

NEW PRODUCTS

NEW PRODUCTS 2010



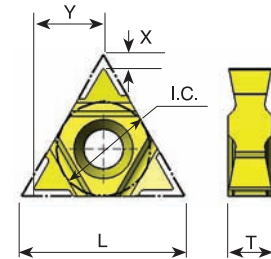
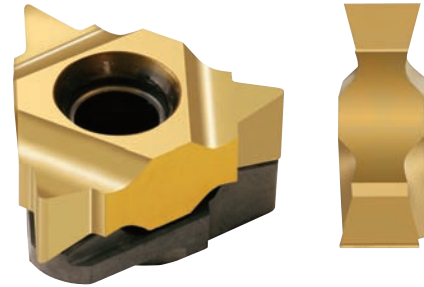
Inch

Description	Page
1. Thread Turning	
1.1 DSI - Double Sided Thread Turning Inserts and Toolholders	1-4
2. Mill-Thread	
2.1 CMT - Vertical Mill-Thread	5-9
2.2 D-Thread - for Machining Deep Threads	10-11
3. Mill-Thread Solid Carbide	
3.1 MTQ - with Relieved Neck and Internal Coolant Bore	12-13
3.2 MTH - HARDCUT	14-15
3.3 DMT - *Drill, Thread, Chamfer	16
4. Mini Mill-Thread Solid Carbide	
4.1 BSW, BSP	17
4.2 MTS - Long Thread Mills	17-18
5. Mill-Thread Technical Section	
5.1 CMT	19
5.2 D-Thread	20
5.3 MTQ	21
5.4 MTH	22
5.5 DMT	23
6. Tiny Tools	
6.1 BMK - New Coating	24
6.2 MVR - Deep Face Grooving	25
6.3 MWR, MWL - Chamfering and Profiling	26
6.4 MUR - Profiling, 90° Face Cutting	27
6.5 Tiny Tools Bar Holders	28

DSI Double Sided Thread Turning Inserts

Carmex presents a unique line of 2 sided inserts including 6 cutting edges, a cost saving tool.

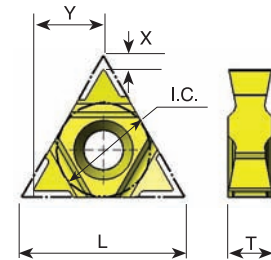
- Increased productivity thanks to the six cutting edges.
- U Style inserts for a wide range of full or partial profile standard threads.
- Same insert for right hand or left hand thread.
- Saving on tooling costs.
- Unique anti-vibration anvil design for clamping the insert and supporting the cutting edge.
- Simple insert mounting and indexing.
- Heavy duty toolholders designed specifically for this line.



Partial Profile 60°

Pitch Range mm	Pitch Range TPI	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
1.75 - 3.0	14 - 8	16U	3/8U	16U ER/L G60-6	16U IR/L G60-6	.055	.28	.18
0.5 - 3.0	48 - 8	16U	3/8U	16U ER/L AG60-6	16U IR/L AG60-6	.055	.28	.18
3.5 - 5.0	7- 5	16U	3/8U	16U ER/L N60-6	16U IR/L N60-6	.047	.29	.18

Available coating grades: BMA or MXC



Partial Profile 55°

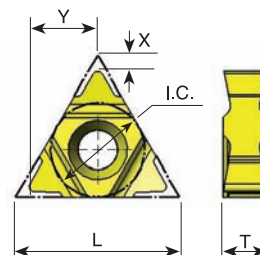
Pitch Range mm	Pitch Range TPI	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
1.75 - 3.0	14 - 8	16U	3/8U	16U ER/L G55-6	16U IR/L G55-6	.055	.28	.18
0.5 - 3.0	48 - 8	16U	3/8U	16U ER/L AG55-6	16U IR/L AG55-6	.055	.28	.18
3.5 - 5.0	7- 5	16U	3/8U	16U ER/L N55-6	16U IR/L N55-6	.047	.29	.18

Available coating grades: BMA or MXC

For technical information see Carmex's main catalog

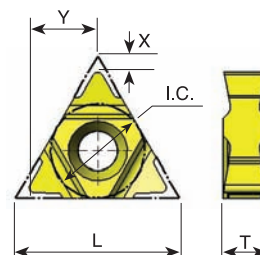


ISO



Pitch mm	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
1.5	16U	3/8U	16U ER/L 1.5 ISO-6	16U IR/L 1.5 ISO-6	.063	.27	.18
1.75	16U	3/8U	16U ER/L 1.75 ISO-6	16U IR/L 1.75 ISO-6	.063	.27	.18
2.0	16U	3/8U	16U ER/L 2.0 ISO-6	16U IR/L 2.0 ISO-6	.063	.27	.18
2.5	16U	3/8U	16U ER/L 2.5 ISO-6	16U IR/L 2.5 ISO-6	.063	.27	.18
3.0	16U	3/8U	16U ER/L 3.0 ISO-6	16U IR/L 3.0 ISO-6	.063	.27	.18
3.5	16U	3/8U	16U ER/L 3.5 ISO-6	16U IR/L 3.5 ISO-6	.063	.27	.18
4.0	16U	3/8U	16U ER/L 4.0 ISO-6	16U IR/L 4.0 ISO-6	.063	.27	.18
4.5	16U	3/8U	16U ER/L 4.5 ISO-6	16U IR/L 4.5 ISO-6	.063	.27	.18
5.0	16U	3/8U	16U ER/L 5.0 ISO-6	16U IR/L 5.0 ISO-6	.063	.27	.18

Available coating grades: BMA or MXC



UN - Unified **UNC, UNF, UNEF, UNS**

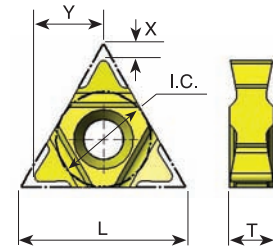
Pitch TPI	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
16	16U	3/8U	16U ER/L 16 UN-6	16U IR/L 16 UN-6	.063	.27	.18
14	16U	3/8U	16U ER/L 14 UN-6	16U IR/L 14 UN-6	.063	.27	.18
13	16U	3/8U	16U ER/L 13 UN-6	16U IR/L 13 UN-6	.063	.27	.18
12	16U	3/8U	16U ER/L 12 UN-6	16U IR/L 12 UN-6	.063	.27	.18
11.5	16U	3/8U	16U ER/L 11.5 UN-6	16U IR/L 11.5 UN-6	.063	.27	.18
11	16U	3/8U	16U ER/L 11 UN-6	16U IR/L 11 UN-6	.063	.27	.18
10	16U	3/8U	16U ER/L 10 UN-6	16U IR/L 10 UN-6	.063	.27	.18
9	16U	3/8U	16U ER/L 9 UN-6	16U IR/L 9 UN-6	.063	.27	.18
8	16U	3/8U	16U ER/L 8 UN-6	16U IR/L 8 UN-6	.063	.27	.18
7	16U	3/8U	16U ER/L 7 UN-6	16U IR/L 7 UN-6	.063	.27	.18
6	16U	3/8U	16U ER/L 6 UN-6	16U IR/L 6 UN-6	.063	.27	.18
5	16U	3/8U	16U ER/L 5 UN-6	16U IR/L 5 UN-6	.063	.27	.18

Available coating grades: BMA or MXC

For technical information see Carmex's main catalog



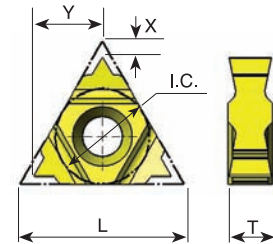
Whitworth 55° BSW, BSF, BSP, BSB



Pitch TPI	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
16	16U	3/8U	16U ER/L 16 W-6	16U IR/L 16 W-6	.063	.27	.18
14	16U	3/8U	16U ER/L 14 W-6	16U IR/L 14 W-6	.063	.27	.18
12	16U	3/8U	16U ER/L 12 W-6	16U IR/L 12 W-6	.063	.27	.18
11	16U	3/8U	16U ER/L 11 W-6	16U IR/L 11 W-6	.063	.27	.18
10	16U	3/8U	16U ER/L 10 W-6	16U IR/L 10 W-6	.063	.27	.18
9	16U	3/8U	16U ER/L 9 W-6	16U IR/L 9 W-6	.063	.27	.18
8	16U	3/8U	16U ER/L 8 W-6	16U IR/L 8 W-6	.063	.27	.18
7	16U	3/8U	16U ER/L 7 W-6	16U IR/L 7 W-6	.063	.27	.18
6	16U	3/8U	16U ER/L 6 W-6	16U IR/L 6 W-6	.063	.27	.18
5	16U	3/8U	16U ER/L 5 W-6	16U IR/L 5 W-6	.063	.28	.18

Available coating grades: BMA or MXC

NPT



Pitch TPI	L mm	I.C.	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
14	16U	3/8U	16U ER/L 14 NPT-6	16U IR/L 14 NPT-6	.063	.27	.18
11.5	16U	3/8U	16U ER/L 11.5 NPT-6	16U IR/L 11.5 NPT-6	.063	.27	.18
8	16U	3/8U	16U ER/L 8 NPT-6	16U IR/L 8 NPT-6	.063	.27	.18

