






NEW PRODUCTS

NEW PRODUCTS 2010



Carmex
Precision Tools Ltd.

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THE STANDARDS INSTITUTION OF ISRAEL



THE STANDARDS INSTITUTION OF ISRAEL



THE STANDARDS INSTITUTION OF ISRAEL

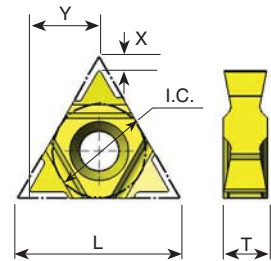
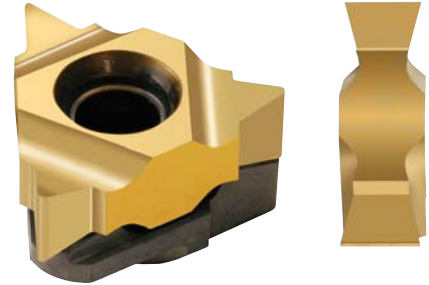


THE STANDARDS INSTITUTION OF ISRAEL

DSI Double Sided Thread Turning Inserts

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

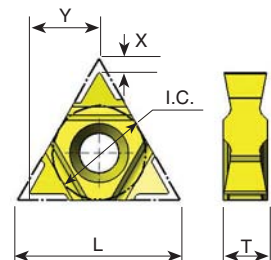
- Increased productivity thanks to the six cutting edges.
- U Style inserts for a wide range of full or partial profile standard threads.
- Same insert for right hand or left hand thread.
- Saving on tooling costs.
- Unique anti-vibration anvil design for clamping the insert and supporting the cutting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



Partial Profile 60°

Pitch Range mm	Pitch Range TPI	L	I.C. in	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	1.4	7.1	4.5
0.5 - 3.0	48 - 8	16U	3/8U	16U ER/L AG60-6	16U IR/L AG60-6	1.4	7.1	4.5
3.5 - 5.0	7- 5	16U	3/8U	16U ER/L N60-6	16U IR/L N60-6	1.2	7.3	4.5

Available coating grades: BMA or MXC

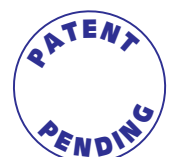


Partial Profile 55°

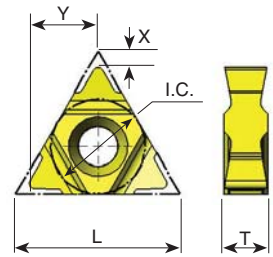
Pitch Range mm	Pitch Range TPI	L	I.C. in	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
1.75 - 3.0	14 - 8	16U	3/8U	16U ER/L G55-6	16U IR/L G55-6	1.4	7.1	4.5
0.5 - 3.0	48 - 8	16U	3/8U	16U ER/L AG55-6	16U IR/L AG55-6	1.4	7.1	4.5
3.5 - 5.0	7- 5	16U	3/8U	16U ER/L N55-6	16U IR/L N55-6	1.2	7.3	4.5

Available coating grades: BMA or MXC

For technical information see Carmex's main catalogue

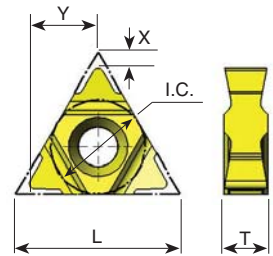


ISO



Pitch mm	L	I.C. in	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	1.6	6.9	4.5
1.75	16U	3/8U	16U ER/L 1.75 ISO-6	16U IR/L 1.75 ISO-6	1.6	6.9	4.5
2.0	16U	3/8U	16U ER/L 2.0 ISO-6	16U IR/L 2.0 ISO-6	1.6	6.9	4.5
2.5	16U	3/8U	16U ER/L 2.5 ISO-6	16U IR/L 2.5 ISO-6	1.6	6.9	4.5
3.0	16U	3/8U	16U ER/L 3.0 ISO-6	16U IR/L 3.0 ISO-6	1.6	6.9	4.5
3.5	16U	3/8U	16U ER/L 3.5 ISO-6	16U IR/L 3.5 ISO-6	1.6	6.9	4.5
4.0	16U	3/8U	16U ER/L 4.0 ISO-6	16U IR/L 4.0 ISO-6	1.6	6.9	4.5
4.5	16U	3/8U	16U ER/L 4.5 ISO-6	16U IR/L 4.5 ISO-6	1.6	6.9	4.5
5.0	16U	3/8U	16U ER/L 5.0 ISO-6	16U IR/L 5.0 ISO-6	1.6	6.9	4.5

