



B-Type Threading Inserts with Chipformer

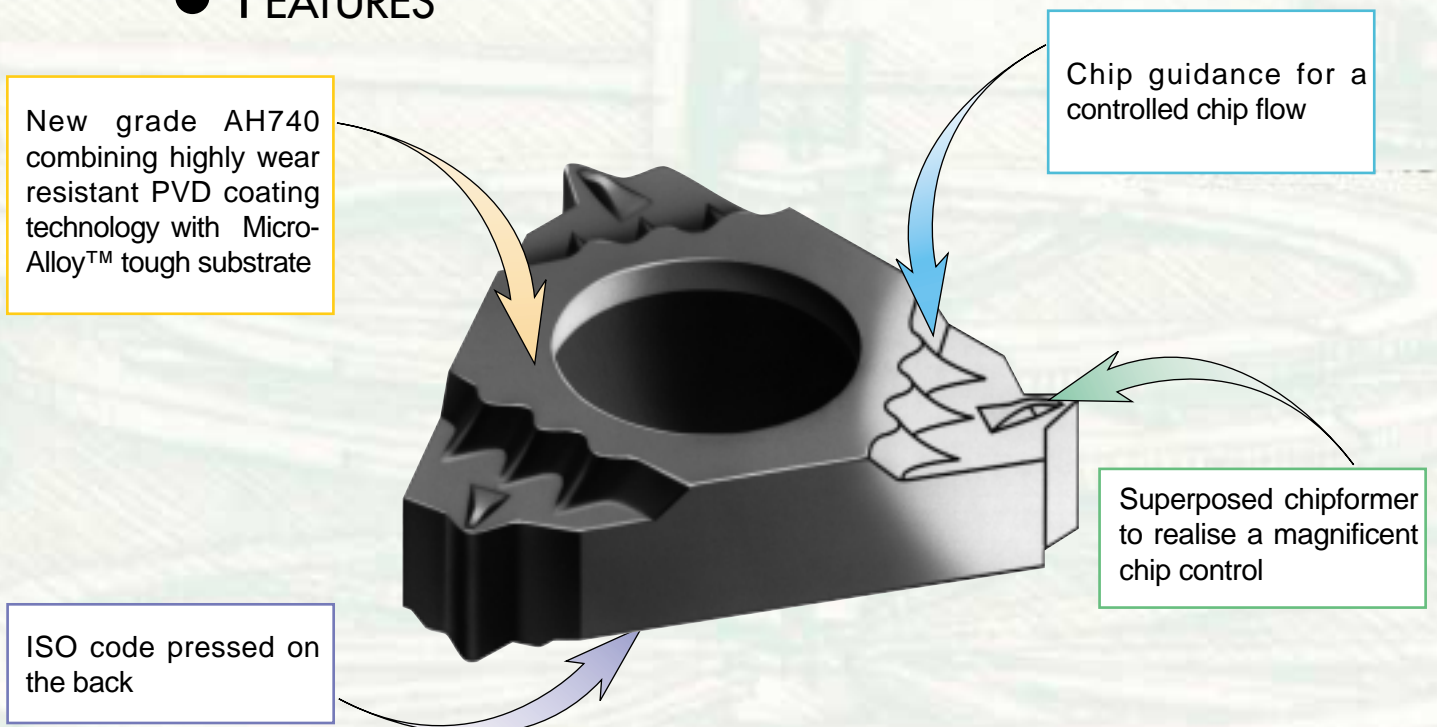
**Extended Program Range:
Whitworth, Unified, Full
and Partial Profile**





Revolutionary newly developed threading insert with chipformer for internal and external machining

● FEATURES



● BENEFITS

- Highly economical
- Excellent process reliability and increased productivity thanks to the unique chipformer in combination with a new grade
- Suitable for a wide range of applications including difficult to cut materials

