

Tungaloy

Member IMC Group

Keeping the Customer First

Tungaloy Report No. 375-E

ISO TOOL™

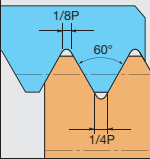
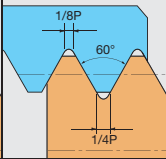
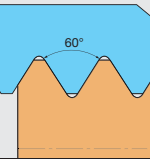
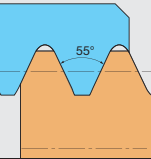
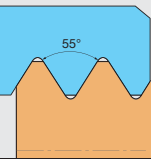
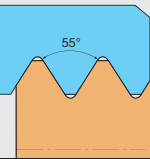
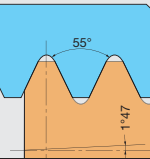
New threading inserts

TUNGTHREAD

Best Performance in Threading
Efficient Threading with Various Thread Types

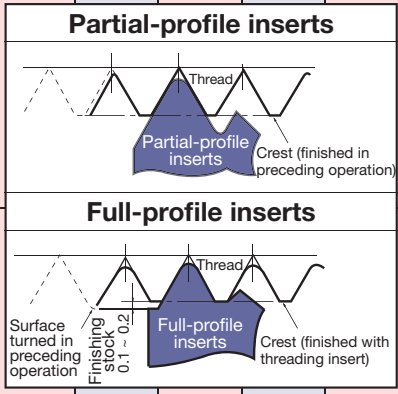


Thread types and applicable inserts

Thread Types		ISO metric 60°	Unified 60°	General 60°	Whitworth 55°	General 55°	Parallel 55°	JIS taper pipe 55°						
														
		M M8 M8x1	UNC 3/8-16UNC UNF No.8-36UNF UNEF 1/4-32UNEF			W W3/4 W50/7	G G1/2 PF PF7 Rp Rp3/4 PS PS7	R R3/4 PT PT7 Rc Rc3/4						
		Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	
External thread	Partial-profile			0.5~1.5 0.5~3 1.75~3 0.5~3 4~6	48~16 48~8 14~8 7~5 6~4			0.5~1.5 0.5~3 1.75~3 0.5~3	48~16 48~8 14~8 7~5					
	Partial-profile with chip-breaker			0.5~1.5 0.5~3 1.75~3	48~16 48~8 14~8			0.5~3 1.75~3	7~5 14~8					
	Full-profile	0.5	(0.794)	32			(0.907)	28			(0.907)	28	(1.337)	19
		0.75	(0.907)	28			(0.970)	26			(0.970)	26	(1.814)	14
		1	(1.058)	24			(1.270)	20			(1.270)	20	(0.907)	28
		1.25	(1.270)	20			(1.411)	18			(1.411)	18	(2.309)	11
		1.5	(1.411)	18			(1.588)	16			(1.588)	16		
		1.75	(1.588)	16			(1.814)	14			(1.814)	14		
		2	(1.814)	14			(2.117)	12			(2.117)	12		
		2.5	(1.954)	13			(2.309)	11			(2.309)	11		
		3	(2.117)	12			(2.540)	10			(2.540)	10		
		3.5	(2.309)	11			(2.822)	9			(2.822)	9		
4	(2.540)	10			(3.175)	8			(3.175)	8				
4.5	(2.822)	9			(3.629)	7			(3.629)	7				
5	(3.175)	8			(4.233)	6			(4.233)	6				
6	(3.629)	7			(5.080)	5			(5.080)	5				
6	(4.233)	6												
6	(5.080)	5												
Internal thread	Partial-profile			0.5~1.5 0.5~3 1.75~3 0.5~3 4~6	48~16 48~8 14~8 7~5 6~4			0.5~1.5 0.5~3 1.75~3 0.5~3	48~16 48~8 14~8 7~5					
	Partial-profile with chip-breaker			0.5~1.5 0.5~3 1.75~3	48~16 48~8 14~8			0.5~3 1.75~3	7~5 14~8					
	Full-profile	0.5	(0.794)	32			(1.337)	19	(1.337)	19	(1.337)	19	(1.337)	19
		0.75	(0.907)	28			(1.814)	14			(1.814)	14	(1.814)	14
		1	(1.058)	24			(0.907)	28			(0.907)	28	(0.907)	28
		1.25	(1.270)	20			(0.970)	26			(0.970)	26	(2.309)	11
		1.5	(1.411)	18			(1.270)	20			(1.270)	20		
		1.75	(1.588)	16			(1.411)	18			(1.411)	18		
		2	(1.814)	14			(1.588)	16			(1.588)	16		
		2.5	(1.954)	13			(1.814)	14			(1.814)	14		
		3	(2.117)	12			(2.117)	12			(2.117)	12		
		3.5	(2.309)	11			(2.309)	11			(2.309)	11		
4	(2.540)	10			(2.540)	10			(2.540)	10				
4.5	(2.822)	9			(2.822)	9			(2.822)	9				
5	(3.175)	8			(3.175)	8			(3.175)	8				
6	(3.629)	7			(3.629)	7			(3.629)	7				
6	(4.233)	6			(4.233)	6			(4.233)	6				
6	(5.080)	5			(5.080)	5			(5.080)	5				
Full-profile with chip-breaker	0.5		20			(1.337)	19			(1.337)	19	(1.337)	19	
	0.75		18			(1.588)	16			(1.588)	16	(1.814)	14	
	1		16			(1.814)	14			(1.814)	14	(2.309)	11	
	1.25		14			(2.309)	11			(2.309)	11			
	1.5		13											
	1.75		12											
2		8												
2.5														
3														

* () is reference

	American National pipe 60°		Trapezoidal 30°		Trapezoidal 29°		Oil well pipe				Round DIN405		Aerospace			
							Round		Buttress							
	NPT 3/8-18NPT		NPTF		Tr Tr10x2		TW TW20		RAPI		BAPI		Rd		UNJ	
					TM TM10		ACME 3/8-12ACME									
	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI	Pitch	TPI
Partial-profile					1.5 2 3 4 5 6		(2.117) (2.540) (3.175) (4.233) (5.080)	12 10 8 6 5	(2.540) (3.175)	10 8	(2.540)	10				
Partial-profile with chip-breaker																
Full-profile	(0.941) (1.411) (1.814) (2.209) (3.175)	27 18 14 11.5 8	(0.941) (1.411) (1.814) (2.209) (3.175)	27 18 14 11.5 8												32 28 24 20 18 16 14 12 10 8
Full-profile with chip-breaker	(1.411) (1.814) (2.209) (3.175)	18 14 11.5 8														
Partial-profile					1.5 2 3 4 5		(2.117) (2.540) (3.175) (4.233) (5.080)	12 10 8 6 5	(2.540) (3.175)	10 8	(2.540)	10				
Partial-profile with chip-breaker																
Full-profile	(0.941) (1.411) (1.814) (2.209) (3.175)	27 18 14 11.5 8	(1.814) (2.209) (3.175)	14 11.5 8												
Full-profile with chip-breaker	(1.411) (1.814) (2.209) (3.175)	18 14 11.5 8														

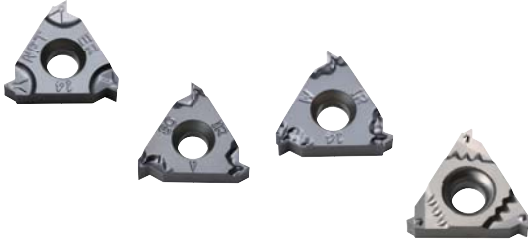


Incredible threading productivity in a variety of threads with the new “TUNGTHREAD” series

Features

1 Global Standard

- Available with a large variety of thread standards



2 Excellent Cutting Performance

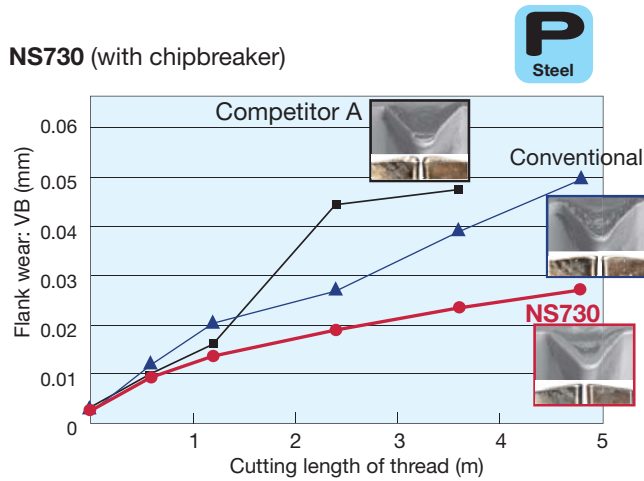
- Improves profile accuracy and chip flow
- New coating delivers long tool life
- User-friendly insert identification with clear marking

