



Carmex
Precision Tools Ltd.
x-treme thread cutting™

CMT

Vertical Mill Thread

CMT / 顶部安装的螺纹铣刀片



Metric 2014 - 2015

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CMT

Vertical Mill Thread

CMT/顶部安装螺纹铣刀片的优势
Advantages

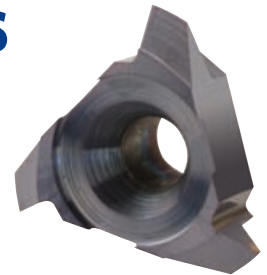
- Ground profile inserts for high precision and excellent performance. 外形磨制刀片，高精度和杰出的性能
- Working at high machining parameters, with high surface quality. 加工参数高，高表面质量
- Solid and accurate clamping method enables full repeatability. 整体和精确的夹持方法使重复装夹精度可持续
- Same insert and holder for right-hand or left-hand threads. 相同的刀片可加工左手或右手螺纹
- Toolholders include weldon shank and coolant bore. 刀杆包括侧固式和冷却孔

CMT Straight Flute Inserts

Carbide Grade: MT7

直槽螺纹铣刀片

Inserts are available in MT7 Sub-Micron Grade with Titanium Aluminium Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, covering a very wide range of materials.



CMT Spiral Multi Flute Inserts

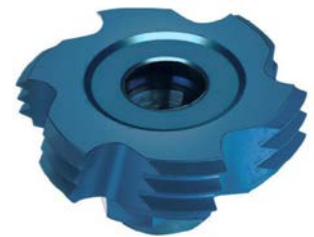
- Multi flute: 4-8 cutting edges 多槽4-8切削刃
- Spiral flute for smooth cutting 螺旋槽螺纹铣刀片

The new cutters are designed for large range of materials including hardened steel up to 62 HRc. 新切削设计和大范围材料包括硬钢62HRC

Use with the same CMT tool holders, C18 type. 用相同的CMT刀杆，C18型

Advantages 优势

- Longer tool life 长的刀具寿命
- High material removal and higher feeds results increased productivity 高进给、高效率
- Excellent surface finish 杰出的表面质量
- Reduced cycle time 减少加工时间
- Low cutting forces due to the spiral multi flutes 低切削力、多螺旋槽



Carbide Grade: MT8 MT8硬质合金

Sub Micron grade with advanced PVD triple coating (ISO K10-K20).

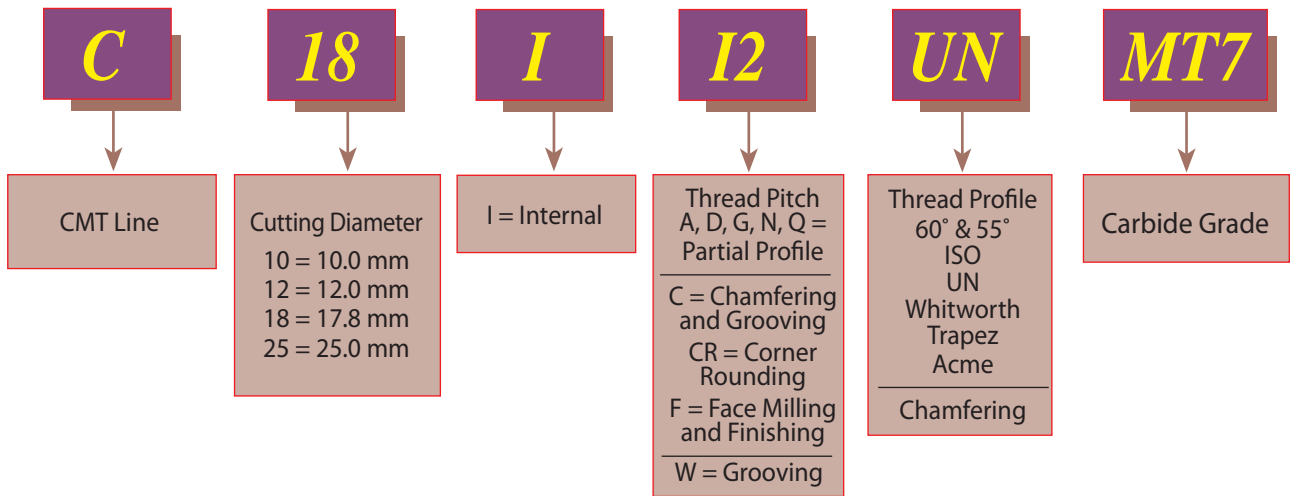
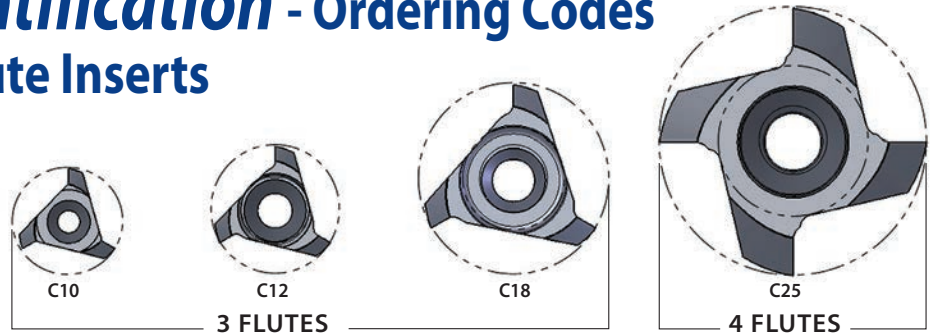
Extremely high heat resistant and smooth cutting operation, high performance, for all machining conditions.

亚微颗粒级的先进的PVD涂层 (ISO K10-K20)

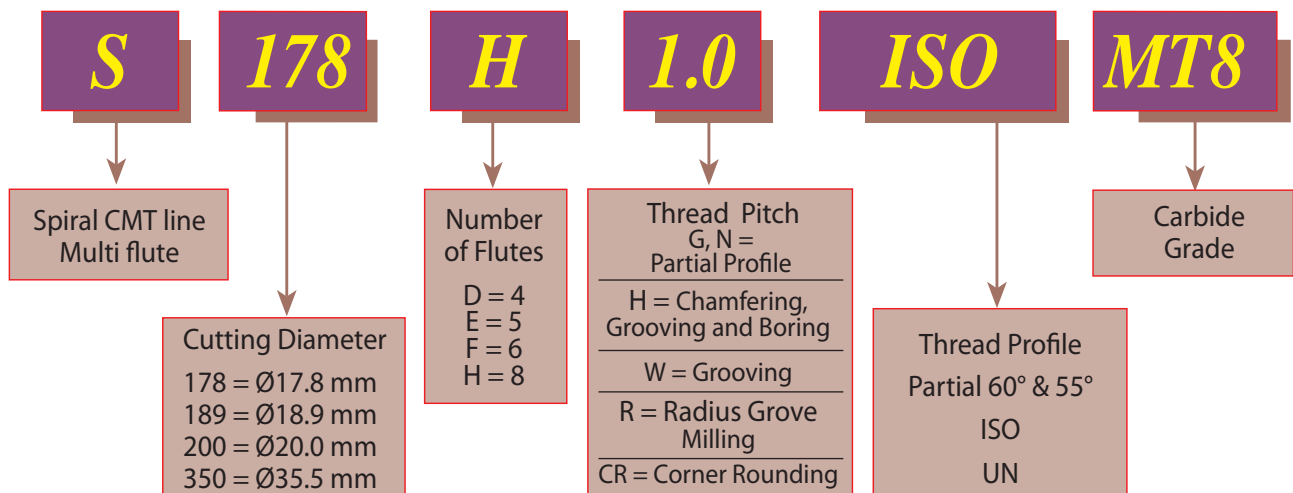
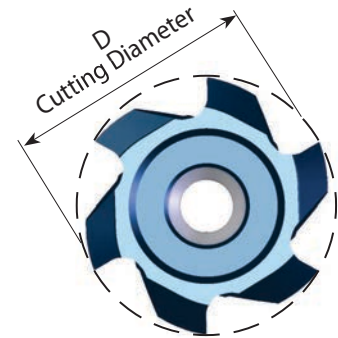
特别的耐热和光滑的切削加工，高效能，用于全部加工条件

