPT	14	9.52	16	0.07	0.9	1.2		●	●	
	16ERB 14 NPT	14	9.52	16	0.07	0.9	1.2		●		
B/M	**16ERM 14 NPT**	14	9.52	16	0.05	0.9	1.2	●	●		●
	16ER/L 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5	●	●		●
	16ERB 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5		●		
	16ERM 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5		●		
	16ER 8 NPT	8	9.52	16	0.12	1.3	1.6	●	●		
	16ERB 8 NPT	8	9.52	16	0.11	1.4	1.7		●		
	16ERM 8 NPT	8	9.52	16	0.12	1.3	1.8	●	●		
Internal Regular	**06IR 27 NPT**	27	3.97	6	0.04	0.6	0.6			●	
	08IR 27 NPT	27	4.76	8	0.04	0.6	0.6			●	
	08IR/L 18 NPT	18	4.76	8	0.06	0.6	0.6		●	●	
	11IR/L 18 NPT	18	6.35	11	0.06	0.8	1.0	●	●		
	11IR/L 14 NPT	14	6.35	11	0.07	0.8	1.0		●		
	16IR 18 NPT	18	9.52	16	0.06	0.8	1.0		●		
B/M	**16IR/L 14 NPT**	14	9.52	16	0.08	0.9	1.2	●	●	●	
	16IRB 14 NPT	14	9.52	16	0.07	0.9	1.2		●		
	16IRM 14 NPT	14	9.52	16	0.05	0.9	1.2		●		
	16IR 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5		●		
	16IRB 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5		●		
	16IRM 11.5 NPT	11.5	9.52	16	0.09	1.1	1.5	●	●		●
	16IR/L 8 NPT	8	9.52	16	0.11	1.2	1.7		●		
	16IRB 8 NPT	8	9.52	16	0.11	1.2	1.7		●		
	16IRM 8 NPT	8	9.52	16	0.12	1.3	1.8		●		

C13-C20 | Cutting Condition | C56-C64

▸ ERB / ERM / IRB / IRM with pressed chip breaker

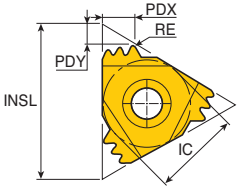
●: Standard items

ADVANCE CUTTING TaeguTec

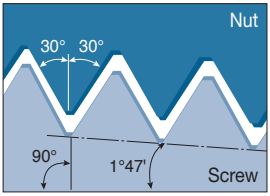
External & Internal NPT

T-THREAD

Full profile, multi-tooth, national pipe threads



External Right-hand shown
(Internal Left-hand)



- Application: Steam, gas and water pipes

Insert	Designation	TPI	Dimension (mm)					CICT(1)	Coated			Uncoated
			IC	INSL	RE	PDY	PDX		TT7010	TT9030	TT8010	P30
Internal / External	**22ER/IR 11.5 NPT 2M**	11.5	12.70	22	0.09	2.3	3.5	2		●		
	27ER 11.5 NPT 3M	11.5	15.88	27	0.09	3.3	5.5	3		●		
	27ER/IR 8 NPT 2M	8	15.88	27	0.12	3.1	4.9	2		●		



C13-C20 Cutting Condition C56-C64

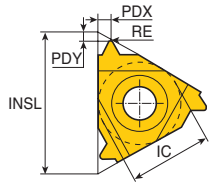
▸ (1) Number of teeth per corner

●: Standard items

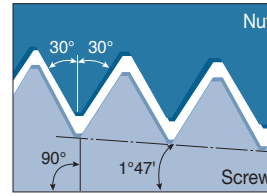
External & Internal NPTF

T-THREAD

Full profile, national pipe threads-dryseal (ANSI / ASME B1.20.1-1976)



External Right-hand shown
(Internal Left-hand)



- Application: Steam, gas and water pipes

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External Regular	**11ER 14 NPTF**	14	6.35	11	0.07	0.8	1.0		●		
	16ER 27 NPTF	27	9.52	16	0.04	0.55	0.6		●		
	16ER 18 NPTF	18	9.52	16	0.04	0.8	0.9		●		
	16ER 14 NPTF	14	9.52	16	0.04	0.9	1.2	●	●		
	16ER 11.5 NPTF	11.5	9.52	16	0.04	1.1	1.5		●		
Internal Regular	**08IR 27 NPTF**	27	4.76	8	0.04	0.6	0.6			●	
	08IR 18 NPTF	18	4.76	8	0.04	0.6	0.8			●	
	11IR 18 NPTF	18	6.35	11	0.04	0.8	1.0		●		
	11IR 14 NPTF	14	6.35	11	0.04	0.8	1.1		●		
	16IR 18 NPTF	18	9.52	16	0.06	0.8	1.0		●		
	16IR 14 NPTF	14	9.52	16	0.04	0.9	1.2		●		
	16IR 11.5 NPTF	11.5	9.52	16	0.05	1.0	1.45	●	●		

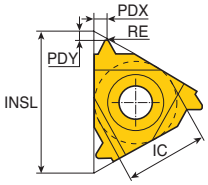
●: Standard items

C13-C20
Cutting Condition
C56-C64

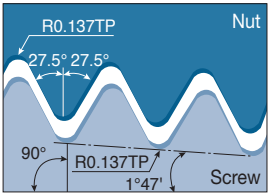
External & Internal BSPT

T-THREAD

Full profile, british standard pipe (B.S. 21-1957)



External Right-hand shown
(Internal Left-hand)



- Application: Steam, gas and water pipes

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External											
 Regular	**16ER 28 BSPT**	28	9.52	16	0.11	0.6	0.6		●		
	16ER 19 BSPT	19	9.52	16	0.16	0.7	0.8		●		
	16ER/L 14 BSPT	14	9.52	16	0.25	0.9	1.15	●	●		
	16ERB 14 BSPT	14	9.52	16	0.23	1.0	1.15		●		
	16ERM 14 BSPT	14	9.52	16	0.24	1.0	1.2		●		
 B/M	**16ER/L 11 BSPT**	11	9.52	16	0.32	1.1	1.45	●	●		
	16ERB 11 BSPT	11	9.52	16	0.32	1.1	1.45		●		
	16ERM 11 BSPT	11	9.52	16	0.31	1.1	1.5		●		
Internal											
 Regular	**06IR 28 BSPT**	28	3.97	6	0.11	0.7	0.6			●	
	08IR 19 BSPT	19	4.76	8	0.18	0.6	0.8			●	
	11IR 19 BSPT	19	6.35	11	0.16	0.9	0.9		●		
	11IRB 19 BSPT	19	6.35	11	0.16	0.8	0.9		●		
	11IR 14 BSPT	14	6.35	11	0.23	0.9	1.0	●	●		
 B/M	**16IR 19 BSPT**	19	9.52	16	0.16	0.8	0.9	●			
	16IR/L 14 BSPT	14	9.52	16	0.23	1.0	1.2		●		
	16IRB 14 BSPT	14	9.52	16	0.23	1.0	1.2		●		
	16IRM 14 BSPT	14	9.52	16	0.21	1.0	1.2		●		
	16IR/L 11 BSPT	11	9.52	16	0.29	1.1	1.5		●		
	16IRB 11 BSPT	11	9.52	16	0.29	1.1	1.5		●		
	16IRM 11 BSPT	11	9.52	16	0.28	1.1	1.5		●		

