



MITM

Multi-Flute Indexable Thread Milling



VARDEX Threading Solutions

Inch

MiTM

New family of Thread Milling Tools

The new VARDEX Multi-Flute Indexable Thread Mill (MiTM), reduces cycle time on machining of threads with long inserts 25mm(.988") or 40mm(1.575") in a variety of holder styles.



Standard 25



Standard 40



Conical 25



Shell Mill 25
Standard & Conical



Shell Mill 40
Standard & Conical



MiTM Features:

- Up to 9 inserts for high feed rate
- Tool cutting diameter down to .67"
- Excellent stability in deep holes
- Coolant - Thru for excellent chip flow
- Adjustable overhang in Shell Mill cutters



MITM™ Ordering Code System

MITM Inserts

R	25	I	1.00	ISO	TM	VBX
1	2	3	4	5	6	7
1 - Product Line	2 - Insert size	3 - Type of insert	4 - Pitch	5 - Standard	6 - System	7 - Carbide Grade
R- MITM line	25mm(.988") 40mm(1.575")	I - Internal E - External EI-External+Internal NC- Plug	1.0-3.0 mm 20-8 tpi	ISO- ISO Metric UN-American UN W- BSW, BSP NPT-NPT NPTF-NPTF BSPT-BSPT	TM	VBX VTX

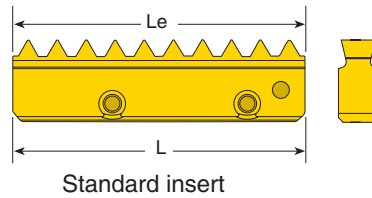
MITM Holders (Standard and Conical)

R	TM	C		100	067	-	110	S	2
1	2	3		4	5		6	7	8
1 - Product Line	2 - System	3 - Cooling		4 - Shank Dia. [inch]	5 - Cutting Dia. [inch]				
R- MITM line BR - MITM with anti vibration system	TM - Standard holder TMN - Conical holder	C- Coolant Channel		1",1.25"	.67" - 1.18"				
6 - Tool Cutting Length [inch]	7 - Insert size [inch]	8 - No. of flutes							
1.10" - 3.15"	S - Short 25 (.988") L - Long 40 (1.575")	2 - 5							

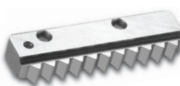
MITM Holders (Shell Mill)

R	TM	C	-	D150	050	-	25S	5
1	2	3		4	5		6	7
1 - Product Line	2 - System	3 - Cooling		4 - Cutting Dia. [inch]	5 - Drive Hole Dia. [inch]			
R- MITM line	TM - Standard holder TMN - Conical holder	C- Coolant Channel		1.535" - 1.929"	0.5",0.75",1"			
6 - Insert size [inch]	7 - No. of flutes							
25S - Short 25 (.988") 40L - Long 40 (1.575")	5 - 9							

Inserts 25




R25 Inserts - Internal

		L	Pitch		Ordering Code	EDP No.		Teeth		Toolholder	
			mm	tpi		VTX	VBX	Le	Zt		
 <p>Standard insert</p>	ISO	.988" (25 mm)	1.00	-	R25I1.00ISOTM...	80482	80483	.945	24	(B)RTMC...S All Types	
			1.50	-	R25I1.50ISOTM...	80484	80485	.945	16		
			2.00	-	R25I2.00ISOTM...	80486	80487	.945	12		
			2.50	-	R25I2.50ISOTM...	80488	80489	.988	10		
			3.00	-	*R25I3.00ISOTM...	80490	80491	.945	8		*See note below
	UN	.988" (25 mm)	-	20	R25I20UNTM...	80492	80493	.950	19	(B)RTMC...S All Types	
			-	18	R25I18UNTM...	80494	80495	.944	17		
			-	16	R25I16UNTM...	80496	80497	.938	15		
			-	14	R25I14UNTM...	80498	80499	.929	13		
			-	12	R25I12UNTM...	80500	80501	.917	11		
			-	10	R25I10UNTM...	80502	80503	.900	9		
			-	9	*R25I9UNTM...	80504	80505	.889	8		*See note below
			-	8	*R25I8UNTM...	80506	80507	.875	7		

* Note: 3.00 ISO, 8 UN & 9 UN inserts do not fit into holders RTMC 100067..

R25 Inserts - External**

		L	Pitch		Ordering Code	EDP No.		Teeth		Toolholder	
			mm	tpi		VTX	VBX	Le	Zt		
 <p>Standard insert</p>	ISO	.988" (25 mm)	1.00	-	R25E1.00ISOTM...	80584	80585	.945	24	(B)RTMC...S All Types	
			1.50	-	R25E1.50ISOTM...	80586	80587	.945	16		
			2.00	-	R25E2.00ISOTM...	80588	80589	.945	12		
			2.50	-	R25E2.50ISOTM...	80590	80591	.988	10		
			3.00	-	*R25E3.00ISOTM...	80592	80593	.945	8		*See note below
	UN	.988" (25 mm)	-	20	R25E20UNTM...	80594	80595	.950	19	(B)RTMC...S All Types	
			-	18	R25E18UNTM...	80596	80597	.944	17		
			-	16	R25E16UNTM...	80598	80599	.938	15		
			-	14	R25E14UNTM...	80600	80601	.929	13		
			-	12	R25E12UNTM...	80602	80603	.917	11		
			-	10	R25E10UNTM...	80604	80605	.900	9		
			-	9	*R25E9UNTM...	80606	80607	.889	8		*See note below
			-	8	*R25E8UNTM...	80608	80609	.875	7		

