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OKE 欧科亿

# 2026

车削刀片  
TURNING INSERTS



[www.oke-carbide.com](http://www.oke-carbide.com)

+375445843038, +375298543038, [info@bki.by](mailto:info@bki.by), <https://bki.by>

# FROM TOOL MATERIALS TO A FULL-CHAIN CNC CUTTING TOOL SOLUTION PROVIDER

从刀具材料到聚焦数控刀具领域的  
全产业链集成供应商

## 株洲欧科亿数控精密刀具股份有限公司

OKE PRECISION CUTTING TOOLS Co., Ltd.

株洲欧科亿数控精密刀具股份有限公司，成立于1996年，是一家专业从事硬质合金制品和数控刀具产品的研发、生产和销售，具有自主研发和创新能力的国家级高新技术企业。

目前，欧科亿已铺设近30家直属运营中心，旨在为客户提供更快速、精准的本地化技术支持与服务，为客户提质增效，持续创造价值。

欧科亿将继续聚焦高端数控刀具国产化和进口替代，以创新刀具打造世界一流品牌，为全球智造提供切削解决方案。

Founded in 1996, OKE Precision Cutting Tools Co., Ltd. is a national high-tech enterprise specializing in the research and development, production and sales of cemented carbide products and CNC tools with independent research and development and innovation capabilities.

To date, OKE has established nearly 30 directly operated centers worldwide, providing fast and precise localized technical support and services to help customers improve quality and efficiency while continuously creating value.

OKE will continue to focus on the localization and import substitution of high-end CNC tools, striving to build a world-class brand through innovation and delivering advanced cutting solutions for global intelligent manufacturing.



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集研发、制造、销售、服务于一体的切削工具集成供应商  
An integrated cutting tool provider covering R&D, manufacturing, sales, and service

- 国家级博士后科研工作站  
National Postdoctoral Research Workstation
- 湖南省数控刀具涂层工程技术研究中心  
Hunan Provincial Engineering Research Center for CNC Tool Coatings
- 一流院校产学研基地  
Industry-Academia Research Base with Leading Universities

株洲欧科亿数控精密刀具股份有限公司  
博士后科研工作站  
POSTDOCTORAL PROGRAMME  
人力资源和社会保障部 制发  
全国博士后管理委员会  
二〇二二年九月



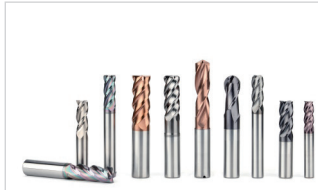
7大核心产品，聚焦用户需求  
Seven Core Product Lines Tailored to User Needs



数控刀片  
CNC Inserts



数控刀体  
CNC Tool Holders



整体硬质合金刀具  
Solid Carbide Tools



超硬刀具  
PCD & PCBN



金属陶瓷刀具  
Cermet Tools



硬质合金棒材  
Carbide Rods



硬质合金锯齿  
Carbide Saw Tips

为增值创效创新刀具技术，为客户难题创优解决方案  
Innovating Cutting Tool Technologies to Create Value and Efficiency — Delivering Smart Solutions to Complex Customer Challenges



航空航天  
Aerospace



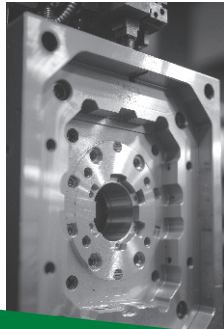
轨道交通  
Rail Transit



汽车制造  
Automotive



新能源  
New Energy



模具制造  
Moulds and Dies



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## CONTENTS 目录

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| <b>A 车削刀片牌号</b><br>Turning Insert Grades                           | 02  |
| <b>B 车削刀片分类介绍</b><br>Introduction of Turning Insert Categories     |     |
| <b>P 钢类车削刀片</b><br>Turning Inserts for Steel                       | 06  |
| <b>M 不锈钢类车削刀片</b><br>Turning Inserts for Stainless Steel           | 22  |
| <b>K 铸铁类车削刀片</b><br>Turning Inserts for Cast Iron                  | 34  |
| <b>N 有色金属类车削刀片</b><br>Turning Inserts for Non-Ferrous Metals       | 42  |
| <b>S 难切削材料类车削刀片</b><br>Turning Inserts for High Temperature Alloys | 45  |
| <b>H 高硬材料类车削刀片</b><br>Turning Inserts for Hardened Materials       | 52  |
| <b>刀片型号列表</b><br>Turning Insert List                               | 58  |
| <b>C 专用产品介绍</b><br>Specialized Product Introduction                |     |
| <b>切断切槽刀具</b><br>Grooving & Parting Tool Series                    | 95  |
| <b>螺纹车削刀片</b><br>Threading Turning Inserts                         | 109 |
| <b>卫浴市场车削刀具</b><br>Inserts for the Sanitary Ware Market            | 123 |
| <b>金属陶瓷车削刀片</b><br>Cermet Turning Inserts                          | 129 |
| <b>小零件车削刀具</b><br>Small Parts Processing Series                    | 137 |
| <b>D 附件</b><br>Attachments                                         | 164 |

## A 车削刀片牌号



### Application Scope of Turning Insert Grades

## 01 车削刀片牌号适用范围

The applicable scope of turning blade grades

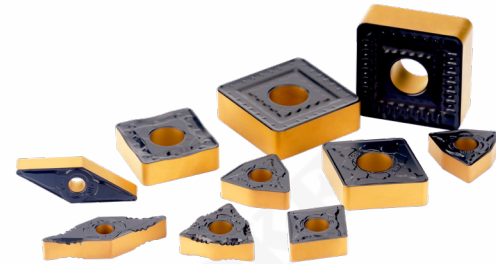
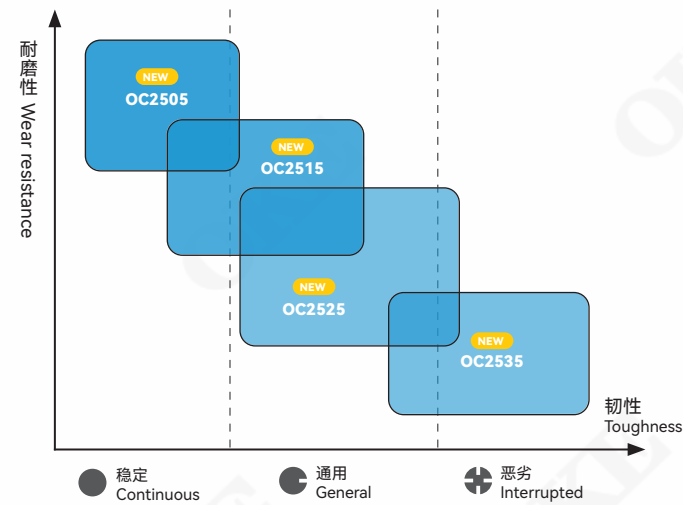
### ■ 钢类材料车削用可转位涂层刀片系列

Indexable Coated Inserts for Turning Steel Materials (Recommended Grades)

#### ISO P 类车削——硬质合金刀片 (CVD 涂层)

ISO P Turning – Carbide Inserts (CVD Coating)

P



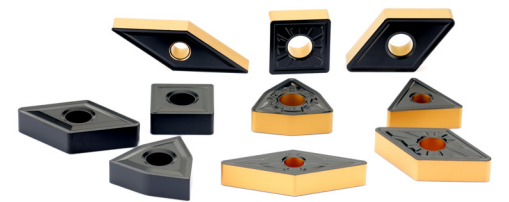
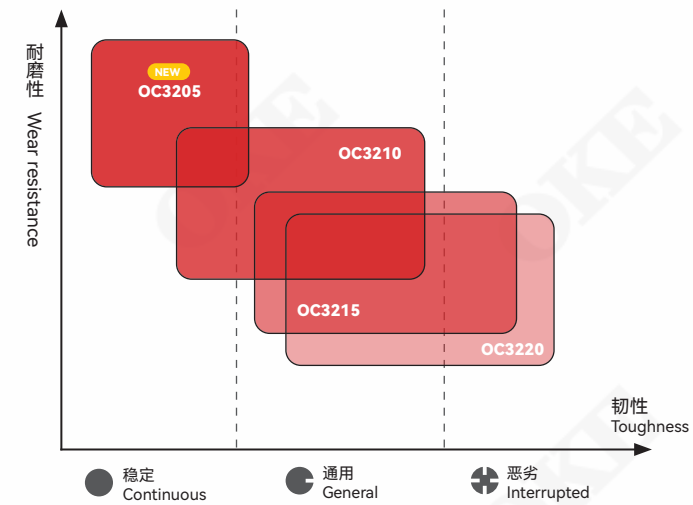
### ■ 铸铁类材料车削用可转位涂层刀片系列

Indexable Coated Inserts for Turning Cast Iron Materials

#### ISO K 类车削——硬质合金刀片 (CVD 涂层)

ISO K Turning – Carbide Inserts (CVD Coating)

K



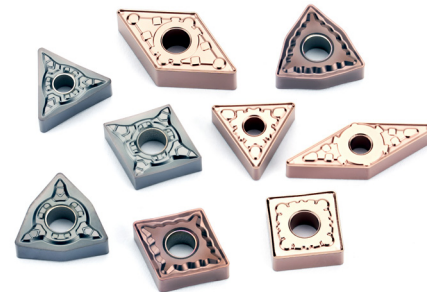
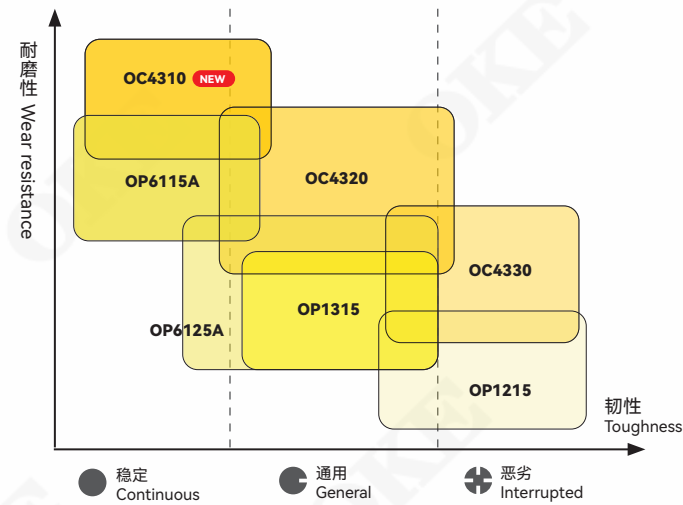
### ■ 不锈钢类材料车削用可转位涂层刀片系列

Indexable Coated Inserts for Turning Stainless Steel Materials

#### ISO M 类车削——硬质合金刀片 (CVD 与 PVD 涂层)

ISO M Turning – Carbide Inserts (CVD and PVD Coating)

M



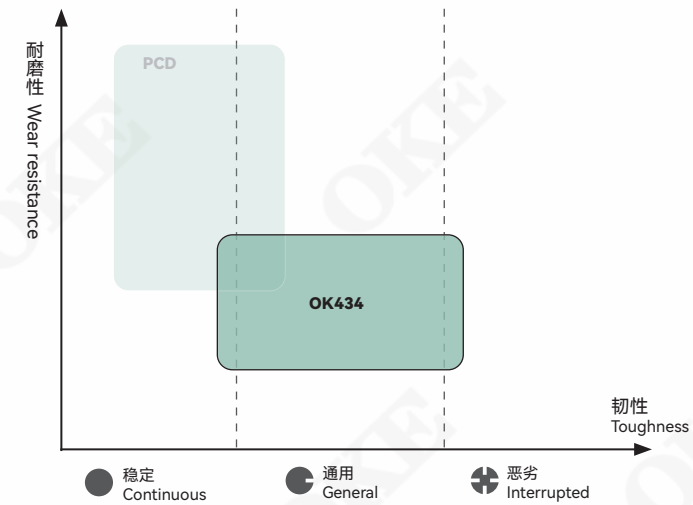
### ■ 有色金属类材料车削用可转位刀片系列

Indexable Inserts for Turning Non-Ferrous Metal Materials

#### ISO N 类车削——硬质合金刀片 (无涂层)

ISO N Turning – Carbide Inserts (Uncoated)

N

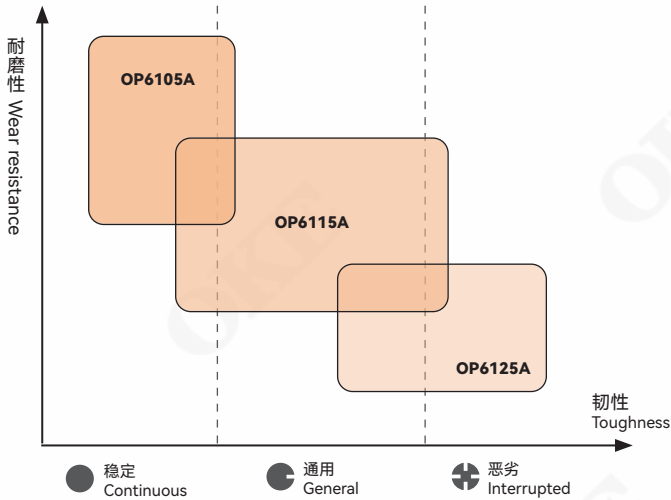


02 车削刀片牌号等级与应用  
Turning Insert Grades and Applications

| 涂层类型<br>Coating type   | P       |    |    |    |    | M      |    |    |        |    | K      |    |    |    | N     |    |    |    | S       |    |    |    | H      |    |    |    |
|------------------------|---------|----|----|----|----|--------|----|----|--------|----|--------|----|----|----|-------|----|----|----|---------|----|----|----|--------|----|----|----|
|                        | 05      | 10 | 20 | 30 | 40 | 05     | 10 | 20 | 30     | 40 | 05     | 10 | 20 | 30 | 10    | 20 | 30 | 40 | 05      | 10 | 20 | 30 | 10     | 20 | 30 | 40 |
| CVD                    | OC2505  |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        | OC2515  |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        | OC2525  |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        | OC2125  |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        | OC2325S |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        | OC2535  |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
| 无涂层<br>Without coating |         |    |    |    |    | OC4310 |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    | OC4320 |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    | OC4330 |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    | OC3205 |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    | OC3210 |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
| PVD                    |         |    |    |    |    |        |    |    |        |    | OC3215 |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    | OC3220 |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    |        |    |    |    | OK434 |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    | OP1215 |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    | OP1315 |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    | OP1415 |    |        |    |    |    |       |    |    |    |         |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    | OP6105A |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    | OP6115A |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    | OP6125A |    |    |    |        |    |    |    |
|                        |         |    |    |    |    |        |    |    |        |    |        |    |    |    |       |    |    |    |         |    |    |    | OPH120 |    |    |    |

难切削材料车削用可转位涂层刀片系列  
Indexable Coated Inserts for Turning High Temperature Alloys Materials

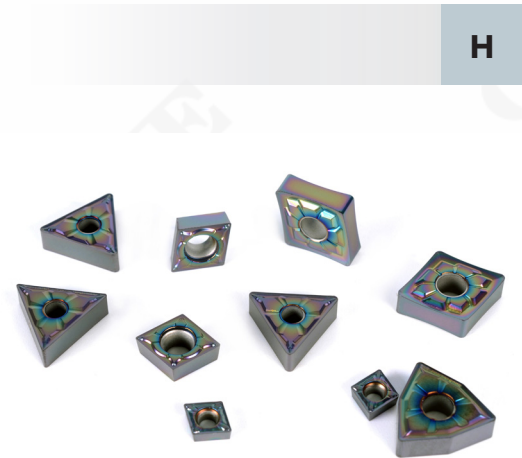
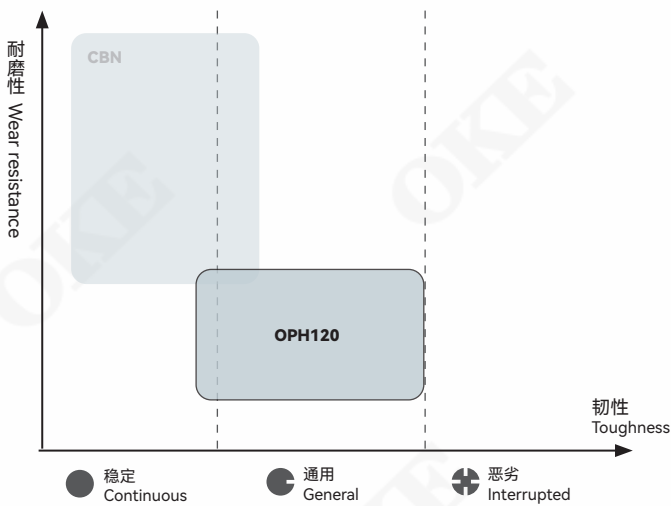
ISO S 类车削——硬质合金刀片（PVD 涂层）  
ISO S Turning – Carbide Inserts (PVD Coating)



S

高硬材料车削用可转位涂层刀片系列  
Indexable Coated Inserts for Turning Hardened Materials

ISO H 类车削——硬质合金刀片（PVD 涂层）  
ISO H Turning – Carbide Inserts (PVD Coating)



H

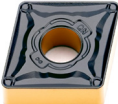


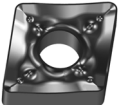
B 车削刀片分类介绍 Introduction of Turning Insert Categories

01 P 钢类车削刀片  
Turning Inserts for Steel

P

P 钢类车削刀片 - 牌号介绍  
Turning Inserts for Steel Grade Introduction

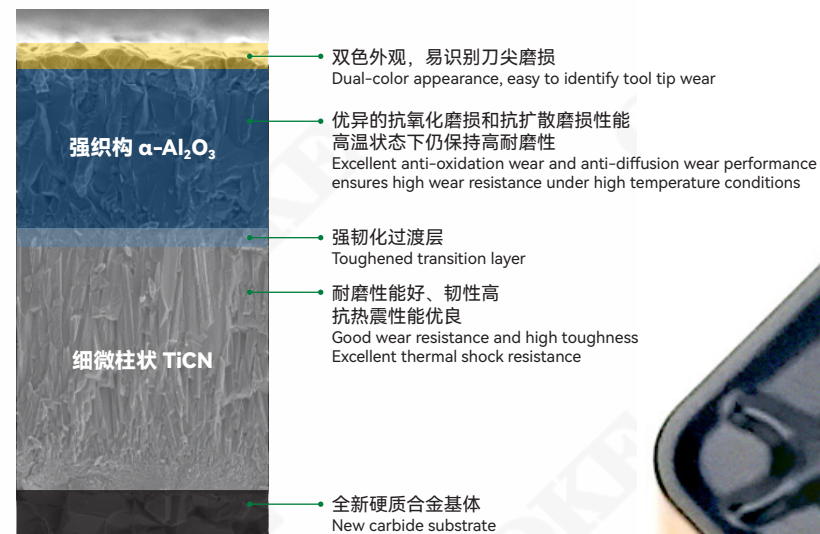
| 涂层牌号<br>Coating                          | ISO 等级<br>ISO Grade                        | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 刀片示例<br>Insert Shape                                                                  |
|------------------------------------------|--------------------------------------------|-----------------------------|---|---|---|---|---|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                          |                                            | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| OC2505<br><small>NEW</small>             | P05<br>(P01-P15)                           | ●                           |   |   |   |   |   | CVD                          | <p>精加工等级;<br/>全新强结构 CVD 涂层与高红硬性基材的结合; 高耐磨材质, 可实现长时间连续切削;<br/>可进行精加工或半精加工操作; 亦可用于轻微断续切削; 如果机床 - 刀具 - 工件系统结构具有足够的刚性, 也可进行粗加工操作。</p> <p>Finishing grade;<br/>Combination of new strong-textured CVD coating and high red-hardness substrate;<br/>High wear-resistant material, enables long-duration continuous cutting; Suitable for finishing or semi-finishing operations; Also suitable for light intermittent cutting;<br/>Can be used for roughing if the machine-tool-workpiece system has sufficient rigidity.</p>                                                              |    |
| OC2515<br><small>NEW</small><br>(OC2415) | P15<br>(P10-P20)                           | ●                           |   |   |   |   |   | CVD                          | <p>精加工至中等加工等级;<br/>全新加厚的强结构 CVD 涂层与高硬度基材的结合, 拥有更为出色的耐磨性、红硬性和抗月牙洼磨损能力; 钢类材料 (碳钢、合金钢等) 的连续至轻断续加工, 拥有较宽的应用范围和极佳的稳定性。</p> <p>Finishing to medium machining grade;<br/>Combination of new, thickened strong-textured CVD coating and high-hardness substrate, offering excellent wear resistance, red hardness, and crater wear resistance;<br/>Stable for continuous to light intermittent machining of steel materials (carbon steel, alloy steel, etc.), with wide application range and excellent stability.</p> <p>旧牌号 Old Coating : OC2415</p>                                      |  |
| OC2525<br><small>NEW</small><br>(OC2425) | P25<br>(P15-P30)<br><br>M20-M30<br>K25-K35 | ●                           | ○ | ○ |   |   |   | CVD                          | <p>通用车削加工等级;<br/>全新优化涂层结构与结构的 CVD 涂层, 硬度与强度兼顾的基材, 良好的抗变形能力和出色的刀片刃口强度, 涂层对基材的附着力良好; 独特的后处理技术, 实现双色标识层及有益的压应力分布, 达到更高的耐磨性和稳定性。</p> <p>General turning grade;<br/>New optimized coating texture and structure CVD coating, substrate balancing hardness and strength, good anti-deformation capability and excellent cutting edge strength, good coating adhesion;<br/>Unique post-treatment technology achieves dual-color identification layer and beneficial compressive stress distribution, resulting in higher wear resistance and stability.</p> <p>旧牌号 Old Coating : OC2425</p> |  |

| 涂层牌号<br>Coating                          | ISO 等级<br>ISO Grade                        | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 刀片示例<br>Insert Shape                                                                  |
|------------------------------------------|--------------------------------------------|-----------------------------|---|---|---|---|---|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                          |                                            | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |
| OC2125                                   | P25<br>(P20-P30)                           | ●                           |   |   |   |   |   | CVD                          | <p>通用车削加工等级;<br/>基体为高立方相含量的梯度硬质合金; 涂层为耐磨的 CVD 氧化铝涂层, 经过特殊后处理工艺, 具有很好的抗塑性变形能力和韧性。</p> <p>General turning grade;<br/>Substrate is gradient carbide with high cubic phase content; Coating is wear-resistant CVD alumina coating, with special post-treatment for good anti-plastic deformation ability and toughness.</p>                                                                                                                                                                                                                             |    |
| OC2325S                                  | P25<br>(P20-P30)                           | ●                           |   |   |   |   |   | CVD                          | <p>钢材半精加工通用牌号;<br/>富立方相含量的梯度硬质合金基体, 具有更好的高温性能、抗塑性变形能力; 均匀致密细晶涂层, 具有优异的耐磨性; 独特的后处理技术, 实现了双色标识层及均匀的压应力分布, 确保很好的耐磨性和稳定性。</p> <p>General semi-finishing grade for steel;<br/>Gradient carbide substrate rich in cubic phase, with better high-temperature performance and anti-plastic deformation ability; Uniform, dense fine-grained coating with excellent wear resistance; unique post-treatment technology achieves dual-color identification layer and uniform compressive stress distribution, ensuring good wear resistance and stability.</p> |  |
| OC2535<br><small>NEW</small><br>(OC2435) | P35<br>(P30-P40)<br><br>M30-M40<br>K30-K40 | ●                           | ○ | ○ |   |   |   | CVD                          | <p>粗加工或断续加工等级;<br/>全新的 CVD 多层涂层与高强度基材有机结合, 极佳的抗冲击性能与耐磨性的平衡, 延长了刀具寿命。</p> <p>Roughing or intermittent machining grade;<br/>Organic combination of new CVD multi-layer coating and high-strength substrate, excellent balance of impact resistance and wear resistance, extends tool life.</p> <p>旧牌号 Old Coating : OC2435</p>                                                                                                                                                                                                                        |  |



## OC25\* 系列牌号特性

OC25\* Series Product Features



## 技术特点

- 先进的表面光滑处理技术，减少切削阻力；
- 强织构  $\alpha\text{-Al}_2\text{O}_3$  涂层与细晶结构柱状 TiCN 涂层结合，有效改善刀具寿命；涂层间良好的结合强度，实现了强韧化；
- 全新的专用硬质合金基体，均匀分布的细晶立方相，提升合金稳定性；粘接相与固溶体梯度耦合，提升刃线抗冲击性；

## Technical features

- Advanced surface smoothing technology reduces cutting resistance.
- Combination of strongly textured  $\alpha\text{-Al}_2\text{O}_3$  coating and fine-grained columnar TiCN coating effectively improves tool life; good bonding strength between coatings achieves toughening.
- New dedicated carbide substrate with uniformly distributed fine-grained cubic phases enhances alloy stability; gradient coupling of binder phase and solid solution improves edge line impact resistance.

## OC2515 切削性能

OC2515 Cutting performance

- 通过强化  $\alpha\text{-Al}_2\text{O}_3$  涂层与硬质合金基体（粘接相与固溶体梯度耦合），抑制崩损
- By strengthening the  $\alpha\text{-Al}_2\text{O}_3$  coating and carbide substrate (gradient coupling of binder phase and solid solution), chipping is suppressed

## OC2515 与以往产品抗冲击性能对比

OC2515 Impact Resistance Comparison with Previous Product



## OC2515 与市场样抗冲击性能对比

OC2515 Impact Resistance Comparison with Competitor Samples





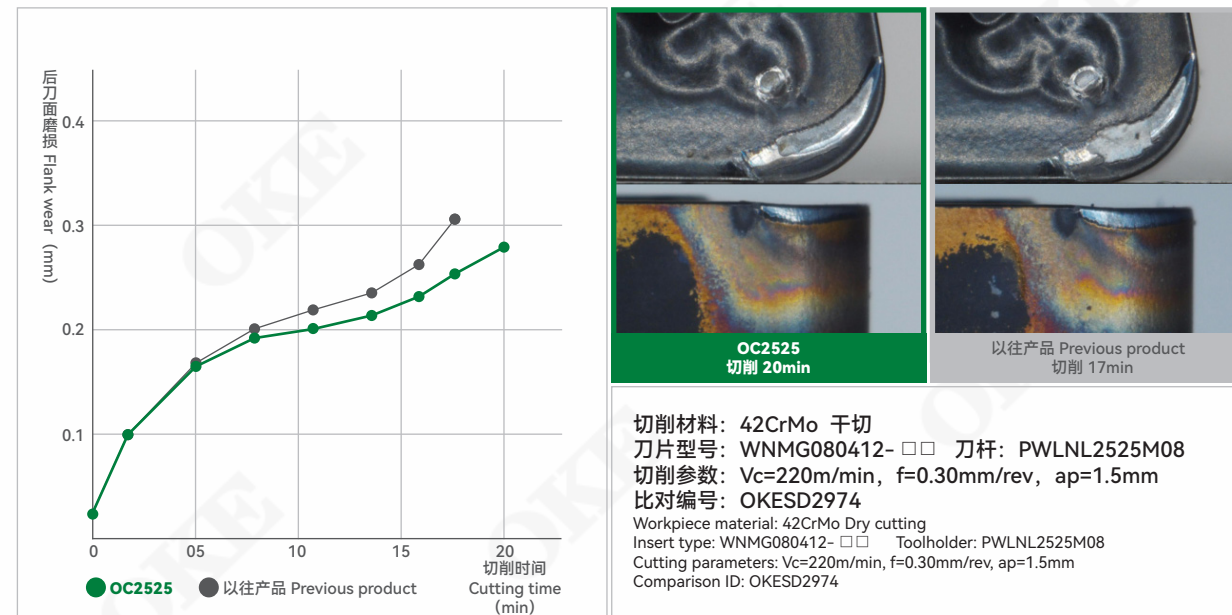
## ■ OC2525 切削性能

## OC2525 Cutting Performance

- 通过表面光滑处理, 延长刀具寿命
- 通过涂层去应力处理, 改善刀片刃口韧性
- Extends tool life through smooth surface treatment
- Improves insert edge toughness through coating stress relief treatment

## OC2525 与以往产品耐磨性能比对

## OC2525 Wear Resistance Comparison with Previous Product



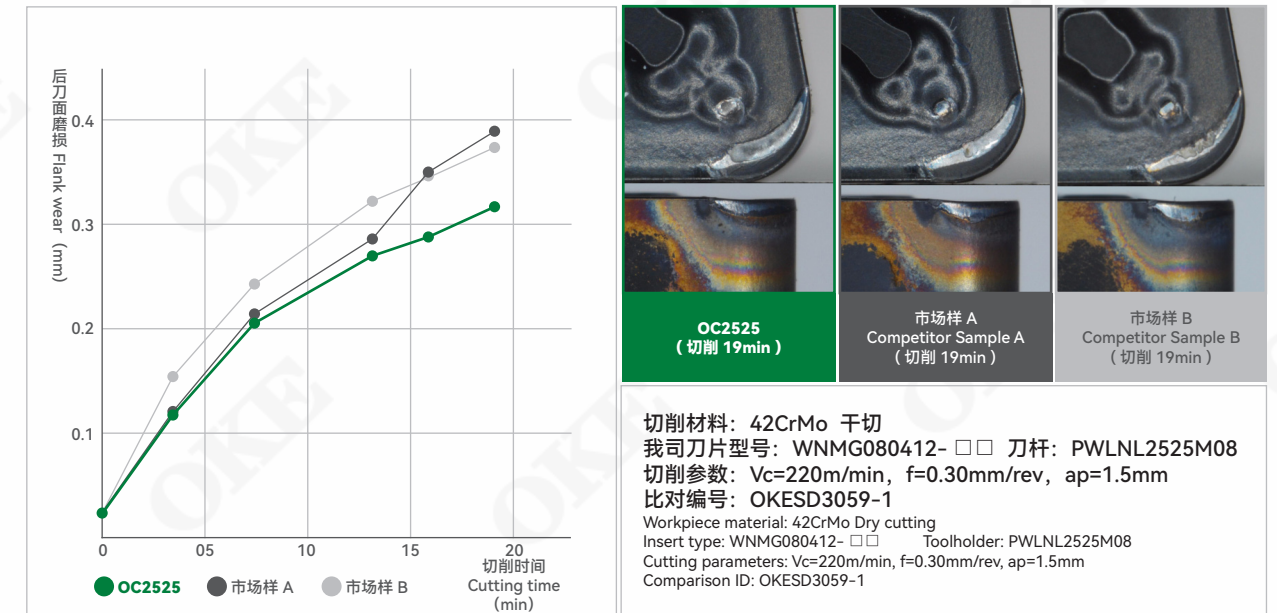
## OC2525 与以往产品抗冲击性能比对

## OC2525 Impact Resistance Comparison with Previous Product



## OC2525 与市场样耐磨性能比对

## OC2525 Wear Resistance Comparison with Competitor Samples



## OC2525 与市场样抗冲击性能比对

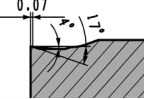
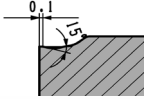
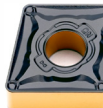
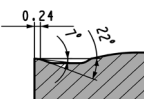
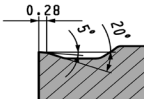
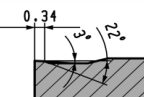
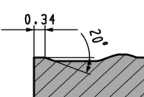
## OC2525 Impact Resistance Comparison with Competitor Samples





P 钢类车削刀片 - 槽型介绍 (第二代双面负角)

Chipbreaker Introduction (Second Generation Double-sided Negative and Supplementary Series)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                            | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius | 切削刃<br>Cutting Edges                                                                                                                                                                        | ap(mm)  | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                            |                                       | P                           | M | K | N | S | H |                       |                                                                                                                                                                                             |         |           |
| <br><b>QF</b> NEW<br>- 精加工用<br>- 曲线刃设计, 切削轻快<br>- 小切深与低进给工况<br><br>- For finishing<br>- Curved edge design, light cutting<br>- Small depth of cut and low feed conditions<br><br>        |                                       |                             |   |   |   |   |   |                       | <br>0.07<br><br>0.1      | 0.5-1.5 | 0.08-0.30 |
| <br><b>QN</b> NEW<br>- 通用性加工用<br>- 变刃宽设计, 通用性强<br>- 实现稳定的刀具寿命<br><br>- For general machining<br>- Variable edge width design, good versatility<br>- Ensures stable tool life<br><br> |                                       |                             |   |   |   |   |   |                       | <br>0.24<br><br>0.28 | 1.0-5.0 | 0.15-0.45 |
| <br><b>QR</b> NEW<br>- 粗加工车削用<br>- 强壮的切削刃设计<br>- 大切深与高进给工况<br><br>- For rough turning<br>- Robust cutting edge design<br>- Large depth of cut and high feed conditions<br><br>       |                                       |                             |   |   |   |   |   |                       | <br>0.34<br><br>0.34 | 1.5-6.0 | 0.25-0.65 |

P 钢类车削刀片槽型 -QN

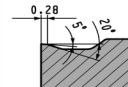
Indexable Insert Chipbreaker -QN

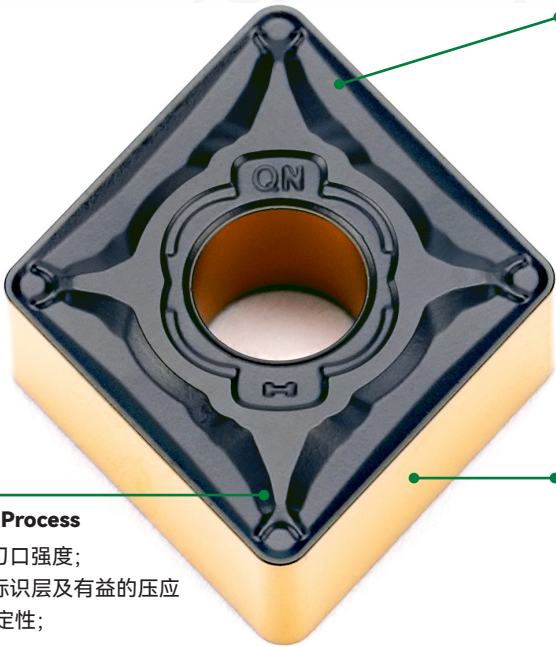
刀片技术细节与应用 Insert Technology and Application

刀片材质及应用 Grade and Application

|                             |                         |                       |                                             |
|-----------------------------|-------------------------|-----------------------|---------------------------------------------|
| CVD 材质<br>CVD Grade         | OC2515、OC2525、OC2535    | 基本形状<br>Basic shapes  | CNMG12、DNMG15<br>SNMG12、TNMG16<br>WNMG08... |
| 被加工材料<br>Workpiece Material | 钢类材料<br>Steel materials | 刀尖圆弧<br>Corner Radius | 0.4、0.8、1.2、1.6                             |

槽型设计特性及应用 Chip Breaker Design Features and Application

|                     |                                                         |                                   |                                                                                                                                                                                              |
|---------------------|---------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 专为中等切削加工研发<br>Developed for medium cutting applications | 槽型特点<br>Chipbreak Characteristics | - 优化前角设计, 可实现强韧刀尖、低切削阻力<br>- 适用于连续切削、黑皮切削<br>- Optimized rake angle design enables strong and tough tip with low cutting resistance<br>- Suitable for continuous cutting, scaly skin cutting |
| 加工参数<br>Parameter   | Ap=1.0-5.0mm<br>Fn=0.15-0.45mm/rev                      | 主切削刃<br>Main cutting edges        | <br>0.28                                                                                                  |



贴合实际应用的设计  
Design Optimized for Practical Applications

- 直线刃口设计确保刀片在不同加工参数时拥有良好的刃边强度;
- 刃尖变前角变刃宽设计, 刀片在不同切深时能保证切削轻快、切屑有效卷曲;
- Straight edge design ensures good edge strength under varying cutting parameters;
- Variable rake angle and variable width design at the tip ensures light cutting and effective chip curling across different depths of cut;

先进的表面处理工艺  
Advanced Surface Treatment Process

- 涂层去应力处理, 改善了刀片刃口强度;
- 独特的后处理技术, 实现双色标识层及有益的压应力分布, 达到更高的耐磨性和稳定性;
- 可用于多种加工工况;
- Coating stress relief treatment improves insert edge strength;
- Unique post-treatment technology achieves dual-color identification layer and beneficial compressive stress distribution, resulting in higher wear resistance and stability;
- Suitable for various machining conditions;

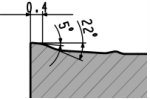
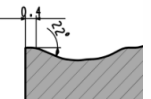
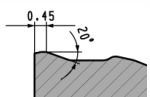
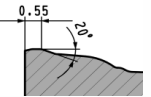
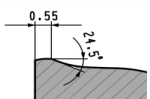
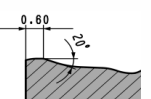
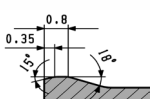
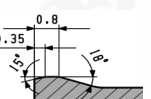
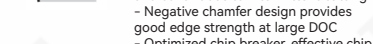
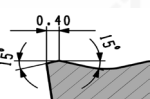
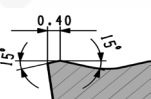
强韧硬质合金基材  
Tough Carbide Substrate

- 高温硬度与强度优异的硬质合金基材;
- 红硬性韧性兼顾, 实现良好的抗边界磨损与抗崩刃特性;
- Carbide substrate with excellent high-temperature hardness and strength;
- Balances red hardness and toughness, achieving good anti-notch wear and chipping resistance;

双面通用加工可转位刀片 Double-sided General Purpose Indexable Insert  
OC2525 CNMG120408-QN

P 钢类车削刀片 - 槽型介绍 (重载单面负角 / 正角槽型)

P Turning Inserts for Steel -Chipbreaker Introduction (Heavy-duty Single-sided Negative/Positive)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                               | 切削刃<br>Cutting Edges                                                                 | ap(mm)   | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       | P                           | M | K | N | S | H |                                                                                     |                                                                                      |          |           |
| <br><b>HR3</b> <small>NEW</small><br>- 粗加工、低进给用<br>- 曲线刃设计，切削轻快<br>- 断屑性能良好<br>- For roughing, low feed<br>- Curved edge design, light cutting<br>- Good chip breaking performance<br>                                                                                                                                                                                 |                                       | ●                           | ● | ○ |   | ○ |   |    |    | 3.0-10.0 | 0.30-0.70 |
| <br><b>HP</b><br>- 重载切削低碳钢首选<br>- 切削锋利性与强度兼备<br>- 切屑排出性能良好<br>- Preferred for heavy-duty cutting of low carbon steel<br>- Balances cutting sharpness and strength<br>- Good chip evacuation performance<br>                                                                                                                                                            |                                       | ●                           | ○ | ● |   |   |   |    |    | 4.0-12.0 | 0.40-0.90 |
| <br><b>RP</b><br>- 重载切削中碳合金钢、高进给首选<br>- 直线刃与倒角刃相结合<br>- 排屑性能良好<br>- Preferred for heavy-duty high feed cutting of medium carbon alloy steel<br>- Combination of straight edge and chamfer<br>- Good chip evacuation performance<br>                                                                                                                                 |                                       | ●                           |   | ○ |   |   |   |  |  | 6.0-15.0 | 0.50-1.10 |
| <br><b>HRP</b> <small>NEW</small><br>- 重载切削高金属去除率用<br>- 宽刃边与大倒角设计，刃口强度高<br>- 宽断屑槽，防止切屑堵塞<br>- For heavy-duty cutting with high metal removal rate<br>- Wide chip edge and large chamfer design, high edge strength<br>- Wide chipbreaker, prevents chip clogging<br>                                                                                               |                                       | ●                           |   | ○ |   |   |   |  |  | 8.0-20.0 | 0.70-1.30 |
| <br><b>JH</b><br>- 用于精加工至粗加工及连续至断续切削的断屑槽<br>- 负倒角设计，在大切深切削时拥有良好的刃边强度<br>- 优化设计的断屑台，针对不同工况能有效断屑，产品通用性能好<br>- Chipbreaker for finishing to roughing and continuous to intermittent cutting<br>- Negative chamfer design provides good edge strength at large DOC<br>- Optimized chip breaker, effective chip breaking for different conditions, good versatility<br> |                                       | ●                           |   | ○ |   |   |   |  |  | 2.0-9.0  | 0.4-1.4   |

P 钢类车削刀片槽型 -HR3

Indexable Insert Chipbreaker -HR3

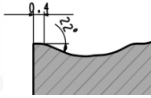
刀片材质及应用 Grade and Application

|                             |                         |
|-----------------------------|-------------------------|
| CVD 材质<br>CVD Grade         | OC2515、OC2525、OC2535    |
| 被加工材料<br>Workpiece Material | 钢类材料<br>Steel materials |

刀片型号 Inserts Size

|                       |                                                 |
|-----------------------|-------------------------------------------------|
| 基本形状<br>Basic shapes  | CNMM16、CNMM19<br>CNMM25、SNMM15<br>SNMM19、SNMM25 |
| 刀尖圆弧<br>Corner Radius | 1.2、1.6、2.4                                     |

槽型设计特性及应用 Chip Breaker Design Features and Application

|                     |                                                       |                                   |                                                                                                                                                                                             |
|---------------------|-------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 专为重切削加工研发<br>Developed for heavy cutting applications | 槽型特点<br>Chipbreak Characteristics | - 优化前角设计，可实现强韧刀尖、低切削阻力<br>- 适用于连续切削、黑皮切削<br>- Optimized rake angle design enables strong and tough tip with low cutting resistance<br>- Suitable for continuous cutting, scaly skin cutting |
| 加工参数<br>Parameter   | Ap=3.0-10mm<br>Fn=0.30-0.70mm/rev                     | 主切削刃<br>Main cutting edges        |                                                                                                         |

先进的表面处理工艺  
Advanced Surface Treatment Process

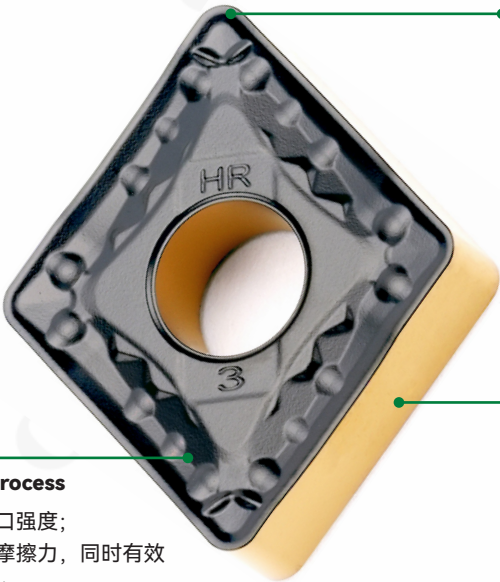
- 涂层去应力处理，改善了刀片刃口强度；
- 产品表面光滑，减少了切削力与摩擦力，同时有效减轻了粘结现象，延长了刀具寿命；
- 可用于多种加工工况；
- Coating stress relief treatment improves insert edge strength;
- Smooth insert surface reduces cutting force and friction, effectively reduces built-up edge, extends tool life;
- Suitable for various machining conditions;

贴合实际应用的设计  
Design Optimized for Practical Applications

- 刀尖变前角变刃宽设计，刀片在不同切深时能保证切削轻快、切屑有效卷曲；
- 粗加工、低进给用；
- 低阻力单面断屑槽；
- Variable rake angle and width design at the tip ensures light cutting and effective chip curling across different depths of cut;
- For roughing, low feed applications;
- Low resistance single-sided chipbreaker;

强韧硬质合金基材  
Tough Carbide Substrate

- 材质具有很好的耐磨性、兼顾韧性，广泛适用于各种钢件材料连续切削、黑皮切削；
- Good wear resistance and balanced toughness, widely suitable for continuous and scaly skin cutting of various steel materials;

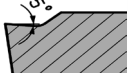
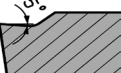
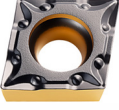
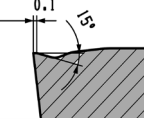
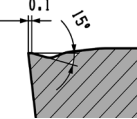
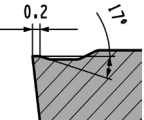
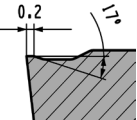


单面粗加工可转位刀片 Single-sided Roughing Indexable Insert  
OC2525 CNMM190616-HR3



■ P 钢类车削刀片 - 槽型介绍 (单面正角槽型)

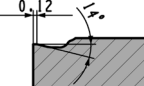
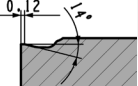
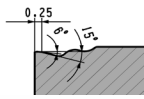
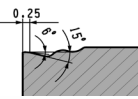
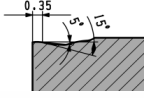
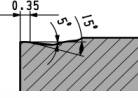
P Turning Inserts for Steel -Chipbreaker Introduction (Single-sided Positive)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                       | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                                          | 切削刃<br>Cutting Edges                                                                            | ap(mm)  | f(mm/rev) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                       |                                       | P                           | M | K | N | S | H |                                                                                                |                                                                                                 |         |           |
| <br><b>OTF</b><br>- 精加工用<br>- 曲线刃设计, 切削轻快<br>- 独特的槽型结构, 小切深工况下断屑处理能力优异<br><br>- For finishing<br>- Curved edge design, light cutting<br>- Unique chipbreaker structure, excellent chip breaking ability at small DOC<br><br>*5° 7°<br><br>C D R S T V W                              |                                       | ●                           | ● | ● |   |   |   | <br>15°       | <br>15°       | 0.5-1.5 | 0.08-0.20 |
| <br><b>OTM</b><br>- 通用加工用<br>- 平刃设计, 有较好的刃口强度和耐破损性<br>- 刃倾角组合结构, 能很好的控制切屑流向<br><br>- For general machining<br>- Flat edge design, good edge strength and fracture resistance<br>- Combination of cutting edge angle, controls chip flow well<br><br>*5° 7° 11°<br><br>C D R S T V W |                                       | ●                           | ● | ● |   |   |   | <br>0.1 15° | <br>0.1 15° | 0.8-2.5 | 0.10-0.25 |
| <br><b>OTR</b><br>- 粗加工用<br>- 平刃大前角设计, 刃口强度优异<br>- 变槽深设计, 控屑能力优异<br><br>- For roughing<br>- Large positive rake angle design, excellent edge strength<br>- Variable groove depth design, excellent chip control ability<br><br>*5° 7°<br><br>C D R S T V W                         |                                       | ●                           | ● | ● |   |   |   | <br>0.2 11° | <br>0.2 11° | 1.2-3.5 | 0.18-0.35 |

\*备注: 部分型号 Note: Applicable for certain types.

■ P 钢类车削刀片 - 槽型介绍 (第一代双面负角槽型)

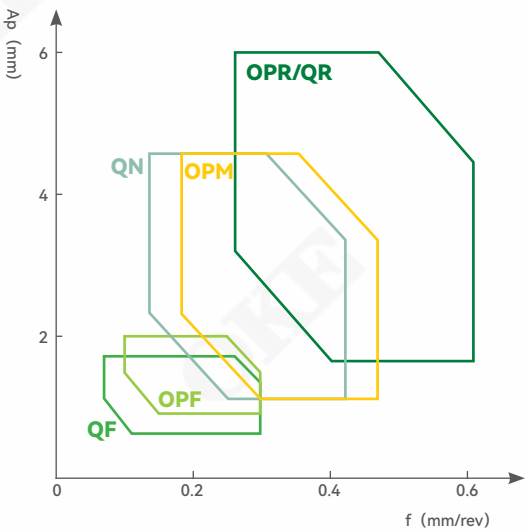
P Turning Inserts for Steel -Chipbreaker Introduction (First Generation Double-sided Negative)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                          | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                                             | 切削刃<br>Cutting Edges                                                                              | ap(mm)  | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                          |                                       | P                           | M | K | N | S | H |                                                                                                   |                                                                                                   |         |           |
| <br><b>OPF</b><br>- 精加工用<br>- 独特的槽型设计能有效控制切屑卷曲与断屑<br>- 刃口锋利, 切削轻快<br><br>- For finishing<br>- Unique chipbreaker design effectively controls chip curling and breaking<br>- Sharp edge, light cutting<br><br>C D R S T V W                                                                            |                                       | ●                           |   |   |   |   |   | <br>0.12 15°   | <br>0.12 15°   | 0.8-2.0 | 0.10-0.30 |
| <br><b>OPM</b><br>- 通用性加工用 (偏粗加工)<br>- 负倒角设计, 增强刀片刃口强度与抗冲击性能<br>- 双断屑台设计, 扩大了断屑范围<br><br>- For general machining (biased towards roughing)<br>- Negative chamfer design enhances edge strength and impact resistance<br>- Double chip breaker design widens chip breaking range<br><br>C D R S T V W |                                       | ●                           | ○ |   |   |   |   | <br>0.25 15° | <br>0.25 15° | 1.0-5.0 | 0.20-0.50 |
| <br><b>OPR</b><br>- 粗加工和断续加工用<br>- 特殊双前角和宽刃带、负倒角三维断屑槽设计<br>- 具有很好的刃口强度, 延长切削寿命<br><br>- For roughing and intermittent machining<br>- Special double rake angle and wide land, negative chamfer 3D chipbreaker design<br>- Good edge strength, extends cutting life<br><br>C D R S T V W             |                                       | ●                           | ○ |   |   |   |   | <br>0.35 15° | <br>0.35 15° | 1.5-6.0 | 0.25-0.65 |

■ 钢类车削槽型断屑范围 (负角 / 正角)

Turning Inserts for Steel -Chip-breaking range for steel turning (Negative/positive)

负角刀片 (钢类材料用)  
Negative (For steel)



QF/OPF: 精加工槽型 Finishing chipbreaker



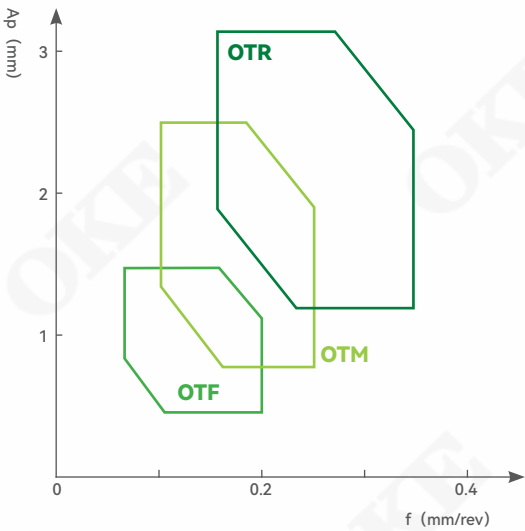
QN/OPM: 通用性车削槽型 General turning chipbreaker



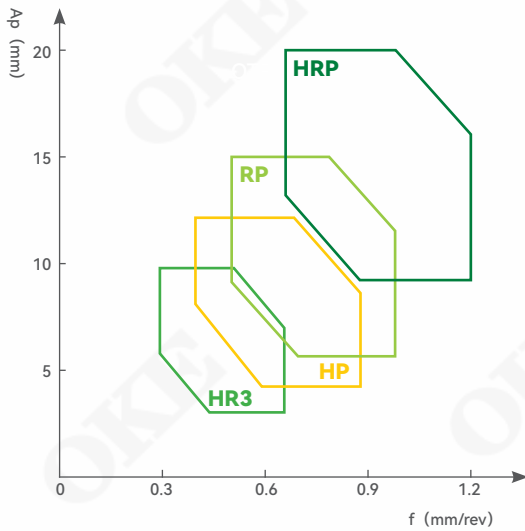
QR/OPR: 粗加工槽型 Roughing chipbreaker



正角刀片 (钢类材料用)  
Positive (For Steel)



负角刀片 (钢类材料用, 单面)  
Negative (Single-sided for Steel)



■ P 钢类车削刀片 - 槽型选择与应用

Insert Geometry Selection and Application

|                                    | 第一代车削槽型<br>(高效率加工用断屑槽)<br>The First Generation Turning Chipbreakers<br>(For High Efficiency Machining) | 第二代车削槽型<br>(通用性加工用断屑槽)<br>The Second Generation Turning Chipbreakers<br>(General Purpose) |
|------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 精~轻切削<br>Finishing ~ Light Cutting | <br>OPF<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                              | <br>QF<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                  |
| 通用切削用<br>General Cutting           | <br>OPM<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                              | <br>QN<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                  |
| 粗切削用<br>Rough Cutting              | <br>OPR<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                              | <br>QR<br><br>刀尖部分<br>Nose<br><br>主切削刃部分<br>Cutting edge                                  |



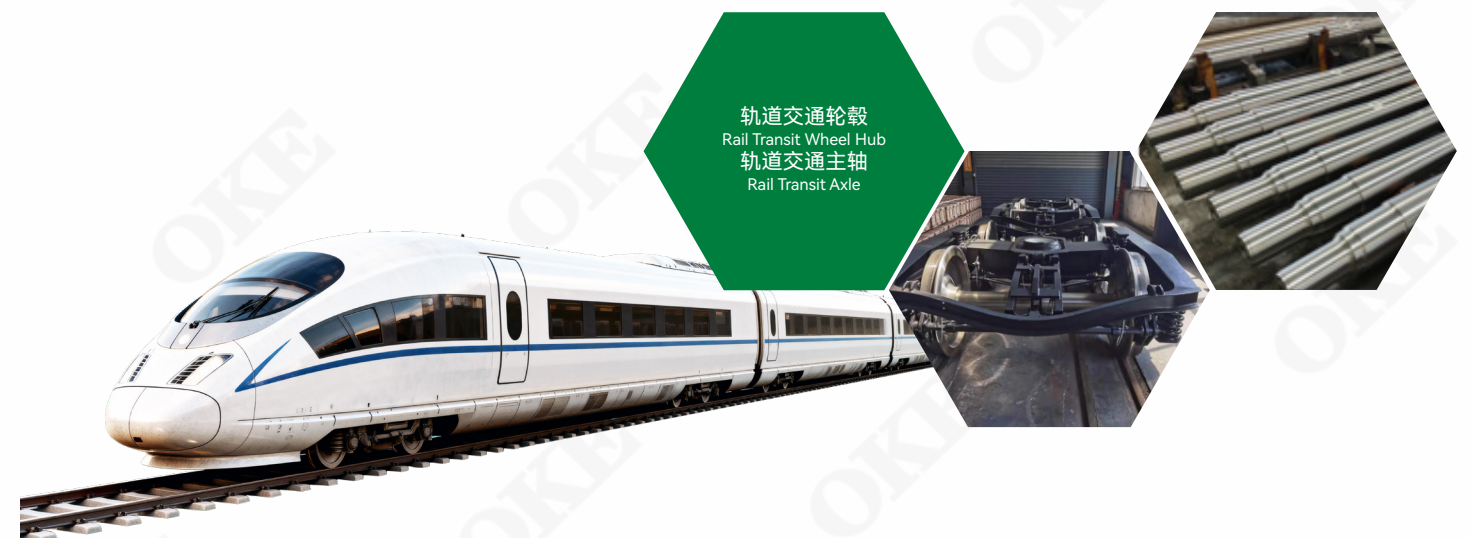
■ P 钢类车削刀片 - 产品应用 (通用领域: 汽车零部件)

P Turning Inserts for Steel -Application (General Field: Automotive Components)



■ P 钢类车削刀片 - 产品应用 (重载领域: 轨道交通与风力发电)

P Turning Inserts for Steel -Application(Heavy-Duty Field: Rail Transit and Wind Power)





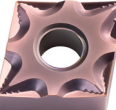
02 M 不锈钢类车削刀片  
M Turning Inserts for Stainless Steel

M

M 不锈钢类车削刀片 - 牌号介绍 (CVD 涂层)  
M Turning Inserts for Stainless Steel Grade Introduction (CVD Coating)

| 涂层牌号<br>Coating              | ISO 等级<br>ISO grade                                   | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                             | 刀片示例<br>Insert Shape                                                                  |
|------------------------------|-------------------------------------------------------|-----------------------------|---|---|---|---|---|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                              |                                                       | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                              |                                                                                       |
| OC4310<br><small>NEW</small> | M10<br>(M05-M15)<br><br>P15-P25<br>S15-S25            | ○                           | ● |   |   | ○ |   | CVD                          | 采用新 CVD 涂层, 配合使用耐磨性优良的高硬度基材, 实现优异的耐磨性、抗崩性; 适用于不锈钢高速、高效加工。<br><br>Utilizes a new CVD coating, combined with a high-hardness substrate that offers excellent wear resistance, to achieve superior wear and chipping resistance; It is suitable for high-speed and high-efficiency machining of stainless steel.                                                                |    |
| OC4320                       | M20<br>(M15-M25)<br><br>P25-P35<br>K30-K40<br>S20-S30 | ○                           | ● | ○ |   | ○ |   | CVD                          | 新 CVD 涂层工艺搭配新烧结工艺的基材, 在保持硬度的同时大幅提高其韧性; 拥有良好的抗小崩口特性与抗边界磨损性能, 不锈钢通用车削首选牌号。<br><br>The new CVD coating process is paired with a substrate from a new sintering process, significantly increasing its toughness while maintaining hardness; It possesses good resistance to micro-chipping and flank wear, making it the preferred grade for general turning of stainless steel. |  |
| OC4330                       | M30<br>(M25-M35)<br><br>P30-P40<br>S25-S40            | ○                           | ● |   |   | ○ |   | CVD                          | 新研发的涂层技术显著提升涂层强度, 特殊的表面处理工艺有效提升抗粘结性能; 有效减少不锈钢加工中异常破损问题; 实现稳定长寿命车削。<br><br>The newly developed coating technology significantly enhances coating strength, and a special surface treatment process effectively improves anti-adhesion properties; It effectively reduces abnormal breakage issues in stainless steel machining and enables stable, long-life turning.         |  |

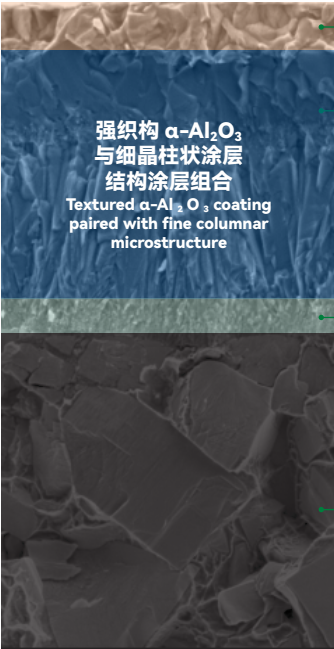
M 不锈钢类车削刀片 - 牌号介绍 (PVD 涂层)  
M Turning Inserts for Stainless Steel Grade introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO grade               | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 刀片示例<br>Insert Shape                                                                  |
|-----------------|-----------------------------------|-----------------------------|---|---|---|---|---|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                 |                                   | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |
| OP1215          | M25-M35<br><br>P25-P35<br>K25-K35 | ○                           | ● | ○ |   |   |   | PVD                          | 基材: 高 Co 含量强韧化细晶粒硬质合金;<br>涂层: 磁控溅射原理涂层, TiAlN/TiSiN 双层纳米复合结构, 具有纳米硬度高, 热稳定性好、摩擦系数小等特点;<br>应用: 推荐用于不锈钢以及较粘的低碳钢等材料连续、断续车削应用场景; 材质韧性、抗冲击性好, 通用工况下加工首选;<br><br>Substrate: A carbide with high cobalt content, featuring a toughened fine-grained structure.<br>Coating: Magnetron sputtering coating Technology, a TiAlN/TiSiN bilayer Nanocomposite with high nano-hardness, good thermal stability, good coefficient of friction.<br>Application: Suitable for continuous and intermittent turning of materials like stainless steel and sticky low-carbon steel, the material is of good toughness and impact-resistance, it is the preferred grade for general machining condition.                                                                                      |    |
| OP1315          | M15-M30<br><br>P20-P30<br>K20-K30 | ○                           | ● | ○ |   |   |   | PVD                          | 基材: 高 Co 含量强韧化细晶粒硬质合金, 具有很好的刃口强度;<br>涂层: 电弧离子镀原理涂层, 涂层致密、结合力高。该涂层含有较高的铝含量, 为具有优异抗氧化和耐磨性能的 Barzers PVD-AITiN 涂层, 适用面广;<br>应用: 推荐用于不锈钢连续车削, 以及其它难加工材料中低速车削应用场景; 稳定工况下对刀具耐磨性要求较高时首选;<br><br>Substrate: A carbide with high cobalt content, offering excellent edge strength.<br>Coating: An Arc Ion Plating (A IP) coating technology with highly dense coating structure and good adhesion. Barzers PVD-AITiN coating with high aluminum content, featuring excellent antioxidant and wear resistance performance.<br>Application: It is suitable for continuous turning of stainless steel, and medium or low speed turning of other hard to made materials. It is preferred grade in the case of high demand for wear resistance of tools to stable machining condition. |  |
| OP1415          | M20-M35<br><br>P25-P35<br>K25-K35 | ○                           | ● | ○ |   |   |   | PVD                          | 基材: 高 Co 含量强韧化细晶粒硬质合金;<br>涂层: 全新的 AlTiN/TiXN 复合结构设计, 抵抗裂纹扩展, 提升抗冲击性能; 维持 AIP 技术的 AlTi-base 涂层, 拥有高致密性及良好的抗氧化性; 参杂难熔 X 元素, 提升涂层高温性能;<br>应用: 适合于不锈钢通用车削工况;<br><br>Substrate: A carbide with high cobalt content, featuring a toughened fine-grained structure.<br>Coating: Features a novel AlTiN/TiXN composite structure design that resists crack propagation and improves impact resistance. Maintains the high density and oxidation resistance characteristic of A IP technology's AlTi-based coatings. The doping of a refractory X element enhances the coating's high-temperature performance.<br>Application: it is preferred grade for general turning of stainless steel.                                                                                      |  |



OC43\* 系列牌号特性

CVD Stainless Steel Turning Inserts OC43\* Series

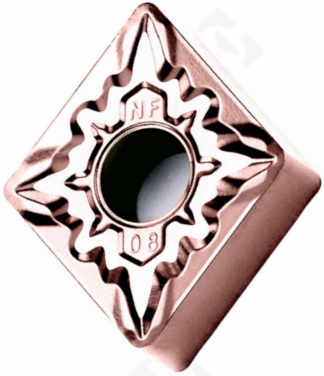


香槟色外观，涂层表面光滑处理，有效降低表面粗糙度  
Champagne-colored appearance with smooth coating surface treatment, effectively reducing surface roughness

优异的抗氧化磨损性能，高温状态下仍保持高耐磨性；同时保持良好的抗崩刃性  
Excellent anti-oxidative wear resistance, maintaining high wear resistance even under high-temperature conditions; Good chipping resistance

强化过渡层  
Strengthened Transition Layer

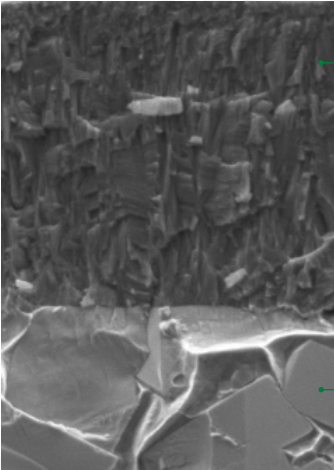
全新硬质合金基体，高温红硬性好  
New carbide substrate with excellent high-temperature red hardness



OC4310

OP1315 牌号特性

OP1315 Product Features



高结合力、致密 Barzers PVD-AlTiN 涂层，具有良好的抗氧化和耐磨性能的涂层，适用面广  
High adhesion, dense Barzers PVD-AlTiN coating with excellent oxidation resistance and wear resistance, suitable for a wide range of applications.