Available coating grades: BMA or MXC



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

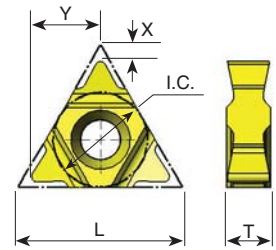
Pitch TPI	L	I.C. in	EXTERNAL Ordering Code	INTERNAL Ordering Code	X	Y	T
16	16U	3/8U	16U ER/L 16 UN-6	16U IR/L 16 UN-6	1.6	6.9	4.5
14	16U	3/8U	16U ER/L 14 UN-6	16U IR/L 14 UN-6	1.6	6.9	4.5
13	16U	3/8U	16U ER/L 13 UN-6	16U IR/L 13 UN-6	1.6	6.9	4.5
12	16U	3/8U	16U ER/L 12 UN-6	16U IR/L 12 UN-6	1.6	6.9	4.5
11.5	16U	3/8U	16U ER/L 11.5 UN-6	16U IR/L 11.5 UN-6	1.6	6.9	4.5
11	16U	3/8U	16U ER/L 11 UN-6	16U IR/L 11 UN-6	1.6	6.9	4.5
10	16U	3/8U	16U ER/L 10 UN-6	16U IR/L 10 UN-6	1.6	6.9	4.5
9	16U	3/8U	16U ER/L 9 UN-6	16U IR/L 9 UN-6	1.6	6.9	4.5
8	16U	3/8U	16U ER/L 8 UN-6	16U IR/L 8 UN-6	1.6	6.9	4.5
7	16U	3/8U	16U ER/L 7 UN-6	16U IR/L 7 UN-6	1.6	6.9	4.5
6	16U	3/8U	16U ER/L 6 UN-6	16U IR/L 6 UN-6	1.6	6.9	4.5
5	16U	3/8U	16U ER/L 5 UN-6	16U IR/L 5 UN-6	1.6	6.9	4.5

Available coating grades: BMA or MXC

For technical information see Carmex's main catalogue



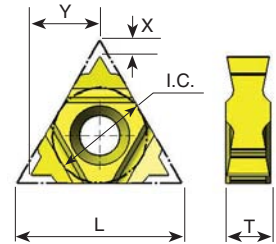
Whitworth 55° BSW, BSF, BSP, BSB



Pitch TPI	L	I.C. in	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	1.6	6.9	4.5
14	16U	3/8U	16U ER/L 14 W-6	16U IR/L 14 W-6	1.6	6.9	4.5
12	16U	3/8U	16U ER/L 12 W-6	16U IR/L 12 W-6	1.6	6.9	4.5
11	16U	3/8U	16U ER/L 11 W-6	16U IR/L 11 W-6	1.6	6.9	4.5
10	16U	3/8U	16U ER/L 10 W-6	16U IR/L 10 W-6	1.6	6.9	4.5
9	16U	3/8U	16U ER/L 9 W-6	16U IR/L 9 W-6	1.6	6.9	4.5
8	16U	3/8U	16U ER/L 8 W-6	16U IR/L 8 W-6	1.6	6.9	4.5
7	16U	3/8U	16U ER/L 7 W-6	16U IR/L 7 W-6	1.6	6.9	4.5
6	16U	3/8U	16U ER/L 6 W-6	16U IR/L 6 W-6	1.6	6.9	4.5
5	16U	3/8U	16U ER/L 5 W-6	16U IR/L 5 W-6	1.4	7.2	4.5

Available coating grades: BMA or MXC

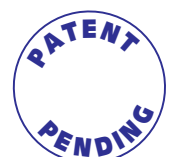
NPT



Pitch TPI	L	I.C. in	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	1.6	6.9	4.5
11.5	16U	3/8U	16U ER/L 11.5 NPT-6	16U IR/L 11.5 NPT-6	1.6	6.9	4.5
8	16U	3/8U	16U ER/L 8 NPT-6	16U IR/L 8 NPT-6	1.6	6.9	4.5

