



MiTM

Super Fast Thread Milling System



METRIC

New Family of Thread Milling Tools

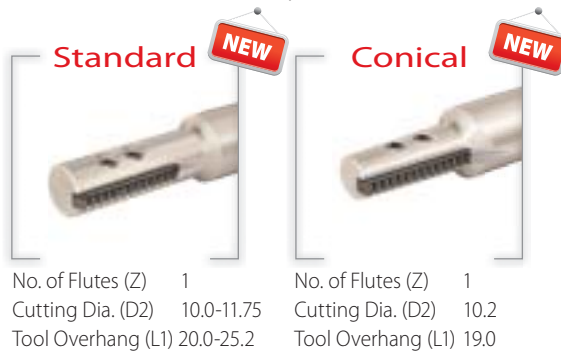
The VARDEX Multi-flute Indexable Thread Milling (MiTM) system for fast machining, reduces cycle times when machining threads with long inserts. New nickel coating for all MiTM toolholders provides better anti-rust protection.



See it in action

MiTM 19 (A)

For Small Bores



No. of Flutes (Z) 1
Cutting Dia. (D2) 10.0-11.75
Tool Overhang (L1) 20.0-25.2

No. of Flutes (Z) 1
Cutting Dia. (D2) 10.2
Tool Overhang (L1) 19.0

MiTM 24 (M)

For Medium Bores



No. of Flutes (Z) 1-2
Cutting Dia. (D2) 13.6-16
Tool Overhang (L1) 26-36

No. of Flutes (Z) 1
Cutting Dia. (D2) 13.9
Tool Overhang (L1) 26

MiTM 25 (S)

For Standard Applications



No. of Flutes (Z) 2-5
Cutting Dia. (D2) 17-30
Tool Overhang (L1) 26-80

No. of Flutes (Z) 2-4
Cutting Dia. (D2) 17-28
Tool Overhang (L1) 26-43

No. of Flutes (Z) 5-8
Cutting Dia. (D2) 36-52
Tool Overhang (L1) max.200

No. of Flutes (Z) 5
Cutting Dia. (D2) 36
Tool Overhang (L1) max.200

MiTM 40 (L)

For Long Threads



No. of Flutes (Z) 3-4
Cutting Dia. (D2) 22-30
Tool Overhang (L1) 43-80

No. of Flutes (Z) 6-8
Cutting Dia. (D2) 44-52
Tool Overhang (L1) max.200

No. of Flutes (Z) 6
Cutting Dia. (D2) 45
Tool Overhang (L1) max.200

MiTM 41 (B)

For Large Pitches



No. of Flutes (Z) 1-5
Cutting Dia. (D2) 24.5-36
Tool Overhang (L1) 43-65

No. of Flutes (Z) 5-6
Cutting Dia. (D2) 48-58
Tool Overhang (L1) max.200



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VARGUS
GEN

Tool Selection and
CNC Program Generator



The most popular and advanced thread turning and thread milling software on the market today.

Now available in 2 Versions at www.vargus.com:

- | | |
|--------------------------------------|-----------------------------------|
| ■ Online Version | ■ Downloadable Version |
| • Online interactive software | • Standalone software application |
| • For all web browsing environments | • MS Windows OS-based program |
| • Most updated version always online | • Automatic updates |

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
R- MiTM line		19, 24, 25, 40, 41		I - Internal E - External EI-External+Internal NC- Plug		0.5-6.0 mm 32-4 tpi
				5 - Standard		6 - System
				ISO- ISO Metric UN-American UN W- BSW, BSP NPT-NPT NPTF-NPTF BSPT-BSPT		TM
						7 - Carbide Grade
						VBX VTX

MiTM Holders (Standard and Conical)

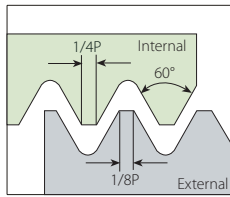
R	TM	C		25	17	-	26	S	2
1	2	3		4	5		6	7	8
1- Product Line			2 - Holder Type		3 - Cooling		4 - Shank Dia. [mm]		5 - Cutting Dia. [mm]
R - MiTM line BR - MiTM with anti-vibration system			TM - Standard holder TMN - Conical holder		C- Coolant Channel		12, 20, 25, 32		10 - 36
6 - Tool Overhang [mm]			7 - Insert Style			8 - No. of Flutes			
19 - 80			A - 19 M - 24 S - 25 L - 40 B - 41			1 - 5			

MiTM Shell Mill

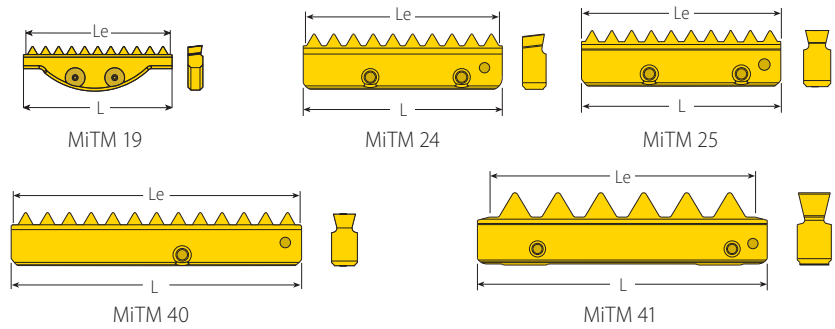
R	TM	C		D36	16	-	25S	5
1	2	3		4	5		6	7
1 - Product Line		2 - Holder Type		3 - Cooling		4 - Cutting Dia. [mm]		5 - Drive Hole Dia. [mm]
R - MiTM line		TM - Standard holder TMN - Conical holder		C - Coolant Channel		36 - 58		16, 22, 27
6 - Insert Style		7 - No. of Flutes						
25S 40L 41B		5 - 8						

ISO Metric

External / Internal



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



Standard MiTM

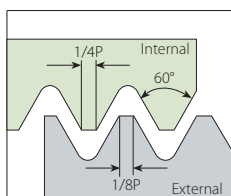
	L	Pitch	Ordering Code		Cutting Edge	Teeth	Toolholder
			External	Internal		Zt	
	19 NEW	0.5		R19I0.50ISOTM...	1	20.0	RTMC... A
		0.75		R19I0.75ISOTM...	1	20.0	
		1.0		R19I1.00ISOTM...	1	20.0	
		1.25		R19I1.25ISOTM...	1	20.0	
		1.5		R19I1.50ISOTM...	1	19.5	
		1.75		R19I1.75ISOTM...	1	19.25	
		2.0		R19I2.00ISOTM...	1	20.0	
	24	0.5		R24I0.50ISOTM...	1	24.5	RTMC... M
		0.75		R24I0.75ISOTM...	1	24.75	
		1.0		R24I1.00ISOTM...	1	24.0	
		1.25		R24I1.25ISOTM...	1	25.0	
		1.5		R24I1.50ISOTM...	1	24.0	
		1.75		R24I1.75ISOTM...	1	24.5	
		2.0		R24I2.00ISOTM...	1	24.0	
	25	2.5		R24I2.50ISOTM...	1	25.0	
		1.0	R25E1.00ISOTM...	R25I1.00ISOTM...	2	24.0	(B)RTMC... S
		1.25 NEW	R25E1.25ISOTM...	R25I1.25ISOTM...	2	23.75	
		1.5	R25E1.50ISOTM...	R25I1.50ISOTM...	2	24.0	
		2.0	R25E2.00ISOTM...	R25I2.00ISOTM...	2	24.0	
		2.5	R25E2.50ISOTM...	R25I2.50ISOTM...	2	25.0	
		3.0	*R25E3.00ISOTM...	*R25I3.00ISOTM...	2	24.0	
	40	1.0		R40I1.00ISOTM...	2	39.0	(B)RTMC... L
		1.5		R40I1.50ISOTM...	2	39.0	
		2.0		R40I2.00ISOTM...	2	38.0	
		2.5		R40I2.50ISOTM...	2	37.5	
		3.0		R40I3.00ISOTM...	2	39.0	
		3.0	R41E3.00ISOTM...	R41I3.00ISOTM...	2	39.0	
		3.5	R41E3.50ISOTM...	R41I3.50ISOTM...	2	38.5	
	41	4.0	R41E4.00ISOTM...	R41I4.00ISOTM...	2	40.0	RTMC... B
		4.5	R41E4.50ISOTM...	R41I4.50ISOTM...	2	40.5	
		5.0	R41E5.00ISOTM...	R41I5.00ISOTM...	2	40.0	
		5.5	R41E5.50ISOTM...	R41I5.50ISOTM...	2	38.5	
		6.0	R41E6.00ISOTM...	R41I6.00ISOTM...	2	36.0	

* Note: 3.0 ISO inserts do not fit into toolholder RTMC2517...
For external insert 3.0 ISO use for CNC program (D2 + 0.5mm)

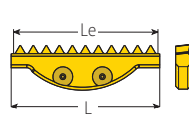
MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25I2.00ISOTM(**S**)...

