thread & groove milling

High performance solid carbide and indexable tooling solutions for the milling of threads, grooves, slots, chamfers and external radii. Systems are available for a wide range of performance requirements and specific material machining.

YG SIMTEK VARDEX CUTWEL PRO

contents

CUTWEL PRO VARDEX

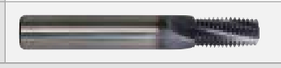
CARBIDE THREAD MILLS

P H M S K N

Solid Carbide Thread Mills for the machining of threads from 0.25 to 3.0mm pitch (72 to 8TPI). Specific ranges are available for materials including heat resistant super alloys, aluminium & hardened steels. With a specially developed high performance coating to prevent built up edge and improve thread quality.

THREAD FORMS

TOOL SELECTION

Description		Sizes	Page
M METRIC DIN 13 **HELICAL FLUTES** PLAIN SHANK • SOLID, RADIAL & AXIAL THROUGH COOLANT		M 4-24 MF 6-80	**1004**
M METRIC DIN 13 **3 TOOTH MICRO MILL** PLAIN SHANK • SOLID		M 1.2-20 MF 3.5-48	**1006**
M METRIC DIN 13 **1 TOOTH** LONG REACH PLAIN SHANK • SOLID		M 6-20 MF 8-48	**1006**
M METRIC DIN 13, **MULTI-FLUTE** PLAIN SHANK • AXIAL THROUGH COOLANT		M 3-16 MF 3.5-80	**1008**
M METRIC DIN 13, **HELICAL FLUTE** RELIEVED NECK PLAIN SHANK • AXIAL THROUGH COOLANT		M 3-16 MF 3.5-80	**1008**
M METRIC DIN 13, **TMDR** DRILL, CHAMFER & THREAD PLAIN SHANK • SOLID & THROUGH COOLANT		M 3-24 MF 4-23	**1009**
M METRIC DIN 13, HARDENED STEEL PLAIN SHANK • SOLID • STANDARD & 3 TOOTH		M 5-16 MF 8-80	**1010**
M METRIC DIN 13 **THRILLER** DRILL, CHAMFER & THREAD PLAIN SHANK • THROUGH COOLANT		M 4-16	**1011**
M METRIC DIN 13 **HELICAL FLUTES** WITH CHAMFER PLAIN SHANK • SOLID		M 5-10 MF 6-40	**1011**
UN UNIFIED NATIONAL ANSI B1.1:74 **HELICAL FLUTES** PLAIN SHANK • SOLID, AXIAL & RADIAL THROUGH COOLANT		1/4"-1"UNC 1/4"-1-1 1/2" UNF	**1012**
UN UNIFIED NATIONAL ANSI B1.1:74 **3 TOOTH MICRO MILL** PLAIN SHANK • SOLID		No.1-7/16 UNC No.0-7/16 UNF	**1014**
UNJ UNIFIED NATIONAL MIL-S-8879C **3 TOOTH MICRO MILL** PLAIN SHANK • SOLID		No.6-1/2 UNJC No.10-7/8 UNJF	**1016**
MJ METRIC DIN ISO 5855 **3 TOOTH MICRO MILL** PLAIN SHANK • SOLID		3-16 MJ	**1016**
BSP (G) BRITISH STANDARD GAS B.S.2779:1956 **HELICAL FLUTES** PLAIN SHANK • SOLID & THROUGH COOLANT		1/8"-1>" BSP	**1018**
BSW BRITISH STANDARD WHITWORTH B.S.84:1956 DIN 259 **HELICAL FLUTES** PLAIN SHANK • SOLID		1/4"-11/16" BSW 1/4"-7/8" BSF	**1018**
BSP (G) BRITISH STANDARD GAS B.S.2779:1956 **VARIABLE HELIX** PLAIN SHANK • RADIAL THROUGH COOLANT		1/8"-1>" BSP	**1019**
BSPT BRITISH STANDARD PIPE TAPER B.S.21:1985 **HELICAL FLUTES** PLAIN SHANK • SOLID & THROUGH COOLANT		1/16"-1" BSPT	**1020**
1:16 TAPER END MILLS FOR BSPT, NPT & NPTF THREADS PLAIN SHANK • SOLID		5.3-18mm	**1020**
NPT NATIONAL PIPE TAPER B2.1:1965 **HELICAL FLUTES** PLAIN SHANK • SOLID & THROUGH COOLANT		1/16"-1" NPT	**1022**
NPTF NATIONAL PIPE TAPER FUEL ANSI 1.20.3-1 **HELICAL FLUTES** PLAIN SHANK • SOLID		1/16"-1" NPTF	**1023**

CARBIDE THREAD MILL TECHNICAL GUIDE

HELICAL FLUTE
SOLID

Coated thread mills for general thread milling of steels, stainless steel, HRSA's, cast iron and non-ferrous materials.

P H M S K N

HELICAL FLUTE
AXIAL THROUGH COOLANT

Higher performance thread mills for general thread milling of steels, stainless steel, HRSA's, cast iron and non-ferrous materials.

Through coolant ideal for increasing tool life and improving chip evacuation in blind holes.

P H M S K N

HELICAL FLUTE
RADIAL THROUGH COOLANT

Higher performance thread mills with polished TNF Coating. Suitable for steels, stainless steel, HRSA's, cast iron and non-ferrous materials.

Variable helix reduces vibration and radial coolant holes improve chip evacuation in through holes.

P H M S K N

MULTI FLUTE
AXIAL THROUGH COOLANT

The ultimate thread mill for fast cycle times and longest tool life. With up to 7 flutes, the Vardex multi-flute geometry is around 40% faster and can offer superior tool life compared to standard thread mills.

Available in 2xD & 2.5xD lengths.

P H M S K N

HELICAL FLUTE
WITH 45° CHAMFER

TNF Coated thread mills with 45° chamfer to produce thread and chamfer in 1 hit. For general thread milling of steels, stainless steel, HRSA's, cast iron and non-ferrous materials.

P H M S K N

HELICAL FLUTE
FOR HARDENED STEEL

TX Coated thread mills for high performance thread milling of hardened steels (HRc45-65). Featuring an additional flute to standard thread mills and a special coating designed specifically for hardened steels.

P H M S K N

THRILLER
DRILL, CHAMFER & THREAD

Special 'Thriller' design for drilling, chamfering and thread milling with 1 tool.

2 flute polished design ideal for aluminium or soft steels..

P H M S K N

HCN HELICAL FLUTE
RELIEVED NECK

Long reach helical flute carbide thread mill with a relieved neck for deep hole tread milling applications.

Available in 3xD lengths.

P H M S K N

MINIATURE STYLE
WITH 3 TEETH

Small diameter thread mills for general thread milling of steels, stainless steel, HRSA's, cast iron and non-ferrous materials. Available in 2xD or 3xD lengths in general geometry or hardened steel type.

P H M S K N

TPDR SIMULTANEOUS
DRILLING & THREADING

Special geometry thread mills which simultaneously drill and thread at the same time and finish with a chamfering operation. Ideal for live tooling lathes or CNC mills with limited space in the tool changers.

P H M S K N

LONG REACH
1 TOOTH STYLE

Single tooth thread mills for general thread milling of steels, stainless steel, HRSA's, cast iron and non-ferrous materials. Available in 3xD lengths.

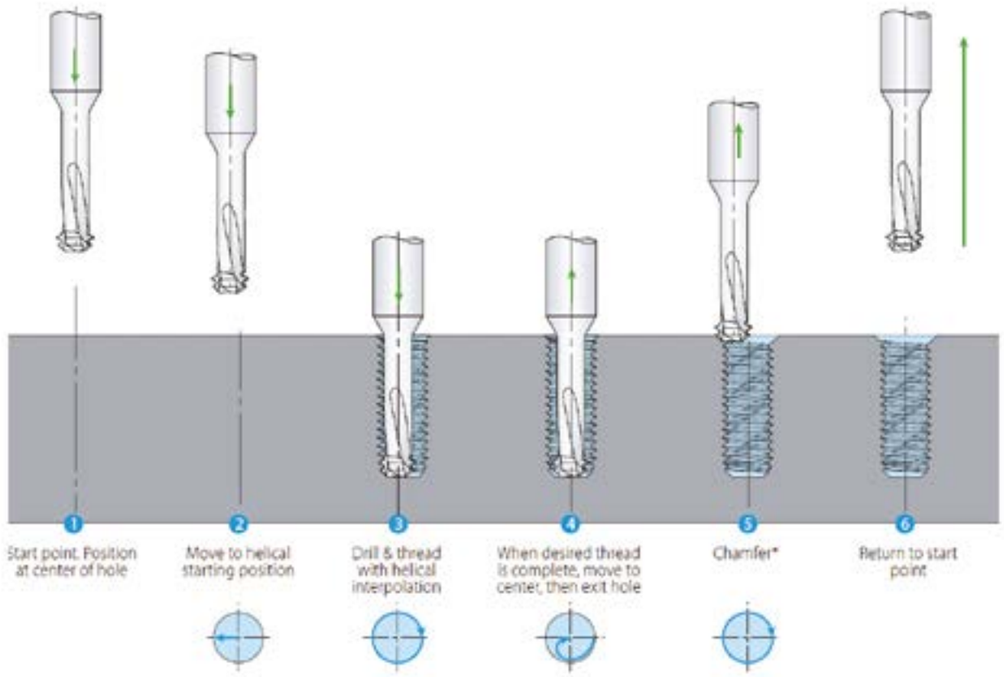
P H M S K N

Contact our expert technical team today for advice on any of our products.

Please call 01924 869 615

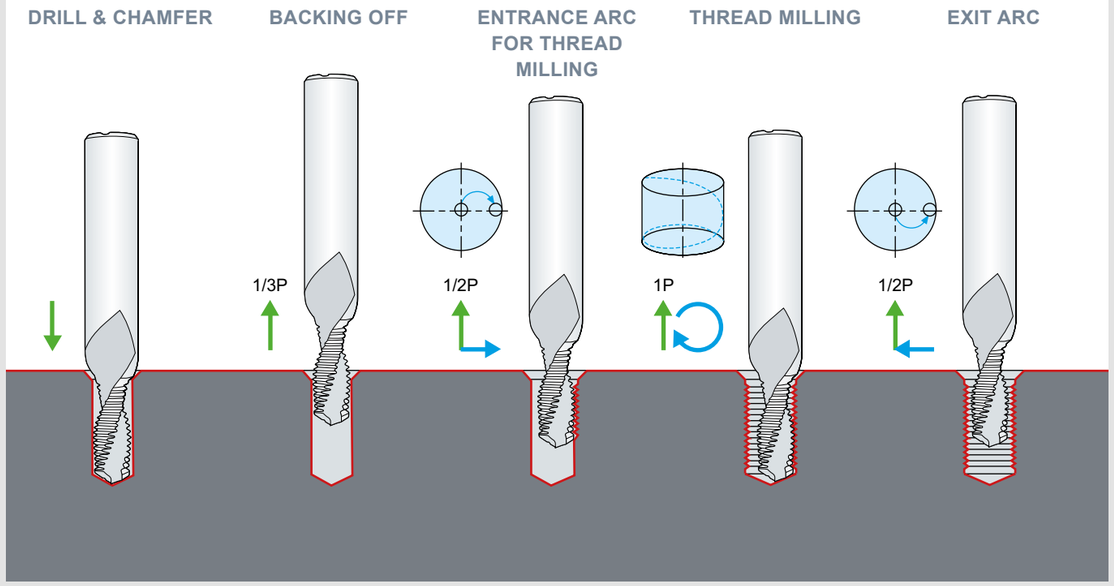
THREAD & GROOVE MILLING
CARBIDE THREAD MILLS

TMDR OPERATING CYCLE DRILL, CHAMFER & THREAD IN 1 HIT!



* Please use the VARGUS GENius™ for Chamfer recommendations.

THRILLER OPERATING CYCLE DRILL, CHAMFER & THREAD WITH 1 TOOL

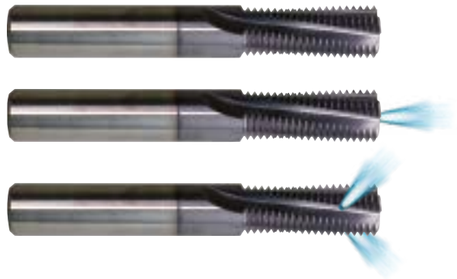


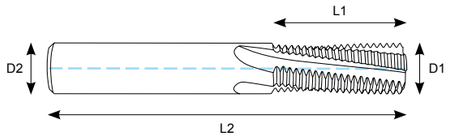
M METRIC DIN 13 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand threads
- Available in internal and external
- Axial coolant for blind holes, radial coolant for through holes

CUTWEL PRO





MG SC | 3-5 | R HELIX | HRc <45 | 60° | TNF | P1024

1.5xD | 2xD

THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	SOLID		AXIAL COOLANT		RADIAL COOLANT	
M Coarse	M Fine							ORDER CODE		ORDER CODE		ORDER CODE	
INTERNAL 1.5xD MAX DEPTH													
M4x0.70	-	0.7	3.1	6	5	51	3	CTM-METHF50T		-		-	
M5x0.80	-	0.8	4	6	6	48	3	CTM-METHF52T		CTM-METHF52TCF		-	
M6x1.0	MF8-40x1.0	1	4.5	6	7	49	3	CTM-METHF58T		CTM-METHF58TCF		-	
M8x1.25	-	1.25	6	6	9	48	3	CTM-METHF66T		CTM-METHF66TCF		-	
M10x1.5	MF10-48x1.5	1.5	8	8	12	57	3	CTM-METHF76T		CTM-METHF76TCF		-	
M12x1.75	MF12-48x1.75	1.75	8	8	12	57	3	CTM-METHF78T		CTM-METHF78TCF		-	
M14x2.0	MF17-80x2.0	2	10	10	15	69	4	CTM-METHF88T		CTM-METHF88TCF		-	
M16x2.0	MF17-80x2.0	2	12	12	18	69	4	CTM-METHF96T		CTM-METHF96TCF		-	
INTERNAL 2xD MAX DEPTH													
-	MF6-16x0.5	0.5	4.5	6	12	54	3	CTM-METHF27T		-		-	
-	MF8-16x0.5	0.5	6	6	12	54	3	CTM-METHF07T		-		-	
-	MF10-16x0.5	0.5	8	8	20	64	3	CTM-METHF13T		-		-	
M4x0.50	-	0.7	3.1	6	8	54	3	CTM-METHF03T		-		-	
-	MF6x0.75	0.75	4.5	6	12	54	3	CTM-METHF01T		-		-	
M5x0.80	-	0.8	4	6	12	54	3	CTM-METHF00T		CTM-METHF00TCF		-	
M6x1.0	MF8-40x1.0	1	4.5	6	12	54	3	CTM-METHF02T		CTM-METHF02TCF		-	
-	MF8-40x1.0	1	6	6	15	54	3	CTM-METHF05T		-		CTM-MET05VHR	
-	MF10-40x1.0	1	8	8	20	64	3	CTM-METHF09T		-		CTM-MET09VHR	
-	MF12-40x1.0	1	10	10	25	79	4	CTM-METHF14T		-		CTM-MET14VHR	
M8x1.25	-	1.25	6	6	15	54	3	CTM-METHF06T		CTM-METHF06TCF		CTM-MET06VHR	
-	MF10x1.25	1.25	8	8	20	64	3	CTM-METHF10T		-		-	
M10x1.5	MF12-48x1.5	1.5	8	8	20	64	3	CTM-METHF11T		CTM-METHF11TCF		CTM-MET11VHR	
-	MF12-48x1.5	1.5	10	10	25	79	4	-		-		CTM-MET16VHR	
-	MF14-48x1.5	1.5	12	12	30	81	4	CTM-METHF20T		-		-	
-	MF16-48x1.5	1.5	14	14	35	99	4	CTM-METHF24T		-		-	
M12x1.75	-	1.75	8	8	20	64	3	CTM-METHF12T		CTM-METHF12TCF		CTM-MET12VHR	
M14x2.0	MF17-80x2.0	2	10	10	25	79	4	CTM-METHF17T		CTM-METHF17TCF		-	
M16x2.0	MF17-80x2.0	2	12	12	30	81	4	CTM-METHF21T		CTM-METHF21TCF		CTM-MET21VHR	
-	MFF20-80x2.0	2	16	16	40	99	5	CTM-METHF30T		-		-	
M18-M22x2.5	-	2.5	14	14	35	99	4	CTM-METHF26T		-		-	
M20-M22x2.5	-	2.5	16	16	40	99	5	CTM-METHF31T		-		CTM-MET31VHR	
M24x3.0	-	3	20	20	40	109	5	CTM-METHF36T		-		-	
EXTERNAL 2xD MAX DEPTH													
M6x1.0	MF8-40x1.0	1	8	8	20	64	3	CTM-METHFEX17T		-		-	
M8x1.25	-	1.25	10	10	25	79	4	CTM-METHFEX19T		-		-	
M10x1.5	MF12-48x1.5	1.5	12	12	30	81	4	CTM-METHFEX21T		-		-	
M12x1.75	-	1.75	14	14	35	99	4	CTM-METHFEX23T		-		-	
M14x2.0	MF17-80x2.0	2	16	16	40	99	5	CTM-METHFEX25T		-		-	
M20-M22x2.5	-	2.5	18	18	40	109	5	CTM-METHFEX27T		-		-	
M24x3.0	-	3	20	20	40	109	5	CTM-METHFEX29T		-		-	

THREAD & GROOVE MILLING
CARBIDE THREAD MILLS

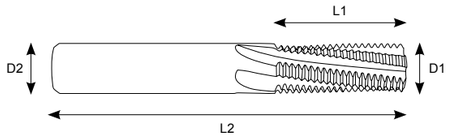
P H M S K N

M METRIC DIN 13 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Available in solid or axial through coolant

VARDEX



MG SC | 3-5 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE

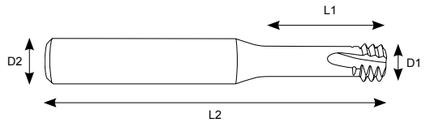
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 2xD MAX DEPTH (SOLID)									
M3x0.5	M3.5-M16x0.5	0.5	2.2	4	6	45	3	101-00027	
-	M4x0.5	0.5	3	4	8	45	3	101-00028	
-	M5x0.5	0.5	3.9	4	10	45	3	101-00029	
M4x0.7	-	0.7	2.8	4	8.4	45	3	101-00025	
-	M6x0.75	0.75	3.9	4	12	45	3	101-00026	
M5x0.8	-	0.8	3.5	4	10.4	45	3	101-00006	
M6x1.0	M8-M40x1.0	1	3.9	4	12	45	3	101-00009	
-	M8x1.0	1	5.9	6	16	57	3	101-00012	
-	M10x1.0	1	7.9	8	20	63	3	101-00015	
-	M12x1.0	1	9.9	10	24	73	4	101-00010	
-	M8x1.25	1.25	5.8	6	16.25	57	3	101-00016	
M10x1.25	-	1.25	7.7	8	20	63	3	101-00018	
M10x1.5	M12-M48x1.5	1.5	7.7	8	21	63	3	101-00008	
-	M12x1.5	1.5	9.4	10	24	73	4	101-00011	
-	M14x1.5	1.5	11.2	12	28.5	83	4	101-00013	
-	M16x1.5	1.5	11.9	12	33	83	4	101-00014	
M12x1.75	-	1.75	8.7	10	24.5	73	4	101-00019	
M14x2.0	M17-M80x2.0	2	9.9	10	28	73	4	101-00021	
M16x2.0	M17-M80x2.0	2	11.9	12	32	83	4	101-00022	
M18-M22x2.5	-	2.5	13.9	16	40	92	5	101-00024	
M24x3.0	-	3	15.9	16	42	92	4	101-00023	
INTERNAL 2xD MAX DEPTH (AXIAL COOLANT)									
M3x0.5	M3.5-M16x0.5	0.5	2.4	4	6.2	45	3	104-00001	
-	M4x0.5	0.5	3.2	4	8.2	45	3	104-00003	
-	M5x0.5	0.5	4.2	6	10.2	57	3	104-00005	
M4x0.7	-	0.7	3.15	4	8.7	45	3	104-00006	
-	M6x0.75	0.75	5	6	12.4	57	3	104-00008	
M5x0.8	-	0.8	3.9	4	10.8	45	3	104-00010	
M6x1.0	M8-M40x1.0	1	4.8	6	12.5	57	3	104-00012	
-	M8x1.0	1	6.7	8	16.5	61	3	104-00016	
-	M10x1.0	1	8.7	10	20.5	73	3	104-00018	
-	M12x1.0	1	10.7	12	24.5	73	4	104-00020	
M8x1.25	-	1.25	6.5	8	16.9	61	3	104-00022	
-	M10x1.25	1.25	8.5	10	20.6	73	3	104-00024	
M10x1.5	M12-M48x1.5	1.5	8.2	10	20.2	73	3	104-00026	
-	M12x1.5	1.5	9.9	10	24.7	73	4	104-00030	
-	M14x1.5	1.5	11.9	12	29.2	80	4	104-00032	
-	M16x1.5	1.5	13.9	14	32.2	92	4	104-00034	
M12x1.75	-	1.75	9.9	10	25.4	73	4	104-00036	
M14x2.0	M17-M80x2.0	2	11.6	12	29	80	4	104-00038	
M16x2.0	M17-M80x2.0	2	13.6	14	33	92	4	104-00041	
M18x2.5	-	2.5	14.8	16	36.2	92	4	104-00045	
M20x2.5	-	2.5	17.1	18	41.2	102	4	104-00047	
M24x3.0	-	3	19.9	20	49.5	102	4	104-00055	

M METRIC DIN 13 - MINIATURE 3 TOOTH

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Miniature style (3 tooth)

CUTWEL PRO



MG SC | 3-5 | R HELIX | HRc <45 | 60° | TNF | P1024 | 2xD | 3xD

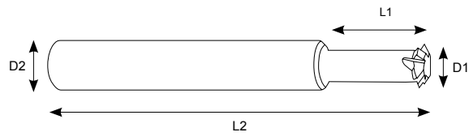
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 2xD Max Depth									
M1.2x0.25	-	0.25	0.9	3	3	39	3	CTM-MET3T01T	
M1.4x0.30	-	0.3	1.05	3	3	39	3	CTM-MET3T02T	
M1.6x0.35	-	0.35	1.2	3	4.5	39	3	CTM-MET3T04T	
M2x0.40	-	0.4	1.55	3	4.5	39	3	CTM-MET3T03T	
M2.2x0.45	-	0.45	1.65	6	5	54	3	CTM-MET3T05T	
M3x0.50	MF3.5-16x0.5	0.5	2.35	6	6.5	54	3	CTM-MET3T09T	
M4x0.70	-	0.7	3.1	6	9	54	3	CTM-MET3T13T	
M5x0.80	-	0.8	3.8	6	12.5	54	3	CTM-MET3T15T	
M6x1.00	MF8-40x1.0	1	4.65	6	14	54	3	CTM-MET3T17T	
M8x1.25	-	1.25	5.95	6	18	54	3	CTM-MET3T19T	
M10x1.50	MF12-48x1.5	1.5	7.8	8	23	64	3	CTM-MET3T21T	
M12x1.75	-	1.75	9	10	26	73	3	CTM-MET3T23T	
M16x2.00	-	2	11.8	12	35	80	4	CTM-MET3T25T	
M20x2.50	-	2.5	15	16	43	100	5	CTM-MET3T27T	
INTERNAL 3xD Max Depth									
M1.2x0.25	-	0.25	0.9	3	4	39	3	CTM-MET3T28T	
M1.4x0.30	-	0.3	1.05	3	4	39	3	CTM-MET3T29T	
M1.6x0.35	-	0.35	1.2	3	5	39	3	CTM-MET3T31T	
M2x0.40	-	0.4	1.55	3	6	39	3	CTM-MET3T33T	
M3x0.50	MF3.5-16x0.5	0.5	2.35	6	9.5	54	3	CTM-MET3T37T	
M3.5x0.60	-	0.6	2.75	6	10	54	3	CTM-MET3T38T	
M4x0.70	-	0.7	3.1	6	12.5	54	3	CTM-MET3T39T	
M4.5x0.75	-	0.75	3.4	6	14	54	3	CTM-MET3T40T	
M5x0.80	-	0.8	3.8	6	16	54	3	CTM-MET3T41T	
M6x1.00	MF8-40x1.0	1	4.65	6	20	54	3	CTM-MET3T43T	
M8x1.25	-	1.25	5.95	6	24	54	3	CTM-MET3T45T	

M METRIC DIN 13 - SINGLE TOOTH LONG REACH

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Miniature design with 1 flute

CUTWEL PRO



MG SC | 3-5 | R HELIX | HRc <45 | 60° | TNF | P1024 | 3xD

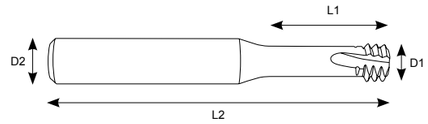
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 3xD Max Depth									
M6x1	MF8-40x1.0	1	4.1	8	19	63	3	CTM-METLR03T	
M8x1.25	-	1.25	5.8	10	26	73	3	CTM-METLR05T	
M10x1.5	MF12-48x1.5	1.5	7.7	10	32	73	3	CTM-METLR07T	
-	MF12-48x1.5	1.5	9.4	12	38	83	4	CTM-METLR09T	
M12x1.75	-	1.75	8.7	12	38	83	4	CTM-METLR11T	
M14x2, M16x2	-	2	10.2	16	44	92	4	CTM-METLR13T	
M16x2	-	2	12.2	16	50	100	4	CTM-METLR15T	
M18x2.5, M20x2.5	-	2.5	12.9	16	57	108	5	CTM-METLR17T	
M20x2.5	-	2.5	14.8	16	63	114	5	CTM-METLR19T	

M METRIC DIN 13 - MINIATURE 3 TOOTH MILLIPRO

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Miniature design with 3 flutes

VARDEX



MG SC | 3 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 2xD | 3xD

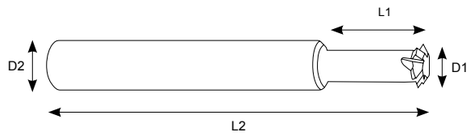
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 2xD MAX DEPTH									
M1.6x0.35	-	0.35	1.2	3	3.4	30	3	102-80420	
M2x0.4	-	0.4	1.55	6	4.2	57	3	102-80254	
M2.2x0.45	-	0.45	1.65	6	4.6	57	3	102-80255	
M2.5x0.45	-	0.45	1.95	6	5.2	57	3	102-80256	
M3x0.5	M3.5-M16x0.5	0.5	2.4	6	6.2	57	3	102-80257	
M3.5x0.6	-	0.6	2.75	6	7.3	57	3	102-80258	
M4x0.7	-	0.7	3.15	6	8.3	57	3	102-80259	
M5x0.8	-	0.8	4.05	6	10.4	57	3	102-80260	
M6x1.0	M8-M40x1.0	1	4.8	6	12.5	57	3	102-80261	
M8x1.25	-	1.25	6.5	8	16.6	63	3	102-80262	
M10x1.5	M12-M48x1.50	1.5	8.2	10	20.8	73	3	102-80418	
M12x1.75	-	1.75	9.9	10	25	73	3	102-80419	
M16x2.0	-	2	11.9	12	33	83	3	102-00093	
M20x2.5	-	2.5	15.9	16	41.3	92	3	102-00073	
INTERNAL 3xD MAX DEPTH									
M1.6X0.35	-	0.35	1.2	3	5	30	3	102-80421	
M2x0.4	-	0.4	1.55	3	6.2	30	3	102-00100	
M2X0.4	-	0.4	1.55	6	6.2	57	3	102-80422	
M2.5x0.45	-	0.45	1.95	3	7.7	30	3	102-00094	
M2.5x0.45	-	0.45	1.95	6	7.7	57	3	102-80265	
M3X0.5	M3.5-M16x0.5	0.5	2.4	3	9.2	30	3	102-00099	
M3x0.5	M3.5-M16x0.5	0.5	2.4	6	9.2	57	3	102-80266	
M4x0.7	-	0.7	3.15	6	12.3	57	3	102-80267	
M5x0.8	-	0.8	4.05	6	15.4	57	3	102-80268	
M6x1.0	M8-M40x1.0	1	4.8	6	18.5	57	3	102-80269	
M8x1.25	-	1.25	6.5	8	24.6	63	3	102-80270	

M METRIC DIN 13 - SINGLE TOOTH MILLIPRO

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Miniature design with 1 flute

VARDEX



MG SC | 3 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 3xD

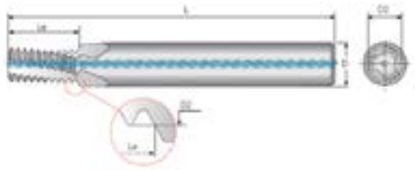
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 3xD MAX DEPTH									
M1.0x0.25	M1.4x0.25	0.25	0.7	3	31	3.1	3	103-00015	
M1.2x0.25	M1.4x0.25	0.25	0.9	3	31	3.8	3	103-00016	
M1.4x0.3	-	0.3	1.05	3	31	4.4	3	103-00010	
M1.6x0.35	-	0.35	1.2	3	31	5	3	103-00011	
M1.8x0.35	M2.0x0.35	0.35	1.4	3	31	5.6	3	103-00009	
M2.0x0.4	-	0.4	1.5	3	31	6.2	3	103-00006	
M2.5x0.45	-	0.45	1.95	3	31	7.7	3	103-00012	

M METRIC DIN 13 - MULTIFLUTE THREAD MILL

Multi-Flute Superfast Thread Mills

- Multiflute type for superfast thread milling
- Save up to 40% machining time over conventional thread mills
- Suitable for internal right and left hand threads
- Axial coolant for blind holes

