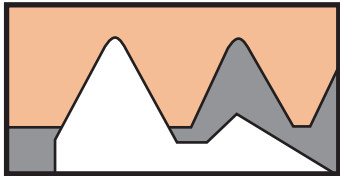


LAYDOWN *THREADING* INSERTS

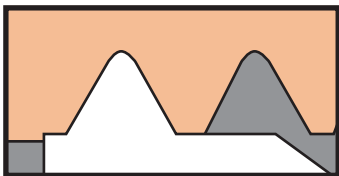
We offer a comprehensive range of laydown style inserts, which includes partial profile inserts, full profile inserts and chipbreaker "TD" style inserts.

Partial Profile



- Thread profile with universal profile shape of 60° without cutting edges for the thread crest.
- Reduced inventory.
- For various pitches within a specified range.
- Preferably one-off production.
- Outside/core diameters must be accurately pre-turned.

Full Profile



- Thread profile with full profile shape including thread height.
- For burr-free, precise threads for a specific thread dimension.
- General application.
- Machining allowance for outside/core diameter around .004" - .006" or 0.1 - 0.15 mm per surface.



- Tear Drop chipbreaker for improved chip control, time saving and increased tool life and productivity

INSERT DESIGNATIONS

(L) shown in one mm increments

06 = 5/32 I.C.
08 = 3/16 I.C.
11 = 1/4 I.C.
16 = 3/8 I.C.
22 = 1/2 I.C.
27 = 5/8 I.C.

1 - Edge Length

L - Left Hand
R - Right Hand

External left hand
Internal right hand

External right hand
Internal left hand

3 - Hand of Insert

60 = 60° partial profile

ACME = Am. Acme
ISO = ISO metric
NPT = Am. National Pipe Thread
STACME = Am. Stub Acme
UN = Unified National

5 - Thread Standard

16	E	R	20	UN	TD
1	2	3	4	5	6

2 - Internal / External

E - External

N - Internal

4 - Pitch

Partial Profile:
A = 16-48 MR= 24-11
AG = 8-48 N = 5-7
G = 8-14 S = 4.5-4

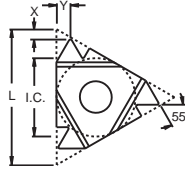
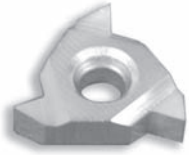
Full Profile:
Metric: Pitch in mm
Inches: Threads per inch

6 - Special Feature

TD - Tear Drop Chipbreaker

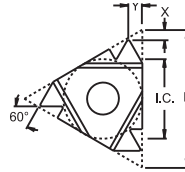
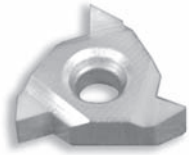
THREADING INSERTS

PARTIAL PROFILE 60°



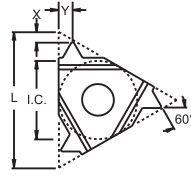
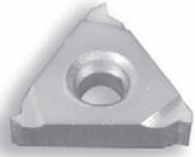
60° PP External

DESIGNATION	d	l	x	y	PITCH		COATED				UNCOATED						
					t.p.i.	mm	PTC2	PTC2E	STC2E				P10	P30	K20	HSS	
11ERA60	1/4	.43	.028	.031	48 - 16	0.5 - 1.5	●							●	●		
16ERA60	3/8	.63	.028	.031	48 - 16	0.5 - 1.5	●							●	●		
16ERAG60			.051	.059	48 - 8	0.5 - 3.0	●		●					●	●	●	●
16ERG60			.051	.059	14 - 8	1.75 - 3.0	●		●					●	●		
22ERN60	1/2	.87	.071	.098	7 - 5	3.5 - 5.0	●		●				●	●			
22EU60	1/2U	.87U	.071	.433	4½ - 3¼	5.5 - 6.0	●							●	●		
27ERS60	5/8	1.06	.098	.157	4½ - 4	5.5 - 8.0	●						●	●	●		

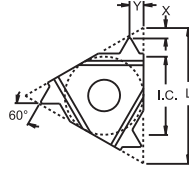
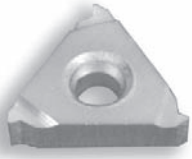