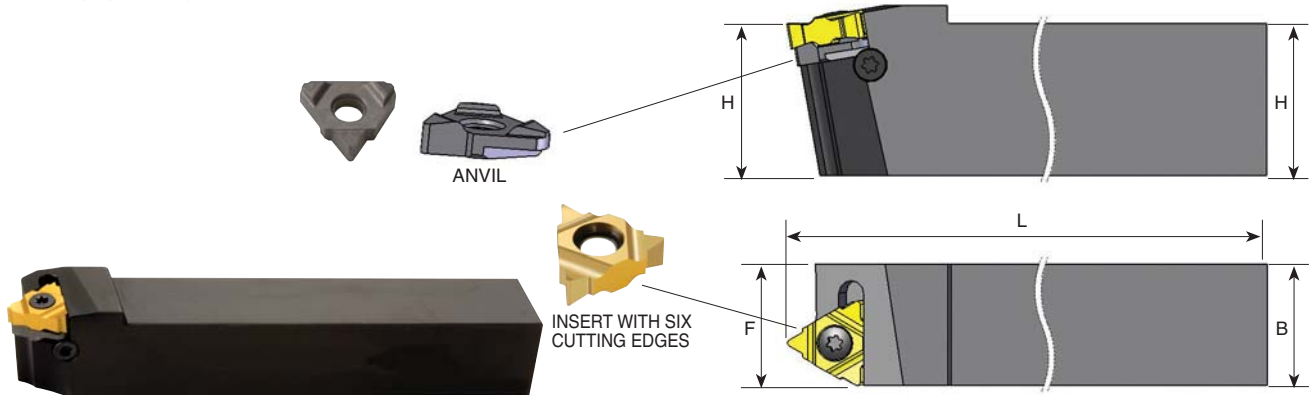
Available coating grades: BMA or MXC

For technical information see Carmex's main catalogue



Heavy Duty Thread Turning Toolholders

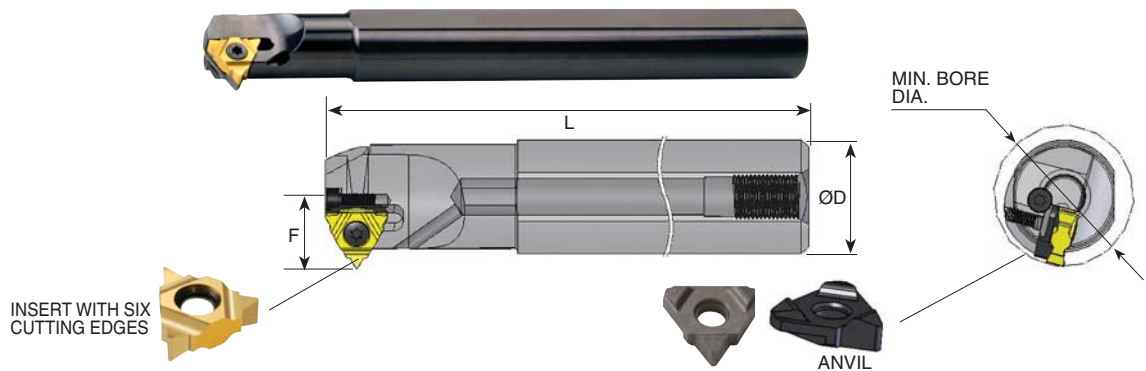
External



Ordering Code Right Hand	H	B	L	F	Insert Screw	Anvil Screw	Torx Key	RH Anvil	LH Anvil
SER 2020 K16U-6	20	20	125	20	S16	A16	K16	AER 16U-6	AEL 16U-6
SER 2520 M16U-6	25	20	150	20	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 0020 P16UB-6	20	24	170	14.9	S16	A16	K16	AIR 16U-6	AIL 16U-6
SIR 0025 R16UB-6	25	29	200	17.4	S16	A16	K16	AIR 16U-6	AIL 16U-6

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





CMT Vertical Mill-Thread

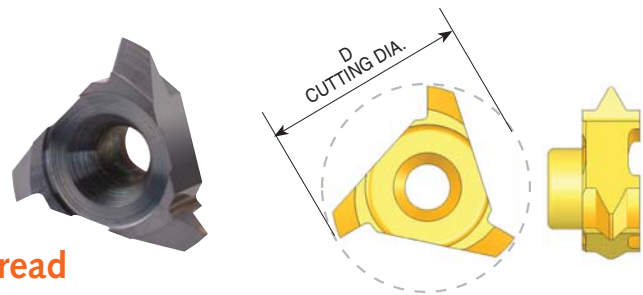
Carmex presents a new family of vertical thread milling indexable inserts and toolholders to perform a wide variety of threads.



- 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°

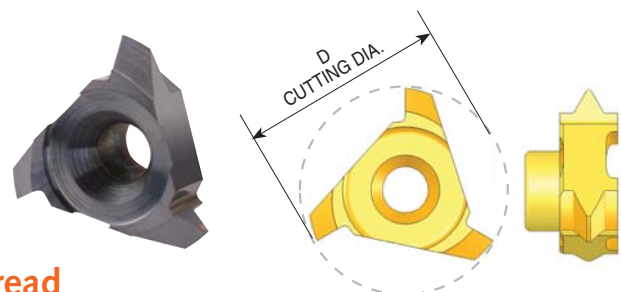
Same insert for internal and external thread



