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 **CORTOOL®**
ISO 9001:2015



**PREMIUM
CUTTING TOOL**
高端切削刀具

Industrial Production Tools
工业级生产工具

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SOLID CARBIDE DRILLS WITH COOLANT DUCTS

整体硬质合金内冷钻头 3/5/8/12倍径

3xD / 5xD / 8xD / 12xD



Suitable for materials 适用材料	P M K S	N	P M S
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Diameter Size: 3.0~20.0mm

直径尺寸: 3.0~20.0mm

Diameter tolerance: m7, Diameter of shank tolerance: h6

直径公差: m7 柄径公差: h6。

According to customer needs, matching the corresponding material of the processing drill bits, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工钻头, 可接受非标定制。

SOLID CARBIDE DRILLS WITH COOLANT DUCTS

整体硬质合金内冷钻头 15/20/25/30倍径

15xD / 20xD / 25xD / 30xD



Suitable for materials 适用材料	P M K S	N	P M S
--------------------------------	-------------------------------------	----------	----------------------------

Diameter Size: 3.0~20.0mm

直径尺寸: 3.0~20.0mm

Diameter tolerance: m7, Diameter of shank tolerance: h6

直径公差: m7 柄径公差: h6。

According to customer needs, matching the corresponding material of the processing drill bits, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工钻头, 可接受非标定制。

SOLID CARBIDE DRILLS WITHOUT COOLANT DUCTS

整体硬质合金钻头 3/5/8/12倍径



3xD / 5xD / 8xD



Suitable for materials 适用材料	P M K S	N	P M S
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Diameter Size: 3.0~20.0mm

直径尺寸: 3.0~20.0mm

Diameter tolerance: m7, Diameter of shank tolerance: h6

直径公差: m7 柄径公差: h6.

According to customer needs, matching the corresponding material of the processing drill bits, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工钻头, 可接受非标定制。

INDEXABLE DRILLS

可换头钻头



Suitable for materials 适用材料	P M K N S
--------------------------------	------------------



Insert diameter: D16-D32 standard (D12.5-D42 is non-standard)

刀头直径: D16-D32 标准系列 (D12.5-D42 非标系列)

Shank length: 3D/ 5D/ 7D/ 8D/ 10D/ 12D

刀柄长度: 3D/ 5D/ 7D/ 8D/ 10D/ 12D

Technical feature: High-alloy steel blade body with rear pulling design.

技术特点: 高合金钢刀体, 后拉式设计。

According to customer needs, matching the corresponding material of the processing drill bits, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工钻头, 可接受非标定制。

U - DRILL SERIES

U钻系列

2xD / 3xD / 4xD / 5xD / 8xD



Suitable for materials 适用材料	P M K N S
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Working depth: 2D, 3D, 4D, 5D Deep hole drill: 5D, 6.5D, 8D

浅孔钻工作深度: 2D, 3D, 4D, 5D 深孔钻工作深度: 5D, 6.5D, 8D

Universal holder drill: 2.25D, 3.25D; 2.5D, 3.5D

多用刀柄: 2.25D, 3.25D; 2.5D, 3.5D

Technical feature: High drilling accuracy, good chip removal performance, sufficient rigidity, and good cooling effect.

技术特点: 钻孔精度高, 排屑性能好, 刚性足, 冷却效果好。

We supply the matching inserts, screw and wrench.

我们可提供与刀柄配套的刀片、螺钉和扳手。

HSS-E CPM MULTI FLUTES END MILL

高速钢及粉末多刃铣刀

2 / 3 / 4 FLUTE



dc Size: 1.0~25.0mm

刃径尺寸: 1.0~25.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.021 柄径公差: h7.

Technical feature: Passivation of the cutting edge of the end mill tip to ensure the strength of it; High-quality matrix materials and coating extend its use-life and achieve high-quality and high-precision machining.

