

POSITHREAD



GENERAL THREADING

POPULAR THREADFORM INSERTS • TOOLHOLDERS • SPARES

TOOLING FOR OIL & GAS • AUTOMOTIVE
AEROSPACE • GENERAL ENGINEERING

P. 3

POSITHREAD

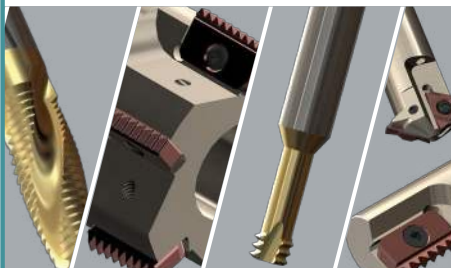


SLIDING HEAD CATALOGUE

TOOLING FOR OIL & GAS • AUTOMOTIVE
AEROSPACE • GENERAL ENGINEERING

P. 27

POSITHREAD



THREADMILLING

TOOLING FOR OIL & GAS • AUTOMOTIVE
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P. 47

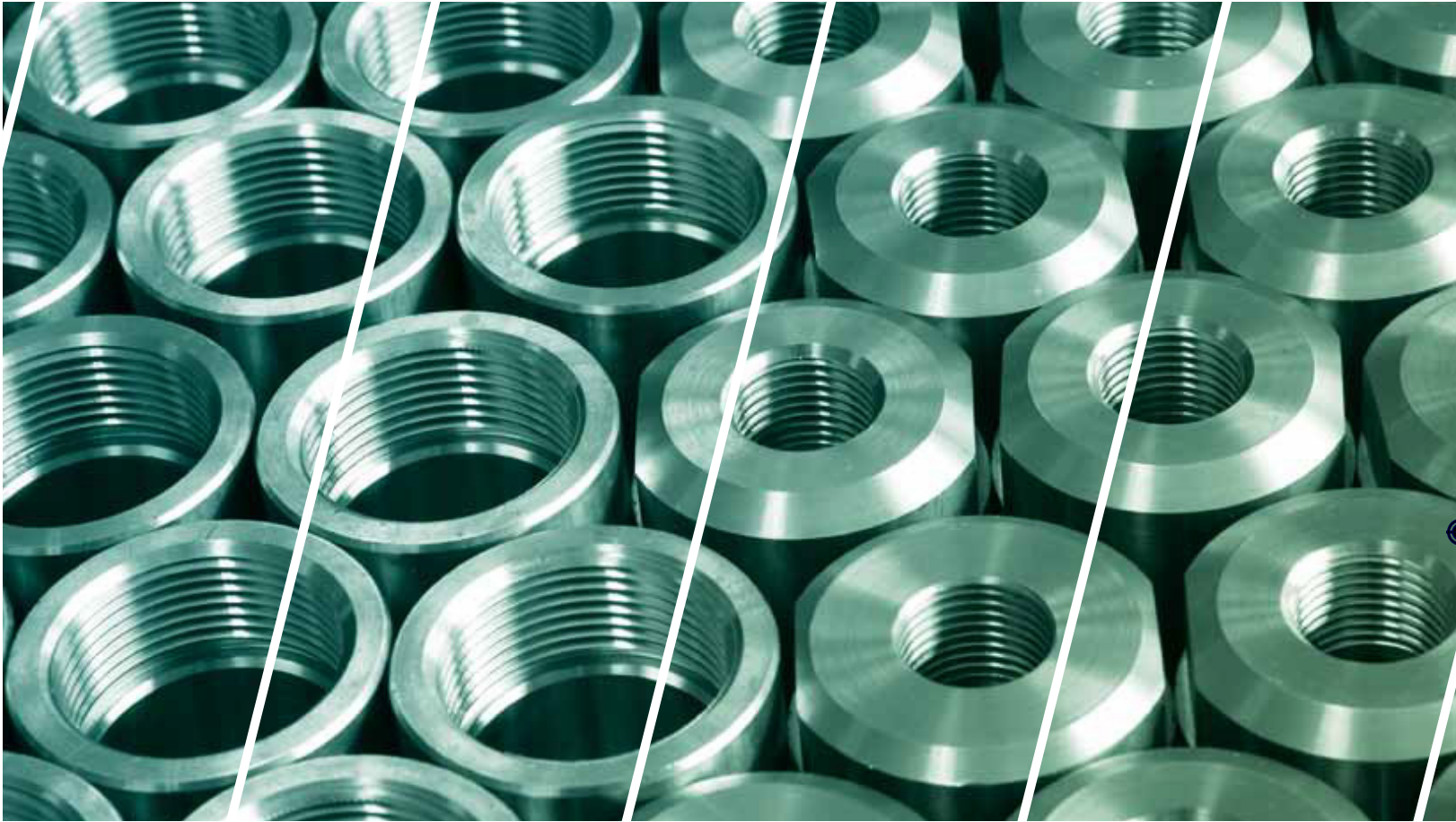
POSITHREAD



OIL & GAS CATALOGUE

TOOLING FOR OIL & GAS • AUTOMOTIVE
AEROSPACE • GENERAL ENGINEERING

P. 71



GENERAL THREADING

POPULAR THREADFORM INSERTS • TOOLHOLDERS • SPARES

TOOLING FOR OIL & GAS • AUTOMOTIVE
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POSIThread

THREADING SPECIALISTS

Posithread was established in 1986 on the North East Coast of England. We have the capacity to mass produce standard and bespoke threading inserts within fine tolerances on very short lead times, whether it be large or small quantities.

Our threading knowledge encompasses over 30 years of application and production experience. This expertise, along side our first class products and Global Sales team, has allowed Posithread to develop a worldwide customer base.

We are the "Specials Specialists" and will be glad to take on the challenge of solving your threading application problems with optimal solutions.



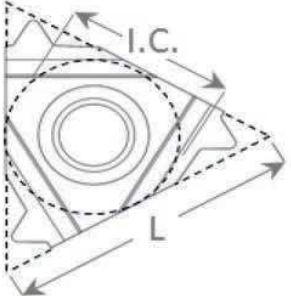
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THREADING CODE IDENTIFICATION

1 Insert Size			2 Insert Type			3 Insert Handing		
06	L = 6.0mm	I.C. $\frac{5}{32}$ "	E	=	External	R	=	Right Hand
08	L = 8.0mm	I.C. $\frac{3}{16}$ "	N	=	Internal	L	=	Left Hand
11	L = 11.0mm	I.C. $\frac{1}{4}$ "				U	=	Neutral
16	L = 16.0mm	I.C. $\frac{3}{8}$ "						
22	L = 22.0mm	I.C. $\frac{1}{2}$ "						
27	L = 27.0mm	I.C. $\frac{5}{8}$ "						





U

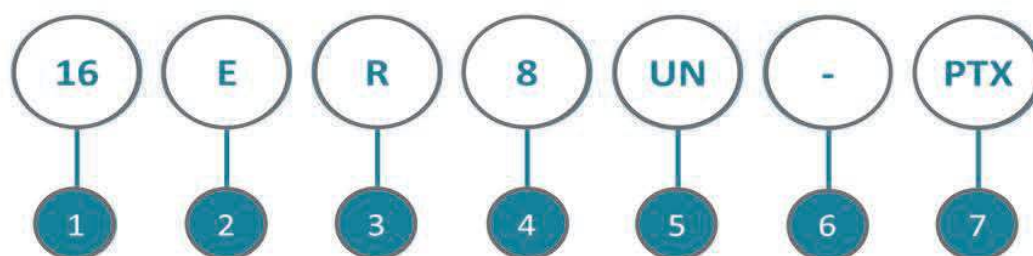


ER - NL



EL - NR

4 Pitch - TPI		
Pitch in mm or TPI Thread per Inch		
Partial Profile Pitch / TPI Range		
	mm	TPI
A	0.5 - 1.25	48 - 20
AG	0.5 - 3.0	48 - 8
MR	1.0 - 2.5	24 - 11
G	1.75 - 3.0	14 - 8
N	3.5 - 5.0	7 - 5
S	5.5 - 8.0	4 $\frac{1}{2}$ - 3 $\frac{1}{2}$



5 Standard		6 Additional Information	
55	55° Partial Profile	Multitooth	= 2M 3M
60	60° Partial Profile	API Thread Form / Taper I.D.	
W	Whitworth	386	V0.038R 2TPF
ISO	ISO Metric	504	V0.050 3TPF
UN	American Unified	558	V0.055 1 $\frac{1}{2}$ TPF
NPT	National Pipe Thread		
BSPT	British Standard Pipe Thread		
RD	Round		
TR	Trapezoidal		
ACME	ACME General Purpose		
STACME	Stub ACME		
API	American Petroleum Institute		
H90	Hughes H90		
SL H90	Slimline H90		
ELC	Extreme Line Casing		
PAC	PAC and AOH		

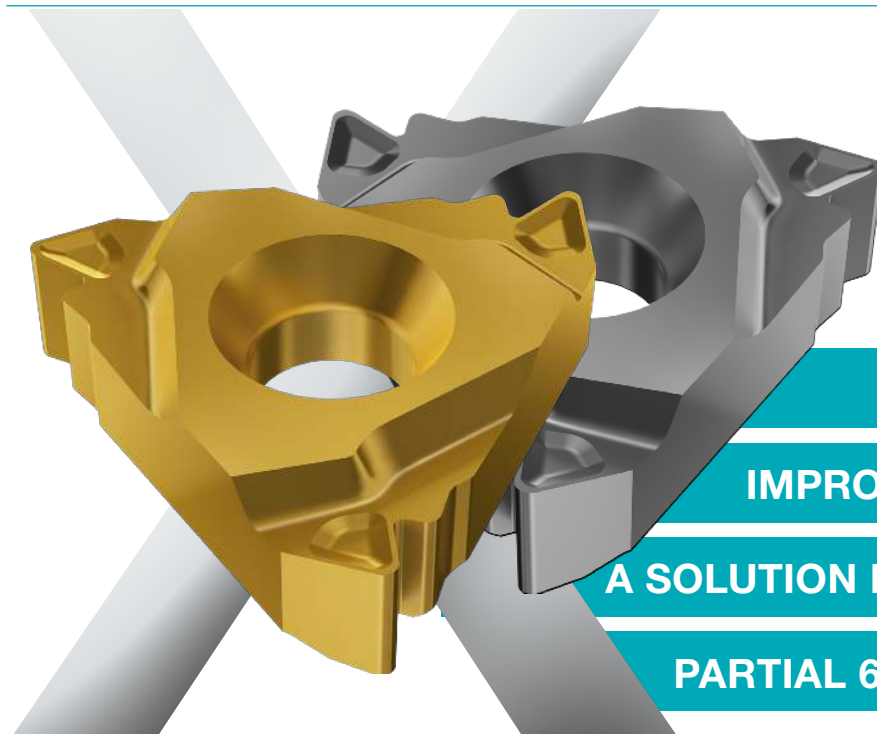
7 Grade	
DBC	Available from stock
PTX	Available from stock
PTC2	Available from stock

Crossovers	
Other Manufacturers	Posithread
2IR 1.5ISO	11NR 1.5ISO
3ER 10UN	16ER 10UN
4IR 6ACME	22NR 6ACME
5ER 4W	27ER 4W

POSIThread SINTERED

X^{SERIES}

NEW



COST EFFECTIVE

IMPROVED CHIP CONTROL

A SOLUTION FOR ALL MATERIALS

PARTIAL 60°|ISO|UN|WHIT|NPT

BENEFITS

Economical solution for all industries.

Designed for effective chip flow.

The range offers the most popular profiles for external (IC3/8") and internal (IC1/4", IC3/8") inserts.

X Series inserts are compatible with Standard Thread Turning holders.

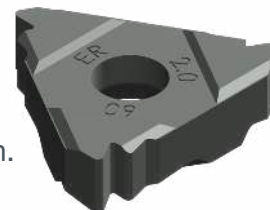


DESIGNATION

X Series insert designation is marked as "PS".

For example: PS 16ER 1.5 ISO PTX

Insert profile is pressed into the bottom of the insert for instant recognition.



GRADES

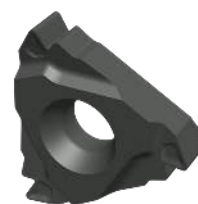
Available in two coating grades:

PTX

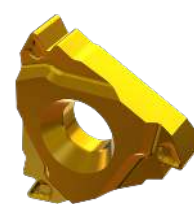
AlTiN coated, for stainless steel and general use.

PTC2

TiN coated, recommended for steel and general use.

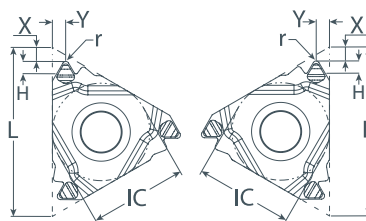


PTX



PTC2

POSIThread SINTERED



ER

IR

X

SERIES

NEW

PARTIAL PROFILE 60°

	I.C	'L'	PITCH		ORDERING CODE	r	'X'	'Y'
			mm	TPI				
External	3/8"	16	1.75-3.0	14-8	PS 16ER G60	0.27	1.25	1.70
			0.50-3.0	48-8	PS 16ER AG60	0.08	1.20	1.70
Internal	1/4"	11	0.50-1.5	48-16	PS 11IR A60	0.05	0.76	0.90
			1.75-3.0	14-8	PS 16IR G60	10.16	1.14	1.50
	3/8"	16	0.50-3.0	48-8	PS 16IR AG60	0.05	1.14	1.60

ISO Metric | Defined by: R262 (DIN 13) | Tolerance class: 6g/6H

	I.C	'L'	PITCH		ORDERING CODE	H	'X'	'Y'
			mm	TPI				
External	3/8"	16	1.0		PS 16ER 1.0ISO	0.61	1.5	0.7
			1.25		PS 16ER 1.25ISO	0.77	1.4	0.8
			1.5		PS 16ER 1.5ISO	0.92	1.25	0.9
			2.0		PS 16ER 2.0ISO	1.23	1.35	1.3
			2.5		PS 16ER 2.5ISO	1.53	1.55	1.5
Internal	1/4"	11	3.0		PS 16ER 3.0ISO	1.84	1.55	1.6
			1.0		PS 11IR 1.0ISO	0.58	1.04	0.6
			1.5		PS 11IR 1.5ISO	0.87	0.94	0.8
	3/8"	16	1.0		PS 16IR 1.0ISO	0.58	1.42	0.65
			1.5		PS 16IR 1.5ISO	0.87	1.15	0.9
			2.0		PS 16IR 2.0ISO	1.15	1.27	1.3
			3.0		PS 16IR 3.0ISO	1.73	1.22	1.45

American UN | Defined by: ANSI B1.1:74 | Tolerance class: 2A/2B

	I.C	'L'	PITCH		ORDERING CODE	H	'X'	'Y'
			TPI					
External	3/8"	16	20		PS 16ER 20UN	0.78	1.35	0.8
			16		PS 16ER 16UN	0.97	1.15	1.05
			12		PS 16ER 12UN	1.3	1.25	1.4
Internal	3/8"	16	12		PS 16IR 12UN	1.22	1.43	1.4

Whitworth for BSW, BSP | Defined by: B.S.84:1956, DIN 259, ISO228/1:1982 | Tolerance class: Medium class A

	I.C	'L'	PITCH		ORDERING CODE	H	'X'	'Y'
			TPI					
External	3/8"	16	14		PS 16ER 14W	1.16	1	1.2
			11		PS 16ER 11W	1.48	1.35	1.5
Internal	3/8"	16	14		PS 16IR 14W	1.16	1.24	1.2
			11		PS 16IR 11W	1.48	1.33	1.4

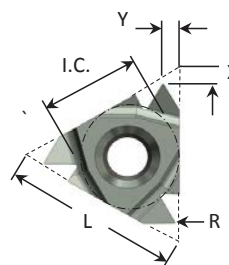
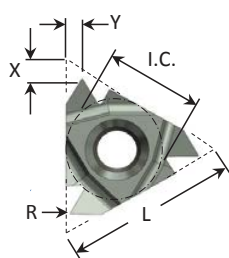
NPT | Defined by: USAS B2.1:1968 | Tolerance class: Standard NPT

	I.C	'L'	PITCH		ORDERING CODE	H	'X'	'Y'
			TPI					
External	3/8"	16	14		PS 16ER 14NPT	1.33	0.94	1.2
			11.5		PS 16ER 11.5NPT	1.64	1.12	1.5
Internal	3/8"	16	14		PS 16IR 14NPT	1.33	1.14	1.2
			11.5		PS 16IR 11.5NPT	1.64	1.22	1.4

Left Hand Insert designation: EL or NL: 16EL 28UN / 16NL 28UN

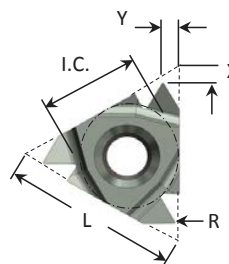
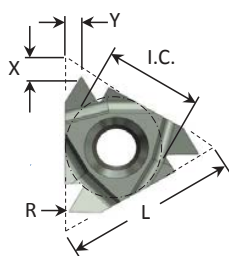
PARTIAL PROFILE THREAD FORMING

PARTIAL PROFILE - 60 ° INC.



L mm	I.C. Inch	Pitch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
08	3/16"	0.5 - 1.5	48 - 16	-	-	08NR A60	0.04	0.6	0.7
11	1/4"	0.5 - 1.5	48 - 16	-	-	11NR A60	0.04	0.7	0.8
16	3/8"	0.5 - 1.5	48 - 16	16ER A60	0.07	16NR A60	0.04	0.7	0.8
		0.5 - 3.0	48 - 8	16ER AG60	0.07	16NR AG60	0.04	1.3	1.5
		1.0 - 2.5	24 - 11	16ER MR60	0.14	16NR MR60	0.07	1.3	1.5
		1.75 - 3.0	14 - 8	16ER G60	0.25	16NR G60	0.13	1.3	1.5
		0.5 - 1.5	48 - 16	16ER A60 TD	0.07	16NR A60 TD	0.04	0.7	0.8
		0.5 - 3.0	48 - 8	16ER AG60 TD	0.07	16NR AG60 TD	0.04	1.3	1.5
		1.75 - 3.0	14 - 8	16ER G60 TD	0.25	16NR G60 TD	0.13	1.3	1.5
22	1/2"	3.5 - 5.0	7 - 5	22ER N60	0.51	22NR N60	0.25	1.8	2.5
		5.5 - 6.0	4 1/2 - 3 1/4	22EU 60	0.39	22NU 60	0.39	0.8	11.0
27	5/8"	5.5 - 8.0	4 1/2 - 3	27ER S60	0.39	27NR S60	0.39	2.5	4.0
		6.5 - 9.0	4 - 2 3/4	27EU 60	0.47	27NU 60	0.47	1	13.5

PARTIAL PROFILE - 55 ° INC.

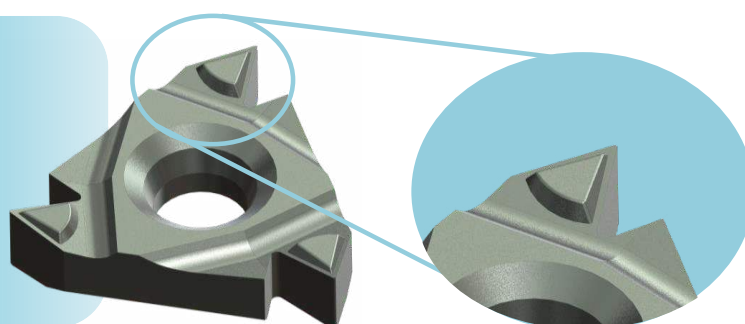


L mm	I.C. Inch	Pitch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
08	3/16"	0.5 - 1.5	48 - 16	-	-	08NR A55	0.07	0.6	0.7
11	1/4"	0.5 - 1.5	48 - 16	-	-	11NR A55	0.07	0.7	0.8
16	3/8"	0.5 - 1.5	48 - 16	16ER A55	0.07	16NR A55	0.07	0.7	0.8
		0.5 - 1.5	48 - 8	16ER AG55	0.07	16NR AG55	0.07	1.3	1.5
		1.0 - 2.5	24 - 11	16ER MR55	0.14	16NR MR55	0.14	1.3	1.5
		1.75 - 3.0	14 - 8	16ER G55	0.25	16NR G55	0.25	1.3	1.5
		0.5 - 1.5	48 - 16	16ER A55 TD	0.07	16NR A55 TD	0.07	0.7	0.8
		0.5 - 3.0	48 - 8	16ER AG55 TD	0.07	16NR AG55 TD	0.07	1.3	1.5
		1.75 - 3.0	14 - 8	16ER G55 TD	0.25	16NR G55 TD	0.25	1.3	1.5
22	1/2"	3.5 - 5.0	7 - 5	22ER N60	0.51	22NR N60	0.51	1.8	2.5
		5.5 - 6.0	4 1/2 - 3 1/4	22EU 60	0.39	22NU 60	0.39	0.8	11.0
27	5/8"	5.5 - 8.0	4 1/2 - 3	27ER S60	0.39	27NR S60	0.39	2.5	4.0
		6.5 - 9.0	4 - 2 3/4	27EU 60	0.47	27NU 60	0.47	1	13.5

TD CHIPBREAKER

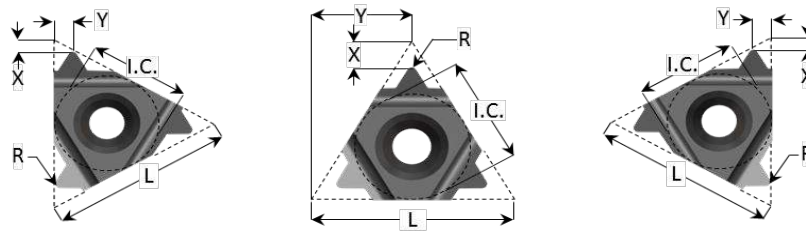
The TD geometry will break swarf into small chips if the correct surface speed, threading cycle and infeed are applied. This will change depending on the material specifications.

The TD is also available on some Full Form Inserts.



MECHANICAL THREAD FORMS

ISO DIN13 - 60° INC.

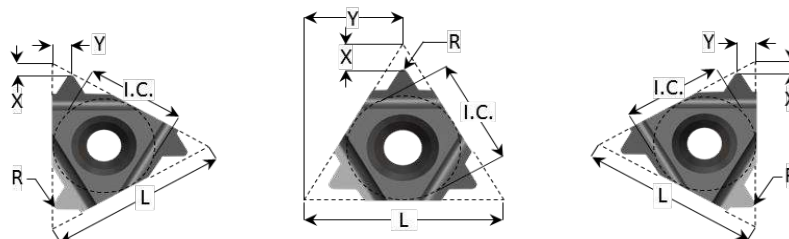


L mm	I.C. Inch	Pitch	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	0.25	-	-	06NR 0.25ISO	0.018	0.5	0.5
		0.35	-	-	06NR 0.35ISO	0.025	0.5	0.5
		0.5	-	-	06NR 0.5ISO	0.036	0.5	0.5
		0.75	-	-	06NR 0.75ISO	0.054	0.5	0.5
		1.0	-	-	06NR 1.0ISO	0.072	0.6	0.6
		1.25	-	-	06NR 1.25ISO	0.090	0.6	0.7
08	3/16"	0.5	-	-	08NR 0.5ISO	0.036	0.5	0.5
		0.75	-	-	08NR 0.75ISO	0.054	0.5	0.5
		1.0	-	-	08NR 1.0ISO	0.072	0.6	0.6
		1.25	-	-	08NR 1.25ISO	0.090	0.6	0.7
		1.5	-	-	08NR 1.5ISO	0.108	0.7	0.8
11	1/4"	0.25	-	-	11NR 0.25ISO	0.018	0.5	0.4
		0.35	-	-	11NR 0.35ISO	0.025	0.5	0.4
		0.5	-	-	11NR 0.5ISO	0.036	0.7	0.5
		0.6	-	-	11NR 0.6ISO	0.043	0.7	0.5
		0.7	-	-	11NR 0.7ISO	0.051	0.7	0.5
		0.75	-	-	11NR 0.75ISO	0.054	0.7	0.5
		0.8	-	-	11NR 0.8ISO	0.058	0.7	0.5
		1.0	-	-	11NR 1.0ISO	0.072	0.7	0.8
		1.25	-	-	11NR 1.25ISO	0.090	0.7	0.8
		1.5	-	-	11NR 1.5ISO	0.108	0.7	0.9
		1.75	-	-	11NR 1.75ISO	0.126	0.7	0.9
		2.0	-	-	11NR 2.0ISO	0.144	0.7	1.0
16	3/8"	0.25	16ER 0.25ISO	0.036	16NR 0.25ISO	0.018	0.5	0.4
		0.35	16ER 0.35ISO	0.051	16NR 0.35ISO	0.025	0.5	0.4
		0.5	16ER 0.5ISO	0.072	16NR 0.5ISO	0.036	0.7	0.5
		0.6	16ER 0.6ISO	0.087	16NR 0.6ISO	0.043	0.7	0.5
		0.7	16ER 0.7ISO	0.101	16NR 0.7ISO	0.051	0.7	0.5
		0.75	16ER 0.75ISO	0.108	16NR 0.75ISO	0.054	0.7	0.5
		0.8	16ER 0.8ISO	0.115	16NR 0.8ISO	0.058	0.7	0.5
		1.0	16ER 1.0ISO	0.144	16NR 1.0ISO	0.072	0.8	0.8
		1.25	16ER 1.25ISO	0.180	16NR 1.25ISO	0.090	0.7	0.8
		1.5	16ER 1.5ISO	0.217	16NR 1.5ISO	0.108	0.8	0.8
		1.75	16ER 1.75ISO	0.253	16NR 1.75ISO	0.126	1.3	1.5
		2.0	16ER 2.0ISO	0.289	16NR 2.0ISO	0.144	1.3	1.5
		2.5	16ER 2.5ISO	0.361	16NR 2.5ISO	0.180	1.3	1.5
		3.0	16ER 3.0ISO	0.433	16NR 3.0ISO	0.217	1.3	1.5
		3.5	16ER 3.5ISO	0.505	16NR 3.5ISO	0.253	1.3	1.5
22	1/2"	3.5	22ER 3.5ISO	0.505	22NR 3.5ISO	0.253	1.8	2.5
		4.0	22ER 4.0ISO	0.577	22NR 4.0ISO	0.289	1.8	2.5
		4.5	22ER 4.5ISO	0.650	22NR 4.5ISO	0.325	1.8	2.5
		5.0	22ER 5.0ISO	0.722	22NR 5.0ISO	0.361	1.8	2.5
		5.5	22ER 5.5ISO	0.794	22NR 5.5ISO	0.397	1.8	2.5
		6.0	22ER 6.0ISO	0.866	22NR 6.0ISO	0.433	1.8	2.5
		5.5	22EU 5.5ISO	0.794	22NU 5.5ISO	0.397	1.5	11
		6.0	22EU 6.0ISO	0.866	22NU 6.0ISO	0.433	1.9	2.5
		8.0	22EU 8.0ISO	1.155	22NU 8.0ISO	0.577	2.5	11
27	5/8"	4.5	27ER 4.5ISO	0.650	27NR 4.5ISO	0.325	2.1	3.2
		5.0	27ER 5.0ISO	0.722	27NR 5.0ISO	0.361	2.1	3.2
		5.5	27ER 5.5ISO	0.794	27NR 5.5ISO	0.397	2.1	3.2
		6.0	27ER 6.0ISO	0.866	27NR 6.0ISO	0.433	2.1	3.2
		8.0	27ER 8.0ISO	1.155	27NR 8.0ISO	0.577	2.2	3.2

Left Hand Insert designation: **EL** or **NL**: **16EL 1.0ISO / 16NL 1.0ISO**

MECHANICAL THREAD FORMS

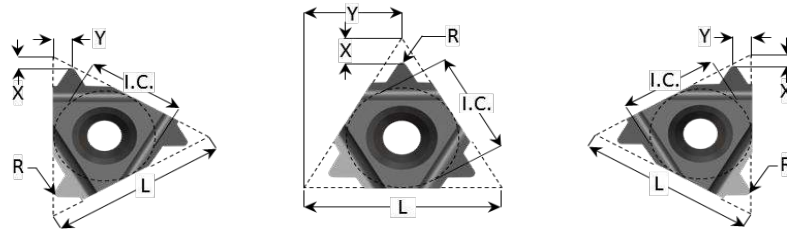
UNIFIED ASME/ANSI B1.1 - 60° INC.



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	40	-	-	06NR 40UN	0.046	0.5	0.5
		36	-	-	06NR 36UN	0.051	0.5	0.5
		32	-	-	06NR 32UN	0.057	0.5	0.5
		28	-	-	06NR 28UN	0.065	0.5	0.5
		24	-	-	06NR 24UN	0.076	0.6	0.6
		20	-	-	06NR 20UN	0.092	0.6	0.7
08	3/16"	40	-	-	08NR 40UN	0.046	0.5	0.5
		36	-	-	08NR 36UN	0.051	0.5	0.5
		32	-	-	08NR 32UN	0.057	0.5	0.5
		28	-	-	08NR 28UN	0.065	0.5	0.5
		24	-	-	08NR 24UN	0.076	0.6	0.6
		20	-	-	08NR 20UN	0.092	0.6	0.7
		18	-	-	08NR 18UN	0.102	0.7	0.8
11	1/4"	72	-	-	11NR 72UN	0.025	0.5	0.4
		60	-	-	11NR 60UN	0.031	0.5	0.4
		56	-	-	11NR 56UN	0.033	0.7	0.5
		36	-	-	11NR 36UN	0.051	0.7	0.5
		28	-	-	11NR 28UN	0.065	0.7	0.5
		24	-	-	11NR 24UN	0.076	0.7	0.5
		20	-	-	11NR 20UN	0.092	0.7	0.5
		18	-	-	11NR 18UN	0.102	0.7	0.8
		16	-	-	11NR 16UN	0.115	0.7	0.8
		14	-	-	11NR 14UN	0.131	0.7	0.9
		12	-	-	11NR 12UN	0.153	0.7	0.9
		11	-	-	11NR 11UN	0.167	0.7	1.0
16	3/8"	72	16ER 72UN	0.051	16NR 72UN	0.025	0.5	0.4
		64	16ER 64UN	0.057	16NR 64UN	0.029	0.5	0.4
		56	16ER 56UN	0.065	16NR 56UN	0.033	0.7	0.5
		44	16ER 44UN	0.083	16NR 44UN	0.042	0.7	0.5
		40	16ER 40UN	0.092	16NR 40UN	0.046	0.7	0.5
		36	16ER 36UN	0.102	16NR 36UN	0.051	0.7	0.5
		32	16ER 32UN	0.115	16NR 32UN	0.057	0.7	0.5
		28	16ER 28UN	0.131	16NR 28UN	0.065	0.8	0.8
		27	16ER 27UN	0.136	16NR 27UN	0.068	0.7	0.8
		24	16ER 24UN	0.153	16NR 24UN	0.076	0.8	0.8
		20	16ER 20UN	0.183	16NR 20UN	0.092	1.3	1.5
		18	16ER 18UN	0.204	16NR 18UN	0.102	1.3	1.5
		16	16ER 16UN	0.229	16NR 16UN	0.115	1.3	1.5
		14	16ER 14UN	0.262	16NR 14UN	0.131	1.3	1.5
		13	16ER 13UN	0.282	16NR 13UN	0.141	1.3	1.5
		12	16ER 12UN	0.306	16NR 12UN	0.153	1.3	1.5
		11	16ER 11UN	0.333	16NR 11UN	0.167	1.3	1.5
		10	16ER 10UN	0.367	16NR 10UN	0.183	1.3	1.5
		9	16ER 9UN	0.407	16NR 9UN	0.204	1.3	1.5
		8	16ER 8UN	0.458	16NR 8UN	0.229	1.3	1.5
		7	16ER 7UN	0.524	16NR 7UN	0.262	1.3	1.5
22	1/2"	7	22ER 7UN	0.524	22NR 7UN	0.262	1.8	2.5
		6	22ER 6UN	0.611	22NR 6UN	0.306	1.8	2.5
		5	22ER 5UN	0.733	22NR 5UN	0.367	1.8	2.5
		4.5	22EU 4.5UN	0.815	22NU 4.5UN	0.407	1.9	2.5
		4	22EU 4UN	0.917	22NU 4UN	0.458	2.5	11
27	5/8"	4.5	27ER 4.5UN	0.815	27NR 4.5UN	0.407	2.1	3.2
		4	27ER 4UN	0.917	27NR 4UN	0.458	2.1	3.2

MECHANICAL THREAD FORMS

WHITWORTH DIN 2999/BS84 - 55° INC.