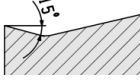
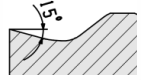
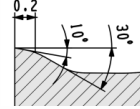
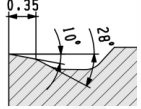
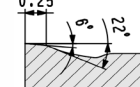
高钴细晶硬质合金基体  
High-cobalt, fine-grained cemented carbide substrate.



OP1315

M 不锈钢类车削刀片 - 槽型介绍 (第二代双面负角系列槽型)

M Turning Inserts for Stainless Steel - Chip breaker Introduction (Second Generation Double-sided Negative Series)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                                                     | 切削刃<br>Cutting Edges                                                                                      | ap(mm)  | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                       | P                           | M | K | N | S | H |                                                                                                           |                                                                                                           |         |           |
| <br><b>NF</b> <small>NEW</small><br>- 精加工用<br>- 曲线刃设计，切削轻快<br>- 小切深与低进给工况<br>- For finishing<br>- Curved edge design, light cutting<br>- Small depth of cut and low feed conditions<br>                                                                                                                                        |                                       | ●                           | ● |   | ○ | ○ | ○ | <br>15°                | <br>15°                | 0.1-1.5 | 0.08-0.28 |
| <br><b>QT</b> <small>NEW</small><br>- 中等精度加工与粗加工<br>- 敞开且大正前角设计<br>- 槽型适用面广，尤其针对大进给、小切深工况，以及薄壁件、细长轴的车削<br>- For medium precision and roughing<br>- Open and large positive rake design<br>- Wide application range, especially for high feed, small DOC conditions, and turning of thin-walled parts and slender shafts;<br> |                                       | ○                           | ● |   |   | ○ |   | <br>0.2<br>10°<br>30°  | <br>0.35<br>10°<br>28° | 0.5-4.0 | 0.15-0.50 |
| <br><b>NR</b> <small>NEW</small><br>- 半粗加工至粗加工用<br>- 变刃宽设计，通用性强<br>- 实现稳定的刀具寿命<br>- For semi-roughing to roughing<br>- Variable edge width design, good versatility<br>- Achieves stable tool life<br>                                                                                                                     |                                       | ○                           | ● |   |   | ○ |   | <br>0.25<br>22°<br>δ | <br>0.3<br>20°       | 2.0-6.5 | 0.20-0.55 |

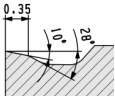
M 不锈钢类车削刀片槽型 -QT NEW  
Indexable Insert Chipbreaker -QT

刀片技术细节与应用 Insert Technology and Application

刀片材质及应用 Grade and Application

|                             |                                     |                       |                                                                                          |
|-----------------------------|-------------------------------------|-----------------------|------------------------------------------------------------------------------------------|
| CVD 材质<br>CVD Grade         | OC4310、OC4320、OC4330                | 基本形状<br>Basic shapes  | CNMG12、CNMG16、CNMG19、<br>DNMG15、SNMG12、SNMG15、<br>SNMG19、TNMG16、VNMG16、<br>WNMG06、WNMG08 |
| 被加工材料<br>Workpiece Material | 不锈钢类材料<br>Stainless steel materials | 刀尖圆弧<br>Corner Radius | 0.4、0.8、1.2、1.6                                                                          |

槽型设计特性及应用 Chip Breaker Design Features and Application

|                     |                                                      |                                   |                                                                                                                                                                                                                                                                                                                                |
|---------------------|------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 中等精度加工与粗加工<br>Medium precision to rough<br>machining | 槽型特点<br>Chipbreak Characteristics | <ul style="list-style-type: none"><li>- 敞开且大正前角设计</li><li>- 槽型适用范围广，尤其针对大进给、小切深工况，以及薄壁件、细长轴的车削；</li><li>- Open and large positive rake angle design;</li><li>- Wide application range, especially suitable for high feed rate with low depth of cut conditions, and turning of thin-walled parts and slender shafts;</li></ul> |
| 加工参数<br>Parameter   | Ap=0.5~4.0mm<br>Fn=0.15~0.50mm/rev                   | 主切削刃<br>Main cutting edges        |                                                                                                                                                                                                                                             |

新研发涂层与后处理技术  
Newly Developed Coating  
and Post-treatment Technology

- 新研发的涂层技术显著提升涂层强度；
- 特殊的表面处理工艺有效提升抗粘结性能；减少了切削力与摩擦力，同时有效减轻了粘结现象，延长了刀具寿命；
- 可用于多种加工工况；
- New coating technology significantly improves coating strength;
- Special surface treatment process effectively enhances anti-adhesion performance, reducing cutting force and friction while effectively mitigating adhesion phenomena and extending tool life;
- Suitable for various machining conditions;

贴合实际应用的设计  
Design Optimized for Practical Applications

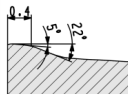
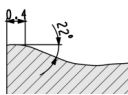
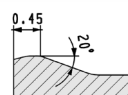
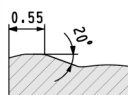
- 刀尖部位凹槽设计，在小切深时也可保证良好的断屑处理性能；
- 刀尖变前角变刃宽设计，刀片在不同切深时能保证切削轻快、切屑有效卷曲；
- Groove design at the tip ensures good chip breaking performance even at small cutting depths;
- Variable rake angle and edge width design at the cutting edge ensures light cutting and effective chip curling at different cutting depths;

全新硬质合金基材  
New Carbide Substrate

- 在保持高温硬度的同时大幅提高其韧性；
- 拥有良好的抗小崩口特性与抗边界磨损性能；
- Significantly improves toughness while maintaining high temperature hardness;
- Excellent resistance to micro-chipping and flank wear;

双面通用加工可转位刀片 Double-sided indexable inserts for general machining  
OC4320 CNMG120408-QT

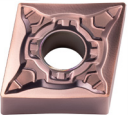
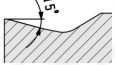
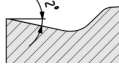
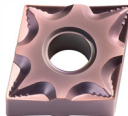
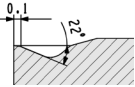
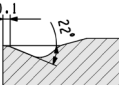
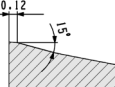
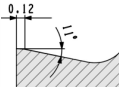
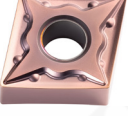
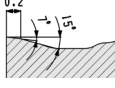
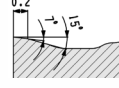
M 不锈钢类车削刀片 - 槽型介绍 (单面负角槽型)  
M Turning Inserts for Stainless Steel - Chip Breaker Introduction (Single-sided Negative Chip Breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                         | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                                                                                                                   | 切削刃<br>Cutting Edges | ap(mm)    | f(mm/rev) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                         |                                       | P                           | M | K | N | S | H |                                                                                                                                                                         |                      |           |           |
| <br><b>HR3</b> <small>NEW</small><br>- 粗加工、低进给用<br>- 曲线刃设计，切削轻快<br>- 断屑性能良好<br>- For roughing and low-feed applications<br>- Curved cutting edge design for light cutting action<br>- Excellent chip breaking performance<br><br> |                                       | ●                           | ● | ○ |   | ○ |   |   | 3.0-10.0             | 0.30-0.60 |           |
| <br><b>HP</b><br>- 重载切削推荐用<br>- 切削锋利性与强度兼备<br>- 切屑排出性能良好<br>- Recommended for heavy-duty cutting<br>- Combining sharpness and strength<br>- Excellent chip evacuation performance<br><br>                                        |                                       | ●                           | ○ | ● |   |   |   |   | 4.0-12.0             | 0.40-0.70 |           |



■ M 不锈钢类车削刀片 - 槽型介绍 (第一代双面负角系列槽型)

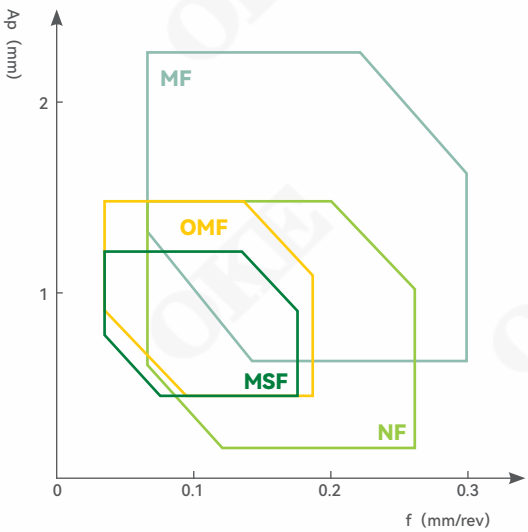
M Turning Inserts for Stainless Steel – Chip Breaker Introduction (The 1<sup>st</sup> generation double-sided negative Chip breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                      | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                               | 切削刃<br>Cutting Edges                                                                 | ap(mm)  | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                      |                                       | P                           | M | K | N | S | H |                                                                                     |                                                                                      |         |           |
| <br><b>MSF</b><br>- 精加工用<br>- 三维槽型设计<br>- 结合刃倾角设计, 能有效控制切屑流向<br>- For finishing<br>- Three-dimension designed<br>- Inclined cutting edge for improved chip flow control<br>                                                        |                                       |                             | ● |   |   |   |   |    |    | 0.5-1.2 | 0.05-0.18 |
| <br><b>OMF</b><br>- 精加工用<br>- 特殊前角和刃倾角设计<br>- 刃口锋利, 切削阻力小<br>- For finishing<br>- Special designed rake angle and cutting edge inclination<br>- Sharp cutting edge, small cutting force<br>                                        |                                       |                             | ● |   |   |   |   |    |    | 0.5-1.5 | 0.05-0.20 |
| <br><b>MF</b><br>- 中等精度加工用<br>- 独特的槽型设计, 兼顾刃口锋利性与强度<br>- 可获得更高的加工效率<br>- For semi-finishing<br>- Special designed chip breaker for sharpness and intensity of cutting edge<br>- Higher machining efficiency<br>                |                                       |                             | ● |   |   |   |   |  |  | 0.8-2.5 | 0.08-0.30 |
| <br><b>OMM</b><br>- 半粗加工与粗加工用<br>- 双前角设计, 兼顾刃口锋利性与强度<br>- 抗冲击性能好, 寿命长<br>- For semi-roughing and roughing<br>- Double rake angle design ensures edge sharpness and strength<br>- Good impact resistance and long tool life<br> |                                       |                             | ● |   |   |   |   |  |  | 0.8-3.5 | 0.15-0.45 |
| <br><b>OMR</b><br>- 粗加工和断续加工<br>- 变前角设计, 既保证了刃口的强度, 又保留了切削锋利性<br>- For roughing and interrupted cutting<br>- Variable rake angle design ensures edge strength while maintaining cutting sharpness<br>                          |                                       |                             | ● |   |   |   |   |  |  | 2.0-5.0 | 0.20-0.50 |

■ 不锈钢车削槽型断屑范围 (负角 / 正角)

Chip-breaking range for stainless steel turning (negative/positive)

 负角刀片 (不锈钢材料用, 双面)  
Negative (For stainless steel, double-sided)

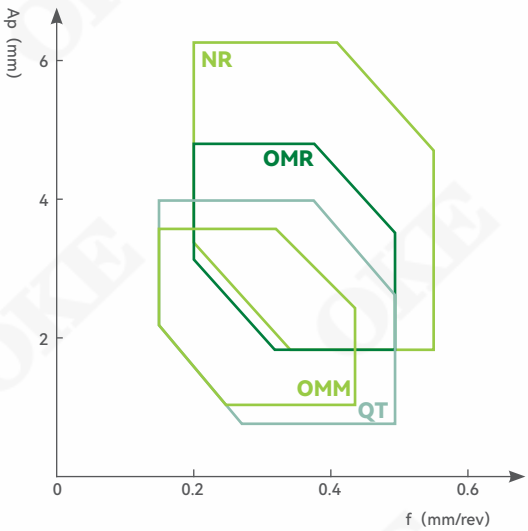


NF: 精加工槽型 Finishing



OC4310

 负角刀片 (不锈钢材料用, 双面)  
Negative (For stainless steel, double-sided)



QT/NM: 半精至粗加工槽型 Semi-finishing to roughing



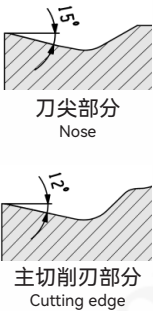
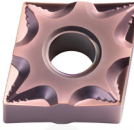
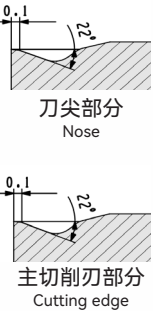
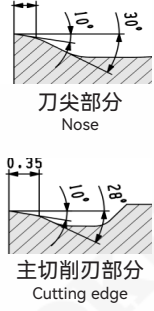
OC4320

NR: 粗加工槽型 Roughing

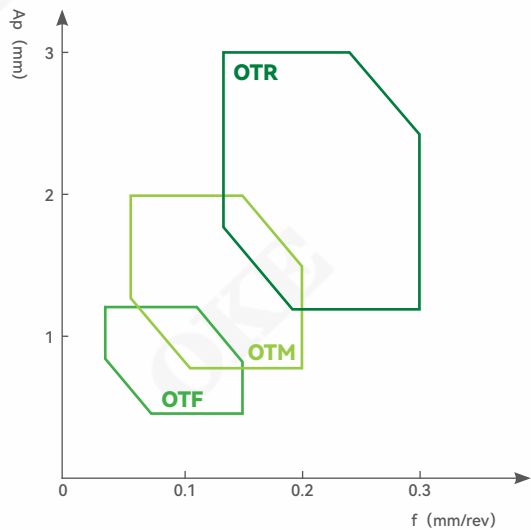


OC4330

■ M 不锈钢类车削刀片 - 槽型选择与应用  
Insert Geometry Selection and Application

|                                                | 第一代车削槽型<br>The First Generation Turning Chipbreakers                                         |                                                                                                                                 | 第二代车削槽型<br>The Second Generation Turning Chipbreakers                                                                         |                                                                                                                                 |
|------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 精切削用<br>Finishing                              | <br>MSF   | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge   | <br>OMF                                    | <br>NF                                       |
|                                                |                                                                                              |                                                                                                                                 | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge   |
| 轻切削 ~ 通用切削用<br>Light cutting ~ General Cutting | <br>MF   | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge  |                                                                                                                               | <br>QT                                     |
|                                                | <br>OMM | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge |                                                                                                                               | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge |
| 粗切削用<br>Roughing                               | <br>OMR | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge |                                                                                                                               | <br>NR                                     |
|                                                |                                                                                              |                                                                                                                                 |                                                                                                                               | <br>刀尖部分<br>Nose<br>主切削刃部分<br>Cutting edge |

正角刀片 (不锈钢材料用)  
Positive (for tuning stainless steel)

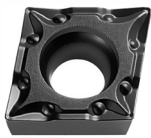


OTF: 精加工槽型 Finishing



OP1315

OTM: 半精加工槽型 Semi-finishing



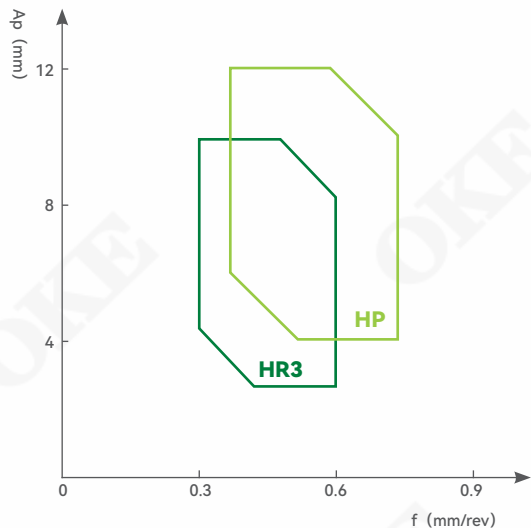
OP1315

OTR: 粗加工槽型 Roughing



OP1315

负角刀片 (不锈钢材料用, 单面)  
Negative (For stainless steel, single-sided)



HR3: 准重加工槽型 Semi-heavy machining



OC4330



OP1215

HP: 重加工槽型 Heavy-duty machining



OC4330



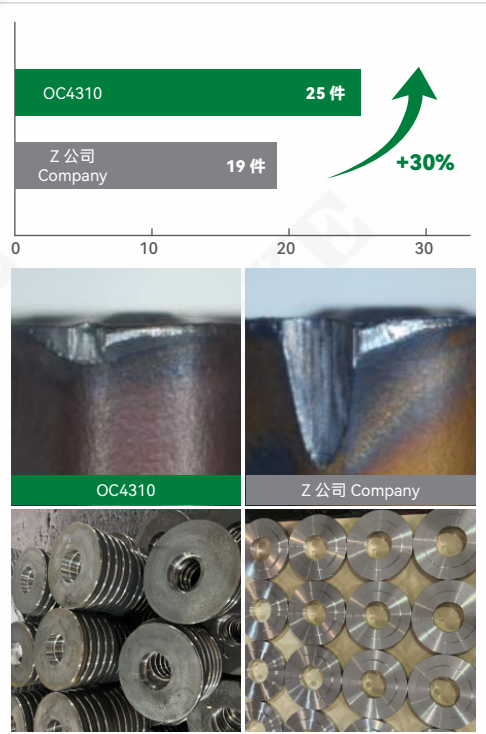
OP1215



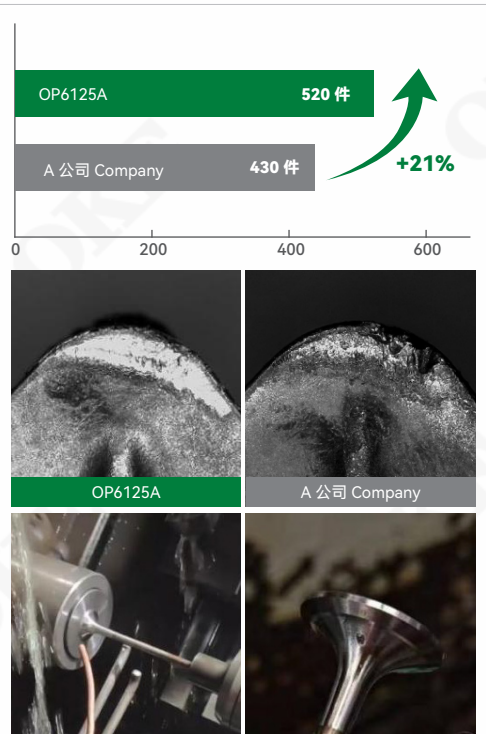
■ M 不锈钢类车削刀片 - 产品应用

M Turning Inserts for Stainless Steel – Application

|                         |                                   |
|-------------------------|-----------------------------------|
| 工件名称 Workpiece          | 法兰 Flange (T-M-WN06-HZL-23032907) |
| 刀具规格 Type               | WNMG060412-QT/OC4310              |
|                         | WNMG060412-XX/Z 公司 Company        |
| 加工材料 Workpiece Material | 316L (Φ200)                       |
| 切削速度 Cutting Speed      | 145-210m/min                      |
| 进给量 Feed Rate           | 0.30mm/rev                        |
| 切深量 Ap                  | 1.2mm                             |
| 切削方式 Cutting Method     | 端面; 湿切<br>End face; Wet cutting   |

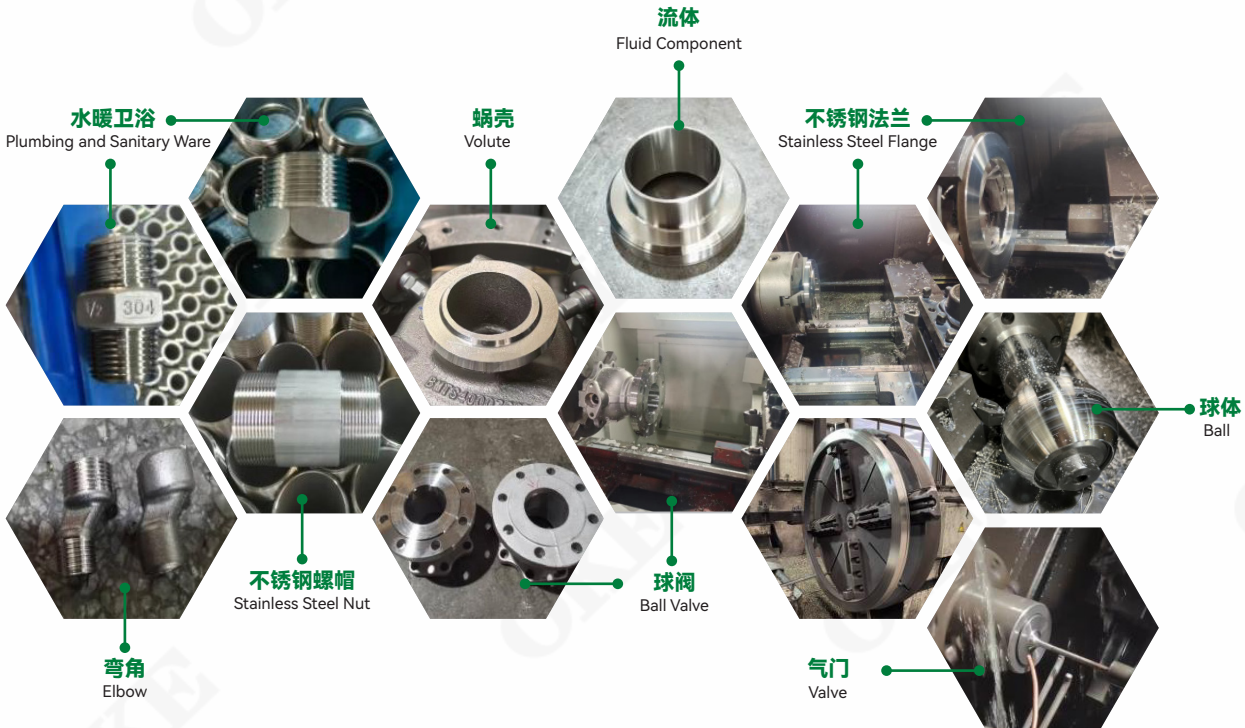


|                         |                                                     |
|-------------------------|-----------------------------------------------------|
| 工件名称 Workpiece          | 气门 Valve (T-S-WN08-WF-24111601)                     |
| 刀具规格 Type               | WNMG080408-NF/OP6125A                               |
|                         | WNMG080408-XX/A 公司 Company                          |
| 加工材料 Workpiece Material | Ni80                                                |
| 切削速度 Cutting Speed      | 130-150m/min                                        |
| 进给量 Feed Rate           | 0.15-0.20mm/rev                                     |
| 切深量 Ap                  | 0.5-1.2mm                                           |
| 切削方式 Cutting Method     | 圆弧锥面; 湿切<br>Arc-shaped conical surface; Wet cutting |



■ M 不锈钢类车削刀片 - 产品应用场景

M Turning Inserts for Stainless Steel – Typical Application

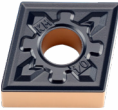


03 K 铸铁类车削刀片  
K Turning Inserts for Cast Iron

K

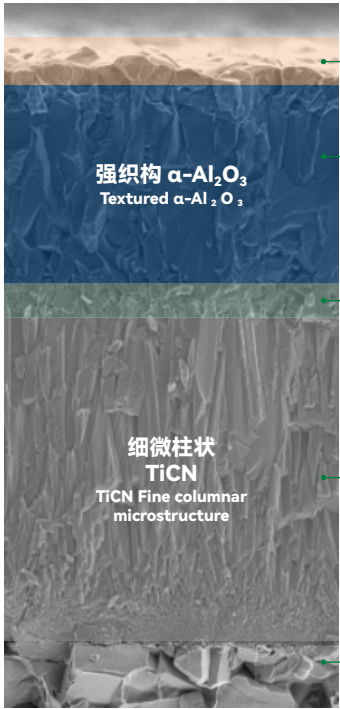
K 铸铁类车削刀片 - 牌号介绍

K Turning Inserts for Cast Iron Grade introduction

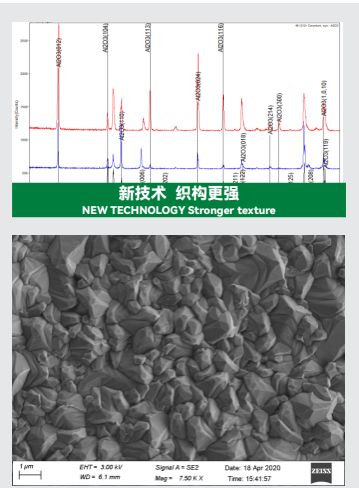
| 涂层牌号<br>Coating | ISO 等级<br>ISO grade         | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 刀片示例<br>Insert Shape                                                                  |
|-----------------|-----------------------------|-----------------------------|---|---|---|---|---|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                 |                             | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |
| OC3205<br>NEW   | K05<br>(K01-K10)            |                             |   | ● |   |   |   | CVD                          | 采用全新加厚的 CVD 强织构氧化铝涂层, 基体为细晶粒硬质合金, 实现了优异的耐磨性、红硬性; 适用于合金铸铁、球墨铸铁、灰口铸铁高线速连续车削工况。<br><br>Featuring a newly thickened CVD highly textured $\text{Al}_2\text{O}_3$ coating on a fine-grain carbide substrate, offering excellent wear resistance and red hardness. Suitable for high-speed continuous turning of alloy cast iron, ductile cast iron, and gray cast iron.                                                                                                                                                    |    |
| OC3210          | K10<br>(K05-K15)            |                             |   | ● |   |   |   | CVD                          | 细晶和高硬化度的化学涂层, 基体具有很好的耐磨性, 在广阔的加工领域实现了稳定和长寿命; 灰口铸铁、球墨铸铁加工 (连续、轻断续工况); 灰口铸铁、球墨铸铁加工 (小零件开粗)。<br><br>Fine-grained and high-hardened chemical coating with substrates of good wear resistance, achieving stability and long life in a wide range of processing fields; Gray cast iron, ductile iron machining (continuous, light interrupted conditions); Gray cast iron, ductile iron machining (small parts roughing)                                                                                                   |   |
| OC3215          | K20<br>(K15-K25)<br>P15-P25 | ○                           |   | ● |   |   |   | CVD                          | 中等颗粒 WC 晶粒硬质合金基体搭配厚 TiCN 和厚的织构化 $\text{Al}_2\text{O}_3$ 涂层, 经特殊后处理工艺, 具有突出的耐磨性、通用性; K 类通用车削牌号, 也可以作为钢材车削的备选牌号。<br><br>Medium-grain WC cemented carbide substrate combined with thick TiCN and thick textured $\text{Al}_2\text{O}_3$ coatings. After special post-treatment, it offers outstanding wear resistance and versatility. It is a K-grade general-purpose turning grade, and can also serve as an alternative grade for steel turning.                                                                     |  |
| OC3220          | K20<br>(K15-K25)<br>P15-P25 | ○                           |   | ● |   |   |   | CVD                          | 采用细晶 $\alpha\text{-Al}_2\text{O}_3$ 强化的 MTCVD TiCN- $\text{Al}_2\text{O}_3$ 涂层, 基体为一种韧性很好的硬质合金; 灰口铸铁、球墨铸铁加工 (强断续工况); 灰口铸铁、球墨铸铁加工 (开粗、黑皮工况)。<br><br>Using fine-grain $\alpha\text{-Al}_2\text{O}_3$ reinforced MTCVD TiCN- $\text{Al}_2\text{O}_3$ coating on a carbide substrate with excellent toughness. Suitable for machining gray cast iron and ductile cast iron under heavy interrupted cutting conditions. Suitable for roughing and scaled-skin cutting conditions of gray cast iron and ductile cast iron. |  |

OC32 系列产品特性

OC32 Series Product Features

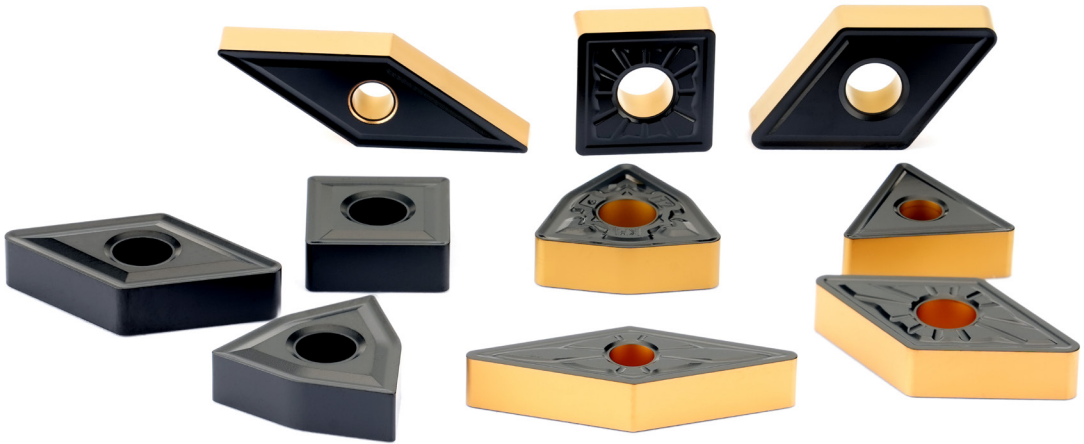


- 双色外观, 易识别刀尖磨损  
Two-color appearance for easy identification of tool tip wear
- 高性能氧化铝涂层, 高温状态下仍保持高耐磨性, 有效抑制磨粒磨损  
High-performance  $\text{Al}_2\text{O}_3$  coating maintains excellent wear resistance at high temperatures and effectively suppresses abrasive wear
- 强韧化过渡层, 提升涂层附着力  
Toughened transition layer enhances coating adhesion
- 耐磨性好、韧性高, 抗热震性能优良  
Good wear resistance and high toughness  
Excellent thermal shock resistance
- 红硬性与韧性兼顾硬质合金基体  
Carbide substrate balances red hardness and toughness



新开发的应力控制技术, 微粒强织构  $\alpha\text{-Al}_2\text{O}_3$  涂层得到强化, 实现了高度的可靠性 (抗黏结、耐磨损)

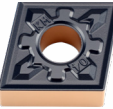
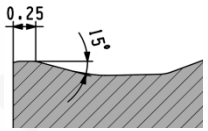
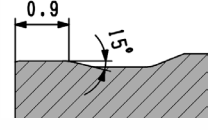
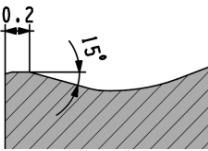
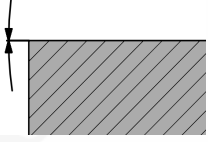
Newly developed stress control technology strengthens the fine-textured  $\alpha\text{-Al}_2\text{O}_3$  coating, achieving high reliability (anti-adhesion and wear resistance)





■ K 铸铁类车削刀片 - 槽型介绍 (双面负角槽型)

K Turning Inserts for Cast Iron - Chip breaker Introduction (Double-Sided Negative Chip breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 切削刃<br>Cutting Edges                                                                 | ap(mm)  | f(mm/rev) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|--------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       | P                           | M | K | N | S | H |                                                                                      |         |           |
| <br><b>OKM</b><br>- 通用性加工用<br>- 切削锋利性与强度兼备<br>- 实现加工的稳定性<br>- For general-purpose machining<br>- Combines sharpness and strength<br>- Ensures machining stability<br>                                                                                                                                                                           |                                       |                             |   | ● |   |   |   |    | 1.0-4.5 | 0.15-0.45 |
| <br><b>OKR</b><br>- 可对应强断续加工工况<br>- 刀尖与刃边强度优异<br>- 在断续切削、黑皮切削中实现稳定的刀具寿命<br>- Suitable for heavy interrupted cutting conditions<br>- Excellent strength of the cutting edge and tip<br>- Ensures stable tool life in interrupted and scale cutting<br>                                                                                         |                                       |                             |   | ● |   |   |   |   | 1.5-6.0 | 0.25-0.60 |
| <br><b>补充槽型<br/>Complementary<br/>Chip breaker</b><br><b>K</b><br>- 中等加工工况<br>- 刀尖与刃边强度优异<br>- 在连续至轻断续加工中实现稳定的刀具寿命<br>- For medium machining conditions<br>- Excellent strength at the cutting edge and tip<br>- Ensures stable tool life in continuous to light interrupted cutting<br>                                                    |                                       |                             |   | ● |   |   |   |  | 1.0-5.0 | 0.15-0.50 |
| <br><b>补充槽型<br/>Complementary<br/>Chip breaker</b><br><b>无断屑槽</b><br>Without Chip breaker<br>- 可对应强断续加工工况<br>- 定位面大，夹持稳定<br>- 在断续切削、高硬度铸铁车削中实现稳定的寿命<br>- Suitable for Heavy Interrupted Cutting Conditions<br>- Large seating area for stable clamping<br>- Stable tool life in interrupted cutting and high-hardness cast iron turning<br> |                                       |                             |   | ● |   |   |   |  | 1.5-10  | 0.25-0.60 |

■ K 铸铁类材料用车削刀片槽型 -OKM

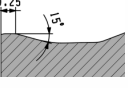
Indexable Insert Chipbreaker -OKM

刀片技术细节与应用 Insert Technology and Application

刀片材质及应用 Grade and Application

|                                    |                             |                              |                                              |
|------------------------------------|-----------------------------|------------------------------|----------------------------------------------|
| <b>CVD 材质</b><br>CVD Grade         | OC3210、OC3220               | <b>基本形状</b><br>Basic shapes  | CNMG12、DNMG15、SNMG12、TNMG16、VNMG16、WNMG08... |
| <b>被加工材料</b><br>Workpiece Material | 铸铁类材料<br>Cast iron material | <b>刀尖圆弧</b><br>Corner Radius | 0.4、0.8、1.2                                  |

槽型设计特性及应用 Chipbreak Characteristics And Applications

|                            |                                           |                                          |                                                                                                                                                                    |
|----------------------------|-------------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>适用范围</b><br>Application | 中等精度加工用<br>For medium-precision machining | <b>槽型特点</b><br>Chipbreak Characteristics | - 刃口细节设计，切削锋利性与强度兼备<br>- 在中等切削加工中具备良好的通用性<br>- Upgraded cutting edge design enables both sharpness and strength<br>- Good versatility in medium cutting operations |
| <b>加工参数</b><br>Parameter   | Ap=1.0-4.5mm<br>Fn=0.15-0.45mm/rev        | <b>主切削刃</b><br>Main cutting edges        |                                                                                |

涂层与后处理  
Coating and Post-treatment

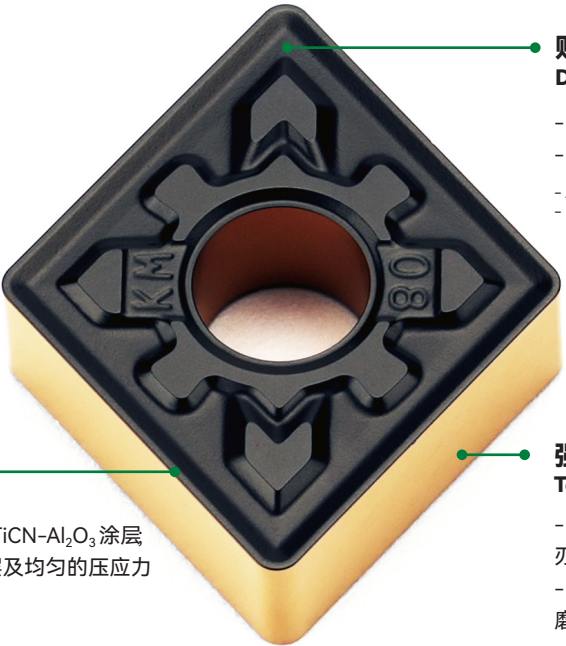
- 采用细晶  $\alpha$ - $\text{Al}_2\text{O}_3$  强化的 MTCVD TiCN- $\text{Al}_2\text{O}_3$  涂层
- 产品表面光滑，实现了双色标识层及均匀的压应力分布，确保更高的耐磨性和稳定性；
- 铸铁车削通用性工况；
- MTCVD TiCN- $\text{Al}_2\text{O}_3$  coating reinforced with fine-grained  $\alpha$ - $\text{Al}_2\text{O}_3$
- Smooth surface with dual-color identification layer and uniform compressive stress distribution, ensuring higher wear resistance and stability
- Suitable for general cast iron turning application

贴合实际应用的设计  
Design Optimized for Practical Applications

- 通用性良好的全周槽设计；
- 平坦棱边设计确保很好的刀尖稳定性；
- All-round Chip breaker design for excellent versatility
- Flat edge design ensures high tip stability

强韧硬质合金基材  
Tough Carbide Substrate

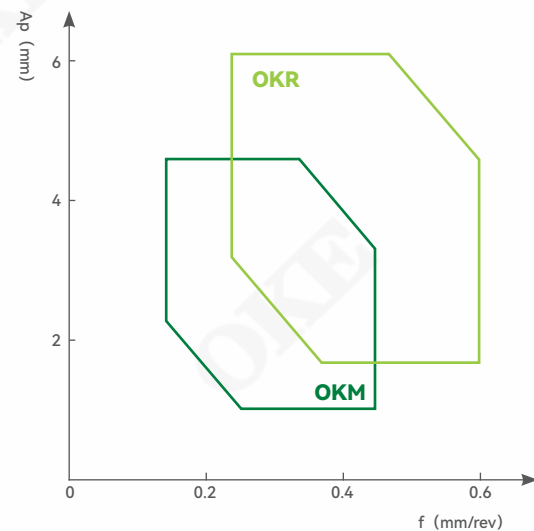
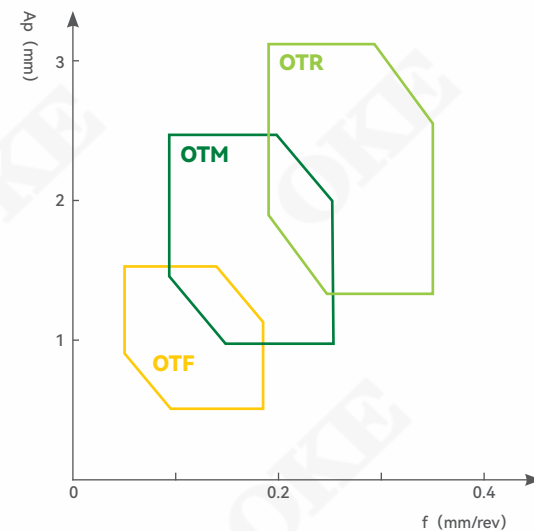
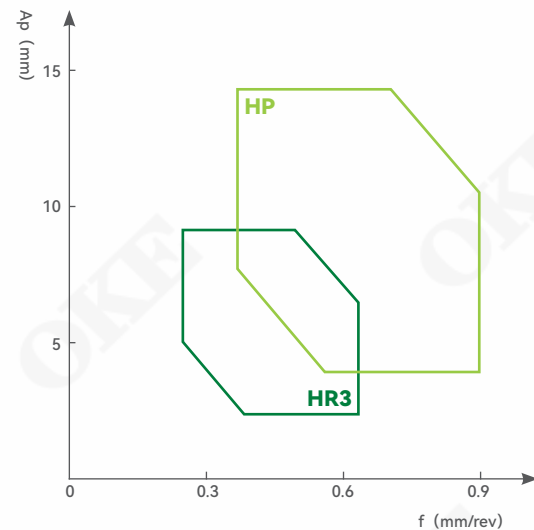
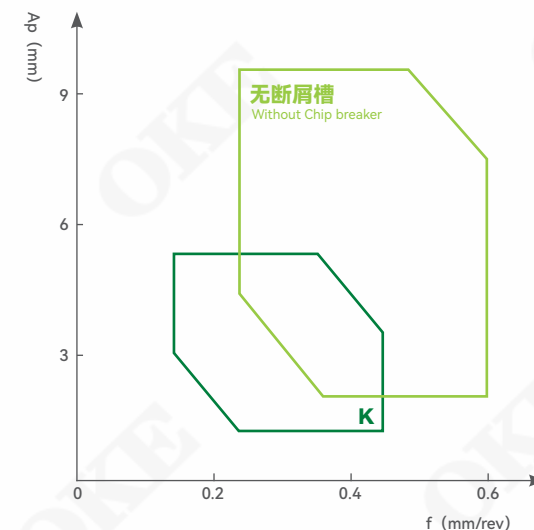
- 中等晶粒强化硬质合金，具有很好的刃口强度；
- 红硬性韧性兼顾，实现良好的抗边界磨损与抗崩刃特性；
- Medium-grain toughened carbide with excellent edge strength
- Balanced red hardness and toughness, providing good resistance to boundary wear and edge chipping



双面通用加工可转位刀片 Double-sided indexable inserts for general machining  
OC3220 CNMG120408-OKM

## ■ 铸铁材料车削槽型断屑范围（负角 / 正角）

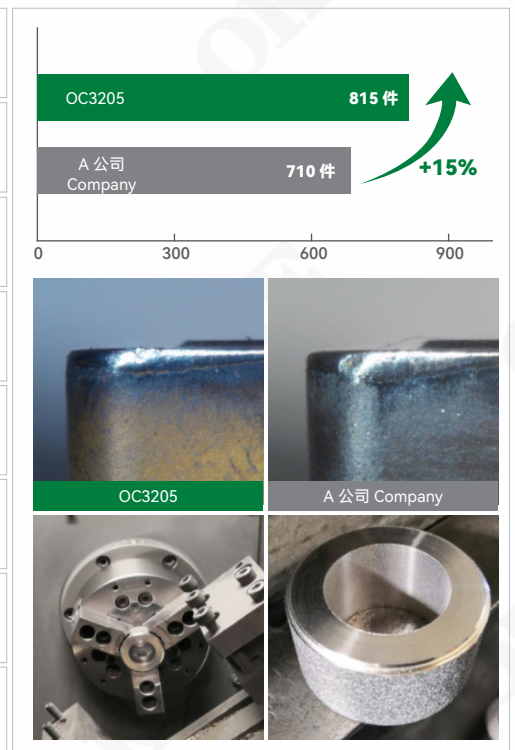
Turning Chip breaker for Cast Iron (Negative / Positive)

负角刀片（铸铁类材料用）  
Negative (for cast iron)正角刀片（铸铁类材料用）  
Positive (for cast iron)负角刀片（铸铁类材料用，单面）  
Negative (for cast iron, single-sided)负角刀片（铸铁类材料用 - 补充槽型）  
Negative (for cast iron - complementary chip breaker)

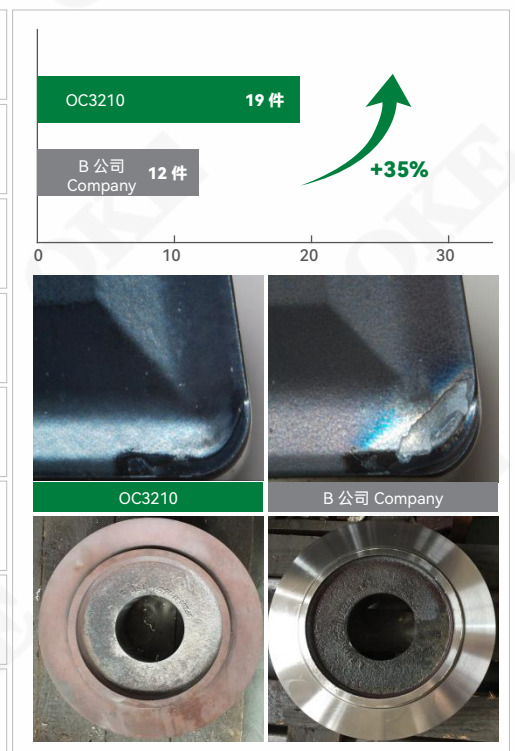
## ■ K 铸铁类车削刀片 - 产品应用

K Turning Inserts for Stainless Steel - Application

|                         |                                             |
|-------------------------|---------------------------------------------|
| 工件名称 Workpiece          | 活塞 Piston (T-K-WN08-HZG-20073101)           |
| 刀具规格 Type               | WNMG080408-OKR/OC3205                       |
|                         | WNMG080408-XX/A 公司 Company                  |
| 加工材料 Workpiece Material | 合金铸铁 Alloy cast iron (Φ45)                  |
| 切削速度 Cutting speed      | 320m/min                                    |
| 进给量 Feed rate           | 0.35mm/rev                                  |
| 切深量 Ap                  | 1.5mm                                       |
| 切削方式 Cutting method     | 外圆、端面；干切<br>External, End face; Dry cutting |



|                         |                                             |
|-------------------------|---------------------------------------------|
| 工件名称 Workpiece          | 轮毂 Hub (T_K_WN08_ZTJ_19063002)              |
| 刀具规格 Type               | WNMG080408-OKM/OC3210                       |
|                         | WNMG080408-XX/B 公司 Company                  |
| 加工材料 Workpiece Material | 汽车零部件 Automobile components<br>QT750        |
| 切削速度 Cutting speed      | 160m/min                                    |
| 进给量 Feed rate           | 0.23mm/rev                                  |
| 切深量 Ap                  | 2.0mm                                       |
| 切削方式 Cutting method     | 外圆、端面；干切<br>External, End face; Dry cutting |

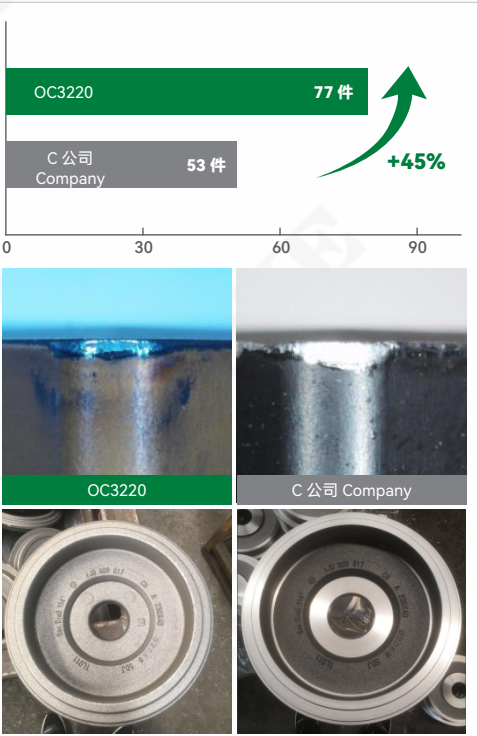




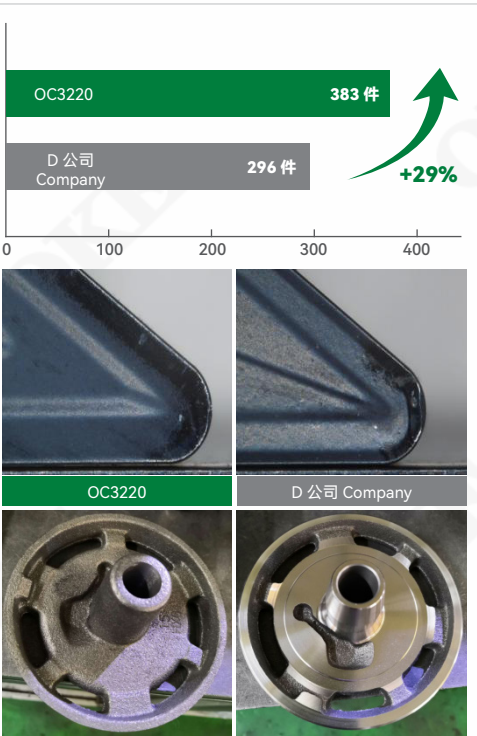
■ K 铸铁类车削刀片 - 产品应用

K Turning Inserts for Stainless Steel – Application

|                         |                                             |
|-------------------------|---------------------------------------------|
| 工件名称 Workpiece          | 轮毂 Hub (T_K_WN08_CP_19102203)               |
| 刀具规格 Type               | WNMG080408-OKM/OC3220                       |
|                         | WNMG080408-XX/C 公司 Company                  |
| 加工材料 Workpiece Material | 汽车零部件 Automobile components<br>HT250        |
| 切削速度 Cutting speed      | 414-524m/min                                |
| 进给量 Feed rate           | 0.35mm/rev                                  |
| 切深量 Ap                  | 1.5-2.0mm                                   |
| 切削方式 Cutting method     | 外圆、端面；干切<br>External, End face; Dry cutting |



|                         |                                       |
|-------------------------|---------------------------------------|
| 工件名称 Workpiece          | 法兰 Flange (T-K-VN16-WY-20101003)      |
| 刀具规格 Type               | VNMG160408-OKR/OC3220                 |
|                         | VNMG160408-XX/D 公司 Company            |
| 加工材料 Workpiece Material | 压缩机零部件 Compressor components<br>HT250 |
| 切削速度 Cutting speed      | 348m/min                              |
| 进给量 Feed rate           | 0.25mm/rev                            |
| 切深量 Ap                  | 1.0-2.0mm                             |
| 切削方式 Cutting method     | 端面；干切<br>End face; Dry cutting        |



■ K 铸铁类车削刀片 - 产品应用汇总与推荐

K Turning Inserts for Stainless Steel –Application Summary and Recommendation

| 工件名称<br>Workpiece                                              | 图 示<br>Illustration | 第一推荐<br>Most Recommended for |                                | 推荐切削参数<br>Recommended Cutting Parameters |                   |
|----------------------------------------------------------------|---------------------|------------------------------|--------------------------------|------------------------------------------|-------------------|
|                                                                |                     | 牌 号<br>Grade                 | 槽 型<br>Chipbreaker             | 切削速度<br>Vc (m/min)                       | 进 给<br>F (mm/rev) |
| 压缩机活塞<br>(合金铸铁)<br>Compressor piston<br>(alloy cast iron)      |                     | OC3205                       | OKM<br>无断屑槽<br>no Chip breaker | 300                                      | 0.35              |
| 汽车钢套<br>(合金铸铁)<br>Automotive steel casing<br>(alloy cast iron) |                     | OC3205                       | OKR<br>无断屑槽<br>no Chip breaker | 300                                      | 0.35              |
| 压缩机曲轴<br>(QT750)<br>Compressor crankshaf                       |                     | OC3210                       | OKM                            | 180                                      | 0.30              |
| 汽车轮毂<br>(QT500-7)<br>Automotive wheel hub                      |                     | OC3220                       | OKM                            | 300                                      | 0.30              |
| 汽车制动鼓<br>(HT250)<br>Automotive brake drum                      |                     | OC3210                       | OKM                            | 350                                      | 0.35              |
| 汽车刹车盘<br>(HT250)<br>Automotive brake disc                      |                     | OC3210<br>OC3220             | OKR                            | 400                                      | 0.30              |
| 压缩机法兰<br>(HT250)<br>Compressor flange                          |                     | OC3220                       | OKR                            | 250                                      | 0.25              |
| 压缩机气缸<br>(HT250)<br>Compressor cylinder                        |                     | OC3220                       | OKM<br>OKR                     | 300                                      | 0.20              |
| 轴承件<br>(HT250)<br>Bearing                                      |                     | OC3220                       | OKR                            | 300                                      | 0.30              |
| 减速机配件<br>(HT250)<br>Reducer components                         |                     | OC3220                       | OKM                            | 350                                      | 0.25              |

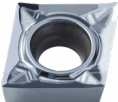
## 04 N 有色金属类车削刀片

N Turning Inserts for Non-Ferrous Material

N

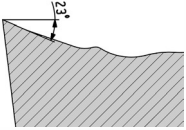
### N 有色金属类车削刀片 - 牌号介绍

N Turning Inserts for Non-Ferrous Material Grade introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO grade         | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                      | 刀片示例<br>Insert Shape                                                                |
|-----------------|-----------------------------|-----------------------------|---|---|---|---|---|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |                             | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                     |
| OK434           | N15<br>(N10-N25)<br>S15-S25 |                             |   |   | ● | ○ |   | 无涂层<br>No coating            | 细颗粒碳化钨与超细钴粉结合，通过低压烧结实现内部组织的完全致密；具有硬度高，强度高，导热性好等特点，适用于有色金属、铸铁等材料的精、半精加工。<br><br>Fine particles of tungsten carbide and ultrafine cobalt powder combined to realize fully dense internal organization by low-pressure sintering; It features high hardness, high strength, good thermal conductivity and etc., making it suitable for finishing and semi-finishing of non-ferrous metals and cast iron. |  |

### N 有色金属类车削刀片 - 槽型介绍（单面正角槽型）

N Turning Inserts for Non-Ferrous Material Chip breaker Introduction (Single-Sided Positive Chip Breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 切削刃<br>Cutting Edges                                                                 | ap(mm)  | f(mm/rev) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|--------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       | P                           | M | K | N | S | H |                                                                                      |         |           |
| <br><b>NL</b><br>- 精加工至粗加工工况<br>- 大前角及后角设计使刀片刃口更加锋利<br>- 三维断屑槽及大的容屑槽设计，断屑与排屑性能良好<br>- For finishing to roughing<br>- Large rake and clearance angles form sharper cutting edge,<br>- Unique 3D Chip breaker and sufficient chip pocket provide excellent chip breaking and chip evacuation performance.<br><br> |                                       |                             |   |   | ● | ○ |   |  | 0.2-2.0 | 0.10-0.35 |

## N 有色金属类车削刀片槽型 -NL

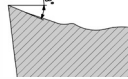
Indexable Insert Chipbreaker -NL

## 刀片技术细节与应用 Insert Technology and Application

### 刀片材质及应用 Grade and Application

|                                |                                                         |                       |                                                                                                 |
|--------------------------------|---------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------|
| 无涂层牌号<br>Grade without coating | OK434                                                   | 基本形状<br>Basic shapes  | CCGT06、CCGT09、CCGT12<br>DCGT07、DCGT11、RCGT12<br>SCGX09、SCGX12、TCGX09<br>TCGX11、TCGX16、VCGX11... |
| 被加工材料<br>Workpiece Material    | 有色金属材料、难切削材料<br>Non-ferrous material<br>High-temp alloy | 刀尖圆弧<br>Corner Radius | 0.2、0.4、0.8、1.2...                                                                              |

### 槽型设计特性及应用 Chipbreak Characteristics And Applications

|                     |                                       |                                   |                                                                                                                                                    |
|---------------------|---------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 精加工至粗加工用<br>For finishing to roughing | 槽型特点<br>Chipbreak Characteristics | - 大前角设计，切削轻快<br>- 大的容屑槽设计，排屑性能良好<br>- Large rake angle makes cutting smoother and lighter<br>- Large chip pocket ensures excellent chip evacuation |
| 加工参数<br>Parameter   | Ap=0.2-2.0mm<br>Fn=0.10-0.35mm/rev    | 主切削刃<br>Main cutting edges        |                                                                 |

### 光滑的表面处理 Smooth Surface Treatment

- 刀片前刀面镜面效果；
- 能有效降低切屑与前刀面发生粘结可能性，有效抑制积屑瘤的产生，从而获得高的表面质量与刀片寿命；
- Mirror finish on the rake face;
- Efficiently reduce the possibility of bonding and restrain built-up edge, consequently obtains good surface quality and insert life.

