



# 14D

Professional Oil & Gas Solutions



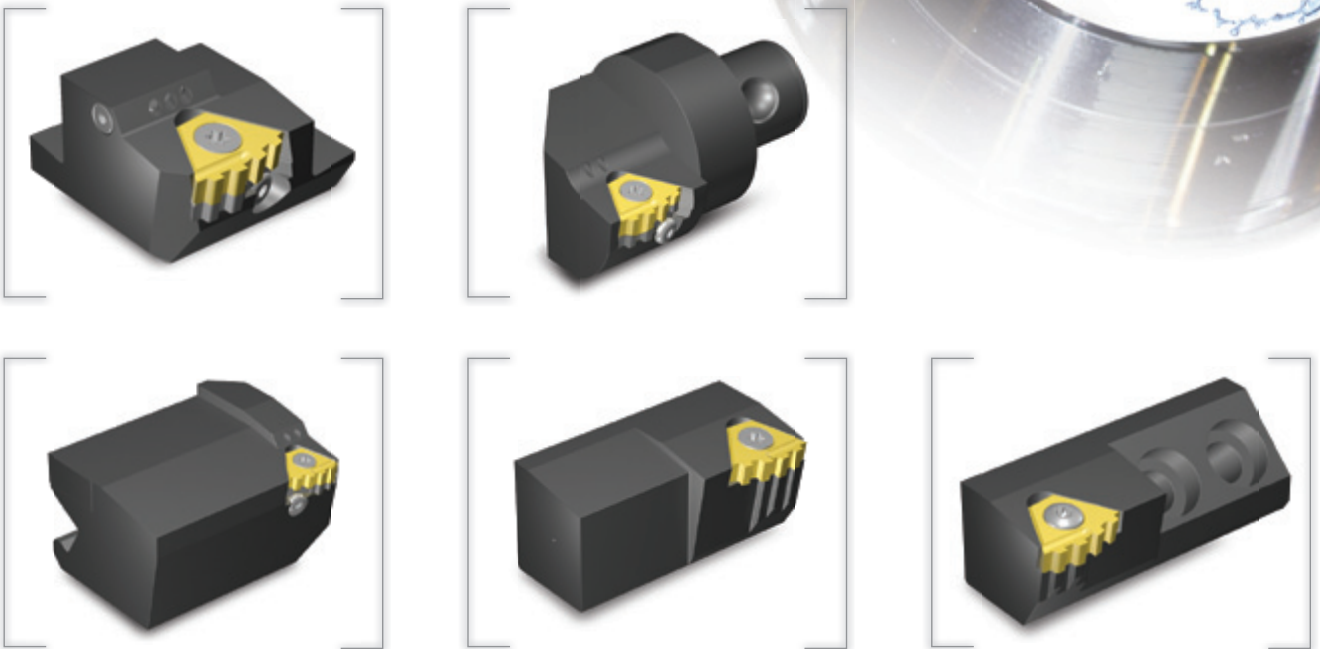
INCH

## Professional Oil & Gas Solutions

The new and advanced Multi Tooth inserts for API Round and API Buttress Casing provide high profile accuracy and optimal chip flow. The 14D is suitable for applications starting from a minimum diameter of 2 3/8" and up.

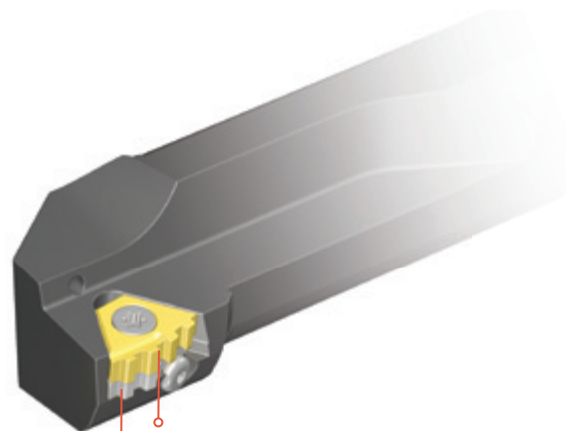
### Specially Designed Toolholders

Vargus offers an extensive range of specially designed toolholder types to suit a large variety of applications in the oil and gas industries.