Power Up

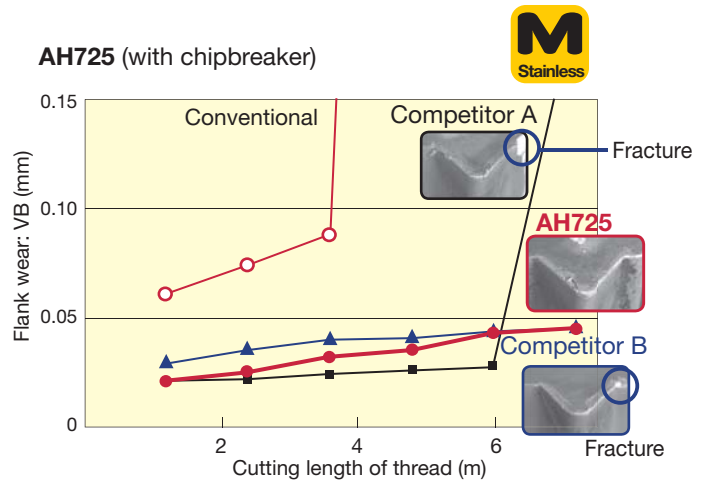


Cutting performance

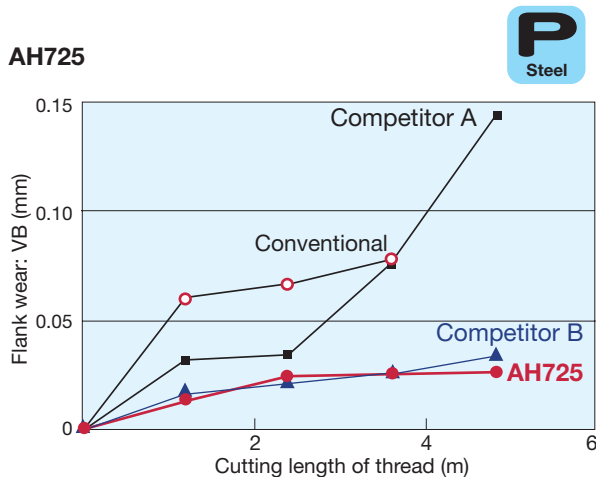
Long tool life and excellent wear resistance



Work material : S45C (153HB)
 Insert : 16ER15ISO-B NS730
 Cutting speed : $V_c = 150$ m/min
 Pitch : 1.5 mm
 No. of passes : 7 times
 Infeed method : Radial infeed
 Cutting fluids : Wet



Work material : SUS304 (195HB)
 Insert : 16ER15ISO-B AH725
 Cutting speed : $V_c = 100$ m/min
 Pitch : 1.5 mm
 No. of passes : 11 times
 Infeed method : Radial infeed
 Cutting fluids : Wet



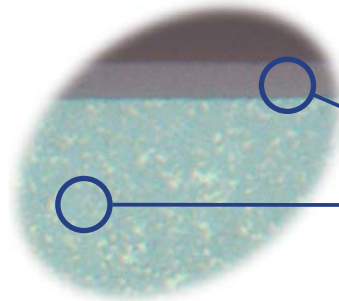
Work material : S45C (153HB)
 Insert : 16ER15ISO AH725
 Cutting speed : $V_c = 150$ m/min
 Pitch : 1.5 mm
 No. of passes : 7 times
 Infeed method : Radial infeed
 Cutting fluids : Wet

Grade

AH725 PVD coated carbide

Improved wear and fracture resistance combined with New (Ti, Al)N coating and well-balanced substrate.

New



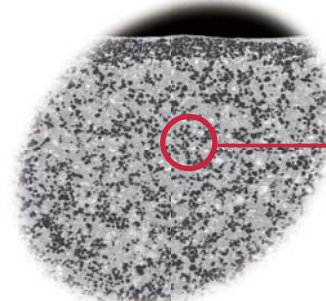
Newly improved coating layer features great adhesion strength between coating and substrate.

Well-balanced micro alloy substrate is effective for plastic deformation resistance and toughness.

NS730 Cermet

Superior surface finish and appearance due to smooth insert surface.

New



Prevention of plastic deformation due to dispersion of atomized titanium.

Wear resistance is improved by addition of atomized titanium.

Application	Grade	Substrate			Coating layer		Features
	Application code	Specific gravity	Hardness (HRA)	Transverse rupture strength (GPa)	Main Composition	Thickness (μm)	
P Steel	AH725	14.4	91.5	3.0	(Ti,Al)N	2	General grade Excellent wear resistance and toughness
	P20 - P30						
	NS730	6.8	92.0	2.2	-	-	Cermet for steels Excellent surface finishing
	-						
T313V	14.5	90.5	2.3	+ Al ₂ O ₃	3	For threading Features specially engineered substrate with excellent impact resistance and plastic deformation with a controlled coating composition	
-							
M Stainless	AH725	14.4	91.5	3.0	(Ti,Al)N	2	General grade Excellent wear resistance and toughness
	M20 - M30						
	T313V	14.5	90.5	2.3	+ Al ₂ O ₃	3	For threading Features specially engineered substrate with excellent impact resistance and plastic deformation with a controlled coating composition
-							
K Cast iron	T313V	14.5	90.5	2.3	+ Al ₂ O ₃	3	For threading Features specially engineered substrate with excellent impact resistance and plastic deformation with a controlled coating composition
	-						
	TH10	14.7	92.0	2.4	-	-	General turning of cast irons Excellent hardness and toughness
-							
N Non-ferrous	TH10	14.7	92.0	2.4	-	-	General turning of non-ferrous materials Excellent hardness and toughness
	-						
S Super alloy	TH10	14.7	92.0	2.4	-	-	General turning of super alloys Excellent hardness and toughness
	-						
H Hard Materials	TH10	14.7	92.0	2.4	-	-	General turning of hard material Excellent hardness and toughness
	-						

Standard cutting conditions

Work material	Hardness	Cutting speed : Vc (m/min)			
		AH725	T313V	NS730	TH10
Carbon steels	< 200HB	80 ~ 180	100 ~ 200	150 ~ 200	
	> 200HB	60 ~ 160	100 ~ 150	100 ~ 170	
Stainless steels		50 ~ 130	70 ~ 130		
Cast irons			70 ~ 150		70 ~ 90
Non-ferrous metals					100 ~ 500
Heat-resisting alloys					10 ~ 40
Hard materials	50 ~ 60HRC				10 ~ 30

Full-profile inserts with chipbreaker

Insert size	Pitch	Number of threads	Hand of cut	External insert					Internal insert																	
				Cat. No.	Grades		Dimensions (mm)			Cat. No.	Grades		Dimensions (mm)													
					Coated AH725	Uncoated NS730	ød	t	ℓ ₃		r _ε	Coated AH725	Uncoated NS730	ød	t	ℓ ₃	r _ε									
11	0.5		R								11IR05ISO-B	●	●	6.35	0.5	1.2	0.04									
	0.75		R								11IR075ISO-B	●	●				0.05									
	1.0		R								11IR10ISO-B	●	●				0.08									
	1.25		R								11IR125ISO-B	●	●		0.10											
	1.5		R								11IR15ISO-B	●	●		0.12											
	1.75		R								11IR175ISO-B	●	●		0.12											
	2.0		R								11IR20ISO-B	●	●		0.14											
16	0.5		R	16ER05ISO-B	●	9.525	0.5	1.2	0.06																	
	0.75		R	16ER075ISO-B	◆		0.6	0.6	0.08																	
	1.0		R	16ER10ISO-B	◆		●	0.7	0.7	0.11	16IR10ISO-B	◆	●						0.7	0.6	0.05					
																			0.9	0.7	0.13				0.9	0.7
	1.25		R	16ER125ISO-B	◆		●	0.9	0.8	0.14	16IR125ISO-B	◆	●								0.9	0.8	0.07			
																					0.9	0.7	0.16			
	1.5		R	16ER15ISO-B	◆		●	1.0	0.8	0.19	16IR15ISO-B	◆	●									1.0	0.8	0.08		
																						0.9	0.7	0.19	16IR15ISO-B	◆
	1.75		R	16ER175ISO-B	◆		●	1.2	0.9	0.20	16IR175ISO-B	◆	●										1.2	0.9	0.10	
																							1.6	1.2	0.22	16IR175ISO-B
	2.0		R	16ER20ISO-B	◆		●	1.3	1.0	0.24	16IR20ISO-B	◆	●											1.3	1.0	0.12
																								1.6	1.2	0.25
	2.5		R	16ER25ISO-B	◆		●	1.5	1.1	0.30	16IR25ISO-B	◆	●											1.5	1.1	0.15
																								1.6	1.2	0.31
	3.0		R	16ER30ISO-B	◆		●	1.6	1.2	0.38	16IR30ISO-B	◆	●											1.5	1.1	0.18
1.6						1.2																		0.38	16IR30ISO-B	◆

Note: ◆ Please be aware of the different dimensions regarding "t" & "ℓ₃".

Required to modify the position of the cutting edge.

Target designation for the replacement of shim.