Insert Type	Pitch Range mm	Pitch Range TPI	Ordering Code	D	Thread Dia. (min)
C12	Int. 0.5 - 0.8	56 - 28	C12 A60	12.0	∅ □ 14
C12	Ex. 0.4 - 0.8	64 - 32		12.0	∅ □ 14
C12	Int. 1.0 - 2.0	28 - 13	C12 G60	12.0	∅ □ 16
C12	Ex. 0.8 - 1.75	32 - 15		12.0	∅ □ 16
C18	Int. 0.5 - 0.8	56 - 28	C18 A60	17.8	∅ □ 19
C18	Ex. 0.4 - 0.8	64 - 32		17.8	∅ □ 19
C18	Int. 1.0 - 1.75	28 - 14	C18 G60	17.8	∅ □ 21
C18	Ex. 0.8 - 1.5	32 - 16		17.8	∅ □ 21
C18	Int. 2.0 - 3.0	13 - 8	C18 D60	17.8	∅ □ 23
C18	Ex. 1.75 - 2.5	15 - 10		17.8	∅ □ 23

Partial Profile 55°

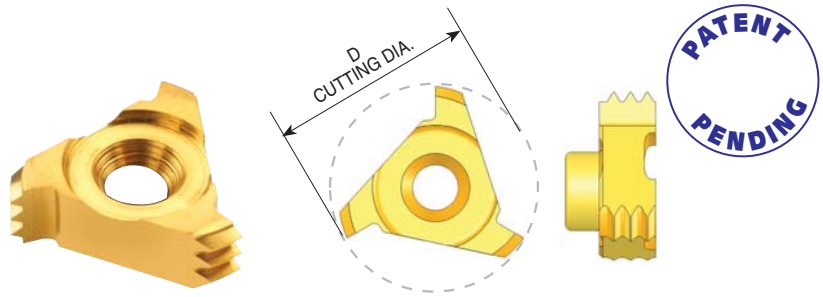
Same insert for internal and external thread



Insert Type	Pitch Range TPI	Ordering Code	D	Thread Dia. (min)
C12	28-19	C12 G55	12.0	∅ □ 14
C18	14 - 8	C18 G55	17.8	∅ □ 23

Full Profile ISO

Inserts for internal thread



Insert Type	Pitch mm	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	0.5	∅ □ 13	C12 I 0.5 ISO	6	12.0
C12	0.75	∅ □ 13	C12 I 0.75 ISO	4	12.0
C12	1.0	∅ □ 14	C12 I 1.0 ISO	3	12.0
C12	1.5	∅ □ 15	C12 I 1.5 ISO	2	12.0
C12	2.0	∅ □ 16	* C12 I 2.0 ISO	1	12.0
C18	0.5	∅ □ 19	C18 I 0.5 ISO	9	17.8
C18	0.75	∅ □ 19	C18 I 0.75 ISO	6	17.8
C18	1.0	∅ □ 20	C18 I 1.0 ISO	5	17.8
C18	1.5	∅ □ 20	C18 I 1.5 ISO	3	17.8
C18	2.0	∅ □ 21	C18 I 2.0 ISO	2	17.8
C18	2.5	∅ □ 22	C18 I 2.5 ISO	2	17.8
C18	3.0	∅ □ 23	C18 I 3.0 ISO	1	17.8

* The insert cannot be used with toolholder CRC 1012 M

UN

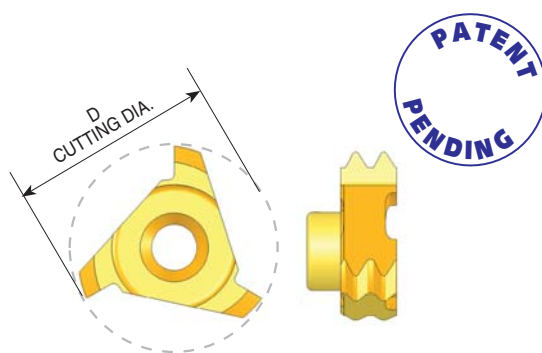
Inserts for internal thread

Insert Type	Pitch TPI	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	32	∅ □ 13	C12 I 32 UN	3	12.0
C12	28	∅ □ 14	C12 I 28 UN	3	12.0
C12	24	∅ □ 14	C12 I 24 UN	2	12.0
C12	20	∅ □ 14	C12 I 20 UN	2	12.0
C12	18	∅ □ 15	C12 I 18 UN	2	12.0
C12	16	∅ □ 15	C12 I 16 UN	1	12.0
C12	11	∅ □ 16	* C12 I 11 UN	1	12.0
C18	32	∅ □ 19	C18 I 32 UN	6	17.8
C18	28	∅ □ 19	C18 I 28 UN	5	17.8
C18	24	∅ □ 20	C18 I 24 UN	4	17.8
C18	20	∅ □ 20	C18 I 20 UN	3	17.8
C18	18	∅ □ 20	C18 I 18 UN	3	17.8
C18	16	∅ □ 21	C18 I 16 UN	3	17.8
C18	14	∅ □ 21	C18 I 14 UN	2	17.8
C18	12	∅ □ 22	C18 I 12 UN	2	17.8
C18	11	∅ □ 22	C18 I 11 UN	2	17.8