技术特点: 刀尖刃口的钝化处理, 确保刃口的强度; 优质的基体材质及涂层, 延长刀具寿命, 实现高品质高精度的加工。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。

SOLID CARBIDE MULTI FLUTES BALL NOSE END MILL

整体硬质合金多刃球头铣刀



2 / 4 FLUTE



dc Size: 1.0-20.0mm

刃径尺寸: 1.0-20.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: 45 degrees large spiral groove, sharper, less cutting resistance.

技术特点: 45度大螺旋槽, 更锋利, 切割阻力更小。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE TAPPER BALL NOSE END MILL

整体硬质合金锥度球头铣刀



2 / 4 FLUTE



dc Size: 4.0-10.0mm

刃径尺寸: 4.0-10.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: Very high R corner accuracy.

技术特点: 极高的R圆角精度。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE MULTI FLUTES FLAT END MILL

整体硬质多刃平头铣刀

2 / 4 FLUTE



dc Size: 1.0-20.0mm

刃径尺寸: 1.0-20.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: High precision arc angle can prevent chipping during high speed cutting.

技术特点: 高精度圆弧角可防止高速切削时崩刃。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE BALLNOSE END MILL

整体硬质圆鼻铣刀

2 / 4 FLUTE



dc Size: 1.0-20.0mm

刃径尺寸: 1.0-20.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: High precision arc angle can prevent chipping during high speed cutting.

技术特点: 高精度圆弧角可防止高速切削时崩刃。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE TAPPING END MILL

整体硬质合金多刃波刃铣刀



5 / 6 / 8 FLUTE



dc Size: 4.0~32.0mm

刃径尺寸: 4.0~32.0mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: Strong pertinence, high efficiency.

技术特点: 针对性强, 效率高。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE MICRO MILL

整体硬质合金超小径铣刀



Protection / Ball nose



dc Size: 0.2~0.9mm

刃径尺寸: 0.2~0.9mm

Diameter tolerance: 0~ -0.018, Diameter of shank tolerance: h6

刃径公差: 0~ -0.018 柄径公差:h6。

Technical feature: 35 degree spiral design, reduce cutting resistance, cutting smoothly without chip accumulation.

技术特点: 35度螺旋设计, 减少切削阻力, 切削顺畅不积屑。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



SOLID CARBIDE FORMING TAPS WITH INTERNAL COOLANT

整体硬质合金内冷挤压丝锥

+long shank



Thread Size: M4x0.7 - M30x2

螺纹尺寸: M4x0.7 - M30x2

Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

搭配不同涂层, 适用于铝合金、镁合金、铜合金、铝合金铸件、锌合金铸件等高精度加工。

Technical feature: Suitable for high-speed, long tool life mass production.

技术特点: 可实现大批量、高速、长寿命加工。

Tolerances under 6HX standard. Other tolerances and Special tap chamfer custom are available. More details.

以上为6HX精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE FORMING TAPS

整体硬质合金挤压丝锥

+long shank



Thread Size: M0.8x0.2 - M32x2.5

螺纹尺寸: M1x0.25 - M16x1

Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

搭配不同涂层, 适用于铝合金、镁合金、铜合金、铝合金铸件、锌合金铸件等高精度加工。

Technical feature: Suitable for high-speed, long tool life mass production.

技术特点: 可实现大批量、高速、长寿命加工。

Tolerances under 6H standard. Other tolerances and Special tap chamfer custom are available. More details.

以上为6H精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE SPIRAL FLUTED TAPS WITH INTERNAL COOLANT 整体硬质合金内冷螺旋丝锥



+long shank



Thread Size: M4x0.7 – M30x3.5

螺纹尺寸: M4x0.7 – M30x3.5

Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

搭配不同涂层, 适用于铝合金、镁合金、铜合金、铝合金铸件、锌合金铸件等高精度加工。

Technical feature: Suitable for high-speed, long tool life mass production.

