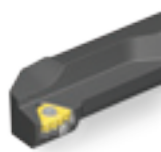




VARDEX Industrial Solutions

14iD

Professional Oil & Gas Solutions



METRIC

VARDEX

Advanced Threading Solutions



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.

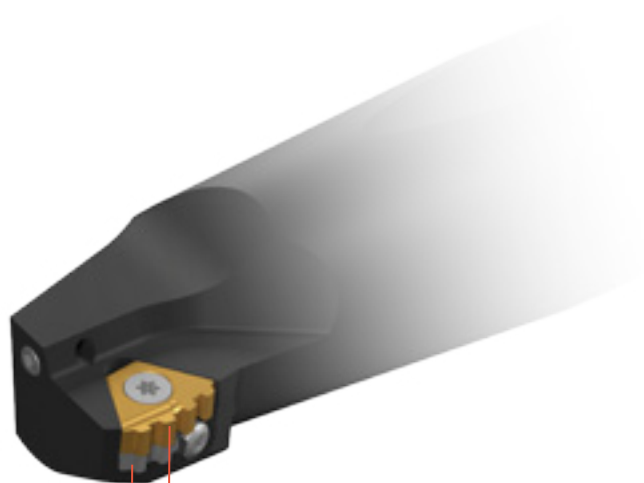
Specially Designed Toolholders

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

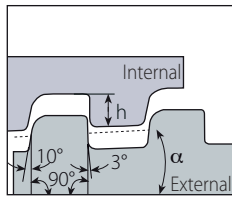
Insert Support

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

API Buttress Casing



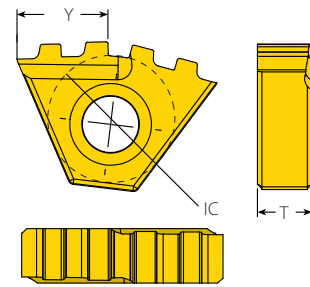
External



$$\alpha = \arctg (IPF/24)$$

Defined by: STD.5B:1979

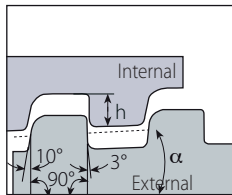
Tolerance class: Standard API



Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI	IPF				h min	Y	T		
14D	5	0.75	2	14DER5BUT752T+	4 1/2"-9 5/8"	1.55	10.00	6.00	Y14DEIR-5 BUT	AL...-14D
					10 3/4"-13 3/8"				Y14DEIR-5 BUT-0.4N	
14D	5	1.00	2	14DER5BUT12T+	16"-20"	1.55	10.00	6.00	Y14DEIR-5 BUT-0.4N	AL...-14D



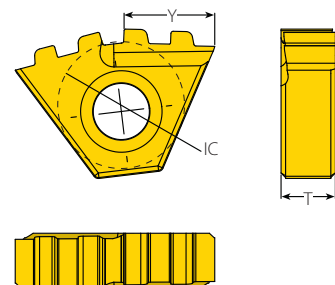
Internal



$$\alpha = \arctg (IPF/24)$$

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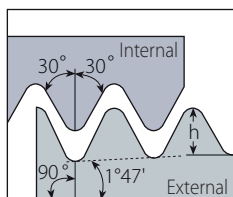
Tolerance class: Standard API



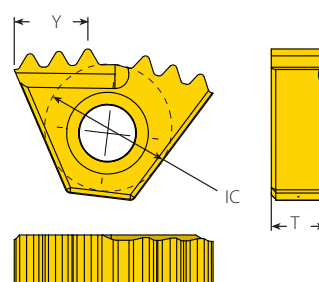
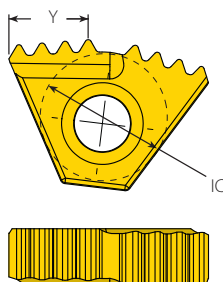
Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI	IPF				h min	Y	T		
14D	5	0.75	2	14DIR5BUT752T+	4 1/2"-9 5/8"	1.55	10.00	6.00	Y14DEIR-5 BUT	AVRC...-14D
					10 3/4"-13 3/8"				Y14DEIR-5 BUT-0.4N	
14D	5	1.00	2	14DIR5BUT12T+	16"-20"	1.55	10.00	6.00	Y14DEIR-5 BUT-0.4N	AVRC...-14D

