



MiTM

Super Fast Thread Milling System

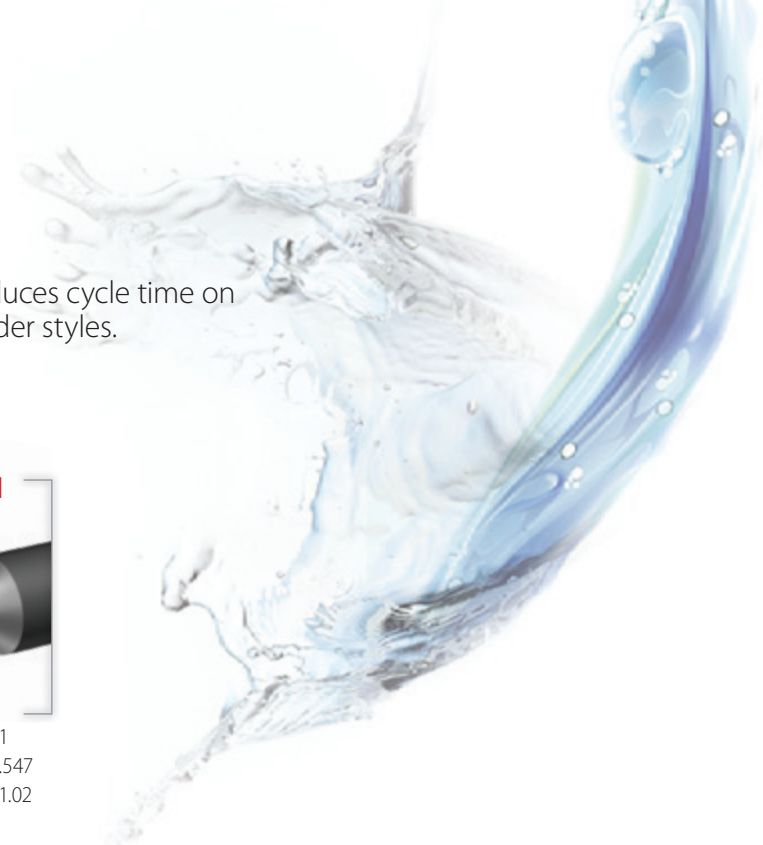


INCH

MiTM

New Family of Thread Milling Tools

The VARDEX Multi-flute Indexable Thread Mill (MiTM), reduces cycle time on machining of threads with long inserts in a variety of holder styles.



MiTM 24 (M)

For Small Bores



No. of Flutes (Z) 1-2
Cutting Dia. (D2) .54-.63
Tool Overhang (L1) 1.02-1.42



No. of Flutes (Z) 1
Cutting Dia. (D2) .547
Tool Overhang (L1) 1.02

MiTM 25 (S)

For Standard Applications



No. of Flutes (Z) 2-5
Cutting Dia. (D2) .67-1.18
Tool Overhang (L1) 1.10-3.15



No. of Flutes (Z) 2-4
Cutting Dia. (D2) .67-1.10
Tool Overhang (L1) 1.10-1.70



No. of Flutes (Z) 5-9
Cutting Dia. (D2) 1.54-2.32
Tool Overhang (L1) max. 7.87



No. of Flutes (Z) 5
Cutting Dia. (D2) 1.54
Tool Overhang (L1) max. 7.87

MiTM 40 (L)

For Long Threads



No. of Flutes (Z) 3-4
Cutting Dia. (D2) .87-1.18
Tool Overhang (L1) 1.69-3.15



No. of Flutes (Z) 6-8
Cutting Dia. (D2) 1.93-2.32
Tool Overhang (L1) max. 7.87



No. of Flutes (Z) 6
Cutting Dia. (D2) 1.93
Tool Overhang (L1) max. 7.87

MiTM 41 (B)

For Large Pitches



No. of Flutes (Z) 2-5
Cutting Dia. (D2) .96-1.42
Tool Overhang (L1) 1.69-2.56



No. of Flutes (Z) 5-6
Cutting Dia. (D2) 2.09-2.48
Tool Overhang (L1) max. 7.87

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TM Gen Software and updated versions can be downloaded from www.vargususa.com

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 Style	3 - Type of Insert		4 - Pitch	5 - Standard	6 - System	7 - Carbide Grade
R - MiTM line	24, 25, 40, 41	I - Internal E - External EI-External+Internal NC- Plug		0.5-6.0 mm 32-4 tpi	ISO- ISO Metric UN-American UN W- BSW, BSP NPT-NPT NPTF-NPTF BSPT-BSPT	TM	VBX VTX

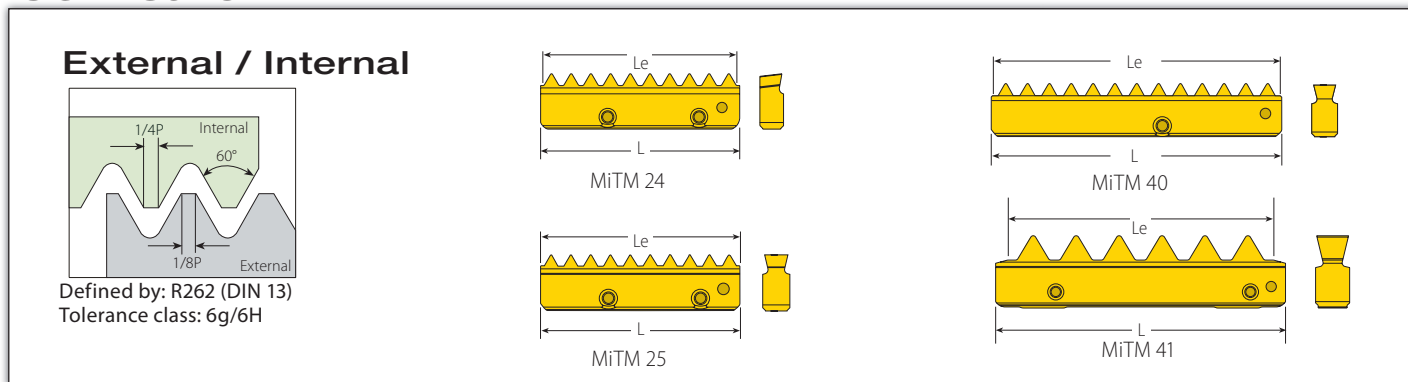
MiTM Holders (Standard and Conical)

R	TM	C		100	067	-	110	S	2
1	2	3		4	5		6	7	8
1 - Product Line	2 - Holder Type	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		.54-1.42			
6 - Tool Overhang [inch]	7 - Insert Style		8 - No. of Flutes						
1.02-3.15	M - 24 S - 25 L - 40 B - 41		1 - 5						

MiTM Shell Mill

R	TM	C		D150	050	-	25S	5
1	2	3		4	5		6	7
1 - Product Line	2 - Holder Type	3 - Cooling		4 - Cutting Dia. [inch]		5 - Drive Hole Dia. [inch]		
R - MiTM line	TM - Standard holder TMN - Conical holder	C- Coolant Channel		1.54-2.48		.5, .75, 1		
6 - Insert Style		7 - No. of Flutes						
25S 40L 41B		5 - 9						

