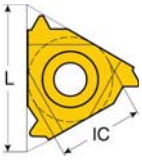
Thread Cutters

Threading Insert Identification

Insert Size

L (mm)	IC
06	3.968mm=5/32″
08	4.762mm=3/16″
11	6.350mm=1/4″
16	9.525mm=3/8″
22	12.700mm=1/2″
27	15.875mm=5/8″



Application

E – External
I – Internal
UE – U–Type, External
UI – U–Type, Internal
UEI – U–Type, External and Internal

U–Type

Regular Type

Hand of Tool

R – Right–hand
L – Left–hand
RL – Right–hand
Left–hand

16 E R 1.50 ISO B NS4125

Pitch

Full Profile
(Value by number)
0.35 – 9.0 mm
72 – 2 TPI

Partial Profile
(Range by letter)

	mm	TPI
A	0.5 – 1.5	48 – 16
AG	0.5 – 3.0	48 – 8
G	1.75 – 3.0	14 – 8
N	3.5 – 5.0	7 – 5
U	5.5 – 9.0	4.5 – 2.75
Q	5.5 – 6.0	4.5 – 4

Thread Standard

60 – Partial Profile 60°
55 – Partial Profile 55°
ISO – ISO Metric
UN – American UN
W – Whitworth
BSPT – British BSPT
RND – Round DIN 405
TR – Trapeze DIN 103
ACME – ACME
STACME – Stub ACME
ABUT – American Buttress
UNJ – UNJ
NPT – NPT
API RD – API Round
BUT – API Buttress Casing
API – API

Type

B – Pressed chipbreaker
□ – No indication regular type

Grade

Coated
TT7010
TT8010
TT9030

Uncoated
P30

Threading Cutter Identification

Clamping System

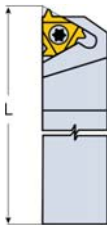
S – Screw Clamping

Application

E – External
I – Internal

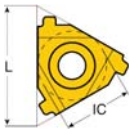
Tool Length

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



Insert Size

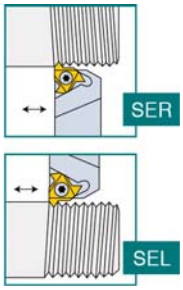
L (mm)	IC
06	3.968mm = 5/32″
08	4.762mm = 3/16″
08U	4.762mm = 3/16″
11	6.350mm = 1/4″
16	9.525mm = 3/8″
22	12.700mm = 1/2″
22U	12.700mm = 1/2″
27	15.875mm = 5/8″
27U	15.875mm = 5/8″



S **E** **R** **2020** **K** **16** **□**

Hand of Tool

R – Right–hand
L – Left–hand



Shank Size

External Toolholders
Shank: h × b

2020: 20 × 20mm

Internal Toolholders
Shank: Diameter d

0025: Diameter 25mm

Optional Specifications

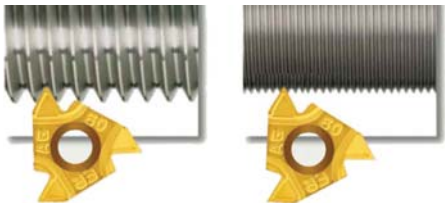
U – For U–type inserts
B – Bore for coolant
C – Carbide shank
SP – Special

USER GUIDE

Threading Inserts – Types and Profiles

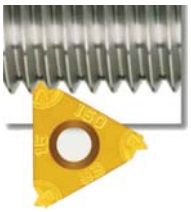
Partial Profile

- Suitable for a wide range of pitches with a common angle (60° or 55°)
- Inserts with small root–corner radius suitable for the smallest pitch range.
- Additional operations to complete the outer/internal diameter is necessary.
- Not recommended for mass production.
- Eliminates the need for different inserts.



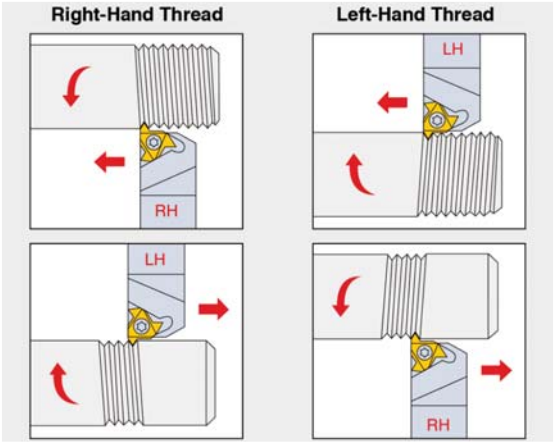
Full Profile

- Performs complete thread profile.
- Root corner radius is suitable only for the relevant pitch.
- Recommended for mass production.
- Suitable for one profile only.

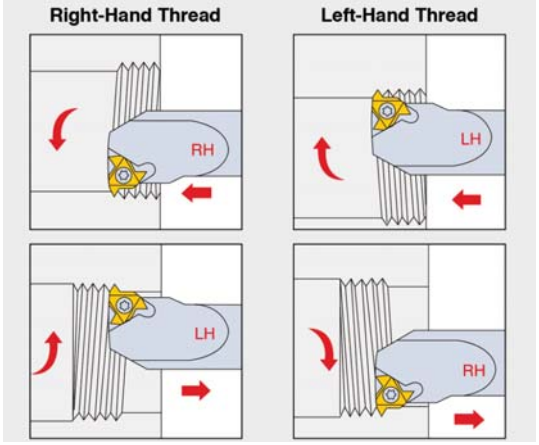


Thread Turning Methods

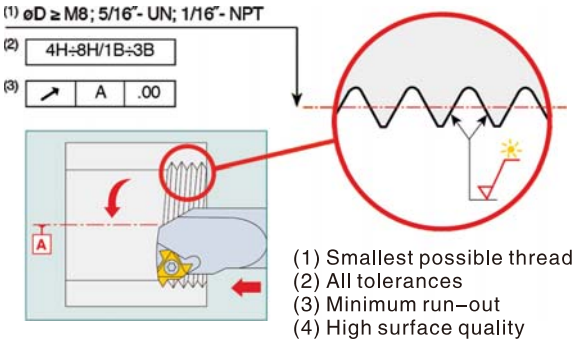
External Thread



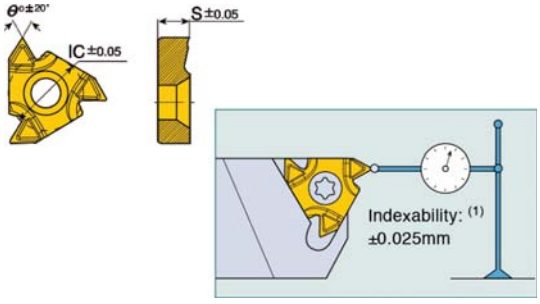
Internal Thread



Mini – Tool Features



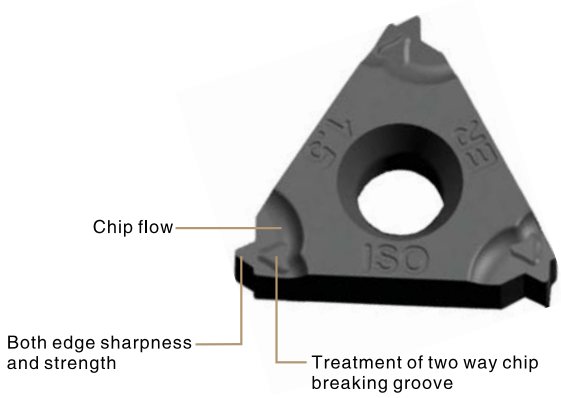
(1) Smallest possible thread
(2) All tolerances
(3) Minimum run–out
(4) High surface quality



