

CMT Vertical Milling



Vertical milling indexable inserts and toolholders to perform a wide variety of threads, grooves, chamfers and more.

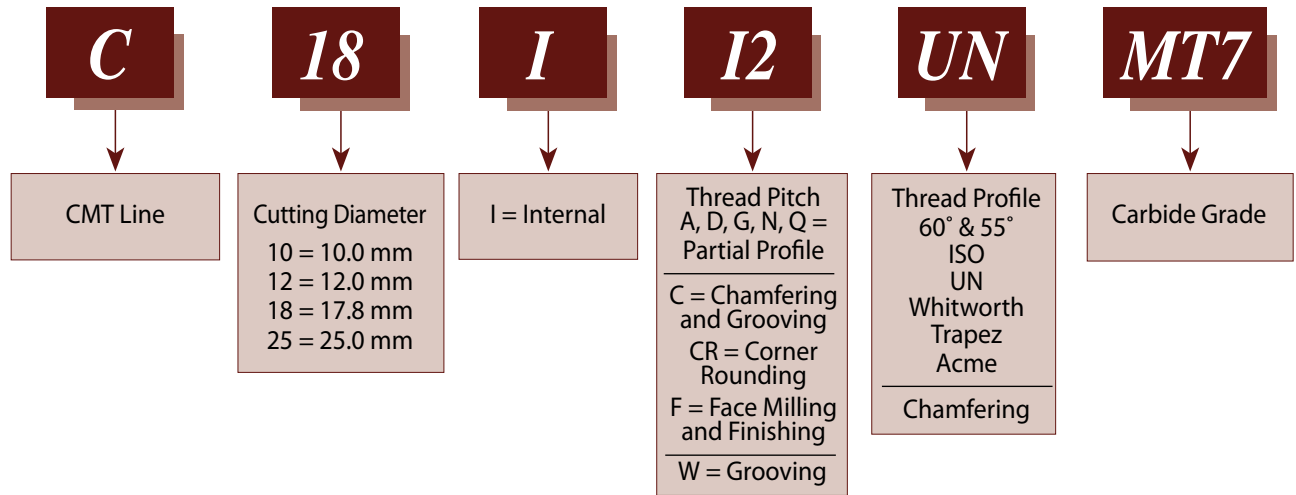
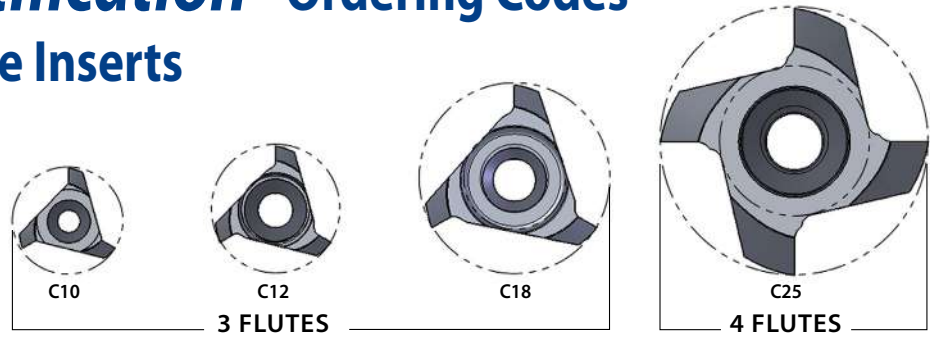
Advantages of CMT - Vertical Milling

- 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.

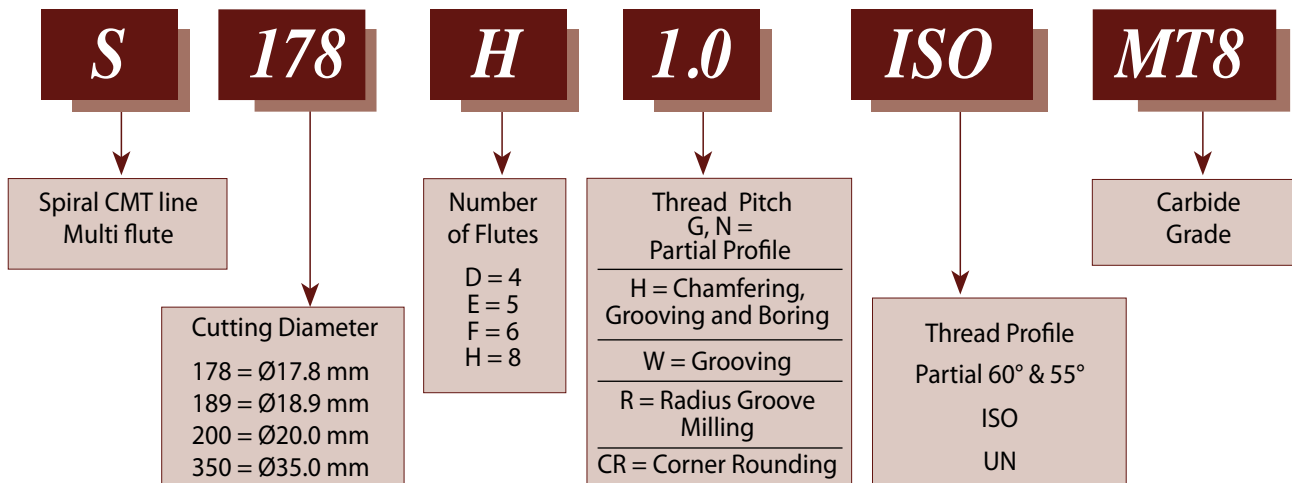
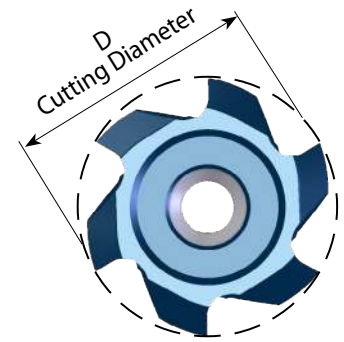
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Product Identification - Ordering Codes

