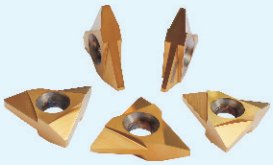
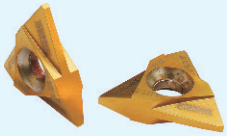
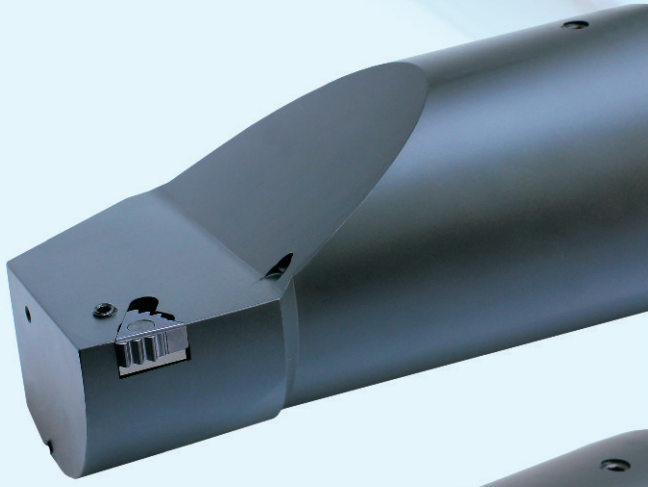
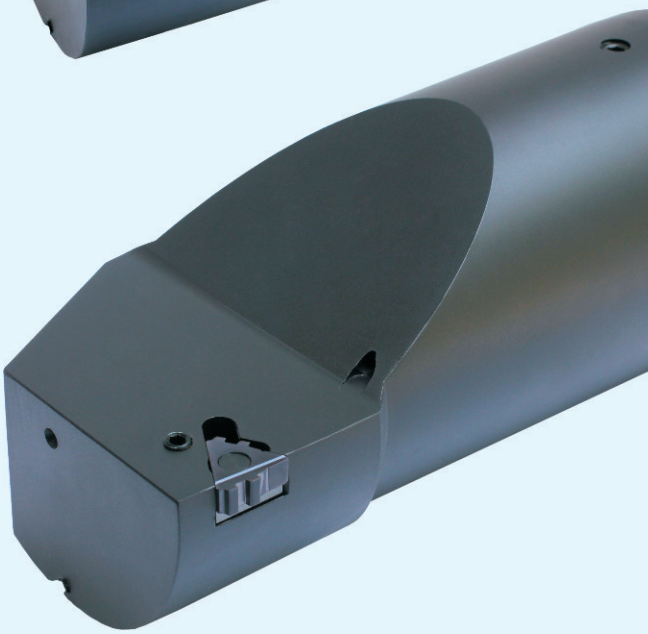
API THREADING TOOLS