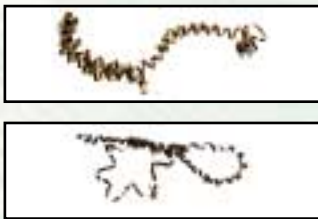
● STANDARD CUTTING CONDITIONS

Work material	Cutting speed (m/min)
Carbon steels, alloy steels (C45, 25CrMo4)	80~150
Stainless steels (304S15)	50~100

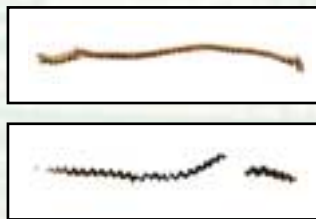
● CUTTING PERFORMANCE

Favourable Chip Control

Competitors



B-Type inserts with chipformer

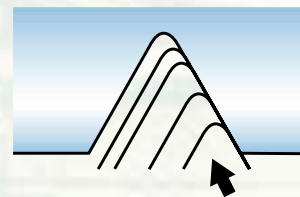


Infeed method: Flank infeed
 Work material: Stainless steel (304S15)
 Cutting speed: $v_c = 75$ m/min

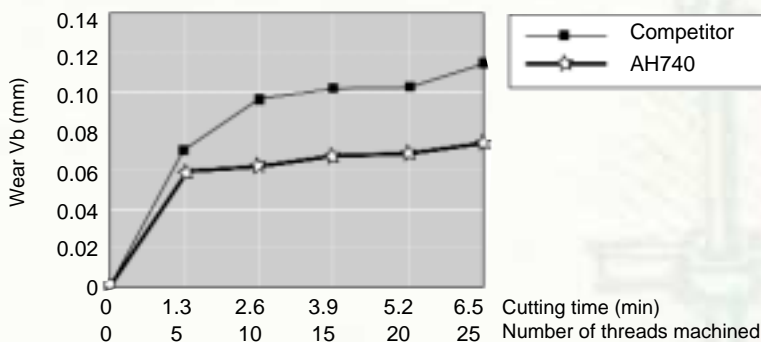
Infeed method: Flank infeed
 Work material: Medium carbon steel (C45)
 Cutting speed: $v_c = 100$ m/min

Recommendation:

Long tool life and improved process safety are achieved with single edge infeed.



● IMPROVED WEAR RESISTANCE

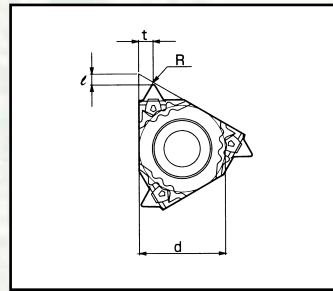
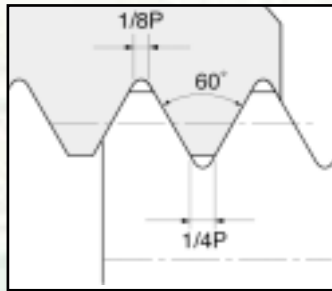


Work material: Stainless steel (304S15)
 Insert: 16ER20ISO-B
 Cutting speed: $v_c = 75$ m/min
 Wet cutting



● INSERT LIST

• ISO-B, Metric full-profile inserts with chipformer

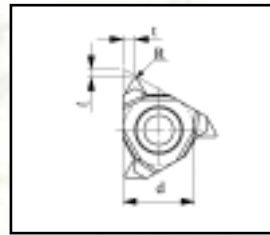
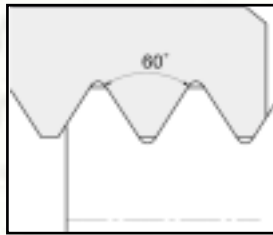