60° PP Internal

DESIGNATION	d	l	x	y	PITCH		COATED				UNCOATED						
					t.p.i.	mm	PTC2	PTC2E	STC2E				P10	P30	K20	HSS	
06NRA60	5/32	.24	.024	.024	48 - 20	0.5 - 1.25	●										
08NRA60	3/16	.32	.024	.028	48 - 16	0.5 - 1.5	●										
11NRA60	1/4	.43	.028	.031	48 - 16	0.5 - 1.5	●		●				●	●			
16NRA60	3/8	.63	.028	.031	48 - 16	0.5 - 1.5	●						●	●			
16NRAG60			.051	.059	24 - 11	1.0 - 2.5	●		●					●	●	●	●
16NRG60			.051	.059	14 - 8	1.75 - 3.0	●		●					●	●	●	●
16NRM60			.051	.059	14 - 8	1.75 - 3.0	●						●	●	●	●	
22NRN60	1/2	.87	.071	.098	7 - 5	3.5 - 5.0	●						●	●			
22NU60	1/2U	.87U	.031	.433	4½ - 3¼	5.5 - 6.0	●						●	●			

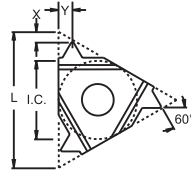
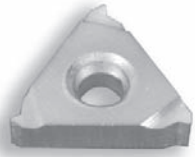


DESIGNATION	d	l	x	y	UN External									
					PITCH		COATED				UNCOATED			
					t.p.i		PTC2	PTC2E	STC2E	STC2	P10	P30	K20	HSS
11ER72UN	1/4	.43	.028	.019	72	●						●	●	
11ER64UN			.028	.019	64	●						●	●	
11ER56UN			.028	.019	56	●						●	●	
11ER36UN			.028	.019	36	●						●	●	
11ER28UN			.028	.031	28	●						●	●	
11ER24UN			.028	.031	24	●						●	●	
11ER20UN			.028	.031	20	●						●	●	
11ER18UN			.028	.031	18	●						●	●	
11ER16UN			.028	.035	16	●						●	●	
11ER14UN			.028	.039	14	●						●	●	
16ER72UN	3/8	.63	.028	.019	72	●						●	●	
16ER64UN			.028	.019	64	●						●	●	
16ER56UN			.028	.019	56	●						●	●	
16ER44UN			.028	.019	44	●						●	●	
16ER40UN			.028	.019	40	●						●	●	
16ER36UN			.028	.019	36	●						●	●	
16ER32UN			.028	.019	32	●						●	●	
16ER28UN			.028	.031	28	●	●					●	●	
16ER27UN			.028	.031	27	●	●	●				●	●	
16ER24UN			.028	.031	24	●	●	●	●			●	●	
16ER20UN			.028	.031	20	●	●	●	●			●	●	
16ER18UN			.028	.031	18	●	●	●				●	●	
16ER16UN			.028	0.9	16	●	●	●	●			●		
16ER14UN			.051	.059	14	●	●					●	●	
16ER13UN			.051	.059	13	●						●	●	
16ER12UN			.051	.059	12	●	●	●				●	●	
16ER11.5UN			.051	.059	11½	●						●	●	
16ER11UN			.051	.059	11	●	●	●				●	●	
16ER10UN			.051	.059	10	●						●	●	
16ER9UN			.051	.059	9	●	●					●	●	
16ER8UN			.051	.062	8	●	●	●				●	●	
16ER7UN			.051	.071	7									
22ER7UN	1/2	.87	.071	.098	7	●						●	●	
22ER6UN			.071	.098	6	●						●	●	●
22ER5UN			.071	.098	5	●						●	●	
22EU4.5UN	1/2U	.87U	.079	.433	4½U	●						●	●	
22EU4UN			.079	.433	4U	●						●	●	
27ER4.5UN	5/8	1.06	.087	1.25	4½	●						●	●	
27ER4UN			.087	1.25	4	●						●	●	