Product Identification - Ordering Codes

CMT Straight Flute Inserts

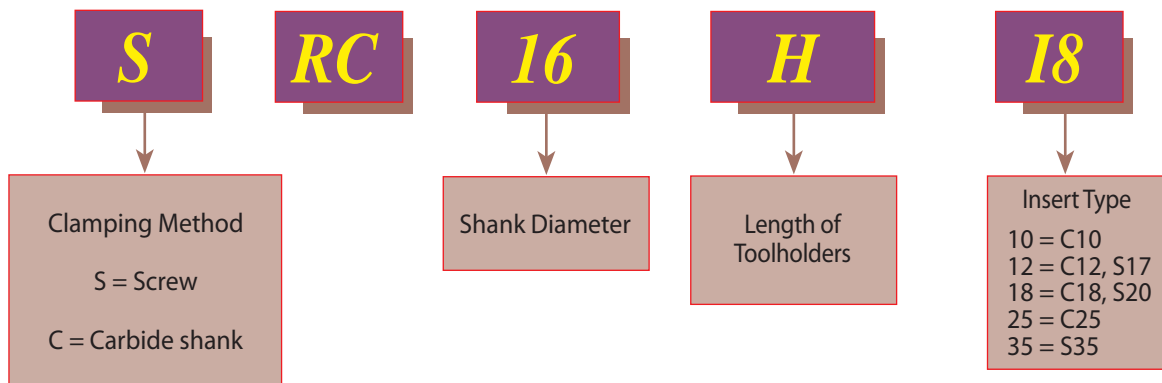


CMT Spiral Multi Flute Inserts



Product Identification - Ordering Codes

CMT Toolholders

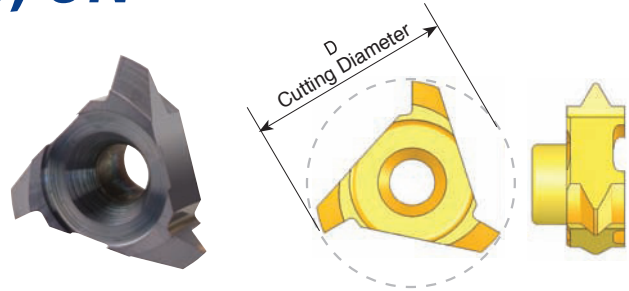


Partial Profile 60° - ISO, UN

Same insert for internal and external thread

范围牙60° - ISO, UN

相同的刀片可用于内、外螺纹



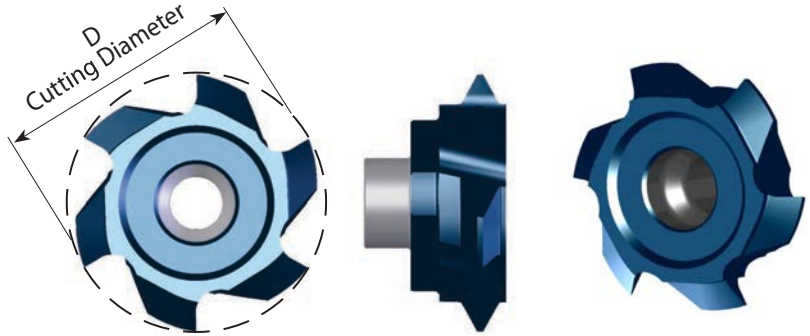
| Insert Type | Pitch Range mm | Pitch Range TPI | Ordering Code | D | Thread Diameter (min) | | Holder Code |
|----------------|-----------------|-----------------|----------------|------|-----------------------|-----------------------|------------------|
| | | | | | Pitch Low Range | Pitch High Range | |
| C10 | Int. 0.5 - 0.8 | 56 - 28 | C10 A60 | 10.0 | $\varnothing \geq 11$ | $\varnothing \geq 12$ | H1, 2, 12, 13 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | | | | |
| | Int. 1.0 - 2.0 | 28 - 13 | C10 G60 | | $\varnothing \geq 12$ | $\varnothing \geq 14$ | |
| | Ex. 0.8 - 1.75 | 32 - 15 | | | | | |
| C12 | Int. 0.5 - 0.8 | 56 - 28 | C12 A60 | 12.0 | $\varnothing \geq 13$ | $\varnothing \geq 14$ | H3, 4, 5, 14, 15 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | | | | |
| | Int. 1.0 - 2.0 | 28 - 13 | C12 G60 | | $\varnothing \geq 14$ | $\varnothing \geq 16$ | |
| | Ex. 0.8 - 1.75 | 32 - 15 | | | | | |
| C18 | Int. 0.5 - 0.8 | 56 - 28 | C18 A60 | 17.8 | $\varnothing \geq 19$ | | H6, 7, 8, 9, 16 |
| | Ex. 0.4 - 0.8 | 64 - 32 | | | | | |
| | Int. 1.0 - 1.75 | 28 - 14 | C18 G60 | | $\varnothing \geq 20$ | $\varnothing \geq 21$ | |
| | Ex. 0.8 - 1.5 | 32 - 16 | | | | | |
| | Int. 2.0 - 3.0 | 13 - 8 | C18 D60 | | $\varnothing \geq 21$ | $\varnothing \geq 23$ | |
| Ex. 1.75 - 2.5 | 15 - 10 | | | | | | |
| C25 | Int. 1.5 - 2.5 | 16 - 10 | C25 G60 | 25.0 | $\varnothing \geq 28$ | $\varnothing \geq 30$ | H10, 11, 17, 18 |
| | Ex. 1.0 - 2.0 | 28 - 13 | | | | | |
| | Int. 3.0 - 5.0 | 8 - 5 | C25 N60 | | $\varnothing \geq 30$ | $\varnothing \geq 34$ | |
| | Ex. 2.5 - 4.5 | 10 - 6 | | | | | |
| | Int. 5.0 - 6.0 | 5 - 4 | C25 Q60 | | $\varnothing \geq 34$ | $\varnothing \geq 35$ | |
| | Ex. 4.5 - 5.0 | 6 - 5 | | | | | |