技术特点: 可实现大批量、高速、长寿命加工。

Tolerances under 6HX standard. Other tolerances and Special tap chamfer custom are available. More details.
以上为6HX精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE SPIRAL FLUTED TAPS 整体硬质合金螺旋槽丝锥



+long shank



Thread Size: M4x0.7 – M30x3.5

螺纹尺寸: M4x0.7 – M30x3.5

Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

搭配不同涂层, 适用于铝合金、镁合金、铜合金、铝合金铸件、锌合金铸件等高精度加工。

Technical feature: Suitable for high-speed, long tool life mass production.

技术特点: 可实现大批量、高速、长寿命加工。

Tolerances under 6HX standard. Other tolerances and Special tap chamfer custom are available. More details.
以上为6HX精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE STRAIGHT FLUTED TAPS WITH INTERNAL COOLANT 整体硬质合金内冷直槽丝锥

+long shank



Thread Size: M5x0.8 – M30x3.5

螺纹尺寸: M5x0.8 – M30x3.5

Various coating selection, suitable for Aluminum alloy, Magnesium alloy, Copper alloy, Cast Aluminum, Cast Zinc alloy.

搭配不同涂层, 适用于铝合金、镁合金、铜合金、铝合金铸件、锌合金铸件等高精度加工。

Technical feature: Suitable for high-speed, long tool life mass production.

技术特点: 可实现大批量、高速、长寿命加工。

Tolerances under 6HX standard. Other tolerances and Special tap chamfer custom are available. More details.
以上为6HX精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE STRAIGHT FLUTED TAPS 整体硬质合金直槽丝锥

+long shank



Thread Size: M5x0.8 – M30x3.5

螺纹尺寸: M5x0.8 – M30x3.5

Suitable for gray cast iron, ductile cast iron mass continuous processing threading, high processing accuracy.

适用于灰口铸铁、球墨铸铁材料加工, 加工精度高, 适合大批量连续加工。

Technical feature: excellent wear resistance.

技术特点: 耐磨性能优异。

Tolerances under 6HX standard. Other tolerances and Special tap chamfer custom are available. More details.
以上为6HX精度, 其他精度及特殊的切削锥长(引导牙), 部分规格有库存, 也可接受定制。

SOLID CARBIDE THREAD MILL

整体硬质合金螺纹铣刀



Thread Size: M0.6 – M30 (±0.002)
 螺纹尺寸: M0.6 – M30 (±0.002)

Technical feature: Having high processing efficiency, surface quality, and dimensional accuracy; Good stability, safety and reliability, with a wider and more flexible usage and application scenarios, and advantages in processing blind holes.
 技术特点: 拥有较高的加工效率、表面质量及尺寸精度; 稳定性好, 安全可靠, 具有更广泛、灵活的使用方式及应用场合, 加工盲孔有优势。

According to customer needs, matching the corresponding material of the processing end mill, can accept non-standard customization.
 根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。

HSS ROUND DIE / HEXAGON DIE

高速钢圆板牙/高速钢六方板牙



Thread Size: M8 – M66
 螺纹尺寸: M8 – M66

High performance dies for energy industry. We can also accept customization for machine taps long length.
 用于能源工业的高性能板牙。

Technical feature: Suitable for high-speed, long tool life mass production.
 技术特点: 可实现大批量、高速、长寿命加工。

According to customer needs, matching the corresponding material of the processing die, can accept customization.
 根据客户需求, 匹配对应材料的加工板牙, 可接受定制。

SOLID CARBIDE LEFT-HAND REAMER

整体硬质合金左旋铰刀



Suitable for materials
 适用材料



Diameter Size: 3.0 – 16.0mm
 直径尺寸: 3.0 – 16.0mm

Technical feature: Reamers Deliver High-Precision Hole Finishes.
 技术特点: 提供高精度孔加工。

According to customer needs, matching the corresponding material of the processing reamers, can accept non-standard customization.
 根据客户需求, 匹配对应材料的加工铰刀, 可接受非标定制。