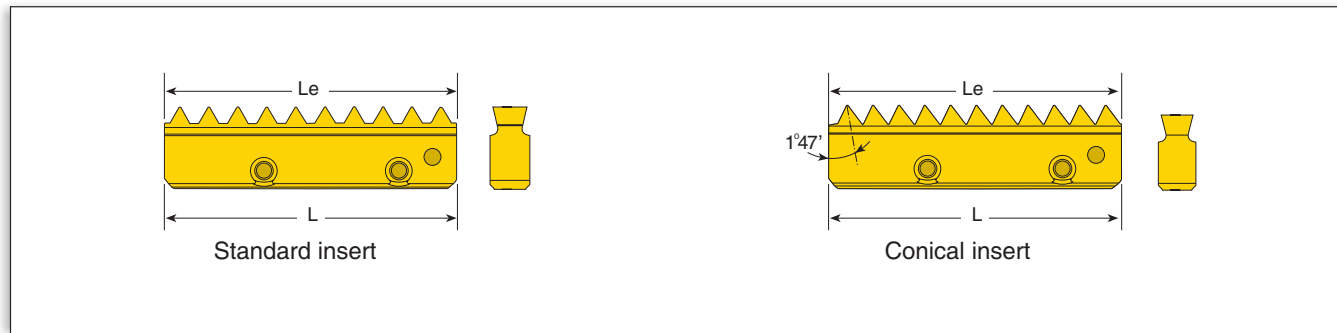
* Note: 3.00 ISO, 8 UN & 9 UN inserts do not fit into holders RTMC 100067..

For External Inserts 3.0 ISO and 8 UN use for CNC program (D2+.02")



**For External Applications - $\frac{\text{Thread Nominal Dia.}}{\text{Tool Cutting Dia. (D2)}} = 0.75$ minimum




Inserts 25



R25 Inserts - External/Internal

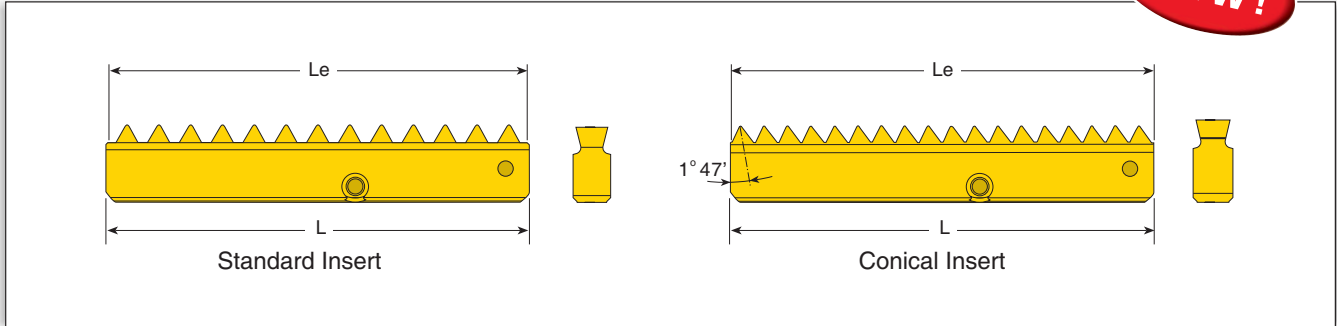
		L	Pitch		Ordering Code	EDP No.		Teeth		Toolholder	
			mm	tpi		VTX	VBX	Le	Zt		
 Standard insert	W	.988" (25 mm)	-	16	R25EI16WTM...	80508	80509	.938	15	(B)RTMC...S All Types	
			-	14	R25EI14WTM...	80510	80511	.929	13		
			-	12	R25EI12WTM...	80512	80513	.917	11		
			-	11	R25EI11WTM...	80514	80515	.909	10		
 Conical insert Conical inserts have one cutting edge	NPT	.988" (25 mm)	-	14	R25EI14NPTTM...	80516	80517	.786	13	RTMNC...S	
			-	11.5	R25EI11.5NPTTM...	80518	80519	.957	11		
			-	8	R25EI8NPTTM...	80580	80581	.875	7		RTMNC-D150-050-25S5
	NPTF	.988" (25 mm)	-	14	R25EI14NPTFTM...	80520	80521	.786	13	RTMNC...S	
			-	11.5	R25EI11.5NPTFTM...	80522	80523	.957	11		
			-	8	R25EI8NPTFTM...	80582	80583	.875	7		RTMNC-D150-050-25S5
			-	14	R25EI14BSPTTM...	80524	80525	.786	13		RTMNC...S
BSPT	.988" (25 mm)	-	11	R25EI11BSPTTM...	80526	80527	.957	10			

R25NC Plug Insert*

	L	Ordering Code	EDP No.	Teeth	Toolholder	
					Zt	
 R25NC Plug Insert	.988" (25 mm)	R25NC	80532	No Teeth	(B)RTMC...S RTMNC...S	All Types