API Round Casing & Tubing

External

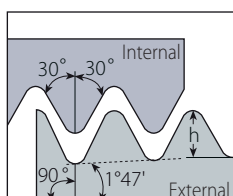


Defined by: Oil & Gas STD. 5B:1979
Tolerance class: Standard API RD

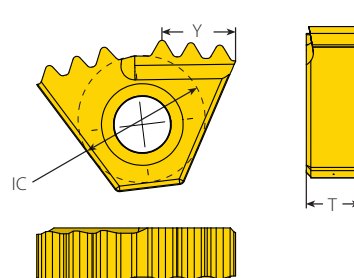
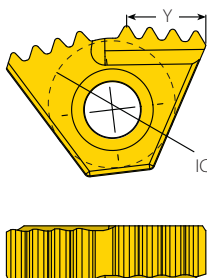


Insert size	Pitch	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI				h min	Y	T		
14D	10	4	14DER10APIRD4T+	2 3/8" and up	1.39	8.70	6.00	Y14DEIR-10 APIRD	AL...-14D
14D	10	3	14DER10APIRD3T+	2 3/8" and up	1.39	8.80	6.00	Y14DEIR-10 APIRD-3+	AL...-14D
14D	8	3	14DER8APIRD3T+	2 3/8" and up	1.79	8.10	6.00	Y14DEIR-8 APIRD	AL...-14D

Internal

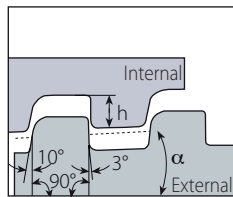


Defined by: Oil & Gas STD. 5B:1979
Tolerance class: Standard API RD

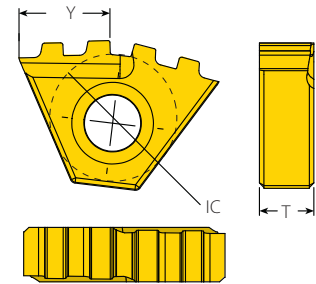


Insert size	Pitch	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI				h min	Y	T		
14D	10	4	14DIR10APIRD4T+	2 3/8" and up	1.39	8.70	6.00	Y14DEIR-10 APIRD	AVRC...-14D
14D	10	3	14DIR10APIRD3T+	2 3/8" and up	1.39	8.80	6.00	Y14DEIR-10 APIRD-3+	AVRC...-14D
14D	8	3	14DIR8APIRD3T+	2 3/8" and up	1.79	8.10	6.00	Y14DEIR-8 APIRD	AVRC...-14D

External

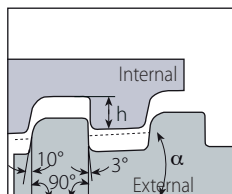


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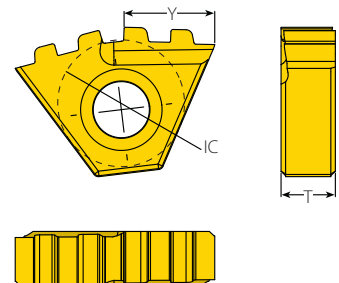


Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI	IPF				h min	Y	T		
14D	5	0.75	2	14DER OTTM 2T+	4 1/2"-9 3/8" 10 3/4"-13 3/8"	1.58	10.00	6.00	Y14DEIR-5 BUT Y14DEIR-5 BUT-0.4N	AL...-14D