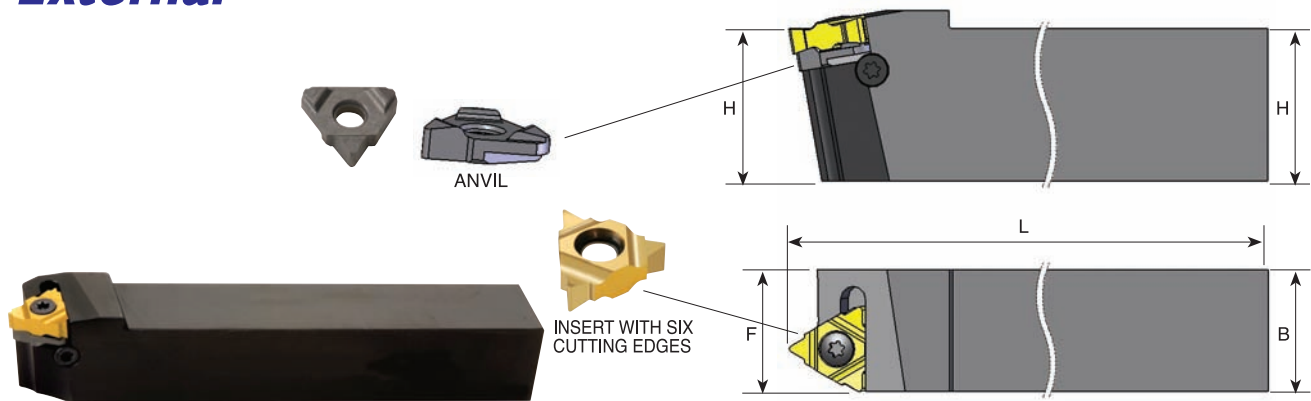
Available coating grades: BMA or MXC

For technical information see Carmex's main catalog



Heavy Duty Thread Turning Toolholders

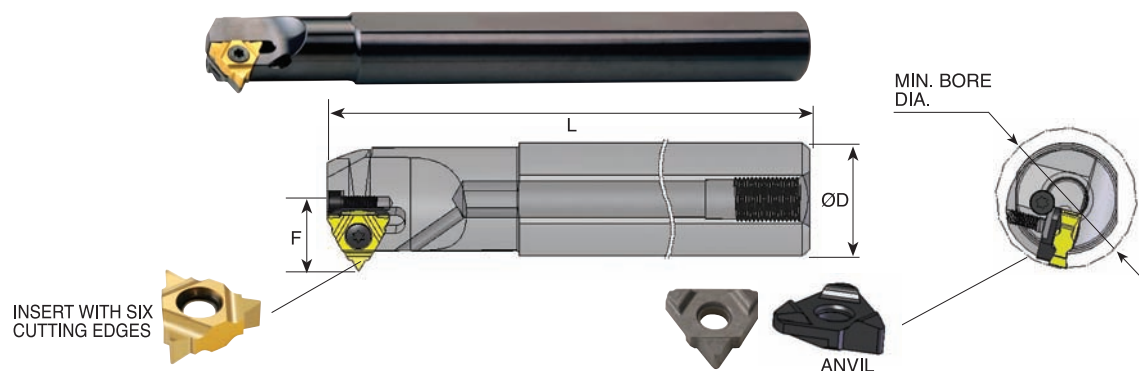
External



Ordering Code Right Hand	H	B	L	F	Insert Screw	Anvil Screw	Torx Key	RH Anvil	LH Anvil
SER 0750 K16U-6	.75	.75	5.0	.75	S16	A16	K16	AER 16U-6	AEL 16U-6
SER 1079 M16U-6	1.0	.79	6.0	.79	S16	A16	K16	AER 16U-6	AEL 16U-6

For **LEFT HAND** toolholders specify **SEL** instead of **SER**

Internal with Coolant Bore

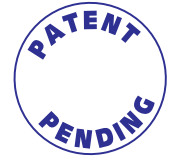


Ordering Code Right Hand	Ø D	Min. bore dia.	L	F	Insert Screw	Anvil Screw	Torx Key	RH Anvil	LH Anvil
SIR 0750 P16UB-6	.75	.91	7.0	.56	S16	A16	K16	AIR 16U-6	AIL 16U-6
SIR 1000 R16UB-6	1.0	1.16	8.0	.69	S16	A16	K16	AIR 16U-6	AIL 16U-6

For **LEFT HAND** toolholders specify **SIL** instead of **SIR**



CMT Vertical Mill-Thread



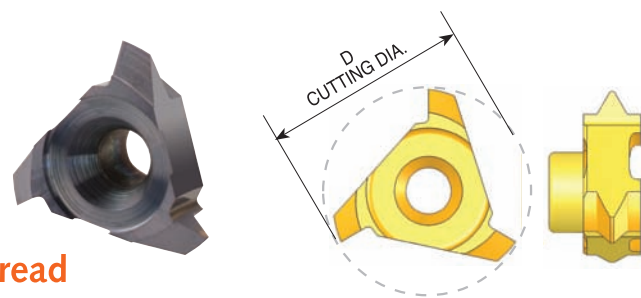
Carmex presents a new family of vertical thread milling indexable inserts and toolholders to perform a wide variety of threads.

- Ground profile inserts for high precision and excellent performance.
- Working at high machining parameters, with high surface quality.
- Solid and accurate clamping method enables full repeatability.
- Same insert for right-hand or left-hand threads.
- Toolholder includes built-in weldon and coolant bore.
- Chamfer inserts are also available.



Partial Profile 60°

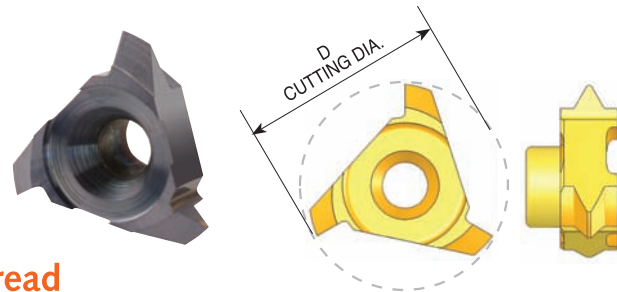
Same insert for internal and external thread



Insert Type	Pitch Range mm	Pitch Range TPI	Ordering Code	D	Thread Dia. (min)
C12	Int. 0.5 - 0.8	56 - 28	C12 A60	.47	$\varnothing \geq .55$
C12	Ex. 0.4 - 0.8	64 - 32		.47	$\varnothing \geq .55$
C12	Int. 1.0 - 2.0	28 - 13	C12 G60	.47	$\varnothing \geq .63$
C12	Ex. 0.8 - 1.75	32 - 15		.47	$\varnothing \geq .63$
C18	Int. 0.5 - 0.8	56 - 28	C18 A60	.70	$\varnothing \geq .75$
C18	Ex. 0.4 - 0.8	64 - 32		.70	$\varnothing \geq .75$
C18	Int. 1.0 - 1.75	28 - 14	C18 G60	.70	$\varnothing \geq .83$
C18	Ex. 0.8 - 1.5	32 - 16		.70	$\varnothing \geq .83$
C18	Int. 2.0 - 3.0	13 - 8	C18 D60	.70	$\varnothing \geq .91$
C18	Ex. 1.75 - 2.5	15 - 10		.70	$\varnothing \geq .91$

Partial Profile 55°

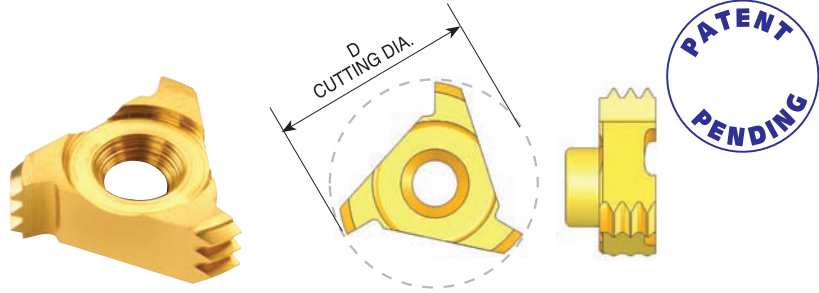
Same insert for internal and external thread



Insert Type	Pitch Range TPI	Ordering Code	D	Thread Dia. (min)
C12	28-19	C12 G55	.47	$\varnothing \geq .55$
C18	14 - 8	C18 G55	.70	$\varnothing \geq .91$

Full Profile ISO

Inserts for internal thread



Insert Type	Pitch mm	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	0.5	$\varnothing \geq .51$	C12 I 0.5 ISO	6	.47
C12	0.75	$\varnothing \geq .51$	C12 I 0.75 ISO	4	.47
C12	1.0	$\varnothing \geq .55$	C12 I 1.0 ISO	3	.47
C12	1.5	$\varnothing \geq .59$	C12 I 1.5 ISO	2	.47
C12	2.0	$\varnothing \geq .63$	*C12 I 2.0 ISO	1	.47
C18	0.5	$\varnothing \geq .75$	C18 I 0.5 ISO	9	.70
C18	0.75	$\varnothing \geq .75$	C18 I 0.75 ISO	6	.70
C18	1.0	$\varnothing \geq .79$	C18 I 1.0 ISO	5	.70
C18	1.5	$\varnothing \geq .79$	C18 I 1.5 ISO	3	.70
C18	2.0	$\varnothing \geq .83$	C18 I 2.0 ISO	2	.70
C18	2.5	$\varnothing \geq .87$	C18 I 2.5 ISO	2	.70
C18	3.0	$\varnothing \geq .91$	C18 I 3.0 ISO	1	.70

* The insert cannot be used with toolholder CRC 0375 M12

UN

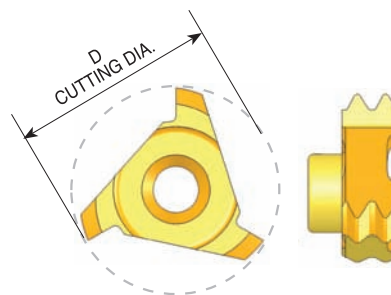
Inserts for internal thread

Insert Type	Pitch TPI	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	32	$\varnothing \geq .51$	C12 I 32 UN	3	.47
C12	28	$\varnothing \geq .55$	C12 I 28 UN	3	.47
C12	24	$\varnothing \geq .55$	C12 I 24 UN	2	.47
C12	20	$\varnothing \geq .55$	C12 I 20 UN	2	.47
C12	18	$\varnothing \geq .59$	C12 I 18 UN	2	.47
C12	16	$\varnothing \geq .59$	C12 I 16 UN	1	.47
C12	11	$\varnothing \geq .63$	*C12 I 11 UN	1	.47
C18	32	$\varnothing \geq .75$	C18 I 32 UN	6	.70
C18	28	$\varnothing \geq .75$	C18 I 28 UN	5	.70
C18	24	$\varnothing \geq .79$	C18 I 24 UN	4	.70
C18	20	$\varnothing \geq .79$	C18 I 20 UN	3	.70
C18	18	$\varnothing \geq .79$	C18 I 18 UN	3	.70
C18	16	$\varnothing \geq .83$	C18 I 16 UN	3	.70
C18	14	$\varnothing \geq .83$	C18 I 14 UN	2	.70
C18	12	$\varnothing \geq .87$	C18 I 12 UN	2	.70
C18	11	$\varnothing \geq .87$	C18 I 11 UN	2	.70

