



## Mini-3 IC 5.0

Indexable Threading Inserts for Small Bores



**VARDEX**

Advanced Threading Solutions

## Mini-3 IC 5.0

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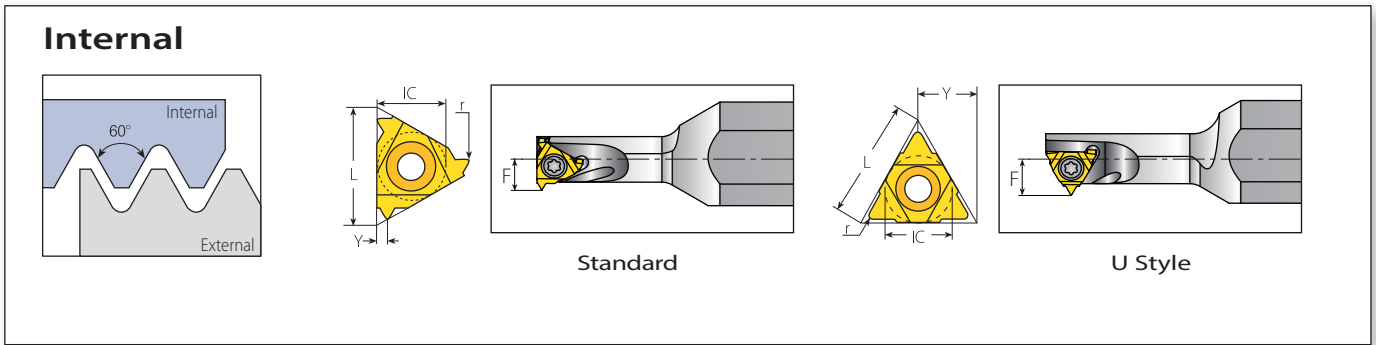
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## Partial Profile 60°



### Mini-3 Standard



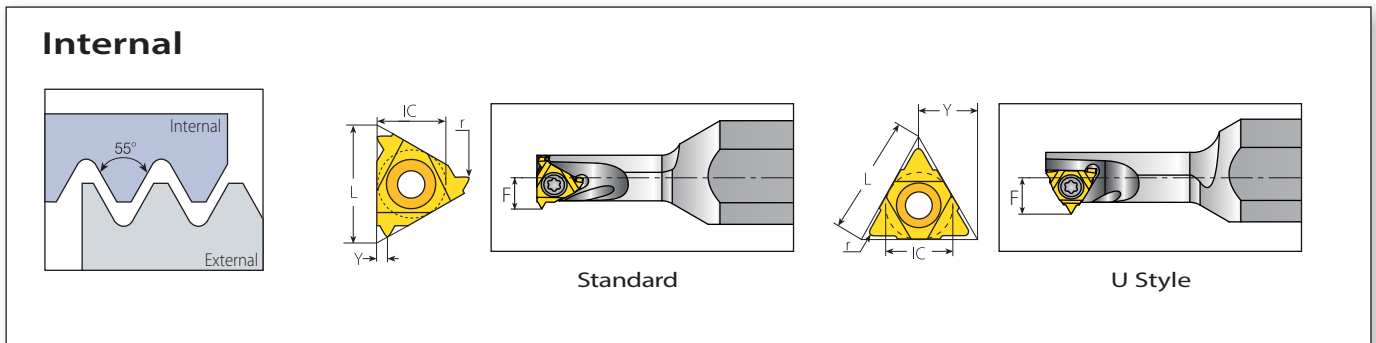
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IC mm	L mm	mm	tpi	RH	VTX	VBX	LH	VTX	VBX	r	Y	F	inch	
5.0	8	0.5-1.5	48-16	5.0KIRA60...	42324	42432	5.0KILA60...	42370	42400	.002	.028	.185	.307	.NVR.260-5.0K