C13-C20
Cutting Condition
C56-C64

▸ ERB / ERM / IRB / IRM with pressed chip breaker

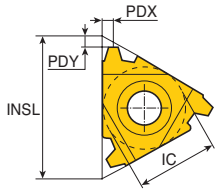
●: Standard items

TaeguTec

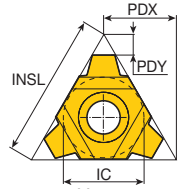
External & Internal STUB ACME

T-THREAD

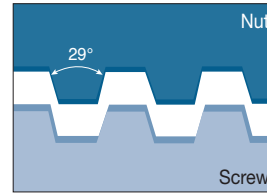
ASME / ANSI B.1.8-1988 class: 2G



External Right-hand shown
(Internal Left-hand)



U-type



- Application: Control valves and modified ACME thread forms

Insert	Designation	TPI	Dimension (mm)				Coated			Uncoated
			IC	INSL	PDY	PDX	TT7010	TT9030	TT8010	P30
External Regular	**16ER 16 STACME**	16	9.52	16	1.0	1.0		●		
	16ER 12 STACME	12	9.52	16	1.2	1.2		●		
	16ER 10 STACME	10	9.52	16	1.3	1.3		●		
	16ER 8 STACME	8	9.52	16	1.5	1.5	●	●		●
	16ER 6 STACME	6	9.52	16	1.7	1.7	●	●		
	22ER/L 5 STACME	5	12.70	22	2.0	2.3		●		
	27ER 4 STACME	4	15.88	27	2.2	2.4		●		
	27ER/L 3 STACME	3	15.88	27	2.8	2.9	●			
Internal Regular	**16IR 16 STACME**	16	9.52	16	1.0	1.0				●
	16IR 12 STACME	12	9.52	16	1.2	1.2		●		
	16IR/L 10 STACME	10	9.52	16	1.2	1.2		●		●
	16IR 8 STACME	8	9.52	16	1.5	1.5		●		●
	16IR/L 6 STACME	6	9.52	16	1.6	1.7	●	●		
	22IR 5 STACME	5	12.70	22	2.0	2.1	●			●
	27IR 4 STACME	4	15.88	27	2.3	2.4		●		
	27IR/L 3 STACME	3	15.88	27	2.8	2.9	●			
Internal / External U	**22UIRL 3 STACME**	3	12.70	22	3.3	11.0	●			

●: Standard items

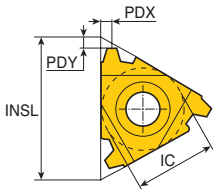
Cutting Condition
C13-C20 C56-C64

ADVANCE CUTTING TaeguTec

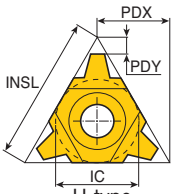
External & Internal ACME

T-THREAD

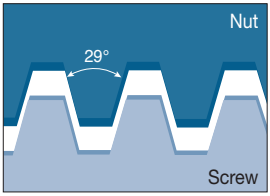
ASME / ANSI B.1.8-1988 class: 3G



External Right-hand shown
(Internal Left-hand)



U-type



• Application: Feed screws

Insert	Designation	TPI	Dimension (mm)				Coated			Uncoated
			IC	INSL	PDY	PDX	TT7010	TT9030	TT8010	P30
External Regular	**16ER 16 ACME**	16	9.52	16	0.9	1.0		●		
	16ER 12 ACME	12	9.52	16	1.1	1.2		●		
	16ER 10 ACME	10	9.52	16	1.3	1.3		●		
	16ER/L 8 ACME	8	9.52	16	1.5	1.5		●		
	22ER/L 6 ACME	6	12.70	22	1.8	2.1		●		●
	22ER/L 5 ACME	5	12.70	22	2.0	2.3		●		
	22ER/L 4 ACME	4	12.70	22	2.1	2.2		●		
	27ER/L 4 ACME	4	15.88	27	2.3	2.7	●	●		
Internal Regular	**16IR 16 ACME**	16	9.52	16	0.9	1.0	●			
	16IR 12 ACME	12	9.52	16	1.1	1.2		●		
	16IR/L 10 ACME	10	9.52	16	1.3	1.3	●			
	16IR 8 ACME	8	9.52	16	1.5	1.5	●	●		
	22IR/L 6 ACME	6	12.70	22	1.8	2.1		●		
	22IR/L 5 ACME	5	12.70	22	2.0	2.3		●		
	22IR 4 ACME	4	12.70	22	2.1	2.2		●		
	27IR/L 4 ACME	4	15.88	27	2.3	2.7	●	●		
Internal / External U	**22UERL 4 ACME**	4	12.70	22	2.3	11		●		●
	27UERL 3 ACME	3	15.88	27	2.8	13.7		●		
	27UIRL 3 ACME	3	15.88	27	2.8	13.7		●		

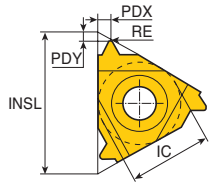
●: Standard items

C13-C20
Cutting Condition C56-C64

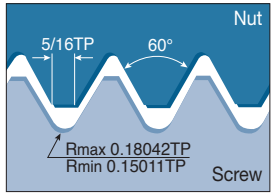
External UNJ

T-THREAD

Full profile (MIL-S-8879C 9-1992 class: 3A)



External Right-hand shown
(Internal Left-hand)



- Application: Aircraft and aerospace industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External	**16ER 40 UNJ**	40	9.52	16	0.10	0.6	0.6		●		
	16ER 32 UNJ	32	9.52	16	0.13	0.6	0.6		●		
	16ER/L 28 UNJ	28	9.52	16	0.15	0.6	0.6		●		
	16ER/L 24 UNJ	24	9.52	16	0.18	0.7	0.8		●		
	16ER/L 20 UNJ	20	9.52	16	0.21	0.8	0.9		●		
	16ER/L 18 UNJ	18	9.52	16	0.23	0.7	0.8		●		
	16ER 16 UNJ	16	9.52	16	0.26	0.9	1.2		●		●
	16ER/L 14 UNJ	14	9.52	16	0.30	1.1	1.2		●		
	16ER 13 UNJ	13	9.52	16	0.29	1.1	1.3		●		
	16ER 12 UNJ	12	9.52	16	0.35	1.0	1.2		●		
	16ER 11 UNJ	11	9.52	16	0.35	1.1	1.5		●		
	16ER 8 UNJ	8	9.52	16	0.48	1.2	1.6		●		



Regular

●: Standard items

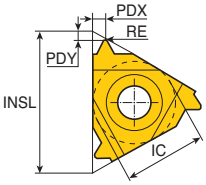
Cutting Condition
C13-C20
C56-C64

ADVANCE CUTTING TaeguTec

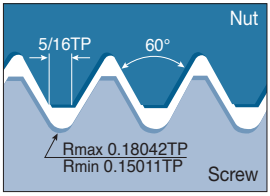
Internal UNJ

T-THREAD

Full profile



External Right-hand shown
(Internal Left-hand)