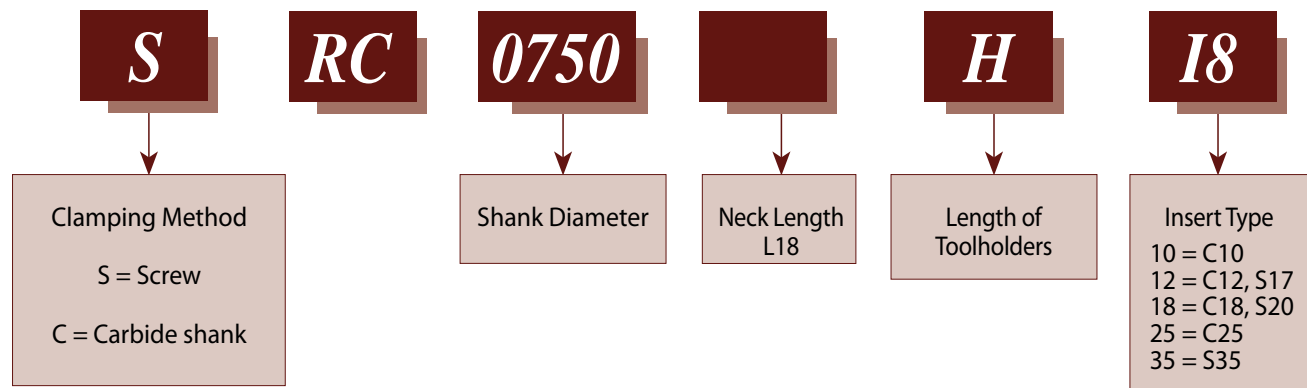
CMT Straight Flute Inserts



CMT Spiral Multi Flute Inserts

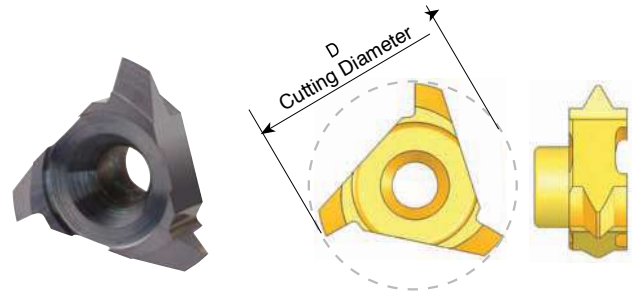


Product Identification - Ordering Codes CMT Toolholders



Partial Profile 60° - ISO, UN

Same insert for internal and external thread



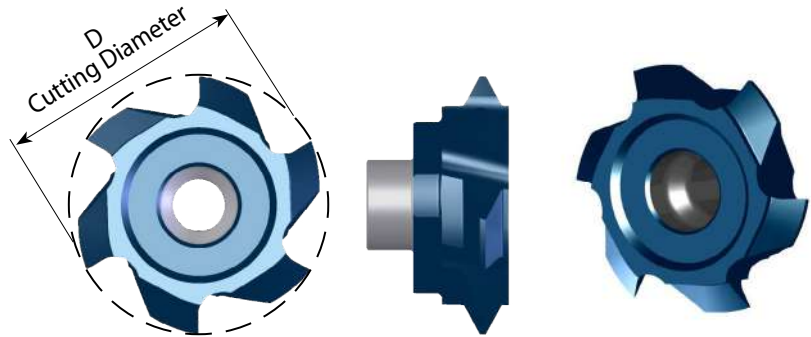
| Insert Type | Pitch Range mm | Pitch Range TPI | Ordering Code | D | Thread Diameter (min) | | Holder Code* |
|----------------|-----------------|-----------------|----------------|-----|-----------------------|------------------|-------------------------|
| | | | | | Pitch Low Range | Pitch High Range | |
| C10 | Int. 0.5 - 0.8 | 56 - 28 | C10 A60 | .39 | $\phi \geq .43$ | $\phi \geq .47$ | H1, 2, 15, 16, 17 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | .39 | | | |
| | Int. 1.0 - 2.0 | 28 - 13 | C10 G60 | .39 | $\phi \geq .47$ | $\phi \geq .55$ | |
| | Ex. 0.8 - 1.75 | 32 - 15 | | .39 | | | |
| C12 | Int. 0.5 - 0.8 | 56 - 28 | C12 A60 | .47 | $\phi \geq .51$ | $\phi \geq .55$ | H3, 4, 5, 18, 19, 20 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | .47 | | | |
| | Int. 1.0 - 2.0 | 28 - 13 | C12 G60 | .49 | $\phi \geq .55$ | $\phi \geq .63$ | |
| | Ex. 0.8 - 1.75 | 32 - 15 | | .49 | | | |
| C18 | Int. 0.5 - 0.8 | 56 - 28 | C18 A60 | .70 | $\phi \geq .75$ | | H6, 7, 8, 9, 21, 22, 23 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | .70 | | | |
| | Int. 1.0 - 1.75 | 28 - 14 | C18 G60 | .70 | $\phi \geq .79$ | $\phi \geq .83$ | |
| | Ex. 0.8 - 1.5 | 32 - 16 | | .70 | | | |
| | Int. 2.0 - 3.0 | 13 - 8 | C18 D60 | .70 | $\phi \geq .83$ | $\phi \geq .91$ | |
| Ex. 1.75 - 2.5 | 15 - 10 | .70 | | | | | |
| C25 | Int. 1.5 - 2.5 | 16 - 10 | C25 G60 | .98 | $\phi \geq 1.10$ | $\phi \geq 1.18$ | H10, 11, 24, 25 |
| | Ex. 1.0 - 2.0 | 28 - 13 | | .98 | | | |
| | Int. 3.0 - 5.0 | 8 - 5 | C25 N60 | .98 | $\phi \geq 1.18$ | $\phi \geq 1.34$ | |
| | Ex. 2.5 - 4.5 | 10 - 6 | | .98 | | | |
| | Int. 5.0 - 6.0 | 5 - 4 | C25 Q60 | .98 | $\phi \geq 1.34$ | $\phi \geq 1.38$ | |
| | Ex. 4.5 - 5.0 | 6 - 5 | | .98 | | | |

* For complete toolholder description see pages 225-226.

Partial Profile 60° - ISO, UN

Same insert for internal and external thread

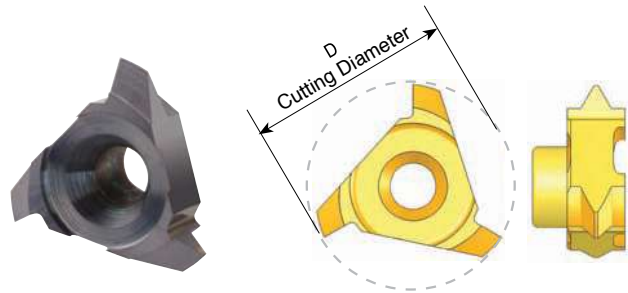
Multi Flute



| Insert Type | Ordering Code | Pitch Range mm | Pitch Range TPI | D | No. of Flutes | Thread Dia (min) | | Holder Code* |
|-------------|-------------------|----------------|-----------------|-----|---------------|------------------|------------------|-------------------------|
| | | | | | | Pitch Low range | Pitch High range | |
| S20 | S200 F G60 | Int. 1.5-2.5 | 16-10 | .79 | 6 | Ø ≥ .91 | Ø ≥ .98 | H6, 7, 8, 9, 21, 22, 23 |
| | | Ex. 1.0-2.0 | 28-13 | .79 | 6 | | | |
| | S200 D N60 | Int. 3.0-5.0 | 8-5 | .79 | 4 | Ø ≥ .98 | Ø ≥ 1.14 | |
| | | Ex. 2.5-4.5 | 10-6 | .79 | 4 | | | |

Partial Profile 60° - NPT

Same insert for internal and external thread

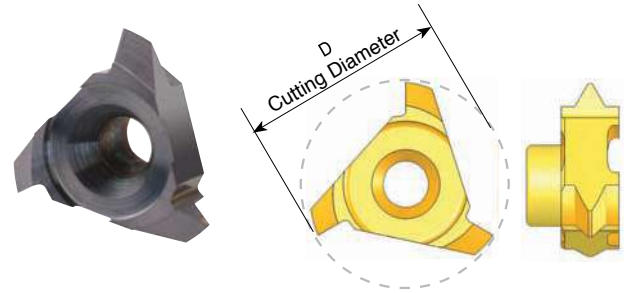


| Insert Type | Pitch TPI | Standard | Ordering Code | D | Holder Code* |
|-------------|-----------|-----------|--------------------|-----|-----------------|
| C10 | 18 | 1/4 - 3/8 | C10 18 NPT | .39 | H1, 2, 15, 17 |
| C18 | 14 | 1/2 - 3/4 | C18 14 NPT | .62 | H21 |
| C25 | 11.5 | 1-2 | C25 11.5NPT | .98 | H10, 11, 24, 25 |
| | 8 | ≥ 2 1/2 | C25 8 NPT | .98 | |

* For complete toolholder description see pages 225-226.

Partial Profile 55° - BSP(G), BSF, BSW

Same insert for internal and external thread

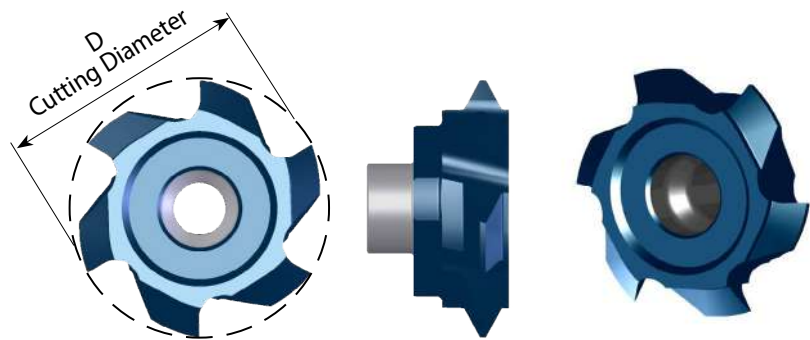


| Insert Type | Pitch Range TPI | Ordering Code | D | Thread Dia. (min) | Holder Code* |
|-------------|-----------------|----------------|-----|-------------------|-------------------------|
| C10 | 19-14 | C10 G55 | .39 | $\phi \geq .51$ | H1, 2, 15, 17 |
| C12 | 28-19 | C12 G55 | .47 | $\phi \geq .55$ | H3, 4, 5, 18, 19, 20 |
| | 14- 11 | C12 N55 | .48 | $\phi \geq .63$ | H3, 4, 5, 18, 20 |
| C18 | 14- 8 | C18 G55 | .71 | $\phi \geq .91$ | H6, 7, 8, 9, 21, 22, 23 |
| C25 | 7- 5 | C25 N55 | .98 | $\phi \geq 1.22$ | H10, 11, 24, 25 |

Partial Profile 55° - BSP(G), BSF, BSW

Same insert for internal and external thread

Multi Flute

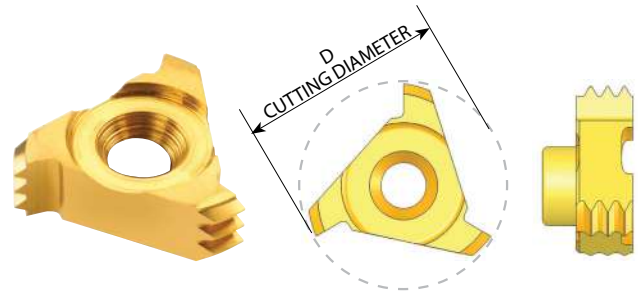


| Insert Type | Ordering Code | Pitch Range TPI | D | No. of Flutes | Thread Dia (min) | Holder Code* |
|-------------|-------------------|-----------------|-----|---------------|------------------|-------------------------|
| S17 | S170 F G55 | 11-8 | .67 | 6 | $\phi \geq .73$ | H3, 4, 5, 18, 19, 20 |
| S20 | S195 F G55 | 14 | .77 | 6 | $\phi \geq .91$ | H6, 7, 8, 9, 21, 22, 23 |
| | S200 D N55 | 8-6 | .79 | 4 | $\phi \geq .98$ | H21 |

* For complete toolholder description see pages 225-226.