Partial Profile 60° - ISO, UN

Same insert for internal and external thread

Multi Flute

范围牙60° - ISO, UN
相同的刀片可用于内、外螺纹，
多槽、高效率加工



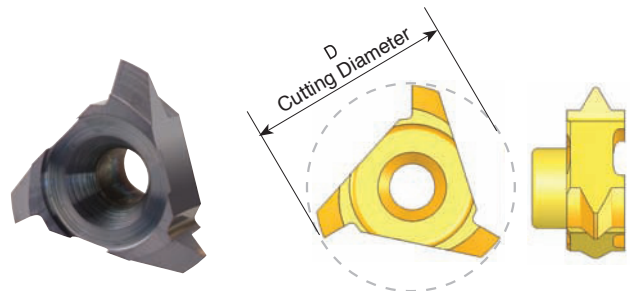
| Insert Type | Ordering Code | Pitch Range mm | Pitch Range TPI | D | No. of Flutes | Thread Dia (min) | | Holder Code |
|-------------|-------------------|----------------|-----------------|------|---------------|------------------|------------------|-----------------|
| | | | | | | Pitch Low range | Pitch High range | |
| S20 | S200 F G60 | Int. 1.5-2.5 | 16-10 | 20.0 | 6 | Ø ≥ 23 | Ø ≥ 25 | H6, 7, 8, 9, 16 |
| | | Ex. 1.0-2.0 | 28-13 | | | | | |
| | S200 D N60 | Int. 3.0-5.0 | 8 - 5 | 20.0 | 4 | Ø ≥ 25 | Ø ≥ 29 | |
| | | Ex. 2.5-4.5 | 10 - 6 | | | | | |

Partial Profile 60° - NPT

Same insert for internal and external thread

范围牙60° - NPT

相同的刀片可用于内、外螺纹

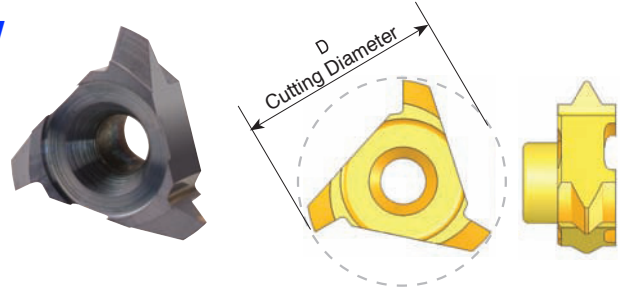


| Insert Type | Pitch TPI | Standard | Ordering Code | D | Holder Code |
|-------------|-----------|-----------|--------------------|------|-----------------|
| C10 | 18 | 1/4 - 3/8 | C10 18 NPT | 10.0 | H1, 2, 12 |
| C18 | 14 | 1/2 - 3/4 | C18 14 NPT | 15.8 | H16 |
| C25 | 11.5 | 1-2 | C25 11.5NPT | 25.0 | H10, 11, 17, 18 |
| | 8 | ≥ 2 1/2 | C25 8 NPT | | |

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

Same insert for internal and external thread

范围牙55° - BSP(G),BSF,BSW
相同的刀片可用于内、外螺纹



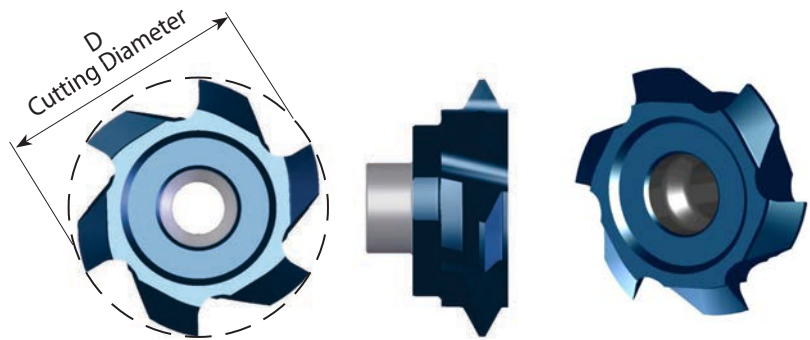
| Insert Type | Pitch Range TPI | Ordering Code | D | Thread Dia. (min) | Holder Code |
|-------------|-----------------|----------------|------|-----------------------|------------------|
| C10 | 19-14 | C10 G55 | 10.0 | $\varnothing \geq 13$ | H1, 2, 12 |
| C12 | 28-19 | C12 G55 | 12.0 | $\varnothing \geq 14$ | H3, 4, 5, 14, 15 |
| | 14-11 | C12 N55 | 12.2 | $\varnothing \geq 16$ | H3, 4, 5, 14 |
| C18 | 14 - 8 | C18 G55 | 18.0 | $\varnothing \geq 23$ | H6, 7, 8, 9, 16 |
| C25 | 7 - 5 | C25 N55 | 25.0 | $\varnothing \geq 31$ | H10, 11, 17, 18 |

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

Same insert for internal and external thread

Multi Flute

范围牙55° - BSP(G),
BSF,BSW
相同的刀片可用于内
、外螺纹,
多槽、高效率加工



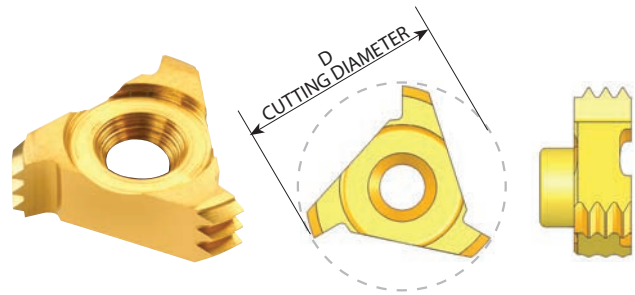
| Insert Type | Ordering Code | Pitch Range TPI | D | No. of Flutes | Thread Dia (min) | Holder Code |
|-------------|-------------------|-----------------|------|---------------|-----------------------|-----------------|
| S20 | S195 F G55 | 14 | 19.5 | 6 | $\varnothing \geq 23$ | H6, 7, 8, 9, 16 |
| | S200 D N55 | 8-6 | 20.0 | 4 | $\varnothing \geq 25$ | H16 |