### Mini-3 U Style



Insert Size		Pitch		Ordering Code		EDP No.		Dimensions inch			Min. Bore dia.	Toolholder
IC mm	L mm	mm	tpi	RH+LH	VTX	VBX	r	Y	F	inch		
5.0U	8	1.75-2.0	14-11	5.0KUIB60...	42340	42448	.006	.157	.228	.354	.NVR.290-5.0KU	

## Partial Profile 55°



### Mini-3 Standard



Insert Size		Pitch		Ordering Code		EDP No.		EDP No.		Dimensions inch			Min. Bore dia.	Toolholder
IC mm	L mm	mm	tpi	RH	VTX	VBX	LH	VTX	VBX	r	Y	F	inch	
5.0	8	0.5-1.5	48-16	5.0KIRA55...	42323	42431	5.0KILA55...	42369	42399	.002	.028	.185	.307	.NVR.260-5.0K

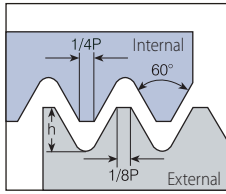
### Mini-3 U Style



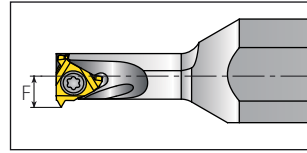
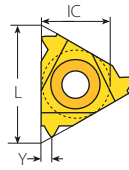
Insert Size		Pitch		Ordering Code		EDP No.		Dimensions inch			Min. Bore dia.	Toolholder
IC mm	L mm	mm	tpi	RH+LH	VTX	VBX	r	Y	F	inch		
5.0U	8	1.75-2.0	14-11	5.0KUIB55...	42339	42447	.008	.157	.224	.354	(C)NVR.290-5.0KU	

# ISO Metric

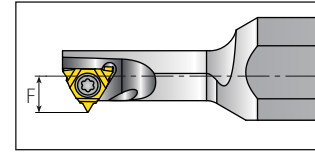
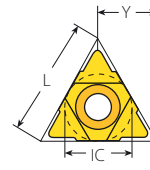
## Internal



Defined by: R262 (DIN 13)  
Tolerance class: 6g/gH



Standard



U Style

## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	mm	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	inch		
5.0	8	0.5	5.0KIR0.5ISO...	42210	42401	5.0KIL0.5ISO...	42341	42371	.011	.020	.185	.307	.NVR.260-5.0K		
		0.75	5.0KIR0.75ISO...	42219	42402	5.0KIL0.75ISO...	42342	42372	.017	.020					
		1.0	5.0KIR1.0ISO...	42269	42403	5.0KIL1.0ISO...	42343	42373	.023	.024					
		1.25	5.0KIR1.25ISO...	42280	42406	5.0KIL1.25ISO...	42346	42376	.028	.028					
		1.5	5.0KIR1.5ISO...	42272	42404	5.0KIL1.5ISO...	42344	42374	.034	.028					
		1.75	5.0KIR1.75ISO...	42282	42407	5.0KIL1.75ISO...	42347	42377	.040	.031					

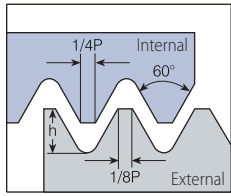
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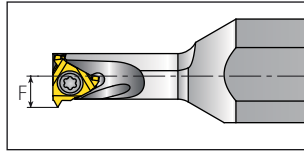
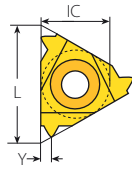
Insert Size		Pitch	Ordering Code	EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	mm	RH+LH	VTX	VBX	h min	Y	F	inch		
5.0U	8	2	5.0KUI2.0ISO...	42325	42433	.048	.157	.224	.354	.NVR.290-5.0KU	

# American UN

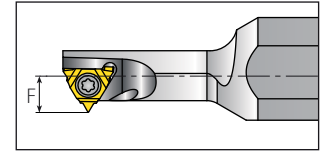
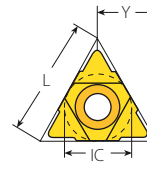
## Internal