Full Profile - ISO

Inserts for internal thread



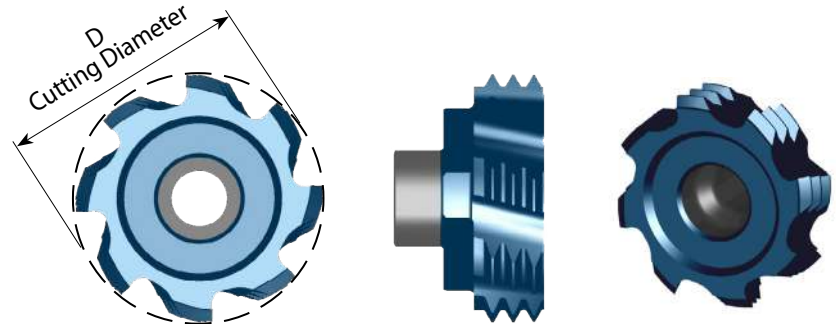
| Insert Type | Pitch mm | M coarse | M fine | Ordering Code | Number of Teeth | D | Holder Code* |
|-------------|----------|----------|----------------------|----------------------|-----------------|-----|-------------------------|
| C10 | 0.5 | | M10, M12 | C10 I 0.5 ISO | 6 | .35 | H1,2,15,16, 17 |
| | 1.0 | | M12, M13 | C10 I 1.0 ISO | 3 | .39 | |
| | 1.5 | | M13, M14 | C10 I 1.5 ISO | 2 | .39 | |
| | 1.75 | M12 | | C10 I 1.75ISO | 1 | .38 | H1, 2, 15, 17 |
| | 2.0 | M14 | M18 | C10 I 2.0 ISO | 1 | .39 | |
| C12 | 0.5 | | M13-M18 | C12 I 0.5 ISO | 6 | .47 | H3,4,5,18,19,20 |
| | 0.75 | | M13-M18 | C12 I 0.75ISO | 4 | .47 | |
| | 1.0 | | M14-M19 | C12 I 1.0 ISO | 3 | .47 | |
| | 1.5 | | M15-M19 | C12 I 1.5 ISO | 2 | .47 | |
| | 2.0 | M16 | M18, M20 | C12 I 2.0 ISO | 1 | .49 | |
| | 2.5 | M18, M20 | | C12 I 2.5 ISO | 1 | .47 | H3, 4, 5,18, 20 |
| 3.0 | M24 | | C12 I 3.0 ISO | 1 | .49 | | |
| C18 | 0.5 | | M19-M60 | C18 I 0.5 ISO | 9 | .70 | H6, 7, 8, 9, 21, 22, 23 |
| | 0.75 | | M19-M60 | C18 I 0.75ISO | 6 | .70 | |
| | 1.0 | | M20-M60 | C18 I 1.0 ISO | 5 | .70 | |
| | 1.5 | | M20-M60 | C18 I 1.5 ISO | 3 | .70 | |
| | 2.0 | | M21-M60 | C18 I 2.0 ISO | 2 | .70 | |
| | 2.5 | M22 | | C18 I 2.5 ISO | 2 | .70 | |
| | 3.0 | M24, M27 | M28-M60 | C18 I 3.0 ISO | 1 | .70 | |
| 3.5 | M30, M33 | | C18 I 3.5 ISO | 1 | .70 | | |
| C25 | 3.0 | M32, M33 | M30-M80 | C25 I 3.0 ISO | 2 | .98 | H10, 11, 24, 25 |
| | 4.0 | M36, M39 | M40-M80 | C25 I 4.0 ISO | 1 | .98 | |
| | 4.5 | M45 | | C25 I 4.5 ISO | 1 | .98 | |
| | 5.0 | M48, M52 | | C25 I 5.0 ISO | 1 | .98 | |
| | 5.5 | M60 | | C25 I 5.5 ISO | 1 | .98 | |
| 6.0 | M64, M68 | M70-M80 | C25 I 6.0 ISO | 1 | .98 | | |

* For complete toolholder description see pages 225-226.

Full Profile - ISO

Inserts for internal thread

Multi Flute

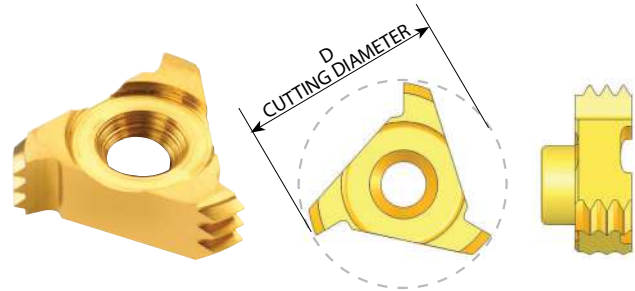


| Insert Type | Ordering Code | Pitch mm | M coarse | M fine | Number of Teeth | D | No. of Flutes | Holder Code* |
|-------------|-----------------------|----------|----------|-----------|-----------------|------|---------------|-------------------------|
| S17 | S160 F 2.5 ISO | 2.5 | M20 | | 1 | .63 | 6 | H3, 4, 5, 18, 19, 20 |
| S20 | S163 H 1.0 ISO | 1.0 | | M18-M60 | 5 | .64 | 8 | H6, 7, 8, 9, 21, 22, 23 |
| | S175 H 1.5 ISO | 1.5 | | M20-M60 | 3 | .69 | 8 | |
| | S186 F 2.0 ISO | 2.0 | | M22-M60 | 2 | .73 | 6 | |
| | S178 F 2.5 ISO | 2.5 | M22 | | 2 | .70 | 6 | |
| | S189 F 3.0 ISO | 3.0 | M24, M27 | M28-M60 | 1 | .74 | 6 | |
| | S200 F 3.5 ISO | 3.5 | M30, M33 | | 1 | .79 | 6 | |
| | S200 F 4.0 ISO | 4.0 | M36, M39 | M40-M60 | 1 | .79 | 6 | |
| | S200 E 4.5 ISO | 4.5 | M42, M45 | | 1 | .79 | 5 | |
| | S200 D 5.0 ISO | 5.0 | M48, M52 | | 1 | .79 | 4 | H21 |
| S35 | S350 F 6.0 ISO | 6.0 | M64, M68 | | 1 | 1.38 | 6 | H12, 13, 14, 26 |
| | S350 F 8.0 ISO | 8.0 | | M130-M200 | 1 | 1.38 | 6 | |

* For complete toolholder description see pages 225-226.

Full Profile - UN

Inserts for internal thread



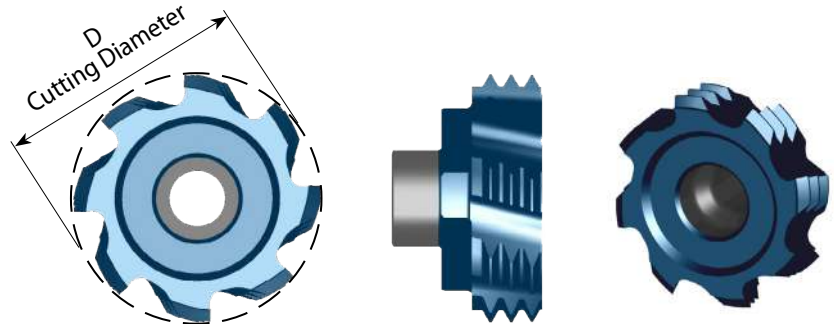
| Insert Type | Pitch TPI | Nominal Size | UNC | UNF | UNEF | Ordering Code | Number of Teeth | D | Holder* Code |
|-------------|-----------|-----------------------|--------------|----------|-------------------|--------------------|-----------------|-----|-------------------------|
| C10 | 20 | | | 1/2 | | C10 I 20 UN | 2 | .39 | H1, 2, 15, 16, 17 |
| | 18 | | | 9/16 | | C10 I 18 UN | 2 | .39 | |
| | 13 | | 1/2 | | | C10 I 13 UN | 1 | .39 | H1, 2, 15, 17 |
| | 12 | 5/8, 11/16, 3/4 | 9/16 | | | C10 I 12 UN | 1 | .39 | |
| C12 | 32 | 9/16, 5/8 | | | | C12 I 32 UN | 3 | .47 | H3, 4, 5, 18, 19, 20 |
| | 28 | 9/16, 5/8, 11/16 | | | | C12 I 28 UN | 3 | .47 | |
| | 24 | | | | 9/16, 5/8, 11/16 | C12 I 24 UN | 2 | .47 | |
| | 20 | 9/16, 5/8, 11/16 | | | 3/4 | C12 I 20 UN | 2 | .47 | |
| | 18 | | | 5/8 | | C12 I 18 UN | 2 | .47 | |
| | 16 | 5/8, 11/16 | | 3/4 | | C12 I 16 UN | 1 | .47 | |
| | 11 | | 5/8 | | | C12 I 11 UN | 1 | .47 | H3, 4, 5, 18, 20 |
| | 10 | | 3/4 | | | C12 I 10 UN | 1 | .47 | |
| C18 | 32 | 3/4, 13/16, 7/8 | | | | C18 I 32 UN | 6 | .70 | H6, 7, 8, 9, 21, 22, 23 |
| | 28 | 3/4, 13/16, 7/8 | | | | C18 I 28 UN | 5 | .70 | |
| | 24 | | | | | C18 I 24 UN | 4 | .70 | |
| | 20 | 11/16, 11/8 | | | 13/16, 7/8, 15/16 | C18 I 20 UN | 3 | .70 | |
| | 18 | | | | | C18 I 18 UN | 3 | .70 | |
| | 16 | 7/8, 1 | | | | C18 I 16 UN | 3 | .70 | |
| | 14 | | | 7/8 | | C18 I 14 UN | 2 | .70 | |
| | 12 | 7/8 | | 1, 1 1/8 | | C18 I 12 UN | 2 | .70 | |
| | 11 | | | | | C18 I 11 UN | 2 | .70 | |
| | 9 | | 7/8 | | | C18 I 9 UN | 1 | .70 | |
| 8 | | 1 | | | C18 I 8 UN | 1 | .70 | | |
| C25 | 8 | 1 3/16, 1 1/4, 1 5/16 | | | | C25 I 8 UN | 2 | .98 | H10, 11, 24, 25 |
| | 7 | | 1 1/4 | | | C25 I 7 UN | 1 | .98 | |
| | 6 | 1 7/16, 1 9/16 | 1 3/8, 1 1/2 | | | C25 I 6 UN | 1 | .98 | |
| | 5 | | 1 3/4 | | | C25 I 5 UN | 1 | .98 | |
| | 4 | | 2 1/2, 2 3/4 | | | C25 I 4 UN | 1 | .98 | |

* For complete toolholder description see pages 225-226.

