

COMBIDEX[®]

Threading Tools

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Threading Inserts - Ordering Codes

16 E R 2.0 ISO CX



E External
I Internal

R Right Hand
L Left Hand

Full Profiles: ISO, UN, WHITW, NPT, NPTF, BSPT, ACME, ST.ACME, TRAPEZ, ROUND, UN, UNJ, PG, AM.BUTT., SAGE, API, H90, VAM

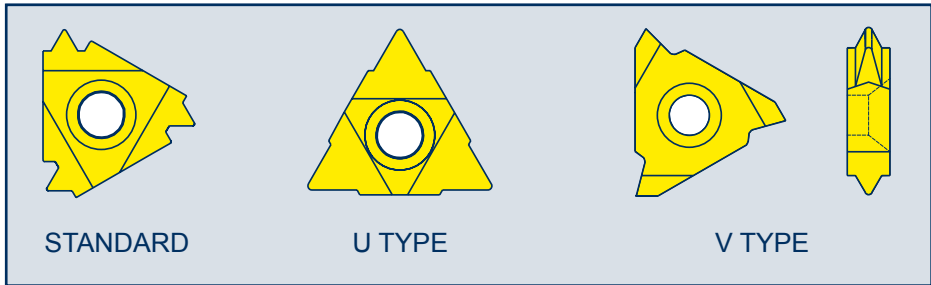
Pitch
in mm: 0.35 - 12
or TPI (Threads per inch) 72 - 2

Multitooth style & number of teeth.
API size & taper

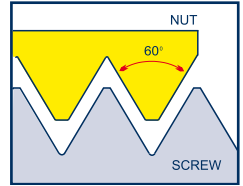
Carbide Grades
P 30, PC 15 (coated), PC 30 (coated), K 20, KXC (coated), FXA (coated), FXCL (coated), CX (cermet), HXC

L	I.C.
06	5/32"
08	3/16"
08U	3/16"U
11	1/4"
11V	1/4"V
16	3/8"
16V	3/8"V
22	1/2"
22U	1/2"U
22V	1/2"V
27	5/8"
27U	5/8"U
27V	5/8"V

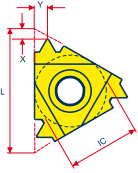
Partial profiles:
A, G, AG, N, Q, U, V
60°, 55°



Partial Profiles 60° External

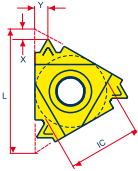


Standard



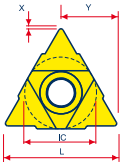
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
11	1/4"	0.5 - 1.5	48 - 16	11 ER A60 ...	11 EL A60 ...	0.8	0.9
16	3/8"	0.5 - 1.5	48 - 16	16 ER A60 ...	16 EL A60 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 ER G60 ...	16 EL G60 ...	1.2	1.7
22	1/2"	0.5 - 3.0	48 - 8	16 ER AG60 ...	16 EL AG60 ...	1.2	1.7
		3.5 - 5.0	7 - 5	22 ER N60 ...	22 EL N60 ...	1.7	2.5
27	5/8"	5.5 - 6.0	4.5 - 4	27 ER Q60 ...	22 EL Q60 ...	2.1	3.1

S Type (Ground Profile with Sintered Chip-breaker)



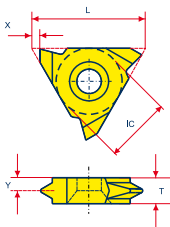
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	tpi	Right Hand	Left Hand	X	Y
16	3/8"	0.5 - 1.5	48 - 16	16 ER S A60 ...	16 EL S A60 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 ER S G60 ...	16 EL S G60 ...	1.2	1.7
		0.5 - 3.0	48 - 8	16 ER S AG60 ...	16 EL S AG60 ...	1.2	1.7

U Style



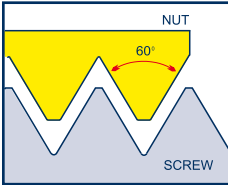
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand/Left Hand		X	Y
22U	1/2"	5.5 - 8	4.5 - 3.25	22U EI R/L U60		0.6	11.0
27U	5/8"	6.5 - 9	4 - 2.75	27U EI R/L U60		1.0	13.7

V Style

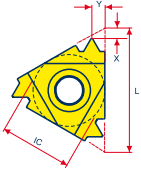


Insert Size		Pitch		Ordering Code		Dimension (mm)		
L	IC	mm	TPI	Right Hand	Left Hand	X	Y	T
11V	1/4"V	0.5 - 1.5	48 - 16	11V ER A60 ...	11V EL A60 ...	0.69	2.3	3.2
16V	3/8"V	0.5 - 1.5	48 - 16	16V ER A60 ...	16V EL A60 ...	1.1	2.7	3.6
		1.75 - 3.0	14 - 8	16V ER G60 ...	16V EL G60 ...	1.1	1.9	3.6
		0.5 - 3.0	48 - 8	16V ER AG60 ...	16V EL AG60 ...	1.1	1.9	3.6
22V	1/2"V	3.5 - 5.0	7 - 5	22V ER N60 ...	22V EL N60 ...	1.1	2.3	4.8
27V	5/8"V	6.0 - 10.0	4.5 - 4	27V ER Q60 ...	22V EL Q60 ...	0.6	5.2	10

Partial Profiles 60° Internal

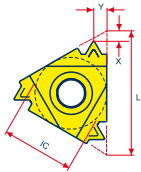


Standard



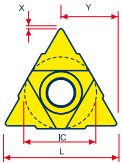
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
6	5/32"	0.5 - 1.25	48 - 20	06 IR A60 ...	06 IL A60 ...	0.6	0.6
8	3/16"	0.5 - 1.5	48 - 16	08 IR A60 ...	08 IL A60 ...	0.6	0.7
11	1/4"	0.5 - 1.5	48 - 16	11 IR A60 ...	11 IL A60 ...	0.8	0.9
16	3/8"	0.5 - 1.5	48 - 16	16 IR A60 ...	16 IL A60 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 IR G60 ...	16 IL G60 ...	1.2	1.7
		0.5 - 3.0	48 - 8	16 IR AG60 ...	16 IL AG60 ...	1.2	1.7
22	1/2"	3.5 - 5.0	7 - 5	22 IR N60 ...	22 IL N60 ...	1.7	2.5
27	5/8"	5.5 - 6.0	4.5 - 4	27 IR Q60 ...	22 IL Q60 ...	2.1	3.1

(Ground Profile with Sintered Chip-breaker) S Type



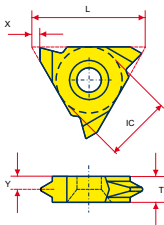
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
16	3/8"	0.5 - 1.5	48 - 16	16 IR SA60 ...	16 IL SA60 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 IR S G60 ...	16 IL S G60 ...	1.2	1.7
		0.5 - 3.0	48 - 8	16 IR S AG60 ...	16 IL S AG60 ...	1.2	1.7

U Style



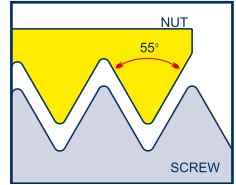
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand / Left Hand		X	Y
8U	3/16"	1.75 - 2.0	14 - 11	08U IR/L U60		0.8	4.0
22U	1/2"	5.5 - 8	4.5 - 3.25	22U IR/L U60		0.6	11.0
27U	5/8"	6.5 - 9	4 - 2.75	27U IR/L U60		1.0	13.7

V Style

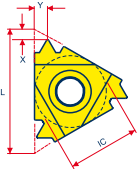


Insert Size		Pitch		Ordering Code		Dimension (mm)		
L	IC	mm	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	6.0 - 10.0	4 - 2.5	27V IR V60 ...	22V IL V60 ...	1.0	4.3	9

Partial Profiles 55° External

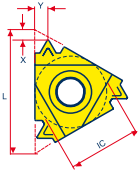


Standard



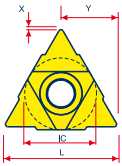
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
11	1/4"	0.5 - 1.5	48 - 16	11 ER A55 ...	11 EL A55 ...	0.8	0.9
16	3/8"	0.5 - 1.5	48 - 16	16 ER A55 ...	16 EL A55 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 ER G55 ...	16 EL G55 ...	1.2	1.7
		0.5 - 3.0	48 - 8	16 ER AG55 ...	16 EL AG55 ...	1.2	1.7
22	1/2"	3.5 - 5.0	7 - 5	22 ER N55 ...	22 EL N55 ...	1.7	2.5
27	5/8"	5.5 - 6.0	4.5 - 4	27 ER Q55 ...	22 EL Q55 ...	2.1	2.9

S Type (Ground Profile with Sintered Chip-breaker)



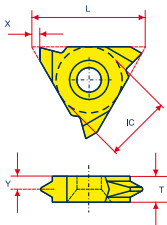
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
16	3/8"	1.75 - 3.0	14 - 8	16 ER S G55 ...		1.2	1.7
		0.5 - 3.0	48 - 8	16 ER S AG55 ...		1.2	1.7

U Style



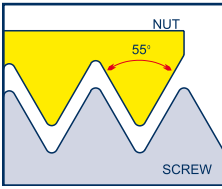
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand/Left Hand		X	Y
22U	1/2"	5.5 - 8	4.5 - 3.25	22U EI R/L U55		0.9	11.0
27U	5/8"	6.5 - 9	4 - 2.75	27U EI R/L U55		1.2	13.7

V Style

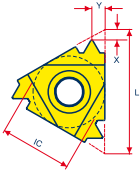


Insert Size		Pitch		Ordering Code		Dimension (mm)		
L	IC	mm	TPI	Right Hand	Left Hand	X	Y	T
11V	1/4"V	0.5 - 1.5	48 - 16	11V ER A55 ...	11V EL A55 ...	0.8	2.7	3.2
16V	3/8"V	0.5 - 1.5	48 - 16	16V ER A55 ...	16V EL A55 ...	1.1	2.7	3.6
		1.75 - 3.0	14 - 8	16V ER G55 ...	16V EL G55 ...	1.1	1.9	3.6
		0.5 - 3.0	48 - 8	16V ER AG55 ...	16V EL AG55 ...	1.1	1.9	3.6
22V	1/2"V	3.5 - 5.0	7 - 5	22V ER N55 ...	22V EL N55 ...	1.1	2.3	4.8
27V	5/8"V	6.0 - 9.0	4 - 2.75	27V ER Q55 ...	22V EL Q55 ...	1.0	4.3	10

Partial Profiles 55° Internal

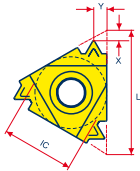


Standard



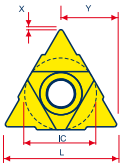
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand	Left Hand	X	Y
6	5/32"	0.5 - 1.25	48 - 20	06 IR A55 ...	06 IL A55 ...	0.5	0.6
8	3/16"	0.5 - 1.5	48 - 16	08 IR A55 ...	08 IL A55 ...	0.6	0.7
11	1/4"	0.5 - 1.5	48 - 16	11 IR A55 ...	11 IL A55 ...	0.8	0.9
16	3/8"	0.5 - 1.5	48 - 16	16 IR A55 ...	16 IL A55 ...	0.8	0.9
		1.75 - 3.0	14 - 8	16 IR G55 ...	16 IL G55 ...	1.2	1.7
		0.5 - 3.0	48 - 8	16 IR AG55 ...	16 IL AG55 ...	1.2	1.7
22	1/2"	3.5 - 5.0	7 - 5	22 IR N55 ...	22 IL N55 ...	1.7	2.5
27	5/8"	5.5 - 6.0	4.5 - 4	27 IR Q55 ...	22 IL Q55 ...	2.0	2.9

(Ground Profile with Sintered Chip-breaker) S Type



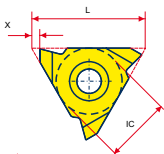
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand		X	Y
16	3/8"	1.75 - 3.0	14 - 8	16 IR S G55 ...		1.2	1.7
		0.5 - 3.0	48 - 8	16 IR S AG55 ...		1.2	1.7

U Style

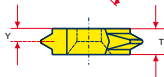


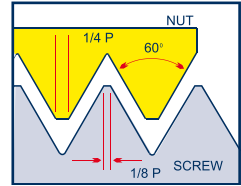
Insert Size		Pitch		Ordering Code		Dimension (mm)	
L	IC	mm	TPI	Right Hand/Left Hand		X	Y
8U	3/16"	1.75 - 2.0	14 - 11	08U I R/L U55		0.8	4.0
22U	1/2"	5.5 - 8	4.5 - 3.25	22U I R/L U55		0.6	11.0
27U	5/8"	6.5 - 9	4 - 2.75	27U I R/L U55		1.2	13.7

V Style

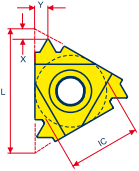


Insert Size		Pitch		Ordering Code		Dimension (mm)		
L	IC	mm	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	6.0 - 9.0	4 - 2.75	27V IR V55 ...	27V IL V55 ...	1.0	4.3	8

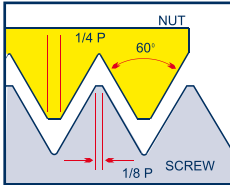




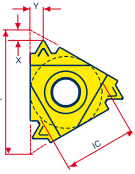
Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
11	1/4"	0.35	11 ER 0.35 ISO...	11 EL 0.35 ISO...	0.8	0.4
		0.4	11 ER 0.4 ISO...	11 EL 0.4 ISO...	0.7	0.4
		0.45	11 ER 0.45 ISO...	11 EL 0.45 ISO...	0.7	0.4
		0.5	11 ER 0.5 ISO...	11 EL 0.5 ISO...	0.6	0.4
		0.6	11 ER 0.6 ISO...	11 EL 0.6 ISO...	0.6	0.6
		0.7	11 ER 0.7 ISO...	11 EL 0.7 ISO...	0.6	0.6
		0.75	11 ER 0.75 ISO...	11 EL 0.75 ISO...	0.6	0.6
		0.8	11 ER 0.8 ISO...	11 EL 0.8 ISO...	0.6	0.6
		1.0	11 ER 1.0 ISO...	11 EL 1.0 ISO...	0.7	0.7
		1.25	11 ER 1.25 ISO...	11 EL 1.25 ISO...	0.8	0.9
		1.5	11 ER 1.5 ISO...	11 EL 1.5 ISO...	0.8	1.0
16	3/8"	1.75	11 ER 1.75 ISO...	11 EL 1.75 ISO...	0.8	1.1
		0.35	16 ER 0.35 ISO...	16 EL 0.35 ISO...	0.8	0.4
		0.4	16 ER 0.4 ISO...	16 EL 0.4 ISO...	0.7	0.4
		0.45	16 ER 0.45 ISO...	16 EL 0.45 ISO...	0.7	0.4
		0.5	16 ER 0.5 ISO...	16 EL 0.5 ISO...	0.6	0.6
		0.6	16 ER 0.6 ISO...	16 EL 0.6 ISO...	0.6	0.6
		0.7	16 ER 0.7 ISO...	16 EL 0.7 ISO...	0.6	0.6
		0.75	16 ER 0.75 ISO...	16 EL 0.75 ISO...	0.6	0.6
		0.8	16 ER 0.8 ISO...	16 EL 0.8 ISO...	0.6	0.6
		1.0	16 ER 1.0 ISO...	16 EL 1.0 ISO...	0.7	0.7
		1.25	16 ER 1.25 ISO...	16 EL 1.25 ISO...	0.8	0.9
22	1/2"	1.5	16 ER 1.5 ISO...	16 EL 1.5 ISO...	0.8	1.0
		1.75	16 ER 1.75 ISO...	16 EL 1.75 ISO...	0.9	1.2
		2.0	16 ER 2.0 ISO...	16 EL 2.0 ISO...	1.0	1.3
		2.5	16 ER 2.5 ISO...	16 EL 2.5 ISO...	1.1	1.5
		3.0	16 ER 3.0 ISO...	16 EL 3.0 ISO...	1.2	1.6
		3.5	22 ER 3.5 ISO...	22 EL 3.5 ISO...	1.6	2.3
		4.0	22 ER 4.0 ISO...	22 EL 4.0 ISO...	1.6	2.3
		4.5	22 ER 4.5 ISO...	22 EL 4.5 ISO...	1.7	2.4
		5.0	22 ER 5.0 ISO...	22 EL 5.0 ISO...	1.7	2.5
		5.5	22 ER 5.5 ISO...	22 EL 5.5 ISO...	1.7	2.6
		6.0	22 ER 6.0 ISO...	22 EL 6.0 ISO...	1.9	2.7
27	5/8"	5.5	27 ER 5.5 ISO...	27 EL 5.5 ISO...	1.9	2.7
		6.0	27 ER 6.0 ISO...	27 EL 6.0 ISO...	2.0	2.9