- Application: Aircraft and aerospace industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
Internal	**08IR 20 UNJ**	20	4.76	8	0.09	0.57	0.65			●	
	08IR 18 UNJ	18	4.76	8	0.10	0.57	0.65			●	
	11IRB 32 UNJ	32	6.35	11	0.04	0.6	0.6		●		
	11IR 24 UNJ	24	6.35	11	0.05	0.7	0.8		●		
	11IRB 24 UNJ	24	6.35	11	0.05	0.6	0.6		●		
	11IR 20 UNJ	20	6.35	11	0.07	0.8	0.9		●		
	11IR 18 UNJ	18	6.35	11	0.08	0.8	0.9		●		
	11IR 16 UNJ	16	6.35	11	0.09	0.8	0.9		●		
	16IR 24 UNJ	24	9.52	16	0.05	0.7	0.8				●
	16IR 20 UNJ	20	9.52	16	0.07	0.8	0.9		●		
	16IR 18 UNJ	18	9.52	16	0.07	0.8	1.0		●		
	16IR 16 UNJ	16	9.52	16	0.09	1.0	1.2		●		
	16IR 14 UNJ	14	9.52	16	0.10	1.1	1.1		●		
	16IR 12 UNJ	12	9.52	16	0.12	1.1	1.0		●		
	16IR/L 8 UNJ	8	9.52	16	0.19	1.2	1.6		●		

Regular



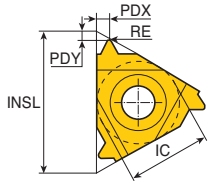
●: Standard items

C13-C20
Cutting Condition C56-C64

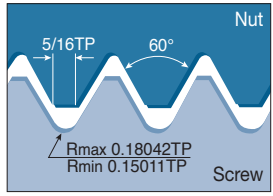
External & Internal MJ

T-THREAD

Full profile (ISO 5855)



External Right-hand shown
(Internal Left-hand)



- Application: Aircraft and aerospace industry

Insert	Designation	TP (mm)	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER 1.00 MJ**	1.00	9.52	16	0.16	0.7	0.8		●		
	16ER 1.25 MJ	1.25	9.52	16	0.20	0.8	0.9		●		
	16ER 1.50 MJ	1.50	9.52	16	0.23	0.8	1.0	●	●		
	16ER 2.00 MJ	2.00	9.52	16	0.32	1.0	1.3		●		
Internal  Regular	**11IR 1.00 MJ**	1.00	6.35	11	0.05	0.7	0.8		●		
	11IR 1.25 MJ	1.25	6.35	11	0.07	0.8	0.9		●		
	11IR 1.50 MJ	1.50	6.35	11	0.08	0.8	1.0		●		
	11IR 2.00 MJ	2.00	6.35	11	0.12	0.9	1.0		●		
	16IR 1.00 MJ	1.00	9.52	16	0.05	0.7	0.8		●		
	16IR 1.50 MJ	1.50	9.52	16	0.08	0.8	1.0		●		

●: Standard items

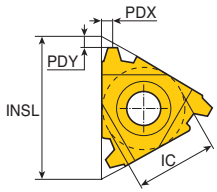

C13-C20
Cutting Condition
C56-C64

ADVANCE CUTTING
TaeguTec

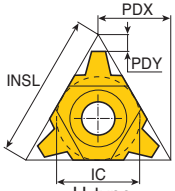
External & Internal Trapez

T-THREAD

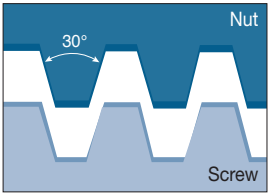
DIN 103



External Right-hand shown
(Internal Left-hand)



U-type



• Application: Feed screws

Insert	Designation	TP (mm)	Dimension (mm)				Coated			Uncoated	
			IC	INSL	PDY	PDX	TT7010	TT9030	TT8010	P30	
External  Regular	**16ER 1.5 TR**	1.5	9.52	16	1.0	1.1	●	●			
	16ER/L 2 TR	2.0	9.52	16	1.0	1.3	●	●			
	16ER/L 3 TR	3.0	9.52	16	1.3	1.5	●	●			
	22ER/L 4 TR	4.0	12.70	22	1.8	1.9	●	●			
	22ER/L 5 TR	5.0	12.70	22	2.0	2.4	●	●			
	22ER/L 6 TR	6.0	12.70	22	2.0	2.4		●			
	27ER/L 6 TR	6.0	15.88	27	2.3	2.7	●	●			
	27ER/L 7 TR	7.0	15.88	27	2.3	2.6	●	●			
Internal  Regular	**08IR 1.5 TR**	1.5	4.76	8	0.6	0.6			●		
	16IR 1.5 TR	1.5	9.52	16	1.0	1.1	●				
	16IR/L 2 TR	2.0	9.52	16	1.0	1.3	●	●			
	16IR/L 3 TR	3.0	9.52	16	1.3	1.5		●	●		
	22IR/L 4 TR	4.0	12.70	22	1.8	1.9	●	●			
	22IR/L 5 TR	5.0	12.70	22	2.0	2.4	●	●			
	22IR/L 6 TR	6.0	12.70	22	2.0	2.4	●	●	●	●	
	27IR/L 6 TR	6.0	15.88	27	2.3	2.7	●	●			
	27IR 7 TR	7.0	15.88	27	2.2	2.6	●				
Internal / External  U	**22UERL 6 TR**	6.0	12.70	22	2.0	11.0		●			
	22UERL 7 TR	7.0	12.70	22	2.3	11.0	●	●			
	22UERL 8 TR	8.0	12.70	22	2.5	11.0	●				
	27UERL 8 TR	8.0	15.88	27	2.6	13.7	●	●			
	27UERL 9 TR	9.0	15.88	27	3.0	13.7	●	●			
	27UERL 10 TR(1)	10.0	15.88	27	3.2	13.7		●			
	08UIRL 2 TR	2.0	4.76	8	0.9	4.0			●		
	22UIRL 6 TR	6.0	12.70	22	2.0	11.0	●	●			
	22UIRL 7 TR	7.0	12.70	22	2.3	11.0	●				
	27UIRL 8 TR	8.0	15.88	27	2.5	13.7	●				
	27UIRL 9 TR	9.0	15.88	27	3.0	13.7	●	●			
	27UIRL 10 TR(1)	10.0	15.88	27	3.2	13.7		●			

C13-C20

Cutting Condition C56-C64

▸ (1) One cutting edge only
▸ DIN 103 04 / 1977, 150 2901 / 1977 Class 7H (7E)

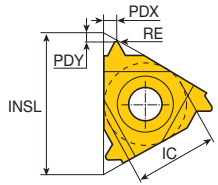
●: Standard items

TaeguTec

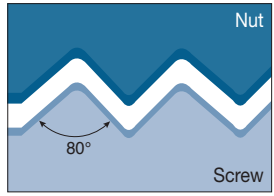
External & Internal PG

T-THREAD

Full profile (DIN 40430)



External Right-hand shown
(Internal Left-hand)



• Application: Electrical industry

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER 16 PG**	16	9.52	16	0.17	0.8	1.0		●		
	16ER 18 PG	18	9.52	16	0.15	0.8	0.9		●		
	16ER 20 PG	20	9.52	16	0.13	0.7	0.8		●		
Internal  Regular	**11IR 18 PG**	18	6.35	11	0.15	0.8	0.9		●		
	16IR 16 PG	16	9.52	16	0.17	0.7	0.9		●		
	16IR 18 PG	18	9.52	16	0.15	0.8	0.9		●		