VARDEX



MG SC | 3-7 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 2xD | 2.5xD

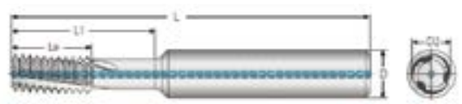
THREAD		PITCH mm	D	D2	L	L1	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 2xD MAX DEPTH (AXIAL COOLANT)									
M3x0.5	M3.5-M16x0.5	0.5	4	2.4	45	6.2	5	165-00001	
M4x0.7	-	0.7	4	3.15	45	8.7	5	165-00003	
M5x0.8	-	0.8	4	3.9	45	10.8	6	165-00005	
M6x1.0	M8-M40x1.0	1	6	4.8	57	12.5	6	165-00006	
M8x1.25	-	1.25	8	6.5	61	16.9	6	165-00007	
M10x1.5	M12-M48x1.5	1.5	10	8.2	73	20.2	7	165-00008	
M12x1.75	-	1.75	10	9.9	73	25.4	7	165-00009	
M14x2.0	M17-M80x2.0	2	12	11.6	80	29	6	165-00010	
M16x2.0	M17-M80x2.0	2	14	13.6	92	33	7	165-00011	
INTERNAL 2.5xD MAX DEPTH (AXIAL COOLANT)									
M3x0.5	M3.5-M16x0.5	0.5	4	2.4	45	9.3	4	165-00025	
M4x0.7	-	0.7	4	3.15	47	13	4	165-00027	
M5x0.8	-	0.8	4	3.9	50	15.6	5	165-00029	
M6x1.0	M8-M40x1.0	1	6	4.8	60	18.5	5	165-00030	
M8x1.25	-	1.25	8	6.5	66	25.7	5	165-00031	
M10x1.5	M12-M48x1.5	1.5	10	8.2	75	30.8	5	165-00032	
M12x1.75	-	1.75	10	9.9	86	37.7	5	165-00033	
M14x2.0	M17-M80x2.0	2	12	11.6	102	43	5	165-00034	
M16x2.0	M17-M80x2.0	2	14	13.6	108	49	5	165-00035	

M METRIC DIN 13 - HELICAL FLUTES WITH RELIEVED NECK

HCN Relief Neck For Reduced Cutting Forces and Long Reach Threads

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Axial coolant for blind holes
- Relief neck for difficult to reach applications

VARDEX



MG SC | 3&4 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 3xD

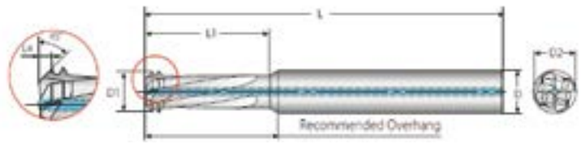
THREAD		PITCH mm	D	D2	L	Le	L1	No. of Flutes	ORDER CODE	
M Coarse	M Fine									
INTERNAL 3xD MAX DEPTH (AXIAL COOLANT)										
M3x0.5	M3.5-M16x0.5	0.5	4	2.4	45	5	9	3	110-00001	
M4x0.7	-	0.7	4	3.15	47	7	12	3	110-00002	
M5x0.8	-	0.8	4	3.9	50	8.8	15	3	110-00003	
M6x1.0	M8-M40x1.0	1	6	4.8	60	10	18	3	110-00004	
M8x1.25	-	1.25	8	6.5	66	13.75	24	3	110-00007	
M10x1.5	M12-M48x1.5	1.5	10	8.2	75	16.5	30	3	110-00008	
M12x1.75	-	1.75	10	9.9	86	19.25	36	4	110-00012	
M14x2.0	M17-M80x2.0	2	12	11.6	92	24	42	4	110-00013	
M16x2.0	M17-M80x2.0	2	14	13.6	102	26	48	4	110-00014	

M METRIC DIN 13 - TMDR DRILL, THREAD & CHAMFER MILL

TMDR Tools Drill, Thread And Chamfer All In One Tooling Operation

- TiAlN coated carbide thread mills
- Optional Axial coolant for blind holes
- TMDR Thread Mills - Simultaneous drilling, threading and chamfering in 1 hit

VARDEX



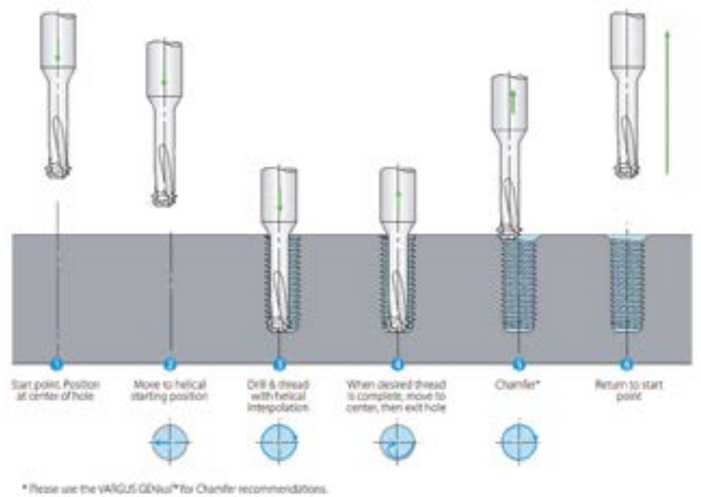
MG SC | 3&4 | L HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 2xD | 2.5xD

THREAD		PITCH mm	D	D2	L	L1	No. of Flutes	ORDER CODE	
M Coarse	M Fine								
INTERNAL 2xD MAX DEPTH (SOLID)									
M3x0.5	M4x0.5	0.5	6	2.4	58	7	3	138-00003	
M4x0.7	-	0.7	6	3.2	58	9.2	3	138-00005	
M5x0.8	-	0.8	6	3.9	58	11.5	3	138-00006	
M6-M7x1.0	M8-M9x1.0	1	6	4.7	58	14	3	138-00008	
INTERNAL 2xD MAX DEPTH (AXIAL COOLANT)									
M6-M7x1.0	M8-M9x1.0	1	8	4.7	64	14	3	138-00010	
M8x1.25	M9-M11x1.25	1.25	8	6.1	64	18	4	138-00012	
M10x1.5	M11-M14x1.5	1.5	8	7.8	64	23	4	138-00002	
M12x1.75	-	1.75	10	9	80	26	4	138-00014	
M16x2.0	M17-M23x2.0	2	12	11.8	100	35	4	138-00015	
M18-M22x2.50	-	2.5	16	15	135	44.6	4	138-00049	
INTERNAL 2.5xD MAX DEPTH (SOLID)									
M3x0.5	M4x0.5	0.5	6	2.4	58	8.5	3	138-00004	
M4x0.7	-	0.7	6	3.2	58	11.2	3	138-00001	
M5x0.8	-	0.8	6	3.9	58	14.4	3	138-00007	
M6-M7x1.0	M8-M9x1.0	1	6	4.7	58	17	3	138-00009	
INTERNAL 2.5xD MAX DEPTH (AXIAL COOLANT)									
M6-M7x1.0	M8-M9x1.0	1	8	4.7	64	17	3	138-00011	
M8x1.25	M9-M11x1.25	1.25	8	6.1	64	22	4	138-00013	
M10x1.5	M11-M14x1.5	1.5	8	7.8	64	28	4	138-00058	
M12x1.75	-	1.75	10	9	80	32	4	138-00059	
M16x2.0	M17-M23x2.0	2	12	11.8	100	43	4	138-00060	
M18-M22x2.50	-	2.5	16	15	135	54.6	4	138-00050	
M24x3.0	-	3	18	17.8	135	65	4	138-00078	

VARDEX

TMDR OPERATING CYCLE

DRILL, CHAMFER &
THREAD IN 1 HIT!



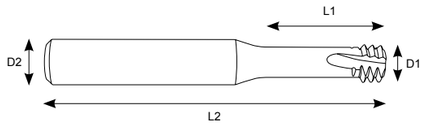
* Please use the VARGUS GENius™ for Chamfer recommendations.

M METRIC DIN 13 - MINIATURE 3 TOOTH FOR HARDENED STEEL

Thread Mills for Hardened Steel Applications >HRc45

- Suitable for right and left hand internal threads
- 4 flute design for additional strength
- Miniature style (3 tooth)
- For CNC programing use M04 code.

CUTWEL PRO



MG SC | 3&4 | L HELIX | HRc >45 | 60° | TX | P1024

2xD | 3xD

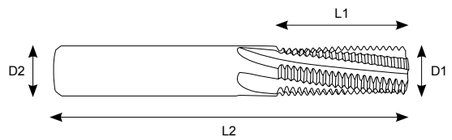
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE
M Coarse	M Fine							
INTERNAL 2xD Max Depth								
M2x0.40	-	0.4	1.55	3	4.5	39	4	CTM-MET3T03HS
M2.5x0.45	-	0.45	1.95	6	5.5	54	4	CTM-MET3T07HS
M3x0.50	MF3.5-16x0.5	0.5	2.35	6	6.5	54	4	CTM-MET3T09HS
M4x0.70	-	0.7	3.1	6	9	54	4	CTM-MET3T13HS
M5x0.80	-	0.8	3.8	6	12.5	54	4	CTM-MET3T15HS
M6x1.00	MF8-40x1.0	1	4.65	6	14	54	4	CTM-MET3T17HS
M8x1.25	-	1.25	5.95	6	18	54	4	CTM-MET3T19HS
M10x1.50	MF12-48x1.5	1.5	7.8	8	23	64	4	CTM-MET3T21HS
M12x1.75	-	1.75	9	10	26	73	4	CTM-MET3T23HS
INTERNAL 3xD Max Depth								
M2x0.40	-	0.4	1.55	3	6	39	3	CTM-MET3T33HS
M2.5x0.45	-	0.45	1.95	6	7.5	54	3	CTM-MET3T35HS
M3x0.50	MF3.5-16x0.5	0.5	2.35	6	9.5	54	3	CTM-MET3T37HS
M4x0.70	-	0.7	3.1	6	12.5	54	3	CTM-MET3T39HS
M4.5x0.75	-	0.75	3.4	6	14	54	3	CTM-MET3T41HS
M5x0.80	-	0.8	3.8	6	16	54	3	CTM-MET3T43HS
M6x1.00	MF8-40x1.0	1	4.65	6	20	54	3	CTM-MET3T45HS
M8x1.25	-	1.25	5.95	6	24	54	3	CTM-MET3T47HS

M METRIC DIN 13, HARDENED STEEL

Thread Mills for Hardened Steel Applications >HRc45

- Suitable for right and left hand internal threads
- 4-5 flute design for additional strength
- Helical flute

CUTWEL PRO



MG SC | 4&5 | R HELIX | HRc >45 | 60° | TX | P1024

2xD

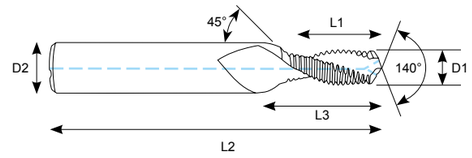
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE
M Coarse	M Fine							
INTERNAL 2xD Max Depth								
M5x0.8	-	0.8	4.0	6	12	55	4	CTM-METHF50HS
M6x1.0	MF8-40x1.0	1.0	4.5	6	12	55	4	CTM-METHF54HS
M8x1.25	MF10x1.25	1.25	6.0	6	15	55	4	CTM-METHF60HS
M10x1.5	MF10-48x1.5	1.5	8.0	8	20	65	4	CTM-METHF68HS
M12x1.75	MF12-48x1.75	1.75	8.0	8	20	65	4	CTM-METHF70HS
M14x2.0	MF17-80x2.0	2.0	10.0	10	25	80	5	CTM-METHF78HS
M16x2.0	MF17-80x2.0	2.0	12.0	12	30	82	5	CTM-METHF84HS

M METRIC DIN 13 - THRILLER DRILL, CHAMFER & THREAD ALU

Drilling, Chamfering & Thread Milling Aluminium & Soft Steels in 1 Operation

- Suitable for right and left hand internal threads
- Helical 2 flute design

CUTWEL PRO



MG SC | 2 | R HELIX | 60° | BRIGHT FINISH | P1025

*for these thread sizes only

2xD | 2.5xD

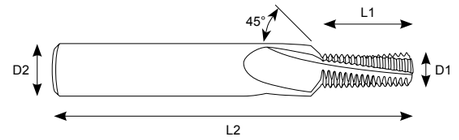
THREAD	PITCH mm	D1	D2	L1	L2	L3	No. of Flutes	THROUGH COOLANT ORDER CODE
M Coarse*								
INTERNAL 2xD Max Depth								
M4x0.7	0.7	3.3	6	7.65	55	9	2	CTM-METDTC51NF
M5x0.8	0.8	4.2	6	9.55	55	11.25	2	CTM-METDTC53NF
M6x1.0	1	5	8	12.05	62	13.95	2	CTM-METDTC56NF
M8x1.25	1.25	6.75	10	15.07	74	17.525	2	CTM-METDTC60NF
M10x1.5	1.5	8.5	12	19.58	79	22.7	2	CTM-METDTC66NF
M12x1.75	1.75	10.25	14	22.85	89	26.475	2	CTM-METDTC74NF
M14x2.0	2	12	16	28.11	102	32.35	2	CTM-METDTC75NF
M16x2.0	2	14	18	32.11	102	36.75	2	CTM-METDTC80NF
INTERNAL 2.5xD Max Depth								
M6x1.0	1	5	8	15.1	62	16.95	2	CTM-METDTC82NF
M8x1.25	1.25	6.75	10	20.08	74	22.525	2	CTM-METDTC84NF
M10x1.5	1.5	8.5	12	25.59	79	28.7	2	CTM-METDTC86NF
M12x1.75	1.75	10.25	14	29.86	89	33.475	2	CTM-METDTC88NF

M METRIC DIN 13 - HELICAL FLUTE WITH 45° CHAMFER

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Helical flute with integral chamfer

CUTWEL PRO



MG SC | 3 | R HELIX | HRc <45 | 60° | TNF | P1024

2xD

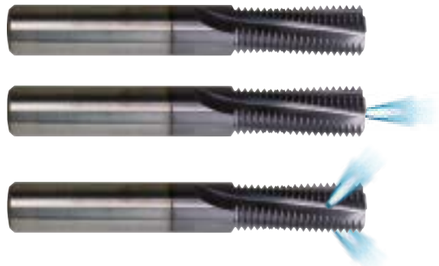
THREAD		PITCH mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE
M Coarse	M Fine							
INTERNAL 2xD Max Depth								
M5x0.80	-	0.8	4	6	10.75	55	3	CTM-METHFCMF50T
-	MF6x0.75	0.75	5	8	12.3	62	3	CTM-METHFCMF52T
M6x1.0	MF8-40x1.0	1	4.8	8	12.4	62	3	CTM-METHFCMF54T
M8x1.25	-	1.25	6.5	10	16.8	74	3	CTM-METHFCMF58T
M10x1.5	-	1.5	8.2	12	20.15	80	3	CTM-METHFCMF64T

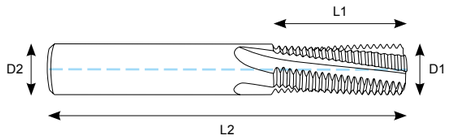
UN UNIFIED NATIONAL ANSI B1.1:74 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Helical flute
- Axial coolant for blind holes, radial coolant for through holes

CUTWEL PRO





MG SC | 3-5 | R HELIX | HRc <45 | 60° | TNF | P1024 | 1.5xD | 2xD

THREAD		TPI	D1	D2	L1	L2	No. of Flutes	SOLID		AXIAL COOLANT		RADIAL COOLANT	
UNC	UNF							ORDER CODE		ORDER CODE		ORDER CODE	
INTERNAL 1.5xD Max Depth													
-	5/16" UNF	24	5.5	6	9	49	3	CTM-UNHF56T		CTM-UNHF56TCF		-	
-	3/8" UNF	24	8	8	12	58	3	CTM-UNHF64T		CTM-UNHF64TCF		-	
1/4" UNC	7/16"-1/2" UNF	20	4.5	6	7	50	3	CTM-UNHF50T		CTM-UNHF50TCF		-	
5/16" UNC	9/16"-5/8" UNF	18	5.5	6	9	49	3	CTM-UNHF54T		CTM-UNHF54TCF		-	
3/8" UNC	3/4" UNF	16	7.5	8	12	58	3	CTM-UNHF58T		CTM-UNHF58TCF		-	
7/16" UNC	7/8" UNF	14	8	8	12	58	3	CTM-UNHF60T		CTM-UNHF60TCF		-	
1/2" UNC	-	13	10	10	15	70	4	CTM-UNHF68T		CTM-UNHF68TCF		-	
9/16" UNC	1"-1 1/2" UNF	12	10	10	15	70	4	CTM-UNHF66T		CTM-UNHF66TCF		-	
INTERNAL 2xD Max Depth													
-	No.12. 1/4" UNF	28	4.5	6	12	55	3	CTM-UNHF03T		-		-	
-	5/16"-3/8" UNF	24	5.5	6	15	55	3	CTM-UNHF09T		-		-	
-	5/16"-3/8" UNF	24	8	8	20	65	3	CTM-UNHF15T		-		-	
1/4" UNC	7/16"-1/2" UNF	20	4.5	6	12	55	3	CTM-UNHF01T		CTM-UNHF01TCF		-	
-	7/16"-1/2" UNF	20	10	10	25	80	4	CTM-UNHF23T		-		-	
5/16" UNC	9/16" UNF	18	5.5	6	15	55	3	CTM-UNHF07T		CTM-UNHF07TCF		-	
-	9/16" UNF	18	12	12	30	82	4	CTM-UNHF25T		-		-	
3/8" UNC	3/4" UNF	16	7.5	8	20	65	3	CTM-UNHF05T		CTM-UNHF05TCF		CTM-UN05VHR	
-	3/4" UNF	16	15.5	16	40	100	5	CTM-UNHF29T		-		-	
7/16" UNC	7/8" UNF	14	8	8	20	65	3	CTM-UNHF11T		CTM-UNHF11TCF		CTM-UN11VHR	
-	7/8" UNF	14	18	18	40	110	5	CTM-UNHF37T		-		-	
1/2" UNC	-	13	10	10	25	80	4	CTM-UNHF19T		CTM-UNHF19TCF		CTM-UN19VHR	
9/16" UNC	1"-1 1/2" UNF	12	10	10	25	80	4	CTM-UNHF17T		CTM-UNHF17TCF		CTM-UN17VHR	
-	1"-1 1/2" UNF	12	20	20	40	110	5	CTM-UNHF41T		-		-	
5/8" UNC	-	11	12	12	30	82	4	CTM-UNHF27T		CTM-UNHF27TCF		CTM-UN27VHR	
3/4" UNC	-	10	15.5	16	40	100	5	CTM-UNHF31T		CTM-UNHF31TCF		CTM-UN31VHR	
7/8" UNC	-	9	18	18	40	110	5	CTM-UNHF35T		CTM-UNHF35TCF		CTM-UN35VHR	
1" UNC	-	8	20	20	40	110	5	CTM-UNHF39T		CTM-UNHF39TCF		CTM-UN39VHR	

VARGUS GENius | Tool Selector and CNC Program Generator

Vargus GENius Software Using the VARDEX Thread Milling system is easy. Vargus has developed a multi-lingual software for CNC programming.

All the operator has to do is enter the basic thread parameters and then follow the computer instructions, which lead the operator to the correct choice of tool for the job on hand.
The software will then generate the helical interpolation for the CNC program.

It couldn't be simpler!

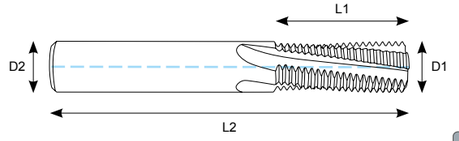
THREAD & GROOVE MILLING
CARBIDE THREAD MILLS
P H M S K N

UN UNIFIED NATIONAL ANSI B1.1:74 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Helical flute
- Available in solid or axial through coolant

VARDEX



MG SC | 3-5 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 2xD

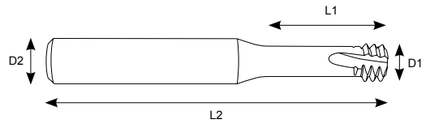
THREAD			TPI	D2	D1	L1	L2	No. of Flutes	ORDER CODE	
UNC	UNF	UNEF								
INTERNAL 2xD MAX DEPTH (SOLID)										
-	No.8 UNF	-	36	4	3	8.5	45	3	101-00053	
-	No.10 UNF	No.12-3/8" UNEF	32	4	3.3	11.1	45	3	101-00052	
-	No.12 ,1/4" UNF	7/16", 1/2" UNEF	28	4	3.8	11.8	45	3	101-00050	
-	1/4" UNF	7/16", 1/2" UNEF	28	6	4.6	12.7	57	3	101-00071	
-	-	7/16", 1/2" UNEF	28	10	9.2	22.7	73	4	101-00051	
No.10 UNC	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	4	2.9	10.6	45	3	101-00045	
No.12	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	4	3.5	11.6	45	3	101-00046	
-	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	6	5.7	15.9	57	3	101-00047	
-	3/8" UNF	9/16"-11/16" UNEF	24	8	7.4	19.1	63	3	101-00048	
-	-	9/16"-11/16" UNEF	24	12	11.9	28.6	83	4	101-00049	
1/4"x20 UNC	7/16", 1/2" UNF	3/4"-1" UNEF	20	4	3.9	12.7	45	3	101-00070	
-	7/16", 1/2" UNF	3/4"-1" UNEF	20	10	8.5	22.9	73	4	101-00042	
-	1/2" UNF	3/4"-1" UNEF	20	10	9.9	25.4	73	4	101-00043	
-	-	3/4"-1" UNEF	20	16	15.9	38.1	92	5	101-00044	
5/16" UNC	9/16", 5/8" UNF	11/16"-1 11/16" UNEF	18	6	5.2	16.9	57	3	101-00069	
-	9/16", 5/8" UNF	11/16"-1 11/16" UNEF	18	12	11.3	29.6	83	4	101-00040	
-	5/8" UNF	11/16"-1 11/16" UNEF	18	12	11.9	32.5	83	4	101-00041	
3/8" UNC	3/4" UNF	-	16	8	6.7	19.1	63	3	101-00038	
-	3/4" UNF	-	16	16	15.9	38.1	92	4	101-00039	
7/16" UNC	7/8" UNF	-	14	8	7.6	23.6	63	4	101-00036	
-	7/8" UNF	-	14	20	18.7	44.4	104	4	101-00037	
1/2" UNC	-	-	13	10	8.9	25.4	73	4	101-00035	
9/16" UNC	1"-1 1/2" UNF	-	12	12	10.3	29.6	83	4	101-00034	
-	1"-1 1/2" UNF	-	12	20	19.9	50.8	104	5	101-00017	
5/8" UNC	-	-	11	12	11	32.3	83	4	101-00033	
3/4" UNC	-	-	10	16	13.5	38.1	92	5	101-00032	
7/8" UNC	-	-	9	16	15.2	45.2	92	4	101-00031	
1" UNC	-	-	8	20	17	50.8	104	4	101-00030	
INTERNAL 2xD MAX DEPTH (AXIAL COOLANT)										
-	No.10 UNF	No.12-3/8" UNEF	32	4	3.8	9.9	45	3	104-00056	
-	-	No.12-3/8" UNEF	32	6	4.4	11.5	57	3	104-00057	
-	No.12, 1/4" UNF	7/16", 1/2" UNEF	28	6	4.3	11.3	57	3	104-00059	
-	1/4" UNF	7/16", 1/2" UNEF	28	6	5.15	13.1	57	3	104-00279	
-	UNF	7/16", 1/2" UNEF	28	10	9.9	22.2	73	3	104-00061	
No.10 UNC	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	4	3.58	10	45	3	104-00062	
No.12 UNC	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	6	4.15	11.1	57	3	104-00063	
-	5/16", 3/8" UNF	9/16"-11/16" UNEF	24	8	6.68	16.4	61	3	104-00065	
-	3/8" UNF	9/16"-11/16" UNEF	24	10	8.2	19.6	73	3	104-00066	
-	-	9/16"-11/16" UNEF	24	14	12.9	29.1	92	4	104-00067	
1/4"UNC	7/16", 1/2" UNF	3/4"-1" UNEF	20	6	4.88	13.3	57	3	104-00068	
-	7/16", 1/2" UNF	3/4"-1" UNEF	20	10	9.6	22.2	73	3	104-00070	
-	1/2" UNF	3/4"-1" UNEF	20	12	11.1	26	80	4	104-00071	
-	-	3/4"-1" UNEF	20	18	17.4	38.7	102	4	104-00072	
5/16"UNC	9/16", 5/8" UNF	11/16"-1, 11/16" UNEF	18	8	6.15	16.2	61	3	104-00074	
-	9/16", 5/8" UNF	11/16"-1, 11/16" UNEF	18	14	12.5	28.9	92	4	104-00076	
-	5/8" UNF	11/16"-1, 11/16" UNF	18	16	14.1	31.7	92	4	104-00078	
3/8" UNC	3/4" UNF	-	16	8	7.65	19.8	61	3	104-00079	
-	3/4" UNF	-	16	18	17	38.8	102	4	104-00081	
7/16" UNC	7/8" UNF	-	14	10	9	22.7	73	3	104-00083	
-	7/8" UNF	-	14	20	19.9	44.4	102	4	104-00086	
1/2" UNC	-	-	13	12	10.35	26.4	80	4	104-00087	
9/16" UNC	1"-1 1/2" UNF	-	12	12	11.8	28.6	80	4	104-00089	
-	1"-1 1/2" UNF	-	12	20	19.9	51.9	102	4	104-00091	
5/8" UNC	-	-	11	14	13.1	33.5	92	4	104-00093	
3/4" UNC	-	-	10	16	15.9	39.4	92	4	104-00094	
7/8" UNC	-	-	9	20	19	46.6	102	4	104-00095	
1" UNC	-	-	8	20	19.9	52.4	102	4	104-00096	

UN UNIFIED NATIONAL ANSI B1.1:74 - MINATURE 3 TOOTH

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Miniature style (3 tooth)

CUTWEL PRO



MG SC | 3 | R HELIX | HRc <45 | 60° | TNF | P1024

2xD | 3xD

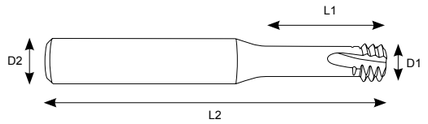
THREAD UNC	THREAD UNF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 2xD Max Depth									
-	No.1 UNF	72	1.45	3	3.70	39	3	CTM-UN3T01T	
No.1 UNC	No.2 UNF	64	1.40	3	3.80	39	3	CTM-UN3T03T	
No.2 UNC	No.3 UNF	56	1.65	6	4.40	54	3	CTM-UN3T05T	
No.3 UNC	No.4 UNF	48	1.90	6	5.20	54	3	CTM-UN3T07T	
No.4, No.5 UNC	No.6 UNF	40	2.10	6	6.30	54	3	CTM-UN3T09T	
No.5 UNC	No.6 UNF	40	2.45	6	7.00	54	3	CTM-UN3T11T	
-	No.8 UNF	36	3.30	6	9.00	54	3	CTM-UN3T13T	
No.6, No.8 UNC	No.10 UNF	32	2.55	6	7.10	54	3	CTM-UN3T15T	
No.8 UNC	No.10 UNF	32	3.20	6	9.50	54	3	CTM-UN3T17T	
-	No.12, 1/4 UNF	28	4.20	6	11.00	54	3	CTM-UN3T21T	
No.10 UNC	5/16 UNF	24	3.50	6	10.60	54	3	CTM-UN3T25T	
1/4" UNC	7/16" UNF	20	4.75	6	14.00	54	3	CTM-UN3T29T	
-	7/16" UNF	20	8.00	8	25.00	64	3	CTM-UN3T31T	
5/16" UNC	-	18	6.00	6	17.00	54	3	CTM-UN3T33T	
3/8" UNC	-	16	6.70	8	22.00	64	3	CTM-UN3T37T	
7/16" UNC	-	14	7.70	8	25.00	64	3	CTM-UN3T39T	
INTERNAL 3xD Max Depth									
-	No.0 UNF	80	1.15	3	4.00	39	3	CTM-UN3T49T	
-	No.1 UNF	72	1.45	3	6.00	39	3	CTM-UN3T51T	
No.2 UNC	No.3 UNF	56	1.65	6	6.60	54	3	CTM-UN3T53T	
No.4, No.5 UNC	No.6 UNF	40	2.10	6	8.00	54	3	CTM-UN3T55T	
No.6, No.8 UNC	No.10 UNF	40	2.45	6	9.60	54	3	CTM-UN3T57T	
No.6, No.8 UNC	No.10 UNF	32	2.55	6	10.50	54	3	CTM-UN3T59T	
No.8 UNC	No.10 UNF	32	3.20	6	12.50	54	3	CTM-UN3T61T	
-	No.10 UNF	32	3.70	6	15.00	54	3	CTM-UN3T63T	
-	1/4" UNF	28	5.00	6	19.00	54	3	CTM-UN3T65T	
-	5/16" UNF	24	6.60	8	24.00	64	3	CTM-UN3T67T	
1/4" UNC	7/16" UNF	20	4.75	6	19.00	54	3	CTM-UN3T69T	
5/16" UNC	-	18	6.00	6	23.00	54	3	CTM-UN3T71T	

UN UNIFIED NATIONAL ANSI B1.1:74 - MINATURE 3 TOOTH MILLIPRO

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Miniature design with 3 flutes