Defined by: ANSI B1.1:74  
Tolerance class: 2A/2B



Standard



U Style

## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.	Toolholder
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch		
5.0	8	32	5.0KIR32UN...	42322	42430	5.0KIL32UN...	42368	42398	.018	.020				
		28	5.0KIR28UN...	42320	42428	5.0KIL28UN...	42366	42396	.020	.024				
		24	5.0KIR24UN...	42315	42423	5.0KIL24UN...	42361	42391	.024	.024				
		20	5.0KIR20UN...	42313	42421	5.0KIL20UN...	42359	42389	.029	.028	.185	.307	.NVR.260-5.0K	
		18	5.0KIR18UN...	42307	42415	5.0KIL18UN...	42355	42385	.032	.028				
		16	5.0KIR16UN...	42303	42411	5.0KIL16UN...	42351	42381	.036	.028				
		14	5.0KIR14UN...	42286	42408	5.0KIL14UN...	42348	42378	.041	.031				

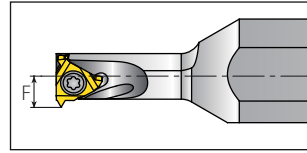
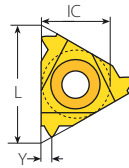
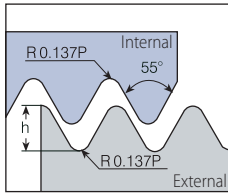
## Mini-3 U Style



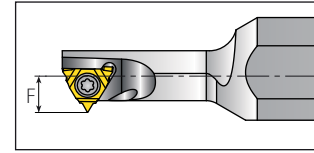
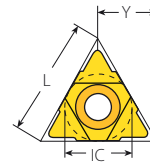
Insert Size		Pitch	Ordering Code	EDP No.		Dimensions inch			Min. Bore dia.	Toolholder
IC mm	L mm	tpi	RH+LH	VTX	VBX	h min	Y	F	inch	
5.0U	8	13	5.0KUI13UN...	42335	42443	.047		.220		
		12	5.0KUI12UN...	42333	42441	.051	.157	.224	.354	.NVR.290-5.0KU
		11	5.0KUI11UN...	42329	42437	.056		.224		

# Whitworth – BSW, BSP (G), BSF, BSB

## Internal



Standard



U Style

Defined by: B.S.84:1956, DIN 259, ISO228/1:1982  
Tolerance class: Medium class A

## Mini-3 Standard



Insert Size		Pitch	Ordering Code		EDP No.		EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch		
5.0	8	28	5.0KIR28W...	42321	42429	5.0KIL28W...	42367	42397	.023	.024				
		24	5.0KIR24W...	42316	42424	5.0KIL24W...	42362	42392	.027	.024				
		20	5.0KIR20W...	42314	42422	5.0KIL20W...	42360	42390	.032	.028				
		19	5.0KIR19W...	42310	42418	5.0KIL19W...	42358	42388	.034	.028	.185	.307	.NVR.260-5.0K	
		18	5.0KIR18W...	42308	42416	5.0KIL18W...	42356	42386	.035	.028				
		16	5.0KIR16W...	42304	42412	5.0KIL16W...	42352	42382	.040	.028				

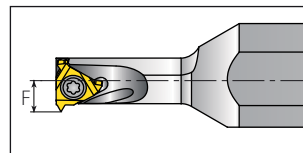
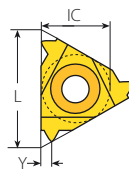
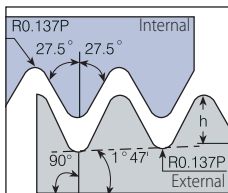
## Mini-3 U Style