American UN

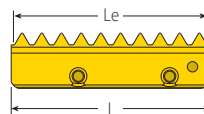
External / Internal



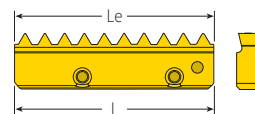
Defined by: ANSI B1.1:74
Tolerance class: 2A/2B



MiTM 19



MiTM 24



MiTM 25

Standard MiTM

	L	Pitch	Ordering Code		Cutting Edge	Teeth	Toolholder
			External	Internal		Zt	
	19	32		R19I32UNTM...	1	19.84	25
		28		R19I28UNTM...	1	19.96	22
		27		R19I27UNTM...	1	19.76	21
		24		R19I24UNTM...	1	20.11	19
		20		R19I20UNTM...	1	19.05	15
		18		R19I18UNTM...	1	19.76	14
		16		R19I16UNTM...	1	19.05	12
		14		R19I14UNTM...	1	19.96	11
		13		R19I13UNTM...	1	19.54	10
		12		R19I12UNTM...	1	19.05	9
	24	32		R24I32UNTM...	1	24.61	31
		28		R24I28UNTM...	1	24.49	27
		24		R24I24UNTM...	1	24.34	23
		20		R24I20UNTM...	1	24.13	19
		18		R24I18UNTM...	1	23.99	17
		16		R24I16UNTM...	1	23.81	15
		14		R24I14UNTM...	1	23.59	13
		12		R24I12UNTM...	1	23.28	11
		10		R24I10UNTM...	1	22.86	9
		20	R25E20UNTM...	R25I20UNTM...	2	24.13	19
	25	18	R25E18UNTM...	R25I18UNTM...	2	23.99	17
		16	R25E16UNTM...	R25I16UNTM...	2	23.81	15
		14	R25E14UNTM...	R25I14UNTM...	2	23.58	13
		12	R25E12UNTM...	R25I12UNTM...	2	23.28	11
		10	R25E10UNTM...	R25I10UNTM...	2	22.86	9
		9	*R25E9UNTM...	*R25I9UNTM...	2	22.58	8
		8	*R25E8UNTM...	*R25I8UNTM...	2	22.22	7

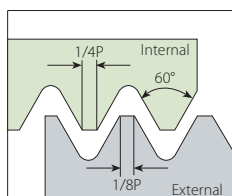
* Note: 8 UN & 9 UN inserts do not fit into toolholder RTMC2517...
For external insert 8 UN use for CNC program (D2 + 0.5mm)

* See note below

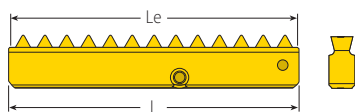
MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25I20UNTM(S)...

American UN

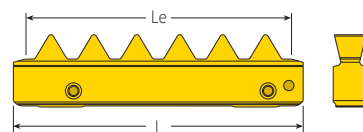
External / Internal



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



MiTM 40



MiTM 41

Standard MiTM (con't)

	L	Pitch	Ordering Code		Cutting Edge	Teeth	Toolholder
			External	Internal		Zt	
	40	20		R40I20UNTM...	2	39.37	31
		18		R40I18UNTM...	2	39.51	28
		16		R40I16UNTM...	2	39.69	25
		14		R40I14UNTM...	2	39.91	22
		12		R40I12UNTM...	2	38.10	18
		10		R40I10UNTM...	2	38.10	15
		9		R40I9UNTM...	2	39.51	14
		8		R40I8UNTM...	2	38.10	12
	41	8	R41E8UNTM...	R41I8UNTM...	2	38.10	12
		7	R41E7UNTM...	R41I7UNTM...	2	39.91	11
		6	R41E6UNTM...	R41I6UNTM...	2	38.10	9
		5	R41E5UNTM...	R41I5UNTM...	2	35.56	7
		4.5	R41E4.5UNTM...	R41I4.5UNTM...	2	39.51	7
		4	R41E4UNTM...	R41I4UNTM...	2	38.10	6

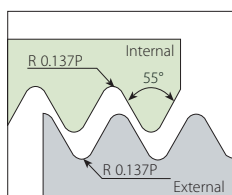
* Note: 8 UN & 9 UN inserts do not fit into toolholder RTMC2517...
For external insert 8 UN use for CNC program (D2 + 0.5mm)

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)...

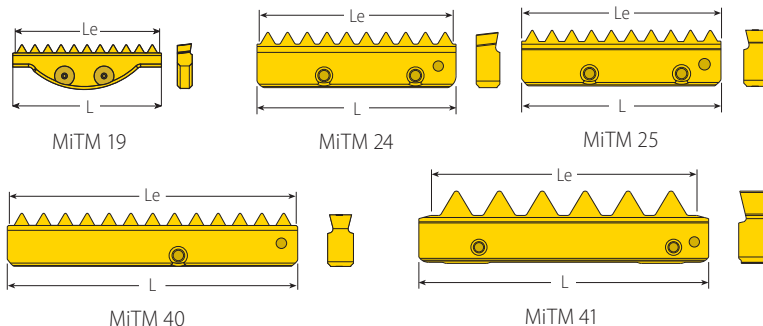


Whitworth for BSF, BSP (G)

External / Internal



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



Standard MiTM

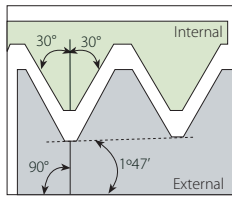


L	Pitch	Ordering Code		Cutting Edge	Teeth	Toolholder
mm	tpi	External+ Internal	Internal	Le	Zt	
19	19	R19EI19WTM...		1	20.05	15
	16	R19EI16WTM...		1	19.05	12
	14	R19EI14WTM...		1	19.96	11
24	19	R24EI19WTM...		1	24.06	18
	14	R24EI14WTM...		1	23.59	13
	12	R24EI12WTM...		1	23.28	11
25	16	R25EI16WTM...		2	23.81	15
	14	R25EI14WTM...		2	23.58	13
	12	R25EI12WTM...		2	23.28	11
	11	R25EI11WTM...		2	23.09	10
40	16	R40EI16WTM...		2	39.69	25
	14	R40EI14WTM...		2	39.91	22
	12	R40EI12WTM...		2	38.10	18
	11	R40EI11WTM...		2	39.25	17
41	8		R41I8WTM...	2	38.10	12
	7		R41I7WTM...	2	39.91	11
	6		R41I6WTM...	2	38.10	9

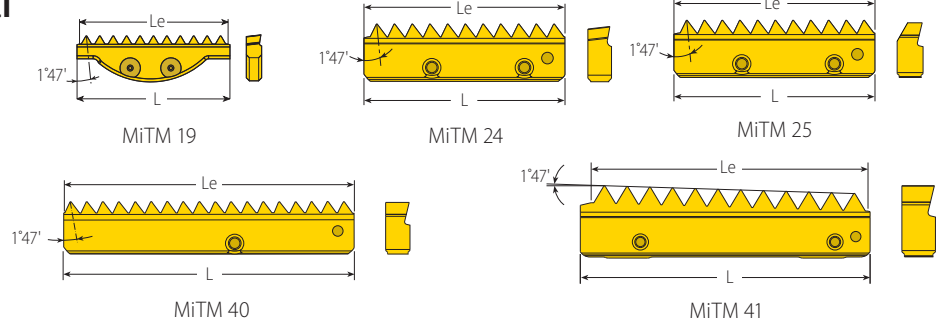
MiTM inserts 25, 40 and 41 are offered with 2 cutting edges. In case of chip flow difficulty, inserts with a single cutting edge can be ordered by request. Example: R25EI16WTM(S)...

NPT

External / Internal



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



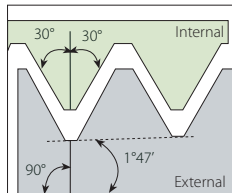
Standard MiTM



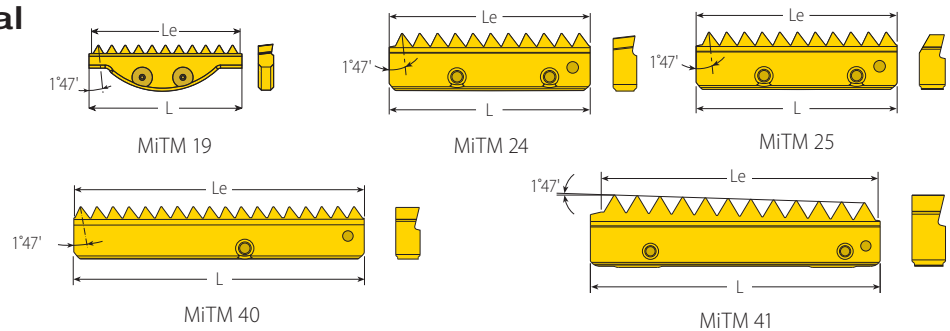
L	Pitch	Ordering Code	Cutting Edge	Teeth	Toolholder	
mm	tpi	External+ Internal	Le	Zt		
19	 18	R19EI18NPTTM...	1	19.76	14	RTMNC.... A
24	18	R24EI18NPTTM...	1	23.99	17	RTMNC.... M
25	14	R25EI14NPTTM...	1	23.58	13	RTMNC.... S
	11.5	R25EI11.5NPTTM...	1	24.30	11	
	8	R25EI8NPTTM...	1	22.22	7	RTMNC-D36-16-25 S5
40	11.5	R40EI11.5NPTTM...	1	37.55	17	RTMNC-D45-22-40 L6
	8	R40EI8NPTTM...	1	38.10	12	
41	8	R41EI8NPTTM...	1	38.10	12	RTMC.... B