Full Profile - UN

Inserts for internal thread

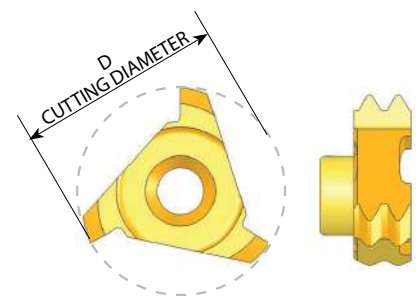
Multi Flute



| Insert Type | Ordering Code | Pitch TPI | Nominal size | UNC | UNF | UNEF | Number of Teeth | D | No. of Flutes | Holder* Code |
|-------------|---------------------|-----------|---------------|-----------------|-----|---------------------------|-----------------|------|---------------|-------------------------|
| S17 | S150 F 10 UN | 10 | | 3/4 | | | 1 | .59 | 6 | H3, 4, 5, 18, 19, 20 |
| S20 | S160 H 24 UN | 24 | | | | 11/16 | 4 | .63 | 8 | H6, 7, 8, 9, 21, 22, 23 |
| | S169 H 20 UN | 20 | | | | 3/4, 13/16, 7/8, 15/16, 1 | 4 | .67 | 8 | |
| | S164 F 16 UN | 16 | 7/8, 15/16, 1 | | 3/4 | | 3 | .65 | 6 | |
| | S191 F 14 UN | 14 | | | 7/8 | | 2 | .75 | 6 | |
| | S186 F 12 UN | 12 | 7/8, 15/16 | | 1 | | 2 | .73 | 6 | |
| | S178 F 9 UN | 9 | | 7/8 | | | 1 | .70 | 6 | |
| | S200 F 8 UN | 8 | 1 1/8 | 1 | | | 1 | .79 | 6 | |
| | S200 F 7 UN | 7 | | 1 1/8, 1 1/4 | | | 1 | .79 | 6 | |
| | S200 E 6 UN | 6 | 1 7/16 | 1 3/8, 1 1/2 | | | 1 | .79 | 5 | |
| | S200 D 5 UN | 5 | | 1 3/4 | | | 1 | .79 | 4 | H21 |
| S35 | S350 F 4 UN | 4 | | 2 1/2, 2 3/4, 3 | | | 1 | 1.38 | 6 | H12, 13, 14, 26 |

G 55° BSW, BSF, BSP

Same Insert for internal and external thread

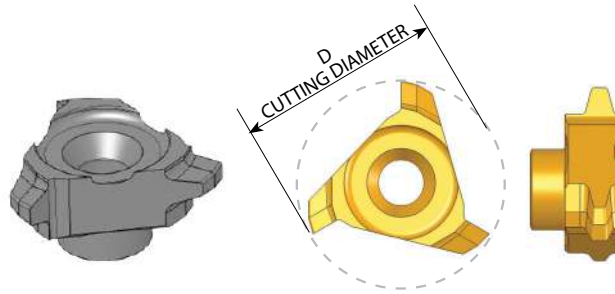


| Insert Type | Pitch TPI | Standard | Ordering Code | Number of Teeth | D | Holder Code* |
|-------------|-----------|----------|-----------------|-----------------|-----|-------------------------|
| C10 | 19 | G 1/4 | C10 19 W | 2 | .39 | H1, 2, 15, 16, 17 |
| C12 | 19 | G 3/8 | C12 19 W | 2 | .47 | H3, 4, 5, 18, 19, 20 |
| C18 | 14 | G 7/8 | C18 14 W | 2 | .70 | H6, 7, 8, 9, 21, 22, 23 |
| | 11 | G ≥ 1 | C18 11 W | 2 | .70 | |

* For complete toolholder description see pages 225-226.

Trapez - DIN 103

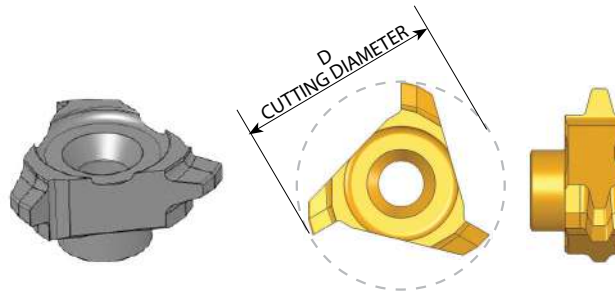
Inserts for internal thread



| Insert Type | Pitch mm | Standard | Ordering Code | D | Holder Code* |
|-------------|----------|-------------------------|-------------------|-----|-------------------------|
| C10 | 2.0 | $\varnothing \geq .63$ | C10 I 2 TR | .39 | H1, 2, 15, 17 |
| C18 | 3.0 | $\varnothing \geq .94$ | C18 I 3 TR | .70 | H6, 7, 8, 9, 21, 22, 23 |
| | 4.0 | $\varnothing \geq 1.02$ | C18 I 4 TR | .70 | H21 |
| | 5.0 | $\varnothing \geq 1.10$ | C18 I 5 TR | .70 | |
| C25 | 6.0 | $\varnothing \geq 1.42$ | C25 I 6 TR | .98 | H10, 11, 24, 25 |

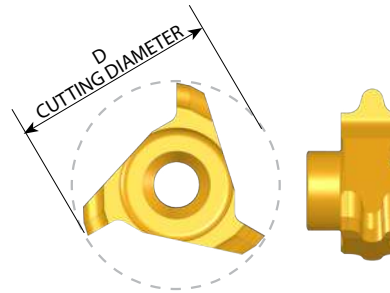
Acme

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, 24, 25 |

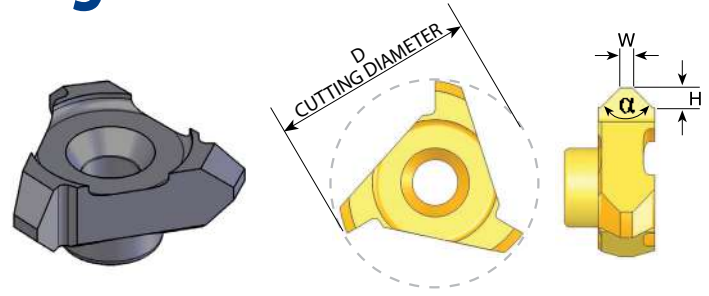
Round - DIN 405



| Insert Type | Pitch TPI | Standard | Ordering Code | D | Holder Code* |
|-------------|-----------|----------|------------------|-----|-------------------------|
| C18 | 8 | 1/8RD | C18 1/8RD | .70 | H6, 7, 8, 9, 21, 22, 23 |
| | 6 | 1/6RD | C18 1/6RD | .70 | H21 |
| C25 | 4 | 1/4RD | C25 1/4RD | .98 | H10, 11, 24, 25 |

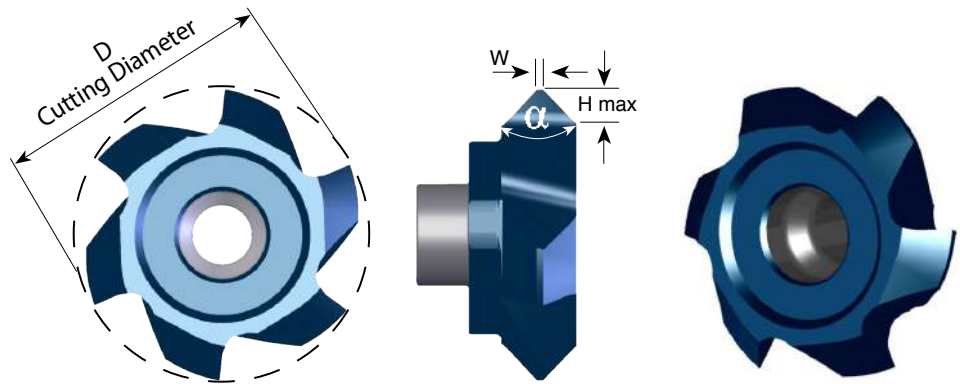
* For complete toolholder description see pages 225-226.