UN Internal

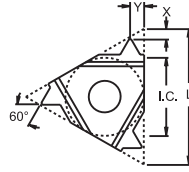
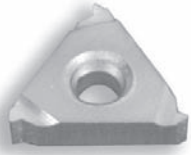
DESIGNATION	d	l	x	y	PITCH t.p.i.	COATED			UNCOATED					
						PTC2	PTC2E	STC2E	P10	P30	K20	HSS		
06NR32UN	5/32	.24	.019	.019	32	●								
06NR24UN			.024	.024	24	●								
08NR24UN	3/16	.32	.024	.024	24	●								
08NR20UN			.024	.028	20	●								
08NR18UN			.028	.031	18	●								
11NR72UN	1/4	.43	.028	.019	72	●					●	●		
11NR64UN			.028	.019	64	●					●	●	●	
11NR56UN			.028	.019	56	●					●	●	●	
11NR36UN			.028	.019	36	●					●	●	●	
11NR28UN			.028	.031	28	●		●			●	●	●	●
11NR24UN			.028	.031	24	●					●	●	●	●
11NR20UN			.028	.031	20	●					●	●	●	●
11NR18UN			.028	.031	18	●		●			●	●	●	●
11NR16UN			.028	.035	16	●		●			●	●	●	●
11NR14UN			.028	.035	14	●		●			●	●	●	●
11NR12UN			.035	.039	12	●					●	●	●	●
11NR11UN			.035	.043	11						●			
16NR72UN	3/8	.63	.028	.019	72	●					●	●		
16NR64UN			.028	.019	64	●					●	●	●	
16NR56UN			.028	.019	56	●					●	●	●	
16NR44UN			.028	.019	44	●					●	●	●	
16NR40UN			.028	.019	40	●					●	●	●	
16NR36UN			.028	.019	36	●					●	●	●	
16NR32UN			.028	.019	32	●					●	●	●	
16NR28UN			.028	.031	28	●					●	●	●	●
16NR27UN			.028	.031	27	●					●	●	●	●
16NR24UN			.028	.031	24	●					●	●	●	●
16NR20UN			.028	.031	20	●	●	●			●	●	●	●
16NR18UN			.028	.031	18	●					●	●	●	●
16NR16UN			.028	.035	16	●	●	●		●	●	●	●	●
16NR14UN			.051	.059	14	●	●	●			●	●	●	●
16NR13UN			.051	.059	13	●					●	●	●	●
16NR12UN			.051	.059	12	●	●	●		●	●	●	●	●
16NR11.5UN			.051	.059	11½	●					●	●	●	●
16NR11UN			.051	.059	11	●					●	●	●	●
16NR10UN			.051	.059	10	●					●	●	●	●
16NR9UN			.051	.059	9	●					●	●	●	●
16NR8UN			.051	.062	8	●	●	●			●	●	●	●
22NR7UN	1/2	.87	.031	.098	7	●	●				●	●		
22NR6UN			.031	.098	6	●					●	●	●	
22NR5UN			.031	.098	5	●					●	●	●	
22NU4.5UN	1/2U	.87U	.079	.433	4½U	●					●			
22NU4UN			.079	.433	4U	●					●			
27NR4.5UN	5/8	1.06	.087	1.25	4½	●					●	●		
27NR4UN			.087	1.25	4	●					●	●		



DESIGNATION	d	l	x	y	ISO External									
					mm	COATED			UNCOATED					
						PTC2	PTC2E	STC2E		P10	P30	K20	HSS	
11ER0.25ISO	1/4	.43	.019	.015	0.25									
11ER0.35ISO			.019	.015	0.35	●							●	
11ER0.5ISO			.028	.019	0.5	●						●	●	
11ER0.6ISO			.028	.019	0.6	●						●	●	
11ER0.7ISO			.028	.019	0.7	●						●	●	
11ER0.75ISO			.028	.019	0.75	●						●	●	
11ER0.8ISO			.028	.019	0.8	●						●	●	
11ER1.0ISO			.028	.031	1.0	●						●	●	
11ER1.25ISO			.028	.031	1.25	●						●	●	
11ER1.5ISO			.028	.035	1.5	●						●	●	
11ER1.75ISO			.028	.035	1.75	●						●	●	
11ER2.0ISO			.028	.039	2.0	●						●	●	
16ER0.25ISO	3/8	.63	.024	.024	0.25	●						●		
16ER0.35ISO			.024	.024	0.35	●						●	●	
16ER0.5ISO			.028	.031	0.5	●						●	●	
16ER0.6ISO			.028	.031	0.6	●						●	●	
16ER0.7ISO			.028	.031	0.7	●						●	●	
16ER0.75ISO			.028	.031	0.75	●		●				●	●	
16ER0.8ISO			.028	.031	0.8	●						●	●	
16ER1.0ISO			.028	.031	1.0	●		●				●	●	
16ER1.25ISO			.028	.031	1.25	●		●				●	●	
16ER1.5ISO			.028	.035	1.5	●		●				●	●	
16ER1.75ISO			.051	.059	1.75	●		●				●	●	
16ER2.0ISO			.051	.059	2.0	●		●				●	●	
16ER2.5ISO			.051	.059	2.5	●		●				●	●	
16ER3.0ISO			.051	.063	3.0	●	●	●				●	●	
16ER3.5ISO			.043	.059	3.5	●						●	●	
22ER3.5ISO	1/2	.87	.071	.098	3.5	●		●				●	●	
22ER4.0ISO			.071	.098	4.0	●		●				●	●	
22ER4.5ISO			.071	.098	4.5	●						●	●	
22ER5.0ISO			.071	.098	5.0	●						●	●	
22EU5.5ISO	1/2U	.87U	.059	4.33	5.5U	●						●	●	
22EU6.0ISO			.075	4.33	6.0U	●						●	●	
22EU8.0ISO			.098	4.33	8.0U	●						●	●	
27ER5.5ISO	5/8	1.06	.083	1.25	5.5	●						●	●	
27ER6.0ISO			.083	1.25	6.0	●						●	●	
27ER8.0ISO			.087	1.25	8.0	●						●	●	