VARDEX



MG SC | 3 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE

2xD | 3xD

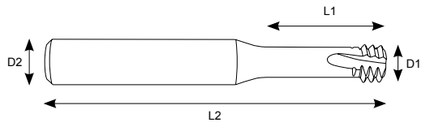
THREAD UNC	THREAD UNF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 2xD MAX DEPTH (SOLID)									
-	No.1 UNF	72	1.45	6	3.9	57	3	102-00014	
No.1 UNC	No.2 UNF	64	1.4	6	4.2	57	3	102-00012	
No.2 UNC	No.3 UNF	56	1.65	6	5	57	3	102-00015	
No.3 UNC	No.4UNF	48	1.9	6	6	57	3	102-00017	
No.4, No.5 UNC	No.6UNF	40	2.1	6	6	57	3	102-00019	
No.5 UNC	No.6 UNF	40	2.45	6	7.2	57	3	102-00021	
-	No.8 UNF	36	3.3	6	8.7	57	3	102-00023	
No.6, No.8 UNC	No.10 UNF	32	2.55	6	7.4	57	3	102-00024	
No.8 UNC	No.10 UNF	32	3.2	6	10	57	3	102-00025	
-	No.10 UNF	32	3.8	6	10.3	57	3	102-00147	
-	1/4"UNF	28	5.25	6	13.2	57	3	102-00028	
No.10 UNC	5/16"UNF	24	3.58	6	10.2	57	3	102-00040	
-	5/16"UNF	24	6.68	8	16.5	63	3	102-00042	
1/4"UNC	7/16" UNF	20	4.88	6	13.4	57	3	102-00034	
-	7/16"UNF	20	9.55	10	23	73	3	102-00037	
5/16" UNC	-	18	6.15	8	16.9	63	3	102-00154	
3/8"UNC	-	16	6.7	8	19.1	63	3	102-00070	
7/16" UNC	-	14	9	10	23.3	73	3	102-00038	
INTERNAL 2xD MAX DEPTH (AXIAL COOLANT)									
-	No.1 UNF	72	1.45	3	5.75	30	3	102-00095	
-	No.1 UNF	72	1.45	6	5.75	57	3	102-00039	
No.2 UNC	No.3 UNF	56	1.65	3	7	30	3	102-00096	
No.4, No.5 UNC	No.6 UNF	40	2.1	3	9	30	3	102-00097	
No.4, No.5 UNC	No.6 UNF	40	2.1	6	9	57	3	102-00071	
No.5 UNC	No.6 UNF	40	2.45	6	10	57	3	102-00022	
No.6 No.8 UNC	No.10 UNF	32	2.55	3	11	30	3	102-00098	
No.6, No.8 UNC	No.10 UNF	32	2.55	6	11	57	3	102-00072	
No.8 UNC	No.10 UNF	32	3.2	6	13	57	3	102-00027	
-	No.10 UNF	32	3.8	6	15.1	57	3	102-00148	
No.12 UNC	1/4" UNF	28	4.4	6	17	57	3	102-00155	
-	1/4" UNF	28	5.25	6	19.6	57	3	102-00033	
-	5/16" UNF	24	6.68	8	24.5	63	3	102-00044	
1/4" UNC	7/16" UNF	20	4.88	6	19.8	57	3	102-00036	
5/16" UNC	-	18	6.15	8	24	63	3	102-00153	

UNJ UNIFIED NATIONAL MIL-S-8879C - MINATURE 3 TOOTH

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand internal threads
- Miniature style (3 tooth)

CUTWEL PRO



MG SC | 3&4 | R HELIX | HRc <45 | 60° | TNF | P1024 | 2xD

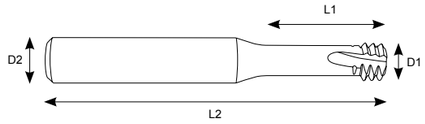
THREAD UNJC	THREAD UNJF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 2xD Max Depth									
No.6 UNJC	No.10 UNJF	32	2.60	6	7	54	3	CTM-UNJ3T05T	
-	No.12, 1/4 UNJF	28	4	6	11	54	3	CTM-UNJ3T11T	
No.10, No.12 UNJC	5/16-3/,8 UNJF	24	3	6	9	54	3	CTM-UNJ3T09T	
1/4 UNJC	7/16"-1/2" UNJF	20	5	6	14.50	54	3	CTM-UNJ3T13T	
5/16" UNJC	9/16" UNJF	18	6.40	8	17	64	3	CTM-UNJ3T15T	
3/8" UNJC	3/4" UNJF	16	7.70	8	25	64	3	CTM-UNJ3T19T	
7/16" UNJC	7/8" UNJF	14	9.20	10	27.50	73	4	CTM-UNJ3T21T	
1/2" UNJC	-	13	9.90	10	27.50	73	4	CTM-UNJ3T25T	

MJ METRIC DIN ISO 5855 - MINATURE 3 TOOTH

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills for general thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- Suitable for right and left hand threads
- Suitable for internal threads
- Miniature style (3 tooth)

CUTWEL PRO



MG SC | 3&4 | R HELIX | HRc <45 | 60° | TNF | P1024 | 2xD

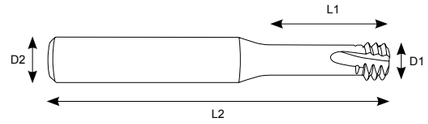
THREAD MJ	Pitch mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 2xD Max Depth								
MJ 3	0.5	2.35	6	6.50	54	3	CTM-MJ3T01T	
MJ 4	0.7	3.1	6	9	54	3	CTM-MJ3T05T	
MJ 5	0.8	3.8	6	12.50	54	3	CTM-MJ3T07T	
MJ 6	1	4.65	6	14	54	3	CTM-MJ3T09T	
MJ 8	1.25	5.95	6	18	54	3	CTM-MJ3T11T	
MJ 10	1.5	7.8	8	23	64	3	CTM-MJ3T13T	
MJ 12	1.75	9	10	26	73	3	CTM-MJ3T15T	
MJ 14	2	10.4	12	35	80	4	CTM-MJ3T17T	
MJ 16	2	11.8	12	35	80	4	CTM-MJ3T19T	

UNJ UNIFIED NATIONAL MIL-S-8879C - MINATURE 3 TOOTH MILLIPRO

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Miniature design with 3 flutes

VARDEX



MG SC | 3 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 3xD

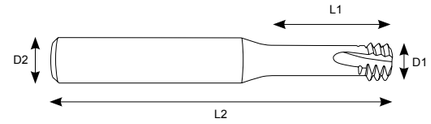
THREAD UNJC	THREAD UNJF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 3xD MAX DEPTH (SOLID)									
No.6 UNJC	No.10 UNJF	32	2.7	6	11	57	3	102-00083	
-	No.12, 1/4 UNJF	28	5.4	6	19.5	57	3	102-00084	
No.10 UNJC	-	24	3.7	6	14.9	57	3	102-00085	
-	5/16UNJF	24	6.7	8	24.1	63	3	102-00086	
1/4 UNJC	-	20	5	6	19.5	57	3	102-00087	
-	7/16" UNJF	20	9.6	10	33.5	73	3	102-00088	
5/16" UNJC	9/16" UNJF	18	6.4	8	24.1	63	3	102-00089	
3/8" UNJC	3/4" UNJF	16	7.7	8	29	63	3	102-00090	
7/16" UNJC	7/8" UNJF	14	9.2	10	33.5	73	3	102-00091	
1/2" UNJC	-	13	9.9	10	38.5	73	3	102-00092	

MJ METRIC DIN ISO 5855 - MINATURE 3 TOOTH MILLIPRO

Miniature Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Miniature design with 3 flutes

VARDEX



MG SC | 3 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE | 2xD

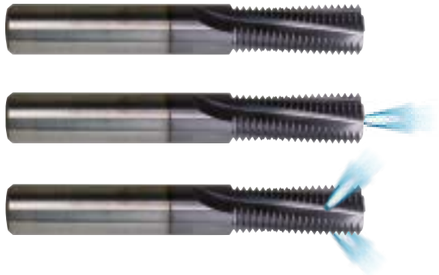
THREAD MJ	Pitch mm	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL 2xD Max Depth								
MJ 3	0.5	2.4	6	9.2	57	3	102-00074	
MJ 3.5	0.6	2.85	6	11	57	3	102-00075	
MJ 4	0.7	3.15	6	12.3	57	3	102-00076	
MJ 5	0.8	4.05	6	15.4	57	3	102-00077	
MJ 6	1	4.8	6	18.5	57	3	102-00078	
MJ 8	1.25	6.5	8	24.6	63	3	102-00079	
MJ 10	1.5	8.2	10	30.8	73	3	102-00080	
MJ 12	1.75	9.9	10	37	73	4	102-00081	
MJ 14	2	11.9	12	42.5	83	4	102-00082	

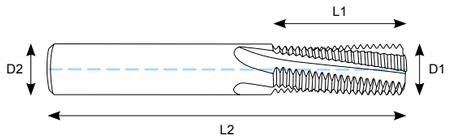
BSP (G) BRITISH STANDARD GAS B.S.2779:1956 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand threads internal & external threads
- Helical flute
- Axial coolant for blind holes, radial coolant for through holes

CUTWEL PRO





MG SC | 3-5 | R HELIX | HRc <45 | 55° | TNF | P1024 | 2xD

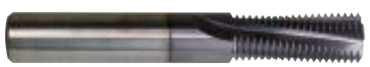
THREAD BSP(G)	Pitch TPI	D1	D2	L1	L2	No. of Flutes	STANDARD ORDER CODE		AXIAL COOLANT ORDER CODE		RADIAL COOLANT ORDER CODE	
INTERNAL/EXTERNAL 2xD Max Depth												
1/8" BSP	28	8	8	20	65	3	CTM-BSPHF01T		CTM-BSPHF01TCF		CTM-BSP01VHR	
1/4" BSP	19	10	10	25	80	4	CTM-BSPHF03T		CTM-BSPHF03TCF		CTM-BSP03VHR	
3/8" BSP	19	14	14	14	35	4	CTM-BSPHF05T		CTM-BSPHF05TCF		CTM-BSP05VHR	
1/2" BSP	14	16	16	16	40	5	CTM-BSPHF07T		CTM-BSPHF07TCF		CTM-BSP07VHR	
5/8" BSP	14	20	20	20	40	5	CTM-BSPHF09T		CTM-BSPHF09TCF		CTM-BSP09VHR	
1>" BSP	11	20	20	20	40	5	CTM-BSPHF11T		CTM-BSPHF11TCF		CTM-BSP11VHR	

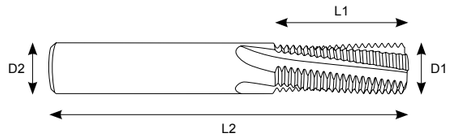
BSW WHITWORTH B.S.84 1956, DIN 259 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Suitable for right and left hand threads internal & external threads
- Helical flute

CUTWEL PRO





MG SC | 3&4 | R HELIX | HRc <45 | 55° | TNF | P1024 | 2xD

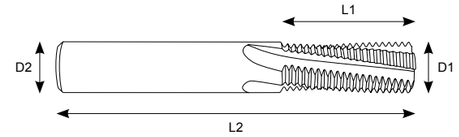
THREAD BSW	THREAD BSF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL/EXTERNAL 2xD Max Depth									
-	1/4" BSF	26	5.0	6	13.2	57	3	CTM-BSWHF01T	
-	5/16" BSF	26	6.35	8	16.2	61	3	CTM-BSWHF03T	
1/4" BSW	3/8" BSF	20	4.45	6	13.3	57	3	CTM-BSWHF05T	
5/16" BSW	7/16" BSF	18	5.85	6	16.2	57	3	CTM-BSWHF09T	
3/8" BSW	1/2", 9/16" BSF	16	7.20	8	61	19.8	3	CTM-BSWHF13T	
7/16" BSW	5/8", 11/16" BSF	14	8.5	10	73	22.7	3	CTM-BSWHF19T	
1/2" BSW	3/4" BSF	12	9.65	10	73	26.5	3	CTM-BSWHF25T	
9/16" BSW	3/4" BSF	12	11.25	12	80	28.6	4	CTM-BSWHF27T	
5/8, 11/16" BSW	7/8" BSF	11	12.6	14	92	33.5	4	CTM-BSWHF31T	

BSP (G) BRITISH STANDARD GAS B.S.2779:1956 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads

VARDEX



MG SC | 3-5 | R HELIX | HRc <45 | 55° | Ti ALN | SEE WEBSITE | 2xD

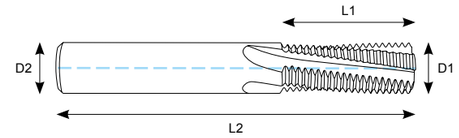
THREAD BSP(G)	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (SOLID)								
1⁄16", 1⁄8" BSP	28	5.8	6	16.3	57	3	101-00054	
1⁄8" BSP	28	7.7	8	20	63	3	101-00055	
1⁄4", 3⁄8" BSP	19	9.9	10	26.7	73	4	101-00056	
3⁄8" BSP	19	13.4	16	33.4	92	4	101-00057	
1⁄2", 3⁄4" BSP	14	15.7	16	43.5	92	5	101-00058	
1", 1 1⁄2", 2", 2 1⁄2" BSP	11	19.9	20	41.6	104	5	101-00020	

BSW WHITWORTH B.S.84 1956, DIN 259 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Axial coolant for blind holes

VARDEX



MG SC | 3&4 | R HELIX | HRc <45 | 55° | Ti ALN | SEE WEBSITE | 2xD

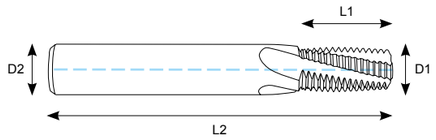
THREAD BSW	THREAD BSF	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (AXIAL COOLANT)									
-	1/4"x26 BSF	26	5	6	13.2	57	3	104-00097	
-	5/16"x22 BSF	22	6.35	8	16.7	61	3	104-00098	
1/4"x20 BSW	3/8"x20 BSF	20	4.45	6	13.3	57	3	104-00099	
-	3/8"x20 BSF	20	7.65	8	19.7	61	3	104-00100	
5/16"x18 BSW	7/16"x18 BSF	18	5.85	6	16.2	57	3	104-00101	
-	7/16"x18	18	9.2	10	23.3	73	3	104-00102	
3/8"x16 BSW	1/2", 9/16"x16 BSF	16	7.2	8	19.8	61	3	104-00103	
-	1/2", 9/16"x16	16	10.5	12	26.2	80	4	104-00104	
9/16"x16 BSW	-	16	12.15	14	29.4	92	4	104-00105	
7/16"x14 BSW	5/8", 11/16"x14	14	8.5	10	22.7	73	3	104-00106	
-	5/8", 11/16"x14	14	13.4	14	31.7	92	4	104-00107	
-	11/16"x14	14	15	16	35.4	92	4	104-00108	
1/2"x12 BSW	3/4"x12 BSF	12	9.65	10	26.5	73	3	104-00109	
9/16"x12 BSW	3/4"x12	12	11.25	12	28.6	80	4	104-00110	
-	3/4"x12	12	16.2	18	39.2	102	4	104-00111	
5/8"x11 BSW	7/8"x11 BSF	11	12.6	14	33.5	92	4	104-00112	
11/16"x11 BSW	-	11	14.2	16	35.8	92	4	104-00113	

BSPT BRITISH STANDARD PIPE TAPER B.S.21:1985 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Helical flute for tapered threads
- Optional through coolant for improved chip evacuation in blind holes

CUTWEL PRO



MG SC | 3-5 | R HELIX | HRc <45 | 55° | TNF | P1024

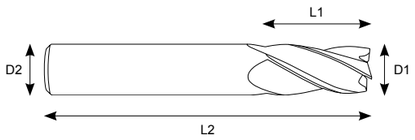
THREAD BSPT	TPI	D1	D2	L1	L2	No. of Flutes	SOLID ORDER CODE		AXIAL COOLANT ORDER CODE	
INTERNAL/EXTERNAL TAPER THREAD										
1/16" BSPT	28	5.8	8	16.3	57	3	CTM-BSPHFTC20T		CTM-BSPHFTC20TCF	
1/8" BSPT	28	7.7	8	20.0	63	3	CTM-BSPHFTC22T		CTM-BSPHFTC22TCF	
1/4" BSPT	19	9.9	12	26.7	73	4	CTM-BSPHFTC24T		CTM-BSPHFTC24TCF	
3/8" BSPT	19	13.4	12	33.4	92	4	CTM-BSPHFTC26T		CTM-BSPHFTC26TCF	
1/2" BSPT	14	15.7	16	43.5	92	4	CTM-BSPHFTC28T		CTM-BSPHFTC28TCF	
1" BSPT	11	19.9	20	41.6	104	5	CTM-BSPHFTC30T		CTM-BSPHFTC30TCF	

1:16 TAPER END MILLS FOR BSPT, NPT, NPTF THREADS

For Pre-Machining 1:16 Taper for Conical Threads

- Improve tool life of thread mill by pre-machining the taper

CUTWEL PRO



MG SC | 3&4 | HRc <45 | TNF | P1024

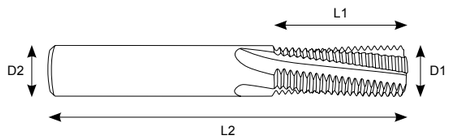
D1	D2	Angle	L1	L2	No. of Flutes	ORDER CODE	
5.3	6	30°	11.26	55	3	TEM-CON01	
7.3	8	30°	11.26	55	3	TEM-CON03	
8.8	10	30°	19.3	75	4	TEM-CON05	
10.8	12	30°	19.3	75	4	TEM-CON07	
12.5	14	30°	24.15	80	4	TEM-CON09	
18	20	30°	32.2	90	4	TEM-CON11	

BSPT BRITISH STANDARD PIPE TAPER B.S.21:1985 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads

VARDEX



MG SC | 3-5 | R HELIX | HRc <45 | 55° | Ti ALN | SEE WEBSITE

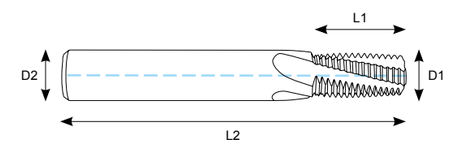
THREAD BSPT	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (SOLID)								
1⁄16" BSPT	28	5.8	6	16.3	57	3	101-00089	
1⁄8" BSPT	28	7.7	8	20	63	3	101-00090	
1⁄4" BSPT	19	9.9	10	26.7	73	4	101-00091	
3⁄8" BSPT	19	13.4	16	33.4	92	4	101-00092	
1⁄2", 3⁄4" BSPT	14	15.7	16	43.5	92	5	101-00093	
1", 1 1/2", 2", 2 1/2" BSPT	11	19.9	20	41.6	104	5	101-00094	

BSPT BRITISH STANDARD PIPE TAPER B.S.21:1985 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Suitable for internal right and left hand threads
- Axial coolant for blind holes

VARDEX



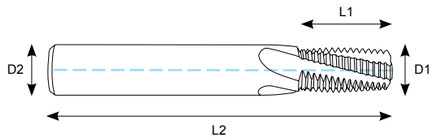
MG SC | 3&4 | R HELIX | HRc <45 | 55° | Ti ALN | SEE WEBSITE

THREAD BSPT	TPI	D1	D2	L1	L2	No. of Flutes	AXIAL COOLANT ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (AXIAL COOLANT)								
1/16" BSPT	28	5.9	6	10.2	57	3	104-00132	
1/8" BSPT	28	7.65	8	10.2	61	3	104-00133	
1/4" BSPT	19	9.9	10	15.4	73	4	104-00134	
3/8" BSPT	19	11.15	12	15.4	73	4	104-00135	
1/2", 3/4" BSPT	14	14.25	16	22.7	92	4	104-00136	
1", 1 1/2", 2", 2 1/2" BSPT	11	19.6	20	28.9	102	4	104-00137	

NPT NATIONAL PIPE TAPER B2.1:1965 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Helical flute for tapered threads
- Optional through coolant for improved chip evacuation in blind holes



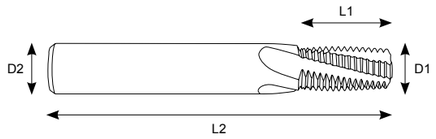
MG SC | 3-5 | R HELIX | HRc <45 | 55° | TNF | P1024

THREAD SIZE	TPI	D1	D2	L1	L2	No. of Flutes	SOLID ORDER CODE		THROUGH COOLANT ORDER CODE	
NPT INTERNAL/EXTERNAL SHORT										
1/16"	27 NPT	5.90	8	9.88	55	3	CTM-NPTHF01T		CTM-NPTHF01TCF	
1/8"	27 NPT	7.65	8	9.88	55	3	CTM-NPTHF03T		CTM-NPTHF03TCF	
1/4"	18 NPT	10.15	12	14.82	75	4	CTM-NPTHF05T		CTM-NPTHF05TCF	
3/8"	18 NPT	11.15	12	14.82	75	4	CTM-NPTHF07T		CTM-NPTHF07TCF	
1/2"	14 NPT	14.25	16	19.05	80	4	CTM-NPTHF09T		CTM-NPTHF09TCF	
1"	11.5 NPT	19.60	20	23.19	90	5	CTM-NPTHF11T		CTM-NPTHF11TCF	

NPTF NATIONAL PIPE TAPER FUEL ANSI 1.20.3-1 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TNF coated carbide thread mills
- Helical flute for tapered threads



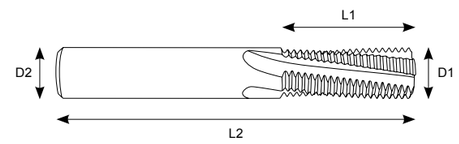
MG SC | 3-5 | R HELIX | HRc <45 | 60° | TNF | P1024

THREAD SIZE	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
NPTF INTERNAL/EXTERNAL								
1/16"	27 NPTF	5.90	8	9.88	55	3	CTM-NPTFHF01T	
1/8"	27 NPTF	7.65	8	9.88	55	3	CTM-NPTFHF03T	
1/4"	18 NPTF	10.15	12	14.82	75	4	CTM-NPTFHF05T	
3/8"	18 NPTF	11.15	12	14.82	75	4	CTM-NPTFHF07T	
1/2"	14 NPTF	14.25	16	19.05	80	4	CTM-NPTFHF09T	
1"	11.5 NPTF	19.60	20	23.19	90	5	CTM-NPTFHF11T	

NPT NATIONAL PIPE TAPER B2.1:1965 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Helical flute for tapered threads



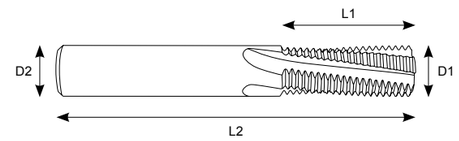
MG SC | 3-5 | R HELIX | HRc <45 | 55° | Ti ALN | SEE WEBSITE

THREAD SIZE	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (SOLID)								
1/16"	27 NPT	5.3	6	9.4	57	3	101-00075	
1/8"	27 NPT	7.5	8	9.4	63	4	101-00076	
1/4"	18 NPT	9.4	10	14.1	73	4	101-00077	
3/8"	18 NPT	11.9	12	14.1	83	4	101-00078	
1/2"	14 NPT	15.5	16	25.4	92	5	101-00079	
1"	11.5 NPT	19.9	20	33.1	104	5	101-00080	
2 1/2"	8 NPT	19.9	20	38.1	104	4	101-00081	

NPTF NATIONAL PIPE TAPER FUEL ANSI 1.20.3-1 - HELICAL FLUTES

Thread Milling of Steels, Stainless Steel, HRSA's, Aluminium & Cast Iron up to HRc45

- TiAlN coated carbide thread mills
- Helical flute for tapered threads



MG SC | 3-5 | R HELIX | HRc <45 | 60° | Ti ALN | SEE WEBSITE

THREAD SIZE	TPI	D1	D2	L1	L2	No. of Flutes	ORDER CODE	
INTERNAL / EXTERNAL 2xD MAX DEPTH (SOLID)								
1/16"	27 NPTF	5.3	6	9.4	57	3	101-00082	
1/8"	27 NPTF	7.5	8	9.4	63	4	101-00083	
1/4"	18 NPTF	9.4	10	14.1	73	4	101-00084	
3/8"	18 NPTF	11.9	12	14.1	83	4	101-00085	
1/2"	14 NPTF	15.5	16	25.4	92	5	101-00086	
1"	11.5 NPTF	19.9	20	33.1	104	5	101-00087	
2 1/2"	8 NPTF	19.9	20	38.1	104	4	101-00088	

CARBIDE THREAD MILLS

THREAD MILLING

CUTTING DATA

Workpiece				Vc [m/min]		Feed fz [mm/tooth]		
Material	Group	Detail	Hardness Brinell HB	Helical Flute Deep Threading	Miniature	Helical	Deep Threading	Miniature
P STEEL	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	80-250	60-120	0.03-0.15	0.03-0.23	0.03-0.12
		Medium Carbon (C=0.25-0.55%)	150	80-230	60-120	0.03-0.1	0.03-0.15	0.03-0.12
		High Carbon (C=0.55-0.85%)	170	80-200	60-90	0.03-0.08	0.03-0.12	0.03-0.12
	Low Alloy Steel (Alloying Elements 5%)	Non Hardened	180	60-180	60-90	0.03-0.1	0.03-0.15	0.03-0.1
		Hardened	275	60-170	50-80	0.03-0.07	0.03-0.11	0.03-0.07
		Hardened	350	60-160	50-80	0.01-0.03	0.01-0.05	0.03
	High Alloy Steel (Alloying Elements>5%)	Annealed	200	40-100	50-80	0.03-0.05	0.03-0.08	0.03-0.05
		Hardened	325	30-80	50-80	0.01-0.03	0.01-0.05	0.03
	Cast Steel	Low Alloy (Alloying Elements <5%)	200	80-250	70-90	0.03-0.1	0.03-0.15	0.03-0.1
		High Alloy (Alloying Elements >5%)	225	60-170	60-80	0.01-0.03	0.01-0.05	0.03
M STAINLESS STEEL	Stainless Steel Ferritic	Non Hardened	200	60-150	60-90	0.04-0.1	0.04-0.15	0.03-0.1
		Hardened	330	60-120	50-80	0.01-0.05	0.01-0.08	0.03
	Stainless Steel Austenitic	Austenitic	180	60-140	60-90	0.04-0.1	0.04-0.15	0.03-0.1
		Super Austenitic	200	60-130	50-80	0.04-0.1	0.04-0.15	0.03-0.1
	Stainless Steel Cast Ferritic	Non Hardened	200	60-160	60-90	0.04-0.1	0.04-0.15	0.03-0.1
		Hardened	330	60-110	50-80	0.03-0.05	0.03-0.08	0.03
	Stainless Steel Cast Austenitic	Austenitic	200	60-150	60-90	0.04-0.1	0.04-0.15	0.03-0.1
		Hardened	330	60-100	50-80	0.03-0.05	0.03-0.08	0.03
K CAST IRON	Malleable	Ferritic (Short Chips)	130	60-70	50-80	0.01-0.03	0.01-0.05	0.03
	Cast Iron	Pearlitic (Long Chips)	230	60-150	60-90	0.03-0.05	0.03-0.08	0.05
	Grey Cast Iron	Low Tensile Strength	180	70-160	70-100	0.025-0.1	0.05-0.15	0.04-0.1
		High Tensile Strength	260	40-120	60-90	0.03-0.05	0.03-0.08	0.05
	Nodular Sg Iron	Ferritic	160	40-110	70-100	0.05-0.1	0.05-0.15	0.04-0.1
		Pearlitic	260	40-100	60-90	0.03-0.05	0.03-0.08	0.05
N NON-FERROUS METALS	Aluminium Alloys Wrought	Non Aging	60	200-300	60-250	0.1-0.25	0.10-0.38	0.05-0.15
		Aged	100	150-250	60-150	0.1-0.2	0.10-0.30	0.04-0.12
	Aluminium Alloys	Cast	75	100-200	60-250	0.1-0.2	0.10-0.30	0.04-0.12
		Cast & Aged	90	120-220	60-150	0.1-0.15	0.10-0.23	0.03-0.1
	Aluminium Alloys	Cast Si 13-22%	130	200-300	250	0.1-0.2	0.10-0.30	0.05-0.1
	Copper & Copper Alloys	Brass	90	200-300	60-250	0.1-0.25	0.10-0.38	0.04-0.12
		Bronze & Non Leaded Copper	100	150-250	60-150	0.1-0.2	0.10-0.30	0.05-0.1
S HEAT RESISTANT MATERIAL	High Temperature Alloys	Annealed (Iron Based)	200	30-60	60	0.04-0.1	0.04-0.15	0.03-0.1
		Aged (Iron Based)	280	20-50	50	0.01-0.03	0.01-0.05	0.03
		Annealed (Nickel Or Cobalt Based)	250	15-35	20-40	0.01-0.03	0.01-0.05	0.03
		Aged (Nickel Or Cobalt Based)	350	15-30	15-30	0.01-0.03	0.01-0.05	0.03
	Titanium Alloys	Pure 99.5 Ti	400Rm	40-80	30-50	0.03-0.05	0.03-0.08	0.03-0.06
		A+B Alloys	1050Rm	20-50	25-35	0.03-0.05	0.03-0.08	0.03-0.07
H HARDENED	Extra Hard Steel	Hardened & Tempered	45-50HRc	15-45	30-45	0.005-0.01	0.005-0.02	0.01
		Hardened & Tempered	51-55HRc	15-40	15-30	0.005-0.01	0.005-0.02	0.01
		Hardened & Tempered	55-60HRc	40-60	-	0.005-0.025	-	-
		Hardened & Tempered	60-63HRc	30-40	-	0.005-0.015	-	-
		Hardened & Tempered	63-66HRc	30-40	-	0.005-0.015	-	-

CARBIDE THREAD MILLS

DRILL, CHAMFER & THREAD MILLING

CUTTING DATA

Workpiece				Cutting Speed Vc [m/min]	Drilling Feed [mm/rev]		Feed fz [mm/tooth]	
Material	Group	Detail	Hardness		Ø0-8	Ø8+	Ø0-8	Ø8+
K CAST IRON	Cast Iron	With Laminar Graphite	100-250 N/mm²	80-160	0.10-0.25	0.20-0.40	0.04-0.07	0.05-0.12
			250-450 N/mm²	80-160	0.10-0.25	0.20-0.40	0.04-0.07	0.05-0.12
		With Nodular Graphite	350-500 N/mm²	80-160	0.10-0.25	0.15-0.25	0.04-0.07	0.05-0.12
			500-900 N/mm²	80-160	0.10-0.25	0.15-0.25	0.04-0.07	0.05-0.12
		With Vermicular Graphite	300-400 N/mm²	80-160	0.10-0.25	0.20-0.40	0.04-0.07	0.05-0.12
			400-500 N/mm²	80-160	0.10-0.25	0.20-0.40	0.04-0.07	0.05-0.12
		Malleable	250-500 N/mm²	80-160	-	-	0.04-0.07	0.05-0.12
			500-800 N/mm²	80-160	-	-	0.04-0.07	0.05-0.12
N NON-FERROUS METALS	Aluminium	Aluminium Alloys	≤ 200 N/mm²	150-250	0.08-0.15	0.15-0.25	0.04-0.08	0.07-0.15
			≤ 350 N/mm²	150-250	0.08-0.15	0.15-0.25	0.04-0.08	0.07-0.15
			≤ 550 N/mm²	150-250	0.08-0.15	0.15-0.25	0.04-0.08	0.07-0.15
			Si ≤ 7%	150-400	0.15-0.25	0.20-0.40	0.04-0.08	0.07-0.15
			7% < Si ≤ 12%	150-400	0.15-0.25	0.20-0.40	0.04-0.08	0.07-0.15
			12% < Si ≤ 17%	100-200	0.15-0.25	0.20-0.40	0.04-0.08	0.07-0.15
	Copper Alloys	Zinc (Brass, Long Chip)	≤ 550 N/mm²	150-400	0.10-0.20	0.15-0.30	0.05-0.08	0.07-0.15
		Zinc (Brass, Short Chip)	≤ 550 N/mm²	150-400	0.10-0.20	0.15-0.30	0.05-0.08	0.07-0.15
		Tin (Bronze, Short Chip)	≤ 400 N/mm²	100-250	0.10-0.25	0.20-0.40	0.04-0.07	0.05-0.12
	Magnesium Alloys	Malleable Magnesium Alloys	≤ 500 N/mm²	150-400	0.10-0.20	0.15-0.30	0.04-0.08	0.07-0.15
		Magnesium Casting Alloys	≤ 500 N/mm²	150-400	0.15-0.30	0.20-0.40	0.04-0.08	0.07-0.15
	Plastic Materials	Thermosetting Plastic (Short Chip)	-	100-400	0.15-0.30	0.20-0.40	0.05-0.10	0.08-0.20

RECOMMENDATION:

At tool entry, set the Feed fz[mm/tooth] to 70% lower than the threading Feed.