●: Standard items

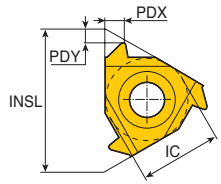
C13-C20 Cutting Condition C56-C64

ADVANCE CUTTING TaeguTec

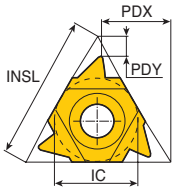
External & Internal Sagengenwinde

T-THREAD

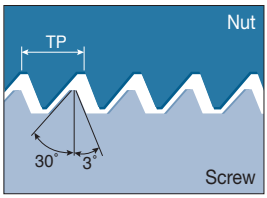
DIN 513



External Right-hand shown
(Internal Left-hand)



U-type



• Application: For high forces in one direction

Insert	Designation	TP (mm)	Dimension (mm)				Coated			Uncoated
			IC	INSL	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER/L 2 SAGE**	2.0	9.52	16	1.1	1.6		●		
	22ER 3 SAGE	3.0	12.70	22	1.5	2.4		●		
	22ER 4 SAGE	4.0	12.70	22	1.9	3.1	●	●		
External  U	**22UER 5 SAGE**	5.0(1)	12.70	22	1.2	11.6		●		
	22UER/L 6 SAGE	6.0(1)	12.70	22	1.2	11.7		●		
Internal  Regular	**16IR 2 SAGE**	2.0	9.52	16	1.2	1.7		●		
	22IR 3 SAGE	3.0	12.70	22	1.9	2.9		●		
	22IR 4 SAGE	4.0	12.70	22	2.3	3.5		●		
Internal  U	**22UIR 5 SAGE**	5.0(1)	12.70	22	1.9	11.7		●		
	22UIR 6 SAGE	6.0(1)	12.70	22	2.1	11.9		●		

C13-C20 Cutting Condition C56-C64

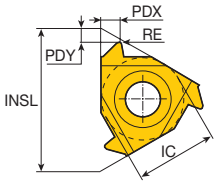
▸ (1) Requires special anvil

●: Standard items

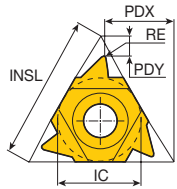
TaeguTec

External & Internal American Buttress

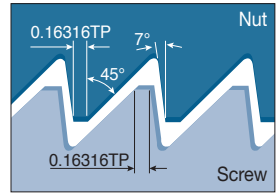
T-THREAD



External Right-hand shown
(Internal Left-hand)



U-type



• Application: For high forces in one direction

Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	RE	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER 20 ABUT**	20	9.52	16	0.07	1.0	1.3		●		
	16ER 16 ABUT	16	9.52	16	0.09	1.1	1.5		●		
	16ER 12 ABUT	12	9.52	16	0.12	1.4	2.0		●		
	16ER/L 10 ABUT	10	9.52	16	0.15	1.5	2.3		●		
	22ER 8 ABUT	8	12.70	22	0.18	2.1	3.3		●		
	22ER 6 ABUT	6	12.70	22	0.25	2.1	3.4		●		
External  U	**22UER 4 ABUT**	4	12.70	22	0.41	2.3	9.8		●		
	27UER 3 ABUT	3	15.88	27	0.56	2.6	12.3		●		
Internal  Regular	**11IR 20 ABUT**	20	6.35	11	0.07	0.85	1.2		●		
	11IR 16 ABUT	16	6.35	11	0.09	1.0	1.5		●		
	16IR 20 ABUT	20	9.52	16	0.07	1.0	1.3		●		
	16IR/L 16 ABUT	16	9.52	16	0.09	1.0	1.5		●		
	16IR/L 12 ABUT	12	9.52	16	0.12	1.4	2.0	●	●		
	16IR 10 ABUT	10	9.52	16	0.15	1.4	2.0		●		
	22IR 8 ABUT	8	12.70	22	0.18	2.2	3.3		●		
	22IR/L 6 ABUT	6	12.70	22	0.25	2.2	3.4		●		
Internal  U	**22UIR 4 ABUT**	4	12.70	22	0.41	2.24	9.77	●			

▸ ANSI B1.9-1973 class 2

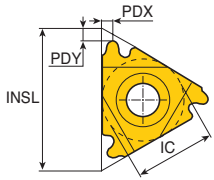
●: Standard items



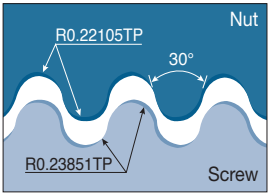
External & Internal Round

T-THREAD

DIN 405



External Right-hand shown
(Internal Left-hand)



• Application: Pipe coupings in fire fighting and food industries

Insert	Designation	TPI	Dimension (mm)				Coated			Uncoated
			IC	INSL	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER 10 RND**	10	9.52	16	1.1	1.2	●	●		
	16ER/L 8 RND	8	9.52	16	1.4	1.3		●		
	16ERM 8 RND	8	9.52	16	1.4	1.3		●		
	16ER 6 RND	6	9.52	16	1.5	1.7	●	●		
	16ERM 6 RND	6	9.52	16	1.5	1.7		●		
	22ER 6 RND	6	12.70	22	1.5	1.7		●	●	
	22ER 4 RND	4	12.70	22	2.2	2.3	●	●		
Internal  Regular	**16IR 10 RND**	10	9.52	16	1.1	1.2		●		
	16IR/L 8 RND	8	9.52	16	1.4	1.4		●		
	16IR 6 RND	6	9.52	16	1.4	1.5	●	●	●	
	16IRM 6 RND	6	9.52	16	1.4	1.5		●		
	22IR 6 RND	6	12.70	22	1.5	1.7		●		
	22IR 4 RND	4	12.70	22	2.2	2.3		●		

C13-C20
Cutting Condition C56-C64

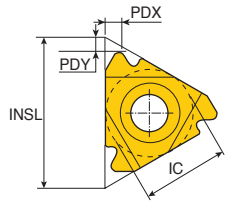
- ERM / IRM with pressed chip breaker
- Tolerance class 7H

●: Standard items

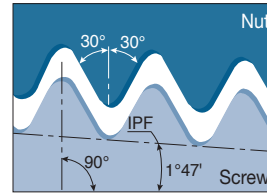
API - Oil Threads

T-THREAD

Round profile



External Right-hand shown
(Internal Left-hand)



- Application: Oil & gas industry

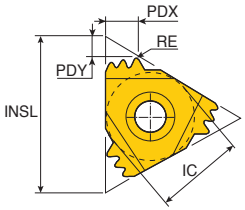
Insert	Designation	TPI	Dimension (mm)					Coated			Uncoated
			IC	INSL	IPF	PDY	PDX	TT7010	TT9030	TT8010	P30
External  Regular	**16ER 10 API RD**	10	9.52	16	0.75	1.5	1.4	●	●		
	16ER/L 8 API RD	8	9.52	16	0.75	1.3	1.6	●	●		
Internal  Regular	**16IR 10 API RD**	10	9.52	16	0.75	1.5	1.4	●	●		
	16IR/L 8 API RD	8	9.52	16	0.75	1.3	1.6	●	●		