* For unused toolholder pockets

Inserts 40



R40 Inserts

		L	Pitch		Ordering Code	EDP No.		Teeth		Toolholder
			mm	tpi		VTX	VBX	Le	Zt	
<p>Standard insert</p>	ISO	1.575" (40 mm)	1.00	-	R40I1.00ISOTM...	80702	80703	1.535	39	(B)RTMC...L All Types
			1.50	-	R40I1.50ISOTM...	80704	80705	1.535	26	
			2.00	-	R40I2.00ISOTM...	80706	80707	1.496	19	
			2.50	-	R40I2.50ISOTM...	80708	80709	1.476	15	
			3.00	-	R40I3.00ISOTM...	80710	80711	1.535	13	
	UN	1.575" (40 mm)	-	20	R40I20UNTM...	80712	80713	1.550	31	(B)RTMC...L All Types
			-	18	R40I18UNTM...	80714	80715	1.556	28	
			-	16	R40I16UNTM...	80716	80717	1.563	25	
			-	14	R40I14UNTM...	80718	80719	1.571	22	
			-	12	R40I12UNTM...	80720	80721	1.500	18	
			-	10	R40I10UNTM...	80722	80723	1.500	15	
			-	9	R40I9UNTM...	80724	80725	1.556	14	
	W	1.575" (40 mm)	-	16	R40EI16WTM...	80610	80611	1.563	25	(B)RTMC...L All Types
			-	14	R40EI14WTM...	80612	80613	1.571	22	
			-	12	R40EI12WTM...	80614	80615	1.500	18	
<p>Conical insert Conical inserts have one cutting edge</p>	1.575" (40 mm)	-	8	R40EI8NPTTM...	80728	80729	1.500	12	RTMNC D190-075-40L7	
		-	11.5	R40EI11.5NPTTM...	80743	80744	1.478	17		
		-	8	R40EI8NPTFTM...	80730	80731	1.500	12		
		-	11.5	R40EI11.5NPTFTM...	80745	80746	1.478	17		
		-	11	R40EI11BSPTTM...	80732	80733	1.545	17		

**For External Applications - $\frac{\text{Thread Nominal Dia.}}{\text{Tool Cutting Dia. (D2)}} = 0.75$ minimum

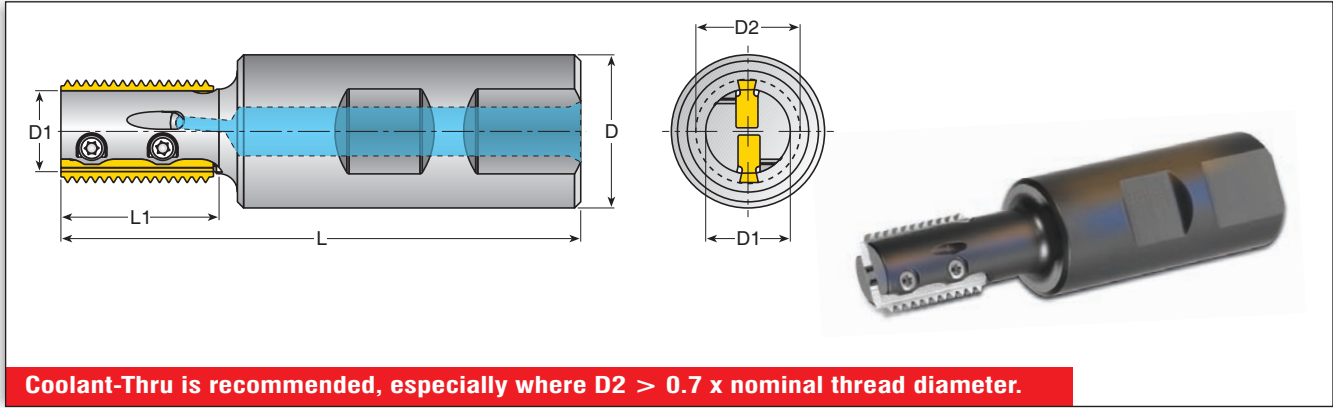
R40NC Plug Insert

	L	Ordering Code	EDP No.	Teeth	Toolholder	
					Zt	
	1.575" (40 mm)	R40NC	80626	No Teeth	(B)RTMC...L RTMNC...L	All Types

* Fill unused toolholder pockets with Plug inserts (R40NC). This assures balance and prevents instability and chips from packing into empty pockets.





Standard Toolholders (For Inserts 25)



Coolant-Thru is recommended, especially where $D2 > 0.7 \times$ nominal thread diameter.