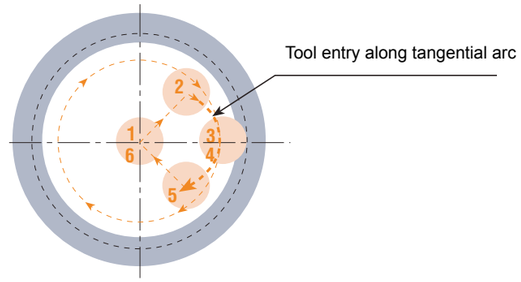
Example:

Threading Feed: 0.3[mm/tooth]

Tool entry Feed: 0.09[mm/tooth]

The feed rates listed are for straight line feeds and allowance should be made when interpolating as the outside edge of the cutter will be travelling faster than the centre.

The cutting speed values (Vc in m/min) are given only as an indication and should be adapted to the application conditions (material, cooling by lubricating oil, machine etc.).



VARGUS GENius | Tool Selector and CNC Program Generator

Vargus GENius Software Using the VARDEX Thread Milling system is easy. Vargus has developed a multi-lingual software for CNC programming.

All the operator has to do is enter the basic thread parameters and then follow the computer instructions, which lead the operator to the correct choice of tool for the job on hand. The software will then generate the helical interpolation for the CNC program.

It couldn't be simpler!

CUTWEL PRO VARDEX

INDEXABLE THREAD MILLS

P H M S K N

VARGUS GENius | Tool Selector and CNC Program Generator

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TOOL SELECTION

CUTWEL PRO THREAD MILL RECOMMENDED CUTTING CONDITIONS

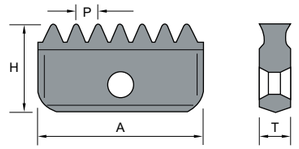
WORKPIECE		Cutting Speed	Feed Rate
Group	Material	(m/min)	(mm)
P Steel	Low and Medium Carbon Steels	115-280	0.05 - 0.15
	High Carbon Steels	130-200	
	Alloy Steels, Treated Steels	105-180	
M Stainless Steel	Stainless Steels	130-190	
	Cast Steels	150-190	
S HRSAs	Nickel Alloys and Titanium Alloys	25-90	
K Cast Iron	Cast Iron	80-70	
N Non Ferrous	Non-Ferrous and Aluminium	180-340	
	Synthetics, Duroplastics and Thermoplastics	115-460	

M, MF METRIC INDEXABLE THREAD MILL INSERTS

ISO Full Profile Inserts for Metric & Metric Fine Threads

CUTWEL PRO

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- Inserts have 2 cutting edges (double sided)



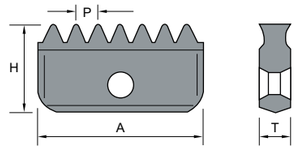
MG SC | CW500 COATED | 60° | P1027

Pitch	A	H	T	EXTERNAL		INTERNAL			
				Teeth	ORDER CODE	Teeth	ORDER CODE		
1.5	14	8.02	3.10	9	20-01-20001	9	20-01-30001		
1.75				8	20-01-20002	8	20-01-30002		
2.0				7	20-01-20003	7	20-01-30003		
2.5				5	20-01-20004	5	20-01-30004		
1.5	21	12.74	4.7	14	20-01-20005	14	20-01-30005		
1.75				12	20-01-20006	12	20-01-30006		
2.0				10	20-01-20007	10	20-01-30007		
2.5				8	20-01-20008	8	20-01-30008		
3.0				7	20-01-20009	7	20-01-30009		
3.5				6	20-01-20010	6	20-01-30010		

M, MF METRIC INDEXABLE THREAD MILL INSERTS

UN full profile inserts for UNC, UNF, UNEF Threads

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- Inserts have 2 cutting edges (double sided)



MG SC | CW500 COATED | 60° | P1027

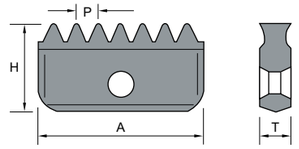
TPI	A	H	T	EXTERNAL		INTERNAL			
				Teeth	ORDER CODE	Teeth	ORDER CODE		
16	14	8.02	3.1	9	20-01-40001	8	20-01-50001		
14				7	20-01-40002	7	20-01-50002		
12				6	20-01-40003	6	20-01-50003		
11				6	20-01-40004	6	20-01-50004		
10				5	20-01-40005	5	20-01-50005		
16	21	12.74	4.7	13	20-01-40006	13	20-01-50006		
14				11	20-01-40007	11	20-01-50007		
12				10	20-01-40008	10	20-01-50008		
11				9	20-01-40009	9	20-01-50009		
10				8	20-01-40010	8	20-01-50010		
9				7	20-01-40011	7	20-01-50011		
8				6	20-01-40012	6	20-01-50012		

BSW, BSP, BSF WHITWORTH INDEXABLE THREAD MILL INSERTS

ISO Full Profile Inserts for BSW, BSP & BSF Threads

CUTWEL PRO

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- Inserts have 2 cutting edges (double sided)
- Same inserts can be used for internal and external threads



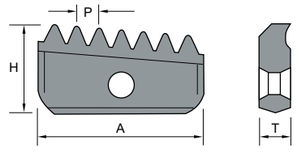
MG SC | CW500 COATED | 55° | P1027

TPI	A	H	T	EXTERNAL/ INTERNAL	
				Teeth	ORDER CODE
16	14	8.02	3.1	8	20-01-70001
14				7	20-01-70002
12				6	20-01-70003
11				6	20-01-70004
10				5	20-01-70005
16	21	12.74	4.7	13	20-01-70006
14				11	20-01-70007
12				10	20-01-70008
11				9	20-01-70009
10				8	20-01-70010
9				7	20-01-70011
8				6	20-01-70012

BSPT INDEXABLE THREAD MILL INSERTS

BSPT BS21 - 55° INC. - 1/16 Taper Thread Mill Inserts

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- BSPT inserts are single sided and can be used for internal and external threads



MG SC | CW500 COATED | 60° | P1027

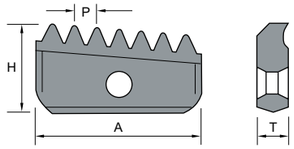
TPI	A	H	T	EXTERNAL/ INTERNAL	
				Teeth	ORDER CODE
28	14	8.02	3.1	15	CTM14-XS-28BSPT
14				7	CTM14-XS-14BSPT
19				10	CTM14-XS-19BSPT
14	21	12.74	4.7	11	CTM21-XS-14BSPT
11				9	CTM21-XS-11BSPT

NPT INDEXABLE THREAD MILL INSERTS

NPT ASME/ANSI B1.20.1 - 60° INC. - 1/16 Taper Thread Mill Inserts

CUTWEL PRO

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- NPT inserts are single sided and can be used for internal and external threads



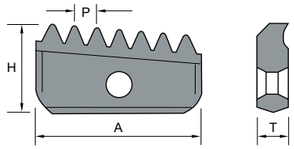
MG SC | CW500 COATED | 60° | P1027

TPI	A	H	T	EXTERNAL/ INTERNAL			
				Teeth	ORDER CODE		
18	14	8.02	3.1	9	20-01-90001		
14				7	20-01-90002		
18	21	12.74	4.7	14	20-01-90003		
14				11	20-01-90004		
11.5				9	20-01-90000		

NPTF INDEXABLE THREAD MILL INSERTS

NPT ASME/ANSI B1.20.3 - 60° INC. - 1/16 Taper Thread Mill Inserts

- CW500 coated carbide inserts for thread milling of steels, stainless steel, HRSA'S, aluminium & cast iron up to HRc45
- NPTF inserts are single sided and can be used for internal and external threads



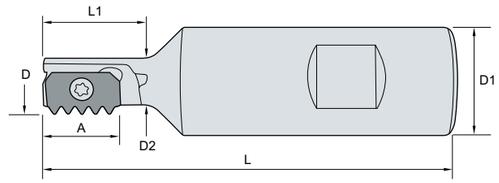
MG SC | CW500 COATED | 60° | P1027

TPI	A	H	T	EXTERNAL/ INTERNAL			
				Teeth	ORDER CODE		
18	14	8.02	3.1	9	20-01-90005		
14				7	20-01-90006		
18	21	12.74	4.7	14	20-01-90007		
14				11	20-01-90008		
11.5				9	20-01-90009		

INDEXABLE THREAD MILL HOLDER 1 TOOTH

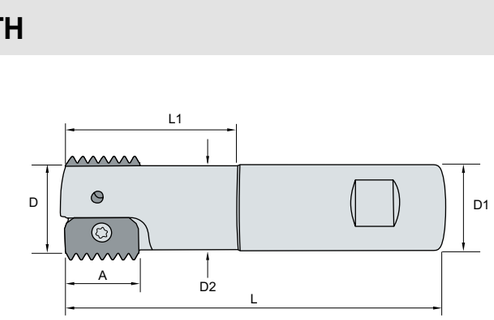
Holders Take Replaceable Inserts for Different Thread Forms

CUTWEL PRO



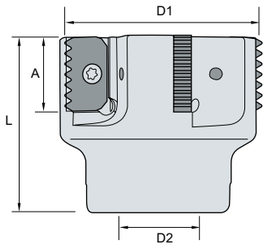
A	D	D1	D2	L	L1	ORDER CODE		INSERTS	Spares	
									Screw	Torx Key
14	12	20	8.9	75	20	SR0012F14		CTM14	S14	K14
14	14.5	20	11.2	85	25	SR0014H14				
14	17	20	13.4	85	30	SR0017H14				
21	18	20	14.4	85	30	SR0018H21		CTM21	S21	K21
21	21	20	16.5	94	40	SR0021H21				
21	25	20	-	125	-	SR0025K21				

INDEXABLE THREAD MILL HOLDER 2 TOOTH



A	D	D1	D2	L	L1	ORDER CODE		INSERTS	Spares	
									Screw	Torx Key
14	20	20	16	93	41	SR0020H14-2		CTM14	S14	K14
21	30	25	24	108	52	SR0030J21-2		CTM21	S21	K21

INDEXABLE THREAD MILL HOLDER 5 TOOTH



A	D1	D2	L	Teeth	ORDER CODE		INSERTS	Spares	
								Screw	Torx Key
21	63	22	50	5	SR0063C21-5		CTM21	S21	K21

STANDARD TM INDEXABLE THREAD MILLS

VARDEX

Thread milling can be carried out on any three axis mill that is capable of helical interpolation. It involves 3 axes moving simultaneously; the X & Y axis move in a circular motion and the Z axis moves in a linear motion.

Indexable thread Milling has numerous benefits: low cutting load (even on large threads), no scrapping of jobs if the tool breaks, possible to rework undersize threads, stronger threads, small chips, faster than tapping or single point threading, any size thread can be machined.

The benefit of an indexable thread mill over a solid carbide thread mill is reduced cost on larger size threads - one toolholder can be used to cut different thread forms and different thread sizes.

One Toolholder for Several Different Thread Forms

STRAIGHT FLUTE TOOL HOLDERS

- Metric
- UN
- UNJ
- Whitworth
- PG
- BSP

CONICAL FLUTE TOOL HOLDERS

- NPT
- NPTF
- BSPT

Toolholders to Suit Different Applications or Performance Requirements

STANDARD LENGTH

LONG LENGTH

TWIN FLUTE

Thread Milling Insert Grades

INSERT GRADE	INSERT	APPLICATION
VTX		First choice coated grade for steel, stainless steel, HRSA's and cast iron. A tough sub-micron substrate with TiAlN coating. Provides good fracture toughness and excellent wear resistance. Standard grade for all Vardex thread mill inserts.
VK2		Uncoated grade for machining cast iron & nonferrous metals. Available on request.

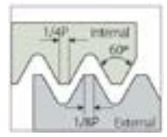
THREAD & GROOVE MILLING
INDEXABLE THREAD MILLS

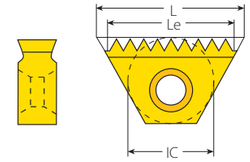
M, MF METRIC INDEXABLE THREAD MILL INSERTS

ISO Full Profile Inserts for Metric & Metric Fine Threads

► All inserts have 2 cutting edges except IC 6.0mm which has 1 cutting edge

VARDEX





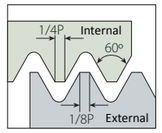
Insert Size		Pitch	Le	Teeth	EXTERNAL		INTERNAL			Toolholder
IC	L mm	mm	mm		Designation	ORDER CODE	Designation	ORDER CODE		
6.0mm	10.4	0.5	10	20	-	-	6.0I0.5ISOTM	086-00022		TMMC..-6.0
		0.75	9.75	13	-	-	6.0I0.75ISOTM	086-00026		
		1	9	9	-	-	6.0I1.0ISOTM	086-00030		
		1.25	8.75	7	-	-	6.0I1.25ISOTM	086-00033		
		1.5	9	6	-	-	6.0I1.5ISOTM	086-64787		
1/4"	11	0.5	10	20	-	-	2I0.5ISOTM2	086-64816		TMC..-2 TMSH..-2
		0.75	10.5	14	2E0.75ISOTM2	086-63098	2I0.75ISOTM2	086-00088		
		1	10	10	2E1.0ISOTM2	086-00065	2I1.0ISOTM2	086-00091		
		1.25	10	8	2E1.25ISOTM2	086-00067	-	-		
		1.25	8.75	7	-	-	2I1.25ISOTM2	086-00095		
		1.5	9	6	2E1.5ISOTM2	086-00069	-	-		
		1.5	10.5	7	-	-	2I1.5ISOTM2	086-64171		
3/8"	16	0.5	15	30	-	-	3I0.5ISOTM2	086-65026		TMC..-3 TMSH..-3
		0.75	15	20	3E0.75ISOTM2	086-00156	3I0.75ISOTM2	086-00198		
		0.8	14.4	18	-	-	3I0.8ISOTM2	086-00502		
		1	14	14	3E1.0ISOTM2	086-00159	-	-		
		1	15	15	-	-	3I1.0ISOTM2	086-65115		
		1.25	15	12	3E1.25ISOTM2	086-00164	3I1.25ISOTM2	086-64962		
		1.5	15	10	3E1.5ISOTM2	086-65088	3I1.5ISOTM2	086-64461		
		1.75	14	8	3E1.75ISOTM2	086-63329	3I1.75ISOTM2	086-00209		
		2	14	7	3E2.0ISOTM2	086-65002	3I2.0ISOTM2	086-64908		
3/8"B	22	1	22	22	3BE1.0ISOTM2	086-00563	3BI1.0ISOTM2	086-00590		BTMC..-3B TMSH..-3B
		1.25	21.25	17	3BE1.25ISOTM2	086-00813	3BI1.25ISOTM2	086-00592		
		1.5	21	14	3BE1.5ISOTM2	086-00566	3BI1.5ISOTM2	086-00534		
		1.75	21	12	3BE1.75ISOTM2	-	3BI1.75ISOTM2	086-00821		
		2	22	11	3BE2.0ISOTM2	086-00570	3BI2.0ISOTM2	086-00572		
5/8"	27	1	26	26	5E1.0ISOTM2	086-64583	5I1.0ISOTM2	086-65103		TMC..-5 TMSH..-5 TMOC25-5
		1.25	25	20	5E1.25ISOTM2	086-00809	5I1.25ISOTM2	086-64930		
		1.5	25.5	17	5E1.5ISOTM2	086-65142	5I1.5ISOTM2	086-64981		
		1.75	24.5	14	5E1.75ISOTM2	086-00811	5I1.75ISOTM2	086-00524		
		2	24	12	5E2.0ISOTM2	086-65140	5I2.0ISOTM2	086-65049		
		2.5	25	10	5E2.5ISOTM2	086-00278	5I2.5ISOTM2	086-65111		
		3	24	8	5E3.0ISOTM2	086-00280	5I3.0ISOTM2	086-64721		
		3.5	24.5	7	5E3.5ISOTM2	086-00282	5I3.5ISOTM2	086-00325		
		4	24	6	5E4.0ISOTM2	086-00284	5I4.0ISOTM2	086-65109		
		4.5	22.5	5	5E4.5ISOTM2	086-64965	5I4.5ISOTM2	086-65112		
3/4"B	38.5	1.5	36	24	6BE1.5ISOTM2	086-00762	6BI1.5ISOTM2	086-00539		TMC..-6B TMSH..-6B
		2	36	18	6BE2.0ISOTM2	086-00617	6BI2.0ISOTM2	086-00542		
		3	36	12	6BE3.0ISOTM2	086-00796	6BI3.0ISOTM2	086-00553		
		4	32	8	6BE4.0ISOTM2	086-00618	6BI4.0ISOTM2	086-00545		
		4.5	31.5	7	6BE4.5ISOTM2	086-00744	6BI4.5ISOTM2	086-00550		
		5	30	6	6BE5.0ISOTM2	086-00619	6BI5.0ISOTM2	086-00552		
		5.5	33	6	6BE5.5ISOTM2	086-00621	6BI5.5ISOTM2	086-00547		
		6	30	5	6BE6.0ISOTM2	086-00686	6BI6.0ISOTM2	086-00549		

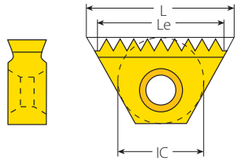
UNC/UNF UNIFIED INDEXABLE THREAD MILL INSERTS

VARDEX

For External & Internal Unified Threads

► All inserts have 2 cutting edges except IC 6.0mm which has 1 cutting edge





Insert Size		Pitch	Le	Teeth	EXTERNAL		INTERNAL			Toolholder
IC	L mm	TPI	mm		Designation	ORDER CODE	Designation	ORDER CODE		
6.0mm	10.4	32	9.53	12	-	-	6.0I32UNTM	086-64912		TMMC..-6.0
		28	9.07	10	-	-	6.0I28UNTM	086-64911		
		24	9.53	9	-	-	6.0I24UNTM	086-00733		
		20	8.89	7	-	-	6.0I20UNTM	086-64806		
		18	8.47	6	-	-	6.0I18UNTM	086-64799		
		16	7.94	5	-	-	6.0I16UNTM	086-64909		
1/4"	11	48	10.05	19	-	-	2I48UNTM2	086-63503		TMC..-2 TMSH..-2
		40	10.16	16	-	-	2I40UNTM2	086-00748		
		32	10.32	13	-	-	2I32UNTM2	086-65086		
		28	9.98	11	2E28UNTM2	086-63383	2I28UNTM2	086-54337		
		27	10.35	11	-	-	2I27UNTM2	086-64997		
		24	9.53	9	2E24UNTM2	086-64148	2I24UNTM2	086-64205		
		20	10.16	8	2E20UNTM2	086-64141	2I20UNTM2	086-64905		
		18	9.88	7	2E18UNTM2	086-65017	2I18UNTM2	086-64913		
		16	9.53	6	2E16UNTM2	086-64132	2I16UNTM2	086-64186		
		14	9.07	5	2E14UNTM2	086-00734	2I14UNTM2	086-64178		
3/8"	16	40	14.61	23	-	-	3I40UNTM2	086-64532		TMC..-3 TMSH..-3
		32	15.08	19	-	-	3I32UNTM2	086-64891		
		28	14.51	16	3E28UNTM2	086-64968	3I28UNTM2	086-65108		
		27	14.11	15	3E27UNTM2	086-65147	3I27UNTM2	086-64837		
		26	14.65	15	3E26UNTM2	086-00755	3I26UNTM2	086-00480		
		24	14.82	14	3E24UNTM2	086-65089	3I24UNTM2	086-64519		
		20	13.97	11	3E20UNTM2	086-64420	3I20UNTM2	086-64512		
		18	14.11	10	3E18UNTM2	086-64412	3I18UNTM2	086-64500		
		16	14.29	9	3E16UNTM2	086-64403	3I16UNTM2	086-64493		
		14	14.51	8	3E14UNTM2	086-64396	3I14UNTM2	086-64486		
		13	13.68	6	3E13UNTM2	086-64389	3I13UNTM2	086-64477		
		12	14.82	7	3E12UNTM2	086-64387	3I12UNTM2	086-64475		
		11.5	13.25	6	3E11.5UNTM2	086-00161	3I11.5UNTM2	086-00202		
3/8"B	22	24	21.16	20	-	-	3BI24UNTM2	086-00763		BTMC..-3B TMSH..-3B
		20	21.59	17	3BE20UNTM2	086-00560	3BI20UNTM2	086-00585		
		18	21.17	15	3BE18UNTM2	086-00559	3BI18UNTM2	086-00582		
		16	20.64	13	3BE16UNTM2	086-00558	3BI16UNTM2	086-00581		
		14	21.77	12	3BE14UNTM2	086-00555	3BI14UNTM2	086-00650		
		12	21.17	10	3BE12UNTM2	086-00646	3BI12UNTM2	086-00575		
5/8"	27	24	25.4	24	5E24UNTM2	086-64954	5I24UNTM2	086-00747		TMC..-5 TMSH..-5 TMOC25-5
		20	25.4	20	5E20UNTM2	086-65110	5I20UNTM2	086-64714		
		18	25.4	18	5E18UNTM2	086-65106	5I18UNTM2	086-64703		
		16	25.4	16	5E16UNTM2	086-64622	5I16UNTM2	086-64698		
		14	25.4	14	5E14UNTM2	086-65117	5I14UNTM2	086-65133		
		13	25.4	13	5E13UNTM2	086-65033	5I13UNTM2	086-00802		
		12	25.4	12	5E12UNTM2	086-64610	5I12UNTM2	086-64686		
		11.5	24.3	11	-	-	5I11.5UNTM2	086-65039		
		11	25.4	11	5E11UNTM2	086-64843	5I11UNTM2	086-00296		
		10	25.4	10	-	-	5I10UNTM2	086-65051		
		9	22.58	8	5E9UNTM2	086-00144	5I9UNTM2	086-00292		
		8	22.23	7	5E8UNTM2	086-65122	5I8UNTM2	086-64743		
		7	21.77	6	5E7UNTM2	086-64654	-	-		
		7	25.4	7	-	-	5I7UNTM2	086-65102		
		6	21.17	5	5E6UNTM2	086-00682	-	-		
		6	25.4	6	-	-	5I6UNTM2	086-64866		
3/4"B	38.5	6	38.87	8	6BE6UNTM2	-	6BI6UNTM2	086-00625		TMC..-6B TMSH..-6B
		5	30.48	6	6BE5UNTM2	086-00751	6BI5UNTM2	086-00624		
		4.5	33.87	6	6BE4.5UNTM2	-	6BI4.5UNTM2	086-00543		
		4	31.75	5	6BE4UNTM2	086-00612	6BI4UNTM2	086-00746		

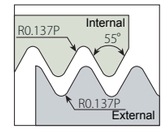
THREAD & GROOVE MILLING
INDEXABLE THREAD MILLS

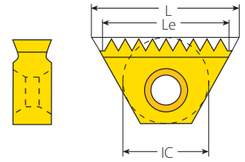
BSW/BSP WHITWORTH INDEXABLE THREAD MILL INSERTS

VARDEX

For External & Internal Whitworth Threads

► All inserts have 2 cutting edges except IC 6.0mm which has 1 cutting edge

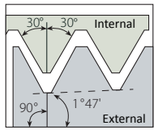


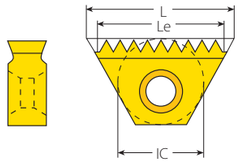


Insert Size		Pitch	Le	Teeth	EXTERNAL/INTERNAL		PRICE	Toolholder
IC	L mm	TPI	mm		Designation	ORDER CODE		
6.0mm	10.4	28	9.07	10	6.0EI28WTM	086-00772	**£21.47**	TMMC..-6.0
		26	8.79	9	6.0EI26WTM	086-00736	**£21.47**	
		20	8.89	7	6.0EI20WTM	086-00002	**£21.47**	
		19	9.36	7	6.0EI19WTM	086-65062	**£21.47**	
1/4"	11	28	9.98	11	2EI28WTM2	086-00786	**£28.64**	TMC..-2 TMSH..-2
		26	9.77	10	2EI26WTM2	086-00779	**£28.64**	
		24	9.53	9	2EI24WTM2	086-00729	**£28.64**	
		20	10.16	8	2EI20WTM2	086-00776	**£28.64**	
		19	9.36	7	2EI19WTM2	086-65118	**£28.64**	
		14	9.07	5	2EI14WTM2	086-65009	**£28.64**	
3/8"	16	26	14.65	15	3EI26WTM2	086-63506	**£33.51**	TMC..-3 TMSH..-3
		24	14.82	14	3EI24WTM2	086-00498	**£33.51**	
		20	13.97	11	3EI20WTM2	086-00130	**£33.51**	
		19	14.71	11	3EI19WTM2	086-63504	**£33.51**	
		18	14.11	10	3EI18WTM2	086-00124	**£33.51**	
		16	14.29	9	3EI16WTM2	086-00119	**£33.51**	
		14	14.51	8	3EI14WTM2	086-65091	**£33.51**	
		12	14.82	7	3EI12WTM2	086-00104	**£33.51**	
		11	13.85	6	3EI11WTM2	086-65090	**£33.51**	
3/8"B	22	24	21.17	20	3BEI24WTM2	086-00815	**£46.24**	TMC..-3B TMSH..-3B
		20	21.59	17	3BEI20WTM2	086-00814	**£46.24**	
		19	21.39	16	3BEI19WTM2	086-00804	**£46.24**	
		18	21.17	15	3BEI18WTM2	086-00647	**£46.24**	
		16	20.64	13	3BEI16WTM2	086-00405	**£46.24**	
		14	21.77	12	3BEI14WTM2	086-00527	**£46.24**	
		12	21.17	10	3BEI12WTM2	086-00341	**£46.24**	
		11	20.78	9	3BEI11WTM2	086-00239	**£46.24**	
5/8"	27	16	25.4	16	5EI16WTM2	086-00816	**£64.13**	TMC..-5 TMSH..-5
		14	25.4	14	5EI14WTM2	086-00247	**£64.13**	
		12	23.28	11	5EI12WTM2	086-00243	**£64.13**	
		11	23.09	10	5EI11WTM2	086-58954	**£64.13**	
		10	25.40	10	5EI10WTM2	086-00235	**£64.13**	
		9	22.58	8	5EI9WTM2	086-00230	**£64.13**	
		8	22.23	7	5EI8WTM2	086-00225	**£64.13**	
		7	21.77	6	5EI7WTM2	086-00217	**£64.13**	
		6	21.17	5	5EI6WTM2	086-00215	**£64.13**	
3/4"B	38.5	11	30.64	15	6BEI11WTM2	086-00609	**£76.30**	TMC..-6B TMSH..-6B
		6	33.87	8	6BEI6WTM2	086-00604	**£76.30**	
		5	30.48	6	6BEI5WTM2	086-00602	**£76.30**	
		4.5	33.87	6	6BEI4.5WTM2	086-00448	**£76.30**	

NPT INDEXABLE THREAD MILL INSERTS

For External & Internal NPT Threads





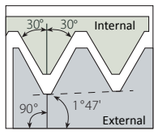
* For external thread only **Single sided insert - RH only
External thread LH only

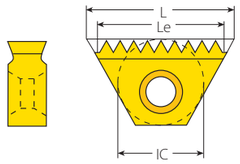
Insert Size		Pitch	Le	Teeth	EXTERNAL/INTERNAL			Toolholder RH	Toolholder LH
IC	L mm	TPI	mm		Designation	ORDER CODE			
3/8"	16	18	14.11	10	3E18NPT-TM2*	086-65050		TMNC..-3	TMNC..-3LH
		14	14.51	8	3EI14NPT-TM2	086-64338			
		11.5	13.25	6	3EI11.5NPT-TM2	086-64316			
3/8"B	22	14	21.77	12	3BEI14NPT-TM2	086-00526		BTMNC..-3B	BTMNC..-3BLH
		11.5	19.88	9	3BEI11.5NPT-TM2**	086-00444			
5/8"	27	11.5	24.3	11	5EI11.5NPT-TM2	086-64558		TM.C..-5	TM.C..-5LH
		8	22.23	7	5EI8NPT-TM2	086-64578			
3/4"B	38.5	11.5	35.34	16	6BEI11.5NPT-TM2	086-00611		TMC..-6B	TMC..-6BLH
		8	31.75	10	6BEI8NPT-TM2	086-00606			