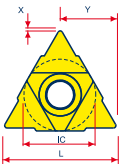


(Ground Profile with Sintered Chip-breaker) S Type



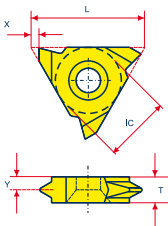
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand		X	Y
16	3/8"	0.8	16 ER S 0.8 ISO ...		0.6	0.6
		1.0	16 ER S 1.0 ISO ...		0.7	0.7
		1.25	16 ER S 1.25 ISO ...		0.8	0.9
		1.5	16 ER S 1.5 ISO ...		0.8	1.0
		1.75	16 ER S 1.75 ISO ...		0.9	1.2
		2.0	16 ER S 2.0 ISO ...		1.0	1.3
		2.5	16 ER S 2.5 ISO ...		1.1	1.5
3.0	16 ER S 3.0 ISO ...		1.2	1.6		

U Style



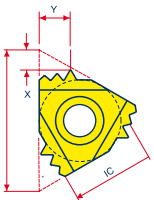
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand / Left Hand		X	Y
22U	1/2"U	5.5	22 UE R/L 5.5 ISO...		2.3	11.0
		6.0	22 UE R/L 6.0 ISO...		2.6	11.0
27U	5/8"U	8.0	27 UE R/L 8.0 ISO...		2.4	13.7

V Style

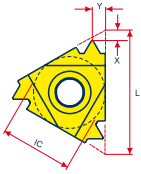
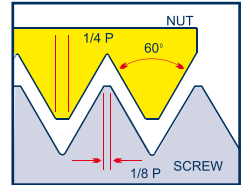


Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	mm	Right Hand	Left Hand	X	Y	T
16V	3/8"V	0.5	16V ER 0.5 ISO ...	16V EL 0.5 ISO ...	1.1	3.0	3.6
		0.75	16V ER 0.75 ISO ...	16V EL 0.75 ISO ...	1.1	3.0	3.6
		1.0	16V ER 1.0 ISO ...	16V EL 1.0 ISO ...	1.1	2.9	3.6
		1.25	16V ER 1.25 ISO ...	16V EL 1.25 ISO ...	1.1	2.7	3.6
		1.5	16V ER 1.5 ISO ...	16V EL 1.5 ISO ...	1.1	2.6	3.6
		1.75	16V ER 1.75 ISO ...	16V EL 1.75 ISO ...	1.1	2.45	3.6
		2.0	16V ER 2.0 ISO ...	16V EL 2.0 ISO ...	1.1	2.3	3.6
27V	5/8"V	2.5	16V ER 2.5 ISO ...	16V EL 2.5 ISO ...	1.1	2.1	3.6
		3.0	16V ER 3.0 ISO ...	16V EL 3.0 ISO ...	1.1	2.0	3.6
		6.0	27V ER 6.0 ISO ...	27V EL 6.0 ISO ...	1.0	3.3	6
		8.0	27V ER 8.0 ISO ...	27V EL 8.0 ISO ...	1.0	4.3	8
10.0	27V ER 10.0 ISO ...	27V EL 10.0 ISO ...	1.0	5.2	10		

Multitooth

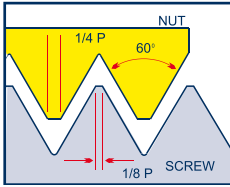


Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
mm	mm	inch		Right Hand	mm		
1.0	16	3/8"	3	16 ER 1.0 ISO 3M ...	1.7	2.5	2
1.5			2	16 ER 1.5 ISO 2M ...	1.5	2.3	3
1.5	22	1/2"	3	22 ER 1.5 ISO 3M ...	2.3	3.7	2
2.0			2	22 ER 2.0 ISO 2M ...	2.0	3.0	3
2.0			3	22 ER 2.0 ISO 3M ...	3.1	5.0	2
3.0	27	5/8"	2	27 ER 3.0 ISO 2M ...	2.9	4.5	4

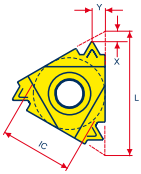


Standard

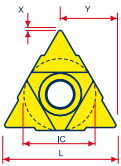
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
6	5/32"	0.5	06 IR 0.5 ISO...	06 IL 0.5 ISO...	0.9	0.5
		0.75	06 IR 0.75 ISO...	06 IL 0.75 ISO...	0.8	0.5
		1.0	06 IR 1.0 ISO...	06 IL 1.0 ISO...	0.7	0.6
		1.25	06 IR 1.25 ISO...	06 IL 1.25 ISO...	0.6	0.6
8	3/16"	0.5	08 IR 0.5 ISO...	08 IL 0.5 ISO...	0.6	0.5
		0.75	08 IR 0.75 ISO...	08 IL 0.75 ISO...	0.6	0.5
		1.0	08 IR 1.0 ISO...	08 IL 1.0 ISO...	0.6	0.6
		1.25	08 IR 1.25 ISO...	08 IL 1.25 ISO...	0.6	0.7
		1.5	08 IR 1.5 ISO...	08 IL 1.5 ISO...	0.6	0.7
		1.75	08 IR 1.75 ISO...	08 IL 1.75 ISO...	1.0	4.0
11	1/4"	0.35	11 IR 0.35 ISO...	11 IL 0.35 ISO...	0.8	1.3
		0.4	11 IR 0.4 ISO...	11 IL 0.4 ISO...	0.8	1.4
		0.45	11 IR 0.45 ISO...	11 IL 0.45 ISO...	0.8	0.4
		0.5	11 IR 0.5 ISO...	11 IL 0.5 ISO...	0.6	0.6
		0.6	11 IR 0.6 ISO...	11 IL 0.6 ISO...	0.6	0.6
		0.7	11 IR 0.7 ISO...	11 IL 0.7 ISO...	0.6	0.6
		0.75	11 IR 0.75 ISO...	11 IL 0.75 ISO...	0.6	0.6
		0.8	11 IR 0.8 ISO...	11 IL 0.8 ISO...	0.6	0.6
		1.0	11 IR 1.0 ISO...	11 IL 1.0 ISO...	0.6	0.7
		1.25	11 IR 1.25 ISO...	11 IL 1.25 ISO...	0.8	0.8
		1.5	11 IR 1.5 ISO...	11 IL 1.5 ISO...	0.8	1.0
		1.75	11 IR 1.75 ISO...	11 IL 1.75 ISO...	0.8	1.1
		2.0	11 IR 2.0 ISO...	11 IL 2.0 ISO...	0.8	0.9
2.5	11 IR 2.5 ISO...	11 IL 2.5 ISO...	0.9	1.1		
16	3/8"	0.35	16 IR 0.35 ISO...	16 IL 0.35 ISO...	0.8	0.3
		0.4	16 IR 0.4 ISO...	16 IL 0.4 ISO...	0.8	0.4
		0.45	16 IR 0.45 ISO...	16 IL 0.45 ISO...	0.8	0.4
		0.5	16 IR 0.5 ISO...	16 IL 0.5 ISO...	0.6	0.6
		0.6	16 IR 0.6 ISO...	16 IL 0.6 ISO...	0.6	0.6
		0.7	16 IR 0.7 ISO...	16 IL 0.7 ISO...	0.6	0.6
		0.75	16 IR 0.75 ISO...	16 IL 0.75 ISO...	0.6	0.6
		0.8	16 IR 0.8 ISO...	16 IL 0.8 ISO...	0.6	0.6
		1.0	16 IR 1.0 ISO...	16 IL 1.0 ISO...	0.6	0.7
		1.25	16 IR 1.25 ISO...	16 IL 1.25 ISO...	0.8	0.9
		1.5	16 IR 1.5 ISO...	16 IL 1.5 ISO...	0.8	1.0
		1.75	16 IR 1.75 ISO...	16 IL 1.75 ISO...	0.9	1.2
		2.0	16 IR 2.0 ISO...	16 IL 2.0 ISO...	1.0	1.3
2.5	16 IR 2.5 ISO...	16 IL 2.5 ISO...	1.1	1.5		
3.0	16 IR 3.0 ISO...	16 IL 3.0 ISO...	1.1	1.5		
22	1/2"	3.5	22 IR 3.5 ISO...	22 IL 3.5 ISO...	1.6	2.3
		4.0	22 IR 4.0 ISO...	22 IL 4.0 ISO...	1.6	2.3
		4.5	22 IR 4.5 ISO...	22 IL 4.5 ISO...	1.6	2.4
		5.0	22 IR 5.0 ISO...	22 IL 5.0 ISO...	1.6	2.3
		5.5	22 IR 5.5 ISO...	22 IL 5.5 ISO...	1.6	2.3
		6.0	22 IR 6.0 ISO...	22 IL 6.0 ISO...	1.6	2.4
27	5/8"	5.5	27 IR 5.5 ISO...	27 IL 5.5 ISO...	1.6	2.3
		6.0	27 IR 6.0 ISO...	27 IL 6.0 ISO...	1.8	2.5



(Ground Profile with Sintered Chip-breaker) **S Type**

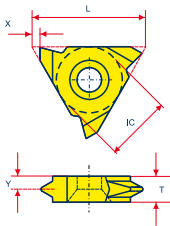


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand		X	Y
16	3/8"	1.0	16 IR S 1.0 ISO ...		0.6	0.7
		1.25	16 IR S 1.25 ISO ...		0.8	0.9
		1.5	16 IR S 1.5 ISO ...		0.8	1.0
		1.75	16 IR S 1.75 ISO ...		0.9	1.2
		2.0	16 IR S 2.0 ISO ...		1.0	1.3
		2.5	16 IR S 2.5 ISO ...		1.1	1.5
		3.0	16 IR S 3.0 ISO ...		1.1	1.5



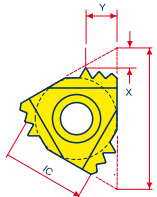
U Style

Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	mm	Right Hand / Left Hand	X	Y
08U	3/16"U	2.0	08 UI R/L 2.0 ISO...	1.0	4.0
22U	1/2"U	5.5	22 UI R/L 5.5 ISO...	2.4	11.0
		6.0	22 UI R/L 6.0 ISO...	2.1	11.0
27U	5/8"U	8.0	27 UI R/L 8.0 ISO...	2.4	13.7



V Style

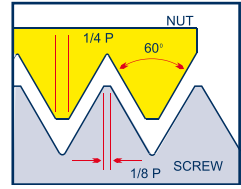
Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	mm	Right Hand	Left Hand	X	Y	T
27V	5/8"V	6.0	27V IR 6.0 ISO ...	27V IL 6.0 ISO ...	1.0	3.3	6
		8.0	27V IR 8.0 ISO ...	27V IL 8.0 ISO ...	1.0	4.3	8
		10.0	27V IR 10.0 ISO ...	27V IL 10.0 ISO ...	1.0	5.2	10



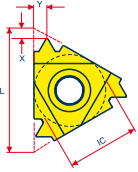
Multitooth

Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
mm	mm	inch		Right Hand	mm		
1.0	16	3/8"	3	16 IR 1.0 ISO 3M ...	1.7	2.5	2
1.5			2	16 IR 1.5 ISO 2M ...	1.5	2.3	3
1.5	22	1/2"	3	22 IR 1.5 ISO 3M ...	2.3	3.7	2
2.0			2	22 IR 2.0 ISO 2M ...	2.0	3.0	3
2.0			3	22 IR 2.0 ISO 3M ...	3.1	5.0	2
3.0	27	5/8"	2	27 IR 3.0 ISO 2M ...	2.9	4.5	4

American UN (Unified) External UNC, UNF, UNEF, UNS

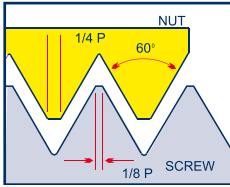


Standard

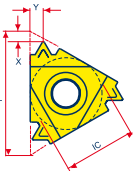


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	72	11 ER 72 UN...	11 EL 72 UN...	0.8	0.4
		64	11 ER 64 UN...	11 EL 64 UN...	0.8	0.4
		56	11 ER 56 UN...	11 EL 56 UN...	0.7	0.4
		48	11 ER 48 UN...	11 EL 48 UN...	0.6	0.6
		44	11 ER 44 UN...	11 EL 44 UN...	0.6	0.6
		40	11 ER 40 UN...	11 EL 40 UN...	0.6	0.6
		36	11 ER 36 UN...	11 EL 36 UN...	0.6	0.6
		32	11 ER 32 UN...	11 EL 32 UN...	0.6	0.6
		28	11 ER 28 UN...	11 EL 28 UN...	0.6	0.7
		27	11 ER 27 UN...	11 EL 27 UN...	0.7	0.8
		24	11 ER 24 UN...	11 EL 24 UN...	0.7	0.8
		20	11 ER 20 UN...	11 EL 20 UN...	0.8	0.9
		18	11 ER 18 UN...	11 EL 18 UN...	0.8	1.0
		16	11 ER 16 UN...	11 EL 16 UN...	0.9	1.1
14	11 ER 14 UN...	11 EL 14 UN...	0.9	1.1		
16	3/8"	72	16 ER 72 UN...	16 EL 72 UN...	0.8	0.4
		64	16 ER 64 UN...	16 EL 64 UN...	0.8	0.4
		56	16 ER 56 UN...	16 EL 56 UN...	0.7	0.4
		48	16 ER 48 UN...	16 EL 48 UN...	0.6	0.6
		44	16 ER 44 UN...	16 EL 44 UN...	0.6	0.6
		40	16 ER 40 UN...	16 EL 40 UN...	0.6	0.6
		36	16 ER 36 UN...	16 EL 36 UN...	0.6	0.6
		32	16 ER 32 UN...	16 EL 32 UN...	0.6	0.6
		28	16 ER 28 UN...	16 EL 28 UN...	0.6	0.7
		27	16 ER 27 UN...	16 EL 27 UN...	0.7	0.8
		24	16 ER 24 UN...	16 EL 24 UN...	0.7	0.8
		20	16 ER 20 UN...	16 EL 20 UN...	0.8	0.9
		18	16 ER 18 UN...	16 EL 18 UN...	0.8	1.0
		16	16 ER 16 UN...	16 EL 16 UN...	0.9	1.1
14	16 ER 14 UN...	16 EL 14 UN...	1.0	1.2		
13	16 ER 13 UN...	16 EL 13 UN...	1.0	1.3		
12	16 ER 12 UN...	16 EL 12 UN...	1.1	1.4		
11.5	16 ER 11.5 UN...	16 EL 11.5 UN...	1.1	1.5		
11	16 ER 11 UN...	16 EL 11 UN...	1.1	1.5		
10	16 ER 10 UN...	16 EL 10 UN...	1.1	1.5		
9	16 ER 9 UN...	16 EL 9 UN...	1.2	1.7		
8	16 ER 8 UN...	16 EL 8 UN...	1.2	1.6		
22	1/2"	7	22 ER 7 UN...	22 EL 7 UN...	1.6	2.3
		6	22 ER 6 UN...	22 EL 6 UN...	1.6	2.3
		5	22 ER 5 UN...	22 EL 5 UN...	1.7	2.5
27	5/8"	4.5	27 ER 4.5 UN...	27 EL 4.5 UN...	1.9	2.7
		4	27 ER 4 UN...	27 EL 4 UN...	2.1	3.0

American UN (Unified) External UNC, UNF, UNEF, UNS

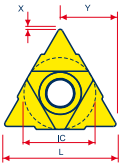


(Ground Profile with Sintered Chip-breaker) S Type



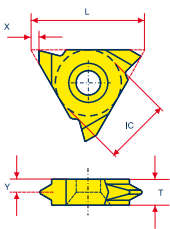
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand		X	Y
16	3/8"	24	16 ER S 24 UN ...		0.7	0.8
		20	16 ER S 20 UN ...		0.8	0.9
		18	16 ER S 18 UN ...		0.8	0.0
		16	16 ER S 16 UN ...		0.9	1.1
		14	16 ER S 14 UN ...		1.0	1.2
		13	16 ER S 13 UN ...		1.0	1.3
		12	16 ER S 12 UN ...		1.1	1.4
		11	16 ER S 11 UN ...		1.2	1.5
		10	16 ER S 10 UN ...		1.0	1.5
		9	16 ER S 9 UN ...		1.1	1.7
		8	16 ER S 8 UN ...		1.2	1.6

U Style



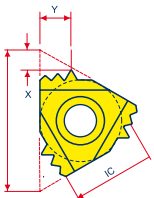
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand / Left Hand		X	Y
22U	1/2"U	4.5	22 UE R/L 4.5 UN...		2.0	11.0
		4	22 UE R/L 4 UN...		2.0	11.0
27U	5/8"U	3	27 UE R/L 3 UN...		2.5	13.7