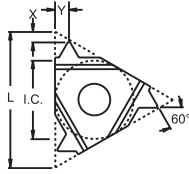
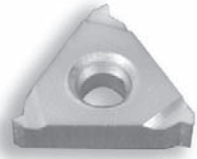
THREADING INSERTS

ISO METRIC

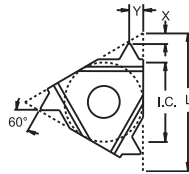
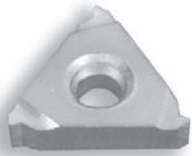


ISO Internal

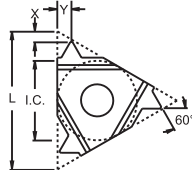
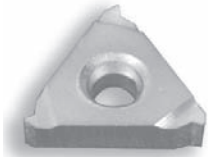
DESIGNATION	d	l	x	y	PITCH		COATED			UNCOATED							
					mm		PTC2	PTC2E	STC2E			P10	P30	K20	HSS		
06NR0.75ISO	5/32	.24	.019	.019	0.75		●										
06NR1.0ISO			.024	.024	1.0		●										
06NR1.25ISO			.024	.028	1.25		●										
08NR0.5ISO	3/16	.32	.019	.019	0.5		●										
08NR1.25ISO			.024	.028	1.25		●										
11NR0.35ISO	1/4	.43	.019	.015	0.35		●						●	●			
11NR0.5ISO			.028	.019	0.5		●						●	●			
11NR0.6ISO			.028	.019	0.6		●						●	●			
11NR0.7ISO			.028	.019	0.7		●						●	●			
11NR0.75ISO			.028	.019	0.75		●		●				●	●			
11NR0.8ISO			.028	.019	0.8		●						●	●			
11NR1.0ISO			.028	.031	1.0		●		●				●	●			
11NR1.25ISO			.028	.031	1.25		●						●	●			
11NR1.5ISO			.028	.035	1.5		●						●	●			
11NR1.75ISO			.028	.035	1.75		●						●	●			
11NR2.0ISO			.028	.039	2.0		●		●				●	●			
16NR0.35ISO	3/8	.63	.024	.024	0.35		●						●	●			
16NR0.35ISO			.024	.024	0.35		●						●	●			
16NR0.5ISO			.028	.031	0.5		●						●	●			
16NR0.6ISO			.028	.031	0.6		●						●	●			
16NR0.7ISO			.028	.031	0.7		●						●	●			
16NR0.75ISO			.028	.031	0.75		●						●	●			
16NR0.8ISO			.028	.031	0.8		●						●	●			
16NR1.0ISO			.028	.031	1.0		●		●				●	●			
16NR1.25ISO			.028	.031	1.25		●					●	●	●			
16NR1.5ISO			.028	.035	1.5		●		●				●	●			
16NR1.75ISO			.051	.059	1.75		●		●				●	●			
16NR2.0ISO			.051	.059	2.0		●		●				●	●			
16NR2.5ISO			.051	.059	2.5		●	●	●				●	●			
16NR3.0ISO			.051	.062	3.0		●		●				●	●			
16NR3.5ISO			.433	.059	3.5		●		●				●	●			
22NR3.5ISO	1/2	.87	.071	.098	3.5		●		●				●	●			
22NR4.0ISO			.071	.098	4.0		●		●				●	●			
22NR4.5ISO			.071	.098	4.5		●						●	●			
22NR5.0ISO			.071	.098	5.0		●						●	●			
22NU5.5ISO	1/2U	.87U	.059	.433	5.5U		●						●	●			
22NU6.0ISO			.075	.433	6.0U		●						●	●			
22NU8.0ISO			.098	.433	8.0U		●						●	●			



DESIGNATION	d	l	x	y	NPT External														
					PITCH		COATED			UNCOATED									
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS						
11ER14NPT	1/4	.43	.028	.039	14														
16ER27NPT	3/8	.63	.028	.031	27	●						●	●	●					
16ER18NPT			.028	.031		18	●		●				●	●	●				
16ER14NPT			.051	.059	14	●		●				●	●	●				●	
16ER11.5NPT			.051	.059	11.5	●		●				●	●	●					
16ER8NPT			.051	.067	8	●		●				●	●						

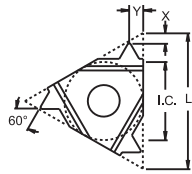
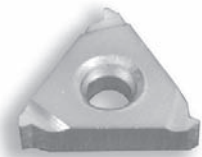