* The insert cannot be used with toolholder CRC 1012 M

G 55° BSW, BSF, BSP, BSB

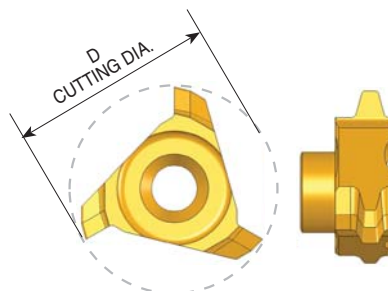
Same Insert for internal and external thread



Insert Type	Pitch TPI	Minimum Thread Dia.	Ordering Code	Number of Teeth	D
C12	19	∅ □ 14	C12 19 W	2	12.0
C18	14	∅ □ 21	C18 14 W	2	17.8
C18	11	∅ □ 22	C18 11 W	2	17.8

Trapez - DIN 103

Inserts for internal thread

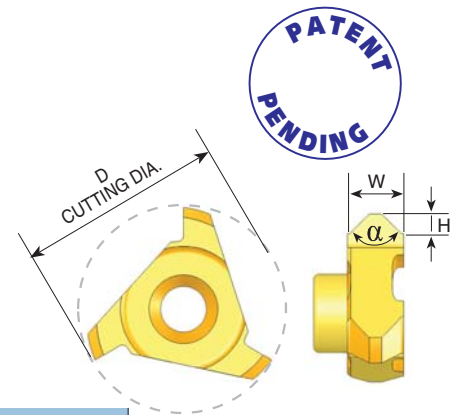


Insert Type	Pitch mm	Minimum Thread Dia.	Ordering Code	D
C18	3	∅ □ 24	C 18 I 3TR	17.8
C18	4	∅ □ 26	*C 18 I 4TR	17.8

* Can be used only with toolholder CRC 1218 P

Chamfering and Grooving

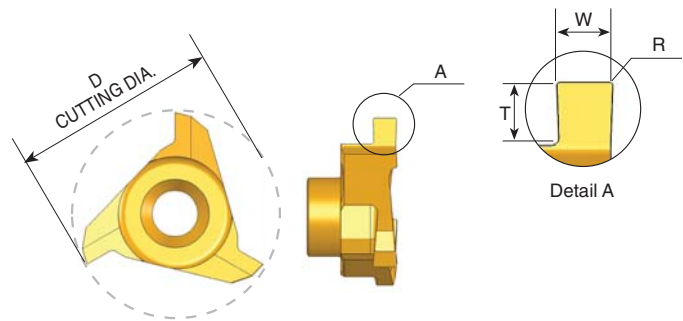
- Optimal for deburring, back chamfering and grooving
- Double side cutting
- General purpose for all materials



Insert Type	Ordering Code	D	H	W	α
C12	*C12 C90	12.0	1.35	0.3	90°
C18	C18 C90	17.8	1.95	1.1	90°

* The insert cannot be used with toolholder CRC 1012 M

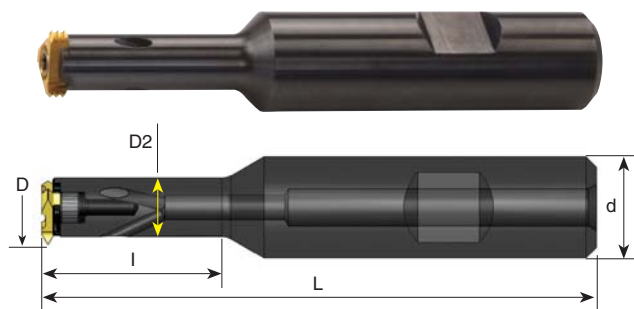
Groove Milling



Insert Type	Ordering Code	D	W □0.02	T max.	R	Groove Dia. (min)
C12	C12 W08	12.0	0.8	0.80	0.1	∅ >12.0
C12	C12 W10	12.0	1.0	0.90	0.1	∅ >12.0
C18	C18 W10	17.8	1.0	1.50	0.1	∅ >12.0
C18	C18 W12	17.8	1.2	1.50	0.1	∅ >12.0
C18	C18 W15	17.8	1.5	1.95	0.1	∅ >17.8