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

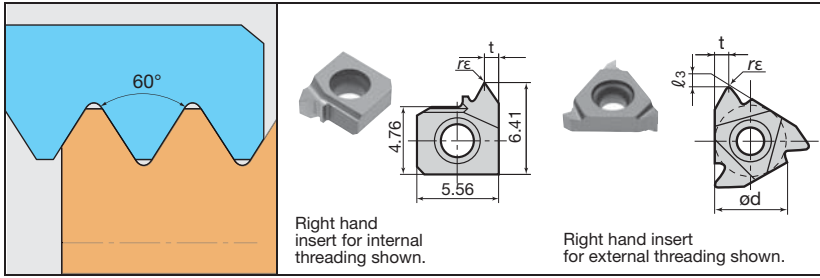
Designation System for TAC inserts

16	I	R	175	ISO	- B					
①	②	③	④	⑤	⑥					
① Insert size	② External or Internal		③ Hand of insert		④ Pitch (No. of threads)		⑤ Thread type		⑥ Chipbreaker	
Symbol	I.	C. dia (mm)	E	External	R	Right hand	Partial-profile inserts		B	With
06	-		I	Internal	L	Left hand	A	Pitch: 0.5 ~ 1.5 mm TPI: 48 ~ 16	60°	60° thread angle
11	6.35		N	Ex-Internal			AG	Pitch: 0.5 ~ 3.0 mm TPI: 48 ~ 8	55°	55° thread angle
16	9.525						G	Pitch: 1.75 ~ 3.0 mm TPI: 14 ~ 8	TR	30° trapezoidal
22	12.7						N	Pitch: 3.5 ~ 5.0 mm TPI: 7 ~ 5	ACME	29° trapezoidal
27	15.875						Z	Pitch: 4.0 ~ 6.0 mm TPI: 6 ~ 4	RAPI	API round
									BAPI	API buttress
									Full-profile inserts	
									ISO	Metric
									UN	Unified
									W	Whitworth
									PT	JIS taper pipe
									NPT	National pipe
									NPTF	National pipe
									RD	Round (DIN405)
									UNJ	Aerospace

Note: Please identify new designation system for internal inserts.
-i.e. "N" → "I"

(Example) Conventional: 16NR15ISO
New: 16IR15ISO

60° thread angle



Applicable toolholders

Insert size	External	Internal
6		SNR/L000□K06SC-□ SNR/L000□H06-□
11		SNR/L□□□□□11□□
16	CER/L□□□□□16□□ B-SER/L□□□□16 B-CER/L□□□□16 BC-SER/L□□□□16	TSNR/L□□□□□16 SNR/L□□□□□16□□ TCNR/L□□□□□16□□ CNR/L□□□□□16□□
22	CER/L□□□□□22□□	TSNR/L□□□□□22 SNR/L□□□□□22□□ TCNR/L□□□□□22□□ CNR/L□□□□□22□□
27	CER/L□□□□□27□	CNR/L□□□□□27□

Partial-profile inserts

Insert size	Pitch	Number of threads	Hand of cut	External insert					Internal insert										
				Cat. No.	Grades		Dimensions (mm)				Cat. No.	Grades		Dimensions (mm)					
					Coated	Uncoated	ød	t	l ₃	r _E		Coated	Uncoated	ød	t	l ₃	r _E		
					AH725	T313V						TH10	AH725					T313V	TH10
6	0.5~1.5	48~16	R							6IRA60	●		●	-	0.9	-	0.04		
11	0.5~1.5	48~16	R							11IRA60	●	●	●	6.35	0.9	0.7	0.04		
			L							11ILA60	●	●	●						
16	0.5~1.5	48~16	R	16ERA60	●	●	●	9.525	0.9	0.7	0.06	16IRA60	●	●	●	9.525	0.9	0.7	0.04
			L	16ELA60	●	●	●					16ILA60	●	●	●				
	0.5~3.0	48~8	R	16ERAG60	●	●			1.6	1.2	0.06	16IRAG60	●	●		1.6	1.2	0.04	
			L	16ELG60	●	●			0.5	1.2	0.22	16ILG60	●	●	●				
1.75~3	14~8	R	16ERG60	●	●	●	1.6	1.2	0.22	16IRG60	●	●	●						
		L	16ELN60	●	●		0.5	1.2	0.22	16ILN60	●	●							
22	3.5~5	7~5	R	22ERN60	●	●	●	12.7	0.5	1.2	0.44	22IRN60	●	●	●	12.7	2.5	1.7	0.25
		L	22ELN60	●	●		0.5		1.2	0.44	22ILN60	●	●						
27	4~6	6~4	R	27ERZ60	●	●		15.875	0.9	0.7	0.50	27IRZ60	●	●		15.875	3.2	2.2	0.28

Partial-profile inserts with chipbreaker

Insert size	Pitch	Number of threads	Hand of cut	External insert					Internal insert								
				Cat. No.	Grades		Dimensions (mm)				Cat. No.	Grades		Dimensions (mm)			
					Coated	Cermet	ød	t	l ₃	r _E		Coated	Cermet	ød	t	l ₃	r _E
					AH725	NS730						AH725	NS730				
11	0.5~1.5	48~16	R							11IRA60-B	●	●	6.35	0.9	0.7	0.04	
16	0.5~1.5	48~16	R	16ERA60-B	◆		9.525	0.9	0.8	-	16IRA60-B	◆		9.525	0.9	0.8	-
			L	16ELA60-B		●					16ILA60-B		●				
	0.5~3.0	48~8	R	16ERAG60-B	◆			1.7	1.2	-	16IRAG60-B	◆		1.7	1.2	-	
			L	16ELG60-B		●					16ILG60-B		●	1.6	1.2	0.04	
1.75~3.0	14~8	R	16ERG60-B	◆		1.7	1.2	-	16IRG60-B	◆		1.7	1.2	-			
		L	16ELN60-B		●	1.6	1.2	0.22	16ILN60-B		●	1.6	1.2	0.14			

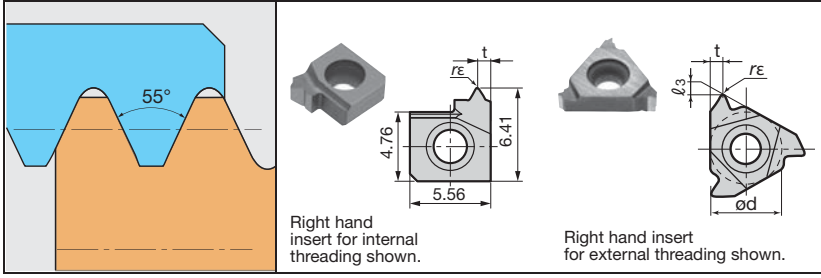
Note: ◆ Please be aware of the different dimensions regarding "t" & "l₃".

Required to modify the position of the cutting edge.

◆ : Target designation for the replacement of shim.

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

Whitworth



Applicable toolholders

Insert size	External	Internal
6		SNR/L000□K06SC-□ SNR/L000□H06-□
11		SNR/L□□□□□11□□
16	CER/L□□□□□16□□□ B-SER/L□□□□16 B-CER/L□□□□16 BC-SER/L□□□□16	TSNR/L□□□□□16 SNR/L□□□□□16□□ TCNR/L□□□□□16□□ CNR/L□□□□□16□□
22	CER/L□□□□□22□□□	TSNR/L□□□□□22 SNR/L□□□□□22□□ TCNR/L□□□□□22□□ CNR/L□□□□□22□□

Full-profile inserts

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert						Internal insert													
				Cat. No.	Grades		Dimensions (mm)				Cat. No.	Grades		Dimensions (mm)									
					Coated	Uncoated	ød	t	l ₃	r _E		Coated	Uncoated	ød	t	l ₃	r _E						
																		AH725	T313V	TH10	AH725	T313V	TH10
6	(1.337)	19	R																				
11	(1.337)	19	R																				
	(1.814)	14	R												6.35	0.9	0.7						
16	(0.907)	28	R	16ER28W	●	●																0.11	
	(0.97)	26	R	16ER26W	●																		0.12
	(1.27)	20	R	16ER20W	●																		0.16
	(1.337)	19	R	16ER19W	●	●																	0.17
	(1.411)	18	R	16ER18W	●																		0.18
	(1.588)	16	R	16ER16W	●	●																	0.20
	(1.814)	14	R	16ER14W	●	●	●	9.525															0.23
				L	16EL14W	●																	
	(2.117)	12	R	16ER12W	●	●																	0.27
	(2.309)	11	R	16ER11W	●	●	●		1.6	1.2													0.29
	(2.54)	10	R	16ER10W	●	●										1.6	1.2						0.32
(2.822)	9	R	16ER9W	●																		0.35	
(3.175)	8	R	16ER8W	●	●																	0.40	
22	(3.629)	7	R	22ER7W	●																		0.45
	(4.233)	6	R	22ER6W	●			12.7	2.5	1.7													0.53
				22ER5W	●																		0.64
	(5.08)	5	R	22ER5W	●																		0.64

Full-profile inserts with chipbreaker

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert						Internal insert															
				Cat. No.	Grades		Dimensions (mm)				Cat. No.	Grades		Dimensions (mm)											
					Coated	Cermet	ød	t	l ₃	r _E		Coated	Cermet	ød	t	l ₃	r _E								
																		AH725	NS730	AH725	NS730				
16	(1.337)	19	R	16ER19W-B	◆	●																			
								1.0	0.8	0.16															
	(1.588)	16	R	16ER16W-B	◆	●																		0.9	
									0.9	0.7	0.17	16IR19W-B		●										0.7	
	(1.814)	14	R	16ER14W-B	◆	●																			1.1
									1.1	0.9	0.20	16IR16W-B		◆											0.9
16																								1.2	
																								1.0	
																								1.2	
																								1.0	
16	(2.309)	11	R	16ER11W-B	◆	●																		1.6	
																								1.2	
																								1.2	
																								1.6	
16																								1.5	
																								1.1	
																								0.30	
16																								1.6	
																								1.2	
16																								0.29	
																								0.29	

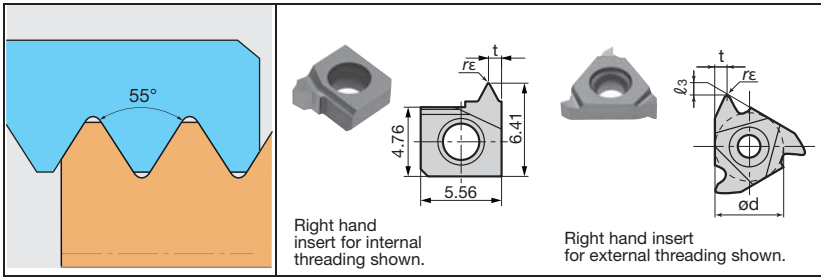
Note: ◆ Please be aware of the different dimensions regarding "t" & "l₃".