Insert Size		Pitch	Ordering Code		EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	tpi	RH+LH	VTX	VBX	h min	Y	F	inch			
5.0U	8	14	5.0KUI14W...	42338	42446	.046		.220				
		12	5.0KUI12W...	42334	42442	.054	.157	.224	.354	.NVR.290-5.0KU		
		11	5.0KUI11W...	42330	42438	.058		.224				

## BSPT

### Internal



Standard

Defined by: B.S. 21:1985  
Tolerance class: Standard BSPT

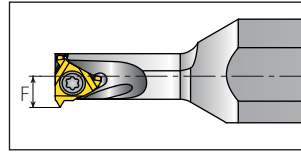
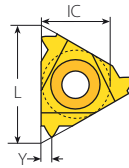
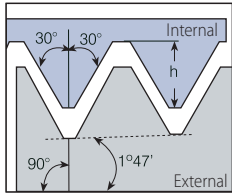
## Mini-3 Standard



Insert Size		Pitch	Ordering Code		EDP No.		EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch		
5.0	8	28	5.0KIR28BSPT...	42319	42427	5.0KIL28BSPT...	42365	42395	.023	.024				
		19	5.0KIR19BSPT...	42309	42417	5.0KIL19BSPT...	42357	42387	.034	.028	.185	.307	.NVR.260-5.0K	

# NPT

## Internal



Standard

Defined by: USAS B2.1:1968  
Tolerance class: Standard NPT

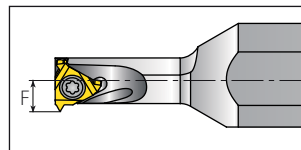
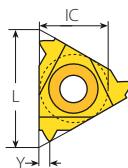
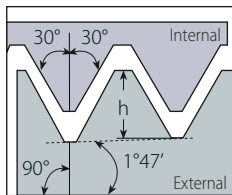
## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.		EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder
5.0	8	27	5.0KIR27NPT...	42317	42425	5.0KIL27NPT...	42363	42393	.026	.024	.185	.307	.NVR.260-5.0K
		18	5.0KIR18NPT...	42305	42413	5.0KIL18NPT...	42353	42383	.040	.031			

# NPTF

## Internal



Standard

Defined by: ANSI B1.20.3-1976  
Tolerance class: Class 2

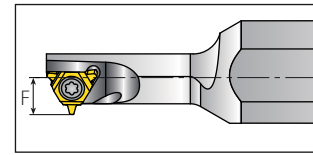
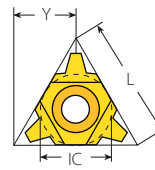
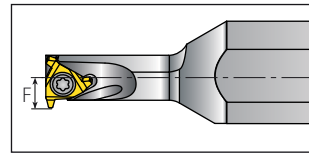
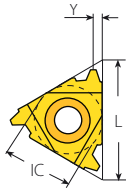
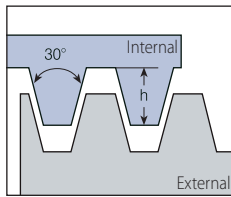
## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.		EDP No.		Dimensions inch			Min. Bore dia.		Toolholder
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder
5.0	8	27	5.0KIR27NPTF...	42318	42426	5.0KIL27NPTF...	42364	42394	.025	.024	.185	.307	.NVR.260-5.0K
		18	5.0KIR18NPTF...	42306	42414	5.0KIL18NPTF...	42354	42384	.039	.031			

# Trapez

## Internal



Standard

U Style

Defined by: B.S.84:1956, DIN 103  
Tolerance class: 7e/7H

## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	mm	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder	
5.0	8	1.5	5.0KIR1.5TR...	42278	42405	5.0KIL1.5TR...	42345	42375	.033	.028	.185	.307	.NVR.260-5.0K	