#### Multi Tooth Inserts

High productivity by using Multi-Tooth cutting edge



#### Two Cutting Edges

Double sided design with chip protection for second cutting edge

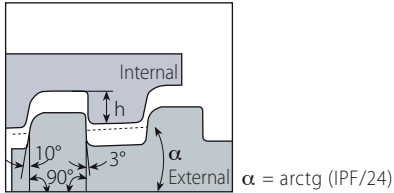
#### Insert Support

Excellent profile insert support of active cutting edge by using a specially designed anvil and holder

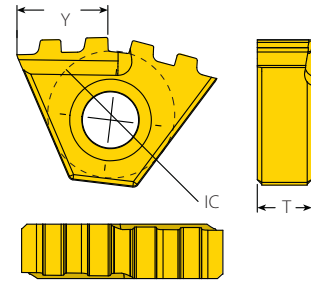
## API Buttress Casing



### External

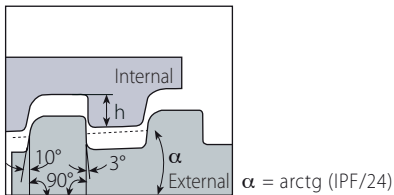


Defined by: STD.5B:1979  
Tolerance class: Standard API

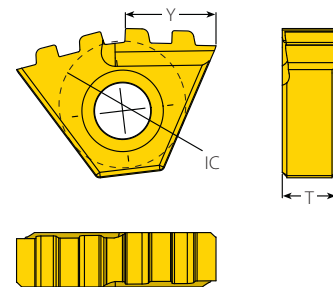


Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
						h min	Y	T		
IC	tpi	IPF								
14D	5	0.75	2	14DER5BUT752T+	4 1/2"-11 3/4" 13 3/8" and up	0.061	0.394	0.236	Y14DEIR-5 BUT Y14DEIR-5 BUT-0.4N	AL...-14D

### Internal



Defined by: STD.5B:1979  
Tolerance class: Standard API

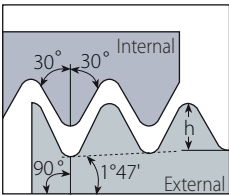


Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
						h min	Y	T		
IC	tpi	IPF								
14D	5	0.75	2	14DIR5BUT752T+	4 1/2"-11 3/4" 13 3/8" and up	0.061	0.394	0.236	Y14DEIR-5 BUT Y14DEIR-5 BUT-0.4N	AVRC...-14D

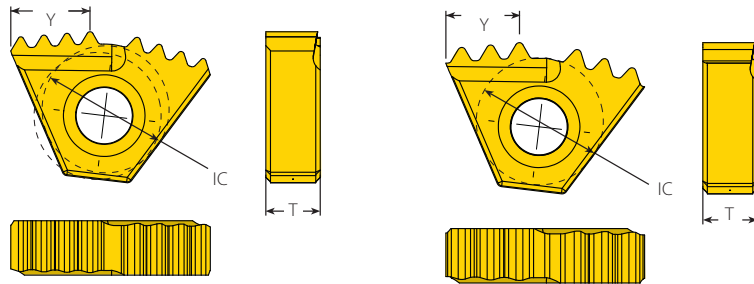
## API Round Casing & Tubing



### External



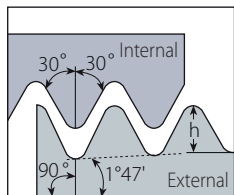
Defined by: Oil & Gas STD. 5B:1979  
Tolerance class: Standard API RD