NPTF

External / Internal



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



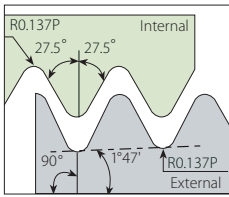
Standard MiTM



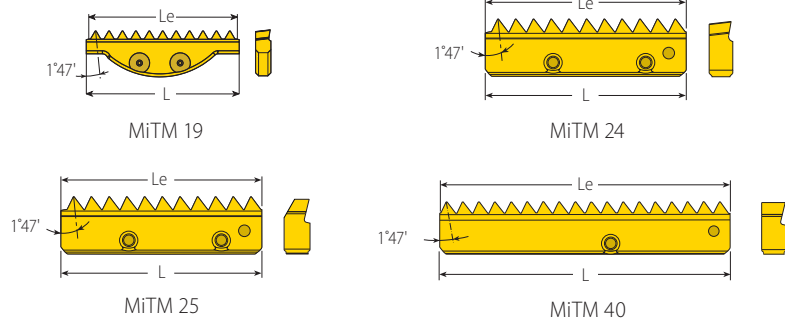
L	Pitch	Ordering Code	Cutting Edge	Teeth	Toolholder	
mm	tpi	External+ Internal	Le	Zt		
19	 18	R19EI18NPTFTM...	1	19.76	14	RTMNC.... 
24	18	R24EI18NPTFTM...	1	23.99	17	RTMNC.... 
25	14	R25EI14NPTFTM...	1	23.58	13	RTMNC.... 
	11.5	R25EI11.5NPTFTM...	1	24.30	11	
		8	R25EI8NPTFTM...	1	22.22	7
40	11.5	R40EI11.5NPTFTM...	1	37.55	17	RTMNC-D45-22-40 
	8	R40EI8NPTFTM...	1	38.10	12	
41	8	R41EI8NPTFTM...	1	38.10	12	RTMC.... 

BSPT

External / Internal



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



Standard MiTM



L	Pitch	Ordering Code	Cutting Edge	Teeth	Toolholder	
mm	tpi	External+ Internal	Le	Zt		
19 	19	R19EI19BSPTTM...	1	20.05	15	RTMNC... 
24	19	R24EI19BSPTTM...	1	24.06	18	RTMNC 2014-26 
25	14	R25EI14BSPTTM...	1	23.58	13	RTMNC.... 
	11	R25EI11BSPTTM...	1	23.09	10	
40	11	R40EI11BSPTTM...	1	39.25	17	RTMNC-D45-22-40 

Plug Insert *

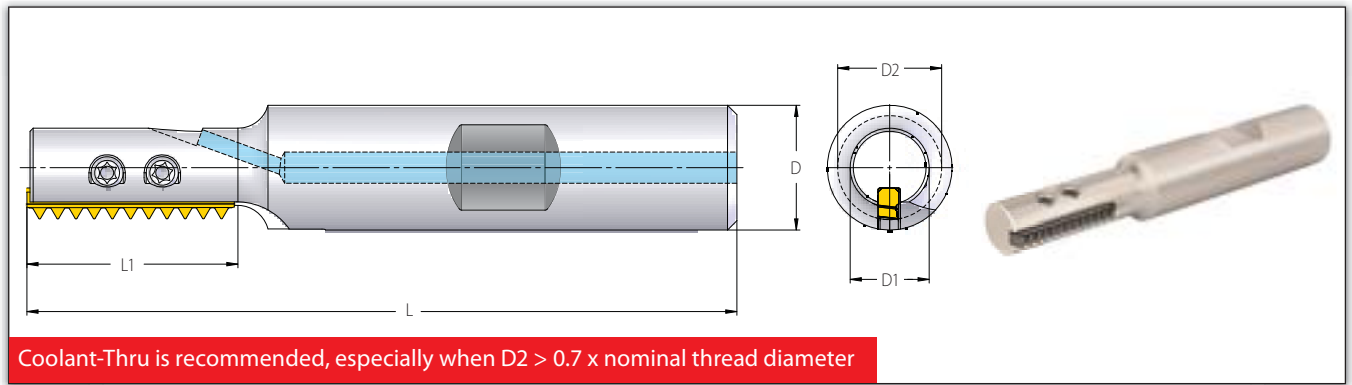


L	Ordering Code	Teeth	Toolholder
mm	External+ Internal	Zt	
24	R24NC	No Teeth	RTMC... M
25	R25NC		(B)RTMC... S RTMNC... S
40	R40NC		(B)RTMC... L RTMNC... L
41	R41NC		RTMC... B

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 19)



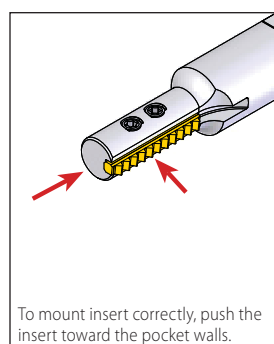
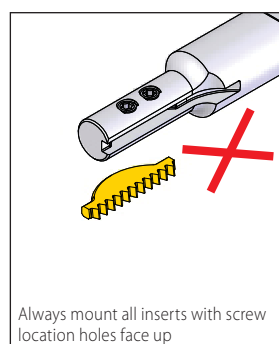
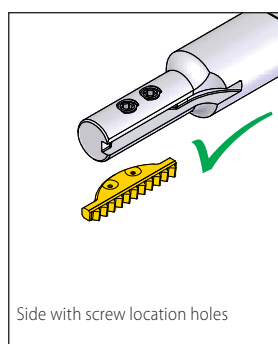
RTMC - for Standard Threads

Spare Parts

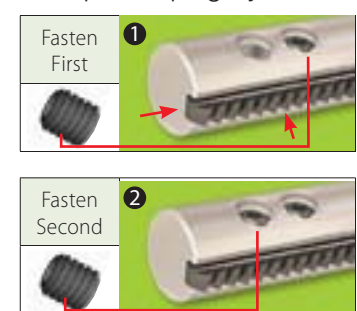
Insert Style	Ordering Code	Dimensions (mm)					No. of Flutes		
mm		L	L1	D	D1	D2	Z	Location Screw x2	Torx+ Screwdriver
19	RTMC 1210-20A1	68	20	12	7.5	10	1	SLD3IP6 (M3x0.5)	KIP6 • Use the included Vardex Torx+ screwdriver only • Recommended max. torque 1.2 Nm
	RTMC 1212-25A1	73.5	25.2	12	8.7	11.75	1		

Standard Thread Application by Toolholder

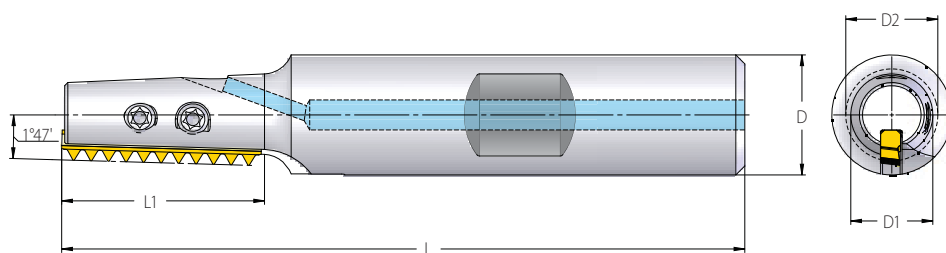
Toolholder	Min. Thread Ø						
	D2 (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 1210-20A1	10	12x1.75	11x0.5; 11x0.75; 11.5x1; 12x1.25; 12x1.5	½-13	⅞-32UN; ⅞-28UNEF; ⅞-27UNS; ½-24UNS; ½-20UNF; ½-18UNS; ½-16UN; ½-14UNS	½-16	¼-19
RTMC 1212-25A1	11.75	14x2.0; 16x2.0	12.5x0.5; 13x0.75; 13x1; 13.5x1.25; 14x1.5; 14x1.75	⅝-12	½-32UN; ⅝-28UNS; ⅝-27UNS; ⅝-24UNEF; ⅝-20UN; ⅝-18UNF; ⅝-16UN; ⅝-14UNS;	⅝-14	¼-14



2 Step Clamping System!



Conical Toolholders (MiTM 19)