Full Profile - ISO

Inserts for internal thread

完整牙型 - ISO

只能用于内螺纹刀片



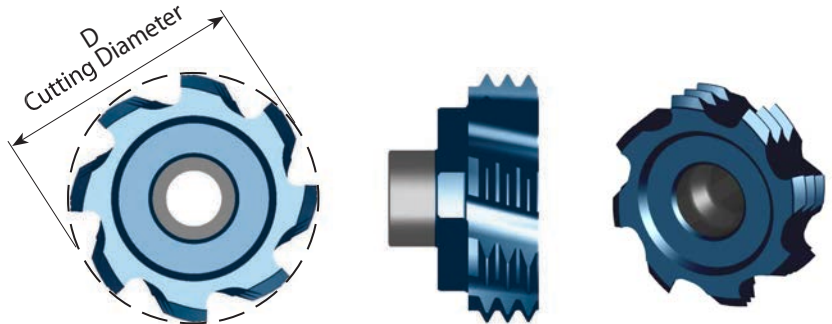
| Insert Type | Pitch mm | M coarse | M fine | Ordering Code | Number of Teeth | D | Holder Code |
|-------------|----------|----------|--------------------|----------------------|-----------------|------|------------------|
| C10 | 0.5 | | $\text{Ø} \geq 10$ | C10 I 0.5 ISO | 6 | 9.0 | H1, 2, 12, 13 |
| | 1.0 | | $\text{Ø} \geq 12$ | C10 I 1.0 ISO | 3 | 10.0 | |
| | 1.5 | | $\text{Ø} \geq 13$ | C10 I 1.5 ISO | 2 | 10.0 | |
| | 1.75 | M12 | $\text{Ø} \geq 13$ | C10 I 1.75ISO | 1 | 9.6 | H1, 2, 12 |
| | 2.0 | M14 | $\text{Ø} \geq 14$ | C10 I 2.0 ISO | 1 | 10.0 | |
| C12 | 0.5 | | $\text{Ø} \geq 13$ | C12 I 0.5 ISO | 6 | 12.0 | H3, 4, 5, 14, 15 |
| | 0.75 | | $\text{Ø} \geq 13$ | C12 I 0.75ISO | 4 | | |
| | 1.0 | | $\text{Ø} \geq 14$ | C12 I 1.0 ISO | 3 | | |
| | 1.5 | | $\text{Ø} \geq 15$ | C12 I 1.5 ISO | 2 | | |
| | 2.0 | M16 | $\text{Ø} \geq 16$ | C12 I 2.0 ISO | 1 | 12.4 | H3, 4, 5, 14 |
| | 2.5 | M18, M20 | $\text{Ø} \geq 17$ | C12 I 2.5 ISO | 1 | 12.0 | |
| | 3.0 | | $\text{Ø} \geq 17$ | C12 I 3.0 ISO | 1 | 12.4 | |
| C18 | 0.5 | | $\text{Ø} \geq 19$ | C18 I 0.5 ISO | 9 | 17.8 | H6, 7, 8, 9, 16 |
| | 0.75 | | $\text{Ø} \geq 19$ | C18 I 0.75ISO | 6 | | |
| | 1.0 | | $\text{Ø} \geq 20$ | C18 I 1.0 ISO | 5 | | |
| | 1.5 | | $\text{Ø} \geq 20$ | C18 I 1.5 ISO | 3 | | |
| | 2.0 | | $\text{Ø} \geq 21$ | C18 I 2.0 ISO | 2 | | |
| | 2.5 | M22 | $\text{Ø} \geq 22$ | C18 I 2.5 ISO | 2 | | |
| | 3.0 | M24, M27 | $\text{Ø} \geq 23$ | C18 I 3.0 ISO | 1 | | |
| | 3.5 | M30, M33 | $\text{Ø} \geq 24$ | C18 I 3.5 ISO | 1 | | |
| C25 | 3.0 | M32, M33 | $\text{Ø} \geq 30$ | C25 I 3.0 ISO | 2 | 25.0 | H10, 11, 17, 18 |
| | 4.0 | M36, M39 | $\text{Ø} \geq 32$ | C25 I 4.0 ISO | 1 | | |
| | 4.5 | M45 | $\text{Ø} \geq 33$ | C25 I 4.5 ISO | 1 | | |
| | 5.0 | M48, M52 | $\text{Ø} \geq 34$ | C25 I 5.0 ISO | 1 | | |
| | 5.5 | M60 | $\text{Ø} \geq 35$ | C25 I 5.5 ISO | 1 | | |
| | 6.0 | M64, M68 | $\text{Ø} \geq 36$ | C25 I 6.0 ISO | 1 | | |

Full Profile - ISO

Inserts for internal thread

Multi Flute

完整牙型 - ISO
只能用于内螺纹刀片
多槽、高效率



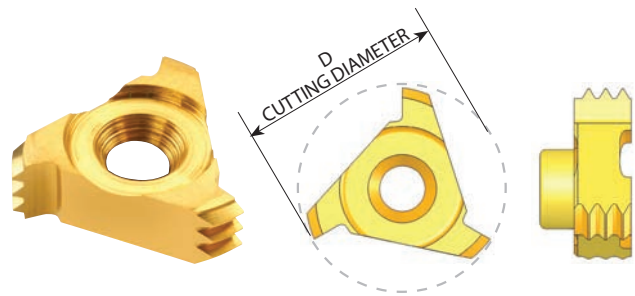
| Insert Type | Ordering Code | Pitch mm | M coarse | M fine | Number of Teeth | D | No. of Flutes | Holder Code |
|-------------|-----------------------|----------|----------|--------------------|-----------------|------|---------------|------------------|
| S20 | S163 H 1.0 ISO | 1.0 | | $\text{Ø} \geq 18$ | 5 | 16.3 | 8 | H6, 7, 8, 9, 16 |
| | S175 H 1.5 ISO | 1.5 | | $\text{Ø} \geq 20$ | 3 | 17.5 | 8 | |
| | S186 F 2.0 ISO | 2.0 | | $\text{Ø} \geq 22$ | 2 | 18.6 | 6 | |
| S17 | S160 F 2.5 ISO | 2.5 | M20 | $\text{Ø} \geq 20$ | 1 | 16.0 | 6 | H3, 4, 5, 14, 17 |
| S20 | S178 F 2.5 ISO | 2.5 | M22 | $\text{Ø} \geq 22$ | 2 | 17.8 | 6 | H6, 7, 8, 9, 16 |
| | S189 F 3.0 ISO | 3.0 | M24, M27 | $\text{Ø} \geq 24$ | 1 | 18.9 | 6 | |
| | S200 F 3.5 ISO | 3.5 | M30, M33 | $\text{Ø} \geq 26$ | 1 | 20.0 | 6 | |
| | S200 F 4.0 ISO | 4.0 | M36, M39 | $\text{Ø} \geq 27$ | 1 | 20.0 | 6 | |
| | S200 E 4.5 ISO | 4.5 | M42, M45 | $\text{Ø} \geq 28$ | 1 | 20.0 | 5 | |
| | S200 D 5.0 ISO | 5.0 | M48, M52 | $\text{Ø} \geq 29$ | 1 | 20.0 | 4 | H16 |
| S35 | S350 F 6.0 ISO | 6.0 | M64, M68 | $\text{Ø} \geq 46$ | 1 | 35.0 | 6 | H19, 20, 21 |
| | S350 F 8.0 ISO | 8.0 | | $\text{Ø} \geq 50$ | 1 | 35.0 | 6 | |

Full Profile - UN

Inserts for internal thread

完整牙型 - UN

只能用于内螺纹刀片



| 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 | 10.0 | H1, 2, 12, 13 |
| | 18 | | | 9/16 | | C10 I 18 UN | 2 | | |
| | 13 | | 1/2 | | | C10 I 13 UN | 1 | 10.0 | H1, 2, 12 |
| | 12 | 5/8, 11/16, 3/4 | 9/16 | | | C10 I 12 UN | 1 | | |
| C12 | 32 | 9/16, 5/8 | | | | C12 I 32 UN | 3 | 12.0 | H3, 4, 5, 14, 15 |
| | 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 | | |
| | 16 | 5/8, 11/16 | | 3/4 | | C12 I 16 UN | 1 | | |
| | 11 | | 5/8 | | | C12 I 11 UN | 1 | 12.0 | H3, 4, 5, 14 |
| 10 | | 3/4 | | | C12 I 10 UN | 1 | | | |
| C18 | 32 | 3/4, 13/16, 7/8 | | | | C18 I 32 UN | 6 | 17.8 | H6, 7, 8, 9, 16 |
| | 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, 1 1/8 | | 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, 1 1/4, 15/16 | | | | C25 I 8 UN | 2 | 25.0 | H10, 11, 17, 18 |
| | 7 | | 1 1/4 | | | C25 I 7 UN | 1 | | |
| | 6 | 17/16, 19/16 | 13/8, 1 1/2 | | | 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 | | |