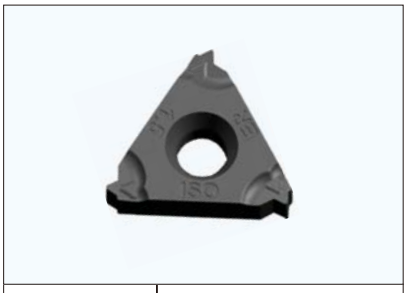
Insert indexability accuracy: ±0.015mm

Threading Insert Features

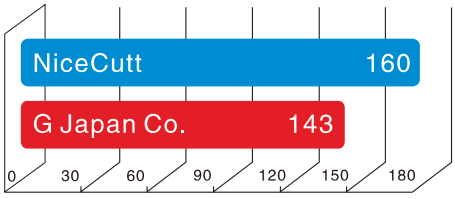
1.New type of pressing groove, chip processing is good;
2.Special edge treatment, edge uniformity.
3.With NS4125 brand, suitable for steel (P), stainless steel (M), cast iron (K) and other materials.
4.Covered pitch range 1.0–3.0mm.



Case Study 1



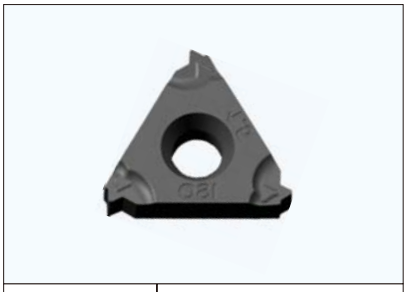
Workpiece material	304(HB200)Stainless steel
Machining parts	Machining external thread
Insert	16ER1.5ISO–B–NS4125



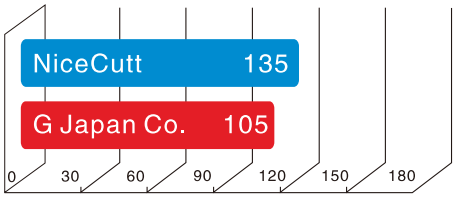
The cutting parameters
Vc=110m/min
ϕd=35mm

Cutting life
+12%

Case Study 2

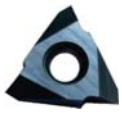


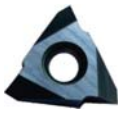
Workpiece material	304(HB200)Stainless steel
Machining parts	Machining internal thread
Insert	16IR1.5ISO–B–NS4125

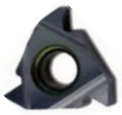


The cutting parameters
Vc=90m/min
ϕd=40mm

Cutting life
+30%

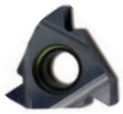
Partial Profile 60°

P142

Partial Profile 55°

P142

Partial Profile 60°

P143

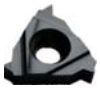
Partial Profile 60°

P143

Partial Profile 55°

P143

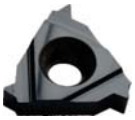
Partial Profile 55°

P143

11**ISO

P144

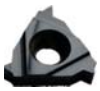
11**ISO-B

P144

16/22**ISO

P144

16**ISO-B

P144

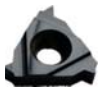
11**UN60°

P145

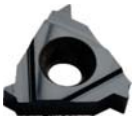
16/22**UN60°

P145

16**UN-B60°

P145

11**W55°

P146

16/22**W55°

P146

16**W-B55°

P146

11**NPTF60°

P147

16**NPTF60°

P147

11**NPT60°

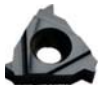
P147

16**NPT60°

P147

16**NPT-B60°

P147

11**BSPT55°

P148

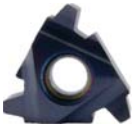
16**BSPT55°

P148

16**BSPT-B55°

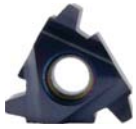
P148

TR-30° Trapez DIN 103



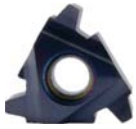
P148

ACME-29° American



P149

STACME-29°



P149

RD30° DIN405

P150

SER/L

P151

MER/L

P151

B-SER/L

P152

MTWHR/L

P152

SNR/L

P153

SNR/L

P153

W-55°

P154

BSPT-55°

P154

ISO Metric full proile

P155

UN-60°

P156

NPT-60°

P157

NPTF

P157

Partial profile 60°

P158

Partial profile 60°

P159

ISO Mrtric Full Profile

P159

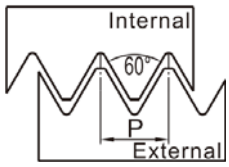
ISO Mrtric Full Profile

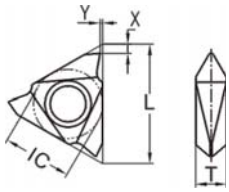
P160

ISO Mrtric Full Profile

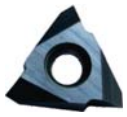
P160

Partial Profile 60° V-style Inserts

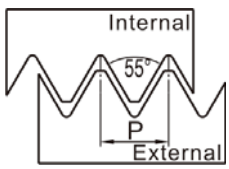


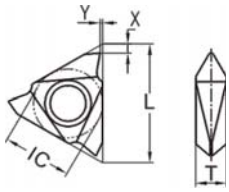


P	Steel	●	●										
M	Stainless Steel		○										
K	Cast Iron		●										
N	Non-ferrous Metal			●									
S	Heat-resistant Alloy		●										

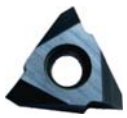
Shape	Ordering Code	Pitch		Dimension						CVD	PVD	Uncoated
	ER	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	TT43R6001	1.0–1.75	24–14	1/2″	4.76	22	1.70	0.29	0.10	●	●	●
	TT43R6002	2.0–2.5	13–10						0.20	●	●	●
	TT43R6003	3.0–3.5	9–7						0.30	●	●	●
	TT43R6004	4.0–4.5	6–5						0.40	●	●	●

Partial Profile 55° V-style Inserts



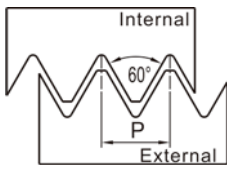


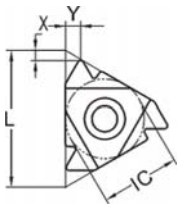
P	Steel	●	●										
M	Stainless Steel		○										
K	Cast Iron		●										
N	Non-ferrous Metal			●									
S	Heat-resistant Alloy		●										