ISO Metric



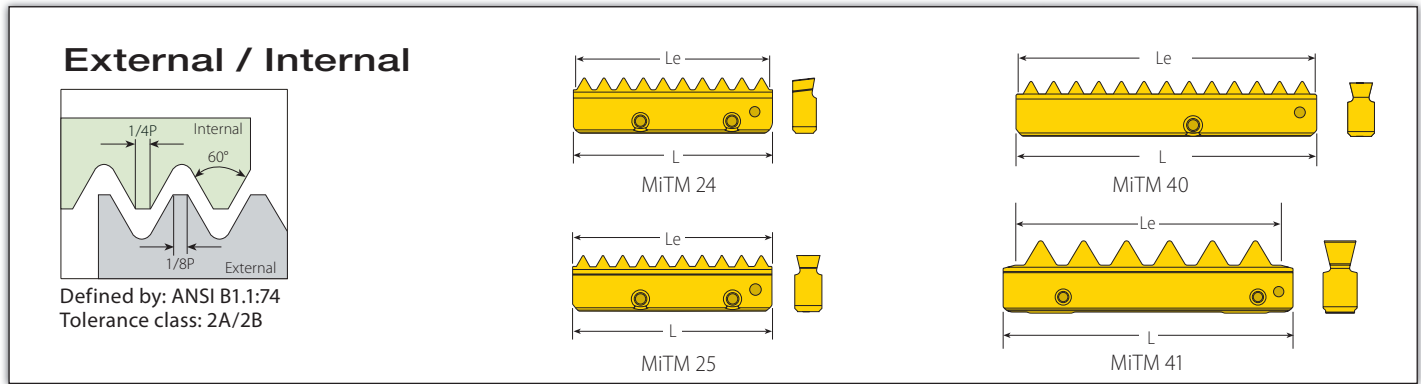
Standard MiTM

L	Pitch	Ordering Code		EDP No.		Cutting Edge	Teeth	Toolholder			
		External	Internal	VTX	VBX				VTX	VBX	
	tpi						Le	Zt			
.945" (24 mm)	0.50					1	.96	49			
	0.75					1	.97	33			
	1.00					1	.94	24			
	1.25					1	.98	20			
	1.50					1	.94	16			
	1.75					1	.96	14			
	2.00					1	.94	12			
	2.50					1	.98	10			
.988" (25 mm)	1.00	R25E1.00ISOTM...	80584	80585	R25I1.00ISOTM...	80482	80483	2	.94	24	(B)RTMC...S
	1.50	R25E1.50ISOTM...	80587	80586	R25I1.50ISOTM...	80484	80485	2	.94	16	
	2.00	R25E2.00ISOTM...	80588	80589	R25I2.00ISOTM...	80486	80487	2	.94	12	
	2.50	R25E2.50ISOTM...	80590	80591	R25I2.50ISOTM...	80488	80489	2	.98	10	
	3.00	*R25E3.00ISOTM...	80592	80593	*R25I3.00ISOTM...	80490	80491	2	.94	8	
1.575" (40 mm)	1.00					2	1.54	39	(B)RTMC...L		
	1.50					2	1.54	26			
	2.00					2	1.50	19			
	2.50					2	1.48	15			
	3.00					2	1.54	13			
1.614" (41 mm)	3.00	R41E3.00ISOTM...	80768	80769	R41I3.00ISOTM...	80782	80783	2	1.54	13	RTMC...B
	3.50	R41E3.50ISOTM...	80770	80771	R41I3.50ISOTM...	80784	80785	2	1.52	11	
	4.00	R41E4.00ISOTM...	80772	80773	R41I4.00ISOTM...	80786	80787	2	1.57	10	
	4.50	R41E4.50ISOTM...	80774	80775	R41I4.50ISOTM...	80788	80789	2	1.59	9	
	5.00	R41E5.00ISOTM...	80776	80777	R41I5.00ISOTM...	80790	80791	2	1.57	8	
	5.50	R41E5.50ISOTM...	80778	80779	R41I5.50ISOTM...	80792	80793	2	1.52	7	
	6.00	R41E6.00ISOTM...	80780	80781	R41I6.00ISOTM...	80794	80795	2	1.42	6	


* Note: 3.00 ISO inserts do not fit into toolholder RTMC100067...
For external insert 3.0 ISO use for CNC program (D2 + .02")

MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25I2.00ISOTM(S)...

American UN



Standard MiTM

	L	Pitch	Ordering Code		EDP No.		Cutting Edge	Teeth	Toolholder						
			External	VTX	VBX	Internal				VTX	VBX				
	.945" (24 mm)						1	.97	31						
													R24I32UNTM...	80796	80797
													R24I28UNTM...	80798	80799
													R24I24UNTM...	80802	80803
													R24I20UNTM...	80804	80805
													R24I18UNTM...	80806	80807
													R24I16UNTM...	80808	80809
													R24I14UNTM...	80810	80811
			R24I12UNTM...	80812	80813										
			R24I10UNTM...	80814	80815										
	.988" (25 mm)						2	.95	19						
										R25E20UNTM...	80594	80595	R25I20UNTM...	80492	80493
										R25E18UNTM...	80596	80597	R25I18UNTM...	80494	80495
										R25E16UNTM...	80598	80599	R25I16UNTM...	80496	80497
										R25E14UNTM...	80600	80601	R25I14UNTM...	80498	80499
										R25E12UNTM...	80602	80603	R25I12UNTM...	80500	80501
										R25E10UNTM...	80604	80605	R25I10UNTM...	80502	80503
										*R25E9UNTM...	80606	80607	*R25I9UNTM...	80504	80505
*R25E8UNTM...	80608	80609	*R25I8UNTM...	80506	80507										
	1.575" (40 mm)						2	1.55	31						
													R40I20UNTM...	80712	80713
													R40I18UNTM...	80714	80715
													R40I16UNTM...	80716	80717
													R40I14UNTM...	80718	80719
													R40I12UNTM...	80720	80721
													R40I10UNTM...	80722	80723
													R40I9UNTM...	80724	80725
			R40I8UNTM...	80726	80727										
	1.614" (41 mm)						2	1.50	12						
										R41E8UNTM...	80816	80817	R41I8UNTM...	80828	80829
										R41E7UNTM...	80818	80819	R41I7UNTM...	80830	80831
										R41E6UNTM...	80820	80821	R41I6UNTM...	80832	80833
										R41E5UNTM...	80822	80823	R41I5UNTM...	80834	80835
										R41E4.5UNTM...	80824	80825	R41I4.5UNTM...	80836	80837
										R41E4UNTM...	80826	80827	R41I4UNTM...	80838	80839

* Note: 8 UN & 9 UN inserts do not fit into toolholder RTMC100067...
For external insert 8 UN use for CNC program (D2 + .02")

MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25I20UNTM(S)...

NPT

External / Internal

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

Standard MiTM

L	Pitch	Ordering Code	EDP No.		Cutting Edge	Teeth		Toolholder
			External+	Internal		Le	Zt	
.945" (24 mm)	18	R24EI18NPTTM...	80873	80874	1	.94	17	RTMNC... M
	14	R25EI14NPTTM...	80516	80517	1	.93	13	RTMNC... S
.988" (25 mm)	11.5	R25EI11.5NPTTM...	80518	80519	1	.96	11	
	8	R25EI8NPTTM...	80580	80581	1	.87	7	RTMNC-D150-050-25 S5
1.575" (40 mm)	11.5	R40EI11.5NPTTM...	80743	80744	1	1.48	17	RTMNC-D190-075-40 L7
	8	R40EI8NPTTM...	80728	80729	1	1.50	12	
1.614" (41 mm)	8	R41EI8NPTTM...	80840	80841	1	1.50	12	RTMC... B

NPTF

External / Internal

Defined by: ANSI B1.20.3-1976
Tolerance class: Standard NPTF

Standard MiTM

L	Pitch	Ordering Code	EDP No.		Cutting Edge	Teeth		Toolholder
			External+	Internal		Le	Zt	
.945" (24 mm)	18	R24EI18NPTFTM...	80875	80876	1	.94	17	RTMNC... M
	14	R25EI14NPTFTM...	80520	80521	1	.93	13	RTMNC... S
.988" (25 mm)	11.5	R25EI11.5NPTFTM...	80522	80523	1	.96	11	
	8	R25EI8NPTFTM...	80582	80583	1	.87	7	RTMNC-D150-050-25 S5
1.575" (40 mm)	11.5	R40EI11.5NPTFTM...	80745	80746	1	1.48	17	RTMNC-D190-075-40 L7
	8	R40EI8NPTFTM...	80730	80731	1	1.50	12	
1.614" (41 mm)	8	R41EI8NPTFTM...	80842	80843	1	1.50	12	RTMC... B