Product Identification

Threading Insert - Ordering Code

1	2	3	4	5	6	7	8	9
C	R	S	16	E	8	R	3	#1

1 Insert Type

C = Chaser

2 Shape

R = Rectangle
F = Fir tree
P = Parallelogram

3 No. of Cutting Edges

S = Single Edge
T = Twin Edge

4 Size

16, 17, 23, 25

5 Thread Type

E = External
N = Internal

6 Pitch (Teeth / inch)

5, 8, 10

7 Thread Standard

R - API Round
B - API Buttress
G - API Line

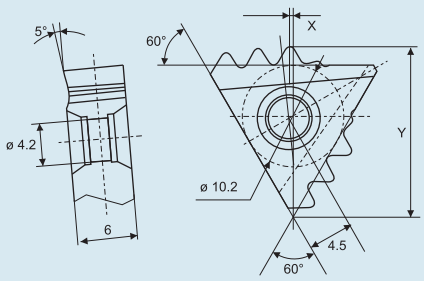
8 No. of Teeth / cutting edge

1, 2, 3, 4, 5, 7, 8

9 Chaser Set Sequence

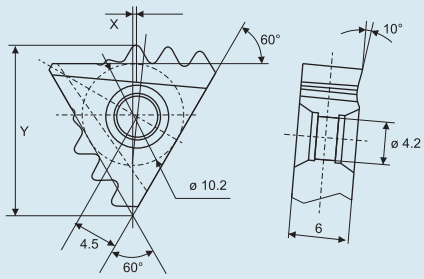
#1, #2, #3

API Round Inserts - External



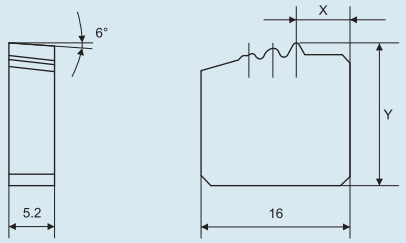
Ordering Code	TPI	Thread Taper	X	Y
CFT17E10R4	10	1:16	0.18	17.10
CFT17E8R3	8	1:16	0.32	17.10

API Round Inserts - Internal



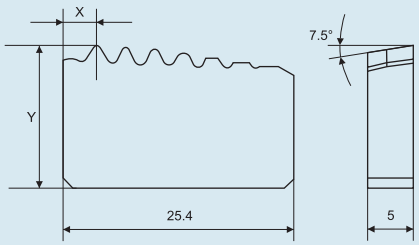
Ordering Code	TPI	Thread Taper	X	Y
CFT17N10R4	10	1:16	0.18	17.10
CFT17N8R3	8	1:16	0.32	17.10
CFT23N8R5	8	1:16	3.5	21.9

API Round Inserts - External



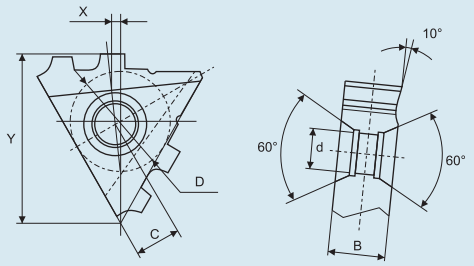
Ordering Code	TPI	Thread Taper	X	Y
CRS16E8R3#1	8	1:16	7.73	14.70
CRS16E8R3#2	8	1:16	6.67	14.96
CRS16E8R3#3	8	1:16	5.61	15.04

API Round Inserts - Internal

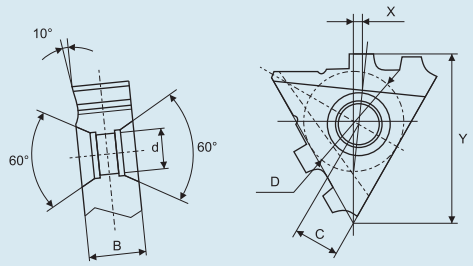


Ordering Code	TPI	Thread Taper	X	Y
CRS25N8R7	8	1:16	3.70	15.70
CRS25N10R8	10	1:16	3.70	15.40

API Buttress Inserts



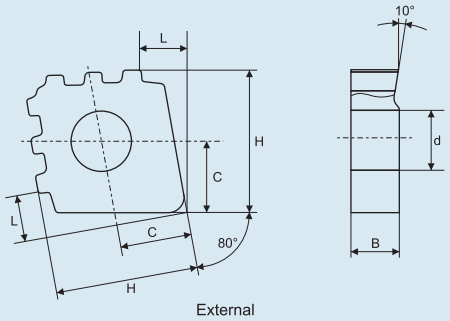
External

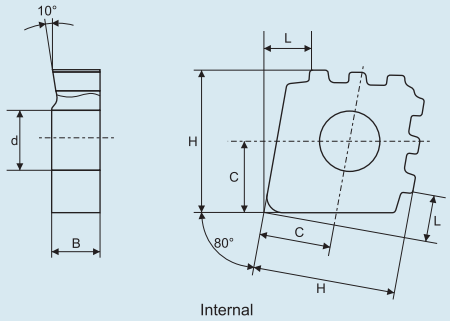


Internal

	Ordering Code	D	d	C	B	Thread Taper	X	Y
External	CFT17E5B2	10.20	4.2	4.5	6	1:16	2.05	16.80
	CFT23E5B3	13.4	4.2	4.5	6	1:16	2.46	21.90
Internal	CFT17N5B2	10.20	4.2	4.5	6	1:16	1.14	16.65
	CFT23N5B3	13.4	4.2	4.5	6	1:16	2.46	21.90