Shape	Ordering Code	Pitch		Dimension						CVD	PVD	Uncoated
	ER	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	TT43R/L5501	1.0–1.75	24–14	1/2″	4.76	22	1.70	0.29	0.10	●	●	●
	TT43R/L5502	2.0–2.5	13–10						0.20	●	●	●
	TT43R/L5503	3.0–3.5	9–7						0.30	●	●	●
	TT43R/L5504	4.0–4.5	6–5						0.40	●	●	●

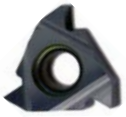
●Stock ○Availabie upon Order

Partial Profile 60° Threading Insert

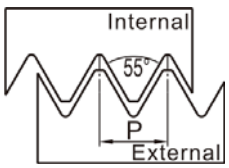


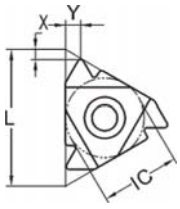


P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

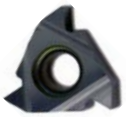
Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	IC	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR/A60	0.5–1.5	48–16	6.35	3.18	11	0.80	0.90	0.08	●	●	●
	16ER A60	16IR A60	0.5–1.5	48–16	9.525	3.97	16	0.80	0.90	0.08	●	●	●
	16ER AG60	16IR AG60	0.5–3.0	48–8				1.20	1.70	0.08	●	●	●
	16ER G60	16IR G60	1.75–3.0	14–8				1.20	1.70	0.28	●	●	●
	22ER N60	22IR N60	3.5–5.0	7–5	12.7	5.56	22	1.70	2.50	0.53	●	●	●
	16ER A60–B	16IR A60–B	0.5–1.5	48–16	9.525	3.97	16	0.80	0.90	0.08		●	
	16ER AG60–B	16IR AG60–B	0.5–3.0	48–8				1.20	1.70	0.08		●	
	16ER G60–B	16IR G60–B	1.75–3.0	14–8				1.20	1.70	0.18		●	

Partial Profile 55° Threading Insert



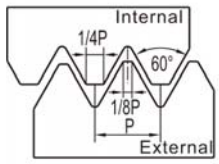


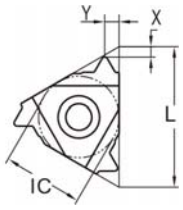
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR/A55	0.5–1.5	48–16	6.35	3.18	11	0.80	0.90	0.08	●	●	●
	16ER A55	16IR A55	0.5–1.5	48–16	9.525	3.97	16	0.80	0.90	0.08	●	●	●
	16ER AG55	16IR AG55	0.5–3.0	48–8				1.20	1.70	0.08	●	●	●
	16ER G55	16IR G55	1.75–3.0	14–8				1.20	1.70	0.28	●	●	●
	22ER N55	22IR N55	3.5–5.0	7–5	12.7	5.56	22	1.70	2.50	0.53	●	●	●
	16ER A55–B	16IR A55–B	0.5–1.5	48–16	9.525	3.97	16	0.80	0.90	0.08		●	
	16ER AG55–B	16IR AG55–B	0.5–3.0	48–8				1.20	1.70	0.08		●	
	16ER G55–B	16IR G55–B	1.75–3.0	14–8				1.20	1.70	0.18		●	

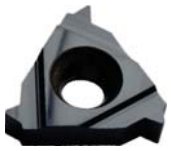
●Stock ○Availabie upon Order

ISO Metric



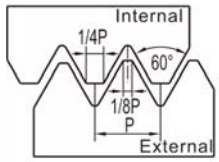


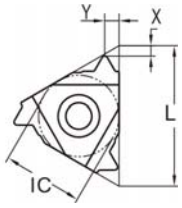
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	IC	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR0.50 ISO	0.50		6.35	3.18	11	0.60	0.60	0.05	●	●	●
		11IR0.75 ISO	0.75					0.60	0.60	0.08	●	●	●
		11IR1.00 ISO	1.00					0.70	0.70	0.10	●	●	●
		11IR1.25 ISO	1.25					0.80	0.90	0.13	●	●	●
		11IR1.50 ISO	1.50					0.80	1.0	0.18	●	●	●
		11IR1.75 ISO	1.75					0.80	1.10	0.22	●	●	●
		11IR2.00 ISO	2.00					–	–	0.25	●	●	●
		11IR0.50 ISO–B	0.50		6.35	3.18	11	0.60	0.60	0.05		●	
		11IR0.75 ISO–B	0.75					0.60	0.60	0.08		●	
		11IR1.00 ISO–B	1.00					0.70	0.70	0.10		●	
		11IR1.25 ISO–B	1.25					0.80	0.90	0.13		●	
		11IR1.50 ISO–B	1.50					0.80	1.0	0.18		●	
		11IR1.75 ISO–B	1.75					0.80	1.10	0.22		●	
		11IR2.00 ISO–B	2.00					–	–	0.25		●	
	16ER0.50 ISO	16IR0.50 ISO	0.50		9.525	3.97	16	0.60	0.60	0.05	●	●	●
	16ER0.75 ISO	16IR0.75 ISO	0.75					0.60	0.60	0.08	●	●	●
	16ER1.00 ISO	16IR1.00 ISO	1.00					0.70	0.70	0.10	●	●	●
	16ER1.25 ISO	16IR1.25 ISO	1.25					0.80	0.90	0.13	●	●	●
	16ER1.50 ISO	16IR1.50 ISO	1.50					0.80	1.0	0.18	●	●	●
	16ER1.75 ISO	16IR1.75 ISO	1.75					0.90	1.20	0.22	●	●	●
	16ER2.00 ISO	16IR2.00 ISO	2.00					1.0	1.30	0.25	●	●	●
	16ER2.50 ISO	16IR2.50 ISO	2.50					1.10	1.50	0.30	●	●	●
	16ER3.00 ISO	16IR3.00 ISO	3.00					1.20	1.60	0.36	●	●	●
	22ER3.50 ISO	22IR/L3.50 ISO	3.50		12.7	5.56	22	1.60	2.30	0.38	●	●	●
	22ER4.00 ISO	22IR/L4.00 ISO	4.00					1.60	2.30	0.40	●	●	●
	22ER4.50 ISO	22IR/L4.50 ISO	4.50					1.70	2.40	0.40	●	●	●
	22ER5.00 ISO	22IR/L5.00 ISO	5.00					1.70	2.40	0.40	●	●	●
	16ER0.50 ISO–B	16IR0.50 ISO–B	0.50		9.525	3.97	16	0.60	0.60	0.05		○	
	16ER0.75 ISO–B	16IR0.75 ISO–B	0.75					0.60	0.60	0.08		○	
	16ER1.00 ISO–B	16IR1.00 ISO–B	1.00					0.70	0.70	0.10		●	
	16ER1.25 ISO–B	16IR1.25 ISO–B	1.25					0.80	0.90	0.13		●	
	16ER1.50 ISO–B	16IR1.50 ISO–B	1.50					0.80	1.0	0.18		●	
	16ER1.75 ISO–B	16IR1.75 ISO–B	1.75					0.90	1.20	0.22		●	
	16ER2.00 ISO–B	16IR2.00 ISO–B	2.00					1.0	1.30	0.25		●	
	16ER2.50 ISO–B	16IR2.50 ISO–B	2.50					1.10	1.50	0.30		●	
	16ER3.00 ISO–B	16IR3.00 ISO–B	3.00					1.20	1.60	0.36		●	