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

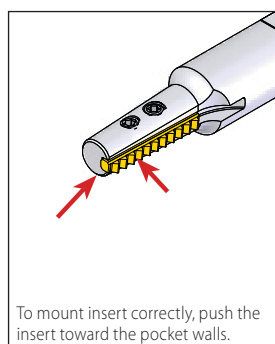
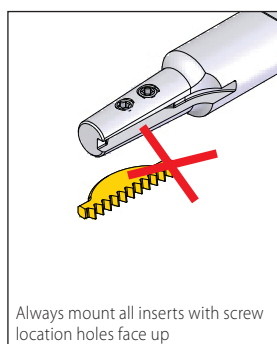
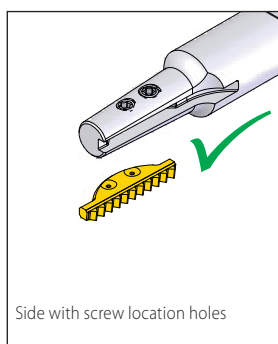
RTMNC - for Conical Threads

								Spare Parts	
Insert Style	Ordering Code	Dimensions (mm)			No. of Flutes				
mm		L	L1	D	D1	D2	Z	Location Screw x2	Torx+ Screwdriver
19	RTMNC 1210-19A1	66.5	19	12	8	10.2	1	SLD3IP6 (M3x0.5)	KIP6 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM

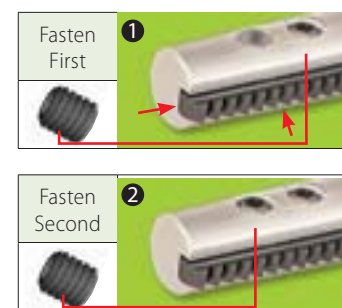
Conical Thread Application by Toolholder

Toolholder				
	D2 (mm)	NPT	NPTF	BSPT
RTMNC 1210-19A1	10	1/4-18* 3/8-18	1/4-18* 3/8-18	1/4-19* 3/8-19

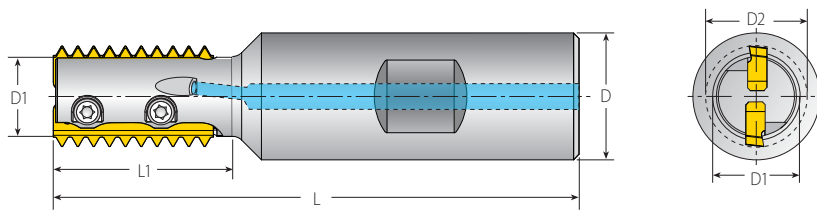
* Using MiTM 19 tools the maximum thread length is 10.5mm.



2 Step Clamping System!



Standard Toolholders (MiTM 24)



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

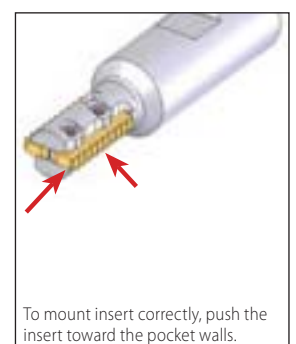
RTMC - for Standard Threads

Spare Parts

Insert Style		Ordering Code		Dimensions (mm)			No. of Flutes		
mm		L	L1	D	D1	D2	Z	Location Screw x2	Torx+ Screwdriver
24	RTMC 2013-26M1	82	26	20	10.7	13.6	1	SLD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM
	RTMC 2015-30M1	85	30	20	11.9	15.1	1		
	RTMC 2016-28M2	83	28	20	12.6	16	2		
	RTMC 2016-36M1	91	36	20	12.6	16	1		

Standard Thread Application by Toolholder

Toolholder	Min. Thread Ø						
	D2 (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 2013-26M1	13.6	M16x2	M14.5x0.5; M15x0.75; M15x1; M15x1.25; M16x1.5; M16x1.75	-	$\frac{1}{16}$ -12UN; $\frac{5}{8}$ -14UNS; $\frac{5}{8}$ -16UN; $\frac{5}{8}$ -18UNF; $\frac{5}{8}$ -20UN; $\frac{5}{8}$ -24UNEF; $\frac{5}{8}$ -28UN; $\frac{5}{8}$ -32UN	$\frac{1}{16}$ -14; $\frac{3}{4}$ -12	$\frac{3}{8}$ -19
RTMC 2015-30M1	15.1	M18x2.5	M16x0.5; M17x0.75; M17x1; M17x1.25; M17x1.5; M18x1.75; M18x2	$\frac{3}{4}$ -10	$\frac{3}{4}$ -12UN; $\frac{3}{4}$ -14UNS; $\frac{1}{16}$ -16UN; $\frac{1}{16}$ -20UN; $\frac{1}{16}$ -24UNEF; $\frac{1}{16}$ -28UN; $\frac{1}{16}$ -32UN	$\frac{3}{4}$ -12	-
RTMC 2016-28M2	16	M20x2.5	M17x0.5; M17x0.75; M18x1; M18x1.25; M18x1.5; M18x1.75; M19x2	$\frac{3}{4}$ -10	$\frac{3}{4}$ -12UN; $\frac{3}{4}$ -14UNS; $\frac{3}{4}$ -16UN; $\frac{3}{4}$ -18UNS; $\frac{3}{4}$ -20UNEF; $\frac{1}{16}$ -24UNEF; $\frac{1}{16}$ -28UN; $\frac{1}{16}$ -32UN	$\frac{3}{4}$ -12	-
RTMC 2016-36M1	16	M20x2.5	M17x0.5; M17x0.75; M18x1; M18x1.25; M18x1.5; M18x1.75; M19x2	$\frac{3}{4}$ -10	$\frac{3}{4}$ -12UN; $\frac{3}{4}$ -14UNS; $\frac{3}{4}$ -16UN; $\frac{3}{4}$ -18UNS; $\frac{3}{4}$ -20UNEF; $\frac{1}{16}$ -24UNEF; $\frac{1}{16}$ -28UN; $\frac{1}{16}$ -32UN	$\frac{3}{4}$ -12	-



Conical Toolholders (MiTM 24)

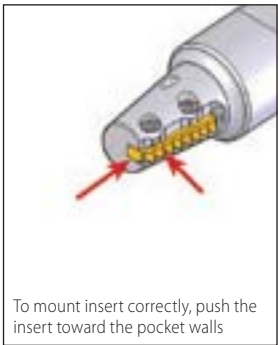
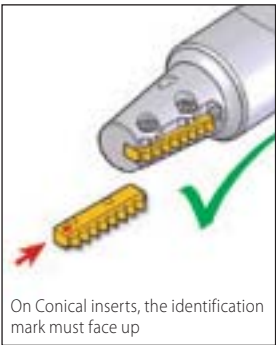
Coolant-Thru is recommended, especially when $D2 > 0.7 \times$ nominal thread diameter

RTMC - for Conical Threads

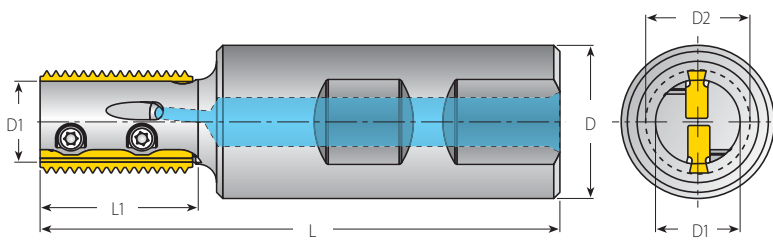
RTMC - for Conical Threads								Spare Parts	
Insert Style	Ordering Code	Dimensions (mm)			No. of Flutes				
mm		L	L1	D	D1	D2	Z	Location Screw x2	Torx+ Screwdriver
24	RTMNC 2014-26M1	81	26	20	11.5	13.9	1	SLD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM

Conical Thread Application by Toolholder

Toolholder				
	D2 (mm)	NPT	NPTF	BSPT
RTMNC 2014-26M1	13.9	3⁄8-18	3⁄8-18	3⁄8-19



Standard Toolholders (MiTM 25)



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

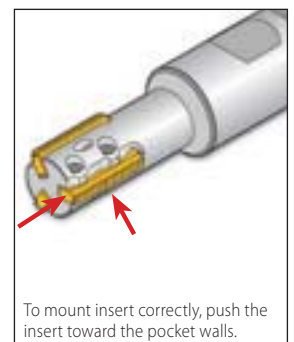
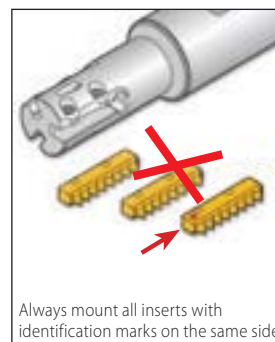
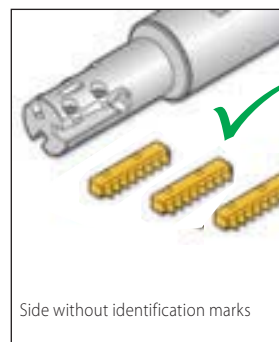
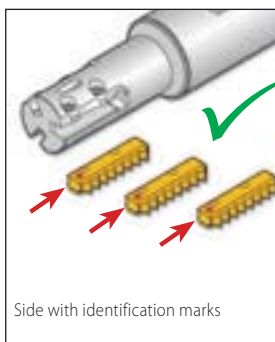
RTMC - for Standard Threads