* The insert cannot be used with toolholder CRC 0375 M12

G 55° BSW, BSF, BSP, BSB

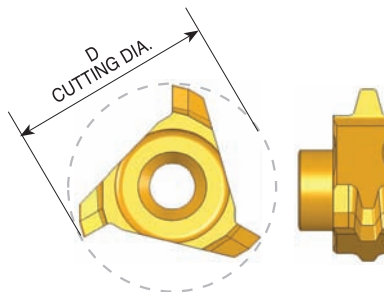
Same Insert for internal and external thread



Insert Type	Pitch TPI	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	19	$\varnothing \geq .55$	C12 19 W	2	.47
C18	14	$\varnothing \geq .83$	C18 14 W	2	.70
C18	11	$\varnothing \geq .87$	C18 11 W	2	.70

Trapez - DIN 103

Inserts for internal thread

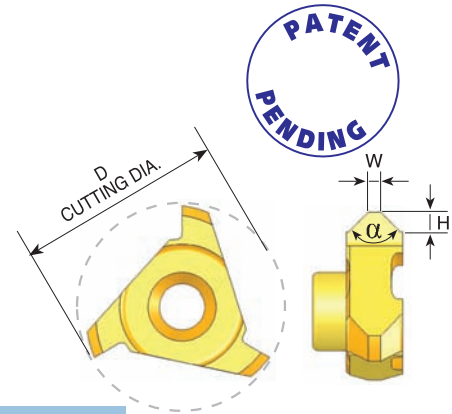


Insert Type	Pitch mm	Minimum Thread Dia.	Ordering Code	D
C18	4.0	$\varnothing \geq .94$	C 18 I 3TR	.70
C18	3.0	$\varnothing \geq 1.02$	*C 18 I 4TR	.70

* Can be used only with toolholder CRC 0500 P18

Chamfering and Grooving

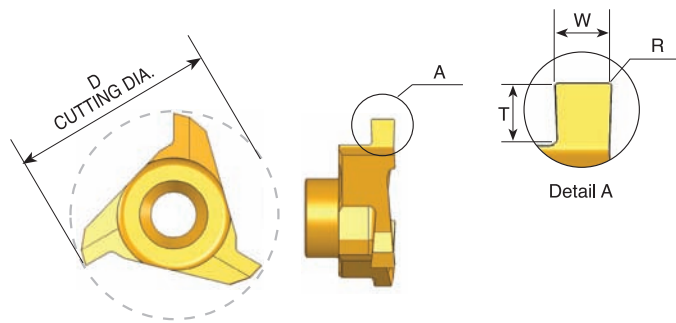
- Optimal for deburring, back chamfering and grooving
- Double side cutting
- General purpose for all materials



Insert Type	Ordering Code	D	H	W	α
C12	*C12 C90	.47	.053	.012	90°
C18	C18 C90	.70	.077	.043	90°

* The insert cannot be used with toolholder CRC 0375 M12

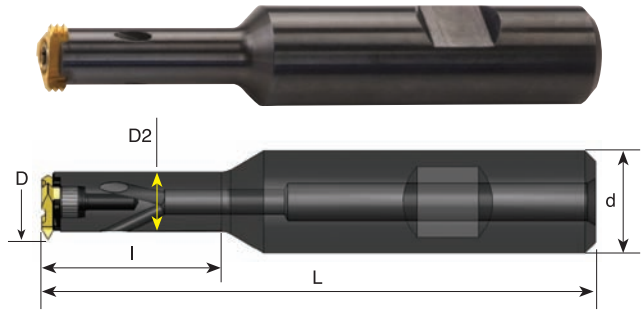
Groove Milling



Insert Type	Ordering Code	D	W $\pm .001$	T max.	R	Groove Dia. (min)
C12	C12 W08	.47	.031	.03	.004	$\emptyset > .47$
C12	C12 W10	.47	.039	.04	.004	$\emptyset > .47$
C18	C18 W10	.70	.039	.06	.004	$\emptyset > .70$
C18	C18 W12	.70	.047	.06	.004	$\emptyset > .70$
C18	C18 W15	.70	.059	.08	.004	$\emptyset > .70$

Toolholders

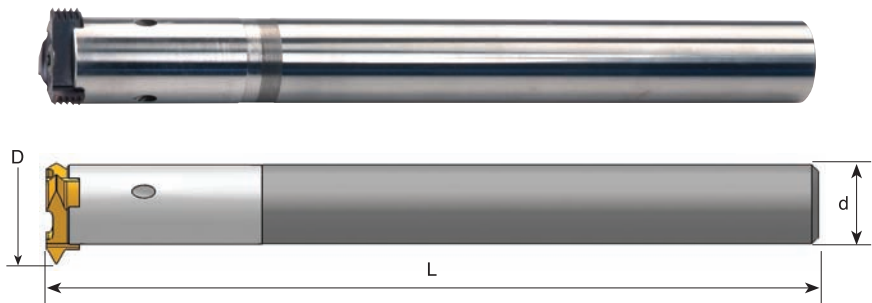
With internal coolant



Insert Type	Ordering Code	d	D	D2	I	L	Insert Screw	Torx Key
C12	SRC 0500 E12	.500	.47	.35	.98	2.8	S10	K10
C12	SRC 0625 G12	.625	.47	.35	.98	3.5	S10	K10
C12	SRC 0625 H12	.625	.47	.35	1.38	4.0	S10	K10
C18	SRC 0625 H18	.625	.70	.54	1.89	4.0	S16	K16
C18	SRC 0750 H18	.750	.70	.54	1.26	4.0	S16	K16
C18	SRC 0750 J18	.750	.70	.54	1.89	4.5	S16	K16
C18	SRC 0750 L18	.750	.70	.54	2.91	5.5	S16	K16

Carbide Shank Toolholders

With internal coolant

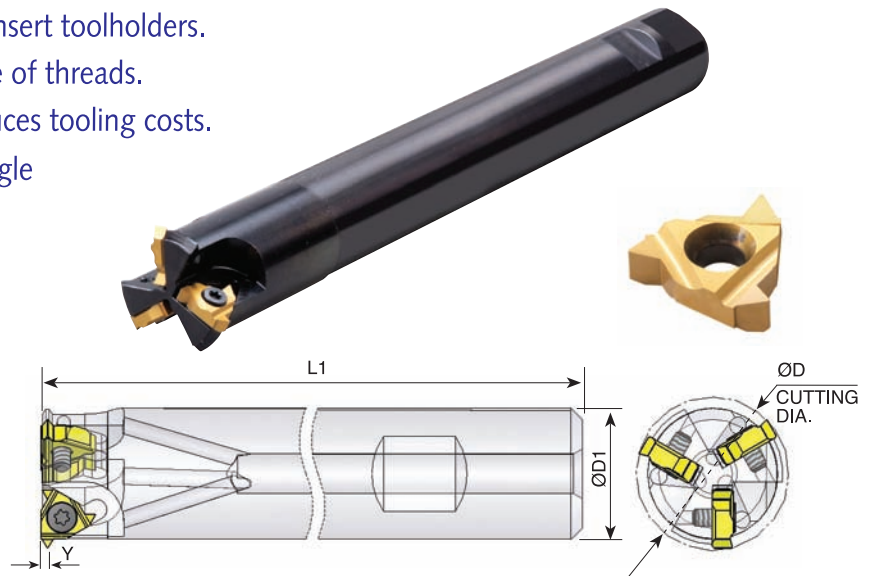


Insert Type	Ordering Code	d	D	L	Insert Screw	Torx Key
C12	CRC 0375 M12	.375	.47	6.0	S10	K10
C18	CRC 0500 P18	.500	.70	7.0	S16	K16



D-Thread Mill-Thread Inserts & Toolholders for machining deep threads

- Improved productivity due to multi-insert toolholders.
- Partial Profile inserts for a wide range of threads.
- Inserts with three cutting edges, reduces tooling costs.
- Low cutting resistance due to the single point inserts.
- Holder allows a long overhang and includes internal coolant.
- Same insert and toolholder for both external and internal thread.



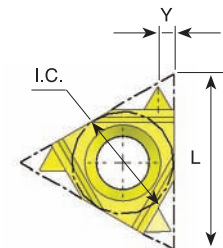
Ordering Code	Insert Size		Y	D	D1	L1	No. of Inserts	Insert Screw	Torx Key
	L	I.C.							
SR0925Q11	11	1/4	.04	.925	.75	7.5	3	SE11	K11

Partial 60° Size 11

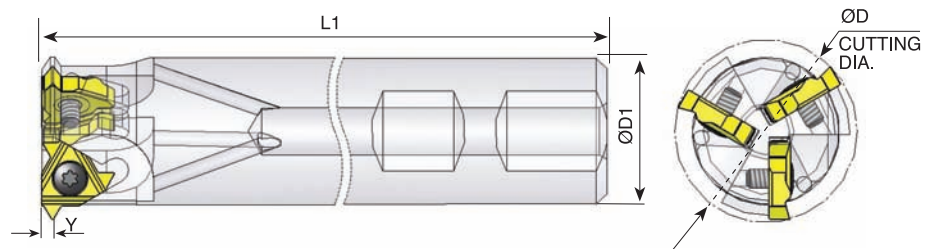
Ordering Code		Pitch	
		mm	TPI
1160D	INT.	1.0 -2.0	24-12
	EX.	0.75-1.5	32-14