SOLID CARBIDE RIGHT-HAND REAMER

整体硬质合金右旋铰刀



Suitable for materials
 适用材料



Diameter Size: 3.0 – 16.0mm
 直径尺寸: 3.0 – 16.0mm

Technical feature: Reamers Deliver High-Precision Hole Finishes.
 技术特点: 提供高精度孔加工。

According to customer needs, matching the corresponding material of the processing reamers, can accept non-standard customization.
 根据客户需求, 匹配对应材料的加工铰刀, 可接受非标定制。



CARBIDE/CERMET COATED METAL CUTTING COLD SAW BLADE 硬质合金/金属陶瓷涂层铁工冷锯



+STAINLESS STEEL

Size: 250-730mm 规格: 250-730mm

- ★ Benefit: High hardness, strong toughness, wear resistance, impact resistance, wide application range, long service life.

产品特点: 硬度高、韧性强、耐磨损、抗冲击、应用范围广, 使用寿命长。

Parameter: $V=50\text{m/min} - 70\text{m/min}$, $S_z=0.025\text{mm}-0.060\text{mm}$

锯切参数: 高精金属圆锯机

$V=50\text{m/min} - 200\text{m/min}$, $S_z=0.025\text{mm}-0.12\text{mm}$

Material: Cermet Coated / Black Coated

刀片材质: 金属陶瓷 / 黑色涂层

- ★ Benefit: Special for stainless steel

产品特点: 不锈钢专用锯片

Parameter: $V=50\text{m/min} - 70\text{m/min}$, $S_z=0.025\text{mm}-0.060\text{mm}$

锯切参数: 高精金属圆锯机

$V=50\text{m/min} - 70\text{m/min}$, $S_z=0.025\text{mm}-0.060\text{mm}$

Material/刀片材质: Carbide Coated / 硬质合金涂层

According to customer needs, matching the corresponding material of the processing blade, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工锯片, 可接受非标定制。

MANUAL COLD SAW BLADE 手持式冷锯片



Size: 255-405mm 规格: 255-405mm

Benefit:

- 1, Cermet teeth, harder and sharper.
- 2, Higher feeding speed and longer life, low cost per cut.
- 3, Low noise and dust-free, healthy working environment.
- 4, Smooth cutting surface and burr-free, eliminating the burring process.
- 5, Multipurpose, suitable for bar steel/channel steel/angle steel/H steel/profile steel/deformed steel bar/copper/aluminum.

产品特点:

- 1, 陶瓷刀头, 更锋利更耐久。
- 2, 速度快, 寿命长, 综合成本更低。
- 3, 无噪音无粉尘, 工作环境更健康。
- 4, 切面光洁无毛边, 节省去毛刺工序。
- 5, 应用范围广, 可锯切圆钢、槽钢、角铁、螺纹钢、工字钢、异型钢、铜、铝等各种材料。

According to customer needs, matching the corresponding material of the processing blade, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工锯片, 可接受非标定制。

SOLID CARBIDE SLITTING SAW BLADE 整体硬质合金锯片铣刀



Size: 5-160mm

规格: 5-160mm

Benefit:

Recommended for slotting the fragile and hard materials which make short chips, suitable for cutting thin-walled profiles.

产品特点:

适用于易碎、坚硬、切屑短的材料开槽, 适用于薄壁型材的切割。材料。



According to customer needs, matching the corresponding material of the processing blade, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工锯片, 可接受非标定制。

ALUMINUM STEP FORMING FINISHING MILLS 铝合金阶梯成型精铣刀

Benefit:

- 1, Ultra-fine grains, high hardness, strong toughness tool materials.
- 2, Special anti-vibration and anti-wear tool structure design.
- 3, High tool surface quality, precision grinding process.
- 4, Microscopic passivation technology for tool edge.

产品特点:

- 1, 超细晶粒、高硬度、强韧性工具材料;
- 2, 特殊抗振、抗磨损刀具结构设计;
- 3, 刀具表面高光、精密磨削工艺;
- 4, 刀具刃口微观钝化技术。

According to customer needs, matching the corresponding material of the processing mill, can accept non-standard customization.