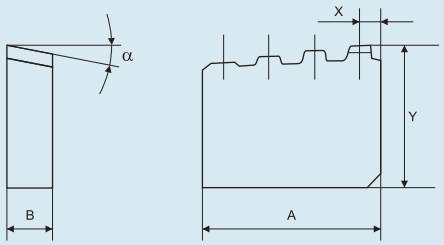
80°- API Buttress Inserts





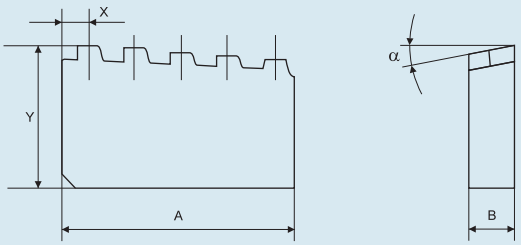
	Ordering Code	TPI	Thread Taper	B	C	d	H	L
External	CPT19E5B3	5	1:16	6.35	9.5	8	18.4	6.00
Internal	CPT19N5B3	5	1:16	6.35	9.5	8	18.4	6.00

API Buttress Inserts - External



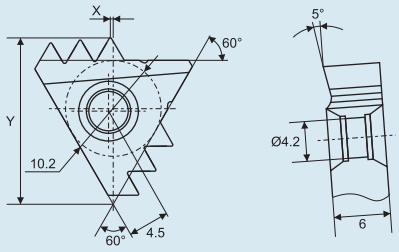
Ordering Code	TPI	A	B	Thread Taper	X	Y
CRS17E5B3#1	5	16.9	5.2	1:16	4.29	14.60
CRS17E5B3#2	5	16.9	5.2	1:16	2.60	14.86
CRS17E5B3#3	5	16.9	5.2	1:16	0.91	15.00

API Buttress Inserts - Internal

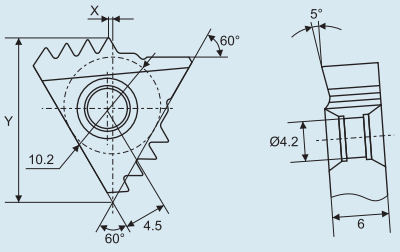


Ordering Code	TPI	A	B	Thread Taper	X	Y
CRS25N5B5	5	25.4	5.2	1:16	4.29	14.60

Line Pipe - External



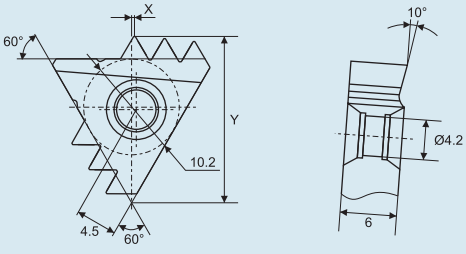
External

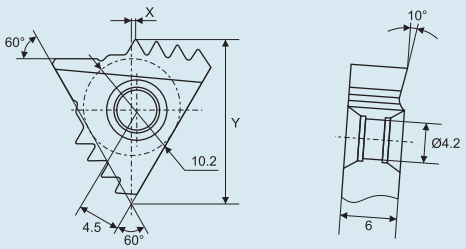


Internal

Ordering Code	TPI	Thread Taper	X	Y
CFT17E8G3	8	1:16	0.32	17.6
CFT17E11.5G4	11.5	1:16	0.32	17.3

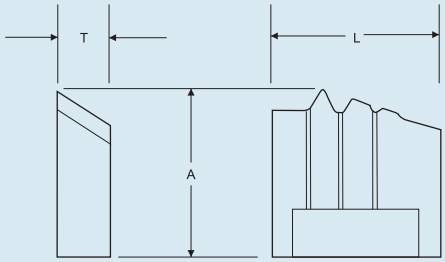
Line Pipe - Internal





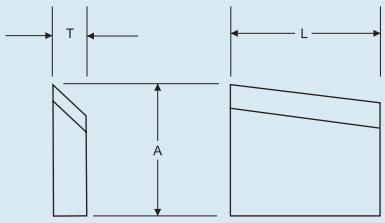
Ordering Code	TPI	Thread Taper	X	Y
CFT17N8G3	8	1:16	0.32	17.6
CFT17N11.5G4	11.5	1:16	0.32	17.3