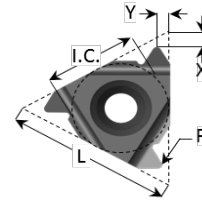
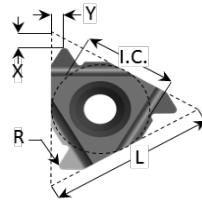


L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	40	-	-	06NR 40W	0.087	0.5	0.5
		36	-	-	06NR 36W	0.097	0.5	0.5
		32	-	-	06NR 32W	0.109	0.5	0.5
		28	-	-	06NR 28W	0.125	0.5	0.5
		24	-	-	06NR 24W	0.145	0.6	0.6
		20	-	-	06NR 20W	0.174	0.6	0.7
08	3/16"	28	-	-	08NR 28W	0.125	0.5	0.5
		26	-	-	08NR 26W	0.134	0.5	0.5
		20	-	-	08NR 20W	0.174	0.6	0.6
		19	-	-	08NR 19W	0.184	0.6	0.7
		16	-	-	08NR 16W	0.218	0.7	0.8
11	1/4"	72	-	-	11NR 72W	0.048	0.7	0.5
		60	-	-	11NR 60W	0.058	0.7	0.5
		56	-	-	11NR 56W	0.062	0.7	0.5
		48	-	-	11NR 48W	0.073	0.7	0.5
		40	-	-	11NR 40W	0.087	0.7	0.5
		36	-	-	11NR 36W	0.097	0.7	0.5
		32	-	-	11NR 32W	0.109	0.7	0.5
		28	-	-	11NR 28W	0.125	0.7	0.8
		26	-	-	11NR 26W	0.134	0.7	0.8
		24	-	-	11NR 24W	0.145	0.7	0.8
		22	-	-	11NR 22W	0.159	0.7	0.8
		20	-	-	11NR 20W	0.174	0.7	0.8
		19	-	-	11NR 19W	0.184	0.7	0.8
		14	-	-	11NR 14W	0.249	0.7	0.8
16	3/8"	72	16ER 72W	0.048	16NR 72W	0.048	0.7	0.5
		60	16ER 60W	0.058	16NR 60W	0.058	0.7	0.5
		56	16ER 56W	0.062	16NR 56W	0.062	0.7	0.5
		48	16ER 48W	0.073	16NR 48W	0.073	0.7	0.5
		40	16ER 40W	0.087	16NR 40W	0.087	0.7	0.5
		36	16ER 36W	0.097	16NR 36W	0.097	0.8	0.5
		32	16ER 32W	0.109	16NR 32W	0.109	0.8	0.5
		28	16ER 28W	0.125	16NR 28W	0.125	0.8	0.8
		26	16ER 26W	0.134	16NR 26W	0.134	0.7	0.8
		22	16ER 22W	0.159	16NR 22W	0.159	0.8	0.8
		20	16ER 20W	0.174	16NR 20W	0.174	0.7	0.8
		19	16ER 19W	0.184	16NR 19W	0.184	0.8	0.8
		14	16ER 14W	0.249	16NR 14W	0.249	1.3	1.5
		12	16ER 12W	0.291	16NR 12W	0.291	1.3	1.5
		11	16ER 11W	0.317	16NR 11W	0.317	1.3	1.5
		10	16ER 10W	0.349	16NR 10W	0.349	1.3	1.5
		9	16ER 9W	0.388	16NR 9W	0.388	1.3	1.5
		8	16ER 8W	0.436	16NR 8W	0.436	1.3	1.5
		7	16ER 7W	0.498	16NR 7W	0.498	1.3	1.5
22	1/2"	8	22ER 8W	0.436	22NR 8W	0.436	1.8	2.5
		7	22ER 7W	0.498	22NR 7W	0.498	1.8	2.5
		6	22ER 6W	0.581	22NR 6W	0.581	1.8	2.5
		5	22ER 5W	0.698	22NR 5W	0.698	1.8	2.5
		4 1/2	22EU 4.5W	0.775	22NU 4.5W	0.775	2.0	11
		4	22EU 4W	0.872	22NU 4W	0.872	2.9	11
27	5/8"	4 1/2	27ER 4.5W	0.775	27NR 4.5W	0.775	2.1	3.2
		4	27ER 4W	0.872	27NR 4W	0.872	2.1	3.2
		3 1/2	27EU 3.5W	0.997	27NU 3.5W	0.997	2.2	13.5
		3 1/4	27ER 3.25W SE	1.073	27NR 3.25W SE	1.073	2.2	13.5
		3	27ER 3W SE	1.163	27NR 3W SE	1.163	2.2	13.5

Left Hand Insert designation: **EL** or **NL**: 16EL 12W / 16NL 12W

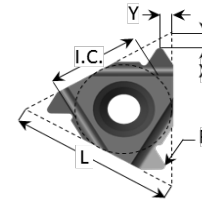
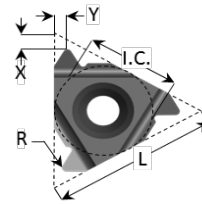
AEROSPACE THREAD FORMS

UNJ BS A 346:2000 - 60° INC.



L mm	I.C. Inch	TPI	Description External	R Ext. Max	X mm	Y mm	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	28	16ER 28UNJ	0.164	0.9	0.7	16NR 28UNJ	0.065	0.8	0.5
		24	16ER 24UNJ	0.191	0.9	0.7	16NR 24UNJ	0.076	0.9	0.6
		20	16ER 20UNJ	0.229	1.1	0.8	16NR 20UNJ	0.092	1	0.7
		18	16ER 18UNJ	0.254	1.1	0.8	16NR 18UNJ	0.102	1.2	0.8
		16	16ER 16UNJ	0.286	1.1	0.8	16NR 16UNJ	0.115	1.3	0.8
		14	16ER 14UNJ	0.327	1.3	0.8	16NR 14UNJ	0.131	1.2	1
		12	16ER 12UNJ	0.382	1.5	0.8	16NR 12UNJ	0.153	1.3	1.2
		10	16ER 10UNJ	0.458	1.8	0.8	16NR 10UNJ	0.183	1.2	1.2
22	1/2"	8	22ER 8UNJ	0.572	2.0	1.5	22NR 8UNJ	0.229	2.4	1.4

ISO-MJ BS6293-1 - 60° INC.

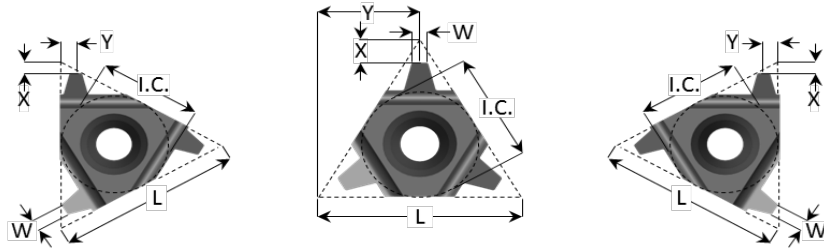


L mm	I.C. Inch	Pitch	Description External	R Ext. Max	X mm	Y mm	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	0.5	16ER 0.5ISO MJ	0.090	0.7	0.5	16NR 0.5ISO MJ	0.036	0.5	0.4
		0.7	16ER 0.7ISO MJ	0.126	0.7	0.5	16NR 0.7ISO MJ	0.051	0.6	0.4
		0.8	16ER 0.8ISO MJ	0.144	0.7	0.5	16NR 0.8ISO MJ	0.058	0.7	0.4
		1.0	16ER 1.0ISO MJ	0.180	0.7	0.5	16NR 1.0ISO MJ	0.072	0.8	0.5
		1.5	16ER 1.5ISO MJ	0.270	1.0	0.8	16NR 1.5ISO MJ	0.108	1.2	0.7
		1.75	16ER 1.75ISO MJ	0.316	1.2	0.9	16NR 1.75ISO MJ	0.126	1.4	0.8
		2.0	16ER 2.0ISO MJ	0.361	1.3	1.0	16NR 2.0ISO MJ	0.144	1.5	0.9
		2.5	16ER 2.5ISO MJ	0.451	1.6	1.3	16NR 2.5ISO MJ	0.180	1.9	1.1
		3.0	16ER 3.0ISO MJ	0.541	2.0	1.5	16NR 3.0ISO MJ	0.217	2.0	1.3

Left Hand Insert designation: EL or NL: 16EL 16UNJ / 16NL 16UNJ

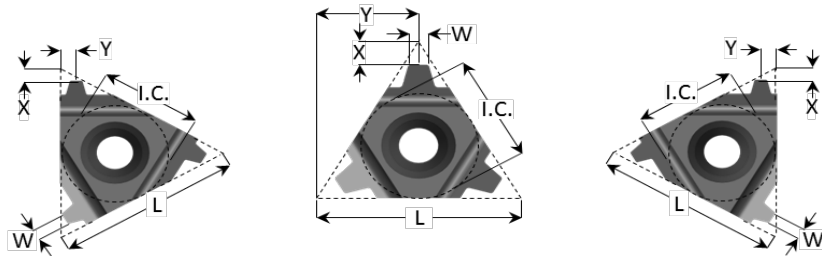
TRANSMISSION THREAD FORMS

ACME ASME/ANSI B1.5 - 29° INC.



L mm	I.C. Inch	TPI	Description External	W Ext. +/-0.015	Description Internal	W Int. +/-0.015	X mm	Y mm
11	1/4"	16	-	-	11NR 16ACME	0.523	0.8	0.5
16	3/8"	16	16ER 16ACME	0.523	16NR 16ACME	0.523	0.9	0.6
		14	16ER 14ACME	0.607	16NR 14ACME	0.607	1.0	0.7
		12	16ER 12ACME	0.719	16NR 12ACME	0.719	1.2	0.8
		10	16ER 10ACME	0.810	16NR 10ACME	0.810	1.3	0.8
		8	16ER 8ACME	1.045	16NR 8ACME	1.045	1.2	1
		6	16ER 6ACME SE	1.438	16NR 6ACME SE	1.438	1.3	1.2
22	1/2"	6	22ER 6ACME	1.438	22NR 6ACME	1.438	1.2	1
		5	22ER 5ACME	1.752	22NR 5ACME	1.752	1.3	1.2
		4	22ER 4ACME SE	2.222	22NR 4ACME SE	2.222	1.2	1.2
27	5/8"	4	27ER 4ACME	2.222	27NR 4ACME	2.222	2.4	1.4

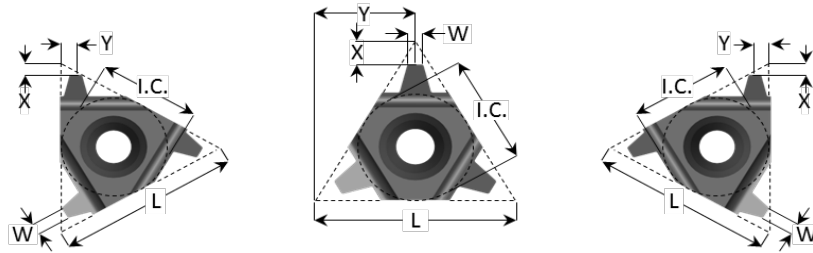
STUB ACME ASME/ANSI B1.8 - 29° INC.



L mm	I.C. Inch	TPI	Description External	W Ext. +/-0.015	Description Internal	W Int. +/-0.015	X mm	Y mm
11	1/4"	16	-	-	11NR 16STACME	0.605	0.8	0.8
16	3/8"	16	16ER 16STACME	0.605	16NR 16STACME	0.605	0.8	0.8
		14	16ER 14STACME	0.701	16NR 14STACME	0.701	0.8	0.8
		12	16ER 12STACME	0.762	16NR 12STACME	0.762	0.8	1.6
		10	16ER 10STACME	0.941	16NR 10STACME	0.941	1.3	1.6
		8	16ER 8STACME	1.210	16NR 8STACME	1.210	1.4	1.6
		6	16ER 6STACME	1.657	16NR 6STACME	1.657	1.6	1.6
22	1/2"	6	22ER 6STACME	1.657	22NR 6STACME	1.657	2.2	2.6
		5	22ER 5STACME	2.014	22NR 5STACME	2.014	2.2	2.6
		4	22ER 4STACME	2.551	22NR 4STACME	2.551	1.9	2.1
27	5/8"	4	27ER 4STACME	2.551	27NR 4STACME	2.551	2.9	3.3

TRANSMISSION THREAD FORMS

TRAPEZOIDAL *DIN 103 B55346 - 30 ° INC.*



L mm	I.C. Inch	Pitch	Description External	W Ext. +/-0.015	Description Internal	W Int. +/-0.015	X mm	Y mm
11	1/4"	1.5	-	-	11NR 1.5TR	0.469	0.7	0.8
		2.0	-	-	11NR 2.0TR	0.598	0.7	0.8
		2.5	-	-	11NR 2.5TR	0.781	0.9	1.0
16	3/8"	1.5	16ER 1.5TR	0.469	16NR 1.5TR	0.469	0.7	0.8
		2.0	16ER 2.0TR	0.598	16NR 2.0TR	0.598	0.7	0.8
		2.5	16ER 2.5TR	0.781	16NR 2.5TR	0.781	1.3	1.5
		3.0	16ER 3.0TR	0.964	16NR 3.0TR	0.964	1.3	1.5
22	1/2"	4.0	22ER 4.0TR	1.330	22NR 4.0TR	1.330	2.0	2.5
		5.0	22ER 5.0TR	1.696	22NR 5.0TR	1.696	2.1	2.5
		6.0	22EU 6.0TR	1.928	22NU 6.0TR	1.928	2.0	11.0
		7.0	22EU 7.0TR	2.294	22NU 7.0TR	2.294	2.3	11.0
27	5/8"	6.0	27ER 6.0TR	1.928	27NR 6.0TR	1.928	2.5	3.2
		7.0	27ER 7.0TR	2.294	27NR 7.0TR	2.294	2.7	3.2
		8.0	27EU 8.0TR	2.660	27NU 8.0TR	2.660	2.6	13.5
		9.0	27EU 9.0TR	3.026	27NU 9.0TR	3.026	3.0	13.5

MISCELLANEOUS THREAD FORMS

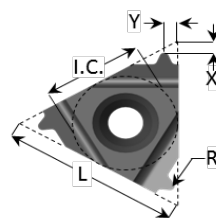
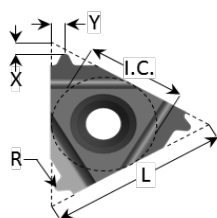
STAHLPANZERROHR GEWINDE *DIN 40430 - 80 ° INC.*



L mm	I.C. Inch	Pg Designation	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
08	3/16"	Pg 7	20	-	-	08NR 20TPI PG	0.136	0.7	0.8
11	1/4"	Pg 9	18	-	-	11NR 18TPI PG	0.151	0.7	0.8
16	3/8"	Pg 7	20	16ER 20TPI PG	0.136	16NR 20TPI PG	0.136	0.7	0.8
		Pg 9	18	16ER 18TPI PG	0.151	16NR 18TPI PG	0.151	0.7	0.8
		Pg 11		16ER 18TPI PG	0.151	16NR 18TPI PG	0.151	0.7	0.8
		Pg 13.5		16ER 18TPI PG	0.151	16NR 18TPI PG	0.151	0.7	0.8
		Pg 16		16ER 18TPI PG	0.151	16NR 18TPI PG	0.151	0.7	0.8
		Pg 21	16	16ER 16TPI PG	0.170	16NR 16TPI PG	0.170	0.8	1.0
		Pg 29		16ER 16TPI PG	0.170	16NR 16TPI PG	0.170	0.8	1.0
		Pg 36		16ER 16TPI PG	0.170	16NR 16TPI PG	0.170	0.8	1.0
		Pg 42		16ER 16TPI PG	0.170	16NR 16TPI PG	0.170	0.8	1.0
		Pg 48		16ER 16TPI PG	0.170	16NR 16TPI PG	0.170	0.8	1.0

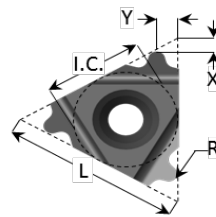
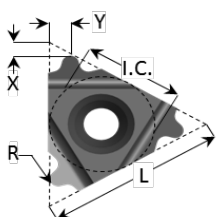
MISCELLANEOUS THREAD FORMS

BRITISH ASSOCIATION BS93 - 47.5° INC.



L mm	I.C. Inch	Pitch	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
11	1/4"	0.430	-	-	11NR 8BA	0.078	0.4	0.4
		0.660	-	-	11NR 4BA	0.119	0.7	0.5
16	3/8"	0.430	16ER 8BA	0.078	16NR 8BA	0.078	0.4	0.4
		0.530	16ER 6BA	0.096	16NR 6BA	0.096	0.4	0.4
		0.660	16ER 4BA	0.119	16NR 4BA	0.119	0.7	0.5
		0.810	16ER 2BA	0.146	16NR 2BA	0.146	0.8	0.7
		1.000	16ER 0BA	0.181	16NR 0BA	0.181	0.8	0.7

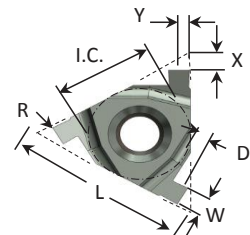
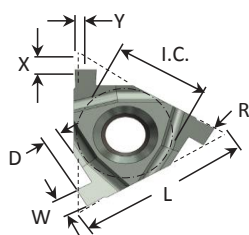
ROUND DIN 405 - 30° INC.



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	10	16ER 10RD DIN405	0.606	16NR 10RD DIN405	0.561	1.3	1.5
		8	16ER 8RD DIN405	0.76	16NR 8RD DIN405	0.702	1.3	1.5
		6	16ER 6RD DIN405	1.010	16NR 6RD DIN405	0.936	1.5	1.8
22	1/2"	6	22ER 6RD DIN405	1.010	22NR 6RD DIN405	0.936	1.8	2.5
		4	22ER 4RD DIN405	1.515	22NR 4RD DIN405	1.404	1.8	2.6
27	5/8"	4	27ER 4RD DIN405	1.515	27NR 4RD DIN405	1.404	2.4	3.2
		3	27ER 3RD DIN405	2.019	27NR 3RD DIN405	1.872	3.0	4.3

GROOVING

GROOVING



L mm	I.C. Inch	Description External	X mm	Y mm	Description Internal	X mm	Y mm	W mm	D mm	R mm
16	3/8"	16ER GW0.5	1.3	0.35	16NR GW0.5	1.3	0.35	0.50	1.00	0.10
16	3/8"	16ER GW1.0	1.3	0.60	16NR GW1.0	1.3	0.60	1.00	1.80	0.10
16	3/8"	16ER GW1.5	1.3	0.85	16NR GW1.5	1.3	0.85	1.50	2.00	0.10
16	3/8"	16ER GW2.0	1.3	1.10	16NR GW2.0	1.3	1.10	2.00	2.00	0.10

Left Hand Insert designation: **EL or NL: 22EL 6RD DIN405 / 22NL 6RD DIN405**

PIPE THREADS FORMS

NPT ASME/ANSI B1.20.1 - 60° INC. - 1/16 TAPER



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	27	-	-	06NR 27NPT	0.060	0.6	0.6
08	3/16"	27	-	-	08NR 27NPT	0.060	0.6	0.6
		18	-	-	08NR 18NPT	0.084	0.7	0.8
11	1/4"	27	-	-	11NR 27NPT	0.060	0.7	0.8
		18	-	-	11NR 18NPT	0.084	0.7	0.8
		14	-	-	11NR 14NPT	0.094	0.7	1.0
16	3/8"	27	16ER 27NPT	0.060	16NR 27NPT	0.060	0.7	0.8
		18	16ER 18NPT	0.084	16NR 18NPT	0.084	0.7	0.8
		14	16ER 14NPT	0.094	16NR 14NPT	0.094	1.3	1.5
		11.5	16ER 11.5NPT	0.107	16NR 11.5NPT	0.107	1.3	1.5
		8	16ER 8NPT	0.132	16NR 8NPT	0.132	1.3	1.7

NPTF ASME/ANSI B1.20.3 - 60° INC. - 1/16 TAPER



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	27	-	-	06NR 27NPTF	0.089	0.6	0.6
08	3/16"	27	-	-	08NR 27NPTF	0.089	0.6	0.6
		18	-	-	08NR 18NPTF	0.110	0.7	0.8
11	1/4"	27	-	-	11NR 27NPTF	0.089	0.7	0.8
		18	-	-	11NR 18NPTF	0.110	0.7	0.8
		14	-	-	11NR 14NPTF	0.110	0.7	1.0
16	3/8"	27	16ER 27NPTF	0.089	16NR 27NPTF	0.089	0.7	0.8
		18	16ER 18NPTF	0.110	16NR 18NPTF	0.110	0.7	0.8
		14	16ER 14NPTF	0.110	16NR 14NPTF	0.110	1.3	1.5
		11.5	16ER 11.5NPTF	0.131	16NR 11.5NPTF	0.131	1.3	1.5
		8	16ER 8NPTF	0.180	16NR 8NPTF	0.180	1.3	1.7

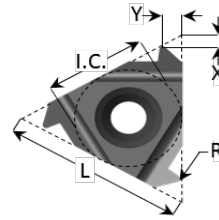
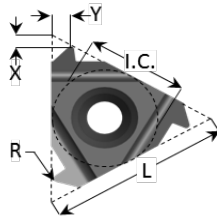
BSPT BS21 - 55° INC. - 1/16 TAPER



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
06	5/32"	28	-	-	06NR 28BSPT	0.125	0.5	0.6
08	3/16"	19	-	-	08NR 19BSPT	0.184	0.7	0.8
11	1/4"	28	-	-	11NR 28BSPT	0.125	0.7	0.8
		19	-	-	11NR 19BSPT	0.184	0.7	0.8
16	3/8"	28	16ER 28BSPT	0.125	16NR 28BSPT	0.125	0.7	0.8
		19	16ER 19BSPT	0.184	16NR 19BSPT	0.184	0.7	0.8
		14	16ER 14BSPT	0.249	16NR 14BSPT	0.249	1.3	1.5
		11	16ER 11BSPT	0.317	16NR 11BSPT	0.317	1.3	1.5

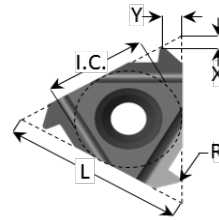
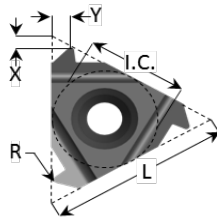
BUTTRESS THREAD FORMS

BRITISH BUTTRESS BS1657 - 45°/7° - 52° INC.



L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	20	16ER 20 BBUTT	0.153	16NR 20 BBUTT	0.153	0.7	0.9
		16	16ER 16 BBUTT	0.191	16NR 16 BBUTT	0.191	0.8	1.2
		12	16ER 12 BBUTT	0.255	16NR 12 BBUTT	0.255	1.0	1.5
		10	16ER 10 BBUTT	0.306	16NR 10 BBUTT	0.306	1.2	1.8
22	1/2"	8	22ER 8 BBUTT	0.383	22NR 8 BBUTT	0.383	1.5	2.3
		6	22ER 6 BBUTT	0.510	22NR 6 BBUTT	0.510	2.0	3.0
27	5/8"	4	27ER 4 BBUTT	0.765	27NR 4 BBUTT	0.765	3.0	4.5
		4	27EU 4 BBUTT	0.765	27NU 4 BBUTT	0.765	2.9	13.5

AMERICAN BUTTRESS ASME/ANSI B1.9 - 45°/7° - 52° INC.



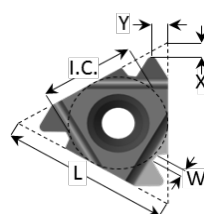
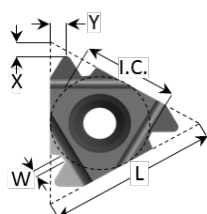
L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	20	16ER 20 ABUTT	0.068	16NR 20 ABUTT	0.068	0.7	1.0
		16	16ER 16 ABUTT	0.085	16NR 16 ABUTT	0.085	2.0	1.3
		12	16ER 12 ABUTT	0.113	16NR 12 ABUTT	0.113	1.2	1.8
		10	16ER 10 ABUTT	0.136	16NR 10 ABUTT	0.136	1.3	2.0
22	1/2"	8	22ER 8 ABUTT	0.170	22NR 8 ABUTT	0.170	1.6	2.5
		6	22ER 6 ABUTT	0.227	22NR 6 ABUTT	0.227	2.0	3.1
27	5/8"	4	27ER 4 ABUTT	0.340	27NR 4 ABUTT	0.340	3.2	5.0
		4	27EU 4 ABUTT	0.340	27NU 4 ABUTT	0.340	3.1	13.5

OILFIELD THREAD FORMS

PART REFERENCE FOR OILFIELD THREADFORMS

Thread Form Reference	Connection Reference	Part Ref.
API V0.038R V0.065 superseded by V0.038 2TPF	NC23, NC26, NC31, NC35, NC38, NC40, NC44, NC46, NC50, 4 FH, 2 3/8 IF, 2 7/8 IF, 3 1/2 IF, 4 IF, 4 1/2 IF, 5 1/2 IF	4 API 386
	NC56, NC61, NC70, NC77	4 API 384
API V0.040	2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG, 3 1/2 FH, 4 1/2 FH	5 API 404
API V0.050	6 5/8 REG, 5 1/2 FH, 6 5/8 FH	4 API 506
	5 1/2 REG, 7 5/8 REG, 8 REG, 8 5/8 REG	4 API 504
API V0.055	NC10, NC12 NC13, NC16	6 API 558
API ROUND	NUE 1.05 - 1.9, EUE/L 1.05 - 1.9, IJ 1.315 - 2.063	10 API RD
	NUE 2 3/8 - 4 1/2, EUE/L 2 3/8 - 4 1/2, STC 4 1/2 - 20, LTC 4 1/2 - 20	8 API RD
API BUTTRESS CASING	4 1/2 - 13 3/8	5 API 2.5
	16 - 20	5 API 2.6
PAC	2 3/8 - 2 7/8 - 3 1/2	4 PAC

API THREADFORMS



API V0.038R API SPEC 7-2 - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	W Ext. Inch	Description Internal	Taper IPF	W Int. Inch	X mm	Y mm
22	1/2"	4	22ER 4API 386	2	0.065"	22NR 4API 386	2	0.065"	2.0	2.9
			22ER 4API 384	3		22NR 4API 384	3		1.9	2.8
27	5/8"	4	27ER 4API 386	2	0.065"	27NR 4API 386	2	0.065"	2.0	2.9
			27ER 4API 384	3		27NR 4API 384	3		1.9	2.8

API V0.040 API SPEC 7-2 - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	W Ext. Inch	Description Internal	Taper IPF	W Int. Inch	X mm	Y mm
22	1/2"	5	22ER 5API 404	3	0.040"	22NR 5API 404	3	0.040"	1.8	2.5

API V0.050 API SPEC 7-2 - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	W Ext. Inch	Description Internal	Taper IPF	W Int. Inch	X mm	Y mm
22	1/2"	4	22ER 4API 506	2	0.050"	22NR 4API 506	2	0.050"	1.8	2.5
			22ER 4API 504	3		22NR 4API 504	3		1.8	2.5
27	5/8"	4	27ER 4API 506	2	0.050"	27NR 4API 506	2	0.050"	2.0	2.9
			27ER 4API 504	3		27NR 4API 504	3		2.0	2.9

API V0.055 API SPEC 7-2 - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	W Ext. Inches	Description Internal	Taper IPF	W Int. Inches	X mm	Y mm
22	1/2"	6	22ER 6API 558	1 1/2	0.058"	22NR 6API 558	1 1/2	0.058"	1.8	2.5

API ROUND API SPEC 5-B - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	R Ext. Inch	Description Internal	Taper IPF	R Int. Inch	X mm	Y mm
16	3/8"	10	16ER 10API RD	0.75	0.014"	16ER 10API RD	0.75	0.014"	1.3	1.5
		8	16ER 8API RD	0.75	0.017"	16ER 8API RD	0.75	0.017"	1.3	1.5

API BUTTRESS CASING API SPEC 5-B - 10°/3° - 13° INC.

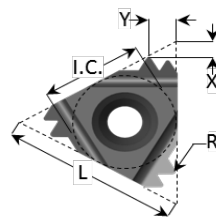
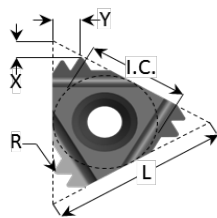
L mm	I.C. Inch	TPI	Description External	Taper IPF	W Ext. Inch	Description Internal	Taper IPF	W Int. Inch	X mm	Y mm
22	1/2"	5	22ER 5API 2.5	3/4	?"	22NR 5API 2.5	3/4	?"	2.2	2.5
			22ER 5API 2.6	1	?"	22NR 5API 2.6	1	?"	2.2	2.5

PAC AOH - 60° INC.

L mm	I.C. Inch	TPI	Description External	Taper IPF	W Inch	Description Internal	Taper IPF	W Int. Inch	X mm	Y mm
22	1/2"	4	22ER 4PAC	1 1/2	0.076"	22NR 4PAC	1 1/2	0.076"	2.4	2.5
27	5/8"		27ER 4PAC			27NR 4PAC			2.5	3.0

Left Hand Insert designation: EL or NL: 22EL 5API 404 / 22NL 5API 404

MULTI TOOTH INSERTS



ISO DIN13 - 60° INC.

L mm	I.C. Inch	Pitch	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	1.0	16ER 1.0ISO 3M	0.144	16NR 1.0ISO 3M	0.072	1.2	1.6
		1.0	16ER 1.0ISO 3M	0.144	16NR 1.0ISO 3M	0.072	1.7	2.6
		1.5	16ER 1.5ISO 2M	0.217	16NR 1.5ISO 2M	0.108	1.6	2.3
22	1/2"	2.0	22ER 2.0ISO 2M	0.289	22NR 2.0ISO 2M	0.144	2.0	3.0
		2.5	22ER 2.5ISO 2M	0.361	22NR 2.5ISO 2M	0.180	2.4	3.8
27	5/8"	3.0	27ER 3.0ISO 2M	0.433	27NR 3.0ISO 2M	0.217	2.7	4.5

UNIFIED ASME/ANSI B1.1 - 60° INC.

L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	16	16ER 16UN 2M	0.229	16NR 16UN 2M	0.115	1.7	2.4
		12	16ER 12UN 2M	0.306	16NR 12UN 2M	0.153	2.4	3.1
22	1/2"	12	22ER 12UN 2M	0.306	22NR 12UN 2M	0.153	3.2	5.3
27	5/8"	8	27ER 8UN 2M	0.458	27NR 8UN 2M	0.229	3.0	4.8

WHITWORTH DIN 2999/BS84 - 55° INC.

L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
16	3/8"	14	16ER 14W 2M	0.249	16NR 14W 2M	0.249	1.9	2.8
		14	16ER 14W 3M	0.249	16NR 14W 3M	0.249	2.9	4.6
22	1/2"	11	22ER 11W 2M	0.317	22NR 11W 2M	0.317	2.0	3.3

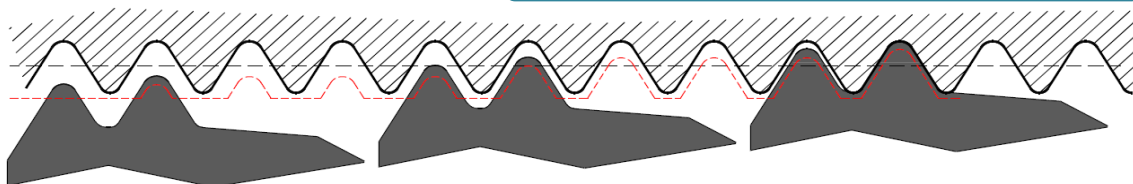
NPT ASME/ANSI B1.20.1 - 60° INC. - 1/16 TAPER

L mm	I.C. Inch	TPI	Description External	R Ext. Max	Description Internal	R Int. Max	X mm	Y mm
22	1/2"	11.5	22ER 11.5NPT 2M	0.107	22NR 11.5NPT 2M	0.107	1.9	2.8
		11.5	22ER 11.5NPT 3M	0.107	22NR 11.5NPT 3M	0.107	2.9	4.6
27	5/8"	8	27ER 8NPT 2M	0.132	27NR 8NPT 2M	0.132	2.0	3.3

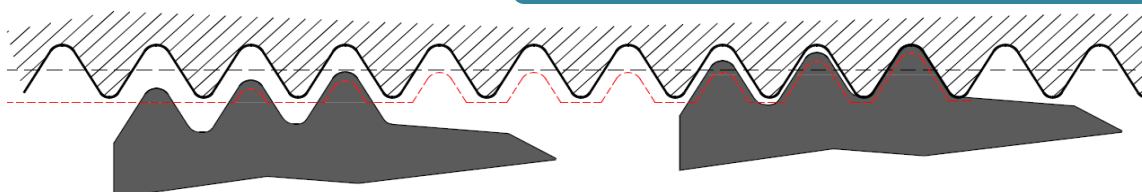
Why Use a Multi-Tooth Insert?