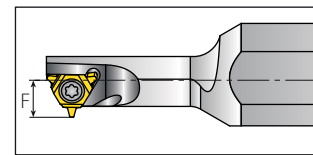
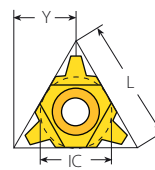
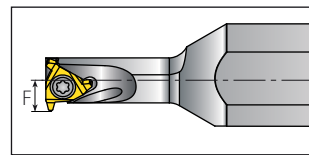
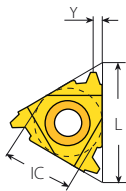
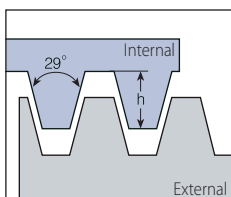
## Mini-3 U Style



Insert Size		Pitch	Ordering Code	EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	mm	RH+LH	VTX	VBX	h min	Y	F	inch	Toolholder	
5.0U	8	2.0	5.0KUI2TR...	42326	42434	.049	.157	.224	.354	.NVR.290-5.0KU	

# American ACME

## Internal



Standard

U Style

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

## Mini-3 Standard



Insert Size		Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder	
5.0	8	16	5.0KIR16ACME...	42301	42409	5.0KIL16ACME...	42349	42379	.036	.028	.185	.307	.NVR.260-5.0K	

## Mini-3 U Style

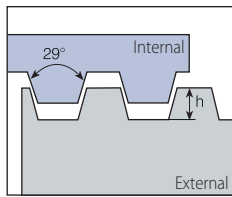


Insert Size		Pitch	Ordering Code	EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	tpi	RH+LH	VTX	VBX	h min	Y	F	inch	Toolholder	
5.0U	8	14	5.0KUI14ACME...	42336	42444	.041	.157	.228	.354	.NVR.290-5.0KU	
		12	5.0KUI12ACME...	42331	42439	.047					
		10	5.0KUI10ACME...	42327	42435	.060					

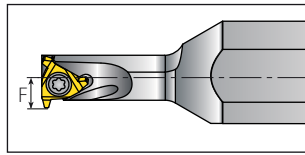
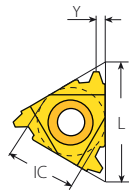


# Stub ACME

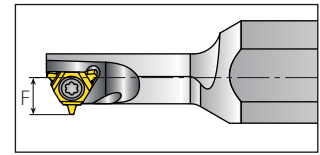
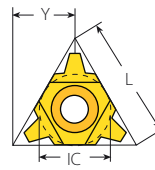
## Internal



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



Standard



U Style

## Mini-3 Standard



Insert Size	Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder
5.0	8	16	5.0KIR16STACME...	42302	42410	5.0KIL16STACME...	42350	42380	.024	.028	.185	.307	.NVR.260-5.0K

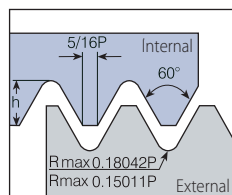
## Mini-3 U Style



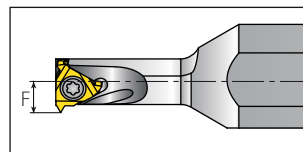
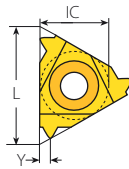
Insert Size	Pitch	Ordering Code	EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	tpi	RH+LH	VTX	VBX	h min	Y	F	inch	Toolholder
5.0U	8	14	5.0KUI14STACME...	42337	42445	.026		.228		
		12	5.0KUI12STACME...	42332	42440	.030	.157	.224	.354	.NVR.290-5.0KU
		10	5.0KUI10STACME...	42328	42436	.040		.220		