NPTF INDEXABLE THREAD MILL INSERTS

For External & Internal NPTF Threads

► All inserts have 2 cutting edges



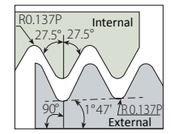


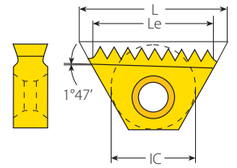
Insert Size		Pitch	Le	Teeth	EXTERNAL/INTERNAL			Toolholder RH	Toolholder LH
IC	L mm	TPI	mm		Designation	ORDER CODE			
3/8"	16	14	14.51	8	3EI14NPTFTM2	086-65044		TMNC..-3	TMNC..-3LH
		11.5	13.25	6	3EI11.5NPTFTM2	086-65128			
3/8"B	22	14	21.77	12	3BEI14NPTFTM2	086-00346		BTMNC..-3B	BTMNC..-3BLH
		11.5	19.88	9	3BEI11.5NPTFTM2	086-00554			
5/8"	27	11.5	24.3	11	5EI11.5NPTFTM2	086-65061		TM.C..-5	TM.C..-5LH
		8	22.23	7	5EI8NPTFTM2	086-00222			
3/4"B	38.5	11.5	35.34	16	6BEI11.5NPTFTM2	086-00819		TMC..-6B	TMC..-6BLH

BSPT INDEXABLE THREAD MILL INSERTS

For External & Internal BSPT Threads

► All inserts have 2 cutting edges



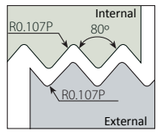


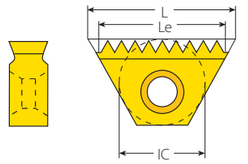
Insert Size		Pitch	Le	Teeth	EXTERNAL/INTERNAL			Toolholder RH	Toolholder LH
IC	L mm	TPI	mm		Designation	ORDER CODE			
1/4"	11	19	9.36	7	2EI19BSPTTM2	086-65129		TMC..-2	TMC..-2LH
3/8"	16	14	14.51	8	3EI14BSPTTM2	086-00110		TMNC..-3	TMNC..-3LH
		11	13.85	6	3EI11BSPTTM2	086-64298			
5/8"	27	11	23.09	10	5EI11BSPTTM2	086-64509		TMC..-5	TMC..-5LH

Pg INDEXABLE THREAD MILL INSERTS

For External & Internal Pg Threads

► All inserts have 2 cutting edges except IC 6.0mm which has 1 cutting edge



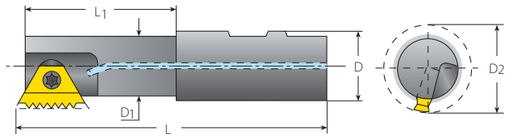


Insert Size		Pitch	Le	Teeth	Nominal Thread Size	EXTERNAL/INTERNAL			Toolholder
IC	L mm	TPI	mm			Designation	ORDER CODE		
6 mm	10.4	20	8.99	7	Pg7	6.0EI20PGTM	086-64762		TMMC..-6.0
1/4"	11	20	10.16	8	Pg7	2EI20PGTM2	086-00046		TMC..-2 TMSH..-2 TMC..-3
		18	9.88	7	Pg9, Pg11, Pg13.5, Pg16	2EI18PGTM2	086-00041		
		16	9.53	6	Pg21, Pg29, Pg36, Pg42, Pg48	2EI16PGTM2	086-00039		
3/8"	16	18	14.11	10	Pg9, Pg11, Pg13.5, Pg16	3EI18PGTM2	086-64917		TMSH..-3
		16	14.29	9	Pg21, Pg29, Pg36, Pg42, Pg48	3EI16PGTM2	086-00116		

STANDARD INDEXABLE THREAD MILL HOLDER

VARDEX

For External & Internal Thread Milling

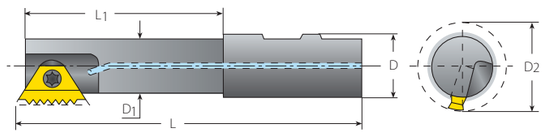


* B Style Holders = Anti Vibration

Insert Size	Dimensions mm					Designation	ORDER CODE		Spares	
IC	L	L1	D	D1	D2				Screw	Torx Key
6 mm	69	12	12	6.8	9	TMMC12-6.0	071-00121		SN7T	K7T
	84	17	20	6.8	9	TMMC20-6.0	071-00133			
1/4"	70	12	12	8.9	11.5	TMC12-2	071-00145		SN2TM	K2T
	85	20	20	8.9	11.5	TMC20-2	071-00126			
3/8"	90	22	16	13.6	17	TMC16-3	071-00122		SN3TM	K3T
	95	43	20	16.6	20	TMC20-3	071-00129			
3/8"B	79.5	29	16	13.5	17	BTMC16-3B*	071-00288		SN3TM	K3T
	81.5	29	20	15.5	19	BTMC20-3B*	071-00132		SN3T	K3T
	92.3	30	25	15.5	19	BTMC25-3B*	071-00134			
	90.8	30	25	18.5	22	BTMWC25-3B*	071-00135			
5/8"	110	52	25	24	30	TMC25-5	071-00136		SN5TM	K5T
	110	52	25	24	30	TMC25-5LH	071-00139			
	120	58	32	31	37	TMC32-5	071-00141			
3/4"B	115	53	32	27	35	TMC32-6B	071-00143		SM7T	K30T
	135	63	40	38	46	TMC40-6B	071-00146			

LONG LENGTH INDEXABLE THREAD MILL HOLDER

For External & Internal Thread Milling



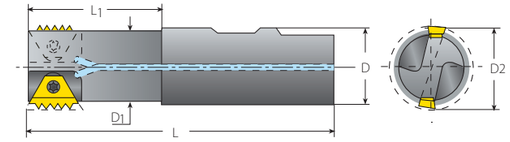
* B Style Holders = Anti Vibration

Insert Size	Dimensions mm					Designation	ORDER CODE		Spares	
IC	L	L1	D	D1	D2				Screw	Torx Key
1/4"	125	17	25	8.9	11.5	TMLC25-2	071-00113		SN2TM	K2T
3/8"	125	25	25	18.6	22	TMLC25-3	071-00110		SN3T	K3T
	125	63.5	25	18.6	22	BTMLC25-3	071-00100			
3/8"B	96.5	44	20	15.5	19	BTMLC20-3B*	071-00171		SN3T	K3T
	125	63.5	25	18.6	22	BTMLC25-3B*	071-00264			
5/8"	150	92	25	24	30	TMLC25-5	071-67740		SN5TM	K5T
	160	98	32	31	37	TMLC32-5	071-00102			
3/4"B	165	93	40	38	46	TMLC40-6B	071-00104		SM7T	K30T

TW2 TWIN FLUTE INDEXABLE THREAD MILL HOLDER

VARDEX

For External & Internal Thread Milling

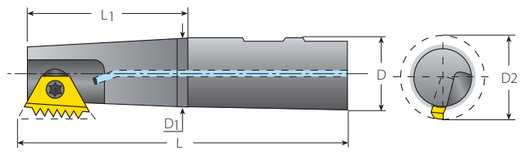


* B Style Holders = Anti Vibration

Insert Size	Dimensions mm					Designation	ORDER CODE		Spares	
IC	L	L1	D	D1	D2				Screw	Torx Key
1/4"	85	20	20	14.4	17	TM2C20-2	071-00216		SN2TM	K2T
3/8"	100	43	25	22.5	26	TM2C25-3	071-00097		SN3T	K3T
3/8"B	104.2	46	25	22.5	26	BTM2C25-3B	071-00219			
5/8"	120	45	32	36	42	TM2C32-5	071-67690		SN5TM	K5T
3/4"B	137.2	65	40	44	52	TM2C40-6B	071-00226		SM7T	K30T

CONICAL INDEXABLE THREAD MILL HOLDER

For External & Internal, for Conical Threads - NPT. NPTF, BSPT



NOTE: To use the cutting edge marked “L“, LH Cutter is required.

* B Style Holders = Anti Vibration

Insert Size	Dimensions mm					RIGHT HAND		LEFT HAND		Spares	
IC	L	L1	D	D1	D2	Designation	ORDER CODE	Designation	ORDER CODE	Screw	Torx Key
3/8"	90	22	16	12.5	15.5	TMNC16-3	071-00095	TMNC16-3LH	071-00170	SN3TM	K3T
	85	23	20	15	19	TMNC20-3	071-00096	TMNC20-3LH	071-00242		
3/8"B	79.5	29	16	13.5	17	BTMNC16-3B	071-00165	BTMNC16-3BLH	071-00166	SN3TM	K3T
	81.5	29	20	15.5	19	BTMNC20-3B	071-00220	BTMNC20-3BLH	071-00238		
5/8"	120	58	32	31	37	TMNC32-5	071-00103	TMNC32-5LH	071-00248	SN5TM	K5T

VARGUS GENius | Tool Selector and CNC Program Generator

Vargus GENius Software Using the VARDEX Thread Milling system is easy. Vargus has developed a multi-lingual software for CNC programming.

All the operator has to do is enter the basic thread parameters and then follow the computer instructions, which lead the operator to the correct choice of tool for the job on hand. The software will then generate the helical interpolation for the CNC program.

It couldn’t be simpler!

TMSD DEEP HOLE INDEXABLE THREAD MILLS

A multi-flute, highly productive and economical solution for milling threads in deep holes.

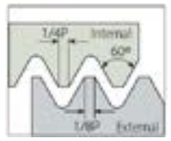
There are two types of TMSD thread milling options

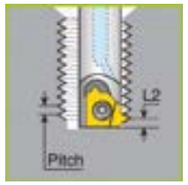
- ► L-Style - For small bores and short L2 (reach)
- ► U-Style - For large pitches

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

M METRIC DEEP HOLE INDEXABLE THREAD MILL INSERTS L STYLE

Metric Inserts For Deep Hole Thread Milling



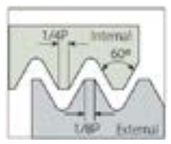


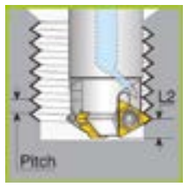
For small bores and short L2 (reach).

Insert Size		Pitch	Designation	ORDER CODE		Toolholder
IC		mm				
5.0L (MINI L)		1.0	5LI1.0ISOTM	088-00175		TM.SC...5L CTM.SC...5L
		1.5	5LI1.5ISOTM	088-00177		
		2.0	5LI2.0ISOTM	088-00179		

M METRIC DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Metric Inserts for Deep Hole Thread Milling





For large pitches

* Correct the toolholder cutting diameter D2 according to adjustment, as indicated in the below table.

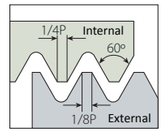
Insert Size		Pitch	Designation	ORDER CODE		Toolholder	Toolholder Cutting Diameter D2 (mm)
IC	L mm	mm					* Adjusted D2
1/4"U	11	14	2UI1.5ISOTM	088-00159		TM2SC25W23-70-2U; TM3SC25W26-80-2U; TM4SC32W31-95-2U; TM2SC18C23-86-2U; TM3SC20C26-105-2U; TM4SC25C31-115-2U; CTM3SC20C26-110-2U; CTM4SC25C31-135-2U	For 1.5ISO change D2 to D2-1.0
		12	2UI2.0ISOTM	088-00161			For 2.0ISO change D2 to D2-1.15

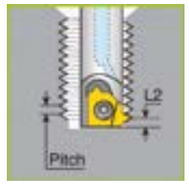
THREAD & GROOVE MILLING
INDEXABLE THREAD MILLS

UNC/UNF UNIFIED DEEP HOLE INDEXABLE THREAD MILL INSERTS L STYLE

Unified Inserts for Deep Hole Thread Milling

VARDEX



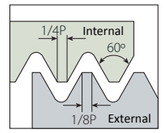


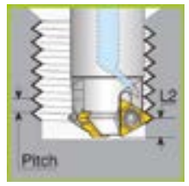
For small bores and short L2 (reach).

Insert Size	Pitch	Designation	ORDER CODE		Toolholder
IC	TPI				
5.0L (MINI L)	18	5LI18UNTM	088-00153		TM.SC...5L CTM.SC...5L
	16	5LI16UNTM	088-00185		
	14	5LI14UNTM	088-00183		
	12	5LI12UNTM	088-00181		

UNC/UNF UNIFIED DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Unified Inserts for Deep Hole Thread Milling





For large pitches

* Correct the toolholder cutting diameter D2 according to adjustment, as indicated in the below table.

Insert Size		Pitch	Designation	ORDER CODE		Toolholder	Toolholder Cutting Diameter D2 (mm)
IC	L mm	mm					* Adjusted D2
1/4"U	11	14	2UI14UNTM	088-00165		TM2SC25W23-70-2U; TM3SC25W26-80-2U; TM4SC32W31-95-2U; TM2SC18C23-86-2U; TM3SC20C26-105-2U; TM4SC25C31-115-2U; CTM3SC20C26-110-2U; CTM4SC25C31-135-2U	For 14UN change D2 to D2-1.06
		12	2UI12UNTM	088-00163			For 12UN change D2 to D2-1.15

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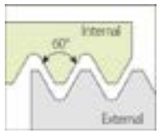
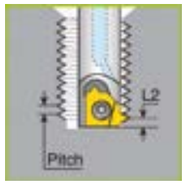
It couldn't be simpler!

60° PARTIAL PROFILE DEEP HOLE INDEXABLE THREAD MILL INSERTS L STYLE

Partial Profile Inserts for Deep Hole Thread Milling

VARDEX





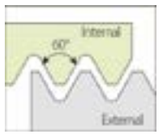
For small bores and short L2 (reach).

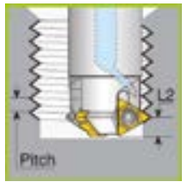
Insert Size		Pitch		r*	Designation	ORDER CODE		Toolholder
IC		mm	TPI					
5.0L (MINI L)		0.5-1.5	48-16	0.04	5LIDA60TM	088-00050		TM.SC5L CTM. SC5L
		1.0-2.0	24-11	0.06	5LIDN60TM	088-00052		

* The indicated radius (r) refers to the insert nose radius only.

60° PARTIAL PROFILE DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Partial Profile Inserts for Deep Hole Thread Milling





For large pitches

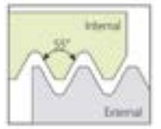
Insert Size		Pitch		r*	Designation	ORDER CODE		Toolholder
IC	L mm	mm	TPI					
1/4”U	11	0.5-1.5	48-16	0.05	2UIDA60TM	088-00034		TM.SC2U CTM. SC2U
		1.5-2.0	16-12	0.06	2UIDB60TM	088-00009		
		2.0-2.5	9-12	0.11	2UIDD60TM	088-00058		CTM2SC 14C17-65-2U
		2.5	10	0.11	2UIDM60TM	088-00040		
		2.5-4.0	10-6	0.14	2UIDC60TM	088-00010		TM.SC2U CTM. SC2U
3/8”U	16	1.5-2.0	16-12	0.06	3UIDB60TM	088-00019		TM.SC3U
		2.5-3.5	10-7	0.14	3UIDE60TM	088-00020		
		4.0-6.0	6-4	0.25	3UIDH60TM	088-00021		
1/2”U	22	6.0-8.0	4-3	0.30	4UIDK60TM	088-00027		TM.SC D4U

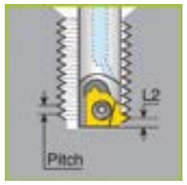
* The indicated radius (r) refers to the insert nose radius only.

55° PARTIAL PROFILE DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Partial Profile Inserts for Deep Hole Thread Milling

VARDEX





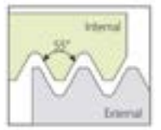
For small bores and short L2 (reach).

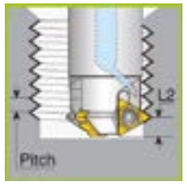
Insert Size	Pitch	r*	Designation	ORDER CODE		Toolholder
IC	TPI					
5.0L (MINI L)	26-14	0.10	5LIDR55TM	088-00046		TM.SC5L CTM. SC5L

* The indicated radius (r) refers to the insert nose radius only.

55° PARTIAL PROFILE DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Partial Profile Inserts for Deep Hole Thread Milling





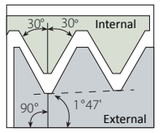
For large pitches

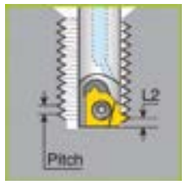
Insert Size		Pitch	r*	Designation	ORDER CODE		Toolholder
IC	L mm	TPI					
1/4”U	11	48-16	0.11	2UIDA55TM	088-00030		TM.SC2U CTM. SC2U
		16-12	0.08	2UIDB55TM	088-00011		
		11-7	0.24	2UIDL55TM	088-00012		
3/8”U	16	16-12	0.08	3UIDB55TM	088-00022		TM.SC3U
		11-7	0.24	3UIDL55TM	088-00023		
		6-4	0.27	3UIDH55TM	088-00024		
1/2”U	22	4-3	0.50	4UIDK55TM	088-00028		TM.SC D4U

* The indicated radius (r) refers to the insert nose radius only.

NPT DEEP HOLE INDEXABLE THREAD MILL INSERTS L STYLE

Partial Profile Inserts for Deep Hole Thread Milling



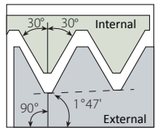


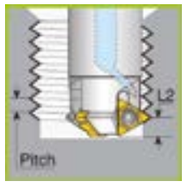
For small bores and short L2 (reach).

Insert Size	Pitch	Designation	ORDER CODE		Toolholder
IC	TPI				
5.0L (MINI L)	18	5LEI18NPT-TM	088-00173		TM.SC...5L CTM. SC...5L

NPT DEEP HOLE INDEXABLE THREAD MILL INSERTS U STYLE

Partial Profile Inserts for Deep Hole Thread Milling





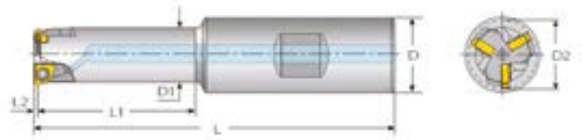
For large pitches

* Correct the toolholder cutting diameter D2 according to adjustment, as indicated in the below table.

Insert Size		Pitch	Designation	ORDER CODE		Toolholder	Toolholder Cutting Diameter D2 (mm)
IC	L mm	TPI					* Adjusted D2
1/4"U	11	14	2UEI14NPT-TM	088-00157		TM1SC16W15-40-2U; CTM1SC08C15-40-2U; CTM1SC11C15-60-2U	14.59
							20.49
		11.5	2UEI11.5NPT-TM	088-00155		TM2SC25W23-70-2U; TM2SC18C23-86-2U	22.63
							25.63
							30.63
3/8"U	16	11.5	3UEI11.5NPT-TM	088-00169		TM3SC32W36-95-3U; TM3SC32W36-145-3U; TM3SC25C36-125-3U; TM3SC28C36-144-3U	35.65
						TM4SC40W42-120-3U; TM4SCD42-16-3U	41.15
						TM5SCD48-22-3U	47.15
		8	3UEI8NPT-TM	088-00167		TM3SC32W36-95-3U; TM3SC32W36-145-3U; TM3SC25C36-125-3U; TM3SC28C36-144-3U	35.65
						TM4SC40W42-120-3U; TM4SCD42-16-3U	41.15
						TM5SC-D48-22-3U	47.15
						TM6SC-D56-22-3U	55.15
1/2"U	22	8	4UEI8NPT-TM	088-00171		TM6SC-D88-27-4U	88.06
						TM7SC-D98-32-4U	98.06

STEEL SHANK DEEP HOLE INDEXABLE THREAD MILL HOLDER L STYLE

L-Style Toolholder for Deep Hole Thread Milling

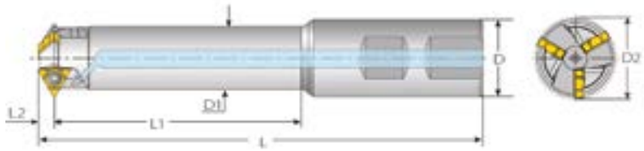


Coolant-Thru is recommended, especially when D2>0.7 x nominal thread diameter

Insert Size	L	L1	L2	D	D1	D2	No. Flutes	Designation	ORDER CODE		Spare	
IC											Insert Screw	Torx Key
5.0L (Mini L)	81	29		16	9.8	13.0	1	TM1SC16W13-29-5L	073-00037			
	85	33	1.1	16	10.3	13.5	2	TM2SC16W14-33-5L	073-00030		SN5LTR	K7T
	96	42		20	14.3	17.7	3	TM3SC20W18-42-5L	073-00040			

STEEL SHANK DEEP HOLE INDEXABLE THREAD MILL HOLDER U STYLE

U-Style Toolholder for Deep Hole Thread Milling



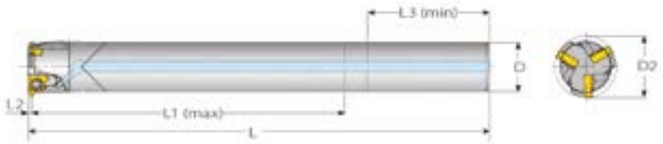
Coolant-Thru is recommended, especially when D2>0.7 x nominal thread diameter

Insert Size	L	L1	L2	D	D1	D2	No. Flutes	Designation	ORDER CODE		Spare	
IC											Insert Screw	Torx Key
Flat Shank											SN3T	
1/4"U	95	40	5.4	16	11	14.75*	1	TM1SC16W15-40-2U	073-00020		SN2T	HK2T
	123	60		25	16	20.65*	2	TM2SC25W21-60-2U	073-00021			
	135	70		25	17.7	23	2	TM2SC25W23-70-2U	073-00014			
	147	80		25	20.4	26	3	TM3SC25W26-80-2U	073-00006			
	164	95		32	25.7	31	4	TM4SC32W31-95-2U	073-00013			
3/8"U	166	95	8.0	32	29	36.5	3	TM3SC32W36-95-3U	073-00007		SA3T	HK3T
	225	145		32	28	36.5	3	TM3SC32W36-145-3U	073-00048			
	201	120		40	34.2	42	4	TM4SC40W42-120-3U	073-00011			
1/4"U	166	86	5.4	18	-	23.3	2	TM2SC18C23-86-2U	073-00002		SN2T	HK2T
	186	105		20	-	26	3	TM3SC20C26-105-2U	073-00005			
	196	115		25	-	31	4	TM4SC25C31-115-2U	073-00015			
3/8"U	193	125	8.0	25	-	36.5	3	TM3SC25C36-125-3U	073-00053		SA3T	HK3T
	222	144		28	-	36.5	3	TM3SC28C36-144-3U	073-00010			

CARBIDE SHANK DEEP HOLE INDEXABLE THREAD MILL HOLDER L STYLE

L-Style Toolholder for Deep Hole Thread Milling

VARDEX



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

Insert Size IC	L	L1 (max)	L2	L3 (min)	D	D2	No. Flutes	Designation	ORDER CODE		Spare: Insert Screw	Spare: Torx Key
5.0L (Mini L)	109	43	1.1	20	9.5	13	1	CTM1SC09C13-43-5L	073-00035		SN5LTR	K7T
	116	50		22	10	13.5	2	CTM2SC10C14-50-5L	073-00034			
	132	65		30	14	17.7	3	CTM3SC14C18-65-5L	073-00033			

CARBIDE SHANK DEEP HOLE INDEXABLE THREAD MILL HOLDER U STYLE

U-Style Toolholder for Deep Hole Thread Milling

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

Insert Size IC	L	L1 (max)	L2	L3 (min)	D	D2	No. Flutes	Designation	ORDER CODE		Spare: Insert Screw	Spare: Torx Key
1/4"U	109	40	5.4	18	8	14.75*	1	CTM1SC08C15-40-2U	**073-00016**		SN2T	HK2T
	120	60		25	10.7	14.75*	1	CTM1SC11C15-60-2U	**073-00017**			
	132	65	3.4	30	14	17.9**	2	CTM2SC14C17-65-2U**	**073-00029**			
	136	65	5.4	30	14	20.65*	2	CTM2SC14C21-65-2U	**073-00018**			
	135	80		34	16	20.65*	2	CTM2SC16C21-80-2U	**073-00019**			
	165	110		40	20	26.0*	3	CTM3SC20C26-110-2U	**073-00052**			
	186	135		46	25	31.0*	4	CTM4SC25C31-135-2U	**073-00054**			

* For TR inserts use the CNC program (D2+0.25mm).
** To be used only with inserts 2UIDD60TM... or 2UIDM60TM... For insert 2UIDD60 TM... use the CNC program (D2+0.7mm).

Vargus GENius Software Using the VARDEX Thread Milling system is easy. Vargus has developed a multi-lingual software for CNC programming.

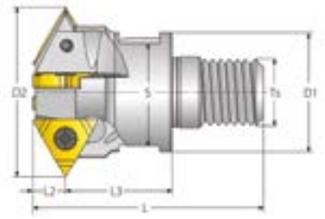
All the operator has to do is enter the basic thread parameters and then follow the computer instructions, which lead the operator to the correct choice of tool for the job on hand. The software will then generate the helical interpolation for the CNC program.

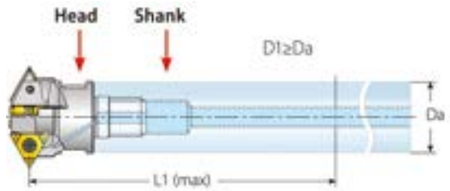
It couldn't be simpler!