- ✓ Reduce cycle time
- ✓ Increase tool-life
- ✓ Maximise productivity

16ER 1.0 ISO 2M reduces 6 passes to 3 passes



16ER 1.0 ISO 3M reduces 6 passes to 2 passes

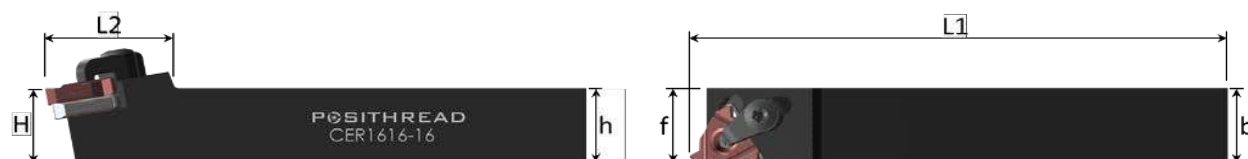


Left Hand Insert designation: EL or NL: 16EL 12UN 2M / 16NL 12UN 2M

EXTERNAL TOOLHOLDERS LAYDOWN STYLE

PARALLEL SHANK CLAMP TYPE

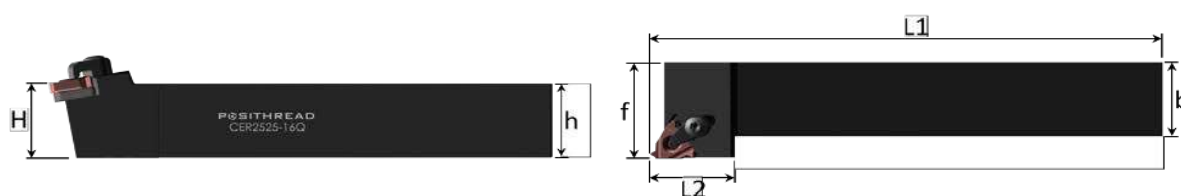
1° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)					TOOLHOLDER SPARES			
mm	inch		H=h	b	L1	L2	f	Anvil	Anvil Screw	Clamp	Torq Key
16	3/8"	CER 1616-16	16	16	100	20	16	GX16-1	AS16	CSP-16	T10-T15
		CER 2020-16	20	20	125	25	20				
		CER 2525-16	25	25	150	25	25				
		CER 3232-16	32	32	170	25	32				
22	1/2"	CER 2525-22	25	25	150	28	25	NX22-1	AS22	CSP-22	T15
		CER 3232-22	32	32	170	28	32				
		CER 4040-22	40	40	200	28	40				
		CER 2525-22U	25	25	150	32	25	UX22-1			
		CER 3232-22U	32	32	170	32	32				
		CER 4040-22U	40	40	200	32	40				

CRANKED SHANK CLAMP TYPE

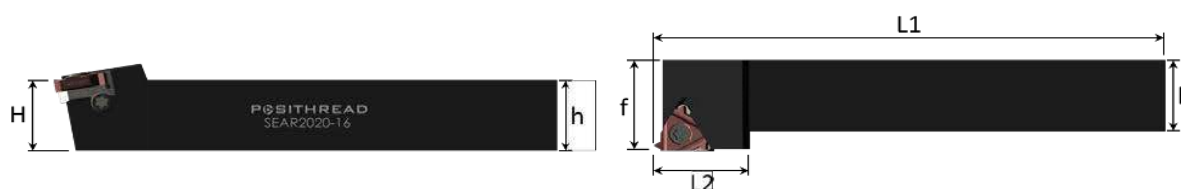
1° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)					TOOLHOLDER SPARES			
mm	inch		H=h	b	L1	L2	f	Anvil	Anvil Screw	Clamp	Torq Key
16	3/8"	CER 1212-16Q	12	12	100	22	16	GX16-1	AS16	CSP-16	T10-T15
		CER 1616-16Q	16	16	100	22	20				
		CER 2020-16Q	20	20	125	22	25				
		CER 2525-16Q	25	25	150	22	32				
		CER 3232-16Q	32	32	170	22	40				
22	1/2"	CER 2525-22Q	25	25	150	28	32	NX22-1	AS22	CSP-22	T15
		CER 3232-22Q	32	32	170	28	40				
		CER 4040-22Q	40	40	200	28	50				
27	5/8"	CER 2525-27Q	25	25	150	33	32	VX27-1	AS27	CSP-27	T20-T25
		CER 3232-27Q	32	32	170	33	40				
		CER 4040-27Q	40	40	200	33	50				

CRANKED SHANK SCREW TYPE

1.5° HELIX WITH STANDARD ANVIL

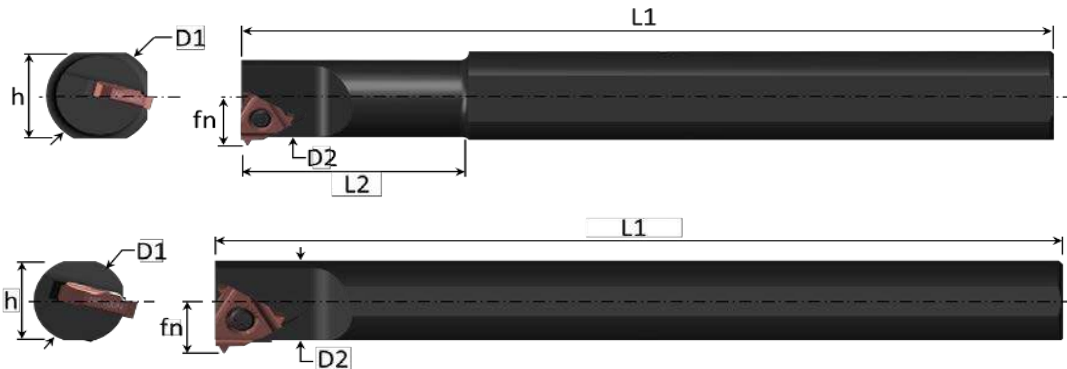


INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)					TOOLHOLDER SPARES			
mm	inch		H=h	b	L1	L2	f	Anvil	Anvil Screw	Lock Screw	Torq Key
16	3/8"	SEAR 2020-16Q	20	20	125	22	25	SE16	SY16	SA16	T10-T20
		SEAR 2525-16Q	25	25	150	22	32				
		SEAR 3232-16Q	32	32	170	22	40				
22	1/2"	SEAR 2525-22Q	25	25	150	30	32	SE22	SY22	SA22	T10-T20
		SEAR 3232-22Q	32	32	175	30	40				

INTERNAL TOOLHOLDERS LAYDOWN STYLE

PARALLEL AND STEP SHANK SCREW TYPE

2° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)							TOOLHOLDER SPARES	
mm	inch		D1	D2	L1	L2	h	f	Min Bore	Screw	Torq Key
11	1/4"	SNR0010-11	10	10	125	-	8	7.5	13	S11	T7
		SNR0010-11S	16	10	125	30	14	7.5	12		
		SNR0013-11S	16	13	125	35	14	8.0	15		
16	3/8"	SNR0016-16	16	16	150	-	14	10.3	19	S16	T15
		SNR0020-16	20	20	170	-	18	13.0	24		
22	1/2"	SNR0020-22	20	20	170	-	18	14.0	24	S22	T15

PARALLEL SHANK CLAMP TYPE

1. ° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)						TOOLHOLDER SPARES			
mm	inch		D1	D2	L1	h	f	Min Bore	Anvil	Anvil Screw	Clamp	Torq Key
16	3/8"	CNR 0020-16	20	20.5	170	18	13.8	24	GX16-1	AS16	CSP-16	T10-T15
		CNR 0025-16	25	25.5	250	23	16.3	29				
		CNR 0032-16	32	32.5	250	29	19.8	36				
		CNR 0040-16	40	40.5	300	36	23.8	44				
		CNR 0050-16	50	50.5	350	46	28.8	54				
22	1/2"	CNR 0025-22	25	25.5	250	23	17.8	30	NX22-1	AS22	CSP-22	T15
		CNR 0032-22	32	32.5	250	29	21.3	38				
		CNR 0040-22	40	40.5	300	36	25.3	46				
		CNR 0050-22	50	50.5	350	46	30.3	56				
		CNR 0063-22	63	63.5	400	59	36.8	69	UX22-1			
		CNR 0032-22U	32	40.0	250	29	21.9	40				
		CNR 0040-22U	40	40.5	250	36	25.9	48				
		CNR 0050-22U	50	50.5	300	46	30.9	58				
27	5/8"	CNR 0063-22U	63	63.5	350	59	37.4	70	VX27-1	AS27	CSP-27	T20-T25
		CNR 0032-27	32	32.5	400	29	23.0	42				
		CNR 0040-27	40	40.5	300	36	27.3	48				
		CNR 0050-27	50	50.5	350	46	32.2	58				
		CNR 0063-27	63	63.5	400	59	38.7	70				

INTERNAL TOOLHOLDERS LAYDOWN STYLE

PARALLEL SHANK SCREW TYPE
1.5 ° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER REFERENCE	DIMENSIONS (mm)						TOOLHOLDER SPARES			
mm	inch		D1	D2	L1	h	f	Min Bore	Anvil	Anvil Screw	Lock Screw	Torq Key
16	3/8"	SNAR 0020-16	20	20	170	18	13.8	24	SN16	SA16	SY16	T10-T20
		SNAR 0025-16	25	25	250	23	16.3	29				
		SNAR 0032-16	32	32	300	29	19.8	36				
22	1/2"	SNAR 0025-22	25	25	250	23	17.8	23	SN22	SA22	SY22	T10-T20
		SNAR 0032-22	32	32	300	29	21.3	29				

Left Hand Tooling designation: **SNAL0025-16**

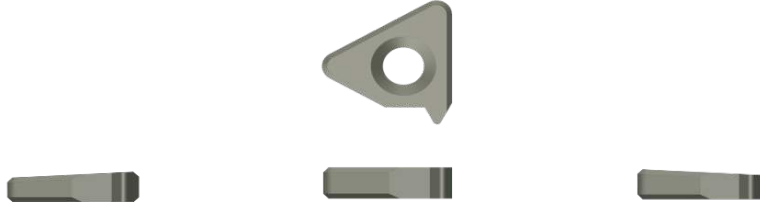
SLIDING HEAD TOOLING ALSO AVAILABLE



CALL OR EMAIL FOR MORE INFORMATION

ANVIL SELECTION LAYDOWN TOOLHOLDERS

CLAMP TYPE 1° HELIX IN TOOLHOLDER

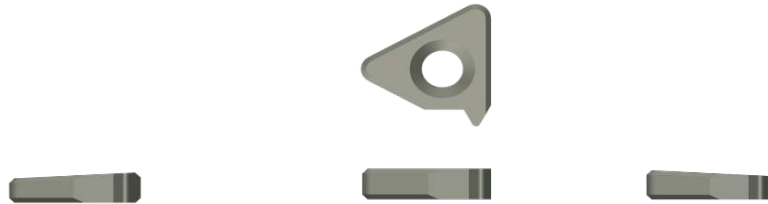
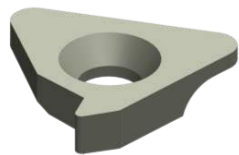


Helix Required		ANVIL INCLINATION						
		Helix ≤ 0°		Helix ≤ 0°30'	Helix 0°30'-2°		Helix ≥ 3°	
Applications		Reverse Threading		Buttress Threading	Normal Threading		Coarse Pitch Small Ø Multi Start Threads	
Anvil Angle In Toolholder		-2.0°	-1.0°	0°	+1.0°	+2.0°	+3.0°	+4.0°
ER / EL NR / NL	16	GX16-98	GX16-99	GX16-0	GX16-1	GX16-2 *	GX16-3	GX16-4
	22	NX22-98	NX22-99	NX22-0	NX22-1	NX22-2 *	NX22-3	NX22-4
		UX22-98	UX22-99	UX22-0	UX22-1	UX22-2 *	UX22-3	UX22-4
	27	VX27-98	VX27-99	VX27-0	VX27-1	VX27-2 *	VX27-3	VX27-4
		UX27-98	UX27-99	UX27-0	UX27-1	UX27-2 *	UX27-3	UX27-4

* Grooving Applications e.g. LG Inserts

SCREW TYPE 1.5° HELIX IN TOOLHOLDER

With Side Lock Anvil Srew



Helix Required		ANVIL INCLINATION						
		Helix ≤ 0°		Helix 0°	Helix 0° - 1°	Helix 0°30'-2°		Helix ≥ 3°
Applications		Reverse Threading		Buttress Threading	Fine Pitch Large Ø	Normal Threading		Coarse Pitch Small Ø Multi Start Threads
Anvil Angle In Toolholder		-1.5°	-0.5°	0°	+0.5°	+1.5°	+2.5°	+3.5° +4.5°
ER / NL	16	SE16-3N	SE16-2N	SE16-1.5N	SE16-1N	SE16 *	SE16-1P	SE16-2P SE16-3P
NR / EL		SN16-3N	SN16-2N	SN16-1.5N	SN16-1N	SN16 *	SN16-1P	SN16-2P SN16-3P
ER / NL	22	SE22-3N	SE22-2N	SE22-1.5N	SE22-1N	SE22 *	SE22-1P	SE22-2P SE22-3P
NR / EL		SN22-3N	SN22-2N	SN22-1.5N	SN22-1N	SN22 *	SN22-1P	SN22-2P SN22-3P

* Grooving Applications e.g. LG Inserts

SPECIAL ANVILS ALSO AVAILABLE



Special Anvils can be ordered for:

- ✓ Acme
- ✓ Trapezoidal
- ✓ Multi-Tooth
- ✓ Special Threadforms

CALL OR EMAIL FOR MORE INFORMATION

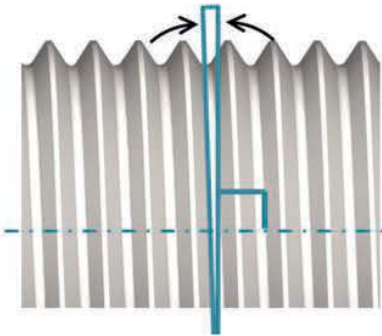
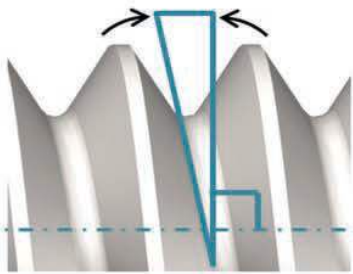
TECHNICAL INFORMATION

HELIX ANGLE

Helix angle is used to describe the angle that the thread makes with a plane perpendicular to the thread axis.

SHALLOW HELIX ANGLE

A smaller pitch to diameter ratio gives you a shallow helix angle.

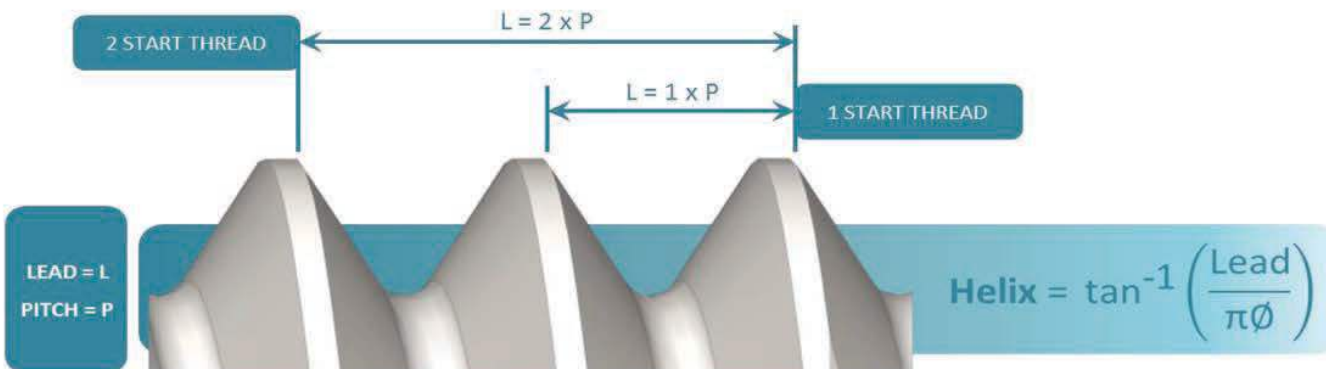


STEEP HELIX ANGLE

A larger pitch to diameter ratio give you a steep helix angle.

It is recommended to cut the thread perpendicular to the Helix. Please see the calculation & table below for an indication of the helix of your job and the required anvil.

MULTI START THREADS, PITCH & HELIX



Please see the below chart for an indication of the anvil you may require according to helix angle.

TPI	Pitch mm	Ø Diameter mm											
		5	10	15	20	25	30	35	40	45	50	55	
50	0.5	1.8	0.9	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	
24	1	3.6	1.8	1.2	0.9	0.7	0.6	0.5	0.5	0.4	0.4	0.3	
20	1.5	5.5	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6	0.5	0.5	
13	2	7.3	3.6	2.4	1.8	1.5	1.2	1	0.9	0.8	0.7	0.7	
10	2.5	9	4.5	3	2.3	1.8	1.5	1.3	1.1	1	0.9	0.8	
8	3	10.8	5.5	3.6	2.7	2.2	1.8	1.6	1.4	1.2	1.1	1	
7	3.5	12.6	6.4	4.2	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.2	
	4	14.3	7.3	4.9	3.6	2.9	2.4	2.1	1.8	1.6	1.5	1.3	
6	4.5	16	8.2	5.5	4.1	3.3	2.7	2.3	2.1	1.8	1.6	1.5	
5	5	17.7	9	6.1	4.5	3.6	3	2.6	2.3	2	1.8	1.7	
4.5	5.5	19.3	9.9	6.7	5	4	3.3	2.9	2.5	2.2	2	1.8	
4	6	20.9	10.8	7.3	5.5	4.4	3.6	3.1	2.7	2.4	2.2	2	
	6.5	22.5	11.7	7.9	5.9	4.7	3.9	3.4	3	2.6	2.4	2.2	

-0 Anvil

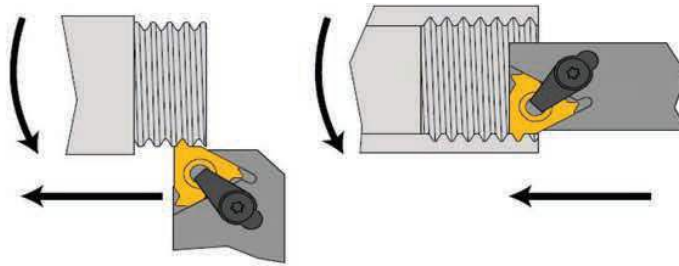
-1 Anvil

-2 Anvil

-3 Anvil

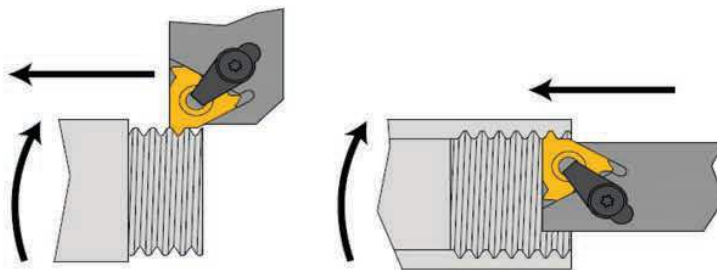
TOOLING POSITIONS

RIGHT HAND TOOLING



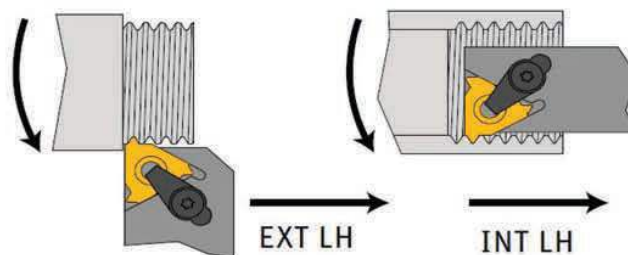
Right Hand Tooling cutting towards the chuck to produce a **Right Hand Thread**

LEFT HAND TOOLING



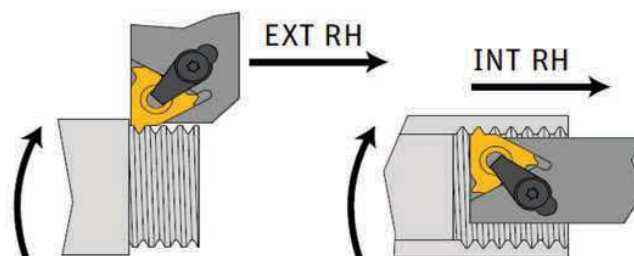
Left Hand Tooling cutting towards the chuck to produce a **Left Hand Thread**

LEFT HAND THREADS WITH RIGHT HAND TOOLING



Right Hand Tooling and using a **Negative Anvil** cutting away from the chuck to produce a **Left Hand Thread**

RIGHT HAND THREADS WITH LEFT HAND TOOLING



Left Hand Tooling and using a **Negative Anvil** cutting away from the chuck to produce a **Right Hand Thread**

LAYDOWN AND MINI SERIES

SPEEDS AND FEEDS FOR LAYDOWN THREADING

	PTC2	PTX	DBC
Materials Specification	Metres per Min		
Low/Med Carbon Steel	150/200	210/250	183/259
High Carbon Steel	130/180	150/210	131/217
Alloy Heat Treated Steel	120/150	140/180	123/186
Stainless Steel 316-17-4PH	90/115	105/135	91/140
Stainless Steel 410	115/128	135/150	118/155
High Temp Alloys		27/33	24/34
Cast Iron HB 180-250	110/140	130/180	114/186
Non Ferrous Materials	200/250	200/300	175/311
Titanium			35/83

General Purpose

PTC2

TiN coating is a multi purpose coating suited to low and medium cutting speeds.

Premium Grades

PTX

AlTiN coating, very good all round grade, increased tool life over PTC2 by up to 50%

Heat Resistance

DBC

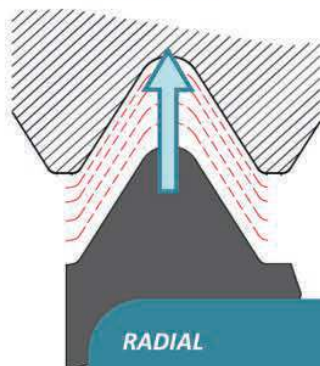
TiSiN coating developed for hard materials, high chrome steels and exotic materials.

Heat Resistance and Oxidation Resistance at cutting temperatures of over 1000°C

NUMBER OF PASSES VERSES PITCH / TPI

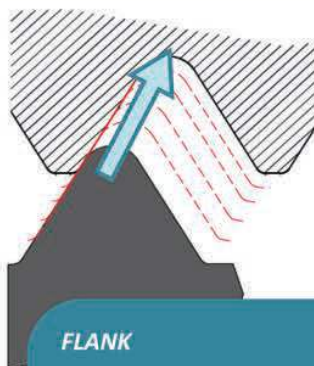
Pitch TPI	0.5 48	0.75 32	1.0 24	1.25 20	1.5 16	1.75 14	2.0 12	2.5 10	3.0 8	3.5 7	4.0 6	4.5 5.5	5.0 5	5.5 4.5	6.0 4	8.0 3
Passes Min - Max	4 4-6	4 4-7	5 4-8	6 5-9	6 6-10	8 7-12	8 7-12	10 8-14	12 10-16	12 11-18	14 11-18	14 12-20	15 12-20	16 12-20	16 12-20	16 15-24

INFEEDS



RADIAL

- ✓ Equal wear on leading & trailing edges
- ✓ Use on work hardening materials
- ✓ Use on short chipping materials



FLANK

- ✓ Reduced cutting pressure on larger pitches
- ✓ Directs chips away from cutting edge
- ✓ Displaced in-feed angle improves surface finish



ALTERNATE FLANK

- ✓ Recommended for long chipping materials
- ✓ Method divides the work between both flanks
- ✓ Less cutting pressure



SLIDING HEAD CATALOGUE

TOOLING FOR OIL & GAS · AUTOMOTIVE
AEROSPACE · GENERAL ENGINEERING

INDEX

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EXTERNAL TOOLHOLDERS LAYDOWN STYLE

PARALLEL SHANK

3° HELIX



PART No.	DIMENSIONS (mm)					SPARES		INSERT SIZE	
	H=h	b	L	l	f	Screw	Torq Key	mm	inch
SESR1018-00-16-3	10	18	101	15	18	S16	T15	16	3/8"
SESR1218-00-16-3	12	18	101	15	18	S16	T15	16	3/8"
SESR1618-00-16-3	16	18	101	15	18	S16	T15	16	3/8"

OFFSET SHANK

3° HELIX



PART No.	DIMENSIONS (mm)					SPARES		INSERT SIZE	
	H=h	b	L	l	f	Screw	Torq Key	mm	inch
SESR1028-10-16-3	10	28	101	15	10	S16	T15	16	3/8"
SESR1038-20-16-3	10	38	101	15	20	S16	T15	16	3/8"
SESR1228-10-16-3	12	28	101	15	10	S16	T15	16	3/8"
SESR1238-20-16-3	12	38	101	15	20	S16	T15	16	3/8"
SESR1628-10-16-3	16	28	101	15	10	S16	T15	16	3/8"
SESR1638-20-16-3	16	38	101	15	20	S16	T15	16	3/8"

ROUND SHANK

3° HELIX 10° INCLINATION

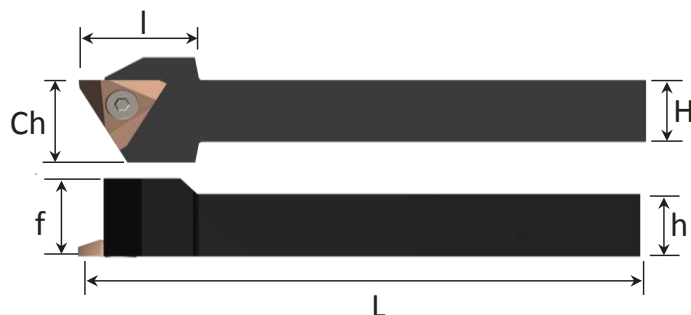


PART No.	DIMENSIONS (mm)				SPARES		INSERT SIZE	
	D	L	h	fn	Screw	Torq Key	mm	inch
SER0016-16-3	16	100	15	11.45	S16	T15	16	3/8"
SER0022-16-3	22	100	19	14.45	S16	T15	16	3/8"
SER001905-16-3	19.05	100	17.05	12.98	S16	T15	16	3/8"
SER002540-16-3	25.4	100	23.4	16.15	S16	T15	16	3/8"

Left Hand Tooling designation: **SESL1028-10-16-3 / SESL1028-10-16-3 / SEL0016-16-3**

EXTERNAL TOOLHOLDERS LAYDOWN STYLE

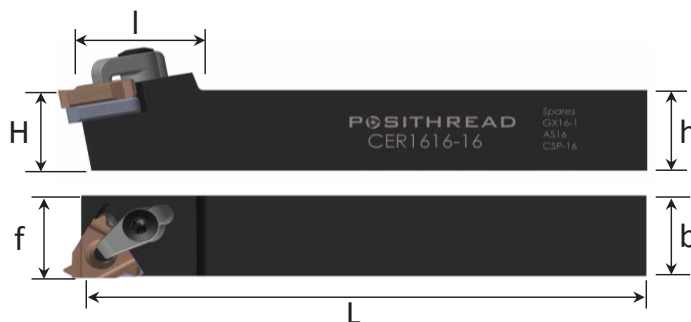
ON EDGE



PART No.	DIMENSIONS (mm)					SPARES		INSERT SIZE	
	H=h	Ch	L	l	f	Screw	Torq Key	mm	inch
SESR1018-00-16-3	10	18	101	15	18	S16	T15	16	3/8"
SESR1218-00-16-3	12	18	101	15	18	S16	T15	16	3/8"
SESR1618-00-16-3	16	18	101	15	18	S16	T15	16	3/8"

STANDARD TOOLING

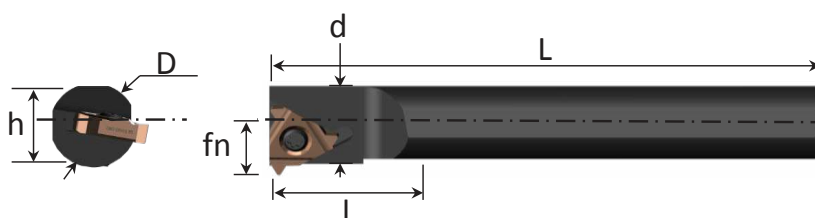
EXTERNAL



PART No.	DIMENSIONS (mm)					SPARES		INSERT SIZE	
	H=h	b	L	l	f	Screw	Torq Key	mm	inch
CER1616-16	10	18	101	15	18	S16	T15	16	3/8"
CER2020-16	12	18	101	15	18	S16	T15	16	3/8"

INTERNAL

15°/20° INCLINATION

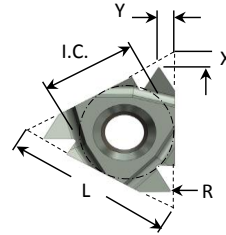
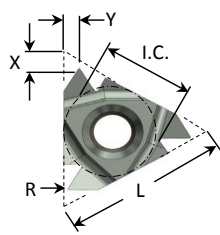


PART No.	DIMENSIONS (mm)							SPARES		INSERT SIZE	
	D	d	L	l	h	fn	Min Bore	Screw	Torq Key	mm	inch
SNR0006-06S	12	5.8	100	13	11	4.2	6.0	S8	T6	06	5/32"
SNR0006-08S	16	6.3	125	17	17	5.1	7.8	S8	T6	08	3/16"
SNR0008-08S	16	7.8	125	17	14	5.8	10.0	S8	T6	08	3/16"
SNR0010-11	10	-	125	-	10	7.5	13.0	S11	T7	11	1/4"
SNR0010-11S	16	10	125	30	14	7.5	12.0	S11	T7	11	1/4"
SNR0013-11S	16	13	125	35	14	8	15.0	S11	T7	11	1/4"
SNR0016-16	16	-	150	-	14	10.3	19.0	S16	T15	16	3/8"

Left Hand Tooling designation: **SESL1018-00-16-3 / CEL1616-16 / SNL0016-16**

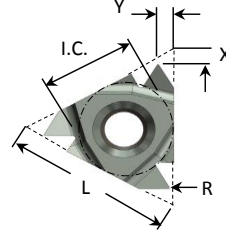
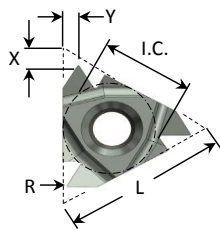
INSERTS LAYDOWN STYLE

Partial Profile 60°

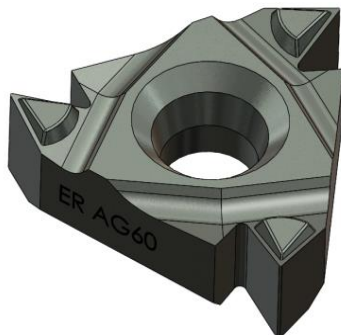


Pitch	TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
0.5 - 1.5	48 - 16	08	3/16"	-	-	-	-	08NR A60	0.04	0.6	0.7
0.5 - 1.5	48 - 16	11	1/4"	-	-	-	-	11NR A60	0.04	0.7	0.8
0.5 - 1.5	48 - 16	16	3/8"	16ER A60	0.07	0.7	0.8	16NR A60	0.04	0.7	0.8
0.5 - 3.0	48 - 8	16	3/8"	16ER AG60	0.07	1.3	1.5	16NR AG60	0.04	1.3	1.5
1.0 - 2.5	24 - 11	16	3/8"	16ER MR60	0.14	1.3	1.5	16NR MR60	0.07	1.3	1.5
1.75 - 3.0	14 - 8	16	3/8"	16ER G60	0.25	1.3	1.5	16NR G60	0.13	1.3	1.5
0.5 - 1.5	48 - 16	16	3/8"	16ER A60 TD	0.07	0.7	0.8	16NR A60 TD	0.04	0.7	0.8
0.5 - 3.0	48 - 8	16	3/8"	16ER AG60 TD	0.07	1.3	1.5	16NR AG60 TD	0.04	1.3	1.5
1.75 - 3.0	14 - 8	16	3/8"	16ER G60 TD	0.25	1.3	1.5	16NR G60 TD	0.13	1.3	1.5

Partial Profile 55°



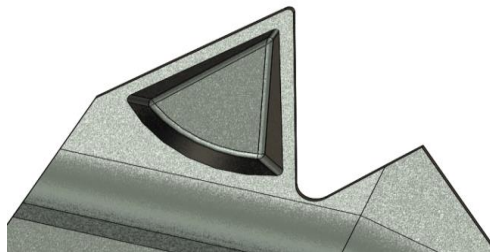
Pitch	TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
0.5 - 1.5	48 - 16	08	3/16"	-	-	-	-	08NR A 55	0.04	0.6	0.7
0.5 - 1.5	48 - 16	11	1/4"	-	-	-	-	11NR A 55	0.04	0.7	0.8
0.5 - 1.5	48 - 16	16	3/8"	16ER A 55	0.07	0.7	0.8	16NR A 55	0.04	0.7	0.8
0.5 - 1.5	48 - 8	16	3/8"	16ER AG 55	0.07	1.3	1.5	16NR AG 55	0.04	1.3	1.5
1.0 - 2.5	24 - 11	16	3/8"	16ER MR 55	0.14	1.3	1.5	16NR MR 55	0.07	1.3	1.5
1.75 - 3.0	14 - 8	16	3/8"	16ER G 55	0.25	1.3	1.5	16NR G 55	0.13	1.3	1.5
0.5 - 1.5	48 - 16	16	3/8"	16ER A 55 TD	0.07	0.7	0.8	16NR A 55 TD	0.04	0.7	0.8
0.5 - 3.0	48 - 8	16	3/8"	16ER AG 55 TD	0.07	1.3	1.5	16NR AG 55 TD	0.04	1.3	1.5
1.75 - 3.0	14 - 8	16	3/8"	16ER G 55 TD	0.25	1.3	1.5	16NR G 55 TD	0.13	1.3	1.5



TD CHIPBREAKER

The TD geometry will break swarf into small chips if the correct surface speed, threading cycle and infeed are applied. This will change with different material specifications.

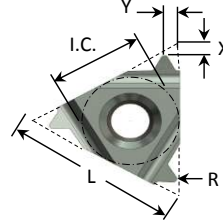
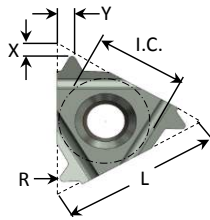
The TD is also available on some Full Form Inserts .