DESIGNATION	d	l	x	y	NPT Internal														
					PITCH		COATED			UNCOATED									
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS						
08NR18NPT	3/16	.32	.028	.031	18	●		●											
11NR18NPT	1/4	.43	.028	.031	18	●		●						●					
11NR14NPT			.028	.039		14	●		●				●	●					
16NR27NPT	3/8	.63	.028	.031	27	●						●	●						
16NR18NPT			.028	.031		18	●						●	●	●				
16NR14NPT			.051	.059	14	●	●	●				●	●	●					
16NR11.5NPT			.051	.059	11.5	●		●				●	●	●					
16NR8NPT			.051	.067	8	●		●				●	●						



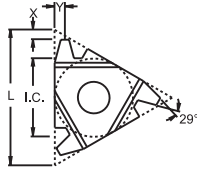
NPTF External

DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
16ER27NPTF	3/8	.63	.028	.031	27	●					●		
16ER18NPTF			.028	.031	18	●					●	●	
16ER14NPTF			.051	.059	14	●					●	●	
16ER11.5NPTF			.051	.059	11.5							●	
16ER8NPTF			.051	.067	8						●		

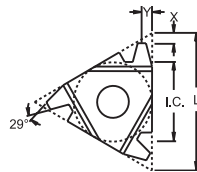
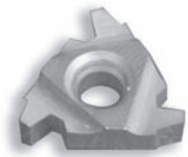


NPTF Internal

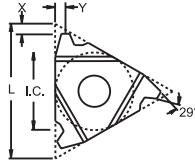
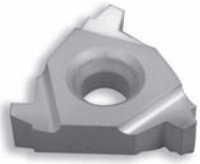
DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
11NR18NPTF	1/4	.43	0.7	0.8	18							●	
16NR14NPTF	3/8	.63	1.3	1.5	14							●	
16NR11.5NPTF	3/8		1.3	1.5	11.5	●						●	
16NR8NPTF	3/8		1.3	1.7	8							●	



DESIGNATION	d	l	x	y	ACME External										
					PITCH		COATED			UNCOATED					
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS		
11ER16ACME	1/4	.43	.031	.031	16	●						●	●		
16ER16ACME	3/8	.63	.031	.031	16	●						●	●		
16ER14ACME			.031	.031	14	●						●	●		
16ER12ACME			.047	.062	12	●							●	●	
16ER10ACME			.047	.062	10	●							●	●	
16ER8ACME			.015	.062	8	●							●	●	
16ER6ACME			.059	.062	6	●							●	●	
22ER6ACME	1/2	.87	.079	.102	6	●		●				●	●		
22ER5ACME			.087	.102	5	●						●	●		
22ER4ACME			.075	.083	4							●	●		
22EU4ACME	1/2U	.87U	.087	.433	4U	●						●	●		
27ER4ACME	5/8	1.06	.106	.130	4	●						●	●		

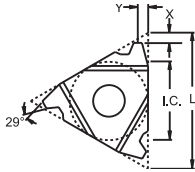
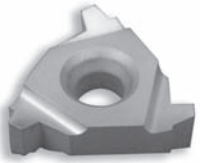


DESIGNATION	d	l	x	y	ACME Internal										
					PITCH		COATED			UNCOATED					
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS		
11NR16ACME	1/4	.43	.031	.031	16	●						●	●		
16NR16ACME	3/8	.63	.031	.031	16	●						●	●		
16NR14ACME			.031	.031	14	●						●	●		
16NR12ACME			.047	.062	12	●							●	●	
16NR10ACME			.047	.062	10	●							●	●	
16NR8ACME			.015	.062	8	●							●	●	
16NR6ACME			.059	.062	6	●							●	●	
22NR6ACME	1/2	.87	.079	.102	6	●		●				●	●		
22NR5ACME			.087	.102	5	●		●				●	●		
22NU4ACME			1/2U	.87U	.087	.433	4U	●					●	●	
27NR4ACME	5/8	1.06	.106	.130	4	●						●	●		



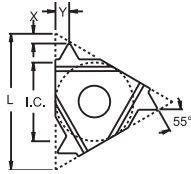
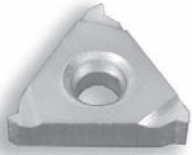
Stub ACME External

DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
						PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
					t.p.i.								
16ER16STACME	3/8	.63	0.8	0.8	16	●					●	●	
16ER14STACME			0.8	0.8	14	●					●	●	
16ER12STACME			0.8	1.6	12	●					●	●	
16ER10STACME			1.3	1.6	10	●	●				●	●	
16ER8STACME			1.4	1.6	8	●					●	●	
16ER6STACME			1.6	1.6	6	●					●	●	
22ER6STACME	1/2	.87	2.2	2.6	6	●					●	●	
22ER5STACME			2.2	2.6	5	●					●	●	
22ER4STACME			1.9	2.1	4	●					●		
22EU4STACME	1/2U	.87U	2.0	11.0	4U	●					●	●	
27ER4STACME	5/8	1.06	2.9	3.3	4	●					●		