Whitworth for BSF, BSP

External / Internal

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

Standard MiTM

	L	Pitch tpi	Ordering Code External+ Internal	EDP No.		Ordering Code Internal	EDP No.		Cutting Edge Le	Teeth Zt	Toolholder	
				VTX	VBX		VTX	VBX				
	.945" (24 mm)	19	R24EI19WTM...	80844	80845			1	.95	18	RTMC...M	
		14	R24EI14WTM...	80846	80847			1	.93	13		
		12	R24EI12WTM...	80848	80849			1	.92	11		
	.988" (25 mm)	16	R25EI16WTM...	80508	80509			2	.94	15	(B)RTMC...S	
		14	R25EI14WTM...	80510	80511			2	.93	13		
		12	R25EI12WTM...	80512	80513			2	.92	11		
		11	R25EI11WTM...	80514	80515			2	.91	10		
	1.575" (40 mm)	16	R40EI16WTM...	80610	80611			2	1.56	25	(B)RTMC...L	
		14	R40EI14WTM...	80612	80613			2	1.57	22		
		12	R40EI12WTM...	80614	80615			2	1.50	18		
	1.614" (41 mm)	11	R40EI11WTM...	80616	80617			2	1.55	17	RTMC...B	
		8				R41I8WTM...	80850	80851	2	1.50		12
		7				R41I7WTM...	80852	80853	2	1.57		11
		6				R41I6WTM...	80854	80855	2	1.50	9	

MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25EI16WTM(S)...

BSPT

External / Internal

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

MiTM 24
MiTM 40
MiTM 25

Standard MiTM



L	Pitch	Ordering Code	EDP No.		Cutting Edge	Teeth	Toolholder	
			VTX	VBX				
.945" (24 mm)	19	R24EI19BSPTTM...	80871	80872	1	.95	18	RTMNC 075055-102M1
	14	R25EI14BSPTTM...	80524	80525	1	.93	13	RTMNC....S
.988" (25 mm)	11	R25EI11BSPTTM...	80526	80527	1	.91	10	RTMNC....L7
	11	R40EI11BSPTTM...	80732	80733	1	1.55	17	RTMNC-D190-075-40L7

Plug Insert *

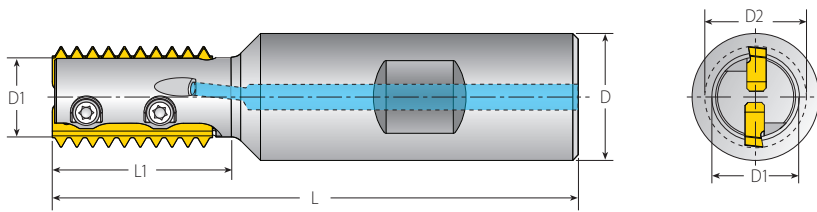


L	Ordering Code	EDP No.	Teeth	Toolholder
.945" (24 mm)	R24NC	80858	No Teeth	RTMC....M
.988" (25 mm)	R25NC	80532		(B)RTMC....S
1.575" (40 mm)	R40NC	80626		(B)RTMC....L
1.614" (41 mm)	R41NC	80859		RTMC....B

All Types

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




Standard Toolholders (MiTM 24)



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

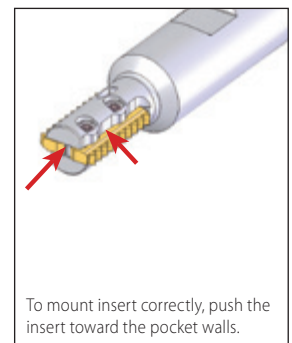
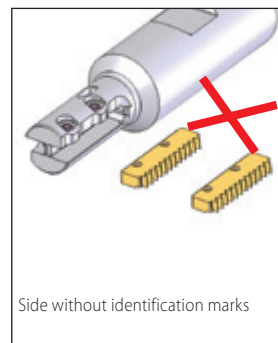
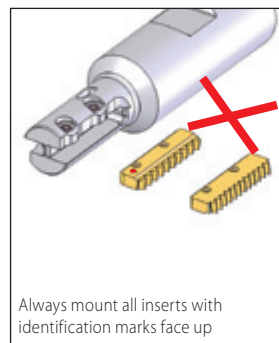
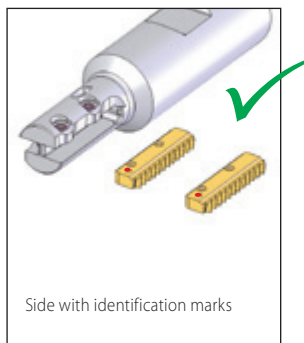
RTMC - for Standard Threads

Spare Parts (Ordering Code & EDP No.)

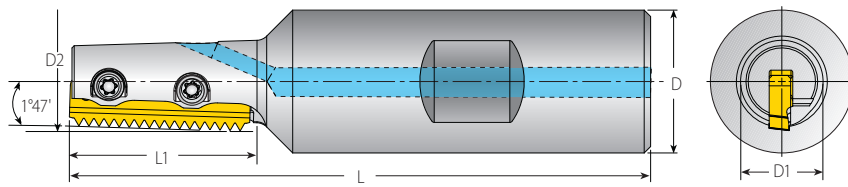
Insert Style	Ordering Code	EDP No.	Dimensions (inch)						No. of Flutes	Spare Parts (Ordering Code & EDP No.)	
			L	L1	D	D1	D2	Z		 Location Screw x2	 Torx+ Screwdriver
.945" (24 mm)	RTMC 075053-102M1	80860	3.27	1.02	.75	.42	.53	1	 SLD4IP8 (M4x0.7) (80533)	 Torx+ Screwdriver KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	
	RTMC 075059-118M1	80861	3.39	1.18	.75	.47	.59	1			
	RTMC 075063-110M2	80752	3.31	1.10	.75	.49	.63	2			
	RTMC 075063-142M1	80862	3.62	1.42	.75	.49	.63	1			

Standard Thread Application by Toolholder

Toolholder	Min. Thread Ø						
	D2 (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 075053-102M1	.53	M16x2	M14.5x0.5; M15X0.75; M15x1; M15x1.25; M16x1.5; M16x1.75	-	1/16-12UN; 3/8-14UNS; 3/8-16UN; 3/8-18UNF; 3/8-20UN; 3/8-24UNEF; 3/8-28UN; 3/8-32UN	1/16-14; 3/4-12	3/8-19
RTMC 075059-118M1	.59	M18x2.5	M16x0.5; M17X0.75; M17x1; M17x1.25; M17x1.5; M18x1.75; M18x2	3/4-10	3/4-12UN; 3/4-14UNS; 1/16-16UN; 1/16-20UN; 1/16-24UNEF; 1/16-28UN; 1/16-32UN	3/4-12	-
RTMC 075063-110M2	.63	M20x2.5	M17x0.5; M17x0.75; M18x1; M18x1.25; M18x1.5; M18x1.75; M19x2	3/4-10	3/4-12UN; 3/4-14UNS; 3/4-16UN; 3/4-18UNS; 3/4-20UNEF; 1/16-24UNEF; 1/16-28UN; 1/16-32UN	3/4-12	-
RTMC 075063-142M1	.63	M20x2.5	M17x0.5; M17x0.75; M18x1; M18x1.25; M18x1.5; M18x1.75; M19x2	3/4-10	3/4-12UN; 3/4-14UNS; 3/4-16UN; 3/4-18UNS; 3/4-20UNEF; 1/16-24UNEF; 1/16-28UN; 1/16-32UN	3/4-12	-



Conical Toolholders (MiTM 24)



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

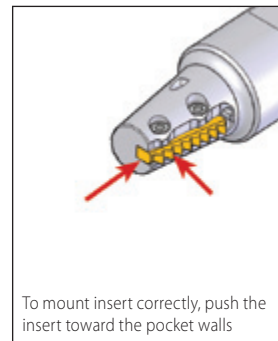
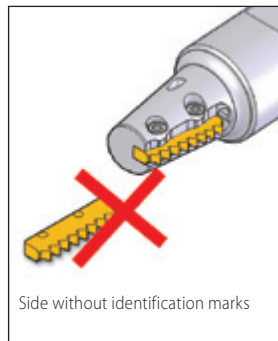
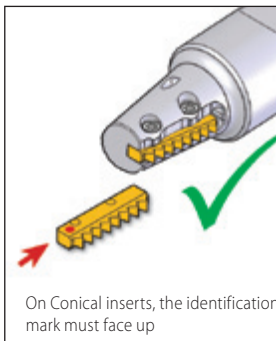
RTMC - for Standard Threads

Spare Parts (Ordering Code & EDP No.)