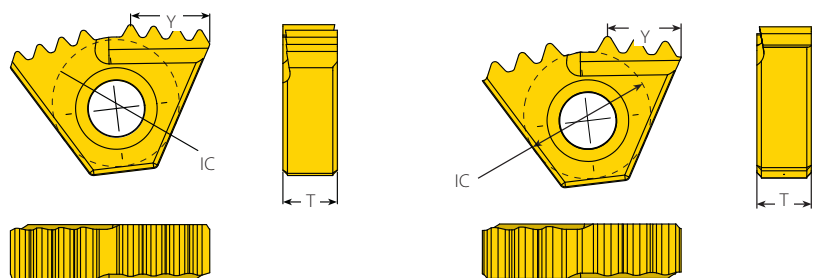
Insert size	Pitch	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
					h min	Y	T		
14D	10	4	14DER10APIRD4T+	2 3/8" and up	0.055	0.343	0.236	Y14DEIR-10 APIRD	AVRC...-14D
14D	10	3	14DER10APIRD3T+	2 3/8" and up	0.055	0.346	0.236	Y14DEIR-10APIRD-3+	AVRC...-14D
14D	8	3	14DER8APIRD3T+	2 3/8" and up	0.070	0.319	0.236	Y14DEIR-8 APIRD	AVRC...-14D



### Internal

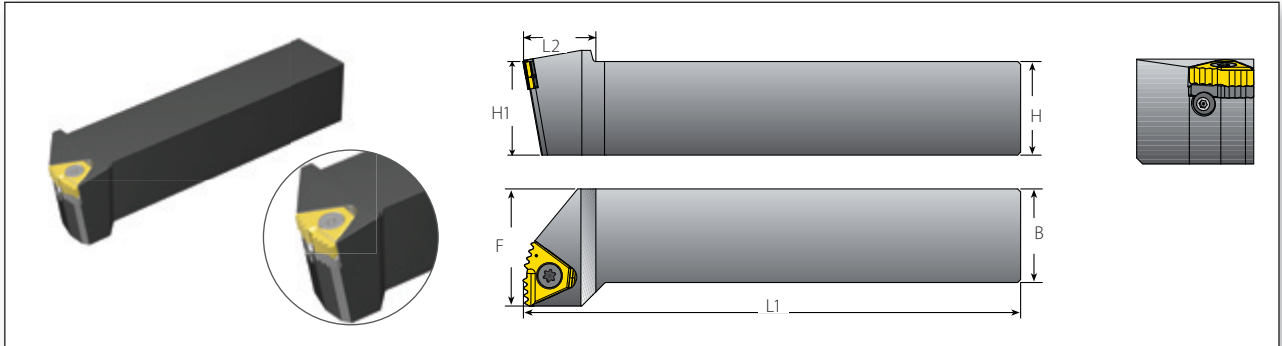


Defined by: Oil & Gas STD. 5B:1979  
Tolerance class: Standard API RD



Insert size	Pitch	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
					h min	Y	T		
14D	10	4	14DIR10APIRD4T+	2 3/8" and up	0.055	0.343	0.236	Y14DEIR-10 APIRD	AVRC...-14D
14D	10	3	14DIR10APIRD3T+	2 3/8" and up	0.055	0.346	0.236	Y14DEIR-10APIRD-3+	AVRC...-14D
14D	8	3	14DIR8APIRD3T+	2 3/8" and up	0.070	0.319	0.236	Y14DEIR-8 APIRD	AVRC...-14D