●: Standard items

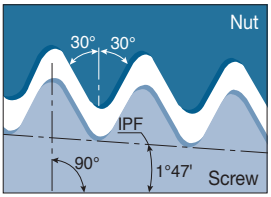
API - Oil Threads

T-THREAD

Round profile, multi-tooth



External Right-hand shown
(Internal Left-hand)



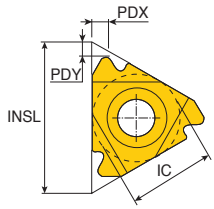
- Application: Oil & gas industry

Insert	Designation	TPI	Dimension (mm)						CICT(1)	Coated			Uncoated
			IC	INSL	RE	IPF	PDY	PDX		TT7010	TT9030	TT8010	P30
Internal / External 	**22ER/IR 10 API RD 2M**	10	12.70	22	0.36	0.75	2.4	3.7	2		●		
	27ER/IR 8 API RD 2M	8	15.88	27	0.43	0.75	3.0	4.5	2		●		

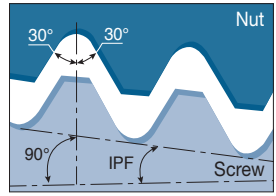
●: Standard items

C13-C20
Cutting Condition C56-C64

API - Oil Thread Profile



External Right-hand shown
(Internal Left-hand)



• Application: Oil & gas industry

Insert	Designation	TPI	Dimension (mm)					Connection No. or size	Coated			Uncoated
			IC	INSL	IPF	PDY	PDX		TT7010	TT9030	TT8010	P30
External  Regular	**22ER 5 API 403**(1)	5	12.70	22	3	1.8	2.5	2.375"-4.5"REG		●		
	27ER 4 API 382(2)	4	15.88	27	2	2.1	2.8	NC23-NC50	●	●		
	27ER 4 API 383(2)	4	15.88	27	3	2.1	2.8	NC56-NC77		●		
	27ER/L 4 API 502(3)	4	15.88	27	2	2.0	3.0	6-5/8"REG	●	●		
	27ER 4 API 503(3)	4	15.88	27	3	2.0	3.0	5-1/2, 7-5/8, 8-5/8"REG		●		
Internal  Regular	**22IR 5 API 403**(1)	5	12.70	22	3	1.8	2.5	2.375"-4.5"REG	●	●		
	27IR 4 API 382(2)	4	15.88	27	2	2.1	2.8	NC23-NC50	●	●		
	27IR/L 4 API 502(3)	4	15.88	27	2	2.0	3.0	6-5/8"REG	●			

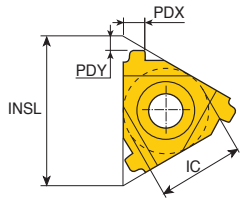
C13-C20 C56-C64 Cutting Condition

▸ (1) V-0.040 (2) V-0.038R (3) V-0.050
▸ 0.050, API spec 74-1994

●: Standard items

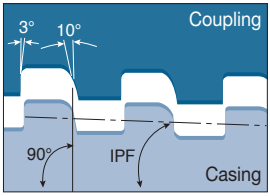
Buttress Casing / Extreme Line Casing

T-THREAD

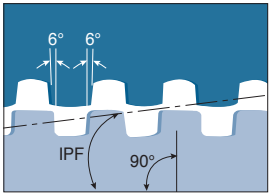


External Right-hand shown
(Internal Left-hand)

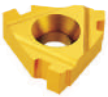
Buttress casing



Extreme line casing



• Application: Oil & gas industry

Insert	Designation	TPI	Dimension (mm)					Connection No. or size	Coated			Uncoated
			IC	INSL	IPF	PDY	PDX		TT7010	TT9030	TT8010	P30
 Buttress	**22ER/IR 5 BUT 0.75**	5	12.70	22	0.75	2.2	2.4	4-1/2" - 13-3/8"	●	●		
	22ER/IR 5 BUT 1.0	5	12.70	22	1.0	2.3	2.4	16" - 20"	●			
 Extreme line casing	**22ER 6 EL 1.5**	6	12.70	22	1.5	1.9	1.9	5" - 7-5/8"		●		
	22IR 6 EL 1.5	6	12.70	22	1.5	1.9	1.9	5" - 7-5/8"		●		

C13-C20
Cutting Condition C56-C64

▸ ANSI B1.9-1973 class 2

●: Standard items

TaeguTec

Recommended Cutting Conditions

T-THREAD

Machining data for thread turning insert

ISO	Material		Condition	Tensile strength (N/mm^2)	Hardness HB	Material No.
P	Non-alloy steel, cast steel, free cutting steel	<0.25%C	Annealed	420	125	1
		>=0.25%C	Annealed	650	190	2
		<0.55%C	Quenched and tempered	850	250	3
		>=0.55%C	Annealed	750	220	4
			Quenched and tempered	1000	300	5
	Low alloy steel and cast steel (Less than 5% of alloying elements)		Annealed	600	200	6
			Quenched and tempered	930	275	7
				1000	300	8
				1200	350	9
	High alloy steel, cast steel and tool steel		Annealed	680	200	10
			Quenched and tempered	1100	325	11
M	Stainless steel and cast steel		Ferritic / martensitic	680	200	12
			Martensitic	820	240	13
			Austenitic	600	180	14
K	Gray cast iron (GG)		Ferritic		160	15
			Pearlitic		250	16
	Cast iron nodular (GGG)		Ferritic		180	17
			Pearlitic		260	18
	Malleable cast iron		Ferritic		130	19
			Pearlitic		230	20
N	Aluminum - Wrought alloy		Not cureable		60	21
			Cured		100	22
	Aluminum-cast, alloyed	<=12% Si	Not cureable		75	23
			Cured		90	24
		>12% Si	High temp.		130	25
	Copper alloys	>1% Pb	Free cutting		110	26
			Brass		90	27
			Electrolitic copper		100	28
	Non-metallic		Duroplastics, fiber plastics		70 Shore D	29
			Hard rubber		55 Shore D	30
S	High temp. alloys	Fe based	Annealed		200	31
			Cured		280	32
		Ni or Co based	Annealed		250	33
			Cured		350	34
			Cast		320	35
	Titanium, Ti alloys		Pure	Rm 400	190	36
			Alpha+beta alloys cured	Rm 1050	310	37
H	Hardened steel		Hardened		55HRC	38
			Hardened		60HRC	39
	Chilled cast iron		Cast		400	40
	Cast iron nodular		Hardened		55HRC	41

▸ For more information of material groups, see the materials & grades "material conversion table"