Internal

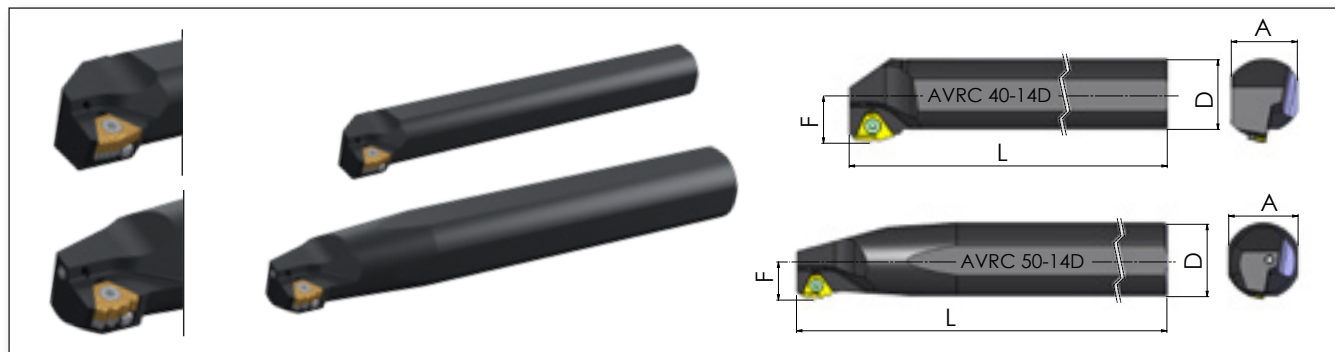


$$\alpha = \arctg (IPF/24)$$



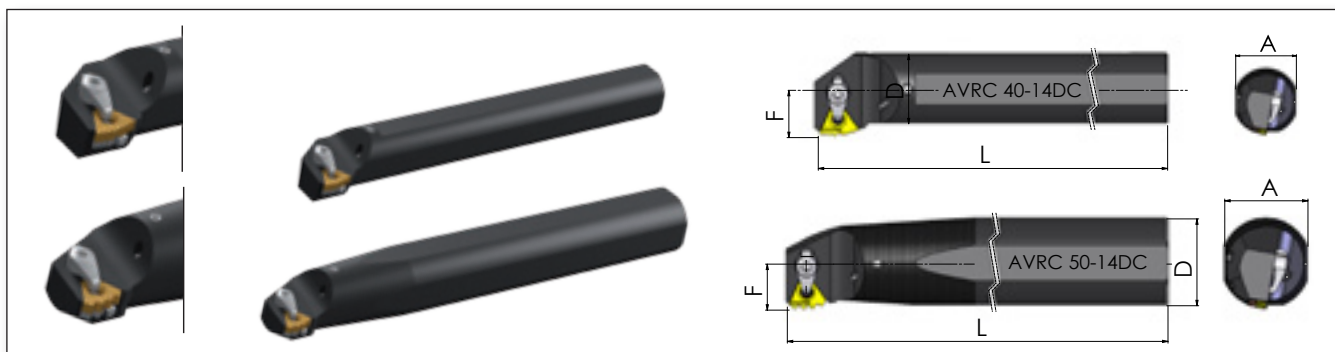
Insert size	Pitch	Taper	Teeth	Ordering Code	Size	Dimension mm			Anvil	Toolholder
IC	TPI	IPF				h min	Y	T		
14D	5	0.75	2	14DIR OTTM 2T+	4 1/2"-9 3/8" 10 3/4"-13 3/8"	1.58	10.00	6.00	Y14DEIR-5 BUT Y14DEIR-5 BUT-0.4N	AVRC...-14D

Internal Toolholders



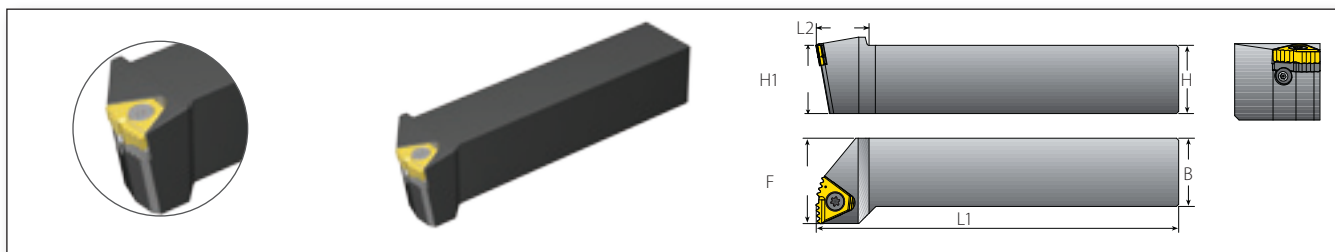
Insert Size Ordering Code Dimensions mm							Spare Parts			
IC		A	L	D	F	Min. Bore Dia.	Insert Screw	Anvil Screw & Washer	Insert Key	Anvil Key
14D	AVRC 40-14D	37	300	40	26	54.5	SA5T	M4x6 (14D)	K5T	KT15
14D	AVRC 50-14D	46	300	50	25	54.5	SA5T	M4x6 (14D)	K5T	KT15