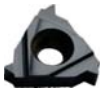
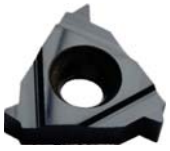
●Stock ○Availabie upon Order

60° American UN NC NF NEF NS



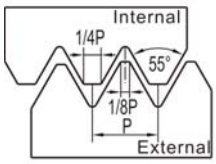


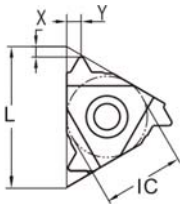
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR32 UN	32		6.36	3.18	11	0.60	0.60	0.10	●	●	●
		11IR28 UN	28					0.60	0.70	0.10	●	●	●
		11IR24 UN	24					0.70	0.80	0.13	●	●	●
		11IR20 UN	20					0.80	0.90	0.15	●	●	●
		11IR18 UN	18					0.80	1.0	0.18	●	●	●
		11IR16 UN	16					0.90	1.10	0.20	●	●	●
	16ER32 UN	16IR32 UN	32		9.525	3.97	16	0.60	0.60	0.08	●	●	●
	16ER28 UN	16IR28 UN	28					0.60	0.70	0.08	●	●	●
	16ER24 UN	16IR24 UN	24					0.70	0.80	0.10	●	●	●
	16ER20 UN	16IR20 UN	20					0.80	0.90	0.10	●	●	●
	16ER18 UN	16IR18 UN	18					0.80	1.0	0.13	●	●	●
	16ER16 UN	16IR16 UN	16					0.9	1.1	0.15	●	●	●
	16ER14 UN	16IR14 UN	14					1.0	1.2	0.18	●	●	●
	16ER13 UN	16IR13 UN	13					1.1	1.3	0.20	●	●	●
	16ER12 UN	16IR12 UN	12					1.1	1.4	0.23	●	●	●
	16ER11.5 UN	16IR11.5 UN	11.5					1.1	1.4	0.25	●	●	●
	16ER11 UN	16IR11 UN	11					1.1	1.5	0.28	●	●	●
	16ER10 UN	16IR10 UN	10					1.1	1.5	0.30	●	●	●
	16ER9 UN	16IR 9 UN	9					1.2	1.7	0.33	●	●	●
	16ER8 UN	16IR8 UN	8					1.2	2.0	0.36	●	●	●
	22ER7 UN	22IR7 UN	7		12.7	5.56	22	1.60	2.30	0.38	●	●	●
	22ER6 UN	22IR6 UN	6					1.60	2.30	0.41	●	●	●
	22ER5 UN	22IR5 UN	5					1.70	2.50	0.43	●	●	●
	16ER32 UN–B	16IR32 UN–B	32		9.525	3.97	16	0.60	0.60	0.08		○	
	16ER28 UN–B	16IR28 UN–B	28					0.60	0.70	0.08		○	
	16ER24 UN–B	16IR24 UN–B	24					0.70	0.80	0.10		○	
	16ER20 UN–B	16IR20 UN–B	20					0.80	0.90	0.10		○	
	16ER18 UN–B	16IR18 UN–B	18					0.80	1.0	0.13		○	
	16ER16 UN–B	16IR16 UN–B	16					0.9	1.1	0.15		○	
	16ER14 UN–B	16IR14 UN–B	14					1.0	1.2	0.18		○	
	16ER13 UN–B	16IR13 UN–B	13					1.1	1.3	0.20		○	
	16ER12 UN–B	16IR12 UN–B	12					1.1	1.4	0.23		○	
	16ER11.5 UN–B	16IR11.5 UN–B	11.5					1.1	1.4	0.25		○	
	16ER11 UN–B	16IR11 UN–B	11					1.1	1.5	0.28		○	
	16ER10 UN–B	16IR10 UN–B	10					1.1	1.5	0.30		○	
	16ER9 UN–B	16IR 9 UN–B	9					1.2	1.7	0.33		○	
	16ER8 UN–B	16IR8 UN–B	8					1.2	2.0	0.36		○	

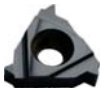
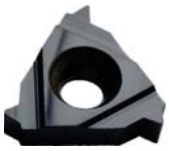
●Stock ○Availabie upon Order

55° Whitworth Full Profile



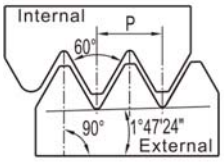


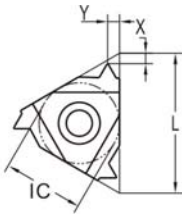
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non-ferrous Metal			●
S	Heat-resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR28 W	28		6.35	3.18	11	0.60	0.70	0.08	●	●	●
		11IR26 W	26					0.70	0.80	0.08	●	●	●
		11IR24 W	24					0.70	0.80	0.08	●	●	●
		11IR20 W	20					0.80	0.90	0.10	●	●	●
		11IR19 W	19					0.80	1.00	0.15	●	●	●
		11IR18 W	18					0.90	1.00	0.20	●	●	●
		11IR16 W	16					0.90	1.10	0.23	●	●	●
		11IR14 W	14					1.00	1.20	0.25	●	●	●
	16ER28 W	16IR28 W	28		9.525	3.97	16	0.60	0.70	0.08	●	●	●
	16ER26 W	16IR26 W	26					0.70	0.80	0.08	●	●	●
	16ER24 W	16IR24 W	24					0.70	0.80	0.08			
	16ER20 W	16IR20 W	20					0.80	0.90	0.10	●	●	●
	16ER19 W	16IR19 W	19					0.80	1.00	0.15	●	●	●
	16ER18 W	16IR18 W	18					0.80	0.90	0.20	●	●	●
	16ER16 W	16IR16 W	16					0.90	1.10	0.23	●	●	●
	16ER14 W	16IR14 W	14					0.90	1.20	0.25	●	●	●
	16ER12 W	16IR12 W	12					1.10	1.40	0.28	●	●	●
	16ER11 W	16IR11 W	11					1.10	1.50	0.30	●	●	●
	16ER10 W	16IR10 W	10					1.10	1.50	0.33	●	●	●
	16ER9 W	16IR9 W	9					1.20	1.50	0.33	●	●	●
	16ER8 W	16IR8 W	8					1.20	1.70	0.36	●	●	●
	22ER7 W	22IR7 W	7		12.7	5.56	22	1.60	2.30	0.36	●	●	●
	22ER6 W	22IR6 W	6					1.60	2.30	0.38	●	●	●
	22ER5 W	22IR5 W	5					1.70	2.40	0.41	●	●	●
	16ER28 W–B	16IR28 W–B	28		9.525	3.97	16	0.60	0.70	0.08		○	
	16ER26 W–B	16IR26 W–B	26					0.70	0.80	0.08		○	
	16ER20 W–B	16IR20 W–B	20					0.80	0.90	0.10		○	
	16ER19 W–B	16IR19 W–B	19					0.80	1.00	0.15		●	
	16ER18 W–B	16IR18 W–B	18					0.80	0.90	0.20		○	
	16ER16 W–B	16IR16 W–B	16					0.90	1.10	0.23		○	
	16ER14 W–B	16IR14 W–B	14					0.90	1.20	0.25		●	
	16ER12 W–B	16IR12 W–B	12					1.10	1.40	0.28		○	
	16ER11 W–B	16IR11 W–B	11					1.10	1.50	0.30		●	
	16ER10 W–B	16IR10 W–B	10					1.10	1.50	0.33		○	
	16ER9 W–B	16IR9 W–B	9					1.20	1.50	0.33		○	
	16ER8 W–B	16IR8 W–B	8					1.20	1.70	0.36		○	