Partial 55° Size 11

Ordering Code		Pitch
		TPI
1155D	INT./EX.	24-14



Coated Grade: BMA



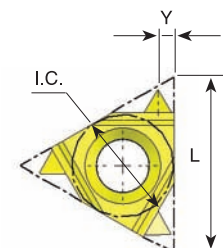
Ordering Code	Insert Size		Y	D	D1	L1	No. of Inserts	Insert Screw	Torx Key
	L	I.C.							
SR1220R16	16	3/8	.07	1.22	1	8.86	3	SE16	K16

Partial 60° Size 16

Ordering Code		Pitch	
		mm	TPI
1660D	INT.	2.5-3.5	10-7
	EX.	2.0-3.0	12-8

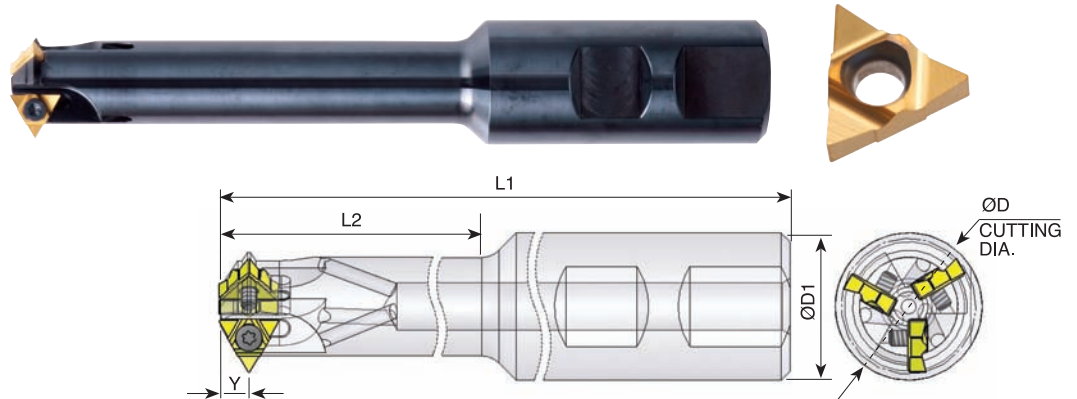
Partial 55° Size 16

Ordering Code		Pitch
	<th>TPI</th>	TPI
1655D	INT./EX.	12-8



Coated Grade: BMA

D-Thread Mill-Thread Inserts & Toolholders for machining deep threads



Ordering Code	Insert Size		Y	D	D1	L1	L2	No. of Inserts	Insert Screw	Torx Key
	L	I.C.								
SR0905M11U	11U	1/4U	.20	.905	1	5.9	3.46	3	SE11	K11

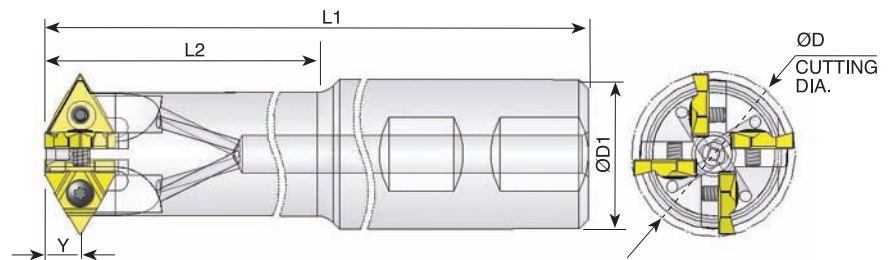
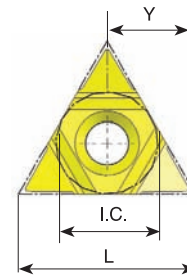
Partial 60° Size 11U

Ordering Code		Pitch	
		mm	TPI
11U60D	INT.	2.5-4.0	10-6
	EX.	2.0-3.0	12-8

Coated Grade: BMA

Partial 55° Size 11U

Ordering Code		Pitch
		TPI
11U55D	INT./EX.	12-7



Ordering Code	Insert Size		Y	D	D1	L1	L2	No. of Inserts	Insert Screw	Torx Key
	L	I.C.								
SR1400R16U	16U	3/8U	.30	1.40	1.25	8.66	6.1	4	SE16	K16

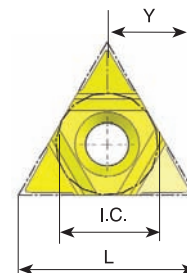
Partial 60° Size 16U

Ordering Code		Pitch	
		mm	TPI
16U60D	INT.	4.0-6.0	6-4
	EX.	3.0-5.0	8-5

Coated Grade: BMA

Partial 55° Size 16U

Ordering Code		Pitch
	<th>TPI</th>	TPI
16U55D	INT./EX.	6-4.5



MTQ Metric Shanks

Thread mills with relieved neck and internal coolant for milling medium and large threads on relatively deep work pieces.

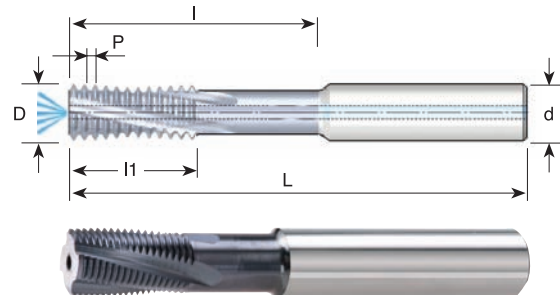
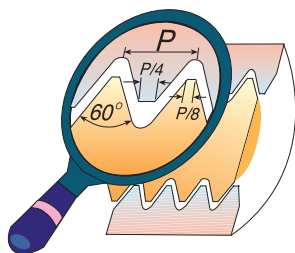


Carbide grade: MT7

- To perform medium and large threads on relatively deep work pieces.
 - To use overhang according to the application.
 - To perform deep threads at the bottom of the application.
- Provides high rigidity and stability (anti-vibrations).
 - Accomplishes deep threads in one pass.
 - Relatively low cutting forces due to short cutting length which enables reduction of the radial in feed required.
 - Threads length up to 3D.

ISO With relieved neck and internal coolant bore

Tools for Internal Thread

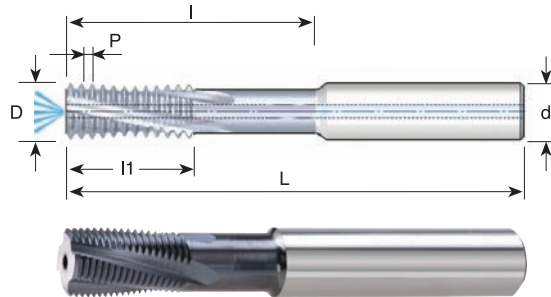
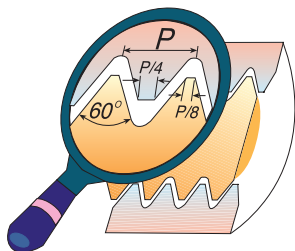


Pitch mm	M fine	Ordering Code	d mm	D	No. of Flutes	l1	l	L
1.0	$\varnothing \geq 12$	MTQ1010D32 1.0 ISO	10	.394	4	0.71	1.26	2.9
1.0	$\varnothing \geq 14$	MTQ1212D38 1.0 ISO	12	.472	4	0.83	1.50	3.3
1.0	$\varnothing \geq 18$	MTQ1616F45 1.0 ISO	16	.630	6	1.02	1.77	4.1
1.5	$\varnothing \geq 13$	MTQ1010D30 1.5 ISO	10	.394	4	0.71	1.18	2.9
1.5	$\varnothing \geq 15$	MTQ1212D34 1.5 ISO	12	.472	4	0.77	1.36	3.3
1.5	$\varnothing \geq 19$	MTQ1616F43 1.5 ISO	16	.630	6	1.00	1.71	4.1
1.5	$\varnothing \geq 23$	MTQ2020F60 1.5 ISO	20	.787	6	1.42	2.36	4.1
2.0	$\varnothing \geq 16$	MTQ1212D42 2.0 ISO	12	.472	4	0.94	1.65	3.3
2.0	$\varnothing \geq 20$	MTQ1616E45 2.0 ISO	16	.630	5	1.02	1.77	4.1
2.0	$\varnothing \geq 24$	MTQ2020F56 2.0 ISO	20	.787	6	1.34	2.20	4.1
3.0	$\varnothing \geq 22$	MTQ1616D45 3.0 ISO	16	.630	4	1.18	1.77	4.1
3.0	$\varnothing \geq 26$	MTQ2020E54 3.0 ISO	20	.787	5	1.30	2.13	4.1
3.5	$\varnothing \geq 26$	MTQ2020D45 3.5 ISO	20	.787	4	1.10	1.79	4.1
4.0	$\varnothing \geq 31$	MTQ2525D64 4.0 ISO	25	.984	4	1.57	2.52	6.3

Order example: MTQ 1010D30 1.5 ISO MT7

UN With relieved neck and internal coolant bore

Tools for Internal Thread



Pitch TPI	Thread Size	Ordering Code	d mm	D	No. of Flutes	l1	l	L
20	$\varnothing \geq 12$	MTQ1010D30 20 UN	10	.394	4	0.70	1.20	2.9
20	$\varnothing \geq 14$	MTQ1212E35 20 UN	12	.472	5	0.80	1.40	3.3
20	$\varnothing \geq 18$	MTQ1616F43 20 UN	16	.630	6	1.00	1.70	4.1
18	$\varnothing \geq 15$	MTQ1212D35 18 UN	12	.472	4	0.78	1.39	3.3
16	$\varnothing \geq 15$	MTQ1212D35 16 UN	12	.472	4	0.81	1.38	3.3
16	$\varnothing \geq 19$	MTQ1616E42 16 UN	16	.630	5	1.00	1.69	4.1
16	$\varnothing \geq 23$	MTQ2020F58 16 UN	20	.787	6	1.44	2.31	4.1
14	$\varnothing \geq 20$	MTQ1616E45 14 UN	16	.630	5	1.00	1.78	4.1
12	$\varnothing \geq 16$	MTQ1212D42 12 UN	12	.472	4	1.00	1.67	3.3
12	$\varnothing \geq 24$	MTQ2020E55 12 UN	20	.787	5	1.33	2.17	4.1

Order example: MTQ 1212D35 16 UN MT7

MTH - HARD CUT Metric Shanks

Carmex provide new innovative mill thread solid carbide tools for machining:

- Hardened steels and cast iron up to 62 HRC.
- High temperature alloys.
- Titanium alloys.
- Super Alloys (Hastelloy, Inconel, Nickel Base Alloys).