Toolholders

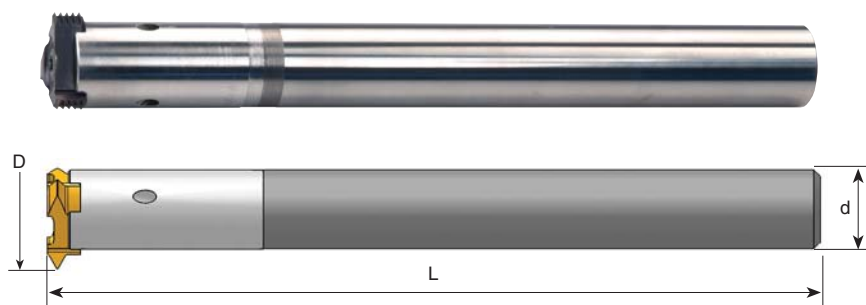
With internal coolant



Insert Type	Ordering Code	d	D	D2	I	L	Insert Screw	Torx Key
C12	SRC 1212 E	12	12.0	9.0	25	70	S10	K10
C12	SRC 1612 G	16	12.0	9.0	25	90	S10	K10
C12	SRC 1612 H	16	12.0	9.0	35	100	S10	K10
C18	SRC 1618 H	16	17.8	13.8	48	100	S16	K16
C18	SRC 2018 H	20	17.8	13.8	32	100	S16	K16
C18	SRC 2018 J	20	17.8	13.8	48	110	S16	K16
C18	SRC 2018 L	20	17.8	13.8	74	140	S16	K16

Carbide Shank Toolholders

With internal coolant



Insert Type	Ordering Code	d	D	L	Insert Screw	Torx Key
C12	*CRC 1012 M	10	12.0	150	S10	K10
C18	CRC 1218 P	12	17.8	170	S16	K16

Toolholders without Weldon

* Cannot be used with the following insert range

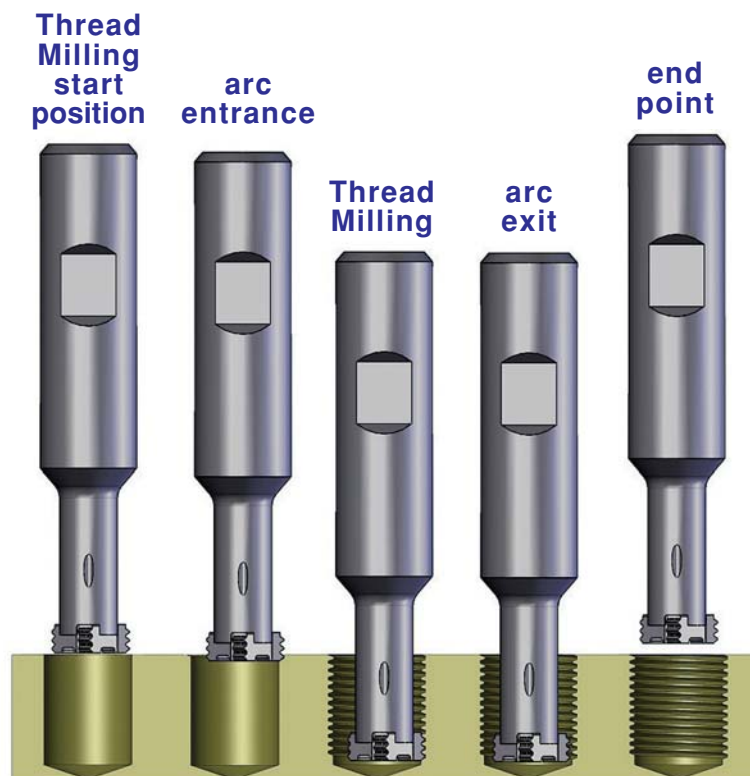
Ordering Code		Pitch	
		mm	TPI
C12 G60	INT	2.0	14-13
	EX.	1.5-1.75	16-15



Cutting Data

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 m/min	Feed mm/tooth	
			Ø12	Ø18
P	Low and Medium Carbon Steels <0.55%C	60-120	0.17	0.20
	High Carbon Steels ≥0.55%C	160-90	0.16	0.20
	Alloy Steels, Treated Steels	90-80	0.12	0.16
M	Stainless Steels - Free Cutting	70-100	0.11	0.15
	Stainless Steels - Austenitic	60-90	0.11	0.15
	Cast Steels	70-90	0.12	0.16
K	Cast Iron	40-80	0.17	0.20
N	Aluminium ≤10%Si, Copper	100-200	0.17	0.20
	Aluminium ≤10% Si	60-140	0.11	0.16
	Synthetics, Duroplastics, Thermoplastics	50-200	0.19	0.22
S	Nickel Alloys, Titanium Alloys	20-40	0.07	0.10
H	Hardened Steel 45 - 50HRc	60-70	0.09	0.13
	Hardened Steel 50 - 55HRc	50-60	0.08	0.12



DMT 3 in 1 - *DRILL, THREAD, CHAMFER

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.