Left Hand Insert designation: **EL** or **NL**: **16EL A60 / 16NL A60**

INSERTS LAYDOWN STYLE

ISO DIN13

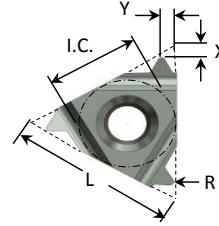
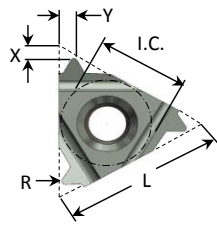


Pitch	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
0.25	06	5/32"	-	-	-	-	06NR 0.25ISO	0.018	0.5	0.5
0.35	06	5/32"	-	-	-	-	06NR 0.35ISO	0.025	0.5	0.5
0.5	06	5/32"	-	-	-	-	06NR 0.5ISO	0.036	0.5	0.5
0.75	06	5/32"	-	-	-	-	06NR 0.75ISO	0.054	0.5	0.5
1.0	06	5/32"	-	-	-	-	06NR 1.0ISO	0.072	0.6	0.6
1.25	06	5/32"	-	-	-	-	06NR 1.25ISO	0.090	0.6	0.7
0.5	08	3/16"	-	-	-	-	08NR 0.5ISO	0.036	0.5	0.5
0.75	08	3/16"	-	-	-	-	08NR 0.75ISO	0.054	0.5	0.5
1.0	08	3/16"	-	-	-	-	08NR 1.0ISO	0.072	0.6	0.6
1.25	08	3/16"	-	-	-	-	08NR 1.25ISO	0.090	0.6	0.7
1.5	08	3/16"	-	-	-	-	08NR 1.5ISO	0.108	0.7	0.8
0.25	11	1/4"	-	-	-	-	11NR 0.25 ISO	0.018	0.5	0.4
0.35	11	1/4"	-	-	-	-	11NR 0.35 ISO	0.025	0.5	0.4
0.5	11	1/4"	-	-	-	-	11NR 0.5 ISO	0.036	0.7	0.5
0.6	11	1/4"	-	-	-	-	11NR 0.6 ISO	0.043	0.7	0.5
0.7	11	1/4"	-	-	-	-	11NR 0.7 ISO	0.051	0.7	0.5
0.75	11	1/4"	-	-	-	-	11NR 0.75 ISO	0.054	0.7	0.5
0.8	11	1/4"	-	-	-	-	11NR 0.8 ISO	0.058	0.7	0.5
1.0	11	1/4"	-	-	-	-	11NR 1.0 ISO	0.072	0.7	0.8
1.25	11	1/4"	-	-	-	-	11NR 1.25 ISO	0.090	0.7	0.8
1.5	11	1/4"	-	-	-	-	11NR 1.5 ISO	0.108	0.7	0.9
1.75	11	1/4"	-	-	-	-	11NR 1.75 ISO	0.126	0.7	0.9
2.0	11	1/4"	-	-	-	-	11NR 2.0 ISO	0.144	0.7	1.0
0.25	16	3/8"	16ER 0.25 ISO	0.036	0.5	0.4	16NR 0.25 ISO	0.018	0.5	0.4
0.35	16	3/8"	16ER 0.35 ISO	0.051	0.5	0.4	16NR 0.35 ISO	0.025	0.5	0.4
0.5	16	3/8"	16ER 0.5 ISO	0.072	0.7	0.5	16NR 0.5 ISO	0.036	0.7	0.5
0.6	16	3/8"	16ER 0.6 ISO	0.087	0.7	0.5	16NR 0.6 ISO	0.043	0.7	0.5
0.7	16	3/8"	16ER 0.7 ISO	0.101	0.7	0.5	16NR 0.7 ISO	0.051	0.7	0.5
0.75	16	3/8"	16ER 0.75 ISO	0.108	0.7	0.5	16NR 0.75 ISO	0.054	0.7	0.5
0.8	16	3/8"	16ER 0.8 ISO	0.115	0.7	0.5	16NR 0.8 ISO	0.058	0.7	0.5
1.0	16	3/8"	16ER 1.0 ISO	0.144	0.7	0.8	16NR 1.0 ISO	0.072	0.8	0.8
1.25	16	3/8"	16ER 1.25 ISO	0.180	0.7	0.8	16NR 1.25 ISO	0.090	0.7	0.8
1.5	16	3/8"	16ER 1.5 ISO	0.217	0.7	0.8	16NR 1.5 ISO	0.108	0.8	0.8
1.75	16	3/8"	16ER 1.75 ISO	0.253	1.3	1.5	16NR 1.75 ISO	0.126	1.3	1.5
2.0	16	3/8"	16ER 2.0 ISO	0.289	1.3	1.5	16NR 2.0 ISO	0.144	1.3	1.5
2.5	16	3/8"	16ER 2.5 ISO	0.361	1.3	1.5	16NR 2.5 ISO	0.180	1.3	1.5
3.0	16	3/8"	16ER 3.0 ISO	0.433	1.3	1.5	16NR 3.0 ISO	0.217	1.3	1.5
3.5	16	3/8"	16ER 3.5 ISO	0.505	1.3	1.5	16NR 3.5 ISO	0.253	1.3	1.5

Left Hand Insert designation: **EL** or **NL**: **16EL 1.0 ISO / 16NL 1.0 ISO**

INSERTS LAYDOWN STYLE

Unified 'UN' (Full Form) ASME/ANSI B1.1

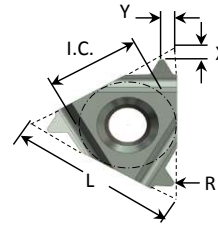
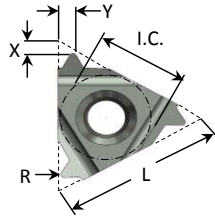


TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
40	06	5/32"	-	-	-	-	06NR 40UN	0.046	0.5	0.5
36	06	5/32"	-	-	-	-	06NR 36UN	0.051	0.5	0.5
32	06	5/32"	-	-	-	-	06NR 32UN	0.057	0.5	0.5
28	06	5/32"	-	-	-	-	06NR 28UN	0.065	0.5	0.5
24	06	5/32"	-	-	-	-	06NR 24UN	0.076	0.6	0.6
20	06	5/32"	-	-	-	-	06NR 20UN	0.092	0.6	0.7
40	08	3/16"	-	-	-	-	08NR 40UN	0.046	0.5	0.5
36	08	3/16"	-	-	-	-	08NR 36UN	0.051	0.5	0.5
32	08	3/16"	-	-	-	-	08NR 32UN	0.057	0.5	0.5
28	08	3/16"	-	-	-	-	08NR 28UN	0.065	0.5	0.5
24	08	3/16"	-	-	-	-	08NR 24UN	0.076	0.6	0.6
20	08	3/16"	-	-	-	-	08NR 20UN	0.092	0.6	0.7
18	08	3/16"	-	-	-	-	08NR 18UN	0.102	0.7	0.8
72	11	1/4"	-	-	-	-	11NR 72UN	0.025	0.5	0.4
60	11	1/4"	-	-	-	-	11NR 60UN	0.031	0.5	0.4
56	11	1/4"	-	-	-	-	11NR 56UN	0.033	0.7	0.5
36	11	1/4"	-	-	-	-	11NR 36UN	0.051	0.7	0.5
28	11	1/4"	-	-	-	-	11NR 28UN	0.065	0.7	0.5
24	11	1/4"	-	-	-	-	11NR 24UN	0.076	0.7	0.5
20	11	1/4"	-	-	-	-	11NR 20UN	0.092	0.7	0.5
18	11	1/4"	-	-	-	-	11NR 18UN	0.102	0.7	0.8
16	11	1/4"	-	-	-	-	11NR 16UN	0.115	0.7	0.8
14	11	1/4"	-	-	-	-	11NR 14UN	0.131	0.7	0.9
12	11	1/4"	-	-	-	-	11NR 12UN	0.153	0.7	0.9
11	11	1/4"	-	-	-	-	11NR 11UN	0.167	0.7	1.0
72	16	3/8"	16ER 72UN	0.051	0.5	0.4	16NR 72UN	0.026	0.5	0.4
64	16	3/8"	16ER 64UN	0.057	0.5	0.4	16NR 64UN	0.029	0.5	0.4
56	16	3/8"	16ER 56UN	0.065	0.7	0.5	16NR 56UN	0.033	0.7	0.5
44	16	3/8"	16ER 44UN	0.083	0.7	0.5	16NR 44UN	0.042	0.7	0.5
40	16	3/8"	16ER 40UN	0.092	0.7	0.5	16NR 40UN	0.046	0.7	0.5
36	16	3/8"	16ER 36UN	0.102	0.7	0.5	16NR 36UN	0.051	0.7	0.5
32	16	3/8"	16ER 32UN	0.115	0.7	0.5	16NR 32UN	0.058	0.7	0.5
28	16	3/8"	16ER 28UN	0.131	0.7	0.8	16NR 28UN	0.066	0.8	0.8
27	16	3/8"	16ER 27UN	0.136	0.7	0.8	16NR 27UN	0.068	0.7	0.8
24	16	3/8"	16ER 24UN	0.153	0.7	0.8	16NR 24UN	0.077	0.8	0.8
20	16	3/8"	16ER 20UN	0.183	1.3	1.5	16NR 20UN	0.092	1.3	1.5
18	16	3/8"	16ER 18UN	0.204	1.3	1.5	16NR 18UN	0.102	1.3	1.5
16	16	3/8"	16ER 16UN	0.229	1.3	1.5	16NR 16UN	0.115	1.3	1.5
14	16	3/8"	16ER 14UN	0.262	1.3	1.5	16NR 14UN	0.131	1.3	1.5
13	16	3/8"	16ER 13UN	0.282	1.3	1.5	16NR 13UN	0.141	1.3	1.5
12	16	3/8"	16ER 12UN	0.306	1.3	1.5	16NR 12UN	0.153	1.3	1.5
11	16	3/8"	16ER 11UN	0.333	1.3	1.5	16NR 11UN	0.167	1.3	1.5
10	16	3/8"	16ER 10UN	0.367	1.3	1.5	16NR 10UN	0.184	1.3	1.5
9	16	3/8"	16ER 9UN	0.407	1.3	1.5	16NR 9UN	0.204	1.3	1.5
8	16	3/8"	16ER 8UN	0.458	1.3	1.5	16NR 8UN	0.229	1.3	1.5
7	16	3/8"	16ER 7UN	0.524	1.3	1.5	16NR 7UN	0.262	1.3	1.5

Left Hand Insert designation: **EL** or **NL**: **16EL 28UN** / **16NL 28UN**

INSERTS LAYDOWN STYLE

WHITWORTH 55° (Full Form) DIN 2999/BS84

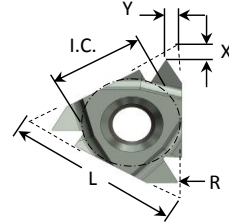
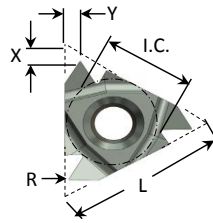


TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
40	06	5/32"	-	-	-	-	06NR 40W	0.087	0.5	0.5
36	06	5/32"	-	-	-	-	06NR 36W	0.097	0.5	0.5
32	06	5/32"	-	-	-	-	06NR 32W	0.109	0.5	0.5
28	06	5/32"	-	-	-	-	06NR 28W	0.125	0.5	0.5
24	06	5/32"	-	-	-	-	06NR 24W	0.145	0.6	0.6
20	06	5/32"	-	-	-	-	06NR 20W	0.174	0.6	0.7
28	08	3/16"	-	-	-	-	08NR 28W	0.125	0.5	0.5
26	08	3/16"	-	-	-	-	08NR 26W	0.134	0.5	0.5
20	08	3/16"	-	-	-	-	08NR 20W	0.174	0.6	0.6
19	08	3/16"	-	-	-	-	08NR 19W	0.184	0.6	0.7
16	08	3/16"	-	-	-	-	08NR 16W	0.218	0.7	0.8
72	11	1/4"	-	-	-	-	11NR 72W	0.048	0.7	0.5
60	11	1/4"	-	-	-	-	11NR 60W	0.058	0.7	0.5
56	11	1/4"	-	-	-	-	11NR 56W	0.062	0.7	0.5
48	11	1/4"	-	-	-	-	11NR 48W	0.073	0.7	0.5
40	11	1/4"	-	-	-	-	11NR 40W	0.087	0.7	0.5
36	11	1/4"	-	-	-	-	11NR 36W	0.097	0.7	0.5
32	11	1/4"	-	-	-	-	11NR 32W	0.109	0.7	0.5
28	11	1/4"	-	-	-	-	11NR 28W	0.125	0.7	0.8
26	11	1/4"	-	-	-	-	11NR 26W	0.134	0.7	0.8
24	11	1/4"	-	-	-	-	11NR 24W	0.145	0.7	0.8
22	11	1/4"	-	-	-	-	11NR 22W	0.159	0.7	0.8
20	11	1/4"	-	-	-	-	11NR 20W	0.174	0.7	0.8
19	11	1/4"	-	-	-	-	11NR 19W	0.184	0.7	0.8
14	11	1/4"	-	-	-	-	11NR 14W	0.249	0.7	0.8
72	16	3/8"	16ER 72W	0.048	0.7	0.5	16NR 72W	0.048	0.7	0.5
60	16	3/8"	16ER 60W	0.058	0.7	0.5	16NR 60W	0.058	0.7	0.5
56	16	3/8"	16ER 56W	0.062	0.7	0.5	16NR 56W	0.062	0.7	0.5
48	16	3/8"	16ER 48W	0.073	0.7	0.5	16NR 48W	0.073	0.7	0.5
40	16	3/8"	16ER 40W	0.087	0.7	0.5	16NR 40W	0.087	0.7	0.5
36	16	3/8"	16ER 36W	0.097	0.7	0.8	16NR 36W	0.097	0.8	0.5
32	16	3/8"	16ER 32W	0.109	0.7	0.8	16NR 32W	0.109	0.8	0.5
28	16	3/8"	16ER 28W	0.125	0.7	0.8	16NR 28W	0.125	0.8	0.8
26	16	3/8"	16ER 26W	0.134	0.7	0.8	16NR 26W	0.134	0.7	0.8
22	16	3/8"	16ER 22W	0.159	0.7	0.8	16NR 22W	0.159	0.8	0.8
20	16	3/8"	16ER 20W	0.174	0.7	0.8	16NR 20W	0.174	0.7	0.8
19	16	3/8"	16ER 19W	0.184	0.7	0.8	16NR 19W	0.184	0.8	0.8
14	16	3/8"	16ER 14W	0.249	1.3	1.5	16NR 14W	0.249	1.3	1.5
12	16	3/8"	16ER 12W	0.291	1.3	1.5	16NR 12W	0.291	1.3	1.5
11	16	3/8"	16ER 11W	0.317	1.3	1.5	16NR 11W	0.317	1.3	1.5
10	16	3/8"	16ER 10W	0.349	1.3	1.5	16NR 10W	0.349	1.3	1.5
9	16	3/8"	16ER 9W	0.388	1.3	1.5	16NR 9W	0.388	1.3	1.5
8	16	3/8"	16ER 8W	0.436	1.3	1.5	16NR 8W	0.436	1.3	1.5
7	16	3/8"	16ER 7W	0.498	1.3	1.5	16NR 7W	0.498	1.3	1.5

Left Hand Insert designation: **EL** or **NL**: 16EL 12W / 16NL 12W

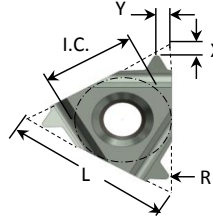
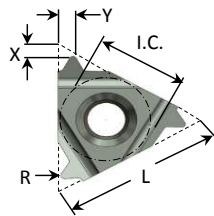
INSERTS LAYDOWN STYLE

NPT (full form) ASME/ANSI B1.20.1



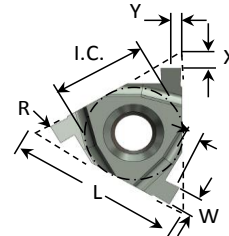
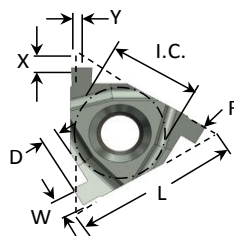
TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
27	06	5/32"	-	-	-	-	06NR 27NPT	0.060	0.6	0.6
27	08	3/16"	-	-	-	-	08NR 27NPT	0.060	0.6	0.6
18	08	3/16"	-	-	-	-	08NR 18NPT	0.084	0.7	0.8
27	11	1/4"	-	-	-	-	11NR 27NPT	0.060	0.7	0.8
18	11	1/4"	-	-	-	-	11NR 18NPT	0.084	0.7	0.8
14	11	1/4"	-	-	-	-	11NR 14NPT	0.094	0.7	1.0
27	16	3/8"	16ER 27NPT	0.060	0.7	0.8	16NR 27NPT	0.060	0.7	0.8
18	16	3/8"	16ER 18NPT	0.084	0.7	0.8	16NR 18NPT	0.084	0.7	0.8
14	16	3/8"	16ER 14NPT	0.094	1.3	1.5	16NR 14NPT	0.094	1.3	1.5
11.5	16	3/8"	16ER 11.5NPT	0.107	1.3	1.5	16NR 11.5NPT	0.107	1.3	1.5
8	16	3/8"	16ER 8NPT	0.132	1.3	1.7	16NR 8NPT	0.132	1.3	1.7

BSPT (Full Form) BS21



TPI	L mm	I.C. Inch	Description External	R Max	X mm	Y mm	Description Internal	R Max	X mm	Y mm
28	06	5/32"	-	-	-	-	06NR 28BSPT	0.125	0.5	0.6
19	11	1/4"	-	-	-	-	11NR 19NP	0.184	0.7	0.8
28	11	1/4"	-	-	-	-	11NR 28BSPT	0.125	0.7	0.8
19	11	1/4"	-	-	-	-	11NR 19NP	0.184	0.7	0.8
28	16	3/8"	16ER 28BSPT	0.125	0.7	0.8	16NR 28BSPT	0.125	0.7	0.8
19	16	3/8"	16ER 19BSPT	0.18	0.7	0.8	16NR 19BSPT	0.184	0.7	0.8
14	16	3/8"	16ER 14BSPT	0.249	1.3	1.5	16NR 14BSPT	0.249	1.3	1.5
11	16	3/8"	16ER 11BSPT	0.317	1.3	1.5	16NR 11BSPT	0.317	1.3	1.5

GROOVING

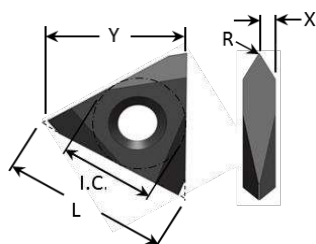


L mm	I.C. Inch	Description External	X mm	Y mm	Description Internal	X mm	Y mm	W mm	D mm	R mm
16	3/8"	16ER GW0.5	1.3	0.35	16NR GW0.5	1.3	0.35	0.50	1.00	0.10
16	3/8"	16ER GW1.0	1.3	0.60	16NR GW1.0	1.3	0.60	1.00	1.80	0.10
16	3/8"	16ER GW1.5	1.3	0.85	16NR GW1.5	1.3	0.85	1.50	2.00	0.10
16	3/8"	16ER GW2.0	1.3	1.10	16NR GW2.0	1.3	1.10	2.00	2.00	0.10

Left Hand Insert designation: **EL** or **NL**: **16EL 14NPT / 16NL 14NPT**

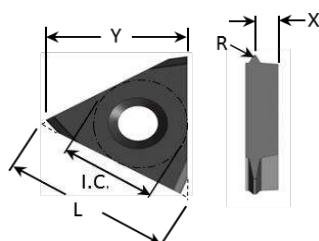
INSERTS ON EDGE STYLE

Partial Profile 55° - 60°



Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
0.5 - 3.0	48 - 8	16	3/8"	TNEC32 NV60	0.07	-	-	1.588	13.43
0.5 - 3.0	48 - 8	16	3/8"	TNEC32 NV55	0.07	-	-	1.588	13.43
0.5 - 4.5	48 - 8	22	1/2"	TNEC43 NV60	0.07	-	-	2.381	18.64
0.5 - 4.5	48 - 8	22	1/2"	TNEC43 NV55	0.07	-	-	2.381	18.64

ISO DIN13



Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
0.5	-	16	3/8"	TNEC32 ISO 0.5E	0.072	-	-	2.60	13.43
0.75	-	16	3/8"	TNEC32 ISO 0.75E	0.108	-	-	1.59	13.43
1	-	16	3/8"	TNEC32 ISO 1.0E	0.144	-	-	2.39	13.43
1.25	-	16	3/8"	TNEC32 ISO 1.25E	0.180	-	-	2.27	13.43
1.5	-	16	3/8"	TNEC32 ISO 1.5E	0.216	-	-	2.15	13.43
1.75	-	16	3/8"	TNEC32 ISO 1.75E	0.252	-	-	2.03	13.43
2	-	16	3/8"	TNEC32 ISO 2.0E	0.288	-	-	1.91	13.43
1.5	-	22	1/2"	TNEC43 ISO 1.5E	0.216	-	-	3.70	18.64
1.75	-	22	1/2"	TNEC43 ISO 1.75E	0.252	-	-	3.60	18.64
2.0	-	22	1/2"	TNEC43 ISO 2.0E	0.288	-	-	3.48	18.64
2.5	-	22	1/2"	TNEC43 ISO 2.5E	0.360	-	-	3.20	18.64
3.0	-	22	1/2"	TNEC43 ISO 3.0E	0.432	-	-	3.00	18.64

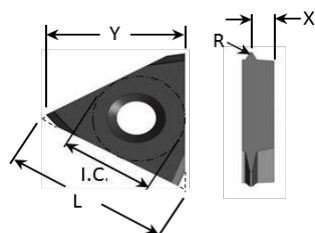
Unified 'UN' (Full Form) ASME/ANSI B1.1

Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	20	16	3/8"	TNEC32 UN 20E	0.183	-	-	2.27	13.43
-	18	16	3/8"	TNEC32 UN 18E	0.203	-	-	2.21	13.43
-	16	16	3/8"	TNEC32 UN 16E	0.229	-	-	2.14	13.43
-	14	16	3/8"	TNEC32 UN 14E	0.261	-	-	2.03	13.43
-	12	16	3/8"	TNEC32 UN 12E	0.305	-	-	1.90	13.43
-	12	22	1/2"	TNEC43 UN 12E	0.305	-	-	3.49	18.64
-	10	22	1/2"	TNEC43 UN 10E	0.366	-	-	3.30	18.64
-	8	22	1/2"	TNEC43 UN 8E	0.457	-	-	3.00	18.64

Left Hand Insert designation: **EL : TNEC32 UN 20EL**

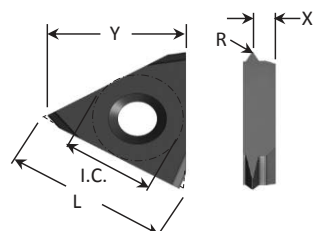
INSERTS ON EDGE STYLE

WHITWORTH 55° (Full Form) DIN 2999/BS84



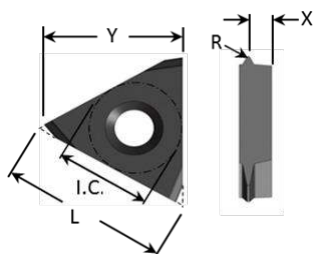
Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	19	16	3/8"	TNEC32 WHIT 19E	0.184	-	-	2.20	13.43
-	14	16	3/8"	TNEC32 WHIT 14E	0.249	-	-	1.90	13.43
-	11	22	1/2"	TNEC43 WHIT 11E	0.317	-	-	3.30	18.64
-	10	22	1/2"	TNEC43 WHIT 10E	0.349	-	-	3.20	18.64

NPT (full form) ASME/ANSI B1.20.1



Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	27	16	3/8"	TNEC32 NPT 27E	0.060	-	-	2.40	13.43
-	18	16	3/8"	TNEC32 NPT 18E	0.084	-	-	2.20	13.43
-	14	16	3/8"	TNEC32 NPT 14E	0.094	-	-	2.00	13.43
-	14	22	1/2"	TNEC43 NPT 14E	0.094	-	-	3.50	18.64
-	11.5	22	1/2"	TNEC43 NPT 11.5E	0.107	-	-	3.30	18.64

BSPT (Full Form) BS21

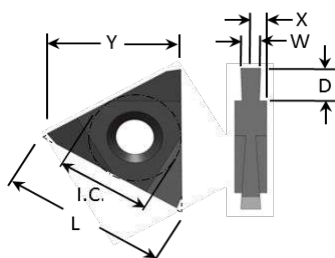


Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	19	16	3/8"	TNEC32 BSPT 19E	0.184	-	-	2.15	13.43
-	14	16	3/8"	TNEC32 BSPT14E	0.249	-	-	1.95	13.43
-	11	22	1/2"	TNEC43 BSPT 11E	0.317	-	-	3.30	18.64

Left Hand Insert designation: **EL : TNEC32 BSPT 14EL**

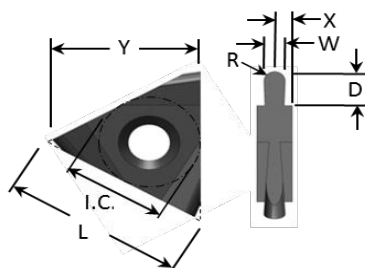
INSERTS ON EDGE STYLE

Square Grooving



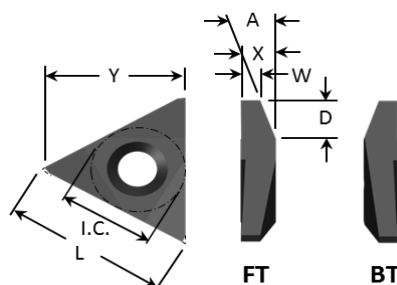
Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	-	16	3/8"	TNEC32 NGC W0.5	0.050	0.50	2.00	1.59	13.43
-	-	16	3/8"	TNEC32 NGC W1.0	0.050	1.00	2.50	1.59	13.43
-	-	16	3/8"	TNEC32 NGC W1.5	0.050	1.50	3.60	1.59	13.43
-	-	16	3/8"	TNEC32 NGC W2.0	0.050	2.00	3.60	1.59	13.43
-	-	16	3/8"	TNEC32 NGC W2.5	0.050	2.50	3.60	1.59	13.43
-	-	22	1/2"	TNEC43 NGC W1.5	0.050	1.50	4.10	2.38	18.64
-	-	22	1/2"	TNEC43 NGC W2.0	0.050	2.00	4.10	2.38	18.64
-	-	22	1/2"	TNEC43 NGC W2.5	0.050	2.50	4.10	2.38	18.64
-	-	22	1/2"	TNEC43 NGC W3.0	0.050	3.00	5.00	2.38	18.64

Radius Grooving



Pitch	TPI	L mm	I.C. Inch	Description External	R Max	W mm	D mm	X mm	Y mm
-	-	16	3/8"	TNEC32 NGC R1.0	0.50	1.00	2.50	1.59	13.43
-	-	16	3/8"	TNEC32 NGC R1.5	0.75	1.50	3.50	1.59	13.43
-	-	16	3/8"	TNEC32 NGC R2.0	1.00	2.00	3.50	1.59	13.43
-	-	22	1/2"	TNEC43 NGC R2.5	1.25	2.50	5.00	2.38	18.64
-	-	22	1/2"	TNEC43 NGC R3.0	1.50	3.00	5.00	2.38	18.64

Turning

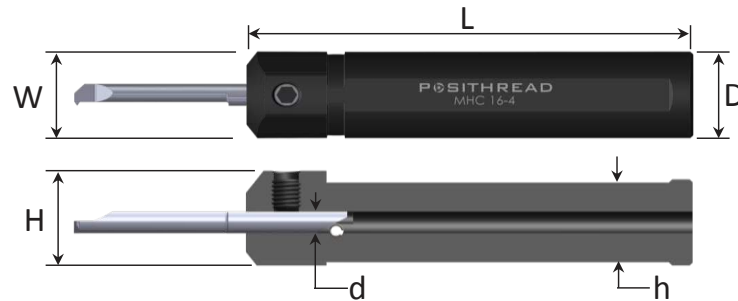


Pitch	TPI	L mm	I.C. Inch	Description External	A Degrees	W mm	D Max	X mm	Y mm
-	-	22	1/2"	TNEC43 FT 2.0	20	2.00	5.00	4.76	13.43
-	-	22	1/2"	TNEC43 BT 2.0	20	2.00	5.00	4.76	13.43

Handed Insert designation: **NGCR NGCL**

MINI SERIES

ROUND SHANK TOOLHOLDERS



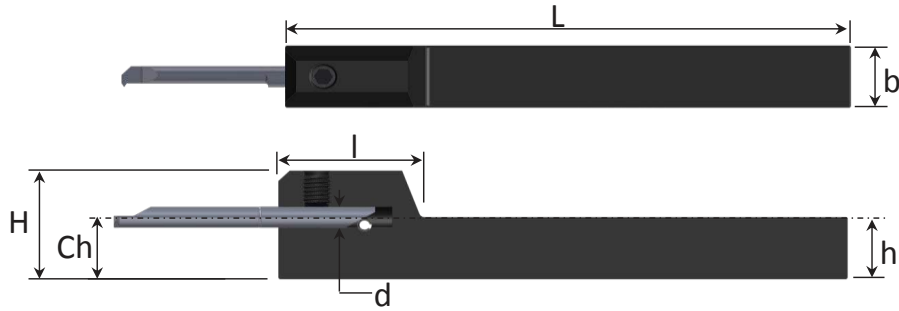
PART No.	DIMENSIONS (mm)					SPARES		INSERT Ø d
	D=W	H	h	L		Screw	Torq Key	
MHC 10-4	10	14.0	8.8	65		SL7DT15	T15	4.0
MHC 12-4	12	16.0	10.8	70				
MHC 16-4	16	17.6	14.8	75				
MHC 20-4	20	22.0	18.8	84				
MHC 10-5	10	14.0	8.8	65		SL7DT15	T15	5.0
MHC 12-5	12	16.0	10.8	70				
MHC 16-5	16	18.6	14.8	75				
MHC 20-5	20	22.0	18.8	84				
MHC 12-6	12	16.0	10.8	70		SL7DT15	T15	6.0
MHC 16-6	16	18.6	14.8	75				
MHC 20-6	20	22.0	18.8	84				

IMPERIAL ROUND SHANK TOOLHOLDERS

PART No.	DIMENSIONS (mm)						SPARES		INSERT Ø d
	D	W	H	h	L		Screw	Torq Key	
MHC 0500-4	12.7/.500"	13	16.4	10	70		SL7DT15	T15	4.0
MHC 0625-4	15.875/.625"	16	18.6	14	75				
MHC 0750-4	19.05/.750"	21	21.0	18	90				
MHC 0500-5	12.7/.500"	13	16.4	10	70		SL7DT15	T15	5.0
MHC 0625-5	15.875/.625"	16	18.6	14	75				
MHC 0750-5	19.05/.750"	21	21.0	18	90				
MHC 0500-6	12.7/.500"	13	16.4	10	70		SL7DT15	T15	6.0
MHC 0625-6	15.875/.625"	16	18.6	14	75				
MHC 0750-6	19.05/.750"	21	21.0	18	90				

MINI SERIES

SQUARE SHANK TOOLHOLDERS



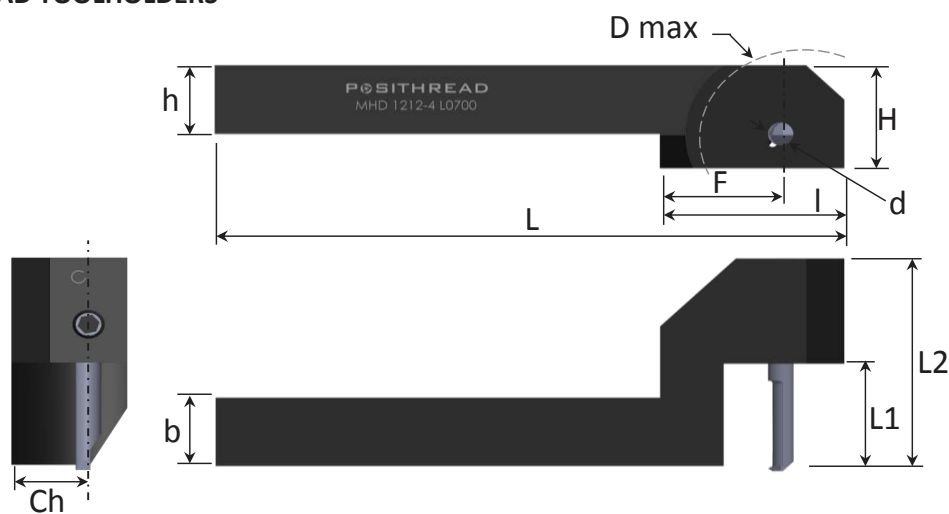
PART No.	DIMENSIONS (mm)				SPARES		INSERT Ø d
	Ch=h=b	H	L	l	Screw	Torq Key	
MHS 1010-4	10	19.0	100	25	SL7DT15	T15	4.0
MHS 1010-5	10	19.5	100	25			5.0
MHS 1212-4	12	21.0	100	25			4.0
MHS 1212-5	12	21.5	100	27			5.0
MHS 1212-6	12	22.0	100	27			6.0

IMPERIAL SQUARE SHANK TOOLHOLDERS

PART No.	DIMENSIONS (mm)				SPARES		INSERT Ø d
	Ch=h=b	H	L	l	Screw	Torq Key	
MHS 0500-4	12.7/.500"	21.0	101.6/4.0"	25	SL7DT15	T15	4.0
MHS 0625-4	15.9/.625"	25.0	127/5.0"	25			4.0
MHS 0500-5	12.7/.500"	21.5	101.6/4.0"	27			5.0
MHS 0625-5	15.9/.625"	25.5	127/5.0"	35			5.0
MHS 0500-6	12.7/.500"	22.0	101.6/4.0"	27			6.0
MHS 0625-6	15.9/.625"	26.0	127/5.0"	35			6.0

MINI SERIES

DROP HEAD TOOLHOLDERS



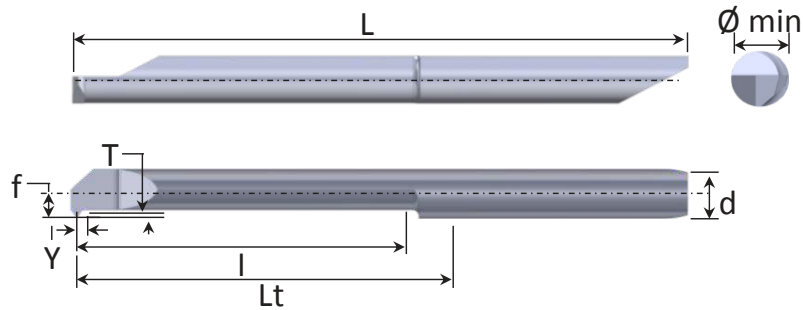
PART No.	DIMENSIONS (mm)								SPARES		INSERT Ø
	Ch=h=b	L2	H	L	I	F	D max	L1	Screw	Torq Key	d
MHD 1010-4 L0500		31.5						13			4.0
MHD 1010-5 L0800	10.0	48.0	16					23			5.0
MHD 1010-6 L1000		53.0		99	29	19	26	28	SL7DT15	T15	6.0
MHD 1212-4 L0700		36.5						18			4.0
MHD 1212-5 L0800	12.0	48.0	18					23			5.0
MHD 1212-6 L1000		53.0						28			6.0

IMPERIAL DROP HEAD TOOLHOLDERS

PART No.	DIMENSIONS (mm)								SPARES		INSERT Ø
	Ch=h=b	L2	H	L	I	F	D max	L1	Screw	Torq Key	d
MHD 0375-4 L0700		36.5						18			4.0
MHD 0375-5 L0800	9.525	48.0	16					23			5.0
MHD 0375-6 L1000		53.0		99	29	19	26	23	SL7DT15	T15	6.0
MHD 0500-4 L0700		36.5						18			4.0
MHD 0500-5 L0800	12.7	48.0	19					23			5.0
MHD 0500-6 L1000		53.0						28			6.0

MINI SERIES

THREADING BARS



ISO

Thread	Ø Min mm	PART No.	Pitch mm	f	Y	l	Lt	L	d
M4x0.5	3.4	CTR429 0.5ISO L16 DBC	0.5	0.9	0.4	16.0	18.4	35.4	4.0
M5x0.5	4.4	CTR439 0.5ISO L16 DBC	0.5	1.9	0.4	16.0	18.4	35.4	4.0
M4x0.7	3.2	CTR429 0.7ISO L16 DBC	0.7	0.9	0.6	16.0	18.4	35.4	4.0
M5x0.8	4.0	CTR429 0.8ISO L16 DBC	0.8	1.9	0.6	16.0	18.4	35.4	4.0
M6x1.0	4.8	CTR439 1.0ISO L16 DBC	1.0	1.7	0.7	16.0	18.4	35.4	4.0
M5.5x0.5	4.9	CTR542 0.5ISO L16 DBC	0.5	1.73	0.4	16.0	18.35	41.2	5.0
M5.5x0.75	4.6	CTR542 0.75ISO L16 DBC	0.75	1.7	0.6	16.0	18.35	41.2	5.0
M7x1.0	5.8	CTR549 1.0ISO L16 DBC	1.0	2.4	0.7	16.0	18.35	41.2	5.0
M6x0.5	5.4	CTR649 0.5ISO L16 DBC	0.5	1.9	0.4	16.0	15.5	42.2	6.0
M6.5x0.75	5.6	CTR649 0.75ISO L16 DBC	0.75	1.9	0.6	16.0	18.5	42.2	6.0
M7.5x1.0	6.3	CTR659 1.0ISO L16 DBC	1.0	2.9	0.7	16.0	18.5	42.2	6.0
M8x1.25	6.5	CTR659 1.25ISO L16 DBC	1.25	2.9	0.9	16.0	18.5	42.2	6.0
M1.0x1.5	8.3	CTR659 1.5ISO L16 DBC	1.5	2.9	1.0	16.0	18.5	42.2	6.0

Unified 'UN' (Full Form) ASME/ANSI B1.1

Thread	Ø Min mm	PART No.	TPI	f	Y	l	Lt	L	d
No 8-32UNC	3.3	CTR429 0.5ISO L16 DBC	32	0.92	0.6	16.0	18.4	35.4	4.0
No 10-28UNS	3.6	CTR439 0.5ISO L16 DBC	28	0.92	0.65	16.0	18.4	35.4	4.0
1/4"-27UNS	5.3	CTR429 0.7ISO L16 DBC	27	2.4	0.75	16.0	18.35	41.2	5.0
1/4"-24UNS	5.1	CTR429 0.8ISO L16 DBC	24	1.7	0.75	16.0	18.35	41.2	5.0
1/4"-20UNC	4.6	CTR439 1.0ISO L16 DBC	20	1.7	0.9	16.0	18.35	42.2	5.0
5/16"-28UNC	6.3	CTR542 0.5ISO L16 DBC	18	2.9	1	16.0	18.5	42.2	6.0
3/8"-26UNC	7.7	CTR542 0.75ISO L16 DBC	16	2.9	1	16.0	18.5	42.2	6.0