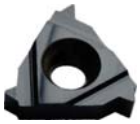
●Stock ○Availabie upon Order

60° NPTF

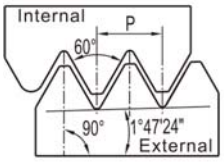


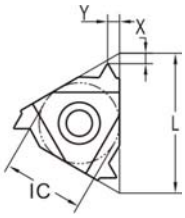


P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

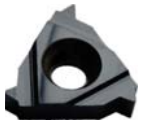
Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR27 NPTF	27		6.35	3.18	11	0.70	0.80	0.08	○	○	○
		11IR18 NPTF	18					0.80	1.00	0.10	○	○	○
		11IR14 NPTF	14					0.80	1.00	0.13	○	○	○
	16ER27 NPTF	16IR27 NPTF	27		9.525	3.97	16	0.70	0.80	0.08	○	○	○
	16ER18 NPTF	16IR18 NPTF	18					0.80	1.00	0.10	○	○	○
	16ER14 NPTF	16IR14 NPTF	14					0.90	1.20	0.13	○	○	○
	16ER11.5 NPTF	16IR11.5 NPTF	11.5					1.10	1.50	0.18	○	○	○
	16ER8 NPTF	16IR8 NPTF	8					1.30	1.80	0.23	○	○	○

60° NPT



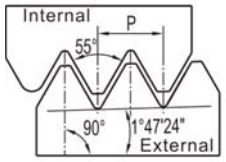


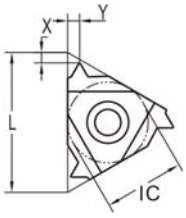
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR27 NPT	27		6.35	3.18	11	0.70	0.80	0.08	○	●	○
		11IR18 NPT	18					0.80	1.00	0.10	○	●	○
		11IR14 NPT	14					0.80	1.00	0.15	○	●	○
	16ER27 NPT	16IR27 NPT	27		9.525	3.97	16	0.70	0.80	0.08	○	●	○
	16ER18 NPT	16IR18 NPT	18					0.80	1.00	0.10	○	●	○
	16ER14 NPT	16IR14 NPT	14					0.90	1.20	0.15	○	●	○
	16ER11.5 NPT	16IR11.5 NPT	11.5					1.10	1.50	0.20	○	●	○
	16ER8 NPT	16IR8 NPT	8					1.20	1.80	2.54	○	●	○
	16ER27 NPT–B	16IR27 NPT–B	27		9.525	3.97	16	0.70	0.80	0.80		○	
	16ER18 NPT–B	16IR18 NPT–B	18					0.80	1.00	0.15		○	
	16ER14 NPT–B	16IR14 NPT–B	14					0.90	1.20	0.20		●	
	16ER11.5 NPT–B	16IR11.5 NPT–B	11.5					1.10	1.50	0.25		●	

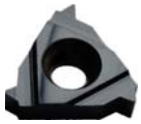
●Stock ○Availabie upon Order

55° BSPT

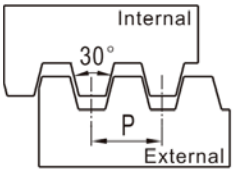


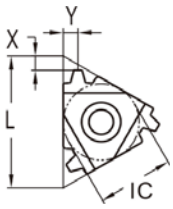


P	Steel	● ●
M	Stainless Steel	●
K	Cast Iron	●
N	Non-ferrous Metal	●
S	Heat-resistant Alloy	●

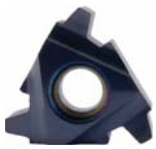
Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
		11IR28 BSPT	28		6.35	3.18	11	0.60	0.60	0.08	○	●	○
		11IR19 BSPT	19					0.80	0.90	0.10	○	●	○
		11IR14 BSPT	14					0.90	1.00	0.15	○	●	○
	16ER28 BSPT	16IR28 BSPT	28		9.525	3.97	16	0.60	0.60	0.08	○	●	○
	16ER19 BSPT	16IR19 BSPT	19					0.80	0.90	0.10	○	●	○
	16ER14 BSPT	16IR14 BSPT	14					1.00	1.20	0.15	○	●	○
	16ER11 BSPT	16IR11 BSPT	11					1.10	1.50	0.18	○	●	○
	16ER28 BSPT-B	16IR28 BSPT-B	28		9.525	3.97	16	0.60	0.60	0.08		●	
	16ER19 BSPT-B	16IR19 BSPT-B	19					0.80	0.90	0.10		●	
	16ER14 BSPT-B	16IR14 BSPT-B	14					1.00	1.20	0.15		●	
	16ER11 BSPT-B	16IR11 BSPT-B	11					1.10	1.50	0.18		●	

TR-30° Trapez DIN 103



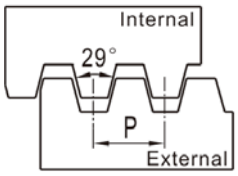


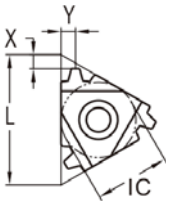
P	Steel	● ●
M	Stainless Steel	●
K	Cast Iron	●
N	Non-ferrous Metal	●
S	Heat-resistant Alloy	●

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	16ER1.5TR	16IR1.5TR	1.5		9.525	3.97	16	1.04	1.94	0.08	○	●	○
	16ER2.0TR	16IR2.0TR	2.0					1.30	2.58	0.10	○	●	○
	16ER3.0TR	16IR3.0TR	3.0					1.50	3.87	0.15	○	●	○
	22ER4.0TR	22IR4.0TR	4.0		12.7	5.56	22	1.91	5.16	0.20	○	●	○
	22ER5.0TR	22IR5.0TR	5.0					2.49	5.81	0.23	○	●	○
	22ER6.0TR	22IR6.0TR	6.0					2.57	7.10	0.28	○	●	○
	22ER7.0TR	22IR7.0TR	7.0					2.41	7.74	0.30	○	●	○