Steel Stainless steel Cast iron Nonferrous High temp. alloys Hardened steel

Recommended Cutting Conditions

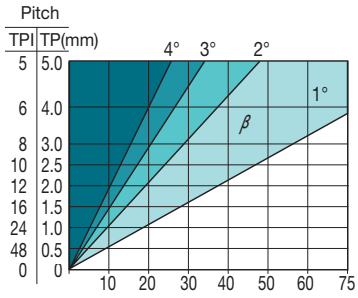
T-THREAD

Machining data for thread turning insert

Cutting speed (m/min)					
Coated			Uncoated		
TT7010	TT9030	TT8010	P30		
120-200	115-190	60-100	80-120		
120-200	110-180	60-95	80-120		
110-190	100-175	50-90	70-110		
110-190	90-165	45-85	70-110		
90-170	90-165	45-85	65-95		
70-120	100-180	50-95	70-110		
90-170	75-140	40-75	65-95		
80-120	70-135	35-70	70-110		
70-120	70-135	35-70	40-80		
70-100	80-120	40-65	40-70		
40-80	50-100	25-50	40-70		
85-125	70-130	35-70	40-70		
120-180	85-110	45-60	80-120		
50-100	90-140	45-75	40-60		
	125-160	65-85			
	90-120	45-65			
	70-130	35-70			
	60-115	30-60			
	60-70	30-35			
	60-145	30-75			
	100-365	50-195			
	80-220	40-115			
	200-400	105-215			
	200-280	105-150			
	200-280	105-150			
	80-255	40-135			
	80-255	40-135			
	80-255	40-130			
	80-250	40-130			
	80-250	40-130			
	45-60	25-30			
	35-50	15-25			
	20-30	10-15			
	15-25	5-10			
	15-25	5-10			
	140-170	75-90			
	50-70	25-35			
	45-60	25-30			
	45-60	25-30			
	45-60	25-30			
	45-60	25-30			

Thread helix angle and anvil selection

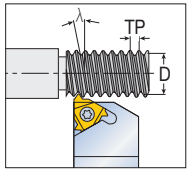
■ Helix angle λ evaluation



(1)β =4.5°
(1)β =3.5°
(1)β =2.5°
(1)β =1.5°
(1)β =0.5°

$$tg\ \lambda = \frac{1 \times TP}{3.14 \cdot D}$$

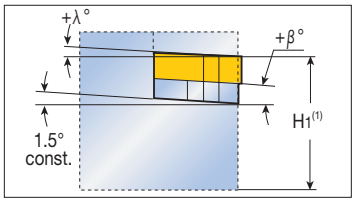
$$\lambda^\circ = \frac{20 \times TP}{D}$$



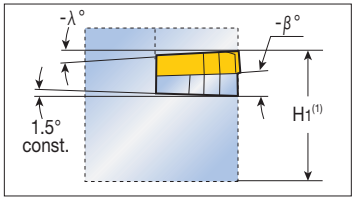
TP - Thread pitch (mm)
D - Effective diameter of thread (mm)
λ - Angle of inclination

Anvil selection according to thread helix angle λ

Standard								
Thread helix angle λ		> 4°	3°- 4°	2°- 3°	1°- 2°	0°- 1°	Negative anvils	
	Inclination angle β	4.5°	3.5°	2.5°	1.5°	0.5°	-0.5°	-1.5°
INSL(IC)	Toolholder	Anvil designation						
16	EX RH OR IN LH	AE 16 +4.5	AE 16 +3.5	AE 16 +2.5	AE 16	AE 16 +0.5	AE 16 -0.5	AE 16 -1.5
(3/8)	EX LH OR IN RH	AI 16 +4.5	AI 16 +3.5	AI 16 +2.5	AI 16	AI 16 +0.5	AI 16 -0.5	AI 16 -1.5
22	EX RH OR IN LH	AE 22 +4.5	AE 22 +3.5	AE 22 +2.5	AE 22	AE 22 +0.5	AE 22 -0.5	AE 22 -1.5
(1/2)	EX LH OR IN RH	AI 22 +4.5	AI 22 +3.5	AI 22 +2.5	AI 22	AI 22 +0.5	AI 22 -0.5	AI 22 -1.5
27	EX RH OR IN LH	AE 27 +4.5	AE 27 +3.5	AE 27 +2.5	AE 27	AI 27 +0.5	AE 27 -0.5	AE 27 -1.5
(5/8)	EX LH OR IN RH	AI 27 +4.5	AI 27 +3.5	AI 27 +2.5	AI 27	AI 27 +0.5	AI 27 -0.5	AI 27 -1.5
22U	EX RH OR IN LH	AE 22U +4.5	AE 22U +3.5	AE 22U +2.5	AE 22U	AE 22U +0.5	AE 22U -0.5	AE 22U -1.5
(1/2U)	EX LH OR IN RH	AI 22U +4.5	AI 22U +3.5	AI 22U +2.5	AI 22U	AI 22U +0.5	AI 22U -0.5	AI 22U -1.5
27U	EX RH OR IN LH	AE 27U +4.5	AE 27U +3.5	AE 27U +2.5	AE 27U	AE 27U +0.5	AE 27U -0.5	AE 27U -1.5
(5/8U)	EX LH OR IN RH	AI 27U +4.5	AI 27U +3.5	AI 27U +2.5	AI 27U	AI 27U +0.5	AI 27U -0.5	AI 27U -1.5



■ Anvils for positive inclination angle β applicable when turning
- RH thread with RH holder or LH thread with LH holder

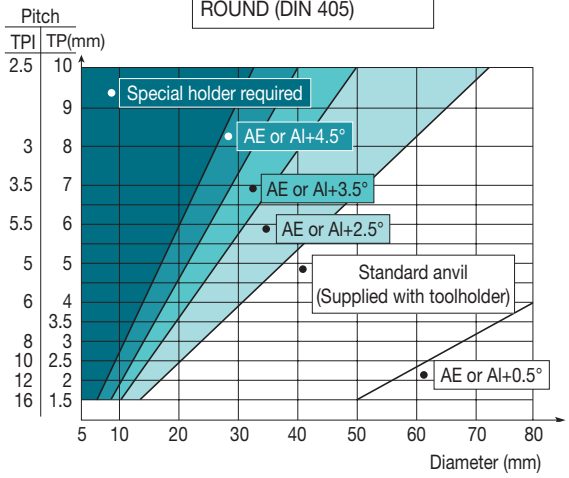


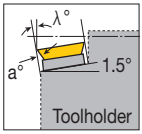
■ Anvils for negative inclination β used when turning
- RH thread with LH holder or LH thread with RH holder

▸ (1) H1 remains constant for every anvil combination.

Anvil selection according to thread helix angle λ

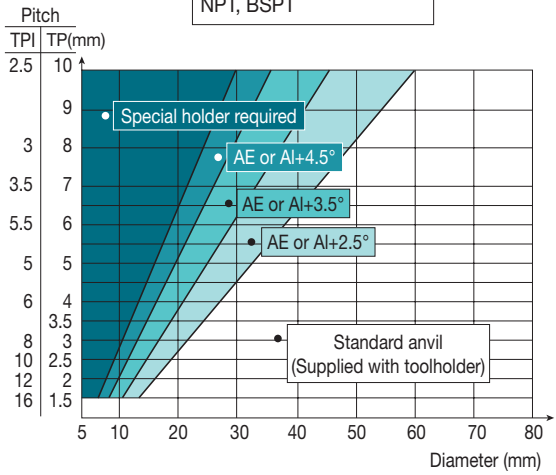
ACME
STUB ACME
TRAPEZE (DIN 103)
ROUND (DIN 405)





AE anvils : EX-RH and IN-LH toolholders
AI anvils : IN-RH and EX-LH toolholders

PARTIAL PROFILES 60°
PARTIAL PROFILES 55°
ISO, UN,WHITWORTH,
NPT, BSPT



AE anvils : EX-RH and IN-LH toolholders
AI anvils : IN-RH and EX-LH toolholders

▶ Maximum depth of first cut for CNC control / external threading - M-type inserts