V Style



Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
16V	3/8"V	20	16V ER 20 UN ...	16V EL 20 UN ...	1.1	2.7	3.6
		18	16V ER 18 UN ...	16V EL 18 UN ...	1.1	2.6	3.6
		16	16V ER 16 UN ...	16V EL 16 UN ...	1.1	2.55	3.6
		14	16V ER 14 UN ...	16V EL 14 UN ...	1.1	2.4	3.6
		12	16V ER 12 UN ...	16V EL 12 UN ...	1.1	2.2	3.6
		10	16V ER 10 UN ...	16V EL 10 UN ...	1.1	2.1	3.6
22V	1/2"V	7	22V ER 7 UN ...	22V EL 7 UN ...	1.1	2.5	4.8
27V	5/8"V	4	27V ER 4 UN ...	27V EL 4 UN ...	1.0	3.3	6
		3	27V ER 3 UN ...	27V EL 3 UN ...	1.0	4.3	8

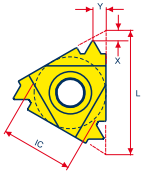
Multitooth



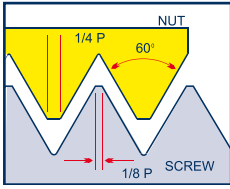
Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm		
16	16	3/8"	2	16 ER 16 UN 2M ...	1.5	2.3	3
16	22	1/2"	3	22 ER 16 UN 3M ...	2.5	4.0	2
12			2	22 ER 12 UN 2M ...	2.2	3.4	3
12			3	22 ER 12 UN 3M ...	3.3	5.3	2
8	27	5/8"	2	27 ER 8 UN 2M ...	3.1	4.9	4

American UN (Unified) UNC, UNF, UNEF, UNS Internal Standard

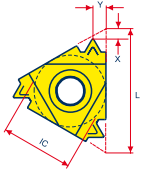
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
6	5/32"	32	06 IR 32 UN...	06 IL 32 UN...	0.8	0.5
		28	06 IR 28 UN...	06 IL 28 UN...	0.8	0.6
		24	06 IR 24 UN...	06 IL 24 UN...	0.7	0.6
		20	06 IR 20 UN...	06 IL 20 UN...	0.6	0.6
		18	06 IR 18 UN...	06 IL 18 UN...	0.6	0.7
8	3/16"	32	08 IR 32 UN...	08 IL 32 UN...	0.6	0.5
		28	08 IR 28 UN...	08 IL 28 UN...	0.6	0.6
		24	08 IR 24 UN...	08 IL 24 UN...	0.6	0.6
		20	08 IR 20 UN...	08 IL 20 UN...	0.6	0.7
		18	08 IR 18 UN...	08 IL 18 UN...	0.6	0.7
		16	08 IR 16 UN...	08 IL 16 UN...	0.6	0.7
		14	08 IR 14 UN...	08 IL 14 UN...	0.6	0.8
11	1/4"	72	11 IR 72 UN...	11 IL 72 UN...	0.8	0.3
		64	11 IR 64 UN...	11 IL 64 UN...	0.8	0.4
		56	11 IR 56 UN...	11 IL 56 UN...	0.7	0.4
		48	11 IR 48 UN...	11 IL 48 UN...	0.6	0.6
		44	11 IR 44 UN...	11 IL 44 UN...	0.6	0.6
		40	11 IR 40 UN...	11 IL 40 UN...	0.6	0.6
		36	11 IR 36 UN...	11 IL 36 UN...	0.6	0.6
		32	11 IR 32 UN...	11 IL 32 UN...	0.6	0.6
		28	11 IR 28 UN...	11 IL 28 UN...	0.6	0.7
		27	11 IR 27 UN...	11 IL 27 UN...	0.7	0.8
		24	11 IR 24 UN...	11 IL 24 UN...	0.7	0.8
		20	11 IR 20 UN...	11 IL 20 UN...	0.8	0.9
		18	11 IR 18 UN...	11 IL 18 UN...	0.8	1.0
		16	11 IR 16 UN...	11 IL 16 UN...	0.9	1.1
16	3/8"	72	16 IR 72 UN...	16 IL 72 UN...	0.8	0.3
		64	16 IR 64 UN...	16 IL 64 UN...	0.8	0.4
		56	16 IR 56 UN...	16 IL 56 UN...	0.7	0.4
		48	16 IR 48 UN...	16 IL 48 UN...	0.6	0.6
		44	16 IR 44 UN...	16 IL 44 UN...	0.6	0.6
		40	16 IR 40 UN...	16 IL 40 UN...	0.6	0.6
		36	16 IR 36 UN...	16 IL 36 UN...	0.6	0.6
		32	16 IR 32 UN...	16 IL 32 UN...	0.6	0.6
		28	16 IR 28 UN...	16 IL 28 UN...	0.6	0.7
		27	16 IR 27 UN...	16 IL 27 UN...	0.7	0.8
		24	16 IR 24 UN...	16 IL 24 UN...	0.7	0.8
		20	16 IR 20 UN...	16 IL 20 UN...	0.8	0.9
		18	16 IR 18 UN...	16 IL 18 UN...	0.8	1.0
		16	16 IR 16 UN...	16 IL 16 UN...	0.9	1.1
22	1/2"	14	16 IR 14 UN...	16 IL 14 UN...	0.9	1.2
		13	16 IR 13 UN...	16 IL 13 UN...	1.0	1.3
		12	16 IR 12 UN...	16 IL 12 UN...	1.1	1.4
		11.5	16 IR 11.5 UN...	16 IL 11.5 UN...	1.1	1.5
		11	16 IR 11 UN...	16 IL 11 UN...	1.1	1.5
		10	16 IR 10 UN...	16 IL 10 UN...	1.1	1.5
		9	16 IR 9 UN...	16 IL 9 UN...	1.2	1.7
		8	16 IR 8 UN...	16 IL 8 UN...	1.1	1.5
		7	22 IR 7 UN...	22 IL 7 UN...	1.6	2.3
		6	22 IR 6 UN...	22 IL 6 UN...	1.6	2.3
27	5/8"	5	22 IR 5 UN...	22 IL 5 UN...	1.6	2.3
		4.5	27 IR 4.5 UN...	27 IL 4.5 UN...	1.7	2.4
		4	27 IR 4 UN...	27 IL 4 UN...	1.8	2.7



American UN (Unified) Internal UNC, UNF, UNEF, UNS

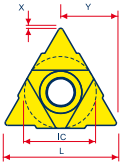


(Ground Profile with Sintered Chip-breaker) S Type

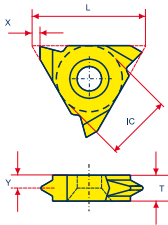


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand		X	Y
16	3/8"	24	16 IR S 24 UN ...		0.7	0.8
		20	16 IR S 20 UN ...		0.8	0.9
		18	16 IR S 18 UN ...		0.8	1.0
		16	16 IR S 16 UN ...		0.9	1.1
		14	16 IR S 14 UN ...		1.0	1.2
		12	16 IR S 12 UN ...		1.1	1.4
		10	16 IR S 10 UN ...		1.1	1.5
		8	16 IR S 8 UN ...		1.2	1.6

U Style



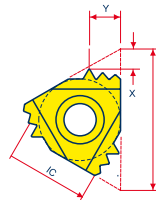
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand / Left Hand		X	Y
8U	3/16"U	13	08 UI R/L 13 UN...		1.0	4.0
		12	08 UI R/L 12 UN...		0.9	4.0
		11	08 UI R/L 11 UN...		0.9	4.7
22U	1/2"U	4.5	22 UI R/L 4.5 UN...		2.4	11.0
		4	22 UI R/L 4 UN...		2.4	11.0
27U	5/8"U	3	27 UI R/L 3 UN...		2.7	13.7



V Style

Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V IR 4 UN ...	27V IL 4 UN ...	1.0	3.3	6
		3	27V IR 3 UN ...	27V IL 3 UN ...	1.0	4.3	8

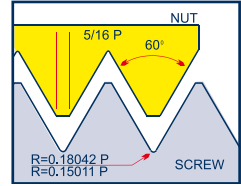
Multitooth



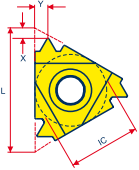
Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm		
16	16	3/8"	2	16 IR 16 UN 2M ...	1.5	2.3	3
16	22	1/2"	3	22 IR 16 UN 3M ...	2.5	4.0	2
12			2	22 IR 12 UN 2M ...	2.2	3.4	3
12			3	22 IR 12 UN 3M ...	3.3	5.3	2
8	27	5/8"	2	27 IR 8 UN 2M ...	3.1	4.9	4

American UNJ External

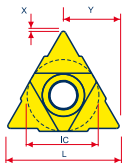
UNJC, UNJF, UNJEF, UNJS



Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)			
L	IC	TPI	Right Hand	Left Hand	X	Y		
11	1/4"	48	11 ER 48 UNJ...	11 EL 48 UNJ...	0.6	0.6		
		44	11 ER 44 UNJ...	11 EL 44 UNJ...	0.6	0.6		
		40	11 ER 40 UNJ...	11 EL 40 UNJ...	0.6	0.6		
		36	11 ER 36 UNJ...	11 EL 36 UNJ...	0.6	0.6		
		32	11 ER 32 UNJ...	11 EL 32 UNJ...	0.6	0.6		
		28	11 ER 28 UNJ...	11 EL 28 UNJ...	0.6	0.6		
		24	11 ER 24 UNJ...	11 EL 24 UNJ...	0.7	0.8		
		20	11 ER 20 UNJ...	11 EL 20 UNJ...	0.8	0.9		
		18	11 ER 18 UNJ...	11 EL 18 UNJ...	0.8	1.0		
		16	11 ER 16 UNJ...	11 EL 16 UNJ...	0.8	1.0		
		14	11 ER 14 UNJ...	11 EL 14 UNJ...	0.9	1.0		
		16	3/8"	48	16 ER 48 UNJ...	16 EL 48 UNJ...	0.6	0.6
				44	16 ER 44 UNJ...	16 EL 44 UNJ...	0.6	0.6
				40	16 ER 40 UNJ...	16 EL 40 UNJ...	0.6	0.6
36	16 ER 36 UNJ...			16 EL 36 UNJ...	0.6	0.6		
32	16 ER 32 UNJ...			16 EL 32 UNJ...	0.6	0.6		
28	16 ER 28 UNJ...			16 EL 28 UNJ...	0.6	0.6		
24	16 ER 24 UNJ...			16 EL 24 UNJ...	0.7	0.8		
20	16 ER 20 UNJ...			16 EL 20 UNJ...	0.8	0.9		
18	16 ER 18 UNJ...			16 EL 18 UNJ...	0.8	1.0		
16	16 ER 16 UNJ...			16 EL 16 UNJ...	0.8	1.0		
14	16 ER 14 UNJ...			16 EL 14 UNJ...	1.0	1.2		
13	16 ER 13 UNJ...			16 EL 13 UNJ...	1.0	1.3		
12	16 ER 12 UNJ...			16 EL 12 UNJ...	1.1	1.4		
11	16 ER 11 UNJ...			16 EL 11 UNJ...	1.1	1.5		
10	16 ER 10 UNJ...	16 EL 10 UNJ...	1.1	1.5				
22	1/2"	9	16 ER 9 UNJ...	16 EL 9 UNJ...	1.2	1.6		
		8	16 ER 8 UNJ...	16 EL 8 UNJ...	1.2	1.6		
		7	22 ER 7 UNJ...	22 EL 7 UNJ...	1.7	2.3		
		6	22 ER 6 UNJ...	22 EL 6 UNJ...	1.7	2.3		
27	5/8"	5	22 ER 5 UNJ...	22 EL 5 UNJ...	1.8	2.5		
		4.5	27 ER 4.5 UNJ...	27 EL 4.5 UNJ...	2.0	2.7		
		4	27 ER 4 UNJ...	27 EL 4 UNJ...	2.2	3.0		

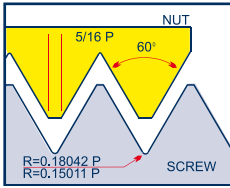


U Style

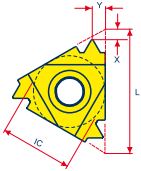
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand	X	Y
22U	1/2"	4.5	22U E/R/L 4.5 UNJ...	2.1	11.0
		4	22U E/R/L 4 UNJ...	2.2	11.7

American UNJ Internal

UNJC, UNJF, UNJEF, UNJS

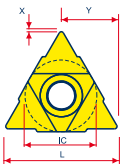


Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)			
L	IC	TPI	Right Hand	Left Hand	X	Y		
11	1/4"	48	11 IR 48 UNJ...	11 IL 48 UNJ...	0.6	0.6		
		44	11 IR 44 UNJ...	11 IL 44 UNJ...	0.6	0.6		
		40	11 IR 40 UNJ...	11 IL 40 UNJ...	0.6	0.6		
		36	11 IR 36 UNJ...	11 IL 36 UNJ...	0.6	0.6		
		32	11 IR 32 UNJ...	11 IL 32 UNJ...	0.6	0.6		
		28	11 IR 28 UNJ...	11 IL 28 UNJ...	0.6	0.6		
		24	11 IR 24 UNJ...	11 IL 24 UNJ...	0.7	0.8		
		20	11 IR 20 UNJ...	11 IL 20 UNJ...	0.8	0.9		
		18	11 IR 18 UNJ...	11 IL 18 UNJ...	0.8	1.0		
		16	11 IR 16 UNJ...	11 IL 16 UNJ...	0.8	1.0		
		14	11 IR 14 UNJ...	11 IL 14 UNJ...	0.9	1.0		
		16	3/8"	48	16 IR 48 UNJ...	16 IL 48 UNJ...	0.6	0.6
				44	16 IR 44 UNJ...	16 IL 44 UNJ...	0.6	0.6
				40	16 IR 40 UNJ...	16 IL 40 UNJ...	0.6	0.6
36	16 IR 36 UNJ...			16 IL 36 UNJ...	0.6	0.6		
32	16 IR 32 UNJ...			16 IL 32 UNJ...	0.6	0.6		
28	16 IR 28 UNJ...			16 IL 28 UNJ...	0.6	0.6		
24	16 IR 24 UNJ...			16 IL 24 UNJ...	0.7	0.8		
20	16 IR 20 UNJ...			16 IL 20 UNJ...	0.8	0.9		
18	16 IR 18 UNJ...			16 IL 18 UNJ...	0.8	1.0		
16	16 IR 16 UNJ...			16 IL 16 UNJ...	0.8	1.0		
14	16 IR 14 UNJ...			16 IL 14 UNJ...	1.0	1.2		
13	16 IR 13 UNJ...			16 IL 13 UNJ...	1.0	1.3		
12	16 IR 12 UNJ...			16 IL 12 UNJ...	1.1	1.4		
11	16 IR 11 UNJ...			16 IL 11 UNJ...	1.1	1.5		
22	1/2"	7	22 IR 7 UNJ...	22 IL 7 UNJ...	1.7	2.3		
		6	22 IR 6 UNJ...	22 IL 6 UNJ...	1.7	2.3		
		5	22 IR 5 UNJ...	22 IL 5 UNJ...	1.8	2.5		
		4.5	27 IR 4.5 UNJ...	27 IL 4.5 UNJ...	2.0	2.7		
		4	27 IR 4 UNJ...	27 IL 4 UNJ...	2.2	3.0		

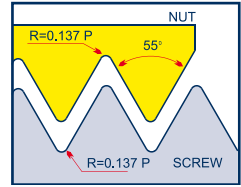
U Style



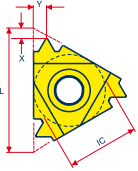
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand	X	Y
22U	1/2"U	4.5	22U I R/L UNJ...	0.9	11.0
		4	22U I R/L UNJ...	1.2	13.7