RTMC - for Standard Threads

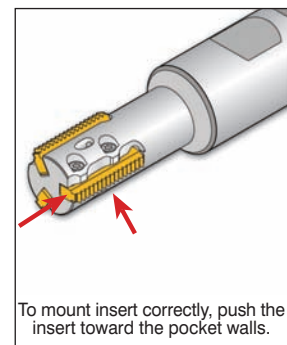
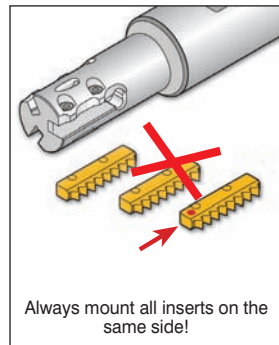
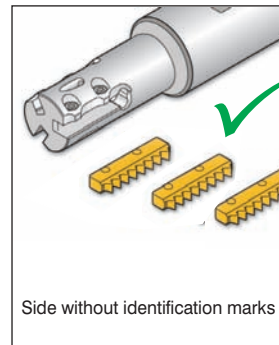
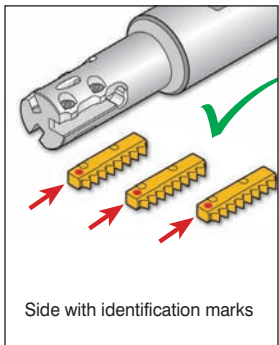
Spare Parts (Ordering Code & EDP No.)

Insert Length	Ordering Code	EDP No.	Dimensions [inch]					No. of Flutes	 Screw	 Torx+ Screwdriver *
			L	L1	D	D1	D2			
.988" (25 mm)	RTMC 100067-110S2	80471	3.50	1.10	1.00	.55	.67	2	SLD4IP8 (M4 x 0.7) (80533)	KIP8 (70231)
	RTMC 100067-145S2	80472	3.86	1.45		.55	.67	2		
	RTMC 100075-125S2	80633	3.65	1.25		.60	.75	2		
	RTMC 100075-175S2	80634	4.15	1.75		.60	.75	2		
	RTMC 100081-150S3	80474	3.90	1.50		.65	.81	3		
	RTMC 100081-175S3	80475	4.15	1.75		.65	.81	3		
	RTMC 100087-170S3	80476	4.09	1.70		.71	.87	3		
	RTMC 100087-220S3	80478	4.60	2.20		.71	.87	3		
	RTMC 100118-220S5	80479	4.53	2.20		1.10	1.18	5		
	BRTMC 100118-315S4	80481	5.51	3.15		1.10	1.18	4		

* Use the included Vardex Torx+ screwdriver only

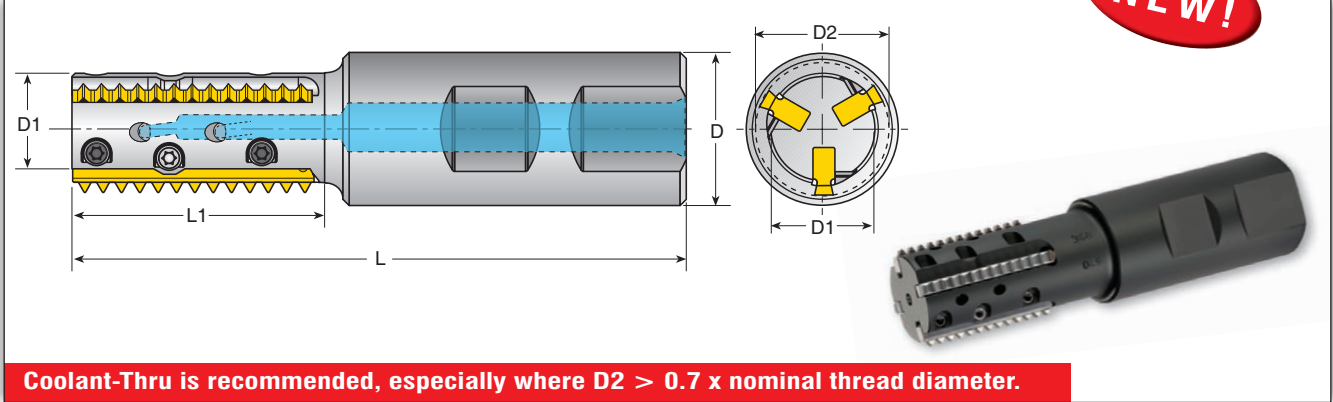
Thread Application per Toolholder

Toolholder	Min. Thread Ø						
	D2 [inch]	ISO [coarse]	ISO [fine]	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 100067-110S2	.67	M20x2.5	M19x1; M19x1.5;	-	7/8 - 10UNS; 13/16 - 12UN; 7/8 - 14UNF;	7/8 - 11; 7/8 - 12;	1/2 - 14
RTMC 100067-145S2			M20x2		3/4 - 16UNF; 3/4 - 18UNS; 3/4 - 20UNEF	7/8 - 14; 7/8 - 16	
RTMC 100075-125S2	.75	M22x2.5	M21x1; M21x1.5;	7/8-9;	7/8-20 UNEF; 7/8-18UNS; 7/8-16UN;	7/8-16; 7/8-14;	5/8 - 14
RTMC 100075-175S2			M22x2	1-8	7/8-14UNF; 7/8-12UN; 7/8-10UNS	15/16-12; 15/16-11	
RTMC 100081-150S3	.81	M24x3	M22x1; M23x1.5;	1-8	15/16 - 9UN; 1 - 10UNS; 15/16 - 12UN;	1 - 11; 1 - 12;	5/8 - 14
RTMC 100081-175S3			M23x2; M23.5x2.5		1 - 14UNS; 15/16 - 16UN; 7/8 - 18UNS; 7/8 - 20UNEF	1 - 14; 1 - 16	
RTMC 100087-170S3	.87	M27x3	M24x1; M24x1.5;	-	11/16 - 8UN; 1 - 9UN; 1 - 10UNS; 1 - 12UNF;	1 - 11; 1 - 12;	3/4 - 14
RTMC 100087-220S3			M25x2; M25x2.5		1 - 14UNS; 1 - 16UN; 1 - 18UN; 15/16 - 20UNEF	1 - 14; 1 - 16	
RTMC 100118-220S5	1.18	-	M32x1; M32x1.5;	-	13/8 - 8UN; 13/8 - 9UN; 13/8 - 10UN; 15/16 - 12UN;	13/8 - 11; 13/8 - 12;	1 - 11
BRTMC 100118-315S4			M33x2; M33x2.5; M34x3		13/8 - 14UNS; 15/16 - 16UN; 15/16 - 18UNEF; 15/16 - 20UN	13/8 - 14; 13/8 - 16	



