

CMT Vertical Mill-Thread



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

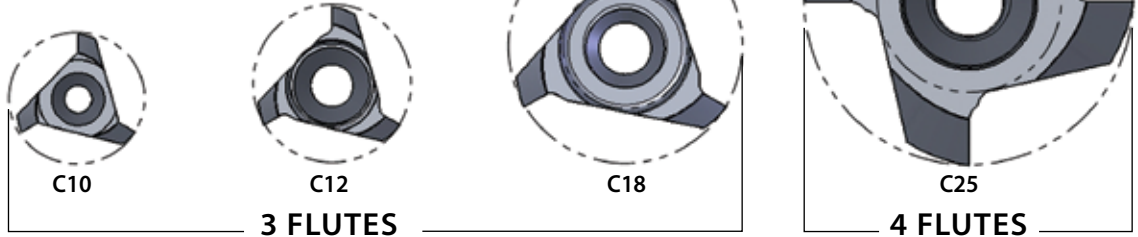


Advantages of CMT - Vertical Mill-Thread

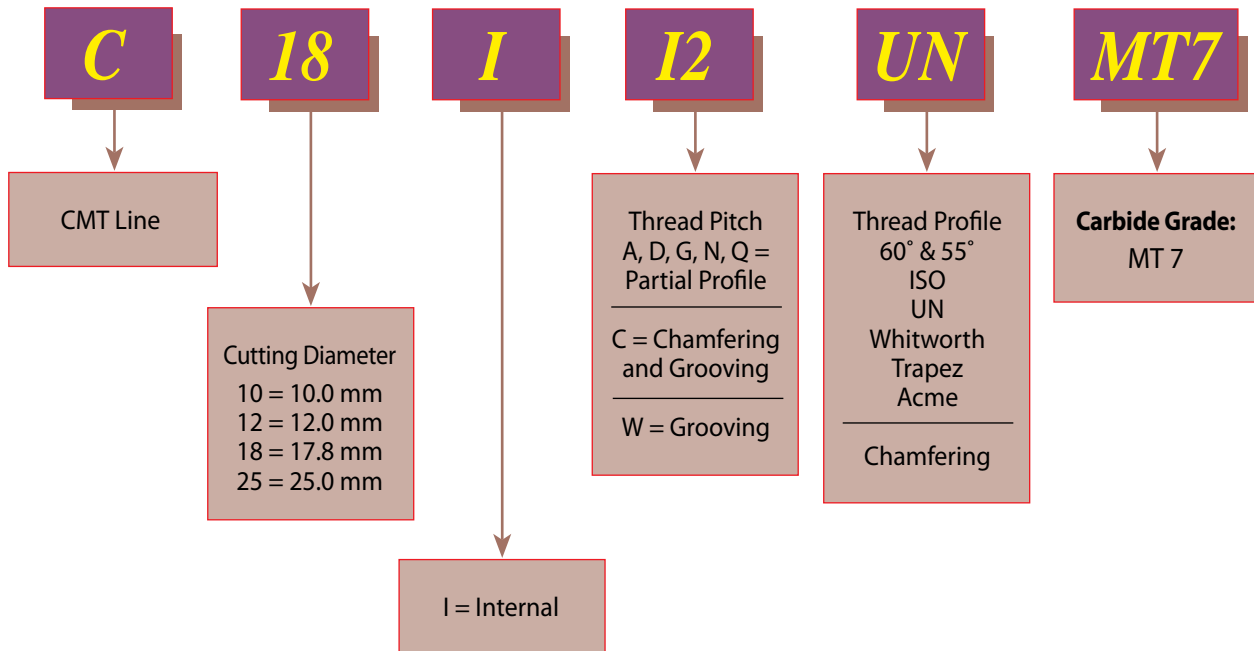
- Ground profile inserts for high precision and excellent performance.
- Working at high machining parameters, with high surface quality.
- Solid and accurate clamping method enables full repeatability.
- Same insert for right-hand or left-hand threads.
- Toolholders include weldon shank and coolant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