Required to modify the position of the cutting edge.

Target designation for the replacement of shim.

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

55° thread angle



Applicable toolholders

Insert size	External	Internal
6		SNR/L000□K06SC-□ SNR/L000□H06-□
11		SNR/L□□□□□11□□
16	CER/L□□□□□16□□ B-SER/L□□□□16 B-CER/L□□□□16 BC-SER/L□□□□16	TSNR/L□□□□□16 SNR/L□□□□□16□□ TCNR/L□□□□□16□□ CNR/L□□□□□16□□
22	CER/L□□□□□22□□	TSNR/L□□□□□22 SNR/L□□□□□22□□ TCNR/L□□□□□22□□ CNR/L□□□□□22□□

Partial-profile inserts

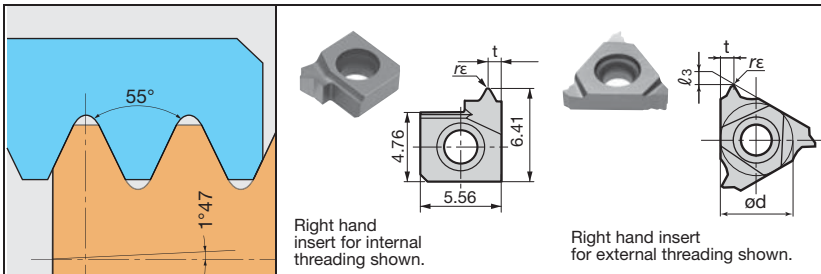
Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert											
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)							
					Coated	Uncoated	ød	t		l ₃	r _E	Coated	Uncoated	ød	t	l ₃	r _E		
					AH725	T313V						TH10	AH725					T313V	TH10
6	0.5~1.5	48~16	R							6IRA55	●		●	-	0.9	-	0.07		
11	0.5~1.5	48~16	R							11IRA55	●	●	●	6.35	0.9	0.7	0.07		
16	0.5~1.5	48~16	R	16ERA55	●	●	●	9.525	0.9	0.7	0.07	16IRA55	●	●	●	9.525	0.9	0.7	0.07
	0.5~3.0	48~8	R	16ERAG55	●				1.7	1.2	0.07	16IRAG55	●				1.7	1.2	0.07
	1.75~3.0	14~8	R	16ERG55	●	●	●		1.6	1.2	0.25	16IRG55	●	●	●		1.7	1.2	0.25
22	0.5~3.0	7~5	R	22ERN55	●	●	●	12.7	2.5	1.7	0.50	22IRN55	●	●	●	12.7	2.5	1.7	0.50

Partial-profile inserts with chipbreaker

Note: ◆ Please be aware of the different dimensions regarding "t" & "l₃". Required to modify the position of the cutting edge. Target designation for the replacement of shim.

Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert									
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)					
					Coated	AH725	ød	t		l ₃	r _E	Coated	AH725	ød	t	l ₃	r _E
					AH725							AH725					
16	0.5~3.0	48~16	R	16ERAG55-B	◆		9.525	1.7	1.2	-	16IRAG55-B	◆	9.525	1.7	1.2	-	
	1.75~3.0	14~8	R	16ERG55-B	◆						16IRG55-B	◆					

PT



Applicable toolholders

Insert size	External	Internal
6		SNR/L000□K06SC-□ SNR/L000□H06-□
11		SNR/L□□□□□11□□
16	CER/L□□□□□16□□ B-SER/L□□□□16 B-CER/L□□□□16 BC-SER/L□□□□16	TSNR/L□□□□□16 SNR/L□□□□□16□□ TCNR/L□□□□□16□□ CNR/L□□□□□16□□

Full-profile inserts

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert												
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)								
					Coated	Uncoated	ød	t		l ₃	r _E	Coated	Uncoated	ød	t	l ₃	r _E			
					AH725	T313V						TH10	AH725					T313V	TH10	
6	(1.337)	19	R							6IR19PT	●		●	-	0.9	-	0.14			
11	(1.337)	19	R							11IR19PT	●	●	●	6.35	0.9	0.7	0.14			
	(1.814)	14	R							11IR14PT	●	●	●				0.16			
16	(0.907)	28	R	16ER28PT	●	●	9.525	0.9	0.7	0.09										
	(1.337)	19	R	16ER19PT	●	●				0.14	16IR19PT	●					9.525	0.9	0.7	0.14
	(1.814)	14	R	16ER14PT	●	●				0.16	16IR14PT	●	●	●				1.6	1.2	0.16
	(2.309)	11	R	16ER11PT	●	●				0.26	16IR11PT	●	●	●				1.6	1.2	0.26

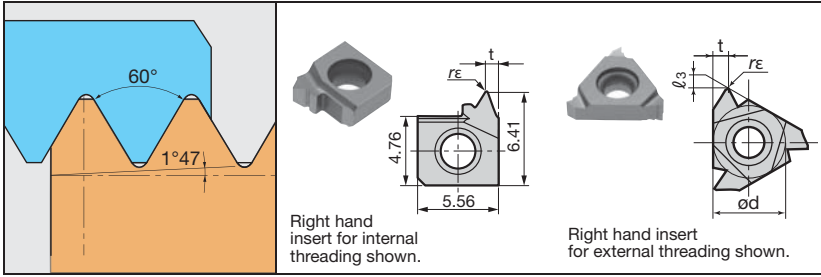
Full-profile inserts with chipbreaker

Note: ◆ Please be aware of the different dimensions regarding "t" & "l₃". Required to modify the position of the cutting edge. Target designation for the replacement of shim.

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert															
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)											
					Coated	Cermet	ød	t		l ₃	r _E	Coated	Cermet	ød	t	l ₃	r _E						
					AH725	NS730						AH725	NS730										
16	(1.337)	19	R	16ER19PT-B	●		9.525	0.9	0.7	0.18	16IR19PT-B	●		9.525	0.9	0.7	0.18						
	(1.814)	14	R	16ER14PT-B	◆						1.2	1	-					16IR14PT-B	◆		1	0.9	-
					●						1.6	1.2	0.25					16IR14PT-B	●		1.6	1.2	0.25
	(2.309)	11	R	16ER11PT-B	◆						1.5	1.1	-					16IR11PT-B	◆		1.5	1.1	-
				●		1.6	1.2	0.32	16IR11PT-B	●		1.6	1.2	0.32									

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

NPT



Applicable toolholders

Insert size	External	Internal
6		SNR/L000□K06SC-□ SNR/L000□H06-□
16	CER/L00000□16□□ B-SER/L000□16 B-CER/L000□16 BC-SER/L000□16	TSNR/L00000□16 SNR/L00000□16□□ TCNR/L00000□16□□ CNR/L00000□16□□

Full-profile inserts

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert																																												
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)																																								
					Coated	Uncoated	ød	t		l3	rE	ød	t	l3	rE																																					
6	(1.411)	18	R																																																	
16	(0.941)	27	R	16ER27NPT	●							16IR27NPT	●											9.525		0.5	1.2	0.02	16IR18NPT	●															0.9	0.7	0.03					
	(1.411)	18	R	16ER18NPT	●	●						16IR14NPT	●													0.9	0.7	0.03	16IR115NPT	●																						
	(1.814)	14	R	16ER14NPT	●								16IR14NPT	●		●												0.04	16IR115NPT	●																						
	(2.209)	11.5	R	16ER115NPT	●								16IR115NPT	●		●											1.6	1.2	0.05	16IR8NPT	●																					
	(3.175)	8	R	16ER8NPT	●								16IR8NPT	●		●												0.07																								

Full-profile inserts with chipbreaker

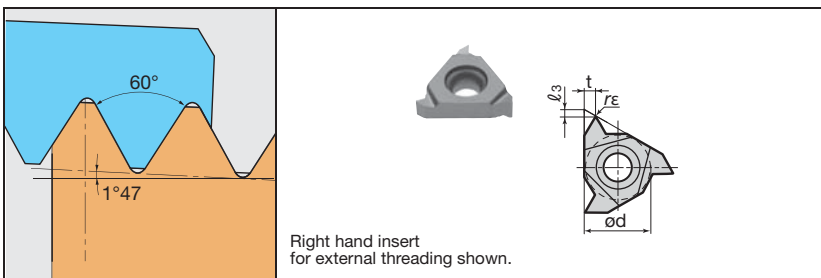
Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert																																														
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)																																										
					Coated	Cermet	ød	t		l3	rE	ød	t	l3	rE																																							
16	(1.411)	18	R	16ER18NPT-B	◆																																																	
					●		1	0.8	-	16IR18NPT-B		●																			0.9	0.7	0.07																					
	(1.814)	14	R	16ER14NPT-B	◆																																																	
					●		1.2	0.9	-	16IR14NPT-B	◆																				1.5	1.1	-																					
	(2.209)	11.5	R	16ER115NPT-B	◆																																																	
(3.175)	8	R	16ER8NPT-B	◆																																																		

Note: ◆ Please be aware of the different dimensions regarding "t" & "l3".