Chamfering and Grooving



| Insert Type | Ordering Code | D | H | W | α | Holder Code* |
|-------------|----------------|-----|------|------|-----|-------------------------|
| C10 | C10 C90 | .39 | .051 | .016 | 90° | H1, 2, 15, 17 |
| C12 | C12 C90 | .47 | .053 | .012 | 90° | H3, 4, 5, 18, 20 |
| C18 | C18 C90 | .70 | .077 | .043 | 90° | H6, 7, 8, 9, 21, 22, 23 |
| C25 | C25 C90 | .98 | .098 | .039 | 90° | H10, 11, 24, 25 |

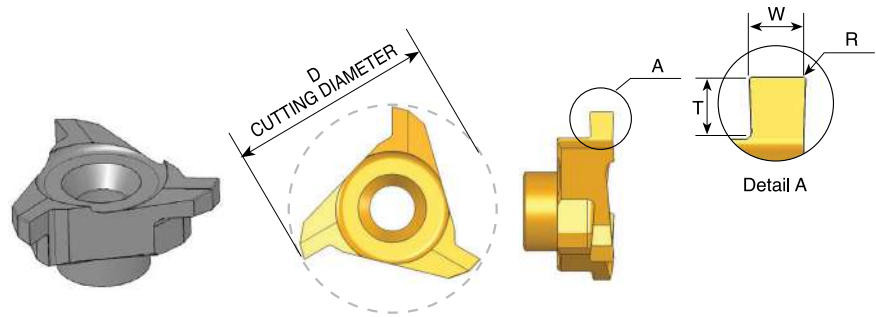
Chamfering, Grooving and Boring Multi Flute



| Insert Type | Ordering Code | D | H max | W | α | No. of Flutes | Holder Code |
|-------------|--------------------|------|-------|------|-----|---------------|-------------------------|
| S17 | SC160 E H14 | .63 | .053 | .008 | 90° | 5 | H3, 4, 5, 18, 19, 20 |
| S20 | SC170 E H14 | .67 | .053 | .008 | 90° | 5 | H6, 7, 8, 9, 21, 22, 23 |
| | SC200 F H14 | .79 | .053 | .008 | 90° | 6 | H6, 7, 8, 9, 21, 22, 23 |
| | SC200 F H24 | .79 | .093 | .008 | 90° | 6 | |
| S35 | SC350 F H42 | 1.38 | .165 | .008 | 90° | 6 | H12, 13, 14, 26 |
| S20 | SC200 F H20 | .79 | .077 | .039 | 90° | 6 | H6, 7, 8, 9, 21, 22, 23 |
| | SC200 F H17 | .79 | .067 | .059 | 90° | 6 | |
| | SC200 F H15 | .79 | .059 | .079 | 90° | 6 | |
| | SC200 F H12 | .79 | .047 | .079 | 90° | 6 | |

* For complete toolholder description see pages 225-226.

Groove Milling

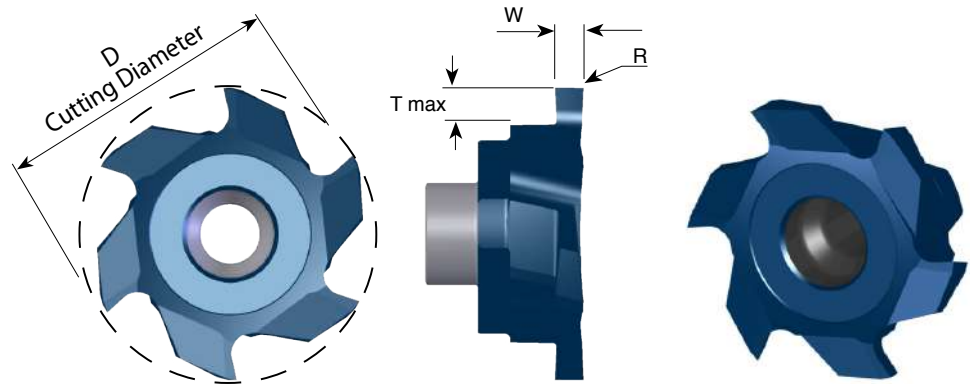


| Insert Type | Ordering Code | D | W ±.001 | T max. | R | Groove Dia. (min.) | Holder Code* |
|-------------|----------------|-----|------------|-----------|------|-----------------------|----------------------------|
| C10 | C10 W08 | .39 | .031 | .03 | .004 | $\phi > .39$ | H1, 2, 15, 17 |
| | C10 W09 | .39 | .035 | .04 | .004 | $\phi > .39$ | |
| | C10 W10 | .39 | .039 | .04 | .004 | $\phi > .39$ | |
| | C10 W15 | .39 | .059 | .05 | .004 | $\phi > .39$ | |
| | C10 W20 | .39 | .079 | .05 | .004 | $\phi > .39$ | |
| C12 | C12 W08 | .47 | .031 | .03 | .004 | $\phi > .47$ | H3, 4, 5,18,19,20 |
| | C12 W10 | .47 | .039 | .04 | .004 | $\phi > .47$ | |
| | C12 W15 | .49 | .059 | .06 | .004 | $\phi > .49$ | 3, 4, 5, 18, 20 |
| | C12 W20 | .49 | .079 | .06 | .004 | $\phi > .49$ | |
| | C12 W25 | .49 | .098 | .06 | .004 | $\phi > .49$ | |
| C18 | C18 W10 | .70 | .039 | .06 | .004 | $\phi > .70$ | H6, 7, 8, 9, 21, 22, 23 |
| | C18 W12 | .70 | .047 | .06 | .004 | $\phi > .70$ | |
| | C18 W15 | .70 | .059 | .08 | .004 | $\phi > .70$ | |
| | C18 W20 | .70 | .079 | .11 | .004 | $\phi > .70$ | H21 |
| C25 | C25 W20 | .98 | .079 | .12 | .008 | $\phi > .98$ | H10, 11, 24, 25 |
| | C25 W25 | .98 | .098 | .12 | .008 | $\phi > .98$ | |
| | C25 W30 | .98 | .118 | .12 | .008 | $\phi > .98$ | |
| | C25 W35 | .98 | .138 | .14 | .008 | $\phi > .98$ | |
| | C25 W40 | .98 | .157 | .14 | .008 | $\phi > .98$ | |
| | C25 W50 | .98 | .197 | .14 | .008 | $\phi > .98$ | |

* For complete toolholder description see pages 225-226.

Groove Milling

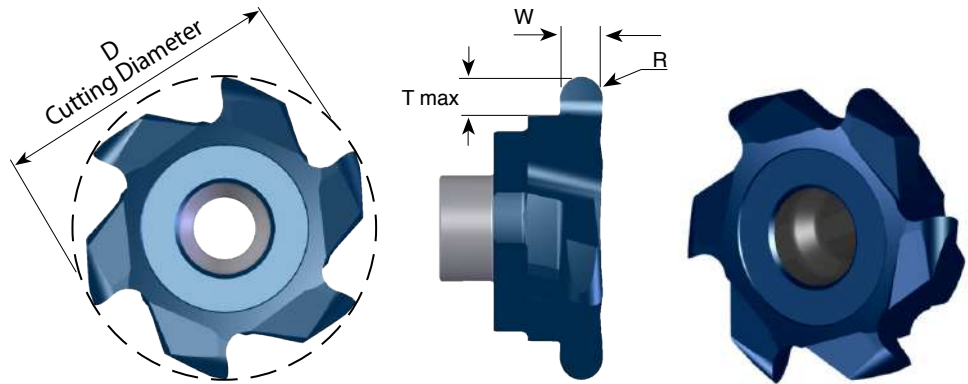
Multi Flute



| Insert Type | Ordering Code | D | W ±.001 | T Max. | R | Groove Dia. (min) | No. of Flutes | Holder Code* |
|-------------|---------------------|------|------------|-----------|------|----------------------|------------------|-------------------------|
| S17 | SG170 F W15 | .67 | .059 | .11 | .008 | Ø > .67 | 6 | H3, 4, 5, 18, 19, 20 |
| | SG170 F W20 | .67 | .079 | .11 | .008 | Ø > .67 | 6 | |
| | SG170 F W25 | .67 | .098 | .11 | .008 | Ø > .67 | 6 | |
| S20 | SG200 F W15 | .79 | .059 | .11 | .008 | Ø > .79 | 6 | H6, 7, 8, 9, 21, 22, 23 |
| | SG200 F W20 | .79 | .079 | .11 | .008 | Ø > .79 | 6 | |
| | SG200 F W25 | .79 | .098 | .11 | .008 | Ø > .79 | 6 | |
| | SG200 F W30 | .79 | .118 | .11 | .008 | Ø > .79 | 6 | |
| | SG200 F W40 | .79 | .157 | .11 | .008 | Ø > .79 | 6 | |
| | SG200 F W49 | .79 | .193 | .11 | .008 | Ø > .79 | 6 | |
| S20 | SG200 E W20T | .79 | .079 | .15 | .008 | Ø > .79 | 5 | H21 |
| | SG200 E W25T | .79 | .098 | .15 | .008 | Ø > .79 | 5 | |
| | SG200 E W30T | .79 | .118 | .15 | .008 | Ø > .79 | 5 | |
| S35 | SG350 F W30T | 1.38 | .118 | .25 | .008 | Ø > 1.38 | 6 | H12, 13, 14, 26 |
| | SG350 F W40T | 1.38 | .157 | .25 | .008 | Ø > 1.38 | 6 | |
| | SG350 F W50T | 1.38 | .197 | .25 | .008 | Ø > 1.38 | 6 | |
| | SG350 F W60T | 1.38 | .236 | .25 | .008 | Ø > 1.38 | 6 | |
| | SG350 F W80T | 1.38 | .315 | .25 | .008 | Ø > 1.38 | 6 | |

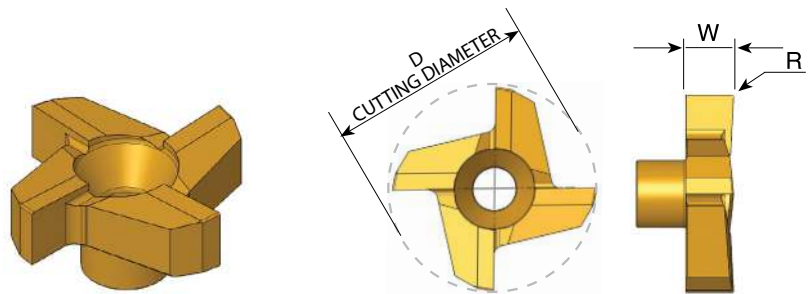
* For complete toolholder description see pages 225-226.