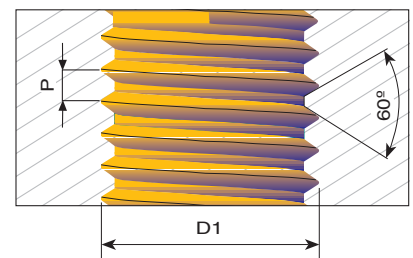
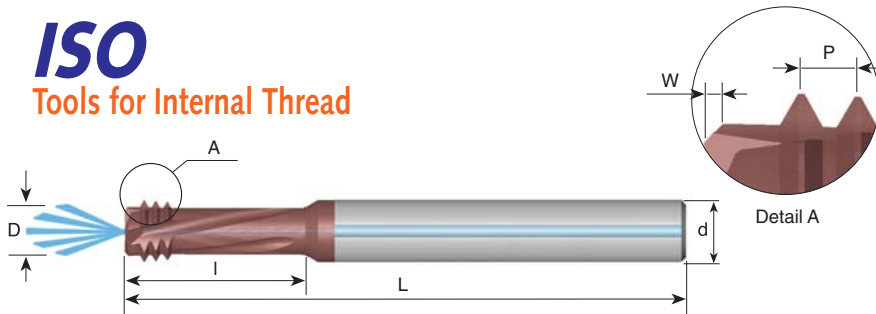


Advantages

- 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	D	No. of Flutes	I	W	L
1.0	M6	DMT08047C14 1.0 ISO	8	4.70	3	14.0	0.4	64
1.25	M8	DMT08061D18 1.25 ISO	8	6.10	4	18.0	0.5	64
1.5	M10	DMT08078D23 1.5 ISO	8	7.80	4	23.0	0.6	64
1.75	M12	DMT1009D26 1.75 ISO	10	9.00	4	26.0	0.6	73
2.0	M16	DMT12118D35 2.0 ISO	12	11.80	4	35.0	0.6	84

UN

Tools for Internal Thread

For thread depth up to 2 x D1

Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	I	W	L
28		1/4	DMT0805C14 28 UN	8	5.00	3	14.5	0.4	64
24		5/16, 3/8	DMT08065D17 24 UN	8	6.50	4	17.0	0.5	64
20	1/4		DMT08048C14 20 UN	8	4.80	3	14.0	0.4	64
18	5/16		DMT0806D17 18 UN	8	6.00	4	17.0	0.5	64
16	3/8		DMT08067C22 16 UN	8	6.70	3	22.0	0.5	64

Cutting Data

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 m/min	Feed mm/tooth						
			Ø4	Ø5	Ø6	Ø8	Ø9	Ø10	Ø12
P	Low and Medium Carbon Steels <0.55%C	60-120	0.03	0.03	0.04	0.05	0.05	0.05	0.05
	High Carbon Steels ≥0.55%C	60-90	0.02	0.03	0.03	0.04	0.04	0.04	0.05
	Alloy Steels, Treated Steels	50- 80	0.02	0.02	0.02	0.02	0.03	0.03	0.04
M	Stainless Steels - Free Cutting	70-100	0.02	0.02	0.02	0.02	0.03	0.03	0.03
	Stainless Steels - Austenitic	60-90	0.02	0.02	0.02	0.02	0.03	0.03	0.03
	Cast Steels	70-90	0.02	0.02	0.02	0.02	0.03	0.03	0.04
K	Cast Iron	40-80	0.03	0.03	0.04	0.05	0.05	0.05	0.05
N	Aluminium ≤10%Si, Copper	100-200	0.03	0.03	0.04	0.05	0.05	0.05	0.05
	Aluminium ≤10% Si	60-140	0.02	0.02	0.02	0.02	0.03	0.03	0.03
	Synthetics, Duroplastics, Thermoplastics	50-200	0.04	0.05	0.05	0.06	0.06	0.06	0.06