### 贴合实际应用的设计 Practical Application-oriented Design

- 刃倾角设计，有效控制切屑流向；
- 独一无二的三维断屑槽与大的容屑槽设计，有效保证了刀片的断屑与排屑性能；
- The cutting edge inclination angle effectively controls the chip flow direction.
- Unique 3D design of Chip breaker and sufficient chip pocket provide excellent chip breaking and chip evacuation performance.

### 高硬度硬质合金基材 Smooth Surface Treatment

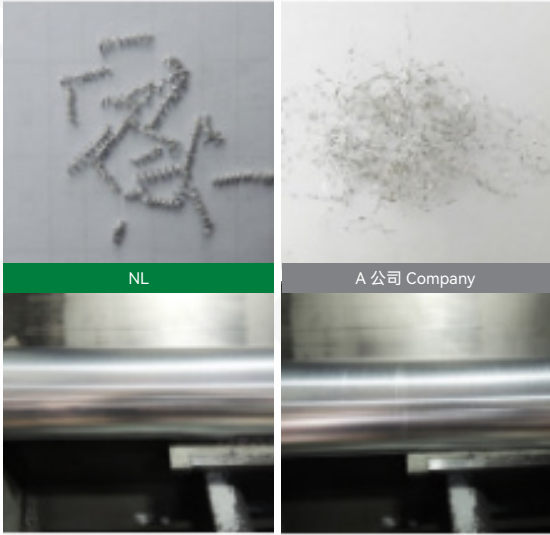
- 中低 Co 含量细晶强韧化硬质合金；
- 红硬性 & 韧性兼顾，实现良好的抗磨损与抗崩刃特性；
- Fine-grained, toughened cemented carbide with medium to low Cobalt content.
- Balances red hardness and toughness, providing good wear resistance and chipping resistance.

单面通用加工可转位刀片 Single-sided indexable inserts for general machining  
OK434 CCGX09T304-NL



■ N 有色金属类车削刀片 - 产品应用  
N Turning Inserts for Non-Ferrous Material – Application

|                         |                            |
|-------------------------|----------------------------|
| 工件名称 Workpiece          | 圆棒 Rods                    |
| 刀具规格 Type               | DCGX11T304-NL/OK434        |
|                         | DCGX11T304-XX/A 公司 Company |
| 加工材料 Workpiece Material | 纯铝 Pure aluminum           |
| 切削速度 Cutting speed      | 600m/min                   |
| 进给量 Feed rate           | 0.20mm/rev                 |
| 切深量 Ap                  | 0.3mm                      |
| 切削方式 Cutting method     | 外圆 External                |



结论: 我司刀片断屑更好, 切屑更流畅, 加工表面更光滑;  
Conclusion: Our inserts provide better chip breaking, smoother chip flow, and a smoother machined surface.



05 S 难切削材料类车削刀片  
S Turning Inserts for High-temperature Alloys

■ S 难切削材料类车削刀片 - 牌号介绍  
S Turning Inserts for High-temperature Alloys Grade Introduction

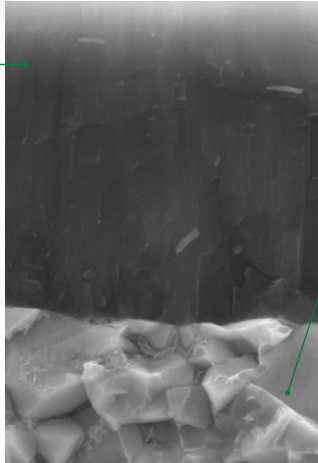
| 涂层牌号<br>Coating | ISO 等级<br>ISO grade                                   | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                  | 刀片示例<br>Insert Shape |
|-----------------|-------------------------------------------------------|-----------------------------|---|---|---|---|---|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                 |                                                       | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                   |                      |
| OP6105A         | S05<br>(S05-S15)<br><br>P05-P15<br>M05-M15<br>H10-H25 | ○                           | ○ |   |   | ● | ○ | PVD                          | 中等加工至精加工等级;<br>细晶粒硬质合金 PVD 涂层牌号;<br>兼具突出的红硬性和抗塑性变形能力, 同时具有优异的刃口安全性。<br><br>For Medium to finish machining;<br>Fine-grained carbide PVD-coated grades;<br>It combines outstanding red hardness and resistance to plastic deformation, while also offering excellent edge stability.                                                                                |                      |
| OP6115A         | S15<br>(S10-S20)<br><br>P10-P20<br>M10-M20            | ○                           | ○ |   |   | ● |   | PVD                          | 通用车削加工等级;<br>薄的 PVD 含 Si 涂层与锋利刃口结合强度高, 光滑的表面具有优异的抗粘结性, 致密的涂层组织结构具有突出的抗氧化和耐磨损性能。<br><br>General turning grade<br>The thin PVD Si-containing coating combines high adhesion with a sharp cutting edge. Its smooth surface provides excellent anti-adhesion properties, and the dense coating structure offers outstanding oxidation resistance and wear resistance. |                      |
| OP6125A         | S25<br>(S20-S30)<br><br>P20-P30<br>M20-M30<br>K20-K30 | ○                           | ○ | ○ |   | ● |   | PVD                          | 粗加工等级;<br>细晶粒硬质合金基材材质, 优异的刃口强度; 致密的 PVD 氮化物涂层, 兼具了极低阻力和优异的抗氧化特性, 突出的耐高温性能。<br><br>Suitable for roughing<br>Fine-grained carbide substrate material, excellent edge stability; dense PVD nitride coating features extremely low resistance, excellent anti-oxidation properties and outstanding high temperature resistance.                                       |                      |

■ OP6 系列产品特性  
OP6 Series Product Features

先进的涂层技术  
Advanced coating technology

实现了涂层薄膜在基材上附着力良好;  
产品表面光滑无液滴, 切削阻力小;  
TiAlSiN 多层薄膜结构, 实现了产品拥有超高的抗氧化、高耐磨与抗粘结特性;

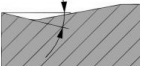
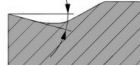
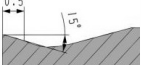
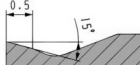
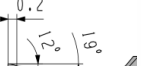
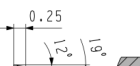
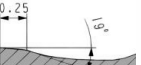
Ensures good adhesion of the coating film to the substrate.  
The smooth, droplet-free surface help to reduce cutting resistance.  
TiAlSiN multilayer film structure provides excellent oxidation resistance, high wear resistance, and anti-adhesion performance



新研发的强韧硬质合金基材  
Newly developed toughened cemented carbide substrate  
在保持红硬性的同时提高韧性, 实现良好的抗边界磨损特性与抗崩刃性;  
Improves toughness while maintaining red hardness. Provides good resistance to edge wear and excellent edge chipping resistance.

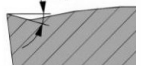
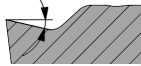
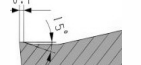
S 难切削材料类车削刀片 - 槽型介绍 (双面负角槽型)

S Turning Inserts for High-temperature Alloys Chip breaker Introduction (Double-Sided Negative Chip Breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                               | 切削刃<br>Cutting Edges                                                                 | ap(mm)  | f(mm/rev) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                       | P                           | M | K | N | S | H |                                                                                     |                                                                                      |         |           |
| <br><b>SMF</b><br>- 难切削材料精加工用<br>- 精加工槽型, 周边磨削<br>- 曲线刃设计, 切削轻快<br>- For finishing of hard-to-machine materials<br>- Chipbreaker of finishing, peripheral grinding<br>- Curved edge design, Cutting is light and fast<br>                                                                        |                                       |                             |   |   |   |   |   |    |    | 0.5-2.0 | 0.05-0.20 |
| <br><b>SMM</b><br>- 通用性加工用<br>- 双前角设计, 可有效断屑<br>- 切削锋利性与强度兼备<br>- For general machining<br>- Double rake angle ensures efficient chip breaking<br>- Combining sharpness and strength<br>                                                                                                         |                                       |                             |   |   |   |   |   |    |    | 1.0-3.5 | 0.10-0.30 |
| <br><b>SMR</b> <small>NEW</small><br>- 通用性加工用<br>- 优化前角设计, 切削阻力小, 断屑范围广<br>- 兼顾耐磨损性能与抗月牙洼磨损性能<br>- For general machining<br>- Optimized rake angle design reduces cutting resistance and provides a wide chip-breaking range<br>- Balances wear resistance and resistance to crater wear<br> |                                       |                             |   |   |   |   |   |  |  | 1.0-5.0 | 0.15-0.35 |
| <br><b>OSM</b><br>- 粗加工车削用<br>- 正棱边设计, 抗粘性好<br>- 实现稳定的刀具寿命<br>- For rough turning<br>- Positive edge design, good anti-adhesion<br>- stable tool life<br>                                                                                                                                    |                                       |                             |   |   |   |   |   |  |  | 2.0-6.5 | 0.20-0.50 |

S 难切削材料类车削刀片 - 槽型介绍 (单面正角槽型)

S Turning Inserts for High-temperature Alloys Chip breaker Introduction (Positive Chip Breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                        | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 刀尖圆弧<br>Corner Radius                                                               | 切削刃<br>Cutting Edges                                                                | ap(mm)  | f(mm/rev) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                        |                                       | P                           | M | K | N | S | H |                                                                                     |                                                                                     |         |           |
| <br><b>SMF</b><br>- 注重锋利性的刀尖设计<br>- 精加工槽型, 周边磨削<br>- 非常好的切屑控制<br>- Focuses on sharp cutting edge design<br>- Finishing-type chip breaker with periphery grinding<br>- Excellent chip control<br> |                                       |                             |   |   |   |   |   |  |  | 0.5-2.0 | 0.05-0.20 |
| <br><b>SMM</b><br>- 中等至粗加工车削用<br>- 平行切削刃设计<br>- 可实现稳定的切屑处理<br>- For medium to rough turning<br>- Parallel cutting edge design<br>- Enables stable chip control<br>                               |                                       |                             |   |   |   |   |   |  |  | 1.0-3.0 | 0.10-0.30 |

\*备注: 部分型号 Note: Applicable to certain types.





S 难切削材料类车削刀片槽型 -SMM  
Indexable Insert Chipbreaker -SMM

刀片技术细节与应用 Insert Technology and Application

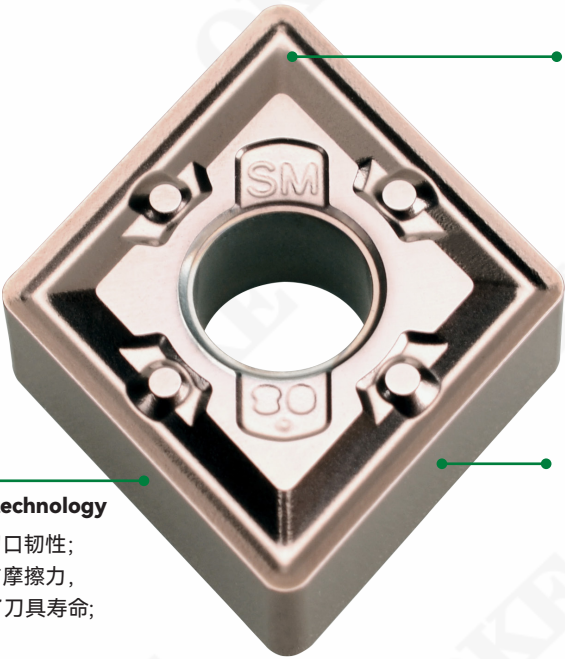
刀片材质及应用 Grade and Application

|                             |                                            |                       |                                                                                   |
|-----------------------------|--------------------------------------------|-----------------------|-----------------------------------------------------------------------------------|
| PVD 材质<br>PVD Grade         | OP6105A、OP6115A                            | 基本形状<br>Basic shapes  | CNMG12、CNMG16<br>CNMG19、DNMG15<br>SNMG12、SNMG15<br>SNMG19、TNMG16<br>VNMG16、WNMG08 |
| 被加工材料<br>Workpiece Material | 难切削材料、不锈钢<br>Exotic Alloy, Stainless Steel | 刀尖圆弧<br>Corner Radius | 0.4、0.8、1.2、1.6                                                                   |

刀片型号 Inserts Size

槽型设计特性及应用 Chipbreak Characteristics And Applications

|                     |                                    |                                   |                                                                                                                                      |
|---------------------|------------------------------------|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 通用性加工用<br>General machining        | 槽型特点<br>Chipbreak Characteristics | - 双前角设计，可有效断屑<br>- 切削锋利性与强度兼备<br>- Double rake angles design for effective chip<br>- breaking,combine cutting sharpness and strength |
| 加工参数<br>Parameter   | Ap=1.0~3.5mm<br>Fn=0.10~0.30mm/rev | 主切削刃<br>Main cutting edges        |                                                   |



**先进的涂层技术**  
Advanced coating technology

- 实现了涂层薄膜在基材上附着力良好;
- 产品表面光滑无液滴，切削阻力小;
- TiAlSiN 多层薄膜结构，实现了产品拥有超高的抗氧化、高耐磨与抗粘结特性;
- Coating film layer has good combination to the substrate;
- Inserts surface is smooth without droplets and has low cutting force;
- TiAlSiN multilayer film structure to achieve super high anti-oxidation, high wear resistance and anti-adhesion properties;

**先进的表面处理工艺**  
Advanced surface treatment technology

- 涂层去应力处理，改善了刀片刃口韧性;
- 产品表面光滑，减少了切削力与摩擦力，同时有效减轻了粘结现象，延长了刀具寿命;
- 可用于多种加工工况;
- Stress relief treatment of the coating improves the toughness of the cutting edge;
- Smooth surface, which reduces cutting force and friction, effectively reduces adhesion and prolongs tool life;
- Suitable for different cutting conditions;

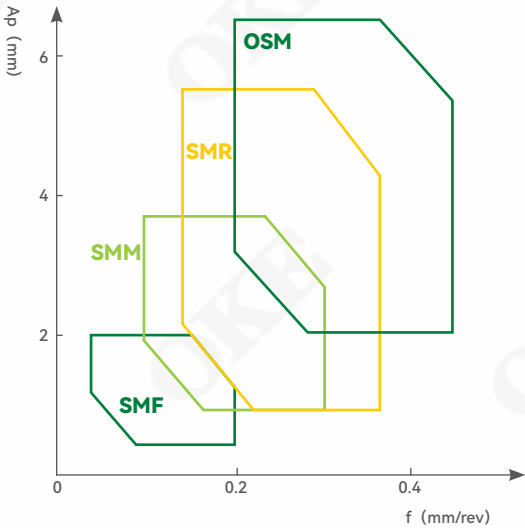
**强韧硬质合金基材**  
Strong and tough carbide substrate

- 高温硬度与强度优异的硬质合金基材;
- 红硬性与韧性兼顾，实现良好的抗边界磨损与抗崩刃特性;
- Carbide substrate with excellent high temperature hardness and strength;
- Balancing red hardness and toughness to achieve good resistance to edge wear and chipping;

双面通用加工可转位刀片 Double sided general purpose indexable inserts  
OP6115A CNMG120408-SMM

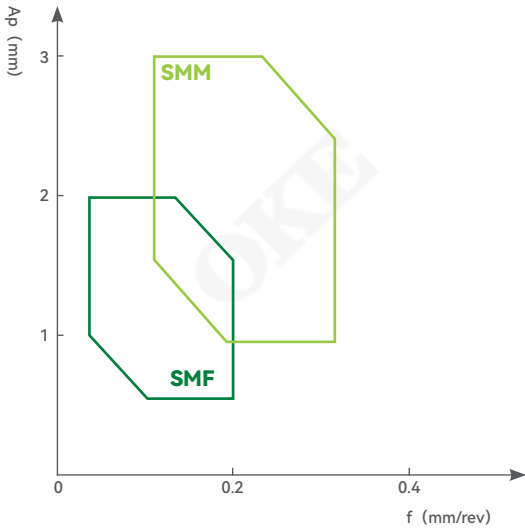
难切削类材料车削槽型断屑范围（负角 / 正角）  
Turning Chip breaker for High Temperature Alloys (Negative / Positive)

负角刀片（难切削类材料用）  
Negative inserts (ISO S)



- SMF 精加工槽型  
Finishing
- SMM 通用性车削槽型  
General use
- SMR 通用性至粗加工车削槽型  
General use to Roughing
- OSM 粗加工槽型  
Roughing

正角刀片（难切削类材料用）  
Positive inserts (ISO S)



- SMF 精加工槽型  
Finishing
- SMM 通用性至粗加工车削槽型  
General use to Roughing

S 难切削材料类车削刀片 - 产品应用  
Turning Inserts for High Temperature Alloys - Applications

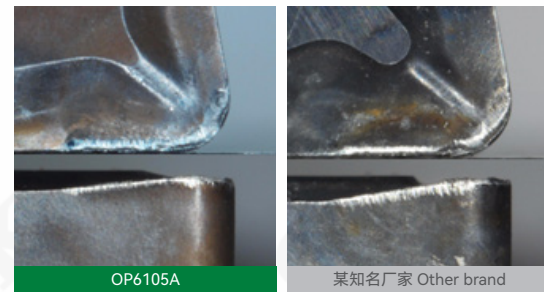
| ISO | 被加工材料<br>Workpiece Material                                                                                             | ISO 等级<br>ISO Grade | 牌号<br>Grade | 推荐切削速度<br>Recommended cutting speed (m/min) | 产品特性<br>Properties                 | 适用工况<br>Working Conditions                              |
|-----|-------------------------------------------------------------------------------------------------------------------------|---------------------|-------------|---------------------------------------------|------------------------------------|---------------------------------------------------------|
| S   | 难切削材料<br>(铁基、镍基或钴基、α+β 钛合金)<br>High Temperature Alloys (iron-based, nickel-based, or cobalt-based, α+β titanium alloys) | S05                 | OP6105A     | 50<br>30-80                                 | 重视高耐磨的等级牌号<br>high ware-resistance | 精加工 ~ 中等切削<br>Finishing to medium                       |
|     |                                                                                                                         | S15                 | OP6115A     | 40<br>25-60                                 | 通用性第一推荐牌号<br>General use           | 中等切削 ~ 准重切削<br>Medium to roughing                       |
|     |                                                                                                                         | S25                 | OP6125A     | 25<br>20-35                                 | 重视稳定性的等级牌号<br>Stable               | 粗切削 ~ 轻断续切削<br>Roughing to slightly interrupted turning |

## ■ S 难切削材料类车削刀片 - 产品应用

Turning Inserts for High Temperature Alloys - Applications

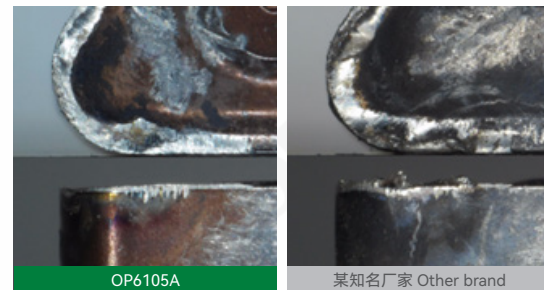
## 应用案例一 Application Case 1

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| 刀片规格 Inserts             | OP6105A/WNGG080408-SMF                                |
| 零件名称 Work piece          | 排气阀零部件 Exhaust valve parts                            |
| 零件材料 Work material       | 21-4N(5Cr21Mn9Ni4N)                                   |
| 切削参数 Parameter           | Vc=35m/min, Fn=0.15mm/rev<br>Ap=0.5mm, 湿切 Wet cutting |
| 服役表现 Service performance | 耐磨性优良<br>Excellent wear resistance                    |



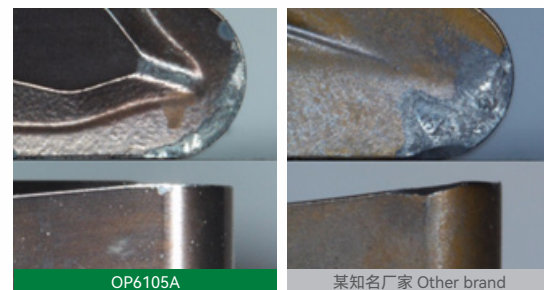
## 应用案例二 Application Case 2

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| 刀片规格 Inserts             | OP6105A/DNMG150612-QT                                 |
| 零件名称 Work piece          | 汽轮机零部件 Steam turbine parts                            |
| 零件材料 Work material       | inco.718                                              |
| 切削参数 Parameter           | Vc=25m/min, Fn=0.30mm/rev<br>Ap=1.3mm, 湿切 Wet cutting |
| 服役表现 Service performance | 可实现长时间车削<br>Enables long-term turning                 |



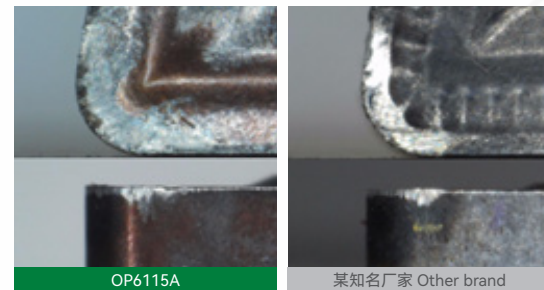
## 应用案例三 Application Case 3

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| 刀片规格 Inserts             | OP6105A/VNGG160412-SMF                                        |
| 零件名称 Work piece          | 飞机零部件 Steam turbine parts                                     |
| 零件材料 Work material       | GH4698                                                        |
| 切削参数 Parameter           | Vc=22m/min, Fn=0.18mm/rev<br>Ap=0.5mm, 湿切 Wet cutting         |
| 服役表现 Service performance | 能实现长时间切削, 光洁度良好<br>Achieve long-term cutting and good surface |



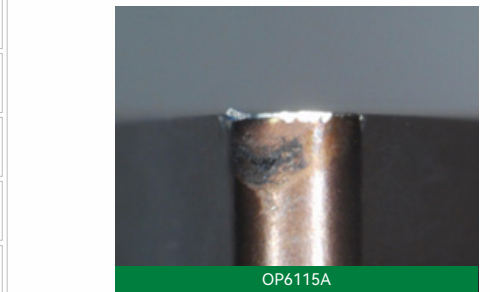
## 应用案例四 Application Case 4

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| 刀片规格 Inserts             | OP6115A/WNMG080408-SMM                                |
| 零件名称 Work piece          | 飞机零部件 Aircraft parts                                  |
| 零件材料 Work material       | TC11                                                  |
| 切削参数 Parameter           | Vc=40m/min, Fn=0.18mm/rev<br>Ap=1.5mm, 湿切 Wet cutting |
| 服役表现 Service performance | 抑制磨损, 使用寿命提升<br>Reduce wear, increase service life    |



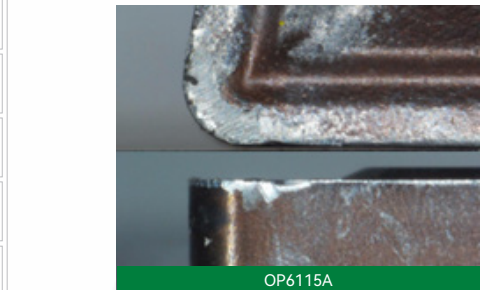
## 应用案例五 Application Case 5

|                          |                                                               |
|--------------------------|---------------------------------------------------------------|
| 刀片规格 Inserts             | OP6115A/VNMG160408-SMM                                        |
| 零件名称 Work piece          | 飞机零部件 Aircraft parts                                          |
| 零件材料 Work material       | GH4169                                                        |
| 切削参数 Parameter           | Vc=25m/min, Fn=0.15mm/rev<br>Ap=1.0mm, 湿切 Wet cutting         |
| 服役表现 Service performance | 耐磨性能好, 使用寿命提升<br>Good wear resistance and longer service life |



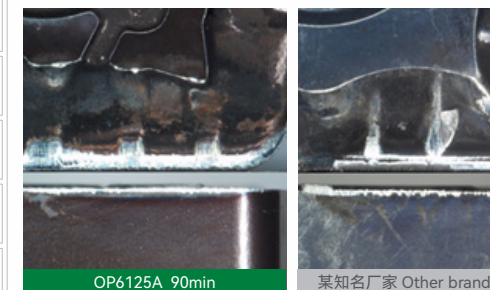
## 应用案例六 Application Case 6

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| 刀片规格 Inserts             | OP6115A/CNMG120408-SMM                                |
| 零件名称 Work piece          | 飞机零部件 Aircraft parts                                  |
| 零件材料 Work material       | GH3039                                                |
| 切削参数 Parameter           | Vc=32m/min, Fn=0.12mm/rev<br>Ap=1.5mm, 湿切 Wet cutting |
| 服役表现 Service performance | 抑制磨损, 使用寿命提升<br>Reduce wear, increase service life    |



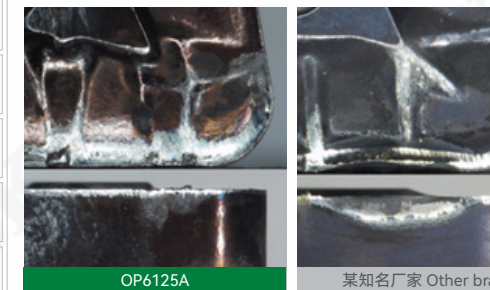
## 应用案例七 Application Case 7

|                          |                                                                     |
|--------------------------|---------------------------------------------------------------------|
| 刀片规格 Inserts             | OP6125A/CNMG120412-SMR                                              |
| 零件名称 Work piece          | 飞机零部件 (黑皮)<br>Aircraft parts (roughing)                             |
| 零件材料 Work material       | GH4169                                                              |
| 切削参数 Parameter           | Vc=22m/min, Fn=0.21mm/rev<br>Ap=5.0mm, 湿切 Wet cutting               |
| 服役表现 Service performance | 磨损均匀, 使用寿命提升明显<br>Uniform wear, significantly improved service life |



## 应用案例八 Application Case 8

|                          |                                                                                     |
|--------------------------|-------------------------------------------------------------------------------------|
| 刀片规格 Inserts             | OP6125A/CNMG120412-SMR                                                              |
| 零件名称 Work piece          | 汽轮机零部件 Steam turbine parts                                                          |
| 零件材料 Work material       | GH4738                                                                              |
| 切削参数 Parameter           | Vc=22m/min, Fn=0.24mm/rev,<br>Ap=3.0mm, 湿切 Wet cutting                              |
| 服役表现 Service performance | 有效抑制破损, 可实现稳定加工<br>Effectively suppresses breakage and enables<br>stable processing |



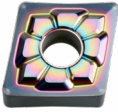


06 H 高硬材料类车削刀片  
H Turning Inserts for Hardened Material

H

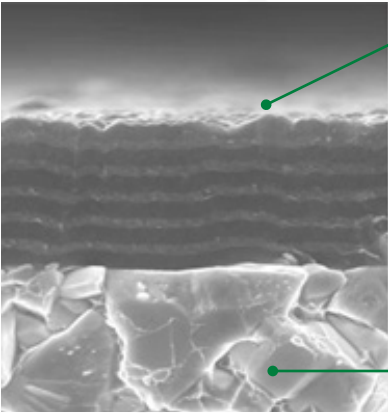
H 高硬材料类车削刀片 - 牌号介绍

H Turning Inserts for Hardened Material Grade introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO Grade | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                   | 刀片示例<br>Insert Shape                                                                |
|-----------------|---------------------|-----------------------------|---|---|---|---|---|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                 |                     | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                    |                                                                                     |
| OPH120          | H15<br>(H10-H20)    |                             |   |   |   |   |   | ● PVD                        | 高硬度、高耐磨性牌号；细晶粒硬质合金 PVD 涂层牌号，兼具优异的耐冲击性能和抗裂纹性，同时具有绚丽的特殊外观；适用于精加工至中等切削。<br><br>High hardness, high wear-resistance grade; A fine-grained carbide PVD-coated grade that combines excellent impact and crack resistance with a stunning, distinctive appearance. Suitable for finishing to medium cutting applications. |  |

OPH120 系列产品特性

OPH120 Grade properties

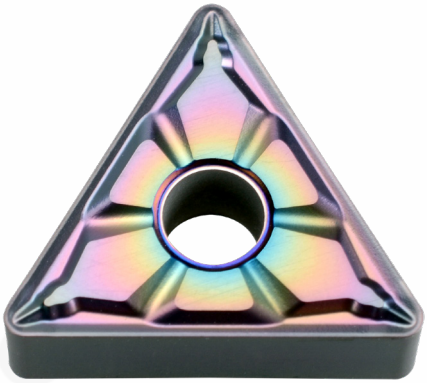


先进的涂层技术

Advanced coating technology

多层复合 + 纳米复合的架构设计；  
优异的耐冲击性能和抗裂纹性；  
AlTiN 的 AIP 技术，高附着力；

Multi-layer composite + nanocomposite design;  
Excellent impact and crack resistances;  
AlTiN AIP technology for high adhesion;



高硬度硬质合金基材

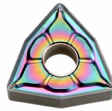
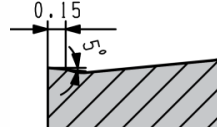
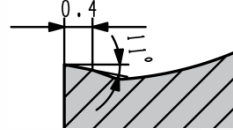
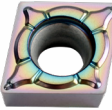
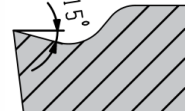
Newly-developed carbide substrate

精选纳米级高性能碳化钨，具备高硬度、高强度，是高硬刀具基体之首选；  
全新的制造工艺，在保持红硬性的同时提高韧性，实现良好的抗边界磨损特性与抗崩刃性；

Selected nano-scale, high-performance tungsten carbide offers high hardness and strength, making it the preferred choice for high-hardness tool substrates.  
A brand-new manufacturing process maintains red hardness while improving toughness, achieving excellent resistance to edge wear and chipping.

H 高硬材料类车削刀片 - 槽型介绍（双面负角与单面正角槽型）

H Turning Inserts for Hardened Material Chipbreaker Introduction (Double-side Negative Inserts and Single-side Positive Inserts)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 切削刃<br>Cutting Edges                                                                  | ap(mm)  | f(mm/rev) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|---------------------------------------------------------------------------------------|---------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                       | P                           | M | K | N | S | H |                                                                                       |         |           |
| <br><b>OHF</b> <ul style="list-style-type: none"><li>- 精加工槽型</li><li>- 锋利刃口设计，切削轻快</li><li>- 适合较小切深及进给，断屑性能良好</li><li>- Chipbreaker for finishing</li><li>- Sharp edge design, cutting smoothly</li><li>- Suitable for smaller cutting depth and feed, good chip breaking performance</li></ul> <div><div>C</div><div>D</div><div>R</div><div>S</div><div>T</div><div>V</div><div>W</div></div>                                                |                                       |                             |   |   |   |   | ● |    | 0.2-1.2 | 0.05-0.15 |
| <br><b>OH</b> <ul style="list-style-type: none"><li>- 精加工至半精加工用</li><li>- 双前角设计，较低切削阻力及宽的断屑范围</li><li>- 切削锋利性与强度兼备</li><li>- Finishing to medium</li><li>- Double rake angle design, lower cutting resistance and wide chip breaking range</li><li>- Cutting sharpness and strength</li></ul> <div><div>C</div><div>D</div><div>R</div><div>S</div><div>T</div><div>V</div><div>W</div></div>                                                  |                                       |                             |   |   |   |   | ● |    | 0.5-2.0 | 0.05-0.25 |
| <br><b>OH</b> <ul style="list-style-type: none"><li>- 精加工槽型</li><li>- 大前角及后角设计使刀片刃口更加锋利</li><li>- 工件表面精度更高，适合内孔加工</li><li>- 5° 7°</li><li>- Finishing chipbreaker</li><li>- Large rake and clearance angles make the blade edge sharper</li><li>- The workpiece surface precision is higher, suitable for internal hole processing</li></ul> <div><div>C</div><div>D</div><div>R</div><div>S</div><div>T</div><div>V</div><div>W</div></div> |                                       |                             |   |   |   |   | ● |  | 0.2-1.2 | 0.05-0.15 |

\* 备注：部分型号 Note: Applicable to certain types.

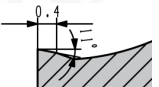
■ H 高硬材料类车削刀片槽型 -OH  
Indexable Insert Chipbreaker -OH

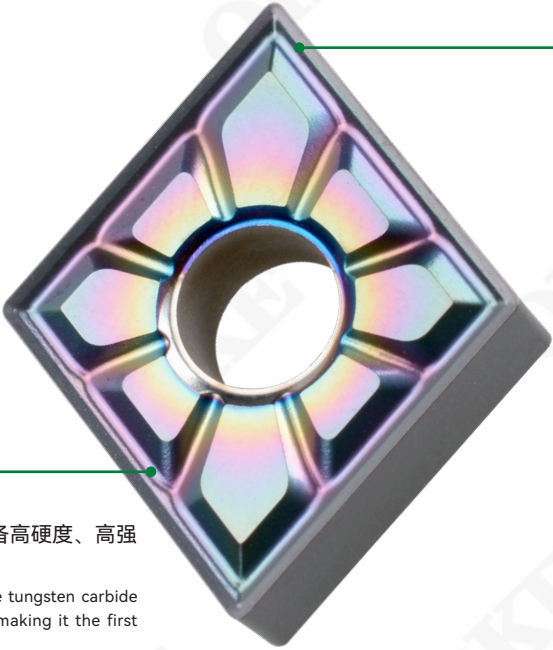
刀片技术细节与应用 Insert Technology and Application

刀片材质及应用 Grade and Application

|                             |                                                |                       |                                                                      |
|-----------------------------|------------------------------------------------|-----------------------|----------------------------------------------------------------------|
| PVD 材质<br>PVD Grade         | OPH120                                         | 基本形状<br>Basic shapes  | CNMG12、DNMG15、TNMG16、<br>VNMG16、WNMG08、CCGT、<br>DCMT11、TCMT11、VBMT16 |
| 被加工材料<br>Workpiece Material | 高硬钢、淬硬钢<br>High hardness steel, Hardened steel | 刀尖圆弧<br>Corner Radius | 0.4、0.8                                                              |

槽型设计特性及应用 Chipbreak Characteristics And Applications

|                     |                                          |                                   |                                                                                                                                                                              |
|---------------------|------------------------------------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 精加工至半精加工用<br>Finishing to semi-finishing | 槽型特点<br>Chipbreak Characteristics | - 双前角设计, 较低切削阻力及宽的断屑范围<br>- 切削锋利性与强度兼备<br>- Double rake angle design, lower cutting resistance and wide chip breaking range<br>- Ensures both cutting sharpness and strength |
| 加工参数<br>Parameter   | Ap=0.5-2.0mm<br>Fn=0.05-0.25mm/rev       | 主切削刃<br>Main cutting edges        |                                                                                           |



特殊设计的涂层结构  
Special coating structure design

- 多层复合 + 纳米复合的架构设计;
- 优异的耐冲击性能和抗裂纹性;
- AlTiN 的 AIP 技术, 高附着力;
- Multi-layer composite + nanocomposite design;
- Excellent impact resistance and crack resistance;
- AlTiN AIP technology for high adhesion;

特制硬质合金基材  
Special carbide substrate

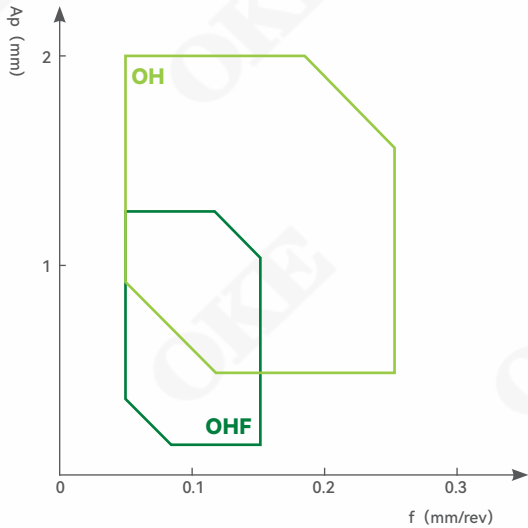
- 精选纳米级高性能碳化钨, 具备高硬度、高强度, 是高硬刀具基体之首选;
- Selected nano-level high-performance tungsten carbide has high hardness and high strength, making it the first choice for high-hardness tool substrates;

双面通用加工可转位刀片 Double sided indexable inserts for general machining  
OPH120 CNMG120404-OH

■ 高硬材料类车削刀片槽型断屑范围 (负角 / 正角)

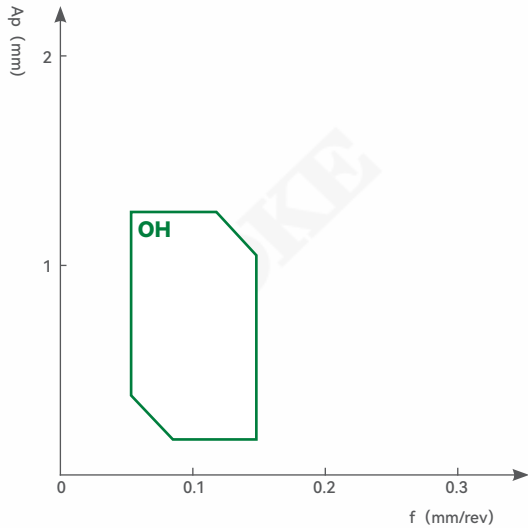
Turning Inserts for Hardened Material Turning Chip breaker for Hardened Material (Negative /Positive)

 负角刀片 (高硬度材料用)  
Negative inserts (For Hardened Material)



OHF 精加工槽型  
Finishing  
OH 精加工 - 中等切削槽型  
Finishing to medium

 正角刀片 (高硬度材料用)  
Positive inserts (For Hardened Material)



OH 精加工槽型  
Finishing

■ H 高硬材料类车削刀片 - 产品应用

H Turning Inserts for Hardened Material Applications

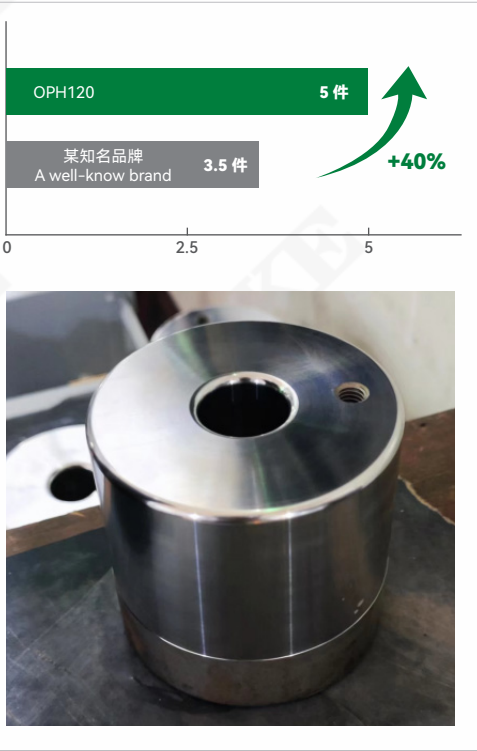
| ISO | 被加工材料<br>Workpiece Material | ISO 等级<br>ISO Level | 牌号<br>Grade | 推荐切削速度<br>Recommended cutting speed (m/min) | 产品特性<br>Product Features                                | 适用工况<br>Application                         |
|-----|-----------------------------|---------------------|-------------|---------------------------------------------|---------------------------------------------------------|---------------------------------------------|
| H   | 淬硬钢材料<br>Hardened steel     | H15                 | OPH120      | 30-80                                       | 高硬度、高耐磨性牌号<br>High hardness, good wear-resistance grade | 精加工 ~ 中等切削<br>Finishing to medium machining |



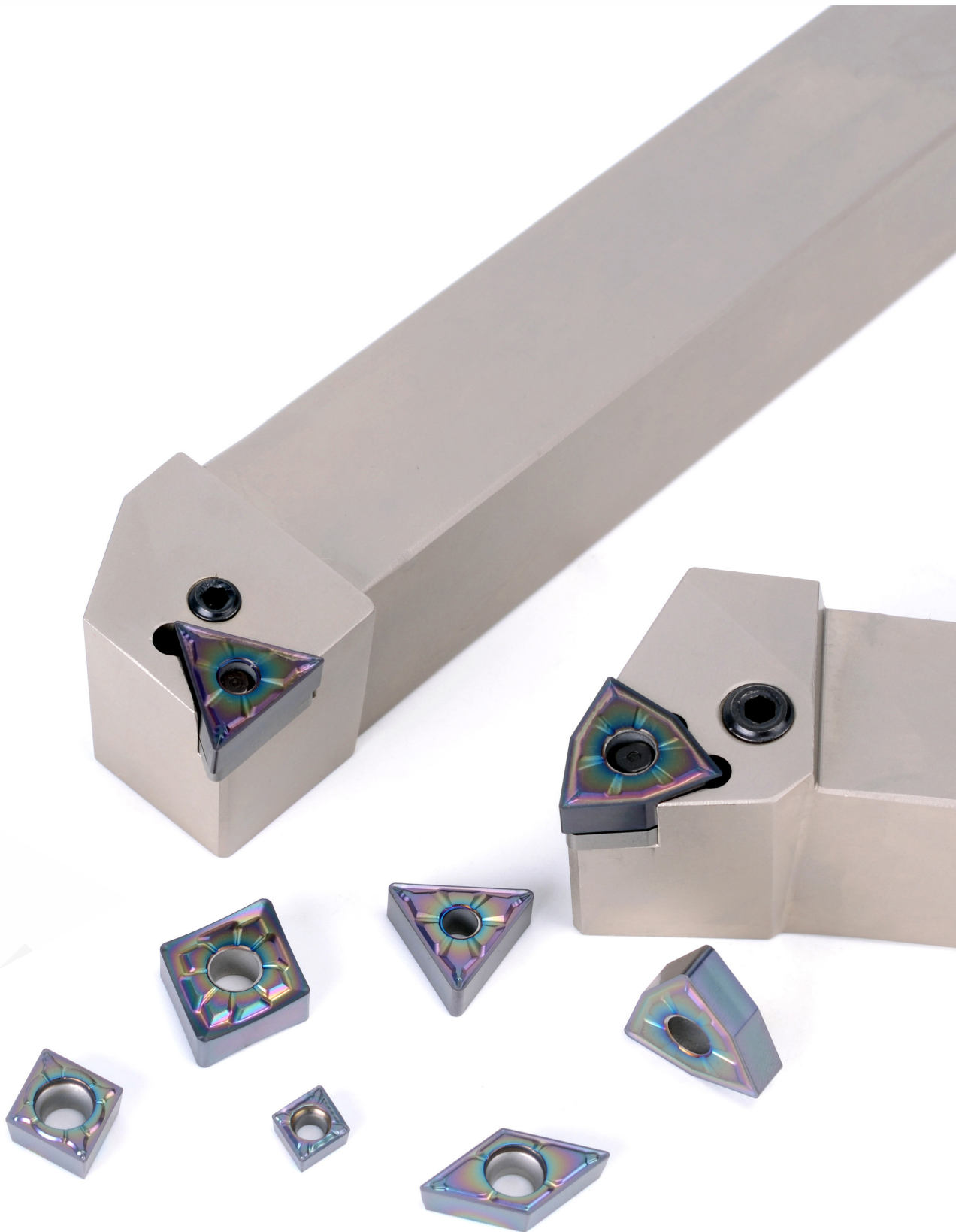
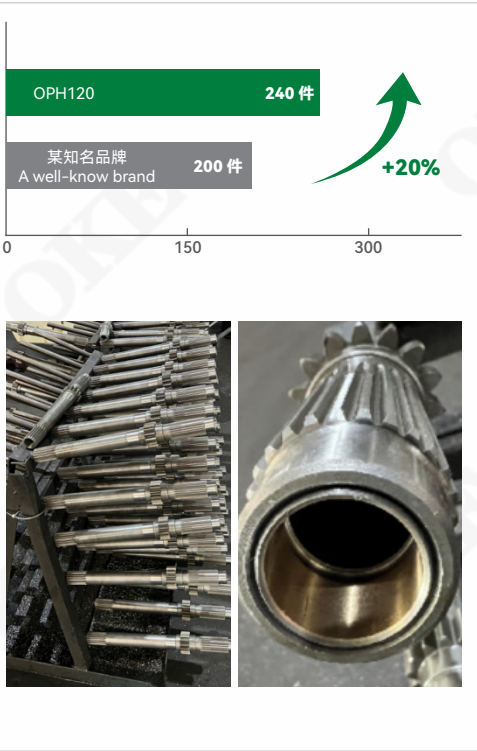
■ H 高硬材料类车削刀片 - 产品应用

H Turning Inserts for Hardened Material Applications

|                     |                                                    |
|---------------------|----------------------------------------------------|
| 工件名称 Workpiece      | 套筒 Sleeve (T-P-TN16-ZHW-23082601)                  |
| 刀具规格 Type           | TNMG160404-OH/OPH120                               |
|                     | TNMG160404-XX/ 某知名品牌 A well-know brand             |
| 加工材料 Material       | SKD11/HRC60-62                                     |
| 切削速度 Cutting speed  | 35m/min                                            |
| 进给量 Feed rate       | 0.08-0.12mm/rev                                    |
| 切深量 Ap              | 0.05-0.1mm                                         |
| 切削方式 Cutting method | 外圆、端面; 水冷<br>External and end face; Liquid coolant |



|                     |                                            |
|---------------------|--------------------------------------------|
| 工件名称 Workpiece      | 齿轮轴 (T-P-WN08-ZH-23030501)                 |
| 刀具规格 Type           | WNMG080404-OH/OPH120                       |
|                     | WNMG080404-XX/ 某知名品牌 A well-know brand     |
| 加工材料 Material       | 20CrMnTi/HRC58-64                          |
| 切削速度 Cutting speed  | 30m/min                                    |
| 进给量 Feed rate       | 0.10mm/rev                                 |
| 切深量 Ap              | 0.25mm                                     |
| 切削方式 Cutting method | 内孔; 水冷<br>Internal turning; liquid coolant |



07 车削刀片型号列表  
Turning Insert List

车削刀片命名规则  
Naming Rules For Turning Inserts

| A             | B | C |
|---------------|---|---|
|               |   |   |
| D             | E | H |
|               |   |   |
| K             | L | M |
|               |   |   |
| O             | P | R |
|               |   |   |
| S             | T | T |
|               |   |   |
| V             | W | Z |
|               |   |   |
| 形状代号<br>Shape |   |   |

| 代号<br>Symbol                  | 刀片高度m<br>公差 (mm)<br>m(mm) | 内接圆ΦL.C<br>公差 (mm)<br>d=L.C. (mm) | 厚度S<br>公差 (mm)<br>s (mm) | (参考) M级精度详细情况 (按形状、大小分) ●刀片高度公差(mm)<br>(reference) M grade tolerance detail (according to shape, size.)<br>Tolerance of insert nose height |                             |               |                          |                          |                          |             |
|-------------------------------|---------------------------|-----------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------------|--------------------------|--------------------------|--------------------------|-------------|
|                               |                           |                                   |                          | 内接圆<br>Inscribed<br>Circle                                                                                                                 | 正三角形<br>Regular<br>Triangle | 正方形<br>Square | 80° 菱形<br>80°<br>Rhombus | 55° 菱形<br>55°<br>Rhombus | 35° 菱形<br>35°<br>Rhombus | 圆形<br>Round |
| A                             | ±0.005                    | ±0.025                            | ±0.025                   | 6.35                                                                                                                                       | ±0.08                       | ±0.08         | ±0.08                    | ±0.11                    | ±0.16                    | ...         |
| F                             | ±0.005                    | ±0.013                            | ±0.025                   | 9.525                                                                                                                                      | ±0.08                       | ±0.08         | ±0.08                    | ±0.11                    | ±0.16                    | ...         |
| C                             | ±0.013                    | ±0.025                            | ±0.025                   | 12.7                                                                                                                                       | ±0.13                       | ±0.13         | ±0.13                    | ±0.15                    | ...                      | ...         |
| H                             | ±0.013                    | ±0.013                            | ±0.013                   | 15.875                                                                                                                                     | ±0.15                       | ±0.15         | ±0.15                    | ±0.18                    | ...                      | ...         |
| E                             | ±0.025                    | ±0.025                            | ±0.025                   | 19.05                                                                                                                                      | ±0.15                       | ±0.15         | ±0.15                    | ±0.18                    | ...                      | ...         |
| G                             | ±0.025                    | ±0.025                            | ±0.13                    | 25.4                                                                                                                                       | ...                         | ...           | ...                      | ...                      | ...                      | ...         |
| J                             | ±0.005                    | ±0.05-±0.13                       | ±0.025                   | 6.35                                                                                                                                       | ±0.05                       | ±0.05         | ±0.05                    | ±0.05                    | ±0.05                    | ...         |
| K                             | ±0.013                    | ±0.05-±0.13                       | ±0.025                   | 9.525                                                                                                                                      | ±0.05                       | ±0.05         | ±0.05                    | ±0.05                    | ±0.05                    | ±0.05       |
| L                             | ±0.025                    | ±0.05-±0.13                       | ±0.025                   | 12.7                                                                                                                                       | ±0.08                       | ±0.08         | ±0.08                    | ±0.08                    | ...                      | ±0.08       |
| M                             | ±0.08-±0.18               | ±0.05-±0.13                       | ±0.13                    | 15.875                                                                                                                                     | ±0.1                        | ±0.1          | ±0.10                    | ±0.10                    | ...                      | ±0.1        |
| N                             | ±0.08-±0.18               | ±0.05-±0.13                       | ±0.025                   | 19.05                                                                                                                                      | ±0.1                        | ±0.1          | ±0.10                    | ±0.10                    | ...                      | ±0.1        |
| U                             | ±0.13-±0.38               | ±0.08-±0.25                       | ±0.13                    | 25.4                                                                                                                                       | ...                         | ...           | ±0.13                    | ...                      | ...                      | ±0.13       |
| 精度等级代号<br>Accuracy Level Code |                           |                                   |                          |                                                                                                                                            |                             |               |                          |                          |                          |             |

| 内切圆直径<br>Inscribed Circle<br>diameter (mm) | 刀片外形 Insert Shape |    |    |    |    |    |    |    |
|--------------------------------------------|-------------------|----|----|----|----|----|----|----|
|                                            | C                 | D  | R  | S  | T  | V  | W  | K  |
| 3.97                                       |                   |    |    |    | 06 |    |    |    |
| 5                                          |                   |    | 05 |    |    |    |    |    |
| 5.56                                       |                   |    |    |    | 09 |    |    |    |
| 6                                          |                   |    | 06 |    |    |    |    |    |
| 6.35                                       | 06                | 07 |    |    | 11 | 11 |    |    |
| 8                                          |                   |    | 08 |    |    |    |    |    |
| 9.525                                      | 09                | 11 | 09 | 09 | 16 | 16 | 06 | 16 |
| 10                                         |                   |    | 10 |    |    |    |    |    |
| 12                                         |                   |    | 12 |    |    |    |    |    |
| 12.7                                       | 12                | 15 | 12 | 12 | 22 | 22 | 08 |    |
| 15.875                                     | 16                |    | 15 | 15 | 27 |    |    |    |
| 16                                         |                   |    | 19 | 16 |    |    |    |    |
| 19.05                                      | 19                |    | 19 | 19 | 33 |    |    |    |
| 20                                         |                   |    | 20 |    |    |    |    |    |
| 25                                         | 25                | 25 | 25 |    |    |    |    |    |
| 25.4                                       |                   |    | 25 | 25 |    |    |    |    |
| 31.75                                      |                   |    | 31 |    |    |    |    |    |
| 32                                         |                   |    | 32 |    |    |    |    |    |
| 切削刃长度代号<br>Cutting Edge Length             |                   |    |    |    |    |    |    |    |

| 代号<br>Symbol                        | 刀片圆弧半径 (mm)<br>Corner Radius (mm) |
|-------------------------------------|-----------------------------------|
| 00                                  | 无圆角 No radius                     |
| 02                                  | 0.2                               |
| 04                                  | 0.4                               |
| 08                                  | 0.8                               |
| 12                                  | 1.2                               |
| 16                                  | 1.6                               |
| 20                                  | 2                                 |
| 24                                  | 2.4                               |
| 32                                  | 3.2                               |
| X                                   | 其它 Special                        |
| 刀片直径尺寸mo (公制)<br>Diameter Dimension |                                   |
| 圆形刀片<br>Round Insert                |                                   |
| 刀片圆弧代号<br>Corner Radius             |                                   |

C N M G

| A                           | B |
|-----------------------------|---|
|                             |   |
| C                           | D |
|                             |   |
| E                           | F |
|                             |   |
| G                           | N |
|                             |   |
| P                           | O |
|                             |   |
| 主切削刃后角代号<br>Clearance Angle |   |

| 代号<br>Symbol                                   | 有无孔<br>Center<br>Hole | 有无断屑槽<br>Chip Breaker | 刀片剖面<br>Insert Profile | 代号<br>Symbol | 有无孔<br>Center<br>Hole | 有无断屑槽<br>Chip Breaker | 刀片剖面<br>Insert Profile |
|------------------------------------------------|-----------------------|-----------------------|------------------------|--------------|-----------------------|-----------------------|------------------------|
| B                                              | 有(Y)                  | 无(N)                  |                        | N            | 无(N)                  | 无(N)                  |                        |
| H                                              | 有(Y)                  | 单面(S)                 |                        | R            | 无(N)                  | 单面(S)                 |                        |
| C                                              | 有(Y)                  | 无(N)                  |                        | F            | 无(N)                  | 双面(D)                 |                        |
| J                                              | 有(Y)                  | 双面(D)                 |                        | A            | 有(Y)                  | 无(N)                  |                        |
| W                                              | 有(Y)                  | 无(N)                  |                        | M            | 有(Y)                  | 单面(S)                 |                        |
| T                                              | 有(Y)                  | 单面(S)                 |                        | G            | 有(Y)                  | 双面(D)                 |                        |
| Q                                              | 有(Y)                  | 无(N)                  |                        | X            |                       |                       |                        |
| U                                              | 有(Y)                  | 双面(D)                 |                        |              |                       |                       |                        |
| 断屑槽及夹固形式代号<br>Chip Breaker and Clamping Symbol |                       |                       |                        |              |                       |                       |                        |

12 04 08 OPF

| 代号<br>Symbol | 刀片厚度<br>Thickness(mm) |
|--------------|-----------------------|
| 00           | 0.79                  |
| T0           | 0.99                  |
| 01           | 1.59                  |
| 02           | 2.38                  |
| T2           | 2.58                  |
| 03           | 3.18                  |
| T3           | 3.97                  |
| 04           | 4.76                  |
| T4           | 4.96                  |
| 05           | 5.56                  |
| T5           | 5.95                  |
| 06           | 6.35                  |
| T6           | 6.75                  |
| 07           | 7.94                  |
| 09           | 9.52                  |
| T9           | 9.72                  |
| 11           | 11.11                 |
| 12           | 12.7                  |

| OPF                   | OPM | OPR | OMF | OMM |
|-----------------------|-----|-----|-----|-----|
|                       |     |     |     |     |
| MF                    | MSF | OTF | OTM | OTR |
|                       |     |     |     |     |
| OKM                   | OKR | OSM | SMM | NL  |
|                       |     |     |     |     |
| 断屑槽型代号<br>Chip Beaker |     |     |     |     |

| 刀片厚度代号<br>Thickness                                               |
|-------------------------------------------------------------------|
| 厚度指刀片底面与切削刃最高部分之间的高度<br>The Height Between Insert Bottom And Nose |

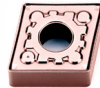
+375445843038, +375298543038, info@bki.by, https://bki.by



■ 型号列表 (负角刀片) Negative turning insert list

| 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |               |             |              | P      |        |        |        |        |        |        |        |        |        | M      |        |        | K      |        |        | N      |        | S      |        | H      |
|-------------------------------------------------------------------------------------|----------------|-------------------|---------------|-------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                | 刀片<br>厚度<br>RE    | 内切<br>圆<br>IC | 厚<br>度<br>S | 孔<br>径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 | OC2705 |
|    | CNGG120404-SMF | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○  |
|                                                                                     | CNGG120408-SMF | 0.8               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○  |
|    | CNMG120404-NF  | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ○    |
|                                                                                     | CNMG120408-NF  | 0.8               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ○    |
|    | CNMG090304-MSF | 0.4               | 9.525         | 3.18        | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | CNMG120404-MSF | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|   | CNMG120404-OMF | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | CNMG120408-OMF | 0.8               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | CNMG120404-QF  | 0.4               | 12.7          | 4.76        | 5.16         | ○ ● ○  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | CNMG120408-QF  | 0.8               |               |             |              | ○ ● ○  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | CNMG120404-OPF | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | CNMG120408-OPF | 0.8               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | CNGX120408-OH  | 0.8               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●      |
|                                                                                     |                |                   |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | CNMG120404-OH  | 0.4               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●      |
|                                                                                     |                |                   |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape                                                                           | 型号 Type        | 尺寸 Dimension (mm) |               |             |              | P      |        |        |        |        |        |        |        |        |        | M      |        |        | K      |        |        | N      |        | S      |        | H     |
|---------------------------------------------------------------------------------------|----------------|-------------------|---------------|-------------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
|                                                                                       |                | 刀片<br>厚度<br>RE    | 内切<br>圆<br>IC | 厚<br>度<br>S | 孔<br>径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 |       |
|    | CNMG120404-SMM | 0.4               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120408-SMM | 0.8               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120412-SMM | 1.2               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160608-SMM | 0.8               | 15.875        | 6.35        | 6.35         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160612-SMM | 1.2               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG190612-SMM | 1.2               | 19.05         | 6.35        | 7.94         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|    | CNMG120404-QT  | 0.4               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120408-QT  | 0.8               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120412-QT  | 1.2               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120416-QT  | 1.6               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160608-QT  | 0.8               | 15.875        | 6.35        | 6.35         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160612-QT  | 1.2               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|  | CNMG190612-QT  | 1.2               | 19.05         | 6.35        | 7.94         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG190616-QT  | 1.6               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|  | CNMG120404-SMR | 0.4               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120408-SMR | 0.8               | 12.7          | 4.76        | 5.16         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120412-SMR | 1.2               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG120416-SMR | 1.6               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|  | CNMG160608-SMR | 0.8               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160612-SMR | 1.2               | 15.875        | 6.35        | 6.35         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG160616-SMR | 1.6               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG190612-SMR | 1.2               | 19.05         | 6.35        | 7.94         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |
|                                                                                       | CNMG190616-SMR | 1.6               |               |             |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○ ● ○ |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