Chip Breakers for Chaser Sets



Ordering Code	Dimensions		
	L	A	T
16CB8RE3#1	16	13.20	4.20
16CB8RE3#2	16	13.40	4.20
16CB8RE3#3	16	13.20	4.20
17CB5BE3#1	17	14.00	4.30
17CB5BE3#2	17	14.20	4.30
17CB5BE3#3	17	14.20	4.30

Chip Breakers for Stand Alone Chasers



Ordering Code	Dimensions		
	L	A	T
25CB5BN5	25	13.70	3.20
25CB8RN7	25	13.20	3.20

Product Identification

Threading Toolholder for Pipes & Couplings - Ordering Code

1	2	3	4	5	6	7	8	9	10
H	N	U	00	50	S			B	

1 Clamping System

H = Hole Clamping
T = Top Clamping

2 Type

E = External
N = Internal

3 Function

U = Unifunction
M = Multifunction

4 00 for Round Tool Shank

Insert height (mm) for Square Tool Shank

5 Diameter (mm) for Round Tool Shank

Shank height (mm) for Square Tool Shank

6 Tool Length (mm)

7 Chaser Shape / Size

F - 17
F - 23

8 Other Inserts in multi-function Holders

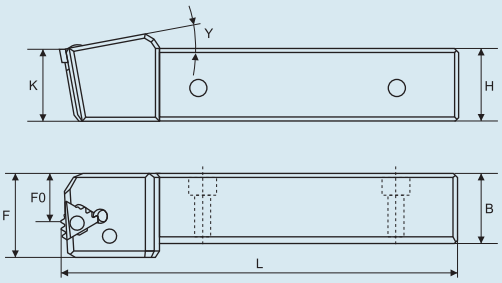
Use "-" to mark different inserts on a multi function Tool Holder

9 Pipe Size

A = $2\frac{3}{8}$" - $3\frac{1}{2}$"
B = 4" - $5\frac{1}{2}$"
C = $6\frac{5}{8}$" - $8\frac{5}{8}$"
D = $9\frac{5}{8}$" - $13\frac{3}{8}$"

10 Top Rake Angle

External Toolholders for Pipes



Ordering Code	Pipe Size	L	F	K	γ	B	F_0	λ	H
HEU2525-175-F17A	$2\frac{3}{8}$" ~ $3\frac{1}{2}$"	175	29	25	5°	25	21.5	70´	25
HEU3232-175-F17A		175	38	32	5°	32	26.5	70´	32
HEU3232-175-F17B	4" ~ $5\frac{1}{2}$"	175	38	32	5°	32	26.5	50´	32
HEU3232-175-F17C	$6\frac{5}{8}$" ~ $8\frac{5}{8}$"	175	38	32	5°	32	26.5	30´	32
HEU3232-175-F17D	$9\frac{5}{8}$" ~ $13\frac{3}{8}$"	175	38	32	5°	32	26.5	15´	32
HEU4040-175-F17D	$9\frac{5}{8}$" ~ $13\frac{3}{8}$"	175	40	40	5°	40	26.5	15´	40
HEU3232-175-F17B-10	$4\frac{1}{2}$" ~ $6\frac{5}{8}$"	175	38	32	10°	32	25	60´	32
HEU3232-175-F17C-10	7" ~ $11\frac{1}{2}$"	175	38	32	10°	32	25	40´	32
HEU3232-175-F17D-10	$13\frac{3}{8}$" ~ 20"	175	38	32	10°	32	25	20´	32
HEU4040-175-F17D-10		175	40	40	10°	40	25	20´	40

Inserts : CFT 17 (Round & Buttress)
Spare Parts : Lever - L4-1. Screw - M6x18. Shim - FE17. Wrench - S3.