Required to modify the position of the cutting edge.

Target designation for the replacement of shim.

NPTF



Applicable toolholders

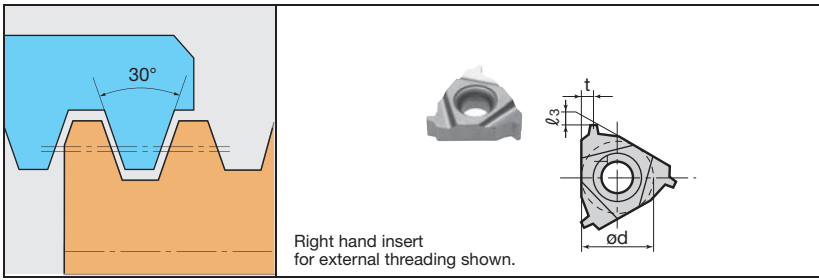
Insert size	External	Internal
16	CER/L00000□16□□ B-SER/L000□16 B-CER/L000□16 BC-SER/L000□16	TSNR/L00000□16 SNR/L00000□16□□ TCNR/L00000□16□□ CNR/L00000□16□□

Full-profile inserts

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert																																											
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)																																							
					Coated		ød	t		l3	rE	ød	t	l3	rE																																				
16	(0.941)	27	R	16ER27NPTF	●																																														
	(1.411)	18	R	16ER18NPTF	●																																														
	(1.814)	14	R	16ER14NPTF	●																																														
	(2.209)	11.5	R	16ER115NPTF	●																																														
	(3.175)	8	R	16ER8NPTF	●																																														

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

30° Trapezoidal (DIN103)

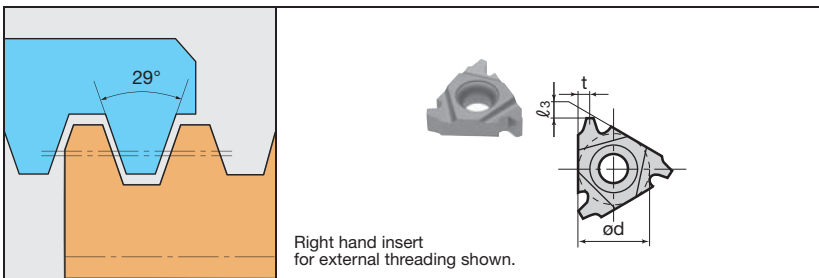


Applicable toolholders

Insert size	External	Internal
16	CER/L0000016□□	TSNR/L0000016
	B-SER/L00016	SNR/L0000016□□
	B-CER/L00016	TCNR/L0000016□□
	BC-SER/L00016	CNR/L0000016□□
22	CER/L0000022□□	TSNR/L0000022
		SNR/L0000022□□
		TCNR/L0000022□□
27	CER/L0000027□	CNR/L0000027□

Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert									
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)					
					Coated		ød	t		l ₃	r _ε	Coated		ød	t	l ₃	r _ε
					AH725	T313V						AH725	T313V				
16	1.5		R	16ER15TR	●		9.525	0.9	0.7	-	16IR15TR	●		9.525	0.9	0.7	-
	2		R	16ER20TR	●	●					16IR20TR	●	●				
	3		R	16ER30TR	●	●					16IR30TR	●	●				
22	4		R	22ER40TR	●	●	12.7	2.5	2	-	22IR40TR	●	●	12.7	2.5	2	-
	5		R	22ER50TR	●	●					22IR50TR	●	●				
27	6		R	27ER60TR	●	●	15.875	3.2	2.5	-							

29° Trapezoidal (ACME)

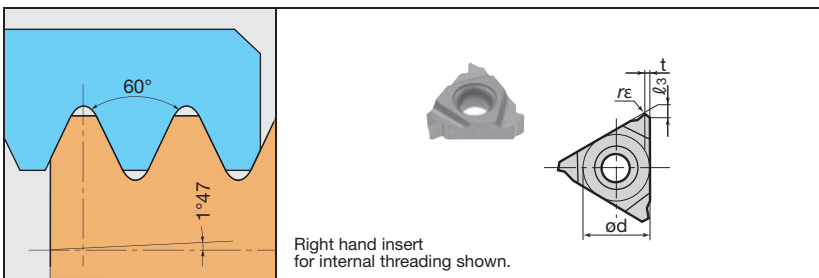


Applicable toolholders

Insert size	External	Internal
16	CER/L0000016□□	TSNR/L0000016
	B-SER/L00016	SNR/L0000016□□
	B-CER/L00016	TCNR/L0000016□□
	BC-SER/L00016	CNR/L0000016□□
22	CER/L0000022□□	TSNR/L0000022
		SNR/L0000022□□
		TCNR/L0000022□□
		CNR/L0000022□

Insert size	Pitch (Reference)	Number of threads	Hand of cut	External insert				Internal insert									
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)					
					Coated		ød	t		l ₃	r _ε	Coated		ød	t	l ₃	r _ε
					AH725	T313V						AH725	T313V				
16	(2.117)	12	R	16ER12ACME	●		9.525	1.6	1.3	-	16IR12ACME	●		9.525	1.6	1.3	-
	(2.540)	10	R	16ER10ACME	●						16IR10ACME	●					
	(3.175)	8	R	16ER8ACME	●	●					16IR8ACME	●	●				
22	(4.233)	6	R	22ER6ACME	●	●	12.7	2.5	2	-	22IR6ACME	●	●	12.7	2.5	2	-
	(5.080)	5	R	22ER5ACME	●	●					22IR5ACME	●	●				

Round



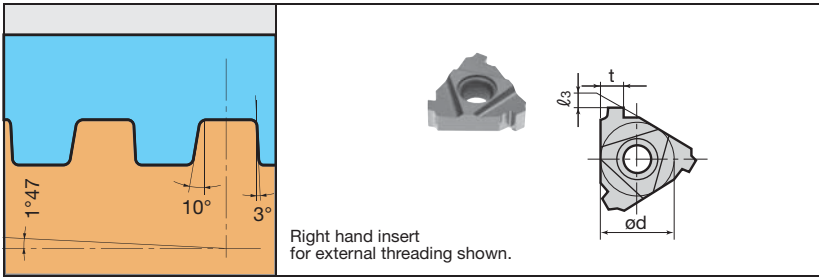
Applicable toolholders

Insert size	External	Internal
16	CER/L0000016□□	TSNR/L0000016
	B-SER/L00016	SNR/L0000016□□
	B-CER/L00016	TCNR/L0000016□□
	BC-SER/L00016	CNR/L0000016□□

Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert									
				Cat. No.	Grades		Dimensions (mm)		Cat. No.	Grades		Dimensions (mm)					
					Coated		ød	t		l ₃	r _ε	Coated		ød	t	l ₃	r _ε
					AH725	T313V						AH725	T313V				
16	(2.54)	10	R	16ER10RAPI	●		9.525	1.6	1.2	0.36	16IR10RAPI	●	●	9.525	1.6	1.2	0.36
	(3.175)	8	R	16ER8RAPI	●						16IR8RAPI	●	●				

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

Buttress

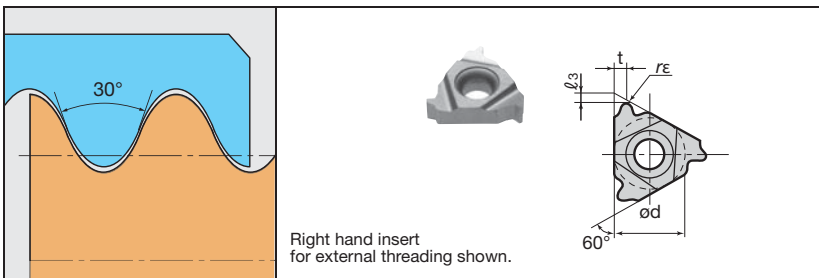


Applicable toolholders

Insert size	External	Internal
16	CER/L0000016□□ B-SER/L00016 B-CER/L00016 BC-SER/L00016	TSNR/L0000016 SNR/L0000016□□ TCNR/L0000016□□ CNR/L0000016□□

Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert							
				Cat. No.	Grades	Dimensions (mm)			Cat. No.	Grades	Dimensions (mm)				
					Coated AH725	●	ød	t		l ₃	r _ε	Coated AH725	●	ød	t
16	(2.54)	10	R	22ER5BAPI	●	12.7	3.72	2.2	-	22IR5BAPI	●	12.7	3.45	2.2	-

Round (DIN405)