British Standard Whitworth External

BSW, BSP, BSF



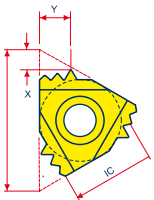
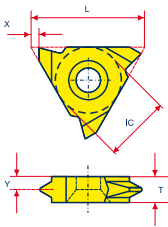
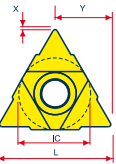
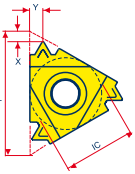
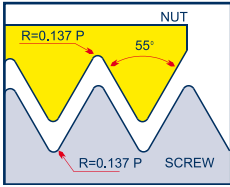
Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	72	11 ER 72 W...	11 EL 72 W...	0.7	0.4
		60	11 ER 60 W...	11 EL 60 W...	0.7	0.4
		56	11 ER 56 W...	11 EL 56 W...	0.7	0.4
		48	11 ER 48 W...	11 EL 48 W...	0.6	0.6
		40	11 ER 40 W...	11 EL 40 W...	0.6	0.6
		36	11 ER 36 W...	11 EL 36 W...	0.6	0.6
		32	11 ER 32 W...	11 EL 32 W...	0.6	0.6
		28	11 ER 28 W...	11 EL 28 W...	0.6	0.7
		26	11 ER 26 W...	11 EL 26 W...	0.7	0.8
		24	11 ER 24 W...	11 EL 24 W...	0.7	0.8
		22	11 ER 22 W...	11 EL 22 W...	0.8	0.9
		20	11 ER 20 W...	11 EL 20 W...	0.8	0.9
		19	11 ER 19 W...	11 EL 19 W...	0.8	1.0
		18	11 ER 18 W...	11 EL 18 W...	0.8	1.0
16	11 ER 16 W...	11 EL 16 W...	0.9	1.1		
14	11 ER 74 W...	11 EL 14 W...	0.9	1.1		
16	3/8"	72	16 ER 72 W...	16 EL 72 W...	0.7	0.4
		60	16 ER 60 W...	16 EL 60 W...	0.7	0.4
		56	16 ER 56 W...	16 EL 56 W...	0.7	0.4
		48	16 ER 48 W...	16 EL 48 W...	0.6	0.6
		40	16 ER 40 W...	16 EL 40 W...	0.6	0.6
		36	16 ER 36 W...	16 EL 36 W...	0.6	0.6
		32	16 ER 32 W...	16 EL 32 W...	0.6	0.6
		28	16 ER 28 W...	16 EL 28 W...	0.6	0.7
		26	16 ER 26 W...	16 EL 26 W...	0.7	0.8
		24	16 ER 24 W...	16 EL 24 W...	0.7	0.8
		22	16 ER 22 W...	16 EL 22 W...	0.8	0.9
		20	16 ER 20 W...	16 EL 20 W...	0.8	0.9
		19	16 ER 19 W...	16 EL 19 W...	0.8	1.0
		18	16 ER 18 W...	16 EL 18 W...	0.8	1.1
16	16 ER 16 W...	16 EL 16 W...	0.9	1.2		
14	16 ER 14 W...	16 EL 14 W...	1.0	1.4		
12	16 ER 12 W...	16 EL 12 W...	1.1	1.4		
11	16 ER 11 W...	16 EL 11 W...	1.1	1.5		
10	16 ER 10 W...	16 EL 10 W...	1.1	1.5		
9	16 ER 9 W...	16 EL 9 W...	1.2	1.7		
8	16 ER 8 W...	16 EL 8 W...	1.2	1.5		
22	1/2"	7	22 ER 7 W...	22 EL 7 W...	1.6	2.3
		6	22 ER 6 W...	22 EL 6 W...	1.6	2.3
		5	22 ER 5 W...	22 EL 5 W...	1.7	2.4
27	5/8"	4.5	27 ER 4.5 W...	27 EL 4.5 W...	1.8	2.6
		4	27 ER 4 W...	27 EL 4 W...	2.0	2.9

British Standard Whitworth External

BSW, BSP, BSF



(Ground Profile with Sintered Chip-breaker) S Type

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand		X	Y
16	3/8"	19	16 ER S 19 W...		0.8	1.0
		16	16 ER S 16 W...		0.9	1.1
		14	16 ER S 14 W...		1.0	1.2
		11	16 ER S 11 W...		1.1	1.5
		10	16 ER S 10 W...		1.1	1.5

U Style

Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand / Left Hand	X	Y
22U	1/2"U	4.5	22 UE R/L 4.5 W...	2.3	11.0
		4	22 UE R/L 4 W...	1.8	11.0
27U	5/8"U	3.5	27 UE R/L 3.5 W...	2.1	13.7
		3.25	27 UE R/L 3.25 W...	2.0	13.7
		3	27 UE R/L 3 W...	2.3	13.7
		2.75	27 UE R/L 2.75 W...	2.4	13.7

V Style

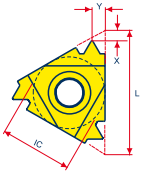
Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
11V	1/4"V	19	11V ER 19 W...	11V EL 19 W...	0.69	2.3	3.2
		14	11V ER 14 W...	11V EL 14 W...	0.69	2.0	3.2
		11	11V ER 11 W...	11V EL 11 W...	0.69	1.7	3.2
16V	3/8"V	19	16V ER 19 W...	16V EL 19 W...	1.1	2.7	3.6
		14	16V ER 14 W...	16V EL 14 W...	1.1	2.4	3.6
		11	16V ER 11 W...	16V EL 11 W...	1.1	2.1	3.6
27V	5/8"V	4	27V ER 4 W...	27V EL 4 W...	1.0	3.3	6
		3	27V ER 3 W...	27V EL 3 W...	1.0	4.3	8
		2.5	27V ER 2.5 W...	27V EL 2.5 W...	1.0	5.2	10

Multitooth

Pitch		L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm			
14	16	3/8"	2	16 ER 14 W 2M...	1.7	2.7	3	
14	22	1/2"	3	22 ER 14 W 3M...	2.8	4.5	2	
12			2	22 ER 12 W 2M...	2.3	3.4	3	

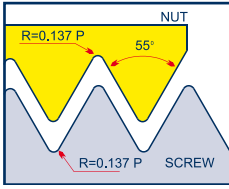
British Standard Whitworth BSW, BSP, BSF Internal **Standard**

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
6	5/32"	26	06 IR 26 W...	06 IL 26 W...	0.7	0.6
		22	06 IR 22 W...	06 IL 22 W...	0.6	0.6
		20	06 IR 20 W...	06 IL 20 W...	0.6	0.7
		18	06 IR 18 W...	06 IL 18 W...	0.6	0.7
8	3/16"	28	06 IR 28 W...	06 IL 28 W...	0.6	0.6
		24	08 IR 24 W...	08 IL 24 W...	0.6	0.6
		20	08 IR 20 W...	08 IL 20 W...	0.6	0.7
		19	08 IR 19 W...	08 IL 19 W...	0.6	0.7
		18	08 IR 18 W...	08 IL 18 W...	0.6	0.7
		16	08 IR 16 W...	08 IL 16 W...	0.6	0.7
		11	1/4"	72	11 IR 72 W...	11 IL 72 W...
60	11 IR 60 W...			11 IL 60 W...	0.7	0.4
56	11 IR 56 W...			11 IL 56 W...	0.7	0.4
48	11 IR 48 W...			11 IL 48 W...	0.6	0.6
40	11 IR 40 W...			11 IL 40 W...	0.6	0.6
36	11 IR 36 W...			11 IL 36 W...	0.6	0.6
32	11 IR 32 W...			11 IL 32 W...	0.6	0.6
28	11 IR 28 W...			11 IL 28 W...	0.6	0.7
26	11 IR 26 W...			11 IL 26 W...	0.7	0.8
24	11 IR 24 W...			11 IL 24 W...	0.7	0.8
22	11 IR 22 W...			11 IL 22 W...	0.8	0.9
20	11 IR 20 W...			11 IL 20 W...	0.8	0.9
19	11 IR 19 W...			11 IL 19 W...	0.8	1.0
18	11 IR 18 W...			11 IL 18 W...	0.8	1.0
16	11 IR 16 W...	11 IL 16 W...	0.9	1.1		
16	3/8"	72	11 IR 14 W...	11 IL 14 W...	0.9	1.1
		12	11 IR 12 W...	11 IL 12 W...	1.0	1.1
		11	11 IR 11 W...	11 IL 11 W...	0.9	1.2
		72	16 IR 72 W...	16 IL 72 W...	0.8	0.4
		60	16 IR 60 W...	16 IL 60 W...	0.8	0.4
		56	16 IR 56 W...	16 IL 56 W...	0.8	0.4
		48	16 IR 48 W...	16 IL 48 W...	0.7	0.6
		40	16 IR 40 W...	16 IL 40 W...	0.6	0.6
		36	16 IR 36 W...	16 IL 36 W...	0.6	0.6
		32	16 IR 32 W...	16 IL 32 W...	0.6	0.6
		28	16 IR 28 W...	16 IL 28 W...	0.6	0.7
		26	16 IR 26 W...	16 IL 26 W...	0.6	0.8
		24	16 IR 24 W...	16 IL 24 W...	0.6	0.8
		22	16 IR 22 W...	16 IL 22 W...	0.7	0.9
22	1/2"	20	16 IR 20 W...	16 IL 20 W...	0.7	0.9
		19	16 IR 19 W...	16 IL 19 W...	0.8	1.0
		18	16 IR 18 W...	16 IL 18 W...	0.8	1.0
		16	16 IR 16 W...	16 IL 16 W...	0.9	1.1
		14	16 IR 14 W...	16 IL 14 W...	1.9	1.2
		12	16 IR 12 W...	16 IL 12 W...	1.0	1.4
		11	16 IR 11 W...	16 IL 11 W...	1.1	1.5
		10	16 IR 10 W...	16 IL 10 W...	1.1	1.5
27	5/8"	9	16 IR 9 W...	16 IL 9 W...	1.1	1.7
		8	16 IR 8 W...	16 IL 8 W...	1.1	1.5
		7	22 IR 7 W...	22 IL 7 W...	1.2	2.3
22	1/2"	6	22 IR 6 W...	22 IL 6 W...	1.1	2.3
		5	22 IR 5 W...	22 IL 5 W...	1.6	2.4
		4.5	27 IR 4.5 W...	27 IL 4.5 W...	1.6	2.6
27	5/8"	4	27 IR 4 W...	27 IL 4 W...	2.6	2.9

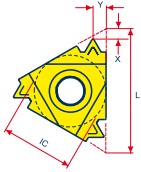


British Standard Whitworth Internal

BSW, BSP, BSF

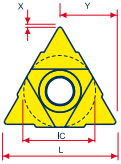


(Ground Profile with Sintered Chip-breaker) **S Type**



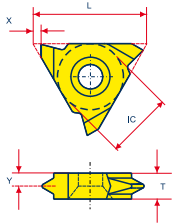
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand	X	Y
16	3/8"	19	16 IR S 19 W...	0.8	1.0
		16	16 IR S 16 W...	0.9	1.1
		14	16 IR S 14 W...	1.0	1.2
		11	16 IR S 11 W...	1.1	1.5
		10	16 IR S 10 W...	1.1	1.5

U Style



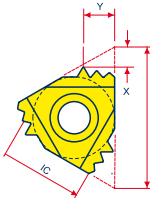
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand / Left Hand	X	Y
8U	3/16"U	14	08 UI R/L 14 W...	1.0	4.0
		12	08 UI R/L 12 W...	0.9	4.0
		11	08 UI R/L 11 W...	0.9	4.0
22U	1/2"U	4.5	22 UI R/L 4.5 W...	2.3	11.0
		4	22 UI R/L 4 W...	1.8	11.0
27U	5/8"U	3.5	27 UI R/L 3.5 W...	2.1	13.7
		3.25	27 UI R/L 3.25 W...	2.0	13.7
		3	27 UI R/L 3 W...	2.3	13.7
		3.75	27 UI R/L 3.75 W...	2.4	13.7

V Style

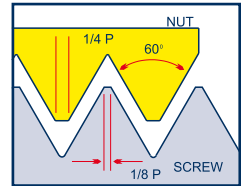


Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V IR 4 W...	27V IL 4 W...	1.0	3.3	6
		3	27V IR 3 W...	27V IL 3 W...	1.0	4.3	8
		2.5	27V IR 2.5 W...	27V IL 2.5 W...	1.0	5.2	10

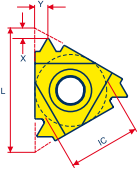
Multitooth



Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm		
14	16	3/8"	2	16 IR 14 W 2M...	1.7	2.7	3
14	22	1/2"	3	22 IR 14 W 3M...	2.8	4.5	2
11			2	22 IR 11 W 2M...	2.3	3.4	3

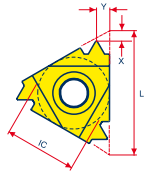


External

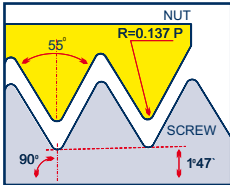


Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	mm	Right Hand	X	Y
16	3/8"	1.0	16 ER 1.0 MJ...	0.7	0.8
		1.25	16 ER 1.25 MJ...	0.8	0.9
		1.5	16 ER 1.5 MJ...	0.8	1.0
		2.0	16 ER 2.0 MJ...	1.0	1.3

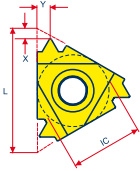
Internal



Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	mm	Right Hand	X	Y
11	1/4"	1.0	11 IR 1.0 MJ...	0.7	0.8
		1.25	11 IR 1.25 MJ...	0.8	0.9
		1.5	11 IR 1.5 MJ...	0.8	1.0
		2.0	11 IR 2.0 MJ...	0.9	1.0
16	3/8"	1.0	16 IR 1.0 MJ...	0.7	0.8
		1.25	16 IR 1.25 MJ...	0.8	0.9
		1.5	16 IR 1.5 MJ...	0.8	1.0
		2.0	16 IR 2.0 MJ...	1.0	1.3

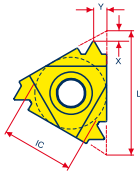


External

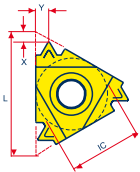


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	28	11 ER 28 BSPT...	11 EL 28 BSPT...	0.6	0.6
		19	11 ER 19 BSPT...	11 EL 19 BSPT...	0.8	0.9
		14	11 ER 14 BSPT...	11 EL 14 BSPT...	0.9	1.0
16	3/8"	28	16 ER 28 BSPT...	16 EL 28 BSPT...	0.6	0.6
		19	16 ER 19 BSPT...	16 EL 19 BSPT...	0.8	0.9
		14	16 ER 14 BSPT...	16 EL 14 BSPT...	0.0	1.2
		11	16 ER 11 BSPT...	16 EL 11 BSPT...	1.1	1.5

Internal

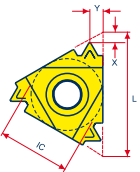


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
6	5/32"	28	06 IR 28 BSPT...	6 IL 28 BSPT...	0.7	0.6
8	3/16"	28	08 IR 28 BSPT...	8 IL 28 BSPT...	0.6	0.6
		19	08 IR 19 BSPT...	8 IL 19 BSPT...	0.6	0.9
11	1/4"	28	11 IR 28 BSPT...	11 IL 28 BSPT...	0.6	0.2
		19	11 IR 19 BSPT...	11 IL 19 BSPT...	0.8	0.5
		14	11 IR 14 BSPT...	11 IL 14 BSPT...	0.9	1.5
16	3/8"	28	16 IR 28 BSPT...	16 IL 28 BSPT...	0.6	0.6
		19	16 IR 19 BSPT...	16 IL 19 BSPT...	0.8	0.9
		14	16 IR 14 BSPT...	16 IL 14 BSPT...	1.0	1.2
		11	16 IR 11 BSPT...	16 IL 11 BSPT...	1.1	1.5



(Ground Profile with Sintered Chip-breaker) S Type External

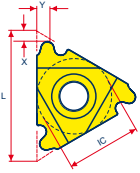
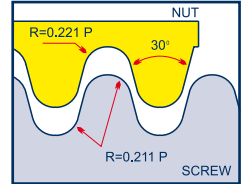
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
16	3/8"	14	16 ER S 14 BSPT...	16 EL S 14 BSPT...	1.2	1.0
		11	16 ER S 11 BSPT...	16 EL S 11 BSPT...	1.5	1.1



(Ground Profile with Sintered Chip-breaker) S Type Internal

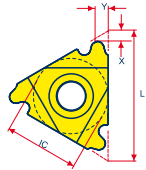
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
16	3/8"	14	16 IR S 14 BSPT...	16 IL S 14 BSPT...	1.2	1.0
		11	16 IR S 11 BSPT...	16 IL S 11 BSPT...	1.5	1.1

Round DIN 405



External

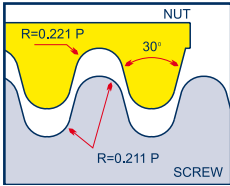
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
16	3/8"	10	16 ER 10 RD...	16 EL 10 RD...	1.1	1.2
		8	16 ER 8 RD...	16 EL 8 RD...	1.4	1.3
		6	16 ER 6 RD...	16 EL 6 RD...	1.5	1.7
22	1/2"	6	22 ER 6 RD...	22 EL 6 RD...	1.5	1.7
		4	22 ER 4 RD...	22 EL 4 RD...	2.2	2.3
27	5/8"	4	27 ER 4 RD...	27 EL 4 RD...	2.2	2.3