SCREWED SHANK DEEP HOLE INDEXABLE THREAD MILL HOLDER U STYLE

Modular U-Style Toolholder for Deep Hole Thread Milling

VARDEX





Insert Size IC	D1	D2	L	L1 (max for Steel Shank)	L1 (max for Carbide Shank)	L2	L3	Ts	S	Z	Designation	ORDER CODE		Spare: Insert Screw	Spare: Torx Key
1/4"U	10.6	14.75	33	48	57.5	5.4	15	M06	9	1	TM1SC-D15-M06-2U	172-00009		SN2T	HK2T
	13	16.75	37	60	72		17	M08	11	1	TM1SC-D17-M08-2U	172-00010			
	14.1	20.65	34	72	86		14	M08	12	2	TM2SC-D21-M08-2U	172-00011			
	18	22.65	38	86	103		14	M10	16	2	TM2SC-D23-M10-2U	172-00012			
	21	26.6	48	105	125		20	M12	18	3	TM3SC-D26-M12-2U	172-00013			
	25	31	51	115	138		23	M12	22	4	TM4SC-D31-M12-2U	172-00014			
3/8"U	29	36.5	55	125	150	8	25	M16	25	4	TM3SC-D36-M16-3U	172-00015		SA3T	HK3T
	29	42	55	144	172		26	M16	25	3	TM4SC-D42-M16-3U	172-00016			

STEEL SHANK DEEP HOLE MODULAR TOOL HOLDER HEADS

Modular U-Style Toolholder for Deep Hole Thread Milling

Da	Ls	Ts	Designation	ORDER CODE	
10.6	75	M06	STMC-C10.6L075M06	172-00023	
13	85	M08	STMC-C13.0L085M08	172-00017	
14.1	105	M08	STMC-C14.1L105M08	172-00018	
18	120	M10	STMC-C18.0L120M10	172-00019	
21	135	M12	STMC-C21.0L135M12	172-00020	
25	140	M12	STMC-C25.0L140M12	172-00021	
29	180	M16	STMC-C29.0L180M16	172-00022	

VARDEX STANDARD TM INDEXABLE THREAD MILLS

THREAD MILLING

CUTTING DATA

Workpiece				Vc [m/min]			Feed fz [mm/tooth]
Material	Group	Detail	Hardness Brinell HB	VBX	VTX	VK2	
P STEEL	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	100-120	90-180		0.05-0.3
		Medium Carbon (C=0.25-0.55%)	150	100-180	90-170		0.05-0.25
		High Carbon (C=0.55-0.85%)	170	100-170	90-160		0.05-0.2
	Low Alloy Steel (Alloying Elements 5%)	Non Hardened	180	90-160	90-155		0.05-0.25
		Hardened	275	80-180	80-160		0.05-0.2
		Hardened	350	70-140	70-150		0.05-0.15
	High Alloy Steel (Alloying Elements>5%)	Annealed	200	60-130	70-115		0.05-0.2
		Hardened	325	70-110	60-100		0.05-0.1
	Cast Steel	Low Alloy (Alloying Elements <5%)	200	100-170	100-170	100-150	0.05-0.15
		High Alloy (Alloying Elements >5%)	225	70-120	70-130	60-130	0.05-0.1
M STAINLESS STEEL	Stainless Steel Ferritic	Non Hardened	200	100-170	120-180		0.05-0.15
		Hardened	330	100-170	120-180		0.05-0.1
	Stainless Steel Austenitic	Austenitic	180	70-140	100-140		0.05-0.15
		Super Austenitic	200	70-140	100-140		0.05-0.1
	Stainless Steel Cast Ferritic	Non Hardened	200	70-140	100-140		0.05-0.15
		Hardened	330	70-140	100-140		0.05-0.1
	Stainless Steel Cast Austenitic	Austenitic	200	70-120	100-120		0.05-0.15
		Hardened	330	70-120	100-120		0.05-0.1
K CAST IRON	Malleable	Ferritic (Short Chips)	130	60-130	100-120		0.02-0.8
	Cast Iron	Pearlitic (Long Chips)	230	60-120	80-100		0.02-0.05
	Grey Cast Iron	Low Tensile Strength	180	60-130	80-100		0.05-0.15
		High Tensile Strength	260	60-100	80-100		0.05-0.1
	Nodular Sg Iron	Ferritic	160	60-125	80-100		0.05-0.15
		Pearlitic	260	50-90	60-90		0.05-0.1
N NON-FERROUS METALS	Aluminium Alloys Wrought	Non Aging	60	100-250		200-300	0.1-0.4
		Aged	100	100-180		60-110	0.1-0.3
	Aluminium Alloys	Cast	75	150-400		60-120	0.1-0.3
		Cast & Aged	90	150-280		60-100	0.05-0.25
	Aluminium Alloys	Cast Si 13-22%	130	80-150		20-50	0.1-0.3
	Copper & Copper Alloys	Brass	90	120-210	100-200	50-70	0.1-0.3
		Bronze & Non Leaded Copper	100	120-210	100-200	50-70	0.05-0.25
S HEAT RESISTANT MATERIAL	High Temperature Alloys	Annealed (Iron Based)	200	20-45	20-40	20-30	0.05-0.1
		Aged (Iron Based)	280	20-30	20-30	15-25	0.02-0.05
		Annealed (Nickel Or Cobalt Based)	250	20-50	15-20	15-20	0.02-0.05
		Aged (Nickel Or Cobalt Based)	350	10-15	10-15	10-15	0.02-0.05
	Titanium Alloys	Pure 99.5 Ti	400Rm	70-140	70-120	40-60	0.02--0.05
		A+B Alloys	1050Rm	20-50	20-50	20-40	0.02-0.05
H HARDENED	Extra Hard Steel	Hardened & Tempered	45-50HRc	20-45	20-45		0.01-0.03
			51-55HRc	20-45	20-45		0.01-0.02

THREAD & GROOVE MILLING
INDEXABLE THREAD MILLS

VARDEX TMSD INDEXABLE THREAD MILLS

THREAD MILLING

CUTTING DATA

Workpiece				Vc [m/min]		Feed* f [mm/tooth] by Cutting Dia. (d2)		
Material	Group	Detail	Hardness Brinell HB	VBX	VBX	13-23	24-42	Shell Mill
P STEEL	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	100-210	90-180	0.20-0.32	0.30-0.50	0.30-0.75
		Medium Carbon (C=0.25-0.55%)	150	100-180	90-170	0.20-0.32	0.30-0.50	0.30-0.75
		High Carbon (C=0.55-0.85%)	170	100-170	90-160	0.15-0.23	0.25-0.35	0.25-0.52
	Low Alloy Steel (Alloying Elements 5%)	Non Hardened	180	60-90	90-155	0.17-0.28	0.28-0.45	0.28-0.67
		Hardened	275	80-150	80-160	0.15-0.28	0.25-0.45	0.25-0.67
		Hardened	350	70-140	70-150	0.15-0.25	0.25-0.40	0.25-0.60
	High Alloy Steel (Alloying Elements>5%)	Annealed	200	60-130	70-115	0.15-0.22	0.20-0.30	0.20-0.45
		Hardened	325	70-110	60-100	0.13-0.21	0.18-0.30	0.18-0.45
	Cast Steel	Low Alloy (Alloying Elements <5%)	200	100-170	100-170	0.15-0.22	0.20-0.30	0.20-0.45
		High Alloy (Alloying Elements >5%)	225	70-120	70-130	0.12-0.22	0.17-0.30	0.17-0.45
M STAINLESS STEEL	Stainless Steel Ferritic	Non Hardened	200	100-170	120-180	0.15-0.22	0.22-0.34	0.22-0.50
		Hardened	330	100-170	120-180	0.16-0.23	0.21-0.32	0.21-0.48
	Stainless Steel Austenitic	Austenitic	180	70-140	100-140	0.15-0.25	0.25-0.40	0.25-0.60
		Super Austenitic	200	70-140	100-140	0.12-0.20	0.17-0.26	0.17-0.39
	Stainless Steel Cast Ferritic	Non Hardened	200	70-140	100-140	0.16-0.24	0.25-0.37	0.25-0.55
		Hardened	330	70-140	100-140	0.12-0.20	0.17-0.26	0.17-0.39
	Stainless Steel Cast Austenitic	Austenitic	200	70-120	100-120	0.15-0.22	0.20-0.30	0.20-0.45
		Hardened	330	70-120	100-120	0.12-0.20	0.17-0.26	0.17-0.39
K CAST IRON	Malleable	Ferritic (Short Chips)	130	60-130	100-120	0.16-0.24	0.25-0.37	0.25-0.55
	Cast Iron	Pearlitic (Long Chips)	230	60-120	80-100	0.15-0.22	0.20-0.30	0.20-0.45
	Grey Cast Iron	Low Tensile Strength	180	60-130	80-100	0.15-0.22	0.22-0.34	0.22-0.50
		High Tensile Strength	260	60-100	80-100	0.15-0.22	0.20-0.30	0.20-0.45
	Nodular Sg Iron	Ferritic	160	60-125	80-100	0.10-0.20	0.15-0.25	0.15-0.37
		Pearlitic	260	50-90	60-90	0.15-0.22	0.20-0.30	0.20-0.45
N NON-FERROUS METALS	Aluminium Alloys Wrought	Non Aging	60	100-250	-	0.30-0.50	0.60-1.00	0.60-1.50
		Aged	100	100-180	-	0.28-0.50	0.50-0.90	0.50-1.20
	Aluminium Alloys	Cast	75	150-400	-	0.28-0.50	0.50-0.90	0.50-1.20
		Cast & Aged	90	150-280	-	0.25-0.40	0.40-0.60	0.40-0.90
	Aluminium Alloys	Cast Si 13-22%	130	80-150	-	0.28-0.50	0.50-0.90	0.50-1.20
	Copper & Copper Alloys	Brass	90	120-210	100-200	0.30-0.50	0.60-1.00	0.60-1.50
		Bronze & Non Leaded Copper	100	120-210	100-200	0.28-0.50	0.50-0.90	0.50-1.20
S HEAT RESISTANT MATERIAL	High Temperature Alloys	Annealed (Iron Based)	200	20-45	20-40	0.09-0.15	0.12-0.22	0.12-0.33
		Aged (Iron Based)	280	20-30	20-30	0.07-0.13	0.10-0.20	0.10-0.30
		Annealed (Nickel Or Cobalt Based)	250	15-20	15-20	0.08-0.15	0.08-0.20	0.08-0.30
		Aged (Nickel Or Cobalt Based)	350	10-15	10-15	0.08-0.15	0.08-0.20	0.08-0.30
	Titanium Alloys	Pure 99.5 Ti	400Rm	70-140	70-120	0.07-0.13	0.10-0.20	0.10-0.30
		A+B Alloys	1050Rm	20-50	20-50	0.07-0.13	0.10-0.20	0.10-0.30
H HARDENED	Extra Hard Steel	Hardened & Tempered	45-50HRc	15-45	15-45	0.05-0.12	0.05-0.18	0.05-0.27
		Hardened & Tempered	51-55HRc	15-40	15-40	0.05-0.12	0.05-0.18	0.05-0.27

* When using a Shell Mill toolholder, the feed can be increased by 50%.
* For 3/8"L it is recommended to machine in two passes and decrease the feed by 40%.

MULTIFUNCTIONAL
THREAD & GROOVE MILLING

P H M S K N

simmillPMX|PX|SX|UX|VX

SIMTEK milling tools type PMX|PX|SX|UX|VX

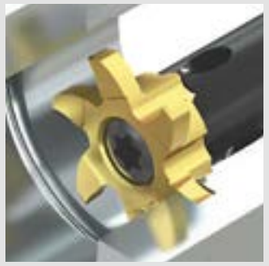
The system uses high quality micrograin carbide inserts, precision ground to the highest tolerances. The special seat design provides the highest torque transfer, low vibration and ensures the highest precision and tool life. **simmill® PX-SX-UX & VX** are suitable for bores from 10mm diameter.

TOOL SELECTION

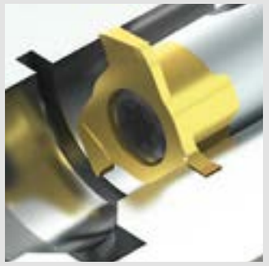
Description		Series	Page
CARBIDE SHANK HOLDER SHANK WITH FLAT OR PLAIN SHANK		PX SX UX VX	**1052**
STEEL SHANK HOLDER SHANK WITH FLAT OR PLAIN SHANK		PX SX UX VX	**1054**
ER COLLET CHUCK HOLDER FOR DIRECT CLAMPING INTO ER COLLET CHUCKS		PX SX UX VX	**1055**
3 TOOTH INSERTS METRIC ISO FULL PROFILE THREAD FOR INTERNAL THREADS		PX SX UX VX	**1056**
3 TOOTH INSERTS METRIC ISO PARTIAL PROFILE THREAD FOR INTERNAL THREADS		PX SX UX VX	**1057**
3 TOOTH INSERTS WHITWORTH FULL PROFILE THREAD FOR INTERNAL THREADS		PX SX UX VX	**1058**
3 TOOTH INSERTS UN FULL PROFILE THREAD FOR UNC, UNF & UNEF INTERNAL THREADS		UX	**1058**
3 TOOTH INSERTS GENERAL GROOVE MILLING		PX SX UX	**1059**
3 & 6 TOOTH INSERTS GENERAL GROOVE MILLING		VX	**1060**
6 TOOTH INSERTS GENERAL GROOVE MILLING SMOOTH CUTTING		PX SX UX VX	**1061**
3 TOOTH INSERTS CIRCLIP GROOVE MILLING INTERNAL		PX SX UX VX	**1062**
3 TOOTH INSERTS FULL RADIUS GROOVE MILLING		PX SX UX VX	**1063**
3 TOOTH INSERTS CHAMFER MILLING		PX SX UX VX	**1063**

APPLICATIONS

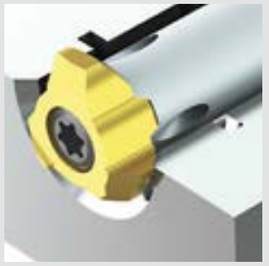
THREAD MILLING P1056



GROOVE MILLING P1059



CIRCLIP GROOVE MILLING P1062

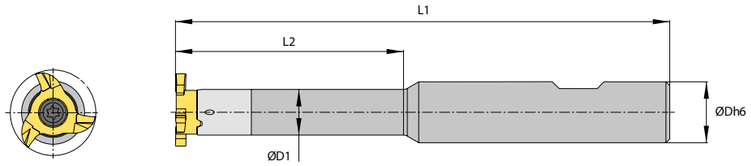


CHAMFER MILLING P1063

CARBIDE SHANK TOOL HOLDER WITH FLAT SHANK

Simmill® PX, SX, UX & VX

- Anti-Vibration carbide weldon shank
- Through coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**



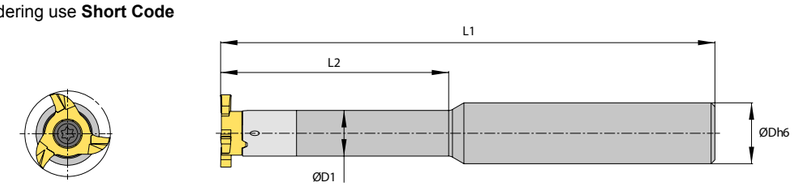
ØD h6	ØD1	L1	L2	ORDER CODE			INSERTS P956-965		SPARES	
				Description	Short Code		Connect Code	Series	Screw	Torx Key
12	6	80	21	P10.1206.21 B HM	AKJM		PD06.0	PX	PM2.6 x 8	T8F
12	6	90	30	P10.1206.30 B HM	AC5B					
12	6	100	42	P10.1206.42 B HM	AHUG					
12	7.3	90	30	P10.1207.30 B HM	AHJ7		PD07.3			
16	7.3	100	25	P10.1607.25 B HM	AP0F					
12	8	95	29	S14.1208.29 B HM	AG22		SD08.0	SX	SM3.5x10	T10F
12	8	110	42	S14.1208.42 B HM	ACPK					
12	8	120	56	S14.1208.56 B HM	AC9E					
12	9.5	110	42	S14.1209.42 B HM	AAKT		SD09.5			
16	9.5	110	33	S14.1609.33 B HM	AH8J					
12	9	100	32	U18.1209.32 B HM	AHQG		UD09.0	UX	UM4 x 12	T15F
12	9	100	45	U18.1209.45 B HM	AGXG					
12	9	120	64	U18.1209.64 B HM	AC32					
16	9	93	25	U18.1609.25 B HM	AJ83					
16	9	100	32	U18.1609.32 B HM	AH75					
16	9	110	45	U18.1609.45 B HM	AA3N					
16	9	130	64	U18.1609.64 B HM	ACGX					
16	12	110	45	U18.1612.45 B HM	ADG9		UD12.0			
16	13	110	64	U18.1613.64 B HM	AMT0		UD13.0			
16	13	130	66	U18.1613.66 B HM	AJK6					
12	12	100	42	V22.1212.42 B HM	APJA		VD12.0	VX	VM5 x 12	T20T
12	12	130	60	V22.1212.60 B HM	AJ81					
16	12	100	42	V22.1612.42 B HM	AHES					
16	12	130	60	V22.1612.60 B HM	AD03					
16	12	160	85	V22.1612.85 B HM	APYY					
16	14.3	100	42	V28.1614.42 B HM	ANNZ		VD14.3			
16	14.3	130	60	V28.1614.60 B HM	AJ23					
16	14.3	160	85	V28.1614.85 B HM	AGBC					
16	9	100	33	V33.1609.33 B HM	APSS		VD09.0			
20	16	110	45	V22.2016.45 B HM	AG2G		VD16.0			
20	16	130	65	V22.2016.65 B HM	AHNF					
20	13.5	104	35	V28.2013.35 B HM	ACWW		VD13.5			
20	14.3	160	85	V28.2014.85 B HM	AF3D		VD14.3			

THREAD & GROOVE MILLING
MULTIFUNCTIONAL THREAD & GROOVE MILLING

CARBIDE SHANK TOOL HOLDER PLAIN SHANK

Simmill® PX, SX, UX & VX

- Anti-Vibration carbide plain shank
- Through coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**

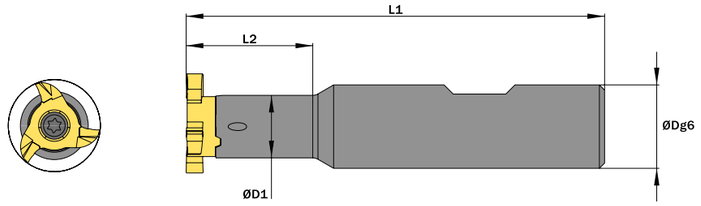


ØD h6	ØD1	L1	L2	ORDER CODE			INSERTS P956-965		SPARES	
				Description	Short Code		Connect Code	Series	Screw	Torx Key
12	6	80	21	P10.1206.21 A HM	AE35		PD06.0	PX	PM2.6 x 8	T8F
12	6	90	30	P10.1206.30 A HM	AG5A					
12	6	100	42	P10.1206.42 A HM	AMEK					
12	7.3	90	30	P10.1207.30 A HM	AHBF		PD07.3			
16	7.3	100	25	P10.1607.25 A HM	ADVZ					
12	8	95	29	S14.1208.29 A HM	AM5T		SD08.0	SX	SM3.5x10	T10F
12	8	110	42	S14.1208.42 A HM	AAD5					
12	8	120	56	S14.1208.56 A HM	ADVQ					
12	9.5	110	42	S14.1209.42 A HM	AG09		SD09.5			
16	9.5	110	33	S14.1609.33 A HM	AJTB					
12	9	100	32	U18.1209.32 A HM	ACQC		UD09.0	UX	UM4 x 12	T15F
12	9	100	45	U18.1209.45 A HM	AGK5					
12	9	120	64	U18.1209.64 A HM	AGEV					
16	9	93	25	U18.1609.25 A HM	AAD3					
16	9	100	32	U18.1609.32 A HM	AAKX					
16	9	110	45	U18.1609.45 A HM	AMCV					
16	9	130	64	U18.1609.64 A HM	ANX9					
16	13	110	64	U18.1613.64 A HM	AFVT		UD13.0			
16	13	130	66	U18.1613.66 A HM	AD9W					
12	12	100	42	V22.1212.42 A HM	ABVM		VD12.0	VX	VM5 x 12	T20T
12	12	130	60	V22.1212.60 A HM	AP4C					
16	12	100	42	V22.1612.42 A HM	AAJW					
16	12	130	60	V22.1612.60 A HM	AEYP					
16	12	160	85	V22.1612.85 A HM	AJS8					
16	14.3	100	42	V28.1614.42 A HM	AGNA		VD14.3			
16	14.3	130	60	V28.1614.60 A HM	AFWJ					
16	14.3	160	85	V28.1614.85 A HM	ANDA					
16	9	100	33	V33.1609.33 A HM	AAWZ		VD09.0			
20	16	110	45	V22.2016.45 A HM	AF6W		VD16.0			
20	16	130	65	V22.2016.65 A HM	ACHN					
20	13.5	104	35	V28.2013.35 A HM	AE3N		VD13.5			
20	14.3	160	85	V28.2014.85 A HM	AFNT		VD14.3			

STEEL SHANK TOOL HOLDER WITH FLAT SHANK

Simmill® PX, SX, UX & VX

- Steel weldon shank for general use
- Through Coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**

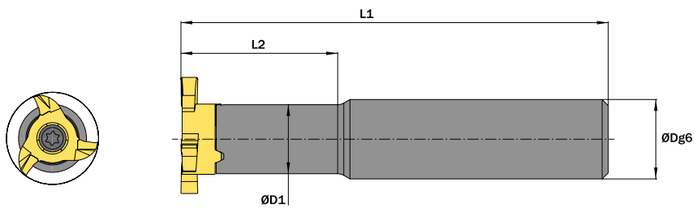


ØD g6	ØD1	L1	L2	ORDER CODE			INSERTS		SPARES	
				Description	Short Code		Connect Code	Series	Screw	Torx Key
10	6	60	15	P10.1006.15 B ST	AGS0		PD06.0	PX	PM2.6 x 8	T8F
12	6	74	15	P10.1206.15 B ST	AK28					
16	6	80	12	P10.1606.12 B ST	AAB7					
16	8	80	16	S14.1608.16 B ST	AH01		SD08.0	SX	SM3.5x10	T10F
12	9	80	18	U18.1209.18 B ST	AV6E		UD09.0	UX	UM4 x 12	T15F
16	9	80	18	U18.1609.18 B ST	ABP7					
16	12	80	24	V22.1612.24 B ST	AFWU		VD12.0	VX	VM5 x 12	T20T
16	9	80	20	V33.1609.20 B ST	AB46		VD09.0			
20	14	100	35.7	V28.2014.35 B ST	AE05		VD14.0			

STEEL SHANK TOOL HOLDER PLAIN SHANK

Simmil® PX, SX, UX & VX

- Steel plain shank for general use
- Through Coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**



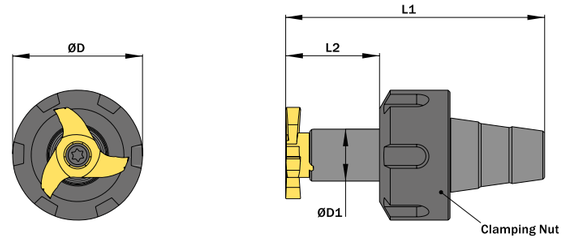
ØD g6	ØD1	L1	L2	ORDER CODE			INSERTS		SPARES	
				Description	Short Code		Connect Code	Series	Screw	Torx Key
10	6	74	15	P10.1006.15 A ST	AG7K		PD06.0	PX	PM2.6 x 8	T8F
16	6	80	12	P10.1606.12 A ST	AE8E					
16	8	80	16	S14.1608.16 A ST	AABY		SD08.0	SX	SM3.5x10	T10F
12	9	80	18	U18.1209.18 A ST	AV6D		UD09.0	UX	UM4 x 12	T15F
16	9	80	18	U18.1609.18 A ST	AGU5					
16	12	80	24	V22.1612.24 A ST	AHC0		VD12.0	VX	VM5 x 12	T20T
20	14	100	35	V28.2014.35 A ST	AEWT		VD14.0			

THREAD & GROOVE MILLING
MULTIFUNCTIONAL THREAD & GROOVE MILLING

ER COLLET CHUCK TOOL HOLDER

Simmill® PX, SX, UX & VX

- For direct clamping into ER collet chucks
- Supplied with ER clamping nut
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**



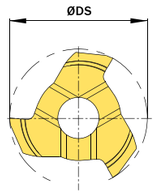
Collet Chuck Size	ØD	Nut Thread	L1	ØD1	L2	ORDER CODE			INSERTS		SPARES	
						Description	Short Code		Connect Code	Series	Screw	Torx Key
ER11	19	M14x0.75	36.3	6.0	16.0	P10.ER11.06.16	AJFH		PD06.0	PX	PM2.6 x 8	T8F
ER11	16	M13x0.75	36.3	6.0	16.0	P10.ER11.06.16.B	AVMP					
ER11	36.3	M14x0.75	19.0	8.0	16.0	S14.ER11.08.16	AJE5		SD08.0	SX	SM3.5x10	T10F
ER11	36.3	M13x0.75	16.0	8.0	16.0	S14.ER11.08.16.B	AVMQ					
ER16	52.0	M22x1.5	32.0	8.0	22.0	S14.ER16.08.22	ACTZ					
ER16	52.0	M19x1.0	25.0	8.0	22.0	S14.ER16.08.22.B	AVMT					
ER16	52.0	M19x1.0	22.0	8.0	22.0	S14.ER16.08.22.C	AVMU					
ER20	56.5	M25x1.5	35.0	8.0	22.0	S14.ER20.08.22	AFFE					
ER20	56.5	M24x1.0	28.0	8.0	22.0	S14.ER20.08.22.B	AVMZ					
ER11	42.0	M14x0.75	19.0	9.0	22.0	U18.ER11.09.22	AAV2		UD09.0	UX	UM4 x 12	T15F
ER11	42.0	M13x0.75	16.0	9.0	22.0	U18.ER11.09.22.B	AVMS					
ER16	52.0	M22x1.5	32.0	9.0	22.0	U18.ER16.09.22	APHJ					
ER16	52.0	M19x1.0	25.0	9.0	22.0	U18.ER16.09.22.B	AVMV					
ER16	52.0	M19x1.0	22.0	9.0	22.0	U18.ER16.09.22.C	AVMW					
ER20	56.5	M25x1.5	35.0	9.0	22.0	U18.ER20.09.22	AC9J					
ER20	56.5	M24x1.0	28.0	9.0	22.0	U18.ER20.09.22.B	AVM0					
ER25	60.0	M25x1.5	35.0	9.0	22.0	U18.ER25.09.22	AA1F					
ER25	60.0	M30x1.0	42.0	9.0	22.0	U18.ER25.09.22.B	AVM3					
ER16	60.0	M22x1.5	32.0	12.0	30.0	V22.ER16.12.30	AD5W		VD12.0	VX	VM5 x 12	T20T
ER16	60.0	M19x1.0	25.0	12.0	30.0	V22.ER16.12.30.B	AVMX					
ER16	60.0	M19x1.0	22.0	12.0	30.0	V22.ER16.12.30.C	AVMY					
ER20	64.5	M25x1.5	35.0	12.0	30.0	V22.ER20.12.30	APJ7					
ER20	64.5	M24x1.0	28.0	12.0	30.0	V22.ER20.12.30.B	AVM1					
ER20	69.5	M25x1.5	35.0	14.0	35.0	V28.ER20.14.35	ABJC		VD14.0			
ER20	69.5	M24x1.0	28.0	14.0	35.0	V28.ER20.14.35.B	AVM2					
ER25	68.0	M32x1.5	35.0	12.0	30.0	V22.ER25.12.30	AESQ		VD12.0			
ER25	68.0	M30x1.0	42.0	12.0	30.0	V22.ER25.12.30.B	AVM4					
ER25	63.0	M32x1.5	35.0	14.0	19.0	V22.ER25.14.19	AMP6		VD14.0			
ER25	63.0	M30x1.0	42.0	14.0	19.0	V22.ER25.14.19.B	AVM5					
ER25	73.0	M32x1.5	35.0	14.0	35.0	V28.ER25.14.35	APAS					
ER25	73.0	M30x1.0	42.0	14.0	35.0	V28.ER25.14.35.B	AVM6					
ER32	74.0	M40x1.5	50.0	12.0	30.0	V22.ER32.12.30	AFVA		VD12.0			
ER32	63.0	M40x1.5	50.0	14.0	19.0	V22.ER32.14.19	AKXJ		VD14.0			
ER32	79.0	M40x1.5	50.0	14.0	35.0	V28.ER32.14.35	AC0B					

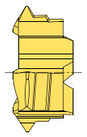
3 TOOTH INSERTS METRIC ISO FULL PROFILE THREAD

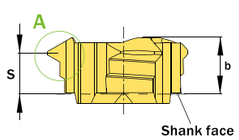
Simmill® PX, SX, UX & VX

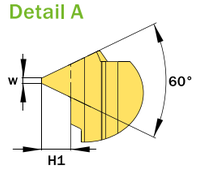
SIMTEK simmill

- For thread milling ≥Ø10mm bores
- 0.75mm-4.5mm pitch
- For easy ordering use **Short Code**









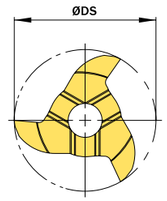
Pitch Min	ØDS	H1	b	S	w	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
0.75	9.7	0.41	3.6	3.1	0.09	P10.0407.02 M X800	AXX4X800			PD06.0 PD07.3	PX
1	9.7	0.54	3.6	3	0.13	P10.0510.02 M X800	AXX5X800				
1.5	9.7	0.81	3.6	2.8	0.19	P10.0815.02 M X800	AXX6X800				
1.75	9.7	0.95	3.6	2.7	0.21	P10.0917.02 M X800	AXX7X800				
2	9.7	1.08	3.6	2.6	0.25	P10.1020.02 M X800	AXX8X800				
2.5	9.7	1.35	3.6	2.4	0.31	P10.1325.02 M X800	AXX9X800			PD06.0	
1	13.7	0.54	4.5	3.6	0.13	S14.0510.02 M X800	AXXYX800			SD08.0 SD09.5	SX
1.5	13.7	0.81	4.5	3.5	0.19	S14.0815.02 M X800	AXXZX800				
1.75	13.7	0.95	4.5	3.4	0.21	S14.0917.02 M X800	AXX0X800				
2	13.7	1.08	4.5	3.3	0.25	S14.1020.02 M X800	AXX1X800				
2.5	13.7	1.35	4.5	3.1	0.31	S14.1325.02 M X800	AXX2X800				
3	13.7	1.62	4.5	2.9	0.37	S14.1630.02 M X800	AXX3X800				
1.5	17.7	0.81	5.85	4.8	0.18	U18.0815.02 M X800	AHK3X800			UD09.0 UD12.0 UD13.0	UX
1.75	17.7	0.95	5.85	4.7	0.21	U18.0917.02 M X800	AK07X800				
2	17.7	1.08	5.85	4.6	0.25	U18.1020.02 M X800	AE0EX800				
2.5	17.7	1.35	5.85	4.4	0.31	U18.1325.02 M X800	AJY6X800				
3	17.7	1.62	5.85	4.3	0.37	U18.1630.02 M X800	AJYFX800				
3.5	17.7	1.9	5.85	4	0.43	U18.1835.02 M X800	AN9WX800				
1.5	21.7	0.81	5.85	4.8	0.19	V22.0815.02 M X800	AA28X800			VD11.3 VD11.5 VD12.0 VD12.7 VD13.5 VD14.0 VD14.3 VD15.0 VD16.0	VX
1.75	21.7	0.95	5.85	4.7	0.22	V22.0917.02 M X800	AD26X800				
2.0	21.7	1.08	5.85	4.6	0.25	V22.1020.02 M X800	APM9X800				
3.0	21.7	1.62	5.85	4.3	0.37	V22.1630.02 M X800	ADAAX800				
3.5	21.7	1.89	5.85	4.1	0.43	V22.1835.02 M X800	AHUYX800				
4.0	21.7	2.16	5.85	3.9	0.5	V22.2140.02 M X800	AD70X800				
4.5	21.7	2.43	5.85	3.7	0.56	V22.2445.02 M X800	AEFAX800				

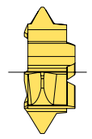
3 TOOTH INSERTS METRIC ISO PARTIAL PROFILE THREAD

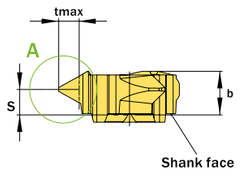
Simmill® PX, SX, UX & VX

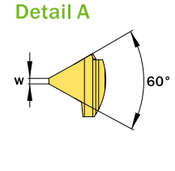
SIMTEK simmill

- For thread milling ≥Ø12mm bores
- 1mm-4.5mm pitch
- For easy ordering use **Short Code**