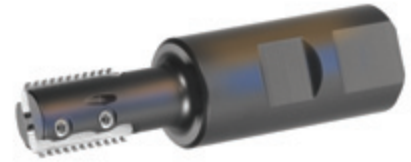
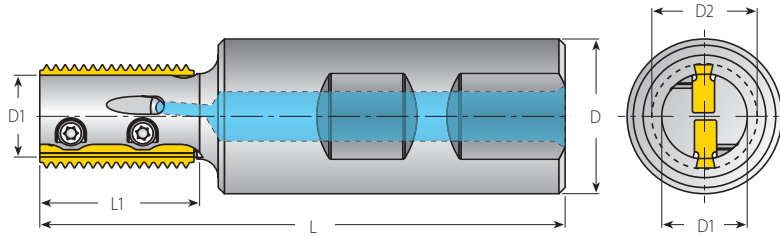
Insert Style	Ordering Code	EDP No.	Dimensions (inch)						No. of Flutes	Spare Parts (Ordering Code & EDP No.)	
			L	L1	D	D1	D2	Z		Location Screw x2	Torx+ Screwdriver
.945" (24 mm)	RTMNC 075055-102M1	80863	3.23	1.02	.75	.45	.55	1	SLD4IP8 (M4x0.7) (80533)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	

Standard Thread Application by Toolholder

Toolholder	D2 (inch)	NPT	NPTF	BSPT
		RTMNC 075055-102M1	.55	3/8-18



Standard Toolholders (MiTM 25)



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

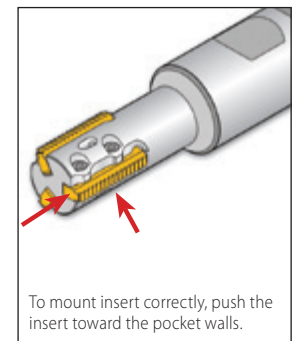
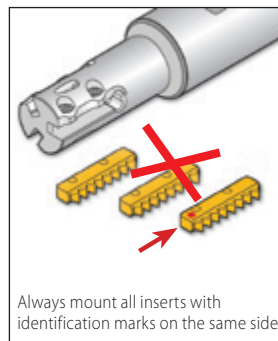
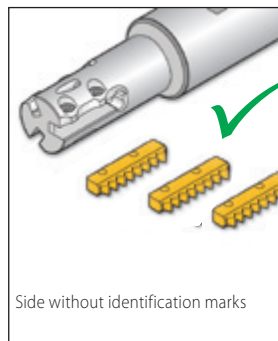
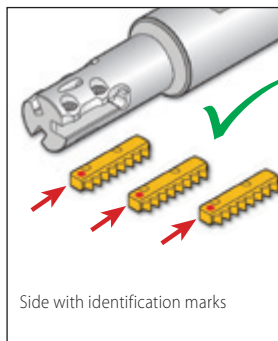
RTMC - for Standard Threads

Spare Parts (Ordering Code & EDP No.)

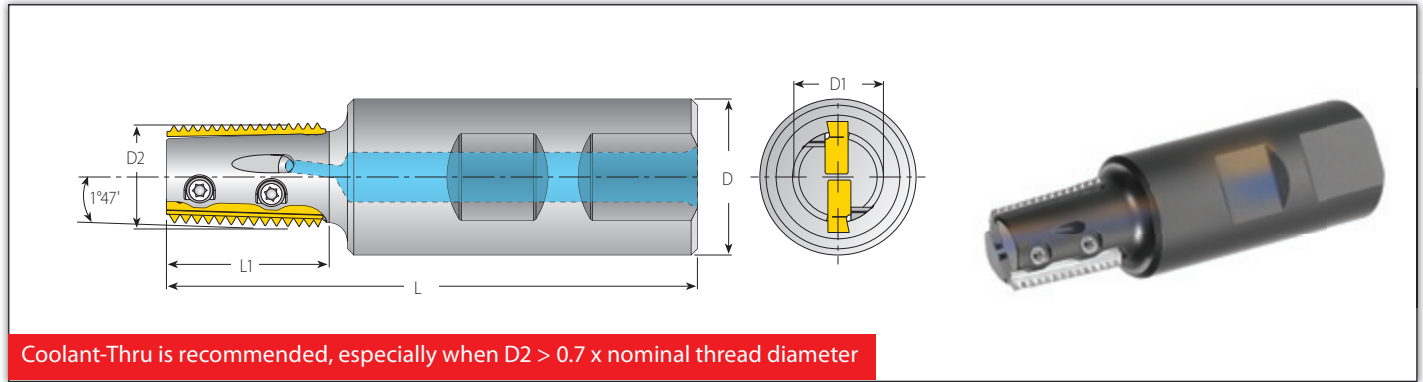
Insert Style	Ordering Code	EDP No.	Dimensions (inch)					No. of Flutes	Location Screw x2	Torx+ Screwdriver
			L	L1	D	D1	D2			
.988" (25 mm)	RTMC 075067-110S2	80748	3.29	1.10	.75	.55	.67	2	SLD4IP8 (M4x0.7) (80533)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)
	RTMC 075067-145S2	80747	3.65	1.45						
	RTMC 100067-110S2	80471	3.50	1.10	.55	.67	2			
	RTMC 100067-145S2	80472	3.86	1.45						
	RTMC 100075-125S2	80633	3.65	1.25	.60	.75	2			
	RTMC 100075-175S2	80634	4.15	1.75						
	RTMC 100081-150S3	80474	3.90	1.50	.65	.81	3			
	RTMC 100081-175S3	80475	4.15	1.75						
	RTMC 100087-170S3	80476	4.09	1.70	.71	.87	3			
	RTMC 100087-220S3	80478	4.60	2.20						
	RTMC 100118-220S5	80479	4.53	2.20	1.10	1.18	5			
	BRTMC 100118-315S4	80481	5.51	3.15				1.10		

Standard Thread Application by Toolholder

Toolholder	Min.Thread Ø						
	D2 (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 075067-110S2	.67	M20x2.5	M19x1; M19x1.5; M20x2	-	7/8-10UNS; 13/16-12UN; 7/8-14UNF; 3/4-16UNF; 3/4-18UNS; 3/4-20UNEF	7/8-11; 7/8-12; 7/8-14; 7/8-16	1/2-14
RTMC 075067-145S2							
RTMC 100067-110S2							
RTMC 100067-145S2	.75	M22x2.5 M24x3	M21x1; M21x1.5; M22x2	7/8-9; 1-8	7/8-20UNEF; 7/8-18UNS; 7/8-16UN; 7/8-14UNF; 7/8-12UN; 7/8-10UNS	7/8-16; 7/8-14; 15/16-12; 15/16-11	5/8-14
RTMC 100075-125S2							
RTMC 100075-175S2							
RTMC 100081-150S3	.81	M24x3	M22x1; M23x1.5; M23x2; M23.5x2.5	1-8	15/16-9UN; 1-10UNS; 15/16-12UN; 1-14UNS; 15/16-16UN; 7/8-18UNS; 7/8-20UNEF	1-11; 1-12; 1-14; 1-16	5/8-14
RTMC 100081-175S3							
RTMC 100087-170S3	.87	M27x3	M24x1; M24x1.5; M25x2; M25x2.5	-	1 1/16-8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; 15/16-20UNEF	1-11; 1-12; 1-14; 1-16	3/4-14
RTMC 100087-220S3							
RTMC 100118-220S5	1.18	-	M32x1; M32x1.5; M33x2; M33x2.5; M34x3	-	1 3/8-8UN; 1 3/8-9UN; 1 3/8-10UN; 1 5/16-12UN; 1 3/8-14UNS; 1 5/16-16UN; 1 5/16-18UNEF; 1 5/16-20UN	1 3/8-11; 1 3/8-12; 1 3/8-14; 1 3/8-16	1-11
BRTMC 100118-315S4							




Conical Toolholders (MiTM 25)



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

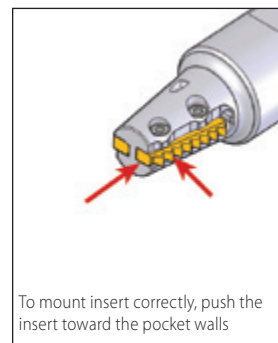
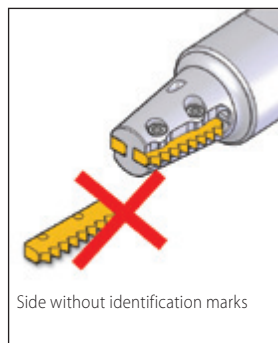
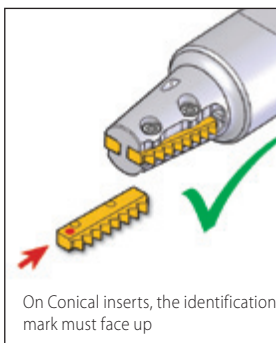
RTMNC - for Conical Threads

Spare Parts (Ordering Code & EDP No.)