Right hand inserts for external threading shown

	Insert Cat. No.	Pitch	Stock	Dimensions (mm)				Applicable holder		
			AH740	d	t	⊥	R			
For external	16ER10ISO-B	1.0	●	9.525	0.9	0.7	0.13	CER □□□□16T		
	16ER125ISO-B	1.25	●				0.16			
	16ER15ISO-B	1.5	●				0.19			
	16ER175ISO-B	1.75	●		1.6	1.2	0.22			
	16ER20ISO-B	2.0	●				0.25			
	16ER25ISO-B	2.5	●				0.31			
	16ER30ISO-B	3.0	●				0.38			
For internal	11NR05ISO-B	0.5	●	6.35	0.5	1.2	0.04	SNR □□□□11□ SNR □□□□11SC		
	11NR075ISO-B	0.75	●				0.05			
	11NR10ISO-B	1.0	●		0.9	0.7	0.08			
	11NR125ISO-B	1.25	●				0.10			
	11NR150ISO-B	1.5	●				0.12			
	11NR175ISO-B	1.75	●				0.14			
	11NR20ISO-B	2.0	●				0.14			
	16NR10ISO-B	1.0	●				9.525		0.9	0.7
	16NR125ISO-B	1.25	●		0.10					
	16NR15ISO-B	1.5	●		0.12					
16NR175ISO-B	1.75	●	1.6	1.2	0.14					
16NR20ISO-B	2.0	●			0.14					
16NR25ISO-B	2.5	●			0.18					
16NR30ISO-B	3.0	●			0.21					

NEW

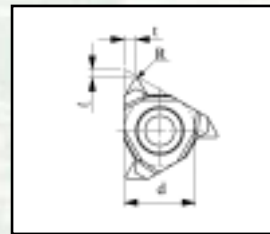
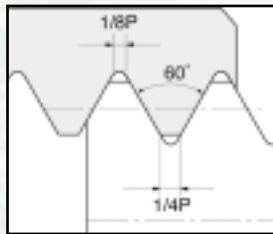
• 60-B, Partial-profile inserts (60°)



NEW

	Insert Cat. No.	Pitch	Number of threads	Stock	Dimensions (mm)				Applicable holder
				AH740	d	t	l	R	
For external	16ERA60-B	0.5 -1.5	48 - 16	●	9.525	0.9	0.7	0.06	CER □□□□□16T
	16ERG60-B	1.75 -3.0	14 - 8	●		1.6	1.2	0.22	

• UN-B, Unified full profile inserts

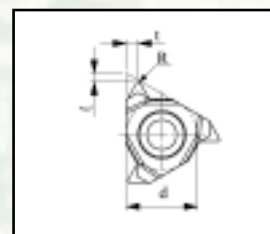
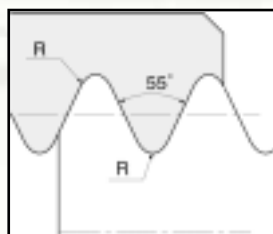


Right hand inserts for external threading shown

NEW

	Insert Cat. No.	Pitch	Number of threads	Stock	Dimensions (mm)				Applicable holder
				AH740	d	t	l	R	
For external	16ER16UN-B	1.587	16	●	9.525	0.9	0.7	0.20	CER □□□□□16T
	16ER12UN-B	2.117	12	●		1.6	1.2	0.27	
For internal	16NR16UN-B	1.587	16	●		0.9	0.7	0.11	SNR □□□□□16□ SNR □□□□□16SC CNR □□□□□16
	16NR12UN-B	2.117	12	●		1.6	1.2	0.15	

• W-B, Whitworth full profile inserts



Right hand inserts for external threading shown

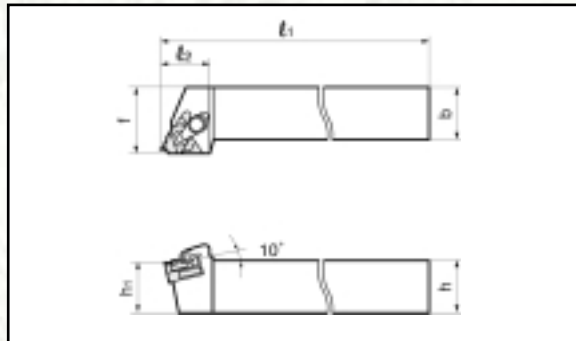
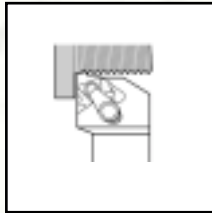
NEW