Full Profile - UN

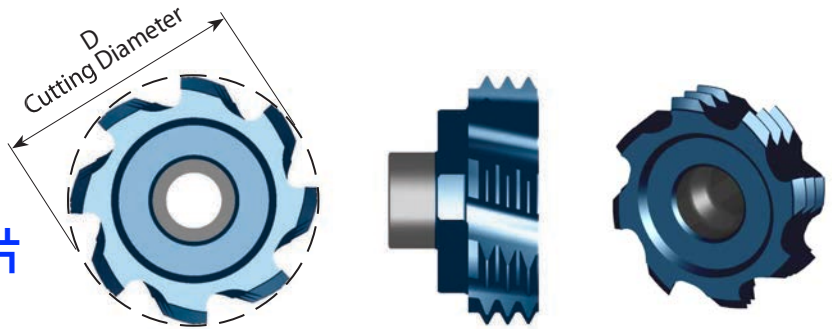
Inserts for internal thread

Multi Flute

完整牙型 - UN

只能用于内螺纹的刀片

多槽、高效率



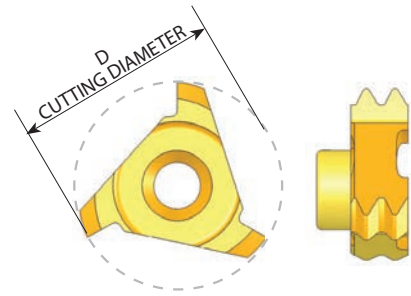
| Insert Type | Ordering Code | Pitch TPI | Nominal size | UNC | UNF | UNEF | Number of Teeth | D | No. of Flutes | Holder Code |
|-------------|---------------------|-----------|---------------|-----------------|-----|---------------------------|-----------------|------|---------------|-----------------|
| S20 | S160 H 24 UN | 24 | | | | 11/16 | 4 | 16.0 | 8 | H6, 7, 8, 9, 16 |
| | S169 H 20 UN | 20 | | | | 3/4, 13/16, 7/8, 15/16, 1 | 4 | 16.9 | 8 | |
| | S164 F 16 UN | 16 | 7/8, 15/16, 1 | | 3/4 | | 3 | 16.4 | 6 | |
| | S191 F 14 UN | 14 | | | 7/8 | | 2 | 19.1 | 6 | |
| | S186 F 12 UN | 12 | 7/8, 15/16 | | 1 | | 2 | 18.6 | 6 | |
| | S178 F 9 UN | 9 | | 7/8 | | | 1 | 17.8 | 6 | |
| | S200 F 8 UN | 8 | 1 1/8 | 1 | | | 1 | 20.0 | 6 | |
| | S200 F 7 UN | 7 | | 1 1/8, 1 1/4 | | | 1 | 20.0 | 6 | |
| | S200 E 6 UN | 6 | 1 7/16 | 1 3/8, 1 1/2 | | | 1 | 20.0 | 5 | |
| | S200 D 5 UN | 5 | | 1 3/4 | | | 1 | 20.0 | 4 | H16 |
| S35 | S350 F 4 UN | 4 | | 2 1/2, 2 3/4, 3 | | | 1 | 35.0 | 6 | H19, 20, 21 |

G 55° BSW, BSF, BSP

Same Insert for internal and external thread

G 55° BSW,BSF,BSP

相同的刀片可用于内、外螺纹



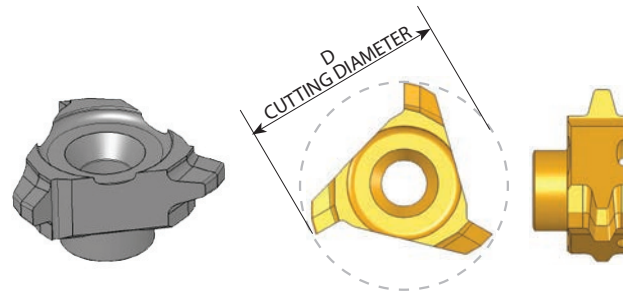
| Insert Type | Pitch TPI | Standard | Ordering Code | Number of Teeth | D | Holder Code |
|-------------|-----------|----------|-----------------|-----------------|------|------------------|
| C10 | 19 | G 1/4 | C10 19 W | 2 | 10.0 | H1, 2, 12, 13 |
| C12 | 19 | G 3/8 | C12 19 W | 2 | 12.0 | H3, 4, 5, 14, 15 |
| C18 | 14 | G 7/8 | C18 14 W | 2 | 17.8 | H6, 7, 8, 9, 16 |
| | 11 | G ≥ 1 | C18 11 W | 2 | | |

Trapez - DIN 103

Inserts for internal thread

梯型螺纹 - DIN 103

只能用于内螺纹



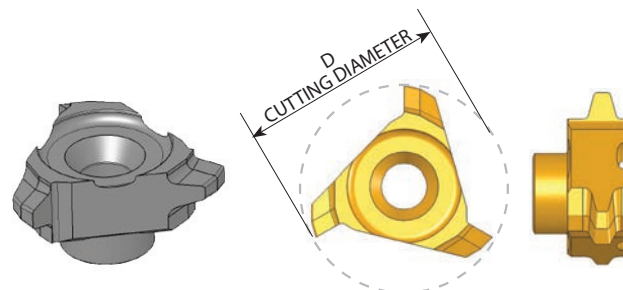
| Insert Type | Pitch mm | Standard | Ordering Code | D | Holder Code |
|-------------|----------|-----------------------|-------------------|------|-----------------|
| C10 | 2.0 | $\varnothing \geq 16$ | C10 I 2 TR | 10.0 | H1, 2, 12, |
| C18 | 3.0 | $\varnothing \geq 24$ | C18 I 3 TR | 17.8 | H6, 7, 8, 9, 16 |
| | 4.0 | $\varnothing \geq 26$ | C18 I 4 TR | | H16 |
| | 5.0 | $\varnothing \geq 28$ | C18 I 5 TR | | |
| C25 | 6.0 | $\varnothing \geq 36$ | C25 I 6 TR | 25.0 | H10, 11, 17, 18 |

Acme

Inserts for internal thread

梯型螺纹 - 美制ACME

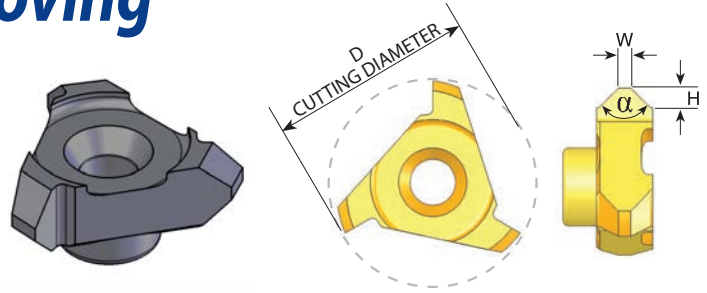
只能用于内螺纹



| Insert Type | Pitch TPI | Standard | Ordering Code | D | Holder Code |
|-------------|-----------|-----------------|---------------------|------|-----------------|
| C18 | 5 | 1 1/8, 1 1/4 | C18 I 5 ACME | 18.0 | H16 |
| C25 | 4 | 1 1/2, 1 3/4, 2 | C25 I 4 ACME | 25.0 | H10, 11, 17, 18 |