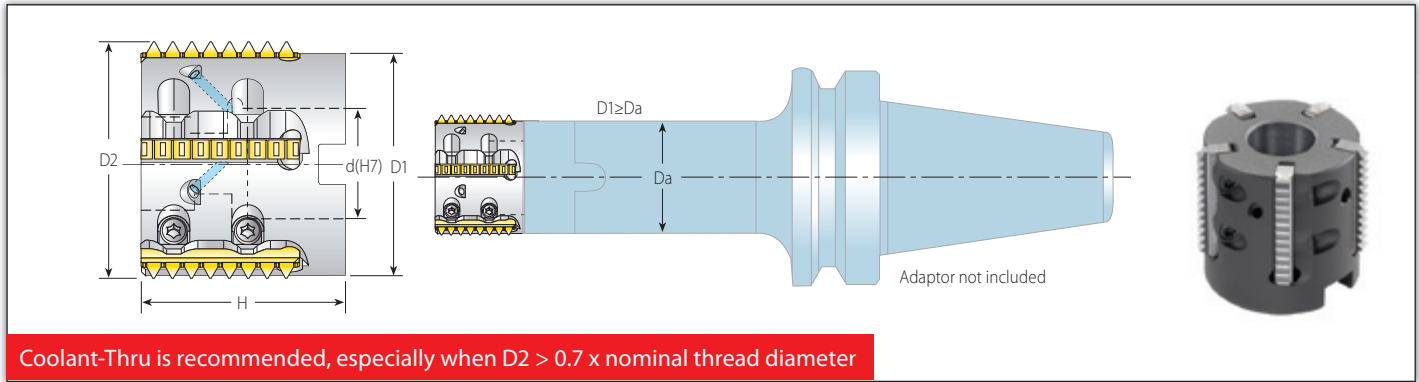
Insert Style	Ordering Code	EDP No.	Dimensions (inch)						No. of Flutes	Spare Parts	
			L	L1	D	D1	D2	Z			
.988" (25 mm)	RTMNC 075067-110S2	80749	3.29	1.10	.75	.55	.67	2	Location Screw x2 SLD4IP8 (M4x0.7) (80533)	Torx+ Screwdriver KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	
	RTMNC 100067-110S2	80473	3.50	1.10	1.00	.55	.67	2			
	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			

Conical Thread Application by Toolholder

Toolholder	Thread Ø			
	D2 (inch)	NPT	NPTF	BSPT
RTMNC 075067-110S2 RTMNC 100067-110S2	.67	½-14; ¾-14; 1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	½ -14; ¾-14; 1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	½ -14; ¾-14
RTMNC 100087-170S3	.87	¾-14; 1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	¾-14; 1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	¾-14; 1-11; 1¼-11; 1½-11; 2-11; 2½-11; 3-11; 4-11; 5-11; 6-11
RTMNC 100110-170S4	1.10	1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	1-11.5; 1¼-11.5; 1½-11.5; 2-11.5	1-11; 1¼-11; 1½-11; 2-11; 2½-11; 3-11; 4-11; 5-11; 6-11



Shell Mill (MiTM 25)



Conical and Standard Shell Mills

Spare Parts (Ordering Code & EDP No.)

Insert Style	Ordering Code	EDP No.	Dimensions (inch)					No. of Flutes	Location Screw x2	Torx+ Screwdriver	Holder Screw
			D1	D2	d(H7)	H	Z				
Standard .988" (25 mm)	RTMC-D150-050-25S5	80569	1.38	1.54	.50	1.26	5	SLD4IP8 (M4x0.7) (80533)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	1/4"-28x1.00 (70263)	
	RTMC-D190-075-25S7	80570	1.77	1.93	.75	1.58	7				3/8"-24x1.125 (70223)
	RTMC-D230-100-25S9	80571	2.17	2.32	1.00	1.58	9				1/2"-20x1.25 (70262)
Conical	RTMNC-D150-050-25S5	80572	1.38	1.54*	.50	1.26	5				1/4"-28x1.00 (70263)

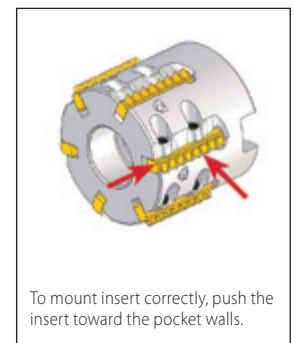
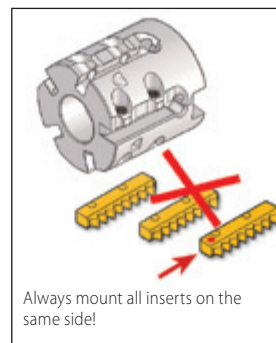
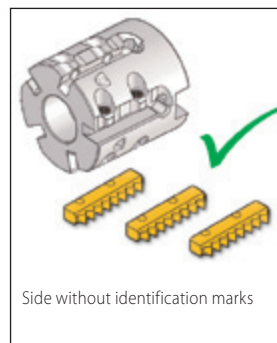
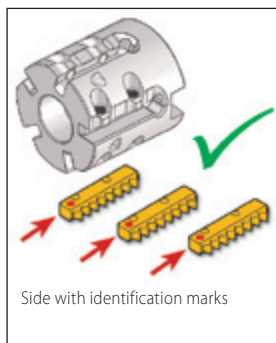
* For inserts 8NPT and 8 NPTF use for CNC program (D2 + .024")

Standard Thread Applications by Toolholder

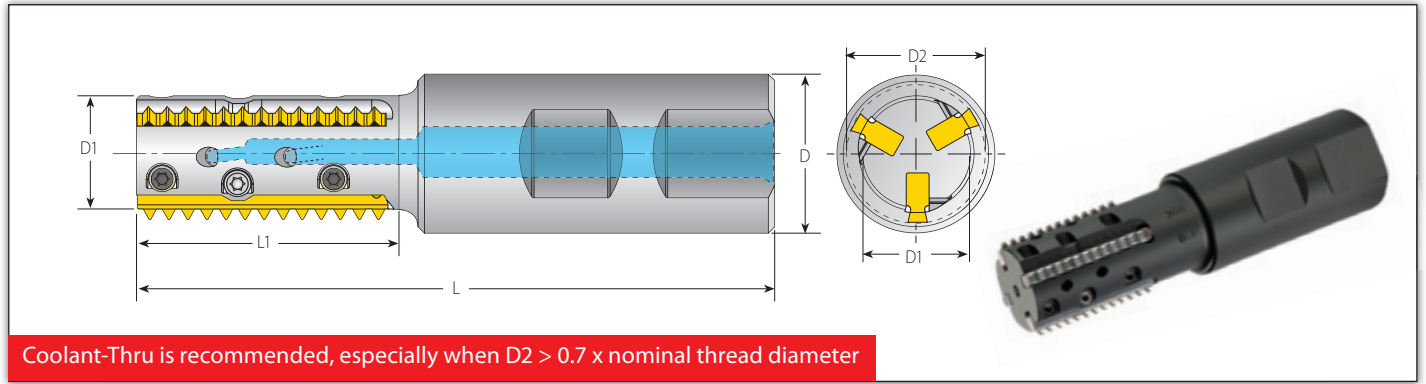
Toolholder		Min. Thread Ø				
		D2(inch)	ISO (fine)	UN/UNF/UNEF/UNS	BSW	BSP(G)
Standard	RTMC-D150-050-25S5	1.54	M42x1 ; M42 x1.5; M45x2 ; M45x3	1 1/16-12UNF; 1 3/4-14UNS; 1 5/8-16UN 1 5/8-18UNEF; 1 5/8-20UN;	1 3/4 -16 1 3/4 -12	1 1/2 - 11
	RTMC-D190-075-25S7	1.93	M52x1 ; M55x1.5; M55x2 ; M55x3	2 1/8-12UN; 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	2.32	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 by Toolholder