Carbide grade: MT9

Ultra fine sub-micron grade with Advanced PVD Triple Coating

Principle

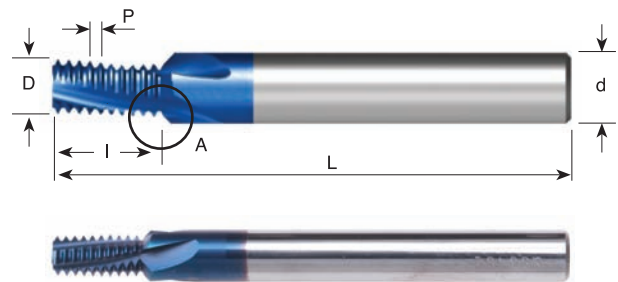
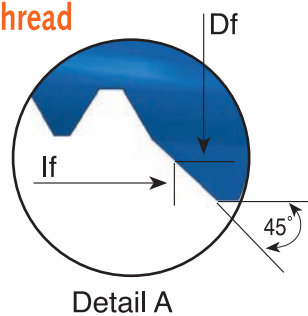
The tools provide the ability to machine materials with a higher tensile strength and hardness using relatively high cutting data.

Advantages

- Same tool performs thread milling and chamfering - saves machining time.
- Increased cutting diameter - better rigidity and stability.
- Coating provides high wear and heat resistance.
- Ultra fine grade - dedicated for hardened materials.
- Short chips are produced, insure high process security.
- Short cycle time - increases productivity.
- Thread length up to 2xD.

ISO

Tools for Internal Thread

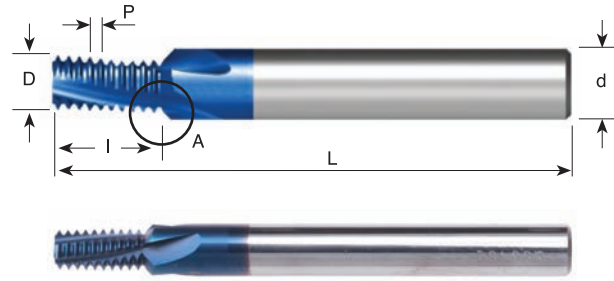
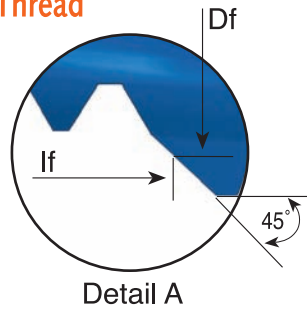


Pitch mm	M coarse	M fine	Ordering Code	d mm	D	Df	No. of Flutes	I	If	L
0.5	M3	$\varnothing \geq 4$	MTH06024C5 0.5 ISO	6	.094	.142	3	.209	.232	2.3
0.7	M4	$\varnothing \geq 5$	MTH06031C7 0.7 ISO	6	.122	.169	3	.291	.315	2.3
0.8	M5	$\varnothing \geq 6$	MTH0604C9 0.8 ISO	6	.157	.205	3	.362	.386	2.3
1.0	M6	$\varnothing \geq 7$	MTH08048D10 1.0 ISO	8	.189	.252	4	.413	.445	2.5
1.0		$\varnothing \geq 9$	MTH0806D13 1.0 ISO	8	.236	.299	4	.531	.563	2.5
1.0		$\varnothing \geq 10$	MTH1008D16 1.0 ISO	10	.315	.378	4	.650	.681	2.9
1.25	M8	$\varnothing \geq 10$	MTH0806D14 1.25 ISO	8	.236	.299	4	.567	.598	2.5
1.5	M10	$\varnothing \geq 12$	MTH1008D17 1.5 ISO	10	.315	.386	4	.681	.717	2.9
1.5		$\varnothing \geq 14$	MTH1210D21 1.5 ISO	12	.394	.465	4	.858	.894	3.3
1.75	M12	$\varnothing \geq 12$	MTH12095D20 1.75 ISO	12	.374	.453	4	.791	.831	3.3

Order example: MTH08048D10 1.0 ISO MT9

UN

Tools for Internal Thread



Pitch TPI	UNC	UNF	UNEF	Ordering Code	d mm	D	Df	No. of Flutes	I	lf	L
40	5	6		MTH06025C6 40 UN	6	.098	.146	3	.236	.260	2.3
32	6			MTH06026C5 32 UN	6	.102	.150	3	.232	.256	2.3
32	8			MTH06032C7 32 UN	6	.126	.173	3	.295	.319	2.3
32		10	12	MTH06038C9 32 UN	6	.150	.197	3	.358	.382	2.3
28		1/4		MTH08052D11 28 UN	8	.205	.268	4	.445	.476	2.5
28			7/16, 1/2	MTH12096D20 28 UN	12	.378	.441	4	.803	.835	3.3
24		5/16, 3/8	9/16, 5/8, 11/16	MTH08066D14 24 UN	8	.260	.315	4	.563	.591	2.5
20	1/4			MTH06048C12 20 UN	6	.189	.236	3	.476	.500	2.3
20		7/16, 1/2	3/4, 1	MTH12092D21 20 UN	12	.362	.425	4	.827	.858	3.3
18	5/16	9/16, 5/8	11/16	MTH08057C14 18 UN	8	.224	.295	3	.583	.618	2.5
16	3/8	3/4		MTH10074C16 16 UN	10	.291	.362	3	.657	.693	2.9
14	7/16	7/8		MTH10085D20 14 UN	10	.335	.390	4	.823	.850	2.9
13	1/2			MTH12094D22 13 UN	12	.370	.449	4	.886	.925	3.3

Order example: MTH06048C12 20 UN MT9

DMT 3 in 1 - *DRILL, THREAD, CHAMFER Metric Shanks

High Performance tools with internal coolant supply for the production of internal threads.
*Circular movement produces the thread hole, the thread and a chamfer in one work process.

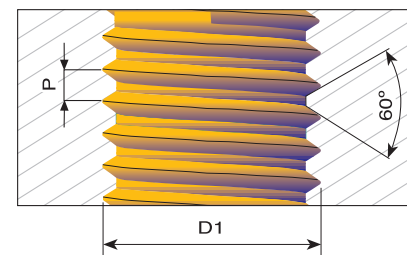
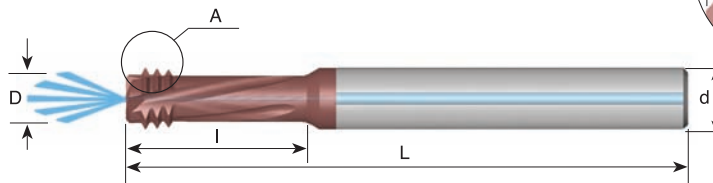
Advantages

- Cancels the need for drilling the hole.
- Short cycle time and high performance reduces machining costs.
- Suitable for both blind and through holes.
- No time lost for tool change, since drilling, chamfering and thread milling are done with one tool.
- Full Profile thread
- Same tool for right-hand or left-hand threads.
- Cuts a wide range of materials.



Carbide grade: MT7 *Sub-micron grade with Titanium Aluminium Nitride multi-layer coating (ISO K10-K20).*

ISO Tools for Internal Thread



Left hand cutting
For CNC code use M04

For thread depth up to 2 x D1

Pitch mm	D1	Ordering Code	d mm	D	No. of Flutes	I	W	L
1.0	M6	DMT08047C14 1.0 ISO	8	.185	3	.55	.016	2.5
1.25	M8	DMT08061D18 1.25 ISO	8	.240	4	.71	.020	2.5
1.5	M10	DMT08078D23 1.5 ISO	8	.307	4	.91	.024	2.5
1.75	M12	DMT1009D26 1.75 ISO	10	.354	4	1.02	.024	2.9
2.0	M16	DMT12118D35 2.0 ISO	12	.465	4	1.38	.024	3.3

UN

Tools for Internal Thread

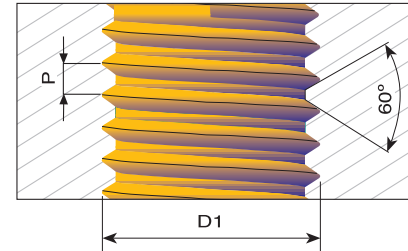
For thread depth up to 2 x D1

Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	I	W	L
28		1/4	DMT0805C14 28 UN	8	.197	3	.57	.016	2.5
24		5/16, 3/8	DMT08065D17 24 UN	8	.256	4	.67	.020	2.5
20	1/4		DMT08048C14 20 UN	8	.189	3	.55	.016	2.5
18	5/16		DMT0806D17 18 UN	8	.236	4	.67	.020	2.5
16	3/8		DMT08067C22 16 UN	8	.264	3	.87	.020	2.5

Mini Mill-Thread Metric Shanks



G 55° BSW, BSP
Same Tool for Internal and External Thread



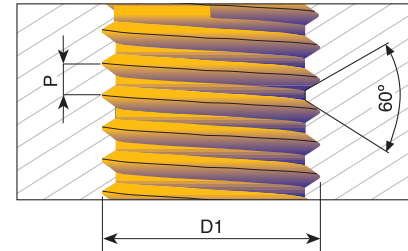
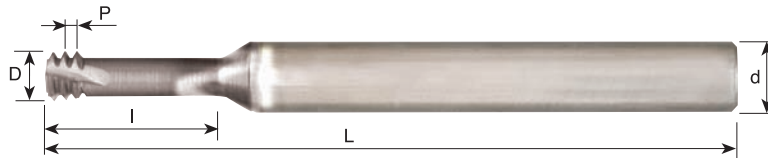
For thread depth up to 2xD1

Pitch TPI	Standard	Ordering code	d mm	D	No. of Flutes	I	L
28	G 1/8	MTS08078C19 28 W	8	.31	3	0.77	2.5
19	G 1/4 - 3/8	MTS1010D30 19 W	10	.39	4	1.18	2.9
14	G 1/2 - 7/8	MTS1212D37 14 W	12	.47	4	1.46	3.3
11	G ≥ 1	MTS1616D44 11 W	16	.63	4	1.73	4.1

LONG MINI MILL-THREAD

We extended the product range and added Long Shank Thread Mills enabling threading at the bottom of deep workpieces.