Pitch Min	Pitch Max	ØDS	b	S	w	tmax	ORDER CODE				HOLDERS	
							Description	Short Code			Connect Code	Series
1	1.75	11.7	3.6	2.8	0.13	1.08	P12.0510.01 M X800	ANQCX800			PD06.0 PD07.3	PX
1	2	11.7	3.6	2.8	0.13	1.25	P12.0720.01 M X800	ANJZX800				
1.5	2.75	11.7	3.6	2.4	0.19	1.67	P12.0815.01 M X800	AC51X800				
2	3	11.7	3.6	2.2	0.25	1.78	P12.2530.01 M X800	ADMQX800				
1	1.75	15.7	4.6	3.8	0.12	1.08	S16.0510.01 M X800	AA4JX800			SD08.0 SD09.5	SX
1	2	15.7	4.6	3.5	0.12	1.25	S16.0720.01 M X800	AJE4X800				
1.5	2.75	15.7	4.6	3.5	0.19	1.67	S16.0815.01 M X800	AGS8X800				
2.5	3	15.7	4.6	3.4	0.31	1.78	S16.2530.01 M X800	AEESX800				
1.04	1.75	17.7	5.85	5.0	0.12	1.03	U18.0510.01 M X800	ADHCX800			UD09.0 UD12.0 UD13.0	UX
1	2	17.7	5.85	4.7	0.12	1.19	U18.0720.01 M X800	AA8MX800				
1.5	2.75	17.7	5.85	4.6	0.19	1.62	U18.0815.01 M X800	AM2QX800				
2	3.75	17.7	5.85	4.2	0.25	2.22	U18.1020.01 M X800	AN1SX800				
2	3	17.7	5.85	4.4	0.25	1.73	U18.1325.01 M X800	AAUQX800				
2.5	5	17.7	5.85	3.8	0.31	2.98	U18.1630.01 M X800	AH9GX800			UD09.0	
3	5.5	17.7	5.85	3.6	0.38	3.25	U18.1835.01 M X800	ADW6X800				
2	4	17.7	5.85	4.2	0.25	2.57	U18.2535.01 M X800	APTVX800			UD09.0/UD12.0	
1	2	21.7	5.85	4.6	0.12	1.19	V22.0720.01 M X800	ABS8X800			VD11.3 VD11.5 VD12.0	VX
1.5	2.75	21.7	5.85	4.5	0.18	1.62	V22.0815.01 M X800	AA9KX800				
2	3.75	21.7	5.85	4.2	0.25	2.22	V22.1020.01 M X800	ADZUX800				
2.5	5	21.7	5.85	3.8	0.31	2.98	V22.1630.01 M X800	AF00X800			VD12.0	
3.5	6	21.7	5.85	3.4	0.44	3.52	V22.2140.01 M X800	AF72X800				
3.5	6.5	21.7	5.85	3.2	0.44	3.84	V22.2445.01 M X800	ABAFX800				
2.5	4.5	21.7	5.85	3.7	0.31	2.71	V22.2545.01 M X800	AEAAX800				

SIMTEK X800 GRADIUM INSERTS

- High performance coating developed by Simtek
- Ultra wear resistant carbide substrate
- Special cutting edge finish for each combination of tool and application
- Excellent performance machining steels, stainless steels, heat resistant super alloys, cast iron and aluminium
- Also available in uncoated grades on request

P M S K N

SIMTEK SPECIAL TOOLS

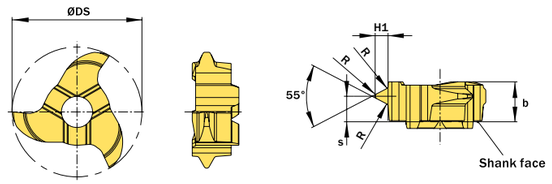
- Special inserts and tools for applications including thread milling, groove milling, thread turning, groove turning, broaching, polygon milling, boring & form grooving
- Contact our technical team for support with your application

simmill simcut simturn

3 TOOTH INSERTS WHITWORTH FULL PROFILE THREAD

Simmill® PX, SX, UX & VX

- Suitable for Whitworth form threads including BSW, BSP(G), BSF
- For easy ordering use **Short Code**

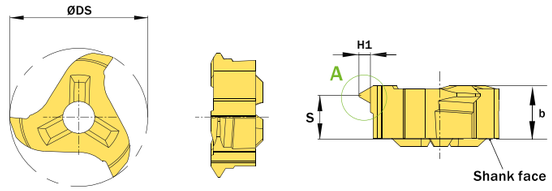


TPI	Nominal Thread Size BSP(G)	H1	S	ØDS	ORDER CODE				HOLDERS	
					Description	Short Code			Connect Code	Series
19	G 1/4"	0.86	2.5	9.7	P10.0813.19 M X800	A1EKX800			PD06.0 PD07.3	PX
19	G 3/8“	0.86	2.5	11.7	P12.0813.19 M X800	AC8HX800				
14	G 1/2“	1.16	2.3	11.7	P12.1118.14 M X800	AGX4X800				
11	G 1“	1.48	2.0	11.7	P12.1423.11 M X800	AC4KX800				
14	G 5/8“	1.17	3.0	15.7	S16.1118.14 M X800	AT8AX800			SD08.0 SD09.5	SX
11	G 1"	1.48	2.8	15.7	S16.1423.11 M X800	AT79X800				
19	-	0.86	4.9	17.7	U18.BS19.02 M X800	AS05X800			UD09.0 UD12.0 UD13.0	UX
14	G 3/4"	1.16	4.6	17.7	U18.BS14.02 M X800	AS06X800				
11	G 1"	1.48	4.4	17.7	U18.BS11.02 M X800	AS07X800				
11	G 1"	1.48	4.0	21.7	V22.5511.02 M X800	ADVPX800			VD11.3 VD11.5 VD12.0 VD12.7 VD13.5 VD14.0 VD14.3 VD15.0 VD16.0	VX
8	-	2.03	3.5	21.7	V22.5508.02 M X800	ANNKX800				
6	BSW 1 1/2”	2.71	3.1	21.7	V22.5506.02 M X800	AMJFX800				

3 TOOTH INSERTS UN FULL PROFILE THREAD

Simmill® UX

- Suitable for UNIFIED form threads including UNC, UNF, UNEF
- For easy ordering use **Short Code**

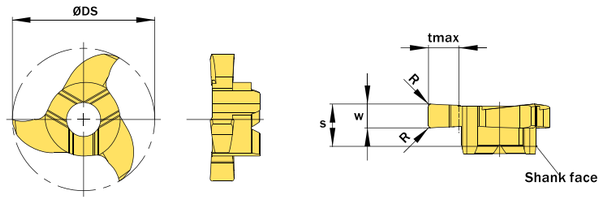


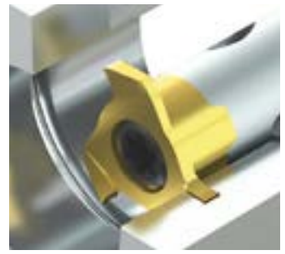
TPI	H1	b	S	ØDS	w	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
24	0.572	5.85	5.2	17.7	0.13	U18.UN24.02 M X800	AS0WX800			UD09.0 UD12.0 UD13.0	UX
20	0.687	5.85	5.2	17.7	0.16	U18.UN20.02 M X800	AS0XX800				
18	0.763	5.85	5.1	17.7	0.18	U18.UN18.02 M X800	AS0YX800				
16	0.859	5.85	5.0	17.7	0.2	U18.UN16.02 M X800	AS0ZX800				
14	0.981	5.85	5	17.7	0.23	U18.UN14.02 M X800	AS00X800				
12	1.146	5.85	4.85	17.7	0.27	U18.UN12.02 M X800	AS01X800				
11	1.25	5.85	4.8	17.7	0.29	U18.UN11.02 M X800	AS02X800				
10	1.375	5.85	4.65	17.7	0.32	U18.UN10.02 M X800	AS03X800				
8	1.718	5.85	4.4	17.7	0.4	U18.UN08.02 M X800	AS04X800				
6	2.29	5.85	4.2	17.7	0.53	U18.UN06.02 M X800	AS7QX800				

3 TOOTH INSERTS GENERAL GROOVE MILLING

Simmill® PX, SX & UX

- Available in insert widths 1.0-4.0mm
- For minimum bores ≥Ø10
- For easy ordering use **Short Code**



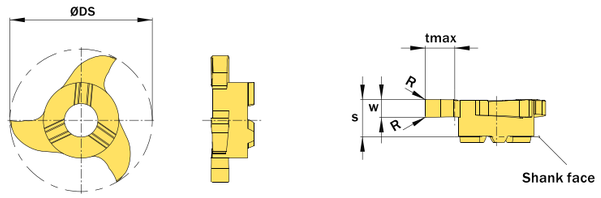


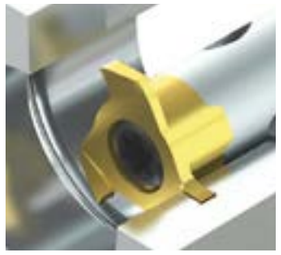
W +0.02	R	ØD Min Bore	tmax	S	ØDS	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
1	0.1	10	1.5	3.5	9.7	P10.0100.01 G X800	AVH5X800			PD06.0	PX
1.5	0.2		1.5	3.5	9.7	P10.0150.02 G X800	APHMX800				
1.57	-		1.5	3.5	9.7	P10.0157.00 G X800	APT8X800				
2	0.2		1.5	3.5	9.7	P10.0200.02 G X800	ABGQX800				
2.5	0.2		1.5	3.5	9.7	P10.0250.02 G X800	AM11X800				
1.5	0.2	12	2.5	3.5	11.7	P12.0150.02 G X800	AM2NX800				
1.57	0.2		2.5	3.5	11.7	P12.0157.02 G X800	APGWX800				
2	0.2		2.5	3.5	11.7	P12.0200.02 G X800	APVDX800				
2.5	0.2		2.5	3.5	11.7	P12.0250.02 G X800	ABHMX800				
1.04	-	14	2.5	4.5	13.7	S14.0100.00 G X800	AVH6X800			SD08.0	SX
1	0.1		2.5	4.5	13.7	S14.0100.01 G X800	ADNZX800				
1.17	-		2.5	4.5	13.7	S14.0117.00 G X800	AB4VX800				
1.42	-		2.5	4.5	13.7	S14.0142.00 G X800	AAD1X800				
1.5	0.2		2.5	4.5	13.7	S14.0150.02 G X800	AGJ3X800				
1.57	0.2		2.5	4.5	13.7	S14.0157.02 G X800	AHP3X800				
2	0.2		2.5	4.5	13.7	S14.0200.02 G X800	AMG7X800				
2.39	0.2		2.5	4.5	13.7	S14.0239.02 G X800	APC6X800				
2.5	0.2		2.5	4.5	13.7	S14.0250.02 G X800	ANZTX800				
1.17	-	16	3.5	4.5	15.7	S16.0117.00 G X800	ABPSX800				
1.42	-		3.5	4.5	15.7	S16.0142.00 G X800	AFV8X800				
1.5	0.2		3.5	4.5	15.7	S16.0150.02 G X800	AMBCX800				
1.57	0.2		3.5	4.5	15.7	S16.0157.02 G X800	ACMXX800				
2	0.2		3.5	4.5	15.7	S16.0200.02 G X800	ABYCX800				
2.39	0.2		3.5	4.5	15.7	S16.0239.02 G X800	AFN8X800				
2.5	0.2		3.5	4.5	15.7	S16.0250.02 G X800	AF11X800				
1.17	-	18	3.5	5.8	17.7	U18.0117.00 G X800	AAU0X800			UD09.0	UX
1.42	-		3.5	5.8	17.7	U18.0142.00 G X800	ANB1X800				
1.5	0.2		3.5	5.8	17.7	U18.0150.02 G X800	AMW2X800				
1.55	0.2		3.5	5.8	17.7	U18.0157.02 G X800	AJ80X800				
2	0.2		3.5	5.8	17.7	U18.0200.02 G X800	AJXKX800				
2.39	0.2		3.5	5.8	17.7	U18.0239.02 G X800	AG6EX800				
2.5	0.2		3.5	5.8	17.7	U18.0250.02 G X800	ABXHX800				
3	0.2		3.5	5.8	17.7	U18.0300.02 G X800	ADJZX800				
3.18	0.2		3.5	5.8	17.7	U18.0318.02 G X800	AJZUX800				
4	0.2		3.5	5.8	17.7	U18.0400.02 G X800	AJUUX800				
1.5	0.2	20	4.5	5.8	19.7	U20.0150.02 G X800	AX11X800				
2	0.2		4.5	5.8	19.7	U20.0200.02 G X800	AX13X800				
2.5	0.2		4.5	5.8	19.7	U20.0250.02 G X800	AX12X800				

3 TOOTH INSERTS GENERAL GROOVE MILLING

Simmill® VX

- Available in insert widths 1.0-10.0mm
- For minimum bores ≥Ø22
- For easy ordering use **Short Code**





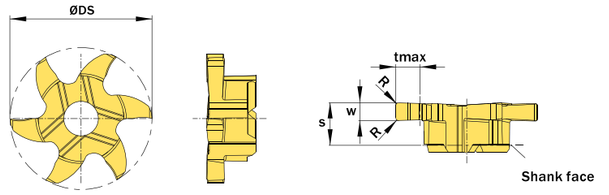
W +0.02	R	ØD Min Bore	tmax	S	ØDS	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
1	0.1	22	4.5	5.7	21.7	V22.0100.01 G X800	AEQMX800			VD12.0	
1.5	0.2		4.5	5.7	21.7	V22.0150.02 G X800	AHH9X800				
1.57	0.2		4.5	5.7	21.7	V22.0157.02 G X800	ANQXX800				
2	0.2		4.5	5.7	21.7	V22.0200.02 G X800	ADNUX800				
2.39	0.2		4.5	5.7	21.7	V22.0239.02 G X800	AHMNX800				
2.5	0.2		4.5	5.7	21.7	V22.0250.02 G X800	AKKFX800				
3	0.2		4.5	5.7	21.7	V22.0300.02 G X800	ABXXX800				
3.18	0.2		4.5	5.7	21.7	V22.0318.02 G X800	AK1SX800				
3.18	0.4		4.5	5.7	21.7	V22.0318.04 G X800	AB1PX800				
3.5	0.2		4.5	5.7	21.7	V22.0350.02 G X800	AM6NX800				
3.56	0.2		4.5	5.7	21.7	V22.0356.02 G X800	AD90X800				
4	0.2		4.5	5.7	21.7	V22.0400.02 G X800	AF5NX800				
4	0.4		4.5	5.7	21.7	V22.0400.04 G X800	AGMHX800				
4.37	0.2		4.5	5.7	21.7	V22.0437.02 G X800	AHBPX800				
4.37	0.4		4.5	5.7	21.7	V22.0437.04 G X800	AEPHX800				
4.75	0.2		4.5	5.7	21.7	V22.0475.02 G X800	ADF7X800				
2	0.2	25	5	6.6	24.8	V25.0200.02 G X800	AHS7X800			VD14.0 VD14.3	VX
2.39	0.2		5	6.6	24.8	V25.0239.02 G X800	APTWX800				
2.5	0.2		5	6.6	24.8	V25.0250.02 G X800	ACG1X800				
3	0.2		5	6.6	24.8	V25.0300.02 G X800	AFPBX800				
3.18	0.2		5	6.6	24.8	V25.0318.02 G X800	AAZ4X800				
3.5	0.2		5	6.6	24.8	V25.0350.02 G X800	AKG8X800				
4	0.2		5	6.6	24.8	V25.0400.02 G X800	AA9XX800				
4.75	0.2		5	6.6	24.8	V25.0475.02 G X800	AMMVX800				
1.5	0.2	28	6.5	6.6	27.7	V28.0150.02 G X800	AN4AX800			VD14.0 VD14.3	
2	0.2		6.5	6.6	27.7	V28.0200.02 G X800	AG3VX800				
2.5	0.2		6.5	6.6	27.7	V28.0250.02 G X800	AECZX800				
3	0.2		6.5	6.6	27.7	V28.0300.02 G X800	ADQJX800				
3.5	0.2		6.5	6.6	27.7	V28.0350.02 G X800	AP0WX800				
4	0.2		6.5	6.6	27.7	V28.0400.02 G X800	AGNXX800				
5	0.2		6.5	6.6	27.7	V28.0500.02 G X800	APSTX800				
6	0.2		6.5	6.6	27.7	V28.0600.02 G X800	APNVX800				
10	0.2		6.5	10	27.7	V28.1000.02 G X800	AXXPX800				
1.5	0.2	28.3	9.3	6.5	28	V28.0150.02.09 G X800	AC15X800			VD09.0	
2	0.2		9.3	6.5	28	V28.0200.02.09 G X800	AM94X800				
2.5	0.2		9.3	6.5	28	V28.0250.02.09 G X800	AD74X800				
2	0.2	32	8.5	6.5	31.7	V32.0200.02 G X800	AE2XX800			VD14.0 VD14.3	
2	0.2		10	6.5	31.7	V32.0200.02.11 G X800	AX0GX800				
2.5	0.2		8.5	6.5	31.7	V32.0250.02 G X800	AAPWX800				
3	0.2		8.5	6.5	31.7	V32.0300.02 G X800	ACYJX800				

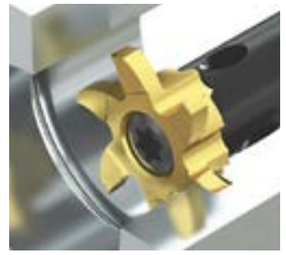
THREAD & GROOVE MILLING
MULTIFUNCTIONAL THREAD & GROOVE MILLING

6 TOOTH INSERTS GENERAL GROOVE MILLING SMOOTH CUTTING

Simmill® PX, SX, UX & VX

- Special edge geometry for smoother cutting & better surface finish
- Available in insert widths 1.0-6.0mm
- For easy ordering use **Short Code**





W +0.02	R	ØD Min Bore	tmax	S	ØDS	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
1.5	0.2	12	2	3.5	11.7	P06.0150.020.12 GY X800	AYF3X800			PD06.0 PD07.3	PX
2	0.2		2	3.5	11.7	P06.0200.020.12 GY X800	AYF4X800				
1.5	0.2	16	3.5	4.5	15.7	S06.0150.020.16 GY X800	AYF0X800			SD08.0	SX
2	0.2		3.5	4.5	15.7	S06.0200.020.16 GY X800	AYF1X800				
2.5	0.2		3.5	4.5	15.7	S06.0250.020.16 GY X800	AYF2X800				
2	0.2	18	4	5.8	17.7	U06.0200.020.18 GY X800	AYFPX800			UD09.0	UX
2.5	0.2		4	5.8	17.7	U06.0250.020.18 GY X800	AYFSX800				
3	0.2		4	5.8	17.7	U06.0300.020.18 GY X800	AYFTX800				
1	0.1	22	4.5	6.2	21.7	V06.0100.010.22 G X800	AGZWX800			VD12.0	VX
1.5	0.1		4.5	6.2	21.7	V06.0150.010.22 G X800	AGY6X800				
2	0.2		4.5	6.2	21.7	V06.0200.020.22 G X800	AFJQX800				
2.5	0.2		4.5	6.2	21.7	V06.0250.020.22 G X800	AKJ5X800				
3	0.2		4.5	6.2	21.7	V06.0300.020.22 G X800	AFBBX800				
4	0.2		4.5	6.2	21.7	V06.0400.020.22 G X800	APZWX800				
2.5	0.2	28	6.5	6.2	27.7	V06.0250.020.28 GY X800	AYJCX800			VD14.0 VD14.3	
2.76	0.2		6.5	6.2	27.7	V06.0265.020.28 GY X800	AYF8X800				
3	0.2		6.5	6.2	27.7	V06.0300.020.28 GY X800	AYF9X800				
4	0.2		6.5	6.2	27.7	V06.0400.020.28 GY X800	AYGAX800				
5	0.2		6.5	6.2	27.7	V06.0500.020.28 GY X800	AYGBX800				
6	0.2		6.5	6.2	27.7	V06.0600.020.28 GY X800	AYGCX800				

SIMTEK X800 GRADIUM INSERTS

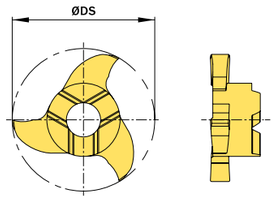
- High performance coating developed by Simtek
- Ultra wear resistant carbide substrate
- Special cutting edge finish for each combination of tool and application
- Excellent performance machining steels, stainless steels, heat resistant super alloys, cast iron and aluminium
- Also available in uncoated grades on request

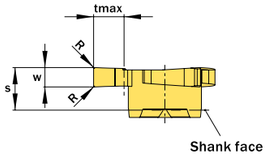
P M S K N

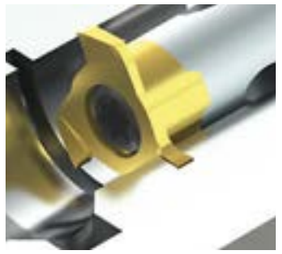
3 TOOTH INSERTS CIRCLIP GROOVE MILLING INTERNAL

Simmill® PX, SX, UX & VX

- For circlip grooves 0.7mm - 5.15mm
- For minimum bores ≥Ø10
- For easy ordering use **Short Code**







W +0.02	Nominal Groove Width	R	ØD Min Bore	tmax	S	ØDS	ORDER CODE				HOLDERS	
							Description	Short Code			Connect Code	Series
0.77	0.7	-	10	1.5	3.5	9.7	P10.0070.00 Z X800	AHB1X800			PD06.0	PX
0.87	0.8	-		1.5	3.5	9.7	P10.0080.00 Z X800	AKU6X800				
0.97	0.9	-		1.5	3.4	9.7	P10.0090.00 Z X800	AG93X800				
1.07	1	-		1.5	3.4	9.7	P10.0100.00 G X800	AA4QX800				
1.24	1.1	-		1.5	3.5	9.7	P10.0110.00 G X800	AJ8ZX800				
1.44	1.3	0.1		1.5	3.5	9.7	P10.0130.01 G X800	AJVPX800				
1.74	1.6	0.1		1.5	3.5	9.7	P10.0160.01 G X800	AGG7X800				
1.21	1.1	-	12	2.5	3.5	11.7	P12.0110.00 G X800	ACHBX800				
1.41	1.3	0.1		2.5	3.5	11.7	P12.0130.01 G X800	AGB6X800				
1.71	1.6	0.1		2.5	3.5	11.7	P12.0160.01 G X800	AK06X800				
1.24	1.1	-	18	3.5	5.8	17.7	U18.0110.00 G X800	AEQDX800			UD09.0	UX
1.44	1.3	0.1		3.5	5.8	17.7	U18.0130.01 G X800	AG1PX800				
1.74	1.6	0.1		3.5	5.8	17.7	U18.0160.01 G X800	AKKZX800				
1.44	1.3	0.1	22	4.5	5.7	21.7	V22.0130.01 G X800	ACS5X800			VD12.0	VX
1.74	1.6	0.1		4.5	5.7	21.7	V22.0160.01 G X800	ABJ5X800				
1.96	1.85	0.2		4.5	5.7	21.7	V22.0185.02 G X800	AGKUX800				
2.29	2.15	0.2		4.5	5.7	21.7	V22.0215.02 G X800	AFGWX800				
2.79	2.65	0.2		4.5	5.7	21.7	V22.0265.02 G X800	ADKFX800				
3.29	3.15	0.2		4.5	5.7	21.7	V22.0315.02 G X800	AMP1X800				
4.29	4.15	0.2		4.5	5.7	21.7	V22.0415.02 G X800	AE13X800				
5.29	5.15	0.2		4.5	5.7	21.7	V22.0515.02 G X800	AEK1X800				
5.29	5.15	0.4		4.5	5.7	21.7	V22.0515.04 G X800	AAG9X800				

SIMTEK X800 GRADIUM INSERTS

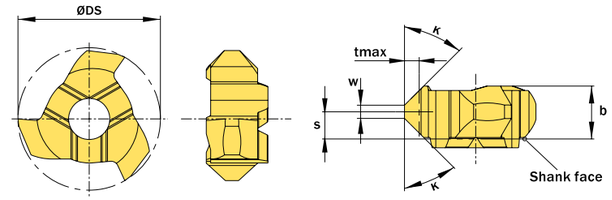
- High performance coating developed by Simtek
- Ultra wear resistant carbide substrate
- Special cutting edge finish for each combination of tool and application
- Excellent performance machining steels, stainless steels, heat resistant super alloys, cast iron and aluminium
- Also available in uncoated grades on request

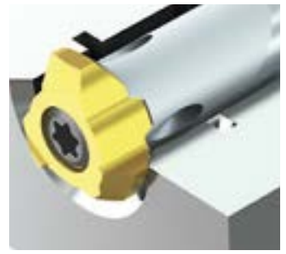
P M S K N

3 TOOTH INSERTS CHAMFER MILLING

Simmill® PX, SX, UX & VX

- For minimum bores ≥Ø10
- For easy ordering use **Short Code**



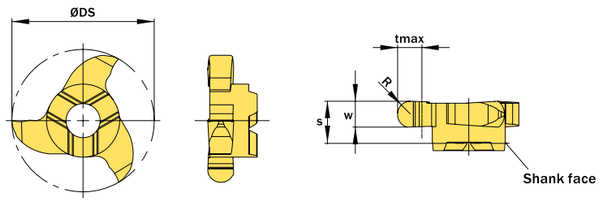


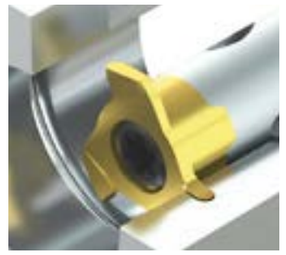
K	W +0.02	ØD Min Bore	tmax	b	S	ØDS	ORDER CODE				HOLDERS	
							Description	Short Code			Connect Code	Series
45°	0.2	9.6	3.4	1.7	1.4	9.3	P09.4545.02 F X800	AA0UX800			PD06.0	PX
45°	0.9	10	3.5	1.8	1	9.7	P10.4545.35 F X800	AJHXX800			PD06.0 PD07.3	
45°	1.2	12	3.5	1.8	0.8	11.7	P12.4545.35 F X800	ABG0X800				
45°	0.2	16	1.8	2.3	1.8	15.7	S16.4545.02 F X800	AF2UX800			SD08.0 SD09.5	SX
45°	1.4	16	1.4	2.3	1.4	15.7	S16.4545.45 F X800	AH98X800				
45°	-	15	2.5	3	14.7	0.2	U15.4545.58 F X800	AGQFX800			UD09.0	UX
45°	-	18	2.5	3	17.7	0.2	U18.4545.20 F X800	AHA2X800			UD09.0 UD12.0 UD13.0	
45°	-	18	1.4	3	17.7	2.5	U18.4545.58 F X800	ACKWX800				
45°	2	22	1.7	5.85	3	21.7	V22.4545.58 F X800	ADU1X800			VD11.3 VD11.5 VD12.0 VD12.7 VD13.5 VD14.0 VD14.3 VD15.0 VD16.0	VX
45°	3	22	3	9.4	4.8	21.7	V22.4545.94 F X800	AH71X800				

3 TOOTH INSERTS FULL RADIUS GROOVE MILLING

Simmill® PX, SX, UX & VX

- Available in insert radii 1.1-2.5mm
- For easy ordering use **Short Code**





W +0.02	R	ØD Min Bore	tmax	S	ØDS	ORDER CODE				HOLDERS	
						Description	Short Code			Connect Code	Series
2.2	1.1	12	2.5	3.5	11.7	P12.0011.22 V X800	AC2HX800			PD06.0	PX
2.2	1.1	16	3.5	4.5	15.7	S16.0011.22 V X800	ACJPX800			SD08.0	SX
2	1	18	3.5	5.8	17.7	U18.0010.20 V X800	AAKMX800			UD09.0	UX
2.2	1.1		3.5	5.8	17.7	U18.0011.22 V X800	AM4FX800				
3	1.5		3.5	5.8	17.7	U18.0015.30 V X800	AEDUX800				
1	0.5	22	4.5	5.8	21.7	V22.0005.10 V X800	AD2WX800			VD12.0	VX
1.6	0.8		4.5	5.8	21.7	V22.0008.16 V X800	AFEEX800				
2	1		4.5	5.8	21.7	V22.0010.20 V X800	ABHYX800				
2.4	1.2		4.5	5.8	21.7	V22.0012.24 V X800	ACH9X800				
2.8	1.4		4.5	5.8	21.7	V22.0014.28 V X800	ADDYX800				
3	1.5		4.5	5.8	21.7	V22.0015.30 V X800	AF96X800				
4.4	2.2		4.5	5.8	21.7	V22.0022.44 V X800	AC2YX800				
5	2.5		4.5	5.8	21.7	V22.0025.50 V X800	AH32X800				

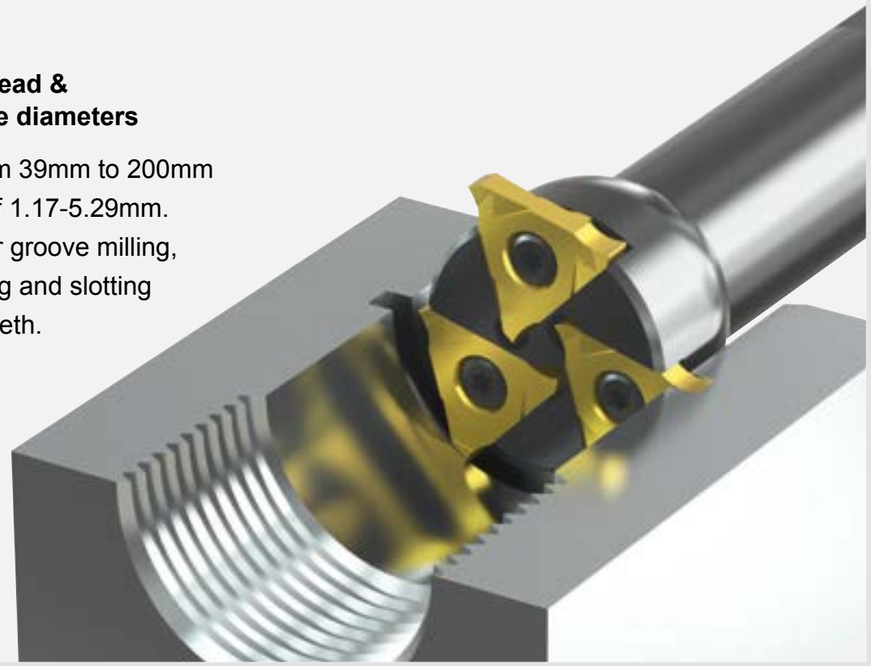
THREAD & GROOVE MILLING

simmillMX
SIMTEK milling tools type MX

P H M S K N

Multifunctional groove, thread & disk milling system in large diameters

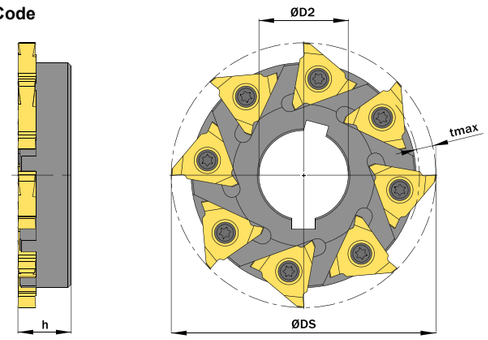
simmill® MX is available from 39mm to 200mm diameter and insert widths of 1.17-5.29mm. **simmill® MX** can be used for groove milling, circlip grooving, thread milling and slotting with tools holding up to 20 teeth.