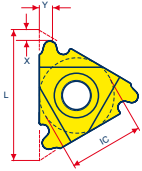
Internal

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
16	3/8"	10	16 IR 10 RD...	16 IL 10 RD...	1.1	1.2
		8	16 IR 8 RD...	16 IL 8 RD...	1.4	1.4
		6	16 IR 6 RD...	16 IL 6 RD...	1.4	1.5
22	1/2"	6	22 IR 6 RD...	22 IL 6 RD...	1.5	1.7
		4	22 IR 4 RD...	22 IL 4 RD...	2.2	1.3
27	5/8"	4	27 IR 4 RD...	27 IL 4 RD...	2.2	1.3

Round DIN 20400

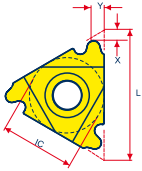


External



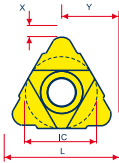
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand		X	Y
22	1/2"	4	22 ER 4 RD 20400...		1.4	1.4
		5	22 ER 5 RD 20400...		1.7	1.8
		6	22 ER 6 RD 20400...		1.7	2.0

Internal



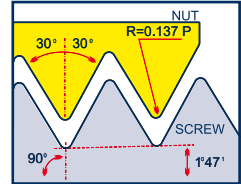
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand		X	Y
22	1/2"	4	22 IR 4 RD 20400...		1.4	1.4
		5	22 IR 5 RD 20400...		1.7	1.8
		6	22 IR 6 RD 20400...		1.7	2.0

U Style

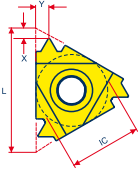


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	External	Internal	X	Y
27U	5/8"U	8	27U ER/L 8 RD 20400...	27U IR/L 8 RD 20400...	1.2	1.0

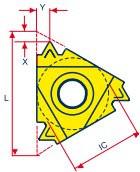
NPT Tapered External



Standard



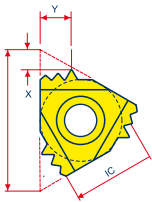
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand		X	Y
11	1/4"	27	11 ER 27 NPT...		0.7	0.8
		18	11 ER 18 NPT...		0.8	1.0
		14	11 ER 14 NPT...		0.8	1.0
16	3/8"	27	16 ER 27 NPT...		0.7	0.8
		18	16 ER 18 NPT...		0.8	1.0
		14	16 ER 14 NPT...		0.9	1.2
		11.5	16 ER 11.5 NPT...		1.1	1.5
		8	16 ER 8 NPT...		1.3	1.8



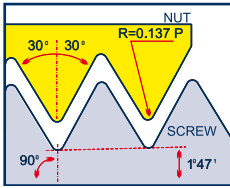
S Type (Ground Profile with Sintered Chip-breaker)

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand		X	Y
16	3/8"	18	16 ER S 18 NPT...		0.8	1.0
		14	16 ER S 14 NPT...		0.9	1.2
		11.5	16 ER S 11.5 NPT...		1.1	1.5
		8	16 ER S 8 NPT...		1.3	1.8

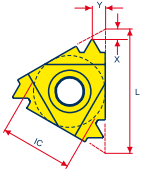
Multitooth



Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm		
11.5	22	1/2"	2	22 ER 11.5 NPT 2M ...	2.3	3.5	4
11.5	27	5/8"	3	27 ER 11.5 NPT 3M ...	3.3	5.5	3
8			2	27 ER 8 NPT 2M ...	3.1	5.0	4

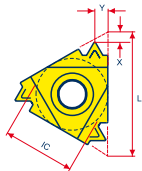


Standard



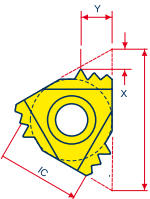
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand	X	Y
6	5/32"	27	06 IR 27 NPT...	0.6	0.6
			08 IR 27 NPT...		
			08 IR 18 NPT...		
11	1/4"	27	11 IR 27 NPT...	0.7	0.8
			11 IR 18 NPT...		
			11 IR 14 NPT...		
16	3/8"	14	16 IR 14 NPT...	0.9	1.2
		11.5	16 IR 11.5 NPT...		
		8	16 IR 8 NPT...		

(Ground Profile with Sintered Chip-breaker) S Type



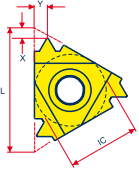
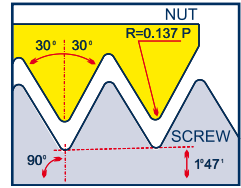
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand	X	Y
16	3/8"	14	16 IR S 14 NPT...	0.9	1.2
		11.5	16 IR S 11.5 NPT...		
		8	16 IR S 8 NPT...		

Multitooth



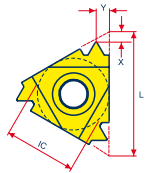
Pitch	L	IC	Number of Teeth	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		Right Hand	mm		
11.5	22	1/2"	2	22 IR 11.5 NPT 2M ...	2.3	3.5	4
11.5	27	5/8"	3	27 IR 11.5 NPT 3M ...	3.3	5.5	3
8			2	27 IR 8 NPT 2M ...	3.1	5.0	4

NPTF (Dryseal) Tapered



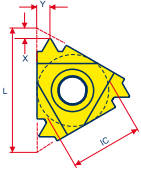
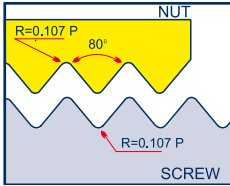
External

Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand	X	Y
11	1/4"	27	11 ER 27 NPTF...	0.7	0.7
		18	11 ER 18 NPTF....	0.8	1.0
		14	11 ER 14 NPTF...	0.8	1.0
16	3/8"	27	16 ER 27 NPTF....	0.7	0.7
		18	16 ER 18 NPTF....	0.8	1.0
		14	16 ER 14 NPTF....	0.9	1.2
		11.5	16 ER 11.5 NPTF....	1.1	1.5
		8	16 ER 8 NPTF....	1.3	1.8



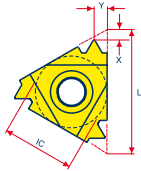
Internal

Insert Size		Pitch	Ordering Code	Dimension (mm)			
L	IC	TPI	Right Hand	X	Y		
6	5/32"	27	06 IR 27 NPTF....	0.7	1.6		
		8	3/16"	27	08 IR 27 NPTF....	0.6	1.6
			18	08 IR 18 NPTF....	0.6	1.6	
11	1/4"	27	11 IR 27 NPTF....	0.7	1.7		
		18	11 IR 18 NPTF....	0.8	1.0		
		14	11 IR 14 NPTF....	0.8	1.0		
16	3/8"	14	16 IR 14 NPTF....	0.9	1.2		
		11.5	16 IR 11.5 NPTF....	1.1	1.5		
		8	16 IR 8 NPTF....	1.3	1.8		



External

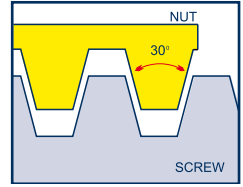
Insert Size		Pitch		Ordering Code	Dimension (mm)	
L	IC	mm		Right Hand	X	Y
16	3/8"	20	Pg 7	16 ER 20 PG...	0.7	0.8
		18	Pg 9/11/13.5/16	16 ER 18 PG...	0.8	0.9
		16	Pg 21/29/36/42/48	16 ER 16 PG...	0.8	1.0



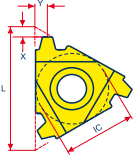
Internal

Insert Size		Pitch		Ordering Code	Dimension (mm)	
L	IC	mm		Right Hand	X	Y
8	3/16"	20	Pg 7	08 IR 20 PG...	0.6	0.7
		18	Pg 9/11/13.5/16	11 IR 18 PG...	0.8	0.9
16	3/8"	16	Pg 21/29/36/42/48	11 IR 16 PG...	0.9	1.1
		18	Pg 9/11/13.5/16	16 IR 18 PG...	0.8	0.9
		16	Pg 21/29/36/42/48	16 IR 16 PG...	0.8	1.0

Trapez DIN 103 External

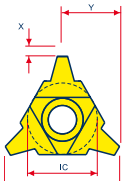


Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
11	1/4"	1.5	11 ER 1.5 TR...	11 EL 1.5 TR...	0.8	0.9
		1.5	16 ER 1.5 TR...	16 EL 1.5 TR...	1.0	1.1
		2.0	16 ER 2.0 TR...	16 EL 2.0 TR...	1.0	1.3
16	3/8"	3.0	16 ER 3.0 TR...	16 EL 3.0 TR...	1.3	1.5
		4.0	22 ER 4.0 TR...	22 EL 4.0 TR...	1.8	1.9
		5.0	22 ER 5.0 TR...	22 EL 5.0 TR...	2.0	2.4
22	1/2"	6.0	22 ER 6.0 TR...	22 EL 6.0 TR...	2.1	2.8
		6.0	27 ER 6.0 TR...	27 EL 6.0 TR...	2.3	2.7

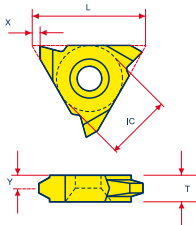
U Style



Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand/Left Hand		X	Y
22U	1/2"U	6.0	22U E R/L	6.0 TR...	2.0	11.0
		7.0	22U E R/L	7.0 TR...	2.3	11.0
		8.0	22U E R/L	8.0 TR...	2.6	11.0
27U	5/8"U	8.0	27U E R/L	8.0 TR...	2.5	13.7
		9.0	27U E R/L	9.0 TR...	3.0	13.7
		10.0*	27U E R/L	10.0 TR...	3.2	13.7

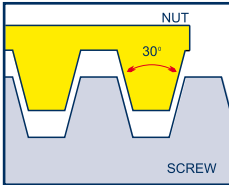
* One cutting edge

V Style

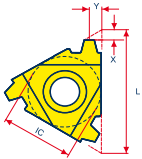


Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	mm	Right Hand	Left Hand	X	Y	T
27V	5/8"V	6.0	27V ER 6.0 TR...	27V EL 6.0 TR...	1.0	3.0	6
		7.0	27V ER 7.0 TR...	27V EL 7.0 TR...	1.0	3.3	6
		8.0	27V ER 8.0 TR...	27V EL 8.0 TR...	1.0	3.3	6
		9.0	27V ER 9.0 TR...	27V EL 9.0 TR...	1.0	4.3	8
		10.0	27V ER 10.0 TR...	27V EL 10.0 TR...	1.0	4.3	8
		12.0	27V ER 12.0 TR...	27V EL 12.0 TR...	1.0	5.2	10

Trapez DIN 103 Internal



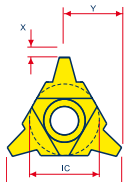
Standard



Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
8	3/16"	1.5*	08 IR 1.5 TR...	08 IL 1.5 TR...	0.6	0.6
11	1/4"	1.5	11 IR 1.5 TR...	11 IL 1.5 TR...	0.8	0.9
16	3/8"	1.5	16 IR 1.5 TR...	16 IL 1.5 TR...	1.0	1.1
		2.0	16 IR 2.0 TR...	16 IL 2.0 TR...	1.0	1.3
		3.0	16 IR 3.0 TR...	16 IL 3.0 TR...	1.3	1.5
22	1/2"	4.0	22 IR 4.0 TR...	22 IL 4.0 TR...	1.8	1.9
		5.0	22 IR 5.0 TR...	22 IL 5.0 TR...	2.0	2.4
		6.0	22 IR 6.0 TR...	22 IL 6.0 TR...	2.1	2.8
27	5/8"	6.0	27 IR 6.0 TR...	27 IL 6.0 TR...	2.3	2.7

* One cutting edge

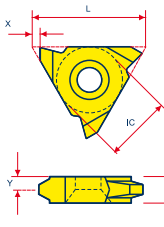
U Style



Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	mm	Right Hand/Left Hand	X	Y
8U	3/16"U	2.0	08U IR/L 2.0 TR...	0.9	4.0
22U	1/2"U	6.0	22U IR/L 6.0 TR...	2.0	11.0
		7.0	22U IR/L 7.0 TR...	2.3	11.0
		8.0	22U IR/L 8.0 TR...	2.6	11.0
27U	5/8"U	8.0	27U IR/L 8.0 TR...	2.5	13.7
		9.0	27U IR/L 9.0 TR...	3.0	13.7
		10.0*	27U IR/L 10.0 TR...	3.2	13.7

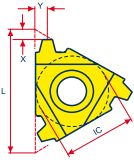
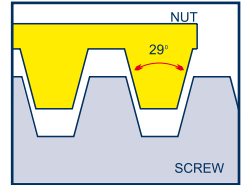
* One cutting edge

V Style



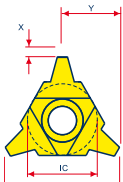
Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	mm	Right Hand	Left Hand	X	Y	T
27V	5/8"V	6.0	27V IR 6.0 TR...	27V IL 6.0 TR...	1.0	3.3	6
		7.0	27V IR 7.0 TR...	27V IL 7.0 TR...	1.0	3.3	6
		8.0	27V IR 8.0 TR...	27V IL 8.0 TR...	1.0	3.3	6
		9.0	27V IR 9.0 TR...	27V IL 9.0 TR...	1.0	4.3	8
		10.0	27V IR 10.0 TR...	27V IL 10.0 TR...	1.0	4.3	8
		12.0	27V IR 12.0 TR...	27V IL 12.0 TR...	1.0	5.2	10

American ACME External



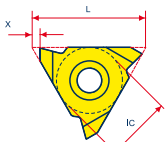
Standard

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	16	11 ER 16 ACME...	11 EL 16 ACME...	0.9	1.0
		14	16 ER 14 ACME...	16 EL 14 ACME...	1.0	1.2
	12	16 ER 12 ACME...	16 EL 12 ACME...	1.1	1.2	
	10	16 ER 10 ACME...	16 EL 10 ACME...	1.3	1.3	
22	1/2"	8	16 ER 8 ACME...	16 EL 8 ACME...	1.5	1.5
		6	22 ER 6 ACME...	22 EL 6 ACME...	1.8	2.1
		5	22 ER 5 ACME...	22 EL 5 ACME...	2.0	2.3
27	5/8"	4	27 ER 4 ACME...	27 EL 4 ACME...	2.3	2.7



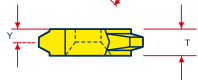
U Style

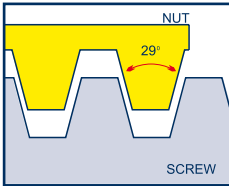
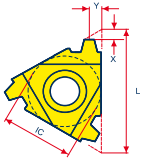
Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand	X	Y
22U	1/2"U	4	22U ER/L 4 ACME...	2.3	11.0
27U	5/8"U	3	27U ER/L 3 ACME...	2.8	13.7



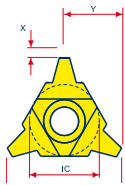
V Style

Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V ER 4 ACME...	27V EL 4 ACME...	1.0	3.3	6
		3	27V ER 3 ACME...	27V EL 3 ACME...	1.0	3.3	6
		2	27V ER 2 ACME...	27V EL 2 ACME...	1.0	5.2	10

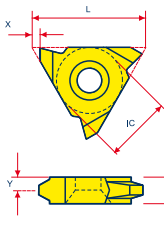



Standard


Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
8	3/16"	16	08 IR 16 ACME...	08 IL 16 ACME...	0.6	0.6
11	1/4"	16	11 IR 16 ACME...	11 IL 16 ACME...	0.9	1.0
16	3/8"	16	16 IR 16 ACME...	16 IL 16 ACME...	0.9	1.0
		14	16 IR 14 ACME...	16 IL 14 ACME...	1.0	1.2
		12	16 IR 12 ACME...	16 IL 12 ACME...	1.1	1.2
		10	16 IR 10 ACME...	16 IL 10 ACME...	1.3	1.3
22	1/2"	8	16 IR 8 ACME...	16 IL 8 ACME...	1.5	1.5
		6	22 IR 6 ACME...	22 IL 6 ACME...	1.8	2.1
		5	22 IR 5 ACME...	22 IL 5 ACME...	2.0	2.3
27	5/8"	4	27 IR 4 ACME...	27 IL 4 ACME...	2.3	2.7

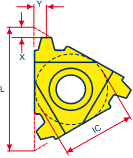
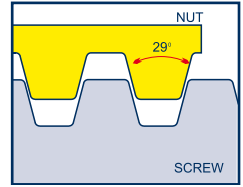

U Style

Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand	X	Y
8U	3/16"U	14	08U IR/L 14 ACME...	0.8	4.0
		12	08U IR/L 12 ACME...	0.8	4.0
		10	08U IR/L 10 ACME...	0.8	4.0
22U	1/2"U	4	22U IR/L 4 ACME...	2.3	11.0
27U	5/8"U	3	27U IR/L 3 ACME...	2.8	13.7


V Style

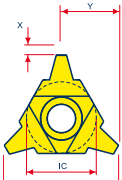
Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V IR 4 ACME...	27V IL 4 ACME...	1.0	3.3	6
		3	27V IR 3 ACME...	27V IL 3 ACME...	1.0	3.3	6
		2	27V IR 2 ACME...	27V IL 2 ACME...	1.0	5.2	10

Stub ACME External



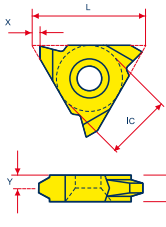
Standard

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	16	11 ER 16 STACME...	11 EL 16 STACME...	1.0	1.0
			16 ER 16 STACME...	16 EL 16 STACME...		
			14 ER 14 STACME...	16 EL 14 STACME...		
			12 ER 12 STACME...	16 EL 12 STACME...		
			10 ER 10 STACME...	16 EL 10 STACME...		
16	3/8"	16	16 ER 12 STACME...	16 EL 12 STACME...	1.2	1.2
			16 ER 8 STACME...	16 EL 8 STACME...		
			16 ER 6 STACME...	16 EL 6 STACME...		
			22 ER 5 STACME...	22 EL 5 STACME...		
			27 ER 4 STACME...	27 EL 4 STACME...		
3	27 ER 3 STACME...	27 EL 3 STACME...	2.8	2.9		
22	1/2"	5	22 ER 5 STACME...	22 EL 5 STACME...	2.0	2.3
27	5/8"	4	27 ER 4 STACME...	27 EL 4 STACME...	2.3	2.4
		3	27 ER 3 STACME...	27 EL 3 STACME...	2.8	2.9



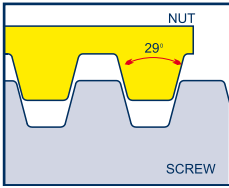
U Style

Insert Size		Pitch	Ordering Code	Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand	X	Y
22U	1/2"U	4	22U ER/L 4 STACME...	2.5	11.0
			22U ER/L 3 STACME...	3.3	11.0

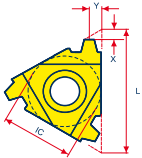


V Style

Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V ER 4 STACME...	27V EL 4 STACME...	1.0	3.3	6
			27V ER 3 STACME...	27V EL 3 STACME...			
			27V ER 2 STACME...	27V EL 2 STACME...			