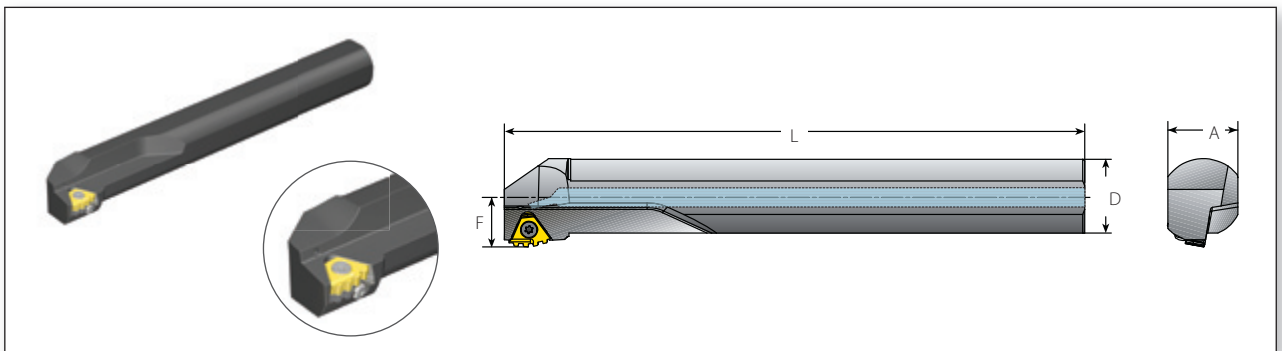
### External Toolholders



						Spare Parts			
Insert Size	Ordering Code	Dimensions mm							
IC		H=H1=B	F	L1	L2	Insert Screw	Anvil Screw	Anvil Key	Torx Key
14D	AL125-14D	1.25	1.50	7.00	1.00	SA5TM	M4x6	K2.5	K5T
14D	AL150-14D	1.50	1.50	8.00	1.25	SA5TM	M4x6	K2.5	K5T

The 14D holders are supplied without anvils. For specific applications, please use the anvils indicated in the table on the technical data page.

### Internal Toolholders



							Spare Parts			
Insert Size	Ordering Code	Dimensions mm								
IC		A	L	D	F	Min. Bore Dia.	Insert screw	Anvil screw	Anvil key	Torx Key
14D	AVRC150-14D	1.34	12.0	1.50	1.03	2.146	SA5TM	M4x6	K2.5	K5T
14D	AVRC200-14D	1.80	12.0	2.00	1.00	2.146	SA5TM	M4x7	K2.6	K5T

The 14D holders are supplied without anvils. For specific applications, please use the anvils indicated in the table on the technical data page.

# 14D Technical Data





## Recommended Grade and Cutting Speeds Vc [ft/min]

Material Group	Vardex No.	Material	Hardness Brinell HB	Vc[ft/min]	
				Coated	
				VKX	
<b>P</b> Steel	1	Unalloyed steel	Low carbon (C=0.1-0.25%)	125	574-820
	2		Medium carbon (C=0.25-0.55%)	150	574-721
	3		High Carbon (C=0.55-0.85%)	170	492-656
	4	Low alloy steel (alloying elements ≤5%)	Non hardened	180	574-820
	5		Hardened	275	459-787
	6		Hardened	350	393-688
	7	High alloy steel (alloying elements >5%)	Annealed	200	459-688
	8		Hardened	325	393-656

## Number of Passes

Standard	Insert Type	Insert Size		Pitch	Teeth	Ordering Code	Passes	Depth of Cut per Pass				
		IC	L					1	2	3	4	5
API BUT External	T+	14D	0.866	5	2	14DER5BUT752T+	5	0.0124	0.0124	0.0124	0.0124	0.0124
API BUT Internal	T+	14D	0.866	5	2	14DIR5BUT752T+	5	0.0124	0.0124	0.0124	0.0124	0.0124
API RD External	T+	14D	0.866	10	4	14DER10APIRD4T+	2	0.0305	0.0251			
				10	3	14DER10APIRD3T+	3	0.0185	0.0185	0.0185		
				8	3	14DER8APIRD3T+	3	0.0237	0.0237	0.0237		
API RD Internal	T+	14D	0.866	10	4	14DIR10APIRD4T+	2	0.0305	0.0251			
				10	3	14DIR10APIRD3T+	3	0.0185	0.0185	0.0185		
				8	3	14DIR8APIRD3T+	3	0.0237	0.0237	0.0237		

## 14D Anvils

Standard	Application	Ordering Code	
API Round Casing & Tubing	10 tpi from Ø 2 3/8"	Y14DEIR-10 APIRD (4 teeth)	
	10 tpi from Ø 2 3/8"	Y14DEIR 10APIRD-3+ (3 teeth)	
	8 tpi from Ø 2 3/8"	Y14DEIR-8 APIRD	
API Buttress Casing	5 tpi from Ø 4 1/2" - Ø 11 3/4"	Y14DEIR-5 BUT	
	5 tpi from Ø 13 3/8"	Y14DEIR-5 BUT-0.4N	