Standard Toolholders (For Inserts 40)

NEW!



Coolant-Thru is recommended, especially where $D2 > 0.7 \times$ nominal thread diameter.

RTMC - for Standard Threads

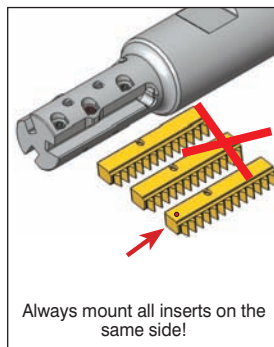
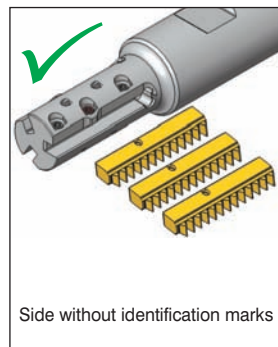
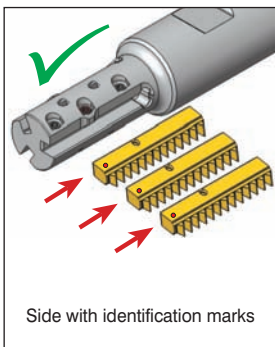
Spare Parts (Ordering Code & EDP No.)

Insert Length	Ordering Code	EDP No.	Dimensions (inch)					No. of Flutes	Spare Parts (Ordering Code & EDP No.)		
			L	L1	D	D1	D2		Location Screw	Clamping Screw x2	Torx+ Screwdriver *
inch			L	L1	D	D1	D2	Z			
1.575" (40mm)	RTMC 100087-169L3	80618	4.00	1.69	1.00	.71	.87	3	SLD4IP8A (M4 x 0.7) (80533)	SCD4IP8 (M4 x 0.7) (80622)	KIP8 (70231)
	RTMC 100087-256L3	80619	4.87	2.56	1.00	.71	.87	3			
	RTMC 125118-220L4	80620	4.55	2.20	1.25	1.02	1.18	4			
	BRTMC 125118-315L3	80621	5.35	3.15	1.25	1.02	1.18	3			

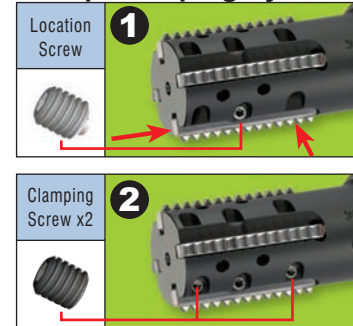
* Use the included Vardex Torx+ screwdriver only

Standard Thread Application by Toolholder

Toolholder	Min. Thread Ø						
	D2 (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 100087-169L3	.87	M27x3	M24x1; M24x1.5;	-	1 ¹ / ₁₆ - 8UN ; 1 - 9UN ; 1 - 10UNS ; 1 - 12UNF ;	1 - 11; 1 - 12;	3/4 - 14
RTMC 100087-256L3			M25x2; M25x2.5		1 - 14UNS ; 1 - 16UN ; 1 - 18UN ; 1 ⁵ / ₁₆ - 20UNEF	1 - 14; 1 - 16	
RTMC 125118-220L4	1.18	-	M32x1; M32x1.5;	-	1 ³ / ₈ - 8UN ; 1 ³ / ₈ - 9UN ; 1 ³ / ₈ - 10UN ; 1 ⁵ / ₁₆ - 12UN ;	1 ³ / ₈ - 11; 1 ³ / ₈ - 12;	1 - 11
BRTMC 125118-315L3			M33x2; M33x2.5; M34x3		1 ³ / ₈ - 14UNS ; 1 ⁵ / ₁₆ - 16UN ; 1 ⁵ / ₁₆ - 18UNEF ; 1 ⁵ / ₁₆ - 20UN	1 ³ / ₈ - 14; 1 ³ / ₈ - 16	