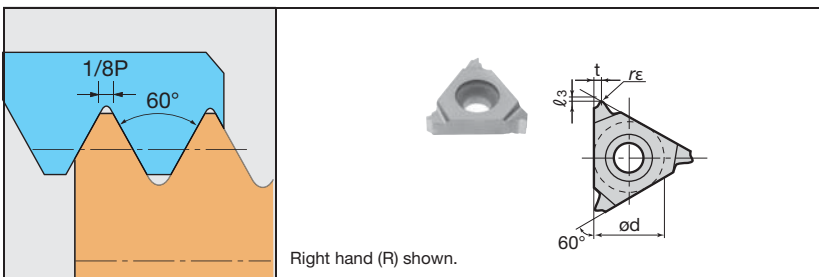
Applicable toolholders

Insert size	External	Internal
16	CER/L0000016□□ B-SER/L00016 B-CER/L00016 BC-SER/L00016	TSNR/L0000016 SNR/L0000016□□ TCNR/L0000016□□ CNR/L0000016□□
22	CER/L0000022□□	TSNR/L0000022 SNR/L0000022□□ TCNR/L0000022□□ CNR/L0000022□□

Full-profile inserts

Insert size	Pitch	Number of threads	Hand of cut	External insert				Internal insert							
				Cat. No.	Grades	Dimensions (mm)			Cat. No.	Grades	Dimensions (mm)				
					Coated AH725	●	ød	t		l ₃	r _ε	Coated AH725	●	ød	t
16		10	R	16ER10RD	●	9.525	1.6	1.5	0.60	16IR10RD	●	9.525	1.6	1.5	0.55
		8	R	16ER8RD	●				0.75	16IR8RD	●				0.68
22		6	R	22ER6RD	●	12.7	2.5	2.0	1.00	22IR6RD	●	12.7	2.5	2.0	0.91
		4	R	22ER4RD	●				1.50	22IR4RD	●				1.36

Aerospace



Applicable toolholders

Insert size	External
16	CER/L0000016□□ B-SER/L00016 B-CER/L00016 BC-SER/L00016

Full-profile inserts

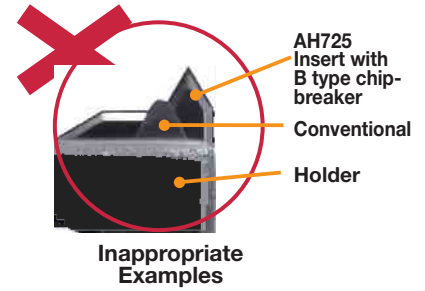
Insert size	Pitch	Number of threads	Hand of cut	External insert					
				Cat. No.	Grades	Dimensions (mm)			
					Coated AH725	●	ød	t	l ₃
16		32	R	16ER32UNJ	●	9.525	0.5	1.2	0.13
		28	R	16ER28UNJ	●				0.15
		24	R	16ER24UNJ	●				0.18
		20	R	16ER20UNJ	●	0.9	0.7	0.21	
		18	R	16ER18UNJ	●			0.24	
		16	R	16ER16UNJ	●			0.26	
		14	R	16ER14UNJ	●	1.6	1.2	0.3	
		12	R	16ER12UNJ	●			0.35	
		10	R	16ER10UNJ	●			0.42	
8	R	16ER8UNJ	●			0.53			

◆● : Stocked in Japan / Packing Quantity = 5 pcs.

IMPORTANT NOTICE

Replacement of shim sheet

Please check the items used and replace shims if necessary (see the following list).



List of interchangeable Shims (Size 16 · Insert).

Holder type	Lead Angle	External Cat. No.		Internal Cat. No.	
		① Conventional	① Standard (New)	② Conventional	② Standard (New)
Dual clamping methods of screw-on and clamp-on	4°	GXE16-4DT	AE16-4DT	GXN16-4DT	AN16-4DT
	3°	GXE16-3DT	AE16-3DT	GXN16-3DT	AN16-3DT
	2°	GXE16-2DT	AE16-2DT	GXN16-2DT	AN16-2DT
	1° (Standard)	GX16-1DT	A16-1DT	GX16-1DT	A16-1DT
	0°	GXE16-0DT	AE16-0DT	GXN16-0DT	AN16-0DT
	-1°	GXE16-99DT	AE16-99DT	GXN16-99DT	AN16-99DT
	-2°	GXE16-98DT	AE16-98DT	GXN16-98DT	AN16-98DT
Clamp-on	4°	GXE16-4	AE16-4	GXN16-4	AN16-4
	3°	GXE16-3	AE16-3	GXN16-3	AN16-3
	2°	GXE16-2	AE16-2	GXN16-2	AN16-2
	1° (Standard)	GXE16-1	A16-1	GXN16-1	A16-1
	0°	GXE16-0	AE16-0	GXN16-0	AN16-0
	-1°	GXE16-99	AE16-99	GXN16-99	AN16-99
	-2°	GXE16-98	AE16-98	GXN16-98	AN16-98

Target items for the replacement of shims (Size 16 · Insert).

Thread type	External			Internal		
	Cat. No.	Grades	Replacement	Cat. No.	Grades	Replacement
ISO		AH725	① → ②	16IR15ISO-B	AH725	② → ②
				16IR175ISO-B		
				16IR20ISO-B		
55°	16ERAG55-B			16IRAG55-B		
				16IRG55-B		
60°	16ERA60-B			16IRAG60-B		
				16IRA60-B		
				16IRG60-B		
UN				16IR18UN-B		
				16IR16UN-B		
				16IR14UN-B		
W				16IR16W-B		
				16IR14W-B		
PT				16IR14PT-B		
NPT	16ER8NPT-B	16IR14NPT-B				
		16IR115NPT-B				

Threading Guidelines

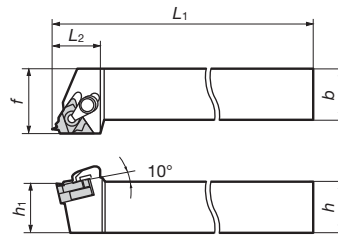
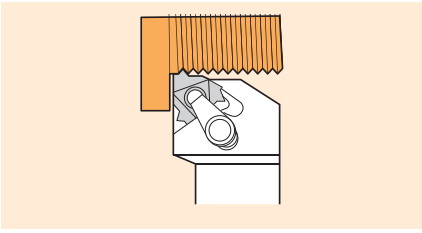
Determine the in-feed per pass and number of threads while referring to the table and description below.

Pitch	0.5	0.75	1	1.25	1.5	1.75	2	2.5	3	3.5	4	4.5	5 ~
No. of threads	48	32	24	20	16	14	12	10	8	7	6	5.5	5 ~
No. of passes	4 ~ 6	4 ~ 7	4 ~ 8	5 ~ 9	6 ~ 10	7 ~ 12	7 ~ 12	8 ~ 14	10 ~ 16	11 ~ 18	11 ~ 18	11 ~ 19	12 ~ 24

Note:

- When using the full-profile insert, set the total infeed amount by taking the finish stock of 0.1mm into account.
- Set the first infeed to 150~200% of nose R and do not allow it to exceed 0.5 mm.
- The in-feed amount during the final pass must be a minimum of 0.05mm. No zero cuts should be made. (Extra-small in-feed or zero cutting of work hardened surfaces will reduce tool life.)
- The partial-profile insert or inside diameter insert has small nose R. Reduce the infeed per pass and increase the no. of passes.
- Regarding standard in-feed per passes and no. of passes, please refer to our catalogue.

Holder Specification

CE R/L
External threading
S/C type (Dual methods of screw-on and clamp-on clamping)


Pitch	No. of threads	No. of corners
0.5 ~ 6.0 mm	32 ~ 4	3

Right hand (R), carbide shank type shown.

Steel shank (Dual methods of screw-on and clamp-on clamping)

Cat. No.	Stock		Dimensions (mm)						Insert	Parts				
	R	L	h	b	L ₁	L ₂	h ₁	f		Clamp set	Shim	Shim screw	Clamping screw	Wrench
CER/L1212H16DT	●	●	12	12	100	24	12	16	16ER/L□□□□	CSP16	A16-1DT	DTS5-3.5	CSTB-3.5ST	T-15F P-3.5
CER/L1616H16DT	●	●	16	16	100	24	16	20						
CER/L2020K16DT	●	●	20	20	125	24	20	25						
CER/L2525M16DT	●	●	25	25	150	28	25	32						
CER/L2525M22DT	●	●	25	25	150	31.3	25	32	22ER/L□□□□	CSP22	GX22-1DT	DTS6-4	CSTB-4ST	T-15F T-20F P-4

Note: New shim is used for both right and left hand toolholders.