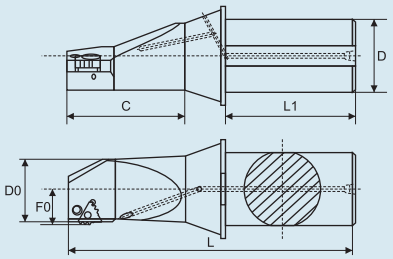
HEU3232-175-F23B-10	$4\frac{1}{2}$" ~ $6\frac{5}{8}$"	175	38	32	10°	32	25	60´	32
HEU3232-175-F23C-10	7" ~ $11\frac{1}{2}$"	175	38	32	10°	32	25	40´	32
HEU3232-175-F23D-10	$13\frac{3}{8}$" ~ 20"	175	38	32	10°	32	25	20´	32
HEU4040-175-F23D-10		175	40	40	10°	40	25	20´	40

Inserts : CFT 23 (Buttress)
Spare Parts : Lever - L4-1. Screw - M6x18. Shim - FE23. Wrench - S3.

λ - helix angle

Note : All holders are Right Hand

Toolholders for Couplings - Internal



Ordering Code	Pipe Size	L	L1	D	C	D_0	F_0	λ
HNU0040-205-F17A	$2\frac{3}{8}$" ~ $3\frac{1}{2}$"	205	80	40	100	42	26	70´
HNU0050-220-F17A		220	90	50	105	42	26	70´
HNU0050-225-F17A		225	100	60	100	42	26	70´
HNU0060-280-F17A		280	150	80	105	42	26	70´
HNU0040-235-F17B	4" ~ $5\frac{1}{2}$"	235	80	40	130	50	31	50´
HNU0050-273-F17B		273	90	50	158	56	36	50´
HNU0060-273-F17B		273	90	60	158	56	36	50´
HNU0080-300-F17B		300	140	80	158	56	36	50´
HNU0060-278-F17C	$6\frac{5}{8}$" ~ $8\frac{5}{8}$"	278	100	60	158	56	36	30´
HNU0080-318-F17C		318	140	80	158	56	36	30´
HNU0060-295-F17D	$9\frac{5}{8}$" ~ $13\frac{3}{8}$"	295	100	60	175	60	43	15´
HNU0080-335-F17D		335	140	80	175	60	43	15´

Inserts : CFT 17 (Round & Buttress)
Spare Parts : Lever - L4-1. Screw - M6x18. Shim - FN17. Wrench - S3.

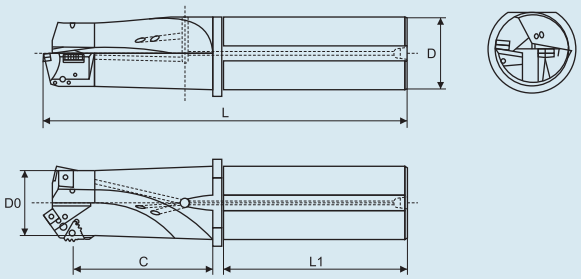
HEU0050-273-F23B	4" ~ $5\frac{1}{2}$"	273	90	50	158	56	36	50´
HEU0060-255-F23B		255	90	60	158	56	36	50´
HEU0080-300-F23B	$6\frac{5}{8}$" ~ $8\frac{5}{8}$"	300	140	80	158	56	36	50´
HEU0060-278-F23C		278	100	60	158	56	36	30´
HEU0080-318-F23C		318	140	80	158	56	36	30´
HEU0080-295-F23C	$9\frac{5}{8}$" ~ $13\frac{3}{8}$"	295	100	60	175	60	43	15´
HEU0080-335-F23C		335	140	80	175	60	43	15´

Inserts : CFT 23 (Round & Buttress)
Spare Parts : Lever - L4-1. Screw - M6x18. Shim - FN23. Wrench - S3.

λ - helix angle

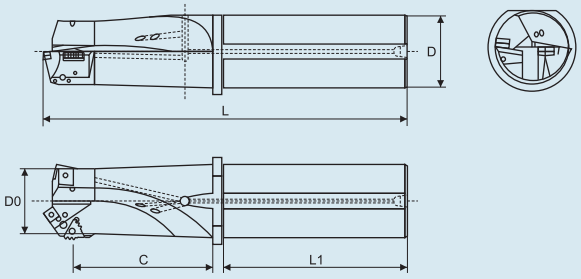
Note : All holders are Right Hand

Multi-function Toolholders for Couplings



Ordering Code	Pipe Size	L	L1	D	D_0	C	λ
HNM0060-395-F17-S15-S15-B	4" ~ 7"	395	200	60	70	168	50´
HNM0080-395-F17-S15-S15-B		395	200	80	70	160	50´
HNM0080-403-F17-S15-S15-C	7" ~ 13⅜"	403	200	80	84	176	30´

Inserts : CFT 17 (Round & Buttress), SNMG150612
Spare Parts : Lever - L4-2, G2. Screw - M6x18, M8x18. Shim - FN17, SP 15. Wrench - S3, S4.