根据客户需求, 匹配对应材料的加工铣刀, 可接受非标定制。



TURNING TOOLS / 车削刀具

General Turning / 一般车削

1. CVD Coated Carbide - Extremely wear-resistance Steel - Turning CVD Grade-CP1105. / CVD涂层-极耐磨钢-车削CVD等级-CP1105.
 Superfine Al₂O₃ and MT-TiCN coating on gradient carbide substrate provide excellent wear resistance. / 极细超细Al₂O₃和MT-TiCN涂层, 优异的耐磨性。
 Suitable for finishing of steel & alloy steel under stable condition. / 适用于钢及合金钢在稳定条件下的精加工。
2. CVD Coated Carbide - High versatility Cast Iron Turning CVD Grade-CK1015. / CVD涂层-高通用性铸铁车削CVD等级-CK1015.
 MT-TiCN and thick Al₂O₃ coated on micrograin carbide substrate. Special postprocessing with excellent edge strength and ensure the stability of cutting. / 在微晶碳化物基体上涂覆MT-TiCN和Al₂O₃, 特殊处理后, 具有优异的刃口强度, 保证切削的稳定性。
 Application: Suitable for finishing and semi-finishing of nodular irons and gray irons, in continuous and light interrupted conditions.
 用途: 适用于球墨铸铁和灰铸铁的精加工和半精加工, 适用于连续和轻度间断的条件。
3. PVD Coated Carbide - High versatility Stainless Steel Turning PVD Grade-CM3020 / PVD涂层碳化物-高通用性不锈钢车削PVD等级-CM3020
 Optimized combination of TiAlN coating and micro-grain carbide substrate with high Co content provide superior adhesion resistance and toughness.
 TiAlN涂层与高Co含量的微晶碳化物基体的优化组合, 提供了优异的粘附性能和韧性。
 Application: Suitable for semi-finishing of stainless steels and threading of general materials. / 用途: 适用于不锈钢的半精加工和一般材料的螺纹加工。

PARTING AND GROOVING TOOLS / 切断和开槽刀具

1. TM Grooving and turning 2.0-8.0(mm)
2. GF Precision grooving and turning 3.0-6.0(mm)

THREADING TOOLS / 螺纹刀具

1. ISO Metric 60° External & Internal Pitch 1.0-5.0(mm)
2. Partial Profile 60° External & Internal Pitch 0.5-5.0(mm)
3. Partial Profile 55° External & Internal Pitch 48-5(TPI)
4. UN External & Internal Pitch 24-8(TPI)
5. Whitworth(W) External & Internal Pitch 19-11(TPI)
6. NPT External & Internal Pitch 27-8(TPI)
7. BSPT External & Internal Pitch 28-11(TPI)
8. Round (RD) (DIN 405) External & Internal Pitch 10-4(TPI)

PROCESSING WORKSHOP / 加工车间

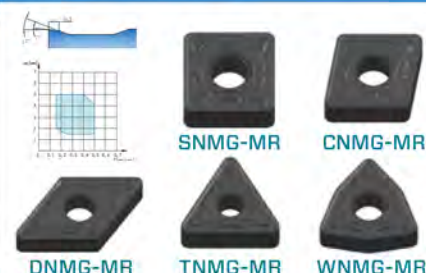


Application Summary of Turning Grades / 车削等级的应用总结

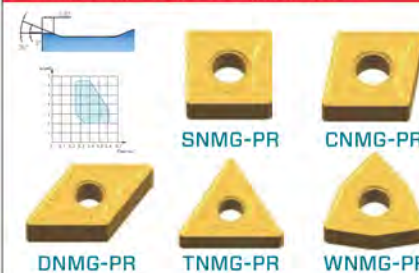
ISO TURNING TOOLS	P Steel					K Cast Iron					M Stainless Steel					N Nonferrous Metal					S HRSA				
	P01	P10	P20	P30	P40	K01	K10	K20	K30	K40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40	S01	S10	S20	S30	S40
Coated Carbide	CP1005	CP1015	CP1025	CP1030		CK1015	CK1020																		
											CM3020	CM3025											CS3015	CS3025	
Uncoated Carbide																CN9015	CN9020							CS9025	
Cermet	CP90Tf																								