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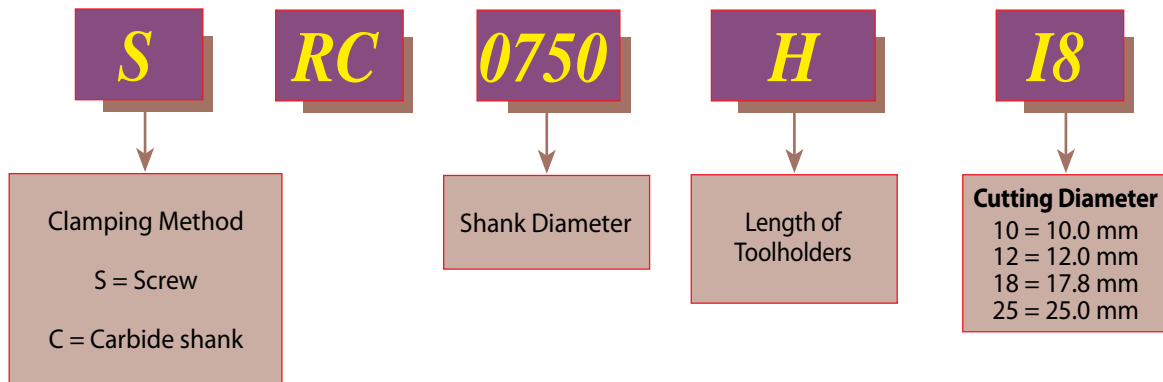
Product Identification CMT Ordering Codes



Inserts

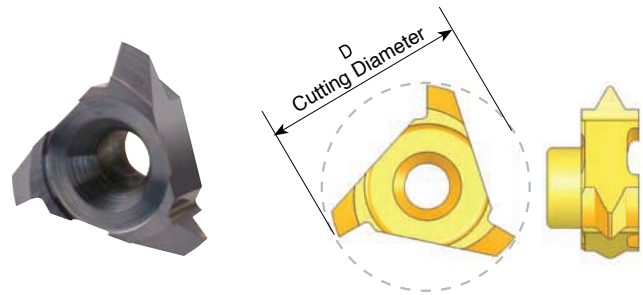


Toolholders



Partial Profile 60°

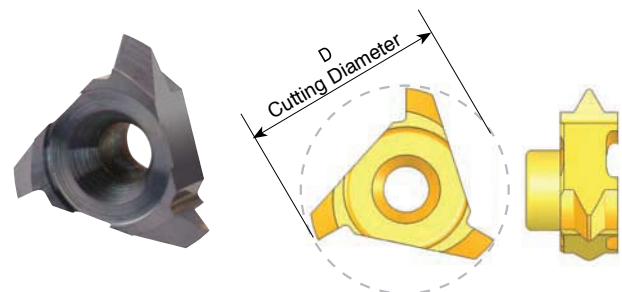
Same insert for internal and external thread



Insert Type	Pitch Range mm	Pitch Range TPI	Ordering Code	D	Thread Diameter (min)		Holder Code*	
					Pitch Low Range	Pitch High Range		
C10	Int. 0.5 - 0.8	56 - 28	C10 A60	.39	$\emptyset \geq .43$	$\emptyset \geq .47$	H1, 2, 12, 13	
	Ex. 0.4 - 0.8	64 - 32						
	Int. 1.0 - 2.0	28 - 13	C10 G60		$\emptyset \geq .47$	$\emptyset \geq .55$		
	Ex. 0.8 - 1.75	32 - 15						
C12	Int. 0.5 - 0.8	56 - 28	C12 A60	.47	$\emptyset \geq .51$	$\emptyset \geq .55$	H3, 4, 5, 14	
	Ex. 0.4 - 0.8	64 - 32						
	Int. 1.0 - 2.0	28 - 13	C12 G60		$\emptyset \geq .55$	$\emptyset \geq .63$		
	Ex. 0.8 - 1.75	32 - 15						
C18	Int. 0.5 - 0.8	56 - 28	C18 A60	.70	$\emptyset \geq .75$		H6, 7, 8, 9, 15	
	Ex. 0.4 - 0.8	64 - 32						
	Int. 1.0 - 1.75	28 - 14			C18 G60	$\emptyset \geq .79$		$\emptyset \geq .83$
	Ex. 0.8 - 1.5	32 - 16						
Int. 2.0 - 3.0	13 - 8	C18 D60	$\emptyset \geq .83$	$\emptyset \geq .91$				
Ex. 1.75 - 2.5	15 - 10							
C25	Int. 1.5 - 2.5	16 - 10	C25 G60	.98	$\emptyset \geq 1.10$	$\emptyset \geq 1.18$	H10, 11, 16, 17	
	Ex. 1.0 - 2.0	28 - 13						
	Int. 3.0 - 5.0	8 - 5			C25 N60	$\emptyset \geq 1.18$		$\emptyset \geq 1.34$
	Ex. 2.5 - 4.5	10 - 6						
Int. 5.0 - 6.0	5 - 4	C25 Q60	$\emptyset \geq 1.34$	$\emptyset \geq 1.38$				
Ex. 4.5 - 5.0	6 - 5							