Full profile	Pitch		Insert designation	No. of passes		Max. depth for first pass (D_1) mm Low carbon steel	
	TP (mm)	TPI		Min.	Max.	Eq.[2]	Dim.[3]
ISO metric	1.00		**16 ERM 1.00 ISO**	5	9	0.34	0.51
	1.25		**16 ERM 1.25 ISO**	6	11	0.42	0.63
	1.50		**16 ERM 1.50 ISO**	6	12	0.46	0.69
	1.75		**16 ERM 1.75 ISO**	8	13	0.48	0.72
	2.00		**16 ERM 2.00 ISO**	8	14	0.50	0.75
	2.50		**16 ERM 2.50 ISO**	10	15	0.53	0.80
	3.00		**16 ERM 3.00 ISO**	12	17	0.56	0.84
American UN		24	**16 ERM 24 UN**	5	9	0.34	0.51
		20	**16 ERM 20 UN**	6	10	0.42	0.63
		18	**16 ERM 18 UN**	6	11	0.46	0.69
		16	**16 ERM 16 UN**	7	12	0.47	0.71
		14	**16 ERM 14 UN**	6	13	0.46	0.69
		12	**16 ERM 12 UN**	8	14	0.50	0.75
		8	**16 ERM 8 UN**	12	17	0.56	0.84
British BSW		19	**16 ERM 19 W**	6	11	0.35	0.52
		16	**16 ERM 16 W**	7	12	0.47	0.71
		14	**16 ERM 14 W**	8	13	0.50	0.75
		11	**16 ERM 11 W**	9	14	0.44	0.66
NPT		18	**16 ERM 18 NPT**	10	20	0.24	0.36
		14	**16 ERM 14 NPT**	13	26	0.24	0.36
		11.5	**16 ERM 11.5 NPT**	15	24	0.27	0.40
		8	**16 ERM 8 NPT**	17	30	0.31	0.46
Round		6	**16 ERM 6 RND**	9	20	0.42	0.63
Partial profile 60°		48-16	**16 ERM A 60**	(1)		0.22	0.33
		14-8	**16 ERM G 60**			0.50	0.75
		48-8	**16 ERM AG 60**			0.24	0.36
		7-5	**16 ERM N 60**			0.41	0.62
Partial profile 55°		14-8	**16 ERM G 55**			0.50	0.75
		48-8	**16 ERM AG 55**			0.22	0.33

▶ [1] As per the number of passes for the relevant pitch
[2] Equal depth of cut method
[3] Diminished depth of cut for each pass method

Max. depth for first pass (D1) mm							
High carbon steel		Alloy steel		Stainless steel		Nonferrous aluminum	
Eq.(2)	Dim.(3)	Eq.(2)	Dim.(3)	Eq.(2)	Dim.(3)	Eq.(2)	Dim.(3)
0.31	0.46	0.27	0.41	0.22	0.33	0.48	0.71
0.38	0.57	0.34	0.50	0.27	0.41	0.59	0.88
0.41	0.62	0.37	0.55	0.30	0.45	0.64	0.97
0.43	0.65	0.38	0.58	0.31	0.47	0.67	1.01
0.45	0.68	0.40	0.60	0.33	0.49	0.70	1.05
0.48	0.72	0.42	0.64	0.34	0.52	0.74	1.12
0.50	0.76	0.45	0.67	0.36	0.55	0.78	1.18
0.31	0.46	0.27	0.41	0.22	0.33	0.48	0.71
0.38	0.57	0.34	0.50	0.27	0.41	0.59	0.88
0.41	0.62	0.37	0.55	0.30	0.45	0.64	0.97
0.42	0.64	0.38	0.57	0.31	0.46	0.66	0.99
0.41	0.62	0.37	0.55	0.28	0.41	0.64	0.97
0.45	0.68	0.40	0.60	0.33	0.49	0.70	1.05
0.50	0.76	0.45	0.67	0.36	0.55	0.78	1.18
0.32	0.47	0.28	0.42	0.21	0.31	0.49	0.73
0.42	0.64	0.38	0.57	0.31	0.46	0.66	0.99
0.45	0.68	0.40	0.60	0.33	0.49	0.70	1.05
0.40	0.59	0.35	0.53	0.29	0.43	0.62	0.92
0.22	0.32	0.19	0.29	0.16	0.23	0.34	0.50
0.22	0.32	0.19	0.29	0.14	0.22	0.34	0.50
0.24	0.36	0.22	0.32	0.18	0.26	0.38	0.56
0.28	0.41	0.25	0.37	0.20	0.30	0.43	0.64
0.38	0.57	0.34	0.50	0.27	0.41	0.59	0.88
0.20	0.30	0.18	0.26	0.14	0.21	0.31	0.46
0.45	0.68	0.40	0.60	0.33	0.49	0.70	1.05
0.22	0.32	0.19	0.29	0.16	0.23	0.34	0.50
0.37	0.56	0.33	0.50	0.27	0.40	0.57	0.87
0.45	0.68	0.40	0.60	0.33	0.49	0.70	1.05
0.20	0.30	0.18	0.26	0.14	0.21	0.31	0.46

Maximum depth of first cut for CNC control / internal threading - M-type inserts

Full profile	Pitch		Insert designation	No. of passes		Max. depth for first pass (D_1) mm	
						Low carbon steel	
	TP (mm)	TPI		Min.	Max.	Eq.[2]	Dim.[3]
ISO metric	1.50		**11 IRM 1.50 ISO**	10	20	0.20	0.30
	1.00		**16 IRM 1.00 ISO**	9	16	0.14	0.20
	1.25		**16 IRM 1.25 ISO**	9	16	0.19	0.28
	1.50		**16 IRM 1.50 ISO**	10	20	0.20	0.30
	1.75		**16 IRM 1.75 ISO**	11	18	0.21	0.32
	2.00		**16 IRM 2.00 ISO**	12	21	0.22	0.33
	2.50		**16 IRM 2.50 ISO**	14	21	0.23	0.34
	3.00		**16 IRM 3.00 ISO**	16	22	0.24	0.35
American UN		20	**16 IRM 20 UN**	7	13	0.20	0.30
		18	**16 IRM 18 UN**	8	15	0.20	0.30
		16	**16 IRM 16 UN**	11	19	0.20	0.30
		14	**16 IRM 14 UN**	11	20	0.21	0.31
		12	**16 IRM 12 UN**	12	21	0.23	0.34
		8	**16 IRM 8 UN**	14	20	0.24	0.36
British BSW		19	**16 IRM 19 W**	7	12	0.28	0.42
		16	**16 IRM 16 W**	9	14	0.26	0.39
		14	**16 IRM 14 W**	10	16	0.27	0.41
		11	**16 IRM 11 W**	12	19	0.31	0.46
NPT		14	**16 IRM 14 NPT**	21	35	0.13	0.20
		11.5	**16 IRM 11.5 NPT**	21	33	0.17	0.25
		8	**16 IRM 8 NPT**	20	34	0.23	0.34
Round		6	**16 IRM 6 RND**	12	24	0.30	0.46
Partial profile 60°		48-16	**06 IRM A 60**	(1)		0.22	0.33
		48-16	**08 IRM A 60**			0.13	0.20
		48-16	**11 IRM A 60**			0.13	0.20
		48-16	**16 IRM A 60**			0.13	0.20
		14-8	**16 IRM G 60**			0.22	0.33
		48-8	**16 IRM AG 60**			0.14	0.21
		7-5	**22 IRM N 60**			0.23	0.34
Partial profile 55°		14-8	**16 IRM G 55**			0.34	0.50
		48-8	**16 IRM AG 55**			0.14	0.20