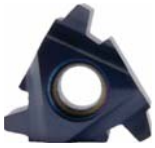
●Stock ○Availabie upon Order

ACME–29° American

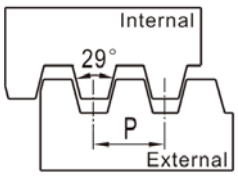


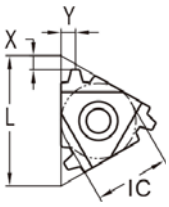


P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

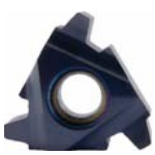
Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	16ER16ACME	16IR16ACME	16.0		9.525	3.97	16	1.09	0.99	0.08	○	●	○
	16ER14ACME	16IR14ACME	14.0					1.09	0.99	0.10	○	●	○
	16ER12ACME	16IR12ACME	12.0					1.19	1.09	0.15	○	●	○
	16ER10ACME	16IR10ACME	10.0					1.40	1.30	0.20	○	●	○
	16ER8ACME	16IR8ACME	10.0					1.50	1.40	0.23	○	●	○
	22ER6ACME	22IR6ACME	8.0		12.7	5.56	22	2.11	1.80	0.28	○	●	○
	22ER5ACME	22IR5ACME	5.0					2.29	2.01	0.41	○	●	○
	22ER4ACME	22IR4ACME	4.0					2.84	2.34	0.53	○	●	○

STACME–29° American Stub ACME



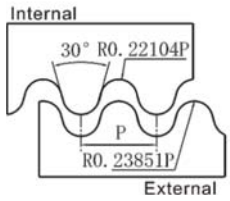


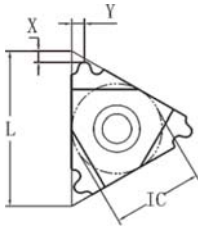
P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	16ER16STACME	16IR16STACME	16.0		9.525	3.97	16	0.99	0.99	0.08	○	●	○
	16ER14STACME	16IR14STACME	14.0					0.99	0.99	0.10	○	●	○
	16ER12STACME	16IR12STACME	12.0					1.30	1.19	0.15	○	●	○
	16ER10STACME	16IR10STACME	10.0					1.30	1.19	0.20	○	●	○
	16ER8STACME	16IR8STACME	10.0					1.50	1.40	0.23	○	●	○
	22ER6STACME	22IR6STACME	8.0		12.7	5.56	22	1.50	1.40	0.28	○	●	○
	22ER5STACME	22IR5STACME	5.0					2.29	2.11	0.41	○	●	○
	22ER4STACME	22IR4STACME	4.0					2.51	2.21	0.53	○	●	○

●Stock ○Availabie upon Order

RD30° DIN405





P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non-ferrous Metal			●
S	Heat-resistant Alloy		●	

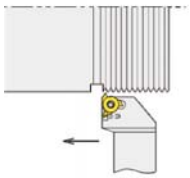
Shape	Ordering Code		Pitch		Dimension						CVD	PVD	Uncoated
	ER	IR	mm	TPI	D	S	L	X	Y	R	NP1115	NS4125	NN9115
	16ER10RD	16IR10RD	10.0		9.525	3.97	16	1.30	1.40	0.61	○	●	○
	16ER8RD	16IR8RD	8.0					1.50	1.60	0.76	○	●	○
	16ER6RD	16IR6RD	6.0					1.70	1.50	1.02	○	●	○
	22ER6RD	22IR6RD	6.0		12.7	5.56	22	1.70	1.50	1.02	○	●	○
	22ER4RD	22IR4RD	4.0					2.34	2.21	1.50	○	●	○
	22ER4RD	22IR4RD	4.0								○	●	○

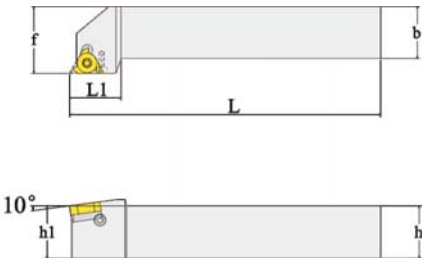
●Stock ○Availabie upon Order

Processing parameter list of screw blade

Material	Carbon steel S50C,Q235		Alloy steel 25-35HRC 4Cr5MoSiV1,Cr12		Stainless steel SUS304,316,OCr19Ni9		Cast iron HT250,QT450		Aluminium al loy	
Speed	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm
External thread	100-150	<0.3	100-150	<0.3	60-80	<0.2	80-120	<0.3	150-300	<0.3
Internal thread										

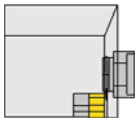
SER/L

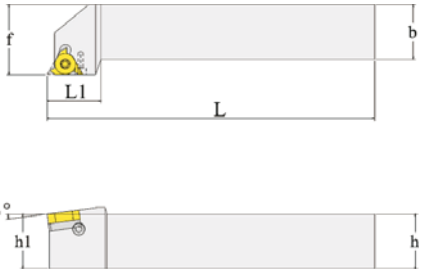




Ordering Code	Stock		Dimensions(mm)						Insert	Knife pad	Screw	Screw	Wrench
	R	L	h	b	L	L1	h1	f					
SER/L 1212K16	●	●	12	12	100	20	12	16	16ER/L	DP16ER/L	NLJ0308	M3.5*12	T15
SER/L 1616H16	●	●	16	16	100	22	16	20					
SER/L 2020K16	●	●	20	20	125	25	20	25					
SER/L 2525M16	●	●	25	25	150	30	25	32					
SER/L 3232P16	●	●	32	32	170	35	32	40					

MER/L

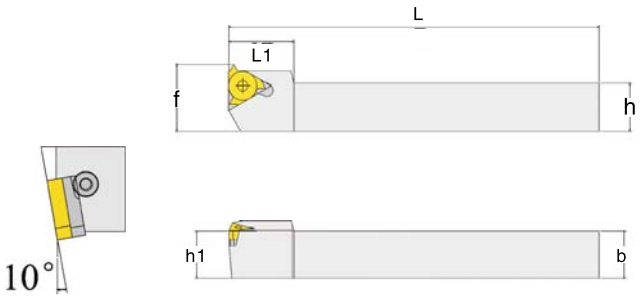




Ordering Code	Stock		Dimensions(mm)						Insert	Knife pad	Screw	Pressing plate	Screw	Screw	Wrench
	R	L	h	b	L	L1	h1	f							
MER/L 2525M22	●	●	25	25	150	30	25	32	22ER/L	DP22ER/L	NLJ0410	MYB1814	ST0625	M3.5*12	T15
MER/L 3232P22	●	●	32	32	170	35	32	40							

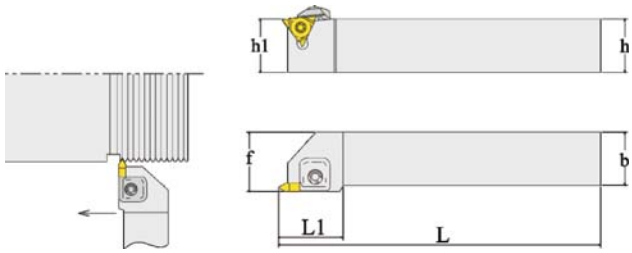
●Stock ○Availabie upon Order

B–SER/L



Ordering Code	Stock		Dimensions(mm)						Insert	Knife pad	Screw	Screw	Wrench
	R	L	h	b	L	L1	h1	f					
B–SER/L 1212K16	●	●	12	12	100	20	12	16	16ER/L	DP16ER/L	NLJ0308	M3.5*12	T15
B–SER/L 1616H16	●	●	16	16	100	22	16	20					
B–SER/L 2020K16	●	●	20	20	125	25	20	25					
B–SER/L 2525M16	●	●	25	25	150	30	25	32					