Partial Profile 60°

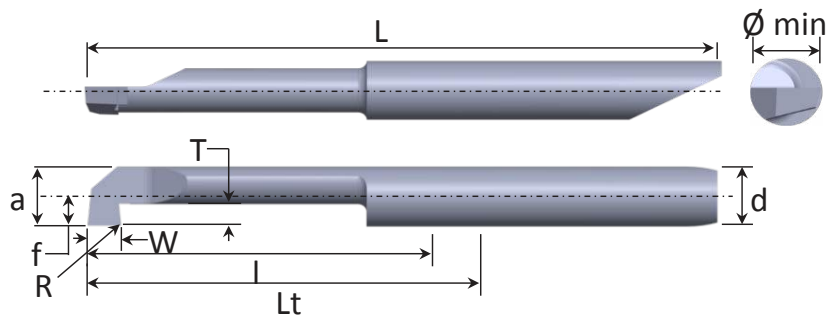
Pitch mm/ TPI	Ø Min mm	PART No.	f	Y	l	Lt	L	d
0.5-1.0 / 48-24	3.2	CTR429 AF60 L16 DBC	-	0.9	0.9	16	18.4	4.0
0.5-1.0 / 48-24	4.2	CTR439 AF60 L16 DBC	-	1.9	0.9	16	18.4	4.0
0.5-1.5 / 48-16	6.2	CTR659 A60 L16 DBC	-	2.9	0.9	16	18.5	6.0

Partial Profile 55°

Pitch mm/ TPI	Ø Min mm	PART No.	f	Y	l	Lt	L	d
0.5-1.0 / 48-24	3.2	CTR429 AF55 L16 DBC	-	0.9	0.9	16	18.4	4.0
0.5-1.0 / 48-24	4.2	CTR439 AF55 L16 DBC	-	1.9	0.9	16	18.4	4.0
0.5-1.5 / 48-16	6.2	CTR659 A55 L16 DBC	-	2.9	0.9	16	18.5	6.0

MINI SERIES

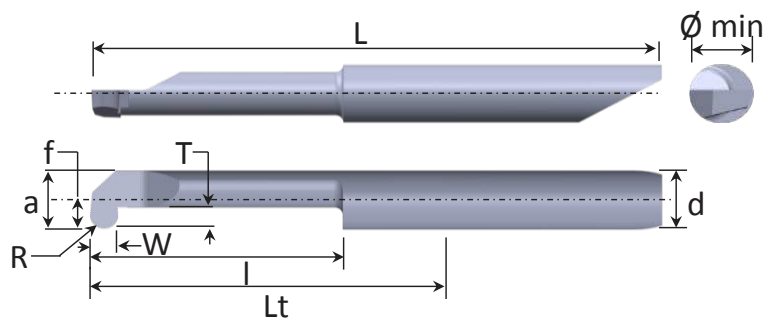
SQUARE GROOVING BARS



Ø Min mm	PART No.	DIMENSIONS (mm)								
		W	T	R	f	a	l	Lt	L	d
4.2	CGR439 W0.5 L10 DBC	0.5	0.9	0.1	1.9	3.9	10.0	11.5	28.5	4.0
4.2	CGR439 W0.5 L15 DBC	0.5	0.9	0.1	1.9	3.9	15.0	18.4	35.2	4.0
4.2	CGR439 W0.5 L20 DBC	0.5	0.9	0.1	1.9	3.9	20.0	22.8	39.8	4.0
5.2	CGR549 W0.5 L10 DBC	0.5	1.0	0.1	2.4	4.9	10.0	12.15	35.0	5.0
5.2	CGR549 W0.5 L15 DBC	1.0	1.0	0.1	2.4	4.9	15.0	18.15	41.0	5.0
5.2	CGR549 W0.5 L20 DBC	1.5	1.0	0.1	2.4	4.9	20.0	23.15	46.0	5.0
5.2	CGR549 W1.0 L10 DBC	0.5	1.0	0.1	2.4	4.9	10.0	12.15	35.0	5.0
5.2	CGR549 W1.0 L15 DBC	1.0	1.0	0.1	2.4	4.9	15.0	18.15	41.0	5.0
5.2	CGR549 W1.0 L20 DBC	1.5	1.0	0.1	2.4	4.9	20.0	23.15	46.0	5.0
5.2	CGR549 W1.5 L10 DBC	0.5	1.0	0.1	2.4	4.9	10.0	12.15	35.0	5.0
5.2	CGR549 W1.5 L15 DBC	1.0	1.0	0.1	2.4	4.9	15.0	18.15	41.0	5.0
5.2	CGR549 W1.5 L20 DBC	1.5	1.0	0.1	2.4	4.9	20.0	23.15	46.0	5.0
6.2	CGR659 W0.5 L10 DBC	0.5	1.8	0.1	2.9	5.9	10.0	12.3	36.0	6.0
6.2	CGR659 W0.5 L15 DBC	1.0	1.8	0.1	2.9	5.9	15.0	18.3	42.0	6.0
6.2	CGR659 W0.5 L20 DBC	1.5	1.8	0.1	2.9	5.9	20.0	23.3	47.0	6.0
6.2	CGR659 W1.0 L10 DBC	0.5	1.8	0.1	2.9	5.9	10.0	12.3	36.0	6.0
6.2	CGR659 W1.0 L15 DBC	1.0	1.8	0.1	2.9	5.9	15.0	18.3	42.0	6.0
6.2	CGR659 W1.0 L20 DBC	1.5	1.8	0.1	2.9	5.9	20.0	23.3	47.0	6.0
6.2	CGR659 W1.5 L10 DBC	0.5	1.8	0.1	2.9	5.9	10.0	12.3	36.0	6.0
6.2	CGR659 W1.5 L15 DBC	1.0	1.8	0.1	2.9	5.9	15.0	18.3	42.0	6.0
6.2	CGR659 W1.5 L20 DBC	1.5	1.8	0.1	2.9	5.9	20.0	23.3	47.0	6.0

MINI SERIES

ROUND GROOVING BARS



$\varnothing \text{ Min}$ mm	PART No.	DIMENSIONS (mm)								
		W	T	R	f	a	l	Lt	L	d
4.2	CRR439 R0.5 L15 DBC	1.0	0.8	0.5	1.9	3.9	15.0	18.4	35.2	4.0
5.2	CRR549 R0.5 L20 DBC	1.0	1.0	0.5	2.4	4.9	20.0	23.15	46.0	5.0
5.2	CRR549 R0.75 L20 DBC	1.5	1.0	0.75	2.4	4.9	20.0	23.15	46.0	5.0
5.2	CRR549 R1.0 L20 DBC	2.0	1.0	1.0	2.4	4.9	20.0	23.15	46.0	5.0
6.2	CRR659 R0.5 L20 DBC	1.0	1.8	0.5	2.9	5.9	20.0	28.3	52.0	6.0
6.2	CRR659 R0.75 L20 DBC	1.5	1.8	0.75	2.9	5.9	20.0	28.3	52.0	6.0
6.2	CRR659 R1.0 L20 DBC	2.0	1.8	1.0	2.9	5.9	20.0	28.3	52.0	6.0

LAYDOWN AND MINI SERIES

SPEEDS AND FEEDS FOR LAYDOWN THREADING AND GROOVING INSERTS

	PTC2	PTX	DBC
Materials Specification	Metres per Min		
Low/Med Carbon Steel	150 / 200	210 / 250	184 / 259
High Carbon Steel	130 / 180	150 / 210	131 / 217
Alloy Heat Treated Steel	120 / 150	140 / 180	123 / 186
Stainless Steel 316-17-4PH	90 / 115	105 / 135	92 / 140
Stainless Steel 410	115 / 128	135 / 150	118 / 155
Inconel 718		27 / 33	24 / 34
Cast Iron HB 180-250	110 / 140	130 / 180	114 / 186
Non Ferrous Materials	200 / 250	200 / 300	175 / 311
Aerospace Type Materials		40 / 80	35 / 83

General Purpose

PTC2

TiN coating is a multi purpose coating suited to low and medium cutting speeds.

Premium Grades

PTX

AlTiN coating, very good all round grade, increased tool life over PTC2 by up to 50%

Heat Resistance

DBC

TiSiN coating developed for hard materials, high chrome steels and exotic materials.

Heat Resistance and Oxidation Resistance at cutting temperatures of over 1000°C

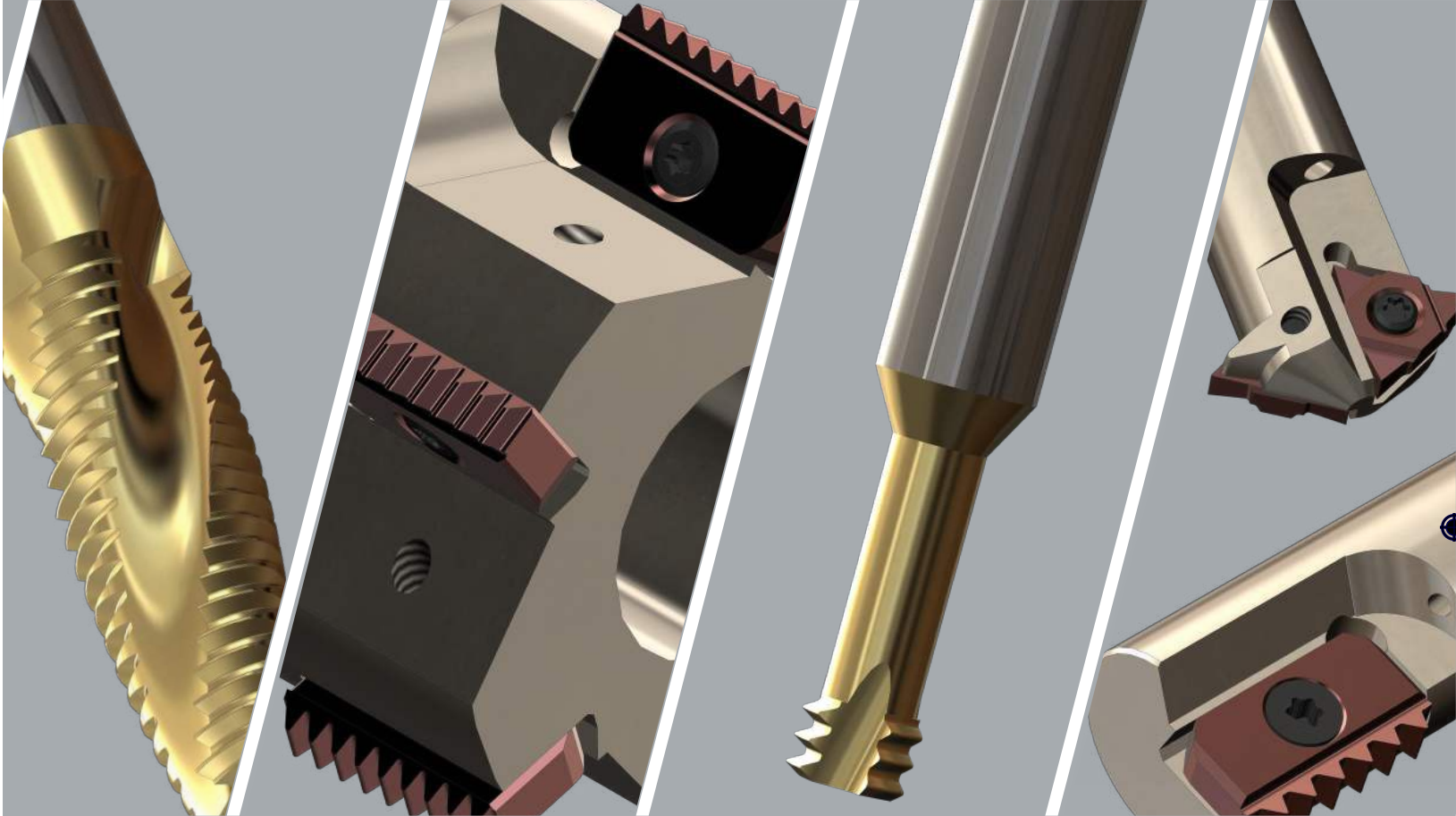
SPEEDS AND FEEDS FOR MINI SERIES THREADING AND GROOVING INSERTS

	DBC	FEED
Materials Specification	Metres per Min	f(mm/rev)
Low/Med Carbon Steel	129 / 181	0.05
High Carbon Steel	92 / 152	0.05
Alloy Heat Treated Steel	86 / 130	0.05
Stainless Steel 316-17-4PH	64 / 98	0.05
Stainless Steel 410	83 / 109	0.05
Inconel 718	17 / 24	0.03
Cast Iron HB 180-250	80 / 130	0.04
Non Ferrous Materials	123 / 217	0.04
Aerospace Type Materials	25 / 58	0.03

DBC

TiSiN coating developed for hard materials, high chrome steels and exotic materials.

Heat Resistance and Oxidation Resistance at cutting temperatures of over 1000°C



THREADMILLING

TOOLING FOR OIL & GAS · AUTOMOTIVE
AEROSPACE · GENERAL ENGINEERING

THREADMILLING

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THREADMILL IDENTIFICATION

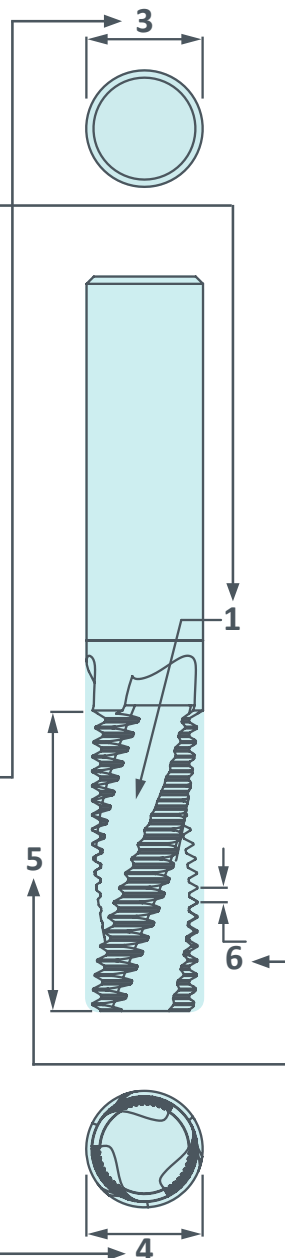
1	2	3	4	5	6	7	8
TMR	N	16	139	L40	2.5	ISO	C

1 LINE OF THREADMILL	
TMR	HELICAL FLUTES
PMR	HELICAL FLUTES
TMS	STRAIGHT FLUTES
HMR	HELICAL IN-FLUTE COOLANT

2 TOOL TYPE	
E	EXTERNAL THREAD
N	INTERNAL THREAD
X	EXTERNAL & INTERNAL THREAD

3 TOOL SHANK DIAMETER	
04	4.00 mm
06	6.00 mm
08	8.00 mm
10	10.00 mm
12	12.00 mm
14	14.00 mm
16	16.00 mm
18	18.00 mm
20	20.00 mm

4 CUTTING DIAMETER	
139	13.90 mm



5 CUTTING LENGTH	
L40	40.00 mm

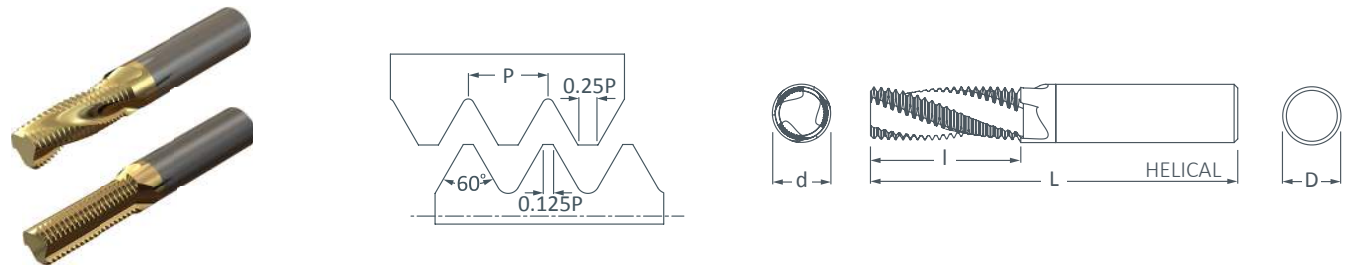
6 THREAD PITCH/TPI	
2.5	2.5 mm PITCH
10	10 TPI

7 THREAD FORM	
ISO	ISO
UNC	UNIFIED COARSE
UNF	UNIFIED FINE
UNEF	UNIFIED EXTRA FINE
BSW	BRITISH STANDARD WHITWORTH
BSF	BRITISH STANDARD FINE
BSP	BRITISH STANDARD PIPE
BSPT	BRITISH STANDARD PIPE TAPER
NPT	NATIONAL PIPE THREAD
NPTF	NATIONAL PIPE THREAD FUEL
ACME	GENERAL PURPOSE ACME

8 THROUGH HOLE COOLANT	
C	WITH THROUGH HOLE COOLANT

SOLID CARBIDE

ISO METRIC



ISO HELICAL FLUTE

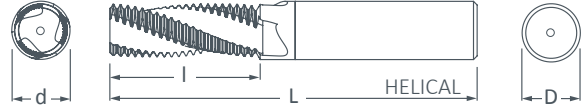
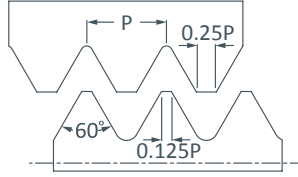
THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
M3	0.50	TMRN 04 022 L06 0.5ISO	2.20	6.00	4.00	45.00	12	3
M4	0.70	TMRN 04 028 L08 0.7ISO	2.80	8.40	4.00	45.00	12	3
M5	0.80	TMRN 04 035 L10 0.8ISO	3.50	10.40	4.00	45.00	13	3
M6	1.00	TMRN 04 039 L12 1.0ISO	3.90	12.00	4.00	45.00	12	3
M8	1.25	TMRN 06 058 L16 1.25ISO	5.80	16.25	6.00	57.00	13	3
M10	1.50	TMRN 08 077 L21 1.5ISO	7.70	21.00	8.00	63.00	14	3
M12	1.75	TMRN 10 087 L25 1.75ISO	8.70	24.50	10.00	73.00	14	4
M14	2.00	TMRN 10 099 L28 2.0ISO	9.90	28.00	10.00	73.00	14	4
M16	2.00	TMRN 12 119 L32 2.0ISO	11.90	32.00	12.00	83.00	16	4
M18-M22	2.50	TMRN 16 139 L40 2.5ISO	13.90	40.00	16.00	92.00	16	5
M24	3.00	TMRN 16 159 L42 3.0ISO	15.90	42.00	16.00	92.00	14	4

ISO FINE HELICAL FLUTE

THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
M6	0.75	TMRN 04 039 L12 0.75ISO	3.90	12.00	4.00	45.00	16	3
M8	1.00	TMRN 06 059 L16 1.0ISO	5.90	16.00	6.00	57.00	16	3
M10	1.25	TMRN 08 077 L20 1.25ISO	7.70	20.00	8.00	63.00	16	3
M12	1.50	TMRN 10 094 L24 1.5ISO	9.40	24.00	10.00	73.00	16	4
M16	1.50	TMRN 12 119 L33 1.5ISO	11.90	33.00	12.00	83.00	22	4
M16	2.00	TMRN 12 119 L32 2.0ISO	11.90	32.00	12.00	83.00	16	4

SOLID CARBIDE

ISO METRIC



ISO HELICAL FLUTE THROUGH HOLE COOLANT

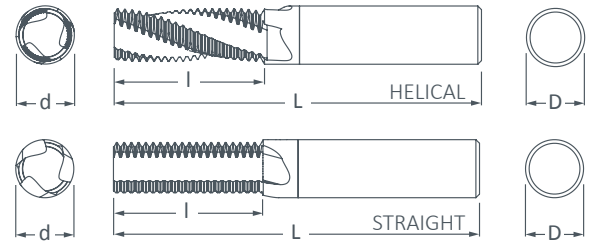
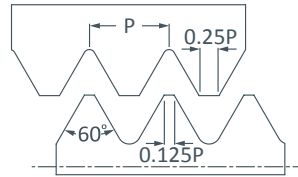
THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
M3	0.50	TMRN 04 024 L06 0.5ISO-C	2.40	6.20	4.00	45.00	12	3
M4	0.70	TMRN 04 031 L08 0.7ISO-C	3.15	8.70	4.00	45.00	12	3
M5	0.80	TMRN 04 039 L12 0.8ISO-C	3.90	10.80	4.00	45.00	13	3
M6	1.00	TMRN 06 048 L12 1.0ISO-C	4.80	12.50	6.00	57.00	12	3
M8	1.25	TMRN 08 065 L16 1.25ISO-C	6.50	16.90	8.00	61.00	13	3
M10	1.50	TMRN 10 082 L20 1.5ISO-C	8.20	20.20	10.00	73.00	13	3
M12	1.75	TMRN 10 099 L25 1.75ISO-C	9.90	25.40	10.00	73.00	14	4
M14	2.00	TMRN 12 116 L29 2.0ISO-C	11.60	29.00	12.00	80.00	14	4
M16	2.00	TMRN 14 136 L33 2.0ISO-C	13.60	33.00	14.00	92.00	16	4
M20	2.50	TMRN 18 171 L41 2.5ISO-C	17.10	41.20	18.00	102.00	16	4
M24	3.00	TMRN 20 199 L49 3.0ISO-C	19.90	49.50	20.00	102.00	16	4

ISO FINE HELICAL FLUTE THROUGH HOLE COOLANT

THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
M6	0.75	TMRN 06 050 L12 0.75ISO-C	5.00	12.40	6.00	57.00	16	3
M8	1.00	TMRN 08 067 L16 1.0ISO-C	6.70	16.50	8.00	61.00	16	3
M10	1.25	TMRN 10 085 L20 1.25ISO-C	8.50	20.60	10.00	73.00	16	3
M12	1.50	TMRN 10 099 L24 1.5ISO-C	9.90	24.70	10.00	73.00	16	4
M16	1.50	TMRN 14 139 L32 1.5ISO-C	13.90	32.20	14.00	92.00	21	4
M17-M80	2.00	TMRN 12 116 L29 2.0ISO-C	11.60	29.00	12.00	80.00	14	4

SOLID CARBIDE

UNIFIED



UNC UNIFIED COARSE HELICAL FLUTE

THREAD	TPI	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
NO. 12	24	TMRN 06 041 L09 24UNC	4.10	9.00	6.00	62	8	3
1/4"	20	TMRN 06 047 L10 20UNC	4.70	10.20	6.00	58	8	3
5/16"	18	TMRN 06 053 L13 18UNC	5.30	12.70	6.00	58	9	3
3/8"	16	TMRN 08 065 L14 16UNC	6.50	14.30	8.00	64	9	3
7/16"	14	TMRN 08 079 L18 14UNC	7.90	18.10	8.00	64	10	3
1/2"	13	TMRN 10 089 L21 13UNC	8.90	21.40	10.00	73	11	3
9/16"	12	TMRN 10 099 L23 12UNC	9.90	23.30	10.00	73	11	3
5/8"	11	TMRN 12 114 L28 11UNC	11.40	27.80	12.00	84	12	3
3/4"	10	TMRN 16 144 L31 10UNC	14.40	30.50	16.00	100	12	4
7/8"	9	TMRN 16 159 L37 9UNC	15.90	36.70	16.00	100	13	4
1"	8	TMRN 20 192 L38 8UNC	19.20	38.10	20.00	120	12	5

UNF UNIFIED FINE HELICAL & STRAIGHT FLUTE

THREAD	TPI	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
NO. 8	36	TMSN 04 030 L06 36UNF	3.00	6.40	4.00	50	9	2
NO. 10	32	TMRN 04 030 L06 32UNF	3.00	6.40	4.00	50	9	3
NO. 12	28	TMRN 04 036 L08 28UNF	3.60	8.20	4.00	50	9	3
1/4"	28	TMRN 06 045 L10 28UNF	4.50	10.00	6.00	58	11	3
5/16" 3/8"	24	TMRN 06 058 L15 24UNF	5.80	14.80	6.00	58	14	3
7/16" 1/2"	20	TMRN 10 085 L23 20UNF	8.50	22.90	10.00	73	18	3
9/16" 5/8"	18	TMRN 12 113 L25 18UNF	11.30	25.40	12.00	84	18	4
3/4"	16	TMRN 16 156 L37 16UNF	15.60	36.50	16.00	100	23	4
7/8"	14	TMRN 16 159 L40 14UNF	15.90	39.90	16.00	100	22	4
1" 1 1/2"	12	TMRN 16 159 L38 12UNF	15.90	38.10	16.00	100	18	4

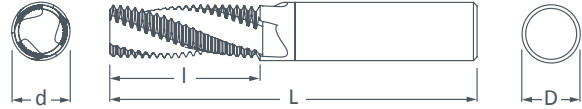
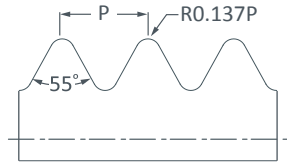
UNEF UNIFIED EXTRA FINE HELICAL FLUTE

THREAD	TPI	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
7/16" 1/2"	28	TMRN 10 090 L24 28UNEF	9.00	23.60	10.00	73	26	3
9/16" 11/16"	24	TMRN 12 117 L30 24UNEF	11.70	29.60	12.00	84	28	4
3/4" 1"	20	TMRN 16 159 L39 20UNEF	15.90	39.40	16.00	100	31	4

SOLID CARBIDE

WHITWORTH

BSW BRITISH STANDARD WHITWORTH HELICAL FLUTE ●



THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/4"	20	TMRX 06 040 L11 20BSW	4.00	11.40	6.00	58	9	3
5/16"	18	TMRX 06 053 L14 18BSW	5.30	14.10	6.00	58	10	3
3/8"	16	TMRX 08 065 L16 16BSW	6.50	15.90	8.00	64	10	3
7/16"	14	TMRX 08 076 L18 14BSW	7.60	18.10	8.00	64	10	3
1/2" 9/16"	12	TMRX 10 086 L23 12BSW	8.60	23.30	10.00	73	11	3
5/8" 11/16"	11	TMRX 12 112 L25 11BSW	11.20	25.40	12.00	84	11	3

BSF BRITISH STANDARD FINE HELICAL FLUTE ●

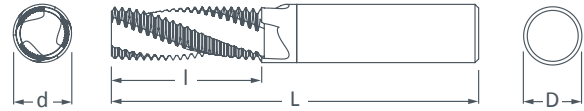
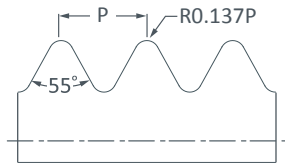
THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
5/16"	22	TMRX 06 055 L14 22BSF	5.50	13.90	6.00	58	12	3
3/8"	20	TMRX 08 068 L17 20BSF	6.80	16.50	8.00	64	13	3
7/16"	18	TMRX 08 079 L18 18BSF	7.90	18.30	8.00	64	13	3
1/2" 9/16"	16	TMRX 10 093 L22 16BSF	9.30	22.20	10.00	73	14	3
5/8" 11/16"	14	TMRX 12 119 L29 14BSF	11.90	29.00	12.00	84	15	3
3/4"	12	TMRX 16 145 L34 12BSF	14.50	33.90	16.00	100	16	4
7/8"	11	TMRX 16 159 L37 11BSF	15.90	36.80	16.00	100	16	4

● THROUGH HOLE COOLANT ALSO AVAILABLE

SOLID CARBIDE

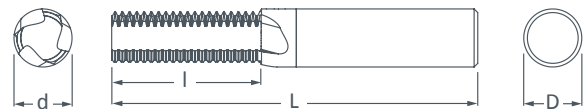
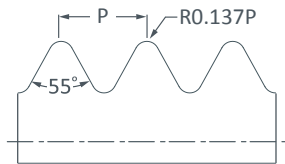
WHITWORTH

BSP BRITISH STANDARD PIPE HELICAL FLUTE ●



THREAD	TPI	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	28	TMRX 06 059 L09 28BSP	5.90	9.10	6.00	58	10	3
1/8"	28	TMRX 08 076 L15 28BSP	7.60	15.40	8.00	64	17	3
1/4" 3/8"	19	TMRX 08 079 L13 19BSP	7.90	13.40	8.00	64	10	3
3/8"	19	TMRX 10 099 L21 19BSP	9.90	21.40	10.00	73	16	3
1/2" 5/8"	14	TMRX 12 119 L18 14BSP	11.90	18.10	12.00	84	10	4
3/4" 7/8"	14	TMRX 16 159 L38 14BSP	15.90	38.10	16.00	100	21	4
1" - 6"	11	TMRX 16 159 L42 11BSP	15.90	41.60	16.00	100	18	4
1" - 6"	11	TMRX 20 199 L42 11BSP	19.90	41.60	20.00	120	18	4

BSP BRITISH STANDARD PIPE STRAIGHT FLUTE



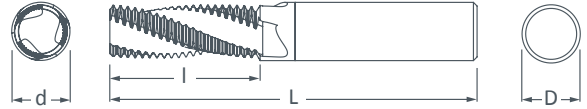
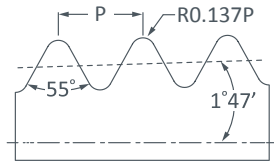
THREAD	TPI	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	28	TMSX 06 059 L09 28BSP	5.90	9.10	6.00	58	10	3
1/4" 3/8"	19	TMSX 08 079 L13 19BSP	7.90	13.40	8.00	64	10	3
1/2"	14	TMSX 12 119 L18 14BSP	11.90	18.10	12.00	84	10	4
1"	11	TMSX 16 159 L42 11BSP	15.90	41.60	16.00	100	18	4

● THROUGH HOLE COOLANT ALSO AVAILABLE

SOLID CARBIDE

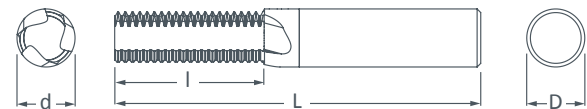
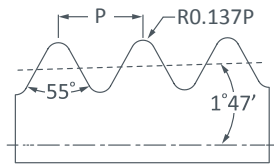
PIPE THREADS

BSPT BRITISH STANDARD PIPE TAPER HELICAL FLUTE



THREAD	TPI	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	28	TMRX 06 059 L09 28BSPT	5.90	9.10	6.00	58	11	3
1/8"	28	TMRX 08 076 L10 28BSPT	7.60	10.00	8.00	64	11	4
1/4"	19	TMRX 08 079 L13 19BSPT	7.90	13.00	8.00	64	11	4
1/4" 3/8"	19	TMRX 10 099 L15 19BSPT	9.90	14.70	10.00	73	11	4
1/2"	14	TMRX 12 119 L18 14BSPT	11.90	18.10	12.00	84	10	4
1/2" 3/4" 7/8"	14	TMRX 16 159 L22 14BSPT	15.90	21.80	16.00	100	12	4
1" - 4"	11	TMRX 16 159 L37 11BSPT	15.90	36.90	16.00	100	18	4
2" - 6"	11	TMRX 20 199 L42 11BSPT	19.90	41.60	20.00	120	18	4

BSPT BRITISH STANDARD PIPE TAPER STRAIGHT FLUTE



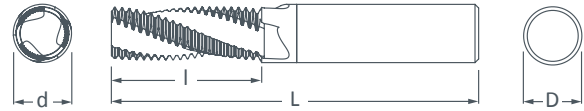
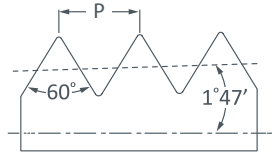
THREAD	TPI	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	28	TMSX 06 059 L09 28BSPT	5.90	9.10	6.00	58	11	3
1/8"	28	TMSX 08 076 L10 28BSPT	7.60	10.00	8.00	64	11	4
1/4"	19	TMSX 08 079 L13 19BSPT	7.90	13.00	8.00	64	11	4
1/4" 3/8"	19	TMSX 10 099 L15 19BSPT	9.90	14.70	10.00	73	11	4
1/2"	14	TMSX 12 119 L18 14BSPT	11.90	18.10	12.00	84	10	4
1/2" 3/4" 7/8"	14	TMSX 16 159 L22 14BSPT	15.90	21.80	16.00	100	12	4
1" - 4"	11	TMSX 16 159 L37 11BSPT	15.90	36.90	16.00	100	18	4
2" - 6"	11	TMSX 20 199 L42 11BSPT	19.90	41.60	20.00	120	18	4

• THROUGH HOLE COOLANT ALSO AVAILABLE

SOLID CARBIDE

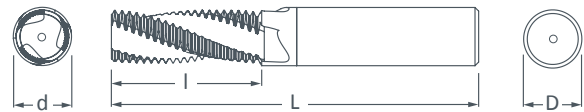
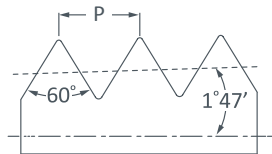
PIPE THREADS

NPT NATIONAL PIPE TAPER HELICAL FLUTE



THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16"	27	TMRX 06 053 L09 27NPT	5.30	9.40	6.00	57.00	10	3
1/8"	27	TMRX 08 075 L09 27NPT	7.50	9.40	8.00	63.00	10	4
1/4"	18	TMRX 10 094 L14 18NPT	9.40	14.10	10.00	73.00	10	4
3/8"	18	TMRX 12 119 L14 18NPT	11.90	14.10	12.00	83.00	10	4
1/2" / 3/4"	14	TMRX 16 155 L25 14NPT	15.50	25.40	16.00	92.00	14	5
1" / 2"	11.5	TMRX 20 199 L33 11.5NPT	19.90	33.10	20.00	104.00	15	5
2 1/2" / 3"	8	TMRX 20 199 L38 8NPT	19.90	38.10	20.00	104.00	12	4

NPT NATIONAL PIPE TAPER HELICAL FLUTE THROUGH HOLE COOLANT

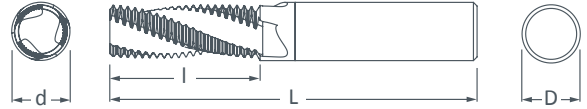
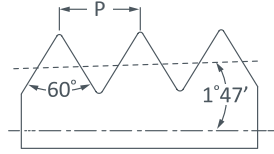


THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16"	27	TMRX 06 059 L09 27NPT-C	5.90	9.90	6.00	57.00	10	3
1/8"	27	TMRX 08 077 L09 27NPT-C	7.65	9.90	8.00	61.00	10	3
1/4"	18	TMRX 10 099 L14 18NPT-C	9.90	14.80	10.00	73.00	10	3
3/8"	18	TMRX 12 112 L14 18NPT-C	11.15	14.80	12.00	73.00	10	4
1/2" / 3/4"	14	TMRX 16 142 L18 14NPT-C	14.25	19.00	16.00	92.00	10	4
1" / 2"	11.5	TMRX 20 196 L22 11.5NPT-C	19.60	23.20	20.00	102.00	10	4
2 1/2" / 3"	8	TMRX 20 196 L32 8NPT-C	19.60	33.30	20.00	102.00	10	4