ISO
Tools for Internal Thread



For thread depth up to 2xD1

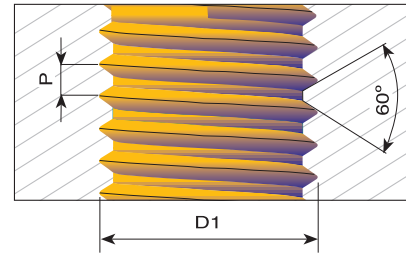
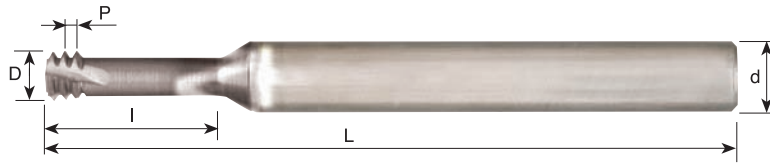
Pitch mm	D1	Ordering Code	d mm	D	No. of Flutes	I	L
0.4	M2	MTS06016C4 0.4 ISO-L	6	.06	3	.18	4.1
0.45	M2.5	MTS0602C5 0.45ISO-L	6	.08	3	.22	4.1
0.5	M3	MTS06024C6 0.5 ISO-L	6	.09	3	.26	4.1

For thread depth up to 3xD1

Pitch mm	D1	Ordering Code	d mm	D	No. of Flutes	I	L
0.5	M3	MTS06024C9 0.5 ISO-L	6	.09	3	.37	4.1
0.7	M4	MTS06031C12 0.7 ISO-L	6	.12	3	.49	4.1
0.8	M5	MTS06038C16 0.8 ISO-L	6	.15	3	.63	4.1
1.0	M6	MTS06047C20 1.0 ISO-L	6	.18	3	.79	4.1

UN

Tools for Internal Thread

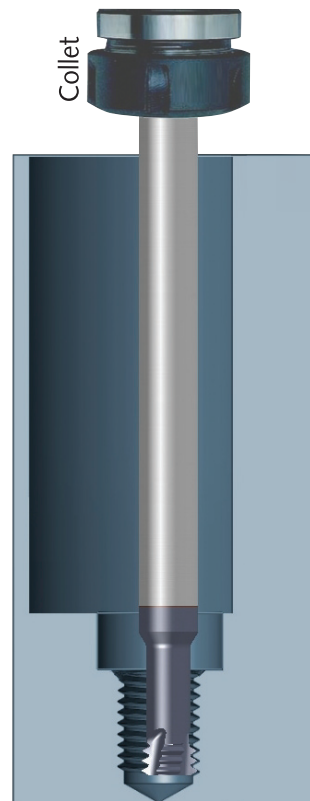


For thread depth up to $2xD1$

Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	I	L
40	4		MTS06021C6 40 UN-L	6	.08	3	.25	4.1
32	6		MTS06025C7 32 UN-L	6	.10	3	.28	4.1
32	8		MTS06032C9 32 UN-L	6	.13	3	.37	4.1

For thread depth up to $3xD1$

Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	I	L
56	2	3	MTS06016C6 56 UN-L	6	.06	3	.26	4.1
40	4		MTS06021C8 40 UN-L	6	.08	3	.31	4.1
32	6		MTS06025C10 32 UN-L	6	.10	3	.41	4.1
32	8		MTS06032C12 32 UN-L	6	.13	3	.49	4.1
32		10	MTS06037C15 32 UN-L	6	.15	3	.59	4.1
20	1/4		MTS06047C19 20 UN-L	6	.19	3	.75	4.1

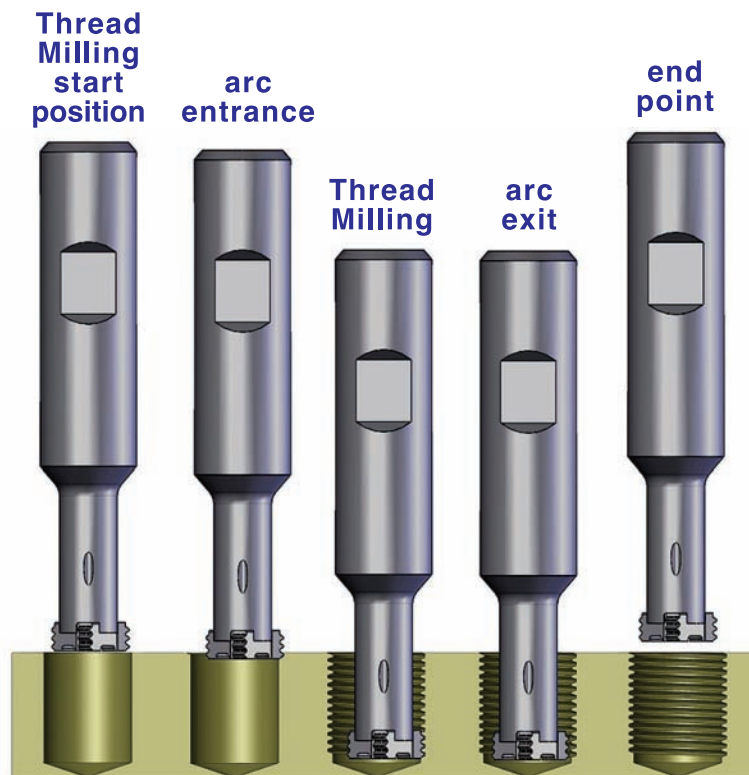


Cutting Data

CMT type

MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

ISO Standard	Material	Cutting Speed ft/min	Feed inch/tooth Cutting Diameter = D	
			Ø.47	Ø.70
P	Low and Medium Carbon Steels <0.55%C	197-394	.0067	.0079
	High Carbon Steels ≥0.55%C	197-295	.0063	.0079
	Alloy Steels, Treated Steels	164-262	.0047	.0063
M	Stainless Steels - Free Cutting	230-328	.0043	.0059
	Stainless Steels - Austenitic	197-295	.0043	.0059
	Cast Steels	230-295	.0047	.0063
K	Cast Iron	131-262	.0067	.0079
N	Aluminium ≤10%Si, Copper	328-656	.0067	.0079
	Aluminium >10% Si	197-459	.0043	.0061
	Synthetics, Duroplastics, Thermoplastics	164-656	.0075	.0087
S	Nickel Alloys, Titanium Alloys	66-131	.0028	.0039
H	Hardened Steel 45 - 50HRc	197-230	.0035	.0051
	Hardened Steel 50 - 55HRc	164-197	.0031	.0047



D-Thread type

MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

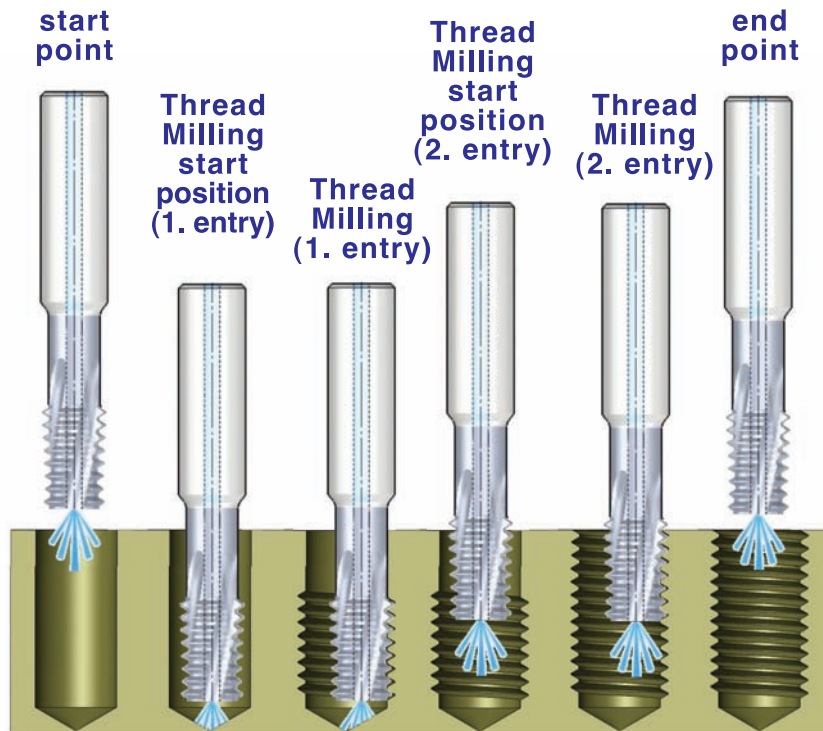
ISO Standard	Material	Cutting Speed ft/min
P	Low and Medium Carbon Steels <0.55%C	375- 670
	High Carbon Steels ≥0.55%C	330- 590
	Alloy Steels, Treated Steels	330- 460
M	Stainless Steels - Free Cutting	280- 410
	Stainless Steels - Austenitic	260- 375
	Cast Steels	375- 510
K	Cast Iron	245- 475
N	Aluminium ≤10%Si, Copper	490- 980
	Aluminium >10% Si	490- 980
	Synthetics, Duroplastics, Thermoplastics	330-1,150
S	Nickel Alloys, Titanium Alloys	150- 310