A  
车削刀片等级  
Turning Insert Grades

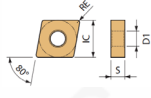
B  
切削条件  
Turning Insert List

C  
专用产品介绍  
Specialized Product Introduction

D  
附件  
Attachments

| 形状<br>Shape    | 型号 Type                                                                             | 尺寸 Dimension (mm) |           |         |           | P      |        |        |        |        |        |        |        |        |        | M      |        | K      |        |        |        | N      | S      | H      |      |         |         |         |        |  |  |  |
|----------------|-------------------------------------------------------------------------------------|-------------------|-----------|---------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|---------|---------|---------|--------|--|--|--|
|                |                                                                                     | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔 径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2570 | OC2580 | OC2590 | OC2510 | OC2520 | OC2530 | OC2540 | OC2550 | OC2560 | OC2575 | OC2585 | OC2595 | OK34 | OP6105A | OP6115A | OP6125A | OPH120 |  |  |  |
|                |                                                                                     |                   |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| 半精加工<br>Medium |    | CNMG090308-MF     | 0.8       | 9.525   | 3.18      | 3.81   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120404-MF     | 0.4       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120408-MF     | 0.8       | 12.7    | 4.76      | 5.16   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120412-MF     | 1.2       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160608-MF     | 0.8       | 15.875  | 6.35      | 6.35   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160612-MF     | 1.2       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |    | CNMG120404-OMM    | 0.4       | 12.7    | 4.76      | 5.16   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120408-OMM    | 0.8       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160608-OMM    | 0.8       | 15.875  | 6.35      | 6.35   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |    | CNMG120404-QM     | 0.4       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120408-QM     | 0.8       | 12.7    | 4.76      | 5.16   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120412-QM     | 1.2       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |  | CNMG120404-QN     | 0.4       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120408-QN     | 0.8       | 12.7    | 4.76      | 5.16   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120412-QN     | 1.2       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG120416-QN     | 1.6       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160608-QN     | 0.8       | 15.875  | 6.35      | 6.35   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160612-QN     | 1.2       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG160616-QN     | 1.6       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG190608-QN     | 0.8       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG190612-QN     | 1.2       | 19.05   | 6.35      | 7.94   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG190616-QN     | 1.6       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |  | CNMG090404-OPM    | 0.4       | 9.525   | 3.18      | 3.81   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
|                |                                                                                     | CNMG090408-OPM    | 0.8       |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG120404-OPM |                                                                                     | 0.4               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG120408-OPM |                                                                                     | 0.8               | 12.7      | 4.76    | 5.16      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG120412-OPM |                                                                                     | 1.2               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG120416-OPM |                                                                                     | 1.6               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG160608-OPM |                                                                                     | 0.8               | 15.875    | 6.35    | 6.35      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG160612-OPM |                                                                                     | 1.2               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG160616-OPM |                                                                                     | 1.6               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG190608-OPM |                                                                                     | 0.8               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG190612-OPM |                                                                                     | 1.2               | 19.05     | 6.35    | 7.94      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |
| CNMG190616-OPM |                                                                                     | 1.6               |           |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |      |         |         |         |        |  |  |  |

● 常备库存 Stock available ○ 按单生产 Make-to-order

|                | 形状<br>Shape                                                                         | 型号 Type<br> | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        |        |        |        |        |        | M      |        |        |        |        | K      |        |        |        | N      | S      |        | H      |         |        |        |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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|                |                                                                                     |                                                                                                | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC3205 | OC3210 | OC3220 | OC3215 | OC3215 | OP1315 | OP1215 | OC4320 | OC4310 | OC4330 | OC4325 | OC4315 | OC4345 | OC2325S | OC2125 | OC2425 | OC2415 | OC2525 | OC2515 | OC2505 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
|                |                                                                                     |                                                                                                | RE                | IC        | S       | D1       | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC3205 | OC3210 | OC3220 | OC3215 | OC3215 | OP1315 | OP1215 | OC4320 | OC4310 | OC4330 | OC4325 | OC4315 | OC4345 | OC2325S | OC2125 | OC2425 | OC2415 | OC2525 | OC2515 | OC2505 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| Medium<br>半精加工 |  | CNMG120404-OKM                                                                                 | 0.4               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |        |        |        |        |        |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

● 常备库存 Stock available ○ 按单生产 Make-to-order



A  
车削刀片等级  
Turning Insert Grades

B  
切削刀片  
Turning Insert List

C  
专用产品介绍  
Specialized Product Introduction

D  
附件  
Attachments

| 形状<br>Shape | 型号 Type | 尺寸 Dimension (mm) |  |  |  | P |  |  |  |  |  |  |  | M |  |  |  | K |  |  |  | N | S |  | H |
|-------------|---------|-------------------|--|--|--|---|--|--|--|--|--|--|--|---|--|--|--|---|--|--|--|---|---|--|---|
|             |         |                   |  |  |  |   |  |  |  |  |  |  |  |   |  |  |  |   |  |  |  |   |   |  |   |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

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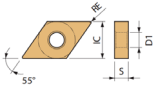
| 形状<br>Shape                                                                           | 型号 Type                                                                               | 尺寸 Dimension (mm) |       |        |      | P      |        |        |        |         |         |        |        | M      |        |        |        | K      |        |        |        | N      | S     |         | H       |         |        |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------|-------|--------|------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|
|                                                                                       |                                                                                       | 刀尖半径              | 内切圆   | 厚度     | 孔径   | OC2505 | OC2515 | OC2525 | OC2545 | OC25125 | OC25285 | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OC3215 | OK434 | OP6105A | OP6115A | OP6125A | OPH120 |
|                                                                                       |                                                                                       | RE                | IC    | S      | D1   |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
| 粗加工<br>Roughing                                                                       |    | CNMG160612-KPR    | 1.2   | 15.875 | 6.35 | 6.35   |        | ○      | ○      | ○       | ●       |        |        | ○      |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMG160616-KPR                                                                        | 1.6               |       |        |      |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |    | CNMG190612-KPR    | 1.2   | 19.05  | 6.35 | 7.94   |        | ○      | ○      | ○       | ●       |        |        | ○      |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMG190616-KPR                                                                        | 1.6               |       |        |      |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       | CNMG250724-KPR    | 2.4   | 25.4   | 7.94 | 9.12   |        | ○      | ○      | ○       | ●       |        |        | ○      |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       | CNMG250924-KPR    | 2.4   | 25.4   | 9.52 | 9.12   |        | ○      | ○      | ○       | ●       |        |        | ○      |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |    | CNMM160612-HR3    | 1.2   | 15.875 | 6.35 | 6.35   |        | ○      | ●      |         |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         | ○      |
|                                                                                       | CNMM160616-HR3                                                                        | 1.6               |       |        |      |        | ○      | ●      |        |         |         |        | ○      |        | ○      | ○      |        |        |        |        |        |        |       |         |         | ○       |        |
|                                                                                       |                                                                                       | CNMM190612-HR3    | 1.2   | 19.05  | 6.35 | 7.94   |        | ○      | ●      |         |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         | ○      |
|                                                                                       | CNMM190616-HR3                                                                        | 1.6               |       |        |      |        | ○      | ●      |        |         |         |        | ○      |        | ○      | ○      |        |        |        |        |        |        |       |         |         | ○       |        |
|                                                                                       |                                                                                       | CNMM190624-HR3    | 2.4   |        |      |        |        | ○      | ●      |         |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         | ○      |
|                                                                                       |                                                                                       | CNMM250724-HR3    | 2.4   | 25.4   | 7.94 | 9.12   |        | ○      | ●      |         |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         | ○      |
|                                                                                       |                                                                                       | CNMM250924-HR3    | 2.4   | 25.4   | 9.52 | 9.12   |        | ○      | ●      |         |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         | ○      |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |  | CNMM160612-HP     | 1.2   | 15.875 | 6.35 | 6.35   |        | ○      | ○      | ○       | ●       |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM160616-HP                                                                         | 1.6               |       |        |      |        | ○      | ○      | ○      | ●       |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       | CNMM190612-HP     | 1.2   | 19.05  | 6.35 | 7.94   |        | ○      | ○      | ○       | ●       |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM190616-HP                                                                         | 1.6               |       |        |      |        | ○      | ○      | ○      | ●       |         |        |        | ○      |        | ○      | ○      |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM190624-HP                                                                         | 2.4               |       |        |      |        | ○      | ○      | ○      | ●       |         |        | ○      |        | ○      | ○      |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250724-HP                                                                         | 2.4               | 25.4  | 7.94   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        | ○      | ○      |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250924-HP                                                                         | 2.4               | 25.4  | 9.52   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        | ○      | ○      |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|  | CNMM190612-RP                                                                         | 1.2               | 19.05 | 6.35   | 7.94 |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
| CNMM190616-RP                                                                         | 1.6                                                                                   |                   |       |        |      | ○      | ○      | ○      | ●      |         |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM190624-RP                                                                         | 2.4               |       |        |      |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250724-RP                                                                         | 2.4               | 25.4  | 7.94   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250924-RP                                                                         | 2.4               | 25.4  | 9.52   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|  | CNMM250724-HRP                                                                        | 2.4               | 25.4  | 7.94   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250924-HRP                                                                        | 2.4               | 25.4  | 9.52   | 9.12 |        | ○      | ○      | ○      | ●       |         |        | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|  | CNMM190616-OPR                                                                        | 1.6               | 19.05 | 6.35   | 7.94 |        |        |        | ○      | ●       | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|  | CNMM250724-PR                                                                         | 2.4               | 25.4  | 7.94   | 9.12 |        |        |        | ○      | ●       | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       | CNMM250924-PR                                                                         | 2.4               | 25.4  | 9.52   | 9.12 |        |        |        | ○      | ●       | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                       |                                                                                       |                   |       |        |      |        |        |        |        |         |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |

A  
车削刀片等级  
Turning Insert Grades

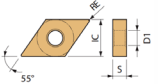
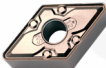
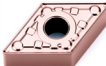
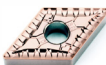
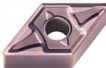
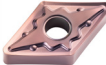
B  
切削刀片  
Turning Insert List

C  
专用刀具介绍  
Specialized Product Introduction

D  
附件  
Attachments

| 形状<br>Shape | 型号 Type | 尺寸 Dimension (mm)                                                                 |      |     |    | P  |        |        |        |        |        |        |        |        |        | M      |        |        |        | K      |        |        |        | N      | S      |        |        | H      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |     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       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |   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     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |           |
|-------------|---------|-----------------------------------------------------------------------------------|------|-----|----|----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------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|             |         |  | 刀尖半径 | 内切圆 | 厚度 | 孔径 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 | OC2705 | OC2715 | OC2725 | OC2735 | OC2745 | OC2755 | OC2765 | OC2775 | OC2785 | OC2795 | OC2805 | OC2815 | OC2825 | OC2835 | OC2845 | OC2855 | OC2865 | OC2875 | OC2885 | OC2895 | OC2905 | OC2915 | OC2925 | OC2935 | OC2945 | OC2955 | OC2965 | OC2975 | OC2985 | OC2995 | OC3005 | OC3015 | OC3025 | OC3035 | OC3045 | OC3055 | OC3065 | OC3075 | OC3085 | OC3095 | OC3105 | OC3115 | OC3125 | OC3135 | OC3145 | OC3155 | OC3165 | OC3175 | OC3185 | OC3195 | OC3205 | OC3215 | OC3225 | OC3235 | OC3245 | OC3255 | OC3265 | OC3275 | OC3285 | OC3295 | OC3305 | OC3315 | OC3325 | OC3335 | OC3345 | OC3355 | OC3365 | OC3375 | OC3385 | OC3395 | OC3405 | OC3415 | OC3425 | OC3435 | OC3445 | OC3455 | OC3465 | OC3475 | OC3485 | OC3495 | OC3505 | OC3515 | OC3525 | OC3535 | OC3545 | OC3555 | OC3565 | OC3575 | OC3585 | OC3595 | OC3605 | OC3615 | OC3625 | OC3635 | OC3645 | OC3655 | OC3665 | OC3675 | OC3685 | OC3695 | OC3705 | OC3715 | OC3725 | OC3735 | OC3745 | OC3755 | OC3765 | OC3775 | OC3785 | OC3795 | OC3805 | OC3815 | OC3825 | OC3835 | OC3845 | OC3855 | OC3865 | OC3875 | OC3885 | OC3895 | OC3905 | OC3915 | OC3925 | OC3935 | OC3945 | OC3955 | OC3965 | OC3975 | OC3985 | OC3995 | OC4005 | OC4015 | OC4025 | OC4035 | OC4045 | OC4055 | OC4065 | OC4075 | OC4085 | OC4095 | OC4105 | OC4115 | OC4125 | OC4135 | OC4145 | OC4155 | OC4165 | OC4175 | OC4185 | OC4195 | OC4205 | OC4215 | OC4225 | OC4235 | OC4245 | OC4255 | OC4265 | OC4275 | OC4285 | OC4295 | OC4305 | OC4315 | OC4325 | OC4335 | OC4345 | OC4355 | OC4365 | OC4375 | OC4385 | OC4395 | OC4405 | OC4415 | OC4425 | OC4435 | OC4445 | OC4455 | OC4465 | OC4475 | OC4485 | OC4495 | OC4505 | OC4515 | OC4525 | OC4535 | OC4545 | OC4555 | OC4565 | OC4575 | OC4585 | OC4595 | OC4605 | OC4615 | OC4625 | OC4635 | OC4645 | OC4655 | OC4665 | OC4675 | OC4685 | OC4695 | OC4705 | OC4715 | OC4725 | OC4735 | OC4745 | OC4755 | OC4765 | OC4775 | OC4785 | OC4795 | OC4805 | OC4815 | OC4825 | OC4835 | OC4845 | OC4855 | OC4865 | OC4875 | OC4885 | OC4895 | OC4905 | OC4915 | OC4925 | OC4935 | OC4945 | OC4955 | OC4965 | OC4975 | OC4985 | OC4995 | OC5005 | OC5015 | OC5025 | OC5035 | OC5045 | OC5055 | OC5065 | OC5075 | OC5085 | OC5095 | OC5105 | OC5115 | OC5125 | OC5135 | OC5145 | OC5155 | OC5165 | OC5175 | OC5185 | OC5195 | OC5205 | OC5215 | OC5225 | OC5235 | OC5245 | OC5255 | OC5265 | OC5275 | OC5285 | OC5295 | OC5305 | OC5315 | OC5325 | OC5335 | OC5345 | OC5355 | OC5365 | OC5375 | OC5385 | OC5395 | OC5405 | OC5415 | OC5425 | OC5435 | OC5445 | OC5455 | OC5465 | OC5475 | OC5485 | OC5495 | OC5505 | OC5515 | OC5525 | OC5535 | OC5545 | OC5555 | OC5565 | OC5575 | OC5585 | OC5595 | OC5605 | OC5615 | OC5625 | OC5635 | OC5645 | OC5655 | OC5665 | OC5675 | OC5685 | OC5695 | OC5705 | OC5715 | OC5725 | OC5735 | OC5745 | OC5755 | OC5765 | OC5775 | OC5785 | OC5795 | OC5805 | OC5815 | OC5825 | OC5835 | OC5845 | OC5855 | OC5865 | OC5875 | OC5885 | OC5895 | OC5905 | OC5915 | OC5925 | OC5935 | OC5945 | OC5955 | OC5965 | OC5975 | OC5985 | OC5995 | OC6005 | OC6015 | OC6025 | OC6035 | OC6045 | OC6055 | OC6065 | OC6075 | OC6085 | OC6095 | OC6105 | OC6115 | OC6125 | OC6135 | OC6145 | OC6155 | OC6165 | OC6175 | OC6185 | OC6195 | OC6205 | OC6215 | OC6225 | OC6235 | OC6245 | OC6255 | OC6265 | OC6275 | OC6285 | OC6295 | OC6305 | OC6315 | OC6325 | OC6335 | OC6345 | OC6355 | OC6365 | OC6375 | OC6385 | OC6395 | OC6405 | OC6415 | OC6425 | OC6435 | OC6445 | OC6455 | OC6465 | OC6475 | OC6485 | OC6495 | OC6505 | OC6515 | OC6525 | OC6535 | OC6545 | OC6555 | OC6565 | OC6575 | OC6585 | OC6595 | OC6605 | OC6615 | OC6625 | OC6635 | OC6645 | OC6655 | OC6665 | OC6675 | OC6685 | OC6695 | OC6705 | OC6715 | OC6725 | OC6735 | OC6745 | OC6755 | OC6765 | OC6775 | OC6785 | OC6795 | OC6805 | OC6815 | OC6825 | OC6835 | OC6845 | OC6855 | OC6865 | OC6875 | OC6885 | OC6895 | OC6905 | OC6915 | OC6925 | OC6935 | OC6945 | OC6955 | OC6965 | OC6975 | OC6985 | OC6995 | OC7005 | OC7015 | OC7025 | OC7035 | OC7045 | OC7055 | OC7065 | OC7075 | OC7085 | OC7095 | OC7105 | OC7115 | OC7125 | OC7135 | OC7145 | OC7155 | OC7165 | OC7175 | OC7185 | OC7195 | OC7205 | OC7215 | OC7225 | OC7235 | OC7245 | OC7255 | OC7265 | OC7275 | OC7285 | OC7295 | OC7305 | OC7315 | OC7325 | OC7335 | OC7345 | OC7355 | OC7365 | OC7375 | OC7385 | OC7395 | OC7405 | OC7415 | OC7425 | OC7435 | OC7445 | OC7455 | OC7465 | OC7475 | OC7485 | OC7495 | OC7505 | OC7515 | OC7525 | OC7535 | OC7545 | OC7555 | OC7565 | OC7575 | OC7585 | OC7595 | OC7605 | OC7615 | OC7625 | OC7635 | OC7645 | OC7655 | OC7665 | OC7675 | OC7685 | OC7695 | OC7705 | OC7715 | OC7725 | OC7735 | OC7745 | OC7755 | OC7765 | OC7775 | OC7785 | OC7795 | OC7805 | OC7815 | OC7825 | OC7835 | OC7845 | OC7855 | OC7865 | OC7875 | OC7885 | OC7895 | OC7905 | OC7915 | OC7925 | OC7935 | OC7945 | OC7955 | OC7965 | OC7975 | OC7985 | OC7995 | OC8005 | OC8015 | OC8025 | OC8035 | OC8045 | OC8055 | OC8065 | OC8075 | OC8085 | OC8095 | OC8105 | OC8115 | OC8125 | OC8135 | OC8145 | OC8155 | OC8165 | OC8175 | OC8185 | OC8195 | OC8205 | OC8215 | OC8225 | OC8235 | OC8245 | OC8255 | OC8265 | OC8275 | OC8285 | OC8295 | OC8305 | OC8315 | OC8325 | OC8335 | OC8345 | OC8355 | OC8365 | OC8375 | OC8385 | OC8395 | OC8405 | OC8415 | OC8425 | OC8435 | OC8445 | OC8455 | OC8465 | OC8475 | OC8485 | OC8495 | OC8505 | OC8515 | OC8525 | OC8535 | OC8545 | OC8555 | OC8565 | OC8575 | OC8585 | OC8595 | OC8605 | OC8615 | OC8625 | OC8635 | OC8645 | OC8655 | OC8665 | OC8675 | OC8685 | OC8695 | OC8705 | OC8715 | OC8725 | OC8735 | OC8745 | OC8755 | OC8765 | OC8775 | OC8785 | OC8795 | OC8805 | OC8815 | OC8825 | OC8835 | OC8845 | OC8855 | OC8865 | OC8875 | OC8885 | OC8895 | OC8905 | OC8915 | OC8925 | OC8935 | OC8945 | OC8955 | OC8965 | OC8975 | OC8985 | OC8995 | OC9005 | OC9015 | OC9025 | OC9035 | OC9045 | OC9055 | OC9065 | OC9075 | OC9085 | OC9095 | OC9105 | OC9115 | OC9125 | OC9135 | OC9145 | OC9155 | OC9165 | OC9175 | OC9185 | OC9195 | OC9205 | OC9215 | OC9225 | OC9235 | OC9245 | OC9255 | OC9265 | OC9275 | OC9285 | OC9295 | OC9305 | OC9315 | OC9325 | OC9335 | OC9345 | OC9355 | OC9365 | OC9375 | OC9385 | OC9395 | OC9405 | OC9415 | OC9425 | OC9435 | OC9445 | OC9455 | OC9465 | OC9475 | OC9485 | OC9495 | OC9505 | OC9515 | OC9525 | OC9535 | OC9545 | OC9555 | OC9565 | OC9575 | OC9585 | OC9595 | OC9605 | OC9615 | OC9625 | OC9635 | OC9645 | OC9655 | OC9665 | OC9675 | OC9685 | OC9695 | OC9705 | OC9715 | OC9725 | OC9735 | OC9745 | OC9755 | OC9765 | OC9775 | OC9785 | OC9795 | OC9805 | OC9815 | OC9825 | OC9835 | OC9845 | OC9855 | OC9865 | OC9875 | OC9885 | OC9895 | OC9905 | OC9915 | OC9925 | OC9935 | OC9945 | OC9955 | OC9965 | OC9975 | OC9985 | OC9995 | OC10005 | OC10015 | OC10025 | OC10035 | OC10045 | OC10055 | OC10065 | OC10075 | OC10085 | OC10095 | OC10105 | OC10115 | OC10125 | OC10135 | OC10145 | OC10155 | OC10165 | OC10175 | OC10185 | OC10195 | OC10205 | OC10215 | OC10225 | OC10235 | OC10245 | OC10255 | OC10265 | OC10275 | OC10285 | OC10295 | OC10305 | OC10315 | OC10325 | OC10335 | OC10345 | OC10355 | OC10365 | OC10375 | OC10385 | OC10395 | OC10405 | OC10415 | OC10425 | OC10435 | OC10445 | OC10455 | OC10465 | OC10475 | OC10485 | OC10495 | OC10505 | OC10515 | OC10525 | OC10535 | OC10545 | OC10555 | OC10565 | OC10575 | OC10585 | OC10595 | OC10605 | OC10615 | OC10625 | OC10635 | OC10645 | OC10655 | OC10665 | OC10675 | OC10685 | OC10695 | OC10705 | OC10715 | OC10725 | OC10735 | OC10745 | OC10755 | OC10765 | OC10775 | OC10785 | OC10795 | OC10805 | OC10815 | OC10825 | OC10835 | OC10845 | OC10855 | OC10865 | OC10875 | OC10885 | OC10895 | OC10905 | OC10915 | OC10925 | OC10935 | OC10945 | OC10955 | OC10965 | OC10975 | OC10985 | OC10995 | OC11005 | OC11015 | OC11025 | OC11035 | OC11045 | OC11055 | OC11065 | OC11075 | OC11085 | OC11095 | OC11105 | OC11115 | OC11125 | OC11135 | OC11145 | OC11155 | OC11165 | OC11175 | OC11185 | OC11195 | OC11205 | OC11215 | OC11225 | OC11235 | OC11245 | OC11255 | OC11265 | OC11275 | OC11285 | OC11295 | OC11305 | OC11315 | OC11325 | OC11335 | OC11345 | OC11355 | OC11365 | OC11375 | OC11385 | OC11395 | OC11405 | OC11415 | OC11425 | OC11435 | OC11445 | OC11455 | OC11465 | OC11475 | OC11485 | OC11495 | OC11505 | OC11515 | OC11525 | OC11535 | OC11545 | OC11555 | OC11565 | OC11575 | OC11585 | OC11595 | OC11605 | OC11615 | OC11625 | OC11635 | OC11645 | OC11655 | OC11665 | OC11675 | OC11685 | OC11695 | OC11705 | OC11715 | OC11725 | OC11735 | OC11745 | OC11755</ |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape    | <div>型号 Type</div> <div></div> | 尺寸 Dimension (mm) |      |       |      | P    |  |  |  |  |  |  |  |  |  | M |   |   |   | K |   |   |  | N | S |   | H |   |   |   |   |  |
|----------------|-------------------------------------------------------------------------------------------------------------------|-------------------|------|-------|------|------|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|--|
|                |                                                                                                                   | 刀类半径              | 内切圆  | 厚度    | 孔径   |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | RE                | IC   | S     | D1   |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |  |
| 半精加工<br>Medium |                                | DNMG150404-SMM    | 0.4  | 12.7  | 4.76 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   | ○ | ● | ○ |   |   |   |   |  |
|                |                                                                                                                   | DNMG150408-SMM    | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   | ○ | ● | ○ |   |   |   |  |
|                |                                                                                                                   | DNMG150412-SMM    | 1.2  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   | ○ | ● | ○ |   |   |  |
|                |                                                                                                                   | DNMG150604-SMM    | 0.4  | 12.7  | 6.35 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   | ○ | ● | ○ |   |   |   |  |
|                |                                                                                                                   | DNMG150608-SMM    | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   | ○ | ● | ○ |   |   |  |
|                |                                                                                                                   | DNMG150612-SMM    | 1.2  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   | ○ | ● | ○ |   |   |  |
|                |                                | DNMG150404-QT     | 0.4  | 12.7  | 4.76 | 5.16 |  |  |  |  |  |  |  |  |  | ○ | ● | ○ |   |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150408-QT     | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   | ○ | ● | ○ |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150412-QT     | 1.2  |       |      |      |  |  |  |  |  |  |  |  |  |   |   | ○ | ● | ○ |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150604-QT     | 0.4  | 12.7  | 6.35 | 5.16 |  |  |  |  |  |  |  |  |  | ○ | ● | ○ |   |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150608-QT     | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   |   | ○ | ● | ○ |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150612-QT     | 1.2  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   | ○ | ● | ○ |   |  |   |   |   |   |   |   |   |   |  |
|                |                                | DNMG110408-SMR    | 0.8  | 9.525 | 4.76 | 3.81 |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   | ○ | ● | ○ |   |   |  |
|                |                                                                                                                   | DNMG150408-SMR    | 0.8  | 12.7  | 4.76 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   | ○ | ● | ○ |   |  |
|                |                                                                                                                   | DNMG150412-SMR    | 1.2  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   |   | ○ | ● | ○ |  |
|                |                                                                                                                   | DNMG150608-SMR    | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   |   | ○ | ● | ○ |  |
|                |                                                                                                                   | DNMG150612-SMR    | 1.2  | 12.7  | 6.35 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   | ○ | ● | ○ |   |  |
|                |                                                                                                                   | DNMG150616-SMR    | 1.6  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   |   |   |  |   |   |   |   |   | ○ | ● | ○ |  |
|                |                              | DNMG110408-MF     | 0.8  | 9.525 | 4.76 | 3.81 |  |  |  |  |  |  |  |  |  |   |   | ○ | ● |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150408-MF     | 0.8  | 12.7  | 4.76 | 5.16 |  |  |  |  |  |  |  |  |  |   |   | ○ | ● |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150608-MF     | 0.8  | 12.7  | 6.35 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   | ○ | ● |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                              | DNMG110404-OMM    | 0.4  | 9.525 | 4.76 | 3.81 |  |  |  |  |  |  |  |  |  |   |   | ○ | ● |   |   |   |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG110408-OMM    | 0.8  |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   | ○ | ● |  |   |   |   |   |   |   |   |   |  |
|                |                                                                                                                   | DNMG150404-OMM    | 0.4  | 12.7  | 4.76 | 5.16 |  |  |  |  |  |  |  |  |  |   |   |   | ○ | ● |   |   |  |   |   |   |   |   |   |   |   |  |
| DNMG150408-OMM |                                                                                                                   | 0.8               |      |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   | ○ | ● |   |  |   |   |   |   |   |   |   |   |  |
| DNMG150604-OMM |                                                                                                                   | 0.4               |      |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   |   | ○ | ● |  |   |   |   |   |   |   |   |   |  |
| DNMG150608-OMM |                                                                                                                   | 0.8               | 12.7 | 6.35  | 5.16 |      |  |  |  |  |  |  |  |  |  |   |   | ○ | ● |   |   |   |  |   |   |   |   |   |   |   |   |  |
| DNMG150612-OMM |                                                                                                                   | 1.2               |      |       |      |      |  |  |  |  |  |  |  |  |  |   |   |   |   | ○ | ● |   |  |   |   |   |   |   |   |   |   |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

A  
车削刀片等级  
Turning Insert Grades

B  
切削刀片  
Turning Insert List

C  
专用刀具介绍  
Specialized Product Introduction

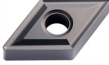
D  
附件  
Attachments



● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape                                                                       | 型号 Type        | 尺寸 Dimension (mm) |       |      |        | P      |        |        |        |        | M      |        |        | K      | N      | S      | H      |
|-----------------------------------------------------------------------------------|----------------|-------------------|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                   |                | 刀片<br>厚度          | 内切圆   | 厚度   | 孔<br>径 | OC2505 | OC2525 | OC2545 | OC2565 | OC2585 | OC2535 | OC2510 | OC2530 | OC2515 | OC2520 | OC2530 | OC2540 |
|                                                                                   |                | RE                | IC    | S    | D1     |        |        |        |        |        |        |        |        |        |        |        |        |
|  | DNMG150404-QM  | 0.4               | 12.7  | 4.76 | 5.16   |        | ○      | ●      |        |        |        |        |        |        |        |        |        |
|                                                                                   | DNMG150408-QM  | 0.8               | 12.7  | 6.35 | 5.16   |        | ○      | ●      |        |        |        |        |        |        |        |        |        |
|                                                                                   | DNMG150608-QM  | 0.8               | 12.7  | 6.35 | 5.16   |        | ○      | ●      |        |        |        |        |        |        |        |        |        |
|                                                                                   | DNMG150612-QM  | 1.2               | 12.7  | 6.35 | 5.16   |        | ○      | ●      |        |        |        |        |        |        |        |        |        |
|                                                                                   | DNMG150404-QN  | 0.4               | 12.7  | 4.76 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG150408-QN  | 0.8               | 12.7  | 4.76 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG150412-QN  | 1.2               | 12.7  | 4.76 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG150604-QN  | 0.4               | 12.7  | 6.35 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG150608-QN  | 0.8               | 12.7  | 6.35 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG150612-QN  | 1.2               | 12.7  | 6.35 | 5.16   | ○      | ●      |        |        | ○      |        |        |        |        |        |        |        |
|                                                                                   | DNMG110404-OPM | 0.4               | 9.525 | 4.76 | 3.81   |        | ○      | ●      | ○      |        |        | ○      | ○      |        |        |        |        |
|                                                                                   | DNMG110408-OPM | 0.8               | 9.525 | 4.76 | 3.81   |        | ○      | ●      | ○      |        |        | ○      | ○      |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |       |      |        | P      |        |        |        |        | M      |        |        | K      | N      | S      | H      |
|-------------------------------------------------------------------------------------|----------------|-------------------|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                | 刀片<br>厚度          | 内切圆   | 厚度   | 孔<br>径 | OC2505 | OC2525 | OC2545 | OC2565 | OC2585 | OC2535 | OC2510 | OC2530 | OC2515 | OC2520 | OC2530 | OC2540 |
|                                                                                     |                | RE                | IC    | S    | D1     |        |        |        |        |        |        |        |        |        |        |        |        |
|  | DNMG110408     | 0.8               | 9.525 | 4.76 | 3.81   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG110412     | 1.2               | 9.525 | 4.76 | 3.81   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150404     | 0.4               | 12.7  | 4.76 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150408     | 0.8               | 12.7  | 4.76 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150412     | 1.2               | 12.7  | 4.76 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150604     | 0.4               | 12.7  | 6.35 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150608     | 0.8               | 12.7  | 6.35 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150612     | 1.2               | 12.7  | 6.35 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150616     | 1.6               | 12.7  | 6.35 | 5.16   |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |
|                                                                                     | DNMG150408-OSM | 0.8               | 12.7  | 4.76 | 5.16   |        |        |        |        | ○      | ●      |        |        |        |        | ●      | ○      |
|                                                                                     | DNMG150412-OSM | 1.2               | 12.7  | 4.76 | 5.16   |        |        |        |        | ○      | ●      |        |        |        |        | ●      | ○      |
|                                                                                     | DNMG150608-OSM | 0.8               | 12.7  | 6.35 | 5.16   |        |        |        |        | ○      | ●      |        |        |        |        | ●      | ○      |

半精加工  
Semi-Finishing - Roughing

粗加工  
Roughing

A 车削刀片等级  
Turning Insert Grades

B 切削刀具  
Turning Insert List

C 专用产品简介  
Specialized Product Introduction

D 附件  
Attachments

| 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |          |         |          | P      |        |        |        |        |        |        |        |        |        | M      | K      | N      | S      | H      |
|-------------------------------------------------------------------------------------|----------------|-------------------|----------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                | 刀片<br>RE          | 内切<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 |
|                                                                                     |                | 12.7              | 4.76     | 5.16    |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMG120404-SMF | 0.4               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-SMF | 0.8               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120412-SMF | 1.2               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120404-NF  | 0.4               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-NF  | 0.8               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120412-NF  | 1.2               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-OMF | 0.8               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120404-QF  | 0.4               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-QF  | 0.8               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMG120404-OPF | 0.4               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-OPF | 0.8               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120404-SMM | 0.4               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120408-SMM | 0.8               | 12.7     | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG120412-SMM | 1.2               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG150608-SMM | 0.8               | 15.875   | 6.35    | 6.35     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG150612-SMM | 1.2               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG190612-SMM | 1.2               | 19.05    | 6.35    | 7.94     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG190616-SMM | 1.6               |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

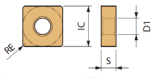
● 常备库存 Stock available    ○ 按单生产 Make-to-order

A 车削刀片等级  
Turning Insert Grades

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Turning Insert List

C 专用产品简介  
Specialized Product Introduction

D 附件  
Attachments

| 形状<br>Shape                                                                           | 型号 Type                                                                             | 尺寸 Dimension (mm)                                                                   |        |      |      | P    |        |        |        |        |        |        |         |        |        | M      |        |        |        |        | K      |        |        |        | N     | S       |         |         | H      |  |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------|------|------|------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|--|
|                                                                                       |                                                                                     |  | 刀尖半径   | 内切圆  | 厚度   | 孔 径  | OC2505 | OC2515 | OC2525 | OC2415 | OC2425 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OC3215 | OK634 | OP6105A | OP6115A | OP6125A | OPH120 |  |
|                                                                                       |                                                                                     |                                                                                     | RE     | IC   | S    | D1   |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|    | SNMG120404-QT                                                                       | 0.4                                                                                 | 12.7   | 4.76 | 5.16 |      |        |        |        |        |        |        |         | ○      | ●      | ○      |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120408-QT                                                                       | 0.8                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120412-QT                                                                       | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120416-QT                                                                       | 1.6                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150608-QT                                                                       | 0.8                                                                                 | 15.875 | 6.35 | 6.35 |      |        |        |        |        |        |        |         |        | ○      | ●      | ○      |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150612-QT                                                                       | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150616-QT                                                                       | 1.6                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        | ○      | ●      | ○      |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190608-QT                                                                       | 0.8                                                                                 | 19.05  | 6.35 | 7.94 |      |        |        |        |        |        |        |         |        |        | ○      | ●      | ○      |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190612-QT                                                                       | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190616-QT                                                                       | 1.6                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      | ○      |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       |  | SNMG120408-SMR                                                                      | 0.8    | 12.7 | 4.76 | 5.16 |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       | ○       | ●       | ○       |        |  |
| SNMG120412-SMR                                                                        |                                                                                     | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         | ○       | ●       | ○      |  |
| SNMG150612-SMR                                                                        |                                                                                     | 1.2                                                                                 | 15.875 | 6.35 | 6.35 |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ○     | ●       | ○       |         |        |  |
| SNMG151616-SMR                                                                        |                                                                                     | 1.6                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         | ○       | ●       | ○      |  |
| SNMG190612-SMR                                                                        |                                                                                     | 1.2                                                                                 | 19.05  | 6.35 | 7.94 |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       | ○       | ●       | ○       |        |  |
| SNMG190616-SMR                                                                        |                                                                                     | 1.6                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         | ○       | ●       | ○      |  |
|  | SNMG120408-MF                                                                       | 0.8                                                                                 | 12.7   | 4.76 | 5.16 |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       |                                                                                     |                                                                                     |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       |                                                                                     |                                                                                     |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|  | SNMG120404-OMM                                                                      | 0.4                                                                                 | 12.7   | 4.76 | 5.16 |      |        |        |        |        |        |        |         |        |        |        | ○      | ●      |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120408-OMM                                                                      | 0.8                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        | ○      | ●      |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120412-OMM                                                                      | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        |         |        |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150608-OMM                                                                      | 0.8                                                                                 | 15.875 | 6.35 | 6.35 |      |        |        |        |        |        |        |         |        |        |        |        | ○      | ●      |        |        |        |        |        |       |         |         |         |        |  |
|  | SNMG120404-QM                                                                       | 0.4                                                                                 | 12.7   | 4.76 | 5.16 |      |        |        |        | ○      | ●      |        |         |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120408-QM                                                                       | 0.8                                                                                 |        |      |      |      |        |        |        |        |        |        | ○       | ●      |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120412-QM                                                                       | 1.2                                                                                 |        |      |      |      |        |        |        |        |        |        | ○       | ●      |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|  | SNMG120404-QN                                                                       | 0.4                                                                                 | 12.7   | 4.76 | 5.16 |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120408-QN                                                                       | 0.8                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG120412-QN                                                                       | 1.2                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150608-QN                                                                       | 0.8                                                                                 | 15.875 | 6.35 | 6.35 |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150612-QN                                                                       | 1.2                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG150616-QN                                                                       | 1.6                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190608-QN                                                                       | 0.8                                                                                 | 19.05  | 6.35 | 7.94 |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190612-QN                                                                       | 1.2                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                       | SNMG190616-QN                                                                       | 1.6                                                                                 |        |      |      |      | ○      | ●      |        |        |        |        | ○       |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |

半精加工  
Medium

● 常备库存 Stock available    ○ 按单生产 Make-to-order





| 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |          |         |         | P      |        |        |        |        |        |        |        | M      | K      |        |        |        | N      | S      | H      |
|-------------------------------------------------------------------------------------|----------------|-------------------|----------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                | 刀片<br>RE          | 内切<br>IC | 厚度<br>S | 孔<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|                                                                                     |                | 12.7              | 4.76     | 5.16    |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMA120404     | 0.4               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA120408     | 0.8               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA120412     | 1.2               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA120416     | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA150608     | 0.8               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA150612     | 1.2               | 15.875   | 6.35    | 6.35    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA150616     | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA190612     | 1.2               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMA190616     | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG190612-DP  | 1.2               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMG190616-DP  | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMG150612-KPR | 1.2               | 15.875   | 6.35    | 6.35    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG150616-KPR | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG190612-KPR | 1.2               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG190616-KPR | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMG250724-KPR | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMG250924-KPR | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMM150612-HR3 | 1.2               | 15.875   | 6.35    | 6.35    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM150616-HR3 | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM190612-HR3 | 1.2               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM190616-HR3 | 1.6               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM190624-HR3 | 2.4               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM250724-HR3 | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | SNMM250924-HR3 | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape                                                                           | 型号 Type        | 尺寸 Dimension (mm) |          |         |         | P      |        |        |        |        |        |        |        | M      | K      |        |        |        | N      | S      | H      |
|---------------------------------------------------------------------------------------|----------------|-------------------|----------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                       |                | 刀片<br>RE          | 内切<br>IC | 厚度<br>S | 孔<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|                                                                                       |                | 1.2               | 15.875   | 6.35    | 6.35    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMM150612-HP  | 1.2               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM150616-HP  | 1.6               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM190612-HP  | 1.2               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM190616-HP  | 1.6               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM190624-HP  | 2.4               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM250724-HP  | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM250924-HP  | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMM190612-RP  | 1.2               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM190616-RP  | 1.6               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM190624-RP  | 2.4               |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM250724-RP  | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | SNMM250924-RP  | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM250724-HRP | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMM250924-HRP | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMM190624-OPR | 2.4               | 19.05    | 6.35    | 7.94    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       |                |                   |          |         |         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | SNMM250724-PR  | 2.4               | 25.4     | 7.94    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | SNMM250924-PR  | 2.4               | 25.4     | 9.52    | 9.12    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



## A Turning Insert Grades 车刀片牌号

## B Turning Insert List

## C Specialized Product Introduction 专用产品介绍

D  
Attachments  
附件

[illegible]

● 常备库存 Stock available    ○ 按单生产 Make-to-order

[illegible]

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape | 型号 Type        | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        | M      |        |        | K      | N      | S      | H      |
|-------------|----------------|-------------------|-----------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |                | 刀片<br>RE          | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC3210 | OC3215 | OC3220 | OC3230 | OC3240 | OPH120 |
|             | TNMG160404-OPM | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-OPM | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-OPM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220404-OPM | 0.4               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220408-OPM | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220412-OPM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220416-OPM | 1.6               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160404-OKM | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-OKM | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-OKM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160404-K   | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-K   | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-K   | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160404     | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408     | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220408     | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220416     | 1.6               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape | 型号 Type        | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        | M      |        |        | K      | N      | S      | H      |
|-------------|----------------|-------------------|-----------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |                | 刀片<br>RE          | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC3210 | OC3215 | OC3220 | OC3230 | OC3240 | OPH120 |
|             | TNMG160408-OSM | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-OSM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-NR  | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-NR  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-QR  | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-QR  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220408-QR  | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220412-QR  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-OPR | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-OPR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220408-OPR | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG220412-OPR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160408-OKR | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMG160412-OKR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA160404     | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA160408     | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA160412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA220408     | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA220412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |
|             | TNMA220416     | 1.6               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



A  
车削刀片等级  
Turning Insert Grades

B  
切削刀片  
Turning Insert List

C  
专用产品介绍  
Specialized Product Introduction

D  
附件  
Attachments

| 形状<br>Shape | 型号 Type        | 尺寸 Dimension (mm) |               |         |              | P      |        |        |        |        |        |        |        |        |        | M      |        | K      |        | N      | S      | H      |
|-------------|----------------|-------------------|---------------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |                | 刀片<br>厚度<br>RE    | 内切<br>圆<br>IC | 厚度<br>S | 孔<br>径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 |
|             |                | 0.4               | 0.8           | 1.2     | 1.6          | 2.0    | 2.5    | 3.0    | 3.5    | 4.0    | 4.5    | 5.0    | 5.5    | 6.0    | 6.5    | 7.0    | 7.5    | 8.0    | 8.5    | 9.0    | 9.5    | 10.0   |
|             | VNMG160404-SMF | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-SMF | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-SMF | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-NF  | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-NF  | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-NF  | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-MSF | 0.4               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-QF  | 0.4               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-QF  | 0.8               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-OPF | 0.4               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-OPF | 0.8               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-OH  | 0.4               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-OH  | 0.8               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

| 形状<br>Shape | 型号 Type        | 尺寸 Dimension (mm) |               |         |              | P      |        |        |        |        |        |        |        |        |        | M      |        | K      |        | N      | S      | H      |
|-------------|----------------|-------------------|---------------|---------|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|             |                | 刀片<br>厚度<br>RE    | 内切<br>圆<br>IC | 厚度<br>S | 孔<br>径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 |
|             |                | 0.4               | 0.8           | 1.2     | 1.6          | 2.0    | 2.5    | 3.0    | 3.5    | 4.0    | 4.5    | 5.0    | 5.5    | 6.0    | 6.5    | 7.0    | 7.5    | 8.0    | 8.5    | 9.0    | 9.5    | 10.0   |
|             | VNMG160404-SMM | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-SMM | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-SMM | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-QT  | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-QT  | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-QT  | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-SMR | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-SMR | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-MF  | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             |                |                   |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-QM  | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-QM  | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-QM  | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-QN  | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-QN  | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-QN  | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-OPM | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-OPM | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-OPM | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-OKM | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-OKM | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-OKM | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160404-K   | 0.4               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160408-K   | 0.8               | 9.525         | 4.76    | 3.81         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|             | VNMG160412-K   | 1.2               |               |         |              |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

A  
车削刀片等级  
Turning Insert Grades

B  
切削刀片  
Turning Insert List

C  
专用产品介绍  
Specialized Product Introduction

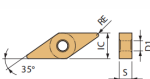
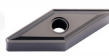
D  
附件  
Attachments

A  
车削刀片等级  
Turning Insert Grades

B  
切削刀片  
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专用刀具介绍  
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D  
附件  
Attachments

| 形状<br>Shape                                                                       | 型号 Type                                                                                                                                                                                                                                                                                                                                                                                                                                   | 尺寸 Dimension (mm)                                                                 |       |       |      | P    |        |        |        |        |        |        |        |        |        | M      |        |        |        |        | K      |        |        |        |        | N      | S     |         | H       |         |        |  |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------|-------|------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|--|
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 刀尖半径  | 内切圆   | 厚度   | 孔径   | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 | OK636 | OP6105A | OP6115A | OP6125A | OPH120 |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   | RE    | IC    | S    | D1   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|  | VNMG160404                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.4                                                                               | 9.525 | 4.76  | 3.81 |      |        |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●      |       |         |         |         |        |  |
|                                                                                   | VNMG160408                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.8                                                                               |       |       |      |      |        |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       |         |         |        |  |
|                                                                                   | VNMG160412                                                                                                                                                                                                                                                                                                                                                                                                                                | 1.2                                                                               |       |       |      |      |        |        | ○      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       |         |         |        |  |
|                                                                                   | <br><br><br><br> | VNMG160408-OSM                                                                    | 0.8   | 9.525 | 4.76 | 3.81 |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |        |        |        |        |        |        |       |         | ●       | ○       |        |  |
| VNMG160412-OSM                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.2                                                                               |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |        |        |        |        |       |         |         | ●       | ○      |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                   |       |       |      |      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |  |

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附件  
Attachments

| 形状<br>Shape      | 型号 Type                                                                             | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        |        |        |        |        |        | M      |        |        |        | K      |        |        |        | N      | S      |         |         | H       |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
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|                  |                                                                                     | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 | OP6105A | OP6105B | OP6105C | OP6105D |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |    |
| 精加工<br>Finishing |  | WNGG080402-SMF    | 0.2       | 12.7    | 4.76     | 5.16   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | </ |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



A 车削刀片等级  
Turning Insert Grades

B 通用刀片  
Turning Insert List

C 专用刀片介绍  
Specialized Product Introduction

D 附件  
Attachments

| 形状<br>Shape                                                                         | 型号 Type         | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        | M      |        |        | K      |        |        | N      | S      | H      |
|-------------------------------------------------------------------------------------|-----------------|-------------------|-----------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                 | 刀片<br>RE          | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC3210 | OC3220 | OC3230 | OC3240 | OC3250 | OC3260 | OC3270 | OC3280 |
|                                                                                     |                 | OC2505            | OC2515    | OC2525  | OC2535   | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC3210 | OC3220 | OC3230 | OC3240 | OC3250 | OC3260 | OC3270 | OC3280 |
|    | WNNMG080404-SMM | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-SMM | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-SMM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | WNNMG060404-QT  | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG060408-QT  | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG060412-QT  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080404-QT  | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-QT  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-QT  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080416-QT  | 1.6               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | WNNMG060408-SMR | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-SMR | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-SMR | 1.2               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080416-SMR | 1.6               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG060408-MF  | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-MF  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-MF  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG060408-OMM | 0.8               | 9.525     | 4.76    | 3.81     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG060412-OMM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080404-OMM | 0.4               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-OMM | 0.8               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080404-QM  | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-QM  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-QM  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080404-QN  | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-QN  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-QN  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080404-OPM | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080408-OPM | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                     | WNNMG080412-OPM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

A 车削刀片等级  
Turning Insert Grades

B 通用刀片  
Turning Insert List

C 专用刀片介绍  
Specialized Product Introduction

D 附件  
Attachments

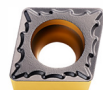
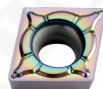
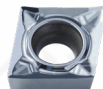
| 形状<br>Shape                                                                           | 型号 Type         | 尺寸 Dimension (mm) |           |         |          | P      |        |        |        |        | M      |        |        | K      |        |        | N      | S      | H      |
|---------------------------------------------------------------------------------------|-----------------|-------------------|-----------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                       |                 | 刀片<br>RE          | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC3210 | OC3220 | OC3230 | OC3240 | OC3250 | OC3260 | OC3270 | OC3280 |
|                                                                                       |                 | OC2505            | OC2515    | OC2525  | OC2535   | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC3210 | OC3220 | OC3230 | OC3240 | OC3250 | OC3260 | OC3270 | OC3280 |
|    | WNNMG080404-OKM | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080408-OKM | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-OKM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | WNNMG080404-K   | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080408-K   | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-K   | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | WNNMG080404     | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080408     | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|    | WNNMG080408-OSM | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-OSM | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080404-NR  | 0.4               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080408-NR  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-NR  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080408-OMR | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-OMR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080408-QR  | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-QR  | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080408-OPR | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-OPR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMG080408-OKR | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMG080412-OKR | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | WNNMA080408     | 0.8               | 12.7      | 4.76    | 5.16     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|                                                                                       | WNNMA080412     | 1.2               |           |         |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

|                 | 形状<br>Shape                                                                       | 型号 Type          | 尺寸 Dimension (mm) |          |         |           | P      |        |        |        |        |        |        | M      |        |        |        |        | K      |        |        | N      | S     |         | H       |         |        |
|-----------------|-----------------------------------------------------------------------------------|------------------|-------------------|----------|---------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|
|                 |                                                                                   |                  | 刀尖半径<br>RE        | 宽度<br>W1 | 厚度<br>S | 孔 径<br>D1 | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OC3215 | OK434 | OP6105A | OP6115A | OP6125A | OPH120 |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
| 粗加工<br>Roughing |  | 175.32-191940-22 | 4.0               | 10       | 19.1    | 6.35      |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |  | 175.32-191940-28 | 4.0               | 10       | 19.1    | 6.35      |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |  | KNUX160405L11    | 0.5               | 9.525    | 4.76    | -         |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   | KNUX160405R11    | 0.5               |          |         |           |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                 |                                                                                   |                  |                   |          |         |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |

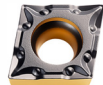
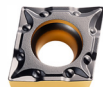
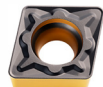
● 常备库存 Stock available    ○ 按单生产 Make-to-order

型号列表 (正角刀片) Positive turning insert list

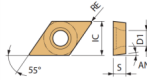
| 形状<br>Shape      | 型号 Type                                                                               | 尺寸 Dimension (mm)                                                                     |               |         |          |          | P      |        |        |        |        |        | M      |        |        |        | K      |        |        |        | N      | S      |       | H       |         |         |        |   |   |   |  |
|------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------|---------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|---|---|---|--|
|                  |                                                                                       | 刀片半径<br>RE                                                                            | 内切圆<br>IC     | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OC3215 | OK434 | OP6105A | OP6115A | OP6125A | OPH120 |   |   |   |  |
| 精加工<br>Finishing |    | CCGT060202-SMF                                                                        | < 0.2         | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       | ○       | ○       |        |   |   |   |  |
|                  |                                                                                       | CCGT060204-SMF                                                                        | < 0.4         |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      | ○ | ○ |   |  |
|                  |                                                                                       | CCGT060208-SMF                                                                        | < 0.8         |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● | ○ | ○ |  |
|                  |                                                                                       | CCGT09T302-SMF                                                                        | < 0.2         | 9.525   | 3.97     | 4.4      | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         | ●       | ○       | ○      |   |   |   |  |
|                  |                                                                                       | CCGT09T304-SMF                                                                        | < 0.4         |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      | ○ | ○ |   |  |
|                  |                                                                                       | CCGT09T308-SMF                                                                        | < 0.8         |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● | ○ | ○ |  |
|                  |    | CCMT060202-MSF                                                                        | 0.2           | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT060204-MSF                                                                        | 0.4           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT09T302-MSF                                                                        | 0.2           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT09T304-MSF                                                                        | 0.4           | 9.525   | 3.97     | 4.4      | 7°     |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT09T308-MSF                                                                        | 0.8           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT120404-MSF                                                                        | 0.4           | 12.7    | 4.76     | 5.5      | 7°     |        |        |        |        |        |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |   | CCMT060202-OTF                                                                        | 0.2           | 6.35    | 2.38     | 2.8      | 7°     |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT060204-OTF                                                                        | 0.4           |         |          |          |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        |        | ○      | ●      |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT09T304-OTF                                                                        | 0.4           | 9.525   | 3.97     | 4.4      | 7°     |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT09T308-OTF                                                                        | 0.8           |         |          |          |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        | ○      | ●      |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT120404-OTF                                                                        | 0.4           | 12.7    | 4.76     | 5.5      | 7°     |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       | CCMT120408-OTF                                                                        | 0.8           |         |          |          |        |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       |  | CCGT060204-OH | 0.4     | 6.35     | 2.38     | 2.8    | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● |   |   |  |
|                  |                                                                                       |                                                                                       | CCGT09T304-OH | 0.4     | 9.525    | 3.97     | 4.4    | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● |   |   |  |
|                  |                                                                                       |                                                                                       |               |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |                                                                                       |                                                                                       |               |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |  |
|                  |  | CCGT060202-NL                                                                         | 0.2           | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       |         |         |        |   |   |   |  |
|                  |                                                                                       | CCGX060204-NL                                                                         | 0.4           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      |   |   |   |  |
| CCGX09T302-NL    |                                                                                       | 0.2                                                                                   | 9.525         | 3.97    | 4.4      | 7°       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●     |         |         |         |        |   |   |   |  |
| CCGX09T304-NL    |                                                                                       | 0.4                                                                                   |               |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         | ●       |        |   |   |   |  |
| CCGX09T308-NL    |                                                                                       | 0.8                                                                                   |               |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      |   |   |   |  |
| CCGX120404-NL    |                                                                                       | 0.4                                                                                   | 12.7          | 4.76    | 5.5      | 7°       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       |         |         |        |   |   |   |  |
| CCGX120408-NL    |                                                                                       | 0.8                                                                                   |               |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      |   |   |   |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



|                 | 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |           |         |           |           | P     |       |        |        |        |        |        |        | M      |        |        |        | K      |        | N      | S      | H      |       |         |         |         |        |   |   |   |
|-----------------|-------------------------------------------------------------------------------------|----------------|-------------------|-----------|---------|-----------|-----------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|---|---|---|
|                 |                                                                                     |                | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔 径<br>D1 | 后 角<br>AN | OC205 | OC215 | OC2525 | OC2415 | OC2125 | OC3355 | OC2535 | OCA310 | OCA320 | OCA330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OC3215 | OK434 | OP6105A | OP6115A | OP6125A | OPH120 |   |   |   |
|                 |                                                                                     |                |                   |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |
| 半精加工<br>Medium  |    | CCMT060202-SMM | 0.2               | 6.35      | 2.38    | 2.8       | 7°        |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       | ●       | ○       | ○       |        |   |   |   |
|                 |                                                                                     | CCMT060204-SMM | 0.4               |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      | ○ | ○ |   |
|                 |                                                                                     | CCMT09T302-SMM | 0.2               | 9.525     | 3.97    | 4.4       | 7°        |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         | ●       | ○       | ○      |   |   |   |
|                 |                                                                                     | CCMT09T304-SMM | 0.4               |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      | ○ | ○ |   |
|                 |                                                                                     | CCMT09T308-SMM | 0.8               |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● | ○ | ○ |
|                 |                                                                                     | CCMT120404-SMM | 0.4               | 12.7      | 4.76    | 5.5       | 7°        |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         | ●       | ○       | ○      |   |   |   |
|                 |                                                                                     | CCMT120408-SMM | 0.8               |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         | ●      | ○ | ○ |   |
|                 |                                                                                     | CCMT120412-SMM | 1.2               |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        | ● | ○ | ○ |
|                 |    | CCMT060204-OTM | 0.4               | 6.35      | 2.38    | 2.8       | 7°        |       |       |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |       |         |         |         |        |   |   |   |
|                 |                                                                                     | CCMT060208-OTM | 0.8               |           |         |           |           |       |       |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |                                                                                     | CCMT09T304-OTM | 0.4               | 9.525     | 3.97    | 4.4       | 7°        |       |       |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |       |         |         |         |        |   |   |   |
|                 |                                                                                     | CCMT09T308-OTM | 0.8               |           |         |           |           |       |       |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |                                                                                     | CCMT120404-OTM | 0.4               | 12.7      | 4.76    | 5.5       | 7°        |       |       |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |       |         |         |         |        |   |   |   |
|                 |                                                                                     | CCMT120408-OTM | 0.8               |           |         |           |           |       |       |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |   | CPMT09T304-OTM | 0.4               | 9.525     | 3.97    | 4.4       | 11°       |       |       |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |       |         |         |         |        |   |   |   |
|                 |                                                                                     | CPMT09T308-OTM | 0.8               |           |         |           |           |       |       |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |                                                                                     |                |                   |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |
|                 |                                                                                     |                |                   |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |
| 粗加工<br>Roughing |  | CCMT060208-OTR | 0.8               | 6.35      | 2.38    | 2.8       | 7°        |       |       |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |       |         |         |         |        |   |   |   |
|                 |                                                                                     | CCMT09T304-OTR | 0.4               |           |         |           |           | 9.525 | 3.97  | 4.4    | 7°     |        |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |       | ○       | ●       | ○       |        |   |   |   |
|                 |                                                                                     | CCMT09T308-OTR | 0.8               |           |         |           | ○         |       |       |        |        | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |                                                                                     | CCMT120408-OTR | 0.8               | 12.7      | 4.76    | 5.5       | 7°        |       |       |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |       | ○       | ●       | ○       |        |   |   |   |
|                 |                                                                                     | CCMT120412-OTR | 1.2               |           |         |           |           |       |       |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        | ○      | ●      |        | ○     | ●       | ○       |         |        |   |   |   |
|                 |                                                                                     |                |                   |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |
|                 |                                                                                     |                |                   |           |         |           |           |       |       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |   |   |   |