Chamfering and Grooving

倒角和槽

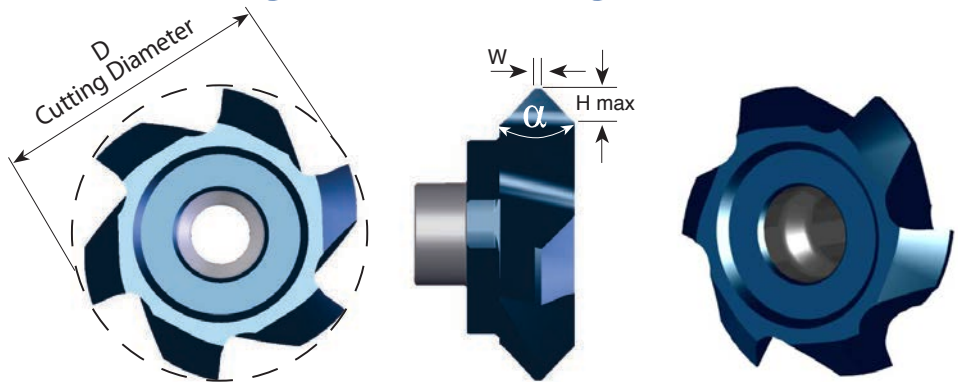


| Insert Type | Ordering Code | D | H | W | α | Holder Code* |
|-------------|----------------|------|------|-----|-----|-----------------|
| C10 | C10 C90 | 10.0 | 1.30 | 0.4 | 90° | H1, 2, 12 |
| C12 | C12 C90 | 12.0 | 1.35 | 0.3 | | H3, 4, 5, 14 |
| C18 | C18 C90 | 17.8 | 1.95 | 1.1 | | H6, 7, 8, 9, 16 |
| C25 | C25 C90 | 25.0 | 2.50 | 1.0 | | H10, 11, 17, 18 |

Chamfering, Grooving and Boring

Multi Flute

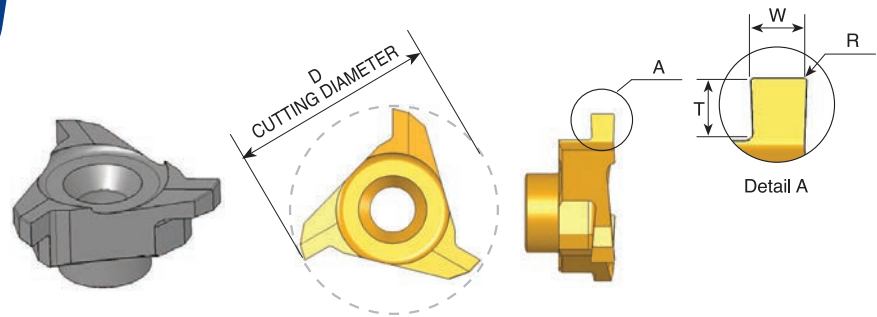
倒角、槽和镗孔 多槽、高效率



| Insert Type | Ordering Code | D | H max | W | α | No. of Flutes | Holder Code |
|-------------|--------------------|--------------------|-------|------|-----|---------------|------------------|
| S17 | SC160 E H14 | 16.0 | 1.35 | 0.2 | 90° | 5 | H3, 4, 5, 14, 15 |
| S20 | SC170 E H14 | 17.0 | 1.35 | 0.2 | 90° | 5 | H6, 7, 8, 9, 16 |
| | SC200 F H14 | 20.0 | 1.35 | 0.2 | 90° | 6 | H6, 7, 8, 9, 16 |
| | SC200 F H24 | 20.0 | 2.35 | 0.2 | | | |
| | S35 | SC350 F H42 | 35.0 | 4.20 | 0.2 | 90° | 6 |
| S20 | SC200 F H20 | 20.0 | 1.95 | 1.0 | 90° | 6 | H6, 7, 8, 9, 16 |
| | SC200 F H17 | 20.0 | 1.70 | 1.5 | | | |
| | SC200 F H15 | 20.0 | 1.50 | 2.0 | | | |
| | SC200 F H12 | 20.0 | 1.20 | 2.5 | | | |

Groove Milling

槽铣

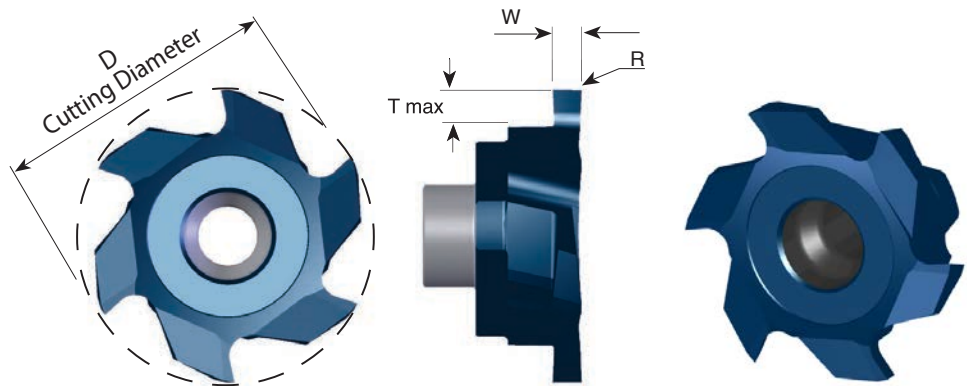


| Insert Type | Ordering Code | D | W ±0.02 | T max. | R | Groove Dia. (min.) | Holder Code |
|-------------|----------------|------|------------|-----------|-----|-----------------------|------------------|
| C10 | C10 W08 | 10.0 | 0.80 | 0.80 | 0.1 | Ø ≥ 10.0 | H1, 2, 12, 13 |
| | C10 W09 | | 0.90 | 0.90 | | | |
| | C10 W10 | | 1.00 | 0.90 | | | |
| C12 | C12 W08 | 12.0 | 0.80 | 0.80 | 0.1 | Ø ≥ 12.0 | H3, 4, 5, 14, 15 |
| | C12 W10 | | 1.00 | 0.90 | | | |
| C18 | C18 W10 | 17.8 | 1.00 | 1.50 | 0.1 | Ø ≥ 17.8 | H6, 7, 8, 9, 16 |
| | C18 W12 | | 1.20 | 1.50 | | | |
| | C18 W15 | | 1.50 | 1.95 | | | |
| | C18 W20 | | 2.00 | 2.80 | | | H16 |
| C25 | C25 W20 | 25.0 | 2.00 | 3.00 | 0.2 | Ø ≥ 25 | H10, 11, 17, 18 |
| | C25 W25 | | 2.50 | 3.00 | | | |
| | C25 W30 | | 3.00 | 3.00 | | | |
| | C25 W35 | | 3.50 | 3.50 | | | |
| | C25 W40 | | 4.00 | 3.50 | | | |
| | C25 W50 | | 5.00 | 3.50 | | | |