SOLID CARBIDE

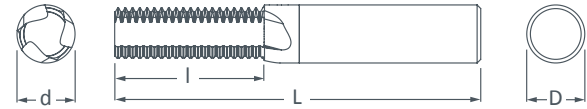
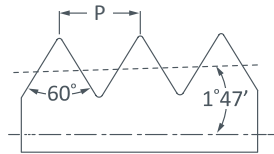
PIPE THREADS

NPTF NATIONAL PIPE TAPER FUEL HELICAL FLUTE ●



THREAD	PITCH (mm)	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	27	TMRX 06 059 L09 27NPTF	5.90	9.40	6.00	58	10	3
1/8"	27	TMRX 08 076 L09 27NPTF	7.60	9.40	8.00	64	10	4
1/4" 3/8"	18	TMRX 08 079 L14 18NPTF	7.90	14.10	8.00	64	10	4
3/8"	18	TMRX 10 099 L14 18NPTF	9.90	14.10	10.00	73	10	4
1/2" 3/4"	14	TMRX 12 119 L20 14NPTF	11.90	20.00	12.00	84	11	4
1/2" 3/4"	14	TMRX 16 159 L20 14NPTF	15.90	20.00	16.00	100	11	4
1" - 2"	11.5	TMRX 16 159 L27 11.5NPTF	15.90	26.50	16.00	100	12	4
2 1/2" - 4"	8	TMRX 20 199 L45 8NPTF	19.90	44.50	20.00	120	14	4

NPTF NATIONAL PIPE TAPER FUEL STRAIGHT FLUTE



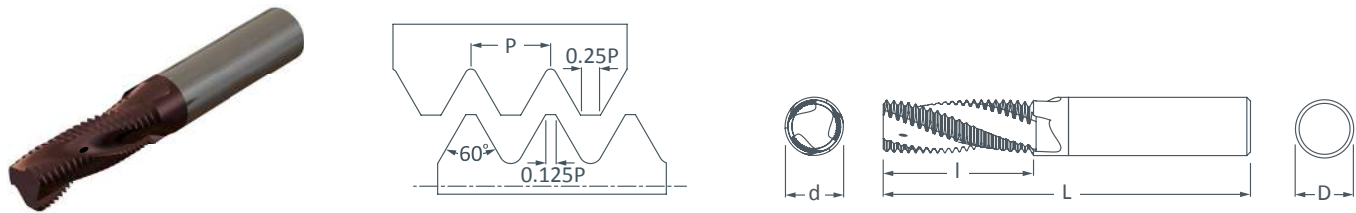
THREAD	PITCH (mm)	DESCRIPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/16" 1/8"	27	TMSX 06 059 L09 27NPTF	5.90	9.40	6.00	58	10	3
1/8"	27	TMSX 08 076 L09 27NPTF	7.60	9.40	8.00	64	10	4
1/4" 3/8"	18	TMSX 08 079 L14 18NPTF	7.90	14.10	8.00	64	10	4
3/8"	18	TMSX 10 099 L14 18NPTF	9.90	14.10	10.00	73	10	4
1/2" 3/4"	14	TMSX 12 119 L20 14NPTF	11.90	20.00	12.00	84	11	4
1/2" 3/4"	14	TMSX 16 159 L20 14NPTF	15.90	20.00	16.00	100	11	4
1" - 2"	11.5	TMSX 16 159 L27 11.5NPTF	15.90	26.50	16.00	100	12	4
2 1/2" - 4"	8	TMSX 20 199 L45 8NPTF	19.90	44.50	20.00	120	14	4

● THROUGH HOLE COOLANT ALSO AVAILABLE

HIGH PERFORMANCE

ISO METRIC

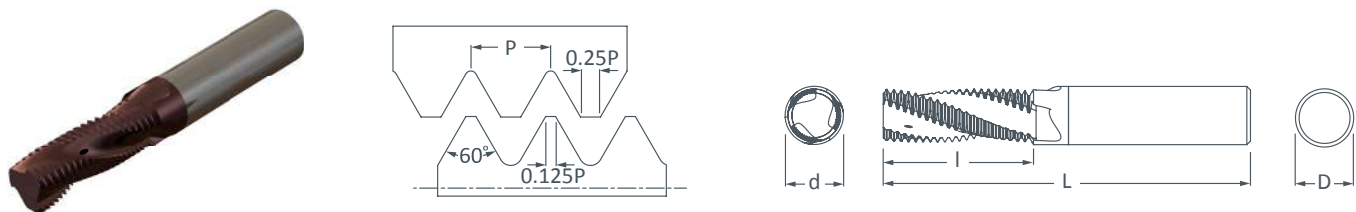
ISO HELICAL FLUTE INFLUTE THROUGH COOLANT



THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
M6	1.00	HMRN 06 045 L15 1.0ISO-C	4.50	15.00	6.00	58.00	15	4
M8	1.25	HMRN 08 060 L20 1.25ISO-C	6.00	20.00	8.00	64.00	16	4
M10	1.50	HMRN 10 075 L25 1.5ISO-C	7.50	24.00	10.00	73.00	16	5
M12	1.75	HMRN 10 090 L30 1.75ISO-C	9.00	29.80	10.00	73.00	17	5
M14	2.00	HMRN 12 105 L34 2.0ISO-C	10.50	34.00	12.00	80.00	17	5

UNIFIED

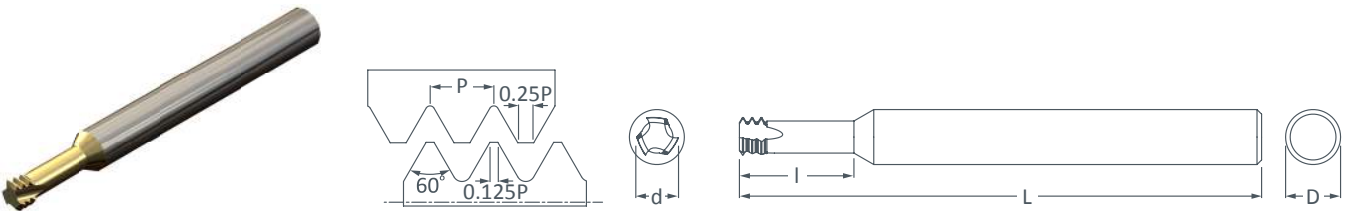
UNC UNIFIED COARSE HELICAL FLUTE INFLUTE THROUGH COOLANT



THREAD	TPI	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/4"	20	HMRN 06 048 L16 20UNC-C	4.76	16.50	6.00	58.00	13	4
5/16"	18	HMRN 06 059 L20 18UNC-C	5.90	19.80	6.00	64.00	14	4
3/8"	16	HMRN 08 072 L24 16UNC-C	7.19	23.80	8.00	64.00	15	4
7/16"	14	HMRN 10 083 L29 14UNC-C	8.34	29.00	10.00	73.00	16	5
9/16"	12	HMRN 12 107 L34 12UNC-C	10.72	33.90	12.00	80.00	16	5

LONG REACH

ISO UN



ISO HELICAL FLUTE

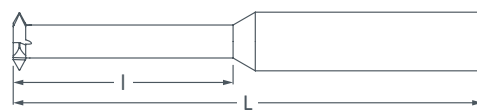
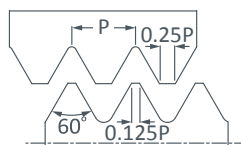
THREAD		PITCH (mm)	DESCRPITION	THREADMILL DIMENSIONS (mm)					
COARSE	FINE			d	l	D	L	PITCHES	FLUTES
M1.6		0.35	PMRN 03 012 L5 0.35ISO	1.20	5.00	3.00	30.00	3	3
M2		0.40	PMRN 03 016 L6 0.4ISO	1.55	6.20	3.00	30.00	3	3
M2.5		0.45	PMRN 03 019 L7 0.45ISO	1.95	7.70	3.00	30.00	3	3
M3	M3.5-M16	0.50	PMRN 03 024 L9 0.5ISO	2.40	9.20	3.00	30.00	3	3
M4		0.70	PMRN 06 031 L12 0.7ISO	3.15	12.30	6.00	57.00	3	3
M5		0.80	PMRN 06 040 L15 0.8ISO	4.05	15.40	6.00	57.00	3	3
M6	M8-M40	1.00	PMRN 06 048 L18 1.0ISO	4.80	18.50	6.00	57.00	3	3
M8		1.25	PMRN 08 065 L24 1.25ISO	6.50	24.60	8.00	63.00	3	3
M10	M12-M48	1.50	PMRN 10 082 L20 1.5ISO	8.20	20.80	10.00	73.00	3	3

UNC UNIFIED COARSE & UNF UNIFIED FINE HELICAL FLUTE

THREAD		TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
UNC	UNF			d	l	D	L	PITCHES	FLUTES
	No.1-72	72	PMRN 03 014 L5 72UN	1.45	5.75	3.00	30.00	3	3
No.2-56	No.3-56	56	PMRN 03 016 L7 56UN	1.65	7.00	3.00	30.00	3	3
No.4 No.5-40	No.6-40	40	PMRN 03 021 L9 40UN	2.10	9.00	3.00	30.00	3	3
No.6 No.8-32	No.10-32	32	PMRN 03 025 L11 32UN	2.55	11.00	3.00	30.00	3	3
	1/4" x 28	28	PMRN 06 052 L19 28UN	5.25	19.60	6.00	57.00	3	3
	5/16" x 24	24	PMRN 08 066 L24 24UN	6.68	24.50	8.00	63.00	3	3
1/4" x 20	7/16" x 20	20	PMRN 06 048 L19 20UN	4.88	19.80	6.00	57.00	3	3

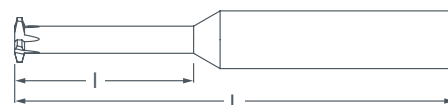
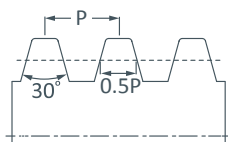
LONG REACH

PARTIAL PROFILE



THREAD	PITCH (mm)	TPI	DESCRPTION	THREADMILL DIMENSIONS (mm)					
				d	l	D	L	PITCHES	FLUTES
$\varnothing > 6.00$	INT 0.5-0.8 EXT 0.4-0.8	56-28 64-32	PMRN 06 059 L20 A60	5.90	20.00	6.00	58	1	4
$\varnothing > 9.00$			PMRN 08 079 L28 A60	7.90	28.00	8.00	64	1	4
$\varnothing > 13.00$			PMRN 12 119 L38 A60	11.90	38.00	12.00	84	1	5
$\varnothing > 10.00$	INT 1.0-1.75 EXT 0.8-1.5	28-14 32-16	PMRN 08 079 L30 B60	7.90	30.00	8.00	64	1	4
$\varnothing > 12.00$			PMRN 10 099 L35 B60	9.90	35.00	10.00	73	1	4
$\varnothing > 14.00$			PMRN 12 119 L39 B60	11.90	39.00	12.00	84	1	5
$\varnothing > 16.00$	INT 2.0-3.0 EXT 1.75-2.5	13-8 15-10	PMRN 12 119 L40 C60	11.90	40.00	12.00	84	1	5
$\varnothing > 18.00$			PMRN 16 140 L45 C60	14.00	45.00	16.00	100	1	5
$\varnothing > 20.00$			PMRN 16 159 L50 C60	15.90	50.00	16.00	100	1	5

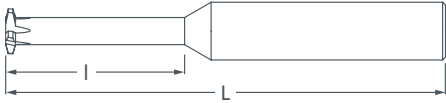
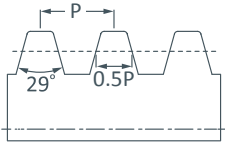
TRAPEZOIDAL



THREAD	PITCH (mm)	DESCRPTION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
$\varnothing 9.00 - 14.00$	2.00	PMRN 06 056 L30 2.0TR	5.60	30.00	6.00	58	1	4
$\varnothing 10.00 - 14.00$	3.00	PMRN 10 087 L30 3.0TR	8.70	30.00	10.00	84	1	5
$\varnothing 16.00 - 20.00$	4.00	PMRN 10 099 L40 4.0TR	9.90	40.00	10.00	84	1	5

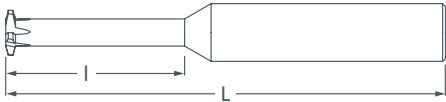
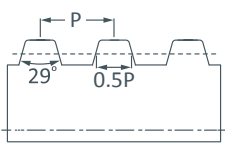
LONG REACH

ACME



THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/4	16	PMRN 06 043 L13 16ACME	4.30	12.70	6.00	58	1	4
5/16	14	PMRN 06 051 L19 14ACME	5.10	19.10	6.00	58	1	4
3/8 - 7/16	12	PMRN 06 059 L23 12ACME	5.90	22.90	6.00	58	1	4
1/2	10	PMRN 08 079 L19 10ACME	7.90	30.50	8.00	64	1	4
5/8	8	PMRN 12 102 L33 8ACME	10.20	33.00	12.00	84	1	5
3/4 - 7/8	6	PMRN 12 119 L33 6ACME	11.90	33.00	12.00	84	1	5
1 - 1 1/4	5	PMRN 16 157 L45 5ACME	15.70	44.50	16.00	100	1	5
1 3/8 - 1 3/4	4	PMRN 18 179 L64 4ACME	17.90	63.50	18.00	100	1	5

STUB ACME



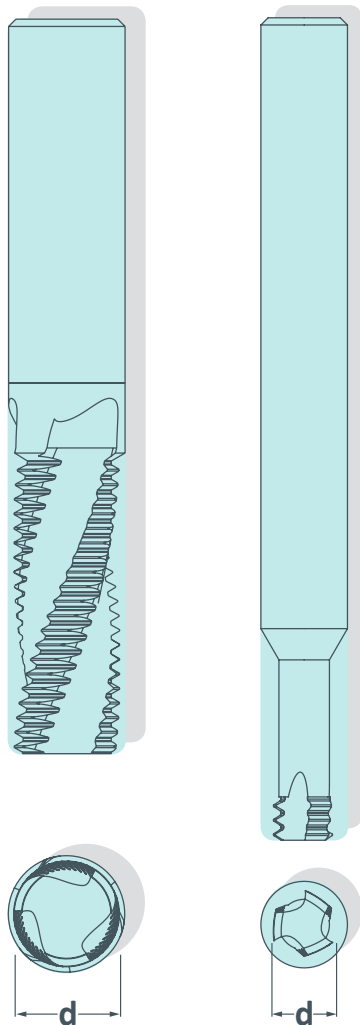
THREAD	TPI	DESCRPITION	THREADMILL DIMENSIONS (mm)					
			d	l	D	L	PITCHES	FLUTES
1/4	16	PMRN 06 043 L13 16STACME	4.30	12.70	6.00	58	1	4
5/16	14	PMRN 06 051 L19 14STACME	5.10	19.10	6.00	58	1	4
3/8 - 7/16	12	PMRN 06 059 L23 12STACME	5.90	22.90	6.00	58	1	4
1/2	10	PMRN 08 079 L19 10STACME	7.90	30.50	8.00	64	1	4
5/8	8	PMRN 12 102 L33 8STACME	10.20	33.00	12.00	84	1	5
3/4 - 7/8	6	PMRN 12 119 L33 6STACME	11.90	33.00	12.00	84	1	5
1 - 1 1/4	5	PMRN 16 157 L45 5STACME	15.70	44.50	16.00	100	1	5
1 3/8 - 1 3/4	4	PMRN 18 179 L64 4STACME	17.90	63.50	18.00	100	1	5

TECHNICAL DATA

SOLID CARBIDE THREADMILLING DATA

RECOMMENDED CUTTING SPEEDS & FEEDS

MATERIAL	CUTTING SPEEDS		FEED/TOOTH fz		
	PTC2	DBC	TMRN	TMSN/PMRN	TMRN-C/HMRN
LOW/MEDIUM CARBON STEEL	140 - 230		0.030 - 0.070	0.010 - 0.050	0.050 - 0.150
HIGH CARBON STEEL	120 - 200		0.030 - 0.070	0.010 - 0.050	0.050 - 0.150
STAINLESS STEEL	60 - 170		0.030 - 0.070	0.010 - 0.050	0.050 - 0.150
CAST IRON	12 - 180		0.030 - 0.070	0.007 - 0.020	0.050 - 0.150
NON FERROUS 400	150 - 300		0.040 - 0.100	0.020 - 0.075	0.080 - 0.250
NICKEL CHROME ALLOYS	20 - 40	20 - 40	0.020 - 0.050	0.015 - 0.035	0.040 - 0.100
TITANIUM ALLOYS	70 - 120	70 - 120	0.020 - 0.050	0.015 - 0.035	0.040 - 0.110
IRON BASED ALLOYS	20 - 50		0.020 - 0.050	0.015 - 0.035	0.040 - 0.120
COBALT BASED ALLOYS	20 - 50	20 - 50	0.020 - 0.050	0.015 - 0.035	0.040 - 0.130



DIAMETER CORRECTION FACTORS

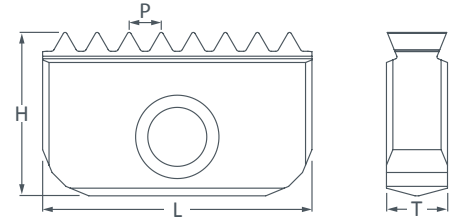
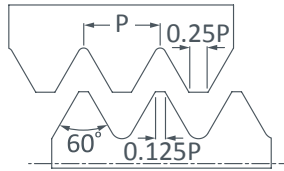
THREADMILL DIAMETER (d)	CORRECTION FACTOR
$\leq 4.00\text{mm } \varnothing$	$0.50 \times fz$
$4.00 - 8.00\text{mm } \varnothing$	$0.75 \times fz$
$8.00 - 12.00\text{mm } \varnothing$	$0.90 \times fz$
$12.00\text{mm} < \varnothing$	AS PER TABLE

EXAMPLE

MATERIAL	THREADMILL
STAINLESS STEEL	TMRN 08 079 L18 14UNC
FEED FROM TABLE x CORRECTION FACTOR	ACTUAL FEED (fz)
0.050×0.75	0.038

INDEXABLE THREADMILLS

EXTERNAL **ISO & UNIFIED** *DOUBLE SIDED*



ISO *DIN13 - 60° INC.*

PITCH (mm)	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
1.5	PTM14	PTM14 E 1.5ISO	0.217	9	14.00	8.02	3.10
1.75		PTM14 E 1.75ISO	0.253	8			
2.0		PTM14 E 2.0ISO	0.289	7			
2.5		PTM14 E 2.5ISO	0.361	5			
1.5	PTM21	PTM21 E 1.5ISO	0.217	14	21.00	12.74	4.70
1.75		PTM21 E 1.75ISO	0.253	12			
2.0		PTM21 E 2.0ISO	0.289	10			
2.5		PTM21 E 2.5ISO	0.361	8			
3.0		PTM21 E 3.0ISO	0.433	7			
3.5		PTM21 E 3.5ISO	0.505	6			
4.0	PTM30	PTM30 E 4.0ISO	0.678	5	30.00	16.00	5.50
5.0	PTM40	PTM40 E 5.0ISO	0.723	4	40.00	20.00	6.30
6.0		PTM40 E 6.0ISO	0.868	3			

UNIFIED ASME/ANSI B1.1 - 60° INC.

TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
16	PTM14	PTM14 E 16UN	0.229	9	14.00	8.02	3.10
14		PTM14 E 14UN	0.262	7			
12		PTM14 E 12UN	0.306	6			
11		PTM14 E 11UN	0.333	6			
10		PTM14 E 10UN	0.367	5			
16	PTM21	PTM21 E 16UN	0.229	13	21.00	12.74	4.70
14		PTM21 E 14UN	0.262	11			
12		PTM21 E 12UN	0.306	10			
11		PTM21 E 11UN	0.333	9			
10		PTM21 E 10UN	0.367	8			
9		PTM21 E 9UN	0.407	7			
8		PTM21 E 8UN	0.458	6			
8	PTM30	PTM30 E 8UN	0.458	9	30.00	16.00	5.50
6		PTM30 E 6UN	0.612	7			
8	PTM40	PTM40 E 8UN	0.458	9	40.00	20.00	6.30
6		PTM40 E 6UN	0.612	7			

INDEXABLE THREADMILLS

INTERNAL ISO & UNIFIED DOUBLE SIDED

ISO DIN13 - 60° INC.

PITCH (mm)	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
1.5	PTM14	PTM14 N 1.5ISO	0.108	9	14.00	8.02	3.10
1.75		PTM14 N 1.75ISO	0.126	8			
2.0		PTM14 N 2.0ISO	0.144	7			
2.5		PTM14 N 2.5ISO	0.180	5			
1.5	PTM21	PTM21 N 1.5ISO	0.108	14	21.00	12.74	4.70
1.75		PTM21 N 1.75ISO	0.126	12			
2.0		PTM21 N 2.0ISO	0.144	10			
2.5		PTM21 N 2.5ISO	0.180	8			
3.0		PTM21 N 3.0ISO	0.217	7			
3.5		PTM21 N 3.5ISO	0.253	6			
4.0	PTM30	PTM30 N 4.0ISO	0.289	7	30.00	16.00	5.50
4.5		PTM30 N 4.5ISO	0.325	6			
5.0		PTM30 N 5.0ISO	0.362	6			
5.0	PTM40	PTM40 N 5.0ISO	0.362	8	40.00	20.00	6.30
5.5		PTM40 N 5.5ISO	0.398	7			
6.0		PTM40 N 6.0ISO	0.434	6			

UNIFIED ASME/ANSI B1.1 - 60° INC.

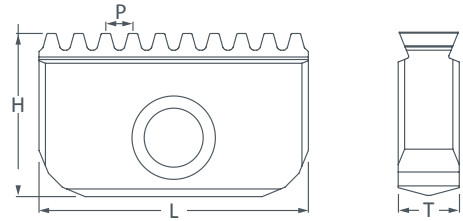
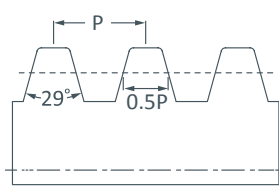
TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
16	PTM14	PTM14 N 16UN	0.115	8	14.00	8.02	3.10
14		PTM14 N 14UN	0.131	7			
12		PTM14 N 12UN	0.153	6			
11		PTM14 N 11UN	0.167	6			
10		PTM14 N 10UN	0.183	5			
16	PTM21	PTM21 N 16UN	0.115	13	21.00	12.74	4.70
14		PTM21 N 14UN	0.131	11			
12		PTM21 N 12UN	0.153	10			
11		PTM21 N 11UN	0.167	9			
10		PTM21 N 10UN	0.183	8			
9		PTM21 N 9UN	0.204	7			
8		PTM21 N 8UN	0.229	6			
8	PTM30	PTM30 N 8UN	0.299	9	30.00	16.00	5.50
6		PTM30 N 6UN	0.306	7			
5		PTM30 N 5UN	0.367	5			
8	PTM40	PTM40 N 8UN	0.229	12	40.00	20.00	6.30
6		PTM40 N 6UN	0.308	9			
4.5		PTM40 N 4.5UN	0.408	7			
4		PTM40 N 4UN	0.459	6			

* SINGLE EDGE INSERTS

INDEXABLE THREADMILLS

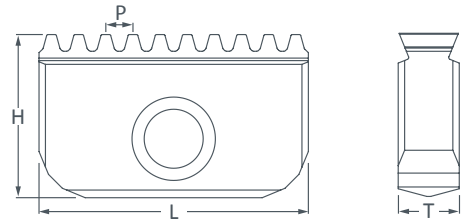
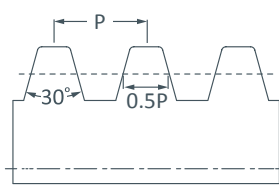
INTERNAL *DOUBLE SIDED*

ACME ASME/ANSI B1.5 - 29° INC.



TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
12	PTM21	PTM21 N 12ACME	-	9	21.00	12.74	4.70
10		PTM21 N 10ACME	-	8			

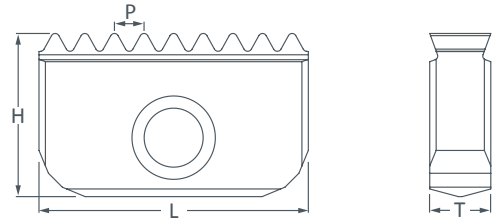
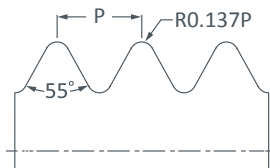
TRAPEZOIDAL DIN103/BS5346 - 30° INC.



PITCH (mm)	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
2.00	PTM21	PTM21 N 2.0TR	-	9	21.00	12.74	4.70
2.50		PTM21 N 2.5TR	-	8			

EXTERNAL & INTERNAL *DOUBLE SIDED*

WHITWORTH DIN2999/BS84 - 55° INC.

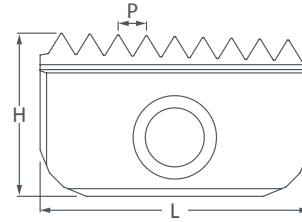
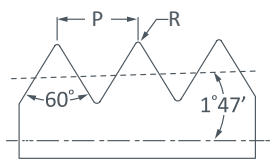


TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
16	PTM14	PTM14 X 16W	0.218	8	14.00	8.02	3.10
14		PTM14 X 14W	0.249	7			
12		PTM14 X 12W	0.291	6			
11		PTM14 X 11W	0.317	6			
10		PTM14 X 10W	0.349	5			
16	PTM21	PTM21 X 16W	0.218	13	21.00	12.74	4.70
14		PTM21 X 14W	0.249	11			
12		PTM21 X 12W	0.291	9			
11		PTM21 X 11W	0.317	9			
10		PTM21 X 10W	0.349	8			
9		PTM21 X 9W	0.388	7			
8		PTM21 X 8W	0.436	6			
11	PTM30	PTM30 X 11W	0.317	13	30.00	16.00	5.50
8	PTM40	PTM40 X 8W	0.436	12	40.00	20.00	6.30

INDEXABLE THREADMILLS

EXTERNAL & INTERNAL *SINGLE SIDED*

NPT ASME/ANSI B1.20.1 - 60° INC. - 1/16 TAPER

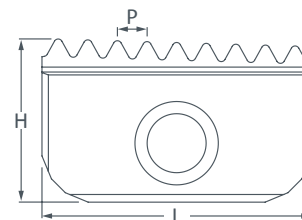
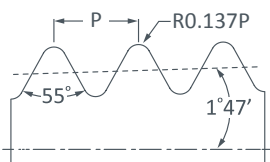


TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
18	PTM14	PTM14 XS 18NPT	0.057	9	14.00	8.02	3.10
14		PTM14 XS 14NPT	0.067	7			
18	PTM21	PTM21 XS 18NPT	0.057	14	21.00	12.74	4.70
14		PTM21 XS 14NPT	0.067	11			
11.5		PTM21 XS 11.5NPT	0.073	9			
8	PTM30	PTM30 XS 8NPT	0.087	9	30.00	16.00	5.50

NPTF ASME/ANSI B1.20.3 - 60° INC. - 1/16 TAPER

TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
18	PTM14	PTM14 XS 18NPTF	0.110	9	14.00	8.02	3.10
14		PTM14 XS 14NPTF	0.110	7			
18	PTM21	PTM21 XS 18NPTF	0.110	14	21.00	12.74	4.70
14		PTM21 XS 14NPTF	0.110	11			
11.5		PTM21 XS 11.5NPTF	0.133	9			

BSPT BS21 - 55° INC. - 1/16 TAPER

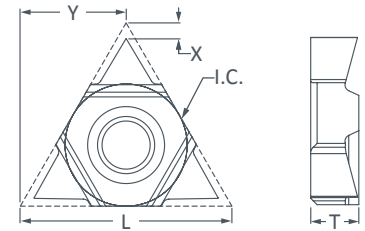
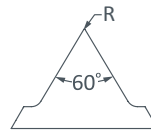
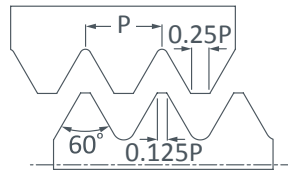
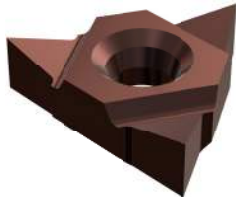


TPI	BLANK	DESCRIPTION	R (MAX)	NO. OF TEETH	L	H	T
28	PTM14	PTM14 XS 28BSPT	0.125	15	14.00	8.02	3.10
14		PTM14 XS 14BSPT	0.249	7			
19		PTM14 XS 19BSPT	0.184	10			
14	PTM21	PTM21 XS 14BSPT	0.249	11	21.00	12.74	4.70
11		PTM21 XS 11BSPT	0.317	9			

U-STYLE INDEXABLE*

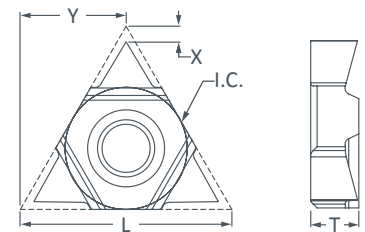
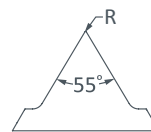
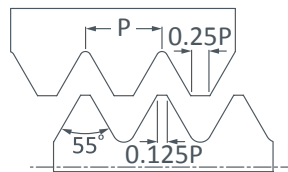
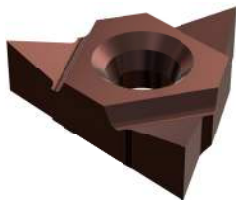
U-STYLE

PARTIAL PROFILE 60° INC.



L	I.C.	PITCH (mm)	TPI	DESCRIPTION	R. MAX.	X	Y	T
11	6.35 (1/4")	0.50 - 1.50	48 - 16	T11NU 60	0.04	0.40	5.50	3.35
16	9.525 (3/8")	0.50 - 3.00	48 - 8	T16NU 60	0.04	0.60	8.00	3.60
22	12.70 (1/2")	5.00 - 6.00	5-4	T22NU 60	0.36	0.80	11.00	4.90

PARTIAL PROFILE 55° INC.