● 常备库存 Stock available    ○ 接单生产 Make-to-order

|  | 形状<br>Shape | 型号 Type                                                                             | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |        |        | M      |        |        |        | K      |        |        | N      | S      |        | H      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |     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|        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |   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 |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
|--|-------------|-------------------------------------------------------------------------------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------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|  |             |  | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OC2665 | OC2675 | OC2685 | OC2695 | OC2705 | OC2715 | OC2725 | OC2735 | OC2745 | OC2755 | OC2765 | OC2775 | OC2785 | OC2795 | OC2805 | OC2815 | OC2825 | OC2835 | OC2845 | OC2855 | OC2865 | OC2875 | OC2885 | OC2895 | OC2905 | OC2915 | OC2925 | OC2935 | OC2945 | OC2955 | OC2965 | OC2975 | OC2985 | OC2995 | OC3005 | OC3015 | OC3025 | OC3035 | OC3045 | OC3055 | OC3065 | OC3075 | OC3085 | OC3095 | OC3105 | OC3115 | OC3125 | OC3135 | OC3145 | OC3155 | OC3165 | OC3175 | OC3185 | OC3195 | OC3205 | OC3215 | OC3225 | OC3235 | OC3245 | OC3255 | OC3265 | OC3275 | OC3285 | OC3295 | OC3305 | OC3315 | OC3325 | OC3335 | OC3345 | OC3355 | OC3365 | OC3375 | OC3385 | OC3395 | OC3405 | OC3415 | OC3425 | OC3435 | OC3445 | OC3455 | OC3465 | OC3475 | OC3485 | OC3495 | OC3505 | OC3515 | OC3525 | OC3535 | OC3545 | OC3555 | OC3565 | OC3575 | OC3585 | OC3595 | OC3605 | OC3615 | OC3625 | OC3635 | OC3645 | OC3655 | OC3665 | OC3675 | OC3685 | OC3695 | OC3705 | OC3715 | OC3725 | OC3735 | OC3745 | OC3755 | OC3765 | OC3775 | OC3785 | OC3795 | OC3805 | OC3815 | OC3825 | OC3835 | OC3845 | OC3855 | OC3865 | OC3875 | OC3885 | OC3895 | OC3905 | OC3915 | OC3925 | OC3935 | OC3945 | OC3955 | OC3965 | OC3975 | OC3985 | OC3995 | OC4005 | OC4015 | OC4025 | OC4035 | OC4045 | OC4055 | OC4065 | OC4075 | OC4085 | OC4095 | OC4105 | OC4115 | OC4125 | OC4135 | OC4145 | OC4155 | OC4165 | OC4175 | OC4185 | OC4195 | OC4205 | OC4215 | OC4225 | OC4235 | OC4245 | OC4255 | OC4265 | OC4275 | OC4285 | OC4295 | OC4305 | OC4315 | OC4325 | OC4335 | OC4345 | OC4355 | OC4365 | OC4375 | OC4385 | OC4395 | OC4405 | OC4415 | OC4425 | OC4435 | OC4445 | OC4455 | OC4465 | OC4475 | OC4485 | OC4495 | OC4505 | OC4515 | OC4525 | OC4535 | OC4545 | OC4555 | OC4565 | OC4575 | OC4585 | OC4595 | OC4605 | OC4615 | OC4625 | OC4635 | OC4645 | OC4655 | OC4665 | OC4675 | OC4685 | OC4695 | OC4705 | OC4715 | OC4725 | OC4735 | OC4745 | OC4755 | OC4765 | OC4775 | OC4785 | OC4795 | OC4805 | OC4815 | OC4825 | OC4835 | OC4845 | OC4855 | OC4865 | OC4875 | OC4885 | OC4895 | OC4905 | OC4915 | OC4925 | OC4935 | OC4945 | OC4955 | OC4965 | OC4975 | OC4985 | OC4995 | OC5005 | OC5015 | OC5025 | OC5035 | OC5045 | OC5055 | OC5065 | OC5075 | OC5085 | OC5095 | OC5105 | OC5115 | OC5125 | OC5135 | OC5145 | OC5155 | OC5165 | OC5175 | OC5185 | OC5195 | OC5205 | OC5215 | OC5225 | OC5235 | OC5245 | OC5255 | OC5265 | OC5275 | OC5285 | OC5295 | OC5305 | OC5315 | OC5325 | OC5335 | OC5345 | OC5355 | OC5365 | OC5375 | OC5385 | OC5395 | OC5405 | OC5415 | OC5425 | OC5435 | OC5445 | OC5455 | OC5465 | OC5475 | OC5485 | OC5495 | OC5505 | OC5515 | OC5525 | OC5535 | OC5545 | OC5555 | OC5565 | OC5575 | OC5585 | OC5595 | OC5605 | OC5615 | OC5625 | OC5635 | OC5645 | OC5655 | OC5665 | OC5675 | OC5685 | OC5695 | OC5705 | OC5715 | OC5725 | OC5735 | OC5745 | OC5755 | OC5765 | OC5775 | OC5785 | OC5795 | OC5805 | OC5815 | OC5825 | OC5835 | OC5845 | OC5855 | OC5865 | OC5875 | OC5885 | OC5895 | OC5905 | OC5915 | OC5925 | OC5935 | OC5945 | OC5955 | OC5965 | OC5975 | OC5985 | OC5995 | OC6005 | OC6015 | OC6025 | OC6035 | OC6045 | OC6055 | OC6065 | OC6075 | OC6085 | OC6095 | OC6105 | OC6115 | OC6125 | OC6135 | OC6145 | OC6155 | OC6165 | OC6175 | OC6185 | OC6195 | OC6205 | OC6215 | OC6225 | OC6235 | OC6245 | OC6255 | OC6265 | OC6275 | OC6285 | OC6295 | OC6305 | OC6315 | OC6325 | OC6335 | OC6345 | OC6355 | OC6365 | OC6375 | OC6385 | OC6395 | OC6405 | OC6415 | OC6425 | OC6435 | OC6445 | OC6455 | OC6465 | OC6475 | OC6485 | OC6495 | OC6505 | OC6515 | OC6525 | OC6535 | OC6545 | OC6555 | OC6565 | OC6575 | OC6585 | OC6595 | OC6605 | OC6615 | OC6625 | OC6635 | OC6645 | OC6655 | OC6665 | OC6675 | OC6685 | OC6695 | OC6705 | OC6715 | OC6725 | OC6735 | OC6745 | OC6755 | OC6765 | OC6775 | OC6785 | OC6795 | OC6805 | OC6815 | OC6825 | OC6835 | OC6845 | OC6855 | OC6865 | OC6875 | OC6885 | OC6895 | OC6905 | OC6915 | OC6925 | OC6935 | OC6945 | OC6955 | OC6965 | OC6975 | OC6985 | OC6995 | OC7005 | OC7015 | OC7025 | OC7035 | OC7045 | OC7055 | OC7065 | OC7075 | OC7085 | OC7095 | OC7105 | OC7115 | OC7125 | OC7135 | OC7145 | OC7155 | OC7165 | OC7175 | OC7185 | OC7195 | OC7205 | OC7215 | OC7225 | OC7235 | OC7245 | OC7255 | OC7265 | OC7275 | OC7285 | OC7295 | OC7305 | OC7315 | OC7325 | OC7335 | OC7345 | OC7355 | OC7365 | OC7375 | OC7385 | OC7395 | OC7405 | OC7415 | OC7425 | OC7435 | OC7445 | OC7455 | OC7465 | OC7475 | OC7485 | OC7495 | OC7505 | OC7515 | OC7525 | OC7535 | OC7545 | OC7555 | OC7565 | OC7575 | OC7585 | OC7595 | OC7605 | OC7615 | OC7625 | OC7635 | OC7645 | OC7655 | OC7665 | OC7675 | OC7685 | OC7695 | OC7705 | OC7715 | OC7725 | OC7735 | OC7745 | OC7755 | OC7765 | OC7775 | OC7785 | OC7795 | OC7805 | OC7815 | OC7825 | OC7835 | OC7845 | OC7855 | OC7865 | OC7875 | OC7885 | OC7895 | OC7905 | OC7915 | OC7925 | OC7935 | OC7945 | OC7955 | OC7965 | OC7975 | OC7985 | OC7995 | OC8005 | OC8015 | OC8025 | OC8035 | OC8045 | OC8055 | OC8065 | OC8075 | OC8085 | OC8095 | OC8105 | OC8115 | OC8125 | OC8135 | OC8145 | OC8155 | OC8165 | OC8175 | OC8185 | OC8195 | OC8205 | OC8215 | OC8225 | OC8235 | OC8245 | OC8255 | OC8265 | OC8275 | OC8285 | OC8295 | OC8305 | OC8315 | OC8325 | OC8335 | OC8345 | OC8355 | OC8365 | OC8375 | OC8385 | OC8395 | OC8405 | OC8415 | OC8425 | OC8435 | OC8445 | OC8455 | OC8465 | OC8475 | OC8485 | OC8495 | OC8505 | OC8515 | OC8525 | OC8535 | OC8545 | OC8555 | OC8565 | OC8575 | OC8585 | OC8595 | OC8605 | OC8615 | OC8625 | OC8635 | OC8645 | OC8655 | OC8665 | OC8675 | OC8685 | OC8695 | OC8705 | OC8715 | OC8725 | OC8735 | OC8745 | OC8755 | OC8765 | OC8775 | OC8785 | OC8795 | OC8805 | OC8815 | OC8825 | OC8835 | OC8845 | OC8855 | OC8865 | OC8875 | OC8885 | OC8895 | OC8905 | OC8915 | OC8925 | OC8935 | OC8945 | OC8955 | OC8965 | OC8975 | OC8985 | OC8995 | OC9005 | OC9015 | OC9025 | OC9035 | OC9045 | OC9055 | OC9065 | OC9075 | OC9085 | OC9095 | OC9105 | OC9115 | OC9125 | OC9135 | OC9145 | OC9155 | OC9165 | OC9175 | OC9185 | OC9195 | OC9205 | OC9215 | OC9225 | OC9235 | OC9245 | OC9255 | OC9265 | OC9275 | OC9285 | OC9295 | OC9305 | OC9315 | OC9325 | OC9335 | OC9345 | OC9355 | OC9365 | OC9375 | OC9385 | OC9395 | OC9405 | OC9415 | OC9425 | OC9435 | OC9445 | OC9455 | OC9465 | OC9475 | OC9485 | OC9495 | OC9505 | OC9515 | OC9525 | OC9535 | OC9545 | OC9555 | OC9565 | OC9575 | OC9585 | OC9595 | OC9605 | OC9615 | OC9625 | OC9635 | OC9645 | OC9655 | OC9665 | OC9675 | OC9685 | OC9695 | OC9705 | OC9715 | OC9725 | OC9735 | OC9745 | OC9755 | OC9765 | OC9775 | OC9785 | OC9795 | OC9805 | OC9815 | OC9825 | OC9835 | OC9845 | OC9855 | OC9865 | OC9875 | OC9885 | OC9895 | OC9905 | OC9915 | OC9925 | OC9935 | OC9945 | OC9955 | OC9965 | OC9975 | OC9985 | OC9995 | OC10005 | OC10015 | OC10025 | OC10035 | OC10045 | OC10055 | OC10065 | OC10075 | OC10085 | OC10095 | OC10105 | OC10115 | OC10125 | OC10135 | OC10145 | OC10155 | OC10165 | OC10175 | OC10185 | OC10195 | OC10205 | OC10215 | OC10225 | OC10235 | OC10245 | OC10255 | OC10265 | OC10275 | OC10285 | OC10295 | OC10305 | OC10315 | OC10325 | OC10335 | OC10345 | OC10355 | OC10365 | OC10375 | OC10385 | OC10395 | OC10405 | OC10415 | OC10425 | OC10435 | OC10445 | OC10455 | OC10465 | OC10475 | OC10485 | OC10495 | OC10505 | OC10515 | OC10525 | OC10535 | OC10545 | OC10555 | OC10565 | OC10575 | OC10585 | OC10595 | OC10605 | OC10615 | OC10625 | OC10635 | OC10645 | OC10655 | OC10665 | OC10675 | OC10685 | OC10695 | OC10705 | OC10715 | OC10725 | OC10735 | OC10745 | OC10755 | OC10765 | OC10775 | OC10785 | OC10795 | OC10805 | OC10815 | OC10825 | OC10835 | OC10845 | OC10855 | OC10865 | OC10875 | OC10885 | OC10895 | OC10905 | OC10915 | OC10925 | OC10935 | OC10945 | OC10955 | OC10965 | OC10975 | OC10985 | OC10995 | OC11005 | OC11015 | OC11025 | OC11035 | OC11045 | OC11055 | OC11065 | OC11075 | OC11085 | OC11095 | OC11105 | OC11115 | OC11125 | OC11135 | OC11145 | OC11155 | OC11165 | OC11175 | OC11185 | OC11195 | OC11205 | OC11215 | OC11225 | OC11235 | OC11245 | OC11255 | OC11265 | OC11275 | OC11285 | OC11295 | OC11305 | OC11315 | OC11325 | OC11335 | OC11345 | OC11355 | OC11365 | OC11375 | OC11385 | OC11395 | OC11405 | OC11415 | OC11425 | OC11435 | OC11445 | OC11455 | OC11465 | OC11475 | OC11485 | OC11495 | OC11505 | OC11515 | OC11525 | OC11535 | OC11545 | OC11555 | OC11565 | OC11575 | OC11585 | OC11595 | OC11605 | OC11615 | OC11625 | OC11635 | OC11645 | OC11655 | OC11665 | OC11675 | OC11685 | OC11695 | OC11705 | OC11715 | OC11725 | OC11735 | OC11745 | OC11755 | OC11765 | OC11775 | OC11785 | OC11795 | OC11805 | OC11815 | OC11825 | OC11835 | OC11845 | OC11855 | OC11865 | OC11875 | OC11885 | OC11895 | OC11905 | OC11915 | OC11925 | OC11935 | OC11945 | OC11955 | OC11965 | OC11975 | OC11985 | OC11995 | OC12005 | OC12015 | OC12025 | OC12035 | OC12045 | OC12055 | OC12065 | OC12075 | OC12085 | OC12095 | OC12105 | OC12115 | OC12125 | OC12135 | OC12145 | OC12155 | OC12165 | OC12175 | OC12185 | OC12195 | OC12205 | OC12215 | OC12225 | OC12235 | OC12245 | OC12255 | OC12265 | OC12275 | OC12285 | OC12295 | OC12305 | OC12315 | OC12325 | OC12335 | OC12345 | OC12355 | OC12365 | OC12375 | OC12385 | OC12395 | OC12405 | OC12415 | OC12425 | OC12435 | OC12445 | OC12455 | OC12465 | OC12475 | OC12485 | OC12495 | OC12505 | OC12515 | OC12525 | OC12535 | OC12545 | OC12555 | OC12565 | OC12575 | OC12585 | OC12595 | OC12605 | OC12615 | OC12625 | OC12635 | OC12645 | OC12655 | OC12665 | OC12675 | OC12685 | OC12695 | OC12705 | OC12715 | OC12725 | OC12735 | OC12745 | OC12755 | OC12765 | OC12775 | OC12785 | OC12795 | OC12805 | OC12815 | OC12825 | OC12835 | OC12845 | OC12855 | OC12865 | OC12875 | OC12885 | OC12895 | OC12905 | OC12915 | OC12925 | OC12935 | OC12945 | OC12955 | OC12965 | OC12975 | OC12985 | OC12995 | OC13005 | OC13015 | OC13025 | OC13035 | OC13045 | OC13055 | OC13065 | OC13075 | OC13085 | OC13095 | OC13105 | OC13115 | OC13125 | OC13135 | OC13145 | OC13155 | OC13165 | OC13175 | OC13185 | OC13195 | OC13205 | OC13215 | OC13225 | OC13235 | OC13245 | OC13255 | OC13265 | OC13275 | OC13285 | OC13295 | OC13305 | OC13315 | OC13325 | OC13335 | OC13345 | OC13355 | OC13365 | OC13375 | OC13385 | OC13395 | OC13405 | OC13415 | OC13425 | OC13435 | OC13445 | OC13455 | OC13465 | OC13475 | OC13485 | OC13495 | OC13505 | OC13515 | OC13525 | OC13535 | OC13545 | OC13555 | OC13565 | OC13575 | OC13585 | OC13595 | OC13605 | OC13615 | OC13625 | OC13635 | OC13645 | OC13655 | OC13665 | OC13675 | OC13685 | OC13695 | OC13705 | OC13715 | OC13725 | OC13735 | OC13745 | OC13755 | OC13765 | OC13775 | OC13785 | OC13795 | OC13805 | OC13815 | OC13825 | OC13835 | OC13845 | OC13855 | OC13865 | OC13875 | OC13885 | OC13895 | OC13905 | OC13915 | OC13925 | OC13935 | OC13945 | OC13955 | OC13965 | OC13975 | OC13985 | OC13995 | OC14005 | OC14015 | OC14025 | OC14035 | OC14045 | OC14055 | OC14065 | OC14075 | OC14085 | OC14095 | OC14105 | OC14115 | OC14125 | OC14135 | OC14145 | OC14155 | OC14165 | OC14175 | OC14185 | OC14195 | OC14205 | OC14215 | OC14225 | OC14235 | OC14245 | OC14255 | OC14265 |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

A 车削刀片等级  
Turning Insert Grades

B 切削刀具  
Turning Insert List

C 专用刀具介绍  
Specialized Product Introduction

D 附件  
Attachments

| 形状<br>Shape                                                                         | 型号 Type        | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |        |        |        |        |        | M      |        |        |        | K      |        |        |        | N       | S       |         | H      |
|-------------------------------------------------------------------------------------|----------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--------|
|                                                                                     |                | 刀片半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 | OP6105A | OP6115A | OP6125A | OPH120 |
|    | SCMT09T304-OTF | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |        |         |         |         |        |
|                                                                                     | SCMT09T308-OTF | 0.8               |           |         |          |          |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |        |         |         |         |        |
|                                                                                     | SCMT120404-OTF | 0.4               | 12.7      | 4.76    | 5.5      | 7°       |        |        | ●      | ○      | ○      |        |        |        |        |        | ○      | ●      |        |        |        |        |         |         |         |        |
|                                                                                     | SCMT120408-OTF | 0.8               |           |         |          |          |        |        | ●      | ○      | ○      |        |        |        |        | ○      | ●      |        |        |        |        |        |         |         |         |        |
|                                                                                     |                |                   |           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |        |
|    | SCGX09T304-NL  | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●       |         |         |        |
|                                                                                     | SCGX09T308-NL  | 0.8               |           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         | ●       |        |
|                                                                                     | SCGX120408-NL  | 0.8               | 12.7      | 4.76    | 5.5      | 7°       |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●      |         |         |         |        |
|                                                                                     |                |                   |           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |        |
|    | SCMT09T304-OTM | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     | SCMT09T308-OTM | 0.8               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |        |         |         |         |        |
|                                                                                     | SCMT120404-OTM | 0.4               | 12.7      | 4.76    | 5.5      | 7°       |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     | SCMT120408-OTM | 0.8               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |        |         |         |         |        |
|                                                                                     | SCMT120412-OTM | 1.2               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     |                |                   |           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |        |
|  | SCMT09T304-OTR | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     | SCMT09T308-OTR | 0.8               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |        |         |         |         |        |
|                                                                                     | SCMT120404-OTR | 0.4               | 12.7      | 4.76    | 5.5      | 7°       |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     | SCMT120408-OTR | 0.8               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |        |         |         |         |        |
|                                                                                     | SCMT120412-OTR | 1.2               |           |         |          |          |        |        | ○      | ●      | ○      |        |        |        |        |        | ○      | ●      |        | ○      | ●      | ○      |         |         |         |        |
|                                                                                     |                |                   |           |         |          |          |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

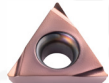
| 形状<br>Shape      | 型号 Type                                                                             | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |        |        | M      |        |        |        |        | K      |        |        |        |        | N     | S       |         |         | H |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|                  |                                                                                     | 刀片半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2570 | OC2580 | OC2590 | OC2605 | OC2610 | OC2620 | OC2625 | OC2635 | OK636 | OP6105A | OP6115A | OP6125A |   | OP6120 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 精加工<br>Finishing |  | TCGT110204-SMF    | < 0.4     | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |   |        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |





| 形状<br>Shape                                                                        | 型号 Type       | 尺寸 Dimension (mm) |         |           |           | P      |        |        |        |        |        |        |        | M      |        |        |        |        |        |        |        | K      |        |        |        | N     | S       |         | H       |        |
|------------------------------------------------------------------------------------|---------------|-------------------|---------|-----------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|---------|---------|---------|--------|
|                                                                                    |               | 内切圆<br>IC         | 厚度<br>S | 孔 径<br>D1 | 后 角<br>AN | OC2505 | OC2515 | OC2525 | OC2545 | OC2525 | OC2525 | OC2525 | OC2525 | OC2535 | OC2510 | OC2530 | OC2530 | OP1215 | OP1315 | OP1415 | OC2205 | OC2210 | OC2220 | OC2215 | OC2215 | OK236 | OP6105A | OP6115A | OP6125A | OPH120 |
|   | RCMX0803MO-Q  | 8.0               | 3.18    | 3.4       | 7°        |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX1003MO-Q  | 10                | 3.18    | 3.6       | 7°        |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX1204MO-Q  | 12                | 4.76    | 4.4       | 7°        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX1606MO-Q  | 16                | 6.35    | 5.5       | 7°        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX2006MO-Q  | 20                | 6.35    | 6.5       | 7°        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX2507MO-Q  | 25                | 7.94    | 7.2       | 7°        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX3209MO-Q  | 32                | 9.52    | 9.5       | 7°        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX1606MO-JH | 16                | 6.35    | 5.5       | 7°        | ○      |        |        | ○      | ●      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX2006MO-JH | 20                | 6.35    | 6.5       | 7°        | ○      |        |        | ○      | ●      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX2507MO-JH | 25                | 7.94    | 7.2       | 7°        | ○      |        |        | ○      | ●      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMX3209MO-JH | 32                | 9.52    | 9.5       | 7°        | ○      |        |        | ○      | ●      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|   | RCMT0803MO-Q  | 8.0               | 3.18    | 3.4       | 7°        |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    | RCMT1606MO-Q  | 16                | 6.35    | 5.5       | 7°        |        |        |        | ●      | ○      | ○      |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    |               |                   |         |           |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|  | RCGT1204MO-NL | 12                | 4.76    | 4.4       | 7°        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ●     |         |         |         |        |
|                                                                                    |               |                   |         |           |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |
|                                                                                    |               |                   |         |           |           |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |       |         |         |         |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

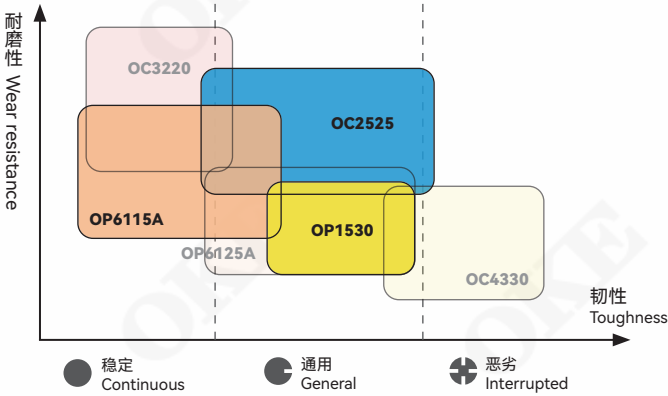
| 形状<br>Shape                                                                                                  | 型号 Type     | 尺寸 Dimension (mm) |      |      |      |     | P      |        |        |        |        |        |        |        | M      |        |        | K      |        |        | N       | S       |         | H |   |  |
|--------------------------------------------------------------------------------------------------------------|-------------|-------------------|------|------|------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---|---|--|
|                                                                                                              |             | 刀尖半径              | 内切圆  | 厚度   | 孔径   | 后角  | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OP6105A | OP6115A | OP6125A |   |   |  |
|                                                                                                              |             | RE                | IC   | S    | D1   | AN  |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         |   |   |  |
| <div>其它<br/>Others</div>  | TBGH060202L | 0.2               | 3.97 | 2.38 | 2.3  | 5°  |        |        |        |        |        |        |        |        |        |        |        |        |        | ○      | ○       |         |         |   |   |  |
|                                                                                                              | TPGH080202L | 0.2               | 4.76 | 2.38 | 2.4  | 11° |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○       | ○       |         |   |   |  |
|                                                                                                              | TPGH080204L | 0.4               |      |      |      |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         | ○       | ○ |   |  |
|                                                                                                              | TPGH090202L | 0.2               | 5.56 | 2.38 | 2.8  | 11° |        |        |        |        |        |        |        |        |        |        |        |        |        |        | ○       | ○       |         |   |   |  |
|                                                                                                              | TPGH090204L | 0.4               |      |      |      |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         | ○       | ○ |   |  |
|                                                                                                              | TPGH110302L | 0.2               | 6.35 | 3.18 | 3.18 | 11° |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         | ○       | ○       |   |   |  |
|                                                                                                              | TPGH110304L | 0.4               |      |      |      |     |        |        |        |        |        |        |        |        |        |        |        |        |        |        |         |         |         | ○ | ○ |  |

● 常备库存 Stock available ○ 按单生产 Make-to-order

C 专用产品介绍 Specialized Product Introduction

01 切断切槽刀具  
Parting and Grooving Tool Series

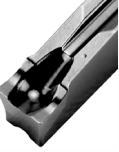
■ 切断切槽刀片 - 牌号适用范围  
Parting and Grooving Inserts Application Range



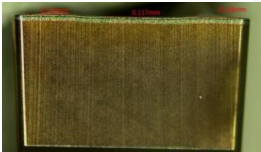
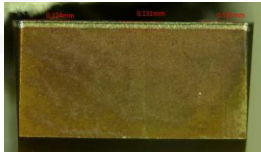
■ 切断切槽刀片 - 牌号介绍  
Parting and Grooving Inserts Grade Introduction

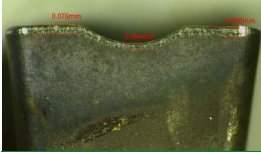
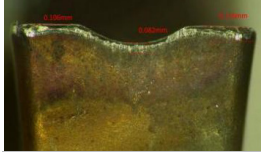
| 涂层牌号<br>Coating | ISO 等级<br>ISO grade                 | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 刀片示例<br>Insert Shape |
|-----------------|-------------------------------------|-----------------------------|---|---|---|---|---|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                 |                                     | P                           | M | K | N | S | H |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                      |
| OC2525          | P25 (P20-P30)<br>M20-M30<br>K25-K35 | ●                           | ○ | ○ |   |   |   | CVD                       | 钢类材料加工首选<br>全新的 CVD 涂层，硬度与强度兼顾的基材，良好的抗变形能力和出色的刀片刃口强度，涂层对基材的附着力良好；<br>适合于在稳定工况下以中到高等切削速度的切槽、车削和切断工序；<br>First Choice for Steel Machining<br>The brand-new CVD coating, a substrate that has both hardness and strength, excellent anti-deformation property and outstanding cutting edge strength, and good adhesion of the coating to the substrate. It is suitable for grooving, turning and parting processes at medium to high cutting speeds under stable working conditions. |                      |
| OP6115A         | S15 (S10-S20)<br>P10-P20<br>M10-M20 | ○                           | ○ |   |   | ● |   | PVD                       | 难切削材料加工首选<br>薄的 PVD 含 Si 涂层与锋利刃口结合强度高，光滑的表面具有优异的抗粘结性，致密的涂层组织结构具有突出的抗氧化和耐磨损性能，适合于高温合金材料加工；<br>First Choice for High Temperature Alloys Machining<br>The thin PVD coating containing Si has a high bonding strength with sharp cutting edges. The smooth surface has excellent anti-adhesion properties, and the dense coating structure has outstanding oxidation resistance and wear resistance. Suitable for processing high-temperature alloy materials;                        |                      |
| OP1530          | M15-M30<br>P20-P30                  | ○                           | ● |   |   |   |   | PVD                       | 通用加工首选<br>基体为高 Co 含量的细晶强韧化硬质合金，涂层具有优异抗氧化和耐磨性能；<br>适用于不锈钢材料通用加工；<br>First Choice for General Machining<br>The substrate is fine-grained toughened carbide with high cobalt content, and the coating has excellent oxidation resistance and wear resistance. Suitable for general processing of stainless steel materials;                                                                                                                                                          |                      |

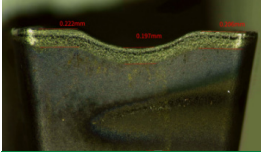
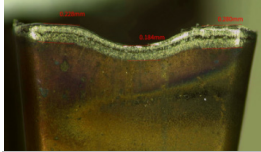
■ 切断切槽刀片 - 槽型介绍  
Parting and Grooving Inserts Chipbreak Introduction

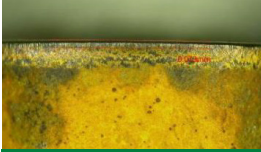
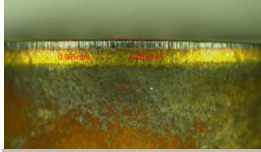
| 工况<br>Conditions  | 槽型                                                                                  | 介绍及应用                                                                                                                                                                                                                                                               | 被加工材料<br>Workpiece Material |   |   |   |   |   | Ap<br>(mm) | Ft<br>(mm/rev) | Fg<br>(mm/rev) |
|-------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|---|---|---|---|------------|----------------|----------------|
|                   |                                                                                     |                                                                                                                                                                                                                                                                     | P                           | M | K | N | S | H |            |                |                |
| 切槽加工<br>Grooving  |    | <b>QC*-GTF</b> <small>NEW</small><br>- 精加工磨削槽型<br>- 适合低进给的精密切槽<br>- 低切削阻力，良好的转位精度<br><br>- Finishing grinding chipbreak<br>- Suitable for low-feed precision grooving<br>- Low cutting resistance and good indexing accuracy                                        | ○                           | ● | ○ | ● |   |   | 0.5-3.5    | 0.05-0.25      | 0.05-0.10      |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
| 通用加工<br>General   |    | <b>QC*-TM</b> <small>NEW</small><br>- 切槽、切断、车削加工通用<br>- 正前角设计能够抑制积屑瘤的产生<br>- 良好的切屑控制和表面质量<br><br>- General grooving, turning and parting<br>- The positive rake angle design can restrain the formation of built-up edge<br>- Good chip control and surface quality | ●                           | ● | ● | ● |   |   | 0.5-3.5    | 0.05-0.30      | 0.10-0.20      |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
| 切断加工<br>Parting   |  | <b>QD*-TM</b> <small>NEW</small><br>- 切断首选槽型<br>- 较好的刃口强度，支持良好工况下大多数材料切断加工及轻断续切削<br><br>- First choice for parting<br>- Good edge strength, suitable for parting and light interrupted cutting of most materials under favorable conditions                         | ●                           | ● | ● | ● |   |   | \          | \              | 0.08-0.15      |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
| 仿形加工<br>Profiling |  | <b>QR*-TM</b> <small>NEW</small><br>- 通用仿形加工槽型<br>- 低进给和小切深的工况也有良好的切屑控制<br><br>- General profile machining<br>- Good chip control even under low feed and small depth cutting conditions                                                                            | ●                           | ● | ● | ● |   |   | 0.5-3.0    | 0.20-0.70      | 0.15-0.25      |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |
|                   |                                                                                     |                                                                                                                                                                                                                                                                     |                             |   |   |   |   |   |            |                |                |

■ 切断切槽刀片 - 产品应用  
Parting and Grooving Inserts Application

|                |                                           |                       |                                                                                                                                                                                                                                                                                                                                                        |
|----------------|-------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 工件属性 Workpiece | SUS304, HB210                             |                       | <br>OP6115A<br><br><br>国外某品牌 A foreign brand<br><br>结果：在相同磨损情况下，我司 OP6115A 的加工时长多 10%<br>Result: Under the same wear condition, the tool life of our OP6115A is about 10% longer |
| 加工工序 Process   | 外圆切槽，湿切<br>External grooving, Wet cutting |                       |                                                                                                                                                                                                                                                                                                                                                        |
| 刀片 Type        | QCHD0402N-GTF/OP6115A                     | 国外某品牌 A foreign brand |                                                                                                                                                                                                                                                                                                                                                        |
| 切削速度 Vc        | 160m/min                                  | 160m/min              |                                                                                                                                                                                                                                                                                                                                                        |
| 进给量 f          | 0.10mm/rev                                | 0.10mm/rev            |                                                                                                                                                                                                                                                                                                                                                        |
| 刀具寿命 Tool life | 27min                                     | 24min                 |                                                                                                                                                                                                                                                                                                                                                        |

|                |                               |                       |                                                                                                                                                                                                                                                                                                                                                      |
|----------------|-------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 工件属性 Workpiece | 圆棒 Round bar, SUS304, HB210   |                       | <br>OP1530<br><br><br>国外某品牌 A foreign brand<br><br>结果：在寿命相当的情况下，我司 OP1530 的磨损量小 24%<br>Result: Under the same tool life, the wear condition of our OP1530 is about 24% smaller |
| 加工工序 Process   | 切断，湿切<br>Parting, Wet cutting |                       |                                                                                                                                                                                                                                                                                                                                                      |
| 刀片 Type        | QDED0202N-TM/OP1530           | 国外某品牌 A foreign brand |                                                                                                                                                                                                                                                                                                                                                      |
| 切削速度 Vc        | 130m/min                      | 130m/min              |                                                                                                                                                                                                                                                                                                                                                      |
| 进给量 f          | 0.10mm/rev                    | 0.10mm/rev            |                                                                                                                                                                                                                                                                                                                                                      |
| 刀具寿命 Tool life | 21 件 PCS                      | 20 件 PCS              |                                                                                                                                                                                                                                                                                                                                                      |

|                |                                           |                       |                                                                                                                                                                                                                                                                                                                                                              |
|----------------|-------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 工件属性 Workpiece | SUS304, HB210                             |                       | <br>OP1530<br><br><br>国外某品牌 A foreign brand<br><br>结果：在相同加工时间下，我司 OP1530 的磨损量小 13%<br>Result: Under the same machining time, the wear condition of our OP1530 is about 13% smaller |
| 加工工序 Process   | 外圆切槽，湿切<br>External grooving, Wet cutting |                       |                                                                                                                                                                                                                                                                                                                                                              |
| 刀片 Type        | QCGD0303N-TM/OP1530                       | 国外某品牌 A foreign brand |                                                                                                                                                                                                                                                                                                                                                              |
| 切削速度 Vc        | 150m/min                                  | 150m/min              |                                                                                                                                                                                                                                                                                                                                                              |
| 进给量 f          | 0.10mm/rev                                | 0.10mm/rev            |                                                                                                                                                                                                                                                                                                                                                              |
| 刀具寿命 Tool life | 30min                                     | 30min                 |                                                                                                                                                                                                                                                                                                                                                              |

|                |                                                           |                       |                                                                                                                                                                                                                                                                                                                                                                   |
|----------------|-----------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 工件属性 Workpiece | 钢圈 Steel ring, 42CrMo, HB200                              |                       | <br>OC2525<br><br><br>国外某品牌 A foreign brand<br><br>结果：在相同加工件数下，我司 OC2525 的磨损量小 23%<br>Result: With the same number of workpieces, the wear condition of our OC2525 is about 23% smaller |
| 加工工序 Process   | 外圆仿形，精加工，湿切<br>External profiling, Finishing, Wet cutting |                       |                                                                                                                                                                                                                                                                                                                                                                   |
| 刀片 Type        | QRJW06-TM/OC2525                                          | 国外某品牌 A foreign brand |                                                                                                                                                                                                                                                                                                                                                                   |
| 切削速度 Vc        | 182m/min                                                  | 182m/min              |                                                                                                                                                                                                                                                                                                                                                                   |
| 进给量 f          | 0.35mm/rev                                                | 0.35mm/rev            |                                                                                                                                                                                                                                                                                                                                                                   |
| 刀具寿命 Tool life | 30 件 PCS                                                  | 30 件 PCS              |                                                                                                                                                                                                                                                                                                                                                                   |



■ 切断切槽刀片命名规则  
Parting and Grooving Inserts Naming Rule

| 代号<br>Symbol | 系列总称<br>Application Code   |
|--------------|----------------------------|
| QC           | 切槽<br>Grooving             |
| QD           | 切断<br>Part off             |
| QR           | 仿形<br>Profile              |
| QT           | 切断切槽<br>Parting & Grooving |

系列总称代号  
Application Code

| 代号<br>Symbol | 刃口数量<br>Edge Number |
|--------------|---------------------|
| W/D          | 2                   |
| V/S          | 1                   |

刃口数量代号  
Edge Number

| 代号<br>Symbol | 圆角<br>Corner Radius |
|--------------|---------------------|
| 02           | R0.2                |
| 03           | R0.3                |
| 04           | R0.4                |
| 05           | R0.5                |
| 08           | R0.8                |

刀尖圆弧半径代号  
Corner Radius

| 代号<br>Symbol | 角度<br>Angle |
|--------------|-------------|
| 05           | 5°          |
| 07           | 7°          |

刀片角度  
Insert Angle

QD G D 03

02 R 05 — TM

刀片座型号  
Tools Holder Type

| 代号<br>Symbol | 宽度 (mm)<br>Width | 刀柄<br>Handle. |
|--------------|------------------|---------------|
| E            | 2                | E             |
| F            | 2.5              | F E           |
| G            | 3                | G F E         |
| H            | 4                | H             |
| J            | 5                | J H           |
| K            | 6                | K J H         |
| L            | 8                | L             |

刃宽代号  
Cutting Edge Width

| 代号<br>Symbol | 宽度 (mm)<br>Width |
|--------------|------------------|
| 03           | 3                |
| 04           | 4                |

切削方向代号  
Cutting Direction

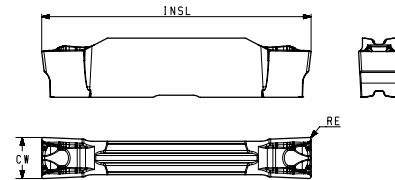
| 代号<br>Symbol | 宽度 (mm)<br>Width |
|--------------|------------------|
| R            | 右 Right          |
| L            | 左 Left           |
| N            | 双向 Neutral       |

断屑槽型代号  
Chip Breaker

|     |    |
|-----|----|
| GTF | TM |
|-----|----|



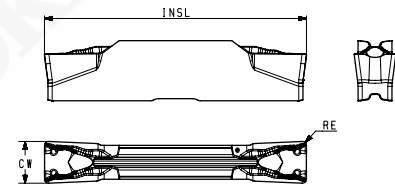
刀片型号列表 - 精密切槽刀片  
Insert Product List - Precision Grooving Insert



| 型号 Type        | 尺寸 Dimension (mm) |       |     |     | P      |        |        |        | M      |        |        |        | K      |        |        |        | S      |        |        |        |
|----------------|-------------------|-------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                | CW                | INSL  | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|                | CW                | INSL  | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
| QCDD01501N-GTF | 1.5               | 14.8  | 0.1 | D   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCED0202N-GTF  | 2.0               | 20.7  | 0.2 | E   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCED0204N-GTF  | 2.0               | 20.7  | 0.4 | E   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCGD0302N-GTF  | 3.0               | 20.6  | 0.2 | G   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCGD0304N-GTF  | 3.0               | 20.6  | 0.4 | G   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCGD0308N-GTF  | 3.0               | 20.6  | 0.8 | G   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCHD0402N-GTF  | 4.0               | 26.25 | 0.2 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCHD0404N-GTF  | 4.0               | 26.25 | 0.4 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCHD0502N-GTF  | 5.0               | 26.15 | 0.2 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCHD0504N-GTF  | 5.0               | 26.15 | 0.4 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCKD0602N-GTF  | 6.0               | 26    | 0.2 | K   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

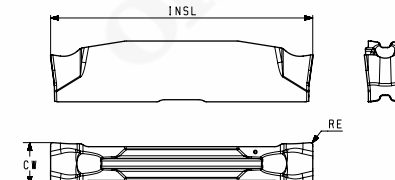
刀片型号列表 - 切槽、切断、车削通用刀片  
Insert Product List - Grooving, Parting and General Turning Inserts



| 型号 Type      | 尺寸 Dimension (mm) |      |     |     | P      |        |        |        | M      |        |        |        | K      |        |        |        | S      |        |        |        |
|--------------|-------------------|------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|              | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
| QCGD0303N-TM | 3.0               | 20.0 | 0.3 | G   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCHD0404N-TM | 4.0               | 25.1 | 0.4 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCJD0504N-TM | 5.0               | 25.0 | 0.4 | J   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QCKD0604N-TM | 6.0               | 25.0 | 0.4 | K   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

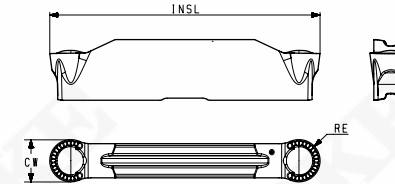
刀片型号列表 - 切断刀片  
Insert Product List - Parting Insert



| 型号 Type       | 尺寸 Dimension (mm) |      |     |     | P      |        |        |        | M      |        |        |        | K      |        |        |        | S      |        |        |        |
|---------------|-------------------|------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|               | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|               | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
| QDDD01502N-TM | 1.5               | 14.0 | 0.2 | D   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QDED0202N-TM  | 2.0               | 20.0 | 0.2 | E   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QDFD02502N-TM | 2.5               | 20.0 | 0.2 | F   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QDGD0302N-TM  | 3.0               | 20.0 | 0.2 | G   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QDHD0402N-TM  | 4.0               | 24.8 | 0.2 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QDJD0502N-TM  | 5.0               | 24.8 | 0.2 | J   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

刀片型号列表 - 仿形刀片  
Insert Product List - Profiling Insert



| 型号 Type   | 尺寸 Dimension (mm) |      |     |     | P      |        |        |        | M      |        |        |        | K      |        |        |        | S      |        |        |        |
|-----------|-------------------|------|-----|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|           | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
|           | CW                | INSL | RE  | SSC | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OC2605 | OC2615 | OC2625 | OC2635 | OC2645 | OC2655 |
| QRFW03-TM | 3.0               | 20.7 | 1.5 | F   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QRHW04-TM | 4.0               | 25.7 | 2.0 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QRHW05-TM | 5.0               | 25.7 | 2.5 | H   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| QRJW06-TM | 6.0               | 25.7 | 3.0 | J   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

● 常备库存 Stock available ○ 按单生产 Make-to-order

■ 切断切槽刀杆命名规则  
Parting and Grooving Inserts Tool Holder Naming Rule

外圆、端面切断切槽刀具 External and End Face Parting and Grooving CuttingTools

Q F G D 25 25 R 22 52 H - S

| Q                                                                                   | F                                                                                           | G                                                                  | D                                                                                     | 25                          | 25                         | R                                                                             | 22                          | 52                                                                                      | H                                                                                   | S                                       |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------------------|----------------------------|-------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------|
| 切槽刀代号<br>Q:切断切槽<br>P:切断<br>Application code<br>Q:parting and grooving<br>P:part off | 加工方式<br>E:外圆切削<br>F:端面切削<br>Cutting application<br>E:external cutting<br>F:end face cutting | 定位槽代号与刀片<br>对应的定位槽代号<br>一致并对应一定<br>刀片刃宽范围<br>Positioning slot code | 对应刀片的<br>刀力数代号<br>S:单刃 D:双刃<br>Cutting edge number<br>S:single head<br>D:double heads | 切槽刀刀体高度<br>Tool body height | 切槽刀刀体宽度<br>Tool body width | 刀具的左右手<br>R:右 L:左<br>N:两者皆可<br>Cutting direction<br>R:right left<br>N:neutral | 最大切削深度<br>Max cutting depth | 端面切槽刀首次<br>切削的最小直径<br>(外圆切槽时缺省)<br>The minimum diameter<br>for initial end face cutting | 端面切槽<br>刀刀柄类<br>H:直头 L:弯头<br>End face cutting shank type:<br>H: straight<br>L: bend | 适用的<br>刀片系列<br>Applicable insert series |

内圆切槽刀具 Grooving Tool

C 32 S - Q G D R 11 - 44 - S

| C                     | 32                      | S                     | Q                         | G                              | D                             | R                                                          | 11                          | 44                     | S                                       |
|-----------------------|-------------------------|-----------------------|---------------------------|--------------------------------|-------------------------------|------------------------------------------------------------|-----------------------------|------------------------|-----------------------------------------|
| 切槽刀压紧方式<br>Clamp type | 刀杆直径<br>Holder diameter | 刀杆长度<br>Holder length | 切槽刀代号<br>Application code | 定位槽代号<br>Positioning slot code | 对应刀片刃数<br>Cutting edge number | 刀具的左右手<br>R:右 L:左<br>Cutting direction<br>(R:right L:left) | 最大切削深度<br>Max cutting depth | 最小加工孔径<br>Min diameter | 适用的<br>刀片系列<br>Applicable insert series |

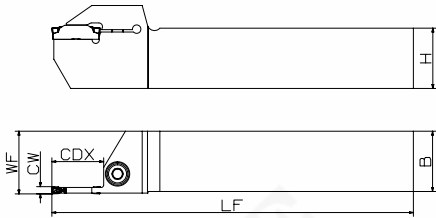
■ 刀杆型号列表 - 外径槽刀杆 NEW  
Tool Holder Product List - External Grooving Tool Holder



| 型号 Type |                  | 尺寸 Dimension (mm) |     |    |     |     | 适用刀片 Adaptable Inserts                                         | 螺钉 Screw | 扳手 Wrench |
|---------|------------------|-------------------|-----|----|-----|-----|----------------------------------------------------------------|----------|-----------|
|         |                  | HxB               | LF  | WF | CDX | SSC |                                                                |          |           |
| QEDD    | 1616R/L08H-1.5-S | 16X16             | 125 | 17 | 8   | D   | QDDD01502N-TM<br>QCDD01501N-GTF                                | SCH0416  | WLH3063   |
|         | 1616R/L15H-1.5-S | 16X16             | 125 | 17 | 15  |     |                                                                |          |           |
|         | 2020R/L08H-1.5-S | 20x20             | 125 | 21 | 8   |     |                                                                |          |           |
|         | 2020R/L15H-1.5-S | 20x20             | 125 | 21 | 15  |     |                                                                |          |           |
|         | 2525R/L08H-1.5-S | 25x25             | 150 | 26 | 8   |     |                                                                |          |           |
| QEED    | 1616R/L15H-1.5-S | 25x25             | 150 | 26 | 15  | E   | QDED0202N-TM<br>QCED0202N-GTF<br>QCED0204N-GTF                 | SCH0416  | WLH3063   |
|         | 1616R/L08H-2-S   | 16X16             | 125 | 17 | 8   |     |                                                                |          |           |
|         | 1616R/L15H-2-S   | 16X16             | 125 | 17 | 15  |     |                                                                |          |           |
|         | 2020R/L08H-2-S   | 20x20             | 125 | 21 | 8   |     |                                                                |          |           |
|         | 2020R/L15H-2-S   | 20x20             | 125 | 21 | 15  |     |                                                                |          |           |
| QEFD    | 1616R/L10H-2.5-S | 25x25             | 150 | 26 | 8   | F   | QDFD02502N-TM<br>QRFW03-TM                                     | SCH0416  | WLH3063   |
|         | 1616R/L20H-2.5-S | 25x25             | 150 | 26 | 15  |     |                                                                |          |           |
|         | 2020R/L10H-2.5-S | 20x20             | 125 | 21 | 10  |     |                                                                |          |           |
|         | 2020R/L20H-2.5-S | 20x20             | 125 | 21 | 20  |     |                                                                |          |           |
|         | 2525R/L10H-2.5-S | 25x25             | 150 | 26 | 10  |     |                                                                |          |           |
| QEGD    | 2525R/L20H-2.5-S | 25x25             | 150 | 26 | 20  | G   | QDGD0302N-TM<br>QCGD0303N-TM<br>QCGD0302N-GTF<br>QCGD0304N-GTF | SCH0516  | WLH4070   |
|         | 1616R/L10H-3-S   | 16X16             | 125 | 17 | 10  |     |                                                                |          |           |
|         | 1616R/L20H-3-S   | 16X16             | 125 | 17 | 20  |     |                                                                |          |           |
|         | 2020R/L10H-3-S   | 20x20             | 125 | 21 | 10  |     |                                                                |          |           |
|         | 2020R/L20H-3-S   | 20x20             | 125 | 21 | 20  |     |                                                                |          |           |
|         | 2525R/L10H-3-S   | 25x25             | 150 | 26 | 10  |     |                                                                |          |           |
|         | 2525R/L20H-3-S   | 25x25             | 150 | 26 | 20  |     |                                                                |          |           |
|         | 3232R/L20H-3-S   | 32x32             | 170 | 33 | 20  |     |                                                                |          |           |

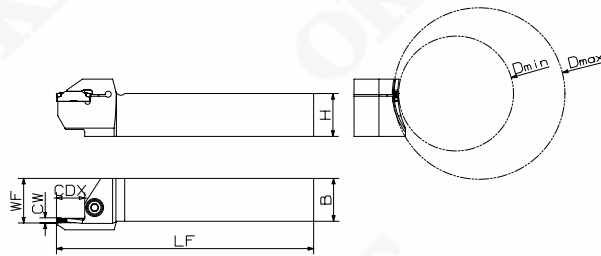


刀杆型号列表 - 外径槽刀杆  
Tool Holder Product List -External Grooving Tool Holder



| 型号 Type |                | 尺寸 Dimension (mm) |     |    |     |     | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|----------------|-------------------|-----|----|-----|-----|------------------------|----------|-----------|
|         |                | HxB               | LF  | WF | CDX | SSC |                        |          |           |
| QEHD    | 1616R/L13H-4-S | 16X16             | 125 | 17 | 13  | H   | QDHD0402N-TM           | SCH0620  | WLH5080   |
|         | 1616R/L25H-4-S | 16X16             | 125 | 17 | 25  |     | QCHD0404N-TM           |          |           |
|         | 2020R/L13H-4-S | 20x20             | 125 | 21 | 13  |     | QCHD0402N-GTF          |          |           |
|         | 2020R/L25H-4-S | 20x20             | 125 | 21 | 25  |     | QCHD0404N-GTF          |          |           |
|         | 2525R/L13H-4-S | 25x25             | 150 | 26 | 13  |     | QCHD0502N-GTF          |          |           |
|         | 2525R/L25H-4-S | 25x25             | 150 | 26 | 25  |     | QCHD0504N-GTF          |          |           |
|         | 3232R/L13H-4-S | 32x32             | 170 | 33 | 13  |     | QRHW04-TM              |          |           |
|         | 3232R/L25H-4-S | 32x32             | 170 | 33 | 25  |     | QRHW05-TM              |          |           |
| QEJD    | 2020R/L13H-5-S | 20x20             | 125 | 21 | 13  | J   | QDJD0502N-TM           | SCH0620  | WLH5080   |
|         | 2525R/L13H-5-S | 25x25             | 150 | 26 | 13  |     | QCJD0504N-TM           |          |           |
|         | 2525R/L22H-5-S | 25x25             | 150 | 26 | 22  |     | QRJW06-TM              |          |           |
|         | 2525R/L32H-5-S | 25x25             | 150 | 26 | 32  |     |                        |          |           |
|         | 3232R/L13H-5-S | 32x32             | 170 | 33 | 13  |     |                        |          |           |
|         | 3232R/L32H-5-S | 32x32             | 170 | 33 | 32  |     |                        |          |           |
| QEKD    | 2525R/L16H-6-S | 25x25             | 150 | 26 | 16  | K   | QCKD0604N-TM           | SCH0620  | WLH5080   |
|         | 2525R/L32H-6-S | 25x25             | 150 | 26 | 32  |     | QCKD0602N-GTF          |          |           |
|         | 3232R/L16H-6-S | 32x32             | 170 | 33 | 16  |     |                        |          |           |
|         | 3232R/L32H-6-S | 32x32             | 170 | 33 | 32  |     |                        |          |           |

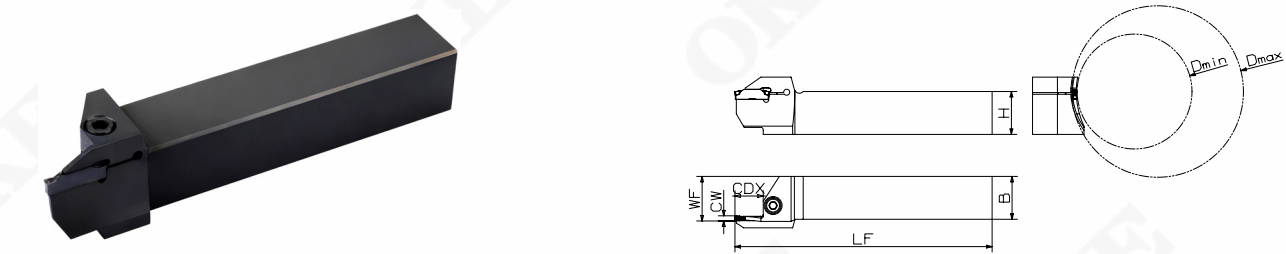
刀杆型号列表 - 直头端面槽刀杆  
Tool Holder Product List -Straight Type Face Grooving Tool Holder



| 型号 Type |                   | 尺寸 Dimension (mm) |     |    |     |           |     | 适用刀片 Adaptable Inserts                                                                                                     | 螺钉 Screw | 扳手 Wrench |
|---------|-------------------|-------------------|-----|----|-----|-----------|-----|----------------------------------------------------------------------------------------------------------------------------|----------|-----------|
|         |                   | HxB               | LF  | WF | CDX | Dmin~Dmax | SSC |                                                                                                                            |          |           |
| QFGD    | 2020R/L15H034-3-S | 20x20             | 125 | 21 | 15  | 34~44     | G   | QDGD0302N-TM<br>QCGD0303N-TM<br>QCGD0302N-GTF<br>QCGD0304N-GTF                                                             | SCH0516  | WLH4070   |
|         | 2020R/L15H042-3-S | 20x20             | 125 | 21 | 15  | 42~60     |     |                                                                                                                            |          |           |
|         | 2020R/L15H054-3-S | 20x20             | 125 | 21 | 15  | 54~75     |     |                                                                                                                            |          |           |
|         | 2020R/L15H067-3-S | 20x20             | 125 | 21 | 15  | 67~100    |     |                                                                                                                            |          |           |
|         | 2020R/L15H090-3-S | 20x20             | 125 | 21 | 15  | 90~160    |     |                                                                                                                            |          |           |
|         | 2020R/L15H130-3-S | 20x20             | 125 | 21 | 15  | 130~300   |     |                                                                                                                            |          |           |
|         | 2525R/L15H034-3-S | 25x25             | 150 | 26 | 15  | 34~44     |     |                                                                                                                            |          |           |
|         | 2525R/L15H042-3-S | 25x25             | 150 | 26 | 15  | 42~60     |     |                                                                                                                            |          |           |
|         | 2525R/L15H054-3-S | 25x25             | 150 | 26 | 15  | 54~75     |     |                                                                                                                            |          |           |
|         | 2525R/L15H067-3-S | 25x25             | 150 | 26 | 15  | 67~100    |     |                                                                                                                            |          |           |
|         | 2525R/L15H090-3-S | 25x25             | 150 | 26 | 15  | 90~160    |     |                                                                                                                            |          |           |
|         | 2525R/L15H130-3-S | 25x25             | 150 | 26 | 15  | 130~300   |     |                                                                                                                            |          |           |
| QFHD    | 2020R/L18H040-4-S | 20x20             | 125 | 21 | 18  | 40~60     | H   | QDHD0402N-TM<br>QCHD0404N-TM<br>QCHD0402N-GTF<br>QCHD0404N-GTF<br>QCHD0502N-GTF<br>QCHD0504N-GTF<br>QRHW04-TM<br>QRHW05-TM | SCH0620  | WLH5080   |
|         | 2020R/L18H052-4-S | 20x20             | 125 | 21 | 18  | 52~72     |     |                                                                                                                            |          |           |
|         | 2020R/L18H064-4-S | 20x20             | 125 | 21 | 18  | 64~100    |     |                                                                                                                            |          |           |
|         | 2020R/L18H092-4-S | 20x20             | 125 | 21 | 18  | 92~140    |     |                                                                                                                            |          |           |
|         | 2020R/L18H132-4-S | 20x20             | 125 | 21 | 18  | 132~230   |     |                                                                                                                            |          |           |
|         | 2020R/L18H220-4-S | 20x20             | 125 | 21 | 18  | 220~500   |     |                                                                                                                            |          |           |
|         | 2525R/L18H040-4-S | 25x25             | 150 | 26 | 18  | 40~60     |     |                                                                                                                            |          |           |
|         | 2525R/L18H052-4-S | 25x25             | 150 | 26 | 18  | 52~72     |     |                                                                                                                            |          |           |
|         | 2525R/L18H064-4-S | 25x25             | 150 | 26 | 18  | 64~100    |     |                                                                                                                            |          |           |
|         | 2525R/L18H092-4-S | 25x25             | 150 | 26 | 18  | 92~140    |     |                                                                                                                            |          |           |
|         | 2525R/L18H132-4-S | 25x25             | 150 | 26 | 18  | 132~230   |     |                                                                                                                            |          |           |
|         | 2525R/L18H220-4-S | 25x25             | 150 | 26 | 18  | 220~500   |     |                                                                                                                            |          |           |
|         | 2525R/L18H300-4-S | 25x25             | 150 | 26 | 18  | 300~1100  |     |                                                                                                                            |          |           |

刀杆型号列表 - 直头端面槽刀杆  
Tool Holder Product List -Straight Type Face Grooving Tool Holder