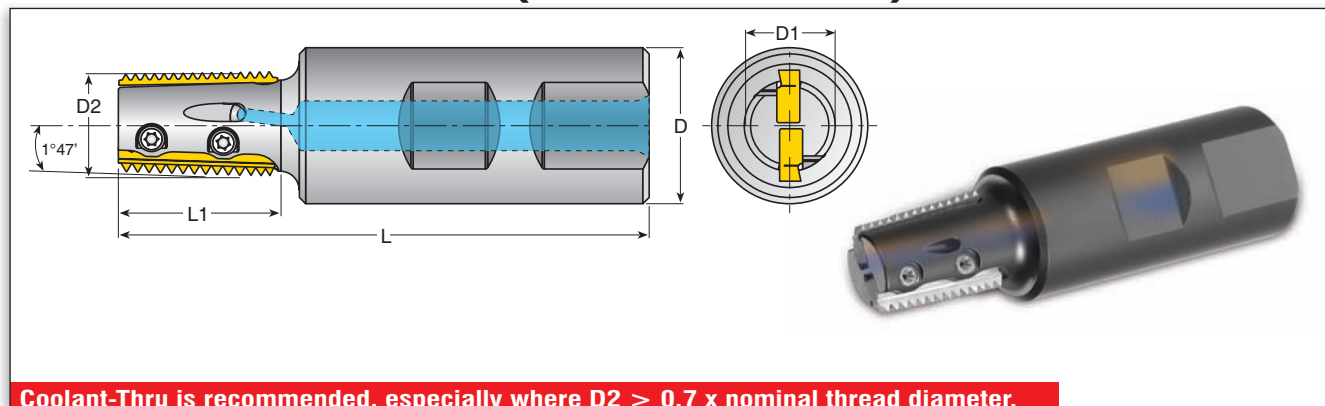


2 Step Clamping System!







Conical Toolholders (For Inserts 25)



Coolant-Thru is recommended, especially where $D2 > 0.7 \times$ nominal thread diameter.

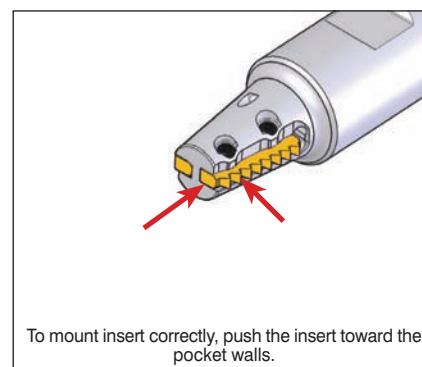
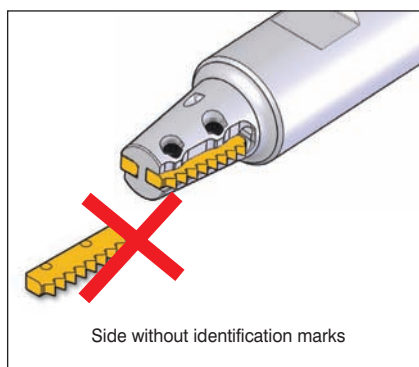
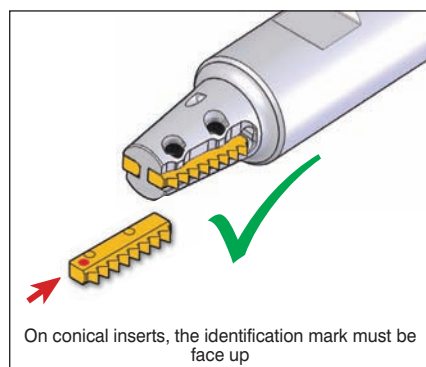
RTMNC - for Conical Threads

Insert Length	Ordering Code	EDP No.	Dimensions [inch]						No. of Flutes	Spare Parts (Ordering Code & EDP No.)	
			L	L1	D	D1	D2	Z			
.988" (25 mm)	RTMNC 100067-110S2	80473	3.50	1.10	1.00	.55	.67	2	SLD4IP8 (M4 x 0.7) (80533)	KIP8 (70231)	
	RTMNC 100087-170S3	80477	4.09	1.70	1.00	.71	.87	3			
	RTMNC 100110-170S4	80480	4.06	1.70	1.00	1.10	1.10	4			

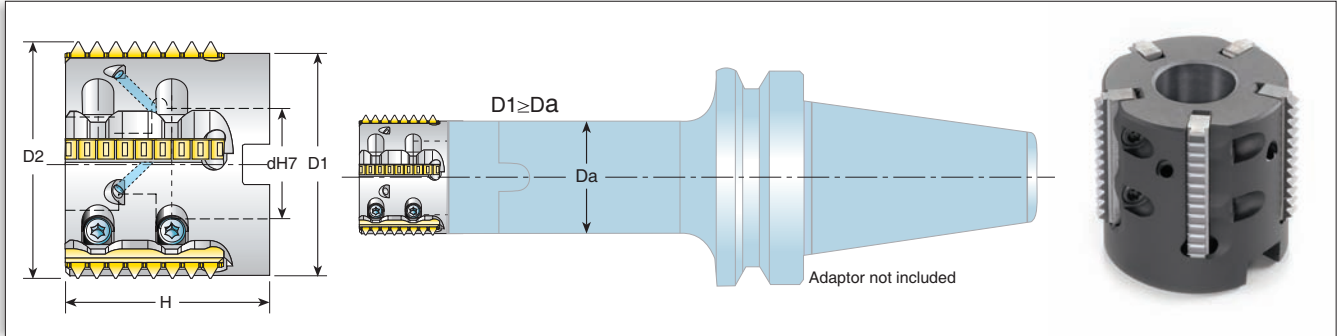
* Use the included Vardex **Torx+** screwdriver only