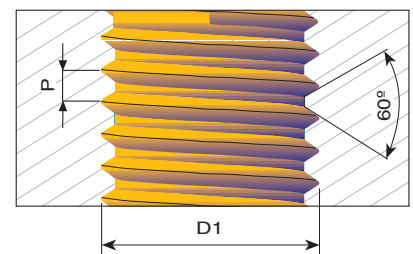
Mini Mill-Thread

Mini Mill-Thread



G 55° BSW, BSP

Same Tool for Internal and External Thread



For thread depth up to 2xD1

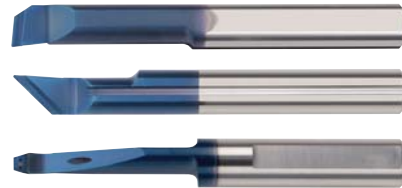
Pitch TPI	Standard	Ordering code	d	D	No. of Flutes	I	L
28	G 1/8	MTS08078C19 28 W	8	7.8	3	19.5	64
19	G 1/4 - 3/8	MTS1010D30 19 W	10	10.0	4	30.0	73
14	G 1/2 - 7/8	MTS1212D37 14 W	12	12.0	4	37.0	84
11	G 1	MTS1616D44 11 W	16	16.0	4	44.0	105

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.

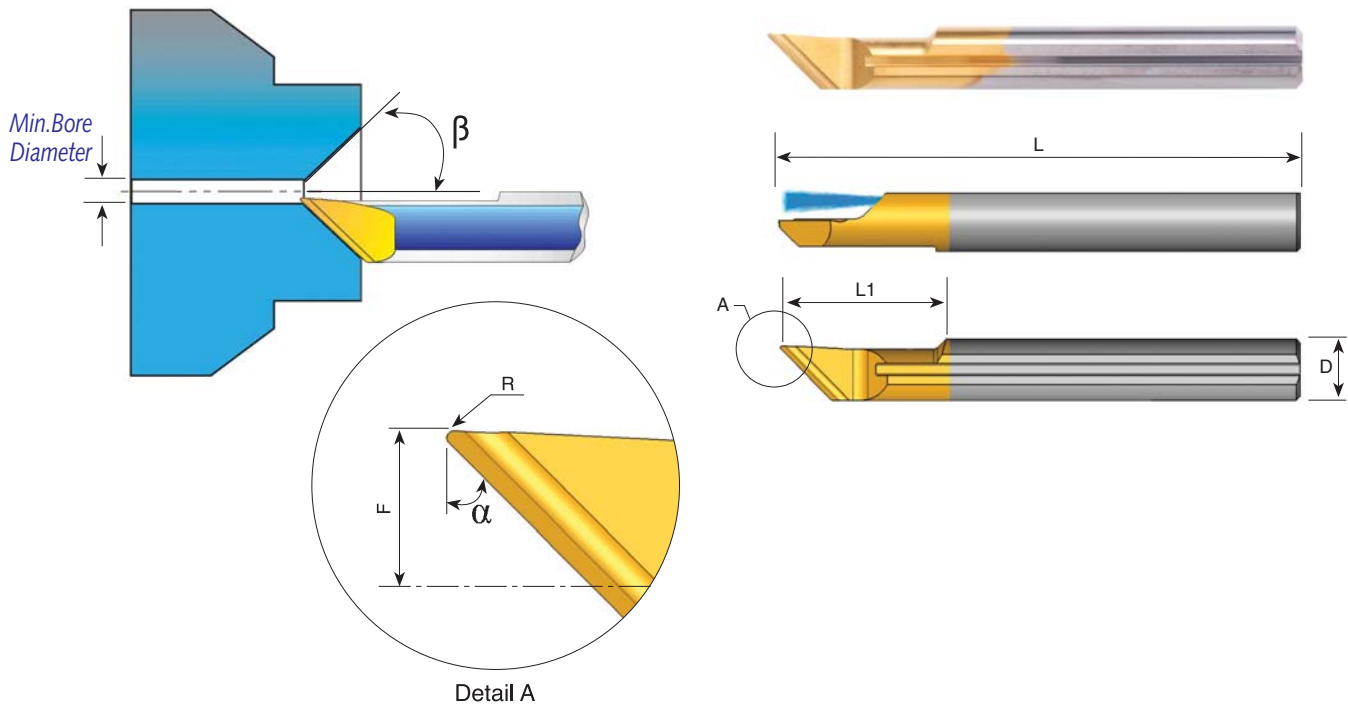
New Grade: **BMK**

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 Family

MWL Bars Chamfering and Profiling - with Coolant Channel



D	Ordering Code Left Hand	L	L1	R	α	β	F	Min. Bore Dia.
6.0	MWL 6 R0.2 A90	51	15.0	0.20	45°	45°	2.3	1.0
6.0	MWL 6 R0.2 A60	51	15.0	0.20	60°	30°	2.3	1.0

Order example: MWL 6 R0.2 A90 BXC

New



NEW PRODUCTS