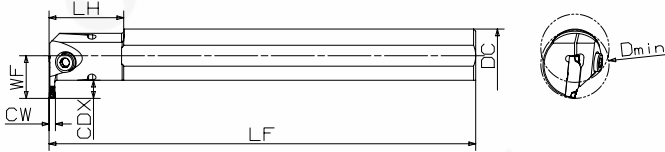
刀杆型号列表 - 弯头端面槽刀杆  
Tool Holder Product List -Angled Type Face Grooving Tool Holder



| 型号 Type |                   | 尺寸 Dimension (mm) |     |    |     |           |     | 适用刀片 Adaptable Inserts                    | 螺钉 Screw | 扳手 Wrench |
|---------|-------------------|-------------------|-----|----|-----|-----------|-----|-------------------------------------------|----------|-----------|
|         |                   | HxB               | LF  | WF | CDX | Dmin~Dmax | SSC |                                           |          |           |
| QFJD    | 2525R/L18H040-5-S | 25x25             | 150 | 26 | 18  | 40~70     | J   | QDJD0502N-TM<br>QCJD0504N-TM<br>QRJW06-TM | SCH0516  | WLH4070   |
|         | 2525R/L18H060-5-S | 25x25             | 150 | 26 | 18  | 60~95     |     |                                           |          |           |
|         | 2525R/L18H085-5-S | 25x25             | 150 | 26 | 18  | 85~130    |     |                                           |          |           |
|         | 2525R/L18H120-5-S | 25x25             | 150 | 26 | 18  | 120~180   |     |                                           |          |           |
|         | 2525R/L18H175-5-S | 25x25             | 150 | 26 | 18  | 175~500   |     |                                           |          |           |
| QFKD    | 2525R/L18H040-6-S | 25x25             | 150 | 26 | 18  | 40~70     | K   | QCKD0604N-TM<br>QCKD0602N-GTF             | SCH0620  | WLH5080   |
|         | 2525R/L18H058-6-S | 25x25             | 150 | 26 | 18  | 58~100    |     |                                           |          |           |
|         | 2525R/L18H088-6-S | 25x25             | 150 | 26 | 18  | 88~180    |     |                                           |          |           |
|         | 2525R/L18H168-6-S | 25x25             | 150 | 26 | 18  | 168~400   |     |                                           |          |           |
|         | 2525R/L18H220-6-S | 25x25             | 150 | 33 | 18  | 220~100   |     |                                           |          |           |
|         | 3232R/L18H088-6-S | 32x32             | 170 | 33 | 18  | 88~180    |     |                                           |          |           |
|         | 3232R/L18H168-6-S | 32x32             | 170 | 33 | 18  | 168~400   |     |                                           |          |           |
|         | 3232R/L18H220-6-S | 32x32             | 170 | 33 | 18  | 220~1000  |     |                                           |          |           |

| 型号 Type |                   | 尺寸 Dimension (mm) |     |    |     |           |     | 适用刀片 Adaptable Inserts                                                                                                     | 螺钉 Screw | 扳手 Wrench |
|---------|-------------------|-------------------|-----|----|-----|-----------|-----|----------------------------------------------------------------------------------------------------------------------------|----------|-----------|
|         |                   | HxB               | LF  | WF | CDX | Dmin~Dmax | SSC |                                                                                                                            |          |           |
| QFJD    | 2525R/L18L040-4-S | 25X25             | 150 | 45 | 18  | 40~60     | H   | QDHD0402N-TM<br>QCHD0404N-TM<br>QCHD0402N-GTF<br>QCHD0404N-GTF<br>QCHD0502N-GTF<br>QCHD0504N-GTF<br>QRHW04-TM<br>QRHW05-TM | SCH0620  | WLH5080   |
|         | 2525R/L18L052-4-S | 25X25             | 150 | 45 | 18  | 52~72     |     |                                                                                                                            |          |           |
|         | 2525R/L18L064-4-S | 25X25             | 150 | 45 | 18  | 64~100    |     |                                                                                                                            |          |           |
|         | 2525R/L18L092-4-S | 25X25             | 150 | 45 | 18  | 92~140    |     |                                                                                                                            |          |           |
|         | 2525R/L18L132-4-S | 25X25             | 150 | 45 | 18  | 132~230   |     |                                                                                                                            |          |           |
|         | 2525R/L18L220-4-S | 25X25             | 150 | 45 | 18  | 220~500   |     |                                                                                                                            |          |           |
|         | 2525R/L18L300-4-S | 25x25             | 150 | 45 | 18  | 300~1000  |     |                                                                                                                            |          |           |
| QFKD    | 2525R/L18L058-6-S | 25X25             | 150 | 45 | 18  | 58~100    | K   | QCKD0604N-TM<br>QCKD0602N-GTF                                                                                              | SCH0620  | WLH5080   |
|         | 2525R/L18L088-6-S | 25X25             | 150 | 45 | 18  | 88~180    |     |                                                                                                                            |          |           |
|         | 2525R/L18L168-6-S | 25X25             | 150 | 45 | 18  | 168~400   |     |                                                                                                                            |          |           |

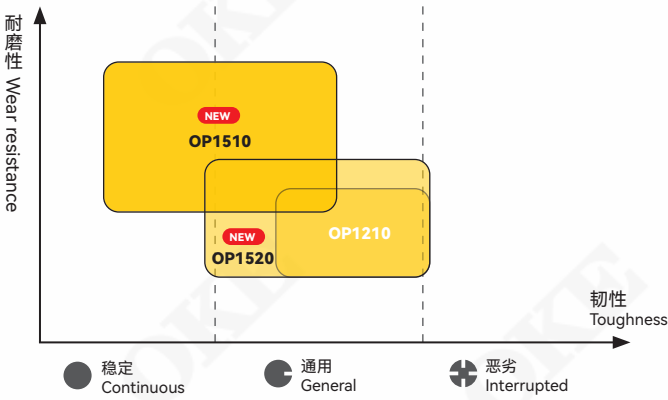
刀杆型号列表 - 内径槽刀杆  
Tool Holder Product List -Internal Grooving Tool Holder



| 型号 Type                | 尺寸 Dimension (mm) |    |     |    |     |       |     | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|------------------------|-------------------|----|-----|----|-----|-------|-----|------------------------|----------|-----------|
|                        | Dmin              | DC | L   | LH | CDX | WF    | SSC |                        |          |           |
| C16M-QDDR/L04-25-1.5-S | 25                | 16 | 150 | 25 | 4   | 12.5  | D   | QDDD01502N-TM          | SCH0412  | WLH3063   |
| C20Q-QDDR/L05-32-1.5-S | 32                | 20 | 180 | 30 | 4   | 12.5  |     | QCDD01501N-GTF         |          |           |
| C20Q-QEDR/L05-32-2-S   | 32                | 20 | 180 | 30 | 5   | 15.25 | E   | QDED0202N-TM           | SCH0416  | WLH3063   |
| C25R-QEDR/L07-32-2-S   | 32                | 25 | 200 | 35 | 7   | 19.75 |     | QCED0202N-GTF          |          |           |
| C32S-QEDR/L09-40-2-S   | 40                | 32 | 250 | 45 | 9   | 25.5  |     | QCED0204N-GTF          |          |           |
| C20Q-QFDR/L06-32-2.5-S | 32                | 20 | 180 | 30 | 6   | 15.25 | F   | QDFD02502N-TM          | SCH0516  | WLH4070   |
| C25R-QFDR/L07-32-2.5-S | 32                | 25 | 200 | 35 | 7   | 19.75 |     | QRFW03-TM              |          |           |
| C32S-QFDR/L09-40-2.5-S | 40                | 32 | 250 | 45 | 9   | 25.5  |     |                        |          |           |
| C20Q-QGDR/L06-32-3-S   | 32                | 20 | 180 | 25 | 6   | 15.25 | G   | QDGD0302N-TM           | SCH0516  | WLH4070   |
| C25R-QGDR/L07-32-3-S   | 32                | 25 | 200 | 35 | 7   | 19.75 |     | QCGD0303N-TM           |          |           |
| C32S-QGDR/L09-40-3-S   | 40                | 32 | 250 | 45 | 9   | 25.25 |     | QCGD0302N-GTF          |          |           |
| C40T-QGDR/L11-50-3-S   | 50                | 40 | 300 | 50 | 11  | 31    |     | QCGD0304N-GTF          |          |           |
| C25R-QHDR/L07-32-4-S   | 32                | 25 | 200 | 35 | 7   | 19.25 | H   | QDHD0402N-TM           | SCH0620  | WLH5080   |
| C32S-QHDR/L10-40-4-S   | 40                | 32 | 250 | 45 | 10  | 26.5  |     | QCHD0404N-TM           |          |           |
| C40T-QHDR/L11-50-4-S   | 50                | 40 | 300 | 50 | 11  | 31    |     | QCHD0402N-GTF          |          |           |
| C50U-QHDR/L13-60-4-S   | 60                | 50 | 350 | 60 | 13  | 38.25 |     | QCHD0404N-GTF          |          |           |
| C25R-QJDR/L08-32-5-S   | 32                | 25 | 200 | 35 | 8   | 19.75 | J   | QDJD0502N-TM           | SCH0620  | WLH5080   |
| C32S-QJDR/L11-40-5-S   | 40                | 32 | 250 | 45 | 11  | 27    |     | QCJD0504N-TM           |          |           |
| C40T-QJDR/L11-50-5-S   | 50                | 40 | 300 | 50 | 11  | 31    |     | QRJW06-TM              |          |           |
| C50U-QJDR/L13-60-5-S   | 60                | 50 | 350 | 60 | 13  | 38.25 |     |                        |          |           |
| C40T-QKDR/L11-50-6-S   | 50                | 40 | 300 | 50 | 11  | 31    | K   | QCKD0604N-TM           | SCH0620  | WLH5080   |
| C50U-QKDR/L13-60-6-S   | 60                | 50 | 350 | 60 | 13  | 38.25 |     | QCKD0602N-GTF          |          |           |

02 螺纹车削刀片  
Threading Turning Inserts

螺纹车削刀片 - 牌号适用范围  
Threading Insert Grade Application Range



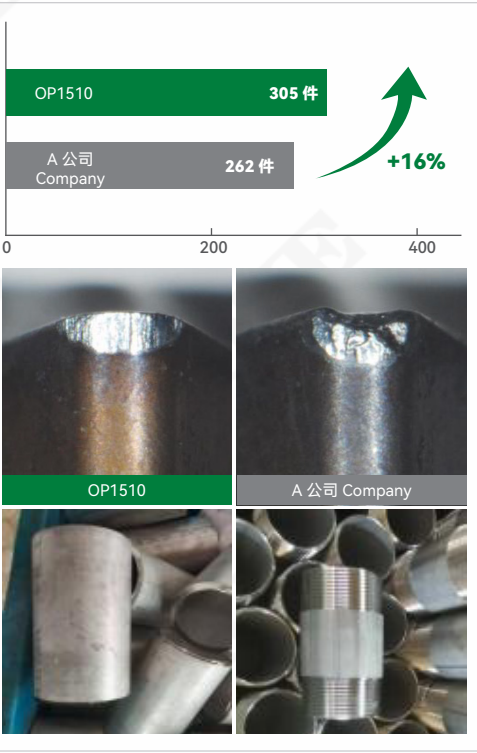
螺纹车削刀片 - 牌号介绍  
Threading Insert Grade introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO grade           | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 刀片示例<br>Insert Shape |
|-----------------|-------------------------------|-----------------------------|---|---|---|---|---|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                 |                               | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |
| OP1510<br>NEW   | M15-M25<br>P15-P25<br>K15-K25 | ○                           | ● | ○ |   |   |   | PVD                          | 耐磨加工等级;<br>高硬度的硬质合金基体, 具有良好的高温红硬性, 搭配全新一代 PVD 涂层工艺, 采用含 Si 纳米复合结构涂层, 使产品具有超高的耐磨性和良好的热稳定性, 加工适用范围广, 通用性强;<br>Wear-resistant grade;<br>The hard alloy substrate with high hardness has good high-temperature red hardness. With a new generation of PVD coating technology and a coating with nano-composite structure containing Si, the product has ultra-high wear resistance and good thermal stability, wide processing application range and strong versatility.                                                            |                      |
| OP1520<br>NEW   | M20-M30<br>P20-P30<br>K20-K30 | ○                           | ● | ○ |   |   |   | PVD                          | 通用加工等级;<br>高韧性的硬质合金基体, 具有良好的抗崩损性能, 搭配电弧涂层工艺, 精准调控沉积工艺以优化应力分布, 搭配具有标识性的 TiN 功能层, 配合特殊后处理工艺, 进一步降低涂层摩擦系数;<br>General grade;<br>The high toughness cemented carbide substrate has good edge chipping resistance. With arc coating process, the deposition process is accurately controlled to optimize the stress distribution, and with the marked TiN functional layer and special post-treatment process, the friction coefficient of the coating is further reduced. Suitable for processing high-temperature alloy materials; |                      |
| OP1210          | M20-M30<br>P20-P30<br>K20-K30 | ○                           | ● | ○ |   |   |   | PVD                          | 通用加工等级;<br>高韧性的硬质合金基体搭配高耐磨性涂层, 使得该牌号产品拥有很好的刃口强度;<br>加工适用性、通用性强;<br>General grade;<br>High toughness cemented carbide substrate with high wear resistance coating makes this brand of products have good cutting edge strength; Strong processing applicability and universality.                                                                                                                                                                                                                                                |                      |

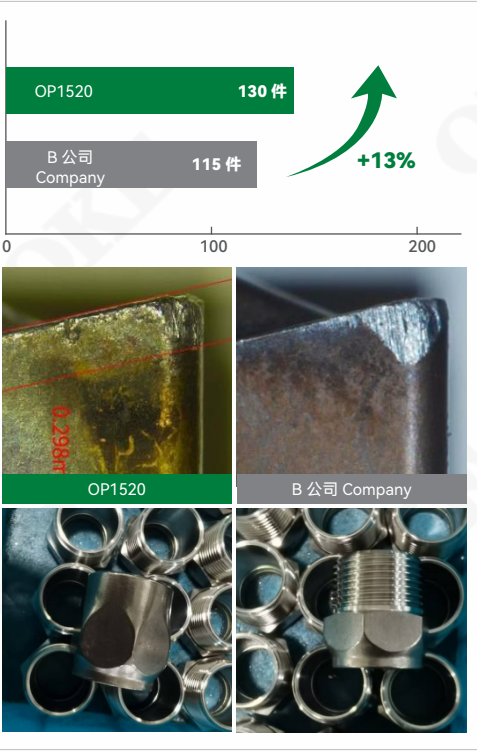


■ 螺纹车削刀片 - 产品应用  
Threading Insert Application

|                         |                                 |
|-------------------------|---------------------------------|
| 工件名称 Workpiece          | 接头 Joint (T-M-16ER-WF-25041601) |
| 刀具规格 Type               | 16ER-11BSPTA/OP1510             |
|                         | 16ER-11BSPT/A 公司 Company        |
| 加工材料 Workpiece Material | SUS304                          |
| 切削速度 Cutting speed      | 150m/min                        |
| 进给量 Feed rate           | 25.4/11mm/rev                   |
| 切深量 Ap                  | 0.2mm                           |
| 切削方式 Cutting method     | 湿切<br>Wet cutting               |

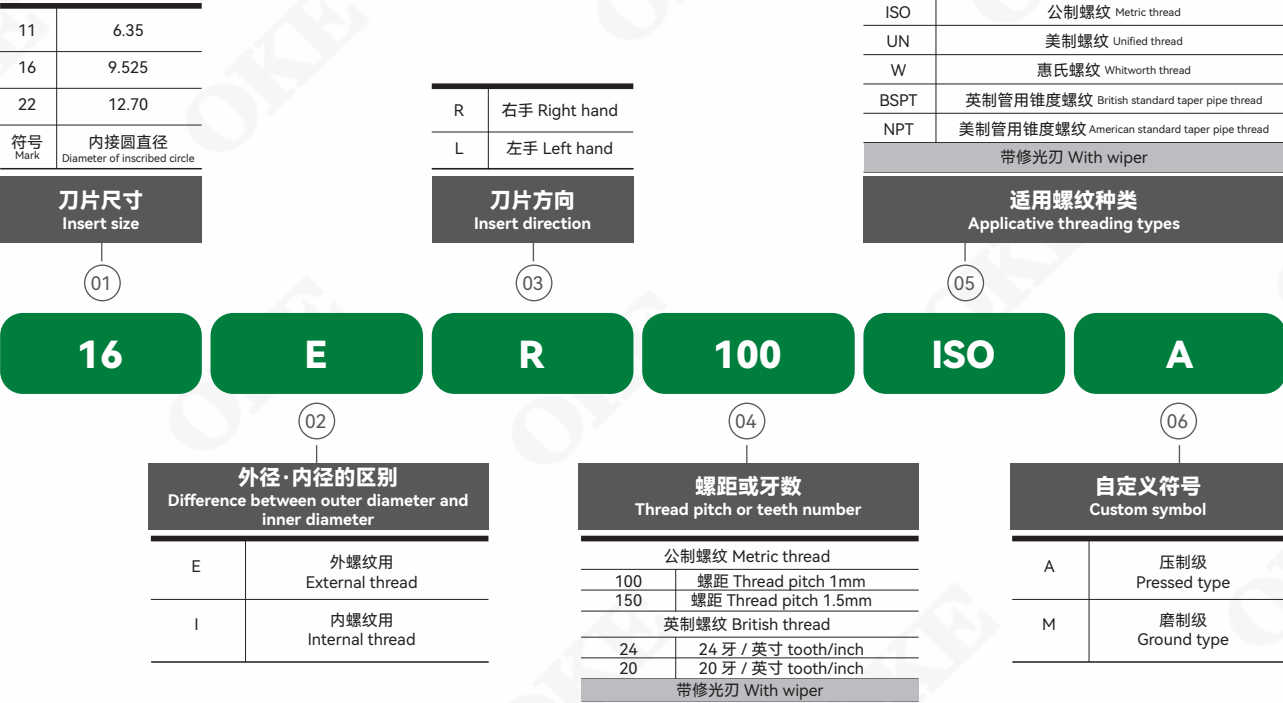


|                         |                                 |
|-------------------------|---------------------------------|
| 工件名称 Workpiece          | 接头 Joint (T-M-16ER-WF-25041601) |
| 刀具规格 Type               | 16ER-11WA/OP1520                |
|                         | 16ER-11W/B 公司 Company           |
| 加工材料 Workpiece Material | SUS304                          |
| 切削速度 Cutting speed      | 130-150m/min                    |
| 进给量 Feed rate           | 25.4/11mm/rev                   |
| 切深量 Ap                  | 0.2mm                           |
| 切削方式 Cutting method     | 湿切<br>Wet cutting               |

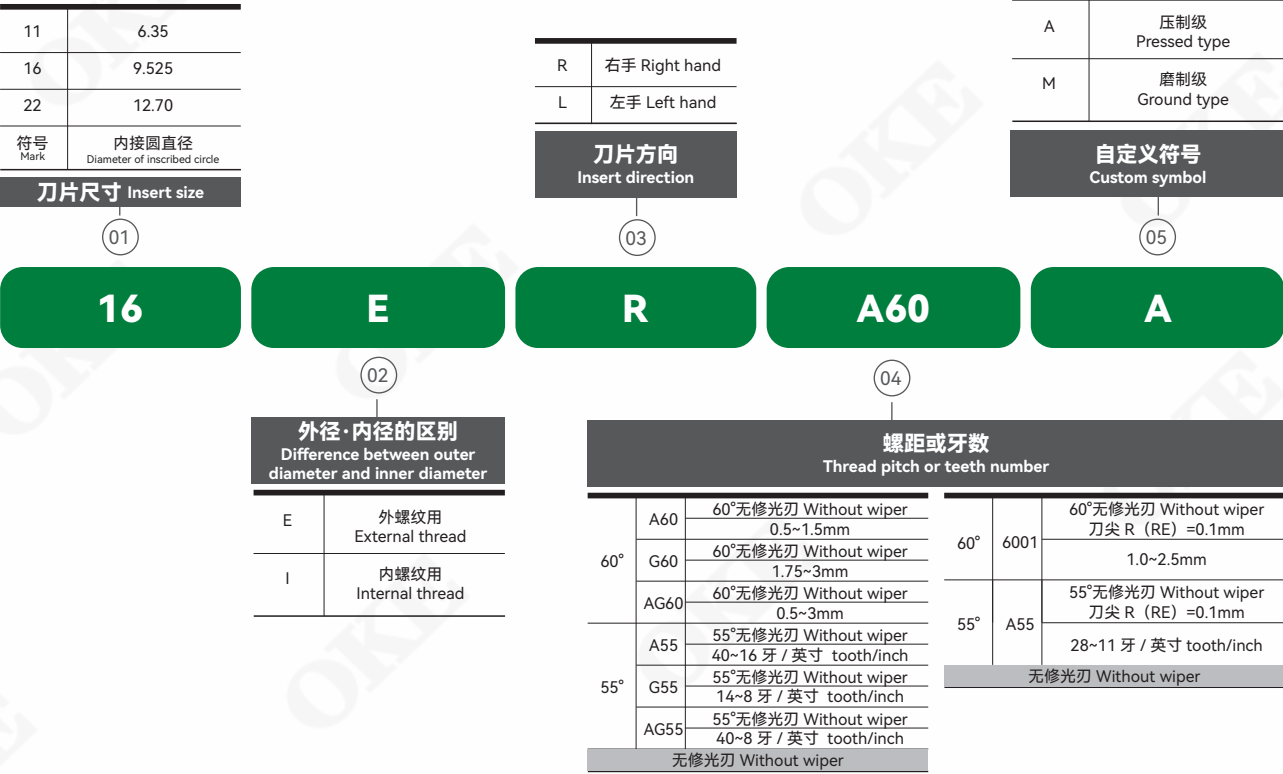


■ 螺纹车削刀片 - 命名规则  
Threading Insert Naming Rule

螺纹车削刀片命名规则（带修光刃） Threading Insert Naming rule (with wiper)

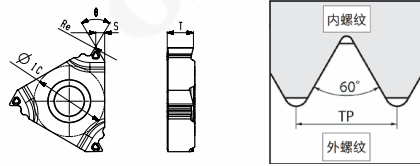
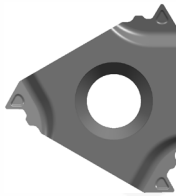
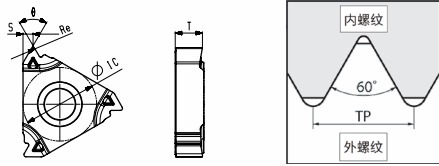


螺纹车削刀片命名规则（无修光刃） Threading Insert Naming rule (without wiper)



■ 螺纹车削刀片型号列表 - 公制螺纹 ISO 外螺纹加工刀片  
Threading Insert Product List-Metric Thread ISO External Threading Insert

■ 螺纹车削刀片型号列表 - 公制螺纹 ISO 内螺纹加工刀片  
Threading Insert Product List-Metric Thread ISO Internal Threading Insert



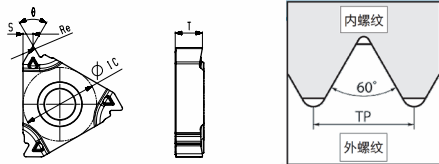
| 型号 Type      | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |        |        | M     |       |       |        |        | P/M/K  |        |        | S      |         |         |         |
|--------------|-----------------|-------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|              | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC310 | OC320 | OC330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1620 | OP1710 | OP6105A | OP6115A | OP6125A |
| 16ER-100ISOA | 1.0             | -                             | 0.12              | 0.7  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-125ISOA | 1.25            | -                             | 0.13              | 0.9  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-150ISOA | 1.50            | -                             | 0.19              | 1    | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-175ISOA | 1.75            | -                             | 0.2               | 1.2  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-200ISOA | 2.0             | -                             | 0.26              | 1.3  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-250ISOA | 2.5             | -                             | 0.31              | 1.5  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-300ISOA | 3.0             | -                             | 0.4               | 1.6  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-350ISOA | 3.5             | -                             | 0.45              | 2.1  | 60 | 9.525 | 3.25 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22ER-400ISOA | 4.0             | -                             | 0.52              | 2.3  | 60 | 12.7  | 4.64 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22ER-500ISOA | 5.0             | -                             | 0.63              | 2.5  | 60 | 12.7  | 4.64 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22ER-600ISOA | 6.0             | -                             | 0.78              | 2.72 | 60 | 12.7  | 4.64 |        |        |        |        |        |        |       |       |       |        |        |        | ○      | ●      | ○      |         |         | ○       |

| 型号 Type      | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         |        | M      |        |        |        |        |        | P/M/K  |        |        | S       |         |         |
|--------------|-----------------|-------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|              | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 06IR-100ISOA | 1.0             | -                             | 0.07              | 0.5  | 60 | 3.97  | 1.91 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 06IR-150ISOA | 1.5             | -                             | 0.11              | 0.7  | 60 | 3.97  | 1.91 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 08IR-100ISOA | 1.0             | -                             | 0.07              | 0.5  | 60 | 4.76  | 2.38 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 08IR-150ISOA | 1.5             | -                             | 0.2               | 1.2  | 60 | 4.76  | 2.38 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-100ISOA | 1.0             | -                             | 0.07              | 0.7  | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-125ISOA | 1.25            | -                             | 0.09              | 0.9  | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-150ISOA | 1.5             | -                             | 0.11              | 1    | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-175ISOA | 1.75            | -                             | 0.12              | 1    | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-200ISOA | 2.0             | -                             | 0.15              | 1.1  | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-250ISOA | 2.5             | -                             | 0.16              | 1.24 | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-075ISOA | 0.75            | -                             | 0.05              | 0.5  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-100ISOA | 1.0             | -                             | 0.07              | 0.7  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-125ISOA | 1.25            | -                             | 0.08              | 0.9  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-150ISOA | 1.50            | -                             | 0.11              | 1    | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-175ISOA | 1.75            | -                             | 0.12              | 1.2  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-200ISOA | 2.0             | -                             | 0.15              | 1.2  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-250ISOA | 2.5             | -                             | 0.16              | 1.5  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-300ISOA | 3.0             | -                             | 0.22              | 1.6  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-350ISOA | 3.5             | -                             | 0.22              | 2.1  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22IR-400ISOA | 4.0             | -                             | 0.25              | 2.3  | 60 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22IR-500ISOA | 5.0             | -                             | 0.32              | 2.5  | 60 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22IR-600ISOA | 6.0             | -                             | 0.38              | 2.72 | 60 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

● 常备库存 Stock available ○ 按单生产 Make-to-order

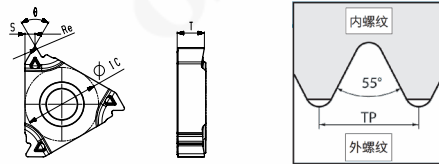
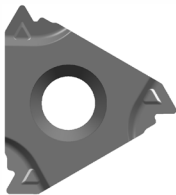
■ 螺纹车削刀片型号列表 - 通用螺纹 60°外螺纹加工刀片  
Threading Insert Product List-General thread 60° External Threading Insert



| 型号 Type    | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|            | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 16ER-A60A  | 0.5~1.5         | 48~16                         | 0.06              | 0.9 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-AG60A | 0.5~3           | 48~8                          | 0.07              | 1.5 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-G60A  | 1.75~3          | 14~18                         | 0.23              | 1.7 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22ER-N60A  | 3.5~5           | 7~5                           | 0.4               | 2.5 | 60 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

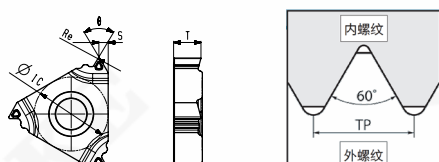
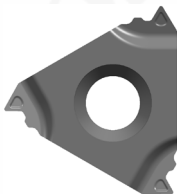
■ 螺纹车削刀片型号列表 - 通用螺纹 55°外螺纹加工刀片  
Threading Insert Product List-General thread 55° External Threading Insert



| 型号 Type    | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|            | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2225S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
|            |                 |                               |                   |     |    |       |      |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |         |         |         |
| 16ER-AG55A | -               | 48~8                          | 0.07              | 1.5 | 55 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22ER-N55A  | -               | 7~5                           | 0.44              | 2.5 | 55 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

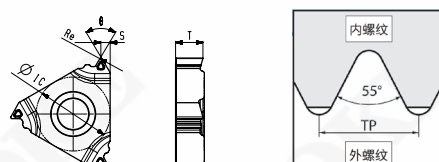
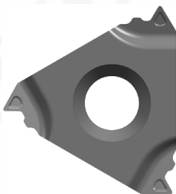
■ 螺纹车削刀片型号列表 - 通用螺纹 60°内螺纹加工刀片  
Threading Insert Product List-General thread 60° Internal Threading Insert



| 型号 Type    | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|------------|-----------------|-------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|            | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
|            |                 |                               |                   |      |    |       |      |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |         |         |         |
| 06IR-A60A  | 0.5~1.5         | 48~16                         | 0.04              | 0.75 | 60 | 3.97  | 1.91 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 08IR-A60A  | 0.5~1.5         | 48~16                         | 0.04              | 0.75 | 60 | 4.76  | 2.38 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-A60A  | 0.5~1.5         | 48~16                         | 0.04              | 0.9  | 60 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-A60A  | 0.5~1.5         | 48~16                         | 0.04              | 0.9  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-AG60A | 0.5~3           | 48~8                          | 0.07              | 1.5  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-G60A  | 1.75~3          | 14~18                         | 0.11              | 1.7  | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22IR-N60A  | 3.5~5           | 7~5                           | 0.26              | 2.5  | 60 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

■ 螺纹车削刀片型号列表 - 通用螺纹 55°内螺纹加工刀片  
Threading Insert Product List-General thread 55° Internal Threading Insert



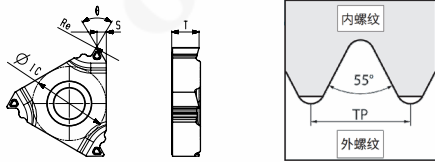
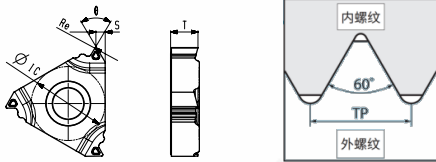
| 型号 Type    | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|            | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6155A |
|            |                 |                               |                   |     |    |       |      |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |         |         |         |
| 06IR-A55A  | -               | 40~16                         | 0.06              | 0.7 | 55 | 3.97  | 1.91 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 08IR-A55A  | -               | 40~16                         | 0.06              | 0.7 | 55 | 4.76  | 2.38 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 11IR-A55A  | -               | 40~16                         | 0.06              | 0.9 | 55 | 6.35  | 3    |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-AG55A | -               | 40~8                          | 0.07              | 1.5 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 22IR-N55A  | -               | 7~5                           | 0.44              | 2.5 | 55 | 12.7  | 4.64 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order



■ 螺纹车削刀片型号列表 - 美制统一螺纹 UN 外螺纹加工刀片  
Threading Insert Product List-Unified Thread UN External Threading Insert

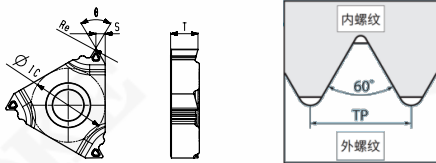
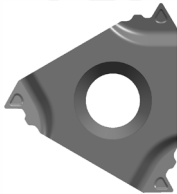
■ 螺纹车削刀片型号列表 - 英制惠氏螺纹 W 外螺纹加工刀片  
Threading Insert Product List-British Standard Whitworth Thread W External Threading Insert



| 型号 Type    | 螺距 Thread pitch |                                  | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |        | M      |        |        |        |        | P/M/K  |        |        | S      |        |        |
|------------|-----------------|----------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            | mm              | 牙数 / 英寸<br>Tooth number<br>/inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OP1510 | OP1520 | OP1530 | OP1540 | OP1550 | OP1560 |
| 16ER-24UNA | -               | 24                               | 0.15              | 0.8 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-20UNA | -               | 20                               | 0.18              | 0.9 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-18UNA | -               | 18                               | 0.22              | 1   | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-16UNA | -               | 16                               | 0.23              | 1.1 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-14UNA | -               | 14                               | 0.24              | 1.2 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-8UNA  | -               | 8                                | 0.46              | 1.7 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |

| 型号 Type   | 螺距 Thread pitch |                                  | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |        | M      |        |        |        |        | P/M/K  |        |        | S      |        |        |
|-----------|-----------------|----------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|           | mm              | 牙数 / 英寸<br>Tooth number<br>/inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OP1510 | OP1520 | OP1530 | OP1540 | OP1550 | OP1560 |
| 16ER-32WA | -               | 32                               | 0.11              | 0.65 | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-26WA | -               | 26                               | 0.13              | 0.75 | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-24WA | -               | 24                               | 0.15              | 0.8  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-20WA | -               | 20                               | 0.18              | 0.9  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-19WA | -               | 19                               | 0.18              | 1    | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-18WA | -               | 18                               | 0.19              | 1    | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-16WA | -               | 16                               | 0.22              | 1.1  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-14WA |                 | 14                               | 0.27              | 0.95 | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-12WA |                 | 12                               | 0.29              | 1.4  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-11WA | -               | 11                               | 0.32              | 1.2  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-10WA | -               | 10                               | 0.35              | 1.6  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-9WA  | -               | 9                                | 0.39              | 1.7  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16ER-8WA  | -               | 8                                | 0.44              | 1.8  | 55 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |

■ 螺纹车削刀片型号列表 - 美制统一螺纹 UN 内螺纹加工刀片  
Threading Insert Product List-Unified Thread UN Internal Threading Insert

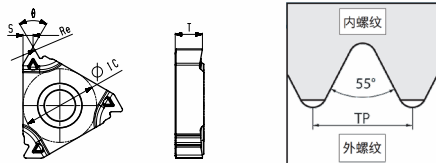


| 型号 Type    | 螺距 Thread pitch |                                  | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |        | M      |        |        |        |        | P/M/K  |        |        | S      |        |        |
|------------|-----------------|----------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            | mm              | 牙数 / 英寸<br>Tooth number<br>/inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OP1510 | OP1520 | OP1530 | OP1540 | OP1550 | OP1560 |
| 16IR-24UNA | -               | 24                               | 0.08              | 0.8 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16IR-20UNA | -               | 20                               | 0.09              | 0.9 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16IR-18UNA | -               | 18                               | 0.1               | 1   | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16IR-16UNA | -               | 16                               | 0.12              | 1.1 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16IR-14UNA | -               | 14                               | 0.13              | 1.2 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |
| 16IR-8UNA  | -               | 8                                | 0.23              | 1.7 | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        | ○      |

● 常备库存 Stock available ○ 按单生产 Make-to-order

● 常备库存 Stock available ○ 按单生产 Make-to-order

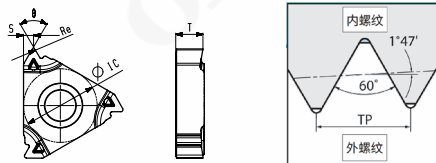
■ 螺纹车削刀片型号列表 - 英制惠氏螺纹 W 内螺纹加工刀片  
Threading Insert Product List-British Standard Whitworth Thread W Internal Threading Insert



| 型号 Type   | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         |        | M      |        |        |        |        | P/M/K  |        |        | S      |         |         |         |
|-----------|-----------------|-------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|           | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125S |
| 16ER-32WA | -               | 32                            | 0.11              | 0.65 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-26WA | -               | 26                            | 0.13              | 0.75 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-24WA | -               | 24                            | 0.15              | 0.8  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-20WA | -               | 20                            | 0.18              | 0.9  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-19WA | -               | 19                            | 0.18              | 1    | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-18WA | -               | 18                            | 0.19              | 1    | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-16WA | -               | 16                            | 0.22              | 1.1  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-14WA |                 | 14                            | 0.27              | 0.95 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-12WA |                 | 12                            | 0.29              | 1.4  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-11WA | -               | 11                            | 0.32              | 1.2  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-10WA | -               | 10                            | 0.35              | 1.6  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-9WA  | -               | 9                             | 0.39              | 1.7  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-8WA  | -               | 8                             | 0.44              | 1.8  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

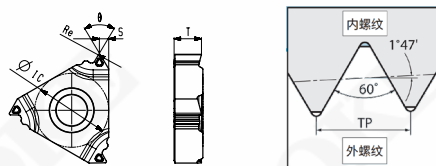
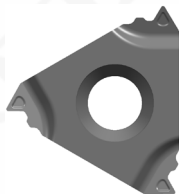
■ 螺纹车削刀片型号列表 - 美制管螺纹 NPT 外螺纹加工刀片  
Threading Insert Product List-National Pipe Thread NPT External Threading Insert



| 型号 Type       | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|---------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|               | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 16ER-18NPTA   | -               | 18                            | 0.08              | 1   | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-14NPTA   | -               | 14                            | 0.09              | 1.2 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-11.5NPTA | -               | 11.5                          | 0.11              | 1.5 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-8NPTA    | -               | 8                             | 0.14              | 1.8 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

■ 螺纹车削刀片型号列表 - 美制管螺纹 NPT 内螺纹加工刀片  
Threading Insert Product List-National Pipe Thread NPT Internal Threading Insert



| 型号 Type       | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        | S      |        |        |         |         |         |
|---------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|               | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 16IR-18NPTA   | -               | 18                            | 0.08              | 1   | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-14NPTA   | -               | 14                            | 0.09              | 1.2 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-11.5NPTA | -               | 11.5                          | 0.11              | 1.5 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-8NPTA    | -               | 8                             | 0.14              | 1.8 | 60 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order

■ 螺纹车削刀片型号列表 - 英制管螺纹 BSPT 外螺纹加工刀片  
Threading Insert Product List-British Standard Pipe Thread BSPT External Threading Insert

■ 螺纹车削刀片型号列表 - 公制螺纹 ISO 外螺纹加工刀片  
Threading Insert Product List-ISO Metric Thread External Threading Insert



| 型号 Type     | 螺距 Thread pitch |                                | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|-------------|-----------------|--------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|             | mm              | 牙数 / 英寸<br>Tooth number / inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
|             |                 |                                |                   |      |    |       |      |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |         |         |         |
| 16ER-14BSPT | -               | 14                             | 0.25              | 1.5  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-11BSPT | -               | 11                             | 0.39              | 1.55 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

| 型号 Type      | 螺距 Thread pitch |                               | 尺寸 Dimension (mm) |     |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|--------------|-----------------|-------------------------------|-------------------|-----|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|              | mm              | 牙数 / 英寸<br>Tooth number /inch | Re                | S   | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 16ER-100ISOM | 1.0             | -                             | 0.12              | 0.7 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-125ISOM | 1.25            | -                             | 0.13              | 0.9 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-150ISOM | 1.50            | -                             | 0.19              | 1   | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-175ISOM | 1.75            | -                             | 0.2               | 1.2 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-200ISOM | 2.0             | -                             | 0.26              | 1.3 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-250ISOM | 2.5             | -                             | 0.31              | 1.5 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-300ISOM | 3.0             | -                             | 0.4               | 1.6 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16ER-350ISOM | 3.5             | -                             | 0.45              | 2.1 | 60 | 9.525 | 3.25 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

■ 螺纹车削刀片型号列表 - 英制管螺纹 BSPT 内螺纹加工刀片  
Threading Insert Product List-British Standard Pipe Thread BSPT Internal Threading Insert

● 常备库存 Stock available ○ 按单生产 Make-to-order



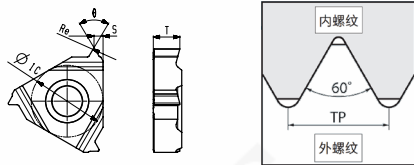
| 型号 Type     | 螺距 Thread pitch |                                | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         | M      |        |        |        |        | P/M/K  |        |        | S      |        |         |         |         |
|-------------|-----------------|--------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|             | mm              | 牙数 / 英寸<br>Tooth number / inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
|             |                 |                                |                   |      |    |       |      |        |        |        |        |         |        |        |        |        |        |        |        |        |        |        |         |         |         |
| 16IR-14BSPT | -               | 14                             | 0.25              | 1.5  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |
| 16IR-11BSPT | -               | 11                             | 0.32              | 1.55 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        | ○      | ●      | ○      |         |         | ○       |

| 型号 Type     | 螺距 Thread pitch |                                | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |         | P/M/K  |        |        | S      |        |        |        |        |        |        |         |         |         |
|-------------|-----------------|--------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
|             | mm              | 牙数 / 英寸<br>Tooth number / inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OP1510 | OP1520 | OP1210 | OP6105A | OP6115A | OP6125A |
| 16IR-14BSPT | -               | 14                             | 0.25              | 1.5  | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        |        | ○      | ●      | ○       |         | ○       |
| 16IR-11BSPT | -               | 11                             | 0.32              | 1.55 | 55 | 9.525 | 3.52 |        |        |        |        |         |        |        |        |        |        |        |        |        | ○      | ●      | ○       |         | ○       |

● 常备库存 Stock available ○ 按单生产 Make-to-order



■ 螺纹车削刀片型号列表 - 公制螺纹 ISO 内螺纹加工刀片  
Threading Insert Product List-ISO Metric Thread Internal Threading Insert



| 型号 Type      | 螺距 Thread pitch |                                | 尺寸 Dimension (mm) |      |    |       |      | P      |        |        |        |        | M      |        |        |        |        | P/M/K  |        |        |        |        | S      |        |        |        |        |
|--------------|-----------------|--------------------------------|-------------------|------|----|-------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|              | mm              | 牙数 / 英寸<br>Tooth number / inch | Re                | S    | θ  | IC    | T    | OC2505 | OC2515 | OC2525 | OC2535 | OC2545 | OC2555 | OC2565 | OC2575 | OC2585 | OC2595 | OP1510 | OP1520 | OP1530 | OP1540 | OP1550 | OP1560 | OP1570 | OP1580 | OP1590 | OP1600 |
| 06IR-100ISOM | 1.0             | -                              | 0.07              | 0.5  | 60 | 3.97  | 1.91 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 06IR-150ISOM | 1.5             | -                              | 0.11              | 0.7  | 60 | 3.97  | 1.91 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 08IR-100ISOM | 1.0             | -                              | 0.07              | 0.5  | 60 | 4.76  | 2.38 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 08IR-150ISOM | 1.5             | -                              | 0.2               | 1.2  | 60 | 4.76  | 2.38 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-100ISOM | 1.0             | -                              | 0.07              | 0.7  | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-125ISOM | 1.25            | -                              | 0.09              | 0.9  | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-150ISOM | 1.5             | -                              | 0.11              | 1    | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-175ISOM | 1.75            | -                              | 0.12              | 1    | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-200ISOM | 2.0             | -                              | 0.15              | 1.1  | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 11IR-250ISOM | 2.5             | -                              | 0.16              | 1.24 | 60 | 6.35  | 3    |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-075ISOM | 0.75            | -                              | 0.05              | 0.5  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-100ISOM | 1.0             | -                              | 0.07              | 0.7  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-125ISOM | 1.25            | -                              | 0.08              | 0.9  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-150ISOM | 1.50            | -                              | 0.11              | 1    | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-175ISOM | 1.75            | -                              | 0.12              | 1.2  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-200ISOM | 2.0             | -                              | 0.15              | 1.2  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-250ISOM | 2.5             | -                              | 0.16              | 1.5  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-300ISOM | 3.0             | -                              | 0.22              | 1.6  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |
| 16IR-350ISOM | 3.5             | -                              | 0.22              | 2.1  | 60 | 9.525 | 3.52 |        |        |        |        |        |        |        |        |        |        | ○      | ●      | ○      |        |        |        |        |        |        | ○      |

● 常备库存 Stock available ○ 按单生产 Make-to-order

03 卫浴市场车削刀具  
Inserts for the Sanitary Ware Market

■ 卫浴市场车削刀具 - 牌号介绍  
Inserts for the Sanitary Ware Market Grade Introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO grade | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 刀片示例<br>Insert Shape |
|-----------------|---------------------|-----------------------------|---|---|---|---|---|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                 |                     | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                      |
| OP1305          | M15-M25             | ●                           |   |   |   |   |   | PVD                          | 基本采用细晶粒硬质合金，通过适中的钴含量及烧结控制技术，使基体硬度耐磨性能优异；涂层为高铝含量、高致密性 AlTiN 电弧涂层，高温红硬性和耐磨性能优异；应用：广泛应用于卫浴不锈钢市场车削领域，通用性好，适用性强；<br>The substrate is made of fine-grain cemented carbide. With a moderate cobalt content and optimized sintering control, it offers excellent hardness and wear resistance; the coating is a high-aluminum-content, high-density AlTiN arc coating, providing outstanding hot hardness and wear resistance at high temperatures.<br>Application: Widely used in the turning of stainless steel in the sanitary ware market, featuring good versatility and strong adaptability. |                      |



■ 卫浴市场车削刀具槽型 -NMS  
Indexable Insert Chipbreaker - NMS

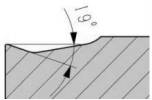
刀片技术细节与应用 Grade introduction

刀片材质及应用 Grade and Application

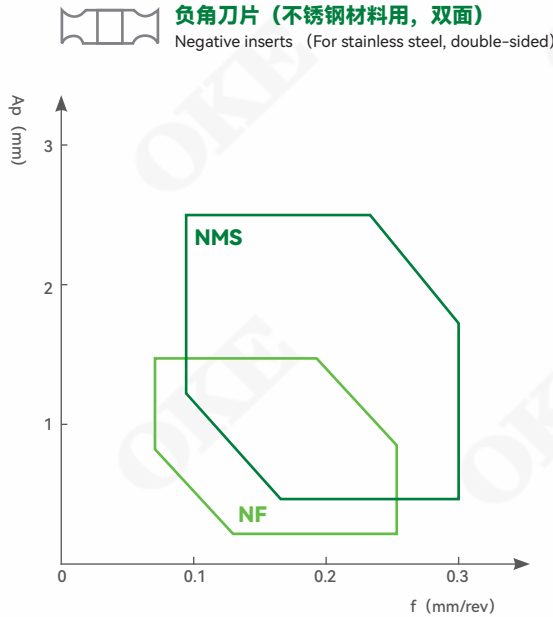
|                             |                        |                       |                                        |
|-----------------------------|------------------------|-----------------------|----------------------------------------|
| PVD 材质<br>PVD Grade         | OP1305                 | 基本形状<br>Basic shapes  | CNMG1204、TNMG1604<br>WNMG0804、VNMG1604 |
| 被加工材料<br>Workpiece Material | 不锈钢<br>Stainless Steel | 刀尖圆弧<br>Corner Radius | 0.4、0.8                                |

刀片型号 Inserts Size

槽型设计特性及应用 Chipbreak Characteristics And Applications

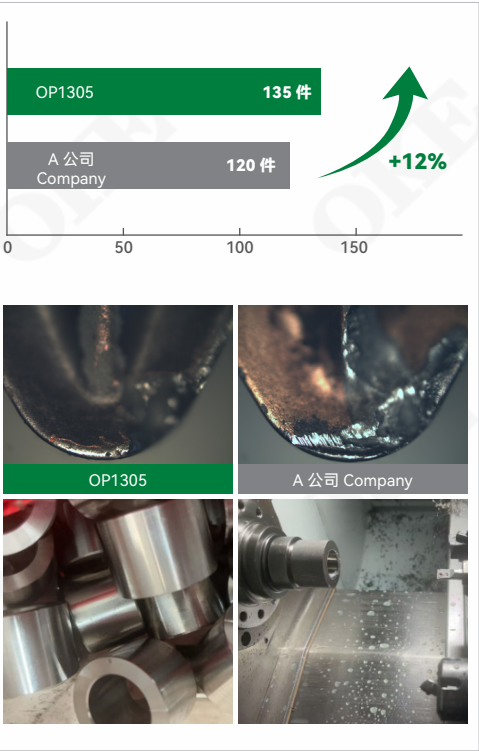
|                     |                                         |                                   |                                                                                                                                                                                                                                                                                  |
|---------------------|-----------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 通用性加工用<br>For general-purpose machining | 槽型特点<br>Chipbreak Characteristics | <ul style="list-style-type: none"><li>- 刃口优化设计，切削刃锋利与强度兼备</li><li>- 超长刃倾角设计，切削轻快兼具更通用性</li><li>- Optimized cutting edge design ensures both sharpness and strength.</li><li>- Extra-long inclination angle design provides light cutting action and wider versatility.</li></ul> |
| 加工参数<br>Parameter   | Ap=0.2-2.5mm<br>Fn=0.10-0.30mm/rev      | 主切削刃<br>Main cutting edges        |                                                                                                                                                                                             |

■ 不锈钢卫浴市场车削槽型断屑范围 (负角 --NMS 槽型)  
Inserts for the Sanitary Ware Market Chip-breaking range for stainless steel sanitary ware turning (negative - NMS chip breaker)



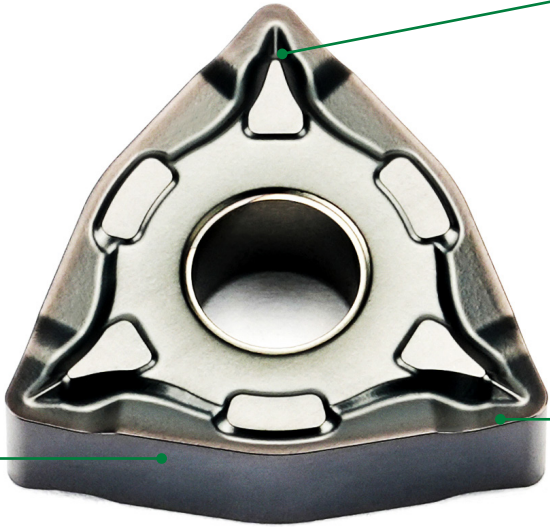
■ 卫浴市场车削刀具 - 产品应用  
Inserts for the Sanitary Ware Market Application

|                         |                              |
|-------------------------|------------------------------|
| 工件名称 Workpiece          | 管件 Tube (T-S-TN16-SW-250730) |
| 刀具规格 Type               | TNMG160408-NMS/OP1305        |
|                         | TNMG160408-*F/A 公司 Company   |
| 加工材料 Workpiece Material | SUS304                       |
| 切削速度 Cutting speed      | 110m/min                     |
| 进给量 Feed rate           | 0.15mm/rev                   |
| 切深量 Ap                  | 0.5mm                        |
| 切削方式 Cutting method     | 外圆; 湿切 External; Wet cutting |



广泛的应用领域  
Wide range of application

- 可用于食品级流体零件加工;
- 能应对各种复杂的卫浴类产品加工;
- 可用于各种球体以及汽车排气法兰加工;
- Suitable for machining food-grade fluid parts;
- Capable of handling various complex sanitary ware products;
- Applicable to the machining of various spheres and automotive exhaust flanges;



先进的涂层技术  
Advanced Coating Technology

- 实现了涂层薄膜在基材上附着力良好;
- 产品表面光滑无液滴, 切削阻力小;
- AITIN 多层薄膜结构, 实现了产品拥有超高的抗氧化、高耐磨与抗粘特性;
- Achieves strong coating adhesion on the substrate;
- The surface is smooth and droplet-free, resulting in low cutting resistance;
- The multilayer AITIN coating structure provides excellent oxidation resistance, high wear resistance, and anti-adhesion properties.

强韧硬质合金基材  
Tough carbide substrate

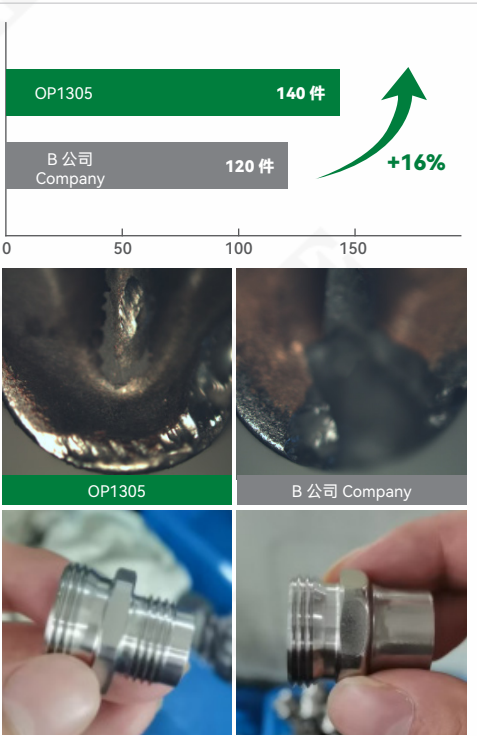
- 高温硬度与强度优异的硬质合金基材;
- 红硬性与韧性兼顾, 实现良好的抗边界磨损与抗崩刃特性;
- Cemented carbide substrate with both excellent red hardness and strength;
- Combines hot hardness and toughness, providing good resistance to boundary wear and chipping.