 TM Grooving and turning Width:2.0-8.0(mm)
 TM 开槽和车削 / 宽度:2.0-8.0(mm)

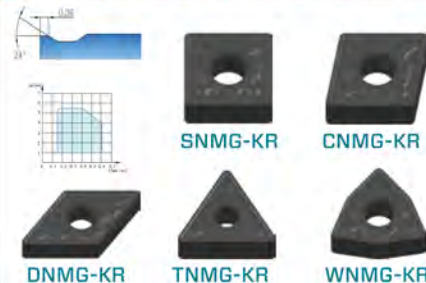

- MR for rough cutting action of Stainless
- MR用于不锈钢的粗切作业。


 GF Precision grooving and turning/Width:3.0-6.0(mm)
 GF 精密开槽和车削 / 宽度:3.0-6.0(mm)

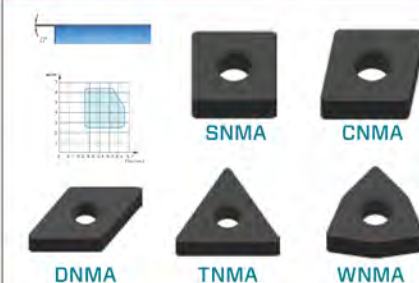

- PR for rough cutting action of carbon steel, cast steel and alloy steel.
- MR用于碳钢、铸钢、合金钢的粗切作业。



- KR for cast iron heavy cutting.
- Strong cutting edge and wide land for improved performance.
- KR适用铸铁重切削, 强刃口和宽副切面提高性能



- Without chipbreaker. • For Cast Iron.
- Stable placement.
- 无断屑/适用于铸铁/稳定夹持



- Range of PCBN Tuening Inserts
- PCBN 车削刀片范围



- Range of PCD Turning Inserts
- PCD车削刀片范围



CORTOOL Coating Advantages CORTOOL涂层优势

High abrasive resistance 耐磨性高
Excellent coating density 涂层致密
Low friction coefficient 摩擦系数低
Environment friendly 环保

The coating temperature is lower than most steels tempering temperature.
涂层工艺温度低于大多数钢材的最终热处理回火温度。
Do not affect the size of the parts as the coating thickness can be controlled precisely by micron.
涂层厚度能精确控制在微米级, 不影响零件尺寸。
Flexible solutions of a single coating or composite coating to meet customer demand.
根据客户需求, 灵活选择单一涂层或复合涂层, 满足客户需求。

Application Areas Of CORTOOL Coating CORTOOL涂层应用范围

CORTOOL coating can be widely used in the fields of all cutting tools, dies and components, etc.
CORTOOL涂层可广泛用于金属切削刀具、模具、零部件等领域。
Metal cutting tools: shank tools, inserts, hobs.
金属切削刀具: 各杆状类刀具、刀片、滚刀。
Dies: punching and forming molds, plastic molds, casting dies.
模具: 冲压成型模具, 塑胶模具, 压铸模具。
Components: Friction parts require wearing resistance, anti-corrosion or without lubrication.
零部件: 需要耐磨防腐以及无油润滑的摩擦件。