Partial Profile 55°

Same insert for internal and external thread



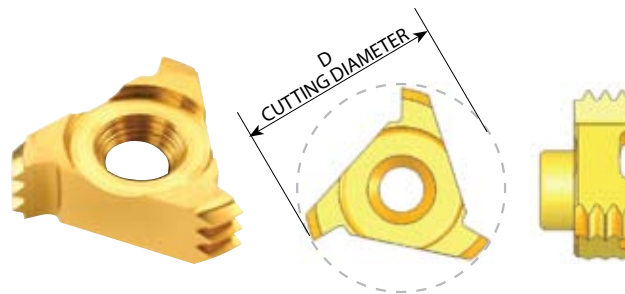
Insert Type	Pitch Range TPI	Ordering Code	D	Thread Dia. (min)	Holder Code*
C10	19-14	C10 G55	.39	$\emptyset \geq .51$	H1, 2, 12
C12	28-19	C12 G55	.47	$\emptyset \geq .55$	H3, 4, 5, 14
	14- 11	C12 N55	.48	$\emptyset \geq .63$	
C18	14- 8	C18 G55	.71	$\emptyset \geq .91$	H6, 7, 8, 9, 15
C25	7- 5	C25 N55	.98	$\emptyset \geq 1.22$	H10, 11, 16, 17

* For complete toolholder description see pages 104 and 105

Full Profile

Inserts for internal thread

ISO



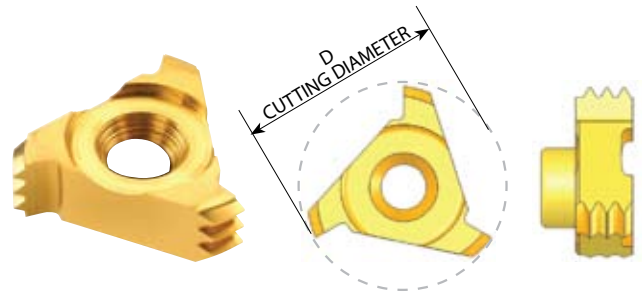
Insert Type	Pitch mm	M coarse	M fine	Ordering Code	Number of Teeth	D	Holder Code*
C10	0.5		$\emptyset \geq .39$	C10 I 0.5ISO	6	.35	H1, 2, 12, 13
	1.0		$\emptyset \geq .47$	C10 I 1.0ISO	3	.39	
	1.5		$\emptyset \geq .51$	C10 I 1.5ISO	2		
	2.0	M14	$\emptyset \geq .55$	C10 I 2.0ISO	1	.39	H1, 2, 12
C12	0.5		$\emptyset \geq .51$	C12 I 0.5 ISO	6	.47	H3, 4, 5, 14
	0.75		$\emptyset \geq .51$	C12 I 0.75ISO	4		
	1.0		$\emptyset \geq .55$	C12 I 1.0 ISO	3		
	1.5		$\emptyset \geq .59$	C12 I 1.5 ISO	2		
	2.0	M16	$\emptyset \geq .63$	C12 I 2.0 ISO	1	.49	H3, 4, 5
	2.5	M18, M20	$\emptyset \geq .67$	C12 I 2.5 ISO	1	.47	
	3.0		$\emptyset \geq .67$	C12 I 3.0 ISO	1	.49	
C18	0.5		$\emptyset \geq .77$	C18 I 0.5 ISO	9	.70	H6, 7, 8, 9, 15
	0.75		$\emptyset \geq .77$	C18 I 0.75ISO	6		
	1.0		$\emptyset \geq .79$	C18 I 1.0 ISO	5		
	1.5		$\emptyset \geq .79$	C18 I 1.5 ISO	3		
	2.0		$\emptyset \geq .83$	C18 I 2.0 ISO	2		
	2.5	M22	$\emptyset \geq .87$	C18 I 2.5 ISO	2		
	3.0	M24, M27	$\emptyset \geq .91$	C18 I 3.0 ISO	1		
C25	3.0	M32, M33	$\emptyset \geq 1.18$	C25 I 3.0 ISO	2	.98	H10, 11, 16, 17
	4.0	M36, M39	$\emptyset \geq 1.26$	C25 I 4.0 ISO	1		
	4.5	M45	$\emptyset \geq 1.30$	C25 I 4.5 ISO	1		
	5.0	M48, M52	$\emptyset \geq 1.34$	C25 I 5.0 ISO	1		
	5.5	M60	$\emptyset \geq 1.38$	C25 I 5.5 ISO	1		
	6.0	M64, M68	$\emptyset \geq 1.42$	C25 I 6.0 ISO	1		