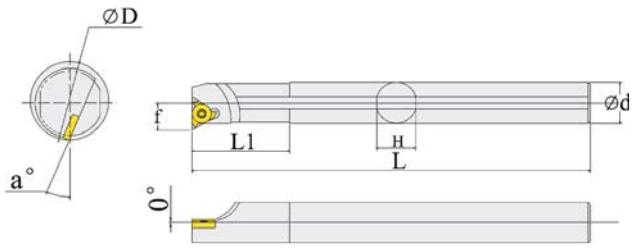
MTWHR/L



Ordering Code	Stock		Dimensions(mm)						Insert	Screw	Screw	Wrench	Pressing plate	Spring
	R	L	h	b	L	L1	h1	f						
MTWHR/L 1616H4	●	●	16	16	100	22	16	20	TT43	NLJ0520	L4.0 T15	M4*12	YB1318	DTH0814
MTWHR/L 2020K4	●	●	20	20	125	25	20	25						
MTWHR/L 2525M4	●	●	25	25	150	30	25	32						
MTWHR/L 3232P4	●	●	32	32	170	35	32	40						

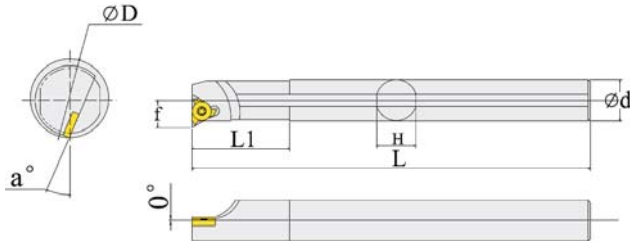
●Stock ○Availabie upon Order

SNR/L



Ordering Code	Stock		Dimensions(mm)							Insert	Screw	Screw
	R	L	D	d	H	L	L1	f	a°			
SNR/L 0716M08	●	●	10	16	15	150	18	5.7	15	08IR	M2.2*6	T-6
SNR/L 0816M08	●	●	11	16	15	150	20	6.2	15			
SNR/L 0916M08	●	●	12	16	15	150	23	6.7	17			
SNR/L 1016M08	●	●	13	16	15	150	25	7.2	17			
SNR/L 1016M11	●	●	13	16	15	150	22	7.7	15	11IR/L	M2.5*6	T-8
SNR/L 1316M11	●	●	16	16	15	150	32	8.7	15			
SNR/L 1020M11	●	●	13	20	18	150	32	7.7	21			
SNR/L 1316M16	●	●	16	16	15	150	32	8.7	21	16IR/L	M3.5*10	T-15
SNR/L 1620M16	●	●	20	32	18	150	40	11.7	15			

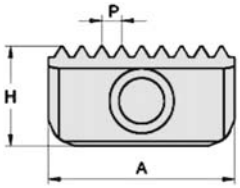
SNR/L



Ordering Code	Stock		Dimensions(mm)							Insert	Screw	Screw
	R	L	D	d	H	L	L1	f	a°			
SNR/L 0010K11	●	●	13	10	9	125	22	7.2	15	11IR/L	M2.5*6	T-8
SNR/L 0012M11	●	●	15	12	11	150	22	7.8	15			
SNR/L 0013M11	●	●	16	13	12	150	32	8.5	17			
SNR/L 0013M16	●	●	16	13	12	150	32	10.2	17	16IR/L	M3.5*8	T-15
SNR/L 0016M16	●	●	19	16	15	150	40	11.7	15			
SNR/L 0016Q16	●	●	19	16	15	180	40	11.7	15			
SNR/L 0020Q16	●	●	24	20	18	180	40	13.7	21			
SNR/L 0025R16	●	●	29	25	23	200	45	16.2	21			
SNR/L 0032S16	●	●	36	32	29	250	50	19.7	15			

●Stock ○Availabie upon Order

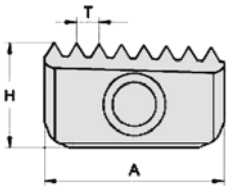
W–55° Whitworth full proile



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
24		14–24W				○	●	○
20		14–20W	21–20W			○	●	○
19	*12I–19W	14–19W	21–19W			○	●	○
16		14–16W	21–16W	30–16W		○	●	○
14		14–14W	21–14W	30–14W		○	●	○
11			21–11W	30–11W	40–11W	○	●	○
8					40–8W	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

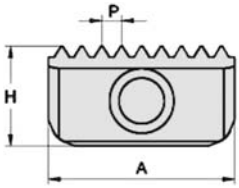
BSPT–55° British standard full proile



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
19	*12I–19BSPT	14–19BSPT				○	●	○
14		14–14BSPT	21–14BSPT			○	●	○
11			21–11BSPT	30–11BSPT	40–11BSPT	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

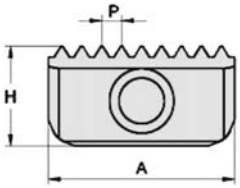
ISO Metric full proile



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
0.5	*12I–0.5 ISO	14I–0.5 ISO				○	●	○
0.75	*12I–0.75 ISO	14E/I–0.75 ISO				○	●	○
1	*12I–1.0 ISO	14E/I–1.0 ISO	21E/I–1.0 ISO			○	●	○
1.25	*12I–1.25 ISO	14E/I–1.25 ISO				○	●	○
1.5	*12I–1.5 ISO	14E/I–1.5 ISO	21E/I–1.5 ISO	30E/I–1.5 ISO	40E/I–1.5 ISO	○	●	○
1.75		14E/I–1.75 ISO	21I–1.75 ISO			○	●	○
2		14E/I–2.0 ISO	21E/I–2.0 ISO	30E/I–2.0 ISO	40E/I–2.0 ISO	○	●	○
2.5		14E/I–2.5 ISO	21E/I–2.5 ISO			○	●	○
3			21E/I–3.0 ISO	30E/I–3.0 ISO	40E/I–3.0 ISO	○	●	○
3.5			21I–3.5 ISO	30E/I–3.5 ISO	40I–3.5 ISO	○	●	○
4				30E/I–4.0 ISO	40E/I–4.0 ISO	○	●	○
4.5				30I–4.5 ISO	40I–4.5 ISO	○	●	○
5					40E/I–5.0 ISO	○	●	○
5.5					40I–5.5 ISO	○	●	○
6					40E/I–6.0 ISO	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