Groove Milling

Multi Flute

槽铣
多槽
高效



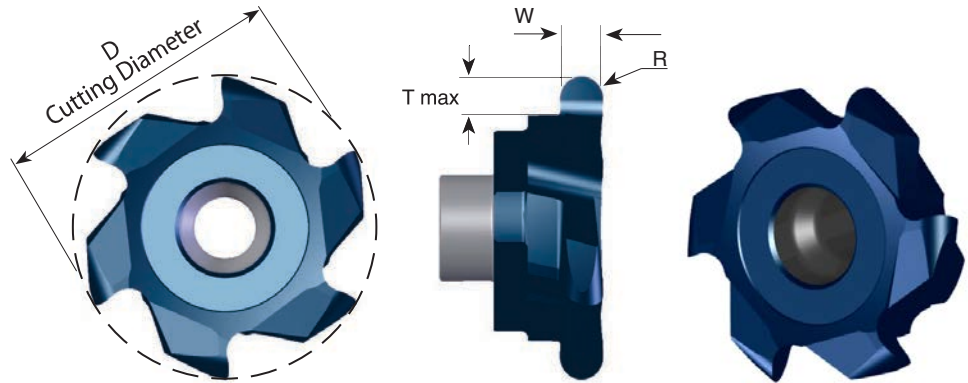
| Insert Type | Ordering Code | D | W ±0.02 | T Max. | R | Groove Dia. (min) | No. of Flutes | Holder Code |
|-------------|---------------------|------|------------|-----------|-----|----------------------|------------------|------------------|
| S17 | SG170 F W15 | 17.0 | 1.5 | 2.8 | 0.2 | Ø > 17 | 6 | H3, 4, 5, 14, 15 |
| | SG170 F W20 | 17.0 | 2.0 | | | | | |
| | SG170 F W25 | 17.0 | 2.5 | | | | | |
| S20 | SG200 F W15 | 20.0 | 1.5 | 2.9 | 0.2 | Ø > 20 | 6 | H6, 7, 8, 9, 16 |
| | SG200 F W20 | 20.0 | 2.0 | | | | | |
| | SG200 F W25 | 20.0 | 2.5 | | | | | |
| | SG200 F W30 | 20.0 | 3.0 | | | | | |
| | SG200 F W40 | 20.0 | 4.0 | | | | | |
| | SG200 F W49 | 20.0 | 4.9 | | | | | |
| S20 | SG200 E W20T | 20.0 | 2.0 | 3.7 | 0.2 | Ø > 20 | 5 | H16 |
| | SG200 E W25T | 20.0 | 2.5 | | | | | |
| | SG200 E W30T | 20.0 | 3.0 | | | | | |
| S35 | SG350 F W30T | 35.0 | 3.0 | 6.3 | 0.2 | Ø > 35 | 6 | H19, 20, 21 |
| | SG350 F W40T | 35.0 | 4.0 | | | | | |
| | SG350 F W50T | 35.0 | 5.0 | | | | | |
| | SG350 F W60T | 35.0 | 6.0 | | | | | |
| | SG350 F W80T | 35.0 | 8.0 | | | | | |

Full Radius Groove Milling

Multi Flute

R槽铣

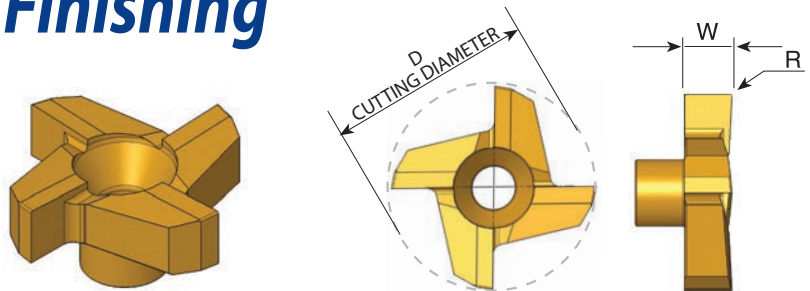
多槽、高效



| Insert Type | Ordering Code | D | R | W ±0.02 | T Max. | Groove Dia. (min) | No. of Flutes | Holder Code |
|-------------|--------------------|------|-----|------------|-----------|----------------------|------------------|--------------------|
| S20 | SG200 F R10 | 20.0 | 1.0 | 2.0 | 2.9 | Ø > 20 | 6 | H6, 7, 8, 9, 16 |
| | SG200 F R12 | 20.0 | 1.2 | 2.4 | | | | |
| | SG200 F R15 | 20.0 | 1.5 | 3.0 | | | | |
| | SG200 F R20 | 20.0 | 2.0 | 4.0 | | | | |

Face Milling and Finishing

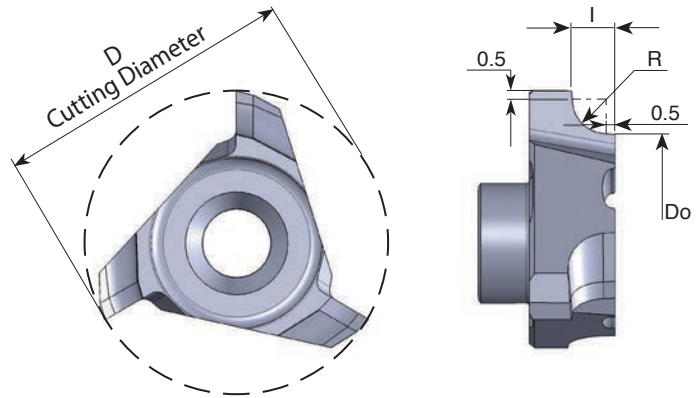
面铣和精铣



| Insert Type | Ordering Code | D | W | R | Holder Code |
|-------------|-------------------|------|-----|-----|-----------------|
| C18 | C18 F R0.1 | 17.8 | 5.0 | 0.1 | H6, 7, 8, 9, 16 |
| C25 | C25 F R0.2 | 25.0 | 6.0 | 0.2 | H10, 11, 17, 18 |

Corner Rounding

圆角 R 铣刀

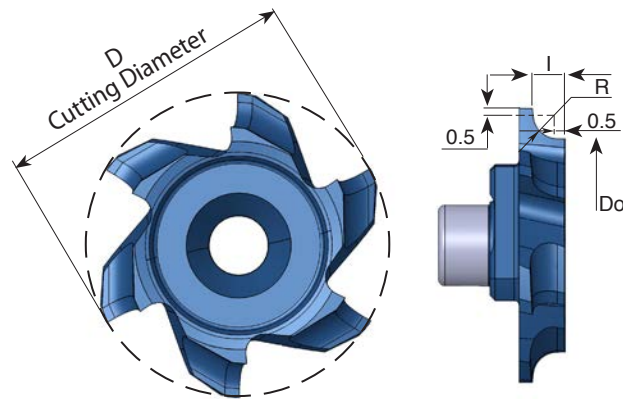


| Insert Type | Ordering Code | D | Do | R | I | Holder Code |
|-------------|-----------------|------|------|------|------|-----------------|
| C10 | C10 CR05 | 10.0 | 7.9 | 0.5 | 1.05 | H1, 2, 12, 13 |
| | C10 CR10 | 10.0 | 6.9 | 1.0 | 1.55 | |
| C18 | C18 CR13 | 17.8 | 14.2 | 1.25 | 1.80 | H6, 7, 8, 9, 16 |
| | C18 CR15 | 17.8 | 13.7 | 1.5 | 2.05 | |
| | C18 CR20 | 17.8 | 12.7 | 2.0 | 2.55 | |

Corner Rounding

Multi Flute

圆角 R 铣刀 多槽、高效

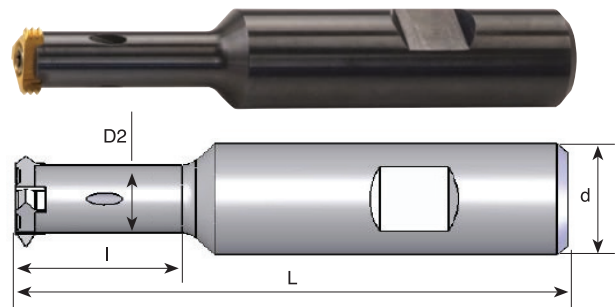
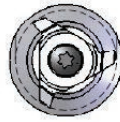


| Insert Type | Ordering Code | D | Do | R | I | No. of Flutes | Holder Code |
|-------------|--------------------|------|------|------|------|---------------|------------------|
| S17 | S170 E CR10 | 17.0 | 13.9 | 1.0 | 1.55 | 5 | H3, 4, 5, 14, 15 |
| | S170 E CR13 | 17.0 | 13.4 | 1.25 | 1.80 | 5 | |
| | S170 E CR15 | 17.0 | 12.9 | 1.5 | 2.05 | 5 | |