Toolholder		Thread Ø			
		D2(inch)	NPT	NPTF	BSPT
Conical	RTMNC-D150-050-25S5	1.54*	1 1/2 - 11.5; 2 - 11.5	1 1/2 - 11.5; 2 - 11.5	1 1/2-6 x11



Standard Toolholders (MiTM 40)



Coolant-Thru is recommended, especially when D2 > 0.7 x nominal thread diameter

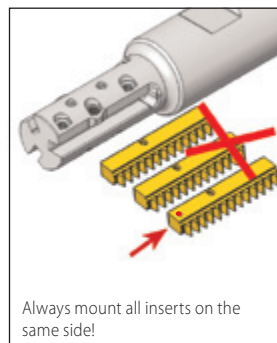
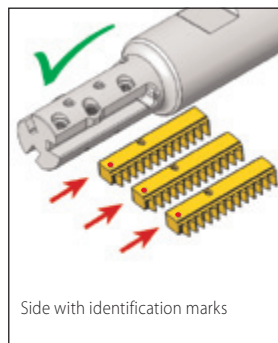
RTMC - for Standard Threads

Spare Parts (Ordering Code & EDP No.)

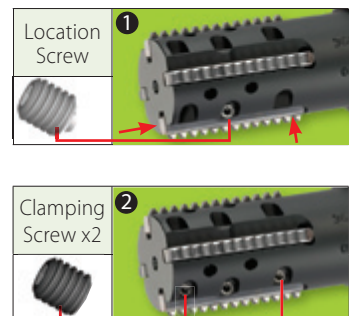
Insert Style	Ordering Code	EDP No.	Dimensions (inch)					No. of Flutes	Spare Parts (Ordering Code & EDP No.)		
			L	L1	D	D1	D2		Z	Location Screw	Clamping Screw x2
1.575" (40 mm)	RTMC 100087-169L3	80618	4.00	1.69	1.00	.71	.87	3	SLD4IP8A (M4x0.7) (80533)	SCD4IP8 (M4x0.7) (80622)	 KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)
	RTMC 100087-256L3	80619	4.87	2.56	1.00	.71	.87	3			
	RTMC 125118-215L4	80620	4.55	2.15	1.25	1.02	1.18	4			
	BRTMC 125118-315L3	80621	5.35	3.15	1.25	1.02	1.18	3			

Standard Thread Application by Toolholder

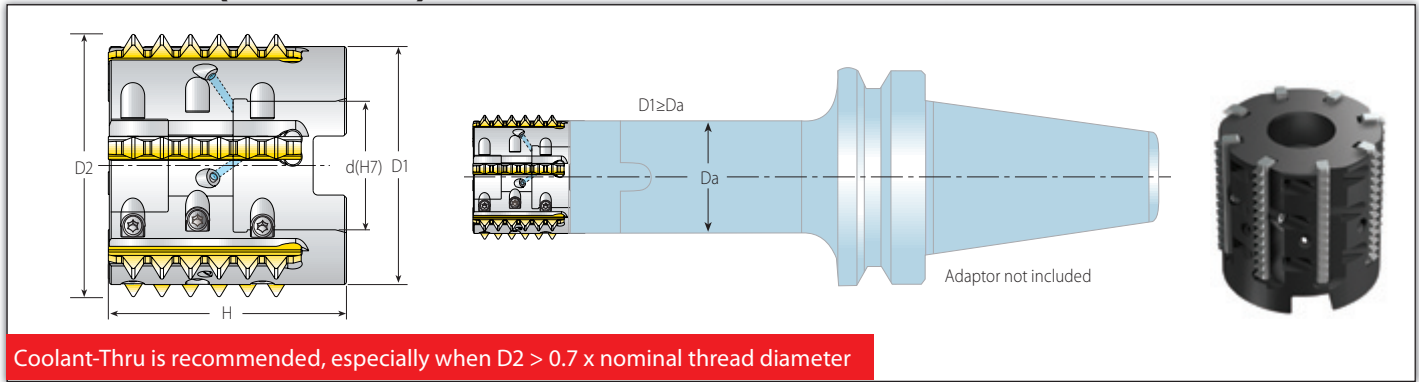
Toolholder	Min. Thread Ø						
	D2 (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 100087-169L3	.87	M27x3	M24x1; M24x1.5 M25x2; M25x2.5	-	1 1/16-8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; 1 1/16-20UNEF	1-11; 1-12; 1-14; 1-16;	3/4-14
RTMC 100087-256L3	.87	M27x3	M24x1; M24x1.5 M25x2; M25x2.5	-	1 1/16-8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; 1 1/16-20UNEF	1-11; 1-12; 1-14; 1-16;	3/4-14
RTMC 125118-215L4	1.18	-	M32x1; M32x1.5 M33x2; M33x2.5; M34x3	-	1 3/8-8UN; 1 3/8-9UN; 1 3/8-10UN; 1 3/16-12UN; 1 3/8-14UNS; 1 3/16-16UN; 1 3/16-18UNEF; 1 3/16-20UN	1 3/8-11; 1 3/8-12; 1 3/8-14; 1 3/8-16	1-11
BRTMC 125118-315L3	1.18	-	M32x1; M32x1.5 M33x2; M33x2.5; M34x3	-	1 3/8-8UN; 1 3/8-9UN; 1 3/8-10UN; 1 3/16-12UN; 1 3/8-14UNS; 1 3/16-16UN; 1 3/16-18UNEF; 1 3/16-20UN	1 3/8-11; 1 3/8-12; 1 3/8-14; 1 3/8-16	1-11



2 Step Clamping System!



Shell Mill (MiTM 40)



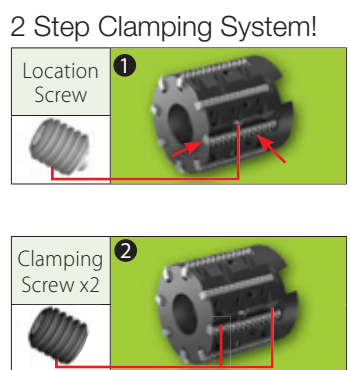
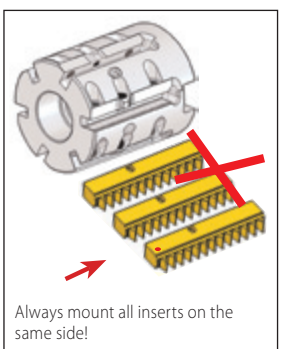
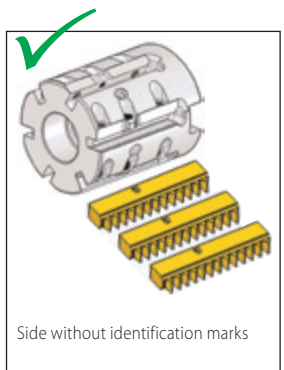
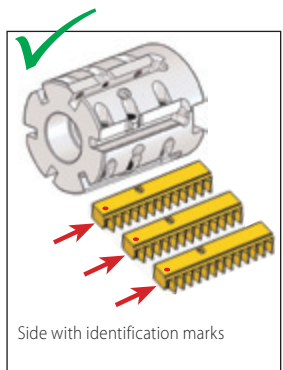
Conical and Standard Shell Mills						Spare Parts (Ordering Code & EDP No.)					
Insert Style	Ordering Code	EDP No.	Dimensions (inch)			No. of Flutes	Location Screw	Clamping Screw x2	Torx+ Screwdriver	Holder Screw	
			D1	D2	d(H7)						H
Standard 1.575" (40 mm)	RTMC D190-075-40L7	80623	1.77	1.93	.75	1.97	7	SLD4IP8A (M4x0.7) (80533)	SCD4IP8 (M4x0.7) (80622)	Torx+ Screwdriver KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	3/8"-24x1.25 (70223)
	RTMC D230-100-40L9	80624	2.17	2.32	1.00	2.00	9				1/2"-20x1.5 (70224)
Conical	RTMNC D190-075-40L7	80625	1.77	1.93	.75	1.97	7				3/8"-24x1.25 (70223)