Steel shank (Clamp-on type)

Cat. No.	Stock		Dimensions (mm)						Insert	Parts				
	R	L	h	b	L ₁	L ₂	h ₁	f		Clamp set	Shim set R	Shim set L	Clamping screw	Wrench
CER/L1212H16T			12	12	100	22	12	16	16ER/L□□□□	CSP16	A16-1	A16-1	-	T-15F
CER/L1616H16T			16	16	100	22	16	20						
CER/L2020K16T			20	20	125	22	20	25						
CER/L2525M16T			25	25	150	25	25	32						
CER/L3232P16T	●		32	32	170	32	32	40	22ER/L□□□□	CSP22	NXE22-1	NXN22-1	-	T-20F
CER/L2525M22T			25	25	150	28	25	32						
CER/L3232P22T	●		32	32	170	32	32	40						
CER/L4040R22T			40	40	200	36	40	50						
CER/L2525M27T	●		25	25	150	34	25	32	27ER/L□□□□	CSP27	NXE27-1	NXN27-1	-	P-4
CER/L3232P27T	●		32	32	170	34	32	40						
CER/L4040R27T			40	40	200	40	40	50						

Note:

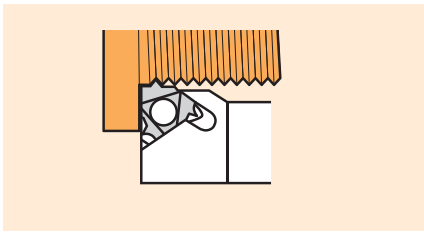
A clamp set for CER/L type consists of a clamp and a clamp screw.

A shim set for CER/L type consists of a shim and a shim screw.

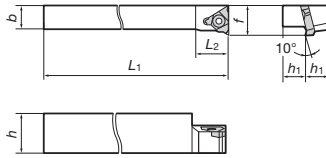
Standard shims for CER/L type can be used for both left hand and right hand toolholders. Use either of the sides depending on the hand.

● : Stocked in Japan

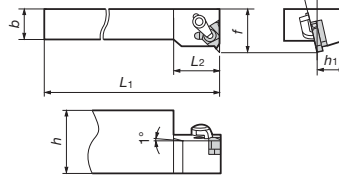
B-S/C E R/L External threading For gang tooling S/C type (Dual methods of screw-on and clamp-on clamping)



B-SER/L Screw-on type



B-CER/L Clamp-on type



Pitch	No. of threads	No. of corners
0.5 ~ 6.0 mm	32 ~ 4	3

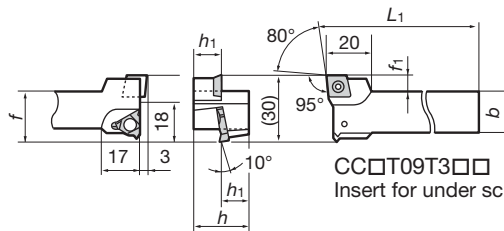
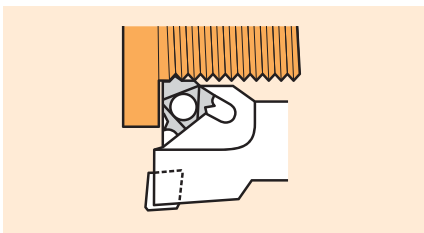
Steel shank

Right hand (R) shown.

Cat. No.	Stock		Dimensions (mm)						Insert	Parts				
	R	L	h	b	L ₁	L ₂	h ₁	f		Clamp set	Shim set R	Shim set L	Clamping screw	Wrench
B-SER/L10H16	●		20	10	100	15	10	16	16ER/L□□□□	-	-	-	CSTB-3.5	T-15F
B-SER/L12K16	●		24	12	125	18	12	18		-	-	-	-	-
B-CER/L16M16	●	●	32	16	150	24	16	22		CSP16	A16-1	A16-1	-	T-15F

BC-SE R/L External threading

For gang tooling S type (Screw-on)



Pitch	No. of threads	No. of corners
0.5 ~ 6.0 mm	32 ~ 4	3

CC□T09T3□□
Insert for under screw

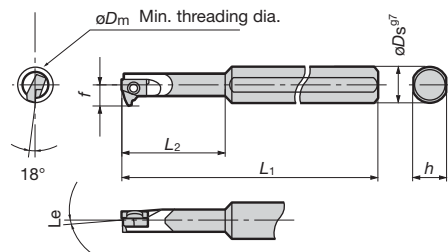
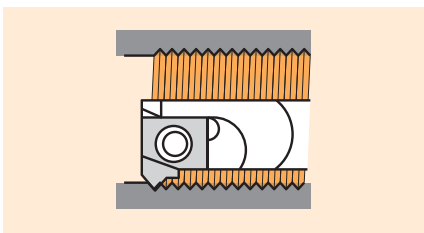
Right hand (R), carbide shank type shown.

Steel shank

Cat. No.	Stock		Dimensions (mm)						Insert	Parts		
	R	L	h	b	L ₁	L ₂	h ₁	f		f ₁	Clamping screw	Wrench
BC-SER/L12K16	●		24	16	125	-	12	23	7	16ER/L□□□□	CSTB-3.5	T-15F
BC-SER/L16M16			32	20	150	-	16	25	5	CC□T09T3□□		

SN R/L-2/3 Internal threading

S type (Screw-on)



Pitch	No. of threads	No. of corners
0.5 ~ 2.0 mm	48 ~ 16	1

Right hand (R), carbide shank type shown.

Steel shank

Cat. No.	Stock		Dimensions (mm)						Insert	Parts		
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L ₁	L ₂	h		Lead Angle Le	Clamping screw	Wrench
SNR/L0006H06-2	●		8	8	4.7	100	18	7	2°	6IR/L□□□□	CSTB-2L040	T-6F
SNR/L0006H06-3	●								3°			
SNR/L0008H06-2	●		10	8	5.7	100	18	7	2°			
SNR/L0008H06-3	●								3°			

Carbide shank

Cat. No.	Stock		Dimensions (mm)						Insert	Parts		
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L ₁	L ₂	h		Lead Angle Le	Clamping screw	Wrench
SNR/L0006K06SC-2	●		8	8	4.7	125	30	7	2°	6IR/L□□□□	CSTB-2L040	T-6F
SNR/L0006K06SC-3	●								3°			
SNR/L0008K06SC-2	●		10	8	5.7	125	18	7	2°			
SNR/L0008K06SC-3	●								3°			

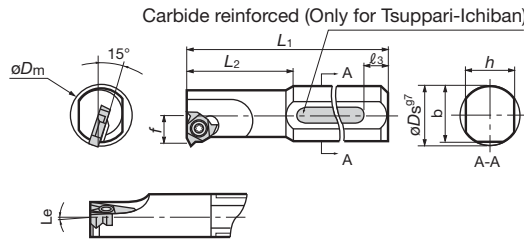
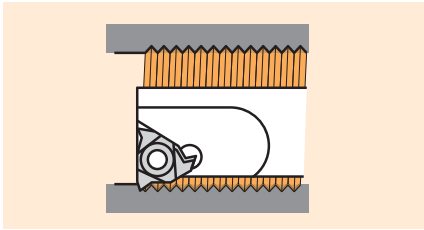
Note: When using a right or left hand insert, the right hand insert (6IR ** type), is used for the right hand toolholders (SNR ** type).

● : Stocked in Japan

SN R/L

Internal threading

S type (Screw-on)



Pitch	No. of threads	No. of corners
0.5 ~ 6.0 mm	48 ~ 5	3

Right hand (R),
Tsuppari-Ichiban type shown.

“Tsuppari-Ichiban” shank

Cat. No.	Stock		Dimensions (mm)								Lead Angle Le	Insert	Parts	
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L_1	L_2	l_3	h	b			Clamping screw	Wrench
TSNR/L0016Q16	●		19	16	10.6	180	40	59	15		1°	16IR/L□□□□	CSTB-3.5	T-15F
TSNR/L0020R22	●		24	20	13.9	200	50	49	18		22IR/L□□□□	CSTB-4		

Steel shank

Cat. No.	Stock		Dimensions (mm)								Lead Angle Le	Insert	Parts				
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L_1	L_2	l_3	h	b			Clamping screw	Wrench			
SNR/L0010K11	●	●	12	16	6.6	125	25	-	15	15.5	1°	11IR/L□□□□	CSTB-2.5	T-8F			
SNR/L0010K11-2	●										2°						
SNR/L0010K11-3	●										3°						
SNR/L0013L11	●	●	15	16	8.2	140	32.5	-	15	15.5	1°						
SNR/L0013L11-2	●										2°						
SNR/L0013L11-3	●										3°						
SNR/L0016M16	●	●	19	16	10.6	150	40	-	15	15.5	1°	16IR/L□□□□	CSTB-3.5	T-15F			
SNR/L0016M16-2	●										2°						
SNR/L0016M16-3	●										3°						
SNR/L0020Q22	●	●	24	20	13.9	180	50	-	18	19	1°				22IR/L□□□□	CSTB-4	T-15F
SNR/L0020Q22-2	●										2°						
SNR/L0020Q22-3	●										3°						

Carbide shank

Cat. No.	Stock		Dimensions (mm)								Lead Angle Le	Insert	Parts	
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L_1	L_2	l_3	h	b			Clamping screw	Wrench
SNR/L0010M11SC	●		13	10	7.4	150	24	-	9	-	1°	11IR/L□□□□	CSTB-2.5	T-8F
SNR/L0010M11SC-2	●										2°			
SNR/L0010M11SC-3	●										3°			
SNR/L0012P11SC	●		15	12	8.5	170	28	-	11	-	1°			
SNR/L0012P11SC-2	●										2°			
SNR/L0012P11SC-3	●										3°			
SNR/L0016R16SC	●	●	20	16	11.9	200	35	-	15	-	1°	16IR/L□□□□	CSTB-3.5	T-15F
SNR/L0016R16SC-2	●										2°			
SNR/L0016R16SC-3	●										3°			

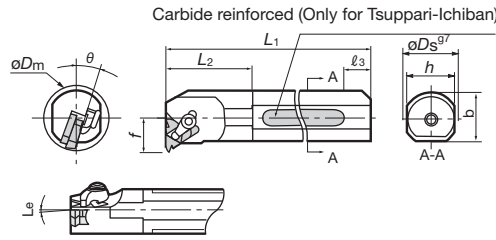
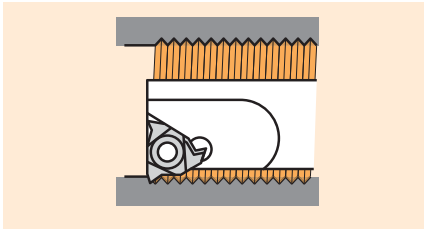
When using a right or left hand insert, the right hand insert (□□IR**type) is used for the right hand toolholders (SNR**type) and left hand insert (□□IL**type) is used for the left hand toolholders (SNL**type).