* For complete toolholder description see pages 104 and 105

Full Profile

Inserts for internal thread

UN

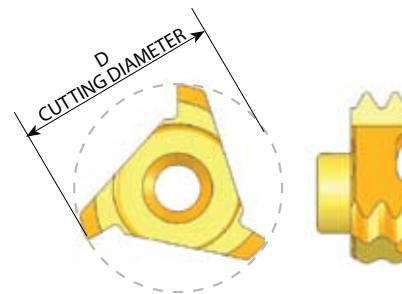


Insert Type	Pitch TPI	Nominal Size	UNC	UNF	UNEF	Ordering Code	Number of Teeth	D	Holder Code*
C10	20			1/2		C10 I 20 UN	2	.39	H1, 2, 12, 13
	18			9/16		C10 I 18 UN	2		
	12	5/8, 11/16, 3/4	9/16			C10 I 12 UN	1	.39	H1, 2, 12
C12	32	9/16, 5/8				C12 I 32 UN	3	.47	H3, 4, 5, 14
	28	9/16, 5/8, 11/16				C12 I 28 UN	3		
	24				9/16, 5/8, 11/16	C12 I 24 UN	2		
	20	9/16, 5/8, 11/16			3/4	C12 I 20 UN	2		
	18			5/8		C12 I 18 UN	2	.47	H3, 4, 5
	16	5/8, 11/16		3/4		C12 I 16 UN	1		
	11		5/8			C12 I 11 UN	1		
	10		3/4			C12 I 10 UN	1		
C18	32	3/4, 13/16, 7/8				C18 I 32 UN	6	.70	H6, 7, 8, 9, 15
	28	3/4, 13/16, 7/8				C18 I 28 UN	5		
	24					C18 I 24 UN	4		
	20	11/16, 11/8			13/16, 7/8, 15/16	C18 I 20 UN	3		
	18					C18 I 18 UN	3		
	16	7/8, 1				C18 I 16 UN	3		
	14			7/8		C18 I 14 UN	2		
	12	7/8		1, 11/8		C18 I 12 UN	2		
	11					C18 I 11 UN	2		
	9		7/8			C18 I 9 UN	1		
	8		1			C18 I 8 UN	1		
C25	8	13/16, 11/4, 15/16				C25 I 8 UN	2	.98	H10, 11, 16, 17
	7		11/4			C25 I 7 UN	1		
	6	17/16, 19/16	13/8, 11/2			C25 I 6 UN	1		
	5		1 3/4			C25 I 5 UN	1		
	4		2 1/2, 2 3/4			C25 I 4 UN	1		

* For complete toolholder description see pages 104 and 105

G 55° BSW, BSF, BSP

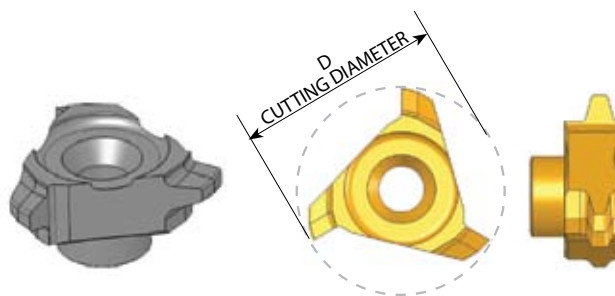
Same Insert for internal and external thread



Insert Type	Pitch TPI	Standard	Ordering Code	Number of Teeth	D	Holder Code*
C10	19	G 1/4	C10 19 W	2	.39	H1, 2, 12, 13
C12	19	G 3/8	C12 19 W	2	.47	H3, 4, 5, 14
C18	14	G 7/8	C18 14 W	2	.70	H6, 7, 8, 9, 15
	11	G ≥1	C18 11 W	2		