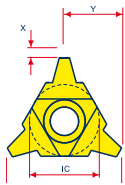


Standard



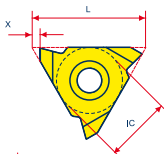
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
8	3/16"	16*	08 IR 16 STACME...	08 IL 16 STACME...	0.6	0.6
11	1/4"	16	11 IR 16 STACME...	11 IL 16 STACME...	1.0	1.0
16	3/8"	16	16 IR 16 STACME...	16 IL 16 STACME...	1.0	1.0
		14	16 IR 14 STACME...	16 IL 14 STACME...	1.1	1.1
		12	16 IR 12 STACME...	16 IL 12 STACME...	1.2	1.2
		10	16 IR 10 STACME...	16 IL 10 STACME...	1.3	1.3
		8	16 IR 8 STACME...	16 IL 8 STACME...	1.5	1.5
22	1/2"	5	22 IR 5 STACME...	22 IL 5 STACME...	2.0	2.3
27	5/8"	4	27 IR 4 STACME...	27 IL 4 STACME...	2.3	2.4
		3	27 IR 3 STACME...	27 IL 3 STACME...	2.9	2.9

* One cutting edge



U Style

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand/Left Hand		X	Y
8U	3/16"U	14	08U I R/L 14 STACME...		0.8	4.0
		12	08U I R/L 12 STACME...		0.9	4.0
		10	08U I R/L 10 STACME...		1.0	4.0
22U	1/2"U	4	22U I R/L 4 STACME...		2.5	11.0
		3	22U I R/L 3 STACME...		3.3	11.0

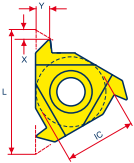
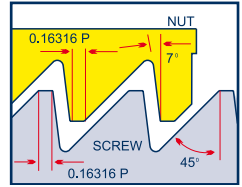


V Style

Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V IR 4 STACME...	27V IL 4 STACME...	1.0	3.3	6
		3	27V IR 3 STACME...	27V IL 3 STACME...	1.0	3.3	6
		2	27V IR 2 STACME...	27V IL 2 STACME...	1.0	4.3	8

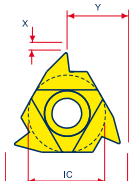


American Buttress External



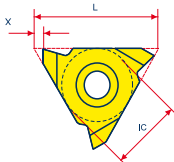
Standard

Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
11	1/4"	20	11 ER 20 ABUT...	11 EL 20 ABUT...	1.0	1.0
		16	11 ER 16 ABUT...	11 EL 16 ABUT...	1.0	1.0
	20	16	16 ER 20 ABUT...	16 EL 20 ABUT...	1.1	1.1
		12	16 ER 12 ABUT...	16 EL 12 ABUT...	1.2	1.2
16	3/8"	16	16 ER 16 ABUT...	16 EL 16 ABUT...	1.2	1.2
		12	16 ER 12 ABUT...	16 EL 12 ABUT...	1.3	1.3
		10	16 ER 10 ABUT...	16 EL 10 ABUT...	1.5	1.5
22	1/2"	8	22 ER 8 ABUT...	22 EL 8 ABUT...	1.8	1.8
		6	22 ER 6 ABUT...	22 EL 6 ABUT...	2.0	2.3



U Style

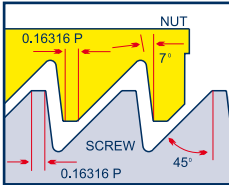
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
22U	1/2"U	4	22U ER 4 ABUT...	22U EL 4 ABUT...	2.3	9.5
27U	5/8"U	3	27U ER 3 ABUT...	27U EL 3 ABUT...	3.1	11.7



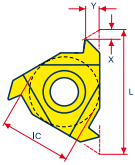
V Style

Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V ER 4 ABUT...	27V EL 4 ABUT...	1.0	3.3	6
		3	27V ER 3 ABUT...	27V EL 3 ABUT...	1.0	3.3	6
		2.5	27V ER 2 ABUT...	27V EL 2 ABUT...	1.0	4.3	8



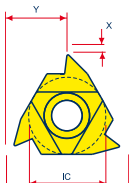


Standard



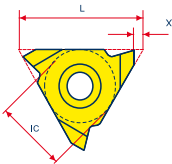
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
8	3/16"	16*	08 IR 16 ABUT...	08 IL 16 ABUT...	0.6	0.6
11	1/4"	16	11 IR 16 ABUT...	11 IL 16 ABUT...	1.0	1.0
16	3/8"	16	16 IR 16 ABUT...	16 IL 16 ABUT...	1.0	1.0
		14	16 IR 14 ABUT...	16 IL 14 ABUT...	1.1	1.1
		12	16 IR 12 ABUT...	16 IL 12 ABUT...	1.2	1.2
		10	16 IR 10 ABUT...	16 IL 10 ABUT...	1.3	1.3
22	1/2"	8	22 IR 8 ABUT...	22 IL 8 ABUT...	1.5	1.5
		6	22 IR 6 ABUT...	22 IL 6 ABUT...	1.8	1.8

U Style



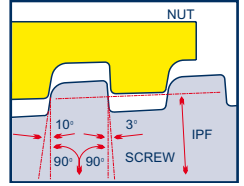
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	TPI	Right Hand	Left Hand	X	Y
22U	1/2"U	4	22U IR 4 ABUT...	22U IL 4 ABUT...	2.3	9.5
27U	5/8"U	3	27U IR 3 ABUT...	27U IL 3 ABUT...	3.1	11.7

V Style

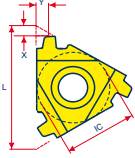


Insert Size		Pitch	Ordering Code		Dimension (mm)		
L	IC	TPI	Right Hand	Left Hand	X	Y	T
27V	5/8"V	4	27V IR 4 ABUT...	27V IL 4 ABUT...	1.0	3.3	6
		3	27V IR 3 ABUT...	27V IL 3 ABUT...	1.0	3.3	6
		2	27V IR 2 ABUT...	27V IL 2 ABUT...	1.0	4.3	8



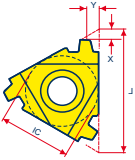


External



Insert Size		Pitch	Taper	Ordering Code		Dimension (mm)	
L	IC	TPI	IPF	Right Hand	Size	X	Y
16	3/8"	8	0.75	16 ER 8 VAM...	2 3/8" - 27/8"	1.7	1.8
22	1/2"	6	0.75	22 ER 6 VAM...	3 1/2"	2.4	2.4
		5	0.75	22 ER 5 VAM...	5" - 9 5/8"	2.4	2.7

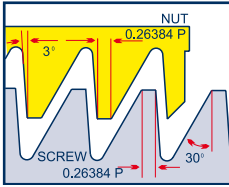
Internal



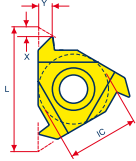
Insert Size		Pitch	Taper	Ordering Code		Dimension (mm)	
L	IC	TPI	IPF	Right Hand	Size	X	Y
16	3/8"	8	0.75	16 IR 8 VAM...	2 3/8" - 27/8"	1.7	1.8
22	1/2"	6	0.75	22 IR 6 VAM...	3 1/2"	2.5	2.5
		5	0.75	22 IR 5 VAM...	5" - 9 5/8"	2.4	2.5

Sägengewinde (DIN 513)

Saw Thread

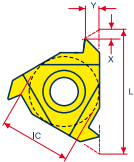


External



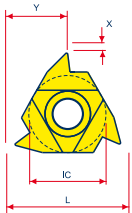
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
16	3/8"	2.0	16 ER 2.0 SAGE...	16 EL 2.0 SAGE...	1.1	1.6
22	1/2"	2.0	22 ER 2.0 SAGE...	22 EL 2.0 SAGE...	1.5	2.1
		3.0	22 ER 3.0 SAGE...	22 EL 3.0 SAGE...	1.5	2.4
		4.0	22 ER 4.0 SAGE...	22 EL 4.0 SAGE...	1.9	3.1

Internal



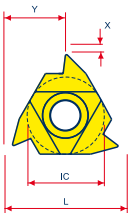
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
16	3/8"	2.0	16 IR 2.0 SAGE...	16 IL 2.0 SAGE...	1.2	1.7
22	1/2"	3.0	22 IR 3.0 SAGE...	22 IL 3.0 SAGE...	1.9	2.9
		4.0	22 IR 4.0 SAGE...	22 IL 4.0 SAGE...	2.3	3.5

U Style External



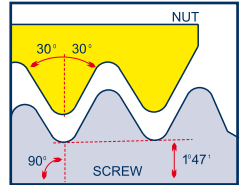
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
22U	1/2"U	5.0	22U ER 5.0 SAGE...		1.2	11.6
		6.0	22U ER 6.0 SAGE...		1.2	11.7

U Style Internal



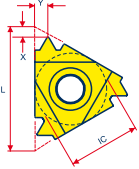
Insert Size		Pitch	Ordering Code		Dimension (mm)	
L	IC	mm	Right Hand	Left Hand	X	Y
22U	1/2"	5.0	22U IR 5.0 SAGE...		1.9	11.7
		6.0	22U IR 6.0 SAGE...		2.1	11.9

OIL THREADS



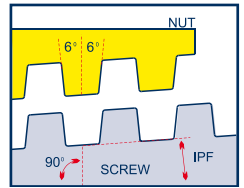
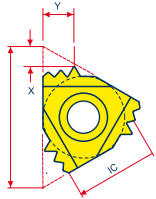
API ROUND

Pitch	L	IC	Taper	Ordering Code	X	Y
TPI	mm	inch	IPF	External	Internal	mm
10	16	3/8"	3	16 ER 10 API RD ...	16 IR 10 API RD ...	1.2 1.4
8	16	3/8"	3	16 ER 8 API RD ...	16 IR 8 API RD ...	1.3 1.5



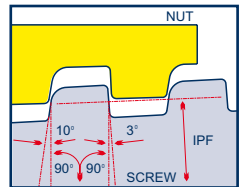
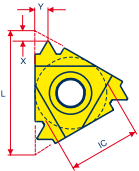
API ROUND MULTITOOTH

Pitch	L	IC	Number	Ordering Code	X	Y	Recom. No. of Passes
TPI	mm	inch		External	Internal	mm	
10	22	1/2"	2	22 ER 10 API RD 2M ...	22 IR 10 API RD 2M ...	2.4 3.7	3
10	27	5/8"	3	27 ER 10 API RD 3M ...	27 IR 10 API RD 3M ...	3.8 6.2	2
8			2	27 ER 8 API RD 2M ...	27 IR 8 API RD 2M ...	3.0 4.5	3



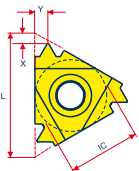
EXTREME - LINE CASING

Pitch	L	IC	Taper	Ordering Code	X	Y	Connection No. or Size
TPI	mm	inch	IPF	External	Internal	mm	
6	22	1/2"	1.50	22 ER 6 EL 1.5 ...	22 IR 6 EL 1.5 ...	1.9 1.9	5 - 7 5/6
5			1.25	22 ER 5 EL 1.25 ...	22 IR 5 EL 1.25 ...	2.4 2.3	8 5/8 - 10 3/4

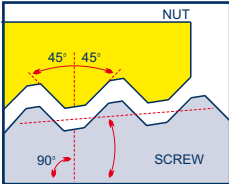


BUTTRESS CASING

Pitch	L	IC	Taper	Ordering Code	X	Y	Connection No. or Size
TPI	mm	inch	IPF	External	Internal	mm	
5	22	1/2"	0.75	22 ER 5 BUT 0.75 ...	22 IR 5 BUT 0.75 ...	2.2 2.4	4 1/2 - 13 3/8
5			1.00	22 ER 5 BUT 1.0 ...	22 IR 5 BUT 1.0 ...	2.3 2.4	16 - 20

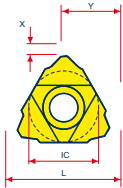


H-90 Hughes Oil Threads



External

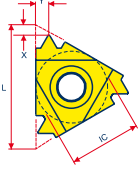
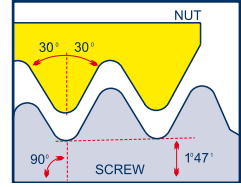
Insert Size		Pitch	Taper	Ordering Code		Dimension (mm)	
L	IC	TPI	IPF	Right Hand	Size	X	Y
22U	1/2"U	3.5	2	22U ER 3.5 H 902 ...	2 1/2" - 6 5/8"	4.2	11
		3.5	3	22U ER 3.5 H 903 ...	7" - 8 5/8"	4.2	11
27U	5/8"U	3	1.25*	22U ER 3 H 90SL ...	2 3/8" - 3 1/2"	5.5	13.7



Internal

Insert Size		Pitch	Taper	Ordering Code		Dimension (mm)	
L	IC	TPI	IPF	Right Hand	Size	X	Y
22U	1/2"U	3.5	2	22U IR 3.5 H 902 ...	2 1/2" - 6 5/8"	4.2	11
		3.5	3	22U IR 3.5 H 903 ...	7" - 8 5/8"	4.2	11
27U	5/8"U	3	1.25*	22U IR 3 H 90SL ...	2 3/8" - 3 1/2"	5.5	13.7

OIL THREADS FOR DRILLPIPE AND BEVELS



API V - 0.040

Pitch	L	IC	Taper	Ordering Code	X	Y	Connection No. or Size
TPI	mm	inch	IPF	External	Internal	mm	
5	22	1/2"	3	22 ER 5 API 403 ...	22 IR 5 API 403 ...	1.8 2.5	2 3/8 - 4 1/2 REG