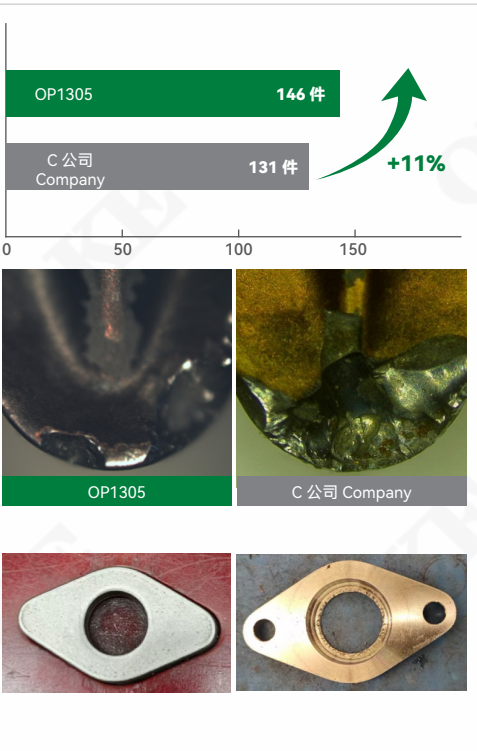
■ 卫浴市场车削刀具 - 产品应用

Inserts for the Sanitary Ware Market Application

|                         |                              |
|-------------------------|------------------------------|
| 工件名称 Workpiece          | 管件 Tube (T-S-TN16-WF-250730) |
| 刀具规格 Type               | TNMG160408-NMS/OP1305        |
|                         | TNMG160408-*F/B 公司 Company   |
| 加工材料 Workpiece Material | SUS304                       |
| 切削速度 Cutting speed      | 140m/min                     |
| 进给量 Feed rate           | 0.20mm/rev                   |
| 切深量 Ap                  | 0.5-1.8mm                    |
| 切削方式 Cutting method     | 外圆; 湿切 External; Wet cutting |



|                         |                                |
|-------------------------|--------------------------------|
| 工件名称 Workpiece          | 法兰 Flange (T-S-TN16-SW-250908) |
| 刀具规格 Type               | WNMG080408-NMS/OP1305          |
|                         | WNMG080408-*F/C 公司 Company     |
| 加工材料 Workpiece Material | SUS304                         |
| 切削速度 Cutting speed      | 100m/min                       |
| 进给量 Feed rate           | 0.20mm/rev                     |
| 切深量 Ap                  | 1.0-1.2mm                      |
| 切削方式 Cutting method     | 外圆; 湿切 External; Wet cutting   |



■ 卫浴市场车削刀具 - 钢制品 (外圆车刀)

Inserts for the Sanitary Ware Market Tool Holder (External Turning)

| 105°主偏角 Lead Angle |         | 尺寸 Dimension (mm) |    |     |    |    |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|--------------------|---------|-------------------|----|-----|----|----|----|-------------------------|----------|---------|-----------|----------|--------------|
| 型号 Type            |         | a                 | b  | L   | H  | S  | e  |                         |          |         |           |          |              |
| MTQNR/L            | 2020K16 | 20                | 20 | 125 | 20 | 29 | 25 | TN □ □ 1604 □ □         | WS61025  | MT1603  | S2,S3     | MCL1814  | SMP513       |
|                    | 2525K16 | 25                | 25 | 150 | 25 | 35 | 28 |                         | WS61030  |         |           |          |              |

| 91°主偏角 Lead Angle |         | 尺寸 Dimension (mm) |    |     |    |    |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|-------------------|---------|-------------------|----|-----|----|----|----|-------------------------|----------|---------|-----------|----------|--------------|
| 型号 Type           |         | a                 | b  | L   | H  | S  | e  |                         |          |         |           |          |              |
| MTFNR/L           | 1616H16 | 16                | 16 | 100 | 16 | 21 | 28 | TN □ □ 1604 □ □         | WS61025  | MT1603  | S2,S3     | MCL1814  | SMP513       |
|                   | 2020K16 | 20                | 20 | 125 | 20 | 25 | 30 |                         | WS61025  |         |           |          |              |
|                   | 2525M16 | 25                | 25 | 150 | 25 | 32 | 32 |                         | WS61030  |         |           |          |              |

| 60°主偏角 Lead Angle |         | 尺寸 Dimension (mm) |    |     |    |      |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|-------------------|---------|-------------------|----|-----|----|------|----|-------------------------|----------|---------|-----------|----------|--------------|
| 型号 Type           |         | a                 | b  | L   | H  | S    | e  |                         |          |         |           |          |              |
| MTENN             | 2020K16 | 20                | 20 | 125 | 20 | 10   | 34 | TN □ □ 1604 □ □         | WS061025 | MT1603  | S2,S3     | MCL1814  | MSP513       |
|                   | 2525M16 | 25                | 25 | 150 | 25 | 12.5 | 32 |                         | WS061030 |         |           |          |              |

| 95°主偏角 Lead Angle |         | 尺寸 Dimension (mm) |    |     |    |    |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|-------------------|---------|-------------------|----|-----|----|----|----|-------------------------|----------|---------|-----------|----------|--------------|
| 型号 Type           |         | a                 | b  | L   | H  | S  | e  |                         |          |         |           |          |              |
| MWLNR/L           | 2020K08 | 20                | 20 | 125 | 20 | 26 | 28 | WN □ □ 0804 □ □         | WS061025 | MW0804  | S3        | MCL1814  | MSP617       |
|                   | 2525M08 | 25                | 25 | 150 | 25 | 32 | 35 |                         | WS061030 |         |           |          |              |

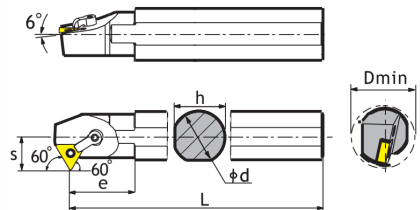


卫浴市场车削刀具 - 钢制品 (内孔车刀)

Inserts for the Sanitary Ware Market - Tool Holder (Internal Turning)

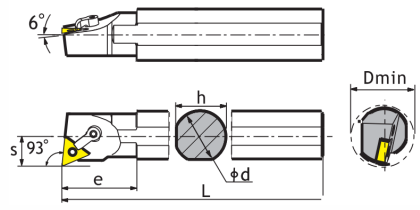
60°主偏角 Lead Angle

| 型号 Type        | 尺寸 Dimension (mm) |     |    |     |    |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|----------------|-------------------|-----|----|-----|----|----|-------------------------|----------|---------|-----------|----------|--------------|
|                | Dmin              | φ d | h  | L   | S  | e  |                         |          |         |           |          |              |
| S20Q-MTWNr/L16 | 27                | 20  | 18 | 180 | 15 | 31 | TN □ □ 1604 □ □         | WS061020 | X       | S2,S3     | MCL1810  | MSP510       |
| S25R-MTWNr/L16 | 32                | 25  | 23 | 200 | 17 | 35 |                         | WS061025 |         |           | MCL1814  |              |



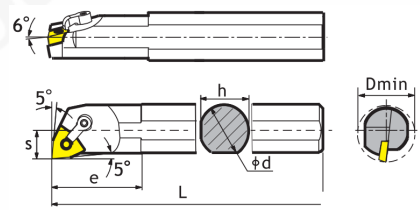
93°主偏角 Lead Angle

| 型号 Type        | 尺寸 Dimension (mm) |     |    |     |    |    | 适用刀片 Applicable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|----------------|-------------------|-----|----|-----|----|----|-------------------------|----------|---------|-----------|----------|--------------|
|                | Dmin              | φ d | h  | L   | S  | e  |                         |          |         |           |          |              |
| S20Q-MTUNr/L16 | 25                | 20  | 18 | 180 | 13 | 31 | TN □ □ 1604 □ □         | WS061020 | X       | S2,S3     | MCL1810  | MSP510       |
| S25R-MTUNr/L16 | 32                | 25  | 23 | 200 | 17 | 35 |                         | WS061025 |         |           | MCL1814  |              |



95°主偏角 Lead Angle

| 型号 Type        | 尺寸 Dimension (mm) |     |    |     |      |    | 适用刀片 Adaptable Inserts | 螺钉 Screw | 刀垫 Shim | 扳手 Wrench | 压板 Clamp | 销钉 CalmpStud |
|----------------|-------------------|-----|----|-----|------|----|------------------------|----------|---------|-----------|----------|--------------|
|                | Dmin              | φ d | h  | L   | S    | e  |                        |          |         |           |          |              |
| S20Q-MWLNR/L08 | 25                | 20  | 18 | 180 | 14.5 | 36 | WN □ □ 0804 □ □        | WS061020 | X       | S2,S3     | MCL1810  | MSP613       |
| S25R-MWLNR/L08 | 32                | 25  | 23 | 200 | 17   | 40 |                        |          |         |           |          |              |

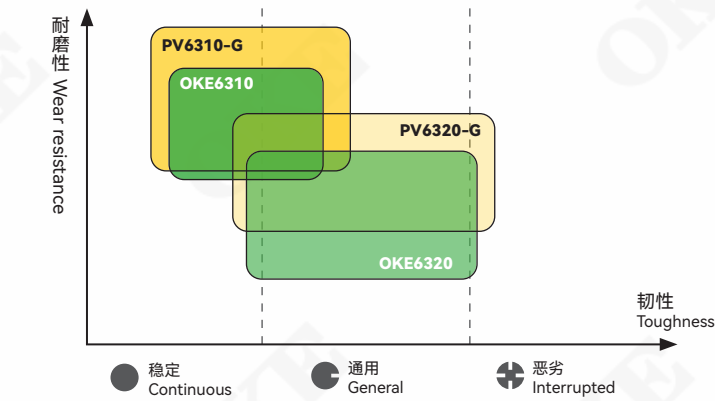


04 金属陶瓷车削刀片

Cermet Turning Insert

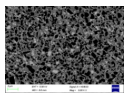
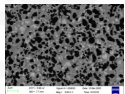
金属陶瓷车削刀片 - 牌号适用范围

Cermet Turning Insert Grade Application Range



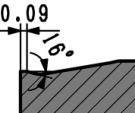
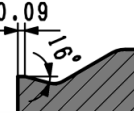
金属陶瓷车削刀片 - 牌号介绍

Cermet Turning Insert Grade introduction

| 涂层牌号<br>Coating                | ISO 等级<br>ISO grade | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating<br>Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 刀片示例<br>Insert Shape                                                                  |
|--------------------------------|---------------------|-----------------------------|---|---|---|---|---|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                                |                     | P                           | M | K | N | S | H |                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                       |
| OKE6310                        | P10<br>(P10-P20)    | ●                           |   |   | ○ |   |   | 无涂层<br>Without coating       | 合金具有高百分比的细晶硬质相, 可提供优秀的耐磨性及表面加工效果, 内部的高韧性使材料具有了良好的抗崩性能与热冲击性能, 产品的耐磨性和韧性得到完美平衡; 推荐用于钢的精-半精加工, 连续-轻断续加工工况;<br>The alloy has a high percentage of fine crystal hard phase, which can provide excellent wear resistance and surface machining effect. The internal high toughness makes the material have good anti-chipping performance and thermal shock resistance performance. The wear resistance and toughness of the product are perfectly balanced; Recommended for steel finishing to semi-finishing machining, continuous and light intermittent machining conditions;      |  |
| OKE6320                        | P20<br>(P20-P30)    | ●                           |   |   |   |   |   | 无涂层<br>Without coating       | 合金融合了强化粘结相及降低摩擦系数的特殊材料, 高强化的粘结相可提供优秀的抗崩性能, 低摩擦系数可确保稳定的耐磨性及优质的加工面品质; 推荐用于钢的精、半精加工, 连续、轻断续、中等断续等工况的通用加工;<br>The combination of special materials to strengthen the bonding phase and reduce the friction coefficient, the high strengthening bonding phase can provide excellent anti-breakage performance, low friction coefficient can ensure stable wear resistance and high quality of machining surface quality; Recommended for finishing and semi-finishing machining of steel, continuous, light intermittent, medium intermittent and other general machining conditions; |  |
| PV6310-G<br><small>NEW</small> | P10<br>(P10-P20)    | ●                           |   |   |   |   |   | PVD                          | 高耐磨性金属陶瓷基体搭配耐磨损性能与抗粘着性能良好的涂层; 推荐用于钢的精、半精加工, 可实现在高速连续工况下的稳定加工, 实现高质量的表面光洁度;<br>High abrasion resistance cermet substrate combined with good abrasion resistance and anti-adhesion performance coating; Recommended for steel finishing and semi-finishing machining, can achieve stable machining under high speed continuous working conditions, achieve high quality of surface finish;                                                                                                                                                                                         |  |
| PV6320-G<br><small>NEW</small> | P10<br>(P20-P30)    | ●                           |   |   |   |   |   | PVD                          | 强韧性与耐磨性兼具的金属陶瓷基体搭配耐磨损性能与抗粘着性能良好的涂层; 推荐用于钢的精、半精加工, 可实现在连续-轻断续、中等断续工况下的高寿命稳定加工;<br>The cermet substrate paired with coating of good wear resistance and anti-adhesion performance; Recommended for steel finishing and semi-finishing machining, can achieve high life and stable machining under continuous-light intermittent, medium intermittent working conditions;                                                                                                                                                                                                           |  |

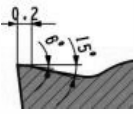
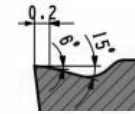
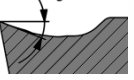
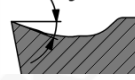
金属陶瓷车削刀片 - 槽型介绍 (双面负角槽型)

Cermet Turning Insert Chip Breaker Introduction(Double-sided negative chip breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |                                                                                                                                                                        | 刀尖圆弧<br>Corner Radius | 切削刃<br>Cutting Edges | ap(mm) | f(mm/rev) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|--------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                       | P                           | M | K | N | S | H                                                                                                                                                                      |                       |                      |        |           |
| <br><b>OF-JT</b> <small>NEW</small><br>- 中等精度加工用<br>- 大前角保持切削轻快<br>- 切屑控制效果优异<br>- 适合细长工件加工<br><br>-For medium-finishing machining<br>-Maintain light and quick cutting at the large rake angle<br>- Excellent chip control<br>-Suitable for machining slender workpieces<br><br>                      |                                       |                             |   |   |   |   |     | 0.7-4.5               | 0.10-0.45            |        |           |
| <br><b>AF-JT</b> <small>NEW</small><br>- 精加工与半精度加工用<br>- 双凸台结构，切屑处理优<br>- 切削阻力小，表面质量佳<br>- 强化的微刃口处理<br><br>-For finishing and semi-finishing machining<br>-Double boss structure, excellent chip handling<br>-Low cutting resistance, good surface quality<br>-Enhanced micro-edge treatment<br><br> |                                       |                             |   |   |   |   |   | 0.4-2.0               | 0.13-0.30            |        |           |

金属陶瓷车削刀片 - 槽型介绍 (单面正角槽型)

Cermet Turning Insert Chip Breaker Introduction(Single-sided Positive Chip Breaker)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |                                                                                                                                                                           | 刀尖圆弧<br>Corner Radius | 切削刃<br>Cutting Edges | ap(mm) | f(mm/rev) |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------|--------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       | P                           | M | K | N | S | H                                                                                                                                                                         |                       |                      |        |           |
| <br><b>AF-JT</b> <small>NEW</small><br>- 精加工与半精度加工用<br>- 双前角设计, 保持刃口<br>锋利性与强度<br>- 可实现稳定切削<br>- 轻切加工通用槽型<br>-For finishing and semi-finishing<br>machining<br>-Dual rake angles design,<br>maintaining sharpness and<br>strength<br>-Enables stable cutting<br>-Light-cut universal chip breaker<br> |                                       |                             |   |   |   |   |     | 0.6-2.0               | 0.12-0.25            |        |           |
| <br><b>BE-JT</b> <small>NEW</small><br>- 轴承加工用<br>- 锋利刃口切削阻力小<br>- 优异的排屑效果<br>- 适用外径 / 内径 / 外圆加工<br>-For bearing machining<br>- Sharp insert cuts with less<br>resistance<br>- Excellent chip removal<br>Applicable to outer diameter, inner<br>diameter, and external machining<br>                |                                       |                             |   |   |   |   |   | 0.1-2.0               | 0.20-0.60            |        |           |

\* 备注: 部分型号 Note: Applicable to certain types.

金属陶瓷车削刀片槽型 -AF-JT  
Cermet Turning Insert Chipbreaker AF-JT

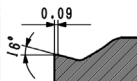
刀片技术细节与应用  
Grade introduction

刀片材质及应用  
Grade and Application

|                             |                                        |                       |                                |
|-----------------------------|----------------------------------------|-----------------------|--------------------------------|
| 牌号<br>Grade                 | OKE6310, OKE6320<br>PV6310-G, PV6320-G | 基本形状<br>Basic shapes  | DNMG15、TNMG16<br>VNMG16、WNMG08 |
| 被加工材料<br>Workpiece Material | 钢类材料加工<br>Steel materials machining    | 刀尖圆弧<br>Corner Radius | 0.4、0.8                        |

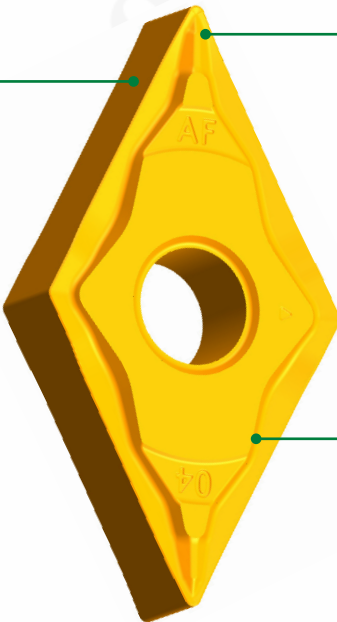
刀片型号  
Inserts Size

槽型设计特性及应用  
Chipbreak Characteristics And Applications

|                     |                                                                      |                                   |                                                                                                                                                                                                                                               |
|---------------------|----------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 适用范围<br>Application | - 钢件精加工 - 半精加工<br>-Steel parts finishing to semi-finishing machining | 槽型特点<br>Chipbreak Characteristics | - 大前角及刃倾角的设计，降低切削阻力，排屑顺畅<br>- 适用于连续切削、轻断续加工<br>-The design of the large rake angle and inclination angle reduces cutting resistance and facilitates smooth chip removal.<br>-Suitable for continuous cutting and light intermittent machining |
| 加工参数<br>Parameter   | Ap=0.4-2.0mm<br>Fn=0.13-0.30mm/rev                                   | 主切削刃<br>Main cutting edges        |                                                                                                                                                            |

优化的微刃口处理  
Optimized micro-edge preparation

- 瀑布式刃口圆化处理，在保持刃口锋利的同时，增加了刀片强度，延长刀具寿命，并更容易获得优异的工件表面质量；
- 可用于多种加工工况；
- Waterfall-style edge honing maintains sharpness while increasing insert strength, extending tool life, and improving workpiece surface quality;
- Applicable to various machining conditions;



满足多种工况需求的槽型结构  
Chip breaker meeting various working conditions

- 双凸台挡屑结构，在不同切削参数下均能得到优良的排屑效果；
- 刃倾角的设计，增加刀具锋利度的同时，起到很好的导屑作用；
- 低阻力的断屑槽设计，可有效降低加工过程的切削力；
- Double protrusion chip blocking structure, which can get excellent chip discharge effect under different cutting parameters;
- The design of the insert inclination angle increases the sharpness of the tool and plays a good role in chip guidance;
- Chip breaker designed for low cutting force, effectively reduce the cutting force during processing;

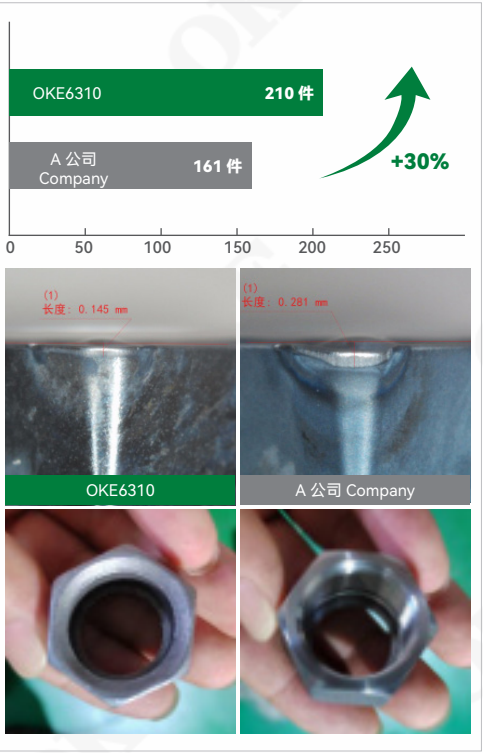
强韧金属陶瓷基材  
Tough Cermet Substrate

- 可提供优秀的耐磨性及表面加工效果，内部的高韧特性使材料具有了良好的抗崩性能与热冲击性能，产品的耐磨性和韧性得到完美平衡；
- 可搭配最新 PVD 涂层，实现高效切削；
- Excellent wear resistance and surface processing effect can be provided, the internal high toughness characteristics make the material has good anti-chipping performance and thermal shock performance, the wear resistance and toughness of the product are perfectly balanced;
- Match with the newest PVD coating to realized high efficiency cutting;

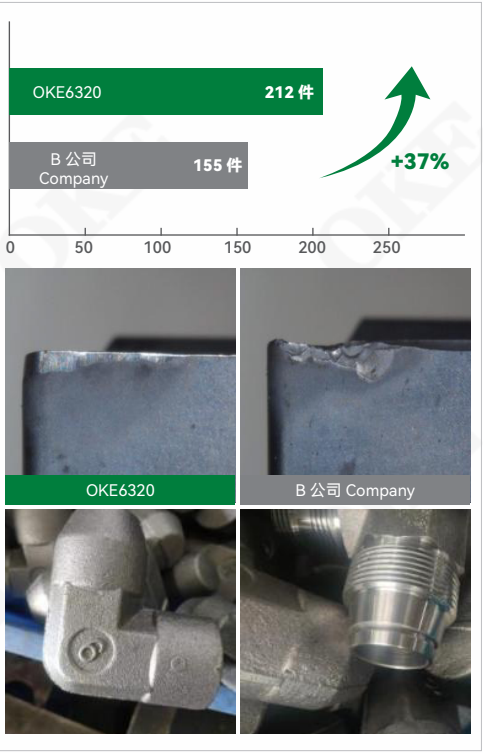
金属陶瓷双面槽负角刀片 Double-sided cermet negative inserts  
PV6310-G VNMG160404-AF-JT

金属陶瓷车削刀片 - 产品应用  
Cermet Turning Insert Application

|                            |                                                        |
|----------------------------|--------------------------------------------------------|
| 工件名称<br>Workpiece          | 螺母 Nuts (T-P-CC09-YYQ-22071901)                        |
| 刀具规格<br>Type               | CCMT09T304-AF-JT/OKE6310<br>CCMT09T304-XX/A 公司 Company |
| 加工材料<br>Workpiece Material | 汽车零部件 Auto parts Q235                                  |
| 切削速度<br>Cutting speed      | 124m/min                                               |
| 进给量<br>Feed rate           | 0.13mm/rev                                             |
| 切深量<br>Ap                  | 0.5mm                                                  |
| 切削方式<br>Cutting method     | 内孔加工<br>Internal hole machining                        |



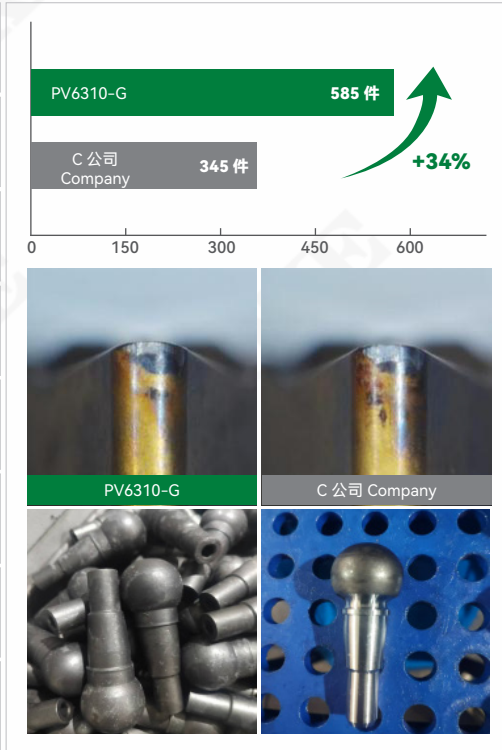
|                            |                                                               |
|----------------------------|---------------------------------------------------------------|
| 工件名称<br>Workpiece          | 管接头 Pipe fitting(T-P-TN16-HXP-23071606)                       |
| 刀具规格<br>Type               | TNMG160404-AF-JT/OKE6320<br>TNMG160404-XX/B 公司 Company        |
| 加工材料<br>Workpiece Material | A3 钢 steel                                                    |
| 切削速度<br>Cutting speed      | 236m/min                                                      |
| 进给量<br>Feed rate           | 0.17mm/rev                                                    |
| 切深量<br>Ap                  | 1.0-2.0mm                                                     |
| 切削方式<br>Cutting method     | 外圆及端面加工; 水冷<br>External and end face machining; water cooling |



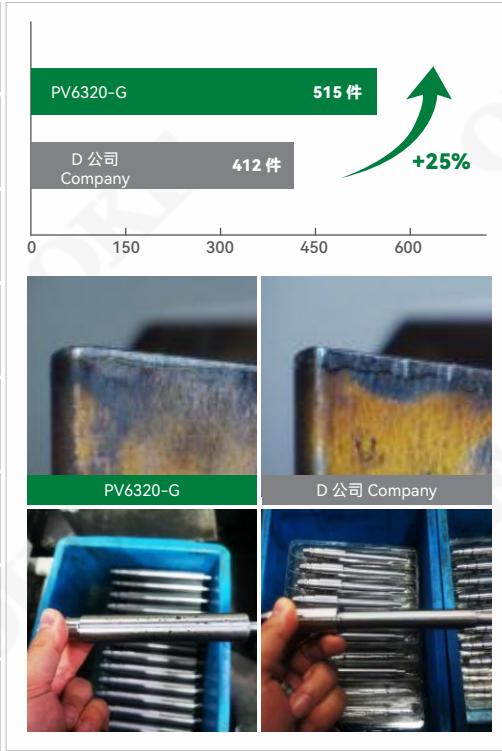


金属陶瓷车削刀片 - 产品应用  
Cermet Turning Insert Application

|                         |                                     |
|-------------------------|-------------------------------------|
| 工件名称 Workpiece          | 单发球销 Ball pin(T-P-VN6-YYQ-24120301) |
| 刀具规格 Type               | VNMG160404-AF-JT/PV6310-G           |
|                         | VNMG160404-XX/C 公司 Company          |
| 加工材料 Workpiece Material | 40Cr                                |
| 切削速度 Cutting speed      | 188m/min                            |
| 进给量 Feed rate           | 0.20mm/rev                          |
| 切深量 Ap                  | 0.5mm                               |
| 切削方式 Cutting method     | 外圆; 水冷<br>External ; water-cooled   |



|                         |                                                |
|-------------------------|------------------------------------------------|
| 工件名称 Workpiece          | 传动轴 Transmission shaft (T-P-TN16-CHF-23060302) |
| 刀具规格 Type               | TNMG160404R-OF-JT/PV6320-G                     |
|                         | TNMG160404R-XX/D 公司 Company                    |
| 加工材料 Workpiece Material | 45 钢 steel                                     |
| 切削速度 Cutting speed      | 100m/min                                       |
| 进给量 Feed rate           | 0.27mm/rev                                     |
| 切深量 Ap                  | 0.9-3.0mm                                      |
| 切削方式 Cutting method     | 外圆; 水冷<br>External circle; water-cooled        |



金属陶瓷车削刀片 - 型号列表 (负角刀片)  
Cermet Turning Inserts-Product List (Negative inserts)

| 形状<br>Shape                           | 型号<br>Type                                                                            | 尺寸 Dimension (mm) |           |         |           | P      |        |        |         |         |          | M        |        |        |        |        |        | K      |        | S      |        |         |         |         |  |
|---------------------------------------|---------------------------------------------------------------------------------------|-------------------|-----------|---------|-----------|--------|--------|--------|---------|---------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--|
|                                       |                                                                                       | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔 径<br>D1 | OC2S15 | OC2S25 | OC2S35 | OKE6310 | OKE6320 | PV6310-G | PV6320-G | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OP6105A | OP6115A | OP6125A |  |
| 精 半精加工<br>Finishing to semi-finishing |    | DNMG150404L-OF-JT | 0.4       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | DNMG150404R-OF-JT | 0.4       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       |                   |           |         |           |        |        |        |         |         |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |    | TNMG160404L-OF-JT | 0.4       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | TNMG160404R-OF-JT | 0.4       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | TNMG160408L-OF-JT | 0.8       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | TNMG160408R-OF-JT | 0.8       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |    | DNMG150404-AF-JT  | 0.4       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | DNMG150408-AF-JT  | 0.8       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       |                   |           |         |           |        |        |        |         |         |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |   | TNMG160404-AF-JT  | 0.4       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | TNMG160408-AF-JT  | 0.8       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       |                   |           |         |           |        |        |        |         |         |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |  | VNMG160404-AF-JT  | 0.4       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | VNMG160408-AF-JT  | 0.8       | 9.525   | 4.76      | 3.81   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       |                   |           |         |           |        |        |        |         |         |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |  | WNMG080404-AF-JT  | 0.4       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       | WNMG080408-AF-JT  | 0.8       | 12.7    | 4.76      | 5.16   |        |        |         | ●       | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                       |                                                                                       |                   |           |         |           |        |        |        |         |         |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |

● 常备库存 Stock available ○ 按单生产 Make-to-order

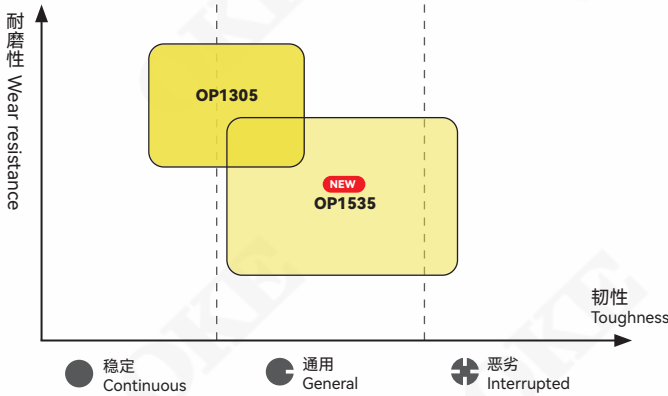
金属陶瓷车削刀片 - 型号列表（正角刀片）  
Cermet Turning Inserts-Product List (Positive inserts)

| 形状<br>Shape                                                                         | 型号<br>Type                                                                          | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |        |        |          |          | M      |        |        |        |        |        |        | K      |        | S       |         |         |  |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|--------|--------|----------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|--|
|                                                                                     |                                                                                     | 刀片半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2515 | OC2525 | OC6220 | OC6310 | OC6320 | PV6310-G | PV6320-G | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OP1415 | OC3205 | OC3210 | OC3220 | OP6105A | OP6115A | OP6125A |  |
| 精、半精加工<br>Finishing to semi-finishing                                               |    | CCMT060204-AF-JT  | 0.4       | 6.35    | 2.38     | 2.8      | 7°     |        |        |        | ○      | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     | CCMT09T304-AF-JT  | 0.4       | 9.525   | 3.97     | 4.4      | 7°     |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |    | DCMT070204-AF-JT  | 0.4       | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     | DCMT11T304-AF-JT  | 0.4       | 9.525   | 3.97     | 4.4      | 7°     |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |    | TCMT090204-AF-JT  | 0.4       | 5.56    | 2.38     | 2.5      | 7°     |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     | TCMT110204-AF-JT  | 0.4       | 6.35    | 2.38     | 2.8      | 7°     |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |   | TPMT090204-AF-JT  | 0.4       | 5.56    | 2.38     | 2.8      | 11°    |        |        |        |        | ○        | ●        | ○      | ○      |        |        |        |        |        |        |        |         |         |         |  |
| TPMT110304-AF-JT                                                                    |                                                                                     | 0.4               | 6.35      | 3.18    | 3.4      | 11°      |        |        |        |        | ○      | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|  | VBMT110304-AF-JT                                                                    | 0.4               | 6.35      | 3.18    | 2.8      | 5°       |        |        |        |        | ○      | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     | VBMT160404-AF-JT                                                                    | 0.4               | 9.525     | 4.76    | 4.4      | 5°       |        |        |        |        | ○      | ●        | ○        | ○      |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
| 粗加工<br>Shaft bearing machining                                                      |  | RPMT1203MO-BE-JT  |           | 12      | 3.18     | 4.4      | 11°    |        |        |        | ●      | ○        |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     | RPMT1604MO-BE-JT  |           | 16      | 4.76     | 5.56     | 11°    |        |        |        | ●      | ○        |          |        |        |        |        |        |        |        |        |        |         |         |         |  |
|                                                                                     |                                                                                     |                   |           |         |          |          |        |        |        |        |        |          |          |        |        |        |        |        |        |        |        |        |         |         |         |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

05 小零件车削刀具  
Small Parts Turning Insert

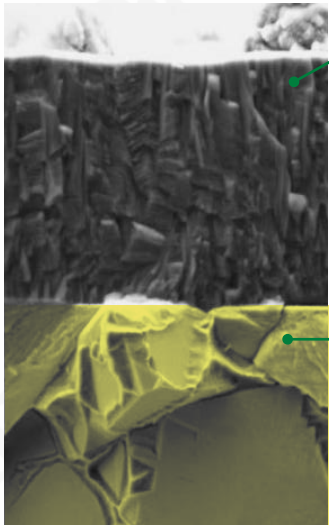
小零件车削刀片 - 牌号适用范围  
Small Parts Turning Insert Grade Application Range



小零件车削刀片 - 牌号介绍  
Small Parts Turning Insert Grade introduction

| 涂层牌号<br>Coating | ISO 等级<br>ISO grade | 被加工材料<br>Workpiece Material |   |   |   |   |   | 涂层工艺<br>Coating Technique | 牌号等级与应用<br>Grade and Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 刀片示例<br>Insert Shape |
|-----------------|---------------------|-----------------------------|---|---|---|---|---|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
|                 |                     | P                           | M | K | N | S | H |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                      |
| OP1305          | P10-P20<br>M10-M20  | ●                           | ○ |   |   |   |   | PVD                       | 基体采用细晶粒硬质合金，通过适中的钴含量及烧结控制技术，使基体硬度耐磨性能优异；涂层为高铝含量、高致密性 AlTiN 电弧涂层，高温红硬性和耐磨性能优异；应用：可加工 1215 钢 /1144 钢 /SUS303/ SUS304 等；<br>The substrate is made of fine-grained cemented carbide, with moderate cobalt content and sintering control technology to achieve excellent hardness and wear resistance. The coating is a high-aluminum, high-density AlTiN arc coating, which exhibits excellent red hardness and wear resistance at high temperatures. Application: Suitable for processing 1215 steel, 1144 steel, SUS303, SUS304, etc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                      |
| OP1535<br>NEW   | M15-M40<br>P15-P30  | ○                           | ● |   |   |   |   | PVD                       | 基体采用细晶粒硬质合金，通过粘结相固溶强化工艺及热压烧结工艺，可保证合金具备高强度、高韧性的特点，使刀具刃口拥有优秀的锋利度和耐磨性，可获得理想的表面光洁度效果；涂层为 AlTiN 基纳米涂层，可调节涂层内应力，抑制裂纹扩展，层间外延生长的强化界面保证涂层高硬耐磨，引入 X 元素，提高涂层抗氧化性和红硬性，延长刀具寿命；应用：可加工 SUS303/SUS304/SUS316L/ SUS430/SUS431/SUS620/ 钛合金 TC4 等；<br>The substrate adopts fine grain cemented carbide, and the bonding phase solid solution strengthening process and hot pressing sintering process can ensure that the alloy has the characteristics of high strength and high toughness, so that the insert edge of the tool has excellent sharpness and wear resistance, and can obtain the ideal surface finish effect. The coating is an AlTiN-based nano-coating that regulates internal stress and inhibits crack propagation. Its interfacial strengthening through interfacial epitaxial growth ensures high hardness and wear resistance. The addition of X element enhances oxidation resistance and red hardness, thereby extending tool life. Application: Suitable for machining SUS303/ SUS304/ SUS316L/ SUS430/ SUS431/ SUS620/ Titanium alloy TC4. |                      |

OP1535 系列产品特性  
OP1535 Series Product Features



先进的涂层技术  
Advanced coating technology

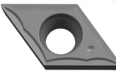
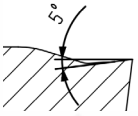
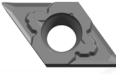
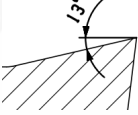
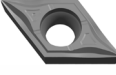
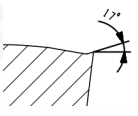
AlTiN 基纳米多层，可调节涂层内应力，抑制裂纹扩展；  
层间外延生长的强化界面保证涂层高硬磨；  
引入特殊元素，提高涂层抗氧化性和红硬性；  
AlTiN-based nano-multilayer coatings can regulate internal stress and inhibit crack propagation.  
The enhanced interface of interlayer epitaxial growth ensures high hardness of coating;  
Introduce special elements to improve the oxidation resistance and red hardness of coating;

新研发的硬质合金基材  
Newly developed hard alloy substrate

通过粘结相固溶强化工艺及热压烧结工艺，可保证合金具备高强度高韧性的特点；  
Through the bonding phase solid solution strengthening process and hot pressing sintering process, the alloy can be guaranteed to have the characteristics of high strength and high toughness;

小零件加工刀片 - 槽型介绍 (前扫刀片)

Small Parts Processing Inserts - Chip breaker introduction (front- turning insert)

| 槽型<br>Chipbreak                                                                                                                                                                                                                                                                                                                                                                                                                            | 介绍及应用<br>Introduction and Application | 被加工材料<br>Workpiece Material |   |   |   |   |   | 切削刃<br>Cutting Edges                                                                 | ap(mm)   | f(mm/rev) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------|---|---|---|---|---|--------------------------------------------------------------------------------------|----------|-----------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                       | P                           | M | K | N | S | H |                                                                                      |          |           |
| <br><b>JGQ</b><br>- 通用加工槽型，刃口强壮，产品耐磨性能优异<br>- 适用于大切深（变切深）、小进给加工工况<br>- Universal processing chip breaker, strong cutting edge, excellent product wear resistance performance<br>- Suitable for deep cutting (variable depth) and small feed machining conditions<br> |                                       | ●                           | ● |   |   |   |   |  | 0.5-3.5  | 0.02-0.1  |
| <br><b>JCK</b><br>- 超精加工槽型，刃口锋利，切削轻快<br>- 前刀面镜面处理，加工工件的表面质量更好<br>- Ultra-finishing chip breaker with sharp cutting edge, enabling light and quick cutting<br>- Mirror finish on the rake surface to provide good surface quality<br>                                 |                                       | ●                           | ● |   |   |   |   |  | 0.1-1.5  | 0.02-0.08 |
| <br><b>SE</b><br>- 刃倾角结构，切屑控制能力更好<br>- 断屑台距离更短，适用于小切深、小进给加工工况<br>- Rake angle structure provides better chip control;<br>- Shorter chipbreaker platform, suitable for shallow cutting depth and small feed conditions.<br>                                           |                                       | ●                           | ● |   |   |   |   |  | 0.05-1.0 | 0.03-0.08 |

\* 备注：部分型号 Note: Applicable to certain types.

小零件加工刀片槽型 -SE

Small Parts Processing Inserts Chipbreaker -SE

刀片材质及应用

Grade and Application

|                             |                                                                              |
|-----------------------------|------------------------------------------------------------------------------|
| PVD 牌号<br>PVD Grade         | OP1535                                                                       |
| 被加工材料<br>Workpiece Material | SUS304、SUS316L、马氏体不锈钢等<br>SUS304, SUS316L, martensitic stainless steel, etc. |

刀片技术细节与应用

Grade introduction

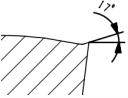
刀片型号

Inserts Size

|                       |                                       |
|-----------------------|---------------------------------------|
| 基本形状<br>Basic shapes  | CCGT06、CCGT09、DCGT11<br>VBGT11、VCGT11 |
| 刀尖圆弧<br>Corner Radius | 0.1、0.2、0.4                           |

槽型设计特性及应用

Chipbreak Characteristics And Applications

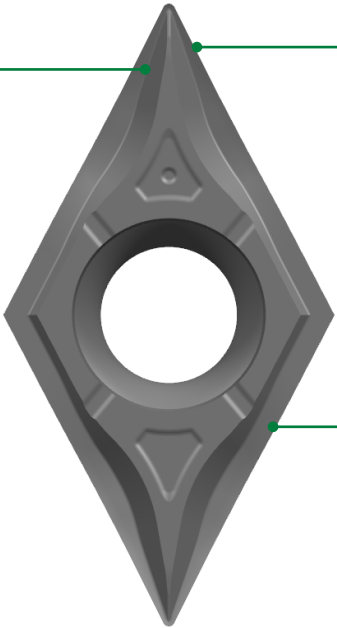
|                     |                                     |                                   |                                                                                             |
|---------------------|-------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------------|
| 适用范围<br>Application | 精加工槽型<br>Finishing chip breaker     | 槽型特点<br>Chipbreak Characteristics | - 大前角设计，刃口锋利，切削轻快<br>- Large rake angle design, sharp cutting edge, light and quick cutting |
| 加工参数<br>Parameter   | Ap=0.05-1.0mm<br>Fn=0.03-0.08mm/rev | 主切削刃<br>Main cutting edges        |         |

特殊的涂层工艺

Special Coating Process

- AlTiN 基纳米多层，可调节涂层内应力，抑制裂纹扩展；
- 层间外延生长的强化界面保证涂层高硬耐磨；
- 引入特殊元素，提高涂层抗氧化性和红硬性，延长服役寿命；
- 产品表面光滑，实现了更低的摩擦阻力与抗黏屑特性；

-AlTiN-based nano-multilayer coating with adjustable internal stress, effectively inhibiting crack propagation;  
-Strengthened interfaces formed by epitaxial growth between layers ensure high hardness and wear resistance;  
-Introduce special elements to improve the coating oxidation resistance and red hardness, and prolong the service life;  
-The smooth surface of the product achieves lower friction resistance and better chip adhesion resistance;



贴合实际应用的设计

Design Optimized for Practical Applications

- 刃倾角结构设计，适合小切深加工工况；
- 断屑台更靠近刀尖，微小切深工况下使切屑处理成为可能；
- The insert inclination angle structure design is suitable for small cutting deep processing conditions;
- The chip breaker platform is closer to the tip, making chip processing possible under the condition of small cutting depth;

强韧硬质合金基材

Tough Carbide Substrate

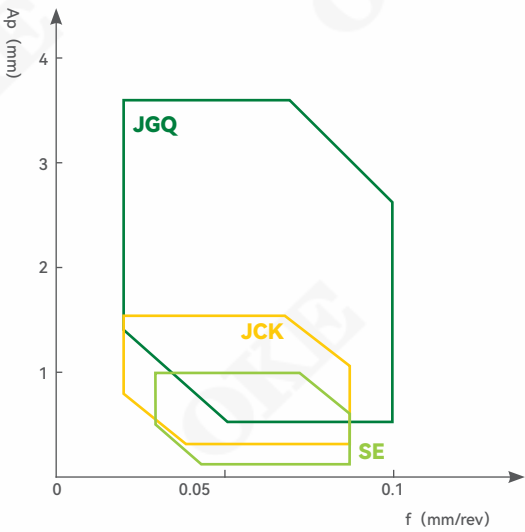
- 细晶粒硬质相，使刀具刃口拥有优秀的锋利度和耐磨性；
- 通过粘结相固溶强化工艺及热压烧结工艺，可保证合金具备高强度高韧性的特点；
- Fine grain hard phase, so that the insert edge has excellent sharpness and wear resistance;
- Through the bonding phase solid solution strengthening process and hot pressing sintering process, the alloy can be guaranteed to have the characteristics of high strength and high toughness;

前扫刀具 Front Turning Tool  
OP1535 DCGT11T302-SE



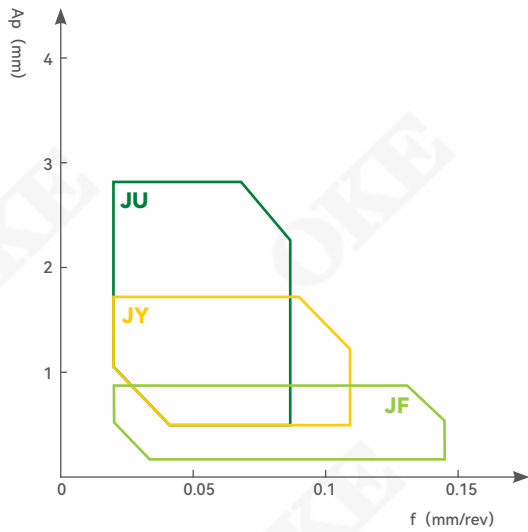
小零件加工槽型断屑范围  
Small part Processing chip breaker

正角刀片 (压槽系列)  
Positive insert (Pressed series)



- JGQ 通用加工槽型  
General machining chip breaker
- JCK 精加工槽型 (光洁度)  
Finishing chip breaker (surface finish)
- SE 精加工槽型 (断屑)  
Finishing chip breaker (chip breakage)

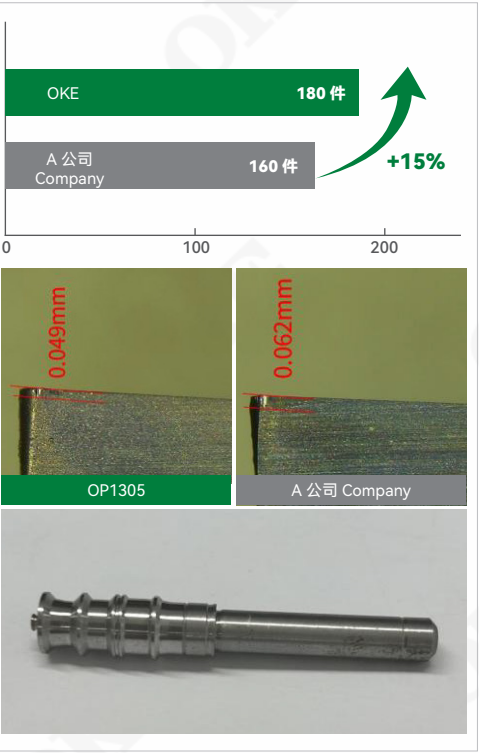
正角刀片 (磨槽系列)  
Positive insert (Ground series)



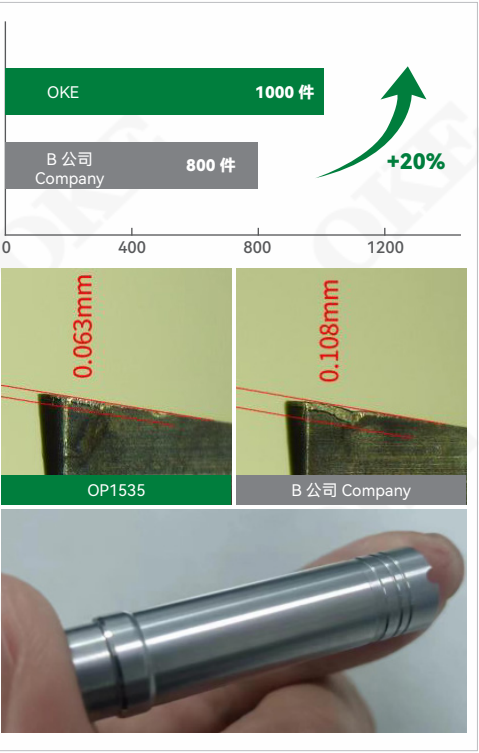
- JU/JY 精加工槽型 (外圆)  
Finishing chip breaker (External)
- JF 精加工槽型 (端面、内孔)  
Finishing chip breakers (End Faces, bore)

小零件加工刀片 - 产品应用  
Small Parts Processing Inserts Application

|                         |                                     |
|-------------------------|-------------------------------------|
| 工件名称 Workpiece          | 磨头 Tear drop (T_PVB11_YYF_23101802) |
| 刀具规格 Type               | VBGT110301-SE\OP1305                |
|                         | VBGT110301-XX\A 公司 Company          |
| 加工材料 Workpiece Material | 1215 钢 steel                        |
| 切削速度 Cutting speed      | 60m/min                             |
| 进给量 Feed rate           | 0.03mm/rev                          |
| 切深量 Ap                  | 0.1mm                               |
| 切削方式 Cutting method     | 外圆; 油冷<br>External; oil-cooled      |



|                         |                                                    |
|-------------------------|----------------------------------------------------|
| 工件名称 Workpiece          | 电磁阀 Electro-magnetic Valve (T_P_DC11_YYF_24090301) |
| 刀具规格 Type               | DCGT11T302-JCK\OP1535                              |
|                         | DCGT11T302-XX\B 公司 Company                         |
| 加工材料 Workpiece Material | SUS420                                             |
| 切削速度 Cutting speed      | 80m/min                                            |
| 进给量 Feed rate           | 0.05mm/rev                                         |
| 切深量 Ap                  | 0.3mm                                              |
| 切削方式 Cutting method     | 外圆; 油冷<br>External; oil-cooled                     |

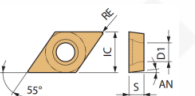
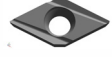
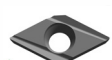


小零件加工刀片 - 型号列表 (前扫刀片)  
Small Parts Processing Inserts Product List (front-turning inserts)

| 形状<br>Shape                                                                         | 型号 Type          | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |  |
|-------------------------------------------------------------------------------------|------------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                                                                                     |                  | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |  |
|    | CCGT030101R/L-JF | 0.1               | 3.5       | 1.37    | 1.9      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT030102R/L-JF | 0.2               | 3.5       | 1.37    | 1.9      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT030104R/L-JF | 0.4               | 3.5       | 1.37    | 1.9      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|    | CCGT040101R/L-JF | 0.1               | 4.3       | 1.77    | 2.3      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT040102R/L-JF | 0.2               | 4.3       | 1.77    | 2.3      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT040104R/L-JF | 0.4               | 4.3       | 1.77    | 2.3      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|    | CCGT060201R/L-JU | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT060202R/L-JU | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT060204R/L-JU | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|    | CCGT09T301R/L-JU | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT09T302R/L-JU | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                     | CCGT09T304R/L-JU | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|   | CCGT060201-SE    | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT060202-SE    | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT060204-SE    | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|  | CCGT09T301-SE    | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT09T302-SE    | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT09T304-SE    | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|  | CCGT060201-JGQ   | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT060202-JGQ   | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT060204-JGQ   | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|  | CCGT09T301-JGQ   | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT09T302-JGQ   | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                     | CCGT09T304-JGQ   | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |

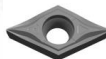
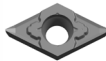
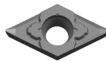
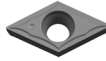
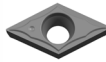
● 常备库存 Stock available    ○ 按单生产 Make-to-order

小零件加工刀片 - 型号列表 (前扫刀片)  
Small Parts Processing Inserts Product List (front-turning inserts)

| 形状<br>Shape                                                                           | 型号 Type<br> | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |  |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                                                                                       |                                                                                                | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |  |
|    | DCGT070201R/L-JU                                                                               | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT070202R/L-JU                                                                               | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT070204R/L-JU                                                                               | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|    | DCGT11T3003R/L-JU                                                                              | 0.03              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT11T3005R/L-JU                                                                              | 0.05              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT11T301R/L-JU                                                                               | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T302R/L-JU                                                                               | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|    | DCGT11T304R/L-JU                                                                               | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT0702003R/L-JF                                                                              | 0.03              | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT0702005R/L-JF                                                                              | 0.05              | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT070201R/L-JF                                                                               | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|  | DCGT070202R/L-JF                                                                               | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT070204R/L-JF                                                                               | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T3003R/L-JF                                                                              | 0.03              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT11T3005R/L-JF                                                                              | 0.05              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|  | DCGT11T301R/L-JF                                                                               | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T302R/L-JF                                                                               | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T304R/L-JF                                                                               | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT0702003R/L-JJ                                                                              | 0.03              | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|  | DCGT0702005R/L-JJ                                                                              | 0.05              | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT070201R/L-JJ                                                                               | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT070202R/L-JJ                                                                               | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT070204R/L-JJ                                                                               | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|  | DCGT11T3003R/L-JJ                                                                              | 0.03              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT11T3005R/L-JJ                                                                              | 0.05              | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ○      |  |
|                                                                                       | DCGT11T301R/L-JJ                                                                               | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T302R/L-JJ                                                                               | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|                                                                                       | DCGT11T304R/L-JJ                                                                               | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

小零件加工刀片 - 型号列表 (前扫刀片)  
Small Parts Processing Inserts Product List (front-turning inserts)

| 形状<br>Shape                                                                        | 型号 Type        | 尺寸 Dimension (mm) |           |         |          |          | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |  |
|------------------------------------------------------------------------------------|----------------|-------------------|-----------|---------|----------|----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|                                                                                    |                | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |  |
|   | DCGT11T301-SE  | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T302-SE  | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T304-SE  | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|   | DCGT070201-JCK | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT070202-JCK | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT070204-JCK | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|   | DCGT11T301-JCK | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T302-JCK | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T304-JCK | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|   | DCGT070201-JGQ | 0.1               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT070202-JGQ | 0.2               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT070204-JGQ | 0.4               | 6.35      | 2.38    | 2.8      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|  | DCGT11T301-JGQ | 0.1               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T302-JGQ | 0.2               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |
|                                                                                    | DCGT11T304-JGQ | 0.4               | 9.525     | 3.97    | 4.4      | 7°       |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

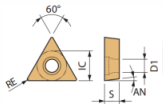
小零件加工刀片 - 型号列表 (前扫刀片)  
Small Parts Processing Inserts Product List (front-turning inserts)

| 形状<br>Shape | 型号 Type           | 尺寸 Dimension (mm) |           |         |          |          | P |  |  |  |  | M |  |  |  |  | K |  |  |  |  | P/M/S |   |
|-------------|-------------------|-------------------|-----------|---------|----------|----------|---|--|--|--|--|---|--|--|--|--|---|--|--|--|--|-------|---|
|             |                   | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  |       |   |
|             | VBGT1103003R/L-JF | 0.03              | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VBGT1103005R/L-JF | 0.05              | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VBGT110301R/L-JF  | 0.1               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT110302R/L-JF  | 0.2               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT110304R/L-JF  | 0.4               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT1103003R/L-JF | 0.03              | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VCGT1103005R/L-JF | 0.05              | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VCGT110301R/L-JF  | 0.1               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT110302R/L-JF  | 0.2               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT110304R/L-JF  | 0.4               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VPET1103003R/L-JF | 0.03              | 6.35      | 3.18    | 2.8      | 11°      |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VPET1103005R/L-JF | 0.05              | 6.35      | 3.18    | 2.8      | 11°      |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VPET110301R/L-JF  | 0.1               | 6.35      | 3.18    | 2.8      | 11°      |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VPET110302R/L-JF  | 0.2               | 6.35      | 3.18    | 2.8      | 11°      |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VPET110304R/L-JF  | 0.4               | 6.35      | 3.18    | 2.8      | 11°      |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT1103003R/L-JY | 0.03              | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VBGT1103005R/L-JY | 0.05              | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VBGT110301R/L-JY  | 0.1               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT110302R/L-JY  | 0.2               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT110304R/L-JY  | 0.4               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT1103003R/L-JY | 0.03              | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VCGT1103005R/L-JY | 0.05              | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ○     | ○ |
|             | VCGT110301R/L-JY  | 0.1               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT110302R/L-JY  | 0.2               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VCGT110304R/L-JY  | 0.4               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ○ |
|             | VBGT110301-SE     | 0.1               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VBGT110302-SE     | 0.2               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VBGT110304-SE     | 0.4               | 6.35      | 3.18    | 2.8      | 5°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110301-SE     | 0.1               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110302-SE     | 0.2               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110304-SE     | 0.4               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110301-JCK    | 0.1               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110302-JCK    | 0.2               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |
|             | VCGT110304-JCK    | 0.4               | 6.35      | 3.18    | 2.8      | 7°       |   |  |  |  |  |   |  |  |  |  |   |  |  |  |  | ●     | ● |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



小零件加工刀片 - 型号列表 (前扫刀片)  
Small Parts Processing Inserts Product List (front-turning inserts)

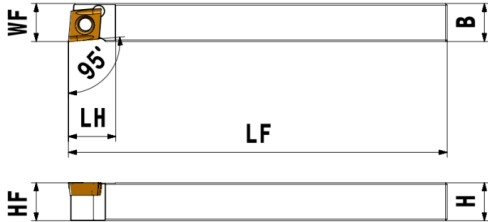
| 形状<br>Shape                                                                        | 型号 Type         | 尺寸 Dimension (mm)                                                                 |            |           |         |          | P        |        |        |        |         | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |        |
|------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------|------------|-----------|---------|----------|----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                    |                 |  | 刀尖半径<br>RE | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | 后角<br>AN | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
|   | WBG060101R/L-JF | 0.1                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | WBG060102R/L-JF | 0.2                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | WBG060104R/L-JF | 0.4                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|   | TBGT060101R/L   | 0.1                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TBGT060102R/L   | 0.2                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TBGT060104R/L   | 0.4                                                                               | 3.97       | 1.59      | 2.3     | 5°       |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|   | TPGH080201R/L-F | 0.1                                                                               | 4.76       | 2.38      | 2.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH080202R/L-F | 0.2                                                                               | 4.76       | 2.38      | 2.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH080204R/L-F | 0.4                                                                               | 4.76       | 2.38      | 2.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|   | TPGH090201R/L-F | 0.1                                                                               | 5.56       | 2.38      | 3.2     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH090202R/L-F | 0.2                                                                               | 5.56       | 2.38      | 3.2     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH090204R/L-F | 0.4                                                                               | 5.56       | 2.38      | 3.2     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|  | TPGH110301R/L-F | 0.1                                                                               | 6.35       | 3.18      | 3.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH110302R/L-F | 0.2                                                                               | 6.35       | 3.18      | 3.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |
|                                                                                    | TPGH110304R/L-F | 0.4                                                                               | 6.35       | 3.18      | 3.3     | 11°      |          |        |        |        |         |        |        |        |        |        |        |        |        |        | ●      | ○      |        |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

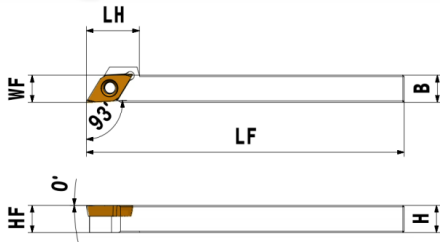
| 形状<br>Shape                                                                         | 型号 Type          | 尺寸 Dimension (mm) |           |         |          | P      |        |        |         |        | M      |        |        |        | K      |        |        |        | P/M/S  |        |        |
|-------------------------------------------------------------------------------------|------------------|-------------------|-----------|---------|----------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                                                                     |                  | 刀尖半径<br>RE        | 内切圆<br>IC | 厚度<br>S | 孔径<br>D1 | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
|  | TNGG160401R/L-JS | 0.1               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |
|                                                                                     | TNGG160402R/L-JS | 0.2               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |
|                                                                                     | TNGG160404R/L-JS | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |
|  | TNGG160401-SE    | 0.1               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |
|                                                                                     | TNGG160402-SE    | 0.2               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |
|                                                                                     | TNGG160404-SE    | 0.4               | 9.525     | 4.76    | 3.81     |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ●      |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

小零件加工 - 走心机刀杆 (前扫外圆刀杆)  
Small Parts Processing – Swiss Tool Machine Holder (External Front Turning Design)



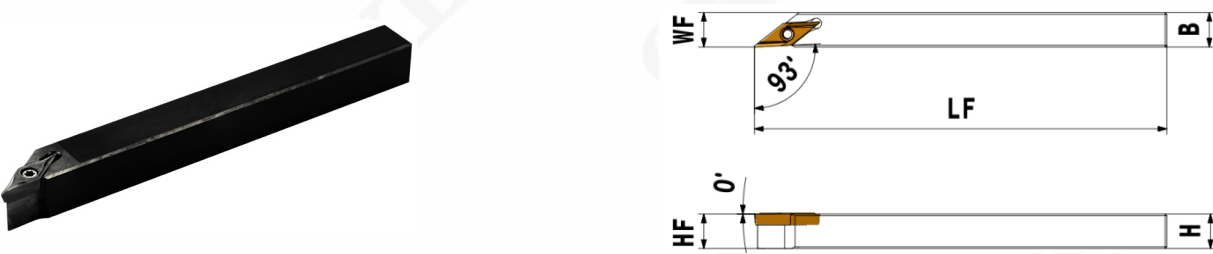
| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|-----------|-------------------|-----|----|----|------------------------|----------|-----------|
|         |           | HxB               | LF  | WF | HF |                        |          |           |
| SCLCR/L | 1010JX-06 | 10X10             | 120 | 10 | 10 | CCGT06                 | SOT2560A | WQT08C    |
|         | 1010JX-09 | 10X10             | 120 | 10 | 10 | CCGT09                 | SOT4090A | WQT15C    |
|         | 1212JX-09 | 12X12             | 120 | 12 | 10 |                        |          |           |
|         | 1616JX-09 | 16X16             | 120 | 16 | 10 |                        |          |           |



| 型号 Type |            | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|------------|-------------------|-----|----|----|------------------------|----------|-----------|
|         |            | HxB               | LF  | WF | HF |                        |          |           |
| SDJCR/L | 1010JX-07F | 10X10             | 120 | 10 | 10 | DCGT07                 | SOT2560A | WQT08C    |
|         | 1212JX-07F | 12X12             | 120 | 12 | 12 |                        |          |           |
|         | 1010JX-11F | 10X10             | 120 | 10 | 10 | DCGT11                 | SOT4090A | WQT15C    |
|         | 1212JX-11F | 12X12             | 120 | 12 | 12 |                        |          |           |
|         | 1616JX-11F | 16X16             | 120 | 16 | 16 |                        |          |           |

小零件加工 - 走心机刀杆 (前扫外圆刀杆)

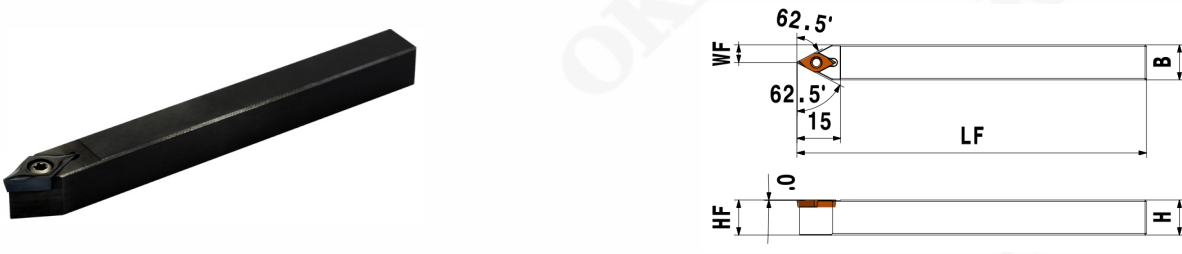
Small Parts Processing – Swiss Tool Machine Holder (External Front Turning Design)

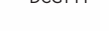


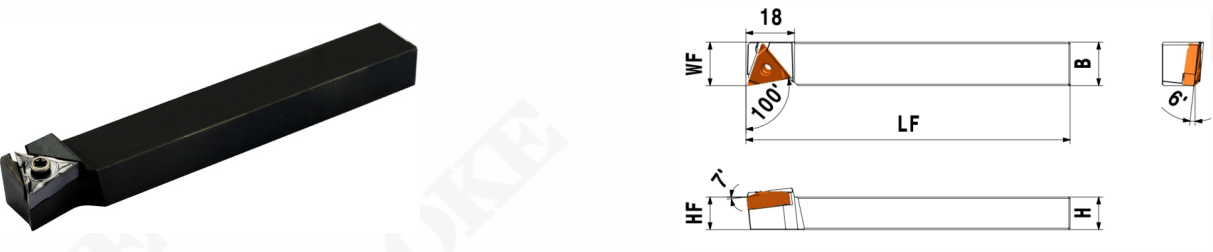
| 型号 Type |            | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts                                                              | 螺钉 Screw                                                                              | 扳手 Wrench                                                                             |
|---------|------------|-------------------|-----|----|----|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|         |            | HxB               | LF  | WF | HF |                                                                                     |                                                                                       |                                                                                       |
| SVJBR/L | 1010JX-11F | 10X10             | 120 | 10 | 10 |    |    |    |
|         | 1212JX-11F | 12X12             | 120 | 12 | 12 |                                                                                     |                                                                                       |                                                                                       |
|         | 1616JX-11F | 16X16             | 120 | 16 | 16 |                                                                                     |                                                                                       |                                                                                       |
| SVJCR/L | 1010JX-11F | 10X10             | 120 | 10 | 10 |    |    |    |
|         | 1212JX-11F | 12X12             | 120 | 12 | 12 |                                                                                     |                                                                                       |                                                                                       |
|         | 1616JX-11F | 16X16             | 120 | 16 | 16 |                                                                                     |                                                                                       |                                                                                       |
| SVJPR/L | 1010JX-11F | 10X10             | 120 | 10 | 10 |  |  |  |
|         | 1212JX-11F | 12X12             | 120 | 12 | 12 |                                                                                     |                                                                                       |                                                                                       |
|         | 1616JX-11F | 16X16             | 120 | 16 | 16 |                                                                                     |                                                                                       |                                                                                       |