Spare Parts

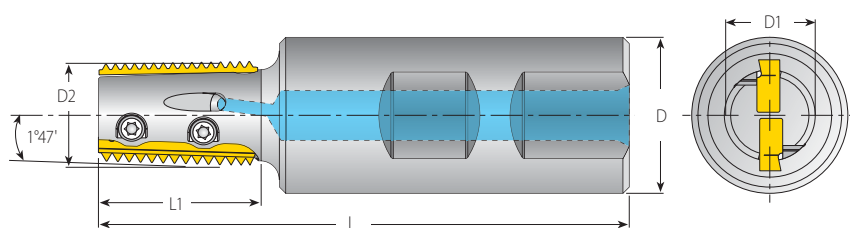
Insert Style	Ordering Code	Dimensions (mm)						No. of Flutes		
mm		L	L1	D	D1	D2	Z		Location Screw x2	Torx+ Screwdriver
25	RTMC 2517-26S2	85	26	25	14	17	2	SLD4IP8 (M4x0.7)		KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM
	RTMC 2517-36S2	95	36		14	17	2			
	RTMC 2519-32S2	92	32		15	19	2			
	RTMC 2519-44S2	104	44		15	19	2			
	RTMC 2520-37S3	96	37		16.5	20.5	3			
	RTMC 2520-44S3	103	44		16.5	20.5	3			
	RTMC 2522-43S3	102	43		18	22	3			
	RTMC 2522-55S3	114	55		18	22	3			
	RTMC 2530-55S5	115	55		26	30	5			
	BRTMC 2530-80S4	140	80		26	30	4			

Standard Thread Application by Toolholder

Toolholder		Min.Thread Ø					
	D2 (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	BSP(G)
RTMC 2517-26S2	17	M20x2.5	M19x1; M19x1.5; M20x2	-	$\frac{7}{8}$ -10UNS; $\frac{13}{16}$ -12UN; $\frac{7}{8}$ -14UNF; $\frac{3}{4}$ -16UNF; $\frac{3}{4}$ -18UNS; $\frac{3}{4}$ -20UNEF	$\frac{7}{8}$ -11; $\frac{7}{8}$ -12; $\frac{7}{8}$ -14; $\frac{7}{8}$ -16	$\frac{1}{2}$ -14
RTMC 2517-36S2							
RTMC 2519-32S2	19	M22x2.5 M24x3	M21x1; M21x1.5; M22x2	$\frac{7}{8}$ -9; 1-8	$\frac{7}{8}$ -20UNEF; $\frac{7}{8}$ -18UNS; $\frac{7}{8}$ -16UN; $\frac{7}{8}$ -14UNF; $\frac{7}{8}$ -12UN; $\frac{7}{8}$ -10UNS	$\frac{7}{8}$ -16; $\frac{7}{8}$ -14; $\frac{15}{16}$ -12; $\frac{15}{16}$ -11	$\frac{5}{8}$ -14
RTMC 2519-44S2							
RTMC 2520-37S3	20.5	M24x3	M22x1; M23x1.5; M23x2; M23.5x2.5	1-8	$\frac{15}{16}$ -9UN; 1-10UNS; $\frac{15}{16}$ -12UN; 1-14UNS; $\frac{15}{16}$ -16UN; $\frac{7}{8}$ -18UNS; $\frac{7}{8}$ -20UNEF	1-11; 1-12; 1-14; 1-16	$\frac{5}{8}$ -14
RTMC 2520-44S3							
RTMC 2522-43S3	22	M27x3	M24x1; M24x1.5; M25x2; M25x2.5	-	1 $\frac{1}{16}$ -8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; $\frac{15}{16}$ -20UNEF	1-11; 1-12; 1-14; 1-16	$\frac{3}{4}$ -14
RTMC 2522-55S3							
RTMC 2530-55S5	30	-	M32x1; M32x1.5; M33x2; M33x2.5; M34x3	-	1 $\frac{3}{8}$ -8UN; 1 $\frac{3}{8}$ -9UN; 1 $\frac{3}{8}$ -10UN; $\frac{15}{16}$ -12UN; 1 $\frac{3}{8}$ -14UNS; $\frac{15}{16}$ -16UN; $\frac{15}{16}$ -18UNEF; $\frac{15}{16}$ -20UN	1 $\frac{3}{8}$ -11; 1 $\frac{3}{8}$ -12; 1 $\frac{3}{8}$ -14; 1 $\frac{3}{8}$ -16	1-11
BRTMC 2530-80S4							



Conical Toolholders (MiTM 25)



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

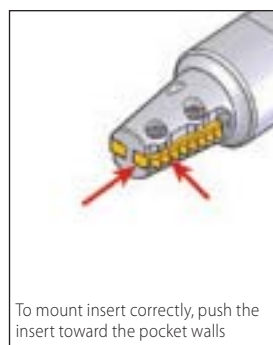
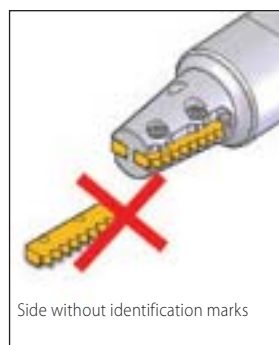
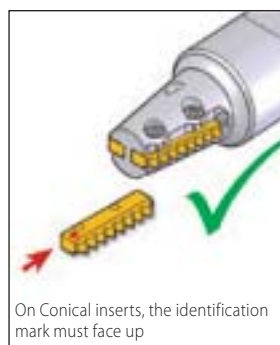
RTMNC - for Conical Threads

Spare Parts

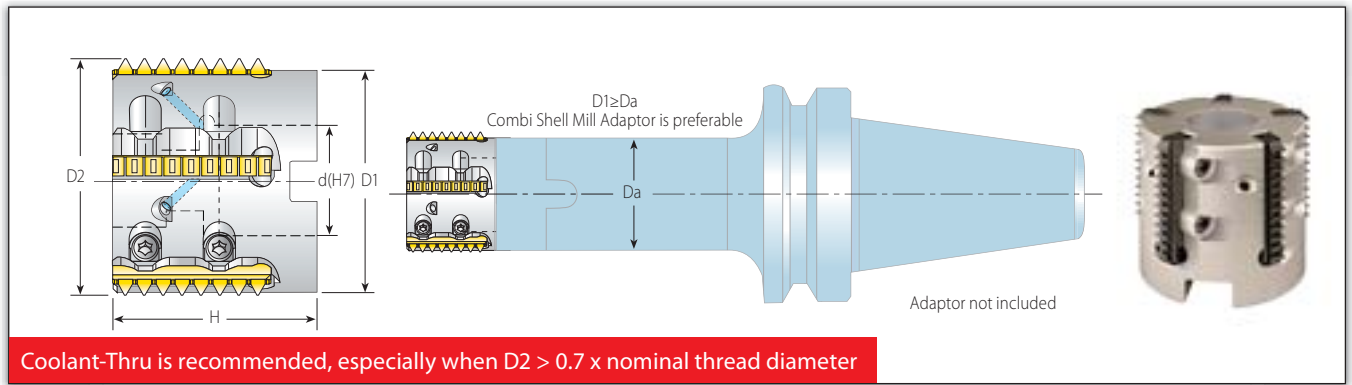
Insert Style	Ordering Code	Dimensions (mm)						No. of Flutes		
mm		L	L1	D	D1	D2	Z		Location Screw x2	Torx+ Screwdriver
25	RTMNC 2517-26S2	85	26	25	14	17	2		SLD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM
	RTMNC 2522-43S3	102	43	25	18	22	3			
	RTMNC 2528-43S4	103	43	25	25	28	4			

Conical Thread Application by Toolholder

Toolholder		Thread Ø		
	D2(mm)	NPT	NPTF	BSPT
RTMNC 2517-26S2	17	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 2522-43S3	22	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 2528-43S4	28	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

Conical and Standard Shell Mills							Spare Parts		
Insert Style	Ordering Code	Dimensions (mm)				No. of Flutes			
mm		D1	D2	d(H7)	H	Z	Location Screw x2	Torx+ Screwdriver	Holder Screw
Standard	25	RTMC D36-16-25S5	32	36	16	33.5	SLD4IP8 (M4x0.7)	KIP8 • Use the included Vardex Torx+ screwdriver only • Recommended max. torque 1.2 NxM	M8x1.25x30
		RTMC D44-22-25S6	40	44	22	38			M10x1.50x35
		RTMC D52-27-25S8	48	52	27	40			M12x1.75x30
Conical		RTMNC D36-16-25S5	32	36*	16	33.5			M8x1.25x30