DISK MILL HOLDER BORE WITH KEYWAY FIXATION

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

- Use connect code to match inserts to holders
- For easy ordering use **Short Code**



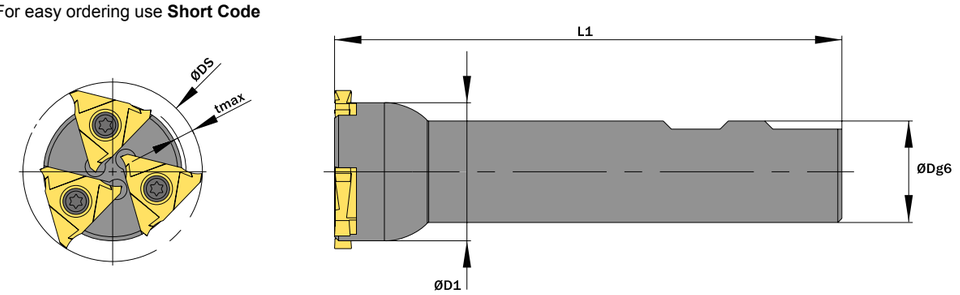
ØDS	Teeth	ØD2	h	tmax	ORDER CODE			INSERTS	SPARES	
					Description	Short Code		Connect Code	Screw	Torx Key
63	5	22	14	5	M81.0063.05 R	AC39		M14.R.6.0	MM5 x 13	T20R
80	8	27	16	5	M81.0080.08 R	AJCW		M14.R.6.0	MM5 x 13	T20R
100	10	32	20	5	M81.0100.10 R	AB7G		M14.R.6.0	MM5 x 15	T20R

TOOLHOLDER WELDON SHANK

simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

SIMTEK simmillMX

- Optional through coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**

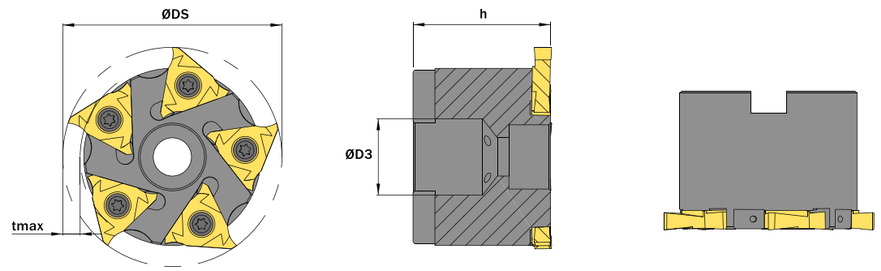


ØDg6	ØDS	Teeth	ØD1	L1	tmax	Through Coolant	ORDER CODE			INSERTS	SPARES	
							Description	Short Code		Connect Code	Screw	Torx Key
25	39	2	32	125	3	No	M80.2539.02	AN3U		M14.R.6.0	MM5 x 13	T20R
25	39	2	32	125	3	No	M80.2539.02.07	AW02		M14.R.7.0	MM5 x 15	T20R
25	39	2	32	125	3	Yes	M80.2539.02.IC	AXE0		M14.R.6.0	MM5 x 13	T20R
25	44	3	34	125	4	No	M80.2544.03	AEPQ		M14.R.6.0	MM5 x 13	T20R
25	44	3	34	125	4	No	M80.2544.03.07	AW03		M14.R.7.0	MM5 x 15	T20R
25	44	3	34	125	4	Yes	M80.2544.03.IC	AXEZ		M14.R.6.0	MM5 x 13	T20R

TOOLHOLDER FACE MILL ARBOR FIXATION

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

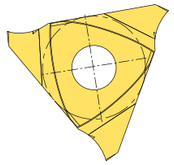
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**

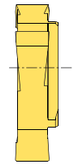


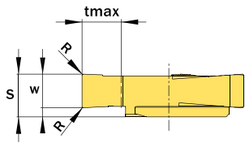
ØDS	Teeth	ØD3	h	tmax	Through Coolant	ORDER CODE			INSERTS	SPARES	
						Description	Short Code		Connect Code	Screw	Torx Key
63	5	22	40	5	No	M80.0063.05 R	AHQX		M14.R.6.0	MM5 x 13	T20R
63	5	22	40	5	No	M80.0063.05.07 R	AW0W		M14.R.7.0	MM5 x 15	T20R
63	5	22	40	5	Yes	M80.0063.05.07.IC R	AW0Y		M14.R.7.0	MM5 x 15	T20R
63	5	22	40	5	Yes	M80.0063.05.IC R	AUGS		M14.R.6.0	MM5 x 13	T20R
80	8	27	32	5	No	M80.0080.08 R	ADWY		M14.R.6.0	MM5 x 13	T20R
80	8	27	32	5	No	M80.0080.08.07 R	AW00		M14.R.7.0	MM5 x 15	T20R

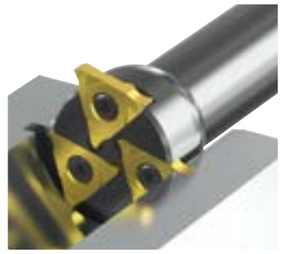
3 TOOTH INSERTS GROOVING, CIRCLIPS & DISK MILLING

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters









W -0.02	Nominal Width of Groove	R	S	tmax	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
1.17	-	0.1	5.4	5	M14.0117.01 GR X800	AMF9X800			M14.R.6.0
1.44	1.3	0.1	5.4	5	M14.0130.01 GR X800	AMMXX800			M14.R.6.0
1.57	-	0.1	5.4	5	M14.0157.01 GR X800	AN5AX800			M14.R.6.0
1.74	1.6	0.1	5.4	5	M14.0160.01 GR X800	AJE8X800			M14.R.6.0
1.99	1.85	0.15	5.4	5	M14.0185.02 GR X800	AMGVX800			M14.R.6.0
2	-	0.2	5.4	5	M14.0200.02 GR X800	AYQ8X800			M14.R.6.0
2.99	2.15	0.15	5.4	5	M14.0215.02 GR X800	ADKSX800			M14.R.6.0
2.39	-	0.2	5.4	5	M14.0239.02 GR X800	AJNNX800			M14.R.6.0
2.5	-	0.2	5.4	5	M14.0250.02 GR X800	AYSBX800			M14.R.6.0
2.79	2.65	0.15	5.4	5	M14.0265.02 GR X800	AENWX800			M14.R.6.0
3	-	0.2	5.4	5	M14.0300.02 GR X800	AYSCX800			M14.R.6.0
3.29	3.15	0.15	5.4	5	M14.0315.02 GR X800	AA0VX800			M14.R.6.0
3.18	-	0.2	5.4	5	M14.0318.02 GR X800	ANFAX800			M14.R.6.0
3.5	-	0.2	5.4	5	M14.0350.02 GR X800	AYSFX800			M14.R.6.0
4	-	0.2	5.4	5	M14.0400.02 GR X800	AGDUX800			M14.R.6.0
4.29	4.15	0.15	5.4	5	M14.0415.02 GR X800	APFYX800			M14.R.6.0
4.37	-	0.2	5.4	5	M14.0437.02 GR X800	AGN0X800			M14.R.6.0
4.75	-	0.2	5.4	5	M14.0475.02 GR X800	AKXFX800			M14.R.6.0
5.29	5.15	0.15	5.4	5	M14.0515.02 GR X800	ADWDX800			M14.R.6.0

SIMTEK X800 GRADIUM INSERTS

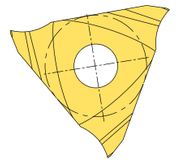
- High performance coating developed by Simtek
- Ultra wear resistant carbide substrate
- Special cutting edge finish for each combination of tool and application
- Excellent performance machining steels, stainless steels, heat resistant super alloys, cast iron and aluminium
- Also available in uncoated grades on request

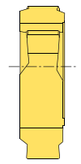
P M S K N

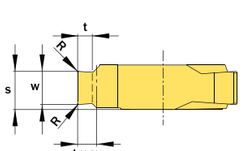
THREAD & GROOVE MILLING
SIMMILL® MX

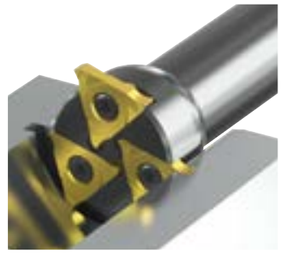
3 TOOTH INSERTS GROOVING, CIRCLIPS & DISK MILLING W/ CHAMFER

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters





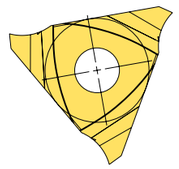


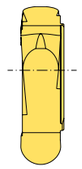


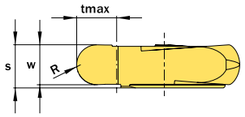
W -0.02	Nominal Width of Groove	R	S	tmax	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
1.24	1.1	0.1	4.4	0.49	M14.1105.54 FR X800	AJ5SX800			M14.R.6.0
1.44	1.3	0.1	4.5	0.67	M14.1307.54 FR X800	AN4YX800			M14.R.6.0
1.74	1.6	0.15	4.4	0.83	M14.1609.54 FR X800	ABX1X800			M14.R.6.0
1.99	1.85	0.15	4.5	1.25v	M14.1812.54 FR X800	AC89X800			M14.R.6.0
1.99	2.15	0.15	4.7	1.47	M14.2115.54 FR X800	AMBFX800			M14.R.6.0
1.99	2.65	0.15	4.4	1.47	M14.2616.54 FR X800	ACAPX800			M14.R.6.0
1.99	2.65	0.15	4.4	1.72	M14.2617.54 FR X800	AFD5X800			M14.R.6.0
1.99	3.15	0.15	4.7	1.72	M14.3118.54 FR X800	AF4SX800			M14.R.6.0
1.99	4.15	0.15	4.9	1.97	M14.4120.54 FR X800	AKFUX800			M14.R.6.0
1.99	4.15	0.15	4.9	2.47	M14.4125.54 FR X800	AAXYX800			M14.R.6.0
1.99	5.15	0.15	5.8	2.97	M14.5130.61 FR X800	ABXBX800			M14.R.6.0

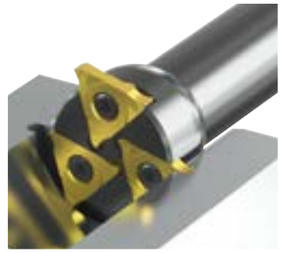
3 TOOTH INSERTS FULL RADIUS GROOVING, CIRCLIPS & DISK MILLING

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters







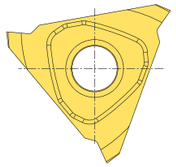


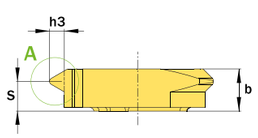
W +0.02	R	S	tmax	ORDER CODE				HOLDERS
				Description	Short Code			Connect Code
2.5	1.25	5.4	5	M14.0250.125 VR X800	A2UNX800			M14.R.6.0
3.0	1.5	5.4	5	M14.0300.150 VR X800	AP15X800			M14.R.6.0
4.0	2.0	5.4	5	M14.0400.200 VR X800	ABPUX800			M14.R.6.0
5.0	2.5	5.4	5	M14.0500.250 VR X800	AJ3GX800			M14.R.6.0

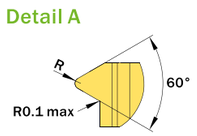
3 TOOTH INSERTS METRIC ISO FULL PROFILE THREAD EXTERNAL

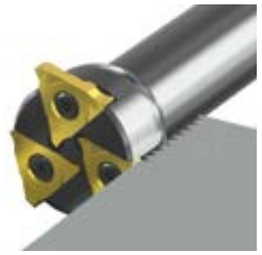
Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

- For external thread milling
- For easy ordering use **Short Code**







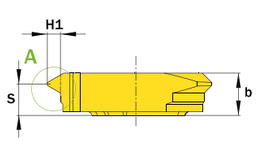


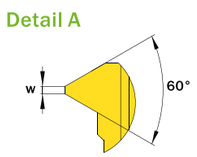
Pitch	R	h3	b	S	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
1.5	0.22	0.92	5.25	4.4	M14.MT15.02 EM R X800	AQ6AX800			M14.R.6.0
2.0	0.29	1.23	5.25	4.2	M14.MT20.02 EM R X800	AQ6CX800			M14.R.6.0
2.5	0.36	1.53	5.25	3.9	M14.MT25.02 EM R X800	AT90X800			M14.R.6.0
3.0	0.43	1.84	5.25	3.7	M14.MT30.02 EM R X800	AQ6EX800			M14.R.6.0
3.5	0.52	2.15	5.25	3.5	M14.MT35.02 EM R X800	ASZ5X800			M14.R.6.0
4.0	0.58	2.45	5.25	3.3	M14.MT40.02 EM R X800	AQ6GX800			M14.R.6.0
4.5	0.65	2.76	5.25	3.1	M14.MT45.02 EM R X800	AS0AX800			M14.R.6.0
5.0	0.72	3.06	5.85	3.4	M14.MT50.02 EM R X800	AQ6KX800			M14.R.6.0
5.5	0.78	3.37	7.6	4.8	M14.MT55.02 EM R X800	AS0BX800			M14.R.7.0
6.0	0.87	3.68	7.6	4.6	M14.MT60.02 EM R X800	AS0CX800			M14.R.7.0

3 TOOTH INSERTS METRIC ISO FULL PROFILE THREAD INTERNAL

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

- For internal thread milling
- For easy ordering use **Short Code**



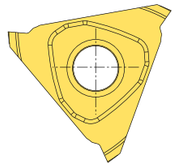


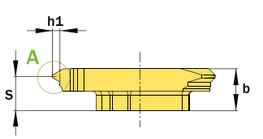
Pitch	H1	b	S	w	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
1.5	0.81	5.25	4.4	0.19	M14.MT15.02 IM R	AT6JX800			M14.R.6.0
2.0	1.08	5.25	4.2	0.25	M14.MT20.02 IM R	AT6KX800			M14.R.6.0
3.0	1.62	5.25	3.9	0.38	M14.MT30.02 IM R	AT6MX800			M14.R.6.0
3.5	1.89	5.25	3.7	0.44	M14.MT35.02 IM R	AT6NX800			M14.R.6.0
4.0	2.17	5.25	3.5	0.5	M14.MT40.02 IM R	AT6PX800			M14.R.6.0
4.5	2.44	5.25	3.3	0.56	M14.MT45.02 IM R	AT6QX800			M14.R.6.0
5.0	2.71	5.85	3.8	0.62	M14.MT50.02 IM R	AT6SX800			M14.R.6.0
5.5	2.98	5.85	3.6	0.69	M14.MT55.02 IM R	AT6TX800			M14.R.6.0
6.0	3.25	7.6	5.2	0.75	M14.MT60.02 IM R	AT6UX800			M14.R.7.0

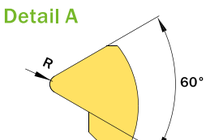
3 TOOTH INSERTS UN FULL PROFILE THREAD EXTERNAL

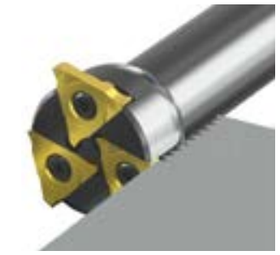
Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

- For external thread milling
- For easy ordering use **Short Code**







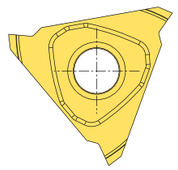


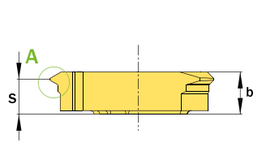
TPI	b	h1	R	S	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
20	5.15	0.78	0.18	4.2	M14.UN20.02 MR X800	ASZ8X800			M14.R.6.0
18	5.15	0.87	0.2	4.2	M14.UN18.02 MR X800	AS08X800			M14.R.6.0
16	5.15	0.974	0.23	4.0	M14.UN16.02 MR X800	AS09X800			M14.R.6.0
14	5.15	1.11	0.26	4.0	M14.UN14.02 MR X800	AS1AX800			M14.R.6.0
12	5.15	1.3	0.3	3.9	M14.UN12.02 MR X800	AS1BX800			M14.R.6.0
11	5.15	1.416	0.33	3.9	M14.UN11.02 MR X800	AS1CX800			M14.R.6.0
10	5.15	1.56	0.37	3.6	M14.UN10.02 MR X800	AS1DX800			M14.R.6.0
8	5.15	1.95	0.46	3.4	M14.UN08.02 MR X800	AS0DX800			M14.R.6.0
6	7.6	2.6	0.61	5.3	M14.UN06.02 MR X800	AS0EX800			M14.R.7.0
4	7.6	3.9	0.92	4.4	M14.UN04.02 MR X800	AS0FX800			M14.R.7.0

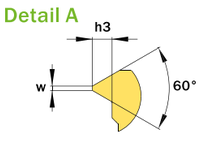
3 TOOTH INSERTS UN FULL PROFILE THREAD INTERNAL

Simmill® MX Multifunctional Groove, Thread & Disk Milling System in Large Diameters

- For internal thread milling
- For easy ordering use **Short Code**







TPI	h3	b	S	w	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
20	0.69	5.25	4.6	0.15	M14.UN20.02 IM R X800	AT7KX800			M14.R.6.0
18	0.76	5.25	4.5	0.17	M14.UN18.02 IM R X800	AT7JX800			M14.R.6.0
16	0.86	5.25	4.4	0.19	M14.UN16.02 IM R X800	AT7HX800			M14.R.6.0
14	0.98	5.25	4.4	0.22	M14.UN14.02 IM R X800	AT7GX800			M14.R.6.0
12	1.15	5.25	4.2	0.26	M14.UN12.02 IM R X800	AT7FX800			M14.R.6.0
11	1.25	5.25	4.2	0.29	M14.UN11.02 IM R X800	AT7EX800			M14.R.6.0
10	1.37	5.25	4.1	0.32	M14.UN10.02 IM R X800	AT7DX800			M14.R.6.0
8	1.72	5.25	3.8	0.4	M14.UN08.02 IM R X800	AT7CX800			M14.R.6.0
6	2.29	5.25	3.4	0.52	M14.UN06.02 IM R X800	AT7BX800			M14.R.6.0
4	3.44	7.6	5.0	0.79	M14.UN04.02 IM R X800	AT7AX800			M14.R.7.0

T-SLOT MILLING

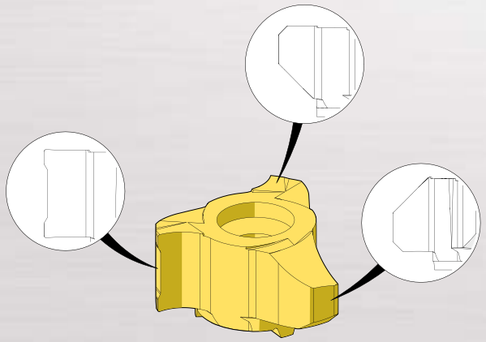
simmill 4V
SIMTEK milling tools type 4V

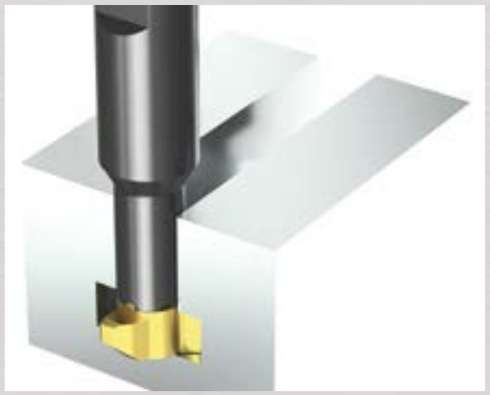
P H M S K N

Indexable T-Slot milling system with anti-vibration design & low cutting resistance

The system uses high quality micrograin carbide inserts, precision ground to the highest tolerances.

The special seat design and vibration cushioned seating provides a stable cutting environment. Inserts have 3 cutting edges each with its own geometry - this ensures the lowest cutting resistance in what is typically a demanding application.

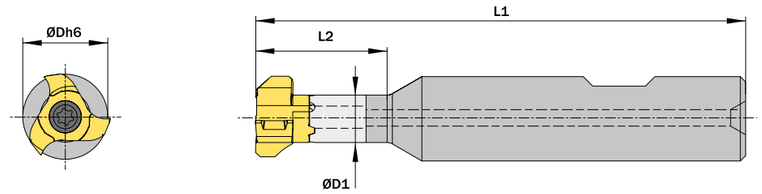




T-SLOT TOOL HOLDER CARBIDE OR STEEL SHANK
Simmill® 4V

- Through coolant
- Use connect code to match inserts to holders
- For easy ordering use **Short Code**

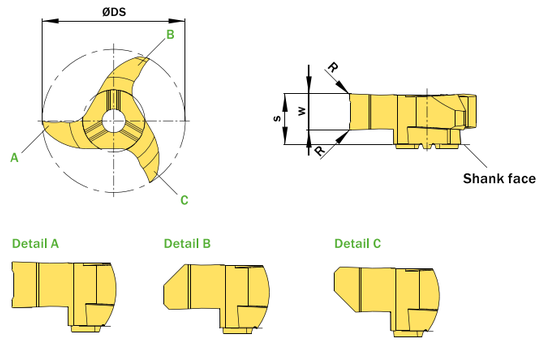
Carbide Shank



ØD h6	ØD1	L1	L2	Shank	ORDER CODE			INSERTS	SPARES	
					Description	Short Code		Connect Code	Screw	Torx Key
16	11.5	90	30	Carbide	4V0.1611.30.IC B HM	AWKQ		4V0D11.5	VM5X16ICT20T	T20T
20	13.5	104	35	Carbide	4V0.2013.35.IC A HM	AWKS		4V0D13.5		

3 TOOTH T-SLOT INSERTS
Simmill® 4V

- Special Cutting Edge Design for T-Slotting
- For easy ordering use **Short Code**



W +0.02	Nominal Width of Groove	R	S	ØDS	ORDER CODE				HOLDERS
					Description	Short Code			Connect Code
8.2	12	0.2	9.3	20	4V3.0820.11.20 T	AWKJX800			4V0D11.5
9.2	14	0.2	10	24	4V3.0920.13.24 T	AV9VX800			4V0D13.5
7.2	18	0.2	10	31	4V3.0720.13.31 T	AWKHX800			4V0D13.5

DISK MILLING

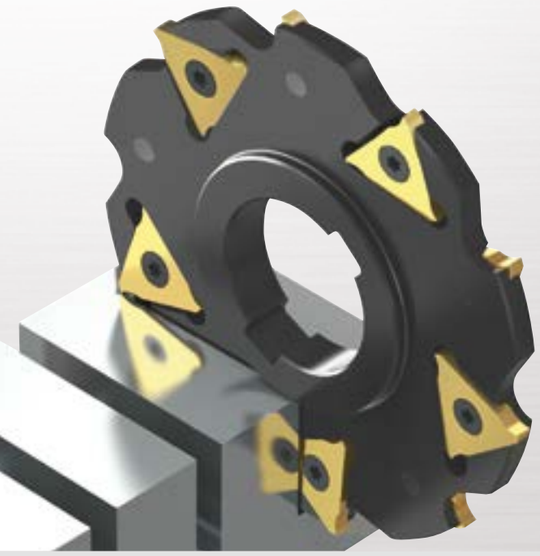
simmillM4

P H M S K N

Indexable Disk Milling System for Slotting Operation from 6mm Widths

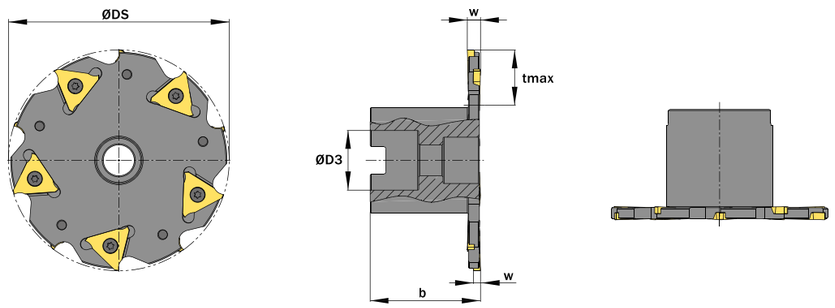
simmill® M4 is available from 80mm to 200mm diameter with widths of 6, 8, 10 & 12mm.

simmill® M4 inserts have 3 cutting edges and are made from high quality K grade micrograin carbide. Tool holders are available with a face mill arbor fixation or with a bore with keyways.



DISK MILL HOLDER FACE MILL ARBOR FIXATION

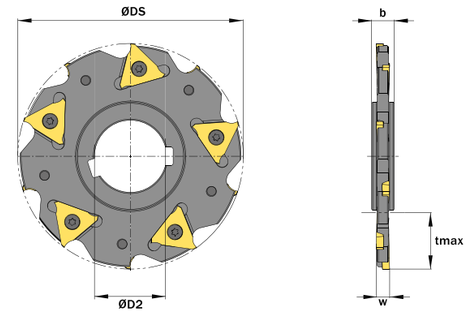
Simmill® M4 Indexable Disk Milling System for Slotting Operation from 6mm Widths



ØDS	ØD3	W ±0.04	b	tmax	Teeth	ORDER CODE			INSERTS	SPARES	
						Description	Short Code		Connect Code	Screw	Torx Key
100	27	6	50	25	5R + 5L	MM4.83.0100.27.06 R	AYKH		MM4.82.3.2	MM5 x 5.3	T15F
100	27	8	50	25	5R + 5L	MM4.83.0100.27.08 R	AYKJ		MM4.82.4.3	MM5 x 6.5	T20R
100	27	10	50	25	5R + 5L	MM4.83.0100.27.10 R	AYKK		MM4.82.5.4	MM5 x 7.5	T20R

DISK MILL HOLDER BORE WITH KEYWAY FIXATION

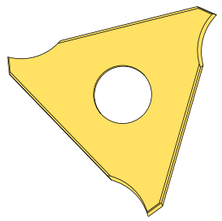
Simmill® M4 Indexable Disk Milling System for Slotting Operation from 6mm

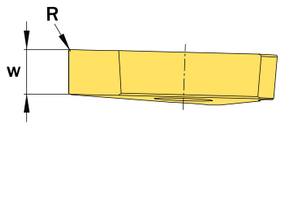


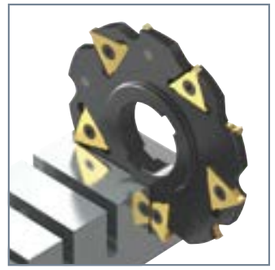
ØDS	ØD2	W ±0.04	b	tmax	Teeth	ORDER CODE			INSERTS	SPARES	
						Description	Short Code		Connect Code	Screw	Torx Key
80	27	6	10	19	4R + 4L	MM4.82.0080.27.06	AYJ1		MM4.82.3.2	MM5 x 5.3	T15F
80	27	8	12	19	4R + 4L	MM4.82.0080.27.08	AYJ2		MM4.82.4.3	MM5 x 6.5	T20R
80	27	10	12	19	4R + 4L	MM4.82.0080.27.10	AYJ3		MM4.82.5.4	MM5 x 7.5	T20R
100	32	6	10	26	5R + 5L	MM4.82.0100.32.06	AYJ5		MM4.82.3.2	MM5 x 5.3	T15F
100	32	8	12	26	5R + 5L	MM4.82.0100.32.08	AYJ6		MM4.82.4.3	MM5 x 6.5	T20R
100	32	10	12	26	5R + 5L	MM4.82.0100.32.10	AYJ7		MM4.82.5.4	MM5 x 7.5	T20R
125	40	6	10	34.5	6R + 6L	MM4.82.0125.40.06	AYJ9		MM4.82.3.2	MM5 x 5.3	T15F
125	40	8	12	34.5	6R + 6L	MM4.82.0125.40.08	AYKA		MM4.82.4.3	MM5 x 6.5	T20R
125	40	10	14	34.5	6R + 6L	MM4.82.0125.40.10	AYKB		MM4.82.5.4	MM5 x 7.5	T20R
125	40	12	14	34.5	6R + 6L	MM4.82.0125.40.12	AYKC		MM4.82.6.5	MM5 x 10.5	T20R
160	40	6	10	50	8R + 8L	MM4.82.0160.40.06	AYKD		MM4.82.3.2	MM5 x 5.3	T15F
160	40	8	12	50	8R + 8L	MM4.82.0160.40.08	AYKE		MM4.82.4.3	MM5 x 6.5	T20R
160	40	10	14	50	8R + 8L	MM4.82.0160.40.10	AYDV		MM4.82.5.4	MM5 x 7.5	T20R
160	40	12	14	50	8R + 8L	MM4.82.0160.40.12	AYKF		MM4.82.6.5	MM5 x 10.5	T20R
200	50	6	10	70	10R + 10L	MM4.82.0200.50.06	AYKG		MM4.82.3.2	MM5 x 5.3	T15F

3 TOOTH INSERTS DISK MILLING

Simmill® M4 Indexable Disk Milling System for Slotting Operation from 6mm







W +0.02	R	ORDER CODE				HOLDERS
		Description	Short Code R	Short Code L		Connect Code
3.2	0.2	MM4.06.0320.02 GR/L X800	AYKPX800	AYKNX800		MM4.82.3.2
4.3	0.2	MM4.08.0430.02 GR/L X800	AYKSX800	AYKQX800		MM4.82.4.3
5.4	0.2	MM4.10.0545.02 GR/L X800	AYKUX800	AYKTX800		MM4.82.5.4
6.5	0.2	MM4.12.0650.02 GR/L X800	AYKWX800	AYKVX800		MM4.82.6.5