Standard Thread Application per Toolholder

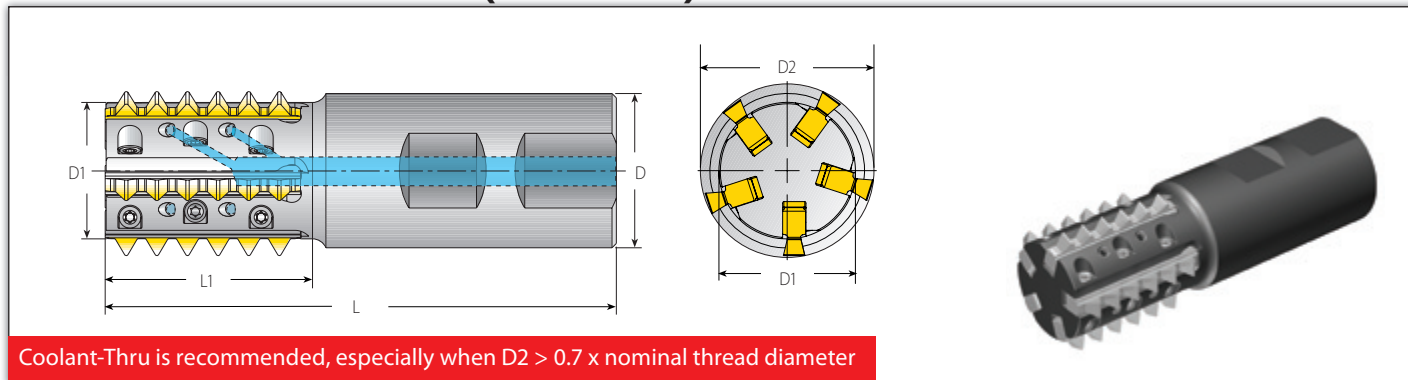
Toolholder		Min. Thread Ø				
D2 (inch)		ISO (fine)	UN/UNF/UNEF/UNS	BSW	BSP(G)	
Standard	RTMC D190-075-40L7	1.93	M52x1; M55x1.5; M55x2; M55x3	2½ -8UN; 2½ -12UN; 2½-16UN; 2½ - 20UN; 2¼ -10UNS; 2¼ -14UNS; 2¼ -18UNS	2¼ -12; 2¼ -16	1¾ -11
	RTMC D230-100-40L9	2.32	M64x1; M64x1.5; M64x2; M65x3	2½ -8UN; 2½ -10UNS; 2½ -12UN; 2½ -14UNS; 2½ -16UN; 2½ -18UNS; 2½ -20UN	2½ -12; 2½ -16	2¼ -11

Conical Thread Application by Toolholder

Toolholder		Min. Thread Ø			
D2 (inch)		NPT	NPTF	BSPT	
Conical	RTMNC D190-075-40L7	1.93	2-11.5; 2½-8 (and up)	2-11.5; 2½-8; 3-8	2½-6x11



Standard Toolholders (MiTM 41)



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

RTMC - for Standard Threads

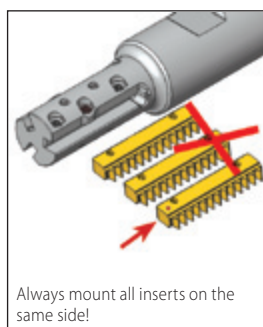
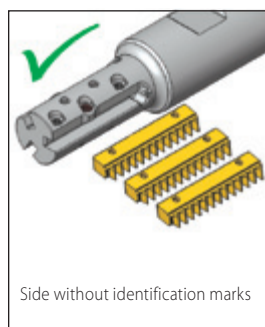
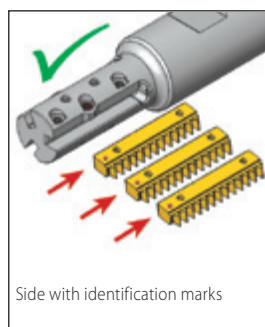
Spare Parts (Ordering Code & EDP No.)

Insert Style	Ordering Code	EDP No	Dimensions (inch)					No. of Flutes			
mm			L	L1	D	D1	D2*	Z	Location Screw x2	Clamping Screw	Torx+ Screwdriver
1.614" (41 mm)	RTMC 100096-169B2	80864	4.13	1.69	1.00	.76	.97	2	SLD4IP8A (M4x0.7) (80533)	SCD4IP8 (M4x0.7) (80622)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)
	RTMC 125118-169B3	80865	4.13	1.69	1.25	.95	1.18	3			
	RTMC 125118-256B3	80866	5.00	2.56	1.25	.95	1.18	3			
	RTMC 125141-169B5	80867	4.13	1.69	1.25	1.11	1.42	5			
	RTMC 125141-256B4	80868	4.98	2.56	1.25	1.11	1.42	4			

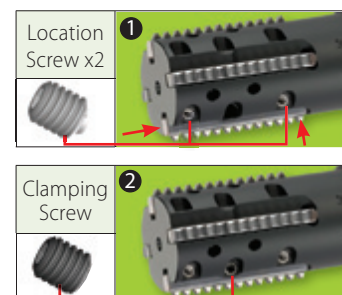
Standard Thread Application by Toolholder

Toolholder	Min. Thread Ø								
	D2* (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSW/BSF	NPT	NPTF	
RTMC 100096-169B2	.97	M30x3.5; M36x4	M28X3; M45x4	1½-7; 1¾-6	1½-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSW	-	-	
RTMC 125118-169B3	1.18	M36x4; M42x4.5	M34X3; M34x3.5; M45x4	1¾-6	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¾-7BSF; 1½-6BSW	-	-	
RTMC 125118-256B3	1.18	M36x4; M42x4.5	M34X3; M34x3.5; M45x4	1¾-6	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¾-7BSF; 1½-6BSW	-	-	
RTMC 125141-169B5	1.42	M42x4.5; M48x5; M56x5.5; M64x6	M40x3; M40x3.5; M42x4; M70x6	1¾-5; 2-4.5; 2½-4	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¾-7BSF; 1¾-6BSF	2½-8	2½-8	
RTMC 125141-256B4	1.42	M42x4.5; M48x5; M56x5.5; M64x6	M40x3; M40x3.5; M42x4; M70x6	1¾-5; 2-4.5; 2½-4	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¾-7BSF; 1¾-6BSF	2½-8	2½-8	