● : Stocked in Japan

CNR R/L

Internal threading

S/C type (Dual methods of screw-on and clamp-on clamping)



Pitch	No. of threads	No. of corners
0.5 ~ 6.0 mm	48 ~ 5	3

Right hand (R),
Tsuppari-Ichiban type shown.

“Tsuppari-Ichiban” shank (Dual methods of screw-on and clamp-on clamping)

Cat. No.	Stock		Dimensions (mm)									Insert	Parts						
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L_1	L_2	l_3	h	b	θ		Lead Angle	Le	Clamp set	Shim	Shim screw	Clamping screw	Wrench
TCNR/L0020R16DT	●		24	20	14	200	30	49	18					16IR/L□□□□	CSP16	A16-1DT	DTS5-3.5	CSTB-3.5ST	T-15F P-3.5
TCNR/L0025S16DT	●		29	25	16.5	250	38	64	23	-	15°	1°		16IR/L□□□□	CSP16	A16-1DT	DTS5-3.5	CSTB-3.5ST	T-15F P-3.5
TCNR/L0032T16DT			37	32	20.1	300	48	53	30					16IR/L□□□□	CSP16	A16-1DT	DTS5-3.5	CSTB-3.5ST	T-15F P-3.5
TCNR/L0025S22DT	●		30	25	18.2	250	38	64	23	-	15°	1°		22IR/L□□□□	CSP22	GX22-1DT	DTS6-4	CSTB-4ST	T-15F T-20F P-4
TCNR/L0032T22DT			38	32	21.9	300	48	53	30					22IR/L□□□□	CSP22	GX22-1DT	DTS6-4	CSTB-4ST	T-15F T-20F P-4

Note: Shim is used for both right and left hand toolholders.

Steel shank (Clamp-on type)

Cat. No.	Stock		Dimensions (mm)									Insert	Parts						
	R	L	Min. threading dia. ϕD_m	ϕD_s	f	L_1	L_2	l_3	h	b	θ		Lead Angle	Le	Clamp set	Shim set R	Shim set L	Clamping screw	Wrench
CNR/L0020P16	●	●	24	20	14	170	30		18	19									
CNR/L0025R16	●	●	29	25	16.5	200	38		23	24									
CNR/L0032S16	●	●	37	32	20.1	250	48	-	30	31	15°	1°	16IR/L□□□□	CSP16	A16-1	A16-1	-	T-15F	
CNR/L0040T16			45	40	24.1	300	60		37	38.5									
CNR/L0050U16			55	50	29.4	350	75		47	48.5									
CNR/L0025R22	●	●	30	25	18.2	200	38		23	24									
CNR/L0032S22	●	●	38	32	21.9	250	48		30	31									
CNR/L0040T22			46	40	26.1	300	60	-	37	38.5	15°	1°	22IR/L□□□□	CSP22	NXN22-1	NXE22-1	-	T-20F	
CNR/L0050U22			56	50	31	350	75		47	48.5									
CNR/L0063V22			69	63	37.5	400	95		60	61.5									
CNR/L0040T27	●		46	40	26.9	300	60		37	38.5									
CNR/L0050U27			56	50	31.9	350	75	-	47	48.5	10°	1°	27IR/L□□□□	CSP27	NXN27-1	NXE27-1	-	P-4	
CNR/L0063V27			70	63	38.7	400	95		60	61.5									

Note: • A clamp set for CNR/L type toolholders consists of a clamp and a clamp screw.
 • A shim set for CNR/L type toolholders consists of a shim and a shim fixing screw.
 • Standard shims for CNR/L type toolholders are commonly used for right and left hand toolholders.
 When using a right or left hand insert, the right hand insert (□□IR**type) is used for the right hand toolholder (CNR**type) and left hand insert (□□IL**type) is used for left hand toolholder (CNL**type).

● : Stocked in Japan



Tungaloy Corporation (Head office)

Solid Square, 580 Horikawa-cho, Saiwai-ku
Kawasaki City, 212-8503 Japan
Phone: +81-44-548-9514 Fax: +81-44-548-9551
<http://www.tungaloy.co.jp/>

Tungaloy America, Inc.

1226A Michael Drive, Wood Dale, IL.60191, U.S.A.
Phone: +1-630-227-3700 Fax: +1-630-227-0690
<http://www.tungaloyamerica.com/>

Tungaloy Canada

432 Elgin St. Unit 3, Brantford, Ontario N3S 7P7, Canada
Phone: +1-519-758-5779 Fax: +1-519-758-5791
<http://www.tungaloyamerica.com/>

Tungaloy de Mexico S.A.

C Los Arellano 113, Parque Industrial Siglo XXI
Aguascalientes, AGS, Mexico 20290
Phone: +52-449-929-5410 Fax: +52-449-929-5411
<http://www.tungaloyamerica.com/>

Tungaloy do Brazil Comercio de Feramentas de Corte Ltda.

Rua dos Sabias N.104
13280-000 Vinhedo, São Paulo, Brazil
Phone: +55-19-38262757 Fax: +55-19-38262757
<http://www.tungaloy.co.jp/>

Tungaloy Germany GmbH

Elisabeth-Selbert-Strasse 3
D-40764 Langenfeld, Germany
Phone: +49-2173-90420-0 Fax: +49-2173-90420-18
<http://www.tungaloy-eu.com/>

Tungaloy France S.a.r.l.

6 Avenue des Andes
F-91952 Courtaboeuf Cedex, France
Phone: +33-1-6486-4300 Fax: +33-1-6907-7817
<http://www.tungaloy-eu.com/>

Tungaloy Italia S.p.A.

Via E. Andolfato 10
I-20126 Milano, Italy
Phone: +39-02-252012-1 Fax: +39-02-252012-65
<http://www.tungaloy-eu.com/>

Tungaloy Czech s.r.o

4D Center Building B10F Kodanska 46
CZ-10100 Prauge 10 Czech Republic
Phone: +420-272652218 Fax: +420-234064270
<http://www.tungaloy.co.jp/>

Tungaloy Ibérica S.L.

Puigterrà de Baix 5-9 1r
E-08241 Manresa (BCN), Spain
Phone: +34 93 1131360 Fax: +34 93 1131361
<http://www.tungaloy.co.jp/>

LLC Tungaloy Rus

Grazhdanskiy Prospectus, 29a
Belgorod, 308019, Russia
Phone: +7-4726-144-180 Fax: +7-4726-144-182
<http://www.tungaloy.co.jp/>

Tungaloy Cutting Tool (Shanghai) Co.,Ltd.

United Plaza 1202, 1468 Nan Jing Road West
Shanghai 200040, China
Phone: +86-21-6247-0512 Fax: +86-21-6289-1302
<http://www.tungaloy.co.jp/tcts>

Tungaloy Cutting Tool (Thailand) Co.,Ltd.

11th Floor, Sorachai Bldg. 23/7, Soi Sukhumvit 63
Klongtonnue, Wattana, Bangkok 10110, Thailand
Phone: +66-2-714-3130 Fax: +66-2-714-3134
<http://www.tungaloy.co.th/>

Tungaloy Singapore (Pte.), Ltd.

50 Kallang Avenue #06-03 Noel Corporate Building
Singapore 339505
Phone: +65-6391-1833 Fax: +65-6299-4557
<http://www.tungaloy.co.jp/tspl>

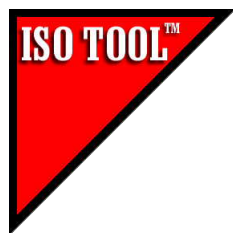
India Branch

201, 2Fl. Krishna Apra Business square, Plot No. D4-5-6
Netaji Subhash Place, Pitampura, New Delhi 111034, Delhi, India
Phone: +91-11-4707-1111 Fax: +91-11-4707-1100
<http://www.tungaloy.co.jp/tspl>

Tungaloy Korea Co., Ltd

#1312, Byucksan Digital Valley 5-cha, 60-73
Gasan-dong, Geumcheon-gu
153-788 Seoul, Korea
Phone: +82-2-6393-8930 Fax: +82-2-6393-8952
<http://www.tungaloy.co.jp/>

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Estridsväg 17
SE-291 65 Kristianstad
Tel: 044-245570 / Fax: 044-245540
info@isotool.se / www.isotool.se



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