Full Radius Groove Milling Multi Flute



| Insert Type | Ordering Code | D | R | W ±.001 | T Max. | Groove Dia. (min) | No. of Flutes | Holder Code* |
|-------------|--------------------|-----|------|------------|-----------|----------------------|------------------|----------------------------|
| S20 | SG200 F R10 | .79 | .039 | .079 | .11 | Ø > .79 | 6 | H6, 7, 8, 9, 21, 22, 23 |
| | SG200 F R12 | .79 | .047 | .094 | .11 | Ø > .79 | 6 | |
| | SG200 F R15 | .79 | .059 | .118 | .11 | Ø > .79 | 6 | |
| | SG200 F R20 | .79 | .079 | .157 | .11 | Ø > .79 | 6 | |

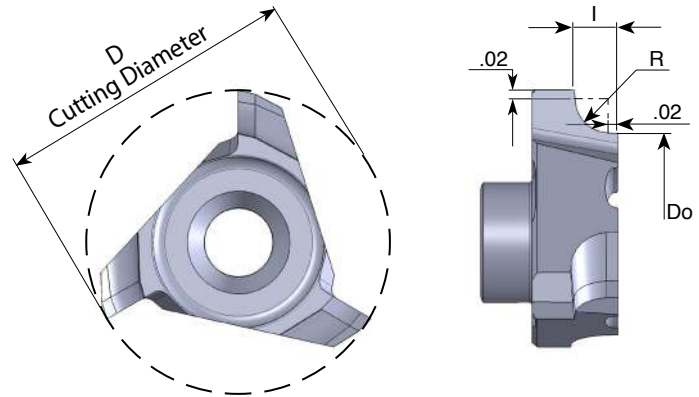
Face Milling and Finishing



| Insert Type | Ordering Code | D | W +.008 | R | Holder Code* |
|-------------|-------------------|-----|------------|------|-------------------------|
| C10 | C10 F R0.1 | .39 | .12 | .004 | H1, 2, 15, 16, 17 |
| C12 | C12 F R0.1 | .47 | .12 | .004 | H3, 4, 5, 18, 19, 20 |
| C18 | C18 F R0.1 | .70 | .20 | .004 | H6, 7, 8, 9, 21, 22, 23 |
| C25 | C25 F R0.2 | .98 | .24 | .008 | H10, 11, 24, 25 |

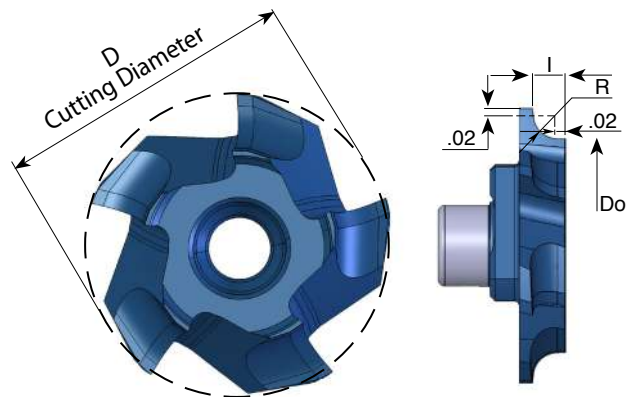
* For complete toolholder description see pages 225-226.

Corner Rounding



| Insert Type | Ordering Code | D | Do | R | I | Holder Code* |
|-------------|-----------------|-----|-----|------|-----|----------------------------|
| C10 | C10 CR05 | .39 | .31 | .020 | .04 | H1, 2, 15, 16, 17 |
| | C10 CR10 | .39 | .27 | .039 | .06 | |
| C18 | C18 CR13 | .70 | .56 | .049 | .07 | H6, 7, 8, 9, 21, 22, 23 |
| | C18 CR15 | .70 | .54 | .059 | .08 | |
| | C18 CR20 | .70 | .50 | .079 | .10 | |

Corner Rounding Multi Flute

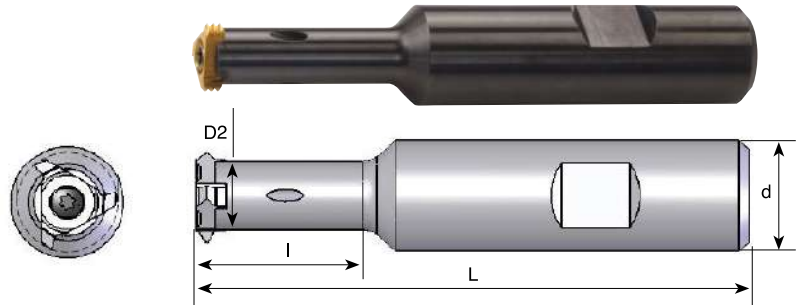


| Insert Type | Ordering Code | D | Do | R | I | No. of Flutes | Holder Code* |
|-------------|--------------------|-----|-----|------|-----|---------------|-------------------------|
| S17 | S170 F CR10 | .67 | .55 | .039 | .06 | 5 | H3, 4, 5, 18, 19, 20 |
| | S170 F CR13 | .67 | .53 | .049 | .07 | 5 | |
| | S170 F CR15 | .67 | .51 | .059 | .08 | 5 | |

* For complete toolholder description see pages 225-226.

Steel Toolholders

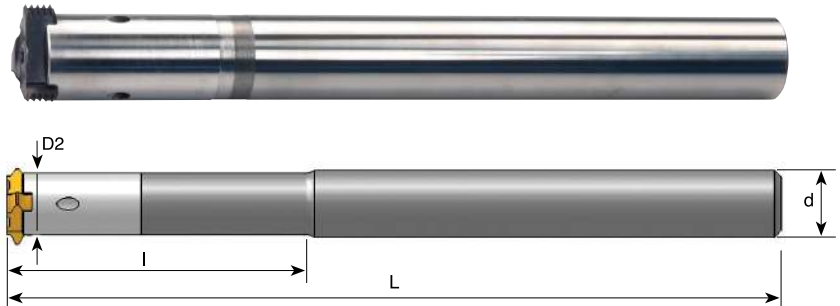
With internal coolant



| 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 | .29 | .75 | 3.5 | | |
| H3 | SRC 0500 E12 | C12, S17 | .500 | .35 | .98 | 2.8 | S10 | K10 |
| H4 | SRC 0625 G12 | | .625 | .35 | .98 | 3.5 | | |
| H5 | SRC 0625 H12 | | .625 | .35 | 1.38 | 4.0 | | |
| H6 | SRC 0625 H18 | C18, S20 | .625 | .54 | 1.89 | 4.0 | S16 | K16 |
| H7 | SRC 0750 H18 | | .750 | .54 | 1.26 | 4.0 | | |
| H8 | SRC 0750 J18 | | .750 | .54 | 1.89 | 4.5 | | |
| H9 | SRC 0750 L18 | | .750 | .54 | 2.91 | 5.5 | | |
| H10 | SRC 1000 J25 | C25 | 1.00 | .69 | 1.77 | 4.5 | S27 | K27 |
| H11 | SRC 1000 M25 | | 1.00 | .69 | 3.15 | 5.9 | | |
| H12 | SRC 0750 P35 | S35 | .750 | .87 | - | 6.7 | S33 | K33 |
| H13 | SRC 1000 H35 | | 1.00 | .87 | 1.57 | 3.9 | | |
| H14 | SRC 1000 K35 | | 1.00 | .87 | 2.36 | 5.1 | | |

Carbide Shank Toolholders

With internal coolant



| Tool No. | Ordering Code | Insert Type | d | D2 | l | L | Insert Screw | Torx Key |
|----------|----------------------------------|-------------|------|------|------|------|--------------|----------|
| H15 | CRC 0312 L13 K10 | C10 | .312 | .29 | 1.38 | 5.0 | S5 | K5 |
| H16 | CRC 0312 K10 | | .312 | .312 | - | 5.0 | S5 | K5 |
| H17 | CRC 0375 L17 M10 | | .375 | .29 | 1.77 | 5.9 | S5 | K5 |
| H18 | CRC 0375 L15 M12 | C12, S17 | .375 | .35 | 1.58 | 6.0 | S10 | K10 |
| H19 | CRC 0375 M12 | | .375 | .375 | - | 6.0 | S10 | K10 |
| H20 | CRC 0500 L22 P12 | | .500 | .35 | 2.24 | 6.7 | S10 | K10 |
| H21 | CRC 0500 P18 | C18, S20 | .500 | .500 | - | 7.0 | S16 | K16 |
| H22 | CRC 0625 L18 R18 | | .625 | .54 | 1.89 | 7.8 | S16 | K16 |
| H23 | CRC 0625 L29 R18 | | .625 | .54 | 2.91 | 7.8 | S16 | K16 |
| H24 | CRC 0625 R25 | C25 | .625 | .69 | 1.20 | 8.2 | S27 | K27 |
| H25 | CRC 0750 L33 S25 | | .750 | .69 | 3.35 | 10.0 | S27 | K27 |
| H26 | CRC 0750 S35 | | S35 | .750 | .87 | 1.59 | 10.2 | S33 |

Tools without Weldon

CMT Multi Insert Milling Cutters

Carmex presents a new generation of CMT indexable milling inserts and cutters for Grooving, Chamfering and Threading.