Recommended FEED RATE: .003 - .006 inch

MTQ type

MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

ISO Standard	Material	Cutting Speed ft/min	Feed inch/tooth Cutting Diameter = D					
			Ø.39	Ø.47	Ø.55	Ø.63	Ø.79	Ø.98
P	Low and Medium Carbon Steels <0.55%C	330- 820	.0022	.0026	.0029	.0033	.0040	.0049
	High Carbon Steels ≥0.55%C	360- 590	.0018	.0021	.0025	.0028	.0034	.0041
	Alloy Steels, Treated Steels	300- 520	.0013	.0014	.0016	.0018	.0022	.0026
M	Stainless Steels - Free Cutting	200- 520	.0017	.0017	.0019	.0022	.0025	.0030
	Stainless Steels - Austenitic	200- 390	.0014	.0014	.0017	.0019	.0022	.0028
	Cast Steels	430- 560	.0013	.0014	.0016	.0018	.0022	.0026
K	Cast Iron	230- 490	.0022	.0026	.0029	.0033	.0040	.0049
N	Aluminium ≤10%Si, Copper	490-1150	.0022	.0026	.0029	.0033	.0040	.0049
	Aluminium >10% Si	330- 820	.0013	.0014	.0016	.0018	.0022	.0026
	Synthetics, Duroplastics, Thermoplastics	330-1310	.0030	.0034	.0038	.0042	.0050	.0059
S	Nickel Alloys, Titanium Alloys	70-260	.0009	.0009	.0010	.0010	.0012	.0013

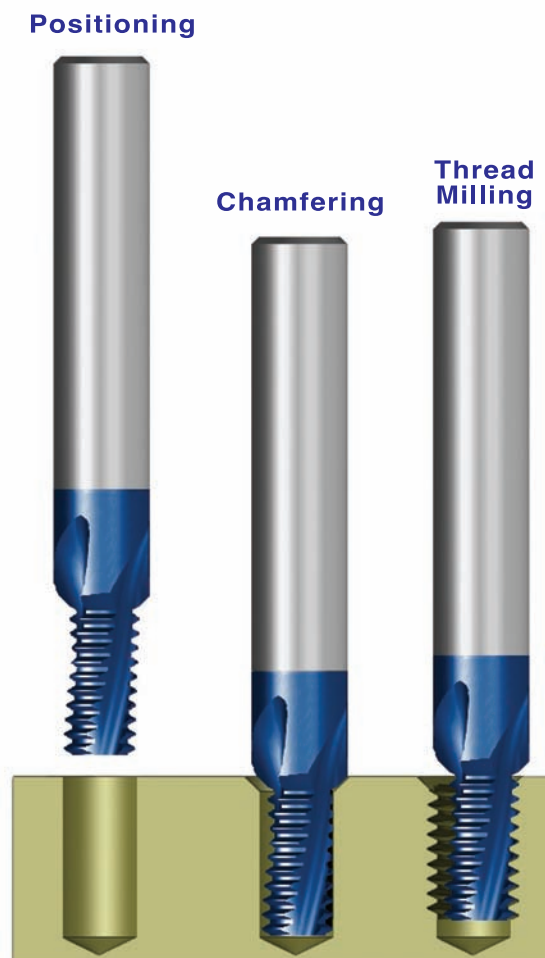


MTH type

MT9 Sub-Micron Grade with advanced PVD triple coating.

ISO Standard	Material	Cutting Speed ft/min	Feed inch/tooth Cutting Diameter = D								
			Ø.10	Ø.12	Ø.16	Ø.20	Ø.24	Ø.28	Ø.31	Ø.35	Ø.39
S	Nickel Alloys,	66 - 164	.0008	.0008	.0008	.0008	.0012	.0012	.0012	.0012	.0016
	Titanium Alloys,	66 - 164	.0008	.0008	.0008	.0008	.0012	.0012	.0012	.0012	.0016
	High Temperature Alloys	66 - 164	.0008	.0008	.0008	.0008	.0012	.0012	.0012	.0012	.0016
H	Hardened Steel, 45-50HRc	230 - 262	.0008	.0012	.0012	.0016	.0016	.0020	.0020	.0024	.0028
	Hardened Steel, 51-55HRc	197 - 230	.0004	.0008	.0008	.0012	.0012	.0016	.0016	.0020	.0024
	Hardened Steel, 56-62HRc	131 - 164	.0002	.0002	.0004	.0008	.0008	.0012	.0012	.0016	.0020

For cutters with long cutting length reduce feed rate by 40%



DMT type

MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

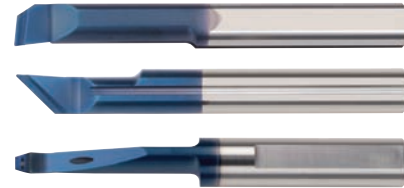
ISO Standard	Material	Cutting Speed ft/min	Feed inch/tooth Cutting Diameter = D						
			Ø.16	Ø.20	Ø.24	Ø.31	Ø.35	Ø.39	Ø.47
P	Low and Medium Carbon Steels <0.55%C	200-395	.0012	.0012	.0016	.0020	.0020	.0020	.0020
	High Carbon Steels ≥0.55%C	200-295	.0008	.0012	.0012	.0016	.0016	.0016	.0020
	Alloy Steels, Treated Steels	165- 260	.0008	.0008	.0008	.0008	.0012	.0012	.0016
M	Stainless Steels - Free Cutting	230-330	.0008	.0008	.0008	.0008	.0012	.0012	.0012
	Stainless Steels - Austenitic	200-295	.0008	.0008	.0008	.0008	.0012	.0012	.0012
	Cast Steels	230-295	.0008	.0008	.0008	.0008	.0012	.0012	.0016
K	Cast Iron	130-260	.0012	.0012	.0016	.0020	.0020	.0020	.0020
N	Aluminium ≤10%Si, Copper	330-655	.0012	.0012	.0016	.0020	.0020	.0020	.0020
	Aluminium >10% Si	200-460	.0008	.0008	.0008	.0008	.0012	.0012	.0012
	Synthetics, Duroplastics, Thermoplastics	165-655	.0016	.0020	.0020	.0024	.0024	.0024	.0024

Tiny Tools

All tools include a cooling channel on the shank, enabling the cooling fluid to efficiently reach the cutting edge, for easy chip removal and smooth cutting operations.

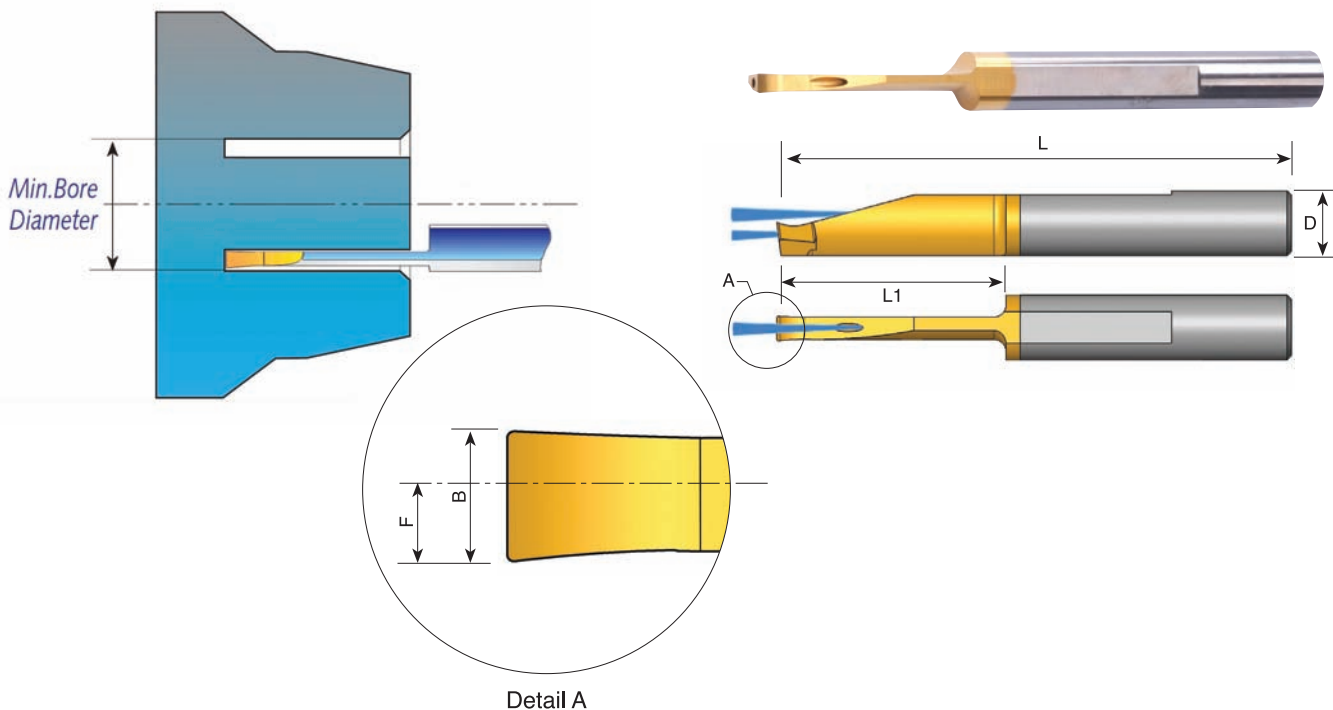
New Grade: **BMK**

Sub-micron grade with advanced PVD triple coating (ISO K10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials.