Internal Toolholders with Clamp



Insert Size Ordering Code Dimensions mm							Spare Parts				
IC		A	L	D	F	Min. Bore Dia.	Insert Screw	Anvil Screw & Washer	Clamp	Insert Key	Anvil Key
14D	AVRC 40-14DC	37	300	40	26	54.5	SA5T	M4x6 (14D)	C5	K5T	KT15
14D	AVRC 50-14DC	46	300	50	25	54.5	SA5T	M4x6 (14D)	C5	K5T	KT15

External Toolholders



Insert Size Ordering Code Dimensions mm						Spare Parts			
IC		H=H1=B	F	L1	L2	Insert Screw	Anvil Screw & Washer	Insert Key	Anvil Key
14D	AL32-14D	32	40	170	25	SA5T	M4x6 (14D)	K5T	KT15
14D	AL40-14D	40	40	200	30	SA5T	M4x6 (14D)	K5T	KT15

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

Technical Data

Grades and Applications

Grade	Application Type	Sample
VKX	Superior general purpose grade, recommended for rigid cutting conditions.	
VTX	General purpose grade with tough submicron substrate, recommended for non-rigid cutting conditions.	
VTXP	Specialty grade recommended for tough and challenging applications in unstable working environments.	

Cutting Speed Recommendations

Material	J55-K55	N80-L80-C95-TN70	TN95-P110-TN110
Cutting Speed (m/min)	170-200	150-180	130-160

Cutting Pass Division Recommendations

The following table provides the optimal cutting pass division options, depending on the material, machine stability and clamping conditions:

Application	No. of Passes/Pass No.	1	2	3	4	5	6
APIRD 8 Ex, In	3 passes	0.89	0.81	0.11			
	4 passes	0.6	0.58	0.52	0.11		
	5 passes	0.47	0.47	0.43	0.33	0.11	
	6 passes	0.39	0.41	0.37	0.29	0.24	0.11
APIRD 10 Ex, In	3 passes	0.67	0.63	0.11			
	4 passes	0.44	0.45	0.41	0.11		
	5 passes	0.34	0.37	0.33	0.26	0.11	
	6 passes	0.28	0.32	0.29	0.22	0.19	0.11
BUT 5 Ex, In	3 passes	0.760	0.705	0.110			
	4 passes	0.506	0.501	0.458	0.110		
	5 passes	0.395	0.409	0.374	0.287	0.110	
	6 passes	0.329	0.353	0.324	0.249	0.210	0.110
OTTM 5 Ex, In OTTG 5 Ex, In	3 passes	0.760	0.730	0.110			
	4 passes	0.506	0.501	0.483	0.110		
	5 passes	0.395	0.409	0.374	0.312	0.110	
	6 passes	0.329	0.353	0.324	0.249	0.235	0.110

14D Anvils

Standard	Application	Ordering Code	
API Round Casing & Tubing	10 tpi from Ø 2 3/8" and up	Y14DEIR-10 APIRD (4 teeth)	
	10 tpi from Ø 2 3/8" and up	Y14DEIR 10APIRD-3+ (3 teeth)	
	8 tpi from Ø 2 3/8" and up	Y14DEIR-8 APIRD	
API Buttress Casing	5 tpi for Ø 4 1/2" - Ø 9 5/8"	Y14DEIR-5 BUT	
	5 tpi for Ø 10 3/4" and up	Y14DEIR-5 BUT-0.4N	



14D

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