## PG

### Internal



Defined by: MIL-S-8879C  
Tolerance class: 3A/3B

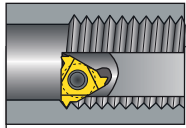


Standard

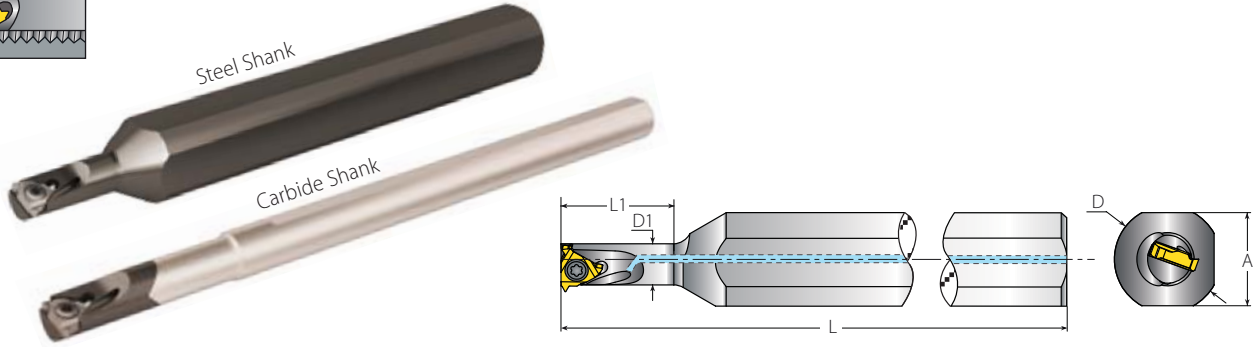
## Mini-3 Standard



Insert Size	Pitch	Ordering Code	EDP No.			EDP No.			Dimensions inch			Min. Bore dia.	
IC mm	L mm	tpi	RH	VTX	VBX	LH	VTX	VBX	h min	Y	F	inch	Toolholder
5.0	8	20	5.0KIR20PG...	42311	42419	5.0KIL20PG...	42312	42420	.024	.028	.185	.307	.NVR.260-5.0K

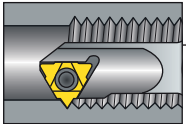


## Internal Toolholders Standard

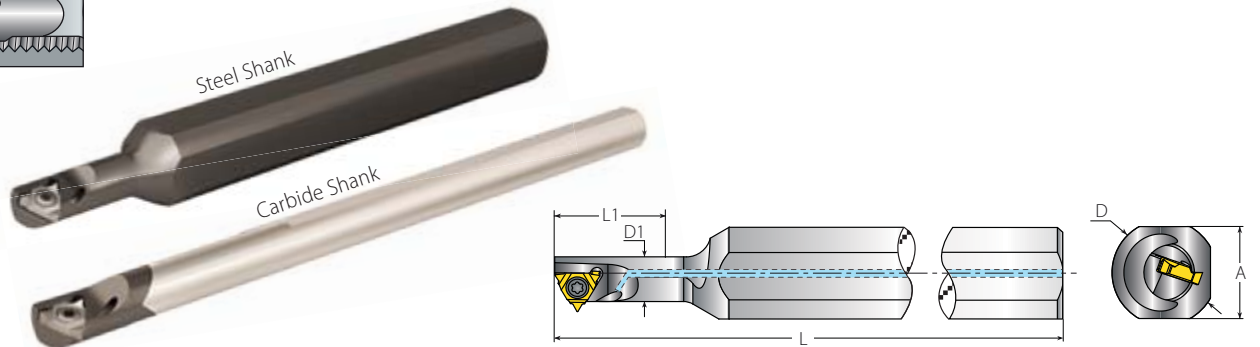


### Mini-3 Standard

Insert Size	Ordering Code	EDP No.		Dimensions inch						Anti-Vibration System	Spare Parts	
		RH	LH	A	L	L1	D	D1	Insert Screw		Torx Key	
5.0	NVRC 260-5.0K	66258	66259	.59	5	.70	.62	.26	No	SN5MT (70056)	K6MT (70054)	
	CNVRC 260-5.0K	66262	66263	.28	5	1.22	.31	.26	Carbide Shank			