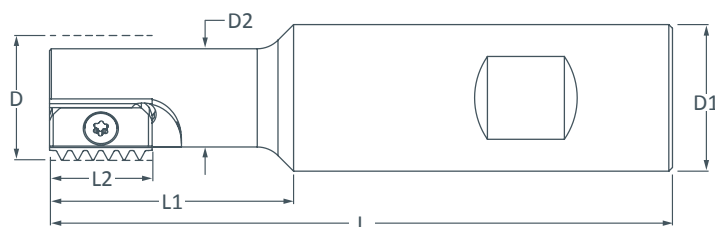
L	I.C.	PITCH (mm)	TPI	DESCRIPTION	R. MAX.	X	Y	T
11	6.35 (1/4")	0.50 - 1.50	48 - 16	T11NU 55	0.04	0.40	5.50	3.35
16	9.525 (3/8")	0.50 - 3.00	48 - 8	T16NU 55	0.04	0.60	8.00	3.60
22	12.70 (1/2")	5.00 - 6.00	5-4	T22NU 55	0.36	0.80	11.00	4.90

* FULL PROFILE INSERTS AVAILABLE ON REQUEST
ISO, UNIFIED, WHITWORTH, ACME, STUB ACME, TRAPEZOIDAL, API RD, DIN405, DIN264

INDEXABLE TOOLHOLDERS

EXTERNAL & INTERNAL

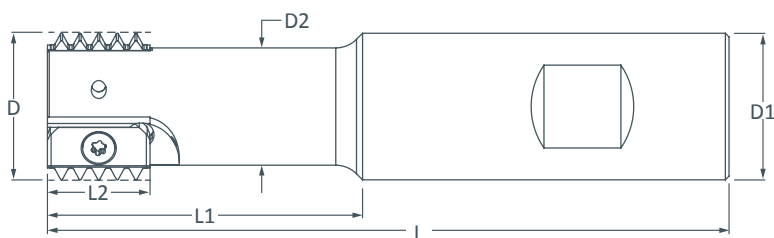
SINGLE INSERT HOLDER



PTM30 & PTM40 TOOLING AVAILABLE ON REQUEST

INSERT SIZE	TOOLHOLDER	DIMENSIONS						SPARES	
		D	D1	D2	L	L1	L2	SCREW	TORQ KEY
PTM14	TIMR2012 L20F 14 1	12.00	20.00	8.90	75.00	20.00	14.00	PTS14	T7
	TIMR2014 L25H 14 1	14.00	20.00	11.20	85.00	25.00	14.00		
	TIMR2017 L30H 14 1	17.00	20.00	13.40	85.00	30.00	14.00		
PTM21	TIMR2018 L30H 21 1	18.00	20.00	14.40	85.00	30.00	21.00	PTS21	T20
	TIMR2021 L40H 21 1	21.00	20.00	16.50	108.00	40.00	21.00		

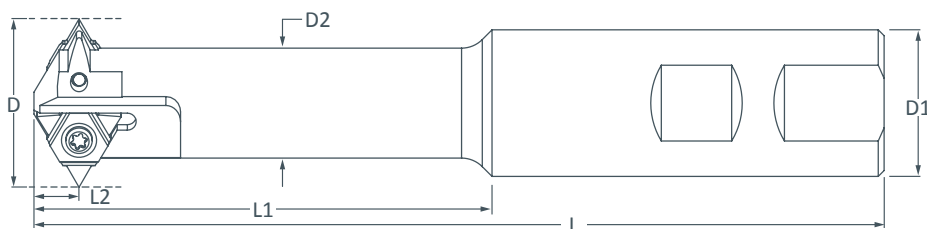
DOUBLE INSERT HOLDER



PTM30 & PTM40 TOOLING AVAILABLE ON REQUEST

INSERT SIZE	TOOLHOLDER	DIMENSIONS						SPARES	
		D	D1	D2	L	L1	L2	SCREW	TORQ KEY
PTM14	TIMR2020 L41H 14 2	20.00	20.00	8.90	75.00	41.00	14.00	PTS14	T7
PTM21	TIMR2530 L50H 21 2	30.00	25.00	24.40	108.00	50.00	21.00	PTS21	T20

U-STYLE LAYDOWN

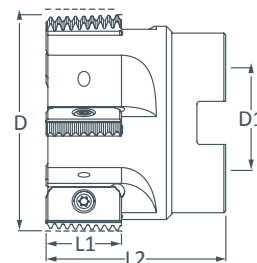
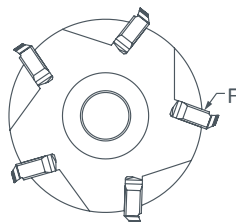


INSERT SIZE	TOOLHOLDER	DIMENSIONS						SPARES	
		D	D1	D2	L	L1	L2	SCREW	TORQ KEY
11NU	PSR0020 50 19 2 T11U	19.05	20.00	12.50	125.00	50.00	4.50	S11	T9
16NU	PSR0025 75 29 2 T16U	28.60	25.00	18.75	145.00	75.00	6.70	S16	T10
22NU	PSR0032 100 36 2 T22U	36.00	32.00	25.00	175.00	100.00	8.95	S22	T15

INDEXABLE TOOLHOLDERS

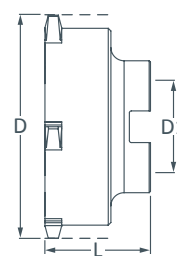
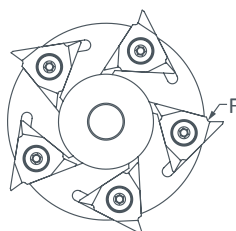
MULTI INSERT SHELL MILL

INDEXABLE INSERTS



INSERT SIZE	TOOLHOLDER	DIMENSIONS				FLUTES	SPARES	
		D	D1	L1	L2	F	SCREW	TORQ KEY
PTM21	TIMR 5063 L50C 21 5	63.00	22.00	50.00	75.00	5	PTS21	T20

ON-EDGE INSERTS



INSERT SIZE	TOOLHOLDER	DIMENSIONS			FLUTES	SPARES
		D	D1	L	F	SCREW
TNEC43	TIMR 4050 P03 C43	50.00	16.00	40.00	3	VS22
TNEC54	TIMR 4061 P03 C54	61.00	48.00	40.00	3	VS27
TNEC54	TIMR 4089 P05 C54	89.00	22.00	40.00	5	VS27

INDEXABLE THREADMILLING CUTTING DATA

RECOMMENDED CUTTING SPEEDS & FEEDS

MATERIAL	CUTTING SPEED	FEED/TOOTH fz
	DBC	PTM
LOW/MEDIUM CARBON STEEL	140 - 230	0.20
HIGH CARBON STEEL	120 - 200	0.18
STAINLESS STEEL	60 - 170	0.15
CAST IRON	120 - 180	0.20
NON FERROUS 400	150 - 300	0.20
NICKEL CHROME ALLOYS	20 - 50	0.12
TITANIUM ALLOYS	80 - 120	0.15
IRON BASED ALLOYS	20 - 50	0.15
COBALT BASED ALLOYS	20 - 50	0.12

CORRECTION FACTORS

INDEXABLE BLANK SIZE	CORRECTION FACTOR
PTM14	0.75 x fz
PTM21	1.00 x fz

EXAMPLE

FEED FROM TABLE x CORRECTION FACTOR	ACTUAL FEED (fz)
0.15 x 0.75	0.12



OIL & GAS CATALOGUE

TOOLING FOR OIL & GAS · AUTOMOTIVE
AEROSPACE · GENERAL ENGINEERING

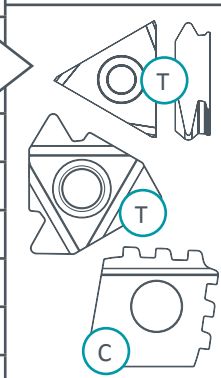
TNEC	OILFIELD INSERT IDENTIFICATION	73	CNGA	BUTTRESS CASING	89
	PART REFERENCES FOR OILFIELD	74		VAM	
	API			VAM TOP	89
	ROTARY	75		VAM TOP ROUGHERS	89
	PAC	75		VAM DINO	90
	ROUND	75		VAM DINO ROUGHERS	90
	LINE PIPE	76		VAM HP	90
	BUTTRESS CASING	76		VAM HP ROUGHERS	90
	EXTREME LINE CASING	76		VAM SLIJ II	90
	HUGHES	77		EXTERNAL TOOLING	91
	PARTIAL PROFILE	77		INTERNAL TOOLING	91
	VAM		TNEGX	API	
	VAM ACE	78		ROTARY	92
	VAM TOP	78		PAC	92
	VAM TOP FE	78	LAYDOWN	OILFIELD INSERT IDENTIFICATION	93
	VAM FJL	78		PART REFERENCES FOR OILFIELD	93
	VAM HP	79		API	
	VAM HWST	79		ROTARY	94
	VAM DINO	79		ROUND	95
	VAM OMEGA	79		BUTTRESS CASING	95
	TENARIS			PAC	95
	BLUE	80		NPT	96
	TSH 3SB	80		FJWP	96
	JFE			ACME	97
	BEAR	81		STUB ACME	98
	FOX	81		EXTERNAL TOOLING	99
	LION	81		INTERNAL TOOLING	99
	TIGER	81		TECHNICAL	101
	NIPPON STEEL				
	CC	82			
	CT	82			
	FJWP	82			
	NT/NTC	83			
	NST/NSTC	84			
	EXTERNAL TOOLING	85			
	INTERNAL TOOLING	87			

OILFIELD INSERT IDENTIFICATION

1				2	3	4	5	6	7	8	9	10	11
A	B	C	D										
T	N	E	C	5	4		VAMTOP	75	5		I	L	
T	N	E	C	5	4	F	VAMFJL	6.25%	6		E		
C	N	G	A	6	4		BVNV	75	5		E		2
C	N	G	X	6	4		VAMTOP	75	5	R	E		3

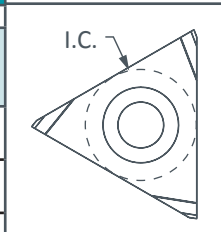
1 | INSERT SHAPE

1A	T	TRIANGULAR
	C	CUBOID
1B	N	NEUTRAL
1C	E,G	TOLERANCE GRADE
1D	A	NO COUNTERSINK
	B	ONE COUNTERSINK
	C	COUNTERSINK TWO SIDES
	X	SPECIAL INSERT



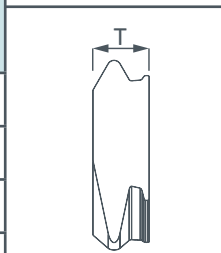
2 | INSERT SIZE

INSCRIBED CIRCLE (I.C.) OF SHAPE IN 1/8" OF AN INCH		
4	1/2"	12.7mm
5	5/8"	15.875mm
6	3/4"	19.05mm



3 | INSERT THICKNESS

INSERT THICKNESS IN 1/16" OF AN INCH		
3	3/16"	4.763mm
4	1/4"	6.35mm
5	5/16"	7.938mm
6	3/8"	9.525mm



4 | -

F	LAYDOWN STYLE (TRIANGULAR ONLY)
---	------------------------------------

5 | THREAD DESCRIPTION

VAM	TOP, ACE, DINO
JFE	FOX, BEAR
API	BUCA, RD, IMP BUTT
TENARIS	3SB, BLUE
NS	NSCT, NSCC

6 | THREAD TAPER

TAPER	INCHES PER FOOT	% = 100/TAPER
-------	-----------------	---------------

7 | THREAD PITCH

THREADS PER INCH	4,5,6,8
------------------	---------

8 | -

R	ROUGHING INSERT
---	-----------------

9 | CUTTING APPLICATION

E	EXTERNAL
I	INTERNAL

10 | HAND OF THREAD

RIGHT HANDED UNLESS STATED	
L	LEFT HANDED

11 | NUMBER OF TEETH

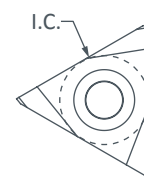
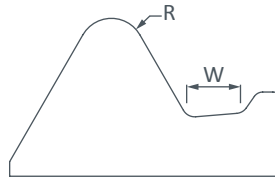
PART REFERENCES

ON-EDGE PART REFERENCES FOR OILFIELD THREADFORMS

THREAD FORM REFERENCE	CONNECTION REFERENCE	PART REF.
API V0.038R (V0.065 SUPERCEDED BY V0.038 2TPF)	NC23, NC26, NC31, NC35, NC38, NC40, NC44, NC46, NC50 4 FH, 2 3/8 IF, 3 1/2 IF, 4 IF, 4 1/2 IF, 5 1/2 IF	V3824
	NC56, NC61, NC70, NC77	V3834
API V0.040	2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG 3 1/2 FH, 4 1/2 FH	V2035
API V0.050	6 5/8 REG, 5 1/2 FH, 6 5/8 FH	V2524
	5 1/2 REG, 7 5/8 REG, 8 5/8 REG	V2534
API V0.055 AMERICAN MT AMT AMMT	NC10, NC12, NC13, NC16	V55156
API ROUND	NUE 1.05 - 3 1/2, EUE/L 1.05 - 1.9, IJ 1.315 - 2.063	10RD
	NUE 4 - 4 1/2, EUE/L 2 3/8 - 4 1/2, STC 4 1/2 - 20, LTC 4 1/2 - 20	8RD
API BUTTRESS CASING	4 1/2 - 13 3/8	BUCA 755
	16 - 20	BUCA 155
PAC (PACIFIC ASIA CONNECTION) AOH (AMERICAN OPEN HOLE)	2 3/8 - 2 7/8 - 3 1/2	4 PAC
LINE PIPE	1/8"	27 LP
	1/4" - 3/8"	18 LP
	1/2" - 3/4"	14 LP
	1", 1 1/4", 1 1/2", 2"	11.5 LP
	2 1/2", 3", 3 1/2", 4", 5", 6" - 20"	8 LP
ELC (EXTREME LINE CASING)	5" - 7 5/8"	XL 156
	8 5/8" - 10 3/4"	XL 125

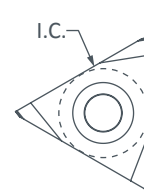
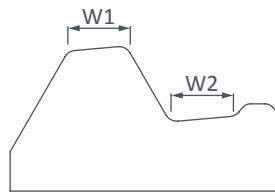
API

ROTARY



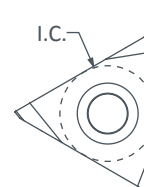
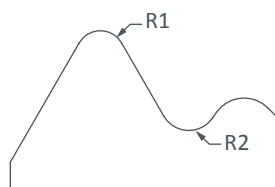
DESCRIPTION	TPF	TPI	R	W	I.C.	T
TNEC55 V2035E	3"	5	0.508 (0.020")	1.016 (0.040")	15.875 (5/8")	7.938 (5/16")
TNEC55 V2035I	3"	5	0.508 (0.020")	1.016 (0.040")	15.875 (5/8")	7.938 (5/16")
TNEC55 V2524E	2"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 V2524I	2"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 V2534E	3"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 V2534I	3"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 V3824E	2"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	7.938 (5/16")
TNEC55 V3824I	2"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	7.938 (5/16")
TNEC55 V3834E	3"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	7.938 (5/16")
TNEC55 V3834I	3"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	7.938 (5/16")

PAC



DESCRIPTION	TPF	TPI	W1	W2	I.C.	T
TNEC55 4 PAC E	1 1/2"	4	1.702 (0.067")	1.931 (0.076")	15.875 (5/8")	7.938 (5/16")
TNEC55 4 PAC I	1 1/2"	4	1.702 (0.067")	1.931 (0.076")	15.875 (5/8")	7.938 (5/16")

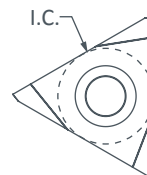
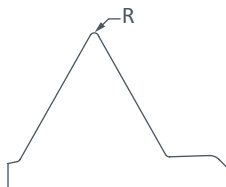
ROUND



DESCRIPTION	TPF	TPI	R1	R2	I.C.	T
TNEC43 10RD E	0.75"	10	0.356 (0.014")	0.432 (0.017")	12.7 (1/2")	4.763 (3/16")
TNEC43 10RD I	0.75"	10	0.356 (0.014")	0.432 (0.017")	12.7 (1/2")	4.763 (3/16")
TNEC43 8RD E	0.75"	8	0.432 (0.017")	0.508 (0.020")	12.7 (1/2")	4.763 (3/16")
TNEC43 8RD I	0.75"	8	0.432 (0.017")	0.508 (0.020")	12.7 (1/2")	4.763 (3/16")

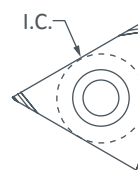
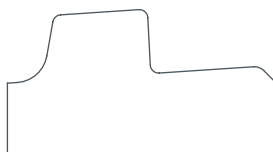
API

LINE PIPE



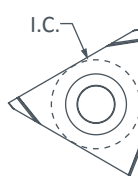
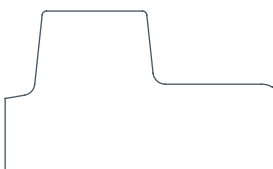
DESCRIPTION	TPF	TPI	R	I.C.	T
TNEC43 LP 11.5 E	3/4"	11.5	0.107 (0.004")	12.70 (1/2")	4.763 (3/16")
TNEC43 LP 11.5 I	3/4"	11.5	0.107 (0.004")	12.70 (1/2")	4.763 (3/16")
TNEC43 LP 8 E	3/4"	8	0.132 (0.005")	12.70 (1/2")	4.763 (3/16")
TNEC43 LP 8 I	3/4"	8	0.132 (0.005")	12.70 (1/2")	4.763 (3/16")

BUTTRESS CASING



DESCRIPTION	TPF	TPI	I.C.	T
TNEC54 BUCA 15E	1"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 BUCA 15I	1"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 BUCA 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 BUCA 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")

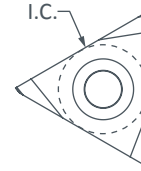
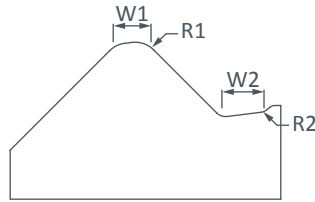
EXTREME LINE CASING



DESCRIPTION	TPF	TPI	I.C.	T
TNEC54 XL 156E	1 1/2"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 XL 156I	1 1/2"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 XL 125E	1 1/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 XL 125I	1 1/4"	5	15.875 (5/8")	6.35 (1/4")

API

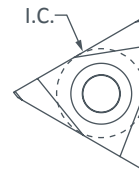
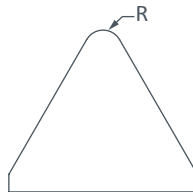
HUGHES



DESCRIPTION	TPF	TPI	R1	R2	W1	W2	I.C.	T
TNEC55 H902 E	2"	3.5	0.762 (0.030")	0.381 (0.015")	0.864 (0.034")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 H902 I	2"	3.5	0.762 (0.030")	0.381 (0.015")	0.864 (0.034")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 H903 E	3"	3.5	0.762 (0.030")	0.381 (0.015")	0.864 (0.034")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC55 H903 I	3"	3.5	0.762 (0.030")	0.381 (0.015")	0.864 (0.034")	1.270 (0.050")	15.875 (5/8")	7.938 (5/16")
TNEC56 H90S E	1 1/4"	3	0.762 (0.030")	0.381 (0.015")	1.727 (0.068")	2.134 (0.084")	15.875 (5/8")	9.525 (3/8")
TNEC56 H90S I	1 1/4"	3	0.762 (0.030")	0.381 (0.015")	1.727 (0.068")	2.134 (0.084")	15.875 (5/8")	9.525 (3/8")

PARTIAL PROFILE

PARTIAL PROFILE



DESCRIPTION	TPI	R	I.C.	T
TNEC32 NV60	1.25 - 3.5	0.08 (0.003)	9.525 (3/8")	3.175 (2/16")
TNEC43 NV60	1.3 - 5.0	0.13 (0.005)	12.7 (1/2")	4.763 (3/16")
TNEC43 NV60 0.010R	1.3 - 6.25	0.25 (0.010)	12.7 (1/2")	4.763 (3/16")
TNEC44 NV60	1.2 - 6.25	0.08 (0.003)	12.7 (1/2")	6.35 (1/4")
TNEC54 NV60	1.3 - 6.25	0.20 (0.008)	15.875 (5/8")	6.35 (1/4")
TNEC54 NV60 0.010R	1.3 - 6.25	0.25 (0.010)	15.875 (5/8")	6.35 (1/4")
TNEC54 NV60 0.020R	2.0 - 6.25	0.51 (0.020)	15.875 (5/8")	6.35 (1/4")
TNEC54 NV60 0.025R	3.5 - 6.25	0.64 (0.025)	15.875 (5/8")	6.35 (1/4")
TNEC54 NV60 0.038R	4.0 - 6.25	0.97 (0.038)	15.875 (5/8")	6.35 (1/4")
TNEC64 NV60	1.3 - 6.25	0.20 (0.008)	19.05 (3/4")	6.35 (1/4")
TNEC66 NV60	2.0 - 8.0	0.20 (0.008)	19.05 (3/4")	9.525 (3/8")

VAM

VAM ACE

DESCRIPTION	VAM REF.	TPF	TPI	I.C.	T
TNEC43 VAM ACE 758E	ST-D2000	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC43 VAM ACE 758I		3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC54 VAM ACE 756E		3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM ACE 756I		3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM ACE 755E	ST-D2500	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM ACE 755I		3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC55 VAM ACE 754E		3/4"	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM ACE 754I		3/4"	4	15.875 (5/8")	7.938 (5/16")

VAM TOP

DESCRIPTION	VAM REF.	TPF	TPI	I.C.	T
TNEC43 VAM TOP 758E	SI-TD7503	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC43 VAM TOP 758I		3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC54 VAM TOP 756E	SI-TD7502 SI-TD7504	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM TOP STD7502 756I	SI-TD7502	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM TOP STD7504 756I	SI-TD7504	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM TOP 755E (SI-TD7500)	SI-TD7500	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM TOP 755I		3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC55 VAM TOP 754E (SI-TD7501)	SI-TD7501	3/4"	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM TOP 754I		3/4"	4	15.875 (5/8")	7.938 (5/16")

VAM TOP FE

DESCRIPTION	VAM REF.	TPF	TPI	I.C.	T
TNEC54 VAM TOP FE 755E	SI-TD100283	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM TOP FE 755I		3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC55 VAM TOP FE 754E	SI-TD100280	3/4"	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM TOP FE 754I		3/4"	4	15.875 (5/8")	7.938 (5/16")

• OTHER VAM TOP FE PRODUCTS AVAILABLE ON REQUEST

VAM FJL

DESCRIPTION	VAM REF.	TPF	PITCH	I.C.	T
TNEC54 VAM FJL 6.25% E	SI-TD100059	3/4"	4.0mm	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM FJL 6.25% I		3/4"	4.0mm	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM FJL 10% E	SI-TD100060	1 1/5"	4.0mm	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM FJL 10% I		1 1/5"	4.0mm	15.875 (5/8")	6.35 (1/4")

• OTHER VAM FJL PRODUCTS AVAILABLE ON REQUEST

VAM

VAM HP

DESCRIPTION	VAM REF.	TAPER	TPI	I.C.	T
TNEC54 VAM HP 8.333% 5E	SI-TD100078	8.33%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 8.333% 5I		8.33%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 11% 5E	SI-TD100587	11%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 11% 5I		11%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 12.5% 5E	SI-TD100609	12.5%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 12.5% 5I		12.5%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 12.5% 4E	SI-TD100406	12.5%	4	15.875 (5/8")	6.35 (1/4")
TNEC54 VAM HP 12.5% 4I		12.5%	4	15.875 (5/8")	6.35 (1/4")

• OTHER VAM HP PRODUCTS AVAILABLE ON REQUEST

VAM HWST

DESCRIPTION	VAM REF.	TAPER	TPI	I.C.	T
TNEC55 VAM HWST 12.5% 4E	SI-TD100128	12.5%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM HWST 12.5% 4I		12.5%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM HWST 18.18% 4E	SI-TD100749	18.18%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 VAM HWST 18.18% 4I		18.18%	4	15.875 (5/8")	7.938 (5/16")

• OTHER VAM HWST PRODUCTS AVAILABLE ON REQUEST

VAM DINO

DESCRIPTION	VAM REF.	TPF	TPI	I.C.	T
TNEC66 VAM DINO 8.33% 3E	ST-D7200	1"	3	19.05 (3/4")	9.525 (3/8")
TNEC66 VAM DINO 8.33% 3I		1"	3	19.05 (3/4")	9.525 (3/8")
TNEC66 VAM DINO 12.5% 3E		1 1/2"	3	19.05 (3/4")	9.525 (3/8")
TNEC66 VAM DINO 12.5% 3I		1 1/2"	3	19.05 (3/4")	9.525 (3/8")

VAM BIG OMEGA

DESCRIPTION	VAM REF.	TAPER	TPI	I.C.	T
TNEC66 BIG OMEGA 13.33% 3E	ST-D3400	13.33%	3	19.05 (3/4")	9.525 (3/8")
TNEC66 BIG OMEGA 13.33% 3I		13.33%	3	19.05 (3/4")	9.525 (3/8")

TNEC

TENARIS

TENARIS BLUE

DESCRIPTION	TAPER	TPI	I.C.	T
TNEC54 TBL 6.25% 5E (REV1)	6.25%	5	15.875 (5/8")	6.35 (1/4")
TNEC54 TBL 6.25% 5I	6.25%	5	15.875 (5/8")	6.35 (1/4")
TNEC55 TBL 8.5% 4E	8.5%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 TBL 8.5% 4I	8.5%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 TBL 8.5% 4EL	8.5%	4	15.875 (5/8")	7.938 (5/16")
TNEC55 TBL 8.5% 4IL	8.5%	4	15.875 (5/8")	7.938 (5/16")

TENARIS TSH 3SB

DESCRIPTION	TPF	TPI	I.C.	T
TNEC43 TSH 3SB 758E	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC43 TSH 3SB 758I	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC54 TSH 3SB 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 TSH 3SB 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 TSH 3SB SL 15E	1"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 TSH 3SB SL 15I	1"	5	15.875 (5/8")	6.35 (1/4")

JFE

JFE BEAR

DESCRIPTION	TPF	TPI	I.C.	T
TNEC43 JFE BEAR 758E	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC43 JFE BEAR 758I	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC54 JFE BEAR 756E	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE BEAR 756I	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE BEAR 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE BEAR 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")

JFE FOX

DESCRIPTION	TPF	TPI	I.C.	T
TNEC43 JFE FOX 758E	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC43 JFE FOX 758I	3/4"	8	12.70 (1/2")	4.763 (3/16")
TNEC54 JFE FOX 758E	3/4"	8	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE FOX 758I	3/4"	8	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE FOX 756E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE FOX 756I	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE FOX 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE FOX 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")

JFE LION

DESCRIPTION	TPF	TPI	I.C.	T
TNEC54 JFE LION 6.25% 8E	3/4"	8	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE LION 6.25% 8I	3/4"	8	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE LION 6.25% 6E	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE LION 6.25% 6I	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE LION 6.25% 5E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE LION 6.25% 5I	3/4"	5	15.875 (5/8")	6.35 (1/4")

JFE TIGER

DESCRIPTION	TPF	TPI	I.C.	T
TNEC54 JFE TIGER 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 JFE TIGER 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC55 JFE TIGER 754E	3/4"	4	15.875 (5/8")	6.35 (1/4")
TNEC55 JFE TIGER 754I	3/4"	4	15.875 (5/8")	6.35 (1/4")

TNEC

NIPPON STEEL

NIPPON STEEL CC

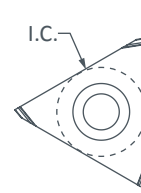
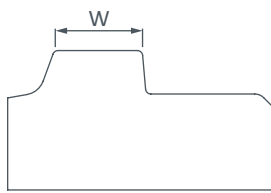
DESCRIPTION	TPF	TPI	I.C.	T
TNEC54 NSCC 755E	3/4"	5	15.875 (5/8")	6.35 (1/4")
TNEC54 NSCC 755I	3/4"	5	15.875 (5/8")	6.35 (1/4")

NIPPON STEEL CT

DESCRIPTION	TPF	TPI	I.C.	T
TNEC43 NSCT 756E	3/4"	6	12.70 (1/2")	4.763 (3/16")
TNEC43 NSCT 756I	3/4"	6	12.70 (1/2")	4.763 (3/16")
TNEC54 NSCT 756E	3/4"	6	15.875 (5/8")	6.35 (1/4")
TNEC54 NSCT 756I	3/4"	6	15.875 (5/8")	6.35 (1/4")

FJWP

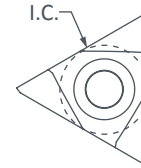
FJWP



DESCRIPTION	TPI	W	I.C.	T
TNEC43 FJWP 8E	8	1.588 (0.063")	12.70 (1/2")	4.763 (3/16")
TNEC43 FJWP 8I	8	1.588 (0.063")	12.70 (1/2")	4.763 (3/16")
TNEC43 FJWP 6E	6	2.083 (0.082")	12.70 (1/2")	4.763 (3/16")
TNEC43 FJWP 6I	6	2.083 (0.082")	12.70 (1/2")	4.763 (3/16")
TNEC54 FJWP 6E	6	2.083 (0.082")	15.875 (5/8")	6.35 (1/4")
TNEC54 FJWP 6I	6	2.083 (0.082")	15.875 (5/8")	6.35 (1/4")
TNEC55 FJWP 4E	4	3.175 (0.125")	15.875 (5/8")	7.938 (5/16")
TNEC55 FJWP 4I	4	3.175 (0.125")	15.875 (5/8")	7.938 (5/16")

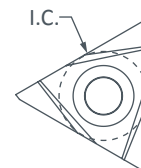
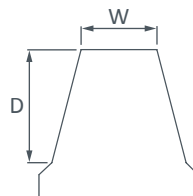
ACME

NT



DESCRIPTION	TPI	W	I.C.	T
TNEC43 NT 5P	5	1.752 (0.069")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 6P	6	1.438 (0.057")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 8P	8	0.810 (0.041")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 10P	10	0.719 (0.032")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 12P	12	0.719 (0.028")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 14P	14	0.607 (0.024")	12.70 (1/2")	4.763 (3/16")
TNEC43 NT 16P	16	0.523 (0.021")	12.70 (1/2")	4.763 (3/16")
TNEC54 NT 3P	3	3.007 (0.118")	15.875 (5/8")	6.35 (1/4")
TNEC54 NT 3.5P	3.5	2.559 (0.101")	15.875 (5/8")	6.35 (1/4")
TNEC54 NT 4P	4	2.222 (0.088")	15.875 (5/8")	6.35 (1/4")
TNEC54 NT 5P	5	1.752 (0.069")	15.875 (5/8")	6.35 (1/4")
TNEC66 NT 2P	2	4.576 (0.180")	19.05 (3/4")	9.525 (3/8")

NTC

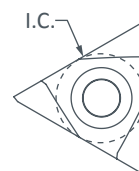
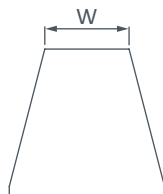


DESCRIPTION	TPI	W	D	I.C.	T
TNEC43 NTC 5P	5	1.752 (0.069")	2.794 (0.110")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 6P	6	1.438 (0.057")	2.370 (0.093")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 8P	8	0.810 (0.041")	1.842 (0.073")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 10P	10	0.719 (0.032")	1.524 (0.060")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 12P	12	0.719 (0.028")	1.186 (0.047")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 14P	14	0.607 (0.024")	1.034 (0.041")	12.70 (1/2")	4.763 (3/16")
TNEC43 NTC 16P	16	0.523 (0.021")	0.922 (0.036")	12.70 (1/2")	4.763 (3/16")
TNEC54 NTC 3P	3	3.007 (0.118")	4.488 (0.177")	15.875 (5/8")	6.35 (1/4")
TNEC54 NTC 3.5P	3.5	2.559 (0.101")	3.883 (0.153")	15.875 (5/8")	6.35 (1/4")
TNEC54 NTC 4P	4	2.222 (0.088")	3.429 (0.135")	15.875 (5/8")	6.35 (1/4")
TNEC54 NTC 5P	5	1.752 (0.069")	2.794 (0.110")	15.875 (5/8")	6.35 (1/4")
TNEC66 NTC 2P	2	4.576 (0.180")	6.604 (0.260")	19.05 (3/4")	9.525 (3/8")

TNEC

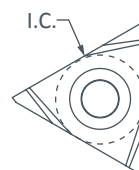
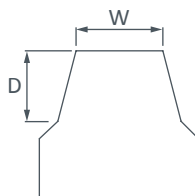
STUB ACME

NST



DESCRIPTION	TPI	W	I.C.	T
TNEC43 NST 5P	5	2.014 (0.079")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 6P	6	1.656 (0.065")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 8P	8	1.217 (0.048")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 10P	10	0.942 (0.037")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 12P	12	0.828 (0.033")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 14P	14	0.701 (0.028")	12.70 (1/2")	4.763 (3/16")
TNEC43 NST 16P	16	0.605 (0.024")	12.70 (1/2")	4.763 (3/16")
TNEC54 NST 3P	3	3.444 (0.136")	15.875 (5/8")	6.35 (1/4")
TNEC54 NST 3.5P	3.5	2.934 (0.116")	15.875 (5/8")	6.35 (1/4")
TNEC54 NST 4P	4	2.550 (0.100")	15.875 (5/8")	6.35 (1/4")
TNEC54 NST 5P	5	2.014 (0.079")	15.875 (5/8")	6.35 (1/4")
TNEC66 NST 2P	2	2.232 (0.206")	19.05 (3/4")	9.525 (3/8")

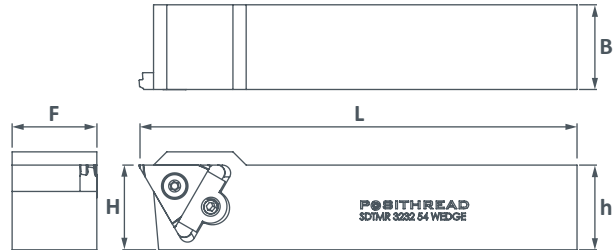
NSTC



DESCRIPTION	TPI	W	D	I.C.	T
TNEC43 NSTC 5P	5	2.014 (0.079")	1.778 (0.070")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 6P	6	1.656 (0.065")	1.524 (0.060")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 8P	8	1.217 (0.048")	1.207 (0.048")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 10P	10	0.942 (0.037")	1.016 (0.040")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 12P	12	0.828 (0.033")	0.762 (0.030")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 14P	14	0.701 (0.028")	0.671 (0.026")	12.70 (1/2")	4.763 (3/16")
TNEC43 NSTC 16P	16	0.605 (0.024")	0.605 (0.024")	12.70 (1/2")	4.763 (3/16")
TNEC54 NSTC 3P	3	3.444 (0.136")	2.794 (0.110")	15.875 (5/8")	6.35 (1/4")
TNEC54 NSTC 3.5P	3.5	2.934 (0.116")	2.431 (0.096")	15.875 (5/8")	6.35 (1/4")
TNEC54 NSTC 4P	4	2.550 (0.100")	2.159 (0.085")	15.875 (5/8")	6.35 (1/4")
TNEC54 NSTC 5P	5	2.014 (0.079")	1.778 (0.070")	15.875 (5/8")	6.35 (1/4")
TNEC66 NSTC 2P	2	2.232 (0.206")	4.064 (0.160")	19.05 (3/4")	9.525 (3/8")

EXTERNAL

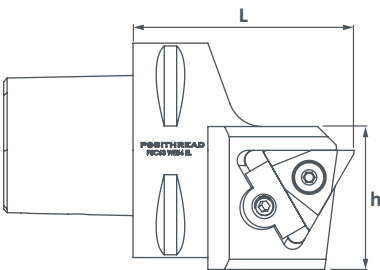
SDTMR/SDTML WEDGE



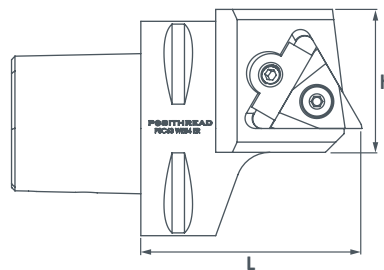
INSERT SIZE	TOOLHOLDER	DIMENSIONS				SPARES		
		H=h	B	L	F	INSERT SCREW	WEDGE	WEDGE SCREW
TNEC54	SDTMR 3232-54 WEDGE	32.0	32.0	160.0	38.0	MSD-3	W4M MOD	LS-130
	SDTML 3232-54 WEDGE							
TNEC55	SDTMR 3232-55 WEDGE	32.0	32.0	160.0	38.0	MSD-3	W4M MOD	LS-130
	SDTML 3232-55 WEDGE							
TNEC56	SDTMR 3232-56 WEDGE	32.0	32.0	160.0	40.0	MSD-3	W4M MOD	LS-130
	SDTML 3232-56 WEDGE							
TNEC66	SDTMR 3232-66 WEDGE	32.0	32.0	160.0	40.0	MSD-4	W4M MOD	LS-130
	SDTML 3232-66 WEDGE							
TNEC68	SDTMR 3232-68 WEDGE	32.0	32.0	160.0	45.0	MSD-4	W4M MOD	LS-130
	SDTML 3232-68 WEDGE							
TNEC69	SDTMR 3232-69 WEDGE	32.0	32.0	160.0	50.0	MSD-4	W4M MOD	LS-130
	SDTML 3232-69 WEDGE							

EXTERNAL

PSC WEDGE



LEFT HAND



RIGHT HAND

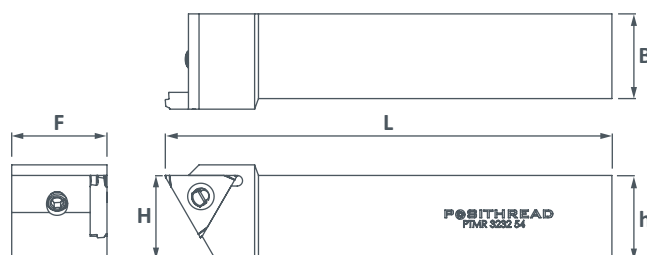
INSERT SIZE	TOOLHOLDER	DIMENSIONS			SPARES		
		h	L	W	INSERT SCREW	WEDGE	WEDGE SCREW
TNEC54	PSC63 6590 WE54 ER	42.0	65.0	45.0	MSD-3	W4M MOD	LS-130
TNEC54	PSC63 6590 WE54 EL	42.0	65.0	45.0	MSD-3	W4M MOD	LS-130
TNEC54	PSC80 80110 WE54 ER	42.0	80.0	55.0	MSD-3	W4M MOD	LS-130
TNEC54	PSC80 80110 WE54 EL	42.0	80.0	55.0	MSD-3	W4M MOD	LS-130