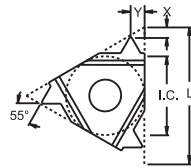
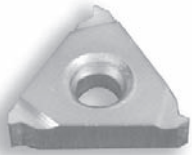


Stub ACME Internal

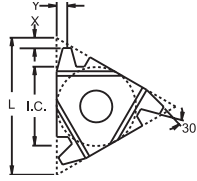
DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
						PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
					t.p.i.								
16NR16STACME	3/8	.63	.031	.031	16	●					●		
16NR14STACME			.031	.031	14	●					●		
16NR12STACME			.031	.031	12	●					●	●	
16NR10STACME			.051	.062	10	●					●	●	
16NR8STACME			.055	.062	8	●					●	●	
16NR6STACME			.062	.062	6	●					●	●	
22NR6STACME	1/2	.87	.087	.102	6	●					●	●	
22NR5STACME			.087	.102	5	●					●	●	
22NR4STACME			.075	.083	4	●					●	●	
22NU4STACME	1/2U	.87U	.079	.433	4U	●					●	●	
27NR4STACME	5/8	1.06	.114	.130	4	●					●	●	



DESIGNATION	d	l	x	y	BSPT External									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS
16ER28BSPT	3/8	.63	.028	.031	28	●						●	●	
16ER19BSPT			.028	.031	19	●		●				●	●	
16ER14BSPT			.051	.059	14	●		●				●	●	
16ER11BSPT			.051	.059	11	●						●	●	

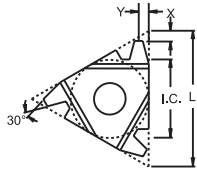
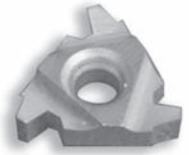


DESIGNATION	d	l	x	y	BSPT Internal									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS
08NR28BSPT	3/16	.32	.028	.031	28	●								
11NR28BSPT	1/4	.43	.028	.031	28	●						●	●	
11NR19BSPT			.028	.031	19	●						●	●	
16NR28BSPT	3/8	.63	.028	.031	28	●						●	●	
16NR19BSPT			.028	.031	19	●						●	●	
16NR14BSPT			.051	.059	14	●		●				●	●	
16NR11BSPT			.051	.059	11	●		●			●	●	●	



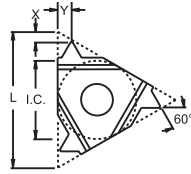
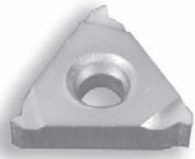
TR External

DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
11ER1.5TR	1/4	.43	.028	.031	1.5	●					●	●	
16ER1.5TR	3/8	.67	.028	.031	1.5	●					●	●	
16ER2.0TR			.028	.031	2.0	●					●	●	
16ER2.5TR			.051	.059	2.5	●					●	●	
16ER3.0TR			.051	.059	3.0	●					●	●	
22ER4.0TR	1/2	.87	.079	.098	4.0	●					●	●	
22ER5.0TR			.083	.098	5.0	●					●	●	
22EU6.0TR	1/2U	.87U	.079	.433	6.0U	●					●	●	
22EU7.0TR			.090	.433	7.0U	●					●	●	
27ER6.0TR	5/8	1.06	.098	1.25	6.0	●					●	●	
27ER7.0TR			.106	1.25	7.0	●					●	●	

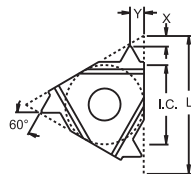
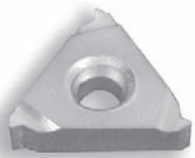


TR Internal

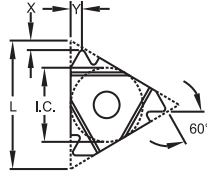
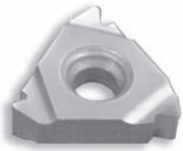
DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
11NR1.5TR	1/4	.43	.028	.031	1.5	●					●	●	
11NR2.5TR			.035	.039	2.5						●		
16NR1.5TR	3/8	.67	.028	.031	1.5	●					●	●	
16NR2.0TR			.028	.031	2.0	●					●	●	
16NR2.5TR			.051	.059	2.5	●					●	●	
16NR3.0TR			.051	.059	3.0	●					●	●	
22NR4.0TR	1/2	.87	.079	.098	4.0	●					●	●	
22NR5.0TR			.083	.098	5.0	●					●	●	
22NU6.0TR	1/2U	.87U	.079	.433	6.0U	●					●	●	
22NU7.0TR			.090	.433	7.0U	●					●	●	