Steel Toolholders

With internal coolant

钢制刀杆带内冷

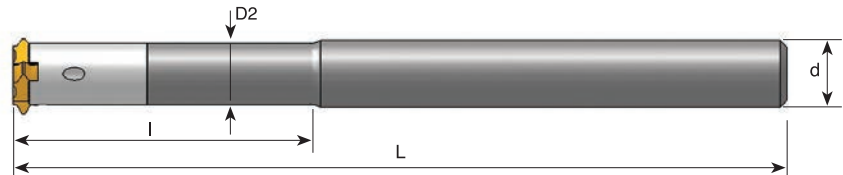


| Tool No. | Ordering Code | Insert Type | d | D2 | l | L | Insert Screw | Torx Key |
|----------|-------------------|-------------|----|------|----|-----|--------------|----------|
| H1 | SRC 1210 E | C10 | 12 | 7.3 | 19 | 70 | S5 | K5 |
| H2 | SRC 1610 G | | 16 | | 19 | 90 | | |
| H3 | SRC 1212 E | C12, S17 | 12 | 9.0 | 25 | 70 | S10 | K10 |
| H4 | SRC 1612 G | | 16 | | 25 | 90 | | |
| H5 | SRC 1612 H | | 16 | | 35 | 100 | | |
| H6 | SRC 1618 H | C18, S20 | 16 | 13.8 | 48 | 100 | S16 | K16 |
| H7 | SRC 2018 H | | 20 | | 32 | 100 | | |
| H8 | SRC 2018 J | | 20 | | 48 | 110 | | |
| H9 | SRC 2018 L | | 20 | | 74 | 140 | | |
| H10 | SRC 2525 J | C25 | 25 | 17.5 | 45 | 115 | S27 | K27 |
| H11 | SRC 2525 M | | 25 | | 80 | 150 | | |
| H19 | SRC 2535 H | S35 | 25 | 22 | 40 | 100 | S33 | K33 |
| H20 | SRC 2535 K | | 25 | | 60 | 130 | | |

Carbide Shank Toolholders

With internal coolant

硬质合金刀杆带内冷



| Tool No. | Ordering Code | Insert Type | d | D2 | l | L | Insert Screw | Torx Key |
|----------|-----------------------|-------------|----|------|----|-----|--------------|----------|
| H12 | CRC 0810 L35 K | C10 | 8 | 7.3 | 35 | 125 | S5 | K5 |
| H13 | CRC 0810 K | | 8 | 8.0 | — | 125 | S5 | K5 |
| H14 | CRC 1012 L40 M | C12, S17 | 10 | 9.0 | 40 | 150 | S10 | K10 |
| H15 | CRC 1012 M | | 10 | 10.0 | — | 150 | S10 | K10 |
| H16 | CRC 1218 P | C18, S20 | 12 | 12.0 | — | 170 | S16 | K16 |
| H17 | CRC 1625 R | C25 | 16 | 16.0 | — | 205 | S27 | K27 |
| H18 | CRC 2025 L85 S | | 20 | 17.5 | 85 | 250 | S27 | K27 |
| H21 | CRC 2035 S | S35 | 20 | 22.0 | — | 260 | S33 | K33 |

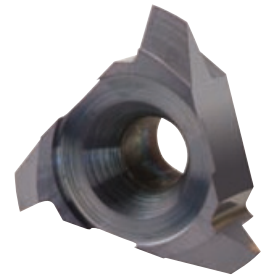
Toolholders without Weldon

Cutting Data 切削参数

CMT Straight Flute Inserts

CMT直排屑槽刀片

CMT

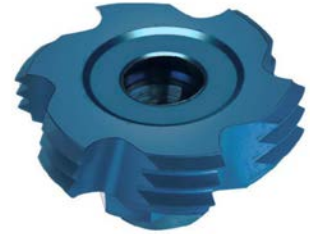


| ISO Standard | Material | Cutting Speed m/min | Feed mm/tooth Cutting Diameter=D | | | |
|--------------|--|---------------------|-------------------------------------|------|------|------|
| | | | Ø10 | Ø12 | Ø18 | Ø25 |
| P | Low & Medium Carbon Steels <0.55%C | 60-120 | 0.16 | 0.17 | 0.20 | 0.22 |
| | High Carbon Steels ≥0.55%C | 60-90 | 0.14 | 0.16 | 0.20 | 0.22 |
| | Alloy Steels, Treated Steels | 50-80 | 0.10 | 0.12 | 0.16 | 0.18 |
| M | Stainless Steel – Free Cutting | 70-100 | 0.10 | 0.11 | 0.15 | 0.17 |
| | Stainless Steel – Austenitic | 60-90 | 0.10 | 0.11 | 0.15 | 0.17 |
| | Cast Steels | 70-90 | 0.10 | 0.12 | 0.16 | 0.18 |
| K | Cast Iron | 40-80 | 0.16 | 0.17 | 0.20 | 0.22 |
| N | Aluminium ≤12%Si, Copper | 100-200 | 0.16 | 0.17 | 0.20 | 0.22 |
| | Aluminium >12%Si | 60-140 | 0.10 | 0.11 | 0.16 | 0.18 |
| | Synthetics, Duroplastics, Thermoplastics | 50-200 | 0.19 | 0.19 | 0.22 | 0.24 |
| S | Nickel Alloys, Titanium Alloys. | 20-40 | 0.07 | 0.07 | 0.10 | 0.12 |
| H | Hardened Steel 45 – 50HRc | 60-70 | 0.09 | 0.09 | 0.13 | 0.15 |
| | Hardened Steel 50 – 55HRc | 50-60 | 0.08 | 0.08 | 0.12 | 0.14 |

Cutting Data 切削参数

CMT Spiral Multi Flute Inserts

CMT螺旋排屑槽、多槽刀片



| ISO Standard | Material | Cutting Speed m/min | Feed mm/tooth Cutting Diameter = D |
|--------------|--|------------------------|---------------------------------------|
| | | | Ø16 - Ø35 |
| P | Low & Medium Carbon Steels <0.55%C | 60-120 | 0.14-0.24 |
| | High Carbon Steels ≥0.55%C | 60-90 | 0.12-0.24 |
| | Alloy Steels, Treated Steels | 50-80 | 0.08-0.20 |
| M | Stainless Steel - Free Cutting | 70-100 | 0.08-0.19 |
| | Stainless Steel - Austenitic | 60-90 | 0.08-0.19 |
| | Cast Steels | 70-90 | 0.08-0.20 |
| K | Cast Iron | 40-80 | 0.14-0.24 |
| N | Aluminum ≤12%Si, Copper | 100-200 | 0.14-0.26 |
| | Aluminum >12%Si | 60-140 | 0.08-0.22 |
| | Synthetics, Duroplastics, Thermoplastics | 50-200 | 0.17-0.28 |
| S | Nickel Alloys, Titanium Alloys. | 20-40 | 0.05-0.14 |
| H | Hardened Steel 45-50HRc | 60-70 | 0.07-0.17 |
| | Hardened Steel 51-62HRc | 50-60 | 0.06-0.16 |

Carmex Mill-Thread catalog and CNC programming software

This software is provided by Carmex to assist the thread milling user, to select and apply the correct tool to machine threads on CNC machining centers. The program will find tools and inserts which are suitable for your application, calculate cutting data and generate a CNC program for a variety of controls.



The software is available at our web site online or offline (download) versions.

Carmex提供螺纹铣刀加工CNC编程程序
该软件可在我们的网站在线或离线（下载）版本



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