New Families

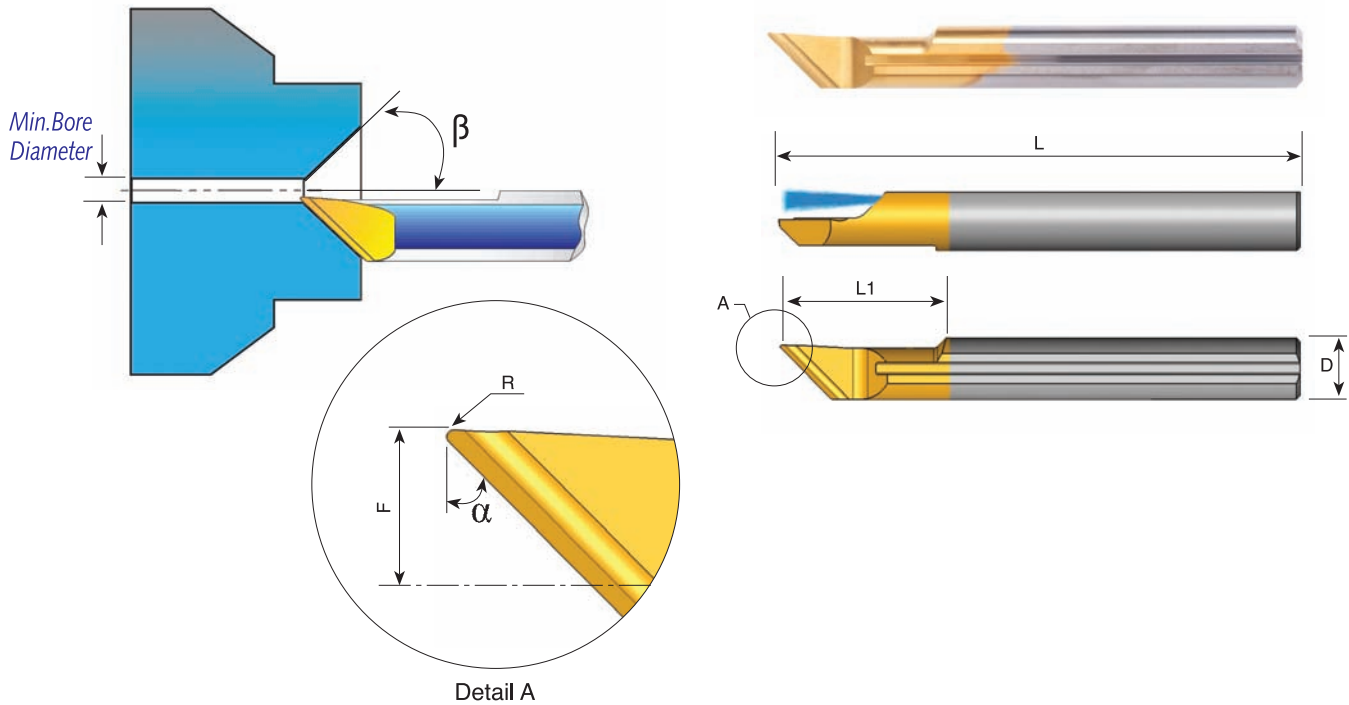
MVR Bars Deep Face Grooving - with 2 Coolant Bores



D mm	Ordering Code	L	L1	B	F	Min. Bore Dia.
6.0	MVR 6 B2.0 L15	2.5	.59	.08	.07	.47
6.0	MVR 6 B2.0 L22	2.5	.87	.08	.07	.47
6.0	MVR 6 B2.5 L22	2.5	.87	.10	.09	.47
8.0	MVR 8 B3.0 L27	2.5	1.06	.12	.10	.59

Order example: MVR 6 B2.0 L22 BXC

MWR Bars Chamfering and Profiling - with Coolant Channel



D mm	Ordering Code Right Hand	L	L1	R	α	β	F	Min. Bore Dia.
6.0	MWR 6 R0.2 A90	2.0	.59	.008	45°	45°	.09	.039
6.0	MWR 6 R0.2 A60	2.0	.59	.008	60°	30°	.09	.039

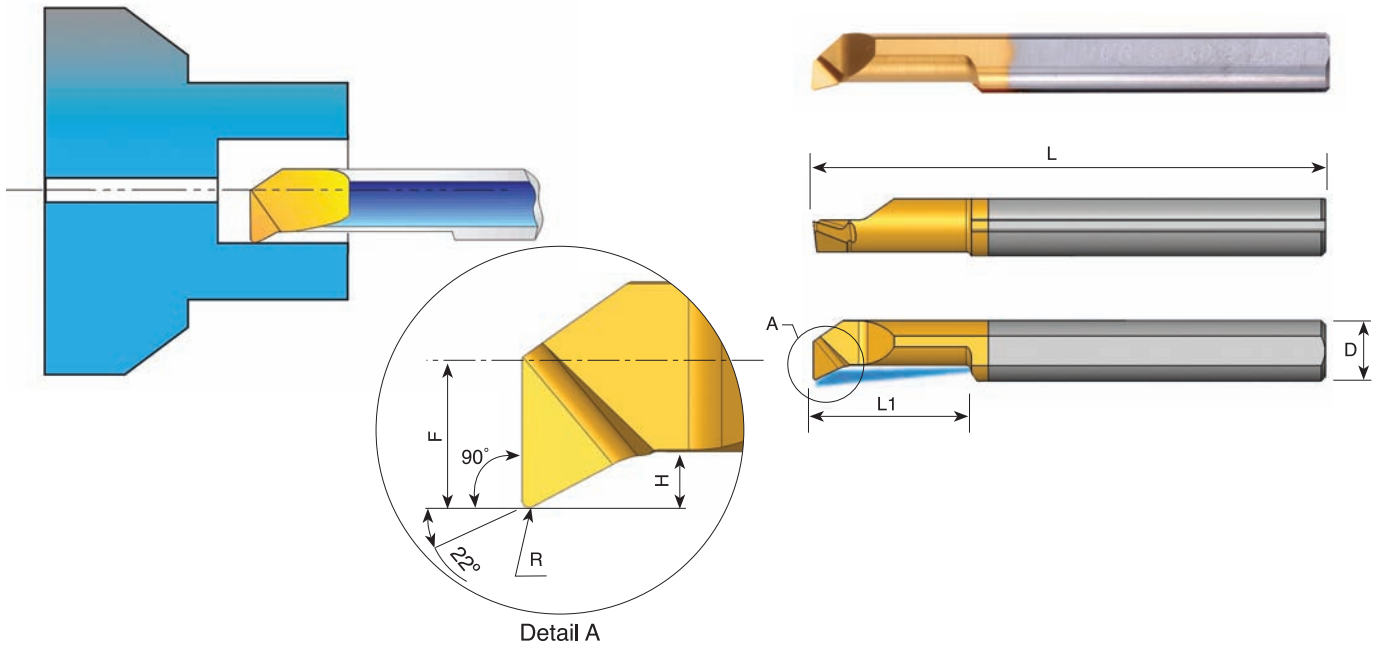
Order example: MWR 6 R0.2 A90 BXC

MWL Bars Chamfering and Profiling - with Coolant Channel

D mm	Ordering Code Left Hand	L	L1	R	α	β	F	Min. Bore Dia.
6.0	MWL 6 R0.2 A90	2.0	.59	.008	45°	45°	.09	.039
6.0	MWL 6 R0.2 A60	2.0	.59	.008	60°	30°	.09	.039

Order example: MWL 6 R0.2 A90 BXC

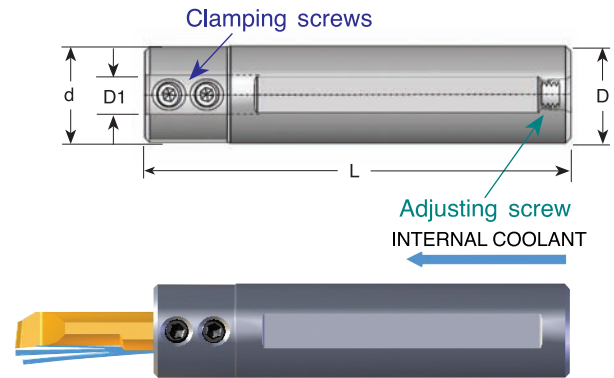
MUR Bars Profiling, 90° Face Cutting - with Coolant Channel



D mm	Ordering Code	L	L1	R	H	F	Min. Bore Dia.
3.0	MUR 3 R0.05 L10	1.5	.39	.002	.02	.05	.12
3.0	MUR 3 R0.05 L15	1.5	.59	.002	.02	.05	.12
4.0	MUR 4 R0.1 L10	2.0	.39	.004	.02	.07	.16
4.0	MUR 4 R0.1 L15	2.0	.59	.004	.02	.07	.16
5.0	MUR 5 R0.15 L15	2.0	.59	.006	.03	.08	.20
5.0	MUR 5 R0.15 L22	2.0	.87	.006	.03	.08	.20
6.0	MUR 6 R0.15 L15	2.0	.59	.006	.04	.11	.24
6.0	MUR 6 R0.15 L22	2.0	.87	.006	.04	.11	.24
8.0	MUR 8 R0.2 L22	2.5	.87	.008	.04	.15	.32

Order example: MUR 5 R0.15 L15 BXC

Tiny Tools Bar Holders



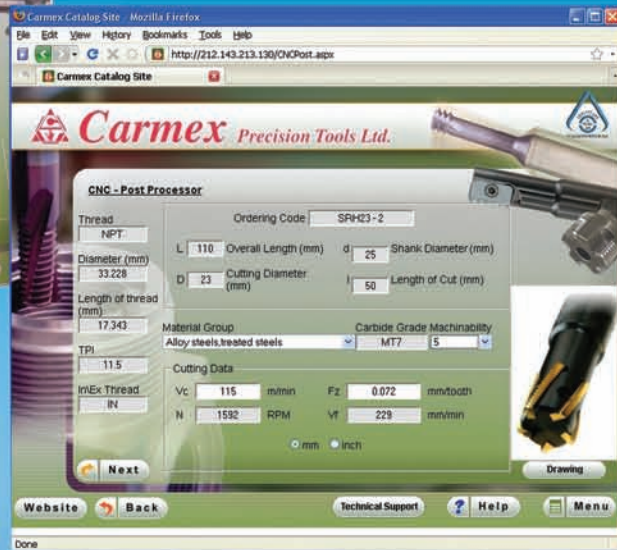
D1 mm	Ordering Code	L	D	d	Key	Clamping Screw	Adjusting Screw
3.0	SIM0016 H3S	3.0	.63	.79	K25	S25	S35S
4.0	SIM0016 H4S	3.0	.63	.79	K25	S25	S35S
5.0	SIM0016 H5S	3.0	.63	.79	K25	S25	S35S
6.0	SIM0016 H6S	3.0	.63	.79	K25	S25	S35S

Can be used with Swiss type lathe machines

Carmex Mill-Thread catalogue and CNC programming Software

New

The software is now available at our homepage
www.carmex.com



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