API V - 0.038R

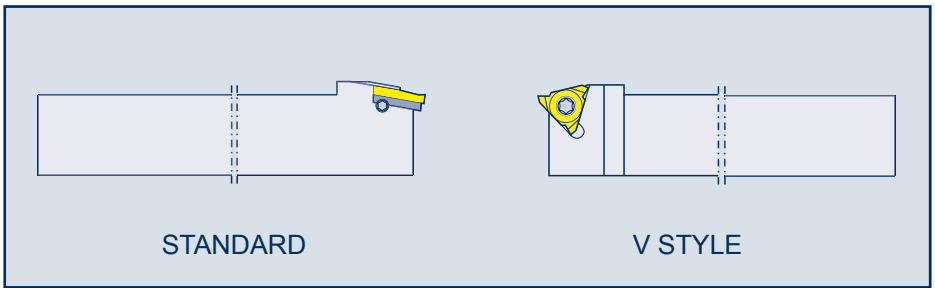
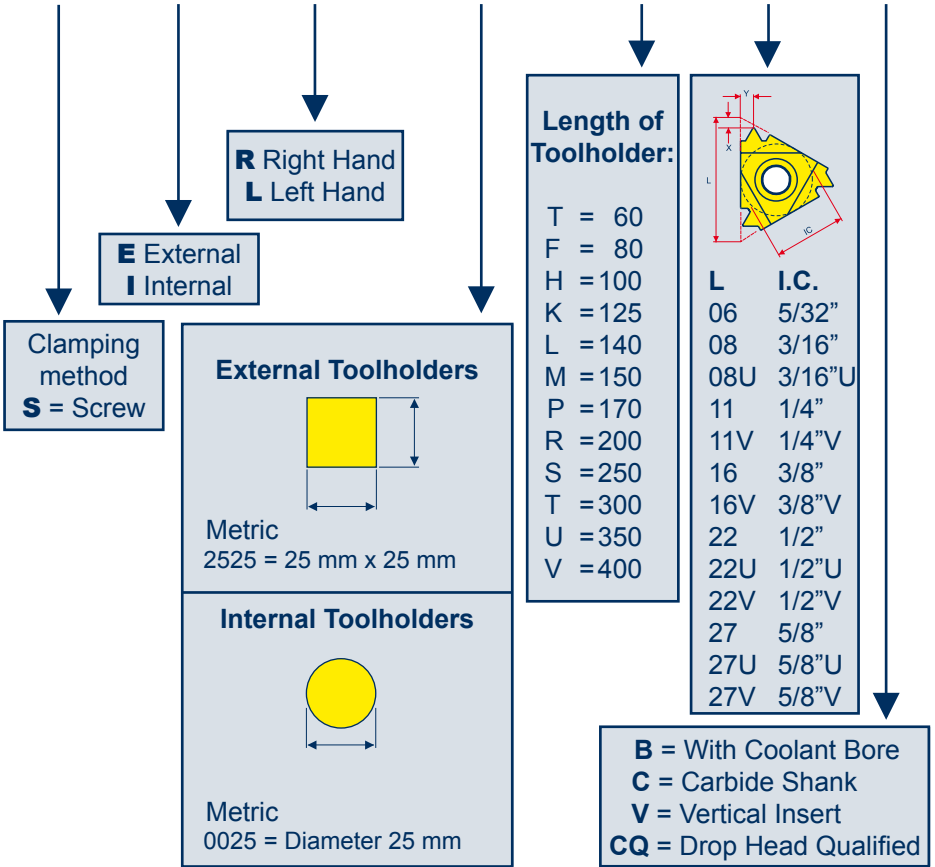
Pitch	L	IC	Taper	Ordering Code	X	Y	Connection No. or Size
TPI	mm	inch	IPF	External	Internal	mm	
4	27	5/8"	2	27 ER 4 API 382 ...	27 IR 4 API 382 ...	2.1 2.8	NC23 - NC50
4			3	27 ER 4 API 383 ...	27 IR 4 API 383 ...	2.1 2.5	NC56 - NC77

API V - 0.050

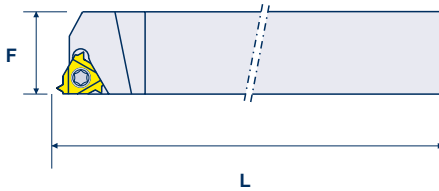
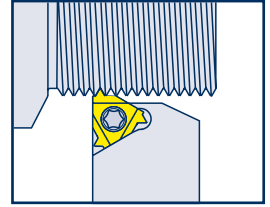
Pitch	L	IC	Taper	Ordering Code	X	Y	Connection No. or Size
TPI	mm	inch	IPF	External	Internal	mm	
4	27	1/2"	2	27 ER 4 API 502 ...	27 IR 4 API 502 ...	2.0 3.0	6 5/8 REG
4			3	27 ER 4 API 503 ...	27 IR 4 API 503 ...	2.0 3.0	5 1/2, 7 5/8, 8 5/8

Toolholders - Ordering Codes


S **E** **R** **2525** **M** **16**



External Toolholders



Metric Toolholders Standard

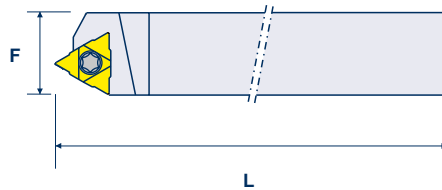
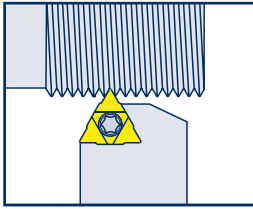
Ordering Code Right Hand	 mm	B=H mm	L mm	F mm
* SER 0808 H11	11	8	100	11
* SER 1010 H11	11	10	100	11
SER 1212 F16	16	12	80	16
SER 1616 H16	16	16	100	16
SER 2020 K16	16	20	125	20
SER 2525 M16	16	25	150	25
SER 3232 P16	16	32	170	32
SER 2525 M22	22	25	150	25
SER 3232 P22	22	32	170	32
SER 4040 R22	22	40	200	40
SER 2525 M27	27	25	150	32
SER 3232 P27	27	32	170	32
SER 4040 R27	27	40	200	40

* Toolholders without anvil


For left hand toolholders specify: SEL (instead of SER...)

All toolholders are made with 1.5° helix angle, for other helix angles, please consult helix angles chart and table in the technical section of this catalogue.

External Toolholders



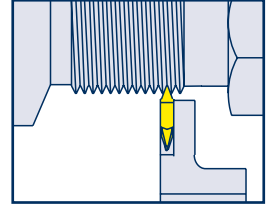
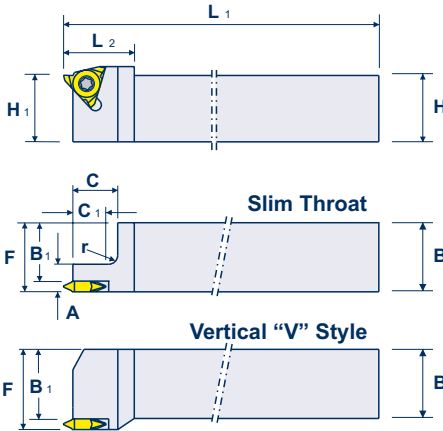
Metric Toolholders U Style

Ordering Code Right Hand	 mm	B=H mm	L mm	F mm
SER 2525 M22U	22U	25	150	28
SER 3232 P22U	22U	32	170	32
SER 4040 R22U	22U	40	200	40
SER 2525 M27U	27U	25	150	32
SER 3232 P27U	27U	32	170	32
SER 4040 R27U	27U	40	200	40


For left hand toolholders specify: SEL (instead of SER...)

All toolholders are made with 1.5° helix angle, for other helix angles, please consult helix angles chart and table in the technical section of this catalogue.

External Toolholders



Metric Toolholders V Style & Slim Throat

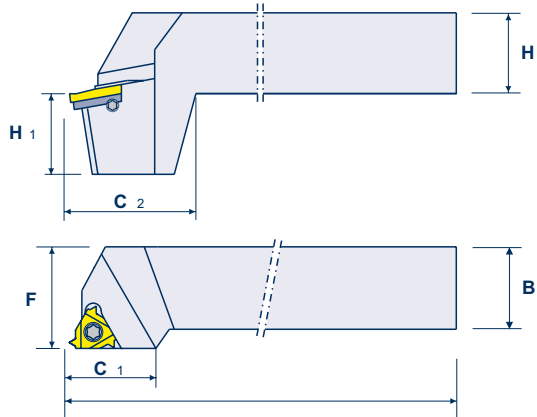
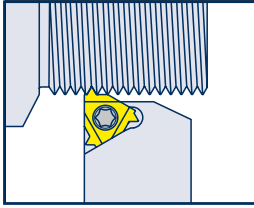
Ordering Code Right Hand	 mm	B=H mm	H1 mm	A mm	B1 mm	C mm	C1 mm	F mm	L1 mm	L2 mm	r mm
SER 1008 T11 V-S	11V	10	8	7	4.83	12.5	11.5	10	60	14	1
SER 1010 T11 V-S	11V	10	10	7	6.83	12.5	11.5	10	70	14	1
SER 1212 F11 V-S	11V	12	12	7	8.83	14.5	11.5	12	80	14	3
SER 1616 H11 V-S	11V	16	16	7	12.83	14.5	11.5	16	100	14	3
SER 1616 H16 V-S	16V	16	16	7	12.4	14.5	11.5	16	100	25	3
SER 2020 K16 V-S	16V	20	20	7	16.4	16.5	13.5	20	125	30	3
SER 2525 M16 V-S	16V	25	25	7	21.4	16.5	11.5	25	150	30	5
SER 3232 P16 V-S	16V	32	32	7	28.4	16.5	11.5	32	170	30	5
SER 4040 R16 V-S	16V	40	40	7	36.4	16.5	11.5	40	200	30	5
SER 2525 M22 V-S	22V	25	25	12	20.2	16.5	11.5	25	150	30	5
SER 3232 P22 V-S	22V	32	32	12	27.2	16.5	11.5	32	170	30	5
SER 4040 R22 V-S	22V	40	40	12	35.2	16.5	11.5	40	200	30	5
* SER 3232 P27 V6	27V	32	32		25.5			32	170	40	
* SER 3232 P27 V8	27V	32	32		25.5			34.1	170	40	
* SER 3232 P27 V10	27V	40	32		25.5			35.8	170	40	
* SER 4040 R27 V6	27V	40	40		33.5			40	200	40	
* SER 4040 R27 V8	27V	40	40		33.5			42.1	200	40	
* SER 4040 R27 V10	27V	40	40		33.5			43.8	200	40	

The toolholders are made with 1.5° helix angle.


* The toolholders are made with 1° helix angle.

For left hand toolholders specify: SEL (instead of SER...)

External Toolholders



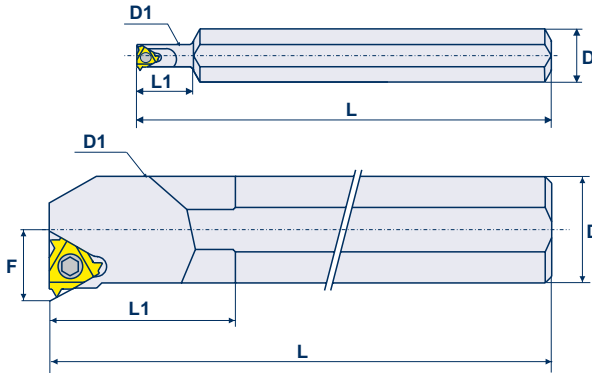
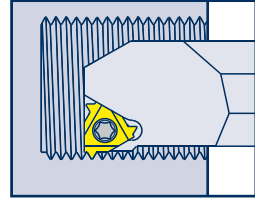
Drophead Qualified

Ordering Code Right Hand	 mm	B = H mm	L mm	F mm	C1 mm	C2 mm	H1 mm
SER 2020 K16 CQ	16	20	125	25	24	38	17.5
SER 2525 M16 CQ	16	25	150	32	24	38	22.2
SER 3232 P16 CQ	16	32	170	40	24	38	22.2
SER 2525 M22 CQ	22	25	150	32	30	38	22.2
SER 3232 P22 CQ	22	32	170	40	30	38	22.2

For left hand toolholders specify: SEL (instead of SER...)

All toolholders are made with 1.5° helix angle, for other helix angles, please consult helix angles chart and table in the technical section of this catalogue.

Internal Toolholders



Metric Toolholders Standard

Ordering Code Right Hand	mm	D mm	D1 mm	L mm	L1 mm	Min. Boring mm	F mm	Spec. Helix Angle
* SIR 0005.H06	6	12	5.1	100	12	6	4.3	
* SIR 0005.H06 CB	6	6	5.1	100	26	6	4.3	
* SIR 0007.K08	8	16	6.6	125	18	7.8	5.3	
* SIR 0007.K08 CB	8	8	6.6	125	31	7.8	5.3	
* SIR 0010.H11	11	10	10	100	-	12	7.4	
* SIR 0010.M11 CB	11	10	10	150	-	12	7.4	
* SIR 0010.K11 (B)	11	16	10	125	25	12	7.4	
* SIR 0010.P11	11	20	10	170	25	12	7.4	
* SIR 0010.P11-2.5	11	20	10	170	25	12	7.4	2.5
* SIR 0012.P11 CB	11	12	12	170	25	15	8.5	
* SIR 0013.L11	11	16	13	140	-	15	8.9	
* SIR 0013.P11	11	20	13	170	32	15	8.9	
* SIR 0013.M16 (B)	16	16	13	150	32	16	10.2	
* SIR 0016.R16 CB	16	16	16	200	32	19	11.7	
* SIR 0016.P16 (B)	16	20	16	170	40	19	11.7	
* SIR 0016.P16-3.5	16	20	16	170	40	19	11.9	3.5
SIR 0020.P16 (B)	16	20	20	170	-	24	13.7	
SIR 0020.S16 CB	16	20	20	250	-	23	13.7	
SIR 0025.R16 (B)	16	25	25	200	-	29	16.2	
SIR 0025.S16 CB	16	25	25	250	-	28	16.2	
SIR 0032.S16 (B)	16	32	32	250	-	36	19.7	
SIR 0040.T16	16	40	40	300	-	44	23.7	
* SIR 0020.P22	22	20	20	170	-	24	15.6	
* SIR 0020.P22-3.5	22	20	20	170	-	24	15.9	3.5
SIR 0025.R22 (B)	22	25	25	200	-	29	18.1	
SIR 0032.S22	22	32	32	250	-	38	21.6	
SIR 0040.T22	22	40	40	300	-	46	25.6	
SIR 0032.S27	27	32	32	250	-	40	22.6	
SIR 0040.T27	27	40	40	300	-	48	26.6	
SIR 0050.U27	27	50	50	350	-	58	31.6	
SIR 0060.V27	27	60	60	400	-	68	36.6	

For left hand toolholders specify:
SIL (instead of SIR...)

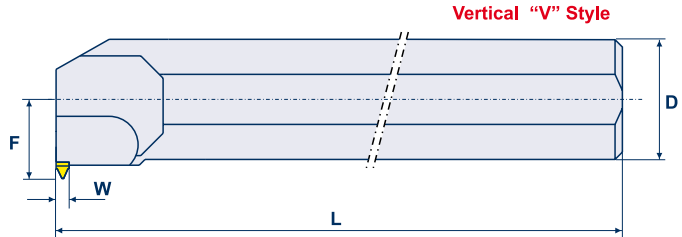
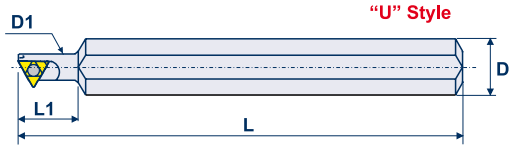
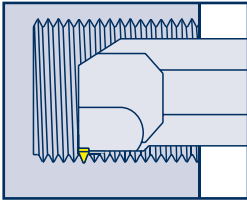
All toolholders are made with 1.5° helix angle, for other helix angles, please consult helix angles chart and table in the technical section of this catalogue.

* Toolholders without anvil.

C = Carbide Toolholders

B = Available with Coolant Bore

Internal Toolholders



U and V Style Toolholders

Ordering Code Right Hand	mm	D mm	D1 mm	L mm	L1 mm	Min. Boring mm	F mm	W mm	Spec. Helix Angle
* SIR 0008.K08U	8U	16	7.3	125	21	9	6.6	-	
* SIR 0008.K08U CB	8U	8	7.3	125	35	9	6.6	-	
* SIR 0025.R22U-3.5	22U	25	25	200	-	32	19.3	-	3.5
SIR 0032.S22U	22U	32	32	250	-	38	24.4	-	
SIR 0040.T22U	22U	40	40	300	-	46	28.1	-	
SIR 0032.S27U	27U	32	32	250	-	40	25.8	-	
SIR 0040.T27U	27U	40	40	300	-	48	29.4	-	
SIR 0050.U27U	27U	50	50	350	-	58	34.3	-	
SIR 0060.V27U	27U	60	60	400	-	68	39.7	-	
* * SIR 0040.T27V	27V	40	-	300	-	80	28.4	6.5	
* * SIR 0050.U27V	27V	50	-	350	-	90	33.4	6.5	
* * SIR 0060.V27V	27V	60	-	400	-	100	38.0	6.5	








For left hand toolholders specify: SIL (instead of SIR...)