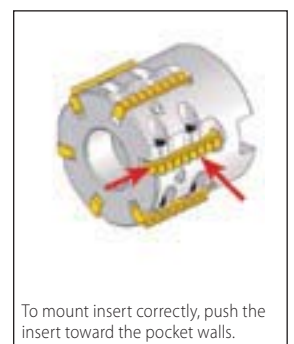
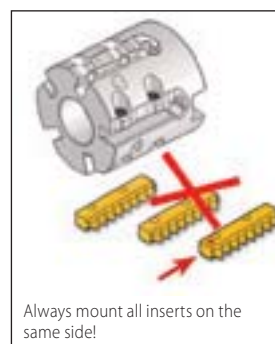
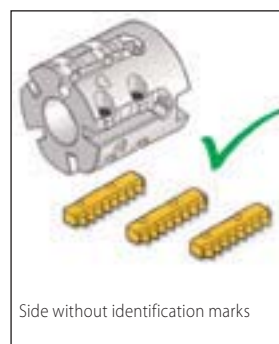
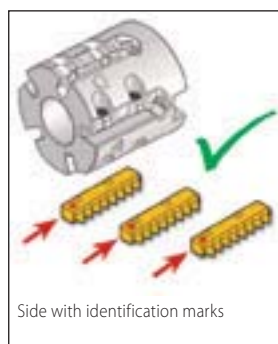
* For inserts 8NPT and 8NPTF use for CNC program (D2+0.6mm)

Standard Thread Applications by Toolholder

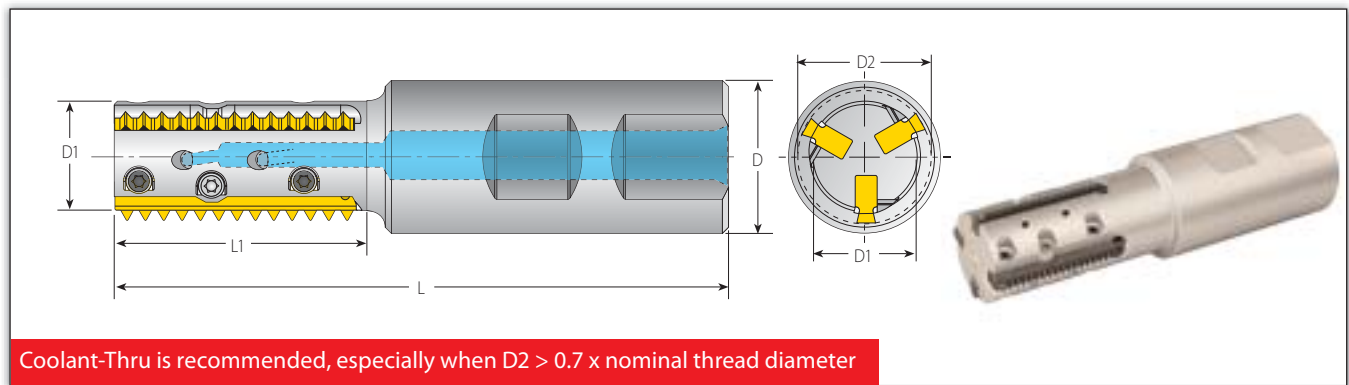
Toolholder			Min. Thread Ø			
D2(mm)			ISO (fine)	UN/UNF/UNEF/UNS	BSW	BSP(G)
Standard	RTMC D36-16-25S5	36	M38x1; M39x1.5; M39x2; M40x3	1½-12UN; 1⅝-14UNS; 1⅞-16UN; 1½-18UNEF; 1½-20UN	1¼-16 1¾-12	1¼-11
	RTMC D44-22-25S6	44	M48x1; M48x1.5; M48x2; M48x3	1⅞-12UN; 1⅞-16UN; 1⅞-20UN; 1⅞-8UN; 1⅞-10UNS; 1⅞-14UNS	2-16 2-12	1½-11
	RTMC D52-27-25S8	52	M55x1; M55x1.5; M55x2; M56x3	2¼-8UN; 2¼-10UN; 2¼-12UN; 2¼-14UN; 2¼-16UN; 2¼-18UN; 2¼-20UN	2¼-16 2¼-12	2-11

Conical Thread Applications by Toolholder

Toolholder			Thread Ø		
D2 (mm)			NPT	NPTF	BSPT
Conical	RTMNC D36-16-25S5	36	1¼-11.5; 1½-11.5; 2-11.5 2½-8 (and up)	1¼-11.5; 1½-11.5; 2-11.5 2½-8; 3-8	1½-6x11



Standard Toolholders (MiTM 40)

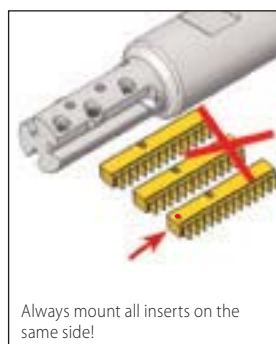


RTMC - for Standard Threads

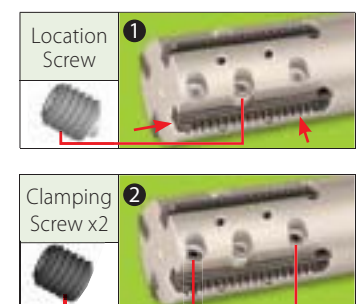
RTMC - for Standard Threads								Spare Parts		
Insert Style	Ordering Code	Dimensions (mm)								
mm		L	L1	D	D1	D2	Z	Location Screw	Clamping Screw x2	Torx+ Screwdriver
40	RTMC 2522-43L3	102	43	25	18	22	3	SLD4IP8A (M4x0.7)	SCD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM
	RTMC 2522-65L3	124	65	25	18	22	3			
	RTMC 3230-55L4	117	55	32	26	30	4			
	BRTMC 3230-80L3	142	80	32	26	30	3			

Standard Thread Application by Toolholder

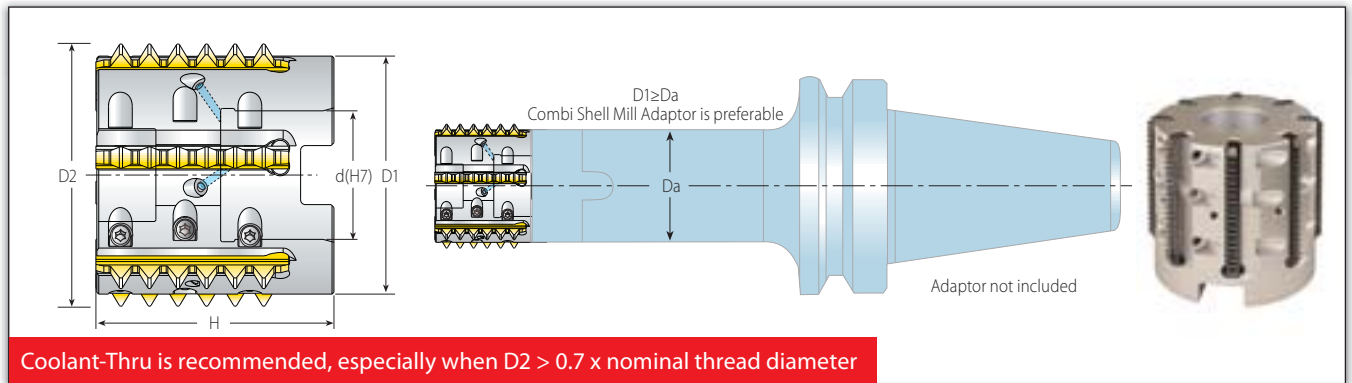
Toolholder		Min. Thread Ø						
	D2 (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS			BSP(G)
RTMC 2522-43L3	22	M27x3	M24x1; M24x1.5 M25x2; M25x2.5	-	1 $\frac{1}{16}$ -8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; 1 $\frac{1}{16}$ -20UNEF			1-11; 1-12; 1-14; 1-16;
RTMC 2522-65L3	22	M27x3	M24x1; M24x1.5 M25x2; M25x2.5	-	1 $\frac{1}{16}$ -8UN; 1-9UN; 1-10UNS; 1-12UNF; 1-14UNS; 1-16UN; 1-18UN; 1 $\frac{1}{16}$ -20UNEF			1-11; 1-12; 1-14; 1-16;
RTMC 3230-55L4	30	-	M32x1; M32x1.5 M33x2; M33x2.5; M34x3	-	1 $\frac{3}{8}$ -8UN; 1 $\frac{3}{8}$ -9UN; 1 $\frac{3}{8}$ -10UN; 1 $\frac{1}{16}$ -12UN; 1 $\frac{3}{8}$ -14UNS; 1 $\frac{1}{16}$ -16UN; 1 $\frac{1}{16}$ -18UNEF; 1 $\frac{1}{16}$ -20UN			1 $\frac{3}{8}$ -11; 1 $\frac{3}{8}$ -12; 1 $\frac{3}{8}$ -14; 1 $\frac{3}{8}$ -16
BRTMC 3230-80L3	30	-	M32x1; M32x1.5 M33x2; M33x2.5; M34x3	-	1 $\frac{3}{8}$ -8UN; 1 $\frac{3}{8}$ -9UN; 1 $\frac{3}{8}$ -10UN; 1 $\frac{1}{16}$ -12UN; 1 $\frac{3}{8}$ -14UNS; 1 $\frac{1}{16}$ -16UN; 1 $\frac{1}{16}$ -18UNEF; 1 $\frac{1}{16}$ -20UN			1 $\frac{3}{8}$ -11; 1 $\frac{3}{8}$ -12; 1 $\frac{3}{8}$ -14; 1 $\frac{3}{8}$ -16