Coating Types

Coating Types	Structure	Main Ingredient	Colour	HV	Coefficient Of Friction	Working Temperature	Thickness
Super I	Monolayer	TiN	Gold	2200	0.4	700	2-3um
Super F	Monolayer	TiAlN	Blue Black	3300	0.4	900	2-3um
Super T	Monolayer +top	TiAlN	Blue Black	3300	< 0.3	900	2-3um
Super J	Multi-layer	C based	Grey	2300	< 0.3	700	1.5um
Super H	Multi-layer	Si based	Copper	3400	< 0.4	1100	1.5-3um
Die composite coating	Multi-layer	AlCr based	Grey	3300	< 0.4	1100	1.5-4um
Super X	Monolayer	AlCr based	Black	3300	< 0.4	1100	1.5-4um
Super C	Monolayer	AlCr based	Grey	3300	< 0.4	1100	1.5-4um
DLC Coating	Multi-layer	C based	Black	2200	< 0.05	350	1-3um 3-5um
XT Coating	Multi-layer	TiAlN based	Blue Black	3300	< 0.3	1000	1.5-3um

Contact us for the best coating solutions.

Code	Range of application-material 应用范围 (材料)	Material examples 材料举例
P	Steel material 钢材材料 Cold-extrusion steels 冷轧钢 Low-carbon steels 低碳钢 Free-cutting steels, etc. 易切钢等	DC01, SPCE, ST15 S235JR(S37-2), 20W, 1008 10SPb20, Y15Pb, SUN23 E360(S170-2), 20CrMnTi 16MnCr5
	Construction steels 结构钢 Case-hardened steels 渗碳钢, 表面硬化钢 Steel casting, etc. 铸钢等	GS-25CrMo4, ZG1Cr13, C47H 20MnCr3, SCM415, SAE5120 42CrMo4, 4135 102Cr6, CK45, 70H 50CrMo4, 35CrMoV
	Case-hardened steels 渗碳钢, 表面硬化钢 Heat-treated steels 调质钢 Mid or high carbon steels, etc. 中、高碳素钢等	X45NiCrMo4 31CrMo12, 38CrMoAl X38CrMoV5-3, 60Si2MnA, 50CrVA X100CrMoV8-1-1, 5CrNiTi4 Cr5WMoVSi, 20Cr2Mo2WVNiCo
	Heat-treatable steels 特殊热处理钢 Cold work steels, etc. 冷作工具钢 Nitriding steels, etc. 渗氮钢等	100-250N/mm² 250-450N/mm² 350-500N/mm² 500-900N/mm² 300-400N/mm² 400-500N/mm² 250-500N/mm² 500-800N/mm²
	High-alloyed steels 高合金钢 Hot work steels 热作工具钢 Mold steels, etc. 模具钢等	EN-GJL-200(GG20), HT250 EN-GJL-300(GG30), HT350 EN-GJS-400-15(GG40), QT400 EN-GJS-700-2(GG70), QT700 GJV300, RuT380 GJV450, RuT420 EN-GJMB-350-4(GTW-35), KTH330 EN-GJMB-450-6(GTS-45), KTZ700
M	Stainless steel materials 不锈钢材料 Ferritic, martensitic 铁素体结构, 马氏体结构 Austenitic 奥氏体结构	X2CrTi12, SS439, SS45, 9Cr18 X6CrNiMoTi17-12-2, 0Cr18Ni9, SS316 X2CrNiMoN22-5, 3.00Cr23Ni4N, SAF2507 UNS S32550, S32750, 00Cr25Ni7Mo4N
	Austenitic-ferritic(Duplex) 奥氏体-铁素体结构 Austenitic-ferritic(Super Duplex) 奥氏体-马氏体耐热钢	100-250N/mm² 250-450N/mm² 350-500N/mm² 500-900N/mm² 300-400N/mm² 400-500N/mm² 250-500N/mm² 500-800N/mm²
	Cast materials 铸铁材料 Cast iron with lamellar graphite(GJL) 片状石墨铸铁 Cast iron with nodular graphite(GJS) 球墨铸铁	EN-GJL-200(GG20), HT250 EN-GJL-300(GG30), HT350 EN-GJS-400-15(GG40), QT400 EN-GJS-700-2(GG70), QT700 GJV300, RuT380 GJV450, RuT420 EN-GJMB-350-4(GTW-35), KTH330 EN-GJMB-450-6(GTS-45), KTZ700