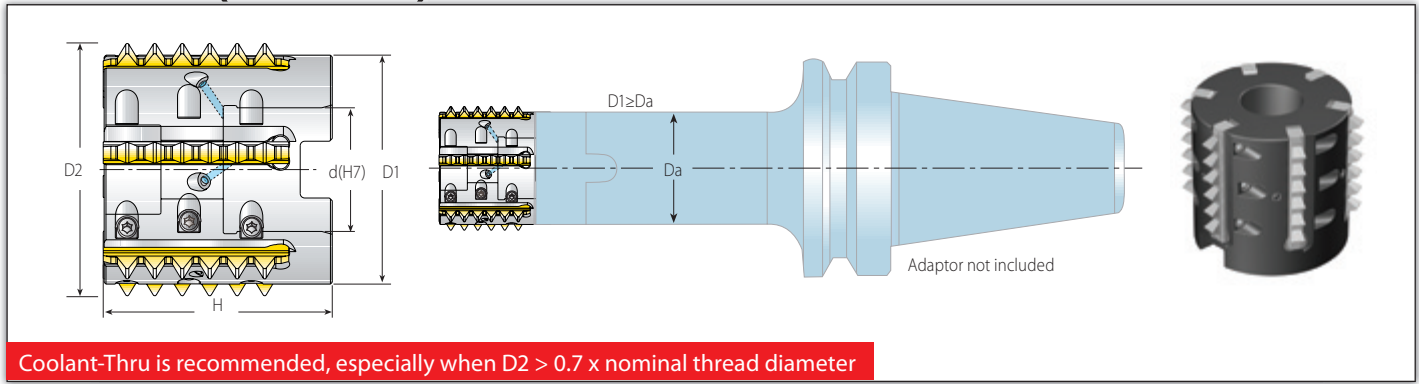
* For external applications, inserts R41E... use for CNC program (D2 +0.024")



2 Step Clamping System!



Shell Mill (MiTM 41)

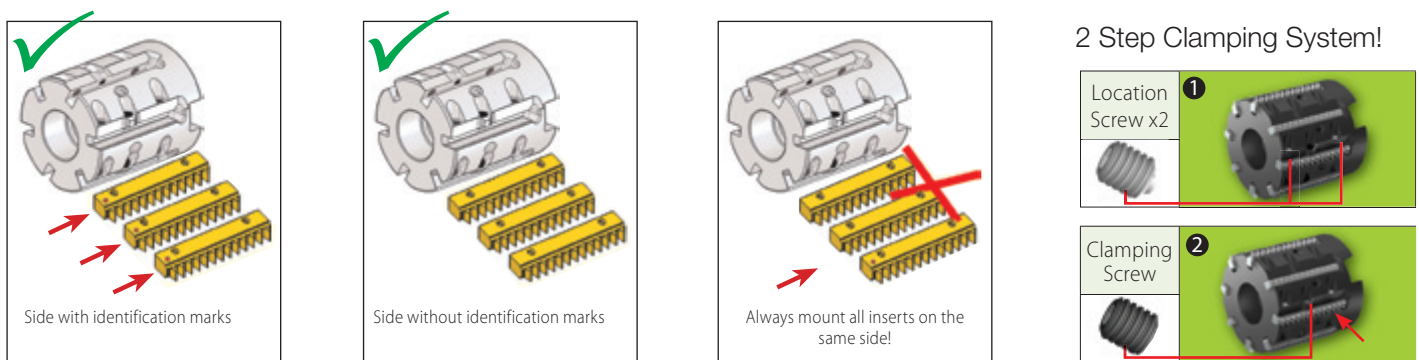


Standard Shell Mill					Spare Parts (Ordering Code & EDP No.)						
Insert Style	Ordering Code	EDP No.	Dimensions (inch)			No. of Flutes					
			D1	D2*	d(H7)		H	Z	Location Screw x2	Clamping Screw	Torx+ Screwdriver
1.614" (41 mm)	RTMC D209-075-41B5	80869	1.77	2.09*	.75	2.00	5	SLD4IP8A (M4x0.7) (80533)	SCD4IP8 (M4x0.7) (80622)	•Use the included Vardex Torx+ screwdriver only •Recommended max. torque 10.6 lbf·in (70231)	3/8"-24x1.5 (70264)
	RTMC D248-100-41B6	80870	2.17	2.48*	1.00	2.00	6				1/2"-20x1.5 (70224)

Standard Thread Application by Toolholder

Toolholder	Min. Thread Ø							
	D2* (inch)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	NPT	NPTF
RTMC D209-075-41B5	2.09*	M64X6	M58x4; M70x6	2½-4	2¾-6UN; 2¾-8UN	2¾-8; 2½-6	2½-8	2½-8
RTMC D248-100-41B6	2.48*	-	M68x4; M70x6	3-4	2¾-6UN; 2¾-8UN	2¾-8; 2¾-6	2½-8	2½-8



* For external applications, inserts R41E... use for CNC program (D2 +.024")



Recommended Grades, Cutting Speeds Vc [ft/min] and Feed f [inch/tooth]

Material Group	Vardex No.	Material	Hardness Brinell HB	Vc [ft/min]		Feed f[inch/tooth]	
				VBX	VTX	f	
P Steel	1	Unalloyed steel	Low carbon (C=0.1-0.25%)	125	328-689	295-590	.0040-.0138
	2		Medium carbon (C=0.25-0.55%)	150	328-590	295-558	.0040-.0157
	3		High Carbon (C=0.55-0.85%)	170	328-558	295-524	.0040-.0138
	4	Low alloy steel (alloying elements ≤5%)	Non hardened	180	295-197	295-508	.0040-.0157
	5		Hardened	275	262-492	262-525	.0040-.0138
	6		Hardened	350	230-459	230-492	.0040-.0118
	7	High alloy steel (alloying elements >5%)	Annealed	200	197-426	230-377	.0040-.0138
	8		Hardened	325	230-361	197-328	.0040-.0080
	9	Cast steel	Low alloy (alloying elements <5%)	200	328-558	328-558	.0040-.0118
	10		High alloy (alloying elements >5%)	225	230-394	230-426	.0040-.0080
M Stainless Steel	11	Stainless steel Ferritic	Non hardened	200	328-558	394-590	.0040-.0118
	12		Hardened	330	328-558	394-590	.0040-.0080
	13	Stainless steel Austenitic	Austenitic	180	230-460	328-459	.0040-.0118
	14		Super Austenitic	200	230-460	328-459	.0040-.0080
	15	Stainless steel Cast Ferritic	Non hardened	200	230-460	328-459	.0040-.0118
	16		Hardened	330	230-460	328-459	.0040-.0080
	17	Stainless steel Cast austenitic	Austenitic	200	230-394	328-394	.0040-.0118
	18		Hardened	330	230-394	328-394	.0040-.0080
K Cast Iron	28	Malleable Cast iron	Ferritic (short chips)	130	197-426	328-394	.0020-.0063
	29		Pearlitic (long chips)	230	197-394	262-328	.0016-.0040
	30	Grey cast iron	Low tensile strength	180	197-426	262-328	.0040-.0118
	31		High tensile strength	260	197-328	262-328	.0040-.0080
	32	Nodular SG iron	Ferritic	160	197-410	262-328	.0040-.0118
	33		Pearlitic	260	164-295	197-295	.0040-.0080
N_(K) Non-Ferrous Metals	34	Aluminium alloys Wrought	Non aging	60	328-820		.0060-.0216
	35		Aged	100	328-590		.0060-.0197
	36	Aluminium alloys Cast	Cast	75	492-1312		.0060-.0197
	37		Cast & aged	90	492-918		.0040-.0157
	38	Aluminium alloys Cast Si 13-22%	130	262-492		.0060-.0197	
	39	Copper and copper alloys	Brass	90	394-689	328-565	.0060-.0197
	40		Bronze and non leaded copper	100	394-689	328-565	.0040-.0157
	S_(M) Heat Resistant Material	19	High temperature alloys	Annealed (Iron based)	200	66-148	66-131
20		Aged (Iron based)		280	66-98	66-98	.0016-.0040
21		Annealed (Nickel or Cobalt based)		250	49-66	49-66	.0016-.0040
22		Aged (Nickel or Cobalt based)		350	33-49	33-49	.0016-.0040
23		Titanium alloys	Pure 99.5 Ti	400Rm	230-459	230-394	.0016-.0040
24	α+β alloys		1050Rm	66-164	66-164	.0016-.0040	
H_(K) Hardened Material	25	Extra hard steel	Hardened & tempered	45-50HRC	49-148	49-148	.0024-.0047
	26			51-55HRC	49-131	49-131	.0016-.0031

Grades

Grade	Application	Sample
VBX	TiCN coated carbide grade. Excellent grade for steels and general use .	
VTX	TiAlN coated carbide grade. Ideal for Stainless Steels .	



MiTM

Super Fast Thread Milling System



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