## Internal Toolholders U Style



### Mini-3 U Style

Insert Size	Ordering Code	EDP No.		Dimensions inch						Anti-Vibration System	Spare Parts	
		RH	LH	A	L	L1	D	D1	Insert Screw		Torx Key	
5.0U	NVRC 290-5.0KU	66247	66248	.59	5	.83	.62	.29	No	SN5MT (70056)	K6MT (70054)	
	CNVRC 290-5.0KU	66249	66250	.28	5	1.38	.31	.29	Carbide Shank			

# Recommended Grades and Cutting Speeds Vc [ft/min] Mini-3 IC 5.0

Material Group	Vardex No.	Material	Hardness Brinell HB	Vc [ft/min]	
				Coated	VBX / VTX
<b>P</b> Steel	1	Unalloyed steel	Low carbon (C=0.1-0.25%)	125	131-262
	2		Medium carbon (C=0.25-0.55%)	150	131-262
	3		High Carbon (C=0.55-0.85%)	170	131-262
	4	Low alloy steel (alloying elements ≤5%)	Non hardened	180	131-262
	5		Hardened	275	131-262
	6		Hardened	350	131-262
	7	High alloy steel (alloying elements >5%)	Annealed	200	131-196
	8		Hardened	325	131-196
	9	Cast steel	Low alloy (alloying elements <5%)	200	131-196
	10		High alloy (alloying elements >5%)	225	131-196
<b>M</b> Stainless Steel	11	Stainless steel Ferritic	Non hardened	200	131-196
	12		Hardened	330	131-196
	13	Stainless steel Austenitic	Austenitic	180	131-196
	14		Super Austenitic	200	131-196
	15	Stainless steel Cast Ferritic	Non hardened	200	131-196
	16		Hardened	330	131-196
	17	Stainless steel Cast austenitic	Austenitic	200	131-196
	18		Hardened	330	131-196
<b>K</b> Cast Iron	28	Malleable Cast iron	Ferritic (short chips)	130	131-262
	29		Pearlitic (long chips)	230	131-262
	30	Grey cast iron	Low tensile strength	180	131-262
	31		High tensile strength	260	131-262
	32	Nodular SG iron	Ferritic	160	131-262
	33		Pearlitic	260	131-262
<b>N(K)</b> Non-Ferrous Metals	34	Aluminium alloys Wrought	Non aging	60	131-393
	35		Aged	100	131-393
	36	Aluminium alloys	Cast	75	131-393
	37		Cast & aged	90	131-393
	38	Aluminium alloys	Cast Si 13-22%	130	131-393
	39	Copper and copper alloys	Brass	90	131-393
	40		Bronze and non leaded copper	100	131-393
<b>S(M)</b> Heat Resistant Material	19	High temperature alloys	Annealed (Iron based )	200	
	20		Aged (Iron based)	280	
	21		Annealed (Nickel or Cobalt based)	250	
	22		Aged (Nickel or Cobalt based)	350	
	23	Titanium alloys	Pure 99.5 Ti	400Rm	
	24		α+β alloys	1050Rm	
<b>H(K)</b> Hardened Material	25	Extra hard steel	Hardened & tempered	45-50HRc	
	26			51-55HRc	

## Grades

Grade	Application
<b>VBX</b>	Carbide grade for Mini IC 5.0. For machining steel and general use. TiCN coated.
<b>VTX</b>	Carbide grade for Mini IC 5.0. For machining stainless steel and general use. TiAlN coated.

Standard



U Style



## Number of Passes

Pitch	mm	0.50	0.75	1.00	1.25	1.50	1.75	2.00
	tpi	48	32	24	20	16	14	12
No. of Passes		8-13	13-18	18-23	23-28	27-32	30-35	35-40



**VARDEX**  
Advanced Threading Solutions

**Mini-3 IC 5.0**  
Indexable Threading Inserts for Small Bores