	Cast iron with vermicular graphite(GJVG) 蠕墨铸铁 Malleable cast iron(GTMW, GTMB) 可锻铸铁	100-250N/mm² 250-450N/mm² 350-500N/mm² 500-900N/mm² 300-400N/mm² 400-500N/mm² 250-500N/mm² 500-800N/mm²
	Non-ferrous materials 有色金属 Aluminium alloys 铝合金 Fine aluminium 纯铝	EN-GJL-200(GG20), HT250 EN-GJL-300(GG30), HT350 EN-GJS-400-15(GG40), QT400 EN-GJS-700-2(GG70), QT700 GJV300, RuT380 GJV450, RuT420 EN-GJMB-350-4(GTW-35), KTH330 EN-GJMB-450-6(GTS-45), KTZ700
K	Wrought aluminium alloys 形变铝合金 Casting aluminium alloys 铸造铝合金	A199, 98R, 1A99 EN AW-AMgSi, 2A80, AK8 EN AW-AIZn5Mg3Cu, 6061, 7075 EN AC-AMg5, ZL101 EN AC-AISi9Cu3, ZAISi12, ZL111 GD-AISi17Cu4FeMg, ADC14
	Copper alloys 铜合金 Pure copper, low-alloyed copper 纯铜, 低合金铜 Copper-zinc alloys(brass, long-cipping) 铜锌合金 Copper-zinc alloys(brass, short-cipping) 铜锌合金 Copper-aluminium alloys(alu bronze, long-cipping) 铜铝合金 Copper-tin alloys(tin bronze, long-cipping) 铜锡合金 Copper-iron alloys(tin bronze, short-cipping) 铜铁合金 Copper-tin alloys(tin bronze, short-cipping) 铜锡合金	E-Cu 57 CuZn37(Ms63) CuZn36Pb3(Ms58) CuAlNi5Fe4 CuSn8P CuSn7 ZnPb(Rg7) (AMP0038) (AMP0045)
	Special copper alloys 特殊铜合金 Magnesium alloys 镁合金 Wrought magnesium alloys 锻镁合金 Casting magnesium alloys 铸镁合金	100-250N/mm² 250-450N/mm² 350-500N/mm² 500-900N/mm² 300-400N/mm² 400-500N/mm² 250-500N/mm² 500-800N/mm²
	Synthetic materials 合成材料 Duroplastics(short-chipping) 热固性塑料 (短屑) Thermoplastics(long-chipping) 热塑性塑料 (长屑) Fibre-reinforced synthetics(fibre content<30%) 纤维强化合成材料 (纤维含量<30%) Fibre-reinforced synthetics(fibre content>30%) 纤维强化合成材料 (纤维含量>30%)	Bakelite, Perinax PMMA, POM, PVC GFK, CFK, AFK GFK, CFK, AFK
	Special materials 特殊材料 Graphite 石墨	C 8000
N	Special materials 特殊材料 Titanium alloys 钛合金 Pure titanium 纯钛 Titanium alloys 钛合金	Ti1 TiAl6V4 TiAl4Mo4Sn2
	Nickel alloys, cobalt alloys and iron alloys 镍基合金, 钴基合金和铁基合金 Pure nickel 纯镍	Ni 99.6 Monel 400 Inconel 718 Udimet 605 Haynes 25 Inconel 800
	Nickel-based alloys 镍基合金 Cobalt-based alloys 钴基合金 Iron-based alloys 铁基合金	44-50HRC 50-55HRC 55-60HRC 60-63HRC 63-66HRC
	Hard materials 硬材料 High strength steels, hardened steels, hard castings 高强度钢, 淬硬钢, 硬铸铁	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
S	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
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	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
H	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE
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	Hard materials 硬材料 Hard materials 硬材料	Weldox 1100 Hardox 550 Armax 800T Ferro-Titanit HSSE