Ordering Code	Pipe Size	L	L1	D	D_0	C	λ
HNM0060-395-F23-S15-S15-B	5" ~ 7"	395	200	60	70	168	50´
HNM0080-395-F23-S15-S15-B	7" ~ 13⅜"	395	200	80	70	160	50´
HNM0080-403-F23-S15-S15-C		403	200	80	84	176	30´

Inserts : CFT 23 (Round & Buttress), SNMG150612
Spare Parts : Lever - L4-2, G2. Screw - M6x18, M8x18. Shim - FN23, SP 15. Wrench - S3, S4.

λ - helix angle

Note : All holders are Right Hand

Technical Section

Carbide Grade Selection

Carbide Grade	Machining Materials
CG360	PVD TIALN coated sub-micron grade for low, sub-high and high grade steel pipes

Recommended cutting speed (m/min) for Thread Turning Inserts

Matching Materials	Chaser Grade CG360
Low grade steel pipes J55, H40, K55, M65	120 - 160
Sub-high grade steel pipes N80, C75, L80	100 - 140
High grade steel pipes P110, C90, J95	80 - 120

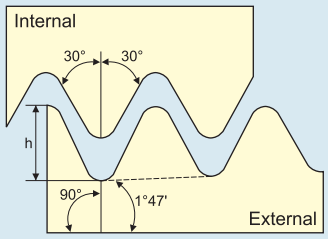
No. of Passes

Stand Alone Chaser for 8 Round, 10 Round, 5 Buttress

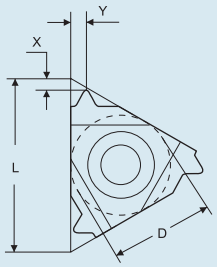
2 Tooth	7-8 Passes
3-4 Tooth	5-6 Passes
5 Tooth	3-4 Passes
7-8 Tooth	2-3 Passes

1. One or two additional passes may be required for heat treated materials.
2. Only one pass required for 3 Tooth, 3 Chaser set for external threads.

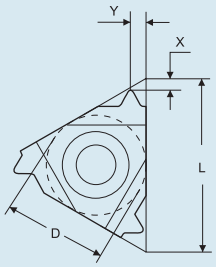
API Round Casing & Tubing



α = arctg (IPF/24)



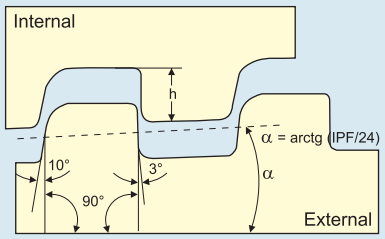
External



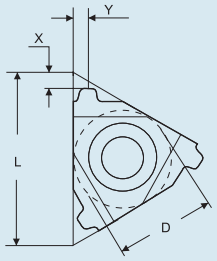
Internal

IC D	Pitch TPI	Ordering Code	Dimensions		
			L	X	Y
3/8"	10	16ER10 APIRD	16	1.2	1.4
	10	16NR10 APIRD	16	1.2	1.4
	8	16ER8 APIRD	16	1.3	1.5
	8	16NR8 APIRD	16	1.3	1.5

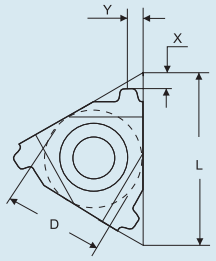
API Buttress Casing - 0.75 (3/4") TPF



Defined by : API SPEC.5B:2008
Tolerance Class : Standard API



External



Internal

IC D	Pitch TPI	Ordering Code	Dimensions		
			L	X	Y
1/2"	5	22ER5 BUT	22	3.1	1.9
	5	22NR5 BUT	22	3.1	1.9

Note : Refer page nos. 39 to 48 for Tool Holders and Technical Section.