	Insert Cat. No.	Pitch	Number of threads	Stock	Dimensions (mm)				Applicable holder
				AH740	d	t	l	R	
For external	16ER14W-B	1.814	14	●	9.525	1.6	1.2	0.23	CER □□□□□16T
	16ER11W-B	2.309	11	●				0.29	
For internal	16NR14W-B	1.814	14	●				0.23	SNR □□□□□16□ SNR □□□□□16SC CNR □□□□□16
	16NR11W-B	2.309	11	●				0.29	



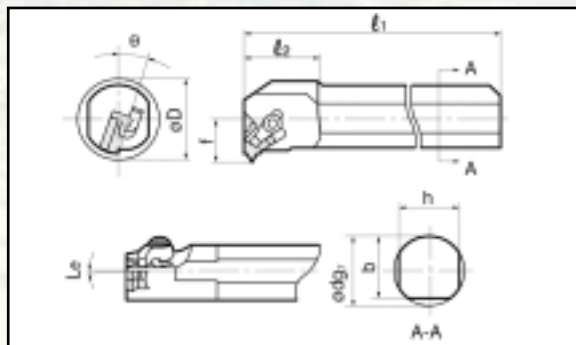
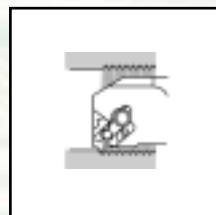
• PROGRAM

CE - type, External toolholder (Clamp-on type, steel shank)



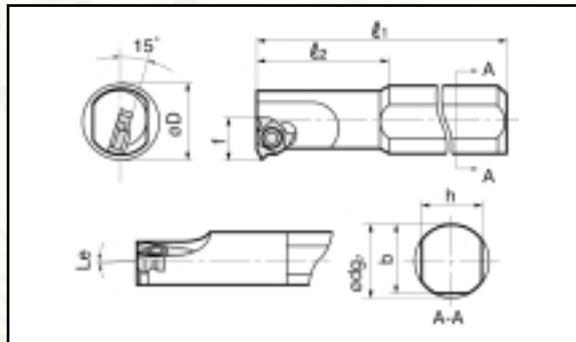
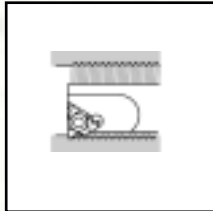
Insert Cat. No.	Stock	Applicable inserts	Dimensions (mm)						Replacement Parts		
			h	b	l ₁	l ₂	h ₁	f	Clamp set	Shim	Wrench
CER 1212 H16T	●	16 ER□□□ISO-B 16 ER□60-B 16 ER□□UN-B 16 ER□□W-B	12	12	100	22	12	16	CSP16	GXE16-1	T-15F
CER 1616 H16T	●		16	16			16	20			
CER 2020 K16T	●		20	20	125	25	25				
CER 2525 M16T	●		25	25	150	25	32				
CER 3232 P16T	●		32	32	170	32	40				

CN - type, Internal toolholder (Clamp-on type, steel shank)