▸ (1) As per the number of passes for the relevant pitch
(2) Equal depth of cut method
(3) Diminished depth of cut for each pass method

Number of cutting passes for regular type inserts

Pitch TP (mm)	0.5	1.0	1.5	2.0	2.5	3.0	4.0	6.0
TPI	48	24	16	12	10	8	6	4
Number of passes	4-6	5-9	5-12	6-14	7-15	8-17	10-20	11-22

▸ For mini-tools (06IR or 08IR) add 1-3 passes. Increase for hard materials

Max. depth for first pass (D1) mm							
High carbon steel		Alloy steel		Stainless steel		Nonferrous aluminum	
Eq.[2]	Dim.[3]	Eq.[2]	Dim.[3]	Eq.[2]	Dim.[3]	Eq.[2]	Dim.[3]
0.18	0.27	0.16	0.24	0.12	0.18	0.28	0.42
0.13	0.18	0.11	0.16	0.09	0.13	0.20	0.28
0.17	0.25	0.15	0.22	0.12	0.18	0.27	0.39
0.18	0.27	0.16	0.24	0.12	0.18	0.28	0.42
0.19	0.29	0.17	0.26	0.14	0.21	0.29	0.45
0.20	0.30	0.18	0.26	0.14	0.21	0.31	0.46
0.21	0.31	0.18	0.27	0.15	0.22	0.32	0.48
0.22	0.32	0.19	0.29	0.16	0.23	0.34	0.50
0.18	0.27	0.16	0.24	0.12	0.18	0.28	0.42
0.18	0.27	0.16	0.24	0.12	0.18	0.28	0.42
0.18	0.27	0.16	0.24	0.13	0.20	0.28	0.42
0.19	0.28	0.17	0.25	0.13	0.19	0.29	0.43
0.21	0.31	0.18	0.27	0.15	0.22	0.32	0.48
0.22	0.32	0.19	0.29	0.16	0.23	0.34	0.50
0.25	0.38	0.22	0.34	0.17	0.25	0.39	0.59
0.23	0.35	0.21	0.31	0.17	0.25	0.36	0.55
0.24	0.37	0.22	0.33	0.18	0.27	0.38	0.57
0.28	0.41	0.25	0.37	0.20	0.30	0.43	0.64
0.12	0.18	0.10	0.16	0.08	0.12	0.18	0.28
0.15	0.23	0.14	0.20	0.11	0.16	0.24	0.35
0.21	0.31	0.18	0.27	0.14	0.20	0.32	0.48
0.27	0.41	0.24	0.37	0.20	0.30	0.42	0.64
0.20	0.30	0.18	0.26	0.14	0.21	0.31	0.46
0.12	0.18	0.10	0.16	0.08	0.13	0.18	0.28
0.12	0.18	0.10	0.16	0.08	0.13	0.18	0.28
0.12	0.18	0.10	0.16	0.08	0.13	0.18	0.28
0.20	0.30	0.18	0.26	0.14	0.21	0.31	0.46
0.13	0.19	0.11	0.17	0.09	0.14	0.20	0.29
0.21	0.31	0.18	0.27	0.15	0.22	0.32	0.48
0.31	0.45	0.27	0.40	0.22	0.33	0.48	0.70
0.13	0.18	0.11	0.16	0.09	0.13	0.20	0.28

Recommended number of passes for multi-tooth insert

Full profile	Insert description	No. of passes	1st pass	2nd pass	3rd pass	4th pass	External / internal
ISO metric	**16 ER 1.0 ISO 3M**	2	0.39	0.24	-	-	External
	16 ER 1.5 ISO 2M	3	0.40	0.31	0.21	-	External
	22 ER 1.5 ISO 3M	2	0.54	0.38	-	-	External
	22 ER 2.0 ISO 2M	3	0.56	0.42	0.27	-	External
	22 ER 2.0 ISO 3M	2	0.75	0.50	-	-	External
	27 ER 3.0 ISO 2M	4	0.60	0.52	0.44	0.30	External
	16 IR 1.0 ISO 3M	2	0.32	0.26	-	-	Internal
	16 IR 1.5 ISO 2M	3	0.36	0.29	0.22	-	Internal
	22 IR 1.5 ISO 3M	2	0.49	0.38	-	-	Internal
	22 IR 2.0 ISO 2M	3	0.50	0.40	0.25	-	Internal
	22 IR 2.0 ISO 3M	2	0.72	0.43	-	-	Internal
	27 IR 3.0 ISO 2M	4	0.57	0.45	0.38	0.33	Internal
UN	**16 ER 16 UN 2M**	3	0.45	0.32	0.20	-	External
	22 ER 16 UN 3M	2	0.60	0.37	-	-	External
	22 ER 12 UN 2M	3	0.60	0.39	0.31	-	External
	22 ER 12 UN 3M	2	0.80	0.50	-	-	External
	27 ER 8 UN 2M	4	0.63	0.55	0.42	0.36	External
	16 IR 16 UN 2M	3	0.40	0.29	0.23	-	Internal
	22 IR 16 UN 3M	2	0.57	0.35	-	-	Internal
	22 IR 12 UN 2M	3	0.55	0.39	0.28	-	Internal
	22 IR 12 UN 3M	2	0.75	0.47	-	-	Internal
	27 IR 8 UN 2M	4	0.65	0.49	0.42	0.27	Internal
NPT	**22 ER 11.5 NPT 2M**	4	0.55	0.46	0.35	0.32	External
	27 ER 11.5 NPT 3M	3	0.75	0.57	0.36	-	External
	27 ER 8 NPT 2M	4	0.80	0.62	0.54	0.45	External
	22 IR 11.5 NPT 2M	4	0.55	0.46	0.35	0.32	Internal
	27 IR 11.5 NPT 3M	3	0.75	0.57	0.36	-	Internal
	27 IR 8 NPT 2M	4	0.80	0.62	0.54	0.45	Internal
Whitworth	**16 ER 14 W 2M**	3	0.51	0.39	0.26	-	External
	22 ER 14 W 3M	2	0.72	0.44	-	-	External
	22 ER 11 W 2M	3	0.65	0.46	0.37	-	External
	16 IR 14 W 2M	3	0.51	0.39	0.26	-	Internal
	22 IR 14 W 3M	2	0.72	0.44	-	-	Internal
	22 IR 11 W 2M	3	0.65	0.46	0.37	-	Internal
API round	**22 ER 10 API RD 2M**	3	0.58	0.53	0.30	-	External
	27 ER 10 API RD 3M	2	0.98	0.43	-	-	External
	27 ER 8 API RD 2M	3	0.82	0.59	0.40	-	External
	22 IR 10 API RD 2M	3	0.58	0.53	0.30	-	Internal
	27 IR 10 API RD 3M	2	0.98	0.43	-	-	Internal
	27 IR 8 API RD 2M	3	0.82	0.59	0.40	-	Internal