小零件加工 - 走心机刀杆 (前扫中置刀杆)

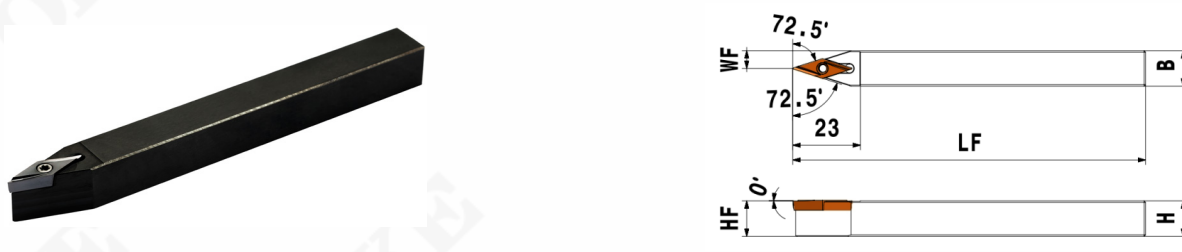
Small Parts Processing – Swiss Tool Machine Holder (Front-turning Central Design)



| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts                                                              | 螺钉 Screw                                                                            | 扳手 Wrench                                                                           |
|---------|-----------|-------------------|-----|----|----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|         |           | HxB               | LF  | WF | HF |                                                                                     |                                                                                     |                                                                                     |
| SDNCN   | 1010JX-07 | 10X10             | 120 | 5  | 10 |  |  |  |
|         | 1212JX-07 | 12X12             | 120 | 6  | 12 |                                                                                     |                                                                                     |                                                                                     |
|         | 1010JX-11 | 10X10             | 120 | 5  | 10 |  |  |  |
|         | 1212JX-11 | 12X12             | 120 | 6  | 12 |                                                                                     |                                                                                     |                                                                                     |
|         | 1616JX-11 | 16X16             | 120 | 8  | 16 |                                                                                     |                                                                                     |                                                                                     |



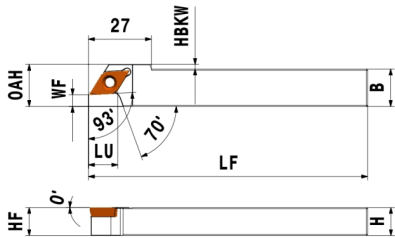
| 型号 Type |             | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts                                                              | 螺钉 Screw                                                                              | 扳手 Wrench                                                                             |
|---------|-------------|-------------------|-----|----|----|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|         |             | HxB               | LF  | WF | HF |                                                                                     |                                                                                       |                                                                                       |
| STXNR/L | 1016JX-16FF | 10X16             | 120 | 10 | 10 |  |  |  |
|         | 1216JX-16FF | 12X16             | 120 | 10 | 10 |                                                                                     |                                                                                       |                                                                                       |
|         | 1616JX-16FF | 16X16             | 120 | 12 | 10 |                                                                                     |                                                                                       |                                                                                       |



| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts                                                                | 螺钉 Screw                                                                              | 扳手 Wrench                                                                             |
|---------|-----------|-------------------|-----|----|----|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|         |           | HxB               | LF  | WF | HF |                                                                                       |                                                                                       |                                                                                       |
| SVVBN   | 1010JX-11 | 10X10             | 120 | 5  | 10 |  |  |  |
|         | 1212JX-11 | 12X12             | 120 | 6  | 12 |                                                                                       |                                                                                       |                                                                                       |
|         | 1616JX-11 | 16X16             | 120 | 8  | 16 |                                                                                       |                                                                                       |                                                                                       |

小零件加工 - 走心机刀杆（前扫空间刀杆）

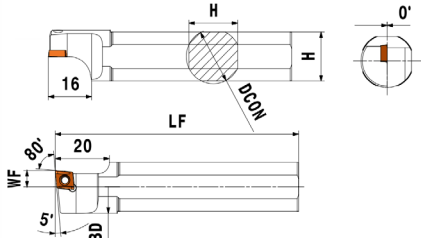
Small Parts Processing – Swiss Tool Machine Holder (Front-turning Spatial Design)



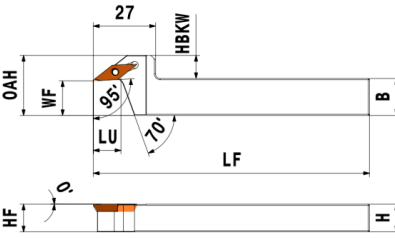
| 型号 Type |               | 尺寸 Dimension (mm) |     |    |    |    |     |       | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|---------------|-------------------|-----|----|----|----|-----|-------|------------------------|----------|-----------|
|         |               | HxB               | LF  | WF | HF | LU | OAH | HBK W |                        |          |           |
| SDJCR   | 1216JX-11-F05 | 12X16             | 120 | 5  | 12 | 12 | 12  | 12    | DCGT07                 | DCGT07   | WQT15C    |
|         | 1216JX-11-F15 | 12X16             | 120 | 15 | 12 | 12 | 12  | 12    |                        |          |           |
|         | 1620JX-11-F05 | 16X20             | 120 | 5  | 16 | 16 | 16  | 16    |                        |          |           |
|         | 1620JX-11-F15 | 16X20             | 120 | 15 | 16 | 16 | 16  | 16    |                        |          |           |

小零件加工 - 走心机刀杆（背轴外圆刀杆）

Small Parts Processing—Swiss Tool Machine Holder (Sub-Spindle External Turning Design)



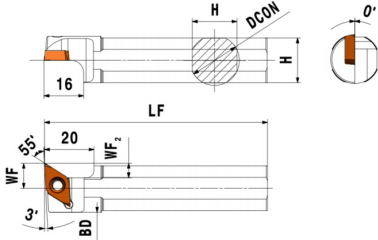
| 型号 Type         |  | 尺寸 Dimension (mm) |     |    |      |        | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|-----------------|--|-------------------|-----|----|------|--------|------------------------|----------|-----------|
|                 |  | H                 | LF  | WF | BD   | DCON   |                        |          |           |
| S12F -SCLCL06   |  | 11                | 80  | 6  | 13.4 | 12     | CCGT06                 | SOT2060A | WQT08C    |
| S14H -SCLCL06   |  | 13                | 100 | 6  | 13.4 | 14     |                        |          |           |
| S15F -SCLCL06   |  | 15                | 85  | 6  | 15.4 | 15.875 |                        |          |           |
| S16F -SCLCL06   |  | 15                | 85  | 6  | 15.4 | 16     |                        |          |           |
| S19G -SCLCL06   |  | 17                | 90  | 6  | 18.4 | 19.05  |                        |          |           |
| S19K -SCLCL06   |  | 17                | 120 | 6  | 18.4 | 19.05  |                        |          |           |
| S20G -SCLCL06   |  | 18                | 90  | 6  | 19.4 | 20     |                        |          |           |
| S20K -SCLCL06   |  | 18                | 120 | 6  | 19.4 | 20     |                        |          |           |
| S19G -SCLCL09   |  | 17                | 90  | 10 | 18.4 | 19.05  | CCGT09                 | SOT4090A | WQT15C    |
| S19K -SCLCL09   |  | 17                | 120 | 10 | 18.4 | 19.05  |                        |          |           |
| S20G -SCLCL09   |  | 18                | 90  | 10 | 19.4 | 20     |                        |          |           |
| S20K -SCLCL09   |  | 18                | 120 | 10 | 19.4 | 20     |                        |          |           |
| S25.0H -SCLCL09 |  | 23                | 100 | 10 | 24.4 | 25     |                        |          |           |
| S25K -SCLCL09   |  | 23                | 120 | 10 | 24.8 | 25.4   |                        |          |           |



| 型号 Type |               | 尺寸 Dimension (mm) |     |    |    |    |     |       | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|---------------|-------------------|-----|----|----|----|-----|-------|------------------------|----------|-----------|
|         |               | HxB               | LF  | WF | HF | LU | OAH | HBK W |                        |          |           |
| SVLPR   | 1216JX-11-F15 | 12X16             | 120 | 15 | 12 | 12 | 26  | 10    | VPGT11                 | SOT2560A | WQT08C    |
|         | 1620JX-11-F15 | 16X20             | 120 | 15 | 16 | 12 | 26  | 6     |                        |          |           |

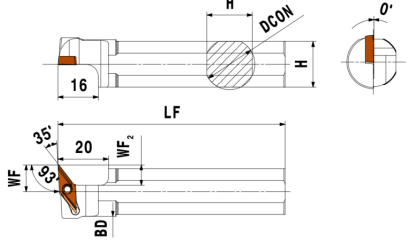


小零件加工 - 走心机刀杆（背轴外圆刀杆）  
Small Parts Processing—Swiss Tool Machine Holder (Sub-Spindle External Turning Design)



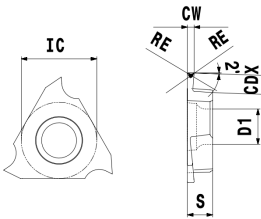
| 型号 Type         | 尺寸 Dimension (mm) |     |    |      |        |                 | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|-----------------|-------------------|-----|----|------|--------|-----------------|------------------------|----------|-----------|
|                 | H                 | LF  | WF | BD   | DCON   | WF <sub>2</sub> |                        |          |           |
| S14H -SDUCL07   | 13                | 100 | 6  | 13.4 | 14     | 3.8             | DCGT07                 | SOT2060A | WQT08C    |
| S15F -SDUCL07   | 15                | 85  | 6  | 15.4 | 15.875 | 3.8             |                        |          |           |
| S19G -SDUCL07   | 17                | 90  | 6  | 18.4 | 19.05  | 3.8             |                        |          |           |
| S19K -SDUCL07   | 17                | 120 | 6  | 18.4 | 19.05  | 3.8             |                        |          |           |
| S20G -SDUCL07   | 18                | 90  | 6  | 19.4 | 20     | 3.8             |                        |          |           |
| S20K -SDUCL07   | 18                | 120 | 6  | 19.4 | 20     | 3.8             | DCGT11                 | SOT4090A | WQT15C    |
| S19G -SDUCL11   | 17                | 90  | 10 | 18.4 | 19.05  | 5.8             |                        |          |           |
| S19K -SDUCL11   | 17                | 120 | 10 | 18.4 | 19.05  | 5.8             |                        |          |           |
| S20G -SDUCL11   | 18                | 90  | 10 | 19.4 | 20     | 5.8             |                        |          |           |
| S20K -SDUCL11   | 18                | 120 | 10 | 19.4 | 20     | 5.8             |                        |          |           |
| S22K -SDUCL11   | 20                | 120 | 10 | 21.4 | 22     | 5.8             |                        |          |           |
| S25.0H -SDUCL11 | 23                | 100 | 10 | 24.4 | 25     | 5.8             |                        |          |           |
| S25K -SDUCL11   | 23                | 120 | 10 | 24.8 | 25.4   | 5.8             |                        |          |           |

小零件加工 - 走心机刀杆（背轴外圆刀杆）  
Small Parts Processing—Swiss Tool Machine Holder (Sub-Spindle External Turning Design)



| 型号 Type         | 尺寸 Dimension (mm) |     |      |      |       |                 | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|-----------------|-------------------|-----|------|------|-------|-----------------|------------------------|----------|-----------|
|                 | H                 | LF  | WF   | BD   | DCON  | WF <sub>2</sub> |                        |          |           |
| S19G -SVUBL11   | 17                | 90  | 10.5 | 18.4 | 19.05 | 8               | VBGT11                 | SOT2060A | WQT08C    |
| S19K -SVUBL11   | 17                | 120 | 10.5 | 18.4 | 19.05 | 8               |                        |          |           |
| S20G -SVUBL11   | 18                | 90  | 10.5 | 19.4 | 20    | 8               |                        |          |           |
| S20K -SVUBL11   | 18                | 120 | 10.5 | 19.4 | 20    | 8               |                        |          |           |
| S25.0H -SVUBL11 | 23                | 100 | 10.5 | 24.4 | 25    | 8               |                        |          |           |
| S25K -SVUBL11   | 23                | 120 | 10.5 | 24.8 | 25.4  | 8               | VCGT11                 | SOT2060A | WQT08C    |
| S19G -SVUCL11   | 17                | 90  | 10.5 | 18.4 | 19.05 | 8               |                        |          |           |
| S19K -SVUCL11   | 17                | 120 | 10.5 | 18.4 | 19.05 | 8               |                        |          |           |
| S20G -SVUCL11   | 18                | 90  | 10.5 | 19.4 | 20    | 8               |                        |          |           |
| S20K -SVUCL11   | 18                | 120 | 10.5 | 19.4 | 20    | 8               |                        |          |           |
| S25.0H -SVUCL11 | 23                | 100 | 10.5 | 24.4 | 25    | 8               |                        |          |           |
| S25K -SVUCL11   | 23                | 120 | 10.5 | 24.8 | 25.4  | 8               |                        |          |           |

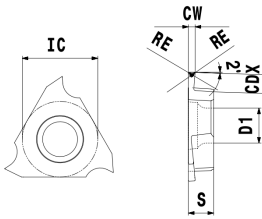
小零件加工刀片 - 型号列表 (浅槽刀片)  
Small Parts Processing Inserts - Product List (Shallow Grooving Insert)



| 型号<br>Type |         | 尺寸 Dimension (mm) |      |     |       |      |     | P      |        |        |         |        | M      |        |        |        | K      |        |        |        | P/M/S  |        |        |
|------------|---------|-------------------|------|-----|-------|------|-----|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |         | CW                | RE   | CDX | IC    | S    | D   | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
| TGF32R/L   | 033-005 | 0.33              | 0.05 | 1.2 | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 050-005 | 0.50              | 0.05 | 1.2 | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 070-010 | 0.70              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 075-010 | 0.75              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 080-010 | 0.80              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 085-010 | 0.85              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 090-010 | 0.90              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 095-010 | 0.95              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 100-010 | 1.00              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 105-010 | 1.05              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 110-010 | 1.10              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 115-010 | 1.15              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 120-010 | 1.20              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 125-010 | 1.25              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 130-010 | 1.30              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 135-010 | 1.35              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 140-010 | 1.40              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 145-010 | 1.45              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 150-010 | 1.50              | 0.1  | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

小零件加工刀片 - 型号列表 (浅槽刀片)  
Small Parts Processing Inserts - Product List (Shallow Grooving Insert)



| 型号<br>Type |         | 尺寸 Dimension (mm) |     |     |       |      |     | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        | P/M/S  |        |
|------------|---------|-------------------|-----|-----|-------|------|-----|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |         | CW                | RE  | CDX | IC    | S    | D   | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
| TGF32R/L   | 155-010 | 1.55              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 160-010 | 1.60              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 165-010 | 1.65              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 170-010 | 1.70              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 175-010 | 1.75              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 180-010 | 1.80              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 185-010 | 1.85              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 190-010 | 1.90              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 195-010 | 1.95              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 200-010 | 2.00              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 205-010 | 2.05              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 210-010 | 2.10              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 215-010 | 2.15              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 220-010 | 2.20              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 225-010 | 2.25              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 230-010 | 2.30              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 235-010 | 2.35              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 240-010 | 2.40              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 245-010 | 2.45              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 250-010 | 2.50              | 0.1 | 2   | 9.525 | 3.18 | 4.4 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

小零件加工刀片 - 型号列表 (浅槽刀片)  
Small Parts Processing Inserts - Product List (Shallow Grooving Insert)

小零件加工刀片 - 型号列表 (浅槽刀片)  
Small Parts Processing Inserts - Product List (Shallow Grooving Insert)



| 型号<br>Type |         | 尺寸 Dimension (mm) |     |     |      |      |     | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |  |
|------------|---------|-------------------|-----|-----|------|------|-----|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|
|            |         | CW                | RE  | CDX | IC   | S    | D   | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1335 |  |
| GBA43R/L   | 125-010 | 1.25              | 0.1 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 125-020 | 1.25              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 130-020 | 1.30              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 135-020 | 1.35              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 140-020 | 1.40              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 145-020 | 1.45              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 150-010 | 1.50              | 0.1 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 150-020 | 1.50              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 155-020 | 1.55              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 160-020 | 1.60              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 165-020 | 1.65              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 170-020 | 1.70              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 175-020 | 1.75              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 180-020 | 1.80              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 185-020 | 1.85              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 190-020 | 1.90              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 195-020 | 1.95              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 200-010 | 2.00              | 0.1 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 200-020 | 2.00              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 205-020 | 2.05              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 210-020 | 2.10              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 215-020 | 2.15              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 220-020 | 2.20              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 225-020 | 2.25              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 230-020 | 2.30              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 235-020 | 2.35              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |
|            | 240-020 | 2.40              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |  |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

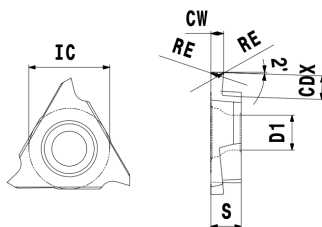
| 型号<br>Type |         | 尺寸 Dimension (mm) |     |     |      |      |     | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        | P/M/S  |        |
|------------|---------|-------------------|-----|-----|------|------|-----|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |         | CW                | RE  | CDX | IC   | S    | D   | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
| GBA43R/L   | 245-020 | 2.45              | 0.2 | 3.5 | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 250-010 | 2.50              | 0.1 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 250-030 | 2.50              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 255-030 | 2.55              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 260-030 | 2.60              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 265-030 | 2.65              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 270-030 | 2.70              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 275-030 | 2.75              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 280-030 | 2.80              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 285-030 | 2.85              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 290-030 | 2.90              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 295-030 | 2.95              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 300-010 | 3.00              | 0.1 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 300-030 | 3.00              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 305-030 | 3.05              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 310-030 | 3.10              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 315-030 | 3.15              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 320-030 | 3.20              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 325-030 | 3.25              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 330-030 | 3.30              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 335-030 | 3.35              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 340-030 | 3.40              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 345-030 | 3.45              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 350-010 | 3.50              | 0.1 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 350-030 | 3.50              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 355-030 | 3.55              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |
|            | 360-030 | 3.60              | 0.3 | 5   | 12.7 | 4.76 | 5.5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ●      | ○      |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



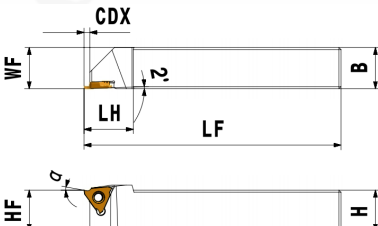
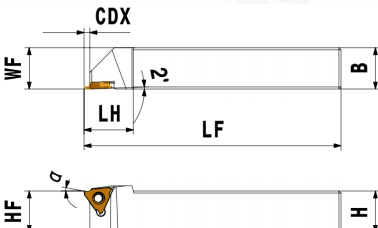
小零件加工刀片 - 型号列表 (浅槽刀片)  
Small Parts Processing Inserts - Product List (Shallow Grooving Insert)

小零件加工 - 走心机刀杆 (浅槽刀刀杆)  
Small Parts Processing - Swiss Tool Machine Holder (for Shallow Grooving Insert)



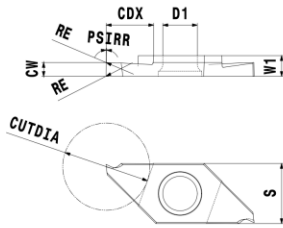
| 型号<br>Type | 尺寸 Dimension (mm) |      |     |    |      |      | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        |        | P/M/S  |   |
|------------|-------------------|------|-----|----|------|------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
|            | CW                | RE   | CDX | IC | S    | D    | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |   |
| GBA43R/L   | 365-030           | 3.65 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 370-030           | 3.70 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 375-030           | 3.75 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 380-030           | 3.80 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 385-030           | 3.85 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 390-030           | 3.90 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 395-030           | 3.95 | 0.3 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 400-010           | 4.00 | 0.1 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 400-040           | 4.00 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 405-040           | 4.05 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 410-040           | 4.10 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 415-040           | 4.15 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 420-040           | 4.20 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 425-040           | 4.25 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 430-040           | 4.30 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 435-040           | 4.35 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 440-040           | 4.40 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 445-040           | 4.45 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 450-040           | 4.50 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 455-040           | 4.55 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 460-040           | 4.60 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 465-040           | 4.65 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 470-040           | 4.70 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 475-040           | 4.75 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
|            | 480-040           | 4.80 | 0.4 | 5  | 12.7 | 4.76 | 5.5    |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |

● 常备库存 Stock available    ○ 按单生产 Make-to-order



| 型号 Type |             | 尺寸 Dimension (mm) |     |    |    |      |     | 通用刀片 Adaptable Inserts                                                              | 螺钉 Screw                                                                            | 扳手 Wrench                                                                           |
|---------|-------------|-------------------|-----|----|----|------|-----|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|         |             | HxB               | LF  | WF | HF | LH   | CDX |  |  |  |
| KGBAR/L | 2020K22-15F | 20X20             | 125 | 20 | 20 | 24   | 4   | GBA43R/L                                                                            | SOT5012A                                                                            | WQT20C                                                                              |
|         | 2525M22-15F | 25X25             | 150 | 25 | 25 | 24   | 4   |                                                                                     |                                                                                     |                                                                                     |
|         | 2020K22-35F | 20X20             | 125 | 20 | 20 | 24   | 5.5 |                                                                                     |                                                                                     |                                                                                     |
|         | 2525M22-35F | 25X25             | 150 | 25 | 25 | 24   | 5.5 |                                                                                     |                                                                                     |                                                                                     |
| KTGFR/L | 1010JX-16F  | 10X10             | 120 | 10 | 10 | 18.5 | 2.5 | TGF32R/L                                                                            | SOT4090A                                                                            | WQT15C                                                                              |
|         | 1212JX-16F  | 12X12             | 120 | 12 | 12 | 18.5 | 2.5 |                                                                                     |                                                                                     |                                                                                     |
|         | 1616JX-16F  | 16X16             | 120 | 16 | 16 | 18.5 | 2.5 |                                                                                     |                                                                                     |                                                                                     |
|         | 2020JX-16F  | 20X20             | 120 | 20 | 20 | 20   | 2.5 |                                                                                     |                                                                                     |                                                                                     |
|         | 2525JX-16F  | 25X25             | 120 | 25 | 25 | 20   | 2.5 |                                                                                     |                                                                                     |                                                                                     |

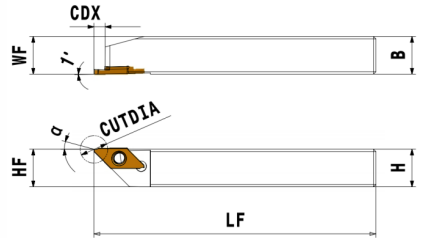
小零件加工刀片 - 型号列表 (切断刀片)  
Small Parts Processing Inserts - Product List (Parting Inserts)



| 型号<br>Type |            | 尺寸 Dimension (mm) |      |     |    |     |   |       | P      |        |        |         |        | M      |        |        |        |        | K      |        |        | P/M/S  |        |        |
|------------|------------|-------------------|------|-----|----|-----|---|-------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|            |            | CW                | RE   | CDX | W1 | S   | D | PSIRR | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
| TKF12R/L   | 050-S      | 0.50              | 0.03 | 2.8 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 070-S      | 0.70              | 0.03 | 4.3 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 100-S      | 1.00              | 0.03 | 6.3 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 125-S      | 1.25              | 0.03 | 6.3 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 150-S      | 1.50              | 0.03 | 6.3 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 200-S      | 2.00              | 0.03 | 6.3 | 3  | 8.7 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
| TKF12R/L   | 050-S-16DR | 0.50              | 0.03 | 2.8 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 070-S-16DR | 0.70              | 0.03 | 4.3 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 100-S-16DR | 1.00              | 0.03 | 6.3 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 125-S-16DR | 1.25              | 0.03 | 6.3 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 150-S-16DR | 1.50              | 0.03 | 6.3 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 200-S-16DR | 2.00              | 0.03 | 6.3 | 3  | 8.7 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
| TKF16R/L   | 150-S      | 1.50              | 0.05 | 8.4 | 4  | 9.5 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 200-S      | 2.00              | 0.05 | 8.4 | 4  | 9.5 | 5 | 1°    |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
| TKF16R/L   | 150-S-16DR | 1.50              | 0.05 | 8.4 | 4  | 9.5 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
|            | 200-S-16DR | 2.00              | 0.05 | 8.4 | 4  | 9.5 | 5 | 15°   |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |

● 常备库存 Stock available    ○ 按单生产 Make-to-order

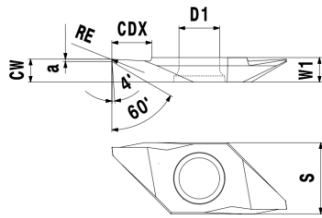
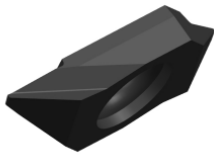
小零件加工 - 走心机刀杆 (切断刀刀杆)  
Small Parts Processing - Swiss Tool Machine Holder (Parting Tool Holder)



| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    |    |     | 通用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|-----------|-------------------|-----|----|----|----|-----|------------------------|----------|-----------|
|         |           | HxB               | LF  | WF | HF | LH | CDX |                        |          |           |
| KTKFR/L | 1010JX-12 | 10X10             | 120 | 10 | 10 | 24 | 6   | TKF12R/L               | SOP4593A | WQP10B    |
|         | 1212JX-12 | 12X12             | 120 | 12 | 12 | 24 | 6   |                        |          |           |
|         | 1616JX-12 | 16X16             | 120 | 16 | 16 | 24 | 6   |                        |          |           |
|         | 1010JX-16 | 10X10             | 120 | 10 | 10 | 30 | 8   | TKF16R/L               | SOP4593A | WQP10B    |
|         | 1212JX-16 | 12X12             | 120 | 12 | 12 | 30 | 8   |                        |          |           |
|         | 1616JX-16 | 16X16             | 120 | 16 | 16 | 30 | 8   |                        |          |           |

小零件加工刀片 - 型号列表 (后扫刀片)

Small Parts Processing Inserts - Product List (Back Turning Insert)

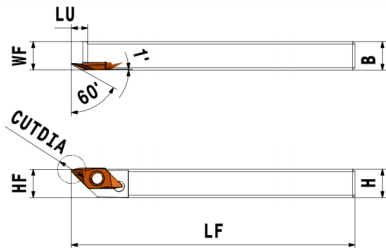


| 型号<br>Type    | 尺寸 Dimension (mm) |      |      |     |   |   | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        | P/M/S  |        |
|---------------|-------------------|------|------|-----|---|---|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|               | CW                | RE   | a    | S   | W | D | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |
| TKFB12R15-005 | 1.50              | 0.05 | 0.25 | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
| TKFB12R28-005 | 2.80              | 0.05 | 0.3  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |
| TKFB12R28-010 | 2.80              | 0.1  | 0.3  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        | ○      | ●      |

● 常备库存 Stock available ○ 按单生产 Make-to-order

小零件加工 - 走心机刀杆 (后扫刀杆)

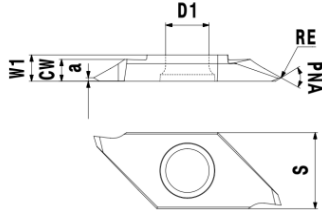
Small Parts Processing - Swiss Tool Machine Holder (Back Turning Tool Holder)



| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    |    | 适用刀片 Adaptable Inserts | 螺钉 Screw | 扳手 Wrench |
|---------|-----------|-------------------|-----|----|----|----|------------------------|----------|-----------|
|         |           | HxB               | LF  | WF | HF | LU |                        |          |           |
| KTKFR/L | 1010JX-12 | 10X10             | 120 | 10 | 10 | 6  | TKFB12R/L              | SOP4593A | WQP10B    |
|         | 1212JX-12 | 12X12             | 120 | 12 | 12 | 6  |                        |          |           |
|         | 1616JX-12 | 16X16             | 120 | 16 | 16 | 6  |                        |          |           |
|         | 2020JX-12 | 20X20             | 120 | 20 | 20 | 6  |                        |          |           |
|         | 1010JX-16 | 10X10             | 120 | 10 | 10 | 8  | TKFB16R/L              | SOP4593A | WQP10B    |
|         | 1212JX-16 | 12X12             | 120 | 12 | 12 | 8  |                        |          |           |
|         | 1616JX-16 | 16X16             | 120 | 16 | 16 | 8  |                        |          |           |
|         | 2020JX-16 | 20X20             | 120 | 20 | 20 | 8  |                        |          |           |
|         | 1216JX-12 | 12X16             | 120 | 16 | 12 | 6  | TKFB12R/L              | SOP4593A | WQP10B    |
|         | 1620JX-12 | 16X20             | 120 | 20 | 16 | 6  |                        |          |           |

小零件加工刀片 - 型号列表 (螺纹刀片)

Small Parts Processing Inserts - Product List (Threading Insert)

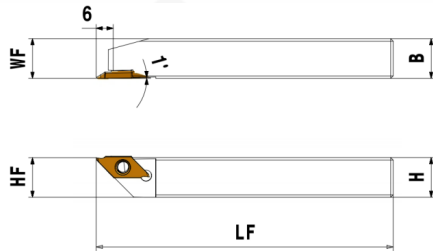


| 型号<br>Type    | 尺寸 Dimension (mm) |      |      |     |   |   | P      |        |        |         |        | M      |        |        |        |        | K      |        |        |        | P/M/S  |        |   |
|---------------|-------------------|------|------|-----|---|---|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---|
|               | CW                | RE   | a    | S   | W | D | OC2515 | OC2525 | OC2125 | OC2325S | OC2535 | OC4310 | OC4320 | OC4330 | OP1215 | OP1315 | OC3205 | OC3210 | OC3220 | OC3215 | OP1305 | OP1535 |   |
| TKFT12RA6000  | 2.50              | 0    | 0.4  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
| TKFT12RB6000  | 2.50              | 0    | 2.1  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
| TKFT12RA60005 | 2.50              | 0.05 | 0.8  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
| TKFT12RB60005 | 2.50              | 0.05 | 1.7  | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |
| TKFT12RN6001  | 2.50              | 0.1  | 1.25 | 8.7 | 3 | 5 |        |        |        |         |        |        |        |        |        |        |        |        |        |        |        | ●      | ○ |

● 常备库存 Stock available ○ 按单生产 Make-to-order

小零件加工 - 走心机刀杆 (螺纹刀杆)

Small Parts Processing - Swiss Tool Machine Holder (Threading Tool Holder)



| 型号 Type |           | 尺寸 Dimension (mm) |     |    |    | 适用刀片 Adaptable Inserts | 螺钉 Screw  | 扳手 Wrench |
|---------|-----------|-------------------|-----|----|----|------------------------|-----------|-----------|
|         |           | HxB               | LF  | WF | HF |                        |           |           |
| KTKFR/L | 1010JX-12 | 10X10             | 120 | 10 | 10 | TKFT12R/L              | TKFT12R/L | WQT10B    |
|         | 1212JX-12 | 10X10             | 120 | 12 | 12 |                        |           |           |
|         | 1616JX-12 | 16X16             | 120 | 16 | 16 |                        |           |           |



D 附件 Appendix

01 车削刀片牌号特性 (CVD 涂层)  
Turning insert Grade Feature (CVD Coating)

| 工件材料<br>Workpiece<br>Material  | 刀片材质<br>Insert grade | 基体<br>Substrate   |                      | 涂层<br>Coating   |                              |
|--------------------------------|----------------------|-------------------|----------------------|-----------------|------------------------------|
|                                |                      | 成分<br>Composition | 硬度<br>Hardness (HRA) | 结构<br>Structure | 厚度<br>Thickness              |
| P<br>钢<br>Steel                | OC2505               | W+Co+Ti+Ta+Nb     | 91.8                 | TiCN-Al2O3-TiN  | 厚膜 Thick coating             |
|                                | OC2515               | W+Co+Ti+Ta+Nb     | 91.5                 | TiCN-Al2O3-TiN  | 厚膜 Thick coating             |
|                                | OC2525               | W+Co+Ti+Ta+Nb     | 90.8                 | TiCN-Al2O3-TiN  | 厚膜 Thick coating             |
|                                | OC2125               | W+Co+Ti+Ta+Nb     | 90.5                 | TiCN-Al2O3      | 中厚膜 Medium-thickness coating |
|                                | OC2325S              | W+Co+Ti+Ta+Nb     | 90.7                 | TiCN-Al2O3-TiN  | 中厚膜 Medium-thickness coating |
|                                | OC2535               | W+Co+Ti+Ta+Nb     | 90.0                 | TiCN-Al2O3-TiN  | 中厚膜 Medium-thickness coating |
| M<br>不锈钢<br>Stainless<br>steel | OC4310               | W+Co+Ti+Ta+Nb     | 91.3                 | TiCN-Al2O3-TiCN | 薄膜 Thin Coating              |
|                                | OC4320               | W+Co+Ti+Ta+Nb     | 90.5                 | TiCN-Al2O3-TiCN | 薄膜 Thin Coating              |
|                                | OC4330               | W+Co+Ta           | 89.8                 | TiCN-Al2O3-TiCN | 薄膜 Thin Coating              |
| K<br>铸铁<br>Cast Iron           | OC3205               | W+Co+Ta           | 92.4                 | TiCN-Al2O3-TiN  | 厚膜 Thick coating             |
|                                | OC3210               | W+Co+Ta           | 92.2                 | TiCN-Al2O3-TiN  | 厚膜 Thick coating             |
|                                | OC3215               | W+Co              | 91.8                 | TiCN-Al2O3      | 中厚膜 Medium-thickness coating |
|                                | OC3220               | W+Co              | 91.6                 | TiCN-Al2O3-TiN  | 中厚膜 Medium-thickness coating |

02 车削刀片牌号对照表  
The Comparison of Turning Insert Grades

CVD 涂层硬质合金 (车削用)  
CVD Grade (For Turning)

| ISO 分类         |             | 欧科亿<br>OKE                  | 山特维克<br>SANDVIK                      | 瓦尔特<br>WALTER            | 肯纳金属<br>KENNAMETAL                            | 伊斯卡<br>ISCRA               | 特固克<br>TaeguTec             | 山高刀具<br>SECO     | 住友电工<br>SUMITOMO                       | 泰珂洛<br>TUNGALOY         | 三菱综合材料<br>MITSUBISHI       | 京瓷<br>KYOCERA             | 株洲钻石<br>ZCCCT                        |
|----------------|-------------|-----------------------------|--------------------------------------|--------------------------|-----------------------------------------------|----------------------------|-----------------------------|------------------|----------------------------------------|-------------------------|----------------------------|---------------------------|--------------------------------------|
| 分类<br>Material | 符号<br>Grade |                             |                                      |                          |                                               |                            |                             |                  |                                        |                         |                            |                           |                                      |
| P              | P05         | OC2505                      | GC4205<br>GC4305                     | WPP05S<br>WPP05<br>WPP01 | KCP05B<br>KCP05<br>KC9105                     | IC8005                     | TT8105                      | TP0501<br>TP0500 | AC700G                                 | T9005<br>T9105<br>T9205 | UE6105                     | CA510<br>CA5505           | -                                    |
|                | P10         | OC2515                      | GC4215<br>GC4315<br>GC4415           | WPP10S<br>WPP10          | KCP10B<br>KCP10<br>KC9010                     | IC8150<br>IC9150           | TT8115<br>TT8115B           | TP1501<br>TP1500 | AC810P<br>AC8015P<br>AC8020P           | T9015<br>T9115<br>T9215 | MC6015<br>MC6115<br>UE6110 | CA515<br>CA5515           | YBC151<br>YBC152<br>YBC103<br>YB6315 |
|                | P20         | OC2125<br>OC2325S<br>OC2525 | GC4125<br>GC4225<br>GC4325<br>GC4425 | WPP20S<br>WPP20          | KCP25B<br>KCP25<br>KCP125<br>KC9225<br>KC9325 | IC8250<br>IC9125<br>IC9250 | TT5100<br>TT8125<br>TT8125B | TP2501<br>TP2500 | AC2000<br>AC820P<br>AC8020P<br>AC8025P | T9215<br>T9025<br>T9125 | MC6025<br>MC6125<br>UE6020 | CA525<br>CA5525<br>CR9025 | YBC251<br>YBC252                     |
|                | P30         | OC2535                      | GC4135<br>GC4235<br>GC4335           | WPP30S<br>WPP30          | KCP30B<br>KCP30<br>KC9040<br>KC9140           | IC635<br>IC8350<br>IC9350  | TT7100<br>TT8135            | TP3501<br>TP3500 | AC830P<br>AC8035P                      | T9225<br>T9035<br>T9135 | MC6035<br>UH6400           | CA025P<br>CA530<br>CA5535 | YBC351<br>YBC352                     |
| M              | P40         | OC2535                      | GC4135<br>GC4235<br>GC4335           | WPP30S<br>WPP30          | KCP40B<br>KCP40<br>KC9140<br>KC9240           | IC635<br>IC8350<br>IC9350  | TT7100                      | TP3501<br>TP3500 | AC830P<br>AC8035P                      | T9035<br>T9135<br>T9235 | MC6035<br>UH6400           | CA530<br>CA5535           | YBC351<br>YBC352                     |
|                | M10         | OC4310                      | GC2015<br>GC1515                     | -                        | KCM15<br>KCM15B                               | IC6015<br>IC8250           | TT9215                      | TM1501           | AC610M                                 | T6120                   | MC7015<br>US7020           | CA6515                    | YBM151<br>YBM153                     |
|                | M20         | OC4320                      | GC2025<br>GC1515                     | -                        | KCM25<br>KCM25B                               | IC6015                     | TT9215                      | TM2000<br>TM2501 | AC610M<br>AC6020M                      | T6120                   | MC7015<br>MC7025<br>US7020 | CA6515                    | YBM151<br>YBM153                     |
|                | M30         | OC4330                      | GC2220<br>GC2035<br>GC235            | -                        | KCM35<br>KCM35B                               | IC6025                     | TT9225<br>TT9235            | TM3501<br>TM4000 | AC630M<br>AC6030M                      | T6130                   | MC7025<br>US735            | CA6525                    | YBM251<br>YBM253                     |
| K              | M40         | OC4330                      | GC2035<br>GC235                      | -                        | KCM35<br>KCM35B                               | IC6025                     | TT9235<br>TT7800            | TM3501<br>TM4000 | AC630M<br>AC6030M                      | T6130                   | MC7025<br>US735            | CA6525                    | YBM251<br>YBM253                     |
|                | K05         | OC3205                      | GC3205                               | WKK10S<br>WAK10          | KCK05                                         | IC5005                     | TT7005                      | TK0501<br>TK1001 | AC405K                                 | T5105                   | MC5005<br>UC5105           | CA450S                    | YBD152D                              |
|                | K10         | OC3210                      | GC3210                               | WKK10S<br>WAK10          | KCK15                                         | IC4100<br>IC5010<br>IC5100 | TT7005                      | TK1501<br>TK1001 | AC415K<br>AC4010K                      | T515<br>T5115           | MH515<br>MY5015<br>MC5015  | CA310<br>CA550S<br>CA4515 | YBD102<br>YB7305<br>YBD052           |
|                | K20         | OC3215<br>OC3220            | GC3225                               | WKK20S<br>WAK20          | KCK20                                         | IC4100<br>IC5010<br>IC5100 | TT7015                      | TK1501<br>K2001  | AC420K<br>AC425K<br>AC4015K            | T5125                   | UC5115<br>MC5015           | CA320<br>CA4515           | YBD152<br>YBD152C<br>YB7315          |
|                | K30         | OC2525                      | GC4425                               | WAK30<br>WPP20S          | KCP25                                         | IC8250                     | TT8125B                     | TP2501           | AC8025P                                | T9125                   | MC6125<br>UE6110           | CA025P                    | YBC251                               |

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PVD 涂层硬质合金（车削用）  
PVD Grade (For Turning)

| ISO 分类         |             | 欧科亿<br>OKE                  | 山特维克<br>SANDVIK            | 瓦尔特<br>WALTER   | 肯纳金属<br>KENNAMETAL         | 伊斯卡<br>ISCRA               | 特固克<br>TaeguTec  | 山高刀具<br>SECO    | 住友电工<br>SUMITOMO             | 泰珂洛<br>TUNGALOY                   | 三菱综合材料<br>MITSUBISHI       | 京瓷<br>KYOCERA              | 株洲钻石<br>ZCCCT    |
|----------------|-------------|-----------------------------|----------------------------|-----------------|----------------------------|----------------------------|------------------|-----------------|------------------------------|-----------------------------------|----------------------------|----------------------------|------------------|
| 分类<br>Material | 符号<br>Grade |                             |                            |                 |                            |                            |                  |                 |                              |                                   |                            |                            |                  |
| P              | P10         | OP6105A<br>OP6115A          | GC1115<br>GC1525<br>GC1225 | WSM10<br>WSM10S | KCU10<br>KC5010<br>KC5510  | IC507<br>IC807<br>IC907    | TT5080           | CP200<br>TS2000 | ACZ150<br>AC5005S<br>AC5015S | AH710                             | VP10MF<br>MS6015           | PR1705<br>PR1115<br>PR1215 | YBG102<br>YBG202 |
|                | P20         | OP6125A<br>OP1315           | GC1225<br>GC1025           | WSM20<br>WSM20S | KC5025<br>KC5525<br>KU25T  | IC808<br>IC908             | TT9030<br>TT9080 | CP250<br>TS2500 | AC5025S<br>AC520U            | AH7025<br>AH725<br>SH725          | VP10RT<br>VP15TF           | PR1225<br>PR1625<br>PR1725 | YBG212<br>YBG215 |
|                | P30         | OP1415<br>OP1215            | GC1125                     | WSM30S          | KC5025<br>KC5525<br>KU25T  | IC1008<br>IC1028<br>IC3028 | TT8020<br>TT9030 | CP500           | AC1030U<br>AC530U            | AH730<br>SH730                    | VP20RT<br>VP20MF<br>VP15TF | PR1225<br>PR1535           | -                |
|                | P40         | OP1215<br>OP1030            | GC1145<br>GC2145           | -               | -                          | IC1008<br>IC1028<br>IC3028 | TT8020           | CP600           | AC1030U                      | AH140<br>AH740<br>J740            | -                          | PR1535                     | -                |
| M              | M10         | OP6105A<br>OP6115A          | GC1105<br>GC1115<br>GC1225 | WSM10<br>WSM10S | KCU10<br>KC5010<br>KC5510  | IC507<br>IC807<br>IC907    | TT5080           | CP200<br>TS2000 | ACZ150<br>AC5005S<br>AC5015S | AH8005<br>AH8115                  | VP10MF<br>MS6015           | PR1215                     | YBG102<br>YBG202 |
|                | M20         | OP6125A<br>OP1315           | GC1025<br>GC1125           | WSM20<br>WSM20S | KC5025<br>KC5525<br>KU25T  | IC808<br>IC908             | TT9030<br>TT9080 | CP250<br>TS2500 | AC5025S<br>AC520U            | AH120<br>AH7025<br>AH725<br>SH725 | VP10RT<br>VP15TF           | PR930<br>PR1725<br>PR1225  | YBG212<br>YBG215 |
|                | M30         | OP1415<br>OP1215            | GC1125<br>GC2035           | WSM30S          | KC5025<br>KC5525<br>KU25T  | IC1008<br>IC1028<br>IC3028 | TT8020<br>TT9030 | CP500           | AC1030U<br>AC530U<br>AC6040M | AH645<br>AH730<br>SH730<br>J740   | VP20RT<br>VP20MF<br>VP15TF | PR1535                     | -                |
|                | M40         | OP1215<br>OP1030            | GC2035<br>GC1145<br>GC2145 | -               | -                          | IC1008<br>IC1028<br>IC3028 | TT8020           | CP600           | AC1030U<br>AC6040M           | AH645                             | MP7035                     | PR1535                     | -                |
| K              | K10         | OP6115A                     | GC1010                     | -               | KC5010<br>KC7210           | IC507<br>IC807             | TT5080           | CP200<br>TS2000 | ACZ150<br>AC510U<br>AC5015S  | GH110<br>AH110                    | VP10RT                     | PR905                      | YBG102<br>YBG202 |
|                | K20         | OP6125A<br>OP1315<br>OP1415 | GC1020<br>GC1120           | -               | KC5025<br>KC5525<br>KC7215 | IC508<br>IC908             | TT9030<br>TT9080 | CP250<br>TS2500 | AC5025S<br>AC520U            | AH120<br>AH7025                   | VP20RT<br>VP15TF           | PR1525                     | YBG212<br>YBG215 |
|                | K30         | OP1215<br>OP1030            | GC1030                     | -               | KC7225                     | IC508<br>IC908             | TT8020<br>TT9030 | CP500           | AC1030U<br>AC530U            | AH120<br>AH130                    | VP20RT<br>VP15TF           | -                          | -                |
| S              | S05         | OP6105A                     | GC1105                     | WSM10           | -                          | IC804<br>IC806             | -                | CP200           | AC5005S<br>AC510U            | AH8005                            | MP9005<br>VP05RT           | PR005S                     | YBS103           |
|                | S10         | OP6115A                     | GC1115<br>GC1225           | WSM10<br>WSM10S | KCU10<br>KC5010<br>KC5510  | IC507<br>IC807<br>IC907    | TT5080<br>TT8010 | CP200<br>TS2000 | AC5015S<br>AC520U            | AH8015                            | MP9015<br>MT9015<br>VP10RT | PR015S                     | YBS203           |
|                | S20         | OP6125A                     | GC1025<br>GC1125           | WSM20<br>WSM20S | KC5025<br>KC5525<br>KU25T  | IC808<br>IC908             | TT8020<br>TT9080 | CP250<br>TS2500 | AC5025S<br>AC530U<br>AC1030U | AH7025                            | MP9025<br>MS9025           | PR1535                     | YBS303<br>YBG212 |
|                | S30         | OP6125A                     | GC1125<br>GC2035           | WSM30<br>WSM30S | KC5025<br>KC5525<br>KU25T  | IC1008<br>IC1028<br>IC3028 | TT9030           | CP500           | AC6040M<br>AC1030U           | AH7025<br>AH630                   | MP9025<br>VP15TF           | PR1535                     | YBS303<br>YBG212 |

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03 车削刀片槽型对照表  
Comparison of Turning Insert Chipbreaker

负角刀片 Negative Insert

本表基于各公司样本及公开刊物制作，未获得各公司认可。  
This table is compiled based on the catalogs and publicly available publications of various companies, and has not been approved by any of them.

| 切削领域<br>Cutting Condition                                          | 欧科亿<br>OKE              | 山特维克<br>SANDVIK                     | 瓦尔特<br>WALTER   | 肯纳金属<br>KENNAMETAL | 伊斯卡<br>ISCRA      | 特固克<br>TaeguTec         | 山高刀具<br>SECO               | 住友电工<br>SUMITOMO     | 泰珂洛<br>TUNGALOY  | 三菱综合材料<br>MITSUBISHI | 京瓷<br>KYOCERA           | 株洲钻石<br>ZCCCT    |
|--------------------------------------------------------------------|-------------------------|-------------------------------------|-----------------|--------------------|-------------------|-------------------------|----------------------------|----------------------|------------------|----------------------|-------------------------|------------------|
| 精加工<br>(带修光刃)<br>Finishing<br>(with Wiper)                         | -                       | WL<br>WF                            | NF              | FW                 | WF                | WS                      | W-FF2<br>W-MF2             | SEW<br>LUW           | AFW<br>FW        | SW                   | WF<br>WP                | WGF              |
| 精加工 ~ 半精加工<br>(带修光刃)<br>Finishing ~ Semi-Finishing<br>(with Wiper) | -                       | WM<br>WMX                           | NM              | MW                 | WG                | WT                      | W-M3<br>W-M5               | GUW                  | ASW<br>SW        | MW                   | WE<br>WQ                | WGM              |
| 精加工<br>Finishing                                                   | SMF<br>NF               | XF<br>QF                            | FP5             | FF、UF<br>FS、LF     | SF<br>F3P         | FM<br>FG                | FF2<br>MF2                 | FB、LU<br>SU          | TF、ZF<br>TS、TSF  | FH、FJ<br>SH          | GP<br>PP                | DF<br>SF         |
| 精 ~ 半精加工<br>Finishing to semi-<br>finishing                        | QF<br>OPF               | LC<br>PF                            | MP3<br>FV5      | K、FN<br>FM         | NF<br>TF          | FC                      | M3<br>MF3                  | SE<br>SX             | AS<br>ZM         | LP、SA                | HQ、PQ<br>CQ、CJ<br>VC、VF | DM               |
| 半精加工<br>Semi-Finishing                                             | QN、OPM                  | XM、QM<br>SM、SMC<br>PM、PMC<br>MR、XMR | MP5、MV5<br>MU5  | MP、P<br>MN         | GN<br>M3P         | PC、MP<br>FT、MT          | M5、MR5<br>MR6              | GU<br>GE、UX          | TM、TQ<br>DM、AM   | MP、MA<br>MH          | PG、GS<br>PS、PT<br>GT    | PM               |
| 粗加工<br>Roughing                                                    | QR、OPR<br>OSM、KPR<br>全周 | 23、HM<br>全周槽                        | RP5<br>RP7      | RN<br>RP           | GN、R3P<br>NR      | RT<br>全周槽               | MR7                        | MU、ME<br>MX、MP       | TH、THS           | RP、GH<br>全周槽         | PH<br>全周槽               | DR<br>全周槽        |
| 重载加工<br>Heavy-duty<br>machining                                    | HR3、HP<br>RP、HRP        | QR、PR<br>HR、MR                      | NRF、HU5<br>NRR  | MR、RP<br>RM、RH     | H3P<br>H4P<br>H5P | RX、RH<br>HD、HY<br>HT、HZ | R4、R5<br>R57、RR6<br>R7、RR9 | HG<br>HP、HU<br>HW、HF | TRS、TU<br>TUS    | HZ、HL<br>HM、HX<br>HV | PX                      | DR、HDR<br>ER、HPR |
| 精加工<br>Finishing                                                   | NF<br>MSF               | MF                                  | NF4<br>FM5      | FP<br>FS           | F3M               | EA<br>SF                | MF1                        | SU<br>EF             | SS               | LM<br>SH             | MQ                      | EF               |
| 精 ~ 半精加工<br>Finishing to semi-<br>finishing                        | OMF                     | 23                                  | MM5             | MS                 | TF、VL<br>PP       | EM                      | MF2<br>M1                  | EX<br>EG             | SF<br>SA         | GM<br>MS             | TK                      | NF               |
| 半精加工<br>Semi-Finishing                                             | MF、OMM<br>QT            | MM、MMC<br>SMR                       | NM4、MS3<br>MU5  | MP<br>UP           | M3M               | ET                      | MF3、M3<br>MF4              | GU                   | SM               | MM                   | MS<br>MU                | NM<br>EM         |
| 粗加工<br>Roughing                                                    | NR、OMR<br>OSM           | MR<br>MRR                           | NR4、MR5<br>HU5  | MR                 | MR、R3M<br>M4      | VF<br>SU                | MF5、M5<br>MR4              | HM、EM<br>MU          | S<br>SH          | RM、GH<br>HM          | PH                      | ER               |
| 精 ~ 半精加工<br>Finishing to semi-<br>finishing                        | OKL                     | KF                                  | MK5             | FN                 | -                 | FG                      | M3、M4                      | GU                   | CF               | LK                   | KQ                      | -                |
| 半精加工<br>Semi-Finishing                                             | OKM、K<br>全周槽            | KM                                  | RK5<br>MV7      | RP<br>UN           | GN                | MC                      | M5                         | GZ<br>UX             | CM<br>全周槽        | MK、GK<br>全周槽         | KG<br>全周槽               | TC<br>全周槽        |
| 粗加工<br>Roughing                                                    | OKR、KPR<br>无断屑槽         | KR、KRR                              | RK7、RV7<br>无断屑槽 | RP、UN<br>无断屑槽      | NR                | KT                      | MR7<br>MR9<br>无断屑槽         | ME<br>无断屑槽           | CH<br>无断屑槽       | RK<br>无断屑槽           | KH、PH<br>无断屑槽           | DR<br>无断屑槽       |
| 精加工<br>Finishing                                                   | SMF                     | SF                                  | FM5             | FS<br>FF           | F3S               | FA                      | MF1                        | EF                   | -                | FJ                   | MQ                      | EF               |
| 精 ~ 半精加工<br>Finishing to semi-<br>finishing                        | NF                      | MF<br>SGF                           | NFT<br>MS3      | MS<br>FN           | VL<br>PP          | EA<br>SF                | MF3                        | SU                   | HRF              | LS<br>MJ             | SQ                      | NGF              |
| 半精加工<br>Semi-Finishing                                             | SMM<br>SMR              | SM<br>QM                            | NMS、NMT<br>MU5  | UP<br>P            | M3M               | -                       | M1<br>M3                   | EG、EX<br>UP          | HRM、28<br>SA、HMM | MS<br>MA             | MS、MU<br>TK             | NM、EM<br>ER、SNR  |
| 粗加工<br>Roughing                                                    | NR<br>OSM               | SR<br>SMR                           | NRS、NRT<br>HU5  | RP                 | M3R               | ET                      | MR3<br>MR4                 | MU                   | -                | RS<br>GJ             | SG<br>SX                | -                |

正角刀片 Positive Insert

| 切削领域<br>Cutting Condition |                                                  | 欧科亿<br>OKE | 特固克<br>TaeguTec | 肯纳金属<br>KENNAMETAL             | 日立<br>HITACHI | 株洲钻石<br>ZCCCT  | 山特维克<br>SANDVIK        | 泰珂洛<br>TUNGALOY                    | 京瓷<br>KYOCERA              | 克洛伊<br>KORLOY | 住友电工<br>SUMITOMO     | 三菱综合材料<br>MITSUBISHI                 |
|---------------------------|--------------------------------------------------|------------|-----------------|--------------------------------|---------------|----------------|------------------------|------------------------------------|----------------------------|---------------|----------------------|--------------------------------------|
| P                         | 精加工<br>Finishing                                 | OTF        | FA<br>SA<br>FG  | LF<br>FP                       | JQ            | SF<br>HF       | PF<br>UF<br>XF         | 01, PF<br>FS, JS                   | PF, DP<br>GP, PP<br>VF     | VL<br>VF      | FC, FB<br>LU(FP, FK) | FP, FV<br>LP, SV                     |
|                           | 精加工<br>(带修光刃)<br>Finishing<br>(with Wiper)       | -          | WS              | FW                             | -             | -              | WF                     | -                                  | WP                         | -             | LUW<br>SDW           | SW                                   |
|                           | 半精 ~ 粗加工<br>Semi-Finishing ~<br>Roughing         | OTM<br>OTR | PC<br>MT<br>PMR | MF<br>MP                       | JE            | HM             | XM, PM<br>UM, PR<br>XR | PM, PS<br>PF, PSF<br>PSS<br>23, 24 | HQ<br>GK<br>全周             | HMP<br>MP     | MU                   | MV<br>MP<br>全周                       |
|                           | 半精加工<br>(带修光刃)<br>Semi-Finishing<br>(with Wiper) | -          | WT              | MW                             | -             | -              | WM, PR<br>UR, KM       | -                                  | -                          | -             | -                    | MW                                   |
| M                         | 精加工<br>Finishing                                 | MSF<br>OTF | -               | FP<br>FF                       | MP            | EF             | MF                     | SS&                                | CF, CK<br>GQ, GF<br>MQ, SK | VP1           | FC                   | FM<br>LM                             |
|                           | 半精加工<br>Semi-Finishing                           | OTM        | -               | MP<br>UP                       | -             | EM             | MM                     | PM                                 | HQ<br>GK                   | VL            | MU                   | MM<br>通槽                             |
| K                         | 半精加工<br>Semi-Finishing                           | OTM        | -               | MW<br>平板                       | -             | HR<br>HM<br>平板 | KM<br>KR<br>KF         | 无断屑槽<br>CM                         | 平板                         | MP            | MU                   | MK<br>通槽<br>平板                       |
| S                         | 精加工<br>Finishing                                 | SMF        | -               | GT-LF<br>R.GV<br>GT-HP         | -             | NF<br>NSF      | SF<br>01               | -                                  | MQ                         | VP1           | SI                   | FS<br>LS<br>FS-P<br>LS-P<br>FJ<br>MS |
|                           | 半精加工<br>Semi-Finishing                           | SMM        | -               | MT-LF<br>R.GV-T<br>MT-FP       | -             | -              | MM<br>QM<br>SMR        | -                                  |                            | VL            |                      |                                      |
| N                         | 通用加工<br>General                                  | NL         | FL              | GT-HP<br>GT-LF<br>GW-F<br>GW-E | -             | LH             | AL                     | PP<br>AL                           | AH                         | AK<br>AR      | AG<br>AW<br>AY       | AZ                                   |

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#### 株洲欧科亿数控精密刀具股份有限公司

OKE PRECISION CUTTING TOOLS CO., LTD.

注册地址：湖南省株洲市炎陵县中小企业创业园创业路(PC.412500)

Register Add:Chuangye Rd,Chuangye Park for SMEs,Yanling County,Zhuzhou, Hunan,China.

办公地址：湖南省株洲市天元区马家河街道金龙社区马家河路588号 (PC.412007)

Working Add:#588, Jinlong Area,Majiahe Rd, Tianyuan District, Zhuzhou, Hunan, China.

#### 株洲欧科亿切削工具有限公司

OKE CUTTING TOOLS CO.,LTD.

注册（办公）地址：株洲市天元区马家河街道金龙社区马家河路588号 (PC.412007)

Register (Working) Add:#588, Jinlong Area,Majiahe Rd, Tianyuan District, Zhuzhou, Hunan, China.

#### 国内销售服务电话

Domestic Sales Hotline

**0731-2267 3808 (数控) (CNC Cutting Tools)**

**0731-2267 3988 (材料) (Carbide Blank)**

#### 国际销售服务电话

International Sales Hotline

**0086-731-2757 7393**

**+375445643038, +375298543038, info@bki.by, https://bki.by**