Product Identification

Threading Inserts for Oil Drill Rods & Connectors - Ordering Code

1	2	3	4	5	6	7
22	E	R	V38R	04	02	C

1 Insert Size

29 - IC = 17mm
27 - IC = 15.875mm
22 - IC = 12.7mm

2 Type of Insert

E = External
N = Internal

3 RH / LH Standard

R = Right Hand
L = Left Hand

4 Thread Standard

V38R - V0.038R
V40 - V0.040
V50 - V0.050
V55 - V0.055
V65 - V0.065

5 Pitch

4 - 4 TPI
5 - 5 TPI
6 - 6 TPI

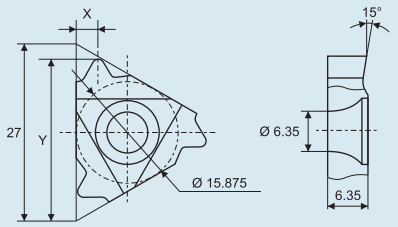
6 Thread Taper

01 - 1:8
02 - 1:6
03 - 1:4

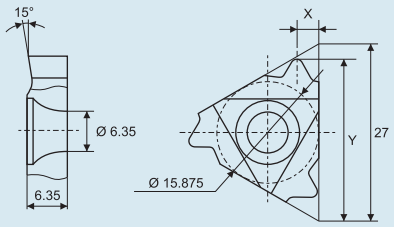
7 Insert Style

A, B, C, D

API Inserts - 'B' Style



External

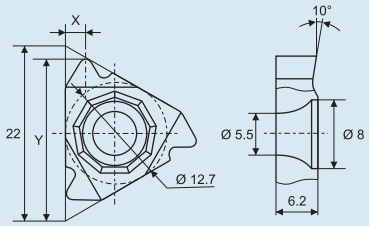


Internal

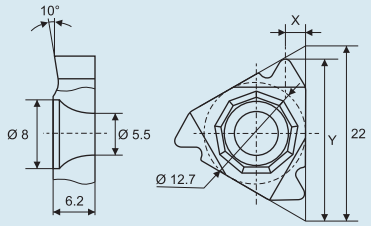
	Ordering Code	Thread Standard	TPI	Thread Taper	Dimensions	
					X	Y
External	27ERV38R - 0402B	V - 0.038R	4	1:6	2.80	25.15
	27ERV38R - 0403B	V - 0.038R	4	1:4	2.80	25.15
	27ERV40 - 0503B	V - 0.040	5	1:4	2.80	25.35
	27ERV50 - 0403B	V - 0.050	4	1:4	3.00	25.50
	27ERV50 - 0402B	V - 0.050	4	1:6	3.00	25.50
	27ERV55 - 0601B	V - 0.055	6	1:8	2.80	25.00
	27ERV65 - 0402B	V - 0.065	4	1:6	3.00	24.80
Internal	27NRV38R - 0402B	V - 0.038R	4	1:6	2.80	25.15
	27NRV38R - 0403B	V - 0.038R	4	1:4	2.80	25.15
	27NRV40 - 0503B	V - 0.040	5	1:4	2.80	25.35
	27NRV50 - 0403B	V - 0.050	4	1:4	3.00	25.50
	27NRV50 - 0402B	V - 0.050	4	1:6	3.00	25.50
	27NRV55 - 0601B	V - 0.055	6	1:8	2.80	25.00
	27NRV65 - 0402B	V - 0.065	4	1:6	3.00	24.80

Note : Refer page nos. 39 to 48 for Tool Holders and Technical Section.