DESIGNATION	d	l	x	y	UNJ External									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS	
16ER28UNJ	3/8	.63	.035	.028	28	●						●	●	
16ER24UNJ			.035	.028	24	●						●	●	
16ER20UNJ			.043	.031	20	●						●	●	
16ER18UNJ			.043	.031	18	●						●	●	
16ER16UNJ			.043	.031	16	●		●				●	●	
16ER14UNJ			.051	.039	14	●						●	●	
16ER12UNJ			.051	.047	12	●	●					●	●	
16ER10UNJ			.071	.059	10	●	●					●	●	

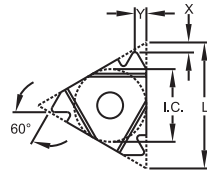
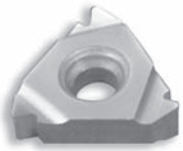


DESIGNATION	d	l	x	y	UNJ Internal									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS	
16NR28UNJ	3/8	.63	.031	.019	28	●						●		
16NR24UNJ			.035	.023	24	●						●		
16NR20UNJ			.039	.027	20	●	●					●		
16NR18UNJ			.047	.031	18	●						●		
16NR16UNJ			.051	.031	16	●						●		
16NR14UNJ			.059	.039	14	●						●	●	
16NR12UNJ			.066	.047	12	●						●		
16NR10UNJ			.074	.047	10	●								



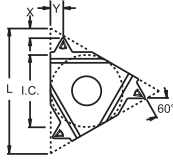
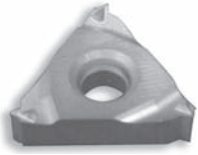
API RD External

DESIGNATION	d	l	x	y	PITCH		COATED			UNCOATED						
					t.p.i.	t.p.f.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS	
16ER10APIRD	3/8	.24	1.3	1.5	10	3/4	●						●	●		
16ER8APIRD	3/8	.24	1.3	1.5	8	3/4	●						●	●		

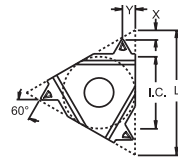
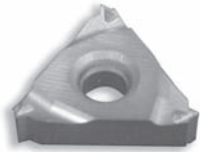


API RD Internal

DESIGNATION	d	l	x	y	PITCH		COATED			UNCOATED						
					t.p.i.	t.p.f.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS	
16NR10APIRD	3/8	.24	1.3	1.5	10	3/4	●						●	●		
16NR8APIRD	3/8	.24	1.3	1.5	8	3/4	●						●	●		



DESIGNATION	d	l	x	y	UN External								
					PITCH	COATED				UNCOATED			
					t.p.i.	PTC2	PTC2E	STC2E	STC2	P10	P30	K20	HSS
16ER24UNTD	3/8	.63	.028	.031	24	●							
16ER20UNTD			.028	.031	20	●							
16ER18UNTD			.028	.031	18	●							
16ER14UNTD			.051	.059	14	●							
16ER12UNTD			.051	.059	12	●		●					
16ER10UNTD			.051	.059	10	●							

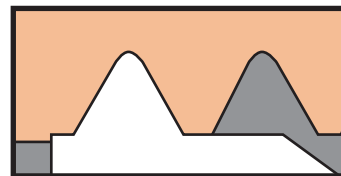


DESIGNATION	d	l	x	y	UN Internal								
					PITCH	COATED				UNCOATED			
					t.p.i.	PTC2	PTC2E	STC2E		P10	P30	K20	HSS
16NR18UNTD	3/8	.63	.028	.031	18	●							
16NR14UNTD			.051	.059	14	●							
16NR12UNTD			.051	.059	12	●							
16NR10UNTD			.051	.059	10	●							

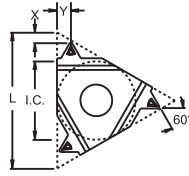
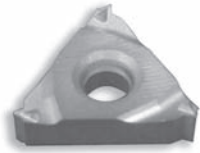


- Tear Drop chipbreaker for improved chip control, time saving and increased tool life and productivity.

Full Profile

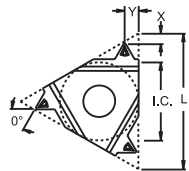
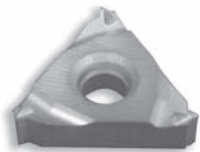


- Thread profile with full profile shape including thread height.
- For burr-free, precise threads for a specific thread dimension.
- General application.
- Machining allowance for outside/core diameter around .004" - .006" or 0.1 - 0.15 mm per surface.