Thread Application per Toolholder

Toolholder	Thread Ø			
	D2[inch]	NPT	NPTF	BSPT
RTMNC 100067-110S2	.67	1/2 - 14; 3/4 - 14; 1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	1/2 - 14; 3/4 - 14; 1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	1/2 - 14; 3/4 - 14; 1 - 11; 1 1/4 - 11; 1 1/2 - 11; 2 - 11
RTMNC 100087-170S3	.87	3/4 - 14; 1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	3/4 - 14; 1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	3/4 - 14; 1 - 11; 1 1/4 - 11; 1 1/2 - 11; 2 - 11; 2 1/2 - 11; 3 - 11; 4 - 11; 5 - 11; 6 - 11
RTMNC 100110-170S4	1.10	1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	1 - 11.5; 1 1/4 - 11.5; 1 1/2 - 11.5; 2 - 11.5	1 - 11; 1 1/4 - 11; 1 1/2 - 11; 2 - 11; 2 1/2 - 11; 3 - 11; 4 - 11; 5 - 11; 6 - 11



Shell Mill (For Inserts 25)



Conical and Standard Shell Mills

Insert Length	Ordering Code	EDP No.	Dimensions [inch]					No. of Flutes	Spare Parts (Ordering Code & EDP No.)		
			D1	D2	dH7	H	Z		Screw	Torx+ Screwdriver*	Holder Screw
Standard .988 (25mm)	RTMC-D150-050-25S5	80569	1.378	1.535	.5	1.260	5	SLD4IP8 (M4x0.7) (80533)	KIP8 (70231)	1/4"-28x1.00	(70263)
	RTMC-D190-075-25S7	80570	1.772	1.929	.75	1.575	7			3/8"-24x1.125	(70223)
	RTMC-D230-100-25S9	80571	2.165	2.323	1	1.575	9			1/2"-20x1.25	(70262)
Conical	RTMNC-D150-050-25S5	80572	1.378	1.535**	.5	1.260	5			1/4"-28x1.00	(70263)

* Use the included Vardex Torx+ screwdriver only

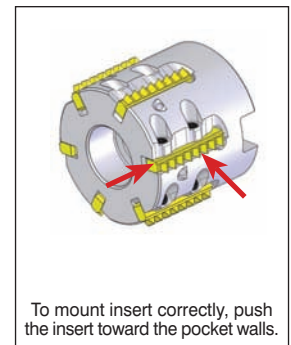
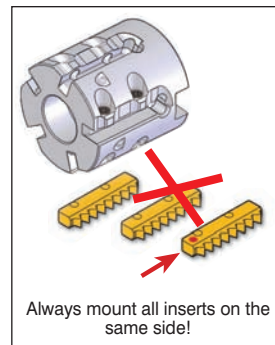
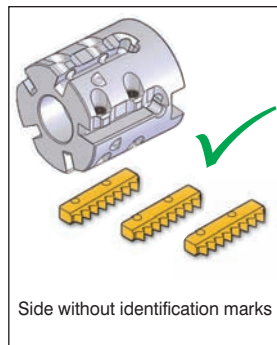
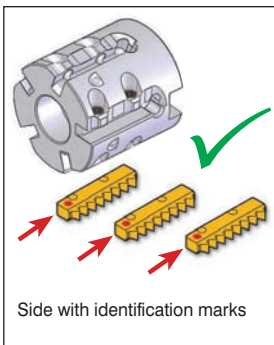
** For inserts 8NPT and 8 NPTF use for CNC program (D2 +0,0236")

Standard Thread Applications per Toolholder

Toolholder		Min. Thread Ø				
		D2[inch]	ISO [fine]	UN/UNF/UNEF/UNS	BSW	BSP(G)
Standard	RTMC-D150-050-25S5	1.535	M42x1; M42x1.5; M45x2; M45x3	1 ¹ / ₁₆ -12UNF; 1 ³ / ₄ -14UNS; 1 ⁵ / ₈ -16UN 1 ⁵ / ₈ -18UNEF; 1 ⁵ / ₈ -20UN;	1 ³ / ₄ -16 1 ³ / ₄ -12	1 ¹ / ₂ - 11
	RTMC-D190-075-25S7	1.929	M52x1; M55x1.5; M55x2; M55x3	2 ¹ / ₈ -12UN; 2 ¹ / ₁₆ -16UN; 2 ¹ / ₈ -20UN; 2 ¹ / ₈ -8UN 2 ¹ / ₄ -10UNS; 2 ¹ / ₄ -14UNS; 2 ¹ / ₄ -18UNS	2 ¹ / ₄ -16 2 ¹ / ₄ -12	1 ³ / ₄ - 11
	RTMC-D230-100-25S9	2.323	M64x1; M64x1.5; M64x2; M65x3	2 ¹ / ₂ -18UN; 2 ¹ / ₂ -20UN; 2 ¹ / ₂ -8UN 2 ¹ / ₂ -12UN; 2 ¹ / ₂ -10UN; 2 ¹ / ₂ -14UN; 2 ¹ / ₂ -16UN	2 ¹ / ₂ -16 2 ¹ / ₂ -12	2 ¹ / ₄ - 11