API Inserts - 'C' Style



External

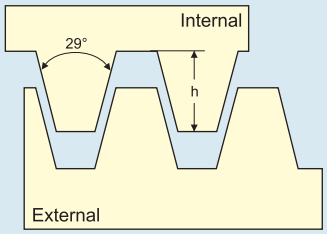


Internal

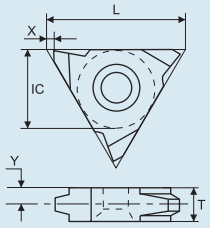
	Ordering Code	Thread Standard	TPI	Thread Taper	Dimensions	
					X	Y
External	22ERV38R - 0402C	V - 0.038R	4	1:6	2.60	20.30
	22ERV38R - 0403C	V - 0.038R	4	1:4	2.70	20.30
	22ERV40 - 0503C	V - 0.040	5	1:4	2.60	20.60
	22ERV50 - 0403C	V - 0.050	4	1:4	2.80	20.80
	22ERV50 - 0402C	V - 0.050	4	1:6	2.80	20.80
	22ERV55 - 0601C	V - 0.055	6	1:8	2.00	19.30
	22ERV65 - 0402C	V - 0.065	4	1:6	2.65	19.80
Internal	22NRV38R - 0402B	V - 0.038R	4	1:6	2.60	20.30
	22NRV38R - 0403B	V - 0.038R	4	1:4	2.70	20.30
	22NRV40 - 0503B	V - 0.040	5	1:4	2.60	20.60
	22NRV50 - 0403B	V - 0.050	4	1:4	2.80	20.80
	22NRV50 - 0402B	V - 0.050	4	1:6	2.80	20.80
	22NRV55 - 0601B	V - 0.055	6	1:8	2.00	19.30
	22NRV65 - 0402B	V - 0.065	4	1:6	2.65	19.80

Note : Refer page nos. 39 to 48 for Tool Holders and Technical Section.

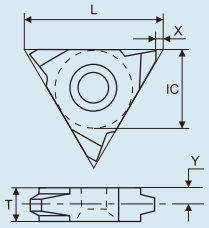
ACME - 'V' Style



Defined by : ANSI B1.5:1988
Tolerance Class : 3G



External

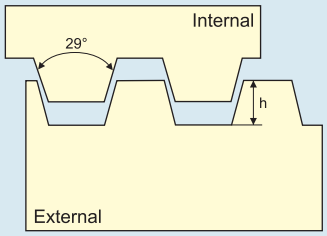


Internal

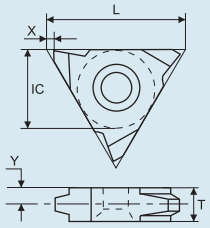
	IC D	Pitch TPI	Ordering Code	Dimensions			
				L	X	Y	T
External	1/2"	6	22VER6 ACME	22	1.0	3.3	4.76
		5	22VER5 ACME	22	1.0	3.3	4.76
	5/8"	4	27VER4 ACME	27	1.0	3.3	6.35
		3.5	27VER3.5 ACME	27	1.0	3.3	6.35
		3	27VER3 ACME	27	1.0	3.3	6.35
Internal	1/2"	6	22VNR6 ACME	22	1.0	3.3	4.76
		5	22VNR5 ACME	22	1.0	3.3	4.76
	5/8"	4	27VNR4 ACME	27	1.0	3.3	6.35
		3.5	27VNR3.5 ACME	27	1.0	3.3	6.35
		3	27VNR3 ACME	27	1.0	3.3	6.35

Note : Refer page nos. 39 to 48 for Tool Holders and Technical Section.

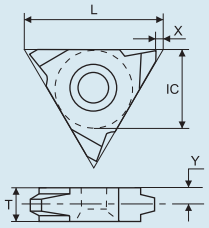
STUB ACME - 'V' Style



Defined by : ANSI B1.8:1988
Tolerance Class : 2G



External



Internal

	IC D	Pitch TPI	Ordering Code	Dimensions			
				L	X	Y	T
External	1/2"	6	22VER6 STACME	22	1.0	3.3	4.76
		5	22VER5 STACME	22	1.0	3.3	4.76
	5/8"	4	27VER4 STACME	27	1.0	3.3	6.35
		3.5	27VER3.5 STACME	27	1.0	3.3	6.35
		3	27VER3 STACME	27	1.0	3.3	6.35
Internal	1/2"	6	22VNR6 STACME	22	1.0	3.3	4.76
		5	22VNR5 STACME	22	1.0	3.3	4.76
	5/8"	4	27VNR4 STACME	27	1.0	3.3	6.35
		3.5	27VNR3.5 STACME	27	1.0	3.3	6.35
		3	27VNR3 STACME	27	1.0	3.3	6.35

Note : Refer page nos. 39 to 48 for Tool Holders and Technical Section.