2 Step Clamping System!



Shell Mill (MiTM 40)



Conical and Standard Shell Mills

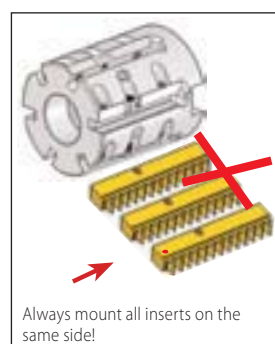
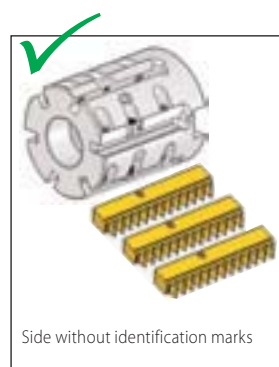
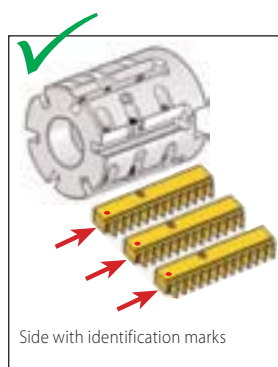
							Spare Parts			
Insert Style	Ordering Code	Dimensions (mm)				No. of Flutes				
mm		D1	D2	d(H7)	H	Z	Location Screw	Clamping Screw x2	Torx+ Screwdriver	Holder Screw
Standard	40	RTMC D44-22-40L6	40	44	22	48	SLD4IP8A (M4x0.7)	SCD4IP8 (M4x0.7)	KIP8 • Use the included Vardex Torx+ screwdriver only • Recommended max. torque 1.2 Nm	M10x1.5x40
		RTMC D52-27-40L8	48	52	27	50				M12x1.75x40
Conical		RTMNC D45-22-40L6	40	45	22	48				M10x1.5x40

Standard Thread Application per Toolholder

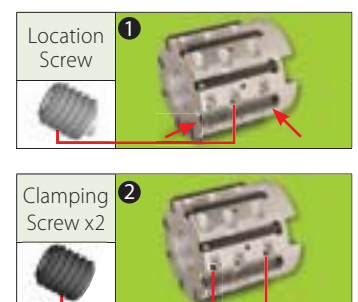
Toolholder		Min. Thread Ø				
		D2 (mm)	ISO (fine)	UN/UNF/UNEF/UNS		BSP(G)
Standard	RTMC D44-22-40L6	44	M48x1; M48x1.5; M48x2; M48x3	1 $\frac{7}{8}$ -12UN; 1 $\frac{13}{16}$ -16UN; 1 $\frac{13}{16}$ -20UN; 1 $\frac{15}{16}$ -8UN; 1 $\frac{7}{8}$ -10UNS; 1 $\frac{7}{8}$ -14UNS		2-16 2-12
	RTMC D52-27-40L8	52	M55x1; M55x1.5; M55x2; M56x3	2 $\frac{1}{4}$ -8UN; 2 $\frac{1}{4}$ -10UN; 2 $\frac{1}{4}$ -12UN; 2 $\frac{1}{4}$ -14UN; 2 $\frac{1}{4}$ -16UN; 2 $\frac{1}{4}$ -18UN; 2 $\frac{1}{4}$ -20UN		2 $\frac{1}{4}$ -16 2 $\frac{1}{4}$ -12

Conical Thread Application by Toolholder

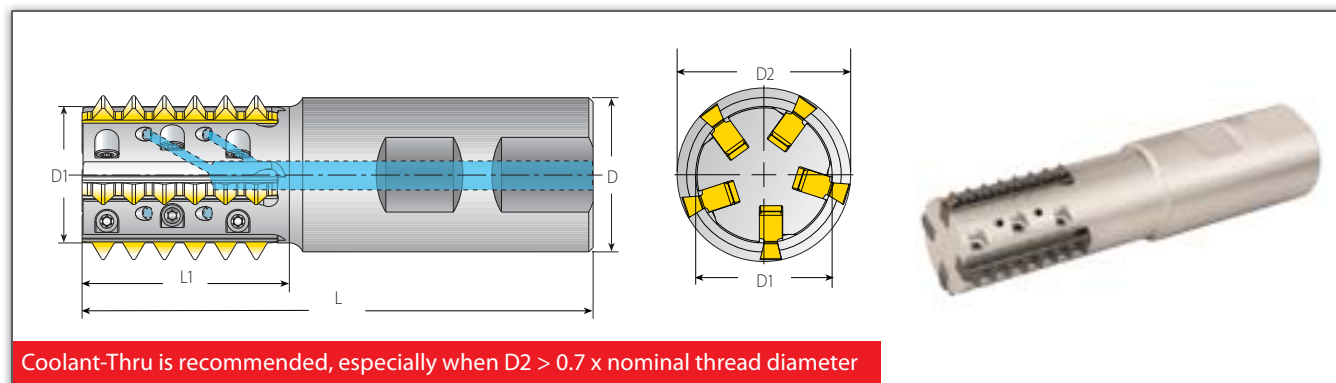
Toolholder		Min. Thread Ø			
		D2 (mm)	NPT	NPTF	BSPT
Conical	RTMNC D45-22-40L6	45	2-11.5; 2 $\frac{1}{2}$ -8 (and up)	2-11.5; 2 $\frac{1}{2}$ -8; 3-8	2-6x11



2 Step Clamping System!



Standard Toolholders (MiTM 41)



RTMC - for Standard Threads

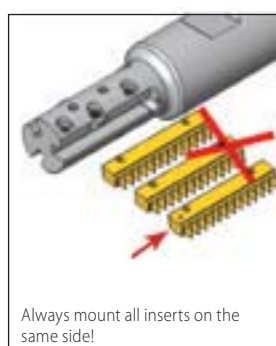
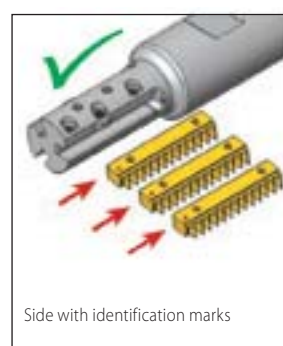
Spare Parts

Insert Style	Ordering Code	Dimensions (mm)						No. of Flutes			
mm		L	L1	D	D1	D2*	Z		Location Screw x2	Clamping Screw	Torx+ Screwdriver
41	RTMC 2521-45B1	105	45	25	16.0	21.2	1	SLD4IP8A (M4x0.7)		SCD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM
	RTMC 2524-43B2	104	43	25	19.2	24.5	2				
	RTMC 3230-43B3	106.5	43	32	24.2	30	3				
	RTMC 3230-65B3	128.5	65	32	24.2	30	3				
	RTMC 3236-43B5	106	43	32	28.3	36	5				
	RTMC 3236-65B4	128	65	32	28.3	36	4				

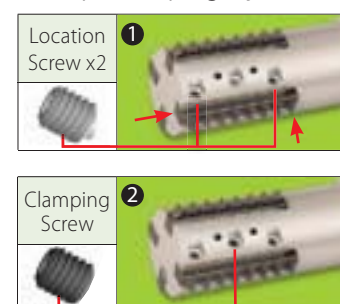
Standard Thread Application by Toolholder

Toolholder		Min. Thread Ø						
	D2* (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSW/BSF	NPT	NPTF
RTMC 2521-45B1	21.2	M27x3; M30x3.5; M33x3.5; M36x4; M39x4; M42x4.5; M45x4.5; M48x5; M52x5	M30x3; M42x4	1-8, 1½-7; 1¼-7; 1¾-6; 1½-6; 1¾-5	1½-8UN; 1¾-6UN	1-8BSW; 1¾-7BSW	-	-
RTMC 2524-43B2	24.5	M30x3.5; M36x4	M28x3; M45x4	1½-7; 1¾-6	1½-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSW	-	-
RTMC 3230-43B3	30	M36x4; M42x4.5	M34x3; M34x3.5; M45x4	1¾-6	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSF; 1½-6BSW	-	-
RTMC 3230-65B3	30	M36x4; M42x4.5	M34x3; M34x3.5; M45x4	1¾-6	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSF; 1½-6BSW	-	-
RTMC 3236-43B5	36	M42x4.5; M48x5; M56x5.5; M64x6	M40x3; M40x3.5; M42x4; M70x6	1¾-5; 2-4.5; 2½-4	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSF; 1¾-6BSF	2½-8	2½-8
RTMC 3236-65B4	36	M42x4.5; M48x5; M56x5.5; M64x6	M40x3; M40x3.5; M42x4; M70x6	1¾-5; 2-4.5; 2½-4	1¾-8UN; 1¾-6UN	1¾-8BSF; 1¼-7BSF; 1¾-6BSF	2½-8	2½-8