Inserts

- Insert profiles are fully ground
- Spiral inserts for smooth cutting operation
- Three cutting edges on each insert
- For a wide range of materials and applications

Carbide grade: MT7

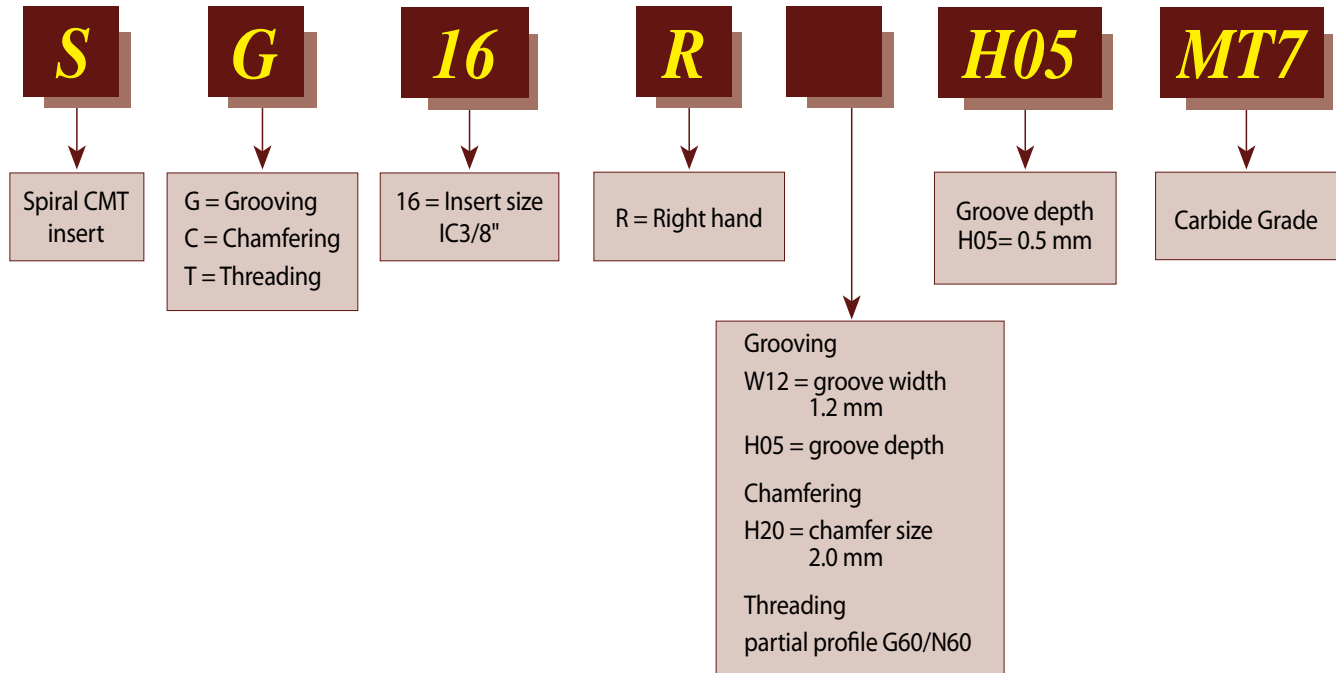


Milling cutters / Disc milling cutter

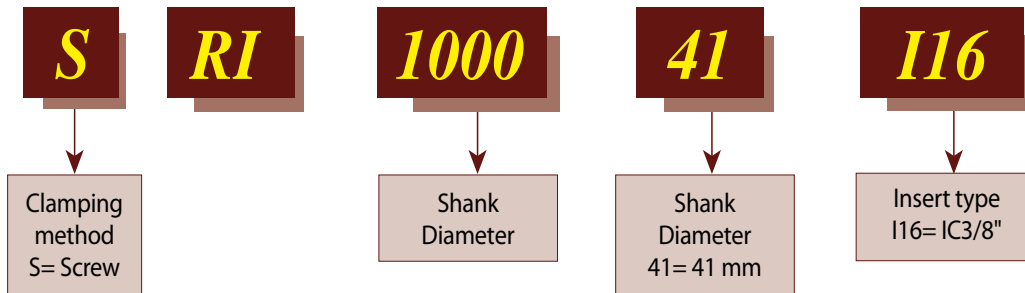
- 4 - 8 inserts per holder, for high productivity
- For use with Carmex standard CMT - S35 toolholders
- The milling cutters are coated with a special layer (silver color) for high anti-corrosive resistance and extra protection against cutting burrs

Product Identification - Ordering Codes

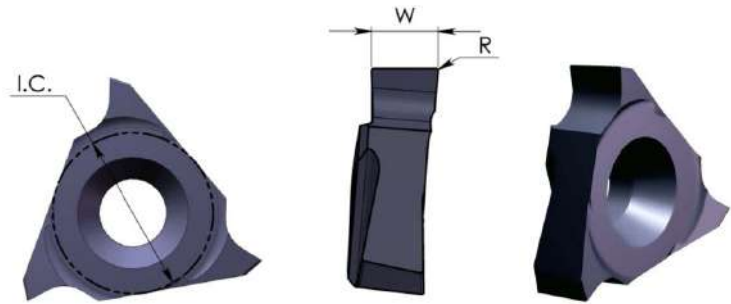
Inserts



Toolholders



Groove Milling



DIN 471 / 472

| Insert Type | I.C. | Ordering Code | W | R | Holder Code |
|-------------|------|---------------------|------|------|---------------|
| SI16 | 3/8" | SG 16 R W14 | .055 | .004 | H27, H28 |
| | | SG 16 R W17 | .067 | .004 | |
| | | SG 16 R W19 | .077 | .006 | |
| | | SG 16 R W22 | .089 | .006 | |
| | | SG 16 R W27 | .108 | .008 | |
| | | SG 16 R W32 | .128 | .008 | |
| | | SG 16 R W42 | .167 | .008 | |
| | | *SG 16 R W43 | .171 | .008 | H27, H28, H29 |

Right hand cutting

| Insert Type | I.C. | Ordering Code | W | R | Holder Code |
|-------------|------|--------------------|------|------|-------------|
| SI16 | 3/8" | SG 16 L W43 | .171 | .008 | H29 |