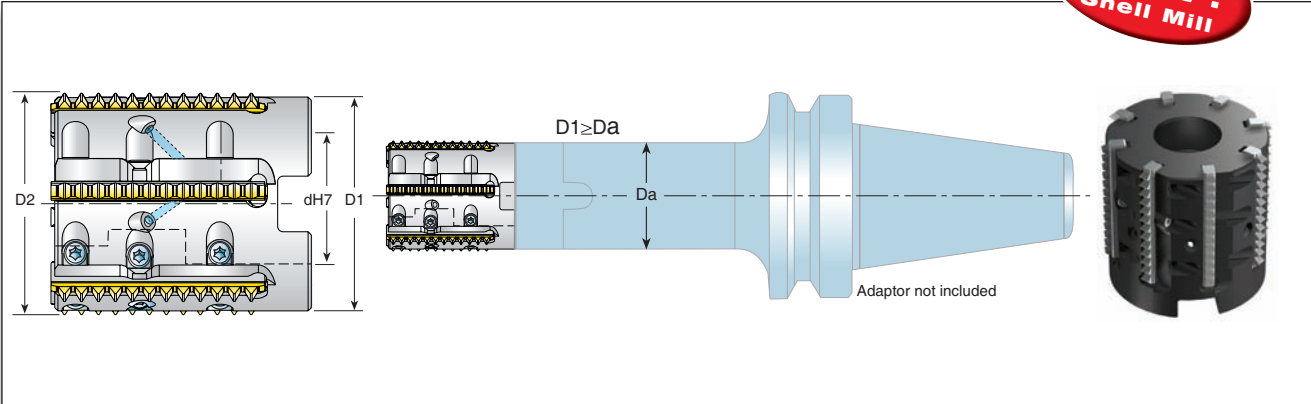
Conical Thread Applications per Toolholder

Toolholder		Thread Ø			
		D2[inch]	NPT	NPTF	BSPT
Conical	RTMNC-D150-050-25S5	1.535	1 ¹ / ₂ - 11.5; 2 - 11.5	1 ¹ / ₂ - 11.5; 2 - 11.5	1 ¹ / ₂ -6 x11





Shell Mill (For Inserts 40)



Conical and Standard Shell Mills

							Spare Parts (Ordering Code & EDP No.)					
Insert Length	Ordering Code	EDP No.	Dimensions (inch)				No. of Flutes					
			D1	D2	dh7	H		Z	Location Screw	Clamping Screw x2	Torx+ Screwdriver	Holder Screw
Standard	1.575"	RTMC D190-075-40L7	80623	1.772	1.929	.75	1.97	7	SLD4IP8A (M4 x 0.7) (80533)	SCD4IP8 (M4 x 0.7) (80622)	KIP8 (70231)	3/8"-24x1.25 (70223)
	(40mm)	RTMC D230-100-40L9	80624	2.165	2.323	1.00	2.00	9				1/2"-20x1.5 (70224)
Conical		RTMNC D190-075-40L7	80625	1.772	1.929	.75	1.97	7				3/8"-24x1.25 (70223)

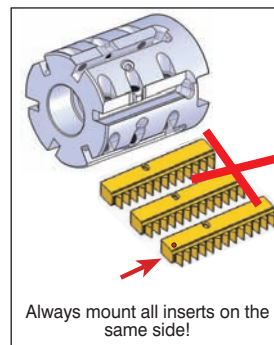
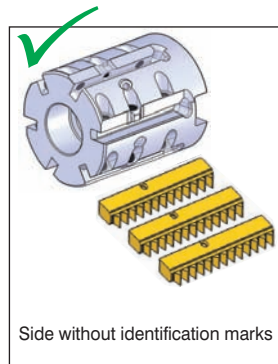
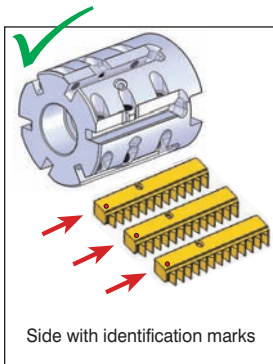
* Use the included Vardex Torx+ screwdriver only

Standard Thread Application per Toolholder

Toolholder		Min. Thread Ø				
		D2 (inch)	min ISO (fine)	UN/UNS	BSW	BSP(G)
Standard	RTMC D190-075-40L7	1.929	M52x1; M55x1.5; M55x2; M55x3	2 1/8 -8UN; 2 1/8 -12UN; 2 1/16-16UN; 2 1/8 -20UN; 2 1/4 -10UNS; 2 1/4 -14UNS; 2 1/4 -18UNS	2 1/4 -12; 2 1/4 -16	1 3/4 -11
	RTMC D230-100-40L9	2.323	M64x1; M64x1.5; M64x2; M65x3	2 1/2 -8UN; 2 1/2 -10UNS; 2 1/2 -12UN; 2 1/2 -14UNS; 2 1/2 -16UN; 2 1/2 -18UNS; 2 1/2 -20UN	2 1/2 -12; 2 1/2 -16	2 1/4 -11

Conical Thread Applications by Toolholder

Toolholder		Thread Ø			
		D2 (inch)	NPT	NPTF	BSPT
Conical	RTMNC D190-075-40L7	1.929	2-11.5; 2 1/2-8(and up)	2-11.5; 2 1/2-8; 3-8	2 1/2 -6x11



2 Step Clamping System!