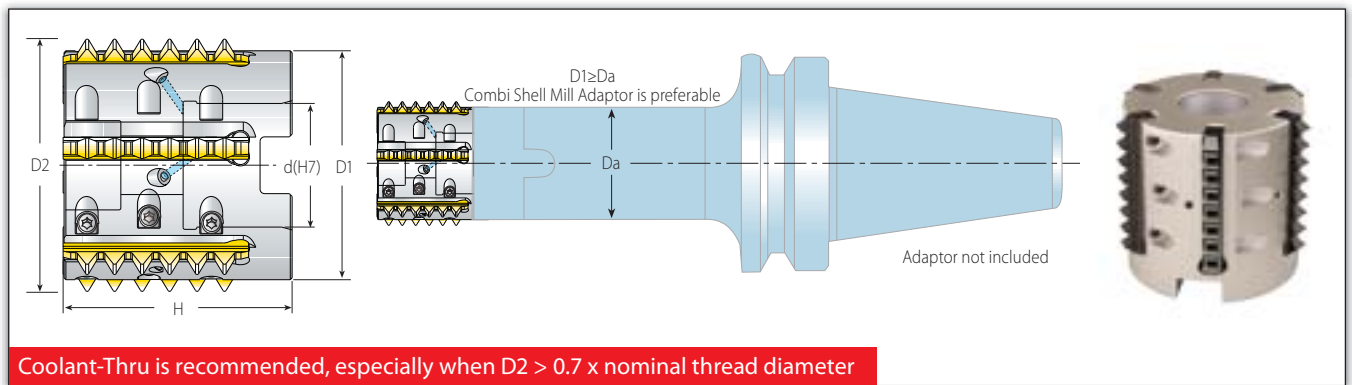
* For external applications, inserts R41E... use for CNC program (D2+0.6mm)



2 Step Clamping System!



Shell Mill (MiTM 41)



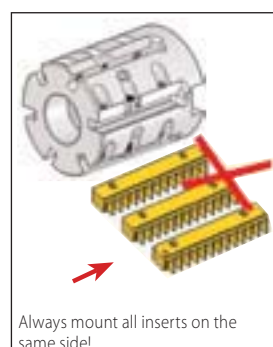
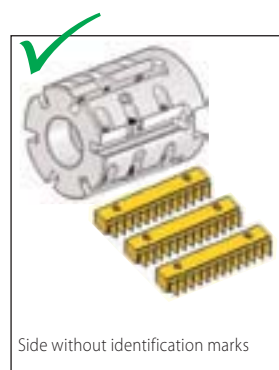
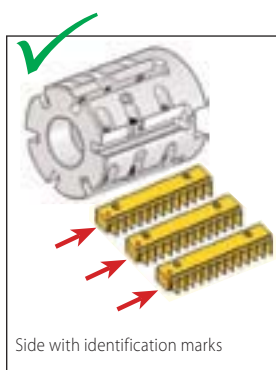
Standard Shell Mill

Standard Shell Mill							Spare Parts			
Insert Style	Ordering Code	Dimensions (mm)			No. of Flutes					
mm		D1	D2*	d(H7)	H	Z	Location Screw x2	Clamping Screw	Torx+ Screwdriver	Holder Screw
41	RTMC D48-22-41B5	40	48	22	50	5	SLD4IP8A (M4x0.7)	SCD4IP8 (M4x0.7)	KIP8 •Use the included Vardex Torx+ screwdriver only •Recommended max. torque 1.2 NxM	M10x1.5x40
	RTMC D58-27-41B6	50	58	27	50	6				M12x1.75x40

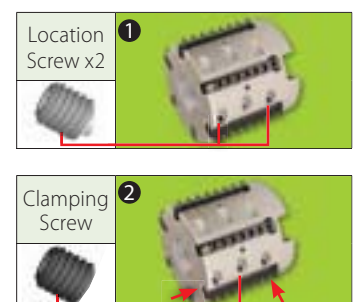
Standard Thread Application by Toolholder

Toolholder		Min. Thread Ø						
	D2* (mm)	ISO (coarse)	ISO (fine)	UNC	UN/UNF/UNEF/UNS	BSF	NPT	NPTF
RTMC D48-22-41B5	48	M56x5.5; M64x6	M55x4; M70x6;	2¼-4.5; 2½-4	2⅝-8UN; 2⅝-6UN	2¼-8; 2¼-6	2½-8	2½-8
RTMC D58-27-41B6	58	M68x6	M64x4; M70x6	2¾-4	2½-8UN; 2½-6UN	2½-8; 2¾-6	2½-8	2½-8

* For external applications, inserts R41E... use for CNC program (D2+0.6mm)



2 Step Clamping System!



Recommended Grades, Cutting Speeds Vc [m/min] and Feed f [mm/tooth]

Material Group	Vardex No.	Material		Hardness Brinell HB	Vc [m/min]		Feed f [mm/tooth]	
					VBX	VTX	f (Excluding MiTM 19)	f (for MiTM 19)
P Steel	1	Unalloyed steel	Low carbon (C=0.1-0.25%)	125	100-210	90-180	0.1-0.35	0.06-0.2
	2		Medium carbon (C=0.25-0.55%)	150	100-180	90-170	0.1-0.4	0.06-0.25
	3		High Carbon (C=0.55-0.85%)	170	100-170	90-160	0.1-0.35	0.06-0.2
	4	Low alloy steel (alloying elements ≤ 5%)	Non hardened	180	90-60	90-155	0.1-0.4	0.06-0.25
	5		Hardened	275	80-150	80-160	0.1-0.35	0.06-0.2
	6		Hardened	350	70-140	70-150	0.1-0.3	0.06-0.2
	7	High alloy steel (alloying elements > 5%)	Annealed	200	60-130	70-115	0.1-0.35	0.06-0.2
	8		Hardened	325	70-110	60-100	0.1-0.2	0.06-0.1
	9	Cast steel	Low alloy (alloying elements < 5%)	200	100-170	100-170	0.1-0.3	0.06-0.2
	10		High alloy (alloying elements > 5%)	225	70-120	70-130	0.1-0.2	0.06-0.1
M Stainless Steel	11	Stainless steel Ferritic	Non hardened	200	100-170	120-180	0.1-0.3	0.06-0.2
	12		Hardened	330	100-170	120-180	0.1-0.2	0.06-0.1
	13	Stainless steel Austenitic	Austenitic	180	70-140	100-140	0.1-0.3	0.06-0.2
	14		Super Austenitic	200	70-140	100-140	0.1-0.2	0.06-0.1
	15	Stainless steel Cast Ferritic	Non hardened	200	70-140	100-140	0.1-0.3	0.06-0.2
	16		Hardened	330	70-140	100-140	0.1-0.2	0.06-0.1
	17	Stainless steel Cast austenitic	Austenitic	200	70-120	100-120	0.1-0.3	0.06-0.2
	18		Hardened	330	70-120	100-120	0.1-0.2	0.06-0.1
K Cast Iron	28	Malleable Cast iron	Ferritic (short chips)	130	60-130	100-120	0.05-0.16	0.03-0.1
	29		Pearlitic (long chips)	230	60-120	80-100	0.04-0.1	0.02-0.06
	30	Grey cast iron	Low tensile strength	180	60-130	80-100	0.1-0.3	0.06-0.2
	31		High tensile strength	260	60-100	80-100	0.1-0.2	0.06-0.1
	32	Nodular SG iron	Ferritic	160	60-125	80-100	0.1-0.3	0.06-0.2
	33		Pearlitic	260	50-90	60-90	0.1-0.2	0.06-0.1
N_(K) Non-Ferrous Metals	34	Aluminium alloys Wrought	Non aging	60	100-250	-	0.15-0.55	0.09-0.3
	35		Aged	100	100-180	-	0.15-0.5	0.09-0.3
	36	Aluminium alloys	Cast	75	150-400	-	0.15-0.5	0.09-0.3
	37		Cast & aged	90	150-280	-	0.1-0.4	0.06-0.25
	38	Aluminium alloys	Cast Si 13-22%	130	80-150	-	0.15-0.5	0.09-0.3
	39	Copper and copper alloys	Brass	90	120-210	100-200	0.15-0.5	0.09-0.3
	40		Bronze and non leaded copper	100	120-210	100-200	0.1-0.4	0.06-0.25
S_(M) Heat Resistant Material	19	High temperature alloys	Annealed (Iron based)	200	20-45	20-40	0.1-0.2	0.06-0.1
	20		Aged (Iron based)	280	20-30	20-30	0.04-0.1	0.02-0.06
	21		Annealed (Nickel or Cobalt based)	250	15-20	15-20	0.04-0.1	0.02-0.06
	22		Aged (Nickel or Cobalt based)	350	10-15	10-15	0.04-0.1	0.02-0.06
	23	Titanium alloys	Pure 99.5 Ti	400Rm	70-140	70-120	0.04-0.1	0.02-0.06
	24		α+β alloys	1050Rm	20-50	20-50	0.04-0.1	0.02-0.06
H_(K) Hardened Material	25	Extra hard steel	Hardened & tempered	45-50HRc	15-45	15-45	0.06-0.12	0.04-0.07
	26			51-55HRc	15-40	15-40	0.04-0.08	0.02-0.05

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.	