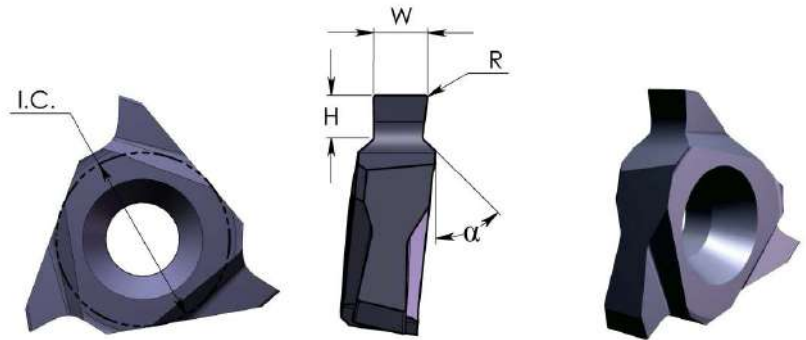
Left hand cutting

* T max = .08

When using holders SRI41-I16 and SRI2541-I16

** Maximum groove depth (T max) according to the toolholder.

Groove Milling with Chamfer

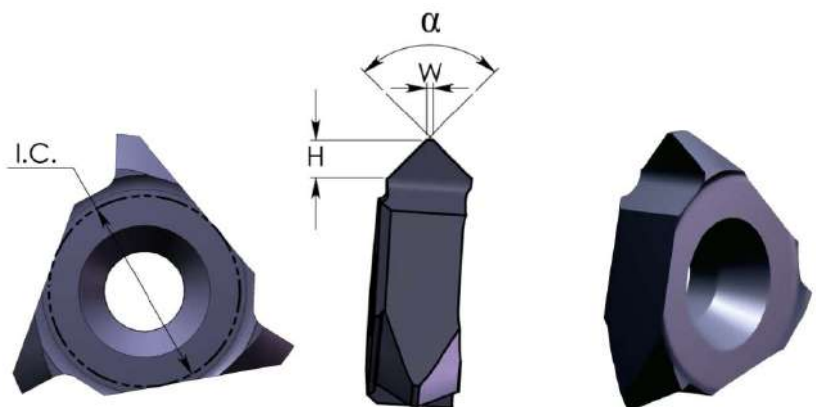


DIN 471 / 472

| Insert Type | I.C. | Ordering Code | W | H max | R | α | Holder Code |
|-------------|------|------------------------|------|-------|------|----------|-------------|
| SI16 | 3/8" | SG 16 R W12 H05 | .047 | .020 | .004 | 45° | H27, H28 |
| | | SG 16 R W14 H07 | .055 | .028 | .004 | | |
| | | SG 16 R W14 H08 | .055 | .033 | .004 | | |
| | | SG 16 R W17 H08 | .067 | .033 | .004 | | |
| | | SG 16 R W17 H10 | .067 | .039 | .004 | | |
| | | SG 16 R W19 H12 | .077 | .049 | .006 | | |
| | | SG 16 R W22 H15 | .089 | .059 | .006 | | |
| | | SG 16 R W27 H15 | .108 | .059 | .006 | | |
| | | SG 16 R W27 H17 | .108 | .069 | .006 | | |
| | | SG 16 R W32 H17 | .128 | .069 | .006 | | |
| | | SG 16 R W42 H20 | .167 | .079 | .006 | | |
| | | SG 16 R W42 H25 | .167 | .098 | .006 | | |

Right hand cutting

Chamfering

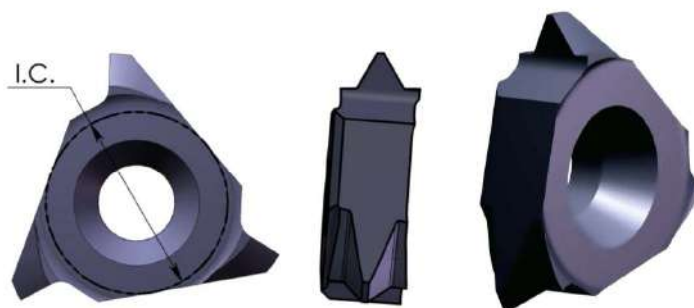


| Insert Type | I.C. | Ordering Code | H max | W | α | Holder Code |
|-------------|------|--------------------|-------|------|----------|-------------|
| SI16 | 3/8" | SC 16 R H20 | .079 | .008 | 90° | H27, H28 |
| | | SC 16 R H19 | .075 | .020 | | |

Maximum groove depth (T max) according to the toolholder.

Partial Profile 60° - ISO, UN

Same Insert for internal and external thread

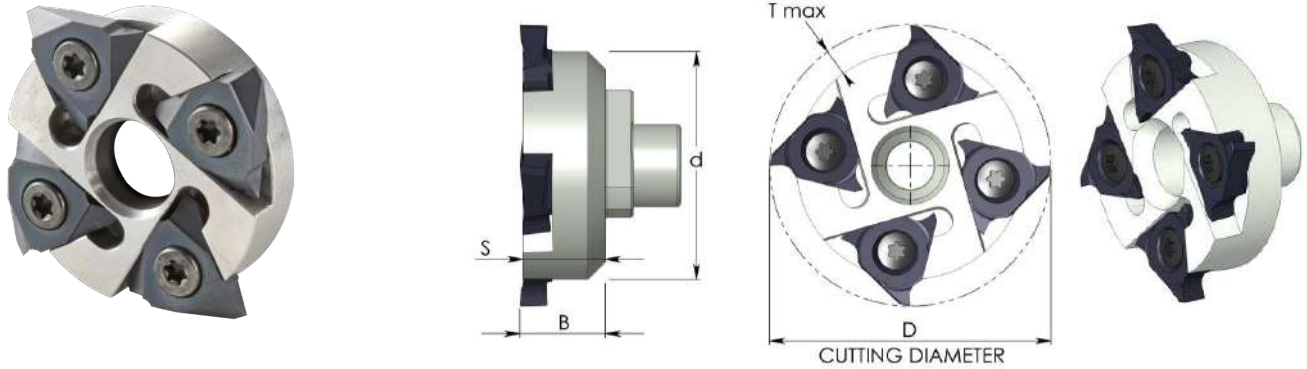


| Insert Type | I.C. | Ordering Code | Pitch Range mm | Pitch Range TPI | Holder Code |
|-------------|------|--------------------|----------------|-----------------|-------------|
| SI16 | 3/8" | ST 16 R G60 | 1.5-3.0 | 16-8 | H27, H28 |
| | | ST 16 R N60 | 3.5-5.0 | 7-5 | |

Right hand cutting

Toolholders

Milling Cutter- Arbor

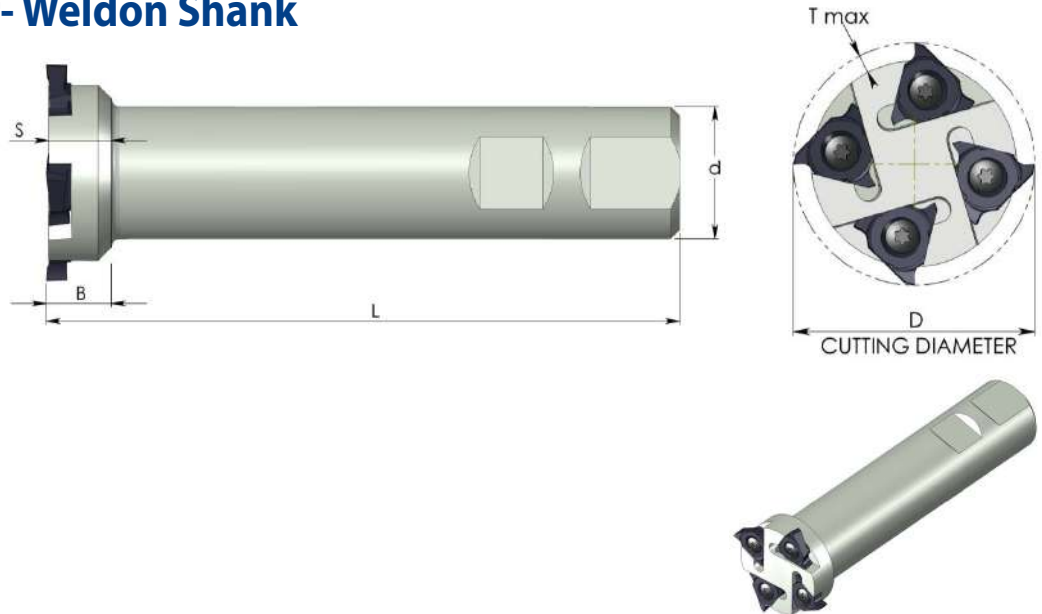


| Tool No. | Ordering Code | Insert type | D | d | T max | B | S | Insert Screw | Torx Key |
|----------|--------------------|-------------|-------|-------|-------|------|------|--------------|----------|
| H27 | SRI 41- I16 | SI16 | 1.614 | 1.307 | .142 | .492 | .472 | S16S | K16 |

Right hand cutting

To connect to the standard CMT toolholders S35: SRC 0750 P35, SRC 1000 H35, SRC 1000 K35, CRC 0750 S35.

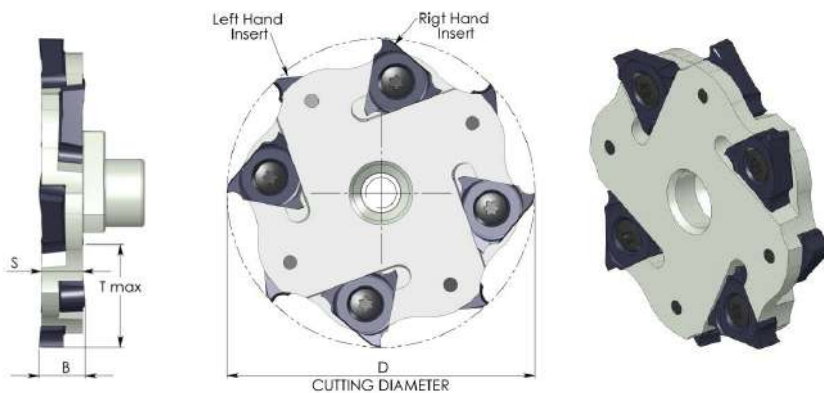
Milling Cutter- Weldon Shank



| Tool No. | Ordering Code | Insert type | D | d | T max | B | S | L | Insert Screw | Torx Key |
|----------|---------------------|-------------|-------|-------|-------|------|------|-----|--------------|----------|
| H28 | SRI 1000-I16 | SI16 | 1.614 | 1.000 | .142 | .492 | .472 | 4.9 | S16S | K16 |

Right hand cutting

Mill Cutter - Disc Milling



| Tool No. | Ordering Code | Insert type | D | T max | B | S | Insert Screw | Torx Key |
|----------|-------------------|-------------|-------|-------|------|------|--------------|----------|
| H29 | SRI 55-I16 | SI16 | 2.165 | .610 | .323 | .283 | S16M | K16 |

Right hand cutting

To use only with inserts SG 16 RW43, and SG 16 LW43

To connect to the standard CMT toolholders S35: SRC 0750 P35, SRC 1000 H35, SRC 1000 K35, CRC 0750 S35.