● INTERNAL PSC TOOLING ALSO AVAILABLE

TNEC TOOLING

EXTERNAL

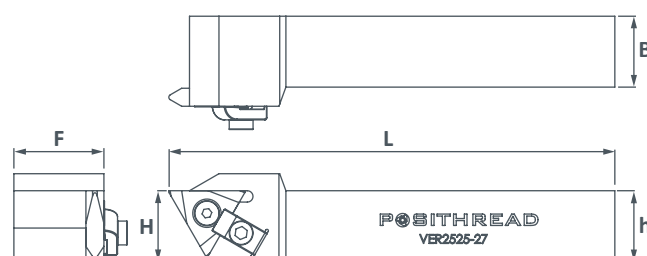
PTMR/PTML



INSERT SIZE	TOOLHOLDER	DIMENSIONS				SPARES		
		H=h	B	L	F	LOCK SCREW	POLYFLEX BALL	LOCK PIN
TNEC43	PTMR 2525-43	25.0	25.0	140.0	32.0	PT-627	7/32"	TG-43
	PTML 2525-43							
TNEC43	PTMR 3232-43	32.0	32.0	160.0	38.0	PT-627	7/32"	TG-43
	PTML 3232-43							
TNEC54 TNEC55	PTMR 2525-54	25.0	25.0	140.0	32.0	PT-628	9/32"	TG-54
	PTML 2525-54							
TNEC54 TNEC55	PTMR 3232-54	32.0	32.0	160.0	38.0	PT-628	9/32"	TG-54
	PTML 3232-54							
TNEC54 TNEC55	PTMR 4040-54	40.0	40.0	200.0	50.0	PT-628	9/32"	TG-54
	PTML 4040-54							

EXTERNAL

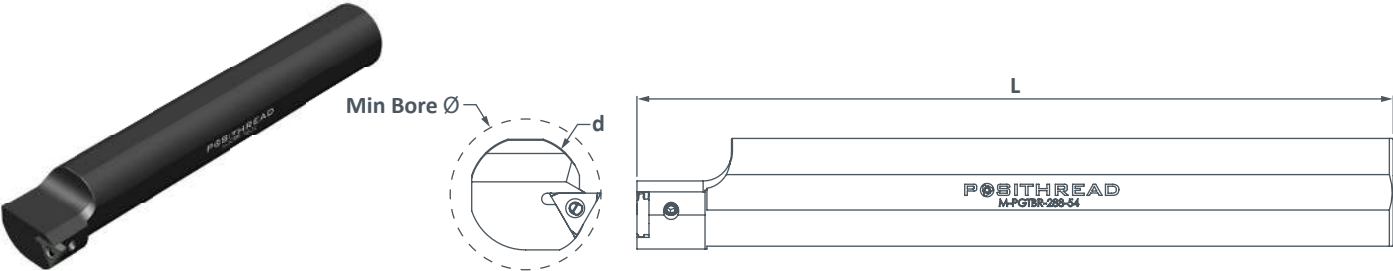
VER/VEL



INSERT SIZE	TOOLHOLDER	DIMENSIONS				SPARES		
		H=h	B	L	F	SCREW	CLAMP	CLAMP SCREW
TNEC43 TNEC44	VER 2525-22	25.0	25.0	150.0	32.0	VS22	VC10	VCS10
	VEL 2525-22							
TNEC43 TNEC44	VER 3232-22	32.0	32.0	150.0	38.0	VS22	VC10	VCS10
	VEL 3232-22							
TNEC54 TNEC55	VER 3232-27	32.0	32.0	175.0	38.0	VS27	VC10	VCS10
	VEL 3232-27							
TNEC66	VER 3232-33	32.0	32.0	175.0	38.0	VS33	VC10	VCS10
	VEL 3232-33							

INTERNAL

M-PGTBR/M-PGTBL

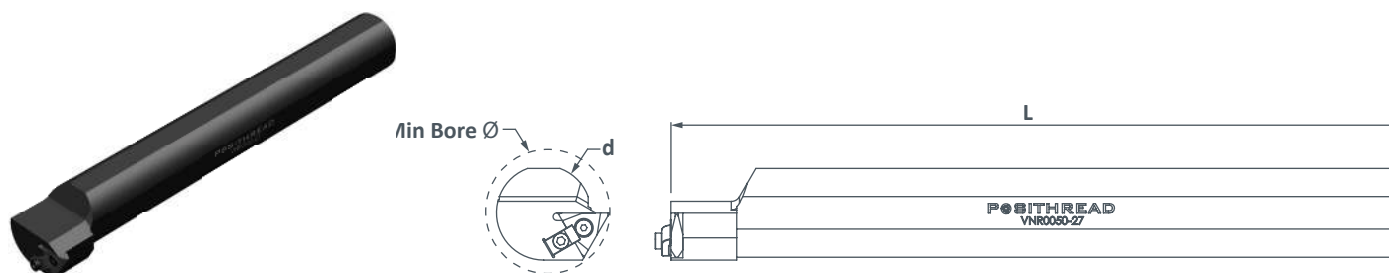


INSERT SIZE	TOOLHOLDER	DIMENSIONS			SPARES		
		d	L	MIN BORE Ø	LOCK SCREW	POLYFLEX BALL	LOCK PIN
TNEC43	M-PGTBR 150-43	32	350	49.1	PT-627	7/32"	TG-43
	M-PGTBL 150-43						
TNEC43	M-PGTBR 173-43	40	350	52.2	PT-627	7/32"	TG-43
	M-PGTBL 173-43						
TNEC43	M-PGTBR 226-43	50	400	64.4	PT-627	7/32"	TG-43
	M-PGTBL 226-43						
TNEC54 TNEC55	M-PGTBR 238-54	50	400	64.4	PT-628	9/32"	TG-54
	M-PGTBL 238-54						
TNEC54 TNEC55	M-PGTBR 288-54	60	400	72.8	PT-628	9/32"	TG-54
	M-PGTBL 288-54						

TNEC

INTERNAL

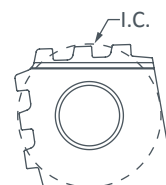
VNR/VNL



INSERT SIZE	TOOLHOLDER	DIMENSIONS			SPARES		
		d	L	MIN BORE Ø	SCREW	CLAMP	CLAMP SCREW
TNEC43 TNEC44	VNR 0032-22	32.0	350.0	49.10	VS22	VC10	VCS10
	VNL 0032-22						
TNEC43 TNEC44	VNR 0040-22	40.0	350.0	52.20	VS22	VC10	VCS10
	VNL 0040-22						
TNEC43 TNEC44	VNR 0050-22	50.0	400.0	64.40	VS22	VC10	VCS10
	VNL 0050-22						
TNEC54 TNEC55	VNR 0050-27	50.0	400.0	64.40	VS27	VC10	VCS10
	VNL 0050-27						
TNEC54 TNEC55	VNR 0063-27	63.0	400.0	72.80	VS27	VC10	VCS10
	VNL 0063-27						
TNEC66	VNR 0063-33	63.0	400.0	78.40	VS33	VC10	VCS10
	VNL 0063-33						

API

BUTTRESS CASING



DESCRIPTION	TPF	TPI	TEETH	I.C.	T
CNGA64 BUCA 755 E3	3/4"	5	3	19.05 (3/4")	6.35 (4/16")
CNGA64 BUCA 755 I3	3/4"	5	3	19.05 (3/4")	6.35 (4/16")
CNGA64 BUCA 15 E3	1"	5	3	19.05 (3/4")	6.35 (4/16")
CNGA64 BUCA 15 I3	1"	5	3	19.05 (3/4")	6.35 (4/16")

VAM

VAM TOP

DESCRIPTION	VAM REF.	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM TOP 756 E2	SI-TD7502 SI-TD7504	3/4"	6	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP 755 E2	SI-TD7500	3/4"	5	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP 754 E2	SI-TD7501	3/4"	4	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP 754 I2		3/4"	4	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP FE 754 E2	SI-TD100280	3/4"	4	2	19.05 (3/4")	6.35 (4/16")

VAM TOP ROUGHERS

DESCRIPTION	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM TOP R756E	3/4"	6	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP R755E	3/4"	5	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP R755I	3/4"	5	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP R754E	3/4"	4	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM TOP R754I	3/4"	4	2	19.05 (3/4")	6.35 (4/16")

CNGA

VAM

VAM DINO

DESCRIPTION	VAM REF.	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM DINO 8.33% 3E	ST-D7200	1"	3	1	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 8.33% 3I		1"	3	1	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 12.5% 3E		1 1/2"	3	1	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 12.5% 3I		1 1/2"	3	1	19.05 (3/4")	6.35 (4/16")

VAM DINO ROUGHING

DESCRIPTION	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM DINO 8.33% R3 E2	1"	3	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 8.33% R3 I2	1"	3	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 12.5% R3 E2	1 1/2"	3	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM DINO 12.5% R3 I2	1 1/2"	3	2	19.05 (3/4")	6.35 (4/16")

VAM HP

DESCRIPTION	VAM REF.	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM HP 12.5% 5 E2	SI-TD100609	1 1/2"	5	2	19.05 (3/4")	6.35 (4/16")

VAM HP ROUGHING

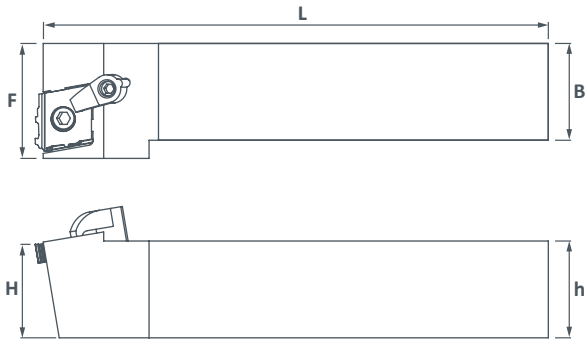
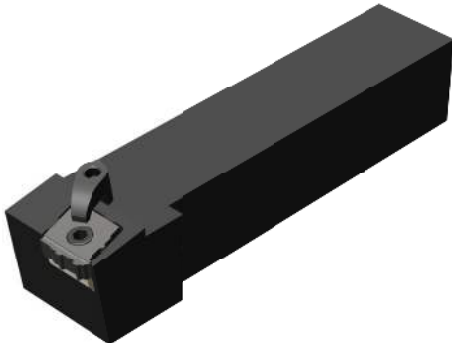
DESCRIPTION	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM HP 12.5% RGH 5 E3	1 1/2"	5	3	19.05 (3/4")	6.35 (4/16")

VAM SLIJ II

DESCRIPTION	VAM REF.	TPF	TPI	TEETH	I.C.	T
CNGA64 VAM SLIJ II 6.25% 8 E2	SI-TD100331	3/4"	8	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 8 I2		3/4"	8	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 7 E2	SI-TD100136	3/4"	7	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 7 I2		3/4"	7	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 6 E2	SI-TD100135	3/4"	6	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 6 I2		3/4"	6	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 5 E2	SI-TD100096	3/4"	5	2	19.05 (3/4")	6.35 (4/16")
CNGA64 VAM SLIJ II 6.25% 5 I2		3/4"	5	2	19.05 (3/4")	6.35 (4/16")

● OTHER VAM SLIJ II PRODUCTS AVAILABLE ON REQUEST

EXTERNAL
CRANKED SHANK - CLAMP & SCREW TYPE



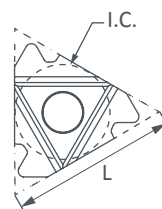
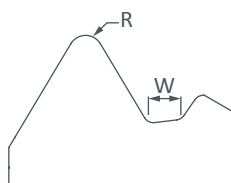
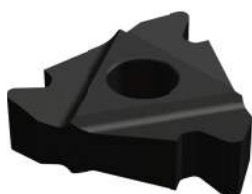
INSERT SIZE	TOOLHOLDER	DIMENSIONS				SPARES			
		H=h	B	L	F	ANVIL	INSERT SCREW	CLAMP	CLAMP SCREW
CNGA64	B16769	32.0	32.0	170.0	38.0	H16769	H312C	NC16A	LS130

● INTERNAL TOOLING ALSO AVAILABLE

TNEGX

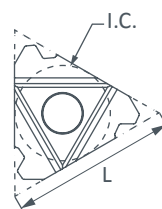
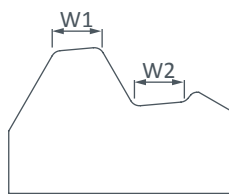
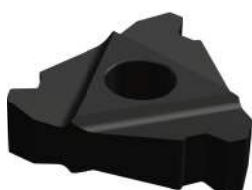
API

ROTARY API SPEC 7-2 - 60° INCLUSIVE



DESCRIPTION	TPF	TPI	R	W	I.C.	L	T
TNEGX54F V3824 #1	2"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.35 (1/4")
TNEGX54F V3834 #2	3"	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.35 (1/4")
TNEGX54F V2524 #3	2"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.35 (1/4")
TNEGX54F V2534 #4	3"	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.35 (1/4")
TNEGX54F V2035 #5	3"	5	0.508 (0.020")	1.016 (0.040")	15.875 (5/8")	27	6.35 (1/4")

PAC AOH - 60° INCLUSIVE



DESCRIPTION	TPF	TPI	W1	W2	I.C.	L	T
TNEGX54F PAC 154	1 1/2"	4	1.702 (0.067")	1.931 (0.076)	15.875 (5/8")	27	6.35 (1/4")

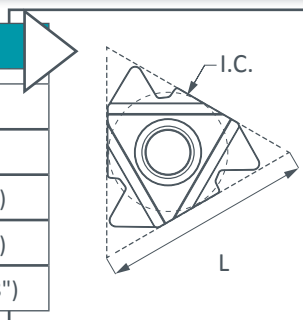
- TNEGX TOOLING ALSO AVAILABLE

INSERT IDENTIFICATION

1	2	3	4	5	6	7
22	E	R	4	API	386	PTX

1 | INSERT SIZE

SIZE	EDGE LENGTH (MM)	I.C.
11	11.00	6.35 (1/4")
16	16.00	9.525 (3/8")
22	22.00	12.70 (1/2")
27	27.00	15.875 (5/8")



2 | INSERT TYPE

E	EXTERNAL
N	INTERNAL

3 | INSERT HANDING

R	RIGHT HAND
L	LEFT HAND
U	NEUTRAL

4 | PITCH OR TPI

PITCH IN MM OR TPI IN THREADS PER INCH

5 | STANDARD

VAM	TOP, ACE, DINO
API	BUCA, RD, IMP BUTT
NS	NSCT, NSCC

6 | ADDITIONAL INFORMATION

2M / 3M	MULTI-TOOTH
SE	SINGLE EDGE INSERT
API THREAD FORM / TAPER I.D.	
386	V0.038R 2TPF
504	V0.050 3TPF
558	V0.055 1 1/2 TPF

7 | GRADE

DBC
PTX
PTC2

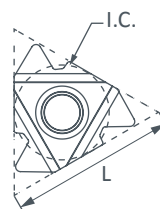
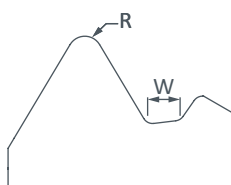
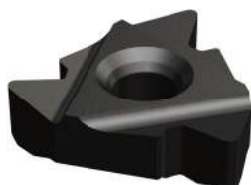
LAYDOWN PART REFERENCES FOR OILFIELD THREADFORMS

THREAD FORM REFERENCE	CONNECTION REFERENCE	PART REF.
API V0.038R (V0.065 SUPERCEDED BY V0.038 2TPF)	NC23, NC26, NC31, NC35, NC38, NC40, NC44, NC46, NC50 4 FH, 2 3/8 IF, 3 1/2 IF, 4 IF, 4 1/2 IF, 5 1/2 IF	4 API 386
	NC56, NC61, NC70, NC77	4 API 384
API V0.040	2 3/8 REG, 2 7/8 REG, 3 1/2 REG, 4 1/2 REG 3 1/2 FH, 4 1/2 FH	5 API 404
API V0.050	6 5/8 REG, 5 1/2 FH, 6 5/8 FH	4 API 506
	5 1/2 REG, 7 5/8 REG, 8 5/8 REG	4 API 504
API V0.055 AMERICAN MT AMT AMMT	NC10, NC12, NC13, NC16	6 API 558
API ROUND	NUE 1.05 - 3 1/2, EUE/L 1.05 - 1.9, IJ 1.315 - 2.063	10API RD
	NUE 4 - 4 1/2, EUE/L 2 3/8 - 4 1/2, STC 4 1/2 - 20, LTC 4 1/2 - 20	8API RD
API BUTTRESS CASING	4 1/2 - 13 3/8	5 API 2.5
	16 - 20	5 API 2.6
PAC (PACIFIC ASIA CONNECTION) AOH (AMERICAN OPEN HOLE)	2 3/8 - 2 7/8 - 3 1/2	4 PAC

LAYDOWN

API

ROTARY API SPEC 7-2 - 60° INCLUSIVE



V0.038R

DESCRIPTION	IPF	TPI	R	W	I.C.	L	T
22ER 4API 386	2	4	0.965 (0.038")	1.651 (0.065")	12.70 (1/2")	22	4.76 (0.187")
22NR 4API 386	2	4	0.965 (0.038")	1.651 (0.065")	12.70 (1/2")	22	4.76 (0.187")
22ER 4API 384	3	4	0.965 (0.038")	1.651 (0.065")	12.70 (1/2")	22	4.76 (0.187")
22NR 4API 384	3	4	0.965 (0.038")	1.651 (0.065")	12.70 (1/2")	22	4.76 (0.187")
27ER 4API 386	2	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.30 (0.248")
27NR 4API 386	2	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.30 (0.248")
27ER 4API 384	3	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.30 (0.248")
27NR 4API 384	3	4	0.965 (0.038")	1.651 (0.065")	15.875 (5/8")	27	6.30 (0.248")

V0.040

DESCRIPTION	IPF	TPI	R	W	I.C.	L	T
22ER 5API 404	3	5	0.508 (0.020")	1.061 (0.040")	12.70 (1/2")	22	4.76 (0.187")
22NR 5API 404	3	5	0.508 (0.020")	1.061 (0.040")	12.70 (1/2")	22	4.76 (0.187")

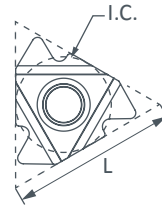
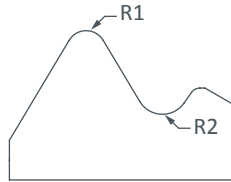
V0.050

DESCRIPTION	IPF	TPI	R	W	I.C.	L	T
22ER 4API 506	2	4	0.635 (0.025")	1.270 (0.050")	12.70 (1/2")	22	4.76 (0.187")
22NR 4API 506	2	4	0.635 (0.025")	1.270 (0.050")	12.70 (1/2")	22	4.76 (0.187")
22ER 4API 504	3	4	0.635 (0.025")	1.270 (0.050")	12.70 (1/2")	22	4.76 (0.187")
22NR 4API 504	3	4	0.635 (0.025")	1.270 (0.050")	12.70 (1/2")	22	4.76 (0.187")
27ER 4API 506	2	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.30 (0.248")
27NR 4API 506	2	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.30 (0.248")
27ER 4API 504	3	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.30 (0.248")
27NR 4API 504	3	4	0.635 (0.025")	1.270 (0.050")	15.875 (5/8")	27	6.30 (0.248")

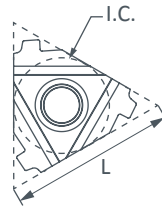
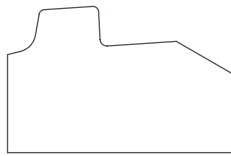
V0.055

DESCRIPTION	IPF	TPI	W		I.C.	L	T
22ER 6API 558	1 1/2	6	1.397 (0.055")		12.70 (1/2")	22	4.76 (0.187")
22NR 6API 558	1 1/2	6	1.397 (0.055")		12.70 (1/2")	22	4.76 (0.187")

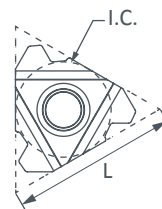
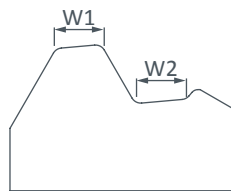
API

ROUND API SPEC 5 - B - 60° INCLUSIVE

DESCRIPTION	IPF	TPI	R1	R2	I.C.	L	T
16ER 10API RD	0.75	10	0.356 (0.014")	0.432 (0.017")	9.525 (3/8")	16	3.50 (0.138")
16NR 10API RD	0.75	10	0.356 (0.014")	0.432 (0.017")	9.525 (3/8")	16	3.50 (0.138")
16ER 8API RD	0.75	8	0.432 (0.017")	0.508 (0.020")	9.525 (3/8")	16	3.50 (0.138")
16NR 8API RD	0.75	8	0.432 (0.017")	0.508 (0.020")	9.525 (3/8")	16	3.50 (0.138")

BUTTRESS CASING API SPEC 5 - B - 10°/3° - 13° INCLUSIVE

DESCRIPTION	IPF	TPI	I.C.	L	T
22ER 5API 2.5	3/4	5	12.70 (1/2")	22	4.76 (0.187")
22NR 5API 2.5	3/4	5	12.70 (1/2")	22	4.76 (0.187")
22ER 5API 2.6	1	5	12.70 (1/2")	22	4.76 (0.187")
22NR 5API 2.6	1	5	12.70 (1/2")	22	4.76 (0.187")

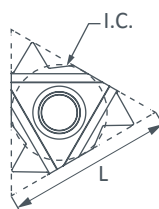
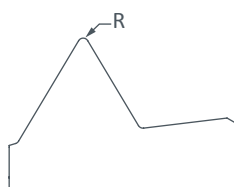
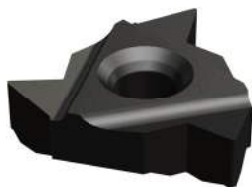
PAC AOH - 60° INCLUSIVE

DESCRIPTION	IPF	TPI	W1	W	I.C.	L	T
22ER 4PAC	1 1/2	4	1.702 (0.067")	1.931 (0.076")	12.70 (1/2")	22	4.76 (0.187")
22NR 4PAC	1 1/2	4	1.702 (0.067")	1.931 (0.076")	12.70 (1/2")	22	4.76 (0.187")
27ER 4PAC	1 1/2	4	1.702 (0.067")	1.931 (0.076")	15.875 (5/8")	27	6.30 (0.248")
27NR 4PAC	1 1/2	4	1.702 (0.067")	1.931 (0.076")	15.875 (5/8")	27	6.30 (0.248")

LAYDOWN

LINE PIPE

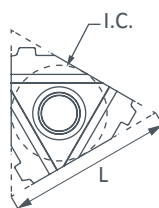
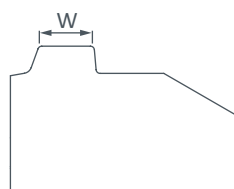
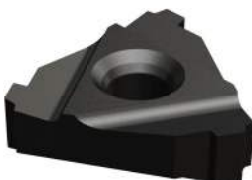
NPT ASME/ANSI B1.20.1 - 60° INCLUSIVE - 1/16 TAPER



DESCRIPTION	TPI	R. MAX	I.C.	L	T
16ER 27NPT	27	0.060 (0.002")	9.525 (3/8")	16	3.50 (0.138")
16NR 27NPT	27	0.060 (0.002")	9.525 (3/8")	16	3.50 (0.138")
16ER 18NPT	18	0.084 (0.003")	9.525 (3/8")	16	3.50 (0.138")
16NR 18NPT	18	0.084 (0.003")	9.525 (3/8")	16	3.50 (0.138")
16ER 14NPT	14	0.094 (0.004")	9.525 (3/8")	16	3.50 (0.138")
16NR 14NPT	14	0.094 (0.004")	9.525 (3/8")	16	3.50 (0.138")
16ER 11.5NPT	11.5	0.107 (0.004")	9.525 (3/8")	16	3.50 (0.138")
16NR 11.5NPT	11.5	0.107 (0.004")	9.525 (3/8")	16	3.50 (0.138")
16ER 8NPT	8	0.132 (0.005")	9.525 (3/8")	16	3.50 (0.138")
16NR 8NPT	8	0.132 (0.005")	9.525 (3/8")	16	3.50 (0.138")

FJWP

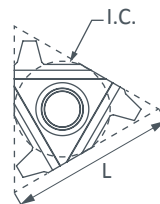
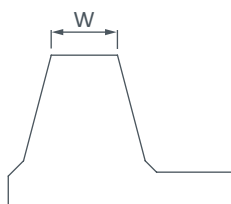
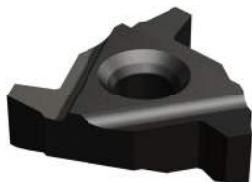
FJWP



DESCRIPTION	TPI	W	I.C.	L	T
22ER 8FJWP	8	1.588 (0.063")	12.7 (1/2")	22	4.76 (0.187")
22NR 8FJWP	8	1.588 (0.063")	12.7 (1/2")	22	4.76 (0.187")
22ER 6FJWP	6	2.083 (0.082")	12.7 (1/2")	22	4.76 (0.187")
22NR 6FJWP	6	2.083 (0.082")	12.7 (1/2")	22	4.76 (0.187")
22ER 4FJWP	4	3.175 (0.125")	12.7 (1/2")	22	4.76 (0.187")
22NR 4FJWP	4	3.175 (0.125")	12.7 (1/2")	22	4.76 (0.187")

ACME

ASME/ANSI B1.5 - 29° INCLUSIVE

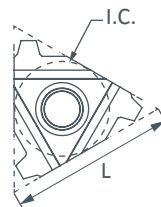
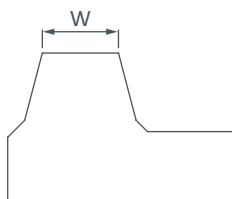
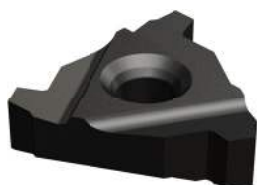


DESCRIPTION	TPI	W	I.C.	L	T
16ER 16ACME	16	0.523	9.525 (3/8")	16	3.50 (0.138")
16NR 16ACME	16	0.523	9.525 (3/8")	16	3.50 (0.138")
16ER 14ACME	14	0.607	9.525 (3/8")	16	3.50 (0.138")
16NR 14ACME	14	0.607	9.525 (3/8")	16	3.50 (0.138")
16ER 12ACME	12	0.719	9.525 (3/8")	16	3.50 (0.138")
16NR 12ACME	12	0.719	9.525 (3/8")	16	3.50 (0.138")
16ER 10ACME	10	0.810	9.525 (3/8")	16	3.50 (0.138")
16NR 10ACME	10	0.810	9.525 (3/8")	16	3.50 (0.138")
16ER 8ACME	8	1.045	9.525 (3/8")	16	3.50 (0.138")
16NR 8ACME	8	1.045	9.525 (3/8")	16	3.50 (0.138")
16ER 6ACME SE	6	1.438	9.525 (3/8")	16	3.50 (0.138")
16NR 6ACME SE	6	1.438	9.525 (3/8")	16	3.50 (0.138")
22ER 6ACME	6	1.438	12.70 (1/2")	22	4.76 (0.187")
22NR 6ACME	6	1.438	12.70 (1/2")	22	4.76 (0.187")
22ER 5ACME	5	1.752	12.70 (1/2")	22	4.76 (0.187")
22NR 5ACME	5	1.752	12.70 (1/2")	22	4.76 (0.187")
22ER 4ACME SE	4	2.222	12.70 (1/2")	22	4.76 (0.187")
22NR 4ACME SE	4	2.222	12.70 (1/2")	22	4.76 (0.187")
27ER 4ACME	4	2.222	15.875 (5/8")	27	6.30 (0.248")
27NR 4ACME	4	2.222	15.875 (5/8")	27	6.30 (0.248")

LAYDOWN

STUB ACME

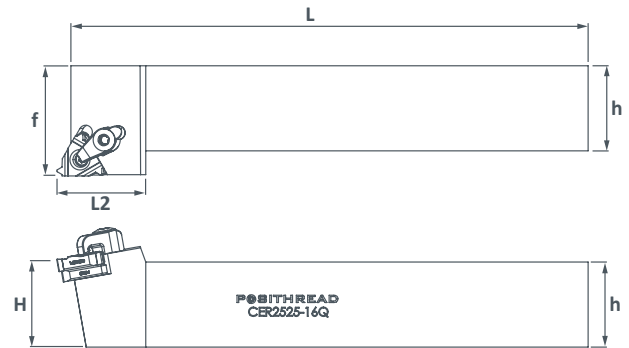
ASME/ANSI B1.8 - 29° INCLUSIVE



DESCRIPTION	TPI	W	I.C.	L	T
16ER 16STACME	16	0.605	9.525 (3/8")	16	3.50 (0.138")
16NR 16STACME	16	0.605	9.525 (3/8")	16	3.50 (0.138")
16ER 14STACME	14	0.701	9.525 (3/8")	16	3.50 (0.138")
16NR 14STACME	14	0.701	9.525 (3/8")	16	3.50 (0.138")
16ER 12STACME	12	0.762	9.525 (3/8")	16	3.50 (0.138")
16NR 12STACME	12	0.762	9.525 (3/8")	16	3.50 (0.138")
16ER 10STACME	10	0.941	9.525 (3/8")	16	3.50 (0.138")
16NR 10STACME	10	0.941	9.525 (3/8")	16	3.50 (0.138")
16ER 8STACME	8	1.210	9.525 (3/8")	16	3.50 (0.138")
16NR 8STACME	8	1.210	9.525 (3/8")	16	3.50 (0.138")
16ER 6STACME	6	1.657	9.525 (3/8")	16	3.50 (0.138")
16NR 6STACME	6	1.657	9.525 (3/8")	16	3.50 (0.138")
22ER 6STACME	6	1.657	12.70 (1/2")	22	4.76 (0.187")
22NR 6STACME	6	1.657	12.70 (1/2")	22	4.76 (0.187")
22ER 5STACME	5	2.014	12.70 (1/2")	22	4.76 (0.187")
22NR 5STACME	5	2.014	12.70 (1/2")	22	4.76 (0.187")
22ER 4STACME	4	2.551	12.70 (1/2")	22	4.76 (0.187")
22NR 4STACME	4	2.551	12.70 (1/2")	22	4.76 (0.187")
27ER 4STACME	4	2.551	15.875 (5/8")	27	6.30 (0.248")
27NR 4STACME	4	2.551	15.875 (5/8")	27	6.30 (0.248")

EXTERNAL

CRANKED SHANK - CLAMP TYPE 1° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER	DIMENSIONS					SPARES			
mm	INCH		H = h	b	L1	L2	f	ANVIL	ANVIL SCREW	CLAMP	TORQ KEY
16	3/8"	CER 1212-16Q	12	12	100	22	16	GX16-1	AS16	CSP-15	T10-T15
		CER 1616-16Q	16	16	100	22	20				
		CER 2020-16Q	20	20	125	22	25				
		CER 2525-16Q	25	25	150	22	32				
		CER 3232-16Q	32	32	170	22	40				
22	1/2"	CER 2525-22Q	25	25	150	28	32	NX22-1	AS22	CSP-22	T15
		CER 3232-22Q	32	32	170	28	40				
		CER 4040-22Q	40	40	200	28	50				
27	5/8"	CER 2525-27Q	25	25	150	33	32	VX27-1	AS27	CSP-27	T20-T25
		CER 3232-27Q	32	32	170	33	40				
		CER 4040-27Q	40	40	200	33	50				

INTERNAL

PARALLEL SHANK - SCREW TYPE 2° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER	DIMENSIONS						SPARES	
mm	INCH		D1	D2	L1	h	f	Min Bore	SCREW	TORQ KEY
16	3/8"	SNR 0016-16	16	16	150	14	10.3	19	S11	T7
		SNR 0020-16	20	20	170	18	13	24	S16	T15
22	1/2"	SNR 0020-22	20	20	170	18	14	24	S22	T15

LAYDOWN TOOLING

INTERNAL

PARALLEL SHANK - CLAMP TYPE 1° HELIX WITH STANDARD ANVIL



INSERT SIZE		TOOLHOLDER	DIMENSIONS						SPARES			
mm	INCH		D1	D2	L1	h	f	MIN BORE	ANVIL	ANVIL SCREW	CLAMP	TORQ KEY
16	3/8"	CNR 0020-16	20	20.50	170	18	13.80	24	GX16-1	AS16	CSP-16	T10-T15
		CNR 0025-16	25	25.50	250	23	16.30	29				
		CNR 0032-16	32	32.50	250	29	19.80	36				
		CNR 0040-16	40	40.50	300	36	23.80	44				
		CNR 0050-16	50	50.50	350	46	28.80	54				
22	1/2"	CNR 0025-22	25	25.50	250	23	17.80	30	NX22-1	AS22	CSP-22	T15
		CNR 0032-22	32	32.50	250	29	21.30	38				
		CNR 0040-22	40	40.50	300	36	25.30	46				
		CNR 0050-22	50	50.50	350	46	30.30	56				
		CNR 0063-22	63	63.50	400	59	36.80	69				
27	5/8"	CNR 0032-27	32	32.50	250	29	23.00	42	VX27-1	AS27	CSP-27	T20-T25
		CNR 0040-27	40	40.50	300	36	27.30	48				
		CNR 0050-27	50	50.50	350	46	32.20	58				
		CNR 0063-27	63	63.50	400	59	38.70	70				

GRADES

PTX

- AlTiN coating
- Very good all round grade
- Increased tool life over PTC2 by up to 50%
- Heat resistance

DBC

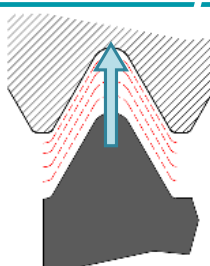
- TiSiN coating
- Developed for hard materials, high chrome steels and exotic materials.
- Heat resistance and oxidation resistance at cutting temperatures of over 1000°C

SPEEDS & FEEDS

	PTX	DBC
MATERIAL SPECIFICATION	METRES PER MINUTE	
1018 LOW CARBON STEEL	145/165 •	130/140
4140 (18-20 HRC) L80 EN19 EN24 EN34	145/155 •	120/130
9% - 13% CHROME	115/125 •	110/120
4140 (30-32 HRC)	90/110 •	90/105
4145 (36 HRC)	90/110 •	85/102
T316-17-4PH	105/135 •	85/115
410 STAINLESS	135/150 •	115/128
25% CHROME	60/75	58/70 •
SUPER 13% 95KSI	105/115	95/105 •
INCONEL 625	35/40	32/38 •
INCONEL 925	28/32	26/30 •
INCONEL 718	29/33	28/32 •
K MONEL	30/36	26/30 •

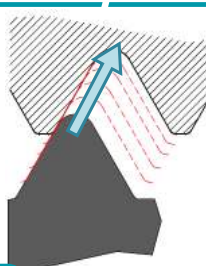
- FIRST CHOICE FOR CHOSEN MATERIAL

INFEEDS



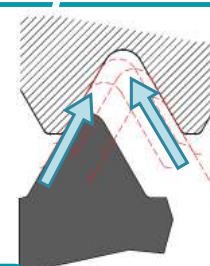
RADIAL

- Equal wear on leading & trailing edges.
- Use on work hardening materials.
- Use on short chipping materials.



FLANK

- Reduced cutting pressure on larger pitches.
- Directs chips away from cutting edge.
- Displaced in-feed angle improves surface finish.



ALTERNATE FLANK

- Recommended for long chipping materials.
- Method divides the work between both flanks.
- Less cutting pressure.