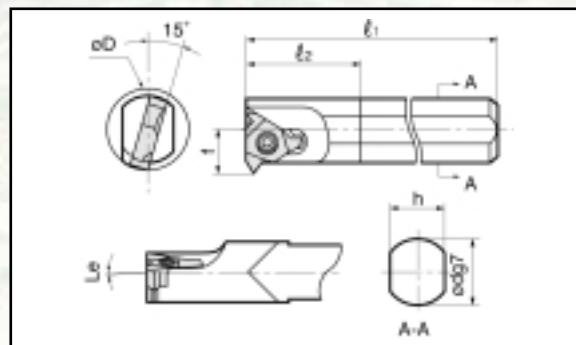
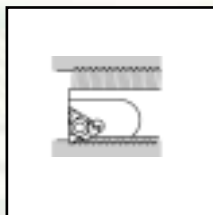
Insert Cat. No.	Stock	Applicable inserts	øD min. (mm)	Dimensions (mm)						Lead angle	Replacement Parts			
			øD	ød	f	l ₁	l ₂	h	b	q	Le	Clamp set	Shim	Wrench
CNR 0020 P16	●	16 NR□□□ISO-B	24	20	14.0	170	30	18	18.5	15°	1°	CSP16	GXN16-1	T-15F
CNR 0025 R16	●	16 NR□□UN-B	29	25	16.5	200	38	23	22.5					
CNR 0032 S16	●	16 NR□□W-B	37	32	20.1	250	48	30	29.5					

SN - type, Internal toolholder (Screw-on type, steel shank)



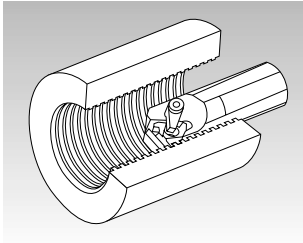
Insert Cat. No.	Stock	Applicable inserts	øD min. (mm)	Dimensions (mm)						Lead angle	Replacement Parts	
				øD	ød	f	l ₁	l ₂	h		b	Le
SNR 0010 K11	●	11NR□□□ISO-B	12	16	6.6	125	25	15	15	1°	CSTB-2.5	T-8F
SNR 0010 K11-2	●								15.5	2°		
SNR 0010 K11-3	●								15	3°		
SNR 0013 L11	●				8.2	140	32.5	15	1°			
SNR 0016 M16	●	16NR□□□ISO-B	19	16	10.6	150	40	15	15	1°	CSTB-3.5	T-15F
SNR 0016 M16-2	●	16NR□□UN-B 16NR□□W-B							15.5	2°		

SN-SC - type, Internal toolholder (Screw-on type, carbide shank)



Insert Cat. No.	Stock	Applicable inserts	øD min (mm)	Dimensions (mm)						Lead angle	Replacement Parts	
				øD	ød	f	l ₁	l ₂	h		Le	Clamp screw
SNR 0010M11-SC	●	11NR□□□ISO-B	13	10	7.4	150	17	9	1°	CSTB-2.5	T-8F	
SNR 0012P11-SC	●		15	12	8.5	170	20	11				
SNR 0016R16-SC	●	16NR□□□ISO-B 16NR□□UN-B 16NR□□W-B	20	16	11.9	200	24	15	1°	CSTB-3.5	T-15F	

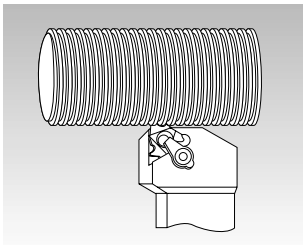
● PRACTICAL EXAMPLES



INTERNAL MACHINING

Work material: CrMo steel
(1717CDS110)
Thread: M22 x 1.5
Insert: 16NR15ISO-B AH740
Cutting speed: $v_c = 60$ m/min
Cutting conditions: 7 passes
wet cutting

Results:
The existing problem of chip-recutting caused an unexpected breakage of the insert. The B-type insert solved the problem by achieving an excellent chip control and a longer tool life.



EXTERNAL MACHINING

Work material: Stainless steel
(304S15)
Thread: M30 x 1.5
Insert: 16ER15ISO-B AH740
Cutting speed: $v_c = 100$ m/min
Cutting conditions: 7 passes
wet cutting

Results:
With the use of ISO-B threading insert an optimized chip control and a decisively improved tool life are achieved.



ISO 9002
JQA-1425

ISO 14001
EC97J1123
26/11/1997



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