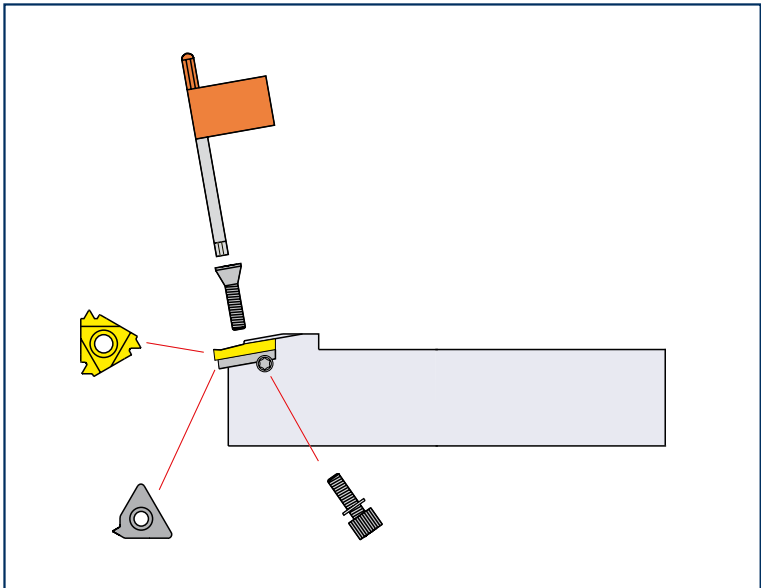
The toolholders are made with 1.5° helix angle.

* Toolholders without anvil

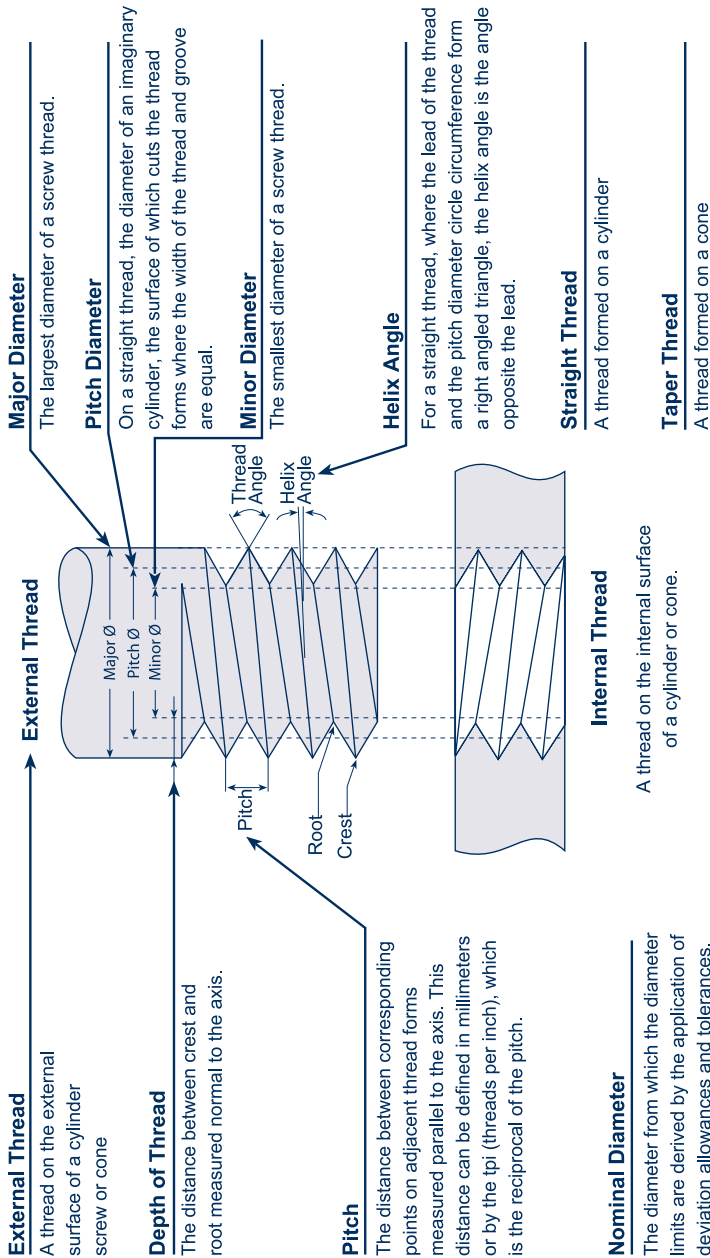
** Toolholders are made with 1° helix angle and from Diameter ≥ 80

Spare Parts - Ordering Codes

Insert size		Insert screw	Clamp	Torx key	Anvil screw	Anvil EX RH IN LH	Anvil EX LH IN RH
							
L	I.C.						
06	5/32"	S06	-	K06	-	-	-
08	3/16"	S08	-	K08	-	-	-
08U	3/16"U	S08	-	K08	-	-	-
11	1/4"	S11	-	K11	-	-	-
11V	1/4"V	S11T	-	K11T	-	-	-
16	3/8"	S16	C16	K16	Y16	YE16	Y116
16V	3/8"V	S16T	-	K16T	-	-	-
22	1/2"	S22	C22	K22	Y22	YE22	Y122
22U	1/2"U	S22	C22	K22	Y22	YE22U	Y122U
22V	1/2"V	S22T	-	K22T	-	-	-
27	5/8"	S27	C27	K27	Y27	YE27	Y127
27U	5/8"U	S27	C27	K27	Y27	YE27U	Y127U
27V	5/8"V	S27T	-	K27T	-	-	-

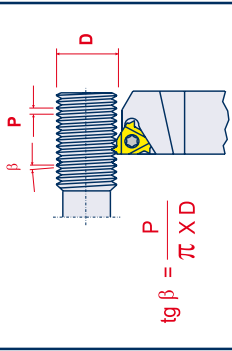


Thread Terminology

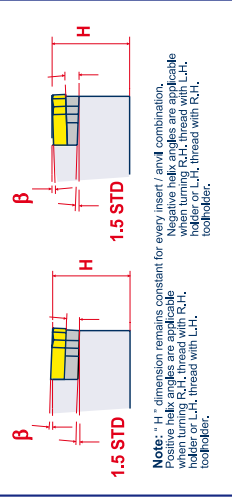


Standard and Slanted Anvils

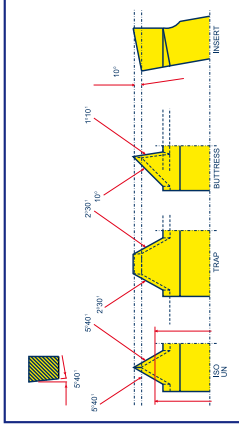
FORMULA



HELIX ANGLE

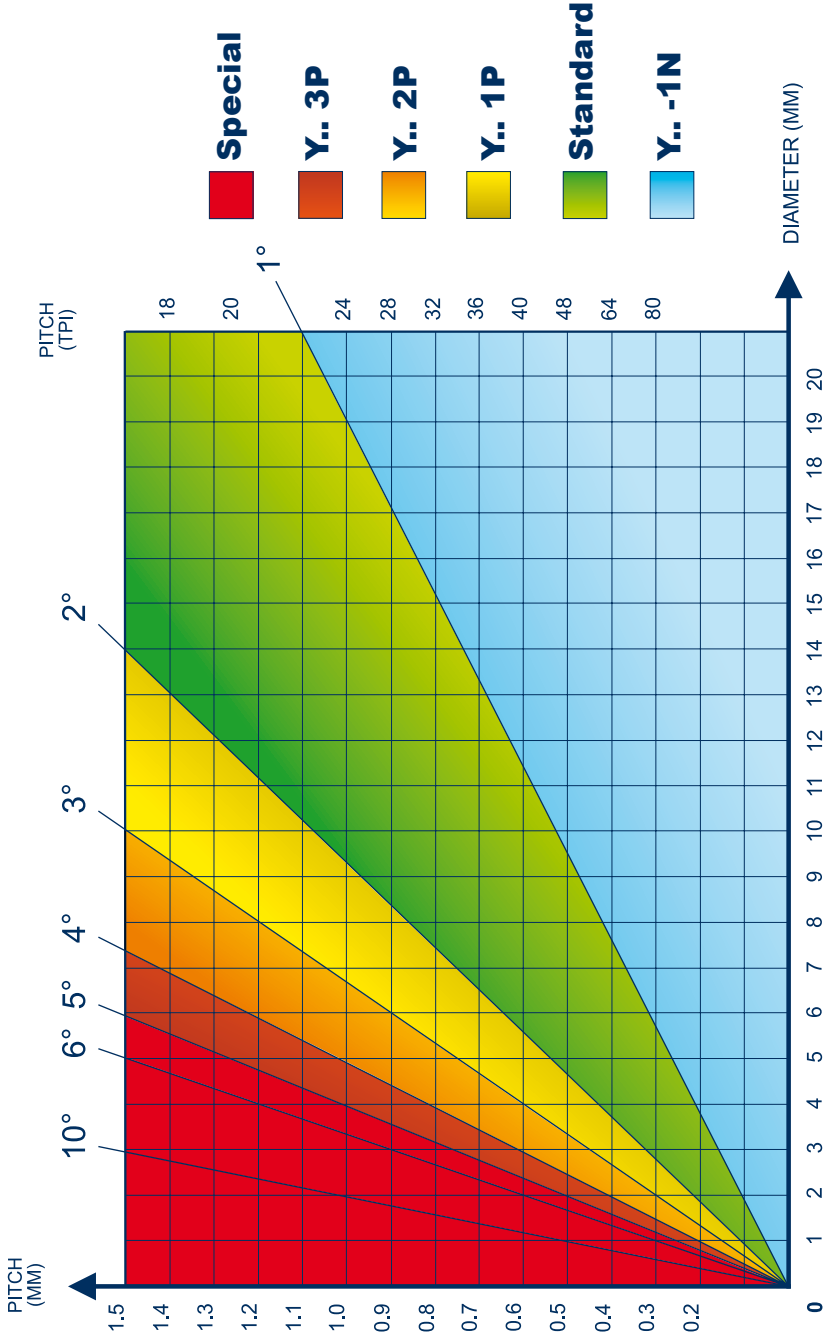


FLANK CLEARANCE ANGLE



L IC	Total Helix Angle	4,5°	4,0°	3,5°	3,0°	2,5°	2,0°	1,5°	1,0°	0,5°	0,0°	-0,5°	-1,0°	-1,5°
16	EX RH/IN LH	YE 16-3P	YE 16-2,5P	YE 16-2P	YE 16-1,5P	YE 16-1P	YE 16-0,5P	YE 16	YE 16-0,5N	YE 16-1N	YE 16-1,5N	YE 16-2N	YE 16-2,5N	YE 16-3N
(3/8)	EX LH/IN RH	YI 16-3P	YI 16-2,5P	YI 16-2P	YI 16-1,5P	YI 16-1P	YI 16-0,5P	YI 16	YI 16-0,5N	YI 16-1N	YI 16-1,5N	YI 16-2N	YI 16-2,5N	YI 16-3N
22	EX RH/IN LH	YE 22-3P		YE 22-2P		YE 22-1P		YE 22		YE 22-1N		YE 22-2N		YE 22-3N
(1/2)	EX LH/IN RH	YI 2-3P		YI 22-2P		YI 22-1P		YI 22		YI 22-1N		YI 22-2N		YI 22-3N
27	EX RH/IN LH	YE 27-3P		YE 27-2P		YE 27-1P		YE 27		YE 27-1N		YE 27-2N		YE 27-3N
(5/8)	EX LH/IN RH	YI 27-3P		YI 27-2P		YI 27-1P		YI 27		YI 27-1N		YI 27-2N		YI 27-3N
22U	EX RH/IN LH	YE 22U-3P		YE 22U-2P		YE 22U-1P		YE 22U		YE 22U-1N		YE 22U-2N		YE 22U-3N
(1/2)	EX LH/IN RH	YI 22U-3P		YI 22U-2P		YI 22U-1P		YI 22U		YI 22U-1N		YI 22U-2N		YI 22U-3N
27U	EX RH/IN LH	YE 27U-3P		YE 27U-2P		YE 27U-1P		YE 27U		YE 27U-1N		YE 27U-2N		YE 27U-3N
(5/8)	EX LH/IN RH	YI 27U-3P		YI 27U-2P		YI 27U-1P		YI 27U		YI 27U-1N		YI 27U-2N		YI 27U-3N

Helix Angle Diagram Smaller Diameter $\varnothing \sim \varnothing 20$



Note: For calculating the helix angle use the effective (flank) diameter.

Carbide grades and cutting speed selection

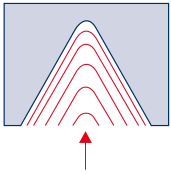
	Micrograin					Cermets	High Speed Steel	
	PC15	P30	PC30	K20	KXC			FXCL
Carbides	Coated							
Materials	Coated							
P	Carbon Steels 160 - 220 Alloy Steels 120 - 160	70 - 130 50 - 90	Coated 90 - 150 70 - 120		Coated 110 - 150	Coated 50 - 240 60 - 130	CX	Coated 10 - 40 10 - 40
M	Cast Steels 130 - 170 Stainless Steels 120 - 180	70 - 110 70 - 110	90 - 150 90 - 120	80 - 100	110 - 170	90 - 180 60 - 150	120 - 200 150 - 200 120 - 180	10 - 40 10 - 40 10 - 40
K	Cast Iron			60 - 100	70 - 110	40 - 160	160 - 220	10 - 40
N	Non Ferrous Metals Aluminium			120 - 200 120 - 200	140 - 250 110 - 250	140 - 290 140 - 290	100 - 150	≥ 10 ≥ 10
S	Super Alloys Titanium					15 - 30 30 - 100		≥ 5 ≥ 5
H	Hard Materials					15 - 30 20 - 50		≥ 5 ≥ 5

Number of cutting passes selection

PITCH	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		3 - 6	4 - 9	5 - 11	6 - 13	7 - 15	8 - 17	10 - 20	11 - 22

Thread	Inserts & Toolholder	Rotation	Feed Direction	Helix Method	Drawing No.
Right Hand External	EX RH EX LH	Anticlockwise Clockwise	Towards chuck From chuck	Regular Reversed	1 2
Right Hand Internal	IN RH IN LH	Anticlockwise Clockwise	Towards chuck From chuck	Regular Reversed	3 4
Left Hand External	EX LH EX RH	Clockwise Anticlockwise	Towards chuck From chuck	Regular Reversed	5 6
Left Hand Internal	IN LH IN RH	Clockwise Anticlockwise	Towards chuck From chuck	Regular Reversed	7 8

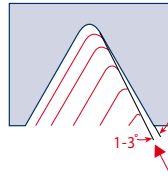
Radial Infeed



Radial infeed is the simplest and quickest method. The feed is perpendicular to the turning axis, and both flanks of the insert perform the cutting operation. Radial infeed is recommended in 3 cases:

- when the pitch is smaller than 16 tpi
- for material with short chips
- for work with hardened material

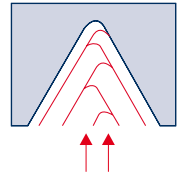
Flank Infeed (modified)



Flank infeed is recommended in the following cases:

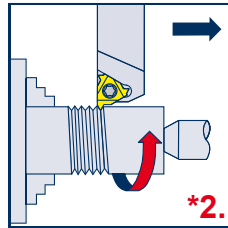
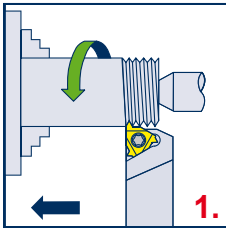
- when the thread pitch is greater than 16 tpi., using the radial method, the effective cutting edge length is too large, resulting in chatter.
- for TRAPEZ and ACME. The radial method result in three cutting edges, making chip flow very difficult.

Alternate Flank Infeed

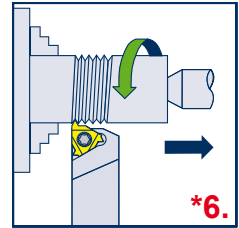
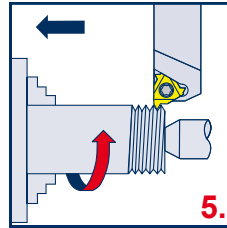


Use of the alternate flank method is recommended especially in large pitches and for materials with long chips. This method divides the load equally on both flanks, resulting in equal wear along the cutting edges. Alternate flank infeed requires more complicated programming, and is not available on all lathes.

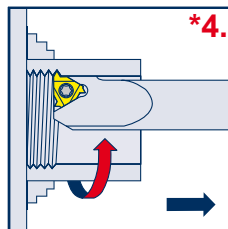
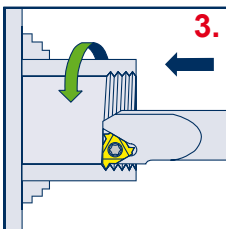
External RH Thread



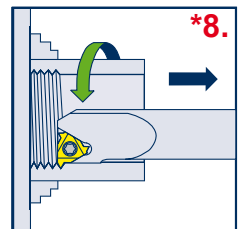
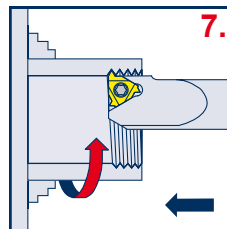
External LH Thread



Internal RH Thread



Internal LH Thread



*Change anvil to negative anvil. 3°N maximum



3115 HE Schiedam - Holland