Trapez - DIN 103

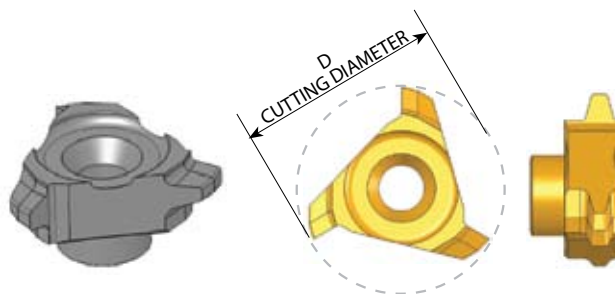
Inserts for internal thread



Insert Type	Pitch mm	Standard	Ordering Code	D	Holder Code*
C10	2.0	$\emptyset \geq .63$	C10 I 2 TR	.39	H1, 2, 12,
C18	3.0	$\emptyset \geq .94$	C18 I 3 TR	.70	H6, 7, 8, 9, 15
	4.0	$\emptyset \geq 1.02$	C18 I 4 TR		H15
	5.0	$\emptyset \geq 1.10$	C18 I 5 TR		
C25	6.0	$\emptyset \geq 1.42$	C25 I 6 TR	.98	H10, 11, 16, 17

Acme

Inserts for internal thread

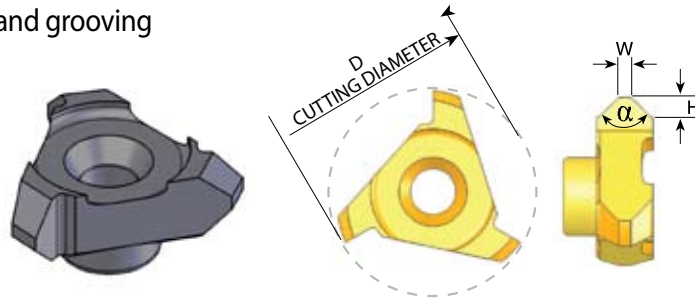


Insert Type	Pitch TPI	Standard	Ordering Code	D	Holder Code*
C18	5	1 1/8, 1 1/4	C18 I 5 ACME	.71	Metric CRC 1218 P
C25	4	1 1/2, 1 3/4, 2	C25 I 4 ACME	.98	H10, 11, 16, 17

* For complete toolholder description see pages 104 and 105

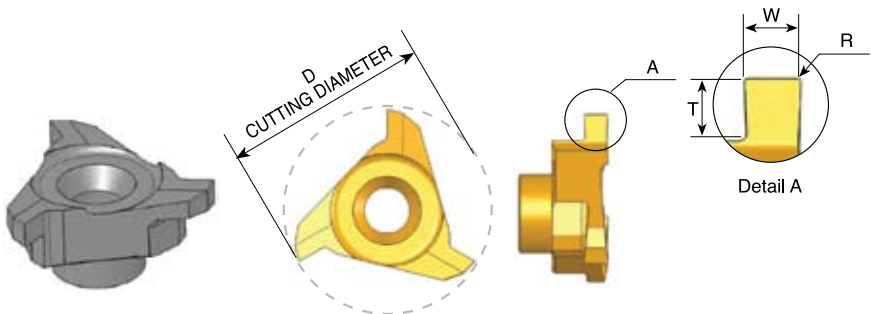
Chamfering and Grooving

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



Insert Type	Ordering Code	D	H	W		Holder Code*
C10	C10 C90	.39	.051	.016	90°	H1, 2, 12
C12	C12 C90	.47	.053	.012		H3, 4, 5
C18	C18 C90	.70	.077	.043		H6, 7, 8, 9, 15
C25	C25 C90	.98	.098	.039		H10, 11, 16, 17