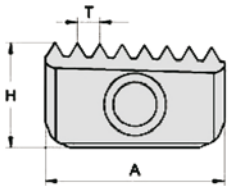
UN–60° American UN full proile



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
32	*12I–32 UN	14E/I–32 UN				○	●	○
28	*12I–28 UN	14E/I–28 UN				○	●	○
27		14I–27 UN				○	●	○
24	*12I–24 UN	14E/I–24 UN	21E/I–24 UN			○	●	○
20	*12I–20 UN	14E/I–20 UN	21E/I–20 UN	30E/I–20 UN		○	●	○
18	*12I–18 UN	14E/I–18 UN	21E/I–18 UN	30E/I–18 UN		○	●	○
16	*12I–16 UN	14E/I–16 UN	21E/I–16 UN	30E/I–16 UN	40E/I–16 UN	○	●	○
14		14E/I–14 UN	21E/I–14 UN	30E/I–14 UN	40E/I–14 UN	○	●	○
12		14E/I–12 UN	21E/I–12 UN	30E/I–12 UN	40E/I–12 UN	○	●	○
10			21E/I–10 UN	30E/I–10 UN	40E/I–10 UN	○	●	○
8			21I–8 UN	30E/I–8 UN	40E/I–8 UN	○	●	○
6				30E/I–6 UN	40E/I–6 UN	○	●	○
4.5					40I–4.5 UN	○	●	○
4					40I–4 UN	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

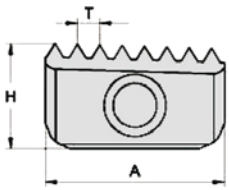
NPT–60° National pipe threading



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
18	*12–18 NPT	14–18 NPT				○	●	○
14		14–14 NPT	21–14 NPT			○	●	○
11.5			21–11.5 NPT	30–11.5 NPT	40–11.5 NPT	○	●	○
8				30–8 NPT	40–8 NPT	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

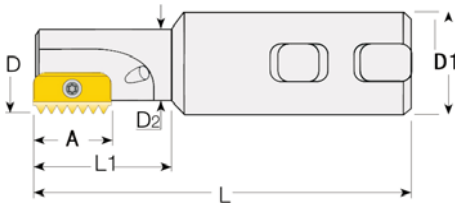
NPTF–American dry seal taper pipe threading



P	Steel	●	●	
M	Stainless Steel		●	
K	Cast Iron		●	
N	Non–ferrous Metal			●
S	Heat–resistant Alloy		●	

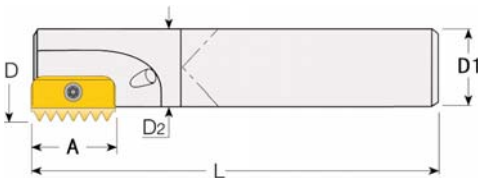
Pitch	Dimension					CVD	PVD	Uncoated
TPI	12mm	14mm	21mm	30mm	40mm	NP1115	NS4125	NN9115
18	*12–18 NPTF	14–18 NPTF				○	●	○
14		14–14 NPTF	21–14 NPTF			○	●	○
11.5			21–11.5 NPTF	30–11.5 NPTF	40–11.5 NPTF	○	●	○
8				30–8 NPTF	40–8 NPTF	○	●	○
H	6.3	7.5	12	16	20			
T	2.9	3.1	4.7	5.5	6.3			

Partial profile 60°



Part No.	Stock	Size						Screw	wrench
		A	D	D1	D2	L	L1		
SR0009H12	○	12	9.5	20	7.5	85	14	S12	K12
*SR0010H12	●	12	9.5	20	7.6	85	16	S12	K12
SR0012F14	●	14	12	20	8.9	75	20	S14	K14
SR0014H14	●	14	14.5	20	11.2	85	25	S14	K14
SR0017H14	●	14	17	20	13.4	85	30	S14	K14
**SR0018H21	●	21	18	20	14.4	85	30	S21	K21
SR0021H21	●	21	21	20	16.5	94	40	S21	K21
SR0029J30	●	30	29	25	22.4	110	50	S30	K30
SR0048M40	○	40	48	40	35	153	78	S40	K40

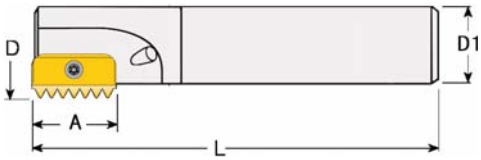
Partial profile 60°



Part No.	Stock	Size				Screw	wrench
		A	D	D1	L		
SR0010K12C	○	12	9.9	8	125	S12	K12
SR0013H14C	●	14	13.2	10	110	S14	K12
SR0013J14C	●	14	13.2	10	150	S14	K14
SR0015K14C	●	14	15.2	12	175	S14	K14
SR0021K21C	●	21	21	16	130	S21	K21
SR0021M21C	●	21	21	16	200	S21	K21
SR0027S30C	○	30	27	20	270	S30	K30

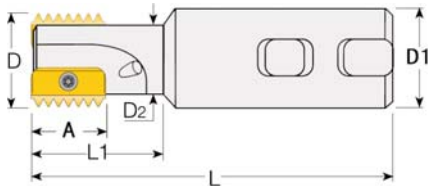
●Stock ○Availabie upon Order

ISO Mrtric Full Profile



Part No.	Stock	Size				Screw	wrench
		A	D	D1	L		
SR0025K21	●	21	25	20	125	S21	K21
SR0031M30	●	30	31	25	150	S20	K20
SR0038M30	●	30	38	32	150	S30	K30
SR0048R40	●	40	48	40	210	S40	K40

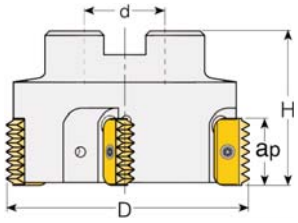
ISO Mrtric Full Profile



Part No.	Stock	Size						Z	Screw	wrench
		A	D	D1	D2	L	L1			
SR0020H14–2	○	14	20	20	16	93	41	2	S21	K21
SR0030J21–2	○	21	30	25	24	108	52	2	S20	K20
SR0040L30–2	○	30	40	32	30	130	70	2	S30	K30
SR0050M40–2	○	40	50	40	38	153	78	2	S40	K40

●Stock ○Availabie upon Order

ISO Mrtric Full Profile



Part No.	Stock	Size				Z	Screw	wrench
		A	D	D1	L			
SR0063C21–5	○	21	63	22	50	5	S21	K21
SR0063C30–4	○	30	63	22	50	4	S30	K30
SR0080D30–4	○	30	80	27	55	4	S30	K30
SR0100D30–4	○	30	100	32	60	4	S30	K30
SR0080D40–4	○	40	80	27	65	4	S40	K40
SR0100E40–4	○	40	100	32	70	4	S40	K40

Processing parameter list of thread milling cutter

Material	Carbon steel S50C,Q235		Alloy steel 25–35HRC 4Cr5MoSiV1,Cr12		Stainless steel SUS304,316,OCr19Ni9		Cast iron HT250,QT450		Aluminium al loy	
Speed	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm	Vc=m/min	ap=mm
External thread	100–250	0.05–0.15	90–150	0.05–0.15	100–160	0.05–0.15	70–150	0.05–0.15	160–300	0.05–0.15
Internal thread										

●Stock ○Availabie upon Order