ISO External

DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
16ER1.0ISOTD	3/8	.63	.028	.031	1.0	●							
16ER1.25ISOTD			.028	.031	1.25	●		●					
16ER1.5ISOTD			.028	.031	1.5	●		●					
16ER2.0ISOTD			.051	.059	2.0	●		●					
16ER2.5ISOTD			.051	.059	2.5	●		●					
16ER3.0ISOTD			.051	.059	3.0	●		●					



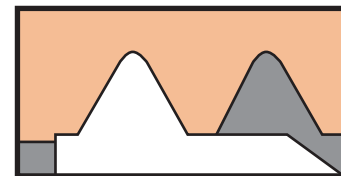
ISO Internal

DESIGNATION	d	l	x	y	PITCH	COATED			UNCOATED				
					mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS	
16NR1.0ISOTD	3/8	.63	.028	.031	1.0	●							
16NR1.25ISOTD			.028	.031	1.25	●							
16NR1.5ISOTD			.028	.031	1.5	●		●					
16NR2.0ISOTD			.051	.059	2.0	●		●					
16NR2.5ISOTD			.051	.059	2.5	●		●		●			
16NR3.0ISOTD			.051	.059	3.0	●		●					

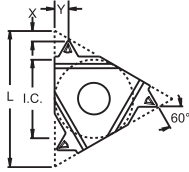
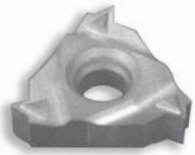


- Tear Drop chipbreaker for improved chip control, time saving and increased tool life and productivity.

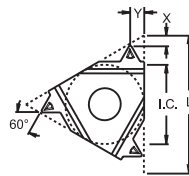
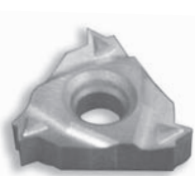
Full Profile



- Thread profile with full profile shape including thread height.
- For burr-free, precise threads for a specific thread dimension.
- General application.
- Machining allowance for outside/core diameter around .004" - .006" or 0.1 - 0.15 mm per surface.



DESIGNATION	d	l	x	y	NPT External									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS
16ER27NPTTD	3/8	.63	.028	.031	27	●								
16ER18NPTTD			.028	.031	18	●								
16ER14NPTTD			.051	.059	14	●							●	
16ER11.5NPTTD			.051	.059	11.5	●							●	
16ER8NPTTD			.051	.059	8	●								

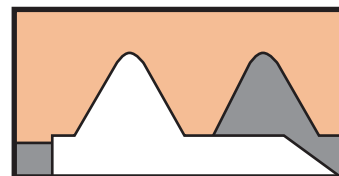


DESIGNATION	d	l	x	y	NPT Internal									
					PITCH		COATED			UNCOATED				
					t.p.i.	PTC2	PTC2E	STC2E			P10	P30	K20	HSS
16NR18NPTTD	3/8	.63	.028	.031	18	●								
16NR14NPTTD			.051	.059	14	●	●							
16NR11.5NPTTD			.051	.059	11.5	●	●					●		
16NR8NPTTD			.051	.059	8	●								



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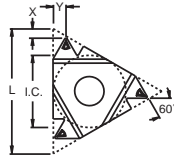
Full Profile



- Thread profile with full profile shape including thread height.
- For burr-free, precise threads for a specific thread dimension.
- General application.
- Machining allowance for outside/core diameter around .004" - .006" or 0.1 - 0.15 mm per surface.

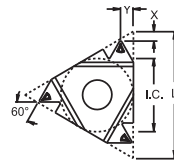
"TD" THREADING INSERTS

PARTIAL PROFILE 60°



60° PP External

DESIGNATION	d	l	x	y	PITCH		COATED			UNCOATED					
					t.p.i.	mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS		
16ERA60TD	3/8	.63	.028	.031	48 - 16	0.5 - 1.5	●								
16ERAG60TD			.051	.059	48 - 8	0.5 - 3.0	●	●							
16ERG60TD			.051	.059	14 - 8	1.75 - 3.0	●								



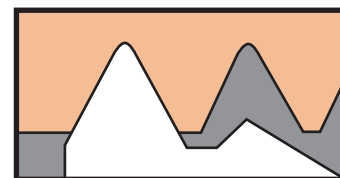
60° PP Internal

DESIGNATION	d	l	x	y	PITCH		COATED			UNCOATED					
					t.p.i.	mm	PTC2	PTC2E	STC2E	P10	P30	K20	HSS		
11NRA60TD	1/4	.43	.028	.031	48 - 16	0.5 - 1.5	●								
16NRA60TD	3/8	.63	.028	.031	48 - 16	0.5 - 1.5	●								
16NRAG60TD			.051	.059	48 - 8	0.5 - 3.0	●	●							
16NRG60TD			.051	.059	14 - 8	1.75 - 3.0	●								



- Tear Drop chipbreaker for improved chip control, time saving and increased tool life and productivity.

Partial Profile



- Thread profile with universal profile shape of 60° without cutting edges for the thread crest.
- Reduced inventory.
- For various pitches within a specified range.
- Preferably one-off production.
- Outside/core diameters must be accurately pre-turned.