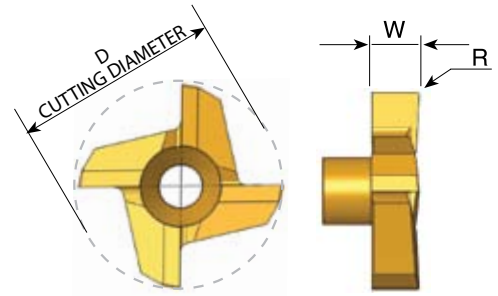
Groove Milling



Insert Type	Ordering Code	D	W ±.001	T max.	R	Groove Dia. (min.)	Holder Code*
C10	C10 W08	.39	.031	.03	.004	∅ > .39	H1, 2, 12, 13
	C10 W09		.035	.04			
	C10 W10		.039	.04			
C12	C12 W08	.47	.031	.03	.004	∅ > .47	H3, 4, 5, 14
	C12 W10		.039	.04			
C18	C18 W10	.70	.039	.06	.004	∅ > .70	H6, 7, 8, 9, 15
	C18 W12		.047	.06			
	C18 W15		.059	.08			
	C18 W20		.079	.11			H15
C25	C25 W20	.98	.079	.12	.008	∅ > .98	H10, 11, 16, 17
	C25 W25		.098	.12			
	C25 W30		.118	.12			
	C25 W35		.138	.14			
	C25 W40		.157	.14			
	C25 W50		.197	.14			

* For complete toolholder description see pages 104 and 105

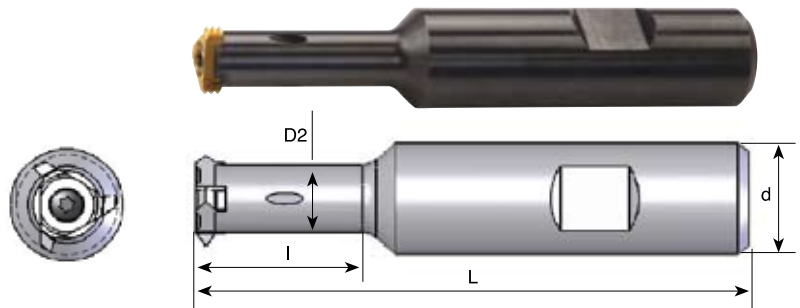
Face Milling and Finishing



Insert Type	Ordering Code	D	W	R	Holder Code*
C18	C18 F R0.1	.70	.20	.004	H6, 7, 8, 9, 15
C25	C25 F R0.2	.98	.24	.008	H10, 11, 16, 17

Steel Toolholders

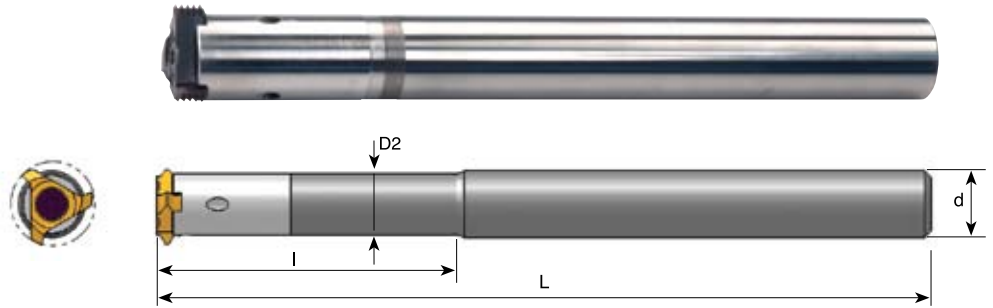
With internal coolant



Tool No.	Ordering Code	Insert Type	d	D2	l	L	Insert Screw	Torx Key
H1	SRC 0500 E10	C10	.500	.29	.75	2.8	S5	K5
H2	SRC 0625 G10		.625		.75	3.5		
H3	SRC 0500 E12	C12	.500	.35	.98	2.8	S10	K10
H4	SRC 0625 G12		.625		.98	3.5		
H5	SRC 0625 H12		.625		1.38	4.0		
H6	SRC 0625 H18	C18	.625	.54	1.89	4.0	S16	K16
H7	SRC 0750 H18		.750		1.26	4.0		
H8	SRC 0750 J18		.750		1.89	4.5		
H9	SRC 0750 L18		.750		2.91	5.5		
H10	SRC 1000 J25	C25	1.00	.69	1.77	4.5	S27	K27
H11	SRC 1000 M25				3.15	5.9		

Carbide Shank Toolholders

With internal coolant



Tool No.	Ordering Code	Insert Type	d	D2	l	L	Insert Screw	Torx Key
H12	CRC 0312 L13 K10	C10	.312	.287	1.38	5.0	S5	K5
H13	CRC 0312 K10		.312	.312	-	5.0		
H14	CRC 0375 M12	C12	.375	.375	-	6.0	S10	K10
H15	CRC 0500 P18	C18	.500	.500	-	7.0	S16	K16
H16	CRC 0625 R25	C25	.625	.625	-	8.2	S27	K27
H17	CRC 0750 L33 S25		.750	.689	3.35	10.0		

Toolholders without Weldon

